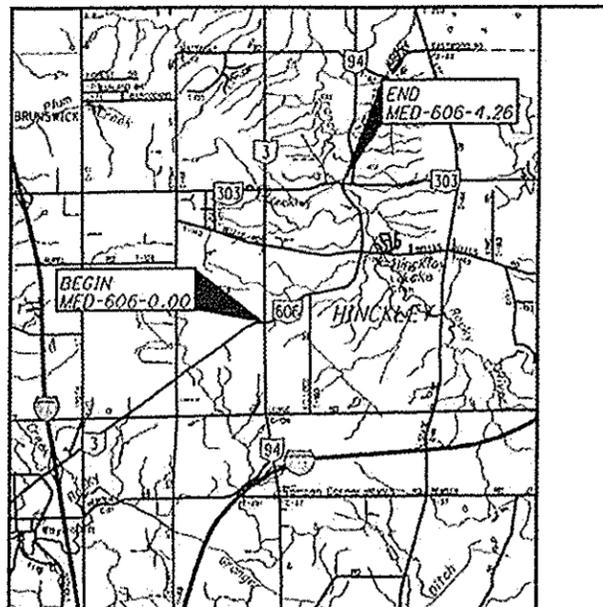


STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**MED-606-0.00**

**HINCKLEY TOWNSHIP  
MEDINA COUNTY**



LOCATION MAP

LATITUDE: N 41° 12' 5.44" LONGITUDE: W 81° 46' 34.95"



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

**DESIGN DESIGNATION**

FOR DESIGN DESIGNATION, SEE SHEET 2.

**DESIGN EXCEPTIONS**

NONE

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**PROJECT DESCRIPTION**

THIS PROJECT WILL INCLUDE RESURFACING WITH ASPHALT CONCRETE, PAVEMENT REPAIRS, MINOR GUARDRAIL WORK, STRUCTURE MAINTENANCE AND PAVEMENT MARKINGS.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA	N/A ACRES
MAINTENANCE PROJECT	
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	N/A ACRES
MAINTENANCE PROJECT	
NOTICE OF INTENT EARTH DISTURBED AREA	N/A ACRES
MAINTENANCE PROJECT	

**2013 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED:   
DATE: 1/7/14 DISTRICT DEPUTY DIRECTOR

APPROVED:   
DATE: 1-20-16 DIRECTOR OF DEPARTMENT OF TRANSPORTATION

**ENGINEERS SEAL:**

SIGNED: *Karla R. Bohmer*  
DATE: 1/7/16

**UNDERGROUND UTILITIES**

CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
BEFORE YOU DIG

CALL  
**1-800-362-2764**  
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

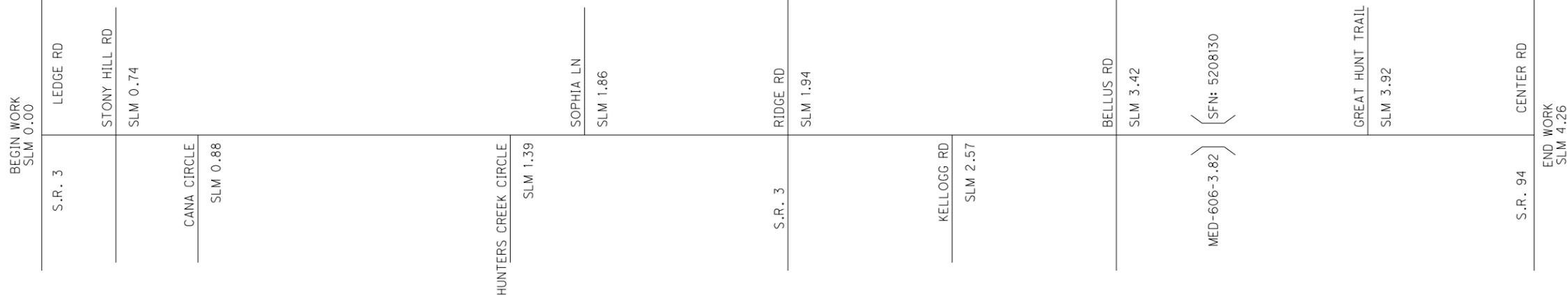
OIL & GAS PRODUCERS UNDERGROUND  
PROTECTION SERVICE CALL: **1-800-925-0988**

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	7/18/14	MT-97.10	7/18/14	TC-41.20	10/18/13	800	1/15/16
BP-4.1	7/19/13	MT-97.12	7/18/14	TC-42.20	10/18/13	830	1/17/14
		MT-99.20	7/19/13	TC-52.10	10/18/13	832	1/17/14
		MT-101.60	7/19/13	TC-52.20	7/18/14	848	7/17/15
DM-4.3	7/19/13	MT-101.90	7/17/15	TC-61.30	7/18/14		
DM-4.4	7/20/12	MT-105.10	7/19/13	TC-65.10	1/17/14		
				TC-65.11	7/18/14		
				TC-71.10	1/17/14		
RM-1.1	7/18/14						
AS-1-15	7/17/15						
DBR-3-11	7/15/11						

PLANS PREPARED BY:

MED - SR 606-00.00  
160215 PID - 94389  
Dist 3 4/7/2016  
Contract Proposal Available @ www.contracts.dot.state.oh.us/home

FEDERAL PROJECT NO. **NON-FEDERAL**  
PID NO. **94389**  
CONSTRUCTION PROJECT NO.  
RAILROAD INVOLVEMENT **NONE**  
**MED-606-0.00**  
1/28



MED 606 0.00-1.94

CURRENT ADT (2016): 1,900  
 DESIGN YEAR ADT (2028): 2,200  
 DESIGN HOURLY VOLUME (2028): 200  
 DIRECTIONAL DISTRIBUTION: 52%  
 TRUCKS (24 HOUR B&C): 7%  
 DESIGN FUNCTIONAL CLASSIFICATION:  
 RURAL MINOR COLLECTOR  
 NHS PROJECT: NO

MED 606 1.94-4.26

CURRENT ADT (2016): 1,200  
 DESIGN YEAR ADT (2028): 1,200  
 DESIGN HOURLY VOLUME (2028): 160  
 DIRECTIONAL DISTRIBUTION: 54%  
 TRUCKS (24 HOUR B&C): 4%  
 DESIGN FUNCTIONAL CLASSIFICATION:  
 RURAL MINOR COLLECTOR  
 NHS PROJECT: NO

DESIGN/LEGAL SPEED

SLM 0.00-1.00: 55 MPH  
 SLM 1.00-2.60: 45 MPH  
 SLM 2.60-4.26: 55 MPH

**GENERAL**

**CONSTRUCTION NOTIFICATION**

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4305 OR EMAIL AT D03.PIO@DOT.STATE.OH.US

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4318 OR EMAIL AT LOUIS.TUMBLIN@DOT.STATE.OH.US

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

**ROUTINE MAINTENANCE**

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CABLE TIME WARNER CABLE 8385 BAVARIA ROAD MACEDONIA, OHIO 44056 330-963-3620	GAS ENERVEST 125 ST. RT. 43 HARTVILLE, OHIO 44632 330-877-6747
--	--

ELECTRIC OHIO EDISON COMPANY 1910 WEST MARKET STREET, BLDG #1 AKRON, OHIO 44313 330-384-4653	PHONE FRONTIER COMMUNICATIONS 6223 NORWALK ROAD MEDINA, OHIO 44256 330-722-9586
--	---

GAS COLUMBIA GAS OF OHIO 7080 FRY ROAD MIDDLEBURG HEIGHTS, OHIO 44130 440-891-2428	PHONE WINDSTREAM 1135 T.R. 1875 ASHLAND, OHIO 44805 419-289-3732
--	--

GAS DOMINION EAST OHIO 1000 WEST WILBETH ROAD AKRON, OHIO 44134 330-798-7164	STATE ODOT DISTRICT 3 TRAFFIC 906 CLARK AVENUE ASHLAND, OHIO 44805 419-207-7045
--	---

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

**ROADWAY**

**SAFETY EDGE**

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETSLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.  
1594 STATE STREET  
SCHENECTADY, NY 12304  
1-800-724-6306  
www.transtechsys.com

ADVANT-EDGE PAVING EQUIPMENT LLC  
P.O. BOX 9163  
NISKAYUNA, NY 12309-0163  
518-280-6090  
www.advantedgepaving.com

CARLSON SAFETY EDGE END GATE  
18450 50TH AVENUE EAST  
TACOMA, WA 98446  
253-875-8000

TROXLER ELECTRONICS LABORATORIES INC.  
3008 E. CORNWALLIS RD.  
RESEARCH TRIANGLE PARK, NC 27709  
1-877-TROXLER  
www.troxlerlabs.com

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

**ITEM 209 - PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN**

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05 OR AS DIRECTED BY THE ENGINEER. THE GRADED SHOULDER BEYOND THE 10 INCH WIDE AREA FOR THE SAFETY EDGE SHALL BE GRADED AT A 10:1 SLOPE, OR AS DIRECTED BY THE ENGINEER. THE INTENT IS TO PROVIDE AN UNOBSTRUCTED AND POSITIVE FLOW OF STORM WATER FROM THE PAVEMENT TO THE DITCH.

**ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE**

ALL WORK RELATED TO ADJUSTING MONUMENT BOXES TO GRADE WILL BE IN ACCORDANCE TO SECTIONS 623.04 AND 623.05 OF THE 2013 ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE MONUMENT BOX TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING ADJUSTABLE FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING MONUMENT BOX TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT ADJUSTABLE FRAMES.

**APPROXIMATE LOCATION OF KNOWN CASTINGS**

MONUMENTS	
ROUTE:	SLM:
S R 606	0.91
S R 606	0.96
S R 606	3.93
S R 606	3.41
S R 606	3.78
S R 606	4.24
S R 606	4.25

**PAVEMENT**

**ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE**

THE INTENT OF THE PLANING IS TO MILL 1.5 INCHES AT THE CENTER OF PAVEMENT AT NON-CURBED AREAS. THE PAVEMENT SLOPE SHALL BE 0.010 MINIMUM AND 0.016 PREFERRED, CONTINUOUS BETWEEN THE CROWN AND THE PROPOSED EDGELINE/SHOULDER. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE CENTER OF PAVEMENT IN CONFORMANCE WITH THE ABOVE GUIDELINES.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPERELEVATED CURVES. THE SUPERELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER. IF THERE IS NO INFORMATION IN THE PLANS TO CHANGE THE SUPERELEVATION, THE INTENT IS TO MAINTAIN THE EXISTING SUPERELEVATION.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN FOURTEEN (14) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 14 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF \$1000 PER DAY.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE.

**ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN**

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:  
MIX DESIGN: FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS. MINIMUM TOTAL PG BINDER CONTENT IS 6.0 PERCENT.  
USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 20 PERCENT.  
WHEN AN AGGREGATE SOURCE IS SPECIALLY DESIGNATED WITH AN SR ON THE AGGREGATE GRAVITY LIST DO NOT USE THE AGGREGATE EXCEPT AS ALLOWED FOR MEDIUM TRAFFIC IN THE GUIDELINES FOR MAINTAINING ADEQUATE PAVEMENT FRICTION IN SURFACE PAVEMENT.  
QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

**ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN (SAFETY EDGE)**

THE SAFETY EDGE SHALL BE INSTALLED AT THE SAME TIME AS THE SURFACE COURSE IS TO BE PLACED. THE SAFETY EDGE WILL NOT REQUIRE ANY DENSITY TESTING.

**ITEM 254 - PATCHING PLANED SURFACE**

AN ESTIMATED QUANTITY OF ITEM 254 - PATCHING PLANED SURFACE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER AS DESCRIBED IN CMS 254.04. THE LIMIT OF THE PATCHING DEPTH IS 0 TO 2 IN.

**PAVEMENT CORRECTION AT BELLUS ROAD INTERSECTION**

THE CONTRACTOR IS DIRECTED TO MILL THE PAVEMENT ON S.R. 606 IN SUCH A WAY AS TO RE-ESTABLISH A UNIFORM CROSS-SLOPE ON S.R. 606 THROUGH THE INTERSECTION.

MODELNAME: \$MODELNAME\$

DESIGN FILE: \$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL\$ DATE: \$\$\$\$DATE\$\$\$\$\$

CALCULATED  
MKP  
CHECKED  
KRB

GENERAL NOTES

MED - 606 - 0.00

# PAVEMENT

## INTERSECTIONS AND DRIVES

RURAL-INTERSECTIONS SHALL BE PLANED AND PAVED TO THE END OF THE RADII OR AS DIRECTED BY THE ENGINEER. (TO PROVIDE A SMOOTH TRANSITION BETWEEN THE TWO HIGHWAYS, AND TO ELIMINATE WATER POCKETS).

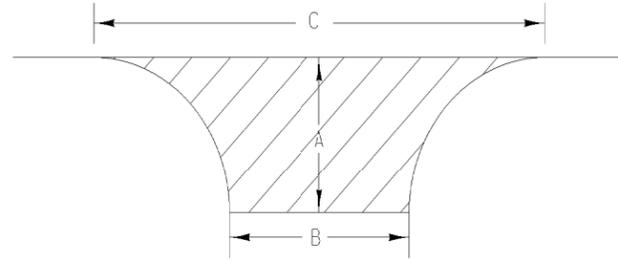
URBAN-INTERSECTIONS SHALL BE PLANED AND PAVED TO THE BACK OF CROSSWALKS OR AS DIRECTED BY THE ENGINEER. ( TO PROVIDE A SMOOTH TRANSITION BETWEEN THE TWO HIGHWAYS, AND TO ELIMINATE WATER POCKETS).

EXISTING PAVED DRIVES SHALL BE PAVED SO AS TO PROVIDE A SMOOTH TRANSITION BETWEEN THE HIGHWAY AND THE DRIVE, (DISTANCE FROM EDGE OF ROADWAY MAY VARY AT EACH DRIVE) AS DIRECTED BY THE ENGINEER.

EXISTING AGGREGATE DRIVES SHALL BE PAVED WITH AN APRON AN AVERAGE WIDTH OF 4 FT. THE SLOPE OF THIS APRON SHALL BE THE SAME AS THE ADJACENT PAVEMENT SLOPE OR AS DIRECTED BY THE ENGINEER. ANY GRADING NEEDED TO PAVE THE APRON SHALL BE INCLUDED IN THE RELATED ASPHALT ITEM FOR PAYMENT. ITEM 617 COMPACTED AGGREGATE SHALL BE PLACED ADJACENT TO THIS APRON TO PROVIDE A SMOOTH TRANSITION FROM THE APRON TO THE EXISTING DRIVE, (WIDTH OF THIS 617 APPLICATION MAY VARY) AS DIRECTED BY THE ENGINEER. AN ADDITIONAL QUANTITY OF ITEM 617 HAS BEEN ESTIMATED TO COMPLETE THIS WORK AND IS SHOWN AS AN EXTRA AREA ON THE PAVEMENT & SHOULDER DATA SHEET.

ANY HAZARD OR UNSAFE CONDITION RESULTING FROM THE ABOVE WORK MUST BE CORRECTED IMMEDIATELY. THE CONTRACTOR IS REMINDED OF SECTIONS 105.01, 107.07 & 614.02A OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE PAVING DIMENSIONS FOR THE INTERSECTIONS ARE SHOWN IN THE CHART BELOW.



Intersection Name	A (ft.)	B (ft.)	C (ft.)	Area (sy)
STONY HILL (R)	6	52	72	39
STONY HILL (L)	5	56	86	37
CANA CIRCLE	7	83	112	72
HUNTER'S CREEK	PAVE THROUGH			
SOPHIA LN	11	25	59	44
KELLOGG RD	5	52	74	33
BELLUS RD (R)	23	26	75	108
BELLUS RD (L)	17	26	57	69
GREAT HUNT TRAIL	PAVE THROUGH			
S.R. 94	BUTT JOINT AT RADIUS			
<b>Total Intersection Areas</b>				<b>402</b>

# PAVEMENT

## ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR ITEM 253 - PAVEMENT REPAIR

PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING AND BEFORE PLACEMENT OF THE INTERMEDIATE AND/OR SURFACE COURSE. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH A MAXIMUM DEPTH OF 10", BASED ON THE PAVEMENT DESIGN AND AN AVERAGE DEPTH OF 3" AND AN AVERAGE WIDTH OF 4 FT FOR ESTIMATING PURPOSES.

REPLACEMENT MATERIAL SHALL BE ITEM 301, ITEM 441 TYPE 2, OR ITEM 442 19MM, AS PER PLAN MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 441 TYPE 2 OR ITEM 442 19MM, AS PER PLAN CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 1.5" AND 5" WITH A MAXIMUM PAVEMENT LIFT OF 3". THE CONTRACTOR HAS THE OPTION OF USING EITHER ITEM 301, ITEM 441 TYPE 2, OR ITEM 442 19MM, AS PER PLAN MATERIAL WHEN THE PAVEMENT REPAIR IS BETWEEN 3" AND 5" DEEP. PG 64-22 ASPHALT BINDER SHALL BE USED FOR ALL OF THE ASPHALT CONCRETE MATERIALS FOR THESE REPAIRS.

FOR THE ITEM 442 19 MM, AS PER PLAN MATERIAL, REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:  
MIX DESIGN: FOR N<sub>des</sub> USE 50 GYRATIONS, FOR N<sub>max</sub> USE 75 GYRATIONS. USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 30 PERCENT.  
APPLY 703.05 FOR COARSE AND FINE AGGREGATE EXCEPT GRADATION FOR FINE AGGREGATE DOES NOT APPLY.  
QUALITY CONTROL: DO NOT PERFORM N<sub>max</sub> IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. FOR PAYMENT PURPOSES ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR IS TO BE A MAXIMUM OF 4" DEEP AND ITEM 253 PAVEMENT REPAIR IS FOR DEPTHS GREATER THAN 4". PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR OR ITEM 253 - PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

SR 606 ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR	650 CY
SR 606 ITEM 253 - PAVEMENT REPAIR	35 CY

### SUMMARY FOR ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

NORTHBOUND					
SLM	0.0	TO	1.0		CU. YD.
	1.0		2.0	91	CU. YD.
	2.0		3.0	99	CU. YD.
	3.0		4.3	9	CU. YD.
SOUTHBOUND					
SLM	0.0	TO	1.0		CU. YD.
	1.0		2.0	47	CU. YD.
	2.0		3.0	57	CU. YD.
	3.0		4.3	10	CU. YD.
TOTAL				650	CU. YD.

MODELNAME: \$MODELNAME\$

DESIGN FILE: \$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL\$ DATE: \$\$\$\$DATE\$\$\$\$\$

CALCULATED  
MKP  
CHECKED  
KRB

GENERAL NOTES

MED - 606 - 0.00

**MAINTENANCE OF TRAFFIC**

**446 DENSITY ACCEPTANCE WITH FLAGGER CLOSING OF A 2-LANE HIGHWAY FOR PAVING OPERATIONS**

THIS PLAN NOTE APPLIES ONLY TO A FLAGGER CLOSURE OF ONE LANE OF A 2-LANE HIGHWAY DURING PAVING OPERATIONS WHEN USING STANDARD CONSTRUCTION DRAWING MT-97.11 OR MT-97.12, AND ALLOWS A PAVING OPERATION TO PROCEED CONCURRENTLY WITH THE MARKING AND CUTTING OF CORES REQUIRED FOR 446 DENSITY ACCEPTANCE.

IN ALL CASES THE CONTRACTOR SHOULD LENGTHEN THEIR LANE CLOSURES TO THE MAXIMUM PERMISSIBLE LENGTH DETAILED IN THE ABOVE REFERENCED STANDARD CONSTRUCTION DRAWINGS TO ALLOW THE ENGINEER ADEQUATE TIME TO MARK THE REQUIRED CORE LOCATIONS AND FOR CORE CUTTING OPERATIONS.

THE CONTRACTOR WILL PROVIDE TO THE ENGINEER THE PLANNED QUANTITY THAT WILL BE PLACED FOR THE DAY'S PRODUCTION. EACH DAY'S PRODUCTION WILL BE CONSIDERED ONE LOT AND INCLUDES SHOULDERS. TEN CORES WILL BE OBTAINED BY THE CONTRACTOR FOR EACH LOT AT RANDOM LOCATIONS DETERMINED BY THE ENGINEER. THE ENGINEER WILL DIVIDE A LOT INTO FIVE EQUAL SUBLOTS AND CALCULATE TWO RANDOM CORE LOCATIONS IN EACH SUBLOT AS DESCRIBED IN C&MS 446.05.

THE ENGINEER WILL MARK THE CORE LOCATIONS AFTER THE PAVING OPERATION (INCLUDING THE FINISH ROLLER) HAS COMPLETELY PASSED THE RANDOMLY SELECTED CORE LOCATION. THE CONTRACTOR SHOULD DETERMINE WHEN IT IS APPROPRIATE TO START THE CORE DRILL OPERATION AND BEGIN CUTTING CORES WHEN THE NEWLY PLACED PAVEMENT SURFACE TEMPERATURE IS LESS THAN 140°F. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LANE CLOSURE DURING ALL PAVING, CORE MARKING, AND CORING OPERATIONS PER THE REQUIREMENTS OF THE STANDARD CONSTRUCTION DRAWING USED FOR THE PAVING OPERATION.

**ITEM 614 - WORK ZONE MARKING SIGN**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, 614.04.

WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE = 9 EACH  
WORK ZONE MARKING SIGN: (R4-1-24) DO NOT PASS = 7 EACH  
WORK ZONE MARKING SIGN: (R4-2-24) PASS WITH CARE = 5 EACH  
TOTAL = 21 EACH

**ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO CONSTRUCT A TEMPORARY ASPHALT WEDGE FROM THE EXISTING PAVEMENT TO THE PLANED SURFACE AT BUTT JOINTS AND OTHER LOCATIONS THAT RESULT IN A DROP-OFF. THIS QUANTITY SHALL ALSO BE USED AT PLANED SURFACES WHERE A TEMPORARY ASPHALT WEDGE IS NEEDED AROUND CASTINGS. BEFORE RESURFACING OF THE PAVEMENT, THE TEMPORARY WEDGE SHALL BE REMOVED AND THE COST SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 20 CU YD

**BUTT JOINTS**

BUTT JOINTS SHALL NOT BE CUT AND LEFT OPEN TO TRAFFIC. THEY SHALL BE FILLED IN WITH A TEMPORARY ASPHALT CONCRETE WEDGE USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

CONSTRUCTION "BUMP" (W8-1-36) AND "ADVISORY SPEED" (W13-1-24) SIGNS SHALL BE ERECTED AND MAINTAINED DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. THESE SIGNS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM FOR ITEM 614 MAINTAINING TRAFFIC.

**PLACEMENT OF ASPHALT CONCRETE**

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
MODELNAME: \$MODELNAME\$

CALCULATED  
MKP  
CHECKED  
KRB

MAINTENANCE OF TRAFFIC NOTES

MED - 606 - 0.00

**ITEM 614 - MAINTAINING TRAFFIC**

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON STRUCTURE MED-606-3.82 WILL BE DETOURED AS SHOWN ON SHEET 8 FOR A MAXIMUM OF 28 CONSECUTIVE CALENDAR DAYS. THE 28 DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 28 DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$1,000 PER DAY. DETOUR SIGNING SHALL BE INSTALLED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL NOTIFY THE ROADWAY SERVICES MANAGER IN WRITING A MINIMUM OF 14 DAYS IN ADVANCE OF THE DETOUR BEING PLACED.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 30 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

- HINCKLEY FIRE DEPARTMENT
- HINCKLEY POLICE DEPARTMENT
- HINCKLEY POST OFFICE

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

- MEDINA COUNTY ENGINEER
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- MEDINA COUNTY SHERIFF

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, AS PER SECTION 614.02 (A).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**PROJECT DETOUR LIMITATIONS**

THE DETOUR SHALL NOT BE IN EFFECT AND THE ROADWAY SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING HINCKLEY TOWNSHIP SPECIAL EVENTS:

- HINCKLEY TOWNSHIP MEMORIAL DAY PARADE  
THE DATES THAT THE ROADWAY SHALL REMAIN OPEN ARE FROM 12:00N FRIDAY, MAY 27, 2016 THROUGH 6:00AM TUESDAY, MAY 31, 2016.
- HINCKLEY TOWNSHIP COMMUNITY GARAGE SALE (FIRST SATURDAY AFTER LABOR DAY)  
THE DATES THAT THE ROADWAY SHALL REMAIN OPEN ARE FROM 12:00N FRIDAY, SEPTEMBER 9, 2016 THROUGH 6:00AM MONDAY, SEPTEMBER 12, 2016

**DETOUR SIGNING**

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):

ITEM 614, DETOUR SIGNING - LUMP

**MAINTENANCE OF LOCAL DETOUR ROUTE**

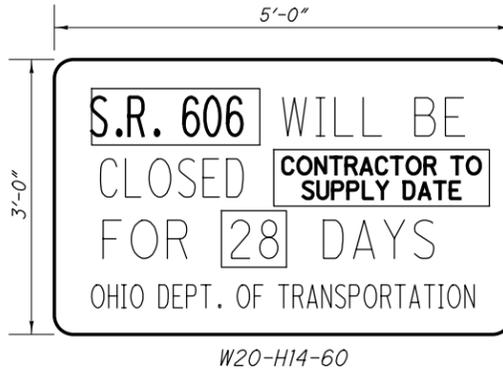
A LOCAL DETOUR ROUTE, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, WILL BE SELECTED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE.

DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER. THE DESIGNATED LOCAL DETOUR ROUTE IS TO BE REVIEWED AND REPAIRED PRIOR TO THE ASPHALT CONTRACTOR OR SUBCONTRACTOR LEAVING THE PROJECT.

PAYMENT FOR THE WORK NECESSARY TO REPAIR THESE LOCAL ROADS WILL BE PERFORMED BY CHANGE ORDER.

**NOTICE OF CLOSURE SIGNS**

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC, AND IT SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS AND SUPPORTS.



**STATE ROUTE CLOSED SIGNS**

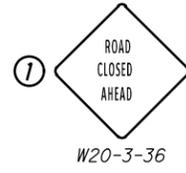
PLACE ONE STATE ROUTE CLOSED SIGN (W20-H16-48) AT EACH RURAL INTERSECTION ON THE CLOSED ROUTE BETWEEN ROAD CLOSED TO THRU TRAFFIC BARRICADES WITH THE FACE OF THE SIGN TOWARDS TRAFFIC APPROACHING THE CLOSURE, ON THE APPROPRIATE SIDE OF THE ROADWAY. AFFIX THE APPROPRIATE ROUTE SIGN(S) (MI-5-24) TO EACH ROAD CLOSED SIGN. ENSURE THE SIGN(S) IS (ARE) PLACED TO SUFFICIENTLY WARN MOTORISTS TURNING FROM THE SIDE ROAD TO THE STATE ROUTE(S) THAT THE STATE ROUTE(S) IS (ARE) CLOSED AHEAD.

DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
 WORKSTATION\$TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
 MODELNAME: \$MODELNAME\$

DESIGNED	MKP	CHECKED	KRB
DRAWN	MKP	REVISED	
REVIEWED	KRB	DATE	1/5/16

**DETOUR NOTES**  
DETOUR PLAN  
DETOUR FOR STRUCTURE MED-606-3.82

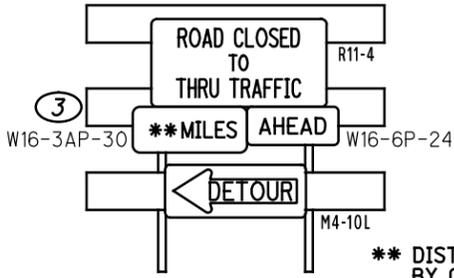
**MED-606-0.00**  
PID No. 94389



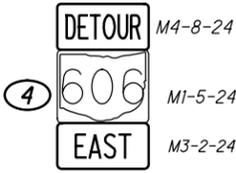
W20-3-36



W20-2-36



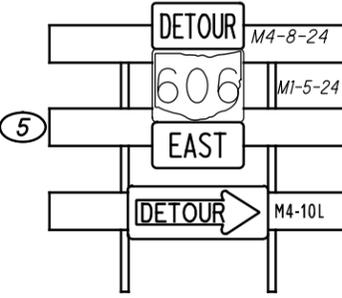
TYPE III BARRICADES



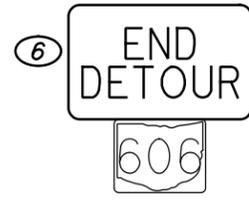
M4-8-24

M1-5-24

M3-2-24



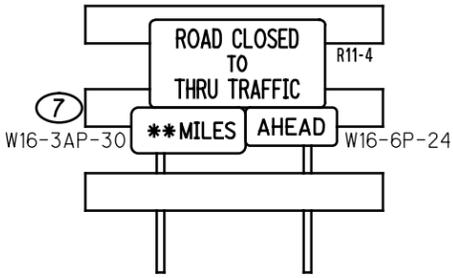
TYPE III BARRICADES



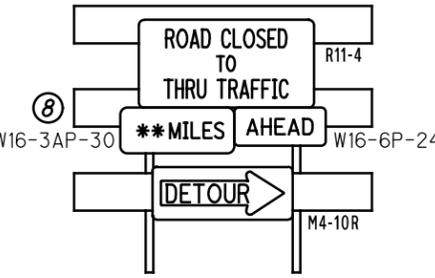
M4-8a-24

M1-5-24

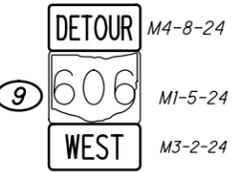
\*\* DISTANCE SUPPLIED BY CONTRACTOR



TYPE III BARRICADES



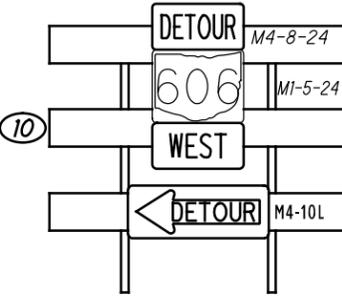
TYPE III BARRICADES



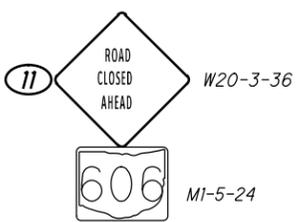
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M1-5-24

M3-2-24

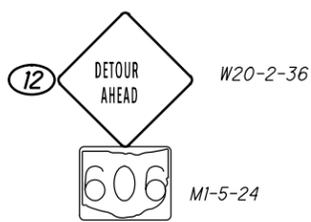


TYPE III BARRICADES



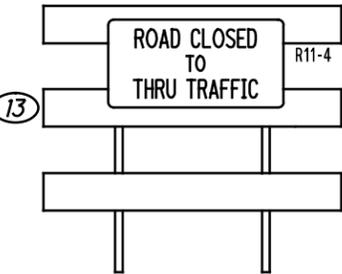
W20-3-36

M1-5-24



W20-2-36

M1-5-24

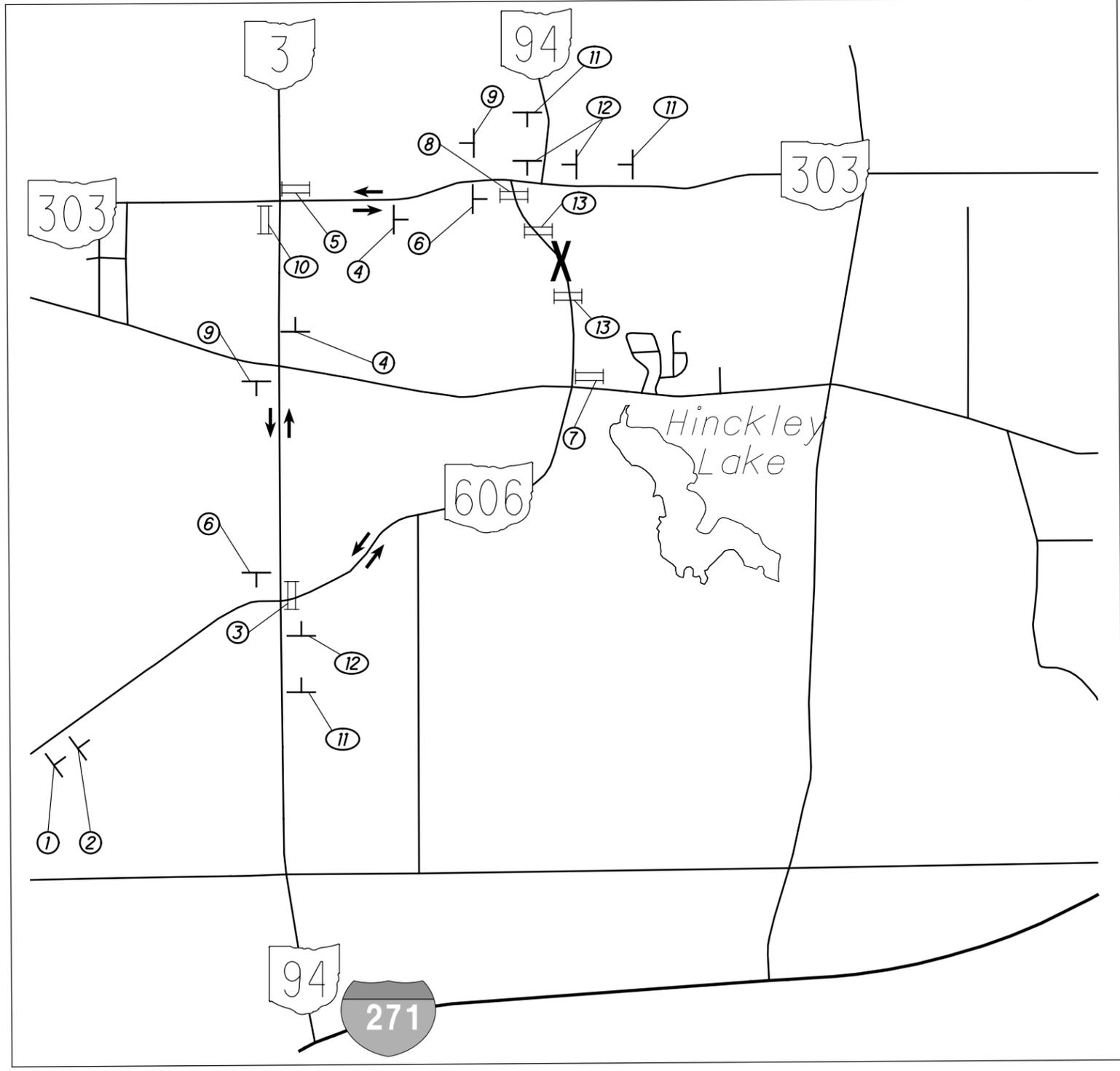


TYPE III BARRICADES



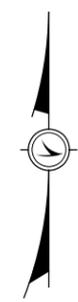
DESIGNED	DATE
MKP	1/5/16
CHECKED	
KRB	
DRAWN	
MKP	
REVISED	
KRB	

**DETOUR PLAN**  
 DETOUR PLAN  
 DETOUR FOR STRUCTURE MED-606-3.82



MAP LEGEND

- X - PROJECT LOCATION
- ↔ - OFFICIAL STATE SIGNED DETOUR ROUTE
- || - GATES AND BARRICADES AS PER MT-101.60
- T - SIGN LOCATION



SEE PREVIOUS PAGE FOR  
SIGN LEGEND



DESIGNED	DATE
MKP	1/5/16
CHECKED	
KRB	
DRAWN	
MKP	
REVISED	
KRB	

**DETOUR PLAN**  
 DETOUR PLAN  
 DETOUR FOR STRUCTURE MED-606-3.82

**MED-606-0.00**  
 PID No. 94389

**ITEM SPECIAL, MAILBOX SUPPORT SYSTEM**

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF EXISTING NON-STANDARD MAILBOX SUPPORTS AND FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED HARDWARE IN ACCORDANCE WITH THE DETAILS SHOWN, AND ATTACHING AN OWNER SUPPLIED MAILBOX, AT LOCATIONS DETERMINED BY THE ENGINEER.

IN ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE BOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION. SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO MAILBOXES MAY BE MOUNTED ON A SINGLE POST. [HARDWARE SHALL BE COMMERCIAL GRADE GALVANIZED STEEL.]

WOOD POSTS SHALL BE NOMINAL 4 IN. x 4 IN. (S4S) OR 4 1/2 IN. DIAMETER ROUND, AND CONFORM TO 710.14. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 IN. I.D., AND CONFORM TO AASHTO M 181.

POSTS SHALL BE SET AS PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK WITH THE LOCAL POST MASTER AND NOTIFYING THE PROPERTY OWNERS PRIOR TO WORK.

GROUP MAILBOX SUPPORTS SHALL BE PLACED ON 3 FT. CENTERS AND THE TURNOUT LENGTHENED TO ACCOMMODATE THE GROUPING.

WHERE GUARDRAIL EXISTS, MAILBOXES AND THEIR SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL. SUPPORTS MUST STILL MEET THE BREAKAWAY REQUIREMENTS LISTED ABOVE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DESCRIBED ABOVE.

ITEM SPECIAL-MAILBOX SUPPORT SYSTEM, SINGLE

S.R. 606

9 EACH

**MAILBOX APPROACHES**

THE MAILBOX APPROACHES SHALL BE PAVED WITH 1.25" ITEM 442 SURFACE COURSE, AND 1.00" ITEM 442 INTERMEDIATE COURSE. THEY SHALL CONFORM AS MUCH AS PRACTICAL TO STANDARD DRAWING BP-4.1 OR AS DIRECTED BY THE ENGINEER.

GRADING SHALL BE PERFORMED IN THESE AREAS TO OBTAIN A BASE WHICH WILL ALLOW THE FINISHED GRADE TO BE FLUSH WITH ADJACENT PAVEMENT. A QUANTITY OF ITEM 617 COMPACTED AGGREGATE HAS BEEN PROVIDED FOR AREAS WHERE THE SHOULDER IS LOW PRIOR TO GRADING AND/OR LOW AREAS CAUSED BY THE REMOVAL OF UNSUITABLE MATERIAL. QUANTITIES TO PERFORM THIS WORK HAVE BEEN INCLUDED IN THE GENERAL SUMMARY AND ARE ESTIMATED AS FOLLOWS.

SR 606:

ITEM 209 - GRADING MAILBOX APPROACHES:

34 EACH

ITEM 617 - COMPACTED AGGREGATE

68 CU YD

**LOCATIONS OF MAILBOX SUPPORT SYSTEM TO BE REPLACED**

ADDRESSES AND/OR LOCATIONS OF MAILBOX SUPPORT SYSTEM TO BE REPLACED:

SR 606 -

2567 WEYMOUTH RD (SLM 0.56)

2520 WEYMOUTH RD (SLM 0.69)

2331 WEYMOUTH RD (SLM 1.28)

2176 WEYMOUTH RD (SLM 1.92)

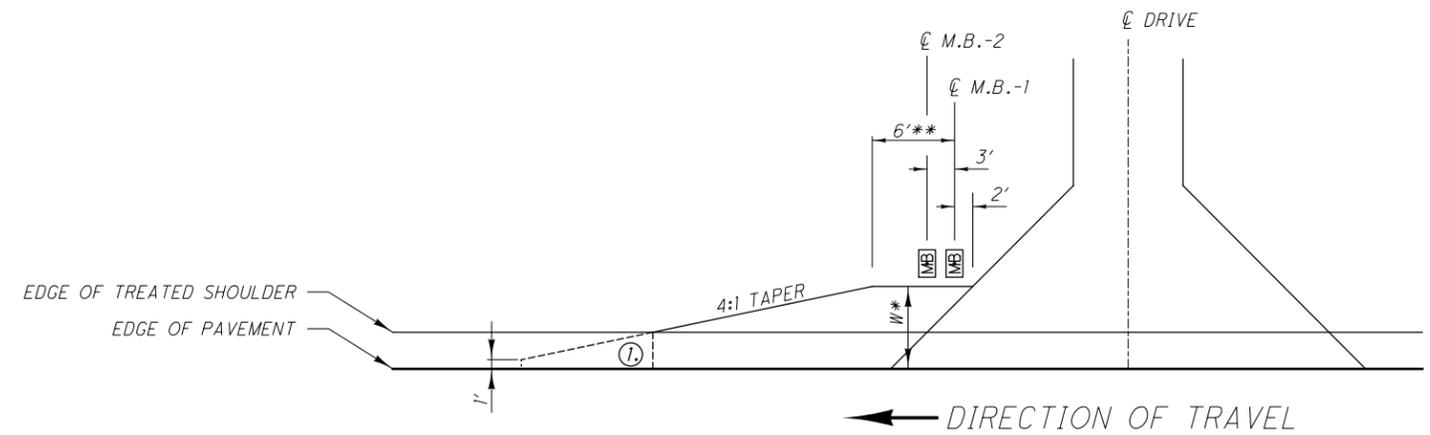
2064 WEYMOUTH RD (SLM 2.40)

2027 WEYMOUTH RD (SLM 2.47)

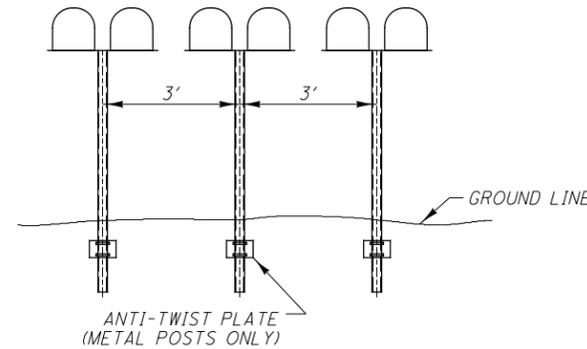
1986 WEYMOUTH RD (SLM 2.94)

1950 WEYMOUTH RD (SLM 3.07)

1864 WEYMOUTH RD (SLM 3.26)



① END MAILBOX TURNOUT AT EDGE OF ASPHALT CONCRETE SHOULDER OR 1' FROM EDGE OF PAVEMENT IF TREATED SHOULDER IS AGGREGATE.



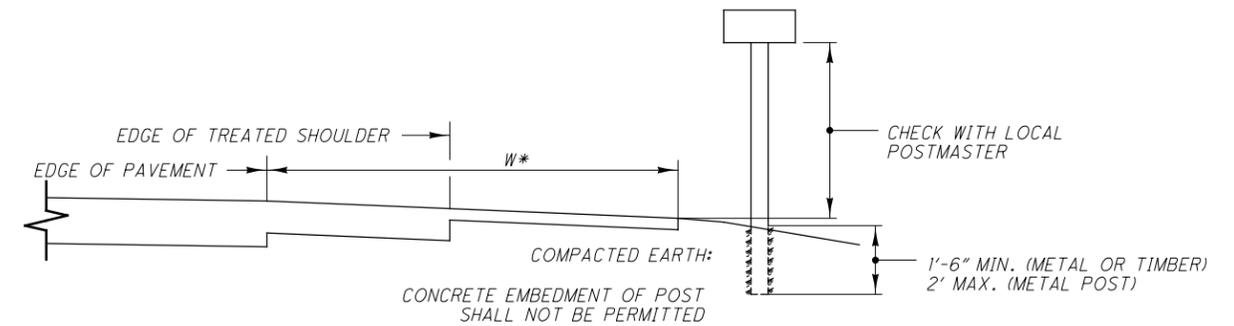
GROUP MAILBOX INSTALLATION

**W\* NOTES**

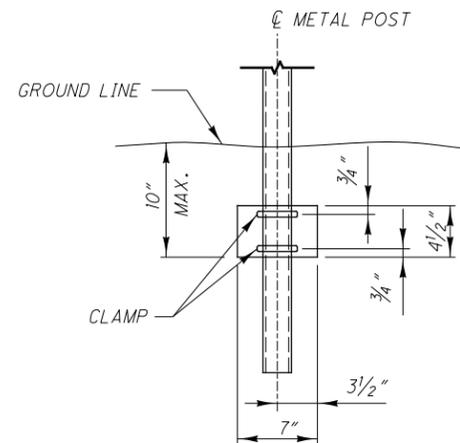
- 1) WHERE EXISTING STANDARD MAILBOX POSTS ARE BEHIND GUARDRAIL AND ARE TO REMAIN IN PLACE, TURNOUT WIDTH SHALL EXTEND TO FACE OF GUARDRAIL.
- 2) WHERE NO GUARDRAIL IS REQUIRED, TURNOUT WIDTH SHALL BE 6 FT MAXIMUM OR TO FACE OF EXISTING STANDARD MAILBOX IF IT IS LESS THAN 6 FT.
- 3) IF THE MAILBOX SUPPORT IS SPECIFIED TO BE REMOVED AND REERECTED OR REPLACED, WHERE GUARDRAIL IS REQUIRED, TURNOUT WIDTH SHALL EXTEND TO FACE OF GUARDRAIL AND MAILBOX SHALL BE INSTALLED BEHIND THE GUARDRAIL.
- 4) IF THE MAILBOX SUPPORT IS SPECIFIED TO BE REMOVED AND REERECTED OR REPLACED, WHERE NO GUARDRAIL IS REQUIRED, TURNOUT WIDTH SHALL BE 6 FT. MAXIMUM.

**\*\* NOTE**

- 1) 6 FT FOR ONE MAILBOX SUPPORT, ADD 3 FT. FOR EACH ADDITIONAL MAILBOX SUPPORT.



CROSS SECTION / ELEVATION VIEW



ANTI-TWIST PLATE

MODELNAME: \$MODELNAME\$  
DESIGN FILE: \$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL\$ DATE: \$\$\$\$DATE\$\$\$\$\$

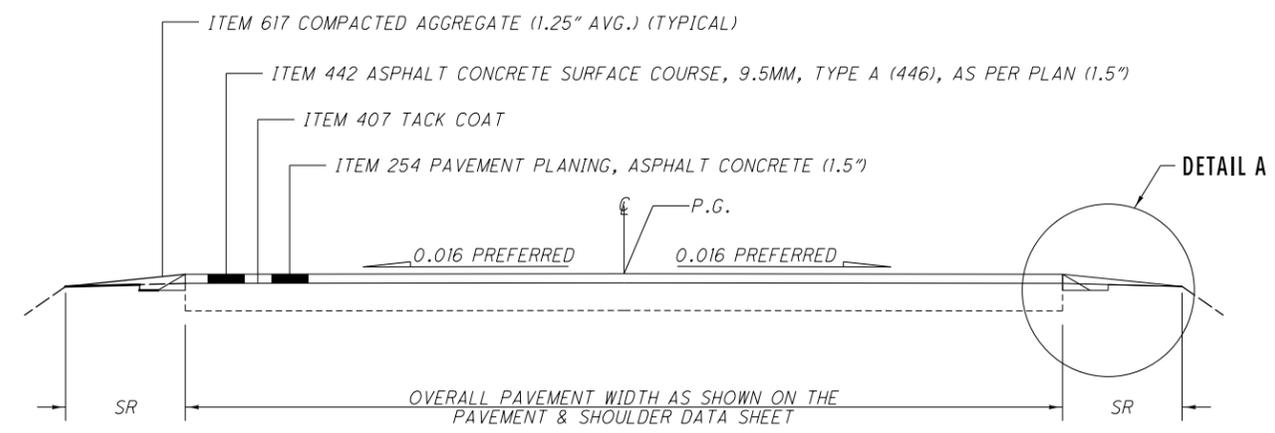


\* - FOR TYPICALS, SEE SHEET 12

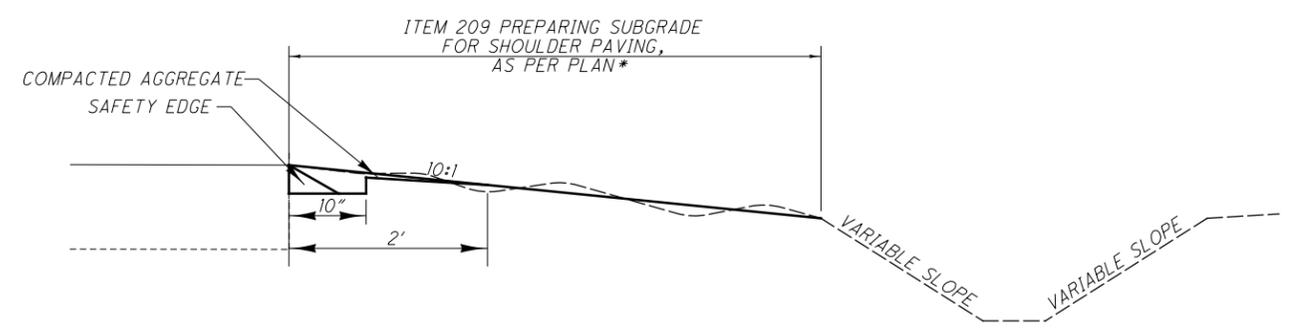
COUNTY	ROUTE	LOG POINT TO LOG POINT		LENGTH		WIDTH FEET AVG.	* TYPICAL	PAVEMENT AREA	254			407	442		442		209	AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER AREA		617	
				MILE	FEET				PAVEMENT PLANING, ASPHALT CONCRETE (1.50")	PATCHING PLANED SURFACE	TACK COAT @ 0.08 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN (SAFETY EDGE)	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	SL	SR		COMPACTED AGGREGATE					
				STRAIGHT LINE MILEAGE					SQ YD	SQ.YD	SQ.YD	GALLON	INCH	CU.YD.	CU.YD.	MILE		FT	FT	SQ YD	CU YD		
MED	606	0.00	0.20	0.2	1056	34	1	3,989	3,989		40	319	1.5	166	6		0.40	2	2	469	16		
MED	606	0.20	4.26	4.06	21437	25.0	1	59,547	59,547		595	4,764	1.5	2,481	116		8.12	2	2	9,528	331		
DEDUCTION FOR STRUCTURE MED-606-3.82				54.0	25.0			150	-150		-2	-12	1.5	-6	0		-0.02	2	2		-1		
EXTRA AREA FOR INTERSECTIONS								402	402		4	32	1.5	17									
EXTRA AREA FOR PAVED DRIVES								765	765		8	61	1.5	32									
EXTRA AREA FOR AGGREGATE DRIVES								594			48	1.5	25								21		
EXTRA AREA FOR EX. & PR. MAILBOX APPROACHES								1140	800		8	64	1.5	48									
<b>TOTALS</b>				<b>4.26</b>	<b>22493</b>			<b>65,353</b>			<b>653</b>	<b>5,276</b>	<b>2,763</b>	<b>122</b>			<b>8.50</b>				<b>367</b>		

DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
 WORKSTATION\$TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
 MODELNAME: \$MODELNAME\$

CALCULATED	MKP	CHECKED	KRB
<b>PAVEMENT SUBSUMMARY</b>			
<b>MED - 606 - 0.00</b>			
11		28	

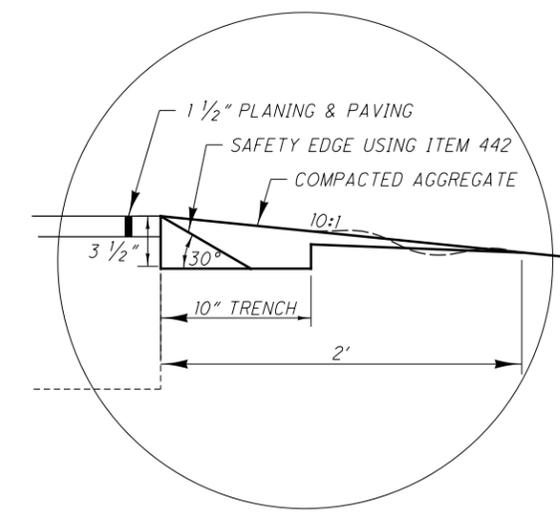


TYPICAL 1



ITEM 209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN

\* SEE ITEM 209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN NOTE FOR ADDITIONAL DETAILS



DETAIL A SAFETY EDGE

DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
 WORKSTATION\$TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
 MODELNAME: \$MODELNAME\$

LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

SUGGESTED SEQUENCE OF GUARDRAIL WORK

1. GUARDRAIL WORK IS TO BEGIN AFTER THE 617 MATERIAL IS PLACED.
2. REMOVE THE GUARDRAIL.
3. PERFORM THE RESHAPING UNDER GUARDRAIL.
4. REBUILD/CONSTRUCT THE GUARDRAIL RUN.
5. INSTALL BARRIER REFLECTORS.

CONNECTING GUARDRAIL TO EXISTING RAIL

IN LOCATIONS WHERE TYPE 5 GUARDRAIL, TERMINAL ASSEMBLIES, ETC. ARE TO BE CONNECTED TO EXISTING RAIL SOME MODIFICATIONS MAY BE REQUIRED, INCLUDING EXTRA POSTS, DRILLING HOLES AND POSSIBLY PARTIAL SECTIONS OF ADDITIONAL RAIL ELEMENTS. THE COST OF THIS ADDITIONAL WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR TYPE 5 GUARDRAIL. IF ADDITIONAL PORTIONS OF RAIL ELEMENT ARE USED THE LINEAL MEASUREMENT OF THIS ADDITIONAL PORTION SHALL BE ADDED FOR PAYMENT.

ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING TYPE A, ANCHOR ASSEMBLY INCLUDING ALL POSTS, HARDWARE, RAIL ELEMENTS, AND CONCRETE ANCHORS. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

THE EXISTING CONCRETE ANCHOR AND CONCRETE AT POSTS SHALL BE REMOVED ENTIRELY. ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED WITH GRANULAR MATERIAL OR EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION. ALL FILL MATERIAL SHALL BE THOROUGHLY COMPACTED AND LEVELED, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A.

ITEM 606 - GUARDRAIL REBUILT, TYPE 5

THIS ITEM SHALL BE USED WHEN GUARDRAIL REQUIRES REPAIRS IN WHICH THE RAIL ELEMENT IS REUSABLE. ALSO, THIS ITEM WILL BE USED TO RE-ALIGN GUARDRAIL RUNS, AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT, AS DESCRIBED IN 606.05 FOR ITEM 606 GUARDRAIL REBUILT, TYPE 5.

ITEM 203 - EMBANKMENT, AS PER PLAN

AT SPECIFIED LOCATIONS AND LOCATIONS AS DIRECTED BY THE ENGINEER, EMBANKMENT SHALL BE PLACED AS TO PROVIDE A SUITABLE AREA TO CONSTRUCT GUARDRAIL AND TO PROVIDE STRUCTURAL INTEGRITY OF THE ROADWAY SHOULDER.

AREAS WHERE EMBANKMENT MATERIAL IS TO BE PLACED SHALL BE SCALPED. THE REQUIREMENTS FOR BENCHING SHALL BE WAIVED. THE DEPTH OF LAYERS IN WHICH THE EMBANKMENT IS PLACED SHALL BE LIMITED TO EIGHT (8) INCHES IN THICKNESS. THE METHOD OF COMPACTION AND EQUIPMENT USED SHALL BE SUFFICIENT TO PROVIDE A MINIMUM OF 60 PERCENT OF RELATIVE COMPACTION.

AFTER THE EMBANKMENT HAS BEEN PLACED, THE AREAS SHALL BE FERTILIZED, SEEDED, MULCHED, AND WATERED AS PER ITEM 659. THE COST SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT.

THE METHOD OF MEASUREMENT FOR EMBANKMENT MATERIAL SHALL BE BY THE NUMBER OF CUBIC YARDS MEASURED BY LOOSE VOLUME IN THE CARRIER AT THE WORK SITE, IN LIEU OF THE REQUIREMENTS OF 203.09. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL INCLUDE ALL WORK DESCRIBED ABOVE.

ITEM 209 - RESHAPING UNDER GUARDRAIL

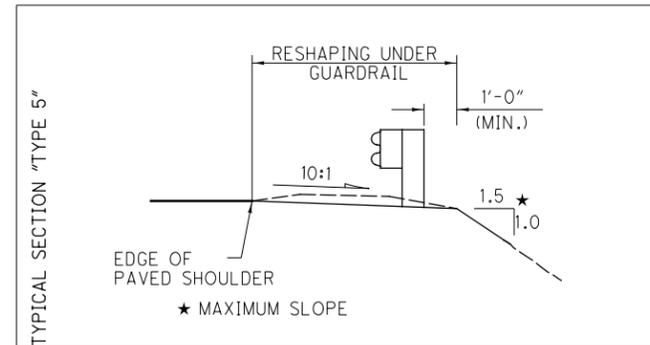
THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED AT LOCATIONS SPECIFIED FOR WORK AS WELL AS PER CMS 209.05 AND AS DESCRIBED HEREIN, AND SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER.

THE AREA IN FRONT OF, UNDER, AND BEHIND THE GUARDRAIL SHALL BE GRADED AND RESHAPED TO PROVIDE AN AREA THAT HAS A SLOPE OF 10:1 MAXIMUM (SEE DETAIL BELOW AS WELL AS THE GUARDRAIL DETAIL SHEETS FOR FURTHER DETAILS AND INFORMATION OF THE LIMITS OF THIS WORK).

EXCESS MATERIAL RESULTING SHALL BE USED ELSEWHERE FOR THIS ITEM IF SO DIRECTED OR DISPOSED OF PROPERLY. IF EXTRA MATERIAL IS REQUIRED IT SHALL BE PAID FOR WITH ITEM 203 - EMBANKMENT, AS PER PLAN. THIS WORK SHALL NOT BE STARTED UNTIL AFTER THE RESURFACING AND BERM WORK HAS BEEN COMPLETED.

THE ABOVE WORK SHALL BE PAID FOR PER STATION WITH ITEM 209, RESHAPING UNDER GUARDRAIL WITH THE EXCEPTION OF ANY EXTRA MATERIAL REQUIRED TO MEET THE SLOPE REQUIREMENTS WHICH SHALL BE PAID BY ITEM 203 - EMBANKMENT, AS PER PLAN.



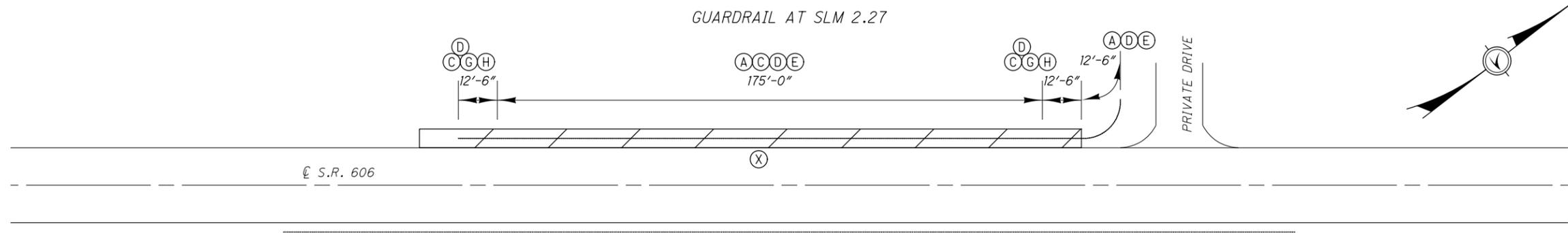
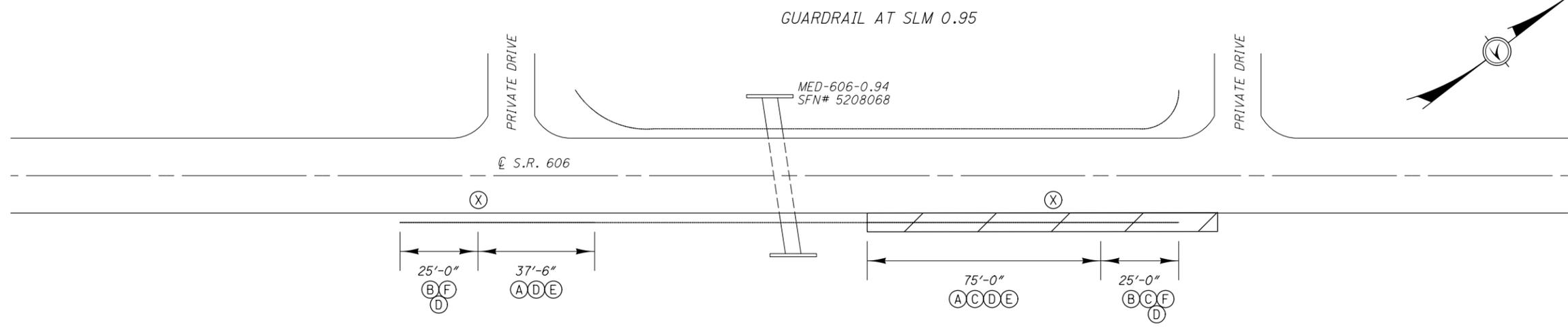
DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL \$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
MODELNAME: \$MODELNAME\$

CALCULATED  
MKP  
CHECKED  
KRB

GUARDRAIL NOTES

MED - 606 - 0.00

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		
				LEFT	RIGHT	TOTAL
A	202	GUARDRAIL REMOVED FOR REUSE	FT		112.5	112.5
B	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH		2	2
C	203	EMBANKMENT, AS PER PLAN	CY		25	25
D	209	RESHAPING UNDER GUARDRAIL	STA		1.63	1.63
E	606	GUARDRAIL REBUILT, TYPE 5	FT		112.5	112.5
F	606	ANCHOR ASSEMBLY, TYPE A	EACH		2	2
X	626	BARRIER REFLECTOR	EACH		4	4



LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		
				LEFT	RIGHT	TOTAL
A	202	GUARDRAIL REMOVED FOR REUSE	FT	187.5		187.5
G	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	2		2
C	203	EMBANKMENT, AS PER PLAN	CY	50		50
D	209	RESHAPING UNDER GUARDRAIL	STA	2.13		2.13
E	606	GUARDRAIL REBUILT, TYPE 5	FT	187.5		187.5
H	606	ANCHOR ASSEMBLY, TYPE T	EACH	2		2
X	626	BARRIER REFLECTOR	EACH	6		6

DESIGN FILE:\$\$\$\$\$.DGN FILE SPECIFICATIONS\$\$\$\$\$  
 WORKSTATION:TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
 MODELNAME: \$MODELNAME\$

## NOTES

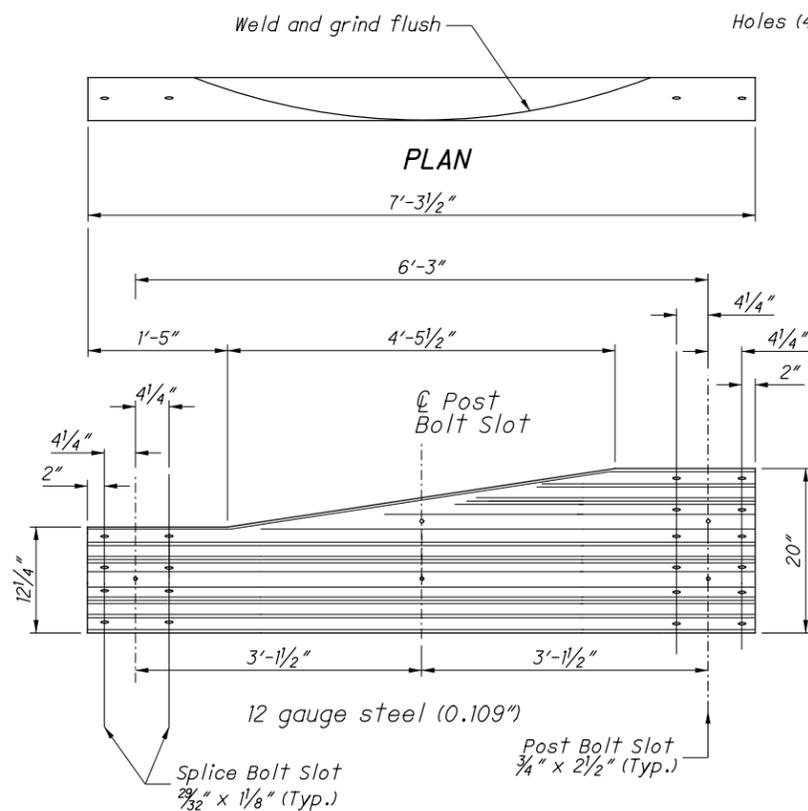
**GENERAL:** Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.

See CMS 606 for guardrail specifications not covered on these drawings.

Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Thrie-Beam Transition sections.

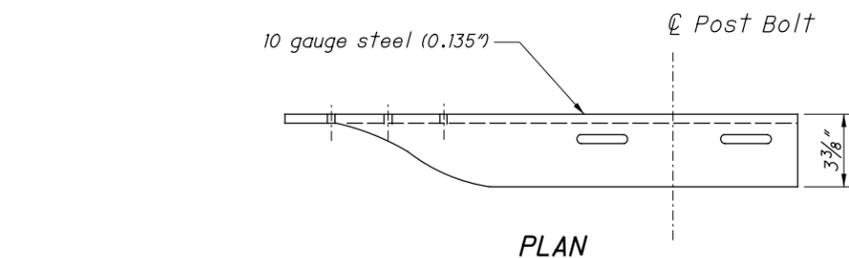
**RAIL ELEMENTS:** W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with  $\frac{3}{4}$ " x  $2\frac{1}{2}$ " post bolt slots on 6'-3" centers regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

**RAIL SPLICES:** Lap splices between two rail elements or between a rail and terminal connector in the direction of traffic. Lap the buffer or flared end sections in the direction of traffic.

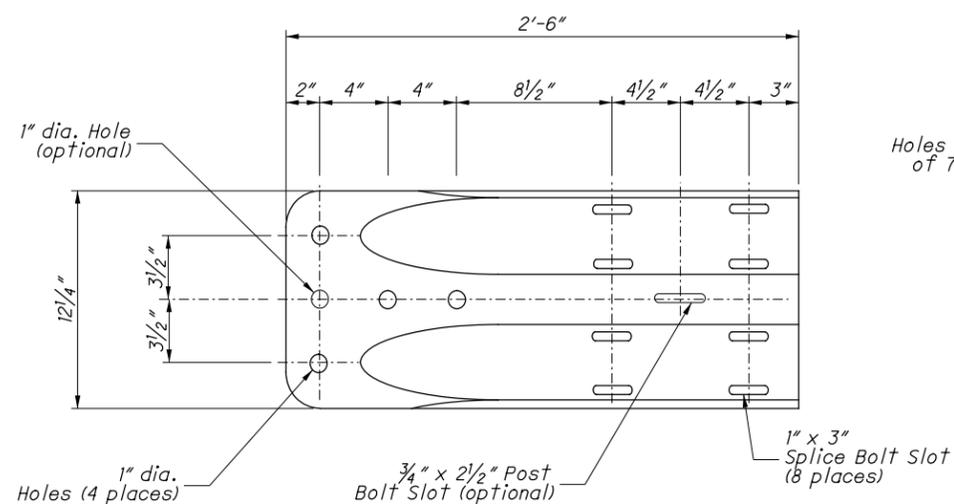


**ELEVATION  
TYPE 2 TRANSITION SECTION**  
(Asymmetric W to Thrie-Beam)

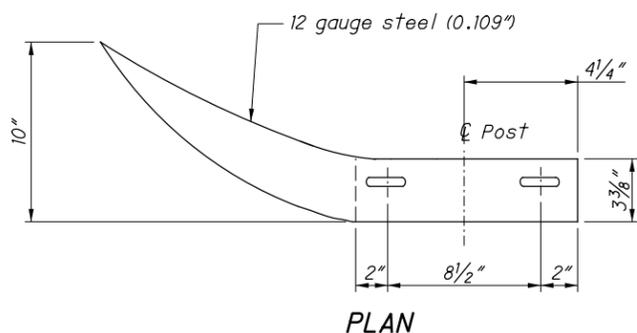
For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.



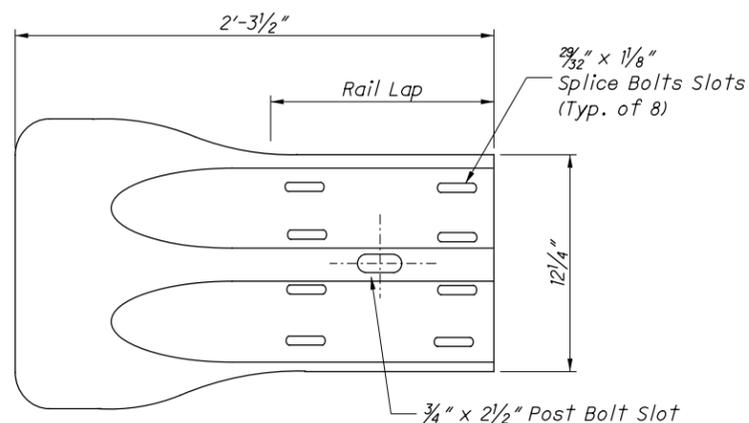
**PLAN**



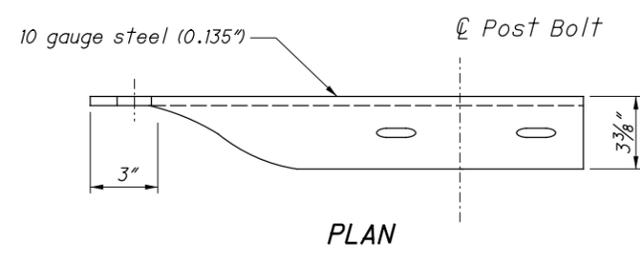
**ELEVATION  
W-BEAM TERMINAL CONNECTOR**



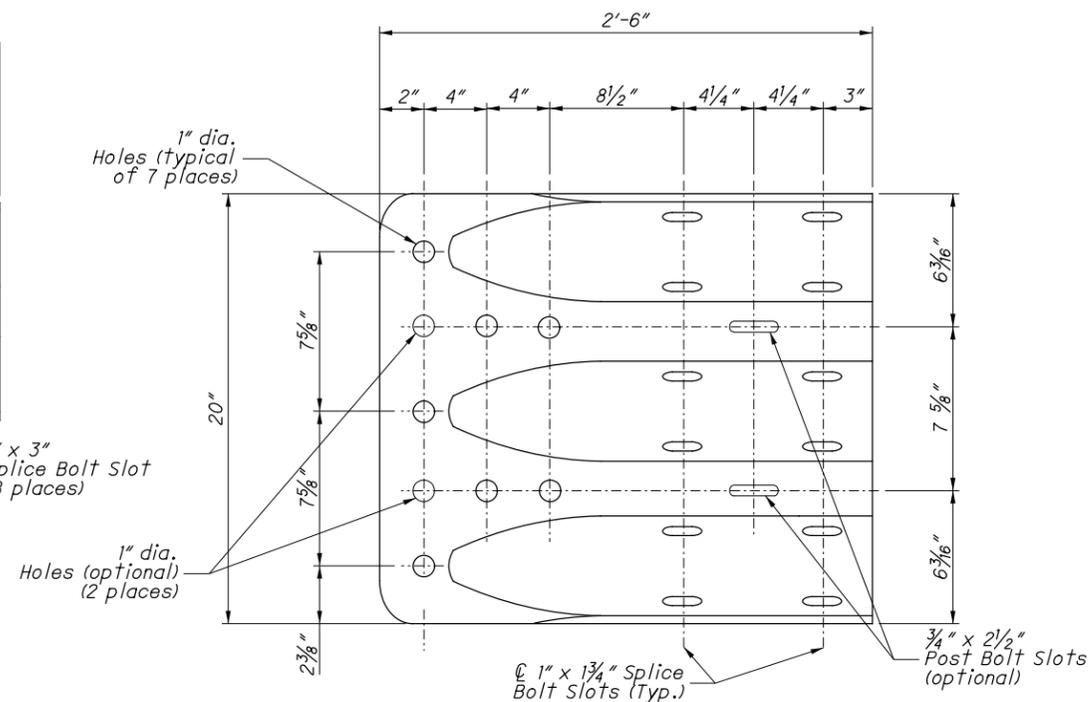
**PLAN**



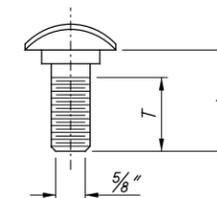
**ELEVATION  
W-BEAM FLARED END SECTION**



**PLAN**



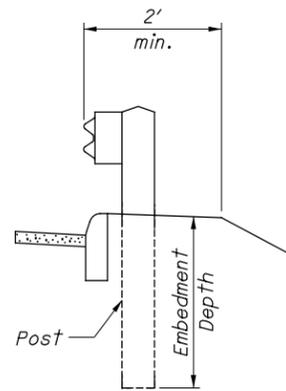
**ELEVATION  
THRIE-BEAM TERMINAL CONNECTOR**



GUARDRAIL BOLT (For Post and Splice Bolts)		
L	T min.	Bolt Use
18" (Standard Rail)	4"	Type 5: WP/WB, PB
26" (Barrier Rail)		
10"	4"	Type 5: SP/WB, PB
1 1/4"	1 1/8"	Splice Bolt

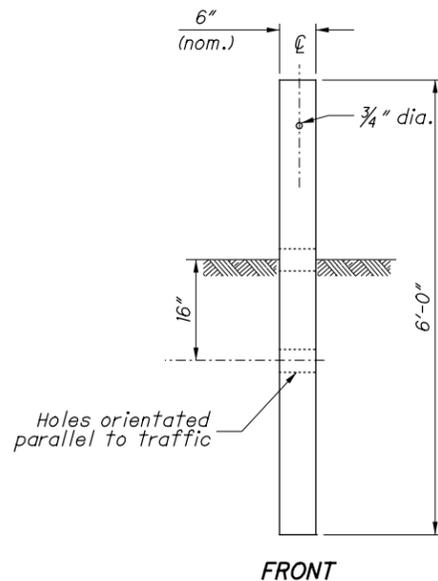
WP = Wood Post      WB = Wood Blockout  
SP = Steel Post      PB = Plastic Blockout

Longer Bolt may be needed for round Wood Post larger than 8" dia.

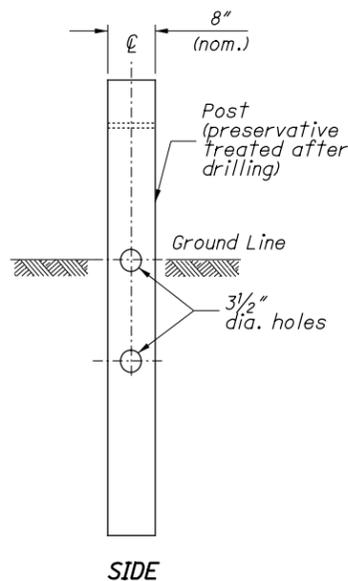


**DETAIL A**

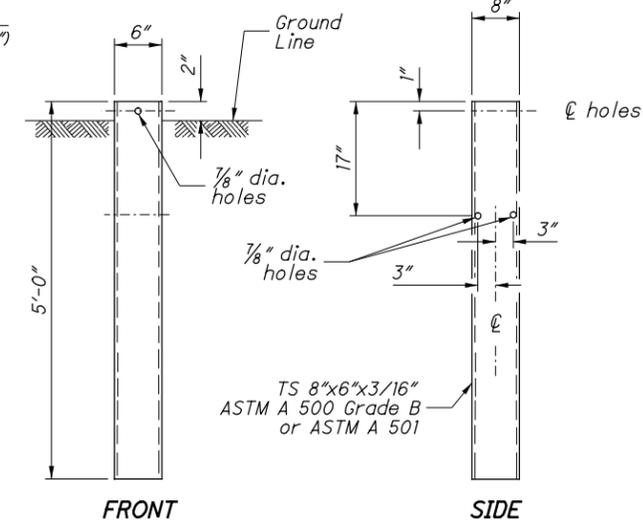
See POST EMBEDMENT DEPTH Note



**TYPE 1 BREAKAWAY CRT POST**



**TYPE 2 BREAKAWAY CRT POST**



**STEEL GROUND TUBE**

**NOTES**

**GUARDRAIL HEIGHT:** For initial installation, construct the guardrail within  $\pm 1"$  of the standard height,  $h$ , or **29"** to the top of W-Beam rail. (See MEASURING GUARDRAIL HEIGHT Detail.)

When subsequent projects, such as resurfacings, affect the height of existing guardrail, the finished height is to be within  $\pm 2.5"$  of the standard height.

**POST EMBEDMENT DEPTH:** Standard embedment is 3'-5" min. Where less than 2' of graded shoulder width (10:1 or flatter) exists, measured from the face of the guardrail (see DETAIL "A"), use longer posts so that a minimum of 5'-5" embedment depth is provided. Payment for the longer posts will be made at the unit price bid for **ITEM 606 - GUARDRAIL POST, 9', Each.**

**SPECIAL POST MOUNTINGS:** Install posts located over a drainage inlet or structure as shown in the FOOTING ANCHOR Detail, or anchor per the details shown on **SCD GR-2.2.**

Install posts located over a footing with a cover of less than 2'-6" with a footing anchor as detailed here. (A plate, as detailed on SECTION B-B of **SCD GR-2.2**, may be used as an alternative attachment method.) Where the cover is between 2'-6" and 3'-5", the footing anchor may be omitted and the post encased instead with 4" (min.) of concrete.

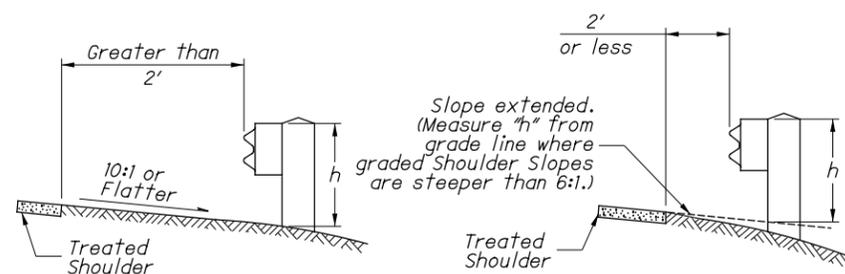
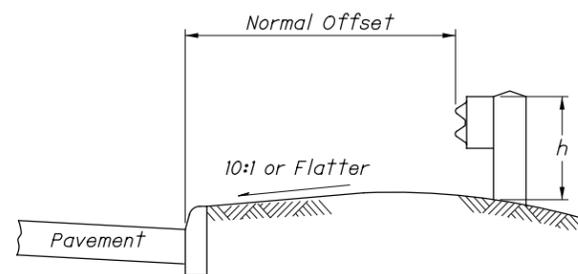
Do not drive posts located over a culvert with less than 4'-3" of cover; instead set in drilled or dug holes. Where the available post embedment depth is less than 3'-5", encase the post with a minimum of 4" concrete.

All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the type specified in the plans.

**ANCHORS:** Holes and grouting shall comply with CMS 510. Use either cement or non-shrink, nonmetallic grout.

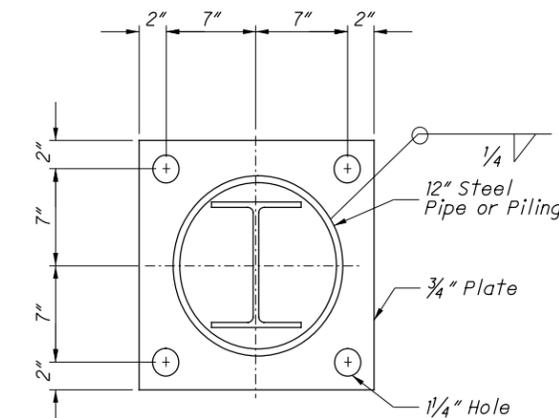
Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

**PROTECTIVE COATING:** In lieu of the complying with CMS 710.06, coat expansion shields, anchors and concrete insert anchor assemblies embedded in concrete in accordance with ASTM A 153 or be of stainless steel. Any bolts screwed into these devices shall meet CMS 710.06. (See sheet 3 for Concrete Insert Anchor Assembly Detail.)



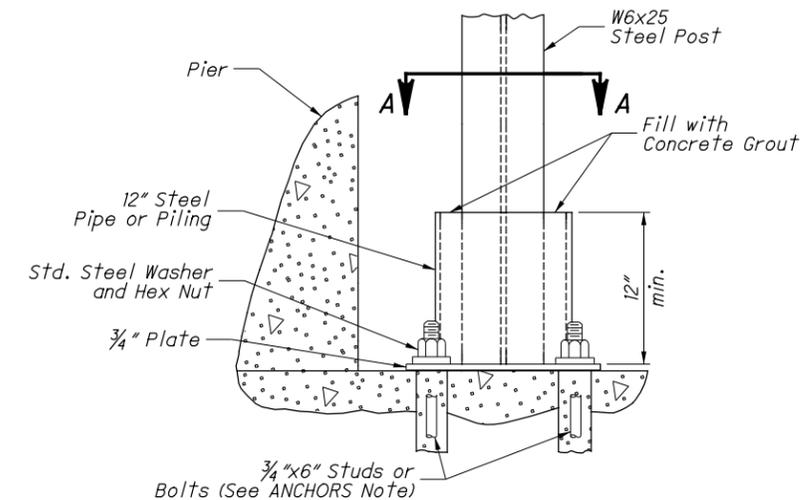
$h$  = Standard Height (See GUARDRAIL HEIGHT Note)

**MEASURING GUARDRAIL HEIGHT**



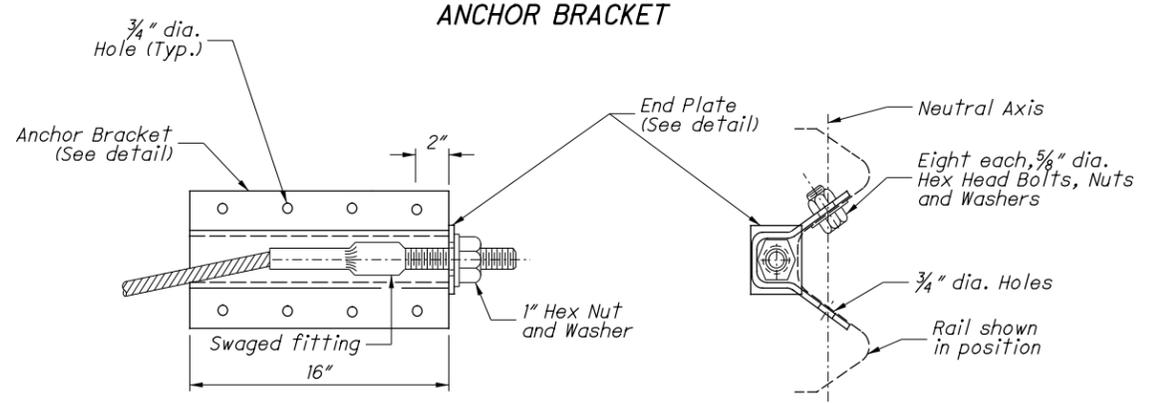
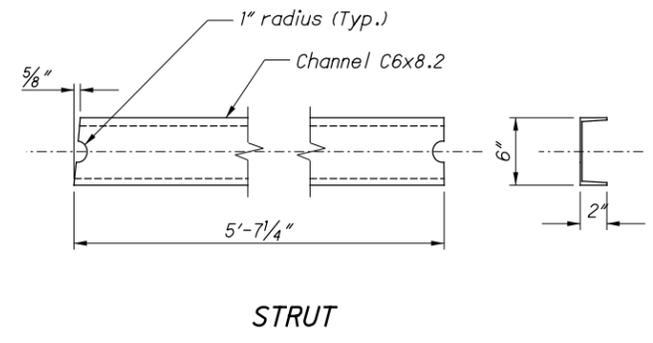
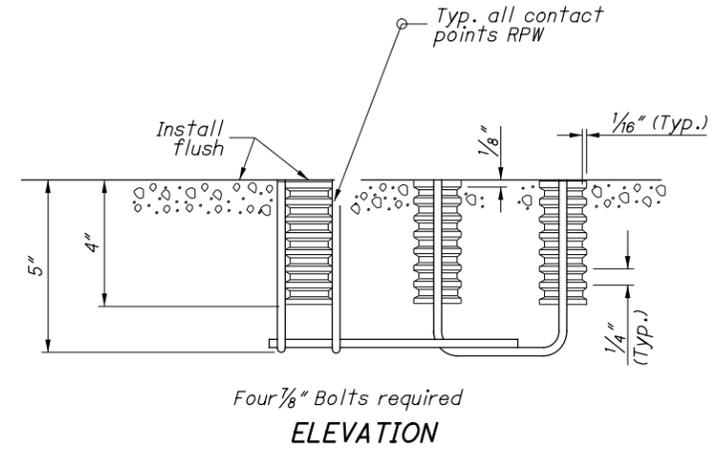
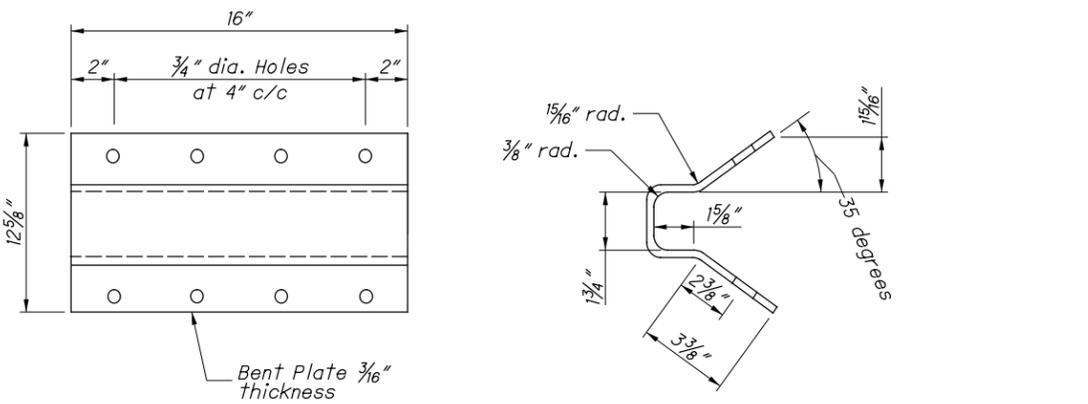
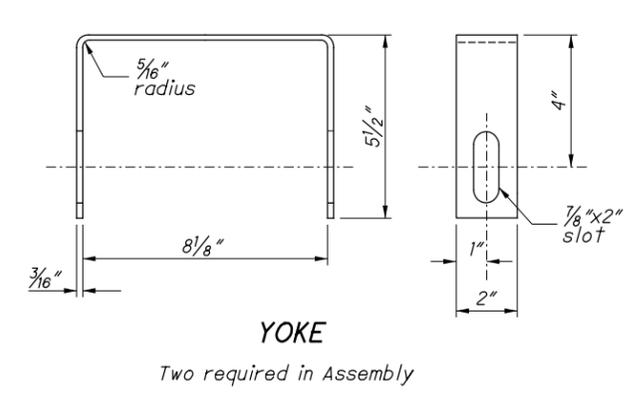
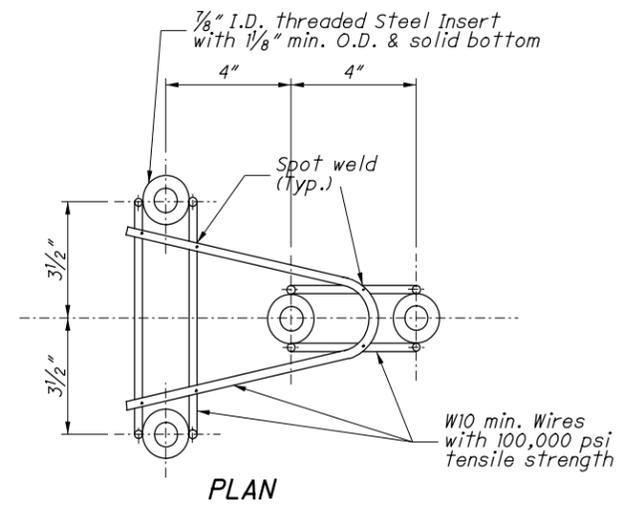
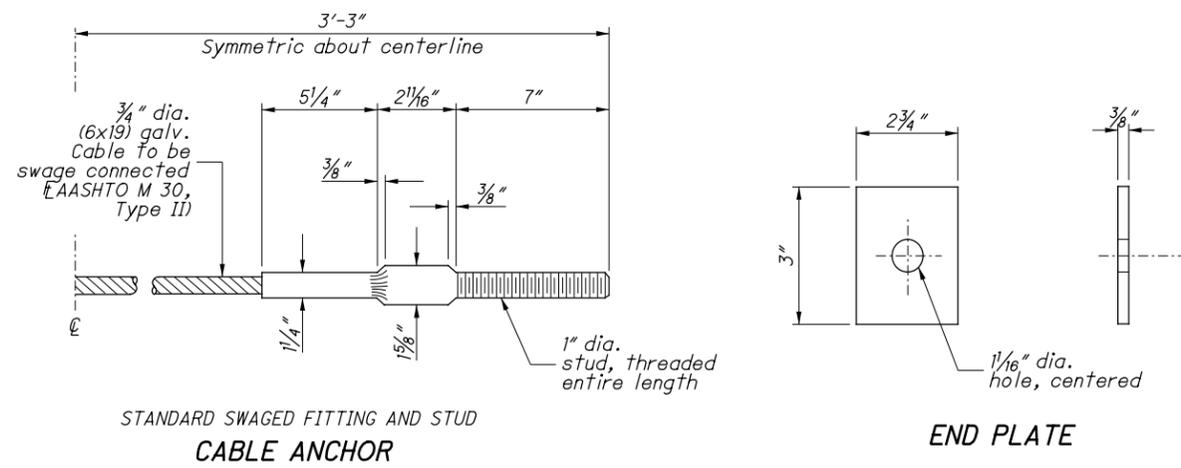
Footing Anchor and hardware need not be galvanized

**SECTION A-A**



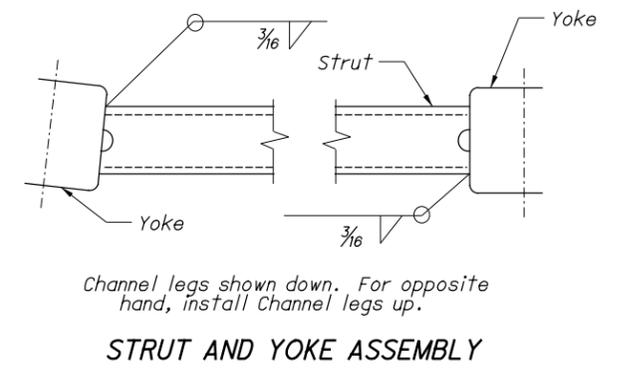
**ELEVATION FOOTING ANCHOR**

See SPECIAL POST MOUNTINGS Note.

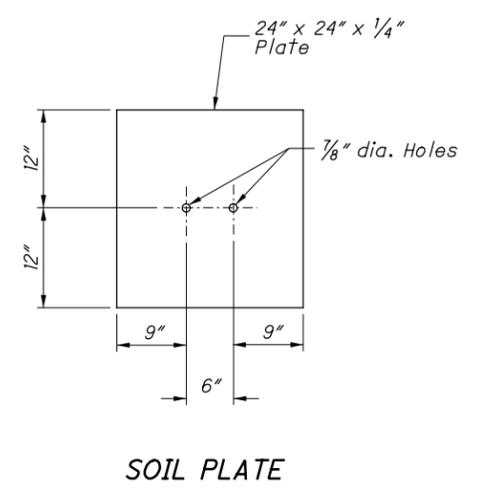
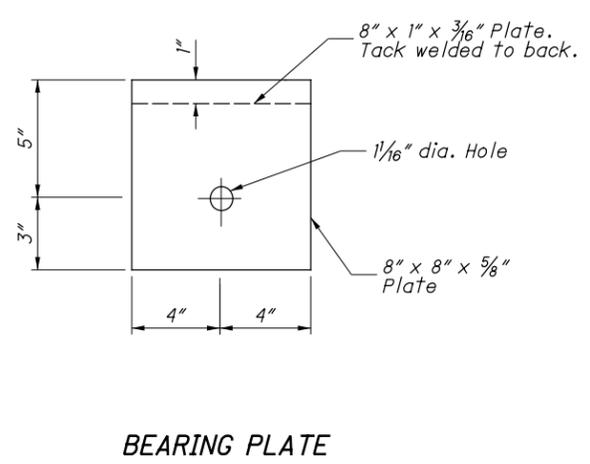
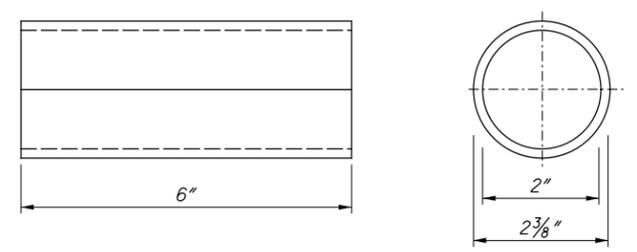


**CONCRETE INSERT ANCHOR ASSEMBLY (W-BEAM ONLY)**

See ANCHORS and PROTECTIVE COATINGS Notes on Sheet 2



**ANCHOR BRACKET ASSEMBLY DETAILS**



**NOTES**

**RAIL:** Use W-Beam rail meeting AASHTO M 180 Type II Class A, as specified in CMS 606.

**POSTS:** Posts may be constructed of wood or steel. Wood posts may be round or 6"x8" square-sawed.

Use round wood posts on runs of single-sided rail. The round posts shall be 8"±1 in diameter at the top and not more than 3" larger at the butt with a uniform taper.

Fabricated wood posts with square ends. Posts shall be pressure-treated as per CMS 710.14. Bore bolt holes and, if required, trim the tops of posts after the posts are set.

Steel posts are to be W6x9 or W6x8.5 galvanized steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.

All posts are 6'-0" long unless specified otherwise in the Contract Document. Posts may be set in drilled holes or may be driven to grade.

**WELDED BEAM POSTS:** Welded beam guardrail posts may be used for Item 606, Guardrail, provided the web and flange sizes are as shown here. Welding of the web to the flanges must comply with ASTM A 769, Class 1, using Grade 36 steel [250 MPa yield point] with the following exceptions:

- Sec. 7.2 Test reports of tensile properties for each lot shall accompany each shipment.
- Sec. 12 Beams that have imperfections repaired by welding shall not be accepted for use in Item 606.
- Sec. 13 Random samples shall be tested by the Department from materials delivered to the project site, or other locations designated by the Laboratory.

**ALTERNATE POSTS:** Engineered guardrail posts having met NCHRP 350 criteria, and listed on the **Office of Materials Management's** Approved List are permitted as an equal alternate when installed according to the Manufacturer's instructions and within the limitations shown on the Approved List.

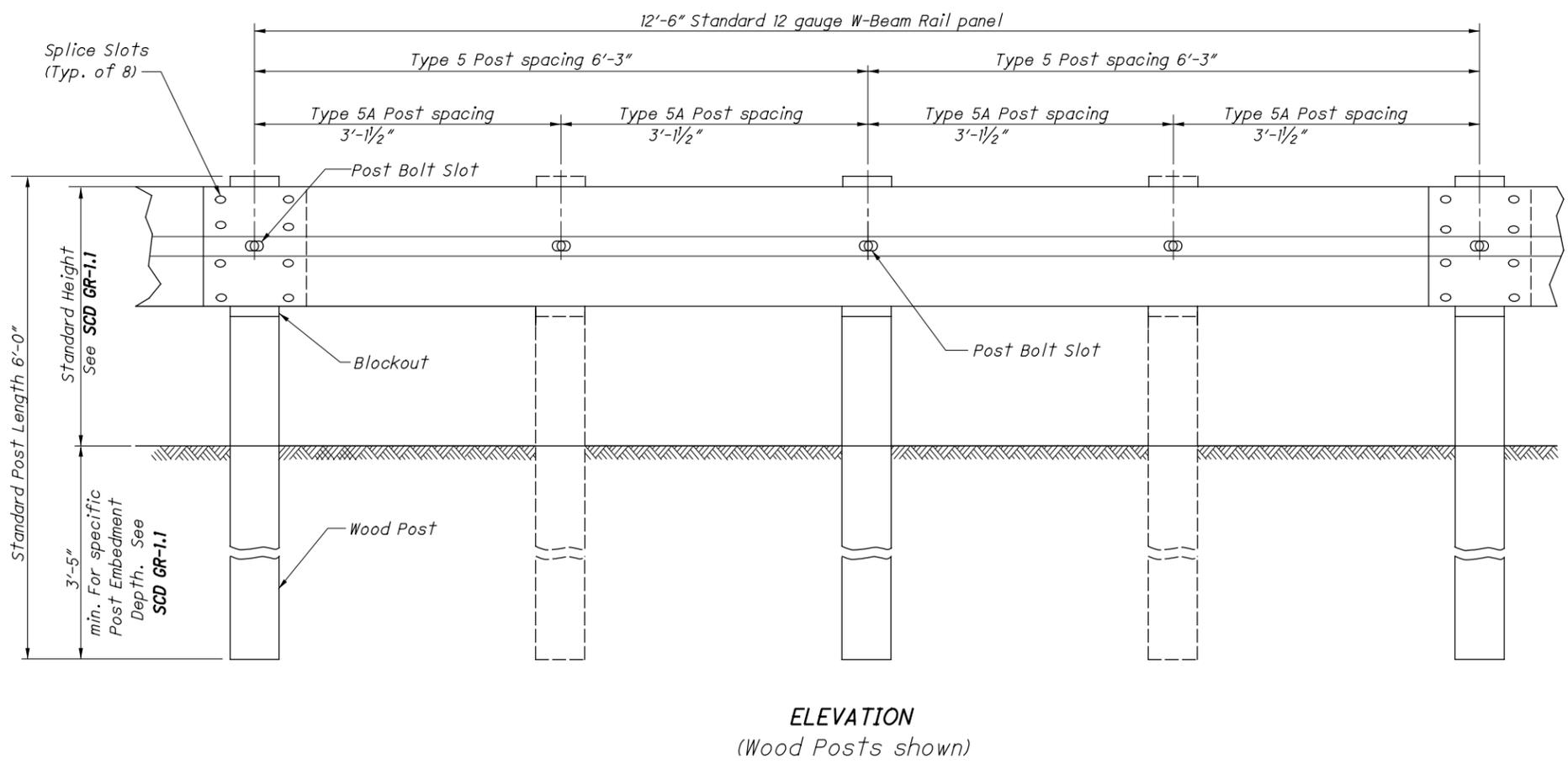
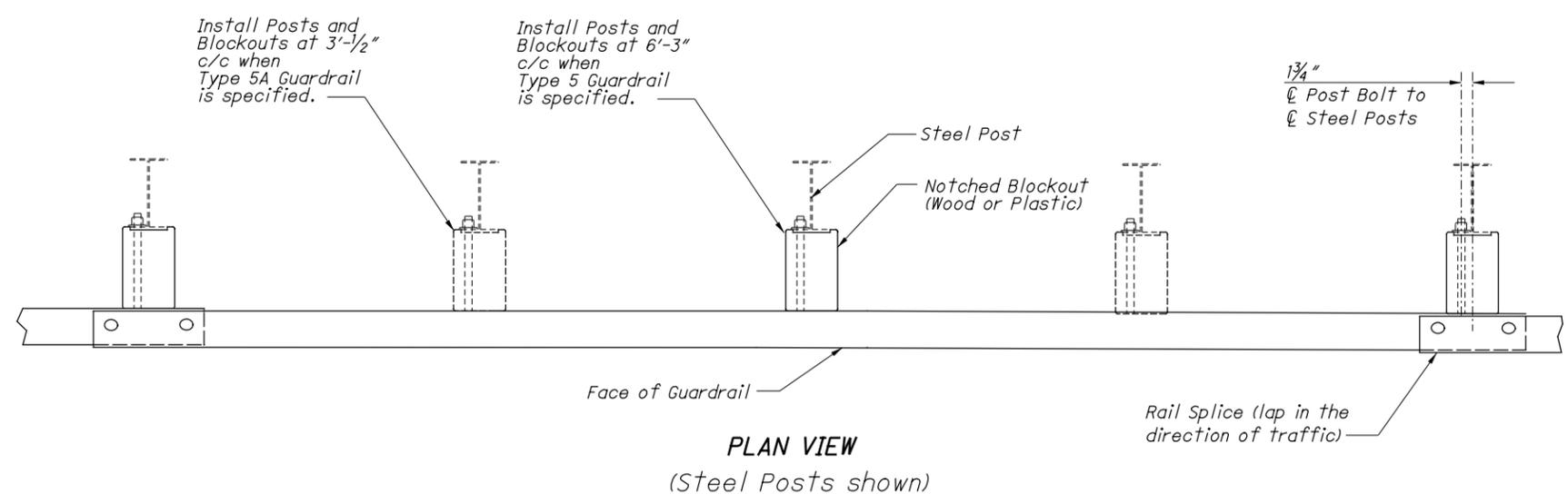
**BLOCKOUTS:** Blockout dimensions are dependent on post used. Wood Blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the **Office of Roadway Engineering**.

**WASHERS:** Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts.

**DELINEATION:** For barrier reflectors, see CMS 626.

**MISCELLANEOUS:** For other guardrail details, see **SCD GR-1.1**.

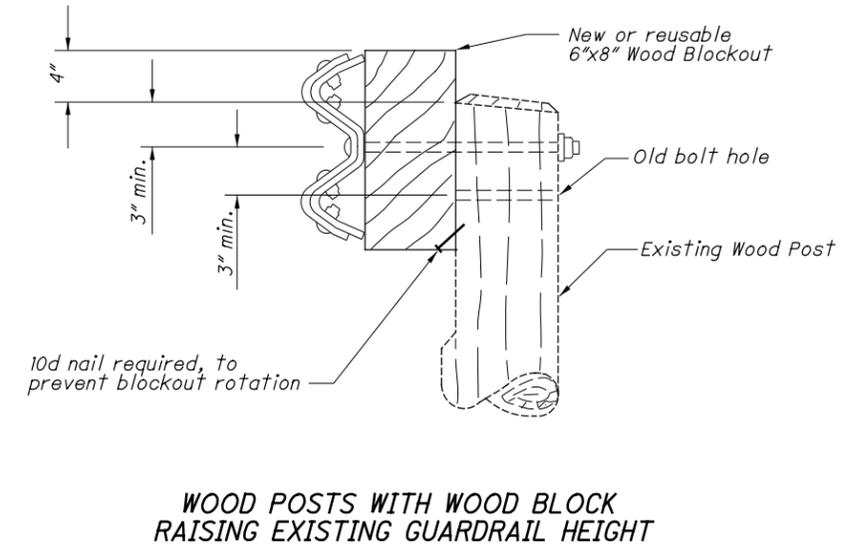
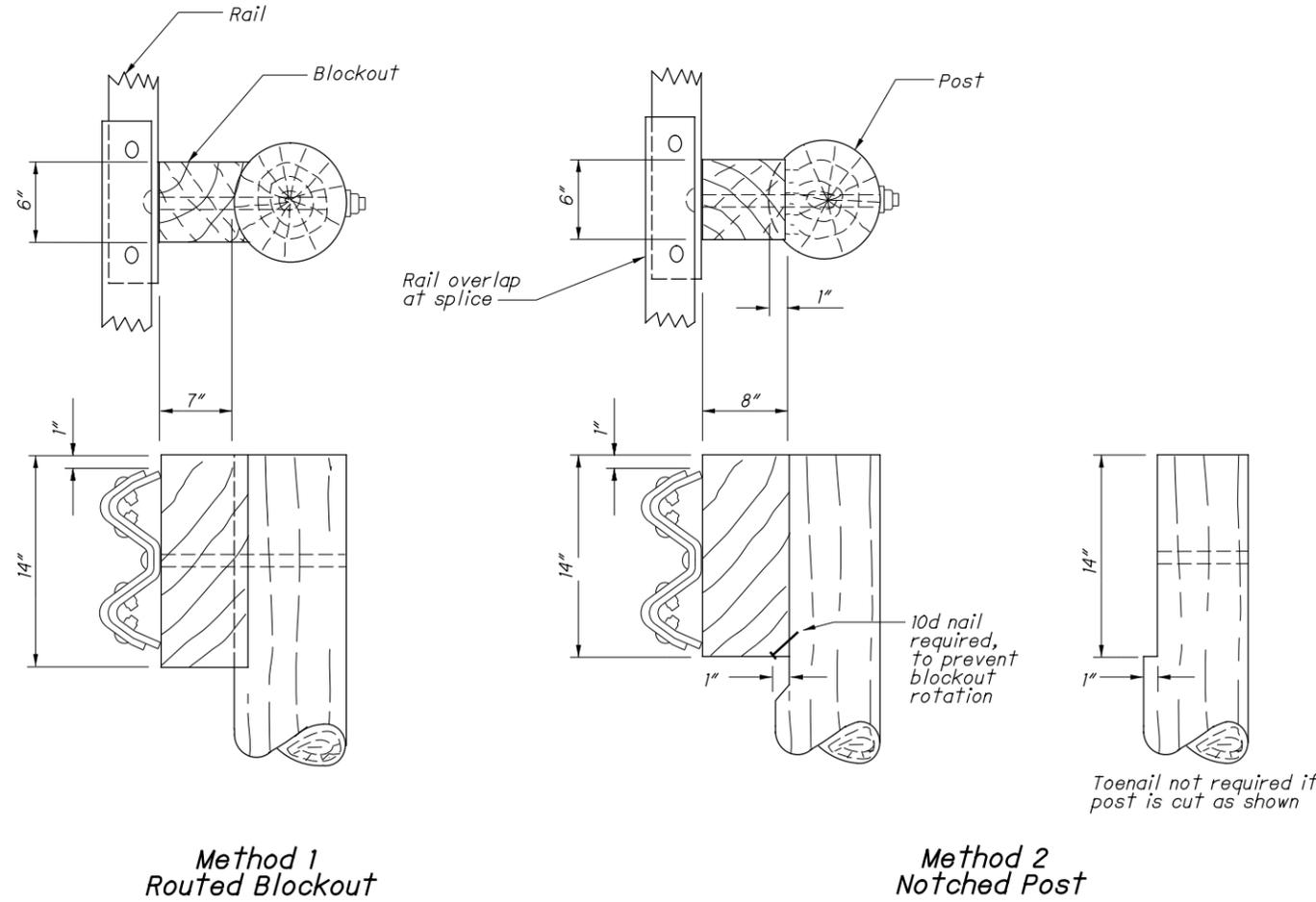
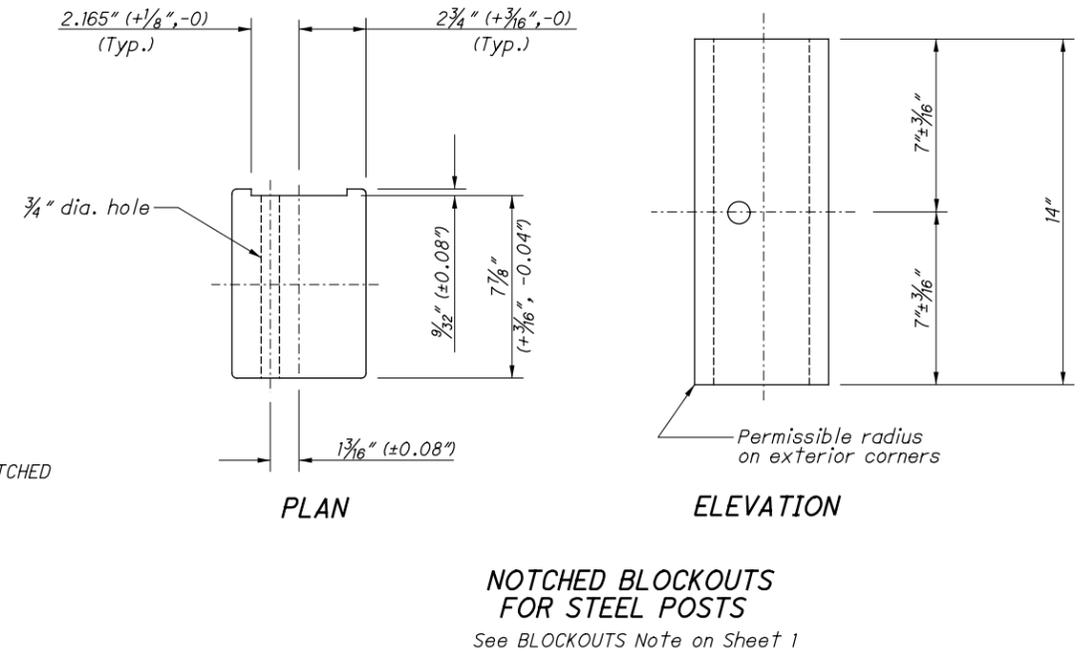
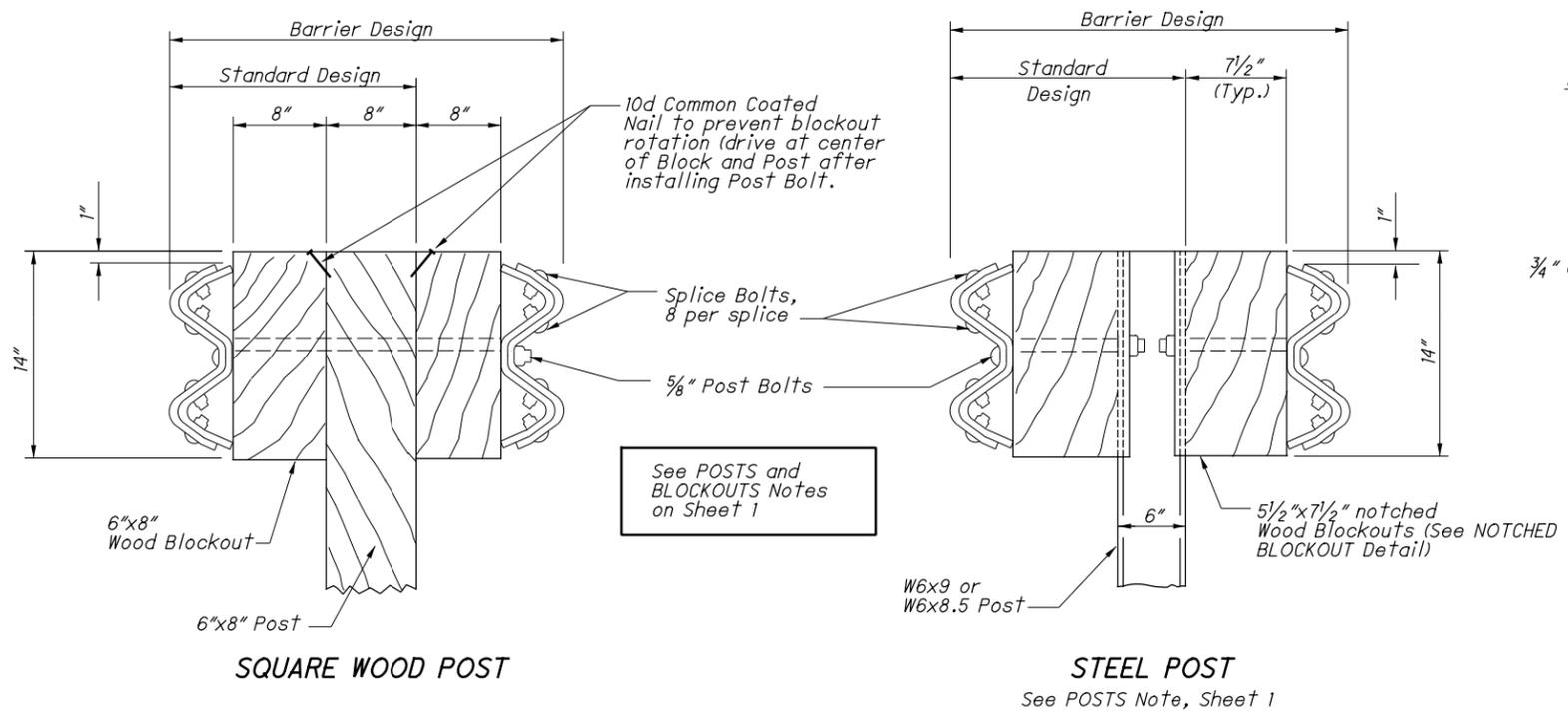
STEEL BEAM POSTS (English)				
Size	Beam depth	Flange width	Flange thickness	Web thickness
Rolled W6x8.5	5.8"	3.94"	0.193"	0.170"
Rolled W6x9	5.9"	3.94"	0.215"	0.170"
Welded 6x8.5	6.0"	3.94"	0.193"	0.170"
Welded 6x9	6.0"	3.94"	0.215"	0.170"



**ELEVATION**  
(Wood Posts shown)

DESIGNED	REVIEWED
REVISION DATE	CHECKED

PIS NUMBER



Alternate methods of placing the Blockouts on round Posts may be submitted for consideration and approved by the Engineer.

**ROUND WOOD POSTS**  
Single Sided runs only (Standard Design)

NOTES

**APPLICATION:** On Non-NHS roadways it may be used in the clear zone, with restrictions. See Section 603. **Location & Design Manual, Volume 1.**

**GENERAL:** For details not shown, see **SCD GR-1.1** and other Drawings pertaining to specific guardrail type. Galvanize all steel parts.

**OFFSETS:** See **SCD GR-5.1** for Standard Guardrail Flare. The 18" flare offset from normal face of rail, shown in the plan view (for single rail installations) will be utilized only where shoulder is insufficient for providing standard flares.

**POSTS:** Steel posts W6x9 are shown, but W6x8.5 posts are also permitted. See **SCD GR-1.1** for additional embedment details.

**SPACERS:** Post B Spacers shall be made of  $\frac{3}{16}$ " Steel Plate as specified in CMS 710.15 or tow sections of W6x9 or W8x10 cut in the web (see dashed line on POST B Detail) and welded together on both sides.

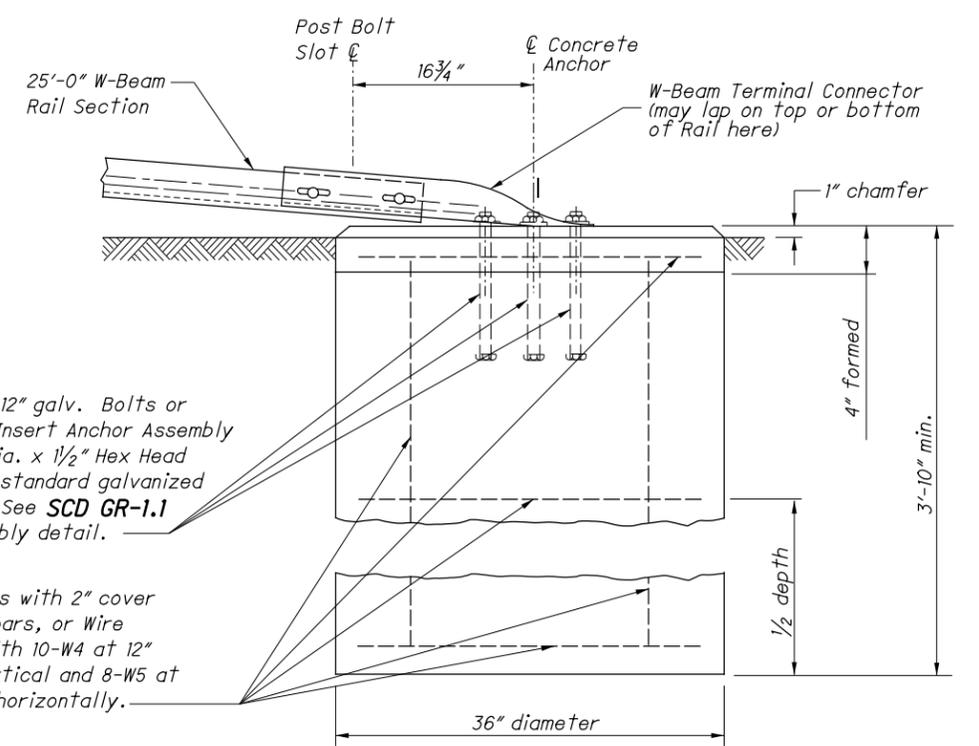
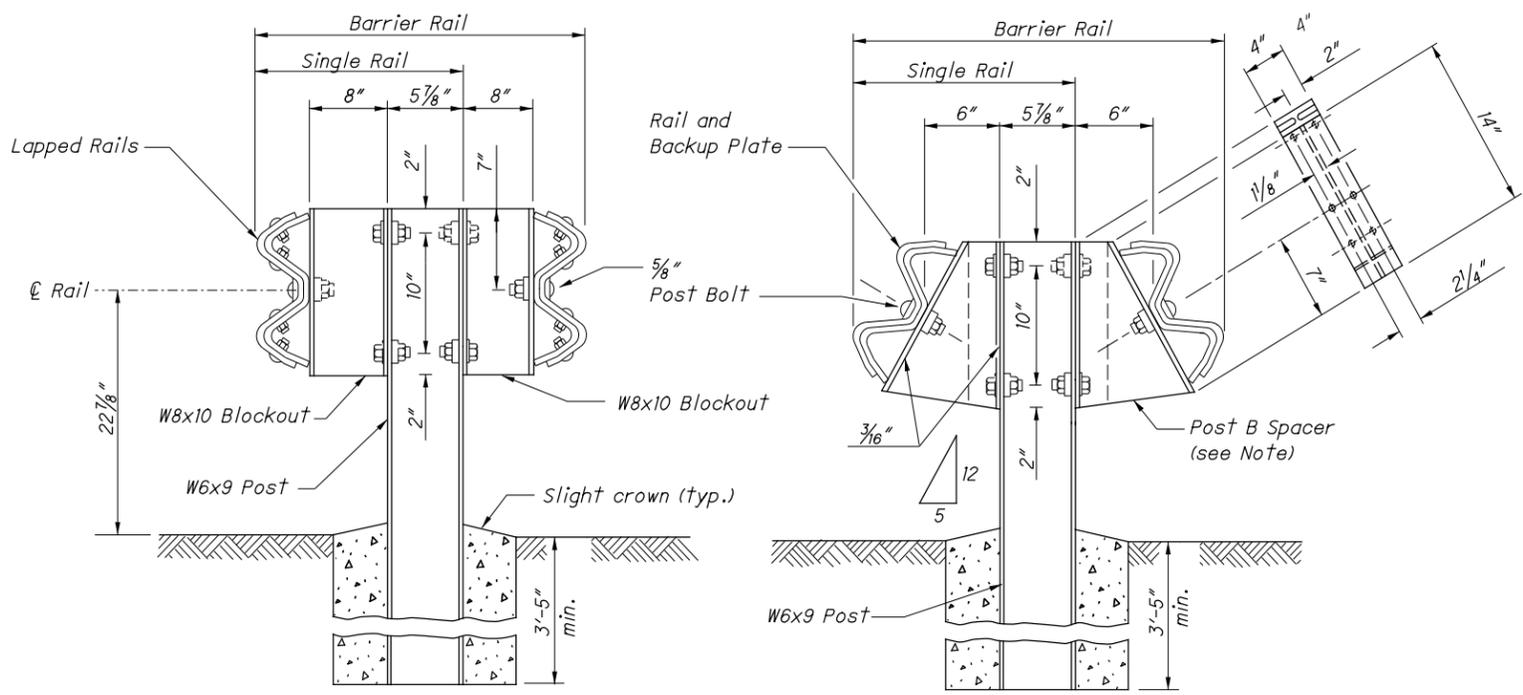
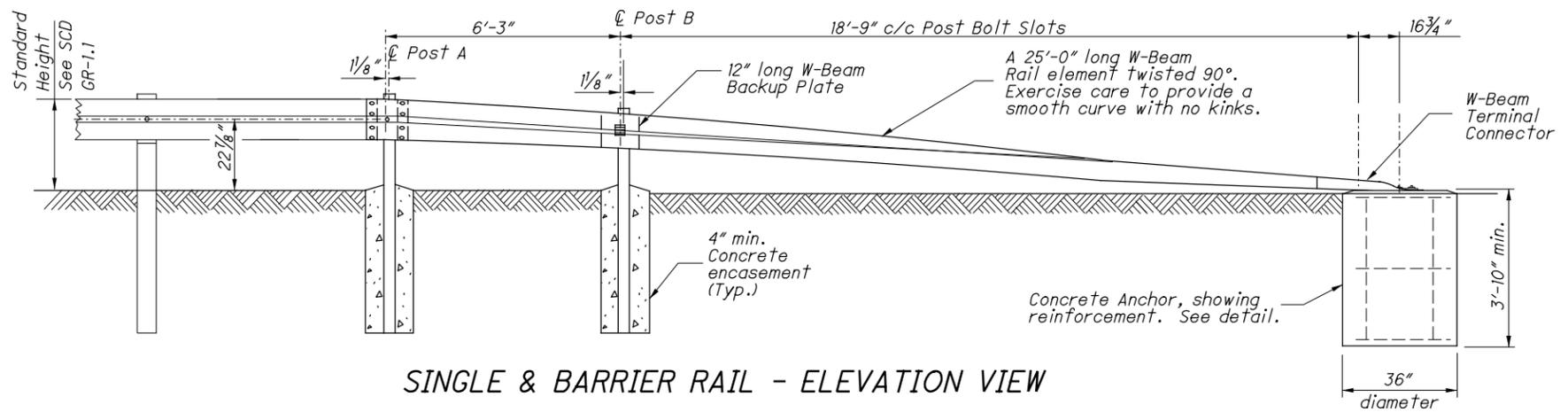
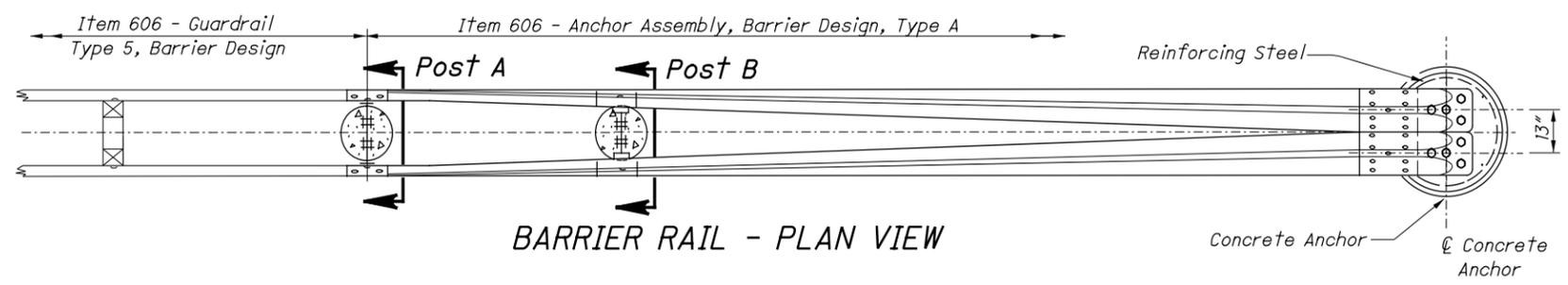
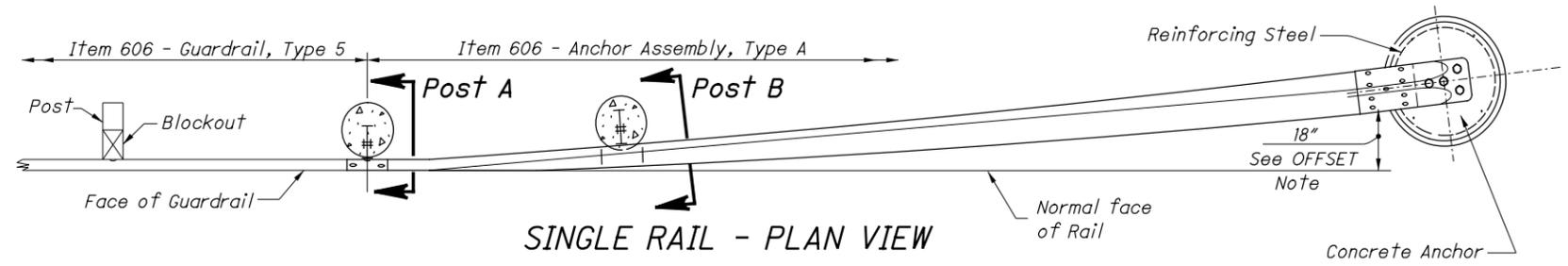
All steel spacers and posts may be provided with additional bolt holes so that these items will not be required to be made right and left handed.

Spacers shall be fastened to Posts with two  $\frac{5}{8}$ " hex head bolts and nuts with standard washers on both sides.

**WASHERS:** All washers indicated on this drawing are standard galvanized steel of the appropriate size.

**CONCRETE ANCHOR:** Form top 4" of anchor and slope the top to conform to slope of the adjacent ground. The 36" diameter anchor may be replaced by a 2'-6" square anchor at the contractor's option.

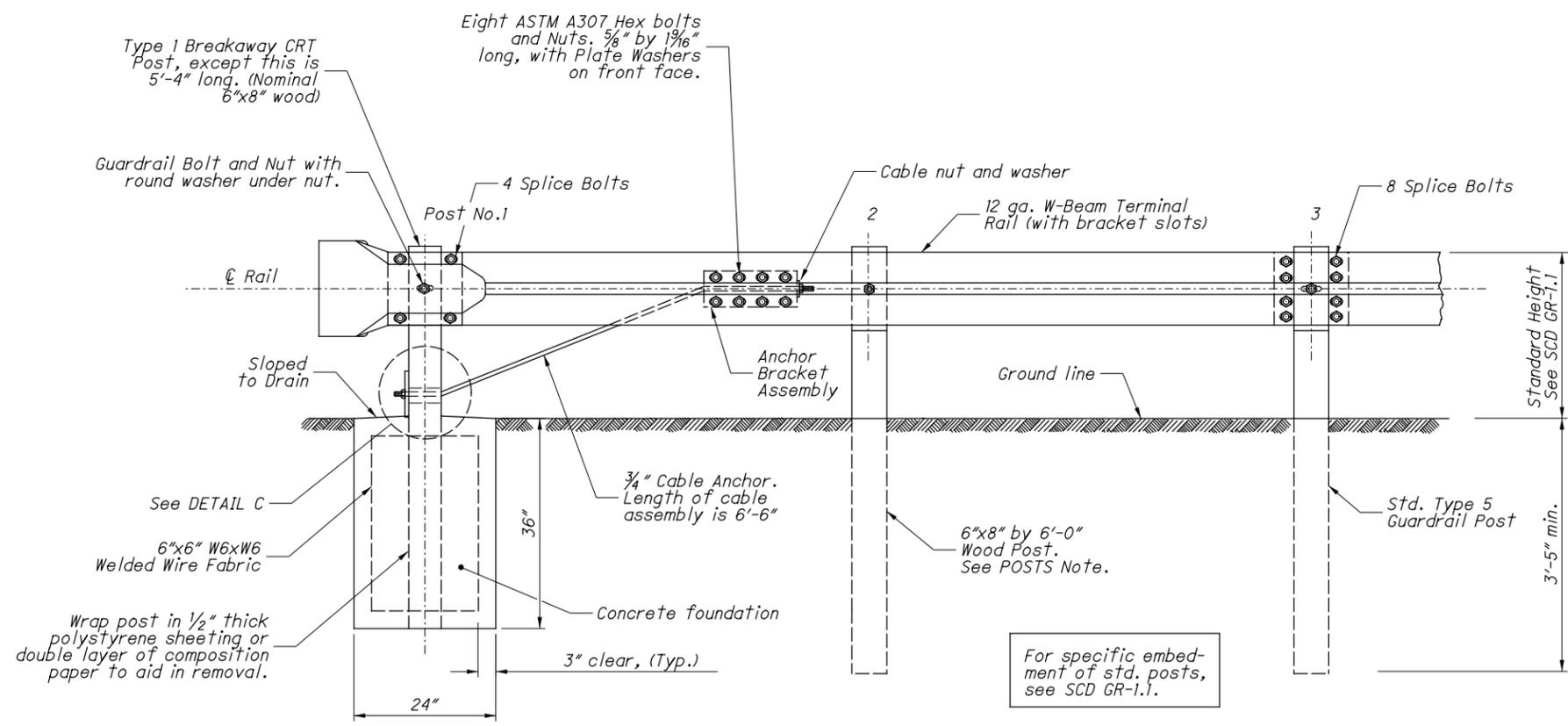
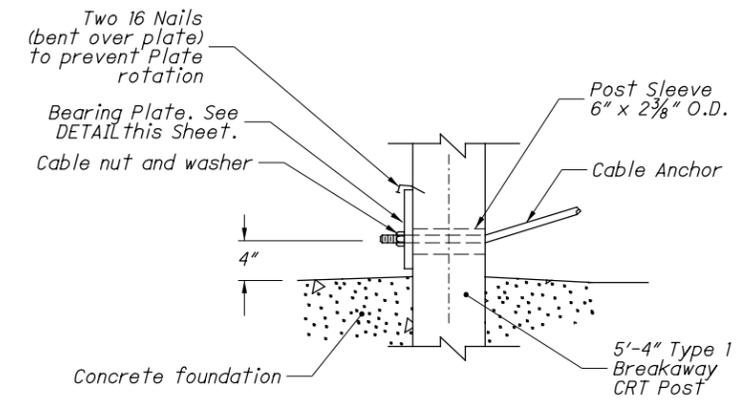
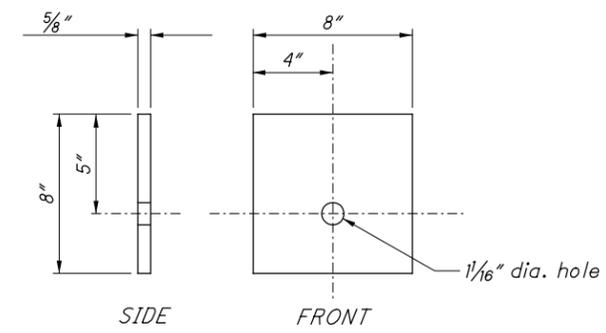
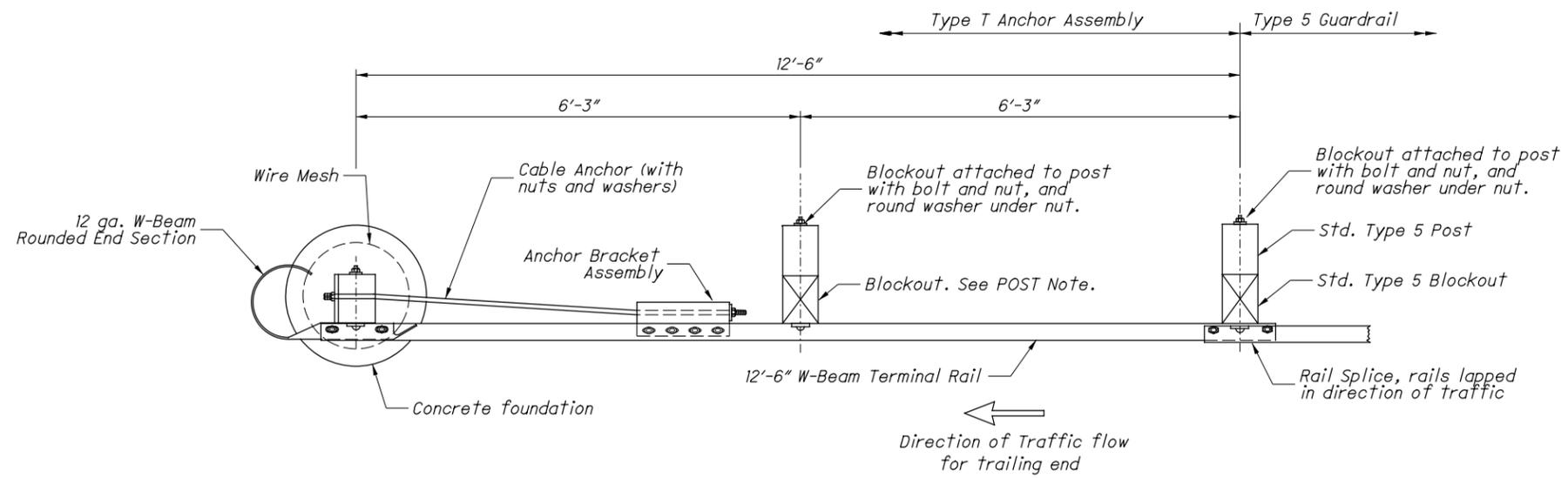
**PAYMENT:** include all materials and labor for the 25'-0" Single Rail, Type A Anchor Assembly in the unit price bid for **Item 606 - Anchor Assembly, Type A, Each.** Pay for all materials and labor for the 25'-0" Barrier Rail under the unit bid price **Item 606 - Anchor Assembly, Barrier Design, Type A, Each.**



$\frac{7}{8}$ " dia. x 12" galv. Bolts or Concrete Insert Anchor Assembly with  $\frac{7}{8}$ " dia. x  $\frac{1}{2}$ " Hex Head Bolts and standard galvanized Washers. See **SCD GR-1.1** for Assembly detail.

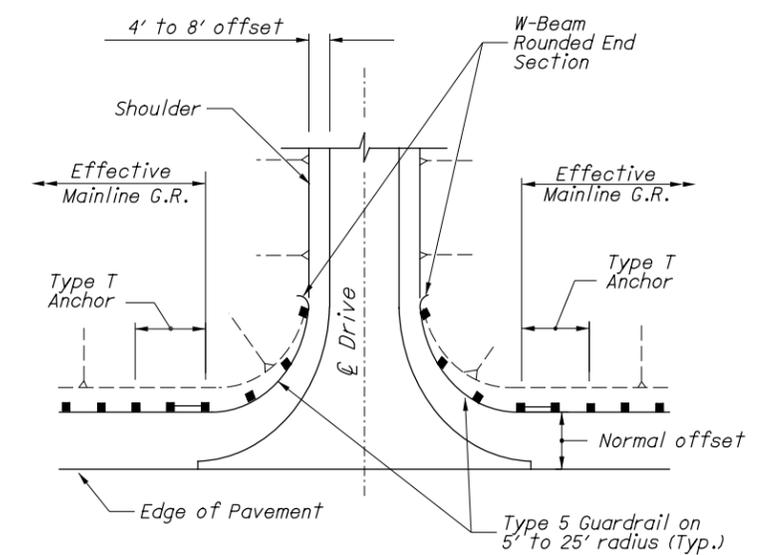
#3 bars with 2" cover on all bars, or Wire Cage with 10-W4 at 12" c/c vertical and 8-W5 at 6" c/c horizontally.





See SCD GR-1.1 for Type 1 Breakaway CRT Post, Steel Ground Tube, Post Sleeve, Cable Anchor and Bracket Assembly details.

For specific embedment of std. posts, see SCD GR-1.1.



DRIVEWAY OPENING





DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
WORKSTATION\$TERMINAL\$ DATE:\$\$\$\$\$DATE\$\$\$\$\$  
MODELNAME: \$MODELNAME\$

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003, 2004, 2005 AND 2006 SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

**EXISTING STRUCTURE VERIFICATION:**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE BID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING PLANS:**

THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OH.

STRUCTURE #	PLAN NAME	DATE
MED-606-3.28	MED-94-(19.17-19.35)	1961

**UTILITIES:**

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

**PLACING ASPHALT CONCRETE ON APPROACHES TO BRIDGES:**

SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK, THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

**DESIGN DATA:**

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4,000 PSI  
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4,500 PSI  
REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

**REFERENCES SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS:**

SUPPLEMENTAL SPECIFICATIONS: 848, DATED 7/17/2015

**REFERENCES SHALL BE MADE TO STANDARD BRIDGE DRAWINGS:**

STANDARD BRIDGE DRAWINGS: AS-1-15, DATED 7/17/2015  
DBR-3-11, DATED 7/15/2011

**DECK PROTECTION METHOD:**

SUPERPLASTICIZED DENSE CONCRETE OVERLAY

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:**

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. PRIOR TO CONCRETE PLACEMENT. ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

**ITEM 202 - REMOVAL MISC.: JOINT SEAL:**

THIS ITEM SHALL BE USED TO REMOVE ANY JOINT SEAL BETWEEN THE APPROACH SLAB AND THE DECK OR BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - BRIDGE RAILING REMOVED FOR REUSE, AS PER PLAN:**

THIS ITEM SHALL BE USED TO REMOVE AND REINSTALL THE EXISTING BRIDGE RAILING FOR WORK ON MED-606-0382 IF NECESSARY. BRIDGE RAILING POSTS ARE TO REMAIN IN PLACE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN**

**ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN**

EACH ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLANS.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR EACH OF THE ABOVE ITEMS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**IN-STREAM WORK RESTRICTION (FOR MED-606-382 OVER ROCKY RIVER):**

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID CONSTRUCTION IN AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS OR WETLANDS. ANY MATERIAL THAT DOES FALL INTO STREAMS OR WETLANDS SHALL BE REMOVED AS SOON AS POSSIBLE.

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. IT IS ANTICIPATED THAT NO IN-STREAM WORK, OR WORK UNDER THE STREAM'S ORDINARY HIGH WATER MARK (OHWM) WILL BE NEEDED. THEREFORE NO WATERWAY PERMITS HAVE BEEN GRANTED AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM IS NEEDED; IT WILL REQUIRE A PERMIT AND AUTHORIZATION BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE). THE CONTRACTOR SHALL NOT UTILIZE FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. DETAILS OF THIS REQUIREMENT ARE DESCRIBED IN ODOT'S SUPPLEMENTAL SPECIFICATION 832.09

USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVE; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

STRUCTURE NOTES

MED - 606 - 0.00  
PID No. 94389

25  
28

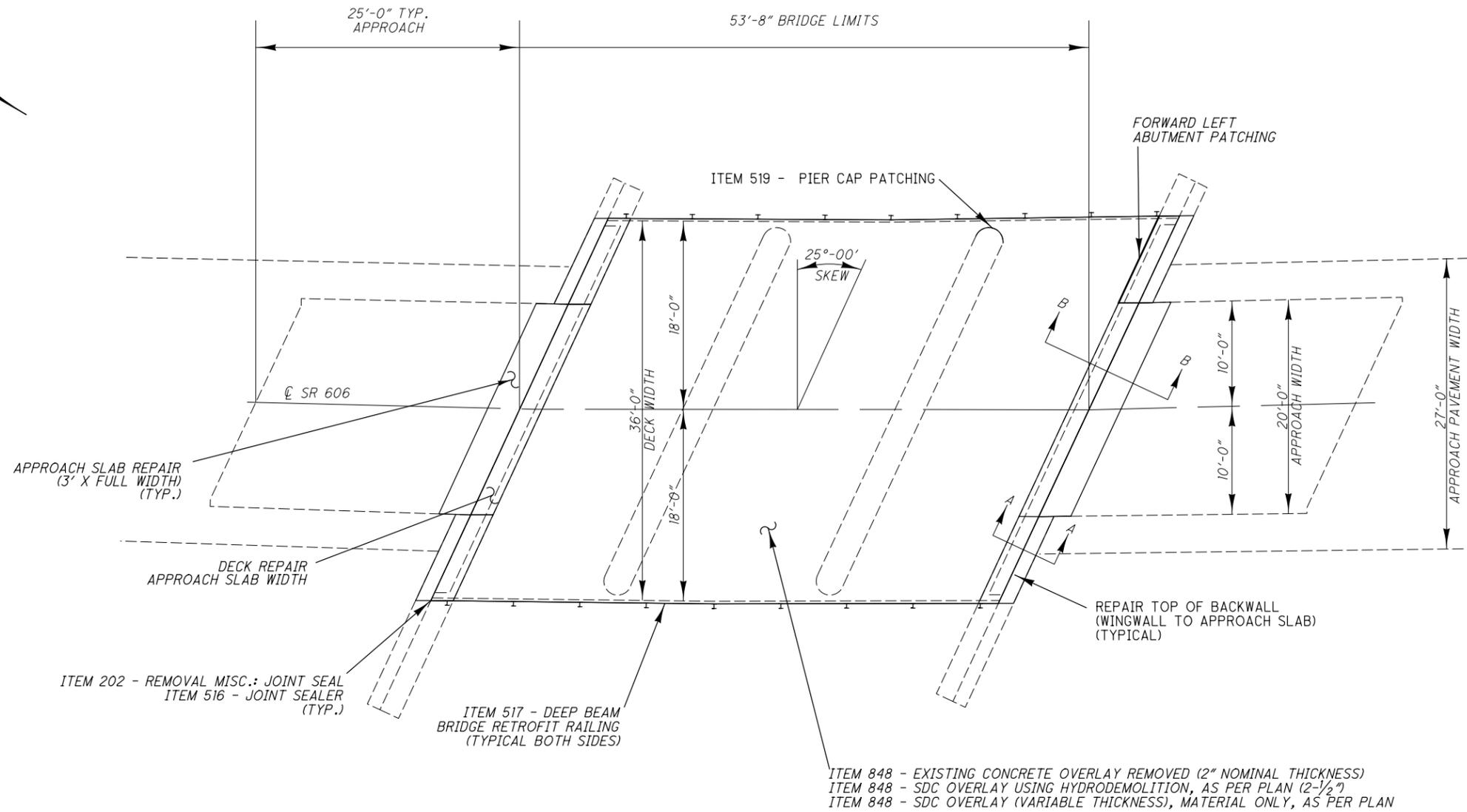
DESIGN AGENCY  
ODOT DISTRICT THREE  
OFFICE OF PLANNING  
AND ENGINEERING

REVIEWED  
KRB  
STRUCTURE FILE NUMBER

DRAWN  
MKP  
REVISED

DESIGNED  
MKP  
CHECKED

DATE



ITEM	QUANTITY	UNIT	DESCRIPTION
202	8	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	80	FT	REMOVAL MISC.: JOINT SEAL
202	125	FT	BRIDGE RAILING REMOVED FOR REUSE, AS PER PLAN
511	6	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE
511	2	CY	CLASS QC1 CONCRETE, ABUTMENT
516	80	FT	JOINT SEALER
517	125	FT	DEEP BEAM BRIDGE RETROFIT RAILING
519	22	SF	PATCHING CONCRETE STRUCTURE
848	217	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/2" THICK)
848	217	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	2	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	10	SY	HAND CHIPPING
848	LUMP		TEST SLAB
848	217	SY	EXISTING CONCRETE OVERLAY REMOVED (2" NOMINAL THICKNESS)

QUANTITIES CARRIED TO GENERAL SUMMARY

ODOT DISTRICT THREE  
 OFFICE OF PLANNING  
 AND ENGINEERING  
 ASHLAND, OHIO

1/11/2016  
 KRB  
 STRUCTURE FILE NUMBER  
 5208130

DESIGNED  
 MKP  
 CHECKED  
 KCK

DRAWN  
 MKP  
 REVISED  
 ---

REVIEWED  
 KRB  
 DATE  
 1/11/2016

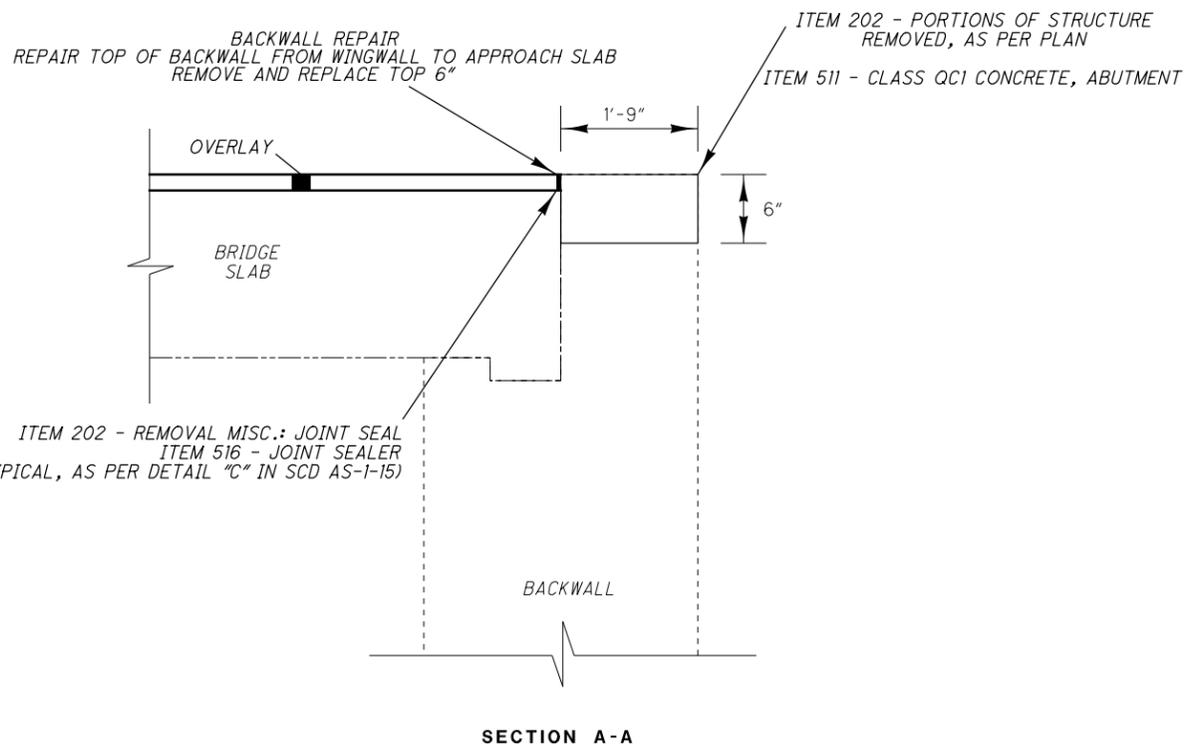
STRUCTURE DETAILS  
 MED-606-3.82  
 STRUCTURE OVER EAST BRANCH OF THE ROCKY RIVER

MED-606-0.00  
 PID No. 94389

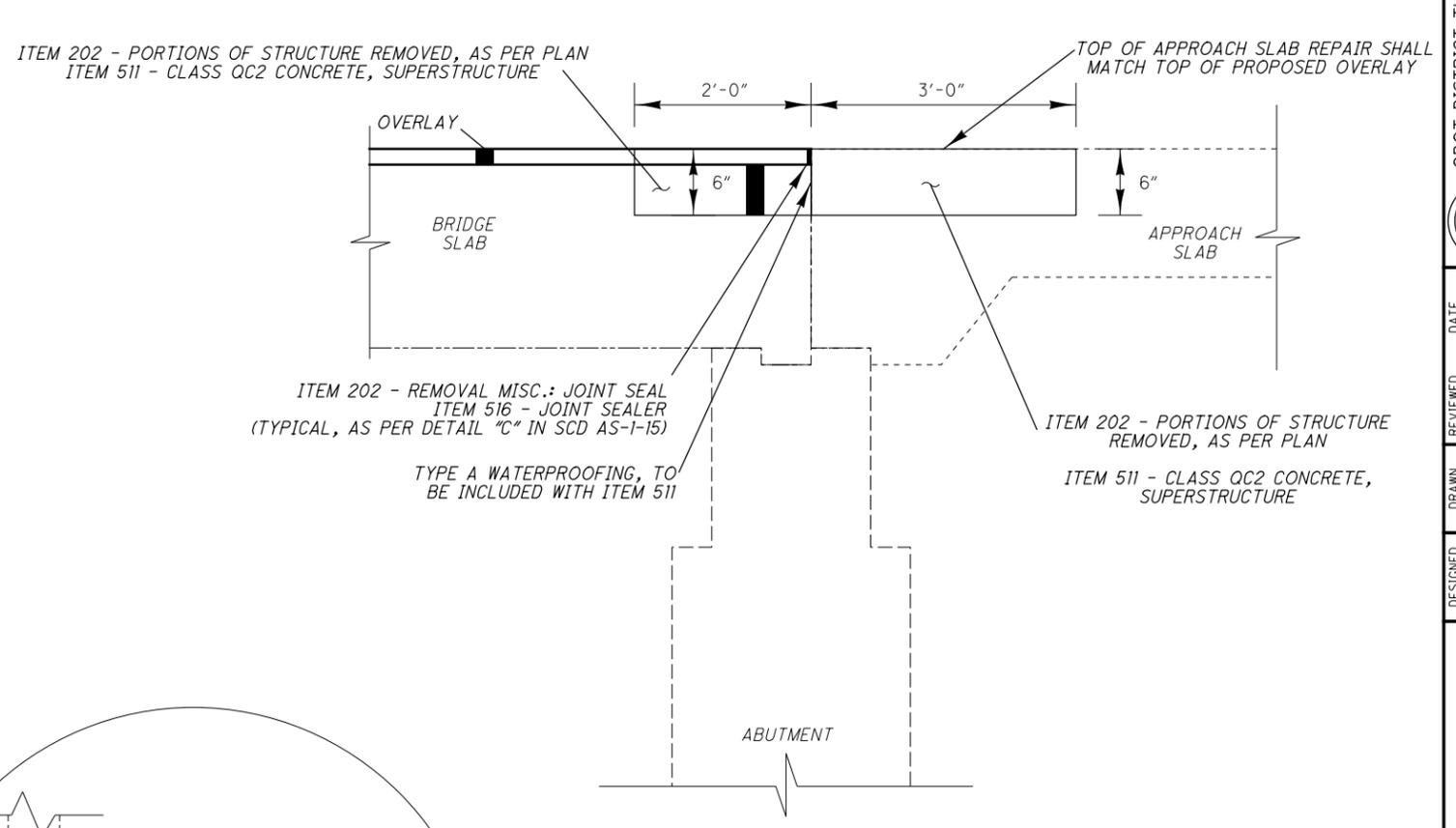
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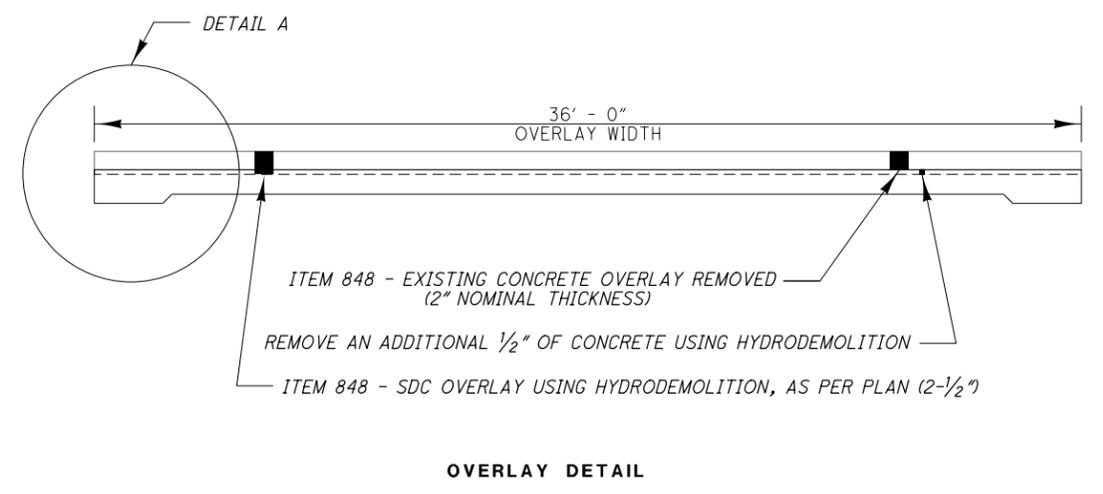
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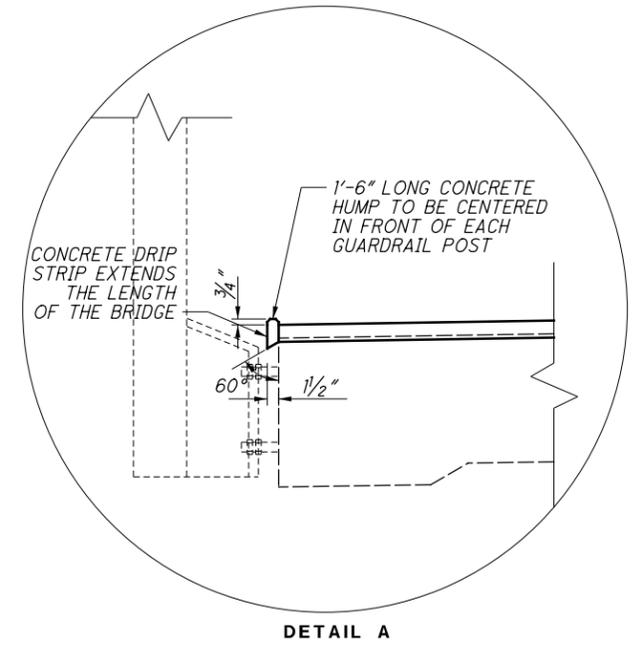
SECTION A-A



SECTION B-B



OVERLAY DETAIL



DETAIL A

NOTES:  
 ALL REBAR TO BE PRESERVED IN PLACE

ITEM	QUANTITY	UNIT	DESCRIPTION
202	8	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	80	FT	REMOVAL MISC.: JOINT SEAL
511	6	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE
511	2	CY	CLASS QC1 CONCRETE, ABUTMENT
516	80	FT	JOINT SEALER
848	217	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/2" THICK)
848	217	SY	SURFACE PREPARATION USING HYDRODEMOLITION
848	2	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	10	SY	HAND CHIPPING
848	LUMP		TEST SLAB
848	217	SY	EXISTING CONCRETE OVERLAY REMOVED (2" NOMINAL THICKNESS)

QUANTITIES CARRIED TO SHEET 1/3

ODOT DISTRICT THREE  
 OFFICE OF PLANNING  
 AND ENGINEERING  
 ASHLAND, OHIO

DATE: 1/11/2016  
 REVIEWED: KRB  
 STRUCTURE FILE NUMBER: 5208130

DRAWN: MKP  
 CHECKED: KCK  
 REVISIONS: ---

DESIGNED: MKP  
 CHECKED: KCK

STRUCTURE DETAILS  
 MED-606-3.82  
 STRUCTURE OVER EAST BRANCH OF THE ROCKY RIVER

MED-606-0.00  
 PID No. 94389

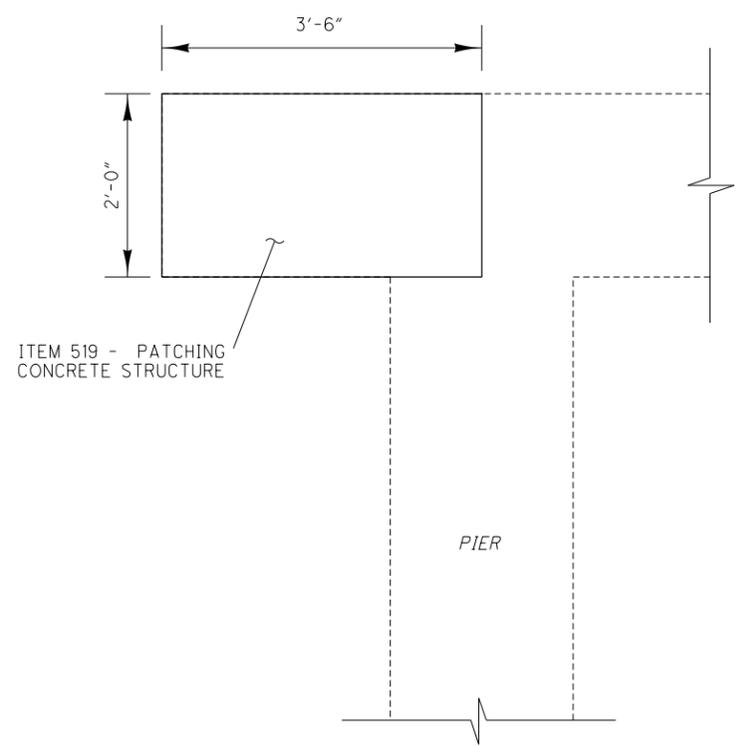
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 27  
 28

DESIGN FILE:\$\$\$\$\$.DGNFILESPECIFICATIONS\$\$\$\$\$  
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 MODELNAME: \$MODELNAME\$

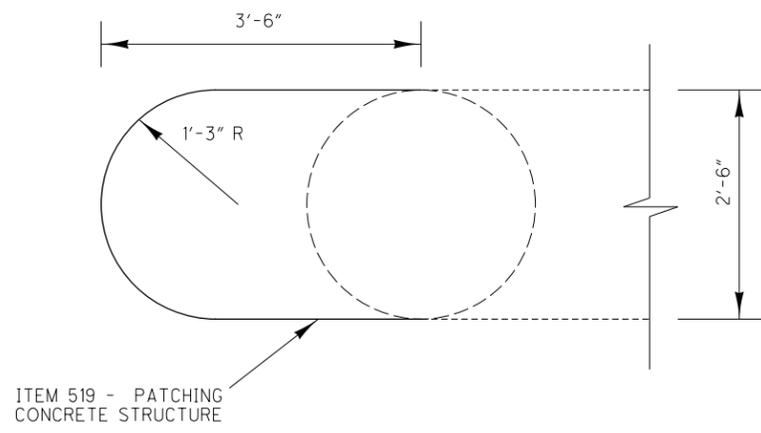


ITEM 519 - PATCHING CONCRETE STRUCTURES  
 ABUTMENT TO BE CLEARED TO SOUND CONCRETE PLUS 1/4"  
 (APPROXIMATELY 8" DEEP)

**FORWARD ABUTMENT REPAIR DETAILS**



**PIER #2 CAP END REPAIR DETAIL**



**PIER #2 CAP END REPAIR DETAIL**

ITEM	QUANTITY	UNIT	DESCRIPTION
519	22	SQ FT	PATCHING CONCRETE STRUCTURE

QUANTITIES CARRIED TO SHEET 1/3

DESIGNED MKP	CHECKED KCK
DRAWN MKP	REVISED ---
REVIEWED KRB	STRUCTURE FILE NUMBER 5208130
DATE 1/11/2016	
<b>STRUCTURE DETAILS</b> MED-606-3.82 STRUCTURE OVER EAST BRANCH OF THE ROCKY RIVER	
<b>MED-606-0.00</b>	<b>PID No. 94389</b>
3 / 3	
28	28