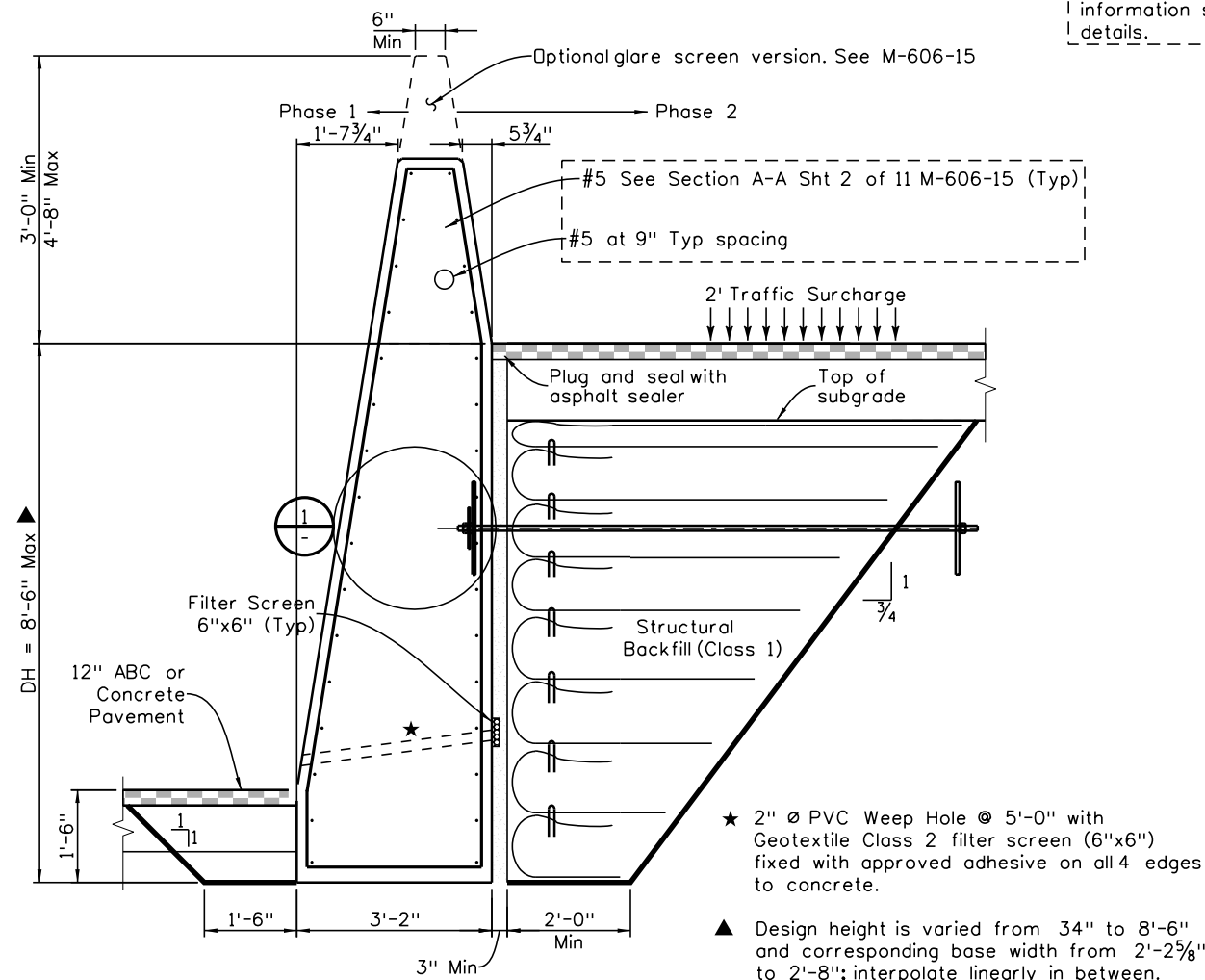
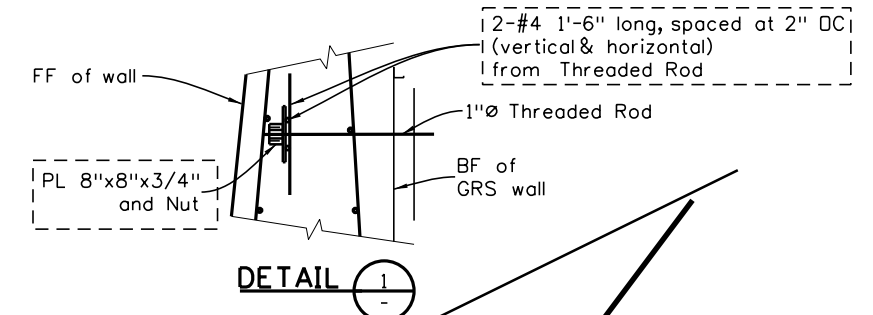


1. The temporary cut slope shall be stable during entire period of wall construction and certified by a geotechnical Engineer.
2. The required factored bearing at the base of the rail shall be a minimum of 1.0 TSF.
3. Rail shall be installed after a minimum of 5 passes of a proof roll by a 2.5 ton double smooth drum vibratory roller at top of GRS wall. For precast rail, fill the gap in between the GRS wall and rail with sand.
4. Tooled vertical joints at 10'-0" minimum spacing are required on exposed faces.
5. 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.

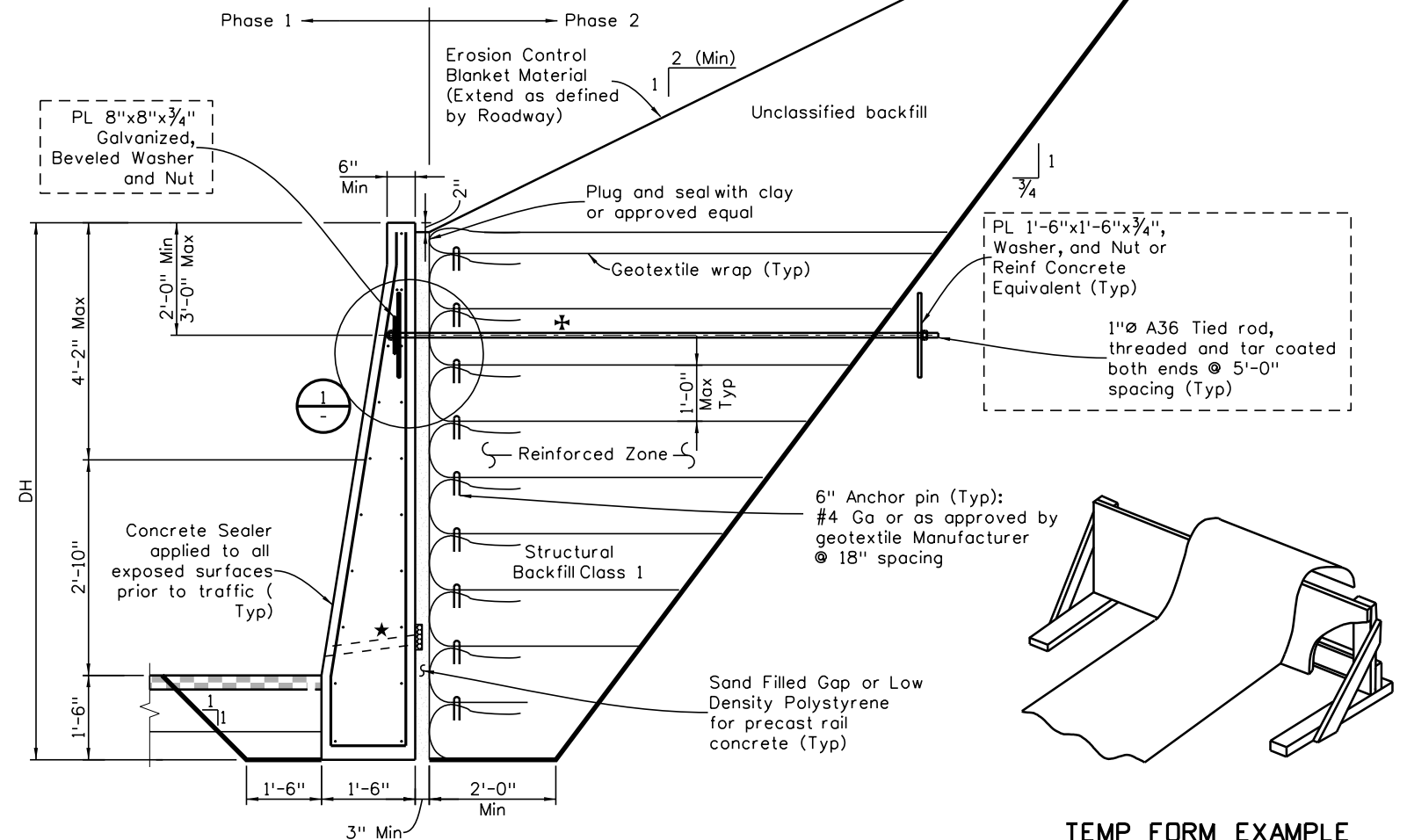
6. All geotextile reinforcement shall be biaxial woven geotextile fabric with minimum average roll value of 4800 Lb/Ft based on ASTM D4595 and with a minimum 6" overlap between rolls.
7. CDDT approved concrete sealer is required on all exposed surfaces.
8. No negative batter and 3" minimum gap required 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.
9. 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.
10. 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.

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

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



CIP/Precast Rail



(DH= 8'-6" Max)
For Precast Rail

For CIP Wall

Revision Dates				
09-16	10-24			

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

\$PLOT_INFO\$

All seals for this set of drawings are applied to the cover page(s)

Print Date: \$DATE\$	
File Name: Sheet_B-504-S7.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

No Revisions:

Revised:

Void:

GRS WALL WITH TYPE 9 RAIL
WITH 8'-6" MAX DESIGN HEIGHT

Designer:	xxxxxxxx
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Detailer:	XXXXXXXX
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Sheet Subset: WALL

Structure	XXXXXXXXXXXXXXXXXX
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Numbers	XXXXXXXXXXXXXXXX
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Subset Sheets: WXX of XXX

Project No./Code

Sheet Number