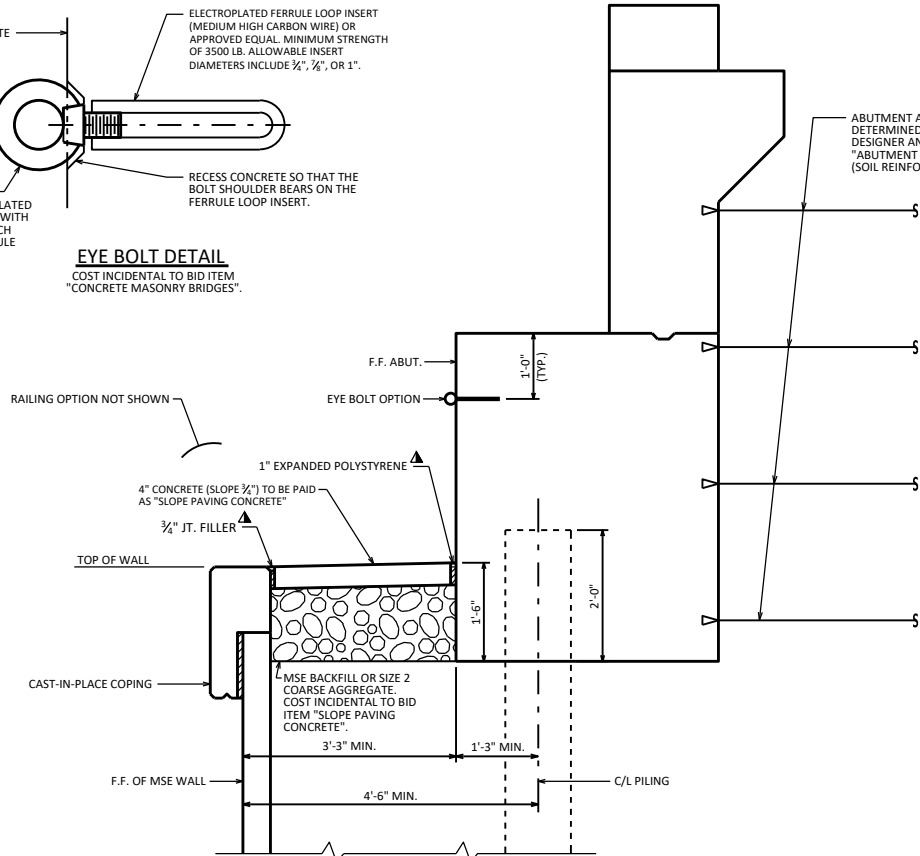
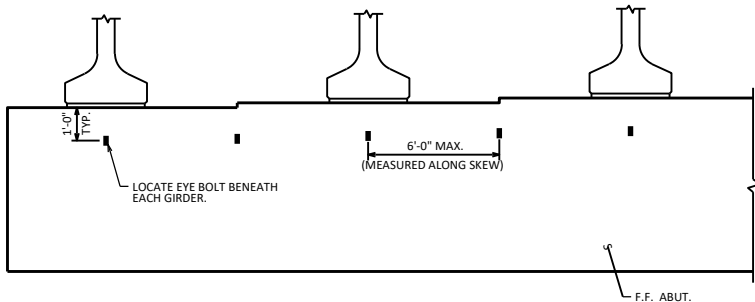


**EYE BOLT DETAIL**  
 COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".



**CROSS SECTION THRU ABUTMENT AT MSE WALL**

EXPANSION ABUT. SHOWN. SEE STANDARDS 12.01 & 12.02 FOR APPLICABLE BODY REINFORCEMENT AND STANDARDS 12.03 & 12.04 FOR BACKWALL AND WING REINFORCEMENT.



**PARTIAL ELEVATION OF F.F. ABUTMENT SHOWING EYE BOLT FALL PROTECTION OPTION**  
 RETAINING WALL NOT SHOWN

ABUTMENT ANCHORAGE TO BE DETERMINED BY THE MSE WALL DESIGNER AND TO BE PAID AS "ABUTMENT ANCHORAGE" (SOIL REINFORCEMENT STRIPS SHOWN).

**DESIGNER NOTES**

DUE TO MAINTENANCE CONCERNS, MSE WALLS SHALL NOT BE USED FOR THE SINGULAR PURPOSE OF REDUCING SPAN LENGTH. IF THE GRADE LINE CANNOT BE RAISED, THEN MSE WALLS MAY BE USED TO MAINTAIN THE SUPERSTRUCTURE DEPTH. OTHER CIRCUMSTANCES MAY ALSO JUSTIFY THE USE OF MSE WALLS AT ABUTMENTS.

FALL PROTECTION SHALL BE PROVIDED. THE OPTION PROVIDED SHOULD BE BASED ON THE PREFERENCE OF THE BRIDGE MAINTENANCE AND REGION PROJECT STAFF.

IF PIPE RAILING IS USED, SEE STD. 30.26 FOR APPLICABLE NOTES. (NOTE: STD. 30.26 IS STILL UNDER DEVELOPMENT)

"SLOPE PAVING CONCRETE" ITEMS TO BE SHOWN AS PART OF BRIDGE PLAN.

BID ITEM SHALL BE "ABUTMENT ANCHORAGE" (UNDER DEVELOPMENT).

**NOTES**

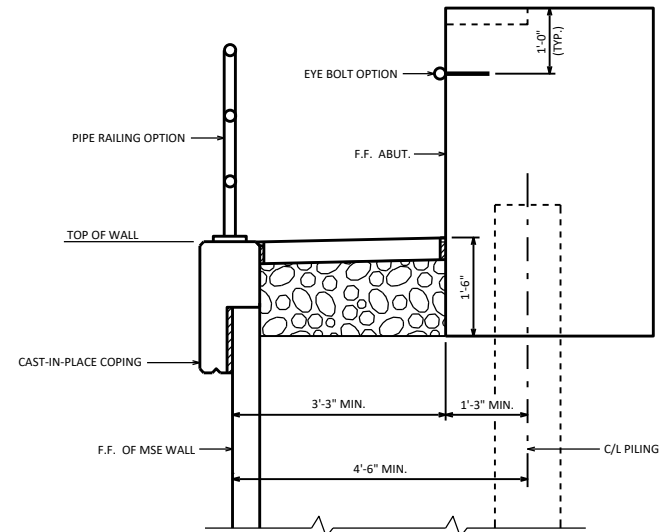
- UNFACTORED SUPERSTRUCTURE LATERAL LOADS TRANSFERRED TO THE ABUTMENT ARE TAKEN TO BE KIPS PER FOOT OF ABUTMENT LENGTH. THE VALUES ARE TO BE USED FOR THE LRFD DESIGN OF THE ABUTMENT ANCHORAGE BY THE MSE MANUFACTURER (MSE SYSTEM, DEAD MAN ANCHOR, OTHER). THE FOLLOWING AASHTO LINE LOADS SHALL BE NOTED ON PLAN:  
 BR = \_\_\_ KLF                      WS = \_\_\_ KLF  
 TU = \_\_\_ KLF                      WL = \_\_\_ KLF

**FOR SEMI-EXPANSION OR FIXED TYPE A1 ABUTMENTS:**

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.


- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

EXPANSION ABUTMENTS TO BE BACKFILLED TO A MINIMUM OF THE BEAM SEAT ELEVATION PRIOR TO PLACING GIRDERS.



**CROSS SECTION THRU ABUTMENT AT MSE WALL SHOWING BOTH EYE BOLT AND RAILING FALL PROTECTION OPTIONS**

TYPE A1 SEMI-EXPANSION ABUTMENT SHOWN

<b>MSE WALL AT ABUTMENT</b>	
	
APPROVED: <i>Laura Shadewald</i>	DATE: 1-18