

**Etapa III – Projetos Executivos**  
**PRODUTO 15 (P15) – RELATÓRIO FINAL**  
**ETAPA 01**  
**VOLUME 3 – TOMO II– TERRAPLANAGEM**  
**NOTAS DE SERVIÇO**



**Contrato nº 389/2020**

**Elaboração de estudos de concepção para obras de drenagem pluvial e pavimentação sustentáveis, em ruas do perímetro urbano do bairro Vila Nova, incluindo a elaboração dos projetos executivos, memoriais, especificações técnicas de serviços, orçamento e cronograma das obras, cuja metodologia e execução deverão servir de modelo para outras áreas do município de Joinville**

Consórcio

TYPSA ■ ENGE CORPS ■ GREENBLUE ■ AZIMUTE





Consórcio  
TYPASA ■ ENGECORPS ■ GREENBLUE ■ AZIMUTE

## Etapa III – Projetos Executivos PRODUTO 15 (P15) – RELATÓRIO FINAL

### ETAPA 01

## VOLUME 3 – TOMO II – TERRAPLANAGEM NOTAS DE SERVIÇO

REVISÃO	DATA
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**RESPONSÁVEL TÉCNICO:** Maria Bernardete de Sousa Sender | ART nº 7447764-8 | CREA nº 172586-9 – SC

**COORDENADOR GERAL:** Maria Bernardete de Sousa Sender

**ELABORAÇÃO:** Bruna Nagel

**VERIFICAÇÃO:** Edson Rocha Nery

**APROVAÇÃO:** Maria Bernardete de Sousa Sender 

**NOME DO ARQUIVO DIGITAL:** 1439DGLR0015-04-Vol 03\_Tomo II\_Etapa 01

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## **ANEXO I: PLANILHA DE LOCAÇÃO DAS ÁREAS PÚBLICAS**

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**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**PONTOS DE LOCAÇÃO**  
**ÁREA PÚBLICA 01**

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
1	7090066,704	708677,379	13,461
2	7090067,097	708684,417	13,438
3	7090066,900	708680,898	13,506
4	7090073,453	708682,139	13,464
5	7090072,922	708683,445	13,487
6	7090072,337	708684,827	13,457
7	7090076,213	708682,056	13,445
8	7090076,808	708683,424	13,475
9	7090077,388	708684,807	13,445
10	7090078,153	708680,093	13,433
11	7090079,547	708680,668	13,464
12	7090080,934	708681,239	13,434
13	7090081,954	708675,577	13,419
14	7090082,666	708676,902	13,449
15	7090083,422	708678,199	13,421
16	7090084,269	708674,102	13,411
17	7090085,075	708675,367	13,441
18	7090085,852	708676,651	13,411
19	7090088,780	708673,314	13,400
20	7090088,498	708674,787	13,430
21	7090088,216	708676,260	13,400
22	7090092,152	708674,529	13,391
23	7090091,391	708675,822	13,421
24	7090090,638	708677,119	13,391
25	7090094,899	708676,890	13,382
26	7090093,730	708677,831	13,412
27	7090092,564	708678,774	13,382
28	7090098,145	708680,775	13,367
29	7090097,016	708681,763	13,397
30	7090095,865	708682,725	13,367
31	7090099,884	708681,656	13,358
32	7090099,856	708683,158	13,388
33	7090099,929	708684,663	13,357
34	7090101,828	708680,982	13,348
35	7090102,845	708682,120	13,378
36	7090103,845	708683,238	13,348
37	7090104,146	708682,914	13,344
38	7090104,030	708681,418	13,374
39	7090103,865	708679,927	13,344
40	7090106,356	708680,851	13,340
41	7090105,275	708681,892	13,370
42	7090104,255	708682,974	13,435
43	7090108,679	708681,750	13,329
44	7090108,647	708683,249	13,359
45	7090108,282	708684,734	13,330
46	7090109,190	708684,736	13,448
47	7090109,726	708683,158	13,356
48	7090111,439	708680,501	13,315
49	7090112,813	708690,612	13,401
50	7090108,808	708690,771	13,373
51	7090100,212	708691,160	13,289
52	7090105,137	708689,602	13,294
53	7090108,591	708685,864	13,322
54	7090109,046	708689,139	13,365
55	7090109,714	708686,946	13,354
56	7090111,114	708689,657	13,323
57	7090111,039	708687,650	13,324
58	7090113,857	708682,350	13,295
59	7090112,526	708681,651	13,326
60	7090116,300	708677,717	13,277

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
61	7090114,951	708677,038	13,301
62	7090113,535	708676,508	13,272
63	7090115,691	708672,411	13,249
64	7090117,067	708673,008	13,279
65	7090118,453	708673,608	13,256
66	7090119,450	708667,897	13,226
67	7090120,273	708669,151	13,255
68	7090121,097	708670,405	13,225
69	7090124,974	708666,135	13,201
70	7090125,054	708667,633	13,231
71	7090125,134	708669,131	13,201
72	7090128,026	708665,394	13,184
73	7090128,643	708666,761	13,214
74	7090129,263	708668,138	13,190
75	7090130,310	708663,932	13,167
76	7090131,555	708664,768	13,197
77	7090132,800	708665,604	13,167
78	7090131,474	708661,360	13,151
79	7090132,924	708661,745	13,181
80	7090134,374	708662,130	13,151
81	7090131,753	708658,348	13,136
82	7090133,234	708658,442	13,165
83	7090134,732	708658,536	13,135
84	7090134,562	708651,179	13,103
85	7090135,720	708652,132	13,133
86	7090136,879	708653,085	13,103
87	7090140,608	708647,178	13,167
88	7090141,201	708648,532	12,858
89	7090141,788	708649,943	13,236
90	7090065,906	708663,102	12,600
91	7090066,022	708664,597	11,200
92	7090066,127	708667,064	12,013
93	7090066,276	708669,184	13,111
94	7090075,784	708662,337	12,606
95	7090075,857	708663,836	11,256
96	7090076,147	708666,822	11,220
97	7090076,241	708668,320	12,683
98	7090085,846	708661,558	12,613
99	7090085,930	708663,056	11,312
100	7090086,118	708666,050	11,239
101	7090086,213	708667,548	12,667
102	7090095,817	708660,786	11,915
103	7090095,901	708662,284	11,369
104	7090096,089	708665,279	11,259
105	7090096,184	708666,776	12,650
106	7090105,778	708660,015	12,235
107	7090105,872	708661,512	11,425
108	7090106,061	708664,507	11,279
109	7090106,155	708666,004	12,634
110	7090114,291	708659,356	12,519
111	7090114,910	708660,813	11,413
112	7090116,148	708663,726	11,460
113	7090116,766	708665,183	13,117
114	7090115,378	708658,368	12,678
115	7090116,461	708659,408	11,324
116	7090118,565	708661,579	11,323
117	7090119,711	708662,548	12,669
118	7090116,612	708656,795	12,823
119	7090117,761	708657,784	11,308
120	7090120,206	708659,530	11,317



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**PONTOS DE LOCAÇÃO**  
**ÁREA PÚBLICA 01**

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
121	7090121,429	708660,403	12,655
122	7090119,300	708652,551	12,818
123	7090120,567	708653,354	11,318
124	7090123,102	708654,959	11,318
125	7090124,369	708655,761	12,624
126	7090124,651	708644,103	12,838
127	7090125,918	708644,906	11,338
128	7090128,452	708646,511	11,338
129	7090129,720	708647,313	12,568
130	7090129,989	708635,675	12,919
131	7090131,230	708636,519	11,358
132	7090133,764	708638,124	11,358
133	7090134,940	708639,071	12,519
134	7090130,789	708634,405	12,924
135	7090131,842	708635,552	11,506
136	7090133,890	708637,926	11,358
137	7090133,949	708632,910	13,000
138	7090134,585	708634,269	11,364
139	7090135,856	708636,986	11,364
140	7090136,467	708638,431	12,932
141	7090136,701	708631,623	12,023
142	7090137,302	708632,998	11,370
143	7090138,574	708635,715	11,370
144	7090139,235	708637,106	12,911
145	7090139,037	708630,530	12,509
146	7090139,493	708632,010	11,459
147	7090140,183	708634,962	11,374
148	7090140,537	708636,464	12,883
149	7090151,403	708629,875	12,568
150	7090151,479	708631,420	11,397
151	7090151,583	708634,418	11,397
152	7090151,657	708635,916	12,897
153	7090161,350	708629,432	12,747
154	7090161,465	708630,896	11,460
155	7090161,571	708633,926	11,417
156	7090161,646	708635,434	12,927
157	7090144,306	708630,271	12,516
158	7090144,379	708631,769	11,383
159	7090144,525	708634,766	11,383
160	7090144,598	708636,264	12,883
161	7090171,338	708628,940	12,749
162	7090171,412	708630,438	11,437
163	7090171,559	708633,435	11,437
164	7090171,633	708634,933	12,937
165	7090181,326	708628,448	12,732
166	7090181,443	708629,944	11,457
167	7090181,547	708632,943	11,457
168	7090181,621	708634,441	12,957
169	7090191,314	708627,957	12,715
170	7090191,388	708629,455	11,476
171	7090191,535	708632,451	11,476
172	7090191,609	708633,949	12,976
173	7090194,861	708627,782	12,724
174	7090195,384	708629,281	11,484
175	7090196,520	708632,206	11,716
176	7090197,077	708633,690	13,244
177	7090196,318	708626,631	12,934
178	7090198,879	708626,521	12,938
179	7090202,756	708627,283	11,500
180	7090203,975	708628,231	13,224

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
181	7090141,835	708650,023	13,144
182	7090141,824	708650,014	13,235
183	7090142,795	708668,347	13,144
184	7090142,792	708668,347	13,144
185	7090143,749	708686,671	13,143
186	7090143,739	708686,682	12,600
187	7090159,995	708685,847	12,845
188	7090159,995	708685,911	12,676
189	7090174,996	708685,071	13,300
190	7090174,996	708685,083	12,750
191	7090189,955	708684,307	13,225
192	7090189,956	708684,315	12,814
193	7090206,201	708683,476	13,144
194	7090206,211	708683,486	12,600
195	7090204,323	708646,807	13,157
196	7090204,313	708646,818	13,144
197	7090205,268	708665,173	12,555
198	7090205,258	708665,174	13,144
199	7090136,929	708639,256	12,590
200	7090139,628	708637,993	12,590
201	7090143,187	708645,601	12,540
202	7090145,126	708646,756	12,540
203	7090158,103	708649,188	13,225
204	7090158,097	708649,074	12,748
205	7090157,943	708646,096	12,725
206	7090173,083	708648,420	13,300
207	7090173,077	708648,306	12,940
208	7090172,923	708645,324	12,940
209	7090189,602	708644,465	13,200
210	7090189,668	708647,464	13,035
211	7090189,683	708647,584	13,217
212	7090195,842	708644,144	13,070
213	7090196,001	708647,139	13,070
214	7090195,963	708647,246	13,186
215	7090206,392	708646,596	13,190
216	7090206,229	708643,621	13,190
217	7090195,759	708642,489	13,507
218	7090206,196	708641,954	13,585
219	7090205,886	708634,960	13,550
220	7090194,401	708635,550	13,464
221	7090182,917	708636,139	13,378
222	7090183,275	708643,130	13,413
223	7090189,517	708642,809	13,459
224	7090132,308	708629,401	12,921
225	7090133,546	708631,995	12,232
226	7090136,243	708630,733	12,480
227	7090135,703	708629,255	12,876
228	7090139,084	708602,930	12,900
229	7090163,848	708600,101	12,912
230	7090150,896	708589,076	12,900
231	7090152,879	708613,891	12,900
232	7090141,719	708593,771	12,900
233	7090159,176	708591,725	12,900
234	7090161,222	708609,272	12,921
235	7090145,438	708612,427	12,908
236	7090143,132	708610,787	12,902
237	7090141,970	708612,325	13,427
238	7090140,483	708612,452	13,520
239	7090137,798	708609,688	13,514
240	7090135,601	708606,011	13,343



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**PONTOS DE LOCAÇÃO**  
**ÁREA PÚBLICA 02**

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
1	7089915,356	708932,507	13,147
2	7089915,355	708932,517	12,350
3	7089915,327	708933,508	12,359
4	7089915,326	708933,518	13,200
5	7089922,999	708933,093	12,880
6	7089922,992	708933,103	12,289
7	7089922,914	708934,090	12,289
8	7089922,916	708934,101	13,139
9	7089914,445	708963,783	13,200
10	7089914,446	708963,793	12,350
11	7089914,411	708964,782	12,350
12	7089914,410	708964,792	13,300
13	7089920,458	708964,000	13,152
14	7089920,455	708964,010	12,302
15	7089920,372	708964,998	12,302
16	7089920,375	708965,008	13,230
17	7089924,950	708931,536	12,822
18	7089924,719	708932,505	12,699
19	7089929,850	708928,415	11,656
20	7089934,155	708932,030	12,198
21	7089934,305	708933,084	12,699
22	7089923,960	708941,473	12,685
23	7089925,953	708941,640	10,685
24	7089931,532	708942,115	10,685
25	7089933,528	708942,252	12,685
26	7089923,115	708951,437	12,671
27	7089925,105	708951,604	10,674
28	7089930,740	708952,084	10,723
29	7089932,684	708952,216	12,671
30	7089922,271	708961,401	12,656
31	7089924,261	708961,569	10,659
32	7089929,844	708962,043	10,656
33	7089931,839	708962,181	12,656
34	7089931,288	708968,682	12,646
35	7089933,178	708970,848	11,687
36	7089933,159	708972,849	10,634
37	7089929,296	708968,510	10,646
38	7089933,097	708974,848	10,634
39	7089933,373	708976,858	12,356
40	7089930,337	708978,597	12,632
41	7089920,819	708977,334	12,562
42	7089922,705	708977,718	10,644
43	7089919,216	708991,242	12,612
44	7089921,219	708991,330	10,612
45	7089926,783	708991,971	10,612
46	7089928,768	708992,215	12,612
47	7089913,524	708991,370	12,789
48	7089916,927	709011,111	12,582
49	7089918,930	709011,198	10,583
50	7089927,420	708994,574	12,210
51	7089925,313	709011,945	12,210
52	7089926,071	709015,623	12,577
53	7089928,350	708978,368	10,632
54	7089925,441	709021,087	12,569
55	7089926,087	709024,478	12,565
56	7089925,891	709024,288	12,589
57	7089925,783	709025,276	12,279
58	7089925,586	709027,095	12,602
59	7089924,621	709028,503	12,419
60	7089922,527	709027,800	10,559

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
61	7089917,353	709027,206	10,559
62	7089915,363	709027,031	12,500
63	7089917,803	709020,384	10,638
64	7089915,897	709020,051	12,569
65	7089914,133	709043,350	12,499
66	7089916,126	709043,453	10,535
67	7089921,523	709044,193	10,535
68	7089923,517	709044,330	12,462
69	7089923,433	709020,988	10,569
70	7089912,481	709065,141	12,508
71	7089914,466	709065,285	10,518
72	7089920,050	709065,707	10,548
73	7089922,040	709065,914	12,548
74	7089948,928	708971,141	12,409
75	7089948,576	708973,137	10,977
76	7089948,648	708975,121	10,964
77	7089948,896	708977,136	12,521
78	7089951,420	708974,155	12,466
79	7089930,899	709023,300	12,596
80	7089930,944	709024,837	11,055
81	7089930,959	709025,838	11,060
82	7089931,081	709027,283	12,504
83	7089952,401	709023,035	12,729
84	7089952,425	709023,635	12,316
85	7089952,481	709024,633	12,316
86	7089952,442	709025,236	12,714
87	7089971,897	709021,943	13,482
88	7089971,930	709022,542	13,460
89	7089972,029	709023,546	13,463
90	7089971,911	709024,146	13,473
91	7089973,020	709022,982	13,498
92	7089936,117	708932,961	13,150
93	7089936,138	708932,980	13,050
94	7089937,237	708962,940	13,200
95	7089937,256	708962,919	13,100
96	7089951,076	708932,434	13,050
97	7089952,125	708962,425	13,100
98	7089955,214	708962,343	13,153
99	7089956,674	708962,274	13,100
100	7089956,695	708962,293	13,200
101	7089955,584	708932,269	13,050
102	7089955,603	708932,249	13,150
103	7089954,142	708932,320	13,057
104	7089950,634	708924,434	12,892
105	7089950,836	708924,428	12,993
106	7089950,847	708924,436	12,433
107	7089953,825	708924,327	12,433
108	7089953,835	708924,328	12,993
109	7089953,934	708924,323	12,943
110	7089951,117	708932,423	12,472
111	7089954,104	708932,299	13,032
112	7089955,187	708962,349	12,617
113	7089952,208	708962,444	12,617
114	7089952,335	708924,377	12,463
115	7089951,283	708969,260	12,602
116	7089952,482	708969,210	13,202
117	7089952,492	708969,209	12,642
118	7089953,981	708969,147	12,672
119	7089955,469	708969,084	12,642
120	7089955,479	708969,084	13,202



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**PONTOS DE LOCAÇÃO**  
**ÁREA PÚBLICA 02**

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
121	7089956,483	708969,042	12,699
122	7089955,497	708983,233	12,789
123	7089956,294	708982,794	12,961
124	7089956,298	708982,792	12,681
125	7089957,603	708982,072	12,711
126	7089958,908	708981,353	12,681
127	7089958,916	708981,348	13,241
128	7089959,647	708980,945	12,824
129	7089960,775	708986,271	12,934
130	7089960,800	708985,633	13,252
131	7089960,801	708985,623	12,692
132	7089966,066	708984,043	13,020
133	7089965,704	708983,715	13,264
134	7089965,696	708983,709	12,704
135	7089964,590	708982,711	12,734
136	7089963,484	708981,712	12,704
137	7089963,477	708981,706	13,264
138	7089962,924	708981,207	12,892
139	7089975,809	708973,010	12,969
140	7089975,297	708972,570	13,306
141	7089975,289	708972,563	12,746
142	7089974,160	708971,591	12,776
143	7089973,030	708970,619	12,746
144	7089973,023	708970,613	13,306
145	7089972,340	708970,025	12,856
146	7089978,350	708970,590	13,093
147	7089978,059	708970,248	13,317
148	7089978,053	708970,240	12,757
149	7089977,088	708969,105	12,787
150	7089976,124	708967,969	12,757
151	7089976,118	708967,961	13,317
152	7089975,727	708967,501	13,016
153	7089983,109	708968,909	13,198
154	7089983,046	708968,643	13,334
155	7089983,044	708968,634	12,774
156	7089982,700	708967,184	12,804
157	7089982,357	708965,734	12,774
158	7089982,355	708965,724	13,334
159	7089982,317	708965,566	13,253
160	7089985,104	708968,585	13,341
161	7089985,116	708968,574	12,781
162	7089993,151	708968,248	12,891
163	7089993,147	708968,202	12,805
164	7089993,107	708966,859	12,832
165	7089993,077	708965,259	12,805
166	7089993,076	708965,241	13,367
167	7090000,094	708968,017	13,290
168	7090000,102	708968,005	12,825
169	7090021,777	708967,822	13,506
170	7090021,776	708967,734	13,447
171	7090021,776	708967,724	12,887
172	7090021,757	708966,234	12,917
173	7090021,737	708964,744	12,887
174	7090021,737	708964,734	13,447
175	7090021,736	708964,625	13,520
176	7090041,773	708967,497	13,504
177	7090041,773	708967,487	12,944
178	7090041,755	708965,997	12,974
179	7090041,738	708964,507	12,944
180	7090041,737	708964,497	13,504

Ponto	N (m)	E (m)	Cota Terraplenagem (m)
181	7090063,814	708967,047	13,372
182	7090063,799	708966,656	13,568
183	7090063,739	708965,158	13,038
184	7090063,679	708963,669	13,008
185	7090063,679	708963,659	13,568
186	7090063,664	708963,300	13,388
187	7089985,104	708984,051	13,332
188	7089985,114	708984,041	13,327
189	7090000,104	708984,051	13,237
190	7090000,094	708984,041	13,370
191	7089996,337	708968,159	13,255
192	7089996,334	708968,179	12,705
193	7089997,476	708969,550	13,290
194	7089997,437	708969,554	12,740
195	7089996,462	708971,156	13,295
196	7089996,458	708971,136	12,745
197	7089989,469	708971,438	13,002
198	7089989,470	708971,428	12,727
199	7089988,324	708969,958	13,269
200	7089988,344	708969,960	13,269
201	7089989,343	708968,451	13,261
202	7089989,347	708968,471	12,711
203	7089936,150	708993,215	12,219
204	7089936,150	709014,511	12,219
205	7089974,000	709014,511	12,219
206	7089974,000	708993,215	12,219
207	7089929,848	708991,636	12,502
208	7089930,888	708991,743	13,025
209	7089932,380	708991,898	13,055
210	7089933,872	708992,052	13,025
211	7089934,626	708992,130	12,646
212	7089934,834	708988,692	12,658
213	7089934,126	708988,620	13,014
214	7089932,631	708988,470	13,044
215	7089931,139	708988,319	13,014
216	7089930,113	708988,216	12,499
217	7089938,263	708978,571	12,616
218	7089938,485	708979,269	12,982
219	7089938,939	708980,698	13,012
220	7089939,394	708982,128	12,982
221	7089939,609	708982,804	12,627
222	7089925,659	709001,722	10,598
223	7089936,150	709003,863	12,219
224	7089955,660	709014,511	12,219
225	7089974,000	709003,863	12,219
226	7089950,124	708982,167	12,710
227	7089949,755	708982,474	12,950
228	7089948,602	708983,435	12,980
229	7089947,450	708984,395	12,950
230	7089947,096	708984,690	12,720
231	7089952,720	708985,615	12,799
232	7089952,490	708985,769	12,938
233	7089951,245	708986,606	12,968
234	7089949,994	708987,447	12,937
235	7089949,766	708987,600	12,800
236	7089959,883	708988,354	12,901
237	7089960,974	708989,631	12,934
238	7089961,949	708990,771	12,904
239	7089962,079	708990,923	13,037
240	7089965,117	708990,160	13,099



## **ANEXO II: RELATÓRIO DE ALINHAMENTO HORIZONTAL DAS ÁREAS PÚBLICAS**

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**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 01  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01**

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+0.000	7090066.9	708680.898
FIM:	0+6.538	7090072.922	708683.445

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	6.538	RUMO:	N 22° 55' 53.9844" E

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<u>PONTOS NOTÁVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PC:	0+6.538	7090072.922	708683.445
RP:		7090074.839	708678.728
PCC:	0+14.513	7090079.547	708680.668

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	89° 43' 23.6354"	TIPO:	ESQUERDA
RAIO:	5.092		
COMPRIMENTO:	7.974	TANGENTE:	5.068
DESENVOLVIMENTO:	1.483	AFASTAMENTO:	2.092
COMPRIMENTO CORDA:	7.184	RUMO:	N 22° 44' 45.7879" W

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<u>PONTOS NOTÁVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PCC:	0+14.513	7090079.547	708680.668
RP:		7090085.745	708682.626
PT:	0+19.526	7090082.666	708676.902

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	44° 11' 25.1389"	TIPO:	DIREITA
RAIO:	6.5		
COMPRIMENTO:	5.013	TANGENTE:	2.639
DESENVOLVIMENTO:	0.477	AFASTAMENTO:	0.515
COMPRIMENTO CORDA:	4.89	RUMO:	N 50° 22' 04.7747" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+19.526	7090082.666	708676.902
FIM:	1+2.381	7090085.075	708675.367

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	2.856	RUMO:	N 32° 29' 58.2055" W

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**PREFEITURA DE JOINVILLE**  
**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E**  
**PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 01**  
**RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01**

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	1+2.381	7090085.075	708675.367
RP:		7090087.564	708679.664
PCC:	1+5.929	7090088.498	708674.787

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	40° 55' 51.8074"	TIPO:	DIREITA
RAIO:	4.966		
COMPRIMENTO:	3.547	TANGENTE:	1.853
DESENVOLVIMENTO:	0.313	AFASTAMENTO:	0.335
COMPRIMENTO CORDA:	3.472	RUMO:	N 09° 37' 24.7265" W

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PCC:	1+5.929	7090088.498	708674.787
RP:		7090087.145	708683.132
PT:	1+12.119	7090093.73	708677.831

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	41° 57' 15.0757"	TIPO:	DIREITA
RAIO:	8.454		
COMPRIMENTO:	6.191	TANGENTE:	3.241
DESENVOLVIMENTO:	0.56	AFASTAMENTO:	0.6
COMPRIMENTO CORDA:	6.053	RUMO:	N 30° 11' 19.5672" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	1+12.119	7090093.73	708677.831
FIM:	1+17.244	7090097.016	708681.763

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	5.125	RUMO:	N 50° 07' 12.6208" E



**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 01****RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01****PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAÇÃO	ESTACA	N	E
PC:	1+17.244	7090097.016	708681.763
RP:		7090100.107	708679.059
PCC:	2+3.740	7090102.845	708682.12

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	90° 37' 31.4081"	TIPO:	ESQUERDA
RAIO:	4.107		
COMPRIMENTO:	6.496	TANGENTE:	4.152
DESENVOLVIMENTO:	1.219	AFASTAMENTO:	1.733
COMPRIMENTO CORDA:	5.84	RUMO:	N 03° 30' 01.3931" E

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAÇÃO	ESTACA	N	E
PCC:	2+3.740	7090102.845	708682.12
RP:		7090104.151	708682.973
PCC:	2+6.543	7090105.275	708681.892

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	102° 55' 22.4691"	TIPO:	DIREITA
RAIO:	1.56		
COMPRIMENTO:	2.802	TANGENTE:	1.958
DESENVOLVIMENTO:	0.588	AFASTAMENTO:	0.944
COMPRIMENTO CORDA:	2.44	RUMO:	N 05° 22' 14.5938" W

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAÇÃO	ESTACA	N	E
PCC:	2+6.543	7090105.275	708681.892
RP:		7090108.756	708678.112
PT:	2+14.700	7090112.594	708681.53

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	90° 57' 19.4623"	TIPO:	ESQUERDA
RAIO:	5.139		
COMPRIMENTO:	8.157	TANGENTE:	5.225
DESENVOLVIMENTO:	1.535	AFASTAMENTO:	2.19
COMPRIMENTO CORDA:	7.327	RUMO:	N 02° 49' 45.5854" W

**PREFEITURA DE JOINVILLE**  
**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E**  
**PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 01**  
**RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02**

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	0+0.00	7090141.427	708648.47
RP:		7090144.243	708659.134
PCC:	0+13.785	7090133.234	708658.442

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	71° 36' 34.6104"	TIPO:	ESQUERDA
RAIO:	11.03		
COMPRIMENTO:	13.785	TANGENTE:	7.956
DESENVOLVIMENTO:	2.084	AFASTAMENTO:	2.57
COMPRIMENTO CORDA:	12.906	RUMO:	S 50° 35' 46.2919" E

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PCC:	0+13.785	7090133.234	708658.442
RP:		7090123.209	708659.166
PCC:	1+0.453	7090131.555	708664.768

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	38° 00' 08.1748"	TIPO:	DIREITA
RAIO:	10.052		
COMPRIMENTO:	6.667	TANGENTE:	3.461
DESENVOLVIMENTO:	0.548	AFASTAMENTO:	0.579
COMPRIMENTO CORDA:	6.546	RUMO:	S 75° 07' 57.3043" E

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PCC:	1+0.453	7090131.555	708664.768
RP:		7090124.518	708657.61
PCC:	1+7.715	7090125.054	708667.633

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	41° 27' 17.0035"	TIPO:	DIREITA
RAIO:	10.037		
COMPRIMENTO:	7.262	TANGENTE:	3.798
DESENVOLVIMENTO:	0.65	AFASTAMENTO:	0.695
COMPRIMENTO CORDA:	7.105	RUMO:	S 23° 47' 03.4731" E

**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 01  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02****PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAÇÃO	ESTACA	N	E
PCC:	1+7.715	7090125.054	708667.633
RP:		7090125.255	708676.554
PT:	1+17.882	7090117.067	708673.008

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	65° 17' 16.4080"	TIPO:	ESQUERDA
RAIO:	8.923		
COMPRIMENTO:	10.168	TANGENTE:	5.716
DESENVOLVIMENTO:	1.409	AFASTAMENTO:	1.674
COMPRIMENTO CORDA:	9.626	RUMO:	S 33° 56' 16.7044" E

**TANGENTE**

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	1+17.882	7090117.067	708673.008
FIM:	2+7.646	7090112.528	708681.652

**TANGENTE**

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	9.764	RUMO:	S 62° 17' 58.0150" E

**TANGENTE**

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	2+7.646	7090112.528	708681.652
FIM:	2+13.641	7090109.714	708686.946

**TANGENTE**

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	5.995	RUMO:	S 62° 00' 16.2400" E

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAÇÃO	ESTACA	N	E
PC:	2+13.641	7090109.714	708686.946
RP:		7090121.858	708691.845
PT:	2+17.588	7090108.808	708690.771

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	17° 16' 03.4815"	TIPO:	ESQUERDA
RAIO:	13.095		
COMPRIMENTO:	3.946	TANGENTE:	1.988
DESENVOLVIMENTO:	0.148	AFASTAMENTO:	0.15
COMPRIMENTO CORDA:	3.931	RUMO:	S 76° 39' 52.8963" E

**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01**

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+0.000	7089952.335	708924.377
FIM:	1+8.508	7089953.299	708952.868

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	28.508	RUMO:	N 88° 03' 49.1190" E

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	1+8.508	7089953.299	708952.868
FIM:	2+4.801	7089953.981	708969.147

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	16.293	RUMO:	N 87° 36' 05.1584" E

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<u>PONTOS NOTÁVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PC:	2+4.801	7089953.981	708969.147
RP:		7089983.315	708967.896
PCC:	2+18.344	7089957.603	708982.072

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	26° 25' 41.6109"	TIPO:	ESQUERDA
RAIO:	29.361		
COMPRIMENTO:	13.543	TANGENTE:	6.894
DESENVOLVIMENTO:	0.777	AFASTAMENTO:	0.799
COMPRIMENTO CORDA:	13.423	RUMO:	N 74° 20' 42.6399" E

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<u>PONTOS NOTÁVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PCC:	2+18.344	7089957.603	708982.072
RP:		7089961.336	708979.773
PT:	3+6.478	7089964.59	708982.711

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	106° 18' 28.5370"	TIPO:	ESQUERDA
RAIO:	4.384		
COMPRIMENTO:	8.134	TANGENTE:	5.85
DESENVOLVIMENTO:	1.755	AFASTAMENTO:	2.927
COMPRIMENTO CORDA:	7.016	RUMO:	N 05° 13' 07.9326" E

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PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	3+6.478	7089964.59	708982.711
FIM:	4+1.148	7089974.16	708971.591

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	14.67	RUMO:	N 49° 16' 59.0736" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+1.148	7089974.16	708971.591
FIM:	4+4.990	7089977.088	708969.105

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	3.842	RUMO:	N 40° 20' 06.8703" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+4.990	7089977.088	708969.105
FIM:	4+9.752	7089981.556	708967.455

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	4.762	RUMO:	N 20° 16' 09.4596" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+9.752	7089981.556	708967.455
FIM:	4+10.928	7089982.7	708967.184

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	1.176	RUMO:	N 13° 19' 14.3972" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+10.928	7089982.7	708967.184
FIM:	5+6.289	7089998.047	708966.542

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	15.36	RUMO:	N 02° 23' 41.0149" W

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**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 01**

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	5+6.289	7089998.047	708966.542
FIM:	6+10.122	7090021.879	708966.233

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	23.834	RUMO:	N 00° 44' 38.1324" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	6+10.122	7090021.879	708966.233
FIM:	7+11.390	7090043.145	708965.98

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	21.267	RUMO:	N 00° 40' 44.7034" W

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<u>TANGENTE</u>			
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	7+11.390	7090043.145	708965.98
FIM:	8+12.168	7090063.907	708965.151

<u>TANGENTE</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	20.779	RUMO:	N 02° 17' 18.4116" W

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**PREFEITURA DE JOINVILLE**  
**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E**  
**PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 02**  
**RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02**

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+0.00	7089963.379	708988.494
RP:		7089964.267	708993.483
PCC:	0+2.691	7089960.974	708989.631

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	30° 25' 42.6143"	TIPO:	ESQUERDA
RAIO:		5.067	
COMPRIMENTO:	2.691	TANGENTE:	1.378
DESENVOLVIMENTO:	0.178	AFASTAMENTO:	0.184
COMPRIMENTO CORDA:	2.66	RUMO:	S 25° 18' 40.2372" E

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PCC:	0+2.691	7089960.974	708989.631
RP:		7089957.989	708982.074
PT:	0+13.703	7089951.245	708986.606

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	77° 39' 17.0974"	TIPO:	DIREITA
RAIO:		8.125	
COMPRIMENTO:	11.012	TANGENTE:	6.539
DESENVOLVIMENTO:	1.795	AFASTAMENTO:	2.305
COMPRIMENTO CORDA:	10.188	RUMO:	S 17° 16' 13.7463" W

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+13.703	7089951.245	708986.606
FIM:	0+17.846	7089948.593	708983.424

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	4.143	RUMO:	S 50° 11' 22.7209" W

**PREFEITURA DE JOINVILLE**  
**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E**  
**PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 02**  
**RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02**

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+17.846	7089948.593	708983.424
RP:		7089941.699	708989.384
PCC:	1+19.064	7089932.631	708988.47

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	133° 24' 01.8260"	TIPO:	ESQUERDA
RAIO:	9.113		
COMPRIMENTO:	21.219	TANGENTE:	21.161
DESENVOLVIMENTO:	5.509	AFASTAMENTO:	13.927
COMPRIMENTO CORDA:	16.74	RUMO:	S 17° 32' 34.0108" E

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PCC:	1+19.064	7089932.631	708988.47
RP:		7089874.981	708985.959
PT:	2+4.332	7089932.162	708993.715

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	05° 13' 49.2054"	TIPO:	DIREITA
RAIO:	57.705		
COMPRIMENTO:	5.268	TANGENTE:	2.636
DESENVOLVIMENTO:	0.06	AFASTAMENTO:	0.06
COMPRIMENTO CORDA:	5.266	RUMO:	S 84° 53' 29.4103" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	2+4.332	7089932.162	708993.715
FIM:	3+4.632	7089931.78	709014.011

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	20.3	RUMO:	S 88° 55' 08.5794" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	3+4.632	7089931.78	709014.011
FIM:	3+7.106	7089931.714	709016.484

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	2.473	RUMO:	S 88° 29' 23.9547" E

**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02****PONTOS NOTÁVEIS DA CURVA CIRCULAR**

<b>DESCRICAÇÃO</b>	<b>ESTACA</b>	<b>N</b>	<b>E</b>
PC:	3+7.106	7089931.714	709016.484
RP:		7089940.159	709006.375
PCC:	3+17.635	7089941.519	709019.476

**CURVA CIRCULAR**

<b>PARAMETRO</b>	<b>VALOR</b>	<b>PARAMETRO</b>	<b>VALOR</b>
AC:	45° 47' 56.7086"	TIPO:	ESQUERDA
RAIO:	13.172		
COMPRIMENTO:	10.529	TANGENTE:	5.564
DESENVOLVIMENTO:	1.038	AFASTAMENTO:	1.127
COMPRIMENTO CORDA:	10.251	RUMO:	N 16° 58' 28.7780" E

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

<b>DESCRICAÇÃO</b>	<b>ESTACA</b>	<b>N</b>	<b>E</b>
PCC:	3+17.635	7089941.519	709019.476
RP:		7089959.067	709101.77
PT:	4+8.787	7089952.548	709017.879

**CURVA CIRCULAR**

<b>PARAMETRO</b>	<b>VALOR</b>	<b>PARAMETRO</b>	<b>VALOR</b>
AC:	07° 35' 37.4569"	TIPO:	DIREITA
RAIO:	84.144		
COMPRIMENTO:	11.152	TANGENTE:	5.584
DESENVOLVIMENTO:	0.185	AFASTAMENTO:	0.185
COMPRIMENTO CORDA:	11.144	RUMO:	N 08° 14' 26.5194" W

**TANGENTE**

<b>DESCRICAÇÃO</b>	<b>ESTACAS</b>	<b>N</b>	<b>E</b>
INICIO:	4+8.787	7089952.548	709017.879
FIM:	5+1.292	7089965.053	709017.886

**TANGENTE**

<b>PARAMETRO</b>	<b>VALOR</b>	<b>PARAMETRO</b>	<b>VALOR</b>
COMPRIMENTO:	12.506	RUMO:	N 00° 01' 45.8262" E

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02**

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	5+1.292	7089965.053	709017.886
RP:		7089967.453	709063.797
PT:	5+14.251	7089977.919	709019.03

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	16° 09' 00.7947"	TIPO:	DIREITA
RAIO:	45.975		
COMPRIMENTO:	12.959	TANGENTE:	6.523
DESENVOLVIMENTO:	0.456	AFASTAMENTO:	0.46
COMPRIMENTO CORDA:	12.916	RUMO:	N 05° 04' 59.2148" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	5+14.251	7089977.919	709019.03
FIM:	6+3.290	7089986.641	709021.398

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	9.038	RUMO:	N 15° 11' 32.8595" E

PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	6+3.290	7089986.641	709021.398
RP:		7089989.72	709012.578
PT:	6+13.745	7089996.312	709019.198

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	64° 07' 23.7313"	TIPO:	ESQUERDA
RAIO:	9.342		
COMPRIMENTO:	10.456	TANGENTE:	5.852
DESENVOLVIMENTO:	1.425	AFASTAMENTO:	1.681
COMPRIMENTO CORDA:	9.918	RUMO:	N 12° 49' 06.7202" W

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	6+13.745	7089996.312	709019.198
FIM:	7+1.994	7090001.364	709012.677

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	8.249	RUMO:	N 52° 14' 07.9197" W



**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 02****RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02****PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PC:	7+1.994	7090001.364	709012.677
RP:		7089991.291	709008.113
PCC:	7+17.489	7089997.489	708998.955

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	80° 17' 02.4656"	TIPO:	ESQUERDA
RAIO:	11.058		
COMPRIMENTO:	15.495	TANGENTE:	9.326
DESENVOLVIMENTO:	2.605	AFASTAMENTO:	3.407
COMPRIMENTO CORDA:	14.258	RUMO:	S 74° 13' 57.5284" W

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PCC:	7+17.489	7089997.489	708998.955
RP:		7090005.677	708988.295
PCC:	8+6.588	7089992.617	708991.476

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	38° 46' 58.8486"	TIPO:	DIREITA
RAIO:	13.442		
COMPRIMENTO:	9.099	TANGENTE:	4.732
DESENVOLVIMENTO:	0.763	AFASTAMENTO:	0.808
COMPRIMENTO CORDA:	8.926	RUMO:	S 56° 55' 01.7399" W

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PCC:	8+6.588	7089992.617	708991.476
RP:		7089985.307	708992.709
PCC:	8+12.894	7089989.201	708986.401

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	48° 44' 32.0574"	TIPO:	ESQUERDA
RAIO:	7.413		
COMPRIMENTO:	6.307	TANGENTE:	3.358
DESENVOLVIMENTO:	0.661	AFASTAMENTO:	0.725
COMPRIMENTO CORDA:	6.118	RUMO:	S 56° 03' 31.4249" W

**PREFEITURA DE JOINVILLE****ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA****ÁREA PÚBLICA 02  
RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02****PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PCC:	8+12.894	7089989.201	708986.401
RP:		7089985.57	708999.514
PCC:	9+0.583	7089981.615	708986.495

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	32° 22' 24.0019"	TIPO:	ESQUERDA
RAIO:	13.607		
COMPRIMENTO:	7.688	TANGENTE:	3.95
DESENVOLVIMENTO:	0.539	AFASTAMENTO:	0.562
COMPRIMENTO CORDA:	7.587	RUMO:	S 00° 42' 34.5481" E

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PCC:	9+0.583	7089981.615	708986.495
RP:		7089969.913	708960.923
PCC:	9+11.169	7089971.396	708989.006

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	21° 34' 02.0649"	TIPO:	DIREITA
RAIO:	28.122		
COMPRIMENTO:	10.586	TANGENTE:	5.356
DESENVOLVIMENTO:	0.497	AFASTAMENTO:	0.506
COMPRIMENTO CORDA:	10.523	RUMO:	S 13° 48' 18.4419" E

**PONTOS NOTÁVEIS DA CURVA CIRCULAR**

DESCRICAO	ESTACA	N	E
PCC:	9+11.169	7089971.396	708989.006
RP:		7089970.833	708957.206
PCC:	9+17.194	7089965.397	708988.543

**CURVA CIRCULAR**

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	10° 51' 14.9912"	TIPO:	DIREITA
RAIO:	31.805		
COMPRIMENTO:	6.025	TANGENTE:	3.022
DESENVOLVIMENTO:	0.143	AFASTAMENTO:	0.143
COMPRIMENTO CORDA:	6.016	RUMO:	S 04° 24' 46.5852" W

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

**ÁREA PÚBLICA 02**  
**RELATÓRIO DE ALINHAMENTO HORIZONTAL - CAMINHO 02**

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PONTOS NOTÁVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PCC:	9+17.194	7089965.397	708988.543
RP:		7089967.971	708983.719
PT:	10+2.824	7089962.511	708983.997

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	59° 00' 22.5049"	TIPO:	DIREITA
RAIO:		5.467	
COMPRIMENTO:		5.63 TANGENTE:	3.094
DESENVOLVIMENTO:		0.709 AFASTAMENTO:	0.815
COMPRIMENTO CORDA:		5.385 RUMO:	S 57° 35' 15.8062" W

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## **ANEXO IV: PLANILHAS DE VOLUMES DE TERRAPLENAGEM**

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**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS.  
EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES  
RESUMO ETAPA 01**

<b>Alinhamento</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>
RUA ADOLFO HARDT	722,469	0,000
RUA AFONSO LENZI	1.628,736	75,504
RUA ALBERTO BEZ	511,862	0,083
RUA ALBERTO MIERS	4.270,960	29,427
RUA ALEX KRICHELDORF (TRECHO 01)	879,204	0,325
RUA ALEX KRICHELDORF (TRECHO 02)	1.350,219	12,483
RUA ANERY R. ROQUE	754,772	1,076
RUA ANTONIO BISCHOF	1.386,731	65,514
RUA ARLINDO CORREA	1.535,166	37,049
RUA AUGUSTO ECCEL	1.270,716	10,442
RUA BENTO TORQUATO DA ROCHA	4.788,698	265,780
RUA BRAULIO DE SÁ BARBOSA	1.746,605	9,335
RUA CARLOS G. JERKE (TRECHO 01)	1.469,702	25,555
RUA CARLOS G. JERKE (TRECHO 02)	1.432,479	48,713
RUA CARLOS VITOR HARDT	1.340,746	2,736
RUA CILEZIO R. SILVEIRA	420,398	1,538
RUA COMANDANTE KARL BUSCH	3.004,387	36,783
RUA DANTE NAZATO	3.391,326	105,850
RUA DELIRIO BERTELL	129,106	8,818
RUA DR MAURO MOURA	4.989,227	40,275
RUA EDSON A. DA SILVA	467,273	2,346
RUA ERNESTO HANCH	2.088,769	50,931
RUA EWALDO EICHHOLZ	818,583	16,950
RUA FRANCISCO MOSER	4.559,461	71,656
RUA HAROLD C. MIERS	1.828,459	110,580
RUA HEINZI ZIETZ	1.851,283	65,578
RUA HERCÍLIO J. DA SILVA	319,903	6,400
RUA HERMINIO DAGNONI	1.573,434	17,924
RUA HILDO NOVAES	2.807,490	14,473
RUA JACOBUS FELTHAUS	5.361,347	45,043
RUA JOÃO C. G. DE OLIVEIRA (T 01)	1.044,304	10,829
RUA JOÃO C. G. DE OLIVEIRA (T 02)	1.052,127	4,656
RUA JOÃO SANCHO MOREIRA	1.089,099	7,928
RUA JOAQUIM GIRARDI	2.588,107	33,437
RUA JUVENTINO JOSÉ DA SILVA JR	641,036	0,000
RUA LEOPOLDO BENINCA	671,968	99,504
RUA LUCIANO DE O. CERCAL	383,586	7,276
RUA MANOEL MAURICIO FILHO	1.840,278	44,776
RUA MARCOS JOÃO SERAFIM	5.355,601	113,504
RUA MARCIO LUCKOW	399,300	0,400
RUA MARQUES DE MARCIA	580,271	0,000
RUA MIRKO MAYERLE	1.506,067	33,351
RUA NOSSA SENHORA DO CARMO	1.040,181	3,530
RUA OLIVIO MENESTRINA	1.207,661	24,598
RUA ORESTES GIRARDI	184,544	16,426
RUA PAULINO DE JESUS	1.098,387	19,132
RUA PETRONILHA S. F. (TRECHO 01)	3.298,152	60,714
RUA PETRONILHA S. F. (TRECHO 02)	481,011	24,847
RUA PROF. THEODORO BOING	1.815,408	94,654
RUA RAD. DANIEL DA SILVA	541,863	6,700
RUA RENATO SCHEUNEMANN	1.412,817	401,924
RUA RODRIGO BAUMER	452,672	36,312
RUA RUDOLF BAUMER	4.605,030	254,814
RUA SÃO BENTO	1.294,268	38,996
RUA SÃO GABRIEL ARCANJO	4.361,182	64,973
RUA SÃO VENANCIO FORTUNATO	1.116,695	0,657
RUA SÃO VIGILIO	1.801,630	119,104
RUA SEM DENOMINAÇÃO 04	193,412	1,687
SER. SIDNEI LOURENCI	127,982	0,000
RUA SOELI A. USSINGER	886,808	1,524
RUA VALDEMAR HESSE	335,987	7,677
RUA VALDEMAR LINHARES	605,871	0,000
RUA VALDIR SCHMOCKEL	858,460	8,926
RUA VER. HERMINIO KUNTZE	559,106	0,744
<b>TOTAL</b>	<b>104.130,381</b>	<b>2.722,766</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA ADOLFO HARDT**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+3.356	6,257	0,000	0,000	0,000	0,000	0,000
0+10	4,799	0,000	36,727	0,000	36,727	0,000
1+0	5,483	0,000	51,410	0,000	88,137	0,000
1+10	5,290	0,000	53,862	0,000	141,999	0,000
2+0	5,396	0,000	53,429	0,000	195,427	0,000
2+10	4,893	0,000	51,444	0,000	246,871	0,000
3+0	4,860	0,000	48,762	0,000	295,633	0,000
3+10	4,717	0,000	47,885	0,000	343,518	0,000
4+0	4,661	0,000	46,889	0,000	390,407	0,000
4+10	4,745	0,000	47,026	0,000	437,433	0,000
5+0	4,861	0,000	48,026	0,000	485,458	0,000
5+10	5,146	0,000	50,031	0,000	535,489	0,000
6+0	5,458	0,000	53,020	0,000	588,508	0,000
6+10	6,032	0,000	57,453	0,000	645,961	0,000
7+0	6,287	0,000	61,597	0,000	707,558	0,000
7+2.375	6,269	0,000	14,911	0,000	722,469	0,000
<b>TOTAL</b>					<b>722,469</b>	<b>0,000</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA AFONSO LENZI**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
0+0	1,206	0,558	0,000	0,000	0,000	0,000
0+10	2,244	0,000	0,000	0,000	0,000	0,000
1+0	2,445	0,000	23,442	0,000	23,442	0,000
1+10	2,656	0,000	25,506	0,000	48,948	0,000
2+0	2,642	0,014	26,494	0,069	75,442	0,069
2+10	2,546	0,029	25,940	0,212	101,382	0,281
3+0	2,588	0,030	25,666	0,295	127,047	0,576
3+10	2,586	0,031	25,870	0,306	152,917	0,882
4+0	2,486	0,034	25,363	0,323	178,280	1,204
4+10	2,334	0,042	24,101	0,378	202,380	1,582
5+0	2,195	0,065	22,642	0,534	225,022	2,116
5+10	2,059	0,091	21,267	0,780	246,289	2,896
6+0	1,921	0,120	19,900	1,057	266,189	3,952
6+10	1,799	0,150	18,599	1,350	284,787	5,302
7+0	1,678	0,236	17,381	1,930	302,168	7,232
7+10	1,539	0,315	16,082	2,755	318,250	9,987
8+0	1,408	0,260	14,735	2,877	332,984	12,863
8+10	1,328	0,276	13,680	2,683	346,664	15,546
9+0	1,256	0,316	12,918	2,960	359,582	18,506
9+3.754	1,246	0,412	4,695	1,366	364,276	19,872
9+10	0,910	3,651	6,733	12,689	371,009	32,561
9+11.966	1,005	1,655	1,883	5,216	372,893	37,777
9+11.967	1,007	1,654	0,001	0,002	372,894	37,779
10+2.209	14,175	0,110	77,748	9,035	450,641	46,814
10+9.943	7,892	0,020	85,333	0,502	535,974	47,316
10+10	7,899	0,020	0,450	0,001	536,424	47,317
11+0	7,827	0,011	78,634	0,157	615,058	47,474
11+10	7,517	0,007	76,720	0,089	691,777	47,563
12+0	7,943	0,000	77,296	0,033	769,073	47,595
12+10	7,459	0,041	77,009	0,205	846,082	47,800
13+0	7,030	0,091	72,445	0,661	918,526	48,461
13+10	6,607	0,209	68,186	1,501	986,712	49,962
14+0	6,843	0,108	67,254	1,584	1.053,965	51,545
14+10	6,763	0,224	68,031	1,660	1.121,996	53,205
15+0	6,564	0,206	66,635	2,151	1.188,630	55,356
15+10	6,267	0,119	64,155	1,625	1.252,785	56,981
16+0	6,149	0,248	62,081	1,838	1.314,866	58,818
16+10	5,698	0,483	59,235	3,656	1.374,100	62,474
17+0	5,656	0,220	56,767	3,512	1.430,867	65,986
17+10	6,349	0,537	60,025	3,783	1.490,892	69,769
18+0	7,367	0,188	68,583	3,624	1.559,474	73,393
18+9.225	7,649	0,270	69,262	2,112	1.628,736	75,504
<b>TOTAL</b>					<b>1.628,736</b>	<b>75,504</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA ALBERTO BEZ**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	10,804	0,014	0,000	0,000	0,000	0,000
0+10	5,576	0,000	81,900	0,070	81,900	0,070
1+0	5,830	0,000	57,032	0,000	138,932	0,070
1+10	5,784	0,001	58,073	0,003	197,004	0,073
2+0	4,769	0,000	52,768	0,003	249,772	0,075
2+10	4,236	0,000	45,025	0,000	294,797	0,075
3+0	4,589	0,000	44,125	0,000	338,922	0,075
3+10	5,433	0,000	50,112	0,000	389,033	0,075
4+0	5,695	0,000	55,639	0,000	444,672	0,075
4+10	5,492	0,000	55,932	0,000	500,603	0,075
4+12.175	4,861	0,008	11,259	0,008	511,862	0,083
<b>TOTAL</b>					<b>511,862</b>	<b>0,083</b>



PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA ALBERTO MIERS

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	6.78	0.00	0,000	0,000	0,000	0,000
0+10	6.19	0.00	64,850	0,000	64,850	0,000
1+0	5.98	0.00	60,850	0,000	125,700	0,000
1+5.34	8.19	0.00	37,834	0,000	163,534	0,000
1+10	0.00	0.00	19,083	0,000	182,617	0,000
1+13.413	8.89	0.00	15,171	0,000	197,787	0,000
2+0	6.15	0.00	49,534	0,000	247,322	0,000
2+10	6.14	0.00	61,450	0,000	308,772	0,000
3+0	6.42	0.00	62,800	0,000	371,572	0,000
3+10	6.39	0.00	64,050	0,000	435,622	0,000
4+0	3.51	0.00	49,500	0,000	485,122	0,000
4+10	3.76	0.00	36,350	0,000	521,472	0,000
5+0	3.22	0.00	34,900	0,000	556,372	0,000
5+0.357	3.24	0.00	1,153	0,000	557,525	0,000
5+10	6.42	0.00	46,576	0,000	604,100	0,000
6+0	6.36	0.00	63,900	0,000	668,000	0,000
6+10	5.82	0.00	60,900	0,000	728,900	0,000
6+15.987	5.69	0.00	34,455	0,000	763,355	0,000
7+0	6.09	0.00	23,637	0,000	786,992	0,000
7+5.62	8.36	0.00	40,605	0,000	827,597	0,000
7+10	0.00	0.00	18,308	0,000	845,905	0,000
7+14.412	7.34	0.00	16,192	0,000	862,097	0,000
8+0	5.93	0.00	37,076	0,000	899,174	0,000
8+1.12	5.91	0.00	6,630	0,000	905,804	0,000
8+10	6.72	0.00	56,077	0,000	961,881	0,000
9+0	7.21	0.00	69,650	0,000	1,031,531	0,000
9+10	6.32	0.00	67,650	0,000	1,099,181	0,000
9+19.344	5.69	0.00	56,111	0,000	1,155,292	0,000
10+0	5.66	0.00	3,723	0,000	1,159,015	0,000
10+10	14.98	0.00	103,200	0,000	1,262,215	0,000
10+18.891	8.44	0.00	104,114	0,000	1,366,328	0,000
11+0	7.95	0.00	9,088	0,000	1,375,416	0,000
11+1.401	7.51	0.00	10,830	0,000	1,386,246	0,000
11+10	7.34	0.00	63,848	0,000	1,450,094	0,000
12+0	6.62	0.00	69,800	0,000	1,519,894	0,000
12+10	5.96	0.00	62,900	0,000	1,582,794	0,000
13+0	6.41	0.00	61,850	0,000	1,644,644	0,000
13+10	11.58	0.00	89,950	0,000	1,734,594	0,000
14+0	10.03	0.00	108,050	0,000	1,842,644	0,000
14+1.194	10.18	0.00	12,065	0,000	1,854,709	0,000
14+5.201	5.57	0.03	31,555	0,060	1,886,264	0,060
14+10	5.03	0.04	25,435	0,168	1,911,699	0,228
15+0	1.89	0.04	34,600	0,400	1,946,299	0,628
20+0	3.55	0.00	0,000	0,000	2,634,442	3,444
20+10	3.92	0.00	37,350	0,000	2,671,792	3,444
21+0	2.89	0.47	34,050	2,350	2,705,842	5,794
21+10	3.13	0.38	30,100	4,250	2,735,942	10,044
22+0	2.54	0.23	28,350	3,050	2,764,292	13,094
22+10	8.01	0.00	52,750	1,150	2,817,042	14,244
23+0	6.74	0.00	73,750	0,000	2,890,792	14,244
23+5.785	4.16	0.01	31,528	0,029	2,922,320	14,273
23+10	4.16	0.00	17,534	0,021	2,939,854	14,294
24+0	4.18	0.00	41,700	0,000	2,981,554	14,294
24+10	4.14	0.00	41,600	0,000	3,023,154	14,294
24+18.197	3.64	0.00	31,886	0,000	3,055,040	14,294
25+0	3.53	0.00	6,464	0,000	3,061,504	14,294
25+10	2.86	0.00	31,950	0,000	3,093,454	14,294
26+0	8.30	0.02	55,800	0,100	3,149,254	14,394
26+10	10.91	0.00	96,050	0,100	3,245,304	14,494
26+16.574	5.15	0.00	52,789	0,000	3,298,093	14,494
27+0	4.33	0.00	16,239	0,000	3,314,333	14,494
27+10	4.10	0.00	42,150	0,000	3,356,483	14,494
28+0	5.01	0.00	45,550	0,000	3,402,033	14,494
28+10	4.72	0.00	48,650	0,000	3,450,683	14,494
28+14.488	4.50	0.00	20,690	0,000	3,471,372	14,494
29+0	4.21	0.00	24,005	0,000	3,495,377	14,494
29+10	12.19	0.00	82,000	0,000	3,577,377	14,494
29+11.477	9.46	0.00	15,989	0,000	3,593,366	14,494
29+19.779	0.04	0.00	39,435	0,000	3,632,800	14,494
30+0	0.00	0.00	0,004	0,000	3,632,805	14,494
30+10	4.04	0.00	20,200	0,000	3,653,005	14,494
31+0	3.32	0.00	36,800	0,000	3,689,805	14,494
31+10	3.54	0.00	34,300	0,000	3,724,105	14,494
32+0	4.09	0.11	38,150	0,550	3,762,255	15,044
32+10	4.88	0.04	44,850	0,750	3,807,105	15,794
33+0	5.48	0.00	51,800	0,200	3,858,905	15,994

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA**CÁLCULO DE VOLUMES****RUA ALBERTO MIERS**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
33+10	3.64	0.00	45,600	0,000	3.904,505	15,994
33+18.876	3.68	0.00	32,486	0,000	3.936,991	15,994
34+0	3.72	0.00	4,159	0,000	3.941,150	15,994
34+10	3.56	0.00	36,400	0,000	3.977,550	15,994
35+0	2.24	0.06	29,000	0,300	4.006,550	16,294
35+10	1.87	0.12	20,550	0,900	4.027,100	17,194
35+17.145	1.84	0.15	13,254	0,965	4.040,354	18,159
36+0	1.83	0.00	5,239	0,214	4.045,592	18,373
36+10	2.84	0.10	23,350	0,500	4.068,942	18,873
37+0	5.00	0.06	39,200	0,800	4.108,142	19,673
37+0.582	5.15	0.06	2,954	0,035	4.111,096	19,708
37+10	0.00	0.00	24,251	0,283	4.135,347	19,990
37+18.903	1.08	0.41	4,808	1,825	4.140,155	21,815
38+0	1.58	0.34	1,459	0,411	4.141,614	22,227
38+10	1.24	0.16	14,100	2,500	4.155,714	24,727
39+0	1.17	0.19	12,050	1,750	4.167,764	26,477
39+10	1.42	0.06	12,950	1,250	4.180,714	27,727
40+0	1.65	0.01	15,350	0,350	4.196,064	28,077
40+10	1.81	0.00	17,300	0,050	4.213,364	28,127
41+0	6.14	0.10	39,750	0,500	4.253,114	28,627
41+2.806	6.58	0.47	17,846	0,800	4.270,960	29,427
<b>TOTAL</b>					<b>4.270,960</b>	<b>29,427</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA ALEX KRICHELDORF (TRECHO 01)**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	5,984	0,017	0,000	0,000	0,000	0,000
0+10	6,150	0,000	60,668	0,083	60,668	0,083
1+0	6,143	0,000	61,465	0,000	122,132	0,083
1+10	5,712	0,000	59,275	0,000	181,407	0,083
2+0	7,457	0,000	65,846	0,000	247,253	0,083
2+1.124	8,529	0,025	8,984	0,014	256,237	0,097
2+9.077	8,948	0,015	69,497	0,159	325,734	0,256
2+10	8,751	0,000	8,168	0,007	333,902	0,263
2+11.271	9,123	0,000	11,359	0,000	345,261	0,263
3+0	6,490	0,004	68,141	0,019	413,402	0,282
3+10	6,809	0,000	66,492	0,022	479,894	0,303
4+0	8,547	0,000	76,780	0,000	556,674	0,303
4+10	6,539	0,001	75,430	0,004	632,103	0,307
5+0	6,113	0,000	63,260	0,004	695,363	0,311
5+10	5,979	0,000	60,460	0,000	755,823	0,311
6+0	6,101	0,000	60,399	0,000	816,221	0,311
6+9.48	7,186	0,003	62,983	0,013	879,204	0,325

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA ALEX KRICHELDORF (TRECHO 02)**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
6+12	9,493	0,033	0,000	0,000	0,000	0,000
7+0	3,583	0,042	52,302	0,300	52,302	0,300
7+10	3,540	0,031	35,617	0,363	87,919	0,663
8+0	3,570	0,022	35,554	0,266	123,472	0,928
8+10	4,262	0,015	39,163	0,183	162,635	1,111
9+0	4,838	0,000	45,503	0,073	208,138	1,183
9+10	4,765	0,000	48,016	0,000	256,154	1,183
10+0	4,563	0,000	46,641	0,000	302,795	1,183
10+10	4,311	0,000	44,370	0,000	347,164	1,183
11+0	3,985	0,000	41,480	0,000	388,644	1,183
11+10	3,802	0,000	38,938	0,000	427,582	1,183
12+0	3,749	0,000	37,756	0,000	465,338	1,183
12+10	3,485	0,000	36,169	0,000	501,506	1,183
13+0	3,019	0,000	32,519	0,000	534,025	1,183
13+10	2,666	0,000	28,422	0,000	562,447	1,183
14+0	2,160	0,010	24,128	0,048	586,574	1,231
14+10	2,219	0,006	21,894	0,076	608,468	1,307
15+0	2,706	0,019	24,624	0,121	633,092	1,428
15+10	2,705	0,097	27,055	0,578	660,147	2,006
15+15.627	3,207	0,129	16,634	0,637	676,781	2,642
16+0	3,972	0,000	15,698	0,282	692,479	2,925
16+3.797	3,604	0,084	14,383	0,160	706,863	3,084
16+14.212	3,049	0,707	34,647	4,121	741,509	7,206
17+0	1,631	0,214	13,545	2,666	755,055	9,871
17+1.871	1,728	0,124	3,143	0,316	758,197	10,188
17+10	2,541	0,017	17,351	0,572	775,549	10,760
18+0	3,508	0,000	30,242	0,083	805,791	10,842
18+10	3,917	0,000	37,122	0,000	842,913	10,842
19+0	4,275	0,000	40,960	0,000	883,872	10,842
19+10	4,078	0,000	41,768	0,000	925,640	10,842
20+0	3,829	0,000	39,537	0,002	965,177	10,844
20+10	4,016	0,001	39,223	0,009	1.004,400	10,853
21+0	4,454	0,000	42,347	0,007	1.046,747	10,860
21+10	4,872	0,000	46,628	0,000	1.093,375	10,860
22+0	5,320	0,000	50,957	0,000	1.144,332	10,860
22+10	5,359	0,071	53,395	0,354	1.197,727	11,214
23+0	5,516	0,050	54,379	0,606	1.252,105	11,820
23+10	5,674	0,038	55,950	0,442	1.308,055	12,262
23+17.285	5,902	0,023	42,164	0,221	1.350,219	12,483
<b>TOTAL</b>					<b>1.350,219</b>	<b>12,483</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA ANERY R. ROQUE**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	10,505	0,025	0,000	0,000	0,000	0,000
0+10	5,776	0,085	81,405	0,549	81,405	0,549
1+0	6,291	0,000	60,335	0,426	141,740	0,975
1+10	7,096	0,000	66,935	0,002	208,675	0,977
2+0	6,843	0,000	69,692	0,002	278,367	0,979
2+10	6,348	0,000	65,953	0,000	344,320	0,979
3+0	5,881	0,000	61,146	0,000	405,465	0,979
3+10	5,729	0,000	58,050	0,000	463,515	0,979
4+0	5,523	0,000	56,261	0,000	519,775	0,979
4+10	5,724	0,000	56,236	0,000	576,011	0,979
5+0	7,345	0,000	65,344	0,000	641,355	0,979
5+10	8,044	0,000	76,947	0,000	718,302	0,979
5+16.221	3,681	0,031	36,470	0,097	754,772	1,076
<b>TOTAL</b>					<b>754,772</b>	<b>1,076</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA ANTONIO BISCHOF**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	6,271	0,000	0,000	0,000	0,000	0,000
0+10	5,323	0,000	57,971	0,000	57,971	0,000
1+0	5,891	0,006	56,073	0,030	114,044	0,030
1+10	5,764	0,004	58,279	0,050	172,322	0,080
2+0	5,312	0,002	55,383	0,028	227,705	0,108
2+10	4,502	0,016	49,071	0,089	276,775	0,197
2+18.227	3,997	0,040	34,959	0,229	311,734	0,426
3+0	4,514	0,043	7,545	0,073	319,278	0,498
3+4.95	9,347	0,000	34,306	0,105	353,584	0,604
3+10	0,000	0,000	0,000	0,000	353,584	0,604
4+0	1,245	0,098	6,223	0,489	359,807	1,093
4+0.206	1,258	0,094	0,258	0,020	360,065	1,112
4+10	2,042	0,000	16,162	0,459	376,227	1,572
5+0	2,855	0,000	24,484	0,000	400,711	1,572
5+10	2,257	0,000	25,560	0,000	426,271	1,572
6+0	1,617	0,067	19,373	0,336	445,644	1,907
6+10	1,373	0,152	14,951	1,094	460,594	3,001
7+0	1,461	0,111	14,168	1,311	474,762	4,311
7+10	1,564	0,090	15,124	1,004	489,886	5,315
8+0	1,668	0,079	16,162	0,847	506,048	6,162
8+10	1,805	0,052	17,368	0,657	523,416	6,818
9+0	1,909	0,055	18,571	0,537	541,987	7,355
9+10	1,967	0,057	19,379	0,560	561,366	7,914
10+0	1,977	0,059	19,719	0,581	581,085	8,495
10+10	2,149	0,052	20,627	0,558	601,711	9,053
11+0	2,357	0,033	22,528	0,425	624,239	9,478
11+10	2,510	0,021	24,334	0,268	648,573	9,746
12+0	2,611	0,016	25,606	0,185	674,179	9,931
12+10	3,388	0,000	29,996	0,081	704,175	10,012
13+0	2,624	0,021	30,057	0,107	734,232	10,118
13+4.318	0,000	0,000	5,664	0,046	739,896	10,164
13+10	0,000	0,000	0,000	0,000	739,896	10,164
14+0	2,592	0,000	12,962	0,000	752,858	10,164
14+10	1,986	0,141	22,894	0,704	775,751	10,868
15+0	1,905	0,191	19,458	1,658	795,209	12,525
15+10	1,753	0,371	18,292	2,811	813,501	15,336
16+0	1,702	0,458	17,275	4,148	830,775	19,483
16+10	1,701	0,290	17,014	3,741	847,789	23,224
17+0	1,632	0,228	16,665	2,589	864,453	25,812
17+10	1,387	0,474	15,095	3,508	879,548	29,320
18+0	1,291	0,585	13,388	5,296	892,936	34,616
18+10	1,802	0,283	15,465	4,341	908,401	38,956
19+0	2,532	0,053	21,670	1,680	930,070	40,636
19+10	0,000	0,000	12,658	0,266	942,728	40,902
20+0	0,000	0,000	0,000	0,000	942,728	40,902
20+10	3,465	0,148	17,326	0,742	960,053	41,644
21+0	2,993	0,244	32,288	1,963	992,341	43,607
21+10	3,013	0,390	30,028	3,169	1.022,369	46,776
22+0	3,052	0,430	30,324	4,098	1.052,693	50,874
22+10	2,827	0,367	29,392	3,983	1.082,085	54,857
23+0	2,680	0,306	27,535	3,365	1.109,620	58,222
23+10	3,007	0,219	28,436	2,629	1.138,055	60,851
24+0	1,638	0,356	23,223	2,875	1.161,278	63,726
24+10	1,815	0,001	17,266	1,783	1.178,544	65,509
25+0	3,531	0,000	26,730	0,006	1.205,274	65,514
25+1.382	7,527	0,000	7,641	0,000	1.212,915	65,514
25+10	7,199	0,000	63,455	0,000	1.276,370	65,514
26+0	7,294	0,000	72,464	0,000	1.348,833	65,514
26+5.185	7,325	0,000	37,898	0,000	1.386,731	65,514
<b>TOTAL</b>					<b>1.386,731</b>	<b>65,514</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA ARLINDO CORREA**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+2.031	1,720	0,000	0,000	0,000	0,000	0,000
0+10	1,752	0,000	13,835	0,000	13,835	0,000
1+0	1,774	0,000	17,629	0,000	31,464	0,000
1+10	1,414	0,000	15,939	0,000	47,403	0,000
2+0	1,294	0,000	13,537	0,000	60,940	0,000
2+10	1,250	0,000	12,719	0,000	73,658	0,000
3+0	1,302	0,000	12,763	0,000	86,421	0,000
3+7.122	1,332	0,000	9,382	0,000	95,803	0,000
3+10	1,754	0,000	4,442	0,000	100,244	0,000
4+0	0,020	0,000	8,871	0,000	109,115	0,000
4+6.1	6,222	0,000	19,038	0,000	128,154	0,000
4+10	6,139	0,000	24,105	0,000	152,259	0,000
5+0	4,637	0,000	53,883	0,000	206,141	0,000
5+10	4,594	0,000	46,156	0,000	252,297	0,000
6+0	4,527	0,001	45,607	0,003	297,904	0,003
6+10	3,953	0,000	42,404	0,003	340,308	0,006
7+0	3,031	0,000	34,924	0,000	375,231	0,006
7+10	3,185	0,000	31,080	0,000	406,311	0,006
8+0	3,577	0,000	33,807	0,000	440,117	0,006
8+10	3,600	0,004	35,882	0,019	475,999	0,025
9+0	3,405	0,002	35,021	0,030	511,020	0,055
9+10	3,461	0,002	34,330	0,020	545,349	0,075
10+0	3,969	0,001	37,151	0,015	582,500	0,090
10+10	4,575	0,001	42,722	0,011	625,222	0,101
11+0	3,993	0,001	42,844	0,008	668,066	0,109
11+5.388	3,883	0,011	21,217	0,030	689,283	0,139
11+10	6,750	0,000	24,519	0,024	713,802	0,163
11+13.212	0,602	0,000	11,807	0,000	725,610	0,163
19+0	1,740	0,000	4,432	0,000	957,098	2,645
19+9.276	0,000	0,000	8,071	0,000	965,169	2,645
19+17.729	8,508	0,004	35,958	0,018	1.001,127	2,663
19+18.057	12,871	0,000	3,506	0,001	1.004,633	2,663
20+0	5,425	0,001	17,774	0,001	1.022,407	2,664
20+7.441	2,899	0,014	30,969	0,055	1.053,376	2,719
20+10	2,974	0,010	7,514	0,031	1.060,889	2,750
21+0	3,108	0,000	30,410	0,049	1.091,299	2,799
21+10	3,331	0,000	32,199	0,000	1.123,498	2,799
22+0	3,251	0,000	32,913	0,000	1.156,410	2,799
22+10	2,616	0,000	29,336	0,000	1.185,746	2,799
23+0	2,261	0,000	24,383	0,000	1.210,129	2,799
23+10	2,078	0,049	21,693	0,246	1.231,822	3,044
24+0	1,773	0,058	19,256	0,534	1.251,077	3,578
24+10	1,972	0,034	18,726	0,457	1.269,803	4,035
25+0	1,579	0,123	17,756	0,782	1.287,559	4,816
25+10	1,118	0,565	13,486	3,436	1.301,044	8,252
26+0	0,940	0,676	10,292	6,201	1.311,336	14,452
26+10	1,151	0,411	10,458	5,435	1.321,794	19,887
27+0	1,418	0,314	12,845	3,625	1.334,639	23,511
27+10	1,674	0,532	15,458	4,225	1.350,097	27,736
28+0	2,069	0,515	18,714	5,233	1.368,810	32,969
28+10	3,176	0,069	26,224	2,922	1.395,034	35,891
29+0	4,096	0,019	36,360	0,441	1.431,393	36,331
29+10	3,993	0,040	40,447	0,293	1.471,840	36,624
30+0	3,990	0,022	39,918	0,307	1.511,757	36,931
30+5.809	4,069	0,019	23,409	0,119	1.535,166	37,049
<b>TOTAL</b>					<b>1.535,166</b>	<b>37,049</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA AUGUSTO ECCEL**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,683	0,000	0,000	0,000	0,000	0,000
0+10	2,910	0,000	17,963	0,000	17,963	0,000
1+0	2,109	0,007	25,097	0,034	43,060	0,034
1+10	2,300	0,044	22,048	0,254	65,108	0,288
2+0	2,545	0,083	24,225	0,636	89,332	0,923
2+10	2,844	0,107	26,945	0,950	116,277	1,873
3+0	2,728	0,058	27,862	0,823	144,139	2,695
3+10	2,605	0,036	26,664	0,467	170,803	3,162
4+0	3,233	0,021	29,189	0,282	199,992	3,444
4+10	3,319	0,016	32,759	0,186	232,751	3,630
5+0	2,549	0,068	29,339	0,420	262,089	4,050
5+10	2,333	0,061	24,408	0,644	286,497	4,694
6+0	2,563	0,074	24,479	0,675	310,976	5,369
6+10	2,605	0,101	25,842	0,876	336,817	6,244
7+0	2,531	0,039	25,681	0,701	362,498	6,945
7+10	2,465	0,000	24,982	0,195	387,480	7,140
8+0	2,439	0,000	24,520	0,000	412,000	7,140
8+10	2,369	0,004	24,038	0,019	436,037	7,159
9+0	3,013	0,087	26,908	0,454	462,945	7,612
9+9.089	2,753	0,000	26,203	0,395	489,148	8,007
9+10	0,000	0,000	1,254	0,000	490,402	8,007
10+0	0,000	0,000	0,000	0,000	490,402	8,007
10+2.113	5,311	0,014	5,611	0,015	496,012	8,023
10+10	4,948	0,000	40,454	0,057	536,466	8,079
11+0	4,918	0,000	49,328	0,000	585,793	8,079
11+10	4,768	0,000	48,430	0,000	634,223	8,079
12+0	4,856	0,000	48,120	0,000	682,343	8,079
12+10	4,453	0,000	46,541	0,000	728,884	8,079
13+0	3,697	0,000	40,746	0,000	769,630	8,079
13+10	3,292	0,043	34,946	0,215	804,576	8,294
14+0	3,456	0,048	33,744	0,456	838,319	8,750
14+10	4,115	0,054	37,857	0,509	876,176	9,259
15+0	4,739	0,031	44,272	0,423	920,448	9,682
15+10	5,556	0,017	51,478	0,240	971,926	9,922
16+0	6,085	0,029	58,206	0,229	1.030,131	10,151
16+10	6,320	0,009	62,023	0,190	1.092,154	10,341
17+0	6,677	0,000	64,983	0,047	1.157,136	10,387
17+10	6,788	0,000	67,325	0,000	1.224,461	10,387
17+17.489	5,565	0,015	46,255	0,054	1.270,716	10,442
<b>TOTAL</b>					<b>1.270,716</b>	<b>10,442</b>



PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA BENTO TORQUATO DA ROCHA

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	3.32	0.00	0,000	0,000	0,000	0,000
0+10	1.77	0.69	25,450	3,450	25,450	3,450
1+0	2.47	0.38	21,200	5,350	46,650	8,800
1+10	3.14	0.24	28,050	3,100	74,700	11,900
2+0	4.08	0.09	36,100	1,650	110,800	13,550
2+10	4.17	0.10	41,250	0,950	152,050	14,500
3+0	4.22	0.04	41,950	0,700	194,000	15,200
3+10	4.27	0.04	42,450	0,400	236,450	15,600
4+0	3.98	0.21	41,250	1,250	277,700	16,850
4+10	2.65	0.21	33,150	2,100	310,850	18,950
5+0	2.90	0.11	27,750	1,600	338,600	20,550
5+10	2.65	0.07	27,750	0,900	366,350	21,450
6+0	2.33	0.03	24,900	0,500	391,250	21,950
6+10	2.36	0.01	23,450	0,200	414,700	22,150
7+0	3.95	0.05	31,550	0,300	446,250	22,450
7+10	4.22	0.11	40,850	0,800	487,100	23,250
8+0	3.94	0.08	40,800	0,950	527,900	24,200
8+10	4.64	0.00	42,900	0,400	570,800	24,600
9+0	4.31	0.00	44,750	0,000	615,550	24,600
9+10	3.00	0.09	36,550	0,450	652,100	25,050
10+0	5.02	0.15	40,100	1,200	692,200	26,250
10+10	9.68	0.00	73,500	0,750	765,700	27,000
11+0	10.52	0.00	101,000	0,000	866,700	27,000
11+10	6.64	0.00	85,800	0,000	952,500	27,000
12+0	4.81	0.05	57,250	0,250	1.009,750	27,250
12+10	3.89	0.04	43,500	0,450	1.053,250	27,700
13+0	4.75	0.04	43,200	0,400	1.096,450	28,100
13+10	5.14	0.10	49,450	0,700	1.145,900	28,800
14+0	5.96	0.12	55,500	1,100	1.201,400	29,900
14+10	5.81	0.02	58,850	0,700	1.260,250	30,600
15+0	4.89	0.00	53,500	0,100	1.313,750	30,700
15+10	4.52	0.00	47,050	0,000	1.360,800	30,700
16+0	3.94	0.02	42,300	0,100	1.403,100	30,800
16+10	3.60	0.03	37,700	0,250	1.440,800	31,050
16+11.81	3.61	0.03	6,525	0,054	1.447,325	31,104
17+0	3.48	0.09	29,034	0,491	1.476,359	31,596
17+10	3.26	0.14	0,000	0,000	1.476,359	31,596
18+0	4.05	0.15	36,550	1,450	1.512,909	33,046
18+10	4.54	0.09	42,950	1,200	1.555,859	34,246
19+0	4.24	0.08	43,900	0,850	1.599,759	35,096
19+10	4.05	0.06	41,450	0,700	1.641,209	35,796
20+0	4.10	0.05	40,750	0,550	1.681,959	36,346
20+10	4.18	0.05	41,400	0,500	1.723,359	36,846
21+0	4.57	0.02	43,750	0,350	1.767,109	37,196
21+10	6.09	0.00	53,300	0,100	1.820,409	37,296
22+0	4.98	0.01	55,350	0,050	1.875,759	37,346
22+10	3.46	0.04	42,200	0,250	1.917,959	37,596
23+0	3.36	0.04	34,100	0,400	1.952,059	37,996
23+10	3.60	0.04	34,800	0,400	1.986,859	38,396
24+0	4.54	0.03	40,700	0,350	2.027,559	38,746
24+10	4.96	0.03	47,500	0,300	2.075,059	39,046
25+0	4.68	0.04	48,200	0,350	2.123,259	39,396
25+10	3.94	0.06	43,100	0,500	2.166,359	39,896
26+0	4.14	0.06	40,400	0,600	2.206,759	40,496
26+10	3.40	0.21	37,700	1,350	2.244,459	41,846
27+0	1.67	0.00	25,350	1,050	2.269,809	42,896
27+10	0.08	0.00	8,750	0,000	2.278,559	42,896
28+0	3.31	0.09	16,950	0,450	2.295,509	43,346
28+10	3.43	0.15	33,700	1,200	2.329,209	44,546
29+0	3.20	0.12	33,150	1,350	2.362,359	45,896
29+10	2.60	0.11	29,000	1,150	2.391,359	47,046
30+0	2.39	0.14	24,950	1,250	2.416,309	48,296
30+10	1.39	0.08	18,900	1,100	2.435,209	49,396
31+0	1.07	0.06	12,300	0,700	2.447,509	50,096
31+10	2.74	0.11	19,050	0,850	2.466,559	50,946
32+0	3.53	0.11	31,350	1,100	2.497,909	52,046
32+10	3.85	0.09	36,900	1,000	2.534,809	53,046
33+0	3.66	0.18	37,550	1,350	2.572,359	54,396
33+10	3.63	0.23	36,450	2,050	2.608,809	56,446
34+0	3.33	0.14	34,800	1,850	2.643,609	58,296
34+10	1.68	0.16	25,050	1,500	2.668,659	59,796
35+0	2.12	0.66	19,000	4,100	2.687,659	63,896
35+10	1.91	0.48	20,150	5,700	2.707,809	69,596
36+0	2.65	0.19	22,800	3,350	2.730,609	72,946
36+10	3.14	0.10	28,950	1,450	2.759,559	74,396
37+0	3.19	0.15	31,650	1,250	2.791,209	75,646
37+10	3.21	0.18	32,000	1,650	2.823,209	77,296
38+0	1.80	0.19	25,050	1,850	2.848,259	79,146
38+10	1.86	0.10	18,300	1,450	2.866,559	80,596
39+0	1.71	0.30	17,850	2,000	2.884,409	82,596
39+10	3.35	0.30	25,300	3,000	2.909,709	85,596

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA BENTO TORQUATO DA ROCHA

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
40+0	3.20	0.29	32,750	2,950	2.942,459	88,546
40+10	3.63	0.12	34,150	2,050	2.976,609	90,596
41+0	3.29	0.12	34,600	1,200	3.011,209	91,796
41+10	1.83	0.19	25,600	1,550	3.036,809	93,346
42+0	0.00	0.00	9,150	0,950	3.045,959	94,296
42+10	0.01	0.00	0,050	0,000	3.046,009	94,296
42+17.002	0.04	0.00	0,175	0,000	3.046,184	94,296
43+0	3.79	0.01	5,741	0,015	3.051,925	94,311
43+10	3.71	0.00	37,500	0,050	3.089,425	94,361
44+0	3.71	0.00	37,100	0,000	3.126,525	94,361
44+10	3.33	0.09	35,200	0,450	3.161,725	94,811
45+0	2.79	0.37	30,600	2,300	3.192,325	97,111
45+10	1.35	0.14	20,700	2,550	3.213,025	99,661
46+0	1.41	0.02	13,800	0,800	3.226,825	100,461
46+10	1.14	0.39	12,750	2,050	3.239,575	102,511
47+0	2.90	0.26	20,200	3,250	3.259,775	105,761
47+10	2.42	0.25	26,600	2,550	3.286,375	108,311
48+0	2.31	0.13	23,650	1,900	3.310,025	110,211
48+10	1.84	0.09	20,750	1,100	3.330,775	111,311
49+0	1.46	0.24	16,500	1,650	3.347,275	112,961
49+10	1.43	0.48	14,450	3,600	3.361,725	116,561
50+0	1.28	0.57	13,550	5,250	3.375,275	121,811
50+10	2.23	0.43	17,550	5,000	3.392,825	126,811
51+0	2.52	0.11	23,750	2,700	3.416,575	129,511
51+10	2.32	0.10	24,200	1,050	3.440,775	130,561
52+0	2.12	0.09	22,200	0,950	3.462,975	131,511
52+10	2.26	0.05	21,900	0,700	3.484,875	132,211
53+0	1.79	0.14	20,250	0,950	3.505,125	133,161
53+10	1.53	0.26	16,600	2,000	3.521,725	135,161
54+0	2.05	0.33	17,900	2,950	3.539,625	138,111
54+10	4.92	0.14	34,850	2,350	3.574,475	140,461
55+0	4.78	0.10	48,500	1,200	3.622,975	141,661
55+10	3.39	0.13	40,850	1,150	3.663,825	142,811
56+0	2.33	0.14	28,600	1,350	3.692,425	144,161
56+10	2.89	0.38	26,100	2,600	3.718,525	146,761
57+0	1.94	0.51	24,150	4,450	3.742,675	151,211
57+10	2.20	0.29	20,700	4,000	3.763,375	155,211
58+0	1.62	0.40	19,100	3,450	3.782,475	158,661
58+10	4.58	0.03	31,000	2,150	3.813,475	160,811
59+0	4.39	0.00	44,850	0,150	3.858,325	160,961
59+10	4.16	0.00	42,750	0,000	3.901,075	160,961
60+0	4.26	0.08	42,100	0,400	3.943,175	161,361
60+10	4.61	0.40	44,350	2,400	3.987,525	163,761
61+0	0.00	0.00	23,050	2,000	4.010,575	165,761
61+10	0.00	0.00	0,000	0,000	4.010,575	165,761
62+0	2.02	0.28	10,100	1,400	4.020,675	167,161
62+10	2.38	0.22	22,000	2,500	4.042,675	169,661
63+0	2.98	0.22	26,800	2,200	4.069,475	171,861
63+10	2.42	0.21	27,000	2,150	4.096,475	174,011
64+0	1.39	0.21	19,050	2,100	4.115,525	176,111
64+10	0.98	0.25	11,850	2,300	4.127,375	178,411
65+0	0.20	0.31	5,900	2,800	4.133,275	181,211
65+10	0.58	0.41	3,900	3,600	4.137,175	184,811
66+0	3.02	0.18	18,000	2,950	4.155,175	187,761
66+10	3.39	0.00	32,050	0,900	4.187,225	188,661
67+0	3.61	0.00	35,000	0,000	4.222,225	188,661
67+10	2.92	0.12	32,650	0,600	4.254,875	189,261
68+0	2.34	0.44	26,300	2,800	4.281,175	192,061
68+10	1.06	0.88	17,000	6,600	4.298,175	198,661
69+0	0.72	0.63	8,900	7,550	4.307,075	206,211
69+10	0.73	0.50	7,250	5,650	4.314,325	211,861
70+0	2.09	0.37	14,100	4,350	4.328,425	216,211
70+10	1.97	0.32	20,300	3,450	4.348,725	219,661
71+0	1.65	0.29	18,100	3,050	4.366,825	222,711
71+10	2.01	0.27	18,300	2,800	4.385,125	225,511
72+0	2.17	0.32	20,900	2,950	4.406,025	228,461
72+10	1.35	0.42	17,600	3,700	4.423,625	232,161
73+0	1.84	0.64	15,950	5,300	4.439,575	237,461
73+10	2.52	0.51	21,800	5,750	4.461,375	243,211
74+0	2.95	0.50	27,350	5,050	4.488,725	248,261
74+10	3.09	0.32	30,200	4,100	4.518,925	252,361
75+0	3.58	0.15	33,350	2,350	4.552,275	254,711
75+10	3.86	0.18	37,200	1,650	4.589,475	256,361
76+0	3.98	0.24	39,200	2,100	4.628,675	258,461
76+10	3.34	0.24	36,600	2,400	4.665,275	260,861
77+0	3.01	0.20	31,750	2,200	4.697,025	263,061
77+10	3.24	0.06	31,250	1,300	4.728,275	264,361
78+0	2.61	0.05	29,250	0,550	4.757,525	264,911
78+10	3.28	0.11	29,450	0,800	4.786,975	265,711
78+10.629	2.20	0.11	1,723	0,069	4.788,698	265,780
<b>TOTAL</b>					<b>4.788,698</b>	<b>265,780</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA BRAULIO DE SÁ BARBOSA**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,000	0,000	0,000	0,000	0,000	0,000
0+10	2,477	0,000	12,385	0,000	12,385	0,000
1+0	2,090	0,001	22,833	0,006	35,218	0,006
1+10	2,036	0,021	20,629	0,112	55,847	0,117
2+0	2,079	0,000	20,579	0,106	76,425	0,223
2+10	2,036	0,039	20,577	0,194	97,002	0,417
3+0	2,217	0,051	21,264	0,450	118,266	0,867
3+10	2,337	0,000	22,769	0,256	141,034	1,122
4+0	6,103	0,131	42,199	0,654	183,233	1,776
4+10	0,000	0,000	30,514	0,654	213,746	2,429
5+0	2,645	0,058	13,226	0,291	226,972	2,720
5+10	2,500	0,015	25,725	0,364	252,697	3,084
6+0	2,537	0,000	25,185	0,074	277,882	3,157
6+10	2,743	0,000	26,401	0,000	304,283	3,157
7+0	2,969	0,000	28,562	0,000	332,845	3,157
7+10	2,827	0,014	28,980	0,069	361,825	3,226
8+0	2,058	0,062	24,423	0,376	386,248	3,602
8+10	2,051	0,000	20,543	0,308	406,790	3,909
9+0	1,383	0,000	17,169	0,000	423,959	3,909
9+10	2,355	0,007	18,693	0,034	442,652	3,943
10+0	2,386	0,009	23,708	0,080	466,360	4,023
10+10	3,197	0,000	27,914	0,047	494,274	4,069
11+0	3,035	0,029	31,160	0,144	525,433	4,213
11+10	2,530	0,135	27,827	0,821	553,260	5,034
11+11.024	0,000	0,000	1,295	0,069	554,555	5,103
11+12.396	0,000	0,000	0,000	0,000	554,555	5,103
12+0	0,000	0,000	0,000	0,000	554,555	5,103
12+10	0,000	0,000	0,000	0,000	554,555	5,103
12+17.326	0,000	0,000	0,000	0,000	554,555	5,103
13+0	4,434	0,006	5,928	0,008	560,483	5,112
13+10	6,047	0,000	52,403	0,032	612,886	5,143
14+0	5,884	0,000	59,654	0,000	672,540	5,143
14+10	5,461	0,000	56,728	0,000	729,268	5,143
15+0	5,473	0,000	54,670	0,000	783,938	5,143
15+10	5,629	0,000	55,509	0,000	839,447	5,143
16+0	5,567	0,000	55,982	0,000	895,429	5,143
16+10	5,343	0,000	54,551	0,000	949,980	5,143
17+0	4,772	0,000	50,575	0,000	1.000,555	5,143
17+10	4,520	0,000	46,459	0,000	1.047,013	5,143
18+0	4,567	0,000	45,435	0,000	1.092,448	5,143
18+10	4,640	0,012	46,039	0,062	1.138,487	5,205
19+0	4,290	0,034	44,650	0,234	1.183,136	5,438
19+4.448	4,143	0,051	18,753	0,190	1.201,889	5,628
19+10	6,795	0,062	30,362	0,313	1.232,251	5,941
19+14.852	5,440	0,000	29,682	0,150	1.261,934	6,091
20+0	0,000	0,000	14,004	0,000	1.275,937	6,091
20+3.243	10,244	0,000	16,611	0,000	1.292,548	6,091
20+10	5,209	0,002	52,209	0,006	1.344,758	6,098
20+13.106	4,221	0,006	14,645	0,011	1.359,403	6,109
21+0	4,766	0,000	30,976	0,019	1.390,379	6,128
21+10	5,622	0,000	51,935	0,000	1.442,314	6,128
22+0	5,490	0,000	55,559	0,000	1.497,873	6,128
22+10	4,397	0,000	49,438	0,000	1.547,311	6,128
23+0	3,662	0,001	40,294	0,007	1.587,605	6,135
23+10	3,781	0,006	37,213	0,038	1.624,818	6,172
24+0	3,652	0,017	37,166	0,117	1.661,983	6,289
24+10	2,559	0,074	31,055	0,456	1.693,038	6,745
25+0	2,413	0,130	24,859	1,022	1.717,897	7,766
25+10	3,172	0,175	27,925	1,526	1.745,821	9,292
25+10.246	3,200	0,174	0,784	0,043	1.746,605	9,335
<b>TOTAL</b>					<b>1.746,605</b>	<b>9,335</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA CARLOS G. JERKE (TRECHO 01)**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,903	0,042	0,000	0,000	0,000	0,000
0+10	1,669	0,101	12,858	0,714	12,858	0,714
1+0	2,985	0,111	23,268	1,060	36,126	1,774
1+10	3,591	0,079	32,880	0,947	69,006	2,720
2+0	3,300	0,041	34,457	0,597	103,462	3,317
2+10	2,622	0,010	0,000	0,000	103,462	3,317
3+0	2,282	0,000	24,520	0,051	127,982	3,368
3+10	2,411	0,000	23,466	0,000	151,447	3,368
4+0	2,957	0,121	26,840	0,606	178,287	3,974
4+10	6,559	0,463	47,576	2,920	225,862	6,893
5+0	0,000	0,000	32,793	2,314	258,655	9,207
5+10	3,512	0,021	17,562	0,107	276,217	9,314
6+0	2,929	0,009	32,206	0,150	308,423	9,463
6+10	2,935	0,132	29,318	0,702	337,741	10,165
7+0	3,114	0,245	30,242	1,886	367,983	12,050
7+10	3,447	0,099	32,803	1,722	400,786	13,772
8+0	4,292	0,000	38,692	0,495	439,478	14,266
8+10	3,154	0,047	37,229	0,233	476,707	14,499
9+0	2,733	0,070	29,434	0,585	506,141	15,084
9+10	3,143	0,033	29,379	0,516	535,519	15,600
10+0	3,530	0,000	33,364	0,164	568,883	15,763
10+10	3,580	0,000	35,548	0,000	604,431	15,763
11+0	3,703	0,041	36,416	0,207	640,847	15,970
11+10	3,302	0,018	35,026	0,299	675,872	16,269
11+16.37	3,139	0,148	20,515	0,530	696,387	16,798
12+0	5,041	0,243	14,847	0,709	711,234	17,508
12+1.138	3,403	0,000	4,804	0,138	716,038	17,646
12+10	2,867	0,000	27,782	0,000	743,820	17,646
13+0	6,694	0,000	47,807	0,000	791,627	17,646
13+10	7,382	0,000	70,381	0,000	862,007	17,646
13+14.716	7,406	0,000	34,871	0,000	896,879	17,646
14+0	3,947	0,223	29,996	0,588	926,875	18,233
14+10	3,651	0,325	37,993	2,738	964,867	20,971
15+0	4,056	0,087	38,539	2,058	1.003,406	23,029
15+10	3,803	0,007	39,298	0,467	1.042,703	23,496
16+0	3,472	0,132	36,374	0,695	1.079,077	24,191
16+10	4,136	0,070	38,037	1,011	1.117,114	25,202
17+0	6,490	0,000	53,130	0,352	1.170,244	25,553
17+10	5,220	0,000	58,550	0,002	1.228,793	25,555
17+18.903	7,213	0,000	55,346	0,000	1.284,139	25,555
18+0	7,158	0,000	7,882	0,000	1.292,022	25,555
18+10	6,694	0,000	69,259	0,000	1.361,280	25,555
19+0	7,038	0,000	68,661	0,000	1.429,941	25,555
19+1.24	7,080	0,000	8,753	0,000	1.438,693	25,555
19+10	0,000	0,000	31,008	0,000	1.469,702	25,555
19+13	0,000	0,000	0,000	0,000	1.469,702	25,555
<b>TOTAL</b>					<b>1.469,702</b>	<b>25,555</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA CARLOS G. JERKE (TRECHO 02)**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
20+7.444	8,082	0,241	0,000	0,000	0,000	0,000
20+10	6,655	0,374	18,833	0,786	18,833	0,786
21+0	3,861	0,266	52,580	3,204	71,413	3,990
21+10	3,374	0,501	36,176	3,836	107,589	7,826
22+0	2,499	2,979	29,366	17,400	136,955	25,226
22+10	5,964	0,000	42,319	14,897	179,273	40,122
22+18	6,430	0,000	49,576	0,000	228,849	40,122
23+0	3,685	0,342	10,114	0,342	238,964	40,464
23+10	3,715	0,279	37,000	3,106	275,964	43,570
24+0	3,795	0,211	37,552	2,450	313,516	46,020
24+10	4,089	0,134	39,421	1,723	352,937	47,743
25+0	4,708	0,003	43,986	0,684	396,922	48,427
25+10	5,142	0,000	49,248	0,016	446,170	48,442
26+0	5,263	0,000	52,024	0,000	498,194	48,442
26+10	5,463	0,000	53,632	0,000	551,825	48,442
27+0	5,127	0,006	52,954	0,029	604,779	48,471
27+10	0,000	0,000	25,637	0,029	630,416	48,500
27+10.598	0,000	0,000	0,000	0,000	630,416	48,500
28+3.651	6,371	0,015	41,581	0,097	671,997	48,597
28+10	3,624	0,000	0,000	0,000	671,997	48,597
28+14.722	6,099	0,000	22,955	0,000	694,952	48,597
29+0	5,882	0,000	31,617	0,000	726,569	48,597
29+10	5,706	0,000	57,939	0,000	784,508	48,597
30+0	5,683	0,000	56,944	0,000	841,452	48,597
30+10	5,415	0,000	55,493	0,000	896,944	48,597
31+0	4,953	0,001	51,841	0,007	948,785	48,604
31+10	4,789	0,005	48,707	0,030	997,491	48,634
32+0	5,341	0,001	50,646	0,030	1.048,137	48,663
32+10	5,467	0,000	54,037	0,007	1.102,174	48,670
33+0	5,349	0,000	54,081	0,000	1.156,255	48,670
33+10	5,000	0,000	51,746	0,000	1.208,001	48,670
34+0	4,688	0,000	48,440	0,000	1.256,441	48,670
34+10	4,336	0,000	45,120	0,000	1.301,560	48,670
35+0	4,244	0,000	42,897	0,000	1.344,457	48,670
35+10	4,540	0,000	43,916	0,000	1.388,373	48,670
35+19.158	5,093	0,010	44,106	0,044	1.432,479	48,713
<b>TOTAL</b>					<b>1.432,479</b>	<b>48,713</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA CARLOS VITOR HARDT**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	4,557	0,022	0,000	0,000	0,000	0,000
0+10	4,238	0,002	43,979	0,122	43,979	0,122
1+0	4,649	0,000	44,438	0,010	88,417	0,131
1+10	4,605	0,000	46,270	0,000	134,686	0,131
2+0	4,406	0,000	45,053	0,000	179,739	0,131
2+10	4,380	0,000	43,931	0,001	223,670	0,132
2+15.234	4,038	0,000	22,031	0,000	245,700	0,132
3+0	4,149	0,000	19,510	0,000	265,210	0,132
3+10	3,979	0,000	40,640	0,000	305,850	0,132
4+0	3,438	0,000	37,085	0,000	342,935	0,132
4+10	3,658	0,025	35,481	0,123	378,415	0,254
5+0	4,197	0,003	39,273	0,137	417,688	0,391
5+10	4,096	0,001	41,466	0,020	459,154	0,411
6+0	3,815	0,000	39,555	0,005	498,709	0,416
6+2.901	3,916	0,000	11,213	0,000	509,922	0,416
6+10	4,254	0,002	28,999	0,006	538,921	0,422
7+0	4,033	0,004	41,433	0,027	580,354	0,449
7+10	4,255	0,002	41,439	0,028	621,792	0,477
8+0	2,961	0,118	36,080	0,602	657,872	1,078
8+7.7	2,378	0,118	20,555	0,911	678,426	1,990
8+10	1,107	0,006	4,008	0,143	682,435	2,132
9+0	0,564	0,000	8,355	0,030	690,789	2,162
9+10	0,757	0,000	6,602	0,002	697,391	2,163
10+0	1,157	0,003	9,570	0,018	706,961	2,181
10+10	1,666	0,000	14,118	0,016	721,078	2,197
11+0	2,267	0,000	19,665	0,000	740,743	2,197
11+10	1,883	0,000	20,749	0,000	761,491	2,197
11+16.645	1,132	0,000	10,017	0,000	771,509	2,197
13+0	0,525	0,015	19,353	0,177	790,862	2,374
13+10	0,609	0,011	5,673	0,129	796,535	2,503
14+0	0,726	0,000	6,676	0,053	803,210	2,555
14+10	0,871	0,000	7,983	0,000	811,193	2,555
15+0	1,273	0,000	10,717	0,000	821,910	2,555
15+10	1,465	0,001	13,689	0,004	835,598	2,559
16+0	1,344	0,001	14,044	0,009	849,642	2,567
16+10	1,458	0,005	14,006	0,029	863,648	2,596
17+0	1,993	0,005	17,251	0,048	880,899	2,644
17+10	3,659	0,000	28,260	0,025	909,158	2,668
18+0	4,463	0,000	40,610	0,000	949,768	2,668
18+10	3,573	0,000	40,177	0,000	989,945	2,668
19+0	2,814	0,000	31,932	0,000	1.021,877	2,668
19+10	2,211	0,000	25,121	0,000	1.046,998	2,668
20+10	2,753	0,000	49,631	0,000	1.096,629	2,668
21+0	2,160	0,000	24,562	0,000	1.121,190	2,668
21+10	1,566	0,000	18,629	0,000	1.139,819	2,668
22+0	2,211	0,000	18,886	0,000	1.158,705	2,668
22+10	2,006	0,000	21,086	0,000	1.179,791	2,668
23+0	1,600	0,000	18,033	0,000	1.197,823	2,668
23+10	2,299	0,000	19,499	0,000	1.217,322	2,668
24+0	3,087	0,000	26,934	0,000	1.244,255	2,668
24+10	1,831	0,000	24,590	0,000	1.268,845	2,668
25+0	1,379	0,000	16,047	0,000	1.284,891	2,668
25+10	1,961	0,000	16,699	0,000	1.301,590	2,668
26+0	2,020	0,005	19,906	0,024	1.321,496	2,692
26+10	1,830	0,004	19,250	0,044	1.340,746	2,736
<b>TOTAL</b>					<b>1.340,746</b>	<b>2,736</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA**CÁLCULO DE VOLUMES****RUA CILEZIO R. SILVEIRA**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	9,514	0,029	0,000	0,000	0,000	0,000
0+10	4,862	0,000	71,882	0,144	71,882	0,144
1+0	4,540	0,000	47,009	0,000	118,891	0,144
1+10	4,249	0,000	43,943	0,000	162,834	0,144
2+0	4,027	0,000	41,380	0,000	204,214	0,144
2+10	3,750	0,000	38,885	0,000	243,099	0,144
3+0	3,306	0,035	35,279	0,173	278,378	0,317
3+10	3,396	0,060	33,510	0,474	311,887	0,791
4+0	4,333	0,025	38,647	0,427	350,534	1,217
4+9.056	11,096	0,046	69,864	0,321	420,398	1,538
<b>TOTAL</b>					<b>420,398</b>	<b>1,538</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES  
RUA COMANDANTE KARL BUSCH**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	3,266	0,000	0,000	0,000	0,000	0,000
0+10	2,234	0,003	27,498	0,014	27,498	0,014
1+0	3,000	0,000	26,168	0,014	53,666	0,027
1+10	1,986	0,000	24,930	0,000	78,596	0,027
1+14.842	1,574	0,000	8,618	0,000	87,214	0,027
1+18.385	4,843	0,000	11,367	0,000	98,581	0,027
2+0	4,217	0,000	7,315	0,000	105,896	0,027
2+10	3,196	0,000	37,063	0,000	142,959	0,027
2+18.845	2,821	0,000	26,611	0,000	169,570	0,027
3+0	2,932	0,204	3,322	0,118	172,892	0,145
3+10	2,907	0,289	29,192	2,463	202,084	2,608
4+0	2,844	0,317	28,752	3,029	230,836	5,636
4+10	2,675	0,341	27,591	3,288	258,426	8,924
5+0	2,978	0,189	28,261	2,648	286,687	11,572
5+10	4,403	0,058	36,901	1,233	323,588	12,805
5+11.979	6,496	0,043	10,784	0,100	334,372	12,905
5+14.24	3,048	0,031	10,790	0,083	345,163	12,988
6+4.331	3,354	0,049	32,301	0,400	377,464	13,388
6+10	4,210	0,042	21,439	0,257	398,903	13,644
7+0	5,413	0,000	48,114	0,210	447,017	13,854
7+10	6,145	0,000	57,790	0,000	504,807	13,854
8+0	4,996	0,000	55,704	0,000	560,510	13,854
8+10	4,604	0,000	47,997	0,000	608,507	13,854
9+0	5,582	0,000	0,000	0,000	608,507	13,854
9+10	5,873	0,000	57,275	0,000	665,782	13,854
9+17.323	5,908	0,000	43,135	0,000	708,917	13,854
10+0	2,446	0,006	11,181	0,008	720,098	13,862
10+13.678	2,966	0,070	37,011	0,517	757,109	14,379
10+13.678	3,012	0,062	0,000	0,000	757,109	14,379
10+18.069	5,687	0,004	19,098	0,145	776,207	14,524
11+0	5,151	0,000	10,464	0,004	786,671	14,528
11+10	5,034	0,000	50,924	0,000	837,595	14,528
12+0	5,079	0,000	50,567	0,000	888,162	14,528
12+10	5,309	0,000	51,942	0,000	940,104	14,528
13+0	5,135	0,000	52,220	0,000	992,323	14,528
13+10	5,089	0,000	51,117	0,000	1.043,440	14,528
14+0	4,955	0,000	50,216	0,000	1.093,656	14,528
14+10	4,333	0,014	46,439	0,072	1.140,095	14,600
15+0	7,105	0,037	57,193	0,254	1.197,287	14,854
15+0.471	7,913	0,051	3,537	0,021	1.200,824	14,874
15+9.374	8,204	0,255	71,744	1,361	1.272,568	16,235
15+10	7,442	0,270	4,897	0,164	1.277,465	16,399
16+0	4,805	0,012	61,232	1,409	1.338,697	17,808
16+10	5,203	0,000	50,038	0,058	1.388,735	17,865
17+0	5,599	0,000	54,010	0,000	1.442,744	17,865
17+10	5,548	0,004	55,732	0,022	1.498,476	17,887
18+0	5,724	0,000	56,356	0,022	1.554,832	17,908
18+10	5,740	0,000	57,320	0,000	1.612,152	17,908
19+0	5,614	0,000	56,770	0,000	1.668,922	17,908
19+10	5,411	0,000	55,121	0,000	1.724,043	17,908
20+0	5,236	0,044	53,231	0,218	1.777,274	18,126
20+10	5,177	0,030	52,063	0,367	1.829,337	18,492
21+0	5,133	0,012	51,549	0,207	1.880,885	18,699
21+10	5,023	0,002	50,779	0,067	1.931,664	18,765
22+0	5,179	0,000	51,007	0,009	1.982,671	18,774
22+10	5,436	0,000	53,071	0,000	2.035,742	18,774
23+0	5,479	0,000	54,575	0,000	2.090,316	18,774
23+10	5,362	0,000	54,209	0,000	2.144,525	18,774
24+0	5,199	0,000	52,806	0,000	2.197,330	18,774
24+10	5,234	0,000	52,163	0,000	2.249,493	18,774
24+13.361	5,348	0,000	17,783	0,000	2.267,276	18,774
25+0	7,615	1,155	43,032	3,835	2.310,308	22,609
25+1.109	9,650	0,648	9,574	1,000	2.319,881	23,609
25+11.319	6,803	0,000	83,995	3,309	2.403,876	26,918
25+19.545	6,384	0,000	54,238	0,000	2.458,114	26,918
26+0	6,333	0,000	2,893	0,000	2.461,007	26,918
26+10	5,914	0,000	61,233	0,000	2.522,239	26,918
27+0	5,092	0,001	55,032	0,003	2.577,271	26,921
27+10	4,210	0,075	46,510	0,376	2.623,781	27,297
28+0	3,659	0,031	39,343	0,530	2.663,123	27,826
28+10	3,650	0,074	36,545	0,525	2.699,668	28,351
29+0	3,787	0,090	37,185	0,820	2.736,853	29,170
29+10	4,771	0,304	42,789	1,969	2.779,642	31,139
30+0	4,616	0,023	46,934	1,631	2.826,576	32,770
30+10	4,229	0,112	44,224	0,673	2.870,800	33,443
31+0	4,360	0,155	42,944	1,335	2.913,744	34,778



**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA COMANDANTE KARL BUSCH**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
31+10	4,463	0,105	44,112	1,299	2.957,856	36,077
32+0	4,844	0,037	46,531	0,707	3.004,387	36,783
32+10	5,644	0,000	52,441	0,184	3.056,828	36,967
33+0	6,685	0,000	61,645	0,000	3.118,473	36,967
33+10	7,416	0,000	70,504	0,000	3.188,976	36,967
33+12.364	7,506	0,000	17,638	0,000	3.206,614	36,967
<b>TOTAL</b>					<b>3.004,387</b>	<b>36,783</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA DANTE NAZATO

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
23+0	0.00	0.00	0,000	0,000	0,000	0,000
29+10	2.40	0.08	156,000	5,200	156,000	5,200
29+14.544	2.27	0.02	10,610	0,227	166,610	5,427
30+0	2.12	0.03	11,976	0,136	178,586	5,564
30+10	1.83	0.03	19,750	0,300	198,336	5,864
31+0	1.08	0.04	14,550	0,350	212,886	6,214
31+10	0.58	0.00	8,300	0,200	221,186	6,414
32+0	0.43	0.02	5,050	0,100	226,236	6,514
32+10	0.86	0.05	6,450	0,350	232,686	6,864
33+0	1.83	0.05	13,450	0,500	246,136	7,364
33+10	1.87	0.02	18,500	0,350	264,636	7,714
34+0	1.18	0.01	15,250	0,150	279,886	7,864
34+10	0.84	0.00	10,100	0,050	289,986	7,914
35+0	0.94	0.00	8,900	0,000	298,886	7,914
35+10	1.04	0.00	9,900	0,000	308,786	7,914
36+0	1.01	0.00	10,250	0,000	319,036	7,914
36+9.319	0.69	0.00	7,921	0,000	326,957	7,914
36+10	0.67	0.00	0,463	0,000	327,420	7,914
37+0	1.65	0.00	11,600	0,000	339,020	7,914
37+10	1.69	0.00	16,700	0,000	355,720	7,914
38+0	0.97	0.09	13,300	0,450	369,020	8,364
38+10	0.93	0.00	9,500	0,450	378,520	8,814
39+0	5.65	0.00	32,900	0,000	411,420	8,814
39+10	4.59	0.00	51,200	0,000	462,620	8,814
40+0	3.30	0.00	39,450	0,000	502,070	8,814
40+10	3.35	0.00	33,250	0,000	535,320	8,814
41+0	4.00	0.00	36,750	0,000	572,070	8,814
41+10	3.18	0.00	35,900	0,000	607,970	8,814
42+0	3.55	0.00	33,650	0,000	641,620	8,814
42+10	3.73	0.00	36,400	0,000	678,020	8,814
43+0	4.60	0.00	41,650	0,000	719,670	8,814
43+10	4.60	0.00	46,000	0,000	765,670	8,814
44+0	4.58	0.00	45,900	0,000	811,570	8,814
44+10	3.40	0.00	39,900	0,000	851,470	8,814
45+0	3.63	0.00	35,150	0,000	886,620	8,814
45+10	4.03	0.00	38,300	0,000	924,920	8,814
46+0	4.12	0.00	40,750	0,000	965,670	8,814
46+2.82	3.51	0.03	10,758	0,042	976,429	8,856
46+10	2.67	0.00	22,186	0,108	998,615	8,964
47+0	3.86	0.00	32,650	0,000	1.031,265	8,964
47+1.944	4.18	0.00	7,815	0,000	1.039,080	8,964
47+4.546	4.35	0.00	11,098	0,000	1.050,177	8,964
47+10	2.35	0.01	18,271	0,027	1.068,448	8,991
48+0	2.49	0.00	24,200	0,050	1.092,648	9,041
48+10	2.68	0.00	25,850	0,000	1.118,498	9,041
49+0	2.54	0.03	26,100	0,150	1.144,598	9,191
49+10	2.43	0.05	24,850	0,400	1.169,448	9,591
50+0	2.29	0.02	23,600	0,350	1.193,048	9,941
50+10	2.18	0.00	22,350	0,100	1.215,398	10,041
51+0	2.56	0.03	23,700	0,150	1.239,098	10,191
51+10	3.30	0.04	29,300	0,350	1.268,398	10,541
52+0	3.00	0.00	31,500	0,200	1.299,898	10,741
52+10	1.49	0.10	22,450	0,500	1.322,348	11,241
53+0	2.45	0.00	19,700	0,500	1.342,048	11,741
53+10	1.42	0.03	19,350	0,150	1.361,398	11,891
54+0	2.95	0.07	21,850	0,500	1.383,248	12,391
54+10	3.09	0.03	30,200	0,500	1.413,448	12,891
55+0	2.55	0.03	28,200	0,300	1.441,648	13,191
55+10	2.32	0.02	24,350	0,250	1.465,998	13,441
56+0	3.35	0.00	28,350	0,100	1.494,348	13,541
56+10	0.00	0.00	16,750	0,000	1.511,098	13,541
57+0	0.00	0.00	0,000	0,000	1.511,098	13,541
57+10	0.00	0.00	0,000	0,000	1.511,098	13,541
58+0	1.58	0.29	7,900	1,450	1.518,998	14,991
58+10	1.44	0.38	15,100	3,350	1.534,098	18,341
59+0	1.09	0.30	12,650	3,400	1.546,748	21,741
59+10	0.80	0.30	9,450	3,000	1.556,198	24,741
60+0	0.57	0.24	6,850	2,700	1.563,048	27,441
60+10	0.00	0.37	2,850	3,050	1.565,898	30,491
61+0	0.04	0.24	0,200	3,050	1.566,098	33,541
61+10	0.31	0.05	1,750	1,450	1.567,848	34,991
62+0	0.53	0.08	4,200	0,650	1.572,048	35,641
62+10	0.74	0.07	6,350	0,750	1.578,398	36,391
63+0	1.19	0.08	9,650	0,750	1.588,048	37,141
63+4.869	4.45	0.00	13,731	0,195	1.601,779	37,336
63+10	3.65	0.00	20,781	0,000	1.622,559	37,336

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA DANTE NAZATO**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
63+17.35	2.61	0.00	23,005	0,000	1.645,565	37,336
64+0	1.24	0.00	5,101	0,000	1.650,666	37,336
64+10	1.79	0.00	15,150	0,000	1.665,816	37,336
65+0	0.35	0.00	10,700	0,000	1.676,516	37,336
65+4.396	0.30	0.67	1,429	1,473	1.677,945	38,808
65+10	0.24	0.92	1,513	4,455	1.679,458	43,263
66+0	0.21	0.91	2,250	9,150	1.681,708	52,413
66+10	0.30	0.92	2,550	9,150	1.684,258	61,563
67+0	0.78	0.47	5,400	6,950	1.689,658	68,513
67+10	1.33	0.38	10,550	4,250	1.700,208	72,763
68+0	1.31	0.00	13,200	1,900	1.713,408	74,663
68+10	0.98	0.01	11,450	0,050	1.724,858	74,713
68+18.418	5.86	0.37	28,790	1,599	1.753,647	76,313
68+19.473	5.84	0.35	6,172	0,380	1.759,819	76,693
69+10	5.67	0.32	60,583	3,527	1.820,402	80,219
70+0	5.43	0.36	55,500	3,400	1.875,902	83,619
70+10	5.42	0.20	54,250	2,800	1.930,152	86,419
71+0	5.18	0.41	53,000	3,050	1.983,152	89,469
71+9.032	5.12	0.92	46,515	6,006	2.029,667	95,476
71+10	4.38	0.04	4,598	0,465	2.034,265	95,940
72+0	4.94	0.00	46,600	0,200	2.080,865	96,140
72+10	4.94	0.00	49,400	0,000	2.130,265	96,140
73+0	6.98	0.19	59,600	0,950	2.189,865	97,090
73+10	7.48	0.08	72,300	1,350	2.262,165	98,440
74+0	7.74	0.02	76,100	0,500	2.338,265	98,940
74+10	7.79	0.04	77,650	0,300	2.415,915	99,240
75+0	7.14	0.06	74,650	0,500	2.490,565	99,740
75+0.86	7.09	0.06	6,119	0,052	2.496,684	99,792
75+10	5.35	0.00	56,851	0,274	2.553,535	100,066
76+0	6.28	0.00	58,150	0,000	2.611,685	100,066
76+10	6.67	0.00	64,750	0,000	2.676,435	100,066
76+10.433	8.04	0.05	3,185	0,011	2.679,619	100,077
77+0	8.96	0.03	81,320	0,383	2.760,939	100,459
77+10	9.29	0.02	91,250	0,250	2.852,189	100,709
78+0	8.57	0.04	89,300	0,300	2.941,489	101,009
78+10	8.00	0.07	82,850	0,550	3.024,339	101,559
79+0	7.66	0.10	78,300	0,850	3.102,639	102,409
79+10	7.25	0.12	74,550	1,100	3.177,189	103,509
80+0	6.89	0.11	70,700	1,150	3.247,889	104,659
80+10	12.92	0.08	99,050	0,950	3.346,939	105,609
80+12.527	22.21	0.11	44,387	0,240	3.391,326	105,850
<b>TOTAL</b>					<b>3.391,326</b>	<b>105,850</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA DELIRIO BERTELL**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+10	2.52	0.01	0,000	0,000	0,000	0,000
1+0	2.20	0.11	23,600	0,600	23,600	0,600
1+10	1.94	0.21	20,700	1,600	44,300	2,200
2+0	1.58	0.21	17,600	2,100	61,900	4,300
2+10	1.35	0.17	14,650	1,900	76,550	6,200
3+0	1.06	0.17	12,050	1,700	88,600	7,900
3+10	1.08	0.00	10,700	0,850	99,300	8,750
4+0	2.84	0.00	19,600	0,000	118,900	8,750
4+3.385	3.19	0.04	10,206	0,068	129,106	8,818
<b>TOTAL</b>					<b>129,106</b>	<b>8,818</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA DR MAURO MOURA

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+3.956	6,006	0,000	0,000	0,000	0,000	0,000
0+10	4,943	0,000	33,090	0,000	33,090	0,000
1+0	4,580	0,000	47,616	0,000	80,705	0,000
1+10	3,847	0,000	42,134	0,000	122,839	0,000
2+0	1,402	0,001	26,244	0,004	149,083	0,004
2+10	3,095	0,000	22,482	0,004	171,564	0,007
3+0	4,744	0,000	39,193	0,000	210,757	0,007
3+10	4,618	0,000	46,812	0,000	257,569	0,007
4+0	3,882	0,000	42,500	0,000	300,068	0,007
4+10	3,255	0,000	35,683	0,000	335,751	0,007
5+0	2,818	0,000	30,365	0,000	366,116	0,007
5+10	3,302	0,000	30,598	0,000	396,714	0,007
6+0	3,779	0,000	35,404	0,000	432,118	0,007
6+10	4,250	0,000	40,144	0,000	472,261	0,007
7+0	4,284	0,002	42,669	0,008	514,930	0,015
7+10	4,483	0,008	43,836	0,049	558,766	0,064
7+17.513	3,330	0,000	29,351	0,031	588,117	0,095
8+13.509	3,786	0,000	0,000	0,000	588,117	0,095
8+17.383	3,289	0,000	13,704	0,000	601,821	0,095
9+0	2,851	0,149	8,034	0,195	609,854	0,290
9+10	3,492	0,209	31,716	1,791	641,570	2,081
10+0	3,680	0,243	35,860	2,258	677,430	4,339
10+10	3,994	0,269	38,369	2,556	715,799	6,895
11+0	4,452	0,284	42,233	2,762	758,031	9,657
11+10	4,562	0,236	45,071	2,601	803,102	12,257
12+0	4,686	0,158	46,236	1,974	849,338	14,231
12+10	4,838	0,095	47,619	1,268	896,957	15,498
13+0	4,854	0,048	48,463	0,716	945,420	16,214
13+10	4,536	0,017	46,950	0,324	992,369	16,538
14+0	4,207	0,002	43,715	0,092	1.036,084	16,630
14+10	4,133	0,000	41,702	0,008	1.077,786	16,638
15+0	4,819	0,000	44,761	0,002	1.122,547	16,640
15+10	5,093	0,016	49,562	0,083	1.172,109	16,723
16+0	5,051	0,059	50,719	0,378	1.222,827	17,101
16+10	4,972	0,134	50,114	0,969	1.272,941	18,070
17+0	5,085	0,240	50,285	1,870	1.323,225	19,940
17+10	4,730	0,332	49,076	2,856	1.372,301	22,796
17+12.834	4,604	0,355	13,227	0,973	1.385,528	23,768
18+0	4,105	0,000	31,204	1,273	1.416,732	25,041
18+10	4,639	0,000	43,718	0,001	1.460,450	25,042
19+0	5,170	0,015	49,043	0,073	1.509,493	25,115
19+8.758	5,493	0,000	46,691	0,064	1.556,184	25,179
19+10	5,489	0,000	6,820	0,000	1.563,003	25,179
20+0	5,020	0,000	52,542	0,000	1.615,545	25,179
20+10	5,249	0,000	51,344	0,000	1.666,889	25,179
21+0	5,641	0,000	54,448	0,000	1.721,337	25,179
21+10	5,943	0,000	57,921	0,000	1.779,257	25,179
22+0	5,884	0,000	59,137	0,000	1.838,394	25,179
22+10	6,189	0,000	60,366	0,000	1.898,759	25,179
23+0	6,588	0,000	63,887	0,000	1.962,646	25,179
23+10	6,893	0,000	67,408	0,000	2.030,053	25,179
24+0	6,685	0,000	67,894	0,000	2.097,947	25,179
24+10	6,240	0,000	64,626	0,000	2.162,573	25,179
25+0	5,087	0,000	56,636	0,000	2.219,208	25,179
25+10	3,482	0,002	42,848	0,012	2.262,056	25,191
25+18.173	3,743	0,005	29,527	0,029	2.291,582	25,220
26+0	3,691	0,009	6,791	0,013	2.298,374	25,232
26+10	3,284	0,067	34,875	0,383	2.333,248	25,615
26+18.938	3,469	0,148	30,179	0,962	2.363,427	26,577
27+0	3,433	0,157	3,665	0,162	2.367,092	26,739
27+10	3,376	0,174	34,047	1,656	2.401,139	28,395
28+0	3,370	0,174	33,730	1,737	2.434,869	30,131
28+10	3,373	0,114	33,717	1,436	2.468,586	31,567
29+0	3,760	0,045	35,666	0,795	2.504,251	32,362
29+10	4,311	0,000	40,353	0,227	2.544,604	32,589
30+0	4,947	0,000	46,286	0,000	2.590,890	32,589
30+10	5,622	0,000	52,842	0,000	2.643,732	32,589
31+0	5,520	0,000	55,711	0,000	2.699,443	32,589
31+10	5,315	0,000	54,176	0,000	2.753,618	32,589
32+0	5,001	0,000	51,579	0,000	2.805,197	32,589
32+10	4,816	0,019	49,086	0,097	2.854,282	32,685
33+0	5,094	0,051	49,550	0,349	2.903,832	33,034
33+10	10,415	0,000	77,543	0,253	2.981,375	33,287
34+0	10,082	0,000	102,484	0,000	3.083,859	33,287
34+10	11,403	0,016	107,424	0,082	3.191,283	33,369
35+0	10,555	0,040	109,790	0,282	3.301,072	33,651

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA DR MAURO MOURA**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
35+10	9,777	0,057	101,658	0,487	3.402,730	34,137
36+0	9,068	0,084	94,222	0,708	3.496,952	34,845
36+10	9,367	0,100	92,174	0,921	3.589,126	35,766
37+0	10,375	0,089	98,709	0,942	3.687,835	36,708
37+10	11,595	0,079	109,851	0,840	3.797,685	37,547
38+0	13,028	0,071	123,116	0,754	3.920,801	38,301
38+10	13,252	0,048	131,397	0,596	4.052,198	38,896
39+0	13,055	0,031	131,530	0,394	4.183,728	39,290
39+10	12,836	0,019	129,454	0,248	4.313,181	39,538
40+0	12,760	0,006	127,979	0,125	4.441,160	39,663
40+10	12,479	0,016	126,193	0,112	4.567,353	39,775
41+0	12,336	0,012	124,074	0,139	4.691,427	39,914
41+10	12,576	0,009	124,558	0,105	4.815,985	40,018
42+0	12,569	0,014	125,723	0,115	4.941,707	40,133
42+4.323	9,416	0,052	47,519	0,142	4.989,227	40,275
<b>TOTAL</b>					<b>4.989,227</b>	<b>40,275</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA**CÁLCULO DE VOLUMES****RUA EDSON A. DA SILVA**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0.026	9,705	0,011	0,000	0,000	0,000	0,000
0+10	3,495	0,020	65,828	0,155	65,828	0,155
1+0	3,724	0,016	36,095	0,180	101,922	0,335
1+10	3,762	0,009	37,426	0,124	139,348	0,459
2+0	3,222	0,027	34,916	0,178	174,263	0,637
2+10	2,997	0,036	31,093	0,315	205,356	0,951
3+0	3,372	0,016	31,846	0,261	237,202	1,212
3+10	3,539	0,014	34,557	0,152	271,759	1,363
4+0	3,583	0,030	35,614	0,222	307,372	1,585
4+10	3,542	0,030	35,625	0,302	342,997	1,887
5+0	4,191	0,014	38,664	0,222	381,661	2,109
5+10	4,445	0,009	43,179	0,113	424,840	2,222
5+19.348	4,634	0,018	42,433	0,124	467,273	2,346
<b>TOTAL</b>					<b>467,273</b>	<b>2,346</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA ERNESTO HANCH**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	8,233	0,134	0,000	0,000	0,000	0,000
0+10	4,759	0,282	64,960	2,083	64,960	2,083
1+0	4,157	0,113	44,580	1,975	109,540	4,058
1+10	5,056	0,000	46,062	0,563	155,602	4,621
2+0	6,245	0,000	56,501	0,000	212,102	4,621
2+10	5,459	0,000	58,516	0,002	270,618	4,622
3+0	5,869	0,000	56,636	0,002	327,253	4,624
3+10	6,604	0,000	62,365	0,000	389,618	4,624
4+0	6,574	0,000	65,891	0,000	455,509	4,624
4+10	6,971	0,000	67,725	0,000	523,234	4,624
5+0	6,405	0,000	66,882	0,000	590,116	4,624
5+10	5,639	0,001	60,223	0,006	650,338	4,630
6+0	5,449	0,071	55,441	0,363	705,779	4,993
6+10	5,364	0,158	54,066	1,147	759,844	6,140
7+0	5,398	0,000	53,812	0,790	813,656	6,930
7+10	5,690	0,083	55,441	0,413	869,097	7,342
8+0	6,089	0,000	58,894	0,413	927,991	7,755
8+10	6,525	0,000	63,068	0,000	991,059	7,755
9+0	6,815	0,000	66,698	0,000	1.057,757	7,755
9+2.978	6,957	0,000	20,507	0,000	1.078,264	7,755
9+10	7,829	0,547	51,916	1,921	1.130,179	9,675
9+11.358	4,219	0,501	0,000	0,000	1.130,179	9,675
10+1.525	11,146	0,031	78,110	2,705	1.208,289	12,381
10+9.177	6,588	0,073	67,850	0,398	1.276,139	12,779
10+10	6,570	0,080	5,414	0,063	1.281,554	12,842
11+0	5,986	0,211	62,778	1,458	1.344,331	14,300
11+10	5,181	0,263	55,832	2,373	1.400,163	16,672
12+0	4,834	0,140	50,074	2,016	1.450,236	18,688
12+10	5,328	0,032	50,812	0,858	1.501,048	19,546
13+0	5,809	0,063	55,687	0,475	1.556,734	20,021
13+10	6,138	0,001	59,734	0,321	1.616,468	20,341
14+0	6,308	0,000	62,228	0,005	1.678,695	20,346
14+10	5,386	0,025	58,470	0,127	1.737,165	20,473
15+0	4,640	0,401	50,131	2,129	1.787,296	22,602
15+10	3,670	0,988	41,553	6,942	1.828,849	29,543
16+0	3,665	0,776	36,675	8,817	1.865,523	38,360
16+10	5,055	0,307	43,597	5,413	1.909,120	43,773
17+0	4,936	0,106	49,956	2,063	1.959,075	45,836
17+10	4,875	0,133	49,058	1,194	2.008,133	47,030
18+0	4,907	0,345	48,910	2,392	2.057,043	49,421
18+6.369	5,056	0,129	31,726	1,510	2.088,769	50,931
<b>TOTAL</b>					<b>2.088,769</b>	<b>50,931</b>



**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA EWALDO EICHHOLZ**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
0+0	0.74	0.00	0,000	0,000	0,000	0,000
0+10	2.22	0.00	14,800	0,000	14,800	0,000
1+0	5.18	0.00	37,000	0,000	51,800	0,000
1+10	4.36	0.04	47,700	0,200	99,500	0,200
2+0	6.18	0.00	52,700	0,200	152,200	0,400
2+10	7.35	0.00	67,650	0,000	219,850	0,400
3+0	7.16	0.00	72,550	0,000	292,400	0,400
3+10	7.99	0.00	75,750	0,000	368,150	0,400
4+0	10.02	0.03	90,050	0,150	458,200	0,550
4+10	10.02	0.14	100,200	0,850	558,400	1,400
5+0	8.15	0.50	90,850	3,200	649,250	4,600
5+10	7.70	0.06	79,250	2,800	728,500	7,400
6+0	0.53	0.05	41,150	0,550	769,650	7,950
6+10	0.39	0.02	4,600	0,350	774,250	8,300
7+0	0.18	0.02	2,850	0,200	777,100	8,500
7+10	0.53	0.03	3,550	0,250	780,650	8,750
8+0	0.57	0.12	5,500	0,750	786,150	9,500
8+10	1.01	0.23	7,900	1,750	794,050	11,250
9+0	0.87	0.30	9,400	2,650	803,450	13,900
9+10	0.60	0.14	7,350	2,200	810,800	16,100
10+0	0.42	0.03	5,100	0,850	815,900	16,950
10+10	0.58	0.00	0,000	0,000	815,900	16,950
10+19.251	0.00	0.00	2,683	0,000	818,583	16,950
<b>TOTAL</b>					<b>818,583</b>	<b>16,950</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES  
RUA FRANCISCO MOSER**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	4,662	0,000	0,000	0,000	0,000	0,000
0+10	3,360	0,000	40,113	0,000	40,113	0,000
1+0	3,989	0,017	36,746	0,083	76,859	0,083
1+10	3,863	0,081	39,259	0,487	116,118	0,570
2+0	4,398	0,123	41,305	1,020	157,422	1,590
2+10	3,940	0,108	41,688	1,154	199,110	2,744
3+0	4,331	0,054	41,353	0,810	240,463	3,553
3+10	4,908	0,042	46,197	0,480	286,659	4,033
4+0	4,020	0,091	44,643	0,661	331,302	4,694
4+10	3,055	0,119	35,379	1,049	366,681	5,742
5+0	2,672	0,093	28,638	1,063	395,318	6,805
5+10	2,865	0,017	27,684	0,552	423,002	7,356
6+0	3,328	0,000	30,965	0,085	453,967	7,441
6+10	3,238	0,000	32,830	0,000	486,797	7,441
7+0	3,126	0,004	31,819	0,018	518,616	7,459
7+10	3,411	0,002	32,688	0,029	551,304	7,488
8+0	3,485	0,000	34,482	0,011	585,786	7,499
8+10	3,255	0,006	33,702	0,029	619,488	7,528
9+0	3,092	0,111	31,739	0,582	651,226	8,110
9+10	3,466	0,069	32,793	0,899	684,019	9,009
10+0	3,382	0,036	34,241	0,526	718,260	9,535
10+10	3,035	0,052	32,082	0,443	750,341	9,977
11+0	2,535	0,079	27,848	0,655	778,189	10,632
11+10	2,810	0,110	26,725	0,941	804,914	11,573
11+12.352	2,910	0,121	6,726	0,272	811,640	11,844
12+0	3,745	0,138	25,445	0,991	837,085	12,835
12+10	4,566	0,078	41,550	1,081	878,635	13,916
13+0	4,894	0,054	47,297	0,659	925,931	14,575
13+10	4,601	0,047	47,476	0,503	973,407	15,078
14+0	5,610	0,024	51,058	0,356	1,024,465	15,434
14+10	5,836	0,000	57,231	0,121	1,081,696	15,555
15+0	5,199	0,000	55,178	0,000	1,136,873	15,555
15+2.015	5,125	0,000	10,402	0,000	1,147,275	15,555
15+10	5,695	0,000	43,199	0,001	1,190,474	15,556
16+0	5,774	0,005	57,346	0,026	1,247,820	15,582
16+10	5,403	0,007	55,882	0,061	1,303,702	15,643
17+0	4,676	0,001	50,395	0,041	1,354,096	15,684
17+10	4,557	0,000	46,165	0,005	1,400,261	15,689
18+0	5,147	0,000	48,518	0,000	1,448,779	15,689
18+4.557	5,219	0,000	23,619	0,000	1,472,399	15,689
18+10	5,076	0,006	28,018	0,016	1,500,417	15,704
19+0	4,363	0,058	47,194	0,321	1,547,611	16,025
19+10	3,641	0,041	40,019	0,498	1,587,630	16,523
20+0	3,235	0,007	34,380	0,243	1,622,010	16,765
20+10	3,122	0,014	31,786	0,108	1,653,796	16,873
21+0	3,424	0,013	32,732	0,138	1,686,527	17,011
21+10	3,635	0,026	35,298	0,196	1,721,825	17,207
22+0	3,801	0,049	37,180	0,377	1,759,005	17,584
22+10	4,162	0,051	39,813	0,500	1,798,817	18,084
23+0	4,030	0,044	40,959	0,471	1,839,776	18,555
23+10	3,967	0,038	39,986	0,410	1,879,761	18,965
24+0	3,901	0,059	39,339	0,487	1,919,100	19,452
24+10	3,440	0,076	36,703	0,673	1,955,803	20,125
25+0	3,211	0,015	33,255	0,450	1,989,058	20,575
25+10	2,650	0,001	29,305	0,076	2,018,362	20,650
25+10.967	2,691	0,001	2,583	0,001	2,020,945	20,651
26+0	3,094	0,009	26,129	0,044	2,047,074	20,695
26+10	3,709	0,015	34,016	0,120	2,081,090	20,815
27+0	4,062	0,000	38,854	0,074	2,119,944	20,889
27+10	4,394	0,000	42,275	0,000	2,162,219	20,889
28+0	4,865	0,000	46,293	0,000	2,208,512	20,889
28+10	4,221	0,000	45,428	0,000	2,253,940	20,889
28+14.437	0,000	0,000	9,363	0,000	2,263,303	20,889
29+0	0,000	0,000	0,000	0,000	2,263,303	20,889
29+10	0,000	0,000	0,000	0,000	2,263,303	20,889
30+0	3,080	0,000	15,401	0,000	2,278,704	20,889
30+5.809	5,886	0,002	26,041	0,006	2,304,745	20,894
30+10	5,370	0,014	23,586	0,034	2,328,331	20,928
31+0	3,896	0,095	46,330	0,549	2,374,660	21,477
31+6.852	2,904	0,075	23,297	0,582	2,397,957	22,059
31+10	2,551	0,058	8,587	0,208	2,406,544	22,267
32+0	2,848	0,050	26,998	0,537	2,433,542	22,804
32+10	2,551	0,088	26,997	0,690	2,460,539	23,494
33+0	2,131	0,165	23,409	1,265	2,483,947	24,758
33+10	2,405	0,114	22,679	1,392	2,506,626	26,150
34+0	2,969	0,409	26,872	2,614	2,533,498	28,764

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA FRANCISCO MOSER**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
34+10	2,843	0,064	29,060	2,363	2.562,557	31,126
35+0	4,061	0,006	34,520	0,348	2.597,077	31,474
35+10	4,735	0,007	43,980	0,066	2.641,057	31,540
35+16.88	3,662	0,000	28,885	0,024	2.669,942	31,564
36+0	2,848	0,099	10,157	0,155	2.680,099	31,718
36+10	3,923	0,000	33,857	0,496	2.713,956	32,214
37+0	4,241	0,001	40,822	0,005	2.754,777	32,219
37+10	5,781	0,000	50,109	0,005	2.804,886	32,224
37+14.358	3,692	0,192	20,640	0,417	2.825,526	32,642
38+0	2,637	0,137	17,852	0,926	2.843,378	33,568
38+10	2,981	0,096	28,090	1,165	2.871,468	34,733
39+0	3,240	0,047	31,105	0,714	2.902,573	35,447
39+10	6,254	0,001	47,468	0,239	2.950,041	35,685
40+0	6,914	0,034	65,838	0,173	3.015,878	35,858
40+10	5,590	0,131	62,518	0,824	3.078,396	36,682
41+0	3,039	0,314	43,143	2,226	3.121,539	38,908
41+10	1,319	0,741	21,792	5,273	3.143,330	44,181
42+0	1,702	0,659	15,109	6,996	3.158,439	51,177
42+10	3,542	0,488	26,220	5,733	3.184,659	56,909
43+0	8,396	0,064	59,687	2,760	3.244,346	59,669
43+10	9,443	0,024	89,192	0,441	3.333,537	60,110
44+0	10,601	0,006	100,216	0,153	3.433,753	60,263
44+10	8,356	0,076	94,782	0,411	3.528,535	60,674
45+0	7,962	0,068	81,590	0,717	3.610,125	61,391
45+10	7,451	0,061	77,066	0,642	3.687,190	62,032
45+19.068	7,730	0,088	68,831	0,676	3.756,021	62,708
46+0	7,769	0,091	7,223	0,084	3.763,243	62,791
46+10	7,586	0,124	76,777	1,076	3.840,020	63,867
47+0	6,634	0,160	71,099	1,418	3.911,119	65,285
47+2.379	6,382	0,166	15,482	0,387	3.926,601	65,672
47+10	5,580	0,189	45,580	1,350	3.972,181	67,022
48+0	5,586	0,134	55,832	1,614	4.028,013	68,636
48+5.691	5,858	0,085	32,566	0,623	4.060,579	69,259
48+10	6,031	0,055	25,615	0,302	4.086,194	69,561
49+0	6,271	0,035	61,508	0,451	4.147,702	70,012
49+7.45	6,297	0,047	46,815	0,305	4.194,517	70,317
49+10	6,283	0,051	16,039	0,125	4.210,556	70,442
49+16.076	6,196	0,061	37,912	0,342	4.248,469	70,784
50+0	6,227	0,055	24,374	0,228	4.272,843	71,012
50+4.702	6,439	0,035	29,776	0,210	4.302,619	71,222
50+10	6,690	0,018	34,779	0,139	4.337,398	71,362
50+10.064	6,693	0,018	0,428	0,001	4.337,826	71,363
51+0	7,108	0,003	68,563	0,104	4.406,389	71,466
51+10	6,734	0,004	69,209	0,038	4.475,598	71,504
52+0	6,566	0,017	66,502	0,107	4.542,100	71,611
52+5.288	0,000	0,000	17,361	0,045	4.559,461	71,656
<b>TOTAL</b>					<b>4.559,461</b>	<b>71,656</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA HAROLD C. MIERS

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,000	0,000	0,000	0,000	0,000	0,000
0+10	0,090	0,010	0,448	0,051	0,448	0,051
1+0	0,592	0,070	3,410	0,402	3,857	0,452
1+10	0,564	0,035	5,780	0,525	9,637	0,977
2+0	0,520	0,003	5,416	0,188	15,053	1,164
2+10	0,614	0,000	5,670	0,014	20,723	1,178
3+0	0,588	0,061	6,010	0,306	26,732	1,484
3+10	1,106	0,000	8,468	0,306	35,200	1,790
4+0	0,266	0,287	6,858	1,434	42,058	3,224
4+1.676	0,546	0,205	0,680	0,412	42,737	3,636
4+10	0,264	0,375	3,369	2,415	46,106	6,051
5+0	0,113	0,353	1,882	3,644	47,988	9,695
5+10	0,358	0,296	2,350	3,246	50,338	12,941
6+0	1,167	0,045	7,620	1,704	57,958	14,644
6+10	2,055	0,001	16,108	0,228	74,066	14,872
7+0	1,394	0,134	17,244	0,675	91,310	15,546
7+10	0,533	0,329	9,633	2,317	100,942	17,863
8+0	0,797	0,307	6,651	3,182	107,593	21,045
8+10	0,786	0,256	7,914	2,815	115,507	23,860
9+0	1,226	0,289	10,057	2,724	125,564	26,584
9+10	1,694	0,363	14,598	3,258	140,162	29,842
10+0	1,398	0,267	15,460	3,147	155,621	32,989
10+10	0,874	0,244	11,359	2,557	166,980	35,545
11+0	0,424	0,016	6,486	1,301	173,465	36,846
11+10	0,790	0,009	6,068	0,124	179,533	36,970
12+0	1,701	0,156	12,456	0,822	191,989	37,792
12+10	1,859	0,163	17,802	1,593	209,790	39,385
13+0	1,674	0,188	17,667	1,757	227,457	41,142
13+10	1,260	0,320	14,668	2,541	242,125	43,682
14+0	1,530	0,297	13,947	3,085	256,071	46,767
14+10	1,813	0,219	16,713	2,582	272,784	49,348
15+0	2,238	0,199	20,255	2,089	293,039	51,437
15+10	2,023	0,191	21,304	1,946	314,342	53,383
16+0	1,752	0,199	18,871	1,950	333,213	55,333
16+10	1,725	0,241	17,381	2,201	350,593	57,534
17+0	1,677	0,214	17,010	2,273	367,603	59,807
17+10	1,987	0,005	18,324	1,091	385,927	60,898
18+0	2,112	0,167	20,498	0,856	406,425	61,753
18+10	2,407	0,054	22,598	1,101	429,023	62,854
19+0	1,677	0,494	20,423	2,739	449,446	65,593
19+10	2,713	0,063	21,952	2,786	471,398	68,379
20+0	2,197	0,111	24,550	0,867	495,948	69,246
20+10	1,534	0,208	18,656	1,594	514,603	70,840
21+0	1,472	0,244	15,030	2,263	529,633	73,102
21+10	1,521	0,291	14,961	2,678	544,594	75,780
22+0	1,707	0,215	16,136	2,533	560,729	78,313
22+10	1,833	0,082	17,700	1,489	578,429	79,801
22+18.522	2,364	0,000	17,886	0,351	596,314	80,152
23+0	2,533	0,000	3,619	0,000	599,934	80,152
23+10	0,000	0,000	12,667	0,000	612,600	80,152
24+0	1,639	0,053	8,194	0,267	620,794	80,419
24+10	1,581	0,062	16,097	0,578	636,891	80,997
25+0	0,953	0,073	12,670	0,677	649,560	81,674
25+10	1,088	0,101	10,207	0,869	659,767	82,543
26+0	1,180	0,130	11,340	1,153	671,107	83,696
26+10	1,341	0,036	12,605	0,831	683,711	84,526
27+0	1,517	0,133	14,292	0,844	698,003	85,370
27+10	1,283	0,190	14,000	1,612	712,003	86,982
28+0	1,040	0,232	11,613	2,109	723,615	89,091
28+10	0,575	0,373	8,073	3,027	731,688	92,118
29+0	0,338	0,378	4,566	3,758	736,254	95,876
29+10	0,403	0,322	3,706	3,503	739,960	99,379
30+0	0,779	0,271	5,909	2,969	745,868	102,347
30+10	1,156	0,213	9,674	2,424	755,542	104,771
31+0	0,000	0,000	5,781	1,067	761,322	105,838
31+10	5,509	0,049	27,546	0,243	788,868	106,081
32+0	4,660	0,008	50,847	0,280	839,715	106,361
32+10	4,170	0,022	44,151	0,149	883,865	106,510
33+0	3,783	0,042	39,763	0,323	923,628	106,832
33+10	4,649	0,036	42,160	0,391	965,788	107,223
34+0	5,028	0,039	48,388	0,374	1.014,176	107,597
34+10	4,723	0,041	48,757	0,399	1.062,933	107,995
35+0	4,875	0,005	47,992	0,229	1.110,925	108,224
35+10	4,443	0,052	46,591	0,286	1.157,515	108,510
36+0	4,501	0,035	44,719	0,437	1.202,234	108,946
36+10	4,803	0,095	46,517	0,649	1.248,751	109,595

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA HAROLD C. MIERS**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
37+0	5,689	0,000	52,456	0,474	1.301,206	110,068
37+10	5,987	0,000	58,380	0,000	1.359,586	110,068
38+0	5,769	0,000	58,781	0,000	1.418,366	110,068
38+9.633	4,992	0,003	51,829	0,013	1.470,196	110,082
38+10	0,000	0,000	0,916	0,001	1.471,112	110,082
39+0	0,000	0,000	0,000	0,000	1.471,112	110,082
39+10	2,420	0,017	12,101	0,086	1.483,213	110,168
40+0	2,745	0,000	25,825	0,086	1.509,037	110,254
40+10	2,419	0,000	25,818	0,000	1.534,855	110,254
41+0	2,881	0,000	26,499	0,000	1.561,354	110,254
41+10	3,348	0,000	31,145	0,000	1.592,499	110,254
42+0	3,417	0,000	33,826	0,000	1.626,324	110,254
42+10	3,483	0,000	34,502	0,000	1.660,826	110,254
43+0	3,077	0,000	32,801	0,000	1.693,627	110,254
43+10	1,971	0,000	25,237	0,000	1.718,864	110,254
44+0	1,720	0,000	18,453	0,000	1.737,317	110,254
44+10	2,470	0,000	20,950	0,000	1.758,266	110,254
45+0	2,975	0,001	27,224	0,007	1.785,490	110,261
45+10	3,123	0,035	30,491	0,181	1.815,980	110,441
45+17.991	0,000	0,000	12,479	0,139	1.828,459	110,580
<b>TOTAL</b>					<b>1.828,459</b>	<b>110,580</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA HEINZI ZIETZ

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+10	1,924	0,012	0,000	0,000	0,000	0,000
1+0	2,083	0,000	20,037	0,061	20,037	0,061
1+10	2,025	0,000	20,538	0,000	40,575	0,061
2+0	1,287	0,026	16,559	0,130	57,133	0,191
2+10	0,000	0,000	6,436	0,130	63,569	0,320
3+0	0,000	0,000	0,000	0,000	63,569	0,320
3+10	2,645	0,000	13,224	0,001	76,793	0,321
4+0	3,216	0,000	29,306	0,001	106,098	0,322
4+10	3,267	0,000	32,416	0,000	138,514	0,322
5+0	3,390	0,000	33,285	0,000	171,799	0,322
5+10	0,000	0,000	16,951	0,000	188,749	0,322
6+0	0,000	0,000	0,000	0,000	188,749	0,322
6+10	2,220	0,052	11,099	0,261	199,848	0,583
7+0	2,651	0,021	24,353	0,364	224,201	0,947
7+10	2,838	0,025	27,444	0,229	251,644	1,176
8+0	2,512	0,014	26,751	0,195	278,395	1,370
8+10	0,000	0,000	12,562	0,069	290,957	1,439
9+0	0,000	0,000	0,000	0,000	290,957	1,439
9+10	2,081	0,000	10,405	0,000	301,362	1,439
10+0	2,318	0,015	21,994	0,074	323,356	1,513
10+10	2,172	0,039	22,449	0,267	345,805	1,780
11+0	1,861	0,044	20,167	0,413	365,972	2,193
11+10	1,156	0,000	15,087	0,221	381,059	2,413
12+0	1,163	0,000	11,594	0,000	392,653	2,413
12+10	2,364	0,062	17,633	0,311	410,285	2,724
13+0	2,562	0,026	24,626	0,443	434,911	3,166
13+10	2,747	0,027	26,541	0,267	461,452	3,433
14+0	2,946	0,034	28,461	0,307	489,913	3,740
14+10	3,159	0,042	30,522	0,382	520,434	4,122
15+0	2,737	0,036	29,480	0,389	549,914	4,510
15+10	1,984	0,029	23,606	0,324	573,520	4,834
16+0	1,036	0,022	15,097	0,257	588,617	5,090
16+10	0,837	0,015	9,360	0,188	597,977	5,278
17+0	0,679	0,000	7,577	0,077	605,554	5,355
17+10	0,111	0,000	3,952	0,000	609,505	5,355
17+17.773	6,132	0,000	24,263	0,000	633,768	5,355
18+0	4,917	0,000	12,302	0,000	646,070	5,355
18+10	4,621	0,000	47,685	0,001	693,755	5,356
19+0	4,706	0,000	46,634	0,000	740,388	5,356
19+10	4,623	0,000	46,644	0,000	787,032	5,356
20+0	4,592	0,000	46,071	0,000	833,102	5,356
20+10	4,408	0,000	44,999	0,000	878,101	5,356
21+0	5,302	0,000	48,551	0,000	926,652	5,356
21+10	4,147	0,000	47,245	0,000	973,897	5,356
21+16.277	3,579	0,000	24,248	0,000	998,145	5,356
21+16.277	0,000	0,000	0,000	0,000	998,145	5,356
22+0	3,671	0,000	6,833	0,000	1.004,977	5,356
22+10	3,950	0,000	38,102	0,000	1.043,079	5,356
23+0	4,320	0,000	41,350	0,000	1.084,429	5,356
23+10	4,868	0,000	45,941	0,000	1.130,369	5,356
24+0	4,428	0,000	46,481	0,000	1.176,850	5,356
24+10	5,257	0,000	48,425	0,000	1.225,275	5,356
25+0	6,014	0,000	56,353	0,000	1.281,628	5,356
25+5.592	4,047	0,000	28,130	0,000	1.309,758	5,356
25+5.592	0,000	0,000	0,000	0,000	1.309,758	5,356
25+10	4,185	0,000	9,224	0,000	1.318,982	5,356
25+10	0,000	0,000	0,000	0,000	1.318,982	5,356
26+0	4,590	0,000	22,949	0,000	1.341,931	5,356
26+0	0,000	0,000	0,000	0,000	1.341,931	5,356
26+10	4,061	0,000	20,307	0,000	1.362,238	5,356
26+10	0,000	0,000	0,000	0,000	1.362,238	5,356
27+0	3,924	0,000	19,622	0,000	1.381,859	5,356
27+0	0,000	0,000	0,000	0,000	1.381,859	5,356
27+10	3,283	0,000	16,417	0,000	1.398,276	5,356
27+10	0,000	0,000	0,000	0,000	1.398,276	5,356
28+0	6,005	0,000	30,027	0,000	1.428,303	5,356
28+0	0,000	0,000	0,000	0,000	1.428,303	5,356
28+10	3,966	0,000	19,831	0,000	1.448,133	5,356
28+13.828	2,165	0,046	11,734	0,089	1.459,867	5,445
28+13.828	0,000	0,000	0,000	0,000	1.459,867	5,445
29+0	2,222	0,103	6,856	0,318	1.466,723	5,764
29+0	0,000	0,000	0,000	0,000	1.466,723	5,764
29+10	2,171	0,112	10,855	0,562	1.477,578	6,326
29+10	0,000	0,000	0,000	0,000	1.477,578	6,326
30+0	2,098	0,119	10,492	0,594	1.488,070	6,920
30+0	0,000	0,000	0,000	0,000	1.488,070	6,920

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA HEINZI ZIETZ**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
30+10	2,111	0,142	10,557	0,711	1.498,627	7,631
30+10	0,000	0,000	0,000	0,000	1.498,627	7,631
31+0	2,054	0,161	10,271	0,807	1.508,898	8,437
31+0	0,000	0,000	0,000	0,000	1.508,898	8,437
31+10	2,518	0,181	12,589	0,905	1.521,487	9,342
32+0	1,723	0,052	21,205	1,165	1.542,691	10,507
32+10	1,452	0,071	15,878	0,617	1.558,569	11,123
32+10	0,000	0,000	0,000	0,000	1.558,569	11,123
32+12.147	1,460	0,084	1,567	0,090	1.560,136	11,213
32+12.147	0,000	0,000	0,000	0,000	1.560,136	11,213
33+0	1,483	0,135	5,821	0,530	1.565,957	11,743
33+0	0,000	0,000	0,000	0,000	1.565,957	11,743
33+10	1,653	0,206	8,265	1,031	1.574,222	12,774
33+10	0,000	0,000	0,000	0,000	1.574,222	12,774
34+0	1,926	0,214	9,630	1,070	1.583,852	13,844
34+0	0,000	0,000	0,000	0,000	1.583,852	13,844
34+10	1,880	0,165	9,401	0,826	1.593,252	14,669
34+10	0,000	0,000	0,000	0,000	1.593,252	14,669
35+0	2,059	0,101	10,295	0,503	1.603,547	15,172
35+0	0,000	0,000	0,000	0,000	1.603,547	15,172
35+7.379	1,890	0,146	6,973	0,540	1.610,520	15,712
35+10	1,614	7,872	4,592	10,507	1.615,112	26,220
36+0	5,727	0,000	36,706	39,358	1.651,818	65,578
36+10	3,533	0,000	46,300	0,000	1.698,117	65,578
36+12.578	3,341	0,000	8,860	0,000	1.706,978	65,578
36+12.578	0,000	0,000	0,000	0,000	1.706,978	65,578
37+0	3,832	0,000	14,219	0,000	1.721,197	65,578
37+0	0,000	0,000	0,000	0,000	1.721,197	65,578
37+10	4,098	0,000	20,491	0,000	1.741,688	65,578
37+10	0,000	0,000	0,000	0,000	1.741,688	65,578
38+0	4,107	0,000	20,534	0,000	1.762,221	65,578
38+0	0,000	0,000	0,000	0,000	1.762,221	65,578
38+10	4,000	0,000	20,000	0,000	1.782,221	65,578
38+10	0,000	0,000	0,000	0,000	1.782,221	65,578
39+0	4,020	0,000	20,098	0,000	1.802,319	65,578
39+0	0,000	0,000	0,000	0,000	1.802,319	65,578
39+9.411	10,406	0,000	48,964	0,000	1.851,283	65,578
<b>TOTAL</b>					<b>1.851,283</b>	<b>65,578</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA HERCÍLIO J. DA SILVA**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	4,427	0,013	0,000	0,000	0,000	0,000
0+10	2,037	0,289	32,318	1,510	32,318	1,510
1+0	2,535	0,130	22,858	2,094	55,175	3,604
1+10	3,315	0,072	29,251	1,006	84,426	4,609
2+0	3,599	0,042	34,572	0,566	118,998	5,175
2+10	3,442	0,043	35,206	0,424	154,204	5,599
3+0	3,425	0,037	34,338	0,398	188,542	5,997
3+10	3,837	0,018	36,312	0,275	224,854	6,271
4+0	4,742	0,001	42,893	0,098	267,746	6,369
4+10	4,547	0,004	46,443	0,025	314,189	6,394
4+11.259	4,530	0,005	5,714	0,006	319,903	6,400
<b>TOTAL</b>					<b>319,903</b>	<b>6,400</b>



**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA HERMINIO DAGNONI**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	7,133	0,000	0,000	0,000	0,000	0,000
0+10	3,078	0,019	51,054	0,095	51,054	0,095
1+0	3,456	0,086	32,671	0,525	83,725	0,619
1+10	3,766	0,056	36,110	0,708	119,835	1,327
2+0	3,993	0,033	38,796	0,443	158,631	1,770
2+10	4,196	0,017	40,946	0,248	199,577	2,018
3+0	4,090	0,006	41,433	0,112	241,009	2,129
3+10	3,920	0,004	40,051	0,049	281,060	2,178
4+0	3,906	0,002	39,130	0,030	320,190	2,207
4+10	3,729	0,001	38,174	0,016	358,364	2,223
5+0	3,830	0,001	37,793	0,011	396,157	2,234
5+10	3,942	0,001	38,859	0,008	435,016	2,242
6+0	4,062	0,001	40,019	0,006	475,035	2,248
6+10	4,187	0,000	41,244	0,005	516,278	2,252
7+0	4,012	0,000	40,995	0,002	557,273	2,254
7+10	3,994	0,000	40,029	0,000	597,302	2,254
8+0	4,157	0,000	40,753	0,000	638,055	2,254
8+10	4,236	0,000	41,964	0,000	680,019	2,254
9+0	3,632	0,000	39,340	0,000	719,359	2,254
9+10	4,018	0,036	38,248	0,178	757,607	2,432
9+12.91	6,494	0,000	15,295	0,052	772,901	2,484
9+13.225	7,502	0,000	0,000	0,000	772,901	2,484
10+0	0,000	0,000	25,412	0,000	798,313	2,484
10+10	0,497	0,232	2,487	1,159	800,800	3,642
11+0	0,844	0,028	6,706	1,300	807,506	4,942
11+10	1,183	0,002	10,133	0,152	817,639	5,093
12+0	0,344	0,131	7,635	0,667	825,274	5,760
12+10	0,164	0,147	2,539	1,391	827,812	7,151
13+0	0,389	0,111	2,763	1,291	830,575	8,441
13+10	0,592	0,114	4,904	1,123	835,479	9,564
14+0	0,233	0,313	4,126	2,133	839,605	11,697
14+10	0,141	0,282	1,869	2,974	841,474	14,671
15+0	0,284	0,083	2,125	1,823	843,598	16,494
15+10	0,597	0,071	4,405	0,768	848,003	17,261
16+0	0,000	0,000	2,983	0,354	850,986	17,615
16+7.818	0,000	0,000	0,000	0,000	850,986	17,615
16+8.201	7,346	0,000	1,407	0,000	852,393	17,615
16+10	6,554	0,023	12,503	0,021	864,896	17,635
17+0	5,408	0,001	59,809	0,117	924,705	17,752
17+10	5,043	0,000	52,254	0,003	976,959	17,755
18+0	5,825	0,000	54,342	0,000	1.031,300	17,755
18+10	5,832	0,000	58,284	0,000	1.089,584	17,755
19+0	5,603	0,000	57,173	0,000	1.146,756	17,755
19+10	5,389	0,000	54,962	0,000	1.201,718	17,755
20+0	5,759	0,000	55,742	0,000	1.257,459	17,755
20+10	5,801	0,000	57,801	0,000	1.315,260	17,755
21+0	5,633	0,000	57,172	0,000	1.372,432	17,755
21+10	6,100	0,000	58,667	0,000	1.431,098	17,755
22+0	6,275	0,005	61,877	0,025	1.492,975	17,780
22+10	6,515	0,016	63,950	0,105	1.556,925	17,884
22+12.51	6,640	0,015	16,509	0,039	1.573,434	17,924
<b>TOTAL</b>					<b>1.573,434</b>	<b>17,924</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA HILDO NOVAES

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0.00	0.00	0,000	0,000	0,000	0,000
0+7.089	2.16	0.00	7,656	0,000	7,656	0,000
0+10	3.03	0.00	7,554	0,000	15,210	0,000
1+0	2.56	0.00	27,950	0,000	43,160	0,000
1+10	2.11	0.00	23,350	0,000	66,510	0,000
2+0	2.00	0.00	20,550	0,000	87,060	0,000
2+10	1.93	0.00	19,650	0,000	106,710	0,000
3+0	1.93	0.00	19,300	0,000	126,010	0,000
3+10	2.00	0.00	19,650	0,000	145,660	0,000
4+0	1.98	0.00	0,000	0,000	145,660	0,000
4+10	2.00	0.00	19,900	0,000	165,560	0,000
5+0	2.15	0.00	20,750	0,000	186,310	0,000
5+10	2.28	0.00	22,150	0,000	208,460	0,000
6+0	2.41	0.00	23,450	0,000	231,910	0,000
6+10	2.49	0.04	24,500	0,200	256,410	0,200
7+0	2.29	0.08	23,900	0,600	280,310	0,800
7+10	1.83	0.10	20,600	0,900	300,910	1,700
8+0	1.91	0.09	18,700	0,950	319,610	2,650
8+10	2.18	0.05	20,450	0,700	340,060	3,350
9+0	2.25	0.02	22,150	0,350	362,210	3,700
9+10	2.28	0.00	22,650	0,100	384,860	3,800
10+0	2.94	0.00	26,100	0,000	410,960	3,800
10+10	0.00	0.00	14,700	0,000	425,660	3,800
11+0	1.81	0.02	9,050	0,100	434,710	3,900
11+10	2.14	0.03	19,750	0,250	454,460	4,150
12+0	2.71	0.00	24,250	0,150	478,710	4,300
12+10	3.17	0.00	29,400	0,000	508,110	4,300
13+0	3.26	0.00	32,150	0,000	540,260	4,300
13+8.627	3.32	0.00	28,383	0,000	568,643	4,300
13+10	3.22	0.00	4,490	0,000	573,133	4,300
14+0	0.00	0.00	16,100	0,000	589,233	4,300
14+5.478	4.07	0.00	11,148	0,000	600,380	4,300
14+10	6.46	0.00	23,808	0,000	624,189	4,300
15+0	6.57	0.00	65,150	0,000	689,339	4,300
15+10	6.79	0.00	66,800	0,000	756,139	4,300
16+0	6.73	0.00	67,600	0,000	823,739	4,300
16+4.527	6.31	0.00	29,516	0,000	853,255	4,300
16+10	5.87	0.00	33,331	0,000	886,585	4,300
17+0	5.39	0.00	56,300	0,000	942,885	4,300
17+9.706	8.66	0.00	68,185	0,000	1.011,070	4,300
18+0	1.39	0.00	51,727	0,000	1.062,797	4,300
18+10	2.83	0.00	21,100	0,000	1.083,897	4,300
19+0	2.97	0.01	29,000	0,050	1.112,897	4,350
19+10	2.60	0.03	27,850	0,200	1.140,747	4,550
20+0	2.41	0.00	25,050	0,150	1.165,797	4,700
20+10	2.30	0.00	23,550	0,000	1.189,347	4,700
21+0	11.88	0.00	70,900	0,000	1.260,247	4,700
21+10	6.95	0.00	94,150	0,000	1.354,397	4,700
22+0	2.75	0.00	48,500	0,000	1.402,897	4,700
22+10	2.43	0.00	25,900	0,000	1.428,797	4,700
23+0	3.68	0.00	30,550	0,000	1.459,347	4,700
23+10	3.41	0.00	35,450	0,000	1.494,797	4,700
24+0	3.00	0.07	32,050	0,350	1.526,847	5,050
24+10	10.98	0.07	69,900	0,700	1.596,747	5,750
25+0	8.84	0.02	99,100	0,450	1.695,847	6,200
25+10	4.90	0.09	68,700	0,550	1.764,547	6,750
26+0	4.62	0.05	47,600	0,700	1.812,147	7,450
26+10	4.96	0.00	47,900	0,250	1.860,047	7,700
27+0	4.98	0.00	49,700	0,000	1.909,747	7,700
27+10	4.81	0.00	48,950	0,000	1.958,697	7,700
27+17.742	0.00	0.00	18,620	0,000	1.977,317	7,700
28+0	0.00	0.00	0,000	0,000	1.977,317	7,700
28+10	0.00	0.00	0,000	0,000	1.977,317	7,700
28+11.782	10.24	0.00	9,124	0,000	1.986,441	7,700
28+13.922	6.44	0.01	17,848	0,011	2.004,288	7,711
29+0	4.13	0.00	32,122	0,030	2.036,411	7,741
29+10	4.53	0.00	43,300	0,000	2.079,711	7,741
30+0	5.05	0.00	47,900	0,000	2.127,611	7,741
30+9.481	5.49	0.00	49,965	0,000	2.177,575	7,741
30+10	5.60	0.00	2,878	0,000	2.180,453	7,741
31+0	6.02	0.00	58,100	0,000	2.238,553	7,741
31+10	3.37	0.05	46,950	0,250	2.285,503	7,991
32+0	5.44	0.09	44,050	0,700	2.329,553	8,691
32+0.248	1.62	0.00	0,875	0,011	2.330,429	8,702
32+8.231	11.29	0.00	51,530	0,000	2.381,959	8,702
32+10	10.54	0.13	19,309	0,115	2.401,268	8,817

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA HILDO NOVAES**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
32+14.949	8.15	0.00	46,248	0,322	2.447,516	9,139
33+0	5.50	0.09	34,473	0,227	2.481,989	9,366
33+4.43	3.64	0.20	20,245	0,642	2.502,234	10,009
33+10	3.59	0.16	20,136	1,003	2.522,370	11,011
33+16.98	5.56	0.00	31,934	0,558	2.554,303	11,570
34+0	5.49	0.00	16,685	0,000	2.570,989	11,570
34+10	5.31	0.00	54,000	0,000	2.624,989	11,570
35+0	4.58	0.00	49,450	0,000	2.674,439	11,570
35+10	4.20	0.00	43,900	0,000	2.718,339	11,570
36+0	3.88	0.35	40,400	1,750	2.758,739	13,320
36+6.405	11.16	0.01	48,166	1,153	2.806,904	14,472
36+6.51	0.00	0.00	0,586	0,001	2.807,490	14,473
<b>TOTAL</b>					<b>2.807,490</b>	<b>14,473</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA JACOBUS FELTHAUS**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	9,752	0,002	0,000	0,000	0,000	0,000
0+10	8,526	0,014	91,393	0,081	91,393	0,081
1+0	8,911	0,008	87,187	0,113	178,579	0,194
1+10	6,559	0,000	77,348	0,041	255,927	0,234
2+0	6,420	0,000	64,893	0,000	320,820	0,234
2+10	5,783	0,000	61,014	0,000	381,833	0,234
3+0	9,060	0,000	74,214	0,000	456,047	0,234
3+2.549	8,876	0,000	22,860	0,000	478,907	0,234
3+10	9,647	0,038	69,009	0,140	547,916	0,374
4+0	9,968	0,011	98,078	0,244	645,993	0,618
4+10	10,124	0,031	100,461	0,209	746,454	0,827
5+0	9,773	0,040	99,486	0,353	845,939	1,180
5+10	6,730	0,023	82,515	0,315	928,454	1,495
6+0	6,758	0,002	67,439	0,124	995,893	1,618
6+10	9,395	0,013	80,765	0,074	1.076,658	1,692
7+0	9,680	0,023	95,375	0,181	1.172,033	1,873
7+10	9,567	0,005	96,234	0,142	1.268,266	2,015
8+0	9,789	0,026	96,780	0,156	1.365,046	2,171
8+10	9,544	0,032	96,666	0,289	1.461,711	2,459
9+0	9,878	0,012	97,109	0,220	1.558,820	2,679
9+10	10,617	0,000	102,475	0,060	1.661,295	2,739
10+0	10,938	0,004	107,773	0,021	1.769,068	2,760
10+10	10,875	0,004	109,061	0,040	1.878,129	2,799
11+0	11,082	0,000	109,783	0,019	1.987,912	2,818
11+10	10,387	0,000	107,348	0,000	2.095,259	2,818
12+0	10,969	0,000	106,780	0,000	2.202,039	2,818
12+8.413	11,523	0,018	94,609	0,076	2.296,648	2,894
12+10	10,652	0,012	17,595	0,024	2.314,243	2,918
13+0	10,993	0,001	108,223	0,063	2.422,466	2,981
13+10	10,629	0,010	108,112	0,051	2.530,577	3,032
14+0	10,317	0,087	104,730	0,483	2.635,307	3,515
14+10	10,183	0,074	102,499	0,804	2.737,806	4,318
15+0	9,920	0,089	100,518	0,813	2.838,324	5,131
15+10	9,503	0,037	97,116	0,627	2.935,439	5,758
16+0	9,345	0,033	94,240	0,348	3.029,679	6,105
16+10	9,305	0,105	93,253	0,689	3.122,932	6,794
17+0	9,135	0,155	92,199	1,298	3.215,131	8,092
17+5.83	7,823	0,106	49,430	0,760	3.264,561	8,852
17+10	6,891	0,102	30,677	0,435	3.295,239	9,287
18+0	7,324	0,061	71,075	0,818	3.366,314	10,105
18+9.831	6,889	0,056	69,866	0,577	3.436,180	10,682
18+10	6,885	0,057	1,164	0,010	3.437,344	10,691
19+0	8,870	0,099	78,776	0,778	3.516,119	11,469
19+10	8,690	0,133	87,800	1,161	3.603,919	12,630
20+0	9,789	0,016	92,392	0,746	3.696,311	13,376
20+10	10,629	0,000	102,089	0,081	3.798,399	13,457
21+0	7,455	0,000	90,418	0,000	3.888,817	13,457
21+10	7,832	0,001	76,433	0,005	3.965,250	13,461
22+0	7,219	0,025	75,254	0,128	4.040,504	13,589
22+10	8,165	0,137	76,920	0,810	4.117,423	14,398
23+0	8,412	0,481	82,887	3,092	4.200,310	17,490
23+10	8,288	0,437	83,499	4,588	4.283,809	22,078
24+0	8,603	0,210	84,451	3,235	4.368,260	25,312
24+10	8,049	0,185	83,260	1,974	4.451,519	27,286
25+0	6,630	0,099	73,397	1,420	4.524,916	28,706
25+10	6,697	0,052	66,637	0,756	4.591,553	29,461
26+0	8,553	0,012	76,251	0,319	4.667,803	29,780
26+10	8,786	0,000	86,696	0,061	4.754,499	29,841
27+0	9,006	0,000	88,961	0,001	4.843,460	29,842
27+10	8,879	0,000	89,425	0,000	4.932,885	29,842
28+0	8,147	0,013	85,129	0,065	5.018,013	29,907
28+10	6,047	0,000	70,969	0,065	5.088,982	29,972
29+0	5,363	0,126	57,051	0,632	5.146,033	30,604
29+10	5,486	0,438	54,245	2,822	5.200,278	33,426
29+15.492	5,386	0,517	29,853	2,623	5.230,131	36,049
30+0	5,593	0,660	24,746	2,653	5.254,877	38,702
30+10	7,847	0,342	67,201	5,008	5.322,078	43,709
30+14.699	8,867	0,226	39,269	1,333	5.361,347	45,043
<b>TOTAL</b>					<b>5.361,347</b>	<b>45,043</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA JOÃO C. G. DE OLIVEIRA (T 01)**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	5.04	0.00	0,000	0,000	0,000	0,000
0+10	7.08	0.00	60,600	0,000	60,600	0,000
1+0	8.31	0.00	76,950	0,000	137,550	0,000
1+5.275	7.11	0.00	40,670	0,000	178,220	0,000
1+10	0.02	0.00	16,845	0,000	195,065	0,000
1+13.303	7.06	0.00	11,693	0,000	206,757	0,000
2+0	5.79	0.00	43,028	0,000	249,786	0,000
2+10	4.96	0.00	53,750	0,000	303,536	0,000
3+0	5.08	0.00	50,200	0,000	353,736	0,000
3+10	4.85	0.00	49,650	0,000	403,386	0,000
4+0	3.08	0.00	39,650	0,000	443,036	0,000
4+10	3.24	0.00	31,600	0,000	474,636	0,000
5+0	3.68	0.00	34,600	0,000	509,236	0,000
5+10	7.01	0.00	53,450	0,000	562,686	0,000
6+0	7.03	0.00	70,200	0,000	632,886	0,000
6+6.884	6.96	0.00	48,154	0,000	681,039	0,000
6+10	6.97	0.00	21,703	0,000	702,742	0,000
7+0	7.07	0.00	70,200	0,000	772,942	0,000
7+4.422	6.00	0.00	28,898	0,000	801,840	0,000
7+10	0.02	0.00	16,790	0,000	818,630	0,000
7+11.961	0.02	0.00	0,039	0,000	818,669	0,000
8+0	1.93	0.20	7,838	0,804	826,507	0,804
8+0.178	1.96	0.20	0,346	0,036	826,853	0,839
8+10	2.21	0.12	20,479	1,572	847,332	2,411
9+0	2.08	0.08	21,450	1,000	868,782	3,411
9+10	3.23	0.08	26,550	0,800	895,332	4,211
10+0	0.01	0.00	16,200	0,400	911,532	4,611
10+10	0.02	0.00	0,150	0,000	911,682	4,611
11+0	0.02	0.00	0,200	0,000	911,882	4,611
11+0.128	0.02	0.00	0,003	0,000	911,885	4,611
11+10	2.53	0.08	12,587	0,395	924,471	5,006
12+0	2.26	0.13	23,950	1,050	948,421	6,056
12+10	2.20	0.11	22,300	1,200	970,721	7,256
13+0	2.25	0.02	22,250	0,650	992,971	7,906
13+10	1.57	0.07	19,100	0,450	1.012,071	8,356
13+11.095	1.48	0.08	1,670	0,082	1.013,741	8,438
14+0	0.78	0.12	10,063	0,890	1.023,804	9,329
14+10	1.66	0.09	12,200	1,050	1.036,004	10,379
15+0	0.00	0.00	8,300	0,450	1.044,304	10,829
<b>TOTAL</b>					<b>1.044,304</b>	<b>10,829</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA JOÃO C. G. DE OLIVEIRA (T 02)**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
15+0	3.50	0.01	0,000	0,000	0,000	0,000
15+10	1.97	0.11	27,350	0,600	27,350	0,600
16+0	2.03	0.22	20,000	1,650	47,350	2,250
16+9.149	2.18	0.28	19,259	2,287	66,609	4,537
16+10	5.97	0.00	3,468	0,119	70,076	4,656
17+0	6.55	0.00	62,600	0,000	132,676	4,656
17+10	6.79	0.00	66,700	0,000	199,376	4,656
17+19.311	10.42	0.00	80,121	0,000	279,498	4,656
18+0	11.21	0.00	7,452	0,000	286,949	4,656
18+0.989	10.39	0.00	10,681	0,000	297,630	4,656
18+10	13.40	0.00	107,186	0,000	404,816	4,656
18+10.095	13.35	0.00	1,271	0,000	406,087	4,656
19+0	6.05	0.00	96,078	0,000	502,165	4,656
19+10	3.78	0.00	49,150	0,000	551,315	4,656
20+0	4.78	0.00	42,800	0,000	594,115	4,656
20+10	5.72	0.00	52,500	0,000	646,615	4,656
21+0	5.75	0.00	57,350	0,000	703,965	4,656
21+10	7.51	0.00	66,300	0,000	770,265	4,656
21+13.451	9.09	0.00	28,643	0,000	798,909	4,656
22+0	0.00	0.00	29,765	0,000	828,674	4,656
22+1.589	2.45	0.00	1,947	0,000	830,620	4,656
22+10	7.16	0.00	40,415	0,000	871,035	4,656
22+16.317	7.53	0.00	46,398	0,000	917,434	4,656
23+0	7.69	0.00	28,028	0,000	945,461	4,656
23+10	7.68	0.00	76,850	0,000	1.022,311	4,656
23+13.9	7.61	0.00	29,815	0,000	1.052,127	4,656
<b>TOTAL</b>					<b>1.052,127</b>	<b>4,656</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA JOÃO SANCHO MOREIRA

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	0,000	0,000	0,000	0,000	0,000	0,000
0+10	2,055	0,000	10,273	0,002	10,273	0,002
0+14.912	2,163	0,001	10,359	0,002	20,632	0,004
1+0	5,314	0,000	19,021	0,001	39,653	0,005
1+10	5,513	0,000	54,134	0,000	93,787	0,005
2+0	5,231	0,000	53,721	0,000	147,508	0,005
2+10	5,089	0,000	51,600	0,000	199,107	0,005
3+0	5,186	0,000	51,374	0,000	250,481	0,005
3+10	5,190	0,002	51,878	0,009	302,359	0,014
4+0	4,273	0,000	47,314	0,009	349,673	0,022
4+1.534	5,265	0,000	7,315	0,000	356,988	0,022
4+2.306	5,435	0,000	4,130	0,000	361,118	0,022
4+10	0,000	0,000	20,907	0,000	382,025	0,022
4+19.481	0,000	0,000	0,000	0,000	382,025	0,022
5+0	0,000	0,000	0,000	0,000	382,025	0,022
5+10	2,134	0,000	10,671	0,000	392,695	0,022
6+0	1,797	0,000	19,654	0,000	412,349	0,022
6+10	2,126	0,000	19,613	0,000	431,962	0,022
7+0	2,176	0,000	21,512	0,000	453,473	0,022
7+10	1,833	0,006	20,046	0,029	473,519	0,051
8+0	1,732	0,020	17,827	0,130	491,346	0,180
8+10	1,749	0,027	17,405	0,236	508,750	0,416
9+0	2,186	0,122	19,674	0,746	528,424	1,162
9+10	1,990	0,046	20,880	0,839	549,304	2,001
10+0	1,636	0,008	18,128	0,270	567,432	2,271
10+10	1,664	0,000	16,501	0,042	583,932	2,312
11+0	1,909	0,000	17,869	0,000	601,801	2,312
11+10	1,786	0,000	18,476	0,000	620,276	2,312
12+0	0,000	0,000	8,929	0,000	629,205	2,312
12+10	0,000	0,000	0,000	0,000	629,205	2,312
12+16.565	0,000	0,000	0,000	0,000	629,205	2,312
13+0	1,918	0,039	3,293	0,067	632,498	2,380
13+10	1,920	0,013	19,186	0,262	651,684	2,641
14+0	1,819	0,006	18,694	0,094	670,378	2,735
14+10	1,877	0,012	18,481	0,086	688,859	2,820
15+0	1,966	0,021	19,218	0,163	708,077	2,983
15+10	2,379	0,000	21,727	0,105	729,804	3,087
16+0	3,936	0,000	31,577	0,000	761,381	3,087
16+10	2,500	0,020	32,183	0,098	793,564	3,185
17+0	1,646	0,072	20,730	0,456	814,293	3,641
17+10	1,754	0,077	17,001	0,745	831,294	4,386
18+0	1,748	0,049	17,514	0,632	848,807	5,018
18+10	2,029	0,017	18,887	0,329	867,694	5,347
19+0	1,963	0,005	19,959	0,109	887,652	5,456
19+10	3,143	0,003	25,531	0,038	913,183	5,494
20+0	0,000	0,000	15,717	0,014	928,900	5,507
20+10	2,847	0,025	14,236	0,125	943,135	5,632
21+0	1,106	0,044	19,763	0,343	962,898	5,975
21+10	1,133	0,025	11,193	0,344	974,091	6,319
22+0	1,294	0,001	12,135	0,128	986,226	6,447
22+10	1,641	0,000	14,675	0,003	1.000,900	6,449
23+0	1,962	0,011	18,015	0,055	1.018,915	6,504
23+10	2,032	0,033	19,971	0,221	1.038,886	6,725
24+0	1,902	0,018	19,671	0,254	1.058,556	6,979
24+10	1,521	0,014	17,114	0,160	1.075,670	7,138
25+0	0,730	0,068	11,255	0,412	1.086,925	7,550
25+4.357	0,268	0,106	2,174	0,378	1.089,099	7,928
<b>TOTAL</b>					<b>1.089,099</b>	<b>7,928</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA JOAQUIM GIRARDI

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0.169	4.08	0.00	0,000	0,000	0,000	0,000
0+10	4.04	0.12	39,914	0,590	39,914	0,590
1+0	4.39	0.00	42,150	0,600	82,064	1,190
1+10	3.92	0.00	41,550	0,000	123,614	1,190
2+0	3.50	0.00	37,100	0,000	160,714	1,190
2+10	5.06	0.00	42,800	0,000	203,514	1,190
3+0	5.30	0.00	51,800	0,000	255,314	1,190
3+10	5.17	0.01	52,350	0,050	307,664	1,240
4+0	7.18	0.57	61,750	2,900	369,414	4,140
4+10	2.77	0.41	49,750	4,900	419,164	9,040
5+0	2.33	0.00	25,500	2,050	444,664	11,090
5+10	2.13	0.00	22,300	0,000	466,964	11,090
6+0	3.55	0.00	28,400	0,000	495,364	11,090
6+10	5.10	0.00	43,250	0,000	538,614	11,090
7+0	2.68	0.00	38,900	0,000	577,514	11,090
7+10	2.32	0.00	25,000	0,000	602,514	11,090
8+0	2.21	0.00	22,650	0,000	625,164	11,090
8+10	3.44	0.00	28,250	0,000	653,414	11,090
9+0	4.62	0.00	40,300	0,000	693,714	11,090
9+10	4.50	0.00	45,600	0,000	739,314	11,090
10+0	4.33	0.00	44,150	0,000	783,464	11,090
10+10	3.92	0.00	41,250	0,000	824,714	11,090
11+0	4.37	0.00	41,450	0,000	866,164	11,090
11+10	4.79	0.00	45,800	0,000	911,964	11,090
12+0	4.51	0.02	46,500	0,100	958,464	11,190
12+10	4.36	0.05	44,350	0,350	1.002,814	11,540
13+0	3.88	0.06	41,200	0,550	1.044,014	12,090
13+10	4.41	0.02	41,450	0,400	1.085,464	12,490
14+0	7.23	0.00	58,200	0,100	1.143,664	12,590
14+7	7.73	0.00	52,360	0,000	1.196,024	12,590
14+10	6.22	0.00	20,925	0,000	1.216,949	12,590
15+10	1.97	0.00	81,900	0,000	1.298,849	12,590
16+0	1.88	0.00	19,250	0,000	1.318,099	12,590
16+10	1.79	0.00	18,350	0,000	1.336,449	12,590
17+0	2.16	0.01	19,750	0,050	1.356,199	12,640
17+10	2.28	0.03	22,200	0,200	1.378,399	12,840
18+0	2.12	0.02	22,000	0,250	1.400,399	13,090
18+10	2.21	0.00	21,650	0,100	1.422,049	13,190
19+0	2.36	0.00	22,850	0,000	1.444,899	13,190
19+5.51	2.40	0.00	13,114	0,000	1.458,013	13,190
19+10	2.40	0.00	10,776	0,000	1.468,789	13,190
20+0	2.53	0.04	24,650	0,200	1.493,439	13,390
20+10	2.47	0.00	25,000	0,200	1.518,439	13,590
21+0	2.44	0.00	24,550	0,000	1.542,989	13,590
21+10	2.40	0.00	24,200	0,000	1.567,189	13,590
22+0	0.63	0.06	15,150	0,300	1.582,339	13,890
22+10	1.02	0.00	8,250	0,300	1.590,589	14,190
23+0	2.62	0.07	18,200	0,350	1.608,789	14,540
23+10	3.83	0.00	32,250	0,350	1.641,039	14,890
24+0	3.03	0.00	34,300	0,000	1.675,339	14,890
24+6.843	2.61	0.01	19,297	0,034	1.694,636	14,924
24+10	2.44	0.03	7,971	0,063	1.702,607	14,987
25+0	2.55	0.03	24,950	0,300	1.727,557	15,287
25+10	3.39	0.00	29,700	0,150	1.757,257	15,437
26+0	2.53	0.03	29,600	0,150	1.786,857	15,587
28+0	3.07	0.19	112,000	4,400	1.898,857	19,987
28+10	3.08	0.03	30,750	1,100	1.929,607	21,087
29+0	3.44	0.00	32,600	0,150	1.962,207	21,237
29+10	3.30	0.00	33,700	0,000	1.995,907	21,237
30+0	2.85	0.03	30,750	0,150	2.026,657	21,387
30+10	2.58	0.07	27,150	0,500	2.053,807	21,887
31+0	2.29	0.04	24,350	0,550	2.078,157	22,437
31+10	2.06	0.05	21,750	0,450	2.099,907	22,887
32+0	1.74	0.02	19,000	0,350	2.118,907	23,237
32+10	2.23	0.08	19,850	0,500	2.138,757	23,737
33+0	1.84	0.11	20,350	0,950	2.159,107	24,687
33+10	1.49	0.11	16,650	1,100	2.175,757	25,787
34+0	0.74	0.17	11,150	1,400	2.186,907	27,187
34+10	0.06	0.24	4,000	2,050	2.190,907	29,237
35+0	0.10	0.08	0,800	1,600	2.191,707	30,837
35+10	1.39	0.02	7,450	0,500	2.199,157	31,337
36+0	1.87	0.04	16,300	0,300	2.215,457	31,637
36+10	2.70	0.00	22,850	0,200	2.238,307	31,837
37+0	3.27	0.02	29,850	0,100	2.268,157	31,937
37+10	3.86	0.09	35,650	0,550	2.303,807	32,487
38+0	3.92	0.05	38,900	0,700	2.342,707	33,187



**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA JOAQUIM GIRARDI**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
38+10	3.76	0.00	38,400	0,250	2.381,107	33,437
39+0	3.27	0.00	35,150	0,000	2.416,257	33,437
39+10	3.00	0.00	31,350	0,000	2.447,607	33,437
40+0	3.42	0.00	32,100	0,000	2.479,707	33,437
40+10	4.40	0.00	39,100	0,000	2.518,807	33,437
41+0	4.73	0.00	45,650	0,000	2.564,457	33,437
41+10	0.00	0.00	23,650	0,000	2.588,107	33,437
<b>TOTAL</b>					<b>2.588,107</b>	<b>33,437</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA JUVENTINO JOSE DA SILVA JR**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	9.88	0.00	0,000	0,000	0,000	0,000
0+10	9.51	0.00	96,950	0,000	96,950	0,000
1+0	9.34	0.00	94,250	0,000	191,200	0,000
1+2.404	10.77	0.00	24,172	0,000	215,372	0,000
1+10	0.00	0.00	40,904	0,000	256,277	0,000
1+17.543	11.37	0.00	0,000	0,000	256,277	0,000
2+0	9.49	0.00	25,627	0,000	281,903	0,000
2+10	8.85	0.00	91,700	0,000	373,603	0,000
3+0	9.17	0.00	90,100	0,000	463,703	0,000
3+10	9.13	0.00	91,500	0,000	555,203	0,000
3+16.195	9.13	0.00	56,560	0,000	611,764	0,000
3+18.444	9.99	0.00	21,500	0,000	633,264	0,000
4+0	0.00	0.00	7,772	0,000	641,036	0,000
4+5.972	0.00	0.00	0,000	0,000	641,036	0,000
<b>TOTAL</b>					<b>641,036</b>	<b>0,000</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA LEOPOLDO BENINCA**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	4.53	0.00	0,000	0,000	0,000	0,000
0+9.557	2.10	0.00	31,681	0,000	31,681	0,000
0+10	2.10	0.00	0,930	0,000	32,612	0,000
1+0	1.83	0.00	19,650	0,000	52,262	0,000
1+10	1.86	0.00	18,450	0,000	70,712	0,000
2+0	1.99	0.00	19,250	0,000	89,962	0,000
2+10	2.27	0.00	21,300	0,000	111,262	0,000
2+14.008	2.34	0.00	9,238	0,000	120,500	0,000
3+0	2.03	0.00	13,093	0,000	133,593	0,000
3+10	1.53	0.00	17,800	0,000	151,393	0,000
4+0	1.38	0.01	14,550	0,050	165,943	0,050
4+10	1.75	0.01	15,650	0,100	181,593	0,150
5+0	2.34	0.11	20,450	0,600	202,043	0,750
5+10	2.27	0.11	23,050	1,100	225,093	1,850
5+14.365	2.15	0.11	9,647	0,480	234,739	2,330
6+0	2.04	0.20	11,805	0,873	246,545	3,204
6+10	1.98	0.06	20,100	1,300	266,645	4,504
7+0	1.60	0.00	17,900	0,300	284,545	4,804
7+10	2.05	0.00	18,250	0,000	302,795	4,804
8+0	2.54	0.00	22,950	0,000	325,745	4,804
8+10	2.05	0.00	22,950	0,000	348,695	4,804
8+17.086	1.76	0.00	13,499	0,000	362,194	4,804
9+0	0.83	0.00	3,774	0,000	365,967	4,804
9+10	1.39	0.64	11,100	3,200	377,067	8,004
10+0	1.22	0.00	13,050	3,200	390,117	11,204
10+10	0.99	7.42	11,050	37,100	401,167	48,304
11+0	1.10	1.41	10,450	44,150	411,617	92,454
11+10	1.95	0.00	15,250	7,050	426,867	99,504
12+0	1.90	0.00	19,250	0,000	446,117	99,504
12+2.842	1.89	0.00	5,386	0,000	451,503	99,504
12+10	1.86	0.00	13,421	0,000	464,924	99,504
13+0	1.92	0.00	18,900	0,000	483,824	99,504
13+10	1.93	0.00	19,250	0,000	503,074	99,504
14+0	1.94	0.00	19,350	0,000	522,424	99,504
14+10	1.94	0.00	19,400	0,000	541,824	99,504
15+0	1.93	0.00	19,350	0,000	561,174	99,504
15+10	1.93	0.00	19,300	0,000	580,474	99,504
16+0	1.93	0.00	19,300	0,000	599,774	99,504
16+10	1.93	0.00	19,300	0,000	619,074	99,504
17+0	1.93	0.00	19,300	0,000	638,374	99,504
17+6.936	1.93	0.00	13,386	0,000	651,760	99,504
17+10	1.93	0.00	5,914	0,000	657,674	99,504
17+17.406	1.93	0.00	14,294	0,000	671,968	99,504
<b>TOTAL</b>					<b>671,968</b>	<b>99,504</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA LUCIANO DE O. CERCAL**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0.022	10,265	0,013	0,000	0,000	0,000	0,000
0+10	2,960	0,139	65,976	0,757	65,976	0,757
1+0	2,945	0,118	29,520	1,282	95,496	2,039
1+10	2,950	0,022	29,473	0,702	124,969	2,740
2+0	2,871	0,056	29,104	0,394	154,073	3,134
2+10	2,848	0,077	28,591	0,667	182,663	3,801
3+0	2,812	0,054	28,296	0,655	210,959	4,455
3+10	2,438	0,068	26,246	0,610	237,204	5,065
4+0	2,532	0,146	24,848	1,071	262,052	6,136
4+10	3,368	0,008	29,499	0,769	291,551	6,904
5+0	4,338	0,000	38,530	0,039	330,081	6,943
5+10	4,246	0,040	42,919	0,198	373,000	7,141
5+12.428	4,474	0,071	10,586	0,135	383,586	7,276
<b>TOTAL</b>					<b>383,586</b>	<b>7,276</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA MANOEL MAURICIO FILHO**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	11,184	0,005	0,000	0,000	0,000	0,000
0+10	3,543	0,243	73,631	1,238	73,631	1,238
1+0	3,700	0,259	36,213	2,509	109,843	3,747
1+10	3,798	0,375	37,488	3,167	147,331	6,913
2+0	4,572	0,006	41,847	1,902	189,177	8,815
2+10	5,751	0,059	51,615	0,324	240,792	9,139
3+0	6,189	0,045	59,699	0,520	300,491	9,658
3+10	6,196	0,020	61,921	0,327	362,412	9,985
4+0	5,532	0,000	58,637	0,102	421,048	10,087
4+10	5,059	0,031	52,951	0,154	473,999	10,240
5+0	5,468	0,011	52,631	0,211	526,630	10,451
5+10	5,737	0,024	56,023	0,175	582,653	10,626
6+0	5,798	0,000	57,675	0,118	640,327	10,744
6+10	6,389	0,000	60,935	0,000	701,262	10,744
7+0	5,649	0,001	60,189	0,004	761,451	10,748
7+10	5,047	0,004	53,480	0,025	814,930	10,772
8+0	4,677	0,035	48,620	0,194	863,550	10,966
8+10	5,093	0,014	48,848	0,245	912,398	11,211
9+0	5,459	0,003	52,758	0,087	965,156	11,297
9+2.9	5,419	0,000	15,773	0,004	980,929	11,301
9+10	10,138	0,062	55,227	0,221	1.036,156	11,522
9+11.3	13,872	0,020	15,607	0,054	1.051,763	11,576
10+1.42	14,750	0,090	0,000	0,000	1.051,763	11,576
10+8.927	6,325	0,182	79,105	1,023	1.130,867	12,599
10+10	6,920	0,146	7,106	0,176	1.137,973	12,776
11+0	6,565	0,233	67,423	1,895	1.205,396	14,670
11+10	5,304	0,112	59,341	1,724	1.264,737	16,394
12+0	4,258	0,177	47,807	1,446	1.312,543	17,840
12+10	3,768	0,136	40,128	1,563	1.352,671	19,403
13+0	3,402	0,177	35,850	1,560	1.388,521	20,963
13+10	3,223	0,324	33,128	2,502	1.421,649	23,465
14+0	3,245	0,618	32,344	4,712	1.453,993	28,177
14+10	3,588	0,546	34,168	5,822	1.488,160	33,999
15+0	4,086	0,334	38,370	4,399	1.526,530	38,397
15+10	4,495	0,156	42,906	2,449	1.569,435	40,846
16+0	4,781	0,130	46,383	1,429	1.615,818	42,275
16+10	5,070	0,093	49,255	1,116	1.665,073	43,391
17+0	5,372	0,059	52,209	0,764	1.717,282	44,155
17+10	5,681	0,027	55,266	0,432	1.772,548	44,586
18+0	6,005	0,009	58,433	0,177	1.830,980	44,763
18+1.546	6,023	0,008	9,298	0,013	1.840,278	44,776
<b>TOTAL</b>					<b>1.840,278</b>	<b>44,776</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA MARCOS JOÃO SERAFIM**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	7,101	0,298	0,000	0,000	0,000	0,000
0+4.517	5,845	0,104	0,000	0,000	0,000	0,000
0+10	5,306	0,195	30,570	0,820	30,570	0,820
1+0	5,881	0,133	55,933	1,641	86,503	2,461
1+10	5,383	0,102	56,317	1,174	142,820	3,634
2+0	5,210	0,051	52,966	0,764	195,786	4,398
2+10	2,197	0,092	37,036	0,719	232,822	5,117
3+0	4,605	0,060	34,011	0,760	266,832	5,877
3+10	5,033	0,000	48,189	0,298	315,021	6,175
4+0	5,528	0,000	52,805	0,000	367,826	6,175
4+7.96	5,234	0,000	42,833	0,000	410,659	6,175
4+10	2,731	0,000	8,124	0,000	418,783	6,175
5+0	3,815	0,000	32,729	0,000	451,511	6,175
5+4.948	4,060	0,000	19,482	0,000	470,993	6,175
5+10	6,464	0,000	26,583	0,000	497,576	6,175
6+0	4,626	0,000	55,451	0,000	553,027	6,175
6+10	5,206	0,000	0,000	0,000	553,027	6,175
6+17.938	3,089	0,000	32,921	0,000	585,948	6,175
7+0	6,049	0,000	9,421	0,000	595,369	6,175
7+9.035	5,377	0,000	51,617	0,000	646,987	6,175
7+10	5,424	0,000	5,212	0,000	652,198	6,175
8+0	6,071	0,000	0,000	0,000	652,198	6,175
8+10	2,589	0,000	43,304	0,000	695,502	6,175
8+17.337	3,928	0,000	23,909	0,000	719,411	6,175
9+0	3,490	0,000	9,877	0,000	729,288	6,175
9+10	5,558	0,000	45,239	0,000	774,527	6,175
10+0	5,077	0,000	53,171	0,000	827,698	6,175
10+10	5,258	0,000	51,671	0,000	879,369	6,175
11+0	2,588	0,000	39,229	0,000	918,598	6,175
11+0.074	4,796	0,000	0,273	0,000	918,871	6,175
11+10	2,678	0,022	37,091	0,111	955,962	6,286
12+0	6,229	0,003	44,533	0,126	1.000,495	6,412
12+10	5,442	0,000	58,355	0,015	1.058,850	6,427
13+0	5,502	0,000	54,721	0,002	1.113,570	6,428
13+10	5,739	0,182	56,208	0,913	1.169,778	7,341
14+0	6,695	0,045	62,171	1,138	1.231,949	8,479
14+8.232	6,849	0,049	55,746	0,389	1.287,694	8,868
14+10	6,720	0,064	11,994	0,100	1.299,689	8,968
15+0	5,329	0,008	60,243	0,360	1.359,932	9,327
15+10	5,007	0,017	51,678	0,125	1.411,610	9,452
16+0	5,047	0,031	50,266	0,241	1.461,875	9,693
16+6.743	4,768	0,034	33,089	0,218	1.494,965	9,911
16+10	4,800	0,001	15,581	0,056	1.510,546	9,966
17+0	4,846	0,040	48,228	0,202	1.558,773	10,168
17+10	5,402	0,066	51,236	0,529	1.610,009	10,696
18+0	6,757	0,021	60,794	0,435	1.670,803	11,131
18+10	7,844	0,000	73,008	0,105	1.743,811	11,236
19+0	6,483	0,000	71,638	0,000	1.815,449	11,236
19+5.892	4,576	0,205	32,581	0,604	1.848,030	11,840
19+10	4,396	0,238	18,430	0,910	1.866,460	12,750
20+0	4,131	0,478	42,639	3,582	1.909,098	16,332
20+10	3,837	0,162	39,841	3,201	1.948,939	19,533
21+0	4,055	0,001	39,461	0,817	1.988,399	20,349
21+10	3,727	0,069	38,914	0,351	2.027,313	20,700
21+16.743	3,764	0,448	25,257	1,742	2.052,570	22,442
22+0	2,845	0,000	10,762	0,729	2.063,332	23,171
22+10	4,224	0,014	35,341	0,071	2.098,673	23,242
23+0	5,285	0,000	47,542	0,071	2.146,215	23,313
23+10	5,877	0,000	55,809	0,000	2.202,024	23,313
23+12.37	3,273	0,000	10,843	0,000	2.212,867	23,313
24+0	3,324	0,001	25,166	0,003	2.238,032	23,316
24+10	6,708	0,000	50,157	0,004	2.288,189	23,320
24+18.668	5,465	0,051	52,755	0,222	2.340,943	23,542
25+0	5,379	0,048	7,222	0,066	2.348,165	23,608
25+10	4,816	0,010	50,975	0,289	2.399,140	23,897
26+0	5,246	0,000	50,307	0,052	2.449,447	23,948
26+10	5,572	0,058	54,086	0,291	2.503,532	24,239
26+19.785	5,699	0,162	55,142	1,077	2.558,675	25,316
27+0	5,328	0,170	1,185	0,036	2.559,860	25,352
27+10	0,040	0,000	26,843	0,850	2.586,703	26,201
28+0	0,028	0,000	0,341	0,000	2.587,044	26,201
28+10	0,059	0,000	0,433	0,000	2.587,477	26,201
29+0	0,051	0,000	0,551	0,000	2.588,028	26,201
29+10	11,798	0,000	59,247	0,000	2.647,274	26,201
29+10.443	11,795	0,000	5,226	0,000	2.652,500	26,201
29+10.443	11,795	0,000	0,000	0,000	2.652,500	26,201

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA MARCOS JOÃO SERAFIM

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
29+17.513	10,971	0,000	80,477	0,000	2.732,977	26,201
30+0	7,509	0,000	22,980	0,000	2.755,956	26,201
30+10	6,748	0,000	71,285	0,001	2.827,241	26,202
31+0	7,261	0,000	70,041	0,000	2.897,282	26,202
31+10	6,024	0,127	66,425	0,637	2.963,707	26,838
32+0	6,551	0,122	62,875	1,248	3.026,582	28,086
32+10	5,676	0,244	61,135	1,832	3.087,717	29,918
33+0	4,822	0,146	52,491	1,951	3.140,207	31,868
33+10	4,674	0,188	47,479	1,671	3.187,686	33,539
34+0	4,875	0,166	47,744	1,771	3.235,430	35,310
34+10	5,815	0,002	53,449	0,841	3.288,879	36,151
35+0	8,075	0,110	69,452	0,560	3.358,331	36,711
35+10	6,544	0,053	73,096	0,813	3.431,427	37,524
35+17.492	6,467	0,198	48,739	0,940	3.480,166	38,464
36+0	6,444	0,215	16,191	0,518	3.496,356	38,982
36+4.435	3,227	0,325	21,445	1,196	3.517,802	40,177
36+4.518	3,080	0,324	0,262	0,027	3.518,064	40,204
36+4.569	2,938	0,319	0,153	0,016	3.518,217	40,221
36+4.601	2,825	0,311	0,092	0,010	3.518,309	40,231
36+10	2,823	0,270	15,247	1,568	3.533,556	41,799
37+0	3,090	0,063	29,566	1,667	3.563,122	43,465
37+10	1,575	0,216	23,327	1,397	3.586,448	44,862
37+13.431	7,971	0,187	16,377	0,692	3.602,825	45,554
38+0	10,137	0,218	59,478	1,330	3.662,303	46,884
38+10	9,228	0,234	96,825	2,256	3.759,128	49,140
39+0	6,675	0,243	79,514	2,384	3.838,642	51,524
39+5.526	5,434	0,219	33,457	1,276	3.872,100	52,800
39+10	4,973	0,206	23,281	0,949	3.895,381	53,749
40+0	6,310	0,078	56,416	1,418	3.951,797	55,167
40+10	6,448	0,000	63,787	0,391	4.015,584	55,557
41+0	5,093	0,039	57,704	0,193	4.073,288	55,750
41+10	4,893	0,075	49,929	0,568	4.123,217	56,317
42+0	4,419	0,008	46,556	0,415	4.169,772	56,732
42+10	4,957	0,000	46,880	0,040	4.216,652	56,772
42+18.982	1,999	0,000	31,238	0,000	4.247,890	56,772
43+0	1,948	0,000	2,009	0,000	4.249,899	56,772
43+10	2,566	0,001	22,567	0,003	4.272,466	56,775
44+0	2,775	0,000	26,704	0,003	4.299,169	56,777
44+5.465	3,561	0,001	17,313	0,002	4.316,482	56,779
44+10	4,433	0,011	18,126	0,027	4.334,609	56,806
45+0	4,381	0,015	44,069	0,128	4.378,678	56,934
45+10	4,399	0,080	43,898	0,471	4.422,575	57,405
46+0	4,434	0,056	44,163	0,680	4.466,738	58,085
46+10	4,453	0,000	44,437	0,282	4.511,175	58,367
47+0	4,452	0,000	44,525	0,000	4.555,700	58,367
47+10	4,226	0,000	43,389	0,000	4.599,088	58,367
48+0	3,988	0,006	41,072	0,029	4.640,160	58,396
48+10	3,743	0,034	38,657	0,197	4.678,817	58,593
49+0	3,847	0,000	37,950	0,168	4.716,767	58,761
49+10	4,218	0,000	40,326	0,000	4.757,093	58,761
50+0	5,018	0,000	46,180	0,000	4.803,273	58,761
50+10	5,043	0,000	50,303	0,000	4.853,575	58,761
50+15.671	0,000	0,000	14,299	0,000	4.867,874	58,761
51+0	0,000	0,000	0,000	0,000	4.867,874	58,761
51+10	1,148	0,000	5,741	0,000	4.873,615	58,761
52+0	1,192	0,000	11,703	0,000	4.885,318	58,761
52+10	1,250	0,000	12,214	0,001	4.897,532	58,761
53+0	0,779	0,030	10,148	0,152	4.907,680	58,913
53+10	1,088	0,005	9,336	0,178	4.917,016	59,091
54+0	0,998	0,081	10,430	0,433	4.927,445	59,523
54+10	0,000	0,000	4,990	0,407	4.932,435	59,930
55+0	0,000	0,000	0,000	0,000	4.932,435	59,930
55+10	1,268	0,062	6,341	0,308	4.938,776	60,237
56+0	1,211	0,017	12,395	0,394	4.951,170	60,631
56+10	1,081	0,016	11,459	0,165	4.962,629	60,796
57+0	1,166	0,009	11,235	0,123	4.973,864	60,919
57+10	1,239	0,000	12,023	0,044	4.985,887	60,963
58+0	1,200	0,000	12,194	0,000	4.998,081	60,963
58+1.009	1,167	0,000	1,194	0,000	4.999,275	60,963
58+10	0,000	0,000	5,245	0,000	5.004,520	60,963
59+0	0,000	0,000	0,000	0,000	5.004,520	60,963
59+10	0,925	0,021	4,626	0,104	5.009,146	61,066
60+0	1,430	0,000	11,774	0,104	5.020,919	61,170
60+1.22	1,373	0,000	1,709	0,000	5.022,629	61,170
60+10	0,931	0,021	10,115	0,091	5.032,743	61,261
61+0	0,721	0,289	8,263	1,547	5.041,006	62,807

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA MARCOS JOÃO SERAFIM**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
61+10	0,331	0,127	5,261	2,077	5.046,267	64,884
62+0	0,282	0,000	3,064	0,634	5.049,331	65,518
62+10	0,301	0,000	2,913	0,000	5.052,244	65,518
63+0	0,744	0,000	5,223	0,000	5.057,467	65,518
63+0.648	0,744	0,000	0,482	0,000	5.057,949	65,518
63+10	0,978	0,409	8,049	1,911	5.065,998	67,429
64+0	0,920	0,438	9,487	4,233	5.075,485	71,662
64+10	0,931	0,362	9,254	4,001	5.084,738	75,663
65+0	1,149	0,306	10,402	3,340	5.095,140	79,003
65+10	1,097	0,296	11,232	3,009	5.106,372	82,012
66+0	0,000	0,000	5,487	1,480	5.111,858	83,492
66+10	0,000	0,000	0,000	0,000	5.111,858	83,492
66+15.406	0,000	0,000	0,000	0,000	5.111,858	83,492
67+0	1,344	0,193	3,088	0,444	5.114,946	83,936
67+10	1,364	0,147	13,542	1,702	5.128,488	85,637
68+0	1,511	0,191	14,376	1,689	5.142,864	87,326
68+10	1,535	0,186	15,232	1,882	5.158,095	89,208
69+0	1,436	0,163	14,853	1,743	5.172,948	90,950
69+6.675	1,101	0,172	8,465	1,117	5.181,412	92,067
69+10	0,000	0,000	1,830	0,285	5.183,242	92,352
70+0	0,000	0,000	0,000	0,000	5.183,242	92,352
70+10	0,000	0,000	0,000	0,000	5.183,242	92,352
70+10.437	0,000	0,000	0,000	0,000	5.183,242	92,352
71+0	1,013	0,318	4,844	1,521	5.188,086	93,873
71+10	1,107	0,307	10,600	3,126	5.198,685	96,999
72+0	0,978	0,238	10,423	2,725	5.209,108	99,724
72+10	1,069	0,187	10,231	2,126	5.219,339	101,850
73+0	0,732	0,107	9,003	1,471	5.228,342	103,321
73+3.476	0,000	0,000	1,272	0,186	5.229,614	103,507
73+10	0,000	0,000	0,000	0,000	5.229,614	103,507
74+0	0,000	0,000	0,000	0,000	5.229,614	103,507
74+7.388	0,000	0,000	0,000	0,000	5.229,614	103,507
74+10	1,395	0,150	1,822	0,196	5.231,436	103,703
75+0	1,540	0,134	14,676	1,423	5.246,112	105,126
75+10	1,556	0,122	15,480	1,283	5.261,591	106,408
76+0	1,368	0,172	14,619	1,474	5.276,210	107,882
76+10	1,273	0,187	13,202	1,796	5.289,412	109,677
77+0	1,544	0,162	14,081	1,745	5.303,492	111,422
77+10	1,601	0,091	15,722	1,267	5.319,214	112,689
78+0	1,627	0,036	16,139	0,636	5.335,353	113,324
78+10	2,379	0,000	20,028	0,180	5.355,381	113,504
78+10.082	2,997	0,000	0,220	0,000	5.355,601	113,504
<b>TOTAL</b>					<b>5.355,601</b>	<b>113,504</b>



**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA MARCIO LUCKOW**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	6.19	0.00	0,000	0,000	0,000	0,000
0+10	2.18	0.00	0,000	0,000	0,000	0,000
1+0	2.70	0.00	24,400	0,000	24,400	0,000
1+10	3.41	0.00	30,550	0,000	54,950	0,000
2+0	3.33	0.02	33,700	0,100	88,650	0,100
2+10	3.33	0.00	33,300	0,100	121,950	0,200
3+0	3.20	0.00	32,650	0,000	154,600	0,200
3+10	2.76	0.00	29,800	0,000	184,400	0,200
4+0	2.42	0.02	25,900	0,100	210,300	0,300
4+10	2.75	0.00	25,850	0,100	236,150	0,400
5+0	3.17	0.00	29,600	0,000	265,750	0,400
5+10	3.11	0.00	31,400	0,000	297,150	0,400
6+0	2.77	0.00	29,400	0,000	326,550	0,400
6+10	2.75	0.00	27,600	0,000	354,150	0,400
7+0	3.14	0.00	29,450	0,000	383,600	0,400
7+10	0.00	0.00	15,700	0,000	399,300	0,400
7+12.335	0.00	0.00	0,000	0,000	399,300	0,400
<b>TOTAL</b>					<b>399,300</b>	<b>0,400</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA MARQUES DE MARCIA**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	10.60	0.00	0,000	0,000	0,000	0,000
0+10	2.97	0.00	0,000	0,000	0,000	0,000
1+0	3.26	0.00	31,150	0,000	31,150	0,000
1+5.158	3.44	0.00	17,279	0,000	48,429	0,000
1+10	3.63	0.00	17,116	0,000	65,546	0,000
2+0	4.26	0.00	39,450	0,000	104,996	0,000
2+10	4.68	0.00	44,700	0,000	149,696	0,000
3+0	4.31	0.00	44,950	0,000	194,646	0,000
3+10	4.75	0.00	45,300	0,000	239,946	0,000
4+0	5.21	0.00	49,800	0,000	289,746	0,000
4+10	5.71	0.00	54,600	0,000	344,346	0,000
5+0	5.64	0.00	56,750	0,000	401,096	0,000
5+10	4.34	0.00	49,900	0,000	450,996	0,000
6+0	4.92	0.00	46,300	0,000	497,296	0,000
6+10	5.55	0.00	52,350	0,000	549,646	0,000
6+15.762	5.08	0.00	30,625	0,000	580,271	0,000
<b>TOTAL</b>					<b>580,271</b>	<b>0,000</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA MIRKO MAYERLE**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	6.16	0.00	0,000	0,000	0,000	0,000
0+10	6.04	0.00	61,000	0,000	61,000	0,000
1+0	5.74	0.00	58,900	0,000	119,900	0,000
1+4.532	11.07	0.00	38,091	0,000	157,991	0,000
1+10	0.00	0.00	30,265	0,000	188,257	0,000
1+12.662	11.35	0.00	15,107	0,000	203,364	0,000
2+0	5.93	0.00	63,400	0,000	266,764	0,000
2+10	5.67	0.00	0,000	0,000	266,764	0,000
3+0	2.25	0.18	39,600	0,900	306,364	0,900
3+10	2.75	0.17	25,000	1,750	331,364	2,650
4+0	3.19	0.16	29,700	1,650	361,064	4,300
4+10	2.76	0.07	29,750	1,150	390,814	5,450
5+0	0.00	0.00	13,800	0,350	404,614	5,800
5+10	1.66	0.12	8,300	0,600	412,914	6,400
6+0	1.44	0.14	15,500	1,300	428,414	7,700
6+10	1.75	0.04	15,950	0,900	444,364	8,600
7+0	2.03	0.05	18,900	0,450	463,264	9,050
7+10	2.40	0.05	22,150	0,500	485,414	9,550
8+0	2.39	0.08	23,950	0,650	509,364	10,200
8+10	0.00	0.00	11,950	0,400	521,314	10,600
9+0	0.00	0.00	0,000	0,000	521,314	10,600
9+10	1.91	0.02	9,550	0,100	530,864	10,700
10+0	1.75	0.13	18,300	0,750	549,164	11,450
10+10	1.57	0.09	16,600	1,100	565,764	12,550
11+0	1.45	0.00	15,100	0,450	580,864	13,000
11+10	2.39	0.05	19,200	0,250	600,064	13,250
12+0	5.38	0.24	38,850	1,450	638,914	14,700
12+10	4.17	0.43	47,750	3,350	686,664	18,050
13+0	2.34	0.27	32,550	3,500	719,214	21,550
13+10	1.97	0.24	21,550	2,550	740,764	24,100
14+0	1.93	0.26	19,500	2,500	760,264	26,600
14+10	1.90	0.30	19,150	2,800	779,414	29,400
15+0	2.60	0.01	22,500	1,550	801,914	30,950
15+6.756	3.97	0.00	22,193	0,034	824,107	30,984
15+10	4.19	0.00	13,236	0,000	837,343	30,984
15+18.302	9.03	0.00	54,876	0,000	892,219	30,984
16+0	9.95	0.00	16,114	0,000	908,333	30,984
16+10	5.54	0.00	77,450	0,000	985,783	30,984
16+14.434	5.53	0.00	24,542	0,000	1,010,325	30,984
17+0	5.57	0.00	30,891	0,000	1,041,217	30,984
17+10	6.16	0.00	58,650	0,000	1,099,867	30,984
18+0	5.87	0.00	60,150	0,000	1,160,017	30,984
18+3.992	5.64	0.00	22,974	0,000	1,182,991	30,984
18+10	5.45	0.00	33,314	0,000	1,216,305	30,984
19+0	8.07	0.00	67,600	0,000	1,283,905	30,984
19+2.25	6.85	0.00	16,785	0,000	1,300,690	30,984
19+10.432	5.75	0.00	51,547	0,000	1,352,237	30,984
20+0	4.99	0.00	51,380	0,000	1,403,617	30,984
20+10	3.23	0.00	41,100	0,000	1,444,717	30,984
20+10.883	3.08	0.00	2,786	0,000	1,447,503	30,984
21+0	1.74	0.00	21,972	0,000	1,469,475	30,984
21+10	1.09	0.04	14,150	0,200	1,483,625	31,184
22+0	0.90	0.22	9,950	1,300	1,493,575	32,484
22+6.94	2.70	0.03	12,492	0,868	1,506,067	33,351
<b>TOTAL</b>					<b>1.506,067</b>	<b>33,351</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA NOSSA SENHORA DO CARMO**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	9,555	0,163	0,000	0,000	0,000	0,000
0+10	5,659	0,001	76,073	0,823	76,073	0,823
1+0	5,733	0,000	56,961	0,006	133,034	0,828
1+10	5,767	0,001	57,501	0,004	190,535	0,832
2+0	5,439	0,000	56,032	0,004	246,566	0,836
2+10	5,513	0,000	54,761	0,000	301,327	0,836
3+0	5,806	0,000	56,597	0,000	357,924	0,836
3+10	5,665	0,001	57,357	0,006	415,280	0,842
4+0	5,146	0,013	54,054	0,072	469,334	0,914
4+10	4,753	0,075	49,492	0,440	518,826	1,353
5+0	4,324	0,106	45,383	0,902	564,208	2,255
5+10	4,586	0,000	44,548	0,528	608,756	2,782
6+0	4,893	0,000	47,396	0,000	656,151	2,782
6+10	5,374	0,000	51,337	0,000	707,488	2,782
7+0	5,325	0,002	53,497	0,011	760,985	2,793
7+10	5,230	0,000	52,776	0,011	813,760	2,803
8+0	5,209	0,000	52,194	0,000	865,954	2,803
8+10	5,052	0,061	51,306	0,306	917,259	3,109
9+0	5,556	0,009	53,041	0,351	970,300	3,460
9+10	5,430	0,000	54,928	0,046	1.025,228	3,505
9+12.227	8,000	0,023	14,953	0,025	1.040,181	3,530
<b>TOTAL</b>					<b>1.040,181</b>	<b>3,530</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA OLIVIO MENESTRINA**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	14,044	0,000	0,000	0,000	0,000	0,000
0+10	4,840	0,019	94,420	0,095	94,420	0,095
1+0	3,307	0,038	40,736	0,287	135,156	0,382
1+10	2,886	0,012	30,966	0,252	166,122	0,634
2+0	3,471	0,008	31,787	0,102	197,908	0,736
2+10	4,743	0,000	41,070	0,042	238,978	0,777
2+11.702	1,632	0,000	5,425	0,000	244,403	0,777
3+0	1,568	0,000	0,000	0,000	244,403	0,777
3+10	1,351	0,000	14,594	0,000	258,997	0,777
4+0	13,087	0,002	72,188	0,008	331,185	0,785
4+10	29,244	0,000	211,654	0,008	542,839	0,792
4+15.46	4,548	0,001	92,252	0,003	635,091	0,795
4+17.98	3,497	0,002	10,136	0,005	645,228	0,800
5+0	2,356	0,008	5,911	0,010	651,139	0,810
5+10	2,569	0,130	24,625	0,689	675,764	1,499
6+0	0,964	0,285	17,664	2,076	693,427	3,574
6+10	0,703	0,612	8,331	4,482	701,758	8,056
7+0	1,128	0,116	9,152	3,635	710,910	11,691
7+4.172	0,969	0,249	4,373	0,760	715,283	12,451
7+10	1,159	0,191	6,200	1,283	721,484	13,734
8+0	2,777	0,000	19,679	0,957	741,163	14,690
8+10	3,057	0,000	29,167	0,000	770,330	14,690
9+0	2,117	0,000	25,870	0,000	796,199	14,690
9+10	1,809	0,000	19,631	0,000	815,830	14,690
10+0	1,731	0,000	17,697	0,000	833,527	14,690
10+10	1,984	0,000	18,573	0,000	852,100	14,690
11+0	2,199	0,000	20,913	0,001	873,013	14,691
11+10	2,332	0,000	22,654	0,001	895,666	14,692
11+17.057	2,546	0,000	17,211	0,000	912,877	14,692
12+0	2,661	0,000	7,662	0,000	920,539	14,692
12+10	2,087	0,010	23,742	0,051	944,280	14,743
13+0	1,941	0,000	20,140	0,051	964,420	14,794
13+1.253	1,972	0,000	2,451	0,000	966,872	14,794
13+7.927	1,885	0,000	12,871	0,000	979,743	14,794
13+10	1,846	0,000	3,868	0,000	983,611	14,794
13+14.601	1,769	0,000	8,317	0,000	991,928	14,794
14+0	1,689	0,000	9,335	0,000	1.001,262	14,794
14+0.694	1,677	0,000	1,168	0,000	1.002,431	14,794
14+5.002	1,600	0,000	7,060	0,000	1.009,490	14,794
14+9.31	1,643	0,000	6,985	0,000	1.016,475	14,794
14+10	1,649	0,000	1,135	0,000	1.017,611	14,794
15+0	1,621	0,000	16,350	0,000	1.033,960	14,794
15+10	1,736	0,000	16,788	0,000	1.050,748	14,794
16+0	1,696	0,000	17,160	0,000	1.067,908	14,794
16+9.987	1,644	0,034	16,677	0,171	1.084,584	14,965
16+10	1,646	0,033	0,021	0,000	1.084,606	14,966
17+0	1,492	0,350	15,689	1,917	1.100,294	16,883
17+10	1,848	0,160	16,699	2,551	1.116,993	19,434
18+0	2,213	0,075	20,307	1,175	1.137,300	20,608
18+10	2,357	0,178	22,849	1,265	1.160,149	21,873
19+0	4,774	0,287	35,651	2,324	1.195,800	24,197
19+2.273	5,663	0,066	11,861	0,401	1.207,661	24,598
<b>TOTAL</b>					<b>1.207,661</b>	<b>24,598</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA**CÁLCULO DE VOLUMES****RUA ORESTES GIRARDI**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0.035	4,203	0,071	0,000	0,000	0,000	0,000
0+10	3,085	0,050	36,312	0,600	36,312	0,600
1+0	2,144	0,030	26,145	0,399	62,456	0,998
1+10	2,185	0,001	21,648	0,155	84,104	1,153
2+0	1,584	0,415	18,846	2,081	102,950	3,233
2+10	0,980	0,503	12,818	4,592	115,768	7,825
3+0	0,694	0,550	8,370	5,263	124,137	13,088
3+10	1,903	0,037	12,985	2,932	137,122	16,020
4+0	3,186	0,018	25,444	0,277	162,565	16,296
4+7.384	2,767	0,017	21,978	0,130	184,544	16,426
<b>TOTAL</b>					<b>184,544</b>	<b>16,426</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA PAULINO DE JESUS**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
0+0	0,826	0,000	0,000	0,000	0,000	0,000
0+10	1,325	0,004	10,754	0,019	10,754	0,019
1+0	1,075	0,027	11,997	0,154	22,751	0,173
1+10	0,879	0,096	9,768	0,616	32,518	0,788
2+0	0,948	0,167	9,132	1,317	41,650	2,105
2+10	1,177	0,102	10,621	1,346	52,271	3,450
3+0	1,383	0,024	12,801	0,632	65,072	4,082
3+10	1,444	0,039	14,136	0,314	79,208	4,396
4+0	1,391	0,141	14,172	0,895	93,380	5,291
4+10	1,612	0,227	15,014	1,838	108,393	7,128
5+0	1,291	0,143	14,513	1,848	122,906	8,976
5+10	0,864	0,099	10,771	1,210	133,677	10,186
6+0	0,830	0,084	8,466	0,916	142,142	11,102
6+10	0,969	0,055	8,995	0,696	151,137	11,798
7+0	0,797	0,084	8,830	0,695	159,966	12,493
7+10	0,707	0,137	7,516	1,103	167,482	13,595
8+0	0,743	0,135	7,250	1,361	174,732	14,956
8+10	0,808	0,121	7,756	1,282	182,488	16,238
9+0	0,894	0,074	8,508	0,974	190,995	17,212
9+10	0,000	0,000	4,469	0,369	195,464	17,581
10+0	0,000	0,000	0,000	0,000	195,464	17,581
10+2.158	3,200	0,298	3,452	0,322	198,916	17,903
10+10	3,548	0,000	26,457	1,170	225,373	19,073
10+10.301	3,520	0,000	1,064	0,000	226,437	19,073
11+0	4,583	0,000	39,296	0,000	265,732	19,073
11+10	4,551	0,000	45,668	0,000	311,400	19,073
12+0	4,401	0,000	44,759	0,000	356,159	19,073
12+10	4,674	0,000	45,374	0,000	401,533	19,073
13+0	5,406	0,000	50,399	0,000	451,931	19,073
13+10	5,679	0,000	55,427	0,000	507,358	19,073
14+0	6,093	0,000	58,861	0,000	566,218	19,073
14+10	6,425	0,000	62,587	0,000	628,805	19,073
15+0	5,960	0,000	61,923	0,000	690,728	19,073
15+10	5,263	0,000	56,115	0,001	746,842	19,074
16+0	4,809	0,005	50,360	0,025	797,202	19,099
16+10	5,161	0,001	49,849	0,029	847,051	19,127
17+0	6,149	0,000	56,548	0,005	903,599	19,132
17+10	7,024	0,000	65,865	0,000	969,463	19,132
18+0	8,538	0,000	77,812	0,000	1.047,275	19,132
18+6.777	6,546	0,000	51,112	0,000	1.098,387	19,132
<b>TOTAL</b>					<b>1.098,387</b>	<b>19,132</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES  
RUA PETRONILHA S. F. (TRECHO 01)

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+10	6,669	0,000	0,000	0,000	0,000	0,000
1+0	4,906	0,000	57,878	0,000	57,878	0,000
1+10	3,949	0,000	44,274	0,000	102,151	0,000
2+0	3,425	0,000	36,870	0,000	139,021	0,000
2+10	2,687	0,117	30,562	0,587	169,583	0,587
2+17.98	1,946	0,255	18,485	1,487	188,067	2,073
3+0	1,985	0,238	3,970	0,499	192,038	2,572
3+10	2,538	0,000	22,616	1,192	214,653	3,764
4+0	2,979	0,000	27,586	0,000	242,239	3,764
4+4.082	2,240	0,497	10,653	1,014	252,892	4,777
4+10	2,481	0,410	13,970	2,681	266,862	7,459
5+0	2,713	0,251	25,972	3,303	292,834	10,762
5+10	2,180	0,332	24,464	2,914	317,298	13,675
6+0	1,844	0,312	20,115	3,216	337,413	16,891
6+10	1,119	0,399	14,814	3,551	352,227	20,442
6+14.458	0,700	0,563	4,055	2,144	356,282	22,585
7+0	0,085	0,191	2,176	2,091	358,458	24,677
7+10	0,910	0,000	4,974	0,957	363,431	25,634
8+0	1,162	0,000	10,360	0,000	373,791	25,634
8+0.259	1,182	0,000	0,304	0,000	374,095	25,634
8+10	2,701	0,000	18,913	0,000	393,008	25,634
9+0	3,037	0,000	28,689	0,000	421,697	25,634
9+10	2,371	0,089	27,040	0,444	448,737	26,077
10+0	1,770	0,524	20,706	3,065	469,443	29,142
10+10	0,789	1,053	12,798	7,888	482,241	37,030
10+10.415	0,747	1,089	0,319	0,445	482,559	37,475
11+0	2,360	0,230	14,888	6,322	497,447	43,796
11+10	3,019	0,019	26,895	1,244	524,342	45,040
11+16.404	2,143	0,010	16,527	0,093	540,869	45,132
12+0	3,089	0,006	9,406	0,029	550,275	45,161
12+10	4,658	0,000	38,733	0,029	589,008	45,190
13+0	5,144	0,000	49,009	0,000	638,017	45,190
13+10	5,372	0,000	52,579	0,000	690,595	45,190
14+0	5,982	0,000	56,771	0,000	747,366	45,190
14+5.656	5,261	0,000	31,797	0,000	779,163	45,190
14+10	4,313	0,000	20,795	0,000	799,958	45,190
15+0	3,936	0,000	41,245	0,000	841,202	45,190
15+10	3,336	0,000	36,362	0,000	877,564	45,190
15+11.941	3,484	0,000	6,619	0,000	884,183	45,190
16+0	5,679	0,010	36,920	0,041	921,102	45,231
16+10	5,820	0,007	57,491	0,086	978,593	45,316
17+0	6,132	0,005	59,756	0,059	1.038,349	45,375
17+10	5,522	0,000	58,270	0,024	1.096,618	45,399
18+0	4,598	0,000	50,604	0,000	1.147,222	45,399
18+2.956	4,172	0,000	12,963	0,000	1.160,185	45,399
18+10	3,712	0,000	27,767	0,000	1.187,952	45,399
19+0	3,893	0,000	38,024	0,000	1.225,975	45,399
19+9.33	4,959	0,036	41,295	0,166	1.267,270	45,565
19+10	4,945	0,037	3,318	0,024	1.270,587	45,590
20+0	4,103	0,067	45,237	0,520	1.315,824	46,109
20+10	5,314	0,005	47,084	0,360	1.362,908	46,469
21+0	6,276	0,000	57,949	0,026	1.420,857	46,495
21+10	6,167	0,000	62,212	0,000	1.483,069	46,495
21+18.904	4,150	0,000	45,929	0,000	1.528,997	46,495
22+0	4,034	0,000	4,485	0,000	1.533,482	46,495
22+10	4,169	0,000	41,018	0,000	1.574,500	46,495
23+0	3,567	0,000	38,683	0,000	1.613,183	46,495
23+4.875	4,791	0,000	20,373	0,000	1.633,556	46,495
23+10	4,741	0,000	24,426	0,000	1.657,982	46,495
24+0	4,256	0,029	44,985	0,146	1.702,967	46,641
24+10	4,191	0,186	42,234	1,075	1.745,201	47,716
25+0	4,639	0,232	44,148	2,088	1.789,349	49,804
25+10	4,784	0,119	47,112	1,756	1.836,461	51,559
25+15.041	3,714	0,000	21,419	0,301	1.857,880	51,860
26+0	3,632	0,000	18,214	0,000	1.876,095	51,860
26+10	3,298	0,000	34,650	0,000	1.910,745	51,860
27+0	2,423	0,000	28,606	0,000	1.939,351	51,860
27+1.131	2,537	0,000	2,805	0,000	1.942,155	51,860
27+10	3,950	0,283	28,765	1,255	1.970,921	53,115
28+0	3,743	0,106	38,464	1,946	2.009,385	55,061
28+10	3,905	0,001	38,242	0,534	2.047,627	55,595
29+0	4,176	0,220	40,405	1,106	2.088,031	56,701
29+10	4,863	0,161	45,193	1,909	2.133,224	58,610
29+11.16	3,978	0,000	5,128	0,094	2.138,352	58,704
30+0	4,337	0,000	36,755	0,000	2.175,107	58,704
30+10	3,409	0,000	38,734	0,000	2.213,840	58,704



**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA PETRONILHA S. F. (TRECHO 01)**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
30+17.323	3,906	0,003	26,785	0,012	2.240,625	58,715
31+0	3,938	0,000	10,499	0,004	2.251,124	58,720
31+10	4,109	0,000	40,236	0,000	2.291,359	58,720
32+0	4,316	0,003	42,124	0,014	2.333,483	58,734
32+10	4,776	0,009	45,458	0,060	2.378,941	58,793
33+0	5,114	0,017	49,449	0,129	2.428,389	58,922
33+7.114	4,502	0,019	34,204	0,127	2.462,593	59,049
33+10	4,702	0,000	13,281	0,027	2.475,874	59,076
34+0	7,306	0,000	60,037	0,000	2.535,911	59,076
34+10	4,503	0,026	59,047	0,128	2.594,958	59,204
34+12.557	4,476	0,032	11,480	0,074	2.606,438	59,278
35+0	4,586	0,118	33,723	0,558	2.640,161	59,836
35+10	4,793	0,014	46,895	0,660	2.687,056	60,496
36+0	5,513	0,000	51,530	0,071	2.738,586	60,567
36+10	6,047	0,000	57,796	0,000	2.796,382	60,567
37+0	6,267	0,000	61,568	0,000	2.857,950	60,567
37+6.927	5,159	0,000	39,573	0,000	2.897,523	60,567
37+10	4,811	0,000	15,318	0,000	2.912,841	60,567
38+0	4,130	0,000	44,702	0,000	2.957,543	60,567
38+4.224	4,278	0,002	17,756	0,005	2.975,299	60,572
38+10	5,126	0,000	27,158	0,006	3.002,457	60,578
39+0	5,199	0,000	51,627	0,000	3.054,084	60,578
39+10	5,003	0,000	51,011	0,000	3.105,095	60,578
40+0	5,118	0,000	50,605	0,000	3.155,700	60,578
40+10	6,174	0,000	56,457	0,000	3.212,157	60,578
41+0	5,581	0,007	58,774	0,033	3.270,930	60,611
41+4.75	5,881	0,037	27,222	0,103	3.298,152	60,714
<b>TOTAL</b>					<b>3.298,152</b>	<b>60,714</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA PETRONILHA S. F. (TRECHO 02)**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
41+4.75	10,852	0,199	0,000	0,000	0,000	0,000
41+10	3,998	0,342	38,981	1,419	38,981	1,419
42+0	3,402	0,026	36,999	1,838	75,980	3,257
42+10	2,729	0,086	30,656	0,561	106,636	3,817
43+0	2,486	0,400	26,074	2,432	132,710	6,249
43+10	2,140	0,642	23,126	5,209	155,836	11,458
44+0	2,758	0,606	24,490	6,237	180,325	17,695
44+10	3,822	0,069	32,902	3,375	213,227	21,069
45+0	4,288	0,030	40,549	0,496	253,776	21,565
45+10	4,619	0,168	44,533	0,987	298,309	22,552
46+0	4,649	0,102	46,342	1,346	344,651	23,898
46+10	5,716	0,031	51,825	0,665	396,475	24,563
47+0	6,259	0,012	59,874	0,219	456,349	24,781
47+3.995	6,087	0,021	24,662	0,066	481,011	24,847
<b>TOTAL</b>					<b>481,011</b>	<b>24,847</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA PROF. THEODORO BOING

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,000	0,000	0,000	0,000	0,000	0,000
0+0.135	5,185	0,055	0,350	0,004	0,350	0,004
0+10	7,356	0,000	61,859	0,269	62,209	0,273
1+0	5,834	0,002	65,953	0,011	128,161	0,284
1+10	6,705	0,004	62,699	0,032	190,860	0,316
2+0	4,215	0,000	54,602	0,022	245,462	0,338
2+9.052	3,997	0,123	37,166	0,560	282,628	0,897
2+10	4,077	0,126	3,827	0,118	286,455	1,016
3+0	1,555	0,867	28,162	4,965	314,617	5,980
3+10	1,153	0,794	13,537	8,306	328,154	14,286
4+0	0,685	0,975	9,188	8,846	337,341	23,132
4+10	1,641	0,724	11,630	8,496	348,971	31,628
5+0	1,999	0,530	18,198	6,272	367,169	37,900
5+10	1,888	0,414	19,433	4,719	386,602	42,619
6+0	2,050	0,176	19,689	2,946	406,290	45,565
6+10	2,253	0,131	21,512	1,534	427,802	47,098
7+0	2,752	0,128	25,024	1,294	452,825	48,392
7+10	2,937	0,138	28,446	1,329	481,271	49,721
8+0	3,398	0,103	31,674	1,207	512,945	50,928
8+10	3,445	0,086	34,216	0,946	547,160	51,873
9+0	3,951	0,040	36,979	0,627	584,139	52,500
9+10	4,336	0,010	41,432	0,247	625,571	52,747
10+0	4,502	0,000	44,191	0,048	669,762	52,795
10+10	4,464	0,000	44,831	0,000	714,593	52,795
11+0	4,234	0,000	43,491	0,000	758,084	52,795
11+3.031	3,773	0,198	12,135	0,300	770,218	53,095
11+10	3,176	0,107	24,214	1,063	794,432	54,158
12+0	3,510	0,075	33,430	0,912	827,862	55,070
12+7.389	4,254	0,059	28,682	0,494	856,544	55,563
12+10	4,224	0,019	11,068	0,102	867,611	55,665
13+0	4,618	0,000	44,210	0,097	911,821	55,762
13+10	4,714	0,000	46,658	0,000	958,478	55,762
13+17.098	4,638	0,002	33,189	0,007	991,667	55,769
14+0	4,565	0,004	13,353	0,009	1.005,020	55,777
14+5.499	4,452	0,002	24,792	0,016	1.029,812	55,793
14+10	4,290	0,002	19,675	0,007	1.049,488	55,801
14+13.899	4,030	0,005	16,221	0,012	1.065,709	55,813
15+0	3,704	0,009	23,592	0,040	1.089,301	55,853
15+10	3,330	0,030	35,165	0,191	1.124,466	56,044
15+12.053	3,273	0,030	6,777	0,061	1.131,243	56,105
15+19.785	2,613	0,027	22,755	0,219	1.153,998	56,324
16+0	2,590	0,028	0,559	0,006	1.154,558	56,330
16+7.518	2,332	0,107	18,503	0,506	1.173,061	56,835
16+10	2,326	0,202	5,781	0,383	1.178,841	57,218
17+0	2,741	0,318	25,337	2,598	1.204,178	59,815
17+2.604	2,693	0,334	7,075	0,848	1.211,252	60,664
17+10	2,597	0,400	19,561	2,713	1.230,813	63,376
18+0	2,356	0,492	24,766	4,458	1.255,579	67,834
18+10	1,677	0,596	20,165	5,436	1.275,744	73,270
18+15.139	0,702	0,046	6,111	1,649	1.281,855	74,919
19+0	0,562	0,421	3,072	1,135	1.284,927	76,054
19+10	1,007	0,280	7,846	3,502	1.292,773	79,555
19+19.201	2,395	0,458	15,653	3,393	1.308,425	82,948
20+0	2,429	0,410	1,928	0,347	1.310,353	83,295
20+10	3,060	0,202	27,445	3,057	1.337,797	86,352
21+0	3,638	0,113	33,488	1,574	1.371,285	87,926
21+10	4,159	0,010	38,986	0,617	1.410,271	88,542
22+0	4,009	0,082	40,843	0,463	1.451,113	89,005
22+10	4,302	0,115	41,555	0,988	1.492,668	89,993
23+0	4,422	0,092	43,621	1,036	1.536,289	91,028
23+10	4,617	0,012	45,198	0,521	1.581,486	91,549
24+0	4,707	0,029	46,620	0,209	1.628,106	91,758
24+10	4,863	0,008	47,851	0,189	1.675,957	91,947
25+0	4,844	0,081	48,536	0,444	1.724,492	92,391
25+10	4,804	0,181	48,238	1,307	1.772,730	93,697
26+0	1,866	0,005	33,349	0,931	1.806,079	94,628
26+10	0,000	0,000	9,329	0,027	1.815,408	94,654
26+14.422	0,000	0,000	0,000	0,000	1.815,408	94,654
<b>TOTAL</b>					<b>1.815,408</b>	<b>94,654</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA RAD. DANIEL DA SILVA**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	0.00	0.00	0,000	0,000	0,000	0,000
0+10	3.80	0.03	19,000	0,150	19,000	0,150
1+0	3.96	0.01	38,800	0,200	57,800	0,350
1+10	3.68	0.04	38,200	0,250	96,000	0,600
2+0	3.20	0.08	34,400	0,600	130,400	1,200
2+10	2.66	0.07	29,300	0,750	159,700	1,950
3+0	2.28	0.06	24,700	0,650	184,400	2,600
3+10	2.75	0.02	25,150	0,400	209,550	3,000
4+0	1.66	0.00	22,050	0,100	231,600	3,100
4+10	1.49	0.00	15,750	0,000	247,350	3,100
5+0	2.29	0.00	18,900	0,000	266,250	3,100
5+10	2.26	0.03	22,750	0,150	289,000	3,250
6+0	2.50	0.04	23,800	0,350	312,800	3,600
6+10	3.14	0.05	28,200	0,450	341,000	4,050
7+0	0.00	0.00	15,700	0,250	356,700	4,300
7+10	0.00	0.00	0,000	0,000	356,700	4,300
8+0	2.84	0.00	14,200	0,000	370,900	4,300
8+10	2.39	0.00	26,150	0,000	397,050	4,300
9+0	2.36	0.03	23,750	0,150	420,800	4,450
9+10	2.41	0.07	23,850	0,500	444,650	4,950
10+0	2.87	0.14	26,400	1,050	471,050	6,000
10+10	1.62	0.00	22,450	0,700	493,500	6,700
11+0	1.54	0.00	15,800	0,000	509,300	6,700
11+10	1.56	0.00	15,500	0,000	524,800	6,700
12+0	1.32	0.00	14,400	0,000	539,200	6,700
12+4.035	0.00	0.00	2,663	0,000	541,863	6,700
12+10	0.00	0.00	0,000	0,000	541,863	6,700
12+14.526	0.00	0.00	0,000	0,000	541,863	6,700
<b>TOTAL</b>					<b>541,863</b>	<b>6,700</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA RENATO SCHEUNEMANN**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	0,000	0,000	0,000	0,000	0,000	0,000
0+10	1,852	0,000	9,260	0,000	9,260	0,000
1+0	5,095	0,000	34,733	0,000	43,993	0,000
1+10	5,977	0,000	55,360	0,000	99,352	0,000
2+0	5,905	0,000	59,411	0,000	158,763	0,000
2+10	5,486	0,000	56,953	0,000	215,716	0,000
3+0	5,219	0,000	53,523	0,000	269,239	0,000
3+10	5,041	0,000	51,297	0,000	320,535	0,000
4+0	4,847	0,000	49,437	0,000	369,972	0,000
4+0.512	4,833	0,000	2,478	0,000	372,450	0,000
4+10	3,326	0,000	38,706	0,000	411,156	0,000
4+17.373	3,772	0,000	26,167	0,000	437,323	0,000
5+0	3,751	0,000	0,000	0,000	437,323	0,000
5+4.935	3,787	0,000	18,601	0,000	455,923	0,000
14+0	0,000	0,000	331,521	0,000	787,444	0,000
20+10	1,794	0,000	116,591	0,000	904,034	0,000
21+0	1,587	0,000	16,902	0,000	920,936	0,000
21+10	1,770	0,000	16,782	0,000	937,718	0,000
22+0	1,739	0,002	17,546	0,012	955,264	0,012
22+10	1,455	0,021	15,972	0,119	971,236	0,131
23+0	1,082	0,043	12,687	0,320	983,923	0,451
23+10	1,244	0,000	11,634	0,214	995,557	0,664
24+0	0,469	0,000	8,565	0,000	1.004,121	0,664
24+10	0,000	0,000	2,343	0,000	1.006,464	0,664
24+13.465	0,000	0,000	0,000	0,000	1.006,464	0,664
25+0	1,816	5,742	5,934	18,763	1.012,398	19,427
25+1.315	1,699	5,753	2,311	7,558	1.014,709	26,985
25+10	1,613	5,871	14,383	50,476	1.029,092	77,461
26+0	1,549	5,909	15,809	58,899	1.044,900	136,360
26+10	1,647	5,803	15,976	58,560	1.060,876	194,920
27+0	1,787	5,638	17,168	57,205	1.078,044	252,125
27+10	1,926	5,436	18,565	55,372	1.096,608	307,496
28+0	1,513	6,725	17,194	60,805	1.113,802	368,301
28+10	3,492	0,000	25,026	33,623	1.138,828	401,924
29+0	3,311	0,000	34,016	0,000	1.172,843	401,924
29+10	3,911	0,000	36,110	0,000	1.208,953	401,924
30+0	4,039	0,000	39,749	0,000	1.248,702	401,924
30+10	4,228	0,000	41,332	0,000	1.290,034	401,924
31+0	4,174	0,000	42,010	0,000	1.332,044	401,924
31+10	3,817	0,000	39,953	0,000	1.371,997	401,924
31+19.241	5,018	0,000	40,820	0,000	1.412,817	401,924
<b>TOTAL</b>					<b>1.412,817</b>	<b>401,924</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA RODRIGO BAUMER**

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0.129	2.12	0.00	0,000	0,000	0,000	0,000
0+10	2.56	0.06	23,098	0,296	23,098	0,296
1+0	2.37	0.08	24,650	0,700	47,748	0,996
1+10	2.33	0.08	23,500	0,800	71,248	1,796
2+0	2.72	0.00	25,250	0,400	96,498	2,196
2+10	2.20	0.07	24,600	0,350	121,098	2,546
3+0	1.86	0.13	20,300	1,000	141,398	3,546
3+10	0.84	0.18	13,500	1,550	154,898	5,096
4+0	0.98	0.00	9,100	0,900	163,998	5,996
4+10	1.77	0.27	13,750	1,350	177,748	7,346
5+0	1.91	0.17	18,400	2,200	196,148	9,546
5+10	1.86	0.15	18,850	1,600	214,998	11,146
6+0	1.95	0.22	19,050	1,850	234,048	12,996
6+10	2.05	0.22	20,000	2,200	254,048	15,196
7+0	2.17	0.14	21,100	1,800	275,148	16,996
7+10	2.07	0.16	21,200	1,500	296,348	18,496
8+0	1.85	0.26	19,600	2,100	315,948	20,596
8+10	1.77	0.23	18,100	2,450	334,048	23,046
9+0	2.10	0.08	19,350	1,550	353,398	24,596
9+10	0.00	0.00	10,500	0,400	363,898	24,996
10+0	0.00	0.00	0,000	0,000	363,898	24,996
10+10	0.78	0.06	3,900	0,300	367,798	25,296
10+10	0.00	0.00	0,000	0,000	367,798	25,296
11+0	0.52	0.08	2,600	0,400	370,398	25,696
11+0	0.00	0.00	0,000	0,000	370,398	25,696
11+0.627	0.50	0.09	0,157	0,028	370,555	25,724
11+10	0.39	0.11	4,171	0,937	374,726	26,662
12+0	0.49	0.15	4,400	1,300	379,126	27,962
12+10	0.75	0.15	6,200	1,500	385,326	29,462
13+0	0.91	0.20	8,300	1,750	393,626	31,212
13+10	0.90	0.23	9,050	2,150	402,676	33,362
14+0	1.26	0.12	10,800	1,750	413,476	35,112
14+10	1.33	0.06	12,950	0,900	426,426	36,012
15+0	1.09	0.00	12,100	0,300	438,526	36,312
15+10	1.10	0.00	10,950	0,000	449,476	36,312
15+15.812	0.00	0.00	3,197	0,000	452,672	36,312
<b>TOTAL</b>					<b>452,672</b>	<b>36,312</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA RUDOLF BAUMER

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	5.43	0.00	0,000	0,000	0,000	0,000
0+10	3.70	0.00	45,650	0,000	45,650	0,000
1+0	3.68	0.04	36,900	0,200	82,550	0,200
1+10	3.62	0.03	36,500	0,350	119,050	0,550
2+0	3.47	0.00	35,450	0,150	154,500	0,700
2+10	3.54	0.00	35,050	0,000	189,550	0,700
3+0	3.62	0.00	35,800	0,000	225,350	0,700
3+10	3.89	0.00	37,550	0,000	262,900	0,700
4+0	4.26	0.00	40,750	0,000	303,650	0,700
4+10	4.92	0.00	45,900	0,000	349,550	0,700
5+0	5.44	0.00	51,800	0,000	401,350	0,700
5+10	5.25	0.00	53,450	0,000	454,800	0,700
6+0	4.85	0.00	50,500	0,000	505,300	0,700
6+10	4.00	0.00	44,250	0,000	549,550	0,700
7+0	4.19	0.00	40,950	0,000	590,500	0,700
7+10	2.20	0.01	31,950	0,050	622,450	0,750
8+0	3.80	0.04	30,000	0,250	652,450	1,000
8+10	3.68	0.05	37,400	0,450	689,850	1,450
9+0	4.90	0.00	42,900	0,250	732,750	1,700
9+10	6.19	0.00	55,450	0,000	788,200	1,700
10+0	6.33	0.00	62,600	0,000	850,800	1,700
10+10	5.36	0.00	58,450	0,000	909,250	1,700
11+0	4.61	0.00	49,850	0,000	959,100	1,700
11+10	4.66	0.00	46,350	0,000	1,005,450	1,700
12+0	4.82	0.00	47,400	0,000	1,052,850	1,700
12+10	4.55	0.01	46,850	0,050	1,099,700	1,750
13+0	4.70	0.04	46,250	0,250	1,145,950	2,000
13+10	5.14	0.03	49,200	0,350	1,195,150	2,350
14+0	4.49	0.02	48,150	0,250	1,243,300	2,600
14+10	2.20	0.08	33,450	0,500	1,276,750	3,100
15+0	2.45	0.06	23,250	0,700	1,300,000	3,800
15+10	2.84	0.00	26,450	0,300	1,326,450	4,100
16+0	2.90	0.00	28,700	0,000	1,355,150	4,100
16+10	3.12	0.00	30,100	0,000	1,385,250	4,100
17+0	4.07	0.00	35,950	0,000	1,421,200	4,100
17+10	4.53	0.00	43,000	0,000	1,464,200	4,100
18+0	3.52	0.00	40,250	0,000	1,504,450	4,100
18+10	2.82	0.00	31,700	0,000	1,536,150	4,100
19+0	2.60	0.00	27,100	0,000	1,563,250	4,100
19+10	2.53	0.00	25,650	0,000	1,588,900	4,100
20+0	2.77	0.00	26,500	0,000	1,615,400	4,100
20+10	2.75	0.07	27,600	0,350	1,643,000	4,450
21+0	2.42	0.12	25,850	0,950	1,668,850	5,400
21+10	2.05	0.07	22,350	0,950	1,691,200	6,350
22+0	0.00	0.00	10,250	0,350	1,701,450	6,700
22+1.03	0.00	0.00	0,000	0,000	1,701,450	6,700
22+10	0.00	0.00	0,000	0,000	1,701,450	6,700
23+0	0.00	0.00	0,000	0,000	1,701,450	6,700
23+10	2.78	0.00	13,900	0,000	1,715,350	6,700
24+0	2.16	0.00	24,700	0,000	1,740,050	6,700
24+10	1.57	0.00	18,650	0,000	1,758,700	6,700
25+0	1.20	0.03	13,850	0,150	1,772,550	6,850
25+10	1.80	0.04	15,000	0,350	1,787,550	7,200
26+0	1.57	0.00	16,850	0,200	1,804,400	7,400
26+10	0.00	0.00	7,850	0,000	1,812,250	7,400
27+0	0.00	0.00	0,000	0,000	1,812,250	7,400
27+10	0.00	0.00	0,000	0,000	1,812,250	7,400
28+0	4.08	0.00	20,400	0,000	1,832,650	7,400
28+10	4.35	0.06	42,150	0,300	1,874,800	7,700
29+0	4.50	0.00	44,250	0,300	1,919,050	8,000
29+10	4.57	0.00	45,350	0,000	1,964,400	8,000
30+0	4.62	0.00	45,950	0,000	2,010,350	8,000
30+10	4.85	0.00	47,350	0,000	2,057,700	8,000
31+0	5.40	0.02	51,250	0,100	2,108,950	8,100
31+10	4.52	0.04	49,600	0,300	2,158,550	8,400
32+0	3.55	0.05	40,350	0,450	2,198,900	8,850
32+10	4.10	0.07	38,250	0,600	2,237,150	9,450
33+0	3.23	0.05	36,650	0,600	2,273,800	10,050
33+10	3.67	0.03	34,500	0,400	2,308,300	10,450
34+0	4.35	0.00	40,100	0,150	2,348,400	10,600
34+10	0.00	0.00	21,750	0,000	2,370,150	10,600
35+0	0.00	0.00	0,000	0,000	2,370,150	10,600
35+10	4.34	0.00	21,700	0,000	2,391,850	10,600
36+0	4.35	0.00	43,450	0,000	2,435,300	10,600
36+10	4.48	0.00	44,150	0,000	2,479,450	10,600
37+0	4.67	0.00	45,750	0,000	2,525,200	10,600

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA RUDOLF BAUMER

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
37+10	4.67	0.00	46,700	0,000	2.571,900	10,600
38+0	4.55	0.00	46,100	0,000	2.618,000	10,600
38+10	4.40	0.00	44,750	0,000	2.662,750	10,600
39+0	4.50	0.00	44,500	0,000	2.707,250	10,600
39+10	4.81	0.04	46,550	0,200	2.753,800	10,800
40+0	3.98	0.04	43,950	0,400	2.797,750	11,200
40+10	3.65	0.02	38,150	0,300	2.835,900	11,500
40+18.228	3.71	0.02	30,279	0,165	2.866,179	11,665
41+0	3.69	0.02	6,556	0,035	2.872,735	11,700
41+10	3.48	0.04	35,850	0,300	2.908,585	12,000
42+0	0.00	0.00	17,400	0,200	2.925,985	12,200
42+10	0.00	0.00	0,000	0,000	2.925,985	12,200
42+16.896	0.00	0.00	0,000	0,000	2.925,985	12,200
43+0	3.38	0.00	5,246	0,000	2.931,231	12,200
43+10	0.66	0.00	20,200	0,000	2.951,431	12,200
44+0	1.72	0.00	11,900	0,000	2.963,331	12,200
44+10	2.24	0.00	19,800	0,000	2.983,131	12,200
45+0	1.94	0.00	20,900	0,000	3.004,031	12,200
45+10	1.90	0.00	19,200	0,000	3.023,231	12,200
46+0	1.87	0.06	18,850	0,300	3.042,081	12,500
46+10	2.12	0.09	19,950	0,750	3.062,031	13,250
47+0	2.41	0.03	22,650	0,600	3.084,681	13,850
47+10	2.74	0.04	25,750	0,350	3.110,431	14,200
48+0	4.19	0.04	34,650	0,400	3.145,081	14,600
48+10	4.45	0.00	43,200	0,200	3.188,281	14,800
49+0	3.33	0.00	38,900	0,000	3.227,181	14,800
49+10	3.54	0.00	34,350	0,000	3.261,531	14,800
50+0	1.69	0.02	26,150	0,100	3.287,681	14,900
50+10	2.62	0.03	21,550	0,250	3.309,231	15,150
51+0	1.68	0.05	21,500	0,400	3.330,731	15,550
51+10	1.75	0.07	17,150	0,600	3.347,881	16,150
52+0	2.35	0.08	20,500	0,750	3.368,381	16,900
52+10	2.99	0.02	26,700	0,500	3.395,081	17,400
53+0	3.55	0.00	32,700	0,100	3.427,781	17,500
53+10	1.07	0.00	23,100	0,000	3.450,881	17,500
54+0	3.72	0.14	23,950	0,700	3.474,831	18,200
54+10	1.22	0.09	24,700	1,150	3.499,531	19,350
55+0	1.04	0.12	11,300	1,050	3.510,831	20,400
55+10	1.03	0.09	10,350	1,050	3.521,181	21,450
56+0	0.98	0.01	10,050	0,500	3.531,231	21,950
56+10	0.50	0.03	7,400	0,200	3.538,631	22,150
57+0	0.11	0.10	3,050	0,650	3.541,681	22,800
57+10	0.00	0.00	0,550	0,500	3.542,231	23,300
58+0	3.29	0.00	16,450	0,000	3.558,681	23,300
58+10	2.27	0.02	27,800	0,100	3.586,481	23,400
59+0	1.51	0.03	18,900	0,250	3.605,381	23,650
59+10	1.38	0.06	14,450	0,450	3.619,831	24,100
60+0	1.37	0.09	13,750	0,750	3.633,581	24,850
60+10	1.60	0.15	14,850	1,200	3.648,431	26,050
60+14.639	1.88	0.13	8,072	0,649	3.656,503	26,699
61+0	8.85	0.00	28,762	0,348	3.685,265	27,048
61+10	7.65	0.00	82,500	0,000	3.767,765	27,048
62+0	4.49	0.00	60,700	0,000	3.828,465	27,048
62+0.306	4.45	0.00	1,368	0,000	3.829,833	27,048
62+10	3.87	0.00	40,327	0,000	3.870,160	27,048
63+0	3.16	0.00	35,150	0,000	3.905,310	27,048
63+10	2.71	0.05	29,350	0,250	3.934,660	27,298
64+0	2.43	0.15	25,700	1,000	3.960,360	28,298
64+9.649	2.18	0.23	22,241	1,833	3.982,601	30,131
64+10	2.18	0.25	0,765	0,084	3.983,366	30,215
65+0	3.53	0.00	28,550	1,250	4.011,916	31,465
65+10	2.40	0.25	29,650	1,250	4.041,566	32,715
65+13.749	1.99	0.18	8,229	0,806	4.049,795	33,522
66+0	1.76	0.19	11,721	1,156	4.061,515	34,678
66+10	1.55	0.25	16,550	2,200	4.078,065	36,878
67+0	1.42	0.25	14,850	2,500	4.092,915	39,378
67+10	1.21	0.29	13,150	2,700	4.106,065	42,078
68+0	1.00	0.45	11,050	3,700	4.117,115	45,778
68+5.959	3.02	0.02	11,978	1,400	4.129,093	47,178
68+10	5.17	0.01	16,548	0,061	4.145,641	47,239
69+0	6.52	0.00	58,450	0,050	4.204,091	47,289
69+10	3.27	0.18	48,950	0,900	4.253,041	48,189
69+10.28	3.16	0.17	0,900	0,049	4.253,941	48,238
70+0	1.70	0.14	23,620	1,507	4.277,561	49,745
70+10	1.11	0.26	14,050	2,000	4.291,611	51,745
71+0	1.04	0.47	10,750	3,650	4.302,361	55,395



**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA RUDOLF BAUMER**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
71+10	1.12	0.46	10,800	4,650	4.313,161	60,045
72+0	1.22	0.43	11,700	4,450	4.324,861	64,495
72+10	1.56	0.01	13,900	2,200	4.338,761	66,695
73+0	1.05	1.07	13,050	5,400	4.351,811	72,095
73+5.685	0.53	0.68	4,491	4,974	4.356,302	77,069
73+10	0.49	0.55	2,201	2,654	4.358,503	79,723
74+0	0.68	0.49	5,850	5,200	4.364,353	84,923
74+10	0.47	0.64	5,750	5,650	4.370,103	90,573
75+0	0.50	0.70	4,850	6,700	4.374,953	97,273
75+10	1.35	0.41	9,250	5,550	4.384,203	102,823
76+0	2.79	0.16	20,700	2,850	4.404,903	105,673
76+10	3.67	0.04	32,300	1,000	4.437,203	106,673
77+0	3.75	0.06	37,100	0,500	4.474,303	107,173
77+2.628	3.79	0.05	9,908	0,145	4.484,210	107,317
77+10	4.58	0.11	30,852	0,590	4.515,062	107,907
78+0	3.49	14.36	40,350	72,350	4.555,412	180,257
78+10	4.90	0.42	41,950	73,900	4.597,362	254,157
78+13.13	0.00	0.00	7,669	0,657	4.605,030	254,814
<b>TOTAL</b>					<b>4.605,030</b>	<b>254,814</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA SÃO BENTO**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
0+0	15,007	0,060	0,000	0,000	0,000	0,000
0+10	7,018	0,001	110,124	0,307	110,124	0,307
1+0	7,319	0,011	71,684	0,060	181,808	0,367
1+10	7,704	0,001	75,115	0,062	256,922	0,429
2+0	7,695	0,018	76,997	0,097	333,919	0,526
2+10	7,453	0,047	75,742	0,324	409,661	0,850
3+0	7,045	0,080	72,488	0,634	482,148	1,484
3+10	6,715	0,106	68,800	0,929	550,948	2,413
4+0	6,505	0,166	66,104	1,359	617,052	3,771
4+10	6,264	0,550	63,848	3,581	680,899	7,352
5+0	6,360	0,521	63,122	5,357	744,021	12,709
5+10	6,036	0,474	61,983	4,974	806,003	17,683
6+0	6,076	0,336	60,564	4,049	866,567	21,732
6+10	4,754	0,528	54,153	4,323	920,720	26,054
7+0	3,930	0,653	43,423	5,908	964,143	31,962
7+10	4,916	0,255	44,231	4,540	1.008,373	36,502
8+0	6,319	0,102	56,172	1,783	1.064,545	38,285
8+10	8,253	0,000	72,858	0,510	1.137,403	38,795
9+0	8,559	0,000	84,060	0,000	1.221,463	38,795
9+8.11	9,395	0,050	72,805	0,202	1.294,268	38,996
<b>TOTAL</b>					<b>1.294,268</b>	<b>38,996</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA SÃO GABRIEL ARCANJO

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)	Vol. Acumulado de Corte (m³)	Vol. Acumulado de Aterro (m³)
0+0	10,354	0,100	0,000	0,000	0,000	0,000
0+10	6,514	0,032	84,342	0,658	84,342	0,658
1+0	7,362	0,010	69,379	0,211	153,720	0,869
1+10	7,301	0,000	73,316	0,052	227,036	0,921
2+0	7,196	0,000	72,489	0,000	299,525	0,921
2+10	7,085	0,000	71,408	0,000	370,932	0,921
3+0	5,843	0,118	64,640	0,589	435,572	1,510
3+5.398	4,385	0,760	27,606	2,368	463,178	3,878
3+13.89	4,177	0,335	36,357	4,646	499,534	8,524
4+0	3,444	0,000	23,283	1,023	522,818	9,546
4+3.006	4,404	0,096	11,795	0,144	534,613	9,690
4+10	4,679	0,062	31,764	0,552	566,377	10,242
5+0	4,819	0,083	47,493	0,728	613,869	10,970
5+10	4,824	0,083	48,215	0,834	662,084	11,804
6+0	4,818	0,076	48,208	0,797	710,292	12,600
6+10	5,120	0,069	49,689	0,726	759,981	13,326
7+0	5,590	0,069	53,550	0,691	813,531	14,017
7+10	5,583	0,055	55,863	0,620	869,394	14,636
8+0	5,526	0,041	55,543	0,480	924,936	15,116
8+10	5,294	0,000	54,101	0,205	979,037	15,321
9+0	4,889	0,000	50,918	0,000	1.029,954	15,321
9+10	4,434	0,000	46,616	0,000	1.076,570	15,321
10+0	4,055	0,000	42,447	0,000	1.119,017	15,321
10+10	3,777	0,000	39,163	0,000	1.158,180	15,321
11+0	4,182	0,000	39,797	0,000	1.197,977	15,321
11+10	4,690	0,000	44,358	0,000	1.242,335	15,321
12+0	4,113	0,000	44,013	0,000	1.286,347	15,321
12+10	4,336	0,000	42,246	0,000	1.328,593	15,321
12+17.539	5,133	0,000	35,694	0,000	1.364,287	15,321
13+0	5,170	0,100	12,678	0,123	1.376,965	15,443
13+7.399	8,566	0,165	50,817	0,981	1.427,782	16,425
13+15.939	11,463	0,054	85,523	0,937	1.513,305	17,361
14+0	3,206	0,007	29,784	0,124	1.543,089	17,485
14+3.406	4,658	0,031	13,392	0,064	1.556,480	17,550
14+10	4,130	0,000	28,974	0,102	1.585,454	17,651
15+0	4,409	0,000	42,696	0,000	1.628,150	17,651
15+10	5,061	0,000	47,349	0,000	1.675,499	17,651
16+0	5,581	0,000	53,207	0,000	1.728,705	17,651
16+10	5,755	0,000	56,677	0,000	1.785,382	17,651
17+0	5,320	0,000	55,375	0,000	1.840,757	17,651
17+10	6,008	0,000	56,639	0,000	1.897,395	17,651
18+0	6,359	0,000	61,831	0,000	1.959,226	17,651
18+10	6,513	0,000	64,359	0,000	2.023,585	17,651
19+0	5,462	0,003	59,874	0,013	2.083,458	17,664
19+1.209	5,996	0,008	6,926	0,007	2.090,384	17,671
19+6.227	6,426	0,004	31,164	0,031	2.121,548	17,702
20+0	0,000	0,000	0,000	0,000	2.121,548	17,702
20+5.631	4,037	0,128	11,366	0,359	2.132,915	18,061
20+10	4,465	0,239	18,572	0,801	2.151,487	18,862
21+0	4,880	0,326	46,721	2,827	2.198,208	21,689
21+10	5,197	0,321	50,381	3,237	2.248,589	24,926
22+0	5,661	0,295	54,290	3,081	2.302,878	28,007
22+10	6,018	0,270	58,396	2,825	2.361,274	30,831
23+0	5,912	0,217	59,647	2,437	2.420,920	33,268
23+10	5,319	0,219	56,153	2,183	2.477,073	35,451
24+0	5,446	0,266	53,825	2,424	2.530,897	37,874
24+10	6,068	0,142	57,567	2,035	2.588,464	39,909
25+0	6,562	0,089	63,146	1,153	2.651,610	41,062
25+10	6,951	0,050	67,565	0,697	2.719,174	41,759
26+0	6,326	0,055	66,385	0,525	2.785,559	42,283
26+10	5,765	0,043	60,455	0,490	2.846,014	42,773
27+0	5,742	0,152	57,537	0,974	2.903,550	43,746
27+10	6,199	0,243	59,706	1,971	2.963,256	45,717
28+0	5,819	0,102	60,089	1,723	3.023,345	47,440
28+10	7,003	0,000	64,109	0,510	3.087,454	47,950
29+4.236	0,000	0,000	49,849	0,000	3.137,302	47,950
29+10	4,744	0,000	13,671	0,000	3.150,973	47,950
30+0	3,258	0,000	40,008	0,000	3.190,981	47,950
30+10	2,542	0,004	28,999	0,018	3.219,980	47,968
31+0	3,068	0,044	28,047	0,238	3.248,027	48,205
31+10	3,108	0,084	30,878	0,638	3.278,904	48,843
32+0	2,848	0,094	29,779	0,888	3.308,683	49,731
32+10	2,655	0,099	27,512	0,962	3.336,195	50,693
33+0	2,462	0,093	25,584	0,959	3.361,778	51,652
33+10	2,269	0,086	23,653	0,894	3.385,431	52,546
34+0	2,064	0,076	21,664	0,808	3.407,094	53,353

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA SÃO GABRIEL ARCANJO**

<b>Estaca</b>	<b>Área de Corte (m²)</b>	<b>Área de Aterro (m²)</b>	<b>Volume de Corte (m³)</b>	<b>Volume de Aterro (m³)</b>	<b>Vol. Acumulado de Corte (m³)</b>	<b>Vol. Acumulado de Aterro (m³)</b>
34+10	1,849	0,064	19,564	0,700	3.426,658	54,053
35+0	1,632	0,050	17,401	0,568	3.444,059	54,621
35+10	1,413	0,033	15,222	0,411	3.459,280	55,032
36+0	1,193	0,016	13,027	0,241	3.472,307	55,273
36+10	0,980	0,005	10,861	0,102	3.483,168	55,374
37+0	0,786	0,000	8,830	0,024	3.491,998	55,398
37+10	0,649	0,000	7,176	0,001	3.499,173	55,399
38+0	0,595	0,000	6,217	0,000	3.505,390	55,399
39+10	5,259	0,369	87,801	5,534	3.593,191	60,932
40+0	5,639	0,145	54,487	2,568	3.647,678	63,500
40+10	5,813	0,022	57,256	0,834	3.704,933	64,334
41+0	5,723	0,000	57,676	0,110	3.762,609	64,444
41+10	5,629	0,000	56,760	0,000	3.819,368	64,444
42+0	5,432	0,000	55,306	0,000	3.874,674	64,444
42+10	5,232	0,000	53,318	0,000	3.927,991	64,444
43+0	4,867	0,000	50,492	0,000	3.978,483	64,444
43+10	4,395	0,000	46,308	0,000	4.024,791	64,444
44+0	4,015	0,000	42,053	0,000	4.066,843	64,444
44+10	3,971	0,000	39,931	0,000	4.106,774	64,444
45+0	3,780	0,000	38,753	0,000	4.145,527	64,444
45+10	3,557	0,000	36,685	0,000	4.182,212	64,444
46+0	3,838	0,007	36,974	0,033	4.219,185	64,477
46+10	3,953	0,023	38,955	0,147	4.258,140	64,624
47+0	3,943	0,018	39,481	0,204	4.297,621	64,827
47+10	4,046	0,006	39,944	0,121	4.337,565	64,948
47+15.778	4,129	0,002	23,617	0,025	4.361,182	64,973
<b>TOTAL</b>					<b>4.361,182</b>	<b>64,973</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA SÃO VENANCIO FORTUNATO**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	16,543	0,046	0,000	0,000	0,000	0,000
0+10	6,979	0,031	117,613	0,385	117,613	0,385
1+0	6,639	0,000	68,093	0,154	185,706	0,539
1+10	7,988	0,000	73,134	0,000	258,840	0,539
2+0	9,396	0,000	86,919	0,000	345,758	0,539
2+10	9,012	0,000	92,043	0,000	437,801	0,539
3+0	8,822	0,000	89,173	0,000	526,974	0,539
3+10	9,394	0,000	91,081	0,000	618,055	0,539
4+0	10,432	0,000	99,127	0,000	717,182	0,539
4+10	10,150	0,000	102,906	0,000	820,088	0,539
5+0	10,172	0,003	101,609	0,013	921,696	0,551
5+10	10,524	0,000	103,481	0,014	1.025,177	0,565
5+19.528	8,686	0,019	91,518	0,092	1.116,695	0,657
<b>TOTAL</b>					<b>1.116,695</b>	<b>0,657</b>






# 1439DGLR0015-04-Vol 03\_Tomo II\_Etapa 01\_Parte 01

Relatório de auditoria final

2021-11-10

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**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA SÃO VIGILIO**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	9,406	0,063	0,000	0,000	0,000	0,000
0+10	4,815	0,062	71,106	0,625	71,106	0,625
1+0	5,374	0,004	50,946	0,330	122,052	0,955
1+10	5,026	0,018	51,998	0,109	174,050	1,063
2+0	4,527	0,189	47,762	1,034	221,812	2,097
2+10	4,448	0,196	44,876	1,927	266,688	4,024
3+0	4,654	0,095	45,512	1,454	312,200	5,478
3+10	4,863	0,000	47,584	0,473	359,784	5,950
4+0	5,067	0,033	49,650	0,164	409,433	6,114
4+10	5,081	0,104	50,741	0,682	460,174	6,796
5+0	5,590	0,000	53,358	0,519	513,532	7,314
5+10	5,494	0,000	55,421	0,000	568,952	7,314
6+0	6,161	0,000	58,272	0,000	627,224	7,314
6+10	6,964	0,000	65,622	0,000	692,846	7,314
7+0	6,000	0,002	64,819	0,009	757,665	7,323
7+10	4,869	0,416	54,345	2,086	812,009	9,409
8+0	4,522	0,413	46,955	4,141	858,964	13,550
8+10	4,540	0,288	45,308	3,503	904,272	17,052
9+0	4,915	0,317	47,273	3,025	951,545	20,077
9+4.087	5,010	0,262	20,282	1,184	971,826	21,260
9+10	6,009	0,154	32,576	1,231	1.004,403	22,491
9+12.216	5,380	0,136	12,618	0,321	1.017,021	22,813
10+2.384	12,959	0,107	0,000	0,000	1.017,021	22,813
10+10	7,148	0,000	76,569	0,407	1.093,590	23,219
10+10.009	7,146	0,000	0,064	0,000	1.093,654	23,219
11+0	5,015	0,421	60,753	2,101	1.154,407	25,320
11+10	4,788	0,520	49,018	4,702	1.203,425	30,022
12+0	4,811	0,503	47,994	5,114	1.251,418	35,136
12+10	4,586	0,558	46,981	5,305	1.298,399	40,441
13+0	4,319	0,534	44,523	5,460	1.342,922	45,900
13+10	3,814	0,682	40,663	6,081	1.383,584	51,981
14+0	3,078	1,171	34,458	9,267	1.418,042	61,248
14+10	3,133	0,950	31,056	10,604	1.449,097	71,852
15+0	3,645	0,280	33,891	6,151	1.482,988	78,002
15+10	3,582	0,435	36,133	3,576	1.519,121	81,578
16+0	3,577	0,514	35,793	4,747	1.554,914	86,325
16+10	3,351	0,579	34,641	5,466	1.589,555	91,791
17+0	3,539	0,992	34,453	7,852	1.624,008	99,643
17+10	4,381	0,814	39,604	9,025	1.663,611	108,668
18+0	5,116	0,442	47,488	6,275	1.711,099	114,943
18+10	5,655	0,237	53,858	3,394	1.764,957	118,337
18+16.127	6,316	0,013	36,673	0,767	1.801,630	119,104
<b>TOTAL</b>					<b>1.801,630</b>	<b>119,104</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA SEM DENOMINAÇÃO 04**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	2,936	0,016	0,000	0,000	0,000	0,000
0+10	2,542	0,097	27,389	0,563	27,389	0,563
1+0	2,949	0,023	27,453	0,595	54,842	1,158
1+10	2,816	0,000	28,822	0,113	83,663	1,270
2+0	2,670	0,000	27,428	0,000	111,091	1,270
2+10	3,384	0,000	30,270	0,000	141,360	1,270
3+0	3,626	0,003	35,049	0,014	176,409	1,284
3+4.247	4,381	0,188	17,003	0,404	193,412	1,687
<b>TOTAL</b>					<b>193,412</b>	<b>1,687</b>



**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES  
SER. SIDNEI LOURENCI**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	1,551	0,000	0,000	0,000	0,000	0,000
0+10	1,349	0,000	14,498	0,000	14,498	0,000
1+0	1,730	0,000	15,394	0,000	29,891	0,000
1+10	2,196	0,000	19,628	0,000	49,519	0,000
2+0	2,427	0,000	23,112	0,000	72,631	0,000
2+10	2,093	0,000	22,600	0,000	95,231	0,000
3+0	2,936	0,000	25,147	0,000	120,378	0,000
3+2.551	3,026	0,000	7,604	0,000	127,982	0,000
<b>TOTAL</b>					<b>127,982</b>	<b>0,000</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA SOELI A. USSINGER**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	14,847	0,040	0,000	0,000	0,000	0,000
0+10	6,322	0,000	105,843	0,198	105,843	0,198
1+0	7,062	0,000	66,922	0,000	172,765	0,198
1+10	5,929	0,008	64,957	0,039	237,722	0,237
2+0	5,362	0,067	56,457	0,375	294,179	0,612
2+10	7,089	0,023	62,254	0,450	356,433	1,061
3+0	8,121	0,002	76,049	0,121	432,481	1,182
3+10	7,621	0,000	78,710	0,008	511,191	1,189
3+13.197	7,366	0,000	23,956	0,000	535,147	1,189
3+17.064	5,966	0,000	25,777	0,000	560,924	1,189
4+11.32	15,076	0,025	0,000	0,000	560,924	1,189
4+11.671	12,854	0,076	4,902	0,018	565,825	1,207
5+0	7,241	0,000	83,683	0,317	649,509	1,524
5+10	7,232	0,000	72,367	0,000	721,875	1,524
6+0	7,367	0,000	72,997	0,000	794,872	1,524
6+10	7,570	0,000	74,684	0,000	869,556	1,524
6+12.281	7,557	0,000	17,252	0,000	886,808	1,524
<b>TOTAL</b>					<b>886,808</b>	<b>1,524</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES****RUA VALDEMAR HESSE**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	2.28	0.00	0,000	0,000	0,000	0,000
0+10	2.48	0.00	23,800	0,000	23,800	0,000
1+0	2.30	0.00	23,900	0,000	47,700	0,000
1+10	2.23	0.00	22,650	0,000	70,350	0,000
2+0	2.14	0.04	21,850	0,200	92,200	0,200
2+10	2.26	0.02	22,000	0,300	114,200	0,500
3+0	2.69	0.00	24,750	0,100	138,950	0,600
3+10	3.07	0.00	28,800	0,000	167,750	0,600
4+0	2.86	0.00	29,650	0,000	197,400	0,600
4+10	2.47	0.01	26,650	0,050	224,050	0,650
5+0	1.75	0.03	21,100	0,200	245,150	0,850
5+10	1.73	0.06	17,400	0,450	262,550	1,300
6+0	3.00	0.33	23,650	1,950	286,200	3,250
6+10	3.31	0.31	31,550	3,200	317,750	6,450
6+14.909	4.12	0.19	18,237	1,227	335,987	7,677
<b>TOTAL</b>					<b>335,987</b>	<b>7,677</b>

**PREFEITURA DE JOINVILLE**

**ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO**

**URBANO DO BAIRRO VILA NOVA**

**CÁLCULO DE VOLUMES**

**RUA VALDEMAR LINHARES**

<b>Estaca</b>	<b>Área de Corte (m<sup>2</sup>)</b>	<b>Área de Aterro (m<sup>2</sup>)</b>	<b>Volume de Corte (m<sup>3</sup>)</b>	<b>Volume de Aterro (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Corte (m<sup>3</sup>)</b>	<b>Vol. Acumulado de Aterro (m<sup>3</sup>)</b>
0+0	13,654	0,000	0,000	0,000	0,000	0,000
0+10	13,198	0,000	134,258	0,000	134,258	0,000
1+0	14,141	0,000	136,692	0,000	270,950	0,000
1+10	14,667	0,000	144,036	0,000	414,986	0,000
1+13.906	14,929	0,000	57,799	0,000	472,785	0,000
1+16.839	0,000	0,000	21,893	0,000	494,678	0,000
2+0	0,000	0,000	0,000	0,000	494,678	0,000
2+10	0,000	0,000	0,000	0,000	494,678	0,000
3+0	1,939	0,000	9,693	0,000	504,370	0,000
3+10	4,557	0,000	32,478	0,000	536,848	0,000
4+0	4,624	0,000	45,904	0,000	582,752	0,000
4+10	0,000	0,000	23,119	0,000	605,871	0,000
4+10.555	0,000	0,000	0,000	0,000	605,871	0,000
4+10.59	0,000	0,000	0,000	0,000	605,871	0,000
<b>TOTAL</b>					<b>605,871</b>	<b>0,000</b>

**PREFEITURA DE JOINVILLE**

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

**CÁLCULO DE VOLUMES**

**RUA VALDIR SCHMOCKEL**

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0	2.47	0.00	0,000	0,000	0,000	0,000
0+10	3.54	0.00	30,050	0,000	30,050	0,000
1+0	2.58	0.05	30,600	0,250	60,650	0,250
1+10	2.12	0.10	23,500	0,750	84,150	1,000
2+0	2.02	0.17	20,700	1,350	104,850	2,350
2+0.398	2.09	0.16	0,818	0,066	105,668	2,416
2+5.916	2.26	0.05	12,002	0,579	117,670	2,995
2+10	2.49	0.03	9,700	0,163	127,369	3,158
2+11.434	2.54	0.02	3,607	0,036	130,976	3,194
3+0	3.76	0.00	26,983	0,086	157,958	3,280
3+10	4.72	0.00	42,400	0,000	200,358	3,280
4+0	4.99	0.00	48,550	0,000	248,908	3,280
4+10	4.74	0.00	48,650	0,000	297,558	3,280
5+0	4.40	0.00	45,700	0,000	343,258	3,280
5+10	4.01	0.00	42,050	0,000	385,308	3,280
5+18.022	10.22	0.69	57,077	2,768	442,385	6,048
6+6.364	9.55	0.00	82,461	2,878	524,846	8,926
6+10	5.20	0.00	26,816	0,000	551,661	8,926
7+0	3.65	0.00	44,250	0,000	595,911	8,926
7+10	4.14	0.00	38,950	0,000	634,861	8,926
8+0	4.08	0.00	41,100	0,000	675,961	8,926
8+10	3.49	0.00	37,850	0,000	713,811	8,926
9+0	3.51	0.00	35,000	0,000	748,811	8,926
9+10	3.70	0.00	36,050	0,000	784,861	8,926
10+0	3.63	0.00	36,650	0,000	821,511	8,926
10+9.462	4.18	0.00	36,949	0,000	858,460	8,926
<b>TOTAL</b>					<b>858,460</b>	<b>8,926</b>

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO

URBANO DO BAIRRO VILA NOVA

CÁLCULO DE VOLUMES

RUA VER. HERMINIO KUNTZE

Estaca	Área de Corte (m <sup>2</sup> )	Área de Aterro (m <sup>2</sup> )	Volume de Corte (m <sup>3</sup> )	Volume de Aterro (m <sup>3</sup> )	Vol. Acumulado de Corte (m <sup>3</sup> )	Vol. Acumulado de Aterro (m <sup>3</sup> )
0+0.213	6,008	0,000	0,000	0,000	0,000	0,000
0+10	4,064	0,033	49,287	0,159	49,287	0,159
1+0	4,073	0,012	40,685	0,221	89,972	0,380
1+10	4,118	0,000	40,958	0,059	130,929	0,439
2+0	4,342	0,000	42,302	0,001	173,231	0,439
2+10	3,715	0,000	40,283	0,001	213,514	0,440
3+0	3,598	0,001	36,561	0,005	250,074	0,444
3+10	3,298	0,015	34,476	0,080	284,550	0,524
4+0	2,563	0,000	29,302	0,076	313,852	0,600
4+10	2,749	0,000	26,557	0,001	340,408	0,601
5+0	2,637	0,012	26,927	0,059	367,335	0,660
5+10	3,370	0,003	30,031	0,072	397,366	0,731
6+0	4,236	0,000	38,026	0,013	435,391	0,744
6+10	4,514	0,000	43,746	0,000	479,137	0,744
7+0	5,063	0,000	47,882	0,000	527,019	0,744
7+6.198	5,291	0,000	32,087	0,000	559,106	0,744
<b>TOTAL</b>					<b>559,106</b>	<b>0,744</b>

## **ANEXO V: PLANILHAS DE MOVIMENTAÇÃO DE SOLOS**

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PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

MOVIMENTAÇÃO DE SOLOS

Item	Alinhamento	Tipo de movimentação	Origem	Destino	Volume geométrico (m³)	Fator de homogeneização	Volume homogeneizado (m³)	DMT (m)
01	Rua Ver. Herminio Kuntze	Corte planilha			559,106			
		Aterro planilha			0,744			
		Reaterro	Rua Ver. Herminio Kuntze	Bota espera - Área publica 01	13,376	1,10	14,714	840,00
		Reaterro	Bota espera - Área publica 01	Rua Ver. Herminio Kuntze	13,376	1,10	14,714	840,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	544,392	1,00	544,392	11.800,00
02	Rua Valdemar Linhares	Corte planilha			605,871			
		Aterro planilha			0,000			
		Reaterro	Rua Valdemar Linhares	Bota espera - Área publica 01	10,892	1,10	11,981	760,00
		Reaterro	Bota espera - Área publica 01	Rua Valdemar Linhares	10,892	1,10	11,981	760,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	605,871	1,00	605,871	11.800,00
03	Rua Renato Scheunemann	Corte planilha			1.412,817			
		Aterro planilha			401,924			
		Reaterro	Rua Renato Scheunemann	Bota espera - Área publica 01	66,024	1,10	72,626	260,00
		Reaterro	Bota espera - Área publica 01	Rua Renato Scheunemann	66,024	1,10	72,626	260,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	898,075	1,00	898,075	11.800,00
04	Rua Hildo Novaes	Aterro	Estaca 0 a 5	Estaca 14 ao PF	401,924	1,10	442,116	410,00
		Corte planilha			2.807,490			
		Aterro planilha			14,473			
		Reaterro	Rua Hildo Novaes	Bota espera - Área publica 01	128,268	1,10	141,095	410,00
		Reaterro	Bota espera - Área publica 01	Rua Hildo Novaes	128,268	1,10	141,095	410,00
05	Rua Juventino Jose Da Silva Jr	Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	2.650,475	1,00	2.650,475	11.800,00
		Aterro	Compensação lateral	Compensação lateral	10,573	1,10	11,630	0,00
		Aterro	Estaca 11 ao PF	Estaca 0 a 11	3,900	1,10	4,290	410,00
		Corte planilha			641,036			
		Aterro planilha			0,000			
06	Rua Arlindo Correa	Reaterro	Rua Juventino Jose Da Silva Jr	Bota espera - Área publica 01	8,994	1,10	9,893	530,00
		Reaterro	Bota espera - Área publica 01	Rua Juventino Jose Da Silva Jr	8,994	1,10	9,893	530,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	631,143	1,00	631,143	11.800,00
		Corte planilha			1.535,166			
		Aterro planilha			37,049			
07	Rua João Sancho Moreira	Reaterro	Rua Arlindo Correa	Bota espera - Área publica 01	97,524	1,10	107,276	480,00
		Reaterro	Bota espera - Área publica 01	Rua Arlindo Correa	97,524	1,10	107,276	480,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.427,890	1,00	1.427,890	11.800,00
		Corte planilha			1.089,099			
		Aterro planilha			7,928			
08	Rua Braulio De Sá Barbosa	Reaterro	Rua João Sancho Moreira	Bota espera - Área publica 01	69,666	1,10	76,633	390,00
		Reaterro	Bota espera - Área publica 01	Rua João Sancho Moreira	69,666	1,10	76,633	390,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.012,466	1,00	1.012,466	11.800,00
		Corte planilha			1.746,605			
		Aterro planilha			9,335			
09	Rua Clezio R. Silveira	Reaterro	Rua Braulio De Sá Barbosa	Bota espera - Área publica 01	48,318	1,10	53,150	330,00
		Reaterro	Bota espera - Área publica 01	Rua Braulio De Sá Barbosa	48,318	1,10	53,150	330,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.693,455	1,00	1.693,455	11.800,00
		Corte planilha			420,398			
		Aterro planilha			1,538			
10	Rua Alberto Miers	Reaterro	Rua Clezio R. Silveira	Bota espera - Área publica 01	17,338	1,10	19,072	60,00
		Reaterro	Bota espera - Área publica 01	Rua Clezio R. Silveira	17,338	1,10	19,072	60,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	401,326	1,00	401,326	11.800,00
		Corte planilha			4.270,960			
		Aterro planilha			29,427			
10	Rua Alberto Miers	Reaterro	Rua Alberto Miers	Bota espera - Área publica 01	130,804	1,10	143,884	40,00
		Reaterro	Bota espera - Área publica 01	Rua Alberto Miers	130,804	1,10	143,884	40,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	3.759,032	1,00	3.759,032	11.800,00
		Aterro	Compensação lateral	Compensação lateral	3,444	1,10	3,789	0,00
		Aterro	Estaca 17 ao P.F.	Estaca 0 a 17	25,982	1,10	28,581	410,00
		Jazida 01	Estaca 17 ao P.F.	Bota espera - Área publica 01	37,049	1,10	40,754	40,00
			Bota espera - Área publica 01	Rua Arlindo Correa	37,049	1,10	40,754	480,00
		Jazida 02	Estaca 17 ao P.F.	Bota espera - Área publica 01	7,928	1,10	8,721	40,00
			Bota espera - Área publica 01	Rua João Sancho Moreira	7,928	1,10	8,721	390,00
		Jazida 03	Estaca 17 ao P.F.	Bota espera - Área publica 01	9,335	1,10	10,269	40,00
			Bota espera - Área publica 01	Rua Braulio De Sá Barbosa	9,335	1,10	10,269	330,00
		Jazida 04	Estaca 17 ao P.F.	Bota espera - Área publica 01	1,538	1,10	1,692	40,00
			Bota espera - Área publica 01	Rua Clezio R. Silveira	1,538	1,10	1,692	60,00
		Jazida 05	Estaca 17 ao P.F.	Bota espera - Área publica 01	6,700	1,10	7,370	40,00
			Bota espera - Área publica 01	Rua Rad. Daniel Da Silva	6,700	1,10	7,370	340,00
		Jazida 06	Bota espera - Área publica 01	Bota espera - Área publica 01	10,829	1,10	11,911	40,00
			Bota espera - Área publica 01	Rua João C. G. De Oliveira (T 01)	10,829	1,10	11,911	430,00
	Bota espera - Área publica 01	Bota espera - Área publica 01	158,400	1,10	174,240	40,00		
	Bota espera - Área publica 01	Substituição 01 - R. Renato Schne.	158,400	1,10	174,240	260,00		
11	Rua Heinz Zietz	Corte planilha			1.851,283			
		Aterro planilha			65,578			
		Reaterro	Rua Heinz Zietz	Bota espera - Área publica 02	116,286	1,10	127,915	300,00
		Reaterro	Bota espera - Área publica 02	Rua Heinz Zietz	116,286	1,10	127,915	300,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.650,792	1,00	1.650,792	11.800,00
		Aterro	Compensação lateral	Compensação lateral	60,221	1,10	66,244	0,00
		Aterro	Estaca 21 ao P.F.	Estaca 0 a 21	5,356	1,10	5,892	400,00
		Jazida 01	Estaca 21 ao P.F.	Bota espera - Área publica 02	0,400	1,10	0,440	300,00
			Bota espera - Área publica 02	Rua Marcio Luckow	0,400	1,10	0,440	370,00
12	Rua Rad. Daniel Da Silva	Corte planilha			541,863			
		Aterro planilha			6,700			
		Reaterro	Rua Rad. Daniel Da Silva	Bota espera - Área publica 01	38,556	1,10	42,412	340,00
		Reaterro	Bota espera - Área publica 01	Rua Rad. Daniel Da Silva	38,556	1,10	42,412	340,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	499,451	1,00	499,451	11.800,00
13	Rua Valdemar Hesse	Corte planilha			335,987			
		Aterro planilha			7,677			
		Reaterro	Rua Valdemar Hesse	Bota espera - Área publica 01	23,476	1,10	25,824	700,00
		Reaterro	Bota espera - Área publica 01	Rua Valdemar Hesse	23,476	1,10	25,824	700,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	301,718	1,00	301,718	11.800,00
		Aterro	Compensação lateral	Compensação lateral	4,427	1,10	4,870	0,00
		Aterro	Estaca 6 ao PF	Estaca 0 a 6	3,250	1,10	3,575	110,00
14	Rua Ewaldo Eichholz	Corte planilha			818,583			
		Aterro planilha			16,950			
		Reaterro	Rua Ewaldo Eichholz	Bota espera - Área publica 01	30,854	1,10	33,939	620,00
		Reaterro	Bota espera - Área publica 01	Rua Ewaldo Eichholz	30,854	1,10	33,939	620,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	765,181	1,00	765,181	11.800,00
		Aterro	Compensação lateral	Compensação lateral	15,550	1,10	17,105	0,00
		Aterro	Estaca 4 ao PF	Estaca 0 a 4	1,400	1,10	1,540	70,00
Jazida	Estaca 4 ao PF	Bota espera - Área publica 01	0,744	1,10	0,818	620,00		
	Bota espera - Área publica 01	Rua Ver. Herminio Kuntze	0,744	1,10	0,818	840,00		
15	Rua Mirko Mayerle	Corte planilha			1.506,067			
		Aterro planilha			33,351			
		Reaterro	Rua Mirko Mayerle	Bota espera - Área publica 01	63,498	1,10	69,848	650,00
		Reaterro	Bota espera - Área publica 01	Rua Mirko Mayerle	63,498	1,10	69,848	650,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.399,533	1,00	1.399,533	11.800,00
		Aterro	Compensação lateral	Compensação lateral	23,151	1,10	25,466	0,00
		Aterro	Estaca 8 ao PF	Estaca 0 a 8	10,200	1,10	11,220	220,00
16	Rua Carlos Vitor Hardt	Corte planilha			1.340,746			
		Aterro planilha			2,736			
		Reaterro	Rua Carlos Vitor Hardt	Bota espera - Área publica 01	102,680	1,10	112,948	780,00
		Reaterro	Bota espera - Área publica 01	Rua Carlos Vitor Hardt	102,680	1,10	112,948	780,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.224,788	1,00	1.224,788	11.800,00
		Aterro	Compensação lateral	Compensação lateral	2,736	1,10	3,010	0,00
17	Rua Prof. Theodoro Boing	Corte planilha			1.815,408			
		Aterro planilha			94,654			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.711,288	1,00	1.711,288	11.800,00
		Aterro	Compensação lateral	Compensação lateral	94,654	1,10	104,120	0,00



PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

MOVIMENTAÇÃO DE SOLOS

Item	Alinhamento	Tipo de movimentação	Origem	Destino	Volume geométrico (m³)	Fator de homogeneização	Volume homogeneizado (m³)	DMT (m)
18	Rua Carlos G. Jerke (Trecho 01)	Corte planilha			1.469,702			
		Aterro planilha			25,555			
		Reaterro	Rua Carlos G. Jerke (Trecho 01)	Bota espera - Área publica 01	64,308	1,10	70,739	430,00
		Reaterro	Bota espera - Área publica 01	Rua Carlos G. Jerke (Trecho 01)	64,308	1,10	70,739	430,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.370,853	1,00	1.370,853	11.800,00
		Aterro	Compensação lateral	Compensação lateral	25,555	1,10	28,110	0,00
19	Rua Carlos G. Jerke (Trecho 02)	Corte planilha			1.432,479			
		Aterro planilha			48,713			
		Reaterro	Rua Carlos G. Jerke (Trecho 02)	Bota espera - Área publica 01	69,698	1,10	76,668	0,00
		Reaterro	Bota espera - Área publica 01	Rua Carlos G. Jerke (Trecho 02)	69,698	1,10	76,668	0,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.302,226	1,00	1.302,226	11.800,00
		Aterro	Compensação lateral	Compensação lateral	48,713	1,10	53,585	0,00
20	Rua Harold C. Miers	Corte planilha			1.828,459			
		Aterro planilha			110,580			
		Reaterro	Rua Harold C. Miers	Bota espera - Área publica 01	129,516	1,10	142,468	190,00
		Reaterro	Bota espera - Área publica 01	Rua Harold C. Miers	129,516	1,10	142,468	190,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.421,885	1,00	1.421,885	11.800,00
		Aterro	Compensação lateral	Compensação lateral	240,096	1,10	264,106	0,00
21	Rua Marques De Marcia	Corte planilha			580,271			
		Aterro planilha			0,000			
		Reaterro	Rua Marques De Marcia	Bota espera - Área publica 01	22,398	1,10	24,638	420,00
		Reaterro	Bota espera - Área publica 01	Rua Marques De Marcia	22,398	1,10	24,638	420,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	555,633	1,00	555,633	11.800,00
		Aterro	Compensação lateral	Compensação lateral	240,096	1,10	264,106	0,00
22	Rua João C. G. De Oliveira (T 01)	Corte planilha			1.044,304			
		Aterro planilha			10,829			
		Reaterro	Rua João C. G. De Oliveira (T 01)	Bota espera - Área publica 01	42,826	1,10	47,109	200,00
		Reaterro	Bota espera - Área publica 01	Rua João C. G. De Oliveira (T 01)	42,826	1,10	47,109	200,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	997,195	1,00	997,195	11.800,00
		Aterro	Compensação lateral	Compensação lateral	1.052,127	1,10	1.157,340	0,00
23	Rua João C. G. De Oliveira (T 02)	Corte planilha			4,656			
		Aterro planilha			25,530			
		Reaterro	Rua João C. G. De Oliveira (T 02)	Bota espera - Área publica 02	25,530	1,10	28,083	210,00
		Reaterro	Bota espera - Área publica 02	Rua João C. G. De Oliveira (T 02)	25,530	1,10	28,083	210,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.018,922	1,00	1.018,922	11.800,00
		Aterro	Compensação lateral	Compensação lateral	4,656	1,10	5,122	0,00
24	Rua Marcio Luckow	Corte planilha			399,300			
		Aterro planilha			0,400			
		Reaterro	Rua Marcio Luckow	Bota espera - Área publica 02	205,504	1,10	226,054	0,00
		Reaterro	Bota espera - Área publica 02	Rua Marcio Luckow	205,504	1,10	226,054	0,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	173,246	1,00	173,246	11.800,00
		Aterro	Compensação lateral	Compensação lateral	722,469	1,10	794,716	0,00
25	Rua Adolfo Hardt	Corte planilha			0,000			
		Aterro planilha			27,472			
		Reaterro	Rua Adolfo Hardt	Bota espera - Área publica 02	27,472	1,10	30,219	80,00
		Reaterro	Bota espera - Área publica 02	Rua Adolfo Hardt	27,472	1,10	30,219	80,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	692,250	1,00	692,250	11.800,00
		Aterro	Compensação lateral	Compensação lateral	722,469	1,10	794,716	0,00
26	Rua Dr Mauro Moura Etapa 01	Corte planilha			2.333,248			
		Aterro planilha			25,615			
		Reaterro	Rua Dr Mauro Moura Etapa 01	Bota espera - Área publica 02	221,430	1,10	243,573	390,00
		Reaterro	Bota espera - Área publica 02	Rua Dr Mauro Moura Etapa 01	221,430	1,10	243,573	390,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.779,788	1,00	1.779,788	11.800,00
		Aterro	Compensação lateral	Compensação lateral	45,232	1,10	49,755	0,00
28	Rua Dante Nazato Etapa 01	Jazida 01	Estaca 0 a 19	Bota espera - Área publica 02	25,615	1,10	28,177	390,00
		Substituição 02	Estaca 0 a 19	Bota espera - Área publica 02	41,200	1,10	45,320	380,00
		Substituição 02	Estaca 0 a 19	Bota espera - Área publica 02	214,900	1,10	236,390	600,00
		Corte planilha			1.677,945			
		Aterro planilha			70,500			
		Reaterro	Rua Dante Nazato Etapa 01	Bota espera - Área publica 02	115,730	1,10	127,303	450,00
30	Rua Francisco Moser	Reaterro	Bota espera - Área publica 02	Rua Dante Nazato Etapa 01	115,730	1,10	127,303	450,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.434,208	1,00	1.434,208	11.800,00
		Aterro	Compensação lateral	Compensação lateral	45,232	1,10	49,755	0,00
		Aterro	Estaca 0 a 54	Estaca 54 ao 65+4,396	25,267	1,10	27,794	410,00
		Jazida 01	Estaca 0 a 54	Bota espera - Área publica 02	35,350	1,10	38,885	450,00
		Aterro	Compensação lateral	Compensação lateral	71,656	1,10	78,822	0,00
31	Rua Marcos João Serafim Etapa 01	Corte planilha			4.559,461			
		Aterro planilha			71,656			
		Reaterro	Rua Marcos João Serafim Etapa 01	Bota espera - Área publica 02	124,356	1,10	136,792	800,00
		Reaterro	Bota espera - Área publica 02	Rua Marcos João Serafim Etapa 01	124,356	1,10	136,792	800,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	4.343,847	1,00	4.343,847	11.800,00
		Aterro	Compensação lateral	Compensação lateral	71,656	1,10	78,822	0,00
33	Rua Rudolf Baumer Etapa 01	Corte planilha			5.065,998			
		Aterro planilha			67,429			
		Reaterro	Rua Marcos João Serafim Etapa 01	Bota espera - Área publica 02	131,760	1,10	144,936	820,00
		Reaterro	Bota espera - Área publica 02	Rua Marcos João Serafim Etapa 01	131,760	1,10	144,936	820,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	4.846,890	1,00	4.846,890	11.800,00
		Aterro	Compensação lateral	Compensação lateral	21,354	1,10	23,490	0,00
35	Rua Joaquim Girardi	Aterro	Estaca 0 a 63+2	Bota espera - Área publica 02	46,075	1,10	50,682	820,00
		Corte planilha			3.685,265			
		Aterro planilha			27,048			
		Reaterro	Rua Rudolf Baumer Etapa 01	Bota espera - Área publica 02	222,380	1,10	244,618	900,00
		Reaterro	Bota espera - Área publica 02	Rua Rudolf Baumer Etapa 01	222,380	1,10	244,618	900,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	2.900,186	1,00	2.900,186	11.800,00
36	Rua Sem Denominação 04	Aterro	Compensação lateral	Compensação lateral	27,048	1,10	29,753	0,00
		Jazida 01	Estaca PP ao 61+10	Bota espera - Área publica 02	53,627	1,10	58,990	900,00
		Jazida 02	Estaca PP ao 61+10	Bota espera - Área publica 02	53,627	1,10	58,990	920,00
		Jazida 03	Estaca PP ao 61+10	Bota espera - Área publica 02	10,253	1,10	11,278	900,00
		Aterro	Compensação lateral	Compensação lateral	21,354	1,10	23,490	0,00
		Aterro	Estaca 0 a 63+2	Bota espera - Área publica 02	46,075	1,10	50,682	820,00
37	Rua Orestes Girardi	Corte planilha			2.588,107			
		Aterro planilha			33,437			
		Reaterro	Rua Joaquim Girardi	Bota espera - Área publica 02	118,344	1,10	130,178	1.000,00
		Reaterro	Bota espera - Área publica 02	Rua Joaquim Girardi	118,344	1,10	130,178	1.000,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	2.421,148	1,00	2.421,148	11.800,00
		Aterro	Compensação lateral	Compensação lateral	33,437	1,10	36,781	0,00

PREFEITURA DE JOINVILLE

ELABORAÇÃO DE ESTUDOS DE CONCEPÇÃO PARA OBRAS DE DRENAGEM PLUVIAL E PAVIMENTAÇÃO SUSTENTÁVEIS, EM RUAS DO PERÍMETRO URBANO DO BAIRRO VILA NOVA

MOVIMENTAÇÃO DE SOLOS

Item	Alinhamento	Tipo de movimentação	Origem	Destino	Volume geométrico (m³)	Fator de homogeneização	Volume homogeneizado (m³)	DMT (m)
38	Rua Delírio Bertell	Corte planilha			129,106			
		Aterro planilha			8,818			
		Reaterro	Rua Delírio Bertell	Bota espera - Área pública 02	15,778	1,10	17,356	1.300,00
		Reaterro	Bota espera - Área pública 02	Rua Delírio Bertell	15,778	1,10	17,356	1.300,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	102,051	1,00	102,051	11.800,00
		Aterro	Compensação lateral	Compensação lateral	8,818	1,10	9,699	0,00
39	Rua Soeli A. Ussinger	Corte planilha			886,808			
		Aterro planilha			1,524			
		Reaterro	Rua Soeli A. Ussinger	Bota espera - Área pública 02	30,068	1,10	33,075	1.140,00
		Reaterro	Bota espera - Área pública 02	Rua Soeli A. Ussinger	30,068	1,10	33,075	1.140,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	852,057	1,00	852,057	11.800,00
		Aterro	Compensação lateral	Compensação lateral	1,524	1,10	1,676	0,00
40	Rua Valdir Schmockel	Corte planilha			858,460			
		Aterro planilha			8,926			
		Reaterro	Rua Valdir Schmockel	Bota espera - Área pública 02	24,012	1,10	26,413	940,00
		Reaterro	Bota espera - Área pública 02	Rua Valdir Schmockel	24,012	1,10	26,413	940,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	822,229	1,00	822,229	11.800,00
		Aterro	Compensação lateral	Compensação lateral	8,926	1,10	9,818	0,00
41	Rua Olivio Menestrina	Corte planilha			1.207,661			
		Aterro planilha			24,598			
		Reaterro	Rua Olivio Menestrina	Bota espera - Área pública 02	44,460	1,10	48,906	920,00
		Reaterro	Bota espera - Área pública 02	Rua Olivio Menestrina	44,460	1,10	48,906	920,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.131,697	1,00	1.131,697	11.800,00
		Aterro	Compensação lateral	Compensação lateral	24,598	1,10	27,058	0,00
42	Rua Alex Kricheldorf (Trecho 01)	Corte planilha			879,204			
		Aterro planilha			0,325			
		Reaterro	Rua Alex Kricheldorf (Trecho 01)	Bota espera - Área pública 02	25,990	1,10	28,589	950,00
		Reaterro	Bota espera - Área pública 02	Rua Alex Kricheldorf (Trecho 01)	25,990	1,10	28,589	950,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	850,258	1,00	850,258	11.800,00
		Aterro	Compensação lateral	Compensação lateral	0,325	1,10	0,357	0,00
43	Rua Alex Kricheldorf (Trecho 02)	Corte planilha			1.350,219			
		Aterro planilha			12,483			
		Reaterro	Rua Alex Kricheldorf (Trecho 02)	Bota espera - Área pública 02	74,108	1,10	81,519	1.360,00
		Reaterro	Bota espera - Área pública 02	Rua Alex Kricheldorf (Trecho 02)	74,108	1,10	81,519	1.360,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.254,969	1,00	1.254,969	11.800,00
		Aterro	Compensação lateral	Compensação lateral	12,483	1,10	13,731	0,00
44	Ser. Sidnei Lourençi	Corte planilha			127,982			
		Aterro planilha			0,000			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	127,982	1,00	127,982	11.800,00
45	Rua Comandante Karl Busch	Corte planilha			3.004,387			
		Aterro planilha			36,783			
		Reaterro	Rua Comandante Karl Busch	Bota espera - Área pública 02	44,258	1,10	48,684	950,00
		Reaterro	Bota espera - Área pública 02	Rua Comandante Karl Busch	44,258	1,10	48,684	950,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	2.915,241	1,00	2.915,241	11.800,00
		Aterro	Compensação lateral	Compensação lateral	36,783	1,10	40,462	0,00
46	Rua Rodrigo Baumer	Corte planilha			452,672			
		Aterro planilha			36,312			
		Reaterro	Rua Rodrigo Baumer	Bota espera - Área pública 02	35,894	1,10	39,483	490,00
		Reaterro	Bota espera - Área pública 02	Rua Rodrigo Baumer	35,894	1,10	39,483	490,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	373,246	1,00	373,246	11.800,00
		Aterro	Compensação lateral	Compensação lateral	36,312	1,10	39,943	0,00
47	Rua Antonio Bischof	Corte planilha			1.386,731			
		Aterro planilha			65,514			
		Reaterro	Rua Antonio Bischof	Bota espera - Área pública 02	88,336	1,10	97,170	570,00
		Reaterro	Bota espera - Área pública 02	Rua Antonio Bischof	88,336	1,10	97,170	570,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.217,495	1,00	1.217,495	11.800,00
		Aterro	Compensação lateral	Compensação lateral	65,514	1,10	72,066	0,00
48	Rua Herminio Dagnoni	Corte planilha			1.573,434			
		Aterro planilha			17,924			
		Reaterro	Rua Herminio Dagnoni	Bota espera - Área pública 02	68,632	1,10	75,495	650,00
		Reaterro	Bota espera - Área pública 02	Rua Herminio Dagnoni	68,632	1,10	75,495	650,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.478,223	1,00	1.478,223	11.800,00
		Aterro	Compensação lateral	Compensação lateral	17,924	1,10	19,716	0,00
49	Rua São Gabriel Arcanjo Etapa 01	Corte planilha			3.644,621			
		Aterro planilha			64,973			
		Reaterro	Rua São Gabriel Arcanjo Etapa 01	Bota espera - Área pública 02	133,050	1,10	146,355	900,00
		Reaterro	Bota espera - Área pública 02	Rua São Gabriel Arcanjo Etapa 01	133,050	1,10	146,355	900,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	3.426,796	1,00	3.426,796	11.800,00
		Aterro	Compensação lateral	Compensação lateral	12,683	1,10	13,951	0,00
		Aterro	Estaca 10 a 19	Estaca 0 a 10	15,321	1,10	16,853	190,00
Aterro	Estaca 10 a 19	Estaca 19 a 35	36,969	1,10	40,666	250,00		
55	Rua Jacobus Felthaus	Corte planilha			5.361,347			
		Aterro planilha			45,043			
		Reaterro	Rua Jacobus Felthaus	Bota espera - Área pública 02	204,734	1,10	225,207	1.470,00
		Reaterro	Bota espera - Área pública 02	Rua Jacobus Felthaus	204,734	1,10	225,207	1.470,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	5.086,593	1,00	5.086,593	11.800,00
		Aterro	Compensação lateral	Compensação lateral	20,655	1,10	22,721	0,00
56	Rua Anery R. Roque	Corte planilha			754,772			
		Aterro planilha			1,076			
		Reaterro	Rua Anery R. Roque	Bota espera - Área pública 02	26,160	1,10	28,776	1.260,00
		Reaterro	Bota espera - Área pública 02	Rua Anery R. Roque	26,160	1,10	28,776	1.260,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	724,813	1,00	724,813	11.800,00
		Aterro	Compensação lateral	Compensação lateral	1,076	1,10	1,183	0,00
57	Rua Alberto Bez	Corte planilha			511,862			
		Aterro planilha			0,083			
		Reaterro	Rua Alberto Bez	Bota espera - Área pública 02	18,814	1,10	20,695	1.300,00
		Reaterro	Bota espera - Área pública 02	Rua Alberto Bez	18,814	1,10	20,695	1.300,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	491,075	1,00	491,075	11.800,00
		Aterro	Compensação lateral	Compensação lateral	0,083	1,10	0,092	0,00
58	Rua Luciano De O. Cercal	Corte planilha			383,586			
		Aterro planilha			7,276			
		Reaterro	Rua Luciano De O. Cercal	Bota espera - Área pública 02	27,690	1,10	30,459	1.550,00
		Reaterro	Bota espera - Área pública 02	Rua Luciano De O. Cercal	27,690	1,10	30,459	1.550,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	345,123	1,00	345,123	11.800,00
		Aterro	Compensação lateral	Compensação lateral	2,821	1,10	3,103	0,00
59	Rua Petronilha S. F. (Trecho 01)	Corte planilha			4.455			
		Aterro planilha			3.298,152			
		Reaterro	Rua Petronilha S. F. (Trecho 01)	Bota espera - Área pública 02	60,714			
		Reaterro	Bota espera - Área pública 02	Rua Petronilha S. F. (Trecho 01)	127,952	1,10	140,747	1.550,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	127,952	1,10	140,747	1.550,00
		Aterro	Compensação lateral	Compensação lateral	3.090,620	1,00	3.090,620	11.800,00
60	Rua Petronilha S. F. (Trecho 02)	Corte planilha			54,044			
		Aterro planilha			6,670			
		Reaterro	Rua Petronilha S. F. (Trecho 02)	Bota espera - Área pública 02	54,044	1,10	59,448	0,00
		Reaterro	Bota espera - Área pública 02	Rua Petronilha S. F. (Trecho 02)	6,670	1,10	7,337	260,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	481,011	1,00	481,011	11.800,00
		Aterro	Compensação lateral	Compensação lateral	24,847	1,10	27,332	0,00
60	Rua Petronilha S. F. (Trecho 02)	Corte planilha			21,565			
		Aterro planilha			21,565			
		Reaterro	Rua Petronilha S. F. (Trecho 02)	Bota espera - Área pública 02	26,156	1,10	28,772	1.620,00
		Reaterro	Bota espera - Área pública 02	Rua Petronilha S. F. (Trecho 02)	26,156	1,10	28,772	1.620,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	401,186	1,00	401,186	11.800,00
		Aterro	Compensação lateral	Compensação lateral	24,847	1,10	27,332	0,00
Aterro	Estaca 45 ao PF	Estaca 41 a 45	21,565	1,10	23,721	60,00		

PREFEITURA DE JOINVILLE

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MOVIMENTAÇÃO DE SOLOS

Item	Alinhamento	Tipo de movimentação	Origem	Destino	Volume geométrico (m³)	Fator de homogeneização	Volume homogeneizado (m³)	DMT (m)
61	Rua Edson A. Da Silva	Corte planilha			467,273			
		Aterro planilha			2,346			
		Reaterro	Rua Edson A. Da Silva	Bota espera - Área publica 02	21,710	1,10	23,881	1.700,00
		Reaterro	Bota espera - Área publica 02	Rua Edson A. Da Silva	21,710	1,10	23,881	1.700,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	440,811	1,00	440,811	11.800,00
		Aterro	Compensação lateral	Compensação lateral	2,346	1,10	2,581	0,00
62	Rua Hercilio J. Da Silva	Corte planilha			319,903			
		Aterro planilha			6,400			
		Reaterro	Rua Hercilio J. Da Silva	Bota espera - Área publica 02	17,972	1,10	19,769	1.780,00
		Reaterro	Bota espera - Área publica 02	Rua Hercilio J. Da Silva	17,972	1,10	19,769	1.780,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	293,094	1,00	293,094	11.800,00
		Aterro	Compensação lateral	Compensação lateral	6,400	1,10	7,040	0,00
63	Rua Bento Torquato Da Rocha	Corte planilha			4.788,698			
		Aterro planilha			265,780			
		Reaterro	Rua Bento Torquato Da Rocha	Bota espera - Área publica 02	263,402	1,10	289,742	1.400,00
		Reaterro	Bota espera - Área publica 02	Rua Bento Torquato Da Rocha	263,402	1,10	289,742	1.400,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	4.116,924	1,00	4.116,924	11.800,00
		Aterro	Compensação lateral	Compensação lateral	152,915	1,10	168,206	0,00
		Aterro	Estaca 0 a 42	Estaca 42 a 69	112,865	1,10	124,151	690,00
		Jazida 01	Estaca 69 a PF	Bota espera - Área publica 02	38,996	1,10	42,896	1.400,00
			Bota espera - Área publica 02	Rua São Bento	38,996	1,10	42,896	1.280,00
		Jazida 02	Estaca 69 a PF	Bota espera - Área publica 02	3,530	1,10	3,883	1.400,00
			Bota espera - Área publica 02	Rua Nossa Senhora Do Carmo	3,530	1,10	3,883	1.200,00
64	Rua São Venancio Fortunato	Corte planilha			1.116,695			
		Aterro planilha			0,657			
		Reaterro	Rua São Venancio Fortunato	Bota espera - Área publica 02	27,828	1,10	30,611	1.320,00
		Reaterro	Bota espera - Área publica 02	Rua São Venancio Fortunato	27,828	1,10	30,611	1.320,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.085,361	1,00	1.085,361	11.800,00
		Aterro	Compensação lateral	Compensação lateral	0,657	1,10	0,723	0,00
65	Rua São Bento	Corte planilha			1.294,268			
		Aterro planilha			38,996			
		Reaterro	Rua São Bento	Bota espera - Área publica 02	129,325	1,10	142,258	1.280,00
		Reaterro	Bota espera - Área publica 02	Rua São Bento	129,325	1,10	142,258	1.280,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.152,010	1,00	1.152,010	11.800,00
66	Rua Nossa Senhora Do Carmo	Corte planilha			1.040,181			
		Aterro planilha			3,530			
		Reaterro	Rua Nossa Senhora Do Carmo	Bota espera - Área publica 02	122,975	1,10	135,273	1.200,00
		Reaterro	Bota espera - Área publica 02	Rua Nossa Senhora Do Carmo	122,975	1,10	135,273	1.200,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	904,908	1,00	904,908	11.800,00
67	Rua São Vigilio	Corte planilha			1.801,630			
		Aterro planilha			119,104			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.670,615	1,00	1.670,615	11.800,00
		Aterro	Compensação lateral	Compensação lateral	96,292	1,10	105,921	0,00
		Aterro	Estaca 10 ao PF	Estaca 0 a 10	22,813	1,10	25,094	190,00
68	Rua Afonso Lenzi	Corte planilha			1.628,736			
		Aterro planilha			75,504			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.545,681	1,00	1.545,681	11.800,00
		Aterro	Compensação lateral	Compensação lateral	37,726	1,10	41,498	0,00
		Aterro	Estaca 10 ao PF	Estaca 0 a 10	37,779	1,10	41,557	180,00
69	Rua Ernesto Hanch	Corte planilha			2.088,769			
		Aterro planilha			50,931			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	2.032,744	1,00	2.032,744	11.800,00
		Aterro	Compensação lateral	Compensação lateral	38,551	1,10	42,406	0,00
		Aterro	Estaca 10 ao PF	Estaca 0 a 10	12,381	1,10	13,619	180,00
70	Rua Manoel Mauricio Filho	Corte planilha			1.840,278			
		Aterro planilha			44,776			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.791,024	1,00	1.791,024	11.800,00
		Aterro	Compensação lateral	Compensação lateral	33,200	1,10	36,520	0,00
		Aterro	Estaca 10 ao PF	Estaca 0 a 10	11,576	1,10	12,734	180,00
71	Rua Paulino De Jesus	Corte planilha			1.098,387			
		Aterro planilha			19,132			
		Reaterro	Rua Paulino De Jesus	Bota espera - Área publica 02	73,758	1,10	81,134	1.440,00
		Reaterro	Bota espera - Área publica 02	Rua Paulino De Jesus	73,758	1,10	81,134	1.440,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	996,208	1,00	996,208	11.800,00
		Aterro	Compensação lateral	Compensação lateral	19,132	1,10	21,045	0,00
72	Rua Augusto Eccel	Corte planilha			1.270,716			
		Aterro planilha			10,442			
		Reaterro	Rua Augusto Eccel	Bota espera - Área publica 02	72,480	1,10	79,728	1.290,00
		Reaterro	Bota espera - Área publica 02	Rua Augusto Eccel	72,480	1,10	79,728	1.290,00
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	1.179,502	1,00	1.179,502	11.800,00
		Aterro	Compensação lateral	Compensação lateral	10,442	1,10	11,486	0,00
73	Rua Leopoldo Beninca	Corte planilha			671,968			
		Aterro planilha			99,504			
		Bota fora	Centro de gravidade da obra (C.G.)	Bota fora	562,514	1,00	562,514	11.800,00
		Aterro	Compensação lateral	Compensação lateral	39,754	1,10	43,729	0,00
		Aterro	Estaca 8 a 10	Estaca 10 a 11	59,750	1,10	65,725	30,00

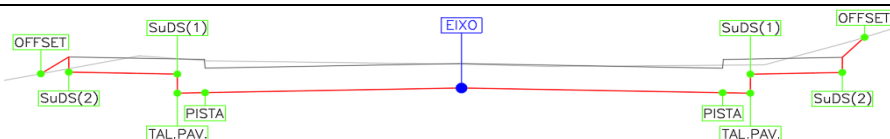
## **ANEXO VI: NOTAS DE SERVIÇO DE TERRAPLENAGEM**

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**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ADOLFO HARDT**

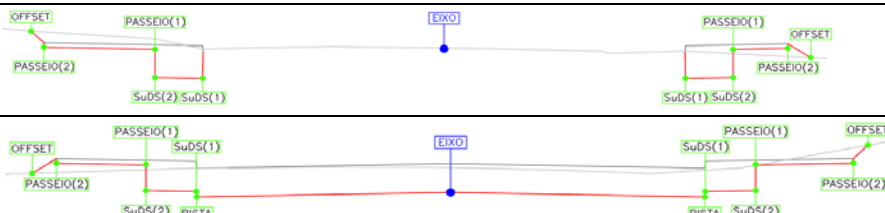
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+3</b>											
Dist. Eixo (m):		-8,235	-6,759	-6,759	-6,330	<b>0,000</b>	4,936				
Cota (m):		13,139	12,849	12,522	12,531	<b>12,658</b>	12,559				
E:		709.001,0187	708.999,5441	708.999,5441	708.999,0135	<b>708.992,7918</b>	708.987,8605				
N:		7.089.900,4514	7.089.900,3868	7.089.900,3868	7.089.900,3681	<b>7.089.900,0909</b>	7.089.899,8749				
<b>Station: 0+10</b>											
Dist. Eixo (m):		-5,824	-4,363	-4,363	-3,935	<b>0,000</b>	4,065	4,494	4,494	6,002	6,068
Cota (m):		13,319	13,030	12,702	12,711	<b>12,790</b>	12,709	12,700	13,027	13,057	13,384
E:		708.998,9011	708.997,4419	708.997,4419	708.997,0135	<b>708.993,0827</b>	708.989,0212	708.988,5930	708.988,5930	708.987,0869	708.987,0204
N:		7.089.893,7083	7.089.893,6443	7.089.893,6443	7.089.893,6256	<b>7.089.893,4533</b>	7.089.893,2753	7.089.893,2566	7.089.893,2566	7.089.893,1906	7.089.893,1877
<b>Station: 1+0</b>											
Dist. Eixo (m):		-5,827	-4,368	-4,368	-3,940	<b>0,000</b>	4,060	4,489	4,489	5,926	
Cota (m):		13,258	13,229	12,901	12,910	<b>12,989</b>	12,908	12,899	13,226	13,255	
E:		708.999,3419	708.997,8846	708.997,8846	708.997,4562	<b>708.993,5205</b>	708.989,4639	708.989,0357	708.989,0357	708.987,5999	
N:		7.089.883,7180	7.089.883,6541	7.089.883,6541	7.089.883,6354	<b>7.089.883,4629</b>	7.089.883,2851	7.089.883,2664	7.089.883,2664	7.089.883,2035	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,844	-4,373	-4,373	-3,944	<b>0,000</b>	4,056	4,484	4,484	5,868	
Cota (m):		13,454	13,425	13,098	13,107	<b>13,185</b>	13,104	13,096	13,422	13,450	
E:		708.999,7963	708.998,3273	708.998,3273	708.997,8989	<b>708.993,9583</b>	708.989,9066	708.989,4784	708.989,4784	708.988,0959	
N:		7.089.873,7283	7.089.873,6639	7.089.873,6639	7.089.873,6452	<b>7.089.873,4725</b>	7.089.873,2949	7.089.873,2762	7.089.873,2762	7.089.873,2156	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,876	-4,378	-4,378	-3,949	<b>0,000</b>	4,051	4,479	4,479	5,933	
Cota (m):		13,609	13,579	13,252	13,261	<b>13,340</b>	13,259	13,250	13,577	13,606	
E:		709.000,2664	708.998,7700	708.998,7700	708.998,3416	<b>708.994,3960</b>	708.990,3493	708.989,9211	708.989,9211	708.988,4687	
N:		7.089.863,7393	7.089.863,6737	7.089.863,6737	7.089.863,6550	<b>7.089.863,4821</b>	7.089.863,3047	7.089.863,2860	7.089.863,2860	7.089.863,2223	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,965	-4,383	-4,383	-3,954	<b>0,000</b>	4,046	4,474	4,474	6,029	
Cota (m):		13,709	13,677	13,350	13,359	<b>13,438</b>	13,357	13,349	13,676	13,707	
E:		709.000,7934	708.999,2127	708.999,2127	708.998,7843	<b>708.994,8338</b>	708.990,7920	708.990,3639	708.990,3639	708.988,8103	
N:		7.089.853,7528	7.089.853,6835	7.089.853,6835	7.089.853,6648	<b>7.089.853,4917</b>	7.089.853,3145	7.089.853,2958	7.089.853,2958	7.089.853,2277	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,950	-4,388	-4,388	-3,959	<b>0,000</b>	4,041	4,469	4,469	5,982	
Cota (m):		13,751	13,720	13,393	13,402	<b>13,481</b>	13,400	13,392	13,719	13,749	
E:		709.001,2156	708.999,6554	708.999,6554	708.999,2271	<b>708.995,2716</b>	708.991,2347	708.990,8066	708.990,8066	708.989,2958	
N:		7.089.843,7617	7.089.843,6933	7.089.843,6933	7.089.843,6746	<b>7.089.843,5012</b>	7.089.843,3244	7.089.843,3056	7.089.843,3056	7.089.843,2394	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-6,021	-4,393	-4,393	-3,964	<b>0,000</b>	4,036	4,464	4,464	5,912	
Cota (m):		13,743	13,710	13,383	13,392	<b>13,471</b>	13,390	13,382	13,709	13,738	
E:		709.001,7246	709.000,0981	709.000,0981	708.999,6698	<b>708.995,7094</b>	708.991,6774	708.991,2493	708.991,2493	708.989,8028	
N:		7.089.833,7744	7.089.833,7031	7.089.833,7031	7.089.833,6844	<b>7.089.833,5108</b>	7.089.833,3342	7.089.833,3154	7.089.833,3154	7.089.833,2520	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-6,079	-4,398	-4,398	-3,969	<b>0,000</b>	4,031	4,459	4,459	5,873	
Cota (m):		13,720	13,687	13,359	13,368	<b>13,448</b>	13,367	13,359	13,686	13,714	
E:		709.002,2208	709.000,5408	709.000,5408	709.000,1125	<b>708.996,1471</b>	708.992,1202	708.991,6920	708.991,6920	708.990,2802	
N:		7.089.823,7866	7.089.823,7130	7.089.823,7130	7.089.823,6942	<b>7.089.823,5204</b>	7.089.823,3440	7.089.823,3252	7.089.823,3252	7.089.823,2633	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-6,089	-4,403	-4,403	-3,974	<b>0,000</b>	4,026	4,454	4,454	5,861	
Cota (m):		13,697	13,664	13,336	13,345	<b>13,425</b>	13,344	13,336	13,663	13,691	
E:		709.002,6682	709.000,9836	709.000,9836	709.000,5552	<b>708.996,5849</b>	708.992,5629	708.992,1347	708.992,1347	708.990,7291	
N:		7.089.813,7966	7.089.813,7228	7.089.813,7228	7.089.813,7040	<b>7.089.813,5300</b>	7.089.813,3538	7.089.813,3350	7.089.813,3350	7.089.813,2734	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-6,061	-4,408	-4,408	-3,979	<b>0,000</b>	4,021	4,450	4,450	5,850	
Cota (m):		13,673	13,640	13,313	13,322	<b>13,401</b>	13,321	13,312	13,639	13,667	
E:		709.003,0775	709.001,4263	709.001,4263	709.000,9979	<b>708.997,0227</b>	708.993,0056	708.992,5774	708.992,5774	708.991,1780	
N:		7.089.803,8049	7.089.803,7326	7.089.803,7326	7.089.803,7138	<b>7.089.803,5396</b>	7.089.803,3636	7.089.803,3448	7.089.803,3448	7.089.803,2835	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-6,048	-4,413	-4,413	-3,984	<b>0,000</b>	4,016	4,445	4,445	5,839	
Cota (m):		13,651	13,618	13,291	13,300	<b>13,380</b>	13,299	13,291	13,618	13,646	
E:		709.003,5029	709.001,8690	709.001,8690	709.001,4406	<b>708.997,4605</b>	708.993,4483	708.993,0201	708.993,0201	708.991,6269	
N:		7.089.793,8140	7.089.793,7424	7.089.793,7424	7.089.793,7236	<b>7.089.793,5492</b>	7.089.793,3734	7.089.793,3546	7.089.793,3546	7.089.793,2936	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-6,005	-4,418	-4,418	-3,989	<b>0,000</b>	4,011	4,440	4,440	5,847	
Cota (m):		13,662	13,630	13,302	13,311	<b>13,391</b>	13,311	13,302	13,629	13,657	
E:		709.003,8979	709.002,3117	709.002,3117	709.001,8833	<b>708.997,8982</b>	708.993,8910	708.993,4629	708.993,4629	708.992,0567	
N:		7.089.783,8217	7.089.783,7522	7.089.783,7522	7.089.783,7334	<b>7.089.783,5588</b>	7.089.783,3832	7.089.783,3644	7.089.783,3644	7.089.783,3028	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-6,093	-4,423	-4,423	-3,994	<b>0,000</b>	4,006	4,435	4,435	5,880	
Cota (m):		13,719	13,686	13,358	13,367	<b>13,447</b>	13,367	13,359	13,685	13,714	
E:		709.004,4235	709.002,7544	709.002,7544	709.002,3261	<b>708.998,3360</b>	708.994,3337	708.993,9056	708.993,9056	708.992,4618	
N:		7.089.773,8351	7.089.773,7620	7.089.773,7620	7.089.773,7432	<b>7.089.773,5684</b>	7.089.773,3930	7.089.773,3742	7.089.773,3742	7.089.773,3109	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-5,977	-4,428	-4,428	-3,999	<b>0,000</b>	4,001	4,430	4,430	5,913	
Cota (m):		13,786	13,755	13,427	13,436	<b>13,516</b>	13,436	13,428	13,754	13,784	
E:		709.004,7447	709.003,1971	709.003,1971	709.002,7688	<b>708.998,7738</b>	708.994,7764	708.994,3483	708.994,3483	708.992,8669	
N:		7.089.763,8396	7.089.763,7718	7.089.763,7718	7.089.763,7530	<b>7.089.763,5779</b>	7.089.763,4028	7.089.763,3840	7.089.763,3840	7.089.763,3191	
<b>Station: 7+2</b>											
Dist. Eixo (m):		-5,949	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,429	4,429	5,920	
Cota (m):		13,801	13,771	13,444	13,453	<b>13,533</b>	13,453	13,444	13,771	13,801	
E:		709.004,8210	709.003,3023	709.003,3023	709.002,8739	<b>708.998,8777</b>	708.994,8816	708.994,4534	708.994,4534	708.992,9631	
N:		7.089.761,4657	7.089.761,3992	7.089.761,3992	7.089.761,3804	<b>7.089.761,2053</b>	7.089.761,0302	7.089.761,0114	7.089.761,0114	7.089.760,9461	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA AFONSO LENZI**

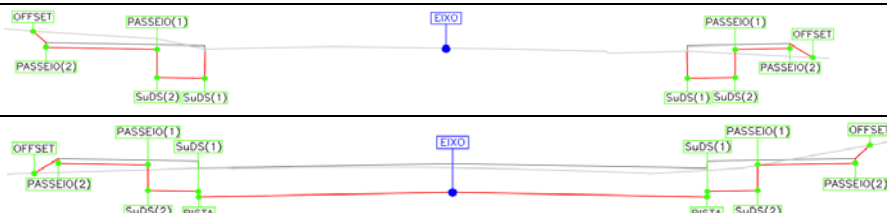
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
Station: 0+0													
Dist. Eixo (m):		-14,272	-11,214	-11,214	-10,223		0,000		12,996	13,986	13,986	14,986	
Cota (m):		11,135	11,074	10,424	10,404				10,401	10,420	11,070	11,090	
E:		709.670,0896	709.670,1821	709.670,1821	709.670,2120		709.670,5213		709.670,9145	709.670,9445	709.670,9445	709.670,9747	
N:		7.089.731,4726	7.089.728,4157	7.089.728,4157	7.089.727,4260		7.089.717,2073		7.089.704,2171	7.089.703,2275	7.089.703,2275	7.089.702,2280	
Station: 0+10													
Dist. Eixo (m):		-7,839	-5,988	-5,988	-4,997		0,000		5,023	6,013	6,013	7,694	
Cota (m):		10,884	10,847	10,197	10,177				10,176	10,196	10,846	10,880	
E:		709.680,2796	709.680,3356	709.680,3356	709.680,3656		709.680,5168		709.680,6687	709.680,6987	709.680,6987	709.680,7495	
N:		7.089.725,3456	7.089.723,4946	7.089.723,4946	7.089.722,5048		7.089.717,5098		7.089.712,4894	7.089.711,4999	7.089.711,4999	7.089.709,8191	
Station: 1+0													
Dist. Eixo (m):		-7,715	-5,988	-5,988	-4,998		0,000		5,022	6,012	6,012	7,641	
Cota (m):		10,884	10,849	10,200	10,180				10,179	10,199	10,849	10,882	
E:		709.690,2788	709.690,3310	709.690,3310	709.690,3610		709.690,5122		709.690,6641	709.690,6941	709.690,6941	709.690,7433	
N:		7.089.725,5239	7.089.723,7978	7.089.723,7978	7.089.722,8081		7.089.717,8123		7.089.712,7927	7.089.711,8031	7.089.711,8031	7.089.710,1752	
Station: 1+10													
Dist. Eixo (m):		-7,808	-5,989	-5,989	-4,999		0,000		5,021	6,011	6,011	7,618	
Cota (m):		10,886	10,850	10,200	10,180				10,179	10,199	10,849	10,881	
E:		709.700,2714	709.700,3264	709.700,3264	709.700,3564		709.700,5076		709.700,6595	709.700,6895	709.700,6895	709.700,7381	
N:		7.089.725,9190	7.089.724,1011	7.089.724,1011	7.089.723,1114		7.089.718,1149		7.089.713,0959	7.089.712,1064	7.089.712,1064	7.089.710,5007	
Station: 2+0													
Dist. Eixo (m):		-7,901	-5,990	-5,990	-4,999		0,000		5,021	6,011	6,011	7,403	
Cota (m):		10,879	10,841	10,191	10,171				10,171	10,190	10,840	10,868	
E:		709.710,2640	709.710,3218	709.710,3218	709.710,3518		709.710,5030		709.710,6549	709.710,6849	709.710,6849	709.710,7270	
N:		7.089.726,3148	7.089.724,4044	7.089.724,4044	7.089.723,4146		7.089.718,4174		7.089.713,3992	7.089.712,4097	7.089.712,4097	7.089.711,0175	
Station: 2+10													
Dist. Eixo (m):		-7,961	-5,990	-5,990	-5,000		0,000		5,020	6,010	6,010	7,193	
Cota (m):		10,871	10,832	10,182	10,162				10,161	10,181	10,831	10,855	
E:		709.720,2576	709.720,3172	709.720,3172	709.720,3472		709.720,4984		709.720,6503	709.720,6803	709.720,6803	709.720,7161	
N:		7.089.726,6773	7.089.724,7076	7.089.724,7076	7.089.723,7179		7.089.718,7200		7.089.713,7025	7.089.712,7129	7.089.712,7129	7.089.711,5302	
Station: 3+0													
Dist. Eixo (m):		-8,103	-5,991	-5,991	-5,001		0,000		5,019	6,009	6,009	7,226	
Cota (m):		10,858	10,815	10,166	10,146				10,145	10,165	10,815	10,839	
E:		709.730,2487	709.730,3126	709.730,3126	709.730,3426		709.730,4939		709.730,6457	709.730,6757	709.730,6757	709.730,7125	
N:		7.089.727,1213	7.089.725,0109	7.089.725,0109	7.089.724,0212		7.089.719,0225		7.089.714,0057	7.089.713,0162	7.089.713,0162	7.089.711,7999	
Station: 3+10													
Dist. Eixo (m):		-8,174	-5,992	-5,992	-5,002		0,000		5,018	6,008	6,008	7,021	
Cota (m):		10,842	10,798	10,149	10,129				10,128	10,148	10,798	10,818	
E:		709.740,2420	709.740,3080	709.740,3080	709.740,3380		709.740,4893		709.740,6411	709.740,6711	709.740,6711	709.740,7017	
N:		7.089.727,4955	7.089.725,3142	7.089.725,3142	7.089.724,3244		7.089.719,3250		7.089.714,3090	7.089.713,3195	7.089.713,3195	7.089.712,3071	
Station: 4+0													
Dist. Eixo (m):		-8,246	-5,993	-5,993	-5,002		0,000		5,018	6,008	6,008	7,041	
Cota (m):		10,826	10,781	10,131	10,111				10,111	10,131	10,781	10,802	
E:		709.750,2353	709.750,3034	709.750,3034	709.750,3334		709.750,4847		709.750,6365	709.750,6665	709.750,6665	709.750,6977	
N:		7.089.727,8696	7.089.725,6174	7.089.725,6174	7.089.724,6277		7.089.719,6276		7.089.714,6123	7.089.713,6227	7.089.713,6227	7.089.712,5902	
Station: 4+10													
Dist. Eixo (m):		-8,297	-5,993	-5,993	-5,003		0,000		5,017	6,007	6,007	7,141	
Cota (m):		10,810	10,764	10,114	10,094				10,094	10,114	10,763	10,786	
E:		709.760,2291	709.760,2988	709.760,2988	709.760,3288		709.760,4801		709.760,6319	709.760,6619	709.760,6619	709.760,6962	
N:		7.089.728,2237	7.089.725,9207	7.089.725,9207	7.089.724,9310		7.089.719,9301		7.089.714,9155	7.089.713,9260	7.089.713,9260	7.089.712,7922	
Station: 5+0													
Dist. Eixo (m):		-8,346	-5,994	-5,994	-5,004		0,000		5,016	6,006	6,006	6,942	
Cota (m):		10,794	10,747	10,097	10,077				10,077	10,097	10,746	10,765	
E:		709.770,2231	709.770,2942	709.770,2942	709.770,3242		709.770,4756		709.770,6273	709.770,6573	709.770,6573	709.770,6856	
N:		7.089.728,5749	7.089.726,2240	7.089.726,2240	7.089.725,2342		7.089.720,2326		7.089.715,2188	7.089.714,2293	7.089.714,2293	7.089.713,2938	
Station: 5+10													
Dist. Eixo (m):		-8,395	-5,995	-5,995	-5,005		0,000		5,015	6,005	6,005	7,038	
Cota (m):		10,778	10,730	10,080	10,060				10,060	10,080	10,729	10,750	
E:		709.780,2170	709.780,2896	709.780,2896	709.780,3196		709.780,4710		709.780,6227	709.780,6527	709.780,6527	709.780,6839	
N:		7.089.728,9262	7.089.726,5272	7.089.726,5272	7.089.725,5375		7.089.720,5352		7.089.715,5221	7.089.714,5325	7.089.714,5325	7.089.713,5001	
Station: 6+0													
Dist. Eixo (m):		-8,444	-5,996	-5,996	-5,005		0,000		5,015	6,005	6,005	7,155	
Cota (m):		10,762	10,713	10,063	10,043				10,043	10,062	10,712	10,735	
E:		709.790,2110	709.790,2850	709.790,2850	709.790,3150		709.790,4664		709.790,6181	709.790,6481	709.790,6481	709.790,6829	
N:		7.089.729,2774	7.089.726,8305	7.089.726,8305	7.089.725,8408		7.089.720,8377		7.089.715,8253	7.089.714,8358	7.089.714,8358	7.089.713,8662	
Station: 6+10													
Dist. Eixo (m):		-8,275	-5,996	-5,996	-5,006		0,000		5,014	6,004	6,004	7,271	
Cota (m):		10,741	10,696	10,046	10,026				10,026	10,045	10,696	10,721	
E:		709.800,2115	709.800,2804	709.800,2804	709.800,3104		709.800,4618		709.800,6135	709.800,6435	709.800,6435	709.800,6818	
N:		7.089.729,4112	7.089.727,1338	7.089.727,1338	7.089.726,1440		7.089.721,1402		7.089.716,1286	7.089.715,1391	7.089.715,1391	7.089.713,8724	
Station: 7+0													
Dist. Eixo (m):		-8,085	-5,997	-5,997	-5,007		0,000		5,013	6,003	6,003	7,397	
Cota (m):		10,720	10,678	10,029	10,009				10,008	10,028	10,678	10,706	
E:		709.810,2127	709.810,2758	709.810,2758	709.810,3058		709.810,4573		709.810,6089	709.810,6389	709.810,6389	709.810,6810	
N:		7.089.729,5238	7.089.727,4370	7.089.727,4370	7.089.726,4473		7.089.721,4428		7.089.716,4319	7.089.715,4423	7.089.715,4423	7.089.714,0495	
Station: 7+10													
Dist. Eixo (m):		-7,998	-5,998	-5,998	-5,008		0,000		5,012	6,002	6,002	7,470	
Cota (m):		10,701	10,661	10,011	9,991				9,991	10,011	10,662	10,691	
E:		709.820,2107	709.820,2712	709.820,2712	709.820,3012		709.820,4527		709.820,6043	709.820,6343	709.820,6343	709.820,6787	
N:		7.089.729,7395	7.089.727,7403	7.089.727,7403	7.089.726,7506		7.089.721,7453		7.089.716,7351	7.089.715,7456	7.089.715,7456	7.089.714,2788	
Station: 8+0													
Dist. Eixo (m):		-7,964	-5,998	-5,998	-5,008		0,000		5,012	6,002	6,002	7,369	
Cota (m):		10,683	10,644	9,994	9,974				9,974	9,994	10,644	10,671	
E:		709.830,2072	709.830,2666	709.830,2666	709.830,2966		709.830,448						

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA AFONSO LENZI**

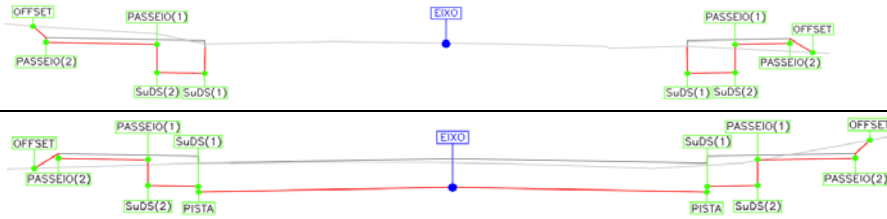
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 9+0</b>													
Dist. Eixo (m):		-7,749	-6,000	-6,000	-5,010		<b>0,000</b>		5,010	6,000	6,000	7,136	
Cota (m):		10,645	10,610	9,960	9,940				9,940	9,960	10,610	10,633	
E:		709.850.2045	709.850.2574	709.850.2574	709.850.2874		<b>709.850.4389</b>		709.850.5905	709.850.6205	709.850.6205	709.850.6548	
N:		7.089.730.3987	7.089.728.6501	7.089.728.6501	7.089.727.6604		<b>7.089.722.6529</b>		7.089.717.6450	7.089.716.6554	7.089.716.6554	7.089.715.5206	
<b>Station: 9+3</b>													
Dist. Eixo (m):		-7,743	-5,999	-5,999	-5,009		<b>0,000</b>		5,010	6,000	6,000	7,186	
Cota (m):		10,638	10,603	9,954	9,934				9,928	9,948	10,598	10,622	
E:		709.853.9573	709.854.0100	709.854.0100	709.854.0400		<b>709.854.1918</b>		709.854.3431	709.854.3731	709.854.3731	709.854.4090	
N:		7.089.730.5072	7.089.728.7640	7.089.728.7640	7.089.727.7742		<b>7.089.722.7665</b>		7.089.717.7598	7.089.716.7693	7.089.716.7693	7.089.715.5843	
<b>Station: 9+10</b>													
Dist. Eixo (m):		-12,947	-8,737	-8,737	-7,746		<b>0,000</b>		7,509	8,499	8,499	13,693	
Cota (m):		10,672	10,588	9,938	9,918				9,894	9,914	10,564	10,668	
E:		709.871.9889	709.860.0179	709.860.0179	709.860.0646		<b>709.860.4303</b>		709.860.7847	709.860.8314	709.860.8314	709.860.0765	
N:		7.089.735.9943	7.089.731.7882	7.089.731.7882	7.089.730.7991		<b>7.089.723.0613</b>		7.089.715.5609	7.089.714.5720	7.089.714.5720	7.089.709.3838	
<b>Station: 9+11</b>													
Dist. Eixo (m):				-13,698	-12,709		<b>0,000</b>		11,109	12,097	12,097	13,730	
Cota (m):				9,938	9,918				9,888	9,888	10,537	10,570	
E:				709.861.7472	709.861.7938		<b>709.862.3937</b>		709.862.9180	709.862.9647	709.862.9647	709.863.0417	
N:				7.089.736.8367	7.089.735.6491		<b>7.089.723.1541</b>		7.089.712.0578	7.089.711.0702	7.089.711.0702	7.089.709.4395	
<b>Station: 10+2</b>													
Dist. Eixo (m):		-13,277	-12,114	-12,114	-11,124	-11,114	<b>0,000</b>	12,744	12,754	13,744			
Cota (m):		10,652	10,529	9,880	9,860	9,840	<b>9,843</b>	9,894	9,894	9,914	9,934		
E:		709.871.9889	709.872.0538	709.872.0538	709.872.1005	709.872.1010	<b>709.872.6256</b>	709.873.2271	709.873.2276	709.873.2743			
N:		7.089.736.8999	7.089.735.7383	7.089.735.7383	7.089.734.7492	7.089.734.7392	<b>7.089.723.6376</b>	7.089.710.9080	7.089.710.9080	7.089.710.9080			
<b>Station: 10+9</b>													
Dist. Eixo (m):		-7,403	-6,004	-6,004	-5,014	-5,004	<b>0,000</b>	5,007	5,017	6,007	6,007	7,818	
Cota (m):		10,482	10,454	9,804	9,784	9,764	<b>9,864</b>	9,770	9,790	9,830	10,460	10,496	
E:		709.880.0014	709.880.0675	709.880.0675	709.880.1142	709.880.1147	<b>709.880.3609</b>	709.880.5872	709.880.5877	709.880.6344	709.880.6344	709.880.7199	
N:		7.089.731.3978	7.089.729.9997	7.089.729.9997	7.089.729.0106	7.089.729.0008	<b>7.089.724.0026</b>	7.089.719.0001	7.089.718.9901	7.089.718.0012	7.089.718.0012	7.089.716.1918	
<b>Station: 10+10</b>													
Dist. Eixo (m):		-7,404	-6,003	-6,003	-5,013	-5,003	<b>0,000</b>	5,009	5,019	6,009	6,009	7,831	
Cota (m):		10,482	10,454	9,804	9,784	9,764	<b>9,864</b>	9,770	9,790	9,810	10,460	10,496	
E:		709.880.1883	709.880.2298	709.880.2298	709.880.2592	709.880.2595	<b>709.880.4080</b>	709.880.5567	709.880.5570	709.880.5863	709.880.5863	709.880.6404	
N:		7.089.731.4048	7.089.730.0047	7.089.730.0047	7.089.729.0149	7.089.729.0049	<b>7.089.724.0043</b>	7.089.718.9976	7.089.718.9976	7.089.717.9981	7.089.717.9981	7.089.716.1765	
<b>Station: 11+0</b>													
Dist. Eixo (m):		-7,485	-6,003	-6,003	-5,013	-5,003	<b>0,000</b>	4,997	5,007	5,997	5,997	7,775	
Cota (m):		10,510	10,481	9,831	9,811	9,791	<b>9,891</b>	9,791	9,811	9,831	10,480	10,516	
E:		709.890.1815	709.890.2255	709.890.2255	709.890.2548	709.890.2551	<b>709.890.4038</b>	709.890.5519	709.890.5522	709.890.5816	709.890.5816	709.890.6344	
N:		7.089.731.7827	7.089.730.3013	7.089.730.3013	7.089.729.3115	7.089.729.3015	<b>7.089.724.3011</b>	7.089.719.3059	7.089.719.2959	7.089.718.3064	7.089.718.3064	7.089.716.5297	
<b>Station: 11+10</b>													
Dist. Eixo (m):		-7,527	-6,003	-6,003	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,730	
Cota (m):		10,538	10,507	9,857	9,837	9,817	<b>9,917</b>	9,817	9,837	9,857	10,507	10,542	
E:		709.900.1758	709.900.2211	709.900.2211	709.900.2504	709.900.2507	<b>709.900.3992</b>	709.900.5475	709.900.5478	709.900.5772	709.900.5772	709.900.6286	
N:		7.089.732.1217	7.089.730.5979	7.089.730.5979	7.089.729.6081	7.089.729.5981	<b>7.089.724.5979</b>	7.089.719.6025	7.089.719.5925	7.089.718.6030	7.089.718.6030	7.089.716.8714	
<b>Station: 12+0</b>													
Dist. Eixo (m):		-7,577	-6,003	-6,003	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,767	
Cota (m):		10,555	10,534	9,884	9,864	9,844	<b>9,944</b>	9,844	9,864	9,884	10,534	10,569	
E:		709.910.1699	709.910.2167	709.910.2167	709.910.2460	709.910.2463	<b>709.910.3948</b>	709.910.5431	709.910.5434	709.910.5728	709.910.5728	709.910.6253	
N:		7.089.732.4684	7.089.730.8945	7.089.730.8945	7.089.729.9047	7.089.729.8947	<b>7.089.724.8946</b>	7.089.719.8991	7.089.718.8991	7.089.718.8996	7.089.718.8996	7.089.717.1311	
<b>Station: 12+10</b>													
Dist. Eixo (m):		-7,834	-6,002	-6,002	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,806	
Cota (m):		10,597	10,560	9,910	9,890	9,870	<b>9,970</b>	9,870	9,890	9,910	10,560	10,596	
E:		709.920.1579	709.920.2123	709.920.2123	709.920.2416	709.920.2419	<b>709.920.3904</b>	709.920.5387	709.920.5390	709.920.5684	709.920.5684	709.920.6221	
N:		7.089.733.0216	7.089.731.1911	7.089.731.1911	7.089.730.2013	7.089.730.1913	<b>7.089.725.1914</b>	7.089.720.1957	7.089.720.1858	7.089.719.1962	7.089.719.1962	7.089.717.3887	
<b>Station: 13+0</b>													
Dist. Eixo (m):		-8,097	-6,002	-6,002	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,832	
Cota (m):		10,617	10,575	9,925	9,905	9,885	<b>9,985</b>	9,885	9,905	9,925	10,575	10,612	
E:		709.930.1457	709.930.2079	709.930.2079	709.930.2372	709.930.2375	<b>709.930.3860</b>	709.930.5343	709.930.5346	709.930.5640	709.930.5640	709.930.6184	
N:		7.089.733.5816	7.089.731.4877	7.089.731.4877	7.089.730.4979	7.089.730.4880	<b>7.089.725.4882</b>	7.089.720.4924	7.089.720.4824	7.089.719.4928	7.089.719.4928	7.089.717.6599	
<b>Station: 13+10</b>													
Dist. Eixo (m):		-8,393	-6,002	-6,002	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,765	
Cota (m):		10,615	10,567	9,917	9,897	9,877	<b>9,977</b>	9,877	9,897	9,917	10,567	10,602	
E:		709.940.1325	709.940.2035	709.940.2035	709.940.2328	709.940.2331	<b>709.940.3816</b>	709.940.5299	709.940.5302	709.940.5596	709.940.5596	709.940.6120	
N:		7.089.734.1744	7.089.731.7843	7.089.731.7843	7.089.730.7946	7.089.730.7846	<b>7.089.725.7850</b>	7.089.720.7890	7.089.720.7790	7.089.719.7894	7.089.719.7894	7.089.718.0234	
<b>Station: 14+0</b>													
Dist. Eixo (m):		-8,621	-6,002	-6,002	-5,012	-5,002	<b>0,000</b>	4,998	5,008	5,998	5,998	7,929	
Cota (m):		10,599	10,547	9,897	9,877	9,857	<b>9,957</b>	9,857	9,877	9,897	10,546	10,585	
E:		709.950.1213	709.950.1991	709.950.1991	709.950.2284	709.950.2287	<b>709.950.3772</b>	709.950.5255	709.950.5258	709.950.5552	709.950.5552	709.950.6125	
N:		7.089.734.6989	7.089.732.0809	7.089.732.0809	7.089.731.0912	7.089.731.0812	<b>7.089.726.0818</b>	7.089.721.0856	7.089.721.0756	7.089.720.0860	7.089.720.0860	7.089.718.1560	
<b>Station: 14+10</b>													
Dist. Eixo (m):		-8,120	-6,002	-6,002	-5,011	-5,001	<b>0,000</b>	4,999	5,009	5,999	5,999	8,045	
Cota (m):		10,569	10,527	9,877	9,857	9,837	<b>9,937</b>	9,837	9,857	9,877	10,526	10,567	
E:		709.960.1318	709.960.1947	709.960.1947	709.960.2240	709.960.2243	<b>709.960.3728</b>	709.960.5211	709.960.5214	709.960.5508	709.960.5508	709.960.6115	
N:		7.089.734.4955	7.089.732.3775	7.089.732.3775	7.089.731.3878	7.089.731.3778	<b>7.089.726.3786</b>	7.089.721.3822	7.089.721.3722	7.089.720.3826	7.089.720.3826	7.089.718.3368	
<b>Station: 15+0</b>													
Dist. Eixo (m):		-7,510	-6,001	-6,001	-5,011	-5,001	<b>0,000</b>	4,999					

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA AFONSO LENZI**

Desenho Esquemático:

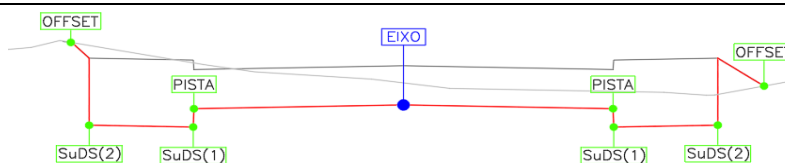


PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 16+10</b>													
Dist. Eixo (m):		-7,689	-6,001	-6,001	-5,011	-5,001	<b>0,000</b>	4,999	5,009	5,999	5,999	7,659	
Cota (m):		10,480	10,446	9,796	9,776	9,756	<b>9,856</b>	9,756	9,776	9,796	10,446	10,479	
E:		710.000,1270	710.000,1771	710.000,1771	710.000,2064	710.000,2067	<b>710.000,3552</b>	710.000,5035	710.000,5038	710.000,5332	710.000,5332	710.000,5824	
N:		7.089.735,2512	7.089.733,5640	7.089.733,5640	7.089.732,5742	7.089.732,5642	<b>7.089.727,5657</b>	7.089.722,5686	7.089.722,5586	7.089.721,5690	7.089.721,5690	7.089.719,9104	
<b>Station: 17+0</b>													
Dist. Eixo (m):		-7,783	-6,001	-6,001	-5,011	-5,001	<b>0,000</b>	4,999	5,009	5,999	5,999	7,605	
Cota (m):		10,482	10,426	9,776	9,756	9,736	<b>9,836</b>	9,736	9,756	9,776	10,426	10,458	
E:		710.010,1198	710.010,1727	710.010,1727	710.010,2020	710.010,2023	<b>710.010,3507</b>	710.010,4991	710.010,4994	710.010,5288	710.010,5288	710.010,5764	
N:		7.089.735,6423	7.089.733,8606	7.089.733,8606	7.089.732,8708	7.089.732,8608	<b>7.089.727,8625</b>	7.089.722,8652	7.089.722,8552	7.089.721,8657	7.089.721,8657	7.089.720,2613	
<b>Station: 17+10</b>													
Dist. Eixo (m):		-8,746	-6,001	-6,001	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	6,000	7,615	
Cota (m):		10,461	10,406	9,756	9,736	9,716	<b>9,816</b>	9,716	9,736	9,756	10,406	10,438	
E:		710.020,0868	710.020,1683	710.020,1683	710.020,1976	710.020,1979	<b>710.020,3463</b>	710.020,4947	710.020,4950	710.020,5244	710.020,5244	710.020,5723	
N:		7.089.736,9011	7.089.734,1572	7.089.734,1572	7.089.733,1674	7.089.733,1574	<b>7.089.728,1593</b>	7.089.723,1618	7.089.723,1518	7.089.722,1623	7.089.722,1623	7.089.720,5478	
<b>Station: 18+0</b>													
Dist. Eixo (m):		-8,717	-6,000	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	6,000	7,680	
Cota (m):		10,440	10,386	9,736	9,716	9,696	<b>9,796</b>	9,696	9,716	9,736	10,386	10,419	
E:		710.030,0832	710.030,1639	710.030,1639	710.030,1932	710.030,1935	<b>710.030,3419</b>	710.030,4903	710.030,4906	710.030,5200	710.030,5200	710.030,5689	
N:		7.089.737,1695	7.089.734,4538	7.089.734,4538	7.089.733,4640	7.089.733,4540	<b>7.089.728,4561</b>	7.089.723,4584	7.089.723,4484	7.089.722,4589	7.089.722,4589	7.089.720,7799	
<b>Station: 18+9</b>													
Dist. Eixo (m):		-7,000	-6,000	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	6,000	7,749	
Cota (m):		10,487	10,367	9,717	9,697	9,677	<b>9,777</b>	9,677	9,697	9,717	10,367	10,402	
E:		710.039,3550	710.039,3847	710.039,3847	710.039,4141	710.039,4144	<b>710.039,5628</b>	710.039,7112	710.039,7115	710.039,7409	710.039,7409	710.039,7928	
N:		7.089.735,7270	7.089.734,7274	7.089.734,7274	7.089.733,7376	7.089.733,7276	<b>7.089.728,7298</b>	7.089.723,7320	7.089.723,7220	7.089.722,7325	7.089.722,7325	7.089.720,9844	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA ALBERTO BEZ**

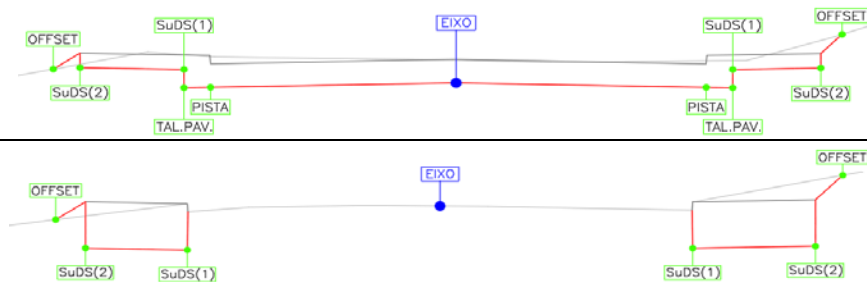
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist.eixo (m)	-12,414	-12,174	-10,601	-10,591	<b>0,000</b>	11,003			
Cota (m)	11,140	11,300	10,408	10,728	<b>10,940</b>	10,720			
E	709,572.1897	709,571.9505	709,570.3779	709,570.3679	<b>709,559.7848</b>	709,548.7893			
N	7,089,206.2902	7,089,206.2812	7,089,206.2221	7,089,206.2217	<b>7,089,205.8240</b>	7,089,205.4108			
<b>Station: 0+10</b>									
Dist.eixo (m)		-6,424	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,903	5,935
Cota (m)		10,595	10,546	10,866	<b>10,946</b>	10,866	10,546	10,584	11,423
E		709,566.5802	709,564.1675	709,564.1575	<b>709,560.1603</b>	709,556.1631	709,556.1532	709,554.2616	709,554.2298
N		7,089,196.0723	7,089,195.9816	7,089,195.9813	<b>7,089,195.8311</b>	7,089,195.6809	7,089,195.6805	7,089,195.6094	7,089,195.6082
<b>Station: 1+0</b>									
Dist.eixo (m)		-6,177	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,916	
Cota (m)		10,596	10,553	10,873	<b>10,953</b>	10,873	10,553	10,591	
E		709,566.7087	709,564.5430	709,564.5330	<b>709,560.5358</b>	709,556.5387	709,556.5287	709,554.6238	
N		7,089,186.0701	7,089,185.9887	7,089,185.9883	<b>7,089,185.8381</b>	7,089,185.6879	7,089,185.6875	7,089,185.6160	
<b>Station: 1+10</b>									
Dist.eixo (m)		-6,083	-5,861	-4,010	<b>0,000</b>	4,000	4,010	5,933	
Cota (m)		11,308	11,456	10,559	<b>10,959</b>	10,879	10,559	10,597	
E		709,566.9898	709,566.7683	709,564.9185	<b>709,560.9114</b>	709,556.9142	709,556.9042	709,554.9828	
N		7,089,176.0736	7,089,176.0653	7,089,175.9957	<b>7,089,175.8452</b>	7,089,175.6950	7,089,175.6946	7,089,175.6224	
<b>Station: 2+0</b>									
Dist.eixo (m)		-5,931	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,985	
Cota (m)		10,604	10,565	10,885	<b>10,965</b>	10,885	10,565	10,605	
E		709,567.2136	709,565.2940	709,565.2840	<b>709,561.2869</b>	709,557.2897	709,557.2797	709,555.3058	
N		7,089,166.0749	7,089,166.0028	7,089,166.0024	<b>7,089,165.8522</b>	7,089,165.7020	7,089,165.7016	7,089,165.6275	
<b>Station: 2+10</b>									
Dist.eixo (m)		-5,884	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,993	
Cota (m)		10,609	10,572	10,892	<b>10,972</b>	10,892	10,572	10,611	
E		709,567.5421	709,565.6695	709,565.6596	<b>709,561.6624</b>	709,557.6652	709,557.6552	709,555.6741	
N		7,089,156.0802	7,089,156.0099	7,089,156.0095	<b>7,089,155.8593</b>	7,089,155.7091	7,089,155.7087	7,089,155.6342	
<b>Station: 3+0</b>									
Dist.eixo (m)		-5,914	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,962	
Cota (m)		10,616	10,578	10,898	<b>10,978</b>	10,898	10,578	10,617	
E		709,567.9481	709,566.0451	709,566.0351	<b>709,562.0379</b>	709,558.0407	709,558.0307	709,556.0803	
N		7,089,146.0884	7,089,146.0169	7,089,146.0165	<b>7,089,145.8663</b>	7,089,145.7161	7,089,145.7157	7,089,145.6425	
<b>Station: 3+10</b>									
Dist.eixo (m)		-5,947	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,931	
Cota (m)		10,623	10,584	10,904	<b>10,984</b>	10,904	10,584	10,623	
E		709,568.3559	709,566.4206	709,566.4106	<b>709,562.4134</b>	709,558.4162	709,558.4062	709,556.4866	
N		7,089,136.0967	7,089,136.0240	7,089,136.0236	<b>7,089,135.8734</b>	7,089,135.7232	7,089,135.7228	7,089,135.6507	
<b>Station: 4+0</b>									
Dist.eixo (m)		-5,987	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,900	
Cota (m)		10,630	10,591	10,911	<b>10,991</b>	10,911	10,591	10,628	
E		709,568.7714	709,566.7961	709,566.7861	<b>709,562.7889</b>	709,558.7917	709,558.7817	709,556.8928	
N		7,089,126.1052	7,089,126.0310	7,089,126.0306	<b>7,089,125.8804</b>	7,089,125.7302	7,089,125.7299	7,089,125.6589	
<b>Station: 4+10</b>									
Dist.eixo (m)		-5,925	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,900	
Cota (m)		10,635	10,597	10,917	<b>10,997</b>	10,917	10,597	10,635	
E		709,569.0855	709,567.1716	709,567.1616	<b>709,563.1644</b>	709,559.1673	709,559.1573	709,557.2686	
N		7,089,116.1100	7,089,116.0381	7,089,116.0377	<b>7,089,115.8875</b>	7,089,115.7373	7,089,115.7369	7,089,115.6659	
<b>Station: 4+12</b>									
Dist.eixo (m)		-5,911	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,900	
Cota (m)		10,636	10,598	10,918	<b>10,998</b>	10,918	10,598	10,636	
E		709,569.1529	709,567.2533	709,567.2433	<b>709,563.2461</b>	709,559.2489	709,559.2389	709,557.3503	
N		7,089,113.9362	7,089,113.8648	7,089,113.8644	<b>7,089,113.7142</b>	7,089,113.5640	7,089,113.5636	7,089,113.4926	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

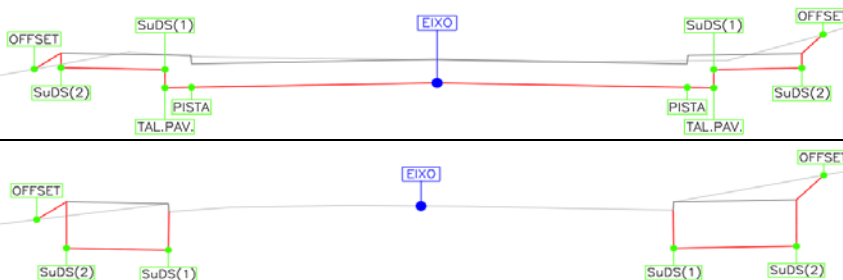
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-6,200	-5,429	-5,429	-5,000	<b>0,000</b>	5,077	5,505	5,505	7,714	
Cota (m):		13,016	13,001	12,873	12,882	<b>12,982</b>	12,881	12,872	12,999	13,043	
E:		708.317,7442	708.317,7704	708.317,7704	708.317,7849	<b>708.317,9547</b>	708.318,1270	708.318,1415	708.318,1415	708.318,2165	
N:		7.090.051,0703	7.090.050,2995	7.090.050,2995	7.090.049,8710	<b>7.090.044,8739</b>	7.090.039,8000	7.090.039,3716	7.090.039,3716	7.090.037,1645	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,707	-5,364	-5,364	-4,936	<b>0,000</b>	5,124	5,552	5,552	7,842	
Cota (m):		12,965	12,918	12,791	12,800	<b>12,898</b>	12,796	12,787	12,914	12,960	
E:		708.327,6873	708.327,7668	708.327,7668	708.327,7814	<b>708.327,9489</b>	708.328,1228	708.328,1374	708.328,1374	708.328,2151	
N:		7.090.052,9157	7.090.050,5746	7.090.050,5746	7.090.050,1461	<b>7.090.045,2133</b>	7.090.040,0927	7.090.039,6644	7.090.039,6644	7.090.037,3757	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,868	-5,736	-5,736	-5,307	<b>0,000</b>	5,602	6,031	6,031	8,712	
Cota (m):		12,900	12,858	12,730	12,739	<b>12,814</b>	12,706	12,697	12,824	12,878	
E:		708.337,6761	708.337,7484	708.337,7484	708.337,7630	<b>708.337,9431</b>	708.338,1333	708.338,1478	708.338,1478	708.338,2389	
N:		7.090.053,4160	7.090.051,2855	7.090.051,2855	7.090.050,8570	<b>7.090.045,5528</b>	7.090.039,9540	7.090.039,5257	7.090.039,5257	7.090.036,8453	
<b>Station: 1+5</b>											
Dist. Eixo (m):		-6,200	-5,429	-5,429	-5,000	<b>0,000</b>	12,450	12,878	12,878	13,200	
Cota (m):		12,803	12,788	12,660	12,669	<b>12,769</b>	12,614	12,605	12,732	12,738	
E:		708.343,0696	708.343,0958	708.343,0958	708.343,1103	<b>708.343,2801</b>	708.343,7027	708.343,7172	708.343,7172	708.343,7281	
N:		7.090.051,9305	7.090.051,1597	7.090.051,1597	7.090.050,7312	<b>7.090.045,7340</b>	7.090.033,2914	7.090.032,8630	7.090.032,8630	7.090.032,5421	
<b>Station: 1+13</b>											
Dist. Eixo (m):		-8,277	-5,429	-5,429	-5,142	<b>0,000</b>	12,260	12,402	12,402	12,840	
Cota (m):		12,783	12,796	12,669	12,675	<b>12,777</b>	12,567	12,564	12,595	12,604	
E:		708.351,0670	708.351,1636	708.351,1636	708.351,1734	<b>708.351,3479</b>	708.351,7641	708.351,7689	708.351,7689	708.351,7838	
N:		7.090.054,2799	7.090.051,4337	7.090.051,4337	7.090.051,1472	<b>7.090.046,0081</b>	7.090.033,7556	7.090.033,6136	7.090.033,6136	7.090.033,1750	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,807	-5,577	-5,577	-5,148	<b>0,000</b>	5,102	5,531	5,531	7,832	
Cota (m):		12,863	12,818	12,691	12,700	<b>12,794</b>	12,682	12,673	12,800	12,846	
E:		708.357,6666	708.357,7423	708.357,7423	708.357,7569	<b>708.357,9316</b>	708.358,1048	708.358,1194	708.358,1194	708.358,1975	
N:		7.090.054,0342	7.090.051,8052	7.090.051,8052	7.090.051,3767	<b>7.090.046,2317</b>	7.090.041,1324	7.090.040,7040	7.090.040,7040	7.090.038,4046	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,813	-5,442	-5,442	-5,013	<b>0,000</b>	4,987	5,415	5,415	7,823	
Cota (m):		12,884	12,837	12,710	12,719	<b>12,819</b>	12,719	12,711	12,838	12,886	
E:		708.367,6606	708.367,7411	708.367,7411	708.367,7557	<b>708.367,9259</b>	708.368,0951	708.368,1097	708.368,1097	708.368,1914	
N:		7.090.054,3798	7.090.052,0099	7.090.052,0099	7.090.051,5814	<b>7.090.046,5711</b>	7.090.041,5872	7.090.041,1589	7.090.041,1589	7.090.038,7522	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-7,808	-5,437	-5,437	-5,008	<b>0,000</b>	4,992	5,420	5,420	7,815	
Cota (m):		12,910	12,862	12,735	12,744	<b>12,844</b>	12,744	12,736	12,862	12,910	
E:		708.377,6550	708.377,7355	708.377,7355	708.377,7501	<b>708.377,9201</b>	708.378,0895	708.378,1041	708.378,1041	708.378,1854	
N:		7.090.054,7145	7.090.052,3447	7.090.052,3447	7.090.051,9161	<b>7.090.046,9106</b>	7.090.041,9219	7.090.041,4936	7.090.041,4936	7.090.039,0999	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-7,804	-5,433	-5,433	-5,004	<b>0,000</b>	4,996	5,425	5,425	7,807	
Cota (m):		12,935	12,887	12,760	12,769	<b>12,869</b>	12,769	12,761	12,887	12,935	
E:		708.387,6494	708.387,7299	708.387,7299	708.387,7445	<b>708.387,9143</b>	708.388,0839	708.388,0985	708.388,0985	708.388,1793	
N:		7.090.055,0492	7.090.052,6794	7.090.052,6794	7.090.052,2509	<b>7.090.047,2500</b>	7.090.042,2566	7.090.041,8283	7.090.041,8281	7.090.039,4476	
<b>Station: 4+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					12,794	<b>12,894</b>	12,794				
E:					708.397,8156	<b>708.397,9096</b>	708.398,0036				
N:					7.090.052,5492	<b>7.090.047,5501</b>	7.090.042,5509				
<b>Station: 4+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					12,819	<b>12,919</b>	12,819				
E:					708.407,8139	<b>708.407,9078</b>	708.408,0018				
N:					7.090.052,7371	<b>7.090.047,7380</b>	7.090.042,7389				
<b>Station: 5+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					12,844	<b>12,944</b>	12,844				
E:					708.417,8121	<b>708.417,9061</b>	708.418,0000				
N:					7.090.052,9251	<b>7.090.047,9260</b>	7.090.042,9268				
<b>Station: 5+10</b>											
Dist. Eixo (m):		-7,998	-5,429	-5,429	-5,000	<b>0,000</b>	5,000	5,429	5,429	8,000	
Cota (m):		13,033	12,982	12,855	12,864	<b>12,964</b>	12,864	12,855	12,982	13,033	
E:		708.427,6735	708.427,7470	708.427,7470	708.427,7592	<b>708.427,9201</b>	708.428,0449	708.428,0572	708.428,0572	708.428,1306	
N:		7.090.056,2032	7.090.053,6348	7.090.053,6348	7.090.053,2062	<b>7.090.048,2082</b>	7.090.043,2102	7.090.042,7818	7.090.042,7818	7.090.040,2115	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-7,996	-5,429	-5,429	-5,000	<b>0,000</b>	5,000	5,429	5,429	8,000	
Cota (m):		13,022	12,971	12,843	12,852	<b>12,952</b>	12,852	12,844	12,971	13,022	
E:		708.437,6695	708.437,7429	708.437,7429	708.437,7551	<b>708.437,8980</b>	708.438,0408	708.438,0531	708.438,0531	708.438,1266	
N:		7.090.056,4870	7.090.053,9205	7.090.053,9205	7.090.053,4919	<b>7.090.048,4939</b>	7.090.043,4960	7.090.043,0676	7.090.043,0676	7.090.040,4972	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-7,994	-5,429	-5,429	-5,000	<b>0,000</b>	5,000	5,429	5,429	8,000	
Cota (m):		12,983	12,932	12,805	12,814	<b>12,914</b>	12,814	12,805	12,932	12,983	
E:		708.447,6655	708.447,7388	708.447,7388	708.447,7510	<b>708.447,8939</b>	708.448,0368	708.448,0490	708.448,0490	708.448,1225	
N:		7.090.056,7708	7.090.054,2062	7.090.054,2062	7.090.053,7776	<b>7.090.048,7796</b>	7.090.043,7817	7.090.043,3533	7.090.043,3533	7.090.040,7829	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

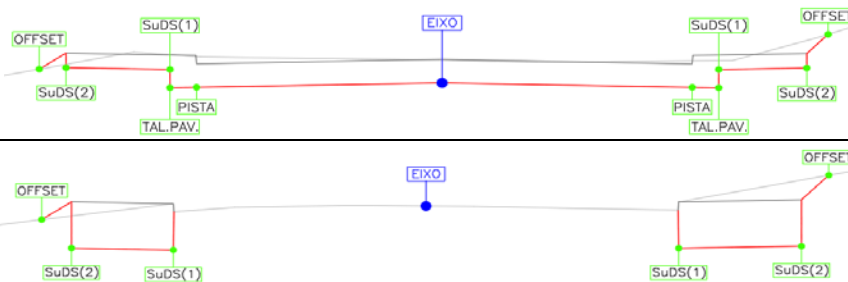
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+15</b>											
Dist. Eixo (m):		-7,981	-5,420	-5,420	-4,992	<b>0,000</b>	5,000	5,429	5,425	8,011	
Cota (m):		12,958	12,907	12,780	12,789	<b>12,889</b>	12,789	12,780	12,887	12,959	
E:		708.453,6503	708.453,7235	708.453,7235	708.453,7358	<b>708.453,8786</b>	708.454,0215	708.454,0338	708.388,0985	708.454,1075	
N:		7.090.056,9407	7.090.054,3773	7.090.054,3773	7.090.053,9487	<b>7.090.048,9507</b>	7.090.043,9528	7.090.043,5244	7.090.041,8281	7.090.040,9429	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-8,396	-5,417	-5,417	-4,988	<b>0,000</b>	5,681	6,109	6,109	9,324	
Cota (m):		12,948	12,891	12,763	12,772	<b>12,872</b>	12,758	12,750	12,877	12,941	
E:		708.457,1655	708.457,4180	708.457,4180	708.457,4543	<b>708.457,8770</b>	708.458,3584	708.458,3948	708.458,3948	708.458,6672	
N:		7.090.057,6568	7.090.054,6881	7.090.054,6881	7.090.054,2609	<b>7.090.049,2908</b>	7.090.043,6305	7.090.043,2035	7.090.043,2035	7.090.040,0001	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-8,276	-5,429	-5,429	-5,000	<b>0,000</b>	5,097	5,526	5,526	7,993	
Cota (m):		12,952	12,896	12,768	12,777	<b>12,861</b>	12,751	12,743	12,870	12,919	
E:		708.477,1038	708.477,3450	708.477,3450	708.477,3814	<b>708.477,8051</b>	708.478,2370	708.478,2734	708.478,2734	708.478,4824	
N:		7.090.059,2316	7.090.056,3949	7.090.056,3949	7.090.055,9677	<b>7.090.050,9857</b>	7.090.045,9068	7.090.045,4798	7.090.045,4798	7.090.043,0214	
<b>Station: 8+1</b>											
Dist. Eixo (m):		-8,011	-5,429	-5,429	-5,000	<b>0,000</b>	5,002	5,430	5,425	8,011	
Cota (m):		12,935	12,881	12,754	12,763	<b>12,859</b>	12,750	12,742	12,887	12,920	
E:		708.478,2420	708.478,4608	708.478,4608	708.478,4972	<b>708.478,9209</b>	708.479,3455	708.479,3818	708.388,0985	708.479,6009	
N:		7.090.059,0627	7.090.056,4898	7.090.056,4898	7.090.056,0626	<b>7.090.051,0806</b>	7.090.046,0885	7.090.045,6614	7.090.041,8281	7.090.043,0851	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,779	-5,429	-5,429	-5,000	<b>0,000</b>	4,988	5,416	5,416	7,965	
Cota (m):		12,909	12,862	12,735	12,744	<b>12,844</b>	12,744	12,735	12,862	12,913	
E:		708.487,5889	708.487,6520	708.487,6520	708.487,6635	<b>708.487,7978</b>	708.487,9318	708.487,9433	708.487,9433	708.488,0118	
N:		7.090.059,0955	7.090.056,7459	7.090.056,7459	7.090.056,3173	<b>7.090.051,3191</b>	7.090.046,3334	7.090.045,9049	7.090.045,9049	7.090.043,3575	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,786	-5,429	-5,429	-5,000	<b>0,000</b>	4,991	5,420	5,420	7,909	
Cota (m):		12,892	12,845	12,717	12,726	<b>12,826</b>	12,727	12,718	12,845	12,895	
E:		708.497,5851	708.497,6484	708.497,6484	708.497,6599	<b>708.497,7942</b>	708.497,9283	708.497,9398	708.497,9398	708.498,0067	
N:		7.090.059,3705	7.090.057,0145	7.090.057,0145	7.090.056,5859	<b>7.090.051,5877</b>	7.090.046,5984	7.090.046,1700	7.090.046,1700	7.090.043,6811	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-7,792	-5,429	-5,429	-5,000	<b>0,000</b>	4,995	5,423	5,425	7,854	
Cota (m):		12,875	12,827	12,700	12,709	<b>12,809</b>	12,709	12,701	12,887	12,876	
E:		708.507,5813	708.507,6448	708.507,6448	708.507,6563	<b>708.507,7906</b>	708.507,9248	708.507,9363	708.388,0985	708.508,0016	
N:		7.090.059,6456	7.090.057,2831	7.090.057,2831	7.090.056,8545	<b>7.090.051,8563</b>	7.090.046,8634	7.090.046,4350	7.090.041,8281	7.090.044,0047	
<b>Station: 9+19</b>											
Dist. Eixo (m):		-7,851	-5,428	-5,428	-5,000	<b>0,000</b>	5,141	5,569	5,569	7,915	
Cota (m):		12,874	12,825	12,698	12,707	<b>12,799</b>	12,701	12,693	12,819	12,866	
E:		708.516,9208	708.516,9859	708.516,9859	708.516,9974	<b>708.517,1317</b>	708.517,2698	708.517,2813	708.517,2813	708.517,3443	
N:		7.090.059,9564	7.090.057,5341	7.090.057,5341	7.090.057,1055	<b>7.090.052,1073</b>	7.090.046,9687	7.090.046,5402	7.090.046,5402	7.090.044,1952	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-7,884	-5,429	-5,429	-5,000	<b>0,000</b>	5,319	5,747	5,747	8,273	
Cota (m):		12,881	12,832	12,705	12,714	<b>12,799</b>	12,705	12,696	12,820	12,871	
E:		708.517,4902	708.517,5826	708.517,5826	708.517,5987	<b>708.517,7668</b>	708.517,9869	708.518,0030	708.518,0030	708.518,0980	
N:		7.090.060,0100	7.090.057,5569	7.090.057,5569	7.090.057,1284	<b>7.090.052,1320</b>	7.090.046,8171	7.090.046,3888	7.090.046,3888	7.090.043,8648	
<b>Station: 10+10</b>											
Dist. Eixo (m):				-13,252		<b>0,000</b>		13,000			
Cota (m):				12,636		<b>12,820</b>		12,577			
E:				708.527,2812		<b>708.527,7797</b>		708.528,2887			
N:				7.090.065,7505		<b>7.090.052,5082</b>		7.090.039,5174			
<b>Station: 10+18</b>											
Dist. Eixo (m):		-8,675	-6,242	-6,242	-5,813	<b>0,000</b>	5,555	5,935	5,935	8,382	
Cota (m):		12,909	12,861	12,734	12,743	<b>12,859</b>	12,748	12,740	12,867	12,916	
E:		708.536,3385	708.536,4300	708.536,4300	708.536,4461	<b>708.536,6648</b>	708.536,8738	708.536,8881	708.536,8881	708.536,9801	
N:		7.090.061,5117	7.090.059,0802	7.090.059,0802	7.090.058,6517	<b>7.090.052,8426</b>	7.090.047,2913	7.090.046,9116	7.090.046,9116	7.090.044,4665	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-8,206	-5,800	-5,800	-5,372	<b>0,000</b>	5,178	5,606	5,606	8,092	
Cota (m):		12,921	12,875	12,747	12,756	<b>12,864</b>	12,760	12,752	12,874	12,924	
E:		708.537,4640	708.537,5544	708.537,5544	708.537,5706	<b>708.537,7726</b>	708.537,9674	708.537,9835	708.537,9835	708.538,0771	
N:		7.090.061,0844	7.090.058,6806	7.090.058,6806	7.090.058,2521	<b>7.090.052,8843</b>	7.090.047,7103	7.090.047,2820	7.090.047,2820	7.090.044,7976	
<b>Station: 11+1</b>											
Dist. Eixo (m):		-7,884	-5,498	-5,498	-5,069	<b>0,000</b>	5,000	5,429	5,429	7,712	
Cota (m):		12,935	12,887	12,760	12,769	<b>12,870</b>	12,770	12,762	12,888	12,934	
E:		708.538,8759	708.538,9656	708.538,9656	708.538,9818	<b>708.539,1725</b>	708.539,3606	708.539,3767	708.539,3767	708.539,4626	
N:		7.090.060,8153	7.090.058,4309	7.090.058,4309	7.090.058,0025	<b>7.090.052,9370</b>	7.090.047,9401	7.090.047,5118	7.090.047,5118	7.090.045,2302	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,777	-5,432	-5,432	-5,003	<b>0,000</b>	4,997	5,425	5,425	7,878	
Cota (m):		12,925	12,878	12,751	12,810	<b>12,910</b>	12,810	12,801	12,928	12,977	
E:		708.547,4353	708.547,5344	708.547,5344	708.547,5525	<b>708.547,7640</b>	708.547,9751	708.547,9932	708.547,9932	708.548,0969	
N:		7.090.061,0708	7.090.058,7276	7.090.058,7276	7.090.058,2992	<b>7.090.053,3004</b>	7.090.048,3083	7.090.047,8801	7.090.047,8801	7.090.045,4290	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

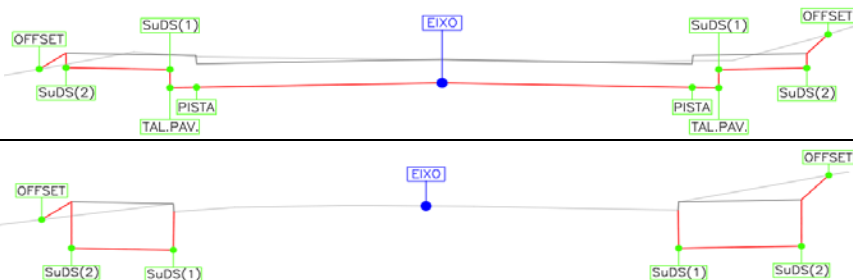
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 12+0</b>											
Dist. Eixo (m):		-8,002	-5,431	-5,431	-5,003	<b>0,000</b>	4,997	5,426	5,426	7,921	
Cota (m):		13,025	12,974	12,846	12,855	<b>12,955</b>	12,855	12,847	12,974	13,024	
E:		708.557,4169	708.557,5255	708.557,5255	708.557,5436	<b>708.557,7550</b>	708.557,9662	708.557,9843	708.557,9843	708.558,0897	
N:		7.090.061,7183	7.090.059,1495	7.090.059,1495	7.090.058,7211	<b>7.090.053,7230</b>	7.090.048,7302	7.090.048,3020	7.090.048,3020	7.090.045,8092	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,781	-5,431	-5,431	-5,002	<b>0,000</b>	4,998	5,426	5,426	7,957	
Cota (m):		13,050	13,004	12,877	12,886	<b>12,986</b>	12,886	12,877	13,004	13,055	
E:		708.567,4173	708.567,5166	708.567,5166	708.567,5347	<b>708.567,7461</b>	708.567,9573	708.567,9754	708.567,9754	708.568,0824	
N:		7.090.061,9199	7.090.059,5713	7.090.059,5713	7.090.059,1429	<b>7.090.054,1456</b>	7.090.049,1522	7.090.048,7240	7.090.048,7240	7.090.046,1955	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,808	-5,430	-5,430	-5,001	<b>0,000</b>	4,998	5,427	5,427	8,550	
Cota (m):		13,023	12,976	12,848	12,857	<b>12,957</b>	12,857	12,849	12,976	13,038	
E:		708.577,4072	708.577,5077	708.577,5077	708.577,5258	<b>708.577,7372</b>	708.577,9484	708.577,9665	708.577,9665	708.578,0985	
N:		7.090.062,3689	7.090.059,9932	7.090.059,9932	7.090.059,5648	<b>7.090.054,5681</b>	7.090.049,5741	7.090.049,1460	7.090.049,1460	7.090.046,0261	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-7,759	-5,429	-5,429	-5,000	<b>0,000</b>	13,211				
Cota (m):		12,958	12,911	12,784	12,793	<b>12,893</b>	12,629				
E:		708.587,4004	708.587,4988	708.587,4988	708.587,5169	<b>708.587,7282</b>	708.588,2865				
N:		7.090.062,7430	7.090.060,4150	7.090.060,4150	7.090.059,9866	<b>7.090.054,9907</b>	7.090.041,7917				
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,756	-5,428	-5,428	-5,000	<b>0,000</b>	5,000	5,428	5,428	8,263	
Cota (m):		12,960	12,914	12,786	12,795	<b>12,895</b>	12,795	12,787	12,913	12,970	
E:		708.597,3916	708.597,4899	708.597,4899	708.597,5080	<b>708.597,7193</b>	708.597,9306	708.597,9487	708.597,9487	708.598,0685	
N:		7.090.063,1619	7.090.060,8368	7.090.060,8368	7.090.060,4084	<b>7.090.055,4133</b>	7.090.050,4181	7.090.049,9899	7.090.049,9899	7.090.047,1574	
<b>Station: 14+1</b>											
Dist. Eixo (m):		-7,755	-5,428	-5,428	-5,000	<b>0,000</b>	5,000	5,428	5,428	7,994	
Cota (m):		12,962	12,915	12,788	12,797	<b>12,897</b>	12,797	12,788	12,916	12,967	
E:		708.598,5845	708.598,6828	708.598,6828	708.598,7010	<b>708.598,9122</b>	708.599,1235	708.599,1416	708.599,1416	708.599,2500	
N:		7.090.063,2123	7.090.060,8872	7.090.060,8872	7.090.060,4588	<b>7.090.055,4637</b>	7.090.050,4684	7.090.050,0403	7.090.050,0403	7.090.047,4770	
<b>Station: 14+5</b>											
Dist. Eixo (m):		-7,755	-5,009			<b>0,000</b>			5,010	7,937	
Cota (m):		12,975	12,921						12,920	12,979	
E:		708.602,5876	708.602,7037			<b>708.602,9154</b>			708.603,1271	708.603,2508	
N:		7.090.063,3815	7.090.060,6378			<b>7.090.055,6330</b>			7.090.050,6275	7.090.047,7030	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-7,782	-5,035			<b>0,000</b>			4,984	7,957	
Cota (m):		12,987	12,932						12,934	12,993	
E:		708.607,4253	708.607,5262			<b>708.607,7114</b>			708.607,8947	708.608,0040	
N:		7.090.063,5859	7.090.060,8414			<b>7.090.055,8095</b>			7.090.050,8289	7.090.047,8579	
<b>Station: 15+0</b>											
Dist. Eixo (m):						<b>0,000</b>			4,943	8,061	
Cota (m):									12,946	13,009	
E:						<b>708.617,7046</b>			708.617,8864	708.618,0018	
N:						<b>7.090.056,1773</b>			7.090.051,2376	7.090.048,1013	
<b>Station: 15+10</b>											
Dist. Eixo (m):						<b>0,000</b>			4,952	8,110	
Cota (m):									12,920	12,983	
E:						<b>708.627,6979</b>			708.627,8800	708.627,9961	
N:						<b>7.090.056,5450</b>			7.090.051,5961	7.090.048,4406	
<b>Station: 16+0</b>											
Dist. Eixo (m):						<b>0,000</b>			4,961	8,017	
Cota (m):									12,936	12,998	
E:						<b>708.637,6911</b>			708.637,8736	708.637,9859	
N:						<b>7.090.056,9127</b>			7.090.051,9547	7.090.048,9008	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,934	-5,049			<b>0,000</b>			4,971	7,935	
Cota (m):		12,956	12,898						12,900	12,959	
E:		708.647,3926	708.647,4987			<b>708.647,6844</b>			708.647,8671	708.647,9761	
N:		7.090.065,2088	7.090.062,3264			<b>7.090.057,2804</b>			7.090.052,3132	7.090.049,3513	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-8,058	-5,040			<b>0,000</b>			4,980	7,850	
Cota (m):		12,890	12,830						12,831	12,888	
E:		708.657,3813	708.657,4923			<b>708.657,6776</b>			708.657,8607	708.657,9663	
N:		7.090.065,7007	7.090.062,6850			<b>7.090.057,6482</b>			7.090.052,6718	7.090.049,8031	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-8,134	-5,143			<b>0,000</b>			4,989	7,823	
Cota (m):		12,798	12,739						12,742	12,798	
E:		708.667,3717	708.667,4817			<b>708.667,6708</b>			708.667,8543	708.667,9585	
N:		7.090.066,1444	7.090.063,1559			<b>7.090.058,0159</b>			7.090.053,0303	7.090.050,1986	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

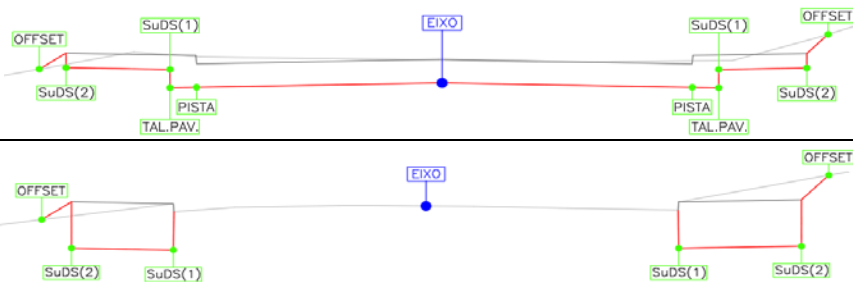
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 18+0</b>											
Dist. Eixo (m):		-8,324	-5,334			0,000			4,998	7,838	
Cota (m):		12,745	12,685						12,692	12,749	
E:		708.677,3580	708.677,4679			708.677,6641			708.677,8479	708.677,9523	
N:		7.090.066,7024	7.090.063,7139			7.090.058,3836			7.090.053,3888	7.090.050,5508	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-8,515	-5,524			0,000			5,010	7,862	
Cota (m):		12,770	12,711						12,721	12,778	
E:		708.687,3442	708.687,4542			708.687,6573			708.687,8416	708.687,9464	
N:		7.090.067,2605	7.090.064,2720			7.090.058,7513			7.090.053,7443	7.090.050,8942	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-8,226	-6,340	-6,340	-5,941	0,000	4,799	5,197	5,197	6,963	
Cota (m):		12,714	12,730	12,635	12,643	12,663	12,611	12,604	12,700	12,735	
E:		708.707,1326	708.707,2448	708.707,2448	708.707,2685	708.707,6221	708.707,9077	708.707,9314	708.707,9314	708.708,0365	
N:		7.090.068,1474	7.090.066,2647	7.090.066,2647	7.090.065,8672	7.090.059,9363	7.090.055,1460	7.090.054,7487	7.090.054,7487	7.090.052,9856	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-5,946	-4,444	-4,444	-4,046	0,000	3,954	4,352	4,352	5,607	
Cota (m):		12,645	12,615	12,519	12,527	12,608	12,529	12,521	12,617	12,642	
E:		708.717,3948	708.717,4504	708.717,4504	708.717,4652	708.717,6150	708.717,7615	708.717,7762	708.717,7762	708.717,8227	
N:		7.090.066,2532	7.090.064,7524	7.090.064,7524	7.090.064,3546	7.090.060,3112	7.090.056,3600	7.090.055,9623	7.090.055,9623	7.090.054,7082	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-5,933	-4,431	-4,431	-4,033	0,000	3,967	4,365	4,365	5,867	
Cota (m):		12,604	12,574	12,479	12,487	12,567	12,488	12,480	12,576	12,606	
E:		708.727,3884	708.727,4441	708.727,4441	708.727,4588	708.727,6082	708.727,7551	708.727,7698	708.727,7698	708.727,8255	
N:		7.090.066,6105	7.090.065,1097	7.090.065,1097	7.090.064,7118	7.090.060,6816	7.090.056,7172	7.090.056,3196	7.090.056,3196	7.090.054,8185	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-5,920	-4,418	-4,418	-4,020	0,000	3,980	4,378	4,378	5,880	
Cota (m):		12,646	12,616	12,520	12,528	12,609	12,529	12,521	12,617	12,647	
E:		708.737,3821	708.737,4377	708.737,4377	708.737,4524	708.737,6013	708.737,7487	708.737,7635	708.737,7635	708.737,8191	
N:		7.090.066,9677	7.090.065,4669	7.090.065,4669	7.090.065,0690	7.090.061,0520	7.090.057,0745	7.090.056,6768	7.090.056,6768	7.090.055,1758	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-5,907	-4,405	-4,405	-4,007	0,000	3,993	4,391	4,391	5,893	
Cota (m):		12,766	12,736	12,640	12,648	12,728	12,649	12,641	12,736	12,766	
E:		708.747,3757	708.747,4313	708.747,4313	708.747,4461	708.747,5944	708.747,7423	708.747,7571	708.747,7571	708.747,8127	
N:		7.090.067,3249	7.090.065,8241	7.090.065,8241	7.090.065,4262	7.090.061,4223	7.090.057,4317	7.090.057,0340	7.090.057,0340	7.090.055,5330	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-5,893	-4,392	-4,392	-3,993	0,000	4,007	4,405	4,405	5,907	
Cota (m):		12,896	12,866	12,770	12,778	12,858	12,777	12,770	12,865	12,895	
E:		708.757,3693	708.757,4249	708.757,4249	708.757,4397	708.757,5876	708.757,7360	708.757,7507	708.757,7507	708.757,8063	
N:		7.090.067,6821	7.090.066,1813	7.090.066,1813	7.090.065,7834	7.090.061,7927	7.090.057,7889	7.090.057,3912	7.090.057,3912	7.090.055,8902	
<b>Station: 22+10</b>											
Dist. Eixo (m):					-10,441	0,000	9,000				
Cota (m):					12,752	12,961	12,897				
E:					708.767,1940	708.767,5807	708.767,9141				
N:					7.090.072,5970	7.090.062,1631	7.090.053,1692				
<b>Station: 23+0</b>											
Dist. Eixo (m):		-9,921	-6,720	-6,720	-6,321	0,000	5,801	6,199	6,199	9,134	
Cota (m):		13,130	13,067	12,971	12,979	13,019	12,931	12,923	13,018	13,077	
E:		708.777,2064	708.777,3250	708.777,3250	708.777,3397	708.777,5739	708.777,7887	708.777,8035	708.777,8035	708.777,9122	
N:		7.090.072,4481	7.090.069,2484	7.090.069,2484	7.090.068,8506	7.090.062,5334	7.090.056,7361	7.090.056,3384	7.090.056,3384	7.090.053,4057	
<b>Station: 23+5</b>											
Dist. Eixo (m):		-5,872	-4,396	-4,396	-3,998	0,000	4,002	4,400	4,400	5,858	
Cota (m):		13,079	13,051	12,955	12,963	13,043	12,963	12,955	13,051	13,080	
E:		708.783,1373	708.783,1919	708.783,1919	708.783,2067	708.783,3548	708.783,5030	708.783,5177	708.783,5177	708.783,5717	
N:		7.090.068,6157	7.090.067,1409	7.090.067,1409	7.090.066,7430	7.090.062,7477	7.090.058,7484	7.090.058,3507	7.090.058,3507	7.090.056,8935	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-5,885	-4,410	-4,410	-4,012	0,000	3,988	4,386	4,386	5,865	
Cota (m):		13,097	13,068	12,972	12,980	13,060	12,980	12,972	13,068	13,098	
E:		708.787,3434	708.787,3994	708.787,3994	708.787,4145	708.787,5669	708.787,7183	708.787,7334	708.787,7334	708.787,7896	
N:		7.090.068,7881	7.090.067,3143	7.090.067,3143	7.090.066,9165	7.090.062,9078	7.090.058,9222	7.090.058,5245	7.090.058,5245	7.090.057,0466	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-5,919	-4,442	-4,442	-4,044	0,000	3,956	4,354	4,354	5,866	
Cota (m):		13,137	13,108	13,012	13,020	13,101	13,022	13,014	13,110	13,140	
E:		708.797,3349	708.797,3909	708.797,3909	708.797,4061	708.797,5596	708.797,7099	708.797,7250	708.797,7250	708.797,7824	
N:		7.090.069,2020	7.090.067,7263	7.090.067,7263	7.090.067,3284	7.090.063,2875	7.090.059,3341	7.090.058,9364	7.090.058,9364	7.090.057,4254	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-5,953	-4,474	-4,474	-4,076	0,000	3,924	4,322	4,322	5,867	
Cota (m):		13,177	13,148	13,052	13,060	13,142	13,063	13,055	13,151	13,182	
E:		708.807,3263	708.807,3825	708.807,3825	708.807,3976	708.807,5524	708.807,7015	708.807,7166	708.807,7166	708.807,7752	
N:		7.090.069,6159	7.090.068,1382	7.090.068,1382	7.090.067,7403	7.090.063,6673	7.090.059,7460	7.090.059,3484	7.090.059,3484	7.090.057,8043	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

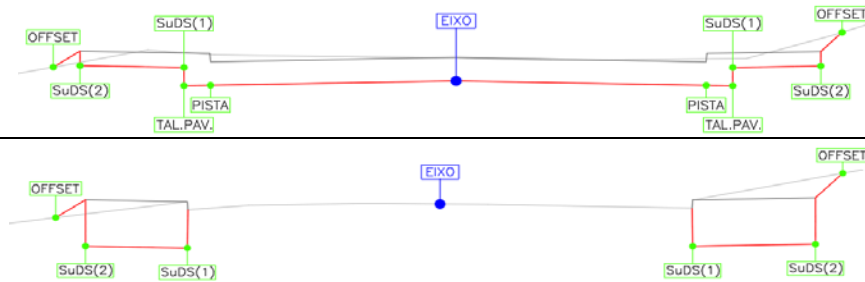
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 24+18</b>											
Dist. Eixo (m):		-5,981	-4,461	-4,461	-4,102	<b>0,000</b>	3,937	4,296	4,296	5,868	
Cota (m):		13,210	13,180	13,086	13,093	13,175	13,096	13,089	13,185	13,216	
E:		708.815,5161	708.815,5739	708.815,5739	708.815,5875	708.815,7433	708.815,8928	708.815,9064	708.815,9064	708.815,9661	
N:		7.090.069,9552	7.090.068,4365	7.090.068,4365	7.090.068,0779	7.090.063,9786	7.090.060,0445	7.090.059,6860	7.090.059,6860	7.090.058,1149	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-5,987	-4,506	-4,506	-4,108	<b>0,000</b>	3,892	4,290	4,290	5,868	
Cota (m):		13,217	13,188	13,092	13,100	13,182	13,104	13,096	13,192	13,224	
E:		708.817,3178	708.817,3741	708.817,3741	708.817,3892	708.817,5452	708.817,6930	708.817,7081	708.817,7081	708.817,7681	
N:		7.090.070,0298	7.090.068,5501	7.090.068,5501	7.090.068,1522	7.090.064,0471	7.090.060,1579	7.090.059,7603	7.090.059,7603	7.090.058,1832	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-6,021	-4,538	-4,538	-4,140	<b>0,000</b>	3,860	4,258	4,258	5,869	
Cota (m):		13,258	13,228	13,132	13,140	13,223	13,146	13,138	13,234	13,266	
E:		708.827,3093	708.827,3656	708.827,3656	708.827,3808	708.827,5380	708.827,6846	708.827,6997	708.827,6997	708.827,7609	
N:		7.090.070,4437	7.090.068,9620	7.090.068,9620	7.090.068,5641	7.090.064,4269	7.090.060,5699	7.090.060,1722	7.090.060,1722	7.090.058,5621	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-10,733	-7,281	-7,281	-6,883	<b>0,000</b>	6,495	6,893	6,893	11,540	
Cota (m):		13,415	13,346	13,250	13,258	13,275	13,228	13,220	13,315	13,408	
E:		708.837,1232	708.837,2543	708.837,2543	708.837,2694	708.837,5308	708.837,7774	708.837,7926	708.837,7926	708.837,9690	
N:		7.090.075,5317	7.090.072,0820	7.090.072,0820	7.090.071,6842	7.090.064,8066	7.090.058,3166	7.090.057,9189	7.090.057,9189	7.090.053,2749	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-11,823	-9,343	-9,343	-8,944	<b>0,000</b>	9,280	9,678	9,678	12,000	
Cota (m):		13,315	13,262	13,166	13,174	13,353	13,168	13,160	13,256	13,302	
E:		708.847,0746	708.847,1688	708.847,1688	708.847,1839	708.847,5236	708.847,8760	708.847,8911	708.847,8911	708.847,9793	
N:		7.090.077,0010	7.090.074,5222	7.090.074,5222	7.090.074,1243	7.090.065,1864	7.090.065,9134	7.090.055,5157	7.090.055,5157	7.090.053,1951	
<b>Station: 26+16</b>											
Dist. Eixo (m):		-5,900	-4,448	-4,448	-4,050	<b>0,000</b>	4,048	4,446	4,446	5,750	
Cota (m):		13,423	13,394	13,299	13,307	13,413	13,288	13,280	13,376	13,402	
E:		708.853,8695	708.853,9237	708.853,9237	708.853,9388	708.854,0926	708.854,2463	708.854,2615	708.854,2615	708.854,3110	
N:		7.090.071,3316	7.090.069,8810	7.090.069,8810	7.090.069,4831	7.090.065,4361	7.090.061,3905	7.090.060,9929	7.090.060,9929	7.090.059,6906	
<b>Station: 27+0</b>											
Dist. Eixo (m):		-5,881	-4,406	-4,406	-4,008	<b>0,000</b>	3,993	4,390	4,390	5,644	
Cota (m):		13,468	13,439	13,343	13,351	13,431	13,351	13,343	13,439	13,464	
E:		708.857,2493	708.857,3160	708.857,3160	708.857,3340	708.857,5153	708.857,6959	708.857,7139	708.857,7139	708.857,7706	
N:		7.090.071,4664	7.090.069,9922	7.090.069,9922	7.090.069,5944	7.090.065,5910	7.090.061,6026	7.090.061,2051	7.090.061,2051	7.090.059,9533	
<b>Station: 27+10</b>											
Dist. Eixo (m):		-5,928	-4,428	-4,428	-4,029	<b>0,000</b>	3,971	4,369	4,369	5,685	
Cota (m):		13,447	13,417	13,322	13,330	13,410	13,331	13,323	13,419	13,445	
E:		708.867,2369	708.867,3048	708.867,3048	708.867,3228	708.867,5051	708.867,6847	708.867,7027	708.867,7027	708.867,7623	
N:		7.090.071,9653	7.090.070,4664	7.090.070,4664	7.090.070,0687	7.090.066,0434	7.090.062,0768	7.090.061,6793	7.090.061,6793	7.090.060,3639	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-6,026	-4,449	-4,449	-4,051	<b>0,000</b>	3,949	4,347	4,347	5,727	
Cota (m):		13,334	13,302	13,207	13,215	13,296	13,217	13,209	13,304	13,332	
E:		708.877,2222	708.877,2936	708.877,2936	708.877,3116	708.877,4948	708.877,6735	708.877,6915	708.877,6915	708.877,7539	
N:		7.090.072,5161	7.090.070,9406	7.090.070,9406	7.090.070,5429	7.090.066,4958	7.090.062,5510	7.090.062,1535	7.090.062,1535	7.090.060,7745	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-5,989	-4,471	-4,471	-4,073	<b>0,000</b>	3,927	4,325	4,325	5,769	
Cota (m):		13,206	13,176	13,080	13,088	13,170	13,091	13,083	13,179	13,208	
E:		708.887,2137	708.887,2823	708.887,2823	708.887,3004	708.887,4846	708.887,6623	708.887,6803	708.887,6803	708.887,7456	
N:		7.090.072,9309	7.090.071,4148	7.090.071,4148	7.090.071,0171	7.090.066,9482	7.090.063,0253	7.090.062,6277	7.090.062,6275	7.090.061,1851	
<b>Station: 28+14</b>											
Dist. Eixo (m):		-5,972	-4,481	-4,481	-4,083	<b>0,000</b>	3,917	4,315	4,315	5,7880	
Cota (m):		13,149	13,119	13,023	13,031	13,113	13,035	13,027	13,123	13,1520	
E:		708.891,6976	708.891,7651	708.891,7651	708.891,7831	708.891,9678	708.892,1450	708.892,1630	708.892,1630	708.892,2296	
N:		7.090.073,1170	7.090.071,6277	7.090.071,6277	7.090.071,2299	7.090.067,1512	7.090.063,2381	7.090.062,8405	7.090.062,8405	7.090.061,3693	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-5,951	-4,493	-4,493	-4,095	<b>0,000</b>	3,905	4,303	4,303	5,811	
Cota (m):		13,079	13,049	12,954	12,962	13,044	12,965	12,958	13,053	13,083	
E:		708.897,2052	708.897,2711	708.897,2711	708.897,2891	708.897,4744	708.897,6510	708.897,6690	708.897,6690	708.897,7372	
N:		7.090.073,3457	7.090.071,8891	7.090.071,8891	7.090.071,4913	7.090.067,4005	7.090.063,4995	7.090.063,1019	7.090.063,1019	7.090.061,5957	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-12,056	-7,291	-7,291	-6,892	<b>0,000</b>	6,708	7,106	7,106	9,554	
Cota (m):		13,191	13,095	13,000	13,008	12,918	12,937	12,929	13,025	13,074	
E:		708.906,9187	708.907,1343	708.907,1343	708.907,1523	708.907,4641	708.907,7676	708.907,7856	708.907,7856	708.907,8963	
N:		7.090.079,8967	7.090.075,1360	7.090.075,1360	7.090.074,7382	7.090.067,8529	7.090.061,1515	7.090.060,7539	7.090.060,7539	7.090.058,3088	
<b>Station: 29+11</b>											
Dist. Eixo (m):		-12,077	-9,848	-9,848	-9,450	<b>0,000</b>	9,297				
Cota (m):		13,181	13,137	13,041	13,049	12,899	12,946				
E:		708.908,3934	708.908,4942	708.908,4942	708.908,5122	708.908,9397	708.909,3604				
N:		7.090.079,9846	7.090.077,7574	7.090.077,7574	7.090.077,3597	7.090.067,9197	7.090.058,6301				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

Desenho Esquemático:

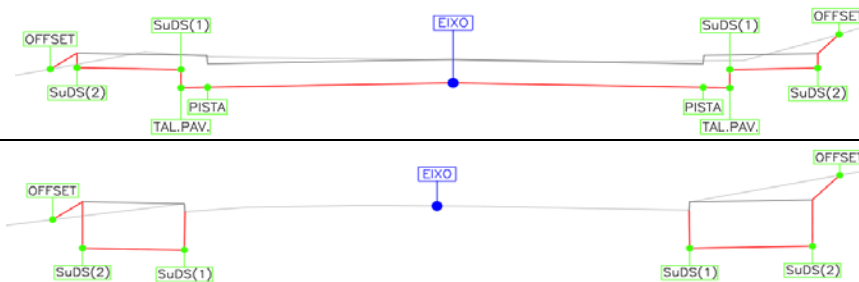


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 30+10</b>											
Dist. Eixo (m):		-5,907	-4,381	-4,381	-3,983	<b>0,000</b>	4,017	4,415	4,415	6,016	
Cota (m):		13,090	13,060	12,964	12,972	13,052	12,971	12,963	13,059	13,091	
E:		708.927.2209	708.927.2806	708.927.2806	708.927.2962	708.927.4519	708.927.6089	708.927.6245	708.927.6245	708.927.6871	
N:		7.090.074.4421	7.090.072.9175	7.090.072.9175	7.090.072.5196	7.090.068.5393	7.090.064.5257	7.090.064.1281	7.090.064.1281	7.090.062.5276	
<b>Station: 31+0</b>											
Dist. Eixo (m):		-5,898	-4,359	-4,359	-3,960	<b>0,000</b>	4,040	4,438	4,438	6,038	
Cota (m):		13,163	13,132	13,036	13,044	13,124	13,043	13,035	13,131	13,163	
E:		708.937.2137	708.937.2738	708.937.2738	708.937.2894	708.937.4442	708.937.6022	708.937.6177	708.937.6177	708.937.6803	
N:		7.090.074.8235	7.090.073.2855	7.090.073.2855	7.090.072.8876	7.090.068.9303	7.090.064.8937	7.090.064.4961	7.090.064.4961	7.090.062.8965	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-5,888	-4,336	-4,336	-3,937	<b>0,000</b>	4,063	4,461	4,461	6,061	
Cota (m):		13,161	13,130	13,034	13,042	13,121	13,039	13,031	13,127	13,159	
E:		708.947.2064	708.947.2671	708.947.2671	708.947.2827	708.947.4366	708.947.5954	708.947.6110	708.947.6110	708.947.6736	
N:		7.090.075.2050	7.090.073.6535	7.090.073.6535	7.090.073.2557	7.090.069.3213	7.090.065.2618	7.090.064.8641	7.090.064.8641	7.090.063.2654	
<b>Station: 32+0</b>											
Dist. Eixo (m):		-5,879	-4,313	-4,313	-3,914	<b>0,000</b>	4,086	4,484	4,484	6,083	
Cota (m):		13,149	13,118	13,022	13,030	13,108	13,027	13,019	13,114	13,146	
E:		708.957.1991	708.957.2603	708.957.2603	708.957.2759	708.957.4290	708.957.5887	708.957.6043	708.957.6043	708.957.6668	
N:		7.090.075.5864	7.090.074.0215	7.090.074.0215	7.090.073.6237	7.090.069.7123	7.090.065.6298	7.090.065.2321	7.090.065.2321	7.090.063.6342	
<b>Station: 32+10</b>											
Dist. Eixo (m):		-5,869	-4,290	-4,290	-3,891	<b>0,000</b>	4,109	4,507	4,507	6,105	
Cota (m):		13,138	13,106	13,010	13,018	13,096	13,014	13,006	13,102	13,134	
E:		708.967.1918	708.967.2536	708.967.2536	708.967.2692	708.967.4213	708.967.5819	708.967.5975	708.967.5975	708.967.6600	
N:		7.090.075.9678	7.090.074.3895	7.090.074.3895	7.090.073.9917	7.090.070.1032	7.090.065.9978	7.090.065.6001	7.090.065.6001	7.090.064.0031	
<b>Station: 33+0</b>											
Dist. Eixo (m):		-7,893	-5,076	-5,076	-4,678	<b>0,000</b>	4,101	4,499	4,499	5,972	
Cota (m):		13,209	13,153	13,057	13,065	13,159	13,077	13,069	13,183	13,212	
E:		708.977.1051	708.977.2152	708.977.2152	708.977.2308	708.977.4137	708.977.5740	708.977.5895	708.977.5895	708.977.6472	
N:		7.090.078.3809	7.090.075.5664	7.090.075.5664	7.090.075.1686	7.090.070.4942	7.090.066.3968	7.090.065.9992	7.090.065.9992	7.090.064.5267	
<b>Station: 33+10</b>											
Dist. Eixo (m):					-6,624	<b>0,000</b>	4,047	4,445	4,445	5,804	
Cota (m):					13,274	13,406	13,325	13,317	13,413	13,440	
E:					708.987.1470	708.987.4060	708.987.5643	708.987.5798	708.987.5798	708.987.6330	
N:					7.090.077.5040	7.090.070.8852	7.090.066.8411	7.090.066.4434	7.090.066.4434	7.090.065.0852	
<b>Station: 33+18</b>											
Dist. Eixo (m):		-5,846	-4,443	-4,443	-4,045	<b>0,000</b>	4,000	4,398	4,398	5,805	
Cota (m):		13,687	13,659	13,563	13,571	13,652	13,572	13,564	13,660	13,688	
E:		708.996.0464	708.996.1012	708.996.1012	708.996.1168	708.996.2749	708.996.4313	708.996.4469	708.996.4469	708.996.5019	
N:		7.090.077.0740	7.090.075.6723	7.090.075.6723	7.090.075.2744	7.090.071.2322	7.090.067.2354	7.090.066.8378	7.090.066.8378	7.090.065.4313	
<b>Station: 34+0</b>											
Dist. Eixo (m):		-5,812	-4,389	-4,389	-3,991	<b>0,000</b>	4,009	4,407	4,407	5,809	
Cota (m):		13,735	13,707	13,611	13,619	13,699	13,619	13,611	13,706	13,734	
E:		708.997.1518	708.997.2121	708.997.2121	708.997.2290	708.997.3882	708.997.5682	708.997.5851	708.997.5851	708.997.6445	
N:		7.090.077.0863	7.090.075.6650	7.090.075.6650	7.090.075.2672	7.090.071.2799	7.090.067.2742	7.090.066.8766	7.090.066.8766	7.090.065.4759	
<b>Station: 34+10</b>											
Dist. Eixo (m):		-5,895	-4,307	-4,307	-3,909	<b>0,000</b>	4,091	4,489	4,489	5,843	
Cota (m):		14,376	14,345	14,249	14,257	14,335	14,253	14,245	14,341	14,368	
E:		709.007.1393	709.007.2066	709.007.2066	709.007.2235	709.007.3892	709.007.5627	709.007.5796	709.007.5796	709.007.6370	
N:		7.090.077.5936	7.090.076.0073	7.090.076.0073	7.090.075.6095	7.090.071.7039	7.090.067.6165	7.090.067.2189	7.090.067.2189	7.090.065.8658	
<b>Station: 35+0</b>											
Dist. Eixo (m):		-5,823	-4,226	-4,226	-3,827	<b>0,000</b>	4,173	4,571	4,571	5,877	
Cota (m):		15,099	15,067	14,971	14,979	15,056	14,972	14,964	15,060	15,086	
E:		709.017.1333	709.017.2011	709.017.2011	709.017.2180	709.017.3802	709.017.5572	709.017.5740	709.017.5740	709.017.6294	
N:		7.090.077.9456	7.090.076.3496	7.090.076.3496	7.090.075.9518	7.090.072.1279	7.090.067.9587	7.090.067.5611	7.090.067.5611	7.090.066.2557	
<b>Station: 35+10</b>											
Dist. Eixo (m):		-5,819	-4,217	-4,217	-3,819	<b>0,000</b>	4,181	4,579	4,579	5,911	
Cota (m):		15,820	15,788	15,692	15,700	15,777	15,693	15,685	15,780	15,807	
E:		709.027.1245	709.027.1925	709.027.1925	709.027.2093	709.027.3712	709.027.5485	709.027.5654	709.027.5654	709.027.6219	
N:		7.090.078.3653	7.090.076.7649	7.090.076.7649	7.090.076.3671	7.090.072.5519	7.090.068.3742	7.090.067.9766	7.090.067.9766	7.090.066.6457	
<b>Station: 35+17</b>											
Dist. Eixo (m):		-5,856	-4,255	-4,255	-3,856	<b>0,000</b>	4,144	4,542	4,542	5,936	
Cota (m):		16,334	16,302	16,206	16,214	16,292	16,209	16,201	16,296	16,324	
E:		709.034.2615	709.034.3294	709.034.3294	709.034.3463	709.034.5098	709.034.6854	709.034.7023	709.034.7023	709.034.7614	
N:		7.090.078.7060	7.090.077.1056	7.090.077.1056	7.090.076.7078	7.090.072.8548	7.090.068.7148	7.090.068.3172	7.090.068.3172	7.090.066.9243	
<b>Station: 36+0</b>											
Dist. Eixo (m):		-5,872	-4,270	-4,270	-3,872	<b>0,000</b>	4,129	4,527	4,527	5,946	
Cota (m):		16,540	16,508	16,412	16,420	16,497	16,415	16,407	16,503	16,531	
E:		709.037.1133	709.037.1812	709.037.1812	709.037.1981	709.037.3622	709.037.5373	709.037.5542	709.037.5542	709.037.6143	
N:		7.090.078.8421	7.090.077.2417	7.090.077.2417	7.090.076.8439	7.090.072.9758	7.090.068.8510	7.090.068.4534	7.090.068.4534	7.090.067.0356	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALBERTO MIERS**

Desenho Esquemático:

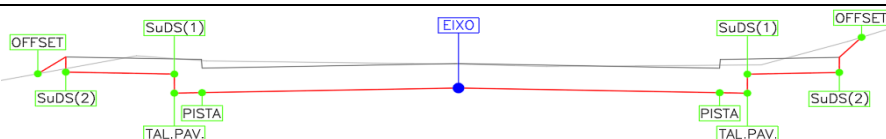


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 36+10</b>											
Dist. Eixo (m):		-5,924	-4,323	-4,323	-3,924	0,000	4,076	4,474	4,474	5,980	
Cota (m):		17,260	17,227	17,132	17,140	17,218	17,137	17,129	17,225	17,255	
E:		709,047,1021	709,047,1700	709,047,1700	709,047,1869	709,047,3533	709,047,5261	709,047,5429	709,047,5429	709,047,6068	
N:		7,090,079,3189	7,090,077,7184	7,090,077,7184	7,090,077,3206	7,090,073,3998	7,090,069,3277	7,090,068,9301	7,090,068,9301	7,090,067,4255	
<b>Station: 37+0</b>											
Dist. Eixo (m):		-5,977	-4,375	-4,375	-3,977	0,000	4,023	4,421	4,421	6,014	
Cota (m):		17,979	17,947	17,851	17,859	17,939	17,859	17,851	17,946	17,978	
E:		709,057,0908	709,057,1588	709,057,1588	709,057,1756	709,057,3443	709,057,5148	709,057,5317	709,057,5317	709,057,5992	
N:		7,090,079,7956	7,090,078,1952	7,090,078,1952	7,090,077,7974	7,090,073,8238	7,090,069,8045	7,090,069,4069	7,090,069,4069	7,090,067,8155	
<b>Station: 37+18</b>											
Dist. Eixo (m):		-7,000	-5,319			0,000			5,010	6,200	
Cota (m):		19,276	19,242						19,248	19,272	
E:		709,075,9331	709,076,0043			709,076,2298			709,076,4423	709,076,4927	
N:		7,090,081,6190	7,090,079,9399			7,090,074,6252			7,090,069,6198	7,090,068,4308	
<b>Station: 38+0</b>											
Dist. Eixo (m):		-7,000	-4,399			0,000			5,010	6,200	
Cota (m):		19,386	19,334						19,322	19,346	
E:		709,077,1012	709,077,1850			709,077,3267			709,077,4881	709,077,5264	
N:		7,090,081,6570	7,090,079,0576			7,090,074,6606			7,090,069,6532	7,090,068,4638	
<b>Station: 38+10</b>											
Dist. Eixo (m):		-5,977	-3,593			0,000			3,819	5,848	
Cota (m):		20,001	19,953						19,948	19,989	
E:		709,087,1290	709,087,2058			709,087,3215			709,087,4445	709,087,5099	
N:		7,090,080,9562	7,090,078,5743			7,090,074,9827			7,090,071,1652	7,090,069,1378	
<b>Station: 39+0</b>											
Dist. Eixo (m):		-5,948	-3,605			0,000			3,770	5,690	
Cota (m):		20,560	20,513						20,819	20,537	
E:		709,097,1247	709,097,2002			709,097,3163			709,097,4378	709,097,4996	
N:		7,090,081,2494	7,090,078,9083			7,090,075,3048			7,090,071,5368	7,090,069,6182	
<b>Station: 39+10</b>											
Dist. Eixo (m):		-5,926	-3,672			0,000			3,740	5,889	
Cota (m):		20,892	20,847						20,845	20,888	
E:		709,107,1203	709,107,1928			709,107,3111			709,107,4316	709,107,5008	
N:		7,090,081,5495	7,090,079,2974			7,090,075,6269			7,090,071,8884	7,090,069,7409	
<b>Station: 40+0</b>											
Dist. Eixo (m):		-5,917	-3,739			0,000			3,700	6,028	
Cota (m):		21,204	21,160						21,161	21,208	
E:		709,117,1154	709,117,1855			709,117,3059			709,117,4251	709,117,5001	
N:		7,090,081,8626	7,090,079,6865			7,090,075,9491			7,090,072,2512	7,090,069,9245	
<b>Station: 40+10</b>											
Dist. Eixo (m):		-5,908	-3,911			0,000			3,586	6,010	
Cota (m):		21,481	21,441						21,447	21,496	
E:		709,127,1105	709,127,1748			709,127,3008			709,127,4162	709,127,4944	
N:		7,090,082,1758	7,090,080,1800			7,090,076,2712			7,090,072,6874	7,090,070,2638	
<b>Station: 41+0</b>											
Dist. Eixo (m):		-12,000	-5,010			0,000			4,783	9,289	
Cota (m):		21,762	21,623						21,627	21,717	
E:		709,136,9090	709,137,1342			709,137,2956			709,137,4496	709,137,5948	
N:		7,090,088,5871	7,090,081,6007			7,090,076,5933			7,090,071,8127	7,090,067,3092	
<b>Station: 41+2</b>											
Dist. Eixo (m):		-13,000	-5,010			0,000			5,006	8,894	
Cota (m):		21,824	21,664						21,782	21,788	
E:		709,139,6818	709,139,9391			709,140,1005			709,140,2618	709,140,3870	
N:		7,090,089,6769	7,090,081,6911			7,090,076,6837			7,090,071,6801	7,090,067,7946	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALEX KRICHENDORF (T1)**

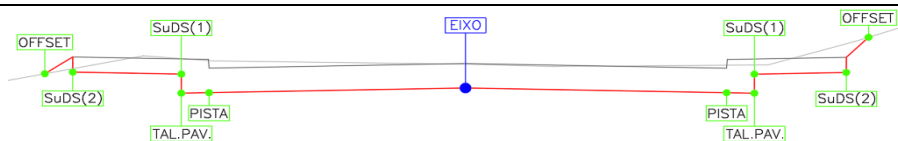
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-8,033	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	6,200	
Cota (m):		12,930	12,878	12,582	12,590	<b>12,690</b>	12,590	12,582	12,878	12,894	
E:		709.421,9544	709.422,0246	709.422,0246	709.422,0352	<b>709.422,1684</b>	709.422,3016	709.422,3122	709.422,3122	709.422,3336	
N:		7.090.098,4101	7.090.095,7766	7.090.095,7766	7.090.095,3785	<b>7.090.090,3803</b>	7.090.085,3821	7.090.084,9843	7.090.084,9843	7.090.084,1825	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,949	-5,412	-5,412	-5,014	<b>0,000</b>	4,986	5,384	5,384	7,875	
Cota (m):		12,894	12,843	12,547	12,555	<b>12,655</b>	12,556	12,548	12,843	12,893	
E:		709.431,9531	709.432,0206	709.432,0206	709.432,0312	<b>709.432,1649</b>	709.432,2977	709.432,3083	709.432,3083	709.432,3747	
N:		7.090.098,5928	7.090.096,0573	7.090.096,0573	7.090.095,6592	<b>7.090.090,6468</b>	7.090.085,6628	7.090.085,2650	7.090.085,2650	7.090.082,7760	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,716	-5,427	-5,427	-5,028	<b>0,000</b>	4,972	5,370	5,370	7,799	
Cota (m):		12,854	12,808	12,512	12,520	<b>12,621</b>	12,521	12,513	12,809	12,858	
E:		709.441,9557	709.442,0167	709.442,0167	709.442,0273	<b>709.442,1613</b>	709.442,2938	709.442,3044	709.442,3044	709.442,3691	
N:		7.090.098,6270	7.090.096,3379	7.090.096,3379	7.090.095,9399	<b>7.090.090,9132</b>	7.090.085,9435	7.090.085,5457	7.090.085,5457	7.090.083,1173	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,627	-5,441	-5,441	-5,043	<b>0,000</b>	4,957	5,355	5,355	7,706	
Cota (m):		12,817	12,773	12,477	12,485	<b>12,586</b>	12,487	12,479	12,775	12,822	
E:		709.451,9545	709.452,0128	709.452,0128	709.452,0234	<b>709.452,1578</b>	709.452,2899	709.452,3005	709.452,3005	709.452,3631	
N:		7.090.098,8040	7.090.096,6186	7.090.096,6186	7.090.096,2206	<b>7.090.091,1797</b>	7.090.086,2242	7.090.085,8263	7.090.085,8263	7.090.083,4760	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-12,839	-9,161	-9,161	-8,763	<b>0,000</b>	8,259	8,657	8,657	12,767	
Cota (m):		13,069	12,995	12,699	12,707	<b>12,552</b>	12,486	12,478	12,774	12,856	
E:		709.461,8121	709.461,9101	709.461,9101	709.461,9207	<b>709.462,1542</b>	709.462,3743	709.462,3849	709.462,3849	709.462,4944	
N:		7.090.104,2801	7.090.100,6038	7.090.100,6038	7.090.100,2058	<b>7.090.091,4462</b>	7.090.083,1900	7.090.082,7922	7.090.082,7922	7.090.078,6836	
<b>Station: 2+1</b>											
Dist. Eixo (m):		-12,840	-12,065	-12,065	-11,666	<b>0,000</b>	10,464	10,862	10,862	12,735	
Cota (m):		13,110	13,094	12,798	12,806	<b>12,548</b>	12,496	12,488	12,784	12,821	
E:		709.462,9360	709.462,9567	709.462,9567	709.462,9673	<b>709.463,2782</b>	709.463,5570	709.463,5676	709.463,5676	709.463,6175	
N:		7.090.104,3144	7.090.103,5387	7.090.103,5387	7.090.103,1406	<b>7.090.091,4761</b>	7.090.081,0161	7.090.080,6183	7.090.080,6183	7.090.078,7457	
<b>Station: 2+9</b>											
Dist. Eixo (m):					-12,636	<b>0,000</b>	10,941	11,339	11,339	13,562	
Cota (m):					12,862	<b>12,455</b>	12,449	12,441	12,737	12,781	
E:					709.470,6394	<b>709.471,2226</b>	709.471,7276	709.471,7459	709.471,7459	709.471,8485	
N:					7.090.104,4660	<b>7.090.091,8432</b>	7.090.080,9135	7.090.080,5160	7.090.080,5160	7.090.078,2958	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-12,670	-9,531	-9,531	-9,132	<b>0,000</b>	8,871	9,269	9,269	13,574	
Cota (m):		13,028	12,965	12,669	12,677	<b>12,442</b>	12,404	12,396	12,692	12,778	
E:		709.471,5596	709.471,7045	709.471,7045	709.471,7229	<b>709.472,1443</b>	709.472,5538	709.472,5721	709.472,5721	709.472,7708	
N:		7.090.104,5424	7.090.101,4062	7.090.101,4062	7.090.101,0085	<b>7.090.091,8858</b>	7.090.083,0241	7.090.082,6266	7.090.082,6266	7.090.078,3261	
<b>Station: 2+11</b>											
Dist. Eixo (m):		-12,677	-7,760	-7,760	-7,362	<b>0,000</b>	7,320	7,718	7,718	13,605	
Cota (m):		12,953	12,855	12,559	12,567	<b>12,424</b>	12,365	12,357	12,652	12,770	
E:		709.472,8288	709.473,0557	709.473,0557	709.473,0740	<b>709.473,4138</b>	709.473,7518	709.473,7701	709.473,7701	709.474,0419	
N:		7.090.104,6077	7.090.099,6963	7.090.099,6963	7.090.099,2986	<b>7.090.091,9444</b>	7.090.084,6303	7.090.084,2328	7.090.084,2328	7.090.078,3513	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,019	-5,383	-5,383	-4,985	<b>0,000</b>	5,015	5,413	5,413	7,832	
Cota (m):		12,543	12,491	12,195	12,203	<b>12,303</b>	12,202	12,194	12,490	12,538	
E:		709.481,9315	709.482,0000	709.482,0000	709.482,0104	<b>709.482,1400</b>	709.482,2705	709.482,2808	709.482,2808	709.482,3438	
N:		7.090.100,1875	7.090.097,5525	7.090.097,5525	7.090.097,1545	<b>7.090.092,1715</b>	7.090.087,1579	7.090.086,7601	7.090.086,7601	7.090.084,3424	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-7,957	-5,388	-5,388	-4,990	<b>0,000</b>	5,010	5,408	5,408	7,867	
Cota (m):		12,377	12,325	12,029	12,037	<b>12,137</b>	12,037	12,029	12,325	12,374	
E:		709.491,9297	709.491,9965	709.491,9965	709.492,0069	<b>709.492,1367</b>	709.492,2670	709.492,2773	709.492,2773	709.492,3413	
N:		7.090.100,3858	7.090.097,8176	7.090.097,8176	7.090.097,4196	<b>7.090.092,4316</b>	7.090.087,4229	7.090.087,0251	7.090.087,0251	7.090.084,5668	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-7,958	-5,393	-5,393	-4,995	<b>0,000</b>	5,005	5,403	5,403	7,900	
Cota (m):		12,041	11,990	11,694	11,702	<b>11,802</b>	11,702	11,694	11,990	12,040	
E:		709.501,9263	709.501,9930	709.501,9930	709.502,0034	<b>709.502,1333</b>	709.502,2635	709.502,2738	709.502,2738	709.502,3388	
N:		7.090.100,6469	7.090.098,0826	7.090.098,0826	7.090.097,6846	<b>7.090.092,6917</b>	7.090.087,6880	7.090.087,2902	7.090.087,2902	7.090.084,7944	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-7,843	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	7,894	
Cota (m):		12,201	11,892	11,596	11,604	<b>11,704</b>	11,604	11,596	11,892	11,942	
E:		709.511,9259	709.511,9895	709.511,9895	709.511,9998	<b>709.512,1299</b>	709.512,2600	709.512,2703	709.512,2703	709.512,3352	
N:		7.090.100,7922	7.090.098,3477	7.090.098,3477	7.090.097,9497	<b>7.090.092,9518</b>	7.090.087,9531	7.090.087,5552	7.090.087,5552	7.090.085,0605	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-7,764	-5,403	-5,403	-5,005	<b>0,000</b>	4,995	5,393	5,393	7,888	
Cota (m):		12,197	11,882	11,586	11,594	<b>11,694</b>	11,594	11,586	11,882	11,932	
E:		709.521,9246	709.521,9860	709.521,9860	709.521,9963	<b>709.522,1265</b>	709.522,2564	709.522,2668	709.522,2668	709.522,3317	
N:		7.090.100,9735	7.090.098,6128	7.090.098,6128	7.090.098,2147	<b>7.090.093,2119</b>	7.090.088,2181	7.090.087,8203	7.090.087,8203	7.090.085,3267	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-7,791	-7,774	-5,408	-5,408	<b>0,000</b>	4,991	5,388	5,388	7,810	
Cota (m):		12,196	12,179	11,872	11,576	<b>11,684</b>	11,584	11,576	11,872	11,920	
E:		709.531,9205	709.531,9209	709.531,9825	709.531,9825	<b>709.532,1231</b>	709.532,2529	709.532,2633	709.532,2633	709.532,3263	
N:		7.090.101,2602	7.090.101,2434	7.090.098,8778	7.090.098,8778	<b>7.090.093,4720</b>	7.090.088,4832	7.090.088,0854	7.090.088,0854	7.090.085,6645	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-7,868	-7,843	-5,413	-5,413	<b>0,000</b>	4,986	5,384	5,384	7,864	
Cota (m):		12,196	12,170	11,862	11,566	<b>11,674</b>	11,574	11,566	11,862	11,912	
E:		709.541,9151	709.541,9157	709.541,9790	709.541,9790	<b>709.542,1197</b>	709.542,2494	709.542,2598	709.542,2598	709.542,3243	
N:		7.090.101,5978	7.090.101,5724	7.090.099,1429	7.090.099,1429	<b>7.090.093,7321</b>	7.090.088,7482	7.090.088,3504	7.090.088,3504	7.090.085,8713	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALEX KRICHELDORF (T1)**

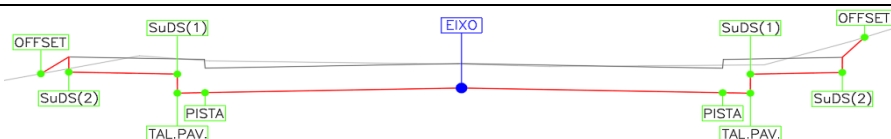
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+9</b>											
Dist. Eixo (m):	-11,987	-11,905	-7,486	-7,486	-7,088	<b>0,000</b>	7,869	8,061	8,061	11,650	
Cota (m):	12,360	12,154	12,066	11,771	11,779	<b>11,665</b>	11,732	11,728	12,015	12,087	
E:	709.551,2851	709.551,2872	709.551,4022	709.551,4022	709.551,4125	<b>709.551,5969</b>	709.551,8015	709.551,8065	709.551,8065	709.551,8999	
N:	7.090.105,9619	7.090.105,8801	7.090.101,4622	7.090.101,4622	7.090.101,0641	<b>7.090.093,9787</b>	7.090.086,1129	7.090.085,9207	7.090.085,9207	7.090.082,3331	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALEX KRICHENDORF (T2)**

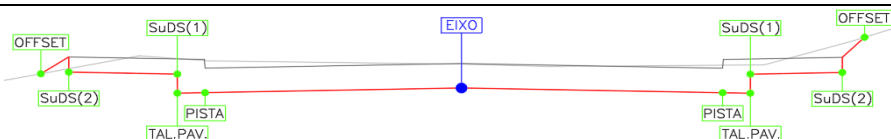
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+12</b>											
Dist. Eixo (m):		-12,994	-11,965	-11,965	-11,567	<b>0,000</b>	12,603	13,001	13,001	13,060	
Cota (m):		11,877	11,597	11,301	11,309	<b>11,348</b>	11,330	11,322	11,618	11,619	
E:		709.657,5694	709.657,6048	709.657,6048	709.657,6185	<b>709.658,0165</b>	709.658,4501	709.658,4638	709.658,4638	709.658,4658	
N:		7.090.110,0224	7.090.108,9940	7.090.108,9940	7.090.108,5961	<b>7.090.097,0357</b>	7.090.084,4399	7.090.084,0422	7.090.084,0422	7.090.083,9831	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-8,310	-5,357	-5,357	-4,959	<b>0,000</b>	5,041	5,439	5,439	8,219	8,565
Cota (m):		11,542	11,483	11,188	11,196	<b>11,295</b>	11,194	11,186	11,481	11,537	11,567
E:		709.665,7258	709.665,8274	709.665,8274	709.665,8411	<b>709.666,0117</b>	709.666,1852	709.666,1989	709.666,1989	709.666,2945	709.666,3064
N:		7.090.105,6164	7.090.102,6650	7.090.102,6650	7.090.102,2671	<b>7.090.097,3110</b>	7.090.092,2730	7.090.091,8753	7.090.091,8753	7.090.089,0968	7.090.088,7508
<b>Station: 7+10</b>											
Dist. Eixo (m):		-8,197	-5,360	-5,360	-4,961	<b>0,000</b>	5,039	5,437	5,437	7,977	8,277
Cota (m):		11,474	11,417	11,121	11,129	<b>11,228</b>	11,128	11,120	11,415	11,466	11,526
E:		709.675,7238	709.675,8214	709.675,8214	709.675,8351	<b>709.676,0058</b>	709.676,1792	709.676,1929	709.676,1929	709.676,2803	709.676,2906
N:		7.090.105,8472	7.090.103,0114	7.090.103,0114	7.090.102,6135	<b>7.090.097,6550</b>	7.090.092,6194	7.090.092,2217	7.090.092,2217	7.090.089,6825	7.090.089,3826
<b>Station: 8+0</b>											
Dist. Eixo (m):		-8,085	-5,362	-5,362	-4,964	<b>0,000</b>	5,036	5,434	5,434	7,907	8,159
Cota (m):		11,405	11,351	11,055	11,063	<b>11,162</b>	11,061	11,053	11,350	11,399	11,490
E:		709.685,7217	709.685,8154	709.685,8154	709.685,8291	<b>709.685,9999</b>	709.686,1732	709.686,1869	709.686,1869	709.686,2719	709.686,2806
N:		7.090.106,0789	7.090.103,3578	7.090.103,3578	7.090.102,9599	<b>7.090.097,9991</b>	7.090.092,9658	7.090.092,5681	7.090.092,5681	7.090.090,0969	7.090.089,8445
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,974	-5,364	-5,364	-4,966	<b>0,000</b>	5,034	5,432	5,432	7,850	
Cota (m):		11,336	11,284	10,989	10,997	<b>11,096</b>	10,995	10,987	11,283	11,331	
E:		709.695,7196	709.695,8094	709.695,8094	709.695,8231	<b>709.695,9940</b>	709.696,1672	709.696,1809	709.696,1809	709.696,2840	
N:		7.090.106,3124	7.090.103,7042	7.090.103,7042	7.090.103,3063	<b>7.090.098,3432</b>	7.090.093,3122	7.090.092,9145	7.090.092,9145	7.090.090,4983	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,847	-5,367	-5,367	-4,968	<b>0,000</b>	5,032	5,430	5,430	7,845	
Cota (m):		11,268	11,218	10,922	10,930	<b>11,030</b>	10,929	10,921	11,217	11,265	
E:		709.705,7181	709.705,8034	709.705,8034	709.705,8171	<b>709.705,9880</b>	709.706,1612	709.706,1749	709.706,1749	709.706,2580	
N:		7.090.106,5294	7.090.104,0506	7.090.104,0506	7.090.103,6527	<b>7.090.098,6872</b>	7.090.093,6586	7.090.093,2609	7.090.093,2609	7.090.090,8467	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-7,680	-5,369	-5,369	-4,971	<b>0,000</b>	5,029	5,427	5,427	7,583	
Cota (m):		11,198	11,152	10,856	10,864	<b>10,963</b>	10,863	10,855	11,151	11,194	
E:		709.715,7179	709.715,7974	709.715,7974	709.715,8111	<b>709.715,9821</b>	709.716,1552	709.716,1689	709.716,1689	709.716,2430	
N:		7.090.106,7066	7.090.104,3970	7.090.104,3970	7.090.103,9991	<b>7.090.099,0313</b>	7.090.094,0050	7.090.093,6073	7.090.093,6073	7.090.091,4527	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-7,513	-5,371	-5,371	-4,973	<b>0,000</b>	5,027	5,425	5,425	7,436	
Cota (m):		11,128	11,085	10,789	10,797	<b>10,897</b>	10,796	10,788	11,084	11,124	
E:		709.725,7177	709.725,7914	709.725,7914	709.725,8051	<b>709.725,9762</b>	709.726,1492	709.726,1629	709.726,1629	709.726,2320	
N:		7.090.106,8837	7.090.104,7434	7.090.104,7434	7.090.104,3455	<b>7.090.099,3754</b>	7.090.094,3514	7.090.093,9537	7.090.093,9535	7.090.091,9442	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-7,489	-5,374	-5,374	-4,975	<b>0,000</b>	5,025	5,423	5,423	7,411	
Cota (m):		11,061	11,019	10,723	10,731	<b>10,831</b>	10,730	10,722	11,018	11,058	
E:		709.735,7126	709.735,7854	709.735,7854	709.735,7991	<b>709.735,9703</b>	709.736,1432	709.736,1569	709.736,1569	709.736,2253	
N:		7.090.107,2041	7.090.105,0898	7.090.105,0898	7.090.104,6919	<b>7.090.099,7194</b>	7.090.094,6978	7.090.094,3001	7.090.094,3001	7.090.092,3131	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-7,545	-5,376	-5,376	-4,978	<b>0,000</b>	5,022	5,420	5,420	7,250	
Cota (m):		11,009	10,965	10,670	10,678	<b>10,777</b>	10,677	10,669	10,964	11,001	
E:		709.745,7048	709.745,7794	709.745,7794	709.745,7931	<b>709.745,9644</b>	709.746,1372	709.746,1508	709.746,1508	709.746,2138	
N:		7.090.107,6040	7.090.105,4362	7.090.105,4362	7.090.105,0383	<b>7.090.100,0635</b>	7.090.095,0442	7.090.094,6465	7.090.094,6465	7.090.092,8180	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,638	-5,378	-5,378	-4,980	<b>0,000</b>	5,020	5,418	5,418	7,032	
Cota (m):		10,983	10,938	10,642	10,650	<b>10,749</b>	10,649	10,641	10,937	10,969	
E:		709.755,6956	709.755,7734	709.755,7734	709.755,7871	<b>709.755,9584</b>	709.756,1312	709.756,1448	709.756,1448	709.756,2004	
N:		7.090.108,0410	7.090.105,7826	7.090.105,7826	7.090.105,3847	<b>7.090.100,4076</b>	7.090.095,3906	7.090.094,9929	7.090.094,9929	7.090.093,3802	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,732	-5,381	-5,381	-4,982	<b>0,000</b>	5,018	5,416	5,416	6,923	
Cota (m):		10,970	10,923	10,627	10,635	<b>10,735</b>	10,634	10,626	10,922	10,952	
E:		709.765,6865	709.765,7674	709.765,7674	709.765,7811	<b>709.765,9525</b>	709.766,1252	709.766,1388	709.766,1388	709.766,1907	
N:		7.090.108,4793	7.090.106,1290	7.090.106,1290	7.090.105,7311	<b>7.090.100,7517</b>	7.090.095,7370	7.090.095,3393	7.090.095,3393	7.090.093,8324	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,782	-5,383	-5,383	-4,985	<b>0,000</b>	5,015	5,413	5,413	6,898	
Cota (m):		10,956	10,908	10,612	10,620	<b>10,720</b>	10,619	10,612	10,907	10,937	
E:		709.775,6788	709.775,7614	709.775,7614	709.775,7751	<b>709.775,9466</b>	709.776,1192	709.776,1328	709.776,1328	709.776,1839	
N:		7.090.108,8733	7.090.106,4754	7.090.106,4754	7.090.106,0775	<b>7.090.101,0957</b>	7.090.096,0834	7.090.095,6857	7.090.095,6857	7.090.094,2018	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,694	-5,385	-5,385	-4,987	<b>0,000</b>	5,013	5,411	5,411	7,066	
Cota (m):		10,939	10,893	10,597	10,605	<b>10,705</b>	10,605	10,597	10,893	10,926	
E:		709.785,6760	709.785,7554	709.785,7554	709.785,7691	<b>709.785,9407</b>	709.786,1132	709.786,1268	709.786,1268	709.786,1838	
N:		7.090.109,1290	7.090.106,8218	7.090.106,8218	7.090.106,4239	<b>7.090.101,4398</b>	7.090.096,4298	7.090.096,0321	7.090.096,0321	7.090.094,3778	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-7,656	-5,388	-5,388	-4,989	<b>0,000</b>	5,011	5,409	5,409	7,637	
Cota (m):		10,923	10,878	10,582	10,590	<b>10,690</b>	10,590	10,582	10,877	10,922	
E:		709.795,6713	709.795,7494	709.795,7494	709.795,7631	<b>709.795,9348</b>	709.796,1072	709.796,1208	709.796,1208	709.796,1975	
N:		7.090.109,4355	7.090.107,1682	7.090.107,1682	7.090.106,7703	<b>7.090.101,7839</b>	7.090.096,7762	7.090.096,3785	7.090.096,3785	7.090.094,1513	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,611	-5,390	-5,390	-4,992	<b>0,000</b>	5,008	5,406	5,406	7,785	
Cota (m):		10,908	10,863	10,567	10,575	<b>10,675</b>	10,575	10,567	10,862	10,910	
E:		709.805,6669	709.805,7434	709.805,7434	709.805,7571	<b>709.805,9288</b>	709.806,1012	709.806,1148	709.806,1148	709.806,1967	
N:		7.090.109,7348	7.090.107,5146	7.090.107,5146	7.090.107,1167	<b>7.090.102,1279</b>	7.090.097,1226	7.090.096,7249	7.090.096,7249	7.090.094,3475	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALEX KRICHENDORF (T2)**

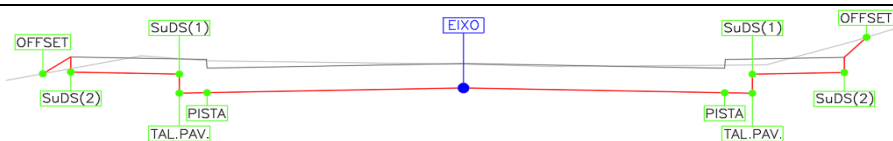
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+10</b>											
Dist. Eixo (m):		-7,566	-5,392	-5,392	-4,994	<b>0,000</b>	5,006	5,404	5,404	7,696	
Cota (m):		10,892	10,848	10,553	10,561	<b>10,660</b>	10,560	10,552	10,848	10,894	
E:		709.815,6626	709.815,7374	709.815,7374	709.815,7511	<b>709.815,9229</b>	709.816,0951	709.816,1088	709.816,1088	709.816,1877	
N:		7.090.110,0340	7.090.107,8610	7.090.107,8610	7.090.107,4631	<b>7.090.102,4720</b>	7.090.097,4690	7.090.097,0713	7.090.097,0713	7.090.094,7810	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-7,548	-5,395	-5,395	-4,996	<b>0,000</b>	5,004	5,402	5,402	7,585	
Cota (m):		10,876	10,833	10,538	10,546	<b>10,646</b>	10,546	10,538	10,833	10,877	
E:		709.825,6573	709.825,7314	709.825,7314	709.825,7451	<b>709.825,9170</b>	709.826,0891	709.826,1028	709.826,1028	709.826,1780	
N:		7.090.110,3594	7.090.108,2074	7.090.108,2074	7.090.107,8095	<b>7.090.102,8161</b>	7.090.097,8154	7.090.097,4177	7.090.097,4177	7.090.095,2356	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-7,554	-5,397	-5,397	-4,999	<b>0,000</b>	5,001	5,399	5,399	7,770	
Cota (m):		10,862	10,819	10,523	10,531	<b>10,631</b>	10,531	10,523	10,819	10,866	
E:		709.835,6512	709.835,7254	709.835,7254	709.835,7391	<b>709.835,9111</b>	709.836,0831	709.836,0968	709.836,0968	709.836,1784	
N:		7.090.110,7097	7.090.108,5538	7.090.108,5538	7.090.108,1559	<b>7.090.103,1601</b>	7.090.098,1618	7.090.097,7641	7.090.097,7641	7.090.095,3946	
<b>Station: 15+15</b>											
Dist. Eixo (m):		-7,650	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,108	
Cota (m):		10,855	10,810	10,514	10,522	<b>10,622</b>	10,522	10,514	10,810	10,864	
E:		709.841,2719	709.841,3493	709.841,3493	709.841,3630	<b>709.841,5351</b>	709.841,7071	709.841,7208	709.841,7208	709.841,8140	
N:		7.090.110,9992	7.090.108,7487	7.090.108,7487	7.090.108,3508	<b>7.090.103,3537</b>	7.090.098,3567	7.090.097,9590	7.090.097,9590	7.090.095,2509	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-8,424	-6,589	-6,589	-6,191	<b>0,000</b>	5,954	6,352	6,352	10,289	
Cota (m):		10,889	10,853	10,557	10,565	<b>10,616</b>	10,541	10,533	10,829	10,908	
E:		709.845,6134	709.845,6769	709.845,6769	709.845,6907	<b>709.845,9051</b>	709.846,1113	709.846,1251	709.846,1251	709.846,2614	
N:		7.090.111,9237	7.090.110,0902	7.090.110,0902	7.090.109,6923	<b>7.090.103,5052</b>	7.090.097,5551	7.090.097,1574	7.090.097,1574	7.090.093,2220	
<b>Station: 16+3</b>											
Dist. Eixo (m):		-13,527	-13,173	-13,173	-12,775	<b>0,000</b>	10,458	10,856	10,856	12,972	
Cota (m):		11,197	10,930	10,634	10,642	<b>10,610</b>	10,572	10,564	10,860	10,902	
E:		709.849,2318	709.849,2440	709.849,2440	709.849,2578	<b>709.849,7002</b>	709.850,0624	709.850,0761	709.850,0761	709.850,1494	
N:		7.090.117,1555	7.090.116,8021	7.090.116,8021	7.090.116,4042	<b>7.090.103,6367</b>	7.090.093,1852	7.090.092,7875	7.090.092,7875	7.090.090,6729	
<b>Station: 16+14</b>											
Dist. Eixo (m):		-10,064	-8,396	-8,396	-7,998	<b>0,000</b>	12,987	13,385	13,385		
Cota (m):		11,181	10,887	10,592	10,600	<b>10,610</b>	10,350	10,342	0,268		
E:		709.859,7601	709.859,8179	709.859,8179	709.859,8317	<b>709.860,1087</b>	709.860,5584	709.860,5722	709.860,5722		
N:		7.090.114,0557	7.090.112,3883	7.090.112,3883	7.090.111,9904	<b>7.090.103,9973</b>	7.090.091,0178	7.090.090,6201	7.090.090,6201		
<b>Station: 17+0</b>											
Dist. Eixo (m):		-8,249	-5,415	-5,415	-5,017	<b>0,000</b>	5,313	5,711	5,711	8,411	
Cota (m):		10,835	10,779	10,483	10,491	<b>10,591</b>	10,502	10,494	10,790	10,844	
E:		709.865,6075	709.865,7056	709.865,7056	709.865,7194	<b>709.865,8931</b>	709.866,0771	709.866,0909	709.866,0909	709.866,1844	
N:		7.090.112,4414	7.090.109,6095	7.090.109,6095	7.090.109,2116	<b>7.090.104,1978</b>	7.090.098,8884	7.090.098,4906	7.090.098,4906	7.090.095,7914	
<b>Station: 17+1</b>											
Dist. Eixo (m):		-8,255	-5,401	-5,401	-5,002	<b>0,000</b>	5,008	5,406	5,406	8,261	
Cota (m):		10,830	10,773	10,477	10,485	<b>10,585</b>	10,487	10,479	10,775	10,832	
E:		709.867,4770	709.867,5759	709.867,5759	709.867,5896	<b>709.867,7629</b>	709.867,9363	709.867,9501	709.867,9501	709.868,0490	
N:		7.090.112,5127	7.090.109,6599	7.090.109,6599	7.090.109,2620	<b>7.090.104,2626</b>	7.090.099,2576	7.090.098,8599	7.090.098,8599	7.090.096,0067	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-8,301	-5,356	-5,356	-4,958	<b>0,000</b>	5,043	5,441	5,441	8,132	
Cota (m):		10,806	10,747	10,451	10,459	<b>10,558</b>	10,458	10,450	10,745	10,799	
E:		709.875,6183	709.875,7139	709.875,7139	709.875,7268	<b>709.875,8877</b>	709.876,0514	709.876,0643	709.876,0643	709.876,1516	
N:		7.090.112,8229	7.090.109,8793	7.090.109,8793	7.090.109,4814	<b>7.090.104,5264</b>	7.090.099,4865	7.090.099,0888	7.090.099,0888	7.090.096,3991	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-7,489	-5,301	-5,301	-4,902	<b>0,000</b>	5,098	5,496	5,496	8,066	
Cota (m):		10,759	10,716	10,420	10,428	<b>10,526</b>	10,424	10,416	10,712	10,763	
E:		709.885,6394	709.885,7104	709.885,7104	709.885,7233	<b>709.885,8824</b>	709.886,0479	709.886,0608	709.886,0608	709.886,1443	
N:		7.090.112,3363	7.090.110,1488	7.090.110,1488	7.090.109,7509	<b>7.090.104,8510</b>	7.090.099,7560	7.090.099,3582	7.090.099,3582	7.090.096,7891	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-7,582	-5,245	-5,245	-4,847	<b>0,000</b>	5,153	5,551	5,551	8,056	
Cota (m):		10,731	10,684	10,388	10,396	<b>10,493</b>	10,390	10,382	10,678	10,728	
E:		709.895,6311	709.895,7069	709.895,7069	709.895,7198	<b>709.895,8772</b>	709.896,0444	709.896,0573	709.896,0573	709.896,1386	
N:		7.090.112,7539	7.090.110,4183	7.090.110,4183	7.090.110,0204	<b>7.090.105,1756</b>	7.090.100,0255	7.090.099,6277	7.090.099,6277	7.090.097,1243	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-7,677	-5,190	-5,190	-4,792	<b>0,000</b>	5,208	5,606	5,606	8,117	
Cota (m):		10,961	10,652	10,357	10,365	<b>10,461</b>	10,356	10,348	10,644	10,694	
E:		709.905,6227	709.905,7034	709.905,7034	709.905,7164	<b>709.905,8719</b>	709.906,0409	709.906,0539	709.906,0539	709.906,1354	
N:		7.090.113,1731	7.090.110,6878	7.090.110,6878	7.090.110,2898	<b>7.090.105,5002</b>	7.090.100,2950	7.090.099,8972	7.090.099,8972	7.090.097,3871	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-7,914	-5,135	-5,135	-4,737	<b>0,000</b>	5,263	5,661	5,661	8,272	
Cota (m):		10,676	10,621	10,325	10,333	<b>10,428</b>	10,323	10,315	10,611	10,663	
E:		709.915,6098	709.915,7000	709.915,7000	709.915,7129	<b>709.915,8666</b>	709.916,0375	709.916,0504	709.916,0504	709.916,1351	
N:		7.090.113,7343	7.090.110,9573	7.090.110,9573	7.090.110,5593	<b>7.090.105,8247</b>	7.090.100,5644	7.090.100,1667	7.090.100,1667	7.090.097,5575	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-7,901	-5,080	-5,080	-4,682	<b>0,000</b>	5,318	5,716	5,716	8,426	
Cota (m):		10,646	10,589	10,294	10,302	<b>10,395</b>	10,289	10,281	10,577	10,631	
E:		709.925,6049	709.925,6965	709.925,6965	709.925,7094	<b>709.925,8614</b>	709.926,0340	709.926,0469	709.926,0469	709.926,1349	
N:		7.090.114,0465	7.090.111,2268	7.090.111,2268	7.090.110,8288	<b>7.090.106,1493</b>	7.090.100,8339	7.090.100,4362	7.090.100,4362	7.090.097,7279	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-7,870	-5,029	-5,029	-4,631	<b>0,000</b>	5,369	5,767	5,767	8,413	
Cota (m):		10,614	10,558	10,262	10,270	<b>10,363</b>	10,255	10,247	10,543	10,596	
E:		709.935,6007	709.935,6929	709.935,6929	709.935,7058	<b>709.935,8561</b>	709.936,0304	709.936,0433	709.936,0433	709.936,1292	
N:		7.090.114,3397	7.090.111,5007	7.090.111,5007	7.090.111,1028	<b>7.090.106,4739</b>	7.090.101,1079	7.090.100,7101	7.090.100,7101	7.090.098,0650	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ALEX KRICHELDORF (T2)**

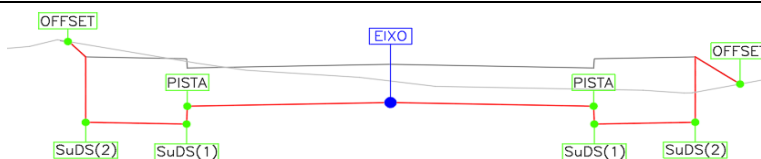
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 21+0</b>											
Dist. Eixo (m):		-7,865	-5,084	-5,084	-4,686	<b>0,000</b>	5,314	5,712	5,712	8,372	
Cota (m):		10,580	10,524	10,228	10,236	<b>10,330</b>	10,224	10,216	10,512	10,565	
E:		709.945,5956	709.945,6858	709.945,6858	709.945,6987	<b>709.945,8508</b>	709.946,0233	709.946,0362	709.946,0362	709.946,1226	
N:		7.090.114,6589	7.090.111,8801	7.090.111,8801	7.090.111,4821	<b>7.090.106,7985</b>	7.090.101,4872	7.090.101,0895	7.090.101,0895	7.090.098,4305	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-7,888	-5,139	-5,139	-4,741	<b>0,000</b>	5,259	5,657	5,657	8,307	
Cota (m):		10,537	10,482	10,186	10,194	<b>10,289</b>	10,183	10,175	10,471	10,524	
E:		709.955,5895	709.955,6788	709.955,6788	709.955,6917	<b>709.955,8456</b>	709.956,0163	709.956,0292	709.956,0292	709.956,1152	
N:		7.090.115,0072	7.090.112,2594	7.090.112,2594	7.090.111,8615	<b>7.090.107,1230</b>	7.090.101,8666	7.090.101,4689	7.090.101,4689	7.090.098,8201	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-7,912	-5,194	-5,194	-4,796	<b>0,000</b>	5,204	5,602	5,602	8,242	8,321
Cota (m):		10,469	10,415	10,119	10,127	<b>10,223</b>	10,119	10,111	10,406	10,459	10,471
E:		709.965,5835	709.965,6717	709.965,6717	709.965,6846	<b>709.965,8403</b>	709.966,0092	709.966,0221	709.966,0221	709.966,1078	709.966,1104
N:		7.090.115,3556	7.090.112,6388	7.090.112,6388	7.090.112,2408	<b>7.090.107,4476</b>	7.090.102,2460	7.090.101,8482	7.090.101,8482	7.090.099,2097	7.090.099,1314
<b>Station: 22+10</b>											
Dist. Eixo (m):		-7,936	-5,249	-5,249	-4,851	<b>0,000</b>	5,150	5,548	5,548	8,177	8,598
Cota (m):		10,386	10,332	10,036	10,044	<b>10,141</b>	10,038	10,030	10,326	10,379	10,358
E:		709.975,5774	709.975,6647	709.975,6647	709.975,6776	<b>709.975,8350</b>	709.976,0022	709.976,0151	709.976,0151	709.976,1004	709.976,1141
N:		7.090.115,7040	7.090.113,0181	7.090.113,0181	7.090.112,6202	<b>7.090.107,7722</b>	7.090.102,6253	7.090.102,2276	7.090.102,2276	7.090.099,5992	7.090.099,1784
<b>Station: 23+0</b>											
Dist. Eixo (m):		-7,960	-5,304	-5,304	-4,905	<b>0,000</b>	5,095	5,493	5,493	8,112	8,499
Cota (m):		10,562	10,249	9,953	9,961	<b>10,059</b>	9,957	9,949	10,246	10,298	10,300
E:		709.985,5714	709.985,6576	709.985,6576	709.985,6705	<b>709.985,8298</b>	709.985,9951	709.986,0080	709.986,0080	709.986,0931	709.986,1056
N:		7.090.116,0526	7.090.113,3975	7.090.113,3975	7.090.112,9995	<b>7.090.108,0968</b>	7.090.103,0047	7.090.102,6069	7.090.102,6069	7.090.099,9888	7.090.099,6019
<b>Station: 23+10</b>											
Dist. Eixo (m):		-8,234	-7,984	-5,358	-5,358	<b>0,000</b>	5,040	5,438	5,438	8,047	8,384
Cota (m):		10,729	10,479	10,166	9,870	<b>9,977</b>	9,877	9,869	10,165	10,217	10,252
E:		709.995,5572	709.995,5653	709.995,6506	709.995,6506	<b>709.995,8245</b>	709.995,9881	709.996,0010	709.996,0010	709.996,0857	709.996,0966
N:		7.090.116,6512	7.090.116,4009	7.090.113,7768	7.090.113,7768	<b>7.090.108,4214</b>	7.090.103,3840	7.090.102,9863	7.090.102,9863	7.090.100,3784	7.090.100,0418
<b>Station: 23+17</b>											
Dist. Eixo (m):		-8,259	-8,001	-5,398	-5,398	<b>0,000</b>	5,000	5,398	5,398	6,200	6,459
Cota (m):		10,676	10,418	10,105	9,810	<b>9,918</b>	9,818	9,810	10,105	10,121	10,209
E:		710.002,8375	710.002,8459	710.002,9303	710.002,9303	<b>710.003,1056</b>	710.003,2679	710.003,2808	710.003,2808	710.003,3068	710.003,3152
N:		7.090.116,9129	7.090.116,6547	7.090.114,0532	7.090.114,0532	<b>7.090.108,6578</b>	7.090.103,6604	7.090.103,2627	7.090.103,2627	7.090.102,4611	7.090.102,2019

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ANERY R. ROQUE**

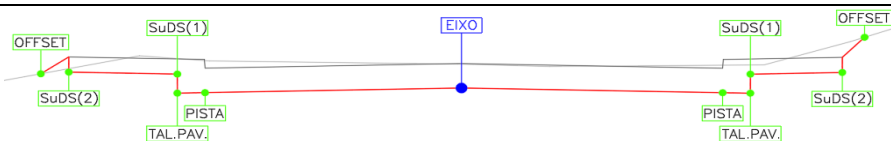
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist.eixo (m)		-16,000	-5,010	-5,000	<b>0,000</b>	8,311	8,321	12,040	12,365
Cota (m)		10,976	10,756	11,076	<b>11,176</b>	11,010	10,690	10,764	11,408
E		709,501.3601	709,490.3813	709,490.3713	<b>709,485.3764</b>	709,477.0738	709,477.0638	709,473.3483	709,473.0241
N		7,089,203.8294	7,089,203.3338	7,089,203.3333	<b>7,089,203.1078</b>	7,089,202.7330	7,089,202.7326	7,089,202.5648	7,089,202.5502
<b>Station: 0+10</b>									
Dist.eixo (m)	-8,908	-8,328	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,477	8,037
Cota (m)	11,204	11,590	10,664	10,984	<b>11,084</b>	10,984	10,664	10,713	11,200
E	709,494.7263	709,494.1472	709,490.8323	709,490.8223	<b>709,485.8274</b>	709,480.8325	709,480.8225	709,478.3584	709,477.7987
N	7,089,193.5198	7,089,193.4936	7,089,193.3440	7,089,193.3435	<b>7,089,193.1180</b>	7,089,192.8925	7,089,192.8921	7,089,192.7808	7,089,192.7555
<b>Station: 1+0</b>									
Dist.eixo (m)		-8,241	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,444	
Cota (m)		10,731	10,666	10,986	<b>11,086</b>	10,986	10,666	10,715	
E		709,494.5113	709,491.2833	709,491.2733	<b>709,486.2784</b>	709,481.2835	709,481.2735	709,478.8419	
N		7,089,183.4999	7,089,183.3541	7,089,183.3537	<b>7,089,183.1282</b>	7,089,182.9027	7,089,182.9022	7,089,182.7925	
<b>Station: 1+10</b>									
Dist.eixo (m)		-8,154	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,411	
Cota (m)		10,740	10,677	10,997	<b>11,097</b>	10,997	10,677	10,725	
E		709,494.8755	709,491.7343	709,491.7243	<b>709,486.7294</b>	709,481.7345	709,481.7245	709,479.3255	
N		7,089,173.5061	7,089,173.3643	7,089,173.3639	<b>7,089,173.1384</b>	7,089,172.9129	7,089,172.9124	7,089,172.8041	
<b>Station: 2+0</b>									
Dist.eixo (m)		-8,068	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,379	
Cota (m)		10,749	10,687	11,007	<b>11,107</b>	11,007	10,687	10,735	
E		709,495.2398	709,492.1853	709,492.1753	<b>709,487.1804</b>	709,482.1855	709,482.1755	709,479.8090	
N		7,089,163.5124	7,089,163.3745	7,089,163.3740	<b>7,089,163.1485</b>	7,089,162.9230	7,089,162.9226	7,089,162.8157	
<b>Station: 2+10</b>									
Dist.eixo (m)		-7,981	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,346	
Cota (m)		10,757	10,698	11,018	<b>11,118</b>	11,018	10,698	10,745	
E		709,495.6040	709,492.6363	709,492.6263	<b>709,487.6314</b>	709,482.6365	709,482.6265	709,480.2926	
N		7,089,153.5186	7,089,153.3847	7,089,153.3842	<b>7,089,153.1587</b>	7,089,152.9332	7,089,152.9328	7,089,152.8274	
<b>Station: 3+0</b>									
Dist.eixo (m)		-7,914	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,314	
Cota (m)		10,767	10,709	11,029	<b>11,129</b>	11,029	10,709	10,755	
E		709,495.9881	709,493.0873	709,493.0773	<b>709,488.0824</b>	709,483.0875	709,483.0775	709,480.7761	
N		7,089,143.5258	7,089,143.3948	7,089,143.3944	<b>7,089,143.1689</b>	7,089,142.9434	7,089,142.9429	7,089,142.8390	
<b>Station: 3+10</b>									
Dist.eixo (m)		-7,880	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,281	
Cota (m)		10,777	10,719	11,039	<b>11,139</b>	11,039	10,719	10,765	
E		709,496.4052	709,493.5383	709,493.5283	<b>709,488.5334</b>	709,483.5385	709,483.5285	709,481.2597	
N		7,089,133.5344	7,089,133.4050	7,089,133.4046	<b>7,089,133.1791</b>	7,089,132.9536	7,089,132.9531	7,089,132.8507	
<b>Station: 4+0</b>									
Dist.eixo (m)		-7,846	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,249	
Cota (m)		10,786	10,730	11,050	<b>11,150</b>	11,050	10,730	10,775	
E		709,496.8222	709,493.9893	709,493.9793	<b>709,488.9844</b>	709,483.9895	709,483.9795	709,481.7432	
N		7,089,123.5431	7,089,123.4152	7,089,123.4147	<b>7,089,123.1892</b>	7,089,122.9637	7,089,122.9633	7,089,122.8623	
<b>Station: 4+10</b>									
Dist.eixo (m)		-7,812	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,216	
Cota (m)		10,760	10,704	11,024	<b>11,124</b>	11,024	10,704	10,748	
E		709,497.2393	709,494.4403	709,494.4303	<b>709,489.4355</b>	709,484.4405	709,484.4305	709,482.2268	
N		7,089,113.5517	7,089,113.4254	7,089,113.4249	<b>7,089,113.1994</b>	7,089,112.9739	7,089,112.9735	7,089,112.8740	
<b>Station: 5+0</b>									
Dist.eixo (m)		-7,778	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,183	
Cota (m)		10,638	10,582	10,902	<b>11,002</b>	10,902	10,582	10,626	
E		709,497.6564	709,494.8913	709,494.8813	<b>709,489.8865</b>	709,484.8915	709,484.8815	709,482.7104	
N		7,089,103.5604	7,089,103.4355	7,089,103.4351	<b>7,089,103.2096</b>	7,089,102.9841	7,089,102.9836	7,089,102.8856	
<b>Station: 5+10</b>									
Dist.eixo (m)		-7,744	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,094	
Cota (m)		10,455	10,400	10,720	<b>10,820</b>	10,720	10,400	10,442	
E		709,498.0735	709,495.3423	709,495.3323	<b>709,490.3375</b>	709,485.3425	709,485.3325	709,483.2506	
N		7,089,093.5690	7,089,093.4457	7,089,093.4453	<b>7,089,093.2198</b>	7,089,092.9943	7,089,092.9938	7,089,092.8998	
<b>Station: 5+16</b>									
Dist.eixo (m)		-7,722	-5,010	-5,000	<b>0,000</b>	5,000	5,010	7,012	
Cota (m)		10,338	10,283	10,603	<b>10,703</b>	10,603	10,283	10,324	
E		709,498.3396	709,495.6301	709,495.6201	<b>709,490.6252</b>	709,485.6302	709,485.6203	709,483.6202	
N		7,089,087.1941	7,089,087.0718	7,089,087.0713	<b>7,089,086.8458</b>	7,089,086.6203	7,089,086.6199	7,089,086.5296	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ANTONIO BISCHOF**

Desenho Esquemático:

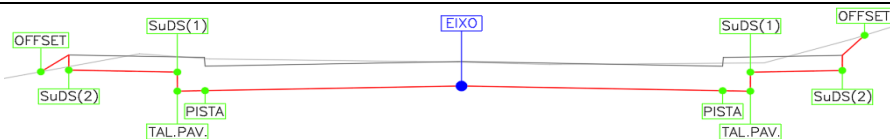


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-11,354	-9,729	-9,729	-9,330	0,000	9,669	10,067			
Cota (m):		11,978	11,946	11,850	11,858	11,859	11,868	11,860			
E:		709.086,6723	709.086,7376	709.086,7376	709.086,7536	709.087,1285	709.087,5171	709.087,5331			
N:		7.089.711,9359	7.089.710,3120	7.089.710,3120	7.089.709,9142	7.089.700,5913	7.089.690,9305	7.089.690,5328			
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,741	-5,503	-5,503	-5,105	0,000	4,895	5,293	5,293	7,621	
Cota (m):		12,410	11,905	11,810	11,818	11,920	11,822	11,814	11,909	11,956	
E:		709.096,8094	709.096,8993	709.096,8993	709.096,9153	709.097,1205	709.097,3172	709.097,3332	709.097,3332	709.097,4267	
N:		7.089.708,7277	7.089.706,4917	7.089.706,4917	7.089.706,0939	7.089.700,9931	7.089.696,1019	7.089.695,7043	7.089.695,7043	7.089.693,3788	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,699	-5,481	-5,481	-5,083	0,000	4,917	5,315	5,315	7,747	
Cota (m):		12,010	11,966	11,871	11,879	11,980	11,882	11,874	11,969	12,018	
E:		709.106,8030	709.106,8921	709.106,8921	709.106,9081	709.107,1124	709.107,3100	709.107,3260	709.107,3260	709.107,4237	
N:		7.089.709,0876	7.089.706,8719	7.089.706,8719	7.089.706,4740	7.089.701,3950	7.089.696,4821	7.089.696,0844	7.089.696,0844	7.089.693,6538	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,659	-5,460	-5,460	-5,061	0,000	4,939	5,337	5,337	7,874	
Cota (m):		12,068	12,024	11,928	11,936	12,037	11,938	11,930	12,026	12,077	
E:		709.116,7965	709.116,8849	709.116,8849	709.116,9009	709.117,1043	709.117,3028	709.117,3188	709.117,3188	709.117,4207	
N:		7.089.709,4499	7.089.707,2520	7.089.707,2520	7.089.706,8541	7.089.701,7969	7.089.696,8622	7.089.696,4646	7.089.696,4646	7.089.693,9288	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,646	-5,438	-5,438	-5,040	0,000	4,960	5,358	5,358	7,475	
Cota (m):		12,093	12,049	11,953	11,961	12,062	11,963	11,955	12,051	12,093	
E:		709.126,7890	709.126,8777	709.126,8777	709.126,8937	709.127,0962	709.127,2956	709.127,3116	709.127,3116	709.127,3966	
N:		7.089.709,8386	7.089.707,6321	7.089.707,6321	7.089.707,2343	7.089.702,1987	7.089.697,2423	7.089.696,8447	7.089.696,8447	7.089.694,7293	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,633	-5,416	-5,416	-5,018	0,000	4,982	5,380	5,380	7,567	
Cota (m):		12,085	12,040	11,945	11,953	12,053	11,953	11,945	12,041	12,085	
E:		709.136,7814	709.136,8705	709.136,8705	709.136,8865	709.137,0882	709.137,2884	709.137,3044	709.137,3044	709.137,3922	
N:		7.089.710,2276	7.089.708,0122	7.089.708,0122	7.089.707,6144	7.089.702,6006	7.089.697,6225	7.089.697,2248	7.089.697,2248	7.089.695,0394	
<b>Station: 2+18</b>											
Dist. Eixo (m):		-7,691	-5,398	-5,398	-5,000	0,000	5,099	5,497	5,497	7,648	7,984
Cota (m):		12,074	12,029	11,933	11,941	12,041	11,949	11,942	12,037	12,080	12,316
E:		709.144,9996	709.145,0917	709.145,0917	709.145,1077	709.145,3086	709.145,5136	709.145,5295	709.145,5295	709.145,6160	709.145,6295
N:		7.089.710,6155	7.089.708,3250	7.089.708,3250	7.089.707,9271	7.089.702,9312	7.089.697,8353	7.089.697,4377	7.089.697,4377	7.089.695,2872	7.089.694,9513
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,087	-5,701	-5,701	-5,303	0,000	5,515	5,913	5,913	6,911	8,273
Cota (m):		12,102	12,054	11,959	11,967	12,038	11,959	11,951	12,046	12,066	12,094
E:		709.146,9351	709.146,9782	709.146,9782	709.146,9854	709.147,0812	709.147,1809	709.147,1880	709.147,1880	709.147,2061	709.147,2307
N:		7.089.711,0490	7.089.708,6632	7.089.708,6632	7.089.708,2651	7.089.702,9632	7.089.697,4495	7.089.697,0516	7.089.697,0516	7.089.696,0533	7.089.694,6911
<b>Station: 3+4</b>											
Dist. Eixo (m):		-12,985	-12,183	-12,183	-11,785	0,000	10,899	11,297	11,297	13,552	
Cota (m):		12,188	12,172	12,076	12,084	12,030	12,001	11,993	12,089	12,134	
E:		709.151,7959	709.151,8104	709.151,8104	709.151,8176	709.152,0305	709.152,2275	709.152,2346	709.152,2346	709.152,2754	
N:		7.089.716,0357	7.089.715,2340	7.089.715,2340	7.089.714,8359	7.089.703,0526	7.089.692,1550	7.089.691,7571	7.089.691,7571	7.089.689,5029	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-7,763	-5,009			0,000			5,028	7,950	
Cota (m):		12,050	11,995						11,995	12,053	
E:		709.166,9377	709.166,9875			709.167,0780			709.167,1688	709.167,2216	
N:		7.089.711,0867	7.089.708,3327			7.089.703,3245			7.089.698,2975	7.089.695,3762	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-7,802	-4,963			0,000			5,057	8,027	
Cota (m):		11,987	11,930						11,929	11,988	
E:		709.176,8561	709.176,9354			709.177,0741			709.177,2154	709.177,2984	
N:		7.089.711,4009	7.089.708,5627			7.089.703,6019			7.089.698,5468	7.089.695,5783	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-7,918	-4,944			0,000			5,094	7,972	
Cota (m):		11,925	11,865						11,862	11,920	
E:		709.186,8490	709.186,9321			709.187,0702			709.187,2125	709.187,2929	
N:		7.089.711,7964	7.089.708,8232			7.089.703,9813			7.089.698,7897	7.089.695,9123	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-8,028	-4,953			0,000			5,123	7,492	
Cota (m):		11,975	11,913						11,910	11,957	
E:		709.196,8420	709.196,9279			709.197,0663			709.197,2094	709.197,2756	
N:		7.089.712,1858	7.089.709,1115			7.089.704,1607			7.089.699,0396	7.089.696,6716	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-8,036	-4,962			0,000			5,117	7,501	
Cota (m):		12,023	11,962						11,959	12,006	
E:		709.206,8379	709.206,9238			709.207,0624			709.207,2053	709.207,2720	
N:		7.089.712,4732	7.089.709,3997			7.089.704,4401			7.089.699,3253	7.089.696,9422	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-8,028	-4,970			0,000			5,110	8,084	
Cota (m):		12,047	11,986						11,983	12,043	
E:		709.216,8342	709.216,9196			709.217,0585			709.217,2013	709.217,2843	
N:		7.089.712,7444	7.089.709,6880			7.089.704,7195			7.089.699,6110	7.089.696,6387	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-7,977	-4,979			0,000			5,102	8,016	
Cota (m):		12,046	11,986						11,984	12,042	
E:		709.226,8317	709.226,9155			709.227,0546			709.227,1971	709.227,2785	
N:		7.089.712,9729	7.089.709,9763			7.089.704,9989			7.089.699,8992	7.089.696,9860	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ANTONIO BISCHOF**

Desenho Esquemático:

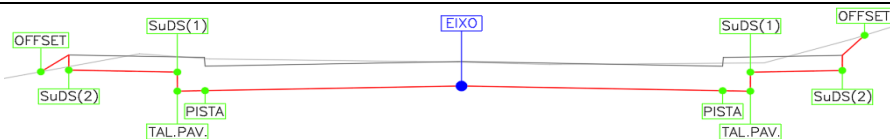


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+10</b>											
Dist. Eixo (m):		-7,947	-4,988			0,000			5,076	7,495	
Cota (m):		12,045	11,986						11,984	12,033	
E:		709.236,8286	709.236,9113			709.237,0507			709.237,1925	709.237,2801	
N:		7.089.713,2221	7.089.710,2645			7.089.705,2783			7.089.700,2039	7.089.697,7861	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-7,934	-4,997			0,000			5,051	7,936	
Cota (m):		12,045	11,986						11,985	12,043	
E:		709.246,8251	709.246,9072			709.247,0468			709.247,1879	709.247,2685	
N:		7.089.713,4886	7.089.710,5528			7.089.705,5577			7.089.700,5085	7.089.697,6250	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,798	-5,006			0,000			5,026	7,900	
Cota (m):		12,016	11,961						11,960	12,018	
E:		709.256,8250	709.256,9030			709.257,0429			709.257,1833	709.257,2636	
N:		7.089.713,6325	7.089.711,1293			7.089.705,8370			7.089.701,1177	7.089.698,9397	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,790	-5,015			0,000			5,001	7,922	
Cota (m):		11,977	11,922			12,332			11,922	11,981	
E:		709.266,8213	709.266,8989			709.267,0390			709.267,1787	709.267,2603	
N:		7.089.713,9031	7.089.711,1293			7.089.706,1164			7.089.701,1177	7.089.698,9397	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-7,814	-5,024			0,000			4,981	7,962	
Cota (m):		11,939	11,883						11,884	11,944	
E:		709.276,8167	709.276,8947			709.277,0351			709.277,1742	709.277,2575	
N:		7.089.714,2067	7.089.711,4175			7.089.706,3958			7.089.701,4165	7.089.698,4366	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-7,844	-5,033			0,000			4,991	8,001	
Cota (m):		11,901	11,844						11,845	11,905	
E:		709.286,8120	709.286,8905			709.287,0312			709.287,1706	709.287,2547	
N:		7.089.714,5163	7.089.711,7058			7.089.706,6752			7.089.701,6862	7.089.698,6770	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-7,908	-5,041			0,000			5,001	7,978	
Cota (m):		11,874	11,817						11,818	11,877	
E:		709.296,8063	709.296,8864			709.297,0272			709.297,1670	709.297,2502	
N:		7.089.714,8591	7.089.711,9941			7.089.706,9546			7.089.701,9559	7.089.698,9795	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-7,973	-5,050			0,000			5,010	7,961	
Cota (m):		11,848	11,790						11,790	11,849	
E:		709.306,8006	709.306,8822			709.307,0233			709.307,1633	709.307,2458	
N:		7.089.715,2041	7.089.712,2823			7.089.707,2340			7.089.702,2259	7.089.699,2757	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,938	-5,059			0,000			5,019	7,951	
Cota (m):		11,820	11,762						11,763	11,821	
E:		709.316,7977	709.316,8781			709.317,0194			709.317,1597	709.317,2416	
N:		7.089.715,4481	7.089.712,5706			7.089.707,5134			7.089.702,4960	7.089.699,5654	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,889	-5,054			0,000			5,019	7,920	
Cota (m):		11,791	11,735						11,735	11,793	
E:		709.326,7951	709.326,8743			709.327,0155			709.327,1558	709.327,2368	
N:		7.089.715,6790	7.089.712,8447			7.089.707,7928			7.089.702,7753	7.089.699,8757	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,932	-5,036			0,000			5,016	7,817	
Cota (m):		11,756	11,698						11,699	11,755	
E:		709.336,7900	709.336,8709			709.337,0116			709.337,1518	709.337,2300	
N:		7.089.716,0012	7.089.713,1060			7.089.708,0722			7.089.703,0578	7.089.700,2580	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,996	-5,018			0,000			5,019	7,524	
Cota (m):		11,820	11,761						11,761	11,811	
E:		709.346,7843	709.346,8675			709.347,0077			709.347,1479	709.347,2179	
N:		7.089.716,3442	7.089.713,3674			7.089.708,3516			7.089.703,3349	7.089.700,8307	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-8,030	-4,916			0,000			4,990	8,601	
Cota (m):		11,715	11,653						11,651	11,724	
E:		709.366,7553	709.366,8497			709.366,9988			709.367,1502	709.367,2597	
N:		7.089.716,9745	7.089.713,8617			7.089.708,9479			7.089.703,9600	7.089.700,3507	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-7,817	-4,960			0,000			5,008	7,909	
Cota (m):		11,705	11,648						11,647	11,705	
E:		709.376,7572	709.376,8438			709.376,9942			709.377,1461	709.377,2341	
N:		7.089.717,0644	7.089.714,2091			7.089.709,2511			7.089.704,2459	7.089.701,3457	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-8,577	-4,976			0,000			5,025	7,914	
Cota (m):		11,712	11,640						11,639	11,697	
E:		709.386,7295	709.386,8387			709.386,9896			709.387,1420	709.387,2297	
N:		7.089.718,1274	7.089.714,5277			7.089.709,5544			7.089.704,5318	7.089.701,6441	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-7,791	-4,973			0,000			5,032	7,972	
Cota (m):		11,709	11,652						11,651	11,710	
E:		709.396,7487	709.396,8342			709.396,9850			709.397,1376	709.397,2268	
N:		7.089.717,6448	7.089.714,8281			7.089.709,8577			7.089.704,8284	7.089.701,8894	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ANTONIO BISCHOF**

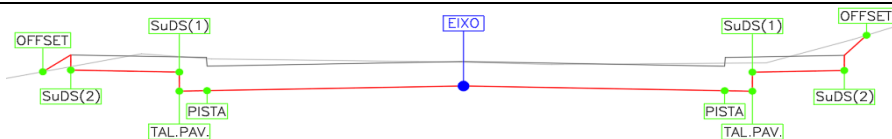
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 16+0</b>											
Dist. Eixo (m):		-7,833	-4,994			0,000			5,036	7,966	
Cota (m):		11,684	11,628						11,627	11,685	
E:		709.406,7429	709.406,8289			709.406,9804			709.407,1332	709.407,2220	
N:		7.089.717,9901	7.089.715,1532			7.089.710,1610			7.089.705,1278	7.089.702,1989	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,851	-5,016			0,000			5,039	8,031	
Cota (m):		11,604	11,547						11,547	11,607	
E:		709.416,7377	709.416,8237			709.416,9758			709.417,1287	709.417,2194	
N:		7.089.718,3112	7.089.715,4783			7.089.710,4643			7.089.705,4272	7.089.702,4374	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-7,868	-5,038			0,000			5,043	8,108	
Cota (m):		11,538	11,481						11,481	11,542	
E:		709.426,7326	709.426,8184			709.426,9712			709.427,1242	709.427,2171	
N:		7.089.718,6324	7.089.715,8034			7.089.710,7676			7.089.705,7265	7.089.702,6634	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-7,886	-5,060			0,000			5,047	8,047	
Cota (m):		11,561	11,505						11,505	11,565	
E:		709.436,7274	709.436,8132			709.436,9666			709.437,1197	709.437,2107	
N:		7.089.718,9536	7.089.716,1285			7.089.711,0709			7.089.706,0259	7.089.703,0278	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-7,873	-5,082			0,000			5,051	8,097	
Cota (m):		11,555	11,499						11,500	11,561	
E:		709.446,7232	709.446,8079			709.446,9620			709.447,1152	709.447,2076	
N:		7.089.719,2435	7.089.716,4536			7.089.711,3742			7.089.706,3253	7.089.703,2805	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-7,779	-5,104			0,000			5,055	8,222	
Cota (m):		11,437	11,383						11,384	11,447	
E:		709.456,7215	709.456,8026			709.456,9574			709.457,1107	709.457,2068	
N:		7.089.719,4529	7.089.716,7787			7.089.711,6775			7.089.706,6247	7.089.703,4596	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-7,885	-5,125			0,000			5,059	8,295	
Cota (m):		11,317	11,266						11,267	11,332	
E:		709.466,7197	709.466,7974			709.466,9528			709.467,1063	709.467,2044	
N:		7.089.719,6624	7.089.717,1037			7.089.711,9808			7.089.706,9241	7.089.703,6891	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-7,891	-5,010			0,000			5,010	8,094	
Cota (m):		10,949	10,895						10,895	10,957	
E:		709.496,7058	709.496,7871			709.496,9390			709.497,0910	709.497,1845	
N:		7.089.720,5780	7.089.717,8983			7.089.712,8907			7.089.707,8830	7.089.704,8007	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-7,537	-4,931			0,000			5,185	8,079	
Cota (m):		10,987	10,935						10,930	10,988	
E:		709.506,7058	709.506,7849			709.506,9344			709.507,0917	709.507,1795	
N:		7.089.720,7273	7.089.718,1226			7.089.713,1939			7.089.708,0116	7.089.705,1184	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-7,447	-4,927			0,000			5,183	8,113	
Cota (m):		10,998	10,948						10,942	11,001	
E:		709.516,7040	709.516,7804			709.516,9298			709.517,0870	709.517,1759	
N:		7.089.720,9412	7.089.718,4222			7.089.713,4972			7.089.708,3168	7.089.705,3877	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-7,449	-4,924			0,000			5,181	8,145	
Cota (m):		11,003	10,952						10,947	11,006	
E:		709.526,6993	709.526,7759			709.526,9252			709.527,0824	709.527,1723	
N:		7.089.721,2465	7.089.718,7219			7.089.713,8005			7.089.708,6220	7.089.705,6593	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-7,483	-4,920			0,000			5,179	8,173	
Cota (m):		10,970	10,919						10,914	10,973	
E:		709.536,6937	709.536,7714			709.536,9206			709.537,0777	709.537,1685	
N:		7.089.721,5836	7.089.719,0215			7.089.714,1038			7.089.708,9272	7.089.705,9346	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-7,468	-4,916			0,000			5,160	8,052	
Cota (m):		10,920	10,869						10,864	10,922	
E:		709.546,6895	709.546,7669			709.546,9160			709.547,0725	709.547,1602	
N:		7.089.721,8716	7.089.719,3211			7.089.714,4071			7.089.709,2491	7.089.706,3590	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-7,447	-4,913			0,000			5,139	8,049	
Cota (m):		10,865	10,814						10,810	10,868	
E:		709.556,6856	709.556,7624			709.556,9114			709.557,0673	709.557,1555	
N:		7.089.722,1539	7.089.719,6208			7.089.714,7104			7.089.709,5741	7.089.706,6651	
<b>Station: 24+0</b>											
Dist. Eixo (m):						0,000			5,117	8,057	
Cota (m):									10,753	10,812	
E:						709.566,9068			709.567,0620	709.567,1512	
N:						7.089.715,0137			7.089.709,8991	7.089.706,9607	
<b>Station: 24+10</b>											
Dist. Eixo (m):						0,000			5,095	8,158	
Cota (m):									10,684	10,745	
E:						709.576,9022			709.577,0568	709.577,1496	
N:						7.089.715,3170			7.089.710,2242	7.089.707,1629	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA ANTONIO BISCHOF**

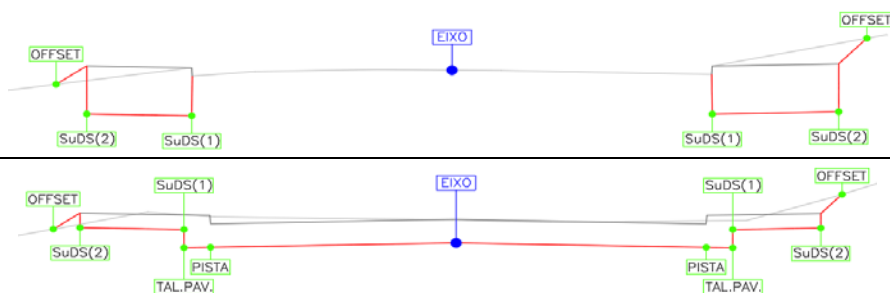
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 25+0</b>											
Dist. Eixo (m):		-7,474	-5,037			<b>0,000</b>			5,073	8,250	
Cota (m):		10,624	10,575						10,574	10,638	
E:		709.588,6709	709.586,7448			<b>709.586,8976</b>			709.587,0515	709.587,1479	
N:		7.089.723,0907	7.089.720,6553			<b>7.089.715,6203</b>			7.089.710,5492	7.089.707,3737	
<b>Station: 25+1</b>											
Dist. Eixo (m):		-7,463	-5,010	-5,010	-5,000	<b>0,000</b>	5,065	5,075	5,075	8,262	
Cota (m):		10,612	10,560	10,780	10,780	<b>10,880</b>	10,779	10,559	10,559	10,623	
E:		709.588,0526	709.588,1270	709.588,1270	709.588,1273	<b>709.588,2790</b>	709.588,4326	709.588,4329	709.588,4329	709.588,5296	
N:		7.089.723,1213	7.089.720,6699	7.089.720,6699	7.089.720,6599	<b>7.089.715,6622</b>	7.089.710,5985	7.089.710,5885	7.089.710,5885	7.089.707,4025	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-7,619	-5,010	-5,010	-5,000	<b>0,000</b>	5,042	5,052	5,052	8,187	
Cota (m):		10,625	10,573	10,793	10,793	<b>10,893</b>	10,792	10,572	10,572	10,635	
E:		709.596,8109	709.596,8402	709.596,8402	709.596,8403	<b>709.596,8964</b>	709.596,9530	709.596,9532	709.596,9532	709.596,9884	
N:		7.089.723,3779	7.089.720,7686	7.089.720,7686	7.089.720,7586	<b>7.089.715,7589</b>	7.089.710,7175	7.089.710,7075	7.089.710,7075	7.089.707,5726	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-7,803	-5,010	-5,010	-5,000	<b>0,000</b>	5,014	5,024	5,024	8,098	
Cota (m):		10,644	10,588	10,808	10,808	<b>10,908</b>	10,808	10,588	10,588	10,649	
E:		709.606,8082	709.606,8396	709.606,8396	709.606,8397	<b>709.606,8958</b>	709.606,9521	709.606,9522	709.606,9522	709.606,9867	
N:		7.089.723,6742	7.089.720,8809	7.089.720,8809	7.089.720,8709	<b>7.089.715,8712</b>	7.089.710,8573	7.089.710,8473	7.089.710,8473	7.089.707,7737	
<b>Station: 26+5</b>											
Dist. Eixo (m):		-7,899	-5,010	-5,010	-5,000	<b>0,000</b>	5,000	5,010	5,010	8,052	
Cota (m):		10,654	10,596	10,816	10,816	<b>10,916</b>	10,816	10,596	10,596	10,657	
E:		709.611,9918	709.612,0242	709.612,0242	709.612,0243	<b>709.612,0805</b>	709.612,1366	709.612,1367	709.612,1367	709.612,1709	
N:		7.089.723,8277	7.089.720,9391	7.089.720,9391	7.089.720,9291	<b>7.089.715,9294</b>	7.089.710,9297	7.089.710,9197	7.089.710,9197	7.089.707,8779	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA ARLINDO CORREA**

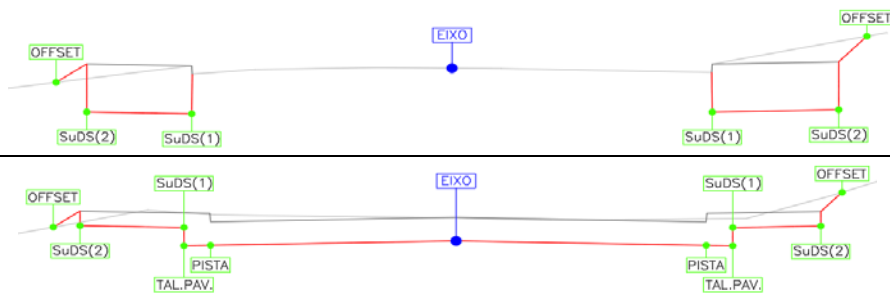
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+2</b>											
Dist. Eixo (m):		-6,072	-3,937			0,000			4,103	6,000	
Cota (m):		13,767	13,724						13,721	13,759	
E:		708.406,77	708.404,63			708.400,70			708.396,59	708.394,70	
N:		7.090.284,05	7.090.284,00			7.090.283,90			7.090.283,80	7.090.283,75	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-6,046	-3,960			0,000			3,947	5,980	
Cota (m):		13,709	13,667						13,667	13,708	
E:		708.406,94	708.404,85			708.400,89			708.396,95	708.394,91	
N:		7.090.276,08	7.090.276,03			7.090.275,93			7.090.275,83	7.090.275,78	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-6,013	-3,968			0,000			3,958	5,955	
Cota (m):		13,647	13,606						13,606	13,646	
E:		708.407,15	708.405,10			708.401,14			708.397,18	708.395,19	
N:		7.090.266,08	7.090.266,03			7.090.265,93			7.090.265,84	7.090.265,79	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,882	-3,975			0,000			3,970	5,925	
Cota (m):		13,584	13,546						13,546	13,585	
E:		708.407,27	708.405,36			708.401,38			708.397,42	708.395,46	
N:		7.090.256,08	7.090.256,04			7.090.255,94			7.090.255,84	7.090.255,79	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,839	-3,982			0,000			3,981	5,896	
Cota (m):		13,519	13,482						13,482	13,520	
E:		708.407,47	708.405,61			708.401,63			708.397,65	708.395,74	
N:		7.090.246,08	7.090.246,04			7.090.245,94			7.090.245,84	7.090.245,80	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,892	-3,990			0,000			3,993	5,866	
Cota (m):		13,483	13,445						13,445	13,482	
E:		708.407,77	708.405,87			708.401,88			708.397,89	708.396,01	
N:		7.090.236,09	7.090.236,04			7.090.235,94			7.090.235,85	7.090.235,80	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,938	-3,997			0,000			4,004	5,837	
Cota (m):		13,475	13,436						13,436	13,472	
E:		708.408,06	708.406,12			708.402,12			708.398,12	708.396,29	
N:		7.090.226,09	7.090.226,05			7.090.225,95			7.090.225,85	7.090.225,80	
<b>Station: 3+7</b>											
Dist. Eixo (m):		-5,991	-4,002			0,000			4,012	5,825	
Cota (m):		13,469	13,430						13,430	13,466	
E:		708.408,29	708.406,30			708.402,30			708.398,29	708.396,48	
N:		7.090.218,97	7.090.218,93			7.090.218,83			7.090.218,73	7.090.218,68	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-6,417	-4,242			0,000			4,232	6,340	
Cota (m):		13,475	13,432						13,432	13,474	
E:		708.408,80	708.406,62			708.402,38			708.398,15	708.396,05	
N:		7.090.216,14	7.090.216,07			7.090.215,95			7.090.215,83	7.090.215,76	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,096	-5,516	-5,516	-5,087	0,000	5,166	5,595	5,595	7,690	
Cota (m):		13,553	13,502	13,174	13,183	13,285	13,182	13,173	13,500	13,542	
E:		708.411,06	708.408,48	708.408,4822	708.408,05	708.402,97	708.397,80	708.397,38	708.397,3764	708.395,28	
N:		7.090.196,20	7.090.196,12	7.090.196,1203	7.090.196,11	7.090.195,96	7.090.195,81	7.090.195,80	7.090.195,7952	7.090.195,73	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-5,948	-4,429	-4,429	-4,000	0,000	3,999	4,427	4,427	6,000	
Cota (m):		13,504	13,473	13,146	13,155	13,235	13,155	13,146	13,474	13,505	
E:		708.409,21	708.407,69	708.407,6882	708.407,26	708.403,26	708.399,26	708.398,84	708.398,8358	708.397,26	
N:		7.090.186,14	7.090.186,09	7.090.186,0928	7.090.186,08	7.090.185,96	7.090.185,85	7.090.185,83	7.090.185,8337	7.090.185,79	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,952	-4,429	-4,429	-4,000	0,000	3,999	4,428	4,428	5,999	
Cota (m):		13,474	13,444	13,117	13,126	13,206	13,126	13,117	13,444	13,475	
E:		708.409,50	708.407,98	708.407,9809	708.407,55	708.403,55	708.399,56	708.399,13	708.399,1283	708.397,56	
N:		7.090.176,14	7.090.176,10	7.090.176,0971	7.090.176,08	7.090.175,97	7.090.175,85	7.090.175,84	7.090.175,8379	7.090.175,79	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-5,957	-4,429	-4,429	-4,000	0,000	3,999	4,428	4,428	5,999	
Cota (m):		13,445	13,415	13,088	13,097	13,177	13,097	13,088	13,415	13,446	
E:		708.409,80	708.408,27	708.408,2735	708.407,84	708.403,85	708.399,85	708.399,42	708.399,4208	708.397,85	
N:		7.090.166,15	7.090.166,10	7.090.166,1014	7.090.166,09	7.090.165,97	7.090.165,85	7.090.165,84	7.090.165,8422	7.090.165,80	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-5,961	-4,429	-4,429	-4,000	0,000	3,999	4,428	4,428	5,999	
Cota (m):		13,416	13,386	13,058	13,067	13,147	13,067	13,059	13,386	13,417	
E:		708.410,10	708.408,57	708.408,5661	708.408,14	708.404,14	708.400,14	708.399,71	708.399,7134	708.398,14	
N:		7.090.156,15	7.090.156,11	7.090.156,1057	7.090.156,09	7.090.155,98	7.090.155,86	7.090.155,85	7.090.155,8465	7.090.155,80	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ARLINDO CORREA**

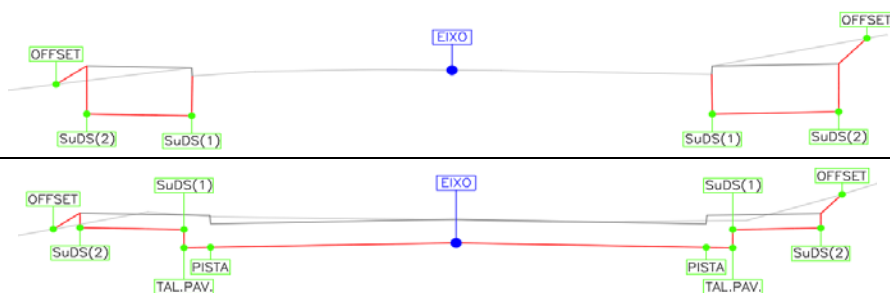
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+0</b>											
Dist. Eixo (m):		-5,965	-4,429	-4,429	-4,000	<b>0,000</b>	3,999	4,428	4,428	5,998	
Cota (m):		13,387	13,357	13,029	13,038	13,118	13,038	13,030	13,357	13,388	
E:		708.410,39	708.408,86	708.408,8587	708.408,43	708.404,43	708.400,43	708.400,01	708.400,0059	708.398,44	
N:		7.090.146,15	7.090.146,11	7.090.146,1099	7.090.146,10	7.090.145,98	7.090.145,86	7.090.145,85	7.090.145,8508	7.090.145,80	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-5,969	-4,429	-4,429	-4,000	<b>0,000</b>	3,999	4,428	4,428	5,998	
Cota (m):		13,358	13,328	13,000	13,009	13,089	13,009	13,001	13,328	13,359	
E:		708.410,69	708.409,15	708.409,1514	708.408,72	708.404,72	708.400,73	708.400,30	708.400,2984	708.398,73	
N:		7.090.136,16	7.090.136,11	7.090.136,1142	7.090.136,10	7.090.135,98	7.090.135,87	7.090.135,86	7.090.135,8551	7.090.135,81	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,973	-4,429	-4,429	-4,000	<b>0,000</b>	3,999	4,428	4,428	5,998	
Cota (m):		13,329	13,299	12,971	12,980	13,060	12,980	12,972	13,299	13,330	
E:		708.410,99	708.409,44	708.409,4440	708.409,02	708.405,02	708.401,02	708.400,59	708.400,5910	708.399,02	
N:		7.090.126,16	7.090.126,12	7.090.126,1185	7.090.126,11	7.090.125,99	7.090.125,87	7.090.125,86	7.090.125,8593	7.090.125,81	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-5,977	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,428	4,428	5,997	
Cota (m):		13,300	13,269	12,942	12,951	13,031	12,951	12,943	13,270	13,301	
E:		708.411,28	708.409,74	708.409,7366	708.409,31	708.405,31	708.401,31	708.400,88	708.400,8835	708.399,32	
N:		7.090.116,17	7.090.116,12	7.090.116,1228	7.090.116,11	7.090.115,99	7.090.115,88	7.090.115,86	7.090.115,8636	7.090.115,82	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-5,981	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,428	4,428	5,997	
Cota (m):		13,271	13,240	12,913	12,922	13,002	12,922	12,913	13,241	13,272	
E:		708.411,58	708.410,03	708.410,0292	708.409,60	708.405,60	708.401,60	708.401,18	708.401,1761	708.399,61	
N:		7.090.106,17	7.090.106,13	7.090.106,1271	7.090.106,11	7.090.106,00	7.090.105,88	7.090.105,87	7.090.105,8679	7.090.105,82	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-5,985	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,428	4,428	5,997	
Cota (m):		13,242	13,211	12,884	12,893	12,973	12,893	12,884	13,212	13,243	
E:		708.411,88	708.410,32	708.410,3218	708.409,89	708.405,90	708.401,90	708.401,47	708.401,4686	708.399,90	
N:		7.090.096,18	7.090.096,13	7.090.096,1313	7.090.096,12	7.090.096,00	7.090.095,88	7.090.095,87	7.090.095,8722	7.090.095,83	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-5,990	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,428	4,428	5,996	
Cota (m):		13,213	13,182	12,855	12,864	12,944	12,864	12,855	13,183	13,214	
E:		708.412,17	708.410,61	708.410,6145	708.410,19	708.406,19	708.402,19	708.401,76	708.401,7611	708.400,19	
N:		7.090.086,18	7.090.086,14	7.090.086,1356	7.090.086,12	7.090.086,01	7.090.085,89	7.090.085,88	7.090.085,8765	7.090.085,83	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-5,994	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,428	4,428	5,996	
Cota (m):		13,184	13,153	12,826	12,835	12,915	12,835	12,826	13,153	13,184	
E:		708.412,47	708.410,91	708.410,9071	708.410,48	708.406,48	708.402,48	708.402,05	708.402,0537	708.400,49	
N:		7.090.076,19	7.090.076,14	7.090.076,1399	7.090.076,13	7.090.076,01	7.090.075,89	7.090.075,88	7.090.075,8807	7.090.075,83	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-5,998	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,429	4,429	5,995	
Cota (m):		13,155	13,124	12,797	12,806	12,886	12,806	12,797	13,124	13,155	
E:		708.412,77	708.411,20	708.411,1997	708.410,77	708.406,77	708.402,77	708.402,35	708.402,3462	708.400,78	
N:		7.090.066,19	7.090.066,14	7.090.066,1442	7.090.066,13	7.090.066,01	7.090.065,90	7.090.065,89	7.090.065,8850	7.090.065,84	
<b>Station: 11+5</b>											
Dist. Eixo (m):		-6,017	-4,429	-4,429	-4,000	<b>0,000</b>	4,003	4,432	4,432	5,993	
Cota (m):		13,121	13,089	12,762	12,771	12,851	12,771	12,762	13,089	13,120	
E:		708.412,95	708.411,36	708.411,3574	708.410,93	708.406,93	708.402,93	708.402,50	708.402,5008	708.400,94	
N:		7.090.060,81	7.090.060,76	7.090.060,7585	7.090.060,75	7.090.060,63	7.090.060,51	7.090.060,50	7.090.060,4993	7.090.060,45	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-9,222	-5,904	-5,904	-5,475	<b>0,000</b>	5,593	6,022	6,022	8,922	
Cota (m):		13,067	13,001	12,673	12,682	12,792	12,680	12,671	12,998	13,056	
E:		708.416,27	708.412,95	708.412,9520	708.412,52	708.407,05	708.401,46	708.401,03	708.401,0301	708.398,13	
N:		7.090.056,26	7.090.056,17	7.090.056,1712	7.090.056,16	7.090.056,02	7.090.055,87	7.090.055,86	7.090.055,8627	7.090.055,79	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-6,226	-4,129			<b>0,000</b>			4,102	6,138	
Cota (m):		12,994	12,952						12,953	12,993	
E:		708.413,79	708.411,69			708.407,57			708.403,47	708.401,43	
N:		7.090.036,19	7.090.036,13			7.090.036,03			7.090.035,92	7.090.035,87	
<b>Station: 12+11</b>											
Dist. Eixo (m):		-6,021	-4,013			<b>0,000</b>			4,010	6,018	
Cota (m):		12,989	12,949						12,949	12,989	
E:		708.413,62	708.411,61			708.407,60			708.403,59	708.401,58	
N:		7.090.034,99	7.090.034,94			7.090.034,84			7.090.034,73	7.090.034,68	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-6,005	-4,010			<b>0,000</b>			4,010	6,000	
Cota (m):		12,936	12,896						12,896	12,936	
E:		708.413,86	708.411,87			708.407,86			708.403,85	708.401,86	
N:		7.090.026,21	7.090.026,15			7.090.026,03			7.090.025,91	7.090.025,85	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ARLINDO CORREA**

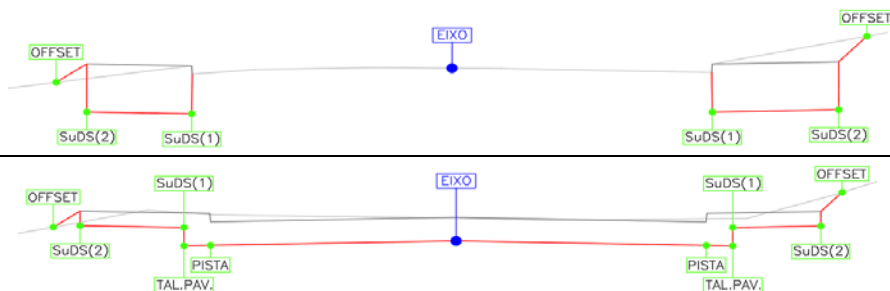
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 13+10</b>											
Dist. Eixo (m):		-6,010	-4,010			0,000			4,010	5,986	
Cota (m):		12,874	12,834						12,834	12,873	
E:		708.414,16	708.412,16			708.408,15			708.404,14	708.402,17	
N:		7.090.016,21	7.090.016,15			7.090.016,03			7.090.015,92	7.090.015,86	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-6,005	-4,010			0,000			4,010	5,979	
Cota (m):		12,807	12,767						12,767	12,806	
E:		708.414,45	708.412,45			708.408,45			708.404,44	708.402,47	
N:		7.090.006,21	7.090.006,16			7.090.006,04			7.090.005,92	7.090.005,86	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-5,998	-4,010			0,000			4,010	6,072	
Cota (m):		12,739	12,699						12,699	12,741	
E:		708.414,74	708.412,75			708.408,74			708.404,73	708.402,67	
N:		7.089.996,22	7.089.996,16			7.089.996,04			7.089.995,92	7.089.995,86	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-5,990	-4,010			0,000			4,010	6,051	
Cota (m):		12,711	12,671						12,671	12,712	
E:		708.415,02	708.413,04			708.409,03			708.405,03	708.402,99	
N:		7.089.986,22	7.089.986,16			7.089.986,05			7.089.985,93	7.089.985,87	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-5,986	-4,010			0,000			4,010	5,991	
Cota (m):		12,692	12,653						12,653	12,692	
E:		708.415,31	708.413,34			708.409,33			708.405,32	708.403,34	
N:		7.089.976,23	7.089.976,17			7.089.976,05			7.089.975,93	7.089.975,87	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-5,977	-4,010			0,000			4,010	6,005	
Cota (m):		12,651	12,612						12,612	12,651	
E:		708.415,60	708.413,63			708.409,62			708.405,61	708.403,62	
N:		7.089.966,23	7.089.966,17			7.089.966,06			7.089.965,94	7.089.965,88	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-5,924	-4,010			0,000			4,010	6,019	
Cota (m):		12,579	12,540						12,540	12,580	
E:		708.415,84	708.413,93			708.409,92			708.405,91	708.403,90	
N:		7.089.956,23	7.089.956,18			7.089.956,06			7.089.955,94	7.089.955,88	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-5,871	-4,010			0,000			4,010	6,033	
Cota (m):		12,508	12,470						12,470	12,511	
E:		708.416,08	708.414,22			708.410,21			708.406,20	708.404,18	
N:		7.089.946,24	7.089.946,18			7.089.946,06			7.089.945,95	7.089.945,89	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-5,810	-4,010			0,000			4,010	6,027	
Cota (m):		12,483	12,447						12,447	12,488	
E:		708.416,31	708.414,51			708.410,51			708.406,50	708.404,48	
N:		7.089.936,24	7.089.936,19			7.089.936,07			7.089.935,95	7.089.935,89	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-5,741	-4,010			0,000			4,010	6,002	
Cota (m):		12,459	12,424						12,424	12,464	
E:		708.416,54	708.414,81			708.410,80			708.406,79	708.404,80	
N:		7.089.926,24	7.089.926,19			7.089.926,07			7.089.925,95	7.089.925,90	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-5,695	-4,010			0,000			4,010	5,977	
Cota (m):		12,430	12,397						12,397	12,436	
E:		708.416,79	708.415,10			708.411,09			708.407,09	708.405,12	
N:		7.089.916,24	7.089.916,20			7.089.916,08			7.089.915,96	7.089.915,90	
<b>Station: 18+17</b>											
Dist. Eixo (m):		-5,686	-4,010			0,000			4,010	6,009	
Cota (m):		12,409	12,375						12,375	12,415	
E:		708.417,00	708.415,32			708.411,31			708.407,30	708.405,31	
N:		7.089.908,66	7.089.908,81			7.089.908,69			7.089.908,57	7.089.908,52	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-5,782	-4,026			0,000			3,994	6,140	
Cota (m):		12,402	12,367						12,368	12,411	
E:		708.417,15	708.415,40			708.411,37			708.407,38	708.405,23	
N:		7.089.906,22	7.089.906,18			7.089.906,08			7.089.905,99	7.089.905,94	
<b>Station: 19+17</b>											
Dist. Eixo (m):		-12,923	-10,125	-10,125	-9,696	0,000	5,000	5,429	5,429	6,200	
Cota (m):		12,548	12,492	12,165	12,174	12,367	12,267	12,259	12,586	12,601	
E:		708.424,71	708.421,91	708.421,9100	708.421,48	708.411,79	708.406,79	708.406,36	708.406,3611	708.405,59	
N:		7.089.888,66	7.089.888,59	7.089.888,5937	7.089.888,58	7.089.888,36	7.089.888,24	7.089.888,23	7.089.888,2297	7.089.888,21	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ARLINDO CORREA**

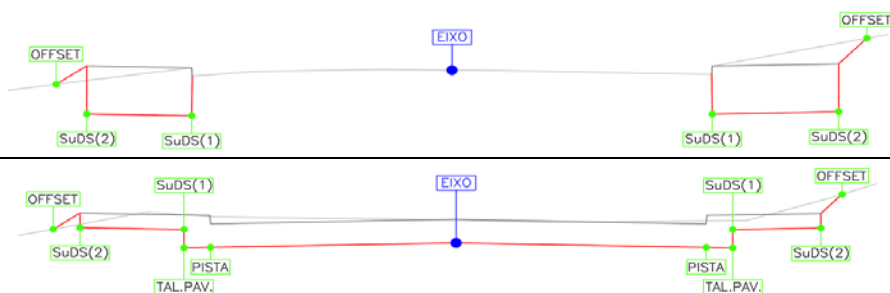
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 19+18</b>											
Dist. Eixo (m):		-12,918	-9,229	-9,229	-8,801	<b>0,000</b>	11,117	11,545	11,545	14,551	
Cota (m):		12,585	12,511	12,184	12,193	<b>12,369</b>	12,146	12,138	12,465	12,525	
E:		708.424,71	708.421,02	708.418,0227	708.420,59	<b>708.411,80</b>	708.400,68	708.400,25	708.400,2538	708.397,25	
N:		7.089.888,33	7.089.888,25	7.089.888,2450	7.089.888,24	<b>7.089.888,03</b>	7.089.887,77	7.089.887,76	7.089.887,7588	7.089.887,69	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-12,889	-6,513	-6,513	-6,084	<b>0,000</b>	6,721	7,149	7,149	14,513	
Cota (m):		12,700	12,573	12,245	12,254	<b>12,376</b>	12,242	12,233	12,560	12,707	
E:		708.424,73	708.418,35	708.418,3527	708.417,92	<b>708.411,84</b>	708.405,12	708.404,69	708.404,6939	708.397,33	
N:		7.089.886,39	7.089.886,24	7.089.886,2388	7.089.886,23	<b>7.089.886,09</b>	7.089.885,93	7.089.885,92	7.089.885,9191	7.089.885,75	
<b>Station: 20+7</b>											
Dist. Eixo (m):		-6,029	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,429	4,429	5,850	
Cota (m):		12,674	12,642	12,315	12,324	<b>12,404</b>	12,324	12,316	12,643	12,671	
E:		708.418,04	708.416,44	708.416,4431	708.416,01	<b>708.412,02</b>	708.408,02	708.407,59	708.407,5881	708.406,17	
N:		7.089.878,79	7.089.878,75	7.089.878,7511	7.089.878,74	<b>7.089.878,65</b>	7.089.878,55	7.089.878,54	7.089.878,5438	7.089.878,51	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-6,028	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,429	4,429	5,852	
Cota (m):		12,684	12,652	12,325	12,334	<b>12,414</b>	12,334	12,325	12,653	12,681	
E:		708.418,11	708.416,51	708.416,5094	708.416,08	<b>708.412,08</b>	708.408,08	708.407,66	708.407,6551	708.406,23	
N:		7.089.876,25	7.089.876,21	7.089.876,2051	7.089.876,19	<b>7.089.876,09</b>	7.089.875,98	7.089.875,97	7.089.875,9735	7.089.875,94	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-6,027	-4,428	-4,428	-3,999	<b>0,000</b>	4,001	4,430	4,430	5,859	
Cota (m):		12,722	12,690	12,362	12,371	<b>12,451</b>	12,371	12,363	12,689	12,718	
E:		708.418,37	708.416,77	708.416,7699	708.416,34	<b>708.412,34</b>	708.408,34	708.407,92	708.407,9156	708.406,49	
N:		7.089.866,25	7.089.866,21	7.089.866,2085	7.089.866,20	<b>7.089.866,09</b>	7.089.865,99	7.089.865,98	7.089.865,9769	7.089.865,94	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,025	-4,427	-4,427	-3,998	<b>0,000</b>	4,002	4,431	4,431	5,867	
Cota (m):		12,760	12,728	12,400	12,409	<b>12,489</b>	12,409	12,401	12,727	12,756	
E:		708.418,63	708.417,03	708.417,0304	708.416,60	<b>708.412,61</b>	708.408,60	708.408,18	708.408,1761	708.406,74	
N:		7.089.856,25	7.089.856,21	7.089.856,2119	7.089.856,20	<b>7.089.856,10</b>	7.089.855,99	7.089.855,98	7.089.855,9803	7.089.855,94	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-6,024	-4,426	-4,426	-3,997	<b>0,000</b>	4,003	4,432	4,432	5,874	
Cota (m):		12,797	12,765	12,438	12,447	<b>12,527</b>	12,447	12,438	12,765	12,794	
E:		708.418,89	708.417,29	708.417,2909	708.416,86	<b>708.412,87</b>	708.408,87	708.408,44	708.408,4366	708.407,00	
N:		7.089.846,26	7.089.846,22	7.089.846,2153	7.089.846,20	<b>7.089.846,10</b>	7.089.845,99	7.089.845,98	7.089.845,9837	7.089.845,95	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-6,023	-4,425	-4,425	-3,996	<b>0,000</b>	4,004	4,433	4,433	5,881	
Cota (m):		12,820	12,788	12,461	12,470	<b>12,550</b>	12,470	12,461	12,788	12,817	
E:		708.419,15	708.417,55	708.417,5515	708.417,12	<b>708.413,13</b>	708.409,13	708.408,70	708.408,6971	708.407,25	
N:		7.089.836,26	7.089.836,22	7.089.836,2187	7.089.836,21	<b>7.089.836,10</b>	7.089.836,00	7.089.835,99	7.089.835,9871	7.089.835,95	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-6,021	-4,424	-4,424	-3,995	<b>0,000</b>	4,005	4,434	4,434	5,889	
Cota (m):		12,815	12,783	12,455	12,464	<b>12,544</b>	12,464	12,455	12,782	12,811	
E:		708.419,41	708.417,81	708.417,8120	708.417,38	<b>708.413,39</b>	708.409,39	708.408,96	708.408,9577	708.407,50	
N:		7.089.826,26	7.089.826,22	7.089.826,2221	7.089.826,21	<b>7.089.826,11</b>	7.089.826,00	7.089.825,99	7.089.825,9905	7.089.825,95	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-6,020	-4,423	-4,423	-3,994	<b>0,000</b>	4,006	4,435	4,435	5,896	
Cota (m):		12,794	12,762	12,435	12,444	<b>12,524</b>	12,443	12,435	12,762	12,791	
E:		708.419,67	708.418,07	708.418,0725	708.417,64	<b>708.413,65</b>	708.409,65	708.409,22	708.409,2182	708.407,76	
N:		7.089.816,27	7.089.816,23	7.089.816,2255	7.089.816,21	<b>7.089.816,11</b>	7.089.816,01	7.089.815,99	7.089.815,9939	7.089.815,96	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-6,018	-4,422	-4,422	-3,993	<b>0,000</b>	4,007	4,436	4,436	5,903	
Cota (m):		12,774	12,742	12,414	12,423	<b>12,503</b>	12,423	12,414	12,742	12,771	
E:		708.419,93	708.418,33	708.418,3330	708.417,90	<b>708.413,91</b>	708.409,91	708.409,48	708.409,4787	708.408,01	
N:		7.089.806,27	7.089.806,23	7.089.806,2289	7.089.806,22	<b>7.089.806,11</b>	7.089.806,01	7.089.806,00	7.089.805,9973	7.089.805,96	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-6,017	-4,421	-4,421	-3,992	<b>0,000</b>	4,008	4,437	4,437	5,911	
Cota (m):		12,753	12,721	12,394	12,403	<b>12,483</b>	12,402	12,394	12,721	12,750	
E:		708.420,19	708.418,59	708.418,5935	708.418,16	<b>708.414,17</b>	708.410,17	708.409,74	708.409,7392	708.408,27	
N:		7.089.796,27	7.089.796,23	7.089.796,2323	7.089.796,22	<b>7.089.796,12</b>	7.089.796,01	7.089.796,00	7.089.796,0007	7.089.795,96	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-6,015	-4,424	-4,424	-3,995	<b>0,000</b>	4,005	4,434	4,434	5,918	
Cota (m):		12,732	12,701	12,373	12,382	<b>12,462</b>	12,382	12,373	12,701	12,730	
E:		708.420,45	708.418,86	708.418,8579	708.418,43	<b>708.414,44</b>	708.410,43	708.410,00	708.410,0036	708.408,52	
N:		7.089.786,28	7.089.786,24	7.089.786,2358	7.089.786,22	<b>7.089.786,12</b>	7.089.786,02	7.089.786,00	7.089.786,0041	7.089.785,97	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-6,014	-4,437	-4,437	-4,008	<b>0,000</b>	3,992	4,421	4,421	5,925	
Cota (m):		12,711	12,680	12,352	12,361	<b>12,442</b>	12,362	12,353	12,680	12,710	
E:		708.420,71	708.419,13	708.419,1326	708.418,70	<b>708.414,70</b>	708.410,71	708.410,28	708.410,2782	708.408,77	
N:		7.089.776,28	7.089.776,24	7.089.776,2395	7.089.776,23	<b>7.089.776,12</b>	7.089.776,02	7.089.776,01	7.089.776,0079	7.089.775,97	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ARLINDO CORREA**

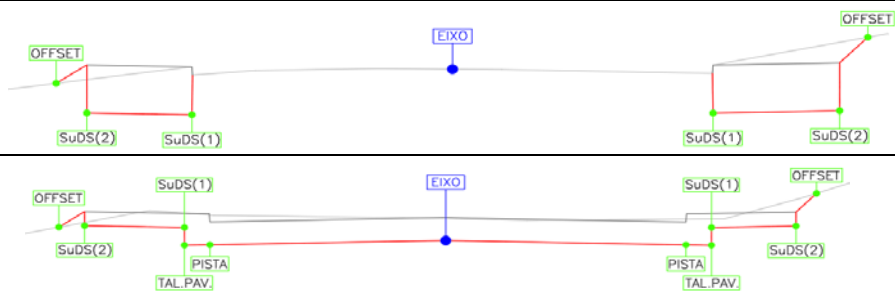
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 26+0</b>											
Dist. Eixo (m):		-6,012	-4,450	-4,450	-4,021	<b>0,000</b>	3,979	4,408	4,408	5,933	
Cota (m):		12,690	12,659	12,332	12,341	12,421	12,342	12,333	12,660	12,690	
E:		708.420,97	708.419,41	708.419,4072	708.418,98	708.414,96	708.410,98	708.410,55	708.410,5529	708.409,03	
N:		7.089.766,28	7.089.766,24	7.089.766,2433	7.089.766,23	7.089.766,13	7.089.766,02	7.089.766,01	7.089.766,0117	7.089.765,97	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-6,011	-4,463	-4,463	-4,034	<b>0,000</b>	3,966	4,394	4,394	5,940	
Cota (m):		12,669	12,638	12,311	12,320	12,401	12,321	12,313	12,640	12,671	
E:		708.421,23	708.419,68	708.419,6819	708.419,25	708.415,22	708.411,26	708.410,83	708.410,8275	708.409,28	
N:		7.089.756,29	7.089.756,25	7.089.756,2471	7.089.756,24	7.089.756,13	7.089.756,03	7.089.756,02	7.089.756,0154	7.089.755,98	
<b>Station: 27+0</b>											
Dist. Eixo (m):		-6,010	-4,476	-4,476	-4,047	<b>0,000</b>	3,953	4,381	4,381	5,947	
Cota (m):		12,648	12,618	12,290	12,299	12,380	12,301	12,292	12,620	12,651	
E:		708.421,49	708.419,96	708.419,9565	708.419,53	708.415,48	708.411,53	708.411,10	708.411,1022	708.409,54	
N:		7.089.746,29	7.089.746,25	7.089.746,2508	7.089.746,24	7.089.746,13	7.089.746,03	7.089.746,02	7.089.746,0192	7.089.745,98	
<b>Station: 27+10</b>											
Dist. Eixo (m):		-6,008	-4,489	-4,489	-4,061	<b>0,000</b>	3,939	4,368	4,368	5,955	
Cota (m):		12,627	12,597	12,269	12,278	12,360	12,281	12,272	12,599	12,631	
E:		708.421,75	708.420,23	708.420,2312	708.419,80	708.415,74	708.411,81	708.411,38	708.411,3768	708.409,79	
N:		7.089.736,29	7.089.736,25	7.089.736,2546	7.089.736,24	7.089.736,14	7.089.736,03	7.089.736,02	7.089.736,0230	7.089.735,98	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-6,007	-4,488	-4,488	-4,060	<b>0,000</b>	3,940	4,369	4,369	5,962	
Cota (m):		12,607	12,576	12,249	12,258	12,339	12,260	12,252	12,579	12,611	
E:		708.422,01	708.420,49	708.420,4917	708.420,06	708.416,00	708.412,07	708.411,64	708.411,6374	708.410,05	
N:		7.089.726,30	7.089.726,26	7.089.726,2580	7.089.726,25	7.089.726,14	7.089.726,04	7.089.726,03	7.089.726,0264	7.089.725,98	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-6,005	-4,475	-4,475	-4,047	<b>0,000</b>	3,953	4,382	4,382	5,969	
Cota (m):		12,587	12,556	12,229	12,238	12,319	12,240	12,231	12,558	12,590	
E:		708.422,27	708.420,74	708.420,7402	708.420,31	708.416,27	708.412,31	708.411,89	708.411,8859	708.410,30	
N:		7.089.716,30	7.089.716,26	7.089.716,2611	7.089.716,25	7.089.716,14	7.089.716,04	7.089.716,03	7.089.716,0294	7.089.715,99	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-6,004	-4,462	-4,462	-4,034	<b>0,000</b>	3,966	4,395	4,395	5,977	
Cota (m):		12,567	12,536	12,208	12,217	12,298	12,219	12,210	12,537	12,569	
E:		708.422,53	708.420,99	708.420,9887	708.420,56	708.416,53	708.412,56	708.412,13	708.412,1344	708.410,55	
N:		7.089.706,30	7.089.706,26	7.089.706,2641	7.089.706,25	7.089.706,15	7.089.706,04	7.089.706,03	7.089.706,0325	7.089.705,99	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-6,002	-4,449	-4,449	-4,021	<b>0,000</b>	3,979	4,408	4,408	5,984	
Cota (m):		12,547	12,516	12,188	12,197	12,278	12,198	12,189	12,516	12,548	
E:		708.422,79	708.421,24	708.421,2372	708.420,81	708.416,79	708.412,81	708.412,38	708.412,3829	708.410,81	
N:		7.089.696,31	7.089.696,27	7.089.696,2672	7.089.696,26	7.089.696,15	7.089.696,05	7.089.696,04	7.089.696,0356	7.089.695,99	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-6,001	-4,436	-4,436	-4,008	<b>0,000</b>	3,992	4,421	4,421	5,991	
Cota (m):		12,527	12,495	12,168	12,177	12,257	12,177	12,169	12,496	12,527	
E:		708.423,05	708.421,49	708.421,4857	708.421,06	708.417,05	708.413,06	708.412,63	708.412,6314	708.411,06	
N:		7.089.686,31	7.089.686,27	7.089.686,2703	7.089.686,26	7.089.686,15	7.089.686,05	7.089.686,04	7.089.686,0387	7.089.686,00	
<b>Station: 30+5</b>											
Dist. Eixo (m):		-6,000	-4,429	-4,429	-4,000	<b>0,000</b>	4,000	4,429	4,429	5,996	
Cota (m):		12,515	12,484	12,156	12,165	12,245	12,165	12,157	12,484	12,515	
E:		708.423,20	708.421,63	708.421,6301	708.421,20	708.417,20	708.413,20	708.412,78	708.412,7758	708.411,21	
N:		7.089.680,50	7.089.680,46	7.089.680,4629	7.089.680,45	7.089.680,35	7.089.680,24	7.089.680,23	7.089.680,2313	7.089.680,19	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA AUGUSTO ECCEL**

Desenho Esquemático:

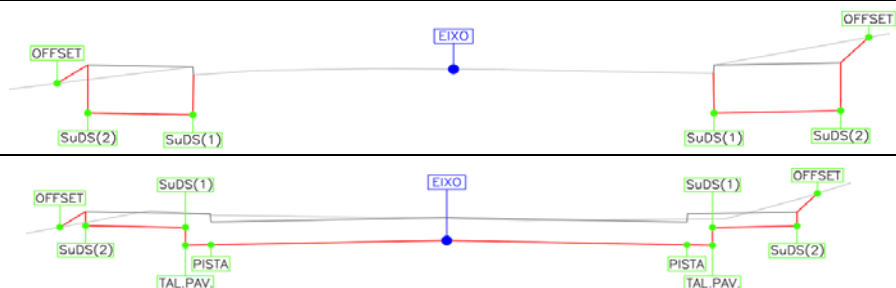


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-6,200	-5,010			0,000					
Cota (m):		11,175	11,151								
E:		709.655,6027	709.655,6426			709.655,8107					
N:		7.090.179,5223	7.090.178,3329			7.090.173,3258					
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,812	-5,095			0,000			5,027	7,880	
Cota (m):		11,096	11,041						11,043	11,100	
E:		709.665,5430	709.665,6341			709.665,8051			709.665,9737	709.666,0695	
N:		7.090.181,4686	7.090.178,7537			7.090.173,6613			7.090.168,6368	7.090.165,7857	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,851	-5,107			0,000			5,079	7,943	
Cota (m):		11,050	10,995						10,995	11,053	
E:		709.675,5360	709.675,6281			709.675,7994			709.675,9698	709.676,0659	
N:		7.090.181,8430	7.090.179,1012			7.090.173,9968			7.090.168,9211	7.090.166,0582	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,889	-5,119			0,000			5,092	7,942	
Cota (m):		11,013	10,958						10,958	11,015	
E:		709.685,5291	709.685,6220			709.685,7938			709.685,9646	709.686,0603	
N:		7.090.182,2173	7.090.179,4485			7.090.174,3323			7.090.169,2434	7.090.166,3950	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,983	-5,119			0,000			5,061	7,972	
Cota (m):		10,966	10,909						10,910	10,968	
E:		709.695,5203	709.695,6164			709.695,7882			709.695,9580	709.696,0557	
N:		7.090.182,6468	7.090.179,7835			7.090.174,6679			7.090.169,6096	7.090.166,7001	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-8,060	-5,118			0,000			5,030	8,033	
Cota (m):		10,914	10,855						10,857	10,917	
E:		709.705,5121	709.705,6108			709.705,7825			709.705,9513	709.706,0520	
N:		7.090.183,0585	7.090.180,1185			7.090.175,0034			7.090.169,9758	7.090.166,9754	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,098	-5,118			0,000			5,000	8,093	
Cota (m):		10,890	10,831						10,833	10,895	
E:		709.715,5052	709.715,6052			709.715,7769			709.715,9447	709.716,0484	
N:		7.090.183,4326	7.090.180,4536			7.090.175,3389			7.090.170,3420	7.090.167,2507	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,166	-5,117			0,000			4,969	8,153	
Cota (m):		10,869	10,808						10,811	10,875	
E:		709.725,4973	709.725,5966			709.725,7713			709.725,9380	709.726,0448	
N:		7.090.183,8358	7.090.180,7886			7.090.175,6745			7.090.170,7082	7.090.167,5260	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-8,120	-5,129			0,000			4,951	8,190	
Cota (m):		10,812	10,752						10,756	10,821	
E:		709.735,4932	709.735,5935			709.735,7656			709.735,9318	709.736,0404	
N:		7.090.184,1259	7.090.181,1364			7.090.176,0100			7.090.171,0619	7.090.167,8242	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,124	-5,145			0,000			4,948	8,140	
Cota (m):		10,758	10,699						10,702	10,766	
E:		709.745,4874	709.745,5874			709.745,7600			709.745,9260	709.746,0331	
N:		7.090.184,4648	7.090.181,4875			7.090.176,3455			7.090.171,4008	7.090.168,2100	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-8,143	-5,160			0,000			4,944	8,090	
Cota (m):		10,739	10,680						10,684	10,747	
E:		709.755,4812	709.755,5812			709.755,7544			709.755,9203	709.756,0258	
N:		7.090.184,8193	7.090.181,8386			7.090.176,6810			7.090.171,7397	7.090.168,5958	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-8,162	-5,176			0,000			4,941	8,039	
Cota (m):		10,721	10,661						10,666	10,728	
E:		709.765,4749	709.765,5751			709.765,7487			709.765,9145	709.766,0185	
N:		7.090.185,1738	7.090.182,1897			7.090.177,0166			7.090.172,0785	7.090.168,9816	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-8,150	-5,192			0,000			4,937	7,989	
Cota (m):		10,693	10,633						10,639	10,700	
E:		709.775,4697	709.775,5689			709.775,7431			709.775,9088	709.776,0112	
N:		7.090.185,4976	7.090.182,5409			7.090.177,3521			7.090.172,4174	7.090.169,3674	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-8,151	-5,207			0,000			4,934	7,939	
Cota (m):		10,659	10,600						10,605	10,665	
E:		709.785,4640	709.785,5628			709.785,7375			709.785,9030	709.786,0039	
N:		7.090.185,8344	7.090.182,8920			7.090.177,6876			7.090.172,7563	7.090.169,7532	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA AUGUSTO ECCEL**

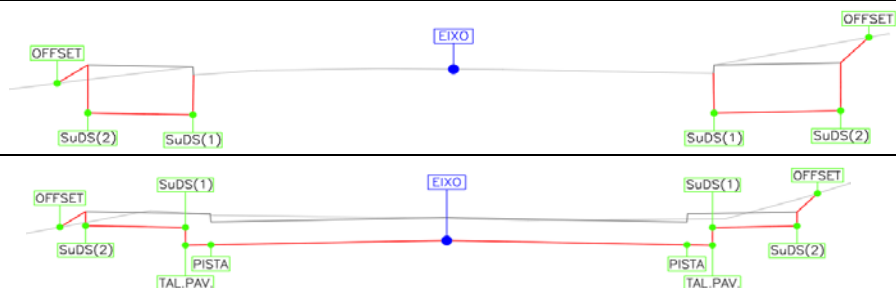
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+0</b>											
Dist. Eixo (m):		-8,181	-5,220			0,000			4,935	7,889	
Cota (m):		10,613	10,554						10,560	10,619	
E:		709.795,4574	709.795,5567			709.795,7319			709.795,8974	709.795,9965	
N:		7.090.186,1996	7.090.183,2400			7.090.178,0232			7.090.173,0914	7.090.170,1390	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-7,584	-5,202			0,000			4,935	7,930	
Cota (m):		10,559	10,512						10,517	10,577	
E:		709.805,4717	709.805,5517			709.805,7262			709.805,8918	709.805,9923	
N:		7.090.185,9388	7.090.183,5582			7.090.178,3587			7.090.174,4261	7.090.170,4329	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-7,662	-5,185			0,000			4,937	7,976	
Cota (m):		10,530	10,480						10,485	10,546	
E:		709.815,4635	709.815,5466			709.815,7206			709.815,8862	709.815,9882	
N:		7.090.186,3521	7.090.183,8764			7.090.178,6942			7.090.173,7603	7.090.170,7224	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,754	-5,168			0,000			4,946	8,018	
Cota (m):		10,503	10,451						10,455	10,517	
E:		709.825,4548	709.825,5416			709.825,7150			709.825,8809	709.825,9840	
N:		7.090.186,7789	7.090.184,1947			7.090.179,0297			7.090.174,0863	7.090.171,0162	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,881	-5,159			0,000			4,956	8,056	
Cota (m):		10,481	10,427						10,431	10,493	
E:		709.835,4449	709.835,5362			709.835,7093			709.835,8756	709.835,9796	
N:		7.090.187,2408	7.090.184,5211			7.090.179,3653			7.090.174,4123	7.090.171,3137	
<b>Station: 9+9</b>											
Dist. Eixo (m):						0,000			5,010	10,000	
Cota (m):									10,349	10,449	
E:						709.844,7928			709.844,9609	709.845,1283	
N:						7.090.179,6702			7.090.174,6630	7.090.169,6758	
<b>Station: 10+2</b>											
Dist. Eixo (m):		-13,479	-13,114	-13,114	-12,705	0,000	10,548	10,956	10,956	12,931	
Cota (m):		10,537	10,528	10,432	10,440	10,502	10,530	10,523	10,619	10,658	
E:		709.857,3686	709.857,3805	709.857,3805	709.857,3939	709.857,8104	709.858,1561	709.858,1695	709.858,1695	709.858,2342	
N:		7.090.193,5686	7.090.193,2041	7.090.193,2041	7.090.192,7952	7.090.180,0971	7.090.169,5550	7.090.169,1469	7.090.169,1469	7.090.167,1727	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-7,933	-5,335	-5,335	-4,936	0,000	5,064	5,462	5,462	8,436	
Cota (m):		10,512	10,460	10,364	10,372	10,471	10,370	10,362	10,458	10,517	
E:		709.865,4330	709.865,5181	709.865,5181	709.865,5312	709.865,6930	709.865,8590	709.865,8720	709.865,8720	709.865,9695	
N:		7.090.188,2842	7.090.185,6873	7.090.185,6873	7.090.185,2893	7.090.180,3556	7.090.175,2947	7.090.174,8970	7.090.174,8970	7.090.171,9244	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-7,881	-5,339	-5,339	-4,941	0,000	5,059	5,457	5,457	8,425	
Cota (m):		10,471	10,420	10,324	10,332	10,431	10,330	10,322	10,418	10,477	
E:		709.875,4293	709.875,5126	709.875,5126	709.875,5257	709.875,6876	709.875,8534	709.875,8665	709.875,8665	709.875,9638	
N:		7.090.188,5601	7.090.186,0194	7.090.186,0194	7.090.185,6214	7.090.180,6834	7.090.175,6268	7.090.175,2291	7.090.175,2291	7.090.172,2629	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,798	-5,343	-5,343	-4,945	0,000	5,055	5,453	5,453	8,404	
Cota (m):		10,429	10,380	10,284	10,292	10,391	10,290	10,282	10,378	10,437	
E:		709.885,4266	709.885,5071	709.885,5071	709.885,5202	709.885,6822	709.885,8479	709.885,8610	709.885,8610	709.885,9577	
N:		7.090.188,8053	7.090.186,3515	7.090.186,3515	7.090.185,9535	7.090.181,0112	7.090.175,9589	7.090.175,5611	7.090.175,5611	7.090.172,6118	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,699	-5,347	-5,347	-4,949	0,000	5,051	5,449	5,449	8,158	
Cota (m):		10,387	10,340	10,245	10,253	10,352	10,251	10,243	10,339	10,393	
E:		709.895,4245	709.895,5016	709.895,5016	709.895,5146	709.895,6769	709.895,8424	709.895,8555	709.895,8555	709.895,9443	
N:		7.090.189,0342	7.090.186,6835	7.090.186,6835	7.090.186,2856	7.090.181,3390	7.090.176,2910	7.090.175,8932	7.090.175,8932	7.090.173,1850	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,600	-5,352	-5,352	-4,954	0,000	5,046	5,444	5,444	7,779	
Cota (m):		10,346	10,301	10,205	10,213	10,312	10,211	10,203	10,298	10,345	
E:		709.905,4224	709.905,4961	709.905,4961	709.905,5091	709.905,6715	709.905,8369	709.905,8499	709.905,8499	709.905,9265	
N:		7.090.189,2631	7.090.187,0156	7.090.187,0156	7.090.186,6177	7.090.181,6667	7.090.176,6231	7.090.176,2253	7.090.176,2253	7.090.173,8919	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,528	-5,356	-5,356	-4,958	0,000	5,042	5,440	5,440	7,865	
Cota (m):		10,304	10,261	10,165	10,173	10,272	10,171	10,163	10,260	10,308	
E:		709.915,4194	709.915,4906	709.915,4906	709.915,5036	709.915,6661	709.915,8314	709.915,8444	709.915,8444	709.915,9239	
N:		7.090.189,5184	7.090.187,3477	7.090.187,3477	7.090.186,9498	7.090.181,9945	7.090.176,9551	7.090.176,5574	7.090.176,5574	7.090.174,1337	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-7,896	-7,544	-5,360	-4,962	0,000	5,038	5,436	5,436	7,951	
Cota (m):		10,490	10,265	10,221	10,125	10,232	10,132	10,124	10,220	10,270	
E:		709.925,4019	709.925,4135	709.925,4850	709.925,4850	709.925,6607	709.925,8259	709.925,8389	709.925,8389	709.925,9214	
N:		7.090.190,2142	7.090.189,8627	7.090.187,6798	7.090.187,6798	7.090.182,3223	7.090.177,2872	7.090.176,8895	7.090.176,8895	7.090.174,3756	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA AUGUSTO ECCEL**

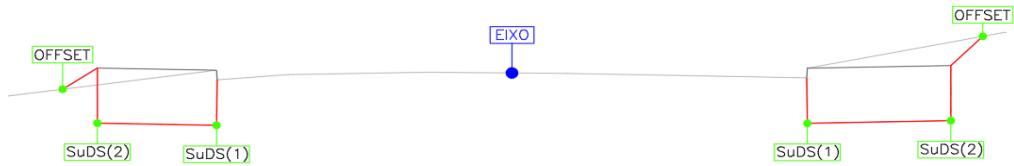
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+0</b>											
Dist. Eixo (m):	-7,933	-7,561	-5,365	-5,365	-4,967	<b>0,000</b>	5,033	5,431	5,431	8,013	
Cota (m):	10,437	10,225	10,181	10,085	10,093	<b>10,193</b>	10,092	10,084	10,179	10,231	
E:	709.935,3953	709.935,4075	709.935,4795	709.935,4795	709.935,4926	<b>709.935,6554</b>	709.935,8204	709.935,8334	709.935,8334	709.935,9180	
N:	7.090.190,5788	7.090.190,2068	7.090.188,0119	7.090.188,0119	7.090.187,6139	<b>7.090.182,6501</b>	7.090.177,6193	7.090.177,2216	7.090.177,2216	7.090.174,6410	
<b>Station: 14+10</b>											
Dist. Eixo (m):	-7,970	-7,577	-5,369	-5,369	-4,971	<b>0,000</b>	5,029	5,427	5,427	7,999	
Cota (m):	10,383	10,185	10,141	10,045	10,053	<b>10,153</b>	10,052	10,044	10,140	10,191	
E:	709.945,3888	709.945,4016	709.945,4740	709.945,4740	709.945,4871	<b>709.945,6500</b>	709.945,8148	709.945,8279	709.945,8279	709.945,9122	
N:	7.090.190,9434	7.090.190,5509	7.090.188,3440	7.090.188,3440	7.090.187,9460	<b>7.090.182,9778</b>	7.090.177,9514	7.090.177,5537	7.090.177,5537	7.090.174,9834	
<b>Station: 15+0</b>											
Dist. Eixo (m):	-7,896	-7,593	-5,373	-5,373	-4,975	<b>0,000</b>	5,025	5,423	5,423	7,984	8,015
Cota (m):	10,404	10,145	10,101	10,006	10,014	<b>10,113</b>	10,013	10,005	10,101	10,152	10,643
E:	709.955,3858	709.955,3957	709.955,4685	709.955,4685	709.955,4815	<b>709.955,6446</b>	709.955,8093	709.955,8224	709.955,8224	709.955,9063	709.955,9073
N:	7.090.191,1969	7.090.190,8950	7.090.188,6761	7.090.188,6761	7.090.188,2781	<b>7.090.183,3056</b>	7.090.178,2835	7.090.177,8857	7.090.177,8857	7.090.175,3258	7.090.175,2946
<b>Station: 15+10</b>											
Dist. Eixo (m):	-7,834	-7,610	-5,378	-5,378	-4,980	<b>0,000</b>	5,020	5,418	5,418	7,969	8,057
Cota (m):	10,417	10,107	10,062	9,966	9,974	<b>10,073</b>	9,973	9,965	10,061	10,112	10,660
E:	709.965,3825	709.965,3898	709.965,4630	709.965,4630	709.965,4760	<b>709.965,6392</b>	709.965,8038	709.965,8169	709.965,8169	709.965,9005	709.965,9034
N:	7.090.191,4630	7.090.191,2391	7.090.189,0082	7.090.189,0082	7.090.188,6102	<b>7.090.183,6334</b>	7.090.178,6156	7.090.178,2178	7.090.178,2178	7.090.175,6682	7.090.175,5803
<b>Station: 16+0</b>											
Dist. Eixo (m):	-7,915	-7,626	-5,382	-5,382	-4,984	<b>0,000</b>	5,016	5,414	5,414	7,850	
Cota (m):	10,334	10,067	10,022	9,926	9,934	<b>10,034</b>	9,933	9,925	10,021	10,070	
E:	709.975,3744	709.975,3839	709.975,4575	709.975,4575	709.975,4705	<b>709.975,6339</b>	709.975,7983	709.975,8113	709.975,8113	709.975,8912	
N:	7.090.191,8722	7.090.191,5832	7.090.189,3402	7.090.189,3402	7.090.188,9423	<b>7.090.183,9611</b>	7.090.178,9477	7.090.178,5499	7.090.178,5499	7.090.176,1151	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,642	-5,386	-5,386	-4,988	<b>0,000</b>	5,012	5,410	5,410	7,721	
Cota (m):		10,027	9,982	9,886	9,894	<b>9,994</b>	9,894	9,886	9,982	10,028	
E:		709.985,3780	709.985,4520	709.985,4520	709.985,4650	<b>709.985,6285</b>	709.985,7928	709.985,8058	709.985,8058	709.985,8816	
N:		7.090.191,9273	7.090.189,6723	7.090.189,6723	7.090.189,2744	<b>7.090.184,2889</b>	7.090.179,2798	7.090.178,8820	7.090.178,8820	7.090.176,5722	
<b>Station: 17+0</b>											
Dist. Eixo (m):	-8,012	-7,972	-5,391	-5,391	-4,992	<b>0,000</b>	5,008	5,406	5,406	7,708	
Cota (m):	10,479	9,979	9,927	9,832	9,840	<b>9,939</b>	9,839	9,831	9,927	9,973	
E:	709.995,3605	709.995,3618	709.995,4464	709.995,4464	709.995,4595	<b>709.995,6231</b>	709.995,7873	709.995,8003	709.995,8003	709.995,8758	
N:	7.090.192,6243	7.090.192,5848	7.090.190,0044	7.090.190,0044	7.090.189,6065	<b>7.090.184,6167</b>	7.090.179,6118	7.090.179,2141	7.090.179,2141	7.090.176,9128	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-8,027	-5,395	-5,395	-4,997	<b>0,000</b>	5,003	5,401	5,401	7,695	
Cota (m):		9,869	9,816	9,721	9,729	<b>9,829</b>	9,729	9,721	9,816	9,862	
E:		710.005,3546	710.005,4409	710.005,4409	710.005,4540	<b>710.005,6178</b>	710.005,7817	710.005,7948	710.005,7948	710.005,8700	
N:		7.090.192,9677	7.090.190,3365	7.090.190,3365	7.090.189,9386	<b>7.090.184,9445</b>	7.090.179,9439	7.090.179,5462	7.090.179,5462	7.090.177,2534	
<b>Station: 17+17</b>											
Dist. Eixo (m):	-6,296	-6,200	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	6,200	6,408
Cota (m):	10,273	10,177	9,701	9,605	9,613	<b>9,713</b>	9,613	9,605	9,701	9,717	10,039
E:	710.012,8966	710.012,8997	710.012,9260	710.012,9260	710.012,9390	<b>710.013,1029</b>	710.013,2668	710.013,2799	710.013,2799	710.013,3061	710.013,3130
N:	7.090.191,4821	7.090.191,3868	7.090.190,5852	7.090.190,5852	7.090.190,1873	<b>7.090.185,1899</b>	7.090.180,1926	7.090.179,7949	7.090.179,7949	7.090.178,9933	7.090.178,7854

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

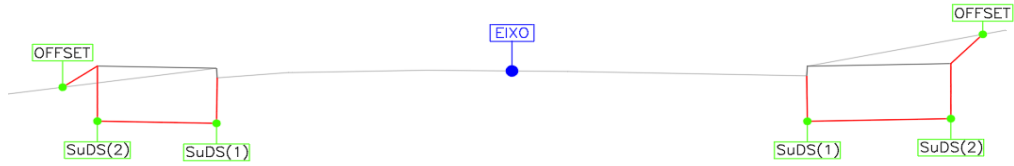
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):				<b>0,000</b>	11,715	13,875	
Cota (m):					11,796	11,839	
E:				709.630,9627	709.619,2545	709.617,0958	
N:				7.090.789,9264	7.090.789,5358	7.090.789,4637	
<b>Station: 0+10</b>							
Dist. Eixo (m):		-8,696	-5,484	<b>0,000</b>	5,110	8,451	
Cota (m):		11,966	11,901		11,909	11,976	
E:		709.639,9873	709.636,7766	709.631,2961	709.626,1888	709.622,8499	
N:		7.090.780,2219	7.090.780,1148	7.090.779,9320	7.090.779,7616	7.090.779,6502	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-8,886	-4,102	<b>0,000</b>	4,152	8,310	
Cota (m):		11,968	11,873		11,872	11,955	
E:		709.640,5104	709.635,7296	709.631,6296	709.627,4796	709.623,3245	
N:		7.090.770,2338	7.090.770,0743	7.090.769,9375	7.090.769,7991	7.090.769,6604	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-8,701	-4,100	<b>0,000</b>	3,931	8,180	
Cota (m):		11,908	11,816		11,820	11,905	
E:		709.640,6589	709.636,0607	709.631,9631	709.628,0341	709.623,7872	
N:		7.090.760,2332	7.090.760,0798	7.090.759,9431	7.090.759,8120	7.090.759,6703	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-8,495	-4,095	<b>0,000</b>	3,913	8,054	
Cota (m):		11,851	11,763		11,767	11,850	
E:		709.640,7871	709.636,3891	709.632,2965	709.628,3856	709.624,2474	
N:		7.090.750,2319	7.090.750,0852	7.090.749,9487	7.090.749,8182	7.090.749,6801	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-8,290	-4,100	<b>0,000</b>	3,895	8,059	
Cota (m):		11,849	11,765		11,769	11,852	
E:		709.640,9154	709.636,7275	709.632,6300	709.628,7370	709.624,5755	
N:		7.090.740,2307	7.090.740,0909	7.090.739,9542	7.090.739,8243	7.090.739,6855	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-8,259	-4,108	<b>0,000</b>	3,877	7,974	
Cota (m):		11,842	11,759		11,764	11,846	
E:		709.641,2178	709.637,0690	709.632,9634	709.629,0885	709.624,9939	
N:		7.090.730,2352	7.090.730,0968	7.090.729,9598	7.090.729,8305	7.090.729,6939	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-8,302	-4,119	<b>0,000</b>	3,859	7,870	
Cota (m):		11,838	11,754		11,760	11,840	
E:		709.641,5939	709.637,4133	709.633,2969	709.629,4399	709.625,4317	
N:		7.090.720,2422	7.090.720,1027	7.090.719,9653	7.090.719,8366	7.090.719,7029	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-8,344	-4,141	<b>0,000</b>	3,841	7,765	
Cota (m):		11,836	11,752		11,758	11,837	
E:		709.641,9701	709.637,7688	709.633,6303	709.629,7914	709.625,8694	
N:		7.090.710,2491	7.090.710,1090	7.090.709,9709	7.090.709,8428	7.090.709,7120	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-5,652	-4,163	<b>0,000</b>	3,823	7,672	
Cota (m):		11,760	11,731		11,737	11,814	
E:		709.639,6126	709.638,1243	709.633,9638	709.630,1428	709.626,2957	
N:		7.090.700,1649	7.090.700,1153	7.090.699,9765	7.090.699,8490	7.090.699,7206	
<b>Station: 5+0</b>							
Dist. Eixo (m):		-5,665	-4,185	<b>0,000</b>	3,805	7,625	
Cota (m):		11,749	11,719		11,727	11,803	
E:		709.639,9594	709.638,4798	709.634,2973	709.630,4942	709.626,6766	
N:		7.090.690,1709	7.090.690,1216	7.090.689,9820	7.090.689,8551	7.090.689,7278	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

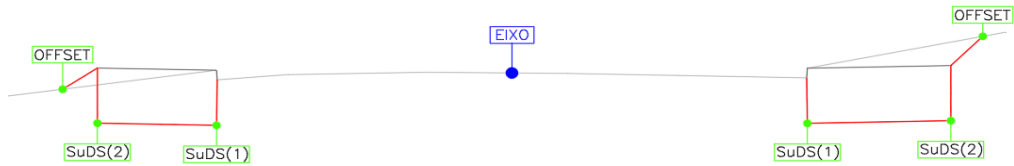
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>							
Dist. Eixo (m):		-5,630	-4,216	<b>0,000</b>	3,789	7,579	
Cota (m):		11,740	11,712		11,721	11,796	
E:		709.640,2571	709.638,8443	<b>709.634,6307</b>	709.630,8440	709.627,0555	
N:		7.090.680,1753	7.090.680,1282	<b>7.090.679,9876</b>	7.090.679,8612	7.090.679,7348	
<b>Station: 6+0</b>							
Dist. Eixo (m):		-5,646	-4,256	<b>0,000</b>	3,773	7,554	
Cota (m):		11,735	11,707		11,717	11,792	
E:		709.640,6075	709.639,2181	<b>709.634,9642</b>	709.631,1937	709.627,4139	
N:		7.090.670,1814	7.090.670,1351	<b>7.090.669,9931</b>	7.090.669,8673	7.090.669,7412	
<b>Station: 6+10</b>							
Dist. Eixo (m):		-5,713	-4,282	<b>0,000</b>	3,756	7,617	
Cota (m):		11,735	11,707		11,717	11,794	
E:		709.641,0071	709.639,5773	<b>709.635,2976</b>	709.631,5434	709.627,6845	
N:		7.090.660,1892	7.090.660,1415	<b>7.090.659,9987</b>	7.090.659,8734	7.090.659,7447	
<b>Station: 7+0</b>							
Dist. Eixo (m):		-5,793	-4,283	<b>0,000</b>	3,740	7,534	
Cota (m):		11,697	11,667		11,678	11,754	
E:		709.641,4209	709.639,9121	<b>709.635,6311</b>	709.631,8931	709.628,1018	
N:		7.090.650,1974	7.090.650,1471	<b>7.090.650,0043</b>	7.090.649,8795	7.090.649,7531	
<b>Station: 7+10</b>							
Dist. Eixo (m):		-5,873	-4,285	<b>0,000</b>	3,724	7,428	
Cota (m):		11,652	11,620		11,631	11,705	
E:		709.641,8348	709.640,2469	<b>709.635,9645</b>	709.632,2428	709.628,5410	
N:		7.090.640,2057	7.090.640,1527	<b>7.090.640,0098</b>	7.090.639,8857	7.090.639,7621	
<b>Station: 8+0</b>							
Dist. Eixo (m):		-5,954	-4,286	<b>0,000</b>	3,710	7,492	
Cota (m):		11,572	11,538		11,550	11,626	
E:		709.642,2486	709.640,5817	<b>709.636,2980</b>	709.632,5904	709.628,8099	
N:		7.090.630,2139	7.090.630,1583	<b>7.090.630,0154</b>	7.090.629,8917	7.090.629,7655	
<b>Station: 8+10</b>							
Dist. Eixo (m):		-8,239	-4,287	<b>0,000</b>	3,750	7,543	
Cota (m):		11,530	11,451		11,462	11,538	
E:		709.644,8654	709.640,9164	<b>709.636,6315</b>	709.632,8839	709.629,0928	
N:		7.090.620,2957	7.090.620,1639	<b>7.090.620,0209</b>	7.090.619,8959	7.090.619,7694	
<b>Station: 9+0</b>							
Dist. Eixo (m):		-8,255	-4,301	<b>0,000</b>	3,790	7,753	
Cota (m):		11,459	11,380		11,391	11,470	
E:		709.645,2154	709.641,2637	<b>709.636,9649</b>	709.633,1774	709.629,2161	
N:		7.090.610,3018	7.090.610,1699	<b>7.090.610,0265</b>	7.090.609,9001	7.090.609,7680	
<b>Station: 9+10</b>							
Dist. Eixo (m):		-8,272	-4,347	<b>0,000</b>	3,830	7,562	
Cota (m):		11,393	11,314		11,325	11,399	
E:		709.645,5654	709.641,6428	<b>709.637,2984</b>	709.633,4709	709.629,7410	
N:		7.090.600,3079	7.090.600,1770	<b>7.090.600,0321</b>	7.090.599,9044	7.090.599,7799	
<b>Station: 10+0</b>							
Dist. Eixo (m):		-8,288	-4,392	<b>0,000</b>	3,870	7,268	
Cota (m):		11,347	11,269		11,280	11,348	
E:		709.645,9154	709.642,0218	<b>709.637,6318</b>	709.633,7644	709.630,3677	
N:		7.090.590,3140	7.090.590,1841	<b>7.090.590,0376</b>	7.090.589,9086	7.090.589,7953	
<b>Station: 10+10</b>							
Dist. Eixo (m):		-8,305	-4,438	<b>0,000</b>	3,910	7,031	
Cota (m):		11,286	11,208		11,219	11,281	
E:		709.646,2653	709.642,4008	<b>709.637,9653</b>	709.634,0579	709.630,9381	
N:		7.090.580,3201	7.090.580,1912	<b>7.090.580,0432</b>	7.090.579,9128	7.090.579,8087	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

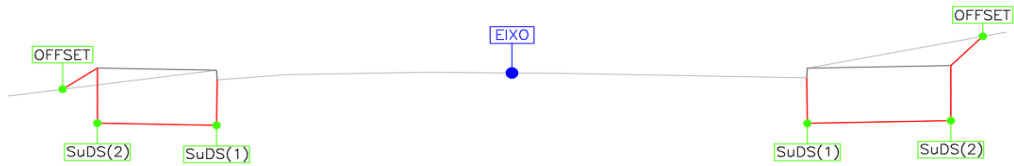
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 11+0</b>							
Dist. Eixo (m):		-8,321	-4,394	<b>0,000</b>	3,910	6,941	
Cota (m):		11,255	11,177		11,187	11,247	
E:		709.646,6153	709.642,6904	<b>709.638,2988</b>	709.634,3913	709.631,3612	
N:		7.090.570,3262	7.090.570,1953	<b>7.090.570,0488</b>	7.090.569,9184	7.090.569,8173	
<b>Station: 11+10</b>							
Dist. Eixo (m):		-8,322	-4,306	<b>0,000</b>	3,884	6,950	
Cota (m):		11,386	11,305		11,314	11,375	
E:		709.646,9499	709.642,9359	<b>709.638,6322</b>	709.634,7499	709.631,6856	
N:		7.090.560,3318	7.090.560,1979	<b>7.090.560,0543</b>	7.090.559,9248	7.090.559,8225	
<b>Station: 12+0</b>							
Dist. Eixo (m):		-8,276	-4,347	<b>0,000</b>	3,859	6,787	
Cota (m):		11,508	11,430		11,439	11,498	
E:		709.647,2369	709.643,3103	<b>709.638,9657</b>	709.635,1085	709.632,1824	
N:		7.090.550,3358	7.090.550,2048	<b>7.090.550,0599</b>	7.090.549,9312	7.090.549,8336	
<b>Station: 12+10</b>							
Dist. Eixo (m):		-8,229	-4,399	<b>0,000</b>	3,834	6,931	
Cota (m):		11,602	11,526		11,537	11,599	
E:		709.647,5240	709.643,6959	<b>709.639,2991</b>	709.635,4671	709.632,3721	
N:		7.090.540,3399	7.090.540,2121	<b>7.090.540,0654</b>	7.090.539,9376	7.090.539,8343	
<b>Station: 13+0</b>							
Dist. Eixo (m):		-8,183	-4,354	<b>0,000</b>	3,809	7,075	
Cota (m):		11,694	11,618		11,629	11,694	
E:		709.647,8115	709.643,9842	<b>709.639,6326</b>	709.635,8257	709.632,5618	
N:		7.090.530,3439	7.090.530,2162	<b>7.090.530,0710</b>	7.090.529,9440	7.090.529,8351	
<b>Station: 13+10</b>							
Dist. Eixo (m):		-8,150	-4,304	<b>0,000</b>	3,814	7,199	
Cota (m):		11,776	11,699		11,709	11,777	
E:		709.648,1117	709.644,2681	<b>709.639,9660</b>	709.636,1541	709.632,7710	
N:		7.090.520,3483	7.090.520,2201	<b>7.090.520,0766</b>	7.090.519,9494	7.090.519,8365	
<b>Station: 14+0</b>							
Dist. Eixo (m):		-8,117	-4,255	<b>0,000</b>	3,832	7,248	
Cota (m):		11,760	11,683		11,691	11,760	
E:		709.648,4120	709.644,5521	<b>709.640,2995</b>	709.636,4692	709.633,0553	
N:		7.090.510,3528	7.090.510,2240	<b>7.090.510,0821</b>	7.090.509,9543	7.090.509,8404	
<b>Station: 14+10</b>							
Dist. Eixo (m):		-8,084	-4,211	<b>0,000</b>	3,851	7,297	
Cota (m):		11,691	11,614		11,621	11,690	
E:		709.648,7122	709.644,8418	<b>709.640,6330</b>	709.636,7843	709.633,3396	
N:		7.090.500,3572	7.090.500,2281	<b>7.090.500,0877</b>	7.090.499,9593	7.090.499,8443	
<b>Station: 15+0</b>							
Dist. Eixo (m):		-8,051	-4,173	<b>0,000</b>	3,869	7,388	
Cota (m):		11,610	11,532		11,539	11,609	
E:		709.649,0125	709.645,1367	<b>709.640,9664</b>	709.637,0993	709.633,5822	
N:		7.090.490,3617	7.090.490,2324	<b>7.090.490,0932</b>	7.090.489,9642	7.090.489,8469	
<b>Station: 15+10</b>							
Dist. Eixo (m):		-8,071	-4,134	<b>0,000</b>	3,888	7,493	
Cota (m):		11,526	11,447		11,452	11,524	
E:		709.649,3668	709.645,4315	<b>709.641,2999</b>	709.637,4144	709.633,8111	
N:		7.090.480,3680	7.090.480,2367	<b>7.090.480,0988</b>	7.090.479,9692	7.090.479,8489	
<b>Station: 16+0</b>							
Dist. Eixo (m):		-8,104	-4,103	<b>0,000</b>	3,906	7,590	
Cota (m):		11,454	11,374		11,378	11,451	
E:		709.649,7330	709.645,7338	<b>709.641,6333</b>	709.637,7295	709.634,0472	
N:		7.090.470,3746	7.090.470,2412	<b>7.090.470,1044</b>	7.090.469,9741	7.090.469,8513	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

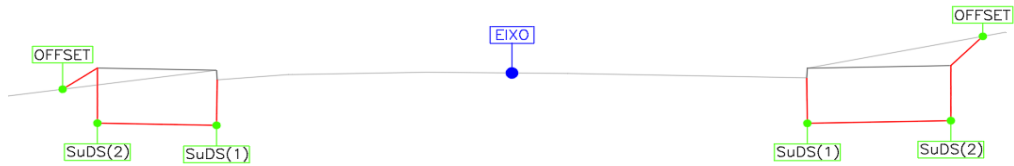
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 16+10</b>							
Dist. Eixo (m):		-8,137	-4,156	<b>0,000</b>	3,915	7,649	
Cota (m):		11,361	11,282		11,287	11,361	
E:		709.650,0992	709.646,1208	<b>709.641,9668</b>	709.638,0536	709.634,3217	
N:		7.090.460,3813	7.090.460,2485	<b>7.090.460,1099</b>	7.090.459,9794	7.090.459,8549	
<b>Station: 16+11</b>							
Dist. Eixo (m):		-8,143	-4,544	<b>0,000</b>	3,913	7,660	
Cota (m):		11,339	11,267		11,304	11,340	
E:		709.650,1655	709.646,5690	<b>709.642,0271</b>	709.638,1165	709.634,3714	
N:		7.090.458,5726	7.090.458,4526	<b>7.090.458,3011</b>	7.090.458,1706	7.090.458,0456	
<b>Station: 17+0</b>							
Dist. Eixo (m):		-8,164	-4,210	<b>0,000</b>	3,907	7,708	
Cota (m):		11,254	11,175		11,181	11,257	
E:		709.650,4597	709.646,5077	<b>709.642,3003</b>	709.638,3955	709.634,5964	
N:		7.090.450,3877	7.090.450,2559	<b>7.090.450,1155</b>	7.090.449,9852	7.090.449,8585	
<b>Station: 17+10</b>							
Dist. Eixo (m):		-8,173	-4,263	<b>0,000</b>	3,899	7,776	
Cota (m):		11,150	11,072		11,079	11,157	
E:		709.650,8017	709.646,8947	<b>709.642,6337</b>	709.638,7373	709.634,8617	
N:		7.090.440,3936	7.090.440,2632	<b>7.090.440,1210</b>	7.090.439,9911	7.090.439,8617	
<b>Station: 18+0</b>							
Dist. Eixo (m):		-8,181	-4,317	<b>0,000</b>	3,890	7,742	
Cota (m):		11,114	11,037		11,045	11,122	
E:		709.651,1438	709.647,2816	<b>709.642,9672</b>	709.639,0792	709.635,2298	
N:		7.090.430,3994	7.090.430,2706	<b>7.090.430,1266</b>	7.090.429,9969	7.090.429,8685	
<b>Station: 18+10</b>							
Dist. Eixo (m):		-8,378	-4,339	<b>0,000</b>	3,882	7,711	
Cota (m):		11,074	10,993		11,002	11,079	
E:		709.651,6744	709.647,6368	<b>709.643,3006</b>	709.639,4211	709.635,5941	
N:		7.090.420,4116	7.090.420,2768	<b>7.090.420,1322</b>	7.090.420,0027	7.090.419,8750	
<b>Station: 19+0</b>							
Dist. Eixo (m):		-8,368	-4,337	<b>0,000</b>	3,873	7,656	
Cota (m):		11,059	10,978		10,988	11,063	
E:		709.651,9976	709.647,9685	<b>709.643,6341</b>	709.639,7629	709.635,9825	
N:		7.090.410,4168	7.090.410,2823	<b>7.090.410,1377</b>	7.090.410,0086	7.090.409,8824	
<b>Station: 19+10</b>							
Dist. Eixo (m):		-8,301	-4,335	<b>0,000</b>	3,865	7,537	
Cota (m):		11,062	10,983		10,992	11,066	
E:		709.652,2636	709.648,3002	<b>709.643,9675</b>	709.640,1048	709.636,4346	
N:		7.090.400,4201	7.090.400,2879	<b>7.090.400,1433</b>	7.090.400,0144	7.090.399,8920	
<b>Station: 20+0</b>							
Dist. Eixo (m):		-8,231	-4,333	<b>0,000</b>	3,872	7,642	
Cota (m):		11,068	10,990		10,999	11,074	
E:		709.652,5276	709.648,6319	<b>709.644,3010</b>	709.640,4307	709.636,6632	
N:		7.090.390,4233	7.090.390,2934	<b>7.090.390,1489</b>	7.090.390,0197	7.090.389,8940	
<b>Station: 20+10</b>							
Dist. Eixo (m):		-8,226	-4,332	<b>0,000</b>	3,885	7,827	
Cota (m):		11,072	10,994		11,003	11,082	
E:		709.652,8563	709.648,9636	<b>709.644,6345</b>	709.640,7515	709.636,8122	
N:		7.090.380,4287	7.090.380,2989	<b>7.090.380,1544</b>	7.090.380,0249	7.090.379,8934	
<b>Station: 21+0</b>							
Dist. Eixo (m):		-8,153	-4,330	<b>0,000</b>	3,898	7,762	
Cota (m):		11,076	10,999		11,008	11,085	
E:		709.653,1168	709.649,2953	<b>709.644,9679</b>	709.641,0724	709.637,2099	
N:		7.090.370,4319	7.090.370,3044	<b>7.090.370,1600</b>	7.090.370,0300	7.090.369,9011	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

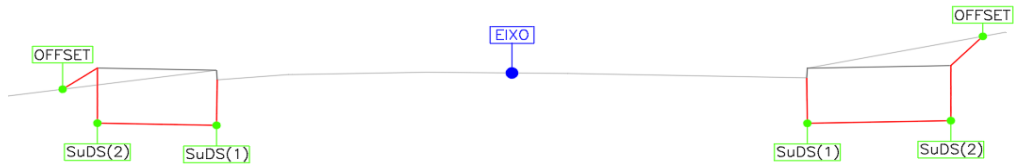
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 21+10</b>							
Dist. Eixo (m):		-8,033	-4,328	<b>0,000</b>	3,910	7,703	
Cota (m):		11,071	10,997		11,005	11,081	
E:		709.653,3301	709.649,6270	<b>709.645,3014</b>	709.641,3933	709.637,6029	
N:		7.090.360,4334	7.090.360,3099	<b>7.090.360,1655</b>	7.090.360,0351	7.090.359,9087	
<b>Station: 22+0</b>							
Dist. Eixo (m):		-7,992	-4,326	<b>0,000</b>	3,923	7,811	
Cota (m):		11,133	11,060		11,068	11,145	
E:		709.653,6226	709.649,9587	<b>709.645,6348</b>	709.641,7141	709.637,8284	
N:		7.090.350,4376	7.090.350,3154	<b>7.090.350,1711</b>	7.090.350,0403	7.090.349,9106	
<b>Station: 22+10</b>							
Dist. Eixo (m):		-7,996	-4,324	<b>0,000</b>	3,935	7,819	
Cota (m):		11,204	11,130		11,138	11,216	
E:		709.653,9600	709.650,2904	<b>709.645,9683</b>	709.642,0350	709.638,1539	
N:		7.090.340,4433	7.090.340,3209	<b>7.090.340,1767</b>	7.090.340,0454	7.090.339,9159	
<b>Station: 23+0</b>							
Dist. Eixo (m):		-8,055	-4,323	<b>0,000</b>	3,948	7,760	
Cota (m):		11,276	11,201		11,209	11,285	
E:		709.654,3523	709.650,6221	<b>709.646,3018</b>	709.642,3559	709.638,5461	
N:		7.090.330,4508	7.090.330,3264	<b>7.090.330,1822</b>	7.090.330,0506	7.090.329,9235	
<b>Station: 23+10</b>							
Dist. Eixo (m):		-8,092	-4,321	<b>0,000</b>	3,961	7,790	
Cota (m):		11,334	11,259		11,266	11,343	
E:		709.654,7229	709.650,9537	<b>709.646,6352</b>	709.642,6768	709.638,8491	
N:		7.090.320,4576	7.090.320,3319	<b>7.090.320,1878</b>	7.090.320,0557	7.090.319,9280	
<b>Station: 24+0</b>							
Dist. Eixo (m):		-8,078	-4,319	<b>0,000</b>	3,973	7,854	
Cota (m):		11,299	11,224		11,231	11,308	
E:		709.655,0426	709.651,2854	<b>709.646,9687</b>	709.642,9976	709.639,1192	
N:		7.090.310,4627	7.090.310,3374	<b>7.090.310,1933</b>	7.090.310,0609	7.090.309,9315	
<b>Station: 24+10</b>							
Dist. Eixo (m):		-8,079	-4,309	<b>0,000</b>	3,986	7,802	
Cota (m):		11,264	11,189		11,195	11,271	
E:		709.655,3771	709.651,6087	<b>709.647,3021</b>	709.643,3185	709.639,5040	
N:		7.090.300,4683	7.090.300,3426	<b>7.090.300,1989</b>	7.090.300,0660	7.090.299,9387	
<b>Station: 25+0</b>							
Dist. Eixo (m):		-8,064	-4,227	<b>0,000</b>	3,998	7,796	
Cota (m):		11,170	11,094		11,098	11,174	
E:		709.655,6955	709.651,8604	<b>709.647,6356</b>	709.643,6394	709.639,8441	
N:		7.090.290,4734	7.090.290,3454	<b>7.090.290,2045</b>	7.090.290,0711	7.090.289,9445	
<b>Station: 25+10</b>							
Dist. Eixo (m):		-8,001	-4,145	<b>0,000</b>	3,977	7,884	
Cota (m):		11,073	10,996		10,999	11,077	
E:		709.655,9655	709.652,1121	<b>709.647,9690</b>	709.643,9946	709.640,0893	
N:		7.090.280,4768	7.090.280,3483	<b>7.090.280,2100</b>	7.090.280,0774	7.090.279,9471	
<b>Station: 26+0</b>							
Dist. Eixo (m):		-7,939	-4,562	<b>0,000</b>	3,928	7,947	
Cota (m):		10,976	10,909		10,922	11,002	
E:		709.656,2368	709.652,8615	<b>709.648,3025</b>	709.644,3763	709.640,3599	
N:		7.090.270,4803	7.090.270,3677	<b>7.090.270,2156</b>	7.090.270,0846	7.090.269,9506	
<b>Station: 26+10</b>							
Dist. Eixo (m):		-7,626	-6,436	<b>0,000</b>	5,010	8,846	
Cota (m):		10,823	10,800		10,828	10,905	
E:		709.656,2577	709.655,0684	<b>709.648,6360</b>	709.643,6287	709.639,7945	
N:		7.090.260,4754	7.090.260,4358	<b>7.090.260,2212</b>	7.090.260,0541	7.090.259,9262	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

Desenho Esquemático:

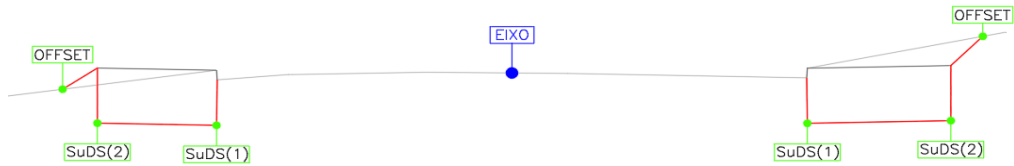


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 28+0</b>							
Dist. Eixo (m):		-8,145	-4,865	<b>0,000</b>	4,055	7,355	
Cota (m):		10,828	10,762		10,778	10,844	
E:		709.657,7770	709.654,4989	<b>709.649,6363</b>	709.645,5839	709.642,2856	
N:		7.090.230,5094	7.090.230,4001	<b>7.090.230,2378</b>	7.090.230,1026	7.090.229,9926	
<b>Station: 28+10</b>							
Dist. Eixo (m):		-8,108	-4,734	<b>0,000</b>	4,038	7,256	
Cota (m):		10,892	10,824		10,838	10,903	
E:		709.658,0734	709.654,7014	<b>709.649,9698</b>	709.645,9338	709.642,7175	
N:		7.090.220,5138	7.090.220,4013	<b>7.090.220,2434</b>	7.090.220,1087	7.090.220,0014	
<b>Station: 29+0</b>							
Dist. Eixo (m):		-8,065	-5,010	<b>0,000</b>	4,022	7,175	
Cota (m):		10,959	10,898		10,918	10,981	
E:		709.658,3640	709.655,3105	<b>709.650,3032</b>	709.646,2838	709.643,1327	
N:		7.090.210,5179	7.090.210,4160	<b>7.090.210,2490</b>	7.090.210,1149	7.090.210,0097	
<b>Station: 29+10</b>							
Dist. Eixo (m):		-8,020	-5,010	<b>0,000</b>	4,008	5,979	
Cota (m):		11,019	10,959		10,979	11,019	
E:		709.658,6522	709.655,6439	<b>709.650,6367</b>	709.646,6306	709.644,6612	
N:		7.090.200,5220	7.090.200,4216	<b>7.090.200,2545</b>	7.090.200,1209	7.090.200,0551	
<b>Station: 30+0</b>							
Dist. Eixo (m):		-7,975	-5,010	<b>0,000</b>	4,031	5,951	
Cota (m):		11,096	11,036		11,056	11,094	
E:		709.658,9404	709.655,9774	<b>709.650,9702</b>	709.646,9411	709.645,0229	
N:		7.090.190,5260	7.090.190,4271	<b>7.090.190,2601</b>	7.090.190,1257	7.090.190,0617	
<b>Station: 30+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,054	5,879	
Cota (m):					11,120	11,156	
E:				<b>709.651,3036</b>	709.647,2517	709.645,4278	
N:				<b>7.090.180,2656</b>	7.090.180,1305	7.090.180,0696	
<b>Station: 31+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,974	5,918	
Cota (m):					11,148	11,187	
E:				<b>709.651,6371</b>	709.647,6656	709.645,7220	
N:				<b>7.090.170,2712</b>	7.090.170,1387	7.090.170,0738	
<b>Station: 31+10</b>							
Dist. Eixo (m):		-7,980	-4,079	<b>0,000</b>	4,071	7,228	
Cota (m):		11,244	11,166		11,166	11,229	
E:		709.659,9459	709.656,0471	<b>709.651,9705</b>	709.647,9020	709.644,7467	
N:		7.090.160,5429	7.090.160,4128	<b>7.090.160,2768</b>	7.090.160,1410	7.090.160,0357	
<b>Station: 32+0</b>							
Dist. Eixo (m):		-7,928	-4,026	<b>0,000</b>	4,126	7,641	
Cota (m):		11,241	11,163		11,161	11,231	
E:		709.660,2272	709.656,3275	<b>709.652,3040</b>	709.648,1804	709.644,6677	
N:		7.090.150,5467	7.090.150,4166	<b>7.090.150,2823</b>	7.090.150,1447	7.090.150,0275	
<b>Station: 32+10</b>							
Dist. Eixo (m):		-7,875	-3,973	<b>0,000</b>	4,162	7,588	
Cota (m):		11,246	11,168		11,164	11,233	
E:		709.660,5085	709.656,6080	<b>709.652,6375</b>	709.648,4779	709.645,0535	
N:		7.090.140,5505	7.090.140,4204	<b>7.090.140,2879</b>	7.090.140,1491	7.090.140,0349	
<b>Station: 33+0</b>							
Dist. Eixo (m):		-7,823	-3,920	<b>0,000</b>	4,198	7,916	
Cota (m):		11,304	11,226		11,220	11,295	
E:		709.660,7897	709.656,8885	<b>709.652,9709</b>	709.648,7755	709.645,0597	
N:		7.090.130,5543	7.090.130,4242	<b>7.090.130,2934</b>	7.090.130,1535	7.090.130,0295	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

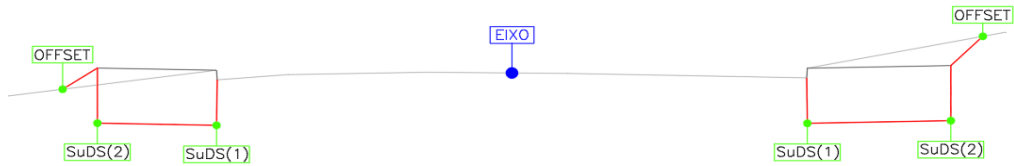
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 33+0</b>							
Dist. Eixo (m):		-7,771	-3,867	<b>0,000</b>	4,234	8,042	
Cota (m):		11,357	11,279		11,272	11,348	
E:		709.661,0710	709.657,1690	<b>709.653,3044</b>	709.649,0730	709.645,2672	
N:		7.090.120,5581	7.090.120,4280	<b>7.090.120,2990</b>	7.090.120,1578	7.090.120,0309	
<b>Station: 34+0</b>							
Dist. Eixo (m):		-7,719	-3,814	<b>0,000</b>	5,010	8,014	
Cota (m):		11,378	11,300		11,276	11,337	
E:		709.661,3523	709.657,4495	<b>709.653,6378</b>	709.648,6306	709.645,6287	
N:		7.090.110,5620	7.090.110,4317	<b>7.090.110,3046</b>	7.090.110,1375	7.090.110,0374	
<b>Station: 34+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,230	8,037	
Cota (m):					11,348	11,424	
E:				<b>709.653,9713</b>	709.649,7439	709.645,9392	
N:				<b>7.090.100,3101</b>	7.090.100,1691	7.090.100,0421	
<b>Station: 35+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,227	8,060	
Cota (m):					11,463	11,540	
E:				<b>709.654,3047</b>	709.650,0801	709.646,2497	
N:				<b>7.090.090,3157</b>	7.090.090,1747	7.090.090,0469	
<b>Station: 35+10</b>							
Dist. Eixo (m):		-7,038	-3,949	<b>0,000</b>	4,234	8,083	
Cota (m):		11,609	11,547		11,541	11,618	
E:		709.661,6719	709.658,5846	<b>709.654,6382</b>	709.650,4063	709.646,5602	
N:		7.090.080,5559	7.090.080,4529	<b>7.090.080,3213</b>	7.090.080,1801	7.090.080,0517	
<b>Station: 36+0</b>							
Dist. Eixo (m):		-7,163	-3,957	<b>0,000</b>	4,241	8,106	
Cota (m):		11,569	11,505		11,499	11,577	
E:		709.662,1302	709.658,9263	<b>709.654,9717</b>	709.650,7326	709.646,8706	
N:		7.090.070,5657	7.090.070,4588	<b>7.090.070,3268</b>	7.090.070,1854	7.090.070,0565	
<b>Station: 36+10</b>							
Dist. Eixo (m):		-7,287	-3,965	<b>0,000</b>	4,249	8,079	
Cota (m):		11,600	11,534		11,528	11,605	
E:		709.662,5885	709.659,2681	<b>709.655,3051</b>	709.651,0588	709.647,2304	
N:		7.090.060,5754	7.090.060,4646	<b>7.090.060,3324</b>	7.090.060,1907	7.090.060,0630	
<b>Station: 37+0</b>							
Dist. Eixo (m):		-7,412	-3,973	<b>0,000</b>	4,246	8,017	
Cota (m):		11,607	11,538		11,533	11,608	
E:		709.663,0468	709.659,6098	<b>709.655,6386</b>	709.651,3952	709.647,6261	
N:		7.090.050,5851	7.090.050,4704	<b>7.090.050,3379</b>	7.090.050,1964	7.090.050,0706	
<b>Station: 37+10</b>							
Dist. Eixo (m):		-7,586	-3,982	<b>0,000</b>	4,213	7,955	
Cota (m):		11,628	11,556		11,552	11,626	
E:		709.663,5541	709.659,9515	<b>709.655,9720</b>	709.651,7617	709.648,0218	
N:		7.090.040,5965	7.090.040,4763	<b>7.090.040,3435</b>	7.090.040,2030	7.090.040,0782	
<b>Station: 38+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,180	7,926	
Cota (m):					11,577	11,652	
E:				<b>709.656,3055</b>	709.652,1282	709.648,3840	
N:				<b>7.090.030,3491</b>	7.090.030,2097	7.090.030,0848	
<b>Station: 38+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,147	7,971	
Cota (m):					11,599	11,675	
E:				<b>709.656,6390</b>	709.652,4947	709.648,6725	
N:				<b>7.090.020,3546</b>	7.090.020,2164	7.090.020,0888	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

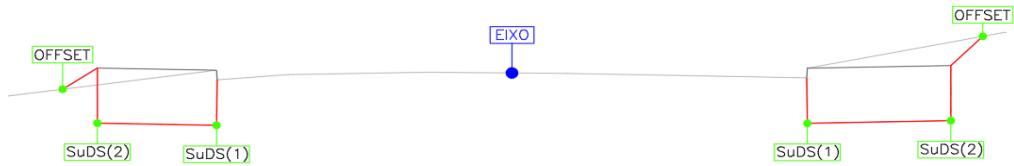
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 39+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,113	7,984	
Cota (m):					11,627	11,705	
E:				709.656,9724	709.652,8612	709.648,9933	
N:				7.090.010,3602	7.090.010,2230	7.090.010,0940	
<b>Station: 39+10</b>							
Dist. Eixo (m):		-7,776	-4,016	<b>0,000</b>	4,080	8,009	
Cota (m):		11,714	11,639		11,638	11,716	
E:		709.665,0776	709.661,3194	709.657,3059	709.653,2277	709.649,3018	
N:		7.090.000,6250	7.090.000,4997	7.090.000,3657	7.090.000,2297	7.090.000,0987	
<b>Station: 40+0</b>							
Dist. Eixo (m):		-7,826	-4,018	<b>0,000</b>	4,047	8,058	
Cota (m):		11,727	11,651		11,651	11,731	
E:		709.665,4611	709.661,6554	709.657,6393	709.653,5942	709.649,5862	
N:		7.089.990,6323	7.089.990,5053	7.089.990,3713	7.089.990,2363	7.089.990,1026	
<b>Station: 40+10</b>							
Dist. Eixo (m):		-7,876	-4,021	<b>0,000</b>	4,014	8,188	
Cota (m):		11,733	11,656		11,656	11,739	
E:		709.665,8444	709.661,9915	709.657,9728	709.653,9607	709.649,7895	
N:		7.089.980,6395	7.089.980,5109	7.089.980,3769	7.089.980,2430	7.089.980,1038	
<b>Station: 41+0</b>							
Dist. Eixo (m):		-7,941	-4,023	<b>0,000</b>	4,021	8,181	
Cota (m):		11,727	11,649		11,649	11,732	
E:		709.666,2430	709.662,3275	709.658,3062	709.654,2875	709.650,1296	
N:		7.089.970,6472	7.089.970,5166	7.089.970,3824	7.089.970,2483	7.089.970,1096	
<b>Station: 41+10</b>							
Dist. Eixo (m):		-8,030	-4,026	<b>0,000</b>	4,029	5,256	
Cota (m):		11,713	11,633		11,633	11,657	
E:		709.666,6652	709.662,6635	709.658,6397	709.654,6129	709.653,3864	
N:		7.089.960,6558	7.089.960,5222	7.089.960,3880	7.089.960,2536	7.089.960,2127	
<b>Station: 43+0</b>							
Dist. Eixo (m):		-7,860	-3,826	<b>0,000</b>	4,012	7,784	
Cota (m):		11,387	11,307		11,303	11,378	
E:		709.667,4887	709.663,4570	709.659,6328	709.655,6229	709.651,8527	
N:		7.089.930,6476	7.089.930,5228	7.089.930,4044	7.089.930,2803	7.089.930,1637	
<b>Station: 43+10</b>							
Dist. Eixo (m):		-7,887	-3,899	<b>0,000</b>	4,018	7,922	
Cota (m):		11,271	11,192		11,189	11,267	
E:		709.667,8250	709.663,8397	709.659,9422	709.655,9260	709.652,0238	
N:		7.089.920,6532	7.089.920,5299	7.089.920,4092	7.089.920,2849	7.089.920,1642	
<b>Station: 44+0</b>							
Dist. Eixo (m):		-7,936	-3,973	<b>0,000</b>	4,024	7,834	
Cota (m):		11,155	11,076		11,075	11,151	
E:		709.668,1835	709.664,2225	709.660,2515	709.656,2291	709.652,4216	
N:		7.089.910,6595	7.089.910,5369	7.089.910,4140	7.089.910,2895	7.089.910,1717	
<b>Station: 44+10</b>							
Dist. Eixo (m):		-7,982	-4,046	<b>0,000</b>	4,031	7,658	
Cota (m):		11,166	11,087		11,087	11,160	
E:		709.668,5392	709.664,6052	709.660,5609	709.656,5322	709.652,9064	
N:		7.089.900,6657	7.089.900,5440	7.089.900,4188	7.089.900,2941	7.089.900,1819	
<b>Station: 45+0</b>							
Dist. Eixo (m):		-8,046	-4,120	<b>0,000</b>	4,037	7,528	
Cota (m):		11,184	11,105		11,107	11,177	
E:		709.668,9127	709.664,9879	709.660,8702	709.656,8349	709.653,3455	
N:		7.089.890,6725	7.089.890,5510	7.089.890,4236	7.089.890,2987	7.089.890,1907	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

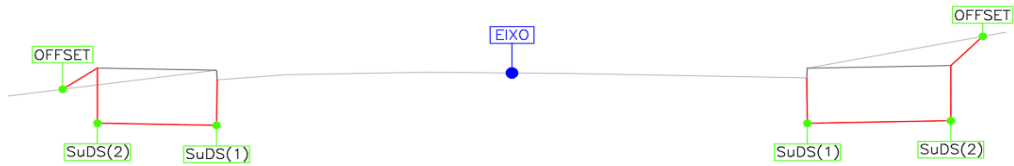
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 45+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,044	7,505	
Cota (m):					11,042	11,112	
E:				709.661,1795	709.657,1373	709.653,6779	
N:				7.089.880,4284	7.089.880,3033	7.089.880,1962	
<b>Station: 46+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,051	7,481	
Cota (m):					11,490	11,068	
E:				709.661,4889	709.657,4398	709.654,0117	
N:				7.089.870,4332	7.089.870,3078	7.089.870,2017	
<b>Station: 46+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,047	7,472	
Cota (m):					10,999	11,068	
E:				709.661,7982	709.657,7534	709.654,3299	
N:				7.089.860,4379	7.089.860,3128	7.089.860,2068	
<b>Station: 47+0</b>							
Dist. Eixo (m):		-8,580	-4,704	<b>0,000</b>	4,006	7,528	
Cota (m):		11,014	10,937		10,951	11,021	
E:		709.670,6834	709.666,8097	709.662,1075	709.658,1033	709.654,5828	
N:		7.089.850,7081	7.089.850,5883	7.089.850,4427	7.089.850,3188	7.089.850,2098	
<b>Station: 47+10</b>							
Dist. Eixo (m):		-8,441	-4,430	<b>0,000</b>	3,966	7,605	
Cota (m):		11,047	10,967		10,976	11,049	
E:		709.670,8540	709.666,8448	709.662,4169	709.658,4532	709.654,8153	
N:		7.089.840,7086	7.089.840,5845	7.089.840,4475	7.089.840,3248	7.089.840,2123	
<b>Station: 48+0</b>							
Dist. Eixo (m):		-8,302	-4,181	<b>0,000</b>	3,925	7,659	
Cota (m):		11,050	10,968		10,973	11,048	
E:		709.671,0245	709.666,9052	709.662,7262	709.658,8031	709.655,0708	
N:		7.089.830,7091	7.089.830,5816	7.089.830,4523	7.089.830,3309	7.089.830,2154	
<b>Station: 48+10</b>							
Dist. Eixo (m):		-8,163	-4,169	<b>0,000</b>	3,873	7,628	
Cota (m):		10,982	10,902		10,908	10,983	
E:		709.671,1951	709.667,2023	709.663,0355	709.659,1639	709.655,4107	
N:		7.089.820,7096	7.089.820,5860	7.089.820,4571	7.089.820,3373	7.089.820,2211	
<b>Station: 49+0</b>							
Dist. Eixo (m):		-8,261	-4,156	<b>0,000</b>	3,764	7,553	
Cota (m):		10,900	10,818		10,826	10,901	
E:		709.671,6021	709.667,4993	709.663,3449	709.659,5827	709.655,7953	
N:		7.089.810,7174	7.089.810,5904	7.089.810,4619	7.089.810,3454	7.089.810,2282	
<b>Station: 49+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,741	7,573	
Cota (m):					10,802	10,879	
E:				709.663,6542	709.659,9148	709.656,0852	
N:				7.089.800,4667	7.089.800,3509	7.089.800,2324	
<b>Station: 50+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,724	7,625	
Cota (m):					10,784	10,862	
E:				709.663,9635	709.660,2415	709.656,3422	
N:				7.089.790,4714	7.089.790,3562	7.089.790,2356	
<b>Station: 50+10</b>							
Dist. Eixo (m):		-8,420	-5,010	<b>0,000</b>	3,717	7,608	
Cota (m):		10,807	10,739		10,765	10,843	
E:		709.672,6887	709.669,2805	709.664,2729	709.660,5572	709.656,6683	
N:		7.089.780,7367	7.089.780,6312	7.089.780,4762	7.089.780,3612	7.089.780,2409	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

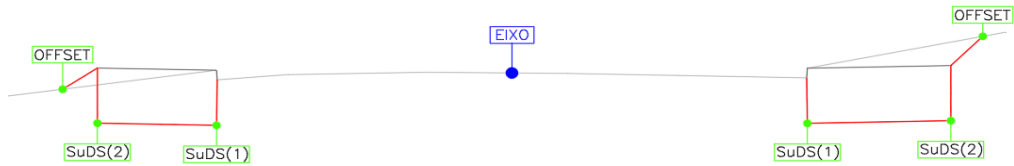
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 51+0</b>							
Dist. Eixo (m):		-8,130	-4,223	<b>0,000</b>	3,714	7,591	
Cota (m):		10,807	10,729		10,739	10,817	
E:		709.672,7082	709.668,8031	<b>709.664,5822</b>	709.660,8698	709.656,9943	
N:		7.089.770,7325	7.089.770,6116	<b>7.089.770,4810</b>	7.089.770,3661	7.089.770,2462	
<b>Station: 51+10</b>							
Dist. Eixo (m):		-8,124	-4,124	<b>0,000</b>	3,711	7,463	
Cota (m):		10,806	10,726		10,734	10,809	
E:		709.673,0114	709.669,0141	<b>709.664,8915</b>	709.661,1821	709.657,4317	
N:		7.089.760,7371	7.089.760,6134	<b>7.089.760,4858</b>	7.089.760,3710	7.089.760,2549	
<b>Station: 52+0</b>							
Dist. Eixo (m):		-8,072	-4,021	<b>0,000</b>	3,708	7,299	
Cota (m):		10,801	10,720		10,726	10,798	
E:		709.673,2693	709.669,2202	<b>709.665,2009</b>	709.661,4944	709.657,9053	
N:		7.089.750,7403	7.089.750,6150	<b>7.089.750,4906</b>	7.089.750,3759	7.089.750,2648	
<b>Station: 52+10</b>							
Dist. Eixo (m):		-7,973	-3,918	<b>0,000</b>	3,705	7,246	
Cota (m):		10,784	10,703		10,707	10,778	
E:		709.673,4793	709.669,4264	<b>709.665,5102</b>	709.661,8067	709.658,2680	
N:		7.089.740,7420	7.089.740,6166	<b>7.089.740,4954</b>	7.089.740,3807	7.089.740,2712	
<b>Station: 53+0</b>							
Dist. Eixo (m):				<b>0,000</b>	5,010	7,241	
Cota (m):					10,367	10,412	
E:				<b>709.665,8196</b>	709.660,8119	709.658,5823	
N:				<b>7.089.730,5002</b>	7.089.730,3452	7.089.730,2762	
<b>Station: 53+10</b>							
Dist. Eixo (m):				<b>0,000</b>	5,010	7,236	
Cota (m):					10,349	10,394	
E:				<b>709.666,1289</b>	709.661,1213	709.658,8966	
N:				<b>7.089.720,5049</b>	7.089.720,3500	7.089.720,2811	
<b>Station: 54+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,786	7,184	
Cota (m):					10,342	10,410	
E:				<b>709.666,4382</b>	709.662,6542	709.659,2576	
N:				<b>7.089.710,5097</b>	7.089.710,3926	7.089.710,2875	
<b>Station: 54+10</b>							
Dist. Eixo (m):		-8,061	-4,299	<b>0,000</b>	3,694	7,794	
Cota (m):		10,329	10,254		10,266	10,348	
E:		709.674,8049	709.671,0443	<b>709.666,7476</b>	709.663,0558	709.658,9568	
N:		7.089.700,7639	7.089.700,6475	<b>7.089.700,5145</b>	7.089.700,4003	7.089.700,2734	
<b>Station: 55+0</b>							
Dist. Eixo (m):		-8,022	-4,325	<b>0,000</b>	3,691	7,611	
Cota (m):		10,266	10,193		10,205	10,284	
E:		709.675,0747	709.671,3802	<b>709.667,0569</b>	709.663,3681	709.659,4494	
N:		7.089.690,7674	7.089.690,6531	<b>7.089.690,5193</b>	7.089.690,4051	7.089.690,2839	
<b>Station: 55+10</b>							
Dist. Eixo (m):		-8,093	-4,311	<b>0,000</b>	3,688	7,853	
Cota (m):		10,276	10,201		10,213	10,297	
E:		709.675,4555	709.671,6748	<b>709.667,3662</b>	709.663,6804	709.659,5169	
N:		7.089.680,7744	7.089.680,6574	<b>7.089.680,5241</b>	7.089.680,4100	7.089.680,2812	
<b>Station: 56+0</b>							
Dist. Eixo (m):		-8,358	-5,010	<b>0,000</b>	3,685	8,168	
Cota (m):		10,263	10,196		10,223	10,312	
E:		709.676,0296	709.672,6832	<b>709.667,6756</b>	709.663,9927	709.659,5117	
N:		7.089.670,7874	7.089.670,6838	<b>7.089.670,5289</b>	7.089.670,4149	7.089.670,2762	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

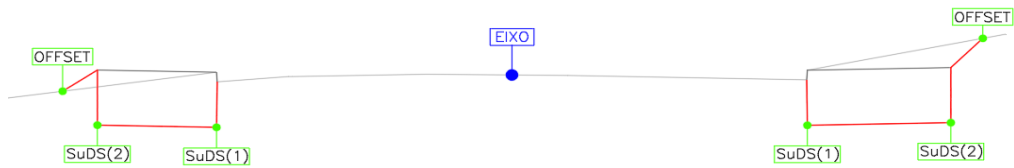
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 56+10</b>							
Dist. Eixo (m):		-8,357	-5,010	<b>0,000</b>	3,682	7,985	
Cota (m):		10,292	10,225		10,252	10,338	
E:		709.676,3381	709.672,9925	<b>709.667,9849</b>	709.664,3050	709.660,0033	
N:		7.089.660,7922	7.089.660,6886	<b>7.089.660,5337</b>	7.089.660,4198	7.089.660,2866	
<b>Station: 57+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,624	7,572	
Cota (m):					10,263	10,341	
E:				<b>709.668,2942</b>	709.664,6722	709.660,7262	
N:				<b>7.089.650,5384</b>	7.089.650,4263	7.089.650,3042	
<b>Station: 57+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,518	7,588	
Cota (m):					10,257	10,339	
E:				<b>709.668,6036</b>	709.665,0871	709.661,0189	
N:				<b>7.089.640,5432</b>	7.089.640,4344	7.089.640,3085	
<b>Station: 58+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,668	7,622	
Cota (m):					10,218	10,297	
E:				<b>709.668,9129</b>	709.665,2470	709.661,2943	
N:				<b>7.089.630,5480</b>	7.089.630,4346	7.089.630,3122	
<b>Station: 58+10</b>							
Dist. Eixo (m):		-8,092	-4,396	<b>0,000</b>	3,721	7,693	
Cota (m):		10,212	10,138		10,152	10,231	
E:		709.677,3100	709.673,6158	<b>709.669,2222</b>	709.665,5029	709.661,5327	
N:		7.089.620,8031	7.089.620,6888	<b>7.089.620,5528</b>	7.089.620,4377	7.089.620,3148	
<b>Station: 59+0</b>							
Dist. Eixo (m):		-8,087	-4,379	<b>0,000</b>	3,742	7,768	
Cota (m):		10,224	10,150		10,162	10,243	
E:		709.677,6150	709.673,9086	<b>709.669,5316</b>	709.665,7911	709.661,7676	
N:		7.089.610,8077	7.089.610,6930	<b>7.089.610,5576</b>	7.089.610,4418	7.089.610,3173	
<b>Station: 59+10</b>							
Dist. Eixo (m):		-8,083	-4,363	<b>0,000</b>	3,763	7,789	
Cota (m):		10,236	10,161		10,173	10,254	
E:		709.677,9200	709.674,2014	<b>709.669,8409</b>	709.666,0793	709.662,0561	
N:		7.089.600,8124	7.089.600,6973	<b>7.089.600,5624</b>	7.089.600,4460	7.089.600,3214	
<b>Station: 60+0</b>							
Dist. Eixo (m):		-8,079	-4,346	<b>0,000</b>	3,785	7,809	
Cota (m):		10,293	10,218		10,230	10,310	
E:		709.678,2252	709.674,4942	<b>709.670,1502</b>	709.666,3675	709.662,3445	
N:		7.089.590,8171	7.089.590,7016	<b>7.089.590,5672</b>	7.089.590,4501	7.089.590,3256	
<b>Station: 60+10</b>							
Dist. Eixo (m):		-8,085	-4,329	<b>0,000</b>	3,828	7,842	
Cota (m):		10,341	10,266		10,276	10,356	
E:		709.678,5407	709.674,7870	<b>709.670,4596</b>	709.666,6333	709.662,6213	
N:		7.089.580,8220	7.089.580,7059	<b>7.089.580,5719</b>	7.089.580,4535	7.089.580,3294	
<b>Station: 62+0</b>							
Dist. Eixo (m):		-8,079	-4,280	<b>0,000</b>	5,010	7,761	
Cota (m):		10,551	10,475		10,460	10,515	
E:		709.679,4630	709.675,6654	<b>709.671,3876</b>	709.666,3800	709.663,6299	
N:		7.089.550,8362	7.089.550,7187	<b>7.089.550,5863</b>	7.089.550,4313	7.089.550,3462	
<b>Station: 62+10</b>							
Dist. Eixo (m):		-7,959	-4,239	<b>0,000</b>	3,733	7,716	
Cota (m):		10,489	10,414		10,424	10,504	
E:		709.679,6526	709.675,9338	<b>709.671,6969</b>	709.667,9657	709.663,9844	
N:		7.089.540,8373	7.089.540,7222	<b>7.089.540,5911</b>	7.089.540,4756	7.089.540,3524	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

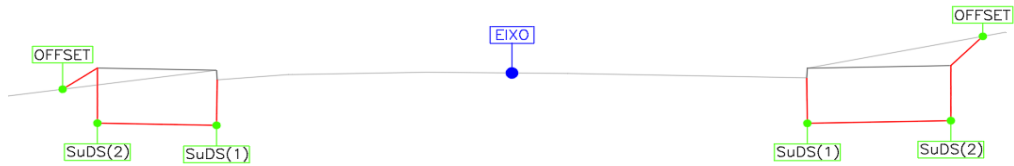
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 63+0</b>							
Dist. Eixo (m):		-7,925	-4,190	<b>0,000</b>	3,734	7,671	
Cota (m):		10,435	10,360		10,369	10,448	
E:		709.679,9275	709.676,1947	<b>709.672,0063</b>	709.668,2744	709.664,3389	
N:		7.089.530,8410	7.089.530,7255	<b>7.089.530,5959</b>	7.089.530,4804	7.089.530,3586	
<b>Station: 63+10</b>							
Dist. Eixo (m):		-7,947	-4,142	<b>0,000</b>	3,734	7,671	
Cota (m):		10,382	10,306		10,314	10,393	
E:		709.680,2588	709.676,4556	<b>709.672,3156</b>	709.668,5832	709.664,6488	
N:		7.089.520,8465	7.089.520,7288	<b>7.089.520,6006</b>	7.089.520,4851	7.089.520,3634	
<b>Station: 64+0</b>							
Dist. Eixo (m):		-8,038	-4,093	<b>0,000</b>	3,735	7,742	
Cota (m):		10,330	10,251		10,259	10,339	
E:		709.680,6587	709.676,7165	<b>709.672,6249</b>	709.668,8920	709.664,8867	
N:		7.089.510,8541	7.089.510,7321	<b>7.089.510,6054</b>	7.089.510,4899	7.089.510,3660	
<b>Station: 64+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,748	7,854	
Cota (m):					10,234	10,316	
E:				<b>709.672,9343</b>	709.669,1884	709.665,0844	
N:				<b>7.089.500,6102</b>	7.089.500,4943	7.089.500,3673	
<b>Station: 65+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,763	7,851	
Cota (m):					10,214	10,295	
E:				<b>709.673,2436</b>	709.669,4826	709.665,3965	
N:				<b>7.089.490,6150</b>	7.089.490,4986	7.089.490,3722	
<b>Station: 65+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,752	7,840	
Cota (m):					10,168	10,249	
E:				<b>709.673,5529</b>	709.669,8030	709.665,7171	
N:				<b>7.089.480,6198</b>	7.089.480,5037	7.089.480,3773	
<b>Station: 66+0</b>							
Dist. Eixo (m):		-7,969	-4,217	<b>0,000</b>	3,740	7,820	
Cota (m):		10,184	10,109		10,119	10,200	
E:		709.681,8273	709.678,0770	<b>709.673,8623</b>	709.670,1245	709.666,0464	
N:		7.089.470,8711	7.089.470,7550	<b>7.089.470,6246</b>	7.089.470,5089	7.089.470,3827	
<b>Station: 66+10</b>							
Dist. Eixo (m):		-8,175	-4,222	<b>0,000</b>	3,744	7,800	
Cota (m):		10,182	10,103		10,113	10,194	
E:		709.682,3424	709.678,3918	<b>709.674,1716</b>	709.670,4292	709.666,3757	
N:		7.089.460,8822	7.089.460,7600	<b>7.089.460,6294</b>	7.089.460,5135	7.089.460,3881	
<b>Station: 67+0</b>							
Dist. Eixo (m):		-8,224	-4,228	<b>0,000</b>	3,749	7,780	
Cota (m):		10,178	10,098		10,107	10,188	
E:		709.682,7013	709.678,7067	<b>709.674,4809</b>	709.670,7339	709.666,7050	
N:		7.089.450,8886	7.089.450,7649	<b>7.089.450,6341</b>	7.089.450,5182	7.089.450,3935	
<b>Station: 67+10</b>							
Dist. Eixo (m):		-8,164	-4,233	<b>0,000</b>	3,754	7,741	
Cota (m):		10,192	10,114		10,123	10,203	
E:		709.682,9504	709.679,0215	<b>709.674,7903</b>	709.671,0386	709.667,0535	
N:		7.089.440,8915	7.089.440,7699	<b>7.089.440,6389</b>	7.089.440,5228	7.089.440,3995	
<b>Station: 68+0</b>							
Dist. Eixo (m):		-8,150	-4,239	<b>0,000</b>	3,758	7,715	
Cota (m):		10,208	10,130		10,139	10,219	
E:		709.683,2456	709.679,3364	<b>709.675,0996</b>	709.671,3433	709.667,3879	
N:		7.089.430,8958	7.089.430,7748	<b>7.089.430,6437</b>	7.089.430,5275	7.089.430,4051	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BENTO TORQUATO DA ROCHA**

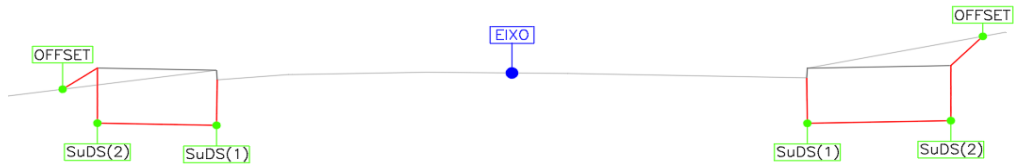
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 68+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,783	7,706	
Cota (m):					10,089	10,168	
E:				709.675,4089	709.671,6277	709.667,7066	
N:				7.089.420,6485	7.089.420,5315	7.089.420,4101	
<b>Station: 69+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,798	7,697	
Cota (m):					10,032	10,110	
E:				709.675,7183	709.671,9219	709.668,0254	
N:				7.089.410,6533	7.089.410,5358	7.089.410,4152	
<b>Station: 69+10</b>							
Dist. Eixo (m):		-5,393	-4,203	<b>0,000</b>	3,775	7,687	
Cota (m):		9,982	9,958		9,966	10,045	
E:		709.681,4176	709.680,2281	709.676,0276	709.672,2548	709.668,3442	
N:		7.089.400,8249	7.089.400,7881	7.089.400,6581	7.089.400,5413	7.089.400,4203	
<b>Station: 70+0</b>							
Dist. Eixo (m):		-7,792	-4,193	<b>0,000</b>	3,785	7,746	
Cota (m):		10,056	9,984		9,992	10,071	
E:		709.684,1250	709.680,5279	709.676,3370	709.672,5533	709.668,5948	
N:		7.089.390,9039	7.089.390,7926	7.089.390,6629	7.089.390,5458	7.089.390,4233	
<b>Station: 70+10</b>							
Dist. Eixo (m):		-7,877	-4,185	<b>0,000</b>	3,811	7,796	
Cota (m):		10,123	10,049		10,057	10,137	
E:		709.684,5191	709.680,8290	709.676,6463	709.672,8373	709.668,8538	
N:		7.089.380,9113	7.089.380,7971	7.089.380,6676	7.089.380,5498	7.089.380,4265	
<b>Station: 71+0</b>							
Dist. Eixo (m):		-8,003	-4,177	<b>0,000</b>	3,836	7,830	
Cota (m):		10,192	10,115		10,122	10,202	
E:		709.684,9546	709.681,1302	709.676,9556	709.673,1214	709.669,1289	
N:		7.089.370,9200	7.089.370,8016	7.089.370,6724	7.089.370,5538	7.089.370,4302	
<b>Station: 71+10</b>							
Dist. Eixo (m):		-8,129	-4,168	<b>0,000</b>	3,861	7,880	
Cota (m):		10,260	10,181		10,187	10,267	
E:		709.685,3901	709.681,4313	709.677,2650	709.673,4055	709.669,3885	
N:		7.089.360,9287	7.089.360,8062	7.089.360,6772	7.089.360,5578	7.089.360,4335	
<b>Station: 72+0</b>							
Dist. Eixo (m):		-8,255	-4,158	<b>0,000</b>	3,872	7,929	
Cota (m):		10,330	10,248		10,254	10,335	
E:		709.685,8256	709.681,7305	709.677,5743	709.673,7046	709.669,6489	
N:		7.089.350,9374	7.089.350,8106	7.089.350,6820	7.089.350,5622	7.089.350,4367	
<b>Station: 72+10</b>							
Dist. Eixo (m):				<b>0,000</b>	3,813	7,975	
Cota (m):					10,328	10,412	
E:				709.677,8836	709.674,0723	709.669,9123	
N:				7.089.340,6868	7.089.340,5688	7.089.340,4401	
<b>Station: 73+0</b>							
Dist. Eixo (m):				<b>0,000</b>	3,831	7,991	
Cota (m):					10,318	10,402	
E:				709.678,1930	709.674,3634	709.670,2057	
N:				7.089.330,6916	7.089.330,5731	7.089.330,4444	
<b>Station: 73+10</b>							
Dist. Eixo (m):		-7,795	-4,136	<b>0,000</b>	3,856	7,977	
Cota (m):		10,334	10,261		10,266	10,349	
E:		709.686,2932	709.682,6360	709.678,5023	709.674,6477	709.670,5289	
N:		7.089.320,9375	7.089.320,8243	7.089.320,6964	7.089.320,5771	7.089.320,4496	

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**NOTA DE SERVIÇO**  
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Desenho Esquemático:

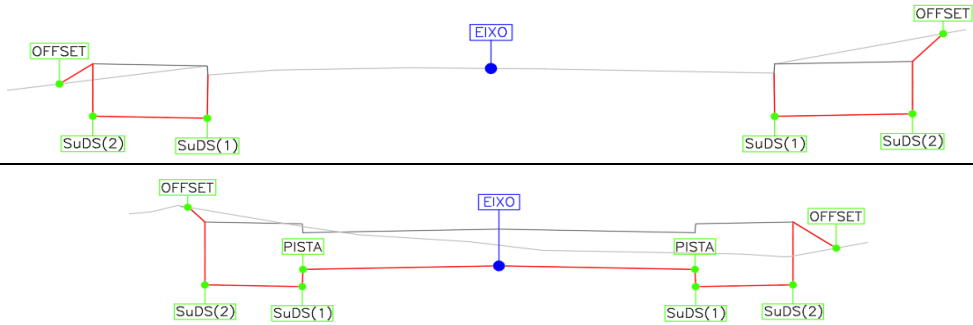


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 74+0</b>							
Dist. Eixo (m):		-7,810	-4,143	<b>0,000</b>	3,864	7,957	
Cota (m):		10,254	10,181		10,186	10,268	
E:		709.686,6177	709.682,9526	<b>709.678,8116</b>	709.674,9495	709.670,8586	
N:		7.089.310,9427	7.089.310,8293	<b>7.089.310,7011</b>	7.089.310,5816	7.089.310,4550	
<b>Station: 74+10</b>							
Dist. Eixo (m):		-7,819	-4,150	<b>0,000</b>	3,871	7,906	
Cota (m):		10,165	10,091		10,097	10,177	
E:		709.686,9359	709.683,2692	<b>709.679,1210</b>	709.675,2514	709.671,2190	
N:		7.089.300,9478	7.089.300,8343	<b>7.089.300,7059</b>	7.089.300,5862	7.089.300,4614	
<b>Station: 75+0</b>							
Dist. Eixo (m):		-7,814	-4,157	<b>0,000</b>	3,879	7,923	
Cota (m):		10,081	10,008		10,014	10,094	
E:		709.687,2410	709.683,5857	<b>709.679,4303</b>	709.675,5533	709.671,5111	
N:		7.089.290,9524	7.089.290,8393	<b>7.089.290,7107</b>	7.089.290,5907	7.089.290,4656	
<b>Station: 75+10</b>							
Dist. Eixo (m):		-7,810	-4,165	<b>0,000</b>	3,886	7,868	
Cota (m):		10,045	9,972		9,977	10,057	
E:		709.687,5461	709.683,9023	<b>709.679,7396</b>	709.675,8551	709.671,8751	
N:		7.089.280,9571	7.089.280,8443	<b>7.089.280,7155</b>	7.089.280,5953	7.089.280,4721	
<b>Station: 76+0</b>							
Dist. Eixo (m):		-7,806	-4,172	<b>0,000</b>	3,894	7,789	
Cota (m):		10,004	9,931		9,937	10,015	
E:		709.687,8511	709.684,2189	<b>709.680,0490</b>	709.676,1570	709.672,2633	
N:		7.089.270,9618	7.089.270,8493	<b>7.089.270,7203</b>	7.089.270,5998	7.089.270,4793	
<b>Station: 76+10</b>							
Dist. Eixo (m):		-7,838	-4,179	<b>0,000</b>	3,901	7,644	
Cota (m):		10,046	9,973		9,979	10,053	
E:		709.688,1928	709.684,5354	<b>709.680,3583</b>	709.676,4589	709.672,7177	
N:		7.089.260,9675	7.089.260,8543	<b>7.089.260,7251</b>	7.089.260,6044	7.089.260,4886	
<b>Station: 77+0</b>							
Dist. Eixo (m):		-7,927	-4,186	<b>0,000</b>	3,909	7,718	
Cota (m):		10,101	10,026		10,032	10,108	
E:		709.688,5912	709.684,8520	<b>709.680,6677</b>	709.676,7607	709.672,9532	
N:		7.089.250,9751	7.089.250,8594	<b>7.089.250,7299</b>	7.089.250,6089	7.089.250,4911	
<b>Station: 77+10</b>							
Dist. Eixo (m):		-7,963	-4,203	<b>0,000</b>	3,870	7,800	
Cota (m):		10,154	10,078		10,085	10,164	
E:		709.688,9361	709.685,1783	<b>709.680,9770</b>	709.677,1084	709.673,1808	
N:		7.089.240,9810	7.089.240,8647	<b>7.089.240,7346</b>	7.089.240,6149	7.089.240,4934	
<b>Station: 78+0</b>							
Dist. Eixo (m):		-7,895	-4,200	<b>0,000</b>	3,888	7,930	
Cota (m):		10,242	10,168		10,175	10,255	
E:		709.689,1780	709.685,4841	<b>709.681,2863</b>	709.677,4000	709.673,3603	
N:		7.089.230,9837	7.089.230,8693	<b>7.089.230,7394</b>	7.089.230,6192	7.089.230,4941	
<b>Station: 78+10</b>							
Dist. Eixo (m):		-12,240	-5,010	<b>0,000</b>	5,010	10,518	
Cota (m):		10,294	10,150		10,150	10,260	
E:		709.693,8295	709.686,6033	<b>709.681,5957</b>	709.676,5881	709.671,0825	
N:		7.089.221,1228	7.089.220,8992	<b>7.089.220,7442</b>	7.089.220,5892	7.089.220,4189	



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**NOTA DE SERVIÇO**  
**RUA BRAULIO DE SÁ BARBOSA**

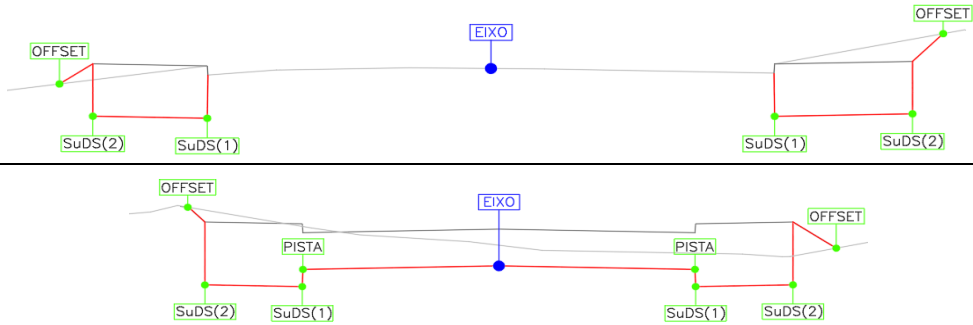
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,429	-4,488		<b>0,000</b>		3,975	5,352	
Cota (m):		13,531	13,492		13,991		13,502	13,530	
E:		708.528,2129	708.526,2728		708.521,7861		708.517,8121	708.516,4362	
N:		7.090.286,7930	7.090.286,7418		7.090.286,6235		7.090.286,5187	7.090.286,4824	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-6,234	-4,467		<b>0,000</b>		3,851	5,406	
Cota (m):		13,464	13,429		13,928		13,441	13,472	
E:		708.528,2811	708.526,5152		708.522,0497		708.518,2004	708.516,6457	
N:		7.090.276,7913	7.090.276,7448		7.090.276,6270		7.090.276,5255	7.090.276,4845	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-6,265	-4,446		<b>0,000</b>		3,726	5,511	
Cota (m):		13,402	13,365		13,864		13,380	13,415	
E:		708.528,5766	708.526,7575		708.522,3133		708.518,5886	708.516,8043	
N:		7.090.266,7957	7.090.266,7477		7.090.266,6305		7.090.266,5322	7.090.266,4852	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-6,331	-4,424		<b>0,000</b>		3,718	5,531	
Cota (m):		13,349	13,310		13,809		13,325	13,361	
E:		708.528,9057	708.526,9997		708.522,5769		708.518,8599	708.517,0482	
N:		7.090.256,8009	7.090.256,7506		7.090.256,6340		7.090.256,5359	7.090.256,4881	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-6,280	-4,403		<b>0,000</b>		3,719	5,496	
Cota (m):		13,308	13,271		13,768		13,284	13,320	
E:		708.529,1182	708.527,2418		708.522,8406		708.519,1226	708.517,3462	
N:		7.090.246,8030	7.090.246,7535		7.090.246,6374		7.090.246,5394	7.090.246,4925	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-6,285	-4,388		<b>0,000</b>		3,720	5,608	
Cota (m):		13,276	13,238		13,735		13,251	13,289	
E:		708.529,3875	708.527,4906		708.523,1042		708.519,3853	708.517,4985	
N:		7.090.236,8066	7.090.236,7566		7.090.236,6409		7.090.236,5428	7.090.236,4931	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-6,272	-4,377		<b>0,000</b>		3,721	6,001	
Cota (m):		13,261	13,223		13,720		13,236	13,282	
E:		708.529,6374	708.527,7436		708.523,3678		708.519,6480	708.517,3687	
N:		7.090.226,8097	7.090.226,7598		7.090.226,6444		7.090.226,5463	7.090.226,4862	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-12,259	-6,906		<b>0,000</b>		5,229	10,574	
Cota (m):		13,293	13,186		13,734		13,219	13,326	
E:		708.535,8857	708.530,5351		708.523,6315		708.518,4041	708.513,0610	
N:		7.090.216,9710	7.090.216,8299		7.090.216,6479		7.090.216,5100	7.090.216,3691	
<b>Station: 5+0</b>									
Dist. Eixo (m):		-6,132	-4,423		<b>0,000</b>		3,719	5,840	
Cota (m):		13,082	13,048		13,646		13,062	13,104	
E:		708.530,2890	708.528,5803		708.524,1587		708.520,4415	708.518,3203	
N:		7.090.196,8165	7.090.196,7714		7.090.196,6548		7.090.196,5568	7.090.196,5008	
<b>Station: 5+10</b>									
Dist. Eixo (m):		-6,143	-4,377		<b>0,000</b>		3,748	5,897	
Cota (m):		13,060	13,025		13,622		13,038	13,081	
E:		708.530,5636	708.528,7978		708.524,4223		708.520,6757	708.518,5270	
N:		7.090.186,8202	7.090.186,7737		7.090.186,6583		7.090.186,5595	7.090.186,5028	
<b>Station: 6+0</b>									
Dist. Eixo (m):		-6,136	-4,331		<b>0,000</b>		3,777	5,800	
Cota (m):		13,034	12,998		13,594		13,009	13,049	
E:		708.530,8198	708.529,0153		708.524,6860		708.520,9099	708.518,8883	
N:		7.090.176,8235	7.090.176,7759		7.090.176,6618		7.090.176,5622	7.090.176,5089	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA BRAULIO DE SÁ BARBOSA**

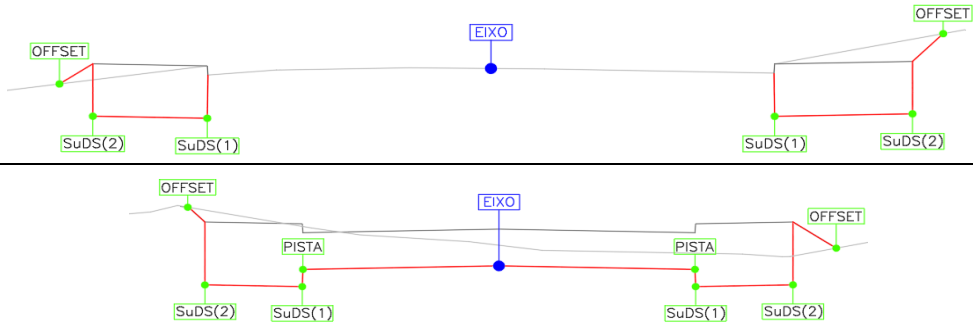
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+10</b>									
Dist. Eixo (m):		-6,120	-4,285		<b>0,000</b>		3,802	5,733	
Cota (m):		13,000	12,963		<b>13,559</b>		12,973	13,012	
E:		708.531,0675	708.529,2328		<b>708.524,9496</b>		708.521,1491	708.519,2189	
N:		7.090.166,8266	7.090.166,7782		<b>7.090.166,6652</b>		7.090.166,5650	7.090.166,5141	
<b>Station: 7+0</b>									
Dist. Eixo (m):		-6,075	-4,266		<b>0,000</b>		3,817	5,738	
Cota (m):		12,964	12,928		<b>13,523</b>		12,937	12,976	
E:		708.531,2859	708.529,4777		<b>708.525,2132</b>		708.521,3977	708.519,4767	
N:		7.090.156,8289	7.090.156,7812		<b>7.090.156,6687</b>		7.090.156,5681	7.090.156,5174	
<b>Station: 7+10</b>									
Dist. Eixo (m):		-6,115	-4,251		<b>0,000</b>		3,832	5,752	
Cota (m):		12,989	12,952		<b>13,546</b>		12,960	12,998	
E:		708.531,5901	708.529,7263		<b>708.525,4769</b>		708.521,6463	708.519,7272	
N:		7.090.146,8334	7.090.146,7842		<b>7.090.146,6722</b>		7.090.146,5712	7.090.146,5206	
<b>Station: 8+0</b>									
Dist. Eixo (m):					<b>0,000</b>		3,847	5,780	
Cota (m):					<b>13,567</b>		12,981	13,019	
E:					<b>708.525,7405</b>		708.521,8949	708.519,9621	
N:					<b>7.090.136,6757</b>		7.090.136,5742	7.090.136,5233	
<b>Station: 8+10</b>									
Dist. Eixo (m):					<b>0,000</b>		3,862	5,813	
Cota (m):					<b>13,482</b>		12,895	12,934	
E:					<b>708.526,0041</b>		708.522,1435	708.520,1933	
N:					<b>7.090.126,6791</b>		7.090.126,5773	7.090.126,5259	
<b>Station: 9+0</b>									
Dist. Eixo (m):					<b>0,000</b>		3,877	5,845	
Cota (m):					<b>13,419</b>		12,832	12,871	
E:					<b>708.526,2677</b>		708.522,3920	708.520,4244	
N:					<b>7.090.116,6826</b>		7.090.116,5804	7.090.116,5285	
<b>Station: 9+10</b>									
Dist. Eixo (m):		-6,005	-4,181		<b>0,000</b>		3,897	5,755	
Cota (m):		12,839	12,803		<b>13,396</b>		12,808	12,845	
E:		708.532,5338	708.530,7107		<b>708.526,5314</b>		708.522,6361	708.520,7780	
N:		7.090.106,8444	7.090.106,7963		<b>7.090.106,6861</b>		7.090.106,5834	7.090.106,5344	
<b>Station: 10+0</b>									
Dist. Eixo (m):		-5,938	-4,153		<b>0,000</b>		3,923	5,794	
Cota (m):		12,814	12,778		<b>13,371</b>		12,783	12,820	
E:		708.532,7310	708.530,9461		<b>708.526,7950</b>		708.522,8733	708.521,0025	
N:		7.090.096,8461	7.090.096,7990		<b>7.090.096,6896</b>		7.090.096,5861	7.090.096,5368	
<b>Station: 10+10</b>									
Dist. Eixo (m):		-5,938	-4,124		<b>0,000</b>		3,950	5,938	
Cota (m):		12,794	12,758		<b>13,350</b>		12,761	12,801	
E:		708.532,9944	708.531,1815		<b>708.527,0586</b>		708.523,1104	708.521,1224	
N:		7.090.086,8496	7.090.086,8018		<b>7.090.086,6930</b>		7.090.086,5889	7.090.086,5365	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-6,032	-4,096		<b>0,000</b>		3,976	6,043	
Cota (m):		12,773	12,735		<b>13,326</b>		12,737	12,778	
E:		708.533,3524	708.531,4169		<b>708.527,3223</b>		708.523,3476	708.521,2814	
N:		7.090.076,8555	7.090.076,8045		<b>7.090.076,6965</b>		7.090.076,5917	7.090.076,5372	
<b>Station: 11+10</b>									
Dist. Eixo (m):		-6,127	-4,068		<b>0,000</b>		4,003	5,974	
Cota (m):		12,774	12,733		<b>13,324</b>		12,734	12,773	
E:		708.533,7104	708.531,6523		<b>708.527,5859</b>		708.523,5838	708.521,6140	
N:		7.090.066,8615	7.090.066,8072		<b>7.090.066,7000</b>		7.090.066,5944	7.090.066,5425	

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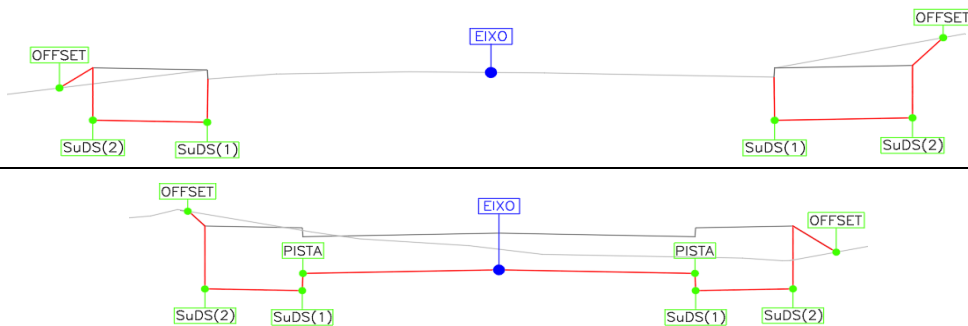
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 13+0</b>									
Dist. Eixo (m):		-6,019	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,538	
Cota (m):		12,697	12,657	12,747	<b>12,827</b>	12,747	12,657	12,687	
E:		708.534,0567	708.532,0481	708.532,0381	<b>708.528,0393</b>	708.524,0406	708.524,0306	708.522,5033	
N:		7.090.036,8556	7.090.036,8049	7.090.036,8047	<b>7.090.036,7038</b>	7.090.036,6028	7.090.036,6026	7.090.036,5640	
<b>Station: 13+10</b>									
Dist. Eixo (m):		-6,081	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,564	
Cota (m):		12,671	12,630	12,720	<b>12,800</b>	12,720	12,630	12,661	
E:		708.534,3705	708.532,3004	708.532,2904	<b>708.528,2916</b>	708.524,2929	708.524,2829	708.522,7294	
N:		7.090.026,8604	7.090.026,8081	7.090.026,8079	<b>7.090.026,7069</b>	7.090.026,6060	7.090.026,6058	7.090.026,5666	
<b>Station: 14+0</b>									
Dist. Eixo (m):		-6,143	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,590	
Cota (m):		12,646	12,603	12,693	<b>12,773</b>	12,693	12,603	12,635	
E:		708.534,6846	708.532,5527	708.532,5427	<b>708.528,5440</b>	708.524,5452	708.524,5352	708.522,9554	
N:		7.090.016,8651	7.090.016,8113	7.090.016,8111	<b>7.090.016,7101</b>	7.090.016,6092	7.090.016,6090	7.090.016,5691	
<b>Station: 14+10</b>									
Dist. Eixo (m):		-6,204	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,617	
Cota (m):		12,621	12,577	12,667	<b>12,747</b>	12,667	12,577	12,609	
E:		708.534,9986	708.532,8050	708.532,7950	<b>708.528,7963</b>	708.524,7975	708.524,7875	708.523,1815	
N:		7.090.006,8699	7.090.006,8145	7.090.006,8142	<b>7.090.006,7133</b>	7.090.006,6124	7.090.006,6124	7.090.006,5716	
<b>Station: 15+0</b>									
Dist. Eixo (m):		-6,266	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,643	
Cota (m):		12,595	12,550	12,640	<b>12,720</b>	12,640	12,550	12,583	
E:		708.535,3126	708.533,0573	708.533,0473	<b>708.528,0486</b>	708.525,0498	708.525,0398	708.523,4075	
N:		7.089.996,8746	7.089.996,8177	7.089.996,8174	<b>7.089.996,7165</b>	7.089.996,6156	7.089.996,6153	7.089.996,5741	
<b>Station: 15+10</b>									
Dist. Eixo (m):		-6,246	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,669	
Cota (m):		12,569	12,524	12,614	<b>12,694</b>	12,614	12,524	12,557	
E:		708.535,5449	708.533,3096	708.533,2996	<b>708.529,3009</b>	708.525,3021	708.525,2921	708.523,6336	
N:		7.089.986,8773	7.089.986,8209	7.089.986,8206	<b>7.089.986,7197</b>	7.089.986,6188	7.089.986,6185	7.089.986,5766	
<b>Station: 16+0</b>									
Dist. Eixo (m):		-6,164	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,695	
Cota (m):		12,540	12,497	12,587	<b>12,667</b>	12,587	12,497	12,531	
E:		708.535,7151	708.533,5619	708.533,5519	<b>708.529,5532</b>	708.525,5544	708.525,5444	708.523,8596	
N:		7.089.976,8784	7.089.976,8240	7.089.976,8238	<b>7.089.976,7229</b>	7.089.976,6219	7.089.976,6217	7.089.976,5792	
<b>Station: 16+10</b>									
Dist. Eixo (m):		-6,082	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,722	
Cota (m):		12,512	12,471	12,561	<b>12,641</b>	12,561	12,471	12,505	
E:		708.535,8852	708.533,8142	708.533,8042	<b>708.529,8055</b>	708.525,8068	708.525,7968	708.524,0857	
N:		7.089.966,8795	7.089.966,8272	7.089.966,8270	<b>7.089.966,7260</b>	7.089.966,6251	7.089.966,6249	7.089.966,5817	
<b>Station: 17+0</b>									
Dist. Eixo (m):		-5,999	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,758	
Cota (m):		12,484	12,444	12,534	<b>12,614</b>	12,534	12,444	12,479	
E:		708.536,0554	708.534,0665	708.534,0565	<b>708.530,0578</b>	708.526,0591	708.526,0491	708.524,3013	
N:		7.089.956,8806	7.089.956,8304	7.089.956,8302	<b>7.089.956,7292</b>	7.089.956,6283	7.089.956,6281	7.089.956,5839	
<b>Station: 17+10</b>									
Dist. Eixo (m):		-5,981	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,800	
Cota (m):		12,457	12,418	12,508	<b>12,588</b>	12,508	12,418	12,453	
E:		708.536,2893	708.534,3188	708.534,3088	<b>708.530,3101</b>	708.526,3114	708.526,3014	708.524,5118	
N:		7.089.946,8833	7.089.946,8336	7.089.946,8333	<b>7.089.946,7324</b>	7.089.946,6315	7.089.946,6312	7.089.946,5861	
<b>Station: 18+0</b>									
Dist. Eixo (m):		-5,981	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,842	
Cota (m):		12,430	12,391	12,481	<b>12,561</b>	12,481	12,391	12,428	
E:		708.536,5418	708.534,5711	708.534,5611	<b>708.530,5624</b>	708.526,5637	708.526,5537	708.524,7223	
N:		7.089.936,8865	7.089.936,8368	7.089.936,8365	<b>7.089.936,7356</b>	7.089.936,6347	7.089.936,6344	7.089.936,5882	

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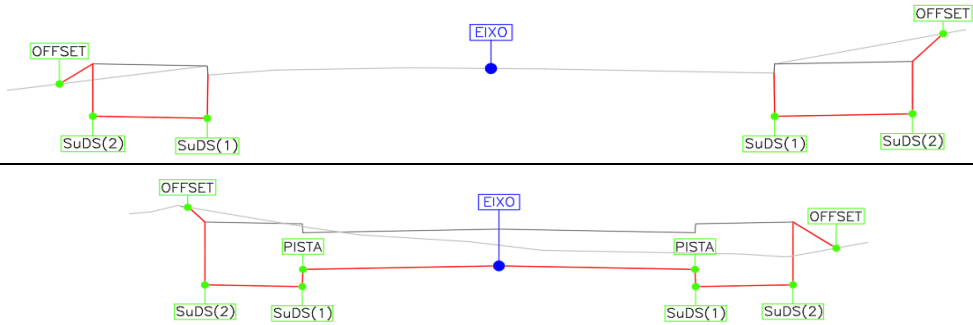
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 18+10</b>									
Dist. Eixo (m):		-5,981	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,884	
Cota (m):		12,404	12,365	12,455	<b>12,535</b>	12,455	12,365	12,402	
E:		708.536,7942	708.534,8234	708.534,8134	<b>708.530,8147</b>	708.526,8160	708.526,8060	708.524,9328	
N:		7.089.926,8897	7.089.926,8400	7.089.926,8397	<b>7.089.926,7388</b>	7.089.926,6379	7.089.926,6376	7.089.926,5903	
<b>Station: 19+0</b>									
Dist. Eixo (m):		-5,981	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,926	
Cota (m):		12,377	12,338	12,428	<b>12,508</b>	12,428	12,338	12,376	
E:		708.537,0466	708.535,0757	708.535,0657	<b>708.531,0670</b>	708.527,0683	708.527,0583	708.525,1433	
N:		7.089.916,8929	7.089.916,8431	7.089.916,8429	<b>7.089.916,7420</b>	7.089.916,6410	7.089.916,6408	7.089.916,5925	
<b>Station: 19+4</b>									
Dist. Eixo (m):		-5,993	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,944	
Cota (m):		12,366	12,326	12,416	<b>12,496</b>	12,416	12,326	12,365	
E:		708.537,1704	708.535,1880	708.535,1780	<b>708.531,1792</b>	708.527,1805	708.527,1705	708.525,2370	
N:		7.089.912,4462	7.089.912,3962	7.089.912,3959	<b>7.089.912,2950</b>	7.089.912,1941	7.089.912,1938	7.089.912,1450	
<b>Station: 19+10</b>									
Dist. Eixo (m):		-9,453	-4,638	-4,628	<b>0,000</b>	4,567	4,577	8,738	
Cota (m):		12,449	12,353	12,443	<b>12,482</b>	12,444	12,354	12,437	
E:		708.540,8072	708.535,9951	708.535,9851	<b>708.531,3596</b>	708.526,7950	708.526,7850	708.522,6265	
N:		7.089.907,0533	7.089.906,8970	7.089.906,8966	<b>7.089.906,7463</b>	7.089.906,5980	7.089.906,5976	7.089.906,4625	
<b>Station: 19+14</b>									
Dist. Eixo (m):					<b>0,000</b>	10,077	10,087	12,978	
Cota (m):					<b>12,469</b>	12,536	12,446	12,460	
E:					<b>708.531,5172</b>	708.521,4454	708.521,4354	708.518,5460	
N:					<b>7.089.901,8969</b>	7.089.901,5696	7.089.901,5692	7.089.901,4753	
<b>Station: 20+3</b>									
Dist. Eixo (m):		-11,870	-10,115	-10,105	<b>0,000</b>	11,754	11,764	12,000	
Cota (m):		12,479	12,444	12,534	<b>12,447</b>	12,475	12,385	12,390	
E:		708.543,6534	708.541,8996	708.541,8896	<b>708.531,7897</b>	708.520,0420	708.520,0320	708.519,7960	
N:		7.089.893,8954	7.089.893,8384	7.089.893,8381	<b>7.089.893,5099</b>	7.089.893,1281	7.089.893,1278	7.089.893,1201	
<b>Station: 20+10</b>									
Dist. Eixo (m):		-7,230	-4,093	-4,083	<b>0,000</b>	4,081	4,091	7,440	
Cota (m):		12,382	12,319	12,409	<b>12,474</b>	12,407	12,317	12,384	
E:		708.539,2355	708.536,1002	708.536,0902	<b>708.532,0092</b>	708.527,9307	708.527,9207	708.524,5735	
N:		7.089.886,9917	7.089.886,8898	7.089.886,8895	<b>7.089.886,7569</b>	7.089.886,6243	7.089.886,6240	7.089.886,5152	
<b>Station: 20+13</b>									
Dist. Eixo (m):		-5,983	-4,010	-4,000	<b>0,000</b>	4,000	4,010	6,072	
Cota (m):		12,355	12,316	12,406	<b>12,486</b>	12,406	12,316	12,357	
E:		708.538,0901	708.536,1181	708.536,1081	<b>708.532,1101</b>	708.528,1120	708.528,1020	708.526,0415	
N:		7.089.883,8466	7.089.883,7825	7.089.883,7822	<b>7.089.883,6523</b>	7.089.883,5223	7.089.883,5220	7.089.883,4550	
<b>Station: 21+0</b>									
Dist. Eixo (m):		-5,963	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,930	
Cota (m):		12,381	12,342	12,432	<b>12,512</b>	12,432	12,342	12,381	
E:		708.538,2341	708.536,2816	708.536,2717	<b>708.532,2728</b>	708.528,2739	708.528,2639	708.526,3445	
N:		7.089.876,9012	7.089.876,8551	7.089.876,8548	<b>7.089.876,7604</b>	7.089.876,6660	7.089.876,6658	7.089.876,6205	
<b>Station: 21+10</b>									
Dist. Eixo (m):		-5,931	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,901	
Cota (m):		12,416	12,378	12,468	<b>12,548</b>	12,468	12,378	12,416	
E:		708.538,4386	708.536,5177	708.536,5077	<b>708.532,5088</b>	708.528,5099	708.528,4999	708.526,6097	
N:		7.089.866,9032	7.089.866,8579	7.089.866,8576	<b>7.089.866,7632</b>	7.089.866,6688	7.089.866,6686	7.089.866,6239	
<b>Station: 22+0</b>									
Dist. Eixo (m):		-5,901	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,872	
Cota (m):		12,429	12,391	12,481	<b>12,561</b>	12,481	12,391	12,428	
E:		708.538,6442	708.536,7537	708.536,7437	<b>708.532,7448</b>	708.528,7459	708.528,7359	708.526,8749	
N:		7.089.856,9053	7.089.856,8606	7.089.856,8604	<b>7.089.856,7660</b>	7.089.856,6716	7.089.856,6713	7.089.856,6274	

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**NOTA DE SERVIÇO**  
**RUA BRAULIO DE SÁ BARBOSA**

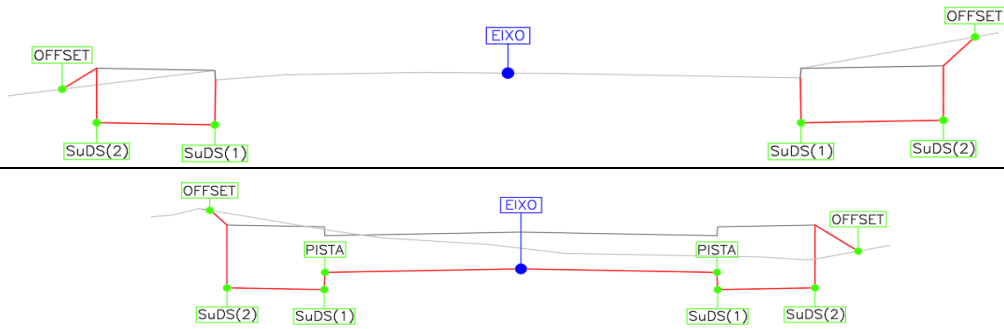
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 22+10</b>									
Dist. Eixo (m):		-5,871	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,842	
Cota (m):		12,418	12,381	12,471	<b>12,551</b>	12,471	12,381	12,417	
E:		708.538,8498	708.536,9897	708.536,9797	<b>708.532,9808</b>	708.528,9820	708.528,9720	708.527,1401	
N:		7.089.846,9073	7.089.846,8634	7.089.846,8632	<b>7.089.846,7688</b>	7.089.846,6744	7.089.846,6741	7.089.846,6309	
<b>Station: 23+0</b>									
Dist. Eixo (m):		-5,840	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,813	
Cota (m):		12,404	12,367	12,457	<b>12,537</b>	12,457	12,367	12,403	
E:		708.539,0555	708.537,2257	708.537,2158	<b>708.533,2169</b>	708.529,2180	708.529,2080	708.527,4053	
N:		7.089.836,9094	7.089.836,8662	7.089.836,8660	<b>7.089.836,7716</b>	7.089.836,6772	7.089.836,6769	7.089.836,6344	
<b>Station: 23+10</b>									
Dist. Eixo (m):		-5,859	-4,010	-4,000	<b>0,000</b>	4,000	4,010	6,721	
Cota (m):		12,390	12,353	12,443	<b>12,523</b>	12,443	12,353	12,407	
E:		708.539,3106	708.537,4618	708.537,4518	<b>708.533,4529</b>	708.529,4540	708.529,4440	708.526,7339	
N:		7.089.826,9126	7.089.826,8690	7.089.826,8688	<b>7.089.826,7743</b>	7.089.826,6799	7.089.826,6797	7.089.826,6157	
<b>Station: 24+0</b>									
Dist. Eixo (m):		-5,894	-4,010	-4,000	<b>0,000</b>	4,000	4,010	6,691	
Cota (m):		12,376	12,339	12,429	<b>12,509</b>	12,429	12,339	12,392	
E:		708.539,5815	708.537,6978	708.537,6878	<b>708.533,6889</b>	708.529,6900	708.529,6800	708.526,9998	
N:		7.089.816,9163	7.089.816,8718	7.089.816,8715	<b>7.089.816,7771</b>	7.089.816,6827	7.089.816,6825	7.089.816,6192	
<b>Station: 24+10</b>									
Dist. Eixo (m):		-5,929	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,912	
Cota (m):		12,356	12,318	12,408	<b>12,488</b>	12,408	12,318	12,356	
E:		708.539,8526	708.537,9338	708.537,9238	<b>708.533,9249</b>	708.529,9261	708.529,9161	708.528,0141	
N:		7.089.806,9199	7.089.806,8746	7.089.806,8743	<b>7.089.806,7799</b>	7.089.806,6855	7.089.806,6853	7.089.806,6404	
<b>Station: 25+0</b>									
Dist. Eixo (m):		-5,943	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,930	6,549
Cota (m):		12,272	12,233	12,323	<b>12,403</b>	12,323	12,233	12,272	12,519
E:		708.540,1019	708.538,1698	708.538,1599	<b>708.534,1610</b>	708.530,1621	708.530,1521	708.528,2322	708.527,6137
N:		7.089.796,9230	7.089.796,8774	7.089.796,8771	<b>7.089.796,7827</b>	7.089.796,6883	7.089.796,6881	7.089.796,6427	7.089.796,6281
<b>Station: 25+10</b>									
Dist. Eixo (m):		-6,531	-5,950	-4,010	<b>0,000</b>	4,000	4,010	5,948	6,368
Cota (m):		12,389	12,117	12,078	<b>12,248</b>	12,168	12,078	12,117	12,497
E:		708.540,9266	708.540,3451	708.538,4059	<b>708.534,3970</b>	708.530,3981	708.530,3881	708.528,4503	708.528,0304
N:		7.089.786,9396	7.089.786,9259	7.089.786,8801	<b>7.089.786,7855</b>	7.089.786,6911	7.089.786,6908	7.089.786,6451	7.089.786,6352

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T1)**

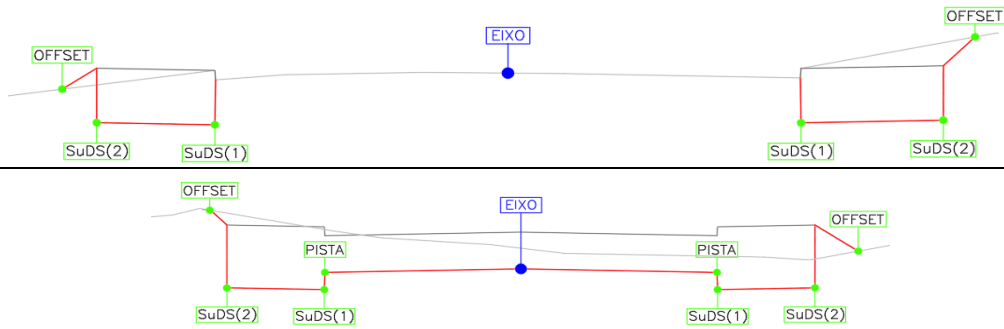
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist. Eixo (m):		-5,200	-4,010		<b>0,000</b>				
Cota (m):		18,744	18,720						
E:		708.747,4883	708.746,2995		708.742,2936				
N:		7.090.708,9410	7.090.708,8871		7.090.708,7055				
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,490	-4,048		<b>0,000</b>		3,870	5,877	
Cota (m):		17,772	17,723				17,704	17,721	
E:		708.749,2302	708.746,7899		708.742,7466		708.738,8804	708.736,8755	
N:		7.090.699,0097	7.090.698,8991		7.090.698,7157		7.090.698,5404	7.090.698,4495	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-6,277	-4,080		<b>0,000</b>		3,840	5,867	
Cota (m):		16,707	16,663				16,668	16,709	
E:		708.749,4702	708.747,2749		708.743,1995		708.739,3636	708.737,3385	
N:		7.090.689,0103	7.090.688,9108		7.090.688,7260		7.090.688,5521	7.090.688,4602	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-5,921	-4,056		<b>0,000</b>		3,818	5,852	
Cota (m):		16,213	16,176				16,181	16,222	
E:		708.749,5676	708.747,7045		708.743,6524		708.739,8380	708.737,8062	
N:		7.090.679,0045	7.090.678,9200		7.090.678,7363		7.090.678,5633	7.090.678,4712	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-5,901	-4,072		<b>0,000</b>		3,878	5,906	
Cota (m):		15,902	15,865				15,869	15,910	
E:		708.750,0004	708.748,1737		708.744,1054		708.740,2312	708.738,2058	
N:		7.090.669,0138	7.090.668,9310		7.090.668,7465		7.090.668,5709	7.090.668,4790	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-5,950	-4,100		<b>0,000</b>		3,987	5,975	
Cota (m):		15,762	15,725				15,727	15,767	
E:		708.750,5019	708.748,6545		708.744,5583		708.740,5749	708.738,5893	
N:		7.090.659,0263	7.090.658,9425		7.090.658,7568		7.090.658,5762	7.090.658,4861	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-6,103	-4,062		<b>0,000</b>		4,097	6,045	
Cota (m):		15,709	15,668				15,667	15,706	
E:		708.751,1084	708.749,0691		708.745,0113		708.740,9186	708.738,9727	
N:		7.090.649,0435	7.090.648,9510		7.090.648,7670		7.090.648,5815	7.090.648,4932	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-6,175	-3,990		<b>0,000</b>		4,206	6,114	
Cota (m):		15,679	15,635				15,631	15,669	
E:		708.751,6332	708.749,4502		708.745,4642		708.741,2624	708.739,3561	
N:		7.090.639,0570	7.090.638,9580		7.090.638,7773		7.090.638,5868	7.090.638,5004	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-6,253	-3,975		<b>0,000</b>		4,293	6,184	
Cota (m):		15,744	15,698				15,692	15,730	
E:		708.752,1636	708.749,8883		708.745,9172		708.741,6288	708.739,7395	
N:		7.090.629,0708	7.090.628,9676		7.090.628,7876		7.090.628,5931	7.090.628,5075	
<b>Station: 4+10</b>									
Dist. Eixo (m):		-9,924	-6,754		<b>0,000</b>		6,417	10,121	
Cota (m):		15,787	15,723				15,730	15,804	
E:		708.756,2843	708.753,1168		708.746,3701		708.739,9601	708.736,2593	
N:		7.090.619,2474	7.090.619,1037		7.090.618,7978		7.090.618,5072	7.090.618,3394	
<b>Station: 5+10</b>									
Dist. Eixo (m):		-6,225	-4,033		<b>0,000</b>		4,078	6,168	
Cota (m):		15,351	15,308				15,220	15,261	
E:		708.753,4950	708.751,3051		708.747,2760		708.743,2025	708.741,1144	
N:		7.090.599,1003	7.090.599,0010		7.090.598,8184		7.090.598,6337	7.090.598,5390	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T1)**

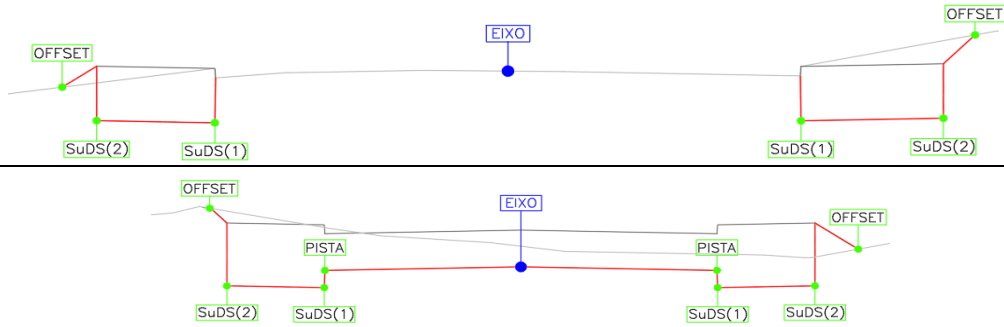
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+0</b>									
Dist. Eixo (m):		-5,902	-4,082		<b>0,000</b>		3,987	6,053	
Cota (m):		15,258	15,221				15,161	15,202	
E:		708.753,6251	708.751,8065		708.747,7289		708.743,7460	708.741,6818	
N:		7.090.589,0960	7.090.589,0135		7.090.588,8286		7.090.588,6480	7.090.588,5544	
<b>Station: 6+10</b>									
Dist. Eixo (m):		-5,828	-4,083		<b>0,000</b>		3,981	6,001	
Cota (m):		15,164	15,129				14,994	15,035	
E:		708.754,0036	708.752,2603		708.748,1819		708.744,2047	708.742,1866	
N:		7.090.579,1028	7.090.579,0238		7.090.578,8389		7.090.578,6586	7.090.578,5671	
<b>Station: 7+0</b>									
Dist. Eixo (m):		-5,721	-4,083		<b>0,000</b>		4,028	6,015	
Cota (m):		15,100	15,067				14,825	14,865	
E:		708.754,3496	708.752,7141		708.748,6348		708.744,6113	708.742,6257	
N:		7.090.569,1083	7.090.569,0341		7.090.568,8491		7.090.568,6667	7.090.568,5767	
<b>Station: 7+10</b>									
Dist. Eixo (m):		-5,815	-4,076		<b>0,000</b>		4,058	6,063	
Cota (m):		14,875	14,840				14,714	14,754	
E:		708.754,8970	708.753,1594		708.749,0878		708.745,0339	708.743,0306	
N:		7.090.559,1228	7.090.559,0440		7.090.558,8594		7.090.558,6756	7.090.558,5848	
<b>Station: 8+0</b>									
Dist. Eixo (m):		-5,856	-4,068		<b>0,000</b>		4,087	6,105	
Cota (m):		14,706	14,670				14,645	14,685	
E:		708.755,3911	708.753,6048		708.749,5407		708.745,4582	708.743,4423	
N:		7.090.549,1349	7.090.549,0539		7.090.548,8697		7.090.548,6846	7.090.548,5932	
<b>Station: 8+10</b>									
Dist. Eixo (m):		-5,828	-4,061		<b>0,000</b>		4,115	6,119	
Cota (m):		14,482	14,447				14,430	14,470	
E:		708.755,8155	708.754,0501		708.749,9937		708.745,8825	708.743,8808	
N:		7.090.539,1439	7.090.539,0639		7.090.538,8799		7.090.538,6935	7.090.538,6028	
<b>Station: 9+0</b>									
Dist. Eixo (m):		-5,868	-4,053		<b>0,000</b>		4,144	6,136	
Cota (m):		14,289	14,253				14,244	14,284	
E:		708.756,3089	708.754,4954		708.750,4466		708.746,3069	708.744,3167	
N:		7.090.529,1560	7.090.529,0738		7.090.528,8902		7.090.528,7025	7.090.528,6123	
<b>Station: 9+10</b>									
Dist. Eixo (m):		-5,879	-4,045		<b>0,000</b>		4,173	6,185	
Cota (m):		14,175	14,139				14,153	14,193	
E:		708.756,7728	708.754,9407		708.750,8995		708.746,7312	708.744,7212	
N:		7.090.519,1668	7.090.519,0837		7.090.518,9005		7.090.518,7115	7.090.518,6203	
<b>Station: 10+0</b>									
Dist. Eixo (m):		-5,886	-4,038		<b>0,000</b>		4,201	6,004	
Cota (m):		14,086	14,049				14,072	14,108	
E:		708.757,2329	708.755,3861		708.751,3525		708.747,1555	708.745,3545	
N:		7.090.509,1774	7.090.509,0936		7.090.508,9107		7.090.508,7204	7.090.508,6388	
<b>Station: 10+10</b>									
Dist. Eixo (m):		-5,795	-4,030		<b>0,000</b>		4,230	6,098	
Cota (m):		14,023	13,988				14,047	14,085	
E:		708.757,5941	708.755,8314		708.751,8054		708.747,5798	708.745,7135	
N:		7.090.499,1835	7.090.499,1035		7.090.498,9210		7.090.498,7294	7.090.498,6448	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-5,852	-4,022		<b>0,000</b>		4,259	6,174	
Cota (m):		13,936	13,900				14,001	14,039	
E:		708.758,1040	708.756,2767		708.752,2584		708.748,0042	708.746,0910	
N:		7.090.489,1963	7.090.489,1135		7.090.488,9313		7.090.488,7384	7.090.488,6516	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T1)**

Desenho Esquemático:

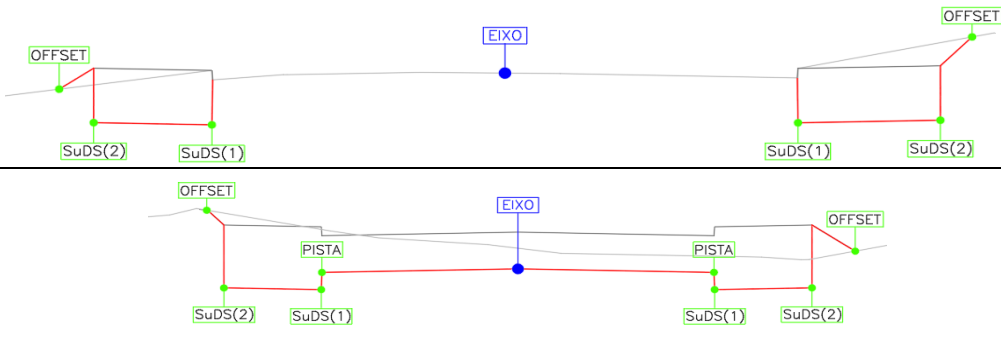


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 11+10</b>									
Dist. Eixo (m):		-5,859	-4,015		<b>0,000</b>		4,287	6,230	
Cota (m):		13,995	13,958				13,901	13,939	
E:		708.758,5641	708.756,7221		708.752,7113		708.748,4285	708.746,4880	
N:		7.090.479,2069	7.090.479,1234		7.090.478,9415		7.090.478,7473	7.090.478,6593	
<b>Station: 11+16</b>									
Dist. Eixo (m):		-5,921	-4,010		<b>0,000</b>		4,518	6,414	
Cota (m):		14,039	14,001				13,863	13,901	
E:		708.758,9147	708.757,0057		708.752,9998		708.748,4868	708.746,5926	
N:		7.090.472,8465	7.090.472,7599		7.090.472,5783		7.090.472,3737	7.090.472,2878	
<b>Station: 12+0</b>									
Dist. Eixo (m):		-7,806	-5,449		<b>0,000</b>		5,477	8,596	
Cota (m):		14,046	13,999				13,806	13,869	
E:		708.760,9534	708.758,5982		708.753,1541		708.747,6818	708.744,5660	
N:		7.090.469,2831	7.090.469,1829		7.090.468,9513		7.090.468,7185	7.090.468,5860	
<b>Station: 12+1</b>									
Dist. Eixo (m):				-4,094	<b>-0,002</b>	3,996			
Cota (m):				14,400	14,392	14,244			
E:				708.757,2926	708.753,2046	708.749,2105			
N:				7.090.467,9882	7.090.467,8143	7.090.467,6444			
<b>Station: 12+10</b>									
Dist. Eixo (m):				-4,047	<b>0,000</b>	4,044			
Cota (m):				14,359	14,307	14,165			
E:				708.757,6229	708.753,5792	708.749,5388			
N:				7.090.459,1324	7.090.458,9604	7.090.458,7885			
<b>Station: 13+0</b>									
Dist. Eixo (m):		-5,924	-3,995	-3,985	<b>0,000</b>	4,100	4,110	6,549	
Cota (m):		13,780	13,741	14,161	14,211	14,075	13,739	13,787	
E:		708.759,9229	708.757,9956	708.757,9856	708.754,0042	708.749,9079	708.749,8979	708.747,4607	
N:		7.090.449,2212	7.090.449,1392	7.090.449,1388	7.090.448,9694	7.090.448,7951	7.090.448,7947	7.090.448,6910	
<b>Station: 13+10</b>									
Dist. Eixo (m):		-5,835	-3,845	-3,835	<b>0,000</b>	4,205	4,215	6,539	
Cota (m):		13,688	13,648	14,038	14,114	14,030	13,640	13,687	
E:		708.760,2589	708.758,2707	708.758,2607	708.754,4292	708.750,2279	708.750,2180	708.747,8959	
N:		7.090.439,2265	7.090.439,1419	7.090.439,1414	7.090.438,9784	7.090.438,7997	7.090.438,7993	7.090.438,7005	
<b>Station: 13+14</b>									
Dist. Eixo (m):		-5,793	-3,774	-3,764	<b>0,000</b>	4,255	4,265	6,534	
Cota (m):		13,644	13,604	13,994	14,069	13,984	13,594	13,639	
E:		708.760,4173	708.758,4004	708.758,3904	708.754,6297	708.750,3789	708.750,3689	708.748,1012	
N:		7.090.434,5129	7.090.434,4271	7.090.434,4267	7.090.434,2667	7.090.434,0859	7.090.434,0854	7.090.433,9890	
<b>Station: 14+0</b>									
Dist. Eixo (m):		-5,821	-3,764		<b>0,000</b>		4,174	6,337	
Cota (m):		13,621	13,579				13,571	13,615	
E:		708.760,6702	708.758,6152		708.754,8543		708.750,6845	708.748,5231	
N:		7.090.429,2349	7.090.429,1475		7.090.428,9875		7.090.428,8101	7.090.428,7181	
<b>Station: 14+10</b>									
Dist. Eixo (m):		-5,902	-3,783		<b>0,000</b>		4,138	6,256	
Cota (m):		13,565	13,523				13,516	13,558	
E:		708.761,1757	708.759,0584		708.755,2793		708.751,1450	708.749,0290	
N:		7.090.419,2474	7.090.419,1573		7.090.418,9965		7.090.418,8206	7.090.418,7306	
<b>Station: 15+0</b>									
Dist. Eixo (m):		-5,955	-3,801		<b>0,000</b>		4,102	6,174	
Cota (m):		13,445	13,402				13,396	13,438	
E:		708.761,6539	708.759,5016		708.755,7043		708.751,6056	708.749,5363	
N:		7.090.409,2587	7.090.409,1671		7.090.409,0056		7.090.408,8312	7.090.408,7432	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T1)**

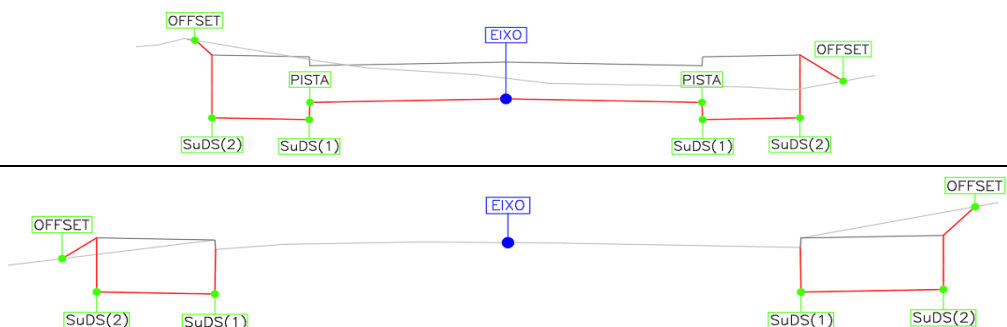
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 15+10</b>									
Dist. Eixo (m):		-6,008	-3,819		<b>0,000</b>		4,067	6,066	
Cota (m):		13,364	13,320				13,315	13,355	
E:		708.762,1320	708.759,9449		708.756,1294		708.752,0661	708.750,0687	
N:		7.090.399,2700	7.090.399,1769		7.090.399,0146		7.090.398,8417	7.090.398,7568	
<b>Station: 16+0</b>									
Dist. Eixo (m):		-6,018	-3,837		<b>0,000</b>		4,031	5,970	
Cota (m):		13,333	13,289				13,285	13,324	
E:		708.762,5667	708.760,3881		708.756,5544		708.752,5266	708.750,5895	
N:		7.090.389,2794	7.090.389,1867		7.090.389,0236		7.090.388,8523	7.090.388,7699	
<b>Station: 16+10</b>									
Dist. Eixo (m):		-6,117	-3,855		<b>0,000</b>		3,996	5,963	
Cota (m):		13,328	13,283				13,280	13,319	
E:		708.763,0911	708.760,8313		708.756,9795		708.752,9871	708.751,0219	
N:		7.090.379,2927	7.090.379,1965		7.090.379,0327		7.090.378,8628	7.090.378,7792	
<b>Station: 17+0</b>									
Dist. Eixo (m):		-6,192	-3,890		<b>0,000</b>		3,966	6,193	
Cota (m):		13,333	13,287				13,285	13,330	
E:		708.763,5907	708.761,2911		708.757,4045		708.753,4422	708.751,2175	
N:		7.090.369,3049	7.090.369,2070		7.090.369,0417		7.090.368,8731	7.090.368,7785	
<b>Station: 17+10</b>									
Dist. Eixo (m):		-5,981	-3,956		<b>0,000</b>		3,937	6,100	
Cota (m):		13,262	13,221				13,222	13,265	
E:		708.763,8046	708.761,7816		708.757,8295		708.753,8964	708.751,7351	
N:		7.090.359,3049	7.090.359,2189		7.090.359,0507		7.090.358,8834	7.090.358,7915	
<b>Station: 17+18</b>									
Dist. Eixo (m):		-5,964	-4,014	-4,004	<b>0,000</b>	3,900	3,910	6,010	
Cota (m):		13,207	13,168	13,978	13,638	13,560	13,170	13,212	
E:		708.764,1668	708.762,2184	708.762,2084	708.758,2079	708.754,3114	708.754,3014	708.752,2033	
N:		7.090.350,4090	7.090.350,3261	7.090.350,3257	7.090.350,1555	7.090.349,9897	7.090.349,9893	7.090.349,9000	
<b>Station: 18+0</b>									
Dist. Eixo (m):		-5,972	-4,007	-3,997	<b>0,000</b>	3,896	3,906	6,094	
Cota (m):		13,206	13,167	13,557	13,636	13,559	13,169	13,212	
E:		708.764,2208	708.762,2582	708.762,2482	708.758,2546	708.754,3626	708.754,3526	708.752,1656	
N:		7.090.349,3136	7.090.349,2301	7.090.349,2297	7.090.349,0598	7.090.348,8942	7.090.348,8938	7.090.348,8007	
<b>Station: 18+10</b>									
Dist. Eixo (m):		-6,039	-4,002	-3,992	<b>0,000</b>	3,854	3,864	6,018	
Cota (m):		13,194	13,154	13,544	13,624	13,546	13,156	13,200	
E:		708.764,7134	708.762,6776	708.762,6677	708.758,6796	708.754,8294	708.754,8194	708.752,6666	
N:		7.090.339,3255	7.090.339,2389	7.090.339,2385	7.090.339,0688	7.090.338,9050	7.090.338,9046	7.090.338,8130	
<b>Station: 18+19</b>									
Dist. Eixo (m):		-6,107	-3,996	-3,986	<b>0,000</b>	3,812	3,822	5,942	
Cota (m):		13,183	13,141	13,531	13,611	13,534	13,144	13,187	
E:		708.765,2061	708.763,0971	708.763,0871	708.759,1046	708.755,2962	708.755,2862	708.753,1677	
N:		7.090.329,3374	7.090.329,2477	7.090.329,2473	7.090.329,0779	7.090.328,9158	7.090.328,9154	7.090.328,8253	
<b>Station: 19+1</b>									
Dist. Eixo (m):		-6,115	-3,995	-3,985	<b>0,000</b>	3,807	3,817	5,933	
Cota (m):		13,182	13,139	13,529	13,609	13,533	13,143	13,185	
E:		708.765,2671	708.763,1491	708.763,1391	708.759,1573	708.755,3541	708.755,3441	708.753,2298	
N:		7.090.328,0989	7.090.328,0088	7.090.328,0084	7.090.327,8390	7.090.327,6772	7.090.327,6767	7.090.327,5868	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T2)**

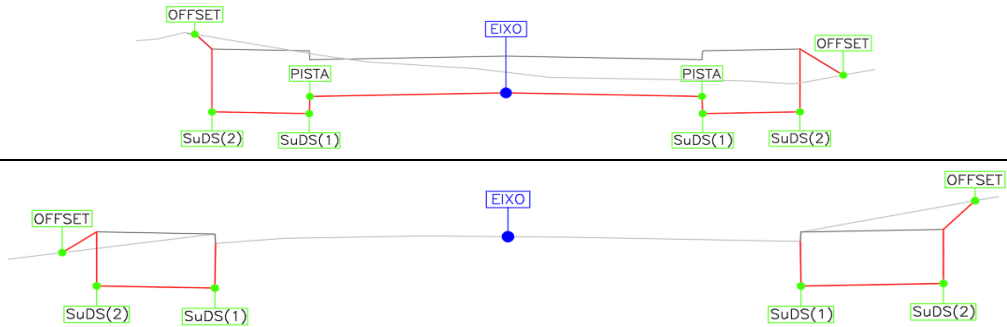
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 20+7</b>									
Dist. Eixo (m):		-12,013	-10,835	-10,835	0,000	10,104	10,105	10,550	12,485
Cota (m):		12,443	12,420	12,823	13,040	12,838	12,790	12,799	12,465
E:		708.783,0691	708.781,8921	708.781,8921	708.771,0685	708.760,9749	708.760,9738	708.760,5293	708.758,5968
N:		7.090.058,6005	7.090.058,5466	7.090.058,5466	7.090.058,0509	7.090.057,5887	7.090.057,5886	7.090.057,5683	7.090.057,4798
<b>Station: 20+10</b>									
Dist. Eixo (m):		-8,953	-5,678	-5,668	0,000	6,144	6,154	9,218	10,316
Cota (m):		12,560	12,494	12,914	13,027	12,905	12,485	12,546	12,774
E:		708.780,1290	708.776,8578	708.776,8478	708.771,1855	708.765,0474	708.765,0374	708.761,9768	708.760,8803
N:		7.090.055,9071	7.090.055,7573	7.090.055,7569	7.090.055,4976	7.090.055,2165	7.090.055,2160	7.090.055,0759	7.090.055,0256
<b>Station: 21+0</b>									
Dist. Eixo (m):		-5,882	-3,699	-3,689	0,000	4,311	4,321	6,493	7,407
Cota (m):		12,510	12,466	12,886	12,960	12,874	12,454	12,497	12,848
E:		708.777,5191	708.775,3385	708.775,3285	708.771,6429	708.767,3366	708.767,3266	708.765,1571	708.764,2438
N:		7.090.045,7771	7.090.045,6773	7.090.045,6768	7.090.045,5080	7.090.045,3108	7.090.045,3104	7.090.045,2110	7.090.045,1692
<b>Station: 21+10</b>									
Dist. Eixo (m):		-5,952	-3,785	-3,775	0,000	4,226	4,236	6,370	7,733
Cota (m):		12,344	12,300	12,720	12,796	12,711	12,291	12,334	12,385
E:		708.778,0465	708.775,8812	708.775,8712	708.772,1004	708.767,8793	708.767,8693	708.765,7369	708.764,3752
N:		7.090.035,7908	7.090.035,6916	7.090.035,6912	7.090.035,5185	7.090.035,3252	7.090.035,3247	7.090.035,2271	7.090.035,1647
<b>Station: 22+0</b>									
Dist. Eixo (m):		-8,625	-6,023	-3,870	0,000	4,140	4,150	6,248	6,918
Cota (m):		11,318	12,094	12,051	12,471	12,465	12,045	12,087	12,600
E:		708.781,1742	708.778,5742	708.776,4238	708.776,4139	708.772,5579	708.768,4219	708.766,3167	708.765,6468
N:		7.090.025,9236	7.090.025,8045	7.090.025,7060	7.090.025,7056	7.090.025,5290	7.090.025,3396	7.090.025,3391	7.090.025,2432
<b>Station: 22+10</b>									
Dist. Eixo (m):		-6,092	-3,955	-3,945	0,000	4,055	4,065	6,125	
Cota (m):		11,902	11,859	12,279	12,358	12,277	11,857	11,898	
E:		708.779,1014	708.776,9665	708.776,9565	708.773,0153	708.768,9646	708.768,9546	708.766,8964	
N:		7.090.015,8182	7.090.015,7204	7.090.015,7199	7.090.015,5394	7.090.015,3539	7.090.015,3535	7.090.015,2592	
<b>Station: 22+17</b>									
Dist. Eixo (m):		-6,149	-4,024	-4,014	0,000	3,987	3,997	6,027	
Cota (m):		11,843	11,800	12,220	12,301	12,221	11,801	11,841	
E:		708.779,5234	708.777,4007	708.777,3907	708.773,3813	708.769,3988	708.769,3888	708.767,3602	
N:		7.090.007,8291	7.090.007,7319	7.090.007,7314	7.090.007,5478	7.090.007,3654	7.090.007,3650	7.090.007,2721	
<b>Station: 23+0</b>									
Dist. Eixo (m):		-6,166	-4,041		0,000		3,980	6,167	
Cota (m):		11,841	11,799				11,800	11,844	
E:		708.779,6326	708.777,5092		708.773,4728		708.769,4973	708.767,3118	
N:		7.090.005,8320	7.090.005,7348		7.090.005,5499		7.090.005,3679	7.090.005,2678	
<b>Station: 23+10</b>									
Dist. Eixo (m):		-6,269	-4,126		0,000		3,894	6,161	
Cota (m):		11,813	11,770				11,775	11,820	
E:		708.780,1923	708.778,0519		708.773,9303		708.770,0400	708.767,7757	
N:		7.089.995,8472	7.089.995,7491		7.089.995,5604		7.089.995,3822	7.089.995,2785	
<b>Station: 24+0</b>									
Dist. Eixo (m):		-6,371	-4,211		0,000		3,809	6,155	
Cota (m):		11,810	11,766				11,774	11,821	
E:		708.780,7520	708.778,5946		708.774,3878		708.770,5827	708.768,2396	
N:		7.089.985,8623	7.089.985,7635		7.089.985,5709		7.089.985,3966	7.089.985,2893	
<b>Station: 24+10</b>									
Dist. Eixo (m):		-6,473	-4,297		0,000		3,724	6,148	
Cota (m):		11,819	11,776				11,787	11,836	
E:		708.781,3117	708.779,1372		708.774,8452		708.771,1253	708.768,7036	
N:		7.089.975,8775	7.089.975,7779		7.089.975,5813		7.089.975,4110	7.089.975,3001	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T2)**

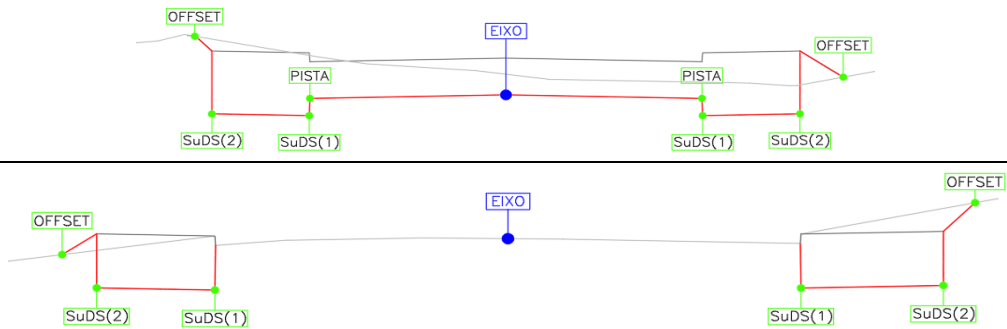
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 25+0</b>									
Dist. Eixo (m):		-6,547	-4,337		<b>0,000</b>		3,684	6,142	
Cota (m):		11,807	11,763				11,776	11,825	
E:		708.781,8428	708.779,6350		708.775,3027		708.771,6228	708.769,1675	
N:		7.089.965,8913	7.089.965,7902		7.089.965,5918		7.089.965,4233	7.089.965,3108	
<b>Station: 25+10</b>									
Dist. Eixo (m):		-6,425	-4,212		<b>0,000</b>		3,808	6,135	
Cota (m):		11,819	11,775				11,783	11,830	
E:		708.782,1780	708.779,9680		708.775,7602		708.771,9558	708.769,6314	
N:		7.089.955,8962	7.089.955,7950		7.089.955,6023		7.089.955,4280	7.089.955,3216	
<b>Station: 26+0</b>									
Dist. Eixo (m):		-6,329	-4,088		<b>0,000</b>		3,933	6,129	
Cota (m):		11,831	11,786				11,789	11,833	
E:		708.782,5396	708.780,3010		708.776,2176		708.772,2888	708.770,0953	
N:		7.089.945,9022	7.089.945,7997		7.089.945,6127		7.089.945,4328	7.089.945,3324	
<b>Station: 26+10</b>									
Dist. Eixo (m):		-6,214	-3,963		<b>0,000</b>		4,058	6,122	
Cota (m):		11,806	11,761				11,759	11,800	
E:		708.782,8826	708.780,6340		708.776,6751		708.772,6218	708.770,5600	
N:		7.089.935,9075	7.089.935,8045		7.089.935,6232		7.089.935,4376	7.089.935,3432	
<b>Station: 27+0</b>									
Dist. Eixo (m):		-6,040	-3,838		<b>0,000</b>		4,182	6,111	
Cota (m):		11,760	11,716				11,709	11,748	
E:		708.783,1663	708.780,9670		708.777,1326		708.772,9548	708.771,0283	
N:		7.089.925,9100	7.089.925,8093		7.089.925,6337		7.089.925,4424	7.089.925,3541	
<b>Station: 28+3</b>									
Dist. Eixo (m):		-6,326	-5,135	-5,125	<b>0,000</b>	5,000	5,010	6,200	
Cota (m):		12,088	12,064	12,184	12,175	12,075	11,955	11,979	
E:		708.784,5335	708.783,3445	708.783,3345	708.778,2145	708.773,2198	708.773,2098	708.772,0210	
N:		7.089.902,2968	7.089.902,2424	7.089.902,2419	7.089.902,0075	7.089.901,7787	7.089.901,7783	7.089.901,7238	
<b>Station: 28+10</b>									
Dist. Eixo (m):		-6,027	-4,023	-4,013	<b>0,000</b>	3,987	3,997	5,974	
Cota (m):		12,005	11,965	12,085	12,166	12,086	11,966	12,005	
E:		708.784,5122	708.782,5236	708.782,5136	708.778,5050	708.774,5220	708.774,5120	708.772,5371	
N:		7.089.895,9240	7.089.895,8491	7.089.895,8487	7.089.895,6651	7.089.895,4827	7.089.895,4822	7.089.895,3918	
<b>Station: 28+14</b>									
Dist. Eixo (m):		-6,014	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,987	
Cota (m):		11,999	11,958	12,078	12,158	12,078	11,958	11,998	
E:		708.784,7291	708.782,7272	708.782,7173	708.778,7210	708.774,7256	708.774,7156	708.772,7403	
N:		7.089.891,2235	7.089.891,1318	7.089.891,1314	7.089.890,9484	7.089.890,7654	7.089.890,7649	7.089.890,6745	
<b>Station: 29+0</b>									
Dist. Eixo (m):		-6,014	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,987	
Cota (m):		11,991	11,951	12,071	12,151	12,071	11,951	11,990	
E:		708.784,9571	708.782,9553	708.782,9454	708.778,9487	708.774,9528	708.774,9428	708.772,9669	
N:		7.089.885,9343	7.089.885,8479	7.089.885,8475	7.089.885,6749	7.089.885,5024	7.089.885,5020	7.089.885,4167	
<b>Station: 29+10</b>									
Dist. Eixo (m):		-6,013	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,988	
Cota (m):		11,976	11,936	12,056	12,136	12,056	11,936	11,975	
E:		708.785,3878	708.783,3866	708.783,3767	708.779,3800	708.775,3841	708.775,3741	708.773,3973	
N:		7.089.875,9436	7.089.875,8572	7.089.875,8568	7.089.875,6842	7.089.875,5117	7.089.875,5113	7.089.875,4260	
<b>Station: 30+0</b>									
Dist. Eixo (m):		-6,013	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,989	
Cota (m):		11,961	11,921	12,041	12,121	12,041	11,921	11,960	
E:		708.785,8186	708.783,8179	708.783,8080	708.779,8113	708.775,8154	708.775,8054	708.773,8278	
N:		7.089.865,9529	7.089.865,8665	7.089.865,8661	7.089.865,6935	7.089.865,5210	7.089.865,5206	7.089.865,4352	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T2)**

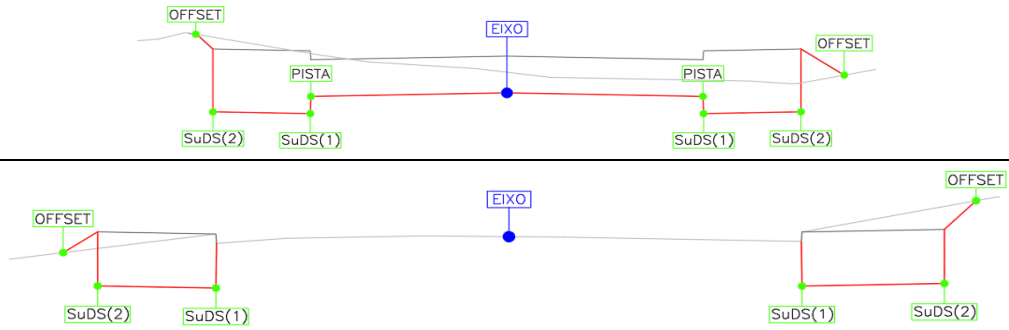
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 30+10</b>									
Dist. Eixo (m):		-6,012	-4,010	-4,000	0,000	4,000	4,010	5,990	
Cota (m):		11,946	11,906	12,026	12,106	12,026	11,906	11,945	
E:		708.786,2493	708.784,2492	708.784,2393	708.780,2426	708.776,2467	708.776,2367	708.774,2583	
N:		7.089.855,9622	7.089.855,8758	7.089.855,8754	7.089.855,7029	7.089.855,5303	7.089.855,5299	7.089.855,4445	
<b>Station: 31+0</b>									
Dist. Eixo (m):	-6,074	-6,012	-4,010	-4,000	0,000	4,000	4,010	5,991	
Cota (m):	12,549	11,931	11,891	12,011	12,091	12,011	11,891	11,930	
E:	708.786,7427	708.786,6800	708.784,6805	708.784,6705	708.780,6740	708.776,6780	708.776,6680	708.774,6887	
N:	7.089.845,9742	7.089.845,9715	7.089.845,8851	7.089.845,8847	7.089.845,7122	7.089.845,5396	7.089.845,5392	7.089.845,4538	
<b>Station: 31+10</b>									
Dist. Eixo (m):		-6,011	-4,010	-4,000	0,000	4,000	4,010	5,992	
Cota (m):		11,916	11,876	11,996	12,076	11,996	11,876	11,915	
E:		708.787,1107	708.785,1118	708.785,1018	708.781,1053	708.777,1093	708.777,0993	708.775,1192	
N:		7.089.835,9807	7.089.835,8944	7.089.835,8940	7.089.835,7215	7.089.835,5489	7.089.835,5485	7.089.835,4630	
<b>Station: 32+0</b>									
Dist. Eixo (m):		-6,010	-4,010	-4,000	0,000	4,000	4,010	5,993	
Cota (m):		11,901	11,861	11,981	12,061	11,981	11,861	11,900	
E:		708.787,5413	708.785,5431	708.785,5331	708.781,5366	708.777,5406	708.777,5306	708.775,5497	
N:		7.089.825,9900	7.089.825,9037	7.089.825,9033	7.089.825,7308	7.089.825,5583	7.089.825,5578	7.089.825,4723	
<b>Station: 32+10</b>									
Dist. Eixo (m):		-6,009	-4,010	-4,000	0,000	4,000	4,010	5,993	
Cota (m):		11,886	11,846	11,966	12,046	11,966	11,846	11,885	
E:		708.787,9718	708.785,9744	708.785,9644	708.781,9680	708.777,9719	708.777,9619	708.775,9801	
N:		7.089.815,9993	7.089.815,9131	7.089.815,9126	7.089.815,7401	7.089.815,5676	7.089.815,5671	7.089.815,4816	
<b>Station: 33+0</b>									
Dist. Eixo (m):		-6,009	-4,010	-4,000	0,000	4,000	4,010	5,994	
Cota (m):		11,871	11,831	11,951	12,031	11,951	11,831	11,870	
E:		708.788,4025	708.786,4057	708.786,3957	708.782,3993	708.778,4032	708.778,3932	708.776,4106	
N:		7.089.806,0086	7.089.805,9224	7.089.805,9219	7.089.805,7494	7.089.805,5769	7.089.805,5764	7.089.805,4908	
<b>Station: 33+10</b>									
Dist. Eixo (m):		-6,008	-4,010	-4,000	0,000	4,000	4,010	5,995	
Cota (m):		11,872	11,832	11,952	12,032	11,952	11,832	11,872	
E:		708.788,8331	708.786,8370	708.786,8270	708.782,8306	708.778,8345	708.778,8245	708.776,8410	
N:		7.089.796,0178	7.089.795,9317	7.089.795,9312	7.089.795,7587	7.089.795,5862	7.089.795,5857	7.089.795,5001	
<b>Station: 34+0</b>									
Dist. Eixo (m):		-6,007	-4,010	-4,000	0,000	4,000	4,010	5,996	
Cota (m):		11,908	11,868	11,988	12,068	11,988	11,868	11,908	
E:		708.789,2638	708.787,2683	708.787,2583	708.783,2619	708.779,2658	708.779,2558	708.777,2715	
N:		7.089.786,0271	7.089.785,9410	7.089.785,9405	7.089.785,7680	7.089.785,5955	7.089.785,5950	7.089.785,5094	
<b>Station: 34+10</b>									
Dist. Eixo (m):		-6,007	-4,010	-4,000	0,000	4,000	4,010	5,997	
Cota (m):		11,960	11,920	12,040	12,120	12,040	11,920	11,960	
E:		708.789,6945	708.787,6996	708.787,6896	708.783,6933	708.779,6971	708.779,6871	708.777,7020	
N:		7.089.776,0364	7.089.775,9503	7.089.775,9498	7.089.775,7773	7.089.775,6048	7.089.775,6043	7.089.775,5186	
<b>Station: 35+0</b>									
Dist. Eixo (m):		-6,006	-4,010	-4,000	0,000	4,000	4,010	5,998	
Cota (m):		12,012	11,972	12,092	12,172	12,092	11,972	12,012	
E:		708.790,1251	708.788,1309	708.788,1209	708.784,1246	708.780,1284	708.780,1184	708.778,1324	
N:		7.089.766,0457	7.089.765,9596	7.089.765,9591	7.089.765,7866	7.089.765,6141	7.089.765,6137	7.089.765,5279	
<b>Station: 35+10</b>									
Dist. Eixo (m):		-6,005	-4,010	-4,000	0,000	4,000	4,010	5,999	
Cota (m):		12,065	12,025	12,145	12,225	12,145	12,025	12,064	
E:		708.790,5558	708.788,5622	708.788,5522	708.784,5559	708.780,5597	708.780,5497	708.778,5629	
N:		7.089.756,0550	7.089.755,9689	7.089.755,9685	7.089.755,7959	7.089.755,6234	7.089.755,6230	7.089.755,5372	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS GUILHERME JERKE (T2)**

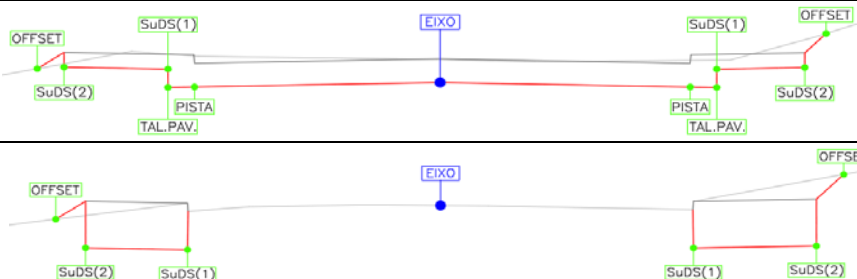
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 35+19</b>									
<b>Dist. Eixo (m):</b>	-6,100	-6,005	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,999	6,167
<b>Cota (m):</b>	12,868	12,112	12,073	12,193	<b>12,273</b>	12,193	12,073	12,112	12,661
<b>E:</b>	708.791,0456	708.790,9502	708.788,9572	708.788,9472	<b>708.784,9509</b>	708.780,9547	708.780,9447	708.778,9571	708.778,7896
<b>N:</b>	7.089.746,9097	7.089.746,9056	7.089.746,8195	7.089.746,8191	<b>7.089.746,6465</b>	7.089.746,4740	7.089.746,4736	7.089.746,3878	7.089.746,3805

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS VITOR HARDT**

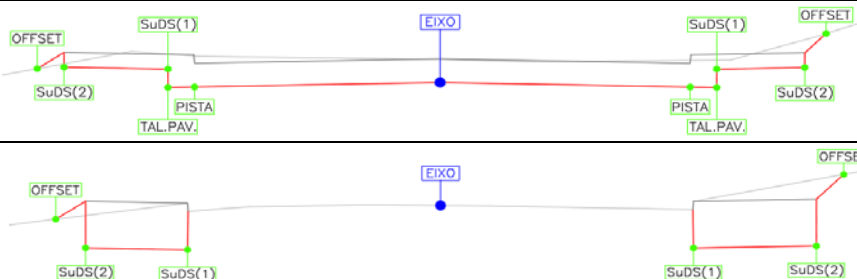
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-1,200	-0,398	-0,398		<b>0,000</b>	6,503	6,901	6,901	10,755	
Cota (m):		17,609	17,593	17,333		<b>17,045</b>	16,915	16,907	17,203	17,280	
E:		708.948,2070	708.947,4068	708.947,4068		<b>708.947,0096</b>	708.940,5221	708.940,1251	708.940,1251	708.936,2803	
N:		7.090.867,2068	7.090.867,1518	7.090.867,1518		<b>7.090.867,1245</b>	7.090.866,6783	7.090.866,6510	7.090.866,6510	7.090.866,3866	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-6,197	-6,125	-4,406	-4,406	<b>0,000</b>	4,000	4,398	4,398	6,000	6,006
Cota (m):		17,547	17,335	17,301	17,005	<b>17,093</b>	17,013	17,005	17,301	17,333	17,589
E:		708.953,8781	708.953,8058	708.952,0908	708.952,0908	<b>708.947,6957</b>	708.943,7051	708.943,3081	708.943,3081	708.941,7097	708.941,7035
N:		7.090.857,5732	7.090.857,5682	7.090.857,4503	7.090.857,4503	<b>7.090.857,1480</b>	7.090.856,8736	7.090.856,8463	7.090.856,8463	7.090.856,7364	7.090.856,7360
<b>Station: 1+0</b>											
Dist. Eixo (m):		-6,007	-6,000	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	6,000	6,013
Cota (m):		17,686	17,420	17,388	17,092	<b>17,180</b>	17,100	17,092	17,388	17,420	17,692
E:		708.954,3742	708.954,3678	708.952,7695	708.952,7695	<b>708.948,3817</b>	708.944,3911	708.943,9941	708.943,9941	708.942,3958	708.942,3830
N:		7.090.847,5837	7.090.847,5832	7.090.847,4733	7.090.847,4733	<b>7.090.847,1716</b>	7.090.846,8972	7.090.846,8699	7.090.846,8699	7.090.846,7599	7.090.846,7591
<b>Station: 1+10</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,027
Cota (m):		17,578	17,545	17,250	17,258	<b>17,338</b>	17,258	17,250	17,546	17,578	17,864
E:		708.955,0536	708.953,4555	708.953,4555	708.953,0583	<b>708.948,0678</b>	708.945,0772	708.944,6802	708.944,6802	708.943,0818	708.943,0551
N:		7.090.837,6068	7.090.837,4969	7.090.837,4969	7.090.837,4696	<b>7.090.837,1951</b>	7.090.836,9207	7.090.836,8934	7.090.836,8934	7.090.836,7835	7.090.836,7817
<b>Station: 2+0</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,007
Cota (m):		17,807	17,775	17,479	17,487	<b>17,567</b>	17,487	17,479	17,775	17,807	18,074
E:		708.955,7397	708.954,1416	708.954,1416	708.953,7444	<b>708.949,7538</b>	708.945,7632	708.945,3662	708.945,3662	708.943,7679	708.943,7613
N:		7.090.827,6303	7.090.827,5204	7.090.827,5204	7.090.827,4931	<b>7.090.827,2187</b>	7.090.826,9443	7.090.826,9170	7.090.826,9170	7.090.826,8071	7.090.826,8066
<b>Station: 2+10</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,020
Cota (m):		18,108	18,076	17,780	17,788	<b>17,868</b>	17,788	17,780	18,076	18,108	18,354
E:		708.956,4257	708.954,8276	708.954,8276	708.954,4304	<b>708.950,4398</b>	708.946,4493	708.946,0522	708.946,0522	708.944,4540	708.944,4338
N:		7.090.817,6539	7.090.817,5440	7.090.817,5440	7.090.817,5167	<b>7.090.817,2423</b>	7.090.816,9678	7.090.816,9405	7.090.816,9405	7.090.816,8306	7.090.816,8292
<b>Station: 2+15</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,397	4,397	5,999	
Cota (m):		18,294	18,262	17,966	17,974	<b>18,054</b>	17,974	17,966	18,262	18,294	
E:		708.956,7848	708.955,1867	708.955,1867	708.954,7895	<b>708.950,7989</b>	708.946,8084	708.946,4114	708.946,4114	708.944,8131	
N:		7.090.812,4319	7.090.812,3220	7.090.812,3220	7.090.812,2947	<b>7.090.812,0203</b>	7.090.811,7459	7.090.811,7186	7.090.811,7186	7.090.811,6087	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-6,045	-4,443	-4,443	-4,045	<b>0,000</b>	3,955	4,353	4,353	5,955	
Cota (m):		18,479	18,447	18,151	18,159	<b>18,240</b>	18,161	18,153	18,449	18,481	
E:		708.957,0927	708.955,4931	708.955,4931	708.955,0955	<b>708.951,0564</b>	708.947,1069	708.946,7095	708.946,7095	708.945,1097	
N:		7.090.807,5881	7.090.807,5016	7.090.807,5016	7.090.807,4801	<b>7.090.807,2615</b>	7.090.807,0479	7.090.807,0264	7.090.807,0264	7.090.806,9398	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-6,265	-6,130	-4,528	-4,528	<b>0,000</b>	3,871	4,269	4,269	5,871	
Cota (m):		19,317	18,921	18,889	18,594	<b>18,684</b>	18,607	18,599	18,895	18,927	
E:		708.957,8523	708.957,7173	708.956,1176	708.956,1176	<b>708.951,5966</b>	708.947,7316	708.947,3343	708.947,3343	708.945,7346	
N:		7.090.797,6146	7.090.797,6073	7.090.797,5207	7.090.797,5207	<b>7.090.797,2762</b>	7.090.797,0671	7.090.797,0456	7.090.797,0456	7.090.796,9590	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-6,152	-6,105	-4,503	-4,503	<b>0,000</b>	3,895	4,293	4,293	5,895	
Cota (m):		19,693	19,437	19,405	19,109	<b>19,199</b>	19,121	19,114	19,409	19,441	
E:		708.958,2796	708.958,2328	708.956,6333	708.956,6333	<b>708.952,1368</b>	708.948,2474	708.947,8500	708.947,8500	708.946,2503	
N:		7.090.787,6231	7.090.787,6205	7.090.787,5340	7.090.787,5340	<b>7.090.787,2908</b>	7.090.787,0803	7.090.787,0588	7.090.787,0588	7.090.786,9723	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-6,135	-6,081	-4,479	-4,479	<b>0,000</b>	3,920	4,317	4,317	5,920	6,035
Cota (m):		20,037	19,986	19,954	19,658	<b>19,748</b>	19,670	19,662	19,957	19,989	20,364
E:		708.958,8026	708.958,7486	708.957,1491	708.957,1491	<b>708.952,6770</b>	708.948,7632	708.948,3658	708.948,3658	708.946,7661	708.946,6512
N:		7.090.777,6367	7.090.777,6338	7.090.777,5473	7.090.777,5473	<b>7.090.777,3054</b>	7.090.777,0936	7.090.777,0721	7.090.777,0721	7.090.776,9856	7.090.776,9794
<b>Station: 5+0</b>											
Dist. Eixo (m):		-6,056	-4,454	-4,454	-4,056	<b>0,000</b>	3,944	4,342	4,342	5,944	6,134
Cota (m):		20,635	20,503	20,207	20,215	<b>20,297</b>	20,218	20,210	20,505	20,537	20,988
E:		708.959,2644	708.957,6649	708.957,6649	708.957,2673	<b>708.953,2172</b>	708.949,2789	708.948,8816	708.948,8816	708.947,2819	708.947,0921
N:		7.090.767,6471	7.090.767,5606	7.090.767,5606	7.090.767,5391	<b>7.090.767,3200</b>	7.090.767,1069	7.090.767,0854	7.090.767,0854	7.090.766,9989	7.090.766,9886
<b>Station: 5+10</b>											
Dist. Eixo (m):		-6,032	-4,430	-4,430	-4,032	<b>0,000</b>	3,968	4,366	4,366	5,968	6,021
Cota (m):		21,077	21,044	20,749	20,757	<b>20,837</b>	20,758	20,750	21,046	21,078	21,303
E:		708.958,7801	708.958,1806	708.958,1806	708.957,7831	<b>708.953,7574</b>	708.949,7947	708.949,3973	708.949,3973	708.947,7976	708.947,7451
N:		7.090.757,6604	7.090.757,5738	7.090.757,5738	7.090.757,5523	<b>7.090.757,3346</b>	7.090.757,1202	7.090.757,0987	7.090.757,0987	7.090.757,0121	7.090.757,0093
<b>Station: 6+0</b>											
Dist. Eixo (m):		-6,007	-4,405	-4,405	-4,007	<b>0,000</b>	3,993	4,391	4,391	5,993	
Cota (m):		21,573	21,541	21,245	21,253	<b>21,333</b>	21,253	21,245	21,541	21,573	
E:		708.960,2959	708.958,6964	708.958,6964	708.958,2988	<b>708.954,2975</b>	708.950,3105	708.949,9131	708.949,9131	708.948,3134	
N:		7.090.747,6737	7.090.747,5871	7.090.747,5871	7.090.747,5656	<b>7.090.747,3492</b>	7.090.747,1335	7.090.747,1120	7.090.747,1120	7.090.747,0254	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS VITOR HARDT**

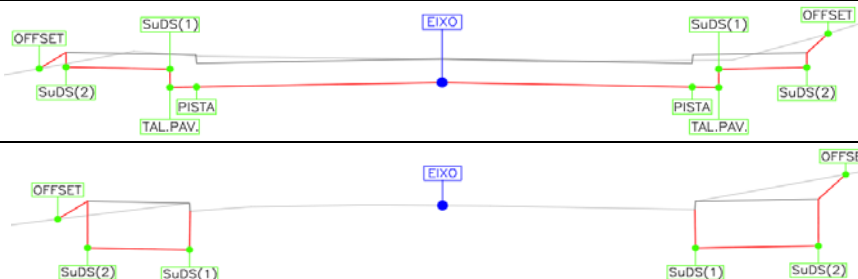
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+2</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,008
Cota (m):		21,708	21,675	21,380	21,388	21,468	21,388	21,380	21,676	21,708	21,708
E:		708.960,4455	708.958,8460	708.958,8460	708.958,4485	708.954,4543	708.950,4601	708.950,0627	708.950,0627	708.948,4630	708.948,4548
N:		7.090.744,7764	7.090.744,6899	7.090.744,6899	7.090.744,6683	7.090.744,4523	7.090.744,2362	7.090.744,2147	7.090.744,2147	7.090.744,1281	7.090.744,1277
<b>Station: 6+10</b>											
Dist. Eixo (m):		-6,023	-4,421	-4,421	-4,023	<b>0,000</b>	3,977	4,375	4,375	6,088	
Cota (m):		22,019	21,987	21,691	21,699	21,779	21,700	21,692	21,988	22,022	
E:		708.960,8067	708.959,2065	708.959,2065	708.958,8087	708.954,7905	708.950,8177	708.950,4202	708.950,4202	708.948,7093	
N:		7.090.737,6466	7.090.737,5707	7.090.737,5707	7.090.737,5519	7.090.737,3614	7.090.737,1730	7.090.737,1541	7.090.737,1541	7.090.737,0730	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-6,055	-4,453	-4,453	-4,055	<b>0,000</b>	3,945	4,343	4,343	6,041	
Cota (m):		22,414	22,382	22,086	22,094	22,175	22,097	22,089	22,384	22,418	
E:		708.961,3121	708.959,7121	708.959,7121	708.959,3144	708.955,2641	708.951,3233	708.950,9258	708.950,9258	708.949,2294	
N:		7.090.727,6593	7.090.727,5835	7.090.727,5835	7.090.727,5646	7.090.727,3726	7.090.727,1857	7.090.727,1669	7.090.727,1669	7.090.727,0864	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-6,162	-4,486	-4,486	-4,088	<b>0,000</b>	3,913	4,311	4,311	5,926	
Cota (m):		22,977	22,766	22,734	22,439	22,528	22,450	22,442	22,738	22,770	
E:		708.961,8926	708.961,8190	708.960,2186	708.960,2186	708.959,8209	708.955,7377	708.951,8294	708.951,4319	708.949,8179	
N:		7.090.717,6756	7.090.717,6721	7.090.717,5963	7.090.717,5963	7.090.717,5774	7.090.717,1985	7.090.717,1796	7.090.717,1796	7.090.717,1031	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-6,196	-4,594	-4,594	-4,196	<b>0,000</b>	3,805	4,203	4,203	5,811	
Cota (m):		22,833	22,801	22,506	22,514	22,598	22,521	22,514	22,809	22,841	
E:		708.962,4003	708.960,8002	708.960,8002	708.960,4025	708.956,2113	708.952,4110	708.952,0135	708.952,0135	708.950,4065	
N:		7.090.707,6885	7.090.707,6126	7.090.707,6126	7.090.707,5937	7.090.707,3950	7.090.707,2148	7.090.707,1960	7.090.707,1960	7.090.707,1198	
<b>Station: 8+7</b>											
Dist. Eixo (m):		-6,279	-4,677	-4,677	-4,279	<b>0,000</b>	3,721	4,060	4,060	5,482	
Cota (m):		22,549	22,516	22,221	22,229	22,314	22,240	22,233	22,527	22,555	
E:		708.962,8482	708.961,2480	708.961,2480	708.960,8503	708.956,5760	708.952,8588	708.952,5209	708.952,5209	708.951,1000	
N:		7.090.700,0011	7.090.699,9252	7.090.699,9252	7.090.699,9063	7.090.699,7037	7.090.699,5274	7.090.699,5114	7.090.699,5114	7.090.699,4440	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-6,298	-4,308			<b>0,000</b>			3,712	5,702	
Cota (m):		22,234	22,195						22,207	22,246	
E:		708.962,9761	708.960,9883			708.956,6850			708.952,9773	708.950,9895	
N:		7.090.697,7045	7.090.697,6103			7.090.697,4062			7.090.697,2304	7.090.697,1362	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-6,282	-4,293			<b>0,000</b>			3,727	5,712	
Cota (m):		21,772	21,732						21,744	21,783	
E:		708.963,4333	708.961,4468			708.957,1586			708.953,4358	708.951,4527	
N:		7.090.687,7150	7.090.687,6208			7.090.687,4175			7.090.687,2410	7.090.687,1469	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-6,185	-4,284			<b>0,000</b>			3,736	5,711	
Cota (m):		21,134	21,096						21,107	21,147	
E:		708.963,8102	708.961,9119			708.957,6322			708.953,9009	708.951,9272	
N:		7.090.677,7216	7.090.677,6316			7.090.677,4287			7.090.677,2518	7.090.677,1582	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-6,163	-4,276			<b>0,000</b>			3,744	5,711	
Cota (m):		20,513	20,475						20,486	20,525	
E:		708.964,2620	708.962,3770			708.958,1058			708.954,3660	708.952,4017	
N:		7.090.667,7318	7.090.667,6424			7.090.667,4399			7.090.667,2626	7.090.667,1694	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-6,165	-4,267			<b>0,000</b>			3,753	5,746	
Cota (m):		20,287	20,249						20,260	20,300	
E:		708.964,7376	708.962,8421			708.958,5795			708.954,8311	708.952,8401	
N:		7.090.657,7431	7.090.657,6533			7.090.657,4511			7.090.657,2734	7.090.657,1790	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-6,184	-4,213			<b>0,000</b>			3,808	5,854	
Cota (m):		20,062	20,023						20,031	20,072	
E:		708.965,2299	708.963,2611			708.959,0531			708.955,2495	708.953,2058	
N:		7.090.647,7552	7.090.647,6619			7.090.647,4624			7.090.647,2820	7.090.647,1851	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-6,221	-4,091			<b>0,000</b>			3,930	5,940	
Cota (m):		19,884	19,841						19,844	19,884	
E:		708.965,7405	708.963,6131			708.959,5267			708.955,6015	708.953,5935	
N:		7.090.637,7682	7.090.637,6673			7.090.637,4736			7.090.637,2875	7.090.637,1923	
<b>Station: 11+16</b>											
Dist. Eixo (m):		-5,200	-4,010			<b>0,000</b>			4,014	5,204	
Cota (m):		19,764	19,740						19,740	19,764	
E:		708.965,0356	708.963,8470			708.959,8414			708.955,8322	708.954,6436	
N:		7.090.631,0826	7.090.631,0263			7.090.630,8363			7.090.630,6463	7.090.630,5899	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS VITOR HARDT**

Desenho Esquemático:

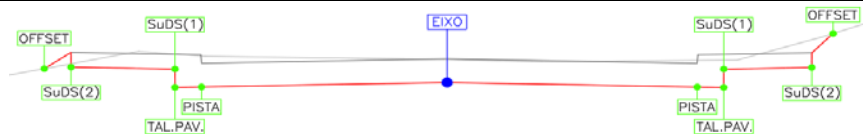


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 13+0</b>											
Dist. Eixo (m):		-6,641	-3,903			0,000			3,867	5,832	
Cota (m):		19,520	19,465						19,466	19,505	
E:		708.967,5335	708.964,7988			708.960,8998			708.957,0368	708.955,0740	
N:		7.090.607,8060	7.090.607,6819			7.090.607,5050			7.090.607,3298	7.090.607,2408	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-5,983	-3,917			0,000			3,877	5,847	
Cota (m):		19,444	19,393						19,394	19,433	
E:		708.967,3298	708.965,2657			708.961,3529			708.957,4803	708.955,5124	
N:		7.090.597,7864	7.090.597,6928			7.090.597,5153			7.090.597,3396	7.090.597,2504	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-5,828	-3,931			0,000			3,886	5,861	
Cota (m):		19,401	19,363						19,364	19,403	
E:		708.967,6285	708.965,7327			708.961,8061			708.957,9237	708.955,9508	
N:		7.090.587,7897	7.090.587,7037			7.090.587,5256			7.090.587,3495	7.090.587,2600	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-5,898	-3,944			0,000			3,896	5,876	
Cota (m):		19,387	19,348						19,349	19,389	
E:		708.968,1517	708.966,1996			708.962,2593			708.958,3672	708.956,3892	
N:		7.090.577,8031	7.090.577,7146			7.090.577,5358			7.090.577,3593	7.090.577,2696	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-5,904	-3,958			0,000			3,906	5,891	
Cota (m):		19,486	19,447						19,448	19,488	
E:		708.968,6105	708.966,6665			708.962,7124			708.958,8106	708.956,8276	
N:		7.090.567,8137	7.090.567,7255			7.090.567,5461			7.090.567,3691	7.090.567,2792	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-5,910	-3,972			0,000			3,916	5,906	
Cota (m):		19,525	19,486						19,488	19,527	
E:		708.969,0693	708.967,1335			708.963,1656			708.959,2541	708.957,2660	
N:		7.090.557,8242	7.090.557,7364			7.090.557,5564			7.090.557,3790	7.090.557,2888	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-5,918	-3,986			0,000			3,925	5,920	
Cota (m):		19,378	19,340						19,341	19,381	
E:		708.969,5311	708.967,6004			708.963,6188			708.959,6976	708.957,7044	
N:		7.090.547,8349	7.090.547,7473			7.090.547,5667			7.090.547,3888	7.090.547,2984	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-5,940	-4,000			0,000			3,935	5,952	
Cota (m):		19,063	19,024						19,025	19,066	
E:		708.970,0055	708.968,0673			708.964,0719			708.960,1410	708.958,1263	
N:		7.090.537,8461	7.090.537,7582			7.090.537,5769			7.090.537,3986	7.090.537,3072	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-5,999	-4,013			0,000			3,945	5,998	
Cota (m):		18,621	18,581						18,583	18,624	
E:		708.970,5175	708.968,5343			708.964,5251			708.960,5845	708.958,5328	
N:		7.090.527,8590	7.090.527,7691			7.090.527,5872			7.090.527,4085	7.090.527,3154	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-6,140	-4,027			0,000			3,954	6,007	
Cota (m):		18,083	18,040						18,042	18,083	
E:		708.971,1118	708.969,0012			708.964,9782			708.961,0280	708.958,9772	
N:		7.090.517,8757	7.090.517,7800			7.090.517,5975			7.090.517,4183	7.090.517,3253	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-6,101	-4,041			0,000			3,964	5,956	
Cota (m):		17,515	17,473						17,475	17,515	
E:		708.971,5266	708.969,4681			708.965,4314			708.961,4714	708.959,4816	
N:		7.090.507,8843	7.090.507,7909			7.090.507,6078			7.090.507,4281	7.090.507,3379	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-6,085	-4,055			0,000			3,974	5,931	
Cota (m):		16,985	16,944						16,946	16,985	
E:		708.971,9634	708.969,9351			708.965,8846			708.961,9149	708.959,9596	
N:		7.090.497,8938	7.090.497,8018			7.090.497,6180			7.090.497,4380	7.090.497,3493	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-6,229	-4,068			0,000			3,983	5,909	
Cota (m):		16,507	16,464						16,465	16,504	
E:		708.972,5602	708.970,4020			708.966,3377			708.962,3583	708.960,4351	
N:		7.090.487,9106	7.090.487,8127			7.090.487,6283			7.090.487,4478	7.090.487,3605	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-5,500	-4,310			0,000			4,988	7,051	
Cota (m):		16,084	16,060						16,046	16,087	
E:		708.972,2857	708.971,0969			708.966,7909			708.961,8080	708.959,7474	
N:		7.090.477,8878	7.090.477,8339			7.090.477,6386			7.090.477,4125	7.090.477,3191	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CARLOS VITOR HARDT**

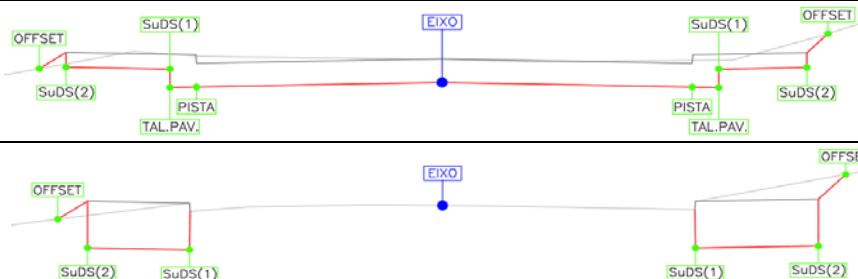
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 20+10</b>											
Dist. Eixo (m):		-6,045	-4,082			0,000			3,939	6,436	
Cota (m):		15,892	15,852						15,855	15,905	
E:		708.973,7361	708.971,7747			708.967,6972			708.963,7621	708.961,2675	
N:		7.090.457,9331	7.090.457,8441			7.090.457,6591			7.090.457,4806	7.090.457,3675	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-5,992	-4,059			0,000			3,961	6,512	
Cota (m):		15,878	15,839						15,841	15,892	
E:		708.974,1358	708.972,2055			708.968,1504			708.964,1937	708.961,6451	
N:		7.090.447,9409	7.090.447,8534			7.090.447,6694			7.090.447,4899	7.090.447,3743	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
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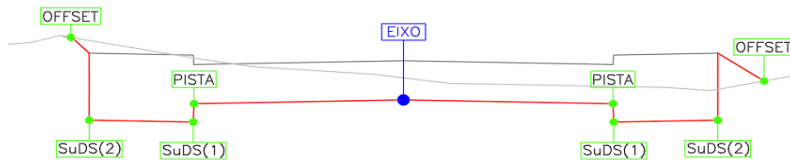
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 21+10</b>											
Dist. Eixo (m):		-5,938	-4,038			0,000			3,982	6,602	
Cota (m):		15,813	15,775						15,776	15,828	
E:		708.974,5356	708.972,6372			708.968,6035			708.964,6254	708.962,0083	
N:		7.090.437,9488	7.090.437,8626			7.090.437,6797			7.090.437,4992	7.090.437,3805	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-5,976	-4,034			0,000			3,986	6,694	
Cota (m):		15,713	15,674						15,675	15,729	
E:		708.975,0266	708.973,0870			708.969,0567			708.965,0753	708.962,3699	
N:		7.090.427,9608	7.090.427,8728			7.090.427,6899			7.090.427,5093	7.090.427,3866	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-5,994	-4,031			0,000			3,989	6,777	
Cota (m):		15,601	15,561						15,562	15,618	
E:		708.975,4978	708.973,5372			708.969,5099			708.965,5254	708.962,7401	
N:		7.090.417,9719	7.090.417,8829			7.090.417,7002			7.090.417,5195	7.090.417,3931	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-5,986	-4,022			0,000			3,998	6,771	
Cota (m):		15,483	15,443						15,444	15,499	
E:		708.975,9428	708.973,9813			708.969,9630			708.965,9695	708.963,1987	
N:		7.090.407,9818	7.090.407,8928			7.090.407,7105			7.090.407,5293	7.090.407,4036	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-5,974	-4,101			0,000			3,919	6,766	
Cota (m):		15,373	15,336						15,340	15,397	
E:		708.976,3838	708.974,5131			708.970,4162			708.966,5010	708.963,6573	
N:		7.090.397,9915	7.090.397,9066			7.090.397,7208			7.090.397,5432	7.090.397,4142	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-5,965	-4,137			0,000			3,883	6,130	
Cota (m):		15,276	15,239						15,245	15,289	
E:		708.976,8282	708.975,0024			708.970,8694			708.966,9906	708.964,7456	
N:		7.090.388,0014	7.090.387,9185			7.090.387,7310			7.090.387,5551	7.090.387,4532	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-5,899	-4,180			0,000			3,840	5,818	
Cota (m):		15,211	15,177						15,183	15,223	
E:		708.977,2155	708.975,4986			708.971,3225			708.967,4867	708.965,5105	
N:		7.090.378,0086	7.090.377,9307			7.090.377,7413			7.090.377,5673	7.090.377,4777	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-5,859	-4,208			0,000			3,812	5,863	
Cota (m):		15,148	15,115						15,123	15,164	
E:		708.977,6287	708.975,9794			708.971,7757			708.967,9676	708.965,9190	
N:		7.090.368,0171	7.090.367,9423			7.090.367,7516			7.090.367,5788	7.090.367,4859	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-5,873	-4,168			0,000			3,803	6,055	
Cota (m):		15,078	15,044						15,051	15,096	
E:		708.978,0954	708.976,3925			708.972,2289			708.968,4293	708.966,1799	
N:		7.090.358,0280	7.090.357,9507			7.090.357,7619			7.090.357,5895	7.090.357,4875	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-5,892	-3,936			0,000			3,487	6,178	
Cota (m):		15,073	15,033						15,042	15,096	
E:		708.978,5678	708.976,6143			708.972,6820			708.969,1988	708.966,5102	
N:		7.090.348,0391	7.090.347,9505			7.090.347,7721			7.090.347,6141	7.090.347,4922	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-6,029	-3,705			0,000			3,170	6,301	
Cota (m):		15,077	15,031						15,041	15,104	
E:		708.979,1581	708.976,8361			708.973,1352			708.969,9682	708.966,8405	
N:		7.090.338,0556	7.090.337,9503			7.090.337,7824			7.090.337,6387	7.090.337,4969	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA CILEZIO R. SILVEIRA**

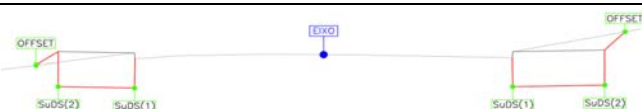
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist. Eixo (m):		-11,981	-11,899	-11,889	<b>0,000</b>	9,712	9,722	11,872	
Cota (m):		12,969	12,967	13,087	<b>13,027</b>	12,983	12,863	12,906	
E:		708.529,9206	708.529,9238	708.529,9241	<b>708.530,3850</b>	708.530,7615	708.530,7618	708.530,8452	
N:		7.090.138,6412	7.090.138,5593	7.090.138,5493	<b>7.090.126,6695</b>	7.090.116,9646	7.090.116,9546	7.090.114,8068	
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,054	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,943	
Cota (m):		12,893	12,852	12,972	<b>13,052</b>	12,972	12,852	12,891	
E:		708.540,1428	708.540,2220	708.540,2224	<b>708.540,3775</b>	708.540,5325	708.540,5329	708.540,6078	
N:		7.090.133,1066	7.090.131,0642	7.090.131,0542	<b>7.090.127,0572</b>	7.090.123,0602	7.090.123,0502	7.090.121,1185	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-5,998	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,897	
Cota (m):		12,917	12,877	12,997	<b>13,077</b>	12,997	12,877	12,915	
E:		708.550,1375	708.550,2145	708.550,2149	<b>708.550,3700</b>	708.550,5250	708.550,5254	708.550,5986	
N:		7.090.133,4384	7.090.131,4518	7.090.131,4418	<b>7.090.127,4448</b>	7.090.123,4478	7.090.123,4378	7.090.121,5519	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-5,928	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,885	
Cota (m):		12,941	12,903	13,023	<b>13,103</b>	13,023	12,903	12,940	
E:		708.560,1327	708.560,2070	708.560,2074	<b>708.560,3624</b>	708.560,5175	708.560,5179	708.560,5906	
N:		7.090.133,7560	7.090.131,8394	7.090.131,8294	<b>7.090.127,8324</b>	7.090.123,8354	7.090.123,8254	7.090.121,9514	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-5,927	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,908	
Cota (m):		12,967	12,928	13,048	<b>13,128</b>	13,048	12,928	12,966	
E:		708.570,1252	708.570,1995	708.570,1999	<b>708.570,3549</b>	708.570,5100	708.570,5104	708.570,5839	
N:		7.090.134,1428	7.090.132,2270	7.090.132,2171	<b>7.090.128,2201</b>	7.090.124,2231	7.090.124,2131	7.090.122,3162	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-5,946	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,921	
Cota (m):		12,993	12,954	13,074	<b>13,154</b>	13,074	12,954	12,992	
E:		708.580,1169	708.580,1920	708.580,1924	<b>708.580,3474</b>	708.580,5025	708.580,5028	708.580,5769	
N:		7.090.134,5489	7.090.132,6147	7.090.132,6047	<b>7.090.128,6077</b>	7.090.124,6107	7.090.124,6007	7.090.122,6913	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-6,322	-5,964	-4,010	<b>0,000</b>	4,000	4,010	5,949	
Cota (m):		13,440	13,018	12,979	<b>13,179</b>	13,099	12,979	13,018	
E:		708.590,0948	708.590,1087	708.590,1845	<b>708.590,3399</b>	708.590,4949	708.590,4953	708.590,5705	
N:		7.090.135,3123	7.090.134,9551	7.090.133,0023	<b>7.090.128,9953</b>	7.090.124,9983	7.090.124,9883	7.090.123,0509	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-6,414	-5,983	-4,010	<b>0,000</b>	4,000	4,010	5,975	
Cota (m):		13,369	12,996	12,957	<b>13,157</b>	13,077	12,957	12,996	
E:		708.600,0838	708.600,1005	708.600,1769	<b>708.600,3324</b>	708.600,4874	708.600,4878	708.600,5640	
N:		7.090.135,7920	7.090.135,3611	7.090.133,3899	<b>7.090.129,3829</b>	7.090.125,3860	7.090.125,3760	7.090.123,4121	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-6,271	-6,000	-4,010	<b>0,000</b>	4,000	4,010	6,000	
Cota (m):		13,357	12,878	12,838	<b>13,038</b>	12,958	12,838	12,878	
E:		708.610,0818	708.610,0923	708.610,1694	<b>708.610,3249</b>	708.610,4799	708.610,4803	708.610,5574	
N:		7.090.136,0371	7.090.135,7663	7.090.133,7776	<b>7.090.129,7706</b>	7.090.125,7736	7.090.125,7636	7.090.123,7754	
<b>Station: 4+9</b>									
Dist. Eixo (m):		-12,028	-11,842	-11,832	<b>0,000</b>	10,664	10,674	12,423	
Cota (m):		12,723	12,719	12,839	<b>12,887</b>	12,926	12,806	12,841	
E:		708.618,9077	708.618,9149	708.618,9153	<b>708.619,3740</b>	708.619,7873	708.619,7877	708.619,8555	
N:		7.090.142,1406	7.090.141,9551	7.090.141,9451	<b>7.090.130,1216</b>	7.090.119,4658	7.090.119,4558	7.090.117,7078	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA COMANDANTE KARL BUSCH**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)		EIXO		SuDS(1)	SuDS(2)		OFFSET
Station: 0+0										
Dist. Eixo (m):		-10,899	-9,709		0,000		11,622	12,078		
Cota (m):		12,232	12,208				12,170	12,179		
E:		709.353,8894	709.353,9226		709.354,1933		709.354,6174	709.354,5302		
N:		7.089.947,8416	7.089.946,6520		7.089.936,9473		7.089.925,3303	7.089.924,8738		
Station: 0+10										
Dist. Eixo (m):		-6,018	-4,010		0,000		4,009	5,886		
Cota (m):		12,213	12,173				12,173	12,211		
E:		709.364,0216	709.364,0776		709.364,1894		709.364,3012	709.364,3536		
N:		7.089.943,2414	7.089.941,2349		7.089.937,2262		7.089.933,2185	7.089.931,3421		
Station: 1+0										
Dist. Eixo (m):		-5,975	-4,008		0,000		4,010	5,824		
Cota (m):		12,152	12,113				12,113	12,149		
E:		709.374,0189	709.374,0738		709.374,1855		709.374,2974	709.374,3480		
N:		7.089.943,4781	7.089.941,5116		7.089.937,5051		7.089.933,4971	7.089.931,6835		
Station: 1+10										
Dist. Eixo (m):		-5,933	-4,006		0,000		4,010	5,761		
Cota (m):		12,094	12,055				12,055	12,090		
E:		709.384,0162	709.384,0699		709.384,1816		709.384,2935	709.384,3423		
N:		7.089.943,7148	7.089.941,7883		7.089.937,7839		7.089.933,7757	7.089.932,0248		
Station: 1+14										
Dist. Eixo (m):		-5,913	-4,005		0,000		4,010	5,731		
Cota (m):		12,053	12,015				12,015	12,049		
E:		709.388,8571	709.388,9103		709.389,0220		709.389,1338	709.389,1818		
N:		7.089.943,8294	7.089.941,9222		7.089.937,9190		7.089.933,9105	7.089.932,1901		

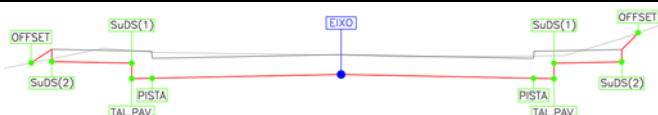
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)		OFFSET
Station: 2+0												
Dist. Eixo (m):					-4,045	0,000	4,000	4,398	4,398	5,699		
Cota (m):					11,651	11,732	11,652	11,644	11,939	11,965		
E:					709.394,0651	709.394,1778	709.394,2892	709.394,3003	709.394,3003	709.394,3365		
N:					7.089.942,1060	7.089.938,0627	7.089.934,0642	7.089.933,6664	7.089.933,6664	7.089.932,3659		
Station: 2+10												
Dist. Eixo (m):					-4,190	0,000	4,000	4,398	4,398	5,638		
Cota (m):					11,548	11,632	11,552	11,544	11,839	11,864		
E:					709.404,0572	709.404,1739	709.404,2853	709.404,2964	709.404,2964	709.404,3309		
N:					7.089.942,5294	7.089.938,3412	7.089.934,3428	7.089.933,9450	7.089.933,9450	7.089.932,7054		
Station: 2+18												
Dist. Eixo (m):					-4,000	0,000	4,000	4,398	4,398	5,588		
Cota (m):					11,484	11,564	11,484	11,476	11,771	11,795		
E:					709.412,9036	709.413,0151	709.413,1265	709.413,1376	709.413,1376	709.413,1707		
N:					7.089.942,5861	7.089.938,5876	7.089.934,5892	7.089.934,1914	7.089.934,1914	7.089.933,0023		
Station: 3+0												
Dist. Eixo (m):	-6,425	-5,900	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,581		
Cota (m):	11,705	12,055	11,765	11,469	11,477	11,557	11,477	11,469	11,765	11,789		
E:	709.413,9910	709.414,0056	709.414,0475	709.414,0475	709.414,0586	709.414,1700	709.414,2814	709.414,2925	709.414,2925	709.414,3255		
N:	7.089.945,0425	7.089.944,5177	7.089.943,0163	7.089.943,0163	7.089.942,6183	7.089.938,6198	7.089.934,6214	7.089.934,2236	7.089.934,2236	7.089.933,0410		
Station: 3+10												
Dist. Eixo (m):	-6,487	-5,900	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,524	5,557	
Cota (m):	11,830	12,021	11,731	11,435	11,443	11,523	11,443	11,435	11,730	11,753	11,843	
E:	709.423,9854	709.424,0018	709.424,0436	709.424,0436	709.424,0547	709.424,1661	709.424,2775	709.424,2886	709.424,2886	709.424,3200	709.424,3209	
N:	7.089.945,3825	7.089.944,7963	7.089.943,2948	7.089.943,2948	7.089.942,8968	7.089.938,8984	7.089.934,8999	7.089.934,5021	7.089.934,5021	7.089.933,3767	7.089.933,3437	
Station: 4+0												
Dist. Eixo (m):	-6,497	-5,900	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,501	5,700	
Cota (m):	11,602	12,000	11,711	11,415	11,423	11,503	11,423	11,415	11,711	11,733	11,860	
E:	709.433,9812	709.433,9979	709.434,0397	709.434,0397	709.434,0508	709.434,1622	709.434,2737	709.434,2847	709.434,2847	709.434,3155	709.434,3210	
N:	7.089.945,6717	7.089.945,0749	7.089.943,5734	7.089.943,5734	7.089.943,1754	7.089.939,1769	7.089.935,1785	7.089.934,7807	7.089.934,7807	7.089.933,6784	7.089.933,4794	
Station: 4+10												
Dist. Eixo (m):	-6,497	-5,900	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,493	5,827	
Cota (m):	11,583	11,880	11,691	11,395	11,403	11,483	11,403	11,395	11,690	11,712	11,750	
E:	709.443,9774	709.443,9940	709.444,0358	709.444,0358	709.444,0469	709.444,1584	709.444,2698	709.444,2809	709.444,2809	709.444,3113	709.444,3207	
N:	7.089.945,9500	7.089.945,3534	7.089.943,8520	7.089.943,8520	7.089.943,4540	7.089.939,4555	7.089.935,4571	7.089.935,0593	7.089.935,0593	7.089.933,9651	7.089.933,6311	
Station: 5+0												
Dist. Eixo (m):	-6,409	-5,915	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,484	5,769	
Cota (m):	11,632	11,961	11,670	11,375	11,383	11,463	11,383	11,375	11,670	11,692	11,763	
E:	709.453,9760	709.453,9897	709.454,0320	709.454,0320	709.454,0431	709.454,1545	709.454,2659	709.454,2770	709.454,2770	709.454,3072	709.454,3152	
N:	7.089.946,1404	7.089.945,6471	7.089.944,1306	7.089.944,1306	7.089.943,7326	7.089.939,7340	7.089.935,7357	7.089.935,3379	7.089.935,3379	7.089.934,2518	7.089.933,9674	
Station: 5+10												
Dist. Eixo (m):	-8,120	-7,772	-5,239	-5,239	-4,840	0,000	4,897	5,295	5,295	7,115	7,343	
Cota (m):	11,712	11,944	11,634	11,338	11,346	11,443	11,345	11,337	11,633	11,669	11,777	
E:	709.463,9244	709.463,9341	709.464,0047	709.464,0047	709.464,0158	709.464,1506	709.464,2870	709.464,2981	709.464,2981	709.464,3488	709.464,3551	
N:	7.089.948,1291	7.089.947,7813	7.089.945,2490	7.089.945,2490	7.089.944,8510	7.089.940,0126	7.089.935,1170	7.089.934,7192	7.089.934,7192	7.089.932,9003	7.089.932,6725	
Station: 5+11												
Dist. Eixo (m):	-11,250	-10,985	-6,630	-6,630	-6,232	0,000	6,347	6,745	6,745	10,205	10,441	
Cota (m):	11,772	11,949	11,602	11,306	11,314	11,439	11,312	11,304	11,600	11,629	11,772	
E:	709.465,8151	709.465,8224	709.465,9438	709.465,9438	709.465,9549	709.466,1286	709.466,3054	709.466,3165	709.466,3165	709.466,4129	709.466,4195	
N:	7.089.951,3212	7.089.951,0557	7.089.946,6996	7.089.946,6996	7.089.946,3016	7.089.940,0677	7.089.933,7233	7.089.933,3255	7.089.933,3253	7.089.929,8663	7.089.929,6309	
Station: 5+14												
Dist. Eixo (m):		-12,689	-5,398	-5,398	-5,000	0,000						
Cota (m):		12,028	11,622	11,326	11,334	11,434						
E:		709.467,5640	709.468,0358	709.468,0358	709.468,0816	709.468,3851						
N:		7.089.952,8765	7.089.945,6009	7.089.945,6009	7.089.945,2035	7.089.940,2140						
Station: 6+4												
Dist. Eixo (m):						0,000	8,157	8,554	8,554	12,263		12,647
Cota (m):						11,448	11,361	11,353	11,649	11,723		11,727
E:						709.478,4548	709.479,0830	709.479,0088	709.479,0088	709.479,2489		709.479,2738
N:						7.089.940,8670	7.089.932,7215	7.089.932,3244	7.089.932,3244	7.089.928,6211		7.089.928,2376
Station: 6+10												
Dist. Eixo (m):		-7,065	-4,245	-4,245	-3,847	0,000	5,163	5,561	5,561	7,417	7,772	
Cota (m):		11,721	11,665	11,369	11,377	11,453	11,351	11,343	11,639	11,676	11,700	
E:		709.483,9339	709.484,0089	709.484,0089	709.484,0195	709.484,1219	709.484,2593	709.484,2699	709.484,2699	709.484,3193	709.484,3288	
N:		7.089.948,0804	7.089.945,2617	7.089.945,2617	7.089.944,8637	7.089.941,0178	7.089.935,8568	7.089.935,4590	7.089.935,4590	7.089.933,6033	7.089.933,2488	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA COMANDANTE KARL BUSCH**

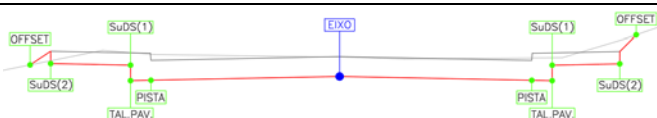
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
Station: 7+0											
Dist. Eixo (m):		-7,175	-4,268	-4,268	-3,870	<b>0,000</b>	5,130	5,528	5,528	7,275	7,418
Cota (m):		11,732	11,674	11,378	11,386	11,463	11,361	11,353	11,648	11,683	12,086
E:		709.493.9274	709.494.0048	709.494.0048	709.494.0154	709.494.1184	709.494.2549	709.494.2655	709.494.2655	709.494.3120	709.494.3158
N:		7.089.948.4566	7.089.945.5505	7.089.945.5505	7.089.945.1525	7.089.941.2840	7.089.936.1556	7.089.935.7578	7.089.935.7578	7.089.934.0111	7.089.933.8682
Station: 7+10											
Dist. Eixo (m):		-7,245	-4,291	-4,291	-3,893	<b>0,000</b>	5,107	5,505	5,505	7,195	7,550
Cota (m):		11,742	11,683	11,388	11,396	11,473	11,371	11,363	11,659	11,693	12,308
E:		709.503.9220	709.504.0007	709.504.0007	709.504.0113	709.504.1148	709.504.2508	709.504.2614	709.504.2614	709.504.3063	709.504.3158
N:		7.089.948.7924	7.089.945.8393	7.089.945.8393	7.089.945.4413	7.089.941.5501	7.089.936.4445	7.089.936.0466	7.089.936.0466	7.089.934.3579	7.089.934.0026
Station: 8+0											
Dist. Eixo (m):		-7,314	-4,313	-4,313	-3,915	<b>0,000</b>	5,085	5,483	5,483	7,114	7,290
Cota (m):		11,747	11,687	11,391	11,399	11,478	11,376	11,368	11,663	11,696	12,132
E:		709.513.9166	709.513.9965	709.513.9965	709.514.0071	709.514.1113	709.514.2466	709.514.2572	709.514.2572	709.514.3006	709.514.3053
N:		7.089.949.1281	7.089.946.1281	7.089.946.1281	7.089.945.7301	7.089.941.8162	7.089.936.7333	7.089.936.3355	7.089.936.3355	7.089.934.7047	7.089.934.5291
Station: 8+10											
Dist. Eixo (m):		-7,530	-4,336	-4,336	-3,938	<b>0,000</b>	5,062	5,460	5,460	7,061	
Cota (m):		11,727	11,663	11,367	11,375	11,454	11,353	11,345	11,641	11,673	
E:		709.523.9074	709.523.9924	709.523.9924	709.524.0030	709.524.1078	709.524.2425	709.524.2531	709.524.2531	709.524.2957	
N:		7.089.949.6096	7.089.946.4170	7.089.946.4170	7.089.946.0190	7.089.942.0824	7.089.937.0221	7.089.936.6243	7.089.936.6243	7.089.935.0237	
Station: 9+0											
Dist. Eixo (m):		-7,407	-4,359	-4,359	-3,961	<b>0,000</b>	5,039	5,437	5,437	7,029	
Cota (m):		11,676	11,615	11,320	11,328	11,407	11,306	11,298	11,594	11,626	
E:		709.533.9071	709.533.9882	709.533.9882	709.533.9988	709.534.1042	709.534.2383	709.534.2489	709.534.2489	709.534.2913	
N:		7.089.949.7529	7.089.946.7058	7.089.946.7058	7.089.946.3078	7.089.942.3485	7.089.937.3109	7.089.936.9131	7.089.936.9131	7.089.935.3218	
Station: 9+10											
Dist. Eixo (m):		-7,289	-4,382	-4,382	-3,983	<b>0,000</b>	5,017	5,415	5,415	6,997	
Cota (m):		11,624	11,566	11,270	11,278	11,357	11,257	11,249	11,545	11,577	
E:		709.543.9067	709.543.9841	709.543.9841	709.543.9947	709.544.1007	709.544.2342	709.544.2448	709.544.2448	709.544.2869	
N:		7.089.949.9011	7.089.946.9946	7.089.946.9946	7.089.946.5966	7.089.942.6146	7.089.937.5998	7.089.937.2019	7.089.937.2019	7.089.935.6199	
Station: 9+17											
Dist. Eixo (m):		-7,203	-4,398	-4,398	-4,000	<b>0,000</b>	5,000	5,398	5,398	6,974	
Cota (m):		11,597	11,541	11,245	11,253	11,333	11,233	11,225	11,521	11,553	
E:		709.551.2297	709.551.3043	709.551.3043	709.551.3149	709.551.4213	709.551.5544	709.551.5650	709.551.5650	709.551.6089	
N:		7.089.950.0096	7.089.947.2061	7.089.947.2061	7.089.946.8081	7.089.942.8095	7.089.937.8113	7.089.937.4135	7.089.937.4135	7.089.935.8382	
Station: 10+0											
Dist. Eixo (m):		-8,189	-4,486			<b>0,000</b>			5,285	7,475	
Cota (m):		11,607	11,534						11,518	11,562	
E:		709.553.9211	709.554.0009			709.554.0975			709.554.2113	709.554.2585	
N:		7.089.951.0541	7.089.947.3518			7.089.942.8672			7.089.937.5833	7.089.935.3936	
Station: 10+13											
Dist. Eixo (m):		-13,416	-9,828			<b>0,000</b>					
Cota (m):		11,894	11,552								
E:		709.567.4834	709.567.5607			709.567.7724					
N:		7.089.956.5750	7.089.952.9876			7.089.943.1618					
Station: 10+18											
Dist. Eixo (m):		-7,732	-5,597	-5,597	-5,199	<b>0,000</b>	6,693	7,091	7,091	9,536	
Cota (m):		11,824	11,781	11,485	11,493	11,499	11,438	11,430	11,725	11,774	
E:		709.571.9962	709.572.0422	709.572.0422	709.572.0507	709.572.1627	709.572.3069	709.572.3154	709.572.3154	709.572.3681	
N:		7.089.950.9863	7.089.948.8519	7.089.948.8519	7.089.948.4538	7.089.943.2563	7.089.936.5648	7.089.936.1670	7.089.936.1670	7.089.933.7224	
Station: 11+0											
Dist. Eixo (m):		-7,069	-5,003	-5,003	-4,605	<b>0,000</b>	5,526	5,924	5,924	7,581	
Cota (m):		11,793	11,742	11,447	11,455	11,512	11,443	11,435	11,731	11,764	
E:		709.573.9188	709.573.9696	709.573.9696	709.573.9794	709.574.0927	709.574.2286	709.574.2384	709.574.2384	709.574.2792	
N:		7.089.950.3711	7.089.948.3054	7.089.948.3054	7.089.947.9074	7.089.943.3038	7.089.937.7794	7.089.937.3815	7.089.937.3815	7.089.935.7252	
Station: 11+10											
Dist. Eixo (m):		-6,870	-4,898	-4,898	-4,500	<b>0,000</b>	4,500	4,898	4,898	6,912	
Cota (m):		11,818	11,779	11,483	11,491	11,581	11,491	11,483	11,779	11,819	
E:		709.583.9207	709.583.9692	709.583.9692	709.583.9790	709.584.0897	709.584.2004	709.584.2102	709.584.2102	709.584.2597	
N:		7.089.950.4173	7.089.948.4465	7.089.948.4465	7.089.948.0484	7.089.943.5498	7.089.939.0512	7.089.938.6533	7.089.938.6533	7.089.936.6402	
Station: 12+0											
Dist. Eixo (m):		-6,928	-4,897	-4,897	-4,499	<b>0,000</b>	4,501	4,899	4,899	7,123	
Cota (m):		11,898	11,847	11,552	11,560	11,649	11,559	11,552	11,848	11,892	
E:		709.593.9162	709.593.9662	709.593.9662	709.593.9760	709.594.0868	709.594.1974	709.594.2072	709.594.2072	709.594.2619	
N:		7.089.950.7213	7.089.948.6913	7.089.948.6913	7.089.948.2933	7.089.943.7958	7.089.939.2960	7.089.938.8981	7.089.938.8981	7.089.936.6747	
Station: 12+10											
Dist. Eixo (m):		-7,020	-4,896	-4,896	-4,498	<b>0,000</b>	4,502	4,900	4,900	7,269	
Cota (m):		11,938	11,896	11,600	11,608	11,698	11,608	11,600	11,896	11,943	
E:		709.603.9109	709.603.9632	709.603.9632	709.603.9730	709.604.0836	709.604.1944	709.604.2042	709.604.2042	709.604.2624	
N:		7.089.951.0593	7.089.948.9361	7.089.948.9361	7.089.948.5381	7.089.944.0418	7.089.939.5408	7.089.939.1430	7.089.939.1430	7.089.936.7754	
Station: 13+0											
Dist. Eixo (m):		-7,121	-4,895	-4,895	-4,496	<b>0,000</b>	4,504	4,902	4,902	7,253	
Cota (m):		11,961	11,916	11,620	11,628	11,718	11,628	11,620	11,916	11,963	
E:		709.613.9054	709.613.9602	709.613.9602	709.613.9700	709.614.0806	709.614.1914	709.614.2012	709.614.2012	709.614.2590	
N:		7.089.951.4065	7.089.949.1809	7.089.949.1809	7.089.948.7829	7.089.944.2878	7.089.939.7856	7.089.939.3878	7.089.939.3878	7.089.937.0368	
Station: 13+10											
Dist. Eixo (m):		-7,216	-4,893	-4,893	-4,495	<b>0,000</b>	4,505	4,903	4,903	7,357	
Cota (m):		11,955	11,908	11,613	11,621	11,711	11,620	11,613	11,908	11,957	
E:		709.623.9000	709.623.9572	709.623.9572	709.623.9670	709.624.0776	709.624.1884	709.624.1982	709.624.1982	709.624.2585	
N:		7.089.951.7478	7.089.949.4257	7.089.949.4257	7.089.949.0277	7.089.944.5338	7.089.940.0304	7.089.939.6326	7.089.939.6326	7.089.937.1791	
Station: 14+0											
Dist. Eixo (m):		-7,312	-4,892	-4,892	-4,494	<b>0,000</b>	4,506	4,904	4,904	7,523	7,582
Cota (m):		11,921	11,873	11,578	11,586	11,676	11,585	11,577	11,874	11,926	12,244
E:		709.633.8947	709.633.9542	709.633.9542	709.633.9640	709.634.0745	709.634.1854	709.634.1952	709.634.1952	709.634.2596	709.634.2610
N:		7.089.952.0894	7.089.949.6706	7.089.949.6706	7.089.949.2725	7.089.944.7798	7.089.940.2752	7.089.939.8774	7.089.939.8774	7.089.937.2586	7.089.937.2001
Station: 14+10											
Dist. Eixo (m):		-7,407	-4,891	-4,891	-4,493	<b>0,000</b>	4,507	4,905	4,905	7,420	7,608
Cota (m):		11,880	11,830	11,534	11,542	11,632	11,542	11,534	11,830	11,880	12,015
E:		709.643.8993	709.643.9512	709.643.9512	709.643.9610	709.644.0715	709.644.1824	709.644.1922	709.644.1922	709.644.2540	709.644.2587
N:		7.089.952.4308	7.089.949.9154	7.089.949.9154	7.089.949.5173	7.089.945.0258	7.089.940.5201	7.089.940.1222	7.089.940.1222</		

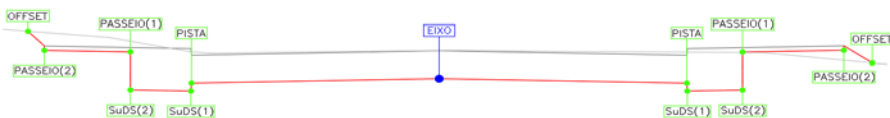
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA COMANDANTE KARL BUSCH**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	TAL.PAV	PISTA	EIXO	PISTA	TAL.PAV	SuDS(1)	SuDS(2)		OFFSET
Station: 15+0													
Dist. Eixo (m):			-14,990	-8,939	-8,939	-8,541	<b>0,000</b>	8,892	9,290	9,290	12,023		
Cota (m):			12,033	11,912	11,616	11,624	<b>11,589</b>	11,460	11,452	11,747	11,802		
E:			709.653.6997	709.653.8486	709.653.8486	709.653.8584	<b>709.654.0685</b>	709.654.2872	709.654.2970	709.654.2970	709.654.3642		
N:			7.089.950.2576	7.089.954.2085	7.089.954.2085	7.089.953.8105	<b>7.089.945.2718</b>	7.089.936.3827	7.089.935.9849	7.089.935.9849	7.089.933.2523		

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 15+9													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>11,503</b>						
E:							<b>709.663.4419</b>						
N:							<b>7.089.945.1805</b>						

Station: 15+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>11,495</b>						
E:							<b>709.664.0673</b>						
N:							<b>7.089.945.2036</b>						

Station: 16+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>11,366</b>						
E:							<b>709.674.0605</b>						
N:							<b>7.089.945.5729</b>						

Station: 16+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>11,236</b>						
E:							<b>709.684.0537</b>						
N:							<b>7.089.945.9423</b>						

Station: 17+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>11,107</b>						
E:							<b>709.694.0468</b>						
N:							<b>7.089.946.3116</b>						

Station: 17+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,991</b>						
E:							<b>709.704.0400</b>						
N:							<b>7.089.946.6809</b>						

Station: 18+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,829</b>						
E:							<b>709.714.0332</b>						
N:							<b>7.089.947.0502</b>						

Station: 18+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,909</b>						
E:							<b>709.724.0264</b>						
N:							<b>7.089.947.4196</b>						

Station: 19+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,871</b>						
E:							<b>709.734.0196</b>						
N:							<b>7.089.947.7889</b>						

Station: 19+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,871</b>						
E:							<b>709.744.0127</b>						
N:							<b>7.089.948.1582</b>						

Station: 20+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,839</b>						
E:							<b>709.754.0059</b>						
N:							<b>7.089.948.5276</b>						

Station: 20+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,793</b>						
E:							<b>709.763.9991</b>						
N:							<b>7.089.948.8969</b>						

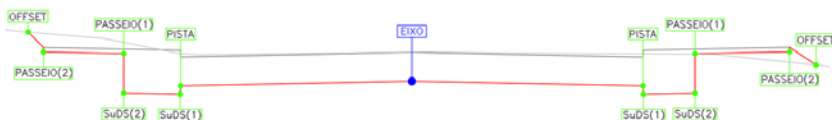
Station: 21+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,743</b>						
E:							<b>709.773.9923</b>						
N:							<b>7.089.949.2682</b>						

Station: 21+10													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,694</b>						
E:							<b>709.783.9854</b>						
N:							<b>7.089.949.6355</b>						

Station: 22+0													
Dist. Eixo (m):							<b>0,000</b>						
Cota (m):							<b>10,645</b>						
E:							<b>709.793.9788</b>						
N:							<b>7.089.950.0049</b>						

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA COMANDANTE KARL BUSCH**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 22+10													
Dist. Eixo (m):		-7,886	-5,502	-5,502	-5,012	-5,002	0,000	4,998	5,008	5,498	5,498	7,858	
Cota (m):		10,994	10,946	10,096	10,086	10,496	10,596	10,496	10,086	10,096	10,946	10,993	
E:		709.803.6806	709.803.7686	709.803.7686	709.803.7867	709.803.7871	709.803.9718	709.804.1564	709.804.1568	709.804.1749	709.804.1749	709.804.2620	
N:		7.089.958.2544	7.089.955.8222	7.089.955.8226	7.089.955.3828	7.089.955.3728	7.089.950.3742	7.089.945.3796	7.089.945.3696	7.089.944.8799	7.089.944.8799	7.089.942.5216	
Station: 23+0													
Dist. Eixo (m):		-7,889	-5,502	-5,502	-5,012	-5,002	0,000	4,998	5,008	5,498	5,498	7,872	
Cota (m):		10,945	10,947	10,047	10,037	10,447	10,547	10,447	10,037	10,047	10,897	10,944	
E:		709.813.6736	709.813.7618	709.813.7618	709.813.7799	709.813.7802	709.813.9650	709.814.1496	709.814.1499	709.814.1680	709.814.1680	709.814.2557	
N:		7.089.958.6268	7.089.956.2422	7.089.956.2422	7.089.955.7523	7.089.955.7423	7.089.950.7435	7.089.945.7491	7.089.945.7391	7.089.945.2495	7.089.945.2495	7.089.942.8768	
Station: 23+10													
Dist. Eixo (m):		-7,942	-5,503	-5,503	-5,012	-5,002	0,000	4,998	5,008	5,498	5,498	7,874	
Cota (m):		10,896	10,848	9,998	9,988	10,398	10,498	10,398	9,988	9,998	10,847	10,895	
E:		709.823.6648	709.823.7549	709.823.7549	709.823.7730	709.823.7734	709.823.9582	709.824.1427	709.824.1431	709.824.1612	709.824.1612	709.824.2490	
N:		7.089.959.0497	7.089.956.6117	7.089.956.6117	7.089.956.1218	7.089.956.1118	7.089.951.1128	7.089.946.1187	7.089.946.1087	7.089.945.6190	7.089.945.6190	7.089.943.2445	
Station: 24+0													
Dist. Eixo (m):		-7,934	-5,503	-5,503	-5,013	-5,003	0,000	4,997	5,007	5,497	5,497	7,855	
Cota (m):		10,835	10,786	9,936	9,926	10,336	10,436	10,336	9,926	9,936	10,786	10,833	
E:		709.833.6583	709.833.7481	709.833.7481	709.833.7662	709.833.7666	709.833.9513	709.834.1359	709.834.1363	709.834.1544	709.834.1544	709.834.2414	
N:		7.089.959.4106	7.089.956.9812	7.089.956.9812	7.089.956.4914	7.089.956.4814	7.089.951.4822	7.089.946.4882	7.089.946.4782	7.089.945.9885	7.089.945.9885	7.089.943.6325	
Station: 24+10													
Dist. Eixo (m):		-7,938	-5,503	-5,503	-5,013	-5,003	0,000	4,997	5,007	5,497	5,497	7,854	
Cota (m):		10,737	10,689	9,839	9,829	10,239	10,339	10,239	9,829	9,839	10,689	10,736	
E:		709.843.6513	709.843.7413	709.843.7413	709.843.7594	709.843.7597	709.843.9445	709.844.1291	709.844.1294	709.844.1475	709.844.1475	709.844.2346	
N:		7.089.959.7839	7.089.957.3508	7.089.957.3508	7.089.956.8609	7.089.956.8509	7.089.951.8515	7.089.946.8577	7.089.946.8477	7.089.946.3581	7.089.946.3581	7.089.944.0033	
Station: 24+13													
Dist. Eixo (m):		-7,943	-5,503	-5,503	-5,013	-5,003	0,000	5,010	5,020	5,509	5,509	7,881	
Cota (m):		10,697	10,648	9,799	9,789	10,199	10,299	10,205	9,795	9,805	10,656	10,703	
E:		709.847.0097	709.847.0998	709.847.0998	709.847.1179	709.847.1183	709.847.3031	709.847.4882	709.847.4885	709.847.5066	709.847.5066	709.847.5943	
N:		7.089.959.9128	7.089.957.4749	7.089.957.4749	7.089.956.9851	7.089.956.9751	7.089.951.9756	7.089.946.9667	7.089.946.9567	7.089.946.4670	7.089.946.4670	7.089.944.0960	
Station: 25+0													
Dist. Eixo (m):		-13,442	-9,423	-9,423	-8,933	-8,923	0,000	8,636	8,646	9,136	9,136	14,578	
Cota (m):		10,848	10,667	9,818	9,808	10,218	10,218	10,214	9,804	9,814	10,664	10,773	
E:		709.853.8927	709.853.9075	709.853.9075	709.853.9093	709.853.9094	709.853.9422	709.853.9739	709.853.9740	709.853.9758	709.853.9758	709.853.9958	
N:		7.089.965.4418	7.089.961.4228	7.089.961.4228	7.089.960.9326	7.089.960.9226	7.089.952.0000	7.089.943.3644	7.089.943.3544	7.089.942.8644	7.089.942.8644	7.089.937.4224	
Station: 25+1													
Dist. Eixo (m):				-13,215	-12,727	-12,717	0,000	11,280	11,292	11,780	11,800	14,540	
Cota (m):				10,677	9,821	10,229	10,204	10,217	9,810	9,820	10,668	10,722	
E:				709.855.0027	709.855.0045	709.855.0046	709.855.0513	709.855.0928	709.855.0928	709.855.0946	709.855.0947	709.855.1048	
N:				7.089.965.2193	7.089.964.7308	7.089.964.7209	7.089.952.0041	7.089.940.7239	7.089.940.7122	7.089.940.2239	7.089.940.2047	7.089.937.4637	
Station: 25+11													
Dist. Eixo (m):		-12,725	-11,627	-11,627	-11,138	-11,128	0,000	12,187	12,197	12,197	12,197	14,578	
Cota (m):		10,771	10,650	9,803	9,793	10,201	10,164	10,219	9,810	9,810	10,664	10,773	
E:		709.865.2142	709.865.2182	709.865.2182	709.865.2200	709.865.2201	709.865.2610	709.865.3058	709.865.3058	709.865.3058	709.865.3058	709.865.3958	
N:		7.089.964.7670	7.089.963.6682	7.089.963.6682	7.089.963.1798	7.089.963.1699	7.089.952.0416	7.089.939.8545	7.089.939.8545	7.089.939.8545	7.089.939.8545	7.089.937.4224	
Station: 25+19													
Dist. Eixo (m):		-8,413	-5,500	-5,500	-5,010	-5,000	0,000	5,002	5,012	5,502	5,502	6,941	
Cota (m):		10,656	10,598	10,148	10,138	10,148	10,248	10,148	10,138	10,148	10,598	10,627	
E:		709.873.4557	709.873.4664	709.873.4664	709.873.4682	709.873.4683	709.873.4867	709.873.5051	709.873.5051	709.873.5069	709.873.5069	709.873.5122	
N:		7.089.960.4894	7.089.957.5745	7.089.957.5745	7.089.957.0819	7.089.957.0719	7.089.952.0719	7.089.947.0719	7.089.947.0619	7.089.946.5719	7.089.946.5719	7.089.945.1310	
Station: 26+0													
Dist. Eixo (m):		-8,414	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,825	
Cota (m):		10,659	10,601	10,151	10,141	10,151	10,251	10,151	10,141	10,151	10,601	10,627	
E:		709.873.6460	709.873.7484	709.873.7484	709.873.7656	709.873.7660	709.873.9418	709.874.1175	709.874.1179	709.874.1351	709.874.1351	709.874.1817	
N:		7.089.960.4968	7.089.957.5847	7.089.957.5847	7.089.957.0948	7.089.957.0848	7.089.952.0879	7.089.947.0910	7.089.947.0810	7.089.946.5913	7.089.946.5913	7.089.945.2671	
Station: 26+10													
Dist. Eixo (m):		-8,391	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,781	
Cota (m):		10,713	10,655	10,205	10,195	10,205	10,305	10,205	10,195	10,205	10,654	10,680	
E:		709.883.6406	709.883.7422	709.883.7422	709.883.7594	709.883.7598	709.883.9356	709.884.1114	709.884.1117	709.884.1289	709.884.1289	709.884.1740	
N:		7.089.960.8257	7.089.957.9363	7.089.957.9363	7.089.957.4464	7.089.957.4364	7.089.952.4395	7.089.947.4426	7.089.947.4326	7.089.946.9429	7.089.946.9429	7.089.945.6624	
Station: 27+0													
Dist. Eixo (m):		-8,196	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,788	
Cota (m):		10,763	10,709	10,259	10,249	10,259	10,359	10,259	10,249	10,259	10,709	10,735	
E:		709.893.6413	709.893.7360	709.893.7360	709.893.7533	709.893.7536	709.893.9294	709.894.1052	709.894.1055	709.894.1228	709.894.1228	709.894.1681	
N:		7.089.960.9819	7.089.958.2878	7.089.958.2878	7.089.957.7979	7.089.957.7879	7.089.952.7910	7.089.947.7941	7.089.947.7841	7.089.947.2944	7.089.947.2944	7.089.946.0069	
Station: 27+10													
Dist. Eixo (m):		-8,060	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,832	
Cota (m):		10,908	10,756	10,307	10,297	10,307	10,407	10,307	10,297	10,306	10,756	10,783	
E:		709.903.6398	709.903.7298	709.903.7298	709.903.7471	709.903.7474	709.903.9232	709.904.0990	709.904.0993	709.904.1166	709.904.1166	709.904.1634	
N:		7.089.961.1980	7.089.958.6394	7.089.958.6394	7.089.958.1495	7.089.958.1395	7.089.953.1426	7.089.948.1457	7.089.948.1357	7.089.947.6460	7.089.947.6460	7.089.946.3144	
Station: 28+0													
Dist. Eixo (m):		-8,013	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,850	
Cota (m):		10,920	10,769	10,320	10,310	10,320	10,420	10,320	10,310	10,319	10,769	10,796	
E:		709.913.6353	709.913.7237	709.913.7237	709.913.7409	709.913.7412	709.913.9170	709.914.0928	709.914.0932	709.914.1104	709.914.1104	709.914.1578	
N:		7.089.961.5021	7.089.958.9910	7.089.958.9910	7.089.958.5011	7.089.958.4911	7.089						

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA COMANDANTE KARL BUSCH**

Desenho Esquemático:

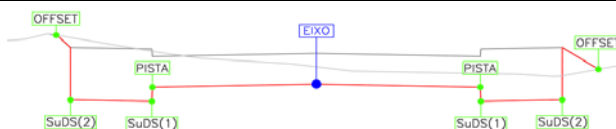


PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
<b>Station: 30+0</b>													
Dist. Eixo (m):		-7,823	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,330	
Cota (m):		10,839	10,682	10,243	10,233	10,243	10,343	10,243	10,233	10,242	10,682	10,729	
E:		709.953.6173	709.953.6989	709.953.6989	709.953.7162	709.953.7165	709.953.8923	709.954.0681	709.954.0684	709.954.0857	709.954.0857	709.954.1500	
N:		7.089.963.7184	7.089.960.3972	7.089.960.3972	7.089.959.9073	7.089.959.8973	7.089.954.9004	7.089.949.9035	7.089.949.8935	7.089.949.4038	7.089.949.4038	7.089.947.5746	
<b>Station: 30+10</b>													
Dist. Eixo (m):		-7,809	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,126	
Cota (m):		10,819	10,672	10,223	10,213	10,223	10,323	10,223	10,213	10,222	10,672	10,705	
E:		709.963.6116	709.963.6928	709.963.6928	709.963.7100	709.963.7103	709.963.8861	709.964.0619	709.964.0623	709.964.0795	709.964.0795	709.964.1367	
N:		7.089.963.0566	7.089.960.7488	7.089.960.7488	7.089.960.2589	7.089.960.2489	7.089.955.2520	7.089.950.2551	7.089.950.2451	7.089.949.7554	7.089.949.7554	7.089.948.1299	
<b>Station: 31+0</b>													
Dist. Eixo (m):		-7,895	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,007	
Cota (m):		10,800	10,652	10,203	10,193	10,203	10,303	10,203	10,193	10,202	10,652	10,682	
E:		709.973.6024	709.973.6866	709.973.6866	709.973.7038	709.973.7042	709.973.8799	709.974.0557	709.974.0561	709.974.0733	709.974.0733	709.974.1263	
N:		7.089.963.4934	7.089.961.1004	7.089.961.1004	7.089.960.6105	7.089.960.6005	7.089.955.6036	7.089.950.6066	7.089.950.5967	7.089.950.1070	7.089.950.1070	7.089.948.6005	
<b>Station: 31+10</b>													
Dist. Eixo (m):		-7,860	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,027	
Cota (m):		10,680	10,632	10,183	10,173	10,183	10,283	10,183	10,173	10,182	10,632	10,663	
E:		709.983.5974	709.983.6804	709.983.6804	709.983.6976	709.983.6980	709.983.8738	709.984.0495	709.984.0499	709.984.0671	709.984.0671	709.984.1208	
N:		7.089.963.8098	7.089.961.4519	7.089.961.4519	7.089.960.9620	7.089.960.9520	7.089.955.9551	7.089.950.9582	7.089.950.9482	7.089.950.4585	7.089.950.4585	7.089.948.9326	
<b>Station: 32+0</b>													
Dist. Eixo (m):		-7,786	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,077	
Cota (m):		10,648	10,602	10,153	10,143	10,153	10,253	10,153	10,143	10,152	10,602	10,634	
E:		709.993.5939	709.993.6742	709.993.6742	709.993.6914	709.993.6918	709.993.8676	709.994.0434	709.994.0437	709.994.0609	709.994.0609	709.994.1164	
N:		7.089.964.0874	7.089.961.8035	7.089.961.8035	7.089.961.3136	7.089.961.3036	7.089.956.3067	7.089.951.3098	7.089.951.2998	7.089.950.8101	7.089.950.8101	7.089.949.2336	
<b>Station: 32+10</b>													
Dist. Eixo (m):		-7,712	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	7,026	
Cota (m):		10,697	10,553	10,103	10,093	10,103	10,203	10,103	10,093	10,103	10,552	10,583	
E:		710.003.5903	710.003.6680	710.003.6680	710.003.6853	710.003.6856	710.003.8614	710.004.0372	710.004.0375	710.004.0548	710.004.0548	710.004.1084	
N:		7.089.964.3651	7.089.962.1550	7.089.962.1550	7.089.961.6652	7.089.961.6552	7.089.956.6582	7.089.951.6613	7.089.951.6513	7.089.951.1616	7.089.951.1616	7.089.949.6370	
<b>Station: 33+0</b>													
Dist. Eixo (m):		-8,195	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	5,500	6,974	
Cota (m):		10,647	10,493	10,043	10,033	10,043	10,143	10,043	10,033	10,043	10,494	10,523	
E:		710.013.5671	710.013.6618	710.013.6618	710.013.6791	710.013.6794	710.013.8552	710.014.0310	710.014.0313	710.014.0486	710.014.0486	710.014.1004	
N:		7.089.965.1997	7.089.962.5066	7.089.962.5066	7.089.962.0167	7.089.962.0067	7.089.957.0098	7.089.952.0129	7.089.952.0029	7.089.951.5132	7.089.951.5132	7.089.950.0405	
<b>Station: 33+10</b>													
Dist. Eixo (m):		-8,750	-8,451	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	6,500	6,599
Cota (m):		10,892	10,593	10,434	9,984	9,974	10,084	9,984	9,974	9,984	10,434	10,454	10,653
E:		710.023.5414	710.023.5519	710.023.6557	710.023.6557	710.023.6729	710.023.6732	710.023.8490	710.024.0248	710.024.0252	710.024.0424	710.024.0424	710.024.0775
N:		7.089.966.1059	7.089.965.8075	7.089.962.8582	7.089.962.8582	7.089.962.3683	7.089.962.3583	7.089.957.3614	7.089.952.3645	7.089.952.3545	7.089.951.8648	7.089.951.8648	7.089.950.8654
<b>Station: 33+12</b>													
Dist. Eixo (m):		-8,792	-8,512	-5,500	-5,500	-5,010	-5,000	0,000	5,000	5,010	5,500	6,500	6,598
Cota (m):		10,860	10,580	10,420	9,970	9,960	10,070	9,970	9,960	9,970	10,420	10,440	10,638
E:		710.025.9022	710.025.9120	710.026.0179	710.026.0179	710.026.0351	710.026.0355	710.026.2112	710.026.3870	710.026.3874	710.026.4046	710.026.4046	710.026.4398
N:		7.089.966.2307	7.089.965.9511	7.089.962.9413	7.089.962.9413	7.089.962.4514	7.089.962.4414	7.089.957.4445	7.089.952.4476	7.089.952.4376	7.089.951.9479	7.089.951.9479	7.089.950.9485



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 29+10</b>									
Dist. Eixo (m):		-6,528	-4,399		0,000		3,445	5,291	
Cota (m):		22,174	22,131				22,310	22,347	
E:		709.143,7247	709.141,5966		709.137,1997		709.133,7565	709.131,9118	
N:		7.090.251,0824	7.090.251,0143		7.090.250,8738		7.090.250,7637	7.090.250,7047	
<b>Station: 29+14</b>									
Dist. Eixo (m):		-5,243	-3,216		0,000		3,414	5,295	
Cota (m):		22,609	22,567				22,727	22,765	
E:		709.142,5852	709.140,5594		709.137,3449		709.133,9329	709.132,0523	
N:		7.090.246,5000	7.090.246,4353		7.090.246,3325		7.090.246,2234	7.090.246,1633	
<b>Station: 30+0</b>									
Dist. Eixo (m):		-4,611	-2,622		0,000		3,410	5,335	
Cota (m):		23,027	22,987				23,105	23,143	
E:		709.142,1609	709.140,1737		709.137,5532		709.134,1454	709.132,2221	
N:		7.090.241,0561	7.090.240,9802		7.090.240,8801		7.090.240,7499	7.090.240,6764	
<b>Station: 30+10</b>									
Dist. Eixo (m):		-4,678	-2,672		0,000		3,348	5,407	
Cota (m):		23,693	23,652				23,727	23,768	
E:		709.142,6094	709.140,6055		709.137,9350		709.134,5898	709.132,5315	
N:		7.090.231,0660	7.090.230,9894		7.090.230,8874		7.090.230,7959	7.090.230,6809	
<b>Station: 31+0</b>									
Dist. Eixo (m):		-4,746	-2,756		0,000		3,264	5,480	
Cota (m):		23,930	23,890				23,925	23,969	
E:		709.143,0591	709.141,0712		709.138,3169		709.135,0556	709.132,8409	
N:		7.090.221,0758	7.090.220,9999		7.090.220,8947		7.090.220,7700	7.090.220,6854	
<b>Station: 31+10</b>									
Dist. Eixo (m):		-4,719	-2,734		0,000		3,286	5,552	
Cota (m):		24,121	24,081				24,077	24,123	
E:		709.143,4138	709.141,4306		709.138,6987		709.135,4149	709.133,1502	
N:		7.090.211,0821	7.090.211,0063		7.090.210,9019		7.090.210,7765	7.090.210,6899	
<b>Station: 32+0</b>									
Dist. Eixo (m):		-4,691	-2,711		0,000		3,309	5,625	
Cota (m):		24,204	24,164				24,185	24,231	
E:		709.143,7685	709.141,7899		709.139,0805		709.135,7743	709.133,4596	
N:		7.090.201,0884	7.090.201,0128		7.090.200,9092		7.090.200,7829	7.090.200,6945	
<b>Station: 32+10</b>									
Dist. Eixo (m):		-4,664	-2,689		0,000		3,331	5,697	
Cota (m):		24,187	24,147				24,156	24,203	
E:		709.144,1232	709.142,1492		709.139,4623		709.136,1336	709.133,7690	
N:		7.090.191,0946	7.090.191,0192		7.090.190,9165		7.090.190,7893	7.090.190,6990	
<b>Station: 33+0</b>									
Dist. Eixo (m):		-4,497	-2,659		0,000		3,361	5,770	
Cota (m):		24,145	24,068				24,013	24,061	
E:		709.146,3367	709.142,5014		709.139,8441		709.136,4857	709.134,0783	
N:		7.090.181,1719	7.090.181,0254		7.090.180,9238		7.090.180,7955	7.090.180,7035	
<b>Station: 33+10</b>									
Dist. Eixo (m):		-6,512	-2,618		0,000		3,402	5,830	
Cota (m):		24,072	23,994				23,920	23,968	
E:		709.146,7331	709.142,8418		709.140,2259		709.136,8261	709.134,3998	
N:		7.090.171,1797	7.090.171,0311		7.090.170,9311		7.090.170,8012	7.090.170,7085	
<b>Station: 34+0</b>									
Dist. Eixo (m):		-6,383	-2,576		0,000		3,444	5,863	
Cota (m):		23,999	23,923				23,851	23,899	
E:		709.146,9856	709.143,1822		709.140,6077		709.137,1665	709.134,7490	
N:		7.090.161,1821	7.090.161,0368		7.090.160,9384		7.090.160,8069	7.090.160,7145	
<b>Station: 34+10</b>									
Dist. Eixo (m):		-6,402	-2,535		0,000		3,485	5,895	
Cota (m):		23,908	23,831				23,721	23,769	
E:		709.147,3869	709.143,5225		709.140,9895		709.137,5069	709.135,0987	
N:		7.090.151,1901	7.090.151,0425		7.090.150,9457		7.090.150,8126	7.090.150,7206	
<b>Station: 35+0</b>									
Dist. Eixo (m):		-3,993	-2,493		0,000		3,527	5,927	
Cota (m):		23,699	23,669				23,484	23,532	
E:		709.145,3615	709.143,8629		709.141,3713		709.137,8472	709.135,4483	
N:		7.090.141,1054	7.090.141,0482		7.090.140,9530		7.090.140,8183	7.090.140,7267	
<b>Station: 35+10</b>									
Dist. Eixo (m):		-3,991	-2,452		0,000		3,568	5,959	
Cota (m):		23,627	23,496				23,247	23,295	
E:		709.145,7409	709.144,2033		709.141,7531		709.138,1876	709.135,7980	
N:		7.090.131,1126	7.090.131,0539		7.090.130,9603		7.090.130,8240	7.090.130,7327	
<b>Station: 36+0</b>									
Dist. Eixo (m):		-3,988	-2,421		0,000		3,599	5,992	
Cota (m):		23,310	23,279				23,037	23,085	
E:		709.146,1203	709.144,5544		709.142,1349		709.138,5389	709.136,1476	
N:		7.090.121,1198	7.090.121,0600		7.090.120,9676		7.090.120,8302	7.090.120,7388	
<b>Station: 36+9</b>									
Dist. Eixo (m):		-3,986	-2,448		0,000		3,572	6,021	
Cota (m):		23,069	23,038				22,982	23,031	
E:		709.146,4739	709.144,9367		709.142,4907		709.138,9212	709.136,4735	
N:		7.090.111,8079	7.090.111,7491		7.090.111,6557		7.090.111,5193	7.090.111,4258	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 36+10</b>									
Dist. Eixo (m):		-3,999	-2,463		0,000		3,558	6,012	
Cota (m):		23,041	23,011				22,976	23,025	
E:		709.146,5025	709.144,9665		709.142,5042		709.138,9464	709.136,4934	
N:		7.090.111,0534	7.090.111,0231		7.090.110,9745		7.090.110,9043	7.090.110,8558	
<b>Station: 37+0</b>									
Dist. Eixo (m):		-4,181	-2,676		0,000		3,345	5,860	
Cota (m):		22,667	22,637				22,593	22,643	
E:		709.146,8820	709.145,3769		709.142,7016		709.139,3568	709.136,8431	
N:		7.090.101,0590	7.090.101,0293		7.090.100,9764		7.090.100,9104	7.090.100,8608	
<b>Station: 37+10</b>									
Dist. Eixo (m):		-4,309	-2,889		0,000		3,132	5,757	
Cota (m):		22,278	22,250				22,211	22,263	
E:		709.147,2071	709.145,7873		709.142,8990		709.139,7672	709.137,1427	
N:		7.090.091,0635	7.090.091,0354		7.090.090,9784		7.090.090,9166	7.090.090,8647	
<b>Station: 38+0</b>									
Dist. Eixo (m):		-4,395	-2,909		0,000				
Cota (m):		21,802	21,772						
E:		709.147,4910	709.146,0045		709.143,0964				
N:		7.090.081,0671	7.090.081,0378		7.090.080,9803				
<b>Station: 38+10</b>									
Dist. Eixo (m):		-4,465	-3,038		0,000				
Cota (m):		21,233	21,204						
E:		709.147,7578	709.146,3313		709.143,2938				
N:		7.090.071,0704	7.090.071,0423		7.090.070,9823				
<b>Station: 39+0</b>									
Dist. Eixo (m):		-6,380	-3,024	-3,014	0,000	3,008	3,018	5,512	
Cota (m):		20,525	20,458	20,588		20,588	20,458	20,508	
E:		709.149,8701	709.146,5143	709.146,5043	709.143,4912	709.140,4839	709.140,4739	709.137,9804	
N:		7.090.061,1102	7.090.061,0439	7.090.061,0437	7.090.060,9842	7.090.060,9249	7.090.060,9247	7.090.060,8754	
<b>Station: 39+10</b>									
Dist. Eixo (m):		-6,276	-4,303	-4,293	0,000	3,284	3,294	5,552	
Cota (m):		19,740	19,701	19,831		19,851	19,721	19,766	
E:		709.150,1537	709.148,1821	709.148,1721	709.143,8831	709.140,6019	709.140,5919	709.138,3361	
N:		7.090.051,2602	7.090.051,1760	7.090.051,1755	7.090.050,9923	7.090.050,8521	7.090.050,8516	7.090.050,7552	
<b>Station: 40+0</b>									
Dist. Eixo (m):		-6,137	-4,290	-4,280	0,000	3,594	3,604	5,626	
Cota (m):		19,006	18,969	19,099		19,113	18,983	19,023	
E:		709.150,4416	709.148,5958	709.148,5858	709.144,3101	709.140,7190	709.140,7090	709.138,6891	
N:		7.090.041,2634	7.090.041,1845	7.090.041,1841	7.090.041,0014	7.090.040,8479	7.090.040,8475	7.090.040,7612	
<b>Station: 40+10</b>									
Dist. Eixo (m):		-6,161	-4,235	-4,225	0,000	3,775	3,785	5,733	
Cota (m):		18,277	18,238	18,368		18,377	18,247	18,286	
E:		709.150,8923	709.148,9685	709.148,9585	709.144,7370	709.140,9655	709.140,9555	709.139,0088	
N:		7.090.031,2735	7.090.031,1913	7.090.031,1909	7.090.031,0105	7.090.030,8493	7.090.030,8489	7.090.030,7657	
<b>Station: 41+0</b>									
Dist. Eixo (m):		-6,064	-4,151	-4,141	0,000	3,859	3,869	5,841	
Cota (m):		17,485	17,447	17,577		17,582	17,452	17,492	
E:		709.151,2224	709.149,3111	709.149,3011	709.145,1639	709.141,3081	709.141,2981	709.139,3285	
N:		7.090.021,2785	7.090.021,1968	7.090.021,1964	7.090.021,0196	7.090.020,8549	7.090.020,8544	7.090.020,7703	
<b>Station: 41+10</b>									
Dist. Eixo (m):		-5,990	-4,067	-4,057	0,000	3,944	3,954	5,847	
Cota (m):		16,583	16,544	16,674		16,677	16,547	16,585	
E:		709.151,5757	709.149,6536	709.149,6437	709.145,5908	709.141,6507	709.141,6407	709.139,7494	
N:		7.090.011,2845	7.090.011,2023	7.090.011,2019	7.090.011,0287	7.090.010,8604	7.090.010,8599	7.090.010,7791	
<b>Station: 42+0</b>									
Dist. Eixo (m):		-5,936	-3,982	-3,972	0,000	4,028	4,038	5,945	
Cota (m):		15,632	15,593	15,723		15,722	15,592	15,630	
E:		709.151,9485	709.149,9962	709.149,9863	709.146,0178	709.141,9933	709.141,9833	709.140,0778	
N:		7.090.001,2913	7.090.001,2079	7.090.001,2074	7.090.001,0379	7.090.000,8659	7.090.000,8655	7.090.000,7840	
<b>Station: 42+10</b>									
Dist. Eixo (m):		-5,847	-3,903	-3,893	0,000	4,107	4,117	6,091	
Cota (m):		14,765	14,726	14,856		14,852	14,722	14,762	
E:		709.152,2836	709.150,3402	709.150,3302	709.146,4397	709.142,3345	709.142,3245	709.140,3517	
N:		7.089.991,2386	7.089.991,1748	7.089.991,1745	7.089.991,0468	7.089.990,9120	7.089.990,9117	7.089.990,8469	
<b>Station: 43+0</b>									
Dist. Eixo (m):		-5,856	-3,917	-3,907	0,000	4,093	4,103	6,041	
Cota (m):		14,085	14,046	14,176		14,172	14,042	14,081	
E:		709.152,6203	709.150,6827	709.150,6727	709.146,7678	709.142,6770	709.142,6670	709.140,7300	
N:		7.089.981,2443	7.089.981,1807	7.089.981,1804	7.089.981,0522	7.089.980,9179	7.089.980,9175	7.089.980,8539	
<b>Station: 43+10</b>									
Dist. Eixo (m):		-5,844	-3,932	-3,922	0,000	4,078	4,088	5,991	
Cota (m):		13,592	13,553	13,683		13,680	13,550	13,588	
E:		709.152,9371	709.151,0253	709.151,0153	709.147,0959	709.143,0196	709.143,0096	709.141,1084	
N:		7.089.971,2493	7.089.971,1866	7.089.971,1862	7.089.971,0575	7.089.970,9237	7.089.970,9234	7.089.970,8610	
<b>Station: 44+0</b>									
Dist. Eixo (m):		-5,872	-3,946	-3,936	0,000	4,064	4,074	5,974	
Cota (m):		13,288	13,249	13,379		13,377	13,247	13,285	
E:		709.153,2930	709.151,3679	709.151,3579	709.147,4240	709.143,3622	709.143,3522	709.141,4532	
N:		7.089.961,2556	7.089.961,1924	7.089.961,1921	7.089.961,0629	7.089.960,9296	7.089.960,9293	7.089.960,8669	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

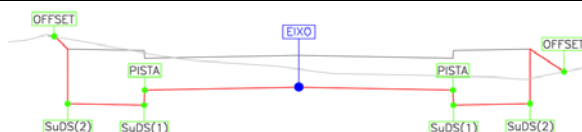
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 44+10</b>									
Dist. Eixo (m):		-5,923	-3,960	-3,950	0,000	4,050	4,060	5,978	
Cota (m):		13,087	13,048	13,178	13,257	13,176	13,046	13,084	
E:		709.153,6715	709.151,7105	709.151,7005	709.147,7522	709.143,7048	709.143,6948	709.141,7776	
N:		7.089.951,2627	7.089.951,1983	7.089.951,1979	7.089.951,0683	7.089.950,9354	7.089.950,9351	7.089.950,8722	
<b>Station: 45+0</b>									
Dist. Eixo (m):		-5,962	-3,975	-3,965	0,000	4,035	4,045	5,980	
Cota (m):		12,887	12,847	12,977	13,057	12,976	12,846	12,885	
E:		709.154,0394	709.152,0531	709.152,0431	709.148,0803	709.144,0474	709.144,0374	709.142,1034	
N:		7.089.941,2693	7.089.941,2041	7.089.941,2038	7.089.941,0737	7.089.940,9413	7.089.940,9410	7.089.940,8775	
<b>Station: 45+10</b>									
Dist. Eixo (m):		-5,915	-3,989	-3,979	0,000	4,021	4,031	5,982	
Cota (m):		12,688	12,650	12,780	12,859	12,779	12,649	12,688	
E:		709.154,3201	709.152,3956	709.152,3856	709.148,4084	709.144,3899	709.144,3800	709.142,4300	
N:		7.089.931,2732	7.089.931,2100	7.089.931,2097	7.089.931,0791	7.089.930,9472	7.089.930,9468	7.089.930,8828	
<b>Station: 46+0</b>									
Dist. Eixo (m):		-5,959	-4,004	-3,994	0,000	4,006	4,016	6,034	
Cota (m):		12,574	12,535	12,665	12,745	12,664	12,534	12,575	
E:		709.154,6926	709.152,7382	709.152,7282	709.148,7365	709.144,7325	709.144,7225	709.142,7059	
N:		7.089.921,2800	7.089.921,2158	7.089.921,2155	7.089.921,0845	7.089.920,9530	7.089.920,9527	7.089.920,8865	
<b>Station: 46+2</b>									
Dist. Eixo (m):		-5,980	-4,008	-3,998	0,000	4,002	4,012	5,202	5,479
Cota (m):		12,562	12,523	12,653	12,733	12,653	12,523	12,547	13,022
E:		709.154,8056	709.152,8348	709.152,8248	709.148,8291	709.144,8291	709.144,8191	709.143,6298	709.143,3530
N:		7.089.918,4619	7.089.918,3972	7.089.918,3969	7.089.918,2657	7.089.918,1344	7.089.918,1340	7.089.918,0950	7.089.918,0859
<b>Station: 46+10</b>									
Dist. Eixo (m):		-5,955	-4,009	-3,999	0,000	4,163			
Cota (m):		12,570	12,531	12,661	12,741	12,658			
E:		709.155,0744	709.153,1299	709.153,1199	709.149,1247	709.144,9655			
N:		7.089.911,3372	7.089.911,2571	7.089.911,2567	7.089.911,0921	7.089.910,9207			
<b>Station: 47+0</b>									
Dist. Eixo (m):		-5,906	-4,010	-4,000	0,000	4,385			
Cota (m):		12,599	12,561	12,691	12,771	12,684			
E:		709.155,4377	709.153,5426	709.153,5326	709.149,5363	709.145,1547			
N:		7.089.901,3437	7.089.901,2656	7.089.901,2652	7.089.901,1006	7.089.900,9200			
<b>Station: 47+1</b>									
Dist. Eixo (m):		-5,896	-4,010	-4,000	0,000	4,429			
Cota (m):		12,605	12,567	12,697	12,777	12,689			
E:		709.155,5075	709.153,6229	709.153,6129	709.149,6164	709.145,1915			
N:		7.089.899,4008	7.089.899,3231	7.089.899,3227	7.089.899,1581	7.089.898,9757			
<b>Station: 47+10</b>									
Dist. Eixo (m):		-5,854	-4,006		0,000		4,145	6,077	
Cota (m):		12,563	12,526				12,523	12,562	
E:		709.155,7444	709.153,8977		709.149,8937		709.145,7516	709.143,8207	
N:		7.089.891,3085	7.089.891,2449		7.089.891,1070		7.089.890,9643	7.089.890,8978	
<b>Station: 48+0</b>									
Dist. Eixo (m):		-5,802	-4,002		0,000		4,118	6,059	
Cota (m):		12,535	12,499				12,497	12,535	
E:		709.156,0364	709.154,2375		709.150,2380		709.146,1221	709.144,1822	
N:		7.089.881,3126	7.089.881,2507		7.089.881,1129		7.089.880,9711	7.089.880,9043	
<b>Station: 48+10</b>									
Dist. Eixo (m):		-5,760	-3,997		0,000		4,095	6,049	
Cota (m):		12,528	12,493				12,491	12,530	
E:		709.156,3384	709.154,5772		709.150,5822		709.146,4899	709.144,5371	
N:		7.089.871,3171	7.089.871,2564		7.089.871,1188		7.089.870,9779	7.089.870,9106	
<b>Station: 49+0</b>									
Dist. Eixo (m):		-5,841	-4,000		0,000		4,099	6,047	
Cota (m):		12,502	12,465				12,463	12,502	
E:		709.156,7637	709.154,9240		709.150,9265		709.146,8304	709.144,8835	
N:		7.089.861,3258	7.089.861,2625		7.089.861,1248		7.089.860,9837	7.089.860,9166	
<b>Station: 49+10</b>									
Dist. Eixo (m):		-5,884	-4,021		0,000		4,102	6,096	
Cota (m):		12,467	12,430				12,428	12,468	
E:		709.157,1517	709.155,2890		709.151,2707		709.147,1709	709.145,1782	
N:		7.089.851,3333	7.089.851,2691		7.089.851,1307		7.089.850,9895	7.089.850,9208	
<b>Station: 50+0</b>									
Dist. Eixo (m):		-5,757	-4,041		0,000		4,069	6,097	
Cota (m):		12,403	12,368				12,368	12,408	
E:		709.157,3684	709.155,6540		709.151,6150		709.147,5487	709.145,5216	
N:		7.089.841,3348	7.089.841,2757		7.089.841,1366		7.089.840,9965	7.089.840,9267	
<b>Station: 50+10</b>									
Dist. Eixo (m):		-5,629	-4,062		0,000		4,071	6,041	
Cota (m):		12,340	12,308				12,308	12,347	
E:		709.157,5851	709.156,0190		709.151,9593		709.147,8912	709.145,9214	
N:		7.089.831,3363	7.089.831,2824		7.089.831,1425		7.089.831,0024	7.089.830,9346	
<b>Station: 51+0</b>									
Dist. Eixo (m):		-5,731	-4,071		0,000		4,121	6,004	
Cota (m):		12,308	12,275				12,274	12,312	
E:		709.158,0308	709.156,3719		709.152,3035		709.148,1848	709.146,3034	
N:		7.089.821,3458	7.089.821,2886		7.089.821,1485		7.089.821,0066	7.089.820,9418	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

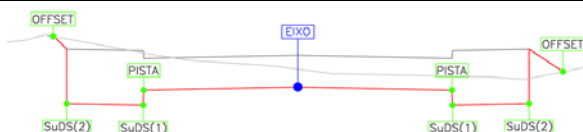
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 51+10</b>									
Dist. Eixo (m):		-5,840	-4,071		0,000		4,172	6,010	
Cota (m):		12,279	12,244				12,242	12,278	
E:		709.158,4843	709.156,7164		709.152,6478		709.148,4783	709.146,6415	
N:		7.089.811,3554	7.089.811,2945		7.089.811,1544		7.089.811,0108	7.089.810,9475	
<b>Station: 52+0</b>									
Dist. Eixo (m):		-5,907	-4,071		0,000		4,223	6,016	
Cota (m):		12,178	12,141				12,138	12,174	
E:		709.158,8960	709.157,0608		709.152,9921		709.148,7719	709.146,9796	
N:		7.089.801,3637	7.089.801,3005		7.089.801,1603		7.089.801,0150	7.089.800,9532	
<b>Station: 52+10</b>									
Dist. Eixo (m):			-4,071		0,000		4,181	6,040	
Cota (m):			12,030				12,028	12,065	
E:			709.157,4053		709.153,3363		709.149,1581	709.147,3003	
N:			7.089.791,3064		7.089.791,1663		7.089.791,0223	7.089.790,9583	
<b>Station: 53+0</b>									
Dist. Eixo (m):					0,000		4,104	6,065	
Cota (m):							11,932	11,972	
E:					709.153,6806		709.149,5789	709.147,6192	
N:					7.089.781,1722		7.089.781,0309	7.089.780,9634	
<b>Station: 53+10</b>									
Dist. Eixo (m):					0,000		4,028	6,090	
Cota (m):							11,877	11,918	
E:					709.154,0248		709.149,9997	709.147,9381	
N:					7.089.771,1781		7.089.771,0395	7.089.770,9684	
<b>Station: 54+0</b>									
Dist. Eixo (m):		-6,058	-3,971		0,000		4,016	6,116	
Cota (m):		11,932	11,890				11,889	11,931	
E:		709.160,4232	709.158,3381		709.154,3691		709.150,3559	709.148,2570	
N:		7.089.761,3926	7.089.761,3208		7.089.761,1840		7.089.761,0458	7.089.760,9735	
<b>Station: 54+10</b>									
Dist. Eixo (m):		-5,945	-3,941		0,000		4,008	6,076	
Cota (m):		11,929	11,885				11,884	11,925	
E:		709.160,6546	709.158,6516		709.154,7134		709.150,7082	709.148,6408	
N:		7.089.751,3946	7.089.751,3256		7.089.751,1900		7.089.751,0520	7.089.750,9808	
<b>Station: 55+0</b>									
Dist. Eixo (m):		-5,878	-3,941		0,000		3,999	5,986	
Cota (m):		11,956	11,917				11,916	11,956	
E:		709.160,9320	709.158,9964		709.155,0576		709.151,0605	709.149,0751	
N:		7.089.741,3982	7.089.741,3316		7.089.741,1959		7.089.741,0582	7.089.740,9898	
<b>Station: 55+10</b>									
Dist. Eixo (m):		-5,873	-3,963		0,000		4,009	6,033	
Cota (m):		11,988	11,949				11,948	11,989	
E:		709.161,2719	709.159,3623		709.155,4019		709.151,3955	709.149,3725	
N:		7.089.731,4040	7.089.731,3382		7.089.731,2018		7.089.731,0638	7.089.730,9941	
<b>Station: 56+0</b>									
Dist. Eixo (m):		-5,773	-3,984		0,000		4,096	6,013	
Cota (m):		11,941	11,905				11,903	11,941	
E:		709.161,5161	709.159,7282		709.155,7461		709.151,6525	709.149,7371	
N:		7.089.721,4065	7.089.721,3449		7.089.721,2077		7.089.721,0667	7.089.721,0008	
<b>Station: 58+0</b>									
Dist. Eixo (m):		-5,848	-4,028		0,000		4,241	5,831	
Cota (m):		11,959	11,922				11,918	11,950	
E:		709.162,9673	709.161,1483		709.157,1232		709.152,8846	709.151,2958	
N:		7.089.681,4328	7.089.681,3701		7.089.681,2315		7.089.681,0855	7.089.681,0307	
<b>Station: 58+10</b>									
Dist. Eixo (m):		-5,849	-4,035		0,000		4,205	5,919	
Cota (m):		11,947	11,910				11,907	11,941	
E:		709.163,3130	709.161,5005		709.157,4675		709.153,2647	709.151,5522	
N:		7.089.671,4387	7.089.671,3763		7.089.671,2374		7.089.671,0926	7.089.671,0336	
<b>Station: 59+0</b>									
Dist. Eixo (m):		-5,837	-4,043		0,000		4,169	5,993	
Cota (m):		11,926	11,890				11,888	11,924	
E:		709.163,6452	709.161,8526		709.157,8117		709.153,6447	709.151,8226	
N:		7.089.661,4443	7.089.661,3825		7.089.661,2433		7.089.661,0998	7.089.661,0370	
<b>Station: 59+10</b>									
Dist. Eixo (m):		-5,757	-4,051		0,000		4,134	6,025	
Cota (m):		11,883	11,849				11,848	11,886	
E:		709.163,9096	709.162,2047		709.158,1560		709.154,0248	709.152,1349	
N:		7.089.651,4474	7.089.651,3887		7.089.651,2492		7.089.651,1069	7.089.651,0418	
<b>Station: 60+0</b>									
Dist. Eixo (m):		-5,626	-4,059		0,000		4,098	6,038	
Cota (m):		11,840	11,809				11,808	11,847	
E:		709.164,1232	709.162,5569		709.158,5002		709.154,4048	709.152,4658	
N:		7.089.641,4489	7.089.641,3949		7.089.641,2552		7.089.641,1141	7.089.641,0473	
<b>Station: 60+10</b>									
Dist. Eixo (m):					0,000		4,062	5,946	
Cota (m):							11,770	11,807	
E:					709.158,8445		709.154,7849	709.152,9019	
N:					7.089.631,2611		7.089.631,1213	7.089.631,0564	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 61+0</b>									
Dist. Eixo (m):					0,000		4,026	5,854	
Cota (m):							11,753	11,790	
E:					709.159.1888		709.155.1649	709.153.3380	
N:					7.089.621.2670		7.089.621.1284	7.089.621.0655	
<b>Station: 61+10</b>									
Dist. Eixo (m):		-5,896	-4,083		0,000		3,990	5,681	
Cota (m):		11,774	11,738				11,740	11,774	
E:		709.165.4255	709.163.6133		709.159.5330		709.155.5450	709.153.8552	
N:		7.089.611.4759	7.089.611.4135		7.089.611.2729		7.089.611.1356	7.089.611.0774	
<b>Station: 62+0</b>									
Dist. Eixo (m):		-5,887	-4,131		0,000		3,955	5,599	
Cota (m):		11,735	11,700				11,703	11,736	
E:		709.165.7605	709.164.0055		709.159.8773		709.155.9250	709.154.2821	
N:		7.089.601.4815	7.089.601.4211		7.089.601.2789		7.089.601.1427	7.089.601.0861	
<b>Station: 62+10</b>									
Dist. Eixo (m):		-5,743	-4,170		0,000		3,919	5,728	
Cota (m):		11,697	11,666				11,671	11,707	
E:		709.165.9614	709.164.3888		709.160.2216		709.156.3051	709.154.4968	
N:		7.089.591.4825	7.089.591.4284		7.089.591.2848		7.089.591.1499	7.089.591.0876	
<b>Station: 63+0</b>									
Dist. Eixo (m):		-5,600	-4,164		0,000		3,883	5,975	
Cota (m):		11,650	11,621				11,627	11,669	
E:		709.166.1622	709.164.7274		709.160.5658		709.156.6851	709.154.5941	
N:		7.089.581.4835	7.089.581.4341		7.089.581.2907		7.089.581.1571	7.089.581.0850	
<b>Station: 63+4</b>									
Dist. Eixo (m):		-5,574	-4,161	-4,151	0,000	3,856	3,866	6,009	
Cota (m):		11,632	11,599	11,619	11,702	11,625	11,605	11,648	
E:		709.166.3041	709.164.8916	709.164.8816	709.160.7334	709.156.8794	709.156.8694	709.154.7278	
N:		7.089.576.6167	7.089.576.5681	7.089.576.5677	7.089.576.4249	7.089.576.2921	7.089.576.2918	7.089.576.2180	
<b>Station: 63+10</b>									
Dist. Eixo (m):		-5,533	-4,099	-4,089	0,000	3,916	3,926	6,007	
Cota (m):		11,611	11,582	11,602	11,684	11,605	11,585	11,627	
E:		709.166.4401	709.165.0064	709.164.9964	709.160.9101	709.156.9968	709.156.9868	709.154.9067	
N:		7.089.571.4872	7.089.571.4378	7.089.571.4374	7.089.571.2967	7.089.571.1619	7.089.571.1615	7.089.571.0899	
<b>Station: 63+17</b>									
Dist. Eixo (m):	-5,595	-5,553	-4,010	-4,000	0,000	4,001	4,011	6,007	6,231
Cota (m):	12,076	11,588	11,557	11,577	11,657	11,577	11,557	11,597	11,989
E:	709.166.7548	709.166.7133	709.165.1707	709.165.1607	709.161.1631	709.157.1650	709.157.1550	709.155.1598	709.154.9359
N:	7.089.564.1434	7.089.564.1419	7.089.564.0888	7.089.564.0885	7.089.563.9508	7.089.563.8130	7.089.563.8127	7.089.563.7440	7.089.563.7363
<b>Station: 64+0</b>									
Dist. Eixo (m):				-4,406	0,000	4,050			
Cota (m):				11,559	11,647	11,566			
E:				709.165.6656	709.161.2630	709.157.2160			
N:				7.089.561.4690	7.089.561.3029	7.089.561.1502			
<b>Station: 64+10</b>									
Dist. Eixo (m):				-4,256	0,000	4,237			
Cota (m):				11,525	11,611	11,526			
E:				709.165.8932	709.161.6400	709.157.4064			
N:				7.089.551.4705	7.089.551.3100	7.089.551.1503			
<b>Station: 65+0</b>									
Dist. Eixo (m):				-4,069	0,000	4,423			
Cota (m):				11,493	11,574	11,486			
E:				709.166.0836	709.162.0170	709.157.5968			
N:				7.089.541.4705	7.089.541.3171	7.089.541.1504			

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 65+4</b>											
Dist. Eixo (m):	-6,652	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,999	6,512
Cota (m):	11,623	11,798	11,766	11,470	11,478	11,558	11,478	11,470	11,766	11,798	11,716
E:	709.168.8297	709.168.1788	709.166.5778	709.166.5778	709.166.1800	709.162.1828	709.158.1855	709.157.7879	709.157.7879	709.156.1878	709.155.6755
N:	7.089.537.1751	7.089.537.1505	7.089.537.0901	7.089.537.0901	7.089.537.0751	7.089.536.9243	7.089.536.7735	7.089.536.7585	7.089.536.7585	7.089.536.6982	7.089.536.6788
<b>Station: 65+10</b>											
Dist. Eixo (m):	-6,574	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,014	6,473
Cota (m):	11,655	11,777	11,745	11,449	11,457	11,537	11,457	11,449	11,746	11,778	11,731
E:	709.168.9343	709.168.3610	709.166.7598	709.166.7598	709.166.3618	709.162.3639	709.158.3660	709.157.9683	709.157.9683	709.156.3532	709.155.8944
N:	7.089.531.5357	7.089.531.5172	7.089.531.4654	7.089.531.4654	7.089.531.4525	7.089.531.3232	7.089.531.1939	7.089.531.1810	7.089.531.1810	7.089.531.1288	7.089.531.1139
<b>Station: 66+0</b>											
Dist. Eixo (m):	-6,573	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,039	
Cota (m):	11,619	11,741	11,709	11,413	11,421	11,501	11,421	11,413	11,708	11,741	
E:	709.168.2570	709.168.6843	709.167.0831	709.167.0831	709.166.6851	709.162.6872	709.158.6893	709.158.2916	709.158.2916	709.156.6517	
N:	7.089.521.5409	7.089.521.5224	7.089.521.4706	7.089.521.4706	7.089.521.4577	7.089.521.3284	7.089.521.1991	7.089.521.1862	7.089.521.1862	7.089.521.1332	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

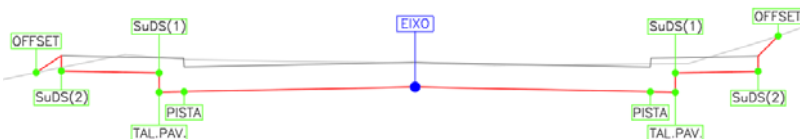
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 66+10</b>											
Dist. Eixo (m):	-6,561	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,040	
Cota (m):	11,590	11,704	11,672	11,376	11,384	<b>11,464</b>	11,384	11,376	11,672	11,705	
E:	709.169,5683	709.169,0076	709.167,4064	709.167,4064	709.167,0084	<b>709.163,0105</b>	709.159,0126	709.158,6148	709.158,6148	709.156,9737	
N:	7.089.511,5457	7.089.511,5276	7.089.511,4758	7.089.511,4758	7.089.511,4629	<b>7.089.511,3336</b>	7.089.511,2043	7.089.511,1914	7.089.511,1914	7.089.511,1384	
<b>Station: 67+0</b>											
Dist. Eixo (m):	-6,510	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,947	
Cota (m):	11,588	11,668	11,636	11,340	11,348	<b>11,428</b>	11,348	11,340	11,636	11,667	
E:	709.169,8404	709.169,3309	709.167,7297	709.167,7297	709.167,3317	<b>709.163,3338</b>	709.159,3359	709.158,9381	709.158,9381	709.157,3904	
N:	7.089.501,5493	7.089.501,5328	7.089.501,4810	7.089.501,4810	7.089.501,4682	<b>7.089.501,3389</b>	7.089.501,2095	7.089.501,1967	7.089.501,1967	7.089.501,1466	
<b>Station: 67+10</b>											
Dist. Eixo (m):	-6,561	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,940	
Cota (m):	11,517	11,631	11,599	11,303	11,311	<b>11,391</b>	11,311	11,303	11,599	11,630	
E:	709.170,2146	709.169,6542	709.168,0530	709.168,0530	709.167,6550	<b>709.163,6571</b>	709.159,6592	709.159,2614	709.159,2614	709.157,7202	
N:	7.089.491,5562	7.089.491,5381	7.089.491,4863	7.089.491,4863	7.089.491,4734	<b>7.089.491,3441</b>	7.089.491,2148	7.089.491,2019	7.089.491,2019	7.089.491,1520	
<b>Station: 68+0</b>											
Dist. Eixo (m):					-4,042	<b>0,000</b>	4,000	4,398	4,398	5,948	
Cota (m):					11,274	<b>11,355</b>	11,275	11,267	11,562	11,593	
E:					709.168,0203	<b>709.163,9804</b>	709.159,9825	709.159,5847	709.159,5847	709.158,0359	
N:					7.089.481,4800	<b>7.089.481,3493</b>	7.089.481,2200	7.089.481,2071	7.089.481,2071	7.089.481,1570	
<b>Station: 68+10</b>											
Dist. Eixo (m):					-4,019	<b>0,000</b>	4,000	4,398	4,398	5,955	
Cota (m):					11,238	<b>11,318</b>	11,238	11,230	11,526	11,557	
E:					709.168,3208	<b>709.164,3037</b>	709.160,3058	709.159,9080	709.159,9080	709.158,3516	
N:					7.089.471,4845	<b>7.089.471,3545</b>	7.089.471,2252	7.089.471,2124	7.089.471,2124	7.089.471,1620	
<b>Station: 68+18</b>											
Dist. Eixo (m):	-6,588	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,962	
Cota (m):	11,395	11,527	11,505	10,689	10,707	<b>10,787</b>	10,707	10,689	11,505	11,526	
E:	709.171,1606	709.170,5729	709.169,4816	709.169,4816	709.168,5737	<b>709.164,5758</b>	709.160,5779	709.159,6702	709.159,6702	709.158,6174	
N:	7.089.463,1540	7.089.463,1350	7.089.463,0997	7.089.463,0997	7.089.463,0703	<b>7.089.462,9410</b>	7.089.462,8117	7.089.462,7823	7.089.462,7823	7.089.462,7482	
<b>Station: 68+19</b>											
Dist. Eixo (m):	-6,366	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,259	
Cota (m):	11,539	11,523	11,501	10,686	10,704	<b>10,784</b>	10,704	10,685	11,501	11,508	
E:	709.170,9723	709.170,6070	709.169,5157	709.169,5157	709.168,6078	<b>709.164,6099</b>	709.160,6120	709.159,7043	709.159,7043	709.159,3536	
N:	7.089.462,0922	7.089.462,0804	7.089.462,0451	7.089.462,0451	7.089.462,0157	<b>7.089.461,8864</b>	7.089.461,7571	7.089.461,7277	7.089.461,7277	7.089.461,7164	
<b>Station: 69+10</b>											
Dist. Eixo (m):	-6,452	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,970	
Cota (m):	11,444	11,485	11,463	10,647	10,665	<b>10,745</b>	10,665	10,647	11,463	11,484	
E:	709.171,3986	709.170,9473	709.169,8561	709.169,8561	709.168,9482	<b>709.164,9503</b>	709.160,9523	709.160,0447	709.160,0447	709.158,9830	
N:	7.089.451,5736	7.089.451,5590	7.089.451,5237	7.089.451,5237	7.089.451,4943	<b>7.089.451,3650</b>	7.089.451,2357	7.089.451,2063	7.089.451,2063	7.089.451,1720	
<b>Station: 70+0</b>											
Dist. Eixo (m):	-6,465	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,978	
Cota (m):	11,398	11,448	11,426	10,610	10,628	<b>10,708</b>	10,628	10,610	11,427	11,448	
E:	709.171,7349	709.171,2706	709.170,1793	709.170,1793	709.169,2715	<b>709.165,2736</b>	709.161,2756	709.160,3680	709.160,3680	709.159,2987	
N:	7.089.441,5792	7.089.441,5642	7.089.441,5289	7.089.441,5289	7.089.441,4995	<b>7.089.441,3702</b>	7.089.441,2409	7.089.441,2115	7.089.441,2115	7.089.441,1770	
<b>Station: 70+10</b>											
Dist. Eixo (m):	-6,408	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,986	
Cota (m):	11,400	11,412	11,390	10,574	10,592	<b>10,672</b>	10,592	10,574	11,389	11,411	
E:	709.172,0013	709.171,5939	709.170,5026	709.170,5026	709.169,5948	<b>709.165,5968</b>	709.161,5989	709.160,6912	709.160,6912	709.159,6144	
N:	7.089.431,5826	7.089.431,5694	7.089.431,5341	7.089.431,5341	7.089.431,5048	<b>7.089.431,3754</b>	7.089.431,2461	7.089.431,2168	7.089.431,2168	7.089.431,1819	
<b>Station: 71+0</b>											
Dist. Eixo (m):	-6,551	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,993	
Cota (m):	11,268	11,375	11,353	10,537	10,555	<b>10,635</b>	10,555	10,537	11,353	11,375	
E:	709.172,4675	709.171,9172	709.170,8259	709.170,8259	709.169,9180	<b>709.165,9201</b>	709.161,9222	709.161,0145	709.161,0145	709.159,9301	
N:	7.089.421,5925	7.089.421,5747	7.089.421,5394	7.089.421,5394	7.089.421,5100	<b>7.089.421,3807</b>	7.089.421,2514	7.089.421,2220	7.089.421,2220	7.089.421,1869	
<b>Station: 71+9</b>											
Dist. Eixo (m):	-6,878	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	5,998	6,508
Cota (m):	11,017	11,342	11,320	10,504	10,522	<b>10,602</b>	10,522	10,504	11,320	11,342	11,262
E:	709.173,0866	709.172,2092	709.171,1179	709.171,1179	709.170,2100	<b>709.166,2121</b>	709.162,2142	709.161,3065	709.161,3065	709.160,2175	709.159,7080
N:	7.089.412,5761	7.089.412,5477	7.089.412,5124	7.089.412,5124	7.089.412,4830	<b>7.089.412,3537</b>	7.089.412,2244	7.089.412,1950	7.089.412,1950	7.089.412,1598	7.089.412,1433
<b>Station: 71+10</b>											
Dist. Eixo (m):					-4,031	<b>0,000</b>	4,008				
Cota (m):					10,518	<b>10,599</b>	10,519				
E:					709.170,2772	<b>709.166,2495</b>	709.162,2441				
N:					7.089.411,5417	<b>7.089.411,3861</b>	7.089.411,2314				
<b>Station: 72+0</b>											
Dist. Eixo (m):					-4,141	<b>0,000</b>	4,093				
Cota (m):					10,479	<b>10,562</b>	10,480				
E:					709.170,7736	<b>709.166,6354</b>	709.162,5452				
N:					7.089.401,5534	<b>7.089.401,3936</b>	7.089.401,2356				
<b>Station: 72+10</b>											
Dist. Eixo (m):					-4,056	<b>0,000</b>	4,178				
Cota (m):					10,445	<b>10,526</b>	10,442				
E:					709.171,0747	<b>709.167,0214</b>	709.162,8463				
N:					7.089.391,5576	<b>7.089.391,4010</b>	7.089.391,2398				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

Desenho Esquemático:

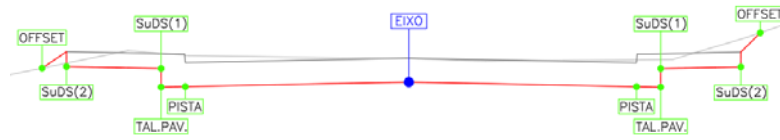


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 73+0</b>											
Dist. Eixo (m):	-6,538	-6,025	-4,933	-4,933	-4,024	<b>0,000</b>	3,976	4,884	4,884	5,976	6,500
Cota (m):	11,146	10,729	10,707	10,391	10,409	10,489	10,410	10,391	10,707	10,729	11,140
E:	709.173.9403	709.173.4274	709.172.3364	709.172.3364	709.171.4287	709.167.4073	709.163.4347	709.162.5272	709.162.5272	709.161.4362	709.160.9120
N:	7.089.381.6608	7.089.381.6410	7.089.381.5988	7.089.381.5988	7.089.381.5638	7.089.381.4085	7.089.381.2550	7.089.381.2200	7.089.381.2200	7.089.381.1778	7.089.381.1576
<b>Station: 73+10</b>											
Dist. Eixo (m):	-6,306	-6,019	-4,927	-4,927	-4,018	<b>0,000</b>	3,982	4,890	4,890	5,982	6,355
Cota (m):	11,260	10,692	10,670	10,354	10,372	10,453	10,373	10,355	10,671	10,693	11,204
E:	709.174.0950	709.173.8074	709.172.7164	709.172.7164	709.171.8087	709.167.7932	709.163.8147	709.162.9072	709.162.9072	709.161.8161	709.161.4434
N:	7.089.371.6593	7.089.371.6482	7.089.371.6061	7.089.371.6061	7.089.371.5710	7.089.371.4159	7.089.371.2623	7.089.371.2272	7.089.371.2272	7.089.371.1851	7.089.371.1707
<b>Station: 74+0</b>											
Dist. Eixo (m):	-6,236	-6,013	-4,921	-4,921	-4,012	<b>0,000</b>	3,988	4,896	4,896	5,988	
Cota (m):	11,267	10,656	10,634	10,318	10,336	10,416	10,336	10,318	10,634	10,656	
E:	709.174.4107	709.174.1874	709.173.0964	709.173.0964	709.172.1887	709.168.1792	709.164.1946	709.163.2871	709.163.2871	709.162.1961	
N:	7.089.361.6640	7.089.361.6554	7.089.361.6133	7.089.361.6133	7.089.361.5782	7.089.361.4234	7.089.361.2695	7.089.361.2344	7.089.361.2344	7.089.361.1923	
<b>Station: 74+10</b>											
Dist. Eixo (m):	-6,216	-6,007	-4,915	-4,915	-4,006	<b>0,000</b>	3,994	4,902	4,902	5,994	6,233
Cota (m):	11,239	10,619	10,597	10,281	10,299	10,380	10,300	10,281	10,597	10,619	11,220
E:	709.174.7768	709.174.5673	709.173.4763	709.173.4763	709.172.5686	709.168.5651	709.164.5746	709.163.6671	709.163.6671	709.162.5761	709.162.3372
N:	7.089.351.6707	7.089.351.6626	7.089.351.6205	7.089.351.6205	7.089.351.5854	7.089.351.4308	7.089.351.2767	7.089.351.2416	7.089.351.2416	7.089.351.1995	7.089.351.1903
<b>Station: 75+0</b>											
Dist. Eixo (m):	-6,221	-6,001	-4,909	-4,909	-4,001	<b>0,000</b>	3,999	4,908	4,908	5,999	6,326
Cota (m):	11,196	10,583	10,561	10,245	10,263	10,343	10,263	10,245	10,561	10,583	11,125
E:	709.175.1673	709.174.9473	709.173.8563	709.173.8563	709.172.9486	709.168.9511	709.164.9546	709.164.0471	709.164.0471	709.162.9560	709.162.6299
N:	7.089.341.6784	7.089.341.6699	7.089.341.6277	7.089.341.6277	7.089.341.5927	7.089.341.4383	7.089.341.2839	7.089.341.2489	7.089.341.2489	7.089.341.2067	7.089.341.1941
<b>Station: 75+10</b>											
Dist. Eixo (m):					-4,168	<b>0,000</b>	4,000	4,010	4,010	6,000	6,137
Cota (m):					10,223	10,306	10,226	10,506	10,506	10,546	10,728
E:					709.173.4964	709.169.3315	709.165.3344	709.165.3244	709.165.3244	709.163.3359	709.163.1985
N:					7.089.331.6039	7.089.331.4455	7.089.331.2935	7.089.331.2931	7.089.331.2931	7.089.331.2175	7.089.331.2123
<b>Station: 76+0</b>											
Dist. Eixo (m):					-4,086	<b>0,000</b>	4,000	4,010	4,010	6,001	
Cota (m):					10,188	10,270	10,190	10,470	10,470	10,510	
E:					709.173.7943	709.169.7115	709.165.7144	709.165.7044	709.165.7044	709.163.7152	
N:					7.089.321.6080	7.089.321.4527	7.089.321.3007	7.089.321.3004	7.089.321.3004	7.089.321.2247	
<b>Station: 76+10</b>											
Dist. Eixo (m):					-4,004	<b>0,000</b>	4,000	4,010	4,010	6,003	6,235
Cota (m):					10,153	10,233	10,153	10,433	10,433	10,473	10,944
E:					709.174.0921	709.170.0915	709.166.0944	709.166.0844	709.166.0844	709.164.0925	709.163.8609
N:					7.089.311.6121	7.089.311.4600	7.089.311.3080	7.089.311.3076	7.089.311.3076	7.089.311.2318	7.089.311.2230
<b>Station: 77+0</b>											
Dist. Eixo (m):	-6,097	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,006	6,255
Cota (m):	11,135	10,440	10,418	10,102	10,120	10,200	10,120	10,102	10,418	10,440	11,034
E:	709.176.5639	709.176.4673	709.175.3763	709.175.3763	709.174.4686	709.170.4714	709.166.4743	709.165.5668	709.165.5668	709.164.4697	709.164.2211
N:	7.089.301.6988	7.089.301.6952	7.089.301.6537	7.089.301.6537	7.089.301.6192	7.089.301.4672	7.089.301.3152	7.089.301.2807	7.089.301.2807	7.089.301.2390	7.089.301.2295
<b>Station: 77+10</b>											
Dist. Eixo (m):	-6,007	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,009	6,270
Cota (m):	11,183	10,428	10,406	10,090	10,108	10,188	10,108	10,090	10,406	10,428	11,014
E:	709.176.8539	709.176.8473	709.175.7562	709.175.7562	709.174.8485	709.170.8514	709.166.8543	709.165.9468	709.165.9468	709.164.8470	709.164.8683
N:	7.089.291.7026	7.089.291.7024	7.089.291.6609	7.089.291.6609	7.089.291.6264	7.089.291.4744	7.089.291.3224	7.089.291.2879	7.089.291.2879	7.089.291.2461	7.089.291.2362
<b>Station: 78+0</b>											
Dist. Eixo (m):	-6,131	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,011	6,333
Cota (m):	11,108	10,435	10,413	10,097	10,115	10,195	10,115	10,097	10,413	10,435	10,981
E:	709.177.3578	709.177.2272	709.176.1362	709.176.1362	709.175.2285	709.171.2314	709.167.2343	709.166.3268	709.166.3268	709.165.2242	709.164.9027
N:	7.089.281.7146	7.089.281.7096	7.089.281.6681	7.089.281.6681	7.089.281.6336	7.089.281.4816	7.089.281.3296	7.089.281.2951	7.089.281.2951	7.089.281.2532	7.089.281.2410
<b>Station: 78+10</b>											
Dist. Eixo (m):	-6,236	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,014	6,393
Cota (m):	11,048	10,445	10,423	10,107	10,125	10,205	10,125	10,107	10,423	10,445	10,953
E:	709.177.8427	709.177.6072	709.176.5162	709.176.5162	709.175.6085	709.171.6113	709.167.6142	709.166.7067	709.166.7067	709.165.6015	709.165.2232
N:	7.089.271.7258	7.089.271.7168	7.089.271.6753	7.089.271.6753	7.089.271.6408	7.089.271.4888	7.089.271.3368	7.089.271.3023	7.089.271.3023	7.089.271.2603	7.089.271.2459
<b>Station: 79+0</b>											
Dist. Eixo (m):	-6,306	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,017	6,436
Cota (m):	11,011	10,455	10,433	10,117	10,135	10,215	10,135	10,117	10,433	10,455	10,936
E:	709.178.2926	709.177.9872	709.176.8961	709.176.8961	709.175.9884	709.171.9913	709.167.9942	709.167.0867	709.167.0867	709.165.9787	709.165.5600
N:	7.089.261.7357	7.089.261.7240	7.089.261.6826	7.089.261.6826	7.089.261.6480	7.089.261.4961	7.089.261.3441	7.089.261.3096	7.089.261.3096	7.089.261.2674	7.089.261.2515
<b>Station: 79+10</b>											
Dist. Eixo (m):	-6,366	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,020	6,443
Cota (m):	10,981	10,465	10,443	10,127	10,145	10,225	10,145	10,127	10,443	10,465	10,943
E:	709.178.7327	709.178.3671	709.177.2761	709.177.2761	709.176.3684	709.172.3713	709.168.3742	709.167.4667	709.167.4667	709.166.3560	709.165.9328
N:	7.089.251.7452	7.089.251.7313	7.089.251.6898	7.089.251.6898	7.089.251.6553	7.089.251.5033	7.089.251.3513	7.089.251.3168	7.089.251.3168	7.089.251.2746	7.089.251.2585
<b>Station: 80+0</b>											
Dist. Eixo (m):	-6,406	-6,000	-4,908	-4,908	-4,000	<b>0,000</b>	4,000	4,908	4,908	6,022	6,391
Cota (m):	10,964	10,475	10,453	10,137	10,155	10,235	10,155	10,136	10,453	10,475	10,989
E:	709.179.1525	709.178.7471	709.177.6561	709.177.6561	709.176.7483	709.172.7512	709.168.7541	709.167.8466	709.167.8466	709.166.7332	709.166.3649
N:	7.089.241.7539	7.089.241.7385	7.089.241.6970	7.089.241.6970	7.089.241.6625	7.089.241.5105	7.089.241.3585	7.089.241.3240	7.089.241.3240	7.089.241.2817	7.089.241.2677
<b>Station: 80+10</b>											
Dist. Eixo (m):	-9,806	-9,348	-6,890	-6,890	-5,982	<b>0,000</b>	6,141	7,049	7,049	9,596	9,797
Cota (m):	10,994	10,539	10,490	10,174	10,192	10,244	10,210	10,192	10,508	10,559	11,185
E:	709.182.9301	709.182.4726	709.180.0165	709.180.0165	709.179.1088	709.173.1312	709.166.9944	709.166.0869	709.166.0869	709.163.5426	709.163.3408
N:	7.089.231.8903	7.089.231.8729	7.089.231.7795	7.089.231.7795	7.089.231.7450	7.089.231.5177	7.089.231.2844	7.089.231.2499	7.089.231.2499	7.089.231.1531	7.089.231.1455



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DANTE NAZATO**

Desenho Esquemático:

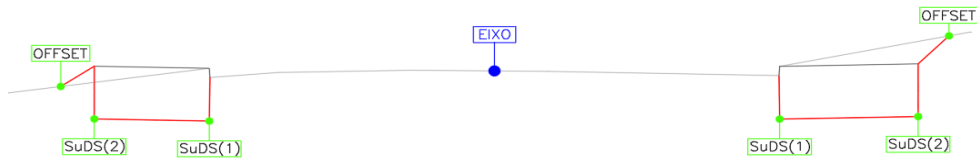


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
Station: 80+12											
Dist. Eixo (m):		-14,758	-11,120	-11,120	-10,212	0,000	11,357	12,265			
Cota (m):		10,591	10,518	10,203	10,221	10,247	10,261	10,243			
E:		709.187,9746	709.184,3396	709.184,3396	709.183,4319	709.173,2272	709.161,8784	709.160,9709			
N:		7.089.229,5536	7.089.229,4154	7.089.229,4154	7.089.229,3809	7.089.228,9929	7.089.228,5613	7.089.228,5268			



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DELÍRIO BERTELL**

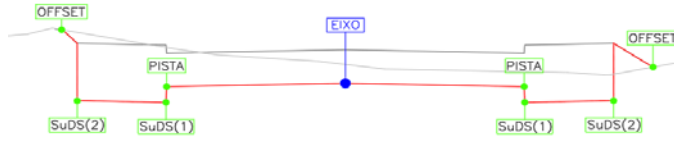
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>							
Dist. Eixo (m):		-6,080	-4,001	<b>0,000</b>	3,966	5,996	
Cota (m):		12,419	12,377		12,378	12,419	
E:		709.462,1938	709.462,2652	<b>709.462,4027</b>	709.462,5390	709.462,6087	
N:		7.090.643,8080	7.090.641,7305	<b>7.090.637,7319</b>	7.090.633,7685	7.090.631,7394	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-6,080	-4,046	<b>0,000</b>	3,967	5,982	
Cota (m):		12,367	12,326		12,327	12,368	
E:		709.472,1879	709.472,2577	<b>709.472,3968</b>	709.472,5331	709.472,6024	
N:		7.090.644,1519	7.090.642,1194	<b>7.090.638,0756</b>	7.090.634,1106	7.090.632,0968	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-6,069	-4,063	<b>0,000</b>	3,967	5,969	
Cota (m):		12,305	12,265		12,267	12,307	
E:		709.482,1823	709.482,2513	<b>709.482,3909</b>	709.482,5272	709.482,5960	
N:		7.090.644,4845	7.090.642,4793	<b>7.090.638,4192</b>	7.090.634,4549	7.090.632,4542	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-6,058	-4,060	<b>0,000</b>	3,966	5,955	
Cota (m):		12,221	12,181		12,183	12,223	
E:		709.492,1768	709.492,2455	<b>709.492,3850</b>	709.492,5213	709.492,5896	
N:		7.090.644,8170	7.090.642,8202	<b>7.090.638,7628</b>	7.090.634,7993	7.090.632,8116	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-6,047	-4,054	<b>0,000</b>	3,965	5,941	
Cota (m):		12,138	12,098		12,100	12,139	
E:		709.502,1713	709.502,2398	<b>709.502,3791</b>	709.502,5153	709.502,5832	
N:		7.090.645,1496	7.090.643,1578	<b>7.090.639,1065</b>	7.090.635,1438	7.090.633,1690	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-6,036	-4,043	<b>0,000</b>	3,964	5,942	
Cota (m):		12,082	12,042		12,044	12,083	
E:		709.512,1658	709.512,2342	<b>709.512,3732</b>	709.512,5094	709.512,5774	
N:		7.090.645,4822	7.090.643,4907	<b>7.090.639,4501</b>	7.090.635,4885	7.090.633,5114	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-6,025	-4,032	<b>0,000</b>	3,963	5,949	
Cota (m):		11,933	11,893		11,894	11,934	
E:		709.522,1602	709.522,2287	<b>709.522,3673</b>	709.522,5034	709.522,5717	
N:		7.090.645,8148	7.090.643,8236	<b>7.090.639,7937</b>	7.090.635,8332	7.090.633,8487	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-7,105	-4,706	<b>0,000</b>	5,112	7,666	
Cota (m):		11,727	11,679		11,671	11,722	
E:		709.532,1172	709.532,1997	<b>709.532,3614</b>	709.532,5370	709.532,6248	
N:		7.090.647,2380	7.090.644,8402	<b>7.090.640,1373</b>	7.090.635,0286	7.090.632,4755	
<b>Station: 4+3</b>							
Dist. Eixo (m):		-6,200	-5,010	<b>0,000</b>	5,010	10,457	10,780
Cota (m):		11,661	11,637		11,637	11,746	12,091
E:		709.535,5309	709.535,5718	<b>709.535,7440</b>	709.535,9162	709.536,1033	709.536,1144
N:		7.090.646,4502	7.090.645,2607	<b>7.090.640,2537</b>	7.090.635,2466	7.090.629,8025	7.090.629,4800

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

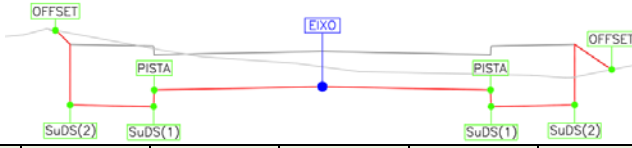
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+3</b>									
Dist. Eixo (m):		-6,430	-4,641	-4,631	0,000	5,190	5,200	7,738	
Cota (m):		18,201	18,165	18,285	18,378	18,274	18,154	18,205	
E:		709.076,9437	709.075,1555	709.075,1455	709.070,5173	709.065,3300	709.065,3201	709.062,7843	
N:		7.090.066,6985	7.090.066,6352	7.090.066,6349	7.090.066,4712	7.090.066,2877	7.090.066,2873	7.090.066,1976	
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,052	-4,008	-3,998	0,000	4,002	4,012	5,979	
Cota (m):		17,629	17,588	17,708	17,788	17,708	17,588	17,627	
E:		709.076,7788	709.074,7369	709.074,7269	709.070,7309	709.066,7319	709.066,7219	709.064,7559	
N:		7.090.060,6451	7.090.060,5729	7.090.060,5726	7.090.060,4312	7.090.060,2897	7.090.060,2894	7.090.060,2198	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-5,963	-4,000	-3,990	0,000	4,010	4,020	5,987	
Cota (m):		16,651	16,611	16,731	16,811	16,731	16,611	16,650	
E:		709.077,0438	709.075,0818	709.075,0718	709.071,0845	709.067,0768	709.067,0668	709.065,1010	
N:		7.090.050,6483	7.090.050,5789	7.090.050,5785	7.090.050,4374	7.090.050,2957	7.090.050,2953	7.090.050,2258	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-5,911	-3,991	-3,981	0,000	4,019	4,029	5,958	
Cota (m):		15,702	15,664	15,784	15,863	15,783	15,663	15,702	
E:		709.077,3455	709.075,4267	709.075,4167	709.071,4380	709.067,4217	709.067,4117	709.065,4838	
N:		7.090.040,6527	7.090.040,5848	7.090.040,5844	7.090.040,4437	7.090.040,3016	7.090.040,3013	7.090.040,2331	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-5,924	-3,983	-3,973	0,000	4,027	4,037	5,972	
Cota (m):		14,893	14,854	14,974	15,054	14,973	14,853	14,892	
E:		709.077,7118	709.075,7716	709.075,7616	709.071,7915	709.067,7666	709.067,7566	709.065,8229	
N:		7.090.030,6594	7.090.030,5907	7.090.030,5904	7.090.030,4499	7.090.030,3076	7.090.030,3072	7.090.030,2388	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-5,975	-3,974	-3,964	0,000	4,036	4,046	5,984	
Cota (m):		14,234	14,194	14,314	14,394	14,313	14,193	14,232	
E:		709.078,1167	709.076,1165	709.076,1065	709.072,1451	709.068,1115	709.068,1015	709.066,1649	
N:		7.090.020,6674	7.090.020,5967	7.090.020,5963	7.090.020,4562	7.090.020,3135	7.090.020,3132	7.090.020,2446	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-5,925	-3,965	-3,955	0,000	4,045	4,055	6,059	
Cota (m):		13,723	13,684	13,804	13,883	13,802	13,682	13,722	
E:		709.078,4198	709.076,4615	709.076,4515	709.072,4986	709.068,4565	709.068,4465	709.066,4434	
N:		7.090.010,6719	7.090.010,6026	7.090.010,6023	7.090.010,4624	7.090.010,3195	7.090.010,3191	7.090.010,2482	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-5,921	-3,957	-3,947	0,000	4,053	4,063	6,119	
Cota (m):		13,362	13,323	13,443	13,522	13,440	13,320	13,362	
E:		709.078,7695	709.076,8064	709.076,7964	709.072,8522	709.068,8014	709.068,7914	709.066,7366	
N:		7.090.000,6780	7.090.000,6086	7.090.000,6082	7.090.000,4687	7.090.000,3254	7.090.000,3250	7.090.000,2524	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-5,953	-3,948	-3,938	0,000	4,062	4,072	6,118	
Cota (m):		13,151	13,111	13,231	13,310	13,228	13,108	13,149	
E:		709.079,1555	709.077,1513	709.077,1413	709.073,2057	709.069,1463	709.069,1363	709.067,0919	
N:		7.089.990,6854	7.089.990,6145	7.089.990,6142	7.089.990,4750	7.089.990,3313	7.089.990,3310	7.089.990,2587	
<b>Station: 4+10</b>									
Dist. Eixo (m):		-5,918	-3,939	-3,929	0,000	4,071	4,081	6,106	
Cota (m):		13,059	13,020	13,140	13,218	13,137	13,017	13,058	
E:		709.079,4735	709.077,4962	709.077,4862	709.073,5592	709.069,4912	709.069,4812	709.067,4572	
N:		7.089.980,6904	7.089.980,6205	7.089.980,6201	7.089.980,4812	7.089.980,3373	7.089.980,3369	7.089.980,2653	
<b>Station: 5+0</b>									
Dist. Eixo (m):		-5,931	-3,931	-3,921	0,000	4,079	4,089	6,070	
Cota (m):		12,980	12,940	13,060	13,138	13,057	12,937	12,976	
E:		709.079,8400	709.077,8411	709.077,8311	709.073,9128	709.069,8361	709.069,8261	709.067,8467	
N:		7.089.970,6971	7.089.970,6264	7.089.970,6261	7.089.970,4875	7.089.970,3432	7.089.970,3429	7.089.970,2729	
<b>Station: 5+10</b>									
Dist. Eixo (m):		-5,894	-3,922	-3,912	0,000	4,088	4,098	6,058	
Cota (m):		12,899	12,860	12,980	13,058	12,976	12,856	12,895	
E:		709.080,1563	709.078,1860	709.078,1761	709.074,2663	709.070,1811	709.070,1711	709.068,2122	
N:		7.089.960,7021	7.089.960,6324	7.089.960,6320	7.089.960,4937	7.089.960,3492	7.089.960,3488	7.089.960,2795	
<b>Station: 6+0</b>									
Dist. Eixo (m):		-6,026	-3,914	-3,904	0,000	4,096	4,106	6,090	
Cota (m):		12,822	12,780	12,900	12,978	12,896	12,776	12,815	
E:		709.080,6420	709.078,5310	709.078,5210	709.074,6198	709.070,5260	709.070,5160	709.068,5336	
N:		7.089.950,7130	7.089.950,6383	7.089.950,6380	7.089.950,5000	7.089.950,3551	7.089.950,3548	7.089.950,2847	
<b>Station: 6+10</b>									
Dist. Eixo (m):		-5,961	-3,905	-3,895	0,000	4,105	4,115	6,101	
Cota (m):		12,741	12,700	12,820	12,898	12,815	12,695	12,735	
E:		709.080,9304	709.078,8759	709.078,8659	709.074,9734	709.070,8709	709.070,8609	709.068,8762	
N:		7.089.940,7169	7.089.940,6443	7.089.940,6439	7.089.940,5062	7.089.940,3611	7.089.940,3607	7.089.940,2905	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+0</b>									
Dist. Eixo (m):		-5,909	-3,896	-3,886	<b>0,000</b>	4,114	4,124	6,112	
Cota (m):		12,660	12,620	12,740	<b>12,817</b>	12,735	12,615	12,655	
E:		709.081,2325	709.079,2208	709.079,2108	<b>709.075,3269</b>	709.071,2158	709.071,2058	709.069,2188	
N:		7.089.930,7214	7.089.930,6502	7.089.930,6499	<b>7.089.930,5125</b>	7.089.930,3670	7.089.930,3667	7.089.930,2964	

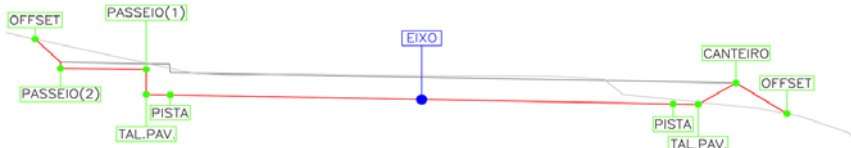
<b>Station: 7+10</b>									
Dist. Eixo (m):		-6,046	-5,891	-3,888	-3,878	<b>0,000</b>	4,122	4,132	6,122
Cota (m):		13,136	12,580	12,540	12,660	<b>12,737</b>	12,655	12,535	12,574
E:		709.081,7226	709.081,5675	709.079,5657	709.079,5557	<b>709.075,6804</b>	709.071,5607	709.071,5507	709.069,5620
N:		7.089.920,7325	7.089.920,7270	7.089.920,6562	7.089.920,6558	<b>7.089.920,5187</b>	7.089.920,3730	7.089.920,3726	7.089.920,3023

<b>Station: 7+17</b>									
Dist. Eixo (m):					-4,899	<b>0,000</b>	5,398		
Cota (m):					12,713	<b>12,677</b>	12,750		
E:					709.080,8423	<b>709.075,9461</b>	709.070,5519		
N:					7.089.913,1832	<b>7.089.913,0100</b>	7.089.912,8191		

<b>Station: 8+13</b>									
Dist. Eixo (m):					-5,171	<b>-0,003</b>	4,889		
Cota (m):					12,710	<b>12,816</b>	12,739		
E:					709.081,6791	<b>709.076,5143</b>	709.071,6256		
N:					7.089.897,2072	<b>7.089.897,0245</b>	7.089.896,8515		

<b>Station: 8+17</b>									
Dist. Eixo (m):					-4,044	<b>0,000</b>	3,958		
Cota (m):					12,715	<b>12,828</b>	12,749		
E:					709.080,6903	<b>709.076,6485</b>	709.072,6927		
N:					7.089.893,2958	<b>7.089.893,1528</b>	7.089.893,0129		

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	CANTEIRO	OFFSET
<b>Station: 9+0</b>										
Dist. Eixo (m):		-5,819	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,556
Cota (m):		13,382	13,354	12,924	12,916	<b>12,836</b>	12,756	12,748	13,126	12,755
E:		709.082,5501	709.081,1301	709.081,1301	709.080,7325	<b>709.076,7347</b>	709.072,7369	709.072,3391	709.071,7374	709.071,1817
N:		7.089.890,7288	7.089.890,6821	7.089.890,6821	7.089.890,6690	<b>7.089.890,5372</b>	7.089.890,4055	7.089.890,3924	7.089.890,3726	7.089.890,3543

<b>Station: 9+10</b>										
Dist. Eixo (m):		-5,942	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,658
Cota (m):		13,401	13,370	12,940	12,932	<b>12,852</b>	12,772	12,764	13,142	12,703
E:		709.083,0026	709.081,4593	709.081,4593	709.081,0618	<b>709.077,0640</b>	709.073,0661	709.072,6684	709.072,0667	709.071,4090
N:		7.089.880,7383	7.089.880,6875	7.089.880,6875	7.089.880,6744	<b>7.089.880,5427</b>	7.089.880,4110	7.089.880,3979	7.089.880,3780	7.089.880,3564

<b>Station: 10+0</b>										
Dist. Eixo (m):		-5,809	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,725
Cota (m):		13,385	13,357	12,927	12,919	<b>12,839</b>	12,759	12,751	13,129	12,646
E:		709.083,1993	709.081,7886	709.081,7886	709.081,3910	<b>709.077,3932</b>	709.073,3954	709.072,9976	709.072,3959	709.071,6709
N:		7.089.870,7394	7.089.870,6929	7.089.870,6929	7.089.870,6798	<b>7.089.870,5481</b>	7.089.870,4164	7.089.870,4033	7.089.870,3835	7.089.870,3596

<b>Station: 10+10</b>										
Dist. Eixo (m):		-5,758	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,811
Cota (m):		13,358	13,330	12,901	12,893	<b>12,813</b>	12,733	12,725	13,103	12,562
E:		709.083,4776	709.082,1179	709.082,1179	709.081,7203	<b>709.077,7225</b>	709.073,7246	709.073,3269	709.072,7252	709.071,9151
N:		7.089.860,7431	7.089.860,6983	7.089.860,6983	7.089.860,6852	<b>7.089.860,5535</b>	7.089.860,4218	7.089.860,4087	7.089.860,3889	7.089.860,3622

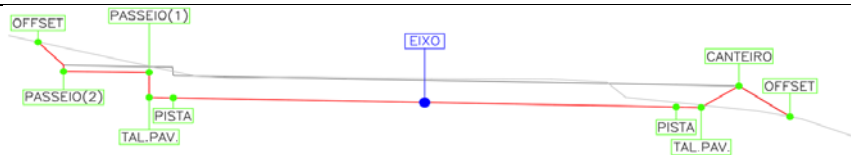
<b>Station: 11+0</b>										
Dist. Eixo (m):		-5,707	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,862
Cota (m):		13,314	13,288	12,858	12,850	<b>12,770</b>	12,690	12,682	13,060	12,485
E:		709.083,7558	709.082,4471	709.082,4471	709.082,0496	<b>709.078,0517</b>	709.074,0539	709.073,6562	709.073,0545	709.072,1930
N:		7.089.850,7469	7.089.850,7037	7.089.850,7037	7.089.850,6906	<b>7.089.850,5589</b>	7.089.850,4272	7.089.850,4141	7.089.850,3943	7.089.850,3659

<b>Station: 11+10</b>										
Dist. Eixo (m):		-5,970	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,821
Cota (m):		13,224	13,192	12,763	12,755	<b>12,675</b>	12,595	12,587	12,965	12,417
E:		709.084,3482	709.082,7764	709.082,7764	709.082,3788	<b>709.078,3810</b>	709.074,3832	709.073,9854	709.073,3837	709.072,5633
N:		7.089.840,7609	7.089.840,7092	7.089.840,7092	7.089.840,6961	<b>7.089.840,5644</b>	7.089.840,4327	7.089.840,4195	7.089.840,3997	7.089.840,3727

<b>Station: 12+0</b>										
Dist. Eixo (m):		-5,890	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,659
Cota (m):		13,088	13,058	12,629	12,621	<b>12,541</b>	12,461	12,453	12,831	12,391
E:		709.084,5967	709.083,1056	709.083,1056	709.082,7081	<b>709.078,7103</b>	709.074,7124	709.074,3147	709.073,7130	709.073,0542
N:		7.089.830,7637	7.089.830,7146	7.089.830,7146	7.089.830,7015	<b>7.089.830,5698</b>	7.089.830,4381	7.089.830,4250	7.089.830,4051	7.089.830,3834

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
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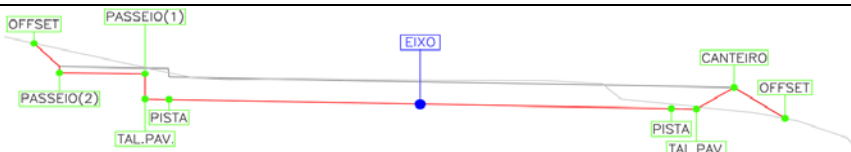
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	CANTEIRO	OFFSET
<b>Station: 12+10</b>										
Dist. Eixo (m):		-5,863	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,509
Cota (m):		12,952	12,923	12,493	12,485	12,405	12,325	12,317	12,695	12,355
E:		709,084,8990	709,083,4349	709,083,4349	709,083,0374	709,079,0395	709,075,0417	709,074,6440	709,074,0422	709,073,5336
N:		7,089,820,7682	7,089,820,7200	7,089,820,7200	7,089,820,7069	7,089,820,5752	7,089,820,4435	7,089,820,4304	7,089,820,4106	7,089,820,3938
<b>Station: 13+0</b>										
Dist. Eixo (m):		-5,940	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,361
Cota (m):		12,818	12,787	12,357	12,349	12,269	12,189	12,181	12,559	12,318
E:		709,085,3054	709,083,7642	709,083,7642	709,083,3666	709,079,3688	709,075,3710	709,074,9732	709,074,3715	709,074,0102
N:		7,089,810,7762	7,089,810,7254	7,089,810,7254	7,089,810,7123	7,089,810,5806	7,089,810,4489	7,089,810,4358	7,089,810,4160	7,089,810,4041
<b>Station: 13+10</b>										
Dist. Eixo (m):		-5,958	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,214
Cota (m):		12,682	12,651	12,221	12,213	12,133	12,053	12,045	12,423	12,281
E:		709,085,6524	709,084,0934	709,084,0934	709,083,6959	709,079,6981	709,075,7002	709,075,3025	709,074,7008	709,074,4869
N:		7,089,800,7822	7,089,800,7309	7,089,800,7309	7,089,800,7178	7,089,800,5860	7,089,800,4543	7,089,800,4412	7,089,800,4214	7,089,800,4144
<b>Station: 14+0</b>										
Dist. Eixo (m):		-5,906	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,067
Cota (m):		12,545	12,515	12,086	12,078	11,998	11,918	11,910	12,288	12,243
E:		709,085,9304	709,084,4227	709,084,4227	709,084,0252	709,080,0273	709,076,0295	709,075,6318	709,075,0300	709,074,9635
N:		7,089,790,7859	7,089,790,7363	7,089,790,7363	7,089,790,7232	7,089,790,5915	7,089,790,4598	7,089,790,4467	7,089,790,4268	7,089,790,4246
<b>Station: 14+10</b>										
Dist. Eixo (m):		-5,974	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,010
Cota (m):		12,437	12,406	11,976	11,968	11,888	11,808	11,800	12,178	12,188
E:		709,086,3270	709,084,7520	709,084,7520	709,084,3544	709,080,3566	709,076,3588	709,075,9610	709,075,3593	709,075,3496
N:		7,089,780,7936	7,089,780,7417	7,089,780,7417	7,089,780,7286	7,089,780,5969	7,089,780,4652	7,089,780,4521	7,089,780,4323	7,089,780,4319
<b>Station: 15+0</b>										
Dist. Eixo (m):		-5,991	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,047
Cota (m):		12,388	12,356	11,927	11,919	11,839	11,759	11,751	12,129	12,098
E:		709,086,6736	709,085,0812	709,085,0812	709,084,6837	709,080,6859	709,076,6880	709,076,2903	709,075,6886	709,075,6421
N:		7,089,770,7996	7,089,770,7471	7,089,770,7471	7,089,770,7340	7,089,770,6023	7,089,770,4706	7,089,770,4575	7,089,770,4377	7,089,770,4362
<b>Station: 15+10</b>										
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,296
Cota (m):		12,373	12,341	11,911	11,903	11,823	11,743	11,735	12,113	11,916
E:		709,087,0122	709,085,4105	709,085,4105	709,085,0130	709,081,0151	709,077,0173	709,076,6195	709,076,0178	709,075,7223
N:		7,089,760,8053	7,089,760,7525	7,089,760,7525	7,089,760,7394	7,089,760,6077	7,089,760,4760	7,089,760,4629	7,089,760,4431	7,089,760,4334
<b>Station: 16+0</b>										
Dist. Eixo (m):		-6,054	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,547
Cota (m):		12,358	12,325	11,896	11,888	11,808	11,728	11,720	12,098	11,733
E:		709,087,3954	709,085,7398	709,085,7398	709,085,3422	709,081,3444	709,077,3466	709,076,9488	709,076,3471	709,075,8001
N:		7,089,750,8125	7,089,750,7580	7,089,750,7580	7,089,750,7449	7,089,750,6132	7,089,750,4815	7,089,750,4683	7,089,750,4485	7,089,750,4305
<b>Station: 16+10</b>										
Dist. Eixo (m):		-6,060	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	5,823
Cota (m):		12,343	12,310	11,880	11,872	11,792	11,712	11,704	12,082	11,533
E:		709,087,7304	709,086,0690	709,086,0690	709,085,6715	709,081,6737	709,077,6758	709,077,2781	709,076,6764	709,075,8537
N:		7,089,740,8181	7,089,740,7634	7,089,740,7634	7,089,740,7503	7,089,740,6186	7,089,740,4869	7,089,740,4738	7,089,740,4539	7,089,740,4268
<b>Station: 17+0</b>										
Dist. Eixo (m):		-6,050	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	6,099
Cota (m):		12,438	12,294	11,865	11,857	11,777	11,697	11,689	12,067	11,334
E:		709,088,0491	709,086,3983	709,086,3983	709,086,0007	709,082,0029	709,078,0051	709,077,6073	709,077,0056	709,075,9073
N:		7,089,730,8232	7,089,730,7688	7,089,730,7688	7,089,730,7557	7,089,730,6240	7,089,730,4923	7,089,730,4792	7,089,730,4594	7,089,730,4232
<b>Station: 17+10</b>										
Dist. Eixo (m):		-6,016	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	6,342
Cota (m):		12,421	12,279	11,849	11,841	11,761	11,681	11,673	12,051	11,157
E:		709,088,3447	709,086,7276	709,086,7276	709,086,3300	709,082,3322	709,078,3343	709,077,9366	709,077,3349	709,075,9939
N:		7,089,720,8275	7,089,720,7742	7,089,720,7742	7,089,720,7611	7,089,720,6294	7,089,720,4977	7,089,720,4846	7,089,720,4648	7,089,720,4206
<b>Station: 17+12</b>										
Dist. Eixo (m):		-6,006	-4,398	-4,398	-4,000	0,000	4,000	4,398	5,000	6,383
Cota (m):		12,416	12,274	11,845	11,837	11,757	11,677	11,669	12,047	11,125
E:		709,088,4284	709,086,8209	709,086,8209	709,086,4233	709,082,4255	709,078,4276	709,078,0299	709,077,4282	709,076,0464
N:		7,089,717,9952	7,089,717,9422	7,089,717,9422	7,089,717,9291	7,089,717,7974	7,089,717,6657	7,089,717,6526	7,089,717,6328	7,089,717,5873
<b>Station: 18+0</b>										
Dist. Eixo (m):					-4,000	0,000	4,000	4,398	5,000	6,464
Cota (m):					11,826	11,746	11,666	11,658	12,036	11,060
E:					709,086,6996	709,082,7026	709,078,7056	709,078,3079	709,077,7063	709,076,2433
N:					7,089,710,7910	7,089,710,6363	7,089,710,4817	7,089,710,4663	7,089,710,4430	7,089,710,3864
<b>Station: 18+10</b>										
Dist. Eixo (m):					-4,000	0,000	4,000	4,398	5,000	6,805
Cota (m):					11,819	11,739	11,659	11,651	12,029	10,827
E:					709,087,0863	709,083,0892	709,079,0922	709,078,6946	709,078,0930	709,076,2894
N:					7,089,700,7985	7,089,700,6438	7,089,700,4891	7,089,700,4737	7,089,700,4505	7,089,700,3807

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

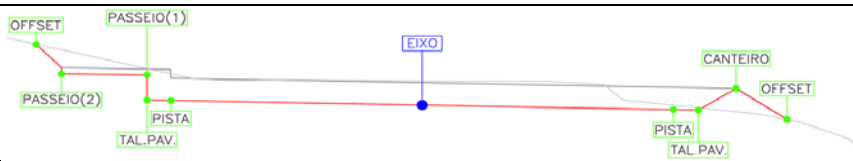
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	CANTEIRO	OFFSET
<b>Station: 19+0</b>										
Dist. Eixo (m):		-5,200	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,913
Cota (m):		12,394	12,268	11,839	11,831	<b>11,751</b>	11,671	11,663	12,041	10,765
E:		709.088,6722	709.087,8704	709.087,8704	709.087,4729	<b>709.083,4759</b>	709.079,4789	709.079,0812	709.078,4796	709.076,5679
N:		7.089.690,8524	7.089.690,8213	7.089.690,8213	7.089.690,8059	<b>7.089.690,6513</b>	7.089.690,4966	7.089.690,4812	7.089.690,4579	7.089.690,3840
<b>Station: 19+8</b>										
Dist. Eixo (m):		-6,021	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,949
Cota (m):		12,319	12,286	11,857	11,849	<b>11,769</b>	11,689	11,681	12,059	10,759
E:		709.089,8313	709.088,2090	709.088,2090	709.087,8115	<b>709.083,8145</b>	709.079,8175	709.079,4199	709.078,8183	709.076,8705
N:		7.089.682,1329	7.089.682,0702	7.089.682,0702	7.089.682,0548	<b>7.089.681,9001</b>	7.089.681,7454	7.089.681,7301	7.089.681,7068	7.089.681,6314
<b>Station: 19+10</b>										
Dist. Eixo (m):		-6,025	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,958
Cota (m):		12,321	12,289	11,859	11,851	<b>11,771</b>	11,691	11,683	12,061	10,756
E:		709.089,8773	709.088,2509	709.088,2509	709.087,8534	<b>709.083,8556</b>	709.079,8577	709.079,4600	709.078,8583	709.076,9013
N:		7.089.680,8574	7.089.680,8037	7.089.680,8037	7.089.680,7906	<b>7.089.680,6585</b>	7.089.680,5264	7.089.680,5133	7.089.680,4934	7.089.680,4288
<b>Station: 20+0</b>										
Dist. Eixo (m):		-5,909	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,421
Cota (m):		12,339	12,309	11,880	11,872	<b>11,792</b>	11,712	11,704	12,082	11,134
E:		709.090,0912	709.088,5811	709.088,5811	709.088,1835	<b>709.084,1857</b>	709.080,1879	709.079,7902	709.079,1884	709.077,7686
N:		7.089.670,8590	7.089.670,8092	7.089.670,8092	7.089.670,7960	<b>7.089.670,6640</b>	7.089.670,5319	7.089.670,5188	7.089.670,4989	7.089.670,4520
<b>Station: 20+10</b>										
Dist. Eixo (m):		-5,899	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,298
Cota (m):		12,360	12,330	11,900	11,892	<b>11,812</b>	11,732	11,724	12,102	11,237
E:		709.090,4117	709.088,9112	709.088,9112	709.088,5137	<b>709.084,5159</b>	709.080,5181	709.080,1203	709.079,5186	709.078,2217
N:		7.089.660,8642	7.089.660,8146	7.089.660,8146	7.089.660,8015	<b>7.089.660,6694</b>	7.089.660,5373	7.089.660,5242	7.089.660,5043	7.089.660,4615
<b>Station: 21+0</b>										
Dist. Eixo (m):		-5,889	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,314
Cota (m):		12,380	12,350	11,920	11,912	<b>11,832</b>	11,752	11,744	12,122	11,246
E:		709.090,7321	709.089,2414	709.089,2414	709.088,8439	<b>709.084,8460</b>	709.080,8482	709.080,4505	709.079,8488	709.078,5355
N:		7.089.650,8693	7.089.650,8201	7.089.650,8201	7.089.650,8069	<b>7.089.650,6749</b>	7.089.650,5428	7.089.650,5297	7.089.650,5098	7.089.650,4664
<b>Station: 21+10</b>										
Dist. Eixo (m):		-5,892	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,412
Cota (m):		12,401	12,371	11,941	11,933	<b>11,853</b>	11,773	11,765	12,143	11,202
E:		709.091,0652	709.089,5716	709.089,5716	709.089,1740	<b>709.085,1762</b>	709.081,1784	709.080,7807	709.080,1789	709.078,7677
N:		7.089.640,8749	7.089.640,8255	7.089.640,8255	7.089.640,8124	<b>7.089.640,6803</b>	7.089.640,5482	7.089.640,5351	7.089.640,5152	7.089.640,4686
<b>Station: 22+0</b>										
Dist. Eixo (m):		-5,913	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,494
Cota (m):		12,415	12,385	11,955	11,947	<b>11,867</b>	11,787	11,779	12,157	11,161
E:		709.091,4167	709.089,9017	709.089,9017	709.089,5042	<b>709.085,5064</b>	709.081,5086	709.081,1108	709.080,5091	709.079,0156
N:		7.089.630,8810	7.089.630,8310	7.089.630,8310	7.089.630,8178	<b>7.089.630,6858</b>	7.089.630,5537	7.089.630,5406	7.089.630,5207	7.089.630,4713
<b>Station: 22+10</b>										
Dist. Eixo (m):		-5,935	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,458
Cota (m):		12,397	12,367	11,937	11,929	<b>11,849</b>	11,769	11,761	12,139	11,167
E:		709.091,7681	709.090,2319	709.090,2319	709.089,8344	<b>709.085,8365</b>	709.081,8387	709.081,4410	709.080,8393	709.079,3816
N:		7.089.620,8872	7.089.620,8364	7.089.620,8364	7.089.620,8233	<b>7.089.620,6912</b>	7.089.620,5591	7.089.620,5460	7.089.620,5261	7.089.620,4780
<b>Station: 23+0</b>										
Dist. Eixo (m):		-5,956	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,314
Cota (m):		12,349	12,318	11,888	11,880	<b>11,800</b>	11,720	11,712	12,090	11,214
E:		709.092,1195	709.090,5621	709.090,5621	709.090,1645	<b>709.086,1667</b>	709.082,1689	709.081,7711	709.081,1694	709.079,8561
N:		7.089.610,8933	7.089.610,8419	7.089.610,8419	7.089.610,8287	<b>7.089.610,6967</b>	7.089.610,5646	7.089.610,5515	7.089.610,5316	7.089.610,4882
<b>Station: 23+10</b>										
Dist. Eixo (m):		-5,977	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,158
Cota (m):		12,298	12,266	11,836	11,828	<b>11,748</b>	11,668	11,660	12,038	11,266
E:		709.092,4710	709.090,8922	709.090,8922	709.090,4947	<b>709.086,4969</b>	709.082,4991	709.082,1013	709.081,4996	709.080,3424
N:		7.089.600,8995	7.089.600,8473	7.089.600,8473	7.089.600,8342	<b>7.089.600,7021</b>	7.089.600,5701	7.089.600,5569	7.089.600,5370	7.089.600,4988
<b>Station: 24+0</b>										
Dist. Eixo (m):		-5,999	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,980
Cota (m):		12,246	12,214	11,784	11,776	<b>11,696</b>	11,616	11,608	11,986	11,332
E:		709.092,8224	709.091,2224	709.091,2224	709.090,8249	<b>709.086,8270</b>	709.082,8292	709.082,4315	709.081,8298	709.080,8498
N:		7.089.590,9056	7.089.590,8528	7.089.590,8528	7.089.590,8396	<b>7.089.590,7076</b>	7.089.590,5755	7.089.590,5624	7.089.590,5425	7.089.590,5101
<b>Station: 24+10</b>										
Dist. Eixo (m):		-5,951	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,912
Cota (m):		12,193	12,162	11,732	11,724	<b>11,644</b>	11,564	11,556	11,934	11,326
E:		709.093,1054	709.091,5526	709.091,5526	709.091,1550	<b>709.087,1572</b>	709.083,1594	709.082,7616	709.082,1599	709.081,2483
N:		7.089.580,9095	7.089.580,8582	7.089.580,8582	7.089.580,8451	<b>7.089.580,7130</b>	7.089.580,5810	7.089.580,5678	7.089.580,5479	7.089.580,5178
<b>Station: 25+0</b>										
Dist. Eixo (m):		-5,949	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,067
Cota (m):		12,141	12,110	11,680	11,672	<b>11,592</b>	11,512	11,504	11,882	11,171
E:		709.093,4327	709.091,8827	709.091,8827	709.091,4852	<b>709.087,4874</b>	709.083,4896	709.083,0918	709.082,4901	709.081,4240
N:		7.089.570,9149	7.089.570,8637	7.089.570,8637	7.089.570,8505	<b>7.089.570,7185</b>	7.089.570,5864	7.089.570,5733	7.089.570,5534	7.089.570,5182

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

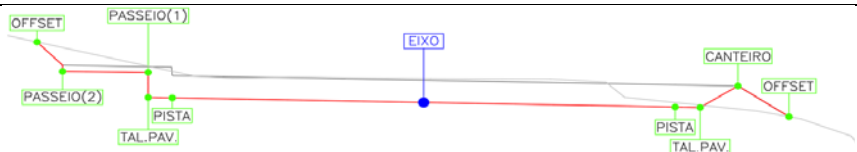
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	CANTEIRO	OFFSET
<b>Station: 25+10</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	4,000	4,398	5,000	6,334
Cota (m):					11,620	<b>11,540</b>	11,460	11,452	11,830	10,941
E:					709.091,8154	<b>709.087,8175</b>	709.083,8197	709.083,4220	709.082,8203	709.081,4874
N:					7.089.560,8560	<b>7.089.560,7239</b>	7.089.560,5919	7.089.560,5787	7.089.560,5588	7.089.560,5148
<b>Station: 25+18</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	3,999	4,397	4,999	6,208
Cota (m):					11,577	<b>11,497</b>	11,417	11,409	11,787	10,981
E:					709.092,0852	<b>709.088,0874</b>	709.084,0896	709.083,6918	709.083,0901	709.081,8814
N:					7.089.552,6877	<b>7.089.552,5556</b>	7.089.552,4235	7.089.552,4104	7.089.552,3905	7.089.552,3506
<b>Station: 26+0</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	4,000	4,398	5,000	6,198
Cota (m):					11,568	<b>11,488</b>	11,408	11,400	11,778	10,979
E:					709.092,1173	<b>709.088,1178</b>	709.084,1184	709.083,7205	709.083,1185	709.081,9203
N:					7.089.550,7953	<b>7.089.550,7286</b>	7.089.550,6620	7.089.550,6553	7.089.550,6453	7.089.550,6253
<b>Station: 26+10</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	4,000	4,398	5,000	6,507
Cota (m):					11,516	<b>11,436</b>	11,356	11,348	11,726	10,721
E:					709.092,2839	<b>709.088,2845</b>	709.084,2851	709.083,8871	709.083,2852	709.081,7782
N:					7.089.540,7967	<b>7.089.540,7300</b>	7.089.540,6634	7.089.540,6567	7.089.540,6467	7.089.540,6216
<b>Station: 26+18</b>										
Dist. Eixo (m):		-5,974	-4,397	-4,397	-3,999	<b>0,000</b>	4,000	4,398	5,000	6,856
Cota (m):		11,939	11,907	11,477	11,469	<b>11,389</b>	11,309	11,301	11,679	10,442
E:		709.094,4070	709.092,8306	709.092,8306	709.092,4329	<b>709.088,4335</b>	709.084,4340	709.084,0361	709.083,4342	709.081,5787
N:		7.089.531,8926	7.089.531,8664	7.089.531,8664	7.089.531,8597	<b>7.089.531,7931</b>	7.089.531,7264	7.089.531,7198	7.089.531,7097	7.089.531,6788
<b>Station: 27+0</b>										
Dist. Eixo (m):		-5,968	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,894
Cota (m):		11,933	11,901	11,472	11,464	<b>11,384</b>	11,304	11,296	11,674	10,411
E:		709.094,4341	709.092,8646	709.092,8646	709.092,4671	<b>709.088,4694</b>	709.084,4717	709.084,0739	709.083,4722	709.081,5789
N:		7.089.530,9336	7.089.530,8806	7.089.530,8806	7.089.530,8671	<b>7.089.530,7319</b>	7.089.530,5966	7.089.530,5832	7.089.530,5628	7.089.530,4988
<b>Station: 27+10</b>										
Dist. Eixo (m):		-5,968	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	7,198
Cota (m):		11,881	11,849	11,420	11,412	<b>11,332</b>	11,252	11,244	11,622	10,156
E:		709.094,7717	709.093,2027	709.093,2027	709.092,8052	<b>709.088,8074</b>	709.084,8097	709.084,4120	709.083,8103	709.081,6134
N:		7.089.520,9393	7.089.520,8863	7.089.520,8863	7.089.520,8728	<b>7.089.520,7376</b>	7.089.520,6024	7.089.520,5889	7.089.520,5686	7.089.520,4942
<b>Station: 28+0</b>										
Dist. Eixo (m):		-5,971	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	8,826
Cota (m):		11,829	11,797	11,368	11,360	<b>11,280</b>	11,200	11,192	11,570	9,019
E:		709.095,1128	709.093,5408	709.093,5408	709.093,1432	<b>709.089,1455</b>	709.085,1478	709.084,7501	709.084,1484	709.080,3247
N:		7.089.510,9452	7.089.510,8920	7.089.510,8920	7.089.510,8785	<b>7.089.510,7433</b>	7.089.510,6081	7.089.510,5946	7.089.510,5743	7.089.510,4449
<b>Station: 28+10</b>										
Dist. Eixo (m):		-5,974	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	8,779
Cota (m):		11,777	11,745	11,316	11,308	<b>11,228</b>	11,148	11,140	11,518	8,998
E:		709.095,4539	709.093,8788	709.093,8788	709.093,4813	<b>709.089,4836</b>	709.085,4859	709.085,0882	709.084,4865	709.080,7100
N:		7.089.500,9510	7.089.500,8977	7.089.500,8977	7.089.500,8843	<b>7.089.500,7490</b>	7.089.500,6138	7.089.500,6003	7.089.500,5800	7.089.500,4522
<b>Station: 29+0</b>										
Dist. Eixo (m):		-5,977	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	8,723
Cota (m):		11,725	11,693	11,263	11,255	<b>11,175</b>	11,095	11,088	11,465	8,983
E:		709.095,7950	709.094,2169	709.094,2169	709.093,8194	<b>709.089,8217</b>	709.085,8240	709.085,4262	709.084,8245	709.081,1035
N:		7.089.490,9568	7.089.490,9034	7.089.490,9034	7.089.490,8900	<b>7.089.490,7547</b>	7.089.490,6195	7.089.490,6061	7.089.490,5857	7.089.490,4598
<b>Station: 29+10</b>										
Dist. Eixo (m):		-5,980	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	7,132
Cota (m):		11,673	11,641	11,211	11,203	<b>11,123</b>	11,043	11,035	11,413	9,992
E:		709.096,1361	709.094,5550	709.094,5550	709.094,1575	<b>709.090,1598</b>	709.086,1621	709.085,7643	709.085,1626	709.083,0320
N:		7.089.480,9626	7.089.480,9091	7.089.480,9091	7.089.480,8957	<b>7.089.480,7605</b>	7.089.480,6252	7.089.480,6118	7.089.480,5914	7.089.480,5193
<b>Station: 30+0</b>										
Dist. Eixo (m):		-5,983	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,832
Cota (m):		11,621	11,589	11,159	11,151	<b>11,071</b>	10,991	10,983	11,361	10,140
E:		709.096,4773	709.094,8931	709.094,8931	709.094,4956	<b>709.090,4978</b>	709.086,5001	709.086,1024	709.085,5007	709.083,6698
N:		7.089.470,9684	7.089.470,9149	7.089.470,9149	7.089.470,9014	<b>7.089.470,7662</b>	7.089.470,6309	7.089.470,6175	7.089.470,5971	7.089.470,5352
<b>Station: 30+10</b>										
Dist. Eixo (m):		-5,986	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,532
Cota (m):		11,569	11,537	11,107	11,099	<b>11,019</b>	10,939	10,931	11,309	10,288
E:		709.096,8184	709.095,2312	709.095,2312	709.094,8336	<b>709.090,8359</b>	709.086,8382	709.086,4405	709.085,8388	709.084,3076
N:		7.089.460,9743	7.089.460,9206	7.089.460,9206	7.089.460,9071	<b>7.089.460,7719</b>	7.089.460,6367	7.089.460,6232	7.089.460,6029	7.089.460,5511
<b>Station: 31+0</b>										
Dist. Eixo (m):		-5,989	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,232
Cota (m):		11,517	11,485	11,055	11,047	<b>10,967</b>	10,887	10,879	11,257	10,436
E:		709.097,1595	709.095,5692	709.095,5692	709.095,1717	<b>709.091,1740</b>	709.087,1763	709.086,7786	709.086,1769	709.084,9454
N:		7.089.450,9801	7.089.450,9263	7.089.450,9263	7.089.450,9128	<b>7.089.450,7776</b>	7.089.450,6424	7.089.450,6289	7.089.450,6086	7.089.450,5669

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

Desenho Esquemático:

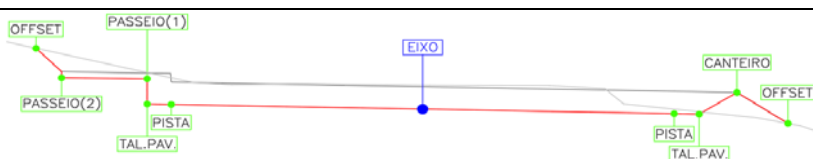


PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	CANTEIRO	OFFSET
<b>Station: 31+10</b>										
Dist. Eixo (m):		-5,992	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,005
Cota (m):		11,469	11,438	11,008	11,000	<b>10,920</b>	10,840	10,832	11,210	10,540
E:		709,097,5006	709,095,9073	709,095,9073	709,095,5098	<b>709,091,5121</b>	709,087,5144	709,087,1166	709,086,5149	709,085,5108
N:		7,089,440,9859	7,089,440,9320	7,089,440,9320	7,089,440,9186	<b>7,089,440,7833</b>	7,089,440,6481	7,089,440,6346	7,089,440,6143	7,089,440,5803
<b>Station: 32+0</b>										
Dist. Eixo (m):		-5,995	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,872
Cota (m):		11,431	11,399	10,969	10,961	<b>10,881</b>	10,801	10,793	11,171	10,590
E:		709,097,8417	709,096,2454	709,096,2454	709,095,8479	<b>709,091,8502</b>	709,087,8524	709,087,4547	709,086,8530	709,085,9811
N:		7,089,430,9917	7,089,430,9377	7,089,430,9377	7,089,430,9243	<b>7,089,430,7890</b>	7,089,430,6538	7,089,430,6404	7,089,430,6200	7,089,430,5905
<b>Station: 32+10</b>										
Dist. Eixo (m):	-6,197	-5,998	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	5,887
Cota (m):	11,380	11,512	11,370	10,940	10,932	<b>10,852</b>	10,772	10,764	11,142	10,551
E:	709,098,3814	709,098,1831	709,096,5835	709,096,5835	709,096,1860	<b>709,092,1882</b>	709,088,1905	709,087,7928	709,087,1911	709,086,3050
N:	7,089,421,0043	7,089,420,9975	7,089,420,9434	7,089,420,9434	7,089,420,9300	<b>7,089,420,7948</b>	7,089,420,6595	7,089,420,6461	7,089,420,6257	7,089,420,5957
<b>Station: 33+0</b>										
Dist. Eixo (m):	-6,338	-6,001	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	5,000	6,008
Cota (m):	11,267	11,492	11,350	10,920	10,912	<b>10,832</b>	10,752	10,744	11,122	10,450
E:	709,098,8607	709,098,5242	709,096,9216	709,096,9216	709,096,5240	<b>709,092,5263</b>	709,088,5286	709,088,1309	709,087,5292	709,086,5214
N:	7,089,411,0147	7,089,411,0034	7,089,410,9492	7,089,410,9492	7,089,410,9357	<b>7,089,410,8005</b>	7,089,410,6652	7,089,410,6518	7,089,410,6314	7,089,410,5973
<b>Station: 33+10</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	4,000	4,908	5,000	6,116
Cota (m):					10,401	<b>10,321</b>	10,241	10,223	11,111	10,367
E:					709,096,8621	<b>709,092,8644</b>	709,088,8667	709,087,9590	709,087,8673	709,086,7520
N:					7,089,400,9414	<b>7,089,400,8062</b>	7,089,400,6710	7,089,400,6403	7,089,400,6371	7,089,400,5994
<b>Station: 34+0</b>										
Dist. Eixo (m):					-4,000	<b>0,000</b>	4,000	4,908	5,000	6,251
Cota (m):					10,400	<b>10,320</b>	10,240	10,221	11,110	10,276
E:					709,097,2002	<b>709,093,2025</b>	709,089,2048	709,088,2971	709,088,2053	709,086,9555
N:					7,089,390,9471	<b>7,089,390,8119</b>	7,089,390,6767	7,089,390,6460	7,089,390,6429	7,089,390,6006
<b>Station: 34+10</b>										
Dist. Eixo (m):	-6,253	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	6,412
Cota (m):	11,318	11,487	11,354	10,424	10,407	<b>10,327</b>	10,247	10,229	11,117	10,175
E:	709,099,7899	709,099,5373	709,098,4105	709,098,4105	709,097,5383	<b>709,093,5406</b>	709,089,5428	709,088,6352	709,088,5434	709,087,1318
N:	7,089,381,0290	7,089,381,0205	7,089,380,9824	7,089,380,9824	7,089,380,9529	<b>7,089,380,8176</b>	7,089,380,6824	7,089,380,6517	7,089,380,6486	7,089,380,6008
<b>Station: 35+0</b>										
Dist. Eixo (m):	-6,300	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	6,601
Cota (m):	11,304	11,503	11,371	10,441	10,424	<b>10,344</b>	10,264	10,245	11,134	10,066
E:	709,100,1745	709,099,8754	709,098,7486	709,098,7486	709,097,8764	<b>709,093,8786</b>	709,089,8809	709,088,9733	709,088,8815	709,087,2811
N:	7,089,371,0363	7,089,371,0262	7,089,370,9881	7,089,370,9881	7,089,370,9586	<b>7,089,370,8233</b>	7,089,370,6881	7,089,370,6574	7,089,370,6543	7,089,370,6002
<b>Station: 35+10</b>										
Dist. Eixo (m):	-6,364	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	6,817
Cota (m):	11,286	11,529	11,397	10,466	10,449	<b>10,369</b>	10,289	10,271	11,159	9,948
E:	709,100,5773	709,100,2135	709,099,0867	709,099,0867	709,098,2144	<b>709,094,2167</b>	709,090,2190	709,089,3114	709,089,2196	709,087,4033
N:	7,089,361,0442	7,089,361,0319	7,089,360,9938	7,089,360,9938	7,089,360,9643	<b>7,089,360,8291</b>	7,089,360,6938	7,089,360,6631	7,089,360,6600	7,089,360,5986
<b>Station: 36+0</b>										
Dist. Eixo (m):	-6,410	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	7,061
Cota (m):	11,290	11,564	11,432	10,501	10,484	<b>10,404</b>	10,324	10,306	11,194	9,821
E:	709,100,9616	709,100,5516	709,099,4248	709,099,4248	709,098,5525	<b>709,094,5548</b>	709,090,5571	709,089,6494	709,089,5577	709,087,4983
N:	7,089,351,0515	7,089,351,0376	7,089,350,9995	7,089,350,9995	7,089,350,9700	<b>7,089,350,8348</b>	7,089,350,6995	7,089,350,6688	7,089,350,6657	7,089,350,5961
<b>Station: 36+10</b>										
Dist. Eixo (m):	-6,410	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	7,321
Cota (m):	11,330	11,603	11,471	10,541	10,524	<b>10,444</b>	10,364	10,346	11,234	9,686
E:	709,101,2988	709,100,8896	709,099,7628	709,099,7628	709,098,8906	<b>709,094,8929</b>	709,090,8952	709,089,9875	709,089,8957	709,087,5758
N:	7,089,341,0572	7,089,341,0433	7,089,341,0052	7,089,341,0052	7,089,340,9757	<b>7,089,340,8405</b>	7,089,340,7053	7,089,340,6746	7,089,340,6714	7,089,340,5930
<b>Station: 37+0</b>										
Dist. Eixo (m):	-6,388	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	9,030
Cota (m):	11,385	11,643	11,510	10,580	10,563	<b>10,483</b>	10,403	10,385	11,273	8,586
E:	709,101,6150	709,101,2277	709,100,1009	709,100,1009	709,099,2287	<b>709,095,2310</b>	709,091,2332	709,090,3256	709,090,2338	709,086,2056
N:	7,089,331,0622	7,089,331,0491	7,089,331,0109	7,089,331,0109	7,089,330,9814	<b>7,089,330,8462</b>	7,089,330,7110	7,089,330,6803	7,089,330,6772	7,089,330,5409
<b>Station: 37+10</b>										
Dist. Eixo (m):	-6,372	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	9,029
Cota (m):	11,435	11,682	11,550	10,620	10,603	<b>10,523</b>	10,443	10,425	11,313	8,627
E:	709,101,9372	709,101,5658	709,100,4390	709,100,4390	709,099,5667	<b>709,095,5690</b>	709,091,5713	709,090,6637	709,090,5719	709,086,5454
N:	7,089,321,0673	7,089,321,0548	7,089,321,0167	7,089,321,0167	7,089,320,9872	<b>7,089,320,8519</b>	7,089,320,7167	7,089,320,6860	7,089,320,6829	7,089,320,5467
<b>Station: 38+0</b>										
Dist. Eixo (m):	-6,367	-6,000	-4,873	-4,873	-4,000	<b>0,000</b>	4,000	4,908	5,000	9,027
Cota (m):	11,477	11,722	11,589	10,659	10,642	<b>10,562</b>	10,482	10,464	11,352	8,667
E:	709,102,2705	709,101,9039	709,100,7771	709,100,7771	709,099,9048	<b>709,095,9071</b>	709,091,9094	709,091,0018	709,090,9100	709,086,8852
N:	7,089,311,0729	7,089,311,0605	7,089,311,0224	7,089,311,0224	7,089,310,9929	<b>7,089,310,8576</b>	7,089,310,7224	7,089,310,6917	7,089,310,6886	7,089,310,5525



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA DOUTOR MAURO MOURA**

Desenho Esquemático:

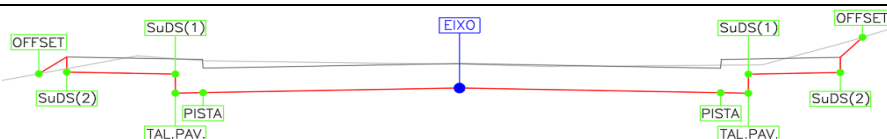


PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	CANTEIRO	OFFSET
<b>Station: 38+10</b>										
Dist. Eixo (m):	-6,316	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	9,025
Cota (m):	11,551	11,761	11,629	10,699	10,682	10,602	10,522	10,503	11,392	8,708
E:	709.102,5571	709.102,2420	709.101,1152	709.101,1152	709.100,2429	709.096,2452	709.092,2475	709.091,3398	709.091,2481	709.087,2250
N:	7.089.301,0769	7.089.301,0662	7.089.301,0281	7.089.301,0281	7.089.300,9986	7.089.300,8634	7.089.300,7281	7.089.300,6974	7.089.300,6943	7.089.300,5582
<b>Station: 39+0</b>										
Dist. Eixo (m):	-6,264	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,868
Cota (m):	11,625	11,801	11,668	10,738	10,721	10,641	10,561	10,543	11,431	8,852
E:	709.102,8434	709.102,5800	709.101,4532	709.101,4532	709.100,5810	709.096,5833	709.092,5856	709.091,6779	709.091,5861	709.087,7202
N:	7.089.291,0808	7.089.291,0719	7.089.291,0338	7.089.291,0338	7.089.291,0043	7.089.290,8691	7.089.290,7338	7.089.290,7031	7.089.290,7000	7.089.290,5693
<b>Station: 39+10</b>										
Dist. Eixo (m):	-6,212	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,685
Cota (m):	11,699	11,840	11,708	10,778	10,761	10,681	10,601	10,582	11,471	9,014
E:	709.103,1296	709.102,9181	709.101,7913	709.101,7913	709.100,9191	709.096,9214	709.092,9236	709.092,0160	709.091,9242	709.088,2413
N:	7.089.281,0848	7.089.281,0776	7.089.281,0395	7.089.281,0395	7.089.281,0100	7.089.280,8748	7.089.280,7396	7.089.280,7089	7.089.280,7057	7.089.280,5812
<b>Station: 40+0</b>										
Dist. Eixo (m):	-6,135	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,502
Cota (m):	11,790	11,880	11,747	10,817	10,800	10,720	10,640	10,622	11,510	9,176
E:	709.103,3905	709.103,2562	709.102,1294	709.102,1294	709.101,2571	709.097,2594	709.093,2617	709.092,3541	709.092,2623	709.088,7625
N:	7.089.271,0879	7.089.271,0834	7.089.271,0452	7.089.271,0452	7.089.271,0157	7.089.270,8805	7.089.270,7453	7.089.270,7146	7.089.270,7115	7.089.270,5931
<b>Station: 40+10</b>										
Dist. Eixo (m):	-6,185	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,319
Cota (m):	11,796	11,919	11,787	10,857	10,840	10,760	10,680	10,661	11,550	9,337
E:	709.103,7789	709.103,5943	709.102,4675	709.102,4675	709.101,5952	709.097,5975	709.093,5998	709.092,6922	709.092,6004	709.089,2837
N:	7.089.261,0953	7.089.261,0891	7.089.261,0510	7.089.261,0510	7.089.261,0215	7.089.260,8862	7.089.260,7510	7.089.260,7203	7.089.260,7172	7.089.260,6050
<b>Station: 41+0</b>										
Dist. Eixo (m):	-6,141	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,203
Cota (m):	11,865	11,959	11,826	10,896	10,879	10,799	10,719	10,701	11,589	9,454
E:	709.104,0730	709.103,9324	709.102,8056	709.102,8056	709.101,9333	709.097,9356	709.093,9379	709.093,0302	709.092,9384	709.089,7370
N:	7.089.251,0995	7.089.251,0948	7.089.251,0567	7.089.251,0567	7.089.251,0272	7.089.250,8919	7.089.250,7567	7.089.250,7260	7.089.250,7229	7.089.250,6146
<b>Station: 41+10</b>										
Dist. Eixo (m):	-6,097	-6,000	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,266
Cota (m):	11,934	11,998	11,866	10,935	10,918	10,838	10,758	10,740	11,628	9,451
E:	709.104,3671	709.104,2704	709.103,1436	709.103,1436	709.102,2714	709.098,2737	709.094,2760	709.093,3683	709.093,2765	709.090,0126
N:	7.089.241,1038	7.089.241,1005	7.089.241,0624	7.089.241,0624	7.089.241,0329	7.089.240,8977	7.089.240,7624	7.089.240,7317	7.089.240,7286	7.089.240,6182
<b>Station: 42+0</b>										
Dist. Eixo (m):	-5,246	-5,200	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,324
Cota (m):	12,068	12,022	11,905	10,975	10,958	10,878	10,798	10,780	11,668	9,452
E:	709.103,8551	709.103,8090	709.103,4817	709.103,4817	709.102,6095	709.098,6117	709.094,6140	709.093,7064	709.093,6146	709.090,2922
N:	7.089.231,0807	7.089.231,0792	7.089.231,0681	7.089.231,0681	7.089.231,0386	7.089.230,9034	7.089.230,7681	7.089.230,7374	7.089.230,7343	7.089.230,6219
<b>Station: 42+4</b>										
Dist. Eixo (m):	-5,442	-5,200	-4,873	-4,873	-4,000	0,000	4,000	4,908	5,000	8,350
Cota (m):	11,878	12,039	11,922	10,992	10,975	10,895	10,815	10,797	11,685	9,452
E:	709.104,1963	709.103,9551	709.103,6279	709.103,6279	709.102,7556	709.098,7579	709.094,7602	709.093,8526	709.093,7608	709.090,4131
N:	7.089.226,7664	7.089.226,7582	7.089.226,7471	7.089.226,7471	7.089.226,7176	7.089.226,5824	7.089.226,4472	7.089.226,4165	7.089.226,4134	7.089.226,3001



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA EDSON A. DA SILVA**

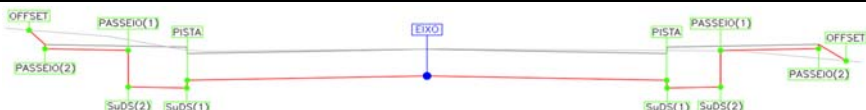
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>											
Dist.eixo (m)	-6,075	-5,894	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,825	5,878
Cota (m)	10,968	10,787	10,497	10,202	10,210	10,290	10,210	10,202	10,497	10,526	10,839
E	709,957.9606	709,957.7797	709,956.2856	709,956.2856	709,955.8878	709,951.8911	709,947.8945	709,947.4969	709,947.4969	709,946.0714	709,946.0181
N	7,089,212.5146	7,089,212.5072	7,089,212.4458	7,089,212.4458	7,089,212.4294	7,089,212.2652	7,089,212.1009	7,089,212.0846	7,089,212.0846	7,089,212.0260	7,089,212.0238
<b>Station: 1+0</b>											
Dist.eixo (m)	-6,118	-5,846	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,838	5,859
Cota (m)	11,087	10,815	10,526	10,230	10,238	10,318	10,238	10,230	10,526	10,555	10,836
E	709,958.4143	709,958.1426	709,956.6962	709,956.6962	709,956.2984	709,952.3017	709,948.3051	709,947.9075	709,947.9075	709,946.4691	709,946.4477
N	7,089,202.5248	7,089,202.5136	7,089,202.4542	7,089,202.4542	7,089,202.4378	7,089,202.2736	7,089,202.1094	7,089,202.0930	7,089,202.0930	7,089,202.0339	7,089,202.0330
<b>Station: 1+10</b>											
Dist.eixo (m)	-6,140	-5,856	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,951	6,000
Cota (m)	11,128	10,844	10,554	10,259	10,267	10,347	10,267	10,259	10,554	10,585	10,813
E	709,958.8474	709,958.5630	709,957.1068	709,957.1068	709,956.7090	709,952.7123	709,948.7157	709,948.3181	709,948.3181	709,946.7660	709,946.7172
N	7,089,192.5342	7,089,192.5225	7,089,192.4626	7,089,192.4626	7,089,192.4463	7,089,192.2820	7,089,192.1178	7,089,192.1015	7,089,192.1015	7,089,192.0377	7,089,192.0357
<b>Station: 2+0</b>											
Dist.eixo (m)	-6,069	-5,932	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,979	6,163
Cota (m)	11,011	10,874	10,583	10,287	10,295	10,375	10,295	10,287	10,583	10,615	10,752
E	709,959.1869	709,959.0502	709,957.5174	709,957.5174	709,957.1196	709,953.1229	709,949.1263	709,948.7287	709,948.7287	709,947.1487	709,946.9648
N	7,089,182.5397	7,089,182.5341	7,089,182.4711	7,089,182.4711	7,089,182.4547	7,089,182.2905	7,089,182.1262	7,089,182.1099	7,089,182.1099	7,089,182.0450	7,089,182.0374
<b>Station: 2+2</b>											
Dist.eixo (m)	-6,006	-5,900	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,984	6,198
Cota (m)	10,985	10,879	10,589	10,293	10,301	10,381	10,301	10,293	10,589	10,621	10,739
E	709,959.2130	709,959.1074	709,957.6066	709,957.6066	709,957.2087	709,953.2121	709,949.2155	709,948.8179	709,948.8179	709,947.2328	709,947.0196
N	7,089,180.3672	7,089,180.3629	7,089,180.3012	7,089,180.3012	7,089,180.2848	7,089,180.1206	7,089,179.9564	7,089,179.9400	7,089,179.9400	7,089,179.8749	7,089,179.8661
<b>Station: 2+10</b>											
Dist.eixo (m)	-5,863	-5,840	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,822	6,025
Cota (m)	10,924	10,900	10,611	10,316	10,324	10,404	10,324	10,316	10,612	10,640	10,764
E	709,959.3652	709,959.3416	709,957.9010	709,957.9010	709,957.5031	709,953.5059	709,949.5088	709,949.1111	709,949.1111	709,947.6884	709,947.4851
N	7,089,172.5179	7,089,172.5170	7,089,172.4629	7,089,172.4629	7,089,172.4480	7,089,172.2978	7,089,172.1477	7,089,172.1327	7,089,172.1327	7,089,172.0793	7,089,172.0716
<b>Station: 3+0</b>											
Dist.eixo (m)	-5,845	-5,798	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,861	5,990
Cota (m)	10,976	10,928	10,640	10,344	10,352	10,432	10,352	10,344	10,640	10,669	10,843
E	709,959.7227	709,959.6749	709,958.2764	709,958.2764	709,957.8785	709,953.8813	709,949.8842	709,949.4865	709,949.4865	709,948.0245	709,947.8956
N	7,089,162.5243	7,089,162.5225	7,089,162.4700	7,089,162.4700	7,089,162.4550	7,089,162.3049	7,089,162.1547	7,089,162.1398	7,089,162.1398	7,089,162.0849	7,089,162.0800
<b>Station: 3+10</b>											
Dist.eixo (m)	-5,909	-5,879	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,979	6,048
Cota (m)	10,989	10,958	10,669	10,373	10,381	10,461	10,381	10,373	10,668	10,700	10,914
E	709,960.1619	709,960.1316	709,958.6518	709,958.6518	709,958.2539	709,954.2567	709,950.2596	709,949.8619	709,949.8619	709,948.2824	709,948.2129
N	7,089,152.5338	7,089,152.5326	7,089,152.4770	7,089,152.4770	7,089,152.4621	7,089,152.3119	7,089,152.1618	7,089,152.1468	7,089,152.1468	7,089,152.0875	7,089,152.0849
<b>Station: 4+0</b>											
Dist.eixo (m)	-6,020	-5,950	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,949	5,992
Cota (m)	10,941	10,988	10,697	10,401	10,409	10,489	10,409	10,401	10,697	10,728	10,960
E	709,960.6483	709,960.5775	709,959.0272	709,959.0272	709,958.6293	709,954.6321	709,950.6349	709,950.2373	709,950.2373	709,948.6869	709,948.6443
N	7,089,142.5450	7,089,142.5423	7,089,142.4841	7,089,142.4841	7,089,142.4691	7,089,142.3190	7,089,142.1688	7,089,142.1539	7,089,142.1539	7,089,142.0956	7,089,142.0940
<b>Station: 4+10</b>											
Dist.eixo (m)	-6,090	-5,902	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,163	6,291
Cota (m)	10,797	10,922	10,632	10,336	10,344	10,424	10,344	10,337	10,633	10,668	10,842
E	709,961.0933	709,960.9058	709,959.4026	709,959.4026	709,959.0047	709,955.0075	709,951.0103	709,950.6127	709,950.6127	709,948.8491	709,948.7213
N	7,089,132.5546	7,089,132.5476	7,089,132.4911	7,089,132.4911	7,089,132.4762	7,089,132.3260	7,089,132.1759	7,089,132.1609	7,089,132.1609	7,089,132.0947	7,089,132.0899
<b>Station: 5+0</b>											
Dist.eixo (m)	-6,098	-5,934	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,111	6,217
Cota (m)	10,631	10,741	10,450	10,154	10,162	10,242	10,162	10,154	10,450	10,484	10,674
E	709,961.4766	709,961.3129	709,959.7780	709,959.7780	709,959.3801	709,955.3829	709,951.3857	709,950.9881	709,950.9881	709,949.2760	709,949.1705
N	7,089,122.5620	7,089,122.5558	7,089,122.4982	7,089,122.4982	7,089,122.4832	7,089,122.3331	7,089,122.1829	7,089,122.1680	7,089,122.1680	7,089,122.1037	7,089,122.0997
<b>Station: 5+10</b>											
Dist.eixo (m)	-5,982	-5,970	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,051	6,300
Cota (m)	10,572	10,559	10,268	9,972	9,980	10,060	9,980	9,972	10,268	10,301	10,395
E	709,961.7364	709,961.7240	709,960.1534	709,960.1534	709,959.7555	709,955.7583	709,951.7611	709,951.3634	709,951.3634	709,949.7115	709,949.4632
N	7,089,112.5647	7,089,112.5642	7,089,112.5052	7,089,112.5052	7,089,112.4903	7,089,112.3401	7,089,112.1900	7,089,112.1750	7,089,112.1750	7,089,112.1130	7,089,112.1036
<b>Station: 5+18</b>											
Dist.eixo (m)	-6,139	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	6,000	6,247
Cota (m)	10,544	10,405	10,113	9,817	9,825	9,905	9,825	9,817	10,113	10,145	10,240
E	709,962.2119	709,962.0728	709,960.4718	709,960.4718	709,960.0740	709,956.0768	709,952.0796	709,951.6819	709,951.6819	709,950.0810	709,949.8338
N	7,089,104.0926	7,089,104.0873	7,089,104.0272	7,089,104.0272	7,089,104.0122	7,089,103.8621	7,089,103.7119	7,089,103.6970	7,089,103.6970	7,089,103.6369	7,089,103.6276

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ERNESTO HANCH**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
Station: 0+0													
Dist. Eixo (m):		-13,400	-10,787	-10,787	-9,797	-9,787	0,000	10,279	10,289	11,279			
Cota (m):		11,382	11,230	10,580	10,580	10,770	10,601	10,614	10,404	10,424			
E:		709.668,2649	709.668,3447	709.668,3447	709.668,3749	709.668,3752	709.678,6742	709.668,9881	709.668,9884	709.669,0187			
N:		7.089.806,8877	7.089.804,2754	7.089.804,2754	7.089.803,2856	7.089.803,2756	7.089.793,4935	7.089.783,2197	7.089.783,2097	7.089.782,2202			
Station: 0+10													
Dist. Eixo (m):		-7,916	-5,989	-5,989	-4,999	-4,989	0,000	5,011	5,021	6,011	6,011	7,951	
Cota (m):		10,973	10,934	10,285	10,265	10,475	10,574	10,474	10,264	10,284	10,934	10,973	
E:		709.678,4277	709.678,4866	709.678,4866	709.678,5168	709.678,5171	709.678,6695	709.678,8226	709.678,8229	709.678,8531	709.678,8531	709.678,9124	
N:		7.089.801,7109	7.089.799,7855	7.089.799,7855	7.089.798,7958	7.089.798,7858	7.089.793,7990	7.089.788,7904	7.089.788,7804	7.089.787,7909	7.089.787,7909	7.089.785,8521	
Station: 1+0													
Dist. Eixo (m):		-7,858	-6,019	-6,019	-5,029	-5,019	0,000	4,981	4,991	5,981	5,981	7,936	
Cota (m):		10,944	10,907	10,257	10,237	10,447	10,547	10,448	10,238	10,258	10,908	10,947	
E:		709.688,4248	709.688,4810	709.688,4810	709.688,5112	709.688,5115	709.688,6648	709.688,8170	709.688,8173	709.688,8476	709.688,8476	709.688,9073	
N:		7.089.801,9587	7.089.800,1204	7.089.800,1204	7.089.799,1306	7.089.799,1206	7.089.794,1044	7.089.789,1253	7.089.789,1153	7.089.788,1257	7.089.788,1257	7.089.786,1722	
Station: 1+10													
Dist. Eixo (m):		-7,937	-6,048	-6,048	-5,058	-5,048	0,000	4,952	4,962	5,952	5,952	8,104	
Cota (m):		10,917	10,879	10,229	10,209	10,419	10,520	10,421	10,211	10,231	10,881	10,924	
E:		709.698,4178	709.698,4754	709.698,4754	709.698,5057	709.698,5060	709.698,6602	709.698,8114	709.698,8117	709.698,8420	709.698,8420	709.698,9077	
N:		7.089.802,3427	7.089.800,4552	7.089.800,4552	7.089.799,4655	7.089.799,4555	7.089.794,4099	7.089.789,4601	7.089.789,4501	7.089.788,4606	7.089.788,4606	7.089.786,3093	
Station: 2+0													
Dist. Eixo (m):		-8,115	-6,078	-6,078	-5,087	-5,077	0,000	4,923	4,933	5,923	5,923	8,266	
Cota (m):		10,852	10,814	10,164	10,144	10,354	10,453	10,354	10,145	10,165	10,815	10,852	
E:		709.708,4076	709.708,4659	709.708,4659	709.708,5001	709.708,5004	709.708,6555	709.708,8069	709.708,8072	709.708,8364	709.708,8364	709.709,0080	
N:		7.089.802,8268	7.089.800,7901	7.089.800,7901	7.089.799,8003	7.089.799,7903	7.089.794,7153	7.089.789,7950	7.089.789,7850	7.089.788,7954	7.089.788,7954	7.089.786,4528	
Station: 2+10													
Dist. Eixo (m):		-7,973	-6,107	-6,107	-5,117	-5,107	0,000	4,893	4,903	5,893	5,893	8,390	
Cota (m):		10,862	10,824	10,174	10,154	10,364	10,467	10,369	10,159	10,178	10,828	10,878	
E:		709.718,4073	709.718,4643	709.718,4643	709.718,4945	709.718,4949	709.718,6508	709.718,8003	709.718,8006	709.718,8309	709.718,8309	709.718,9071	
N:		7.089.802,9898	7.089.801,1249	7.089.801,1249	7.089.800,1352	7.089.800,1252	7.089.795,0208	7.089.790,1298	7.089.790,1198	7.089.789,1303	7.089.789,1303	7.089.786,6342	
Station: 3+0													
Dist. Eixo (m):		-7,972	-6,136	-6,136	-5,146	-5,136	0,000	4,864	4,874	5,864	5,864	8,417	
Cota (m):		10,833	10,797	10,147	10,127	10,337	10,440	10,342	10,132	10,152	10,802	10,853	
E:		709.728,4027	709.728,4587	709.728,4587	709.728,4890	709.728,4893	709.728,6462	709.728,7947	709.728,7951	709.728,8253	709.728,8253	709.729,0033	
N:		7.089.803,2948	7.089.801,4598	7.089.801,4598	7.089.800,4700	7.089.800,4600	7.089.795,3262	7.089.790,4647	7.089.790,4547	7.089.789,4651	7.089.789,4651	7.089.786,9129	
Station: 3+10													
Dist. Eixo (m):		-8,029	-6,166	-6,166	-5,176	-5,166	0,000	4,834	4,844	5,834	5,834	8,336	
Cota (m):		10,806	10,769	10,119	10,099	10,309	10,413	10,316	10,106	10,126	10,776	10,826	
E:		709.738,3962	709.738,4532	709.738,4532	709.738,4834	709.738,4837	709.738,6415	709.738,7892	709.738,7895	709.738,8197	709.738,8197	709.738,8961	
N:		7.089.803,6574	7.089.801,7946	7.089.801,7946	7.089.800,8049	7.089.800,7949	7.089.795,6317	7.089.790,7995	7.089.790,7895	7.089.789,8000	7.089.789,8000	7.089.787,2996	
Station: 4+0													
Dist. Eixo (m):		-8,087	-6,195	-6,195	-5,205	-5,195	0,000	4,805	4,815	5,805	5,805	8,184	
Cota (m):		10,779	10,742	10,092	10,072	10,282	10,386	10,290	10,080	10,099	10,749	10,797	
E:		709.748,3998	709.748,4476	709.748,4476	709.748,4779	709.748,4782	709.748,6368	709.748,7836	709.748,7839	709.748,8142	709.748,8142	709.748,8968	
N:		7.089.804,0200	7.089.802,1295	7.089.802,1295	7.089.801,1397	7.089.801,1297	7.089.795,9372	7.089.791,1344	7.089.791,1244	7.089.790,1348	7.089.790,1348	7.089.787,7574	
Station: 4+10													
Dist. Eixo (m):		-8,144	-6,225	-6,225	-5,234	-5,224	0,000	4,776	4,786	5,776	5,776	7,977	
Cota (m):		10,752	10,714	10,064	10,044	10,254	10,359	10,263	10,053	10,073	10,723	10,767	
E:		709.758,3834	709.758,4420	709.758,4420	709.758,4723	709.758,4726	709.758,6322	709.758,7781	709.758,7784	709.758,8086	709.758,8086	709.758,8759	
N:		7.089.804,3826	7.089.802,4643	7.089.802,4643	7.089.801,4746	7.089.801,4646	7.089.796,2426	7.089.791,4692	7.089.791,4592	7.089.790,4697	7.089.790,4697	7.089.788,2690	
Station: 5+0													
Dist. Eixo (m):		-8,201	-6,254	-6,254	-5,264	-5,254	0,000	4,746	4,756	5,746	5,746	7,886	
Cota (m):		10,725	10,687	10,037	10,017	10,227	10,332	10,237	10,027	10,047	10,697	10,749	
E:		709.768,3770	709.768,4365	709.768,4365	709.768,4667	709.768,4670	709.768,6275	709.768,7725	709.768,7728	709.768,8030	709.768,8030	709.768,8684	
N:		7.089.804,7452	7.089.802,7992	7.089.802,7992	7.089.801,8094	7.089.801,7994	7.089.796,5481	7.089.791,8041	7.089.791,7941	7.089.790,8045	7.089.790,8045	7.089.788,6658	
Station: 5+10													
Dist. Eixo (m):		-8,258	-6,283	-6,283	-5,293	-5,283	0,000	4,717	4,727	5,717	5,717	7,796	
Cota (m):		10,698	10,659	10,009	9,989	10,199	10,305	10,210	10,000	10,020	10,670	10,712	
E:		709.778,3706	709.778,4309	709.778,4309	709.778,4612	709.778,4615	709.778,6228	709.778,7669	709.778,7672	709.778,7975	709.778,7975	709.778,8610	
N:		7.089.805,1078	7.089.803,1340	7.089.803,1340	7.089.802,1443	7.089.802,1343	7.089.796,8535	7.089.792,1389	7.089.792,1289	7.089.791,1394	7.089.791,1394	7.089.789,0610	
Station: 6+0													
Dist. Eixo (m):		-8,318	-6,313	-6,313	-5,323	-5,313	0,000	4,687	4,697	5,687	5,687	7,706	
Cota (m):		10,668	10,628	9,978	9,958	10,168	10,274	10,180	9,970	9,990	10,641	10,681	
E:		709.788,3641	709.788,4254	709.788,4254	709.788,4556	709.788,4559	709.788,6162	709.788,7614	709.788,7617	709.788,7919	709.788,7919	709.788,8536	
N:		7.089.805,4733	7.089.803,4689	7.089.803,4689	7.089.802,4791	7.089.802,4691	7.089.797,1590	7.089.792,4738	7.089.792,4638	7.089.791,4742	7.089.791,4742	7.089.789,4562	
Station: 6+10													
Dist. Eixo (m):		-8,392	-6,342	-6,342	-5,352	-5,342	0,000	4,658	4,668	5,658	5,658	7,617	
Cota (m):		10,633	10,592	9,942	9,922	10,132	10,239	10,146	9,936	9,956	10,606	10,645	
E:		709.798,3572	709.798,4198	709.798,4198	709.798,4500	709.798,4503	709.798,6135	709.798,7558	709.798,7561	709.798,7863	709.798,7863	709.798,8462	
N:		7.089.805,8524	7.089.803,8037	7.089.803,8037	7.089.802,8140	7.089.802,8040	7.089.797,4644	7.089.792,8086	7.089.792,7986	7.089.791,8091	7.089.791,8091	7.089.789,8513	
Station: 7+0													
Dist. Eixo (m):		-8,407	-6,372	-6,372	-5,381	-5,371	0,000	4,629	4,639	5,629	5,629	7,609	
Cota (m):		10,593	10,552	9,902	9,882	10,092	10,200	10,107	9,897	9,917	10,566	10,606	
E:		709.808,3520	709.808,4142	709.808,4142	709.808,4445	709.808,4448	709.808,6088	709.808,7502	709.808,7505	709.808,7808	709.808,7808	709.808,8413	
N:		7.089.806,1734	7.089.804,1388	7.089.804,1388	7.089.803,1488	7.089.803,1388	7.089.797,7699	7.089.793,1435	7.089.793,1335	7.089.792,1439	7.089.792,1439	7.089.790,1641	
Station: 7+10													






# 1439DGLR0015-04-Vol 03\_Tomo II\_Etapa 01\_Parte 02

Relatório de auditoria final

2021-11-10

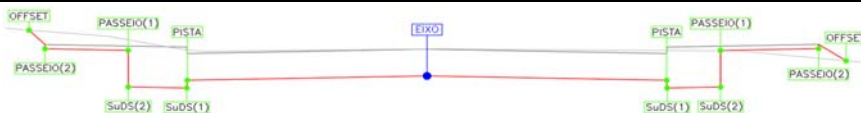
Criado em:	2021-11-10
Por:	Sirleide Dias (sirleide@engecorps.com.br)
Status:	Assinado
ID da transação:	CBJCHBCAABAAy51wUbAKbHTnjXyYzLy0OrH-9IZU87mN

## Histórico de "1439DGLR0015-04-Vol 03\_Tomo II\_Etapa 01\_Part e 02"

-  Documento criado por Sirleide Dias (sirleide@engecorps.com.br)  
2021-11-10 - 13:40:32 GMT- Endereço IP: 131.72.63.141
-  Documento enviado por email para Maria Bernardete Sousa Sender (bernadete@engecorps.com.br) para assinatura  
2021-11-10 - 13:42:22 GMT
-  Email visualizado por Maria Bernardete Sousa Sender (bernadete@engecorps.com.br)  
2021-11-10 - 15:45:00 GMT- Endereço IP: 201.87.155.154
-  Documento assinado eletronicamente por Maria Bernardete Sousa Sender (bernadete@engecorps.com.br)  
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-  Contrato finalizado.  
2021-11-10 - 15:45:16 GMT

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ERNESTO HANCH**

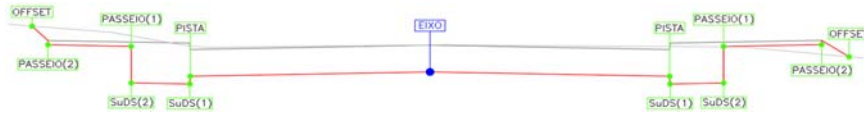
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
Station: 9+2													
Dist. Eixo (m):	-7,961	-6,000	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	6,000		7,545	
Cota (m):	10,492	10,343	9,693	9,673	9,893	9,983	9,893	9,673	9,693	10,343		10,374	
E:	709,857,3234	709,851,3833	709,851,3833	709,851,4136	709,851,4139	709,851,5668	709,851,7193	709,851,7197	709,851,7499	709,851,7499		709,851,7971	
N:	7,089,807,0405	7,089,805,0805	7,089,805,0805	7,089,804,0908	7,089,804,0808	7,089,799,0827	7,089,794,0845	7,089,794,0746	7,089,793,0850	7,089,793,0850		7,089,791,5409	
Station: 9+10													
Dist. Eixo (m):	-14,130	-9,531	-9,531	-8,541	-8,531	0,000	6,460	6,470	7,460	7,460		12,791	
Cota (m):	10,718	10,526	9,876	9,856	10,066	9,945	9,860	9,650	9,670	10,319		10,426	
E:	709,857,9255	709,858,1389	709,858,1389	709,858,1849	709,858,1853	709,858,5812	709,858,8810	709,858,8815	709,858,9274	709,858,9274		709,859,1748	
N:	7,089,813,5231	7,089,808,9294	7,089,808,9294	7,089,807,9403	7,089,807,9303	7,089,799,4086	7,089,792,9559	7,089,792,9459	7,089,791,9570	7,089,791,9570		7,089,786,6317	
Station: 9+11													
Dist. Eixo (m):	-14,092	-13,770	-13,770	-12,779	-12,769	0,000	6,624	6,634	7,624	7,624		12,806	
Cota (m):	10,736	10,620	9,970	9,950	10,160	9,939	9,854	9,644	9,664	10,310		10,383	
E:	709,859,2836	709,859,2985	709,859,2985	709,859,3444	709,859,3449	709,859,9375	709,860,3377	709,860,3382	709,860,3841	709,860,3841		709,860,5318	
N:	7,089,813,5479	7,089,813,2264	7,089,813,2264	7,089,812,2372	7,089,812,2273	7,089,799,4716	7,089,790,8568	7,089,790,8469	7,089,789,8579	7,089,789,8579		7,089,786,6794	
Station: 10+1													
Dist. Eixo (m):	-13,210	-12,431	-12,431	-11,440	-11,430	0,000	12,720	12,730	13,720	13,720		14,024	
Cota (m):	10,711	10,596	9,946	9,926	10,136	9,937	9,858	9,648	9,668	10,209		10,215	
E:	709,869,4803	709,869,5165	709,869,5165	709,869,5625	709,869,5629	709,870,0934	709,870,6837	709,870,6842	709,870,7301	709,870,7301		709,870,7442	
N:	7,089,813,1396	7,089,812,3606	7,089,812,3606	7,089,811,3715	7,089,811,3615	7,089,799,9434	7,089,787,2371	7,089,787,2271	7,089,786,2381	7,089,786,2381		7,089,785,9345	
Station: 10+9													
Dist. Eixo (m):	-7,993	-5,992	-5,992	-5,002	-4,992	0,000	5,022	5,032	6,022	6,022		8,697	
Cota (m):	10,346	10,306	9,657	9,637	9,847	9,944	9,845	9,635	9,655	10,306		10,359	
E:	709,877,3684	709,877,4593	709,877,4593	709,877,5052	709,877,5057	709,877,7373	709,877,9704	709,877,9709	709,878,0168	709,878,0168		709,878,1410	
N:	7,089,808,2824	7,089,806,2844	7,089,806,2844	7,089,805,2952	7,089,805,2852	7,089,800,2985	7,089,795,2816	7,089,795,2716	7,089,794,2826	7,089,794,2826		7,089,791,6102	
Station: 10+10													
Dist. Eixo (m):	-7,991	-5,992	-5,992	-5,002	-4,992	0,000	5,008	5,018	6,008	6,008		8,660	
Cota (m):	10,345	10,305	9,655	9,635	9,845	9,945	9,845	9,635	9,655	10,305		10,358	
E:	709,878,3092	709,878,3720	709,878,3720	709,878,4031	709,878,4034	709,878,5602	709,878,7175	709,878,7178	709,878,7489	709,878,7489		709,878,8322	
N:	7,089,808,3116	7,089,806,3132	7,089,806,3132	7,089,805,3235	7,089,805,3135	7,089,800,3244	7,089,795,3184	7,089,795,3084	7,089,794,3189	7,089,794,3189		7,089,791,6685	
Station: 11+0													
Dist. Eixo (m):	-7,987	-5,992	-5,992	-5,002	-4,992	0,000	5,008	5,018	6,008	6,008		8,256	
Cota (m):	10,355	10,315	9,665	9,645	9,855	9,955	9,855	9,645	9,665	10,315		10,369	
E:	709,888,3044	709,888,3670	709,888,3670	709,888,3981	709,888,3984	709,888,5652	709,888,7125	709,888,7128	709,888,7439	709,888,7439		709,888,8146	
N:	7,089,808,6213	7,089,806,6278	7,089,806,6278	7,089,805,6381	7,089,805,6281	7,089,800,6385	7,089,795,6331	7,089,795,6231	7,089,794,6336	7,089,794,6336		7,089,792,3861	
Station: 12+0													
Dist. Eixo (m):	-7,984	-5,993	-5,993	-5,003	-4,993	0,000	5,007	5,017	6,007	6,007		8,174	
Cota (m):	10,375	10,335	9,685	9,665	9,875	9,975	9,875	9,665	9,685	10,335		10,378	
E:	709,908,2946	709,908,3571	709,908,3571	709,908,3882	709,908,3885	709,908,5454	709,908,7028	709,908,7029	709,908,7340	709,908,7340		709,908,8021	
N:	7,089,809,2467	7,089,807,2571	7,089,807,2571	7,089,806,2674	7,089,806,2574	7,089,801,2667	7,089,796,2623	7,089,796,2524	7,089,795,2628	7,089,795,2628		7,089,793,0967	
Station: 12+10													
Dist. Eixo (m):	-7,987	-5,994	-5,994	-5,004	-4,994	0,000	5,006	5,016	6,006	6,006		7,438	
Cota (m):	10,385	10,345	9,695	9,675	9,885	9,985	9,885	9,675	9,695	10,345		10,374	
E:	709,918,2896	709,918,3522	709,918,3522	709,918,3833	709,918,3836	709,918,5404	709,918,6977	709,918,6980	709,918,7291	709,918,7291		709,918,7740	
N:	7,089,809,5636	7,089,807,5718	7,089,807,5718	7,089,806,5820	7,089,806,5720	7,089,801,5808	7,089,796,5770	7,089,796,5670	7,089,795,5775	7,089,795,5775		7,089,794,1468	
Station: 13+0													
Dist. Eixo (m):	-7,990	-5,994	-5,994	-5,004	-4,994	0,000	5,006	5,016	6,006	6,006		7,442	
Cota (m):	10,395	10,355	9,705	9,685	9,895	9,995	9,895	9,685	9,705	10,355		10,384	
E:	709,928,2845	709,928,3472	709,928,3472	709,928,3783	709,928,3786	709,928,5355	709,928,6927	709,928,6930	709,928,7241	709,928,7241		709,928,7692	
N:	7,089,809,8806	7,089,807,8864	7,089,807,8864	7,089,806,8967	7,089,806,8867	7,089,801,8949	7,089,796,8916	7,089,796,8816	7,089,795,8921	7,089,795,8921		7,089,794,4570	
Station: 13+10													
Dist. Eixo (m):	-7,993	-5,995	-5,995	-5,005	-4,995	0,000	5,005	5,015	6,005	6,005		7,643	
Cota (m):	10,405	10,365	9,715	9,695	9,905	10,005	9,905	9,695	9,715	10,365		10,398	
E:	709,938,2795	709,938,3423	709,938,3423	709,938,3734	709,938,3737	709,938,5306	709,938,6878	709,938,6881	709,938,7192	709,938,7192		709,938,7706	
N:	7,089,810,1976	7,089,808,2010	7,089,808,2008	7,089,807,2113	7,089,807,2013	7,089,802,2090	7,089,797,2063	7,089,797,1963	7,089,796,2068	7,089,796,2068		7,089,794,6694	
Station: 14+0													
Dist. Eixo (m):	-7,996	-5,996	-5,996	-5,005	-4,995	0,000	5,005	5,015	6,005	6,005		7,782	
Cota (m):	10,515	10,375	9,725	9,705	9,915	10,015	9,915	9,705	9,725	10,374		10,410	
E:	709,948,2745	709,948,3373	709,948,3373	709,948,3684	709,948,3687	709,948,5256	709,948,6828	709,948,6831	709,948,7142	709,948,7142		709,948,7701	
N:	7,089,810,5147	7,089,808,5157	7,089,808,5157	7,089,807,5260	7,089,807,5160	7,089,802,5231	7,089,797,5209	7,089,797,5109	7,089,796,5214	7,089,796,5214		7,089,794,7447	
Station: 14+10													
Dist. Eixo (m):	-7,996	-5,996	-5,996	-5,006	-4,996	0,000	5,004	5,014	6,004	6,004		7,696	
Cota (m):	10,525	10,385	9,735	9,715	9,925	10,025	9,925	9,715	9,735	10,385		10,419	
E:	709,958,2695	709,958,3323	709,958,3323	709,958,3635	709,958,3638	709,958,5207	709,958,6779	709,958,6782	709,958,7093	709,958,7093		709,958,7624	
N:	7,089,810,8293	7,089,808,8303	7,089,808,8303	7,089,807,8406	7,089,807,8306	7,089,802,8372	7,089,797,8355	7,089,797,8255	7,089,796,8360	7,089,796,8360		7,089,795,1450	
Station: 15+0													
Dist. Eixo (m):	-7,997	-5,997	-5,997	-5,006	-4,996	0,000	5,004	5,014	6,004	6,004		7,759	
Cota (m):	10,535	10,395	9,745	9,725	9,935	10,035	9,935	9,725	9,745	10,395		10,430	
E:	709,968,2646	709,968,3274	709,968,3274	709,968,3585	709,968,3588	709,968,5158	709,968,6729	709,968,6732	709,968,7043	709,968,7043		709,968,7594	
N:	7,089,811,1440	7,089,809,1449	7,089,809,1449	7,089,808,1552	7,089,808,1452	7,089,803,1513	7,089,798,1502	7,089,798,1402	7,089,797,1507	7,089,797,1507		7,089,795,3966	
Station: 15+10													
Dist. Eixo (m):	-7,997	-5,997	-5,997	-5,007	-4,997	0,000	5,003	5,013	6,003	6,003		7,766	
Cota (m):	10,545	10,405	9,755	9,735	9,945	10,045	9,945	9,735	9,755	10,405		10,440	
E:	709,978,2596	709,978,3224	709,978,3224	709,978,3535	709,978,3539	709,978,5108	709,978,6680	709,978,6683	709,978,6994	709,978,6994		709,978,7547	
N:	7,089,811,4586	7,089,809,4596	7,08										

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ERNESTO HANCH**

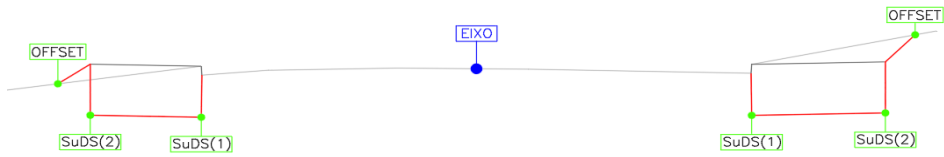
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 17+10</b>													
Dist. Eixo (m):		-7,999	-5,999	-5,999	-5,009	-4,999	0,000	5,001	5,011	6,001	6,001		7,795
Cota (m):		10,476	10,436	9,786	9,766	9,976	10,076	9,976	9,766	9,786	10,436		10,472
E:		710,018,2398	710,018,3026	710,018,3026	710,018,3337	710,018,3341	710,018,4911	710,018,6482	710,018,6485	710,018,6796	710,018,6796		710,018,7359
N:		7,089,812,7169	7,089,810,7181	7,089,810,7181	7,089,809,7284	7,089,809,7184	7,089,804,7218	7,089,799,7234	7,089,799,7134	7,089,798,7239	7,089,798,7239		7,089,796,8304
<b>Station: 18+0</b>													
Dist. Eixo (m):		-8,000	-6,000	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	6,000		7,803
Cota (m):		10,467	10,427	9,777	9,757	9,967	10,067	9,967	9,757	9,777	10,427		10,463
E:		710,028,2349	710,028,2977	710,028,2977	710,028,3288	710,028,3291	710,028,4861	710,028,6432	710,028,6435	710,028,6746	710,028,6746		710,028,7312
N:		7,089,813,0316	7,089,811,0328	7,089,811,0328	7,089,810,0431	7,089,810,0331	7,089,805,0359	7,089,800,0380	7,089,800,0280	7,089,799,0385	7,089,799,0385		7,089,797,2371
<b>Station: 18+6</b>													
Dist. Eixo (m):		-6,375	-6,000	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	6,000		7,807
Cota (m):		10,270	10,520	9,770	9,750	9,960	10,060	9,960	9,750	9,770	10,420		10,456
E:		710,034,6516	710,034,6634	710,034,6634	710,034,6945	710,034,6948	710,034,8518	710,035,0089	710,035,0092	710,035,0403	710,035,0403		710,035,0971
N:		7,089,811,6079	7,089,811,2332	7,089,811,2332	7,089,810,2434	7,089,810,2334	7,089,805,2359	7,089,800,2384	7,089,800,2284	7,089,799,2389	7,089,799,2389		7,089,797,4325

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA EWALDO EICHHOLZ**

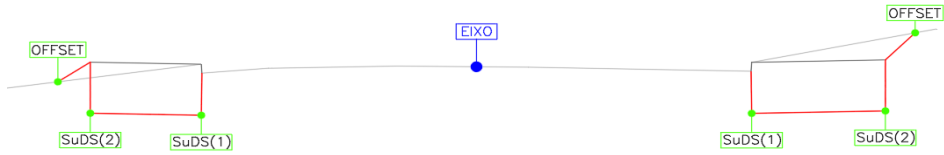
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):		-19,517	-7,569	<b>0,000</b>	1,493	6,022	
Cota (m):		15,254	15,015		15,136	15,227	
E:		708.570,3487	708.571,0063	<b>708.571,4228</b>	708.571,5049	708.571,7542	
N:		7.090.722,3179	7.090.710,3878	<b>7.090.702,8308</b>	7.090.701,3405	7.090.696,8175	
<b>Station: 0+10</b>							
Dist. Eixo (m):		-19,707	-17,873	<b>0,000</b>	4,038	5,994	5,994
Cota (m):		14,943	14,907		15,183	15,223	
E:		708.580,3231	708.580,4240	<b>708.581,4076</b>	708.581,6298	708.581,7375	
N:		7.090.723,0584	7.090.721,2273	<b>7.090.703,3811</b>	7.090.699,3493	7.090.697,3964	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-20,057	-17,944	<b>0,000</b>	5,609	9,063	
Cota (m):		15,169	15,127		15,374	15,443	
E:		708.590,2887	708.590,4050	<b>708.591,3925</b>	708.591,7011	708.591,8912	
N:		7.090.723,9579	7.090.721,8484	<b>7.090.703,9314</b>	7.090.698,3311	7.090.694,8826	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-20,401	-17,974	<b>0,000</b>			
Cota (m):		15,304	15,255				
E:		708.600,2546	708.600,3882	<b>708.601,3773</b>			
N:		7.090.724,8522	7.090.722,4284	<b>7.090.704,4817</b>			
<b>Station: 2+0</b>							
Dist. Eixo (m):		-20,644	-18,004	<b>0,000</b>	4,071	6,375	
Cota (m):		15,323	15,270		15,549	15,595	
E:		708.610,2261	708.610,3714	<b>708.611,3622</b>	708.611,5862	708.611,7130	
N:		7.090.725,6450	7.090.723,0084	<b>7.090.705,0320</b>	7.090.700,9674	7.090.698,6669	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-20,713	-18,033	<b>0,000</b>	4,119	6,385	
Cota (m):		15,370	15,317		15,595	15,640	
E:		708.620,2071	708.620,3546	<b>708.621,3470</b>	708.621,5737	708.621,6984	
N:		7.090.726,2639	7.090.723,5884	<b>7.090.705,5823</b>	7.090.701,4691	7.090.699,2074	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-20,617	-18,037	<b>0,000</b>	4,117	6,295	
Cota (m):		15,468	15,416		15,694	15,738	
E:		708.630,1973	708.630,3393	<b>708.631,3319</b>	708.631,5584	708.631,6783	
N:		7.090.726,7188	7.090.724,1421	<b>7.090.706,1326</b>	7.090.702,0218	7.090.699,8470	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-20,416	-18,011	<b>0,000</b>	4,115	6,085	
Cota (m):		15,665	15,617		15,895	15,934	
E:		708.640,1932	708.640,3255	<b>708.641,3167</b>	708.641,5431	708.641,6516	
N:		7.090.727,0682	7.090.724,6666	<b>7.090.706,6829</b>	7.090.702,5746	7.090.700,6067	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-20,201	-17,985	<b>0,000</b>	4,123	5,934	
Cota (m):		15,862	15,818		16,095	16,132	
E:		708.650,1899	708.650,3118	<b>708.651,3015</b>	708.651,5284	708.651,6281	
N:		7.090.727,4033	7.090.725,1911	<b>7.090.707,2332</b>	7.090.703,1164	7.090.701,3084	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-19,938	-17,959	<b>0,000</b>			
Cota (m):		16,205	16,165				
E:		708.660,1892	708.660,2981	<b>708.661,2864</b>			
N:		7.090.727,6912	7.090.725,7157	<b>7.090.707,7836</b>			
<b>Station: 5+0</b>							
Dist. Eixo (m):		-19,597	-17,990	<b>0,000</b>			
Cota (m):		16,781	16,749				
E:		708.670,1928	708.670,2812	<b>708.671,2712</b>			
N:		7.090.727,9007	7.090.726,2964	<b>7.090.708,3339</b>			

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA EWALDO EICHHOLZ**

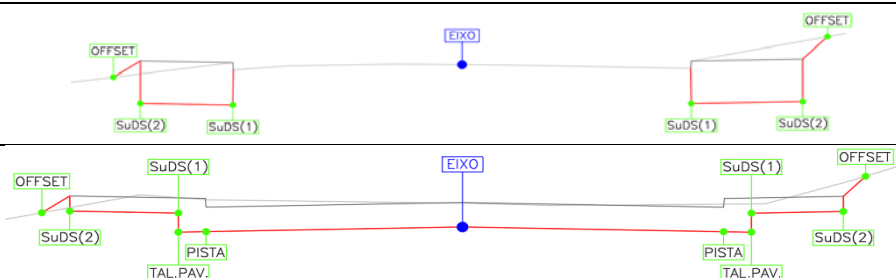
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>							
Dist. Eixo (m):		-19,504	-18,026	<b>0,000</b>			
Cota (m):		17,376	17,346				
E:		708.680,1828	708.680,2641	<b>708.681,2561</b>			
N:		7.090.728,3587	7.090.726,8831	<b>7.090.708,8842</b>			
<b>Station: 6+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,204	6,103	
Cota (m):					18,398	18,436	
E:				<b>708.691,2409</b>	708.691,4723	708.691,5768	
N:				<b>7.090.709,4345</b>	7.090.705,2365	7.090.703,3404	
<b>Station: 6+10</b>							
Dist. Eixo (m):				<b>0,000</b>	4,098	6,195	
Cota (m):					18,813	18,855	
E:				<b>708.701,2258</b>	708.701,4513	708.701,5667	
N:				<b>7.090.709,9848</b>	7.090.705,8928	7.090.703,7991	
<b>Station: 7+0</b>							
Dist. Eixo (m):				<b>0,000</b>	4,062	6,200	
Cota (m):					19,056	19,099	
E:				<b>708.711,2106</b>	708.711,4342	708.711,5518	
N:				<b>7.090.710,5351</b>	7.090.706,4788	7.090.704,3440	
<b>Station: 7+10</b>							
Dist. Eixo (m):		-5,812	-3,869	<b>0,000</b>	4,059	6,020	
Cota (m):		19,213	19,174		19,170	19,209	
E:		708.720,8756	708.720,9826	<b>708.721,1955</b>	708.721,4188	708.721,5268	
N:		7.090.716,8888	7.090.714,9481	<b>7.090.711,0854</b>	7.090.707,0325	7.090.705,0743	
<b>Station: 8+0</b>							
Dist. Eixo (m):		-5,754	-3,871	<b>0,000</b>			
Cota (m):		19,230	19,192				
E:		708.730,8637	708.730,9673	<b>708.731,1803</b>			
N:		7.090.717,3812	7.090.715,5013	<b>7.090.711,6357</b>			
<b>Station: 8+10</b>							
Dist. Eixo (m):		-5,702	-3,871	<b>0,000</b>			
Cota (m):		19,165	19,129				
E:		708.740,8514	708.740,9521	<b>708.741,1652</b>			
N:		7.090.717,8794	7.090.716,0515	<b>7.090.712,1860</b>			
<b>Station: 9+0</b>							
Dist. Eixo (m):		-5,646	-3,871	<b>0,000</b>	3,660	5,721	
Cota (m):		18,886	18,850		18,854	18,896	
E:		708.750,8393	708.750,9370	<b>708.751,1500</b>	708.751,3514	708.751,4649	
N:		7.090.718,3735	7.090.716,6016	<b>7.090.712,7363</b>	7.090.709,0816	7.090.707,0238	
<b>Station: 9+10</b>							
Dist. Eixo (m):		-5,545	-3,871	<b>0,000</b>	3,806	5,808	
Cota (m):		18,568	18,535		18,536	18,576	
E:		708.760,8297	708.760,9218	<b>708.761,1349</b>	708.761,3443	708.761,4545	
N:		7.090.718,8231	7.090.717,1518	<b>7.090.713,2867</b>	7.090.709,4862	7.090.707,4878	
<b>Station: 10+0</b>							
Dist. Eixo (m):		-5,444	-3,871	<b>0,000</b>	3,934	5,894	
Cota (m):		18,221	18,190		18,188	18,228	
E:		708.770,8201	708.770,9067	<b>708.771,1197</b>	708.771,3362	708.771,4441	
N:		7.090.719,2728	7.090.717,7017	<b>7.090.713,8370</b>	7.090.709,9087	7.090.707,9518	
<b>Station: 10+10</b>							
Dist. Eixo (m):		-5,358	-3,905	<b>0,000</b>	4,023	5,981	
Cota (m):		17,754	17,725		17,722	17,762	
E:		708.780,8097	708.780,8897	<b>708.781,1045</b>	708.781,3259	708.781,4337	
N:		7.090.719,7367	7.090.718,2861	<b>7.090.714,3873</b>	7.090.710,3707	7.090.708,4158	
<b>Station: 10+19</b>							
Dist. Eixo (m):		-5,298	-3,936	<b>0,000</b>	3,999	6,058	
Cota (m):		17,334	17,307		17,306	17,347	
E:		708.790,0497	708.790,1246	<b>708.790,3413</b>	708.790,5613	708.790,6746	
N:		7.090.720,1863	7.090.718,8267	<b>7.090.714,8964</b>	7.090.710,9035	7.090.708,8479	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

Desenho Esquemático:

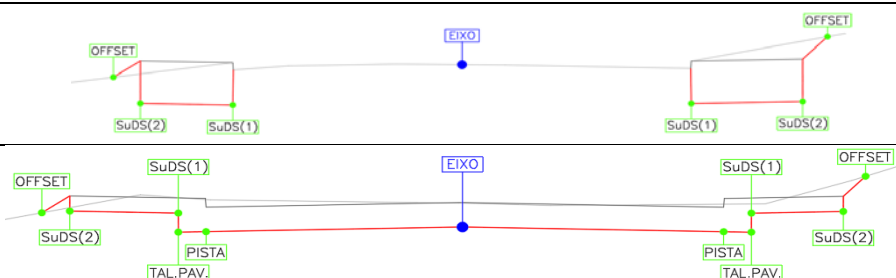


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):						0,000			5,010	10,845	
Cota (m):									15,807	15,924	
E:						709.183,1478			709.178,1397	709.172,3066	
N:						7.090.828,8140			7.090.828,6765	7.090.828,5164	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-6,739	-4,765			0,000			4,016	5,984	
Cota (m):		16,043	16,004						16,019	16,058	
E:		709.190,1583	709.188,1855			709.183,4222			709.179,4073	709.177,4408	
N:		7.090.819,0027	7.090.818,9485			7.090.818,8178			7.090.818,7075	7.090.818,6536	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-6,482	-4,472			0,000			4,070	5,991	
Cota (m):		16,316	16,276						16,284	16,322	
E:		709.190,1765	709.188,1672			709.183,6966			709.179,6283	709.177,7082	
N:		7.090.808,9994	7.090.808,9443			7.090.808,8215			7.090.808,7098	7.090.808,6571	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-6,228	-4,351			0,000			4,079	5,998	
Cota (m):		16,607	16,569						16,575	16,613	
E:		709.190,1968	709.188,3203			709.183,9711			709.179,8932	709.177,9756	
N:		7.090.798,9962	7.090.798,9447			7.090.798,8253			7.090.798,7134	7.090.798,6607	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-6,412	-4,230			0,000			4,070	6,005	
Cota (m):		16,907	16,863						16,366	16,405	
E:		709.190,6547	709.188,4735			709.184,2455			709.180,1775	709.178,2430	
N:		7.090.789,0050	7.090.788,9451			7.090.788,8291			7.090.788,7174	7.090.788,6643	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-6,413	-4,164			0,000			4,071	6,021	
Cota (m):		17,430	17,385						17,387	17,426	
E:		709.190,9306	709.188,6823			709.184,5199			709.180,4502	709.178,5008	
N:		7.090.779,0088	7.090.778,9471			7.090.778,8328			7.090.778,7211	7.090.778,6676	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-6,494	-4,146			0,000			4,096	6,077	
Cota (m):		18,177	18,130						18,131	18,171	
E:		709.191,2858	709.188,9391			709.184,7944			709.180,6996	709.178,7193	
N:		7.090.769,0148	7.090.768,9504			7.090.768,8366			7.090.768,7242	7.090.768,6698	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-6,418	-4,129			0,000			4,074	6,133	
Cota (m):		18,913	18,867						18,868	18,909	
E:		709.191,4840	709.189,1958			709.185,0688			709.180,9967	709.178,9377	
N:		7.090.759,0165	7.090.758,9537			7.090.758,8404			7.090.758,7286	7.090.758,6720	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-6,093	-4,119			0,000			4,051	6,106	
Cota (m):		19,432	19,392						19,394	19,435	
E:		709.191,4340	709.189,4610			709.185,3432			709.181,2937	709.179,2396	
N:		7.090.749,0114	7.090.748,9572			7.090.748,8441			7.090.748,7330	7.090.748,6766	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-6,079	-4,216			0,000			4,025	6,023	
Cota (m):		19,956	19,918						19,922	19,962	
E:		709.191,6940	709.189,8321			709.185,6177			709.181,5938	709.179,5971	
N:		7.090.739,0147	7.090.738,9636			7.090.738,8479			7.090.738,7374	7.090.738,6826	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-6,169	-4,313			0,000			3,994	5,940	
Cota (m):		19,865	19,828						19,835	19,873	
E:		709.192,0586	709.190,2031			709.185,8921			709.181,9001	709.179,9547	
N:		7.090.729,0210	7.090.728,9700			7.090.728,8517			7.090.728,7421	7.090.728,6887	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-6,133	-4,371			0,000			3,962	5,856	
Cota (m):		19,587	19,552						19,560	19,598	
E:		709.192,2969	709.190,5363			709.186,1665			709.182,2064	709.180,3122	
N:		7.090.719,0237	7.090.718,9754			7.090.718,8554			7.090.718,7467	7.090.718,6947	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-5,899	-4,323			0,000			3,965	5,773	
Cota (m):		19,303	19,272						19,279	19,315	
E:		709.192,3375	709.190,7623			709.186,4410			709.182,4770	709.180,6698	
N:		7.090.709,0211	7.090.708,9778			7.090.708,8592			7.090.708,7504	7.090.708,7008	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-5,893	-4,275			0,000			3,980	5,736	
Cota (m):		18,823	18,791						18,797	18,832	
E:		709.192,6060	709.190,9883			709.186,7154			709.182,7368	709.180,9814	
N:		7.090.699,0247	7.090.698,9803			7.090.698,8630			7.090.698,7537	7.090.698,7056	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-5,914	-4,226			0,000			3,983	5,779	
Cota (m):		18,344	18,310						18,315	18,351	
E:		709.192,9012	709.191,2143			709.186,9898			709.183,0079	709.181,2134	
N:		7.090.689,0290	7.090.688,9827			7.090.688,8667			7.090.688,7574	7.090.688,7082	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

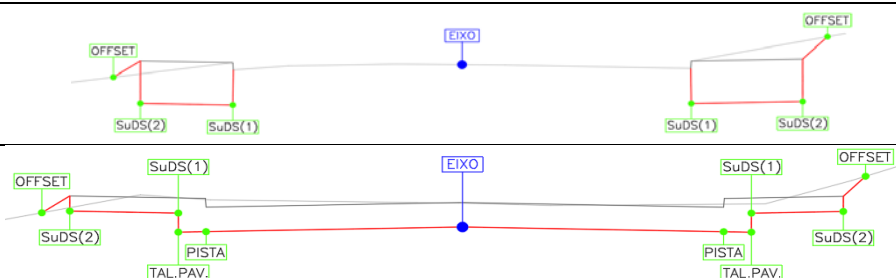
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+10</b>											
Dist. Eixo (m):		-5,939	-4,190			0,000			3,984	5,821	
Cota (m):		18,052	18,017						18,022	18,058	
E:		709.193,2010	709.191,4529			709.187,2643			709.183,2821	709.181,4453	
N:		7.090.679,0335	7.090.678,9855			7.090.678,8705			7.090.678,7612	7.090.678,7108	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,990	-4,174			0,000			3,984	5,864	
Cota (m):		17,936	17,900						17,903	17,941	
E:		709.193,5265	709.191,7112			709.187,5387			709.183,5564	709.181,6773	
N:		7.090.669,0387	7.090.668,9888			7.090.668,8743			7.090.668,7649	7.090.668,7134	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-6,004	-4,158			0,000			3,984	5,969	
Cota (m):		17,894	17,857						17,861	17,901	
E:		709.193,8145	709.191,9696			709.187,8131			709.183,8306	709.181,8463	
N:		7.090.659,0428	7.090.658,9921			7.090.658,8780			7.090.658,7687	7.090.658,7142	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-6,068	-4,151			0,000			3,984	6,191	
Cota (m):		17,930	17,892						17,895	17,939	
E:		709.194,1532	709.192,2370			709.188,0876			709.184,1048	709.181,8988	
N:		7.090.649,0483	7.090.648,9957			7.090.648,8818			7.090.648,7725	7.090.648,7119	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-6,043	-4,158			0,000			3,984	6,321	
Cota (m):		18,063	18,026						18,029	18,076	
E:		709.194,4026	709.192,5185			709.188,3620			709.184,3791	709.182,0434	
N:		7.090.639,0514	7.090.638,9997			7.090.638,8856			7.090.638,7762	7.090.638,7121	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-6,251	-4,165			0,000			3,985	6,119	
Cota (m):		18,217	18,175						18,179	18,221	
E:		709.194,8851	709.192,7999			709.188,6364			709.184,6533	709.182,5198	
N:		7.090.629,0609	7.090.629,0036			7.090.628,8893			7.090.628,7800	7.090.628,7214	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-6,136	-4,174			0,000			3,985	5,917	
Cota (m):		18,665	18,626						18,630	18,668	
E:		709.195,0442	709.193,0836			709.188,9109			709.184,9276	709.182,9962	
N:		7.090.619,0615	7.090.619,0077			7.090.618,8931			7.090.618,7837	7.090.618,7307	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-5,776	-4,185			0,000			3,993	5,715	
Cota (m):		19,170	19,138						19,142	19,176	
E:		709.194,9592	709.193,3689			709.189,1853			709.185,1936	709.183,4726	
N:		7.090.609,0554	7.090.609,0117			7.090.608,8969			7.090.608,7873	7.090.608,7400	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-6,359	-4,196			0,000			4,007	5,617	
Cota (m):		19,915	19,872						19,876	19,908	
E:		709.195,8162	709.193,6542			709.189,4597			709.185,4544	709.183,8450	
N:		7.090.599,0751	7.090.599,0158			7.090.598,9006			7.090.598,7907	7.090.598,7465	
<b>Station: 11+12</b>											
Dist. Eixo (m):		-6,493	-4,199			0,000			4,010	5,602	
Cota (m):		20,120	20,074						20,077	20,109	
E:		709.196,0148	709.193,7213			709.189,5243			709.185,5158	709.183,9239	
N:		7.090.596,7278	7.090.596,6648			7.090.596,5496			7.090.596,4396	7.090.596,3959	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,933	-4,193			0,000			4,034	5,569	
Cota (m):		20,805	20,730						20,733	20,764	
E:		709.197,6775	709.193,9392			709.189,7480			709.185,7155	709.184,1809	
N:		7.090.589,1368	7.090.589,0274			7.090.588,9048			7.090.588,7868	7.090.588,7419	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,024	-4,186			0,000			4,066	5,526	
Cota (m):		21,799	21,742						21,745	21,774	
E:		709.197,0612	709.194,2245			709.190,0404			709.185,9764	709.184,5165	
N:		7.090.579,1145	7.090.579,0315			7.090.578,9091			7.090.578,7902	7.090.578,7474	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-6,606	-4,156			0,000			4,097	5,552	
Cota (m):		22,824	22,775						22,777	22,806	
E:		709.196,9356	709.194,4870			709.190,3329			709.186,2372	709.184,7833	
N:		7.090.569,1065	7.090.569,0349			7.090.568,9133			7.090.568,7935	7.090.568,7510	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-6,055	-4,123			0,000			4,129	5,729	
Cota (m):		23,932	23,893						23,893	23,925	
E:		709.196,6774	709.194,7467			709.190,6253			709.186,4981	709.184,8984	
N:		7.090.559,0947	7.090.559,0382			7.090.558,9176			7.090.558,7969	7.090.558,7501	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,110	-4,090			0,000			4,161	5,841	
Cota (m):		25,076	25,016						25,014	25,048	
E:		709.198,0252	709.195,0065			709.190,9178			709.186,7590	709.185,0792	
N:		7.090.549,1298	7.090.549,0415			7.090.548,9219			7.090.548,8002	7.090.548,7511	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

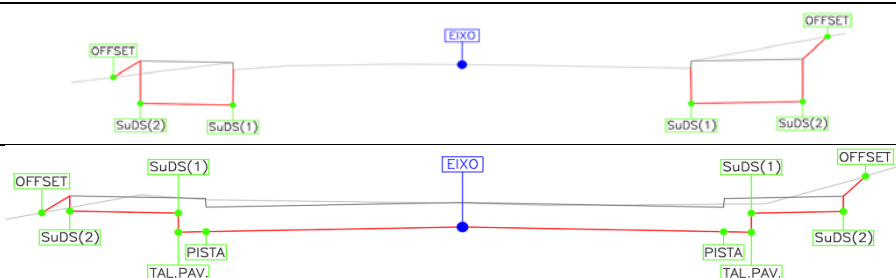
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+10</b>											
Dist. Eixo (m):		-6,694	-4,031			0,000			4,130	5,815	
Cota (m):		25,965	25,912						25,910	25,944	
E:		709.197,9017	709.195,2396			709.191,2102			709.187,0821	709.185,3974	
N:		7.090.539,1220	7.090.539,0441			7.090.538,9262			7.090.538,8054	7.090.538,7561	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-6,222	-3,923			0,000			4,030	5,719	
Cota (m):		26,809	26,763						26,761	26,794	
E:		709.197,7224	709.195,4236			709.191,5027			709.187,4741	709.185,7863	
N:		7.090.529,1124	7.090.529,0452			7.090.528,9305			7.090.528,8126	7.090.528,7632	
<b>Station: 15+2</b>											
Dist. Eixo (m):		-6,229	-3,900			0,000			4,010	5,667	
Cota (m):		26,981	26,934						26,932	26,965	
E:		709.197,7886	709.195,4606			709.191,5616			709.187,5531	709.185,8968	
N:		7.090.527,0983	7.090.527,0301			7.090.526,9161			7.090.526,7988	7.090.526,7503	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-5,981	-3,702			0,000			4,043	6,335	
Cota (m):		27,201	27,155						27,148	27,194	
E:		709.197,8829	709.195,6065			709.191,9075			709.187,8683	709.185,5789	
N:		7.090.519,1979	7.090.519,0992			7.090.518,9388			7.090.518,7637	7.090.518,6644	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-5,808	-3,464			0,000			4,084	6,275	
Cota (m):		27,271	27,224						27,211	27,255	
E:		709.198,1433	709.195,8016			709.192,3407			709.188,2602	709.186,0719	
N:		7.090.509,1998	7.090.509,0983			7.090.508,9482			7.090.508,7713	7.090.508,6764	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-5,579	-3,412			0,000			4,125	6,215	
Cota (m):		27,095	27,051						27,037	27,079	
E:		709.198,3475	709.196,1822			709.192,7738			709.188,6522	709.186,5650	
N:		7.090.499,1992	7.090.499,1054			7.090.498,9576			7.090.498,7789	7.090.498,6884	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-5,767	-3,501			0,000			4,167	6,155	
Cota (m):		26,477	26,432						26,419	26,458	
E:		709.198,9682	709.196,7044			709.193,2070			709.189,0442	709.187,0580	
N:		7.090.489,2168	7.090.489,1186			7.090.488,9670			7.090.488,7865	7.090.488,7004	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-6,255	-3,679			0,000			4,208	6,096	
Cota (m):		25,558	25,507						25,496	25,534	
E:		709.199,8888	709.197,3153			709.193,6402			709.189,4362	709.187,5498	
N:		7.090.479,2473	7.090.479,1357			7.090.478,9764			7.090.478,7941	7.090.478,7123	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-5,870	-3,824			0,000			4,094	6,427	
Cota (m):		24,405	24,364						24,359	24,406	
E:		709.199,9375	709.197,8939			709.194,0733			709.189,9833	709.187,6521	
N:		7.090.469,2400	7.090.469,1514			7.090.468,9857			7.090.468,8084	7.090.468,7073	
<b>Station: 18+4</b>											
Dist. Eixo (m):		-5,945	-3,926			0,000			4,011	6,299	
Cota (m):		23,878	23,838						23,836	23,882	
E:		709.200,2107	709.198,1941			709.194,2707			709.190,2638	709.187,7776	
N:		7.090.464,6903	7.090.464,6028			7.090.464,4327			7.090.464,2590	7.090.464,1599	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-5,939	-3,953			0,000			4,007	6,240	
Cota (m):		23,173	23,133						23,132	23,177	
E:		709.200,5306	709.198,5481			709.194,6029			709.190,6032	709.188,3742	
N:		7.090.459,3626	7.090.459,2414			7.090.459,0002			7.090.458,7556	7.090.458,6193	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-5,952	-4,001			0,000			4,002	6,136	
Cota (m):		21,889	21,850						21,850	21,892	
E:		709.201,1537	709.199,2068			709.195,2132			709.191,2186	709.189,0883	
N:		7.090.449,3820	7.090.449,2630			7.090.449,0188			7.090.448,7745	7.090.448,6443	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-6,079	-4,050			0,000			3,997	6,033	
Cota (m):		20,763	20,722						20,723	20,764	
E:		709.201,8909	709.199,8656			709.195,8236			709.191,8341	709.189,8023	
N:		7.090.439,4084	7.090.439,2846			7.090.439,0374			7.090.438,7935	7.090.438,6693	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-6,196	-4,094			0,000			3,992	5,874	
Cota (m):		19,767	19,724						19,727	19,764	
E:		709.202,6186	709.200,5207			709.196,4339			709.192,4495	709.190,5710	
N:		7.090.429,4343	7.090.429,3060			7.090.429,0561			7.090.428,8125	7.090.428,6976	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-6,324	-4,136			0,000			3,964	5,892	
Cota (m):		18,975	18,931						18,935	18,973	
E:		709.203,3566	709.201,1724			709.197,0442			709.193,0878	709.191,1634	
N:		7.090.419,4607	7.090.419,3272			7.090.419,0747			7.090.418,8328	7.090.418,7151	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

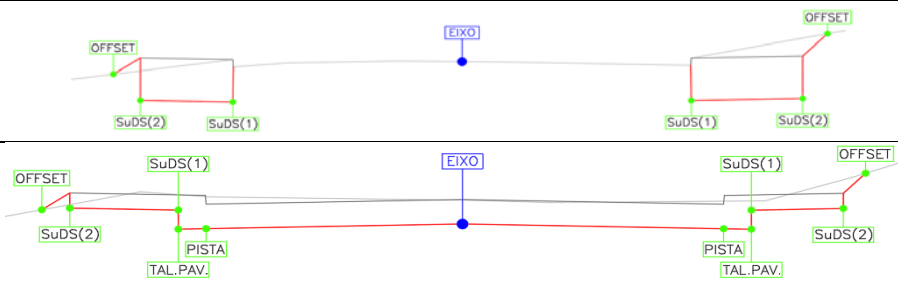
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 21+0</b>											
Dist. Eixo (m):		-6,502	-4,177			0,000			3,916	5,874	
Cota (m):		18,420	18,374						18,379	18,418	
E:		709.204,1448	709.201,8242			709.197,6546			709.193,7455	709.191,7915	
N:		7.090.409,4902	7.090.409,3483			7.090.409,0934			7.090.408,8544	7.090.408,7349	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,579	-4,219			0,000			3,869	5,821	
Cota (m):		18,004	17,956						17,963	18,002	
E:		709.204,8320	709.202,4760			709.198,2649			709.194,4032	709.192,4547	
N:		7.090.399,5136	7.090.399,3695			7.090.399,1120			7.090.398,8759	7.090.398,7567	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-6,431	-4,261			0,000			3,821	5,768	
Cota (m):		17,822	17,779						17,787	17,826	
E:		709.205,2942	709.203,1278			709.198,8752			709.195,0608	709.193,1179	
N:		7.090.389,5232	7.090.389,3907			7.090.389,1307			7.090.388,8974	7.090.388,7786	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-6,516	-4,302			0,000			3,774	5,696	
Cota (m):		17,677	17,633						17,643	17,682	
E:		709.205,9895	709.203,7796			709.199,4855			709.195,7185	709.193,8000	
N:		7.090.379,5470	7.090.379,4119			7.090.379,1493			7.090.378,9190	7.090.378,8017	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-6,673	-4,358			0,000			3,764	5,606	
Cota (m):		17,579	17,532						17,544	17,581	
E:		709.206,7567	709.204,4453			709.200,0959			709.196,3386	709.194,5002	
N:		7.090.369,5752	7.090.369,4339			7.090.369,1679			7.090.368,9382	7.090.368,8258	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-7,182	-4,416			0,000			3,812	5,516	
Cota (m):		17,517	17,461						17,473	17,507	
E:		709.207,8744	709.205,1138			709.200,7062			709.196,9008	709.195,2004	
N:		7.090.359,6249	7.090.359,4561			7.090.359,1866			7.090.358,9539	7.090.358,8499	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-7,183	-4,474			0,000			3,861	5,426	
Cota (m):		17,544	17,490						17,502	17,534	
E:		709.208,4858	709.205,7823			709.201,3165			709.197,4631	709.195,9007	
N:		7.090.349,6436	7.090.349,4783			7.090.349,2052			7.090.348,9696	7.090.348,8741	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-7,219	-4,532			0,000			3,909	5,476	
Cota (m):		17,597	17,543						17,555	17,587	
E:		709.209,1320	709.206,4507			709.201,9269			709.198,0253	709.196,4613	
N:		7.090.339,6644	7.090.339,5005			7.090.339,2239			7.090.338,9853	7.090.338,8897	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-7,354	-4,591			0,000			3,957	5,455	
Cota (m):		17,714	17,659						17,672	17,702	
E:		709.209,8775	709.207,1192			709.202,5372			709.198,5876	709.197,0928	
N:		7.090.329,6914	7.090.329,5227			7.090.329,2425			7.090.329,0010	7.090.328,9096	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-7,205	-4,649			0,000			4,005	5,433	
Cota (m):		17,839	17,788						17,801	17,829	
E:		709.210,3395	709.207,7877			709.203,1475			709.199,1498	709.197,7243	
N:		7.090.319,7009	7.090.319,5449			7.090.319,2612			7.090.319,0167	7.090.318,9295	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-6,691	-4,512			0,000			4,177	5,672	
Cota (m):		17,989	17,946						17,952	17,982	
E:		709.210,6211	709.208,4494			709.203,9531			709.199,7901	709.198,3001	
N:		7.090.309,8468	7.090.309,6667			7.090.309,2939			7.090.308,9486	7.090.308,8251	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-6,149	-4,149			0,000			4,137	5,951	
Cota (m):		18,175	18,135						18,135	18,172	
E:		709.210,9072	709.208,9143			709.204,7795			709.200,6568	709.198,8486	
N:		7.090.299,8362	7.090.299,6710			7.090.299,3281			7.090.298,9862	7.090.298,8362	
<b>Station: 27+0</b>											
Dist. Eixo (m):		-5,634	-3,693			0,000			4,097	6,191	
Cota (m):		18,497	18,458						18,450	18,492	
E:		709.211,2211	709.209,2861			709.205,6060			709.201,5234	709.199,4359	
N:		7.090.289,8279	7.090.289,6675			7.090.289,3623			7.090.289,0237	7.090.288,8506	
<b>Station: 27+10</b>											
Dist. Eixo (m):		-5,147	-3,237			0,000			4,056	6,391	
Cota (m):		18,835	18,797						18,781	18,827	
E:		709.211,5619	709.209,6579			709.206,4325			709.202,3901	709.200,0634	
N:		7.090.279,8219	7.090.279,6640			7.090.279,3965			7.090.279,0613	7.090.278,8683	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-4,738	-2,780			0,000			4,016	6,486	
Cota (m):		19,445	19,405						19,381	19,430	
E:		709.211,9812	709.210,0297			709.207,2589			709.203,2567	709.200,7954	
N:		7.090.269,8223	7.090.269,6605			7.090.269,4307			7.090.269,0988	7.090.268,8947	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

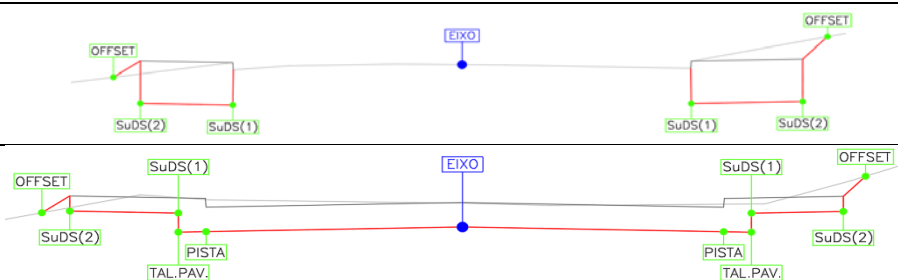
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 28+10</b>											
Dist. Eixo (m):		-4,330	-2,569			0,000			5,727	7,000	
Cota (m):		20,045	20,010						19,947	19,972	
E:		709.212,4005	709.210,6454			709.208,0854			709.202,3785	709.201,1094	
N:		7.090.259,8228	7.090.259,6772			7.090.259,4649			7.090.258,9916	7.090.258,8864	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-4,500	-3,010			0,000			3,010	4,200	
Cota (m):		21,125	21,095						21,095	21,119	
E:		709.213,4373	709.211,9476			709.208,9381			709.205,9286	709.204,7389	
N:		7.090.229,5703	7.090.229,5419			7.090.229,4847			7.090.229,4275	7.090.229,4049	
<b>Station: 30+5</b>											
Dist. Eixo (m):	-4,573	-4,490	-3,429	-3,425	-3,000	0,000	3,000	3,429	3,438	4,500	4,523
Cota (m):	21,738	21,327	21,306	21,179	21,187	21,247	21,187	21,179	21,306	21,327	21,810
E:	709.213,6210	709.213,5380	709.212,4767	709.212,4726	709.212,0480	709.209,0485	709.206,0491	709.205,6206	709.205,6107	709.204,5493	709.204,5265
N:	7.090.223,7641	7.090.223,7625	7.090.223,7423	7.090.223,7422	7.090.223,7342	7.090.223,6771	7.090.223,6201	7.090.223,6119	7.090.223,6117	7.090.223,5916	7.090.223,5911
<b>Station: 30+10</b>											
Dist. Eixo (m):	-4,699	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,542
Cota (m):	21,869	21,541	21,520	21,393	21,402	21,462	21,402	21,393	21,521	21,542	21,973
E:	709.213,8267	709.213,6276	709.212,5564	709.212,5564	709.212,1277	709.209,1282	709.206,1288	709.205,7003	709.205,7003	709.204,6290	709.204,5866
N:	7.090.219,5759	7.090.219,5721	7.090.219,5517	7.090.219,5517	7.090.219,5436	7.090.219,4865	7.090.219,4295	7.090.219,4213	7.090.219,4213	7.090.219,4010	7.090.219,4002
<b>Station: 31+0</b>											
Dist. Eixo (m):	-4,904	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,717
Cota (m):	22,244	22,053	22,032	21,905	21,914	21,974	21,914	21,905	22,032	22,053	22,369
E:	709.214,2218	709.213,8177	709.212,7465	709.212,7465	709.212,3178	709.209,3183	709.206,3189	709.205,8904	709.205,8904	709.204,8192	709.204,6025
N:	7.090.209,5816	7.090.209,5739	7.090.209,5535	7.090.209,5535	7.090.209,5454	7.090.209,4883	7.090.209,4313	7.090.209,4231	7.090.209,4231	7.090.209,4028	7.090.209,3987
<b>Station: 31+6</b>											
Dist. Eixo (m):	-4,832	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,649
Cota (m):	22,643	22,404	22,383	22,255	22,264	22,324	22,264	22,256	22,383	22,404	22,765
E:	709.214,2797	709.213,9480	709.212,8768	709.212,8768	709.212,4481	709.209,4486	709.206,4491	709.206,0207	709.206,0207	709.204,9494	709.204,8001
N:	7.090.202,7298	7.090.202,7235	7.090.202,7032	7.090.202,7032	7.090.202,6950	7.090.202,6380	7.090.202,5809	7.090.202,5728	7.090.202,5728	7.090.202,5524	7.090.202,5496
<b>Station: 31+10</b>											
Dist. Eixo (m):	-4,799	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,613
Cota (m):	22,826	22,565	22,544	22,417	22,426	22,486	22,426	22,417	22,544	22,565	22,950
E:	709.214,3058	709.214,0071	709.212,9359	709.212,9359	709.212,5072	709.209,5077	709.206,5082	709.206,0797	709.206,0797	709.205,0085	709.204,8952
N:	7.090.199,5802	7.090.199,5746	7.090.199,5545	7.090.199,5545	7.090.199,5464	7.090.199,4901	7.090.199,4338	7.090.199,4258	7.090.199,4258	7.090.199,4057	7.090.199,4036
<b>Station: 32+0</b>											
Dist. Eixo (m):	-4,696	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,727
Cota (m):	23,406	23,077	23,056	22,928	22,937	22,997	22,937	22,929	23,056	23,077	23,386
E:	709.214,3908	709.214,1947	709.213,1235	709.213,1235	709.212,6948	709.209,6953	709.206,6959	709.206,2674	709.206,2674	709.205,1961	709.204,9696
N:	7.090.189,5800	7.090.189,5763	7.090.189,5562	7.090.189,5562	7.090.189,5482	7.090.189,4919	7.090.189,4356	7.090.189,4275	7.090.189,4275	7.090.189,4074	7.090.189,4032
<b>Station: 32+10</b>											
Dist. Eixo (m):	-4,708	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,854
Cota (m):	23,920	23,599	23,578	23,450	23,459	23,519	23,459	23,451	23,578	23,599	23,823
E:	709.214,5902	709.214,3824	709.213,3111	709.213,3111	709.212,8825	709.209,8830	709.206,8835	709.206,4550	709.206,4550	709.205,3838	709.205,0296
N:	7.090.179,5820	7.090.179,5781	7.090.179,5580	7.090.179,5580	7.090.179,5499	7.090.179,4936	7.090.179,4374	7.090.179,4293	7.090.179,4293	7.090.179,4092	7.090.179,4026
<b>Station: 33+0</b>											
Dist. Eixo (m):	-4,883	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,977
Cota (m):	24,491	24,286	24,265	24,137	24,146	24,206	24,146	24,138	24,265	24,286	24,428
E:	709.214,9530	709.214,5700	709.213,4988	709.213,4988	709.213,0701	709.210,0706	709.207,0712	709.206,6427	709.206,6427	709.205,5714	709.205,0943
N:	7.090.169,5870	7.090.169,5799	7.090.169,5597	7.090.169,5597	7.090.169,5517	7.090.169,4954	7.090.169,4391	7.090.169,4311	7.090.169,4311	7.090.169,4110	7.090.169,4020
<b>Station: 33+10</b>											
Dist. Eixo (m):	-4,567	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,929
Cota (m):	25,596	25,181	25,160	25,032	25,041	25,101	25,041	25,033	25,160	25,181	25,355
E:	709.214,8249	709.214,7577	709.213,6864	709.213,6864	709.213,2578	709.210,2583	709.207,2588	709.206,8303	709.206,8303	709.205,7591	709.205,3301
N:	7.090.159,5829	7.090.159,5816	7.090.159,5615	7.090.159,5615	7.090.159,5535	7.090.159,4972	7.090.159,4409	7.090.159,4328	7.090.159,4328	7.090.159,4127	7.090.159,4047
<b>Station: 34+0</b>											
Dist. Eixo (m):	-4,637	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,931
Cota (m):	26,726	26,129	26,108	25,980	25,989	26,049	25,989	25,981	26,108	26,129	26,302
E:	709.215,0816	709.214,9453	709.213,8741	709.213,8741	709.213,4454	709.210,4459	709.207,4465	709.207,0180	709.207,0180	709.205,9467	709.205,5155
N:	7.090.149,5859	7.090.149,5834	7.090.149,5633	7.090.149,5633	7.090.149,5552	7.090.149,4989	7.090.149,4426	7.090.149,4346	7.090.149,4346	7.090.149,4145	7.090.149,4064
<b>Station: 34+10</b>											
Dist. Eixo (m):	-4,723	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,876
Cota (m):	27,815	27,131	27,110	26,983	26,992	27,052	26,992	26,983	27,111	27,132	27,341
E:	709.215,3561	709.215,1330	709.214,0617	709.214,0617	709.213,6330	709.210,6336	709.207,6341	709.207,2056	709.207,2056	709.206,1344	709.205,7587
N:	7.090.139,5893	7.090.139,5851	7.090.139,5650	7.090.139,5650	7.090.139,5570	7.090.139,5007	7.090.139,4444	7.090.139,4364	7.090.139,4364	7.090.139,4162	7.090.139,4092
<b>Station: 35+0</b>											
Dist. Eixo (m):	-4,632	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,617
Cota (m):	28,872	28,280	28,259	28,131	28,140	28,200	28,140	28,132	28,259	28,280	28,662
E:	709.215,4524	709.215,3206	709.214,2494	709.214,2494	709.213,8207	709.210,8212	709.207,8218	709.207,3933	709.207,3933	709.206,3220	709.205,2054
N:	7.090.129,5894	7.090.129,5869	7.090.129,5668	7.090.129,5668	7.090.129,5587	7.090.129,5024	7.090.129,4462	7.090.129,4381	7.090.129,4381	7.090.129,4180	7.090.129,4158
<b>Station: 35+10</b>											
Dist. Eixo (m):	-4,747	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,634
Cota (m):	30,284	29,576	29,555	29,428	29,437	29,497	29,437	29,428	29,555	29,576	29,947
E:	709.215,7554	709.215,5083	709.214,4370	709.214,4370	709.214,0083	709.211,0089	709.208,0094	709.207,5809	709.207,5809	709.206,5097	709.206,3759
N:	7.090.119,5933	7.090.119,5887	7.090.119,5686	7.090.119,5686	7.090.119,5605	7.090.119,5042	7.090.119,4479	7.090.119,4399	7.090.119,4399	7.090.119,4198	7.090.119,4173

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

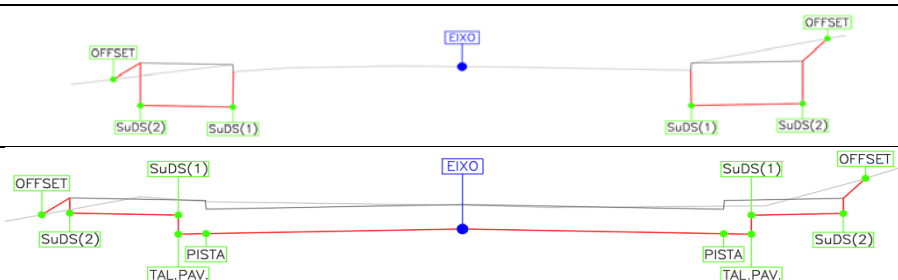
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 35+16</b>											
Dist. Eixo (m):	-4,676	-4,500	-3,424	-3,424	-2,996	0,000	3,000	3,429	3,429	4,500	4,794
Cota (m):	31,190	30,554	30,532	30,405	30,414	30,474	30,414	30,405	30,533	30,554	30,540
E:	709,215,8195	709,215,6437	709,214,5661	709,214,5661	709,214,1374	709,211,1380	709,208,1385	709,207,7100	709,207,7100	709,206,6388	709,206,3452
N:	7.090.112,7136	7.090.112,7103	7.090.112,6901	7.090.112,6901	7.090.112,6820	7.090.112,6257	7.090.112,5695	7.090.112,5614	7.090.112,5614	7.090.112,5413	7.090.112,5358
<b>Station: 36+0</b>											
Dist. Eixo (m):	-4,662	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,665
Cota (m):	31,642	31,020	30,999	30,871	30,880	30,940	30,880	30,872	30,999	31,020	31,038
E:	709,216,0115	709,216,8500	709,214,7814	709,214,7814	709,214,3537	709,211,3614	709,208,3691	709,207,9416	709,207,9416	709,206,8729	709,206,7087
N:	7.090.109,8472	7.090.109,8357	7.090.109,7589	7.090.109,7589	7.090.109,7282	7.090.109,5134	7.090.109,2986	7.090.109,2679	7.090.109,2679	7.090.109,1912	7.090.109,1794
<b>Station: 36+10</b>											
Dist. Eixo (m):	-4,582	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	
Cota (m):	33,099	32,557	32,536	32,408	32,417	32,477	32,417	32,409	32,536	32,557	
E:	709,216,6475	709,216,5661	709,215,4974	709,215,4974	709,215,0697	709,212,0774	709,209,0851	709,208,6576	709,208,6576	709,207,5890	
N:	7.090.099,8672	7.090.099,8613	7.090.099,7846	7.090.099,7846	7.090.099,7539	7.090.099,5391	7.090.099,3243	7.090.099,2936	7.090.099,2936	7.090.099,2169	
<b>Station: 37+0</b>											
Dist. Eixo (m):	-4,552	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	
Cota (m):	34,510	34,084	34,063	33,936	33,945	34,005	33,945	33,937	34,064	34,085	
E:	709,217,3339	709,217,2821	709,216,2134	709,216,2134	709,215,7857	709,212,7934	709,209,8011	709,209,3737	709,209,3737	709,208,3050	
N:	7.090.089,8907	7.090.089,8870	7.090.089,8103	7.090.089,8103	7.090.089,7796	7.090.089,5648	7.090.089,3500	7.090.089,3193	7.090.089,3193	7.090.089,2426	
<b>Station: 37+10</b>											
Dist. Eixo (m):	-5,062	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	
Cota (m):	35,890	34,868	34,847	34,720	34,729	34,789	34,729	34,720	34,847	34,868	
E:	709,218,5582	709,217,9981	709,216,9294	709,216,9294	709,216,5017	709,213,5094	709,210,5171	709,210,0897	709,210,0897	709,209,0210	
N:	7.090.079,9529	7.090.079,9127	7.090.079,8359	7.090.079,8359	7.090.079,8052	7.090.079,5904	7.090.079,3756	7.090.079,3449	7.090.079,3449	7.090.079,2682	
<b>Station: 37+14</b>											
Dist. Eixo (m):	-4,743	-4,500	-3,429	-3,429	-3,000	0,000	2,999	3,427	3,427	4,499	5,163
Cota (m):	35,541	34,838	34,817	34,689	34,698	34,758	34,698	34,690	34,817	34,838	34,855
E:	709,218,5525	709,218,3101	709,217,2414	709,217,2414	709,216,8138	709,213,8215	709,210,8292	709,210,4017	709,210,4017	709,209,3330	709,208,6700
N:	7.090.075,5834	7.090.075,5660	7.090.075,4893	7.090.075,4893	7.090.075,4586	7.090.075,2438	7.090.075,0290	7.090.074,9983	7.090.074,9983	7.090.074,9216	7.090.074,8740
<b>Station: 38+0</b>											
Dist. Eixo (m):	-4,558	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	5,015
Cota (m):	34,896	34,474	34,453	34,326	34,335	34,395	34,335	34,326	34,454	34,475	34,591
E:	709,218,6373	709,218,5796	709,217,5093	709,217,5093	709,217,0810	709,214,0843	709,211,0875	709,210,6594	709,210,6594	709,209,5892	709,209,0747
N:	7.090.069,8200	7.090.069,8173	7.090.069,7674	7.090.069,7674	7.090.069,7475	7.090.069,6077	7.090.069,4680	7.090.069,4480	7.090.069,4480	7.090.069,3981	7.090.069,3742
<b>Station: 38+10</b>											
Dist. Eixo (m):	-4,799	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,830
Cota (m):	33,888	33,628	33,607	33,479	33,488	33,548	33,488	33,480	33,607	33,628	33,868
E:	709,219,3443	709,219,0454	709,217,9751	709,217,9751	709,217,5468	709,214,5500	709,211,5533	709,211,1252	709,211,1252	709,210,0549	709,209,7255
N:	7.090.059,8421	7.090.059,8282	7.090.059,7783	7.090.059,7783	7.090.059,7583	7.090.059,6186	7.090.059,4789	7.090.059,4589	7.090.059,4589	7.090.059,4090	7.090.059,3936
<b>Station: 39+0</b>											
Dist. Eixo (m):	-4,632	-4,503	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,789
Cota (m):	32,707	32,247	32,226	32,099	32,108	32,168	32,108	32,099	32,227	32,248	32,515
E:	709,219,6430	709,219,5136	709,218,4409	709,218,4409	709,218,0126	709,215,0158	709,212,0191	709,211,5910	709,211,5910	709,210,5207	709,210,2322
N:	7.090.049,8452	7.090.049,8392	7.090.049,7891	7.090.049,7891	7.090.049,7692	7.090.049,6294	7.090.049,4897	7.090.049,4698	7.090.049,4698	7.090.049,4199	7.090.049,4064
<b>Station: 39+10</b>											
Dist. Eixo (m):	-4,546	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,627
Cota (m):	30,534	30,028	30,007	29,879	29,888	29,948	29,888	29,880	30,007	30,028	30,615
E:	709,220,0224	709,219,9769	709,218,9066	709,218,9066	709,218,4783	709,215,4816	709,212,4848	709,212,0567	709,212,0567	709,210,9865	709,210,8597
N:	7.090.039,8520	7.090.039,8499	7.090.039,8000	7.090.039,8000	7.090.039,7800	7.090.039,6403	7.090.039,5006	7.090.039,4806	7.090.039,4806	7.090.039,4307	7.090.039,4248
<b>Station: 40+0</b>											
Dist. Eixo (m):	-4,900	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	4,689
Cota (m):	27,688	27,495	27,474	27,346	27,355	27,415	27,355	27,347	27,474	27,495	28,144
E:	709,220,8419	709,220,4427	709,219,3724	709,219,3724	709,218,9441	709,215,9473	709,212,9506	709,212,5225	709,212,5225	709,211,4522	709,211,2636
N:	7.090.029,8794	7.090.029,8608	7.090.029,8109	7.090.029,8109	7.090.029,7909	7.090.029,6512	7.090.029,5114	7.090.029,4915	7.090.029,4915	7.090.029,4416	7.090.029,4328
<b>Station: 40+10</b>											
Dist. Eixo (m):	-5,103	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	5,514
Cota (m):	25,020	24,962	24,941	24,813	24,822	24,882	24,822	24,814	24,941	24,962	25,436
E:	709,221,5109	709,220,9084	709,219,8382	709,219,8382	709,219,4099	709,216,4131	709,213,4164	709,212,9883	709,212,9883	709,211,9180	709,211,9038
N:	7.090.019,8997	7.090.019,8716	7.090.019,8217	7.090.019,8217	7.090.019,8017	7.090.019,6620	7.090.019,5223	7.090.019,5023	7.090.019,5023	7.090.019,4524	7.090.019,4517
<b>Station: 41+0</b>											
Dist. Eixo (m):	-5,224	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	5,033
Cota (m):	22,407	22,429	22,408	22,281	22,290	22,350	22,290	22,408	22,408	22,429	22,534
E:	709,222,0970	709,221,3742	709,220,3039	709,220,3039	709,219,8756	709,216,8789	709,213,8821	709,213,4540	709,213,4540	709,212,3838	709,211,8516
N:	7.090.009,9162	7.090.009,8825	7.090.009,8326	7.090.009,8326	7.090.009,8126	7.090.009,6729	7.090.009,5331	7.090.009,5132	7.090.009,5132	7.090.009,4633	7.090.009,4384
<b>Station: 41+10</b>											
Dist. Eixo (m):	-5,570	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	5,460
Cota (m):	19,701	19,954	19,933	19,806	19,815	19,875	19,815	19,806	19,933	19,954	19,774
E:	709,222,9083	709,221,8400	709,220,7697	709,220,7697	709,220,3414	709,217,3447	709,214,3479	709,213,9198	709,213,9198	709,212,8495	709,211,8905
N:	7.089.999,9431	7.089.999,8933	7.089.999,8434	7.089.999,8434	7.089.999,8234	7.089.999,6837	7.089.999,5440	7.089.999,5240	7.089.999,5240	7.089.999,4741	7.089.999,4294
<b>Station: 42+0</b>											
Dist. Eixo (m):	-5,634	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	4,500	5,322
Cota (m):	17,286	17,582	17,561	17,434	17,443	17,503	17,443	17,434	17,561	17,582	17,495
E:	709,223,4385	709,222,3057	709,221,2355	709,221,2355	709,220,8072	709,217,8104	709,214,8137	709,214,3856	709,214,3856	709,213,3153	709,212,4947
N:	7.089.989,9570	7.089.989,9042	7.089.989,8543	7.089.989,8543	7.089.989,8343	7.089.989,6946	7.089.989,5548	7.089.989,5349	7.089.989,5349	7.089.989,4850	7.089.989,4467

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

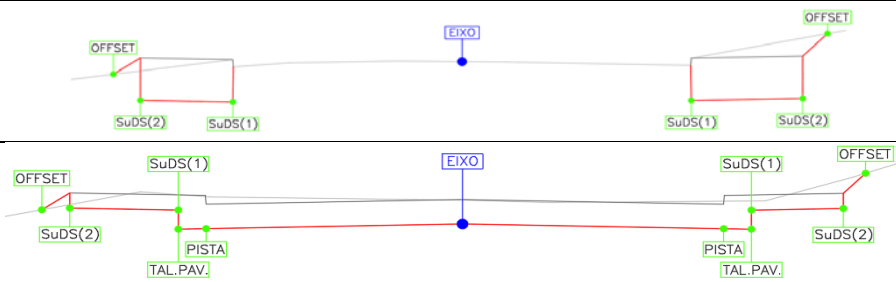
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 42+10</b>											
Dist. Eixo (m):	-5,700	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	7,097	
Cota (m):	15,117	15,456	15,435	15,308	15,317	15,377	15,317	15,308	15,436	15,509	
E:	709,223,9696	709,222,7715	709,221,7012	709,221,7012	709,221,2729	709,218,2762	709,215,2795	709,214,8513	709,214,8513	709,211,1868	
N:	7,089,979,9709	7,089,979,9150	7,089,979,8651	7,089,979,8651	7,089,979,8451	7,089,979,7054	7,089,979,5657	7,089,979,5457	7,089,979,5457	7,089,979,3749	
<b>Station: 43+0</b>											
Dist. Eixo (m):	-4,950	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	6,941	
Cota (m):	14,057	13,897	13,876	13,748	13,757	13,817	13,757	13,749	13,876	13,946	
E:	709,223,6870	709,223,2373	709,222,1670	709,222,1670	709,221,7387	709,218,7420	709,215,7452	709,215,3171	709,215,3171	709,211,8089	
N:	7,089,969,9468	7,089,969,9259	7,089,969,8760	7,089,969,8760	7,089,969,8560	7,089,969,7163	7,089,969,5765	7,089,969,5566	7,089,969,5566	7,089,969,3930	
<b>Station: 43+10</b>											
Dist. Eixo (m):	-4,777	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	7,026	
Cota (m):	13,187	12,911	12,890	12,763	12,772	12,832	12,772	12,763	12,890	12,962	
E:	709,223,9795	709,223,7031	709,222,6328	709,222,6328	709,222,2045	709,219,2077	709,216,2110	709,215,7829	709,215,7829	709,212,1896	
N:	7,089,959,9496	7,089,959,9367	7,089,959,8868	7,089,959,8868	7,089,959,8669	7,089,959,7271	7,089,959,5874	7,089,959,5674	7,089,959,5674	7,089,959,3999	
<b>Station: 44+0</b>											
Dist. Eixo (m):	-4,646	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	7,182	
Cota (m):	12,863	12,500	12,479	12,351	12,360	12,420	12,360	12,352	12,479	12,554	
E:	709,224,3141	709,224,1688	709,223,0986	709,223,0986	709,222,6702	709,219,6735	709,216,6768	709,216,2487	709,216,2487	709,212,4995	
N:	7,089,949,9544	7,089,949,9476	7,089,949,8977	7,089,949,8977	7,089,949,8777	7,089,949,7380	7,089,949,5982	7,089,949,5783	7,089,949,5783	7,089,949,4035	
<b>Station: 44+10</b>											
Dist. Eixo (m):	-4,998	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	7,127	
Cota (m):	12,589	12,461	12,440	12,313	12,322	12,382	12,322	12,313	12,440	12,514	
E:	709,225,1321	709,224,6346	709,223,5643	709,223,5643	709,223,1360	709,220,1393	709,217,1425	709,216,7144	709,216,7144	709,213,0196	
N:	7,089,939,9816	7,089,939,9584	7,089,939,9085	7,089,939,9085	7,089,939,8886	7,089,939,7488	7,089,939,6091	7,089,939,5891	7,089,939,5891	7,089,939,4169	
<b>Station: 45+0</b>											
Dist. Eixo (m):	-4,952	-4,500	-3,429	-3,429	-3,000	0,000	3,000	3,429	3,429	6,520	
Cota (m):	12,590	12,430	12,409	12,282	12,291	12,351	12,291	12,282	12,409	12,471	
E:	709,225,5515	709,225,1004	709,224,0301	709,224,0301	709,223,6018	709,220,6050	709,217,6083	709,217,1802	709,217,1802	709,214,0925	
N:	7,089,929,9903	7,089,929,9693	7,089,929,9194	7,089,929,9194	7,089,929,8994	7,089,929,7597	7,089,929,6200	7,089,929,6000	7,089,929,6000	7,089,929,4560	
<b>Station: 45+10</b>											
Dist. Eixo (m):	-4,964	-4,537	-3,436	-3,436	-3,007	0,000	2,970	3,398	3,398	6,026	6,304
Cota (m):	12,576	12,400	12,378	12,251	12,260	12,320	12,261	12,252	12,379	12,432	13,169
E:	709,226,0292	709,225,6033	709,224,5030	709,224,5030	709,224,0747	709,221,0708	709,218,1043	709,217,6762	709,217,6762	709,215,0510	709,214,7740
N:	7,089,920,0017	7,089,919,9819	7,089,919,9306	7,089,919,9306	7,089,919,9106	7,089,919,7705	7,089,919,6322	7,089,919,6123	7,089,919,6123	7,089,919,4898	7,089,919,4769
<b>Station: 45+19</b>											
Dist. Eixo (m):	-5,333	-4,823	-3,609	-3,609	-3,180	0,000	2,997	3,425	3,425	6,194	6,410
Cota (m):	12,491	12,371	12,347	12,219	12,228	12,292	12,232	12,224	12,351	12,406	13,083
E:	709,226,8200	709,226,3112	709,225,0981	709,225,0981	709,224,6698	709,221,4940	709,218,4995	709,218,0714	709,218,0714	709,215,3064	709,215,0897
N:	7,089,910,9606	7,089,910,9369	7,089,910,8803	7,089,910,8803	7,089,910,8603	7,089,910,7123	7,089,910,5726	7,089,910,5527	7,089,910,5527	7,089,910,4237	7,089,910,4136
<b>Station: 46+0</b>											
Dist. Eixo (m):	-5,380	-4,863	-3,638	-3,638	-3,209	0,000	3,001	3,430	3,430	6,209	6,419
Cota (m):	12,483	12,368	12,343	12,216	12,225	12,289	12,229	12,221	12,347	12,403	13,073
E:	709,226,9116	709,226,3949	709,225,1714	709,225,1714	709,224,7432	709,221,5380	709,218,5407	709,218,1126	709,218,1126	709,215,3370	709,215,1271
N:	7,089,910,0487	7,089,910,0230	7,089,909,9622	7,089,909,9622	7,089,909,9409	7,089,909,7815	7,089,909,6324	7,089,909,6111	7,089,909,6111	7,089,909,4730	7,089,909,4626
<b>Station: 46+10</b>											
Dist. Eixo (m):	-5,852	-5,249	-3,920	-3,920	-3,491	0,000	3,074	3,503	3,503	6,022	6,146
Cota (m):	12,391	12,334	12,307	12,179	12,188	12,258	12,197	12,188	12,315	12,365	12,949
E:	709,228,0334	709,227,4322	709,226,1077	709,226,1077	709,225,6804	709,222,2012	709,219,1374	709,218,7103	709,218,7103	709,216,1997	709,216,0767
N:	7,089,900,2893	7,089,900,2393	7,089,900,1290	7,089,900,1290	7,089,900,0935	7,089,899,8039	7,089,899,5489	7,089,899,5134	7,089,899,5134	7,089,899,3045	7,089,899,2942
<b>Station: 47+0</b>											
Dist. Eixo (m):	-6,266	-5,563	-4,147	-4,147	-3,718	0,000	3,201	3,630	3,630	5,754	5,793
Cota (m):	12,291	12,299	12,271	12,144	12,153	12,227	12,163	12,155	12,282	12,324	12,823
E:	709,229,4197	709,228,7222	709,227,3153	709,227,3153	709,226,8894	709,223,1965	709,220,0171	709,219,5914	709,219,5914	709,217,4815	709,217,4431
N:	7,089,890,5815	7,089,890,5000	7,089,890,3355	7,089,890,3355	7,089,890,2857	7,089,889,8541	7,089,889,4824	7,089,889,4326	7,089,889,4326	7,089,889,1860	7,089,889,1815
<b>Station: 47+2</b>											
Dist. Eixo (m):	-6,343	-5,628	-4,193	-4,193	-3,764	0,000	3,239	3,668	3,668	5,696	5,708
Cota (m):	12,275	12,292	12,263	12,136	12,145	12,220	12,155	12,147	12,273	12,314	12,786
E:	709,229,7760	709,229,0662	709,227,6424	709,227,6424	709,227,2170	709,223,4828	709,220,2681	709,219,8429	709,219,8429	709,217,8299	709,217,8180
N:	7,089,888,2782	7,089,888,1895	7,089,888,0116	7,089,888,0116	7,089,887,9584	7,089,887,4919	7,089,887,0902	7,089,887,0371	7,089,887,0371	7,089,886,7856	7,089,886,7841
<b>Station: 47+10</b>											
Dist. Eixo (m):	-6,566	-5,806	-4,318	-4,318	-3,890	0,000	3,381	3,809	3,809	5,641	5,740
Cota (m):	12,220	12,267	12,237	12,110	12,119	12,196	12,129	12,120	12,247	12,284	12,878
E:	709,231,0153	709,230,2636	709,228,7929	709,228,7929	709,228,3689	709,224,5228	709,221,1798	709,220,7560	709,220,7560	709,218,9452	709,218,8473
N:	7,089,880,9221	7,089,880,8087	7,089,880,5869	7,089,880,5869	7,089,880,5230	7,089,879,9429	7,089,879,4386	7,089,879,3747	7,089,879,3747	7,089,879,1016	7,089,879,0868
<b>Station: 48+0</b>											
Dist. Eixo (m):	-6,612	-5,976	-4,435	-4,435	-4,006	0,000	3,614	4,042	4,042	5,867	5,987
Cota (m):	12,270	12,235	12,204	12,076	12,085	12,165	12,093	12,085	12,212	12,248	12,828
E:	709,232,6804	709,232,0550	709,230,5392	709,230,5392	709,230,1176	709,226,1788	709,222,6253	709,222,2039	709,222,2039	709,220,4095	709,220,2913
N:	7,089,871,2849	7,089,871,1691	7,089,870,8885	7,089,870,8885	7,089,870,8105	7,089,870,0814	7,089,869,4236	7,089,869,3456	7,089,869,3456	7,089,869,0135	7,089,868,9916
<b>Station: 48+5</b>											
Dist. Eixo (m):	-6,539	-6,041	-4,476	-4,476	-4,047	0,000	3,770	4,199	4,199	6,000	6,116
Cota (m):	12,344	12,216	12,185	12,058	12,067	12,148	12,072	12,064	12,191	12,227	12,810
E:	709,233,6741	709,233,1856	709,231,6524	709,231,6524	709,231,2324	709,227,2683	709,223,5742	709,223,1543	709,223,1543	709,221,3896	709,221,2762
N:	7,089,865,8079	7,089,865,7078	7,089,865,3938	7,089,865,3938	7,089,865,3078	7,089,864,4960	7,089,863,7394	7,089,863,6535	7,089,863,6535	7,089,863,2920	7,089,863,2688

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA FRANCISCO MOSER**

Desenho Esquemático:

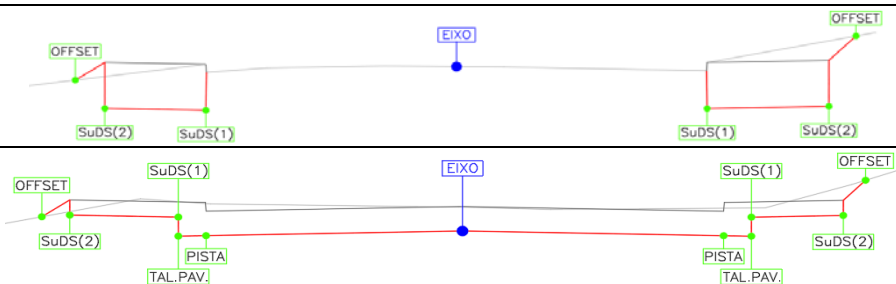


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 48+10</b>											
Dist. Eixo (m):	-6,474	-6,081	-4,511	-4,511	-4,083	0,000	3,867	4,296	4,296	6,000	6,122
Cota (m):	12,400	12,202	12,171	12,044	12,053	12,135	12,057	12,049	12,176	12,210	12,589
E:	709.234,4743	709.234,0391	709.232,5518	709.232,5518	709.232,1318	709.228,1321	709.224,3433	709.223,9235	709.223,9235	709.222,2541	709.222,1349
N:	7.089.861,5731	7.089.861,4942	7.089.861,1794	7.089.861,1794	7.089.861,0933	7.089.860,2742	7.089.859,4983	7.089.859,4123	7.089.859,4123	7.089.859,0704	7.089.859,0460
<b>Station: 49+0</b>											
Dist. Eixo (m):	-6,313	-6,024	-4,460	-4,460	-4,031	0,000	3,970	4,398	4,398	6,000	6,138
Cota (m):	12,439	12,172	12,141	12,014	12,023	12,104	12,024	12,016	12,143	12,175	12,543
E:	709.236,3235	709.236,0398	709.234,5077	709.234,5077	709.234,0877	709.230,1384	709.226,2493	709.225,8295	709.225,8295	709.224,2604	709.224,1250
N:	7.089.851,7442	7.089.851,6861	7.089.851,3724	7.089.851,3724	7.089.851,2864	7.089.850,4776	7.089.849,6811	7.089.849,5951	7.089.849,5951	7.089.849,2738	7.089.849,2461
<b>Station: 49+7</b>											
Dist. Eixo (m):	-6,191	-5,846	-4,283	-4,283	-3,854	0,000	4,150	4,579	4,579	6,259	6,387
Cota (m):	12,383	12,153	12,122	11,995	12,004	12,081	11,998	11,989	12,116	12,150	12,524
E:	709.237,6980	709.237,3600	709.235,8287	709.235,8287	709.235,4086	709.231,6329	709.227,5673	709.227,1474	709.227,1474	709.225,5014	709.225,3764
N:	7.089.844,4213	7.089.844,3521	7.089.844,0385	7.089.844,0385	7.089.843,9525	7.089.843,1792	7.089.842,3466	7.089.842,2606	7.089.842,2606	7.089.841,9235	7.089.841,8979
<b>Station: 49+10</b>											
Dist. Eixo (m):	-6,153	-5,787	-4,225	-4,225	-3,796	0,000	4,205	4,633	4,633	6,334	6,456
Cota (m):	12,363	12,146	12,115	11,988	11,997	12,073	11,989	11,980	12,107	12,141	12,520
E:	709.238,1700	709.237,8101	709.236,2720	709.236,2720	709.235,8499	709.232,1128	709.227,9736	709.227,5517	709.227,5517	709.225,8771	709.225,7573
N:	7.089.841,7550	7.089.841,6908	7.089.841,4165	7.089.841,4165	7.089.841,3412	7.089.840,6746	7.089.839,9364	7.089.839,8611	7.089.839,8611	7.089.839,5625	7.089.839,5411
<b>Station: 49+16</b>											
Dist. Eixo (m):	-6,272	-5,863	-4,299	-4,299	-3,870	0,000	4,135	4,564	4,564	6,268	6,379
Cota (m):	12,314	12,126	12,095	11,968	11,977	12,054	11,971	11,963	12,090	12,124	12,509
E:	709.239,2276	709.238,8216	709.237,2674	709.237,2674	709.236,8415	709.232,9966	709.228,8900	709.228,4643	709.228,4643	709.226,7715	709.226,6608
N:	7.089.835,3889	7.089.835,3417	7.089.835,1610	7.089.835,1610	7.089.835,1114	7.089.834,6644	7.089.834,1870	7.089.834,1375	7.089.834,1375	7.089.833,9407	7.089.833,9278
<b>Station: 50+0</b>											
Dist. Eixo (m):	-6,456	-6,075	-4,506	-4,506	-4,077	0,000	3,941	4,370	4,370	6,040	6,173
Cota (m):	12,316	12,110	12,079	11,951	11,960	12,042	11,963	11,954	12,082	12,115	12,487
E:	709.239,8107	709.239,4312	709.237,8663	709.237,8663	709.237,4388	709.233,3740	709.229,4445	709.229,0172	709.229,0172	709.227,3512	709.227,2192
N:	7.089.831,2521	7.089.831,2230	7.089.831,1030	7.089.831,1030	7.089.831,0703	7.089.830,7587	7.089.830,4575	7.089.830,4247	7.089.830,4247	7.089.830,2970	7.089.830,2869
<b>Station: 50+4</b>											
Dist. Eixo (m):	-6,276	-5,983	-4,429	-4,429	-4,000	0,000	4,000	4,429	4,429	6,082	6,207
Cota (m):	12,361	12,097	12,066	11,938	11,947	12,027	11,947	11,939	12,066	12,099	12,476
E:	709.239,8964	709.239,6032	709.238,0498	709.238,0498	709.237,6212	709.233,6214	709.229,6247	709.229,1963	709.229,1963	709.227,5437	709.227,4190
N:	7.089.826,2489	7.089.826,2403	7.089.826,1944	7.089.826,1944	7.089.826,1818	7.089.826,0638	7.089.825,9460	7.089.825,9333	7.089.825,9333	7.089.825,8846	7.089.825,8809
<b>Station: 50+10</b>											
Dist. Eixo (m):	-6,164	-5,967	-4,429	-4,429	-4,000	0,000	4,000	4,429	4,429	6,108	6,219
Cota (m):	12,409	12,080	12,049	11,922	11,931	12,011	11,931	11,922	12,049	12,083	12,469
E:	709.239,9404	709.239,7434	709.238,2060	709.238,2060	709.237,7774	709.233,7791	709.229,7809	709.229,3525	709.229,3525	709.227,6739	709.227,5625
N:	7.089.820,9497	7.089.820,9439	7.089.820,8986	7.089.820,8986	7.089.820,8859	7.089.820,7680	7.089.820,6501	7.089.820,6375	7.089.820,6375	7.089.820,5880	7.089.820,5847
<b>Station: 51+0</b>											
Dist. Eixo (m):	-5,235	-5,200	-4,429	-4,429	-4,000	0,000	4,000	4,429	4,429	6,057	6,150
Cota (m):	12,471	12,033	12,018	11,891	11,900	11,980	11,900	11,891	12,018	12,051	12,449
E:	709.239,3064	709.239,2719	709.238,5008	709.238,5008	709.238,0722	709.234,0739	709.230,0757	709.229,6473	709.229,6473	709.228,0194	709.227,9271
N:	7.089.810,9267	7.089.810,9257	7.089.810,9029	7.089.810,9029	7.089.810,8903	7.089.810,7724	7.089.810,6545	7.089.810,6418	7.089.810,6418	7.089.810,5938	7.089.810,5911
<b>Station: 51+10</b>											
Dist. Eixo (m):	-5,328	-5,200	-4,429	-4,429	-4,000	0,000	4,000	4,429	4,429	6,008	6,107
Cota (m):	12,377	12,002	11,987	11,860	11,869	11,949	11,869	11,861	11,987	12,019	12,419
E:	709.239,6946	709.239,5666	709.238,7955	709.238,7955	709.238,3670	709.234,3687	709.230,3704	709.229,9421	709.229,9421	709.228,3632	709.228,2592
N:	7.089.800,9338	7.089.800,9300	7.089.800,9073	7.089.800,9073	7.089.800,8946	7.089.800,7767	7.089.800,6588	7.089.800,6462	7.089.800,6462	7.089.800,5996	7.089.800,5966
<b>Station: 52+0</b>											
Dist. Eixo (m):	-6,485	-6,485	-4,786	-4,786	-4,357	0,000	4,017	4,445	4,445	6,048	6,107
Cota (m):	12,459	11,999	11,965	11,837	11,846	11,918	11,839	11,831	11,958	11,990	12,410
E:	709.241,1457	709.241,1455	709.239,4471	709.239,4471	709.239,0185	709.234,6635	709.230,6486	709.230,2203	709.230,2203	709.228,6183	709.228,5592
N:	7.089.790,9722	7.089.790,9722	7.089.790,9221	7.089.790,9221	7.089.790,9095	7.089.790,7811	7.089.790,6627	7.089.790,6500	7.089.790,6500	7.089.790,6028	7.089.790,6010



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

Desenho Esquemático:

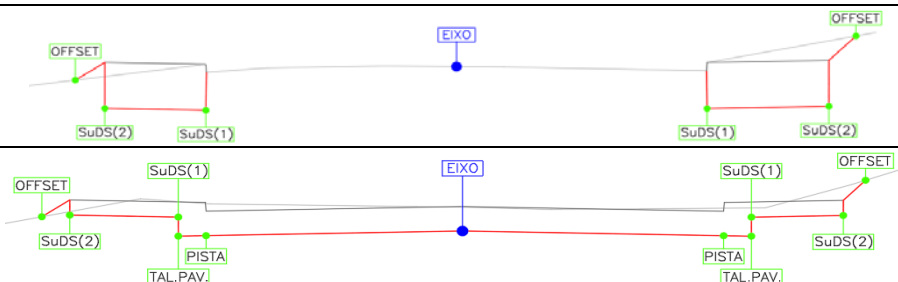


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-6,200	-5,010			0,000			5,010	6,200	
Cota (m):		16,557	16,533						16,533	16,557	
E:		708.821,4471	708.820,2584			708.815,2539			708.810,2494	708.809,0607	
N:		7.090.687,3754	7.090.687,3198			7.090.687,0854			7.090.686,8510	7.090.686,7953	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-6,003	-4,031			0,000			3,930	6,005	
Cota (m):		16,630	16,591						16,593	16,634	
E:		708.821,7179	708.819,7480			708.815,7218			708.811,7961	708.809,7236	
N:		7.090.677,3772	7.090.677,2849			7.090.677,0963			7.090.676,9125	7.090.676,8154	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-5,920	-4,051			0,000			3,910	5,989	
Cota (m):		16,641	16,604						16,606	16,648	
E:		708.822,1034	708.820,2364			708.816,1896			708.812,2837	708.810,2072	
N:		7.090.667,3843	7.090.667,2968			7.090.667,1073			7.090.666,9243	7.090.666,8271	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,838	-4,072			0,000			3,890	5,973	
Cota (m):		16,688	16,653						16,656	16,698	
E:		708.822,4888	708.820,7248			708.816,6575			708.812,7713	708.810,6908	
N:		7.090.657,3913	7.090.657,3087			7.090.657,1182			7.090.656,9362	7.090.656,8388	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,840	-4,092			0,000			3,868	5,957	
Cota (m):		16,739	16,704						16,709	16,751	
E:		708.822,9589	708.821,2133			708.817,1253			708.813,2619	708.811,1745	
N:		7.090.647,4024	7.090.647,3206			7.090.647,1292			7.090.646,9482	7.090.646,8505	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,946	-4,075			0,000			3,836	5,942	
Cota (m):		16,785	16,747						16,752	16,794	
E:		708.823,5324	708.821,6640			708.817,5932			708.813,7618	708.811,6581	
N:		7.090.637,4183	7.090.637,3308			7.090.637,1401			7.090.636,9607	7.090.636,8621	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-6,051	-4,049			0,000			3,803	6,075	
Cota (m):		16,820	16,780						16,785	16,830	
E:		708.824,1059	708.822,1058			708.818,0610			708.814,2618	708.811,9924	
N:		7.090.627,4342	7.090.627,3405			7.090.627,1511			7.090.626,9731	7.090.626,8668	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-5,599	-4,465			0,000			4,325	5,617	
Cota (m):		16,704	16,681						16,732	16,758	
E:		708.824,1222	708.822,9892			708.818,5277			708.814,2084	708.812,9178	
N:		7.090.617,4240	7.090.617,3709			7.090.617,1620			7.090.616,9597	7.090.616,8992	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-5,126	-4,898			0,000			5,125	6,091	
Cota (m):		16,583	16,578						16,584	16,603	
E:		708.824,1176	708.823,8893			708.818,9942			708.813,8771	708.812,9120	
N:		7.090.607,4128	7.090.607,4021			7.090.607,1729			7.090.606,9332	7.090.606,8880	
<b>Station: 4+1</b>											
Dist. Eixo (m):		-5,047	-4,970			0,000			5,052	6,091	
Cota (m):		16,562	16,561						16,562	16,583	
E:		708.824,1168	708.824,0402			708.819,0724			708.814,0283	708.812,9904	
N:		7.090.605,7348	7.090.605,7312			7.090.605,4985			7.090.605,2623	7.090.605,2136	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-5,885	-5,010			0,000			5,010	6,066	
Cota (m):		16,564	16,546						16,546	16,587	
E:		708.825,3150	708.824,4411			708.819,4358			708.814,4305	708.813,3759	
N:		7.090.597,4376	7.090.597,3997			7.090.597,1826			7.090.596,9656	7.090.596,9198	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-5,929	-5,010			0,000			5,010	6,031	
Cota (m):		16,484	16,465						16,465	16,486	
E:		708.825,7922	708.824,8744			708.819,8691			708.814,8638	708.813,8442	
N:		7.090.587,4489	7.090.587,4091			7.090.587,1920			7.090.586,9750	7.090.586,9307	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,968	-3,921			0,000			3,868	5,996	
Cota (m):		16,335	16,294						16,295	16,338	
E:		708.826,2651	708.824,2193			708.820,3023			708.816,4383	708.814,3124	
N:		7.090.577,4600	7.090.577,3713			7.090.577,2014			7.090.577,0338	7.090.576,9417	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-6,008	-3,920			0,000			3,878	5,961	
Cota (m):		16,125	16,084						16,084	16,126	
E:		708.826,7380	708.824,6520			708.820,7356			708.816,8616	708.814,7806	
N:		7.090.567,4711	7.090.567,3806			7.090.567,2108			7.090.567,0428	7.090.566,9526	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-6,126	-3,920			0,000			3,888	5,926	
Cota (m):		15,916	15,872						15,872	15,913	
E:		708.827,2888	708.825,0847			708.821,1688			708.817,2848	708.815,2489	
N:		7.090.557,4856	7.090.557,3900			7.090.557,2202			7.090.557,0518	7.090.556,9635	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
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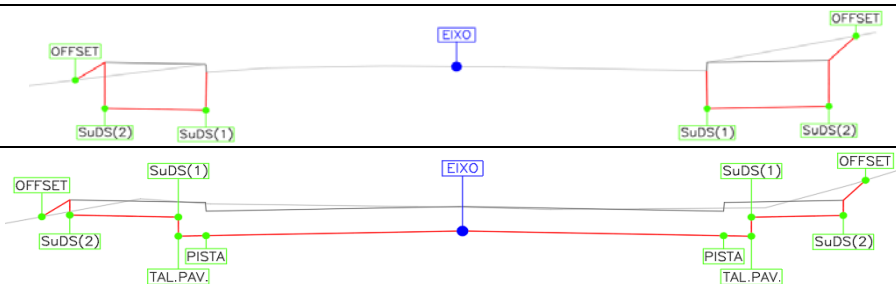
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+0</b>											
Dist. Eixo (m):		-6,343	-3,919			0,000			3,898	5,942	
Cota (m):		15,654	15,606						15,606	15,647	
E:		708.827,9390	708.825,5174			708.821,6021			708.817,7081	708.815,6657	
N:		7.090.547,5044	7.090.547,3994			7.090.547,2296			7.090.547,0607	7.090.546,9721	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-6,420	-3,918			0,000			3,908	5,958	
Cota (m):		15,384	15,334						15,334	15,375	
E:		708.828,4493	708.825,9501			708.822,0354			708.818,1314	708.816,0834	
N:		7.090.537,5171	7.090.537,4087			7.090.537,2390			7.090.537,0697	7.090.536,9809	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-6,407	-3,918			0,000			3,918	5,932	
Cota (m):		15,221	15,172						15,172	15,212	
E:		708.828,8693	708.826,3827			708.822,4686			708.818,5547	708.816,5421	
N:		7.090.527,5259	7.090.527,4181			7.090.527,2484			7.090.527,0786	7.090.526,9913	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-6,364	-3,917			0,000			3,936	5,907	
Cota (m):		15,060	15,011						15,011	15,050	
E:		708.829,2600	708.826,8154			708.822,9019			708.818,9694	708.817,0008	
N:		7.090.517,5335	7.090.517,4275			7.090.517,2578			7.090.517,0872	7.090.517,0018	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-6,314	-3,917			0,000			3,977	5,881	
Cota (m):		15,014	14,966						14,966	15,003	
E:		708.829,6431	708.827,2481			708.823,3351			708.819,3618	708.817,4594	
N:		7.090.507,5407	7.090.507,4368			7.090.507,2671			7.090.507,0948	7.090.507,0123	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-6,264	-3,916			0,000			4,018	5,876	
Cota (m):		14,980	14,933						14,933	14,968	
E:		708.830,0262	708.827,6808			708.823,7684			708.819,7543	708.817,8975	
N:		7.090.497,5479	7.090.497,4462			7.090.497,2765			7.090.497,1025	7.090.497,0219	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-6,213	-3,915			0,000			4,059	5,917	
Cota (m):		14,923	14,877						14,875	14,912	
E:		708.830,4093	708.828,1135			708.824,2017			708.820,1468	708.818,2900	
N:		7.090.487,5551	7.090.487,4556			7.090.487,2859			7.090.487,1101	7.090.487,0296	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-6,163	-3,915			0,000			4,099	5,958	
Cota (m):		14,866	14,821						14,817	14,854	
E:		708.830,7924	708.828,5461			708.824,6349			708.820,5393	708.818,6825	
N:		7.090.477,5623	7.090.477,4649			7.090.477,2953			7.090.477,1177	7.090.477,0372	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-5,543	-4,349			0,000			4,021	5,211	
Cota (m):		14,645	14,621						14,628	14,652	
E:		708.830,6056	708.829,4127			708.825,0682			708.821,0513	708.819,8624	
N:		7.090.467,5448	7.090.467,4931			7.090.467,3047			7.090.467,1305	7.090.467,0789	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-6,047	-5,023			0,000			3,922	5,114	
Cota (m):		14,424	14,404						14,434	14,443	
E:		708.831,5431	708.830,5199			708.825,5014			708.821,5829	708.820,3926	
N:		7.090.457,5761	7.090.457,5317			7.090.457,3141			7.090.457,1442	7.090.457,0925	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-6,113	-5,010			0,000			3,867	6,063	
Cota (m):		14,271	14,249						14,272	14,316	
E:		708.832,0417	708.830,9400			708.825,9347			708.822,0712	708.819,8774	
N:		7.090.447,5883	7.090.447,5405			7.090.447,3235			7.090.447,1559	7.090.447,0608	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-6,143	-4,136			0,000			3,835	6,041	
Cota (m):		14,189	14,149						14,155	14,199	
E:		708.832,5048	708.830,4998			708.826,3679			708.822,5368	708.820,3325	
N:		7.090.437,5990	7.090.437,5121			7.090.437,3329			7.090.437,1667	7.090.437,0711	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-6,132	-4,112			0,000			3,809	6,019	
Cota (m):		14,103	14,063						14,069	14,113	
E:		708.832,9275	708.830,9096			708.826,8012			708.822,9960	708.820,7877	
N:		7.090.427,6079	7.090.427,5204			7.090.427,3423			7.090.427,1772	7.090.427,0815	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-6,112	-4,114			0,000			3,783	5,997	
Cota (m):		14,058	14,018						14,024	14,068	
E:		708.833,3409	708.831,3450			708.827,2345			708.823,4553	708.821,2428	
N:		7.090.417,6165	7.090.417,5299			7.090.417,3517			7.090.417,1878	7.090.417,0918	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-6,134	-4,139			0,000			3,757	5,955	
Cota (m):		14,026	13,986						13,994	14,037	
E:		708.833,7960	708.831,8025			708.827,6677			708.823,9145	708.821,7183	
N:		7.090.407,6268	7.090.407,5404			7.090.407,3610			7.090.407,1983	7.090.407,1030	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

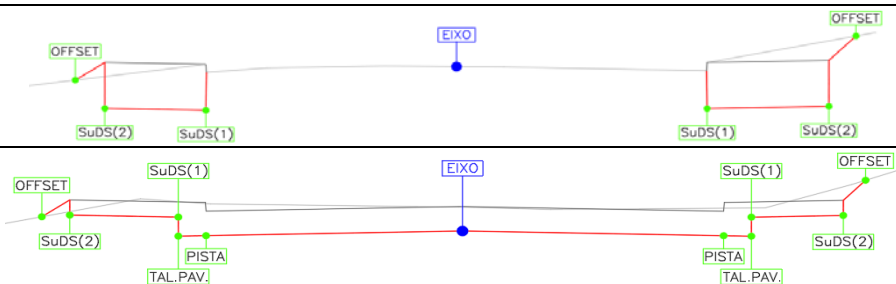
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+10</b>											
Dist. Eixo (m):		-6,147	-4,189			0,000			3,731	5,990	
Cota (m):		14,001	13,962						13,971	14,016	
E:		708.834,2427	708.832,2857			708.828,1010			708.824,3737	708.822,1166	
N:		7.090.397,6368	7.090.397,5519			7.090.397,3704			7.090.397,2088	7.090.397,1109	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-6,146	-4,236			0,000			3,705	5,827	
Cota (m):		13,983	13,945						13,955	13,998	
E:		708.834,6741	708.832,7664			708.828,5342			708.824,8329	708.822,7127	
N:		7.090.387,6461	7.090.387,5634			7.090.387,3798			7.090.387,2193	7.090.387,1274	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-6,144	-4,246			0,000			3,680	5,664	
Cota (m):		13,971	13,933						13,945	13,984	
E:		708.835,1055	708.833,2090			708.828,9675			708.825,2905	708.823,3088	
N:		7.090.377,6554	7.090.377,5732			7.090.377,3892			7.090.377,2298	7.090.377,1438	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-6,142	-4,178			0,000			3,703	5,684	
Cota (m):		13,989	13,950						13,959	13,999	
E:		708.835,5369	708.833,5748			708.829,4008			708.825,7010	708.823,7219	
N:		7.090.367,6647	7.090.367,5796			7.090.367,3986			7.090.367,2382	7.090.367,1523	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-6,179	-4,142			0,000			3,726	5,789	
Cota (m):		14,027	13,987						13,995	14,036	
E:		708.836,0073	708.833,9720			708.829,8340			708.826,1115	708.824,0503	
N:		7.090.357,6757	7.090.357,5874			7.090.357,4080			7.090.357,2466	7.090.357,1572	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-6,203	-4,088			0,000			3,749	5,793	
Cota (m):		14,057	14,015						14,022	14,063	
E:		708.836,4642	708.834,3518			708.830,2673			708.826,5220	708.824,4795	
N:		7.090.347,6861	7.090.347,5945			7.090.347,4174			7.090.347,2550	7.090.347,1664	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-6,212	-4,147			0,000			3,779	5,797	
Cota (m):		14,044	14,002						14,010	14,050	
E:		708.836,9071	708.834,8437			708.830,7005			708.826,9249	708.824,9087	
N:		7.090.337,6959	7.090.337,6064			7.090.337,4268			7.090.337,2630	7.090.337,1756	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-6,221	-4,206			0,000			3,023	5,801	
Cota (m):		14,243	14,203						14,226	14,282	
E:		708.837,3486	708.835,3355			708.831,1338			708.828,1137	708.825,3378	
N:		7.090.327,7057	7.090.327,6184			7.090.327,4362			7.090.327,3052	7.090.327,1848	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-6,451	-4,438			0,000			3,418	6,031	
Cota (m):		14,324	14,284						14,304	14,356	
E:		708.838,0123	708.836,0009			708.831,5670			708.828,1523	708.825,5419	
N:		7.090.317,7251	7.090.317,6378			7.090.317,4456			7.090.317,2975	7.090.317,1843	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-6,694	-4,680			0,000			3,816	6,273	
Cota (m):		14,361	14,321						14,338	14,387	
E:		708.838,6885	708.836,6760			708.832,0003			708.828,1880	708.825,7335	
N:		7.090.307,7450	7.090.307,6577			7.090.307,4549			7.090.307,2896	7.090.307,1832	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-6,677	-4,235			0,000			3,879	6,253	
Cota (m):		14,538	14,489						14,496	14,544	
E:		708.839,1038	708.836,6650			708.832,4336			708.828,5579	708.826,1864	
N:		7.090.297,7536	7.090.297,6478			7.090.297,4643			7.090.297,2963	7.090.297,1934	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-6,429	-4,102			0,000			3,874	6,232	
Cota (m):		14,702	14,655						14,660	14,707	
E:		708.839,2894	708.836,9649			708.832,8668			708.828,9967	708.826,6405	
N:		7.090.287,7523	7.090.287,6514			7.090.287,4737			7.090.287,3059	7.090.287,2037	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-6,450	-4,063			0,000			3,868	6,211	
Cota (m):		14,840	14,792						14,796	14,843	
E:		708.839,7440	708.837,3590			708.833,3001			708.829,4355	708.827,0946	
N:		7.090.277,7626	7.090.277,6591			7.090.277,4831			7.090.277,3155	7.090.277,2140	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-6,467	-4,024			0,000			3,895	6,085	
Cota (m):		14,946	14,897						14,900	14,944	
E:		708.840,1938	708.837,7531			708.833,7333			708.829,8425	708.827,6540	
N:		7.090.267,7727	7.090.267,6668			7.090.267,4925			7.090.267,3238	7.090.267,2289	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,450	-3,984			0,000			3,919	5,789	
Cota (m):		15,052	15,003						15,004	15,041	
E:		708.840,6110	708.838,1472			708.834,1666			708.830,2510	708.828,3831	
N:		7.090.257,7814	7.090.257,6745			7.090.257,5019			7.090.257,3321	7.090.257,2511	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

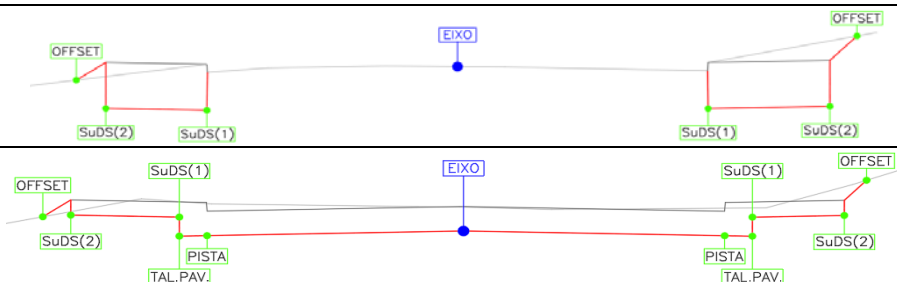
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 22+0</b>											
Dist. Eixo (m):		-6,346	-3,945			0,000			3,919	5,815	
Cota (m):		15,078	15,030						15,031	15,069	
E:		708.840,9401	708.838,5413			708.834,5999			708.830,6844	708.828,7907	
N:		7.090.247,7862	7.090.247,6822			7.090.247,5113			7.090.247,3415	7.090.247,2594	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-6,242	-3,958			0,000			3,864	5,840	
Cota (m):		15,095	15,050						15,052	15,091	
E:		708.841,2693	708.838,9871			708.835,0331			708.831,1726	708.829,1984	
N:		7.090.237,7911	7.090.237,6921			7.090.237,5207			7.090.237,3533	7.090.237,2676	
<b>Station: 22+18</b>											
Dist. Eixo (m):						0,000			4,395	9,321	
Cota (m):									15,052	15,151	
E:						708.835,4023			708.831,0112	708.826,0906	
N:						7.090.229,0069			7.090.228,8164	7.090.228,6031	
<b>Station: 23+0</b>											
Dist. Eixo (m):						0,000			5,667	11,222	
Cota (m):									15,027	15,138	
E:						708.835,4708			708.829,8098	708.824,2605	
N:						7.090.227,5303			7.090.227,2676	7.090.227,0101	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-6,274	-4,278			0,000			3,656	6,552	
Cota (m):		15,315	15,275						15,287	15,345	
E:		708.842,6651	708.840,6715			708.836,3979			708.832,7462	708.829,8529	
N:		7.090.207,8426	7.090.207,7501			7.090.207,5518			7.090.207,3823	7.090.207,2481	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-6,306	-4,304			0,000			3,623	6,512	
Cota (m):		15,282	15,242						15,255	15,313	
E:		708.843,1608	708.841,1605			708.836,8614			708.833,2420	708.830,3565	
N:		7.090.197,8548	7.090.197,7620			7.090.197,5625			7.090.197,3946	7.090.197,2607	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-6,359	-4,298			0,000			3,591	6,450	
Cota (m):		15,243	15,201						15,215	15,273	
E:		708.843,6775	708.841,6183			708.837,3249			708.833,7377	708.830,8824	
N:		7.090.187,8680	7.090.187,7725			7.090.187,5733			7.090.187,4068	7.090.187,2743	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-6,400	-4,292			0,000			3,559	6,339	
Cota (m):		15,136	15,093						15,108	15,164	
E:		708.844,1819	708.842,0762			708.837,7885			708.834,2335	708.831,4567	
N:		7.090.177,8807	7.090.177,7830			7.090.177,5840			7.090.177,4190	7.090.177,2902	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-6,434	-4,287			0,000			3,567	6,205	
Cota (m):		15,019	14,976						14,990	15,043	
E:		708.844,6789	708.842,5341			708.838,2520			708.834,6888	708.832,0534	
N:		7.090.167,8930	7.090.167,7935			7.090.167,5948			7.090.167,4294	7.090.167,3071	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-6,498	-4,263			0,000			3,618	6,035	
Cota (m):		14,855	14,810						14,823	14,871	
E:		708.845,2065	708.842,9744			708.838,7155			708.835,1013	708.832,6870	
N:		7.090.157,9067	7.090.157,8031			7.090.157,6055			7.090.157,4378	7.090.157,3258	
<b>Station: 27+0</b>											
Dist. Eixo (m):		-6,568	-4,223			0,000			3,669	5,864	
Cota (m):		14,667	14,621						14,632	14,676	
E:		708.845,7396	708.843,3974			708.839,1790			708.835,5139	708.833,3217	
N:		7.090.147,9207	7.090.147,8120			7.090.147,6163			7.090.147,4462	7.090.147,3445	
<b>Station: 27+10</b>											
Dist. Eixo (m):		-6,232	-4,182			0,000			3,720	5,834	
Cota (m):		14,455	14,414						14,423	14,465	
E:		708.845,8684	708.843,8205			708.839,6426			708.835,9265	708.833,8144	
N:		7.090.137,9159	7.090.137,8209			7.090.137,6270			7.090.137,4546	7.090.137,3566	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-6,207	-4,142			0,000			3,778	5,975	
Cota (m):		14,270	14,229						14,236	14,280	
E:		708.846,3068	708.844,2435			708.840,1061			708.836,3326	708.834,1377	
N:		7.090.127,9255	7.090.127,8297			7.090.127,6378			7.090.127,4627	7.090.127,3608	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-6,184	-4,101			0,000			3,849	6,115	
Cota (m):		14,100	14,058						14,063	14,108	
E:		708.846,7468	708.844,6665			708.840,5696			708.836,7247	708.834,4609	
N:		7.090.117,9351	7.090.117,8386			7.090.117,6485			7.090.117,4701	7.090.117,3650	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-6,182	-4,061			0,000			3,921	6,150	
Cota (m):		13,957	13,914						13,917	13,962	
E:		708.847,2089	708.845,0895			708.841,0331			708.837,1167	708.834,8898	
N:		7.090.107,9458	7.090.107,8475			7.090.107,6592			7.090.107,4775	7.090.107,3742	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

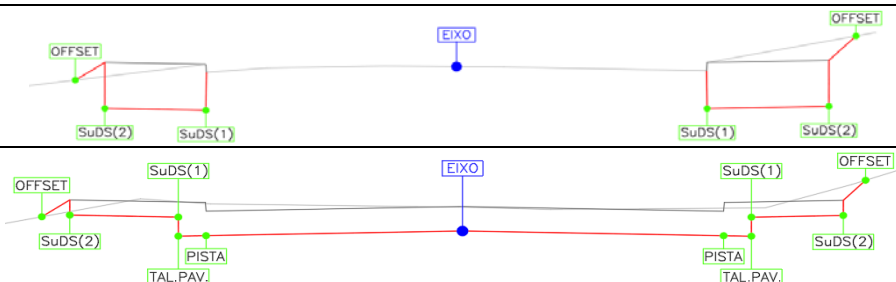
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 29+10</b>											
Dist. Eixo (m):		-6,197	-4,054			0,000			3,919	6,006	
Cota (m):		13,843	13,800						13,802	13,844	
E:		708.847,6874	708.845,5462			708.841,4967			708.837,5814	708.835,4966	
N:		7.090.097,9573	7.090.097,8579			7.090.097,6700			7.090.097,4883	7.090.097,3916	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-6,341	-4,043			0,000			3,902	5,538	
Cota (m):		13,760	13,714						13,717	13,750	
E:		708.848,2949	708.845,9987			708.841,9602			708.838,0626	708.836,4279	
N:		7.090.087,9747	7.090.087,8681			7.090.087,6807			7.090.087,4999	7.090.087,4240	
<b>Station: 30+10</b>											
Dist. Eixo (m):		-6,078	-4,017			0,000			3,931	5,513	
Cota (m):		13,689	13,648						13,649	13,681	
E:		708.848,4956	708.846,4365			708.842,4237			708.838,4972	708.836,9170	
N:		7.090.077,9732	7.090.077,8777			7.090.077,6915			7.090.077,5093	7.090.077,4360	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-7,139	-5,925	-5,925	-5,527	0,000	4,969	5,367	5,367	7,270	7,654
Cota (m):		13,341	13,317	13,221	13,229	13,339	13,240	13,232	13,328	13,366	13,570
E:		708.850,4821	708.849,2696	708.848,2694	708.848,8718	708.843,3508	708.838,3876	708.837,9900	708.837,9900	708.836,0885	708.835,7046
N:		7.090.058,0439	7.090.057,9876	7.090.057,9876	7.090.057,9692	7.090.057,7130	7.090.057,4827	7.090.057,4642	7.090.057,4642	7.090.057,3760	7.090.057,3582
<b>Station: 32+0</b>											
Dist. Eixo (m):		-5,879	-4,338	-4,338	-3,940	0,000	4,060	4,458	4,458	5,810	5,960
Cota (m):		13,400	13,369	13,274	13,282	13,360	13,279	13,271	13,367	13,394	13,754
E:		708.849,6872	708.848,1473	708.848,1473	708.847,7496	708.843,8143	708.839,7582	708.839,3607	708.839,3607	708.838,0104	708.837,8607
N:		7.090.047,9963	7.090.047,9248	7.090.047,9248	7.090.047,9063	7.090.047,7237	7.090.047,5355	7.090.047,5171	7.090.047,5171	7.090.047,4544	7.090.047,4475
<b>Station: 32+10</b>											
Dist. Eixo (m):		-5,900	-4,336	-4,336	-3,938	0,000	4,062	4,460	4,460	5,779	6,038
Cota (m):		13,456	13,425	13,329	13,337	13,416	13,335	13,327	13,423	13,449	13,736
E:		708.850,1713	708.848,6095	708.848,6095	708.848,2117	708.844,2778	708.840,2203	708.839,8228	708.839,8228	708.838,5050	708.838,2463
N:		7.090.038,0080	7.090.037,9355	7.090.037,9355	7.090.037,9170	7.090.037,7345	7.090.037,5462	7.090.037,5278	7.090.037,5278	7.090.037,4666	7.090.037,4546
<b>Station: 33+0</b>											
Dist. Eixo (m):		-5,920	-4,335	-4,335	-3,937	0,000	4,063	4,461	4,461	5,756	6,112
Cota (m):		13,513	13,481	13,385	13,393	13,472	13,391	13,383	13,479	13,505	13,727
E:		708.850,6554	708.849,0716	708.849,0716	708.848,6738	708.844,7413	708.840,6824	708.840,2849	708.840,2849	708.838,9917	708.838,6362
N:		7.090.028,0197	7.090.027,9462	7.090.027,9462	7.090.027,9277	7.090.027,7452	7.090.027,5569	7.090.027,5384	7.090.027,5384	7.090.027,4784	7.090.027,4619
<b>Station: 33+10</b>											
Dist. Eixo (m):		-5,941	-4,333	-4,333	-3,935	0,000	4,065	4,463	4,463	5,786	6,114
Cota (m):		13,569	13,537	13,442	13,450	13,528	13,447	13,439	13,535	13,561	13,802
E:		708.851,1395	708.849,5337	708.849,5337	708.849,1359	708.845,2049	708.841,1445	708.840,7470	708.840,7470	708.839,4251	708.839,0971
N:		7.090.018,0314	7.090.017,9569	7.090.017,9569	7.090.017,9384	7.090.017,7560	7.090.017,5676	7.090.017,5491	7.090.017,5491	7.090.017,4878	7.090.017,4726
<b>Station: 34+0</b>											
Dist. Eixo (m):		-5,962	-4,332	-4,332	-3,934	0,000	4,066	4,464	4,464	5,816	6,158
Cota (m):		13,621	13,589	13,493	13,501	13,580	13,498	13,490	13,586	13,613	13,845
E:		708.851,6236	708.849,9958	708.849,9958	708.849,5980	708.845,6684	708.841,6066	708.841,2091	708.841,2091	708.839,8586	708.839,5174
N:		7.090.008,0431	7.090.007,9675	7.090.007,9675	7.090.007,9491	7.090.007,7667	7.090.007,5783	7.090.007,5598	7.090.007,5598	7.090.007,4971	7.090.007,4813
<b>Station: 34+10</b>											
Dist. Eixo (m):		-5,982	-4,331	-4,331	-3,932	0,000	4,068	4,466	4,466	5,846	6,196
Cota (m):		13,614	13,581	13,486	13,494	13,572	13,491	13,483	13,578	13,606	13,833
E:		708.852,1076	708.850,4579	708.850,4579	708.850,0601	708.846,1319	708.842,0687	708.841,6712	708.841,6712	708.840,2920	708.839,9424
N:		7.089.998,0548	7.089.997,9782	7.089.997,9782	7.089.997,9598	7.089.997,7775	7.089.997,5889	7.089.997,5705	7.089.997,5705	7.089.997,5065	7.089.997,4903
<b>Station: 35+0</b>											
Dist. Eixo (m):		-5,989	-4,329	-4,329	-3,931	0,000	4,069	4,467	4,467	5,876	5,987
Cota (m):		13,536	13,503	13,407	13,415	13,494	13,413	13,405	13,501	13,529	13,915
E:		708.852,5778	708.850,9200	708.850,9200	708.850,5222	708.846,5954	708.842,5308	708.842,1333	708.842,1333	708.840,7255	708.840,6153
N:		7.089.988,0658	7.089.987,9889	7.089.987,9889	7.089.987,9704	7.089.987,7882	7.089.987,5996	7.089.987,5812	7.089.987,5812	7.089.987,5159	7.089.987,5107
<b>Station: 35+10</b>											
Dist. Eixo (m):		-5,986	-4,328	-4,328	-3,930	0,000	4,070	4,468	4,468	5,906	6,283
Cota (m):		13,442	13,409	13,313	13,321	13,400	13,319	13,311	13,406	13,435	13,644
E:		708.853,0383	708.851,3821	708.851,3821	708.850,9843	708.847,0590	708.842,9929	708.842,5954	708.842,5954	708.841,1590	708.840,7827
N:		7.089.978,0764	7.089.977,9996	7.089.977,9996	7.089.977,9811	7.089.977,7990	7.089.977,6103	7.089.977,5919	7.089.977,5919	7.089.977,5252	7.089.977,5077
<b>Station: 36+0</b>											
Dist. Eixo (m):		-6,249	-5,983	-4,326	-3,928	0,000	4,072	4,470	4,470	5,936	
Cota (m):		13,656	13,373	13,340	13,244	13,331	13,250	13,242	13,338	13,367	
E:		708.854,7649	708.853,4988	708.851,8442	708.851,8442	708.851,4464	708.847,5225	708.843,4550	708.843,0575	708.841,5924	
N:		7.089.968,0994	7.089.968,0870	7.089.968,0103	7.089.968,0103	7.089.967,9918	7.089.967,8097	7.089.967,6210	7.089.967,6025	7.089.967,5346	
<b>Station: 36+10</b>											
Dist. Eixo (m):		-6,557	-5,980	-4,325	-3,927	0,000	4,073	4,471	4,471	5,967	
Cota (m):		13,442	13,366	13,333	13,238	13,324	13,243	13,235	13,330	13,360	
E:		708.854,5356	708.853,9593	708.852,3063	708.852,3063	708.851,9085	708.847,9860	708.843,9171	708.843,5196	708.842,0259	
N:		7.089.958,1244	7.089.958,0976	7.089.958,0209	7.089.958,0209	7.089.958,0025	7.089.957,8205	7.089.957,6317	7.089.957,6132	7.089.957,5439	
<b>Station: 37+0</b>											
Dist. Eixo (m):		-5,976	-4,323	-4,323	-3,925	0,000	4,075	4,473	4,473	5,997	
Cota (m):		13,397	13,364	13,269	13,277	13,355	13,274	13,266	13,362	13,392	
E:		708.854,4196	708.852,7684	708.852,7684	708.852,3707	708.848,4495	708.844,3793	708.843,9817	708.843,9817	708.842,4594	
N:		7.089.948,1082	7.089.948,0316	7.089.948,0316	7.089.948,0132	7.089.947,8312	7.089.947,6424	7.089.947,6239	7.089.947,6239	7.089.947,5533	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

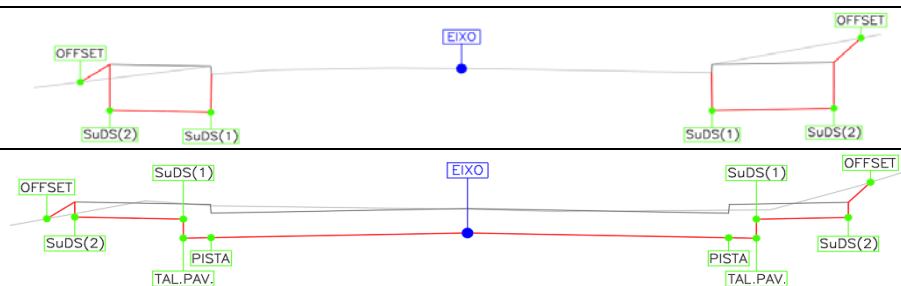
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 37+10</b>											
Dist. Eixo (m):		-5,968	-4,322	-4,322	-3,924	0,000	4,076	4,474	4,474	6,016	
Cota (m):		13,377	13,344	13,249	13,257	13,335	13,254	13,246	13,341	13,372	
E:		708.854,8745	708.853,2305	708.853,2305	708.852,8328	708.848,9131	708.844,8414	708.844,4438	708.844,4438	708.842,9037	
N:		7.089.938,1186	7.089.938,0423	7.089.938,0423	7.089.938,0239	7.089.937,8420	7.089.937,6530	7.089.937,6346	7.089.937,6346	7.089.937,5631	
<b>Station: 38+0</b>											
Dist. Eixo (m):		-5,954	-4,321	-4,321	-3,922	0,000	4,078	4,475	4,475	5,983	
Cota (m):		13,257	13,225	13,129	13,137	13,215	13,134	13,126	13,222	13,252	
E:		708.856,3240	708.853,6926	708.853,6926	708.853,2949	708.849,3766	708.845,3035	708.844,9059	708.844,9059	708.843,4001	
N:		7.089.928,1287	7.089.928,0530	7.089.928,0530	7.089.928,0345	7.089.927,8527	7.089.927,6637	7.089.927,6453	7.089.927,6453	7.089.927,5754	
<b>Station: 38+9</b>											
Dist. Eixo (m):		-6,376	-5,574	-5,574	-5,184	0,000	5,000	5,398	5,398	6,200	
Cota (m):		13,098	13,082	12,986	12,994	13,098	12,998	12,990	13,085	13,101	
E:		708.856,1927	708.855,3915	708.855,3915	708.855,0014	708.849,8231	708.844,8285	708.844,4310	708.844,4310	708.843,6298	
N:		7.089.918,5255	7.089.918,4884	7.089.918,4884	7.089.918,4702	7.089.918,2300	7.089.917,9982	7.089.917,9798	7.089.917,9798	7.089.917,9426	
<b>Station: 39+10</b>											
Dist. Eixo (m):		-5,771	-3,966			0,000			3,806	5,929	
Cota (m):		12,623	12,587						12,591	12,633	
E:		708.856,5323	708.854,7285			708.850,7672			708.846,9656	708.844,8448	
N:		7.089.898,1525	7.089.898,0688			7.089.897,8850			7.089.897,7086	7.089.897,6102	
<b>Station: 40+0</b>											
Dist. Eixo (m):		-5,764	-3,919			0,000			3,823	5,954	
Cota (m):		12,585	12,548						12,550	12,593	
E:		708.856,9882	708.855,1456			708.851,2307			708.847,4115	708.845,2835	
N:		7.089.888,1629	7.089.888,0774			7.089.887,8957			7.089.887,7185	7.089.887,6198	
<b>Station: 40+10</b>											
Dist. Eixo (m):		-5,752	-3,873			0,000			3,841	5,978	
Cota (m):		12,542	12,504						12,505	12,548	
E:		708.857,4397	708.855,5627			708.851,6942			708.847,8575	708.845,7222	
N:		7.089.878,1731	7.089.878,0860			7.089.877,9065			7.089.877,7284	7.089.877,6294	
<b>Station: 41+0</b>											
Dist. Eixo (m):		-5,727	-3,826			0,000			3,859	6,003	
Cota (m):		12,481	12,443						12,442	12,485	
E:		708.857,8783	708.855,9798			708.852,1577			708.848,3034	708.846,1609	
N:		7.089.868,1827	7.089.868,0946			7.089.867,9172			7.089.867,7384	7.089.867,6389	
<b>Station: 41+10</b>											
Dist. Eixo (m):		-5,702	-3,817			0,000			3,876	6,028	
Cota (m):		12,417	12,379						12,378	12,421	
E:		708.858,3168	708.856,4337			708.852,6213			708.848,7493	708.846,5996	
N:		7.089.858,1922	7.089.858,1049			7.089.857,9280			7.089.857,7483	7.089.857,6485	
<b>Station: 42+0</b>											
Dist. Eixo (m):		-5,677	-3,821			0,000			3,885	6,053	
Cota (m):		12,358	12,321						12,319	12,363	
E:		708.858,7553	708.856,9014			708.853,0848			708.849,2044	708.847,0384	
N:		7.089.848,2018	7.089.848,1158			7.089.847,9387			7.089.847,7587	7.089.847,6581	
<b>Station: 42+10</b>											
Dist. Eixo (m):		-5,654	-3,825			0,000			3,889	6,078	
Cota (m):		12,304	12,268						12,266	12,310	
E:		708.859,1964	708.857,3691			708.853,5483			708.849,6636	708.847,4771	
N:		7.089.838,2115	7.089.838,1268			7.089.837,9495			7.089.837,7692	7.089.837,6677	
<b>Station: 43+0</b>											
Dist. Eixo (m):		-5,655	-3,829			0,000			3,893	6,103	
Cota (m):		12,298	12,261						12,260	12,304	
E:		708.859,6609	708.857,8369			708.854,0118			708.850,1228	708.847,9158	
N:		7.089.828,2223	7.089.828,1377			7.089.827,9602			7.089.827,7797	7.089.827,6773	
<b>Station: 43+10</b>											
Dist. Eixo (m):		-5,656	-3,833			0,000			3,898	6,127	
Cota (m):		12,324	12,288						12,286	12,331	
E:		708.860,1255	708.858,3046			708.854,4754			708.850,5820	708.848,3545	
N:		7.089.818,2331	7.089.818,1486			7.089.817,9710			7.089.817,7903	7.089.817,6869	
<b>Station: 44+0</b>											
Dist. Eixo (m):		-5,657	-3,838			0,000			3,902	6,152	
Cota (m):		12,343	12,307						12,306	12,351	
E:		708.860,5901	708.858,7723			708.854,9389			708.851,0412	708.848,7932	
N:		7.089.808,2439	7.089.808,1596			7.089.807,9817			7.089.807,8008	7.089.807,6965	
<b>Station: 44+10</b>											
Dist. Eixo (m):		-5,658	-3,842			0,000			3,906	6,177	
Cota (m):		12,345	12,308						12,307	12,353	
E:		708.861,0546	708.859,2400			708.855,4024			708.851,5005	708.849,2319	
N:		7.089.798,2547	7.089.798,1705			7.089.797,9925			7.089.797,8114	7.089.797,7061	
<b>Station: 45+0</b>											
Dist. Eixo (m):		-5,703	-3,846			0,000			3,910	6,202	
Cota (m):		12,397	12,360						12,359	12,404	
E:		708.861,5627	708.859,7078			708.855,8659			708.851,9597	708.849,6706	
N:		7.089.788,2675	7.089.788,1815			7.089.788,0032			7.089.787,8219	7.089.787,7157	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HAROLD C. MIERS**

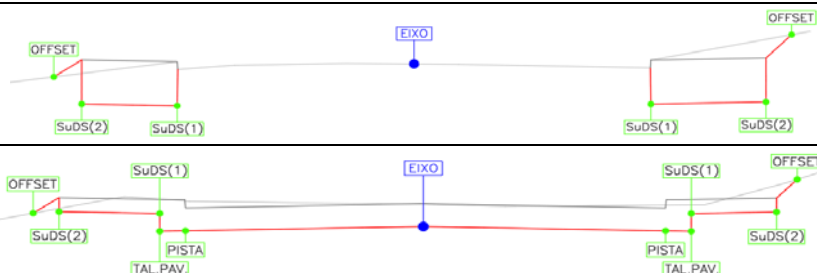
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 45+10</b>											
Dist. Eixo (m):		-5,773	-3,850			0,000			3,915	6,227	
Cota (m):		12,526	12,488						12,486	12,533	
E:		708.862,0967	708.860,1755			708.856,3295			708.852,4189	708.850,1093	
N:		7.089.778,2816	7.089.778,1924			7.089.778,0139			7.089.777,8325	7.089.777,7253	
<b>Station: 45+17</b>											
Dist. Eixo (m):		-6,200	-5,010			0,000			5,010	6,200	
Cota (m):		12,591	12,567						12,567	12,591	
E:		708.862,8932	708.861,7045			708.856,6999			708.851,6953	708.850,5065	
N:		7.089.770,3187	7.089.770,2635			7.089.770,0313			7.089.769,7991	7.089.769,7439	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

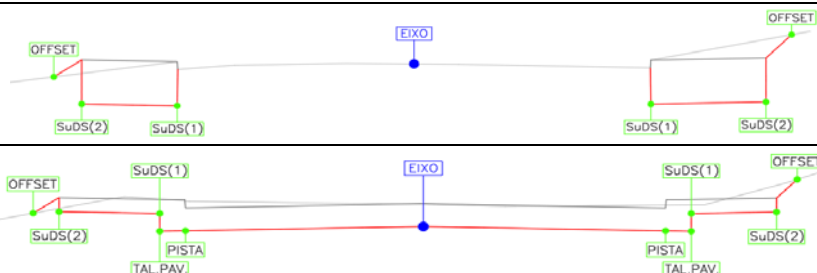
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>											
Dist. Eixo (m):		-9,099	-4,156			0,000			4,007	7,728	
Cota (m):		12,678	12,579						12,582	12,656	
E:		708.365,6397	708.365,8686			708.366,0610			708.366,2465	708.366,4187	
N:		7.089.899,3780	7.089.894,4395			7.089.890,2884			7.089.886,2856	7.089.882,5692	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-8,972	-4,151			0,000			4,012	7,903	
Cota (m):		12,689	12,592						12,595	12,673	
E:		708.376,6349	708.376,8581			708.376,0502			708.376,2360	708.376,4161	
N:		7.089.899,7137	7.089.894,8982			7.089.890,7513			7.089.886,7433	7.089.882,8568	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-8,845	-4,147			0,000			4,024	8,080	
Cota (m):		12,707	12,613						12,615	12,696	
E:		708.385,6301	708.385,8475			708.386,0395			708.386,2258	708.386,4136	
N:		7.089.900,0494	7.089.895,3568			7.089.891,2143			7.089.887,1942	7.089.883,1430	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-8,717	-4,143			0,000			4,045	8,278	
Cota (m):		12,706	12,614						12,616	12,701	
E:		708.395,6253	708.395,8370			708.396,0288			708.396,2160	708.396,4120	
N:		7.089.900,3851	7.089.895,8155			7.089.891,6772			7.089.887,6367	7.089.883,4081	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,365	-4,125			0,000			3,991	8,289	
Cota (m):		12,669	12,584						12,587	12,673	
E:		708.425,6094	708.425,8057			708.425,9966			708.426,1814	708.426,3803	
N:		7.089.901,4224	7.089.897,1868			7.089.893,0659			7.089.889,0797	7.089.884,7862	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-8,265	-4,073			0,000			3,986	8,509	
Cota (m):		12,714	12,630						12,632	12,722	
E:		708.435,6033	708.435,7974			708.435,9859			708.436,1704	708.436,3798	
N:		7.089.901,7851	7.089.897,5978			7.089.893,5288			7.089.889,5468	7.089.885,0287	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,165	-4,021			0,000			3,982	8,730	
Cota (m):		12,740	12,657						12,658	12,753	
E:		708.445,5972	708.445,7890			708.445,9752			708.446,1595	708.446,3793	
N:		7.089.902,1478	7.089.898,0088			7.089.893,9918			7.089.890,0139	7.089.885,2711	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-8,064	-3,996			0,000			3,995	8,951	
Cota (m):		12,737	12,656						12,656	12,755	
E:		708.455,5912	708.455,7795			708.455,9645			708.456,1494	708.456,3788	
N:		7.089.902,5105	7.089.898,4460			7.089.894,4547			7.089.890,4637	7.089.885,5136	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-8,187	-4,047			0,000			4,061	8,655	
Cota (m):		12,766	12,684						12,683	12,775	
E:		708.485,5778	708.485,7585			708.485,9351			708.486,1124	708.486,3130	
N:		7.089.903,9596	7.089.899,8241			7.089.895,7807			7.089.891,7234	7.089.887,1337	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-8,174	-4,013			0,000			4,085	8,762	
Cota (m):		12,789	12,705						12,704	12,797	
E:		708.495,5688	708.495,7504			708.495,9256			708.496,1039	708.496,3081	
N:		7.089.904,3830	7.089.900,2262			7.089.896,2172			7.089.892,1357	7.089.887,4631	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-8,155	-4,018			0,000			4,110	8,870	
Cota (m):		12,798	12,715						12,713	12,808	
E:		708.505,5601	708.505,7407			708.505,9161			708.506,0955	708.506,3032	
N:		7.089.904,8007	7.089.900,6679			7.089.896,6538			7.089.892,5481	7.089.887,7926	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-8,117	-4,023			0,000			4,134	8,977	
Cota (m):		12,784	12,702						12,699	12,796	
E:		708.515,5522	708.515,7309			708.515,9065			708.516,0870	708.516,2984	
N:		7.089.905,1992	7.089.901,1095			7.089.897,0903			7.089.892,9605	7.089.888,1220	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-8,192	-3,993			0,000			4,176	8,713	
Cota (m):		12,824	12,740						12,736	12,827	
E:		708.545,5203	708.545,7037			708.545,8779			708.546,0602	708.546,2583	
N:		7.089.906,5843	7.089.902,3885			7.089.898,3998			7.089.894,2276	7.089.889,6952	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-8,094	-3,979			0,000			4,152	8,707	
Cota (m):		12,872	12,789						12,786	12,877	
E:		708.555,5151	708.555,6947			708.555,8684			708.556,0497	708.556,2485	
N:		7.089.906,9222	7.089.902,8114			7.089.898,8363			7.089.894,6880	7.089.890,1373	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-7,995	-3,999			0,000			4,128	8,702	
Cota (m):		12,906	12,826						12,823	12,915	
E:		708.565,5099	708.565,6843			708.565,8589			708.566,0391	708.566,2387	
N:		7.089.907,2601	7.089.903,2683			7.089.899,2728			7.089.895,1485	7.089.890,5795	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

Desenho Esquemático:

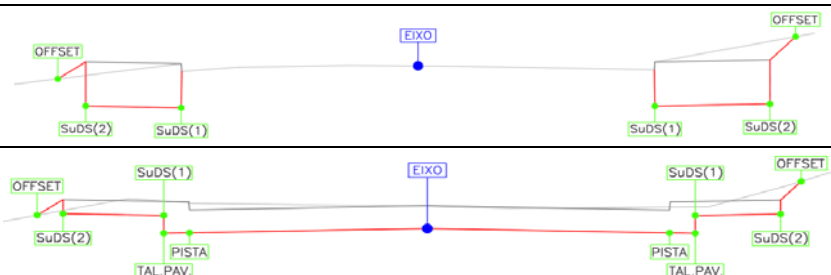


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 11+0</b>											
Dist. Eixo (m):		-7,896	-4,025			0,000			4,103	8,696	
Cota (m):		12,920	12,842						12,841	12,932	
E:		708.575,5047	708.575,6737			708.575,8494			708.576,0285	708.576,2289	
N:		7.089.907,5980	7.089.903,7305			7.089.899,7094			7.089.895,6102	7.089.891,0216	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-8,981	-6,110			0,000					
Cota (m):		12,866	12,809								
E:		708.585,4478	708.585,5731			708.585,8398					
N:		7.089.909,1186	7.089.906,2498			7.089.900,1459					
<b>Station: 12+0</b>											
Dist. Eixo (m):		-9,807	-8,941			0,000			5,829	7,019	
Cota (m):		12,781	12,763						12,826	12,849	
E:		708.595,4022	708.595,4400			708.595,8303			708.596,0847	708.596,1367	
N:		7.089.910,3798	7.089.909,5146			7.089.900,5824			7.089.894,7589	7.089.893,5700	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-8,277	-3,940			0,000			4,042	7,383	
Cota (m):		12,956	12,869						12,867	12,934	
E:		708.605,4594	708.605,6487			708.605,8208			708.605,9972	708.606,1430	
N:		7.089.909,2884	7.089.904,9556			7.089.901,0189			7.089.896,9808	7.089.893,6430	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-8,244	-3,894			0,000			4,076	7,534	
Cota (m):		12,956	12,869						12,866	12,935	
E:		708.615,4514	708.615,6412			708.615,8112			708.615,9891	708.616,1401	
N:		7.089.909,6917	7.089.905,3461			7.089.901,4554			7.089.897,3837	7.089.893,9281	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-8,244	-3,861			0,000			4,070	7,582	
Cota (m):		12,956	12,868						12,864	12,934	
E:		708.625,4419	708.625,6332			708.625,8017			708.625,9793	708.626,1326	
N:		7.089.910,1276	7.089.905,7489			7.089.901,8919			7.089.897,8263	7.089.894,3176	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-8,309	-3,883			0,000			4,063	7,651	
Cota (m):		12,954	12,865						12,862	12,934	
E:		708.635,4295	708.635,6227			708.635,7922			708.635,9695	708.636,1261	
N:		7.089.910,6291	7.089.906,2075			7.089.902,3284			7.089.898,2689	7.089.894,6849	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-8,347	-3,905			0,000			4,057	7,736	
Cota (m):		12,952	12,863						12,860	12,933	
E:		708.645,4183	708.645,6122			708.645,7826			708.645,9597	708.646,1203	
N:		7.089.911,1036	7.089.906,6660			7.089.902,7649			7.089.898,7115	7.089.895,0368	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-8,369	-3,927			0,000			4,051	7,857	
Cota (m):		12,877	12,789						12,786	12,862	
E:		708.655,4078	708.655,6017			708.655,7731			708.655,9499	708.656,1161	
N:		7.089.911,5621	7.089.907,1246			7.089.903,2015			7.089.899,1541	7.089.895,3521	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-8,541	-3,949			0,000			4,032	7,978	
Cota (m):		12,805	12,713						12,711	12,790	
E:		708.665,3907	708.665,5912			708.665,7636			708.665,9396	708.666,1118	
N:		7.089.912,1712	7.089.907,5832			7.089.903,6380			7.089.899,6100	7.089.895,6673	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-5,885	-3,976			0,000			4,011	6,124	
Cota (m):		12,675	12,637						12,637	12,679	
E:		708.675,4971	708.675,5805			708.675,7540			708.675,9291	708.676,0214	
N:		7.089.909,9544	7.089.908,0465			7.089.904,0745			7.089.900,0670	7.089.897,9564	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-5,916	-4,003			0,000			3,991	6,144	
Cota (m):		12,600	12,562						12,562	12,605	
E:		708.685,4863	708.685,5698			708.685,7445			708.685,9187	708.686,0127	
N:		7.089.910,4209	7.089.908,5103			7.089.904,5110			7.089.900,5239	7.089.898,3733	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-6,077	-4,085			0,000					
Cota (m):		12,476	12,436								
E:		708.695,4697	708.695,5566			708.695,7350					
N:		7.089.911,0186	7.089.909,0290			7.089.904,9475					
<b>Station: 17+17</b>											
Dist. Eixo (m):		-6,125	-5,626	-5,626	-5,239	0,000	5,031	5,418	5,418	7,767	
Cota (m):		12,779	12,769	12,223	12,231	12,336	12,235	12,228	12,313	12,360	
E:		708.713,2236	708.713,2454	708.713,2454	708.713,2623	708.713,4910	708.713,7106	708.713,7275	708.713,7275	708.713,8300	
N:		7.089.911,8423	7.089.911,3444	7.089.911,3444	7.089.910,9569	7.089.905,7233	7.089.900,6974	7.089.900,3101	7.089.900,3101	7.089.897,9637	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-5,985	-4,663	-4,663	-4,275	0,000	4,178	4,565	4,565	6,235	
Cota (m):		12,794	12,768	12,222	12,230	12,315	12,232	12,224	12,310	12,343	
E:		708.715,4552	708.715,5128	708.715,5128	708.715,5297	708.715,7159	708.715,8979	708.715,9147	708.715,9147	708.715,9875	
N:		7.089.911,8000	7.089.910,4792	7.089.910,4792	7.089.910,0916	7.089.905,8203	7.089.901,6467	7.089.901,2593	7.089.901,2593	7.089.899,5910	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

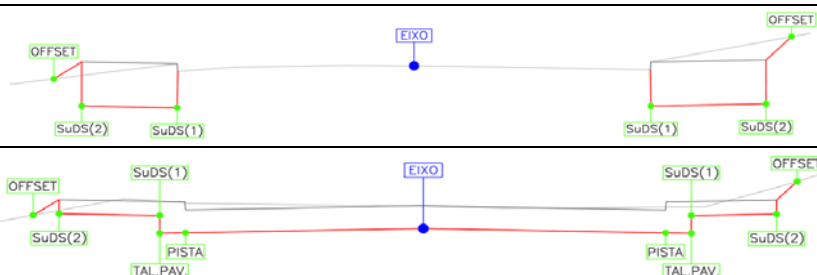
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 18+10</b>											
Dist. Eixo (m):		-6,063	-4,334	-4,334	-3,946	<b>0,000</b>	4,054	4,441	4,441	5,941	
Cota (m):		12,288	12,253	12,168	12,176	12,255	12,173	12,166	12,251	12,281	
E:		708.725,4424	708.725,5177	708.725,5177	708.725,5345	708.725,7064	708.725,8830	708.725,8999	708.725,8999	708.725,9852	
N:		7.089.912,3132	7.089.910,5862	7.089.910,5862	7.089.910,1986	7.089.906,2558	7.089.902,2061	7.089.901,8187	7.089.901,8187	7.089.900,3202	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-6,141	-4,289	-4,289	-3,901	<b>0,000</b>	4,099	4,487	4,487	5,976	
Cota (m):		12,285	12,248	12,162	12,170	12,248	12,166	12,158	12,243	12,273	
E:		708.735,4295	708.735,5101	708.735,5101	708.735,5270	708.735,6969	708.735,8755	708.735,8924	708.735,8924	708.735,9572	
N:		7.089.912,8266	7.089.910,9763	7.089.910,9763	7.089.910,5887	7.089.906,6914	7.089.902,5962	7.089.902,2088	7.089.902,2088	7.089.900,7207	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-6,219	-4,243	-4,243	-3,856	<b>0,000</b>	4,145	4,532	4,532	6,011	
Cota (m):		12,304	12,265	12,179	12,187	12,264	12,181	12,173	12,258	12,288	
E:		708.745,4166	708.745,5026	708.745,5026	708.745,5195	708.745,6875	708.745,8680	708.745,8848	708.745,8848	708.745,9493	
N:		7.089.913,3400	7.089.911,3663	7.089.911,3663	7.089.910,9788	7.089.907,1269	7.089.902,9863	7.089.902,5989	7.089.902,5989	7.089.901,1212	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-5,995	-4,198	-4,198	-3,810	<b>0,000</b>	4,190	4,578	4,578	6,046	
Cota (m):		12,317	12,281	12,196	12,204	12,280	12,196	12,189	12,274	12,303	
E:		708.755,4169	708.755,4951	708.755,4951	708.755,5120	708.755,6780	708.755,8604	708.755,8773	708.755,8773	708.755,9413	
N:		7.089.913,5514	7.089.911,7564	7.089.911,7564	7.089.911,3688	7.089.907,5624	7.089.903,3763	7.089.902,9890	7.089.902,9890	7.089.901,5217	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-5,753	-4,153	-4,153	-3,765	<b>0,000</b>	4,236	4,623	4,623	6,082	
Cota (m):		12,330	12,298	12,213	12,221	12,296	12,211	12,204	12,289	12,318	
E:		708.765,4179	708.765,4876	708.765,4876	708.765,5045	708.765,6685	708.765,8529	708.765,8698	708.765,8698	708.765,9333	
N:		7.089.913,7456	7.089.912,1465	7.089.912,1465	7.089.911,7589	7.089.907,9979	7.089.903,7664	7.089.903,3790	7.089.903,3790	7.089.901,9221	
<b>Station: 21+0</b>											
Dist. Eixo (m):					-6,517	<b>0,000</b>	6,536				
Cota (m):					12,182	12,312	12,181				
E:					708.775,3752	708.775,6590	708.775,9437				
N:					7.089.914,9440	7.089.908,4335	7.089.901,9035				
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,059	-4,509	-4,509	-4,121	<b>0,000</b>	4,438	4,826	4,826	6,804	
Cota (m):		12,354	12,323	12,238	12,246	12,328	12,239	12,232	12,316	12,356	
E:		708.785,3856	708.785,4531	708.785,4531	708.785,4700	708.785,6495	708.785,8428	708.785,8597	708.785,8597	708.785,9458	
N:		7.089.914,9227	7.089.913,3735	7.089.913,3735	7.089.912,9859	7.089.908,8690	7.089.904,4355	7.089.904,0481	7.089.904,0481	7.089.902,0715	
<b>Station: 21+16</b>											
Dist. Eixo (m):		-5,729	-4,394	-4,394	-4,006	<b>0,000</b>	3,994	4,382	4,382	6,004	
Cota (m):		12,362	12,336	12,250	12,258	12,338	12,258	12,250	12,336	12,368	
E:		708.791,6708	708.791,7289	708.791,7289	708.791,7458	708.791,9203	708.792,0942	708.792,1111	708.792,1111	708.792,1818	
N:		7.089.914,8661	7.089.913,5319	7.089.913,5319	7.089.913,1443	7.089.909,1424	7.089.905,1518	7.089.904,7644	7.089.904,7644	7.089.903,1441	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-5,707	-4,403	-4,403	-4,015	<b>0,000</b>	3,985	4,373	4,373	6,006	
Cota (m):		12,367	12,341	12,256	12,264	12,344	12,264	12,257	12,342	12,375	
E:		708.795,4293	708.795,4776	708.795,4776	708.795,4920	708.795,6410	708.795,7888	708.795,8032	708.795,8032	708.795,8638	
N:		7.089.914,9834	7.089.913,6807	7.089.913,6807	7.089.913,2930	7.089.909,2805	7.089.905,2985	7.089.904,9110	7.089.904,9110	7.089.903,2785	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-5,715	-4,429	-4,429	-4,041	<b>0,000</b>	3,959	4,347	4,347	6,012	
Cota (m):		12,383	12,357	12,271	12,279	12,360	12,281	12,273	12,359	12,392	
E:		708.805,4221	708.805,4698	708.805,4698	708.805,4842	708.805,6341	708.805,7810	708.805,7953	708.805,7953	708.805,8571	
N:		7.089.915,3623	7.089.914,0773	7.089.914,0773	7.089.913,6896	7.089.909,6515	7.089.905,6951	7.089.905,3076	7.089.905,3076	7.089.903,6433	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-5,902	-4,455	-4,455	-4,067	<b>0,000</b>	3,933	4,321	4,321	6,018	
Cota (m):		12,401	12,372	12,287	12,295	12,376	12,297	12,290	12,375	12,409	
E:		708.815,4083	708.815,4620	708.815,4620	708.815,4764	708.815,6272	708.815,7731	708.815,7875	708.815,7875	708.815,8505	
N:		7.089.915,9199	7.089.914,4739	7.089.914,4739	7.089.914,0862	7.089.910,0224	7.089.906,0917	7.089.905,7042	7.089.905,7042	7.089.904,0082	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-6,040	-4,480	-4,480	-4,092	<b>0,000</b>	3,908	4,295	4,295	6,025	
Cota (m):		12,463	12,432	12,346	12,354	12,436	12,358	12,350	12,435	12,470	
E:		708.825,3963	708.825,4541	708.825,4541	708.825,4685	708.825,6203	708.825,7653	708.825,7797	708.825,7797	708.825,8438	
N:		7.089.916,4294	7.089.914,8706	7.089.914,8706	7.089.914,4829	7.089.910,3934	7.089.906,4883	7.089.906,1009	7.089.906,1009	7.089.904,3730	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-6,089	-4,506	-4,506	-4,118	<b>0,000</b>	3,882	4,270	4,270	5,909	
Cota (m):		12,660	12,628	12,543	12,551	12,633	12,555	12,548	12,633	12,666	
E:		708.835,3876	708.835,4463	708.835,4463	708.835,4607	708.835,6134	708.835,7575	708.835,7718	708.835,7718	708.835,8326	
N:		7.089.916,8491	7.089.915,2672	7.089.915,2672	7.089.914,8795	7.089.910,7644	7.089.906,8850	7.089.906,4975	7.089.906,4975	7.089.904,8599	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-6,803	-6,660	-6,660	-1,376	<b>0,000</b>	5,428	5,816	5,816	8,486	
Cota (m):		12,777	12,780	12,779	12,885	12,913	12,805	12,797	12,883	12,936	
E:		708.845,3542	708.845,3595	708.845,3595	708.845,5555	708.845,6066	708.845,8079	708.845,8223	708.845,8223	708.845,9214	
N:		7.089.917,9335	7.089.917,7908	7.089.917,7908	7.089.912,5106	7.089.911,1353	7.089.905,7113	7.089.905,3238	7.089.905,3238	7.089.902,6553	
<b>Station: 25+0</b>											
Dist. Eixo (m):					-6,525	<b>0,000</b>	6,113	6,501	6,501	9,953	
Cota (m):					12,890	13,021	12,899	12,891	12,976	13,045	
E:					708.855,3576	708.855,5997	708.855,8264	708.855,8408	708.855,8408	708.855,9689	
N:					7.089.918,0273	7.089.911,5063	7.089.905,3976	7.089.905,0102	7.089.905,0102	7.089.901,5599	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

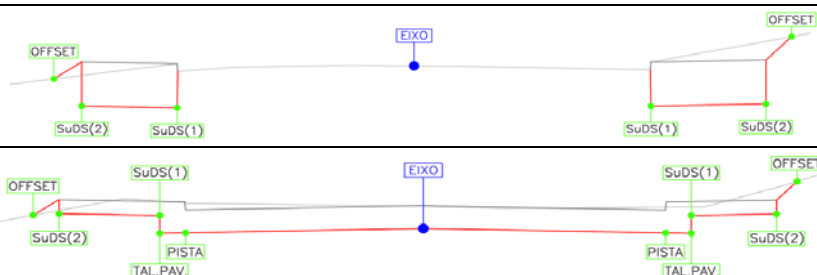
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 25+5</b>											
Dist. Eixo (m):		-5,952	-4,395	-4,395	-4,007	0,000	3,997	4,384	4,384	6,177	
Cota (m):		13,011	12,979	12,894	12,902	12,982	12,902	12,894	12,979	13,015	
E:		708.860,9675	708.861,0252	708.861,0252	708.861,0396	708.861,1883	708.861,3369	708.861,3513	708.861,3513	708.861,4180	
N:		7.089.917,6614	7.089.916,1057	7.089.916,1057	7.089.915,7180	7.089.911,7138	7.089.907,7095	7.089.907,3220	7.089.907,3220	7.089.905,5255	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-6,018	-4,437	-4,437	-4,049	0,000	3,951	4,339	4,339	6,060	
Cota (m):		12,941	12,910	12,832	12,832	12,913	12,834	12,826	12,912	12,946	
E:		708.865,7934	708.865,7409	708.865,7409	708.865,7280	708.865,5934	708.865,4621	708.865,4492	708.865,4492	708.865,3920	
N:		7.089.917,5824	7.089.916,0022	7.089.916,0022	7.089.915,6144	7.089.911,5673	7.089.907,6184	7.089.907,2308	7.089.907,2308	7.089.905,5109	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-6,069	-4,549	-4,549	-4,161	0,000	3,840	4,227	4,227	5,764	
Cota (m):		12,778	12,748	12,662	12,670	12,753	12,676	12,669	12,754	12,785	
E:		708.875,7896	708.875,7391	708.875,7391	708.875,7262	708.875,5879	708.875,4602	708.875,4474	708.875,4474	708.875,3963	
N:		7.089.917,3009	7.089.915,7812	7.089.915,7812	7.089.915,3935	7.089.911,2349	7.089.907,3974	7.089.907,0099	7.089.907,0099	7.089.905,4741	
<b>Station: 26+10</b>											
Dist. Eixo (m):		-6,039	-4,660	-4,660	-4,272	0,000	3,728	4,116	4,116	5,661	
Cota (m):		12,868	12,840	12,854	12,862	12,848	12,873	12,866	12,851	12,882	
E:		708.885,7831	708.885,7372	708.885,7372	708.885,7244	708.885,5823	708.885,4584	708.885,4455	708.885,4455	708.885,3942	
N:		7.089.916,9377	7.089.915,5603	7.089.915,5603	7.089.915,1726	7.089.910,9025	7.089.907,1765	7.089.906,7890	7.089.906,7890	7.089.905,2451	
<b>Station: 27+0</b>											
Dist. Eixo (m):		-6,008	-4,772	-4,772	-4,384	0,000	3,617	4,004	4,004	5,579	
Cota (m):		12,848	12,823	12,838	12,846	12,833	12,851	12,853	12,839	12,870	
E:		708.895,7765	708.895,7354	708.895,7354	708.895,7225	708.895,5768	708.895,4566	708.895,4437	708.895,4437	708.895,3914	
N:		7.089.916,5745	7.089.915,3394	7.089.915,3394	7.089.914,9516	7.089.910,5701	7.089.906,9556	7.089.906,5680	7.089.906,5680	7.089.904,9938	
<b>Station: 27+10</b>											
Dist. Eixo (m):		-5,977	-4,883	-4,883	-4,495	0,000	3,505	3,893	3,893	5,498	
Cota (m):		12,865	12,844	12,858	12,866	12,856	12,871	12,878	12,863	12,895	
E:		708.905,7700	708.905,7336	708.905,7336	708.905,7207	708.905,5713	708.905,4548	708.905,4419	708.905,4419	708.905,3885	
N:		7.089.916,2112	7.089.915,1184	7.089.915,1184	7.089.914,7307	7.089.910,2377	7.089.906,7346	7.089.906,3471	7.089.906,3471	7.089.904,7426	
<b>Station: 28+0</b>											
Dist. Eixo (m):					-6,200	0,000	6,710	6,726	6,726	10,922	
Cota (m):					12,439	12,678	12,619	12,546	12,615	12,699	
E:					708.915,7718	708.915,5658	708.915,3427	708.915,3422	708.915,3422	708.915,2027	
N:					7.089.916,1016	7.089.909,9054	7.089.903,1987	7.089.903,1831	7.089.903,1831	7.089.898,9895	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-9,373	-6,532	-6,532	-6,144	0,000	6,935	7,323	7,323	9,327	
Cota (m):		12,712	12,655	12,570	12,578	12,701	12,582	12,554	12,640	12,680	
E:		708.925,8718	708.925,7774	708.925,7774	708.925,7645	708.925,5602	708.925,3297	708.925,3168	708.925,3168	708.925,2502	
N:		7.089.918,9410	7.089.916,1014	7.089.916,1014	7.089.915,7136	7.089.909,5730	7.089.902,6415	7.089.902,2539	7.089.902,2539	7.089.900,2511	
<b>Station: 28+13</b>											
Dist. Eixo (m):		-6,260	-4,564	-4,564	-4,176	0,000	4,052	4,440	4,440	6,002	
Cota (m):		12,737	12,703	12,618	12,626	12,709	12,628	12,620	12,706	12,737	
E:		708.929,5939	708.929,5375	708.929,5375	708.929,5246	708.929,3858	708.929,2511	708.929,2382	708.929,2382	708.929,1863	
N:		7.089.915,7024	7.089.914,0075	7.089.914,0075	7.089.913,6197	7.089.909,4457	7.089.905,3961	7.089.905,0085	7.089.905,0085	7.089.903,4472	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-6,004	-4,413	-4,413	-4,025	0,000	3,975	4,363	4,363	5,978	
Cota (m):		12,752	12,720	12,635	12,643	12,723	12,644	12,636	12,721	12,753	
E:		708.935,7556	708.935,7024	708.935,7024	708.935,6894	708.935,5474	708.935,4216	708.935,4086	708.935,4086	708.935,3546	
N:		7.089.915,2396	7.089.913,6499	7.089.913,6499	7.089.913,2622	7.089.909,2391	7.089.905,2666	7.089.904,8791	7.089.904,8791	7.089.903,2648	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-6,000	-4,457	-4,457	-4,069	0,000	3,931	4,319	4,319	5,938	
Cota (m):		12,772	12,742	12,656	12,664	12,745	12,667	12,659	12,745	12,777	
E:		708.945,7499	708.945,6983	708.945,6983	708.945,6853	708.945,5491	708.945,4175	708.945,4045	708.945,4045	708.945,3503	
N:		7.089.914,9009	7.089.913,3590	7.089.913,3590	7.089.912,9713	7.089.908,9044	7.089.904,9757	7.089.904,5881	7.089.904,5881	7.089.902,9693	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-5,996	-4,501	-4,501	-4,113	0,000	3,887	4,275	4,275	5,899	
Cota (m):		12,793	12,763	12,678	12,686	12,768	12,690	12,682	12,768	12,800	
E:		708.955,7442	708.955,6941	708.955,6941	708.955,6811	708.955,5435	708.955,4133	708.955,4004	708.955,4004	708.955,3460	
N:		7.089.914,5621	7.089.913,0681	7.089.913,0681	7.089.912,6803	7.089.908,5697	7.089.904,6847	7.089.904,2972	7.089.904,2970	7.089.902,6737	
<b>Station: 30+10</b>											
Dist. Eixo (m):		-5,992	-4,545	-4,545	-4,157	0,000	3,843	4,231	4,231	5,860	
Cota (m):		12,814	12,785	12,699	12,707	12,790	12,713	12,706	12,790	12,823	
E:		708.965,7384	708.965,6900	708.965,6900	708.965,6770	708.965,5379	708.965,4092	708.965,3962	708.965,3962	708.965,3417	
N:		7.089.914,2234	7.089.912,7771	7.089.912,7771	7.089.912,3894	7.089.908,2350	7.089.904,3938	7.089.904,0063	7.089.904,0063	7.089.902,3782	
<b>Station: 31+0</b>											
Dist. Eixo (m):		-5,988	-4,589	-4,589	-4,201	0,000	3,800	4,187	4,187	5,821	
Cota (m):		12,834	12,806	12,721	12,729	12,813	12,737	12,729	12,814	12,847	
E:		708.975,7327	708.975,6858	708.975,6858	708.975,6729	708.975,5323	708.975,4051	708.975,3921	708.975,3921	708.975,3374	
N:		7.089.913,8847	7.089.912,4862	7.089.912,4862	7.089.912,0985	7.089.907,9003	7.089.904,1029	7.089.903,7153	7.089.903,7153	7.089.902,0827	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-5,984	-4,590	-4,590	-4,202	0,000	4,990	5,378	5,378	7,515	
Cota (m):		12,856	12,828	12,743	12,751	12,835	12,735	12,727	12,812	12,855	
E:		708.985,7289	708.985,6803	708.985,6803	708.985,6673	708.985,5266	708.985,3596	708.985,3466	708.985,3466	708.985,2751	
N:		7.089.913,5460	7.089.912,1531	7.089.912,1531	7.089.911,7654	7.089.907,5655	7.089.902,5782	7.089.902,1906	7.089.902,1906	7.089.900,0547	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

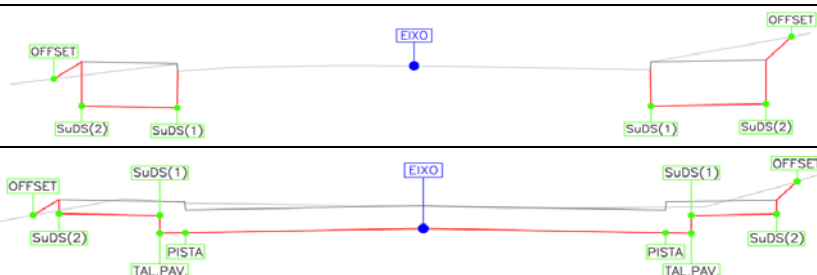
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 32+0</b>											
Dist. Eixo (m):		-5,980	-4,499	-4,499	-4,111	0,000		7,015			
Cota (m):		12,883	12,853	12,768	12,776	12,858		12,717			
E:		708.995,7212	708.995,6716	708.995,6716	708.995,6586	708.995,5210		708.995,2863			
N:		7.089.913,2073	7.089.911,7272	7.089.911,7272	7.089.911,3394	7.089.907,2308		7.089.900,2202			
<b>Station: 32+10</b>											
Dist. Eixo (m):		-5,976	-4,408	-4,408	-4,020	0,000		3,998		4,386	6,029
Cota (m):		12,922	12,890	12,805	12,813	12,893		12,813		12,805	12,923
E:		709.005,7155	709.005,6630	709.005,6630	709.005,6500	709.005,5154		709.005,3816		709.005,3686	709.005,3136
N:		7.089.912,8685	7.089.911,3012	7.089.911,3012	7.089.910,9135	7.089.906,8961		7.089.902,9002		7.089.902,5126	7.089.900,8701
<b>Station: 32+12</b>											
Dist. Eixo (m):		-5,975	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,030
Cota (m):		12,932	12,900	12,815	12,823	12,903		12,823		12,815	12,933
E:		709.007,8617	709.007,8086	709.007,8086	709.007,7956	709.007,6617		709.007,5278		709.007,5149	709.007,4599
N:		7.089.912,7958	7.089.911,2097	7.089.911,2097	7.089.910,8220	7.089.906,8242		7.089.902,8265		7.089.902,4389	7.089.900,7973
<b>Station: 33+0</b>											
Dist. Eixo (m):		-5,978	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,026
Cota (m):		12,975	12,943	12,858	12,866	12,946		12,866		12,858	12,943
E:		709.015,7148	709.015,6602	709.015,6602	709.015,6469	709.015,5096		709.015,3723		709.015,3590	709.015,3028
N:		7.089.912,5297	7.089.910,9401	7.089.910,9401	7.089.910,5523	7.089.906,5547		7.089.902,5571		7.089.902,1695	7.089.900,5321
<b>Station: 33+10</b>											
Dist. Eixo (m):		-5,983	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,021
Cota (m):		13,031	12,999	12,913	12,921	13,001		12,921		12,914	13,032
E:		709.025,7091	709.025,6543	709.025,6543	709.025,6410	709.025,5037		709.025,3664		709.025,3531	709.025,2971
N:		7.089.912,1909	7.089.910,5968	7.089.910,5968	7.089.910,2091	7.089.906,2115		7.089.902,2138		7.089.901,8263	7.089.900,1941
<b>Station: 34+0</b>											
Dist. Eixo (m):		-5,987	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,016
Cota (m):		13,048	13,016	12,931	12,939	13,019		12,939		12,931	13,049
E:		709.035,7033	709.035,6484	709.035,6484	709.035,6351	709.035,4978		709.035,3605		709.035,3472	709.035,2914
N:		7.089.911,8522	7.089.910,2536	7.089.910,2536	7.089.909,8659	7.089.905,6683		7.089.901,8706		7.089.901,4831	7.089.899,8562
<b>Station: 34+10</b>											
Dist. Eixo (m):		-5,992	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,010
Cota (m):		13,020	12,988	12,902	12,910	12,990		12,910		12,902	13,020
E:		709.045,6976	709.045,6425	709.045,6425	709.045,6292	709.045,4919		709.045,3546		709.045,3413	709.045,2856
N:		7.089.911,5135	7.089.909,9104	7.089.909,9104	7.089.909,5227	7.089.905,5250		7.089.901,5274		7.089.901,1399	7.089.899,5182
<b>Station: 35+0</b>											
Dist. Eixo (m):		-5,996	-4,388	-4,388	-4,000	0,000		4,000		4,388	6,005
Cota (m):		12,981	12,949	12,864	12,872	12,952		12,872		12,864	12,981
E:		709.055,6919	709.055,6366	709.055,6366	709.055,6233	709.055,4860		709.055,3488		709.055,3354	709.055,2799
N:		7.089.911,1748	7.089.909,5672	7.089.909,5672	7.089.909,1795	7.089.905,1818		7.089.901,1842		7.089.900,7966	7.089.899,1803
<b>Station: 35+7</b>											
Dist. Eixo (m):		-5,992	-4,382	-4,382	-3,995	0,000		4,000		4,388	6,001
Cota (m):		12,953	12,921	12,835	12,843	12,923		12,843		12,835	12,953
E:		709.063,0671	709.063,0118	709.063,0118	709.062,9984	709.062,8612		709.062,7239		709.062,7106	709.062,6552
N:		7.089.910,9248	7.089.909,3139	7.089.909,3139	7.089.908,9262	7.089.904,9285		7.089.900,9309		7.089.900,5434	7.089.898,9309
<b>Station: 35+10</b>											
Dist. Eixo (m):		-6,174	-4,515	-4,515	-4,127	0,000		4,160		4,548	6,181
Cota (m):		12,941	12,908	12,822	12,830	12,913		12,830		12,822	12,940
E:		709.065,3792	709.065,4067	709.065,4067	709.065,4131	709.065,4813		709.065,5501		709.065,5566	709.065,5836
N:		7.089.911,1452	7.089.909,4865	7.089.909,4865	7.089.909,0986	7.089.904,9719		7.089.900,8125		7.089.900,4248	7.089.898,7921
<b>Station: 36+0</b>											
Dist. Eixo (m):					-7,853	0,000		8,145			
Cota (m):					12,717	12,874		12,711			
E:					709.075,3501	709.075,4800		709.075,6147			
N:					7.089.912,9889	7.089.905,1373		7.089.896,9932			
<b>Station: 36+10</b>											
Dist. Eixo (m):		-6,503	-4,759	-4,759	-4,371	0,000		4,589		4,977	7,014
Cota (m):		12,961	12,926	12,740	12,748	12,836		12,744		12,736	12,962
E:		709.085,3711	709.085,3999	709.085,3999	709.085,4063	709.085,4786		709.085,5545		709.085,5609	709.085,5946
N:		7.089.911,8045	7.089.910,0609	7.089.910,0609	7.089.909,6730	7.089.905,3027		7.089.900,7139		7.089.900,3262	7.089.898,2900
<b>Station: 36+12</b>											
Dist. Eixo (m):		-6,006	-4,391	-4,391	-4,003	0,000		4,012		4,400	6,257
Cota (m):		12,955	12,923	12,738	12,746	12,826		12,745		12,738	12,960
E:		709.087,9564	709.087,9832	709.087,9832	709.087,9896	709.088,0558		709.088,1221		709.088,1285	709.088,1593
N:		7.089.911,3508	7.089.909,7354	7.089.909,7354	7.089.909,3475	7.089.905,3453		7.089.901,3338		7.089.900,9461	7.089.899,0891
<b>Station: 37+0</b>											
Dist. Eixo (m):		-6,066	-4,329	-4,329	-3,941	0,000		4,059		4,447	6,211
Cota (m):		12,930	12,896	12,710	12,718	12,797		12,716		12,708	12,929
E:		709.095,3622	709.095,3950	709.095,3950	709.095,4024	709.095,4769		709.095,5537		709.095,5610	709.095,5944
N:		7.089.911,5510	7.089.909,8140	7.089.909,8140	7.089.909,4261	7.089.905,4857		7.089.901,4273		7.089.901,0396	7.089.899,2762
<b>Station: 37+10</b>											
Dist. Eixo (m):		-6,148	-4,246	-4,246	-3,858	0,000		4,142		4,530	6,155
Cota (m):		12,897	12,859	12,673	12,681	12,758		12,675		12,668	12,885
E:		709.105,3589	709.105,3948	709.105,3948	709.105,4022	709.105,4751		709.105,5535		709.105,5608	709.105,5915
N:		7.089.911,8212	7.089.909,9201	7.089.909,9201	7.089.909,5322	7.089.905,6748		7.089.901,5334		7.089.901,1457	7.089.899,5212

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HENZI ZIETZ**

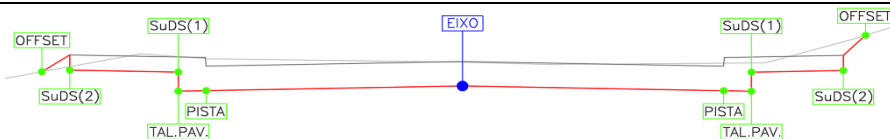
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 38+0</b>											
Dist. Eixo (m):		-6,229	-4,163	-4,163	-3,775	<b>0,000</b>	4,225	4,613	4,613	6,163	
Cota (m):		12,863	12,822	12,636	12,644	12,720	12,635	12,627	12,813	12,844	
E:		709.115,3555	709.115,3946	709.115,3946	709.115,4019	709.115,4733	709.115,5533	709.115,5606	709.115,5606	709.115,5899	
N:		7.089.912,0914	7.089.910,0262	7.089.910,0262	7.089.909,6383	7.089.906,8639	7.089.901,6395	7.089.901,2518	7.089.901,2518	7.089.899,7023	
<b>Station: 38+10</b>											
Dist. Eixo (m):		-6,310	-4,080	-4,080	-3,692	<b>0,000</b>	4,308	4,696	4,696	6,274	
Cota (m):		12,829	12,785	12,599	12,607	12,681	12,595	12,587	12,772	12,804	
E:		709.125,3522	709.125,3944	709.125,3944	709.125,4017	709.125,4716	709.125,5530	709.125,5604	709.125,5604	709.125,5902	
N:		7.089.912,3616	7.089.910,1323	7.089.910,1323	7.089.909,7444	7.089.906,0530	7.089.901,7456	7.089.901,3579	7.089.901,3579	7.089.899,7800	
<b>Station: 39+0</b>											
Dist. Eixo (m):		-6,391	-3,997	-3,997	-3,609	<b>0,000</b>	4,391	4,779	4,779	6,386	
Cota (m):		12,795	12,748	12,562	12,570	12,642	12,554	12,547	12,732	12,764	
E:		709.135,3489	709.135,3942	709.135,3942	709.135,4015	709.135,4698	709.135,5528	709.135,5602	709.135,5602	709.135,5905	
N:		7.089.912,6318	7.089.910,2384	7.089.910,2384	7.089.909,8505	7.089.906,2422	7.089.901,8517	7.089.901,4640	7.089.901,4640	7.089.899,8576	
<b>Station: 39+9</b>											
Dist. Eixo (m):				-11,847	-11,501	<b>0,000</b>	10,182	10,528	10,528	11,000	
Cota (m):				12,407	12,414	12,606	12,439	12,432	12,598	12,607	
E:				709.144,6552	709.144,6617	709.144,8793	709.145,0718	709.145,0784	709.145,0784	709.145,0873	
N:				7.089.918,2654	7.089.917,9195	7.089.906,4202	7.089.896,2401	7.089.895,8944	7.089.895,8944	7.089.895,4221	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HERCÍLIO J. DA SILVA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist.eixo (m)					-8,000	<b>0,000</b>	8,000				
Cota (m)					10,298	10,458	10,298				
E					710,031.5206	710,023.5263	710,015.5320				
N					7,089,224.9948	7,089,224.6936	7,089,224.3925				
<b>Station: 0+10</b>											
Dist.eixo (m)	-6,095	-5,905	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,902	6,114
Cota (m)	10,851	10,978	10,688	10,393	10,401	10,481	10,401	10,393	10,689	10,719	10,837
E	710,029.9938	710,029.8033	710,028.2978	710,028.2978	710,027.8999	710,023.9028	710,019.9056	710,019.5079	710,019.5079	710,018.0049	710,017.7933
N	7,089,214.9302	7,089,214.9230	7,089,214.8663	7,089,214.8663	7,089,214.8513	7,089,214.7007	7,089,214.5501	7,089,214.5352	7,089,214.5352	7,089,214.4785	7,089,214.4706
<b>Station: 1+0</b>											
Dist.eixo (m)	-6,096	-5,928	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,912	6,154
Cota (m)	10,890	11,002	10,711	10,415	10,423	10,503	10,423	10,415	10,711	10,741	10,840
E	710,030.3706	710,030.2034	710,028.6743	710,028.6743	710,028.2764	710,024.2792	710,020.2821	710,019.8844	710,019.8844	710,018.3714	710,018.1299
N	7,089,204.9373	7,089,204.9310	7,089,204.8734	7,089,204.8734	7,089,204.8584	7,089,204.7078	7,089,204.5572	7,089,204.5422	7,089,204.5422	7,089,204.4852	7,089,204.4762
<b>Station: 1+10</b>											
Dist.eixo (m)	-6,055	-5,952	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,922	6,150
Cota (m)	10,956	11,025	10,734	10,438	10,446	10,526	10,446	10,438	10,734	10,764	10,872
E	710,030.7068	710,030.6035	710,029.0507	710,029.0507	710,028.6528	710,024.6557	710,020.6585	710,020.2608	710,020.2608	710,018.7378	710,018.5096
N	7,089,194.9429	7,089,194.9390	7,089,194.8805	7,089,194.8805	7,089,194.8655	7,089,194.7149	7,089,194.5643	7,089,194.5493	7,089,194.5493	7,089,194.4920	7,089,194.4834
<b>Station: 2+0</b>											
Dist.eixo (m)	-5,997	-5,976	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,932	6,120
Cota (m)	11,034	11,048	10,756	10,461	10,469	10,549	10,469	10,461	10,756	10,787	10,922
E	710,031.0248	710,031.0037	710,029.4272	710,029.4272	710,029.0293	710,025.0321	710,021.0350	710,020.6373	710,020.6373	710,019.1043	710,018.9170
N	7,089,184.9477	7,089,184.9470	7,089,184.8876	7,089,184.8876	7,089,184.8726	7,089,184.7220	7,089,184.5714	7,089,184.5564	7,089,184.5564	7,089,184.4987	7,089,184.4916
<b>Station: 2+10</b>											
Dist.eixo (m)	-6,001	-5,935	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,895	6,137
Cota (m)	11,025	11,069	10,779	10,483	10,491	10,571	10,491	10,483	10,779	10,809	10,907
E	710,031.4056	710,031.3393	710,029.8036	710,029.8036	710,029.4058	710,025.0886	710,021.4114	710,021.0138	710,021.0138	710,019.5181	710,019.2759
N	7,089,174.9550	7,089,174.9525	7,089,174.8947	7,089,174.8947	7,089,174.8797	7,089,174.7291	7,089,174.5785	7,089,174.5635	7,089,174.5635	7,089,174.5072	7,089,174.4980
<b>Station: 3+0</b>											
Dist.eixo (m)	-5,978	-5,919	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,867	6,140
Cota (m)	11,027	11,067	10,776	10,481	10,489	10,569	10,489	10,481	10,777	10,806	10,883
E	710,031.7593	710,031.7001	710,030.1801	710,030.1801	710,029.7822	710,025.7851	710,021.7879	710,021.3902	710,021.3902	710,019.9226	710,019.6492
N	7,089,164.9612	7,089,164.9590	7,089,164.9017	7,089,164.9017	7,089,164.8868	7,089,164.7362	7,089,164.5856	7,089,164.5706	7,089,164.5706	7,089,164.5153	7,089,164.5050
<b>Station: 3+10</b>											
Dist.eixo (m)	-5,977	-5,932	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,870	6,063
Cota (m)	11,071	11,026	10,735	10,439	10,447	10,527	10,447	10,439	10,736	10,765	10,896
E	710,032.1345	710,032.0891	710,030.5566	710,030.5566	710,030.1587	710,026.1615	710,022.1643	710,021.7667	710,021.7667	710,020.2952	710,020.1028
N	7,089,154.9683	7,089,154.9666	7,089,154.9088	7,089,154.9088	7,089,154.8938	7,089,154.7433	7,089,154.5927	7,089,154.5777	7,089,154.5777	7,089,154.5223	7,089,154.5150
<b>Station: 4+0</b>											
Dist.eixo (m)	-6,019	-5,900	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,900	5,995
Cota (m)	11,064	10,945	10,655	10,359	10,367	10,447	10,367	10,359	10,655	10,685	10,882
E	710,032.5522	710,032.4340	710,030.9330	710,030.9330	710,030.5351	710,026.5380	710,022.5408	710,022.1431	710,022.1431	710,020.6422	710,020.5473
N	7,089,144.9769	7,089,144.9725	7,089,144.9159	7,089,144.9159	7,089,144.9009	7,089,144.7503	7,089,144.5998	7,089,144.5848	7,089,144.5848	7,089,144.5282	7,089,144.5247
<b>Station: 4+10</b>											
Dist.eixo (m)	-5,910	-5,900	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,900	6,028
Cota (m)	10,844	10,851	10,561	10,265	10,273	10,353	10,273	10,265	10,561	10,591	10,765
E	710,032.8207	710,032.8104	710,031.3095	710,031.3095	710,030.9116	710,026.9144	710,022.9173	710,022.5196	710,022.5196	710,021.0186	710,020.8903
N	7,089,134.9799	7,089,134.9796	7,089,134.9230	7,089,134.9230	7,089,134.9080	7,089,134.7574	7,089,134.6068	7,089,134.5919	7,089,134.5919	7,089,134.5353	7,089,134.5305
<b>Station: 4+11</b>											
Dist.eixo (m)		-5,900	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,900	
Cota (m)		10,579	10,549	10,253	10,261	10,341	10,261	10,253	10,549	10,579	
E		710,032.8576	710,031.3569	710,031.3569	710,030.9590	710,026.9618	710,022.9647	710,022.5670	710,022.5670	710,021.0660	
N		7,089,133.7217	7,089,133.6652	7,089,133.6652	7,089,133.6502	7,089,133.4996	7,089,133.3490	7,089,133.3340	7,089,133.3340	7,089,133.2775	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HERMÍNIO DAGNONI**

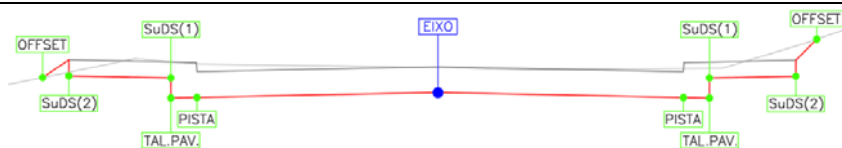
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-10,095	-8,005	-8,005	-7,607	<b>0,000</b>	10,452	10,850	10,850	11,077	
Cota (m):		12,058	12,016	11,721	11,729	<b>11,694</b>	11,766	11,758	12,053	12,058	
E:		709.162,9026	709.162,9597	709.162,9597	709.162,9706	<b>709.163,1789</b>	709.163,4649	709.163,4758	709.163,4758	709.163,4820	
N:		7.089.637,3907	7.089.635,3018	7.089.635,3018	7.089.634,9038	<b>7.089.627,2994</b>	7.089.616,8509	7.089.616,4531	7.089.616,4531	7.089.616,2265	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-6,054	-5,979	-4,425	-4,027	<b>0,000</b>	3,973	4,371	4,371	5,846	
Cota (m):		12,112	11,902	11,871	11,575	<b>11,664</b>	11,584	11,576	11,873	11,902	
E:		709.173,0094	709.173,0115	709.173,0540	709.173,0540	<b>709.173,1751</b>	709.173,2839	709.173,2948	709.173,2948	709.173,3351	
N:		7.089.633,6253	7.089.633,5502	7.089.631,9963	7.089.631,9963	<b>7.089.627,5731</b>	7.089.623,6012	7.089.623,2034	7.089.623,2034	7.089.621,7298	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-5,873	-4,423	-4,423	-4,025	<b>0,000</b>	3,975	4,373	4,373	5,956	6,392
Cota (m):		11,870	11,841	11,545	11,553	<b>11,634</b>	11,554	11,546	11,842	11,874	11,844
E:		709.183,0106	709.183,0503	709.183,0503	709.183,0612	<b>709.183,1714</b>	709.183,2802	709.183,2910	709.183,2910	709.183,3344	709.183,3463
N:		7.089.633,7178	7.089.632,2685	7.089.632,2685	7.089.631,8705	<b>7.089.627,8468</b>	7.089.623,8735	7.089.623,4757	7.089.623,4757	7.089.621,8927	7.089.621,4575
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,855	-4,422	-4,422	-4,024	<b>0,000</b>	3,976	4,374	4,374	6,067	6,470
Cota (m):		11,843	11,811	11,515	11,523	<b>11,604</b>	11,524	11,516	11,812	11,846	11,838
E:		709.193,0074	709.193,0466	709.193,0466	709.193,0575	<b>709.193,1676</b>	709.193,2764	709.193,2873	709.193,2873	709.193,3337	709.193,3447
N:		7.089.633,9730	7.089.632,5407	7.089.632,5407	7.089.632,1427	<b>7.089.628,1205</b>	7.089.624,1457	7.089.623,7479	7.089.623,7479	7.089.622,0556	7.089.621,6533
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,785	-4,420	-4,420	-4,022	<b>0,000</b>	3,978	4,376	4,376	6,123	6,527
Cota (m):		11,809	11,781	11,486	11,494	<b>11,574</b>	11,494	11,486	11,782	11,817	11,817
E:		709.203,0055	709.203,0429	709.203,0429	709.203,0538	<b>709.203,1639</b>	709.203,2727	709.203,2836	709.203,2836	709.203,3315	709.203,3415
N:		7.089.634,1772	7.089.632,8130	7.089.632,8130	7.089.632,4150	<b>7.089.628,3942</b>	7.089.624,4180	7.089.624,0202	7.089.624,0202	7.089.622,2732	7.089.621,8710
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,785	-4,419	-4,419	-4,021	<b>0,000</b>	3,979	4,377	4,377	6,011	6,234
Cota (m):		11,779	11,751	11,456	11,464	<b>11,544</b>	11,464	11,457	11,752	11,785	11,897
E:		709.213,0018	709.213,0392	709.213,0392	709.213,0501	<b>709.213,1601</b>	709.213,2690	709.213,2799	709.213,2799	709.213,3247	709.213,3307
N:		7.089.634,4504	7.089.633,0852	7.089.633,0852	7.089.632,6872	<b>7.089.628,6679</b>	7.089.624,6902	7.089.624,2924	7.089.624,2924	7.089.622,6589	7.089.622,4364
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,851	-4,418	-4,418	-4,019	<b>0,000</b>	3,981	4,379	4,379	5,899	6,031
Cota (m):		11,750	11,721	11,426	11,434	<b>11,514</b>	11,435	11,427	11,723	11,753	11,925
E:		709.222,9662	709.223,0355	709.223,0355	709.223,0464	<b>709.223,1654</b>	709.223,2653	709.223,2762	709.223,2762	709.223,3178	709.223,3214
N:		7.089.634,7902	7.089.633,3575	7.089.633,3575	7.089.632,9595	<b>7.089.628,9416</b>	7.089.624,9625	7.089.624,5647	7.089.624,5647	7.089.623,0447	7.089.622,9132
<b>Station: 3+10</b>											
Dist. Eixo (m):		-5,909	-4,416	-4,416	-4,018	<b>0,000</b>	3,982	4,380	4,380	5,854	6,031
Cota (m):		11,733	11,703	11,407	11,415	<b>11,495</b>	11,416	11,408	11,704	11,733	11,733
E:		709.232,9909	709.233,0318	709.233,0318	709.233,0427	<b>709.233,1526</b>	709.233,2616	709.233,2725	709.233,2725	709.233,3129	709.233,3129
N:		7.089.635,1216	7.089.633,6297	7.089.633,6297	7.089.633,2317	<b>7.089.629,2153</b>	7.089.625,2347	7.089.624,8369	7.089.624,8369	7.089.623,3636	7.089.623,3636
<b>Station: 4+0</b>											
Dist. Eixo (m):		-5,917	-4,415	-4,415	-4,016	<b>0,000</b>	3,984	4,382	4,382	5,910	5,949
Cota (m):		11,717	11,707	11,411	11,419	<b>11,499</b>	11,420	11,412	11,707	11,738	11,972
E:		709.242,9869	709.243,0281	709.243,0281	709.243,0390	<b>709.243,1489</b>	709.243,2579	709.243,2688	709.243,2688	709.243,3107	709.243,3117
N:		7.089.635,4036	7.089.633,9020	7.089.633,9020	7.089.633,5040	<b>7.089.629,4890</b>	7.089.625,5070	7.089.625,1091	7.089.625,1091	7.089.623,5807	7.089.623,5421
<b>Station: 4+10</b>											
Dist. Eixo (m):		-5,925	-4,413	-4,413	-4,015	<b>0,000</b>	3,985	4,383	4,383	5,963	6,031
Cota (m):		11,752	11,722	11,426	11,434	<b>11,514</b>	11,434	11,427	11,722	11,754	11,754
E:		709.252,9830	709.253,0244	709.253,0244	709.253,0352	<b>709.253,1451</b>	709.253,2542	709.253,2651	709.253,2651	709.253,3083	709.253,3083
N:		7.089.635,6854	7.089.634,1742	7.089.634,1742	7.089.633,7762	<b>7.089.629,7627</b>	7.089.625,7792	7.089.625,3814	7.089.625,3814	7.089.623,8023	7.089.623,8023
<b>Station: 5+0</b>											
Dist. Eixo (m):		-5,933	-4,412	-4,412	-4,014	<b>0,000</b>	3,986	4,384	4,384	5,972	6,031
Cota (m):		11,767	11,737	11,441	11,449	<b>11,529</b>	11,449	11,441	11,737	11,769	11,769
E:		709.262,9790	709.263,0206	709.263,0206	709.263,0315	<b>709.263,1414</b>	709.263,2505	709.263,2614	709.263,2614	709.263,3048	709.263,3048
N:		7.089.635,9676	7.089.634,4465	7.089.634,4465	7.089.634,0484	<b>7.089.630,0364</b>	7.089.626,0514	7.089.625,6536	7.089.625,6536	7.089.624,0671	7.089.624,0671
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,942	-4,410	-4,410	-4,012	<b>0,000</b>	3,988	4,386	4,386	5,981	6,031
Cota (m):		11,783	11,752	11,456	11,464	<b>11,544</b>	11,464	11,456	11,752	11,784	11,784
E:		709.272,9750	709.273,0169	709.273,0169	709.273,0278	<b>709.273,1376</b>	709.273,2468	709.273,2577	709.273,2577	709.273,3013	709.273,3013
N:		7.089.636,2496	7.089.634,7187	7.089.634,7187	7.089.634,3207	<b>7.089.630,3101</b>	7.089.626,3237	7.089.625,9259	7.089.625,9259	7.089.624,3318	7.089.624,3318
<b>Station: 6+0</b>											
Dist. Eixo (m):		-5,950	-4,409	-4,409	-4,011	<b>0,000</b>	3,989	4,387	4,387	5,989	6,031
Cota (m):		11,798	11,767	11,471	11,479	<b>11,559</b>	11,479	11,471	11,767	11,799	11,799
E:		709.282,9711	709.283,0132	709.283,0132	709.283,0241	<b>709.283,1339</b>	709.283,2431	709.283,2540	709.283,2540	709.283,2978	709.283,2978
N:		7.089.636,5315	7.089.634,9909	7.089.634,9909	7.089.634,5929	<b>7.089.630,5838</b>	7.089.626,5959	7.089.626,1981	7.089.626,1981	7.089.624,5966	7.089.624,5966
<b>Station: 6+10</b>											
Dist. Eixo (m):		-5,947	-4,407	-4,407	-4,009	<b>0,000</b>	3,991	4,389	4,389	5,938	6,031
Cota (m):		11,813	11,782	11,486	11,494	<b>11,574</b>	11,494	11,486	11,782	11,813	11,813
E:		709.292,9674	709.293,0095	709.293,0095	709.293,0204	<b>709.293,1302</b>	709.293,2394	709.293,2503	709.293,2503	709.293,2927	709.293,2927
N:		7.089.636,8026	7.089.635,2632	7.089.635,2632	7.089.634,8652	<b>7.089.630,8575</b>	7.089.626,8682	7.089.626,4704	7.089.626,4704	7.089.624,9218	7.089.624,9218
<b>Station: 7+0</b>											
Dist. Eixo (m):		-5,942	-4,406	-4,406	-4,008	<b>0,000</b>	3,992	4,390	4,390	5,868	6,031
Cota (m):		11,828	11,797	11,501	11,509	<b>11,589</b>	11,509	11,501	11,797	11,827	11,827
E:		709.302,9637	709.303,0057	709.303,0057	709.303,0166	<b>709.303,1263</b>	709.303,2356	709.303,2465	709.303,2465	709.303,2869	709.303,2869
N:		7.089.637,0709	7.089.635,5354	7.089.635,5354	7.089.635,1374	<b>7.089.631,1312</b>	7.089.627,1404	7.089.626,7426	7.089.626,7426	7.089.625,2652	7.089.625,2652
<b>Station: 7+10</b>											
Dist. Eixo (m):		-5,937	-4,404	-4,404	-4,006	<b>0,000</b>	3,994	4,392	4,392	5,819	6,031
Cota (m):		11,835	11,804	11,509	11,517	<b>11,597</b>	11,517	11,509	11,804	11,833	11,833
E:		709.312,9602	709.313,0021	709.313,0021	709.313,0130	<b>709.313,1227</b>	709.313,2320	709.313,2429	709.313,2429	709.313,2819	709.313,2819
N:		7.089.637,3394	7.089.635,8077	7.089.635,8077	7.089.635,4097	<b>7.089.631,4049</b>	7.089.627,4127	7.089.627,0149	7.089.627,0149	7.089.625,5878	7.089.625,5878

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HERMÍNIO DAGNONI**

Desenho Esquemático:

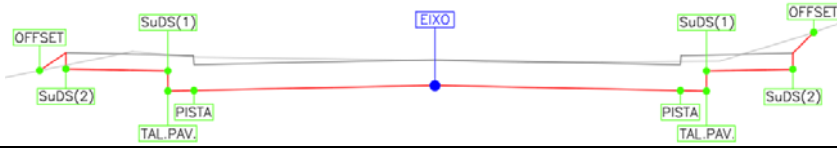


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,924	-4,403	-4,403	-4,005	0,000	3,995	4,393	4,393	5,795	
Cota (m):		11,828	11,797	11,501	11,509	11,590	11,510	11,502	11,797	11,825	
E:		709.322,9567	709.322,9983	709.322,9983	709.323,0092	709.323,1188	709.323,2282	709.323,2391	709.323,2391	709.323,2774	
N:		7.089.637,6001	7.089.636,0799	7.089.636,0799	7.089.635,6819	7.089.631,6786	7.089.627,6849	7.089.627,2871	7.089.627,2871	7.089.625,8854	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-5,864	-4,401	-4,401	-4,003	0,000	3,997	4,395	4,395	5,772	
Cota (m):		11,812	11,783	11,487	11,495	11,575	11,495	11,487	11,782	11,810	
E:		709.332,9547	709.332,9947	709.332,9947	709.333,0056	709.333,1152	709.333,2246	709.333,2354	709.333,2354	709.333,2731	
N:		7.089.637,8146	7.089.636,3522	7.089.636,3522	7.089.635,9542	7.089.631,9523	7.089.627,9572	7.089.627,5593	7.089.627,5593	7.089.626,1829	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-5,805	-4,400	-4,400	-4,002	0,000	3,998	4,396	4,396	5,802	
Cota (m):		11,796	11,768	11,472	11,480	11,560	11,480	11,472	11,768	11,796	
E:		709.342,9525	709.342,9910	709.342,9910	709.343,0019	709.343,1114	709.343,2209	709.343,2317	709.343,2317	709.343,2702	
N:		7.089.638,0292	7.089.636,6244	7.089.636,6244	7.089.636,2264	7.089.632,2260	7.089.628,2294	7.089.627,8316	7.089.627,8316	7.089.626,4263	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-8,004	-5,087	-5,087	-4,689	0,000	4,549	4,947	4,947	7,160	
Cota (m):		11,855	11,797	11,501	11,509	11,548	11,518	11,510	11,806	11,850	
E:		709.352,8886	709.352,9684	709.352,9684	709.352,9793	709.353,1077	709.353,2322	709.353,2431	709.353,2431	709.353,3036	
N:		7.089.640,5012	7.089.637,5853	7.089.637,5853	7.089.637,1872	7.089.632,4997	7.089.627,9521	7.089.627,5543	7.089.627,5543	7.089.625,3425	
<b>Station: 9+12</b>											
Dist. Eixo (m):		-10,000	-8,528	-8,528	-8,130	0,000	7,425	7,823	7,823	10,000	
Cota (m):		11,889	11,860	11,564	11,572	11,541	11,598	11,590	11,885	11,929	
E:		709.355,7432	709.355,7834	709.355,7834	709.355,7943	709.356,0169	709.356,2201	709.356,2310	709.356,2310	709.356,2906	
N:		7.089.642,5756	7.089.641,1044	7.089.641,1044	7.089.640,7063	7.089.632,5794	7.089.625,1567	7.089.624,7589	7.089.624,7589	7.089.622,5831	
<b>Station: 9+13</b>											
Dist. Eixo (m):		-12,519	-10,211	-10,211	-9,813	0,000	8,284	8,682	8,682	10,997	
Cota (m):		11,929	11,883	11,587	11,595	11,541	11,615	11,607	11,903	11,949	
E:		709.355,9653	709.356,0327	709.356,0327	709.356,0443	709.356,3310	709.356,5730	709.356,5846	709.356,5846	709.356,6523	
N:		7.089.645,1018	7.089.642,7952	7.089.642,7952	7.089.642,3972	7.089.632,5886	7.089.624,3080	7.089.623,9102	7.089.623,9102	7.089.621,5960	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-5,988	-4,050			0,000			3,785	5,777	
Cota (m):		11,860	11,821						11,827	11,866	
E:		709.372,9244	709.372,9810			709.373,0993			709.373,2099	709.373,2681	
N:		7.089.639,0641	7.089.637,1268			7.089.633,0786			7.089.629,2956	7.089.627,3041	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-5,980	-4,055			0,000			3,814	5,688	
Cota (m):		11,826	11,788						11,792	11,830	
E:		709.382,9203	709.382,9766			709.383,0950			709.383,2064	709.383,2612	
N:		7.089.639,3480	7.089.637,4243			7.089.633,3707			7.089.629,5586	7.089.627,8852	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-5,904	-4,061			0,000			3,843	5,685	
Cota (m):		11,784	11,747						11,751	11,788	
E:		709.392,9183	709.392,9721			709.393,0908			709.393,2030	709.393,2568	
N:		7.089.639,5648	7.089.637,7218			7.089.633,6628			7.089.629,8217	7.089.627,9800	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-5,910	-4,066			0,000			3,872	5,681	
Cota (m):		11,795	11,758						11,762	11,798	
E:		709.402,9139	709.402,9677			709.403,0865			709.403,1996	709.403,2525	
N:		7.089.639,8622	7.089.638,0193			7.089.633,9550			7.089.630,0848	7.089.628,2761	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-5,858	-4,072			0,000			3,901	5,689	
Cota (m):		11,777	11,741						11,744	11,780	
E:		709.412,9111	709.412,9633			709.413,0822			709.413,1962	709.413,2484	
N:		7.089.640,1029	7.089.638,3169			7.089.634,2471			7.089.630,3479	7.089.628,5607	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-5,817	-4,077			0,000			3,930	5,716	
Cota (m):		11,688	11,653						11,656	11,692	
E:		709.422,9080	709.422,9589			709.423,0780			709.423,1928	709.423,2449	
N:		7.089.640,3534	7.089.638,6144			7.089.634,5392			7.089.630,6110	7.089.628,8252	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-5,832	-4,082			0,000			3,957	5,768	
Cota (m):		11,605	11,570						11,572	11,609	
E:		709.432,9033	709.432,9544			709.433,0737			709.433,1893	709.433,2422	
N:		7.089.640,6605	7.089.638,9119			7.089.634,8313			7.089.630,8762	7.089.629,0659	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-5,868	-4,088			0,000			3,983	5,846	
Cota (m):		11,580	11,544						11,547	11,584	
E:		709.442,8980	709.442,9500			709.443,0694			709.443,1858	709.443,2402	
N:		7.089.640,9888	7.089.639,2094			7.089.635,1235			7.089.631,1419	7.089.629,2804	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-5,924	-4,079			0,000			4,010	5,917	
Cota (m):		11,548	11,511						11,513	11,551	
E:		709.452,8921	709.452,9460			709.453,0652			709.453,1823	709.453,2380	
N:		7.089.641,3372	7.089.639,4924			7.089.635,4156			7.089.631,4075	7.089.629,5011	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-5,996	-4,053			0,000			4,036	5,960	
Cota (m):		11,508	11,469						11,470	11,508	
E:		709.462,8857	709.462,9425			709.463,0609			709.463,1788	709.463,2350	
N:		7.089.641,7011	7.089.639,7588			7.089.635,7077			7.089.631,6732	7.089.629,7507	



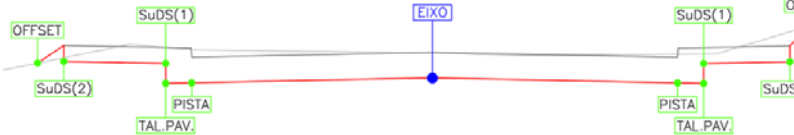
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HERMÍNIO DAGNONI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
Station: 15+10											
Dist. Eixo (m):		-6,088	-4,055			0,000			4,035	6,098	
Cota (m):		11,465	11,425						11,425	11,466	
E:		709.472,8788	709.472,9382			709.473,0566			709.473,1745	709.473,2347	
N:		7.089.642,0849	7.089.640,0530			7.089.635,9998			7.089.631,9664	7.089.629,9046	

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
Station: 16+8									
Dist. Eixo (m):		-7,412	-4,189	-4,179	0,000	4,198	4,208	7,249	
Cota (m):		10,816	10,752	11,072	11,160	11,158	10,838	10,899	
E:		709.491,0399	709.491,1312	709.491,1315	709.491,2499	709.491,3688	709.491,3690	709.491,4552	
N:		7.089.643,9399	7.089.640,7185	7.089.640,7085	7.089.636,5312	7.089.632,3351	7.089.632,3251	7.089.629,2849	

Station: 16+10											
Dist. Eixo (m):		-6,496	-4,155	-4,145	0,000	4,014	4,024	6,233			
Cota (m):		10,789	10,742	11,062	11,147	11,109	10,789	10,834			
E:		709.492,8642	709.492,9304	709.492,9307	709.493,0481	709.493,1618	709.493,1621	709.493,2247			
N:		7.089.643,0752	7.089.640,7356	7.089.640,7256	7.089.636,5821	7.089.632,5695	7.089.632,5595	7.089.630,3511			

Station: 17+0											
Dist. Eixo (m):		-5,942	-4,075	-4,065	0,000	3,935	3,945	5,817			
Cota (m):		10,712	10,675	10,995	11,076	10,998	10,678	10,715			
E:		709.502,8758	709.502,9287	709.502,9290	709.503,0441	709.503,1556	709.503,1559	709.503,2089			
N:		7.089.642,8054	7.089.640,9390	7.089.640,9290	7.089.636,8654	7.089.632,9322	7.089.632,9222	7.089.631,0505			

Station: 17+10											
Dist. Eixo (m):		-5,930	-4,075	-4,065	0,000	3,935	3,945	5,822			
Cota (m):		10,641	10,604	10,924	11,006	10,927	10,607	10,644			
E:		709.512,8721	709.512,9247	709.512,9250	709.513,0401	709.513,1516	709.513,1518	709.513,2050			
N:		7.089.643,0765	7.089.641,2222	7.089.641,2122	7.089.637,1486	7.089.633,2154	7.089.633,2054	7.089.631,3292			

Station: 18+0											
Dist. Eixo (m):		-6,083	-4,075	-4,065	0,000	3,935	3,945	5,856			
Cota (m):		10,573	10,533	10,853	10,935	10,856	10,536	10,574			
E:		709.522,8638	709.522,9207	709.522,9210	709.523,0361	709.523,1476	709.523,1478	709.523,2020			
N:		7.089.643,5127	7.089.641,5054	7.089.641,4954	7.089.637,4319	7.089.633,4986	7.089.633,4886	7.089.631,5786			

Station: 18+10											
Dist. Eixo (m):		-6,005	-4,075	-4,065	0,000	3,935	3,945	5,891			
Cota (m):		10,501	10,462	10,782	10,864	10,785	10,465	10,504			
E:		709.532,8620	709.532,9167	709.532,9169	709.533,0321	709.533,1435	709.533,1438	709.533,1990			
N:		7.089.643,7176	7.089.641,7886	7.089.641,7786	7.089.637,7151	7.089.633,7818	7.089.633,7718	7.089.631,8261			

Station: 19+0											
Dist. Eixo (m):		-5,991	-4,075	-4,065	0,000	3,935	3,945	5,920			
Cota (m):		10,439	10,400	10,720	10,802	10,723	10,403	10,442			
E:		709.542,8584	709.542,9127	709.542,9129	709.543,0281	709.543,1395	709.543,1398	709.543,1958			
N:		7.089.643,9872	7.089.642,0718	7.089.642,0618	7.089.637,9983	7.089.634,0650	7.089.634,0550	7.089.632,0808			

Station: 19+10											
Dist. Eixo (m):		-5,978	-4,075	-4,065	0,000	3,935	3,945	5,851			
Cota (m):		10,400	10,362	10,682	10,763	10,684	10,364	10,402			
E:		709.552,8548	709.552,9086	709.552,9089	709.553,0241	709.553,1355	709.553,1358	709.553,1898			
N:		7.089.644,2568	7.089.642,3550	7.089.642,3450	7.089.638,2816	7.089.634,3482	7.089.634,3382	7.089.632,4331			

Station: 20+0											
Dist. Eixo (m):		-5,971	-4,075	-4,065	0,000	3,935	3,945	5,782			
Cota (m):		10,376	10,338	10,658	10,739	10,660	10,340	10,377			
E:		709.562,8509	709.562,9046	709.562,9049	709.563,0201	709.563,1315	709.563,1318	709.563,1838			
N:		7.089.644,5334	7.089.642,6382	7.089.642,6282	7.089.638,5648	7.089.634,6314	7.089.634,6214	7.089.632,7855			

Station: 20+10											
Dist. Eixo (m):		-6,072	-4,075	-4,065	0,000	3,935	3,945	5,712			
Cota (m):		10,354	10,314	10,634	10,716	10,637	10,317	10,352			
E:		709.572,8441	709.572,9006	709.572,9009	709.573,0160	709.573,1275	709.573,1278	709.573,1778			
N:		7.089.644,9177	7.089.642,9214	7.089.642,9114	7.089.638,8481	7.089.634,9146	7.089.634,9046	7.089.633,1388			

Station: 21+0											
Dist. Eixo (m):		-6,173	-4,075	-4,065	0,000	3,935	3,945	5,639			
Cota (m):		10,333	10,291	10,611	10,692	10,614	10,294	10,327			
E:		709.582,8372	709.582,8966	709.582,8969	709.583,0120	709.583,1235	709.583,1238	709.583,1717			
N:		7.089.645,3020	7.089.643,2046	7.089.643,1946	7.089.639,1313	7.089.635,1978	7.089.635,1878	7.089.633,4947			

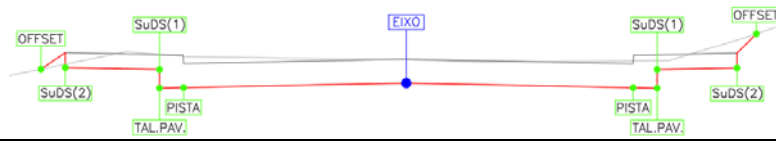
Station: 21+10											
Dist. Eixo (m):		-9,312	-4,075	-4,065	0,000	3,935	3,945	5,619			
Cota (m):		10,372	10,267	10,587	10,669	10,590	10,270	10,303			
E:		709.592,7443	709.592,8926	709.592,8929	709.593,0080	709.593,1195	709.593,1198	709.593,1672			
N:		7.089.648,7229	7.089.643,4878	7.089.643,4778	7.089.639,4145	7.089.635,4810	7.089.635,4710	7.089.633,7979			

Station: 22+0											
Dist. Eixo (m):		-6,065	-4,075	-4,065	0,000	3,935	3,945	5,729			
Cota (m):		10,284	10,244	10,564	10,645	10,567	10,247	10,282			
E:		709.602,8322	709.602,8886	709.602,8889	709.603,0040	709.603,1155	709.603,1157	709.603,1663			
N:		7.089.645,7602	7.089.643,7710	7.089.643,7610	7.089.639,6978	7.089.635,7642	7.089.635,7542	7.089.633,9709			



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HERMÍNIO DAGNONI**

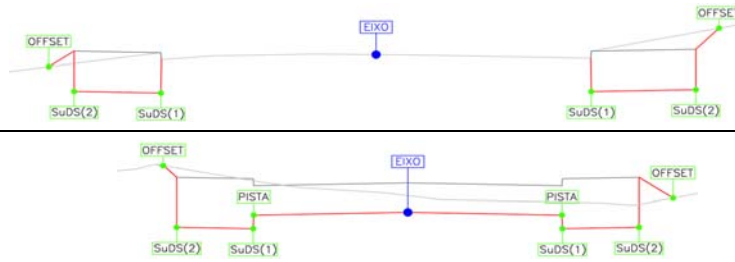
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 22+10</b>									
Dist. Eixo (m):		-6,065	-4,075	-4,065	<b>0,000</b>	3,935	3,945	5,864	
Cota (m):		10,260	10,220	10,540	<b>10,622</b>	10,543	10,223	10,261	
E:		709.612,8282	709.612,8846	709.612,8849	<b>709.613,0000</b>	709.613,1115	709.613,1117	709.613,1661	
N:		7.089.646,0434	7.089.644,0542	7.089.644,0442	<b>7.089.639,9810</b>	7.089.636,0474	7.089.636,0374	7.089.634,1193	
<b>Station: 22+12</b>									
Dist. Eixo (m):		-6,065	-4,075	-4,065	<b>0,000</b>	3,935	3,945	5,898	
Cota (m):		10,254	10,215	10,535	<b>10,616</b>	10,537	10,217	10,256	
E:		709.615,3371	709.615,3934	709.615,3937	<b>709.615,5088</b>	709.615,6203	709.615,6206	709.615,6759	
N:		7.089.646,1145	7.089.644,1253	7.089.644,1153	<b>7.089.640,0521</b>	7.089.636,1185	7.089.636,1085	7.089.634,1566	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HILDO NOVAES**

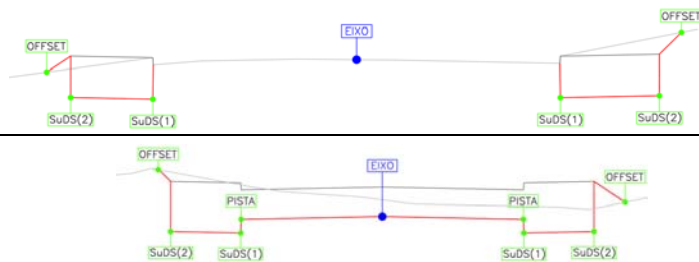
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
Station: 0+7									
Dist. Eixo (m):		-5,204	-4,014		0,000		4,012	5,860	
Cota (m):		14,041	14,017				14,017	14,054	
E:		708.406,6497	708.406,7450		708.407,0666		708.407,3884	708.407,5365	
N:		7.090.453,8065	7.090.452,6204		7.090.448,6190		7.090.444,6157	7.090.442,7726	
Station: 0+10									
Dist. Eixo (m):		-5,969	-3,991		0,000		4,010	5,834	
Cota (m):		14,066	14,027				14,026	14,063	
E:		708.409,7549	708.409,8279		708.409,9752		708.410,1232	708.410,1906	
N:		7.090.454,6912	7.090.452,7150		7.090.448,7264		7.090.444,7191	7.090.442,8962	
Station: 1+0									
Dist. Eixo (m):		-5,703	-3,929		0,000		4,008	5,858	
Cota (m):		14,093	14,058				14,056	14,093	
E:		708.419,7579	708.419,8234		708.419,9684		708.420,1164	708.420,1846	
N:		7.090.454,7942	7.090.453,0216		7.090.449,0955		7.090.445,0898	7.090.443,2416	
Station: 1+10									
Dist. Eixo (m):		-6,096	-3,884		0,000		4,055	5,888	
Cota (m):		14,136	14,091				14,088	14,125	
E:		708.429,7366	708.429,8183		708.429,9616		708.430,1113	708.430,1789	
N:		7.090.455,5562	7.090.453,3459		7.090.449,4646		7.090.445,4123	7.090.443,5805	
Station: 2+0									
Dist. Eixo (m):		-6,091	-3,897		0,000		4,102	5,889	
Cota (m):		14,171	14,127				14,123	14,159	
E:		708.439,7300	708.439,8110		708.439,9548		708.440,1062	708.440,1721	
N:		7.090.455,9204	7.090.453,7276		7.090.449,8337		7.090.445,7347	7.090.443,9489	
Station: 2+10									
Dist. Eixo (m):		-6,086	-3,909		0,000		4,148	5,889	
Cota (m):		14,203	14,159				14,154	14,189	
E:		708.449,7234	708.449,8037		708.449,9480		708.450,1011	708.450,1653	
N:		7.090.456,2845	7.090.454,1093		7.090.450,2028		7.090.446,0572	7.090.444,3174	
Station: 3+0									
Dist. Eixo (m):		-6,081	-3,922		0,000		4,174	5,890	
Cota (m):		14,221	14,178				14,173	14,207	
E:		708.459,7167	708.459,7964		708.459,9412		708.460,0952	708.460,1586	
N:		7.090.456,6487	7.090.454,4910		7.090.450,5719		7.090.446,4004	7.090.444,6859	
Station: 3+10									
Dist. Eixo (m):		-6,076	-3,934		0,000		4,170	5,891	
Cota (m):		14,225	14,183				14,178	14,212	
E:		708.469,7101	708.469,7891		708.469,9343		708.470,0883	708.470,1518	
N:		7.090.457,0128	7.090.454,8727		7.090.450,9409		7.090.446,7738	7.090.445,0543	
Station: 4+0									
Dist. Eixo (m):		-6,071	-3,947		0,000		4,166	5,890	
Cota (m):		14,187	14,144				14,140	14,175	
E:		708.479,7035	708.479,7819		708.479,9275		708.480,0813	708.480,1449	
N:		7.090.457,3770	7.090.455,2544		7.090.451,3100		7.090.447,1472	7.090.445,4241	
Station: 4+10									
Dist. Eixo (m):		-6,066	-3,960		0,000		4,161	5,888	
Cota (m):		14,146	14,104				14,100	14,134	
E:		708.489,6968	708.489,7746		708.489,9207		708.490,0743	708.490,1381	
N:		7.090.457,7412	7.090.455,6361		7.090.451,6791		7.090.447,5205	7.090.445,7948	
Station: 5+0									
Dist. Eixo (m):		-6,086	-3,972		0,000		4,145	5,887	
Cota (m):		14,088	14,046				14,042	14,077	
E:		708.499,6889	708.499,7673		708.499,9139		708.500,0669	708.500,1312	
N:		7.090.458,1404	7.090.456,0179		7.090.452,0482		7.090.447,9063	7.090.446,1655	
Station: 5+10									
Dist. Eixo (m):		-6,142	-3,985		0,000		4,126	5,885	
Cota (m):		14,031	13,988				13,985	14,020	
E:		708.509,6804	708.509,7600		708.509,9071		708.510,0594	708.510,1243	
N:		7.090.458,5547	7.090.456,3996		7.090.452,4173		7.090.448,2940	7.090.446,5362	
Station: 6+0									
Dist. Eixo (m):		-6,179	-3,998		0,000		4,108	5,884	
Cota (m):		13,988	13,944				13,942	13,977	
E:		708.519,6722	708.519,7527		708.519,9003		708.520,0519	708.520,1174	
N:		7.090.458,9616	7.090.456,7813		7.090.452,7864		7.090.448,6816	7.090.446,9068	
Station: 6+10									
Dist. Eixo (m):		-6,114	-4,010		0,000		4,089	5,890	
Cota (m):		13,943	13,900				13,899	13,935	
E:		708.529,6878	708.529,7455		708.529,8935		708.530,0444	708.530,1109	
N:		7.090.459,2650	7.090.457,1630		7.090.453,1555		7.090.449,0693	7.090.447,2695	
Station: 7+0									
Dist. Eixo (m):		-6,428	-4,023		0,000		4,071	5,908	
Cota (m):		13,903	13,855				13,854	13,891	
E:		708.539,6494	708.539,7382		708.539,8867		708.540,0369	708.540,1047	
N:		7.090.459,9486	7.090.457,5447		7.090.453,5246		7.090.449,4563	7.090.447,6204	
Station: 7+10									
Dist. Eixo (m):		-6,438	-4,035		0,000		4,054	5,926	
Cota (m):		13,857	13,809				13,809	13,846	
E:		708.549,6422	708.549,7309		708.549,8798		708.550,0295	708.550,0986	
N:		7.090.460,3268	7.090.457,9264		7.090.453,8937		7.090.449,8422	7.090.447,9713	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HILDO NOVAES**

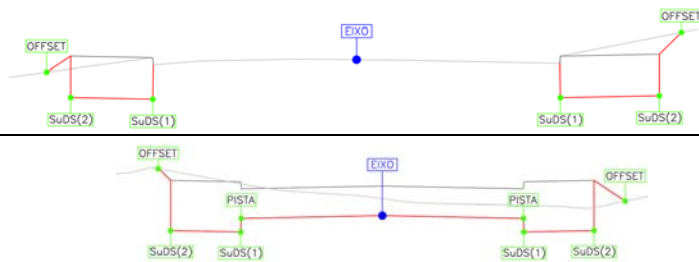
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 8+0</b>									
Dist. Eixo (m):		-6,447	-4,047		0,000		4,037	5,928	
Cota (m):		13,788	13,740				13,778	13,778	
E:		708.559,6351	708.559,7236		708.559,8730		708.560,0220	708.560,0918	
N:		7.090.460,7049	7.090.458,3074		7.090.454,2627		7.090.450,2281	7.090.448,3383	
<b>Station: 8+10</b>									
Dist. Eixo (m):		-6,456	-4,046		0,000		4,021	5,901	
Cota (m):		13,716	13,668				13,668	13,706	
E:		708.569,6279	708.569,7169		708.569,8662		708.570,0146	708.570,0840	
N:		7.090.461,0831	7.090.458,6746		7.090.454,6318		7.090.450,6140	7.090.448,7350	
<b>Station: 9+0</b>									
Dist. Eixo (m):		-6,465	-4,044		0,000		4,004	5,873	
Cota (m):		13,668	13,620				13,621	13,668	
E:		708.579,6208	708.579,7101		708.579,8594		708.580,0072	708.580,0762	
N:		7.090.461,4613	7.090.459,0419		7.090.455,0009		7.090.450,9999	7.090.449,1316	
<b>Station: 9+10</b>									
Dist. Eixo (m):		-7,009	-4,082		0,000		3,973	5,952	
Cota (m):		13,635	13,576				13,578	13,618	
E:		708.589,5939	708.589,7019		708.589,8526		708.589,9992	708.590,0723	
N:		7.090.462,3737	7.090.459,4497		7.090.455,3700		7.090.451,3994	7.090.449,4222	
<b>Station: 10+0</b>									
Dist. Eixo (m):		-6,802	-4,474		0,000		4,270	6,366	
Cota (m):		13,587	13,540				13,544	13,586	
E:		708.599,5947	708.599,6807		708.599,8458		708.600,0034	708.600,0807	
N:		7.090.462,5360	7.090.460,2097		7.090.455,7391		7.090.451,4718	7.090.449,3777	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-5,851	-4,060		0,000		4,285	6,318	
Cota (m):		13,630	13,595				13,590	13,631	
E:		708.619,6162	708.619,6823		708.619,8321		708.619,9903	708.620,0653	
N:		7.090.462,3244	7.090.460,5344		7.090.456,4773		7.090.452,1947	7.090.450,1638	
<b>Station: 11+10</b>									
Dist. Eixo (m):		-5,893	-3,987		0,000		4,173	6,163	
Cota (m):		13,658	13,620				13,616	13,656	
E:		708.629,6078	708.629,6782		708.629,8253		708.629,9794	708.630,0528	
N:		7.090.462,7350	7.090.460,8304		7.090.456,8464		7.090.452,6761	7.090.450,6879	
<b>Station: 12+0</b>									
Dist. Eixo (m):		-6,148	-3,972		0,000		4,099	6,257	
Cota (m):		13,681	13,637				13,634	13,678	
E:		708.639,5916	708.639,6719		708.639,8185		708.639,9698	708.640,0495	
N:		7.090.463,3593	7.090.461,1844		7.090.457,2155		7.090.453,1192	7.090.450,9624	
<b>Station: 12+10</b>									
Dist. Eixo (m):		-6,413	-3,985		0,000		4,047	6,154	
Cota (m):		13,701	13,652				13,651	13,693	
E:		708.649,5750	708.649,6646		708.649,8117		708.649,9611	708.650,0388	
N:		7.090.463,9932	7.090.461,5669		7.090.457,5845		7.090.453,5401	7.090.451,4349	
<b>Station: 13+0</b>									
Dist. Eixo (m):		-6,653	-3,998		0,000		4,000	6,075	
Cota (m):		13,624	13,574				13,571	13,612	
E:		708.659,5593	708.659,6573		708.659,8049		708.659,9525	708.660,0291	
N:		7.090.464,6017	7.090.461,9493		7.090.457,9536		7.090.453,9559	7.090.451,8830	
<b>Station: 13+8</b>									
Dist. Eixo (m):		-6,858	-4,010		0,000		3,960	6,006	
Cota (m):		13,560	13,503				13,504	13,545	
E:		708.668,1725	708.668,2776		708.668,4256		708.668,5717	708.668,6473	
N:		7.090.465,1252	7.090.462,2793		7.090.458,2720		7.090.454,3147	7.090.452,2695	
<b>Station: 13+10</b>									
Dist. Eixo (m):		-6,937	-4,152		0,000		3,935	5,981	
Cota (m):		13,551	13,496				13,500	13,541	
E:		708.669,6376	708.669,7023		708.669,7986		708.669,8900	708.669,9375	
N:		7.090.465,2395	7.090.462,4543		7.090.458,3039		7.090.454,3695	7.090.452,3242	
<b>Station: 14+10</b>									
Dist. Eixo (m):		-6,978	-4,810	-4,800	0,000	4,805	4,815	6,922	
Cota (m):		13,632	13,589	13,579	13,646	13,579	13,589	13,631	
E:		708.689,4739	708.689,5721	708.689,5725	708.689,7898	708.690,0074	708.690,0078	708.690,1032	
N:		7.090.465,8388	7.090.463,6727	7.090.463,6627	7.090.458,8680	7.090.454,0678	7.090.454,0578	7.090.451,9527	
<b>Station: 15+0</b>									
Dist. Eixo (m):		-6,447	-4,010	-4,000	0,000	4,000	4,010	6,291	
Cota (m):		13,716	13,667	13,657	13,737	13,657	13,667	13,712	
E:		708.699,4877	708.699,5980	708.699,5985	708.699,7796	708.699,9607	708.699,9611	708.700,0644	
N:		7.090.465,7607	7.090.463,3266	7.090.463,3166	7.090.459,3207	7.090.455,3248	7.090.455,3149	7.090.453,0361	
<b>Station: 15+10</b>									
Dist. Eixo (m):		-6,279	-4,010	-4,000	0,000	4,000	4,010	6,324	
Cota (m):		13,803	13,758	13,748	13,828	13,748	13,758	13,804	
E:		708.709,4850	708.709,5878	708.709,5882	708.709,7693	708.709,9504	708.709,9509	708.710,0556	
N:		7.090.466,0462	7.090.463,7794	7.090.463,7694	7.090.459,7735	7.090.455,7776	7.090.455,7676	7.090.453,4564	
<b>Station: 16+0</b>									
Dist. Eixo (m):		-6,112	-4,010	-4,000	0,000	4,000	4,010	6,356	
Cota (m):		13,890	13,848	13,838	13,918	13,838	13,848	13,895	
E:		708.719,4824	708.719,5775	708.719,5780	708.719,7591	708.719,9402	708.719,9406	708.720,0469	
N:		7.090.466,3318	7.090.464,2322	7.090.464,2222	7.090.460,2263	7.090.456,2304	7.090.456,2204	7.090.453,8766	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HILDO NOVAES**

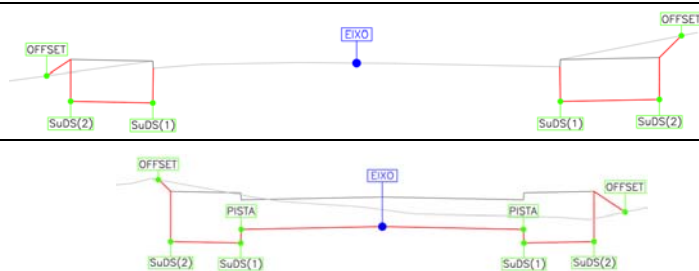
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 16+4</b>									
Dist. Eixo (m):		-6,036	-4,010	-4,000	<b>0,000</b>	4,000	4,010	6,371	
Cota (m):		13,930	13,889	13,879	<b>13,959</b>	13,879	13,889	13,937	
E:		708.724,0082	708.724,0999	708.724,1004	<b>708.724,2815</b>	708.724,4626	708.724,4630	708.724,5699	
N:		7.090.466,4610	7.090.464,4371	7.090.464,4271	<b>7.090.460,4312</b>	7.090.456,4353	7.090.456,4253	7.090.454,0668	
<b>Station: 16+10</b>									
Dist. Eixo (m):		-5,988	-4,054	-4,044	<b>0,000</b>	3,956	3,966	6,345	
Cota (m):		13,977	13,938	13,928	<b>14,009</b>	13,930	13,940	13,987	
E:		708.729,5275	708.729,5995	708.729,5999	<b>708.729,7506</b>	708.729,8981	708.729,8984	708.729,9871	
N:		7.090.466,6187	7.090.464,6864	7.090.464,6764	<b>7.090.460,6352</b>	7.090.456,6817	7.090.456,6717	7.090.454,2947	
<b>Station: 17+0</b>									
Dist. Eixo (m):		-5,902	-4,134	-4,124	<b>0,000</b>	3,876	3,886	6,343	
Cota (m):		14,073	14,027	14,017	<b>14,100</b>	14,022	14,032	14,081	
E:		708.739,5237	708.739,5896	708.739,5900	<b>708.739,7437</b>	708.739,8881	708.739,8885	708.739,9801	
N:		7.090.466,9056	7.090.465,1391	7.090.465,1292	<b>7.090.461,0079</b>	7.090.457,1345	7.090.457,1245	7.090.454,6698	
<b>Station: 17+9</b>									
Dist. Eixo (m):				-6,358	<b>0,000</b>	11,821			
Cota (m):				14,061	<b>14,188</b>	13,951			
E:				708.749,2055	<b>708.749,4425</b>	708.749,8831			
N:				7.090.467,7232	<b>7.090.461,3696</b>	7.090.449,5573			
<b>Station: 18+10</b>									
Dist. Eixo (m):		-5,937	-3,852		<b>0,000</b>		5,010	5,955	
Cota (m):		14,428	14,386				14,363	14,382	
E:		708.769,5016	708.769,5793		<b>708.769,7228</b>		708.769,9096	708.769,9448	
N:		7.090.468,0587	7.090.465,9752		<b>7.090.462,1260</b>		7.090.457,1195	7.090.456,1755	
<b>Station: 19+0</b>									
Dist. Eixo (m):		-5,926	-3,809		<b>0,000</b>		4,008	6,021	
Cota (m):		14,491	14,449				14,445	14,485	
E:		708.779,4950	708.779,5739		<b>708.779,7159</b>		708.779,8653	708.779,9403	
N:		7.090.468,4210	7.090.466,3056		<b>7.090.462,4987</b>		7.090.458,4939	7.090.456,4822	
<b>Station: 19+10</b>									
Dist. Eixo (m):		-5,916	-3,767		<b>0,000</b>		4,066	6,063	
Cota (m):		14,552	14,509				14,503	14,543	
E:		708.789,4884	708.789,5685		<b>708.789,7089</b>		708.789,8605	708.789,9349	
N:		7.090.468,7833	7.090.466,6359		<b>7.090.462,8714</b>		7.090.458,8085	7.090.456,8129	
<b>Station: 20+0</b>									
Dist. Eixo (m):		-5,906	-3,725		<b>0,000</b>		4,124	6,054	
Cota (m):		14,508	14,464				14,456	14,495	
E:		708.799,4819	708.799,5632		<b>708.799,7020</b>		708.799,8557	708.799,9276	
N:		7.090.469,1456	7.090.466,9663		<b>7.090.463,2442</b>		7.090.459,1232	7.090.457,1940	
<b>Station: 20+10</b>									
Dist. Eixo (m):		-5,895	-3,677		<b>0,000</b>		4,219	5,902	
Cota (m):		14,458	14,414				14,403	14,437	
E:		708.809,4753	708.809,5580		<b>708.809,6950</b>		708.809,8523	708.809,9150	
N:		7.090.469,5079	7.090.467,2918		<b>7.090.463,6169</b>		7.090.459,4005	7.090.457,7193	
<b>Station: 21+0</b>									
Dist. Eixo (m):		-11,760	-6,062		<b>0,000</b>		5,782	12,686	
Cota (m):		14,350	14,236				14,241	14,300	
E:		708.819,2498	708.819,4621		<b>708.819,6881</b>		708.819,9036	708.820,1609	
N:		7.090.475,7410	7.090.470,0476		<b>7.090.463,9896</b>		7.090.458,2116	7.090.451,3121	
<b>Station: 21+10</b>									
Dist. Eixo (m):		-12,120	-8,541		<b>0,000</b>		5,010	11,883	
Cota (m):		14,044	13,972				14,043	14,181	
E:		708.829,2294	708.829,3628		<b>708.829,6811</b>		708.829,8679	708.830,1240	
N:		7.090.476,4737	7.090.472,8975		<b>7.090.464,3623</b>		7.090.459,3558	7.090.452,4879	
<b>Station: 22+0</b>									
Dist. Eixo (m):		-6,010	-4,031		<b>0,000</b>		5,010	6,054	
Cota (m):		14,167	14,127				14,108	14,129	
E:		708.839,4502	708.839,5240		<b>708.839,6742</b>		708.839,8609	708.839,8998	
N:		7.090.470,7411	7.090.468,7632		<b>7.090.464,7350</b>		7.090.459,7285	7.090.458,6855	
<b>Station: 22+10</b>									
Dist. Eixo (m):		-6,056	-4,098		<b>0,000</b>		5,010	6,002	
Cota (m):		14,290	14,251				14,232	14,252	
E:		708.849,4415	708.849,5145		<b>708.849,6672</b>		708.849,8540	708.849,8909	
N:		7.090.471,1600	7.090.469,2025		<b>7.090.465,1077</b>		7.090.460,1012	7.090.459,1100	
<b>Station: 23+0</b>									
Dist. Eixo (m):		-6,094	-4,075		<b>0,000</b>		3,912	5,950	
Cota (m):		14,416	14,376				14,379	14,420	
E:		708.859,4332	708.859,5084		<b>708.859,6603</b>		708.859,8061	708.859,8821	
N:		7.090.471,5702	7.090.469,5521		<b>7.090.465,4804</b>		7.090.461,5716	7.090.459,5345	
<b>Station: 23+10</b>									
Dist. Eixo (m):		-5,876	-4,041		<b>0,000</b>		3,881	5,898	
Cota (m):		14,586	14,549				14,552	14,592	
E:		708.869,4344	708.869,5027		<b>708.869,6534</b>		708.869,7980	708.869,8732	
N:		7.090.471,7249	7.090.469,8916		<b>7.090.465,8531</b>		7.090.461,9751	7.090.459,9590	
<b>Station: 24+0</b>									
Dist. Eixo (m):		-5,776	-4,037		<b>0,000</b>		3,850	5,846	
Cota (m):		14,769	14,735				14,738	14,778	
E:		708.879,4311	708.879,4960		<b>708.879,6464</b>		708.879,7899	708.879,8643	
N:		7.090.471,9978	7.090.470,2598		<b>7.090.466,2258</b>		7.090.462,3786	7.090.460,3836	

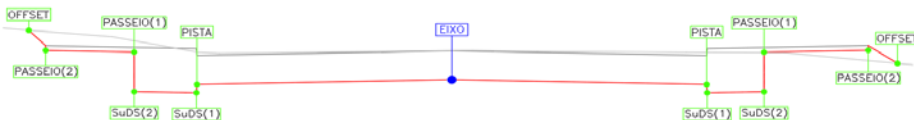
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HILDO NOVAES**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
Station: 24+10									
Dist. Eixo (m):		-12,422	-6,965		0,000		4,421	7,384	
Cota (m):		14,914	14,805				14,856	14,915	
E:		708.889,1765	708.889,3799		708.889,6395		708.889,8042	708.889,9147	
N:		7.090.479,0120	7.090.473,5586		7.090.466,5985		7.090.462,1807	7.090.459,2197	
Station: 25+0									
Dist. Eixo (m):		-12,362	-7,353		0,000		6,220	7,781	
Cota (m):		15,070	14,970				14,993	15,024	
E:		708.899,1718	708.899,3585		708.899,6325		708.899,8643	708.899,9225	
N:		7.090.479,3243	7.090.471,3187		7.090.466,9712		7.090.460,7553	7.090.459,1958	
Station: 25+10									
Dist. Eixo (m):		-5,962	-4,045		0,000		3,902	5,919	
Cota (m):		15,185	15,147				15,149	15,190	
E:		708.909,4033	708.909,4748		708.909,6256		708.909,7710	708.909,8462	
N:		7.090.473,3019	7.090.471,3859		7.090.467,3439		7.090.463,4442	7.090.461,4289	
Station: 26+0									
Dist. Eixo (m):		-5,923	-4,000		0,000		3,937	5,978	
Cota (m):		15,284	15,246				15,247	15,288	
E:		708.919,3978	708.919,4695		708.919,6186		708.919,7653	708.919,8414	
N:		7.090.473,6358	7.090.471,7135		7.090.467,7166		7.090.463,7825	7.090.461,7423	
Station: 26+10									
Dist. Eixo (m):		-6,951	-4,013		0,000		3,956	5,742	
Cota (m):		15,404	15,345				15,346	15,382	
E:		708.929,3526	708.929,4621		708.929,6117		708.929,7591	708.929,8257	
N:		7.090.475,0353	7.090.472,0999		7.090.468,0893		7.090.464,1359	7.090.462,3514	
Station: 27+0									
Dist. Eixo (m):		-6,916	-3,997		0,000		3,976	5,845	
Cota (m):		15,488	15,430				15,507	15,544	
E:		708.939,3470	708.939,4558		708.939,6047		708.939,7529	708.939,8226	
N:		7.090.475,3731	7.090.472,4558		7.090.468,4620		7.090.464,4892	7.090.462,6209	
Station: 27+10									
Dist. Eixo (m):		-7,023	-3,961		0,000		3,995	5,872	
Cota (m):		15,569	15,507				15,507	15,544	
E:		708.949,3360	708.949,4501		708.949,5978		708.949,7467	708.949,8166	
N:		7.090.475,8526	7.090.472,7931		7.090.468,8347		7.090.464,8425	7.090.462,9664	

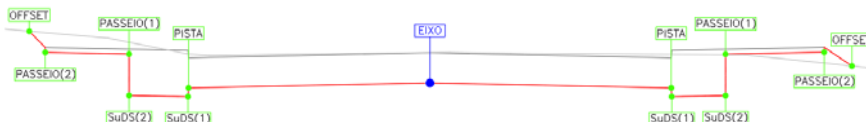
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 28+11													
Dist. Eixo (m):		-11,128	-10,306	-10,306	-9,316	-9,306	0,000	11,699	11,709	12,699	12,699	13,000	
Cota (m):		16,373	16,357	15,507	15,487	15,897	15,659	15,589	15,179	15,199	16,049	16,055	
E:		708.970,9891	708.971,0169	708.971,0169	708.971,0505	708.971,0508	708.971,3661	708.971,7625	708.971,7629	708.971,7964	708.971,7964	708.971,8066	
N:		7.090.480,7203	7.090.479,8994	7.090.479,8994	7.090.478,9097	7.090.478,8997	7.090.469,5990	7.090.457,9066	7.090.457,8966	7.090.456,9071	7.090.456,9071	7.090.456,6065	
Station: 28+13													
Dist. Eixo (m):		-8,868	-6,935	-6,935	-5,945	-5,935	0,000	6,327	6,337	7,327	7,327	10,146	
Cota (m):		16,289	16,250	15,401	15,381	15,791	15,685	15,830	15,220	15,240	16,091	16,147	
E:		708.973,2047	708.973,2702	708.973,2702	708.973,3037	708.973,3041	708.973,5052	708.973,7195	708.973,7199	708.973,7534	708.973,7534	708.973,8490	
N:		7.090.478,5354	7.090.476,6029	7.090.476,6029	7.090.475,6133	7.090.475,6033	7.090.469,6715	7.090.463,3485	7.090.463,3385	7.090.462,3491	7.090.462,3491	7.090.459,5309	
Station: 29+0													
Dist. Eixo (m):		-6,229	-5,148	-5,148	-4,158	-4,148	0,000	3,852	3,862	4,852	4,852	5,868	
Cota (m):		16,156	16,134	15,284	15,264	15,674	15,757	15,680	15,270	15,290	16,140	16,160	
E:		708.979,2827	708.979,3336	708.979,3336	708.979,3803	708.979,3808	708.979,5763	708.979,7579	708.979,7584	708.979,8051	708.979,8051	708.979,8529	
N:		7.090.476,1805	7.090.475,1007	7.090.475,1007	7.090.474,1116	7.090.474,1016	7.090.469,9581	7.090.466,1104	7.090.466,1004	7.090.465,1115	7.090.465,1115	7.090.464,0970	
Station: 29+10													
Dist. Eixo (m):		-6,075	-5,098	-5,098	-4,108	-4,098	0,000	3,902	3,912	4,902	4,902	5,919	
Cota (m):		16,274	16,254	15,404	15,384	15,794	15,876	15,798	15,388	15,408	16,258	16,278	
E:		708.989,2788	708.989,3249	708.989,3249	708.989,3716	708.989,3720	708.989,5652	708.989,7492	708.989,7496	708.989,7963	708.989,7963	708.989,8443	
N:		7.090.476,4976	7.090.475,5219	7.090.475,5219	7.090.474,5328	7.090.474,5228	7.090.470,4295	7.090.466,5316	7.090.466,5216	7.090.465,5327	7.090.465,5327	7.090.464,5168	
Station: 30+0													
Dist. Eixo (m):		-5,921	-5,048	-5,048	-4,058	-4,048	0,000	3,952	3,962	4,952	4,952	5,961	
Cota (m):		16,391	16,374	15,524	15,504	15,914	15,995	15,916	15,506	15,526	16,376	16,396	
E:		708.999,2750	708.999,3161	708.999,3161	708.999,3628	708.999,3633	708.999,5541	708.999,7404	708.999,7409	708.999,7876	708.999,7876	708.999,8351	
N:		7.090.476,8151	7.090.475,9431	7.090.475,9431	7.090.474,9540	7.090.474,9441	7.090.470,9009	7.090.466,9528	7.090.466,9429	7.090.465,9540	7.090.465,9540	7.090.464,9468	
Station: 30+9													
Dist. Eixo (m):		-5,774	-5,000	-5,000	-4,010	-4,000	0,000	4,000	4,010	5,000	5,000	6,003	
Cota (m):		16,515	16,500	15,650	15,630	16,040	16,120	16,040	15,630	15,650	16,500	16,520	
E:		709.009,27519	709.009,3271	709.009,3271	709.009,3699	709.009,3704	709.009,5431	709.009,7167	709.009,7171	709.009,7600	709.009,7600	709.009,8035	
N:		7.090.477,1159	7.090.476,3425	7.090.476,3425	7.090.475,3534	7.090.475,3434	7.090.471,3703	7.090.467,3527	7.090.467,3422	7.090.466,3533	7.090.466,3533	7.090.465,3519	
Station: 30+10													
Dist. Eixo (m):		-5,768	-4,990	-4,990	-4,000	-3,990	0,000	4,011	4,021	5,011	5,011	6,017	
Cota (m):		16,527	16,511	15,661	15,641	16,051	16,131	16,050	15,640	15,660	16,510	16,530	
E:		709.009,2934	709.009,3271	709.009,3271	709.009,3699	709.009,3704	709.009,5431	709.009,7167	709.009,7171	709.009,7600	709.009,7600	709.009,8035	
N:		7.090.477,1331	7.090.476,3561	7.090.476,3561	7.090.475,3668	7.090.475,3568	7.090.471,3703	7.090.467,3527	7.090.467,3527	7.090.466,3636	7.090.466,3636	7.090.465,3588	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA HILDO NOVAES**

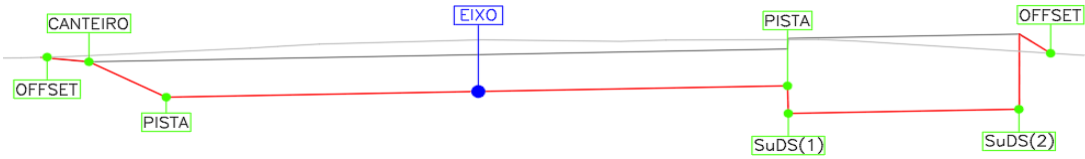
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 31+0													
Dist. Eixo (m):		-5,652	-4,788	-4,788	-3,797	-3,787	<b>0,000</b>	4,214	4,224	5,214	5,214		6,311
Cota (m):		16,881	16,864	16,014	15,994	16,404	<b>16,480</b>	16,396	15,986	16,005	16,855		16,877
E:		709.019,2891	709.019,3265	709.019,3265	709.019,3694	709.019,3698	<b>709.019,5337</b>	709.019,7161	709.019,7165	709.019,7594	709.019,7594		709.019,8069
N:		7.090.477,4501	7.090.476,5862	7.090.476,5862	7.090.475,5969	7.090.475,5870	<b>7.090.471,8031</b>	7.090.467,5928	7.090.467,5828	7.090.466,5937	7.090.466,5937		7.090.465,4978
Station: 31+10													
Dist. Eixo (m):		-5,537	-4,585	-4,585	-3,595	-3,585	<b>0,000</b>	4,417	4,427	5,417	5,417		6,605
Cota (m):		17,492	17,473	16,624	16,604	17,014	<b>17,085</b>	16,997	16,587	16,607	17,456		17,480
E:		709.029,2847	709.029,3259	709.029,3259	709.029,3688	709.029,3692	<b>709.029,5243</b>	709.029,7155	709.029,7160	709.029,7588	709.029,7588		709.029,8102
N:		7.090.477,7674	7.090.476,8164	7.090.476,8164	7.090.475,8271	7.090.475,8171	<b>7.090.472,2359</b>	7.090.467,8229	7.090.467,8130	7.090.466,8239	7.090.466,8239		7.090.465,6367
Station: 32+0													
Dist. Eixo (m):		-10,621	-9,665	-9,665	-8,675	-8,665	<b>0,000</b>	10,487	10,497	11,487	11,487		12,392
Cota (m):		18,314	18,295	17,445	17,425	17,835	<b>17,749</b>	17,542	17,132	17,152	18,002		18,020
E:		709.039,0553	709.039,0966	709.039,0966	709.039,1395	709.039,1399	<b>709.039,5150</b>	709.039,9688	709.039,9693	709.040,0121	709.040,0121		709.040,0513
N:		7.090.483,2797	7.090.482,3249	7.090.482,3249	7.090.481,3357	7.090.481,3257	<b>7.090.472,6687</b>	7.090.462,1918	7.090.462,1819	7.090.461,1928	7.090.461,1928		7.090.460,2879
Station: 32+8													
Dist. Eixo (m):		-7,000	-6,000	-6,000	-5,010	-5,000	<b>0,000</b>	9,675					
Cota (m):		18,305	18,285	17,435	17,415	17,825	<b>17,925</b>	17,823					
E:		709.047,4354	709.047,4786	709.047,4786	709.047,5215	709.047,5219	<b>709.047,7383</b>	709.048,1571					
N:		7.090.480,0186	7.090.479,0196	7.090.479,0196	7.090.478,0303	7.090.478,0203	<b>7.090.473,0250</b>	7.090.463,3595					
Station: 32+10													
Dist. Eixo (m):		-11,874	-7,945	-7,945	-6,955	-6,945	<b>0,000</b>	5,717	5,727	6,717	6,717		10,067
Cota (m):		18,802	18,723	17,873	17,853	18,263	<b>18,060</b>	18,092	17,682	17,702	18,552		18,619
E:		709.049,9917	709.049,1617	709.049,1617	709.049,2046	709.049,2050	<b>709.049,5056</b>	709.049,7531	709.049,7535	709.049,7963	709.049,7963		709.049,9413
N:		7.090.484,9642	7.090.481,0390	7.090.481,0390	7.090.480,0497	7.090.480,0397	<b>7.090.473,1015</b>	7.090.467,3894	7.090.467,3794	7.090.466,3904	7.090.466,3904		7.090.463,0443
Station: 32+14													
Dist. Eixo (m):		-5,643	-5,063	-5,063	-4,073	-4,063	<b>0,000</b>	4,000	4,010	4,999	4,999		6,314
Cota (m):		19,032	19,020	18,170	18,150	18,560	<b>18,583</b>	18,503	18,093	18,113	18,963		18,989
E:		709.054,2058	709.054,2309	709.054,2309	709.054,2738	709.054,2742	<b>709.054,4501</b>	709.054,6233	709.054,6238	709.054,6666	709.054,6666		709.054,7235
N:		7.090.478,9535	7.090.478,3741	7.090.478,3741	7.090.477,3848	7.090.477,3748	<b>7.090.473,3158</b>	7.090.469,3165	7.090.469,3065	7.090.468,3174	7.090.468,3174		7.090.467,0032
Station: 33+0													
Dist. Eixo (m):		-5,750	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		6,164
Cota (m):		19,634	19,619	18,769	18,749	19,159	<b>19,239</b>	19,159	18,749	18,769	19,619		19,642
E:		709.059,4756	709.059,4789	709.059,4789	709.059,4832	709.059,4833	<b>709.059,5009</b>	709.059,5185	709.059,5186	709.059,5229	709.059,5229		709.059,5281
N:		7.090.479,0882	7.090.478,3382	7.090.478,3382	7.090.477,3480	7.090.477,3380	<b>7.090.473,3380</b>	7.090.469,3380	7.090.469,3280	7.090.468,3381	7.090.468,3381		7.090.467,1738
Station: 33+4													
Dist. Eixo (m):		-5,879	-4,999	-4,999	-4,009	-3,999	<b>0,000</b>	4,000	4,010	5,000	5,000		6,026
Cota (m):		20,168	20,150	19,300	19,280	19,690	<b>19,770</b>	19,690	19,280	19,300	20,150		20,171
E:		709.063,9053	709.063,9091	709.063,9091	709.063,9135	709.063,9136	<b>709.063,9312</b>	709.063,9488	709.063,9488	709.063,9532	709.063,9532		709.063,9577
N:		7.090.479,2385	7.090.478,3577	7.090.478,3577	7.090.477,3675	7.090.477,3575	<b>7.090.473,3575</b>	7.090.469,3576	7.090.469,3476	7.090.468,3576	7.090.468,3576		7.090.467,3311
Station: 33+10													
Dist. Eixo (m):		-5,914	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		5,980
Cota (m):		20,633	20,615	19,765	19,745	20,155	<b>20,235</b>	20,155	19,745	19,765	20,614		20,634
E:		709.069,3358	709.069,3610	709.069,3610	709.069,3883	709.069,3886	<b>709.069,4988</b>	709.069,6089	709.069,6092	709.069,6365	709.069,6365		709.069,6635
N:		7.090.479,4228	7.090.478,5093	7.090.478,5093	7.090.477,5194	7.090.477,5095	<b>7.090.473,5110</b>	7.090.469,5125	7.090.469,5025	7.090.468,5129	7.090.468,5129		7.090.467,5337
Station: 33+16													
Dist. Eixo (m):		-5,958	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		5,924
Cota (m):		21,023	21,003	20,154	20,134	20,544	<b>20,624</b>	20,544	20,134	20,153	21,004		21,022
E:		709.076,3120	709.076,3384	709.076,3384	709.076,3657	709.076,3659	<b>709.076,4761</b>	709.076,5863	709.076,5866	709.076,6139	709.076,6139		709.076,6393
N:		7.090.479,6596	7.090.478,7016	7.090.478,7016	7.090.477,7117	7.090.477,7017	<b>7.090.473,7033</b>	7.090.469,7048	7.090.469,6948	7.090.468,7052	7.090.468,7052		7.090.467,7814
Station: 34+0													
Dist. Eixo (m):		-5,945	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		5,933
Cota (m):		21,189	21,170	20,320	20,300	20,710	<b>20,790</b>	20,710	20,300	20,320	21,170		21,189
E:		709.079,2657	709.079,3020	709.079,3020	709.079,3400	709.079,3404	<b>709.079,4939</b>	709.079,6474	709.079,6478	709.079,6858	709.079,6858		709.079,7216
N:		7.090.479,7598	7.090.478,8157	7.090.478,8157	7.090.477,8262	7.090.477,8162	<b>7.090.473,8192</b>	7.090.469,8221	7.090.469,8121	7.090.468,8228	7.090.468,8228		7.090.467,8908
Station: 34+10													
Dist. Eixo (m):		-5,900	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		5,962
Cota (m):		21,740	21,722	20,872	20,852	21,262	<b>21,342</b>	21,262	20,852	20,872	21,722		21,741
E:		709.089,2601	709.089,2946	709.089,2946	709.089,3326	709.089,3330	<b>709.089,4865</b>	709.089,6400	709.089,6404	709.089,6784	709.089,6784		709.089,7153
N:		7.090.480,0990	7.090.479,1995	7.090.479,1995	7.090.478,2100	7.090.478,2000	<b>7.090.474,2029</b>	7.090.470,2059	7.090.470,1959	7.090.469,2066	7.090.469,2066		7.090.468,2456
Station: 35+0													
Dist. Eixo (m):		-5,856	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		5,991
Cota (m):		22,343	22,325	21,476	21,456	21,866	<b>21,946</b>	21,866	21,456	21,475	22,325		22,345
E:		709.099,2544	709.099,2872	709.099,2872	709.099,3253	709.099,3256	<b>709.099,4791</b>	709.099,6327	709.099,6330	709.099,6710	709.099,6710		709.099,7091
N:		7.090.480,4381	7.090.479,5832	7.090.479,5832	7.090.478,5938	7.090.478,5838	<b>7.090.474,5867</b>	7.090.470,5897	7.090.470,5797	7.090.469,5904	7.090.469,5904		7.090.468,6005
Station: 35+10													
Dist. Eixo (m):		-5,853	-5,000	-5,000	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,000	5,000		6,020
Cota (m):		23,076	23,059	22,209	22,189	22,599	<b>22,679</b>	22,599	22,189	22,209	23,060		23,080
E:		709.109,2471	709.109,2799	709.109,2799	709.109,3179	709.109,3183	<b>709.109,4718</b>	709.109,6253	709.109,6257	709.109,6637	709.109,6637		709.109,7028
N:		7.090.480,8194	7.090.479,9670	7.090.479,9670	7.090.478,9775	7.090.478,9675	<b>7.090.474,9705</b>	7.090.470,9734	7.090.470,9634	7.090.469,9742	7.090.469,9742		7.090.468,9553
Station: 36+0													
Dist. Eixo (m):		-6,697	-5,121	-5,121	-4,131	-4,121	<b>0,000</b>	4,161	4,171	5,161	5,161		6,327
Cota (m):		24,633	24,601	23,751	23,731	24,141	<b>23,993</b>	23,164	22,754	22,774	23,624		23,647
E:		709.119,2074	709.119,2679	709.119,2679	709.119,3059	709.119,3063	<b>709.119,4644</b>	709.119,6241	709.119,6245	709.119,6625	709.119,6625		709.119,7072
N:</													

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JACOBUS FELTHAUS**

Desenho Esquemático:

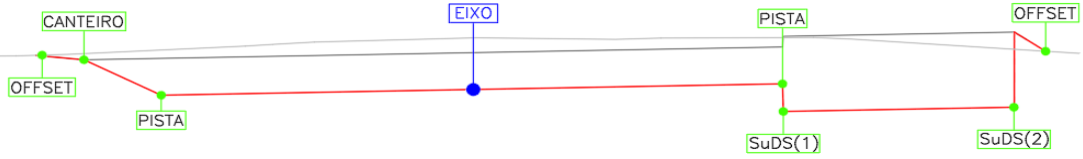


PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>								
Dist.eixo (m)	-5,462	-5,100	-4,100	<b>0,000</b>	5,000	5,510	10,393	
Cota (m)	11,577	11,818	11,318	<b>11,383</b>	11,250	11,261	11,918	
E	709,446.0376	709,446.0197	709,445.9701	<b>709,445.7669</b>	709,445.5190	709,445.4938	709,445.2517	
N	7,089,214.1343	7,089,213.7731	7,089,212.7744	<b>7,089,208.6794</b>	7,089,203.6856	7,089,203.1764	7,089,198.2990	
<b>Station: 0+10</b>								
Dist.eixo (m)	-5,501	-5,097	-4,097	<b>0,000</b>	4,159	4,669	9,431	
Cota (m)	11,341	11,609	11,109	<b>11,180</b>	11,135	11,145	11,801	
E	709,455.7494	709,455.7500	709,455.7513	<b>709,455.7567</b>	709,455.7622	709,455.7629	709,455.7691	
N	7,089,213.7492	7,089,213.3459	7,089,212.3459	<b>7,089,208.2485</b>	7,089,204.0892	7,089,203.5794	7,089,198.8173	
<b>Station: 1+0</b>								
Dist.eixo (m)	-5,460	-5,231	-4,231	<b>0,000</b>	4,880	5,390	9,016	
Cota (m)	11,299	11,451	10,951	<b>11,030</b>	11,054	11,064	11,696	
E	709,465.6956	709,465.6981	709,465.7092	<b>709,465.7561</b>	709,465.8102	709,465.8158	709,465.8560	
N	7,089,213.8163	7,089,213.5875	7,089,212.5876	<b>7,089,208.3569</b>	7,089,203.4774	7,089,202.9677	7,089,199.3415	
<b>Station: 1+10</b>								
Dist.eixo (m)	-5,591	-5,383	-4,383	<b>0,000</b>	5,600			
Cota (m)	11,239	11,378	10,788	<b>10,876</b>	10,988			
E	709,475.6935	709,475.6958	709,475.7069	<b>709,475.7555</b>	709,475.8175			
N	7,089,214.0582	7,089,213.8500	7,089,212.8500	<b>7,089,208.4678</b>	7,089,202.8681			
<b>Station: 2+0</b>								
Dist.eixo (m)	-5,832	-5,534	-4,534	<b>0,000</b>	5,455			
Cota (m)	11,146	11,345	10,755	<b>10,845</b>	10,954			
E	709,485.6902	709,485.6935	709,485.7046	<b>709,485.7549</b>	709,485.8153			
N	7,089,214.4107	7,089,214.1124	7,089,213.1125	<b>7,089,208.5786</b>	7,089,203.1243			
<b>Station: 2+10</b>								
Dist.eixo (m)			-4,624	<b>0,000</b>	5,260			
Cota (m)			10,722	<b>10,815</b>	10,920			
E			709,495.7030	<b>709,495.7543</b>	709,495.8126			
N			7,089,213.3134	<b>7,089,208.6894</b>	7,089,203.4296			
<b>Station: 3+0</b>								
Dist.eixo (m)			-4,818	<b>0,000</b>	5,031	5,629	8,356	
Cota (m)			10,688	<b>10,784</b>	10,885	10,896	11,601	
E			709,505.7002	<b>709,505.7536</b>	709,505.8094	709,505.8160	709,505.8462	
N			7,089,213.6179	<b>7,089,208.8003</b>	7,089,203.7693	7,089,203.1711	7,089,200.4448	
<b>Station: 3+10</b>								
Dist.eixo (m)	-6,617	-6,000	-5,000	<b>0,000</b>	4,948	5,546	8,041	
Cota (m)	10,833	11,244	10,654	<b>10,754</b>	10,853	10,865	11,565	
E	709,515.5055	709,515.5282	709,515.5651	<b>709,515.7492</b>	709,515.9314	709,515.9535	709,516.0453	
N	7,089,215.6825	7,089,215.0664	7,089,214.0671	<b>7,089,209.0705</b>	7,089,204.1257	7,089,203.5280	7,089,201.0350	
<b>Station: 4+0</b>								
Dist.eixo (m)	-6,587	-6,000	-5,000	<b>0,000</b>	4,964	5,562	8,028	
Cota (m)	10,822	11,213	10,623	<b>10,723</b>	10,823	10,835	11,534	
E	709,525.4998	709,525.5215	709,525.5583	<b>709,525.7424</b>	709,525.9252	709,525.9473	709,526.0381	
N	7,089,216.0212	7,089,215.4347	7,089,214.4353	<b>7,089,209.4387</b>	7,089,204.4777	7,089,203.8800	7,089,201.4161	
<b>Station: 4+10</b>								
Dist.eixo (m)	-6,588	-6,000	-5,000	<b>0,000</b>	4,981	5,579	8,015	
Cota (m)	10,791	11,183	10,593	<b>10,693</b>	10,793	10,805	11,503	
E	709,535.4930	709,535.5147	709,535.5515	<b>709,535.7356</b>	709,535.9191	709,535.9411	709,536.0308	
N	7,089,216.3904	7,089,215.8029	7,089,214.8036	<b>7,089,209.8070</b>	7,089,204.8297	7,089,204.2321	7,089,201.7972	
<b>Station: 5+0</b>								
Dist.eixo (m)	-6,617	-6,000	-5,000	<b>0,000</b>	4,997	5,595	8,002	
Cota (m)	10,741	11,153	10,563	<b>10,663</b>	10,763	10,775	11,472	
E	709,545.4852	709,545.5079	709,545.5447	<b>709,545.7289</b>	709,545.9129	709,545.9349	709,546.0236	
N	7,089,216.7882	7,089,216.1712	7,089,215.1719	<b>7,089,210.1753</b>	7,089,205.1817	7,089,204.5841	7,089,202.1783	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA JACOBUS FELTHAUS**

Desenho Esquemático:

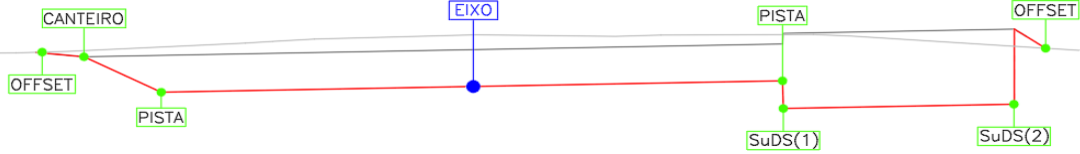


PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>								
Dist.eixo (m)	-6,567	-6,000	-5,000	<b>0,000</b>	4,999			
Cota (m)	10,744	11,122	10,532	<b>10,632</b>	10,732			
E	709,555.4036	709,555.4308	709,555.4787	<b>709,555.7183</b>	709,555.9578			
N	7,089,217.1926	7,089,216.6265	7,089,215.6276	<b>7,089,210.6334</b>	7,089,205.6399			
<b>Station: 6+0</b>								
Dist.eixo (m)	-6,389	-6,000	-5,000	<b>0,000</b>	4,999			
Cota (m)	10,832	11,092	10,502	<b>10,602</b>	10,702			
E	709,565.4006	709,565.4193	709,565.4672	<b>709,565.7068</b>	709,565.9463			
N	7,089,217.4943	7,089,217.1056	7,089,216.1068	<b>7,089,211.1125</b>	7,089,206.1194			
<b>Station: 6+10</b>								
Dist.eixo (m)	-6,516	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,102	
Cota (m)	10,717	11,061	10,471	<b>10,571</b>	10,671	10,683	11,383	
E	709,575.4669	709,575.4851	709,575.5205	<b>709,575.6974</b>	709,575.8742	709,575.8954	709,575.9840	
N	7,089,218.0538	7,089,217.5378	7,089,216.5384	<b>7,089,211.5415</b>	7,089,206.5448	7,089,205.9472	7,089,203.4451	
<b>Station: 7+0</b>								
Dist.eixo (m)	-6,569	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,246	
Cota (m)	10,652	11,031	10,441	<b>10,541</b>	10,641	10,653	11,356	
E	709,585.4588	709,585.4789	709,585.5142	<b>709,585.6911</b>	709,585.8680	709,585.8891	709,585.9828	
N	7,089,218.4598	7,089,217.8915	7,089,216.8921	<b>7,089,211.8953</b>	7,089,206.8986	7,089,206.3009	7,089,203.6542	
<b>Station: 7+10</b>								
Dist.eixo (m)	-6,454	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,210	
Cota (m)	10,698	11,000	10,410	<b>10,510</b>	10,610	10,622	11,324	
E	709,595.4565	709,595.4726	709,595.5080	<b>709,595.6849</b>	709,595.8617	709,595.8829	709,595.9753	
N	7,089,218.6992	7,089,218.2453	7,089,217.2459	<b>7,089,212.2490</b>	7,089,207.2523	7,089,206.6547	7,089,204.0439	
<b>Station: 8+0</b>								
Dist.eixo (m)	-6,479	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,112	
Cota (m)	10,651	10,970	10,380	<b>10,480</b>	10,580	10,592	11,292	
E	709,605.4494	709,605.4664	709,605.5017	<b>709,605.6786</b>	709,605.8555	709,605.8766	709,605.9656	
N	7,089,219.0773	7,089,218.5990	7,089,217.5996	<b>7,089,212.6028</b>	7,089,207.6061	7,089,207.0084	7,089,204.4956	
<b>Station: 8+10</b>								
Dist.eixo (m)	-6,479	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,097	
Cota (m)	10,618	10,938	10,348	<b>10,448</b>	10,548	10,560	11,260	
E	709,615.4431	709,615.4601	709,615.4955	<b>709,615.6723</b>	709,615.8492	709,615.8704	709,615.9588	
N	7,089,219.4319	7,089,218.9528	7,089,217.9534	<b>7,089,212.9565</b>	7,089,207.9598	7,089,207.3621	7,089,204.8649	
<b>Station: 9+0</b>								
Dist.eixo (m)	-6,400	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,127	
Cota (m)	10,628	10,894	10,304	<b>10,404</b>	10,504	10,516	11,216	
E	709,625.4397	709,625.4538	709,625.4892	<b>709,625.6661</b>	709,625.8430	709,625.8641	709,625.9536	
N	7,089,219.7058	7,089,219.3065	7,089,218.3071	<b>7,089,213.3103</b>	7,089,208.3135	7,089,207.7159	7,089,205.1887	
<b>Station: 9+10</b>								
Dist.eixo (m)	-6,321	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,194	
Cota (m)	10,623	10,838	10,248	<b>10,348</b>	10,448	10,459	11,161	
E	709,635.4362	709,635.4476	709,635.4830	<b>709,635.6598</b>	709,635.8367	709,635.8578	709,635.9497	
N	7,089,219.9812	7,089,219.6602	7,089,218.6609	<b>7,089,213.6640</b>	7,089,208.6673	7,089,208.0696	7,089,205.4753	
<b>Station: 10+0</b>								
Dist.eixo (m)	-6,450	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,325	
Cota (m)	10,479	10,779	10,189	<b>10,289</b>	10,389	10,401	11,106	
E	709,645.4254	709,645.4413	709,645.4767	<b>709,645.6536</b>	709,645.8304	709,645.8516	709,645.9481	
N	7,089,220.4642	7,089,220.0140	7,089,219.0146	<b>7,089,214.0177</b>	7,089,209.0210	7,089,208.4233	7,089,205.6975	
<b>Station: 10+10</b>								
Dist.eixo (m)	-6,515	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,281	
Cota (m)	10,378	10,721	10,131	<b>10,231</b>	10,331	10,343	11,046	
E	709,655.4169	709,655.4351	709,655.4704	<b>709,655.6473</b>	709,655.8242	709,655.8453	709,655.9403	
N	7,089,220.8821	7,089,220.3677	7,089,219.3684	<b>7,089,214.3715</b>	7,089,209.3747	7,089,208.7771	7,089,206.0952	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JACOBUS FELTHAUS**

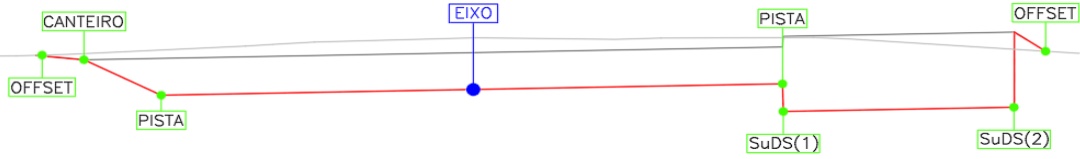
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 11+0</b>								
Dist.eixo (m)	-6,366	-6,000	-5,000	<b>0,000</b>	5,000	5,598	8,237	
Cota (m)	10,419	10,663	10,073	<b>10,173</b>	10,273	10,285	10,987	
E	709,665.4159	709,665.4288	709,665.4642	<b>709,665.6410</b>	709,665.8179	709,665.8391	709,665.9324	
N	7,089,221.0873	7,089,220.7215	7,089,219.7221	<b>7,089,214.7252</b>	7,089,209.7285	7,089,209.1308	7,089,206.4929	
<b>Station: 11+10</b>								
Dist.eixo (m)			-7,050	<b>0,000</b>	5,000	5,598	8,199	
Cota (m)			9,973	<b>10,114</b>	10,214	10,225	10,928	
E			709,675.3854	<b>709,675.6348</b>	709,675.8117	709,675.8328	709,675.9248	
N			7,089,222.1241	<b>7,089,215.0790</b>	7,089,210.0824	7,089,209.4845	7,089,206.8850	
<b>Station: 12+0</b>								
Dist.eixo (m)			-10,180	<b>0,000</b>	5,000	5,598	8,182	8,877
Cota (m)			9,853	<b>10,056</b>	10,156	10,167	10,870	10,516
E			709,685.2684	<b>709,685.6285</b>	709,685.8054	709,685.8266	709,685.9180	709,685.9426
N			7,089,225.6066	<b>7,089,215.4327</b>	7,089,210.4362	7,089,209.8383	7,089,207.2559	7,089,206.5611
<b>Station: 12+10</b>								
Dist.eixo (m)	-6,149	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,165	
Cota (m)	10,389	10,488	9,988	<b>10,088</b>	10,188	10,198	10,811	
E	709,695.4048	709,695.4100	709,695.4454	<b>709,695.6223</b>	709,695.7991	709,695.8172	709,695.9111	
N	7,089,221.9316	7,089,221.7827	7,089,220.7833	<b>7,089,215.7865</b>	7,089,210.7897	7,089,210.2802	7,089,207.6267	
<b>Station: 13+0</b>								
Dist.eixo (m)	-6,246	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,148	8,617
Cota (m)	10,282	10,446	9,946	<b>10,046</b>	10,146	10,156	10,768	10,566
E	709,705.3951	709,705.4038	709,705.4391	<b>709,705.6160</b>	709,705.7929	709,705.8109	709,705.9042	709,705.9208
N	7,089,222.3820	7,089,222.1365	7,089,221.1371	<b>7,089,216.1402</b>	7,089,211.1434	7,089,210.6339	7,089,207.9975	7,089,207.5290
<b>Station: 13+10</b>								
Dist.eixo (m)	-6,700	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,131	8,652
Cota (m)	9,968	10,435	9,935	<b>10,035</b>	10,135	10,145	10,758	10,520
E	709,715.3727	709,715.3975	709,715.4329	<b>709,715.6098</b>	709,715.7866	709,715.8047	709,715.8974	709,715.9158
N	7,089,223.1902	7,089,222.4902	7,089,221.4908	<b>7,089,216.4940</b>	7,089,211.4972	7,089,210.9877	7,089,208.3684	7,089,207.8473
<b>Station: 14+0</b>								
Dist.eixo (m)	-6,935	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,114	8,654
Cota (m)	9,817	10,441	9,941	<b>10,041</b>	10,141	10,151	10,763	10,512
E	709,725.3582	709,725.3912	709,725.4266	<b>709,725.6035</b>	709,725.7804	709,725.7984	709,725.8905	709,725.9096
N	7,089,223.7782	7,089,222.8440	7,089,221.8446	<b>7,089,216.8477</b>	7,089,211.8509	7,089,211.3414	7,089,208.7392	7,089,208.1988
<b>Station: 14+10</b>								
Dist.eixo (m)	-6,974	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,096	8,515
Cota (m)	9,797	10,446	9,946	<b>10,046</b>	10,146	10,156	10,768	10,599
E	709,735.3505	709,735.3850	709,735.4204	<b>709,735.5972</b>	709,735.7741	709,735.7921	709,735.8836	709,735.8985
N	7,089,224.1714	7,089,223.1977	7,089,222.1983	<b>7,089,217.2015</b>	7,089,212.2046	7,089,211.6952	7,089,209.1100	7,089,208.6913
<b>Station: 15+0</b>								
Dist.eixo (m)	-6,903	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,079	8,674
Cota (m)	9,849	10,452	9,952	<b>10,052</b>	10,152	10,162	10,773	10,487
E	709,745.3468	709,745.3787	709,745.4141	<b>709,745.5910</b>	709,745.7679	709,745.7859	709,745.8768	709,745.8978
N	7,089,224.4544	7,089,223.5514	7,089,222.5521	<b>7,089,217.5552</b>	7,089,212.5584	7,089,212.0489	7,089,209.4809	7,089,208.8867
<b>Station: 15+10</b>								
Dist.eixo (m)	-6,603	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,062	8,753
Cota (m)	10,055	10,457	9,957	<b>10,057</b>	10,157	10,167	10,778	10,427
E	709,755.3512	709,755.3725	709,755.4078	<b>709,755.5847</b>	709,755.7616	709,755.7796	709,755.8699	709,755.8944
N	7,089,224.5076	7,089,223.9052	7,089,222.9058	<b>7,089,217.9089</b>	7,089,212.9121	7,089,212.4026	7,089,209.8517	7,089,209.1610
<b>Station: 16+0</b>								
Dist.eixo (m)	-6,443	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,045	
Cota (m)	10,167	10,463	9,963	<b>10,063</b>	10,163	10,173	10,783	
E	709,765.3505	709,765.3662	709,765.4016	<b>709,765.5785</b>	709,765.7553	709,765.7734	709,765.8631	
N	7,089,224.7018	7,089,224.2589	7,089,223.2596	<b>7,089,218.2627</b>	7,089,213.2658	7,089,212.7564	7,089,210.2225	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
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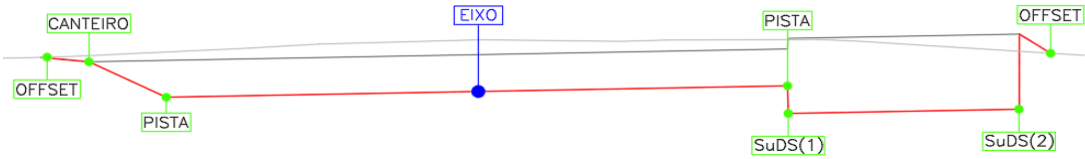
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 16+10</b>								
Dist.eixo (m)	-6,443	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,028	
Cota (m)	10,173	10,468	9,968	<b>10,068</b>	10,168	10,178	10,788	
E	709,775.3443	709,775.3600	709,775.3953	<b>709,775.5722</b>	709,775.7491	709,775.7671	709,775.8562	
N	7,089,225.0550	7,089,224.6127	7,089,223.6133	<b>7,089,218.6164</b>	7,089,213.6196	7,089,213.1101	7,089,210.5934	
<b>Station: 17+0</b>								
Dist.eixo (m)	-6,574	-6,000	-5,000	<b>0,000</b>	5,000	5,510	8,011	8,863
Cota (m)	10,091	10,474	9,974	<b>10,074</b>	10,174	10,184	10,794	10,336
E	709,785.3334	709,785.3537	709,785.3891	<b>709,785.5659</b>	709,785.7428	709,785.7609	709,785.8493	709,785.8795
N	7,089,225.5401	7,089,224.9664	7,089,223.9671	<b>7,089,218.9702</b>	7,089,213.9733	7,089,213.4638	7,089,210.9642	7,089,210.1130
<b>Station: 17+10</b>								
Dist.eixo (m)	-6,652	-6,000	-5,000	<b>0,000</b>	5,000			
Cota (m)	10,044	10,479	9,979	<b>10,079</b>	10,179			
E	709,795.3119	709,795.3361	709,795.3734	<b>709,795.5594</b>	709,795.7455			
N	7,089,225.9779	7,089,225.3264	7,089,224.3271	<b>7,089,219.3305</b>	7,089,214.3340			
<b>Station: 18+0</b>								
Dist.eixo (m)	-6,497	-6,000	-5,000	<b>0,000</b>	5,000			
Cota (m)	10,153	10,484	9,984	<b>10,084</b>	10,184			
E	709,805.3107	709,805.3292	709,805.3664	<b>709,805.5525</b>	709,805.7386			
N	7,089,226.1957	7,089,225.6986	7,089,224.6992	<b>7,089,219.7027</b>	7,089,214.7062			
<b>Station: 18+10</b>								
Dist.eixo (m)	-6,455	-6,000	-5,000	<b>0,000</b>	5,000			
Cota (m)	10,187	10,490	9,990	<b>10,090</b>	10,190			
E	709,815.3053	709,815.3223	709,815.3595	<b>709,815.5456</b>	709,815.7317			
N	7,089,226.5252	7,089,226.0707	7,089,225.0714	<b>7,089,220.0749</b>	7,089,215.0785			
<b>Station: 19+0</b>								
Dist.eixo (m)	-6,531	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,982	
Cota (m)	10,141	10,495	9,995	<b>10,095</b>	10,195	10,206	10,815	
E	709,825.3239	709,825.3415	709,825.3746	<b>709,825.5400</b>	709,825.7055	709,825.7224	709,825.8042	
N	7,089,226.9355	7,089,226.4045	7,089,225.4051	<b>7,089,220.4078</b>	7,089,215.4105	7,089,214.9010	7,089,212.4297	
<b>Station: 19+10</b>								
Dist.eixo (m)	-6,570	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,965	7,993
Cota (m)	10,121	10,501	10,001	<b>10,101</b>	10,201	10,211	10,820	10,912
E	709,835.3172	709,835.3360	709,835.3691	<b>709,835.5346</b>	709,835.7000	709,835.7169	709,835.7981	709,835.7990
N	7,089,227.3049	7,089,226.7354	7,089,225.7360	<b>7,089,220.7387</b>	7,089,215.7414	7,089,215.2319	7,089,212.7781	7,089,212.7504
<b>Station: 20+0</b>								
Dist.eixo (m)	-6,235	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,921	7,982
Cota (m)	10,349	10,506	10,006	<b>10,106</b>	10,206	10,217	10,825	10,996
E	709,845.3228	709,845.3306	709,845.3636	<b>709,845.5291</b>	709,845.6945	709,845.7114	709,845.7912	709,845.7932
N	7,089,227.3016	7,089,227.0663	7,089,226.0668	<b>7,089,221.0696</b>	7,089,216.0723	7,089,215.5628	7,089,213.1528	7,089,213.0918
<b>Station: 20+10</b>								
Dist.eixo (m)	-6,022	-5,998	-4,998	<b>0,000</b>	5,012	5,522	7,868	7,937
Cota (m)	10,536	10,512	10,012	<b>10,112</b>	10,212	10,222	10,829	11,008
E	709,855.2593	709,855.2603	709,855.3041	<b>709,855.5232</b>	709,855.7428	709,855.7652	709,855.8680	709,855.8710
N	7,089,227.4281	7,089,227.4042	7,089,226.4051	<b>7,089,221.4120</b>	7,089,216.4050	7,089,215.8957	7,089,213.5515	7,089,213.4830
<b>Station: 21+0</b>								
Dist.eixo (m)	-6,052	-5,988	-4,988	<b>0,000</b>	5,274			
Cota (m)	10,524	10,518	10,018	<b>10,117</b>	10,223			
E	709,864.9313	709,864.9374	709,865.0311	<b>709,865.4985</b>	709,865.9927			
N	7,089,228.1256	7,089,228.0611	7,089,227.0655	<b>7,089,222.0998</b>	7,089,216.8485			
<b>Station: 21+10</b>								
Dist.eixo (m)	-6,401	-5,947	-4,947	<b>0,000</b>	5,283			
Cota (m)	10,569	10,524	10,024	<b>10,123</b>	10,229			
E	709,874.5390	709,874.6020	709,874.7408	<b>709,875.4272</b>	709,876.1603			
N	7,089,229.6220	7,089,229.1722	7,089,228.1819	<b>7,089,223.2832</b>	7,089,218.0515			

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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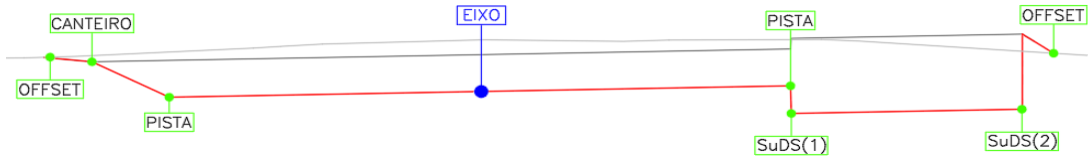
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 22+0</b>								
Dist.eixo (m)	-6,021	-5,934	-4,934	<b>0,000</b>	5,313			
Cota (m)	10,537	10,529	10,029	<b>10,127</b>	10,234			
E	709,884.8834	709,884.8902	709,884.9681	<b>709,885.3526</b>	709,885.7667			
N	7,089,230.4873	7,089,230.4010	7,089,229.4040	<b>7,089,224.4849</b>	7,089,219.1880			
<b>Station: 22+10</b>								
Dist.eixo (m)	-6,272	-6,000	-5,000	<b>0,000</b>	5,003	5,513	6,927	
Cota (m)	10,341	10,522	10,022	<b>10,122</b>	10,222	10,232	10,821	
E	709,895.0871	709,895.0981	709,895.1385	<b>709,895.3407</b>	709,895.5431	709,895.5637	709,895.6209	
N	7,089,231.2263	7,089,230.9550	7,089,229.9558	<b>7,089,224.9597</b>	7,089,219.9609	7,089,219.4515	7,089,218.0379	
<b>Station: 23+0</b>								
Dist.eixo (m)	-6,973	-6,000	-5,000	<b>0,000</b>	5,002	5,512	7,032	
Cota (m)	9,858	10,507	10,007	<b>10,107</b>	10,207	10,217	10,807	
E	709,905.0505	709,905.0899	709,905.1303	<b>709,905.3326</b>	709,905.5349	709,905.5555	709,905.6169	
N	7,089,232.3315	7,089,231.3594	7,089,230.3602	<b>7,089,225.3642</b>	7,089,220.3660	7,089,219.8566	7,089,218.3380	
<b>Station: 23+10</b>								
Dist.eixo (m)	-6,938	-6,000	-5,000	<b>0,000</b>	5,002	5,511	7,100	7,155
Cota (m)	9,864	10,489	9,989	<b>10,089</b>	10,189	10,199	10,791	10,864
E	709,915.0438	709,915.0817	709,915.1221	<b>709,915.3244</b>	709,915.5267	709,915.5473	709,915.6115	709,915.6138
N	7,089,232.7008	7,089,231.7638	7,089,230.7646	<b>7,089,225.7686</b>	7,089,220.7711	7,089,220.2617	7,089,218.6742	7,089,218.6193
<b>Station: 24+0</b>								
Dist.eixo (m)	-6,569	-6,000	-5,000	<b>0,000</b>	5,001	5,511	7,054	7,060
Cota (m)	10,092	10,471	9,971	<b>10,071</b>	10,171	10,182	10,772	10,888
E	709,925.0505	709,925.0735	709,925.1140	<b>709,925.3162</b>	709,925.5184	709,925.5391	709,925.6015	709,925.6017
N	7,089,232.7371	7,089,232.1682	7,089,231.1690	<b>7,089,226.1731</b>	7,089,221.1762	7,089,220.6668	7,089,219.1249	7,089,219.1191
<b>Station: 24+10</b>								
Dist.eixo (m)	-6,444	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,004	7,338
Cota (m)	10,158	10,454	9,954	<b>10,054</b>	10,154	10,164	10,754	10,641
E	709,935.0474	709,935.0653	709,935.1058	<b>709,935.3080</b>	709,935.5102	709,935.5309	709,935.5913	709,935.6048
N	7,089,233.0164	7,089,232.5726	7,089,231.5734	<b>7,089,226.5775</b>	7,089,221.5813	7,089,221.0719	7,089,219.5794	7,089,219.2453
<b>Station: 25+0</b>								
Dist.eixo (m)	-6,370	-6,000	-5,000	<b>0,000</b>	5,000			
Cota (m)	10,190	10,436	9,936	<b>10,036</b>	10,136			
E	709,945.0264	709,945.0422	709,945.0851	<b>709,945.2992</b>	709,945.5134			
N	7,089,233.3600	7,089,232.9908	7,089,231.9917	<b>7,089,226.9963</b>	7,089,222.0009			
<b>Station: 25+10</b>								
Dist.eixo (m)	-6,377	-6,000	-5,000	<b>0,000</b>	5,000			
Cota (m)	10,181	10,432	9,932	<b>10,032</b>	10,132			
E	709,955.0169	709,955.0331	709,955.0759	<b>709,955.2900</b>	709,955.5042			
N	7,089,233.7958	7,089,233.4191	7,089,232.4201	<b>7,089,227.4246</b>	7,089,222.4292			
<b>Station: 26+0</b>								
Dist.eixo (m)	-6,250	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,203	
Cota (m)	10,285	10,452	9,952	<b>10,052</b>	10,152	10,162	10,756	
E	709,965.0782	709,965.0863	709,965.1189	<b>709,965.2817</b>	709,965.4445	709,965.4610	709,965.5162	
N	7,089,234.0791	7,089,233.8286	7,089,232.8291	<b>7,089,227.8320</b>	7,089,222.8347	7,089,222.3251	7,089,220.6326	
<b>Station: 26+10</b>								
Dist.eixo (m)	-6,125	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,006	
Cota (m)	10,399	10,482	9,982	<b>10,082</b>	10,182	10,193	10,782	
E	709,975.0769	709,975.0810	709,975.1136	<b>709,975.2764</b>	709,975.4391	709,975.4557	709,975.5045	
N	7,089,234.2795	7,089,234.1542	7,089,233.1547	<b>7,089,228.1576</b>	7,089,223.1603	7,089,222.6507	7,089,221.1552	
<b>Station: 27+0</b>								
Dist.eixo (m)		-6,000	-5,000	<b>0,000</b>	5,000	5,510	6,932	
Cota (m)		10,513	10,013	<b>10,113</b>	10,213	10,223	10,811	
E		709,985.0757	709,985.1083	<b>709,985.2711</b>	709,985.4338	709,985.4504	709,985.4967	
N		7,089,234.4800	7,089,233.4804	<b>7,089,228.4832</b>	7,089,223.4858	7,089,222.9763	7,089,221.5550	
<b>Station: 27+10</b>								
Dist.eixo (m)	-6,066	-6,000	-5,000	<b>0,000</b>	5,000	5,510	6,870	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JACOBUS FELTHAUS**

Desenho Esquemático:



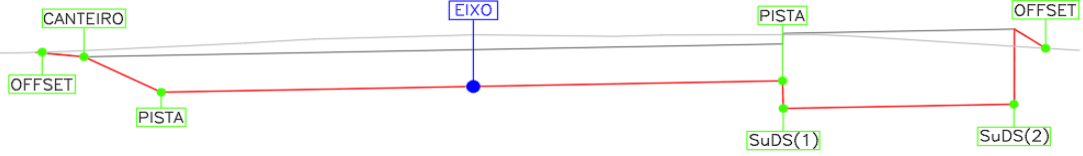
PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Cota (m)</b>	10,609	10,543	10,043	10,143	10,243	10,253	10,840	
<b>E</b>	709,995.0682	709,995.0704	709,995.1030	709,995.2658	709,995.4285	709,995.4451	709,995.4894	
<b>N</b>	7,089,234.8718	7,089,234.8055	7,089,233.8060	7,089,228.8088	7,089,223.8114	7,089,223.3019	7,089,221.9428	

Station: 28+0

Dist.eixo (m)	-6,035	-6,000	-5,000	0,000	5,000	5,510	7,010	7,061
<b>Cota (m)</b>	10,609	10,573	10,073	10,173	10,273	10,284	10,873	10,950
<b>E</b>	710,005.0639	710,005.0651	710,005.0977	710,005.2605	710,005.4232	710,005.4398	710,005.4887	710,005.4903
<b>N</b>	7,089,235.1666	7,089,235.1311	7,089,234.1317	7,089,229.1344	7,089,224.1370	7,089,223.6275	7,089,222.1277	7,089,222.0774

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JACOBUS FELTHAUS**

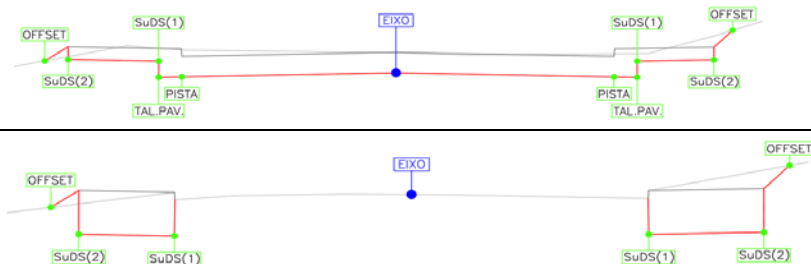
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	CANTEIRO	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 28+10</b>								
Dist.eixo (m)	-6,037	-6,000	-5,000	<b>0,000</b>	4,999			
Cota (m)	10,579	10,604	10,104	<b>10,204</b>	10,304			
E	710,015.0501	710,015.0513	710,015.0853	<b>710,015.2550</b>	710,015.4247			
N	7,089,235.4990	7,089,235.4617	7,089,234.4623	<b>7,089,229.4651</b>	7,089,224.4686			
<b>Station: 29+0</b>								
Dist.eixo (m)	-6,461	-6,000	-5,000	<b>0,000</b>	4,998			
Cota (m)	10,327	10,634	10,134	<b>10,234</b>	10,334			
E	710,025.0299	710,025.0456	710,025.0795	<b>710,025.2492</b>	710,025.4189			
N	7,089,236.2617	7,089,235.8011	7,089,234.8017	<b>7,089,229.8046</b>	7,089,224.8090			
<b>Station: 29+10</b>								
Dist.eixo (m)	-6,773	-6,000	-5,000	<b>0,000</b>	4,998	5,508	6,999	7,044
Cota (m)	10,149	10,664	10,164	<b>10,264</b>	10,364	10,374	10,964	11,044
E	710,035.0136	710,035.0398	710,035.0738	<b>710,035.2435</b>	710,035.4131	710,035.4304	710,035.4810	710,035.4825
N	7,089,236.9133	7,089,236.1405	7,089,235.1411	<b>7,089,230.1440</b>	7,089,225.1483	7,089,224.6388	7,089,223.1491	7,089,223.1040
<b>Station: 30+0</b>								
Dist.eixo (m)	-6,957	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,000	
Cota (m)	10,057	10,695	10,195	<b>10,295</b>	10,395	10,405	10,994	
E	710,045.0164	710,045.0469	710,045.0788	<b>710,045.2383</b>	710,045.3978	710,045.4140	710,045.4616	
N	7,089,237.4191	7,089,236.4628	7,089,235.4633	<b>7,089,230.4659</b>	7,089,225.4684	7,089,224.9589	7,089,223.4694	
<b>Station: 30+10</b>								
Dist.eixo (m)	-6,605	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,000	
Cota (m)	10,322	10,725	10,225	<b>10,325</b>	10,425	10,435	11,025	
E	710,055.0225	710,055.0418	710,055.0737	<b>710,055.2332</b>	710,055.3927	710,055.4089	710,055.4565	
N	7,089,237.3863	7,089,236.7818	7,089,235.7823	<b>7,089,230.7849</b>	7,089,225.7874	7,089,225.2779	7,089,223.7884	
<b>Station: 30+14</b>								
Dist.eixo (m)	-6,364	-6,000	-5,000	<b>0,000</b>	5,000	5,510	7,000	
Cota (m)	10,497	10,739	10,239	<b>10,339</b>	10,439	10,449	11,039	
E	710,059.7265	710,059.7381	710,059.7700	<b>710,059.9295</b>	710,060.0890	710,060.1053	710,060.1528	
N	7,089,237.2951	7,089,236.9317	7,089,235.9322	<b>7,089,230.9347</b>	7,089,225.9373	7,089,225.4277	7,089,223.9383	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO C. G. DE OLIVEIRA (T1)**

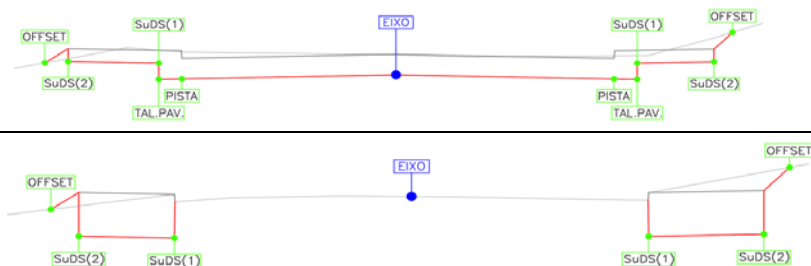
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-7,956	-5,431	-5,431	-5,002	0,000	5,000	5,429	5,429	7,638	
Cota (m):		13,766	13,715	13,588	13,597	13,697	13,597	13,588	13,715	13,759	
E:		708.313,2648	708.313,3534	708.313,3534	708.313,3684	708.313,5439	708.313,7194	708.313,7344	708.313,7344	708.313,8119	
N:		7.090.209,5466	7.090.207,0232	7.090.207,0232	7.090.206,5947	7.090.201,5954	7.090.196,5985	7.090.196,1702	7.090.196,1702	7.090.193,9619	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-8,053	-5,377	-5,377	-4,948	0,000	5,230	5,659	5,659	7,619	
Cota (m):		13,525	13,472	13,344	13,353	13,452	13,347	13,339	13,466	13,505	
E:		708.323,2553	708.323,3491	708.323,3491	708.323,3642	708.323,5378	708.323,7213	708.323,7363	708.323,7363	708.323,8051	
N:		7.090.209,9945	7.090.207,3197	7.090.207,3197	7.090.206,8912	7.090.201,9463	7.090.196,7192	7.090.196,2909	7.090.196,2909	7.090.194,3322	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-8,533	-5,743	-5,743	-5,314	0,000	5,806	6,235	6,235	8,358	
Cota (m):		13,312	13,256	13,129	13,138	13,244	13,128	13,119	13,247	13,289	
E:		708.333,2322	708.333,3302	708.333,3302	708.333,3452	708.333,5116	708.333,7353	708.333,7504	708.333,7504	708.333,8249	
N:		7.090.210,8252	7.090.208,0362	7.090.208,0362	7.090.207,6077	7.090.202,2971	7.090.196,4947	7.090.196,0664	7.090.196,0664	7.090.193,9443	
<b>Station: 1+5</b>											
Dist. Eixo (m):		-12,862	-11,526	-11,526	-11,097	0,000					
Cota (m):		13,127	13,100	12,973	12,982	13,204					
E:		708.338,3521	708.338,3990	708.338,3990	708.338,4141	708.338,8034					
N:		7.090.215,3367	7.090.214,0007	7.090.214,0007	7.090.213,5722	7.090.202,4822					
<b>Station: 1+13</b>											
Dist. Eixo (m):		-6,200	-5,429	-5,429	-5,000	0,000	10,000				
Cota (m):		13,222	13,206	13,079	13,088	13,188	12,988				
E:		708.346,6089	708.346,6360	708.346,6360	708.346,6510	708.346,8264	708.347,1773				
N:		7.090.208,9600	7.090.208,1893	7.090.208,1893	7.090.207,7608	7.090.202,7638	7.090.192,7700				
<b>Station: 2+0</b>											
Dist. Eixo (m):		-8,590	-5,772	-5,772	-5,344	0,000	4,868	5,297	5,297	8,122	
Cota (m):		13,284	13,228	13,100	13,109	13,216	13,119	13,110	13,238	13,294	
E:		708.353,2179	708.353,3168	708.353,3168	708.353,3318	708.353,5193	708.353,6901	708.353,7052	708.353,7052	708.353,8043	
N:		7.090.211,5837	7.090.208,7675	7.090.208,7675	7.090.208,3390	7.090.202,9988	7.090.198,1334	7.090.197,7050	7.090.197,7050	7.090.194,8818	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-8,177	-5,637	-5,637	-5,208	0,000	4,792	5,220	5,220	7,792	
Cota (m):		13,323	13,272	13,145	13,154	13,258	13,162	13,154	13,281	13,332	
E:		708.363,2263	708.363,3154	708.363,3154	708.363,3304	708.363,5132	708.363,6813	708.363,6963	708.363,6963	708.363,7865	
N:		7.090.211,5220	7.090.208,9833	7.090.208,9833	7.090.208,5548	7.090.203,3496	7.090.198,5609	7.090.198,1326	7.090.198,1326	7.090.195,5627	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,203	-5,612	-5,612	-5,183	0,000	4,817	5,245	5,245	7,817	
Cota (m):		13,367	13,315	13,187	13,196	13,300	13,204	13,195	13,322	13,373	
E:		708.373,2190	708.373,3101	708.373,3101	708.373,3252	708.373,5070	708.373,6760	708.373,6910	708.373,6910	708.373,7812	
N:		7.090.211,9036	7.090.209,3091	7.090.209,3091	7.090.208,8806	7.090.203,7005	7.090.198,8867	7.090.198,4584	7.090.198,4584	7.090.195,8886	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,129	-5,587	-5,587	-5,158	0,000	4,842	5,270	5,270	7,842	
Cota (m):		13,408	13,357	13,230	13,239	13,342	13,245	13,237	13,364	13,415	
E:		708.383,2157	708.383,3048	708.383,3048	708.383,3199	708.383,5008	708.383,6707	708.383,6857	708.383,6857	708.383,7760	
N:		7.090.212,1751	7.090.209,6350	7.090.209,6350	7.090.209,2065	7.090.204,0513	7.090.199,2126	7.090.198,7843	7.090.198,7843	7.090.196,2144	
<b>Station: 4+0</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					13,284	13,384	13,284				
E:					708.393,3193	708.393,4947	708.393,6701				
N:					7.090.209,3990	7.090.204,4021	7.090.199,4052				
<b>Station: 4+10</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					13,326	13,426	13,326				
E:					708.403,3131	708.403,4885	708.403,6640				
N:					7.090.209,7499	7.090.204,7530	7.090.199,7560				
<b>Station: 5+0</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					13,356	13,456	13,356				
E:					708.413,3070	708.413,4824	708.413,6578				
N:					7.090.210,1007	7.090.205,1038	7.090.200,1069				
<b>Station: 5+10</b>											
Dist. Eixo (m):		-8,023	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	7,876	
Cota (m):		13,501	13,449	13,322	13,331	13,431	13,331	13,322	13,449	13,498	
E:		708.423,1947	708.423,2858	708.423,2858	708.423,3008	708.423,4762	708.423,6516	708.423,6667	708.423,6667	708.423,7525	
N:		7.090.213,4727	7.090.210,8801	7.090.210,8801	7.090.210,4516	7.090.205,4546	7.090.200,4577	7.090.200,0294	7.090.200,0294	7.090.197,5839	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-7,868	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	8,025	
Cota (m):		13,472	13,424	13,296	13,305	13,405	13,305	13,297	13,424	13,476	
E:		708.433,1940	708.433,2796	708.433,2796	708.433,2946	708.433,4701	708.433,6455	708.433,6605	708.433,6605	708.433,7516	
N:		7.090.213,6691	7.090.211,2309	7.090.211,2309	7.090.210,8024	7.090.205,8055	7.090.200,8085	7.090.200,3802	7.090.200,3802	7.090.197,7856	
<b>Station: 6+6</b>											
Dist. Eixo (m):		-7,762	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	7,942	
Cota (m):		13,453	13,406	13,279	13,288	13,388	13,288	13,279	13,406	13,456	
E:		708.440,0771	708.440,1590	708.440,1590	708.440,1740	708.440,3495	708.440,5249	708.440,5399	708.440,5399	708.440,6281	
N:		7.090.213,8043	7.090.211,4724	7.090.211,4724	7.090.211,0439	7.090.206,0470	7.090.201,0500	7.090.200,6217	7.090.200,6217	7.090.198,1101	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO C. G. DE OLIVEIRA (T1)**

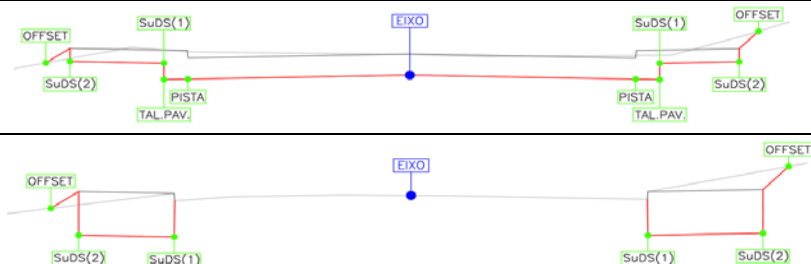
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+10</b>											
Dist. Eixo (m):		-7,714	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	7,916	
Cota (m):		13,444	13,398	13,271	13,280	13,380	13,280	13,271	13,398	13,448	
E:		708.443,1933	708.443,2734	708.443,2734	708.443,2885	708.443,4639	708.443,6393	708.443,6544	708.443,6544	708.443,7416	
N:		7.090.213,8654	7.090.211,5817	7.090.211,5817	7.090.211,1532	7.090.206,1563	7.090.201,1594	7.090.200,7311	7.090.200,7311	7.090.198,2451	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-7,555	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	8,237	
Cota (m):		13,415	13,373	13,245	13,254	13,354	13,254	13,246	13,373	13,429	
E:		708.453,1927	708.453,2673	708.453,2673	708.453,2823	708.453,4578	708.453,6332	708.453,6482	708.453,6482	708.453,7467	
N:		7.090.214,0577	7.090.211,9326	7.090.211,9326	7.090.211,5041	7.090.206,5071	7.090.201,5102	7.090.201,0819	7.090.201,0819	7.090.198,2756	
<b>Station: 7+4</b>											
Dist. Eixo (m):		-10,000	-5,429	-5,429	-5,000	0,000	5,000	5,429	5,429	10,000	
Cota (m):		13,453	13,361	13,234	13,243	13,343	13,243	13,235	13,361	13,453	
E:		708.457,5262	708.457,6866	708.457,6866	708.457,7016	708.457,8770	708.458,0524	708.458,0675	708.458,0675	708.458,2279	
N:		7.090.216,6561	7.090.212,0877	7.090.212,0877	7.090.211,6592	7.090.206,6623	7.090.201,6654	7.090.201,2370	7.090.201,2370	7.090.196,6684	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-7,975	-4,978			0,000			5,781	7,735	
Cota (m):		13,368	13,308						13,292	13,331	
E:		708.473,1656	708.473,2708			708.473,4454			708.473,6482	708.473,7168	
N:		7.090.215,1793	7.090.212,1834			7.090.207,2088			7.090.201,4318	7.090.199,4786	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,929	-5,001			0,000			5,085	7,478	
Cota (m):		13,387	13,328						13,327	13,375	
E:		708.483,1611	708.483,2638			708.483,4393			708.483,6177	708.483,7016	
N:		7.090.215,4839	7.090.212,5576			7.090.207,5596			7.090.202,4782	7.090.200,0862	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,853	-5,024			0,000			5,064	7,573	
Cota (m):		13,399	13,343						13,342	13,392	
E:		708.493,1576	708.493,2569			708.493,4331			708.493,6108	708.493,6988	
N:		7.090.215,7591	7.090.212,9318			7.090.207,9105			7.090.202,8496	7.090.200,3421	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-8,155	-5,048			0,000			4,984	7,668	
Cota (m):		13,396	13,334						13,336	13,389	
E:		708.503,1409	708.503,2499			708.503,4270			708.503,6018	708.503,6960	
N:		7.090.216,4112	7.090.213,3059			7.090.208,2613			7.090.203,2803	7.090.200,5979	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,915	-5,025			0,000			5,007	7,842	
Cota (m):		13,344	13,286						13,286	13,343	
E:		708.543,1246	708.543,2260			708.543,4023			708.543,5780	708.543,6775	
N:		7.090.217,5752	7.090.214,6869			7.090.209,6647			7.090.204,6606	7.090.201,8278	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,936	-5,067			0,000			5,003	7,866	
Cota (m):		13,378	13,320						13,322	13,379	
E:		708.553,1178	708.553,2184			708.553,3962			708.553,5717	708.553,6722	
N:		7.090.217,9471	7.090.215,0797			7.090.210,0155			7.090.205,0152	7.090.202,1545	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,958	-5,109			0,000			5,000	7,890	
Cota (m):		13,378	13,321						13,323	13,381	
E:		708.563,1109	708.563,2108			708.563,3900			708.563,5654	708.563,6668	
N:		7.090.218,3189	7.090.215,4725			7.090.210,3663			7.090.205,3697	7.090.202,4812	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,947	-5,145			0,000			4,996	7,914	
Cota (m):		13,372	13,316						13,319	13,377	
E:		708.573,1051	708.573,2034			708.573,3839			708.573,5592	708.573,6615	
N:		7.090.218,6592	7.090.215,8594			7.090.210,7172			7.090.205,7243	7.090.202,8079	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-7,934	-5,073			0,000			4,995	7,938	
Cota (m):		13,364	13,307						13,309	13,367	
E:		708.583,0994	708.583,1997			708.583,3777			708.583,5530	708.583,6562	
N:		7.090.218,9974	7.090.216,1378			7.090.211,0680			7.090.206,0756	7.090.203,1347	
<b>Station: 13+11</b>											
Dist. Eixo (m):		-7,933	-5,065			0,000			4,996	7,941	
Cota (m):		13,363	13,306						13,307	13,366	
E:		708.584,1937	708.584,2944			708.584,4720			708.584,6473	708.584,7506	
N:		7.090.219,0344	7.090.216,1683			7.090.211,1064			7.090.206,1134	7.090.203,1704	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,922	-5,000			0,000			5,000	7,962	
Cota (m):		13,355	13,297						13,297	13,356	
E:		708.593,0937	708.593,1961			708.593,3716			708.593,5470	708.593,6509	
N:		7.090.219,3355	7.090.216,4162			7.090.211,4188			7.090.206,4215	7.090.203,4614	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-7,909	-4,928			0,000			5,005	7,986	
Cota (m):		13,324	13,264						13,263	13,322	
E:		708.603,0879	708.603,1925			708.603,3654			708.603,5410	708.603,6456	
N:		7.090.219,6736	7.090.216,6945			7.090.211,7697			7.090.206,7673	7.090.203,7881	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO C. G. DE OLIVEIRA (T2)**

Desenho Esquemático:

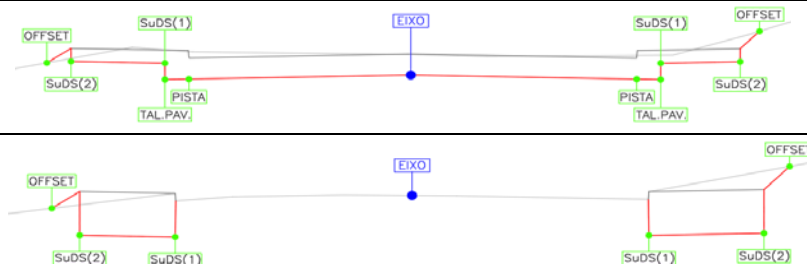


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 15+0</b>											
Dist. Eixo (m):		-12,622	-6,450			0,000			8,200	13,086	
Cota (m):		15,254	15,131						15,096	15,193	
E:		708.840,3187	708.840,5441			708.840,7795			708.841,0789	708.841,2573	
N:		7.090.233,6183	7.090.227,4501			7.090.221,0048			7.090.212,8105	7.090.207,9271	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-7,884	-4,919			0,000			5,138	7,927	
Cota (m):		15,285	15,226						15,221	15,277	
E:		708.850,4851	708.850,5933			708.850,7729			708.850,9605	708.851,0623	
N:		7.090.229,2484	7.090.226,2858			7.090.221,3699			7.090.216,2352	7.090.213,4481	
<b>Station: 15+19</b>											
Dist. Eixo (m):		-7,845	-5,012			0,000			5,071	7,907	
Cota (m):		15,446	15,389						15,388	15,444	
E:		708.860,4798	708.860,5832			708.860,7662			708.860,9513	708.861,0549	
N:		7.090.229,5748	7.090.226,7433			7.090.221,7349			7.090.216,6671	7.090.213,8328	
<b>Station: 16+9</b>											
Dist. Eixo (m):		-7,809	-5,040			0,000			5,010	8,038	
Cota (m):		15,602	15,546						15,547	15,608	
E:		708.869,8237	708.869,7248			708.869,9088			708.870,0917	708.870,2023	
N:		7.090.229,8731	7.090.227,1058			7.090.222,0689			7.090.217,0623	7.090.214,0356	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,818	-5,431	-5,431	-5,032	0,000	4,968	5,366	5,366	8,045	
Cota (m):		15,624	15,577	15,481	15,489	15,589	15,490	15,482	15,577	15,631	
E:		708.870,5516	708.870,6152	708.870,6152	708.870,6258	708.870,7598	708.870,8921	708.870,9027	708.870,9027	708.870,9741	
N:		7.090.229,9067	7.090.227,5203	7.090.227,5203	7.090.227,1223	7.090.222,0916	7.090.217,1258	7.090.216,7280	7.090.216,7280	7.090.214,0496	
<b>Station: 16+19</b>											
Dist. Eixo (m):		-7,913	-5,434	-5,434	-5,036	0,000	4,964	5,362	5,362	8,144	
Cota (m):		15,891	15,841	15,745	15,753	15,854	15,755	15,747	15,842	15,898	
E:		708.880,5455	708.880,6115	708.880,6115	708.880,6221	708.880,7563	708.880,8885	708.880,8991	708.880,8991	708.880,9732	
N:		7.090.230,2687	7.090.227,7904	7.090.227,7904	7.090.227,3924	7.090.222,3580	7.090.217,3959	7.090.216,9981	7.090.216,9981	7.090.214,2170	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-8,009	-5,438	-5,438	-5,040	0,000	4,960	5,358	5,358	7,851	
Cota (m):		16,157	16,105	16,010	16,018	16,118	16,019	16,011	16,107	16,157	
E:		708.890,5394	708.890,6079	708.890,6079	708.890,6185	708.890,7527	708.890,8848	708.890,8954	708.890,8954	708.890,9618	
N:		7.090.230,6306	7.090.228,0605	7.090.228,0605	7.090.227,6625	7.090.222,6244	7.090.217,6660	7.090.217,2682	7.090.217,2682	7.090.214,7765	
<b>Station: 17+19</b>											
Dist. Eixo (m):		-13,109	-8,089	-8,089	-7,692	0,000	7,101	7,499	7,499	10,625	
Cota (m):		16,655	16,555	16,459	16,467	16,365	16,236	16,236	16,323	16,386	
E:		708.899,7104	708.899,8442	708.899,8442	708.899,8548	708.900,0600	708.900,2491	708.900,2597	708.900,2597	708.900,3430	
N:		7.090.235,9918	7.090.230,9685	7.090.230,9685	7.090.230,5705	7.090.222,8724	7.090.215,7740	7.090.215,3762	7.090.215,3762	7.090.212,2516	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-13,107	-8,428	-8,428	-8,030	0,000	8,402	8,800	8,800	12,881	
Cota (m):		16,873	16,580	16,484	16,492	16,383	16,267	16,269	16,355	16,437	
E:		708.899,7621	708.900,1139	708.900,1139	708.900,1438	708.900,7475	708.901,3791	708.901,4090	708.901,4090	708.901,7158	
N:		7.090.235,9937	7.090.231,3283	7.090.231,3283	7.090.230,9313	7.090.222,9242	7.090.214,5457	7.090.214,1488	7.090.214,1488	7.090.210,0793	
<b>Station: 18+9</b>											
Dist. Eixo (m):		-10,357	-9,959	-9,959	-9,952	0,000	8,817	9,219	9,219	12,984	
Cota (m):		16,337	16,249	16,249	16,249	16,448	16,272	16,263	16,360	16,435	
E:		708.909,9403	708.909,9702	708.909,9702	708.909,9707	708.910,7189	708.911,3820	708.911,4123	708.911,4123	708.911,6955	
N:		7.090.234,0032	7.090.233,6064	7.090.233,6064	7.090.233,6000	7.090.223,6759	7.090.214,8804	7.090.214,4788	7.090.214,4788	7.090.210,7214	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-12,308	-10,119	-10,119	-9,721	0,000	8,675	9,072	9,072	12,988	
Cota (m):		16,387	16,343	16,247	16,255	16,450	16,276	16,268	16,364	16,442	
E:		708.909,8883	708.910,0529	708.910,0529	708.910,0828	708.910,8136	708.911,4663	708.911,4962	708.911,4962	708.911,7909	
N:		7.090.235,9564	7.090.233,7733	7.090.233,7733	7.090.233,3762	7.090.223,6831	7.090.215,0250	7.090.214,6282	7.090.214,6282	7.090.210,7199	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-7,915	-5,502	-5,502	-5,104	0,000	4,896	5,294	5,294	7,696	
Cota (m):		16,654	16,606	16,510	16,518	16,620	16,522	16,514	16,610	16,658	
E:		708.920,4546	708.920,5335	708.920,5335	708.920,5466	708.920,7136	708.920,8738	708.920,8868	708.920,8868	708.920,9654	
N:		7.090.231,9184	7.090.229,5067	7.090.229,5067	7.090.229,1088	7.090.224,0072	7.090.219,1141	7.090.218,7164	7.090.218,7164	7.090.216,3156	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-7,903	-5,480	-5,480	-5,081	0,000	4,919	5,317	5,317	7,674	
Cota (m):		16,755	16,706	16,611	16,619	16,720	16,622	16,614	16,710	16,757	
E:		708.930,4496	708.930,5289	708.930,5289	708.930,5420	708.930,7082	708.930,8692	708.930,8822	708.930,8822	708.930,9594	
N:		7.090.232,2335	7.090.229,8110	7.090.229,8110	7.090.229,4131	7.090.224,3344	7.090.219,4184	7.090.219,0207	7.090.219,0207	7.090.216,6643	
<b>Station: 19+19</b>											
Dist. Eixo (m):		-7,874	-5,457	-5,457	-5,058	0,000	4,942	5,340	5,340	7,644	
Cota (m):		16,633	16,585	16,489	16,497	16,598	16,500	16,492	16,587	16,633	
E:		708.940,4452	708.940,5243	708.940,5243	708.940,5373	708.940,7029	708.940,8646	708.940,8776	708.940,8776	708.940,9530	
N:		7.090.232,5313	7.090.230,1153	7.090.230,1153	7.090.229,7173	7.090.224,6617	7.090.219,7227	7.090.219,3249	7.090.219,3249	7.090.217,0218	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-7,842	-5,434	-5,434	-5,035	0,000	4,965	5,363	5,363	7,671	
Cota (m):		16,357	16,309	16,213	16,221	16,322	16,223	16,215	16,311	16,357	
E:		708.950,4409	708.950,5197	708.950,5197	708.950,5327	708.950,6975	708.950,8600	708.950,8730	708.950,8730	708.950,9485	
N:		7.090.232,8264	7.090.230,4196	7.090.230,4196	7.090.230,0216	7.090.224,9889	7.090.220,0269	7.090.219,6292	7.090.219,6292	7.090.217,3223	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO C. G. DE OLIVEIRA (T2)**

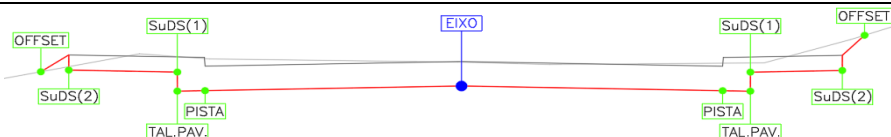
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 21+0</b>											
Dist. Eixo (m):		-7,974	-5,411	-5,411	-5,012	0,000	4,988	5,386	5,386	7,311	
Cota (m):		16,080	16,029	15,933	15,941	16,041	15,941	15,933	16,030	16,068	
E:		708.960,4312	708.960,5151	708.960,5151	708.960,5281	708.960,6922	708.960,8554	708.960,8684	708.960,8684	708.960,9314	
N:		7.090.233,2858	7.090.230,7238	7.090.230,7238	7.090.230,3259	7.090.225,3161	7.090.220,3312	7.090.219,9335	7.090.219,9335	7.090.218,0093	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-10,120	-6,826	-6,826	-6,428	0,000	6,172	6,570	6,570	8,430	
Cota (m):		15,784	15,719	15,623	15,631	15,760	15,637	15,629	15,725	15,762	
E:		708.970,3557	708.970,4634	708.970,4634	708.970,4765	708.970,6868	708.970,8888	708.970,9018	708.970,9018	708.970,9627	
N:		7.090.235,7580	7.090.232,4655	7.090.232,4655	7.090.232,0676	7.090.225,6434	7.090.219,4748	7.090.219,0771	7.090.219,0771	7.090.217,2176	
<b>Station: 21+13</b>											
Dist. Eixo (m):		-13,646	-5,395	-5,395	-4,998	0,000	10,558	10,955	10,955	12,546	
Cota (m):		15,816	15,651	15,555	15,563	15,663	15,452	15,444	15,539	15,571	
E:		708.973,6890	708.973,9592	708.973,9592	708.973,9722	708.974,1358	708.974,4813	708.974,4943	708.974,4943	708.974,5463	
N:		7.090.239,4021	7.090.231,1516	7.090.231,1516	7.090.230,7536	7.090.225,7563	7.090.215,2044	7.090.214,8067	7.090.214,8067	7.090.213,2169	
<b>Station: 22+1</b>											
Dist. Eixo (m):						0,000	4,999	5,397	5,397	6,198	
Cota (m):						15,470	15,370	15,362	15,458	15,474	
E:						708.982,2572	708.982,5782	708.982,6037	708.982,6037	708.982,6552	
N:						7.090.226,2788	7.090.221,2891	7.090.220,8920	7.090.220,8920	7.090.220,0916	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-8,256	-5,654	-5,654	-5,255	0,000	4,745	5,143	5,143	7,745	
Cota (m):		15,406	15,354	15,258	15,266	15,371	15,276	15,268	15,364	15,416	
E:		708.990,3209	708.990,4281	708.990,4281	708.990,4445	708.990,6610	708.990,8565	708.990,8729	708.990,8729	708.990,9801	
N:		7.090.234,8739	7.090.232,2741	7.090.232,2741	7.090.231,8763	7.090.226,6253	7.090.221,8842	7.090.221,4866	7.090.221,4866	7.090.218,8871	
<b>Station: 22+16</b>											
Dist. Eixo (m):		-8,188	-5,586	-5,586	-5,188	0,000	4,813	5,156	5,156	7,463	
Cota (m):		15,387	15,335	15,239	15,247	15,351	15,255	15,248	15,342	15,388	
E:		708.996,6352	708.996,7424	708.996,7424	708.996,7588	708.996,9725	708.997,1708	708.997,1850	708.997,1850	708.997,2800	
N:		7.090.235,0668	7.090.232,4670	7.090.232,4670	7.090.232,0691	7.090.226,8855	7.090.222,0771	7.090.221,7335	7.090.221,7335	7.090.219,4290	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-8,149	-5,547	-5,547	-5,149	0,000	4,852	5,250	5,250	7,886	
Cota (m):		15,379	15,327	15,231	15,239	15,342	15,245	15,237	15,332	15,385	
E:		709.000,3168	709.000,4240	709.000,4240	709.000,4404	709.000,6525	709.000,8524	709.000,8688	709.000,8688	709.000,9774	
N:		7.090.235,1792	7.090.232,5794	7.090.232,5794	7.090.232,1816	7.090.227,0372	7.090.222,1895	7.090.221,7919	7.090.221,7919	7.090.219,1577	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-8,042	-5,440	-5,440	-5,042	0,000	4,959	5,357	5,357	7,894	
Cota (m):		15,356	15,304	15,209	15,217	15,317	15,218	15,210	15,306	15,357	
E:		709.010,3128	709.010,4199	709.010,4199	709.010,4364	709.010,6441	709.010,8483	709.010,8647	709.010,8647	709.010,9693	
N:		7.090.235,4845	7.090.232,8846	7.090.232,8846	7.090.232,4868	7.090.227,4492	7.090.222,4947	7.090.222,0971	7.090.222,0971	7.090.219,5617	
<b>Station: 23+13</b>											
Dist. Eixo (m):		-8,000	-5,398	-5,398	-5,000	0,000	5,000	5,398	5,398	7,872	
Cota (m):		15,348	15,296	15,200	15,208	15,308	15,208	15,200	15,296	15,345	
E:		709.014,2113	709.014,3185	709.014,3185	709.014,3349	709.014,5408	709.014,7468	709.014,7632	709.014,7632	709.014,8651	
N:		7.090.235,6035	7.090.233,0037	7.090.233,0037	7.090.232,6059	7.090.227,6098	7.090.222,6141	7.090.222,2165	7.090.222,2165	7.090.219,7447	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO SANCHO MOREIRA**

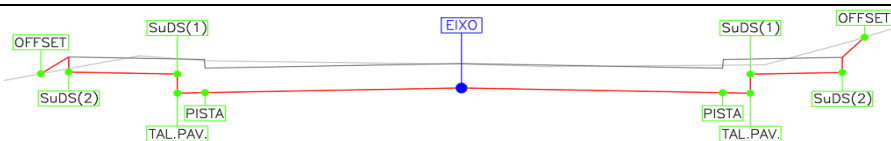
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>											
Dist. Eixo (m):		-5,927	-3,697			0,000			3,662	5,432	
Cota (m):		13,846	13,802						13,803	13,838	
E:		708.467,8447	708.465,6162			708.461,9209			708.458,2611	708.456,4919	
N:		7.090.284,4929	7.090.284,4210			7.090.284,3018			7.090.284,1837	7.090.284,1266	
<b>Station: 0+14</b>											
Dist. Eixo (m):		-5,891	-3,716			0,000			3,717	5,491	
Cota (m):		13,751	13,708						13,708	13,743	
E:		708.467,9671	708.465,7936			708.462,0793			708.458,3644	708.456,5907	
N:		7.090.279,5828	7.090.279,5126			7.090.279,3928			7.090.279,2729	7.090.279,2157	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-5,996	-4,144	-4,144	-3,715	0,000	3,748	4,176	4,176	5,553	
Cota (m):		13,660	13,623	13,496	13,505	13,579	13,504	13,496	13,622	13,650	
E:		708.468,2358	708.466,3854	708.466,3854	708.465,9569	708.462,2434	708.458,4977	708.458,0694	708.458,0694	708.456,6931	
N:		7.090.274,5003	7.090.274,4406	7.090.274,4406	7.090.274,4268	7.090.274,3070	7.090.274,1861	7.090.274,1723	7.090.274,1723	7.090.274,1279	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,967	-4,162	-4,162	-3,733	0,000	3,828	4,256	4,256	5,675	
Cota (m):		13,504	13,468	13,341	13,350	13,424	13,348	13,339	13,466	13,494	
E:		708.468,5295	708.466,7253	708.466,7253	708.466,2967	708.462,5659	708.458,7400	708.458,3116	708.458,3116	708.456,8943	
N:		7.090.264,5046	7.090.264,4464	7.090.264,4464	7.090.264,4326	7.090.264,3122	7.090.264,1887	7.090.264,1749	7.090.264,1749	7.090.264,1292	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,938	-4,179	-4,179	-3,750	0,000	3,908	4,337	4,337	5,796	
Cota (m):		13,432	13,397	13,270	13,279	13,354	13,275	13,267	13,394	13,423	
E:		708.468,8231	708.467,0651	708.467,0651	708.466,6366	708.462,8884	708.458,9823	708.458,5539	708.458,5539	708.457,0955	
N:		7.090.254,5089	7.090.254,4522	7.090.254,4522	7.090.254,4383	7.090.254,3174	7.090.254,1914	7.090.254,1775	7.090.254,1775	7.090.254,1305	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,909	-4,196	-4,196	-3,767	0,000	3,988	4,417	4,417	5,917	
Cota (m):		13,419	13,385	13,258	13,267	13,342	13,262	13,254	13,381	13,411	
E:		708.469,1167	708.467,4050	708.467,4050	708.466,9764	708.463,2109	708.459,2246	708.458,7962	708.458,7962	708.457,2967	
N:		7.090.244,5131	7.090.244,4579	7.090.244,4579	7.090.244,4441	7.090.244,3226	7.090.244,1940	7.090.244,1801	7.090.244,1801	7.090.244,1318	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,880	-4,214	-4,214	-3,785	0,000	4,069	4,497	4,497	6,039	
Cota (m):		13,408	13,375	13,248	13,257	13,333	13,251	13,243	13,370	13,401	
E:		708.469,4106	708.467,7448	708.467,7448	708.467,3163	708.463,5334	708.459,4669	708.459,0385	708.459,0385	708.457,4979	
N:		7.090.234,5174	7.090.234,4637	7.090.234,4637	7.090.234,4498	7.090.234,3278	7.090.234,1966	7.090.234,1828	7.090.234,1828	7.090.234,1330	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-5,851	-4,231	-4,231	-3,802	0,000	4,149	4,577	4,577	6,160	
Cota (m):		13,398	13,366	13,238	13,247	13,323	13,240	13,232	13,358	13,390	
E:		708.469,7042	708.468,0847	708.468,0847	708.467,6561	708.463,8559	708.459,7091	708.459,2808	708.459,2808	708.457,6991	
N:		7.090.224,5217	7.090.224,4694	7.090.224,4694	7.090.224,4556	7.090.224,3330	7.090.224,1992	7.090.224,1854	7.090.224,1854	7.090.224,1343	
<b>Station: 4+0</b>											
Dist. Eixo (m):					-4,974	0,000	6,026				
Cota (m):					13,234	13,314	13,367				
E:					708.469,1502	708.464,1784	708.458,1559				
N:					7.090.214,4986	7.090.214,3382	7.090.214,1439				
<b>Station: 4+1</b>											
Dist. Eixo (m):					-6,623	0,000	6,723				
Cota (m):					13,230	13,312	13,394				
E:					708.470,8479	708.464,2279	708.457,5078				
N:					7.090.213,0182	7.090.212,8046	7.090.212,5877				
<b>Station: 4+2</b>											
Dist. Eixo (m):					-7,000	0,000	6,711				
Cota (m):					13,248	13,312	13,395				
E:					708.471,2402	708.464,2413	708.457,5314				
N:					7.090.212,1548	7.090.212,0332	7.090.211,9167				
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,876	-4,052			0,000			3,963	5,960	
Cota (m):		13,307	13,271						13,272	13,312	
E:		708.470,6511	708.468,8282			708.464,7769			708.460,8152	708.458,8186	
N:		7.090.184,4770	7.090.184,4359			7.090.184,3444			7.090.184,2549	7.090.184,2098	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-5,856	-4,063			0,000			3,949	6,052	
Cota (m):		13,289	13,253						13,256	13,298	
E:		708.470,8572	708.469,0648			708.465,0027			708.461,0544	708.458,9522	
N:		7.090.174,4791	7.090.174,4387			7.090.174,3469			7.090.174,2578	7.090.174,2103	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-5,836	-4,058			0,000			3,961	6,114	
Cota (m):		13,232	13,197						13,198	13,241	
E:		708.471,0633	708.469,2849			708.465,2284			708.461,2680	708.459,1164	
N:		7.090.164,4812	7.090.164,4411			7.090.164,3495			7.090.164,2600	7.090.164,2115	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-5,817	-4,052			0,000			3,966	6,030	
Cota (m):		13,183	13,147						13,149	13,190	
E:		708.471,2694	708.469,5050			708.465,4542			708.461,4890	708.459,4253	
N:		7.090.154,4833	7.090.154,4435			7.090.154,3520			7.090.154,2625	7.090.154,2159	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-5,834	-4,043			0,000			3,964	5,950	
Cota (m):		13,194	13,158						13,159	13,199	
E:		708.471,5128	708.469,7220			708.465,6800			708.461,7167	708.459,7319	
N:		7.090.144,4863	7.090.144,4459			7.090.144,3546			7.090.144,2651	7.090.144,2203	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO SANCHO MOREIRA**

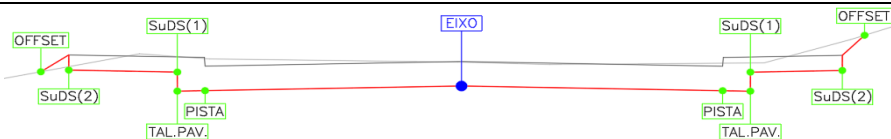
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,855	-4,031			0,000			3,962	5,892	
Cota (m):		13,207	13,170						13,172	13,210	
E:		708.471,7589	708.469,9358			708.465,9057			708.461,9443	708.460,0151	
N:		7.090.134,4893	7.090.134,4481			7.090.134,3571			7.090.134,2677	7.090.134,2241	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-5,875	-4,019			0,000			3,987	5,917	
Cota (m):		13,233	13,196						13,196	13,235	
E:		708.472,0051	708.470,1497			708.466,1315			708.462,1451	708.460,2158	
N:		7.090.124,4923	7.090.124,4504			7.090.124,3597			7.090.124,2696	7.090.124,2261	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-5,913	-4,007			0,000			4,030	5,977	
Cota (m):		13,253	13,215						13,215	13,254	
E:		708.472,2687	708.470,3635			708.466,3573			708.462,3282	708.460,3821	
N:		7.090.114,4957	7.090.114,4527			7.090.114,3622			7.090.114,2712	7.090.114,2273	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-5,952	-3,995			0,000			4,073	5,924	
Cota (m):		13,239	13,200						13,198	13,235	
E:		708.472,5338	708.470,5774			708.466,5830			708.462,5114	708.460,6804	
N:		7.090.104,4992	7.090.104,4550			7.090.104,3648			7.090.104,2728	7.090.104,2310	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-5,992	-3,984			0,000			4,110	5,917	
Cota (m):		13,212	13,172						13,169	13,205	
E:		708.472,7990	708.470,7915			708.466,8088			708.462,7002	708.460,8931	
N:		7.090.094,5026	7.090.094,4573			7.090.094,3673			7.090.094,2745	7.090.094,2337	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-6,048	-3,972			0,000			4,143	5,857	
Cota (m):		13,157	13,115						13,112	13,146	
E:		708.473,0815	708.471,0056			708.467,0346			708.462,8930	708.461,1788	
N:		7.090.084,5064	7.090.084,4595			7.090.084,3699			7.090.084,2763	7.090.084,2376	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-6,114	-3,960			0,000			4,176	5,806	
Cota (m):		13,094	13,051						13,047	13,080	
E:		708.473,3724	708.471,2198			708.467,2603			708.463,0857	708.461,4562	
N:		7.090.074,5104	7.090.074,4618			7.090.074,3724			7.090.074,2781	7.090.074,2413	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-6,226	-3,949			0,000			4,128	5,907	
Cota (m):		13,031	12,986						12,982	13,018	
E:		708.473,7105	708.471,4339			708.467,4861			708.463,3596	708.461,5805	
N:		7.090.064,5155	7.090.064,4641			7.090.064,3750			7.090.064,2818	7.090.064,2416	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-5,929	-4,014			0,000			4,191	5,956	
Cota (m):		12,849	12,810						12,807	12,842	
E:		708.474,1000	708.472,1849			708.468,1725			708.463,9826	708.462,2180	
N:		7.090.034,5324	7.090.034,4841			7.090.034,3828			7.090.034,2771	7.090.034,2326	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-5,937	-4,025			0,000			4,167	5,876	
Cota (m):		12,846	12,807						12,805	12,839	
E:		708.474,3598	708.472,4479			708.468,4247			708.464,2589	708.462,5505	
N:		7.090.024,5357	7.090.024,4875			7.090.024,3860			7.090.024,2809	7.090.024,2378	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-5,945	-4,035			0,000			4,155	5,796	
Cota (m):		12,849	12,811						12,808	12,841	
E:		708.474,6196	708.472,7109			708.468,6769			708.464,5234	708.462,8831	
N:		7.090.014,5391	7.090.014,4910			7.090.014,3892			7.090.014,2844	7.090.014,2430	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-5,952	-4,046			0,000			4,143	5,715	
Cota (m):		12,861	12,822						12,821	12,852	
E:		708.474,8794	708.472,9740			708.468,9291			708.464,7879	708.463,2157	
N:		7.090.004,5425	7.090.004,4944			7.090.004,3924			7.090.004,2879	7.090.004,2482	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-5,960	-4,057			0,000			4,130	5,635	
Cota (m):		12,868	12,830						12,828	12,858	
E:		708.475,1393	708.473,2370			708.469,1814			708.465,0524	708.463,5482	
N:		7.089.994,5459	7.089.994,4979			7.089.994,3956			7.089.994,2914	7.089.994,2534	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-6,019	-4,068			0,000			4,118	5,620	
Cota (m):		12,839	12,800						12,799	12,829	
E:		708.475,4509	708.473,5000			708.469,4336			708.465,3169	708.463,8152	
N:		7.089.984,5505	7.089.984,5013			7.089.984,3987			7.089.984,2949	7.089.984,2570	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-6,113	-4,079			0,000			4,106	5,668	
Cota (m):		12,809	12,768						12,768	12,799	
E:		708.475,7966	708.473,7630			708.469,6858			708.465,5811	708.464,0196	
N:		7.089.974,5561	7.089.974,5048			7.089.974,4019			7.089.974,2984	7.089.974,2590	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-6,093	-4,089			0,000			4,097	5,716	
Cota (m):		12,794	12,754						12,753	12,786	
E:		708.476,0287	708.474,0260			708.469,9380			708.465,8422	708.464,2240	
N:		7.089.964,5588	7.089.964,5082			7.089.964,4051			7.089.964,3018	7.089.964,2609	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO SANCHO MOREIRA**

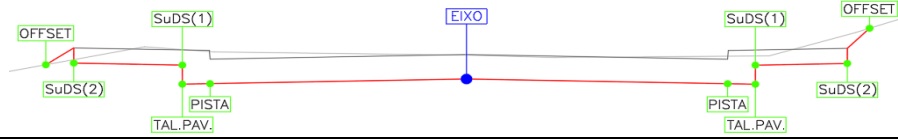
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 17+0</b>											
Dist. Eixo (m):		-6,073	-4,100			0,000			4,088	5,764	
Cota (m):		12,762	12,723						12,723	12,756	
E:		708.476,2609	708.474,2890			708.470,1902			708.466,1033	708.464,4284	
N:		7.089.954,5614	7.089.954,5117			7.089.954,4083			7.089.954,3052	7.089.954,2629	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-6,052	-4,111			0,000			4,055	5,811	
Cota (m):		12,724	12,685						12,686	12,721	
E:		708.476,4930	708.474,5520			708.470,4424			708.466,3891	708.464,6328	
N:		7.089.944,5641	7.089.944,5151			7.089.944,4115			7.089.944,3092	7.089.944,2649	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-6,032	-4,122			0,000			4,017	5,859	
Cota (m):		12,672	12,634						12,636	12,673	
E:		708.476,7251	708.474,8152			708.470,6946			708.466,6793	708.464,8372	
N:		7.089.934,5668	7.089.934,5186			7.089.934,4146			7.089.934,3133	7.089.934,2669	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-6,012	-4,133			0,000			3,979	5,907	
Cota (m):		12,610	12,572						12,575	12,614	
E:		708.476,9573	708.475,0789			708.470,9469			708.466,9694	708.465,0416	
N:		7.089.924,5695	7.089.924,5221			7.089.924,4178			7.089.924,3175	7.089.924,2688	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-6,089	-4,144			0,000			3,941	5,916	
Cota (m):		12,540	12,501						12,505	12,545	
E:		708.477,2866	708.475,3415			708.471,1991			708.467,2596	708.465,2846	
N:		7.089.914,5746	7.089.914,5255			7.089.914,4210			7.089.914,3216	7.089.914,2718	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-8,964	-5,534			0,000			5,025	7,839	
Cota (m):		12,469	12,401						12,411	12,467	
E:		708.480,4119	708.476,9835			708.471,4513			708.466,4283	708.463,6147	
N:		7.089.904,6503	7.089.904,5638			7.089.904,4242			7.089.904,2975	7.089.904,2265	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-7,883	-4,704			0,000			3,932	5,994	
Cota (m):		12,574	12,510						12,525	12,567	
E:		708.479,8367	708.476,6580			708.471,9557			708.468,0246	708.465,9636	
N:		7.089.884,6294	7.089.884,5492			7.089.884,4305			7.089.884,3314	7.089.884,2794	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-5,982	-4,164			0,000			3,940	5,883	
Cota (m):		12,627	12,591						12,595	12,634	
E:		708.478,1881	708.476,3701			708.472,2079			708.468,2688	708.466,3271	
N:		7.089.874,5846	7.089.874,5387			7.089.874,4337			7.089.874,3343	7.089.874,2854	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,005	-4,119			0,000			3,953	5,881	
Cota (m):		12,619	12,581						12,584	12,623	
E:		708.478,4636	708.476,5774			708.472,4602			708.468,5081	708.466,5809	
N:		7.089.864,5884	7.089.864,5408			7.089.864,4369			7.089.864,3372	7.089.864,2886	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-6,009	-4,080			0,000			3,979	5,880	
Cota (m):		12,610	12,571						12,573	12,611	
E:		708.478,7190	708.476,7909			708.472,7124			708.468,7345	708.466,8346	
N:		7.089.854,5916	7.089.854,5430			7.089.854,4401			7.089.854,3397	7.089.854,2918	
<b>Station: 22+10</b>											
Dist. Eixo (m):		-6,012	-4,080			0,000			4,002	5,878	
Cota (m):		12,531	12,492						12,494	12,532	
E:		708.478,9744	708.477,0432			708.472,9646			708.468,9643	708.467,0884	
N:		7.089.844,5949	7.089.844,5462			7.089.844,4433			7.089.844,3423	7.089.844,2950	
<b>Station: 23+0</b>											
Dist. Eixo (m):		-5,997	-4,074			0,000			4,020	5,877	
Cota (m):		12,432	12,394						12,395	12,432	
E:		708.479,2122	708.477,2897			708.473,2168			708.469,1980	708.467,3421	
N:		7.089.834,5977	7.089.834,5492			7.089.834,4464			7.089.834,3451	7.089.834,2982	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-5,976	-4,047			0,000			4,039	5,875	
Cota (m):		12,370	12,331						12,332	12,368	
E:		708.479,4434	708.477,5150			708.473,4690			708.469,4317	708.467,5959	
N:		7.089.824,6004	7.089.824,5517			7.089.824,4496			7.089.824,3478	7.089.824,3015	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-5,955	-4,011			0,000			4,091	5,873	
Cota (m):		12,349	12,310						12,308	12,344	
E:		708.479,6746	708.477,7314			708.473,7212			708.469,6315	708.467,8497	
N:		7.089.814,6030	7.089.814,5540			7.089.814,4528			7.089.814,3496	7.089.814,3047	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-5,916	-4,036			0,000			4,162	5,872	
Cota (m):		12,302	12,264						12,262	12,296	
E:		708.479,8872	708.478,0085			708.473,9734			708.469,8128	708.468,1034	
N:		7.089.804,6052	7.089.804,5578			7.089.804,4560			7.089.804,3510	7.089.804,3079	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-5,868	-4,018			0,000			4,233	5,870	
Cota (m):		12,201	12,164						12,160	12,193	
E:		708.480,0915	708.478,2424			708.474,2257			708.469,9940	708.468,3572	
N:		7.089.794,6072	7.089.794,5605			7.089.794,4592			7.089.794,3524	7.089.794,3111	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOÃO SANCHO MOREIRA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
Station: 25+4											
Dist. Eixo (m):		-5,200	-4,010			0,000			5,010	6,200	
Cota (m):		12,144	12,121					12,101	12,124		
E:		708.479,5339	708.478,3443			708.474,3355		708.469,3271	708.468,1375		
N:		7.089.790,2350	7.089.790,2050			7.089.790,1039		7.089.789,9775	7.089.789,9475		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
Station: 0+0									
Dist. Eixo (m):			-10,236	-9,027	0,000	12,323	13,652		
Cota (m):			12,125	12,101		12,035	12,033		
E:			709.545,2291	709.544,0212	709.534,9992	709.522,6830	709.521,3545		
N:			7.090.786,8854	7.090.786,8447	7.090.786,5402	7.090.786,1245	7.090.786,0797		
Station: 0+10									
Dist. Eixo (m):			-6,195	-4,002	0,000	4,522	6,638		
Cota (m):			12,101	12,057		12,047	12,089		
E:			709.541,5220	709.539,3305	709.535,3307	709.530,8116	709.528,6969		
N:			7.090.776,9236	7.090.776,8496	7.090.776,7146	7.090.776,5621	7.090.776,4908		
Station: 1+0									
Dist. Eixo (m):			-5,988	-3,957	0,000	3,952	5,952		
Cota (m):			11,971	11,931		11,931	11,971		
E:			709.541,6530	709.539,6224	709.535,6680	709.531,7178	709.529,7195		
N:			7.090.766,9223	7.090.766,8538	7.090.766,7203	7.090.766,5870	7.090.766,5196		
Station: 1+10									
Dist. Eixo (m):			-5,820	-3,911	0,000	3,938	5,973		
Cota (m):			11,943	11,905		11,904	11,945		
E:			709.541,8216	709.539,9144	709.536,0053	709.532,0693	709.530,0361		
N:			7.090.756,9223	7.090.756,8579	7.090.756,7260	7.090.756,5932	7.090.756,5246		
Station: 2+0									
Dist. Eixo (m):			-5,943	-3,890	0,000	3,924	5,993		
Cota (m):			11,927	11,886		11,885	11,926		
E:			709.542,2821	709.540,2305	709.536,3426	709.532,4208	709.530,3527		
N:			7.090.746,9322	7.090.746,8629	7.090.746,7317	7.090.746,5994	7.090.746,5296		
Station: 2+10									
Dist. Eixo (m):			-5,974	-3,920	0,000	3,910	6,014		
Cota (m):			11,880	11,839		11,839	11,881		
E:			709.542,6503	709.540,5974	709.536,6799	709.532,7723	709.530,6692		
N:			7.090.736,9389	7.090.736,8696	7.090.736,7374	7.090.736,6055	7.090.736,5345		
Station: 3+0									
Dist. Eixo (m):			-5,920	-3,949	0,000	3,928	6,114		
Cota (m):			11,837	11,798		11,798	11,842		
E:			709.542,9338	709.540,9642	709.537,0172	709.533,0909	709.530,9071		
N:			7.090.726,9428	7.090.726,8763	7.090.726,7431	7.090.726,6106	7.090.726,5369		
Station: 3+10									
Dist. Eixo (m):			-5,843	-3,979	0,000	3,949	6,220		
Cota (m):			11,806	11,768		11,769	11,814		
E:			709.543,1942	709.541,3309	709.537,3545	709.533,4072	709.531,1380		
N:			7.090.716,9459	7.090.716,8830	7.090.716,7488	7.090.716,6156	7.090.716,5390		
Station: 4+0									
Dist. Eixo (m):			-5,779	-3,969	0,000	3,968	7,120		
Cota (m):			11,891	11,855		11,855	11,918		
E:			709.543,4674	709.541,6581	709.537,6918	709.533,7260	709.530,5760		
N:			7.090.706,9494	7.090.706,8883	7.090.706,7545	7.090.706,6206	7.090.706,5143		
Station: 4+10									
Dist. Eixo (m):			-5,824	-3,958	0,000	3,984	7,071		
Cota (m):			11,767	11,730		11,729	11,791		
E:			709.543,8499	709.541,9853	709.538,0291	709.534,0473	709.530,9620		
N:			7.090.696,9566	7.090.696,8937	7.090.696,7602	7.090.696,6258	7.090.696,5217		
Station: 5+0									
Dist. Eixo (m):			-5,922	-3,948	0,000	4,000	7,017		
Cota (m):			11,597	11,557		11,556	11,617		
E:			709.544,2848	709.542,3125	709.538,3663	709.534,3684	709.531,3536		
N:			7.090.686,9656	7.090.686,8990	7.090.686,7658	7.090.686,6309	7.090.686,5292		
Station: 5+10									
Dist. Eixo (m):			-6,040	-3,945	0,000	4,017	6,919		
Cota (m):			11,556	11,514		11,513	11,571		
E:			709.544,7400	709.542,6460	709.538,7036	709.534,6885	709.531,7882		
N:			7.090.676,9753	7.090.676,9046	7.090.676,7715	7.090.676,6360	7.090.676,5382		
Station: 6+0									
Dist. Eixo (m):			-6,158	-3,958	0,000	4,035	6,822		
Cota (m):			11,500	11,456		11,455	11,510		
E:			709.545,1951	709.542,9966	709.539,0409	709.535,0086	709.532,2228		
N:			7.090.666,9849	7.090.666,9107	7.090.666,7772	7.090.666,6411	7.090.666,5471		
Station: 6+10									
Dist. Eixo (m):			-5,981	-3,968	0,000	4,065	6,725		
Cota (m):			11,436	11,395		11,393	11,447		
E:			709.545,3557	709.543,3441	709.539,3782	709.535,3158	709.532,6574		
N:			7.090.656,9846	7.090.656,9168	7.090.656,7829	7.090.656,6458	7.090.656,5561		
Station: 7+0									
Dist. Eixo (m):			-5,977	-3,978	0,000				
Cota (m):			11,359	11,319					
E:			709.545,6893	709.543,6908	709.539,7155				
N:			7.090.646,9902	7.090.646,9228	7.090.646,7886				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
Station: 7+10									
Dist. Eixo (m):			-5,974	-4,002	0,000				
Cota (m):			11,261	11,222					
E:			709.546,0229	709.544,0527	709.540,0528				
N:			7.090.636,9958	7.090.636,9293	7.090.636,7943				

Station: 8+0									
Dist. Eixo (m):			-5,970	-4,027	0,000	4,105	5,947		
Cota (m):			11,260	11,221		11,220	11,255		
E:			709.546,3565	709.544,4146	709.540,3901	709.536,2877	709.534,4464		
N:			7.090.627,0013	7.090.626,9358	7.090.626,8000	7.090.626,6615	7.090.626,5994		

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
Station: 8+10									
Dist. Eixo (m):			-5,966	-4,010	0,000	3,927	5,905		
Cota (m):			11,239	11,200		11,202	11,242		
E:			709.546,6902	709.544,7355	709.540,7274	709.536,8027	709.534,8253		
N:			7.090.617,0069	7.090.616,9409	7.090.616,8057	7.090.616,6732	7.090.616,6065		

Station: 9+0									
Dist. Eixo (m):			-5,963	-3,977	0,000	3,962	5,901		
Cota (m):			11,225	11,185		11,185	11,224		
E:			709.547,0238	709.545,0391	709.541,0647	709.537,1049	709.535,1671		
N:			7.090.607,0125	7.090.606,9455	7.090.606,8114	7.090.606,6777	7.090.606,6123		

Station: 9+10									
Dist. Eixo (m):			-5,961	-3,945	0,000	3,997	5,777		
Cota (m):			11,215	11,175		11,174	11,209		
E:			709.547,3600	709.545,3447	709.541,4020	709.537,4070	709.535,6283		
N:			7.090.597,0181	7.090.596,9501	7.090.596,8171	7.090.596,6822	7.090.596,6222		

Station: 10+0									
Dist. Eixo (m):			-5,961	-3,944	0,000	4,004	5,720		
Cota (m):			11,195	11,155		11,154	11,188		
E:			709.547,6966	709.545,6814	709.541,7392	709.537,7378	709.536,0222		
N:			7.090.587,0238	7.090.586,9558	7.090.586,8227	7.090.586,6877	7.090.586,6298		

Station: 10+10									
Dist. Eixo (m):			-5,960	-3,944	0,000	3,991	5,753		
Cota (m):			11,206	11,166		11,165	11,200		
E:			709.548,0333	709.546,0180	709.542,0765	709.538,0881	709.536,3267		
N:			7.090.577,0295	7.090.576,9615	7.090.576,8284	7.090.576,6938	7.090.576,6344		

Station: 11+0									
Dist. Eixo (m):			-5,960	-3,943	0,000	3,978	5,877		
Cota (m):			11,326	11,285		11,285	11,323		
E:			709.548,3699	709.546,3547	709.542,4138	709.538,4385	709.536,5406		
N:			7.090.567,0351	7.090.566,9671	7.090.566,8341	7.090.566,7000	7.090.566,6359		

Station: 11+10									
Dist. Eixo (m):			-5,956	-3,942	0,000	3,965	5,947		
Cota (m):			11,435	11,394		11,394	11,434		
E:			709.548,7039	709.546,6913	709.542,7511	709.538,7888	709.536,8074		
N:			7.090.557,0407	7.090.556,9728	7.090.556,8398	7.090.556,7061	7.090.556,6392		

Station: 12+0									
Dist. Eixo (m):			-5,948	-3,942	0,000	3,951	6,034		
Cota (m):			11,530	11,490		11,490	11,532		
E:			709.549,0332	709.547,0280	709.543,0884	709.539,1392	709.537,0581		
N:			7.090.547,0461	7.090.546,9785	7.090.546,8455	7.090.546,7122	7.090.546,6420		

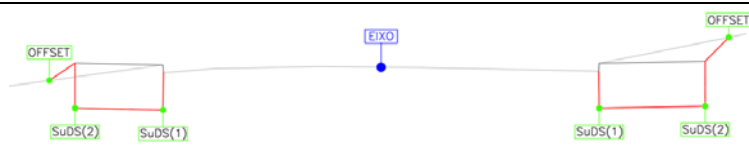
Station: 12+10									
Dist. Eixo (m):			-5,940	-3,941	0,000	3,938	6,085		
Cota (m):			11,582	11,542		11,542	11,585		
E:			709.549,3624	709.547,3646	709.543,4257	709.539,4896	709.537,3439		
N:			7.090.537,0515	7.090.536,9841	7.090.536,8512	7.090.536,7184	7.090.536,6459		

Station: 13+0									
Dist. Eixo (m):			-5,932	-3,941	0,000	3,973	5,909		
Cota (m):			11,614	11,574		11,573	11,612		
E:			709.549,6917	709.547,7013	709.543,7630	709.539,7927	709.537,8572		
N:			7.090.527,0570	7.090.526,9898	7.090.526,8569	7.090.526,7229	7.090.526,6576		

Station: 13+10									
Dist. Eixo (m):			-5,932	-3,941	0,000	4,041	6,255		
Cota (m):			11,634	11,595		11,593	11,634		
E:			709.550,0284	709.548,0391	709.544,1003	709.540,0612	709.537,8492		
N:			7.090.517,0626	7.090.516,9955	7.090.516,8626	7.090.516,7263	7.090.516,6516		

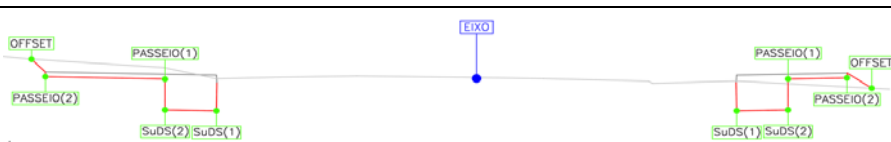
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)			OFFSET
Station: 14+0										
Dist. Eixo (m):			-5,933	-3,943	0,000	4,110	6,109			
Cota (m):			11,640	11,600		11,597	11,637			
E:			709.550,3671	709.548,3781	709.544,4376	709.540,3297	709.538,3321			
N:			7.090.507,0684	7.090.507,0012	7.090.506,8683	7.090.506,7296	7.090.506,6622			
Station: 14+6										
Dist. Eixo (m):			-6,446	-3,944	0,000	4,299	6,356			
Cota (m):			11,636	11,602		11,595	11,636			
E:			709.551,1159	709.548,6153	709.544,6737	709.540,3772	709.538,3216			
N:			7.090.500,0898	7.090.500,0054	7.090.499,8724	7.090.499,7274	7.090.499,6580			
Station: 14+10										
Dist. Eixo (m):			-6,000	-4,854	0,000	5,977	8,465			
Cota (m):			11,647	11,624		11,602	11,652			
E:			709.550,7707	709.549,6249	709.544,7741	709.538,8000	709.536,3139			
N:			7.090.497,0748	7.090.497,0364	7.090.496,8739	7.090.496,6738	7.090.496,5905			

Desenho Esquemático:

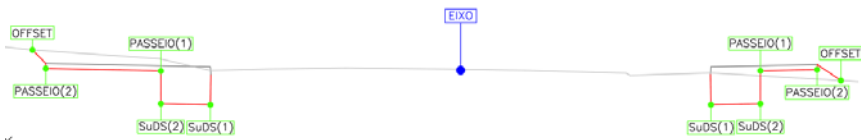


PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 15+10											
Dist. Eixo (m):		-6,041	-4,910	-4,910	-3,920	0,000	4,059	5,049	5,049	6,041	
Cota (m):		12,513	12,491	11,841	11,821		11,818	11,838	12,488	12,508	
E:		709.551,4812	709.550,3509	709.550,3509	709.549,3612	709.545,4437	709.541,3874	709.540,3980	709.540,3980	709.539,4061	
N:		7.090.477,0874	7.090.477,0495	7.090.477,0495	7.090.477,0164	7.090.476,8851	7.090.476,7493	7.090.476,7161	7.090.476,7161	7.090.476,6829	
Station: 16+0											
Dist. Eixo (m):		-6,034	-4,911	-4,911	-3,921	0,000	4,068	5,058	5,058	6,232	
Cota (m):		12,460	12,437	11,788	11,768		11,765	11,785	12,435	12,458	
E:		709.551,8095	709.550,6867	709.550,6867	709.549,6970	709.545,7785	709.541,7131	709.540,7237	709.540,7237	709.539,5496	
N:		7.090.467,0928	7.090.467,0552	7.090.467,0552	7.090.467,0220	7.090.466,8907	7.090.466,7546	7.090.466,7214	7.090.466,7214	7.090.466,6821	
Station: 16+10											
Dist. Eixo (m):		-6,055	-4,912	-4,912	-3,922	0,000	4,074	5,064	5,064	6,424	
Cota (m):		12,407	12,384	11,735	11,715		11,711	11,731	12,381	12,408	
E:		709.552,1653	709.551,0225	709.551,0225	709.550,0329	709.546,1134	709.542,0421	709.541,0527	709.541,0527	709.539,6931	
N:		7.090.457,0991	7.090.457,0608	7.090.457,0608	7.090.457,0277	7.090.456,8964	7.090.456,7600	7.090.456,7268	7.090.456,7268	7.090.456,6813	
Station: 17+0											
Dist. Eixo (m):		-6,021	-4,916	-4,916	-3,926	0,000	4,079	5,069	5,069	6,431	
Cota (m):		12,382	12,360	11,710	11,690		11,687	11,707	12,357	12,384	
E:		709.552,4658	709.551,3616	709.551,3616	709.550,3720	709.546,4482	709.542,3710	709.541,3816	709.541,3816	709.540,0210	
N:		7.090.447,1036	7.090.447,0666	7.090.447,0666	7.090.447,0334	7.090.446,9020	7.090.446,7654	7.090.446,7322	7.090.446,7322	7.090.446,6866	
Station: 17+10											
Dist. Eixo (m):		-5,927	-4,938	-4,938	-3,947	0,000	4,085	5,075	5,075	6,312	
Cota (m):		12,361	12,341	11,691	11,671		11,668	11,688	12,338	12,363	
E:		709.552,7065	709.551,7178	709.551,7178	709.550,7281	709.546,7830	709.542,6999	709.541,7104	709.541,7104	709.540,4750	
N:		7.090.437,1060	7.090.437,0729	7.090.437,0729	7.090.437,0397	7.090.436,9076	7.090.436,7708	7.090.436,7376	7.090.436,7376	7.090.436,6962	
Station: 18+0											
Dist. Eixo (m):		-5,833	-4,959	-4,959	-3,969	0,000	4,091	5,081	5,081	6,192	
Cota (m):		12,318	12,301	11,651	11,631		11,629	11,648	12,299	12,321	
E:		709.552,9471	709.552,0739	709.552,0739	709.551,0843	709.547,1178	709.543,0287	709.542,0393	709.542,0393	709.540,9289	
N:		7.090.427,1085	7.090.427,0792	7.090.427,0792	7.090.427,0461	7.090.426,9132	7.090.426,7762	7.090.426,7430	7.090.426,7430	7.090.426,7058	
Station: 18+10											
Dist. Eixo (m):		-6,220	-4,961	-4,961	-3,970	0,000	4,023	5,013	5,013	6,073	
Cota (m):		12,275	12,250	11,600	11,580		11,579	11,599	12,249	12,270	
E:		709.553,6696	709.552,4104	709.552,4104	709.551,4207	709.547,4526	709.543,4315	709.542,4420	709.542,4420	709.541,3829	
N:		7.090.417,1271	7.090.417,0849	7.090.417,0849	7.090.417,0517	7.090.416,9188	7.090.416,7841	7.090.416,7509	7.090.416,7509	7.090.416,7154	
Station: 19+0											
Dist. Eixo (m):		-6,266	-4,926	-4,926	-3,935	0,000	3,954	4,944	4,944	6,032	
Cota (m):		12,249	12,222	11,572	11,552		11,552	11,572	12,221	12,243	
E:		709.554,0497	709.552,7103	709.552,7103	709.551,7207	709.547,7874	709.543,8355	709.542,8461	709.542,8461	709.541,7592	
N:		7.090.407,1342	7.090.407,0893	7.090.407,0893	7.090.407,0562	7.090.406,9244	7.090.406,7920	7.090.406,7589	7.090.406,7589	7.090.406,7224	
Station: 19+5											
Dist. Eixo (m):		-6,327	-4,906	-4,906	-3,916	0,000	3,916	4,906	4,906	5,975	
Cota (m):		12,246	12,214	11,564	11,544		11,544	11,564	12,214	12,235	
E:		709.554,2954	709.552,8756	709.552,8756	709.551,8860	709.547,9719	709.544,0581	709.543,0687	709.543,0687	709.541,9999	
N:		7.090.401,6296	7.090.401,5820	7.090.401,5820	7.090.401,5488	7.090.401,4177	7.090.401,2866	7.090.401,2535	7.090.401,2535	7.090.401,2177	
Station: 19+10											
Dist. Eixo (m):		-6,381	-4,893	-4,893	-3,903	0,000	3,912	4,902	4,902	5,931	
Cota (m):		12,245	12,207	11,558	11,538		11,537	11,557	12,207	12,228	
E:		709.554,5008	709.553,0136	709.553,0136	709.552,0240	709.548,1232	709.544,2131	709.543,2237	709.543,2237	709.542,1960	
N:		7.090.397,1450	7.090.397,0949	7.090.397,0949	7.090.397,0615	7.090.396,9300	7.090.396,7982	7.090.396,7649	7.090.396,7649	7.090.396,7303	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
<b>Station: 20+0</b>											
Dist. Eixo (m):		-6,454	-4,899	-4,899	-3,909	<b>0,000</b>	3,922	4,912	4,912	5,864	
Cota (m):		12,270	12,239	11,590	11,570		11,569	11,589	12,239	12,258	
E:		709.554,9100	709.553,3565	709.553,3565	709.552,3669	<b>709.548,4600</b>	709.544,5404	709.543,5510	709.543,5510	709.542,5991	
N:		7.090.387,1531	7.090.387,1007	7.090.387,1007	7.090.387,0674	<b>7.090.386,9357</b>	7.090.386,8036	7.090.386,7702	7.090.386,7702	7.090.386,7382	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-6,320	-4,905	-4,905	-3,915	<b>0,000</b>	3,931	4,921	4,921	5,883	
Cota (m):		12,337	12,309	11,659	11,639		11,639	11,659	12,309	12,328	
E:		709.555,1128	709.553,6994	709.553,6994	709.552,7098	<b>709.548,7969</b>	709.544,8677	709.543,8783	709.543,8783	709.542,9174	
N:		7.090.377,1542	7.090.377,1066	7.090.377,1066	7.090.377,0733	<b>7.090.376,9414</b>	7.090.376,8089	7.090.376,7756	7.090.376,7756	7.090.376,7432	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-6,211	-4,897	-4,897	-3,907	<b>0,000</b>	3,941	4,931	4,931	5,903	
Cota (m):		12,518	12,492	11,842	11,822		11,821	11,841	12,492	12,511	
E:		709.555,3415	709.554,0277	709.554,0277	709.553,0380	<b>709.549,1337</b>	709.545,1950	709.544,2056	709.544,2056	709.543,2338	
N:		7.090.367,1563	7.090.367,1120	7.090.367,1120	7.090.367,0786	<b>7.090.366,9471</b>	7.090.366,8143	7.090.366,7810	7.090.366,7810	7.090.366,7482	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-6,229	-4,888	-4,888	-3,898	<b>0,000</b>	3,950	4,940	4,940	5,967	
Cota (m):		12,752	12,725	12,075	12,055		12,054	12,074	12,723	12,744	
E:		709.555,6963	709.554,3558	709.554,3558	709.553,3662	<b>709.549,4705</b>	709.545,5223	709.544,5329	709.544,5329	709.543,5067	
N:		7.090.357,1626	7.090.357,1174	7.090.357,1174	7.090.357,0840	<b>7.090.356,9527</b>	7.090.356,8197	7.090.356,7863	7.090.356,7863	7.090.356,7517	
<b>Station: 22+0</b>											
Dist. Eixo (m):		-6,210	-4,882	-4,882	-3,891	<b>0,000</b>					
Cota (m):		13,109	13,083	12,433	12,413						
E:		709.556,0140	709.554,6862	709.554,6862	709.553,6966	<b>709.549,8074</b>					
N:		7.090.347,1676	7.090.347,1228	7.090.347,1228	7.090.347,0895	<b>7.090.346,9584</b>					
<b>Station: 22+10</b>											
Dist. Eixo (m):		-6,120	-4,881	-4,881	-3,890	<b>0,000</b>					
Cota (m):		13,572	13,547	12,897	12,877						
E:		709.556,2608	709.555,0221	709.555,0221	709.554,0325	<b>709.550,1442</b>					
N:		7.090.337,1702	7.090.337,1285	7.090.337,1285	7.090.337,0951	<b>7.090.336,9641</b>					
<b>Station: 23+0</b>											
Dist. Eixo (m):		-6,051	-4,880	-4,880	-3,889	<b>0,000</b>	5,010	6,000			
Cota (m):		14,264	14,240	13,590	13,570		13,548	13,568			
E:		709.556,5283	709.555,3580	709.555,3580	709.554,3684	<b>709.550,4811</b>	709.545,4739	709.544,4845			
N:		7.090.327,1736	7.090.327,1341	7.090.327,1341	7.090.327,1008	<b>7.090.326,9697</b>	7.090.326,8010	7.090.326,7676			
<b>Station: 23+10</b>											
Dist. Eixo (m):		-6,017	-4,879	-4,879	-3,889	<b>0,000</b>	5,010	6,000			
Cota (m):		15,082	15,059	14,409	14,389		14,367	14,386			
E:		709.556,8319	709.555,6939	709.555,6939	709.554,7042	<b>709.550,8179</b>	709.545,8108	709.544,8213			
N:		7.090.317,1781	7.090.317,1398	7.090.317,1398	7.090.317,1064	<b>7.090.316,9754</b>	7.090.316,8067	7.090.316,7733			
<b>Station: 24+0</b>											
Dist. Eixo (m):		-6,012	-4,878	-4,878	-3,888	<b>0,000</b>	3,914	4,904	4,904	6,046	
Cota (m):		15,903	15,880	15,230	15,210		15,210	15,229	15,879	15,902	
E:		709.557,1636	709.556,0298	709.556,0298	709.555,0401	<b>709.551,1548</b>	709.547,2426	709.546,2532	709.546,2532	709.545,1123	
N:		7.090.307,1836	7.090.307,1454	7.090.307,1454	7.090.307,1120	<b>7.090.306,9811</b>	7.090.306,8492	7.090.306,8159	7.090.306,8159	7.090.306,7774	
<b>Station: 24+6</b>											
Dist. Eixo (m):		-6,000	-4,877	-4,877	-3,887	<b>0,000</b>	3,887	4,877	4,877	6,081	
Cota (m):		16,462	16,439	15,789	15,769		15,769	15,789	16,439	16,463	
E:		709.557,3816	709.556,2596	709.556,2596	709.555,2700	<b>709.551,3853</b>	709.547,5003	709.546,5108	709.546,5108	709.545,3074	
N:		7.090.300,3436	7.090.300,3058	7.090.300,3058	7.090.300,2725	<b>7.090.300,1415</b>	7.090.300,0106	7.090.299,9773	7.090.299,9773	7.090.299,9367	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-6,008	-4,875	-4,875	-3,885	<b>0,000</b>	3,876	4,866	4,866	6,084	
Cota (m):		16,720	16,697	16,047	16,027		16,027	16,047	16,698	16,722	
E:		709.557,4973	709.556,3656	709.556,3656	709.555,3759	<b>709.551,4932</b>	709.547,6192	709.546,6298	709.546,6298	709.545,4129	
N:		7.090.297,1922	7.090.297,1535	7.090.297,1535	7.090.297,1196	<b>7.090.296,9868</b>	7.090.296,8543	7.090.296,8205	7.090.296,8205	7.090.296,7789	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-6,063	-4,869	-4,869	-3,879	<b>0,000</b>	3,842	4,832	4,832	6,082	
Cota (m):		17,122	17,098	16,449	16,429		16,429	16,449	17,099	17,124	
E:		709.557,8942	709.556,7014	709.556,7014	709.555,7118	<b>709.551,8350</b>	709.547,9957	709.547,0062	709.547,0062	709.545,7564	
N:		7.090.287,1999	7.090.287,1591	7.090.287,1591	7.090.287,1253	<b>7.090.286,9927</b>	7.090.286,8614	7.090.286,8275	7.090.286,8275	7.090.286,7848	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-6,089	-4,863	-4,863	-3,873	<b>0,000</b>	3,807	4,797	4,797	6,190	
Cota (m):		17,438	17,414	16,764	16,744		16,745	16,765	17,415	17,443	
E:		709.558,2622	709.557,0373	709.557,0373	709.556,0477	<b>709.552,1768</b>	709.548,3722	709.547,3827	709.547,3827	709.545,9902	
N:		7.090.277,2066	7.090.277,1647	7.090.277,1647	7.090.277,1309	<b>7.090.276,9985</b>	7.090.276,8684	7.090.276,8346	7.090.276,8346	7.090.276,7869	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-6,105	-4,857	-4,857	-3,867	<b>0,000</b>	3,749	4,739	4,739	6,160	
Cota (m):		17,178	17,153	16,503	16,483		16,485	16,505	17,155	17,183	
E:		709.558,6205	709.557,3732	709.557,3732	709.556,3836	<b>709.552,5186</b>	709.548,7720	709.547,7826	709.547,7826	709.546,3625	
N:		7.090.267,2130	7.090.267,1704	7.090.267,1704	7.090.267,1365	<b>7.090.267,0044</b>	7.090.266,8762	7.090.266,8424	7.090.266,8424	7.090.266,7938	

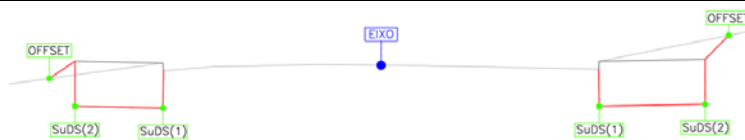
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
Station: 28+0									
Dist. Eixo (m):			-6,114	-4,010	0,000	4,255	6,127		
Cota (m):			15,214	15,172		15,167	15,204		
E:			709.559,9919	709.557,8893	709.553,8816	709.549,6295	709.547,7586		
N:			7.090.227,2338	7.090.227,1628	7.090.227,0276	7.090.226,8841	7.090.226,8209		
Station: 28+10									
Dist. Eixo (m):			-6,040	-3,960	0,000	4,238	6,105		
Cota (m):			15,109	15,068		15,062	15,100		
E:			709.560,2556	709.558,1762	709.554,2189	709.549,9832	709.548,1170		
N:			7.090.217,2370	7.090.217,1668	7.090.217,0333	7.090.216,8903	7.090.216,8273		
Station: 29+0									
Dist. Eixo (m):			-5,998	-3,952	0,000	4,222	6,076		
Cota (m):			15,087	15,046		15,041	15,078		
E:			709.560,5509	709.558,5057	709.554,5562	709.550,3368	709.548,4838		
N:			7.090.207,2413	7.090.207,1723	7.090.207,0390	7.090.206,8966	7.090.206,8340		
Station: 29+10									
Dist. Eixo (m):			-5,990	-3,944	0,000	4,205	6,018		
Cota (m):			15,039	14,998		14,992	15,029		
E:			709.560,8799	709.558,8351	709.554,8935	709.550,6905	709.548,8788		
N:			7.090.197,2467	7.090.197,1777	7.090.197,0447	7.090.196,9028	7.090.196,8417		
Station: 30+0									
Dist. Eixo (m):			-6,005	-3,936	0,000	4,189	5,975		
Cota (m):			14,944	14,903		14,897	14,933		
E:			709.561,2326	709.559,1645	709.555,2308	709.551,0441	709.549,2592		
N:			7.090.187,2529	7.090.187,1831	7.090.187,0503	7.090.186,9091	7.090.186,8488		
Station: 30+10									
Dist. Eixo (m):			-6,021	-3,928	0,000	4,173	5,972		
Cota (m):			14,650	14,608		14,603	14,639		
E:			709.561,5852	709.559,4939	709.555,5681	709.551,3977	709.549,5998		
N:			7.090.177,2591	7.090.177,1885	7.090.177,0560	7.090.176,9153	7.090.176,8546		
Station: 31+0									
Dist. Eixo (m):			-5,978	-3,911	0,000	4,156	5,961		
Cota (m):			14,152	14,111	14,799	14,106	14,142		
E:			709.561,8800	709.559,8138	709.555,9054	709.551,7514	709.549,9474		
N:			7.090.167,2634	7.090.167,1936	7.090.167,0617	7.090.166,9215	7.090.166,8607		
Station: 31+10									
Dist. Eixo (m):			-5,969	-3,893	0,000	4,140	5,930		
Cota (m):			13,648	13,606		13,601	13,637		
E:			709.562,2080	709.560,1330	709.556,2427	709.552,1050	709.550,3162		
N:			7.090.157,2687	7.090.157,1987	7.090.157,0674	7.090.156,9278	7.090.156,8674		

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
Station: 32+0									
Dist. Eixo (m):			-6,041	-3,902	0,000	4,124	5,879		
Cota (m):			13,077	13,035		13,030	13,065		
E:			709.562,6172	709.560,4794	709.556,5800	709.552,4586	709.550,7045		
N:			7.090.147,2769	7.090.147,2047	7.090.147,0731	7.090.146,9340	7.090.146,8748		
Station: 32+10									
Dist. Eixo (m):			-6,038	-3,954	0,000	4,107	5,785		
Cota (m):			12,534	12,492		12,489	12,523		
E:			709.562,9521	709.560,8692	709.556,9173	709.552,8123	709.551,1356		
N:			7.090.137,2825	7.090.137,2122	7.090.137,0788	7.090.136,9403	7.090.136,8837		
Station: 33+0									
Dist. Eixo (m):			-5,953	-3,985	0,000	4,091	6,196		
Cota (m):			12,178	12,139		12,137	12,179		
E:			709.563,2042	709.561,2377	709.557,2545	709.553,1659	709.551,0616		
N:			7.090.127,2853	7.090.127,2189	7.090.127,0845	7.090.126,9465	7.090.126,8755		
Station: 33+10									
Dist. Eixo (m):			-5,948	-4,007	0,000	4,075	6,258		
Cota (m):			11,886	11,847		11,846	11,890		
E:			709.563,5365	709.561,5963	709.557,5918	709.553,5196	709.551,3371		
N:			7.090.117,2908	7.090.117,2253	7.090.117,0902	7.090.116,9527	7.090.116,8791		
Station: 34+0									
Dist. Eixo (m):			-5,943	-4,028	0,000	4,058	5,346		
Cota (m):			11,776	11,737		11,737	11,762		
E:			709.563,8689	709.561,9549	709.557,9291	709.553,8732	709.552,5861		
N:			7.090.107,2963	7.090.107,2317	7.090.107,0959	7.090.106,9590	7.090.106,9156		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JOAQUIM GIRARDI**

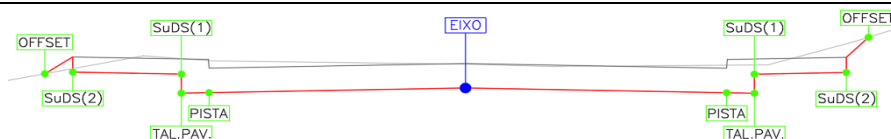
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		OFFSET
<b>Station: 34+10</b>									
Dist. Eixo (m):			-5,938	-4,010	<b>0,000</b>				
Cota (m):			11,680	11,641					
E:			709.564,2012	709.562,2740	709.558,2664				
N:			7.090.097,3018	7.090.097,2368	7.090.097,1016				
<b>Station: 35+0</b>									
Dist. Eixo (m):			-5,933	-3,982	<b>0,000</b>				
Cota (m):			11,648	11,609					
E:			709.564,5338	709.562,5833	709.558,6037				
N:			7.090.087,3074	7.090.087,2415	7.090.087,1072				
<b>Station: 35+10</b>									
Dist. Eixo (m):			-5,929	-3,962	<b>0,000</b>	4,042	6,120		
Cota (m):			11,657	11,618		11,616	11,658		
E:			709.564,8669	709.562,9008	709.558,9410	709.554,9013	709.552,8240		
N:			7.090.077,3129	7.090.077,2466	7.090.077,1129	7.090.076,9766	7.090.076,9065		
<b>Station: 36+0</b>									
Dist. Eixo (m):			-5,925	-3,964	<b>0,000</b>	4,047	6,217		
Cota (m):			11,654	11,614		11,613	11,656		
E:			709.565,2000	709.563,2397	709.559,2783	709.555,2338	709.553,0647		
N:			7.090.067,3185	7.090.067,2523	7.090.067,1186	7.090.066,9821	7.090.066,9089		
<b>Station: 36+10</b>									
Dist. Eixo (m):			-5,921	-3,965	<b>0,000</b>	4,036	6,286		
Cota (m):			11,654	11,614		11,613	11,658		
E:			709.565,5331	709.563,5786	709.559,6156	709.555,5820	709.553,3329		
N:			7.090.057,3240	7.090.057,2581	7.090.057,1243	7.090.056,9882	7.090.056,9123		
<b>Station: 37+0</b>									
Dist. Eixo (m):			-5,923	-3,927	<b>0,000</b>	4,024	6,069		
Cota (m):			11,702	11,662		11,660	11,701		
E:			709.565,8727	709.563,8778	709.559,9529	709.555,9309	709.553,8875		
N:			7.090.047,3298	7.090.047,2625	7.090.047,1300	7.090.046,9943	7.090.046,9253		
<b>Station: 37+10</b>									
Dist. Eixo (m):			-5,926	-3,886	<b>0,000</b>	4,013	6,108		
Cota (m):			11,780	11,739		11,737	11,778		
E:			709.566,2126	709.564,1742	709.560,2901	709.556,2798	709.554,1853		
N:			7.090.037,3356	7.090.037,2668	7.090.037,1357	7.090.037,0004	7.090.036,9297		
<b>Station: 38+0</b>									
Dist. Eixo (m):			-5,876	-3,859	<b>0,000</b>	4,003	6,029		
Cota (m):			11,835	11,795		11,792	11,833		
E:			709.566,5002	709.564,4844	709.560,6274	709.556,6269	709.554,6024		
N:			7.090.027,3396	7.090.027,2715	7.090.027,1414	7.090.027,0064	7.090.026,9380		
<b>Station: 38+10</b>									
Dist. Eixo (m):			-5,865	-3,894	<b>0,000</b>	4,003	6,064		
Cota (m):			11,845	11,805		11,803	11,844		
E:			709.566,8266	709.564,8570	709.560,9647	709.556,9640	709.554,9046		
N:			7.090.017,3449	7.090.017,2784	7.090.017,1471	7.090.017,0121	7.090.016,9426		
<b>Station: 39+0</b>									
Dist. Eixo (m):			-5,904	-3,930	<b>0,000</b>	4,003	6,091		
Cota (m):			11,833	11,794		11,792	11,834		
E:			709.567,2026	709.565,2296	709.561,3020	709.557,3011	709.555,2145		
N:			7.090.007,3519	7.090.007,2853	7.090.007,1528	7.090.007,0177	7.090.006,9473		
<b>Station: 39+10</b>									
Dist. Eixo (m):			-5,943	-3,965	<b>0,000</b>	4,003	6,100		
Cota (m):			11,790	11,751		11,750	11,792		
E:			709.567,5786	709.565,6022	709.561,6393	709.557,6382	709.555,5428		
N:			7.089.997,3589	7.089.997,2922	7.089.997,1585	7.089.997,0234	7.089.996,9527		
<b>Station: 40+0</b>									
Dist. Eixo (m):			-5,982	-3,996	<b>0,000</b>	4,004	6,187		
Cota (m):			11,727	11,688		11,688	11,731		
E:			709.567,9551	709.565,9699	709.561,9766	709.557,9753	709.555,7935		
N:			7.089.987,3659	7.089.987,2989	7.089.987,1641	7.089.987,0291	7.089.986,9555		
<b>Station: 40+10</b>									
Dist. Eixo (m):			-5,994	-3,995	<b>0,000</b>	3,993	6,266		
Cota (m):			11,644	11,604		11,604	11,650		
E:			709.568,3048	709.566,3066	709.562,3139	709.558,3230	709.556,0515		
N:			7.089.977,3720	7.089.977,3046	7.089.977,1698	7.089.977,0351	7.089.976,9585		
<b>Station: 41+0</b>									
Dist. Eixo (m):			-5,998	-3,994	<b>0,000</b>	3,973	6,509		
Cota (m):			11,531	11,491		11,491	11,542		
E:			709.568,6459	709.566,6432	709.562,6512	709.558,6801	709.556,1463		
N:			7.089.967,3778	7.089.967,3102	7.089.967,1755	7.089.967,0415	7.089.966,9560		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA JUVENTINO J. DA SILVA JR**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-6,012	-4,869	-4,869	-4,011	<b>0,000</b>	4,122	4,979	4,979	6,123	
Cota (m):		14,312	14,289	13,525	13,542	<b>13,623</b>	13,540	13,523	14,287	14,310	
E:		708.305,18	708.305,21	708.305,2129	708.305,24	<b>708.305,35</b>	708.305,47	708.305,49	708.305,4928	708.305,53	
N:		7.090.450,13	7.090.448,99	7.090.448,9882	7.090.448,13	<b>7.090.444,12</b>	7.090.440,00	7.090.439,14	7.090.439,1441	7.090.438,00	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-5,897	-4,863	-4,863	-4,005	<b>0,000</b>	4,058	4,915	4,915	5,887	
Cota (m):		14,261	14,240	13,476	13,493	<b>13,573</b>	13,492	13,475	14,239	14,258	
E:		708.315,18	708.315,21	708.315,2090	708.315,23	<b>708.315,35</b>	708.315,46	708.315,49	708.315,4870	708.315,51	
N:		7.090.450,30	7.090.449,27	7.090.449,2663	7.090.448,41	<b>7.090.444,41</b>	7.090.440,35	7.090.439,49	7.090.439,4922	7.090.438,52	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-6,022	-4,904	-4,904	-4,047	<b>0,000</b>	4,262	5,119	5,119	6,193	
Cota (m):		14,212	14,189	13,426	13,443	<b>13,523</b>	13,438	13,421	14,186	14,207	
E:		708.325,17	708.325,20	708.325,2038	708.325,23	<b>708.325,34</b>	708.325,46	708.325,49	708.325,4887	708.325,52	
N:		7.090.450,71	7.090.449,59	7.090.449,5923	7.090.448,74	<b>7.090.444,69</b>	7.090.440,43	7.090.439,57	7.090.439,5733	7.090.438,50	
<b>Station: 1+2</b>											
Dist. Eixo (m):		-6,882	-5,378	-5,378	-4,520	<b>0,000</b>	5,043	5,900	5,900	7,276	
Cota (m):		14,198	14,168	13,404	13,421	<b>13,512</b>	13,411	13,394	14,157	14,185	
E:		708.327,55	708.327,59	708.327,5934	708.327,62	<b>708.327,75</b>	708.327,89	708.327,91	708.327,9140	708.327,95	
N:		7.090.451,64	7.090.450,13	7.090.450,1336	7.090.449,28	<b>7.090.444,76</b>	7.090.439,72	7.090.438,86	7.090.438,8602	7.090.437,48	
<b>Station: 1+17</b>											
Dist. Eixo (m):		-8,985	-5,932	-5,932	-5,074	<b>0,000</b>	4,283	5,140	5,140	6,983	
Cota (m):		14,198	14,137	13,373	13,390	<b>13,492</b>	13,406	13,389	14,153	14,190	
E:		708.342,62	708.342,71	708.342,7105	708.342,73	<b>708.342,88</b>	708.343,00	708.343,03	708.343,0252	708.343,08	
N:		7.090.454,17	7.090.451,12	7.090.451,1179	7.090.450,26	<b>7.090.445,19</b>	7.090.440,91	7.090.440,05	7.090.440,0504	7.090.438,21	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-6,912	-5,169	-5,169	-4,312	<b>0,000</b>	3,790	4,647	4,647	5,577	
Cota (m):		14,215	14,180	13,416	13,433	<b>13,519</b>	13,443	13,426	14,190	14,209	
E:		708.345,14	708.345,19	708.345,1882	708.345,21	<b>708.345,34</b>	708.345,44	708.345,47	708.345,4672	708.345,49	
N:		7.090.452,17	7.090.450,43	7.090.450,4253	7.090.449,57	<b>7.090.445,26</b>	7.090.441,47	7.090.440,61	7.090.440,6134	7.090.439,68	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-6,151	-5,109	-5,109	-4,251	<b>0,000</b>	3,749	4,606	4,606	5,600	
Cota (m):		14,267	14,246	13,482	13,499	<b>13,584</b>	13,509	13,492	14,256	14,276	
E:		708.355,16	708.355,19	708.355,1858	708.355,21	<b>708.355,33</b>	708.355,44	708.355,46	708.355,4620	708.355,49	
N:		7.090.451,69	7.090.450,65	7.090.450,6492	7.090.449,79	<b>7.090.445,54</b>	7.090.441,80	7.090.440,94	7.090.440,9386	7.090.439,95	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-6,196	-5,153	-5,153	-4,296	<b>0,000</b>	3,704	4,561	4,561	5,661	
Cota (m):		14,261	14,240	13,476	13,493	<b>13,579</b>	13,505	13,488	14,252	14,274	
E:		708.365,15	708.365,18	708.365,1805	708.365,20	<b>708.365,33</b>	708.365,43	708.365,46	708.365,4567	708.365,49	
N:		7.090.452,02	7.090.450,98	7.090.450,9782	7.090.450,12	<b>7.090.445,83</b>	7.090.442,12	7.090.441,27	7.090.441,2676	7.090.440,17	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-6,241	-5,198	-5,198	-4,341	<b>0,000</b>	3,532	4,389	4,389	5,432	
Cota (m):		14,254	14,233	13,469	13,486	<b>13,573</b>	13,502	13,485	14,249	14,270	
E:		708.375,15	708.375,18	708.375,1752	708.375,20	<b>708.375,32</b>	708.375,42	708.375,45	708.375,4477	708.375,48	
N:		7.090.452,35	7.090.451,31	7.090.451,3072	7.090.450,45	<b>7.090.446,11</b>	7.090.442,58	7.090.441,72	7.090.441,7243	7.090.440,68	
<b>Station: 3+16</b>											
Dist. Eixo (m):		-6,264	-5,219	-5,219	-4,363	<b>0,000</b>	3,422	4,279	4,279	5,323	
Cota (m):		14,250	14,229	13,465	13,482	<b>13,569</b>	13,501	13,483	14,247	14,268	
E:		708.381,34	708.381,37	708.381,3669	708.381,39	<b>708.381,52</b>	708.381,61	708.381,64	708.381,6371	708.381,67	
N:		7.090.452,56	7.090.451,51	7.090.451,5110	7.090.450,65	<b>7.090.446,29</b>	7.090.442,87	7.090.442,01	7.090.442,0097	7.090.440,97	
<b>Station: 3+18</b>											
Dist. Eixo (m):		-6,208	-5,130	-5,130	-4,273	<b>0,000</b>	5,000	5,857	5,857	6,200	
Cota (m):		14,251	14,229	13,465	13,482	<b>13,568</b>	13,468	13,451	14,214	14,221	
E:		708.383,28	708.383,36	708.383,3623	708.383,43	<b>708.383,76</b>	708.384,14	708.384,21	708.384,2093	708.384,24	
N:		7.090.452,65	7.090.451,58	7.090.451,5758	7.090.450,72	<b>7.090.446,46</b>	7.090.441,48	7.090.440,62	7.090.440,6210	7.090.440,28	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA LEOPOLDO BENINCA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-13,755	-9,370	-9,370	-8,380	0,000	8,140	9,130	9,130	12,689	
Cota (m):		11,240	11,153	10,503	10,483	11,250	10,488	10,507	11,157	11,229	
E:		709.656,4757	709.656,6581	709.656,6581	709.656,6992	709.657,0477	709.657,3862	709.657,4273	709.657,4273	709.657,5753	
N:		7.090.257,2193	7.090.258,8382	7.090.258,8382	7.090.257,8489	7.090.249,4766	7.090.241,3438	7.090.243,3547	7.090.243,3547	7.090.236,7984	
<b>Station: 0+9</b>											
Dist. Eixo (m):		-8,053	-6,223	-6,223	-5,233	0,000	5,230	6,220	6,220	7,666	
Cota (m):		11,181	11,144	10,494	10,474	11,179	10,474	10,494	11,144	11,173	
E:		709.666,2617	709.666,3378	709.666,3378	709.666,3790	709.666,5966	709.666,8141	709.666,8553	709.666,8553	709.666,9154	
N:		7.090.257,9203	7.090.256,0917	7.090.256,0917	7.090.255,1024	7.090.249,8740	7.090.244,6483	7.090.243,6591	7.090.243,6591	7.090.242,2148	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-8,049	-6,222	-6,222	-5,231	0,000	5,217	6,207	6,207	7,664	
Cota (m):		11,177	11,140	10,490	10,471	11,175	10,471	10,491	11,141	11,170	
E:		709.666,7043	709.666,7803	709.666,7803	709.666,8215	709.667,0390	709.667,2560	709.667,2972	709.667,2972	709.667,3577	
N:		7.090.257,9347	7.090.256,1086	7.090.256,1086	7.090.255,1193	7.090.249,8924	7.090.244,6798	7.090.243,6906	7.090.243,6906	7.090.242,2347	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,959	-6,187	-6,187	-5,197	0,000	5,043	6,033	6,033	7,630	
Cota (m):		11,091	11,056	10,406	10,386	11,090	10,389	10,409	11,059	11,091	
E:		709.676,6994	709.676,7731	709.676,7731	709.676,8143	709.677,0304	709.677,2401	709.677,2812	709.677,2812	709.677,3477	
N:		7.090.258,2802	7.090.256,4901	7.090.256,4901	7.090.255,5008	7.090.250,3082	7.090.245,2700	7.090.244,2809	7.090.244,2809	7.090.242,6850	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,868	-6,153	-6,153	-5,163	0,000	5,042	6,032	6,032	7,595	
Cota (m):		11,040	11,005	10,355	10,336	11,039	10,338	10,358	11,008	11,039	
E:		709.686,6945	709.686,7659	709.686,7659	709.686,8070	709.687,0217	709.687,2314	709.687,2726	709.687,2726	709.687,3376	
N:		7.090.258,5857	7.090.256,8717	7.090.256,8717	7.090.255,8823	7.090.250,7241	7.090.245,6864	7.090.244,6972	7.090.244,6972	7.090.243,1353	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,778	-6,119	-6,119	-5,128	0,000	5,042	6,032	6,032	7,561	
Cota (m):		10,997	10,963	10,313	10,294	10,996	10,295	10,315	10,965	10,996	
E:		709.696,6896	709.696,7586	709.696,7586	709.696,7998	709.697,0131	709.697,2227	709.697,2639	709.697,2639	709.697,3275	
N:		7.090.259,9112	7.090.257,2532	7.090.257,2532	7.090.256,2639	7.090.251,1399	7.090.246,1027	7.090.245,1136	7.090.245,1136	7.090.243,5855	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,688	-6,084	-6,084	-5,094	0,000	5,065	6,055	6,055	7,526	
Cota (m):		10,965	10,933	10,283	10,264	10,965	10,264	10,284	10,934	10,963	
E:		709.706,6848	709.706,7514	709.706,7514	709.706,7926	709.707,0044	709.707,2150	709.707,2562	709.707,2562	709.707,3174	
N:		7.090.259,2366	7.090.257,6348	7.090.257,6348	7.090.256,6454	7.090.251,5558	7.090.246,4955	7.090.245,5063	7.090.245,5063	7.090.244,0358	
<b>Station: 2+14</b>											
Dist. Eixo (m):		-7,651	-6,068	-6,068	-5,078	0,000	5,078	6,068	6,068	7,513	
Cota (m):		10,953	10,921	10,271	10,252	10,953	10,252	10,271	10,921	10,950	
E:		709.710,6909	709.710,7567	709.710,7567	709.710,7979	709.711,0091	709.711,2202	709.711,2614	709.711,2614	709.711,3215	
N:		7.090.259,3671	7.090.257,7855	7.090.257,7855	7.090.256,7961	7.090.251,7224	7.090.246,6487	7.090.245,6595	7.090.245,6595	7.090.244,2163	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-7,654	-6,067	-6,067	-5,077	0,000	5,075	6,065	6,065	7,469	
Cota (m):		10,943	10,911	10,261	10,241	10,943	10,241	10,261	10,911	10,939	
E:		709.716,7082	709.716,7680	709.716,7680	709.716,8053	709.716,9967	709.717,1880	709.717,2253	709.717,2253	709.717,2782	
N:		7.090.259,5968	7.090.258,0110	7.090.258,0110	7.090.257,0215	7.090.251,9483	7.090.246,8770	7.090.245,8877	7.090.245,8877	7.090.244,4847	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,182	-6,065	-6,065	-5,075	0,000	5,069	6,059	6,059	7,454	
Cota (m):		10,945	10,903	10,253	10,233	10,935	10,233	10,253	10,903	10,931	
E:		709.726,6812	709.726,7610	709.726,7610	709.726,7983	709.726,9896	709.727,1807	709.727,2180	709.727,2180	709.727,2706	
N:		7.090.260,5011	7.090.258,3859	7.090.258,3859	7.090.257,3964	7.090.252,3252	7.090.247,2599	7.090.246,2706	7.090.246,2706	7.090.244,8769	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-8,112	-6,063	-6,063	-5,073	0,000	5,063	6,053	6,053	7,496	
Cota (m):		10,936	10,895	10,245	10,225	10,927	10,226	10,245	10,895	10,924	
E:		709.736,6767	709.736,7540	709.736,7540	709.736,7913	709.736,9825	709.737,1733	709.737,2107	709.737,2107	709.737,2651	
N:		7.090.260,8084	7.090.258,7607	7.090.258,7607	7.090.257,7712	7.090.252,7022	7.090.247,6428	7.090.246,6535	7.090.246,6535	7.090.245,2113	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,042	-6,061	-6,061	-5,071	0,000	5,058	6,048	6,048	7,782	
Cota (m):		10,907	10,868	10,218	10,198	10,899	10,198	10,218	10,868	10,903	
E:		709.746,6722	709.746,7469	709.746,7469	709.746,7843	709.746,9754	709.747,1660	709.747,2033	709.747,2033	709.747,2687	
N:		7.090.261,1157	7.090.259,1356	7.090.259,1356	7.090.258,1461	7.090.253,0791	7.090.248,0250	7.090.247,0357	7.090.247,0357	7.090.245,3029	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-7,973	-6,059	-6,059	-5,069	0,000	5,061	6,051	6,051	8,041	
Cota (m):		10,880	10,842	10,192	10,172	10,873	10,172	10,192	10,842	10,882	
E:		709.756,6678	709.756,7399	709.756,7399	709.756,7772	709.756,9683	709.757,1590	709.757,1964	709.757,1964	709.757,2714	
N:		7.090.261,4231	7.090.259,5105	7.090.259,5105	7.090.258,5210	7.090.253,4560	7.090.248,3987	7.090.247,4094	7.090.247,4094	7.090.245,4208	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-7,903	-6,057	-6,057	-5,066	0,000	5,064	6,054	6,054	8,030	
Cota (m):		10,902	10,865	10,215	10,195	10,897	10,195	10,215	10,865	10,905	
E:		709.766,6633	709.766,7329	709.766,7329	709.766,7702	709.766,9612	709.767,1521	709.767,1894	709.767,1894	709.767,2639	
N:		7.090.261,7304	7.090.259,8853	7.090.259,8853	7.090.258,8958	7.090.253,8330	7.090.248,7724	7.090.247,7831	7.090.247,7831	7.090.245,8083	
<b>Station: 5+14</b>											
Dist. Eixo (m):		-7,873	-6,056	-6,056	-5,066	0,000	5,065	6,055	6,055	8,026	
Cota (m):		10,912	10,875	10,225	10,205	10,907	10,205	10,225	10,875	10,915	
E:		709.771,0282	709.771,0947	709.771,0947	709.771,1320	709.771,3230	709.771,5139	709.771,5512	709.771,5512	709.771,6255	
N:		7.090.261,8646	7.090.260,0489	7.090.260,0489	7.090.259,0595	7.090.253,9975	7.090.248,9355	7.090.247,9462	7.090.247,9462	7.090.245,9774	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-7,877	-6,099	-6,099	-5,109	0,000	5,024	6,014	6,014	7,976	
Cota (m):		10,922	10,886	10,236	10,217	10,918	10,218	10,238	10,888	10,927	
E:		709.776,7201	709.776,7732	709.776,7732	709.776,8028	709.776,9556	709.777,1057	709.777,1353	709.777,1353	709.777,1940	
N:		7.090.262,0396	7.090.260,2619	7.090.260,2619	7.090.259,2722	7.090.254,1660	7.090.249,1446	7.090.248,1551	7.090.248,1551	7.090.246,1933	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA LEOPOLDO BENINCA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
<b>Station: 6+10</b>											
Dist. Eixo (m):		-7,879	-6,175	-6,175	-5,184	0,000	4,998	5,988	5,988	7,888	
Cota (m):		10,960	10,926	10,276	10,257	10,960	10,260	10,280	10,930	10,968	
E:		709.786,7155	709.786,7665	709.786,7665	709.786,7961	709.786,9511	709.787,1005	709.787,1301	709.787,1301	709.787,1869	
N:		7.090.262,3408	7.090.260,6368	7.090.260,6368	7.090.259,6471	7.090.254,4649	7.090.249,4694	7.090.248,4799	7.090.248,4799	7.090.246,5808	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-7,878	-6,176	-6,176	-5,186	0,000	5,001	5,991	5,991	7,803	
Cota (m):		10,999	10,965	10,315	10,295	10,999	10,299	10,319	10,969	11,005	
E:		709.796,7111	709.796,7620	709.796,7620	709.796,7916	709.796,9466	709.797,0961	709.797,1257	709.797,1257	709.797,1799	
N:		7.090.262,6386	7.090.260,9368	7.090.260,9368	7.090.259,9471	7.090.254,7638	7.090.249,7651	7.090.248,7756	7.090.248,7756	7.090.246,9646	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-7,877	-6,148	-6,148	-5,158	0,000	5,004	5,994	5,994	7,719	
Cota (m):		10,986	10,951	10,301	10,281	10,984	10,284	10,304	10,954	10,989	
E:		709.806,7067	709.806,7584	709.806,7584	709.806,7880	709.806,9421	709.807,0917	709.807,1213	709.807,1213	709.807,1729	
N:		7.090.262,9364	7.090.261,2085	7.090.261,2085	7.090.260,2187	7.090.255,0628	7.090.250,0608	7.090.249,0713	7.090.249,0713	7.090.247,3468	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-7,876	-6,121	-6,121	-5,131	0,000	5,007	5,997	5,997	7,636	
Cota (m):		10,970	10,935	10,285	10,265	10,968	10,268	10,287	10,937	10,970	
E:		709.816,7022	709.816,7547	709.816,7547	709.816,7843	709.816,9377	709.817,0874	709.817,1170	709.817,1170	709.817,1659	
N:		7.090.263,2342	7.090.261,4801	7.090.261,4801	7.090.260,4903	7.090.255,3617	7.090.250,3566	7.090.249,3670	7.090.249,3670	7.090.247,7291	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,875	-6,094	-6,094	-5,104	0,000	5,011	6,001	6,001	7,553	
Cota (m):		10,890	10,855	10,205	10,185	10,887	10,187	10,207	10,857	10,888	
E:		709.826,6978	709.826,7510	709.826,7510	709.826,7806	709.826,9332	709.827,0830	709.827,1126	709.827,1126	709.827,1590	
N:		7.090.263,5320	7.090.261,7517	7.090.261,7517	7.090.260,7620	7.090.255,6606	7.090.250,6523	7.090.249,6627	7.090.249,6627	7.090.248,1114	
<b>Station: 8+17</b>											
Dist. Eixo (m):		-7,874	-6,074	-6,074	-5,084	0,000	5,086	6,076	6,076	7,494	
Cota (m):		10,831	10,795	10,145	10,126	10,827	10,126	10,145	10,795	10,824	
E:		709.833,7806	709.833,8344	709.833,8344	709.833,8640	709.834,0160	709.834,1680	709.834,1976	709.834,1976	709.834,2400	
N:		7.090.263,7430	7.090.261,9442	7.090.261,9442	7.090.260,9544	7.090.255,8724	7.090.250,7889	7.090.249,7994	7.090.249,7994	7.090.248,3823	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-7,874	-6,067	-6,067	-5,077	0,000					
Cota (m):		10,807	10,771	10,121	10,101	10,802					
E:		709.836,6944	709.836,7482	709.836,7482	709.836,7777	709.836,9288					
N:		7.090.263,8298	7.090.262,0234	7.090.262,0234	7.090.261,0336	7.090.255,9592					
<b>Station: 9+10</b>											
Dist. Eixo (m):		-7,874	-6,062	-6,062	-5,071	0,000					
Cota (m):		10,874	10,838	10,188	10,168	10,870					
E:		709.846,6900	709.846,7439	709.846,7439	709.846,7734	709.846,9243					
N:		7.090.264,1275	7.090.262,3157	7.090.262,3157	7.090.261,3259	7.090.256,2568					
<b>Station: 10+0</b>											
Dist. Eixo (m):		-7,874	-6,080	-6,080	-5,089	0,000					
Cota (m):		10,950	10,914	10,264	10,244	10,945					
E:		709.856,6855	709.856,7389	709.856,7389	709.856,7684	709.856,9199					
N:		7.090.264,4253	7.090.262,6314	7.090.262,6314	7.090.261,6416	7.090.256,5544					
<b>Station: 10+10</b>											
Dist. Eixo (m):		-7,875	-6,098	-6,098	-5,107	0,000	5,245	6,235	6,235	7,468	
Cota (m):		10,947	10,911	10,261	10,241	10,943	10,239	10,259	10,909	10,933	
E:		709.866,6811	709.866,7340	709.866,7340	709.866,7634	709.866,9155	709.867,0716	709.867,1010	709.867,1010	709.867,1377	
N:		7.090.264,7231	7.090.262,9470	7.090.262,9470	7.090.261,9573	7.090.256,8521	7.090.251,6094	7.090.250,6199	7.090.250,6199	7.090.249,3876	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-7,875	-6,116	-6,116	-5,126	0,000	5,276	6,266	6,266	7,472	
Cota (m):		10,914	10,879	10,229	10,209	10,911	10,206	10,226	10,876	10,900	
E:		709.876,6767	709.876,7290	709.876,7290	709.876,7585	709.876,9110	709.877,0681	709.877,0975	709.877,0975	709.877,1334	
N:		7.090.265,0209	7.090.263,2627	7.090.263,2627	7.090.262,2730	7.090.257,1497	7.090.251,8756	7.090.250,8860	7.090.250,8860	7.090.249,6809	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-7,875	-6,134	-6,134	-5,144	0,000	5,308	6,298	6,298	7,476	
Cota (m):		10,890	10,855	10,205	10,185	10,888	10,182	10,202	10,852	10,875	
E:		709.886,6722	709.886,7240	709.886,7240	709.886,7535	709.886,9066	709.887,0646	709.887,0940	709.887,0940	709.887,1291	
N:		7.090.265,3192	7.090.263,5784	7.090.263,5784	7.090.262,5887	7.090.257,4473	7.090.252,1418	7.090.251,1522	7.090.251,1522	7.090.249,9742	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-7,877	-6,152	-6,152	-5,162	0,000	5,201	6,191	6,191	7,481	
Cota (m):		10,891	10,856	10,206	10,187	10,890	10,186	10,206	10,856	10,881	
E:		709.896,6677	709.896,7191	709.896,7191	709.896,7485	709.896,9022	709.897,0570	709.897,0864	709.897,0864	709.897,1248	
N:		7.090.265,6181	7.090.263,8941	7.090.263,8941	7.090.262,9044	7.090.257,7449	7.090.252,5464	7.090.251,5569	7.090.251,5569	7.090.250,2676	
<b>Station: 12+2</b>											
Dist. Eixo (m):		-7,877	-6,157	-6,157	-5,167	0,000	5,163	6,153	6,153	7,482	
Cota (m):		10,891	10,857	10,207	10,187	10,890	10,187	10,207	10,857	10,884	
E:		709.899,6089	709.899,5601	709.899,5601	709.899,5896	709.899,7434	709.899,8970	709.899,9265	709.899,9265	709.899,9661	
N:		7.090.265,7030	7.090.263,9839	7.090.263,9839	7.090.262,9941	7.090.257,8295	7.090.252,6693	7.090.251,6797	7.090.251,6797	7.090.250,3510	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-7,839	-6,131	-6,131	-5,140	0,000	5,105	6,095	6,095	7,524	
Cota (m):		10,893	10,859	10,209	10,189	10,891	10,189	10,209	10,859	10,888	
E:		709.906,6201	709.906,6803	709.906,6803	709.906,7152	709.906,8695	709.907,0765	709.907,1114	709.907,1114	709.907,1618	
N:		7.090.265,9156	7.090.264,2087	7.090.264,2087	7.090.263,2192	7.090.258,0819	7.090.252,9798	7.090.251,9904	7.090.251,9904	7.090.250,5621	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-7,785	-6,101	-6,101	-5,111	0,000	5,026	6,016	6,016	7,584	
Cota (m):		10,889	10,855	10,205	10,185	10,887	10,187	10,207	10,857	10,888	
E:		709.916,6157	709.916,6751	709.916,6751	709.916,7100	709.916,8902	709.917,0675	709.917,1024	709.917,1024	709.917,1576	
N:		7.090.266,2145	7.090.264,5321	7.090.264,5321	7.090.263,5425	7.090.258,4345	7.090.253,4118	7.090.252,4225	7.090.252,4225	7.090.250,8555	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA LEOPOLDO BENINCA**

Desenho Esquemático:

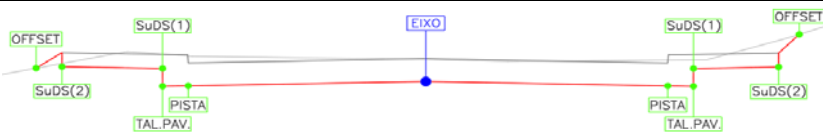


PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
<b>Station: 13+10</b>											
Dist. Eixo (m):		-7,739	-6,094	-6,094	-5,104	<b>0,000</b>	5,004	5,994	5,994	7,643	
Cota (m):		10,884	10,852	10,202	10,182	<b>10,884</b>	10,184	10,204	10,854	10,887	
E:		709.926,6111	709.926,6692	709.926,6692	709.926,7041	<b>709.926,8840</b>	709.927,0605	709.927,0954	709.927,0954	709.927,1535	
N:		7.090.266,5216	7.090.264,8772	7.090.264,8772	7.090.263,8876	<b>7.090.258,7871</b>	7.090.253,7867	7.090.252,7973	7.090.252,7973	7.090.251,1488	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,763	-6,086	-6,086	-5,096	<b>0,000</b>	5,024	6,014	6,014	7,702	
Cota (m):		10,877	10,844	10,194	10,174	<b>10,876</b>	10,175	10,195	10,845	10,879	
E:		709.936,6041	709.936,6632	709.936,6632	709.936,6981	<b>709.936,8778</b>	709.937,0550	709.937,0899	709.937,0899	709.937,1494	
N:		7.090.266,8978	7.090.265,2224	7.090.265,2224	7.090.264,2328	<b>7.090.259,1397</b>	7.090.254,1188	7.090.253,1294	7.090.253,1294	7.090.251,4422	
<b>Station: 14+10</b>											
Dist. Eixo (m):		-7,786	-6,079	-6,079	-5,089	<b>0,000</b>	5,045	6,035	6,035	7,762	
Cota (m):		10,889	10,855	10,205	10,185	<b>10,887</b>	10,186	10,206	10,856	10,891	
E:		709.946,5970	709.946,6572	709.946,6572	709.946,6922	<b>709.946,8716</b>	709.947,0495	709.947,0844	709.947,0844	709.947,1453	
N:		7.090.267,2739	7.090.265,5675	7.090.265,5675	7.090.264,5779	<b>7.090.259,4923</b>	7.090.254,4508	7.090.253,4614	7.090.253,4614	7.090.251,7355	
<b>Station: 15+0</b>											
Dist. Eixo (m):		-7,810	-6,071	-6,071	-5,081	<b>0,000</b>	5,010	6,000	6,000	7,821	
Cota (m):		10,920	10,886	10,236	10,216	<b>10,917</b>	10,217	10,237	10,887	10,923	
E:		709.956,5900	709.956,6513	709.956,6513	709.956,6862	<b>709.956,8654</b>	709.957,0420	709.957,0769	709.957,0769	709.957,1411	
N:		7.090.267,6501	7.090.265,9126	7.090.265,9126	7.090.264,9230	<b>7.090.259,8449</b>	7.090.254,8380	7.090.253,8487	7.090.253,8487	7.090.252,0289	
<b>Station: 15+10</b>											
Dist. Eixo (m):		-7,834	-6,064	-6,064	-5,074	<b>0,000</b>	5,010	6,000	6,000	7,880	
Cota (m):		10,951	10,916	10,266	10,246	<b>10,947</b>	10,247	10,267	10,917	10,954	
E:		709.966,5829	709.966,6453	709.966,6453	709.966,6802	<b>709.966,8592</b>	709.967,0358	709.967,0707	709.967,0707	709.967,1370	
N:		7.090.268,0263	7.090.266,2577	7.090.266,2577	7.090.265,2682	<b>7.090.260,1975</b>	7.090.255,1906	7.090.254,2013	7.090.254,2013	7.090.252,3222	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-7,839	-6,057	-6,057	-5,066	<b>0,000</b>	5,010	6,000	6,000	7,939	
Cota (m):		11,066	11,031	10,381	10,361	<b>11,062</b>	10,362	10,382	11,032	11,071	
E:		709.976,5765	709.976,6394	709.976,6394	709.976,6743	<b>709.976,8529</b>	709.977,0296	709.977,0645	709.977,0645	709.977,1329	
N:		7.090.268,3843	7.090.266,6029	7.090.266,6029	7.090.265,6133	<b>7.090.260,5501</b>	7.090.255,5432	7.090.254,5539	7.090.254,5539	7.090.252,6156	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,843	-6,049	-6,049	-5,059	<b>0,000</b>	5,010	6,000	6,000	8,031	
Cota (m):		11,185	11,150	10,500	10,480	<b>11,181</b>	10,481	10,501	11,151	11,191	
E:		709.986,5702	709.986,6334	709.986,6334	709.986,6683	<b>709.986,8467</b>	709.987,0234	709.987,0583	709.987,0583	709.987,1299	
N:		7.090.268,7405	7.090.266,9480	7.090.266,9480	7.090.265,9584	<b>7.090.260,9027</b>	7.090.255,8958	7.090.254,9065	7.090.254,9065	7.090.252,8765	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-7,846	-6,061	-6,061	-5,071	<b>0,000</b>	5,010	6,000	6,000	8,173	
Cota (m):		11,453	11,417	10,767	10,747	<b>11,448</b>	10,748	10,768	11,418	11,462	
E:		709.996,5638	709.996,6268	709.996,6268	709.996,6617	<b>709.996,8405</b>	709.997,0172	709.997,0521	709.997,0521	709.997,1287	
N:		7.090.269,0968	7.090.267,3124	7.090.267,3124	7.090.266,3228	<b>7.090.261,2553</b>	7.090.256,2484	7.090.255,2591	7.090.255,2591	7.090.253,0877	
<b>Station: 17+6</b>											
Dist. Eixo (m):		-7,849	-6,078	-6,078	-5,088	<b>0,000</b>	5,010	6,000	6,000	8,271	
Cota (m):		11,661	11,625	10,975	10,955	<b>11,657</b>	10,957	10,977	11,627	11,672	
E:		710.003,4957	710.003,5581	710.003,5581	710.003,5931	<b>710.003,7725</b>	710.003,9491	710.003,9840	710.003,9840	710.004,0641	
N:		7.090.269,3439	7.090.267,5741	7.090.267,5741	7.090.266,5845	<b>7.090.261,4999</b>	7.090.256,4930	7.090.255,5036	7.090.255,5036	7.090.253,2343	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-7,848	-6,083	-6,083	-5,093	<b>0,000</b>	5,010	6,000	6,000	8,316	
Cota (m):		11,752	11,717	11,067	11,047	<b>11,749</b>	11,049	11,069	11,719	11,765	
E:		710.006,5517	710.006,6152	710.006,6152	710.006,6509	<b>710.006,8342</b>	710.007,0146	710.007,0502	710.007,0502	710.007,1336	
N:		7.090.269,4528	7.090.267,6895	7.090.267,6895	7.090.266,6999	<b>7.090.261,6102</b>	7.090.256,6034	7.090.255,6141	7.090.255,6141	7.090.253,2991	
<b>Station: 17+17</b>											
Dist. Eixo (m):		-7,670	-6,096	-6,096	-5,106	<b>0,000</b>	5,010	6,000	6,000	8,427	
Cota (m):		11,987	11,956	11,306	11,286	<b>11,988</b>	11,288	11,308	11,958	12,006	
E:		710.013,9598	710.014,0164	710.014,0164	710.014,0521	<b>710.014,2359</b>	710.014,4162	710.014,4518	710.014,4518	710.014,5392	
N:		7.090.269,5415	7.090.267,9689	7.090.267,9689	7.090.266,9793	<b>7.090.261,8768</b>	7.090.256,8701	7.090.255,8807	7.090.255,8807	7.090.253,4556	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA LUCIANO DE O. CERCAL**

Desenho Esquemático:

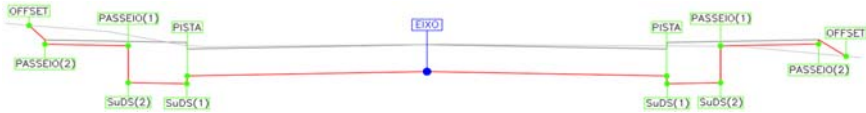


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist.eixo (m)					-8,000	<b>0,000</b>	5,000	5,398	5,398	8,000	
Cota (m)					10,153	<b>10,313</b>	10,213	10,205	10,501	10,553	
E					709,812,1869	<b>709,804,1914</b>	709,799,1942	709,798,7965	709,798,7965	709,796,1959	
N					7,089,214,9399	<b>7,089,214,6706</b>	7,089,214,5023	7,089,214,4889	7,089,214,4889	7,089,214,4013	
<b>Station: 0+10</b>											
Dist.eixo (m)		-6,058	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,999	6,373
Cota (m)		10,609	10,576	10,280	10,288	<b>10,368</b>	10,288	10,280	10,576	10,608	10,618
E		709,810,5824	709,808,9232	709,808,9232	709,808,5253	<b>709,804,5280</b>	709,800,5298	709,800,1321	709,800,1321	709,798,5329	709,798,1583
N		7,089,204,8802	7,089,204,8243	7,089,204,8243	7,089,204,8109	<b>7,089,204,6763</b>	7,089,204,5416	7,089,204,5282	7,089,204,5282	7,089,204,4744	7,089,204,4618
<b>Station: 1+0</b>											
Dist.eixo (m)		-6,051	-4,397	-4,397	-3,999	<b>0,000</b>	4,001	4,399	4,399	5,986	6,335
Cota (m)		10,664	10,631	10,335	10,343	<b>10,423</b>	10,343	10,335	10,631	10,663	10,690
E		709,810,9125	709,809,2594	709,809,2594	709,808,8614	<b>709,804,8646</b>	709,800,8660	709,800,4682	709,800,4682	709,798,8823	709,798,5330
N		7,089,194,8857	7,089,194,8300	7,089,194,8300	7,089,194,8166	<b>7,089,194,6820</b>	7,089,194,5473	7,089,194,5339	7,089,194,5339	7,089,194,4805	7,089,194,4687
<b>Station: 1+10</b>											
Dist.eixo (m)		-6,141	-6,045	-4,397	-4,397	<b>0,000</b>	4,001	4,399	4,399	5,973	6,208
Cota (m)		10,915	10,979	10,686	10,390	<b>10,478</b>	10,398	10,390	10,686	10,717	10,821
E		709,811,3386	709,811,2427	709,809,5955	709,809,5955	<b>709,805,2013</b>	709,801,2021	709,800,8044	709,800,8044	709,799,2317	709,798,9972
N		7,089,184,8944	7,089,184,8911	7,089,184,8356	7,089,184,8356	<b>7,089,184,6876</b>	7,089,184,5529	7,089,184,5396	7,089,184,5396	7,089,184,4866	7,089,184,4787
<b>Station: 2+0</b>											
Dist.eixo (m)		-6,210	-6,054	-4,396	-4,396	<b>0,000</b>	4,002	4,400	4,400	5,960	6,297
Cota (m)		10,929	11,034	10,741	10,445	<b>10,533</b>	10,453	10,445	10,741	10,772	10,807
E		709,811,7447	709,811,5881	709,809,9316	709,809,9316	<b>709,805,5379</b>	709,801,5382	709,801,1405	709,801,1405	709,799,5811	709,799,2442
N		7,089,174,9024	7,089,174,8971	7,089,174,8413	7,089,174,8413	<b>7,089,174,6933</b>	7,089,174,5586	7,089,174,5452	7,089,174,5452	7,089,174,4927	7,089,174,4813
<b>Station: 2+10</b>											
Dist.eixo (m)		-6,237	-6,049	-4,396	-4,396	<b>0,000</b>	4,002	4,400	4,400	5,947	6,331
Cota (m)		10,963	11,089	10,796	10,500	<b>10,588</b>	10,508	10,500	10,796	10,827	10,831
E		709,812,1082	709,811,9197	709,810,2678	709,810,2678	<b>709,805,8745</b>	709,801,8744	709,801,4767	709,801,4767	709,799,9305	709,799,5475
N		7,089,164,9089	7,089,164,9026	7,089,164,8469	7,089,164,8469	<b>7,089,164,6990</b>	7,089,164,5642	7,089,164,5509	7,089,164,5509	7,089,164,4988	7,089,164,4859
<b>Station: 3+0</b>											
Dist.eixo (m)		-6,205	-6,020	-4,395	-4,395	<b>0,000</b>	4,003	4,401	4,401	5,935	6,338
Cota (m)		11,020	11,143	10,851	10,555	<b>10,643</b>	10,563	10,555	10,851	10,882	10,872
E		709,812,4126	709,812,2278	709,810,6039	709,810,6039	<b>709,806,2111</b>	709,802,2105	709,801,8128	709,801,8128	709,800,2800	709,799,8763
N		7,089,154,9135	7,089,154,9073	7,089,154,8526	7,089,154,8526	<b>7,089,154,7046</b>	7,089,154,5699	7,089,154,5565	7,089,154,5565	7,089,154,5049	7,089,154,4913
<b>Station: 3+10</b>											
Dist.eixo (m)		-5,991	-4,395	-4,395	-3,997	<b>0,000</b>	4,003	4,401	4,401	5,924	
Cota (m)		10,937	10,905	10,609	10,617	<b>10,697</b>	10,617	10,609	10,906	10,936	
E		709,812,5356	709,810,9401	709,810,9401	709,810,5421	<b>709,806,5477</b>	709,802,5467	709,802,1489	709,802,1489	709,800,6276	
N		7,089,144,9120	7,089,144,8583	7,089,144,8583	7,089,144,8448	<b>7,089,144,7103</b>	7,089,144,5756	7,089,144,5622	7,089,144,5622	7,089,144,5109	
<b>Station: 4+0</b>											
Dist.eixo (m)		-5,963	-4,394	-4,394	-3,996	<b>0,000</b>	4,004	4,402	4,402	5,930	
Cota (m)		10,947	10,916	10,620	10,628	<b>10,708</b>	10,628	10,620	10,915	10,946	
E		709,812,8437	709,811,2762	709,811,2762	709,810,8783	<b>709,806,8844</b>	709,802,8828	709,802,4851	709,802,4851	709,800,9575	
N		7,089,134,9167	7,089,134,8639	7,089,134,8639	7,089,134,8505	<b>7,089,134,7160</b>	7,089,134,5812	7,089,134,5678	7,089,134,5678	7,089,134,5164	
<b>Station: 4+10</b>											
Dist.eixo (m)		-6,087	-5,972	-4,394	-4,394	<b>0,000</b>	4,004	4,402	4,402	5,937	
Cota (m)		11,075	11,152	10,860	10,564	<b>10,652</b>	10,572	10,564	10,860	10,891	
E		709,813,3045	709,813,1896	709,811,6124	709,811,6124	<b>709,807,2210</b>	709,803,2190	709,802,8212	709,802,8212	709,801,2873	
N		7,089,124,9265	7,089,124,9227	7,089,124,8696	7,089,124,8696	<b>7,089,124,7216</b>	7,089,124,5869	7,089,124,5735	7,089,124,5735	7,089,124,5218	
<b>Station: 5+0</b>											
Dist.eixo (m)		-5,996	-5,987	-4,393	-4,393	<b>0,000</b>	4,005	4,403	4,403	5,974	
Cota (m)		11,066	11,073	10,781	10,485	<b>10,573</b>	10,493	10,485	10,781	10,812	
E		709,813,5507	709,813,5412	709,811,9485	709,811,9485	<b>709,807,5576</b>	709,803,5551	709,803,1574	709,803,1574	709,801,5865	
N		7,089,114,9292	7,089,114,9288	7,089,114,8752	7,089,114,8752	<b>7,089,114,7273</b>	7,089,114,5925	7,089,114,5791	7,089,114,5791	7,089,114,5262	
<b>Station: 5+10</b>											
Dist.eixo (m)		-5,999	-4,397	-4,397	-3,999	<b>0,000</b>	4,001	4,399	4,399	6,001	6,057
Cota (m)		10,734	10,702	10,406	10,414	<b>10,494</b>	10,414	10,406	10,702	10,734	10,956
E		709,813,8894	709,812,2885	709,812,2885	709,811,8906	<b>709,807,8942</b>	709,803,8951	709,803,4974	709,803,4974	709,801,8962	709,801,8405
N		7,089,104,9349	7,089,104,8810	7,089,104,8810	7,089,104,8676	<b>7,089,104,7330</b>	7,089,104,5983	7,089,104,5849	7,089,104,5849	7,089,104,5310	7,089,104,5291
<b>Station: 5+12</b>											
Dist.eixo (m)		-6,001	-4,399	-4,399	-4,001	<b>0,000</b>	3,999	4,397	4,397	5,999	6,014
Cota (m)		10,714	10,682	10,387	10,395	<b>10,475</b>	10,395	10,387	10,682	10,714	10,965
E		709,813,9731	709,812,3722	709,812,3722	709,811,9742	<b>709,807,9760</b>	709,803,9788	709,803,5810	709,803,5810	709,801,9799	709,801,9651
N		7,089,102,5080	7,089,102,4541	7,089,102,4541	7,089,102,4407	<b>7,089,102,3060</b>	7,089,102,1714	7,089,102,1580	7,089,102,1580	7,089,102,1040	7,089,102,1035



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MANOEL MAURÍCIO FILHO**

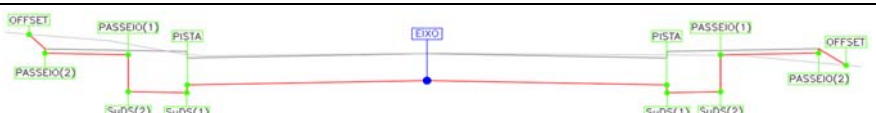
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 0+0</b>													
Dist. Eixo (m):	-12,861	-10,202	-10,202	-9,212	-9,202	0,000	12,459	12,469	13,459				
Cota (m):	11,423	11,270	10,620	10,600	10,780	10,964	10,715	10,535	10,554				
E:	709.676.3219	709.666.2597	709.666.2597	709.666.2826	709.666.2828	709.666.4960	709.666.7847	709.666.7850	709.666.8079				
N:	7.089.883.2491	7.089.880.5907	7.089.880.5907	7.089.879.6008	7.089.879.5908	7.089.870.3913	7.089.857.9355	7.089.857.9255	7.089.856.9358				
<b>Station: 0+10</b>													
Dist. Eixo (m):	-7,401	-5,974	-5,974	-4,984	-4,974	0,000	5,026	5,036	6,026	6,026	8,095		
Cota (m):	11,459	11,331	10,681	10,661	10,841	10,940	10,840	10,660	10,680	11,330	11,371		
E:	709.676.3219	709.676.3549	709.676.3549	709.676.3779	709.676.3781	709.676.4934	709.676.6098	709.676.6100	709.676.6330	709.676.6330	709.676.6809		
N:	7.089.878.0224	7.089.876.5955	7.089.876.5955	7.089.875.6056	7.089.875.5956	7.089.870.6230	7.089.865.5982	7.089.865.5882	7.089.864.5985	7.089.864.5985	7.089.862.5301		
<b>Station: 1+0</b>													
Dist. Eixo (m):	-7,247	-6,002	-6,002	-5,012	-5,002	0,000	4,998	5,008	5,998	5,998	8,345		
Cota (m):	11,432	11,307	10,657	10,637	10,817	10,917	10,817	10,637	10,657	11,307	11,354		
E:	709.666.3228	709.666.3516	709.666.3516	709.666.3746	709.666.3748	709.666.4907	709.666.6065	709.666.6067	709.666.6296	709.666.6296	709.666.6840		
N:	7.089.878.1002	7.089.876.8554	7.089.876.8554	7.089.875.8655	7.089.875.8555	7.089.870.8547	7.089.865.6581	7.089.865.8481	7.089.864.8584	7.089.864.8584	7.089.862.5115		
<b>Station: 1+10</b>													
Dist. Eixo (m):	-7,318	-6,031	-6,031	-5,040	-5,030	0,000	4,970	4,980	5,970	5,970	8,596		
Cota (m):	11,309	11,283	10,633	10,613	10,793	10,894	10,794	10,614	10,634	11,284	11,337		
E:	709.696.3184	709.696.3483	709.696.3483	709.696.3712	709.696.3714	709.696.4880	709.696.6031	709.696.6034	709.696.6263	709.696.6263	709.696.6872		
N:	7.089.876.4028	7.089.877.1153	7.089.877.1153	7.089.876.1254	7.089.876.1154	7.089.871.0864	7.089.866.1180	7.089.866.1080	7.089.865.1183	7.089.865.1183	7.089.862.4929		
<b>Station: 2+0</b>													
Dist. Eixo (m):	-7,390	-6,059	-6,059	-5,069	-5,059	0,000	4,941	4,951	5,941	5,941	8,604		
Cota (m):	11,285	11,211	10,561	10,541	10,721	10,823	10,823	10,561	10,581	11,261	11,314		
E:	709.716.3141	709.706.3449	709.706.3449	709.706.3679	709.706.3681	709.706.4853	709.706.5998	709.706.6000	709.706.6230	709.706.6230	709.706.6847		
N:	7.089.878.7057	7.089.877.3752	7.089.877.3752	7.089.876.3852	7.089.876.3752	7.089.871.3180	7.089.866.3779	7.089.866.3679	7.089.865.3781	7.089.865.3781	7.089.862.7159		
<b>Station: 2+10</b>													
Dist. Eixo (m):	-7,461	-6,087	-6,087	-5,097	-5,087	0,000	4,913	4,923	5,913	5,913	8,265		
Cota (m):	11,262	11,235	10,585	10,565	10,745	10,847	10,748	10,568	10,588	11,238	11,285		
E:	709.716.3098	709.716.3416	709.716.3416	709.716.3645	709.716.3648	709.716.4826	709.716.5965	709.716.5967	709.716.6196	709.716.6196	709.716.6741		
N:	7.089.879.0086	7.089.877.6350	7.089.877.6350	7.089.876.6451	7.089.876.6351	7.089.871.5497	7.089.866.6378	7.089.866.6278	7.089.865.6380	7.089.865.6380	7.089.863.2865		
<b>Station: 3+0</b>													
Dist. Eixo (m):	-7,532	-6,115	-6,115	-5,125	-5,115	0,000	4,895	4,895	5,885	5,885	8,253		
Cota (m):	11,239	11,211	10,561	10,541	10,721	10,823	10,823	10,561	10,581	11,261	11,314		
E:	709.726.3054	709.726.3383	709.726.3383	709.726.3612	709.726.3614	709.726.4799	709.726.5931	709.726.5934	709.726.6163	709.726.6163	709.726.6712		
N:	7.089.879.3114	7.089.877.8949	7.089.877.8947	7.089.876.9050	7.089.876.8950	7.089.871.7814	7.089.866.6976	7.089.866.6876	7.089.865.8979	7.089.865.8979	7.089.863.5305		
<b>Station: 3+10</b>													
Dist. Eixo (m):	-7,590	-6,143	-6,143	-5,153	-5,143	0,000	4,857	4,867	5,857	5,857	8,192		
Cota (m):	11,216	11,187	10,537	10,517	10,697	10,800	10,703	10,523	10,542	11,192	11,239		
E:	709.736.3014	709.736.3349	709.736.3349	709.736.3579	709.736.3581	709.736.4773	709.736.5898	709.736.5900	709.736.6130	709.736.6130	709.736.6671		
N:	7.089.879.6013	7.089.878.1548	7.089.878.1548	7.089.877.1649	7.089.877.1549	7.089.872.0131	7.089.867.1575	7.089.867.1475	7.089.866.1578	7.089.866.1578	7.089.863.8228		
<b>Station: 4+0</b>													
Dist. Eixo (m):	-7,630	-6,172	-6,172	-5,181	-5,171	0,000	4,829	4,839	5,829	5,829	8,326		
Cota (m):	11,192	11,163	10,513	10,493	10,673	10,776	10,680	10,500	10,520	11,170	11,220		
E:	709.746.2978	709.746.3316	709.746.3316	709.746.3545	709.746.3548	709.746.4748	709.746.5865	709.746.5867	709.746.6096	709.746.6096	709.746.6675		
N:	7.089.879.8723	7.089.878.4147	7.089.878.4147	7.089.877.4248	7.089.877.4148	7.089.872.2448	7.089.867.4174	7.089.867.4074	7.089.866.4177	7.089.866.4177	7.089.863.9209		
<b>Station: 4+10</b>													
Dist. Eixo (m):	-8,132	-6,200	-6,200	-5,210	-5,200	0,000	4,801	4,811	5,801	5,801	7,731		
Cota (m):	11,177	11,139	10,489	10,469	10,649	10,753	10,657	10,477	10,497	11,146	11,185		
E:	709.756.2835	709.756.3282	709.756.3282	709.756.3512	709.756.3514	709.756.4719	709.756.5831	709.756.5833	709.756.6063	709.756.6063	709.756.6510		
N:	7.089.880.6066	7.089.878.6746	7.089.878.6746	7.089.877.6846	7.089.877.6746	7.089.872.4765	7.089.867.6773	7.089.867.6673	7.089.866.6776	7.089.866.6776	7.089.864.7477		
<b>Station: 5+0</b>													
Dist. Eixo (m):	-8,220	-6,228	-6,228	-5,238	-5,228	0,000	4,772	4,782	5,772	5,772	7,806		
Cota (m):	11,155	11,115	10,465	10,445	10,625	10,730	10,634	10,454	10,474	11,124	11,165		
E:	709.766.2787	709.766.3249	709.766.3249	709.766.3478	709.766.3481	709.766.4692	709.766.5798	709.766.5800	709.766.6029	709.766.6029	709.766.6501		
N:	7.089.880.9265	7.089.878.9345	7.089.878.9345	7.089.877.9445	7.089.877.9345	7.089.872.7082	7.089.867.9372	7.089.867.9272	7.089.866.9374	7.089.866.9374	7.089.864.9044		
<b>Station: 5+10</b>													
Dist. Eixo (m):	-8,251	-6,256	-6,256	-5,266	-5,256	0,000	4,744	4,754	5,744	5,744	7,753		
Cota (m):	11,131	11,091	10,441	10,421	10,601	10,706	10,611	10,431	10,451	11,101	11,141		
E:	709.776.2753	709.776.3216	709.776.3216	709.776.3445	709.776.3447	709.776.4665	709.776.5764	709.776.5767	709.776.5996	709.776.5996	709.776.6462		
N:	7.089.881.1887	7.089.879.1943	7.089.879.1943	7.089.878.2044	7.089.878.1944	7.089.872.9399	7.089.868.1971	7.089.868.1871	7.089.867.1973	7.089.867.1973	7.089.865.1889		
<b>Station: 6+0</b>													
Dist. Eixo (m):	-8,158	-6,284	-6,284	-5,294	-5,284	0,000	4,716	4,726	5,716	5,716	7,718		
Cota (m):	11,104	11,067	10,417	10,397	10,577	10,683	10,588	10,408	10,428	11,078	11,118		
E:	709.786.2748	709.786.3182	709.786.3182	709.786.3412	709.786.3414	709.786.4638	709.786.5731	709.786.5733	709.786.5963	709.786.5963	709.786.6430		
N:	7.089.881.3273	7.089.879.4542	7.089.879.4542	7.089.878.4643	7.089.878.4543	7.089.873.1716	7.089.868.4569	7.089.868.4469	7.089.867.4572	7.089.867.4572	7.089.865.4421		
<b>Station: 6+10</b>													
Dist. Eixo (m):	-8,111	-6,279	-6,279	-5,289	-5,279	0,000	4,721	4,731	5,721	5,721	7,731		
Cota (m):	11,080	11,043	10,394	10,374	10,554	10,659	10,565	10,385	10,405	11,055	11,095		
E:	709.796.2732	709.796.3157	709.796.3157	709.796.3386	709.796.3388	709.796.4612	709.796.5705	709.796.5708	709.796.5937	709.796.5937	709.796.6403		
N:	7.089.881.5122	7.089.879.6805	7.089.879.6805	7.089.878.6906	7.089.878.6806	7.089.873.4033	7.089.868.6831	7.089.868.6731	7.089.867.6834	7.089.867.6834	7.089.865.6747		
<b>Station: 7+0</b>													
Dist. Eixo (m):	-8,064	-6,226	-6,226	-5,236	-5,226	0,000	4,774	4,784	5,774	5,774	7,784		
Cota (m):	11,058	11,021	10,371	10,351	10,531	10,636	10,540	10,360	10,380	11,030	11,070		
E:	709.806.2716	709.806.3142	709.806.3142	709.806.3371	709.806.3374	709.806.4595	709.806.5691	709.806.5693	709.806.5922	709.806.5922	709.806.6388		
N:	7.089.881.6971	7.089.879.8598	7.089.879.8598	7.089.878.8696	7.089.878.8598	7.							

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MANOEL MAURÍCIO FILHO**

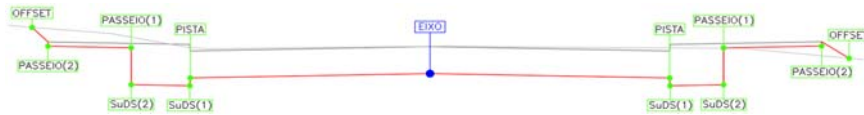
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 9+2</b>													
Dist. Eixo (m):	-7.969	-5.998	-5.998	-5.008	-4.998	<b>0,000</b>	5.000	5.010	6.000	6.000	7.900		
Cota (m):	11.064	10.925	10.275	10.255	10.435	<b>10.535</b>	10.435	10.255	10.275	10.925	10.963		
E:	709.849.1620	709.849.2076	709.849.2076	709.849.2306	709.849.2308	<b>709.849.3467</b>	709.849.4625	709.849.4627	709.849.4857	709.849.4857	709.849.5297		
N:	7.089.882.5990	7.089.880.6276	7.089.880.6276	7.089.879.6377	7.089.879.6277	<b>7.089.874.6290</b>	7.089.869.6302	7.089.869.6202	7.089.868.6305	7.089.868.6305	7.089.866.7313		
<b>Station: 9+10</b>													
Dist. Eixo (m):	-12.978	-9.416	-9.416	-8.425	-8.415	<b>0,000</b>	8.633	8.643	9.633	9.633	13.347		
Cota (m):	11.012	10.840	10.190	10.170	10.350	<b>10.519</b>	10.346	10.166	10.186	10.836	10.910		
E:	709.855.7586	709.855.9448	709.855.9448	709.855.9966	709.855.9971	<b>709.856.4372</b>	709.856.8887	709.856.8892	709.856.9410	709.856.9410	709.857.1352		
N:	7.089.887.9601	7.089.884.4029	7.089.884.4029	7.089.883.4141	7.089.883.4041	<b>7.089.875.0003</b>	7.089.866.3790	7.089.866.3691	7.089.865.3804	7.089.865.3804	7.089.861.6715		
<b>Station: 9+11</b>													
Dist. Eixo (m):	-12.867	-12.520	-12.520	-11.530	-11.520	<b>0,000</b>	12.602	12.614	13.603	13.603	14.670		
Cota (m):	10.882	10.775	10.125	10.105	10.285	<b>10.516</b>	10.284	10.084	10.104	10.751	10.772		
E:	709.857.0626	709.857.0807	709.857.0807	709.857.1325	709.857.1330	<b>709.857.7353</b>	709.858.3945	709.858.3951	709.858.4469	709.858.4469	709.858.5026		
N:	7.089.887.9176	7.089.887.5713	7.089.887.5713	7.089.886.5828	7.089.886.5728	<b>7.089.875.0708</b>	7.089.862.4832	7.089.862.4717	7.089.861.4834	7.089.861.4834	7.089.860.4188		
<b>Station: 10+1</b>													
Dist. Eixo (m):	-12.913	-11.831	-11.831	-10.841	-10.834	<b>0,000</b>	11.782	11.782	12.782	12.782	13.930		
Cota (m):	10.925	10.790	10.140	10.120	10.242	<b>10.517</b>	10.281	10.101	10.121	10.771	10.794		
E:	709.867.1663	709.867.2229	709.867.2229	709.867.2747	709.867.2750	<b>709.867.8416</b>	709.868.4577	709.868.4577	709.868.5100	709.868.5100	709.868.5701		
N:	7.089.886.4931	7.089.887.4120	7.089.887.4120	7.089.886.4232	7.089.886.4164	<b>7.089.875.5975</b>	7.089.863.8318	7.089.863.8318	7.089.862.8332	7.089.862.8332	7.089.861.6864		
<b>Station: 10+8</b>													
Dist. Eixo (m):	-7.513	-6.029	-6.029	-5.038	-5.028	<b>0,000</b>	5.002	5.012	6.002	6.002	9.013	9.328	
Cota (m):	11.234	11.009	10.234	10.214	10.394	<b>10.495</b>	10.385	10.215	10.234	10.895	10.945	10.835	
E:	709.874.9459	709.874.9577	709.875.0235	709.875.0235	709.875.0753	<b>709.875.3388</b>	709.875.6004	709.875.6009	709.875.6527	709.875.6527	709.875.8102	709.875.8267	
N:	7.089.883.4924	7.089.883.2679	7.089.882.0105	7.089.882.0105	7.089.881.0217	<b>7.089.875.9901</b>	7.089.870.9942	7.089.870.9842	7.089.869.9955	7.089.869.9955	7.089.866.9884	7.089.866.6736	
<b>Station: 10+10</b>													
Dist. Eixo (m):	-7.470	-6.008	-6.008	-5.018	-5.008	<b>0,000</b>	4.994	5.004	5.994	5.994	8.870		
Cota (m):	11.222	11.006	10.881	10.231	10.211	<b>10.492</b>	10.392	10.212	10.232	10.881	10.939		
E:	709.876.1203	709.876.1286	709.876.1771	709.876.2156	709.876.2159	<b>709.876.4105</b>	709.876.6046	709.876.6050	709.876.6434	709.876.6434	709.876.7552		
N:	7.089.883.4962	7.089.883.2810	7.089.882.0352	7.089.882.0352	7.089.881.0458	<b>7.089.876.0318</b>	7.089.871.0418	7.089.871.0318	7.089.870.0425	7.089.870.0425	7.089.867.1684		
<b>Station: 11+0</b>													
Dist. Eixo (m):	-7.115	-6.977	-5.831	-5.831	-4.840	-4.830	<b>0,000</b>	5.171	5.181	6.171	6.171	9.060	
Cota (m):	11.117	11.099	10.855	10.208	10.186	10.366	<b>10.462</b>	10.359	10.179	10.199	10.848	10.806	
E:	709.886.1265	709.886.1319	709.886.1764	709.886.1764	709.886.2149	709.886.2153	<b>709.886.4030</b>	709.886.6039	709.886.6043	709.886.6428	709.886.6428	709.886.7550	
N:	7.089.883.5303	7.089.883.3923	7.089.882.2465	7.089.882.2465	7.089.881.2571	<b>7.089.876.4203</b>	7.089.871.2531	7.089.871.2431	7.089.870.2538	7.089.870.2538	7.089.867.3689		
<b>Station: 11+10</b>													
Dist. Eixo (m):	-6.878	-5.653	-5.653	-4.663	-4.653	<b>0,000</b>	5.349	5.359	6.349	6.349	9.031		
Cota (m):	10.854	10.830	10.180	10.160	10.340	<b>10.433</b>	10.326	10.146	10.166	10.815	10.869		
E:	709.896.1282	709.896.1758	709.896.1758	709.896.2142	709.896.2146	<b>709.896.3954</b>	709.896.6032	709.896.6036	709.896.6421	709.896.6421	709.896.7463		
N:	7.089.883.6814	7.089.882.4578	7.089.882.4578	7.089.881.4684	7.089.881.4584	<b>7.089.876.8089</b>	7.089.871.4644	7.089.871.4544	7.089.870.4651	7.089.870.4651	7.089.867.7844		
<b>Station: 12+0</b>													
Dist. Eixo (m):	-6.828	-5.529	-5.529	-4.538	-4.528	<b>0,000</b>	5.469	5.479	6.469	6.469	8.762		
Cota (m):	10.829	10.803	10.153	10.133	10.313	<b>10.404</b>	10.294	10.114	10.134	10.784	10.836		
E:	709.906.1226	709.906.1730	709.906.1730	709.906.2115	709.906.2119	<b>709.906.3879</b>	709.906.6004	709.906.6008	709.906.6392	709.906.6392	709.906.7283		
N:	7.089.884.0203	7.089.882.7220	7.089.882.7220	7.089.881.7325	7.089.881.7225	<b>7.089.877.1975</b>	7.089.871.7323	7.089.871.7223	7.089.870.7330	7.089.870.7330	7.089.868.4420		
<b>Station: 12+10</b>													
Dist. Eixo (m):	-6.867	-5.568	-5.568	-4.577	-4.567	<b>0,000</b>	5.431	5.441	6.431	6.431	8.453		
Cota (m):	10.799	10.773	10.123	10.103	10.283	<b>10.374</b>	10.266	10.086	10.105	10.756	10.796		
E:	709.916.1135	709.916.1640	709.916.1640	709.916.2025	709.916.2028	<b>709.916.3803</b>	709.916.5913	709.916.5917	709.916.6302	709.916.6302	709.916.7088		
N:	7.089.884.4477	7.089.883.1493	7.089.883.1493	7.089.882.1599	7.089.882.1499	<b>7.089.877.5860</b>	7.089.872.1594	7.089.872.1494	7.089.871.1601	7.089.871.1601	7.089.869.1397		
<b>Station: 13+0</b>													
Dist. Eixo (m):	-6.906	-5.606	-5.606	-4.616	-4.606	<b>0,000</b>	5.392	5.402	6.392	6.392	8.143		
Cota (m):	10.769	10.743	10.093	10.073	10.253	<b>10.345</b>	10.237	10.057	10.077	10.727	10.762		
E:	709.926.1044	709.926.1549	709.926.1549	709.926.1934	709.926.1938	<b>709.926.3728</b>	709.926.5823	709.926.5827	709.926.6211	709.926.6211	709.926.6892		
N:	7.089.884.8751	7.089.883.5767	7.089.883.5767	7.089.882.5872	7.089.882.5772	<b>7.089.877.9746</b>	7.089.872.5865	7.089.872.5765	7.089.871.5872	7.089.871.5872	7.089.869.8374		
<b>Station: 13+10</b>													
Dist. Eixo (m):	-7.062	-6.905	-6.645	-6.645	-4.655	-4.645	<b>0,000</b>	5.354	5.364	6.354	6.354	7.923	8.204
Cota (m):	10.673	10.738	10.713	10.063	10.043	10.223	<b>10.316</b>	10.209	10.029	10.048	10.699	10.730	10.629
E:	709.936.0908	709.936.0969	709.936.1459	709.936.1459	709.936.1843	709.936.1847	<b>709.936.3652</b>	709.936.5732	709.936.5736	709.936.6121	709.936.6121	709.936.6731	709.936.6840
N:	7.089.885.4194	7.089.885.2627	7.089.884.0040	7.089.884.0038	7.089.883.0146	7.089.883.0046	<b>7.089.878.3631</b>	7.089.873.0136	7.089.872.0143	7.089.872.0143	7.089.870.4457	7.089.870.1654	
<b>Station: 14+0</b>													
Dist. Eixo (m):	-7.253	-6.899	-5.684	-5.684	-4.694	-4.684	<b>0,000</b>	5.315	5.325	6.315	6.315	7.911	
Cota (m):	10.670	10.807	10.882	10.033	10.013	10.193	<b>10.286</b>	10.180	10.000	10.020	10.670	10.702	
E:	709.946.0758	709.946.0896	709.946.1368	709.946.1368	709.946.1753	709.946.1757	<b>709.946.3577</b>	709.946.5642	709.946.5646	709.946.6030	709.946.6030	709.946.6651	
N:	7.089.885.9993	7.089.885.6451	7.089.884.4314	7.089.884.4314	7.089.883.4420	7.089.883.4320	<b>7.089.876.7517</b>	7.089.873.4407	7.089.873.4307	7.089.872.4414	7.089.872.4414	7.089.870.8462	
<b>Station: 14+10</b>													
Dist. Eixo (m):	-6.892	-5.723	-5.723	-4.733	-4.723	<b>0,000</b>	5.276	5.286	6.276	6.276	7.717	8.192	
Cota (m):	10.776	10.652	10.003	9.983	10.163	<b>10.257</b>	10.151	9.971	9.991	10.641	10.670	10.454	
E:	709.956.0823	709.956.1277	709.956.1277	709.956.1662	709.956.1666	<b>709.956.3501</b>	709.956.5551	709.956.5555	709.956.5940	709.956.5940	709.956.6500	709.956.6684	
N:	7.089.886.0273	7.089.884.8588	7.089.884.8588	7.089.883.8693	7.089.883.8593	<b>7.089.879.1403</b>	7.089.873.8678	7.089.873.8578	7.089.872.8685	7.089.872.8685	7.089.871.4289	7.089.870.9547	
<b>Station: 15+0</b>													
Dist. Eixo (m):	-6.886	-5.762	-5.762	-4.771	-4.761	<b>0,000</b>	5.238	5.248	6.238	6.238	7.538		
Cota (m):	10.745	10.622	9.972	9.952	10.132	<							

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MANOEL MAURÍCIO FILHO**

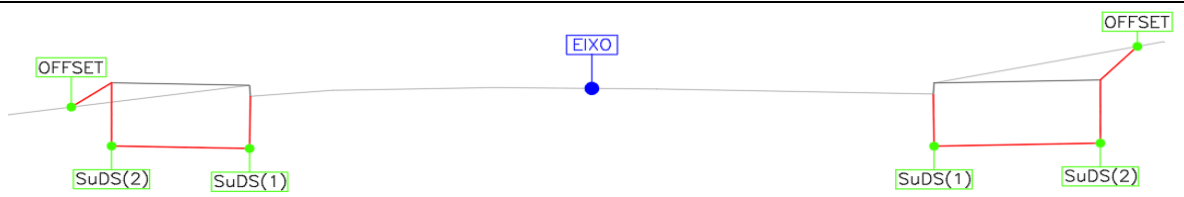
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 17+10</b>													
Dist. Eixo (m):	-7,411	-7,359	-5,956	-5,956	-4,966	-4,966	<b>0,000</b>	5,045	5,055	6,045	6,045	7,446	7,676
Cota (m):	10,499	10,500	10,472	9,822	9,802	9,822	<b>10,081</b>	9,980	9,800	9,820	10,470	10,498	10,531
E:	710,016,0168	710,016,0189	710,016,0734	710,016,0734	710,016,1119	710,016,1122	<b>710,016,3048</b>	710,016,5008	710,016,5012	710,016,5397	710,016,5397	710,016,5941	710,016,6030
N:	7,089,888,8768	7,089,888,8251	7,089,887,4230	7,089,887,4230	7,089,886,4335	7,089,886,4235	<b>7,089,881,4716</b>	7,089,876,4304	7,089,876,4204	7,089,875,4312	7,089,875,4312	7,089,874,0312	7,089,873,8018
<b>Station: 18+0</b>													
Dist. Eixo (m):	-7,564	-7,430	-5,995	-5,995	-5,004	-4,994	<b>0,000</b>	5,006	5,016	6,006	6,006	7,427	7,508
Cota (m):	10,480	10,570	10,442	9,792	9,772	9,952	<b>10,052</b>	9,952	9,772	9,791	10,442	10,470	10,516
E:	710,026,0033	710,026,0086	710,026,0643	710,026,0643	710,026,1028	710,026,1032	<b>710,026,2972</b>	710,026,4918	710,026,4922	710,026,5306	710,026,5306	710,026,5858	710,026,5890
N:	7,089,889,4189	7,089,889,2843	7,089,887,8503	7,089,887,8503	7,089,886,8609	7,089,886,8509	<b>7,089,881,8602</b>	7,089,876,8575	7,089,876,8475	7,089,875,8583	7,089,875,8583	7,089,874,4390	7,089,874,3578
<b>Station: 18+1</b>													
Dist. Eixo (m):		-6,130	-6,000	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	6,000	7,000	7,078
Cota (m):		10,451	10,537	9,787	9,767	9,947	<b>10,047</b>	9,947	9,767	9,787	10,437	10,457	10,505
E:		710,027,6040	710,027,6090	710,027,6090	710,027,6475	710,027,6479	<b>710,027,8422</b>	710,028,0365	710,028,0369	710,028,0753	710,028,0753	710,028,1142	710,028,1172
N:		7,089,888,0453	7,089,887,9159	7,089,887,9159	7,089,886,9265	7,089,886,9165	<b>7,089,881,9202</b>	7,089,876,9240	7,089,876,9140	7,089,875,9248	7,089,875,9248	7,089,874,9255	7,089,874,8480

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCIO LUCKOW**

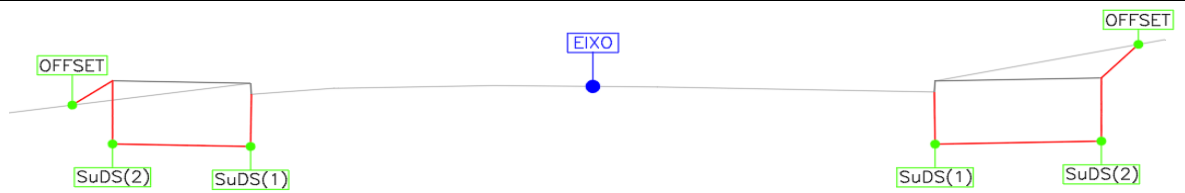
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):		-10,385	-7,039	<b>0,000</b>	7,832	11,489	
Cota (m):		12,088	12,021	<b>12,772</b>	12,005	12,078	
E:		708.716,8638	708.713,5217	<b>708.706,4895</b>	708.698,6654	708.695,0120	
N:		7.089.900,7235	7.089.900,5715	<b>7.089.900,2517</b>	7.089.899,8959	7.089.899,7297	
<b>Station: 0+10</b>							
Dist. Eixo (m):		-5,990	-3,917	<b>0,000</b>	3,971	5,962	
Cota (m):		12,098	12,057	<b>12,745</b>	12,056	12,096	
E:		708.712,9278	708.710,8563	<b>708.706,9438</b>	708.702,9774	708.700,9875	
N:		7.089.890,5341	7.089.890,4399	<b>7.089.890,2620</b>	7.089.890,0816	7.089.889,9911	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-5,952	-3,966	<b>0,000</b>	3,999	5,989	
Cota (m):		12,069	12,029	<b>12,718</b>	12,029	12,068	
E:		708.713,3440	708.711,3599	<b>708.707,3981</b>	708.703,4036	708.701,4151	
N:		7.089.880,5427	7.089.880,4525	<b>7.089.880,2723</b>	7.089.880,0907	7.089.880,0002	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-5,971	-4,004	<b>0,000</b>	3,988	5,913	
Cota (m):		12,043	12,004	<b>12,693</b>	12,004	12,042	
E:		708.713,8174	708.711,8524	<b>708.707,8524</b>	708.703,8687	708.701,9454	
N:		7.089.870,5539	7.089.870,4646	<b>7.089.870,2826</b>	7.089.870,1015	7.089.870,0140	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-6,228	-4,015	<b>0,000</b>	3,956	5,837	
Cota (m):		12,039	11,995	<b>12,685</b>	11,996	12,034	
E:		708.714,5284	708.712,3175	<b>708.708,3067</b>	708.704,3550	708.702,4757	
N:		7.089.860,5759	7.089.860,4754	<b>7.089.860,2930</b>	7.089.860,1133	7.089.860,0278	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-6,321	-4,026	<b>0,000</b>	3,924	5,761	
Cota (m):		12,021	11,975	<b>12,665</b>	11,977	12,014	
E:		708.715,0759	708.712,7825	<b>708.708,7610</b>	708.704,8413	708.703,0060	
N:		7.089.850,5905	7.089.850,4862	<b>7.089.850,3033</b>	7.089.850,1250	7.089.850,0416	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-6,162	-4,054	<b>0,000</b>	3,892	5,726	
Cota (m):		12,014	11,972	<b>12,663</b>	11,975	12,012	
E:		708.715,3708	708.713,2649	<b>708.709,2153</b>	708.705,3276	708.703,4951	
N:		7.089.840,5935	7.089.840,4978	<b>7.089.840,3136</b>	7.089.840,1368	7.089.840,0535	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-6,135	-4,089	<b>0,000</b>	3,885	5,696	
Cota (m):		12,036	11,995	<b>12,687</b>	12,000	12,036	
E:		708.715,7983	708.713,7545	<b>708.709,6696</b>	708.705,7889	708.703,9790	
N:		7.089.830,6027	7.089.830,5097	<b>7.089.830,3239</b>	7.089.830,1475	7.089.830,0652	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-6,153	-4,124	<b>0,000</b>	3,889	5,660	
Cota (m):		12,049	12,008	<b>12,701</b>	12,013	12,048	
E:		708.716,2700	708.714,2441	<b>708.710,1238</b>	708.706,2387	708.704,4695	
N:		7.089.820,6138	7.089.820,5216	<b>7.089.820,3343</b>	7.089.820,1576	7.089.820,0771	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-6,170	-4,160	<b>0,000</b>	3,894	5,605	
Cota (m):		11,999	11,959	<b>12,652</b>	11,964	11,998	
E:		708.716,7417	708.714,7336	<b>708.710,5781</b>	708.706,6885	708.704,9785	
N:		7.089.810,6249	7.089.810,5336	<b>7.089.810,3446</b>	7.089.810,1677	7.089.810,0899	
<b>Station: 5+0</b>							
Dist. Eixo (m):		-6,187	-4,146	<b>0,000</b>	3,889	5,617	
Cota (m):		11,964	11,923	<b>12,616</b>	11,929	11,963	
E:		708.717,2134	708.715,1739	<b>708.711,0324</b>	708.707,1478	708.705,4210	
N:		7.089.800,6360	7.089.800,5433	<b>7.089.800,3549</b>	7.089.800,1783	7.089.800,0997	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCIO LUCKOW**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>							
Dist. Eixo (m):		-6,217	-4,110	<b>0,000</b>	3,875	5,637	
Cota (m):		11,930	11,888	<b>12,580</b>	11,892	11,928	
E:		708.717,6972	708.715,5927	<b>708.711,4867</b>	708.707,6160	708.705,8558	
N:		7.089.790,6477	7.089.790,5520	<b>7.089.790,3652</b>	7.089.790,1892	7.089.790,1092	
<b>Station: 6+0</b>							
Dist. Eixo (m):		-6,248	-4,083	<b>0,000</b>	3,861	5,656	
Cota (m):		11,890	11,847	<b>12,538</b>	11,851	11,887	
E:		708.718,1829	708.716,0198	<b>708.711,9410</b>	708.708,0843	708.706,2905	
N:		7.089.780,6594	7.089.780,5611	<b>7.089.780,3756</b>	7.089.780,2002	7.089.780,1186	
<b>Station: 6+10</b>							
Dist. Eixo (m):		-6,285	-4,060	<b>0,000</b>	3,841	5,676	
Cota (m):		11,869	11,825	<b>12,516</b>	11,829	11,866	
E:		708.718,6742	708.716,4515	<b>708.712,3953</b>	708.708,5582	708.706,7253	
N:		7.089.770,6714	7.089.770,5704	<b>7.089.770,3859</b>	7.089.770,2114	7.089.770,1280	
<b>Station: 7+0</b>							
Dist. Eixo (m):		-6,330	-4,038	<b>0,000</b>	3,814	5,695	
Cota (m):		11,874	11,828	<b>12,519</b>	11,833	11,870	
E:		708.719,1729	708.716,8833	<b>708.712,8496</b>	708.709,0395	708.707,1600	
N:		7.089.760,6838	7.089.760,5796	<b>7.089.760,3962</b>	7.089.760,2229	7.089.760,1375	
<b>Station: 7+10</b>							
Dist. Eixo (m):		-6,374	-4,015	<b>0,000</b>	3,787	5,715	
Cota (m):		11,880	11,833	<b>12,523</b>	11,837	11,876	
E:		708.719,6716	708.717,3150	<b>708.713,3039</b>	708.709,5207	708.707,5948	
N:		7.089.750,6961	7.089.750,5889	<b>7.089.750,4065</b>	7.089.750,2345	7.089.750,1469	
<b>Station: 7+12</b>							
Dist. Eixo (m):		-6,385	-4,010	<b>0,000</b>	3,781	5,720	
Cota (m):		11,881	11,834	<b>12,524</b>	11,838	11,877	
E:		708.719,7881	708.717,4158	<b>708.713,4099</b>	708.709,6331	708.707,6963	
N:		7.089.748,3639	7.089.748,2560	<b>7.089.748,0738</b>	7.089.747,9021	7.089.747,8140	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 0+0</b>									
Dist. Eixo (m):			-12,380	-11,190	0,000	5,709	9,782		
Cota (m):			14,809	14,785		14,895	14,976		
E:			709.331,2705	709.330,0805	709.318,8907	709.313,1817	709.309,1084		
N:			7.090.803,4410	7.090.803,4429	7.090.803,4603	7.090.803,4692	7.090.803,4756		
<b>Station: 0+4</b>									
Dist. Eixo (m):			-7,617	-4,577	0,000	4,375	6,191		
Cota (m):			14,991	14,929		14,933	14,970		
E:			709.326,5056	709.323,4636	709.318,8837	709.314,5086	709.312,6930		
N:			7.090.798,9311	7.090.798,9358	7.090.798,9430	7.090.798,9498	7.090.798,9526		
<b>Station: 0+10</b>									
Dist. Eixo (m):			-5,677	-3,672	0,000	4,349	6,297		
Cota (m):			15,050	15,010		14,996	15,035		
E:			709.324,7398	709.322,7364	709.319,0663	709.314,7196	709.312,7733		
N:			7.090.793,6524	7.090.793,5857	7.090.793,4634	7.090.793,3185	7.090.793,2536		
<b>Station: 1+0</b>									
Dist. Eixo (m):			-5,696	-3,715	0,000	4,308	6,345		
Cota (m):			15,076	15,037		15,025	15,066		
E:			709.325,0920	709.323,1128	709.319,3994	709.315,0939	709.313,0577		
N:			7.090.783,6586	7.090.783,5927	7.090.783,4689	7.090.783,3254	7.090.783,2576		
<b>Station: 1+10</b>									
Dist. Eixo (m):			-5,728	-3,759	0,000	4,267	6,351		
Cota (m):			15,094	15,054		15,044	15,086		
E:			709.325,4568	709.323,4892	709.319,7325	709.315,4683	709.313,3853		
N:			7.090.773,6652	7.090.773,5997	7.090.773,4745	7.090.773,3324	7.090.773,2629		
<b>Station: 2+0</b>									
Dist. Eixo (m):			-5,759	-3,802	0,000	4,225	6,327		
Cota (m):			15,153	15,114		15,105	15,147		
E:			709.325,8215	709.323,8656	709.320,0655	709.315,8427	709.313,7424		
N:			7.090.763,6718	7.090.763,6066	7.090.763,4800	7.090.763,3393	7.090.763,2693		
<b>Station: 2+10</b>									
Dist. Eixo (m):			-5,772	-3,846	0,000				
Cota (m):			15,303	15,265					
E:			709.326,1678	709.324,2420	709.320,3986				
N:			7.090.753,6778	7.090.753,6136	7.090.753,4856				
<b>Station: 3+0</b>									
Dist. Eixo (m):			-5,785	-3,889	0,000	4,143	6,282		
Cota (m):			15,496	15,458		15,453	15,496		
E:			709.326,5132	709.324,6184	709.320,7317	709.316,5915	709.314,4528		
N:			7.090.743,6838	7.090.743,6206	7.090.743,4911	7.090.743,3531	7.090.743,2818		
<b>Station: 3+10</b>									
Dist. Eixo (m):			-5,841	-3,932	0,000	4,101	6,106		
Cota (m):			15,773	15,735		15,731	15,771		
E:			709.326,9023	709.324,9948	709.321,0648	709.316,9659	709.314,9624		
N:			7.090.733,6912	7.090.733,6276	7.090.733,4967	7.090.733,3601	7.090.733,2933		
<b>Station: 4+0</b>									
Dist. Eixo (m):			-6,013	-3,976	0,000	4,060	6,016		
Cota (m):			16,058	16,017		16,015	16,054		
E:			709.327,4078	709.325,3712	709.321,3979	709.317,3403	709.315,3848		
N:			7.090.723,7025	7.090.723,6346	7.090.723,5022	7.090.723,3670	7.090.723,3018		
<b>Station: 4+7</b>									
Dist. Eixo (m):			-6,089	-4,010	0,000	4,027	5,967		
Cota (m):			16,292	16,248		16,248	16,286		
E:			709.327,7488	709.325,6708	709.321,6630	709.317,6383	709.315,6998		
N:			7.090.715,7492	7.090.715,6799	7.090.715,5464	7.090.715,4122	7.090.715,3476		
<b>Station: 4+10</b>									
Dist. Eixo (m):			-6,088	-4,009	0,000	4,028	6,537		
Cota (m):			16,359	16,318		16,317	16,368		
E:			709.327,8270	709.325,7497	709.321,7435	709.317,7182	709.315,2113		
N:			7.090.713,7486	7.090.713,6665	7.090.713,5082	7.090.713,3492	7.090.713,2501		
<b>Station: 5+0</b>									
Dist. Eixo (m):			-6,098	-4,009	0,000				
Cota (m):			16,519	16,478					
E:			709.328,2315	709.326,1445	709.322,1383				
N:			7.090.703,7567	7.090.703,6743	7.090.703,5160				
<b>Station: 5+4</b>									
Dist. Eixo (m):			-6,103	-4,009	0,000	4,005	6,192		
Cota (m):			16,458	16,416		16,417	16,460		
E:			709.328,4316	709.326,3398	709.322,3337	709.318,3313	709.316,1467		
N:			7.090.698,8125	7.090.698,7298	7.090.698,5716	7.090.698,4134	7.090.698,3271		
<b>Station: 5+10</b>									
Dist. Eixo (m):			-6,099	-4,031	0,000	3,989	5,974		
Cota (m):			16,232	16,190		16,191	16,231		
E:			709.328,6066	709.326,5397	709.322,5115	709.318,5246	709.316,5411		
N:			7.090.693,7377	7.090.693,6649	7.090.693,5230	7.090.693,3825	7.090.693,3126		
<b>Station: 6+0</b>									
Dist. Eixo (m):			-6,065	-4,063	0,000	3,957	5,944		
Cota (m):			15,775	15,735		15,737	15,777		
E:			709.328,9246	709.326,9238	709.322,8636	709.318,9087	709.316,9235		
N:			7.090.683,7427	7.090.683,6722	7.090.683,5292	7.090.683,3899	7.090.683,3199		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 6+10</b>									
Dist. Eixo (m):			-6,027	-4,095	0,000	3,925	5,914		
Cota (m):			15,309	15,271		15,274	15,314		
E:			709.329,2392	709.327,3078	709.323,2157	709.319,2927	709.317,3058		
N:			7.090.673,7476	7.090.673,6796	7.090.673,5354	7.090.673,3972	7.090.673,3272		
<b>Station: 6+17</b>									
Dist. Eixo (m):			-5,995	-4,120	0,000	3,900	5,890		
Cota (m):			14,940	14,902		14,907	14,946		
E:			709.329,4863	709.327,6127	709.323,4952	709.319,5976	709.317,6093		
N:			7.090.665,8133	7.090.665,7473	7.090.665,6022	7.090.665,4649	7.090.665,3949		
<b>Station: 7+0</b>									
Dist. Eixo (m):			-5,996	-4,113	0,000	4,069	5,877		
Cota (m):			14,847	14,810		14,811	14,847		
E:			709.329,5536	709.327,6721	709.323,5611	709.319,4942	709.317,6874		
N:			7.090.663,7330	7.090.663,6728	7.090.663,5414	7.090.663,4113	7.090.663,3535		
<b>Station: 7+9</b>									
Dist. Eixo (m):			-6,052	-4,049	0,000	3,979	5,957		
Cota (m):			14,589	14,549		14,550	14,590		
E:			709.329,8989	709.327,8965	709.323,8499	709.319,8731	709.317,8956		
N:			7.090.654,7047	7.090.654,6407	7.090.654,5113	7.090.654,3841	7.090.654,3209		
<b>Station: 7+10</b>									
Dist. Eixo (m):			-6,051	-4,045	0,000	3,976	5,959		
Cota (m):			14,566	14,526		14,527	14,567		
E:			709.329,9340	709.327,9302	709.323,8882	709.319,9148	709.317,9336		
N:			7.090.653,7866	7.090.653,7071	7.090.653,5467	7.090.653,3891	7.090.653,3105		
<b>Station: 8+0</b>									
Dist. Eixo (m):			-6,036	-4,010	0,000	4,011	5,980		
Cota (m):			14,398	14,358		14,358	14,397		
E:			709.330,3161	709.328,2909	709.324,2846	709.320,2772	709.318,3094		
N:			7.090.643,7939	7.090.643,7135	7.090.643,5546	7.090.643,3956	7.090.643,3176		
<b>Station: 8+10</b>									
Dist. Eixo (m):			-6,022	-3,997	0,000				
Cota (m):			14,303	14,263					
E:			709.330,6982	709.328,6751	709.324,6810				
N:			7.090.633,8012	7.090.633,7209	7.090.633,5625				
<b>Station: 8+17</b>									
Dist. Eixo (m):			-6,011	-4,010	0,000	4,054	6,002		
Cota (m):			14,250	14,210		14,209	14,248		
E:			709.330,9785	709.328,9786	709.324,9718	709.320,9206	709.318,9750		
N:			7.090.626,4697	7.090.626,3904	7.090.626,2314	7.090.626,0707	7.090.625,9935		
<b>Station: 9+0</b>									
Dist. Eixo (m):			-6,012	-4,010	0,000	4,010	6,005		
Cota (m):			14,263	14,223		14,223	14,263		
E:			709.331,0806	709.329,0802	709.325,0731	709.321,0660	709.319,0729		
N:			7.090.623,7989	7.090.623,7227	7.090.623,5702	7.090.623,4176	7.090.623,3417		
<b>Station: 9+10</b>									
Dist. Eixo (m):			-5,981	-4,010	0,000	4,010	6,021		
Cota (m):			14,317	14,278		14,278	14,318		
E:			709.331,4300	709.329,4606	709.325,4535	709.321,4464	709.319,4365		
N:			7.090.613,8049	7.090.613,7300	7.090.613,5774	7.090.613,4248	7.090.613,3483		
<b>Station: 10+0</b>									
Dist. Eixo (m):			-5,937	-4,010	0,000	4,010	6,033		
Cota (m):			14,380	14,342		14,342	14,382		
E:			709.331,7670	709.329,8411	709.325,8340	709.321,8269	709.319,8051		
N:			7.090.603,8105	7.090.603,7372	7.090.603,5846	7.090.603,4321	7.090.603,3551		
<b>Station: 10+10</b>									
Dist. Eixo (m):			-5,894	-4,010	0,000	4,010	6,021		
Cota (m):			14,448	14,411		14,411	14,451		
E:			709.332,1039	709.330,2215	709.326,2144	709.322,2073	709.320,1976		
N:			7.090.593,8161	7.090.593,7444	7.090.593,5919	7.090.593,4393	7.090.593,3628		
<b>Station: 11+0</b>									
Dist. Eixo (m):			-5,850	-4,010	0,000	4,010	6,009		
Cota (m):			14,527	14,490		14,490	14,530		
E:			709.332,4409	709.330,6019	709.326,5948	709.322,5877	709.320,5901		
N:			7.090.583,8217	7.090.583,7517	7.090.583,5991	7.090.583,4466	7.090.583,3705		
<b>Station: 11+10</b>									
Dist. Eixo (m):			-5,829	-4,066	0,000				
Cota (m):			14,753	14,718					
E:			709.332,8287	709.331,0669	709.327,0045				
N:			7.090.573,8464	7.090.573,7742	7.090.573,6075				
<b>Station: 12+0</b>									
Dist. Eixo (m):			-5,817	-4,099	0,000	3,921	5,894		
Cota (m):			15,177	15,143		15,146	15,186		
E:			709.333,2267	709.331,5101	709.327,4144	709.323,4968	709.321,5257		
N:			7.090.563,8544	7.090.563,7839	7.090.563,6159	7.090.563,4552	7.090.563,3743		
<b>Station: 12+10</b>									
Dist. Eixo (m):			-5,805	-4,080	0,000	3,940	6,054		
Cota (m):			15,763	15,728		15,731	15,774		
E:			709.333,6248	709.331,9013	709.327,8243	709.323,8880	709.321,7749		
N:			7.090.553,8623	7.090.553,7916	7.090.553,6243	7.090.553,4628	7.090.553,3762		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 13+0</b>									
Dist. Eixo (m):			-5,794	-4,062	0,000	3,958	5,973		
Cota (m):			16,783	16,748		16,750	16,791		
E:			709.334,0228	709.332,2925	709.328,2342	709.324,2792	709.322,2659		
N:			7.090.543,8702	7.090.543,7992	7.090.543,6327	7.090.543,4705	7.090.543,3879		
<b>Station: 13+10</b>									
Dist. Eixo (m):			-5,758	-4,043	0,000	3,977	5,935		
Cota (m):			17,877	17,843		17,844	17,883		
E:			709.334,3969	709.332,6837	709.328,6440	709.324,6704	709.322,7141		
N:			7.090.533,8771	7.090.533,8068	7.090.533,6411	7.090.533,4781	7.090.533,3979		
<b>Station: 14+0</b>									
Dist. Eixo (m):			-5,550	-4,024	0,000	3,996	5,944		
Cota (m):			18,953	18,923		18,923	18,962		
E:			709.334,5996	709.333,0749	709.329,0539	709.325,0616	709.323,1153		
N:			7.090.523,8770	7.090.523,8145	7.090.523,6495	7.090.523,4858	7.090.523,4059		
<b>Station: 14+8</b>									
Dist. Eixo (m):			-5,380	-3,998	0,000	4,010	5,944		
Cota (m):			19,868	19,840		19,840	19,879		
E:			709.334,7664	709.333,3855	709.329,3913	709.325,3823	709.323,4490		
N:			7.090.515,6453	7.090.515,5887	7.090.515,4248	7.090.515,2603	7.090.515,1810		
<b>Station: 14+10</b>									
Dist. Eixo (m):			-5,399	-3,950	0,000	3,970	5,871		
Cota (m):			19,990	19,961		19,961	19,999		
E:			709.334,8058	709.333,3569	709.329,4067	709.325,4369	709.323,5364		
N:			7.090.513,7033	7.090.513,6908	7.090.513,6565	7.090.513,6221	7.090.513,6056		
<b>Station: 15+0</b>									
Dist. Eixo (m):			-5,393	-3,712	0,000	3,724	5,403		
Cota (m):			20,678	20,639		20,638	20,672		
E:			709.334,8859	709.333,2057	709.329,4934	709.325,7696	709.324,0909		
N:			7.090.503,7037	7.090.503,6891	7.090.503,6569	7.090.503,6246	7.090.503,6100		
<b>Station: 15+10</b>									
Dist. Eixo (m):			-5,507	-3,517	0,000	3,521	5,511		
Cota (m):			21,322	21,282		21,282	21,322		
E:			709.335,0870	709.333,0970	709.329,5801	709.326,0592	709.324,0893		
N:			7.090.493,7050	7.090.493,6878	7.090.493,6573	7.090.493,6267	7.090.493,6095		
<b>Station: 16+0</b>									
Dist. Eixo (m):			-5,573	-3,583	0,000	3,584	5,574		
Cota (m):			21,347	21,307		21,307	21,347		
E:			709.335,2395	709.333,2496	709.329,6668	709.326,0826	709.324,0927		
N:			7.090.483,7060	7.090.483,6887	7.090.483,6576	7.090.483,6266	7.090.483,6093		
<b>Station: 16+6</b>									
Dist. Eixo (m):			-5,617	-3,627	0,000	3,627	5,617		
Cota (m):			21,363	21,324		21,324	21,363		
E:			709.335,3424	709.333,3524	709.329,7253	709.326,0984	709.324,1085		
N:			7.090.476,9641	7.090.476,9468	7.090.476,9154	7.090.476,8839	7.090.476,8667		
<b>Station: 16+10</b>									
Dist. Eixo (m):			-5,638	-3,648	0,000	3,648	5,638		
Cota (m):			21,345	21,306		21,306	21,345		
E:			709.335,3921	709.333,4021	709.329,7539	709.326,1061	709.324,1161		
N:			7.090.473,7076	7.090.473,6901	7.090.473,6580	7.090.473,6259	7.090.473,6084		
<b>Station: 17+0</b>									
Dist. Eixo (m):			-5,708	-3,713	0,000	3,713	5,703		
Cota (m):			20,690	20,650		20,650	20,690		
E:			709.335,5501	709.333,5547	709.329,8419	709.326,1295	709.324,1395		
N:			7.090.463,7086	7.090.463,6911	7.090.463,6584	7.090.463,6258	7.090.463,6083		
<b>Station: 17+10</b>									
Dist. Eixo (m):			-5,860	-3,778	0,000	3,777	5,767		
Cota (m):			19,769	19,728		19,728	19,767		
E:			709.335,7898	709.333,7073	709.329,9298	709.326,1529	709.324,1629		
N:			7.090.453,7103	7.090.453,6920	7.090.453,6598	7.090.453,6256	7.090.453,6081		
<b>Station: 18+0</b>									
Dist. Eixo (m):			-5,963	-3,842	0,000	3,842	5,832		
Cota (m):			18,557	18,514		18,514	18,554		
E:			709.335,9801	709.333,8599	709.330,0177	709.326,1763	709.324,1863		
N:			7.090.443,7116	7.090.443,6930	7.090.443,6592	7.090.443,6254	7.090.443,6079		
<b>Station: 18+10</b>									
Dist. Eixo (m):			-6,053	-3,907	0,000	3,906	5,896		
Cota (m):			17,421	17,378		17,378	17,418		
E:			709.336,1585	709.334,0124	709.330,1056	709.326,1997	709.324,2097		
N:			7.090.433,7128	7.090.433,6939	7.090.433,6596	7.090.433,6252	7.090.433,6077		
<b>Station: 19+0</b>									
Dist. Eixo (m):			-6,169	-3,972	0,000	3,971	5,961		
Cota (m):			16,476	16,432		16,432	16,472		
E:			709.336,3623	709.334,1650	709.330,1936	709.326,2231	709.324,2331		
N:			7.090.423,7142	7.090.423,6949	7.090.423,6600	7.090.423,6250	7.090.423,6075		
<b>Station: 19+5</b>									
Dist. Eixo (m):			-6,036	-4,009	0,000	4,009	5,999		
Cota (m):			16,133	16,092		16,092	16,132		
E:			709.336,2822	709.334,2549	709.330,2454	709.326,2369	709.324,2469		
N:			7.090.417,8209	7.090.417,8031	7.090.417,7678	7.090.417,7326	7.090.417,7151		



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**NOTA DE SERVIÇO**  
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Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 19+10</b>									
Dist. Eixo (m):			-5,864	-4,010	0,000	4,010	5,550		
Cota (m):			15,894	15,857		15,857	15,888		
E:			709.336,2279	709.334,3739	709.330,3661	709.326,3574	709.324,8184		
N:			7.090.413,8343	7.090.413,7798	7.090.413,6620	7.090.413,5441	7.090.413,4988		
<b>Station: 20+0</b>									
Dist. Eixo (m):			-5,474	-4,008	0,000	4,012	5,557		
Cota (m):			15,449	15,420		15,420	15,451		
E:			709.336,1316	709.334,6666	709.330,6600	709.326,6501	709.325,1050		
N:			7.090.403,8271	7.090.403,7841	7.090.403,6663	7.090.403,5484	7.090.403,5030		
<b>Station: 20+10</b>									
Dist. Eixo (m):			-5,883	-4,007	0,000	4,013	5,390		
Cota (m):			14,873	14,836		14,836	14,863		
E:			709.336,8340	709.334,9594	709.330,9539	709.326,9428	709.325,5665		
N:			7.090.393,8435	7.090.393,7884	7.090.393,6706	7.090.393,5527	7.090.393,5122		
<b>Station: 21+0</b>									
Dist. Eixo (m):			-6,270	-4,006	0,000	4,014	5,561		
Cota (m):			14,484	14,439		14,439	14,469		
E:			709.337,5149	709.335,2521	709.331,2478	709.327,2356	709.325,6894		
N:			7.090.383,8592	7.090.383,7926	7.090.383,6749	7.090.383,5570	7.090.383,5115		
<b>Station: 21+10</b>									
Dist. Eixo (m):			-6,261	-4,005	0,000	4,015	5,590		
Cota (m):			14,331	14,286		14,285	14,317		
E:			709.337,8003	709.335,5449	709.331,5416	709.327,5283	709.325,9543		
N:			7.090.373,8632	7.090.373,7969	7.090.373,6792	7.090.373,5612	7.090.373,5150		
<b>Station: 21+16</b>									
Dist. Eixo (m):			-6,313	-4,009	0,000	4,010	5,200		
Cota (m):			14,236	14,190		14,190	14,214		
E:			709.338,0508	709.335,7481	709.331,7398	709.327,7316	709.326,5421		
N:			7.090.367,1242	7.090.367,0565	7.090.366,9387	7.090.366,8208	7.090.366,7859		
<b>Station: 22+0</b>									
Dist. Eixo (m):			-6,332	-4,114	0,000				
Cota (m):			14,243	14,199					
E:			709.338,2157	709.335,9992	709.331,8900				
N:			7.090.363,9775	7.090.363,8753	7.090.363,6856				
<b>Station: 22+10</b>									
Dist. Eixo (m):			-6,395	-4,361	0,000	3,660	5,612		
Cota (m):			14,452	14,412		14,426	14,465		
E:			709.338,7392	709.336,7070	709.332,3510	709.328,6945	709.326,7446		
N:			7.090.353,9911	7.090.353,8973	7.090.353,6962	7.090.353,5275	7.090.353,4375		
<b>Station: 23+0</b>									
Dist. Eixo (m):			-6,207	-4,204	0,000	3,817	5,903		
Cota (m):			14,765	14,724		14,732	14,774		
E:			709.339,0128	709.337,0116	709.332,8120	709.328,9992	709.326,9157		
N:			7.090.343,9930	7.090.343,9007	7.090.343,7069	7.090.343,5309	7.090.343,4348		
<b>Station: 23+10</b>									
Dist. Eixo (m):					0,000	3,973	6,064		
Cota (m):						15,486	15,528		
E:					709.333,2730	709.329,3038	709.327,2153		
N:					7.090.333,7175	7.090.333,5343	7.090.333,4379		
<b>Station: 23+12</b>									
Dist. Eixo (m):					0,000	4,010	6,092		
Cota (m):						15,698	15,740		
E:					709.333,3823	709.329,3760	709.327,2957		
N:					7.090.331,3501	7.090.331,1652	7.090.331,0692		
<b>Station: 24+0</b>									
Dist. Eixo (m):					0,000	4,010	6,066		
Cota (m):						16,445	16,486		
E:					709.333,6148	709.329,6066	709.327,5518		
N:					7.090.323,7236	7.090.323,6014	7.090.323,5387		
<b>Station: 24+10</b>									
Dist. Eixo (m):			-6,532	-4,042	0,000	4,010	6,031		
Cota (m):			17,769	17,719		17,720	17,760		
E:			709.340,4485	709.337,9596	709.333,9195	709.329,9112	709.327,8917		
N:			7.090.313,9273	7.090.313,8514	7.090.313,7282	7.090.313,6060	7.090.313,5444		
<b>Station: 24+18</b>									
Dist. Eixo (m):			-6,457	-3,911	0,000	4,010	5,997		
Cota (m):			18,912	18,861		18,859	18,899		
E:			709.340,6374	709.338,0929	709.334,1836	709.330,1755	709.328,1891		
N:			7.090.305,2613	7.090.305,1837	7.090.305,0645	7.090.304,9423	7.090.304,8817		
<b>Station: 25+0</b>									
Dist. Eixo (m):			-6,450	-3,898	0,000	3,994	5,929		
Cota (m):			19,068	19,017		19,015	19,052		
E:			709.340,6669	709.338,1165	709.334,2198	709.330,2271	709.328,2929		
N:			7.090.303,9076	7.090.303,8384	7.090.303,7327	7.090.303,6244	7.090.303,5720		
<b>Station: 25+10</b>									
Dist. Eixo (m):			-6,397	-3,803	0,000	3,874	5,562		
Cota (m):			20,238	20,186		20,185	20,218		
E:			709.340,8851	709.338,2920	709.334,4909	709.330,6184	709.328,9312		
N:			7.090.293,9098	7.090.293,8395	7.090.293,7364	7.090.293,6314	7.090.293,5856		

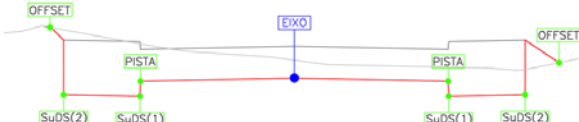
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 26+0</b>									
Dist. Eixo (m):			-6,354	-3,707	<b>0,000</b>	3,754	5,454		
Cota (m):			21,085	21,032		21,031	21,065		
E:			709.341,1139	709.338,4675	<b>709.334,7620</b>	709.331,0096	709.329,3099		
N:			7.090.283,9124	7.090.283,8406	<b>7.090.283,7401</b>	7.090.283,6383	7.090.283,5922		
<b>Station: 26+10</b>									
Dist. Eixo (m):			-6,404	-3,611	<b>0,000</b>	3,634	5,298		
Cota (m):			21,452	21,396		21,396	21,429		
E:			709.341,4349	709.338,6429	<b>709.335,0331</b>	709.331,4009	709.329,7366		
N:			7.090.273,9174	7.090.273,8417	<b>7.090.273,7438</b>	7.090.273,6452	7.090.273,6001		
<b>Station: 26+19</b>									
Dist. Eixo (m):			-6,407	-3,516	<b>0,000</b>				
Cota (m):			21,524	21,466					
E:			709.341,7036	709.338,8138	<b>709.335,2984</b>				
N:			7.090.264,1360	7.090.264,0576	<b>7.090.263,9622</b>				
<b>Station: 27+0</b>									
Dist. Eixo (m):			-6,404	-3,514	<b>0,000</b>				
Cota (m):			21,506	21,448					
E:			709.341,7058	709.338,8185	<b>709.335,3074</b>				
N:			7.090.264,0170	7.090.263,8954	<b>7.090.263,7475</b>				
<b>Station: 29+10</b>									
Dist. Eixo (m):			-5,691	-3,640	<b>0,000</b>	3,818	6,493		
Cota (m):			18,077	18,036		18,033	18,086		
E:			709.343,0973	709.341,0481	<b>709.337,4116</b>	709.333,5974	709.330,9240		
N:			7.090.214,0313	7.090.213,9450	<b>7.090.213,7918</b>	7.090.213,6312	7.090.213,5186		

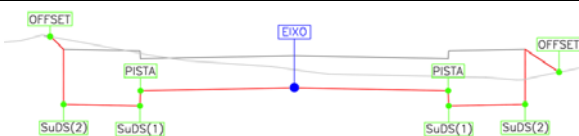
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 30+0</b>									
Dist. Eixo (m):		-5,503	-2,971	-2,961	<b>0,000</b>	3,228	3,238	5,712	5,997
Cota (m):		17,826	17,776	18,296	<b>18,385</b>	18,481	17,961	18,011	19,356
E:		709.343,2963	709.340,7654	709.340,7554	<b>709.337,7969</b>	709.334,5717	709.334,5617	709.332,0891	709.331,8040
N:		7.090.204,0104	7.090.203,9133	7.090.203,9129	<b>7.090.203,7993</b>	7.090.203,6754	7.090.203,6750	7.090.203,5801	7.090.203,5692
<b>Station: 30+10</b>									
Dist. Eixo (m):		-5,523	-2,908	-2,898	<b>0,000</b>	3,102	3,112	4,602	5,444
Cota (m):		17,757	17,688	18,208	<b>18,295</b>	18,388	17,868	17,898	19,752
E:		709.343,6999	709.341,0861	709.341,0762	<b>709.338,1806</b>	709.335,0805	709.335,0705	709.333,5815	709.332,7409
N:		7.090.194,0186	7.090.193,9182	7.090.193,9178	<b>7.090.193,8066</b>	7.090.193,6876	7.090.193,6872	7.090.193,6300	7.090.193,5978
<b>Station: 31+0</b>									
Dist. Eixo (m):		-5,525	-2,845	-2,835	<b>0,000</b>	3,165	3,175	4,665	
Cota (m):		17,818	17,764	18,284	<b>18,369</b>	18,464	17,944	17,974	
E:		709.344,0853	709.341,4069	709.341,3969	<b>709.338,5643</b>	709.335,4012	709.335,3912	709.333,9022	
N:		7.090.184,0260	7.090.183,9231	7.090.183,9228	<b>7.090.183,8140</b>	7.090.183,6925	7.090.183,6922	7.090.183,6350	
<b>Station: 31+10</b>									
Dist. Eixo (m):	-4,565	-4,272	-2,782	-2,772	<b>0,000</b>	3,228	3,238	4,729	5,221
Cota (m):	18,899	19,094	18,005	18,525	<b>18,608</b>	18,705	18,185	18,214	18,946
E:	709.343,5098	709.343,2167	709.341,7276	709.341,7176	<b>709.338,9480</b>	709.335,7219	709.335,7119	709.334,2229	709.333,7306
N:	7.090.173,9965	7.090.173,9853	7.090.173,9281	7.090.173,9277	<b>7.090.173,8214</b>	7.090.173,6975	7.090.173,6971	7.090.173,6399	7.090.173,6210
<b>Station: 32+0</b>									
Dist. Eixo (m):	-4,443	-4,209	-2,719	-2,709	<b>0,000</b>	3,292	3,302	4,792	5,248
Cota (m):	19,301	19,457	18,368	18,888	<b>18,969</b>	19,068	18,548	18,577	19,333
E:	709.343,7715	709.343,5374	709.342,0483	709.342,0383	<b>709.339,3317</b>	709.336,0426	709.336,0326	709.334,5437	709.334,0876
N:	7.090.163,9992	7.090.163,9902	7.090.163,9330	7.090.163,9327	<b>7.090.163,8287</b>	7.090.163,7024	7.090.163,7020	7.090.163,6449	7.090.163,6274
<b>Station: 32+10</b>									
Dist. Eixo (m):	-4,785	-4,146	-2,656	-2,646	<b>0,000</b>	3,355	3,365	4,855	5,342
Cota (m):	19,494	19,920	18,830	19,350	<b>19,430</b>	19,530	19,010	19,040	19,775
E:	709.344,4973	709.343,8581	709.342,3690	709.342,3590	<b>709.339,7154</b>	709.336,3633	709.336,3533	709.334,8644	709.334,3776
N:	7.090.154,0197	7.090.153,9952	7.090.153,9380	7.090.153,9376	<b>7.090.153,8361</b>	7.090.153,7074	7.090.153,7070	7.090.153,6498	7.090.153,6311
<b>Station: 33+0</b>									
Dist. Eixo (m):		-4,083	-2,593	-2,583	<b>0,000</b>	3,418	3,428	4,918	5,516
Cota (m):		19,422	19,393	19,913	<b>19,990</b>	20,093	19,573	19,602	20,264
E:		709.344,1786	709.342,6897	709.342,6797	<b>709.340,0991</b>	709.336,6840	709.336,6740	709.335,1851	709.334,5873
N:		7.090.144,0001	7.090.143,9429	7.090.143,9425	<b>7.090.143,8435</b>	7.090.143,7123	7.090.143,7119	7.090.143,6548	7.090.143,6318
<b>Station: 33+10</b>									
Dist. Eixo (m):		-4,020	-2,530	-2,520	<b>0,000</b>	3,481	3,491	4,981	5,546
Cota (m):		20,084	20,054	20,574	<b>20,650</b>	20,754	20,234	20,264	20,963
E:		709.344,4993	709.343,0104	709.343,0004	<b>709.340,4828</b>	709.337,0047	709.336,9947	709.335,5058	709.334,9411
N:		7.090.134,0050	7.090.133,9479	7.090.133,9475	<b>7.090.133,8508</b>	7.090.133,7173	7.090.133,7169	7.090.133,6597	7.090.133,6380
<b>Station: 34+0</b>									
Dist. Eixo (m):		-3,679	-2,466	-2,456	<b>0,000</b>	3,544	3,554	5,044	5,423
Cota (m):		20,819	20,794	21,314	<b>21,388</b>	21,494	20,974	21,004	21,811
E:		709.344,5425	709.343,3311	709.343,3211	<b>709.340,8665</b>	709.337,3254	709.337,3154	709.335,8265	709.335,4474
N:		7.090.123,9993	7.090.123,9528	7.090.123,9524	<b>7.090.123,8582</b>	7.090.123,7222	7.090.123,7218	7.090.123,6647	7.090.123,6501

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 34+10</b>									
Dist. Eixo (m):	-4,264	-4,021	-2,526	-2,516	<b>0,000</b>	3,485	3,495	4,985	5,098
Cota (m):	21,802	21,567	21,537	22,057	<b>22,132</b>	22,237	21,717	21,747	22,920
E:	709.346,5114	709.345,2680	709.343,7744	709.343,7644	<b>709.341,2501</b>	709.337,7682	709.337,7582	709.336,2692	709.336,1562
N:	7.090.114,0292	7.090.114,0198	7.090.113,9625	7.090.113,9621	<b>7.090.113,8655</b>	7.090.113,7318	7.090.113,7315	7.090.113,6743	7.090.113,6699
<b>Station: 35+0</b>									
Dist. Eixo (m):	-4,809	-4,160	-2,666	-2,656	<b>0,000</b>	3,344	3,354	4,844	6,256
Cota (m):	22,934	23,367	22,277	22,797	<b>22,876</b>	22,977	22,457	22,487	24,959
E:	709.346,4389	709.345,7907	709.344,2982	709.344,2882	<b>709.341,6338</b>	709.338,2921	709.338,2821	709.336,7930	709.335,3820
N:	7.090.104,0574	7.090.104,0325	7.090.103,9752	7.090.103,9748	<b>7.090.103,8729</b>	7.090.103,7446	7.090.103,7442	7.090.103,6870	7.090.103,6329
<b>Station: 35+10</b>									
Dist. Eixo (m):		-4,299	-2,807	-2,797	<b>0,000</b>	3,204	3,214	4,704	5,613
Cota (m):		23,023	22,993	23,513	<b>23,597</b>	23,693	23,173	23,203	25,172
E:		709.346,3131	709.344,8221	709.344,8121	<b>709.342,0175</b>	709.338,8159	709.338,8059	709.337,3169	709.336,4086
N:		7.090.094,0452	7.090.093,9880	7.090.093,9876	<b>7.090.093,8803</b>	7.090.093,7573	7.090.093,7570	7.090.093,6998	7.090.093,6649
<b>Station: 36+0</b>									
Dist. Eixo (m):		-4,438	-2,947	-2,937	<b>0,000</b>	3,064	3,074	4,564	5,029
Cota (m):		23,266	23,236	23,756	<b>23,844</b>	23,936	23,416	23,446	24,972
E:		709.346,8356	709.345,3460	709.345,3360	<b>709.342,4012</b>	709.339,3398	709.339,3298	709.337,8407	709.337,3755
N:		7.090.084,0579	7.090.084,0007	7.090.084,0003	<b>7.090.083,8876</b>	7.090.083,7701	7.090.083,7697	7.090.083,7125	7.090.083,6947
<b>Station: 36+4</b>									
Dist. Eixo (m):		-4,503	-3,008	-2,998	<b>0,000</b>	3,003	3,009	4,503	4,804
Cota (m):		22,914	22,893	23,413	<b>23,513</b>	23,603	23,258	23,113	24,475
E:		709.347,0678	709.345,5736	709.345,5636	<b>709.342,5680</b>	709.339,5674	709.339,5608	709.338,0684	709.337,7672
N:		7.090.079,7180	7.090.079,6606	7.090.079,6602	<b>7.090.079,5452</b>	7.090.079,4300	7.090.079,4297	7.090.079,3724	7.090.079,3608

Desenho Esquemático:



PONTOS NOTÁVEIS		SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)
<b>Station: 36+10</b>						
Dist. Eixo (m):		-4,970	-3,077	<b>0,000</b>	3,009	4,349
Cota (m):		22,360	22,322	<b>23,294</b>	22,324	22,351
E:		709.347,9974	709.346,1119	<b>709.343,0458</b>	709.340,0480	709.338,7130
N:		7.090.074,3386	7.090.074,1758	<b>7.090.073,9113</b>	7.090.073,6526	7.090.073,5373
<b>Station: 37+0</b>						
Dist. Eixo (m):		-4,885	-3,211	<b>0,000</b>	3,000	4,340
Cota (m):		21,355	21,321	<b>22,295</b>	21,326	21,352
E:		709.348,7721	709.347,1050	<b>709.343,9056</b>	709.340,9168	709.339,5818
N:		7.090.064,3683	7.090.064,2244	<b>7.090.063,9483</b>	7.090.063,6904	7.090.063,5751
<b>Station: 37+10</b>						
Dist. Eixo (m):		-4,853	-3,345	<b>0,000</b>		
Cota (m):		19,896	19,866	<b>20,843</b>		
E:		709.349,6003	709.348,0981	<b>709.344,7654</b>		
N:		7.090.054,4026	7.090.054,2729	<b>7.090.053,9853</b>		
<b>Station: 37+13</b>						
Dist. Eixo (m):		-4,930	-3,390	<b>0,000</b>	4,009	7,152
Cota (m):		19,312	19,281	<b>20,259</b>	19,269	19,332
E:		709.349,9672	709.348,4334	<b>709.345,0556</b>	709.341,0600	709.337,9272
N:		7.090.051,0456	7.090.050,9133	<b>7.090.050,6218</b>	7.090.050,2770	7.090.050,0066
<b>Station: 38+0</b>						
Dist. Eixo (m):		-5,262	-3,658	<b>0,000</b>	3,951	7,306
Cota (m):		18,163	18,131	<b>19,114</b>	18,125	18,192
E:		709.350,7021	709.349,1007	<b>709.345,4496</b>	709.341,5052	709.338,1568
N:		7.090.044,3224	7.090.044,2270	<b>7.090.044,0095</b>	7.090.043,7746	7.090.043,5751
<b>Station: 38+10</b>						
Dist. Eixo (m):		-5,756	-3,893	<b>0,000</b>	5,010	7,544
Cota (m):		16,421	16,384	<b>17,371</b>	16,361	16,412
E:		709.351,7900	709.349,9301	<b>709.346,0442</b>	709.341,0431	709.338,5136
N:		7.090.034,3695	7.090.034,2587	<b>7.090.034,0272</b>	7.090.033,7293	7.090.033,5786
<b>Station: 39+0</b>						
Dist. Eixo (m):		-6,194	-3,974	<b>0,000</b>	3,926	7,581
Cota (m):		15,042	14,998	<b>15,987</b>	14,999	15,072
E:		709.352,8216	709.350,6054	<b>709.346,6389</b>	709.342,7194	709.339,0716
N:		7.090.024,4133	7.090.024,2812	<b>7.090.024,0449</b>	7.090.023,8114	7.090.023,5941
<b>Station: 39+5</b>						
Dist. Eixo (m):		-6,133	-3,898	<b>0,000</b>	4,010	7,012
Cota (m):		14,445	14,401	<b>15,388</b>	14,398	14,451
E:		709.353,0861	709.350,8552	<b>709.346,9642</b>	709.342,9606	709.339,9627
N:		7.090.018,9483	7.090.018,8154	<b>7.090.018,5836</b>	7.090.018,3451	7.090.018,1665
<b>Station: 39+10</b>						
Dist. Eixo (m):		-6,102	-3,937	<b>0,000</b>	3,978	6,320
Cota (m):		13,950	13,907	<b>14,896</b>	13,906	13,953
E:		709.353,2288	709.351,0661	<b>709.347,1313</b>	709.343,1563	709.340,8160
N:		7.090.014,2828	7.090.014,2029	<b>7.090.014,0577</b>	7.090.013,9110	7.090.013,8246

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 40+0</b>									
Dist. Eixo (m):			-6,286	-4,025	0,000	3,906	6,250		
Cota (m):			13,272	13,227	14,217	13,229	13,276		
E:			709.353,7820	709.351,5227	709.347,5002	709.343,9972	709.341,2542		
N:			7.090.004,2964	7.090.004,2130	7.090.004,0645	7.090.003,9204	7.090.003,8339		
<b>Station: 40+10</b>									
Dist. Eixo (m):			-6,373	-4,103	0,000	3,921	6,195		
Cota (m):			12,733	12,688	13,680	12,692	12,737		
E:			709.354,2375	709.351,9690	709.347,8691	709.343,9503	709.341,6780		
N:			7.089.994,3064	7.089.994,2226	7.089.994,0713	7.089.993,9267	7.089.993,8428		
<b>Station: 41+0</b>									
Dist. Eixo (m):			-6,332	-4,075	0,000	3,949	5,989		
Cota (m):			12,471	12,426	13,417	12,428	12,469		
E:			709.354,5661	709.352,3098	709.348,2380	709.344,2921	709.342,2527		
N:			7.089.984,3117	7.089.984,2284	7.089.984,0781	7.089.983,9325	7.089.983,8572		
<b>Station: 41+10</b>									
Dist. Eixo (m):			-6,206	-4,046	0,000	3,976	5,945		
Cota (m):			12,270	12,227	13,218	12,228	12,268		
E:			709.354,8088	709.352,6506	709.348,6068	709.344,6340	709.342,6659		
N:			7.089.974,3139	7.089.974,2342	7.089.974,0849	7.089.973,9383	7.089.973,8656		
<b>Station: 42+0</b>									
Dist. Eixo (m):			-6,078	-4,019	0,000	4,003	5,991		
Cota (m):			12,100	12,059	13,049	12,059	12,099		
E:			709.355,0501	709.352,9924	709.348,9757	709.344,9758	709.342,9889		
N:			7.089.964,3160	7.089.964,2400	7.089.964,0917	7.089.963,9441	7.089.963,8707		
<b>Station: 42+10</b>									
Dist. Eixo (m):			-5,924	-4,002	0,000	4,032	5,961		
Cota (m):			11,879	11,840	12,830	11,840	11,878		
E:			709.355,2645	709.353,3435	709.349,3446	709.345,3156	709.343,3872		
N:			7.089.954,3171	7.089.954,2461	7.089.954,0985	7.089.953,9498	7.089.953,8786		
<b>Station: 42+18</b>									
Dist. Eixo (m):					0,000	5,010	6,200		
Cota (m):					12,674	11,664	11,688		
E:					709.349,6739	709.344,6673	709.343,4781		
N:					7.089.945,1774	7.089.944,9926	7.089.944,9487		
<b>Station: 43+0</b>									
Dist. Eixo (m):					0,000	4,386	6,051		
Cota (m):					12,682	11,684	11,717		
E:					709.349,7225	709.345,3410	709.343,6778		
N:					7.089.944,1057	7.089.943,9071	7.089.943,8317		
<b>Station: 43+10</b>									
Dist. Eixo (m):					0,000	3,807	6,168		
Cota (m):					12,555	11,569	11,617		
E:					709.350,1754	709.346,3720	709.344,0133		
N:					7.089.934,1160	7.089.933,9435	7.089.933,8366		
<b>Station: 44+0</b>									
Dist. Eixo (m):			-5,920	-5,010	0,000	3,950	6,196		
Cota (m):			11,517	11,499	12,509	11,520	11,565		
E:			709.356,5426	709.355,6332	709.350,6283	709.346,6828	709.344,4391		
N:			7.089.924,3944	7.089.924,3531	7.089.924,1262	7.089.923,9473	7.089.923,8456		
<b>Station: 44+5</b>									
Dist. Eixo (m):			-5,856	-5,010	0,000	4,026	6,221		
Cota (m):			11,483	11,466	12,476	11,485	11,529		
E:			709.356,7233	709.355,8782	709.350,8734	709.346,8509	709.344,6580		
N:			7.089.918,9873	7.089.918,9490	7.089.918,7221	7.089.918,5397	7.089.918,4403		
<b>Station: 44+10</b>									
Dist. Eixo (m):			-5,890	-3,909	0,000	4,036	6,247		
Cota (m):			11,493	11,454	12,442	11,451	11,495		
E:			709.356,9126	709.354,9320	709.351,0256	709.346,9920	709.344,7818		
N:			7.089.914,3296	7.089.914,2639	7.089.914,1343	7.089.914,0005	7.089.913,9272		
<b>Station: 45+0</b>									
Dist. Eixo (m):			-5,924	-3,955	0,000	4,057	6,345		
Cota (m):			11,436	11,397	12,386	11,395	11,440		
E:			709.357,2774	709.355,3095	709.351,3572	709.347,3027	709.345,0159		
N:			7.089.904,3362	7.089.904,2709	7.089.904,1398	7.089.904,0053	7.089.903,9294		
<b>Station: 45+10</b>									
Dist. Eixo (m):			-5,858	-3,934	0,000	4,078	6,463		
Cota (m):			11,373	11,335	12,323	11,332	11,380		
E:			709.357,5434	709.355,6206	709.351,6888	709.347,6134	709.345,2289		
N:			7.089.894,3395	7.089.894,2758	7.089.894,1453	7.089.894,0101	7.089.893,9310		
<b>Station: 46+0</b>									
Dist. Eixo (m):			-5,766	-3,896	0,000	4,098	6,373		
Cota (m):			11,345	11,308	12,295	11,304	11,349		
E:			709.357,7830	709.355,9141	709.352,0203	709.347,9242	709.345,6509		
N:			7.089.884,3420	7.089.884,2800	7.089.884,1508	7.089.884,0149	7.089.883,9395		
<b>Station: 46+10</b>									
Dist. Eixo (m):			-5,711	-3,858	0,000	4,119	6,255		
Cota (m):			11,324	11,287	12,274	11,282	11,325		
E:			709.358,0596	709.356,2076	709.352,3519	709.348,2349	709.346,1002		
N:			7.089.874,3457	7.089.874,2842	7.089.874,1563	7.089.874,0197	7.089.873,9489		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 47+0</b>									
Dist. Eixo (m):			-5,654	-3,820	<b>0,000</b>	4,123	6,108		
Cota (m):			11,278	11,241	<b>12,227</b>	11,235	11,275		
E:			709.358,3348	709.356,5012	<b>709.352,6835</b>	709.348,5626	709.346,5791		
N:			7.089.864,3493	7.089.864,2885	<b>7.089.864,1618</b>	7.089.864,0251	7.089.863,9593		
<b>Station: 47+10</b>									
Dist. Eixo (m):			-5,657	-3,796	<b>0,000</b>	4,121	5,923		
Cota (m):			11,225	11,187	<b>12,173</b>	11,181	11,217		
E:			709.358,6695	709.356,8095	<b>709.353,0151</b>	709.348,8968	709.347,0957		
N:			7.089.854,3549	7.089.854,2932	<b>7.089.854,1673</b>	7.089.854,0307	7.089.853,9709		
<b>Station: 48+0</b>									
Dist. Eixo (m):			-5,666	-3,813	<b>0,000</b>	4,118	5,872		
Cota (m):			11,180	11,143	<b>12,129</b>	11,137	11,172		
E:			709.359,0095	709.357,1580	<b>709.353,3467</b>	709.349,2310	709.347,4781		
N:			7.089.844,3607	7.089.844,2993	<b>7.089.844,1728</b>	7.089.844,0363	7.089.843,9781		
<b>Station: 48+10</b>									
Dist. Eixo (m):			-5,811	-3,830	<b>0,000</b>	4,115	5,895		
Cota (m):			11,151	11,111	<b>12,098</b>	11,105	11,141		
E:			709.359,4865	709.357,5066	<b>709.353,6783</b>	709.349,5652	709.347,7863		
N:			7.089.834,3710	7.089.834,3053	<b>7.089.834,1783</b>	7.089.834,0418	7.089.833,9828		
<b>Station: 49+0</b>									
Dist. Eixo (m):			-5,839	-3,841	<b>0,000</b>	4,113	5,957		
Cota (m):			11,162	11,123	<b>12,109</b>	11,117	11,154		
E:			709.359,8454	709.357,8490	<b>709.354,0099</b>	709.349,8994	709.348,0563		
N:			7.089.824,3774	7.089.824,3112	<b>7.089.824,1838</b>	7.089.824,0474	7.089.823,9863		
<b>Station: 49+10</b>									
Dist. Eixo (m):			-5,848	-3,850	<b>0,000</b>	4,110	5,939		
Cota (m):			11,167	11,127	<b>12,114</b>	11,122	11,158		
E:			709.360,1864	709.358,1895	<b>709.354,3415</b>	709.350,2336	709.348,4058		
N:			7.089.814,3832	7.089.814,3170	<b>7.089.814,1893</b>	7.089.814,0530	7.089.813,9924		
<b>Station: 50+0</b>									
Dist. Eixo (m):			-5,846	-3,859	<b>0,000</b>	4,108	5,961		
Cota (m):			11,140	11,100	<b>12,087</b>	11,095	11,132		
E:			709.360,5155	709.358,5299	<b>709.354,6731</b>	709.350,5677	709.348,7155		
N:			7.089.804,3886	7.089.804,3228	<b>7.089.804,1948</b>	7.089.804,0586	7.089.803,9971		
<b>Station: 50+10</b>									
Dist. Eixo (m):			-5,845	-3,873	<b>0,000</b>	4,105	6,315		
Cota (m):			11,099	11,060	<b>12,047</b>	11,055	11,099		
E:			709.360,8461	709.358,8759	<b>709.355,0047</b>	709.350,9019	709.348,6928		
N:			7.089.794,3941	7.089.794,3287	<b>7.089.794,2003</b>	7.089.794,0642	7.089.793,9908		

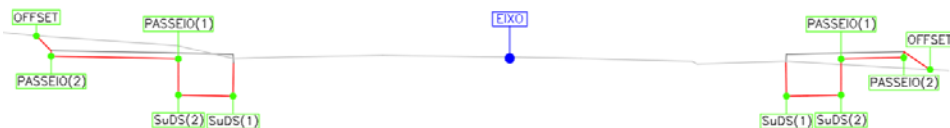
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 51+10</b>											
Dist. Eixo (m):	-5,499	-4,410	-4,410	-3,920	<b>0,000</b>	4,120	4,610	4,610	4,610	6,027	
Cota (m):	12,065	12,043	11,193	11,183	<b>12,087</b>	11,179	11,189	12,040	12,040	12,088	
E:	709.361,1639	709.360,0757	709.360,0757	709.359,5858	<b>709.355,6679</b>	709.351,5505	709.351,0608	709.351,0608	709.349,6446		
N:	7.089.774,3936	7.089.774,3575	7.089.774,3575	7.089.774,3413	<b>7.089.774,2113</b>	7.089.774,0747	7.089.774,0584	7.089.774,0584	7.089.774,0115		
<b>Station: 52+0</b>											
Dist. Eixo (m):	-6,045	-4,384	-4,384	-3,894	<b>0,000</b>	4,071	4,561	4,561	4,561	5,933	
Cota (m):	12,088	12,055	11,205	11,195	<b>12,047</b>	11,192	11,202	12,052	12,052	12,079	
E:	709.362,0407	709.360,3813	709.360,3813	709.359,8913	<b>709.355,9995</b>	709.351,9308	709.351,4411	709.351,4411	709.350,0699		
N:	7.089.764,4172	7.089.764,3622	7.089.764,3622	7.089.764,3459	<b>7.089.764,2168</b>	7.089.764,0818	7.089.764,0656	7.089.764,0656	7.089.764,0201		
<b>Station: 52+10</b>											
Dist. Eixo (m):	-6,017	-4,383	-4,383	-3,893	<b>0,000</b>	4,022	4,512	4,512	4,512	5,984	
Cota (m):	12,094	12,062	11,212	11,202	<b>12,047</b>	11,199	11,209	12,060	12,060	12,089	
E:	709.362,3444	709.360,7114	709.360,7114	709.360,2215	<b>709.356,3311</b>	709.352,3111	709.351,8214	709.351,8214	709.350,3503		
N:	7.089.754,4218	7.089.754,3676	7.089.754,3676	7.089.754,3514	<b>7.089.754,2223</b>	7.089.754,0889	7.089.754,0727	7.089.754,0727	7.089.754,0239		
<b>Station: 53+0</b>											
Dist. Eixo (m):	-6,018	-4,388	-4,388	-3,898	<b>0,000</b>	3,999	4,489	4,489	4,489	6,035	
Cota (m):	12,086	12,054	11,204	11,194	<b>12,047</b>	11,192	11,202	12,052	12,052	12,083	
E:	709.362,6775	709.361,0485	709.361,0485	709.360,5585	<b>709.356,6627</b>	709.352,6658	709.352,1760	709.352,1760	709.350,6307		
N:	7.089.744,4274	7.089.744,3733	7.089.744,3733	7.089.744,3571	<b>7.089.744,2278</b>	7.089.744,0952	7.089.744,0789	7.089.744,0789	7.089.744,0277		
<b>Station: 53+10</b>											
Dist. Eixo (m):	-6,097	-4,395	-4,395	-3,905	<b>0,000</b>	4,003	4,493	4,493	4,493	6,086	
Cota (m):	12,098	12,064	11,215	11,205	<b>12,047</b>	11,203	11,212	12,062	12,062	12,094	
E:	709.363,0876	709.361,3873	709.361,3873	709.360,8973	<b>709.356,9943</b>	709.352,9935	709.352,5038	709.352,5038	709.350,9111		
N:	7.089.734,4355	7.089.734,3790	7.089.734,3790	7.089.734,3628	<b>7.089.734,2333</b>	7.089.734,1006	7.089.734,0843	7.089.734,0843	7.089.734,0315		
<b>Station: 54+0</b>											
Dist. Eixo (m):	-6,141	-4,464	-4,464	-3,974	<b>0,000</b>	4,007	4,497	4,497	4,497	6,138	
Cota (m):	12,140	12,106	11,257	11,247	<b>12,047</b>	11,246	11,256	12,106	12,106	12,139	
E:	709.363,4636	709.361,7874	709.361,7874	709.361,2974	<b>709.357,3258</b>	709.353,3213	709.352,8316	709.352,8316	709.351,1915		
N:	7.089.724,4424	7.089.724,3868	7.089.724,3868	7.089.724,3706	<b>7.089.724,2388</b>	7.089.724,1059	7.089.724,0897	7.089.724,0897	7.089.724,0353		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
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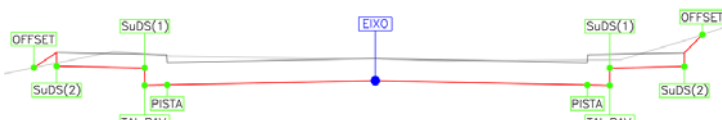
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 54+10</b>											
Dist. Eixo (m):		-11,674	-5,586	-5,586	-5,096	<b>0,000</b>	5,059	5,549	5,549	12,072	
Cota (m):		12,246	12,125	11,275	11,265		11,265	11,275	12,126	12,256	
E:		709.369,3248	709.363,2407	709.363,2407	709.362,7508	<b>709.357,6574</b>	709.352,8008	709.352,1110	709.352,1110	709.345,5922	
N:		7.089.714,6314	7.089.714,4295	7.089.714,4295	7.089.714,4133	<b>7.089.714,2443</b>	7.089.714,0765	7.089.714,0603	7.089.714,0603	7.089.713,8440	
<b>Station: 55+10</b>											
Dist. Eixo (m):		-6,107	-4,380	-4,380	-3,889	<b>0,000</b>	3,846	4,336	4,336	5,892	
Cota (m):		12,155	12,120	11,271	11,261		11,261	11,271	12,121	12,152	
E:		709.364,4241	709.362,6978	709.362,6978	709.362,2079	<b>709.358,3206</b>	709.354,4768	709.353,9871	709.353,9871	709.352,4321	
N:		7.089.694,4578	7.089.694,4005	7.089.694,4005	7.089.694,3843	<b>7.089.694,2553</b>	7.089.694,1278	7.089.694,1115	7.089.694,1115	7.089.694,0599	
<b>Station: 56+0</b>											
Dist. Eixo (m):		-6,099	-4,391	-4,391	-3,901	<b>0,000</b>	3,859	4,349	4,349	5,895	
Cota (m):		12,141	12,107	11,257	11,247		11,248	11,258	12,108	12,139	
E:		709.364,7484	709.363,0410	709.363,0410	709.362,5510	<b>709.358,6522</b>	709.354,7957	709.354,3059	709.354,3059	709.352,7604	
N:		7.089.684,4630	7.089.684,4064	7.089.684,4064	7.089.684,3901	<b>7.089.684,2608</b>	7.089.684,1328	7.089.684,1166	7.089.684,1166	7.089.684,0653	
<b>Station: 56+10</b>											
Dist. Eixo (m):		-6,010	-4,403	-4,403	-3,912	<b>0,000</b>	3,865	4,355	4,355	5,798	
Cota (m):		12,126	12,094	11,244	11,234		11,235	11,245	12,095	12,124	
E:		709.364,9908	709.363,3841	709.363,3841	709.362,8942	<b>709.358,9838</b>	709.355,1213	709.354,6316	709.354,6316	709.353,1891	
N:		7.089.674,4656	7.089.674,4123	7.089.674,4123	7.089.674,3960	<b>7.089.674,2663</b>	7.089.674,1381	7.089.674,1219	7.089.674,1219	7.089.674,0740	
<b>Station: 57+0</b>											
Dist. Eixo (m):		-6,033	-4,413	-4,413	-3,922	<b>0,000</b>	3,845	4,335	4,335	5,704	
Cota (m):		12,085	12,053	11,203	11,193		11,195	11,204	12,055	12,082	
E:		709.365,3452	709.363,7256	709.363,7256	709.363,2357	<b>709.359,3154</b>	709.355,4730	709.354,9833	709.354,9833	709.353,6147	
N:		7.089.684,4718	7.089.684,4181	7.089.684,4181	7.089.684,4019	<b>7.089.684,2718</b>	7.089.684,1443	7.089.684,1281	7.089.684,1281	7.089.684,0827	
<b>Station: 57+10</b>											
Dist. Eixo (m):		-6,056	-4,417	-4,417	-3,927	<b>0,000</b>	3,824	4,314	4,314	5,671	
Cota (m):		12,027	11,995	11,145	11,135		11,137	11,147	11,997	12,024	
E:		709.365,6997	709.364,0614	709.364,0614	709.363,5714	<b>709.359,6470</b>	709.355,8247	709.355,3349	709.355,3349	709.353,9795	
N:		7.089.654,4781	7.089.654,4237	7.089.654,4237	7.089.654,4075	<b>7.089.654,2773</b>	7.089.654,1505	7.089.654,1342	7.089.654,1342	7.089.654,0893	
<b>Station: 58+0</b>											
Dist. Eixo (m):		-6,084	-4,421	-4,421	-3,931	<b>0,000</b>					
Cota (m):		11,970	11,936	11,087	11,077						
E:		709.366,0592	709.364,3971	709.364,3971	709.363,9072	<b>709.359,9786</b>					
N:		7.089.644,4845	7.089.644,4294	7.089.644,4294	7.089.644,4131	<b>7.089.644,2828</b>					
<b>Station: 59+10</b>											
Dist. Eixo (m):		-5,982	-4,493	-4,493	-4,003	<b>0,000</b>	3,827	4,317	4,317	5,818	
Cota (m):		12,088	12,058	11,208	11,198		11,202	11,212	12,062	12,092	
E:		709.367,0774	709.365,5896	709.365,5896	709.365,0997	<b>709.361,0998</b>	709.357,2759	709.356,7862	709.356,7862	709.355,2862	
N:		7.089.614,5281	7.089.614,4723	7.089.614,4723	7.089.614,4539	<b>7.089.614,3038</b>	7.089.614,1602	7.089.614,1418	7.089.614,1418	7.089.614,0855	
<b>Station: 60+0</b>											
Dist. Eixo (m):		-5,985	-4,480	-4,480	-3,989	<b>0,000</b>	3,793	4,283	4,283	5,862	
Cota (m):		12,033	12,003	11,153	11,143		11,147	11,157	12,006	12,038	
E:		709.367,4556	709.365,9513	709.365,9513	709.365,4615	<b>709.361,4749</b>	709.357,6847	709.357,1950	709.357,1950	709.355,6169	
N:		7.089.604,5353	7.089.604,4788	7.089.604,4788	7.089.604,4604	<b>7.089.604,3108</b>	7.089.604,1685	7.089.604,1501	7.089.604,1501	7.089.604,0909	
<b>Station: 60+1</b>											
Dist. Eixo (m):		-5,984	-4,478	-4,478	-3,988	<b>0,000</b>	3,789	4,279	4,279	5,867	
Cota (m):		12,037	12,007	11,157	11,147		11,151	11,161	12,010	12,042	
E:		709.367,4984	709.365,9935	709.365,9935	709.365,5036	<b>709.361,5186</b>	709.357,7323	709.357,2426	709.357,2426	709.355,6553	
N:		7.089.603,3717	7.089.603,3152	7.089.603,3152	7.089.603,2968	<b>7.089.603,1472</b>	7.089.603,0051	7.089.602,9867	7.089.602,9867	7.089.602,9271	
<b>Station: 60+10</b>											
Dist. Eixo (m):		-5,857	-4,410	-4,410	-3,920	<b>0,000</b>	3,816	4,306	4,306	6,072	
Cota (m):		12,068	12,039	11,189	11,179		11,181	11,191	12,041	12,076	
E:		709.367,7576	709.366,3121	709.366,3121	709.365,8223	<b>709.361,9065</b>	709.358,0944	709.357,6049	709.357,6049	709.355,8405	
N:		7.089.594,5772	7.089.594,5137	7.089.594,5137	7.089.594,4922	<b>7.089.594,3201</b>	7.089.594,1526	7.089.594,1311	7.089.594,1311	7.089.594,0536	
<b>Station: 61+0</b>											
Dist. Eixo (m):		-5,705	-4,354	-4,354	-3,864	<b>0,000</b>	3,846	4,336	4,336	6,210	
Cota (m):		12,083	12,056	11,206	11,196	<b>12,073</b>	11,197	11,207	12,056	12,093	
E:		709.368,0453	709.366,6951	709.366,6951	709.366,2053	<b>709.362,3455</b>	709.358,5032	709.358,0137	709.358,0137	709.356,1413	
N:		7.089.584,5802	7.089.584,5209	7.089.584,5209	7.089.584,4994	<b>7.089.584,3298</b>	7.089.584,1609	7.089.584,1394	7.089.584,1394	7.089.584,0571	
<b>Station: 61+10</b>											
Dist. Eixo (m):		-5,763	-4,316	-4,316	-3,826	<b>0,000</b>	3,888	4,378	4,378	6,236	6,330
Cota (m):		12,017	11,988	11,138	11,128	<b>12,005</b>	11,127	11,137	11,986	12,023	12,009
E:		709.368,5422	709.367,0966	709.367,0966	709.366,6069	<b>709.362,7845</b>	709.358,9002	709.358,4107	709.358,4107	709.356,5549	709.356,4605
N:		7.089.574,5924	7.089.574,5289	7.089.574,5289	7.089.574,5074	<b>7.089.574,3394</b>	7.089.574,1687	7.089.574,1472	7.089.574,1472	7.089.574,0657	7.089.574,0615

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:

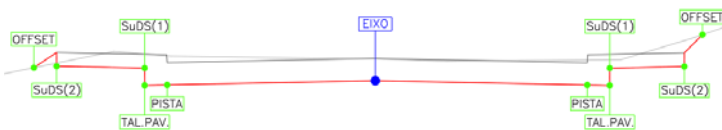


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 62+0</b>											
Dist. Eixo (m):					-4,495	<b>0,000</b>	4,047				
Cota (m):					11,441	<b>11,531</b>	11,450				
E:					709.367,7143	<b>709.363,2235</b>	709.359,1799				
N:					7.089.564,5464	<b>7.089.564,3491</b>	7.089.564,1714				
<b>Station: 62+10</b>											
Dist. Eixo (m):					-4,257	<b>0,000</b>	4,285				
Cota (m):					11,359	<b>11,444</b>	11,358				
E:					709.367,9155	<b>709.363,6625</b>	709.359,3812				
N:					7.089.554,5456	<b>7.089.554,3587</b>	7.089.554,1706				
<b>Station: 63+0</b>											
Dist. Eixo (m):					-4,019	<b>0,000</b>	4,014				
Cota (m):					11,276	<b>11,357</b>	11,276				
E:					709.368,1168	<b>709.364,1014</b>	709.360,0914				
N:					7.089.544,5448	<b>7.089.544,3683</b>	7.089.544,1921				
<b>Station: 63+10</b>											
Dist. Eixo (m):		-6,003	-4,401	-4,401	-4,003	<b>0,000</b>	3,997	4,395	4,395	6,292	6,567
Cota (m):		11,309	11,277	11,181	11,189	<b>11,270</b>	11,190	11,182	11,305	11,343	11,390
E:		709.370,4161	709.368,8150	709.368,8150	709.368,4171	<b>709.364,4163</b>	709.360,4208	709.360,0231	709.360,0231	709.358,1275	709.357,8526
N:		7.089.534,5577	7.089.534,5085	7.089.534,5085	7.089.534,4963	<b>7.089.534,3733</b>	7.089.534,2506	7.089.534,2384	7.089.534,2384	7.089.534,1801	7.089.534,1717
<b>Station: 64+0</b>											
Dist. Eixo (m):		-6,005	-4,403	-4,403	-4,005	<b>0,000</b>	3,995	4,393	4,393	5,995	6,474
Cota (m):		11,227	11,195	11,099	11,107	<b>11,187</b>	11,107	11,099	11,195	11,227	11,368
E:		709.370,7253	709.369,1242	709.369,1242	709.368,7262	<b>709.364,7234</b>	709.360,7300	709.360,3322	709.360,3322	709.358,7309	709.358,2529
N:		7.089.524,5624	7.089.524,5133	7.089.524,5133	7.089.524,5010	<b>7.089.524,3781</b>	7.089.524,2554	7.089.524,2432	7.089.524,2432	7.089.524,1940	7.089.524,1793
<b>Station: 64+10</b>											
Dist. Eixo (m):		-6,007	-4,405	-4,405	-4,007	<b>0,000</b>	3,993	4,391	4,391	5,993	6,421
Cota (m):		11,174	11,142	11,046	11,054	<b>11,134</b>	11,054	11,046	11,142	11,174	11,349
E:		709.371,0344	709.369,4333	709.369,4333	709.369,0353	<b>709.365,0305</b>	709.361,0391	709.360,6413	709.360,6413	709.359,0401	709.358,6127
N:		7.089.514,5672	7.089.514,5180	7.089.514,5180	7.089.514,5058	<b>7.089.514,3828</b>	7.089.514,2602	7.089.514,2479	7.089.514,2479	7.089.514,1987	7.089.514,1856
<b>Station: 65+0</b>											
Dist. Eixo (m):		-6,581	-6,009	-4,407	-4,407	-4,009	<b>0,000</b>	3,991	4,389	4,389	5,991
Cota (m):		11,227	11,148	11,116	11,021	11,029	<b>11,109</b>	11,029	11,021	11,117	11,341
E:		709.371,9154	709.371,3437	709.369,7425	709.369,7425	709.369,3445	<b>709.365,3376</b>	709.361,3483	709.360,9505	709.360,9505	709.359,3492
N:		7.089.504,5896	7.089.504,5720	7.089.504,5228	7.089.504,5228	7.089.504,5106	<b>7.089.504,3875</b>	7.089.504,2649	7.089.504,2527	7.089.504,2527	7.089.504,2035
<b>Station: 65+10</b>											
Dist. Eixo (m):					-4,011	<b>0,000</b>	3,989				
Cota (m):					11,006	<b>11,087</b>	11,007				
E:					709.369,6536	<b>709.365,6446</b>	709.361,6574				
N:					7.089.494,5154	<b>7.089.494,3922</b>	7.089.494,2697				
<b>Station: 66+0</b>											
Dist. Eixo (m):					-4,007	<b>0,000</b>	3,993				
Cota (m):					10,984	<b>11,064</b>	10,984				
E:					709.369,9572	<b>709.365,9517</b>	709.361,9608				
N:					7.089.484,5200	<b>7.089.484,3969</b>	7.089.484,2743				
<b>Station: 66+10</b>											
Dist. Eixo (m):					-4,003	<b>0,000</b>	3,997				
Cota (m):					10,962	<b>11,042</b>	10,962				
E:					709.370,2599	<b>709.366,2588</b>	709.362,2632				
N:					7.089.474,5246	<b>7.089.474,4016</b>	7.089.474,2789				
<b>Station: 66+15</b>											
Dist. Eixo (m):					-4,001	<b>0,000</b>	4,000				
Cota (m):					10,950	<b>11,030</b>	10,950				
E:					709.370,4219	<b>709.366,4231</b>	709.362,4251				
N:					7.089.469,1761	<b>7.089.469,0532</b>	7.089.468,9304				
<b>Station: 67+0</b>											
Dist. Eixo (m):		-6,414	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000
Cota (m):		11,244	11,520	11,028	10,932	10,940	<b>11,020</b>	10,940	10,932	11,028	11,109
E:		709.373,0014	709.372,5879	709.370,9869	709.370,9869	709.370,5890	<b>709.366,5916</b>	709.362,5943	709.362,1966	709.362,1966	709.360,5956
N:		7.089.464,6397	7.089.464,6247	7.089.464,5666	7.089.464,5666	7.089.464,5522	<b>7.089.464,4072</b>	7.089.464,2622	7.089.464,2478	7.089.464,2478	7.089.464,1897
<b>Station: 67+10</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,420
Cota (m):		11,037	11,005	10,910	10,918	10,918	<b>10,998</b>	10,918	10,910	11,005	11,218
E:		709.372,9502	709.371,3494	709.371,3494	709.370,9515	709.370,9515	<b>709.366,9541</b>	709.362,9567	709.362,5590	709.362,5590	709.360,9580
N:		7.089.454,6313	7.089.454,5732	7.089.454,5732	7.089.454,5588	7.089.454,5588	<b>7.089.454,4138</b>	7.089.454,2688	7.089.454,2544	7.089.454,2544	7.089.454,1963
<b>Station: 68+0</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,331
Cota (m):		11,015	10,983	10,887	10,895	10,895	<b>10,975</b>	10,895	10,887	10,983	11,255
E:		709.373,3127	709.371,7119	709.371,7119	709.371,3140	709.371,3140	<b>709.367,3166</b>	709.363,3192	709.362,9215	709.362,9215	709.361,3205
N:		7.089.444,6378	7.089.444,5798	7.089.444,5798	7.089.444,5654	7.089.444,5654	<b>7.089.444,4204</b>	7.089.444,2754	7.089.444,2609	7.089.444,2609	7.089.444,2029
<b>Station: 68+10</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,356
Cota (m):		10,993	10,961	10,865	10,873	10,873	<b>10,953</b>	10,873	10,865	10,961	11,216
E:		709.373,6751	709.372,0743	709.372,0743	709.371,6764	709.371,6764	<b>709.367,6791</b>	709.363,6817	709.363,2840	709.363,2840	709.361,6830
N:		7.089.434,6444	7.089.434,5864	7.089.434,5864	7.089.434,5719	7.089.434,5719	<b>7.089.434,4269</b>	7.089.434,2819	7.089.434,2675	7.089.434,2675	7.089.434,2094
<b>Station: 69+0</b>											
Dist. Eixo (m):		-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	6,000	6,515
Cota (m):		10,971	10,939	10,843	10,851	10,851	<b>10,931</b>	10,851	10,843	10,939	11,087
E:		709.374,0376	709.372,4368	709.372,4368	709.372,0389	709.372,0389	<b>709.368,0415</b>	709.364,0442	709.363,6465	709.363,6465	709.362,0455
N:		7.089.424,6510	7.089.424,5929	7.089.424,5929	7.089.424,5785	7.089.424,5785	<b>7.089.424,4335</b>	7.089.424,2885	7.089.424,2741	7.089.424,2741	7.089.424,2160



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

Desenho Esquemático:

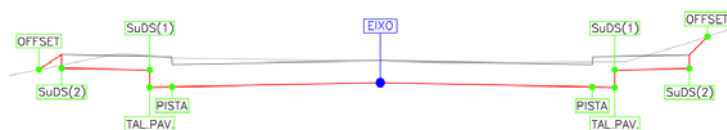


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 69+6</b>											
Dist. Eixo (m):					-4,003	0,000	4,003				
Cota (m):					10,836	10,916	10,836				
E:					709.372,2818	709.368,2815	709.364,2812				
N:					7.089.417,9635	7.089.417,8184	7.089.417,6733				
<b>Station: 69+10</b>											
Dist. Eixo (m):					-4,312	0,000	4,055				
Cota (m):					10,822	10,909	10,828				
E:					709.372,7390	709.368,4309	709.364,3796				
N:					7.089.414,6318	7.089.414,4412	7.089.414,2619				
<b>Station: 70+0</b>											
Dist. Eixo (m):					-4,159	0,000	4,209				
Cota (m):					10,803	10,888	10,802				
E:					709.373,0275	709.368,8730	709.364,6681				
N:					7.089.404,6348	7.089.404,4509	7.089.404,2649				
<b>Station: 70+10</b>											
Dist. Eixo (m):					-4,005	0,000	4,321				
Cota (m):					10,784	10,864	10,778				
E:					709.373,3160	709.369,3150	709.364,9985				
N:					7.089.394,6377	7.089.394,4607	7.089.394,2697				
<b>Station: 71+0</b>											
Dist. Eixo (m):	-6,374	-6,012	-4,410	-4,410	-4,012	0,000	3,988	4,386	4,386	5,988	
Cota (m):	10,942	10,882	10,850	10,754	10,762	10,842	10,762	10,754	10,850	10,882	
E:	709.376,8948	709.375,5335	709.373,9320	709.373,9320	709.373,5339	709.369,5225	709.365,5355	709.365,1376	709.365,1376	709.363,5359	
N:	7.089.384,5893	7.089.384,5821	7.089.384,5504	7.089.384,5504	7.089.384,5425	7.089.384,4630	7.089.384,3839	7.089.384,3761	7.089.384,3761	7.089.384,3443	
<b>Station: 71+10</b>											
Dist. Eixo (m):	-6,529	-6,009	-4,407	-4,407	-4,009	0,000	3,991	4,389	4,389	5,991	
Cota (m):	10,973	11,319	10,827	10,732	10,740	10,820	10,740	10,732	10,828	10,860	
E:	709.376,2483	709.375,7290	709.374,1272	709.374,1272	709.373,7292	709.369,7207	709.365,7307	709.365,3328	709.365,3328	709.363,7311	
N:	7.089.374,5943	7.089.374,5840	7.089.374,5523	7.089.374,5523	7.089.374,5444	7.089.374,4649	7.089.374,3858	7.089.374,3780	7.089.374,3780	7.089.374,3462	
<b>Station: 72+0</b>											
Dist. Eixo (m):	-6,507	-6,007	-4,404	-4,404	-4,006	0,000	3,994	4,392	4,392	5,994	6,374
Cota (m):	10,963	11,297	10,805	10,709	10,717	10,798	10,718	10,710	10,805	10,837	10,952
E:	709.376,4248	709.375,9242	709.374,3225	709.374,3225	709.373,9244	709.369,9188	709.365,9259	709.365,5281	709.365,5281	709.363,9263	709.363,5465
N:	7.089.364,5959	7.089.364,5859	7.089.364,5542	7.089.364,5542	7.089.364,5463	7.089.364,4669	7.089.364,3878	7.089.364,3799	7.089.364,3799	7.089.364,3481	7.089.364,3406
<b>Station: 72+10</b>											
Dist. Eixo (m):	-6,461	-6,004	-4,402	-4,402	-4,003	0,000	3,997	4,395	4,395	5,997	6,432
Cota (m):	10,970	11,275	10,783	10,687	10,695	10,775	10,695	10,687	10,783	10,815	10,985
E:	709.376,5765	709.376,1194	709.374,5177	709.374,5177	709.374,1196	709.370,1170	709.366,1212	709.365,7233	709.365,7233	709.364,1216	709.363,8867
N:	7.089.354,5969	7.089.354,5878	7.089.354,5561	7.089.354,5561	7.089.354,5482	7.089.354,4689	7.089.354,3897	7.089.354,3818	7.089.354,3818	7.089.354,3500	7.089.354,3414
<b>Station: 73+0</b>											
Dist. Eixo (m):	-6,441	-6,001	-4,399	-4,399	-4,000	0,000	4,000	4,398	4,398	6,000	6,385
Cota (m):	10,959	11,253	10,761	10,665	10,673	10,753	10,673	10,665	10,761	10,793	10,996
E:	709.376,7546	709.376,3146	709.374,7129	709.374,7129	709.374,3148	709.370,3152	709.366,3164	709.365,9185	709.365,9185	709.364,3168	709.363,9316
N:	7.089.344,5985	7.089.344,5897	7.089.344,5580	7.089.344,5580	7.089.344,5501	7.089.344,4708	7.089.344,3916	7.089.344,3837	7.089.344,3837	7.089.344,3519	7.089.344,3443
<b>Station: 73+3</b>											
Dist. Eixo (m):					-4,000	0,000	4,001				
Cota (m):					10,665	10,745	10,665				
E:					709.374,3843	709.370,3830	709.366,3832				
N:					7.089.341,1303	7.089.341,0509	7.089.340,9717				
<b>Station: 73+10</b>											
Dist. Eixo (m):					-4,467	0,000	4,179				
Cota (m):					10,641	10,731	10,647				
E:					709.375,2061	709.370,7455	709.366,5728				
N:					7.089.334,7277	7.089.334,4815	7.089.334,2512				
<b>Station: 74+0</b>											
Dist. Eixo (m):					-4,200	0,000	4,447				
Cota (m):					10,625	10,709	10,620				
E:					709.375,4904	709.371,2966	709.366,8560				
N:					7.089.324,7282	7.089.324,4967	7.089.324,2516				
<b>Station: 74+7</b>											
Dist. Eixo (m):					-4,004	0,000	3,985				
Cota (m):					10,612	10,692	10,613				
E:					709.375,6989	709.371,7007	709.367,7208				
N:					7.089.317,3958	7.089.317,1751	7.089.316,9554				
<b>Station: 74+10</b>											
Dist. Eixo (m):	-6,290	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,999	6,147
Cota (m):	10,992	11,186	10,694	10,598	10,606	10,686	10,606	10,598	10,694	10,726	11,088
E:	709.378,0819	709.377,7917	709.376,1907	709.376,1907	709.375,7928	709.371,7954	709.367,7978	709.367,4001	709.367,4001	709.365,8000	709.365,6524
N:	7.089.314,7327	7.089.314,7224	7.089.314,6656	7.089.314,6656	7.089.314,6515	7.089.314,5095	7.089.314,3676	7.089.314,3534	7.089.314,3534	7.089.314,2966	7.089.314,2914
<b>Station: 75+0</b>											
Dist. Eixo (m):	-6,215	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,990	
Cota (m):	11,021	11,164	10,672	10,576	10,584	10,664	10,584	10,576	10,672	10,704	
E:	709.378,3609	709.378,1466	709.376,5456	709.376,5456	709.376,1476	709.372,1502	709.368,1527	709.367,7550	709.367,7550	709.366,1643	
N:	7.089.304,7364	7.089.304,7287	7.089.304,6719	7.089.304,6719	7.089.304,6578	7.089.304,5158	7.089.304,3739	7.089.304,3597	7.089.304,3597	7.089.304,3032	
<b>Station: 75+10</b>											
Dist. Eixo (m):	-6,091	-6,000	-4,398	-4,398	-4,000	0,000	4,000	4,398	4,398	5,986	
Cota (m):	11,081	11,142	10,650	10,554	10,562	10,642	10,562	10,554	10,649	10,681	
E:	709.378,5927	709.378,5015	709.376,9004	709.376,9004	709.376,5025	709.372,5051	709.368,5076	709.368,1099	709.368,1099	709.366,5229	
N:	7.089.294,7383	7.089.294,7350	7.089.294,6782	7.089.294,6782	7.089.294,6641	7.089.294,5221	7.089.294,3802	7.089.294,3660	7.089.294,3660	7.089.294,3097	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARCOS JOÃO SERAFIM**

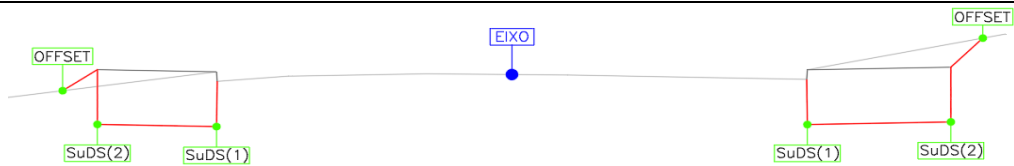
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 76+0</b>											
Dist. Eixo (m):	-6,028	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,982	
Cota (m):	11,101	11,119	10,627	10,532	10,540	<b>10,620</b>	10,540	10,532	10,627	10,659	
E:	709.378,8838	709.378,8564	709.377,2553	709.377,2553	709.376,8574	<b>709.372,8600</b>	709.368,8625	709.368,4648	709.368,4648	709.366,8814	
N:	7.089.284,7423	7.089.284,7413	7.089.284,6845	7.089.284,6845	7.089.284,6704	<b>7.089.284,5284</b>	7.089.284,3865	7.089.284,3723	7.089.284,3723	7.089.284,3161	
<b>Station: 76+10</b>											
Dist. Eixo (m):	-6,063	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,979	
Cota (m):	11,057	11,099	10,607	10,511	10,519	<b>10,599</b>	10,519	10,511	10,607	10,639	
E:	709.379,2737	709.379,2113	709.377,6102	709.377,6102	709.377,2123	<b>709.373,2149</b>	709.369,2174	709.368,8196	709.368,8196	709.367,2399	
N:	7.089.274,7499	7.089.274,7476	7.089.274,6908	7.089.274,6908	7.089.274,6767	<b>7.089.274,5347</b>	7.089.274,3928	7.089.274,3786	7.089.274,3786	7.089.274,3225	
<b>Station: 77+0</b>											
Dist. Eixo (m):	-6,140	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,975	
Cota (m):	11,052	11,145	10,653	10,558	10,566	<b>10,648</b>	10,566	10,558	10,653	10,685	
E:	709.379,7059	709.379,5661	709.377,9651	709.377,9651	709.377,5672	<b>709.373,5698</b>	709.369,5722	709.369,1745	709.369,1745	709.367,5985	
N:	7.089.264,7589	7.089.264,7539	7.089.264,6971	7.089.264,6971	7.089.264,6830	<b>7.089.264,5410</b>	7.089.264,3991	7.089.264,3849	7.089.264,3849	7.089.264,3290	
<b>Station: 77+10</b>											
Dist. Eixo (m):	-6,254	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,971	
Cota (m):	11,121	11,290	10,798	10,703	10,711	<b>10,791</b>	10,711	10,703	10,799	10,830	
E:	709.380,1744	709.379,9210	709.378,3200	709.378,3200	709.377,9221	<b>709.373,9246</b>	709.369,9271	709.369,5294	709.369,5294	709.367,9570	
N:	7.089.254,7692	7.089.254,7602	7.089.254,7034	7.089.254,7034	7.089.254,6893	<b>7.089.254,5473</b>	7.089.254,4054	7.089.254,3912	7.089.254,3912	7.089.254,3354	
<b>Station: 78+0</b>											
Dist. Eixo (m):	-6,498	-6,000	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,970	6,509
Cota (m):	11,137	11,469	10,977	10,881	10,889	<b>10,969</b>	10,889	10,881	10,977	11,008	11,108
E:	709.380,7734	709.380,2759	709.378,6749	709.378,6749	709.378,2770	<b>709.374,2795</b>	709.370,2820	709.369,8843	709.369,8843	709.368,3135	709.367,7742
N:	7.089.244,7842	7.089.244,7665	7.089.244,7097	7.089.244,7097	7.089.244,6956	<b>7.089.244,5536</b>	7.089.244,4117	7.089.244,3975	7.089.244,3975	7.089.244,3418	7.089.244,3226
<b>Station: 78+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	7,000				
Cota (m):					11,047	<b>11,147</b>	11,007				
E:					709.379,6312	<b>709.374,6344</b>	709.367,6388				
N:					7.089.234,7373	<b>7.089.234,5599</b>	7.089.234,3115				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARQUES DE MARICÁ**

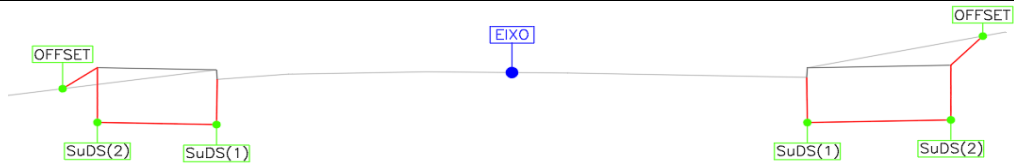
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):			-5,010	<b>0,000</b>	5,010		
Cota (m):			15,207		15,207		
E:			708.900,0783	<b>708.895,0733</b>	708.890,0682		
N:			7.090.462,1165	<b>7.090.461,8947</b>	7.090.461,6730		
<b>Station: 0+10</b>							
Dist. Eixo (m):		-6,597	-4,446	<b>0,000</b>	3,576	5,448	
Cota (m):		14,993	14,950		14,967	15,005	
E:		708.902,1069	708.899,9576	<b>708.895,5159</b>	708.891,9434	708.890,0728	
N:		7.090.452,1965	7.090.452,1013	<b>7.090.451,9045</b>	7.090.451,7462	7.090.451,6634	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-6,656	-4,385	<b>0,000</b>	3,499	5,460	
Cota (m):		14,946	14,900		14,918	14,957	
E:		708.902,6083	708.900,3395	<b>708.895,9585</b>	708.892,4625	708.890,5041	
N:		7.090.442,2089	7.090.442,1084	<b>7.090.441,9143</b>	7.090.441,7594	7.090.441,6727	
<b>Station: 1+5</b>							
Dist. Eixo (m):		-6,685	-4,354	<b>0,000</b>	3,460	5,466	
Cota (m):		14,922	14,875		14,893	14,933	
E:		708.902,8651	708.900,5365	<b>708.896,1868</b>	708.892,7303	708.890,7265	
N:		7.090.437,0572	7.090.436,9540	<b>7.090.436,7613</b>	7.090.436,6082	7.090.436,5194	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-6,711	-4,324	<b>0,000</b>	3,424	5,472	
Cota (m):		14,902	14,854		14,872	14,913	
E:		708.903,1061	708.900,7214	<b>708.896,4021</b>	708.892,9816	708.890,9354	
N:		7.090.432,2226	7.090.432,1165	<b>7.090.431,9242</b>	7.090.431,7719	7.090.431,6808	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-6,671	-4,261	<b>0,000</b>	3,382	5,500	
Cota (m):		14,888	14,840		14,858	14,900	
E:		708.903,5112	708.901,1033	<b>708.896,8469</b>	708.893,4682	708.891,3524	
N:		7.090.422,2308	7.090.422,1235	<b>7.090.421,9340</b>	7.090.421,7836	7.090.421,6894	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-6,553	-4,198	<b>0,000</b>	3,363	5,822	
Cota (m):		14,873	14,826		14,843	14,892	
E:		708.903,8380	708.901,4853	<b>708.897,2916</b>	708.893,9318	708.891,4750	
N:		7.090.412,2354	7.090.412,1306	<b>7.090.411,9439</b>	7.090.411,7944	7.090.411,6850	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-6,488	-4,135	<b>0,000</b>	3,344	5,566	
Cota (m):		14,875	14,828		14,844	14,888	
E:		708.904,2184	708.901,8672	<b>708.897,7364</b>	708.894,3955	708.892,1757	
N:		7.090.402,2424	7.090.402,1377	<b>7.090.401,9538</b>	7.090.401,8051	7.090.401,7063	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-6,435	-4,072	<b>0,000</b>	3,325	5,519	
Cota (m):		14,855	14,808		14,823	14,867	
E:		708.904,6101	708.902,2491	<b>708.898,1812</b>	708.894,8591	708.892,6680	
N:		7.090.392,2500	7.090.392,1448	<b>7.090.391,9637</b>	7.090.391,8158	7.090.391,7183	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-6,403	-4,067	<b>0,000</b>	3,307	5,570	
Cota (m):		14,862	14,815		14,830	14,875	
E:		708.905,0227	708.902,6889	<b>708.898,6259</b>	708.895,3227	708.893,0613	
N:		7.090.382,2584	7.090.382,1545	<b>7.090.381,9736</b>	7.090.381,8266	7.090.381,7259	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-6,383	-4,065	<b>0,000</b>	3,288	5,652	
Cota (m):		14,839	14,792		14,808	14,855	
E:		708.905,4476	708.903,1316	<b>708.899,0707</b>	708.895,7863	708.893,4241	
N:		7.090.372,2674	7.090.372,1643	<b>7.090.371,9835</b>	7.090.371,8373	7.090.371,7321	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MARQUES DE MARICÁ**

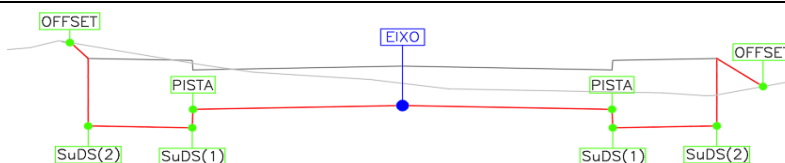
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+0</b>							
Dist. Eixo (m):		-6,341	-4,063	<b>0,000</b>	3,279	5,744	
Cota (m):		14,780	14,734		14,750	14,799	
E:		708.905,8504	708.903,5740	<b>708.899,5155</b>	708.896,2393	708.893,7771	
N:		7.090.362,2755	7.090.362,1741	<b>7.090.361,9934</b>	7.090.361,8476	7.090.361,7379	
<b>Station: 5+10</b>							
Dist. Eixo (m):		-6,358	-4,040	<b>0,000</b>	3,381	5,732	
Cota (m):		14,728	14,681		14,694	14,741	
E:		708.906,3114	708.903,9967	<b>708.899,9602</b>	708.896,5822	708.894,2337	
N:		7.090.352,2861	7.090.352,1830	<b>7.090.352,0033</b>	7.090.351,8529	7.090.351,7484	
<b>Station: 6+0</b>							
Dist. Eixo (m):		-6,370	-4,018	<b>0,000</b>	3,483	5,720	
Cota (m):		14,770	14,723		14,734	14,778	
E:		708.906,7689	708.904,4194	<b>708.900,4050</b>	708.896,9252	708.894,6904	
N:		7.090.342,2965	7.090.342,1919	<b>7.090.342,0132</b>	7.090.341,8583	7.090.341,7588	
<b>Station: 6+10</b>							
Dist. Eixo (m):		-6,383	-3,996	<b>0,000</b>	3,600	5,708	
Cota (m):		14,824	14,776		14,784	14,827	
E:		708.907,2264	708.904,8421	<b>708.900,8498</b>	708.897,2530	708.895,1470	
N:		7.090.332,3070	7.090.332,2009	<b>7.090.332,0231</b>	7.090.331,8630	7.090.331,7692	
<b>Station: 6+15</b>							
Dist. Eixo (m):		-6,631	-4,042	<b>0,000</b>	3,708	5,704	
Cota (m):		14,863	14,811		14,818	14,858	
E:		708.907,7309	708.905,1440	<b>708.901,1060</b>	708.897,4015	708.895,4076	
N:		7.090.326,5621	7.090.326,4470	<b>7.090.326,2672</b>	7.090.326,1023	7.090.326,0135	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MIRKO MAYERLE**

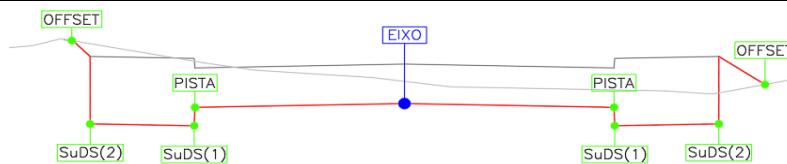
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist. Eixo (m):		-6,259	-4,010	-4,000	<b>0,000</b>	4,000	4,010	6,151	
Cota (m):		14,107	14,062	14,102	<b>14,182</b>	14,102	14,062	14,105	
E:		708.573,9599	708.574,0403	708.574,0406	<b>708.574,1837</b>	708.574,3268	708.574,3272	708.574,4037	
N:		7.090.612,5054	7.090.610,2579	7.090.610,2480	<b>7.090.606,2505</b>	7.090.602,2530	7.090.602,2430	7.090.600,1037	
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,225	-4,037	-4,027	<b>0,000</b>	3,973	3,983	6,123	
Cota (m):		14,050	14,006	14,046	<b>14,127</b>	14,047	14,007	14,050	
E:		708.583,9547	708.584,0329	708.584,0333	<b>708.584,1773</b>	708.584,3194	708.584,3198	708.584,3963	
N:		7.090.612,8292	7.090.610,6428	7.090.610,6328	<b>7.090.606,6082</b>	7.090.602,6379	7.090.602,6279	7.090.600,4890	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-6,883	-4,844	-4,834	<b>0,000</b>	4,686	4,696	7,112	
Cota (m):		14,018	13,977	14,017	<b>14,071</b>	14,011	13,971	14,019	
E:		708.593,9247	708.593,9976	708.593,9980	<b>708.594,1709</b>	708.594,3385	708.594,3389	708.594,4253	
N:		7.090.613,8448	7.090.611,8072	7.090.611,7972	<b>7.090.606,9658</b>	7.090.602,2832	7.090.602,2732	7.090.599,8581	
<b>Station: 1+4</b>									
Dist. Eixo (m):				-11,821	<b>0,000</b>	10,531	10,541	11,881	
Cota (m):				14,035	<b>14,046</b>	14,011	13,971	13,998	
E:				708.598,2768	<b>708.598,6997</b>	708.599,0763	708.599,0767	708.599,1246	
N:				7.090.618,9414	<b>7.090.607,1279</b>	7.090.596,6034	7.090.596,5934	7.090.595,2541	
<b>Station: 1+12</b>									
Dist. Eixo (m):		-11,893	-9,995	-9,985	<b>0,000</b>	11,803			
Cota (m):		14,032	13,994	14,034	<b>14,044</b>	14,104			
E:		708.606,3997	708.606,4676	708.606,4680	<b>708.606,8251</b>	708.607,2473			
N:		7.090.619,3043	7.090.617,4075	7.090.617,3975	<b>7.090.607,4187</b>	7.090.595,6234			
<b>Station: 2+0</b>									
Dist. Eixo (m):		-6,352	-3,944	-3,934	<b>0,000</b>	4,104	4,114	6,570	
Cota (m):		14,040	13,992	14,032	<b>14,107</b>	14,035	13,995	14,044	
E:		708.613,9309	708.614,0171	708.614,0174	<b>708.614,1581</b>	708.614,3049	708.614,3053	708.614,3931	
N:		7.090.614,0290	7.090.611,6228	7.090.611,6128	<b>7.090.607,6812</b>	7.090.603,5794	7.090.603,5694	7.090.601,1150	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-6,293	-3,925	-3,915	<b>0,000</b>	4,085	4,095	6,273	
Cota (m):		14,121	14,074	14,114	<b>14,192</b>	14,110	14,070	14,114	
E:		708.623,9267	708.624,0113	708.624,0117	<b>708.624,1517</b>	708.624,2978	708.624,2982	708.624,3761	
N:		7.090.614,3274	7.090.611,9611	7.090.611,9511	<b>7.090.608,0389</b>	7.090.603,9563	7.090.603,9463	7.090.601,7703	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-6,280	-4,056		<b>0,000</b>		4,069	6,046	
Cota (m):		14,183	14,139				14,139	14,178	
E:		708.633,9207	708.634,0002		<b>708.634,1453</b>		708.634,2909	708.634,3616	
N:		7.090.614,6728	7.090.612,4502		<b>7.090.608,3965</b>		7.090.604,3300	7.090.602,3546	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-6,369	-4,096		<b>0,000</b>		3,992	5,931	
Cota (m):		14,210	14,164				14,166	14,205	
E:		708.643,9111	708.643,9924		<b>708.644,1389</b>		708.644,2817	708.644,3511	
N:		7.090.615,1190	7.090.612,8473		<b>7.090.608,7542</b>		7.090.604,7651	7.090.602,8274	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-6,403	-4,135		<b>0,000</b>		3,914	5,815	
Cota (m):		14,280	14,234				14,239	14,277	
E:		708.653,9035	708.653,9846		<b>708.654,1325</b>		708.654,2725	708.654,3405	
N:		7.090.615,5113	7.090.613,2444		<b>7.090.609,1119</b>		7.090.605,2001	7.090.603,3003	
<b>Station: 4+10</b>									
Dist. Eixo (m):		-6,546	-4,208		<b>0,000</b>		3,837	5,700	
Cota (m):		14,329	14,283				14,290	14,327	
E:		708.663,8920	708.663,9756		<b>708.664,1261</b>		708.664,2634	708.664,3300	
N:		7.090.616,0115	7.090.613,6750		<b>7.090.609,4696</b>		7.090.605,6352	7.090.603,7731	
<b>Station: 5+10</b>									
Dist. Eixo (m):		-6,556	-4,148		<b>0,000</b>		3,960	6,289	
Cota (m):		14,419	14,371				14,374	14,421	
E:		708.683,8788	708.683,9650		<b>708.684,1133</b>		708.684,2550	708.684,3383	
N:		7.090.616,7369	7.090.614,3298		<b>7.090.610,1849</b>		7.090.606,2271	7.090.603,8996	
<b>Station: 6+0</b>									
Dist. Eixo (m):		-6,390	-4,089		<b>0,000</b>		4,028	6,025	
Cota (m):		14,516	14,470				14,471	14,511	
E:		708.693,8784	708.693,9607		<b>708.694,1069</b>		708.694,2510	708.694,3224	
N:		7.090.616,9281	7.090.614,6289		<b>7.090.610,5426</b>		7.090.606,5171	7.090.604,5217	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MIRKO MAYERLE**

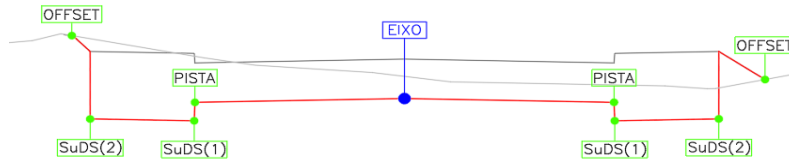
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+10</b>									
Dist. Eixo (m):		-6,301	-4,053		<b>0,000</b>		4,064	6,070	
Cota (m):		14,603	14,558				14,558	14,598	
E:		708.703,8752	708.703,9556		<b>708.704,1005</b>		708.704,2459	708.704,3177	
N:		7.090.617,1969	7.090.614,9511		<b>7.090.610,9003</b>		7.090.606,8387	7.090.604,8339	
<b>Station: 7+0</b>									
Dist. Eixo (m):		-6,212	-4,018		<b>0,000</b>		4,100	6,119	
Cota (m):		14,756	14,712				14,710	14,750	
E:		708.713,8720	708.713,9504		<b>708.714,0941</b>		708.714,2408	708.714,3130	
N:		7.090.617,4657	7.090.615,2734		<b>7.090.611,2580</b>		7.090.607,1603	7.090.605,1430	
<b>Station: 7+10</b>									
Dist. Eixo (m):		-6,123	-3,983		<b>0,000</b>		4,136	6,154	
Cota (m):		14,936	14,893				14,890	14,931	
E:		708.723,8687	708.723,9453		<b>708.724,0877</b>		708.724,2357	708.724,3079	
N:		7.090.617,7345	7.090.615,5956		<b>7.090.611,6157</b>		7.090.607,4819	7.090.605,4651	
<b>Station: 8+0</b>									
Dist. Eixo (m):		-5,983	-3,947		<b>0,000</b>		4,172	6,134	
Cota (m):		15,230	15,189				15,185	15,224	
E:		708.733,8673	708.733,9402		<b>708.734,0813</b>		708.734,2306	708.734,3008	
N:		7.090.617,9525	7.090.615,9176		<b>7.090.611,9733</b>		7.090.607,8035	7.090.605,8429	
<b>Station: 9+10</b>									
Dist. Eixo (m):		-5,984	-4,197		<b>0,000</b>		3,970	6,004	
Cota (m):		16,004	15,968				15,973	16,014	
E:		708.763,8481	708.763,9120		<b>708.764,0621</b>		708.764,2041	708.764,2769	
N:		7.090.619,0262	7.090.617,2402		<b>7.090.613,0464</b>		7.090.609,0794	7.090.607,0466	
<b>Station: 10+0</b>									
Dist. Eixo (m):		-6,015	-4,155		<b>0,000</b>		3,998	5,999	
Cota (m):		16,162	16,125				16,128	16,168	
E:		708.773,8406	708.773,9071		<b>708.774,0557</b>		708.774,1988	708.774,2703	
N:		7.090.619,4153	7.090.617,5568		<b>7.090.613,4041</b>		7.090.609,4081	7.090.607,4089	
<b>Station: 10+10</b>									
Dist. Eixo (m):		-6,002	-4,081		<b>0,000</b>		4,011	5,957	
Cota (m):		16,202	16,163				16,165	16,204	
E:		708.783,8347	708.783,9034		<b>708.784,0493</b>		708.784,1928	708.784,2624	
N:		7.090.619,7604	7.090.617,8404		<b>7.090.613,7617</b>		7.090.609,7530	7.090.607,8081	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-5,956	-4,054		<b>0,000</b>		4,000	5,961	
Cota (m):		16,236	16,198				16,199	16,238	
E:		708.793,8299	708.793,8980		<b>708.794,0429</b>		708.794,1860	708.794,2562	
N:		7.090.620,0714	7.090.618,1703		<b>7.090.614,1194</b>		7.090.610,1218	7.090.608,1620	
<b>Station: 11+10</b>									
Dist. Eixo (m):		-6,075	-4,034		<b>0,000</b>		3,989	6,092	
Cota (m):		16,260	16,219				16,220	16,262	
E:		708.803,8193	708.803,8923		<b>708.804,0366</b>		708.804,1792	708.804,2544	
N:		7.090.620,5481	7.090.618,5081		<b>7.090.614,4771</b>		7.090.610,4907	7.090.608,3890	
<b>Station: 12+0</b>									
Dist. Eixo (m):		-11,191	-7,031		<b>0,000</b>		7,976	11,406	
Cota (m):		16,273	16,190				16,171	16,239	
E:		708.813,6299	708.813,7787		<b>708.814,0302</b>		708.814,3154	708.814,4381	
N:		7.090.626,0182	7.090.621,8608		<b>7.090.614,8348</b>		7.090.606,8642	7.090.603,4364	
<b>Station: 12+10</b>									
Dist. Eixo (m):		-11,370	-6,978		<b>0,000</b>		7,224	11,490	
Cota (m):		16,285	16,197				16,192	16,277	
E:		708.823,6171	708.823,7742		<b>708.824,0238</b>		708.824,2821	708.824,4347	
N:		7.090.626,5556	7.090.622,1661		<b>7.090.615,1925</b>		7.090.607,9732	7.090.603,7094	
<b>Station: 13+0</b>									
Dist. Eixo (m):		-6,187	-4,374		<b>0,000</b>		3,915	5,759	
Cota (m):		16,377	16,340				16,350	16,386	
E:		708.833,7961	708.833,8609		<b>708.834,0174</b>		708.834,1574	708.834,2233	
N:		7.090.621,7327	7.090.619,9209		<b>7.090.615,5501</b>		7.090.611,6372	7.090.609,7947	
<b>Station: 13+10</b>									
Dist. Eixo (m):		-6,147	-4,196		<b>0,000</b>		3,907	5,814	
Cota (m):		16,460	16,421				16,426	16,465	
E:		708.843,7911	708.843,8609		<b>708.844,0110</b>		708.844,1507	708.844,2189	
N:		7.090.622,0510	7.090.620,1015		<b>7.090.615,9078</b>		7.090.612,0033	7.090.610,0974	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MIRKO MAYERLE**

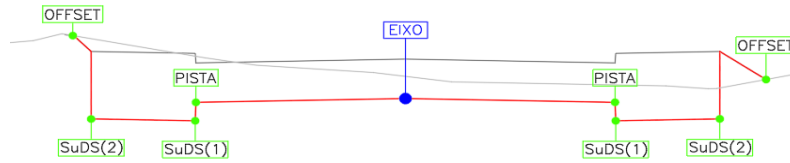
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+0</b>									
Dist. Eixo (m):		-6,107	-4,225		<b>0,000</b>		3,924	5,928	
Cota (m):		16,583	16,546				16,552	16,592	
E:		708.853,7861	708.853,8534		<b>708.854,0046</b>		708.854,1449	708.854,2166	
N:		7.090.622,3684	7.090.620,4874		<b>7.090.616,2655</b>		7.090.612,3444	7.090.610,3417	
<b>Station: 14+10</b>									
Dist. Eixo (m):		-6,067	-4,253		<b>0,000</b>		3,956	6,016	
Cota (m):		16,707	16,670				16,676	16,718	
E:		708.863,7812	708.863,8460		<b>708.863,9982</b>		708.864,1397	708.864,2133	
N:		7.090.622,6859	7.090.620,8734		<b>7.090.616,6232</b>		7.090.612,6698	7.090.610,6109	
<b>Station: 15+0</b>									
Dist. Eixo (m):		-6,026	-4,281		<b>0,000</b>		3,988	6,144	
Cota (m):		16,915	16,880				16,886	16,929	
E:		708.873,7762	708.873,8386		<b>708.873,9918</b>		708.874,1344	708.874,2115	
N:		7.090.623,0034	7.090.621,2593		<b>7.090.616,9809</b>		7.090.612,9952	7.090.610,8407	
<b>Station: 15+6</b>									
Dist. Eixo (m):		-5,883	-4,343		<b>0,000</b>		4,010	9,380	
Cota (m):		17,055	17,024				17,031	17,138	
E:		708.880,5330	708.880,5881		<b>708.880,7434</b>		708.880,8869	708.881,0790	
N:		7.090.623,1014	7.090.621,5625		<b>7.090.617,2225</b>		7.090.613,2151	7.090.607,8479	
<b>Station: 15+10</b>									
Dist. Eixo (m):					<b>0,000</b>		6,513	12,098	
Cota (m):							17,062	17,173	
E:					<b>708.883,9858</b>		708.884,1920	708.884,3688	
N:					<b>7.090.617,3252</b>		7.090.610,8158	7.090.605,2329	
<b>Station: 15+18</b>									
Dist. Eixo (m):		-11,956	-9,842	-9,832	<b>0,000</b>	11,768	11,778	12,309	
Cota (m):		17,775	17,733	17,853	<b>17,416</b>	17,215	17,095	17,105	
E:		708.891,9053	708.891,9723	708.891,9726	<b>708.892,2838</b>	708.892,6564	708.892,6567	708.892,6735	
N:		7.090.629,5384	7.090.627,4246	7.090.627,4146	<b>7.090.617,5880</b>	7.090.605,8259	7.090.605,8160	7.090.605,2854	
<b>Station: 16+0</b>									
Dist. Eixo (m):		-12,029	-6,801	-6,791	<b>0,000</b>	6,953	6,963	12,259	
Cota (m):		17,769	17,664	17,784	<b>17,487</b>	17,405	17,285	17,391	
E:		708.893,6000	708.893,7655	708.893,7658	<b>708.893,9808</b>	708.894,2009	708.894,2012	708.894,3689	
N:		7.090.629,6648	7.090.624,4395	7.090.624,4296	<b>7.090.617,6417</b>	7.090.610,6921	7.090.610,6822	7.090.605,3889	
<b>Station: 16+10</b>									
Dist. Eixo (m):		-5,979	-4,126	-4,116	<b>0,000</b>	3,884	3,894	5,866	
Cota (m):		17,739	17,702	17,822	<b>17,904</b>	17,826	17,706	17,746	
E:		708.903,7865	708.903,8452	708.903,8455	<b>708.903,9758</b>	708.904,0987	708.904,0991	708.904,1615	
N:		7.090.623,9340	7.090.622,0822	7.090.622,0722	<b>7.090.617,9583</b>	7.090.614,0762	7.090.614,0662	7.090.612,0955	
<b>Station: 16+14</b>									
Dist. Eixo (m):		-6,003	-4,123	-4,113	<b>0,000</b>	3,887	3,897	5,868	
Cota (m):		17,924	17,887	18,007	<b>18,089</b>	18,011	17,891	17,931	
E:		708.908,2177	708.908,2772	708.908,2775	<b>708.908,4077</b>	708.908,5307	708.908,5311	708.908,5935	
N:		7.090.624,0992	7.090.622,2200	7.090.622,2100	<b>7.090.618,0987</b>	7.090.614,2140	7.090.614,2040	7.090.612,2336	
<b>Station: 17+0</b>									
Dist. Eixo (m):		-5,992	-4,077	-4,067	<b>0,000</b>	3,933	3,943	5,914	
Cota (m):		18,158	18,120	18,240	<b>18,321</b>	18,243	18,123	18,162	
E:		708.913,7334	708.913,8087	708.913,8091	<b>708.913,9693</b>	708.914,1241	708.914,1245	708.914,2021	
N:		7.090.624,3047	7.090.622,3919	7.090.622,3819	<b>7.090.618,3178</b>	7.090.614,3878	7.090.614,3778	7.090.612,4084	
<b>Station: 17+10</b>									
Dist. Eixo (m):		-5,970	-3,994	-3,984	<b>0,000</b>	4,016	4,026	5,996	
Cota (m):		18,541	18,502	18,622	<b>18,702</b>	18,621	18,501	18,541	
E:		708.923,7265	708.923,8043	708.923,8047	<b>708.923,9615</b>	708.924,1196	708.924,1200	708.924,1975	
N:		7.090.624,6771	7.090.622,7026	7.090.622,6926	<b>7.090.618,7114</b>	7.090.614,6985	7.090.614,6885	7.090.612,7200	
<b>Station: 18+0</b>									
Dist. Eixo (m):		-5,949	-3,911	-3,901	<b>0,000</b>	4,099	4,109	6,078	
Cota (m):		18,821	18,781	18,901	<b>18,979</b>	18,897	18,777	18,816	
E:		708.933,7196	708.933,7998	708.933,8002	<b>708.933,9537</b>	708.934,1151	708.934,1155	708.934,1930	
N:		7.090.625,0496	7.090.623,0133	7.090.623,0033	<b>7.090.619,1051</b>	7.090.615,0092	7.090.614,9992	7.090.613,0315	
<b>Station: 18+3</b>									
Dist. Eixo (m):		-5,941	-3,878	-3,868	<b>0,000</b>	4,132	4,142	6,111	
Cota (m):		18,907	18,866	18,986	<b>19,063</b>	18,980	18,860	18,900	
E:		708.937,7092	708.937,7904	708.937,7908	<b>708.937,9430</b>	708.938,1057	708.938,1061	708.938,1836	
N:		7.090.625,1983	7.090.623,1373	7.090.623,1273	<b>7.090.619,2622</b>	7.090.615,1332	7.090.615,1232	7.090.613,1559	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA MIRKO MAYERLE**

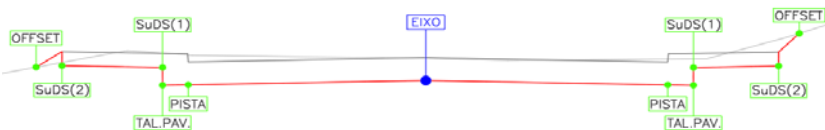
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 18+10</b>									
Dist. Eixo (m):		-5,970	-3,871	-3,861	<b>0,000</b>	4,139	4,149	6,118	
Cota (m):		19,033	18,991	19,111	<b>19,188</b>	19,105	18,985	19,025	
E:		708.943,7547	708.943,8225	708.943,8228	<b>708.943,9475</b>	708.944,0812	708.944,0815	708.944,1451	
N:		7.090.625,4236	7.090.623,3248	7.090.623,3148	<b>7.090.619,4563</b>	7.090.615,3190	7.090.615,3090	7.090.613,3417	
<b>Station: 19+0</b>									
Dist. Eixo (m):		-10,240	-6,303	-6,293	<b>0,000</b>	6,157	6,167	9,389	
Cota (m):		19,386	19,307	19,427	<b>19,396</b>	19,265	19,145	19,209	
E:		708.953,6116	708.953,7387	708.953,7390	<b>708.953,9423</b>	708.954,1412	708.954,1415	708.954,2455	
N:		7.090.630,0138	7.090.626,0792	7.090.626,0692	<b>7.090.619,7792</b>	7.090.613,6256	7.090.613,6157	7.090.610,3952	
<b>Station: 19+2</b>									
Dist. Eixo (m):				-11,832	<b>0,000</b>	9,513	9,523	12,016	
Cota (m):				19,644	<b>19,443</b>	19,308	19,188	19,238	
E:				708.955,8089	<b>708.956,1911</b>	708.956,4983	708.956,4986	708.956,5792	
N:				7.090.631,6779	<b>7.090.619,8519</b>	7.090.610,3440	7.090.610,3340	7.090.607,8418	
<b>Station: 19+10</b>									
Dist. Eixo (m):				-9,365	<b>0,000</b>	10,961			
Cota (m):				19,592	<b>19,444</b>	19,342			
E:				708.964,0661	<b>708.964,3686</b>	708.964,7226			
N:				7.090.629,4758	<b>7.090.620,1162</b>	7.090.609,1606			
<b>Station: 20+0</b>									
Dist. Eixo (m):		-5,751	-3,960	-3,950	<b>0,000</b>	4,050	4,060	5,897	
Cota (m):		19,329	19,293	19,413	<b>19,492</b>	19,411	19,291	19,328	
E:		708.973,7461	708.973,8040	708.973,8043	<b>708.973,9319</b>	708.974,0627	708.974,0630	708.974,1223	
N:		7.090.626,1731	7.090.624,3830	7.090.624,3730	<b>7.090.620,4252</b>	7.090.616,3771	7.090.616,3671	7.090.614,5308	
<b>Station: 20+10</b>									
Dist. Eixo (m):		-5,809	-4,006	-3,996	<b>0,000</b>	4,004	4,014	5,872	
Cota (m):		19,380	19,344	19,464	<b>19,544</b>	19,463	19,343	19,381	
E:		708.983,7390	708.983,7973	708.983,7976	<b>708.983,9267</b>	708.984,0560	708.984,0563	708.984,1163	
N:		7.090.626,5544	7.090.624,7521	7.090.624,7421	<b>7.090.620,7482</b>	7.090.616,7462	7.090.616,7362	7.090.614,8796	
<b>Station: 21+0</b>									
Dist. Eixo (m):		-5,825	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,888	
Cota (m):		19,431	19,395	19,515	<b>19,595</b>	19,515	19,395	19,432	
E:		708.993,7050	708.993,7720	708.993,7724	<b>708.993,9200</b>	708.994,0676	708.994,0680	708.994,1373	
N:		7.090.626,9346	7.090.625,1204	7.090.625,1104	<b>7.090.621,1132</b>	7.090.617,1159	7.090.617,1059	7.090.615,2294	
<b>Station: 21+10</b>									
Dist. Eixo (m):		-5,838	-4,010	-4,000	<b>0,000</b>	4,000	4,010	5,908	
Cota (m):		19,482	19,446	19,566	<b>19,646</b>	19,566	19,446	19,484	
E:		709.003,6977	709.003,7652	709.003,7656	<b>709.003,9132</b>	709.004,0608	709.004,0612	709.004,1312	
N:		7.090.627,3158	7.090.625,4895	7.090.625,4795	<b>7.090.621,4822</b>	7.090.617,4849	7.090.617,4749	7.090.615,5782	
<b>Station: 22+0</b>									
Dist. Eixo (m):		-5,942	-4,080	-4,070	<b>0,000</b>	4,011	4,021	5,961	
Cota (m):		19,540	19,503	19,623	<b>19,697</b>	19,618	19,498	19,537	
E:		709.013,6871	709.013,7558	709.013,7561	<b>709.013,9064</b>	709.014,0544	709.014,0548	709.014,1263	
N:		7.090.627,7895	7.090.625,9289	7.090.625,9189	<b>7.090.621,8512</b>	7.090.617,8428	7.090.617,8328	7.090.615,8944	
<b>Station: 22+6</b>									
Dist. Eixo (m):				-11,000	<b>0,000</b>	8,871	8,881	12,039	
Cota (m):				19,749	<b>19,732</b>	19,696	19,576	19,639	
E:				709.020,4360	<b>709.020,8419</b>	709.021,1693	709.021,1697	709.021,2862	
N:				7.090.633,0999	<b>7.090.622,1074</b>	7.090.613,2420	7.090.613,2320	7.090.610,0769	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA OLIVIO MENESTRINA**

Desenho Esquemático:

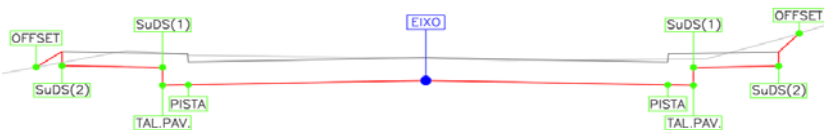


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV		SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):	-7,873	-7,117	-5,343	-5,343	-4,945	<b>0,000</b>	10,704	11,102	11,102	11,524	
Cota (m):	17,471	16,715	16,419	16,123	16,131	<b>16,230</b>	16,427	16,419	16,715	16,723	
E:	709.395,6545	709.394,8989	709.393,1265	709.393,1265	709.392,7286	<b>709.387,7882</b>	709.377,0933	709.376,6957	709.376,6957	709.376,2742	
N:	7.090.324,6978	7.090.324,6666	7.090.324,5935	7.090.324,5935	7.090.324,5771	<b>7.090.324,3732</b>	7.090.323,9319	7.090.323,9155	7.090.323,9155	7.090.323,8981	
<b>Station: 0+10</b>											
Dist. Eixo (m):	-5,636	-5,227	-4,375	-4,375	-3,977	<b>0,000</b>	3,996	4,394	4,394	6,024	6,252
Cota (m):	18,614	18,205	17,928	17,632	17,640	<b>17,720</b>	17,640	17,632	17,927	17,960	18,068
E:	709.393,8319	709.393,4229	709.392,5715	709.392,5715	709.392,1737	<b>709.388,2005</b>	709.384,2076	709.383,8100	709.383,8100	709.382,1821	709.381,9542
N:	7.090.314,6141	7.090.314,5972	7.090.314,5621	7.090.314,5621	7.090.314,5457	<b>7.090.314,3817</b>	7.090.314,2169	7.090.314,2005	7.090.314,2005	7.090.314,1334	7.090.314,1240
<b>Station: 1+0</b>											
Dist. Eixo (m):	-5,674	-5,197	-4,331	-4,331	-3,933	<b>0,000</b>	3,997	4,395	4,395	6,067	6,358
Cota (m):	20,173	19,696	19,418	19,122	19,130	<b>19,209</b>	19,129	19,121	19,417	19,450	19,516
E:	709.394,2817	709.393,8051	709.392,9406	709.392,9406	709.392,5428	<b>709.388,6128</b>	709.384,6196	709.384,2219	709.384,2219	709.382,5512	709.382,2602
N:	7.090.304,6242	7.090.304,6045	7.090.304,5688	7.090.304,5688	7.090.304,5524	<b>7.090.304,3902</b>	7.090.304,2254	7.090.304,2090	7.090.304,2090	7.090.304,1401	7.090.304,1281
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,178	-4,310	-4,310	-3,911	<b>0,000</b>	3,997	4,395	4,395	6,048	
Cota (m):		21,093	20,815	20,520	21,564	<b>20,606</b>	20,526	20,518	20,814	20,847	
E:		709.394,1988	709.393,3311	709.393,3311	709.392,9333	<b>709.389,0252</b>	709.385,0315	709.384,6339	709.384,6339	709.382,9824	
N:		7.090.294,6122	7.090.294,5764	7.090.294,5764	7.090.294,5600	<b>7.090.294,3987</b>	7.090.294,2339	7.090.294,2175	7.090.294,2175	7.090.294,1494	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,803	-4,314	-4,314	-3,916	<b>0,000</b>	3,997	4,395	4,395	6,155	
Cota (m):		22,142	21,852	21,556	21,564	<b>21,643</b>	21,563	21,555	21,855	21,886	
E:		709.395,2356	709.393,7478	709.393,7478	709.393,3500	<b>709.389,4375</b>	709.385,4440	709.385,0464	709.385,0462	709.383,2880	
N:		7.090.284,6465	7.090.284,5851	7.090.284,5851	7.090.284,5687	<b>7.090.284,4072</b>	7.090.284,2424	7.090.284,2260	7.090.284,2260	7.090.284,1535	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,625	-4,318	-4,318	-3,920	<b>0,000</b>	3,932	4,330	4,330	6,125	
Cota (m):		22,891	22,605	22,309	22,317	<b>22,395</b>	22,317	22,309	22,604	22,640	
E:		709.395,4702	709.394,1646	709.394,1646	709.393,7668	<b>709.389,8498</b>	709.385,9207	709.385,5231	709.385,5231	709.383,7299	
N:		7.090.274,6477	7.090.274,5938	7.090.274,5938	7.090.274,5774	<b>7.090.274,4157</b>	7.090.274,2536	7.090.274,2372	7.090.274,2372	7.090.274,1632	
<b>Station: 2+11</b>											
Dist. Eixo (m):		-5,610	-3,931	-3,931	-3,921	<b>0,000</b>	4,997	5,007	5,007	6,116	
Cota (m):		22,756	22,722	22,832	22,832	<b>22,911</b>	22,811	22,701	22,701	22,723	
E:		709.395,5250	709.393,8478	709.393,8478	709.393,8378	<b>709.389,9200</b>	709.384,9242	709.384,9142	709.384,9142	709.383,8051	
N:		7.090.272,9464	7.090.272,8772	7.090.272,8772	7.090.272,8767	<b>7.090.272,7151</b>	7.090.272,5089	7.090.272,5085	7.090.272,5085	7.090.272,4627	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,844	-4,204			<b>0,000</b>			3,472	5,862	
Cota (m):		22,799	22,767			<b>22,961</b>			22,781	22,829	
E:		709.395,8114	709.394,1721			<b>709.389,9677</b>			709.386,4960	709.384,1059	
N:		7.090.264,4509	7.090.264,4415			<b>7.090.264,4173</b>			7.090.264,3974	7.090.264,3836	
<b>Station: 4+15</b>											
Dist. Eixo (m):		-6,204	-4,860	-4,860	-4,462	<b>0,000</b>	3,563	3,961	3,961	5,785	5,785
Cota (m):		21,993	21,707	21,411	21,419	<b>21,508</b>	21,437	21,429	21,725	21,761	22,021
E:		709.396,3758	709.395,0317	709.395,0317	709.394,6335	<b>709.390,1716</b>	709.386,6084	709.386,2105	709.386,2105	709.384,3868	709.384,3866
N:		7.090.228,9936	7.090.228,9859	7.090.228,9859	7.090.228,9836	<b>7.090.228,9579</b>	7.090.228,9374	7.090.228,9351	7.090.228,9351	7.090.228,9246	7.090.228,9246
<b>Station: 4+17</b>											
Dist. Eixo (m):		-5,125	-5,039	-3,883	-3,883	<b>0,000</b>	3,003	3,401	3,401	5,004	5,034
Cota (m):		21,781	21,838	21,555	21,260	<b>21,337</b>	21,277	21,269	21,565	21,597	21,697
E:		709.395,3149	709.395,2289	709.394,0727	709.394,0727	<b>709.390,1861</b>	709.387,1826	709.386,7847	709.386,7847	709.385,1819	709.385,1525
N:		7.090.226,4678	7.090.226,4673	7.090.226,4606	7.090.226,4606	<b>7.090.226,4383</b>	7.090.226,4210	7.090.226,4187	7.090.226,4187	7.090.226,4095	7.090.226,4093
<b>Station: 5+0</b>											
Dist. Eixo (m):		-4,768	-4,617	-3,504	-3,504	<b>0,000</b>	3,000	3,398	3,398	5,000	
Cota (m):		21,563	21,663	21,381	21,085	<b>21,155</b>	21,095	21,087	21,383	21,415	
E:		709.395,0434	709.394,8929	709.393,7811	709.393,7811	<b>709.390,2808</b>	709.387,2841	709.386,8865	709.386,8865	709.385,2863	
N:		7.090.224,6436	7.090.224,6365	7.090.224,5844	7.090.224,5844	<b>7.090.224,4202</b>	7.090.224,2796	7.090.224,2609	7.090.224,2609	7.090.224,1858	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,940	-4,521	-3,427	-3,427	<b>0,000</b>	3,000	3,398	3,398	5,000	
Cota (m):		22,600	20,153	20,131	19,836	<b>19,904</b>	19,844	19,836	20,132	20,164	
E:		709.396,6828	709.395,2659	709.394,1729	709.394,1729	<b>709.390,7494</b>	709.387,7527	709.387,3552	709.387,3552	709.385,7549	
N:		7.090.214,7095	7.090.214,6430	7.090.214,5918	7.090.214,5918	<b>7.090.214,4312</b>	7.090.214,2906	7.090.214,2719	7.090.214,2719	7.090.214,1968	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-4,578	-4,504	-3,419	-3,419	<b>0,000</b>	3,000	3,398	3,398	5,408	
Cota (m):		19,218	19,145	18,863	18,567	<b>18,635</b>	18,575	18,567	18,863	18,903	
E:		709.395,7906	709.395,7175	709.394,6330	709.394,6330	<b>709.391,2180</b>	709.388,2213	709.387,8238	709.387,8238	709.385,8155	
N:		7.090.204,6567	7.090.204,6532	7.090.204,6024	7.090.204,6024	<b>7.090.204,4421</b>	7.090.204,3015	7.090.204,2829	7.090.204,2829	7.090.204,1887	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-4,591	-4,487	-3,410	-3,410	<b>0,000</b>	3,000	3,398	3,398	5,469	
Cota (m):		18,112	18,008	17,726	17,431	<b>17,499</b>	17,439	17,431	17,727	17,768	
E:		709.396,2724	709.396,1689	709.395,0932	709.395,0932	<b>709.391,6867</b>	709.388,6900	709.388,2924	709.388,2924	709.386,2238	
N:		7.090.194,6683	7.090.194,6634	7.090.194,6129	7.090.194,6129	<b>7.090.194,4531</b>	7.090.194,3125	7.090.194,2939	7.090.194,2939	7.090.194,1968	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-4,815	-4,470	-3,402	-3,402	<b>0,000</b>	3,000	3,398	3,398	5,529	
Cota (m):		16,820	17,050	16,769	16,473	<b>16,541</b>	16,481	16,473	16,769	16,812	
E:		709.396,9651	709.396,6203	709.395,5533	709.395,5533	<b>709.392,1553</b>	709.389,1586	709.388,7611	709.388,7611	709.386,6320	
N:		7.090.184,6898	7.090.184,6736	7.090.184,6235	7.090.184,6235	<b>7.090.184,4641</b>	7.090.184,3235	7.090.184,3049	7.090.184,3049	7.090.184,2050	
<b>Station: 7+4</b>											
Dist. Eixo (m):		-5,016	-4,463	-3,398	-3,398	<b>0,000</b>	3,000	3,398	3,398	5,567	
Cota (m):		16,335	16,703	16,422	16,127	<b>16,195</b>	16,135	16,127	16,423	16,466	
E:		709.397,3612	709.396,8086	709.395,7452	709.395,7452	<b>709.392,3508</b>	709.389,3541	709.388,9566	709.388,9566	709.386,7895	
N:		7.090.180,5321	7.090.180,5062	7.090.180,4563	7.090.180,4563	<b>7.090.180,2971</b>	7.090.180,1565	7.090.180,1378	7.090.180,1378	7.090.180,0362	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA OLIVIO MENESTRINA**

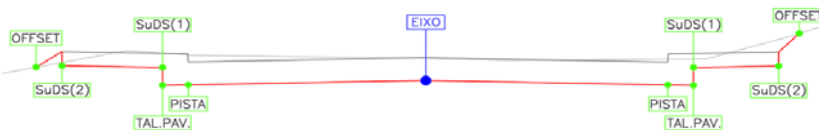
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV		SuDS(2)	OFFSET
<b>Station: 7+10</b>											
Dist. Eixo (m):		-5,372	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,562	
Cota (m):		16,030	15,990	15,694	15,702	<b>15,762</b>	15,702	15,694	15,990	16,013	
E:		709,397,9912	709,396,0200	709,396,0200	709,395,6223	<b>709,392,6256</b>	709,389,6289	709,389,2314	709,389,2314	709,388,0685	
N:		7,090,174,7284	7,090,174,6354	7,090,174,6354	7,090,174,6166	<b>7,090,174,4752</b>	7,090,174,3337	7,090,174,3150	7,090,174,3150	7,090,174,2601	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,199	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,704	
Cota (m):		15,426	15,390	15,094	15,102	<b>15,162</b>	15,102	15,094	15,390	15,416	
E:		709,398,2898	709,396,4915	709,396,4915	709,396,0937	<b>709,393,0971</b>	709,390,1004	709,389,7029	709,389,7029	709,388,3987	
N:		7,090,164,7314	7,090,164,6465	7,090,164,6465	7,090,164,6277	<b>7,090,164,4863</b>	7,090,164,3449	7,090,164,3261	7,090,164,3261	7,090,164,2645	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-5,043	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,689	
Cota (m):		15,261	14,968	14,673	14,681	<b>14,741</b>	14,681	14,673	14,968	14,994	
E:		709,398,6057	709,396,9629	709,396,9629	709,396,5652	<b>709,393,5686</b>	709,390,5719	709,390,1744	709,390,1744	709,388,8849	
N:		7,090,154,7352	7,090,154,6576	7,090,154,6576	7,090,154,6389	<b>7,090,154,4974</b>	7,090,154,3560	7,090,154,3372	7,090,154,3372	7,090,154,2764	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-4,968	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,676	
Cota (m):		14,757	14,726	14,430	14,438	<b>14,498</b>	14,438	14,430	14,725	14,751	
E:		709,399,0021	709,397,4344	709,397,4344	709,397,0367	<b>709,394,0400</b>	709,391,0434	709,390,6459	709,390,6459	709,389,3693	
N:		7,090,144,7428	7,090,144,6688	7,090,144,6688	7,090,144,6500	<b>7,090,144,5085</b>	7,090,144,3671	7,090,144,3483	7,090,144,3483	7,090,144,2881	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-4,866	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,990	
Cota (m):		14,636	14,607	14,311	14,319	<b>14,379</b>	14,319	14,311	14,607	14,639	
E:		709,399,3726	709,397,9059	709,397,9059	709,397,5082	<b>709,394,5115</b>	709,391,5149	709,391,1173	709,391,1173	709,389,5273	
N:		7,090,134,7491	7,090,134,6799	7,090,134,6799	7,090,134,6611	<b>7,090,134,5197</b>	7,090,134,3782	7,090,134,3595	7,090,134,3595	7,090,134,2844	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-4,700	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	5,145	
Cota (m):		14,519	14,493	14,197	14,205	<b>14,265</b>	14,205	14,197	14,493	14,528	
E:		709,399,6778	709,398,3774	709,398,3774	709,397,9797	<b>709,394,9830</b>	709,391,9863	709,391,5888	709,391,5888	709,389,8433	
N:		7,090,124,7524	7,090,124,6910	7,090,124,6910	7,090,124,6722	<b>7,090,124,5308</b>	7,090,124,3893	7,090,124,3706	7,090,124,3706	7,090,124,2882	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-4,506	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,966	
Cota (m):		14,661	14,378	14,082	14,090	<b>14,150</b>	14,090	14,082	14,379	14,410	
E:		709,399,9559	709,398,8489	709,398,8489	709,398,4511	<b>709,395,4545</b>	709,392,4578	709,392,0603	709,392,0603	709,390,4943	
N:		7,090,114,7544	7,090,114,7021	7,090,114,7021	7,090,114,6833	<b>7,090,114,5419</b>	7,090,114,4005	7,090,114,3817	7,090,114,3817	7,090,114,3078	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-4,496	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,779	
Cota (m):		14,546	14,264	13,968	13,976	<b>14,036</b>	13,976	13,968	14,263	14,291	
E:		709,400,4167	709,399,3203	709,399,3203	709,398,9226	<b>709,395,9260</b>	709,392,9293	709,392,5318	709,392,5318	709,391,1520	
N:		7,090,104,7650	7,090,104,7132	7,090,104,7132	7,090,104,6945	<b>7,090,104,5530</b>	7,090,104,4116	7,090,104,3928	7,090,104,3928	7,090,104,3277	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-4,518	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,591	
Cota (m):		14,172	14,149	13,854	13,862	<b>13,922</b>	13,862	13,854	14,149	14,173	
E:		709,400,9107	709,399,7918	709,399,7918	709,399,3941	<b>709,396,3974</b>	709,393,4008	709,393,0033	709,393,0033	709,391,8118	
N:		7,090,094,7772	7,090,094,7244	7,090,094,7244	7,090,094,7056	<b>7,090,094,5641</b>	7,090,094,4227	7,090,094,4039	7,090,094,4039	7,090,094,3477	
<b>Station: 11+17</b>											
Dist. Eixo (m):		-4,540	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,554	
Cota (m):		14,092	14,069	13,773	13,781	<b>13,841</b>	13,781	13,773	14,069	14,092	
E:		709,401,2651	709,400,1245	709,400,1245	709,399,7268	<b>709,396,7302</b>	709,393,7335	709,393,3360	709,393,3360	709,392,1816	
N:		7,090,087,7289	7,090,087,6751	7,090,087,6751	7,090,087,6563	<b>7,090,087,5149</b>	7,090,087,3734	7,090,087,3547	7,090,087,3547	7,090,087,3002	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-4,559	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,511	
Cota (m):		14,058	14,035	13,739	13,747	<b>13,807</b>	13,747	13,739	14,035	14,057	
E:		709,401,4421	709,400,2829	709,400,2829	709,399,8853	<b>709,396,8898</b>	709,393,8942	709,393,4968	709,393,4968	709,392,3855	
N:		7,090,084,8236	7,090,084,7606	7,090,084,7606	7,090,084,7390	<b>7,090,084,5763</b>	7,090,084,4136	7,090,084,3920	7,090,084,3920	7,090,084,3317	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-4,613	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,500	
Cota (m):		13,940	13,916	13,620	13,628	<b>13,688</b>	13,628	13,620	13,916	13,938	
E:		709,402,0381	709,400,8252	709,400,8252	709,400,4277	<b>709,397,4321</b>	709,394,4365	709,394,0391	709,394,0391	709,392,9390	
N:		7,090,074,8412	7,090,074,7753	7,090,074,7753	7,090,074,7537	<b>7,090,074,5910</b>	7,090,074,4283	7,090,074,4068	7,090,074,4068	7,090,074,3470	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-4,726	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,517	
Cota (m):		13,773	13,747	13,451	13,459	<b>13,519</b>	13,459	13,451	13,747	13,769	
E:		709,402,6937	709,401,3675	709,401,3675	709,400,9700	<b>709,397,9744</b>	709,394,9788	709,394,5814	709,394,5814	709,393,4644	
N:		7,090,064,8621	7,090,064,7900	7,090,064,7900	7,090,064,7684	<b>7,090,064,6058</b>	7,090,064,4431	7,090,064,4215	7,090,064,4215	7,090,064,3608	
<b>Station: 13+1</b>											
Dist. Eixo (m):		-4,723	-3,398	-3,398	-3,000	<b>0,000</b>	3,000	3,398	3,398	4,512	
Cota (m):		13,748	13,721	13,426	13,434	<b>13,494</b>	13,434	13,426	13,722	13,744	
E:		709,402,7585	709,401,4355	709,401,4355	709,401,0379	<b>709,398,0423</b>	709,395,0467	709,394,6493	709,394,6493	709,393,5369	
N:		7,090,063,6112	7,090,063,5394	7,090,063,5394	7,090,063,5178	<b>7,090,063,3551</b>	7,090,063,1924	7,090,063,1708	7,090,063,1708	7,090,063,1104	
<b>Station: 13+7</b>											
Dist. Eixo (m):		-4,769	-3,538	-3,538	-3,140	<b>0,000</b>	3,000	3,398	3,398	6,630	
Cota (m):		13,592	13,568	13,272	13,280	<b>13,343</b>	13,283	13,275	13,570	13,635	
E:		709,403,0242	709,401,7942	709,401,7942	709,401,3961	<b>709,398,2559</b>	709,395,2560	709,394,8581	709,394,8581	709,391,6266	
N:		7,090,056,7313	7,090,056,7193	7,090,056,7193	7,090,056,7154	<b>7,090,056,6848</b>	7,090,056,6555	7,090,056,6516	7,090,056,6516	7,090,056,6201	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-4,758	-3,606	-3,606	-3,208	<b>0,000</b>	3,000	3,398	3,398	6,575	
Cota (m):		13,540	13,517	13,222	13,230	<b>13,294</b>	13,234	13,226	13,521	13,585	
E:		709,403,0193	709,401,8682	709,401,8682	709,401,4701	<b>709,398,2618</b>	709,395,2618	709,394,8639	709,394,8639	709,391,6864	
N:		7,090,054,5923	7,090,054,5970	7,090,054,5970	7,090,054,5986	<b>7,090,054,6116</b>	7,090,054,6238	7,090,054,6254	7,090,054,6254	7,090,054,6383	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA OLIVIO MENESTRINA**

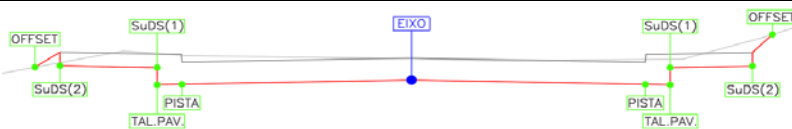
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(2)	OFFSET
Station: 13+14										
Dist. Eixo (m):		-5,074	-3,807	-3,807	-3,408	<b>0,000</b>	3,000	3,398	3,398	6,371
Cota (m):		13,430	13,405	13,109	13,117	<b>13,185</b>	13,125	13,117	13,413	13,472
E:		709.403,2436	709.401,9769	709.401,9769	709.401,5790	<b>709.398,1726</b>	709.395,1744	709.394,7767	709.394,7767	709.391,8058
N:		7.090.049,8354	7.090.049,8794	7.090.049,8794	7.090.049,8932	<b>7.090.050,0116</b>	7.090.050,1158	7.090.050,1296	7.090.050,1296	7.090.050,2328
Station: 14+0										
Dist. Eixo (m):		-5,517	-4,117	-4,117	-3,719	<b>0,000</b>	3,000	3,398	3,398	6,060
Cota (m):		13,299	13,271	12,975	12,983	<b>13,058</b>	12,998	12,990	13,286	13,339
E:		709.403,4987	709.402,0997	709.402,0997	709.401,7017	<b>709.397,9851</b>	709.394,9869	709.394,5892	709.394,5892	709.391,9287
N:		7.090.044,4243	7.090.044,4729	7.090.044,4729	7.090.044,4868	<b>7.090.044,6159</b>	7.090.044,7201	7.090.044,7339	7.090.044,7339	7.090.044,8263
Station: 14+5										
Dist. Eixo (m):		-5,810	-4,338	-4,338	-3,940	<b>0,000</b>	3,063	3,461	3,461	5,820
Cota (m):		13,178	13,148	12,853	12,861	<b>12,939</b>	12,878	12,870	13,166	13,213
E:		709.403,6826	709.402,2111	709.402,2111	709.401,8129	<b>709.397,8732</b>	709.394,8102	709.394,4122	709.394,4122	709.392,0533
N:		7.090.039,5802	7.090.039,5891	7.090.039,5891	7.090.039,5915	<b>7.090.039,6152</b>	7.090.039,6336	7.090.039,6360	7.090.039,6360	7.090.039,6502
Station: 14+9										
Dist. Eixo (m):		-5,809	-4,398	-4,398	-4,000	<b>0,000</b>	3,253	3,651	3,651	5,750
Cota (m):		13,073	13,045	12,750	12,741	<b>12,838</b>	12,772	12,764	13,060	13,102
E:		709.403,7171	709.402,3062	709.402,3062	709.401,9082	<b>709.397,9092</b>	709.394,6573	709.394,2594	709.394,2594	709.392,1609
N:		7.090.035,4394	7.090.035,4074	7.090.035,4074	7.090.035,3983	<b>7.090.035,3075</b>	7.090.035,2336	7.090.035,2246	7.090.035,2246	7.090.035,1769
Station: 14+10										
Dist. Eixo (m):		-5,799	-4,398	-4,398	-4,000	<b>0,000</b>	3,292	3,690	3,690	5,749
Cota (m):		13,057	13,029	12,733	12,741	<b>12,821</b>	12,755	12,747	13,043	13,084
E:		709.403,7228	709.402,3219	709.402,3219	709.401,9238	<b>709.397,9248</b>	709.394,6333	709.394,2354	709.394,2354	709.392,1775
N:		7.090.034,7495	7.090.034,7177	7.090.034,7177	7.090.034,7087	<b>7.090.034,6178</b>	7.090.034,5431	7.090.034,5340	7.090.034,5340	7.090.034,4873
Station: 15+0										
Dist. Eixo (m):		-5,719	-4,398	-4,398	-4,000	<b>0,000</b>	3,854	4,252	4,252	5,746
Cota (m):		12,824	12,797	12,501	12,509	<b>12,589</b>	12,512	12,504	12,800	12,830
E:		709.403,8693	709.402,5489	709.402,5489	709.402,1509	<b>709.398,1519</b>	709.394,2988	709.393,9009	709.393,9009	709.392,4070
N:		7.090.024,7503	7.090.024,7203	7.090.024,7203	7.090.024,7112	<b>7.090.024,6204</b>	7.090.024,5329	7.090.024,5239	7.090.024,5239	7.090.024,4899
Station: 15+10										
Dist. Eixo (m):		-5,745	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,649
Cota (m):		12,643	12,616	12,320	12,328	<b>12,408</b>	12,328	12,320	12,616	12,641
E:		709.404,1226	709.402,7760	709.402,7760	709.402,3779	<b>709.398,3790</b>	709.394,3800	709.393,9821	709.393,9821	709.392,7309
N:		7.090.014,7534	7.090.014,7228	7.090.014,7228	7.090.014,7138	<b>7.090.014,6230</b>	7.090.014,5322	7.090.014,5231	7.090.014,5231	7.090.014,4947
Station: 16+0										
Dist. Eixo (m):		-5,754	-4,398	-4,398	-4,000	<b>0,000</b>	4,000	4,398	4,398	5,800
Cota (m):		12,519	12,492	12,196	12,204	<b>12,284</b>	12,204	12,196	12,492	12,520
E:		709.404,3585	709.403,0030	709.403,0030	709.402,6050	<b>709.398,6060</b>	709.394,6070	709.394,2092	709.394,2092	709.392,8079
N:		7.090.004,7562	7.090.004,7254	7.090.004,7254	7.090.004,7164	<b>7.090.004,6256</b>	7.090.004,5347	7.090.004,5257	7.090.004,5257	7.090.004,4939
Station: 16+9										
Dist. Eixo (m):		-5,710	-4,397	-4,397	-3,999	<b>0,000</b>	4,000	4,398	4,398	5,708
Cota (m):		12,667	12,381	12,085	12,093	<b>12,173</b>	12,093	12,085	12,381	12,407
E:		709.404,5428	709.403,2298	709.403,2298	709.402,8317	<b>709.398,8328</b>	709.394,8338	709.394,4359	709.394,4359	709.393,1258
N:		7.089.994,7706	7.089.994,7408	7.089.994,7408	7.089.994,7317	<b>7.089.994,6409</b>	7.089.994,5501	7.089.994,5410	7.089.994,5410	7.089.994,5113
Station: 16+10										
Dist. Eixo (m):		-6,024	-5,712	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	5,709
Cota (m):		12,459	12,667	12,381	12,085	<b>12,173</b>	12,093	12,085	12,381	12,407
E:		709.404,8523	709.404,5414	709.403,2275	709.403,2275	<b>709.398,8333</b>	709.394,8369	709.394,4393	709.394,4393	709.393,1297
N:		7.089.994,8832	7.089.994,8700	7.089.994,8144	7.089.994,8144	<b>7.089.994,6282</b>	7.089.994,4588	7.089.994,4419	7.089.994,4419	7.089.994,3865
Station: 17+0										
Dist. Eixo (m):		-6,794	-6,226	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	5,860
Cota (m):		12,187	12,566	12,269	11,973	<b>12,061</b>	11,981	11,973	12,269	12,298
E:		709.406,0449	709.405,4774	709.403,6509	709.403,6509	<b>709.399,2667</b>	709.395,2603	709.394,8627	709.394,8627	709.393,4023
N:		7.089.984,9248	7.089.984,9007	7.089.984,8233	7.089.984,8233	<b>7.089.984,6371</b>	7.089.984,4678	7.089.984,4509	7.089.984,4509	7.089.984,3890
Station: 17+10										
Dist. Eixo (m):		-6,616	-6,165	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	6,015
Cota (m):		12,152	12,453	12,158	11,862	<b>11,950</b>	11,870	11,862	12,158	12,190
E:		709.406,2902	709.405,8399	709.404,0742	709.404,0742	<b>709.399,6801</b>	709.395,6837	709.395,2861	709.395,2861	709.393,6708
N:		7.089.974,9262	7.089.974,9071	7.089.974,8323	7.089.974,8323	<b>7.089.974,6461</b>	7.089.974,4767	7.089.974,4599	7.089.974,4599	7.089.974,3914
Station: 18+0										
Dist. Eixo (m):		-6,545	-6,105	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	6,024
Cota (m):		12,046	12,340	12,046	11,750	<b>11,838</b>	11,758	11,750	12,046	12,079
E:		709.406,6429	709.406,2025	709.404,4976	709.404,4976	<b>709.400,1034</b>	709.396,1071	709.395,7095	709.395,7095	709.394,0845
N:		7.089.964,9322	7.089.964,9135	7.089.964,8413	7.089.964,8413	<b>7.089.964,6551</b>	7.089.964,4857	7.089.964,4689	7.089.964,4689	7.089.964,4000
Station: 18+10										
Dist. Eixo (m):		-6,555	-6,044	-4,398	-4,398	<b>0,000</b>	4,000	4,398	4,398	6,002
Cota (m):		11,887	12,227	11,935	11,639	<b>11,727</b>	11,647	11,639	11,935	11,967
E:		709.407,0758	709.406,5650	709.404,9209	709.404,9209	<b>709.400,5268</b>	709.396,5305	709.396,1329	709.396,1329	709.394,5298
N:		7.089.954,9415	7.089.954,9199	7.089.954,8502	7.089.954,8502	<b>7.089.954,6640</b>	7.089.954,4947	7.089.954,4778	7.089.954,4778	7.089.954,4099
Station: 19+0										
Dist. Eixo (m):		-9,217	-6,502	-6,502	-6,104	<b>0,000</b>	5,297	5,695	5,695	7,926
Cota (m):		12,095	11,781	11,485	11,493	<b>11,615</b>	11,509	11,501	11,797	11,842
E:		709.410,1586	709.407,4469	709.407,4469	709.407,0491	<b>709.400,9502</b>	709.395,6577	709.395,2601	709.395,2601	709.393,0309
N:		7.089.945,0632	7.089.944,9483	7.089.944,9483	7.089.944,9314	<b>7.089.944,6730</b>	7.089.944,4487	7.089.944,4319	7.089.944,4319	7.089.944,3374
Station: 19+2										
Dist. Eixo (m):		-12,507	-10,161	-10,161	-9,763	<b>0,000</b>	5,000	5,398	5,398	6,200
Cota (m):		11,989	11,683	11,387	11,395	<b>11,590</b>	11,490	11,482	11,778	11,794
E:		709.413,5422	709.411,1981	709.411,1981	709.410,8003	<b>709.401,0465</b>	709.396,0509	709.395,6533	709.395,6533	709.394,8520
N:		7.089.942,9314	7.089.942,8320	7.089.942,8320	7.089.942,8152	<b>7.089.942,4018</b>	7.089.942,1902	7.089.942,1733	7.089.942,1733	7.089.942,1394

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA ORESTES GIRARDI**

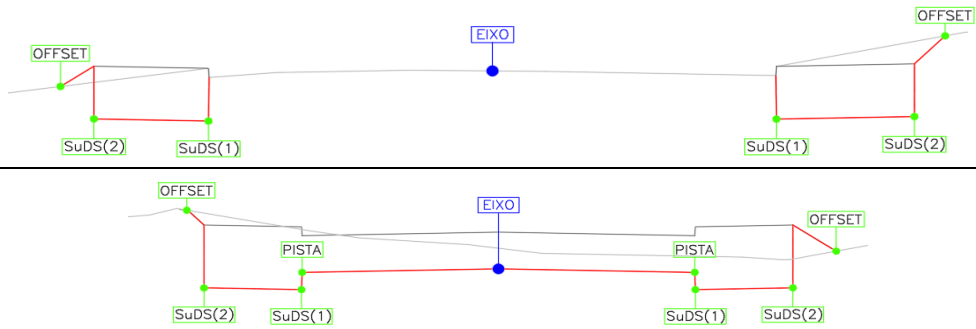
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-5,270	-4,413	-4,413	-4,041	<b>0,000</b>	5,290				
Cota (m):		16,642	16,625	16,349	16,356	16,430	16,720				
E:		709.298,6155	709.297,7594	709.297,7594	709.297,3876	709.293,3522	709.288,0692				
N:		7.090.568,6589	7.090.568,6149	7.090.568,6149	7.090.568,5958	7.090.568,3883	7.090.568,1166				
<b>Station: 0+10</b>											
Dist. Eixo (m):		-4,895	-3,781	-3,781	-3,383	<b>0,000</b>	3,381	3,779	3,779	4,914	
Cota (m):		17,010	16,988	16,692	16,700	16,768	16,700	16,692	16,988	17,011	
E:		709.298,7525	709.297,6400	709.297,6400	709.297,2424	709.293,8640	709.290,4876	709.290,0902	709.290,0902	709.288,9568	
N:		7.090.558,6875	7.090.558,6303	7.090.558,6303	7.090.558,6099	7.090.558,4361	7.090.558,2625	7.090.558,2421	7.090.558,2421	7.090.558,1838	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-4,756	-3,651	-3,651	-3,252	<b>0,000</b>	3,251	3,648	3,648	4,813	
Cota (m):		17,360	17,338	17,042	17,050	17,115	17,050	17,042	17,338	17,361	
E:		709.299,1276	709.298,0233	709.298,0233	709.297,6257	709.294,3776	709.291,1314	709.290,7340	709.290,7340	709.289,5706	
N:		7.090.548,6936	7.090.548,6368	7.090.548,6368	7.090.548,6164	7.090.548,4493	7.090.548,2824	7.090.548,2619	7.090.548,2619	7.090.548,2021	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-4,548	-3,520	-3,520	-3,122	<b>0,000</b>	3,120	3,518	3,518	4,658	
Cota (m):		17,869	17,848	17,552	17,560	17,622	17,560	17,552	17,847	17,870	
E:		709.299,4333	709.298,4066	709.298,4066	709.298,0090	709.294,812	709.291,7751	709.291,3777	709.291,3777	709.290,2398	
N:		7.090.538,6961	7.090.538,6433	7.090.538,6433	7.090.538,6229	7.090.538,4625	7.090.538,3023	7.090.538,2818	7.090.538,2818	7.090.538,2233	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-4,337	-3,310	-3,310	-2,911	<b>0,000</b>	2,910	3,388	3,388	4,453	
Cota (m):		18,874	18,586	18,568	18,272	18,340	18,280	18,272	18,568	18,589	
E:		709.299,7361	709.299,7089	709.298,7899	709.298,7899	709.295,4048	709.292,4189	709.292,0214	709.292,0214	709.290,9572	
N:		7.090.528,6985	7.090.528,6971	7.090.528,6498	7.090.528,6498	7.090.528,4757	7.090.528,3222	7.090.528,3017	7.090.528,3017	7.090.528,2470	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-4,776	-4,227	-3,259	-3,259	-2,861	<b>0,000</b>	2,860	3,258	3,258	4,299
Cota (m):		19,260	19,366	19,347	19,051	19,059	19,059	19,051	19,347	19,368	
E:		709.300,6885	709.300,1401	709.299,1732	709.299,1732	709.298,7756	709.293,0626	709.292,6652	709.292,6652	709.291,6250	
N:		7.090.518,7342	7.090.518,7060	7.090.518,6563	7.090.518,6563	7.090.518,6359	7.090.518,3421	7.090.518,3216	7.090.518,3216	7.090.518,2681	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-4,114	-3,129	-3,129	-2,730	<b>0,000</b>	2,729	3,127	3,127	4,201	
Cota (m):		20,146	20,126	19,830	19,838	19,893	19,838	19,830	20,126	20,147	
E:		709.300,5411	709.299,5565	709.299,5565	709.299,1588	709.296,4320	709.293,7064	709.293,3089	709.293,3089	709.292,2364	
N:		7.090.508,7134	7.090.508,6628	7.090.508,6628	7.090.508,6424	7.090.508,5021	7.090.508,3619	7.090.508,3415	7.090.508,3415	7.090.508,2863	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-3,931	-2,998	-2,998	-2,600	<b>0,000</b>	2,599	2,997	2,997	3,814	
Cota (m):		20,924	20,905	20,609	20,617	20,669	20,617	20,609	20,905	20,921	
E:		709.300,8714	709.299,9398	709.299,9398	709.299,5421	709.296,9456	709.294,3501	709.293,9527	709.293,9527	709.293,1368	
N:		7.090.498,7172	7.090.498,6693	7.090.498,6693	7.090.498,6489	7.090.498,5153	7.090.498,3818	7.090.498,3614	7.090.498,3614	7.090.498,3194	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-3,901	-3,742	-2,868	-2,868	-2,469	<b>0,000</b>	2,469	2,867	2,867	3,947
Cota (m):		21,840	21,686	21,669	21,373	21,381	21,381	21,373	21,668	21,690	
E:		709.301,3555	709.301,1959	709.300,3230	709.300,3230	709.299,9254	709.294,9939	709.294,5964	709.294,5964	709.293,5176	
N:		7.090.488,7289	7.090.488,7207	7.090.488,6758	7.090.488,6758	7.090.488,6553	7.090.488,4017	7.090.488,3813	7.090.488,3813	7.090.488,3258	
<b>Station: 4+7</b>											
Dist. Eixo (m):		-3,743	-3,573	-2,771	-2,771	-2,373	<b>0,000</b>	2,372	2,770	2,770	3,572
Cota (m):		22,283	22,136	22,120	21,825	21,833	21,833	21,825	22,120	22,136	
E:		709.301,5767	709.301,4071	709.300,6061	709.300,6061	709.300,2084	709.295,4692	709.295,0718	709.295,0718	709.294,2708	
N:		7.090.481,3465	7.090.481,3378	7.090.481,2966	7.090.481,2966	7.090.481,2761	7.090.481,0324	7.090.481,0119	7.090.481,0119	7.090.480,9708	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PAULINO DE JESUS**

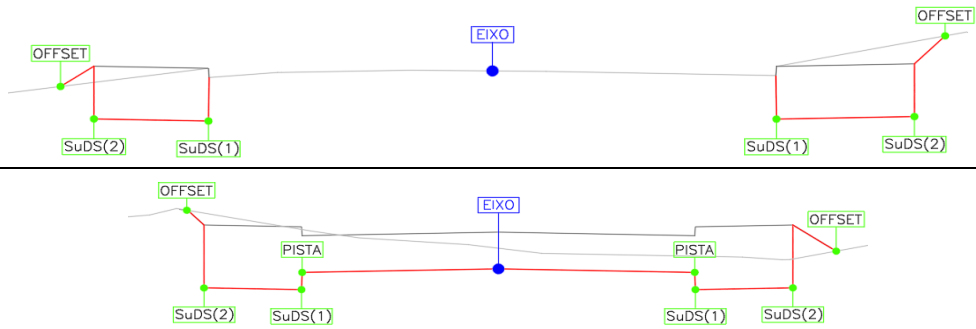
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist. Eixo (m):		-11,067	-10,484		<b>0,000</b>		5,010	6,200	
Cota (m):		11,728	11,717				11,826	11,850	
E:		709.660,2420	709.660,2594		709.660,5741		709.660,7244	709.660,7601	
N:		7.090.032,7701	7.090.032,1875		7.090.021,7081		7.090.016,7003	7.090.015,5109	
<b>Station: 0+10</b>									
Dist. Eixo (m):		-7,661	-4,807		<b>0,000</b>		5,095	8,234	
Cota (m):		11,802	11,745				11,739	11,802	
E:		709.670,3397	709.670,4253		709.670,5696		709.670,7225	709.670,8167	
N:		7.090.029,6659	7.090.026,8134		7.090.022,0082		7.090.016,9151	7.090.013,7781	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-7,736	-4,793		<b>0,000</b>		5,103	8,183	
Cota (m):		11,771	11,713				11,706	11,768	
E:		709.680,3329	709.680,4212		709.680,5651		709.680,7182	709.680,8106	
N:		7.090.030,0407	7.090.027,0989		7.090.022,3083		7.090.017,2080	7.090.014,1292	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-7,711	-4,779		<b>0,000</b>		5,110	8,131	
Cota (m):		11,736	11,678				11,671	11,731	
E:		709.690,3292	709.690,4171		709.690,5606		709.690,7139	709.690,8046	
N:		7.090.030,3160	7.090.027,3853		7.090.022,6084		7.090.017,5009	7.090.014,4811	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-7,686	-4,777		<b>0,000</b>		5,117	8,000	
Cota (m):		11,683	11,625				11,618	11,675	
E:		709.700,3254	709.700,4127		709.700,5561		709.700,7096	709.700,7962	
N:		7.090.030,5913	7.090.027,6836		7.090.022,9085		7.090.017,7938	7.090.014,9120	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-7,676	-4,775		<b>0,000</b>		5,124	7,934	
Cota (m):		11,599	11,541				11,534	11,590	
E:		709.710,3212	709.710,4082		709.710,5516		709.710,7053	709.710,7897	
N:		7.090.030,8815	7.090.027,9819		7.090.023,2086		7.090.018,0867	7.090.015,2785	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-7,728	-4,774		<b>0,000</b>		5,135	7,953	
Cota (m):		11,516	11,457				11,450	11,507	
E:		709.720,3151	709.720,4038		709.720,5471		709.720,7012	709.720,7857	
N:		7.090.031,2334	7.090.028,2802		7.090.023,5087		7.090.018,3758	7.090.015,5590	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-7,187	-4,772		<b>0,000</b>		5,147	7,970	
Cota (m):		11,428	11,379				11,372	11,428	
E:		709.730,3269	709.730,3993		709.730,5426		709.730,6970	709.730,7817	
N:		7.090.030,9922	7.090.028,5785		7.090.023,8088		7.090.018,6646	7.090.015,8425	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-6,875	-4,775		<b>0,000</b>		5,158	7,965	
Cota (m):		11,325	11,283				11,276	11,332	
E:		709.740,3317	709.740,3948		709.740,5380		709.740,6928	709.740,7771	
N:		7.090.030,9808	7.090.028,8816		7.090.024,1089		7.090.018,9534	7.090.016,1474	
<b>Station: 4+10</b>									
Dist. Eixo (m):		-6,856	-4,792		<b>0,000</b>		5,169	7,961	
Cota (m):		11,243	11,202				11,194	11,250	
E:		709.750,3278	709.750,3897		709.750,5335		709.750,6887	709.750,7725	
N:		7.090.031,2620	7.090.029,1994		7.090.024,4090		7.090.019,2423	7.090.016,4513	
<b>Station: 5+0</b>									
Dist. Eixo (m):		-6,976	-4,810		<b>0,000</b>		5,152	7,937	
Cota (m):		11,148	11,104				11,098	11,153	
E:		709.760,3197	709.760,3847		709.760,5290		709.760,6837	709.760,7672	
N:		7.090.031,6817	7.090.029,5171		7.090.024,7091		7.090.019,5595	7.090.016,7757	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA PAULINO DE JESUS**

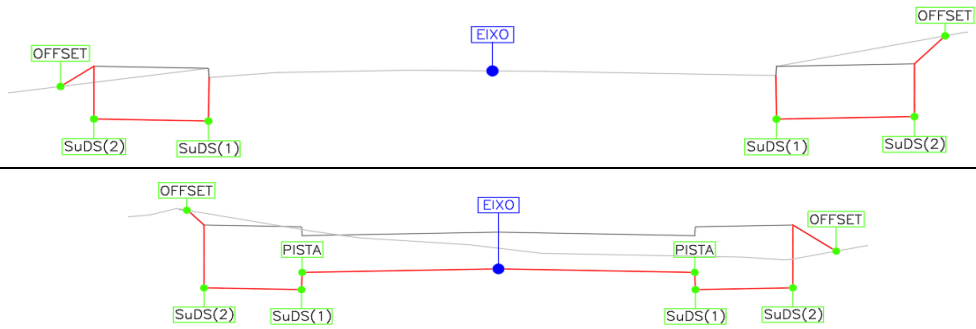
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>									
Dist. Eixo (m):		-6,922	-4,828		<b>0,000</b>		5,124	7,970	
Cota (m):		11,056	11,014				11,009	11,065	
E:		709.770,3168	709.770,3796		709.770,5245		709.770,6783	709.770,7637	
N:		7.090.031,9277	7.090.029,8349		7.090.025,0092		7.090.019,8880	7.090.017,0432	
<b>Station: 6+0</b>									
Dist. Eixo (m):		-6,938	-4,851		<b>0,000</b>		5,095	7,992	
Cota (m):		11,037	10,996				10,991	11,049	
E:		709.780,3118	709.780,3745		709.780,5200		709.780,6729	709.780,7599	
N:		7.090.032,2441	7.090.030,1581		7.090.025,3093		7.090.020,2166	7.090.017,3210	
<b>Station: 6+10</b>									
Dist. Eixo (m):		-6,903	-4,882		<b>0,000</b>		5,067	8,060	
Cota (m):		11,017	10,976				10,973	11,033	
E:		709.790,3084	709.790,3690		709.790,5155		709.790,6676	709.790,7574	
N:		7.090.032,5094	7.090.030,4895		7.090.025,6095		7.090.020,5443	7.090.017,5533	
<b>Station: 7+0</b>									
Dist. Eixo (m):		-6,765	-4,914		<b>0,000</b>		5,040	8,041	
Cota (m):		11,000	10,963				10,961	11,021	
E:		709.800,3080	709.800,3636		709.800,5110		709.800,6623	709.800,7523	
N:		7.090.032,6718	7.090.030,8210		7.090.025,9096		7.090.020,8721	7.090.017,8720	
<b>Station: 7+10</b>									
Dist. Eixo (m):		-6,804	-4,945		<b>0,000</b>		5,024	7,878	
Cota (m):		10,989	10,952				10,951	11,008	
E:		709.810,3023	709.810,3581		709.810,5065		709.810,6573	709.810,7429	
N:		7.090.033,0103	7.090.031,1524		7.090.026,2097		7.090.021,1880	7.090.018,3354	
<b>Station: 8+0</b>									
Dist. Eixo (m):		-6,891	-4,976		<b>0,000</b>		5,016	7,869	
Cota (m):		10,916	10,878				10,877	10,934	
E:		709.820,2952	709.820,3527		709.820,5020		709.820,6526	709.820,7382	
N:		7.090.033,3979	7.090.031,4839		7.090.026,5098		7.090.021,4956	7.090.018,6444	
<b>Station: 8+10</b>									
Dist. Eixo (m):		-6,969	-4,995		<b>0,000</b>		5,009	7,920	
Cota (m):		10,827	10,787				10,787	10,845	
E:		709.830,2884	709.830,3476		709.830,4975		709.830,6478	709.830,7352	
N:		7.090.033,7755	7.090.031,8030		7.090.026,8099		7.090.021,8032	7.090.018,8929	
<b>Station: 9+0</b>									
Dist. Eixo (m):		-7,172	-5,010		<b>0,000</b>		5,001	7,964	
Cota (m):		10,774	10,730				10,731	10,790	
E:		709.840,2778	709.840,3427		709.840,4930		709.840,6431	709.840,7320	
N:		7.090.034,2790	7.090.032,1178		7.090.027,1100		7.090.022,1108	7.090.019,1495	
<b>Station: 10+2</b>									
Dist. Eixo (m):		-12,977	-12,611	-12,604	<b>0,000</b>	12,716	12,726	13,064	
Cota (m):		10,589	10,582	10,595	10,637	10,477	10,457	10,463	
E:		709.862,2253	709.862,2370	709.862,2372	709.862,6401	709.863,0466	709.863,0469	709.863,0577	
N:		7.090.040,7692	7.090.040,4032	7.090.040,3965	7.090.027,7986	7.090.015,0894	7.090.015,0794	7.090.014,7412	
<b>Station: 10+10</b>									
Dist. Eixo (m):		-7,508	-5,010	-5,000	<b>0,000</b>	5,004	5,014	7,809	
Cota (m):		10,413	10,363	10,383	10,483	10,382	10,362	10,418	
E:		709.870,2383	709.870,3181	709.870,3184	709.870,4783	709.870,6382	709.870,6386	709.870,7279	
N:		7.090.035,5531	7.090.033,0572	7.090.033,0472	7.090.028,0493	7.090.023,0480	7.090.023,0380	7.090.020,2448	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-7,494	-5,125	-5,115	<b>0,000</b>	4,886	4,896	7,448	
Cota (m):		10,272	10,225	10,245	10,347	10,249	10,229	10,280	
E:		709.880,2336	709.880,3093	709.880,3097	709.880,4732	709.880,6294	709.880,6297	709.880,7113	
N:		7.090.035,8587	7.090.033,4913	7.090.033,4813	7.090.028,3690	7.090.023,4857	7.090.023,4757	7.090.020,9245	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PAULINO DE JESUS**

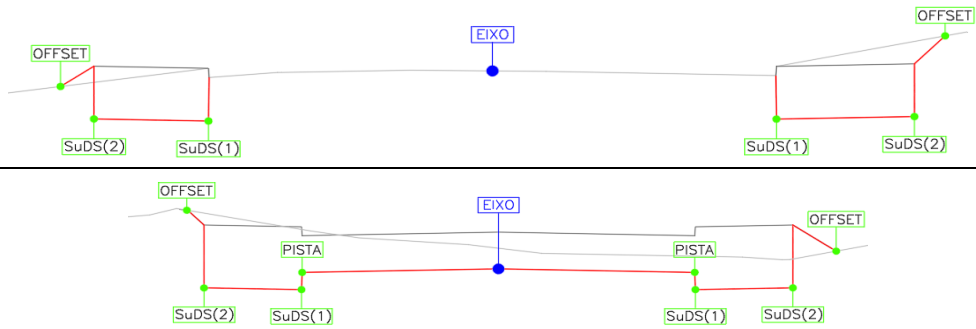
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 11+10</b>									
Dist. Eixo (m):		-7,622	-5,243	-5,233	<b>0,000</b>	4,768	4,778	7,366	
Cota (m):		10,222	10,175	10,195	<b>10,299</b>	10,204	10,184	10,236	
E:		709.890,2244	709.890,3005	709.890,3008	<b>709.890,4681</b>	709.890,6205	709.890,6208	709.890,7035	
N:		7.090.036,3064	7.090.033,9290	7.090.033,9190	<b>7.090.028,6887</b>	7.090.023,9234	7.090.023,9134	7.090.021,3262	
<b>Station: 12+0</b>									
Dist. Eixo (m):		-7,747	-5,333	-5,323	<b>0,000</b>	4,675	4,685	7,371	
Cota (m):		10,201	10,153	10,173	<b>10,280</b>	10,186	10,166	10,220	
E:		709.900,2153	709.900,2925	709.900,2928	<b>709.900,4630</b>	709.900,6124	709.900,6127	709.900,6986	
N:		7.090.037,7514	7.090.034,3383	7.090.034,3283	<b>7.090.029,0083</b>	7.090.024,3353	7.090.024,3253	7.090.021,6413	
<b>Station: 12+10</b>									
Dist. Eixo (m):		-7,828	-5,226	-5,216	<b>0,000</b>	4,783	4,793	7,408	
Cota (m):		10,187	10,135	10,155	<b>10,260</b>	10,164	10,144	10,196	
E:		709.910,2076	709.910,2908	709.910,2911	<b>709.910,4578</b>	709.910,6107	709.910,6111	709.910,6947	
N:		7.090.037,1515	7.090.034,5509	7.090.034,5409	<b>7.090.029,3280</b>	7.090.024,5472	7.090.024,5372	7.090.021,9235	
<b>Station: 13+0</b>									
Dist. Eixo (m):		-7,908	-5,118	-5,108	<b>0,000</b>	4,891	4,901	7,497	
Cota (m):		10,173	10,117	10,137	<b>10,240</b>	10,142	10,122	10,174	
E:		709.920,1999	709.920,2891	709.920,2894	<b>709.920,4527</b>	709.920,6091	709.920,6094	709.920,6924	
N:		7.090.037,5516	7.090.034,7635	7.090.034,7535	<b>7.090.029,6477</b>	7.090.024,7592	7.090.024,7492	7.090.022,1546	
<b>Station: 13+10</b>									
Dist. Eixo (m):		-8,053	-5,032	-5,022	<b>0,000</b>	4,978	4,988	7,481	
Cota (m):		10,160	10,099	10,119	<b>10,220</b>	10,120	10,100	10,150	
E:		709.930,1902	709.930,2868	709.930,2871	<b>709.930,4476</b>	709.930,6067	709.930,6071	709.930,6868	
N:		7.090.038,0163	7.090.034,9969	7.090.034,9869	<b>7.090.029,9673</b>	7.090.024,9920	7.090.024,9820	7.090.022,4899	
<b>Station: 14+0</b>									
Dist. Eixo (m):		-8,156	-5,030	-5,020	<b>0,000</b>	4,980	4,990	7,599	
Cota (m):		10,142	10,079	10,099	<b>10,200</b>	10,100	10,080	10,132	
E:		709.940,1818	709.940,2817	709.940,2820	<b>709.940,4425</b>	709.940,6017	709.940,6020	709.940,6854	
N:		7.090.038,4386	7.090.035,3142	7.090.035,3042	<b>7.090.030,2870</b>	7.090.025,3094	7.090.025,2994	7.090.022,6921	
<b>Station: 14+10</b>									
Dist. Eixo (m):		-8,148	-5,028	-5,018	<b>0,000</b>	4,982	4,992	7,785	
Cota (m):		10,122	10,059	10,079	<b>10,180</b>	10,080	10,060	10,116	
E:		709.950,1769	709.950,2767	709.950,2770	<b>709.950,4374</b>	709.950,5967	709.950,5970	709.950,6862	
N:		7.090.038,7506	7.090.035,6316	7.090.035,6216	<b>7.090.030,6066</b>	7.090.025,6267	7.090.025,6167	7.090.022,8260	
<b>Station: 15+0</b>									
Dist. Eixo (m):		-8,140	-5,025	-5,015	<b>0,000</b>	4,985	4,995	7,785	
Cota (m):		10,102	10,039	10,059	<b>10,160</b>	10,060	10,040	10,096	
E:		709.960,1721	709.960,2716	709.960,2720	<b>709.960,4323</b>	709.960,5916	709.960,5920	709.960,6811	
N:		7.090.039,0626	7.090.035,9490	7.090.035,9390	<b>7.090.030,9263</b>	7.090.025,9441	7.090.025,9341	7.090.023,1454	
<b>Station: 15+10</b>									
Dist. Eixo (m):		-8,116	-5,023	-5,013	<b>0,000</b>	4,987	4,997	7,802	
Cota (m):		10,081	10,019	10,039	<b>10,140</b>	10,040	10,020	10,076	
E:		709.970,1677	709.970,2666	709.970,2669	<b>709.970,4272</b>	709.970,5866	709.970,5869	709.970,6766	
N:		7.090.039,3577	7.090.036,2664	7.090.036,2564	<b>7.090.031,2460</b>	7.090.026,2615	7.090.026,2515	7.090.023,4480	
<b>Station: 16+0</b>									
Dist. Eixo (m):		-8,151	-5,021	-5,011	<b>0,000</b>	4,989	4,999	7,696	
Cota (m):		10,062	9,999	10,019	<b>10,120</b>	10,020	10,000	10,054	
E:		709.980,1615	709.980,2616	709.980,2619	<b>709.980,4221</b>	709.980,5816	709.980,5819	709.980,6681	
N:		7.090.039,7123	7.090.036,5838	7.090.036,5738	<b>7.090.031,5656</b>	7.090.026,5789	7.090.026,5689	7.090.023,8739	
<b>Station: 16+10</b>									
Dist. Eixo (m):		-8,198	-5,018	-5,008	<b>0,000</b>	4,992	5,002	7,546	
Cota (m):		10,043	9,980	10,000	<b>10,100</b>	10,000	9,980	10,031	
E:		709.990,1549	709.990,2565	709.990,2569	<b>709.990,4170</b>	709.990,5765	709.990,5768	709.990,6582	
N:		7.090.040,0793	7.090.036,9011	7.090.036,8911	<b>7.090.031,8853</b>	7.090.026,8963	7.090.026,8863	7.090.024,3434	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PAULINO DE JESUS**

Desenho Esquemático:

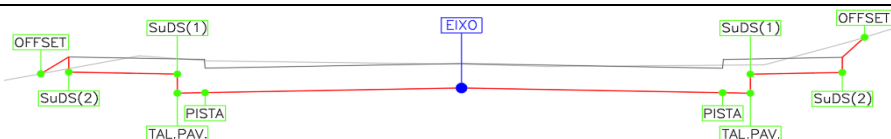


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 17+0</b>									
Dist. Eixo (m):		-8,076	-5,016	-5,006	<b>0,000</b>	4,994	5,004	7,577	
Cota (m):		10,021	9,960	9,980	<b>10,080</b>	9,980	9,960	10,011	
E:		710.000,1537	710.000,2515	710.000,2518	<b>710.000,4118</b>	710.000,5715	710.000,5718	710.000,6540	
N:		7.090.040,2771	7.090.037,2185	7.090.037,2085	<b>7.090.032,2050</b>	7.090.027,2136	7.090.027,2036	7.090.024,6323	
<b>Station: 17+10</b>									
Dist. Eixo (m):		-7,974	-5,014	-5,004	<b>0,000</b>	4,996	5,006	7,502	
Cota (m):		9,999	9,940	9,960	<b>10,060</b>	9,960	9,940	9,990	
E:		710.010,1518	710.010,2465	710.010,2468	<b>710.010,4067</b>	710.010,5664	710.010,5668	710.010,6466	
N:		7.090.040,4944	7.090.037,5359	7.090.037,5259	<b>7.090.032,5246</b>	7.090.027,5310	7.090.027,5210	7.090.025,0262	
<b>Station: 18+0</b>									
Dist. Eixo (m):		-8,017	-5,012	-5,002	<b>0,000</b>	4,998	5,008	7,388	
Cota (m):		10,007	9,947	9,967	<b>10,067</b>	9,967	9,947	9,994	
E:		710.020,1454	710.020,2414	710.020,2417	<b>710.020,4016</b>	710.020,5614	710.020,5617	710.020,6378	
N:		7.090.040,8568	7.090.037,8533	7.090.037,8433	<b>7.090.032,8443</b>	7.090.027,8484	7.090.027,8384	7.090.025,4605	
<b>Station: 18+6</b>									
Dist. Eixo (m):		-8,046	-5,010	-5,000	<b>0,000</b>	5,000	5,010		
Cota (m):		10,637	10,016	10,036	<b>10,136</b>	10,036	10,016		
E:		710.026,9182	710.027,0152	710.027,0155	<b>710.027,1753</b>	710.027,3352	710.027,3355		
N:		7.090.041,1025	7.090.038,0684	7.090.038,0584	<b>7.090.033,0609</b>	7.090.028,0635	7.090.028,0535		



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

Desenho Esquemático:

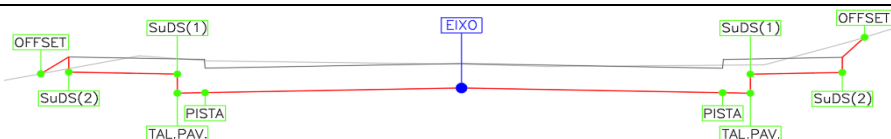


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>											
Dist. Eixo (m):	-8,315	-7,943	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	7,957	
Cota (m):	11,043	10,671	10,360	10,064	10,072	<b>10,172</b>	10,072	10,064	10,360	10,411	
E:	709.859,2815	709.858,9098	709.856,3658	709.856,3658	709.855,9679	<b>709.850,9700</b>	709.845,9721	709.845,5744	709.845,5744	709.843,0167	
N:	7.090.241,2351	7.090.241,2242	7.090.241,1495	7.090.241,1495	7.090.241,1379	<b>7.090.240,9912</b>	7.090.240,8446	7.090.240,8329	7.090.240,8329	7.090.240,7579	
<b>Station: 1+0</b>											
Dist. Eixo (m):	-8,021	-7,879	-5,163	-5,163	-4,765	<b>0,000</b>	5,000	5,398	5,398	8,106	
Cota (m):	10,936	10,795	10,480	10,185	10,193	<b>10,288</b>	10,188	10,180	10,476	10,530	
E:	709.859,2805	709.859,1390	709.856,4242	709.856,4242	709.856,0262	<b>709.851,2633</b>	709.846,2653	709.845,8675	709.845,8675	709.843,1607	
N:	7.090.231,2307	7.090.231,2266	7.090.231,1469	7.090.231,1469	7.090.231,1353	<b>7.090.230,9955</b>	7.090.230,8489	7.090.230,8372	7.090.230,8372	7.090.230,7578	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,813	-5,225	-5,225	-4,827	<b>0,000</b>	5,000	5,398	5,398	8,124	
Cota (m):		10,890	10,578	10,282	10,290	<b>10,387</b>	10,287	10,279	10,574	10,629	
E:		709.859,3666	709.856,7791	709.856,7791	709.856,3811	<b>709.851,5565</b>	709.846,5585	709.846,1607	709.846,1607	709.843,4358	
N:		7.090.221,2290	7.090.221,1530	7.090.221,1530	7.090.221,1414	<b>7.090.220,9998</b>	7.090.220,8532	7.090.220,8415	7.090.220,8415	7.090.220,7616	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,736	-5,286	-5,286	-4,888	<b>0,000</b>	5,000	5,398	5,398	8,072	
Cota (m):		10,692	10,643	10,347	10,355	<b>10,453</b>	10,353	10,345	10,641	10,694	
E:		709.859,5819	709.857,1340	709.857,1340	709.856,7360	<b>709.851,8498</b>	709.846,8517	709.846,4539	709.846,4539	709.843,7810	
N:		7.090.211,2310	7.090.211,1592	7.090.211,1592	7.090.211,1475	<b>7.090.211,0041</b>	7.090.210,8575	7.090.210,8458	7.090.210,8458	7.090.210,7674	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,737	-5,348	-5,348	-4,950	<b>0,000</b>	5,000	5,398	5,398	7,988	
Cota (m):		10,737	10,691	10,395	10,403	<b>10,502</b>	10,402	10,394	10,690	10,742	
E:		709.859,8149	709.857,4889	709.857,4889	709.857,0909	<b>709.852,1430</b>	709.847,1448	709.846,7470	709.846,7470	709.844,1586	
N:		7.090.201,2335	7.090.201,1653	7.090.201,1653	7.090.201,1536	<b>7.090.201,0084</b>	7.090.200,8618	7.090.200,8501	7.090.200,8501	7.090.200,7742	
<b>Station: 2+17</b>											
Dist. Eixo (m):					-4,999	<b>0,000</b>	5,000	5,398	5,398	7,984	
Cota (m):					10,442	<b>10,542</b>	10,442	10,434	10,729	10,781	
E:					709.857,3741	<b>709.852,3770</b>	709.847,3788	709.846,9810	709.846,9810	709.844,3960	
N:					7.090.193,1784	<b>7.090.193,0318</b>	7.090.192,8851	7.090.192,8735	7.090.192,8735	7.090.192,7976	
<b>Station: 3+0</b>											
Dist. Eixo (m):					-5,031	<b>0,000</b>	5,304	5,702	5,702	8,595	
Cota (m):					10,451	<b>10,552</b>	10,446	10,438	10,733	10,791	
E:					709.857,4426	<b>709.852,4122</b>	709.847,1086	709.846,7107	709.846,7107	709.843,8182	
N:					7.090.191,0999	<b>7.090.191,0122</b>	7.090.190,9197	7.090.190,9127	7.090.190,9127	7.090.190,8623	
<b>Station: 3+10</b>											
Dist. Eixo (m):					-5,185	<b>0,000</b>	8,056				
Cota (m):					10,497	<b>10,601</b>	10,440				
E:					709.857,7704	<b>709.852,5866</b>	709.844,5321				
N:					7.090.181,1041	<b>7.090.181,0137</b>	7.090.180,8732				
<b>Station: 4+0</b>											
Dist. Eixo (m):					-5,338	<b>0,000</b>	7,114	7,512	7,512	11,112	
Cota (m):					10,544	<b>10,651</b>	10,508	10,500	10,796	10,888	
E:					709.858,0982	<b>709.852,7610</b>	709.845,6483	709.845,2504	709.845,2504	709.841,6511	
N:					7.090.171,1083	<b>7.090.171,0152</b>	7.090.170,8912	7.090.170,8842	7.090.170,8842	7.090.170,8215	
<b>Station: 4+4</b>											
Dist. Eixo (m):		-7,742	-5,398	-5,398	-4,999	<b>0,000</b>	5,018	5,416	5,416	7,830	
Cota (m):		10,906	10,859	10,563	10,571	<b>10,671</b>	10,571	10,563	10,859	10,907	
E:		709.860,5730	709.858,2292	709.858,2292	709.857,8311	<b>709.852,8321</b>	709.847,8153	709.847,4174	709.847,4174	709.845,0037	
N:		7.090.167,0685	7.090.167,0276	7.090.167,0276	7.090.167,0207	<b>7.090.166,9335</b>	7.090.166,8460	7.090.166,8391	7.090.166,8391	7.090.166,7970	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-7,680	-5,397	-5,397	-4,999	<b>0,000</b>	5,001	5,399	5,399	7,658	
Cota (m):		10,934	10,888	10,592	10,600	<b>10,700</b>	10,600	10,592	10,888	10,933	
E:		709.860,6772	709.858,3950	709.858,3950	709.857,9970	<b>709.853,0002</b>	709.848,0010	709.847,6032	709.847,6032	709.845,3450	
N:		7.090.161,2364	7.090.161,1715	7.090.161,1715	7.090.161,1602	<b>7.090.161,0182</b>	7.090.160,8761	7.090.160,8648	7.090.160,8648	7.090.160,8007	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-7,624	-5,396	-5,396	-4,998	<b>0,000</b>	5,002	5,400	5,400	7,580	
Cota (m):		10,982	10,938	10,642	10,650	<b>10,750</b>	10,650	10,642	10,937	10,981	
E:		709.860,9052	709.858,6779	709.858,6779	709.858,2799	<b>709.853,2843</b>	709.848,2839	709.847,8861	709.847,8861	709.845,7070	
N:		7.090.151,2388	7.090.151,1755	7.090.151,1755	7.090.151,1642	<b>7.090.151,0223</b>	7.090.150,8802	7.090.150,8688	7.090.150,8688	7.090.150,8069	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-7,571	-5,395	-5,395	-4,996	<b>0,000</b>	5,004	5,401	5,401	7,619	
Cota (m):		11,013	10,969	10,673	10,681	<b>10,781</b>	10,681	10,673	10,969	11,013	
E:		709.861,1364	709.858,9608	709.858,9608	709.858,5628	<b>709.853,5684</b>	709.848,5669	709.848,1691	709.848,1691	709.845,9528	
N:		7.090.141,2414	7.090.141,1795	7.090.141,1795	7.090.141,1682	<b>7.090.141,0263</b>	7.090.140,8842	7.090.140,8728	7.090.140,8728	7.090.140,8099	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-7,518	-5,393	-5,393	-4,995	<b>0,000</b>	5,005	5,403	5,403	7,545	
Cota (m):		11,007	10,964	10,669	10,677	<b>10,776</b>	10,676	10,668	10,964	11,007	
E:		709.861,3676	709.859,2437	709.859,2437	709.858,8457	<b>709.853,8524</b>	709.848,8498	709.848,4520	709.848,4520	709.846,3100	
N:		7.090.131,2439	7.090.131,1835	7.090.131,1835	7.090.131,1722	<b>7.090.131,0303</b>	7.090.130,8882	7.090.130,8769	7.090.130,8769	7.090.130,8160	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-7,465	-5,392	-5,392	-4,994	<b>0,000</b>	5,006	5,404	5,404	7,452	
Cota (m):		10,983	10,941	10,646	10,654	<b>10,754</b>	10,653	10,645	10,941	10,982	
E:		709.861,5989	709.859,5266	709.859,5266	709.859,1286	<b>709.854,1365</b>	709.849,1327	709.848,7349	709.848,7349	709.846,6878	
N:		7.090.121,2464	7.090.121,1875	7.090.121,1875	7.090.121,1762	<b>7.090.121,0344</b>	7.090.120,8922	7.090.120,8809	7.090.120,8809	7.090.120,8227	
<b>Station: 6+14</b>											
Dist. Eixo (m):		-7,440	-5,390	-5,390	-4,992	<b>0,000</b>	5,005	5,403	5,403	6,205	
Cota (m):		10,972	10,931	10,636	10,644	<b>10,743</b>	10,643	10,635	10,931	10,947	
E:		709.861,7020	709.859,6527	709.859,6527	709.859,2547	<b>709.854,2631</b>	709.849,2597	709.848,8619	709.848,8619	709.846,0602	
N:		7.090.116,7897	7.090.116,7314	7.090.116,7314	7.090.116,7201	<b>7.090.116,5783</b>	7.090.116,4361	7.090.116,4248	7.090.116,4248	7.090.116,4020	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

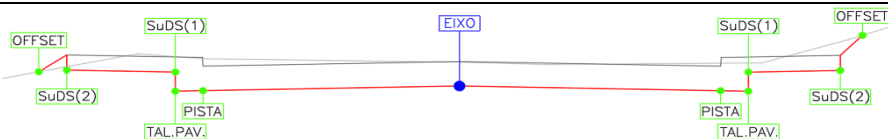
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+0</b>											
Dist. Eixo (m):					-5,320	<b>0,000</b>	5,093				
Cota (m):					10,624	10,731	10,629				
E:					709.859,8552	709.854,5423	709.849,4554				
N:					7.090.111,3111	7.090.111,0432	7.090.110,7867				
<b>Station: 7+10</b>											
Dist. Eixo (m):					-5,162	<b>0,000</b>	5,251				
Cota (m):					10,605	10,708	10,603				
E:					709.860,2016	709.855,0459	709.849,8018				
N:					7.090.101,3159	7.090.101,0559	7.090.100,7914				
<b>Station: 8+0</b>											
Dist. Eixo (m):					-5,005	<b>0,000</b>	4,998				
Cota (m):					10,585	10,685	10,585				
E:					709.860,5479	709.855,5495	709.850,5578				
N:					7.090.091,3206	7.090.091,0686	7.090.090,8168				
<b>Station: 8+10</b>											
Dist. Eixo (m):		-7,950	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,000	
Cota (m):		10,901	10,850	10,554	10,562	10,662	10,562	10,554	10,850	10,902	
E:		709.863,8290	709.861,2788	709.861,2788	709.860,8809	709.855,8836	709.850,8863	709.850,4886	709.850,4886	709.847,8883	
N:		7.090.081,3362	7.090.081,2521	7.090.081,2521	7.090.081,2390	7.090.081,0742	7.090.080,9094	7.090.080,8963	7.090.080,8963	7.090.080,8106	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-8,080	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,002	
Cota (m):		10,881	10,827	10,531	10,539	10,639	10,539	10,531	10,827	10,879	
E:		709.864,2885	709.861,6084	709.861,6084	709.861,2104	709.855,2132	709.851,2159	709.850,8181	709.850,8181	709.848,2154	
N:		7.090.071,3459	7.090.071,2575	7.090.071,2575	7.090.071,2444	7.090.071,0796	7.090.070,9148	7.090.070,9017	7.090.070,9017	7.090.070,8159	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-8,255	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,005	
Cota (m):		10,861	10,804	10,508	10,516	10,616	10,516	10,509	10,804	10,856	
E:		709.864,7936	709.861,9379	709.861,9379	709.861,5400	709.856,5427	709.851,5454	709.851,1477	709.851,1477	709.848,5425	
N:		7.090.061,3571	7.090.061,2630	7.090.061,2630	7.090.061,2498	7.090.061,0851	7.090.060,9203	7.090.060,9072	7.090.060,9072	7.090.060,8213	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-8,215	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,005	
Cota (m):		10,871	10,815	10,519	10,527	10,627	10,527	10,519	10,815	10,867	
E:		709.865,0831	709.862,2675	709.862,2675	709.861,8696	709.856,8723	709.851,8750	709.851,4773	709.851,4773	709.848,8716	
N:		7.090.051,3612	7.090.051,2684	7.090.051,2684	7.090.051,2553	7.090.051,0905	7.090.050,9257	7.090.050,9126	7.090.050,9126	7.090.050,8267	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-8,323	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,314	
Cota (m):		10,950	10,892	10,596	10,604	10,704	10,604	10,596	10,892	10,950	
E:		709.865,5208	709.862,5971	709.862,5971	709.862,1991	709.857,2018	709.852,2046	709.851,8068	709.851,8068	709.848,8921	
N:		7.090.041,3702	7.090.041,2738	7.090.041,2738	7.090.041,2607	7.090.041,0959	7.090.040,9311	7.090.040,9180	7.090.040,9180	7.090.040,8219	
<b>Station: 11+0</b>											
Dist. Eixo (m):					-5,003	<b>0,000</b>	12,996				
Cota (m):					10,651	10,751	10,498				
E:					709.862,5243	709.857,5235	709.844,5346				
N:					7.090.031,2618	7.090.031,1011	7.090.030,6836				
<b>Station: 11+10</b>											
Dist. Eixo (m):					-5,002	<b>0,000</b>	8,253	8,651	8,651	12,992	
Cota (m):					10,572	10,672	10,448	10,440	10,735	10,822	
E:					709.862,8440	709.857,8448	709.849,5961	709.849,1984	709.849,1984	709.844,8599	
N:					7.090.021,2670	7.090.021,1063	7.090.020,8411	7.090.020,8283	7.090.020,8283	7.090.020,6889	
<b>Station: 11+16</b>											
Dist. Eixo (m):					-5,001	<b>0,000</b>	5,000	5,398	5,398	7,937	8,110
Cota (m):					10,482	10,582	10,482	10,474	10,769	10,820	10,965
E:					709.863,0487	709.858,0505	709.853,0526	709.852,6549	709.852,6549	709.850,1177	709.849,9444
N:					7.090.014,8663	7.090.014,7056	7.090.014,5449	7.090.014,5322	7.090.014,5322	7.090.014,4506	7.090.014,4450
<b>Station: 12+0</b>											
Dist. Eixo (m):		-8,034	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	7,978	
Cota (m):		10,771	10,719	10,423	10,431	10,531	10,431	10,423	10,718	10,770	
E:		709.866,2203	709.863,5867	709.863,5867	709.863,1888	709.858,1930	709.853,1967	709.852,7990	709.852,7990	709.850,2216	
N:		7.090.011,4308	7.090.011,3263	7.090.011,3263	7.090.011,3105	7.090.011,1124	7.090.010,9142	7.090.010,8984	7.090.010,8984	7.090.010,7962	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-8,057	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,079	
Cota (m):		10,661	10,608	10,312	10,320	10,420	10,320	10,312	10,608	10,662	
E:		709.866,6400	709.863,9830	709.863,9830	709.863,5852	709.858,5893	709.853,5930	709.853,1954	709.853,1954	709.850,5169	
N:		7.090.001,4396	7.090.001,3342	7.090.001,3342	7.090.001,3184	7.090.001,1202	7.090.000,9221	7.090.000,9063	7.090.000,9063	7.090.000,8001	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-8,094	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,101	
Cota (m):		10,614	10,560	10,264	10,272	10,372	10,272	10,264	10,560	10,614	
E:		709.867,0735	709.864,3794	709.864,3794	709.863,9816	709.858,9856	709.853,9894	709.853,5918	709.853,5918	709.850,8908	
N:		7.089.991,4489	7.089.991,3420	7.089.991,3420	7.089.991,3262	7.089.991,1281	7.089.990,9299	7.089.990,9142	7.089.990,9142	7.089.990,8070	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-8,030	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,112	
Cota (m):		10,596	10,543	10,247	10,255	10,355	10,255	10,247	10,543	10,597	
E:		709.867,4059	709.864,7758	709.864,7758	709.864,3779	709.859,3820	709.854,3858	709.853,9881	709.853,9881	709.851,2759	
N:		7.089.981,4542	7.089.981,3499	7.089.981,3499	7.089.981,3341	7.089.981,1360	7.089.980,9378	7.089.980,9220	7.089.980,9220	7.089.980,8145	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-7,745	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	8,097	
Cota (m):		10,573	10,526	10,230	10,238	10,338	10,238	10,230	10,526	10,580	
E:		709.867,5172	709.865,1721	709.865,1721	709.864,7743	709.859,7783	709.854,7822	709.854,3845	709.854,3845	709.851,6878	
N:		7.089.971,4508	7.089.971,3577	7.089.971,3577	7.089.971,3420	7.089.971,1438	7.089.970,9457	7.089.970,9299	7.089.970,9299	7.089.970,8229	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

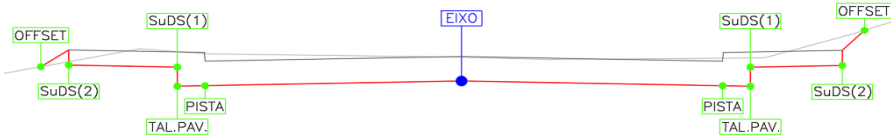
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 14+5</b>											
Dist. Eixo (m):		-7,785	-5,398	-5,398	-5,000	<b>0,000</b>	3,257	3,564	3,564	3,816	
Cota (m):		10,564	10,517	10,221	10,229	<b>10,329</b>	10,233	10,229	10,217	10,222	
E:		709.867,7812	709.865,3964	709.865,3964	709.864,9985	<b>709.860,0024</b>	709.856,7464	709.856,4398	709.856,4398	709.856,1881	
N:		7.089.965,8005	7.089.965,7059	7.089.965,7059	7.089.965,6901	<b>7.089.965,4919</b>	7.089.965,3628	7.089.965,3506	7.089.965,3506	7.089.965,3407	
<b>Station: 14+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,222	<b>10,322</b>	10,222				
E:					709.865,0504	<b>709.860,0507</b>	709.855,0510				
N:					7.089.961,2041	<b>7.089.961,1485</b>	7.089.961,0930				
<b>Station: 15+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,205	<b>10,305</b>	10,205				
E:					709.865,1614	<b>709.860,1617</b>	709.855,1621				
N:					7.089.951,2047	<b>7.089.951,1491</b>	7.089.951,0936				
<b>Station: 15+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,210	<b>10,310</b>	10,210				
E:					709.865,2725	<b>709.860,2728</b>	709.855,2731				
N:					7.089.941,2053	<b>7.089.941,1498</b>	7.089.941,0942				
<b>Station: 15+11</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,220	<b>10,320</b>	10,220				
E:					709.865,2958	<b>709.860,2944</b>	709.855,2947				
N:					7.089.939,2644	<b>7.089.939,2088</b>	7.089.939,1533				
<b>Station: 16+0</b>											
Dist. Eixo (m):		-7,873	-5,425	-5,425	-4,996	<b>0,000</b>	5,004	5,433	5,433	7,849	8,019
Cota (m):		10,630	10,581	10,254	10,263	<b>10,363</b>	10,262	10,254	10,581	10,629	10,776
E:		709.868,4620	709.866,0148	709.866,0148	709.865,5864	<b>709.860,5940</b>	709.855,5933	709.855,1650	709.855,1650	709.852,7503	709.852,5807
N:		7.089.931,4482	7.089.931,3571	7.089.931,3571	7.089.931,3412	<b>7.089.931,1554</b>	7.089.930,9694	7.089.930,9535	7.089.930,9535	7.089.930,8636	7.089.930,8573
<b>Station: 16+10</b>											
Dist. Eixo (m):		-7,895	-5,425	-5,425	-4,997	<b>0,000</b>	5,003	5,432	5,432	7,784	7,926
Cota (m):		10,770	10,720	10,393	10,402	<b>10,502</b>	10,402	10,393	10,720	10,767	10,932
E:		709.868,8552	709.866,3874	709.866,3874	709.865,9589	<b>709.860,9658</b>	709.855,9658	709.855,5375	709.855,5375	709.853,1873	709.853,0455
N:		7.089.921,4559	7.089.921,3641	7.089.921,3641	7.089.921,3481	<b>7.089.921,1624</b>	7.089.920,9763	7.089.920,9604	7.089.920,9604	7.089.920,8729	7.089.920,8677
<b>Station: 17+0</b>											
Dist. Eixo (m):		-7,872	-5,426	-5,426	-4,997	<b>0,000</b>	5,003	5,431	5,431	7,745	7,926
Cota (m):		10,907	10,862	10,534	10,543	<b>10,643</b>	10,543	10,535	10,862	10,908	11,088
E:		709.869,0044	709.866,7599	709.866,7599	709.866,3314	<b>709.861,3376</b>	709.856,3383	709.855,9101	709.855,9101	709.853,5984	709.853,4613
N:		7.089.911,4545	7.089.911,3710	7.089.911,3710	7.089.911,3551	<b>7.089.911,1693</b>	7.089.910,9833	7.089.910,9673	7.089.910,9673	7.089.910,8813	7.089.910,8751
<b>Station: 17+10</b>											
Dist. Eixo (m):		-7,724	-5,427	-5,427	-4,998	<b>0,000</b>	5,002	5,431	5,431	7,853	8,019
Cota (m):		11,040	10,994	10,667	10,676	<b>10,776</b>	10,676	10,667	10,995	11,043	11,209
E:		709.869,4277	709.867,1324	709.867,1324	709.866,7040	<b>709.861,7094</b>	709.856,7109	709.856,2826	709.856,2826	709.853,8614	709.853,7243
N:		7.089.901,4634	7.089.901,3780	7.089.901,3780	7.089.901,3620	<b>7.089.901,1762</b>	7.089.900,9902	7.089.900,9743	7.089.900,9743	7.089.900,8842	7.089.900,8780
<b>Station: 18+0</b>											
Dist. Eixo (m):		-7,825	-5,427	-5,427	-4,999	<b>0,000</b>	5,001	5,430	5,430	7,952	8,118
Cota (m):		11,066	11,018	10,691	10,700	<b>10,800</b>	10,700	10,691	11,019	11,069	11,235
E:		709.869,9013	709.867,5050	709.867,5050	709.867,0765	<b>709.862,0812</b>	709.857,0834	709.856,6551	709.856,6551	709.854,1352	709.854,0000
N:		7.089.891,4741	7.089.891,3849	7.089.891,3849	7.089.891,3690	<b>7.089.891,1831</b>	7.089.890,9972	7.089.890,9812	7.089.890,9812	7.089.890,8875	7.089.890,8813
<b>Station: 18+2</b>											
Dist. Eixo (m):					-4,999	<b>0,000</b>	5,001	5,430	5,430	7,970	8,136
Cota (m):					10,680	<b>10,780</b>	10,680	10,672	10,999	11,050	11,216
E:					709.867,1866	<b>709.862,1912</b>	709.857,1935	709.856,7653	709.856,7653	709.854,2269	709.854,0917
N:					7.089.888,4149	<b>7.089.888,2291</b>	7.089.888,0431	7.089.888,0272	7.089.888,0272	7.089.887,9327	7.089.887,8485
<b>Station: 18+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,625	<b>10,725</b>	10,625				
E:					709.867,5182	<b>709.862,5238</b>	709.857,5293				
N:					7.089.881,4291	<b>7.089.881,1930</b>	7.089.880,9569				
<b>Station: 19+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,492	<b>10,592</b>	10,492				
E:					709.867,9904	<b>709.862,9960</b>	709.858,0015				
N:					7.089.871,4403	<b>7.089.871,2042</b>	7.089.870,9681				
<b>Station: 19+9</b>											
Dist. Eixo (m):		-8,067	-5,431	-5,431	-5,002	<b>0,000</b>	5,000	5,428	5,428	7,824	7,990
Cota (m):		10,969	10,657	10,329	10,338	<b>10,438</b>	10,338	10,330	10,657	10,705	10,871
E:		709.871,4949	709.868,8613	709.868,8613	709.868,4331	<b>709.863,4365</b>	709.858,4400	709.858,0119	709.858,0119	709.855,6180	709.855,4828
N:		7.089.862,2654	7.089.862,1409	7.089.862,1409	7.089.862,1206	<b>7.089.861,8844</b>	7.089.861,6482	7.089.861,6280	7.089.861,6280	7.089.861,5148	7.089.861,5086
<b>Station: 19+10</b>											
Dist. Eixo (m):		-8,000	-5,429	-5,429	-5,000	<b>0,000</b>	5,000	5,429	5,429	7,825	7,991
Cota (m):		10,959	10,648	10,321	10,330	<b>10,430</b>	10,330	10,321	10,648	10,696	10,862
E:		709.871,4476	709.868,8766	709.868,8766	709.868,4479	<b>709.863,4490</b>	709.858,4497	709.858,0212	709.858,0212	709.855,6257	709.855,4905
N:		7.089.861,3638	7.089.861,3159	7.089.861,3159	7.089.861,3079	<b>7.089.861,2147</b>	7.089.861,1215	7.089.861,1135	7.089.861,1135	7.089.861,0688	7.089.861,0626
<b>Station: 20+0</b>											
Dist. Eixo (m):		-7,996	-5,425	-5,425	-4,996	<b>0,000</b>	5,004	5,432	5,432	7,845	8,011
Cota (m):		10,610	10,558	10,231	10,240	<b>10,340</b>	10,240	10,231	10,559	10,607	10,773
E:		709.871,6305	709.869,0597	709.869,0597	709.868,6310	<b>709.863,6354</b>	709.858,6327	709.858,2042	709.858,2042	709.855,7923	709.855,6571
N:		7.089.851,3655	7.089.851,3176	7.089.851,3176	7.089.851,3096	<b>7.089.851,2164</b>	7.089.851,1232	7.089.851,1152	7.089.851,1152	7.089.851,0702	7.089.851,0640

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

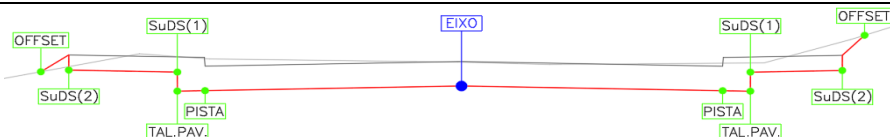
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 20+10</b>											
Dist. Eixo (m):	-8,115	-7,993	-5,422	-5,422	-4,993	<b>0,000</b>	5,007	5,435	5,435	7,942	
Cota (m):	10,800	10,881	10,570	10,242	10,251	<b>10,351</b>	10,251	10,242	10,569	10,619	
E:	709.871,9355	709.871,8137	709.869,2428	709.869,2428	709.868,8141	<b>709.863,8218</b>	709.858,8158	709.858,3873	709.858,3873	709.855,8816	
N:	7.089.841,3694	7.089.841,3672	7.089.841,3192	7.089.841,3192	7.089.841,3112	<b>7.089.841,2182</b>	7.089.841,1248	7.089.841,1168	7.089.841,1168	7.089.841,0701	
<b>Station: 21+0</b>											
Dist. Eixo (m):	-8,032	-7,990	-5,419	-5,419	-4,990	<b>0,000</b>	5,010	5,439	5,439	7,766	
Cota (m):	10,985	10,944	10,632	10,305	10,314	<b>10,413</b>	10,313	10,305	10,631	10,678	
E:	709.872,0384	709.871,9968	709.869,4258	709.869,4258	709.868,9971	<b>709.864,0082</b>	709.858,9989	709.858,5704	709.858,5704	709.856,2432	
N:	7.089.831,3696	7.089.831,3688	7.089.831,3209	7.089.831,3209	7.089.831,3129	<b>7.089.831,2199</b>	7.089.831,1265	7.089.831,1185	7.089.831,1185	7.089.831,0751	
<b>Station: 21+10</b>											
Dist. Eixo (m):	-7,986	-5,415	-5,415	-5,415	-4,986	<b>0,000</b>	5,014	5,442	5,442	7,582	
Cota (m):	10,648	10,596	10,269	10,269	10,278	<b>10,378</b>	10,277	10,269	10,595	10,638	
E:	709.872,1797	709.869,6089	709.869,6087	709.869,6087	709.869,1802	<b>709.864,1946</b>	709.859,1819	709.858,7534	709.858,7534	709.856,6143	
N:	7.089.821,3705	7.089.821,3226	7.089.821,3226	7.089.821,3226	7.089.821,3146	<b>7.089.821,2216</b>	7.089.821,1282	7.089.821,1202	7.089.821,1202	7.089.821,0803	
<b>Station: 21+18</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,168	<b>10,270</b>	10,171				
E:					709.869,3625	<b>709.864,3606</b>	709.859,3615				
N:					7.089.812,4123	<b>7.089.812,3191</b>	7.089.812,2259				
<b>Station: 22+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,149	<b>10,249</b>	10,149				
E:					709.869,4105	<b>709.864,4172</b>	709.859,4238				
N:					7.089.811,4826	<b>7.089.811,2246</b>	7.089.810,9667				
<b>Station: 22+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					9,962	<b>10,062</b>	9,962				
E:					709.869,9264	<b>709.864,9331</b>	709.859,9397				
N:					7.089.801,4959	<b>7.089.801,2380</b>	7.089.800,9800				
<b>Station: 23+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					9,862	<b>9,962</b>	9,862				
E:					709.870,4423	<b>709.865,4490</b>	709.860,4556				
N:					7.089.791,5092	<b>7.089.791,2513</b>	7.089.790,9933				
<b>Station: 23+4</b>											
Dist. Eixo (m):		-7,872	-5,400	-5,400	-5,002	<b>0,000</b>	4,998	5,398	5,398	7,933	
Cota (m):		10,197	10,147	9,852	9,860	<b>9,960</b>	9,860	9,852	10,147	10,198	
E:		709.873,5619	709.871,0937	709.871,0937	709.870,6961	<b>709.865,7005</b>	709.860,7071	709.860,3075	709.860,3075	709.857,7744	
N:		7.089.786,7886	7.089.786,6611	7.089.786,6611	7.089.786,6405	<b>7.089.786,3825</b>	7.089.786,1245	7.089.786,1039	7.089.786,1039	7.089.785,9730	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-7,889	-5,398	-5,398	-5,000	<b>0,000</b>	5,000	5,398	5,398	7,878	
Cota (m):		10,227	10,177	9,881	9,889	<b>9,989</b>	9,889	9,881	10,176	10,226	
E:		709.873,6996	709.871,2087	709.871,2087	709.870,8106	<b>709.865,8121</b>	709.860,8130	709.860,4151	709.860,4151	709.857,9357	
N:		7.089.781,4308	7.089.781,3765	7.089.781,3765	7.089.781,3679	<b>7.089.781,2590</b>	7.089.781,1501	7.089.781,1414	7.089.781,1414	7.089.781,0874	
<b>Station: 24+0</b>											
Dist. Eixo (m):		-7,960	-5,397	-5,397	-4,999	<b>0,000</b>	5,001	5,399	5,399	7,766	
Cota (m):		10,299	10,248	9,952	9,960	<b>10,060</b>	9,960	9,952	10,248	10,295	
E:		709.873,9880	709.871,4259	709.871,4259	709.871,0278	<b>709.866,0299</b>	709.861,0302	709.860,6324	709.860,6324	709.858,2657	
N:		7.089.771,4347	7.089.771,3789	7.089.771,3789	7.089.771,3702	<b>7.089.771,2614</b>	7.089.771,1524	7.089.771,1438	7.089.771,1438	7.089.771,0922	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-8,031	-5,397	-5,397	-4,999	<b>0,000</b>	5,001	5,399	5,399	7,654	
Cota (m):		10,372	10,319	10,023	10,031	<b>10,131</b>	10,031	10,023	10,319	10,364	
E:		709.874,2771	709.871,6431	709.871,6431	709.871,2451	<b>709.866,2476</b>	709.861,2474	709.860,8496	709.860,8496	709.858,5957	
N:		7.089.761,4386	7.089.761,3813	7.089.761,3813	7.089.761,3726	<b>7.089.761,2637</b>	7.089.761,1548	7.089.761,1461	7.089.761,1461	7.089.761,0970	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-8,173	-5,396	-5,396	-4,998	<b>0,000</b>	5,002	5,400	5,400	7,733	
Cota (m):		10,427	10,371	10,075	10,083	<b>10,183</b>	10,083	10,075	10,371	10,418	
E:		709.874,6367	709.871,8604	709.871,8604	709.871,4623	<b>709.866,4654</b>	709.861,4647	709.861,0668	709.861,0668	709.858,7343	
N:		7.089.751,4441	7.089.751,3836	7.089.751,3836	7.089.751,3749	<b>7.089.751,2661</b>	7.089.751,1572	7.089.751,1485	7.089.751,1485	7.089.751,0977	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-8,207	-5,396	-5,396	-4,998	<b>0,000</b>	5,002	5,400	5,400	7,884	
Cota (m):		10,436	10,380	10,084	10,092	<b>10,192</b>	10,092	10,084	10,379	10,429	
E:		709.874,8887	709.872,0776	709.872,0776	709.871,6795	<b>709.866,6832</b>	709.861,6819	709.861,2840	709.861,2840	709.858,8015	
N:		7.089.741,4472	7.089.741,3860	7.089.741,3860	7.089.741,3773	<b>7.089.741,2685</b>	7.089.741,1595	7.089.741,1509	7.089.741,1509	7.089.741,0968	
<b>Station: 25+15</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,084	<b>10,184</b>	10,084				
E:					709.871,7947	<b>709.866,7930</b>	709.861,7942				
N:					7.089.736,3378	<b>7.089.736,2289</b>	7.089.736,1200				
<b>Station: 26+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,076	<b>10,176</b>	10,076				
E:					709.872,0613	<b>709.867,0691</b>	709.862,0768				
N:					7.089.731,5557	<b>7.089.731,2774</b>	7.089.730,9990				
<b>Station: 26+10</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	5,000				
Cota (m):					10,080	<b>10,180</b>	10,080				
E:					709.872,6181	<b>709.867,6259</b>	709.862,6336				
N:					7.089.721,5713	<b>7.089.721,2929</b>	7.089.721,0145				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

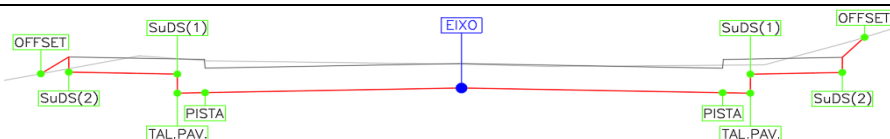
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 27+0</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					10,121	10,221	10,121				
E:					709.873,1749	709.868,1826	709.863,1904				
N:					7.089.711,5868	7.089.711,3084	7.089.711,0300				
<b>Station: 27+1</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					10,127	10,228	10,128				
E:					709.873,2379	709.868,2456	709.863,2517				
N:					7.089.710,4571	7.089.710,1787	7.089.709,9002				
<b>Station: 27+10</b>											
Dist. Eixo (m):		-7,999	-5,397	-5,397	-4,999	0,000	5,001	5,399	5,399	8,554	
Cota (m):		10,521	10,469	10,173	10,181	10,281	10,181	10,173	10,469	10,532	
E:		709.876,5054	709.873,9047	709.873,9047	709.873,5068	709.868,5102	709.863,5112	709.863,1134	709.863,1134	709.859,9598	
N:		7.089.701,5527	7.089.701,4751	7.089.701,4751	7.089.701,4632	7.089.701,3141	7.089.701,1649	7.089.701,1530	7.089.701,1530	7.089.701,0589	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-7,997	-5,396	-5,396	-4,997	0,000	5,003	5,400	5,400	8,542	
Cota (m):		10,522	10,470	10,174	10,182	10,282	10,182	10,174	10,470	10,533	
E:		709.876,8024	709.874,2017	709.874,2017	709.873,8037	709.868,8085	709.863,8081	709.863,4104	709.863,4104	709.860,2706	
N:		7.089.691,5571	7.089.691,4795	7.089.691,4795	7.089.691,4676	7.089.691,3185	7.089.691,1693	7.089.691,1574	7.089.691,1574	7.089.691,0638	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-8,017	-5,394	-5,394	-4,996	0,000	5,004	5,402	5,402	8,440	
Cota (m):		10,407	10,354	10,058	10,066	10,166	10,066	10,058	10,354	10,415	
E:		709.877,1204	709.874,4986	709.874,4986	709.874,1006	709.869,1067	709.864,1051	709.863,7073	709.863,7073	709.860,6709	
N:		7.089.681,5621	7.089.681,4839	7.089.681,4839	7.089.681,4720	7.089.681,3230	7.089.681,1737	7.089.681,1619	7.089.681,1619	7.089.681,0712	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-8,036	-5,393	-5,393	-4,995	0,000	5,005	5,403	5,403	8,246	
Cota (m):		10,237	10,184	9,888	9,896	9,996	9,896	9,888	10,183	10,240	
E:		709.877,4378	709.874,7955	709.874,7955	709.874,3976	709.869,4050	709.864,4020	709.864,0042	709.864,0042	709.861,1629	
N:		7.089.671,5671	7.089.671,4883	7.089.671,4883	7.089.671,4764	7.089.671,3274	7.089.671,1781	7.089.671,1663	7.089.671,1663	7.089.671,0815	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-8,011	-5,392	-5,392	-4,993	0,000	5,007	5,405	5,405	8,032	
Cota (m):		10,405	10,093	9,797	9,805	9,905	9,805	9,797	10,092	10,145	
E:		709.877,7105	709.875,0925	709.875,0925	709.874,6945	709.869,7033	709.864,6989	709.864,3012	709.864,3012	709.861,6753	
N:		7.089.661,5708	7.089.661,4927	7.089.661,4927	7.089.661,4808	7.089.661,3319	7.089.661,1825	7.089.661,1707	7.089.661,1707	7.089.661,0923	
<b>Station: 29+11</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					9,801	9,901	9,801				
E:					709.874,7359	709.869,7379	709.864,7401				
N:					7.089.660,3216	7.089.660,1724	7.089.660,0233				
<b>Station: 30+0</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					9,815	9,915	9,815				
E:					709.875,0837	709.870,0877	709.865,0916				
N:					7.089.651,5372	7.089.651,3393	7.089.651,1415				
<b>Station: 30+10</b>											
Dist. Eixo (m):					-5,000	0,000	5,000				
Cota (m):					9,851	9,951	9,851				
E:					709.875,4794	709.870,4833	709.865,4873				
N:					7.089.641,5450	7.089.641,3472	7.089.641,1493				
<b>Station: 30+17</b>											
Dist. Eixo (m):		-7,555	-5,398	-5,398	-5,000	0,000	5,000	5,398	5,398	8,087	
Cota (m):		10,469	10,166	9,870	9,878	9,978	9,878	9,870	10,166	10,220	
E:		709.878,3227	709.876,1674	709.876,1674	709.875,7695	709.870,7731	709.865,7770	709.865,3790	709.865,3790	709.862,6917	
N:		7.089.634,3285	7.089.634,2432	7.089.634,2432	7.089.634,2274	7.089.634,0295	7.089.633,8317	7.089.633,8160	7.089.633,8160	7.089.633,7095	
<b>Station: 31+0</b>											
Dist. Eixo (m):		-7,430	-5,398	-5,398	-5,000	0,000	5,000	5,398	5,398	8,064	
Cota (m):		10,216	10,176	9,880	9,888	9,988	9,888	9,880	10,176	10,229	
E:		709.878,2759	709.876,2445	709.876,2445	709.875,8465	709.870,8485	709.865,8505	709.865,4527	709.865,4527	709.862,7872	
N:		7.089.631,5632	7.089.631,5060	7.089.631,5060	7.089.631,4948	7.089.631,3539	7.089.631,2131	7.089.631,2019	7.089.631,2019	7.089.631,1268	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-7,266	-5,398	-5,398	-5,000	0,000	5,000	5,398	5,398	7,977	
Cota (m):		10,510	10,212	9,916	9,924	10,024	9,924	9,916	10,212	10,264	
E:		709.878,3928	709.876,5264	709.876,5264	709.876,1284	709.871,1301	709.866,1323	709.865,7345	709.865,7345	709.863,1567	
N:		7.089.621,5625	7.089.621,5099	7.089.621,5099	7.089.621,4987	7.089.621,3579	7.089.621,2171	7.089.621,2059	7.089.621,2059	7.089.621,1333	
<b>Station: 32+0</b>											
Dist. Eixo (m):		-7,242	-5,399	-5,399	-5,000	0,000	5,000	5,398	5,398	7,889	
Cota (m):		10,545	10,248	9,953	9,961	10,061	9,961	9,953	10,248	10,298	
E:		709.878,6510	709.876,8082	709.876,8082	709.876,4102	709.871,4117	709.866,4141	709.866,0163	709.866,0163	709.863,5261	
N:		7.089.611,5658	7.089.611,5139	7.089.611,5139	7.089.611,5027	7.089.611,3619	7.089.611,2211	7.089.611,2099	7.089.611,2099	7.089.611,1397	
<b>Station: 32+10</b>											
Dist. Eixo (m):		-7,338	-5,399	-5,399	-5,001	0,000	4,999	5,397	5,397	7,801	
Cota (m):		10,324	10,285	9,989	9,997	10,097	9,997	9,989	10,285	10,333	
E:		709.879,0282	709.877,0900	709.877,0900	709.876,6920	709.871,6934	709.866,6959	709.866,2981	709.866,2981	709.863,8956	
N:		7.089.601,5725	7.089.601,5179	7.089.601,5179	7.089.601,5067	7.089.601,3658	7.089.601,2251	7.089.601,2138	7.089.601,2138	7.089.601,1462	
<b>Station: 33+0</b>											
Dist. Eixo (m):		-7,434	-5,399	-5,399	-5,001	0,000	4,999	5,397	5,397	7,861	
Cota (m):		10,622	10,321	10,025	10,033	10,133	10,033	10,025	10,321	10,370	
E:		709.879,4058	709.877,3718	709.877,3718	709.876,9738	709.871,9750	709.866,9778	709.866,5799	709.866,5799	709.864,1167	
N:		7.089.591,5792	7.089.591,5219	7.089.591,5219	7.089.591,5107	7.089.591,3698	7.089.591,2290	7.089.591,2178	7.089.591,2178	7.089.591,1484	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

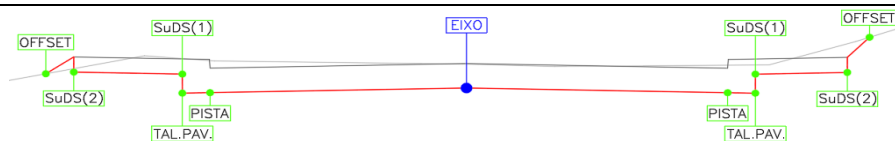
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 33+7</b>											
Dist. Eixo (m):					-4,998	<b>0,000</b>	4,998	5,396	5,396	8,053	
Cota (m):					10,059	<b>10,159</b>	10,061	10,053	10,349	10,402	
E:					709.877,1711	<b>709.872,1753</b>	709.867,1752	709.866,7774	709.866,7774	709.864,1189	
N:					7.089.584,3994	<b>7.089.584,2587</b>	7.089.584,1178	7.089.584,1066	7.089.584,1066	7.089.584,0317	
<b>Station: 33+10</b>											
Dist. Eixo (m):					-5,106	<b>0,000</b>	5,426	5,824	5,824	9,127	
Cota (m):					10,068	<b>10,170</b>	10,092	10,084	10,379	10,445	
E:					709.877,2466	<b>709.872,1405</b>	709.866,7146	709.866,3167	709.866,3167	709.863,0142	
N:					7.089.581,3111	<b>7.089.581,3728</b>	7.089.581,4384	7.089.581,4432	7.089.581,4432	7.089.581,4832	
<b>Station: 34+0</b>											
Dist. Eixo (m):					-5,000	<b>0,000</b>	13,005				
Cota (m):					10,087	<b>10,187</b>	10,174				
E:					709.877,0192	<b>709.872,0196</b>	709.859,0158				
N:					7.089.571,3131	<b>7.089.571,3736</b>	7.089.571,5308				
<b>Station: 34+10</b>											
Dist. Eixo (m):					-5,157	<b>0,000</b>	5,601	5,999	5,999	8,305	
Cota (m):					10,065	<b>10,168</b>	10,096	10,088	10,384	10,430	
E:					709.877,0558	<b>709.871,8987</b>	709.866,2977	709.865,8997	709.865,8997	709.863,5945	
N:					7.089.561,3120	<b>7.089.561,3743</b>	7.089.561,4420	7.089.561,4468	7.089.561,4468	7.089.561,4747	
<b>Station: 34+12</b>											
Dist. Eixo (m):		-8,471	-5,384	-5,384	-4,987	<b>0,000</b>	5,018	5,416	5,416	8,024	
Cota (m):		10,667	10,346	10,050	10,058	<b>10,158</b>	10,084	10,076	10,372	10,424	
E:		709.880,3563	709.877,2631	709.877,2631	709.876,8649	<b>709.871,8678</b>	709.866,8504	709.866,4525	709.866,4525	709.863,8446	
N:		7.089.558,7144	7.089.558,7518	7.089.558,7518	7.089.558,7566	<b>7.089.558,8170</b>	7.089.558,8776	7.089.558,8825	7.089.558,8825	7.089.558,9140	
<b>Station: 35+0</b>											
Dist. Eixo (m):		-8,296	-5,340	-5,340	-4,942	<b>0,000</b>	5,058	5,456	5,456	8,145	
Cota (m):		10,637	10,318	10,022	10,030	<b>10,129</b>	10,028	10,020	10,316	10,370	
E:		709.880,5470	709.877,5951	709.877,5951	709.877,1975	<b>709.872,2623</b>	709.867,2114	709.866,8140	709.866,8140	709.864,1292	
N:		7.089.551,8247	7.089.551,6680	7.089.551,6680	7.089.551,6469	<b>7.089.551,3850</b>	7.089.551,1168	7.089.551,0957	7.089.551,0957	7.089.550,9532	
<b>Station: 35+10</b>											
Dist. Eixo (m):		-8,191	-5,277	-5,277	-4,879	<b>0,000</b>	5,121	5,519	5,519	8,326	
Cota (m):		10,599	10,281	9,985	9,993	<b>10,091</b>	9,988	9,980	10,276	10,332	
E:		709.880,9717	709.878,0624	709.878,0624	709.877,6648	<b>709.872,9224</b>	709.867,6787	709.867,2813	709.867,2813	709.864,4779	
N:		7.089.541,8332	7.089.541,6788	7.089.541,6788	7.089.541,6577	<b>7.089.541,3990</b>	7.089.541,1276	7.089.541,1065	7.089.541,1065	7.089.540,9576	
<b>Station: 36+0</b>											
Dist. Eixo (m):		-8,574	-5,215	-5,215	-4,816	<b>0,000</b>	5,184	5,582	5,582	7,801	
Cota (m):		10,311	10,244	9,948	9,956	<b>10,052</b>	9,948	9,941	10,237	10,281	
E:		709.881,8848	709.878,5297	709.878,5297	709.878,1321	<b>709.873,3225</b>	709.868,1460	709.867,7486	709.867,7486	709.865,5322	
N:		7.089.531,8676	7.089.531,6895	7.089.531,6895	7.089.531,6684	<b>7.089.531,4131</b>	7.089.531,1383	7.089.531,1172	7.089.531,1172	7.089.530,9995	
<b>Station: 36+10</b>											
Dist. Eixo (m):		-8,964	-5,152	-5,152	-4,753	<b>0,000</b>	5,247	5,645	5,645	8,032	
Cota (m):		10,283	10,206	9,911	9,919	<b>10,014</b>	9,909	9,901	10,196	10,244	
E:		709.882,8044	709.878,9971	709.878,9971	709.878,5995	<b>709.873,8526</b>	709.868,6133	709.868,2159	709.868,2159	709.865,8322	
N:		7.089.521,9023	7.089.521,7002	7.089.521,7002	7.089.521,6791	<b>7.089.521,4271</b>	7.089.521,1490	7.089.521,1279	7.089.521,1279	7.089.521,0014	
<b>Station: 37+0</b>											
Dist. Eixo (m):		-8,866	-5,089	-5,089	-4,691	<b>0,000</b>	5,310	5,708	5,708	8,222	
Cota (m):		10,257	10,182	9,886	9,894	<b>9,988</b>	9,881	9,873	10,169	10,219	
E:		709.883,2360	709.879,4644	709.879,4644	709.879,0668	<b>709.874,3827</b>	709.869,0806	709.868,6832	709.868,6832	709.866,1724	
N:		7.089.511,9112	7.089.511,7110	7.089.511,7110	7.089.511,6898	<b>7.089.511,4412</b>	7.089.511,1597	7.089.511,1386	7.089.511,1386	7.089.511,0054	
<b>Station: 37+6</b>											
Dist. Eixo (m):		-8,439	-5,045	-5,045	-4,647	<b>0,000</b>	5,343				
Cota (m):		10,247	10,179	9,883	9,891	<b>9,984</b>	9,877				
E:		709.883,1772	709.879,7881	709.879,7881	709.879,3905	<b>709.874,7500</b>	709.869,4127				
N:		7.089.504,9711	7.089.504,7911	7.089.504,7911	7.089.504,7700	<b>7.089.504,5237</b>	7.089.504,2404				
<b>Station: 37+10</b>											
Dist. Eixo (m):		-8,322	-5,068	-5,068	-4,670	<b>0,000</b>	5,264				
Cota (m):		10,246	10,181	9,885	9,893	<b>9,987</b>	9,881				
E:		709.883,1535	709.879,9011	709.879,9011	709.879,5031	<b>709.874,8345</b>	709.869,5728				
N:		7.089.501,6812	7.089.501,5916	7.089.501,5916	7.089.501,5807	<b>7.089.501,4521</b>	7.089.501,3072				
<b>Station: 38+0</b>											
Dist. Eixo (m):		-7,794	-5,144	-5,144	-4,746	<b>0,000</b>	4,994				
Cota (m):		10,244	10,191	9,895	9,903	<b>9,998</b>	9,898				
E:		709.882,9005	709.880,2522	709.880,2522	709.879,8542	<b>709.875,1098</b>	709.870,1179				
N:		7.089.491,6704	7.089.491,5975	7.089.491,5975	7.089.491,5866	<b>7.089.491,4559</b>	7.089.491,3184				
<b>Station: 38+4</b>											
Dist. Eixo (m):		-7,482	-5,174	-5,174	-4,776	<b>0,000</b>	4,879				
Cota (m):		10,501	10,195	9,899	9,907	<b>10,003</b>	9,905				
E:		709.882,7054	709.880,3986	709.880,3986	709.880,0006	<b>709.875,2261</b>	709.870,3482				
N:		7.089.487,4390	7.089.487,3755	7.089.487,3755	7.089.487,3645	<b>7.089.487,2331</b>	7.089.487,0987				
<b>Station: 38+10</b>											
Dist. Eixo (m):		-7,213	-5,194	-5,194	-4,796	<b>0,000</b>	4,800	5,198	5,198	7,056	
Cota (m):		10,502	10,201	9,905	9,913	<b>10,009</b>	9,913	9,905	10,201	10,238	
E:		709.882,4861	709.880,4671	709.880,4671	709.880,0689	<b>709.875,2736</b>	709.870,4737	709.870,0757	709.870,0757	709.868,2174	
N:		7.089.481,5169	7.089.481,5004	7.089.481,5004	7.089.481,4971	<b>7.089.481,4577</b>	7.089.481,4183	7.089.481,4150	7.089.481,4150	7.089.481,3997	
<b>Station: 39+0</b>											
Dist. Eixo (m):		-7,593	-5,228	-5,228	-4,830	<b>0,000</b>	4,834	5,232	5,232	6,984	
Cota (m):		10,259	10,212	9,916	9,924	<b>10,021</b>	9,924	9,916	10,212	10,247	
E:		709.882,9487	709.880,5835	709.880,5835	709.880,1854	<b>709.875,3557</b>	709.870,5223	709.870,1243	709.870,1243	709.868,3717	
N:		7.089.471,5204	7.089.471,5010	7.089.471,5010	7.089.471,4977	<b>7.089.471,4580</b>	7.089.471,4183	7.089.471,4151	7.089.471,4151	7.089.471,4007	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T1**

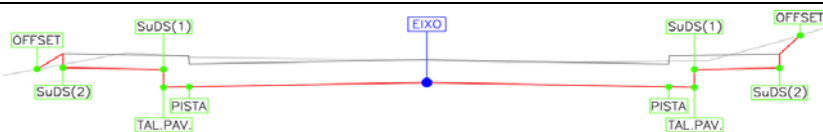
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 39+10</b>											
Dist. Eixo (m):		-7,643	-5,262	-5,262	-4,864	<b>0,000</b>	4,867	5,265	5,265	7,399	
Cota (m):		10,270	10,223	9,927	9,935	<b>10,032</b>	9,935	9,927	10,222	10,265	
E:		709.883,0809	709.880,6999	709.880,6999	709.880,3018	<b>709.875,4379</b>	709.870,5709	709.870,1729	709.870,1729	709.868,0395	
N:		7.089.461,5212	7.089.461,5016	7.089.461,5016	7.089.461,4983	<b>7.089.461,4584</b>	7.089.461,4184	7.089.461,4151	7.089.461,4151	7.089.461,3976	
<b>Station: 40+0</b>											
Dist. Eixo (m):		-7,709	-5,297	-5,297	-4,898	<b>0,000</b>	4,901	5,299	5,299	7,524	
Cota (m):		10,272	10,223	9,928	9,936	<b>10,034</b>	9,936	9,928	10,224	10,268	
E:		709.883,2288	709.880,8164	709.880,8164	709.880,4182	<b>709.875,5200</b>	709.870,6195	709.870,2215	709.870,2215	709.867,9967	
N:		7.089.451,5220	7.089.451,5022	7.089.451,5022	7.089.451,4989	<b>7.089.451,4587</b>	7.089.451,4184	7.089.451,4152	7.089.451,4152	7.089.451,3969	
<b>Station: 40+10</b>											
Dist. Eixo (m):		-7,302	-5,331	-5,331	-4,933	<b>0,000</b>	4,934	5,332	5,332	7,389	
Cota (m):		10,407	10,107	9,811	9,819	<b>9,918</b>	9,819	9,811	10,107	10,148	
E:		709.882,9043	709.880,9328	709.880,9328	709.880,5347	<b>709.875,6022</b>	709.870,6681	709.870,2701	709.870,2701	709.868,2134	
N:		7.089.441,5190	7.089.441,5028	7.089.441,5028	7.089.441,4996	<b>7.089.441,4590</b>	7.089.441,4185	7.089.441,4152	7.089.441,4152	7.089.441,3983	
<b>Station: 41+0</b>											
Dist. Eixo (m):		-6,988	-5,365	-5,365	-4,967	<b>0,000</b>	4,970	5,368	5,368	7,507	
Cota (m):		10,147	9,855	9,559	9,567	<b>9,666</b>	9,567	9,559	9,854	9,897	
E:		709.882,6719	709.881,0493	709.881,0491	709.880,6511	<b>709.875,6843</b>	709.870,7141	709.870,3162	709.870,3162	709.868,1773	
N:		7.089.431,5168	7.089.431,5035	7.089.431,5035	7.089.431,5002	<b>7.089.431,4594</b>	7.089.431,4185	7.089.431,4153	7.089.431,4153	7.089.431,3977	
<b>Station: 41+4</b>											
Dist. Eixo (m):		-7,316	-5,381	-5,381	-4,983	<b>0,000</b>	6,705	7,103	7,103	7,905	
Cota (m):		10,020	9,721	9,425	9,433	<b>9,533</b>	9,399	9,391	9,687	9,703	
E:		709.883,0396	709.881,1046	709.881,1046	709.880,7064	<b>709.875,7234</b>	709.869,0190	709.868,6210	709.868,6210	709.867,8190	
N:		7.089.426,7695	7.089.426,7536	7.089.426,7536	7.089.426,7503	<b>7.089.426,7094</b>	7.089.426,6543	7.089.426,6510	7.089.426,6510	7.089.426,6444	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PETRONILHA S. FORTUNATO T2**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 41+4</b>											
Dist.eixo (m)		-14,152	-9,551	-9,551	-9,122	<b>0,000</b>	5,000	5,429	5,429	13,610	
Cota (m)		10,818	10,466	10,139	10,148	<b>10,330</b>	10,230	10,221	10,548	10,712	
E		709,891.7969	709,887.1999	709,887.1999	709,886.7715	<b>709,877.6569</b>	709,872.6611	709,872.2329	709,872.2329	709,864.0582	
N		7,089,218.8058	7,089,218.6181	7,089,218.6181	7,089,218.6006	<b>7,089,218.2285</b>	7,089,218.0246	7,089,218.0071	7,089,218.0071	7,089,217.6734	
<b>Station: 41+10</b>											
Dist.eixo (m)		-8,792	-8,421	-5,622	-5,622	<b>0,000</b>	5,932	6,361	6,361	8,543	8,741
Cota (m)		10,677	10,924	10,608	10,290	<b>10,394</b>	10,275	10,266	10,593	10,637	10,765
E		709,886.6561	709,886.2854	709,883.4883	709,883.4883	<b>709,877.8711</b>	709,871.9440	709,871.5157	709,871.5157	709,869.3348	709,869.1377
N		7,089,213.3415	7,089,213.3264	7,089,213.2122	7,089,213.2122	<b>7,089,212.9829</b>	7,089,212.7409	7,089,212.7235	7,089,212.7235	7,089,212.6344	7,089,212.6264
<b>Station: 42+0</b>											
Dist.eixo (m)		-8,501	-8,089	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,802	7,974
Cota (m)		10,745	11,020	10,707	10,379	<b>10,488</b>	10,388	10,380	10,707	10,754	10,900
E		709,886.7731	709,886.3612	709,883.7032	709,883.7032	<b>709,878.2790</b>	709,873.2831	709,872.8549	709,872.8549	709,870.4833	709,870.3118
N		7,089,203.3380	7,089,203.3212	7,089,203.2127	7,089,203.2127	<b>7,089,202.9912</b>	7,089,202.7873	7,089,202.7696	7,089,202.7696	7,089,202.6730	7,089,202.6660
<b>Station: 42+10</b>											
Dist.eixo (m)		-8,547	-8,061	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,806	8,129
Cota (m)		10,737	11,061	10,749	10,421	<b>10,530</b>	10,430	10,422	10,748	10,796	10,841
E		709,887.2264	709,886.7413	709,884.1111	709,884.1111	<b>709,878.6868</b>	709,873.6910	709,873.2628	709,873.2628	709,870.8878	709,870.5650
N		7,089,193.3482	7,089,193.3284	7,089,193.2210	7,089,193.2210	<b>7,089,192.9995</b>	7,089,192.7956	7,089,192.7781	7,089,192.7781	7,089,192.6812	7,089,192.6680
<b>Station: 43+0</b>											
Dist.eixo (m)		-8,456	-7,960	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,809	8,106
Cota (m)		10,744	11,075	10,764	10,437	<b>10,546</b>	10,446	10,437	10,764	10,812	10,874
E		709,887.5433	709,887.0482	709,884.5190	709,884.5190	<b>709,879.0947</b>	709,874.0989	709,873.6707	709,873.6707	709,871.2923	709,870.9959
N		7,089,183.3528	7,089,183.3326	7,089,183.2293	7,089,183.2293	<b>7,089,183.0079</b>	7,089,182.8039	7,089,182.7864	7,089,182.7864	7,089,182.6894	7,089,182.6773
<b>Station: 43+10</b>											
Dist.eixo (m)		-8,371	-7,882	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,812	8,021
Cota (m)		10,763	11,089	10,780	10,452	<b>10,561</b>	10,461	10,453	10,779	10,827	10,948
E		709,887.8663	709,887.3780	709,884.9269	709,884.9269	<b>709,879.5026</b>	709,874.5068	709,874.0785	709,874.0785	709,871.6968	709,871.4886
N		7,089,173.3576	7,089,173.3377	7,089,173.2376	7,089,173.2376	<b>7,089,173.0162</b>	7,089,172.8123	7,089,172.7948	7,089,172.7948	7,089,172.6975	7,089,172.6890
<b>Station: 44+0</b>											
Dist.eixo (m)		-8,260	-7,925	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,816	7,968
Cota (m)		10,881	11,105	10,795	10,468	<b>10,577</b>	10,477	10,468	10,795	10,843	11,001
E		709,888.1639	709,887.8288	709,885.3347	709,885.3347	<b>709,879.9105</b>	709,874.9146	709,874.4864	709,874.4864	709,872.1013	709,871.9486
N		7,089,163.3614	7,089,163.3478	7,089,163.2459	7,089,163.2459	<b>7,089,163.0245</b>	7,089,162.8206	7,089,162.8031	7,089,162.8031	7,089,162.7057	7,089,162.6995
<b>Station: 44+10</b>											
Dist.eixo (m)		-8,117	-8,004	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,819	7,941
Cota (m)		11,046	11,122	10,811	10,483	<b>10,592</b>	10,492	10,484	10,811	10,859	11,037
E		709,888.4288	709,888.3153	709,885.7426	709,885.7426	<b>709,880.3184</b>	709,875.3225	709,874.8943	709,874.8943	709,872.5058	709,872.3838
N		7,089,153.3639	7,089,153.3593	7,089,153.2543	7,089,153.2543	<b>7,089,153.0328</b>	7,089,152.8289	7,089,152.8114	7,089,152.8114	7,089,152.7139	7,089,152.7089
<b>Station: 45+0</b>											
Dist.eixo (m)		-8,226	-8,025	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,915	7,933
Cota (m)		11,004	11,138	10,826	10,499	<b>10,608</b>	10,508	10,499	10,826	10,876	11,124
E		709,888.9454	709,888.7448	709,886.1505	709,886.1505	<b>709,880.7262</b>	709,875.7304	709,875.3022	709,875.3022	709,872.8180	709,872.8003
N		7,089,143.3767	7,089,143.3685	7,089,143.2626	7,089,143.2626	<b>7,089,143.0412</b>	7,089,142.8372	7,089,142.8197	7,089,142.8197	7,089,142.7183	7,089,142.7176
<b>Station: 45+10</b>											
Dist.eixo (m)		-8,418	-8,009	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	8,064	8,150
Cota (m)		10,881	11,153	10,842	10,514	<b>10,623</b>	10,523	10,515	10,841	10,894	11,241
E		709,889.5449	709,889.1367	709,886.5584	709,886.5584	<b>709,881.1341</b>	709,876.1383	709,875.7101	709,875.7101	709,873.0768	709,872.9905
N		7,089,133.3928	7,089,133.3762	7,089,133.2709	7,089,133.2709	<b>7,089,133.0495</b>	7,089,132.8455	7,089,132.8281	7,089,132.8281	7,089,132.7206	7,089,132.7170
<b>Station: 46+0</b>											
Dist.eixo (m)		-8,339	-7,881	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	8,131	8,157
Cota (m)		10,858	11,164	10,855	10,527	<b>10,636</b>	10,536	10,528	10,855	10,909	11,195
E		709,889.8744	709,889.4160	709,886.9663	709,886.9663	<b>709,881.5420</b>	709,876.5462	709,876.1180	709,876.1180	709,873.4180	709,873.3918
N		7,089,123.3979	7,089,123.3792	7,089,123.2792	7,089,123.2792	<b>7,089,123.0578</b>	7,089,122.8539	7,089,122.8364	7,089,122.8364	7,089,122.7262	7,089,122.7251
<b>Station: 46+10</b>											
Dist.eixo (m)		-8,205	-7,931	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,755	7,802
Cota (m)		10,898	11,081	10,771	10,444	<b>10,553</b>	10,453	10,444	10,771	10,818	11,046
E		709,890.1479	709,889.8743	709,887.3741	709,887.3741	<b>709,881.9499</b>	709,876.9541	709,876.5258	709,876.5258	709,874.2018	709,874.1541
N		7,089,113.4008	7,089,113.3896	7,089,113.2876	7,089,113.2876	<b>7,089,113.0661</b>	7,089,112.8622	7,089,112.8447	7,089,112.8447	7,089,112.7498	7,089,112.7479
<b>Station: 47+0</b>											
Dist.eixo (m)		-8,179	-7,981	-5,429	-5,429	<b>0,000</b>	5,000	5,429	5,429	7,778	7,885
Cota (m)		10,724	10,856	10,545	10,217	<b>10,326</b>	10,226	10,218	10,545	10,592	10,780
E		709,890.5297	709,890.3326	709,887.7820	709,887.7820	<b>709,882.3578</b>	709,877.3619	709,876.9337	709,876.9337	709,874.5861	709,874.4792
N		7,089,103.4080	7,089,103.4000	7,089,103.2959	7,089,103.2959	<b>7,089,103.0744</b>	7,089,102.8705	7,089,102.8530	7,089,102.8530	7,089,102.7572	7,089,102.7528






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Relatório de auditoria final

2021-11-10

Criado em:	2021-11-10
Por:	Sirleide Dias (sirleide@engecorps.com.br)
Status:	Assinado
ID da transação:	CBJCHBCAABAAFSsnBo64wH_DFdl09hla1wYGMMAPB9tx

## Histórico de "1439DGLR0015-04-Vol 03\_Tomo II\_Etapa 01\_Part e 03"

-  Documento criado por Sirleide Dias (sirleide@engecorps.com.br)  
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-  Documento enviado por email para Maria Bernardete Sousa Sender (bernadete@engecorps.com.br) para assinatura  
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**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PROF. THEODORO BOING**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 0+10</b>													
Dist. Eixo (m):		-6,303	-4,441	-4,441	-3,950	-3,940	<b>0,000</b>	4,070	4,080	4,570	4,570		6,275
Cota (m):		18,513	18,476	18,026	18,016	18,026	<b>18,105</b>	18,024	18,014	18,024	18,474		18,508
E:		709,020,7610	709,018,9003	709,018,9003	709,018,4105	709,018,4005	<b>709,014,4636</b>	709,010,3967	709,010,3867	709,009,8971	709,009,8971		709,008,1937
N:		7,090,847,4796	7,090,847,4016	7,090,847,4016	7,090,847,3811	7,090,847,3806	<b>7,090,847,2155</b>	7,090,847,0450	7,090,847,0446	7,090,847,0240	7,090,847,0240		7,090,846,9526
<b>Station: 1+0</b>													
Dist. Eixo (m):		-6,280	-4,458	-4,458	-3,968	-3,958	<b>0,000</b>	4,056	4,066	4,556	4,556		6,105
Cota (m):		20,023	19,987	19,537	19,527	19,537	<b>19,616</b>	19,535	19,525	19,535	19,985		20,016
E:		709,021,1571	709,019,3368	709,019,3368	709,018,8470	709,018,8371	<b>709,014,8826</b>	709,010,8305	709,010,8205	709,010,3310	709,010,3310		709,009,7824
N:		7,090,837,4874	7,090,837,4111	7,090,837,4111	7,090,837,3906	7,090,837,3902	<b>7,090,837,2243</b>	7,090,837,0544	7,090,837,0540	7,090,837,0335	7,090,837,0335		7,090,836,9685
<b>Station: 1+10</b>													
Dist. Eixo (m):		-6,594	-6,261	-4,487	-4,487	-3,997	<b>-3,987</b>	4,041	4,051	4,541	4,541		6,027
Cota (m):		21,766	21,332	21,297	20,847	20,837	<b>20,927</b>	20,846	20,836	20,846	21,295		21,325
E:		709,021,8893	709,021,5575	709,019,7848	709,019,7848	709,019,2950	<b>709,015,3016</b>	709,011,2644	709,011,2544	709,010,7648	709,010,7648		709,009,2801
N:		7,090,827,5094	7,090,827,4954	7,090,827,4211	7,090,827,4211	7,090,827,4006	<b>7,090,827,2331</b>	7,090,827,0638	7,090,827,0634	7,090,827,0429	7,090,827,0429		7,090,826,9806
<b>Station: 2+0</b>													
Dist. Eixo (m):		-6,266	-6,243	-4,516	-4,516	-4,026	<b>-4,016</b>	4,026	4,036	4,526	4,526		5,991
Cota (m):		22,454	22,369	22,334	21,884	21,874	<b>21,964</b>	21,884	21,874	21,884	22,334		22,644
E:		709,021,9815	709,021,9578	709,020,2328	709,020,2328	709,019,7430	<b>709,015,7205</b>	709,011,6982	709,011,6882	709,011,1986	709,011,1986		709,009,7346
N:		7,090,817,5044	7,090,817,5034	7,090,817,4311	7,090,817,4311	7,090,817,4106	<b>7,090,817,2419</b>	7,090,817,0732	7,090,817,0728	7,090,817,0523	7,090,817,0523		7,090,816,9909
<b>Station: 2+9</b>													
Dist. Eixo (m):		-6,371	-6,226	-4,542	-4,542	-4,052	<b>-4,042</b>	4,012	4,022	4,512	4,512		5,959
Cota (m):		23,076	23,071	23,037	22,587	22,577	<b>22,668</b>	22,588	22,578	22,588	23,038		23,207
E:		709,022,4651	709,022,3202	709,020,6383	709,020,6383	709,020,1485	<b>709,016,0998</b>	709,012,0909	709,012,0809	709,011,5913	709,011,5913		709,010,1460
N:		7,090,808,4646	7,090,808,4586	7,090,808,3880	7,090,808,3880	7,090,808,3675	<b>7,090,808,1977</b>	7,090,808,0296	7,090,808,0292	7,090,808,0087	7,090,808,0087		7,090,807,9480
<b>Station: 2+10</b>													
Dist. Eixo (m):		-6,361	-6,219	-4,540	-4,540	-4,050	<b>-4,040</b>	4,016	4,026	4,516	4,516		5,961
Cota (m):		23,139	23,132	23,098	22,648	22,638	<b>22,729</b>	22,649	22,639	22,648	23,098		23,127
E:		709,022,4990	709,022,3568	709,020,6796	709,020,6796	709,020,1899	<b>709,016,1450</b>	709,012,1330	709,012,1230	709,011,6336	709,011,6336		709,010,1906
N:		7,090,807,5540	7,090,807,5472	7,090,807,4672	7,090,807,4672	7,090,807,4439	<b>7,090,807,2509</b>	7,090,807,0595	7,090,807,0591	7,090,807,0357	7,090,807,0357		7,090,806,9669
<b>Station: 3+0</b>													
Dist. Eixo (m):		-6,664	-6,143	-4,511	-4,511	-4,021	<b>-4,011</b>	4,059	4,069	4,559	4,559		5,983
Cota (m):		23,378	23,623	23,590	23,140	23,130	<b>23,221</b>	23,140	23,130	23,139	23,590		23,649
E:		709,023,2775	709,022,7571	709,021,1275	709,021,1275	709,020,6379	<b>709,016,6215</b>	709,012,5669	709,012,5569	709,012,0674	709,012,0674		709,010,6451
N:		7,090,797,5798	7,090,797,5550	7,090,797,4772	7,090,797,4772	7,090,797,4539	<b>7,090,797,2623</b>	7,090,797,0689	7,090,797,0684	7,090,797,0450	7,090,797,0450		7,090,796,9772
<b>Station: 3+10</b>													
Dist. Eixo (m):		-6,654	-6,066	-4,483	-4,483	-3,992	<b>-3,982</b>	4,102	4,112	4,602	4,602		6,005
Cota (m):		23,553	23,842	23,810	23,360	23,350	<b>23,440</b>	23,358	23,348	23,357	23,808		23,855
E:		709,023,7446	709,023,1575	709,021,5755	709,021,5755	709,021,0859	<b>709,017,0979</b>	709,013,0007	709,012,9907	709,012,5013	709,012,5013		709,011,0995
N:		7,090,787,5907	7,090,787,5627	7,090,787,4872	7,090,787,4872	7,090,787,4639	<b>7,090,787,2736</b>	7,090,787,0782	7,090,787,0777	7,090,787,0544	7,090,787,0544		7,090,786,9875
<b>Station: 4+0</b>													
Dist. Eixo (m):		-6,719	-5,990	-4,454	-4,454	-3,964	<b>-3,954</b>	4,145	4,155	4,645	4,645		6,027
Cota (m):		23,405	23,788	23,757	23,307	23,297	<b>23,386</b>	23,303	23,293	23,303	23,752		23,808
E:		709,024,2857	709,023,5579	709,022,0235	709,022,0235	709,021,5338	<b>709,017,5744</b>	709,013,4345	709,013,4246	709,012,9351	709,012,9351		709,011,4461
N:		7,090,777,6051	7,090,777,5704	7,090,777,4972	7,090,777,4972	7,090,777,4739	<b>7,090,777,2850</b>	7,090,777,0875	7,090,777,0870	7,090,777,0637	7,090,777,0637		7,090,776,9978
<b>Station: 4+10</b>													
Dist. Eixo (m):		-6,585	-5,914	-4,426	-4,426	-3,935	<b>-3,925</b>	4,187	4,197	4,687	4,687		6,049
Cota (m):		23,128	23,471	23,441	22,991	22,981	<b>23,069</b>	22,986	22,976	22,985	23,436		23,610
E:		709,024,6280	709,023,9582	709,022,4714	709,022,4714	709,021,9818	<b>709,018,0509</b>	709,013,8684	709,013,8584	709,013,3690	709,013,3690		709,012,0808
N:		7,090,767,6101	7,090,767,5781	7,090,767,5072	7,090,767,5072	7,090,767,4839	<b>7,090,767,2963</b>	7,090,767,0968	7,090,767,0963	7,090,767,0730	7,090,767,0730		7,090,767,0081
<b>Station: 5+0</b>													
Dist. Eixo (m):		-6,357	-5,838	-4,397	-4,397	-3,907	<b>-3,897</b>	4,230	4,240	4,730	4,730		6,071
Cota (m):		22,840	23,082	23,053	22,603	22,593	<b>22,681</b>	22,597	22,587	22,596	23,046		23,095
E:		709,024,8776	709,024,3586	709,022,9194	709,022,9194	709,022,4298	<b>709,018,8274</b>	709,014,3022	709,014,2922	709,013,8028	709,013,8028		709,012,3450
N:		7,090,757,6106	7,090,757,5859	7,090,757,5172	7,090,757,5172	7,090,757,4939	<b>7,090,757,3077</b>	7,090,757,1061	7,090,757,1057	7,090,757,0823	7,090,757,0823		7,090,757,0184
<b>Station: 5+10</b>													
Dist. Eixo (m):		-6,136	-5,762	-4,368	-4,368	-3,878	<b>-3,868</b>	4,273	4,283	4,773	4,773		6,093
Cota (m):		22,549	22,693	22,665	22,216	22,206	<b>22,293</b>	22,208	22,198	22,207	22,658		22,737
E:		709,025,1330	709,024,7590	709,023,3674	709,023,3674	709,022,8777	<b>709,019,0039</b>	709,014,7361	709,014,7261	709,014,2366	709,014,2366		709,012,9174
N:		7,090,747,6114	7,090,747,5936	7,090,747,5272	7,090,747,5272	7,090,747,5039	<b>7,090,747,3191</b>	7,090,747,1155	7,090,747,1150	7,090,747,0916	7,090,747,0916		7,090,747,0287
<b>Station: 6+0</b>													
Dist. Eixo (m):		-5,788	-4,185	-4,185	-3,695	-3,685	<b>0,000</b>	4,315	4,325	4,815	4,815		6,115
Cota (m):		22,313	22,281	22,281	21,831	21,831	<b>21,905</b>	21,818	21,808	21,818	22,288		22,294
E:		709,025,2623	709,023,6605	709,023,6605	709,023,1709	709,023,1609	<b>709,019,4804</b>	709,015,1699	709,015,1599	709,014,6705	709,014,6705		709,013,3719
N:		7,090,737,6062	7,090,737,5298	7,090,737,5298	7,090,737,5065	7,090,737,5060	<b>7,090,737,3304</b>	7,090,737,1248	7,090,737,1243	7,090,737,1010	7,090,737,1010		7,090,737,0390
<b>Station: 6+10</b>													
Dist. Eixo (m):		-5,728	-4,193	-4,193	-3,703	-3,693	<b>0,000</b>	4,307	4,317	4,807	4,807		6,133
Cota (m):		21,924	21,893	21,893	21,443	21,443	<b>21,517</b>	21,431	21,421	21,431	21,880		21,907
E:		709,025,6784	709,024,1456	709,024,1456	709,023,6559	709,023,6459	<b>709,019,9569</b>	709,015,6551	709,015,6451	709,015,1557	709,015,1557		709,013,8308
N:		7,090,727,6147	7,090,727,5416	7,090,727,5416	7,090,727,5182	7,090,727,5178	<b>7,090,727,3418</b>	7,090,727,1366	7,090,727,1361	7,090,727,1127	7,090,727,1127		7,090,727,0495
<b>Station: 7+0</b>													
Dist. Eixo (m):		-5,708	-4,215	-4,215	-3,725	-3,715	<b>0,000</b>	4,285	4,295	4,785	4,785		6,151
Cota (m):		21,561	21,531	21,531	21,081	21,071	<						

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PROF. THEODORO BOING**

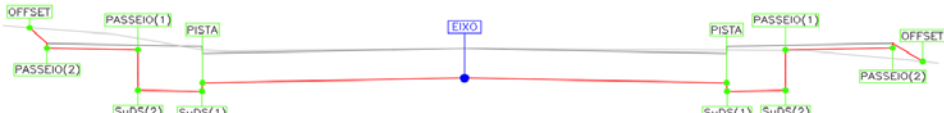
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 9+10</b>													
Dist. Eixo (m):	-5,804	-4,385	-4,385	-3,894	-3,884	0,000	4,113	4,123	4,613	4,613	6,116		
Cota (m):	20,303	20,275	19,825	19,815	19,825	19,903	19,820	19,810	19,820	20,270	20,300		
E:	709,028,6135	709,027,1954	709,027,1954	709,026,7057	709,026,6957	709,022,8158	709,018,7071	709,018,6971	709,018,2077	709,018,2077	709,016,7067		
N:	7,090,667,6865	7,090,667,6188	7,090,667,6188	7,090,667,5955	7,090,667,5950	7,090,667,4099	7,090,667,2139	7,090,667,2135	7,090,667,1901	7,090,667,1901	7,090,667,1185		
<b>Station: 10+0</b>													
Dist. Eixo (m):	-5,824	-4,419	-4,419	-3,929	-3,919	0,000	4,079	4,089	4,579	4,579	6,081		
Cota (m):	20,163	20,135	19,685	19,675	19,685	19,763	19,682	19,672	19,682	20,132	20,162		
E:	709,029,1093	709,027,7067	709,027,7067	709,027,2171	709,027,2071	709,023,2923	709,019,2179	709,019,2079	709,018,7184	709,018,7184	709,017,2182		
N:	7,090,657,6988	7,090,657,6319	7,090,657,6319	7,090,657,6085	7,090,657,6080	7,090,657,4213	7,090,657,2269	7,090,657,2264	7,090,657,2031	7,090,657,2031	7,090,657,1315		
<b>Station: 10+10</b>													
Dist. Eixo (m):	-5,851	-4,454	-4,454	-3,964	-3,954	0,000	4,045	4,055	4,545	4,545	6,046		
Cota (m):	20,060	20,032	19,582	19,572	19,582	19,661	19,580	19,570	19,580	20,030	20,060		
E:	709,029,6132	709,028,2181	709,028,2181	709,027,7285	709,027,7185	709,023,7888	709,019,7286	709,019,7187	709,019,2292	709,019,2292	709,017,7298		
N:	7,090,647,7114	7,090,647,6449	7,090,647,6449	7,090,647,6215	7,090,647,6211	7,090,647,4326	7,090,647,2399	7,090,647,2394	7,090,647,2161	7,090,647,2161	7,090,647,1446		
<b>Station: 11+0</b>													
Dist. Eixo (m):	-5,940	-4,489	-4,489	-3,999	-3,989	0,000	4,010	4,020	4,510	4,510	6,011		
Cota (m):	19,995	19,966	19,516	19,506	19,516	19,596	19,516	19,506	19,516	19,966	19,996		
E:	709,030,1788	709,028,7295	709,028,7295	709,028,2398	709,028,2299	709,024,2453	709,020,2394	709,020,2294	709,019,7400	709,019,7400	709,018,2414		
N:	7,090,637,7271	7,090,637,6579	7,090,637,6579	7,090,637,6346	7,090,637,6341	7,090,637,4440	7,090,637,2529	7,090,637,2524	7,090,637,2291	7,090,637,2291	7,090,637,1576		
<b>Station: 11+3</b>													
Dist. Eixo (m):	-5,967	-4,499	-4,499	-4,009	-3,999	0,000	4,000	4,010	4,500	4,500	6,000		
Cota (m):	19,983	19,954	19,504	19,494	19,504	19,584	19,504	19,494	19,504	19,984	19,984		
E:	709,030,3505	709,028,8845	709,028,8845	709,028,3948	709,028,3848	709,024,3897	709,020,3944	709,020,3844	709,019,8950	709,019,8950	709,018,3964		
N:	7,090,634,7013	7,090,634,6313	7,090,634,6313	7,090,634,6080	7,090,634,6075	7,090,634,4169	7,090,634,2263	7,090,634,2258	7,090,634,2025	7,090,634,2025	7,090,634,1310		
<b>Station: 11+10</b>													
Dist. Eixo (m):	-5,924	-4,440	-4,440	-3,950	-3,940	0,000	4,183						
Cota (m):	19,968	19,938	19,488	19,479	19,488	19,567	19,484						
E:	709,030,7414	709,029,2600	709,029,2600	709,028,7708	709,028,7608	709,024,8289	709,020,6539						
N:	7,090,627,8347	7,090,627,7411	7,090,627,7411	7,090,627,7102	7,090,627,7096	7,090,627,4613	7,090,627,1977						
<b>Station: 12+0</b>													
Dist. Eixo (m):	-5,860	-4,472	-4,472	-3,982	-3,972	0,000	4,445						
Cota (m):	19,948	19,921	19,471	19,461	19,471	19,550	19,461						
E:	709,031,3071	709,029,9219	709,029,9219	709,029,4327	709,029,4227	709,025,4591	709,021,0231						
N:	7,090,617,8505	7,090,617,7630	7,090,617,7630	7,090,617,7321	7,090,617,7315	7,090,617,4812	7,090,617,2011						
<b>Station: 12+7</b>													
Dist. Eixo (m):	-5,777	-4,495	-4,495	-4,005	-3,995	0,000	4,000	4,010	4,500	4,500	6,011		
Cota (m):	19,933	19,908	19,458	19,448	19,458	19,538	19,458	19,448	19,458	19,908	19,938		
E:	709,031,6904	709,030,4110	709,030,4110	709,029,9218	709,029,9118	709,025,9248	709,021,9309	709,021,9209	709,021,4319	709,021,4319	709,019,9236		
N:	7,090,610,4709	7,090,610,3901	7,090,610,3901	7,090,610,3592	7,090,610,3586	7,090,610,1068	7,090,609,8546	7,090,609,8540	7,090,609,8231	7,090,609,8231	7,090,609,7279		
<b>Station: 12+10</b>													
Dist. Eixo (m):	-5,794	-4,490	-4,490	-4,000	-3,990	0,000	4,010	4,020	4,510	4,510	6,035		
Cota (m):	19,929	19,903	19,453	19,443	19,453	19,533	19,453	19,443	19,453	19,903	19,933		
E:	709,031,8109	709,030,5078	709,030,5078	709,030,0179	709,030,0079	709,026,0205	709,022,0133	709,022,0033	709,021,5136	709,021,5136	709,019,9897		
N:	7,090,607,7100	7,090,607,6622	7,090,607,6622	7,090,607,6442	7,090,607,6439	7,090,607,4976	7,090,607,3507	7,090,607,3503	7,090,607,3323	7,090,607,3323	7,090,607,2764		
<b>Station: 13+0</b>													
Dist. Eixo (m):	-5,864	-4,453	-4,453	-3,962	-3,952	0,000	4,048	4,058	4,548	4,548	6,111		
Cota (m):	19,915	19,887	19,437	19,427	19,437	19,516	19,435	19,425	19,435	19,885	19,916		
E:	709,032,2471	709,030,8365	709,030,8365	709,030,3467	709,030,3367	709,026,3870	709,022,3420	709,022,3320	709,021,8423	709,021,8423	709,020,2803		
N:	7,090,597,7193	7,090,597,6675	7,090,597,6675	7,090,597,6496	7,090,597,6492	7,090,597,5043	7,090,597,3560	7,090,597,3556	7,090,597,3377	7,090,597,3377	7,090,597,2804		
<b>Station: 13+10</b>													
Dist. Eixo (m):	-5,934	-4,415	-4,415	-3,925	-3,915	0,000	4,085	4,095	4,585	4,585	6,064		
Cota (m):	19,901	19,870	19,421	19,411	19,421	19,499	19,417	19,407	19,417	19,866	19,896		
E:	709,032,6834	709,031,1653	709,031,1653	709,030,6754	709,030,6654	709,026,7535	709,022,6707	709,022,6607	709,022,1711	709,022,1711	709,020,6936		
N:	7,090,587,7285	7,090,587,6729	7,090,587,6729	7,090,587,6549	7,090,587,6545	7,090,587,5111	7,090,587,3613	7,090,587,3610	7,090,587,3430	7,090,587,3430	7,090,587,2888		
<b>Station: 13+17</b>													
Dist. Eixo (m):	-5,983	-4,388	-4,388	-3,898	-3,888	0,000	4,112	4,122	4,612	4,612	6,164		
Cota (m):	19,891	19,859	19,409	19,399	19,409	19,487	19,404	19,394	19,404	19,854	19,885		
E:	709,032,9930	709,031,3986	709,031,3986	709,030,9087	709,030,8987	709,027,0136	709,022,9041	709,022,8941	709,022,4044	709,022,4044	709,020,8536		
N:	7,090,580,6375	7,090,580,5790	7,090,580,5790	7,090,580,5611	7,090,580,5607	7,090,580,4182	7,090,580,2675	7,090,580,2671	7,090,580,2492	7,090,580,2492	7,090,580,1923		
<b>Station: 14+0</b>													
Dist. Eixo (m):	-5,927	-4,318	-4,318	-3,828	-3,818	0,000	4,190	4,200	4,690	4,690	6,214		
Cota (m):	19,887	19,854	19,405	19,395	19,405	19,481	19,397	19,387	19,397	19,847	19,877		
E:	709,033,1045	709,031,5028	709,031,5028	709,031,0148	709,031,0048	709,027,2041	709,023,0333	709,023,0234	709,022,5356	709,022,5356	709,021,0175		
N:	7,090,578,0830	7,090,577,9308	7,090,577,9308	7,090,577,8845	7,090,577,8835	7,090,577,5225	7,090,577,1263	7,090,577,1254	7,090,577,0790	7,090,577,0790	7,090,576,9348		
<b>Station: 14+5</b>													
Dist. Eixo (m):	-5,968	-4,460	-4,460	-3,970	-3,960	0,000	4,041	4,051	4,541	4,541	6,340		
Cota (m):	19,867	19,836	19,387	19,377	19,387	19,466	19,385	19,375	19,385	19,835	19,871		
E:	709,033,8674	709,032,3905	709,032,3905	709,031,9105	709,031,9007	709,028,0237	709,024,0673	709,024,0575	709,023,5777	709,023,5777	709,021,8163		
N:	7,090,573,3013	7,090,572,9947	7,090,572,9947	7,090,572,8950	7,090,572,8930	7,090,572,0882	7,090,571,2669	7,090,571,2649	7,090,571,1653	7,090,571,1653	7,090,570,7997		
<b>Station: 14+10</b>													
Dist. Eixo (m):	-5,972	-4,443	-4,443	-3,953	-3,943	0,000	4,058	4,068	4,558	4,558	6,365		
Cota (m):	19,851	19,820	19,370	19,360	19,370	19,449	19,368	19,358	19,368	19,818	19,854		
E:	709,034,8499	709,033,3875	709,033,3875	709,032,9184	709,032,9089	709,029,1356	709,025,2526	709,025,2430	709,024,7742	709,024,7742	709,023,0454		
N:	7,090,569,4623	7,090,569,0184	7,090,569,0184	7,090,568,8760	7,090,568,8731	7,090,567,7278	7,090,566,5491	7,090,566,5462	7,090,566,4039	7,090,566,4039	7,090,565,8791		
<b>Station: 14+13</b>													
Dist. Eixo (m):	-5,837	-4,333	-4,										

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
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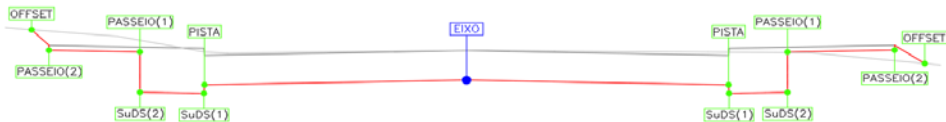
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
Station: 15+19													
Dist. Eixo (m):		-5,601	-4,206	-4,206	-3,716	-3,706	0,000	4,325	4,335	4,825	4,825		6,952
Cota (m):		19,649	19,622	19,172	19,162	19,172	19,246	19,159	19,149	19,159	19,609		19,652
E:		709,044,7399	709,043,3774	709,043,3774	709,042,8988	709,042,8891	709,039,2712	709,035,0484	709,035,0386	709,034,5602	709,034,5602		709,032,4842
N:		7,090,540,9588	7,090,540,6569	7,090,540,6569	7,090,540,5509	7,090,540,5487	7,090,539,7471	7,090,538,8115	7,090,538,8093	7,090,538,7033	7,090,538,7033		7,090,538,2433
Station: 16+0													
Dist. Eixo (m):		-5,598	-4,204	-4,204	-3,713	-3,703	0,000	4,305	4,315	4,805	4,805		6,934
Cota (m):		19,647	19,620	19,170	19,160	19,170	19,244	19,158	19,148	19,158	19,607		19,650
E:		709,044,7879	709,043,4251	709,043,4251	709,042,9461	709,042,9363	709,039,3172	709,035,1101	709,035,1003	709,034,6215	709,034,6215		709,032,5409
N:		7,090,540,7247	7,090,540,4289	7,090,540,4289	7,090,540,3249	7,090,540,3228	7,090,539,5373	7,090,538,6241	7,090,538,6219	7,090,538,5180	7,090,538,5180		7,090,538,0664
Station: 16+7													
Dist. Eixo (m):		-5,934	-4,393	-4,393	-3,903	-3,893	0,000	4,121	4,131	4,621	4,621		6,160
Cota (m):		19,569	19,538	19,089	19,079	19,089	19,166	19,084	19,074	19,084	19,534		19,565
E:		709,046,2765	709,044,7386	709,044,7386	709,044,2494	709,044,2394	709,040,3546	709,036,2420	709,036,2320	709,035,7430	709,035,7430		709,034,2074
N:		7,090,532,4745	7,090,532,3769	7,090,532,3769	7,090,532,3458	7,090,532,3452	7,090,532,0986	7,090,531,8378	7,090,531,8369	7,090,531,8059	7,090,531,8059		7,090,531,7084
Station: 16+10													
Dist. Eixo (m):		-6,069	-4,498	-4,498	-4,008	-3,998	0,000	4,006	4,016	4,506	4,506		5,962
Cota (m):		19,540	19,508	19,059	19,049	19,059	19,138	19,058	19,048	19,058	19,508		19,537
E:		709,046,5692	709,045,0007	709,045,0007	709,044,5115	709,044,5015	709,040,5119	709,036,5139	709,036,5039	709,036,0149	709,036,0149		709,034,5617
N:		7,090,530,0058	7,090,529,9063	7,090,529,9063	7,090,529,8752	7,090,529,8746	7,090,529,6213	7,090,529,3675	7,090,529,3669	7,090,529,3359	7,090,529,3359		7,090,529,2436
Station: 17+0													
Dist. Eixo (m):		-6,099	-4,509	-4,509	-4,018	-4,008	0,000	3,989	3,999	4,489	4,489		5,811
Cota (m):		19,416	19,384	18,935	18,925	18,935	19,015	18,935	18,925	18,935	19,385		19,411
E:		709,047,2318	709,045,6450	709,045,6450	709,045,1558	709,045,1458	709,041,7454	709,037,1648	709,037,1548	709,036,6658	709,036,6658		709,035,3459
N:		7,090,520,0278	7,090,519,9270	7,090,519,9270	7,090,519,8960	7,090,519,8953	7,090,519,6414	7,090,519,3887	7,090,519,3881	7,090,519,3570	7,090,519,3570		7,090,519,2733
Station: 17+2													
Dist. Eixo (m):		-6,068	-4,516	-4,516	-4,025	-4,015	0,000	3,982	3,992	4,482	4,482		5,786
Cota (m):		19,380	19,349	18,899	18,889	18,899	18,979	18,900	18,890	18,900	19,350		19,376
E:		709,047,3657	709,045,8169	709,045,8169	709,045,3277	709,045,3177	709,041,3103	709,037,3359	709,037,3259	709,036,8369	709,036,8369		709,035,5361
N:		7,090,517,4273	7,090,517,3290	7,090,517,3290	7,090,517,2980	7,090,517,2973	7,090,517,0429	7,090,516,7907	7,090,516,7900	7,090,516,7590	7,090,516,7590		7,090,516,6764
Station: 17+10													
Dist. Eixo (m):		-6,009	-4,566	-4,566	-4,075	-4,065	0,000	3,935	3,945	4,435	4,435		5,684
Cota (m):		19,270	19,241	18,791	18,781	18,791	18,872	18,794	18,784	18,794	19,244		19,269
E:		709,047,7473	709,046,3063	709,046,3063	709,045,8170	709,045,8070	709,041,7488	709,037,8211	709,037,8111	709,037,3220	709,037,3220		709,036,0747
N:		7,090,510,0159	7,090,509,9303	7,090,509,9303	7,090,509,9012	7,090,509,9006	7,090,509,6596	7,090,509,4264	7,090,509,4258	7,090,509,3967	7,090,509,3967		7,090,509,3227
Station: 18+0													
Dist. Eixo (m):		-5,930	-4,545	-4,545	-4,055	-4,045	0,000	3,955	3,965	4,455	4,455		5,874
Cota (m):		19,108	19,081	18,631	18,621	18,631	18,712	18,633	18,623	18,633	19,083		19,111
E:		709,048,2615	709,046,8784	709,046,8784	709,046,3891	709,046,3791	709,042,3416	709,038,3931	709,038,3832	709,037,8940	709,037,8940		709,036,4782
N:		7,090,500,0288	7,090,499,9467	7,090,499,9467	7,090,499,9176	7,090,499,9170	7,090,499,6772	7,090,499,4427	7,090,499,4421	7,090,499,4131	7,090,499,4131		7,090,499,3290
Station: 18+10													
Dist. Eixo (m):		-5,852	-4,515	-4,515	-4,025	-4,015	0,000	3,985	3,995	4,485	4,485		5,906
Cota (m):		18,929	18,902	18,452	18,442	18,452	18,533	18,453	18,443	18,453	18,903		18,931
E:		709,048,7757	709,047,4418	709,047,4418	709,046,9525	709,046,9425	709,042,9345	709,038,9565	709,038,9465	709,038,4574	709,038,4574		709,037,0386
N:		7,090,490,0417	7,090,489,9625	7,090,489,9625	7,090,489,9334	7,090,489,9328	7,090,489,6948	7,090,489,4586	7,090,489,4580	7,090,489,4289	7,090,489,4289		7,090,489,3447
Station: 18+15													
Dist. Eixo (m):							-3,999	0,000	4,000				
Cota (m):							18,354	18,434	18,354				
E:							709,047,2311	709,043,2391	709,039,2460				
N:							7,090,484,8020	7,090,484,5649	7,090,484,3277				
Station: 19+0													
Dist. Eixo (m):							-3,994	0,000	3,989				
Cota (m):							18,256	18,336	18,256				
E:							709,047,4418	709,043,4519	709,039,4671				
N:							7,090,479,8834	7,090,479,7085	7,090,479,5339				
Station: 19+10													
Dist. Eixo (m):							-3,984	0,000	3,994				
Cota (m):							18,062	18,141	18,062				
E:							709,047,8899	709,043,8898	709,039,8992				
N:							7,090,469,8925	7,090,469,7181	7,090,469,5432				
Station: 19+19													
Dist. Eixo (m):		-5,782	-4,500	-4,500	-4,010	-4,000	0,000	4,000	4,010	4,500	4,500		6,000
Cota (m):		18,367	18,341	17,891	17,881	17,891	17,971	17,891	17,881	17,891	18,341		18,371
E:		709,050,0692	709,048,7887	709,048,7887	709,048,2990	709,048,2890	709,044,2926	709,040,2967	709,040,2867	709,039,7972	709,039,7972		709,038,2986
N:		7,090,460,7793	7,090,460,7232	7,090,460,7232	7,090,460,7018	7,090,460,7013	7,090,460,5262	7,090,460,3511	7,090,460,3506	7,090,460,3292	7,090,460,3292		7,090,460,2635
Station: 20+0													
Dist. Eixo (m):		-5,779	-4,500	-4,500	-4,010	-4,000	0,000	4,000	4,010	4,500	4,500		5,831
Cota (m):		18,352	18,326	17,877	17,867	17,877	17,957	17,877	17,867	17,877	18,326		18,353
E:		709,050,1063	709,048,8294	709,048,8294	709,048,3399	709,048,3299	709,044,3354	709,040,3414	709,040,3314	709,039,8421	709,039,8421		709,038,5124
N:		7,090,460,0376	7,090,459,9691	7,090,459,9691	7,090,459,9428	7,090,459,9423	7,090,459,7281	7,090,459,5139	7,090,459,5133	7,090,459,4871	7,090,459,4871		7,090,459,4158
Station: 20+10													
Dist. Eixo (m):		-5,972	-4,503	-4,503	-4,013	-4,003	0,000	3,997	4,007	4,497	4,497		5,844
Cota (m):		18,171	18,142	17,692	17,682	17,692	17,772	17,692	17,682	17,692	18,142		18,169
E:		709,050,8339	709,049,3674	709,049,3674	709,048,8779	709,048,8679	709,044,8710	709,040,8794	709,040,8694	709,040,3801	709,040,3801		709,039,0356
N:		7,090,450,0622	7,090,449,9836	7,090,449,9836	7,090,449,9573	7,090,449,9568	7,090,449,7424	7,090,449,5284	7,090,449,5278	7,090,449,5016	7,090,449,5016		7,090,449,4295
Station: 21+0													
Dist. Eixo (m):		-5,965	-4,505	-4,505	-4,015	-4,005	0,000	3,995	4,005	4,495	4,495		5,858
Cota (m):		17,986	17,957	17,507	17,497	17,507	17,587	17,507	17,497	17,507	17,957		17,984
E:		709,051,3627	709,049,9055	709,049,9055	709,049,4160	709,049,4060	709,045,4065	709,041,4174	709,041,4075	709,040,9182	709,040,9182		709,039,5569
N:		7,090,440,0762	7,090,439,9981	7,090,439,9981	7,090,439,9718	7,090,439,9713	7,090,439,7568	7,090,439,5428	7,090,439,54				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA PROF. THEODORO BOING**

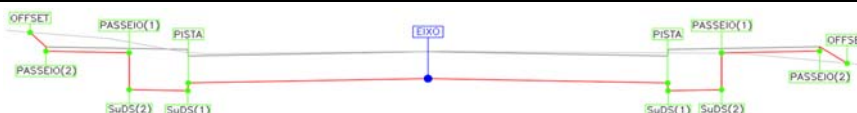
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 23+0</b>													
Dist. Eixo (m):		-6,137	-4,515	-4,515	-4,025	-4,015	<b>0,000</b>	3,985	3,995	4,485	4,485	5,953	
Cota (m):		17,131	17,099	16,649	16,639	16,649	<b>16,729</b>	16,650	16,640	16,649	17,100	17,129	
E:		709.053.6772	709.052.0576	709.052.0576	709.051.5681	709.051.5581	<b>709.047.5487</b>	709.043.5696	709.043.5596	709.043.0703	709.043.0703	709.041.6038	
N:		7.090.400.1429	7.090.400.0560	7.090.400.0560	7.090.400.0297	7.090.400.0292	<b>7.090.399.8142</b>	7.090.399.6008	7.090.399.6002	7.090.399.5740	7.090.399.5740	7.090.399.4953	
<b>Station: 23+10</b>													
Dist. Eixo (m):		-6,094	-4,518	-4,518	-4,028	-4,018	<b>0,000</b>	3,982	3,992	4,482	4,495	5,975	
Cota (m):		16,880	16,849	16,399	16,389	16,399	<b>16,479</b>	16,400	16,390	16,399	17,957	16,879	
E:		709.054.1700	709.052.5956	709.052.5956	709.052.1062	709.052.0962	<b>709.048.0842</b>	709.044.1076	709.044.0977	709.043.6084	709.040.9180	709.042.1182	
N:		7.090.390.1549	7.090.390.0705	7.090.390.0705	7.090.390.0442	7.090.390.0437	<b>7.090.399.8285</b>	7.090.399.6153	7.090.399.6147	7.090.399.5885	7.090.439.5161	7.090.399.5086	
<b>Station: 24+0</b>													
Dist. Eixo (m):		-5,996	-4,520	-4,520	-4,030	-4,020	<b>0,000</b>	3,980	3,990	4,480	4,480	5,996	
Cota (m):		16,628	16,598	16,148	16,138	16,148	<b>16,229</b>	16,149	16,139	16,149	16,599	16,629	
E:		709.054.6072	709.053.1337	709.053.1337	709.052.6442	709.052.6342	<b>709.048.8198</b>	709.044.6457	709.044.6357	709.044.1464	709.044.1464	709.042.6327	
N:		7.090.380.1640	7.090.380.0850	7.090.380.0850	7.090.380.0587	7.090.380.0582	<b>7.090.379.8429</b>	7.090.379.6297	7.090.379.6292	7.090.379.6030	7.090.379.6030	7.090.379.5218	
<b>Station: 24+10</b>													
Dist. Eixo (m):		-5,932	-4,523	-4,523	-4,033	-4,023	<b>0,000</b>	3,977	3,987	4,477	4,477	6,017	
Cota (m):		16,376	16,348	15,898	15,888	15,898	<b>15,979</b>	15,899	15,889	15,899	16,349	16,380	
E:		709.055.0790	709.053.6717	709.053.6717	709.053.1822	709.053.1722	<b>709.049.1553</b>	709.045.1837	709.045.1737	709.044.6844	709.044.6844	709.043.1471	
N:		7.090.370.1749	7.090.370.0995	7.090.370.0995	7.090.370.0732	7.090.370.0727	<b>7.090.369.8572</b>	7.090.369.6442	7.090.369.6437	7.090.369.6175	7.090.369.6175	7.090.369.5350	
<b>Station: 25+0</b>													
Dist. Eixo (m):		-6,000	-4,525	-4,525	-4,035	-4,025	<b>0,000</b>	3,975	3,985	4,475	4,475	6,017	
Cota (m):		16,127	16,097	15,648	15,638	15,648	<b>15,728</b>	15,649	15,639	15,648	16,098	16,129	
E:		709.055.6818	709.054.2098	709.054.2098	709.053.7203	709.053.7103	<b>709.049.6909</b>	709.045.7218	709.045.7118	709.045.2225	709.045.2225	709.043.6829	
N:		7.090.360.1929	7.090.360.1139	7.090.360.1139	7.090.360.0877	7.090.360.0872	<b>7.090.359.8716</b>	7.090.359.6587	7.090.359.6582	7.090.359.6319	7.090.359.6319	7.090.359.5494	
<b>Station: 25+10</b>													
Dist. Eixo (m):		-6,019	-4,700	-4,700	-4,210	-4,200	<b>0,000</b>	3,843	3,853	4,343	4,495	6,008	
Cota (m):		15,870	15,844	15,394	15,384	15,394	<b>15,478</b>	15,401	15,391	15,401	17,957	15,884	
E:		709.056.2366	709.054.9195	709.054.9195	709.054.4300	709.054.4200	<b>709.050.2264</b>	709.046.3894	709.046.3794	709.045.8901	709.040.9180	709.044.2270	
N:		7.090.350.2083	7.090.350.1376	7.090.350.1376	7.090.350.1114	7.090.350.1108	<b>7.090.349.8859</b>	7.090.349.6801	7.090.349.6796	7.090.349.6534	7.090.439.5161	7.090.349.5642	
<b>Station: 26+0</b>													
Dist. Eixo (m):		-6,023	-4,921	-4,921	-4,431	-4,421	<b>0,000</b>	3,692	3,702	4,192	4,192	6,018	
Cota (m):		15,612	15,590	15,140	15,130	15,130	<b>15,618</b>	15,544	15,144	15,154	15,604	15,641	
E:		709.056.7766	709.055.6756	709.055.6756	709.055.1861	709.055.1761	<b>709.050.7619</b>	709.047.0751	709.047.0651	709.046.5758	709.046.5758	709.044.7530	
N:		7.090.340.2229	7.090.340.1638	7.090.340.1638	7.090.340.1376	7.090.340.1370	<b>7.090.339.9003</b>	7.090.339.7028	7.090.339.7020	7.090.339.6758	7.090.339.6758	7.090.339.5780	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA NOSSA SENHORA DO CARMO**

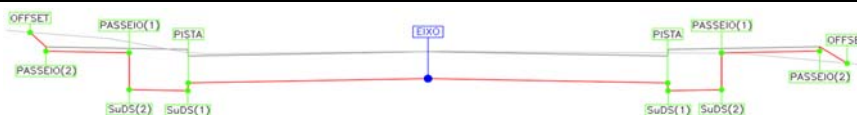
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
Station: 0+0													
Dist. Eixo (m):		-13,351	-12,443	-12,443	-11,453	-11,443	0,000	12,929	12,939	13,929	13,929	14,443	
Cota (m):		10,810	10,692	10,142	10,122	10,232	10,274	10,110	10,000	10,019	10,570	10,580	
E:		709.677.1097	709.677.1347	709.677.1347	709.677.1619	709.677.1622	709.677.4774	709.677.8335	709.677.8338	709.677.8611	709.677.8611	709.677.8752	
N:		7.089.503.2880	7.089.502.3801	7.089.502.3801	7.089.501.3903	7.089.501.3803	7.089.489.9418	7.089.477.0180	7.089.477.0080	7.089.476.0184	7.089.476.0184	7.089.475.5047	
Station: 0+10													
Dist. Eixo (m):		-7,813	-6,032	-6,032	-5,041	-5,031	0,000	4,969	4,979	5,969	5,969	7,949	
Cota (m):		10,729	10,693	10,143	10,123	10,233	10,334	10,235	10,125	10,144	10,694	10,734	
E:		709.687.2584	709.687.3075	709.687.3075	709.687.3348	709.687.3350	709.687.4736	709.687.6105	709.687.6108	709.687.6380	709.687.6336	709.687.6926	
N:		7.089.498.0273	7.089.496.2466	7.089.496.2466	7.089.495.2568	7.089.495.2468	7.089.490.2173	7.089.485.2506	7.089.485.2406	7.089.484.2510	7.089.484.2510	7.089.482.2711	
Station: 1+0													
Dist. Eixo (m):		-7,894	-6,056	-6,056	-5,066	-5,056	0,000	4,944	4,954	5,944	5,944	7,813	
Cota (m):		10,790	10,753	10,203	10,183	10,293	10,394	10,295	10,185	10,205	10,755	10,792	
E:		709.697.2524	709.697.3030	709.697.3030	709.697.3303	709.697.3306	709.697.4698	709.697.6060	709.697.6063	709.697.6336	709.697.6336	709.697.6850	
N:		7.089.498.3833	7.089.496.5465	7.089.496.5465	7.089.495.5567	7.089.495.5467	7.089.490.4927	7.089.485.5505	7.089.485.5405	7.089.484.5508	7.089.484.5508	7.089.482.6830	
Station: 1+10													
Dist. Eixo (m):		-7,990	-6,081	-6,081	-5,090	-5,080	0,000	4,920	4,930	5,920	5,920	7,676	
Cota (m):		10,851	10,813	10,263	10,243	10,353	10,454	10,356	10,246	10,266	10,816	10,851	
E:		709.707.2460	709.707.2985	709.707.2985	709.707.3258	709.707.3261	709.707.4660	709.707.6015	709.707.6018	709.707.6291	709.707.6291	709.707.6775	
N:		7.089.498.7549	7.089.496.8464	7.089.496.8464	7.089.495.8566	7.089.495.8466	7.089.490.7682	7.089.485.8504	7.089.485.8404	7.089.484.8507	7.089.484.8507	7.089.483.0949	
Station: 2+0													
Dist. Eixo (m):		-7,981	-6,105	-6,105	-5,115	-5,105	0,000	4,895	4,905	5,895	5,895	7,457	
Cota (m):		10,904	10,867	10,317	10,297	10,407	10,509	10,411	10,301	10,321	10,871	10,902	
E:		709.717.2424	709.717.2941	709.717.2941	709.717.3213	709.717.3216	709.717.4622	709.717.5971	709.717.5973	709.717.6246	709.717.6246	709.717.6676	
N:		7.089.499.0216	7.089.497.1463	7.089.497.1463	7.089.496.1565	7.089.496.1465	7.089.491.0436	7.089.486.1502	7.089.486.1402	7.089.485.1506	7.089.485.1506	7.089.483.5892	
Station: 2+10													
Dist. Eixo (m):		-8,010	-6,129	-6,129	-5,139	-5,129	0,000	4,871	4,881	5,871	5,871	7,137	
Cota (m):		10,916	10,879	10,329	10,309	10,419	10,522	10,424	10,314	10,334	10,884	10,909	
E:		709.727.2378	709.727.2896	709.727.2896	709.727.3169	709.727.3172	709.727.4584	709.727.5926	709.727.5929	709.727.6201	709.727.6201	709.727.6550	
N:		7.089.499.3263	7.089.497.4462	7.089.497.4462	7.089.496.4564	7.089.496.4464	7.089.491.3191	7.089.486.4501	7.089.486.4401	7.089.485.4505	7.089.485.4505	7.089.484.1847	
Station: 3+0													
Dist. Eixo (m):		-8,010	-6,154	-6,154	-5,164	-5,154	0,000	4,846	4,856	5,846	5,846	7,049	
Cota (m):		10,885	10,847	10,298	10,278	10,388	10,491	10,394	10,284	10,304	10,854	10,878	
E:		709.737.2340	709.737.2851	709.737.2851	709.737.3124	709.737.3127	709.737.4546	709.737.5881	709.737.5884	709.737.6157	709.737.6157	709.737.6488	
N:		7.089.499.6020	7.089.497.7461	7.089.497.7461	7.089.496.7562	7.089.496.7462	7.089.491.5945	7.089.486.7500	7.089.486.7400	7.089.485.7504	7.089.485.7504	7.089.484.5485	
Station: 3+10													
Dist. Eixo (m):		-8,045	-6,178	-6,178	-5,188	-5,178	0,000	4,822	4,832	5,822	5,822	7,152	
Cota (m):		10,847	10,809	10,260	10,240	10,350	10,453	10,357	10,247	10,267	10,816	10,843	
E:		709.747.2293	709.747.2807	709.747.2807	709.747.3079	709.747.3082	709.747.4509	709.747.5837	709.747.5839	709.747.6112	709.747.6112	709.747.6478	
N:		7.089.499.9119	7.089.498.0460	7.089.498.0460	7.089.497.0561	7.089.497.0461	7.089.491.8699	7.089.487.0499	7.089.487.0399	7.089.486.0503	7.089.486.0503	7.089.484.7208	
Station: 4+0													
Dist. Eixo (m):		-8,138	-6,203	-6,203	-5,213	-5,203	0,000	4,797	4,807	5,797	5,797	7,291	
Cota (m):		10,810	10,771	10,222	10,202	10,312	10,416	10,320	10,210	10,229	10,779	10,809	
E:		709.757.2229	709.757.2762	709.757.2762	709.757.3035	709.757.3038	709.757.4471	709.757.5792	709.757.5795	709.757.6067	709.757.6067	709.757.6479	
N:		7.089.500.2804	7.089.498.3458	7.089.498.3458	7.089.497.3560	7.089.497.3460	7.089.492.1454	7.089.487.3498	7.089.487.3398	7.089.486.3502	7.089.486.3502	7.089.484.8575	
Station: 4+10													
Dist. Eixo (m):		-8,200	-6,227	-6,227	-5,237	-5,227	0,000	4,773	4,783	5,773	5,773	7,442	
Cota (m):		10,773	10,733	10,183	10,163	10,273	10,378	10,283	10,173	10,192	10,743	10,776	
E:		709.767.2174	709.767.2717	709.767.2717	709.767.2990	709.767.2993	709.767.4433	709.767.5747	709.767.5750	709.767.6023	709.767.6023	709.767.6483	
N:		7.089.500.6174	7.089.498.6457	7.089.498.6457	7.089.497.6559	7.089.497.6459	7.089.492.4208	7.089.487.6497	7.089.487.6397	7.089.486.6501	7.089.486.6501	7.089.484.9813	
Station: 5+0													
Dist. Eixo (m):		-8,261	-6,252	-6,252	-5,261	-5,251	0,000	4,749	4,759	5,749	5,749	7,627	
Cota (m):		10,735	10,695	10,145	10,125	10,235	10,340	10,246	10,136	10,155	10,705	10,743	
E:		709.777.2119	709.777.2673	709.777.2673	709.777.2945	709.777.2948	709.777.4395	709.777.5703	709.777.5705	709.777.5978	709.777.5978	709.777.6495	
N:		7.089.500.9540	7.089.498.9456	7.089.498.9456	7.089.497.9558	7.089.497.9458	7.089.492.6963	7.089.487.9496	7.089.487.9396	7.089.486.9499	7.089.486.9499	7.089.485.0724	
Station: 5+10													
Dist. Eixo (m):		-8,381	-6,263	-6,263	-5,273	-5,263	0,000	4,737	4,747	5,737	5,737	7,744	
Cota (m):		10,700	10,657	10,108	10,088	10,198	10,303	10,208	10,098	10,118	10,668	10,708	
E:		709.787.2048	709.787.2632	709.787.2632	709.787.2904	709.787.2907	709.787.4357	709.787.5662	709.787.5664	709.787.5937	709.787.5937	709.787.6490	
N:		7.089.501.3495	7.089.499.2322	7.089.499.2322	7.089.498.2424	7.089.498.2324	7.089.492.9717	7.089.488.2361	7.089.488.2261	7.089.487.2365	7.089.487.2365	7.089.485.2304	
Station: 6+0													
Dist. Eixo (m):		-8,261	-6,228	-6,228	-5,237	-5,227	0,000	4,773	4,783	5,773	5,773	7,730	
Cota (m):		10,661	10,621	10,071	10,051	10,161	10,265	10,170	10,060	10,080	10,630	10,669	
E:		709.797.2043	709.797.2603	709.797.2603	709.797.2876	709.797.2879	709.797.4319	709.797.5633	709.797.5636	709.797.5909	709.797.5909	709.797.6448	
N:		7.089.501.5053	7.089.499.4723	7.089.499.4723	7.089.498.4825	7.089.498.4725	7.089.493.2472	7.089.488.4762	7.089.488.4662	7.089.487.4766	7.089.487.4766	7.089.485.5204	
Station: 6+10													
Dist. Eixo (m):		-8,142	-6,192	-6,192	-5,202	-5,192	0,000	4,808	4,818	5,808	5,808	7,802	
Cota (m):		10,622	10,583	10,033	10,013	10,123	10,227	10,131	10,021	10,040	10,590	10,630	
E:		709.807.2038	709.807.2575	709.807.2575	709.807.2848	709.807.2851	709.807.4281	709.807.5605	709.807.5608	709.807.5881	709.807.5881	709.807.6430	
N:		7.089.501.6612	7.089.499.7125	7.089.499.7125	7.089.498.7226	7.089.498.7126	7.089.493.5226	7.089.488.7164	7.089.488.7064	7.089.487.7168	7.089.487.7168	7.089.485.7238	
Station: 7+0													
Dist. Eixo (m):		-8,086	-6,157	-6,157	-5,167	-5,157	0,000	4,843	4,853	5,843	5,843	7,890	
Cota (m):		10,575	10,537	9,987	9,967	10,077	10,180	10,083	9,973	9,993	10,543	10,584	
E:		709.817.2016	709.817.2547	709.817.2547	709.817.2820	709.817.2823	709.817.4243	709.817.5577	709.817.5580	709.817.5852	709.817.5852	709.817.6416	
N:		7.089.501.8813	7.089.499.9526	7.089.499.9526	7.089.498.9628	7.089.498.9528	7.089.493.7981	7.089.488.9565	7.089.488.9				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA NOSSA SENHORA DO CARMO**

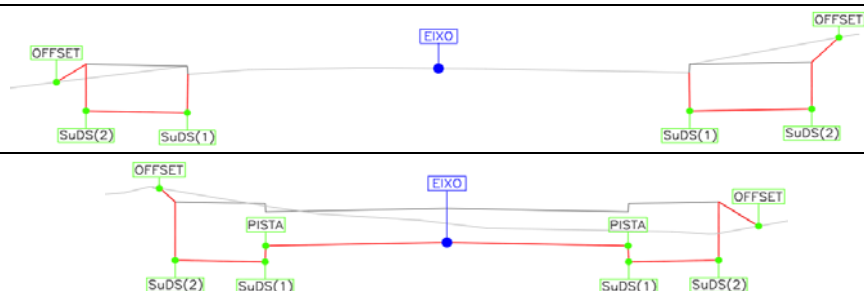
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO (2)	PASSEIO (1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO (1)	PASSEIO (2)	OFFSET
<b>Station: 9+10</b>													
Dist. Eixo (m):		-10,000	-6,829	-6,829	-5,839	-5,829	0,000	5,535	5,545	6,535	6,535	8,005	
Cota (m):		10,361	10,298	9,748	9,728	9,838	9,899	9,839	9,729	9,749	10,299	10,328	
E:		709.867.1299	709.867.2172	709.867.2172	709.867.2445	709.867.2448	709.867.4053	709.867.5578	709.867.5581	709.867.5853	709.867.5853	709.867.6258	
N:		7.089.505.1715	7.089.502.0015	7.089.502.0015	7.089.501.0116	7.089.501.0016	7.089.495.1753	7.089.489.6423	7.089.489.6323	7.089.488.6427	7.089.488.6427	7.089.487.1735	
<b>Station: 9+12</b>													
Dist. Eixo (m):		-11,000	-10,894	-10,894	-9,904	-9,894	0,000	7,739	7,749	8,739	8,739	10,120	
Cota (m):		10,365	10,435	9,786	9,766	9,876	9,886	9,879	9,769	9,789	10,338	10,366	
E:		709.869.3287	709.869.3316	709.869.3316	709.869.3589	709.869.3592	709.869.6317	709.869.8449	709.869.8451	709.869.8724	709.869.8724	709.869.9104	
N:		7.089.506.2325	7.089.506.1266	7.089.506.1266	7.089.505.1368	7.089.505.1268	7.089.495.2367	7.089.487.5005	7.089.487.4905	7.089.486.5009	7.089.486.5009	7.089.485.1207	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RADIALISTA DANIEL DA SILVA**

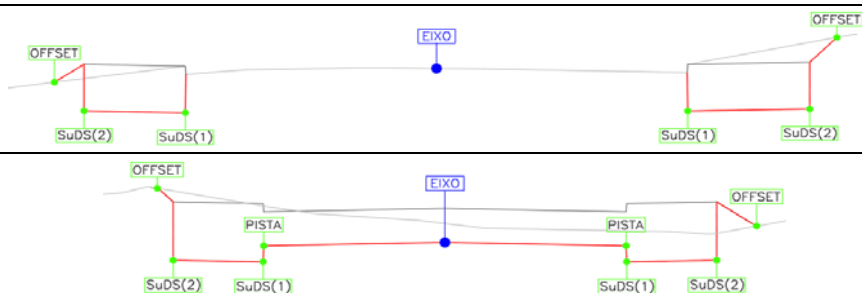
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+10</b>									
Dist. Eixo (m):		-6,013	-4,128		0,000		4,008	5,969	
Cota (m):		12,812	12,774				12,777	12,816	
E:		708.594,2280	708.592,3429		708.588,2167		708.584,2100	708.582,2491	
N:		7.090.040,1530	7.090.040,1051		7.090.040,0003		7.090.039,8985	7.090.039,8487	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-5,970	-4,122		0,000		3,990	5,956	
Cota (m):		12,834	12,797				12,800	12,839	
E:		708.594,4387	708.592,5914		708.588,4706		708.584,4818	708.582,5170	
N:		7.090.030,1551	7.090.030,1082		7.090.030,0035		7.090.029,9022	7.090.029,8523	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-5,929	-4,130		0,000		3,995	5,931	
Cota (m):		12,844	12,808				12,811	12,850	
E:		708.594,6518	708.592,8530		708.588,7245		708.584,7305	708.582,7950	
N:		7.090.020,1573	7.090.020,1116		7.090.020,0068		7.090.019,9053	7.090.019,8562	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-5,913	-4,138		0,000		4,007	5,892	
Cota (m):		12,849	12,813				12,816	12,853	
E:		708.594,8897	708.593,1145		708.588,9784		708.584,9731	708.583,0879	
N:		7.090.010,1601	7.090.010,1150		7.090.010,0100		7.090.009,9083	7.090.009,8604	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-5,893	-4,145		0,000		4,018	5,903	
Cota (m):		12,815	12,780				12,783	12,821	
E:		708.595,1233	708.593,3761		708.589,2323		708.585,2158	708.583,3316	
N:		7.090.000,1628	7.090.000,1184		7.090.000,0132		7.089.999,9112	7.089.999,8633	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-5,842	-4,111		0,000		4,029	5,923	
Cota (m):		12,775	12,741				12,742	12,780	
E:		708.595,3261	708.593,5960		708.589,4862		708.585,4585	708.583,5650	
N:		7.089.990,1647	7.089.990,1208		7.089.990,0164		7.089.989,9141	7.089.989,8660	
<b>Station: 3+10</b>									
Dist. Eixo (m):		-5,686	-4,052		0,000		4,040	5,944	
Cota (m):		12,730	12,698				12,698	12,736	
E:		708.595,4246	708.593,7912		708.589,7401		708.585,7012	708.583,7984	
N:		7.089.980,1640	7.089.980,1225		7.089.980,0197		7.089.979,9171	7.089.979,8687	
<b>Station: 4+0</b>									
Dist. Eixo (m):					0,000		4,041	5,964	
Cota (m):							12,648	12,686	
E:					708.589,9940		708.585,9538	708.584,0318	
N:					7.089.970,0229		7.089.969,9203	7.089.969,8714	
<b>Station: 4+10</b>									
Dist. Eixo (m):					0,000		4,041	5,985	
Cota (m):							12,621	12,659	
E:					708.590,2479		708.586,2083	708.584,2651	
N:					7.089.960,0261		7.089.959,9235	7.089.959,8741	
<b>Station: 5+0</b>									
Dist. Eixo (m):		-5,632	-4,013		0,000		4,049	6,005	
Cota (m):		12,651	12,618				12,618	12,657	
E:		708.596,1320	708.594,5133		708.590,5018		708.586,4538	708.584,4985	
N:		7.089.950,1723	7.089.950,1312		7.089.950,0293		7.089.949,9265	7.089.949,8769	
<b>Station: 5+10</b>									
Dist. Eixo (m):		-5,207	-3,971		0,000		4,088	6,026	
Cota (m):		12,657	12,632				12,630	12,669	
E:		708.595,9610	708.594,7259		708.590,7557		708.586,6689	708.584,7319	
N:		7.089.940,1648	7.089.940,1334		7.089.940,0325		7.089.939,9287	7.089.939,8796	
<b>Station: 6+0</b>									
Dist. Eixo (m):		-5,271	-3,930		0,000		4,141	6,046	
Cota (m):		12,666	12,639				12,635	12,673	
E:		708.596,2786	708.594,9385		708.591,0096		708.586,8695	708.584,9653	
N:		7.089.930,1696	7.089.930,1356		7.089.930,0358		7.089.929,9306	7.089.929,8823	
<b>Station: 6+10</b>									
Dist. Eixo (m):		-5,532	-3,889		0,000		4,225	6,082	
Cota (m):		12,643	12,610				12,604	12,641	
E:		708.596,7937	708.595,1511		708.591,2635		708.587,0402	708.585,1834	
N:		7.089.920,1795	7.089.920,1377		7.089.920,0390		7.089.919,9317	7.089.919,8846	
<b>Station: 8+0</b>									
Dist. Eixo (m):		-6,074	-3,978		0,000		3,944	5,801	
Cota (m):		12,529	12,487				12,488	12,525	
E:		708.598,0972	708.596,0022		708.592,0252		708.588,0821	708.586,2256	
N:		7.089.890,2029	7.089.890,1497		7.089.890,0487		7.089.889,9485	7.089.889,9014	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RADIALISTA DANIEL DA SILVA**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 8+10</b>									
Dist. Eixo (m):		-6,130	-3,965		0,000		3,942	5,858	
Cota (m):		12,579	12,536				12,536	12,575	
E:		708.598,4071	708.596,2429		708.592,2791		708.588,3382	708.586,4226	
N:		7.089.880,2075	7.089.880,1526		7.089.880,0519		7.089.879,9518	7.089.879,9031	
<b>Station: 9+0</b>									
Dist. Eixo (m):		-6,160	-3,954		0,000		3,951	5,915	
Cota (m):		12,655	12,611				12,611	12,650	
E:		708.598,6914	708.596,4860		708.592,5330		708.588,5835	708.586,6196	
N:		7.089.870,2115	7.089.870,1555		7.089.870,0551		7.089.869,9548	7.089.869,9049	
<b>Station: 9+10</b>									
Dist. Eixo (m):		-5,838	-3,948		0,000		3,966	5,972	
Cota (m):		12,668	12,631				12,630	12,670	
E:		708.598,6233	708.596,7337		708.592,7869		708.588,8225	708.586,8166	
N:		7.089.860,2066	7.089.860,1586		7.089.860,0583		7.089.859,9576	7.089.859,9067	
<b>Station: 10+0</b>									
Dist. Eixo (m):		-5,918	-3,942		0,000		3,981	6,029	
Cota (m):		12,643	12,603				12,602	12,643	
E:		708.598,9572	708.596,9811		708.593,0408		708.589,0615	708.587,0137	
N:		7.089.850,2118	7.089.850,1616		7.089.850,0616		7.089.849,9605	7.089.849,9085	
<b>Station: 10+10</b>									
Dist. Eixo (m):					0,000		3,995	6,086	
Cota (m):							12,479	12,520	
E:					708.593,2947		708.589,3006	708.587,2107	
N:					7.089.840,0648		7.089.839,9633	7.089.839,9103	
<b>Station: 11+0</b>									
Dist. Eixo (m):		-3,922	-3,901		0,000		4,010	6,143	
Cota (m):		12,901	12,919				12,407	12,450	
E:		708.597,4693	708.597,4485		708.593,5486		708.589,5396	708.587,4077	
N:		7.089.830,1676	7.089.830,1671		7.089.830,0680		7.089.829,9662	7.089.829,9120	
<b>Station: 11+10</b>									
Dist. Eixo (m):		-5,874	-3,902		0,000		4,025	6,199	
Cota (m):		12,415	12,375				12,373	12,416	
E:		708.599,6749	708.597,7036		708.593,8025		708.589,7787	708.587,6057	
N:		7.089.820,2204	7.089.820,1703		7.089.820,0712		7.089.819,9690	7.089.819,9138	
<b>Station: 12+0</b>									
Dist. Eixo (m):		-5,829	-3,893		0,000		4,032	6,202	
Cota (m):		12,380	12,341				12,338	12,382	
E:		708.599,8833	708.597,9486		708.594,0564		708.590,0253	708.587,8566	
N:		7.089.810,2224	7.089.810,1733		7.089.810,0745		7.089.809,9721	7.089.809,9170	
<b>Station: 12+4</b>									
Dist. Eixo (m):		-5,808	-3,890		0,000		4,026	6,203	
Cota (m):		12,366	12,327				12,325	12,368	
E:		708.599,9654	708.598,0475		708.594,1588		708.590,1340	708.587,9579	
N:		7.089.806,1878	7.089.806,1391		7.089.806,0403		7.089.805,9381	7.089.805,8828	
<b>Station: 12+10</b>									
Dist. Eixo (m):		-5,744	-3,882	-3,872	0,000	3,998	4,008	6,205	
Cota (m):		12,345	12,308	12,398	12,475	12,395	12,305	12,349	
E:		708.600,0529	708.598,1910	708.598,1810	708.594,3103	708.590,3136	708.590,3036	708.588,1076	
N:		7.089.800,2235	7.089.800,1762	7.089.800,1760	7.089.800,0777	7.089.799,9762	7.089.799,9759	7.089.799,9201	
<b>Station: 12+14</b>									
Dist. Eixo (m):			-3,876	-3,866	0,000	3,984	3,994	6,206	
Cota (m):			12,293	12,383	12,460	12,381	12,291	12,335	
E:			708.598,2999	708.598,2899	708.594,4252	708.590,4424	708.590,4324	708.588,2211	
N:			7.089.795,6513	7.089.795,6511	7.089.795,5529	7.089.795,4518	7.089.795,4515	7.089.795,3953	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RENATO SCHEUNEMANN**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
Station: 0+10									
Dist. Eixo (m):			-5,748	-3,826	0,000	4,189	6,807		
Cota (m):			15,202	15,164	15,350	15,157	15,209		
E:			708.605,0765	708.603,1561	708.599,3334	708.595,1480	708.592,5320		
N:			7.090.690,5261	7.090.690,4496	7.090.690,2975	7.090.690,1310	7.090.690,0269		

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL.PAV.	PISTA	EIXO	PISTA	TAL.PAV.	SuDS(1)	SuDS(2)	OFFSET
Station: 1+0											
Dist. Eixo (m):		-5,812	-4,480	-4,480	-4,000	0,000	3,999	4,479	4,479	6,460	
Cota (m):		14,969	14,938	14,559	14,568	14,648	14,568	14,559	14,938	14,977	
E:		708.605,5385	708.604,2073	708.604,2073	708.603,7278	708.599,7310	708.595,7348	708.595,2556	708.595,2556	708.593,2762	
N:		7.090.680,5365	7.090.680,4836	7.090.680,4836	7.090.680,4645	7.090.680,3054	7.090.680,1464	7.090.680,1274	7.090.680,1274	7.090.680,0486	
Station: 1+10											
Dist. Eixo (m):		-5,852	-4,480	-4,480	-4,000	0,000	3,981	4,461	4,461	6,298	
Cota (m):		14,761	14,734	14,355	14,364	14,444	14,365	14,355	14,734	14,771	
E:		708.605,9756	708.604,6048	708.604,6048	708.604,1254	708.600,1286	708.596,1505	708.595,6713	708.595,6713	708.593,8354	
N:		7.090.670,5460	7.090.670,4915	7.090.670,4915	7.090.670,4724	7.090.670,3134	7.090.670,1551	7.090.670,1360	7.090.670,1360	7.090.670,0629	
Station: 2+0											
Dist. Eixo (m):		-5,893	-4,480	-4,480	-4,000	0,000	3,963	4,443	4,443	6,207	
Cota (m):		14,629	14,600	14,221	14,231	14,311	14,232	14,222	14,601	14,636	
E:		708.606,4140	708.605,0024	708.605,0024	708.604,5230	708.600,5262	708.596,5662	708.596,0870	708.596,0870	708.594,3245	
N:		7.090.660,5555	7.090.660,4994	7.090.660,4994	7.090.660,4803	7.090.660,3213	7.090.660,1637	7.090.660,1446	7.090.660,1446	7.090.660,0745	
Station: 2+10											
Dist. Eixo (m):		-5,933	-4,480	-4,480	-4,000	0,000	3,945	4,425	4,425	6,135	
Cota (m):		14,540	14,511	14,132	14,142	14,222	14,143	14,133	14,512	14,546	
E:		708.606,8524	708.605,4000	708.605,4000	708.604,9206	708.600,9238	708.596,9819	708.596,5027	708.596,5027	708.594,7936	
N:		7.090.650,5651	7.090.650,5073	7.090.650,5073	7.090.650,4882	7.090.650,3292	7.090.650,1723	7.090.650,1533	7.090.650,1533	7.090.650,0852	
Station: 3+0											
Dist. Eixo (m):		-5,974	-4,480	-4,480	-4,000	0,000	3,927	4,406	4,406	5,898	
Cota (m):		14,460	14,431	14,052	14,061	14,141	14,063	14,053	14,432	14,462	
E:		708.607,2908	708.605,7976	708.605,7976	708.605,3182	708.601,3213	708.597,3977	708.596,9185	708.596,9185	708.595,4275	
N:		7.090.640,5746	7.090.640,5152	7.090.640,5152	7.090.640,4961	7.090.640,3371	7.090.640,1810	7.090.640,1619	7.090.640,1619	7.090.640,1026	
Station: 3+10											
Dist. Eixo (m):		-6,015	-4,480	-4,480	-4,000	0,000	3,909	4,388	4,388	5,975	
Cota (m):		14,426	14,396	14,017	14,026	14,106	14,028	14,018	14,397	14,429	
E:		708.607,7292	708.606,1952	708.606,1952	708.605,7158	708.601,7189	708.597,8134	708.597,3342	708.597,3342	708.595,7489	
N:		7.090.630,5841	7.090.630,5231	7.090.630,5231	7.090.630,5040	7.090.630,3450	7.090.630,1896	7.090.630,1705	7.090.630,1705	7.090.630,1074	
Station: 4+0											
Dist. Eixo (m):		-6,056	-4,480	-4,480	-4,000	0,000	3,890	4,370	4,370	6,051	
Cota (m):		14,434	14,402	14,023	14,033	14,113	14,035	14,025	14,404	14,438	
E:		708.608,1676	708.606,5927	708.606,5927	708.606,1133	708.602,1165	708.598,2291	708.597,7499	708.597,7499	708.596,0703	
N:		7.090.620,5937	7.090.620,5310	7.090.620,5310	7.090.620,5119	7.090.620,3529	7.090.620,1982	7.090.620,1791	7.090.620,1791	7.090.620,1123	
Station: 4+10											
Dist. Eixo (m):					-4,149	0,000	3,979				
Cota (m):					14,040	14,123	14,044				
E:					708.606,7130	708.602,5680	708.598,5933				
N:					7.090.610,5516	7.090.610,3631	7.090.610,1823				
Station: 4+17											
Dist. Eixo (m):					-4,078	0,000	4,050				
Cota (m):					14,050	14,131	14,050				
E:					708.606,9767	708.602,9030	708.598,8570				
N:					7.090.603,1834	7.090.602,9981	7.090.602,8141				
Station: 5+0											
Dist. Eixo (m):					-4,054	0,000	4,074				
Cota (m):					14,053	14,134	14,052				
E:					708.607,0708	708.603,0211	708.598,9510				
N:					7.090.600,5556	7.090.600,3734	7.090.600,1902				
Station: 5+4											
Dist. Eixo (m):					-4,008	0,000	3,995				
Cota (m):					14,059	14,139	14,059				
E:					708.607,2473	708.603,2429	708.599,2516				
N:					7.090.595,6236	7.090.595,4434	7.090.595,2637				

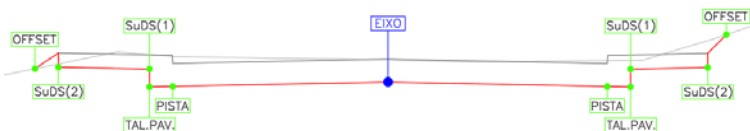
**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RENATO SCHEUNEMANN**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 20+10</b>									
Dist. Eixo (m):			-5,788	-3,688	-3,678	<b>0,000</b>	4,172	6,246	
Cota (m):			13,316	13,274	13,384	<b>13,457</b>	13,264	13,306	
E:			708.622,6161	708.620,5173	708.620,5073	<b>708.616,8327</b>	708.612,6637	708.610,5919	
N:			7.090.290,9134	7.090.290,8292	7.090.290,8288	<b>7.090.290,6815</b>	7.090.290,5143	7.090.290,4313	
<b>Station: 21+0</b>									
Dist. Eixo (m):			-5,865	-3,810	-3,800	<b>0,000</b>	4,379	6,504	
Cota (m):			13,292	13,251	13,361	<b>13,437</b>	13,239	13,282	
E:			708.623,0934	708.621,0401	708.621,0301	<b>708.617,2333</b>	708.612,8575	708.610,7346	
N:			7.090.280,9245	7.090.280,8421	7.090.280,8417	<b>7.090.280,6895</b>	7.090.280,5141	7.090.280,4289	
<b>Station: 22+0</b>									
Dist. Eixo (m):			-5,950	-3,932	-3,922	<b>0,000</b>	4,666	6,762	
Cota (m):			13,287	13,247	13,357	<b>13,435</b>	13,232	13,274	
E:			708.623,5796	708.621,5629	708.621,5529	<b>708.617,6339</b>	708.612,9713	708.610,8774	
N:			7.090.270,9359	7.090.270,8551	7.090.270,8547	<b>7.090.270,6975</b>	7.090.270,5106	7.090.270,4266	
<b>Station: 22+10</b>									
Dist. Eixo (m):			-6,005	-4,177	-4,167	<b>0,000</b>	5,240	7,278	
Cota (m):			13,294	13,258	13,368	<b>13,451</b>	13,236	13,277	
E:			708.624,4352	708.622,6085	708.622,5985	<b>708.618,4352</b>	708.613,1989	708.611,1628	
N:			7.090.250,9542	7.090.250,8809	7.090.250,8805	<b>7.090.250,7136</b>	7.090.250,5036	7.090.250,4220	
<b>Station: 23+0</b>									
Dist. Eixo (m):			-6,199	-4,251	-4,241	<b>0,000</b>	5,528	7,536	
Cota (m):			13,329	13,290	13,400	<b>13,485</b>	13,265	13,305	
E:			708.625,0302	708.623,0831	708.623,0731	<b>708.618,8358</b>	708.613,3127	708.611,3056	
N:			7.090.240,9700	7.090.240,8919	7.090.240,8915	<b>7.090.240,7216</b>	7.090.240,5002	7.090.240,4197	
<b>Station: 23+10</b>									
Dist. Eixo (m):			-6,169	-4,308	-4,298	<b>0,000</b>	5,815	7,808	
Cota (m):			13,339	13,302	13,412	<b>13,498</b>	13,272	13,312	
E:			708.625,4002	708.623,5405	708.623,5306	<b>708.619,2364</b>	708.613,4264	708.611,4342	
N:			7.090.230,9768	7.090.230,9022	7.090.230,9018	<b>7.090.230,7296</b>	7.090.230,4967	7.090.230,4168	
<b>Station: 24+0</b>									
Dist. Eixo (m):						<b>0,000</b>	6,102	8,093	
Cota (m):						<b>13,513</b>	13,281	13,321	
E:						<b>708.619,6370</b>	708.613,5402	708.611,5509	
N:						<b>7.090.220,7377</b>	7.090.220,4932	7.090.220,4135	

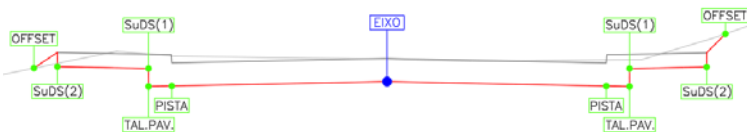
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL.PAV.	PISTA	EIXO	PISTA	TAL.PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 25+0</b>											
Dist. Eixo (m):						<b>0,000</b>			4,510	6,492	6,725
Cota (m):						<b>13,013</b>			12,931	13,219	13,363
E:						<b>708.620,4383</b>			708.616,3299	708.615,9323	708.613,7182
N:						<b>7.090.200,7537</b>			7.090.200,5890	7.090.200,5731	7.090.200,4843
<b>Station: 25+1</b>											
Dist. Eixo (m):						<b>0,000</b>			4,398	6,159	6,406
Cota (m):						<b>13,011</b>			12,931	13,219	13,349
E:						<b>708.620,4910</b>			708.616,4942	708.616,0965	708.614,0898
N:						<b>7.090.199,4401</b>			7.090.199,2798	7.090.199,2639	7.090.199,1834
<b>Station: 25+10</b>											
Dist. Eixo (m):						<b>0,000</b>			4,408	6,010	6,345
Cota (m):						<b>12,996</b>			12,908	13,204	13,273
E:						<b>708.620,8680</b>			708.616,8615	708.616,4639	708.614,5291
N:						<b>7.090.190,7630</b>			7.090.190,5889	7.090.190,5716	7.090.190,4875
<b>Station: 26+0</b>											
Dist. Eixo (m):						<b>0,000</b>			4,420	6,022	6,379
Cota (m):						<b>12,980</b>			12,899	13,187	13,241
E:						<b>708.621,3021</b>			708.617,2839	708.616,8863	708.614,9293
N:						<b>7.090.180,7724</b>			7.090.180,5978	7.090.180,5805	7.090.180,4955
<b>Station: 26+10</b>											
Dist. Eixo (m):						<b>0,000</b>			4,432	6,034	6,334
Cota (m):						<b>12,963</b>			12,882	13,170	13,262
E:						<b>708.621,7362</b>			708.617,7062	708.617,3086	708.615,4084
N:						<b>7.090.170,7818</b>			7.090.170,6067	7.090.170,5894	7.090.170,5069
<b>Station: 27+0</b>											
Dist. Eixo (m):						<b>0,000</b>			4,444	6,046	6,277
Cota (m):						<b>12,946</b>			12,865	13,153	13,291
E:						<b>708.622,1703</b>			708.618,1285	708.617,7309	708.616,8995
N:						<b>7.090.160,7913</b>			7.090.160,6156	7.090.160,5983	7.090.160,5188

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RENATO SCHEUNEMANN**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL.PAV.	PISTA	EIXO	PISTA	TAL.PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 27+10</b>											
Dist. Eixo (m):		-5,991	-4,430	-4,430	-4,032	<b>0,000</b>	4,057	4,455	4,455	6,057	6,203
Cota (m):		13,167	13,136	12,840	12,848	<b>12,929</b>	12,848	12,840	13,136	13,168	13,330
E:		708.629,5899	708.627,0303	708.627,0303	708.626,6325	<b>708.622,6045</b>	708.618,5508	708.618,1532	708.618,1532	708.616,5527	708.616,4089
N:		7.090.151,0608	7.090.150,9930	7.090.150,9930	7.090.150,9757	<b>7.090.150,8007</b>	7.090.150,6245	7.090.150,6073	7.090.150,6073	7.090.150,5377	7.090.150,5314
<b>Station: 28+0</b>											
Dist. Eixo (m):		-5,989	-4,437	-4,437	-4,038	<b>0,000</b>	4,068				
Cota (m):		13,158	13,127	12,831	12,840	<b>12,920</b>	12,839				
E:		708.629,0223	708.627,4710	708.627,4710	708.627,0732	<b>708.623,0386</b>	708.618,9748				
N:		7.090.141,0701	7.090.141,0027	7.090.141,0027	7.090.140,9854	<b>7.090.140,8101</b>	7.090.140,6335				
<b>Station: 28+10</b>											
Dist. Eixo (m):		-5,988	-4,443	-4,443	-4,045	<b>0,000</b>	4,068				
Cota (m):		13,200	13,169	12,873	12,881	<b>12,962</b>	12,880				
E:		708.629,4546	708.627,9117	708.627,9117	708.627,5139	<b>708.623,4727</b>	708.619,4085				
N:		7.090.131,0795	7.090.131,0124	7.090.131,0124	7.090.130,9951	<b>7.090.130,8195</b>	7.090.130,6429				
<b>Station: 29+0</b>											
Dist. Eixo (m):		-5,986	-4,450	-4,450	-4,052	<b>0,000</b>	4,068	5,192	5,192	5,243	
Cota (m):		13,241	13,210	12,914	12,922	<b>13,003</b>	12,922	13,181	13,477	13,192	
E:		708.629,8869	708.628,3524	708.628,3524	708.627,9547	<b>708.623,9068</b>	708.619,8422	708.618,7198	708.618,7198	708.618,6692	
N:		7.090.121,0888	7.090.121,0221	7.090.121,0221	7.090.121,0049	<b>7.090.120,8290</b>	7.090.120,6523	7.090.120,6036	7.090.120,6036	7.090.120,6014	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-6,023	-4,456	-4,456	-4,058	<b>0,000</b>	4,045	4,443	4,443	6,048	
Cota (m):		13,235	13,204	12,908	12,916	<b>12,997</b>	12,916	12,908	13,204	13,236	
E:		708.630,3584	708.628,7932	708.628,7932	708.628,3954	<b>708.624,3409</b>	708.620,2999	708.619,9023	708.619,9023	708.618,2990	
N:		7.090.111,0999	7.090.111,0318	7.090.111,0318	7.090.111,0146	<b>7.090.110,8384</b>	7.090.110,6628	7.090.110,6455	7.090.110,6455	7.090.110,5759	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-6,013	-4,463	-4,463	-4,065	<b>0,000</b>	4,013	4,411	4,411	6,027	
Cota (m):		13,221	13,190	12,894	12,902	<b>12,983</b>	12,903	12,895	13,191	13,223	
E:		708.630,7825	708.629,2339	708.629,2339	708.628,8361	<b>708.624,7750</b>	708.620,7655	708.620,3679	708.620,3679	708.618,7539	
N:		7.090.101,1089	7.090.101,0416	7.090.101,0416	7.090.101,0243	<b>7.090.100,8478</b>	7.090.100,6736	7.090.100,6563	7.090.100,6563	7.090.100,5862	
<b>Station: 30+10</b>											
Dist. Eixo (m):		-5,866	-4,470	-4,470	-4,072	<b>0,000</b>	3,982	4,380	4,380	6,006	
Cota (m):		13,203	13,175	12,879	12,888	<b>12,969</b>	12,889	12,881	13,177	13,210	
E:		708.631,0696	708.629,6746	708.629,6746	708.629,2768	<b>708.625,2091</b>	708.621,2310	708.620,8334	708.620,8334	708.619,2089	
N:		7.090.091,1119	7.090.091,0513	7.090.091,0513	7.090.091,0340	<b>7.090.090,8572</b>	7.090.090,6844	7.090.090,6671	7.090.090,6671	7.090.090,5965	
<b>Station: 31+0</b>											
Dist. Eixo (m):		-5,880	-4,476	-4,476	-4,078	<b>0,000</b>	3,950	4,348	4,348	5,985	
Cota (m):		13,189	13,161	12,865	12,873	<b>12,955</b>	12,876	12,868	13,164	13,196	
E:		708.631,5177	708.630,1153	708.630,1153	708.629,7175	<b>708.625,6432</b>	708.621,6966	708.621,2990	708.621,2990	708.619,6638	
N:		7.090.081,1219	7.090.081,0610	7.090.081,0610	7.090.081,0437	<b>7.090.080,8667</b>	7.090.080,6952	7.090.080,6779	7.090.080,6779	7.090.080,6068	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-6,286	-4,483	-4,483	-4,085	<b>0,000</b>	3,919	4,317	4,317	5,964	
Cota (m):		13,183	13,147	12,851	12,859	<b>12,941</b>	12,862	12,855	13,151	13,183	
E:		708.632,3570	708.630,5560	708.630,5560	708.630,1582	<b>708.626,0774</b>	708.622,1622	708.621,7646	708.621,7646	708.620,1187	
N:		7.090.071,1490	7.090.071,0707	7.090.071,0707	7.090.071,0534	<b>7.090.070,8761</b>	7.090.070,7060	7.090.070,6887	7.090.070,6887	7.090.070,6172	
<b>Station: 31+19</b>											
Dist. Eixo (m):		-12,164	-10,800	-10,800	-10,401	<b>0,000</b>					
Cota (m):		13,035	13,008	12,712	12,720	<b>12,928</b>					
E:		708.638,6310	708.637,2680	708.637,2680	708.636,8702	<b>708.626,4785</b>					
N:		7.090.062,1722	7.090.062,1130	7.090.062,1130	7.090.062,0957	<b>7.090.061,6442</b>					

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RODRIGO BAUMER**

Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 0+10</b>									
Dist. Eixo (m):			-6,285	-4,121	0,000	3,946	5,903		
Cota (m):			11,929	11,886	12,369	11,890	11,929		
E:			709.167,6731	709.167,7365	709.167,8573	709.167,9730	709.168,0304		
N:			7.089.785,3586	7.089.783,1950	7.089.779,0762	7.089.775,1317	7.089.773,1753		
<b>Station: 1+0</b>									
Dist. Eixo (m):			-6,316	-4,116	0,000	4,068	5,829		
Cota (m):			11,920	11,876	12,369	11,877	11,913		
E:			709.177,6679	709.177,7324	709.177,8530	709.177,9723	709.178,0239		
N:			7.089.785,6828	7.089.783,4834	7.089.779,3694	7.089.775,3030	7.089.773,5429		
<b>Station: 1+10</b>									
Dist. Eixo (m):			-6,349	-4,111	0,000	4,070	5,772		
Cota (m):			11,914	11,869	12,369	11,870	11,904		
E:			709.187,6626	709.187,7282	709.187,8487	709.187,9680	709.188,0179		
N:			7.089.786,0090	7.089.783,7719	7.089.779,6626	7.089.775,5945	7.089.773,8926		
<b>Station: 2+0</b>									
Dist. Eixo (m):			-6,382	-4,106	0,000	4,000	5,729		
Cota (m):			11,911	11,866	12,369	11,868	11,903		
E:			709.197,6573	709.197,7240	709.197,8444	709.197,9617	709.198,0124		
N:			7.089.786,3352	7.089.784,0603	7.089.779,9557	7.089.775,9577	7.089.774,2293		
<b>Station: 2+10</b>									
Dist. Eixo (m):			-6,415	-4,102	0,000	3,995	5,697		
Cota (m):			11,942	11,895	12,369	11,897	11,931		
E:			709.207,6521	709.207,7199	709.207,8401	709.207,9572	709.208,0071		
N:			7.089.786,6614	7.089.784,3487	7.089.780,2489	7.089.776,2555	7.089.774,5545		
<b>Station: 3+0</b>									
Dist. Eixo (m):			-6,448	-4,097	0,000	3,990	5,667		
Cota (m):			11,976	11,929	12,369	11,931	11,964		
E:			709.217,6468	709.217,7157	709.217,8358	709.217,9528	709.218,0019		
N:			7.089.786,9876	7.089.784,6372	7.089.780,5420	7.089.776,5533	7.089.774,8778		
<b>Station: 3+10</b>									
Dist. Eixo (m):					0,000	3,986	5,673		
Cota (m):					12,369	11,921	11,955		
E:					709.227,8315	709.227,9484	709.227,9978		
N:					7.089.780,8352	7.089.776,8511	7.089.775,1643		
<b>Station: 4+0</b>									
Dist. Eixo (m):					0,000	3,981	5,692		
Cota (m):					12,376	11,887	11,921		
E:					709.237,8272	709.237,9439	709.237,9941		
N:					7.089.781,1283	7.089.777,1489	7.089.775,4392		
<b>Station: 4+10</b>									
Dist. Eixo (m):			-6,261	-4,117	0,000	3,976	5,743		
Cota (m):			11,956	11,913	12,369	11,916	11,951		
E:			709.247,6394	709.247,7023	709.247,8229	709.247,9395	709.247,9913		
N:			7.089.787,6802	7.089.785,5363	7.089.781,4215	7.089.777,4467	7.089.775,6814		
<b>Station: 5+0</b>									
Dist. Eixo (m):			-6,297	-4,122	0,000	3,972	5,895		
Cota (m):			11,927	11,883	12,376	11,886	11,925		
E:			709.257,6340	709.257,6978	709.257,8186	709.257,9351	709.257,9914		
N:			7.089.788,0092	7.089.785,8345	7.089.781,7146	7.089.777,7446	7.089.775,8224		
<b>Station: 5+10</b>									
Dist. Eixo (m):			-6,260	-4,127	0,000	3,972	5,685		
Cota (m):			11,904	11,861	12,354	11,864	11,899		
E:			709.267,6308	709.267,6934	709.267,8143	709.267,9308	709.267,9810		
N:			7.089.788,2648	7.089.786,1328	7.089.782,0078	7.089.778,0379	7.089.776,3251		
<b>Station: 6+0</b>									
Dist. Eixo (m):			-6,222	-4,132	0,000	3,980	5,746		
Cota (m):			11,901	11,859	12,351	11,862	11,897		
E:			709.277,6276	709.277,6889	709.277,8100	709.277,9267	709.277,9785		
N:			7.089.788,5203	7.089.786,4310	7.089.782,3009	7.089.778,3222	7.089.776,5571		
<b>Station: 6+10</b>									
Dist. Eixo (m):			-6,153	-4,137	0,000	3,989	5,754		
Cota (m):			11,870	11,829	12,322	11,832	11,868		
E:			709.287,6253	709.287,6845	709.287,8057	709.287,9227	709.287,9744		
N:			7.089.788,7449	7.089.786,7292	7.089.782,5941	7.089.778,6065	7.089.776,8430		
<b>Station: 7+0</b>									
Dist. Eixo (m):			-6,080	-4,142	0,000	3,998	5,702		
Cota (m):			11,807	11,768	12,261	11,771	11,805		
E:			709.297,6232	709.297,6800	709.297,8014	709.297,9186	709.297,9686		
N:			7.089.788,9650	7.089.787,0275	7.089.782,8872	7.089.778,8909	7.089.777,1876		
<b>Station: 7+10</b>									
Dist. Eixo (m):			-6,011	-4,147	0,000	4,007	5,707		
Cota (m):			11,752	11,714	12,207	11,717	11,751		
E:			709.307,6209	709.307,6756	709.307,7971	709.307,9146	709.307,9644		
N:			7.089.789,1883	7.089.787,3257	7.089.783,1804	7.089.779,1752	7.089.777,4758		
<b>Station: 8+0</b>									
Dist. Eixo (m):			-5,988	-4,152	0,000	4,016	5,746		
Cota (m):			11,708	11,672	12,164	11,674	11,709		
E:			709.317,6173	709.317,6711	709.317,7928	709.317,9106	709.317,9613		
N:			7.089.789,4592	7.089.787,6239	7.089.783,4735	7.089.779,4595	7.089.777,7296		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA RODRIGO BAUMER**

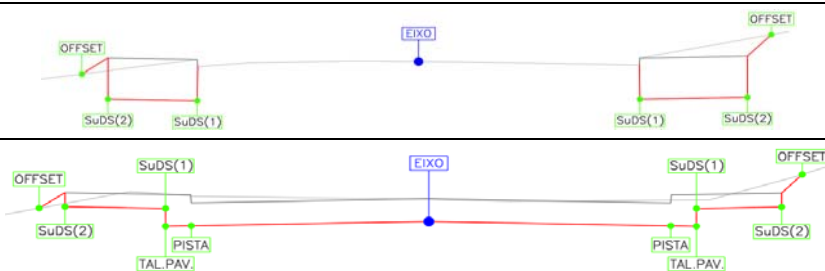
Desenho Esquemático:



PONTOS NOTÁVEIS			SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)		
<b>Station: 8+10</b>									
Dist. Eixo (m):			-6,007	-4,126	0,000	4,025	5,742		
Cota (m):			11,666	11,628	12,120	11,630	11,664		
E:			709.327,6125	709.327,6676	709.327,7885	709.327,9065	709.327,9569		
N:			7.089.789,7707	7.089.787,8912	7.089.783,7667	7.089.779,7439	7.089.778,0271		
<b>Station: 9+0</b>									
Dist. Eixo (m):			-6,016	-4,092	0,000	4,033	5,781		
Cota (m):			11,608	11,570	12,062	11,571	11,606		
E:			709.337,6079	709.337,6643	709.337,7842	709.337,9025	709.337,9537		
N:			7.089.790,0736	7.089.788,1503	7.089.784,0598	7.089.780,0282	7.089.778,2818		
<b>Station: 10+10</b>									
Dist. Eixo (m):			-6,130	-4,256	0,000	5,010	5,816		
Cota (m):			11,789	11,752	11,948	11,736	11,753		
E:			709.367,5916	709.367,6466	709.367,7714	709.367,9182	709.367,9419		
N:			7.089.791,0670	7.089.789,1933	7.089.784,9393	7.089.779,9315	7.089.779,1259		
<b>Station: 11+0</b>									
Dist. Eixo (m):			-6,093	-4,173	0,000	3,944	5,897		
Cota (m):			11,782	11,743	11,936	11,748	11,787		
E:			709.377,5885	709.377,6447	709.377,7671	709.377,8827	709.377,9399		
N:			7.089.791,3223	7.089.789,4036	7.089.785,2325	7.089.781,2903	7.089.779,3377		
<b>Station: 11+10</b>									
Dist. Eixo (m):			-6,089	-4,155	0,000	3,959	5,931		
Cota (m):			11,760	11,721	11,914	11,725	11,764		
E:			709.387,5843	709.387,6409	709.387,7628	709.387,8788	709.387,9366		
N:			7.089.791,6116	7.089.789,6791	7.089.785,5256	7.089.781,5679	7.089.779,5967		
<b>Station: 12+0</b>									
Dist. Eixo (m):			-6,092	-4,141	0,000	3,966	5,890		
Cota (m):			11,685	11,646	11,839	11,650	11,688		
E:			709.397,5799	709.397,6371	709.397,7585	709.397,8747	709.397,9311		
N:			7.089.791,9079	7.089.789,9583	7.089.785,8188	7.089.781,8548	7.089.779,9310		
<b>Station: 12+10</b>									
Dist. Eixo (m):			-6,145	-4,127	0,000	3,972	5,915		
Cota (m):			11,635	11,594	11,787	11,597	11,636		
E:			709.407,5740	709.407,6332	709.407,7542	709.407,8706	709.407,9276		
N:			7.089.792,2540	7.089.790,2375	7.089.786,1119	7.089.782,1418	7.089.780,1996		
<b>Station: 13+0</b>									
Dist. Eixo (m):			-6,134	-4,113	0,000	3,978	5,984		
Cota (m):			11,635	11,594	11,786	11,597	11,637		
E:			709.417,5701	709.417,6293	709.417,7499	709.417,8665	709.417,9253		
N:			7.089.792,5362	7.089.790,5166	7.089.786,4051	7.089.782,4288	7.089.780,4240		
<b>Station: 13+10</b>									
Dist. Eixo (m):			-6,112	-4,099	0,000	3,984	5,892		
Cota (m):			11,632	11,591	11,783	11,594	11,632		
E:			709.427,5664	709.427,6254	709.427,7456	709.427,8624	709.427,9183		
N:			7.089.792,8080	7.089.790,7958	7.089.786,6982	7.089.782,7157	7.089.780,8086		
<b>Station: 14+0</b>									
Dist. Eixo (m):			-6,091	-4,085	0,000	3,990	5,912		
Cota (m):			11,600	11,560	11,752	11,562	11,600		
E:			709.437,5627	709.437,6215	709.437,7413	709.437,8583	709.437,9146		
N:			7.089.793,0799	7.089.791,0750	7.089.786,9914	7.089.783,0027	7.089.781,0815		
<b>Station: 14+10</b>									
Dist. Eixo (m):			-6,070	-4,096	0,000	3,997	5,933		
Cota (m):			11,568	11,528	11,720	11,530	11,569		
E:			709.447,5590	709.447,6169	709.447,7370	709.447,8541	709.447,9109		
N:			7.089.793,3517	7.089.791,3792	7.089.787,2845	7.089.783,2896	7.089.781,3544		
<b>Station: 15+0</b>									
Dist. Eixo (m):			-5,972	-4,136	0,000	4,003	5,953		
Cota (m):			11,544	11,507	11,700	11,510	11,549		
E:			709.457,5576	709.457,6114	709.457,7327	709.457,8500	709.457,9072		
N:			7.089.793,5473	7.089.791,7116	7.089.787,5777	7.089.783,5766	7.089.781,6274		
<b>Station: 15+10</b>									
Dist. Eixo (m):			-6,541	-4,802	0,000	4,009	5,973		
Cota (m):			11,515	11,481	11,685	11,495	11,534		
E:			709.467,5366	709.467,5876	709.467,7284	709.467,8459	709.467,9035		
N:			7.089.794,4093	7.089.792,6705	7.089.787,8708	7.089.783,8635	7.089.781,9003		

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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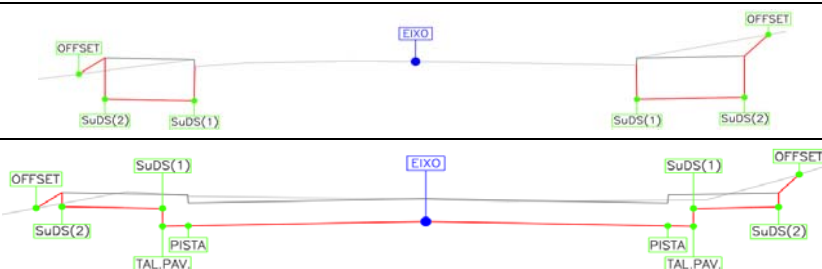
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):						0,000			7,911	12,916	
Cota (m):									13,849	13,949	
E:						709.443,5538			709.435,6472	709.430,6462	
N:						7.090.785,4232			7.090.785,1462	7.090.784,9709	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-5,945	-3,724			0,000			4,004	6,000	
Cota (m):		14,102	14,058						14,052	14,092	
E:		709.449,8458	709.447,6261			709.443,9039			709.439,9023	709.437,9077	
N:		7.090.775,6375	7.090.775,5597			7.090.775,4293			7.090.775,2891	7.090.775,2192	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-5,938	-3,723			0,000			3,974	5,984	
Cota (m):		14,144	14,100						14,095	14,135	
E:		709.450,1886	709.447,9752			709.444,2541			709.440,2821	709.438,2741	
N:		7.090.765,6434	7.090.765,5658			7.090.765,4354			7.090.765,2963	7.090.765,2259	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-5,928	-3,729			0,000			3,945	5,967	
Cota (m):		14,089	14,045						14,040	14,081	
E:		709.450,5291	709.448,3309			709.444,6042			709.440,6620	709.438,6405	
N:		7.090.765,6492	7.090.765,5721			7.090.765,4416			7.090.765,3034	7.090.765,2326	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-5,919	-3,734			0,000			3,915	5,951	
Cota (m):		14,032	13,989						13,985	14,026	
E:		709.450,8695	709.448,6866			709.444,9544			709.441,0418	709.439,0070	
N:		7.090.745,6549	7.090.745,5785			7.090.745,4477			7.090.745,3106	7.090.745,2393	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,909	-3,740			0,000			3,885	5,935	
Cota (m):		13,968	13,925						13,922	13,963	
E:		709.451,2100	709.449,0423			709.445,3045			709.441,4217	709.439,3734	
N:		7.090.735,6607	7.090.735,5848			7.090.735,4538			7.090.735,3178	7.090.735,2460	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-5,899	-3,746			0,000			3,856	5,919	
Cota (m):		13,895	13,852						13,850	13,891	
E:		709.451,5504	709.449,3980			709.445,6547			709.441,8015	709.439,7398	
N:		7.090.725,6665	7.090.725,5911			7.090.725,4600			7.090.725,3250	7.090.725,2527	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-5,889	-3,750			0,000			3,826	5,952	
Cota (m):		13,801	13,759						13,757	13,800	
E:		709.451,8906	709.449,7529			709.448,0048			709.442,1814	709.440,0570	
N:		7.090.715,6723	7.090.715,5974			7.090.715,4661			7.090.715,3321	7.090.715,2577	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-5,893	-3,736			0,000			3,796	5,942	
Cota (m):		13,703	13,660						13,658	13,701	
E:		709.452,2447	709.450,0892			709.446,3550			709.442,5613	709.440,4162	
N:		7.090.705,6786	7.090.705,6031			7.090.705,4722			7.090.705,3393	7.090.705,2642	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-5,903	-3,719			0,000			3,762	6,118	
Cota (m):		13,586	13,542						13,541	13,588	
E:		709.452,6045	709.450,4222			709.446,7051			709.442,9457	709.440,5904	
N:		7.090.695,6851	7.090.695,6086			7.090.695,4784			7.090.695,3466	7.090.695,2641	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-5,913	-3,691			0,000			3,727	6,153	
Cota (m):		13,469	13,425						13,424	13,473	
E:		709.452,9642	709.450,7439			709.447,0553			709.443,3305	709.440,9058	
N:		7.090.685,6915	7.090.685,6137			7.090.685,4845			7.090.685,3540	7.090.685,2690	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,918	-3,662			0,000			3,692	6,143	
Cota (m):		13,313	13,268						13,267	13,316	
E:		709.453,3197	709.451,0656			709.447,4054			709.443,7153	709.441,2664	
N:		7.090.675,6978	7.090.675,6189			7.090.675,4906			7.090.675,3613	7.090.675,2755	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-5,874	-3,634			0,000			3,658	6,110	
Cota (m):		13,155	13,110						13,110	13,159	
E:		709.453,6263	709.451,3873			709.447,7556			709.444,1000	709.441,6492	
N:		7.090.665,7024	7.090.665,6240			7.090.665,4968			7.090.665,3687	7.090.665,2828	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-5,822	-3,615			0,000			3,626	6,168	
Cota (m):		12,993	12,948						12,948	12,999	
E:		709.453,9244	709.451,7186			709.448,1057			709.444,4818	709.441,9416	
N:		7.090.655,7068	7.090.655,6295			7.090.655,5029			7.090.655,3759	7.090.655,2869	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-7,292	-5,010			0,000			3,665	6,369	
Cota (m):		12,803	12,757						12,784	12,838	
E:		709.455,7432	709.453,4628			709.448,4559			709.444,7927	709.442,0908	
N:		7.090.645,7643	7.090.645,6844			7.090.645,5090			7.090.645,3807	7.090.645,2860	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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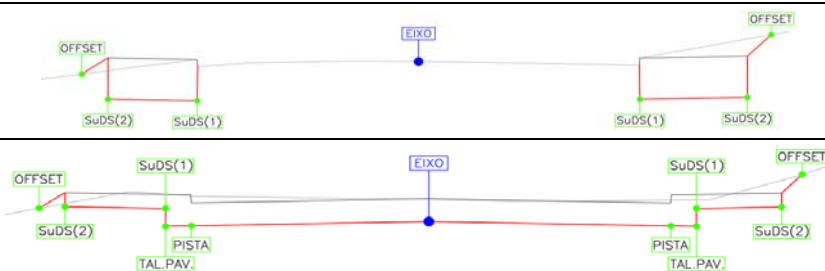
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 7+10</b>											
Dist. Eixo (m):						0,000			3,705	6,635	
Cota (m):									12,246	12,305	
E:						709.448,8060			709.445,1035	709.442,1753	
N:						7.090.635,5152			7.090.635,3854	7.090.635,2828	
<b>Station: 8+0</b>											
Dist. Eixo (m):		-5,638	-3,617			0,000			3,744	6,735	
Cota (m):		12,265	12,226						12,224	12,283	
E:		709.454,7908	709.452,7705			709.449,1562			709.445,4144	709.442,4256	
N:		7.090.625,7187	7.090.625,6479			7.090.625,5213			7.090.625,3902	7.090.625,2855	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-5,750	-3,609			0,000			3,783	6,675	
Cota (m):		12,294	12,251						12,248	12,306	
E:		709.455,2527	709.453,1132			709.449,5063			709.445,7252	709.442,8356	
N:		7.090.615,7288	7.090.615,6538			7.090.615,5274			7.090.615,3949	7.090.615,2937	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-5,943	-3,604			0,000			3,823	6,649	
Cota (m):		12,377	12,330						12,326	12,383	
E:		709.455,7961	709.453,4583			709.449,8565			709.446,0361	709.443,2115	
N:		7.090.605,7417	7.090.605,6597			7.090.605,5336			7.090.605,3997	7.090.605,3007	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-6,039	-3,622			0,000			3,862	6,568	
Cota (m):		12,469	12,421						12,416	12,470	
E:		709.456,2424	709.453,8269			709.450,2066			709.446,3469	709.443,6428	
N:		7.090.595,7512	7.090.595,6665			7.090.595,5397			7.090.595,4045	7.090.595,3097	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-5,985	-3,638			0,000			3,894	6,473	
Cota (m):		12,610	12,563						12,558	12,609	
E:		709.456,5386	709.454,1926			709.450,5568			709.446,6650	709.444,0880	
N:		7.090.585,7554	7.090.585,6732			7.090.585,5458			7.090.585,4095	7.090.585,3192	
<b>Station: 10+10</b>											
Dist. Eixo (m):		-5,931	-3,654			0,000			3,896	6,457	
Cota (m):		12,819	12,773						12,768	12,819	
E:		709.456,8348	709.454,5583			709.450,9069			709.447,0133	709.444,4538	
N:		7.090.575,7596	7.090.575,6799			7.090.575,5519			7.090.575,4155	7.090.575,3259	
<b>Station: 11+0</b>											
Dist. Eixo (m):		-5,870	-3,669			0,000			3,898	6,428	
Cota (m):		13,031	12,987						12,982	13,033	
E:		709.457,1231	709.454,9241			709.451,2571			709.447,3617	709.444,8326	
N:		7.090.565,7636	7.090.565,6866			7.090.565,5581			7.090.565,4216	7.090.565,3330	
<b>Station: 11+10</b>											
Dist. Eixo (m):		-5,800	-3,685			0,000			3,900	6,400	
Cota (m):		13,263	13,221						13,217	13,267	
E:		709.457,4033	709.455,2898			709.451,6072			709.447,7101	709.445,2113	
N:		7.090.555,7673	7.090.555,6932			7.090.555,5642			7.090.555,4277	7.090.555,3401	
<b>Station: 12+0</b>											
Dist. Eixo (m):		-5,761	-3,700			0,000			3,901	6,334	
Cota (m):		13,495	13,454						13,450	13,498	
E:		709.457,7148	709.455,6556			709.451,9574			709.448,0584	709.445,6272	
N:		7.090.545,7721	7.090.545,6999			7.090.545,5703			7.090.545,4337	7.090.545,3486	
<b>Station: 12+10</b>											
Dist. Eixo (m):		-5,714	-3,716			0,000			3,903	6,266	
Cota (m):		13,686	13,646						13,643	13,690	
E:		709.458,0179	709.456,0213			709.452,3075			709.448,4068	709.446,0453	
N:		7.090.535,7765	7.090.535,7066			7.090.535,5765			7.090.535,4398	7.090.535,3571	
<b>Station: 13+0</b>											
Dist. Eixo (m):		-5,680	-3,732			0,000			3,905	6,198	
Cota (m):		13,878	13,839						13,836	13,882	
E:		709.458,3337	709.456,3870			709.452,6577			709.448,7551	709.446,4635	
N:		7.090.525,7815	7.090.525,7133			7.090.525,5826			7.090.525,4459	7.090.525,3656	
<b>Station: 13+10</b>											
Dist. Eixo (m):		-5,616	-3,747			0,000			3,907	6,165	
Cota (m):		13,925	13,888						13,884	13,930	
E:		709.458,6201	709.456,7528			709.453,0078			709.449,1035	709.446,8464	
N:		7.090.515,7854	7.090.515,7200			7.090.515,5887			7.090.515,4519	7.090.515,3729	
<b>Station: 14+0</b>											
Dist. Eixo (m):		-5,647	-3,763			0,000			3,909	6,139	
Cota (m):		13,907	13,870						13,867	13,911	
E:		709.459,0012	709.457,1185			709.453,3580			709.449,4518	709.447,2225	
N:		7.090.505,7926	7.090.505,7266			7.090.505,5949			7.090.505,4580	7.090.505,3799	
<b>Station: 14+10</b>											
Dist. Eixo (m):						0,000			3,910	6,128	
Cota (m):									13,813	13,858	
E:						709.453,7081			709.449,8002	709.447,5835	
N:						7.090.495,6010			7.090.495,4641	7.090.495,3864	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

Desenho Esquemático:

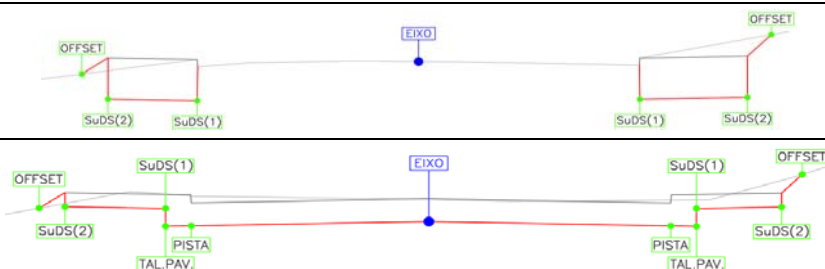


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 15+0</b>											
Dist. Eixo (m):						0,000			3,912	6,195	
Cota (m):									13,665	13,711	
E:						709.454,0583			709.450,1486	709.447,8669	
N:						7.090.485,6071			7.090.485,4702	7.090.485,3902	
<b>Station: 15+10</b>											
Dist. Eixo (m):						0,000			3,929	6,280	
Cota (m):									13,453	13,500	
E:						709.454,4084			709.450,4816	709.448,1323	
N:						7.090.475,6133			7.090.475,4757	7.090.475,3934	
<b>Station: 16+0</b>											
Dist. Eixo (m):		-5,863	-3,576			0,000			3,948	6,255	
Cota (m):		13,725	13,679						13,671	13,718	
E:		709.460,6177	709.458,3321			709.454,7586			709.450,8132	709.448,5074	
N:		7.090.465,8247	7.090.465,7446			7.090.465,6194			7.090.465,4812	7.090.465,4004	
<b>Station: 16+10</b>											
Dist. Eixo (m):		-5,822	-3,561			0,000			3,966	6,245	
Cota (m):		13,547	13,502						13,494	13,540	
E:		709.460,9270	709.458,6676			709.455,1087			709.451,1450	709.448,8675	
N:		7.090.455,8294	7.090.455,7502			7.090.455,6255			7.090.455,4867	7.090.455,4069	
<b>Station: 17+0</b>											
Dist. Eixo (m):		-5,849	-3,546			0,000			3,984	6,312	
Cota (m):		13,371	13,325						13,316	13,362	
E:		709.461,3040	709.459,0030			709.455,4589			709.451,4768	709.449,1511	
N:		7.090.445,8365	7.090.445,7558			7.090.445,6317			7.090.445,4921	7.090.445,4107	
<b>Station: 17+10</b>											
Dist. Eixo (m):		-5,920	-3,532			0,000			4,003	6,377	
Cota (m):		13,240	13,192						13,183	13,231	
E:		709.461,7258	709.459,3384			709.455,8090			709.451,8086	709.449,4364	
N:		7.090.435,8451	7.090.435,7615			7.090.435,6378			7.090.435,4976	7.090.435,4145	
<b>Station: 18+0</b>											
Dist. Eixo (m):		-5,794	-3,517			0,000			4,021	6,319	
Cota (m):		13,130	13,085						13,074	13,120	
E:		709.461,9497	709.459,6739			709.456,1592			709.452,1404	709.449,8437	
N:		7.090.425,8468	7.090.425,7671			7.090.425,6439			7.090.425,5031	7.090.425,4227	
<b>Station: 18+10</b>											
Dist. Eixo (m):		-5,693	-3,502			0,000			4,040	6,269	
Cota (m):		13,069	13,025						13,015	13,059	
E:		709.462,1988	709.460,0093			709.456,5093			709.452,4723	709.450,2439	
N:		7.090.415,8494	7.090.415,7727			7.090.415,6501			7.090.415,5086	7.090.415,4305	
<b>Station: 19+0</b>											
Dist. Eixo (m):		-5,635	-3,487			0,000			4,058	6,282	
Cota (m):		13,019	12,976						12,965	13,009	
E:		709.462,4911	709.460,3447			709.456,8595			709.452,8041	709.450,5813	
N:		7.090.405,8535	7.090.405,7783			7.090.405,6562			7.090.405,5141	7.090.405,4362	
<b>Station: 19+10</b>											
Dist. Eixo (m):		-5,577	-3,476			0,000			4,063	6,342	
Cota (m):		13,100	13,058						13,046	13,092	
E:		709.462,7835	709.460,6836			709.457,2096			709.453,1492	709.450,8716	
N:		7.090.395,8576	7.090.395,7840			7.090.395,6623			7.090.395,5201	7.090.395,4403	
<b>Station: 20+0</b>											
Dist. Eixo (m):		-5,585	-3,465			0,000			4,053	6,401	
Cota (m):		13,193	13,151						13,139	13,186	
E:		709.463,1416	709.461,0226			709.457,5598			709.453,5097	709.451,1624	
N:		7.090.385,8640	7.090.385,7898			7.090.385,6685			7.090.385,5266	7.090.385,4443	
<b>Station: 20+10</b>											
Dist. Eixo (m):		-5,622	-3,454			0,000			4,042	6,459	
Cota (m):		13,422	13,379						13,367	13,416	
E:		709.463,5285	709.461,3617			709.457,9099			709.453,8702	709.451,4544	
N:		7.090.375,8714	7.090.375,7955			7.090.375,6746			7.090.375,5331	7.090.375,4484	
<b>Station: 21+0</b>											
Dist. Eixo (m):		-5,605	-3,443			0,000			4,032	6,516	
Cota (m):		13,675	13,631						13,620	13,669	
E:		709.463,8612	709.461,7007			709.458,2601			709.454,2307	709.451,7477	
N:		7.090.365,8770	7.090.365,8013			7.090.365,6807			7.090.365,5395	7.090.365,4526	
<b>Station: 21+10</b>											
Dist. Eixo (m):		-5,604	-3,471			0,000			4,021	6,514	
Cota (m):		14,042	13,999						13,988	14,038	
E:		709.464,2104	709.462,0789			709.458,6102			709.454,5912	709.452,1000	
N:		7.090.355,8831	7.090.355,8084			7.090.355,6869			7.090.355,5460	7.090.355,4588	
<b>Station: 23+10</b>											
Dist. Eixo (m):		-5,672	-3,432			0,000			4,087	6,374	
Cota (m):		17,149	17,104						17,091	17,137	
E:		709.465,6451	709.463,4060			709.459,9761			709.455,8910	709.453,6059	
N:		7.090.315,9020	7.090.315,8262			7.090.315,7102			7.090.315,5720	7.090.315,4946	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

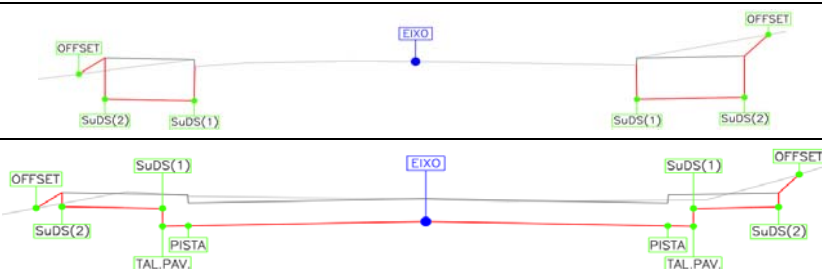
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 24+0</b>											
Dist. Eixo (m):		-5,670	-3,454			0,000			4,122	6,293	
Cota (m):		17,909	17,864						17,851	17,894	
E:		709.465,9809	709.463,7665			709.460,3143			709.456,1942	709.454,0249	
N:		7.090.305,9076	7.090.305,8327			7.090.305,7159			7.090.305,5765	7.090.305,5031	
<b>Station: 24+10</b>											
Dist. Eixo (m):		-5,589	-3,477			0,000			4,136	6,311	
Cota (m):		18,465	18,423						18,410	18,453	
E:		709.466,2379	709.464,1270			709.460,6524			709.456,5193	709.454,3450	
N:		7.090.295,9106	7.090.295,8392			7.090.295,7216			7.090.295,5818	7.090.295,5082	
<b>Station: 25+0</b>											
Dist. Eixo (m):		-5,806	-3,489			0,000			4,112	6,337	
Cota (m):		18,865	18,818						18,806	18,850	
E:		709.466,7931	709.464,4772			709.460,9906			709.456,8909	709.454,6571	
N:		7.090.285,9237	7.090.285,8453			7.090.285,7273			7.090.285,5883	7.090.285,5130	
<b>Station: 25+10</b>											
Dist. Eixo (m):		-5,601	-3,453			0,000			4,089	6,336	
Cota (m):		19,169	19,126						19,114	19,159	
E:		709.466,9263	709.464,7802			709.461,3288			709.457,2425	709.454,9963	
N:		7.090.275,9225	7.090.275,8498			7.090.275,7331			7.090.275,5948	7.090.275,5188	
<b>Station: 26+0</b>											
Dist. Eixo (m):		-5,622	-3,440			0,000			4,065	6,335	
Cota (m):		19,216	19,172						19,160	19,205	
E:		709.467,2858	709.465,1050			709.461,6669			709.457,6042	709.455,3356	
N:		7.090.265,9289	7.090.265,8551			7.090.265,7388			7.090.265,6013	7.090.265,5246	
<b>Station: 28+0</b>											
Dist. Eixo (m):		-5,686	-3,497			0,000			3,796	6,230	
Cota (m):		18,317	18,273						18,267	18,316	
E:		709.468,7027	709.466,5146			709.463,0196			709.459,2258	709.456,7934	
N:		7.090.225,9540	7.090.225,8799			7.090.225,7617			7.090.225,6333	7.090.225,5510	
<b>Station: 28+10</b>											
Dist. Eixo (m):		-5,804	-3,493			0,000			3,857	6,162	
Cota (m):		18,112	18,071						18,064	18,110	
E:		709.469,1581	709.466,8492			709.463,3578			709.459,5031	709.457,1990	
N:		7.090.215,9636	7.090.215,8855			7.090.215,7674			7.090.215,6370	7.090.215,5590	
<b>Station: 29+0</b>											
Dist. Eixo (m):		-5,780	-3,490			0,000			3,918	6,235	
Cota (m):		17,856	17,810						17,802	17,848	
E:		709.469,4728	709.467,1839			709.463,6959			709.459,7804	709.457,4641	
N:		7.090.205,9686	7.090.205,8911			7.090.205,7731			7.090.205,6406	7.090.205,5622	
<b>Station: 29+10</b>											
Dist. Eixo (m):		-5,715	-3,484			0,000			3,968	6,307	
Cota (m):		17,594	17,549						17,539	17,586	
E:		709.469,7454	709.467,5160			709.464,0341			709.460,0684	709.457,7307	
N:		7.090.195,9721	7.090.195,8966			7.090.195,7788			7.090.195,6446	7.090.195,5655	
<b>Station: 30+0</b>											
Dist. Eixo (m):		-5,752	-3,475			0,000			4,011	6,305	
Cota (m):		17,248	17,203						17,192	17,238	
E:		709.470,1214	709.467,8450			709.464,3723			709.460,3637	709.458,0707	
N:		7.090.185,9791	7.090.185,9020			7.090.185,7845			7.090.185,6489	7.090.185,5713	
<b>Station: 30+10</b>											
Dist. Eixo (m):		-5,742	-3,466			0,000			4,028	6,391	
Cota (m):		16,750	16,704						16,693	16,740	
E:		709.470,4493	709.468,1741			709.464,7104			709.460,6852	709.458,3236	
N:		7.090.175,9844	7.090.175,9075			7.090.175,7903			7.090.175,6541	7.090.175,5742	
<b>Station: 31+0</b>											
Dist. Eixo (m):		-5,737	-3,456			0,000			4,012	6,479	
Cota (m):		16,251	16,205						16,194	16,244	
E:		709.470,7822	709.468,5031			709.465,0486			709.461,0386	709.458,5734	
N:		7.090.165,9900	7.090.165,9129			7.090.165,7960			7.090.165,6603	7.090.165,5769	
<b>Station: 31+10</b>											
Dist. Eixo (m):		-5,725	-3,447			0,000			3,997	6,554	
Cota (m):		15,639	15,593						15,582	15,634	
E:		709.471,1081	709.468,8321			709.465,3868			709.461,3921	709.458,8365	
N:		7.090.155,9953	7.090.155,9183			7.090.155,8017			7.090.155,6665	7.090.155,5801	
<b>Station: 32+0</b>											
Dist. Eixo (m):		-5,680	-3,438			0,000			3,982	6,616	
Cota (m):		14,997	14,952						14,941	14,994	
E:		709.471,4019	709.469,1612			709.465,7249			709.461,7455	709.459,1123	
N:		7.090.145,9995	7.090.145,9237			7.090.145,8074			7.090.145,6728	7.090.145,5837	
<b>Station: 32+10</b>											
Dist. Eixo (m):		-5,653	-3,436			0,000			3,974	6,642	
Cota (m):		14,403	14,342						14,332	14,385	
E:		709.471,7131	709.469,4971			709.466,0631			709.462,0910	709.459,4250	
N:		7.090.136,0043	7.090.135,9293			7.090.135,8131			7.090.135,6787	7.090.135,5885	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

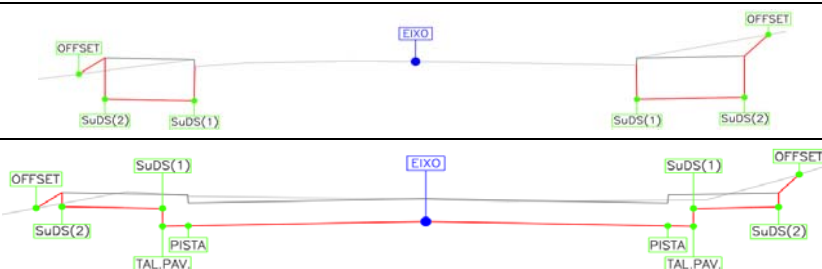
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 33+0</b>											
Dist. Eixo (m):		-5,650	-3,462			0,000			4,008	6,309	
Cota (m):		13,905	13,861						13,850	13,896	
E:		709.472,0483	709.469,8612			709.466,4013			709.462,3955	709.460,0955	
N:		7.090.126,0099	7.090.125,9359			7.090.125,8189			7.090.125,6833	7.090.125,6055	
<b>Station: 33+10</b>											
Dist. Eixo (m):		-5,648	-3,488			0,000			4,042	6,307	
Cota (m):		13,423	13,379						13,368	13,414	
E:		709.472,3843	709.470,2252			709.466,7394			709.462,7001	709.460,4364	
N:		7.090.116,0156	7.090.115,9425			7.090.115,8246			7.090.115,6879	7.090.115,6113	
<b>Station: 34+0</b>											
Dist. Eixo (m):		-5,709	-3,514			0,000			4,075	6,267	
Cota (m):		12,957	12,913						12,902	12,946	
E:		709.472,7829	709.470,5893			709.467,0776			709.463,0046	709.460,8138	
N:		7.090.106,0233	7.090.105,9491			7.090.105,8303			7.090.105,6925	7.090.105,6184	
<b>Station: 35+10</b>											
Dist. Eixo (m):		-5,706	-3,533			0,000			4,013	6,270	
Cota (m):		12,180	12,137						12,127	12,172	
E:		709.473,7946	709.471,6232			709.468,0921			709.464,0812	709.461,8255	
N:		7.090.076,0404	7.090.075,9669			7.090.075,8475			7.090.075,7117	7.090.075,6354	
<b>Station: 36+0</b>											
Dist. Eixo (m):		-5,710	-3,524			0,000			4,046	6,252	
Cota (m):		12,179	12,135						12,125	12,169	
E:		709.474,1375	709.471,9521			709.468,4303			709.464,3864	709.462,1822	
N:		7.090.066,0463	7.090.065,9723			7.090.065,8532			7.090.065,7163	7.090.065,6418	
<b>Station: 36+10</b>											
Dist. Eixo (m):		-5,732	-3,515			0,000			3,983	6,208	
Cota (m):		12,178	12,133						12,124	12,169	
E:		709.474,4970	709.472,2813			709.468,7684			709.464,7880	709.462,5636	
N:		7.090.056,0527	7.090.055,9778			7.090.055,8589			7.090.055,7242	7.090.055,6489	
<b>Station: 37+0</b>											
Dist. Eixo (m):		-5,730	-3,506			0,000			3,919	6,172	
Cota (m):		12,160	12,116						12,108	12,153	
E:		709.474,8328	709.472,6106			709.469,1066			709.465,1897	709.462,9385	
N:		7.090.046,0584	7.090.045,9832			7.090.045,8646			7.090.045,7321	7.090.045,6559	
<b>Station: 37+10</b>											
Dist. Eixo (m):		-5,724	-3,497			0,000			3,907	6,236	
Cota (m):		12,030	11,986						11,978	12,024	
E:		709.475,1653	709.472,9398			709.469,4448			709.465,5402	709.463,2122	
N:		7.090.036,0639	7.090.035,9886			7.090.035,8703			7.090.035,7382	7.090.035,6594	
<b>Station: 38+0</b>											
Dist. Eixo (m):		-5,756	-3,488			0,000			3,918	6,240	
Cota (m):		11,901	11,856						11,847	11,894	
E:		709.475,5352	709.473,2691			709.469,7829			709.465,8667	709.463,5463	
N:		7.090.026,0707	7.090.025,9940			7.090.025,8761			7.090.025,7435	7.090.025,6650	
<b>Station: 38+10</b>											
Dist. Eixo (m):		-5,722	-3,484			0,000			3,930	6,277	
Cota (m):		11,760	11,715						11,706	11,753	
E:		709.475,8397	709.473,6029			709.470,1211			709.466,1932	709.463,8477	
N:		7.090.016,0753	7.090.015,9996			7.090.015,8818			7.090.015,7489	7.090.015,6695	
<b>Station: 39+0</b>											
Dist. Eixo (m):		-5,654	-3,488			0,000			3,942	6,190	
Cota (m):		11,602	11,559						11,550	11,595	
E:		709.476,1104	709.473,9451			709.470,4593			709.466,5197	709.464,2729	
N:		7.090.006,0787	7.090.006,0054			7.090.005,8875			7.090.005,7542	7.090.005,6782	
<b>Station: 39+10</b>											
Dist. Eixo (m):		-5,699	-3,492			0,000			3,955	6,193	
Cota (m):		11,456	11,403						11,394	11,438	
E:		709.476,4933	709.474,2873			709.470,7974			709.466,8449	709.464,6076	
N:		7.089.996,0859	7.089.996,0113			7.089.995,8932			7.089.995,7595	7.089.995,6838	
<b>Station: 40+0</b>											
Dist. Eixo (m):		-5,771	-3,496			0,000			3,974	6,226	
Cota (m):		11,373	11,327						11,318	11,363	
E:		709.476,9034	709.474,6295			709.471,1356			709.467,1635	709.464,9128	
N:		7.089.986,0941	7.089.986,0172			7.089.985,8989			7.089.985,7645	7.089.985,6884	
<b>Station: 40+10</b>											
Dist. Eixo (m):		-5,650	-3,507			0,000			3,994	6,265	
Cota (m):		11,298	11,256						11,246	11,291	
E:		709.477,1206	709.474,9785			709.471,4738			709.467,4821	709.465,2120	
N:		7.089.976,0957	7.089.976,0232			7.089.975,9046			7.089.975,7696	7.089.975,6928	
<b>Station: 40+18</b>											
Dist. Eixo (m):		-5,677	-3,516			0,000			4,004	6,299	
Cota (m):		11,255	11,212						11,202	11,248	
E:		709.477,4254	709.475,2659			709.471,7520			709.467,7506	709.465,4560	
N:		7.089.967,8730	7.089.967,7999			7.089.967,6810			7.089.967,5456	7.089.967,4680	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

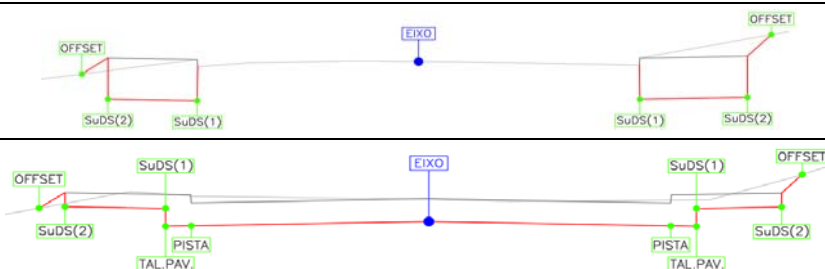
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 41+0</b>											
Dist. Eixo (m):		-5,696	-3,531			0,000			3,977	6,273	
Cota (m):		11,247	11,204						11,195	11,241	
E:		709.477,4926	709.475,3287			709.471,7985			709.467,8231	709.465,5281	
N:		7.089.966,0595	7.089.966,0027			7.089.965,9100			7.089.965,8055	7.089.965,7453	
<b>Station: 41+10</b>											
Dist. Eixo (m):		-5,817	-3,676			0,000			3,823	6,117	
Cota (m):		11,201	11,158						11,155	11,201	
E:		709.477,8761	709.475,7354			709.472,0611			709.468,2397	709.465,9464	
N:		7.089.956,0662	7.089.956,0099			7.089.955,9134			7.089.955,8130	7.089.955,7528	
<b>Station: 43+0</b>											
Dist. Eixo (m):		-6,317	-4,059			0,000			4,011	6,056	
Cota (m):		11,059	11,014						11,015	11,056	
E:		709.479,1894	709.476,9331			709.472,8761			709.468,8676	709.466,8239	
N:		7.089.926,1460	7.089.926,0669			7.089.925,9246			7.089.925,7840	7.089.925,7124	
<b>Station: 43+10</b>											
Dist. Eixo (m):		-6,190	-4,020			0,000			4,033	6,062	
Cota (m):		11,091	11,048						11,048	11,088	
E:		709.479,4129	709.477,2439			709.473,2266			709.469,1959	709.467,1682	
N:		7.089.916,1477	7.089.916,0716			7.089.915,9307			7.089.915,7894	7.089.915,7183	
<b>Station: 44+0</b>											
Dist. Eixo (m):		-6,114	-3,993			0,000			4,065	6,068	
Cota (m):		11,118	11,076						11,074	11,114	
E:		709.479,6877	709.477,5672			709.473,5770			709.469,5145	709.467,5124	
N:		7.089.906,1512	7.089.906,0768			7.089.905,9369			7.089.905,7944	7.089.905,7242	
<b>Station: 44+10</b>											
Dist. Eixo (m):		-6,103	-3,975			0,000			4,096	6,075	
Cota (m):		11,130	11,087						11,085	11,124	
E:		709.480,0268	709.477,9004			709.473,9275			709.469,8341	709.467,8567	
N:		7.089.896,1569	7.089.896,0823			7.089.895,9430			7.089.895,7995	7.089.895,7301	
<b>Station: 45+0</b>											
Dist. Eixo (m):		-6,079	-3,958			0,000			4,127	6,081	
Cota (m):		11,125	11,083						11,079	11,118	
E:		709.480,3532	709.478,2335			709.474,2780			709.470,1540	709.468,2009	
N:		7.089.886,1622	7.089.886,0879			7.089.885,9492			7.089.885,8045	7.089.885,7361	
<b>Station: 45+10</b>											
Dist. Eixo (m):		-6,037	-3,941			0,000			4,157	6,087	
Cota (m):		11,120	11,078						11,074	11,112	
E:		709.480,6615	709.478,5667			709.474,6284			709.470,4739	709.468,5452	
N:		7.089.876,1669	7.089.876,0934			7.089.875,9553			7.089.875,8096	7.089.875,7420	
<b>Station: 46+0</b>											
Dist. Eixo (m):		-5,995	-3,923			0,000			4,188	6,093	
Cota (m):		11,123	11,081						11,076	11,114	
E:		709.480,9698	709.478,8998			709.474,9789			709.470,7938	709.468,8894	
N:		7.089.866,1715	7.089.866,0990			7.089.865,9615			7.089.865,8147	7.089.865,7479	
<b>Station: 46+10</b>											
Dist. Eixo (m):		-5,968	-3,906			0,000			4,188	6,099	
Cota (m):		11,126	11,085						11,079	11,118	
E:		709.481,2940	709.479,2330			709.475,3294			709.471,1440	709.469,2337	
N:		7.089.856,1768	7.089.856,1045			7.089.855,9676			7.089.855,8208	7.089.855,7538	
<b>Station: 47+0</b>											
Dist. Eixo (m):		-5,946	-3,889			0,000			4,167	6,106	
Cota (m):		11,120	11,079			11,867			11,074	11,112	
E:		709.481,6223	709.479,5661			709.475,6798			709.471,5152	709.469,5780	
N:		7.089.846,1821	7.089.846,1100			7.089.845,9737			7.089.845,8277	7.089.845,7598	
<b>Station: 47+10</b>											
Dist. Eixo (m):		-5,924	-3,871			0,000			4,146	6,112	
Cota (m):		11,112	11,071						11,066	11,105	
E:		709.481,9506	709.479,8993			709.476,0303			709.471,8864	709.469,9222	
N:		7.089.836,1875	7.089.836,1156			7.089.835,9799			7.089.835,8346	7.089.835,7657	
<b>Station: 48+0</b>											
Dist. Eixo (m):		-5,931	-3,854			0,000			4,126	6,118	
Cota (m):		11,139	11,097						11,092	11,132	
E:		709.482,3077	709.480,2324			709.476,3808			709.472,2576	709.470,2665	
N:		7.089.826,1939	7.089.826,1211			7.089.825,9860			7.089.825,8414	7.089.825,7716	
<b>Station: 48+10</b>											
Dist. Eixo (m):		-5,925	-3,857			0,000			4,105	6,124	
Cota (m):		11,100	11,059						11,054	11,095	
E:		709.482,6527	709.480,5861			709.476,7312			709.472,6288	709.470,6107	
N:		7.089.816,1998	7.089.816,1274			7.089.815,9922			7.089.815,8483	7.089.815,7775	
<b>Station: 49+0</b>											
Dist. Eixo (m):		-5,900	-3,874			0,000			4,084	6,074	
Cota (m):		11,114	11,073						11,069	11,109	
E:		709.482,9779	709.480,9537			709.477,0817			709.473,0000	709.471,0118	
N:		7.089.806,2051	7.089.806,1341			7.089.805,9983			7.089.805,8552	7.089.805,7855	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

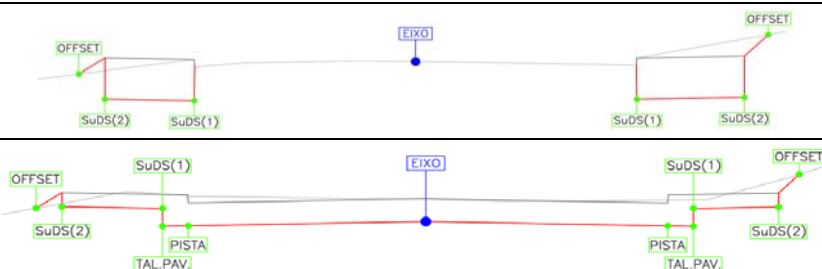
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 49+10</b>											
Dist. Eixo (m):		-5,908	-3,892			0,000			5,624	8,106	
Cota (m):		11,095	11,055						11,021	11,070	
E:		709.483,3369	709.481,3213			709.477,4322			709.471,8117	709.469,3314	
N:		7.089.796,2115	7.089.796,1408			7.089.796,0045			7.089.795,8074	7.089.795,7204	
<b>Station: 50+0</b>											
Dist. Eixo (m):		-5,985	-3,909			0,000					
Cota (m):		11,085	11,043								
E:		709.483,7637	709.481,6889			709.477,7826					
N:		7.089.786,2203	7.089.786,1476			7.089.786,0106					
<b>Station: 50+10</b>											
Dist. Eixo (m):		-6,090	-3,926			0,000			4,255	6,142	
Cota (m):		11,080	11,037						11,030	11,068	
E:		709.484,2190	709.482,0565			709.478,1331			709.473,8907	709.471,9948	
N:		7.089.776,2302	7.089.776,1543			7.089.776,0167			7.089.775,8676	7.089.775,8015	
<b>Station: 51+0</b>											
Dist. Eixo (m):		-6,119	-3,932			0,000			4,245	6,143	
Cota (m):		11,059	11,015						11,009	11,047	
E:		709.484,5992	709.482,4132			709.478,4836			709.474,2415	709.472,3447	
N:		7.089.766,2374	7.089.766,1607			7.089.766,0229			7.089.765,8741	7.089.765,8076	
<b>Station: 51+10</b>											
Dist. Eixo (m):		-6,149	-3,918			0,000			4,234	5,881	
Cota (m):		11,034	10,990						10,983	11,016	
E:		709.484,9795	709.482,7499			709.478,8340			709.474,6023	709.472,9563	
N:		7.089.756,2445	7.089.756,1664			7.089.756,0290			7.089.755,8806	7.089.755,8229	
<b>Station: 52+0</b>											
Dist. Eixo (m):		-6,160	-3,904			0,000			4,217	5,864	
Cota (m):		11,013	10,968						10,962	10,995	
E:		709.485,3404	709.483,0866			709.479,1845			709.474,9704	709.473,3245	
N:		7.089.746,2510	7.089.746,1720			7.089.746,0352			7.089.745,8874	7.089.745,8297	
<b>Station: 52+10</b>											
Dist. Eixo (m):		-6,105	-3,911			0,000			4,113	5,924	
Cota (m):		10,963	10,919						10,915	10,951	
E:		709.485,6364	709.483,4431			709.479,5350			709.475,4247	709.473,6149	
N:		7.089.736,2553	7.089.736,1784			7.089.736,0413			7.089.735,8972	7.089.735,8337	
<b>Station: 53+0</b>											
Dist. Eixo (m):		-5,932	-3,966			0,000			4,009	5,901	
Cota (m):		10,871	10,831						10,831	10,868	
E:		709.485,8136	709.483,8486			709.479,8854			709.475,8790	709.473,9881	
N:		7.089.726,2553	7.089.726,1864			7.089.726,0475			7.089.725,9070	7.089.725,8406	
<b>Station: 54+0</b>											
Dist. Eixo (m):		-12,443	-5,524			0,000			5,514	10,336	
Cota (m):		11,390	11,251						11,252	11,348	
E:		709.493,0219	709.486,1073			709.480,5864			709.475,0757	709.470,2567	
N:		7.089.706,4958	7.089.706,2534			7.089.706,0597			7.089.705,8665	7.089.705,6975	
<b>Station: 54+10</b>											
Dist. Eixo (m):		-6,021	-4,183			0,000			3,935	5,809	
Cota (m):		11,322	11,285						11,290	11,328	
E:		709.486,9545	709.485,1174			709.480,9368			709.477,0039	709.475,1315	
N:		7.089.696,2769	7.089.696,2125			7.089.696,0659			7.089.695,9280	7.089.695,8623	
<b>Station: 55+0</b>											
Dist. Eixo (m):		-5,958	-4,115			0,000			3,941	5,773	
Cota (m):		11,337	11,300						11,304	11,340	
E:		709.487,2418	709.485,3996			709.481,2873			709.477,3487	709.475,5181	
N:		7.089.686,2808	7.089.686,2162			7.089.686,0720			7.089.685,9339	7.089.685,8697	
<b>Station: 55+10</b>											
Dist. Eixo (m):		-5,987	-4,064			0,000			3,955	5,760	
Cota (m):		11,333	11,294						11,296	11,332	
E:		709.487,6216	709.485,6994			709.481,6378			709.477,6853	709.475,8810	
N:		7.089.676,2880	7.089.676,2206			7.089.676,0782			7.089.675,9396	7.089.675,8763	
<b>Station: 56+0</b>											
Dist. Eixo (m):		-6,010	-4,014			0,000			3,975	5,770	
Cota (m):		11,327	11,287						11,288	11,324	
E:		709.487,9946	709.485,9996			709.481,9882			709.478,0152	709.476,2218	
N:		7.089.666,2950	7.089.666,2250			7.089.666,0843			7.089.665,9450	7.089.665,8821	
<b>Station: 56+10</b>											
Dist. Eixo (m):		-5,947	-3,979			0,000			3,996	5,734	
Cota (m):		11,318	11,279						11,278	11,313	
E:		709.488,2816	709.486,3152			709.482,3387			709.478,3451	709.476,6080	
N:		7.089.656,2989	7.089.656,2299			7.089.656,0905			7.089.655,9504	7.089.655,8895	
<b>Station: 57+0</b>											
Dist. Eixo (m):		-6,390	-3,956			0,000			4,144	6,272	
Cota (m):		11,318	11,269						11,265	11,308	
E:		709.489,0756	709.486,6430			709.482,6892			709.478,5478	709.476,4214	
N:		7.089.646,3206	7.089.646,2353			7.089.646,0966			7.089.645,9514	7.089.645,8768	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

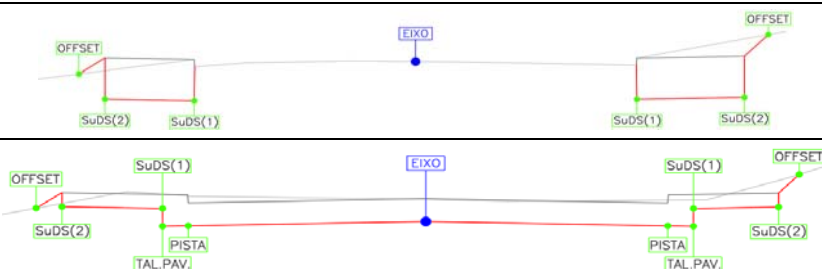
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 58+0</b>											
Dist. Eixo (m):		-6,323	-3,864			0,000			4,212	6,002	
Cota (m):		11,291	11,242						11,235	11,271	
E:		709.489,7091	709.487,2513			709.483,3901			709.479,1809	709.477,3918	
N:		7.089.626,3305	7.089.626,2443			7.089.626,1089			7.089.625,9613	7.089.625,8985	
<b>Station: 58+10</b>											
Dist. Eixo (m):		-5,951	-3,937			0,000			4,145	6,060	
Cota (m):		11,291	11,251						11,247	11,285	
E:		709.489,6877	709.487,6755			709.483,7406			709.479,5981	709.477,6839	
N:		7.089.616,3236	7.089.616,2530			7.089.616,1150			7.089.615,9698	7.089.615,9026	
<b>Station: 59+0</b>											
Dist. Eixo (m):		-5,914	-3,932			0,000			4,132	6,088	
Cota (m):		11,302	11,263						11,259	11,298	
E:		709.490,0011	709.488,0205			709.484,0910			709.479,9618	709.478,0068	
N:		7.089.606,3284	7.089.606,2590			7.089.606,1212			7.089.605,9764	7.089.605,9078	
<b>Station: 59+10</b>											
Dist. Eixo (m):		-5,832	-3,919			0,000			4,118	6,068	
Cota (m):		11,319	11,281						11,277	11,316	
E:		709.490,2697	709.488,3576			709.484,4415			709.480,3256	709.478,3770	
N:		7.089.596,3317	7.089.596,2647			7.089.596,1273			7.089.595,9830	7.089.595,9146	
<b>Station: 60+0</b>											
Dist. Eixo (m):		-5,759	-3,905			0,000			4,076	6,010	
Cota (m):		11,320	11,283						11,280	11,318	
E:		709.490,5471	709.488,6947			709.484,7920			709.480,7180	709.478,7861	
N:		7.089.586,3353	7.089.586,2703			7.089.586,1335			7.089.585,9906	7.089.585,9228	
<b>Station: 60+10</b>											
Dist. Eixo (m):		-5,715	-3,963			0,000			4,031	6,268	
Cota (m):		11,292	11,257						11,256	11,301	
E:		709.490,8538	709.489,1026			709.485,1424			709.481,1139	709.478,8786	
N:		7.089.576,3399	7.089.576,2785			7.089.576,1396			7.089.575,9983	7.089.575,9199	
<b>Station: 60+14</b>											
Dist. Eixo (m):		-6,227	-4,312			0,000			4,009	6,431	
Cota (m):		11,275	11,237						11,243	11,291	
E:		709.491,5282	709.489,6148			709.485,3050			709.481,2975	709.478,8755	
N:		7.089.571,7220	7.089.571,6549			7.089.571,5038			7.089.571,3632	7.089.571,2783	
<b>Station: 61+0</b>											
Dist. Eixo (m):					-12,000	0,000			6,728	10,347	
Cota (m):					11,362	10,992			11,158	11,230	
E:					709.497,3527	709.485,3532			709.478,6255	709.475,0068	
N:					7.089.566,2506	7.089.566,1427			7.089.566,0822	7.089.566,0496	
<b>Station: 61+10</b>											
Dist. Eixo (m):					-7,000	0,000	7,000				
Cota (m):					10,833	10,973	10,833				
E:					709.492,4429	709.485,4432	709.478,4435				
N:					7.089.556,2060	7.089.556,1431	7.089.556,0801				
<b>Station: 62+0</b>											
Dist. Eixo (m):		-5,997	-4,690	-4,690	-4,067	0,000	4,003	4,626	4,626	6,003	
Cota (m):		11,211	11,185	10,861	10,873	10,954	10,874	10,862	11,186	11,214	
E:		709.491,5302	709.490,2228	709.490,2228	709.489,6001	709.485,5331	709.481,5301	709.480,9077	709.480,9077	709.479,5301	
N:		7.089.546,1974	7.089.546,1857	7.089.546,1857	7.089.546,1801	7.089.546,1435	7.089.546,1075	7.089.546,1019	7.089.546,1019	7.089.546,0895	
<b>Station: 62+10</b>											
Dist. Eixo (m):		-5,999	-4,678	-4,678	-4,055	0,000	4,001	4,623	4,623	6,001	
Cota (m):		11,193	11,167	10,842	10,854	10,936	10,856	10,843	11,167	11,195	
E:		709.491,7140	709.490,3927	709.490,3927	709.489,7702	709.485,7157	709.481,7158	709.481,0934	709.481,0934	709.479,7161	
N:		7.089.536,2564	7.089.536,2319	7.089.536,2319	7.089.536,2204	7.089.536,1452	7.089.536,0710	7.089.536,0594	7.089.536,0594	7.089.536,0339	
<b>Station: 63+0</b>											
Dist. Eixo (m):		-5,999	-4,663	-4,663	-4,040	0,000	4,001	4,624	4,624	6,001	
Cota (m):		11,175	11,148	10,824	10,836	10,917	10,837	10,824	11,149	11,177	
E:		709.491,8990	709.490,5634	709.490,5634	709.489,9408	709.485,9012	709.481,9007	709.481,2783	709.481,2783	709.479,9010	
N:		7.089.526,2582	7.089.526,2334	7.089.526,2334	7.089.526,2218	7.089.526,1469	7.089.526,0727	7.089.526,0611	7.089.526,0611	7.089.526,0356	
<b>Station: 63+10</b>											
Dist. Eixo (m):		-5,998	-4,648	-4,648	-4,026	0,000	4,002	4,624	4,624	6,002	
Cota (m):		11,157	11,130	10,805	10,817	10,898	10,818	10,805	11,130	11,158	
E:		709.492,0839	709.490,7341	709.490,7341	709.490,1115	709.486,0867	709.482,0856	709.481,6432	709.481,6432	709.480,0859	
N:		7.089.516,2599	7.089.516,2348	7.089.516,2348	7.089.516,2233	7.089.516,1486	7.089.516,0744	7.089.516,0628	7.089.516,0628	7.089.516,0373	
<b>Station: 64+0</b>											
Dist. Eixo (m):		-5,998	-4,633	-4,633	-4,011	0,000	4,002	4,625	4,625	6,002	
Cota (m):		11,138	11,111	10,787	10,799	10,879	10,799	10,787	11,111	11,139	
E:		709.492,2688	709.490,9047	709.490,9047	709.490,2822	709.486,2722	709.482,2705	709.481,6482	709.481,6482	709.480,2708	
N:		7.089.506,2616	7.089.506,2363	7.089.506,2363	7.089.506,2247	7.089.506,1503	7.089.506,0761	7.089.506,0645	7.089.506,0645	7.089.506,0390	
<b>Station: 64+9</b>											
Dist. Eixo (m):		-6,002	-4,618	-4,618	-3,997	0,000	4,003	4,625	4,625	6,003	
Cota (m):		11,120	11,093	10,769	10,781	10,861	10,781	10,768	11,093	11,121	
E:		709.492,4705	709.491,0825	709.491,0825	709.490,4600	709.486,4511	709.482,4489	709.481,8266	709.481,8266	709.480,4493	
N:		7.089.496,6143	7.089.496,5886	7.089.496,5886	7.089.496,5770	7.089.496,5026	7.089.496,4284	7.089.496,4168	7.089.496,4168	7.089.496,3913	

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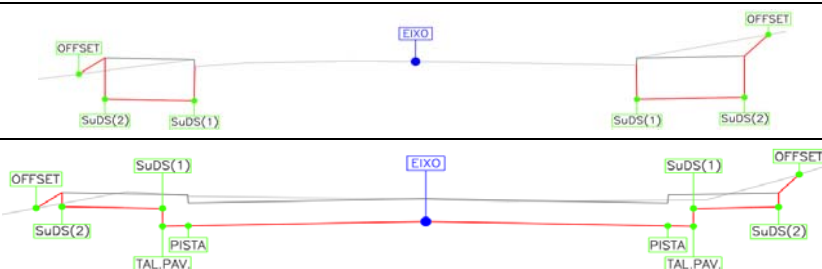
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 64+10</b>											
Dist. Eixo (m):		-6,001	-4,619	-4,619	-3,997	<b>0,000</b>	4,059	4,681	4,681	6,086	
Cota (m):		11,121	11,093	10,768	10,780	<b>10,860</b>	10,779	10,767	11,091	11,119	
E:		709.492,4580	709.491,0827	709.491,0827	709.490,4630	<b>709.486,4849</b>	709.482,4448	709.481,8252	709.481,8252	709.480,4268	
N:		7.089.496,7317	7.089.496,5986	7.089.496,5986	7.089.496,5386	<b>7.089.496,1536</b>	7.089.495,7626	7.089.495,7026	7.089.495,7026	7.089.495,5673	
<b>Station: 65+0</b>											
Dist. Eixo (m):					-7,000	<b>0,000</b>	7,000				
Cota (m):					10,701	<b>10,841</b>	10,701				
E:					709.494,4157	<b>709.487,4483</b>	709.480,4809				
N:					7.089.486,8745	<b>7.089.486,2001</b>	7.089.485,5258				
<b>Station: 65+10</b>											
Dist. Eixo (m):		-7,706	-5,808	-5,808	-5,185	<b>0,000</b>	4,524	5,147	5,147	8,168	
Cota (m):		11,069	11,031	10,707	10,719	<b>10,823</b>	10,732	10,720	11,045	11,105	
E:		709.496,0823	709.494,1922	709.494,1922	709.493,5725	<b>709.488,4117</b>	709.483,9085	709.483,2890	709.483,2890	709.480,2821	
N:		7.089.476,9891	7.089.476,8061	7.089.476,8061	7.089.476,7461	<b>7.089.476,2466</b>	7.089.475,8108	7.089.475,7508	7.089.475,7508	7.089.475,4598	
<b>Station: 65+13</b>											
Dist. Eixo (m):		-6,014	-4,632	-4,632	-4,010	<b>0,000</b>	4,000	4,620	4,620	5,999	
Cota (m):		11,075	11,048	10,723	10,735	<b>10,816</b>	10,735	10,723	11,047	11,075	
E:		709.494,7592	709.493,3835	709.493,3835	709.492,7637	<b>709.488,7729</b>	709.484,7820	709.484,1624	709.484,1624	709.482,7865	
N:		7.089.473,0945	7.089.472,9613	7.089.472,9613	7.089.472,9014	<b>7.089.472,5151</b>	7.089.472,1288	7.089.472,0688	7.089.472,0688	7.089.471,9357	
<b>Station: 66+0</b>											
Dist. Eixo (m):		-6,010	-4,633	-4,633	-4,010	<b>0,000</b>	3,990	4,612	4,612	5,990	
Cota (m):		11,063	11,036	10,712	10,724	<b>10,804</b>	10,724	10,712	11,036	11,064	
E:		709.494,9429	709.493,5660	709.493,5660	709.492,9435	<b>709.488,9346</b>	709.484,9462	709.484,3240	709.484,3240	709.482,9469	
N:		7.089.466,4216	7.089.466,3860	7.089.466,3860	7.089.466,3699	<b>7.089.466,2662</b>	7.089.466,1630	7.089.466,1469	7.089.466,1469	7.089.466,1112	
<b>Station: 66+10</b>											
Dist. Eixo (m):		-6,027	-4,649	-4,649	-4,027	<b>0,000</b>	3,973	4,596	4,596	5,973	
Cota (m):		11,044	11,017	10,693	10,705	<b>10,785</b>	10,706	10,693	11,017	11,045	
E:		709.495,2180	709.493,8412	709.493,8412	709.493,2187	<b>709.489,1932</b>	709.485,2214	709.484,5991	709.484,5991	709.483,2223	
N:		7.089.456,4254	7.089.456,3898	7.089.456,3898	7.089.456,3737	<b>7.089.456,2695</b>	7.089.456,1667	7.089.456,1506	7.089.456,1506	7.089.456,1150	
<b>Station: 67+0</b>											
Dist. Eixo (m):		-6,043	-4,666	-4,666	-4,043	<b>0,000</b>	3,957	4,579	4,579	5,956	
Cota (m):		11,025	10,998	10,673	10,685	<b>10,766</b>	10,687	10,675	10,999	11,027	
E:		709.495,4932	709.494,1163	709.494,1163	709.493,4939	<b>709.489,4519</b>	709.485,4966	709.484,8743	709.484,8743	709.483,4976	
N:		7.089.446,4292	7.089.446,3936	7.089.446,3936	7.089.446,3775	<b>7.089.446,2729</b>	7.089.446,1705	7.089.446,1544	7.089.446,1544	7.089.446,1188	
<b>Station: 67+10</b>											
Dist. Eixo (m):		-6,060	-4,682	-4,682	-4,060	<b>0,000</b>	3,940	4,563	4,563	5,940	
Cota (m):		11,006	10,978	10,654	10,666	<b>10,747</b>	10,669	10,656	10,980	11,008	
E:		709.495,7684	709.494,3915	709.494,3915	709.493,7691	<b>709.489,7106</b>	709.485,7717	709.485,1495	709.485,1495	709.483,7730	
N:		7.089.436,4330	7.089.436,3973	7.089.436,3973	7.089.436,3812	<b>7.089.436,2762</b>	7.089.436,1743	7.089.436,1582	7.089.436,1582	7.089.436,1226	
<b>Station: 68+0</b>											
Dist. Eixo (m):		-6,076	-4,699	-4,699	-4,076	<b>0,000</b>	3,924	4,546	4,546	5,923	
Cota (m):		10,987	10,959	10,635	10,647	<b>10,729</b>	10,650	10,638	10,962	10,990	
E:		709.496,0436	709.494,6667	709.494,6667	709.494,0442	<b>709.489,9693</b>	709.486,0469	709.485,4247	709.485,4247	709.484,0484	
N:		7.089.426,4367	7.089.426,4011	7.089.426,4011	7.089.426,3850	<b>7.089.426,2796</b>	7.089.426,1781	7.089.426,1620	7.089.426,1620	7.089.426,1263	
<b>Station: 68+5</b>											
Dist. Eixo (m):		-6,271	-4,822	-4,822	-4,199	<b>0,000</b>	4,019	4,642	4,642	6,083	
Cota (m):		10,974	10,946	10,621	10,633	<b>10,717</b>	10,637	10,625	10,949	10,978	
E:		709.496,3925	709.494,9438	709.494,9438	709.494,3214	<b>709.490,1234</b>	709.486,1053	709.485,4831	709.485,4831	709.484,0422	
N:		7.089.420,4850	7.089.420,4476	7.089.420,4476	7.089.420,4315	<b>7.089.420,3228</b>	7.089.420,2188	7.089.420,2027	7.089.420,2027	7.089.420,1655	
<b>Station: 68+10</b>											
Dist. Eixo (m):		-8,953	-6,726	-6,726	-6,103	<b>0,000</b>	6,018	6,640	6,640	8,634	
Cota (m):		10,945	10,900	10,576	10,588	<b>10,710</b>	10,589	10,577	10,902	10,942	
E:		709.499,2071	709.496,9815	709.496,9815	709.496,3592	<b>709.490,2591</b>	709.484,2448	709.483,6227	709.483,6227	709.481,6300	
N:		7.089.416,5845	7.089.416,5097	7.089.416,5097	7.089.416,4888	<b>7.089.416,2838</b>	7.089.416,0817	7.089.416,0608	7.089.416,0608	7.089.415,9939	
<b>Station: 69+0</b>											
Dist. Eixo (m):					-7,000	<b>0,000</b>	7,000				
Cota (m):					10,551	<b>10,691</b>	10,551				
E:					709.497,5910	<b>709.490,5950</b>	709.483,5989				
N:					7.089.406,5245	<b>7.089.406,2895</b>	7.089.406,0544				
<b>Station: 69+10</b>											
Dist. Eixo (m):		-6,313	-4,635	-4,635	-4,012	<b>0,000</b>	4,040	4,663	4,663	6,054	
Cota (m):		10,938	10,905	10,581	10,593	<b>10,673</b>	10,592	10,580	10,904	10,932	
E:		709.497,2402	709.495,5627	709.495,5627	709.494,9404	<b>709.490,9308</b>	709.486,8928	709.486,2707	709.486,2707	709.484,8805	
N:		7.089.396,5071	7.089.396,4507	7.089.396,4507	7.089.396,4298	<b>7.089.396,2951</b>	7.089.396,1594	7.089.396,1385	7.089.396,1385	7.089.396,0918	
<b>Station: 70+0</b>											
Dist. Eixo (m):		-6,009	-4,606	-4,606	-3,984	<b>0,000</b>	4,016	4,639	4,639	6,016	
Cota (m):		10,928	10,900	10,576	10,588	<b>10,668</b>	10,588	10,575	10,899	10,927	
E:		709.497,2903	709.495,8888	709.495,8888	709.495,2666	<b>709.491,2853</b>	709.487,2715	709.486,6494	709.486,6494	709.485,2727	
N:		7.089.386,5148	7.089.386,4650	7.089.386,4650	7.089.386,4429	<b>7.089.386,3014</b>	7.089.386,1588	7.089.386,1367	7.089.386,1367	7.089.386,0878	
<b>Station: 70+10</b>											
Dist. Eixo (m):		-6,026	-4,610	-4,610	-3,987	<b>0,000</b>	4,013	4,636	4,636	6,013	
Cota (m):		10,941	10,913	10,589	10,601	<b>10,681</b>	10,600	10,588	10,912	10,940	
E:		709.497,6627	709.496,2474	709.496,2474	709.495,6251	<b>709.491,6404</b>	709.487,6298	709.487,0077	709.487,0077	709.485,6311	
N:		7.089.376,5217	7.089.376,4714	7.089.376,4714	7.089.376,4493	<b>7.089.376,3077</b>	7.089.376,1652	7.089.376,1431	7.089.376,1431	7.089.376,0942	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

Desenho Esquemático:

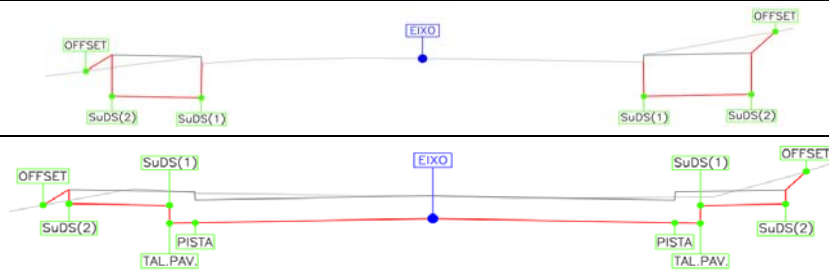


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 71+0</b>											
Dist. Eixo (m):		-6,044	-4,613	-4,613	-3,991	0,000	4,010	4,632	4,632	6,010	
Cota (m):		10,960	10,931	10,607	10,619	10,698	10,618	10,606	10,930	10,958	
E:		709.498,0352	709.496,6059	709.496,6059	709.495,9836	709.491,9955	709.487,9881	709.487,3661	709.487,3661	709.485,9894	
N:		7.089.366,5286	7.089.366,4778	7.089.366,4778	7.089.366,4557	7.089.366,3140	7.089.366,1716	7.089.366,1495	7.089.366,1495	7.089.366,1006	
<b>Station: 71+10</b>											
Dist. Eixo (m):		-6,061	-4,617	-4,617	-3,994	0,000	4,007	4,629	4,629	6,007	
Cota (m):		10,978	10,949	10,624	10,636	10,716	10,636	10,624	10,948	10,976	
E:		709.498,4077	709.496,9644	709.496,9644	709.496,3421	709.492,3506	709.488,3465	709.487,7244	709.487,7244	709.486,3477	
N:		7.089.356,5355	7.089.356,4842	7.089.356,4842	7.089.356,4621	7.089.356,3203	7.089.356,1781	7.089.356,1559	7.089.356,1559	7.089.356,1070	
<b>Station: 72+0</b>											
Dist. Eixo (m):		-6,078	-4,620	-4,620	-3,998	0,000	4,003	4,626	4,626	6,003	
Cota (m):		10,996	10,966	10,642	10,654	10,734	10,654	10,642	10,966	10,994	
E:		709.498,7802	709.497,3229	709.497,3229	709.496,7007	709.492,7056	709.488,7048	709.488,0828	709.488,0828	709.486,7061	
N:		7.089.346,5425	7.089.346,4907	7.089.346,4907	7.089.346,4686	7.089.346,3266	7.089.346,1845	7.089.346,1624	7.089.346,1624	7.089.346,1135	
<b>Station: 72+10</b>											
Dist. Eixo (m):		-6,096	-5,623	-5,623	-5,000	0,000	7,000				
Cota (m):		10,974	10,964	10,640	10,652	10,752	10,612				
E:		709.499,1527	709.498,6798	709.498,6798	709.498,0576	709.493,0607	709.486,0651				
N:		7.089.336,5494	7.089.336,5326	7.089.336,5326	7.089.336,5105	7.089.336,3329	7.089.336,0844				
<b>Station: 73+0</b>											
Dist. Eixo (m):		-6,119	-4,627	-4,627	-4,004	0,000	6,371	6,994	6,994	10,091	
Cota (m):		11,032	11,002	10,678	10,690	10,770	10,642	10,630	10,955	11,017	
E:		709.499,5305	709.498,0400	709.498,0400	709.497,4177	709.493,4158	709.487,0484	709.486,4264	709.486,4264	709.483,3311	
N:		7.089.326,5565	7.089.326,5035	7.089.326,5035	7.089.326,4814	7.089.326,3392	7.089.326,1130	7.089.326,0909	7.089.326,0909	7.089.325,9809	
<b>Station: 73+5</b>											
Dist. Eixo (m):		-6,132	-4,629	-4,629	-4,006	0,000	3,995	4,617	4,617	5,995	
Cota (m):		11,042	11,012	10,688	10,700	10,780	10,700	10,688	11,012	11,040	
E:		709.499,7459	709.498,2438	709.498,2438	709.497,6215	709.493,6177	709.489,6252	709.489,0032	709.489,0032	709.487,6265	
N:		7.089.320,8751	7.089.320,8217	7.089.320,8217	7.089.320,7996	7.089.320,6573	7.089.320,5155	7.089.320,4934	7.089.320,4934	7.089.320,4445	
<b>Station: 73+10</b>											
Dist. Eixo (m):		-6,126	-4,629	-4,629	-4,006	0,000	3,995	4,618	4,618	5,995	
Cota (m):		11,050	11,020	10,695	10,707	10,788	10,708	10,695	11,020	11,048	
E:		709.499,8950	709.498,3984	709.498,3984	709.497,7762	709.493,7726	709.489,7799	709.489,1579	709.489,1579	709.487,7812	
N:		7.089.316,5655	7.089.316,5118	7.089.316,5118	7.089.316,4894	7.089.316,3456	7.089.316,2022	7.089.316,1798	7.089.316,1798	7.089.316,1304	
<b>Station: 74+0</b>											
Dist. Eixo (m):		-6,113	-4,628	-4,628	-4,006	0,000	3,996	4,618	4,618	5,996	
Cota (m):		11,067	11,038	10,713	10,725	10,805	10,726	10,713	11,037	11,065	
E:		709.500,2409	709.498,7569	709.498,7569	709.498,1347	709.494,1316	709.490,1382	709.489,5162	709.489,5162	709.488,1395	
N:		7.089.306,5715	7.089.306,5182	7.089.306,5182	7.089.306,4959	7.089.306,3520	7.089.306,2086	7.089.306,1862	7.089.306,1862	7.089.306,1368	
<b>Station: 74+10</b>											
Dist. Eixo (m):		-6,100	-4,628	-4,628	-4,005	0,000	3,997	4,619	4,619	5,997	
Cota (m):		11,085	11,055	10,731	10,743	10,823	10,743	10,731	11,055	11,083	
E:		709.500,5868	709.499,1154	709.499,1154	709.498,4932	709.494,4906	709.490,4966	709.489,8745	709.489,8745	709.488,4979	
N:		7.089.296,5775	7.089.296,5246	7.089.296,5246	7.089.296,5023	7.089.296,3585	7.089.296,2150	7.089.296,1927	7.089.296,1927	7.089.296,1432	
<b>Station: 75+0</b>											
Dist. Eixo (m):		-6,087	-4,627	-4,627	-4,005	0,000	3,997	4,620	4,620	5,997	
Cota (m):		11,060	11,031	10,707	10,719	10,799	10,719	10,707	11,031	11,059	
E:		709.500,9327	709.499,4740	709.499,4740	709.498,8517	709.494,8496	709.490,8549	709.490,2329	709.490,2329	709.488,8562	
N:		7.089.286,5835	7.089.286,5311	7.089.286,5311	7.089.286,5087	7.089.286,3649	7.089.286,2214	7.089.286,1991	7.089.286,1991	7.089.286,1496	
<b>Station: 75+10</b>											
Dist. Eixo (m):		-6,074	-4,627	-4,627	-4,004	0,000	3,998	4,620	4,620	5,998	
Cota (m):		10,952	10,923	10,599	10,611	10,691	10,611	10,598	10,923	10,951	
E:		709.501,2786	709.499,8325	709.499,8325	709.499,2102	709.495,2086	709.491,2133	709.490,5912	709.490,5912	709.489,2146	
N:		7.089.276,5894	7.089.276,5375	7.089.276,5375	7.089.276,5151	7.089.276,3714	7.089.276,2279	7.089.276,2055	7.089.276,2055	7.089.276,1561	
<b>Station: 76+0</b>											
Dist. Eixo (m):		-6,061	-4,626	-4,626	-4,004	0,000	3,999	4,621	4,621	5,999	
Cota (m):		10,801	10,773	10,448	10,460	10,540	10,460	10,448	10,772	10,800	
E:		709.501,6244	709.500,1910	709.500,1910	709.499,5688	709.495,5676	709.491,5716	709.490,9496	709.490,9496	709.489,5729	
N:		7.089.266,5954	7.089.266,5439	7.089.266,5439	7.089.266,5216	7.089.266,3778	7.089.266,2343	7.089.266,2119	7.089.266,2119	7.089.266,1625	
<b>Station: 76+10</b>											
Dist. Eixo (m):		-6,048	-4,626	-4,626	-4,003	0,000	3,999	4,622	4,622	5,999	
Cota (m):		10,706	10,678	10,353	10,365	10,445	10,365	10,353	10,677	10,705	
E:		709.501,9703	709.500,5495	709.500,5495	709.499,9273	709.495,9266	709.491,9299	709.491,3079	709.491,3079	709.489,9312	
N:		7.089.256,6014	7.089.256,5504	7.089.256,5504	7.089.256,5280	7.089.256,3843	7.089.256,2407	7.089.256,2184	7.089.256,2184	7.089.256,1689	
<b>Station: 77+0</b>											
Dist. Eixo (m):		-6,035	-4,625	-4,625	-4,003	0,000	4,000	4,622	4,622	6,000	
Cota (m):		10,721	10,693	10,369	10,381	10,461	10,381	10,368	10,693	10,721	
E:		709.502,3162	709.500,9080	709.500,9080	709.500,2858	709.496,2856	709.492,2883	709.491,6662	709.491,6662	709.489,2896	
N:		7.089.246,6074	7.089.246,5568	7.089.246,5568	7.089.246,5344	7.089.246,3907	7.089.246,2471	7.089.246,2248	7.089.246,2248	7.089.246,1753	
<b>Station: 77+2</b>											
Dist. Eixo (m):		-6,031	-4,625	-4,625	-4,003	0,000	4,293	4,915	4,915	6,396	
Cota (m):		10,740	10,712	10,388	10,400	10,480	10,394	10,381	10,706	10,736	
E:		709.502,4071	709.501,0023	709.501,0023	709.500,3800	709.496,3800	709.492,0898	709.491,4677	709.491,4675	709.489,9875	
N:		7.089.243,9808	7.089.243,9304	7.089.243,9304	7.089.243,9080	7.089.243,7643	7.089.243,6102	7.089.243,5878	7.089.243,5878	7.089.243,5347	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA RUDOLF BAUMER**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 77+10</b>											
Dist. Eixo (m):	-6,639	-6,120	-5,623	-5,623	-5,000	<b>0,000</b>	6,313				
Cota (m):	10,868	11,214	10,744	10,420	10,432	10,532	10,406				
E:	709.503,1840	709.502,6651	709.502,1680	709.502,1680	709.501,5455	709.496,5468	709.490,2355				
N:	7.089.236,5446	7.089.236,5328	7.089.236,5216	7.089.236,5216	7.089.236,5075	7.089.236,3943	7.089.236,2514				
<b>Station: 78+0</b>											
Dist. Eixo (m):	-11,240	-6,239	-4,855	-4,855	-4,233	<b>0,000</b>	5,194	5,817	5,817	7,839	12,310
Cota (m):	8,350	10,858	10,830	10,506	10,518	10,603	10,499	10,486	10,812	10,852	8,331
E:	709.508,0102	709.503,0108	709.501,6273	709.501,6273	709.501,0048	709.496,7731	709.491,5800	709.490,9577	709.490,9577	709.488,9359	709.484,4662
N:	7.089.226,6513	7.089.226,5381	7.089.226,5068	7.089.226,5068	7.089.226,4927	7.089.226,3969	7.089.226,2793	7.089.226,2652	7.089.226,2652	7.089.226,2194	7.089.226,1183
<b>Station: 78+10</b>											
Dist. Eixo (m):	-9,182	-8,441	-6,717	-6,717	-6,094	<b>0,000</b>	5,222	5,845	5,845	6,512	7,286
Cota (m):	10,913	11,407	10,913	10,589	10,601	10,674	10,630	10,618	10,943	10,956	10,900
E:	709.506,1795	709.505,4385	709.503,7149	709.503,7149	709.503,0924	709.496,9994	709.491,7785	709.491,1562	709.491,1562	709.490,4894	709.489,7156
N:	7.089.216,6073	7.089.216,5905	7.089.216,5515	7.089.216,5515	7.089.216,5374	7.089.216,3994	7.089.216,2812	7.089.216,2671	7.089.216,2671	7.089.216,2521	7.089.216,2345



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO BENTO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIRO(2)	PASSEIRO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIRO(1)	PASSEIRO(2)	OFFSET
Station: 0+0													
Dist. Eixo (m):		-12,909	-12,867	-12,867	-11,677	-11,667	<b>0,000</b>	13,019	13,029	14,019			
Cota (m):		10,520	10,415	9,865	9,845	9,725	<b>9,812</b>	9,598	9,718	9,738			
E:		709.689.5499	709.679.5562	709.679.5562	709.689.5818	709.679.5820	<b>709.679.8839</b>	709.680.2207	709.680.2210	709.680.2466			
N:		7.089.426.6846	7.089.426.4421	7.089.426.4421	7.089.426.4523	7.089.426.4423	<b>7.089.413.7795</b>	7.089.400.7643	7.089.400.7543	7.089.399.7647			
Station: 0+10													
Dist. Eixo (m):		-7,970	-5,949	-5,949	-4,959	-4,949	<b>0,000</b>	5,051	5,061	6,051	6,051	7,105	
Cota (m):		10,452	10,312	9,762	9,742	9,622	<b>9,721</b>	9,620	9,740	9,760	10,310	10,331	
E:		709.689.6743	709.689.7266	709.689.7266	709.689.7522	709.689.7525	<b>709.689.8805</b>	709.690.0112	709.690.0115	709.690.0371	709.690.0371	709.690.0643	
N:		7.089.422.0053	7.089.419.9856	7.089.419.9856	7.089.418.9957	7.089.418.9857	<b>7.089.414.0382</b>	7.089.408.9890	7.089.408.9791	7.089.407.9894	7.089.407.9894	7.089.406.9356	
Station: 1+0													
Dist. Eixo (m):		-8,008	-5,956	-5,956	-4,966	-4,956	<b>0,000</b>	5,044	5,054	6,044	6,044	7,063	
Cota (m):		10,394	10,253	9,703	9,683	9,563	<b>9,662</b>	9,561	9,681	9,701	10,252	10,272	
E:		709.699.6700	709.699.7231	709.699.7231	709.699.7487	709.699.7490	<b>709.699.8772</b>	709.700.0077	709.700.0079	709.700.0336	709.700.0336	709.700.0599	
N:		7.089.422.3019	7.089.420.2510	7.089.420.2510	7.089.419.2611	7.089.419.2511	<b>7.089.414.2969</b>	7.089.409.2545	7.089.409.2445	7.089.408.2548	7.089.408.2548	7.089.407.2368	
Station: 1+10													
Dist. Eixo (m):		-8,092	-5,963	-5,963	-4,973	-4,963	<b>0,000</b>	5,037	5,047	6,037	6,037	7,046	
Cota (m):		10,301	10,258	9,709	9,689	9,569	<b>9,668</b>	9,567	9,687	9,707	10,257	10,277	
E:		709.709.6645	709.709.7196	709.709.7196	709.709.7452	709.709.7454	<b>709.709.8738</b>	709.710.0042	709.710.0044	709.710.0300	709.710.0300	709.710.0561	
N:		7.089.422.6449	7.089.420.5164	7.089.420.5164	7.089.419.5265	7.089.419.5165	<b>7.089.414.5556</b>	7.089.409.5199	7.089.409.5099	7.089.408.5202	7.089.408.5202	7.089.407.5120	
Station: 2+0													
Dist. Eixo (m):		-8,155	-5,969	-5,969	-4,979	-4,969	<b>0,000</b>	5,031	5,041	6,031	6,031	6,981	
Cota (m):		10,340	10,296	9,746	9,726	9,606	<b>9,705</b>	9,605	9,725	9,745	10,295	10,314	
E:		709.719.6595	709.719.7160	709.719.7160	709.719.7417	709.719.7419	<b>709.719.8705</b>	709.720.0006	709.720.0009	709.720.0285	709.720.0285	709.720.0511	
N:		7.089.422.9663	7.089.420.7818	7.089.420.7818	7.089.419.7919	7.089.419.7819	<b>7.089.414.8144</b>	7.089.409.7853	7.089.409.7753	7.089.408.7856	7.089.408.7856	7.089.407.8359	
Station: 2+10													
Dist. Eixo (m):		-7,942	-5,976	-5,976	-4,986	-4,976	<b>0,000</b>	5,024	5,034	6,024	6,024	7,303	
Cota (m):		10,473	10,334	9,784	9,764	9,644	<b>9,743</b>	9,643	9,763	9,783	10,332	10,358	
E:		709.729.6617	709.729.7125	709.729.7125	709.729.7381	709.729.7384	<b>709.729.8671</b>	709.729.9971	709.729.9974	709.730.0230	709.730.0230	709.730.0561	
N:		7.089.423.0123	7.089.421.0472	7.089.421.0472	7.089.420.0573	7.089.420.0473	<b>7.089.415.0731</b>	7.089.410.0507	7.089.410.0407	7.089.409.0510	7.089.409.0510	7.089.407.7727	
Station: 3+0													
Dist. Eixo (m):		-7,819	-5,983	-5,983	-4,993	-4,983	<b>0,000</b>	5,017	5,027	6,017	6,017	7,312	
Cota (m):		10,508	10,371	9,822	9,802	9,682	<b>9,761</b>	9,681	9,801	9,821	10,371	10,397	
E:		709.739.6815	709.739.7090	709.739.7090	709.739.7346	709.739.7349	<b>709.739.8638</b>	709.739.9836	709.739.9839	709.740.0195	709.740.0195	709.740.0530	
N:		7.089.423.1485	7.089.421.3126	7.089.421.3126	7.089.420.3227	7.089.420.3127	<b>7.089.415.3318</b>	7.089.410.3161	7.089.410.3061	7.089.409.3164	7.089.409.3164	7.089.408.0226	
Station: 3+10													
Dist. Eixo (m):		-7,790	-5,989	-5,989	-4,999	-4,989	<b>0,000</b>	5,011	5,021	6,011	6,011	7,875	
Cota (m):		10,545	10,409	9,859	9,839	9,719	<b>9,819</b>	9,719	9,839	9,859	10,409	10,446	
E:		709.749.6589	709.749.7055	709.749.7055	709.749.7311	709.749.7314	<b>709.749.8604</b>	709.749.9901	709.749.9903	709.750.0160	709.750.0160	709.750.0642	
N:		7.089.423.3782	7.089.421.5780	7.089.421.5780	7.089.420.5881	7.089.420.5781	<b>7.089.415.5905</b>	7.089.410.5815	7.089.410.5715	7.089.409.5818	7.089.409.5818	7.089.407.7183	
Station: 4+0													
Dist. Eixo (m):		-7,759	-5,996	-5,996	-5,006	-4,996	<b>0,000</b>	5,004	5,014	6,004	6,004	7,927	
Cota (m):		10,582	10,447	9,897	9,877	9,757	<b>9,857</b>	9,757	9,877	9,897	10,447	10,485	
E:		709.759.6564	709.759.7020	709.759.7020	709.759.7276	709.759.7278	<b>709.759.8571</b>	709.759.9868	709.759.9868	709.760.0124	709.760.0124	709.760.0622	
N:		7.089.423.6055	7.089.421.8434	7.089.421.8434	7.089.420.8535	7.089.420.8436	<b>7.089.415.8493</b>	7.089.410.8469	7.089.410.8369	7.089.409.8472	7.089.409.8472	7.089.407.9245	
Station: 4+10													
Dist. Eixo (m):		-7,778	-6,003	-6,003	-5,013	-5,003	<b>0,000</b>	4,997	5,007	5,997	5,997	7,980	
Cota (m):		10,620	10,484	9,935	9,915	9,795	<b>9,895</b>	9,795	9,915	9,935	10,484	10,524	
E:		709.769.6525	709.769.6984	709.769.6984	709.769.7241	709.769.7243	<b>709.769.8537</b>	709.769.9830	709.769.9833	709.770.0089	709.770.0089	709.770.0602	
N:		7.089.423.8836	7.089.422.1088	7.089.422.1088	7.089.421.1190	7.089.421.1090	<b>7.089.416.1080</b>	7.089.411.1123	7.089.411.1023	7.089.410.1126	7.089.410.1126	7.089.408.1307	
Station: 5+0													
Dist. Eixo (m):		-7,854	-6,010	-6,010	-5,019	-5,009	<b>0,000</b>	4,991	5,001	5,991	5,991	8,095	
Cota (m):		10,559	10,522	9,972	9,952	9,832	<b>9,932</b>	9,832	9,952	9,972	10,523	10,565	
E:		709.779.6472	709.779.6949	709.779.6949	709.779.7205	709.779.7208	<b>709.779.8504</b>	709.779.9795	709.779.9798	709.780.0054	709.780.0054	709.780.0598	
N:		7.089.424.2181	7.089.422.3742	7.089.422.3742	7.089.421.3844	7.089.421.3744	<b>7.089.416.3667</b>	7.089.411.3777	7.089.411.3677	7.089.410.3780	7.089.410.3780	7.089.408.2743	
Station: 5+10													
Dist. Eixo (m):		-7,768	-6,016	-6,016	-5,026	-5,016	<b>0,000</b>	4,984	4,994	5,984	5,984	8,157	
Cota (m):		10,595	10,560	10,010	9,990	9,870	<b>9,970</b>	9,871	9,991	10,010	10,561	10,604	
E:		709.789.6461	709.789.6914	709.789.6914	709.789.7170	709.789.7173	<b>709.789.8471</b>	709.789.9760	709.789.9763	709.790.0019	709.790.0019	709.790.0581	
N:		7.089.424.3908	7.089.422.6396	7.089.422.6396	7.089.421.6498	7.089.421.6398	<b>7.089.416.6254</b>	7.089.411.6431	7.089.411.6331	7.089.410.6435	7.089.410.6435	7.089.408.4714	
Station: 6+0													
Dist. Eixo (m):		-7,900	-6,023	-6,023	-5,033	-5,023	<b>0,000</b>	4,977	4,987	5,977	5,977	8,152	
Cota (m):		10,735	10,597	10,048	10,028	9,908	<b>10,008</b>	9,909	10,029	10,048	10,599	10,642	
E:		709.799.6393	709.799.6879	709.799.6879	709.799.7135	709.799.7138	<b>709.799.8437</b>	709.799.9725	709.799.9727	709.799.9984	709.799.9984	709.800.0546	
N:		7.089.424.7811	7.089.422.9050	7.089.422.9050	7.089.421.9152	7.089.421.9052	<b>7.089.416.8842</b>	7.089.411.9085	7.089.411.8985	7.089.410.9089	7.089.410.9089	7.089.408.7346	
Station: 6+10													
Dist. Eixo (m):		-8,019	-6,030	-6,030	-5,039	-5,029	<b>0,000</b>	4,971	4,981	5,971	5,971	8,140	
Cota (m):		10,775	10,635	10,085	10,065	9,945	<b>10,046</b>	9,946	10,066	10,086	10,637	10,680	
E:		709.809.6329	709.809.6844	709.809.6844	709.809.7100	709.809.7102	<b>709.809.8404</b>	709.809.9690	709.809.9692	709.809.9948	709.809.9948	709.810.0510	
N:		7.089.425.1593	7.089.423.1705	7.089.423.1705	7.089.422.1806	7.089.422.1706	<b>7.089.417.1429</b>	7.089.412.1739	7.089.412.1639	7.089.411.1743	7.089.411.1743	7.089.409.0057	
Station: 7+0													
Dist. Eixo (m):		-8,112	-6,036	-6,036	-5,046	-5,036	<b>0,000</b>	4,964	4,974	5,964	5,964	8,123	
Cota (m):		10,684	10,543	10,093	10,073	9,953	<b>10,054</b>	9,954	10,074	10,094	10,644	10,687	
E:		709.819.6271	709.819.6808	709.819.6808	709.819.7065	709.819.7067	<b>709.819.8370</b>	709.819.9654	709.819.9657	709.819.9913	709.819.9913	709.82	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO BENTO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO(2)	PASSEIO(1)	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO(1)	PASSEIO(2)	OFFSET
Station: 9+8													
Dist. Eixo (m):		-9.440	-7.725	-7.725	-6.735	-6.725	<b>0.000</b>	4.932	4.942	5.932	5.932	8.051	
Cota (m):		10.038	9.903	9.354	9.334	9.214	<b>9.348</b>	9.249	9.369	9.389	9.940	9.982	
E:		709.867.6864	709.867.7307	709.867.7307	709.867.7564	709.867.7566	<b>709.867.9306</b>	709.868.0582	709.868.0585	709.868.0841	709.868.0841	709.868.1389	
N:		7.089.428,0835	7.089.426,3685	7.089.426,3685	7.089.425,3786	7.089.425,3686	<b>7.089.418,6463</b>	7.089.413,7162	7.089.413,7062	7.089.412,7165	7.089.412,7165	7.089.410,5984	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-13,389	-13,034	-13,034	-12,401	0,000	12,905	13,538			
Cota (m):		11,928	11,921	11,486	11,499	11,459	11,401	11,389			
E:		709.091,7684	709.091,7751	709.091,9148	709.091,7872	709.092,0232	709.092,2689	709.092,2809			
N:		7.089.563,1190	7.089.562,7645	7.089.562,7645	7.089.562,1318	7.089.549,7326	7.089.536,8297	7.089.536,1972			
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,356	-5,599	-5,599	-4,966	0,000	5,034	5,667	5,667	8,034	8,270
Cota (m):		11,642	11,607	11,171	11,184	11,283	11,183	11,170	11,605	11,652	11,855
E:		709.101,8814	709.101,9148	709.101,9148	709.101,9269	709.102,0214	709.102,1172	709.102,1293	709.102,1293	709.102,1743	709.102,1788
N:		7.089.557,2772	7.089.555,5209	7.089.555,5209	7.089.554,8882	7.089.549,9230	7.089.544,8898	7.089.544,2573	7.089.544,2573	7.089.541,8903	7.089.541,6544
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,375	-5,546	-5,546	-4,913	0,000	5,087	5,720	5,720	8,087	8,260
Cota (m):		11,572	11,535	11,100	11,113	11,211	11,109	11,096	11,532	11,579	11,824
E:		709.111,8792	709.111,9140	709.111,9140	709.111,9261	709.112,0196	709.112,1164	709.112,1285	709.112,1285	709.112,1735	709.112,1768
N:		7.089.557,4867	7.089.555,6579	7.089.555,6579	7.089.555,0252	7.089.550,1133	7.089.545,0269	7.089.544,3943	7.089.544,3943	7.089.542,0274	7.089.541,8551
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,394	-5,492	-5,492	-4,859	0,000	5,141	5,773	5,773	8,141	
Cota (m):		11,588	11,550	11,114	11,127	11,224	11,121	11,109	11,544	11,591	
E:		709.121,8771	709.121,9133	709.121,9133	709.121,9253	709.122,0178	709.122,1156	709.122,1277	709.122,1277	709.122,1728	
N:		7.089.557,6964	7.089.555,7950	7.089.555,7950	7.089.555,1622	7.089.550,3037	7.089.545,1639	7.089.544,5313	7.089.544,5313	7.089.542,1644	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,495	-5,439	-5,439	-4,806	0,000	5,194	5,827	5,827	8,194	
Cota (m):		11,612	11,571	11,135	11,148	11,244	11,140	11,128	11,563	11,610	
E:		709.131,8733	709.131,9125	709.131,9125	709.131,9245	709.132,0160	709.132,1149	709.132,1269	709.132,1269	709.132,1720	
N:		7.089.557,9872	7.089.555,9320	7.089.555,9320	7.089.555,2992	7.089.550,4940	7.089.545,3009	7.089.544,6684	7.089.544,6684	7.089.542,3014	
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,704	-5,386	-5,386	-4,753	0,000	5,247	5,880	5,880	8,247	
Cota (m):		11,638	11,592	11,156	11,169	11,264	11,159	11,147	11,582	11,629	
E:		709.141,8675	709.141,9117	709.141,9117	709.141,9237	709.142,0142	709.142,1141	709.142,1261	709.142,1261	709.142,1712	
N:		7.089.558,3870	7.089.556,0690	7.089.556,0690	7.089.555,4363	7.089.550,6844	7.089.545,4379	7.089.544,8054	7.089.544,8054	7.089.542,4384	
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,226	-5,781	-5,781	-5,148	0,000	5,573	6,205	6,205	8,705	9,195
Cota (m):		11,691	11,642	11,206	11,219	11,284	11,187	11,175	11,610	11,660	11,693
E:		709.151,8558	709.151,9023	709.151,9023	709.151,9144	709.152,0124	709.152,1184	709.152,1305	709.152,1305	709.152,1781	709.152,1874
N:		7.089.559,0995	7.089.556,6548	7.089.556,6548	7.089.556,0221	7.089.550,8747	7.089.545,3031	7.089.544,6705	7.089.544,6705	7.089.542,1708	7.089.541,6812
<b>Station: 3+5</b>											
Dist. Eixo (m):		-13,883	-13,316	-13,316	-12,683	0,000	10,526	11,159	11,159	14,319	
Cota (m):		11,779	11,768	11,333	11,346	11,295	11,235	11,222	11,658	11,721	
E:		709.157,1454	709.157,1562	709.157,1562	709.157,1683	709.157,4097	709.157,6100	709.157,6221	709.157,6221	709.157,6822	
N:		7.089.564,8578	7.089.564,2906	7.089.564,2906	7.089.563,6579	7.089.550,9775	7.089.540,4529	7.089.539,8204	7.089.539,8204	7.089.536,6606	

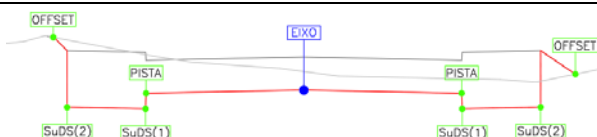
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 3+13</b>									
Dist. Eixo (m):		-13,028	-10,239	-10,229	0,000	12,898	12,908	14,098	
Cota (m):		11,574	11,518	11,538	11,524	11,480	11,460	11,484	
E:		709.165,6515	709.165,7046	709.165,7048	709.165,8995	709.166,1450	709.166,1452	709.166,1679	
N:		7.089.564,1649	7.089.561,3763	7.089.561,3663	7.089.551,1391	7.089.538,2431	7.089.538,2331	7.089.537,0433	
<b>Station: 4+0</b>									
Dist. Eixo (m):		-7,990	-5,125	-5,115	0,000	5,231	5,241	8,321	
Cota (m):		11,435	11,377	11,397	11,508	11,412	11,392	11,454	
E:		709.171,8566	709.171,9112	709.171,9114	709.172,0087	709.172,1083	709.172,1085	709.172,1671	
N:		7.089.559,2442	7.089.556,3793	7.089.556,3693	7.089.551,2554	7.089.546,0254	7.089.546,0155	7.089.542,9355	
<b>Station: 4+3</b>									
Dist. Eixo (m):		-7,894	-5,016	-5,006	0,000	4,994	5,004	7,994	8,521
Cota (m):		11,435	11,377	11,397	11,497	11,397	11,377	11,437	11,645
E:		709.174,8636	709.174,9184	709.174,9185	709.175,0138	709.175,1089	709.175,1091	709.175,1660	709.175,1760
N:		7.089.559,2053	7.089.556,3283	7.089.556,3183	7.089.551,3126	7.089.546,3197	7.089.546,3097	7.089.543,3201	7.089.542,7927
<b>Station: 4+10</b>									
Dist. Eixo (m):		-7,895	-5,016	-5,006	0,000	4,994	5,004	7,994	8,431
Cota (m):		11,413	11,356	11,376	11,476	11,376	11,356	11,416	11,685
E:		709.181,7805	709.181,8625	709.181,8628	709.182,0054	709.182,1476	709.182,1479	709.182,2330	709.182,2454
N:		7.089.559,4039	7.089.556,5259	7.089.556,5159	7.089.551,5118	7.089.546,5199	7.089.546,5100	7.089.543,5212	7.089.543,0846
<b>Station: 5+0</b>									
Dist. Eixo (m):		-7,891	-5,016	-5,006	0,000	4,994	5,004	7,994	8,483
Cota (m):		11,383	11,326	11,346	11,446	11,346	11,326	11,386	11,620
E:		709.191,7766	709.191,8585	709.191,8588	709.192,0013	709.192,1435	709.192,1438	709.192,2290	709.192,2429
N:		7.089.559,6848	7.089.556,8103	7.089.556,8003	7.089.551,7966	7.089.546,8043	7.089.546,7944	7.089.543,8056	7.089.543,3175
<b>Station: 5+10</b>									
Dist. Eixo (m):		-7,882	-5,015	-5,005	0,000	4,995	5,005	7,995	8,483
Cota (m):		11,353	11,296	11,316	11,416	11,316	11,296	11,356	11,590
E:		709.201,7728	709.201,8544	709.201,8547	709.201,9972	709.202,1395	709.202,1398	709.202,2249	709.202,2388
N:		7.089.559,9599	7.089.557,0947	7.089.557,0847	7.089.552,0813	7.089.547,0888	7.089.547,0788	7.089.544,0900	7.089.543,6014

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

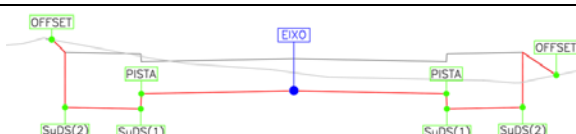
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET	
<b>Station: 6+0</b>										
Dist. Eixo (m):		-7,889	-5,015	-5,005	<b>0,000</b>	4,995	5,005	7,995	8,461	
Cota (m):		11,323	11,266	11,286	<b>11,386</b>	11,286	11,266	11,326	11,575	
E:		709,211,7685	709,211,8504	709,211,8507	<b>709,211,9932</b>	709,212,1354	709,212,1357	709,212,2209	709,212,2341	
N:		7,089,560,2517	7,089,557,3791	7,089,557,3691	<b>7,089,552,3661</b>	7,089,547,3732	7,089,547,3632	7,089,544,3744	7,089,543,9089	
<b>Station: 6+10</b>										
Dist. Eixo (m):		-7,955	-5,015	-5,005	<b>0,000</b>	4,995	5,005	7,995	8,440	
Cota (m):		11,295	11,236	11,256	<b>11,356</b>	11,256	11,236	11,296	11,559	
E:		709,221,7626	709,221,8463	709,221,8466	<b>709,221,9891</b>	709,222,1314	709,222,1317	709,222,2168	709,222,2295	
N:		7,089,560,6025	7,089,557,6635	7,089,557,6535	<b>7,089,552,6509</b>	7,089,547,6576	7,089,547,6476	7,089,544,6588	7,089,544,2138	
<b>Station: 7+0</b>										
Dist. Eixo (m):		-7,955	-5,014	-5,004	<b>0,000</b>	4,996	5,006	7,996	8,443	
Cota (m):		11,276	11,218	11,238	<b>11,338</b>	11,238	11,218	11,278	11,540	
E:		709,231,7585	709,231,8423	709,231,8426	<b>709,231,9851</b>	709,232,1273	709,232,1276	709,232,2128	709,232,2255	
N:		7,089,560,8876	7,089,557,9479	7,089,557,9379	<b>7,089,552,9356</b>	7,089,547,9420	7,089,547,9320	7,089,544,9432	7,089,544,4964	
<b>Station: 7+10</b>										
Dist. Eixo (m):		-7,849	-5,014	-5,004	<b>0,000</b>	4,996	5,006	7,996	8,403	
Cota (m):		11,279	11,223	11,243	<b>11,343</b>	11,243	11,223	11,283	11,571	
E:		709,241,7575	709,241,8382	709,241,8385	<b>709,241,9810</b>	709,242,1233	709,242,1236	709,242,2087	709,242,2203	
N:		7,089,561,0665	7,089,558,2323	7,089,558,2223	<b>7,089,553,2204</b>	7,089,548,2264	7,089,548,2164	7,089,545,2276	7,089,544,8205	
<b>Station: 8+0</b>										
Dist. Eixo (m):		-7,870	-5,014	-5,004	<b>0,000</b>	4,996	5,006	7,996	8,347	
Cota (m):		11,296	11,239	11,259	<b>11,359</b>	11,259	11,239	11,299	11,625	
E:		709,251,7528	709,251,8342	709,251,8345	<b>709,251,9770</b>	709,252,1193	709,252,1195	709,252,2047	709,252,2147	
N:		7,089,561,3724	7,089,558,5167	7,089,558,5067	<b>7,089,553,5052</b>	7,089,548,5108	7,089,548,5008	7,089,545,5120	7,089,545,1612	
<b>Station: 8+10</b>										
Dist. Eixo (m):		-7,934	-5,013	-5,003	<b>0,000</b>	4,997	5,007	7,997		
Cota (m):		11,314	11,256	11,276	<b>11,376</b>	11,276	11,256	11,316		
E:		709,261,7470	709,261,8302	709,261,8304	<b>709,261,9729</b>	709,262,1152	709,262,1155	709,262,2006		
N:		7,089,561,7206	7,089,558,8011	7,089,558,7911	<b>7,089,553,7899</b>	7,089,548,7952	7,089,548,7852	7,089,545,7964		
<b>Station: 9+0</b>										
Dist. Eixo (m):		-7,999	-5,013	-5,003	<b>0,000</b>	4,997	5,007	7,997		
Cota (m):		11,332	11,273	11,293	<b>11,393</b>	11,293	11,273	11,333		
E:		709,271,7411	709,271,8261	709,271,8264	<b>709,271,9689</b>	709,272,1112	709,272,1114	709,272,1966		
N:		7,089,562,0705	7,089,559,0855	7,089,559,0755	<b>7,089,554,0747</b>	7,089,549,0796	7,089,549,0696	7,089,546,0808		
<b>Station: 9+10</b>										
Dist. Eixo (m):		-7,997	-5,012	-5,002	<b>0,000</b>	4,998	5,008	7,998		
Cota (m):		11,349	11,289	11,309	<b>11,409</b>	11,309	11,289	11,349		
E:		709,281,7371	709,281,8221	709,281,8223	<b>709,281,9648</b>	709,282,1071	709,282,1074	709,282,1925		
N:		7,089,562,3534	7,089,559,3699	7,089,559,3599	<b>7,089,554,3595</b>	7,089,549,3640	7,089,549,3540	7,089,546,3652		
<b>Station: 10+0</b>										
Dist. Eixo (m):		-7,965	-5,012	-5,002	<b>0,000</b>	4,998	5,008	7,998		
Cota (m):		11,365	11,306	11,326	<b>11,426</b>	11,326	11,306	11,366		
E:		709,291,7339	709,291,8180	709,291,8183	<b>709,291,9607</b>	709,292,1031	709,292,1034	709,292,1885		
N:		7,089,562,6055	7,089,559,6543	7,089,559,6443	<b>7,089,554,6442</b>	7,089,549,6484	7,089,549,6384	7,089,546,6496		
<b>Station: 10+10</b>										
Dist. Eixo (m):		-7,990	-5,012	-5,002	<b>0,000</b>	4,998	5,008	7,998		
Cota (m):		11,382	11,323	11,343	<b>11,443</b>	11,343	11,323	11,383		
E:		709,301,7282	709,301,8140	709,301,8143	<b>709,301,9567</b>	709,302,0990	709,302,0993	709,302,1845		
N:		7,089,562,9155	7,089,559,9387	7,089,559,9287	<b>7,089,554,9290</b>	7,089,549,9328	7,089,549,9228	7,089,546,9340		
<b>Station: 11+0</b>										
Dist. Eixo (m):		-8,089	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999		
Cota (m):		11,401	11,339	11,359	<b>11,459</b>	11,359	11,339	11,399		
E:		709,311,7223	709,311,8099	709,311,8102	<b>709,311,9526</b>	709,312,0950	709,312,0953	709,312,1804		
N:		7,089,563,2999	7,089,560,2231	7,089,560,2131	<b>7,089,555,2138</b>	7,089,550,2172	7,089,550,2072	7,089,547,2184		
<b>Station: 11+10</b>										
Dist. Eixo (m):		-8,126	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999		
Cota (m):		11,408	11,345	11,365	<b>11,465</b>	11,365	11,345	11,405		
E:		709,321,7172	709,321,8059	709,321,8062	<b>709,321,9486</b>	709,322,0909	709,322,0912	709,322,1764		
N:		7,089,563,6210	7,089,560,5075	7,089,560,4975	<b>7,089,555,4985</b>	7,089,550,5016	7,089,550,4916	7,089,547,5028		
<b>Station: 12+0</b>										
Dist. Eixo (m):		-8,124	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999		
Cota (m):		11,392	11,330	11,350	<b>11,450</b>	11,350	11,330	11,390		
E:		709,331,7132	709,331,8018	709,331,8021	<b>709,331,9445</b>	709,332,0869	709,332,0872	709,332,1723		
N:		7,089,563,9038	7,089,560,7919	7,089,560,7819	<b>7,089,555,7833</b>	7,089,550,7860	7,089,550,7760	7,089,547,7872		
<b>Station: 12+10</b>										
Dist. Eixo (m):		-8,116	-5,010	-5,000	<b>0,000</b>	5,000	5,010	8,000		
Cota (m):		11,366	11,304	11,324	<b>11,424</b>	11,324	11,304	11,364		
E:		709,341,7093	709,341,7978	709,341,7981	<b>709,341,9405</b>	709,342,0828	709,342,0831	709,342,1683		
N:		7,089,564,1811	7,089,561,0763	7,089,561,0663	<b>7,089,556,0681</b>	7,089,551,0704	7,089,551,0604	7,089,548,0716		
<b>Station: 12+17</b>										
Dist. Eixo (m):		-8,105	-5,010	-5,000	<b>0,000</b>	5,000	5,010	8,000		
Cota (m):		11,347	11,285	11,305	<b>11,405</b>	11,305	11,285	11,344		
E:		709,349,2458	709,349,3339	709,349,3342	<b>709,349,4766</b>	709,349,6190	709,349,6192	709,349,7044		
N:		7,089,564,3841	7,089,561,2907	7,089,561,2807	<b>7,089,556,2828</b>	7,089,551,2848	7,089,551,2748	7,089,548,2860		
<b>Station: 13+0</b>										
Dist. Eixo (m):		-8,098	-5,048	-5,038	<b>0,000</b>	4,981	4,991	8,019	8,570	
Cota (m):		11,351	11,290	11,310	<b>11,398</b>	11,299	11,279	11,339	11,532	
E:		709,351,7740	709,351,8354	709,351,8356	<b>709,351,9369</b>	709,352,0371	709,352,0373	709,352,0982	709,352,1093	
N:		7,089,564,4287	7,089,561,3793	7,089,561,3693	<b>7,089,556,3323</b>	7,089,551,3526	7,089,551,3426	7,089,548,3145	7,089,547,7640	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

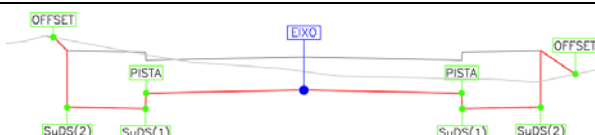
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 13+7</b>									
Dist. Eixo (m):		-13,167	-12,677	-12,667	<b>0,000</b>	10,096	10,106	14,140	
Cota (m):		11,531	11,521	11,541	<b>11,379</b>	11,286	11,266	11,347	
E:		709.359,0698	709.359,0796	709.359,0798	<b>709.359,3347</b>	709.359,5378	709.359,5380	709.359,6191	
N:		7.089.569,6458	7.089.569,1555	7.089.569,1455	<b>7.089.556,4811</b>	7.089.546,3874	7.089.546,3774	7.089.542,3441	
<b>Station: 13+15</b>									
Dist. Eixo (m):		-12,852	-9,444	-9,434	<b>0,000</b>	12,906	12,916	14,106	
Cota (m):		11,235	11,167	11,187	<b>11,376</b>	11,118	11,098	11,122	
E:		709.367,6146	709.367,6831	709.367,6833	<b>709.367,8731</b>	709.368,1328	709.368,1330	709.368,1569	
N:		7.089.569,5022	7.089.566,0952	7.089.566,0852	<b>7.089.556,6529</b>	7.089.543,7492	7.089.543,7392	7.089.542,5495	
<b>Station: 14+0</b>									
Dist. Eixo (m):		-9,253	-9,178	-5,634	-5,624	<b>0,000</b>	6,030	6,040	9,486
Cota (m):		11,929	11,294	11,223	11,243	<b>11,355</b>	11,235	11,215	11,284
E:		709.371,7467	709.371,7482	709.371,8195	709.371,8197	<b>709.371,9329</b>	709.372,0542	709.372,0544	709.372,1237
N:		7.089.565,9859	7.089.565,9112	7.089.562,3679	7.089.562,3580	<b>7.089.556,7346</b>	7.089.550,7062	7.089.550,6962	7.089.547,2502
<b>Station: 14+3</b>									
Dist. Eixo (m):		-8,048	-7,989	-5,012	-5,002	<b>0,000</b>	5,011	5,021	8,053
Cota (m):		11,798	11,278	11,218	11,238	<b>11,338</b>	11,238	11,218	11,279
E:		709.375,1763	709.375,1775	709.375,2374	709.375,2376	<b>709.375,3382</b>	709.375,4390	709.375,4392	709.375,5002
N:		7.089.564,8500	7.089.564,7910	7.089.561,8142	7.089.561,8042	<b>7.089.556,8032</b>	7.089.551,7937	7.089.551,7837	7.089.548,7522
<b>Station: 14+10</b>									
Dist. Eixo (m):		-8,092	-5,012	-5,002	<b>0,000</b>	4,998	5,008	7,998	8,181
Cota (m):		11,247	11,185	11,205	11,205	<b>11,305</b>	11,205	11,185	11,245
E:		709.381,6650	709.381,7654	709.381,7657	709.381,7657	<b>709.381,9287</b>	709.382,0916	709.382,0919	709.382,1893
N:		7.089.565,1053	7.089.562,0269	7.089.562,0169	7.089.562,0169	<b>7.089.557,0180</b>	7.089.552,0222	7.089.552,0122	7.089.549,0238
<b>Station: 15+0</b>									
Dist. Eixo (m):		-8,200	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,199	11,135	11,155	11,155	<b>11,255</b>	11,155	11,135	11,195
E:		709.391,6562	709.391,7601	709.391,7604	709.391,7604	<b>709.391,9234</b>	709.392,0863	709.392,0866	709.392,1840
N:		7.089.565,5393	7.089.562,3526	7.089.562,3426	7.089.562,3426	<b>7.089.557,3439</b>	7.089.552,3479	7.089.552,3379	7.089.549,3495
<b>Station: 15+10</b>									
Dist. Eixo (m):		-8,200	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,148	11,085	11,105	11,105	<b>11,205</b>	11,105	11,085	11,144
E:		709.401,6508	709.401,7548	709.401,7551	709.401,7551	<b>709.401,9181</b>	709.402,0809	709.402,0813	709.402,1787
N:		7.089.565,8655	7.089.562,6783	7.089.562,6683	7.089.562,6683	<b>7.089.557,6698</b>	7.089.552,6736	7.089.552,6636	7.089.549,6752
<b>Station: 16+0</b>									
Dist. Eixo (m):		-8,198	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,107	11,043	11,063	11,063	<b>11,163</b>	11,063	11,043	11,103
E:		709.411,6456	709.411,7494	709.411,7498	709.411,7498	<b>709.411,9127</b>	709.412,0756	709.412,0760	709.412,1734
N:		7.089.566,1898	7.089.563,0040	7.089.562,9940	7.089.562,9940	<b>7.089.557,9956</b>	7.089.552,9993	7.089.552,9893	7.089.550,0009
<b>Station: 16+10</b>									
Dist. Eixo (m):		-8,197	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,083	11,019	11,039	11,039	<b>11,139</b>	11,039	11,019	11,079
E:		709.421,6403	709.421,7441	709.421,7445	709.421,7445	<b>709.421,9074</b>	709.422,0703	709.422,0707	709.422,1681
N:		7.089.566,5141	7.089.563,3297	7.089.563,3197	7.089.563,3197	<b>7.089.558,3215</b>	7.089.553,3250	7.089.553,3150	7.089.550,3266
<b>Station: 17+0</b>									
Dist. Eixo (m):		-8,195	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,068	11,004	11,024	11,024	<b>11,124</b>	11,024	11,004	11,064
E:		709.431,6351	709.431,7388	709.431,7392	709.431,7392	<b>709.431,9021</b>	709.432,0650	709.432,0654	709.432,1628
N:		7.089.566,8383	7.089.563,6534	7.089.563,6434	7.089.563,6434	<b>7.089.558,6474</b>	7.089.553,6507	7.089.553,6407	7.089.550,6523
<b>Station: 17+10</b>									
Dist. Eixo (m):		-8,194	-5,011	-5,001	<b>0,000</b>	4,999	5,009	7,999	
Cota (m):		11,053	10,989	11,009	11,009	<b>11,109</b>	11,009	10,989	11,049
E:		709.441,6298	709.441,7335	709.441,7339	709.441,7339	<b>709.441,8968</b>	709.442,0597	709.442,0601	709.442,1575
N:		7.089.567,1626	7.089.563,9811	7.089.563,9711	7.089.563,9711	<b>7.089.558,9733</b>	7.089.553,9764	7.089.553,9664	7.089.550,9780
<b>Station: 18+0</b>									
Dist. Eixo (m):		-8,192	-5,010	-5,000	<b>0,000</b>	5,000	5,010	8,000	
Cota (m):		11,038	10,974	10,994	10,994	<b>11,094</b>	10,994	10,974	11,034
E:		709.451,6245	709.451,7282	709.451,7286	709.451,7286	<b>709.451,8915</b>	709.452,0544	709.452,0547	709.452,1522
N:		7.089.567,4869	7.089.564,3068	7.089.564,2968	7.089.564,2968	<b>7.089.559,2991</b>	7.089.554,3021	7.089.554,2921	7.089.551,3037
<b>Station: 18+10</b>									
Dist. Eixo (m):		-8,191	-5,010	-5,000	<b>0,000</b>	5,000	5,010	8,000	
Cota (m):		11,023	10,959	10,979	10,979	<b>11,079</b>	10,979	10,959	11,019
E:		709.461,6193	709.461,7229	709.461,7232	709.461,7232	<b>709.461,8862</b>	709.462,0491	709.462,0494	709.462,1469
N:		7.089.567,8112	7.089.564,6325	7.089.564,6225	7.089.564,6225	<b>7.089.559,6250</b>	7.089.554,6278	7.089.554,6178	7.089.551,6294
<b>Station: 19+0</b>									
Dist. Eixo (m):		-8,189	-5,010	-5,000	<b>0,000</b>	5,000	5,010	8,000	
Cota (m):		11,008	10,944	10,964	10,964	<b>11,064</b>	10,964	10,944	11,004
E:		709.471,6140	709.471,7176	709.471,7179	709.471,7179	<b>709.471,8809</b>	709.472,0438	709.472,0441	709.472,1416
N:		7.089.568,1355	7.089.564,9582	7.089.564,9482	7.089.564,9482	<b>7.089.559,9509</b>	7.089.554,9535	7.089.554,9436	7.089.551,9551
<b>Station: 19+1</b>									
Dist. Eixo (m):		-8,187	-5,009	-4,999	<b>0,000</b>	5,000	5,010	6,200	6,318
Cota (m):		11,006	10,942	10,962	10,962	<b>11,062</b>	10,962	10,942	10,966
E:		709.472,8220	709.472,9256	709.472,9259	709.472,9259	<b>709.473,0888</b>	709.473,2518	709.473,2521	709.473,2909
N:		7.089.568,1747	7.089.564,9976	7.089.564,9876	7.089.564,9876	<b>7.089.559,9905</b>	7.089.554,9932	7.089.554,9829	7.089.553,7935
<b>Station: 19+6</b>									
Dist. Eixo (m):		-6,251	-5,061	-5,051	<b>0,000</b>	7,011	7,021	8,211	
Cota (m):		10,958	10,934	10,954	10,954	<b>11,055</b>	10,915	10,895	10,919
E:		709.477,7569	709.477,8222	709.477,8227	709.477,8227	<b>709.478,0996</b>	709.478,4841	709.478,4846	709.478,5499
N:		7.089.566,5068	7.089.565,3184	7.089.565,3084	7.089.565,3084	<b>7.089.560,2654</b>	7.089.553,2647	7.089.553,2547	7.089.552,0665

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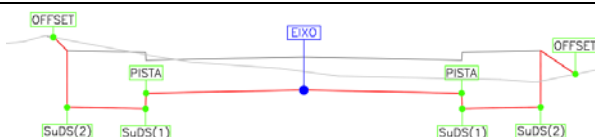
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 20+5</b>									
Dist. Eixo (m):		-7,473	-5,010		0,000		5,007	8,007	
Cota (m):		10,613	10,564				10,564	10,624	
E:		709.497,3057	709.497,3613		709.497,4744		709.497,5875	709.497,6553	
N:		7.089.568,8005	7.089.566,3381		7.089.561,3293		7.089.556,3206	7.089.553,3200	
<b>Station: 20+10</b>									
Dist. Eixo (m):		-7,521	-5,009		0,000		5,011	8,038	
Cota (m):		10,565	10,514				10,514	10,575	
E:		709.501,6726	709.501,7293		709.501,8424		709.501,9555	709.502,0239	
N:		7.089.568,9470	7.089.566,4362		7.089.561,4280		7.089.556,4187	7.089.553,3924	
<b>Station: 21+0</b>									
Dist. Eixo (m):		-7,633	-5,008		0,000		5,012	8,098	
Cota (m):		10,470	10,417				10,417	10,479	
E:		709.511,6675	709.511,7268		709.511,8398		709.511,9530	709.512,0227	
N:		7.089.569,2849	7.089.566,6608		7.089.561,6538		7.089.556,6433	7.089.553,5581	
<b>Station: 21+10</b>									
Dist. Eixo (m):		-7,607	-5,007		0,000		5,013	8,158	
Cota (m):		10,390	10,338				10,338	10,401	
E:		709.521,6655	709.521,7242		709.521,8373		709.521,9505	709.522,0215	
N:		7.089.569,4844	7.089.566,8853		7.089.561,8795		7.089.556,8679	7.089.553,7239	
<b>Station: 22+0</b>									
Dist. Eixo (m):		-7,624	-5,006		0,000		5,014	8,218	
Cota (m):		10,347	10,295				10,295	10,359	
E:		709.531,6626	709.531,7217		709.531,8347		709.531,9479	709.532,0203	
N:		7.089.569,7274	7.089.567,1099		7.089.562,1053		7.089.557,0925	7.089.553,8896	
<b>Station: 22+10</b>									
Dist. Eixo (m):		-7,695	-5,005		0,000		5,015	8,122	
Cota (m):		10,327	10,273				10,273	10,335	
E:		709.541,6584	709.541,7192		709.541,8322		709.541,9454	709.542,0156	
N:		7.089.570,0241	7.089.567,3345		7.089.562,3311		7.089.557,3171	7.089.554,2115	
<b>Station: 23+0</b>									
Dist. Eixo (m):		-7,722	-5,003		0,000		5,017	8,044	
Cota (m):		10,307	10,253				10,253	10,313	
E:		709.551,6553	709.551,7167		709.551,8296		709.551,9429	709.552,0113	
N:		7.089.570,2766	7.089.567,5591		7.089.562,5569		7.089.557,5416	7.089.554,5145	
<b>Station: 23+10</b>									
Dist. Eixo (m):		-7,746	-5,002		0,000		5,018	8,007	
Cota (m):		10,295	10,240				10,240	10,300	
E:		709.561,6522	709.561,7141		709.561,8271		709.561,9404	709.562,0079	
N:		7.089.570,5268	7.089.567,7837		7.089.562,7827		7.089.557,7662	7.089.554,7778	
<b>Station: 24+0</b>									
Dist. Eixo (m):		-7,826	-5,001		0,000		5,019	7,969	
Cota (m):		10,312	10,256				10,256	10,315	
E:		709.571,6479	709.571,7116		709.571,8245		709.571,9379	709.572,0045	
N:		7.089.570,8320	7.089.568,0083		7.089.563,0084		7.089.557,9908	7.089.555,0410	
<b>Station: 24+10</b>									
Dist. Eixo (m):		-7,971	-5,000		0,000		5,020	7,932	
Cota (m):		10,332	10,272				10,272	10,330	
E:		709.581,6420	709.581,7091		709.581,8220		709.581,9353	709.582,0011	
N:		7.089.571,2032	7.089.568,2328		7.089.563,2342		7.089.558,2154	7.089.555,3043	
<b>Station: 25+0</b>									
Dist. Eixo (m):		-8,122	-4,999		0,000		5,021	7,896	
Cota (m):		10,298	10,235				10,235	10,292	
E:		709.591,6361	709.591,7066		709.591,8194		709.591,9328	709.591,9977	
N:		7.089.571,5796	7.089.568,4574		7.089.563,4600		7.089.558,4400	7.089.555,5659	
<b>Station: 25+10</b>									
Dist. Eixo (m):		-8,198	-4,998		0,000		5,022	7,826	
Cota (m):		10,247	10,183				10,182	10,238	
E:		709.601,6318	709.601,7041		709.601,8169		709.601,9303	709.601,9936	
N:		7.089.571,8816	7.089.568,6820		7.089.563,6858		7.089.558,6646	7.089.555,8621	
<b>Station: 26+0</b>									
Dist. Eixo (m):		-8,092	-4,996		0,000		5,024	7,747	
Cota (m):		10,210	10,148				10,148	10,202	
E:		709.611,6316	709.611,7015		709.611,8143		709.611,9278	709.611,9892	
N:		7.089.572,0017	7.089.568,9066		7.089.563,9116		7.089.558,8891	7.089.556,1669	
<b>Station: 26+10</b>									
Dist. Eixo (m):		-8,172	-4,995		0,000		5,025	7,742	
Cota (m):		10,176	10,112				10,111	10,166	
E:		709.621,6273	709.621,6990		709.621,8118		709.621,9252	709.621,9866	
N:		7.089.572,3070	7.089.569,1312		7.089.564,1373		7.089.559,1137	7.089.556,3972	
<b>Station: 27+0</b>									
Dist. Eixo (m):		-8,162	-4,994		0,000		5,026	7,635	
Cota (m):		10,134	10,071				10,070	10,123	
E:		709.631,6250	709.631,6965		709.631,8092		709.631,9227	709.631,9816	
N:		7.089.572,5231	7.089.569,3558		7.089.564,3631		7.089.559,3383	7.089.556,7304	
<b>Station: 27+10</b>									
Dist. Eixo (m):		-8,132	-4,993		0,000		5,027	7,527	
Cota (m):		10,078	10,015				10,014	10,064	
E:		709.641,6231	709.641,6940		709.641,8067		709.641,9202	709.641,9766	
N:		7.089.572,7192	7.089.569,5803		7.089.564,5889		7.089.559,5629	7.089.557,0636	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

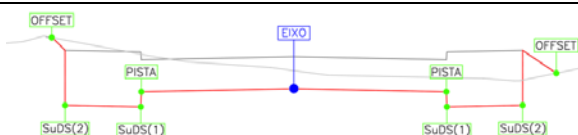
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 28+0</b>									
Dist. Eixo (m):		-8,105	-4,992		0,000		5,028	7,420	
Cota (m):		10,045	9,982				9,982	10,029	
E:		709.651,6211	709.651,6914		709.651,8041		709.651,9177	709.651,9717	
N:		7.089.572,9178	7.089.569,8049		7.089.564,8147		7.089.559,7875	7.089.557,3969	
<b>Station: 28+10</b>									
Dist. Eixo (m):		-10,000	-5,589		0,000		5,433	9,608	
Cota (m):		10,105	10,016				10,020	10,103	
E:		709.661,5758	709.661,6754		709.661,8016		709.661,9243	709.662,0185	
N:		7.089.575,0379	7.089.570,6279		7.089.565,0405		7.089.559,6090	7.089.555,4347	
<b>Station: 29+10</b>									
Dist. Eixo (m):		-9,121	-5,010		0,000		4,698	7,711	
Cota (m):		10,291	10,209				10,215	10,275	
E:		709.681,4771	709.681,6187		709.681,7913		709.681,9531	709.682,0569	
N:		7.089.574,7909	7.089.570,6828		7.089.565,6757		7.089.560,9802	7.089.557,9691	
<b>Station: 30+0</b>									
Dist. Eixo (m):		-7,984	-5,010		0,000		4,762	7,484	
Cota (m):		10,324	10,264				10,269	10,324	
E:		709.691,5103	709.691,6128		709.691,7853		709.691,9493	709.692,0431	
N:		7.089.573,9996	7.089.571,0272		7.089.566,0202		7.089.561,2613	7.089.558,5407	
<b>Station: 30+10</b>									
Dist. Eixo (m):		-7,902	-5,010		0,000		4,867	7,648	
Cota (m):		10,361	10,303				10,306	10,362	
E:		709.701,5072	709.701,6068		709.701,7794		709.701,9470	709.702,0428	
N:		7.089.574,2617	7.089.571,3716		7.089.566,3646		7.089.561,5003	7.089.558,7207	
<b>Station: 31+0</b>									
Dist. Eixo (m):		-7,794	-5,010		0,000		4,961	7,782	
Cota (m):		10,367	10,312				10,313	10,369	
E:		709.711,5050	709.711,6009		709.711,7735		709.711,9443	709.712,0415	
N:		7.089.574,4979	7.089.571,7161		7.089.566,7090		7.089.561,7513	7.089.558,9317	
<b>Station: 31+10</b>									
Dist. Eixo (m):		-7,765	-5,010		0,000		5,011	7,829	
Cota (m):		10,358	10,303				10,303	10,359	
E:		709.721,5001	709.721,5950		709.721,7675		709.721,9401	709.722,0372	
N:		7.089.574,8143	7.089.572,0605		7.089.567,0535		7.089.562,0456	7.089.559,2291	
<b>Station: 32+0</b>									
Dist. Eixo (m):		-7,646	-5,010		0,000		5,061	7,766	
Cota (m):		10,329	10,276				10,275	10,329	
E:		709.731,4982	709.731,5890		709.731,7616		709.731,9359	709.732,0291	
N:		7.089.575,0391	7.089.572,4049		7.089.567,3979		7.089.562,3398	7.089.559,6369	
<b>Station: 32+10</b>									
Dist. Eixo (m):		-7,434	-4,919		0,000		5,100	7,723	
Cota (m):		10,300	10,250				10,246	10,299	
E:		709.741,4996	709.741,5862		709.741,7557		709.741,9313	709.742,0217	
N:		7.089.575,1718	7.089.572,6586		7.089.567,7423		7.089.562,6452	7.089.560,0239	
<b>Station: 33+0</b>									
Dist. Eixo (m):		-7,461	-4,888		0,000		5,119	7,604	
Cota (m):		10,272	10,221				10,216	10,266	
E:		709.751,4928	709.751,5814		709.751,7497		709.751,9260	709.752,0116	
N:		7.089.575,5429	7.089.572,9719		7.089.568,0868		7.089.562,9705	7.089.560,4875	
<b>Station: 33+10</b>									
Dist. Eixo (m):		-7,490	-4,857		0,000		5,139	8,219	
Cota (m):		10,244	10,192				10,186	10,248	
E:		709.761,4858	709.761,5765		709.761,7438		709.761,9208	709.762,0269	
N:		7.089.575,9169	7.089.573,2851		7.089.568,4312		7.089.563,2957	7.089.560,2167	
<b>Station: 34+0</b>									
Dist. Eixo (m):		-7,612	-4,826		0,000		5,177	7,886	
Cota (m):		10,218	10,162				10,155	10,210	
E:		709.771,4757	709.771,5716		709.771,7379		709.771,9162	709.772,0095	
N:		7.089.576,3826	7.089.573,5984		7.089.568,7756		7.089.563,6020	7.089.560,8948	
<b>Station: 34+10</b>									
Dist. Eixo (m):		-7,726	-4,795		0,000		5,234	7,949	
Cota (m):		10,192	10,133				10,124	10,179	
E:		709.781,4658	709.781,5668		709.781,7319		709.781,9122	709.782,0057	
N:		7.089.576,8415	7.089.573,9117		7.089.569,1201		7.089.563,8892	7.089.561,1761	
<b>Station: 35+0</b>									
Dist. Eixo (m):		-7,865	-4,763		0,000		5,291	8,063	
Cota (m):		10,166	10,104				10,093	10,149	
E:		709.791,4551	709.791,5619		709.791,7260		709.791,9082	709.792,0037	
N:		7.089.577,3249	7.089.574,2250		7.089.569,4645		7.089.564,1764	7.089.561,4066	
<b>Station: 35+10</b>									
Dist. Eixo (m):		-7,903	-4,733		0,000		5,348	8,134	
Cota (m):		10,138	10,075				10,063	10,118	
E:		709.801,4479	709.801,5571		709.801,7201		709.801,9043	709.802,0002	
N:		7.089.577,7070	7.089.574,5386		7.089.569,8089		7.089.564,4637	7.089.561,6792	
<b>Station: 36+0</b>									
Dist. Eixo (m):		-8,025	-4,706		0,000		5,406	8,068	
Cota (m):		10,112	10,046				10,032	10,085	
E:		709.811,4377	709.811,5520		709.811,7141		709.811,9003	709.811,9920	
N:		7.089.578,1737	7.089.574,8567		7.089.570,1533		7.089.564,7509	7.089.562,0900	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
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**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

Desenho Esquemático:

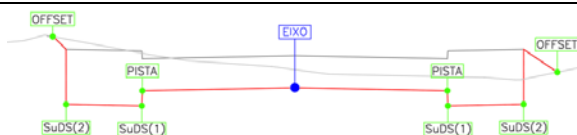


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 36+10</b>									
Dist. Eixo (m):		-8,372	-4,680		0,000		5,463	8,032	
Cota (m):		10,090	10,016				10,001	10,052	
E:		709.821,4198	709.821,5470		709.821,7082		709.821,8963	709.821,9849	
N:		7.089.578,8645	7.089.575,1748		7.089.570,4978		7.089.565,0381	7.089.562,4701	
<b>Station: 37+0</b>									
Dist. Eixo (m):		-7,803	-4,653		0,000		5,499	8,340	
Cota (m):		10,050	9,987				9,970	10,027	
E:		709.831,4335	709.831,5420		709.831,7023		709.831,8917	709.831,9895	
N:		7.089.578,6402	7.089.575,4929		7.089.570,8422		7.089.565,3464	7.089.562,5067	
<b>Station: 37+10</b>									
Dist. Eixo (m):		-7,897	-4,627		0,000		5,450	8,353	
Cota (m):		10,023	9,958				9,941	9,999	
E:		709.841,4243	709.841,5370		709.841,6963		709.841,8840	709.841,9840	
N:		7.089.579,0787	7.089.575,8109		7.089.571,1866		7.089.565,7397	7.089.562,8386	
<b>Station: 38+0</b>									
Dist. Eixo (m):		-7,782	-4,601		0,000		5,401	8,323	
Cota (m):		9,992	9,928				9,912	9,971	
E:		709.851,4224	709.851,5319		709.851,6904		709.851,8764	709.851,9771	
N:		7.089.579,3083	7.089.576,1290		7.089.571,5311		7.089.566,1330	7.089.563,2128	
<b>Station: 39+10</b>									
Dist. Eixo (m):		-8,472	-5,962		0,000		5,530	9,940	
Cota (m):		9,924	9,874				9,883	9,971	
E:		709.881,4707	709.881,5320		709.881,6777		709.881,8128	709.881,9206	
N:		7.089.580,8606	7.089.578,3516		7.089.572,3912		7.089.566,8629	7.089.562,4543	
<b>Station: 40+0</b>									
Dist. Eixo (m):		-7,915	-4,973		0,000		5,047	8,182	
Cota (m):		9,647	9,588				9,586	9,649	
E:		709.891,4813	709.891,5532		709.891,6747		709.891,7980	709.891,8747	
N:		7.089.580,5481	7.089.577,6073		7.089.572,6355		7.089.567,5901	7.089.564,4555	
<b>Station: 40+10</b>									
Dist. Eixo (m):		-7,910	-4,917		0,000		5,103	8,320	
Cota (m):		9,608	9,548				9,544	9,608	
E:		709.901,4784	709.901,5516		709.901,6717		709.901,7964	709.901,8750	
N:		7.089.580,7878	7.089.577,7952		7.089.572,8799		7.089.567,7780	7.089.564,5620	
<b>Station: 41+0</b>									
Dist. Eixo (m):		-7,846	-4,860		0,000		5,160	8,275	
Cota (m):		9,573	9,514				9,508	9,570	
E:		709.911,4770	709.911,5500		709.911,6687		709.911,7948	709.911,8709	
N:		7.089.580,9682	7.089.577,9830		7.089.573,1243		7.089.567,9658	7.089.564,8519	
<b>Station: 41+10</b>									
Dist. Eixo (m):		-7,839	-4,804		0,000		5,217	8,232	
Cota (m):		9,517	9,457				9,448	9,509	
E:		709.921,4742	709.921,5484		709.921,6657		709.921,7932	709.921,8669	
N:		7.089.581,2055	7.089.578,1708		7.089.573,3687		7.089.568,1537	7.089.565,1390	
<b>Station: 42+0</b>									
Dist. Eixo (m):		-7,510	-4,747		0,000		5,273	8,301	
Cota (m):		9,455	9,400				9,389	9,450	
E:		709.931,4792	709.931,5468		709.931,6628		709.931,7916	709.931,8656	
N:		7.089.581,1211	7.089.578,3587		7.089.573,6130		7.089.568,3415	7.089.565,3148	
<b>Station: 42+10</b>									
Dist. Eixo (m):		-7,437	-4,690		0,000		5,330	8,201	
Cota (m):		9,390	9,336				9,323	9,380	
E:		709.941,4780	709.941,5451		709.941,6598		709.941,7900	709.941,8602	
N:		7.089.581,2924	7.089.578,5465		7.089.573,8574		7.089.568,5293	7.089.565,6587	
<b>Station: 43+0</b>									
Dist. Eixo (m):		-7,481	-4,634		0,000		5,386	8,304	
Cota (m):		9,363	9,306				9,291	9,350	
E:		709.951,4740	709.951,5435		709.951,6568		709.951,7884	709.951,8597	
N:		7.089.581,5809	7.089.578,7343		7.089.574,1018		7.089.568,7172	7.089.565,8003	
<b>Station: 43+10</b>									
Dist. Eixo (m):		-7,525	-4,577		0,000		5,443	8,198	
Cota (m):		9,350	9,291				9,274	9,329	
E:		709.961,4699	709.961,5419		709.961,6538		709.961,7868	709.961,8541	
N:		7.089.581,8694	7.089.578,9222		7.089.574,3462		7.089.568,9050	7.089.566,1503	
<b>Station: 44+0</b>									
Dist. Eixo (m):		-7,570	-4,584		0,000		5,436	8,115	
Cota (m):		9,346	9,286				9,269	9,323	
E:		709.971,4658	709.971,5388		709.971,6508		709.971,7836	709.971,8491	
N:		7.089.582,1579	7.089.579,1737		7.089.574,5905		7.089.569,1565	7.089.566,4784	
<b>Station: 44+10</b>									
Dist. Eixo (m):		-7,614	-4,641		0,000		5,380	8,031	
Cota (m):		9,334	9,274				9,259	9,312	
E:		709.981,4618	709.981,5344		709.981,6478		709.981,7793	709.981,8441	
N:		7.089.582,4464	7.089.579,4742		7.089.574,8349		7.089.569,4570	7.089.566,8065	
<b>Station: 45+0</b>									
Dist. Eixo (m):		-7,691	-4,697		0,000		5,323	7,947	
Cota (m):		9,344	9,284				9,271	9,324	
E:		709.991,4569	709.991,5301		709.991,6448		709.991,7749	709.991,8390	
N:		7.089.582,7675	7.089.579,7747		7.089.575,0793		7.089.569,7575	7.089.567,1345	



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO GABRIEL ARCANJO**

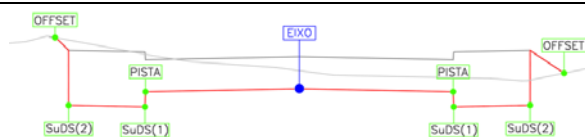
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 45+10</b>									
Dist. Eixo (m):		-7,786	-4,753		0,000		5,267	7,863	
Cota (m):		9,368	9,307				9,297	9,349	
E:		710.001,4456	710.001,5257		710.001,6419		710.001,7706	710.001,8340	
N:		7.089.583,1075	7.089.580,0752		7.089.575,3237		7.089.570,0581	7.089.567,4626	
<b>Station: 46+0</b>									
Dist. Eixo (m):		-7,908	-4,809		0,000		5,211	7,780	
Cota (m):		9,391	9,329				9,321	9,373	
E:		710.011,4456	710.011,5213		710.011,6389		710.011,7662	710.011,8290	
N:		7.089.583,4738	7.089.580,3757		7.089.575,5680		7.089.570,3586	7.089.567,7907	
<b>Station: 46+10</b>									
Dist. Eixo (m):		-7,927	-4,865		0,000		5,155	7,696	
Cota (m):		9,408	9,347				9,341	9,392	
E:		710.021,4422	710.021,5170		710.021,6359		710.021,7619	710.021,8239	
N:		7.089.583,7373	7.089.580,6763		7.089.575,8124		7.089.570,6591	7.089.568,1187	
<b>Station: 47+0</b>									
Dist. Eixo (m):		-7,938	-4,921		0,000		5,099	7,809	
Cota (m):		9,420	9,360				9,357	9,411	
E:		710.031,4389	710.031,5126		710.031,6329		710.031,7575	710.031,8237	
N:		7.089.583,9923	7.089.580,9768		7.089.576,0568		7.089.570,9596	7.089.568,2497	
<b>Station: 47+10</b>									
Dist. Eixo (m):		-7,950	-4,978		0,000		5,043	7,933	
Cota (m):		9,431	9,371				9,370	9,428	
E:		710.041,4356	710.041,5083		710.041,6299		710.041,7531	710.041,8238	
N:		7.089.584,2489	7.089.581,2773		7.089.576,3012		7.089.571,2601	7.089.568,3710	
<b>Station: 47+15</b>									
Dist. Eixo (m):		-7,961	-5,010		0,000		5,010	8,010	
Cota (m):		9,437	9,378				9,378	9,438	
E:		710.047,2115	710.047,2837		710.047,4061		710.047,5285	710.047,6018	
N:		7.089.584,4013	7.089.581,4509		7.089.576,4424		7.089.571,4339	7.089.568,4345	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO VENANCIO FORTUNATO**

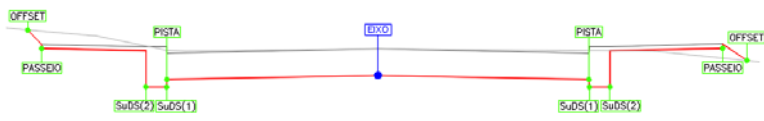
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>									
Dist. Eixo (m):		-12,657	-11,457	-11,447	<b>0,000</b>	13,177	13,187	14,377	
Cota (m):		9,828	9,804	10,024	<b>10,253</b>	9,989	9,769	9,793	
E:		709.681,8493	709.681,8799	709.681,8802	<b>709.682,1726</b>	709.682,5092	709.682,5094	709.682,5398	
N:		7.089.350,2506	7.089.349,0509	7.089.349,0409	<b>7.089.337,5977</b>	7.089.324,4250	7.089.324,4150	7.089.323,2254	
<b>Station: 0+10</b>									
Dist. Eixo (m):		-7,945	-7,652	-4,810	<b>0,000</b>	5,200	5,210	8,054	
Cota (m):		10,516	10,711	9,894	<b>10,210</b>	10,106	9,886	9,943	
E:		709.691,9664	709.691,9739	709.692,0464	<b>709.692,1693</b>	709.692,3021	709.692,3024	709.692,3750	
N:		7.089.345,7953	7.089.345,5023	7.089.342,6616	<b>7.089.337,8532</b>	7.089.332,6549	7.089.332,6449	7.089.329,8021	
<b>Station: 1+0</b>									
Dist. Eixo (m):		-7,568	-4,810	-4,800	<b>0,000</b>	5,200	5,210	8,016	
Cota (m):		9,907	9,852	10,072	<b>10,168</b>	10,064	9,844	9,900	
E:		709.701,9727	709.702,0432	709.702,0434	<b>709.702,1660</b>	709.702,2989	709.702,2991	709.702,3708	
N:		7.089.345,6745	7.089.342,9170	7.089.342,9070	<b>7.089.338,1086</b>	7.089.332,9103	7.089.332,9003	7.089.330,0953	
<b>Station: 1+10</b>									
Dist. Eixo (m):		-7,408	-4,810	-4,800	<b>0,000</b>	5,200	5,210	8,096	
Cota (m):		9,862	9,810	10,030	<b>10,126</b>	10,022	9,802	9,860	
E:		709.711,9736	709.712,0399	709.712,0402	<b>709.712,1628</b>	709.712,2956	709.712,2959	709.712,3696	
N:		7.089.345,7693	7.089.343,1725	7.089.343,1625	<b>7.089.338,3640</b>	7.089.333,1657	7.089.333,1557	7.089.330,2706	
<b>Station: 2+0</b>									
Dist. Eixo (m):		-7,511	-4,810	-4,800	<b>0,000</b>	5,200	5,210	8,048	
Cota (m):		9,822	9,768	9,988	<b>10,084</b>	9,980	9,760	9,817	
E:		709.721,9677	709.722,0367	709.722,0369	<b>709.722,1595</b>	709.722,2923	709.722,2926	709.722,3651	
N:		7.089.346,1277	7.089.343,4279	7.089.343,4179	<b>7.089.338,6195</b>	7.089.333,4212	7.089.333,4112	7.089.330,5740	
<b>Station: 2+10</b>									
Dist. Eixo (m):		-7,437	-4,810	-4,800	<b>0,000</b>	5,200	5,210	8,010	
Cota (m):		9,778	9,726	9,946	<b>10,042</b>	9,938	9,718	9,774	
E:		709.731,9663	709.732,0334	709.732,0336	<b>709.732,1563</b>	709.732,2891	709.732,2893	709.732,3609	
N:		7.089.346,3090	7.089.343,6833	7.089.343,6733	<b>7.089.338,8749</b>	7.089.333,6766	7.089.333,6666	7.089.330,8676	
<b>Station: 3+0</b>									
Dist. Eixo (m):		-7,266	-4,810	-4,800	<b>0,000</b>	5,200	5,210	7,985	8,170
Cota (m):		9,733	9,683	9,903	<b>9,999</b>	9,895	9,675	9,731	10,367
E:		709.741,9674	709.742,0301	709.742,0304	<b>709.742,1530</b>	709.742,2858	709.742,2861	709.742,3569	709.742,3617
N:		7.089.346,3937	7.089.343,9388	7.089.343,9288	<b>7.089.339,1303</b>	7.089.333,9320	7.089.333,9220	7.089.331,1484	7.089.330,9630
<b>Station: 3+10</b>									
Dist. Eixo (m):		-7,159	-7,086	-4,810	<b>0,000</b>	5,200	5,210	7,891	7,988
Cota (m):		10,520	10,447	9,641	<b>9,957</b>	9,853	9,633	9,687	10,382
E:		709.751,9669	709.751,9687	709.752,0269	<b>709.752,1497</b>	709.752,2826	709.752,2828	709.752,3513	709.752,3538
N:		7.089.346,5424	7.089.346,4695	7.089.344,1942	<b>7.089.339,3858</b>	7.089.334,1875	7.089.334,1775	7.089.331,4978	7.089.331,4005
<b>Station: 4+0</b>									
Dist. Eixo (m):		-7,796	-7,610	-4,810	<b>0,000</b>	5,200	5,210	7,745	7,771
Cota (m):		10,602	10,415	9,599	<b>9,915</b>	9,811	9,591	9,642	10,385
E:		709.761,9473	709.761,9521	709.762,0236	<b>709.762,1465</b>	709.762,2793	709.762,2795	709.762,3443	709.762,3450
N:		7.089.347,4345	7.089.347,2483	7.089.344,4496	<b>7.089.339,6412</b>	7.089.334,4429	7.089.334,4329	7.089.331,8983	7.089.331,8724
<b>Station: 4+10</b>									
Dist. Eixo (m):		-7,645	-7,635	-4,810	<b>0,000</b>	5,200	5,210	7,563	7,593
Cota (m):		10,367	9,613	9,557	<b>9,873</b>	9,769	9,549	9,596	10,336
E:		709.771,9479	709.771,9482	709.772,0203	<b>709.772,1432</b>	709.772,2760	709.772,2763	709.772,3364	709.772,3371
N:		7.089.347,5392	7.089.347,5291	7.089.344,7051	<b>7.089.339,8966</b>	7.089.334,6983	7.089.334,6883	7.089.332,3364	7.089.332,3065
<b>Station: 5+0</b>									
Dist. Eixo (m):		-7,835	-7,747	-4,810	<b>0,000</b>	5,200	5,210	7,471	7,518
Cota (m):		10,275	10,333	9,515	<b>9,831</b>	9,727	9,507	9,552	10,280
E:		709.781,9398	709.781,9420	709.782,0171	<b>709.782,1399</b>	709.782,2728	709.782,2730	709.782,3308	709.782,3320
N:		7.089.347,9844	7.089.347,8969	7.089.344,9605	<b>7.089.340,1521</b>	7.089.334,9538	7.089.334,9438	7.089.332,6837	7.089.332,6364
<b>Station: 5+10</b>									
Dist. Eixo (m):		-7,977	-7,946	-4,810	<b>0,000</b>	5,200	5,210	7,501	7,606
Cota (m):		10,274	10,295	9,473	<b>9,789</b>	9,685	9,465	9,510	10,200
E:		709.791,9329	709.791,9337	709.792,0138	<b>709.792,1367</b>	709.792,2695	709.792,2698	709.792,3283	709.792,3310
N:		7.089.348,3823	7.089.348,3509	7.089.345,2160	<b>7.089.340,4075</b>	7.089.335,2092	7.089.335,1992	7.089.332,9094	7.089.332,8042
<b>Station: 5+19</b>									
Dist. Eixo (m):		-7,629	-7,600	-4,810	<b>0,000</b>	5,200	5,210	5,443	
Cota (m):		10,277	10,248	9,432	<b>9,748</b>	9,644	10,184	10,029	
E:		709.801,4667	709.801,4674	709.801,5387	<b>709.801,6615</b>	709.801,7944	709.801,7946	709.801,8006	
N:		7.089.348,2774	7.089.348,2486	7.089.345,4593	<b>7.089.340,6509</b>	7.089.335,4526	7.089.335,4426	7.089.335,2093	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO VIGILIO**

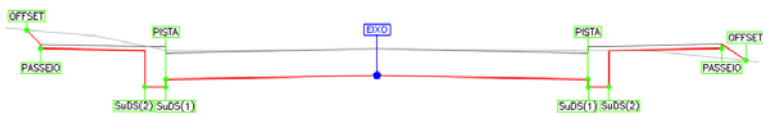
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):	-11,209	-10,942	-10,477	-9,486	-9,476	<b>0,000</b>	12,972	12,982	13,972	14,000	
Cota (m):	10,783	10,961	10,202	10,182	10,392	<b>10,469</b>	10,404	10,194	10,214	10,945	
E:	709.672,7532	709.672,7599	709.672,7717	709.672,7966	709.672,7968	<b>709.673,0353</b>	709.673,3618	709.673,3621	709.673,3870	709.673,3877	
N:	7.089.653,3628	7.089.653,0961	7.089.652,6306	7.089.651,6407	7.089.651,6307	<b>7.089.642,1572</b>	7.089.629,1889	7.089.629,1789	7.089.628,1892	7.089.628,1617	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,564	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,175	8,279
Cota (m):		10,836	10,155	10,135	10,345	<b>10,445</b>	10,345	10,135	10,155	10,848	10,879
E:		709.682,8418	709.682,8812	709.682,9061	709.682,9063	<b>709.683,0322</b>	709.683,1580	709.683,1583	709.683,1832	709.683,2379	709.683,2405
N:		7.089.649,9707	7.089.648,4072	7.089.647,4173	7.089.647,4073	<b>7.089.642,4089</b>	7.089.637,4105	7.089.637,4005	7.089.636,4108	7.089.634,2364	7.089.634,1329
<b>Station: 1+0</b>											
Dist. Eixo (m):		-7,726	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	7,996	8,051
Cota (m):		10,815	10,131	10,111	10,321	<b>10,421</b>	10,321	10,111	10,131	10,821	10,884
E:		709.692,8346	709.692,8780	709.692,9029	709.692,9032	<b>709.693,0290</b>	709.693,1548	709.693,1551	709.693,1800	709.693,2302	709.693,2316
N:		7.089.650,3837	7.089.648,6589	7.089.647,9629	7.089.647,6590	<b>7.089.642,6606</b>	7.089.637,6622	7.089.637,6522	7.089.636,6625	7.089.634,6668	7.089.634,6118
<b>Station: 1+10</b>											
Dist. Eixo (m):		-7,755	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	7,940	
Cota (m):		10,792	10,106	10,087	10,297	<b>10,397</b>	10,297	10,087	10,106	10,795	
E:		709.702,8307	709.702,8748	709.702,8997	709.702,9000	<b>709.703,0258</b>	709.703,1517	709.703,1519	709.703,1768	709.703,2257	
N:		7.089.650,6644	7.089.648,9106	7.089.647,9207	7.089.647,9107	<b>7.089.642,9123</b>	7.089.637,9139	7.089.637,9039	7.089.636,9142	7.089.634,9748	
<b>Station: 2+0</b>											
Dist. Eixo (m):		-7,865	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	7,885	7,969
Cota (m):		10,769	10,082	10,062	10,272	<b>10,372</b>	10,272	10,062	10,082	10,770	10,814
E:		709.712,8247	709.712,8716	709.712,8966	709.712,8968	<b>709.713,0227</b>	709.713,1485	709.713,1488	709.713,1737	709.713,2211	709.713,2232
N:		7.089.651,0268	7.089.649,1623	7.089.648,1724	7.089.648,1624	<b>7.089.643,1640</b>	7.089.638,1655	7.089.638,1555	7.089.637,1659	7.089.635,2810	7.089.635,1972
<b>Station: 2+10</b>											
Dist. Eixo (m):		-7,973	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	7,791	7,810
Cota (m):		10,747	10,058	10,038	10,248	<b>10,348</b>	10,248	10,038	10,058	10,744	10,831
E:		709.722,8188	709.722,8685	709.722,8934	709.722,8937	<b>709.723,0195</b>	709.723,1453	709.723,1456	709.723,1705	709.723,2156	709.723,2160
N:		7.089.651,3861	7.089.649,4139	7.089.648,4241	7.089.648,4141	<b>7.089.643,4156</b>	7.089.638,4172	7.089.638,4072	7.089.637,4175	7.089.635,6272	7.089.635,6084
<b>Station: 3+0</b>											
Dist. Eixo (m):		-8,007	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	7,904	
Cota (m):		10,724	10,034	10,014	10,224	<b>10,324</b>	10,224	10,014	10,034	10,722	
E:		709.732,8148	709.732,8653	709.732,8902	709.732,8905	<b>709.733,0163</b>	709.733,1422	709.733,1424	709.733,1673	709.733,2153	
N:		7.089.651,6722	7.089.649,6656	7.089.648,6757	7.089.648,6657	<b>7.089.643,6673</b>	7.089.638,6689	7.089.638,6589	7.089.637,6692	7.089.635,7659	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,119	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,305	
Cota (m):		10,702	10,009	9,990	10,200	<b>10,300</b>	10,200	9,990	10,009	10,706	
E:		709.742,8088	709.742,8621	709.742,8871	709.742,8873	<b>709.743,0132</b>	709.743,1390	709.743,1392	709.743,1642	709.743,2222	
N:		7.089.652,0349	7.089.649,9173	7.089.648,9274	7.089.648,9174	<b>7.089.643,9190</b>	7.089.638,9206	7.089.638,9106	7.089.637,9209	7.089.635,6163	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-8,164	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,321	
Cota (m):		10,678	9,985	9,965	10,175	<b>10,275</b>	10,175	9,965	9,985	10,682	
E:		709.752,8045	709.752,8590	709.752,8839	709.752,8842	<b>709.753,0100</b>	709.753,1358	709.753,1361	709.753,1610	709.753,2194	
N:		7.089.652,3316	7.089.650,1690	7.089.649,1791	7.089.649,1691	<b>7.089.644,1707</b>	7.089.639,1723	7.089.639,1623	7.089.638,1726	7.089.635,8527	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,209	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,336	
Cota (m):		10,655	9,961	9,941	10,151	<b>10,251</b>	10,151	9,941	9,961	10,658	
E:		709.762,8002	709.762,8558	709.762,8807	709.762,8810	<b>709.763,0068</b>	709.763,1327	709.763,1329	709.763,1578	709.763,2166	
N:		7.089.652,6283	7.089.650,4207	7.089.649,4308	7.089.649,4208	<b>7.089.644,4224</b>	7.089.639,4239	7.089.639,4139	7.089.638,4243	7.089.636,0891	
<b>Station: 5+0</b>											
Dist. Eixo (m):		-8,158	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,308	
Cota (m):		10,630	9,937	9,917	10,127	<b>10,227</b>	10,127	9,917	9,937	10,633	
E:		709.772,7983	709.772,8526	709.772,8776	709.772,8778	<b>709.773,0037</b>	709.773,1295	709.773,1297	709.773,1547	709.773,2127	
N:		7.089.652,8298	7.089.650,6723	7.089.649,6825	7.089.649,6725	<b>7.089.644,6740</b>	7.089.639,6756	7.089.639,6656	7.089.638,6759	7.089.636,3692	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-8,181	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,203	
Cota (m):		10,606	9,913	9,893	10,103	<b>10,203</b>	10,103	9,893	9,913	10,607	
E:		709.782,7946	709.782,8495	709.782,8744	709.782,8746	<b>709.783,0005</b>	709.783,1263	709.783,1266	709.783,1515	709.783,2069	
N:		7.089.653,1044	7.089.650,9240	7.089.649,9341	7.089.649,9241	<b>7.089.644,9257</b>	7.089.639,9273	7.089.639,9173	7.089.638,9276	7.089.636,7258	
<b>Station: 6+0</b>											
Dist. Eixo (m):		-8,201	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,100	
Cota (m):		10,582	9,888	9,868	10,078	<b>10,178</b>	10,078	9,868	9,888	10,580	
E:		709.792,7909	709.792,8463	709.792,8712	709.792,8715	<b>709.792,9973</b>	709.793,1232	709.793,1234	709.793,1483	709.793,2012	
N:		7.089.653,3754	7.089.651,1757	7.089.650,1858	7.089.650,1758	<b>7.089.645,1774</b>	7.089.640,1790	7.089.640,1690	7.089.639,1793	7.089.637,0795	
<b>Station: 6+10</b>											
Dist. Eixo (m):		-8,195	-6,000	-5,010	-5,000	<b>0,000</b>	5,000	5,010	6,000	8,061	
Cota (m):		10,554	9,860	9,840	10,050	<b>10,150</b>	10,050	9,840	9,860	10,551	
E:		709.802,7879	709.802,8431	709.802,8681	709.802,8683	<b>709.802,9942</b>	709.803,1200	709.803,1202	709.803,1452	709.803,1970	
N:		7.089.653,6211	7.089.651,4274	7.089.650,4375	7.089.650,4275	<b>7.089.645,4291</b>	7.089.640,4307	7.089.640,4207	7.089.639,4310	7.089.637,3702	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-8,158	-8,087	-6,000	-5,010	<b>0,000</b>	5,000	5,010	6,000	8,080	
Cota (m):		10,562	10,609	9,817	9,797	<b>10,107</b>	10,007	9,797	9,817	10,509	
E:		709.812,7857	709.812,7874	709.812,8400	709.812,8649	<b>709.812,9910</b>	709.813,1168	709.813,1171	709.813,1420	709.813,1943	
N:		7.089.653,8358	7.089.653,7656	7.089.651,6791	7.089.650,6892	<b>7.089.645,6808</b>	7.089.640,6823	7.089.640,6723	7.089.639,6827	7.089.637,6036	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-8,366	-8,057	-6,000	-5,010	<b>0,000</b>	5,000	5,010	6,000	8,098	
Cota (m):		10,349	10,455	9,764	9,744	<b>10,054</b>	9,954	9,744	9,764	10,456	
E:		709.822,7773	709.822,7850	709.822,8368	709.822,8617	<b>709.822,9878</b>	709.823,1137	709.823,1139	709.823,1388	709.823,1916	
N:		7.089.654,2960	7.089.653,9868	7.089.651,9307	7.089.650,9409	<b>7.089.645,9324</b>	7.089.640,9340	7.089.640,9240	7.089.639,9343	7.089.637,8370	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO VIGILIO**

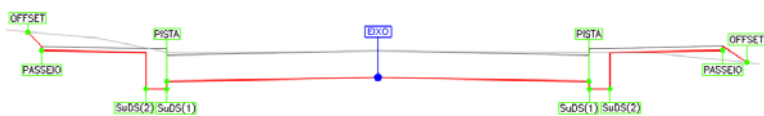
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO	OFFSET
Station: 8+0											
Dist. Eixo (m):	-8,376	-8,040	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,258	7,428
Cota (m):	10,278	10,501	9,711	9,691	9,901	10,001	9,901	9,691	9,711	10,386	10,656
E:	709.832,7738	709.832,7823	709.832,8336	709.832,8586	709.832,8588	709.832,9846	709.833,1105	709.833,1107	709.833,1357	709.833,1673	709.833,1716
N:	7.089.654,5574	7.089.654,2220	7.089.652,1824	7.089.651,1925	7.089.651,1825	7.089.646,1841	7.089.641,1857	7.089.641,1757	7.089.640,1860	7.089.638,9284	7.089.638,7580
Station: 8+10											
Dist. Eixo (m):	-8,268	-8,024	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,328	
Cota (m):	10,284	10,447	9,657	9,637	9,847	9,947	9,847	9,637	9,657	10,334	
E:	709.842,7734	709.842,7795	709.842,8305	709.842,8554	709.842,8556	709.842,9815	709.843,1073	709.843,1076	709.843,1325	709.843,1659	
N:	7.089.654,7014	7.089.654,4570	7.089.652,4341	7.089.651,4442	7.089.651,4342	7.089.646,4358	7.089.641,4374	7.089.641,4274	7.089.640,4377	7.089.639,1102	
Station: 9+0											
Dist. Eixo (m):	-8,372	-8,007	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,531	
Cota (m):	10,150	10,393	9,603	9,584	9,794	9,894	9,794	9,584	9,603	10,284	
E:	709.852,7676	709.852,7768	709.852,8273	709.852,8522	709.852,8525	709.852,9783	709.853,1042	709.853,1044	709.853,1293	709.853,1679	
N:	7.089.655,0564	7.089.654,6920	7.089.652,6858	7.089.651,6959	7.089.651,6859	7.089.646,6875	7.089.641,6891	7.089.641,6791	7.089.640,6894	7.089.639,1587	
Station: 9+4											
Dist. Eixo (m):	-8,412	-7,998	-5,999	-5,009	-4,999	0,000	5,000	5,010	6,000	7,678	7,760
Cota (m):	10,096	10,371	9,582	9,562	9,772	9,872	9,772	9,562	9,582	10,265	10,310
E:	709.856,8523	709.856,8627	709.856,9131	709.856,9380	709.856,9382	709.857,0641	709.857,1899	709.857,1902	709.857,2151	709.857,2573	709.857,2594
N:	7.089.655,2015	7.089.654,7880	7.089.652,7886	7.089.651,7988	7.089.651,7888	7.089.646,7903	7.089.641,7919	7.089.641,7819	7.089.640,7922	7.089.639,1152	7.089.639,0323
Station: 9+10											
Dist. Eixo (m):		-8,305	-8,305	-7,315	-7,305	0,000		6,393	6,403	7,393	
Cota (m):		10,247	9,597	9,577	9,787	9,840		9,806	9,596	9,616	
E:		709.862,5753	709.862,5753	709.862,6224	709.862,6229	709.862,9703		709.863,2744	709.863,2749	709.863,3220	
N:		7.089.655,3672	7.089.655,3670	7.089.654,3782	7.089.654,3682	7.089.647,0716		7.089.640,6855	7.089.640,6755	7.089.639,6866	
Station: 9+12											
Dist. Eixo (m):					-11,393	0,000		10,934			
Cota (m):					9,798	9,828		9,868			
E:					709.864,6419	709.865,1838		709.865,7039			
N:					7.089.658,5568	7.089.647,1770		7.089.636,2553			
Station: 10+2											
Dist. Eixo (m):		-13,887	-13,853	-12,863	-12,853	0,000	11,226	11,236	12,226	12,876	13,187
Cota (m):		10,343	9,716	9,596	9,806	9,830	9,886	9,676	9,696	10,359	10,252
E:		709.874,6796	709.874,6812	709.874,7283	709.874,7288	709.875,3401	709.875,8741	709.875,8746	709.875,9217	709.875,9526	709.875,9674
N:		7.089.661,5319	7.089.661,4977	7.089.660,5086	7.089.660,4986	7.089.647,6606	7.089.636,4469	7.089.636,4369	7.089.635,4480	7.089.634,7988	7.089.634,4890
Station: 10+10											
Dist. Eixo (m):		-8,575	-8,467	-6,005	-5,015	-5,005	0,000	5,006	5,016	6,006	8,105
Cota (m):		10,518	10,455	9,754	9,735	9,945	10,043	9,952	9,742	9,762	10,454
E:		709.882,5398	709.882,5449	709.882,6621	709.882,7092	709.882,7096	709.882,9477	709.883,1858	709.883,1863	709.883,2334	709.883,3332
N:		7.089.656,5878	7.089.656,4805	7.089.654,0211	7.089.653,0320	7.089.653,0220	7.089.648,0229	7.089.643,0217	7.089.643,0117	7.089.642,0229	7.089.639,9263
Station: 11+0											
Dist. Eixo (m):		-7,894	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	8,056	
Cota (m):		10,647	9,959	9,939	10,149	10,249	10,149	9,939	9,959	10,650	
E:		709.892,7010	709.892,7591	709.892,7894	709.892,7897	709.892,9430	709.893,0962	709.893,0965	709.893,1269	709.893,1899	
N:		7.089.656,2202	7.089.654,3270	7.089.653,3373	7.089.653,3273	7.089.648,3296	7.089.643,3320	7.089.643,3220	7.089.642,3324	7.089.640,2772	
Station: 11+10											
Dist. Eixo (m):		-8,106	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	8,001	
Cota (m):		10,709	10,017	9,998	10,208	10,308	10,208	9,998	10,017	10,707	
E:		709.902,6898	709.902,7544	709.902,7847	709.902,7850	709.902,9383	709.903,0915	709.903,0918	709.903,1222	709.903,1835	
N:		7.089.656,7382	7.089.654,6335	7.089.653,6438	7.089.653,6338	7.089.648,6361	7.089.643,6385	7.089.643,6285	7.089.642,6389	7.089.640,6390	
Station: 12+0											
Dist. Eixo (m):		-7,866	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,968	
Cota (m):		10,690	10,002	9,983	10,193	10,293	10,193	9,983	10,002	10,692	
E:		709.912,6925	709.912,7497	709.912,7800	709.912,7803	709.912,9336	709.913,0868	709.913,0871	709.913,1175	709.913,1778	
N:		7.089.656,8053	7.089.654,9400	7.089.653,9503	7.089.653,9403	7.089.648,9426	7.089.643,9450	7.089.643,9350	7.089.642,9454	7.089.640,9782	
Station: 12+10											
Dist. Eixo (m):		-7,704	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,928	
Cota (m):		10,671	9,987	9,968	10,178	10,278	10,178	9,968	9,987	10,676	
E:		709.922,6928	709.922,7450	709.922,7753	709.922,7756	709.922,9289	709.923,0821	709.923,0824	709.923,1128	709.923,1719	
N:		7.089.656,9498	7.089.655,2465	7.089.654,2568	7.089.654,2468	7.089.649,2491	7.089.644,2515	7.089.644,2415	7.089.643,2519	7.089.641,3249	
Station: 13+0											
Dist. Eixo (m):		-7,672	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,865	
Cota (m):		10,656	9,972	9,953	10,163	10,263	10,163	9,953	9,972	10,660	
E:		709.932,6891	709.932,7403	709.932,7706	709.932,7709	709.932,9242	709.933,0774	709.933,0777	709.933,1081	709.933,1653	
N:		7.089.657,2235	7.089.655,5530	7.089.654,5633	7.089.654,5533	7.089.649,5556	7.089.644,5580	7.089.644,5480	7.089.643,5584	7.089.641,6941	
Station: 13+10											
Dist. Eixo (m):		-7,782	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,476	7,607
Cota (m):		10,643	9,957	9,938	10,148	10,248	10,148	9,938	9,957	10,637	10,616
E:		709.942,6810	709.942,7356	709.942,7659	709.942,7662	709.942,9195	709.943,0727	709.943,0730	709.943,1034	709.943,1486	709.943,1526
N:		7.089.657,6405	7.089.655,8595	7.089.654,8697	7.089.654,8597	7.089.649,8621	7.089.644,8644	7.089.644,8545	7.089.643,8649	7.089.642,3900	7.089.642,2588
Station: 14+0											
Dist. Eixo (m):		-7,838	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,477	
Cota (m):		10,629	9,942	9,923	10,133	10,233	10,133	9,923	9,942	10,622	
E:		709.952,6746	709.952,7309	709.952,7612	709.952,7615	709.952,9148	709.953,0680	709.953,0683	709.953,0987	709.953,1440	
N:		7.089.658,0031	7.089.656,1660	7.089.655,1762	7.089.655,1662	7.089.650,1686	7.089.645,1709	7.089.645,1609	7.089.644,1714	7.089.642,6946	
Station: 14+10											
Dist. Eixo (m):		-7,976	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,511	7,626
Cota (m):		10,617	9,927	9,908	10,118	10,218	10,118	9,908	9,927	10,608	10,631
E:		709.962,6656	709.962,7262	709.962,7565	709.962,7568	709.962,9101	709.963,0633	709.963,0637	709.963,0940	709.963,1403	709.963,1438
N:		7.089.658,4473	7.089.656,4725	7.089.655,4827	7.089.655,4727	7.089.650,4751	7.089.645,4774	7.089.645,4674	7.089.644,4779	7.089.642,9677	7.089.642,8524

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SÃO VIGILIO**

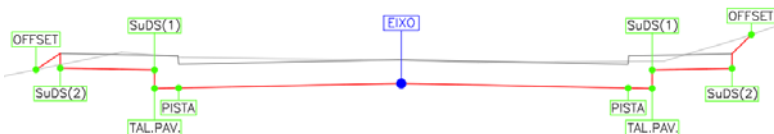
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	PASSEIO	SuDS(2)	SuDS(1)	PISTA	EIXO	PISTA	SuDS(1)	SuDS(2)	PASSEIO	OFFSET	
<b>Station: 15+0</b>												
Dist. Eixo (m):		-8,086	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,544	7,624	
Cota (m):		10,604	9,912	9,893	10,103	10,203	10,103	9,893	9,912	10,593	10,773	
E:		709.972,6576	709.972,7215	709.972,7518	709.972,7521	709.972,9054	709.973,0586	709.973,0590	709.973,0893	709.973,1366	709.973,1391	
N:		7.089.658,8637	7.089.656,7790	7.089.655,7892	7.089.655,7792	7.089.650,7816	7.089.645,7839	7.089.645,7739	7.089.644,7844	7.089.643,2409	7.089.643,1608	
<b>Station: 15+10</b>												
Dist. Eixo (m):		-8,129	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,578	7,645	
Cota (m):		10,590	9,897	9,878	10,088	10,188	10,088	9,878	9,897	10,579	10,600	
E:		709.982,6516	709.982,7168	709.982,7471	709.982,7475	709.982,9007	709.983,0539	709.983,0543	709.983,0846	709.983,1330	709.983,1350	
N:		7.089.659,2131	7.089.657,0855	7.089.656,0957	7.089.656,0857	7.089.651,0881	7.089.646,0904	7.089.646,0804	7.089.645,0909	7.089.643,5140	7.089.643,4464	
<b>Station: 16+0</b>												
Dist. Eixo (m):		-8,145	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,688		
Cota (m):		10,575	9,882	9,863	10,073	10,173	10,073	9,863	9,882	10,566		
E:		709.992,6464	709.992,7121	709.992,7424	709.992,7428	709.992,8960	709.993,0493	709.993,0496	709.993,0799	709.993,1316		
N:		7.089.659,5357	7.089.657,3920	7.089.656,4022	7.089.656,3922	7.089.651,3945	7.089.646,3969	7.089.646,3869	7.089.645,3974	7.089.643,7101		
<b>Station: 16+10</b>												
Dist. Eixo (m):		-8,157	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,828		
Cota (m):		10,560	9,867	9,848	10,058	10,158	10,058	9,848	9,867	10,554		
E:		710.002,6413	710.002,7074	710.002,7377	710.002,7381	710.002,8913	710.003,0446	710.003,0449	710.003,0752	710.003,1312		
N:		7.089.659,8540	7.089.657,6984	7.089.656,7087	7.089.656,6987	7.089.651,7010	7.089.646,7034	7.089.646,6934	7.089.645,7039	7.089.643,8763		
<b>Station: 17+0</b>												
Dist. Eixo (m):		-8,142	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,992		
Cota (m):		10,545	9,852	9,833	10,043	10,143	10,043	9,833	9,852	10,542		
E:		710.012,6370	710.012,7027	710.012,7331	710.012,7334	710.012,8866	710.013,0399	710.013,0402	710.013,0705	710.013,1316		
N:		7.089.660,1462	7.089.658,0049	7.089.657,0152	7.089.657,0052	7.089.652,0075	7.089.647,0099	7.089.646,9999	7.089.646,0104	7.089.644,0194		
<b>Station: 17+10</b>												
Dist. Eixo (m):		-8,161	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,964		
Cota (m):		10,531	9,837	9,818	10,028	10,128	10,028	9,818	9,837	10,527		
E:		710.022,6318	710.022,6980	710.022,7284	710.022,7287	710.022,8819	710.023,0352	710.023,0355	710.023,0658	710.023,1260		
N:		7.089.660,4714	7.089.658,3114	7.089.657,3217	7.089.657,3117	7.089.652,3140	7.089.647,3164	7.089.647,3064	7.089.646,3169	7.089.644,3541		
<b>Station: 18+0</b>												
Dist. Eixo (m):		-8,294	-8,144	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,935	8,118
Cota (m):		10,409	10,480	9,787	9,767	9,977	10,077	9,977	9,787	10,476	10,661	
E:		710.032,6230	710.032,6276	710.032,6933	710.032,7237	710.032,7240	710.032,8772	710.033,0305	710.033,0308	710.033,0611	710.033,1204	710.033,1260
N:		7.089.660,9107	7.089.660,7610	7.089.658,6179	7.089.657,6282	7.089.657,6182	7.089.652,6205	7.089.647,6229	7.089.647,6129	7.089.646,6234	7.089.644,6889	7.089.644,5068
<b>Station: 18+10</b>												
Dist. Eixo (m):		-8,361	-8,056	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	7,928	8,073
Cota (m):		10,233	10,436	9,645	9,625	9,835	9,935	9,835	9,625	9,645	10,333	10,579
E:		710.042,6163	710.042,6256	710.042,6886	710.042,7190	710.042,7193	710.042,8725	710.043,0258	710.043,0261	710.043,0564	710.043,1155	710.043,1200
N:		7.089.661,2837	7.089.660,9796	7.089.658,9244	7.089.657,9347	7.089.657,9247	7.089.652,9270	7.089.647,9294	7.089.647,9194	7.089.646,9299	7.089.645,0027	7.089.644,8576
<b>Station: 18+16</b>												
Dist. Eixo (m):		-8,171	-8,002	-6,000	-5,010	-5,000	0,000	5,000	5,010	6,000	8,001	8,145
Cota (m):		10,200	10,313	9,523	9,503	9,713	9,813	9,713	9,503	9,523	10,213	10,457
E:		710.048,7466	710.048,7517	710.048,8131	710.048,8434	710.048,8437	710.048,9970	710.049,1502	710.049,1505	710.049,1809	710.049,2422	710.049,2466
N:		7.089.661,2815	7.089.661,1134	7.089.659,1122	7.089.658,1225	7.089.658,1125	7.089.653,1148	7.089.648,1172	7.089.648,1072	7.089.647,1177	7.089.645,1176	7.089.644,9733

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SEM DENOMINAÇÃO 04**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):	-5,395	-5,375	-2,909	-2,909	-2,511	<b>0,000</b>	2,962	3,360	3,360	4,213	4,396
Cota (m):	19,092	19,073	18,763	18,467	18,475	<b>18,526</b>	18,466	18,458	18,754	18,771	18,909
E:	709.258,1049	709.258,1070	709.258,3725	709.258,3725	709.258,4153	<b>709.258,6856</b>	709.259,0043	709.259,0472	709.259,0472	709.259,1389	709.259,1586
N:	7.090.573,3694	7.090.573,3496	7.090.570,8976	7.090.570,8976	7.090.570,5018	<b>7.090.568,0054</b>	7.090.565,0604	7.090.564,6648	7.090.564,6648	7.090.563,8172	7.090.563,6349
<b>Station: 0+10</b>											
Dist. Eixo (m):	-4,341	-3,925	-3,187	-3,187	-2,789	<b>0,000</b>	3,011	3,409	3,409	4,186	
Cota (m):	18,154	18,431	18,156	17,860	17,868	<b>17,924</b>	17,864	17,856	18,152	18,167	
E:	709.268,1603	709.268,2050	709.268,2845	709.268,2845	709.268,3273	<b>709.268,6275</b>	709.268,9515	709.268,9943	709.268,9943	709.269,0780	
N:	7.090.573,3972	7.090.572,9841	7.090.572,2503	7.090.572,2503	7.090.571,8545	<b>7.090.569,0815</b>	7.090.566,0882	7.090.565,6925	7.090.565,6925	7.090.564,9195	
<b>Station: 1+0</b>											
Dist. Eixo (m):	-4,224	-3,969	-3,193	-3,193	-2,795	<b>0,000</b>	3,005	3,403	3,403	4,160	4,222
Cota (m):	17,660	17,830	17,555	17,259	17,267	<b>17,323</b>	17,263	17,255	17,551	17,566	17,887
E:	709.278,1148	709.278,1422	709.278,2257	709.278,2257	709.278,2686	<b>709.278,5694</b>	709.278,8928	709.278,9356	709.278,9356	709.279,0171	709.279,0237
N:	7.090.574,3570	7.090.574,1038	7.090.573,3325	7.090.573,3325	7.090.572,9366	<b>7.090.570,1577</b>	7.090.567,1703	7.090.566,7746	7.090.566,7746	7.090.566,0219	7.090.565,9606
<b>Station: 1+10</b>											
Dist. Eixo (m):		-4,013	-3,199	-3,199	-2,801	<b>0,000</b>	3,061				
Cota (m):		16,969	16,953	16,657	16,665	<b>16,721</b>	16,660				
E:		709.288,0795	709.288,1670	709.288,1670	709.288,2099	<b>709.288,5113</b>	709.288,8407				
N:		7.090.575,2233	7.090.574,4146	7.090.574,4146	7.090.574,0187	<b>7.090.571,2339</b>	7.090.568,1910				
<b>Station: 2+0</b>											
Dist. Eixo (m):		-4,056	-3,205	-3,205	-2,807	<b>0,000</b>	2,993	3,391	3,391	4,386	4,440
Cota (m):		16,369	16,352	16,056	16,064	<b>16,120</b>	16,060	16,052	16,348	16,368	16,681
E:		709.298,0167	709.298,1083	709.298,1083	709.298,1511	<b>709.298,4532</b>	709.298,7753	709.298,8182	709.298,8182	709.298,9253	709.298,9310
N:		7.090.576,3430	7.090.575,4967	7.090.575,4967	7.090.575,1009	<b>7.090.572,3101</b>	7.090.569,3346	7.090.568,9389	7.090.568,9389	7.090.567,9495	7.090.567,8964
<b>Station: 2+10</b>											
Dist. Eixo (m):		-4,100	-3,211	-3,211	-2,813	<b>0,000</b>	2,987	3,385	3,385	4,263	4,569
Cota (m):		15,768	15,750	15,454	15,462	<b>15,519</b>	15,459	15,451	15,747	15,764	16,331
E:		709.307,9539	709.308,0496	709.308,0496	709.308,0924	<b>709.308,3952</b>	709.308,7166	709.308,7594	709.308,7595	709.308,8540	709.308,8869
N:		7.090.577,4628	7.090.576,5789	7.090.576,5789	7.090.576,1830	<b>7.090.573,3863</b>	7.090.570,4167	7.090.570,0211	7.090.570,0209	7.090.569,1480	7.090.568,8435
<b>Station: 3+0</b>											
Dist. Eixo (m):		-4,306	-4,217	-3,217	-3,217	<b>0,000</b>	2,981	3,379	3,379	4,466	
Cota (m):		15,422	15,482	15,202	14,906	<b>14,971</b>	14,911	14,903	15,199	15,220	
E:		709.317,8736	709.317,8833	709.317,9909	709.317,9909	<b>709.318,3371</b>	709.318,6579	709.318,7007	709.318,7007	709.318,8177	
N:		7.090.578,7439	7.090.578,6547	7.090.577,6610	7.090.577,6610	<b>7.090.574,4625</b>	7.090.571,4988	7.090.571,1032	7.090.571,1032	7.090.570,0228	
<b>Station: 3+4</b>											
Dist. Eixo (m):		-7,574	-5,359	-5,359	-4,961	<b>0,000</b>	6,706	7,104	7,104	7,255	
Cota (m):		15,178	15,134	14,838	14,846	<b>14,819</b>	15,188	15,180	15,476	15,478	
E:		709.321,7445	709.321,9829	709.321,9829	709.322,0257	<b>709.322,5596</b>	709.323,2813	709.323,3241	709.323,3241	709.323,3404	
N:		7.090.582,4496	7.090.580,2472	7.090.580,2472	7.090.579,8513	<b>7.090.574,9196</b>	7.090.568,2523	7.090.567,8566	7.090.567,8566	7.090.567,7063	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**SER. SIDNEI LOURENCI**

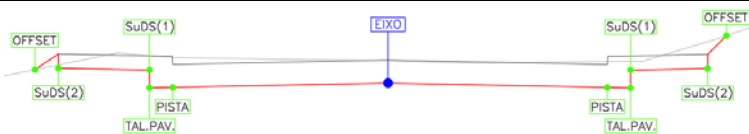
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV	PISTA	EIXO	PISTA	TAL. PAV	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):					-2,734	0,000	3,000				
Cota (m):					12,612	12,666	12,606				
E:					709.282,9447	709.283,0528	709.283,1713				
N:					7.089.948,2478	7.089.945,5155	7.089.942,5178				
<b>Station: 0+10</b>											
Dist. Eixo (m):					-2,776	0,000	3,102				
Cota (m):					12,579	12,635	12,573				
E:					709.292,9352	709.293,0449	709.293,1675				
N:					7.089.948,6849	7.089.945,9106	7.089.942,8107				
<b>Station: 0+20</b>											
Dist. Eixo (m):					-2,850	0,000	3,183				
Cota (m):					12,546	12,603	12,540				
E:					709.302,9245	709.303,0371	709.303,1629				
N:					7.089.949,1535	7.089.946,3058	7.089.943,1251				
<b>Station: 0+30</b>											
Dist. Eixo (m):					-2,923	0,000	3,181				
Cota (m):					12,513	12,572	12,508				
E:					709.312,9138	709.313,0293	709.313,1550				
N:					7.089.949,6221	7.089.946,7010	7.089.943,5229				
<b>Station: 0+40</b>											
Dist. Eixo (m):					-2,927	0,000	3,142				
Cota (m):					12,482	12,540	12,478				
E:					709.322,9058	709.323,0215	709.323,1457				
N:					7.089.950,0208	7.089.947,0961	7.089.943,9565				
<b>Station: 0+50</b>											
Dist. Eixo (m):					-2,921	0,000	3,071				
Cota (m):					12,449	12,508	12,446				
E:					709.332,8983	709.333,0137	709.333,1350				
N:					7.089.950,4098	7.089.947,4913	7.089.944,4231				
<b>Station: 0+60</b>											
Dist. Eixo (m):					-2,865	0,000	2,998				
Cota (m):					12,298	12,355	12,303				
E:					709.342,8927	709.343,0059	709.343,1243				
N:					7.089.950,7491	7.089.947,8864	7.089.944,8911				
<b>Station: 0+62</b>											
Dist. Eixo (m):					-4,847	0,000	2,952				
Cota (m):					12,506	12,296	12,292				
E:					709.345,3632	709.345,5547	709.345,6714				
N:					7.089.952,8302	7.089.947,9872	7.089.945,0373				

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA SOELI A. USSINGER**

Desenho Esquemático:

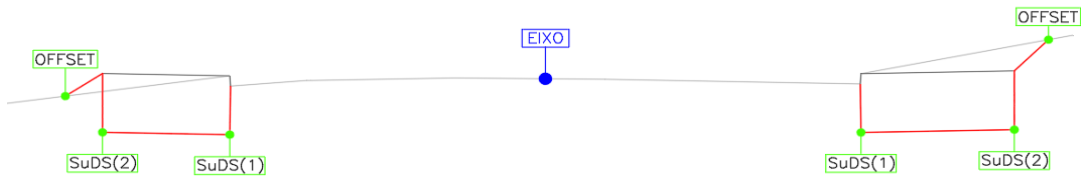


PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET	
<b>Station: 0+0</b>												
Dist. Eixo (m):	-12,549	-12,368	-11,566	-11,566	-11,168	<b>0,000</b>	11,718	12,116				
Cota (m):	14,601	14,721	14,245	14,149	14,158	<b>14,029</b>	13,792	13,784				
E:	709.467,3194	709.467,3244	709.467,3469	709.467,3469	709.467,3581	<b>709.467,6712</b>	709.467,9997	709.468,0108				
N:	7.090.499,7665	7.090.499,5860	7.090.498,7843	7.090.498,7843	7.090.498,3863	<b>7.090.487,2228</b>	7.090.475,5098	7.090.475,1120				
<b>Station: 0+10</b>												
Dist. Eixo (m):	-6,044	-6,034	-4,432	-4,432	-4,034	<b>0,000</b>	3,966	4,364	4,364	6,200		
Cota (m):	14,624	14,614	14,122	14,026	14,034	<b>14,115</b>	14,035	14,027	14,123	14,160		
E:	709.467,4978	709.467,4981	709.467,5430	709.467,5430	709.467,5541	<b>709.467,6672</b>	709.467,7784	709.467,7896	709.467,7896	709.467,8411		
N:	7.090.493,5445	7.090.493,5349	7.090.491,9333	7.090.491,9333	7.090.491,5353	<b>7.090.487,5032</b>	7.090.483,5385	7.090.483,1407	7.090.483,1407	7.090.481,3056		
<b>Station: 1+0</b>												
Dist. Eixo (m):	-6,213	-6,028	-4,423	-4,423	-4,025	<b>0,000</b>	3,975	4,373	4,373	6,202		
Cota (m):	14,885	14,700	14,208	14,112	14,120	<b>14,201</b>	14,121	14,113	14,209	14,246		
E:	709.477,4891	709.477,4943	709.477,5393	709.477,5393	709.477,5505	<b>709.477,6633</b>	709.477,7748	709.477,7859	709.477,7859	709.477,8372		
N:	7.090.493,9939	7.090.493,8095	7.090.492,2048	7.090.492,2048	7.090.491,8068	<b>7.090.487,7835</b>	7.090.483,8100	7.090.483,4122	7.090.483,4122	7.090.481,5836		
<b>Station: 1+10</b>												
Dist. Eixo (m):		-6,022	-4,414	-4,414	-4,016	<b>0,000</b>	3,984	4,382	4,382	6,208	6,355	
Cota (m):		14,257	14,225	14,129	14,137	<b>14,218</b>	14,138	14,130	14,226	14,262	14,624	
E:		709.487,4905	709.487,5356	709.487,5356	709.487,5468	<b>709.487,6594</b>	709.487,7711	709.487,7822	709.487,7822	709.487,8334	709.487,8375	
N:		7.090.494,0839	7.090.492,4763	7.090.492,4763	7.090.492,0783	<b>7.090.488,0639</b>	7.090.484,0814	7.090.483,6836	7.090.483,6836	7.090.481,8582	7.090.481,7117	
<b>Station: 2+0</b>												
Dist. Eixo (m):		-6,017	-4,405	-4,405	-4,007	<b>0,000</b>	3,993	4,391	4,391	6,160	6,616	
Cota (m):		14,025	13,993	13,897	13,905	<b>13,985</b>	13,905	13,897	13,993	14,029	14,184	
E:		709.497,4868	709.497,5319	709.497,5319	709.497,5431	<b>709.497,6554</b>	709.497,7674	709.497,7785	709.497,7785	709.497,8281	709.497,8409	
N:		7.090.494,3585	7.090.492,7478	7.090.492,7478	7.090.492,3498	<b>7.090.488,3443</b>	7.090.484,3529	7.090.483,9551	7.090.483,9551	7.090.482,1870	7.090.481,7306	
<b>Station: 2+10</b>												
Dist. Eixo (m):		-6,008	-4,396	-4,396	-3,998	<b>0,000</b>	4,002	4,400	4,400	6,124	6,472	
Cota (m):		13,804	13,572	13,476	13,484	<b>13,564</b>	13,484	13,476	13,572	13,606	13,834	
E:		709.507,4831	709.507,5283	709.507,5283	709.507,5394	<b>709.507,6515</b>	709.507,7637	709.507,7749	709.507,7749	709.507,8232	709.507,8330	
N:		7.090.494,6301	7.090.493,0192	7.090.493,0192	7.090.492,6212	<b>7.090.488,6246</b>	7.090.484,6244	7.090.484,2266	7.090.484,2266	7.090.482,5031	7.090.482,1552	
<b>Station: 3+0</b>												
Dist. Eixo (m):		-5,998	-4,387	-4,387	-3,989	<b>0,000</b>	4,011	4,409	4,409	6,080	6,293	
Cota (m):		13,173	13,141	13,045	13,053	<b>13,133</b>	13,053	13,045	13,141	13,174	13,492	
E:		709.517,4794	709.517,5246	709.517,5246	709.517,5357	<b>709.517,6476</b>	709.517,7600	709.517,7712	709.517,7712	709.517,8180	709.517,8240	
N:		7.090.494,9011	7.090.493,2907	7.090.493,2907	7.090.492,8927	<b>7.090.488,9050</b>	7.090.484,8958	7.090.484,4980	7.090.484,4980	7.090.482,8272	7.090.482,6145	
<b>Station: 3+10</b>												
Dist. Eixo (m):		-6,013	-4,379	-4,379	-3,980	<b>0,000</b>	4,020	4,418	4,418	6,036	6,096	
Cota (m):		12,743	12,710	12,614	12,623	<b>12,702</b>	12,483	12,475	12,571	12,603	13,122	
E:		709.527,4751	709.527,5209	709.527,5209	709.527,5321	<b>709.527,6437</b>	709.527,7563	709.527,7675	709.527,7675	709.527,8129	709.527,8146	
N:		7.090.495,1958	7.090.493,5822	7.090.493,5822	7.090.493,1842	<b>7.090.489,1854</b>	7.090.485,1673	7.090.484,7695	7.090.484,7695	7.090.483,1513	7.090.483,0918	
<b>Station: 3+17</b>												
Dist. Eixo (m):		-6,323	-6,305	-4,614	-4,614	-4,216	<b>0,000</b>	4,015	4,413	4,413	6,382	6,388
Cota (m):		12,790	12,772	12,278	12,182	12,190	<b>12,398</b>	12,237	12,229	12,325	12,365	12,386
E:		709.534,5180	709.534,5185	709.534,5659	709.534,5659	709.534,5771	<b>709.534,6953</b>	709.534,8079	709.534,8190	709.534,8190	709.534,8742	709.534,8744
N:		7.090.495,7042	7.090.495,6860	7.090.493,9953	7.090.493,9953	7.090.493,5973	<b>7.090.489,3831</b>	7.090.485,3699	7.090.484,9721	7.090.484,9721	7.090.483,0033	7.090.482,9973
<b>Station: 5+0</b>												
Dist. Eixo (m):		-6,079	-4,477	-4,477	-4,079	<b>0,000</b>	3,921	4,319	4,319	5,921		
Cota (m):		12,211	12,179	12,083	12,091	<b>12,173</b>	12,094	12,086	12,182	12,214		
E:		709.557,4415	709.557,4908	709.557,4908	709.557,5030	<b>709.557,6284</b>	709.557,7490	709.557,7612	709.557,7612	709.557,8104		
N:		7.090.496,2145	7.090.494,6134	7.090.494,6134	7.090.494,2154	<b>7.090.490,1383</b>	7.090.486,2192	7.090.485,8214	7.090.485,8214	7.090.484,2202		
<b>Station: 5+10</b>												
Dist. Eixo (m):		-6,061	-4,459	-4,459	-4,061	<b>0,000</b>	3,939	4,337	4,337	5,938		
Cota (m):		12,285	12,253	12,157	12,165	<b>12,246</b>	12,167	12,159	12,255	12,287		
E:		709.567,4374	709.567,4866	709.567,4866	709.567,4988	<b>709.567,6237</b>	709.567,7448	709.567,7570	709.567,7570	709.567,8063		
N:		7.090.496,5041	7.090.494,9030	7.090.494,9030	7.090.494,5050	<b>7.090.490,4457</b>	7.090.486,5088	7.090.486,1110	7.090.486,1110	7.090.484,5101		
<b>Station: 6+0</b>												
Dist. Eixo (m):		-6,043	-4,442	-4,442	-4,043	<b>0,000</b>	3,957	4,355	4,355	5,930		
Cota (m):		12,358	12,326	12,230	12,238	<b>12,319</b>	12,240	12,232	12,328	12,359		
E:		709.577,4332	709.577,4824	709.577,4824	709.577,4947	<b>709.577,6190</b>	709.577,7406	709.577,7528	709.577,7528	709.577,8013		
N:		7.090.496,7936	7.090.495,1925	7.090.495,1925	7.090.494,7946	<b>7.090.490,7531</b>	7.090.486,7984	7.090.486,4006	7.090.486,4006	7.090.484,8260		
<b>Station: 6+10</b>												
Dist. Eixo (m):		-6,026	-4,424	-4,424	-4,025	<b>0,000</b>	3,975	4,372	4,372	5,959		
Cota (m):		12,432	12,400	12,304	12,312	<b>12,392</b>	12,313	12,305	12,401	12,432		
E:		709.587,4290	709.587,4782	709.587,4782	709.587,4905	<b>709.587,6142</b>	709.587,7364	709.587,7487	709.587,7487	709.587,7974		
N:		7.090.497,0832	7.090.495,4821	7.090.495,4821	7.090.495,0841	<b>7.090.491,0606</b>	7.090.487,0879	7.090.486,6902	7.090.486,6902	7.090.485,1043		
<b>Station: 6+12</b>												
Dist. Eixo (m):		-6,021	-4,420	-4,420	-4,021	<b>0,000</b>	3,979	4,377	4,377	5,966		
Cota (m):		12,448	12,416	12,320	12,329	<b>12,409</b>	12,329	12,321	12,417	12,449		
E:		709.589,7090	709.589,7582	709.589,7582	709.589,7705	<b>709.589,8941</b>	709.590,0164	709.590,0286	709.590,0286	709.590,0775		
N:		7.090.497,1493	7.090.495,5482	7.090.495,5482	7.090.495,1502	<b>7.090.491,1307</b>	7.090.487,1540	7.090.486,7562	7.090.486,7562	7.090.485,1677		



**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VALDEMAR HESSE**

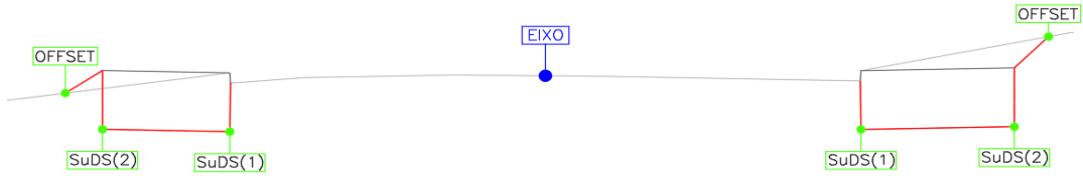
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):		-9,230	-8,228	<b>0,000</b>	5,010	6,000	
Cota (m):		16,890	16,870		16,934	16,954	
E:		708.704,6223	708.703,6211	<b>708.695,3972</b>	708.690,3896	708.689,4001	
N:		7.090.849,2213	7.090.849,1903	<b>7.090.848,9356</b>	7.090.848,7805	7.090.848,7498	
<b>Station: 0+10</b>							
Dist. Eixo (m):		-6,005	-4,028	<b>0,000</b>	3,700	5,696	
Cota (m):		17,135	17,095		17,102	17,141	
E:		708.701,7088	708.699,7327	<b>708.695,7068</b>	708.692,0084	708.690,0140	
N:		7.090.839,1263	7.090.839,0651	<b>7.090.838,9404</b>	7.090.838,8258	7.090.838,7640	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-6,016	-4,059	<b>0,000</b>	3,677	5,729	
Cota (m):		17,307	17,268		17,276	17,317	
E:		708.702,0298	708.700,0737	<b>708.696,0165</b>	708.692,3411	708.690,2904	
N:		7.090.829,1314	7.090.829,0708	<b>7.090.828,9452</b>	7.090.828,8313	7.090.828,7678	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-6,028	-4,091	<b>0,000</b>	3,654	5,762	
Cota (m):		17,383	17,344		17,353	17,395	
E:		708.702,3509	708.700,4147	<b>708.696,3261</b>	708.692,6739	708.690,5668	
N:		7.090.819,1366	7.090.819,0766	<b>7.090.818,9500</b>	7.090.818,8368	7.090.818,7716	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-6,039	-4,122	<b>0,000</b>	3,650	5,795	
Cota (m):		17,458	17,420		17,429	17,472	
E:		708.702,6719	708.700,7558	<b>708.696,6357</b>	708.692,9870	708.690,8432	
N:		7.090.809,1417	7.090.809,0824	<b>7.090.808,9547</b>	7.090.808,8417	7.090.808,7753	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-6,050	-4,127	<b>0,000</b>	3,656	5,829	
Cota (m):		17,510	17,472		17,481	17,525	
E:		708.702,9928	708.701,0705	<b>708.696,9453</b>	708.693,2906	708.691,1196	
N:		7.090.799,1469	7.090.799,0873	<b>7.090.798,9595</b>	7.090.798,8463	7.090.798,7791	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-6,060	-4,072	<b>0,000</b>	3,662	5,862	
Cota (m):		17,541	17,501		17,509	17,553	
E:		708.703,3125	708.701,3252	<b>708.697,2549</b>	708.693,5942	708.691,3959	
N:		7.090.789,1520	7.090.789,0904	<b>7.090.788,9643</b>	7.090.788,8509	7.090.788,7828	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-6,071	-4,017	<b>0,000</b>	3,663	5,895	
Cota (m):		17,577	17,536		17,543	17,587	
E:		708.703,6322	708.701,5800	<b>708.697,5645</b>	708.693,9031	708.691,6723	
N:		7.090.779,1571	7.090.779,0935	<b>7.090.778,9691</b>	7.090.778,8557	7.090.778,7866	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-6,095	-3,963	<b>0,000</b>	3,663	5,930	
Cota (m):		17,698	17,656		17,662	17,707	
E:		708.703,9666	708.701,8348	<b>708.697,8741</b>	708.694,2124	708.691,9467	
N:		7.090.769,1626	7.090.769,0966	<b>7.090.768,9739</b>	7.090.768,8605	7.090.768,7903	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-6,221	-3,930	<b>0,000</b>	3,664	5,937	
Cota (m):		17,821	17,775		17,780	17,826	
E:		708.704,4013	708.702,1121	<b>708.698,1838</b>	708.694,5218	708.692,2494	
N:		7.090.759,1713	7.090.759,1004	<b>7.090.758,9787</b>	7.090.758,8653	7.090.758,7949	
<b>Station: 5+0</b>							
Dist. Eixo (m):		-6,296	-3,930	<b>0,000</b>	5,010	5,843	
Cota (m):		17,970	17,922		17,901	17,918	
E:		708.704,7863	708.702,4214	<b>708.698,4934</b>	708.693,4858	708.692,6534	
N:		7.090.749,1784	7.090.749,1052	<b>7.090.748,9835</b>	7.090.748,8284	7.090.748,8026	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VALDEMAR HESSE**

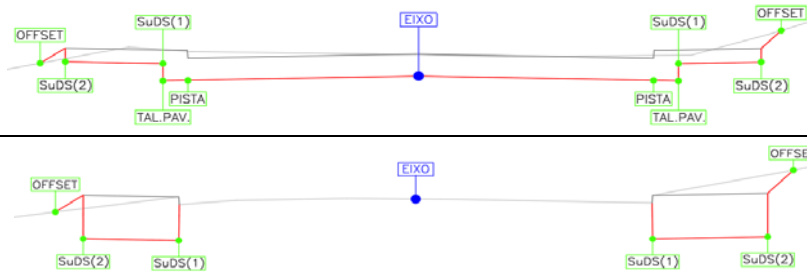
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>							
Dist. Eixo (m):		-6,387	-3,930	<b>0,000</b>	5,010	5,880	
Cota (m):		18,149	18,100		18,079	18,096	
E:		708.705,1866	708.702,7308	<b>708.698,8030</b>	708.693,7954	708.692,9257	
N:		7.090.739,1860	7.090.739,1100	<b>7.090.738,9883</b>	7.090.738,8332	7.090.738,8062	
<b>Station: 6+0</b>							
Dist. Eixo (m):		-6,543	-4,189	<b>0,000</b>	5,010	15,618	
Cota (m):		18,321	18,274		18,258	18,470	
E:		708.705,6525	708.703,3000	<b>708.699,1126</b>	708.694,1050	708.683,5018	
N:		7.090.729,1957	7.090.729,1228	<b>7.090.728,9931</b>	7.090.728,8380	7.090.728,5095	
<b>Station: 6+10</b>							
Dist. Eixo (m):		-7,922	-5,436	<b>0,000</b>	5,010	6,200	
Cota (m):		18,283	18,233		18,242	18,266	
E:		708.707,3408	708.704,8554	<b>708.699,4222</b>	708.694,4146	708.693,2252	
N:		7.090.719,2432	7.090.719,1662	<b>7.090.718,9979</b>	7.090.718,8428	7.090.718,8059	
<b>Station: 6+14</b>							
Dist. Eixo (m):		-12,504	-11,054	<b>0,000</b>	5,010	6,200	
Cota (m):		18,269	18,240		18,361	18,385	
E:		708.712,0721	708.710,6231	<b>708.699,5742</b>	708.694,5666	708.693,3772	
N:		7.090.714,4779	7.090.714,4331	<b>7.090.714,0908</b>	7.090.713,9357	7.090.713,8988	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VALDEMAR LINHARES**

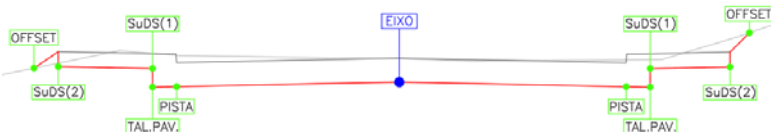
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-7,732	-6,259	-6,259	-5,402	0,000	5,000	5,857	5,857	7,801	
Cota (m):		14,400	14,370	14,106	14,123	14,231	14,131	14,114	14,378	14,417	
E:		708.298,66	708.298,67	708.298,6674	708.298,67	708.298,70	708.298,73	708.298,73	708.298,7315	708.298,74	
N:		7.090.690,85	7.090.689,38	7.090.689,3796	7.090.688,52	7.090.683,12	7.090.678,12	7.090.677,26	7.090.677,2632	7.090.675,32	
<b>Station: 0+10</b>											
Dist. Eixo (m):		-7,740	-6,150	-6,150	-5,293	0,000	5,085	5,942	5,942	8,112	
Cota (m):		14,469	14,437	14,173	14,190	14,296	14,194	14,177	14,442	14,485	
E:		708.308,66	708.308,67	708.308,6678	708.308,67	708.308,70	708.308,73	708.308,73	708.308,7318	708.308,74	
N:		7.090.690,91	7.090.689,32	7.090.689,3235	7.090.688,47	7.090.683,17	7.090.678,09	7.090.677,23	7.090.677,2311	7.090.675,06	
<b>Station: 1+0</b>											
Dist. Eixo (m):		-8,178	-6,041	-6,041	-5,184	0,000	5,410	6,267	6,267	8,427	
Cota (m):		14,508	14,465	14,201	14,218	14,322	14,214	14,197	14,461	14,504	
E:		708.318,66	708.318,67	708.318,6682	708.318,67	708.318,70	708.318,73	708.318,73	708.318,7334	708.318,74	
N:		7.090.691,40	7.090.689,27	7.090.689,2673	7.090.688,41	7.090.683,23	7.090.677,82	7.090.676,96	7.090.676,9591	7.090.674,80	
<b>Station: 1+10</b>											
Dist. Eixo (m):		-8,740	-5,932	-5,932	-5,075	0,000	5,735	6,592	6,592	8,743	
Cota (m):		14,545	14,489	14,225	14,242	14,344	14,229	14,212	14,476	14,519	
E:		708.328,65	708.328,67	708.328,6687	708.328,67	708.328,70	708.328,73	708.328,74	708.328,7350	708.328,75	
N:		7.090.692,02	7.090.689,21	7.090.689,2112	7.090.688,35	7.090.683,28	7.090.677,54	7.090.676,69	7.090.676,6872	7.090.674,54	
<b>Station: 1+13</b>											
Dist. Eixo (m):		-8,980	-6,014	-6,014	-5,157	0,000	5,862	6,719	6,719	8,866	
Cota (m):		14,555	14,496	14,232	14,249	14,352	14,235	14,218	14,482	14,525	
E:		708.332,56	708.332,57	708.332,5742	708.332,58	708.332,61	708.332,64	708.332,64	708.332,6416	708.332,65	
N:		7.090.692,28	7.090.689,31	7.090.689,3136	7.090.688,46	7.090.683,30	7.090.677,44	7.090.676,58	7.090.676,5809	7.090.674,43	
<b>Station: 3+0</b>											
Dist. Eixo (m):						0,000m			5,904	9,237	
Cota (m):									14,449	14,516	
E:						708.358,6597			708.359,01	708.359,20	
N:						7.090.684,6804			7.090.678,79	7.090.675,46	
<b>Station: 3+10</b>											
Dist. Eixo (m):		-8,786	-5,235			0,000m			5,761	9,285	
Cota (m):		14,484	14,413						14,403	14,473	
E:		708.368,12	708.368,33			708.368,6423			708.368,98	708.369,19	
N:		7.090.694,04	7.090.690,50			7.090.685,2698			7.090.679,52	7.090.676,00	
<b>Station: 4+0</b>											
Dist. Eixo (m):		-8,865	-5,401			0,000m			6,047	9,878	
Cota (m):		14,439	14,370						14,357	14,433	
E:		708.378,10	708.378,31			708.378,6250			708.378,98	708.379,21	
N:		7.090.694,71	7.090.691,25			7.090.685,8592			7.090.679,82	7.090.676,00	
<b>Station: 4+10</b>											
Dist. Eixo (m):		-8,820	-3,856			0,000m					
Cota (m):		14,483	14,384								
E:		708.388,09	708.388,38			708.388,5800					
N:		7.090.695,25	7.090.690,30			7.090.686,4400					

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VALDIR SCHMOCKEL**

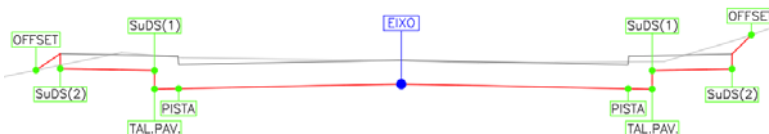
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>											
Dist. Eixo (m):		-7,878	-7,768	-7,768	-7,369	<b>0,000</b>	0,049				
Cota (m):		15,962	15,960	15,664	15,672	16,382	16,383				
E:		709,337,3373	709,337,3404	709,337,3404	709,337,3519	709,337,5632	709,337,5646				
N:		7,090,333,7679	7,090,333,6576	7,090,333,6576	7,090,333,2596	7,090,325,8932	7,090,325,8444				
<b>Station: 0+10</b>											
Dist. Eixo (m):		-4,711	-3,302	-3,302	-2,904	<b>0,000</b>	3,096	3,494	3,494	4,596	5,769
Cota (m):		16,511	16,483	16,187	16,196	16,283	16,376	16,368	16,664	16,685	18,118
E:		709,347,4240	709,347,4644	709,347,4644	709,347,4758	709,347,5590	709,347,6478	709,347,6592	709,347,6592	709,347,6908	709,347,7245
N:		7,090,330,8888	7,090,329,4806	7,090,329,4806	7,090,329,0826	7,090,326,1799	7,090,323,0850	7,090,322,6872	7,090,322,6872	7,090,321,5856	7,090,320,4130
<b>Station: 1+0</b>											
Dist. Eixo (m):		-4,740	-3,336	-3,336	-2,938	<b>0,000</b>	3,062	3,460	3,460	4,562	5,609
Cota (m):		16,472	16,444	16,148	16,156	16,244	16,336	16,328	16,624	16,646	17,953
E:		709,357,4190	709,357,4593	709,357,4593	709,357,4707	709,357,5549	709,357,6427	709,357,6541	709,357,6541	709,357,6857	709,357,7158
N:		7,090,331,2048	7,090,329,8014	7,090,329,8014	7,090,329,4034	7,090,326,4666	7,090,323,4058	7,090,323,0080	7,090,323,0080	7,090,321,9064	7,090,320,8594
<b>Station: 1+10</b>											
Dist. Eixo (m):		-4,808	-3,370	-3,370	-2,972	<b>0,000</b>	3,028	3,426	3,426	4,528	5,090
Cota (m):		16,557	16,528	16,232	16,240	16,329	16,420	16,412	16,708	16,730	17,552
E:		709,367,4130	709,367,4542	709,367,4542	709,367,4656	709,367,5508	709,367,6376	709,367,6491	709,367,6491	709,367,6806	709,367,6968
N:		7,090,331,5593	7,090,330,1221	7,090,330,1221	7,090,329,7241	7,090,326,7533	7,090,323,7265	7,090,323,3287	7,090,323,3287	7,090,322,2272	7,090,321,6650
<b>Station: 2+0</b>											
Dist. Eixo (m):		-6,432	-3,511	-3,511	-3,113	<b>0,000</b>	2,994	3,392	3,392	4,704	4,910
Cota (m):		16,743	16,685	16,389	16,397	16,459	16,399	16,391	16,687	16,713	17,179
E:		709,377,3623	709,377,4460	709,377,4460	709,377,4575	709,377,5467	709,377,6326	709,377,6440	709,377,6440	709,377,6816	709,377,6875
N:		7,090,333,4690	7,090,330,5496	7,090,330,5496	7,090,330,1516	7,090,327,0400	7,090,324,0473	7,090,323,6495	7,090,323,6495	7,090,322,3383	7,090,322,1325
<b>Station: 2+5</b>											
Dist. Eixo (m):		-6,317	-3,856	-3,856	-3,458	<b>0,000</b>	3,152				
Cota (m):		16,668	16,619	16,323	16,331	16,400	16,337				
E:		709,382,0819	709,382,6012	709,382,6012	709,382,6853	709,383,4149	709,384,0800				
N:		7,090,333,8898	7,090,331,4837	7,090,331,4837	7,090,331,0945	7,090,327,7145	7,090,324,6333				
<b>Station: 2+10</b>											
Dist. Eixo (m):		-5,682	-3,917	-3,917	-3,518	<b>0,000</b>	3,352				
Cota (m):		16,544	16,509	16,213	16,221	16,291	16,224				
E:		709,385,3943	709,385,9976	709,385,9976	709,386,1336	709,387,3359	709,388,4814				
N:		7,090,334,1851	7,090,332,5257	7,090,332,5257	7,090,332,1516	7,090,328,8449	7,090,325,6943				
<b>Station: 2+11</b>											
Dist. Eixo (m):		-5,341	-3,904	-3,904	-3,506	<b>0,000</b>	3,439				
Cota (m):		16,499	16,470	16,174	16,183	16,253	16,184				
E:		709,386,8085	709,387,1636	709,387,1636	709,387,3174	709,388,6713	709,389,9995				
N:		7,090,334,2934	7,090,332,9677	7,090,332,9677	7,090,332,6004	7,090,329,3668	7,090,326,1945				
<b>Station: 3+0</b>											
Dist. Eixo (m):		-7,000	-4,410	-4,410	-4,011	<b>0,000</b>	3,410	3,808	3,808	5,415	5,881
Cota (m):		16,294	16,242	15,946	15,955	16,044	16,013	16,006	16,302	16,333	17,060
E:		709,395,1521	709,395,7579	709,395,7579	709,395,8510	709,396,7891	709,397,5866	709,397,6796	709,397,6796	709,398,0555	709,398,1645
N:		7,090,338,8752	7,090,336,3566	7,090,336,3566	7,090,335,9695	7,090,332,0693	7,090,328,7540	7,090,328,3670	7,090,328,3670	7,090,326,8044	7,090,326,3512
<b>Station: 3+10</b>											
Dist. Eixo (m):		-5,894	-4,397	-4,397	-3,999	<b>0,000</b>	4,013	4,411	4,411	5,797	6,177
Cota (m):		16,071	16,041	15,745	15,753	15,847	15,833	15,825	16,121	16,149	16,789
E:		709,406,4222	709,406,4878	709,406,4878	709,406,5052	709,406,6802	709,406,8558	709,406,8732	709,406,8732	709,406,9338	709,406,9505
N:		7,090,339,3132	7,090,337,8172	7,090,337,8172	7,090,337,4195	7,090,333,4248	7,090,329,4155	7,090,329,0180	7,090,329,0180	7,090,327,6329	7,090,327,2534
<b>Station: 4+0</b>											
Dist. Eixo (m):		-5,968	-4,391	-4,391	-3,993	<b>0,000</b>	4,016	4,414	4,414	5,770	6,118
Cota (m):		15,897	15,865	15,569	15,577	15,675	15,684	15,676	15,972	15,999	16,607
E:		709,416,4094	709,416,4784	709,416,4784	709,416,4959	709,416,6706	709,416,8463	709,416,8637	709,416,8637	709,416,9230	709,416,9383
N:		7,090,339,8244	7,090,338,2489	7,090,338,2489	7,090,337,8512	7,090,333,8624	7,090,329,8501	7,090,329,4526	7,090,329,4526	7,090,328,0984	7,090,327,7499
<b>Station: 4+10</b>											
Dist. Eixo (m):		-6,102	-4,385	-4,385	-3,987	<b>0,000</b>	4,019	4,417	4,417	5,845	6,193
Cota (m):		15,723	15,689	15,393	15,401	15,503	15,534	15,526	15,822	15,851	16,458
E:		709,426,3940	709,426,4691	709,426,4691	709,426,4865	709,426,6610	709,426,8369	709,426,8543	709,426,8543	709,426,9168	709,426,9320
N:		7,090,340,3959	7,090,338,6806	7,090,338,6806	7,090,338,2828	7,090,334,3000	7,090,330,2847	7,090,329,8871	7,090,329,8871	7,090,328,4603	7,090,328,1132
<b>Station: 5+0</b>											
Dist. Eixo (m):		-6,051	-4,379	-4,379	-3,981	<b>0,000</b>	4,022	4,420	4,420	5,899	
Cota (m):		15,546	15,513	15,217	15,225	15,331	15,385	15,377	15,673	15,702	
E:		709,436,3866	709,436,4598	709,436,4598	709,436,4772	709,436,6514	709,436,8274	709,436,8448	709,436,8448	709,436,9096	
N:		7,090,340,7828	7,090,339,1123	7,090,339,1123	7,090,338,7145	7,090,334,7376	7,090,330,7193	7,090,330,3217	7,090,330,3217	7,090,328,8443	
<b>Station: 5+10</b>											
Dist. Eixo (m):		-5,774	-4,373	-4,373	-3,975	<b>0,000</b>	4,025	4,423	4,423	6,022	
Cota (m):		15,365	15,337	15,041	15,049	15,159	15,235	15,227	15,523	15,555	
E:		709,446,3892	709,446,4505	709,446,4505	709,446,4679	709,446,6418	709,446,8180	709,446,8354	709,446,8354	709,446,9054	
N:		7,090,340,9437	7,090,339,5440	7,090,339,5440	7,090,339,1462	7,090,335,1751	7,090,331,1539	7,090,330,7563	7,090,330,7563	7,090,329,1589	
<b>Station: 5+18</b>											
Dist. Eixo (m):		-11,532	-8,970	-8,970	-8,572	<b>0,000</b>	5,000	5,398	5,398	11,690	12,671
Cota (m):		15,115	15,063	14,767	14,776	15,021	15,138	15,130	15,426	15,552	16,792
E:		709,454,1515	709,454,2636	709,454,2636	709,454,2810	709,454,6561	709,454,8749	709,454,8923	709,454,8923	709,455,1677	709,455,2106
N:		7,090,347,0475	7,090,344,4878	7,090,344,4878	7,090,344,0900	7,090,335,5262	7,090,330,5310	7,090,330,1334	7,090,330,1334	7,090,323,8469	7,090,322,8673
<b>Station: 6+6</b>											
Dist. Eixo (m):		-11,190	-11,174	-11,174	-10,700	<b>0,000</b>	9,411	9,503	9,503	11,744	12,010
Cota (m):		14,572	14,282	13,986	14,281	14,917	15,907	15,914	16,210	16,234	16,759
E:		709,462,5853	709,462,5858	709,462,5858	709,462,6031	709,462,9922	709,463,3344	709,463,3378	709,463,3378	709,463,4193	709,463,4289
N:		7,090,347,0122	7,090,346,9966	7,090,346,9966	7,090,346,5224	7,090,335,8296	7,090,326,4253	7,090,326,3325	7,090,326,3325	7,090,324,0932	7,090,323,8279

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VALDIR SCHMOCKEL**

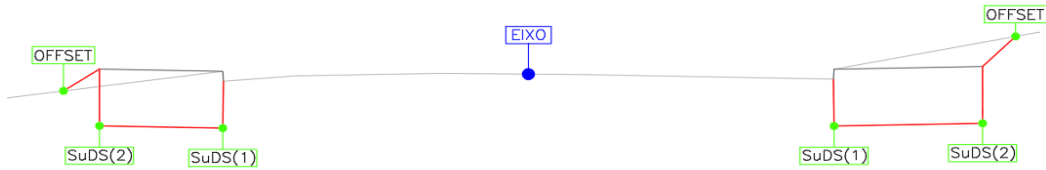
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	TAL. PAV.	PISTA	EIXO	PISTA	TAL. PAV.	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 6+10</b>											
Dist. Eixo (m):		-7,000	-5,853	-5,853	-5,454	<b>0,000</b>	4,806	5,204	5,204	7,000	
Cota (m):		14,798	14,775	14,479	14,487	<b>14,826</b>	15,263	15,255	15,551	15,587	
E:		709.466,3717	709.466,4134	709.466,4134	709.466,4279	<b>709.466,6262</b>	709.466,8010	709.466,8155	709.466,8155	709.466,8808	
N:		7.090.342,9572	7.090.341,8105	7.090.341,8105	7.090.341,4126	<b>7.090.335,9618</b>	7.090.331,1586	7.090.330,7609	7.090.330,7609	7.090.328,9664	
<b>Station: 7+0</b>											
Dist. Eixo (m):		-6,248	-4,646	-4,646	-4,248	<b>0,000</b>	3,752	4,150	4,150	5,761	
Cota (m):		14,767	14,735	14,439	14,447	<b>14,575</b>	14,687	14,679	14,975	15,007	
E:		709.476,3924	709.476,4506	709.476,4506	709.476,4651	<b>709.476,6196</b>	709.476,7561	709.476,7705	709.476,7705	709.476,8291	
N:		7.090.342,5695	7.090.340,9688	7.090.340,9688	7.090.340,5709	<b>7.090.336,3255</b>	7.090.332,5761	7.090.332,1784	7.090.332,1784	7.090.330,5680	
<b>Station: 7+10</b>											
Dist. Eixo (m):		-6,213	-4,611	-4,611	-4,213	<b>0,000</b>	3,787	4,185	4,185	4,185	5,753
Cota (m):		14,517	14,485	14,189	14,197	<b>14,323</b>	14,437	14,429	14,725	14,725	14,756
E:		709.486,3871	709.486,4453	709.486,4453	709.486,4598	<b>709.486,6130</b>	709.486,7507	709.486,7652	709.486,7652	709.486,8222	
N:		7.090.342,8983	7.090.341,2975	7.090.341,2975	7.090.340,8996	<b>7.090.336,6891</b>	7.090.332,9048	7.090.332,5071	7.090.332,5071	7.090.332,5069	7.090.330,9398
<b>Station: 8+0</b>											
Dist. Eixo (m):		-6,178	-4,576	-4,576	-4,178	<b>0,000</b>	3,822	4,220	4,220	5,746	
Cota (m):		14,267	14,235	13,939	13,947	<b>14,072</b>	14,187	14,179	14,475	14,505	
E:		709.496,3817	709.496,4400	709.496,4400	709.496,4544	<b>709.496,6064</b>	709.496,7454	709.496,7599	709.496,7599	709.496,8153	
N:		7.090.343,2270	7.090.341,6262	7.090.341,6262	7.090.341,2283	<b>7.090.337,0528</b>	7.090.333,2335	7.090.332,8358	7.090.332,8358	7.090.331,3111	
<b>Station: 8+10</b>											
Dist. Eixo (m):		-6,143	-4,541	-4,541	-4,143	<b>0,000</b>	3,857	4,255	4,255	5,738	
Cota (m):		14,017	13,985	13,689	13,697	<b>13,821</b>	13,937	13,929	14,225	14,254	
E:		709.506,3764	709.506,4346	709.506,4346	709.506,4491	<b>709.506,5998</b>	709.506,7400	709.506,7545	709.506,7545	709.506,8084	
N:		7.090.343,5557	7.090.341,9549	7.090.341,9549	7.090.341,5570	<b>7.090.337,4165</b>	7.090.333,5622	7.090.333,1645	7.090.333,1645	7.090.331,6824	
<b>Station: 9+0</b>											
Dist. Eixo (m):		-6,108	-4,506	-4,506	-4,108	<b>0,000</b>	3,892	4,290	4,290	5,719	
Cota (m):		13,767	13,735	13,439	13,447	<b>13,570</b>	13,687	13,679	13,975	14,003	
E:		709.516,3710	709.516,4293	709.516,4293	709.516,4438	<b>709.516,5932</b>	709.516,7347	709.516,7492	709.516,7492	709.516,8011	
N:		7.090.343,8844	7.090.342,2836	7.090.342,2836	7.090.341,8857	<b>7.090.337,7801</b>	7.090.333,8909	7.090.333,4932	7.090.333,4932	7.090.332,0653	
<b>Station: 9+10</b>											
Dist. Eixo (m):		-6,073	-4,471	-4,471	-4,073	<b>0,000</b>	3,927	4,325	4,325	5,773	
Cota (m):		13,517	13,484	13,188	13,197	<b>13,319</b>	13,437	13,429	13,725	13,753	
E:		709.526,3657	709.526,4239	709.526,4239	709.526,4384	<b>709.526,5865</b>	709.526,7294	709.526,7438	709.526,7438	709.526,7965	
N:		7.090.344,2131	7.090.342,6123	7.090.342,6123	7.090.342,2144	<b>7.090.338,1438</b>	7.090.334,2196	7.090.333,8219	7.090.333,8219	7.090.332,3750	
<b>Station: 10+0</b>											
Dist. Eixo (m):		-6,038	-4,436	-4,436	-4,038	<b>0,000</b>	3,962	4,360	4,360	5,946	
Cota (m):		13,268	13,236	12,940	12,948	<b>13,069</b>	13,188	13,180	13,476	13,508	
E:		709.536,3603	709.536,4186	709.536,4186	709.536,4331	<b>709.536,5799</b>	709.536,7240	709.536,7385	709.536,7385	709.536,7962	
N:		7.090.344,5418	7.090.342,9410	7.090.342,9410	7.090.342,5431	<b>7.090.338,5075</b>	7.090.334,5483	7.090.334,1506	7.090.334,1506	7.090.332,5651	
<b>Station: 10+9</b>											
Dist. Eixo (m):		-11,995	-11,161	-11,161	-10,763	<b>0,000</b>					
Cota (m):		13,088	12,812	12,516	12,524	<b>12,971</b>					
E:		709.545,5993	709.545,6297	709.545,6297	709.545,6441	<b>709.546,0356</b>					
N:		7.090.350,8383	7.090.350,0051	7.090.350,0051	7.090.349,6072	<b>7.090.338,8516</b>					

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VER. HERMÍNIO KUNTZE**

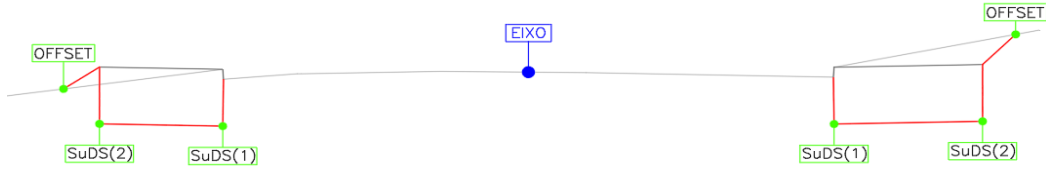
Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 0+0</b>							
Dist. Eixo (m):		-12,351	-11,287	<b>0,000</b>	12,098	14,421	
Cota (m):		14,971	14,950		14,933	14,980	
E:		708.354,2850	708.353,2215	<b>708.341,9430</b>	708.329,8541	708.327,5334	
N:		7.090.835,6909	7.090.835,6493	<b>7.090.835,2080</b>	7.090.834,7350	7.090.834,6442	
<b>Station: 0+10</b>							
Dist. Eixo (m):		-6,141	-4,023	<b>0,000</b>	4,133	6,280	
Cota (m):		15,019	14,977		14,975	15,018	
E:		708.348,4617	708.346,3452	<b>708.342,3257</b>	708.338,1960	708.336,0503	
N:		7.090.825,6689	7.090.825,5861	<b>7.090.825,4288</b>	7.090.825,2672	7.090.825,1833	
<b>Station: 1+0</b>							
Dist. Eixo (m):		-5,985	-4,021	<b>0,000</b>	3,959	6,180	
Cota (m):		14,957	14,918		14,919	14,964	
E:		708.348,6966	708.346,7341	<b>708.342,7167</b>	708.338,7607	708.336,5413	
N:		7.090.815,6704	7.090.815,5936	<b>7.090.815,4365</b>	7.090.815,2817	7.090.815,1948	
<b>Station: 1+10</b>							
Dist. Eixo (m):		-6,082	-4,015	<b>0,000</b>	3,932	6,080	
Cota (m):		14,897	14,856		14,857	14,900	
E:		708.349,1850	708.347,1201	<b>708.343,1076</b>	708.339,1789	708.337,0324	
N:		7.090.805,6819	7.090.805,6011	<b>7.090.805,4441</b>	7.090.805,2904	7.090.805,2064	
<b>Station: 2+0</b>							
Dist. Eixo (m):		-6,014	-4,010	<b>0,000</b>	3,919	6,349	
Cota (m):		14,832	14,792		14,794	14,842	
E:		708.349,5076	708.347,5060	<b>708.343,4986</b>	708.339,5828	708.337,1548	
N:		7.090.795,6869	7.090.795,6085	<b>7.090.795,4517</b>	7.090.795,2985	7.090.795,2035	
<b>Station: 2+10</b>							
Dist. Eixo (m):		-5,894	-4,016	<b>0,000</b>	3,917	6,322	
Cota (m):		14,769	14,731		14,733	14,781	
E:		708.349,7787	708.347,9022	<b>708.343,8896</b>	708.339,9760	708.337,5729	
N:		7.090.785,6898	7.090.785,6164	<b>7.090.785,4594</b>	7.090.785,3063	7.090.785,2122	
<b>Station: 3+0</b>							
Dist. Eixo (m):		-5,901	-4,053	<b>0,000</b>	3,914	6,294	
Cota (m):		14,730	14,693		14,696	14,743	
E:		708.350,1770	708.348,3305	<b>708.344,2806</b>	708.340,3692	708.337,9910	
N:		7.090.775,6978	7.090.775,6255	<b>7.090.775,4670</b>	7.090.775,3140	7.090.775,2209	
<b>Station: 3+10</b>							
Dist. Eixo (m):		-5,773	-4,090	<b>0,000</b>	3,912	6,267	
Cota (m):		14,691	14,657		14,661	14,708	
E:		708.350,4397	708.348,7588	<b>708.344,6716</b>	708.340,7624	708.338,4092	
N:		7.090.765,7004	7.090.765,6346	<b>7.090.765,4747</b>	7.090.765,3217	7.090.765,2297	
<b>Station: 4+0</b>							
Dist. Eixo (m):		-5,731	-4,116	<b>0,000</b>	3,914	6,162	
Cota (m):		14,664	14,631		14,635	14,680	
E:		708.350,7893	708.349,1753	<b>708.345,0625</b>	708.341,1514	708.338,9051	
N:		7.090.755,7064	7.090.755,6433	<b>7.090.755,4823</b>	7.090.755,3293	7.090.755,2414	
<b>Station: 4+10</b>							
Dist. Eixo (m):		-5,730	-4,104	<b>0,000</b>	3,945	6,220	
Cota (m):		14,646	14,613		14,617	14,662	
E:		708.351,1796	708.349,5547	<b>708.345,4535</b>	708.341,5118	708.339,2387	
N:		7.090.745,7140	7.090.745,6504	<b>7.090.745,4900</b>	7.090.745,3357	7.090.745,2468	
<b>Station: 5+0</b>							
Dist. Eixo (m):		-5,736	-4,093	<b>0,000</b>	3,975	6,203	
Cota (m):		14,623	14,590		14,592	14,637	
E:		708.351,5763	708.349,9341	<b>708.345,8445</b>	708.341,8722	708.339,6461	
N:		7.090.735,7219	7.090.735,6576	<b>7.090.735,4976</b>	7.090.735,3422	7.090.735,2551	

**PREFEITURA MUNICIPAL DE JOINVILLE**  
**DRENAGEM SUSTENTÁVEL - VILA NOVA**  
**NOTA DE SERVIÇO**  
**RUA VER. HERMÍNIO KUNTZE**

Desenho Esquemático:



PONTOS NOTÁVEIS	OFFSET	SuDS(2)	SuDS(1)	EIXO	SuDS(1)	SuDS(2)	OFFSET
<b>Station: 5+10</b>							
Dist. Eixo (m):		-5,754	-4,081	<b>0,000</b>	4,006	6,243	
Cota (m):		14,524	14,491		14,493	14,537	
E:		708.351,9850	708.350,3135	<b>708.346,2355</b>	708.342,2326	708.339,9970	
N:		7.090.725,7302	7.090.725,6648	<b>7.090.725,5053</b>	7.090.725,3486	7.090.725,2612	
<b>Station: 6+0</b>							
Dist. Eixo (m):		-5,736	-4,020	<b>0,000</b>	4,037	6,226	
Cota (m):		14,435	14,401		14,401	14,445	
E:		708.352,3581	708.350,6430	<b>708.346,6264</b>	708.342,5929	708.340,4050	
N:		7.090.715,7372	7.090.715,6701	<b>7.090.715,5129</b>	7.090.715,3551	7.090.715,2695	
<b>Station: 6+10</b>							
Dist. Eixo (m):		-5,847	-3,947	<b>0,000</b>	4,067	6,270	
Cota (m):		14,394	14,356		14,353	14,397	
E:		708.352,8601	708.350,9619	<b>708.347,0174</b>	708.342,9533	708.340,7523	
N:		7.090.705,7492	7.090.705,6749	<b>7.090.705,5206</b>	7.090.705,3615	7.090.705,2754	
<b>Station: 7+0</b>							
Dist. Eixo (m):		-6,617	-4,512	<b>0,000</b>	4,565	6,755	
Cota (m):		14,337	14,295		14,294	14,337	
E:		708.354,0205	708.351,9168	<b>708.347,4084</b>	708.342,8465	708.340,6589	
N:		7.090.695,7869	7.090.695,7046	<b>7.090.695,5282</b>	7.090.695,3497	7.090.695,2641	
<b>Station: 7+6</b>							
Dist. Eixo (m):				<b>0,000</b>	12,963	17,761	
Cota (m):					14,133	14,229	
E:				<b>708.347,6507</b>	708.334,6979	708.329,9037	
N:				<b>7.090.689,3352</b>	7.090.688,8284	7.090.688,6408	






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Relatório de auditoria final

2021-11-10

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