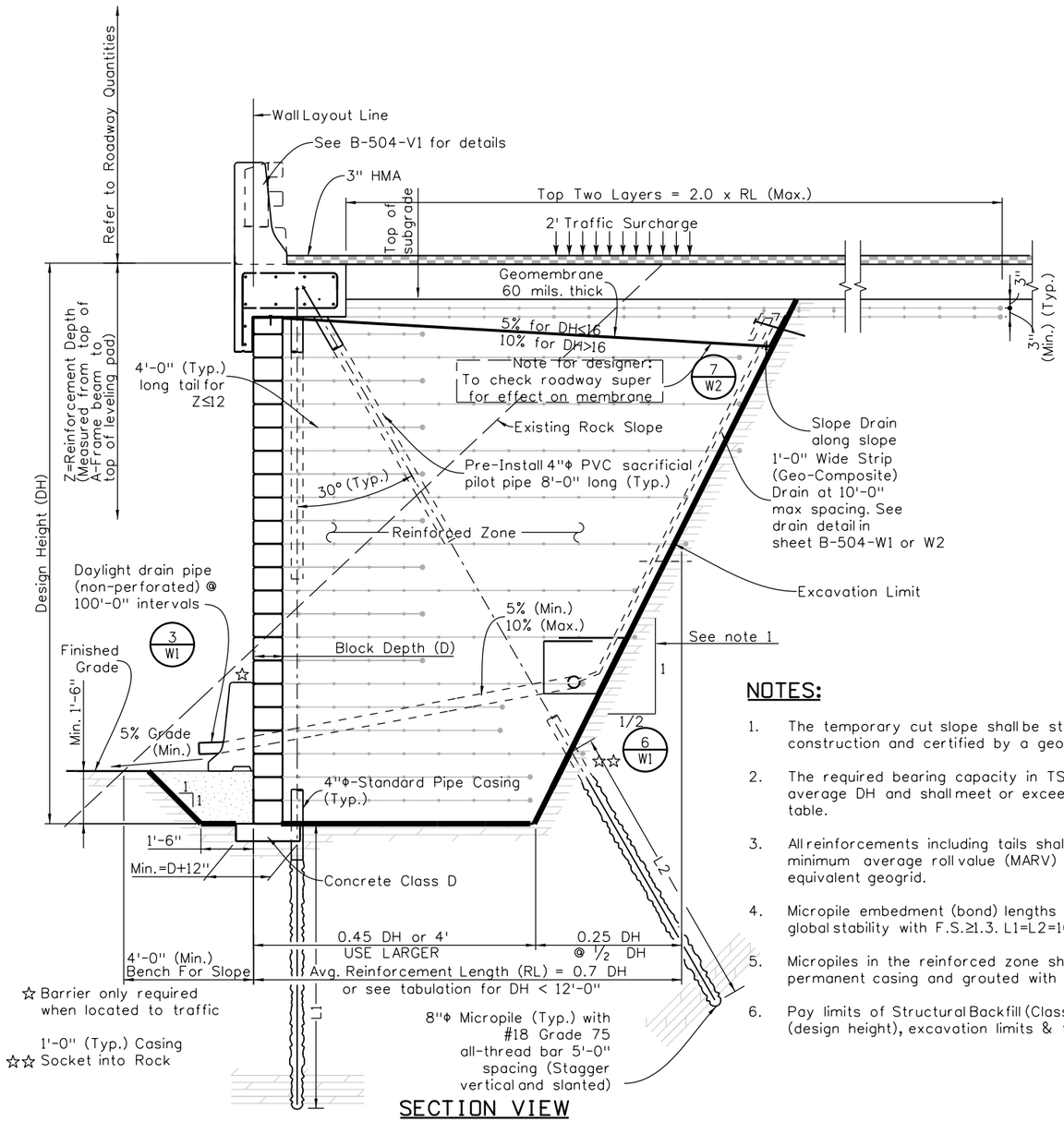

SECTION VIEW

Note for the Designer:
Check slope stability during excavation shown on Geotech recommendation.

NOTES:

1. The temporary cut slope shall be stable during entire period of wall construction and certified by a geotechnical engineer.
2. The required bearing capacity in TSF at the toe is based on 0.70 average DH and shall meet or exceed BP (load factored) as listed in the table.
3. All reinforcements including tails shall be woven geotextile with 4800 lb/ft minimum average roll value (MARV) in both directions or one layer of equivalent geogrid.
4. Micropile embedment (bond) lengths L1,L2 and spacing are pending upon global stability with F.S.≥1.3. L1=L2=10 LF(Min.) with 16.5 psi bond strength.
5. Micropiles in the reinforced zone shall be cased with 8-Standard pipe permanent casing and grouted with 6 ksi (Min.) sand/cement grout.
6. Pay limits of Structural Backfill (Class 1) shall be bound by top of DH (design height), excavation limits & face of wall.

DH (FT)	RL**(FT) (Min.)	RL**(FT) (Avg.)	RL**(FT) (Max.)	MRS (CY/LF)	MRS (SY/LF)	BM1 (CY/LF)	PLG (Ft/LF)	BP (TSF)
2.000	4.000	4.500	5.000	0.333	2.667	0.458	5.00	0.515
2.667	4.000	4.667	5.333	0.461	3.333	0.586	5.33	0.621
3.333	4.000	4.833	5.667	0.597	3.944	0.722	5.67	0.741
4.000	4.000	5.000	6.000	0.741	4.667	0.866	6.00	0.879
4.667	4.000	5.167	6.333	0.893	5.296	1.018	6.33	1.037
5.333	4.000	5.333	6.667	1.053	6.074	1.178	6.67	1.221
6.000	4.000	5.500	7.000	1.222	6.722	1.347	7.00	1.434
6.667	4.000	5.667	7.333	1.399	7.556	1.524	7.33	1.684
7.333	4.000	5.833	7.667	1.584	8.222	1.709	7.67	1.980
8.000	4.000	6.000	8.000	1.778	9.111	1.903	8.00	2.333
8.667	4.000	6.167	8.333	1.979	9.796	2.104	8.33	2.761
9.333	4.200	6.533	8.867	2.258	10.963	2.383	8.87	3.007
10.000	4.500	7.000	9.500	2.593	12.000	2.718	9.50	3.133
10.667	4.800	7.467	10.133	2.950	13.422	3.075	10.13	3.258
11.333	3.683	7.933	10.767	3.330	14.511	3.455	10.77	3.385
12.000	3.900	8.400	11.400	3.733	16.089	3.858	11.40	3.511
12.667	4.117	8.867	12.033	4.160	17.770	4.285	12.03	3.639
13.333	4.333	9.333	12.667	4.609	19.556	4.734	12.67	3.766
14.000	4.550	9.800	13.300	5.081	21.444	5.206	13.30	3.894
14.667	4.767	10.267	13.933	5.577	23.437	5.702	13.93	4.022
15.333	4.983	10.733	14.567	6.095	25.533	6.220	14.57	4.151
*** 16.000	5.200	11.200	15.200	6.637	27.733	6.762	15.20	4.279
16.667	5.417	11.667	15.833	7.202	30.037	7.327	15.83	4.408
17.333	5.633	12.133	16.467	7.789	32.444	7.914	16.47	4.537
18.000	5.850	12.600	17.100	8.400	34.956	8.525	17.10	4.666
18.667	6.067	13.067	17.733	9.034	37.570	9.159	17.73	4.795
19.333	6.283	13.533	18.367	9.691	40.289	9.816	18.37	4.925
20.000	6.500	14.000	19.000	10.370	43.111	10.495	19.00	5.054
20.667	6.717	14.467	19.633	11.073	46.037	11.198	19.63	5.184
21.333	6.933	14.933	20.267	11.799	49.067	11.924	20.27	5.313
22.000	7.150	15.400	20.900	12.548	52.200	12.673	20.90	5.443
22.667	7.367	15.867	21.533	13.320	55.437	13.445	21.53	5.573
23.333	7.583	16.333	22.167	14.115	58.778	14.240	22.17	5.703
24.000	7.800	16.800	22.800	14.933	62.222	15.058	22.80	5.833
24.667	8.017	17.267	23.433	15.774	65.770	15.899	23.43	5.963
25.333	8.233	17.733	24.067	16.639	69.422	16.764	24.07	6.093
26.000	8.450	18.200	24.700	17.526	73.178	17.651	24.70	6.223
26.667	8.667	18.667	25.333	18.436	77.037	18.561	25.33	6.353
27.333	8.883	19.133	25.967	19.370	81.000	19.495	25.97	6.483
28.000	9.100	19.600	26.600	20.326	85.067	20.451	26.60	6.614
28.667	9.317	20.067	27.233	21.305	89.237	21.430	27.23	6.744
29.333	9.533	20.533	27.867	22.308	93.511	22.433	27.87	6.874
30.000	9.750	21.000	28.500	23.333	97.889	23.458	28.50	7.005
30.667	9.967	21.467	29.133	24.382	102.370	24.507	29.13	7.135
31.333	10.183	21.933	29.767	25.453	106.956	25.578	29.77	7.265
32.000	10.400	22.400	30.400	26.548	111.644	26.673	30.40	7.396
32.667	10.617	22.867	31.033	27.666	116.437	27.791	31.03	7.526
33.333	10.833	23.333	31.667	28.807	121.333	28.932	31.67	7.657
34.000	11.050	23.800	32.300	29.970	126.333	30.095	32.30	7.787
34.667	11.267	24.267	32.933	31.157	131.437	31.282	32.93	7.918
35.333	11.483	24.733	33.567	32.367	136.644	32.492	33.57	8.048
36.000	11.700	25.200	34.200	33.600	141.956	33.725	34.20	8.179
36.667	11.917	25.667	34.833	34.856	147.370	34.981	34.83	8.310
37.333	12.133	26.133	35.467	36.135	152.889	36.260	35.47	8.440
38.000	12.350	26.600	36.100	37.437	158.511	37.562	36.10	8.571
38.667	12.567	27.067	36.733	38.762	164.237	38.887	36.73	8.701
39.333	12.783	27.533	37.367	40.110	170.067	40.235	37.37	8.832
40.000	13.000	28.000	38.000	41.481	176.000	41.606	38.00	8.963

** RL for top two geotextile layers = 2 x RL (Max.)

*** For example with reinforcement at each block: DH=16' requires 27.73 SY/LF woven geotextile corresponding to 6.637 CY/LF volume of MRS with Class 1 backfill paid separately

Revision Dates (Preliminary Stage Only)	
09-16	

Quantities	INITIAL	DATE
Quantities By		
Checked By		

Detail	INITIAL	DATE
Detailed By		
Checked By		

Design	INITIAL	DATE
Designed By		
Checked By		

nguyenh 9:18:26 AM C:\Users\nguyenh\Desktop\Worksheet dgn and PDF\Sheet_B-504-L5.dgn

Print Date: 9/6/2016
File Name: Sheet_B-504-L5.dgn
Horiz. Scale: 1:4 Vert. Scale: As Noted
Staff Bridge Branch-Unit OXXX Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
4201 East Arkansas Avenue
Room 107
Denver, CO 80222
Phone: 303-757-9309 FAX: 303-757-9197
Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

RAIL ANCHOR SLAB WITH BLOCK FACING GRS WALL WITH 1/2:1 ROCK EXCAVATION

Designer:	XXXXXXX	Structure Numbers	Wall-X-XX-XX
Detailer:	XXXXXXX		Wall-X-XX-XX
Sheet Subset:	Wall	Subset Sheets:	WXX of XXX

Project No./Code
Project Number
Code
Sheet Number