

NOTES:

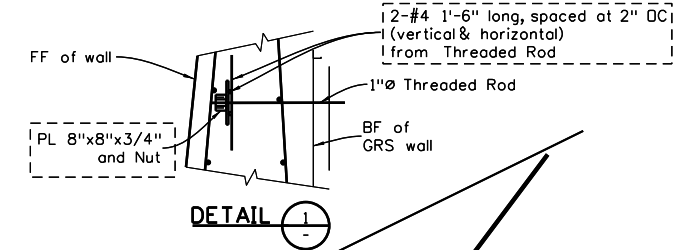
- The temporary cut slope shall be stable during entire period of wall construction and certified by a geotechnical Engineer.
- The required factored bearing at the base of the rail shall be a minimum of 1.0 TSF.
- Rail shall be installed after a minimum of 5 passes of a proof roll by a 2.5 ton double smooth drum vibratory roller at top of GRS wall. For precast rail, fill the gap in between the GRS wall and rail with sand.
- Tooled vertical joints at 10'-0" minimum spacing are required on exposed faces.
- For precast rail segments, an interlocking loop ring/pin connection is required per M-606-14 and a nailed full height 12" wide Geotextile (Class 2) behind joints.

- All geotextile reinforcement shall be biaxial woven geotextile fabric with minimum average roll value of 4800 Lb/Ft based on ASTM D4595 and with a minimum 6" overlap between rolls.
- CDOT approved concrete sealer is required on all exposed surfaces.
- No negative batter and 3" minimum gap required after proof roll; 0-5% max batter allowed for GRS wrap around facing. For cast-in-place concrete (CIP) option, a 3" thick nailed Low Density Polystyrene is required between the GRS wall and rail.
- Temporary removable forming board and frame shown for building geotextile wrap around without sand filled gap is required for CIP single outside tied back form option.
- Both types of GRS wall with Guardrail Type 9 (Style CE)(Special) rail shall be paid by linear foot, and include all labor and materials necessary to construct complete system.

B-504-S7

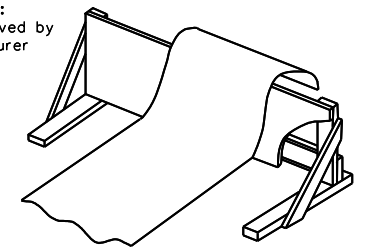
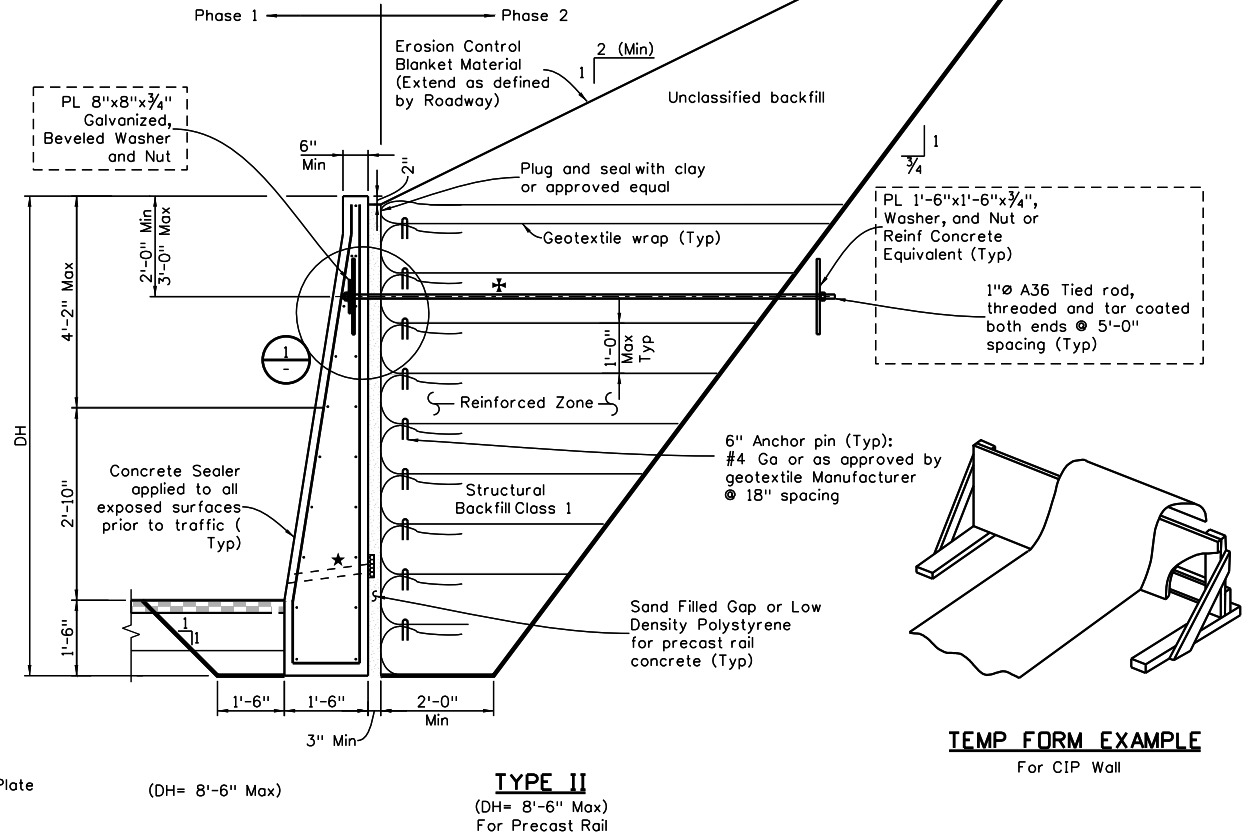
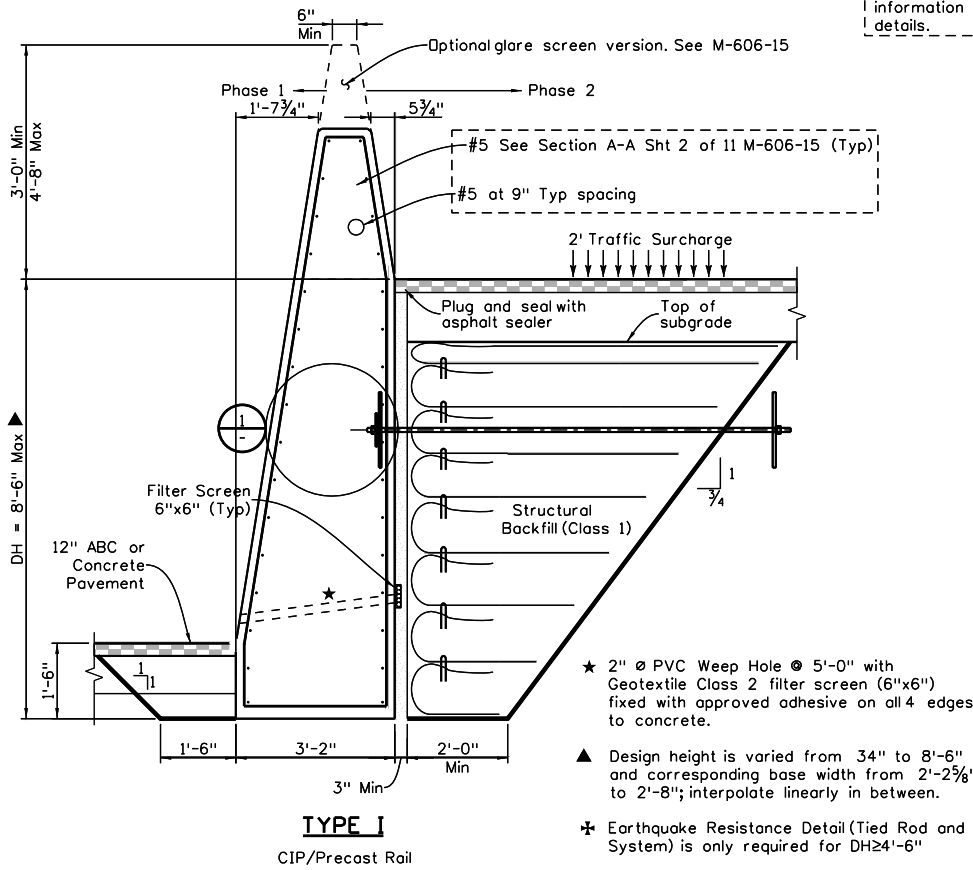
DESIGN CRITERIA:

- GRS wrap around phased wall is self standing and applies no (or minimum) pressure to the adjacent concrete rail.
- Earthquake details are required for stability regardless of seismic performance zone.



Designer/Detailer: ideas shown are conceptual and need further design on reinforcing and tie rods. Other information shown are preferred details.

Tie back information may be found in "Principals of Foundation Engineering" by Braja M Das, p295-306 or other references.



Revision	Date
09-16	10-24

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

PLOT_INFOS

All seals for this set of drawings are applied to the cover page(s)	Print Date: \$DATE\$	Sheet Revisions		Colorado Department of Transportation		As Constructed	GRS WALL WITH TYPE 9 RAIL WITH 8'-6" MAX DESIGN HEIGHT		Project No./Code
	File Name: Sheet_B-504-S7.dgn	Date:	Comments:	Init.	2829 West Howard Place, 3rd Floor Denver, CO 80204 Phone: 303-512-4079 FAX: 303-757-9197		No Revisions:	Designer: XXXXXXXX	Structure: XXXXXXXXXXXXX
	Horiz. Scale: Vert. Scale: As Noted				Staff Bridge Branch		Revised:	Detailer: XXXXXXXX	Numbers: XXXXXXXXXXXXX
	Unit Information Unit Leader Initials				Initials		Void:	Sheet Subset: WALL	Subset Sheets: WXX of XXX
									Sheet Number