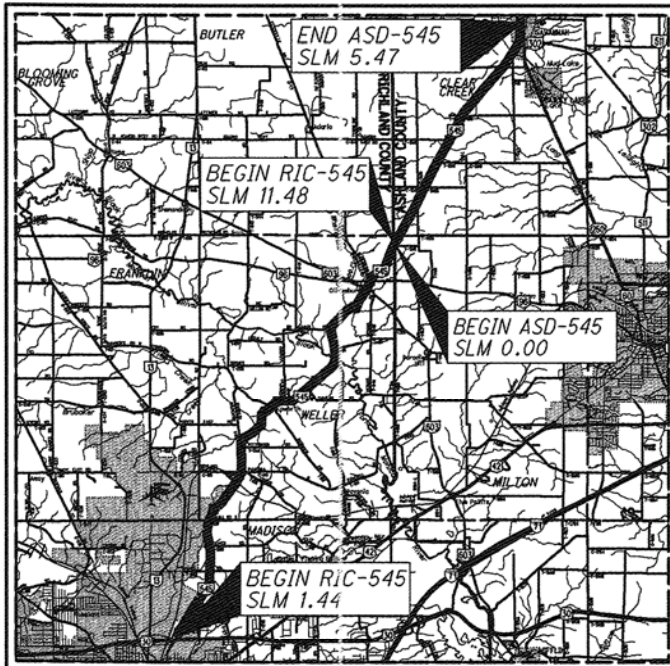


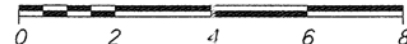
DESIGN FILE: I:\projects\85051\roadway\sheets\85051GT001.dgn
WORKSTATION: ksalay DATE: 3/5/2013



LOCATION MAP

LATITUDE: 40°52'26" LONGITUDE: 82°26'29"

SCALE IN MILES



PORTION TO BE IMPROVED -----
UNDIVIDED STATE & FEDERAL ROUTES -----
OTHER ROADS -----

DESIGN DESIGNATION

SEE SHEET NO. 2.

DESIGN EXCEPTIONS

NONE

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

RIC-545-1.44
ASD-545-0.00

CITY OF MANSFIELD
VILLAGE OF SAVANNAH
MADISON TOWNSHIP
WELLER TOWNSHIP

MILTON TOWNSHIP
CLEAR CREEK TOWNSHIP
ASHLAND COUNTY
RICHLAND COUNTY

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PROJECT DESCRIPTION

THIS PROJECT IS 15.51 MILES LONG AND WILL INCLUDE PAVEMENT REPAIRS, RESURFACING WITH ASPHALT CONCRETE, ADJUSTMENT OF CASTINGS WHERE NECESSARY, GUARDRAIL RECONSTRUCTION, PLACEMENT OF PAVEMENT MARKINGS AND STRUCTURE MAINTENANCE.

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)

2010 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 NOT 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 **3-5-13** DISTRICT DEPUTY DIRECTOR

APPROVED: _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

PLANS PREPARED BY:



FEDERAL PROJECT NO.
E100919

PID NO.
85051

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
ASHLAND RAILWAY

RIC-545-1.44
ASD-545-0.00

1
51

GENERAL

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.

AEP OHIO POWER 2622 SOUTH S.R. 100 TIFFIN, OH 44883 419-443-4607	ARMSTRONG CABLE 1215 CLAREMONT AVE. ASHLAND, OH 44805 419-289-0161
AT&T TRANSMISSION C/O HLG ENGINEERING & SURVEYING 5980-G WILCOX PLACE DUBLIN, OH 43016 614-760-8320	CENTURY LINK 175 ASHLAND RD. P.O. BOX 3555 MANSFIELD, OH 44907 419-755-7956
COLUMBIA GAS OF OHIO 1021 N. MAIN ST. MANSFIELD, OH 44903 419-528-1137	COLUMBIA GAS TRANSMISSION P.O. BOX 85 LAKEVILLE, OH 44638 419-827-2620
FIRELANDS ELECTRIC ONE ENERGY PLACE NEW LONDON, OH 44851 419-929-1571	FRONTIER COMMUNICATIONS 1534 S.R. 511 SOUTH ASHLAND, OH 44805 419-822-6551
OHIO EDISON 1717 ASHLAND RD. MANSFIELD, OH 44905 419-521-6213	ONE COMMUNITY 800 W. SAINT CLAIR 2ND FLOOR CLEVELAND, OH 44113 216-923-2356
QWEST COMMUNICATIONS 4650 LAKEHURST COURT DUBLIN, OH 43016 614-215-5606	SPELLMAN PIPELINE HOLDINGS LLC STRASBURG, OH 1-800-848-5589
TIME WARNER CABLE 1575 LEXINGTON AVE. MANSFIELD, OH 44901 419-756-6091	
CITY OF MANSFIELD 30 NORTH DIAMOND ST. MANSFIELD, OH 44902 419-755-9626	CITY OF MANSFIELD SEWER 30 NORTH DIAMOND ST. MANSFIELD, OH 44902 419-589-2830
RICHLAND COUNTY WASTEWATER 50 PARK AVE. EAST MANSFIELD, OH 44902 419-774-3548	RICHLAND SOIL AND WATER CONSERVATION 1495 W. LONGVIEW AVE. MANSFIELD, OH 44906 419-747-8684
RURAL LORAIN WATER 42401 S.R. 303, P.O. BOX 567 LAGRANGE, OH 44050 440-355-6060	VILLAGE OF BAILEY LAKES 760 LAKE DR., RD#5 ASHLAND, OH 44805 419-962-4440

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.

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.

ROADWAY

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.

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 604 - MONUMENT BOX ADJUSTED TO GRADE

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 LOCATIONS OF KNOWN MONUMENT BOXES:

02/S<2/PV:
RIC-545, SLM 1.44 (BURIED)
RIC-545, SLM 1.58 (BURIED)
RIC-545, SLM 1.67 (BURIED)
TOTAL = 3 EACH

01/STR/PV:
RIC-545, SLM 6.15 (BURIED)
RIC-545, SLM 6.19 (BURIED)
RIC-545, SLM 6.72
RIC-545, SLM 6.74
RIC-545, SLM 6.78
RIC-545, SLM 7.86 (BURIED)
RIC-545, SLM 7.98 (BURIED)
TOTAL = 7 EACH

DRAINAGE

ITEM 604 - CASTINGS ADJUSTED TO GRADE

THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. 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 FRAMES.

APPROXIMATE LOCATIONS OF KNOWN CASTINGS:

CATCH BASIN:	MAN HOLE:
RIC-545, SLM 1.83 RIC-545, SLM 2.79 TOTAL = 2 EACH (02/S<2/PV)	RIC-545, SLM 1.50 TOTAL = 1 EACH (03/S<2/PV)
RIC-545, SLM 3.85 TOTAL = 1 EACH (03/S<2/PV)	ASD-545, SLM 5.22 ASD-545, SLM 5.27 ASD-545, SLM 5.33 TOTAL = 3 EACH (01/STR/PV)
RIC-545, SLM 6.74 TOTAL = 1 EACH (01/STR/PV)	

PAVEMENT

PAVING AT RAILROAD CROSSINGS

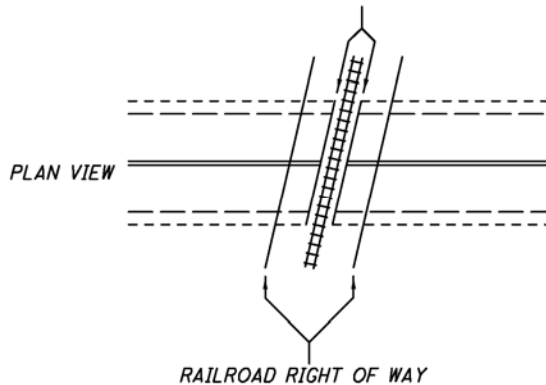
PRIOR TO ANY WORK AT RAILROAD CROSSINGS THE CONTRACTOR SHALL CONTACT THE AFFECTED RAILROAD AUTHORITY SO AS TO MAKE THEM AWARE OF THE PROGRESS AND SCHEDULE OF WORK. THE CONTRACTOR SHALL COOPERATE WITH THE RAILROAD SO AS TO ELIMINATE ANY SAFETY CONCERNS. FLAGGING WILL BE REQUIRED BY THE RAILROAD. ODOT WILL BE RESPONSIBLE FOR PAYING THE RAILROAD FOR ALL FLAGGING COSTS. REFER TO THE RAILROAD SPECIAL CLAUSES IN THE PROPOSAL.

THE CROWN SHALL BE WORKED OUT OF THE RESURFACED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE RESURFACED PAVEMENT TO MEET THE PLATFORM ELEVATION.

SUSPEND AND RESUME RESURFACING AT THE EDGE OF THE EXISTING CROSSING SURFACE ON BOTH SIDES OF THE TRACK.

DETAIL - PAVING AT RAILROAD CROSSING

BUTT JOINT/BEGIN AND END RESURFACING



NOTE:

1.) DO NOT DISTURB RAILROAD GATES

2.) RE-INSTALL PAVEMENT MARKINGS

3.) RAILROAD MAY DIRECT ENGINEER ON THE LOCATION OF BUTT JOINTS. OTHERWISE OMIT AND RESUME RESURFACING AT AT THE EDGE OF THE EXISTING CROSSING SURFACE ON BOTH SIDES OF THE TRACK.

PAVEMENT

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN
ITEM 253 - PAVEMENT REPAIR, MISC.: PARTIAL DEPTH

THESE ITEMS OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT OR PAVED BERM WHICH MAY BE ASPHALT, BRICK, CONCRETE, OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE. CORING HAS BEEN PERFORMED TO HELP DETERMINE THE COMPONENTS THAT MAY BE ENCOUNTERED DURING THIS ITEM OF WORK. THE PAVEMENT CORING INFORMATION IS SHOWN ON THIS SHEET.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. PAVEMENT REPAIR SHALL BE PERFORMED AFTER PAVEMENT PLANING AND BEFORE PLACEMENT OF THE INTERMEDIATE AND/OR SURFACE COURSE. THE REPAIR AREAS SHALL BE SAW CUT AND EXCAVATED TO PROVIDE STRAIGHT AND VERTICAL SURFACES AROUND THE PERIMETER OF THE REPAIR AREA. PAVEMENT PLANING MAY BE USED AS AN ALTERNATIVE TO SAW CUTTING AND EXCAVATING. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE ADJACENT PAVEMENT. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH A MAXIMUM DEPTH OF 12", BASED ON THE PAVEMENT DESIGN AND AN AVERAGE DEPTH OF 3" AND AN AVERAGE WIDTH OF 4 FT FOR ESTIMATING PURPOSES. THE MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17.

THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS 2 FEET WIDE.

REPLACEMENT MATERIAL SHALL BE ITEM 301, ITEM 448 TYPE 2, OR ITEM 442 19MM MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE, PG64-22 CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 448 TYPE 2 OR ITEM 442 19MM 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 448 TYPE 2, OR ITEM 442 19MM MATERIAL WHEN THE PAVEMENT REPAIR IS BETWEEN 3" AND 5" DEEP. ITEM 448 TYPE 2 OR ITEM 442 19MM MATERIAL SHALL BE PG64-22 FOR MEDIUM MIX DESIGN PAVEMENTS AND PG64-28 FOR HEAVY MIX DESIGN PAVEMENTS. ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE CLEANED AND COATED PER CMS 401.14, USING AN ASPHALT MATERIAL COMPLYING WITH 407.02. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

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

ITEM 253 - PAVEMENT REPAIR, MISC.: PARTIAL DEPTH
04/S<2/PV: 172 CY
02/S<2/PV: 171 CY
01/STR/PV: 1975 CY
ITEM 253 - PAVEMENT REPAIR, AS PER PLAN
04/S<2/PV: 10 CY
02/S<2/PV: 10 CY
01/STR/PV: 105 CY

SUMMARY FOR ITEM 253 - PAVEMENT REPAIR, MISC.: PARTIAL DEPTH

ALL PARTIAL DEPTH REPAIRS ARE LONGITUDINAL:

RIC-545 NORTHBOUND:	RIC-545 SOUTHBOUND:	ASD-545 NORTHBOUND:
02/S<2/PV:	04/S<2/PV:	01/STR/PV:
SLM 1.44-2.80: 119 CY	SLM 1.44-2.12: 74 CY	SLM 0.00-1.00: 37 CY
01/STR/PV:	SLM 3.30-3.68: 33 CY	SLM 1.00-2.00: 37 CY
SLM 2.80-4.00: 107 CY	SLM 3.84-4.13: 22 CY	SLM 2.00-3.00: 81 CY
SLM 4.00-5.00: 70 CY	SLM 4.15-4.19: 6 CY	SLM 3.00-4.00: 48 CY
SLM 5.00-6.00: 63 CY	SLM 4.25-4.47: 37 CY	SLM 4.00-5.00: 67 CY
SLM 6.00-7.00: 33 CY	02/S<2/PV:	SLM 5.00-5.47: 48 CY
SLM 7.00-8.00: 59 CY	SLM 2.12-2.80: 52 CY	
SLM 8.00-9.00: 111 CY	01/STR/PV:	ASD-545 SOUTHBOUND:
SLM 9.00-10.00: 100 CY	SLM 2.80-3.30: 48 CY	01/STR/PV:
SLM 10.00-11.48: 107 CY	SLM 3.68-3.84: 11 CY	SLM 0.00-1.00: 70 CY
	SLM 4.13-4.15: 4 CY	SLM 1.00-2.00: 70 CY
	SLM 4.19-4.25: 7 CY	SLM 2.00-3.00: 67 CY
	SLM 4.47-6.00: 103 CY	SLM 3.00-4.00: 67 CY
	SLM 6.00-7.00: 59 CY	SLM 4.00-5.00: 63 CY
	SLM 7.00-8.00: 56 CY	SLM 5.00-5.47: 56 CY
	SLM 8.00-9.00: 111 CY	
	SLM 9.00-10.00: 74 CY	
	SLM 10.00-11.48: 141 CY	

TOTALS:
04/S<2/PV: 172 CY
02/S<2/PV: 171 CY
01/STR/PV: 1975 CY

PAVEMENT

PAVEMENT CORING INFORMATION

CO.	ROUTE	SLM	ASPHALT DEPTH (IN.)	CONCRETE DEPTH (IN.)	BRICK DEPTH (IN.)	WHEEL TRACK/ SHOULDER	DIRECTION	YEAR CORED
RIC	545	2.25	12.0			INSIDE	NB	2011
RIC	545	2.25	11.5			OUTSIDE	NB	2011
RIC	545	2.25	4.0			SHOULDER	NB	2011
RIC	545	3.15	9.5			INSIDE	NB	2011
RIC	545	3.15	9.5			OUTSIDE	NB	2011
RIC	545	4.07	13.5			INSIDE	NB	2011
RIC	545	4.07	14.0			OUTSIDE	NB	2011
RIC	545	5.41	11.0			INSIDE	NB	2011
RIC	545	5.41	3.0			SHOULDER	NB	2011
RIC	545	5.98	8.0			INSIDE	NB	2011
RIC	545	5.98	8.0			OUTSIDE	NB	2011
RIC	545	5.98	5.5			SHOULDER	NB	2011
RIC	545	8.29	7.0			INSIDE	NB	2011
RIC	545	8.29	7.5			OUTSIDE	NB	2011
RIC	545	9.07	11.5			INSIDE	NB	2011
RIC	545	9.07	12.5			OUTSIDE	NB	2011
RIC	545	10.00	12.0	9.0		INSIDE	NB	2011
RIC	545	10.00	8.5			OUTSIDE	NB	2011
RIC	545	11.28	10.5			INSIDE	NB	2011
RIC	545	11.28	10.0			OUTSIDE	NB	2011
RIC	545	11.28	9.0			SHOULDER	NB	2011
ASD	545	0.81	15.0			INSIDE	NB	2011
ASD	545	0.81	13.0			OUTSIDE	NB	2011
ASD	545	0.81	6.0			SHOULDER	NB	2011
ASD	545	1.57	7.5			INSIDE	NB	2011
ASD	545	1.57	13.0			OUTSIDE	NB	2011
ASD	545	1.57	3.0			SHOULDER	NB	2011
ASD	545	2.61	8.5			INSIDE	NB	2011
ASD	545	2.61	9.0			OUTSIDE	NB	2011
ASD	545	3.64	12.0			INSIDE	NB	2011
ASD	545	3.64	8.5			SHOULDER	NB	2011
ASD	545	4.40	12.0			INSIDE	NB	2011
ASD	545	4.40	7.0			SHOULDER	NB	2011

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.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

TAPER THE PLANING AT BUTT JOINT LOCATIONS AT STRUCTURES AND INTERSECTIONS AS SHOWN ON THE PAVEMENT AND SHOULDER DATA SHEET. 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.

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 \$1300 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.

PAVEMENT

ITEM 407 - TACK COAT
ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

AS PER 407.06 THE APPLICATION RATES SHALL BE 0.08 GAL. PER SQ. YD. PRIOR TO THE INTERMEDIATE COURSE AND SHALL BE 0.04 GAL PER SQ. YD. PRIOR TO THE SURFACE COURSE FOR ESTIMATING PURPOSES ONLY. THE RATE OF APPLICATION SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. A COMPLETE PAVEMENT SURFACE COVERAGE SHALL BE REQUIRED. AREAS OF TACK STRIPPED BY CONSTRUCTION EQUIPMENT OR TRAFFIC SHALL BE RE-COATED PRIOR TO PLACING ASPHALT CONCRETE. ALL COSTS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER GALLON FOR ITEM 407 - TACK COAT AND ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE.

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 INTERMEDIATE COURSE, 9.5MM, TYPE A (448), AS PER PLAN (VARIABLE DEPTH)

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES.

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.

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.
QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

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.

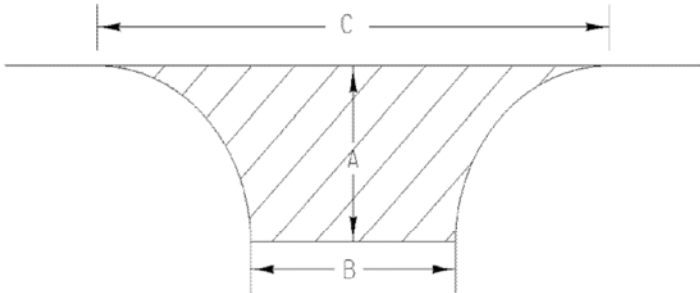
EXISTING AGGREGATE DRIVES SHALL BE PAVED WITH AN APRON AN AVERAGE WIDTH OF 4 FT. THE SLOPE OF THIS APRON SHALL BE THE SAME AS THE ADJACENT PAVEMENT SLOPE OR AS DIRECTED BY THE ENGINEER. ANY GRADING NEEDED TO PAVE THE APRON SHALL BE INCLUDED IN THE RELATED ASPHALT ITEM FOR PAYMENT. ITEM 617 COMPACTED 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 ON THIS SHEET.

PAVEMENT

INTERSECTION AREA CALCULATIONS



INTERSECTION NAME	A (FT)	B (FT)	C (FT)	AREA (SQ YD)
SR 545 / TR 1128 REFORMATORY (LT)	28	50	96	203
SR 545 / TR 216 ANNADALE (RT)	19	23	51	68
SR 545 / TR 270 FLEMING FALLS (RT)	23	22	68	95
SR 545 / TR 1127 TINGLEY (RT)	22	22	58	83
SR 545 / TR 275 5TH (RT)	13	57	128	117
SR 545 / TR 1447 ANNFIELD (RT)	13	31	65	61
SR 545 / TR 269 PIPER (LT)	11	28	57	46
SR 545 / TR 269 PIPER (RT)	11	33	61	52
SR 545 / TR 268 HOOVER (RT)	13	29	65	59
SR 545 / TR 237 CRALL (LT)	11	41	69	62
SR 545 / TR 237 CRALL (RT)	13	30	58	57
SR 545 / CR 90 RICHLAND SHALE (LT)	14	38	85	83
SR 545 / CR 90 PAVONIA (RT)	17	40	97	111
SR 545 / TR 258 PITTENGER (RT)	16	25	64	68
SR 545 / CR 243 FRANKLIN CHURCH (LT)	68	25	89	350
SR 545 / TR 257 ROBINSON (LT)	15	32	70	74
SR 545 / TR 257 ROBINSON (RT)	18	18	59	63
SR 545 / TR 242 MANSFIELD ADARTO (LT)	11	48	82	73
SR 545 / TR 89 CHARLES (RT)	15	25	51	56
SR 545 / CR 260 PAVONIA (RT)	34	27	78	166
SR 545 / TR 88 VANTILBERG (RT)	23	23	61	91
SR 545 / TR 254 ADAMS (LT)	33	29	95	187
SR 545 / SR 603 (LT)	13	72	100	117
SR 545 / SR 603 (RT)	15	31	54	64
SR 545 / SR 96 (LT) / CR 77 OLIVESBURG FITCHVILLE (LT)	28	81	127	300
SR 545 / SR 96 (RT)	47	37	124	345
SR 545 / TR 1570 (RT)	7	31	51	29
SR 545 / TR 1443 (RT)	20	45	80	126
SR 545 / TR 1008 (LT)	17	28	73	81
SR 545 / CR 1008 (RT)	19	30	69	91
SR 545 / TR 956 (RT)	24	35	76	130
SR 545 / TR 908 (LT)	13	32	75	67
SR 545 / TR 856 (LT)	14	29	50	56
SR 545 / TR 856 (RT)	18	31	65	85
SR 545 / CR 758 (LT)	16	56	76	111
SR 545 CR 758 (RT)	15	42	74	88
SR 545 / TR 1243 (RT)	14	46	90	94
SR 545 / HANEY (RT)	13	27	55	52
SR 545 / FAST (LT)	15	18	34	39
SR 545 / TALLY (RT)	10	15	33	23
SR 545 / W. MAIN (LT)	13	22	48	44
SR 545 / W. MAIN (RT)	17	35	53	77
SR 545 / SCOTT (LT) / CROWELL (LT)	10	36	46	44
SR 545 / GIBSON (LT)	9	15	23	18
SR 545 / GIBSON (RT)	11	14	32	24
SR 545 / US 250	24	27	70	110
TOTAL INTERSECTION AREAS RIC-545 (03/S<2/PV)				265
TOTAL INTERSECTION AREAS RIC-545 (02/S<2/PV)				522
TOTAL INTERSECTION AREAS RIC-545 (01/STR/PV)				2293
TOTAL INTERSECTION AREAS ASD-545 (01/STR/PV)				1360

WATER WORK

ITEM 638 - VALVE BOX ADJUSTED TO GRADE

THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. 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 FRAMES.

APPROXIMATE LOCATIONS OF KNOWN CASTINGS:

RIC-545, SLM 1.45 (3 EACH)

TOTAL = 3 EACH (03/S<2/PV)

MAINTENANCE OF TRAFFIC

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.

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 IN EXCESS OF 1.5 INCHES. 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
03/S<2/PV: 3 CY
02/S<2/PV: 5 CY
01/STR/PV: 50 CY

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.

MAINTENANCE OF TRAFFIC

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.

03/S<2/PV:
WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE = 5 EACH
TOTAL = 5 EACH

02/S<2/PV:
WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE = 9 EACH
WORK ZONE MARKING SIGN: (R4-1-24) DO NOT PASS = 1 EACH
TOTAL = 10 EACH

01/STR/PV:
WORK ZONE MARKING SIGN: (W8-H12A-36) NO EDGE LINE = 55 EACH
WORK ZONE MARKING SIGN: (R4-1-24) DO NOT PASS = 18 EACH
WORK ZONE MARKING SIGN: (R4-2-24) PASS WITH CARE = 17 EACH
TOTAL = 90 EACH

ITEM 614 - MAINTAINING TRAFFIC (LANES OPEN DURING SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

TOUGH MUDDER IN MANSFIELD APRIL 27TH - APRIL 28TH 2013

LANES MUST BE OPEN TO TRAFFIC AT 12:00 NOON THURSDAY APRIL 25TH 2013 THROUGH 6:00AM MONDAY APRIL 29TH 2013.

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	
03/S<2/PV: RIC-S.R. 545	1 EACH
02/S<2/PV: RIC-S.R. 545	2 EACH
01/STR/PV: RIC&ASD-S.R. 545	6 EACH

ITEM SPECIAL-MAILBOX SUPPORT SYSTEM, DOUBLE	
02/S<2/PV: RIC-S.R. 545	1 EACH
01/STR/PV: RIC&ASD-S.R. 545	1 EACH

MAILBOX APPROACHES

THE MAILBOX APPROACHES SHALL BE PAVED WITH 1.00" ITEM 442 INTERMEDIATE COURSE AND 1.25" ITEM 442 SURFACE 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.

ITEM 209 - GRADING MAILBOX APPROACHES:	
03/S<2/PV: RIC-S.R. 545	4 EACH
02/S<2/PV: RIC-S.R. 545	15 EACH
01/STR/PV: RIC&ASD-S.R. 545	39 EACH

ITEM 617 - COMPACTED AGGREGATE	
03/S<2/PV: RIC-S.R. 545	8 CU YD
02/S<2/PV: RIC-S.R. 545	30 CU YD
01/STR/PV: RIC&ASD-S.R. 545	78 CU YD

LOCATIONS OF MAILBOX SUPPORT SYSTEM TO BE REPLACED

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

SINGLE SUPPORT SYSTEMS

03/S<2/PV:
2450 RIC-S.R. 545

02/S<2/PV:
SLM 1.65 RIC-S.R. 545 (UNMARKED)
1282 RIC-S.R. 545

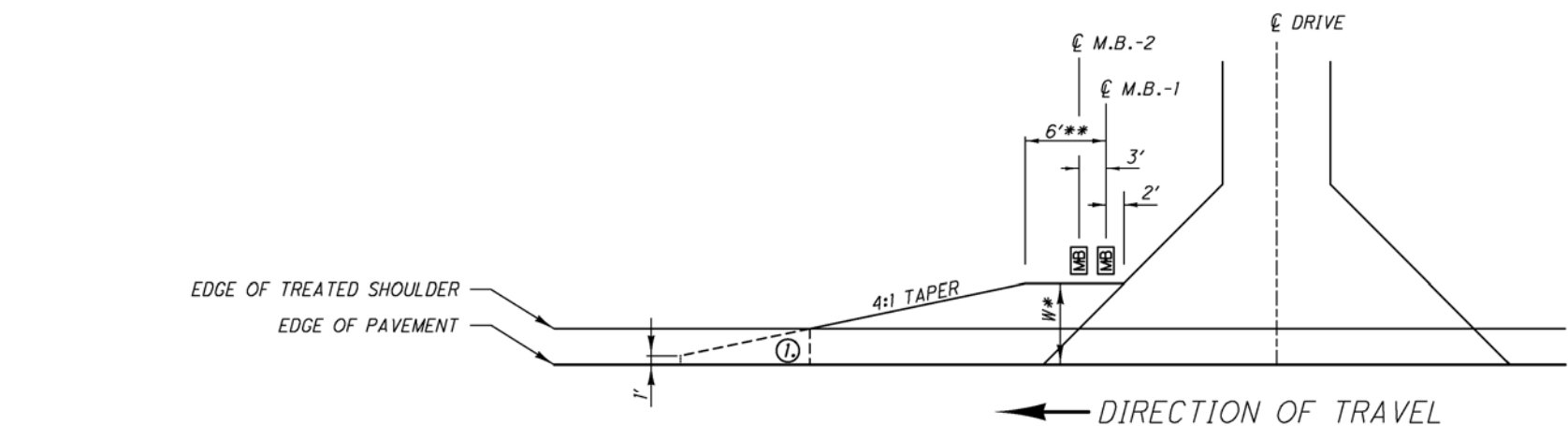
01/STR/PV:
1524 RIC-S.R. 545
SLM 3.01 RIC-S.R. 545 (UNMARKED)
5265 RIC-S.R. 545
1050 ASD-S.R. 545
886B ASD-S.R. 545
718 ASD-S.R. 545

DOUBLE SUPPORT SYSTEMS

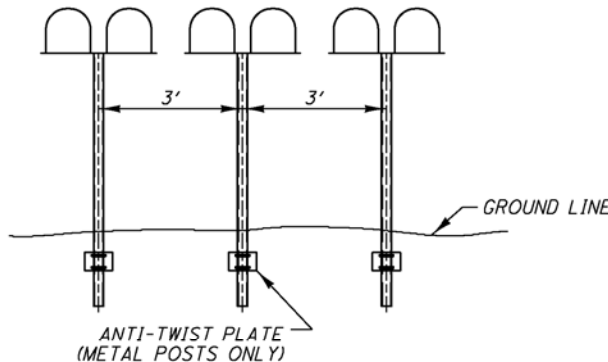
02/S<2/PV:
1235 RIC-S.R. 545

01/STR/PV:
4745 RIC-S.R. 545

FOR DETAILS NOT SHOWN SEE STANDARD DRAWING BP-4.1



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



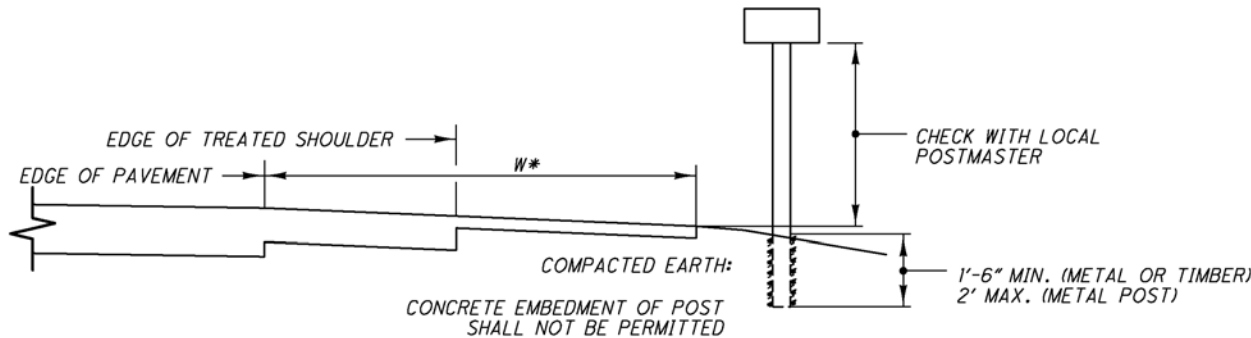
GROUP MAILBOX INSTALLATION

W* NOTES

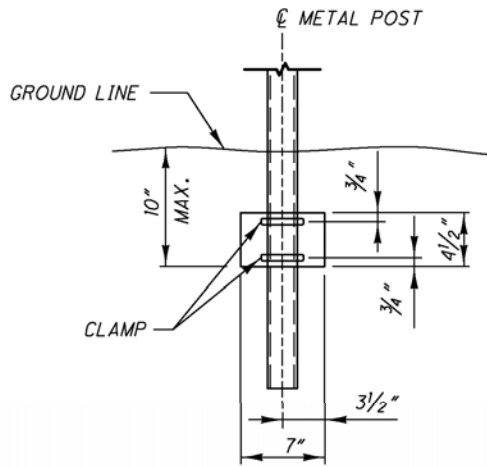
- 1) WHERE EXISTING STANDARD MAILBOX POSTS ARE BEHIND GUARDRAIL AND ARE TO REMAIN IN PLACE, TURNOUT WIDTH SHALL EXTEND TO FACE OF GUARDRAIL.
- 2) WHERE NO GUARDRAIL IS REQUIRED, TURNOUT WIDTH SHALL BE 6 FT MAXIMUM OR TO FACE OF EXISTING STANDARD MAILBOX IF IT IS LESS THAN 6 FT.
- 3) IF THE MAILBOX SUPPORT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

[illegible]

SHEET NUMBER								PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	KRB CHECKED	ADB
	6		14		26	34	35		01/STR/PV	02/S<2/PV	03/S<2/PV									
																TRAFFIC CONTROL				
					1246				1153	93			621	00100	1246	EACH	RPM			
					1246				1153	93			621	54000	1246	EACH	RAISED PAVEMENT MARKER REMOVED			
			85						85				626	00100	85	EACH	BARRIER REFLECTOR			
			14						14				630	02100	14	FT	GROUND MOUNTED SUPPORT, NO. 2 POST			
			2						2				630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION			
			2						2				630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			
					31.02				27.37	2.04	1.61		642	00104	31.02	MILE	EDGE LINE, 6", TYPE I			
					15.59				13.75	1.03	0.81		642	00300	15.59	MILE	CENTER LINE, TYPE I			
					150					150			644	00400	150	FT	CHANNELIZING LINE, 8"			
					447				399	48			644	00500	447	FT	STOP LINE			
					392				392				644	00600	392	FT	CROSSWALK LINE			
					250					250			644	00700	250	FT	TRANSVERSE/DIAGONAL LINE			
					2				2				644	01000	2	EACH	RAILROAD SYMBOL MARKING			
					2				2				644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"			
					2					2			644	01300	2	EACH	LANE ARROW			
																	STRUCTURES			
																	RIC-545-0593	28		
																	RIC-545-0617	28		
																	RIC-545-0863	29		
																	RIC-545-1015	30		
																	ASD-545-0476	30		
																	MAINTENANCE OF TRAFFIC			
						4	4					8	614	12338	8	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)			
	105								90	10	5		614	12460	105	EACH	WORK ZONE MARKING SIGN			
	58								50	5	3		614	13000	58	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC			
						20	12					32	614	13202	32	EACH	BARRIER REFLECTOR, TYPE A2			
						18	18					36	614	13302	36	EACH	BARRIER REFLECTOR, TYPE B2			
						16	16					32	614	13360	32	EACH	OBJECT MARKER, TWO WAY			
						0.06	0.06					0.12	614	21200	0.12	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I			
					31.02				27.37	2.04	1.61		614	21500	31.02	MILE	WORK ZONE CENTER LINE, CLASS II, 642 PAINT			
						0.36	0.34					0.70	614	22200	0.70	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I			
					300					300			614	23200	300	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT			
						149			149				614	26200	149	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT			
						48	48					96	614	26400	96	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I			
					149				149				614	26610	149	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT			
						LUMP	LUMP					LUMP	615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC			
						222	222					444	615	25001	444	SO YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN			
						300	300					600	622	40020	600	FT	PORTABLE CONCRETE BARRIER, 32"			
						340	300					640	622	40040	640	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED (UNANCHORED)			
																	</			

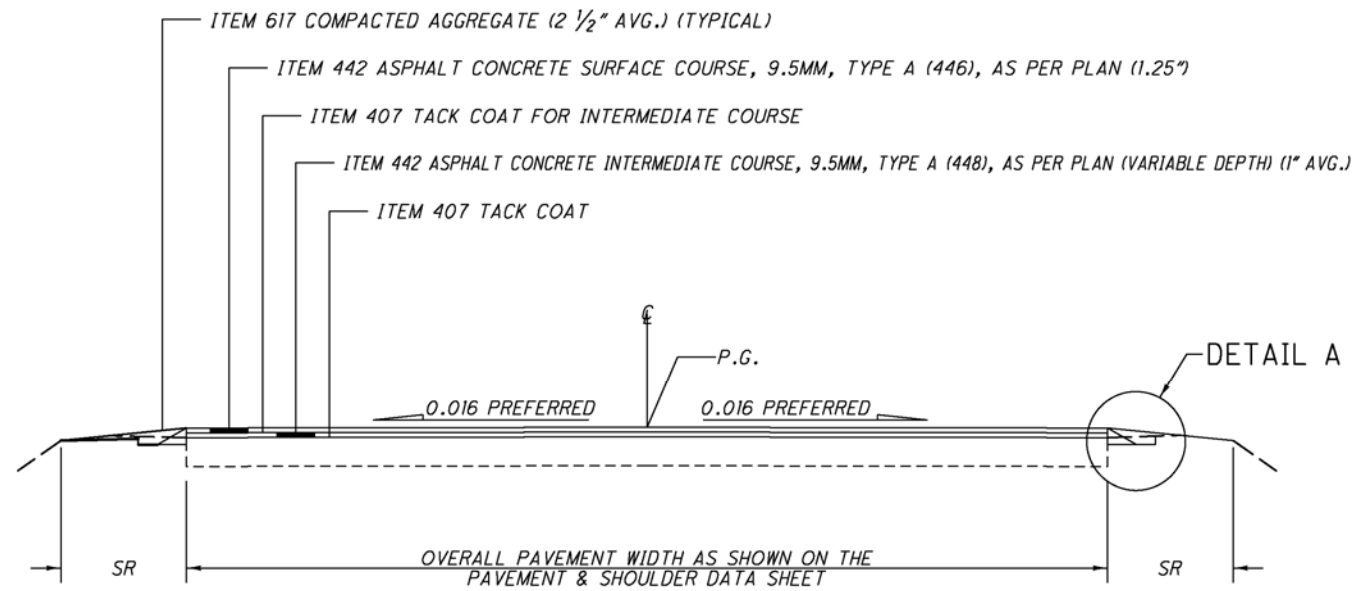
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DATE: 2/27/2013

MODEL NAME: Design

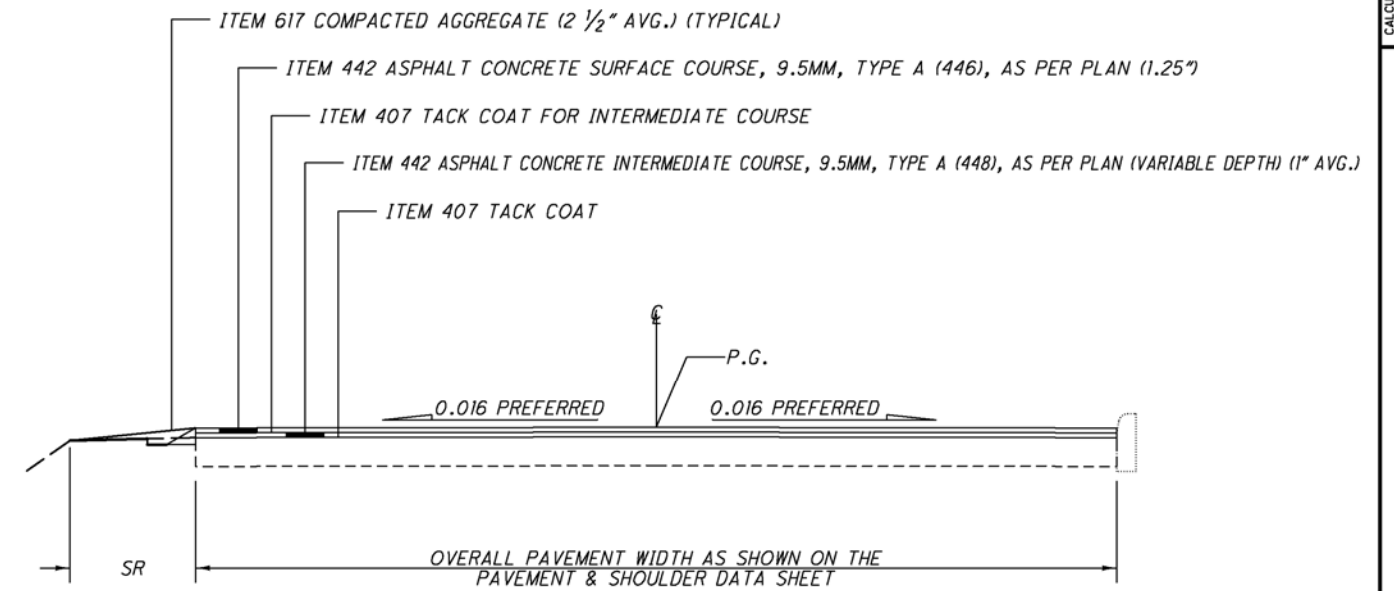
* - FOR TYPICALS, SEE SHEET 12																											
COUNTY	ROUTE	LOG POINT TO LOG POINT		LENGTH		WIDTH FEET AVG.	*TYPICAL	PAVEMENT AREA	254			407	407	442		442			442		AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER AREA	209	617	617	
				MILE	FEET				PAVEMENT PLANING, ASPHALT CONCRETE (VARIES)		PATCHING PLANED SURFACE	TACK COAT @ 0.08 GAL/SY	TACK COAT FOR INTERM. COURSE @ 0.04 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN		ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5 MM, TYPE A (448), AS PER PLAN (VARIABLE DEPTH)			ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN (SAFETY EDGE)		SL	SR		PREPARING SUBGRADE FOR SHOULDER PAVING, APP	COMPACTED AGGREGATE	SHOULDER PREPARATION	
		STRAIGHT LINE MILEAGE	SQ YD			SQ YD		SQ YD				GALLON	GALLON	INCH	CU YD	INCH (AVG.)	CU YD	CU YD	FT	FT	SQ YD	MILE	2.5 INCHES AVG. THICKNESS CU YD	SQ YD			
03/S<2/PV:																											
RIC	545 SB	1.44	1.63	0.19	1003	18.5	1	2,062				165	82	1.25	72	1.00	57		3		2.0		223	0.19	15	223	
RIC	545 SB	1.63	2.12	0.49	2587	12.0	1, 2	3,449				276	138	1.25	120	1.00	96		7		2.0		575	0.49	40	575	
RIC	545 SB	3.30	3.68	0.38	2006	12.0	1	2,675				214	107	1.25	93	1.00	74		5		2.0		446	0.38	31	446	
RIC	545 SB	3.84	4.13	0.29	1531	12.0	1	2,041				163	82	1.25	71	1.00	57		4		2.0		340	0.29	24	340	
RIC	545 SB	4.15	4.19	0.04	211	12.0	1	281				23	11	1.25	10	1.00	8		1		2.0		47	0.04	3	47	
RIC	545 SB	4.25	4.47	0.22	1162	12.0	1	1,549				124	62	1.25	54	1.00	43		3		2.0		258	0.22	18	258	
02/S<2/PV:																											
RIC	545 NB	1.44	1.63	0.19	1003	18.5	1	2,062				165	82	1.25	72	1.00	57		3			2.0		223	0.19	15	223
RIC	545 NB	1.63	1.83	0.20	1056	12.0	2	1,408				113	56	1.25	49	1.00	39										
RIC	545 NB	1.83	2.12	0.29	1531	12.0	1	2,041				163	82	1.25	71	1.00	57		4			2.0		340	0.29	24	340
RIC	545	2.12	2.80	0.68	3590	24.0	1	9,573				766	383	1.25	332	1.00	266		19		2.0	2.0	1,596	1.36	111	1,596	
01/STR/PV:																											
RIC	545	2.80	3.30	0.50	2640	24.0	1	7,040				563	282	1.25	244	1.00	196		14		2.0	2.0	1,173	1.00	81	1,173	
RIC	545 NB	3.30	3.68	0.38	2006	12.0	1	2,675				214	107	1.25	93	1.00	74		5			2.0		446	0.38	31	446
RIC	545	3.68	3.84	0.16	845	25.0	1	2,347				188	94	1.25	82	1.00	65		5		2.0	2.0	376	0.32	26	376	
RIC	545 NB	3.84	4.13	0.29	1531	12.0	1	2,041				163	82	1.25	71	1.00	57		4			2.0		340	0.29	24	340
RIC	545	4.13	4.15	0.02	106	24.0	1	283				23	11	1.25	10	1.00	8		1		2.0	2.0	47	0.04	3	47	
RIC	545 NB	4.15	4.19	0.04	211	12.0	1	281				23	11	1.25	10	1.00	8		1			2.0		47	0.04	3	47
RIC	545	4.19	4.25	0.06	317	24.0	1	845				68	34	1.25	29	1.00	23		2		2.0	2.0	141	0.12	10	141	
RIC	545 NB	4.25	4.47	0.22	1162	12.0	1	1,549				124	62	1.25	54	1.00	43		3			2.0		258	0.22	18	258
RIC	545	4.47	5.00	0.53	2798	24.0	1	7,461				597	298	1.25	259	1.00	207		15		2.0	2.0	1,244	1.06	86	1,244	
RIC	545	5.00	6.00	1.00	5280	24.0	1	14,080				1,126	563	1.25	489	1.00	391		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	6.00	7.00	1.00	5280	23.5	1	13,787				1,103	551	1.25	479	1.00	383		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	7.00	8.00	1.00	5280	24.0	1	14,080				1,126	563	1.25	489	1.00	391		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	8.00	9.00	1.00	5280	24.5	1	14,373				1,150	575	1.25	499	1.00	399		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	9.00	10.00	1.00	5280	24.0	1	14,080				1,126	563	1.25	489	1.00	391		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	10.00	11.00	1.00	5280	24.0	1	14,080				1,126	563	1.25	489	1.00	391		29		2.0	2.0	2,347	2.00	163	2,347	
RIC	545	11.00	11.48	0.48	2534	24.0	1	6,757				541	270	1.25	235	1.00	188		14		2.0	2.0	1,126	0.96	78	1,126	
03/S<2/PV:																											
	EXTRA AREA FOR INTERSECTIONS							265	265			3	21	11	1.25	9	1.00	7									
	EXTRA AREA FOR PAVED DRIVES							36				3	1	1.25	1	1.00	1										
	EXTRA AREA FOR AGGREGATE DRIVES							81				6	3	1.25	3	1.00	2						81		6	81	
	EXTRA AREA FOR EX. & PR. MAILBOX APPROACHES							100				8	4	1.25	3	1.00	3										
	PLANING AT BUTT JOINTS AT BEGINNING OF PROJECT								95			1															
	DEDUCT FOR AREAS WITH NO SAFETY EDGE																		-1					-0.08			
02/S<2/PV:																											
	EXTRA AREA FOR INTERSECTIONS							522	522			5	42	21	1.25	18	1.00	15									
	EXTRA AREA FOR PAVED DRIVES							54				4	2	1.25	2	1.00	2										
	EXTRA AREA FOR AGGREGATE DRIVES							261				21	10	1.25	9	1.00	7						261		18	261	
	EXTRA AREA FOR EX. & PR. MAILBOX APPROACHES							250				20	10	1.25	9	1.00	7										
	PLANING AT BUTT JOINTS AT BEGINNING OF PROJECT								95			1															
	DEDUCT FOR AREAS WITH NO SAFETY EDGE																		-3					-0.20			
01/STR/PV:																											
	EXTRA AREA FOR INTERSECTIONS							2293	2293			23	183	92	1.25	80	1.00	64									
	EXTRA AREA FOR PAVED DRIVES							180				14	7	1.25	6	1.00	5										
	EXTRA AREA FOR AGGREGATE DRIVES							1134				91	45	1.25	39	1.00	32						1134		79	1134	
	EXTRA AREA FOR EX. & PR. MAILBOX APPROACHES							780				62	31	1.25	27	1.00	22										
	DEDUCT FOR AREAS WITH NO SAFETY EDGE																		-12					-0.82			
	DEDUCT FOR STRUCTURE RIC-545-0593 & APP. SLABS				117	24.0		312				-25	-12	1.25	-11	1.00	-9		-1		2.0	2.0	-52	-0.04	-4	-52	
	TAPER PLANING TO APP. SLABS OF STR. RIC-545-0593				250	24.0		667	667		7										2.0	2.0	22		2	22	
	PLANE & PAVE APP. SLABS OF STR. RIC-545-0593				50	24.0		133	133		1	11		1.25	5						2.0	2.0	-38	-0.03	-3	-38	
	DEDUCT FOR STRUCTURE RIC-545-0617 & APP. SLABS				86	23.5		225				-18	-9	1.25	-8	1.00	-6				2.0	2.0					
	TAPER PLANING TO APP. SLABS OF STR. RIC-545-0617				300	23.5		783	783		8																
	PLANE & PAVE APP. SLABS OF STR. RIC-545-0617				40	34.0		151	151		2	12		1.25	5						2.						

RIC-545-1.44	11
ASD-545-0.00	51

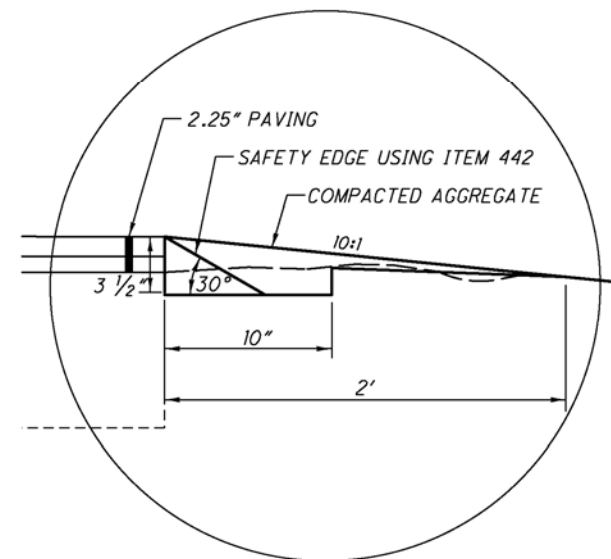
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WORKSTATION: ksalay DATE: 2/28/2013



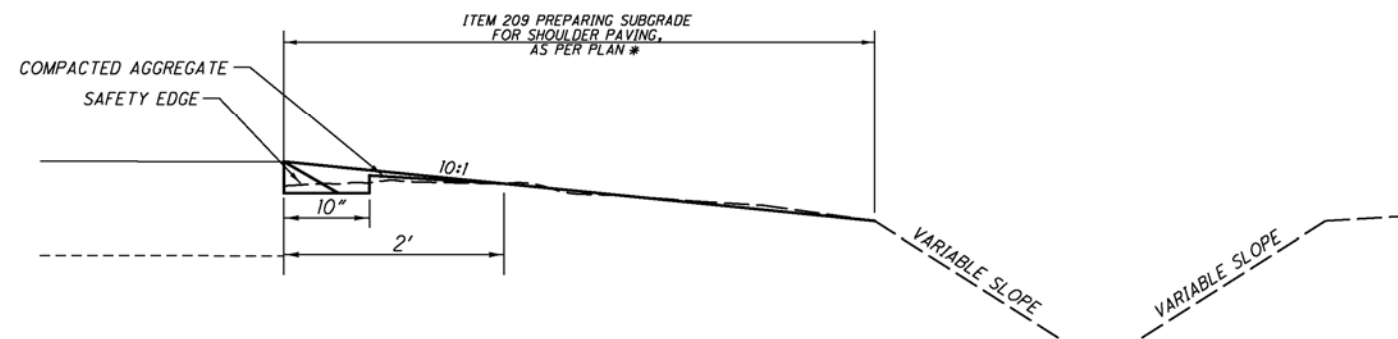
TYPICAL 1



TYPICAL 2



DETAIL A
SAFETY EDGE



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

NOTE:

SEE SHEET 26 FOR THRU LANES STRIPING NOTE.

TYPICAL SECTIONS

RIC-545-1.44
ASD-545-0.00

12
51

CALCULATED
KRB
CHECKED
ADB

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.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

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 PREPARATION OF SUBGRADE FOR SHOULDER PAVING IS COMPLETED AND THE 617 MATERIAL IS PLACED.
2. REMOVE THE GUARDRAIL.
3. PERFORM THE RESHAPING UNDER GUARDRAIL INCLUDING COMPLETING THE EMBANKMENT, AS PER PLAN.
4. REBUILD/CONSTRUCT THE GUARDRAIL RUN.
5. INSTALL BARRIER REFLECTORS.

BRIDGE LOCATION MARKER SIGN

THE BRIDGE LOCATION MARKER SIGN INDICATES THE COUNTY, THE ROUTE, AND THE STRAIGHT LINE MILEAGE OF THE STRUCTURE. THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE LOCATION MARKER SIGNS AND REERECT THE SIGNS IN KIND. IF THERE ARE ANY QUESTIONS ON THE LOCATION, PLEASE CONTACT THE DISTRICT BRIDGE ENGINEER.

ALL COSTS, INCLUDING THE SIGN REMOVAL, SIGN REERECTION, POST REMOVAL, AND POST INSTALLATION SHALL BE INCLUDED IN THE FOLLOWING PAY ITEMS:

- ITEM 630 GROUND MOUNTED SUPPORT, NO. 2. POST
- ITEM 630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
- ITEM 630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL

SEE ROADWAY SUB-SUMMARY SHEET FOR QUANTITIES.

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 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

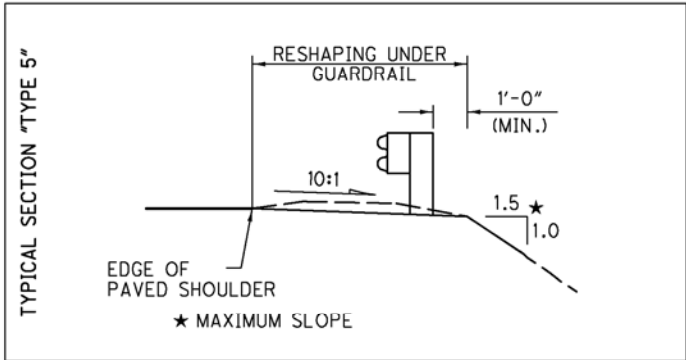
THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS.

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.



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 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

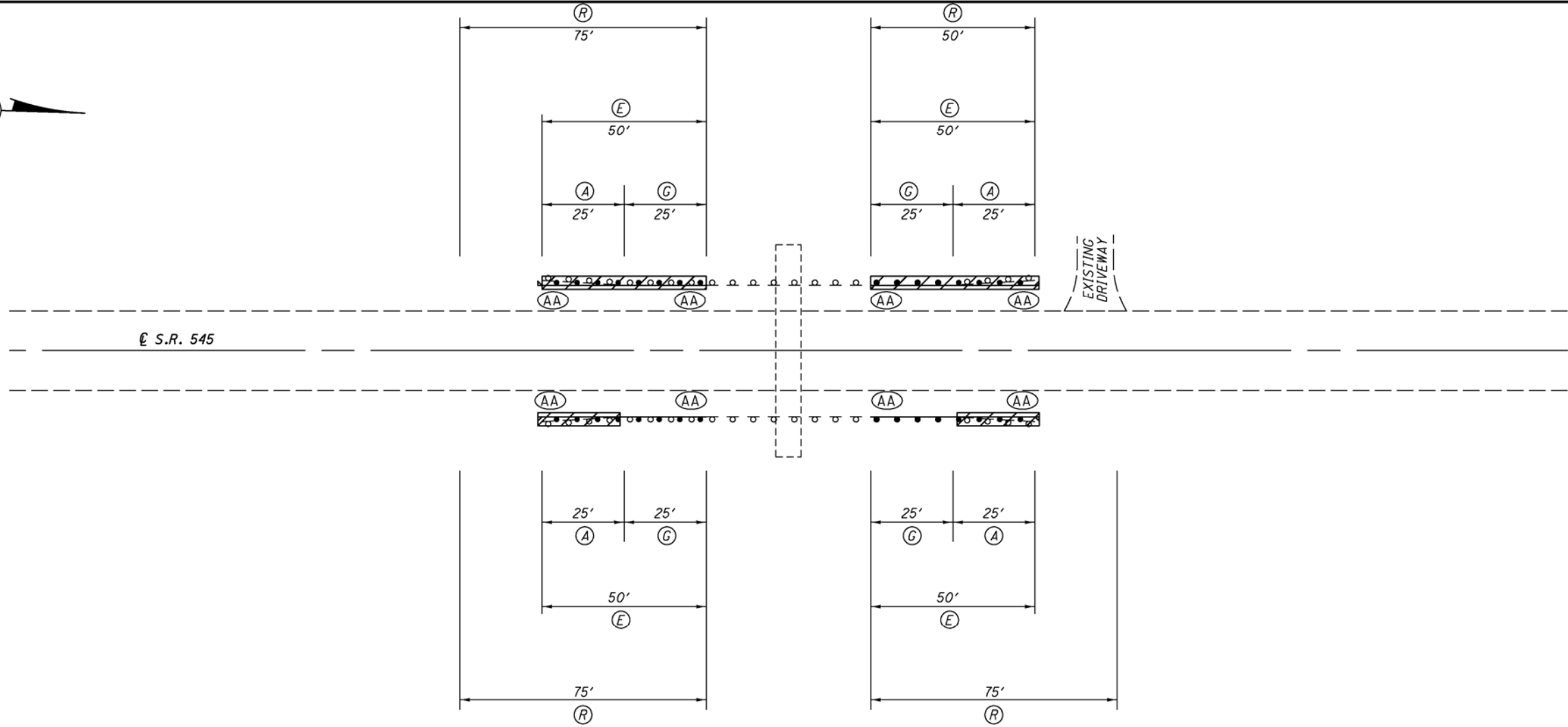
THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27 1/4 INCHES FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

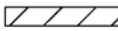
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

$$\frac{14}{51}$$



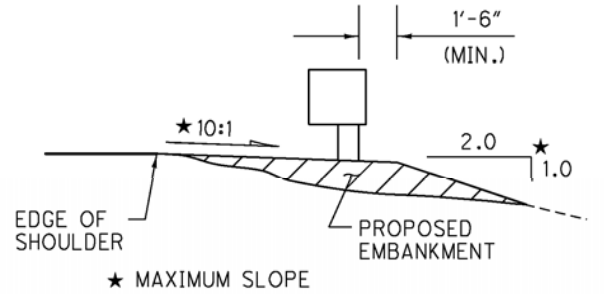
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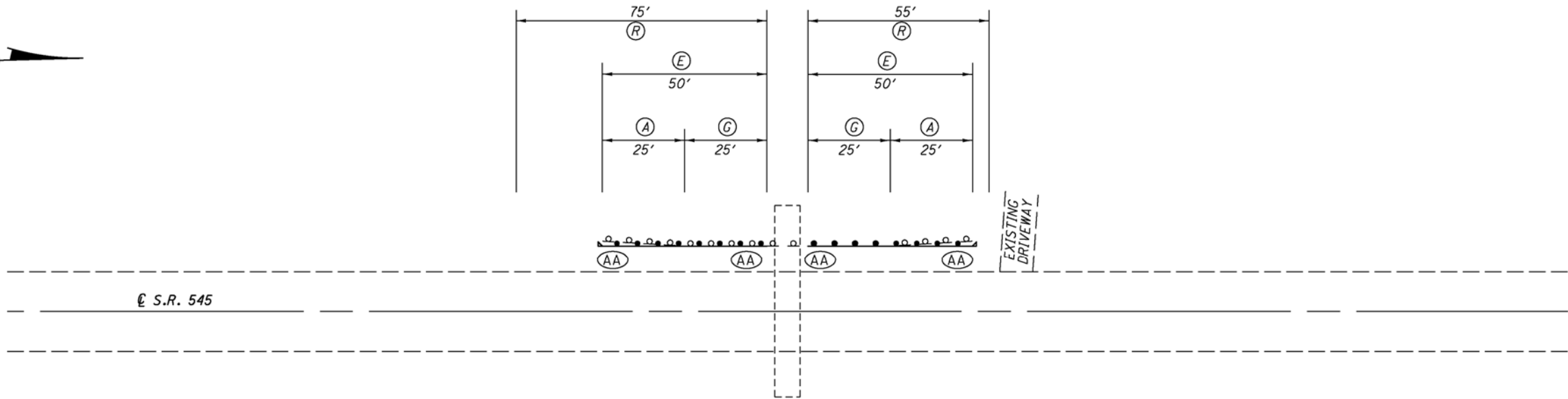
1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	50	50	100
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	2	4
	203	EMBANKMENT, AS PER PLAN	CU YD	20	10	30
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	1.25	1.50	2.75
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	2	2	4
(AA)	626	BARRIER REFLECTOR	EACH	4	4	8

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

TYPICAL SECTION "E"



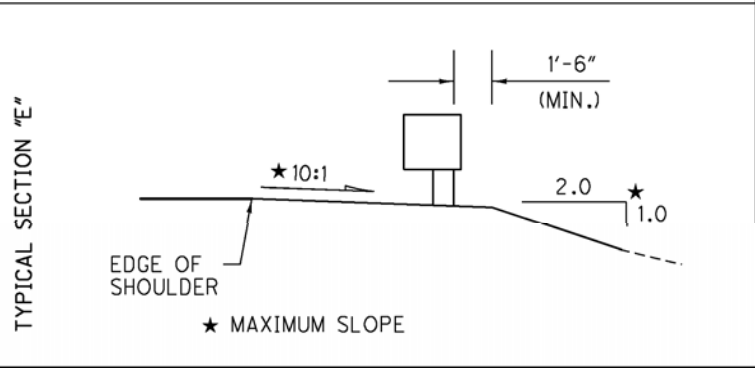


NOTES:

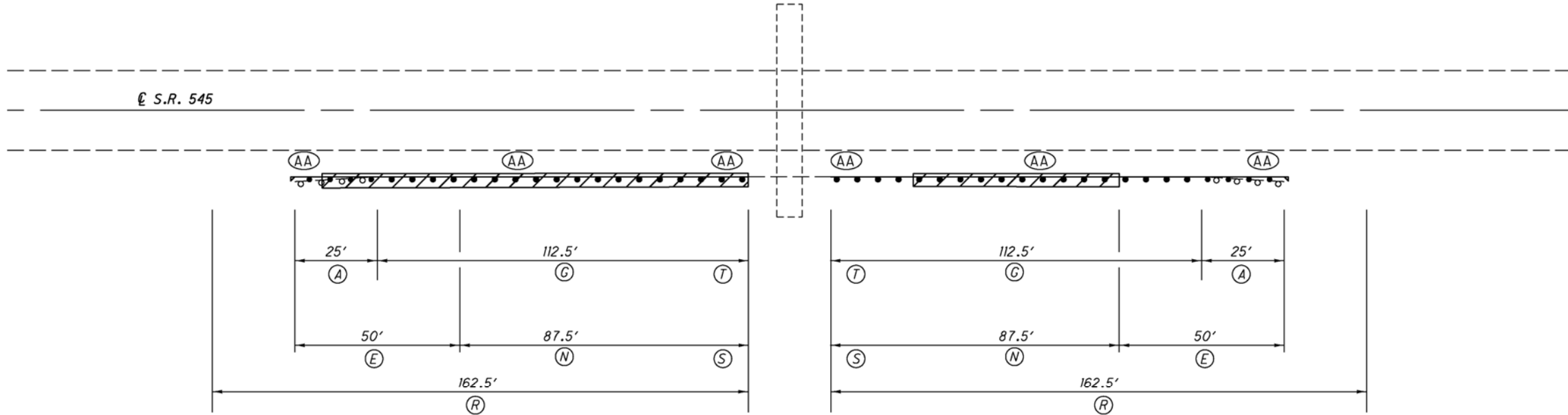
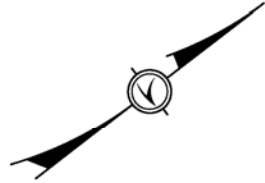
1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	50		50
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2		2
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	1.30		1.30
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	2		2
(AA)	626	BARRIER REFLECTOR	EACH	4		4

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.




DESIGN FILE: I:\projects\85051\roadway\sheets\85051GR001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



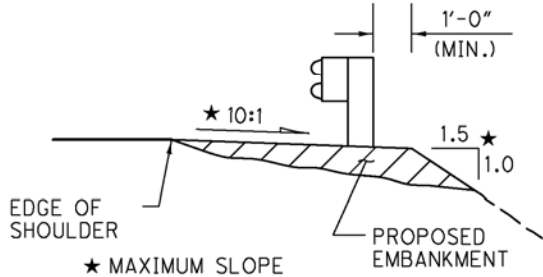
NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

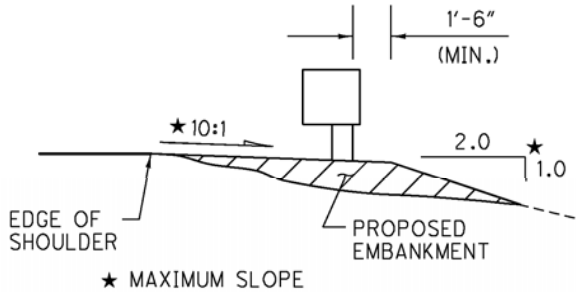
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT		225	225
(T)	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH		2	2
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH		2	2
	203	EMBANKMENT, AS PER PLAN	CU YD		30	30
(R)	209	RESHAPING UNDER GUARDRAIL	STATION		3.25	3.25
(N)	606	GUARDRAIL, TYPE 5, USING 9' POSTS	FT		175	175
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH		2	2
(S)	606	BRIDGE TERMINAL ASSEMBLY, TYPE 4	EACH		2	2
(AA)	626	BARRIER REFLECTOR	EACH		6	6

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

TYPICAL SECTION "TYPE 5"



TYPICAL SECTION "E"



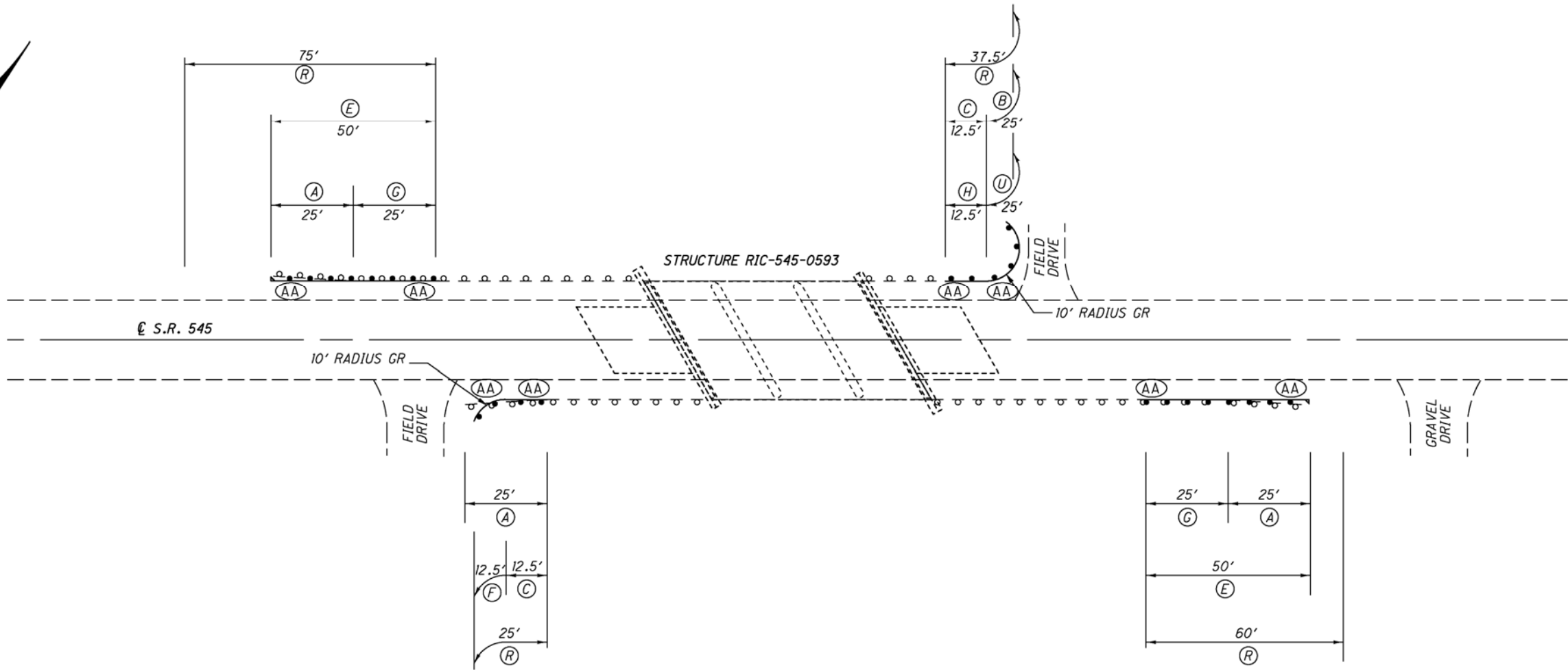
CALCULATED
ERS
CHECKED
KRB

GUARDRAIL DETAIL
RIC-545-4.70

RIC-545-1.44
ASD-545-0.00

17
51

DESIGN FILE: I:\projects\85051\roadway\sheets\85051GR001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



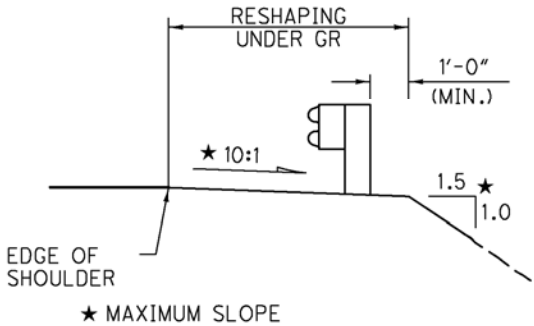
NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

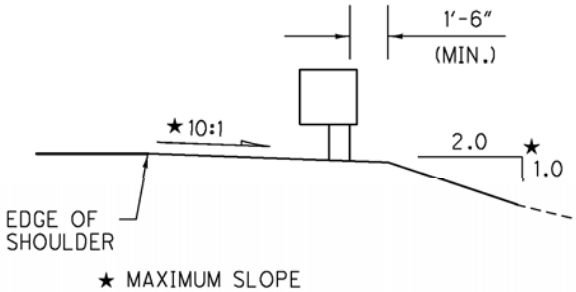
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	25	25	50
(U)	202	GUARDRAIL REMOVED FOR REUSE	FT	25		25
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	1	2	3
(H)	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1		1
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	1.125	0.85	1.975
(F)	606	GUARDRAIL, TYPE 5			12.5	12.5
(B)	606	GUARDRAIL REBUILT, TYPE 5	FT	25		25
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	1	1	2
(C)	606	ANCHOR ASSEMBLY, TYPE T	EACH	1	1	2
(AA)	626	BARRIER REFLECTOR	EACH	4	4	8

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

TYPICAL SECTION "TYPE 5"



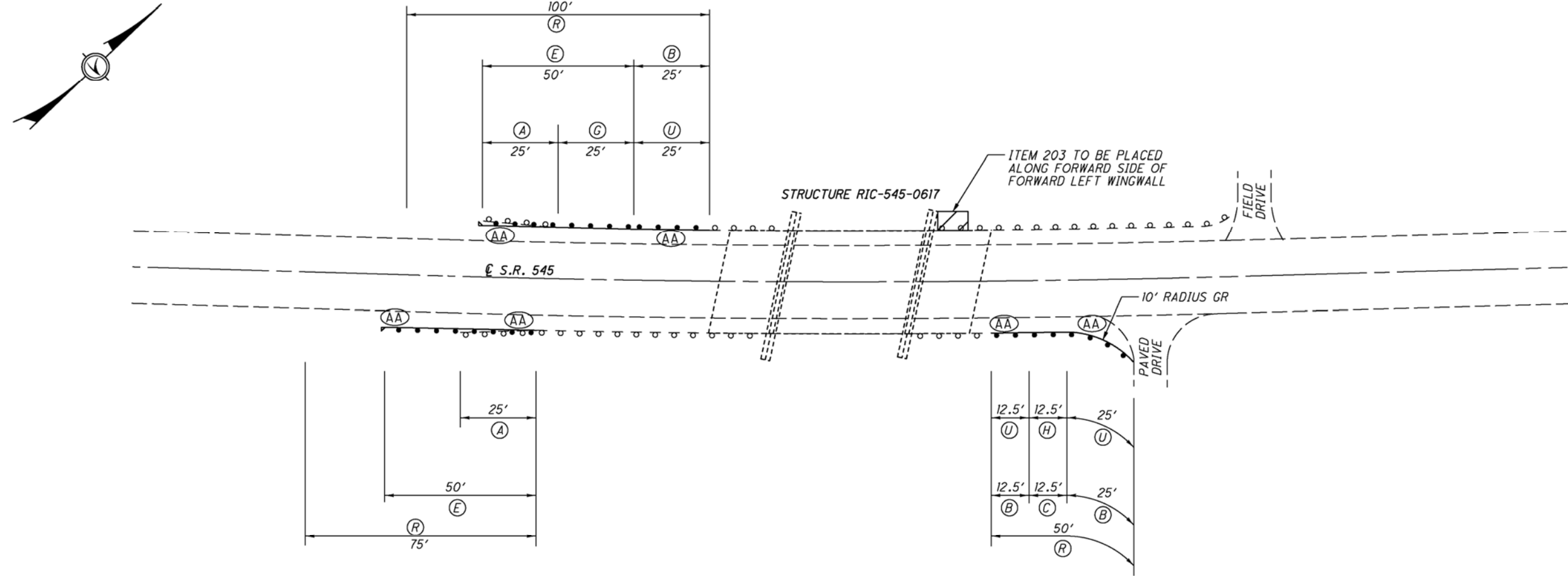
TYPICAL SECTION "E"



GUARDRAIL DETAIL
RIC-545-5.93


RIC-545-1.44
ASD-545-0.00

CALCULATED
ERS
CHECKED
KRB



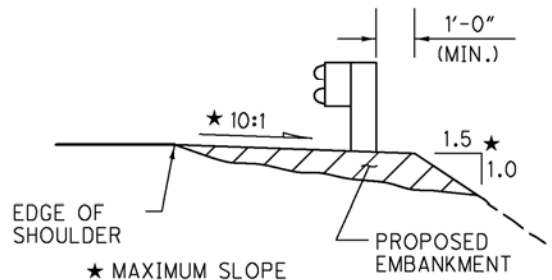
NOTES:

- 1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING
- 2) THE RELOCATION OF THE EXISTING ADDRESS SIGN AND PAPER BOX SHALL BE INCIDENTAL TO ITEMS 202 AND 606.
- 3) NO PROPOSED GUARDRAIL WORK IS REQUIRED AT STRUCTURE RIC-545-0792. SEE SHEET 20 FOR THE NEXT LOCATION WITH PROPOSED GUARDRAIL WORK.

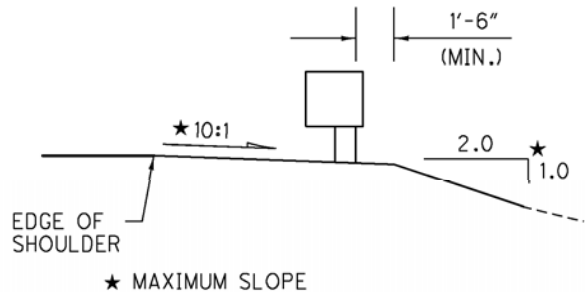
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	25		25
(U)	202	GUARDRAIL REMOVED FOR REUSE	FT	25	37.5	62.5
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	1	1	2
(H)	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH		1	1
	203	EMBANKMENT, AS PER PLAN	CU YD	3		3
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	1.00	1.25	2.25
(B)	606	GUARDRAIL REBUILT, TYPE 5	FT	25	37.5	62.5
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	1	1	2
(C)	606	ANCHOR ASSEMBLY, TYPE T	EACH		1	1
(AA)	626	BARRIER REFLECTOR	EACH	2	4	6

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

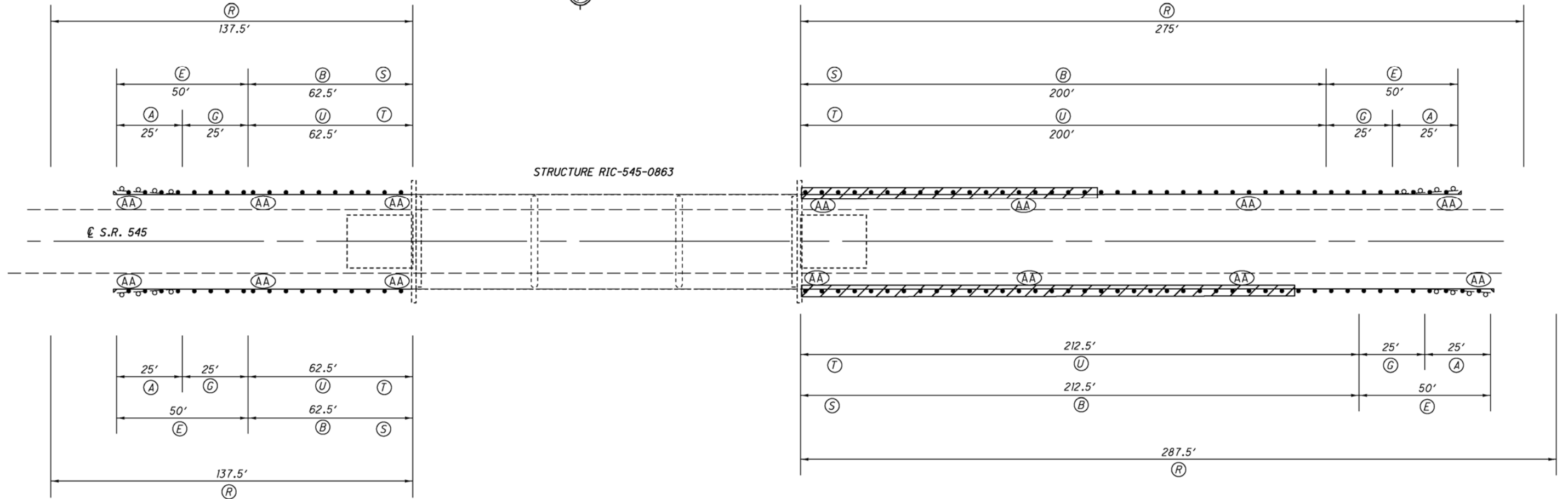
TYPICAL SECTION "TYPE 5"



TYPICAL SECTION "E"




DESIGN FILE: I:\projects\85051\roadway\sheets\85051GR001.dgn
WORKSTATION: ksalay DATE: 12/3/2012

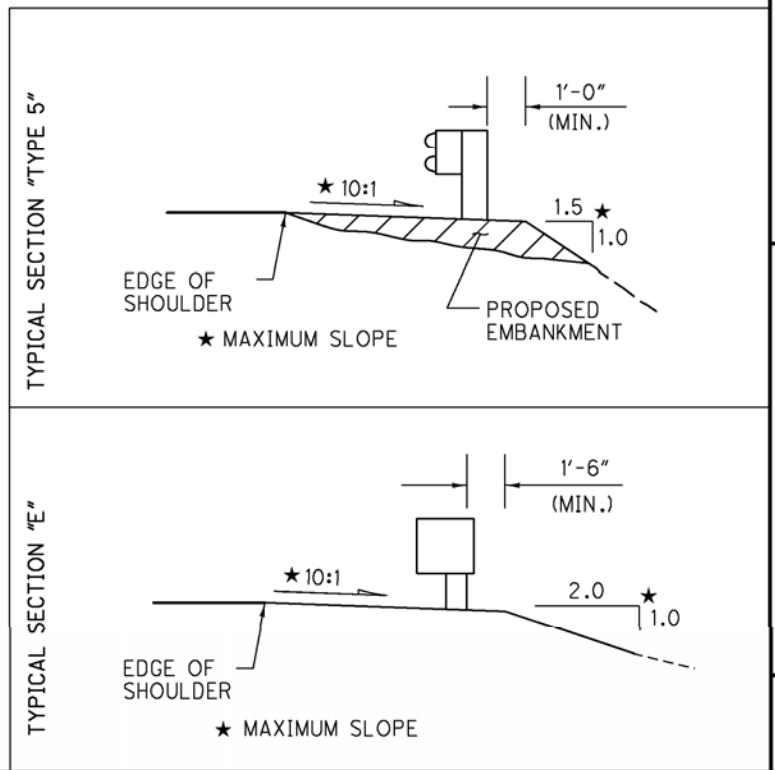


NOTES:

- 1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING
- 2) SEE STRUCTURE SHEETS FOR PROPOSED TWIN STEEL TUBE BRIDGE RAILING WORK

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	50	50	100
(U)	202	GUARDRAIL REMOVED FOR REUSE	FT	262.5	275	537.5
(T)	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	2	2	4
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	2	4
	203	EMBANKMENT, AS PER PLAN	CU YD	20	40	60
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	4.125	4.25	8.375
(B)	606	GUARDRAIL REBUILT, TYPE 5	FT	262.5	275	537.5
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	2	2	4
(S)	606	BRIDGE TERMINAL ASSEMBLY, TYPE TST	EACH	2	2	4
(AA)	626	BARRIER REFLECTOR	EACH	7	7	14
	630	GROUND MOUNTED SUPPORT, NO. 2 POST	FT		7	7
	630	REMOVAL OF GROUND MOUNTED SIGN AND RE-ERECTION	EACH		1	1
	630	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	EACH		1	1

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

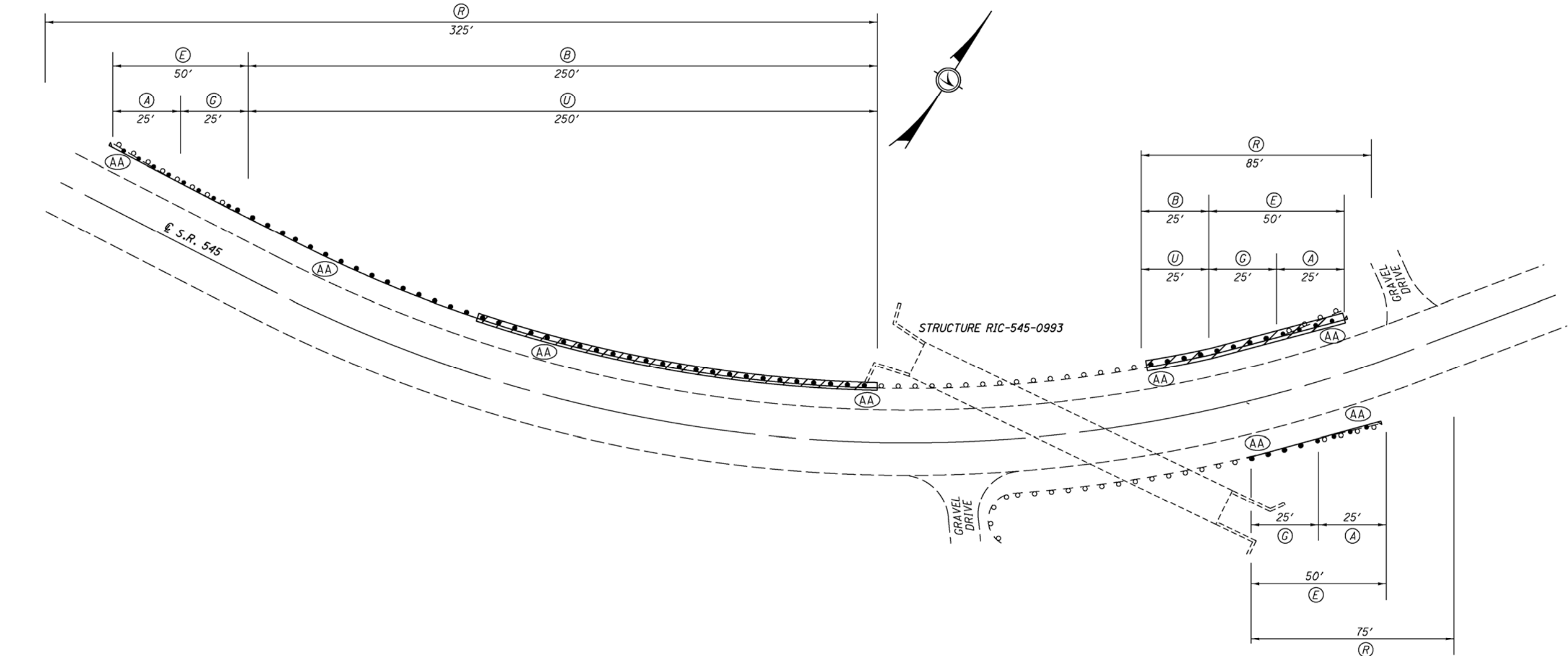


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GUARDRAIL DETAIL
RIC-545-8.63


RIC-545-1.44
ASD-545-0.00

20
51



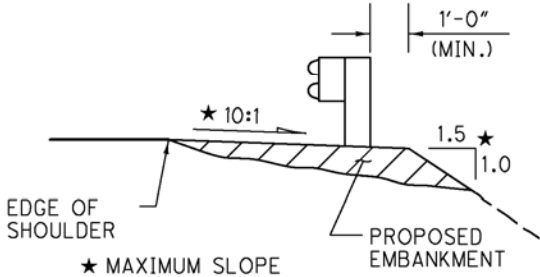
NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

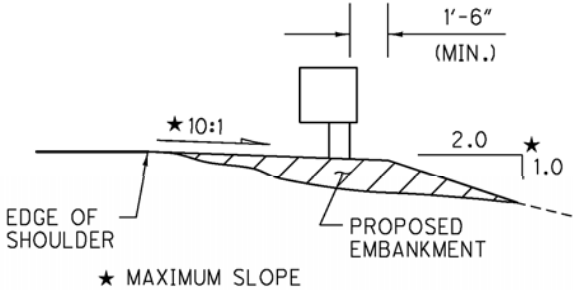
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
ⓖ	202	GUARDRAIL REMOVED	FT	50	25	75
ⓤ	202	GUARDRAIL REMOVED FOR REUSE	FT	275		275
Ⓐ	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	1	3
	203	EMBANKMENT, AS PER PLAN	CU YD	50		50
Ⓡ	209	RESHAPING UNDER GUARDRAIL	STATION	4.10	0.75	4.85
Ⓑ	606	GUARDRAIL REBUILT, TYPE 5	FT	275		275
ⓔ	606	ANCHOR ASSEMBLY, TYPE E	EACH	2	1	3
ⒶⒶ	626	BARRIER REFLECTOR	EACH	6	2	8

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

TYPICAL SECTION "TYPE 5"



TYPICAL SECTION "E"

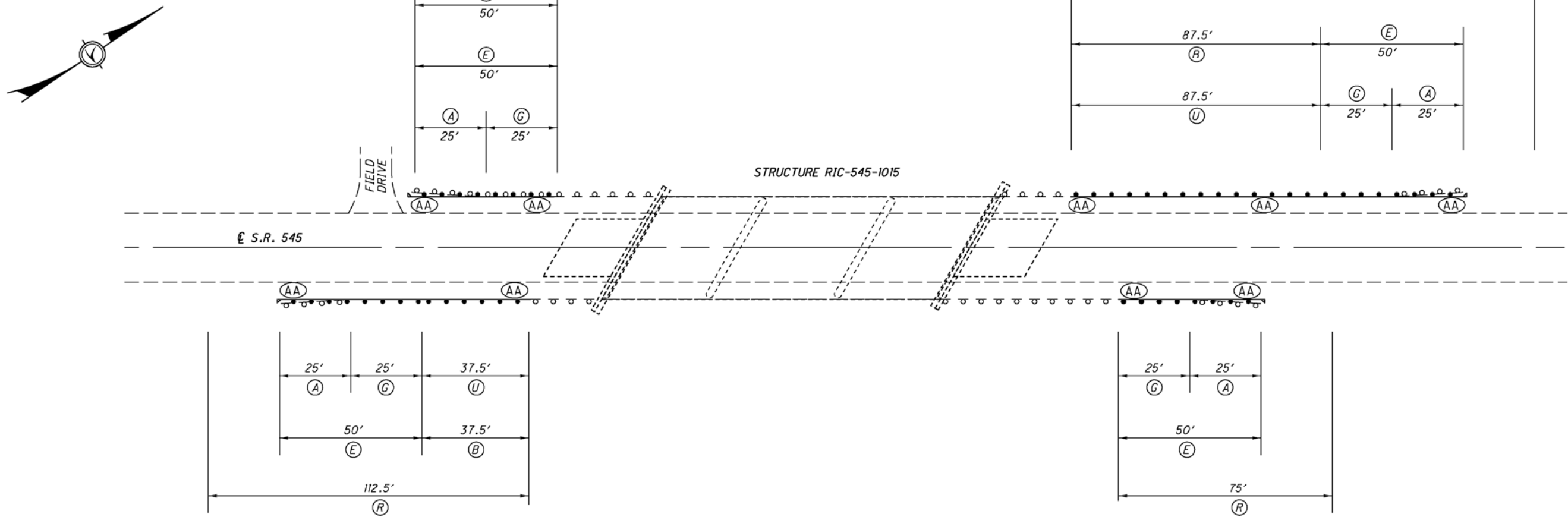


CALCULATED
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GUARDRAIL DETAIL
RIC-545-9.93

RIC-545-1.44
ASD-545-0.00

21
51



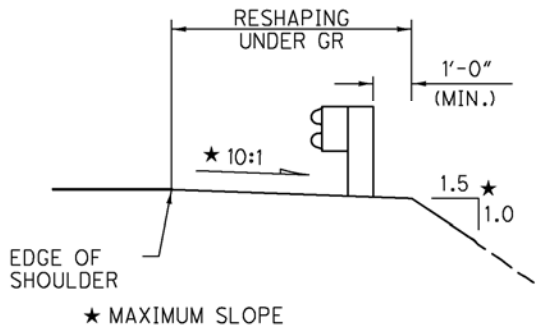
NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

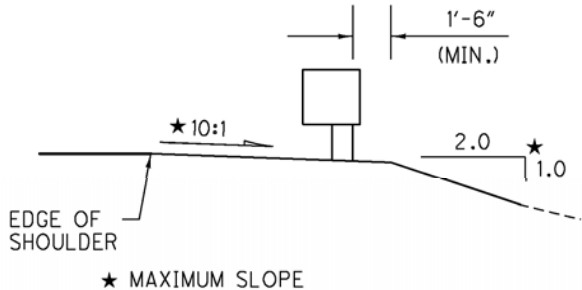
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	50	50	100
(U)	202	GUARDRAIL REMOVED FOR REUSE	FT	87.5	37.5	125
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	2	4
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	2.125	1.875	4.00
(B)	606	GUARDRAIL REBUILT, TYPE 5	FT	87.5	37.5	125
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	2	2	4
(AA)	626	BARRIER REFLECTOR	EACH	5	4	9

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

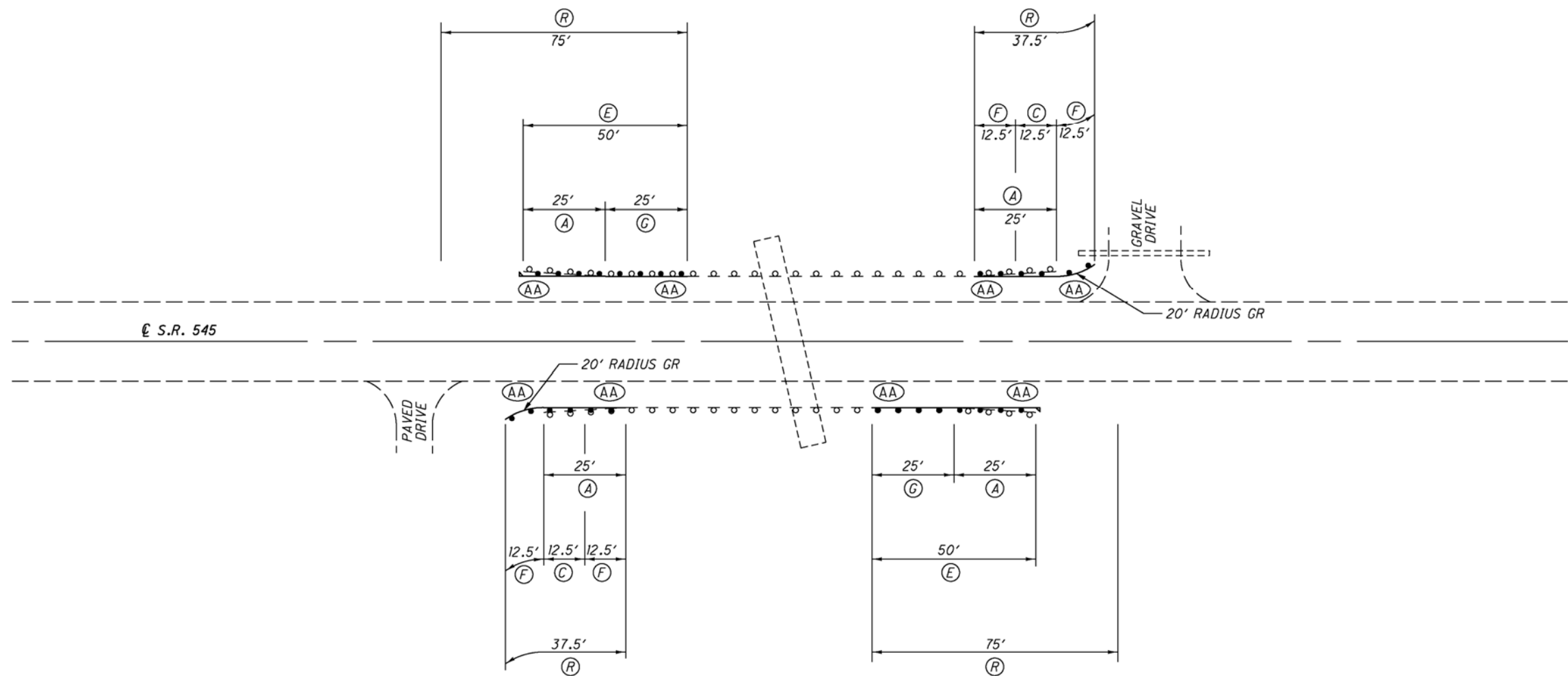
TYPICAL SECTION "TYPE 5"



TYPICAL SECTION "E"



DESIGN FILE: I:\projects\85051\roadway\sheets\85051GR001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



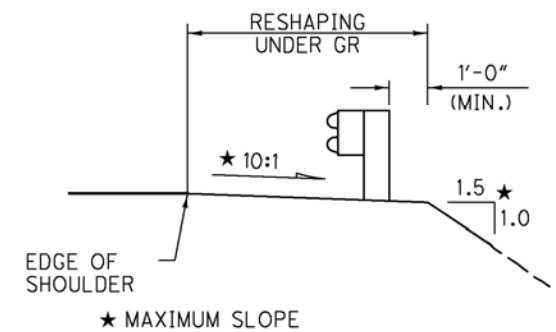
NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

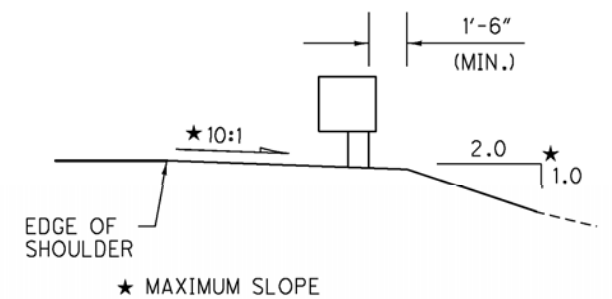
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	25	25	50
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	2	4
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	1.125	1.125	2.25
(F)	606	GUARDRAIL, TYPE 5	FT	25	25	50
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	1	1	2
(C)	606	ANCHOR ASSEMBLY, TYPE T	EACH	1	1	2
(AA)	626	BARRIER REFLECTOR	EACH	4	4	8

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.

TYPICAL SECTION "TYPE 5"



TYPICAL SECTION "E"

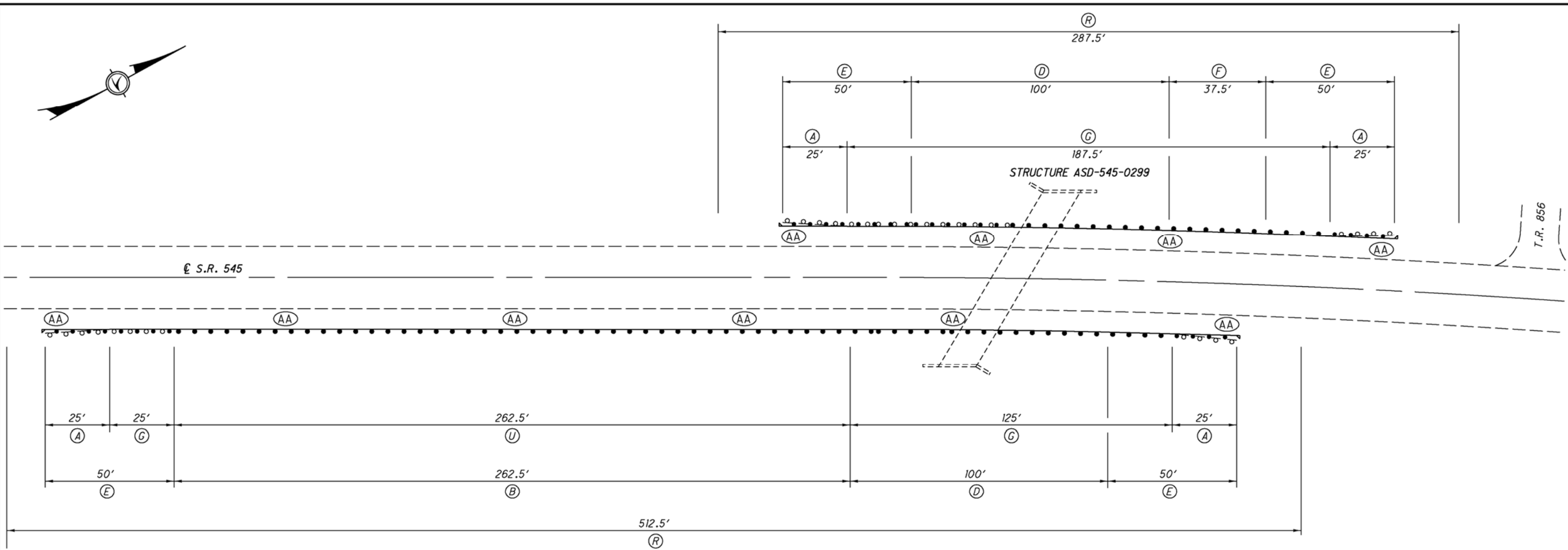


GUARDRAIL DETAIL
RIC-545-10.79

RIC-545-1.44
ASD-545-0.00

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CALCULATED
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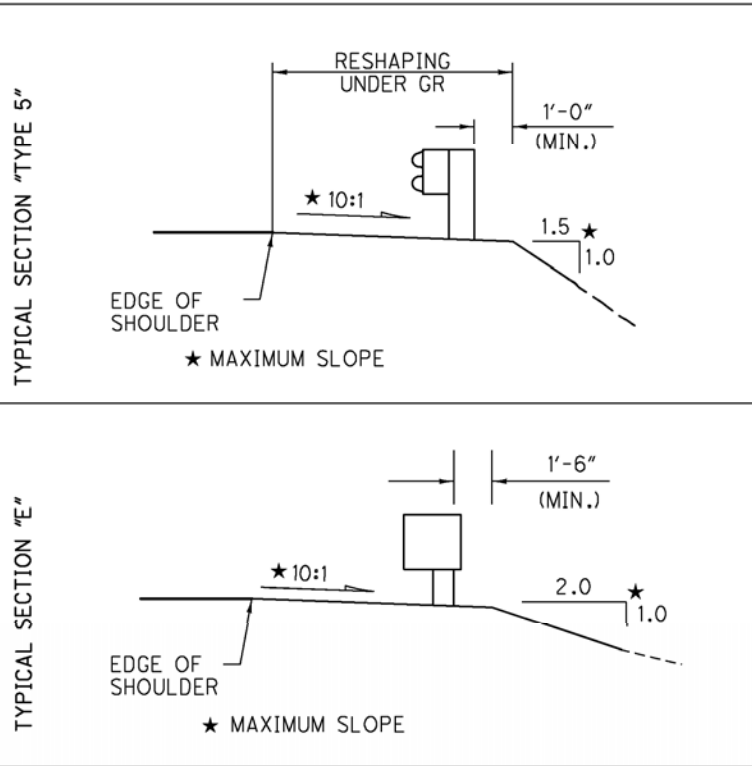


NOTES:

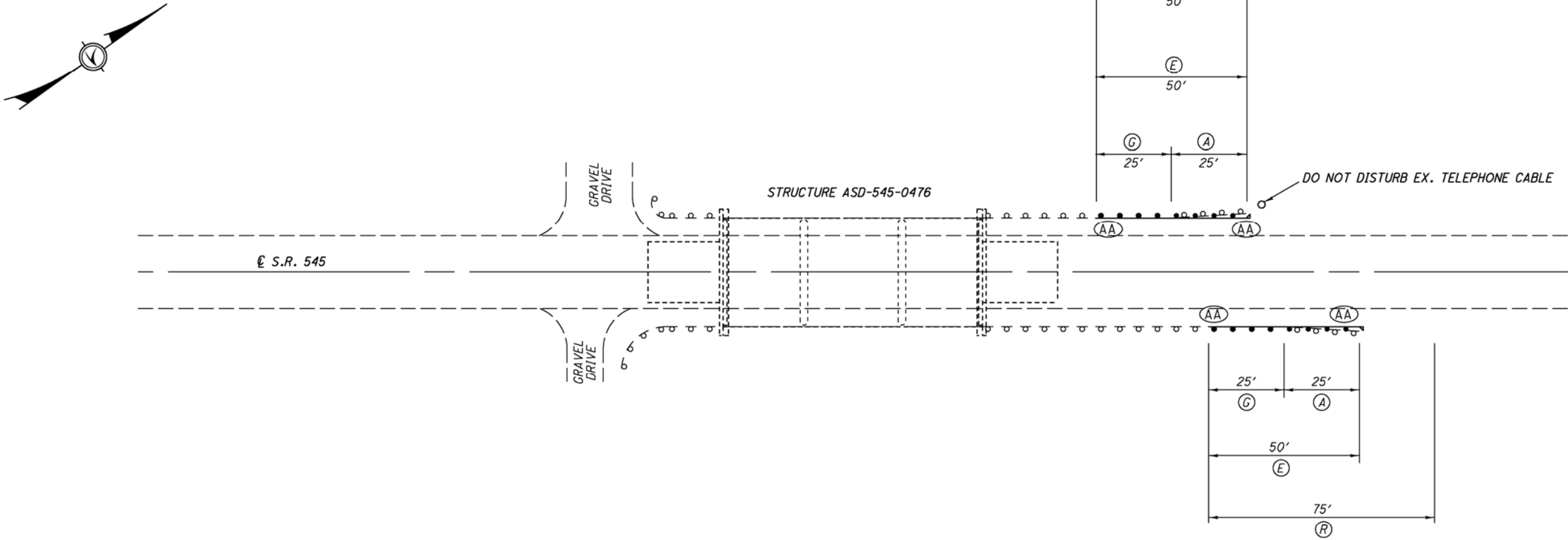
1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	187.5	150	337.5
(U)	202	GUARDRAIL REMOVED FOR REUSE	FT		262.5	262.5
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	2	2	4
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	2.875	5.125	8
(F)	606	GUARDRAIL, TYPE 5	FT	37.5		37.5
(B)	606	GUARDRAIL REBUILT, TYPE 5	FT		262.5	262.5
(D)	606	GUARDRAIL, TYPE 5, 25' LONG-SPAN	FT	100	100	200
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	2	2	4
(AA)	626	BARRIER REFLECTOR	EACH	4	6	10
	630	GROUND MOUNTED SUPPORT, NO. 2 POST	FT		7	7
	630	REMOVAL OF GROUND MOUNTED SIGN AND RE-ERECTION	EACH		1	1
	630	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	EACH		1	1

ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.



DESIGN FILE: I:\projects\85051\roadway\sheets\85051GR001.dgn
WORKSTATION: ksalay DATE: 2/27/2013

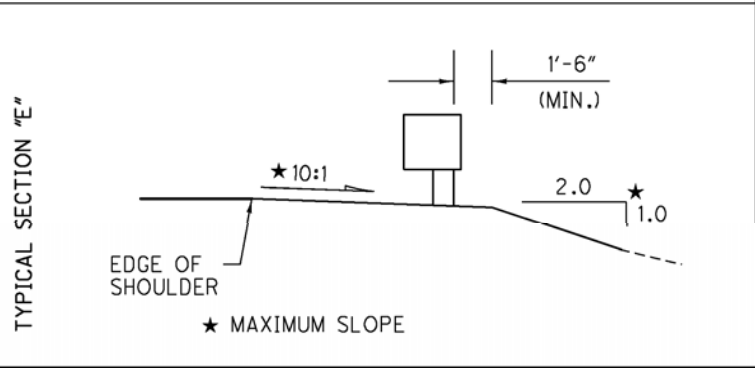


NOTES:

1) PROPOSED GUARDRAIL OFFSET SAME AS EXISTING

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT	RIGHT	
(G)	202	GUARDRAIL REMOVED	FT	25	25	50
(A)	202	ANCHOR ASSEMBLY REMOVED, TYPE A	EACH	1	1	2
(R)	209	RESHAPING UNDER GUARDRAIL	STATION	0.5	0.75	1.25
(E)	606	ANCHOR ASSEMBLY, TYPE E	EACH	1	1	2
(AA)	636	BARRIER REFLECTOR	EACH	2	2	4

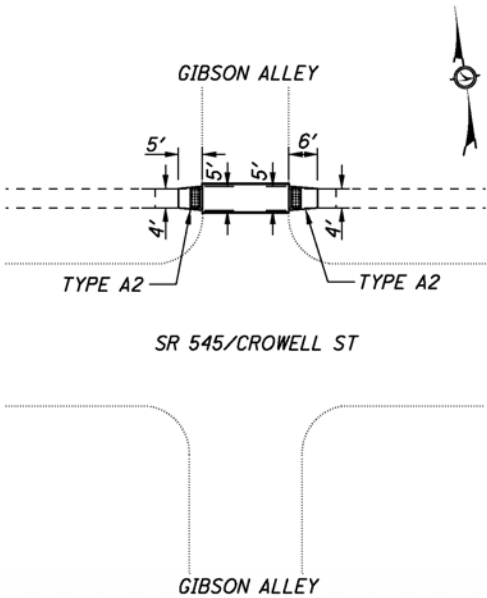
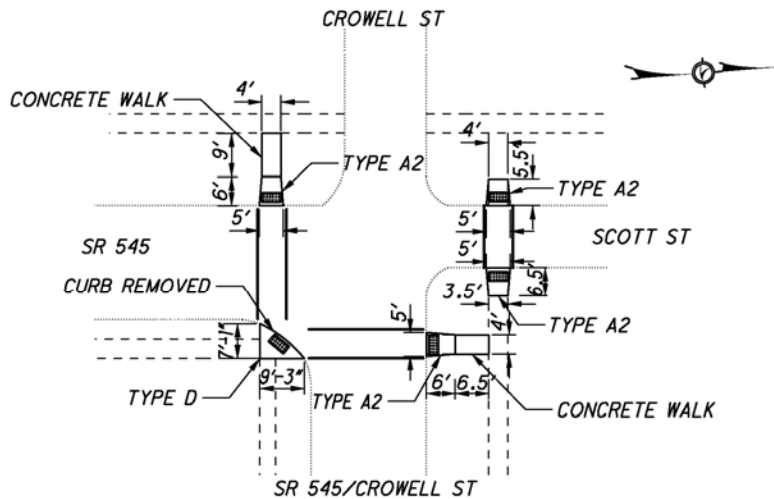
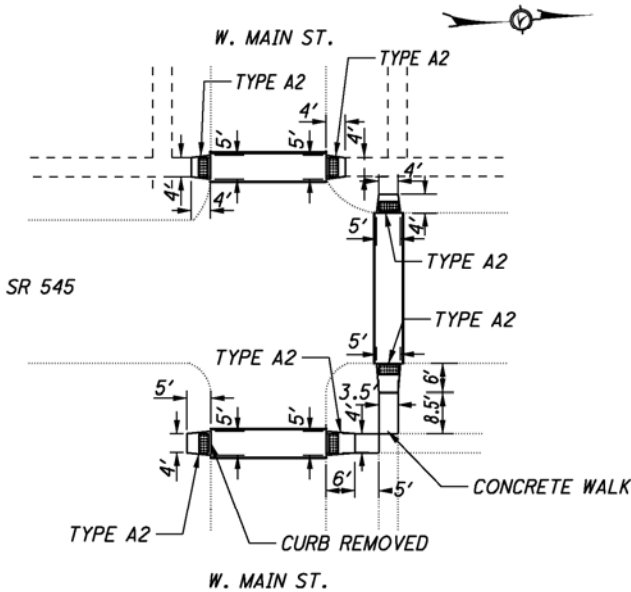
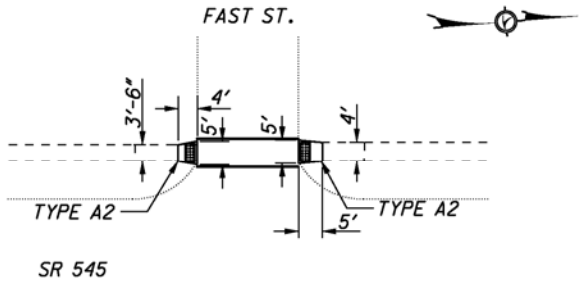
ALL QUANTITIES CARRIED TO ROADWAY SUB-SUMMARY SHEET.



<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;">26</div> <div style="text-align: center;">51</div> </div>	<div style="text-align: center;"> RIC-545-1.44 ASD-545-0.00 </div>	<div style="text-align: center;"> PAVEMENT MARKING / RPM SUB-SUMMARY </div>	CALCULATED
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LOCATION	202		202		608				608		608			
	WALK REMOVED		CURB REMOVED		4" CONCRETE WALK				CURB RAMP, TYPE A2		CURB RAMP, TYPE D			
	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT			LEFT	RIGHT	LEFT	RIGHT		
	SQ FT		FT		SQ FT				SQ FT		SQ FT			
01/STR/PV:														
FAST ST.	34								40					
W. MAIN ST.	48	95		5		50			54	75				
SCOTT ST. / CROWELL ST.	22	112		12	36	26			52	55		39		
GIBSON	44								50					
TOTAL (01/STR/PV)	355		17		112				326		39			

NOTES:
FOR ADDITIONAL DETAILS, SEE SCD BP-7.1, NEW CURB RAMPS.
AREAS CALCULATED ARE FOR ESTIMATING PURPOSES ONLY.
ACTUAL AREAS SHALL BE VERIFIED BY THE PROJECT ENGINEER.
ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY SHEET.



RIC-545-0593 S.F.N. 7006543 (01/ STR/ PV)

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	98200	88	FT	REMOVAL MISC.: JOINT SEAL	31
516	31000	88	FT	JOINT SEALER	

RIC-545-0617 S.F.N. 7006586 (01/ STR/ PV)

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
512	10100	56	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	74000	56	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	

RIC-545-1.44
ASD-545-0.00

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STRUCTURE SUMMARY

DESIGNED
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REVIEWED
DCM

DATE
11-29-12

DESIGN AGENCY
ODOT DISTRICT THREE OFFICE
OF PLANNING & ENGINEERING

DESIGN FILE: \\projects\B5051\structures\B5051CG001.dgn
WORKSTATION:ksalay DATE:1/3/2013

RIC-545-0863 S.F.N. 7006632 (05 / STR / BR)

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	47	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	31
202	38500	300	FT	BRIDGE RAILING REMOVED	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING	
509	10000	7152	POUND	EPOXY COATED REINFORCING STEEL	
511	34401	39	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)	31
511	34450	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	31
511	43201	13	CU YD	CLASS C CONCRETE, PIER, AS PER PLAN (REPAIR)	31
511	45701	9	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)	31
512	10100	217	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33300	3	SQ YD	TYPE A WATERPROOFING	
512	74000	96	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
513	10201	1231	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	31
513	21000	10	EACH	TRIMMING OF BEAM END	
514	00050	550	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
514	00056	550	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
514	00060	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
514	00066	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
514	00504	1	MAN HR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
514	10000	2	EACH	FINAL INSPECTION REPAIR	
516	10500	72	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC COMPRESSION SEAL	
516	31000	40	FT	JOINT SEALER	
516	45305	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	32
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	32
517	70000	303.33	FT	RAILING (TWIN STEEL TUBE)	
848	10201	584	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2½" THICK)	32
848	20000	494	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION	
848	30201	2	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	32
848	50000	35	SQ YD	HAND CHIPPING	
848	50100	LUMP		TEST SLAB	
848	50320	508	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (1¾" NOMINAL THICKNESS)	

DESIGN AGENCY
ODOT DISTRICT THREE OFFICE
OF PLANNING & ENGINEERING

DATE
11-29-12

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DCM

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KRB

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KRB

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STRUCTURE SUMMARY

RIC-545-1.44
ASD-545-0.00

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DESIGN FILE: \\projects\85051\structures\85051CG001.dgn
WORKSTATION:ksalay DATE: 2/28/2013

RIC-545-1015 S.F.N. 7006691 (05 / STR / BR)

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	5	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	31
511	34450	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	31
511	45701	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	31
512	10100	34	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33300	3	SQ YD	TYPE A WATERPROOFING	
512	74000	34	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
516	31000	46	FT	JOINT SEALER	
517	76300	125	FT	RAILING, MISC.: DEEP BEAM RAILING PANELS	31
601	27000	80	CU YD	DUMPED ROCK FILL, TYPE C	
848	10201	478	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/4" THICK)	32
848	20000	478	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION	
848	30201	2	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	32
848	50000	43	SQ YD	HAND CHIPPING	
848	50100	LUMP		TEST SLAB	
848	50320	478	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (1 1/2" NOMINAL THICKNESS)	

ASD-545-0476 S.F.N. 0305766 (01 / STR / PV)

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	98200	77	FT	REMOVAL MISC.: JOINT SEAL	31
516	31000	77	FT	JOINT SEALER	

RIC-545-1.44
ASD-545-0.00

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STRUCTURE SUMMARY

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REVIEWED
DCM

DATE
11-29-12

DESIGN AGENCY
ODOT DISTRICT THREE OFFICE
OF PLANNING & ENGINEERING

DESIGN FILE: \\projects\85051\structures\85051GN001.dgn
WORKSTATION:ksalay DATE: 3/5/2013

REFERENCES SHALL BE MADE TO STANDARD BRIDGE DRAWINGS:

EXJ-2-81	DATED	7/19/02	DBR-2-73	DATED	7/19/02
GSD-1-96	DATED	7/19/02			
PCB-91	DATED	7/19/02			
TST-1-99	DATED	4/18/08			
CSB-1-55	DATED	3/1/58			

REFERENCES SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS:

848	DATED	10/21/11
961	DATED	10/17/08

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, 105.02 AND 513.04.

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
RIC-545-0593	RIC-545-(6.44)(9.05-9.46) (10.89-11.01) ASD-545-2.87	1958
RIC-545-0617	RIC-545-6.95	1993
RIC-545-0792	RIC-545-7.91	2008
RIC-545-0863	RIC-545-(6.44)(9.05-9.46) (10.89-11.01) ASD-545-2.87	1958
RIC-545-0993	RIC-545-10.78	1982
RIC-545-1015	RIC-545-(6.44)(9.05-9.46) (10.89-11.01) ASD-545-2.87	1958
ASD-545-0299	RIC-545-(6.44)(9.05-9.46) (10.89-11.01) ASD-545-2.87	1958
ASD-545-0476	ASD-545-4.56	1966

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.

DESIGN DATA

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 PSI

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL - ASTM A709 GRADE 50W OR GRADE 50, YIELD STRENGTH 50,000 PSI
A709 GRADE 36 - YIELD STRENGTH 36,000 PSI

DECK PROTECTION METHOD

SUPERPLASTICIZED DENSE CONCRETE OVERLAY
CONCRETE DRIP STRIP

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ASPHALT CONCRETE FEATHERING 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.

ENVIRONMENTAL COMMITMENTS:

1. THIS PROJECT IS WITHIN THE KNOWN SUMMER BREEDING RANGE OF THE FEDERAL ENDANGERED INDIANA BAT. UNAVOIDABLE CUTTING OF TREES DEFINED AS POTENTIAL HABITAT FOR THE INDIANA BAT (I.E. LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES) WILL BE PERFORMED ONLY BEFORE APRIL 1 OR AFTER SEPTEMBER 30 WHEN THE SPECIES WOULD NOT BE USING SUCH HABITAT.

2. NO IN STREAM WORK SHALL BE PERFORMED BETWEEN 04/15/13 - 06/30/13 AT STRUCTURE RIC-545-0863.

IN-STREAM WORK RESTRICTION - RIC-545-1015 OVER WHETSTONE CREEK

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 FOR THE RIC-545-1015 STRUCTURE OVER WHETSTONE CREEK AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM BE 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; SHELIVING; 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.

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 AND THE EXISTING ELASTOMERIC COMPRESSION SEAL GLAND LOCATED 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 511 - CLASS S CONCRETE. SUPERSTRUCTURE. AS PER PLAN (RECONSTRUCTION)

ITEM 511 - CLASS S CONCRETE. MISC.: APPROACH SLAB REPAIR

ITEM 511 - CLASS C CONCRETE. ABUTMENT. AS PER PLAN (REPAIR)

ITEM 511 - CLASS C CONCRETE. ABUTMENT. AS PER PLAN (RECONSTRUCTION)

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.

ITEM 511 - CLASS C CONCRETE. PIER. AS PER PLAN (REPAIR)

THIS ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLANS. ALL EXCAVATION AND EMBANKMENT SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE COST OF ITEM 511 - CLASS C CONCRETE, PIER, AS PER PLAN (REPAIR).

THE COARSE AGGREGATE SHALL BE LIMESTONE.

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

ITEM 513 - TRIMMING OF BEAM END

THE ENDS OF THE BEAM AT THE ABUTMENTS SHALL BE TRIMMED TO PROVIDE FOR 3" OF CLEARANCE TO THE EXISTING BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 513 - TRIMMING OF BEAM END WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 513 - STRUCTURAL STEEL MEMBERS. LEVEL UF. AS PER PLAN

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

COST TO REMOVE EXISTING CROSS FRAME MEMBERS AND ALL NECESSARY GRINDING SHALL BE INCLUDED IN THIS ITEM.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: 4 X 4 X 3/8 ANGLES.

ITEM 517 - RAILING. MISC.: DEEP BEAM RAILING PANELS

THIS ITEM SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING DEEP BEAM RAILING PANELS ON THE RIGHT SIDE OF STRUCTURE RIC-545-1015. THE REMOVAL AND REPLACEMENT OF ALL BOLTS AND HARDWARE NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN THIS ITEM. THE RAIL ELEMENTS SHALL BE OF THE SAME TYPE AND SIZE AS THE EXISTING RAILING. THEY SHALL BE PLACED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DBR-2-73.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 517 - RAILING, MISC.: DEEP BEAM RAILING PANELS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

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ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT

THE COLOR OF THE FINISH COAT SHALL MEET FEDERAL STANDARD 595B NUMBER 10324.

ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN:

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN THE BRIDGE BEARING AS WELL AS ITS CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARING, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PAD (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARING TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARING IS VERTICALLY ALIGNED AT 60° F (15° C), LUBRICATING SLIDING SURFACES, REASSEMBLY OF THE BEARING, AND RESETTING OF THE BEARING. ASSURE THE BEARING IS SHIMMED ADEQUATELY AND THAT NO BEAMS AND/ OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL A NEW BEARING OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARING. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

THIS WORK CONSISTS OF RAISING OR REPOSITIONING EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT WORKING DRAWINGS AND CALCULATIONS IN ACCORDANCE WITH CMS 501.05.

ALL JACKING AND TEMPORARY SUPPORTING SHALL BE DONE PRIOR TO PLACING THE OVERLAY.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

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.

<div>3251</div>	STRUCTURE NOTES				DESIGNED KRB	DRAWN KRB	REVIEWED DCM	DATE 11-29-12	DESIGN AGENCY ODOT DISTRICT THREE OFFICE OF PLANNING & ENGINEERING
	RIC-545-1.44				CHECKED ACH	REVISED			
	ASD-545-0.00								

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WORKSTATION: salay DATE: 2/27/2013

ITEM 614 - MAINTAINING TRAFFIC FOR STRUCTURES RIC-545-0593, RIC-545-0617 AND ASD-545-0476:

TWO WAY TRAFFIC ON STRUCTURES RIC-545-0593, RIC-545-0617 AND ASD-545-0476 SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THE STRUCTURES MAY HAVE A LANE CLOSURE DURING NORMAL WORKING HOURS USING FLAGGERS AS SHOWN ON STANDARD DRAWING MT-97.10.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, 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.

ITEM 614 - MAINTAINING TRAFFIC FOR STRUCTURE RIC-545-0863:

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON STRUCTURE RIC-545-0863 SHALL HAVE A SIGNALIZED CLOSURE AS SHOWN ON SHEET 34 FOR A MAXIMUM OF 120 CONSECUTIVE CALENDAR DAYS (TOTAL BOTH PHASES). THE 120 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 120 CALENDAR DAYS THAT THE HIGHWAY REMAINS IN A SIGNALIZED CLOSURE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE OF \$1,300 A DAY.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE BARRIER.

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

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, 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 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 - MAINTAINING TRAFFIC FOR STRUCTURE RIC-545-1015:

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON STRUCTURE RIC-545-1015 SHALL HAVE A SIGNALIZED CLOSURE AS SHOWN ON SHEET 35 FOR A MAXIMUM OF 60 CONSECUTIVE CALENDAR DAYS (TOTAL BOTH PHASES). THE 60 CONSECUTIVE DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 60 CALENDAR DAYS THAT THE HIGHWAY REMAINS IN A SIGNALIZED CLOSURE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE OF \$1,300 A DAY.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED OTHER THAN BEHIND THE BARRIER.

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

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, 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 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TEMPORARY TRAFFIC SIGNAL ACTIVATION FOR PARTIAL ROADWAY CLOSURE:

THE CONTRACTOR SHALL NOTIFY ODOT DISTRICT 3 PUBLIC INFORMATION OFFICER (PIO) A MINIMUM OF TEN (10) CALENDAR DAYS ADVANCE NOTICE BEFORE ACTIVATING A TEMPORARY TRAFFIC SIGNAL TO STOP-AND-GO OPERATION FOR PARTIAL ROADWAY CLOSURE.

THE PIO CONTACT INFORMATION IS AS FOLLOWS:

CHRISTINE MYERS
ODOT DISTRICT 3
906 CLARK AVENUE
ASHLAND, OH 44805
PHONE 419-207-7182

ALL COSTS ASSOCIATED WITH THE ABOVE DESCRIBED WORK SHALL BE INCLUDED WITH ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL):

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS- PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614 - BARRIER REFLECTORS AND/OR OBJECT MARKERS:

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

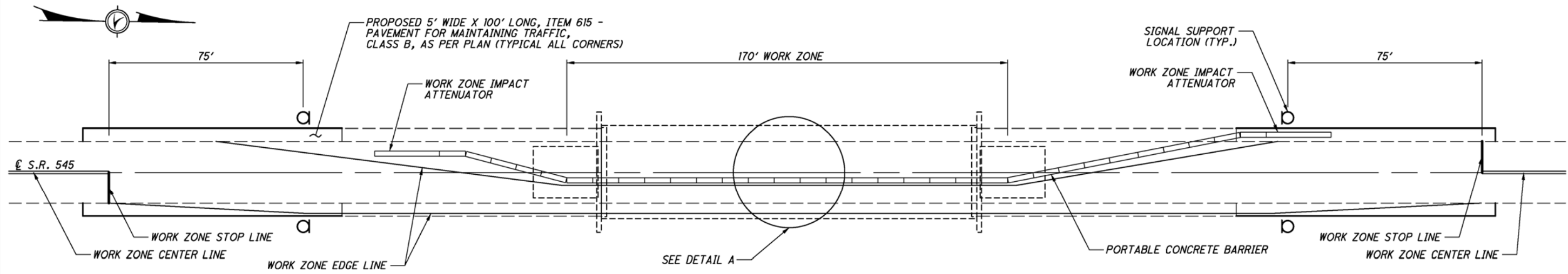
ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC. CLASS B. AS PER PLAN:

THE PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE LEFT IN PLACE.

SAWCUTTING SHALL BE INCLUDED IN ITEM 615 TO CREATE A CLEAN STRAIGHT PAVEMENT EDGE.

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

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WORKSTATION: ksalay DATE: 1/3/2013



PHASE A SHOWN
PHASE B SIMILAR

SIGNAL TIMING

A TWO PHASE CONTROLLER WITH CABINET
CAPABLE OF BEING SET WITH THE FOLLOWING
SPLITS SHALL BE FURNISHED:

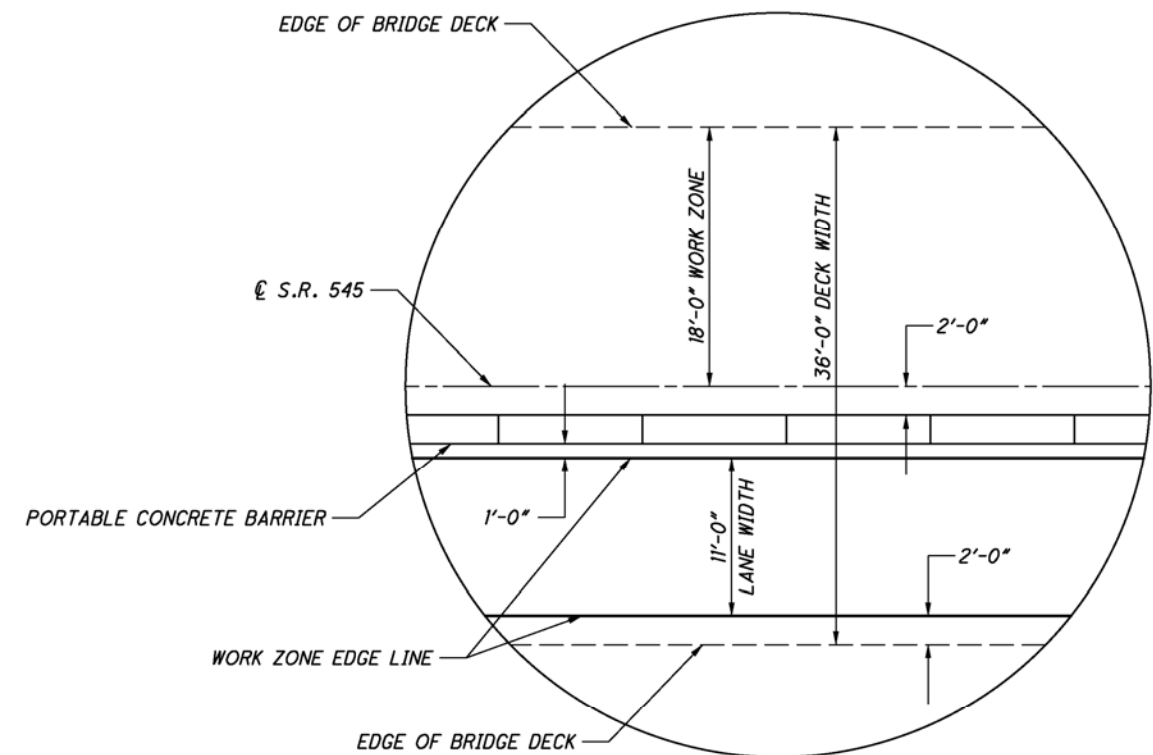
CYCLE LENGTH: 60 SECONDS

	GREEN	AMBER	RED
PHASE A	15	5	10
PHASE B	15	5	10

THE ABOVE TIMING MAY BE CHANGED WITH THE
APPROVAL OF THE ENGINEER.

ESTIMATED QUANTITIES (05/STR/BR)			
ITEM	QUANTITY	UNIT	DESCRIPTION
614	4	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)
614	20	EACH	BARRIER REFLECTOR, TYPE A2
614	18	EACH	BARRIER REFLECTOR, TYPE B2
614	16	EACH	OBJECT MARKER, TWO WAY
614	0.06	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	0.36	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
614	48	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	222	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
622	300	FT	PORTABLE CONCRETE BARRIER, 32"
622	340	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED (UNANCHORED)

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY.



DETAIL A

NOTES:

1) THE EXISTING BRIDGE RAILING IS NOT SHOWN IN THE PLAN VIEW.

2) FOR ADDITIONAL DETAILS, SEE SCDS MT-96.11, MT-96.20, MT-96.26,
MT-101.70 AND ALSO SUPPLEMENTAL SPECIFICATION 961.

DESIGN AGENCY
ODOT DISTRICT THREE OFFICE
OF PLANNING & ENGINEERING

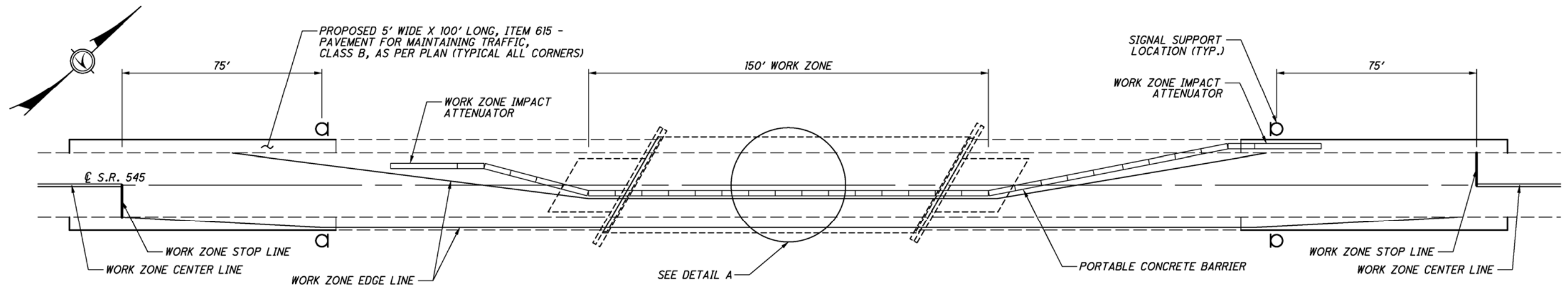
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DRAWN
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REVIS

MAINTENANCE OF TRAFFIC PLAN
RIC-545-0863
OVER BLACK FORK OF MOHICAN RIVER

RIC-545-1.44
ASD-545-0.00

34
51



PHASE A SHOWN
PHASE B SIMILAR

SIGNAL TIMING

A TWO PHASE CONTROLLER WITH CABINET
CAPABLE OF BEING SET WITH THE FOLLOWING
SPLITS SHALL BE FURNISHED:

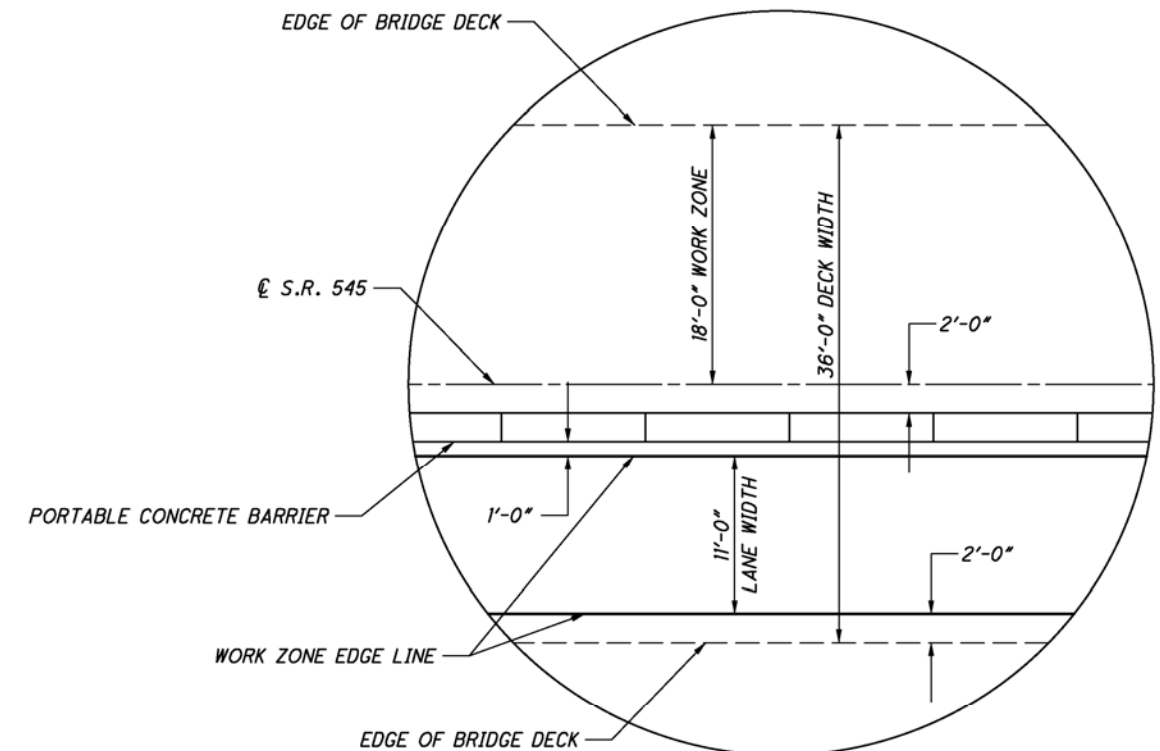
CYCLE LENGTH: 60 SECONDS

	GREEN	AMBER	RED
PHASE A	15	5	10
PHASE B	15	5	10

THE ABOVE TIMING MAY BE CHANGED WITH THE
APPROVAL OF THE ENGINEER.

ESTIMATED QUANTITIES (05/STR/BR)			
ITEM	QUANTITY	UNIT	DESCRIPTION
614	4	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)
614	12	EACH	BARRIER REFLECTOR, TYPE A2
614	18	EACH	BARRIER REFLECTOR, TYPE B2
614	16	EACH	OBJECT MARKER, TWO WAY
614	0.06	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	0.34	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
614	48	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	222	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
622	300	FT	PORTABLE CONCRETE BARRIER, 32"
622	300	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED (UNANCHORED)

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY.



DETAIL A

NOTES:

1) THE EXISTING BRIDGE RAILING IS NOT SHOWN IN THE PLAN VIEW.

2) FOR ADDITIONAL DETAILS, SEE SCDS MT-96.11, MT-96.20, MT-96.26,
MT-101.70 AND ALSO SUPPLEMENTAL SPECIFICATION 961.

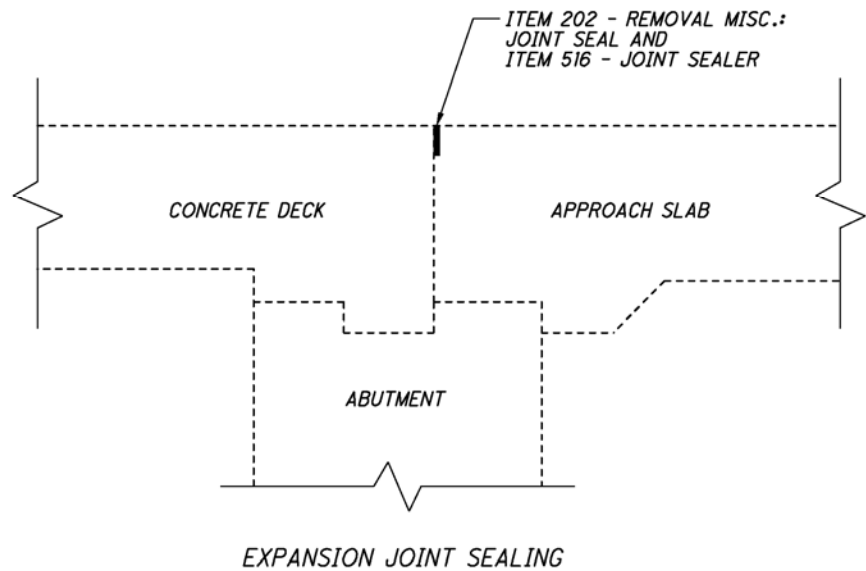
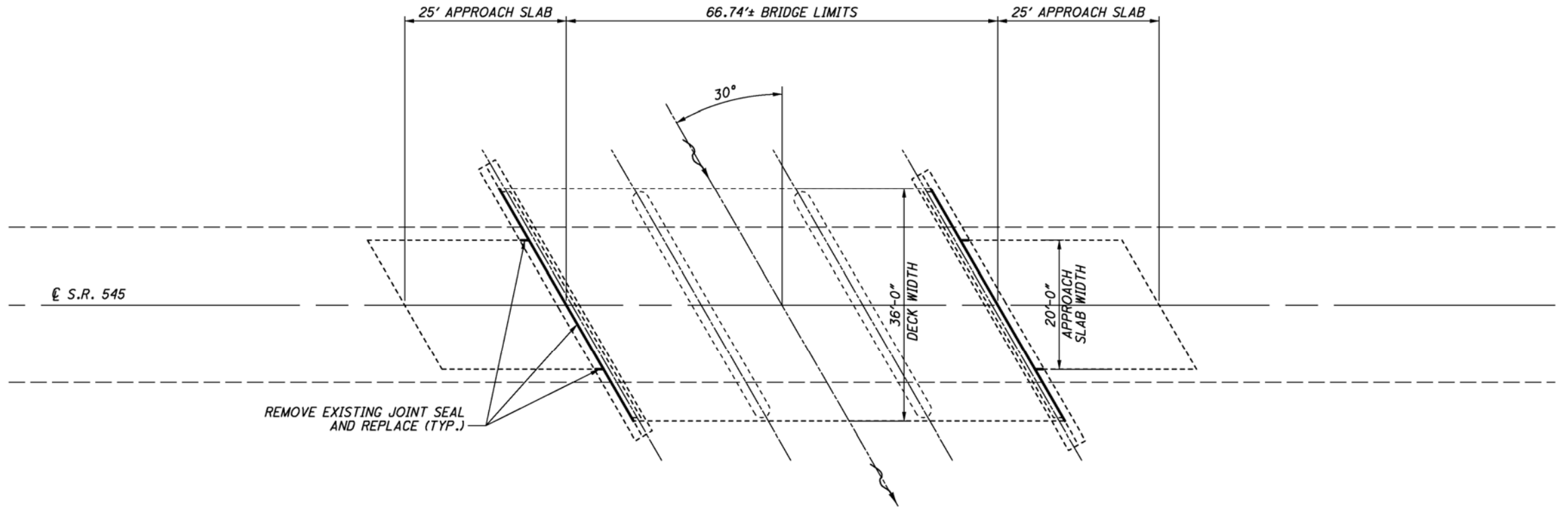
BRIDGE DECK DATA									ROADWAY DATA		
	COUNTY, ROUTE, BRIDGE NO.	LOCATION	STRUCTURE TYPE	LENGTH (BRIDGE DECK)	WIDTH	BRIDGE DECK AREA	SKEW	EXISTING WEARING SURFACE	EXISTING PAVEMENT WIDTH	EXISTING APPROACH SLAB WIDTH	EXISTING APPROACH SLAB LENGTH
				FT.	FT.	SQ. YD.			FT.	FT.	FT.
	** RIC-545-0593	OVER BRUBAKER CREEK	3-SPAN REINFORCED CONCRETE SLAB	66.74±	36±	2403±	30° R.F.	CONCRETE	24	20	25
	+ RIC-545-0617	OVER BRUBAKER CREEK	SINGLE SPAN CONCRETE BOX BEAM	46.20±	34±	1571±	12° L.F.	ASPHALT	24	34	20
	* RIC-545-0792	OVER TRIBUTARY OF BLACK FORK	14' x 8' REINFORCED CONCRETE BOX CULVERT				0°	ASPHALT	24		
	++ RIC-545-0863	OVER BLACK FORK OF MOHICAN RIVER	3-SPAN STEEL BEAM	145.00±	36±	5220±	0°	CONCRETE	24	20	25
	* RIC-545-0993	OVER LEVI'S CREEK	12' x 8' REINFORCED CONCRETE BOX CULVERT				53° R.F.	ASPHALT	24		
	++ RIC-545-1015	OVER WHETSTONE CREEK	3-SPAN REINFORCED CONCRETE SLAB	118.73±	36±	4274±	30° L.F.	CONCRETE	24	20	25
	* ASD-545-0299	OVER TRIBUTARY OF LANG CREEK	12'-6" x 7'-11" PIPE ARCH CULVERT				30° L.F.	ASPHALT	24		
	** ASD-545-0476	OVER VERMILION RIVER	3-SPAN REINFORCED CONCRETE SLAB	86.00±	36±	3096±	0°	CONCRETE	24	20	25

* PAVE OVER STRUCTURE (SEE PAVEMENT AND SHOULDER DATA SHEET FOR PAVING QUANTITIES).

** TAPER THE PLANING FROM 0" TO 2 1/4" DEEP IN 125' AT THE APPROACH TO THE APPROACH SLABS. PLANE 1 1/4" DEEP ON APPROACH SLABS, BUTT JOINT AT BRIDGE DECK, OMIT RESURFACING OVER BRIDGE DECK. PAVE APPROACH SLABS WITH 1 1/4" SURFACE COURSE ONLY. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK). (SEE ROADWAY PLANS FOR PAVING AND PLANING QUANTITIES).

+ TAPER THE PLANING FROM 0" TO 2 3/4" DEEP IN 150' AT THE APPROACH TO THE APPROACH SLABS. PLANE 1 3/4" DEEP ON APPROACH SLABS AND BRIDGE DECK, PAVE OVER APPROACH SLABS AND BRIDGE DECK WITH 1 1/4" SURFACE COURSE ONLY. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK). (SEE ROADWAY PLANS FOR PAVING AND PLANING QUANTITIES).

++ TAPER THE PLANING FROM 0" TO 2" DEEP IN 100' AT THE APPROACH TO THE APPROACH SLABS. PLANE 1" DEEP ON APPROACH SLABS, BUTT JOINT AT BRIDGE DECK, OMIT RESURFACING OVER BRIDGE DECK. PAVE APPROACH SLABS WITH 1 1/4" SURFACE COURSE ONLY. (SEE DETAILS IN THE PLAN FOR STRUCTURE WORK). (SEE ROADWAY PLANS FOR PAVING AND PLANING QUANTITIES).

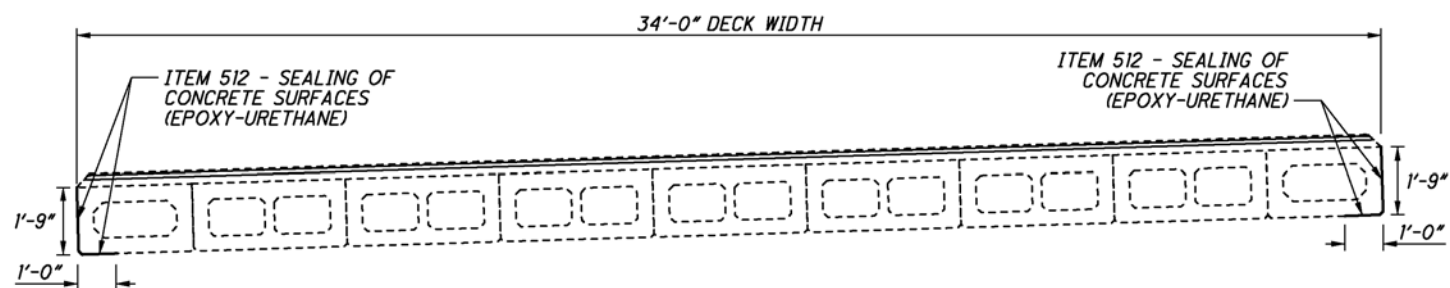


ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	88	FT	REMOVAL MISC.: JOINT SEAL
516	88	FT	JOINT SEALER

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY.

NOTES:
1) THE EXISTING GUARDRAIL IS NOT SHOWN.

○



DECK EDGE SEALING
LENGTH = 45.18'±

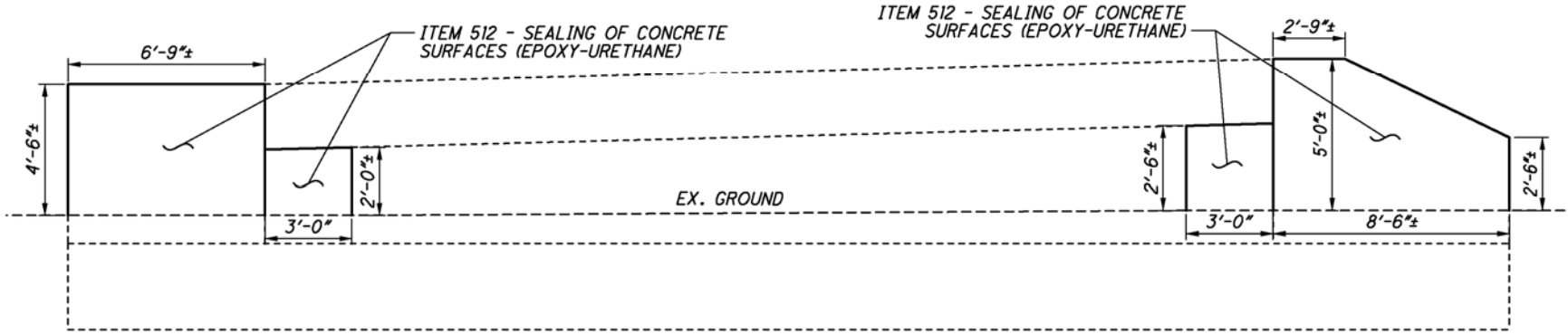
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
512	56	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	56	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY.

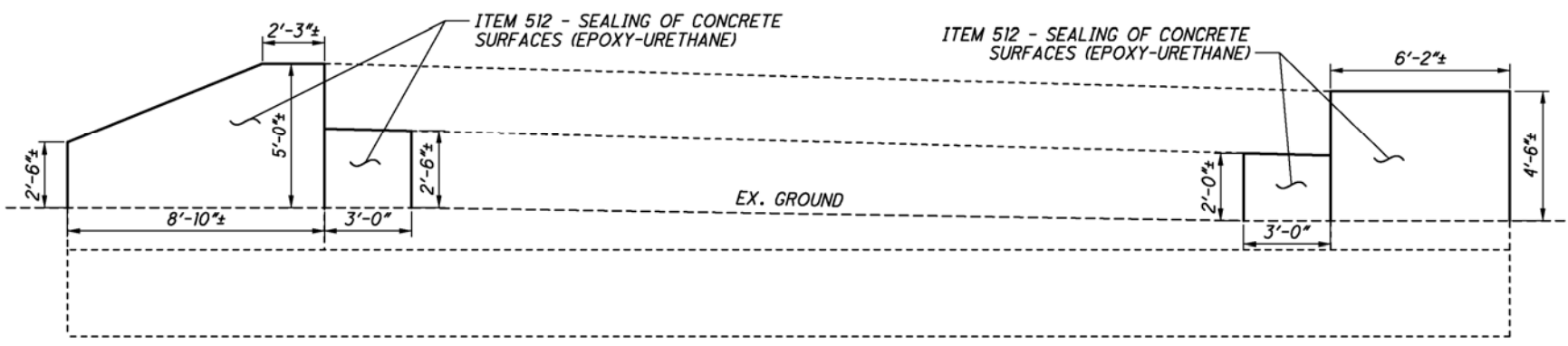
NOTES:

1) THE EXISTING GUARDRAIL IS NOT SHOWN.

DESIGN FILE: I:\projects\85051\structures\RIC545_0617CMD001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



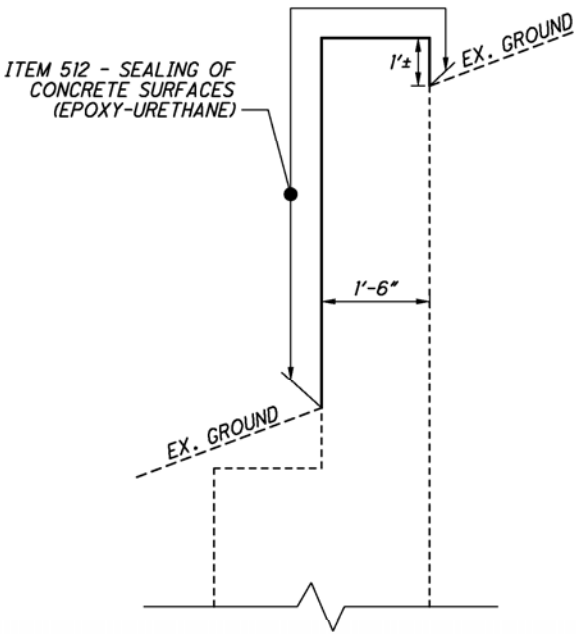
FORWARD WINGWALL & ABUTMENT SEALING



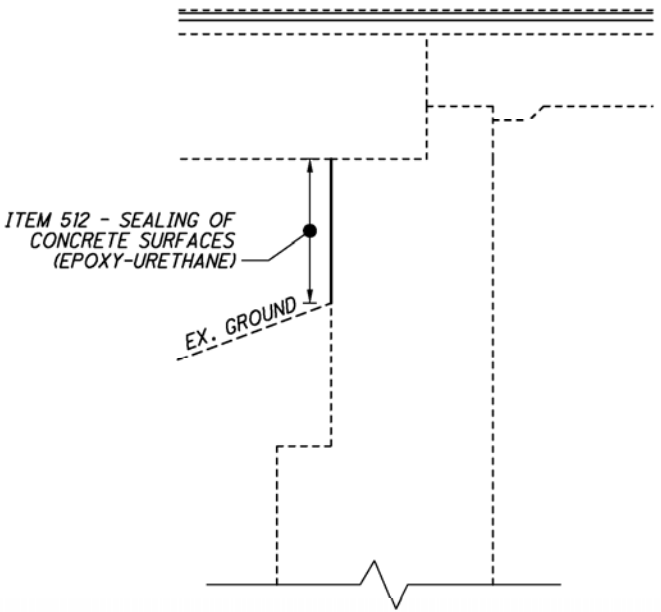
REAR WINGWALL & ABUTMENT SEALING

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
512	28	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	28	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

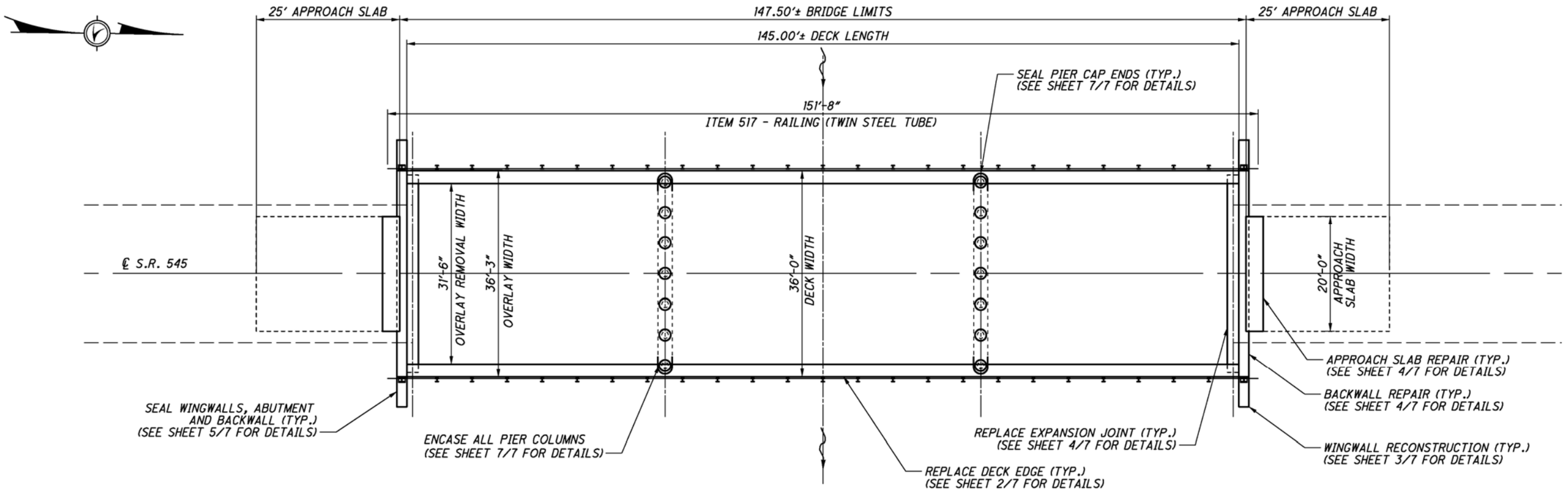
ALL QUANTITIES CARRIED TO SHEET 1/2.



WINGWALL SEALING



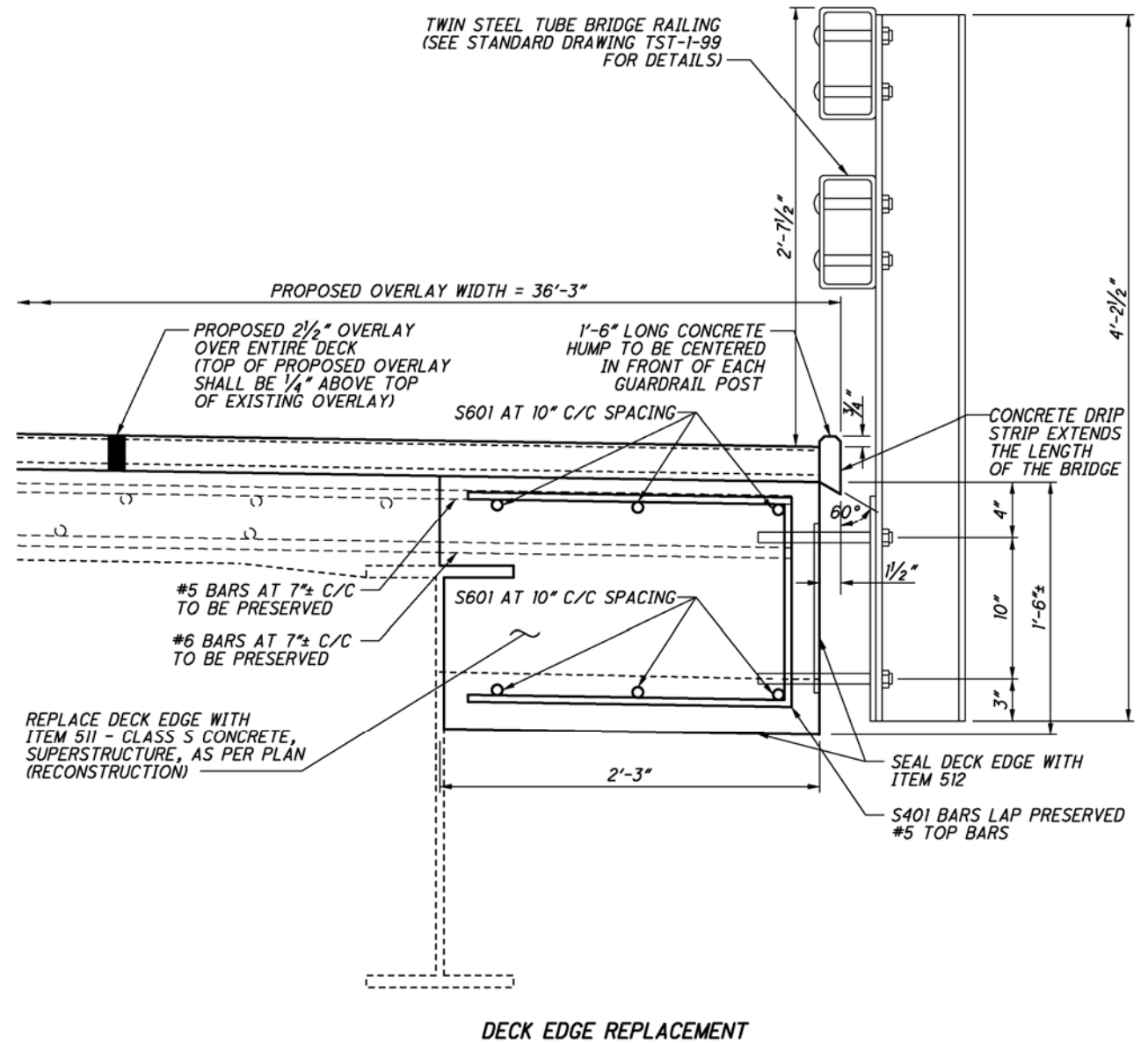
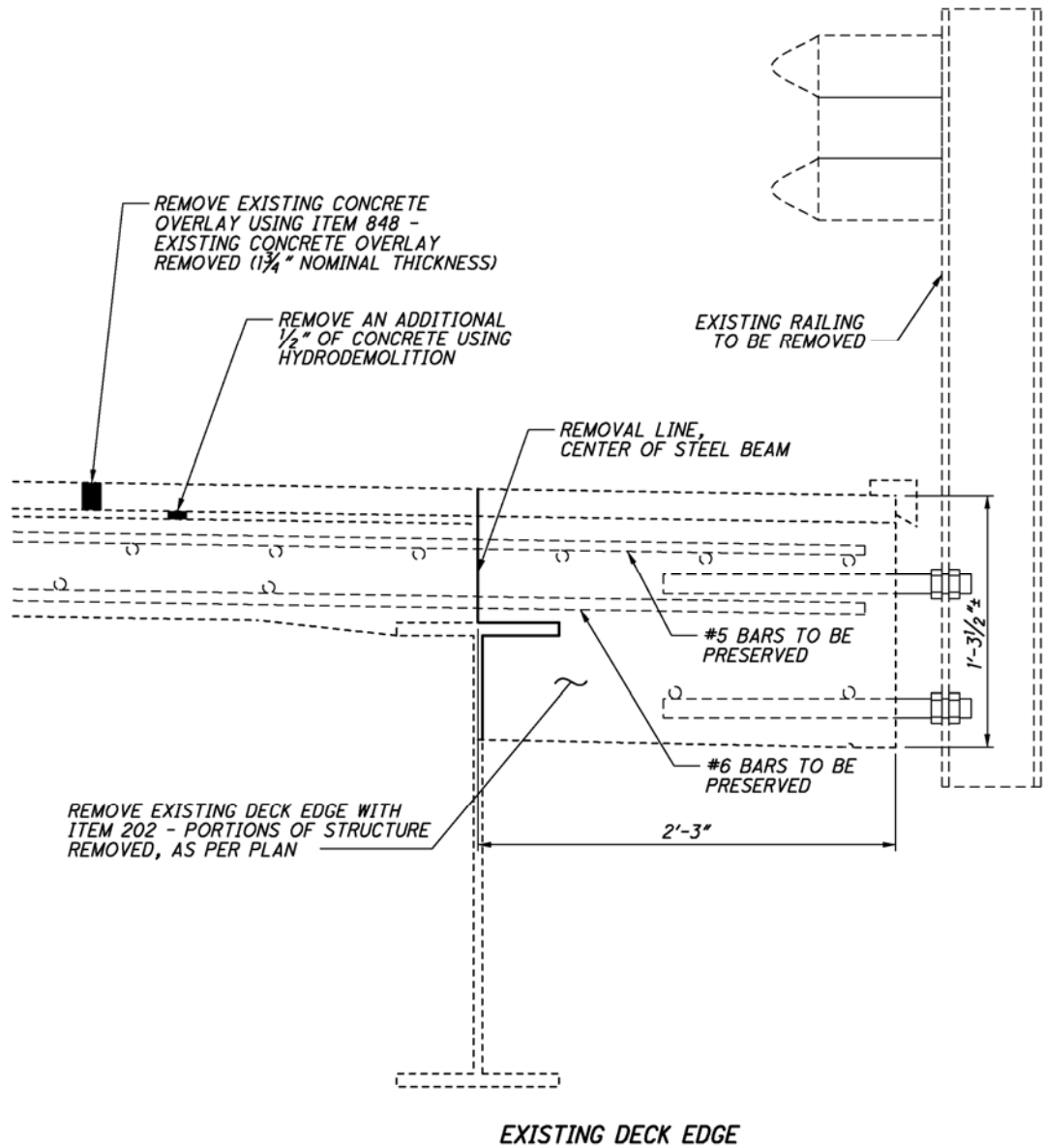
ABUTMENT SEALING



ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	47	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	300	FT	BRIDGE RAILING REMOVED
503	LUMP		COFFERDAMS AND EXCAVATION BRACING
509	7152	POUND	EPOXY COATED REINFORCING STEEL
511	39	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)
511	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	13	CU YD	CLASS C CONCRETE, PIER, AS PER PLAN (REPAIR)
511	9	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)
512	217	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	3	SQ YD	TYPE A WATERPROOFING
512	96	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
513	1231	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN
513	10	EACH	TRIMMING OF BEAM END
514	550	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
514	550	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
514	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
514	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT
514	1	MAN HR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL
514	2	EACH	FINAL INSPECTION REPAIR
516	72	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC COMPRESSION SEAL
516	40	FT	JOINT SEALER
516	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
517	303.33	FT	RAILING (TWIN STEEL TUBE)
848	584	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/2" THICK)
848	494	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION
848	2	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	35	SQ YD	HAND CHIPPING
848	LUMP		TEST SLAB
848	508	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (1 3/4" NOMINAL THICKNESS)

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY.

- NOTES:
- 1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN. SEE GUARDRAIL DETAIL SHEETS FOR PROPOSED APPROACH GUARDRAIL WORK.
 - 2) SEE SHEET 2/7 FOR OVERLAY DETAILS.
 - 3) SEE SHEET 6/7 FOR STRUCTURAL STEEL REPAIR AND PAINTING DETAILS.

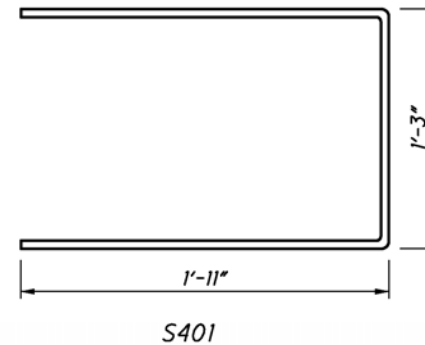


NOTES:

- 1) S601 BARS SHALL HAVE A MINIMUM LAP LENGTH OF 4'-4".
- 2) ALL SEALING SHALL BE PERFORMED AFTER ALL REPAIRS ARE MADE.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	32	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	300	FT	BRIDGE RAILING REMOVED
509	4464	POUND	EPOXY COATED REINFORCING STEEL
511	36	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)
512	121	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
517	303.33	FT	RAILING (TWIN STEEL TUBE)

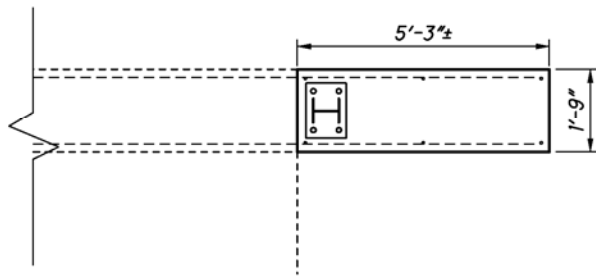
ALL QUANTITIES CARRIED TO SHEET 1/7.



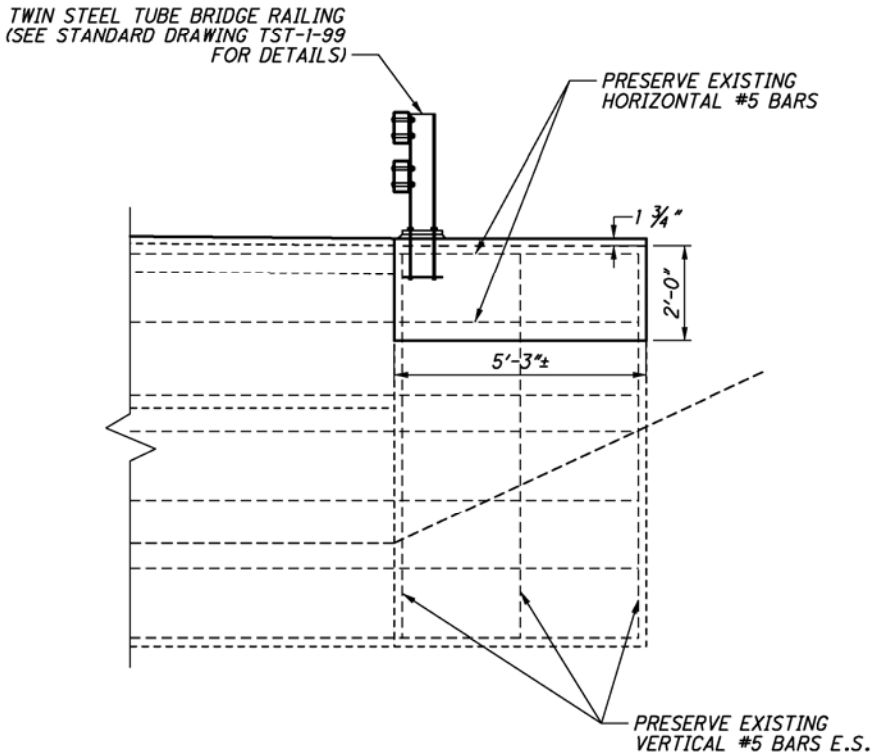
DECK LENGTH = 145'-0"
SKEW = 0°

REINFORCING TABLE				
MARK	NO.	LENGTH	WEIGHT	SHAPE
S401	494	4'-11"	1622 LB	BENT
S601	48	39'-5"	2842 LB	STRAIGHT
TOTAL			4464 LB	

DESIGN FILE: I:\projects\85051\structures\RIC545-0863CMD001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



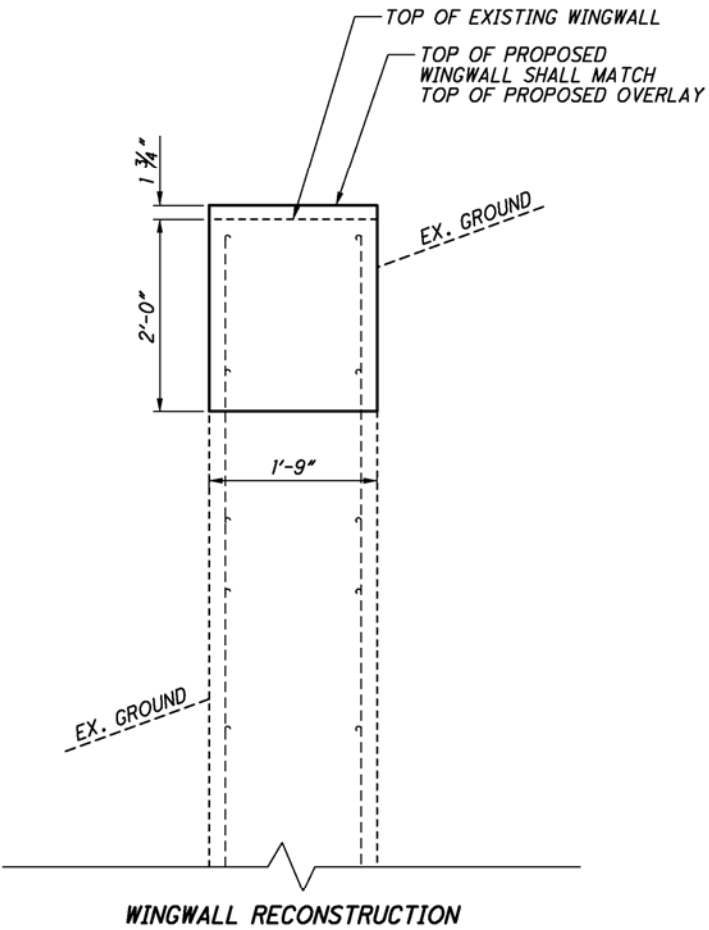
WINGWALL RECONSTRUCTION PLAN VIEW
(TYPICAL ALL WINGWALLS)

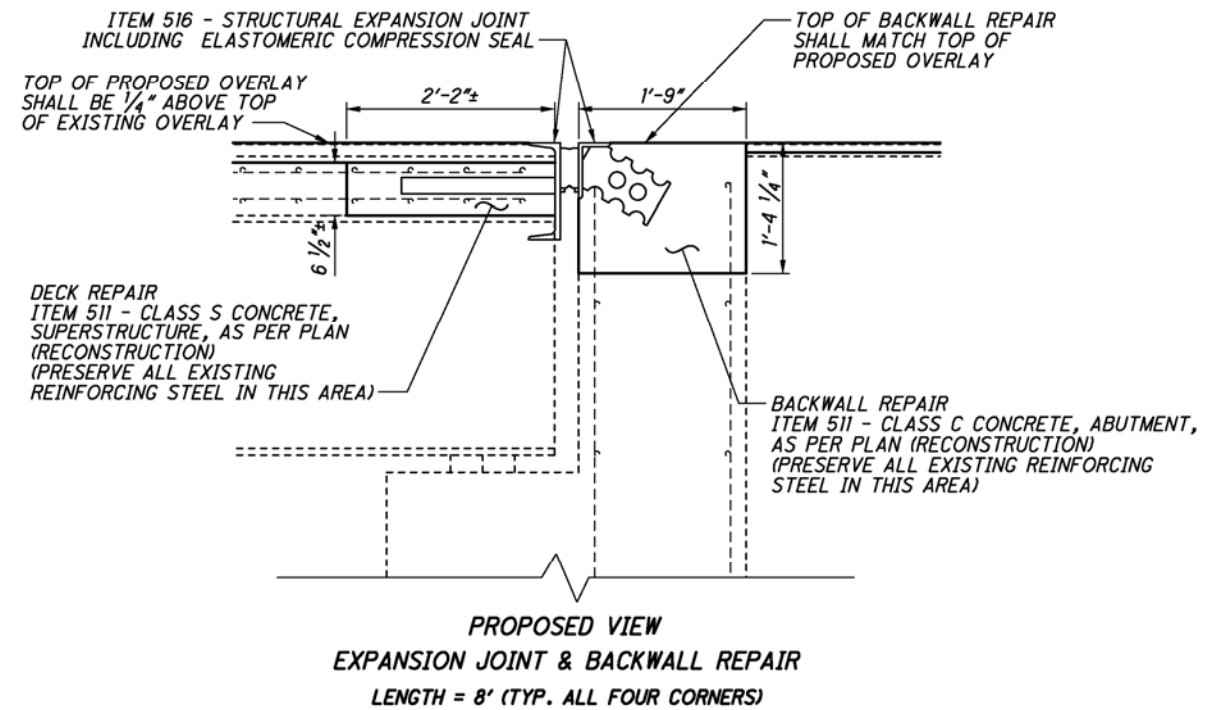
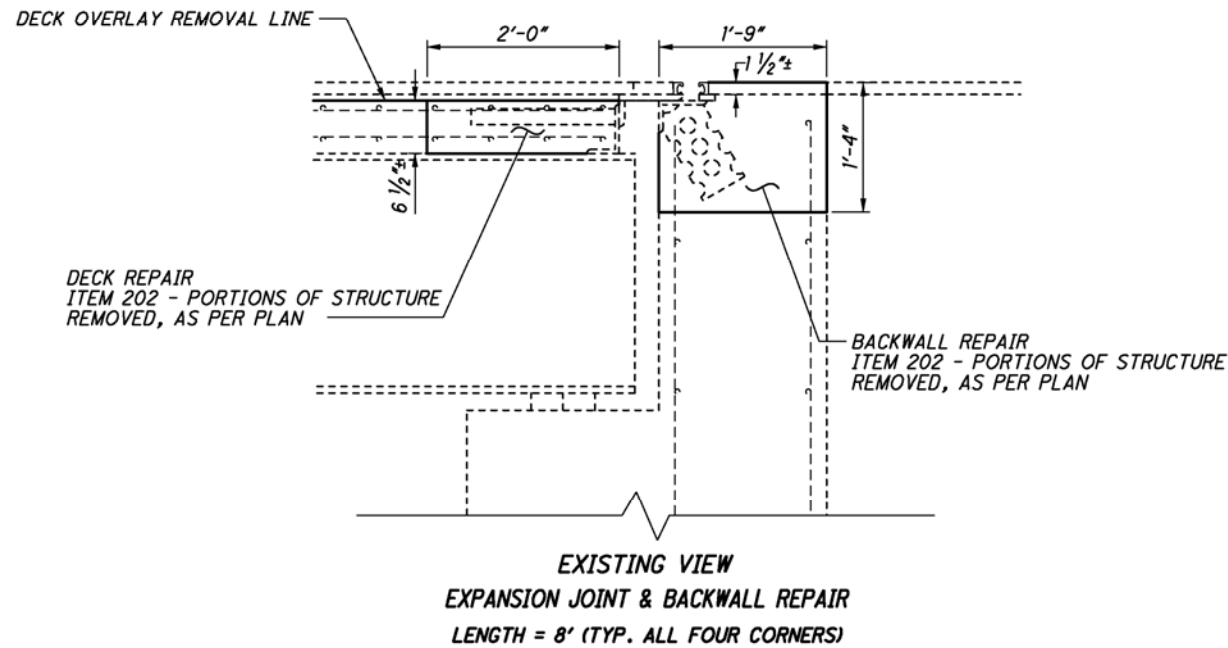
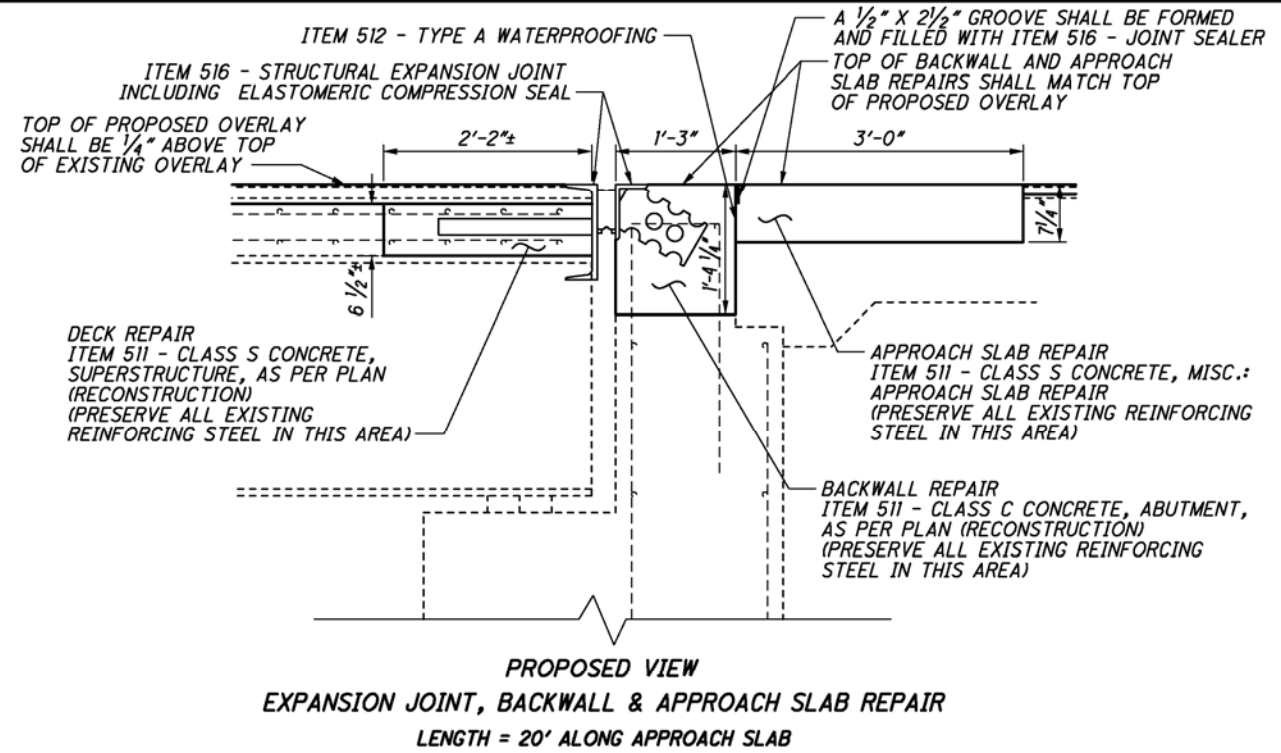
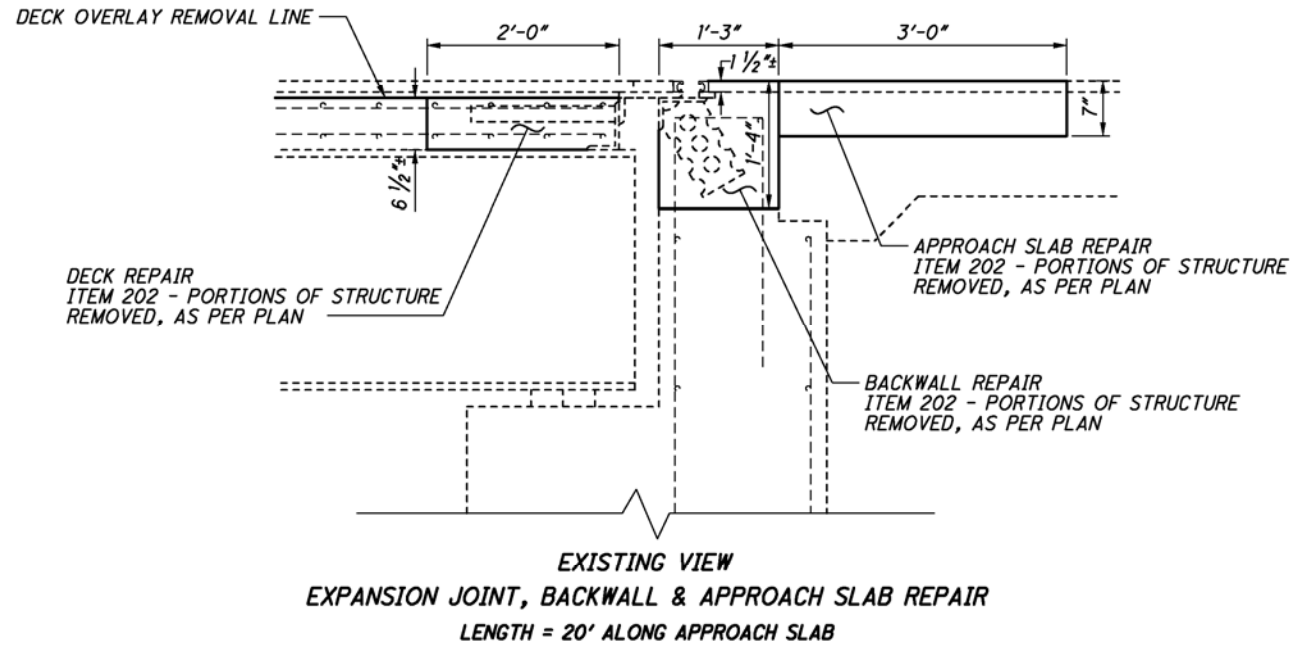


WINGWALL RECONSTRUCTION ELEVATION VIEW
(TYPICAL ALL WINGWALLS)

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	3	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)

ALL QUANTITIES CARRIED TO SHEET 1/7.





ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	12	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION)
511	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	6	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (RECONSTRUCTION)
512	3	SQ YD	TYPE A WATERPROOFING
516	72	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC COMPRESSION SEAL
516	40	FT	JOINT SEALER

ALL QUANTITIES CARRIED TO SHEET 1/7.

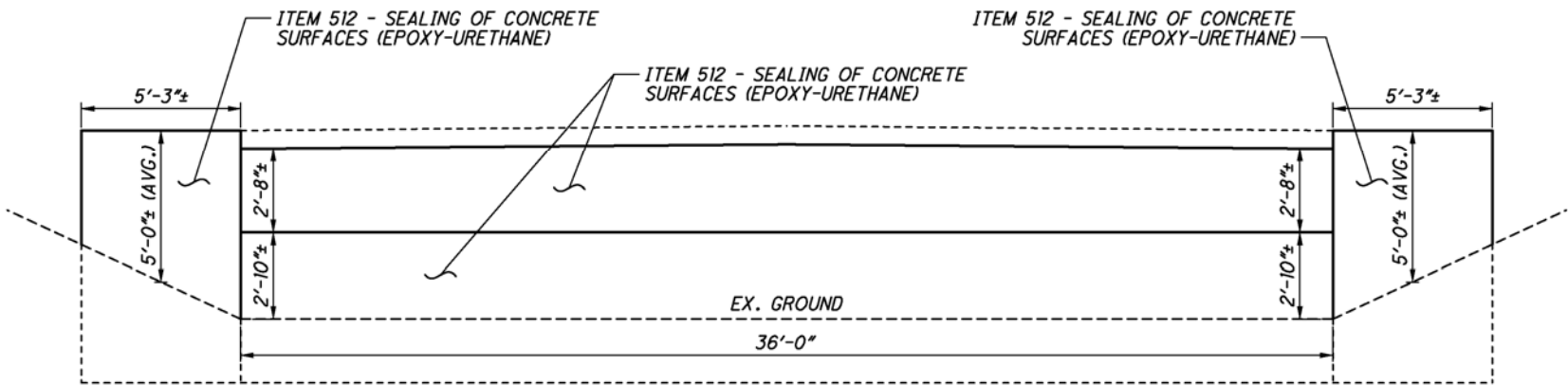
NOTES:

1) ALL EXISTING REINFORCING STEEL SHALL BE PRESERVED.

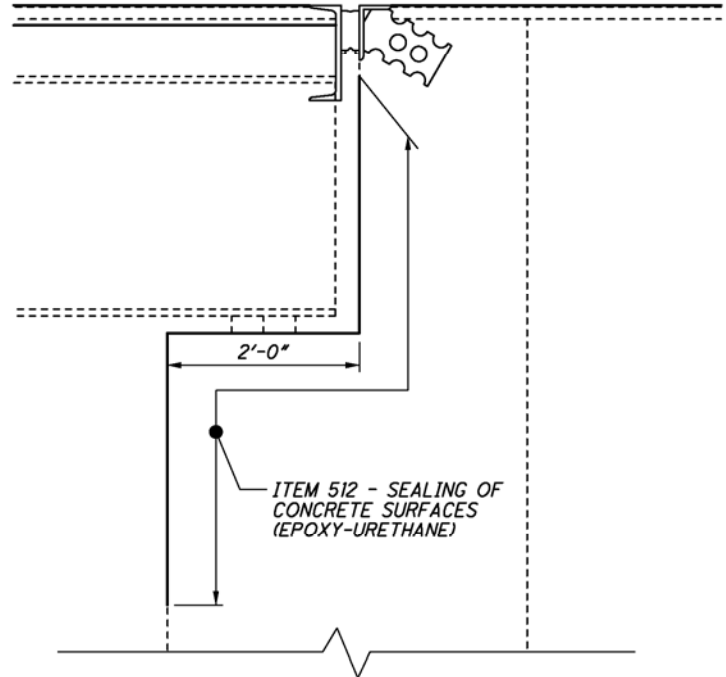
2) FOR THE OUTSIDE 2'-3" OF DECK REPAIR, ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511 - CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (RECONSTRUCTION) SHALL BE INCLUDED IN THE DECK EDGE REPLACEMENT (TYPICAL ALL FOUR CORNERS).

2) FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING EXJ-2-81.

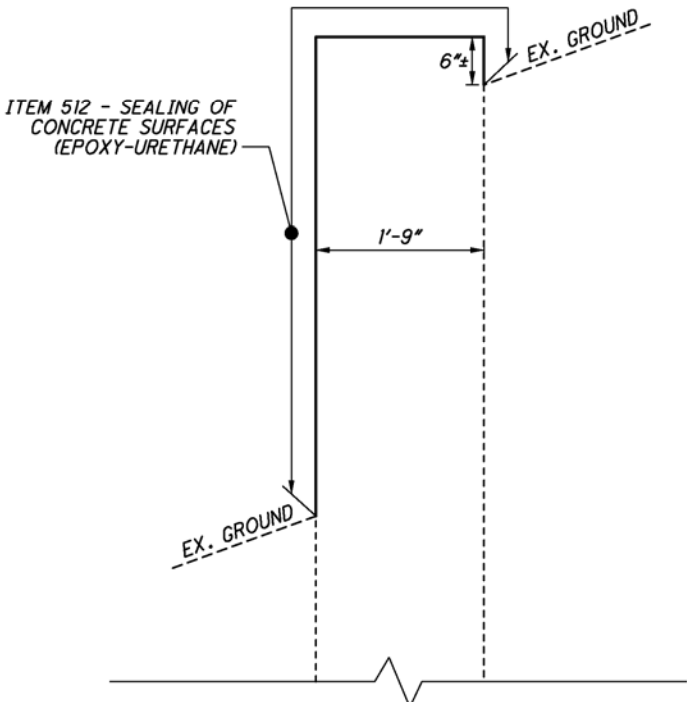
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WORKSTATION: ksalay DATE: 12/3/2012



WINGWALL, ABUTMENT & BACKWALL SEALING



ABUTMENT & BACKWALL SEALING



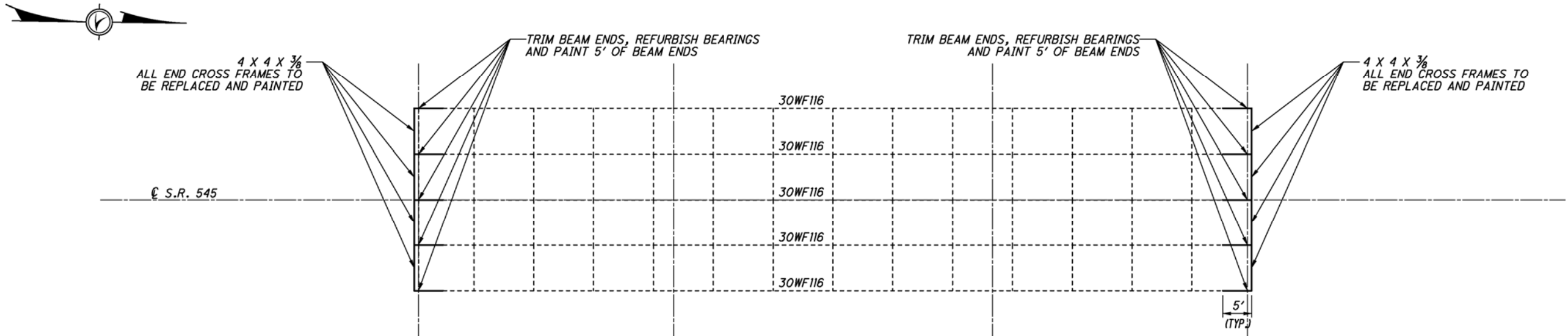
WINGWALL SEALING

NOTES:
1) ALL SEALING SHALL BE PERFORMED AFTER ALL REPAIRS ARE MADE.

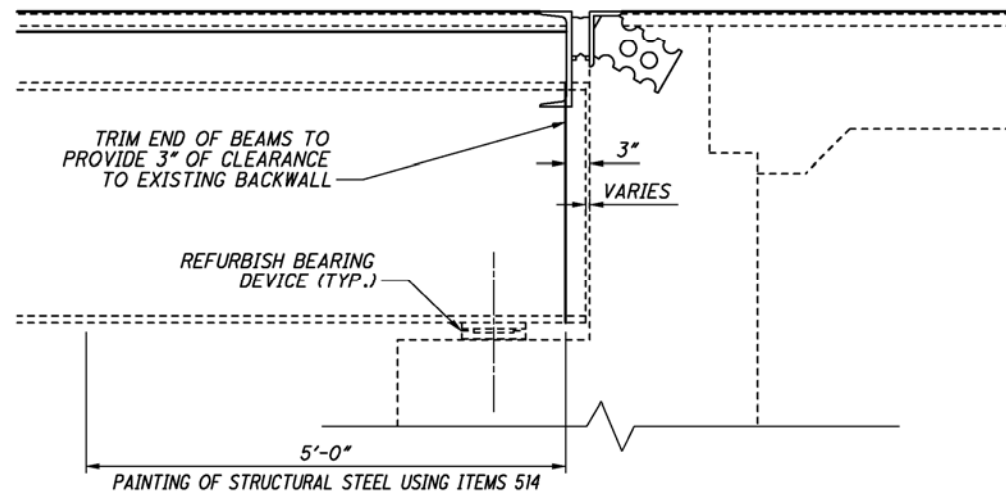
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
512	81	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	81	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

ALL QUANTITIES CARRIED TO SHEET 1/7.

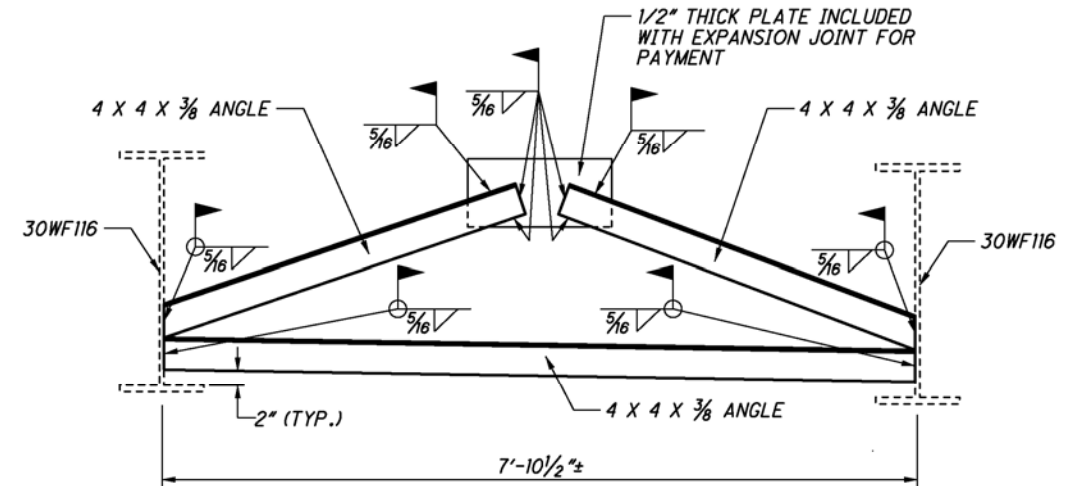
DESIGN FILE: I:\projects\85051\structures\RIC545_0863CMD001.dgn
WORKSTATION: ksalay DATE: 12/3/2012



PLAN VIEW
STRUCTURAL STEEL REPAIR



BEAM REPAIR



TYPICAL END CROSS FRAME REPLACEMENT

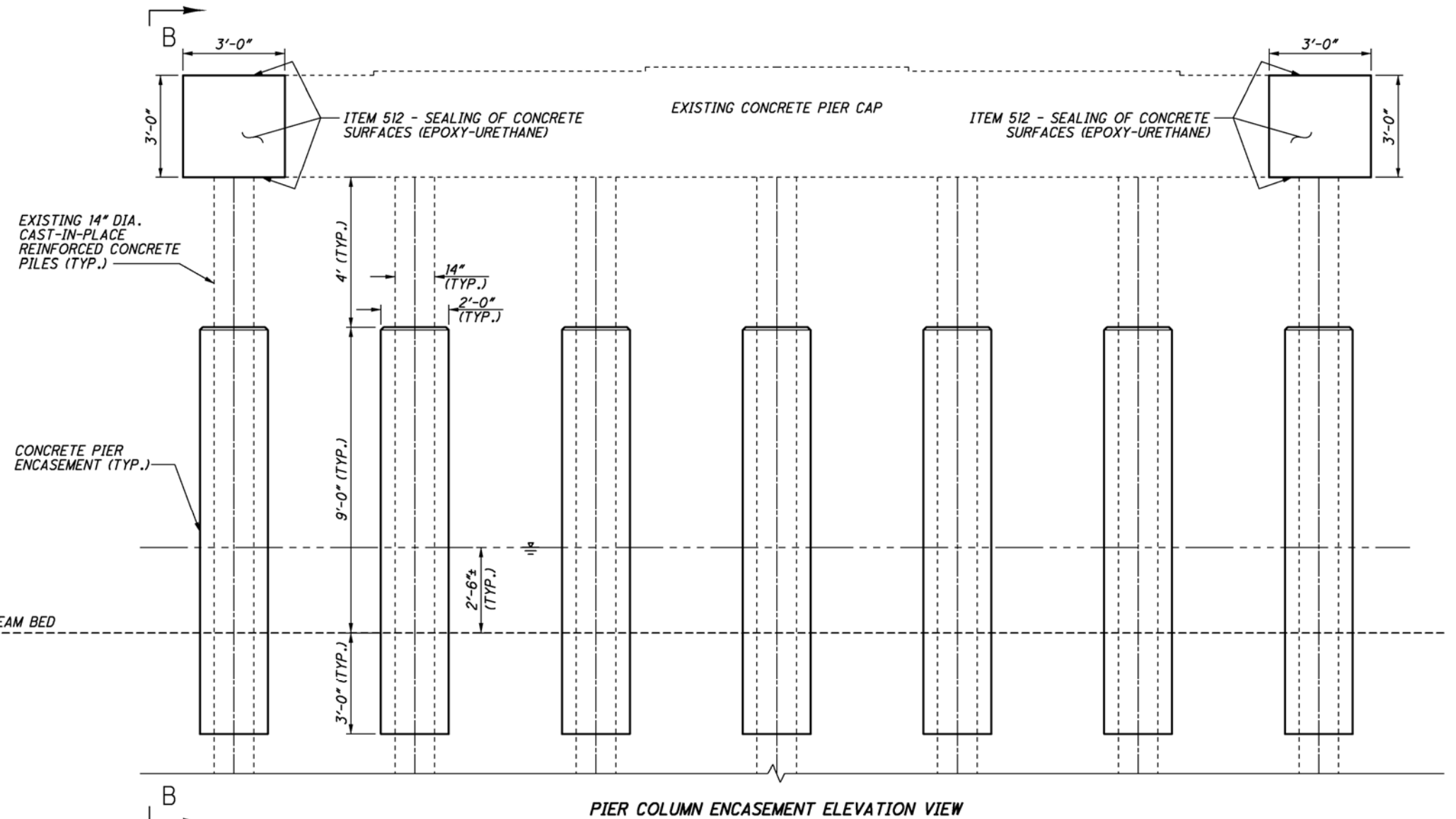
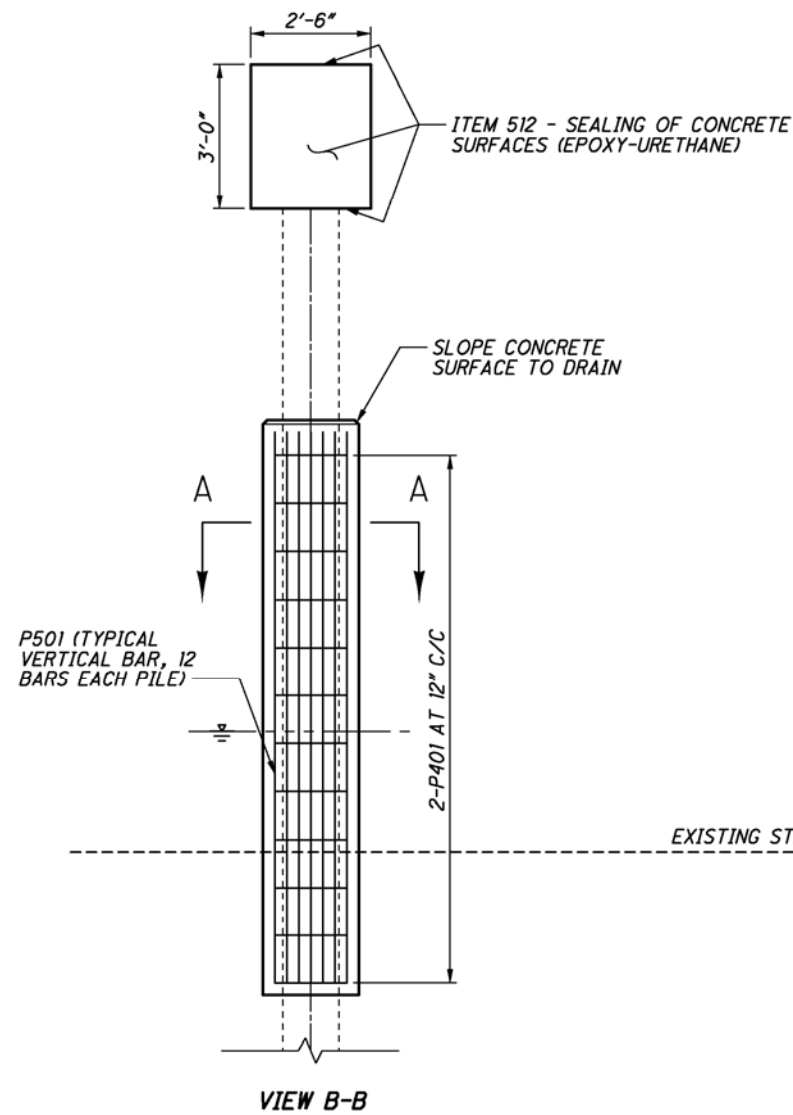
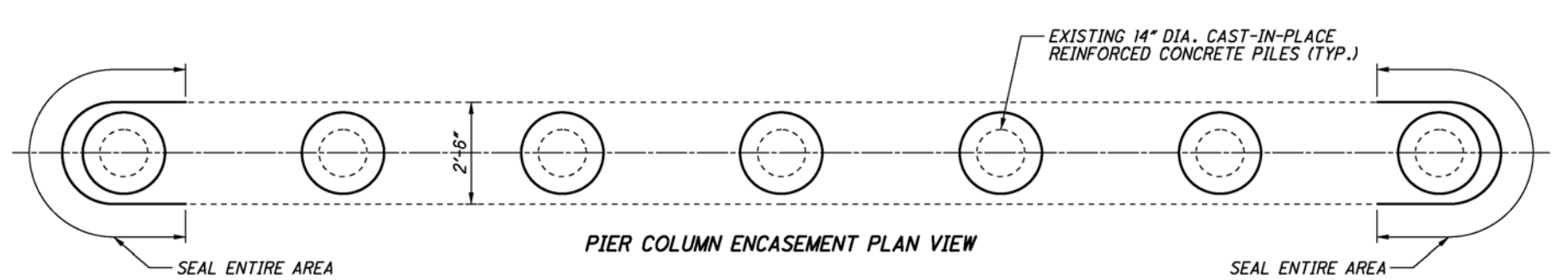
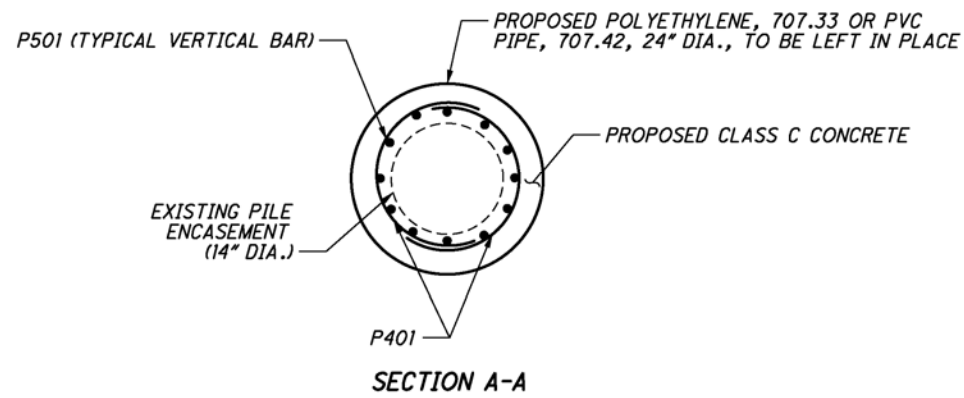
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
513	1231	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN
513	10	EACH	TRIMMING OF BEAM END
514	550	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL
514	550	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT
514	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT
514	550	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT
514	1	MAN HR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL
514	2	EACH	FINAL INSPECTION REPAIR
516	10	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

ALL QUANTITIES CARRIED TO SHEET 1/7.

NOTES:

1) THE STEEL BEAMS AT BOTH ENDS OF THE STRUCTURE FOR 5'-0" AND ALL NEW END CROSS FRAMES SHALL BE PAINTED USING ITEMS 514. THE COLOR OF THE FINISH COAT SHALL MEET FEDERAL STANDARD 595B NUMBER 10324.

2) FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING GSD-1-96.

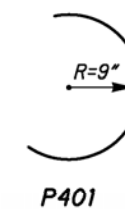


ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
503	LUMP		COFFERDAMS AND EXCAVATION BRACING
509	2688	POUND	EPOXY COATED REINFORCING STEEL
511	13	CU YD	CLASS C CONCRETE, PIER, AS PER PLAN (REPAIR)
512	15	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	15	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

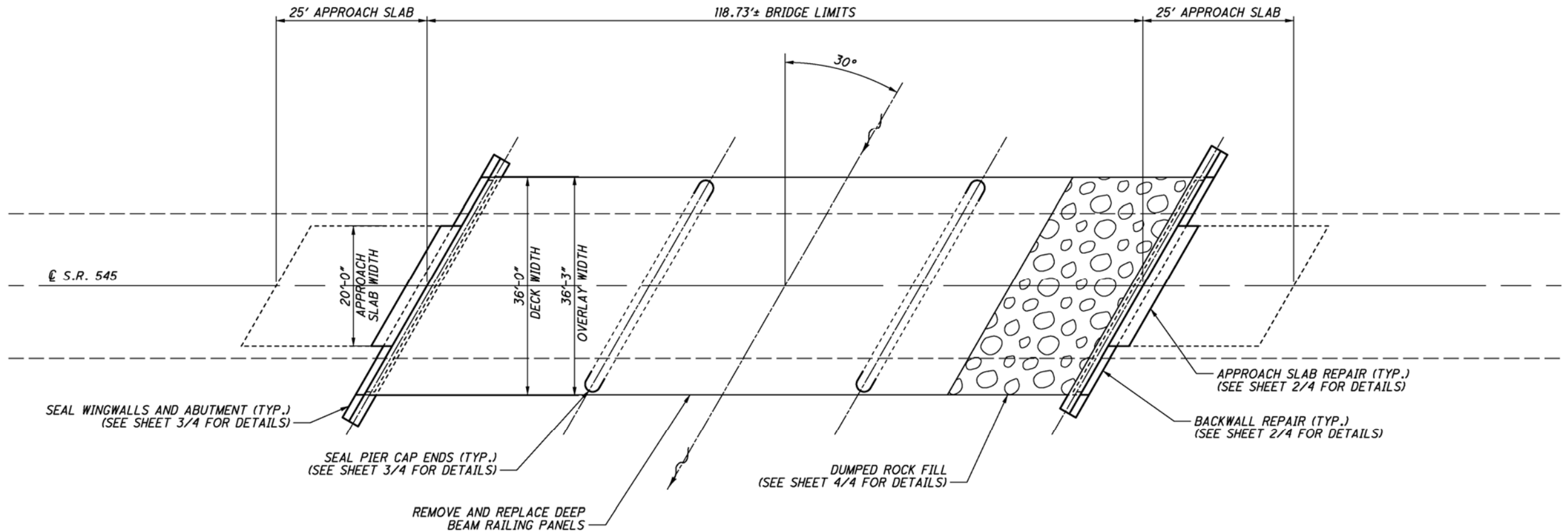
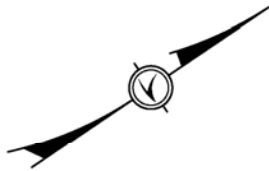
ALL QUANTITIES CARRIED TO SHEET 1/7.

NOTES:

- 1) ENCASE ALL PIER COLUMNS
- 2) SEAL PIER CAPS AS SHOWN

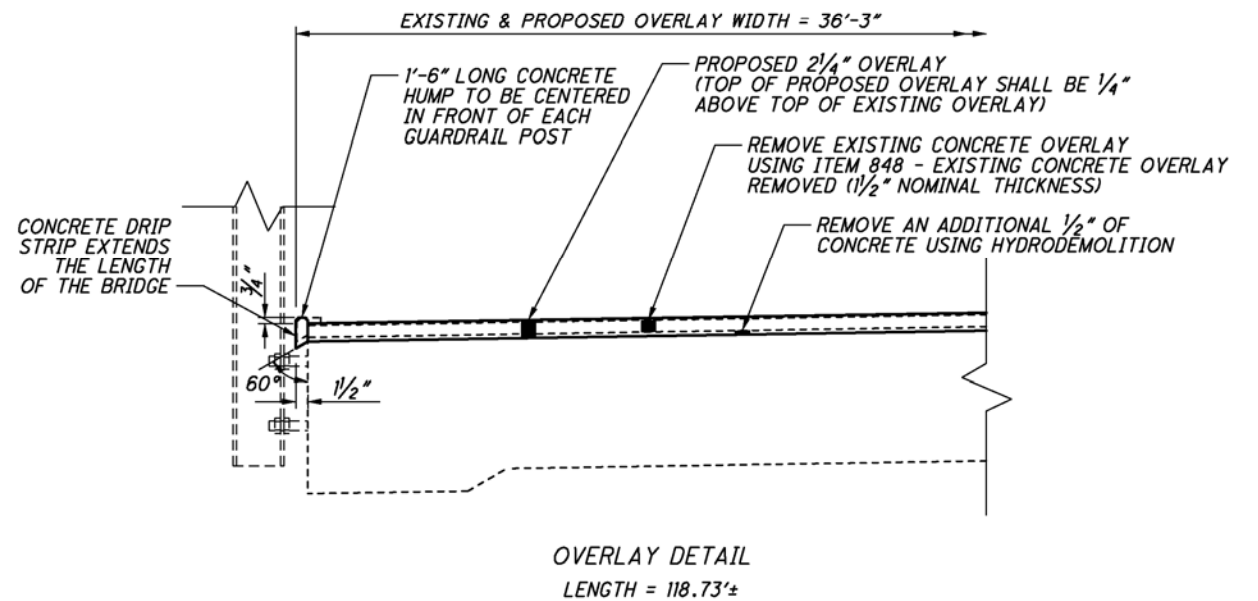


REINFORCING TABLE				
MARK	NO.	LENGTH	WEIGHT	SHAPE
P401	336	3'-0"	673 LB	BENT
P501	168	11'-6"	2015 LB	STRAIGHT
TOTAL			2688 LB	



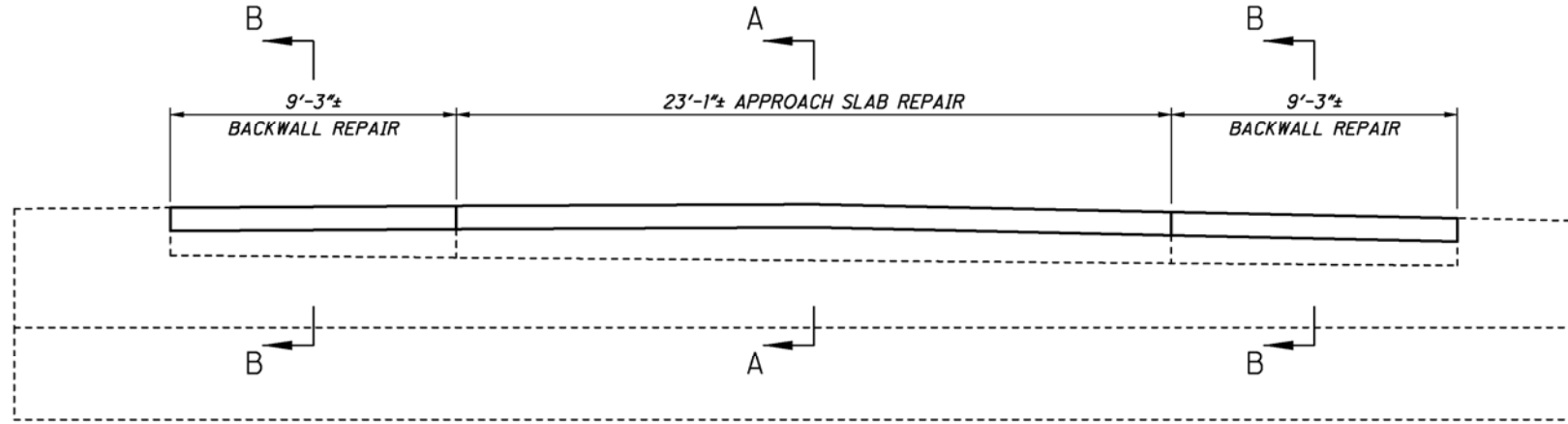
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	5	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
512	34	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	3	SQ YD	TYPE A WATERPROOFING
512	34	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
516	46	FT	JOINT SEALER
517	125	FT	RAILING, MISC.: DEEP BEAM RAIL ELEMENT
601	80	CU YD	DUMPED ROCK FILL, TYPE C
848	478	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 1/4" THICK)
848	478	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION
848	2	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
848	43	SQ YD	HAND CHIPPING
848	LUMP		TEST SLAB
848	478	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (1 1/2" NOMINAL THICKNESS)

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY.

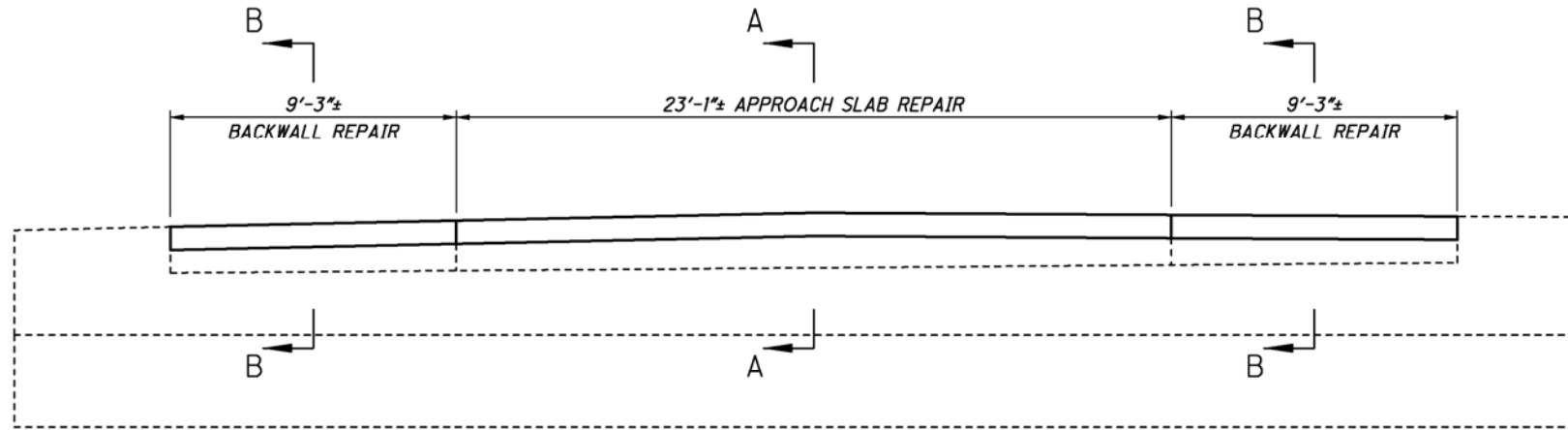


NOTES:

1) THE EXISTING GUARDRAIL IS NOT SHOWN.



FORWARD APPROACH SLAB & BACKWALL REPAIR



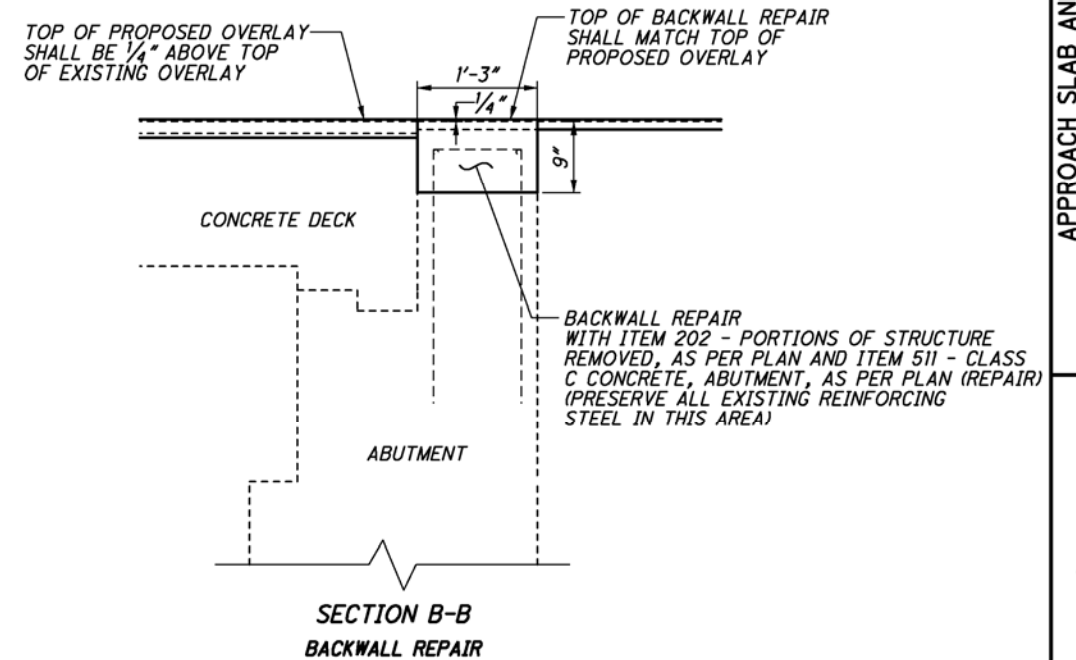
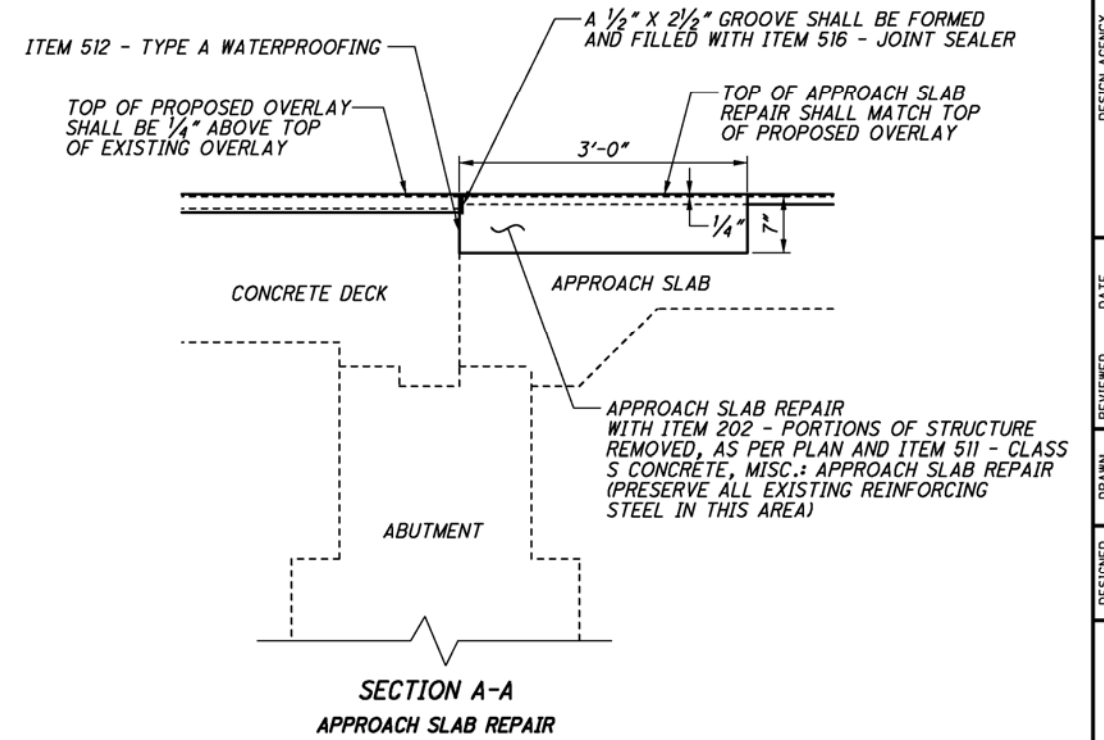
REAR APPROACH SLAB & BACKWALL REPAIR

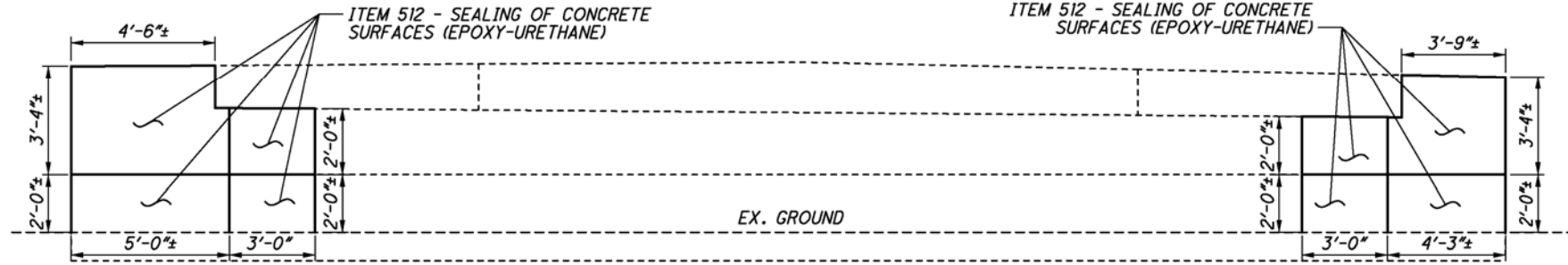
NOTES:

1) ALL EXISTING REINFORCING STEEL SHALL BE PRESERVED.

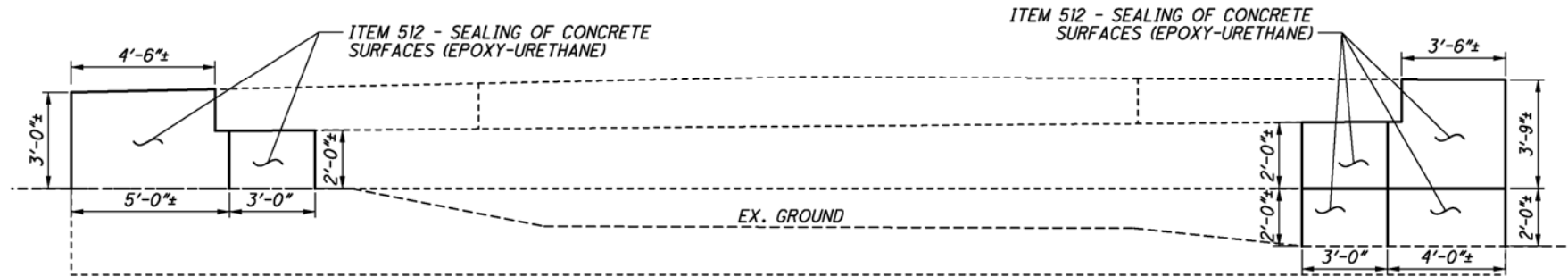
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	5	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
512	3	SQ YD	TYPE A WATERPROOFING
516	46	FT	JOINT SEALER

ALL QUANTITIES CARRIED TO SHEET 1/4.

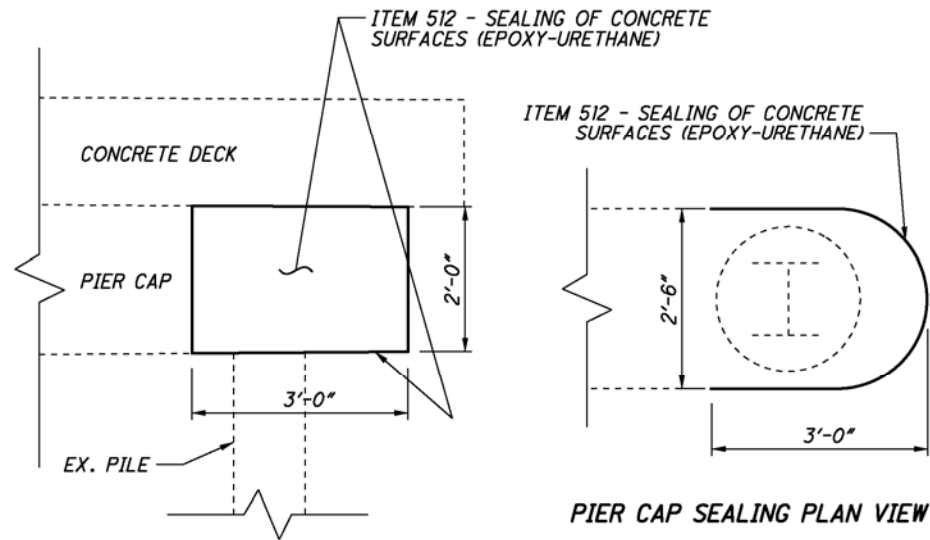




FORWARD WINGWALL & ABUTMENT SEALING



REAR WINGWALL & ABUTMENT SEALING

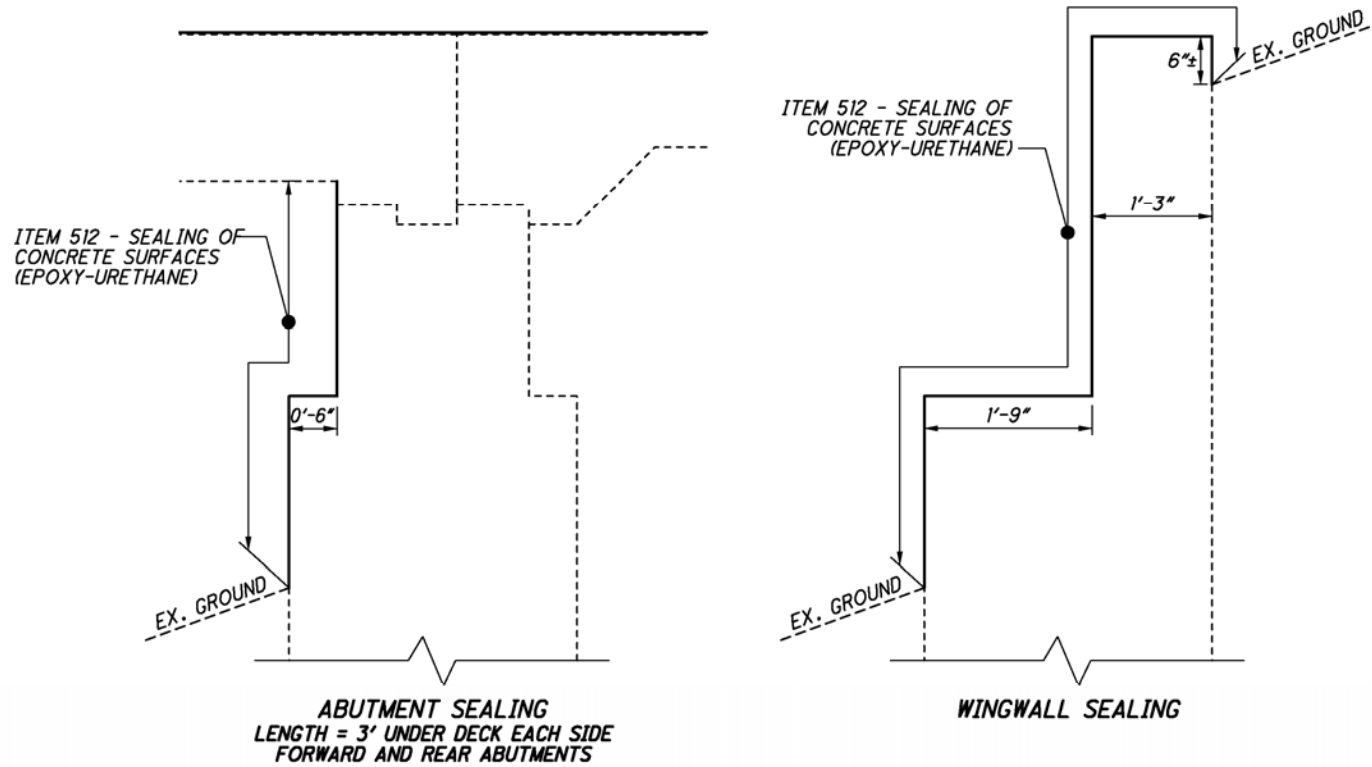


PIER CAP SEALING ELEVATION VIEW
LENGTH = 3' (TYP. ALL PIER CAPS)

PIER CAP SEALING PLAN VIEW

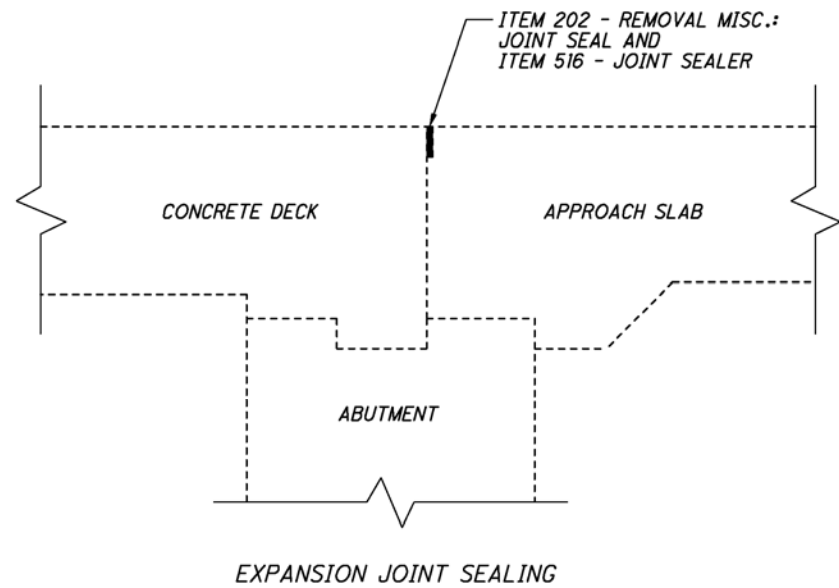
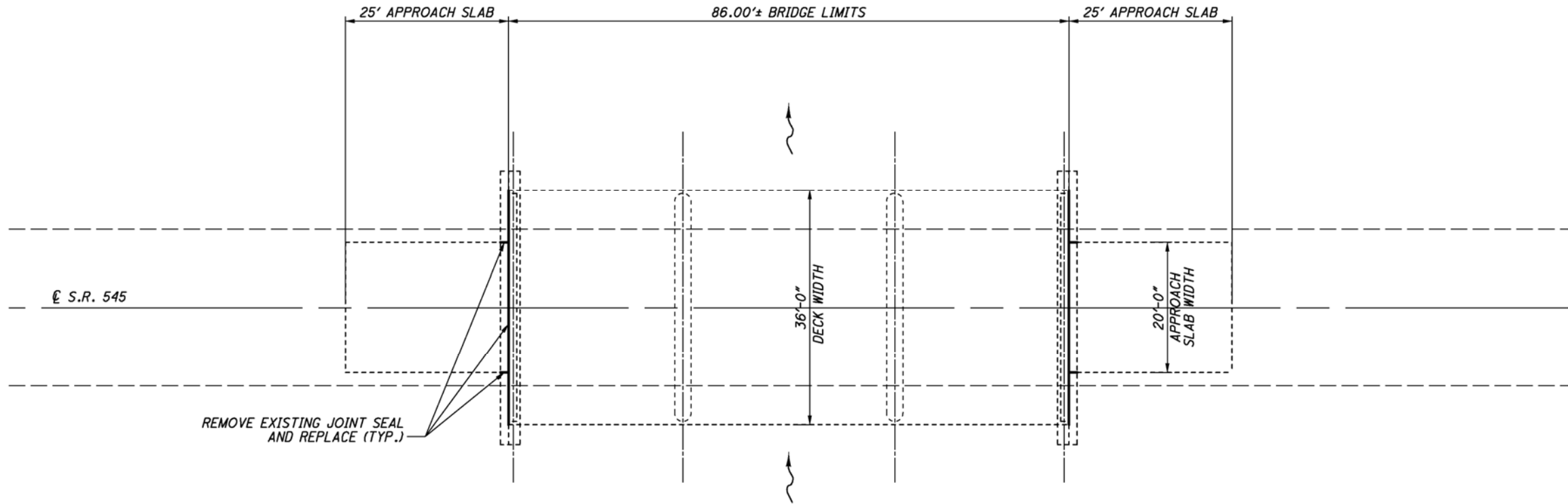
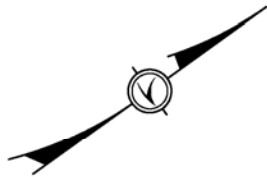
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
512	34	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	34	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES

ALL QUANTITIES CARRIED TO SHEET 1/4.



ABUTMENT SEALING
LENGTH = 3' UNDER DECK EACH SIDE
FORWARD AND REAR ABUTMENTS

WINGWALL SEALING



ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	77	FT	REMOVAL MISC.: JOINT SEAL
516	77	FT	JOINT SEALER

ALL QUANTITIES CARRIED TO THE STRUCTURE SUMMARY.

NOTES:
1) THE EXISTING GUARDRAIL IS NOT SHOWN.