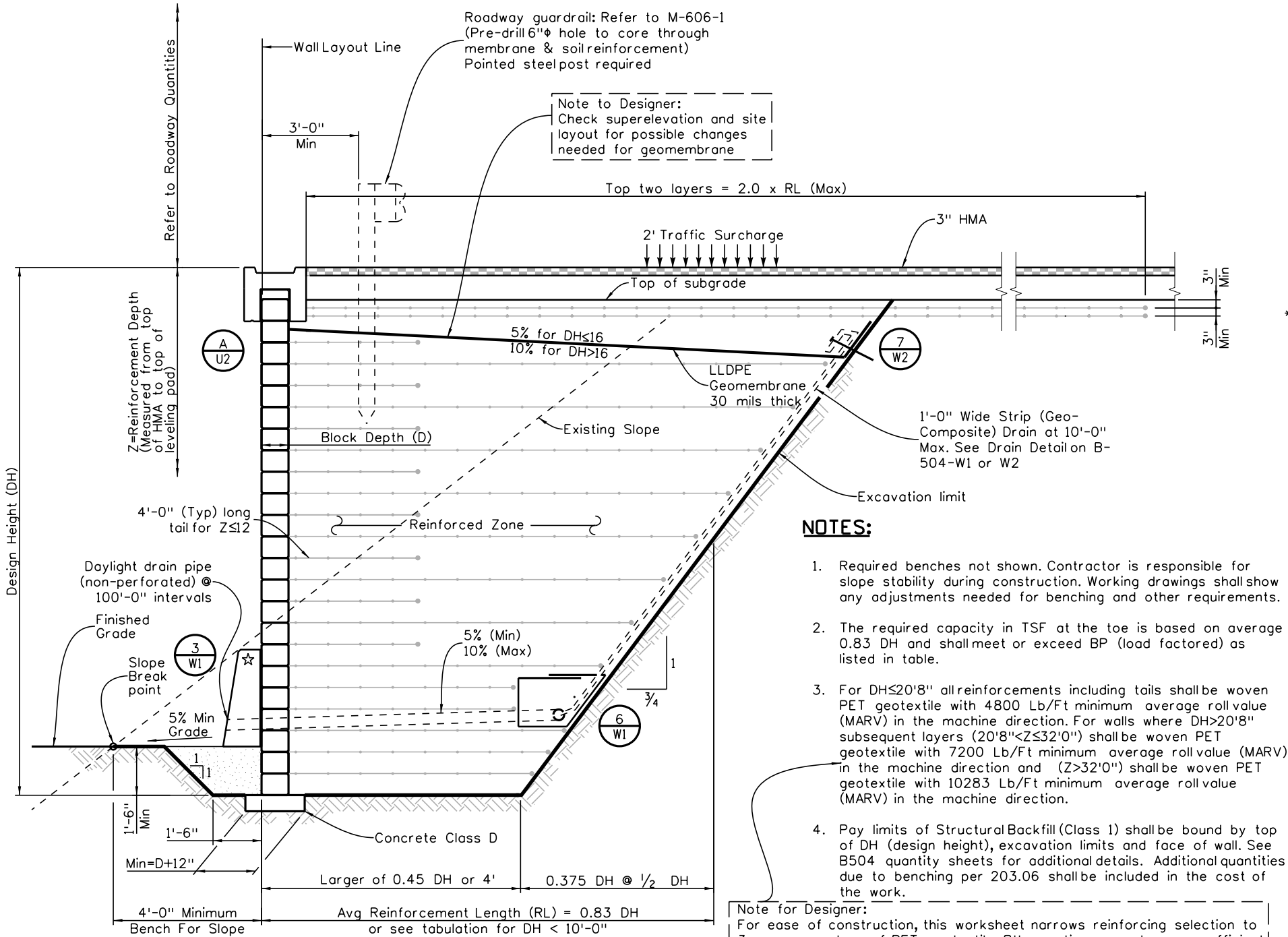


Revision Dates	
09-16	10-24

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						



NOTES:

- Required benches not shown. Contractor is responsible for slope stability during construction. Working drawings shall show any adjustments needed for benching and other requirements.
- The required capacity in TSF at the toe is based on average 0.83 DH and shall meet or exceed BP (load factored) as listed in table.
- For DH<20'8" all reinforcements including tails shall be woven PET geotextile with 4800 Lb/Ft minimum average roll value (MARV) in the machine direction. For walls where DH>20'8" subsequent layers (20'8"<Z<32'0") shall be woven PET geotextile with 7200 Lb/Ft minimum average roll value (MARV) in the machine direction and (Z>32'0") shall be woven PET geotextile with 10283 Lb/Ft minimum average roll value (MARV) in the machine direction.
- Pay limits of Structural Backfill (Class 1) shall be bound by top of DH (design height), excavation limits and face of wall. See B504 quantity sheets for additional details. Additional quantities due to benching per 203.06 shall be included in the cost of the work.

Note for Designer:
For ease of construction, this worksheet narrows reinforcing selection to 3 common values of PET geotextile. Other options may be more efficient and the designer may elect to alter this worksheet and notes based on the design guidance found on B-504-02 and in the standard special.
Contact Staff Bridge Branch for assistance.

DH (Ft)	RL**(Ft)			MRS (CY/LF)	MRS (SY/LF)	BM1 (CY/LF)	PLG (Ft/LF)	BP (TSF)
	(Min)	(Avg)	(Max)					
2.000	4.000	4.750	5.500	0.352	2.889	0.477	5.50	0.505
2.667	4.000	5.000	6.000	0.494	3.667	0.619	6.00	0.621
3.333	4.000	5.250	6.500	0.648	4.361	0.773	6.50	0.753
4.000	4.000	5.500	7.000	0.815	5.222	0.940	7.00	0.904
4.667	4.000	5.750	7.500	0.994	5.944	1.119	7.50	1.076
5.333	4.000	6.000	8.000	1.185	6.889	1.310	8.00	1.272
6.000	4.000	6.250	8.500	1.389	7.639	1.514	8.50	1.497
6.667	4.000	6.500	9.000	1.605	8.667	1.730	9.00	1.755
7.333	4.000	6.750	9.500	1.833	9.444	1.958	9.50	2.051
8.000	4.000	7.000	10.000	2.074	10.556	2.199	10.00	2.393
8.667	4.000	7.250	10.500	2.327	11.361	2.452	10.50	2.790
9.333	4.200	7.700	11.200	2.662	12.778	2.787	11.20	3.029
10.000	4.500	8.250	12.000	3.056	13.944	3.181	12.00	3.170
10.667	4.800	8.800	12.800	3.477	15.644	3.602	12.80	3.310
11.333	5.100	9.350	13.600	3.925	16.872	4.050	13.60	3.451
12.000	5.400	9.900	14.400	4.400	18.756	4.525	14.40	3.593
12.667	5.700	10.450	15.200	4.902	20.761	5.027	15.20	3.734
13.333	6.000	11.000	16.000	5.432	22.889	5.557	16.00	3.876
14.000	6.300	11.550	16.800	5.989	25.139	6.114	16.80	4.018
14.667	6.600	12.100	17.600	6.573	27.511	6.698	17.60	4.160
15.333	6.900	12.650	18.400	7.184	30.006	7.309	18.40	4.302
16.000	7.200	13.200	19.200	7.822	32.622	7.947	19.20	4.444
16.667	7.500	13.750	20.000	8.488	35.361	8.613	20.00	4.587
17.333	7.800	14.300	20.800	9.180	38.222	9.305	20.80	4.729
18.000	8.100	14.850	21.600	9.900	41.206	10.025	21.60	4.872
18.667	8.400	15.400	22.400	10.647	44.311	10.772	22.40	5.014
19.333	8.700	15.950	23.200	11.421	47.539	11.546	23.20	5.157
20.000	9.000	16.500	24.000	12.222	50.889	12.347	24.00	5.300
20.667	9.300	17.050	24.800	13.051	54.361	13.176	24.80	5.443
21.333	9.600	17.600	25.600	13.906	57.956	14.031	25.60	5.586
22.000	9.900	18.150	26.400	14.789	61.672	14.914	26.40	5.728
22.667	10.200	18.700	27.200	15.699	65.511	15.824	27.20	5.871
23.333	10.500	19.250	28.000	16.636	69.472	16.761	28.00	6.014
24.000	10.800	19.800	28.800	17.600	73.556	17.725	28.80	6.157
24.667	11.100	20.350	29.600	18.591	77.761	18.716	29.60	6.300
25.333	11.400	20.900	30.400	19.610	82.089	19.735	30.40	6.444
26.000	11.700	21.450	31.200	20.656	86.539	20.781	31.20	6.587
26.667	12.000	22.000	32.000	21.728	91.111	21.853	32.00	6.730
27.333	12.300	22.550	32.800	22.828	95.806	22.953	32.80	6.873
28.000	12.600	23.100	33.600	23.956	100.622	24.081	33.60	7.016
28.667	12.900	23.650	34.400	25.110	105.561	25.235	34.40	7.159
29.333	13.200	24.200	35.200	26.291	110.622	26.416	35.20	7.303
30.000	13.500	24.750	36.000	27.500	115.806	27.625	36.00	7.446
30.667	13.800	25.300	36.800	28.736	121.111	28.861	36.80	7.589
31.333	14.100	25.850	37.600	29.999	126.539	30.124	37.60	7.732
32.000	14.400	26.400	38.400	31.289	132.089	31.414	38.40	7.876
32.667	14.700	26.950	39.200	32.606	137.761	32.731	39.20	8.019
33.333	15.000	27.500	40.000	33.951	143.556	34.076	40.00	8.162
34.000	15.300	28.050	40.800	35.322	149.472	35.447	40.80	8.305
34.667	15.600	28.600	41.600	36.721	155.511	36.846	41.60	8.449
35.333	15.900	29.150	42.400	38.147	161.672	38.272	42.40	8.592
36.000	16.200	29.700	43.200	39.600	167.956	39.725	43.20	8.736
36.667	16.500	30.250	44.000	41.080	174.361	41.205	44.00	8.879
37.333	16.800	30.800	44.800	42.588	180.889	42.713	44.80	9.022
38.000	17.100	31.350	45.600	44.122	187.539	44.247	45.60	9.166
38.667	17.400	31.900	46.400	45.684	194.311	45.809	46.40	9.309
39.333	17.700	32.450	47.200	47.273	201.206	47.398	47.20	9.452
40.000	18.000	33.000	48.000	48.889	208.222	49.014	48.00	9.596

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

*** For example with reinforcement at each block: DH=16' requires 32.622 SY/LF woven geotextile corresponding to 7.822 CY/LF volume of MRS with Class 1 backfill paid separately

☆ Barrier required when located within clear zone. See M-606-15 Style CD for details.
☆☆ 1'-0" (Typ) Casing Socket into Rock

SECTION VIEW

Print Date: \$DATE\$
File Name: Sheet_B-504-M2.dgn
Horiz. Scale: Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



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Denver, CO 80204
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Staff Bridge Branch

Initials

As Constructed		TRUNCATED BASE BLOCK FACING GRS WALL WITH ROADWAY RAIL AND 3/4:1 SOIL EXCAVATION/FILL		Project No./Code
No Revisions:		Designer: XXXXXXXX	Structure XXXXXXXXXXXX	
Revised:		Detailer: XXXXXXXX	Numbers XXXXXXXXXXXX	
Void:		Sheet Subset: WALL	Subset Sheets: WXX of XXX	Sheet Number