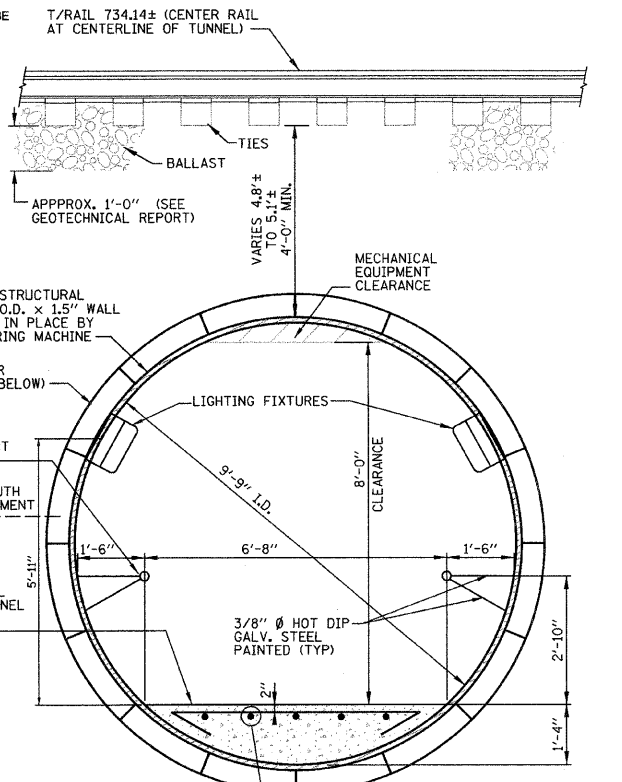


PIPE HANDRAIL AND PEDESTRIAN RAILING DETAILS
SCALE: 1" = 1'-0"

ALL RAILINGS AND HANDRAILS SHALL BE RUBBED SMOOTH AND FREE OF ANY SHARP EDGES OR PROTRUSIONS. THE RAILINGS AND HANDRAILS SHALL THEN BE CLEANED AND FINISHED WITH A GLOSS EPOXY DARK BROWN PROTECTIVE COATING (TNEC OR APPROV. EQUAL) ACCORDING TO THE SPECIFICATIONS.

THE CONTRACTOR MUST MONITOR AND RECORD TOP OF RAIL ELEVATION, BALLAST MOVEMENT AND TRACK ALIGNMENT DURING INSTALLATION OF THE PROPOSED TUNNEL CASING PIPE. THE MOVEMENT SHALL BE WITHIN 1/4 OF AN INCH OR LESS PER UPRR REQUIREMENTS. DISPLACEMENT EXCEEDING THESE LIMITS MUST BE IMMEDIATELY REPORTED TO THE RAILROAD. ALL WORK ON THE PROJECT MUST STOP AND THE RAILROAD MAY TAKE ANY ACTION NECESSARY TO ENSURE SAFE PASSAGE OF TRAINS. THE CONTRACTOR MUST IMMEDIATELY SUBMIT CORRECTIVE ACTION PLANS TO THE RAILROAD FOR REVIEW AND APPROVAL. THE RAILROAD MUST REVIEW AND APPROVE THE PROPOSED REPAIR PROCEDURE. THE REPAIR MUST BE INSPECTED BY THE RAILROAD BEFORE THE TRACK CAN BE PLACED BACK IN SERVICE.

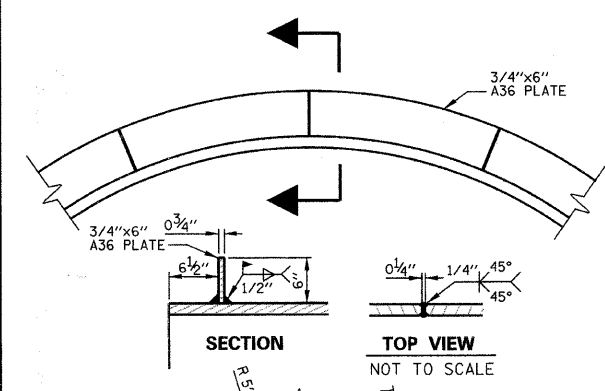


TYPICAL CROSS SECTION THROUGH STEEL TUNNEL
SCALE: 1/2" = 1'-0"

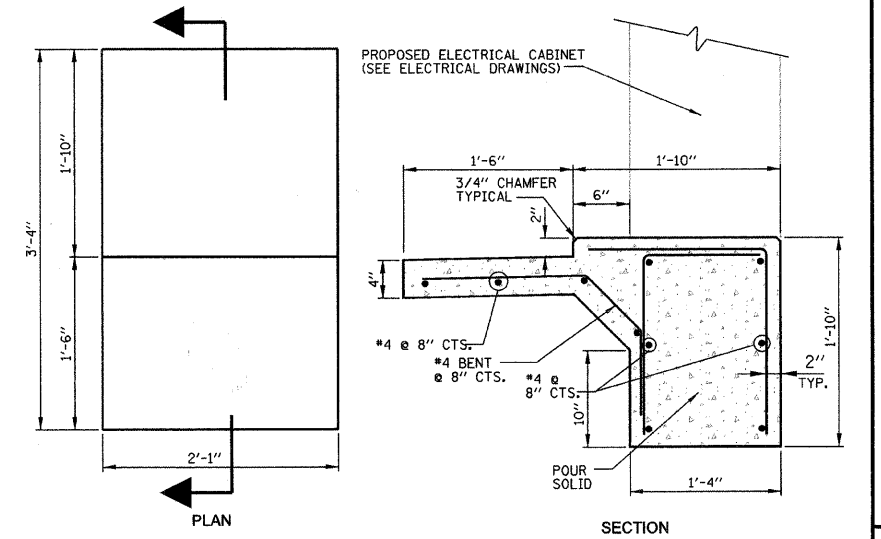
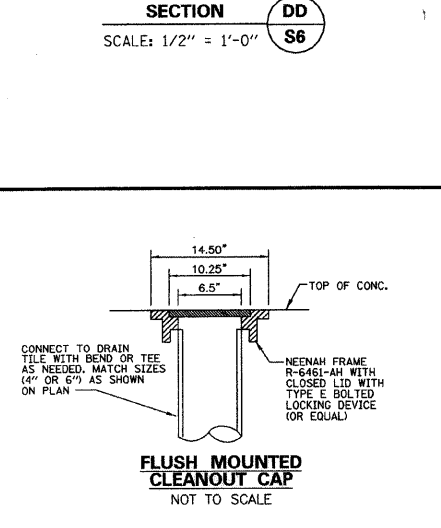
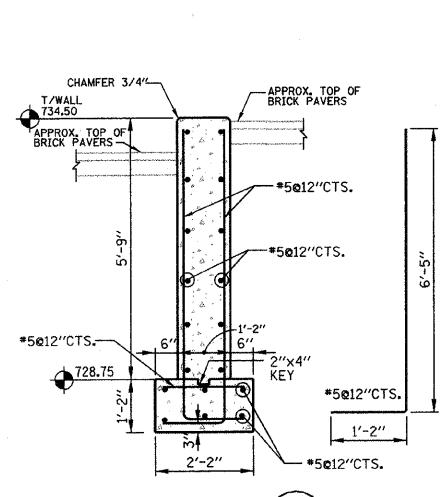
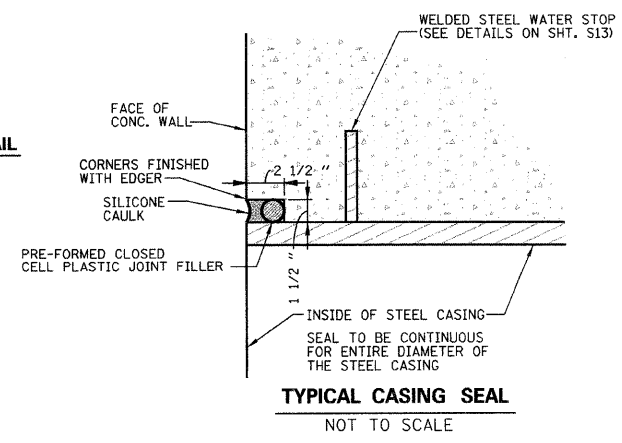
THE INSIDE OF THE COMPLETED STEEL TUNNEL CASING SHALL BE GROUND SMOOTH AND FREE OF ANY SHARP EDGES AND / OR PROTRUSIONS. THE FINAL INTERIOR SURFACE OF THE STEEL TUNNEL CASING AND THE CONCRETE FLOOR SHALL BE FINISHED WITH AN EPOXY PROTECTIVE COATING (TNEC OR APPROV. EQUAL) ACCORDING TO THE SPECIFICATIONS.

NOTES FOR DETAILS ON THIS SHEET:

- ALL CONCRETE SHALL BE CLASS "SI".
- ALL REBAR CLEARANCE DIMENSIONS ARE CLEAR COVER (NOT TO THE CENTER OF THE BAR).
- ALL CONCRETE WALL SURFACES TO BE EXPOSED IN THE FINAL CONDITION SHALL HAVE Voids FILLED WITH NON-SHRINK GROUT AND BE RUBBED SMOOTH. EXPOSED WALL SURFACES SHALL THEN BE FINISHED WITH A GLOSS EPOXY LIGHT GRAY PROTECTIVE COATING (TNEC OR APPROV. EQUAL) ACCORDING TO THE SPECIFICATIONS TO A HEIGHT OF SIX INCHES BELOW THE FINISHED GRADE ELEVATION.
- ALL CONCRETE SURFACES THAT WILL BE IN CONTACT WITH EARTH BACKFILL AND / OR PAVEMENT SHALL BE PROVIDED WITH WATERPROOF TAR EPOXY PAINT COATING ON EXTERIOR OF CONCRETE WALLS TO A HEIGHT OF SIX INCHES BELOW THE FINISHED GRADE ELEVATION.
- RAMP SURFACES AND TUNNEL FLOOR: MEMBRANE CURING SHALL BE APPLIED AS SPECIFIED IN SECTION 722 OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION. W.R. MEADOWS VOCOMP-20 CURE & SEAL, OR APPROVED EQUAL, SHALL BE USED PER MANUFACTURER'S SPECIFICATIONS. FINISHED SURFACES SHALL RECEIVE A LIGHT BROOM FINISH AT RIGHT ANGLES TO THE EDGES OF THE RAMP. EXPANSION AND CONTRACTION JOINTS SHALL BE CONSTRUCTED PER I.D.O.T. STD. 42001-07 WHERE SHOWN ON THE PLANS.
- SEE SHT. S1 FOR TUNNEL BILL OF MATERIALS.
SEE SHT. S4 FOR SOUTH RAMP BILL OF MATERIALS.
SEE SHT. S7 FOR NORTH RAMP BILL OF MATERIALS.



WELDED STEEL WATER STOP DETAIL
SCALE: 1" = 1'-0"

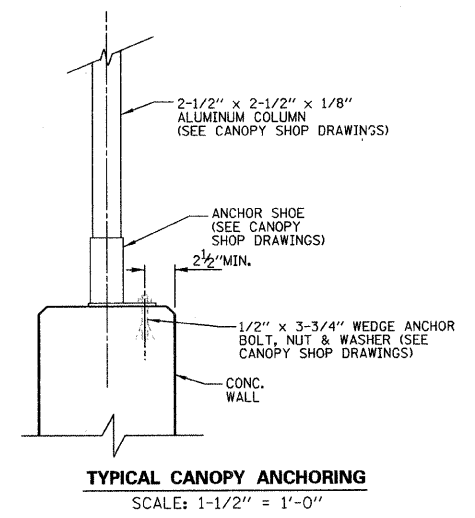


CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE ELECTRICAL SUB-CONTRACTOR FOR SCHEDULING THE CONSTRUCTION OF THE BASE SLAB.

BILL OF MATERIAL - ELECTRICAL CABINET CONCRETE BASE(SHT. S15)

DESCRIPTION	UNIT	QUANTITY
Concrete Structure	CU YD	1
Reinforcement Bars	POUND	25

ELECTRICAL CABINET CONCRETE BASE
SCALE: 1" = 1'-0"



This drawing shall not be used nor reproduced either wholly or in part except when authorized by the engineer - Rempe-Sharpe

ACTION	NAME	No.	Date	Revisions	By
Design	J.B.				
Drawn	D.B.E.				
Checked	S.S.				

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PROJECT
PEDESTRIAN UNDERPASS AT METRA STATION WINFIELD, ILLINOIS

SHEET TITLE
STRUCTURAL DETAILS

SCALE: NOTED
PROJECT NO.: WF-451
DATE: DEC. 19, 2008
SHEET No. S15 OF S16

1/7/2009 11:24:10 AM N:\DGN\WF451\SHEETS\STRUCTURAL\WF451-S15-DETAILS.DGN