

ITEM 441 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG 70-22M

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG 76-22M

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM 60% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE. AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO ACBFS OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.2 PERCENT. IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE, APPLY THE BINDER CONTENT REQUIREMENTS OF C&MS 442.

ASPHALT CONCRETE SURFACE COURSE SEALING REQUIREMENTS

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED IN SCD BP-3.1 AND C&MS 401.15, AFTER COMPLETION OF THE SURFACE COURSE, THE CONTRACTOR SHALL USE A CERTIFIED 702.01 PG BINDER TO SEAL THE FOLLOWING LOCATIONS:

- ALL CASTINGS INCLUDING BUT NOT LIMITED TO MONUMENTS, MANHOLES, WATER VALVES, CATCH BASINS, CURB INLETS.
- BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES.
- FORWARD JOINT FOR DRIVEWAY ASPHALT AND TRAILING JOINT WHEN BUTTING TO EXISTING ASPHALT DRIVE.
- PERIMETER OF ALL PAVEMENT REPAIRS OR OTHER ASPHALT INLAYS WHEN PAVEMENT REPAIRS/INLAYS ARE NOT OVERLAID WITH ASPHALT CONCRETE SURFACE COURSE.
- ALL COLD LONGITUDINAL JOINTS BETWEEN PAVED SHOULDERS AND GUARDRAIL ASPHALT.

THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

ANY ADDITIONAL COSTS ASSOCIATED WITH THE WORK IDENTIFIED IN THIS NOTE SHALL BE INCLUDED IN THE APPROPRIATE ASPHALT CONCRETE SURFACE COURSE ITEM OF WORK.

STAGING AREAS

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS A STAGING AREA(S). IF THE CONTRACTOR WANTS TO USE AN AREA(S) FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO USE THE RIGHT OF WAY E-PERMITTING SYSTEM AT [HTTPS://ODHCP.BEMCORP.NET/ACCOUNTS/ACCOUNT/ACCOUNT](https://odhcp.bemcorp.net/accounts/account/account) IN ORDER TO APPLY FOR A PERMIT PER SECTION 107.02 OF THE CMS. FOR SPECIFIC PERMITTING QUESTIONS, THE CONTRACTOR CAN CONTACT THE DISTRICT PERMITTING OFFICE, (MELVIN SAFFORD) AT 216-584-2137, (ANDREW TOMKO) AT 216-584-2195 OR AT DISTRICT12PERMITS@DOT.OHIO.GOV.

IF A PERMIT IS GRANTED, ALL CONDITIONS OF THE PERMIT SHALL BE MET IN ADDITION TO THE REQUIREMENTS OF 104.04 OF THE CMS, AT NO ADDITIONAL COST TO THE STATE. IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF THE PERMIT WERE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION SHALL BE WITHHELD UNTIL ALL THE CONDITIONS OF THE PERMIT ARE SATISFIED.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC CRASHES.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING. ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING (CONT'D)

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER MAINTENANCE OF THE EXISTING FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS AND RELATED ITEMS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK ALL UNDERGROUND ELECTRICAL CIRCUITS (INCLUDING TRAFFIC LOOPS AND LOOP LEAD-INS) FOR THE DURATION OF THE PROJECT.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND THE LANE AND SHOULDER CONFIGURATION OF THE ROADWAY THAT PASSES BELOW THE BRIDGE. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING FTP SITE:
<https://ftp.dot.state.oh.us/pub/Contracts/Attach/LAK-112996>

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN

A TYPE C FIELD OFFICE IS REQUIRED FOR THIS PROJECT.

THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE C FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE OFFICE PROVIDED SHALL BE A PERMANENT STRUCTURE (NO TRAILERS OR MODULAR OFFICES).

THE COPIER SUPPLIED FROM THE PREFERRED LIST SHALL BE A FLOW M776Z OR FLOW M776ZS. THE M776DN CONFIGURATION WILL NOT BE ACCEPTED.

THE BROADBAND INTERNET CONNECTION SHALL BE HARDWIRED AND MEET A MINIMUM DOWNLOAD SPEED OF 500MB PER SECOND (NO CELLULAR OR SATELLITE CONNECTIONS WILL BE ACCEPTED).

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN (CONT'D)

CONTRACTOR SHALL FURNISH AND SET UP A WIRELESS ROUTER THAT SUPPORTS WI-FI STANDARD 802.11AX (WIFI 6) AND A MINIMUM WIRELESS DATA TRANSFER RATE OF 4000 MB/S.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE C, FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN12 MONTHS

SUBGRADE REPAIR QUANTITIES

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AT THE DIRECTION OF THE ENGINEER FOR THE PURPOSE OF SUBGRADE REPAIR.

ITEM 204 - EXCAVATION OF SUBGRADE 10 CY
ITEM 304 - AGGREGATE BASE 10 CY

DESIGN AGENCY



DESIGNER
MAH

REVIEWER
CAM 01/17/25

PROJECT ID
112996

SHEET TOTAL
P.5 | 77

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING:	
A-1-20	REVISED 7/19/24
AS-1-15	REVISED 1/20/23
AS-2-15	REVISED 7/21/23
EXJ-4-87	REVISED 1/19/24
GSD-1-19	REVISED 7/19/24
HL-50.21	REVISED 7/15/22
SBR-3-20	REVISED 7/21/23
SS846	REVISED 4/17/15
VPF-1-24	REVISED 7/19/24

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADINGS INCLUDES:

VEHICULAR LIVE LOAD: HL-93 ALL EXCEPT PIER AND ABUTMENT FOOTINGS
FOUNDATION ONLY: C.F. = 400 (57)
FUTURE WEARING SURFACE (FWS) OF 0.000 KIPS/FT

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS E - COMPRESSIVE STRENGTH 3.4 KSI (EXISTING FOOTINGS)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK, BRIDGE RAILING, PIERS, ABUTMENTS, APPROACH SLABS, SLEEPER SLABS)

GFRP REINFORCEMENT: (SBR-3 RAILING AND TRANSITION.)
STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI
EXISTING STEEL H-PILES - YIELD STRENGTH 50 KSI

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ADHESIVE ANCHOR/DOWEL SYSTEMS:

INSTALL ADHESIVE ANCHORS/DOWELS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICC-ES REPORTS LISTED BELOW.

THE HOLES FOR THE ADHESIVE ANCHORS SHALL BE DRILLED WITH A HAMMER DRILL AND CARBIDE BIT PRIOR TO THE INSTALLATION OF THE ANCHORS, CLEAN AND DRY THE HOLES IN A MANNER CONSISTENT WITH THE MANUFACTURER'S REQUIREMENTS FOR DRY CONCRETE.

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:
HILTI HIT-HY 200 ADHESIVE ANCHORS - ICC-ER ESR-3187
DEWALT PURE110+ EPOXY ADHESIVE ANCHOR SYSTEM - ICC-ER ESR-3298

FACTORED ANCHOR/DOWEL LOADS: TENSION - 5.0 KIPS
SHEAR - 5.0 KIPS

THE CONTRACTOR MAY USE A SUBSTITUTE ADHESIVE ANCHOR/DOWEL SYSTEM THAT MEETS THE ACCEPTANCE CRITERIA OF ICEES AC308 - POST INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS. THE SUBSTITUTE ANCHORS SHALL MEET OR EXCEED THE CAPACITY OF THE ADHESIVE ANCHOR/DOWEL SYSTEMS LISTED ABOVE.

ADHESIVE ANCHORS/DOWELS SHALL NOT BE SUBSTITUTED WITH MECHANICAL ANCHORS.

THE CONTRACTOR SHALL SUPPLY DOCUMENTATION SEALED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER ENSURING THAT THE SUBSTITUTE ADHESIVE ANCHOR/DOWEL SYSTEM PROVIDES SUFFICIENT CAPACITY FOR THIS APPLICATION IN ACCORDANCE WITH AASHTO LRFD SECTION 5.13. INSTALL THE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICC-ES REPORT.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5, AND THE ODOT BRIDGE DESIGN MANUAL

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.
AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.36 KIPS.
A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".
A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 36 IN. A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

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

REMOVE REAR AND FORWARD ABUTMENTS AND WINGWALLS AND PIERS TO TOP OF FOOTING.

REMOVE :

REAR ABUT. TO ELEV. - 876.71+/-
PIER 1 TO ELEV. - 859.94+/-
PIER 2 TO ELEV. - 858.44+/-
PIER 3 TO ELEV. - 856.19+/-
PIER 4 TO ELEV. - 856.69+/-
PIER 5 TO ELEV. - 858.94+/-
FWD. ABUT. TO ELEV. - 869.86+/-

SALVAGE EXISTING PIER COLUMN REINFORCING TO AN ELEVATION 3'-0" ABOVE THE TOP OF FOOTING. MECHANICALLY SPLICE THE PROPOSED PIER REINFORCING TO THE EXISTING PER C&MS 509.

CLEAN AND STRAIGHTEN EXISTING ABUTMENT REINFORCING TO REMAIN ACCORDING TO C&MS 519.04.

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION, THE EXISTING 4" GAS LINE, THE SUBDECKING ON THE BRIDGE, AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE CONTRACTOR SHALL COORDINATE WITH THE GAS COMPANY TO HAVE THE GAS LINE CUT AND CAPPED AND ALL GAS REMOVED BEFORE ANY DEMOLITION WORK BEGINS. COORDINATE WITH THE GAS COMPANY TO PERMANENTLY REMOVE THE GAS LINE FROM THE BRIDGE AFTER THE DECK HAS BEEN REMOVED. ALLOW 14 CALENDAR DAYS FOR THE GAS COMPANY TO COMPLETE THIS WORK. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT 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 CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE-RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18-IN LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE (1/4" AMPLITUDE). LEAVE THE EXISTING CONCRETE REINFORCEMENT, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. 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 STEEL REINFORCEMENT 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.

METHOD OF MEASUREMENT & BASIS OF PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN:

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE ESTIMATED QUANTITIES:

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN:

ABUTMENTS	500 POUNDS
PIERS	500 POUNDS

ITEM 511 CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN:

SEE DETAIL A AND CORRESPONDING SECTIONS ON SHEETS 20/24 AND 21/24 FOR THE 12'-6" PARAPET TRANSITION DETAIL BETWEEN THE SBR-3-20 RAILING AND THE IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 511 CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

THE FINAL SEALING COAT COLOR SHALL BE FEDERAL COLOR NUMBER 595C-27778 (LIGHT-NEUTRAL, SEMIGLOSS).

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:

THE FINAL COAT COLOR SHALL BE FEDERAL COLOR NUMBER 595C-16440 (LIGHT GRAY, GLOSS).

ITEM 516 ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN:

THE BEARING LOAD PLATES ARE BEVELED TO ACCOMMODATE THE VARIABLE GRADE ON THE BRIDGE. SEE THE BEVELED STEEL LOAD PLATE DIMENSIONS TABLE ON SHEET 19/24.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 516 ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN:

THE FORWARD APPROACH SLAB HAS AN IRREGULAR SHAPE TO SUPPORT THE IMPACT ATTENUATOR. SEE SHEET 22/24.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN:

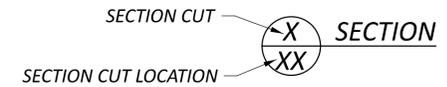
THIS ITEM SHALL BE AS PER THE DETAILS IN THE PLAN, THE APPLICABLE PORTIONS OF STANDARD DRAWING VPF-1-24, AND THE MANUFACTURER'S RECOMMENDATIONS.

THE ANCHORS ON THE TOP OF THE PROPOSED CONCRETE BRIDGE RAILING SHALL BE CAST IN PLACE WITH A 6" OR 7" MINIMUM EMBEDMENT LENGTH, AS SHOWN ON THE STANDARD DRAWING FOR THE SPECIFIED BASE PLATE TYPE.

AT LOCATIONS WHERE THE FENCE SPANS ACROSS AN EXPANSION JOINT IN THE BRIDGE RAILING AT AN INTEGRAL OR SEMI-INTEGRAL ABUTMENT, DO NOT INSTALL LINE RAILS AND EXPANSION JOINT SLEEVES; HOWEVER, THE FABRIC SHALL REMAIN CONTINUOUS ACROSS THE EXPANSION JOINT.

THE COLOR OF THE FENCE FABRIC, RAILS, POST, PLATES, TIE WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR ITEM 607 - VANDAL PROTECTION FENCE 6' STRAIGHT, COATED FABRIC, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



ABBREVIATIONS USED:

REFER TO THE FOLLOWING ABBREVIATIONS, WHICH ARE USED THROUGHOUT THE PLANS.

TERM USED	MEANING
ABUT.	ABUTMENT
ADT	AVERAGE DAILY TRAFFIC
APPR.	APPROACH
BRG.	BEARING
BTA	BRIDGE TERMINAL ASSEMBLY
C/C	CENTER-TO-CENTER
CF	CUBIC FEET, PREDICTED FREQUENCY
CONST.	CONSTRUCTION
CY	CUBIC YARD
C&MS	CONSTRUCTION AND MATERIAL SPECIFICATIONS
DND	DO NOT DISTURB
DWG.	DRAWING
E.F.	EACH FACE
EL.	ELEVATION
ELEV.	ELEVATION
EX.	EXISTING
F.A.	FORWARD ABUTMENT
F.L.	FORWARD LEFT
F/F	FACE-TO-FACE
F.F.	FAR FACE
FT	FEET
FWD.	FORWARD
GEN.	GENERAL
GR.	GRADE
IN.	INCH; INCHES
KSI	KIPS PER SQUARE INCH
LB(S)	POUND(S)
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
N.F.	NEAR FACE
NO.	NUMBER
NPCPP	NON-PERFORATED CORRUGATED PLASTIC PIPE
PCPP	PERFORATED CORRUGATED PLASTIC PIPE
PROT.	PROTECTION
PSF	POUNDS PER SQUARE FOOT
R.A.	REAR ABUTMENT
R.L.	REAR LEFT
R.R.	REAR RIGHT
RT.	RIGHT
R/W	RIGHT-OF-WAY
SF	SQUARE FEET
SH	STANDARD HIGHWAY EASEMENT
SHLDR	SHOULDER
SPA.	SPACE(S)
SR	STATE ROUTE
STA.	STATION
STD.	STANDARD
SUPER.	SUPERSTRUCTURE
TYP.	TYPICAL
VAN.	VANDAL
VPI	VERTICAL POINT OF INTERSECTION

ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN:

THIS WORK SHALL CONSIST OF GROUNDING THE VANDAL PROTECTION FENCE AND FASCIA BEAMS AT BOTH ABUTMENTS AND PIERS 2 AND 4 PER HL-50.21.

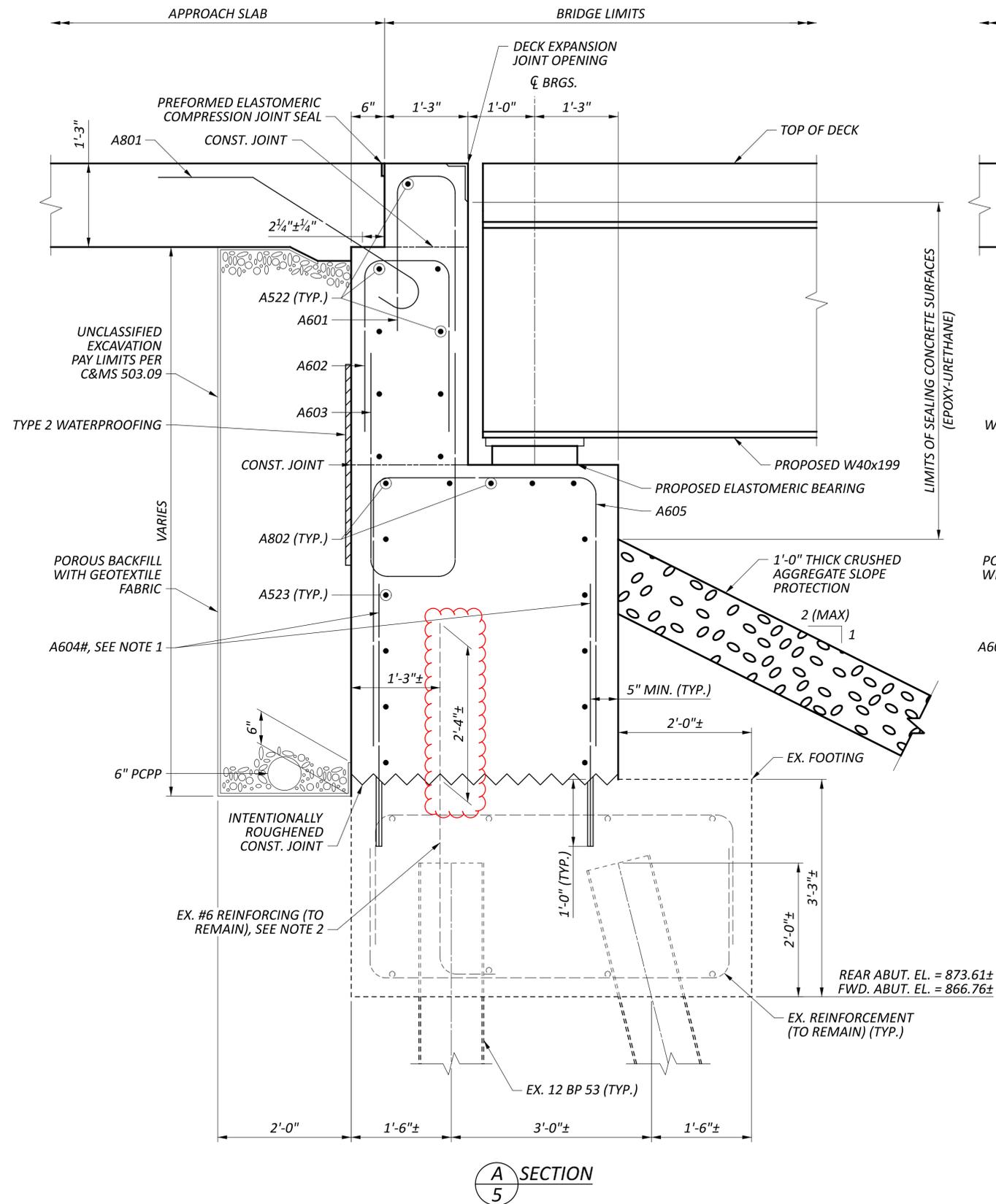
PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH ITEM 625, STRUCTURE GROUNDING SYSTEM, AS PER PLAN AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK.

ITEM 846 POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM, AS PER PLAN:

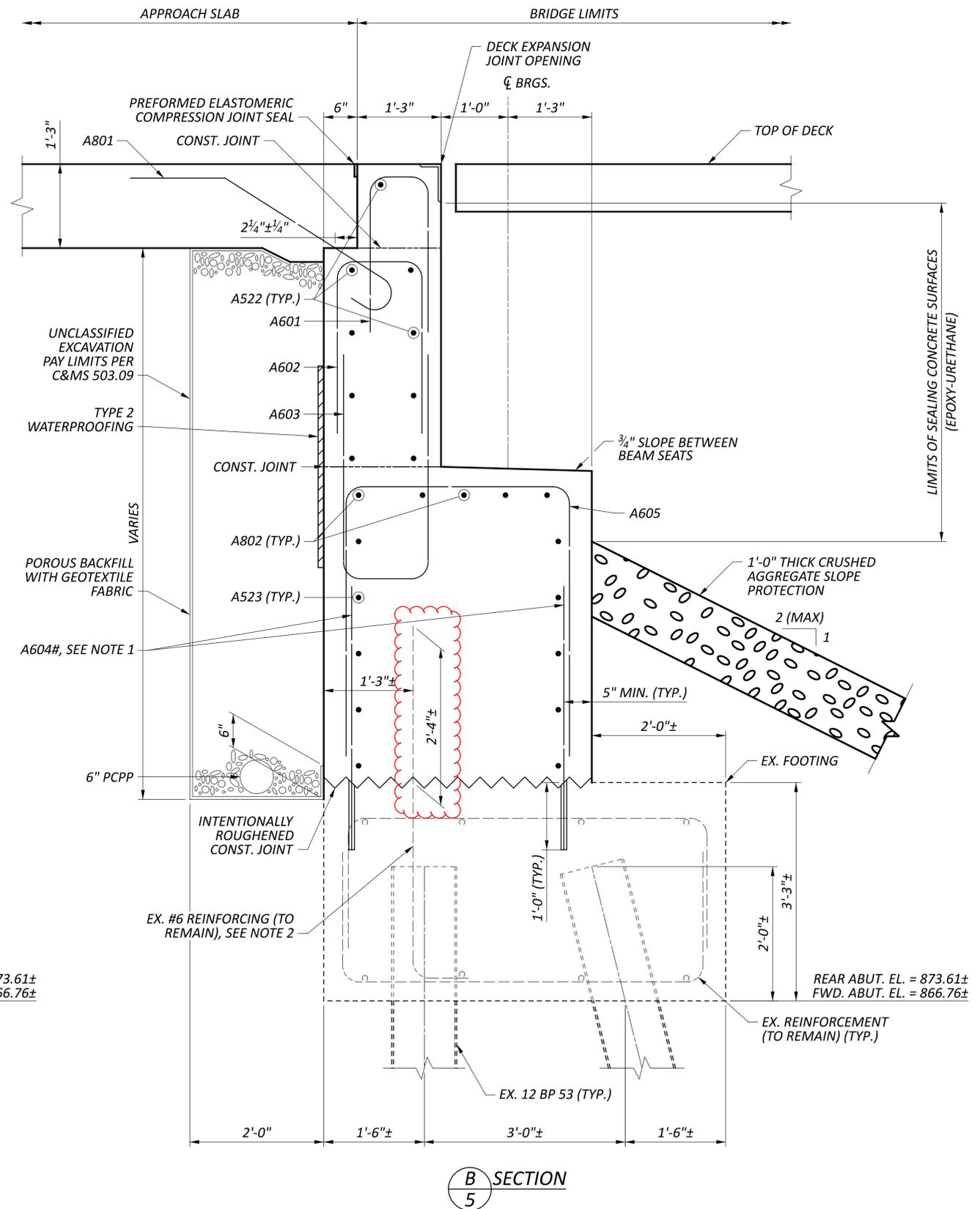
THE FORWARD APPROACH SLAB HAS AN IRREGULAR SHAPE TO SUPPORT THE IMPACT ATTENUATOR. THE POLYMER MODIFIED ASPHALT EXPANSION JOINT FOLLOWS THE IRREGULAR APPROACH SLAB SHAPE. SEE SHEET 22/24.

PAYMENT FOR THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC FOOT FOR ITEM 846 POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.





A
SECTION
5



B
SECTION
5

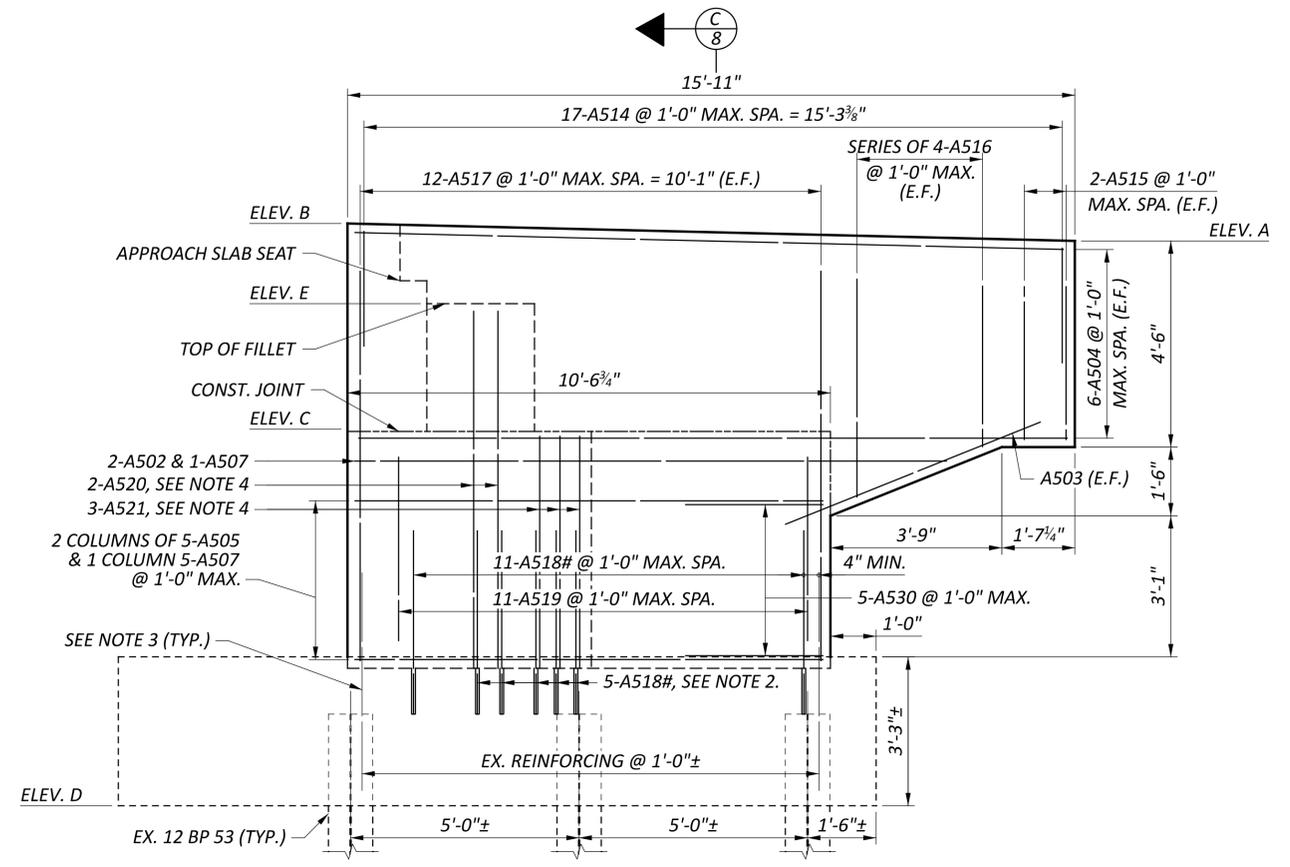
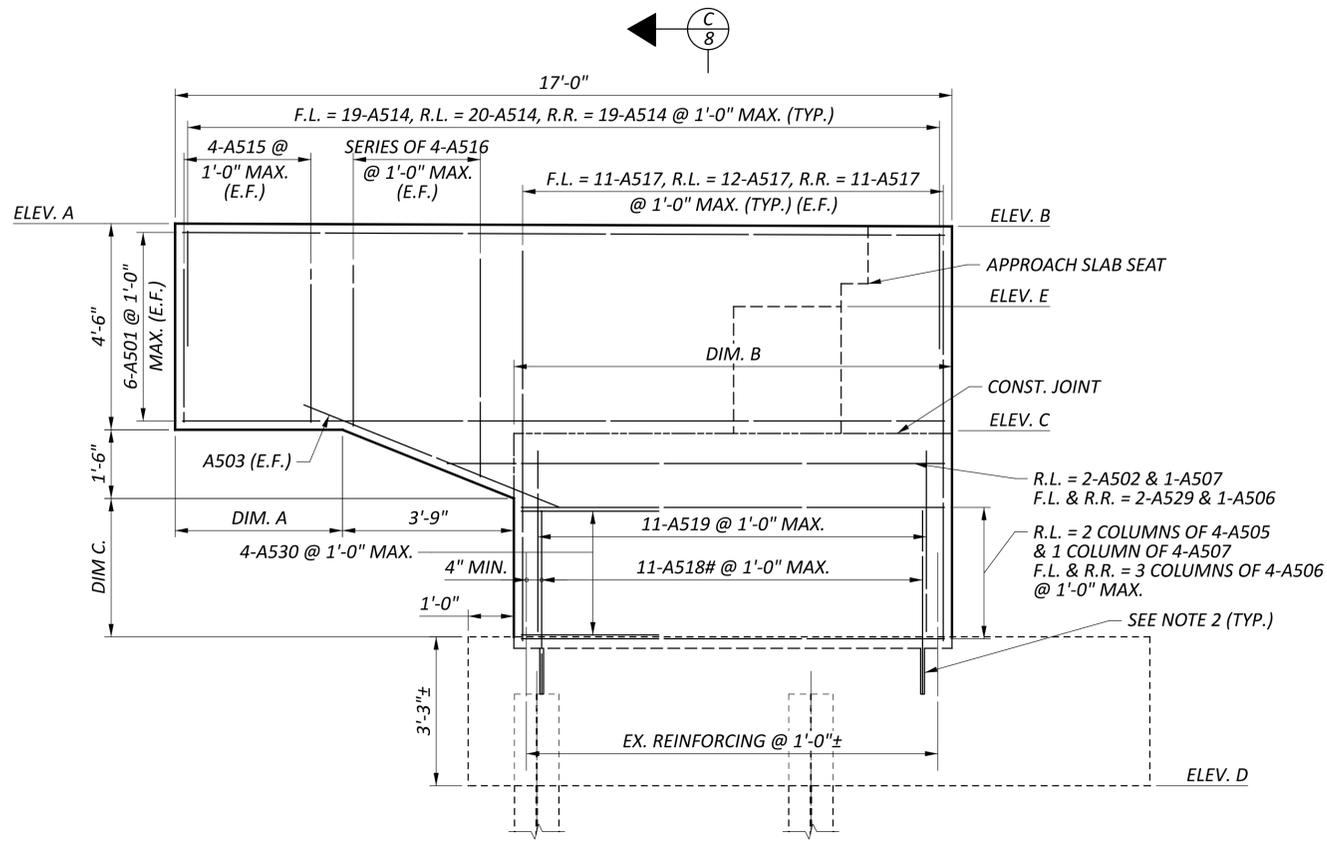
LEGEND

- DOWEL BAR

NOTES:

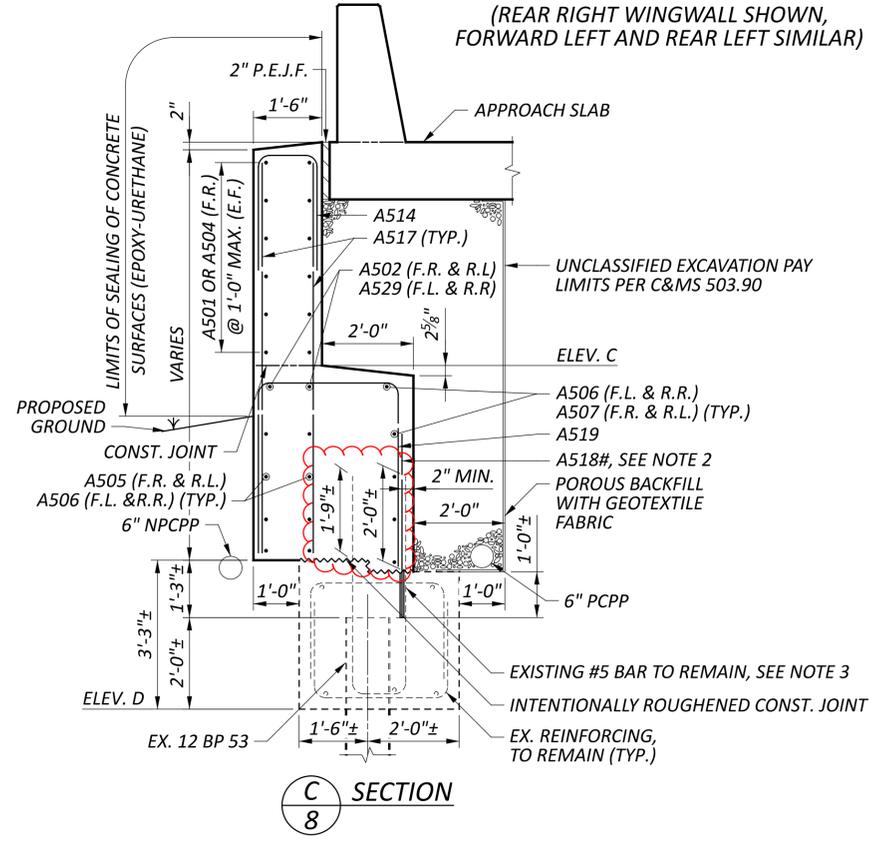
- EMBED ADHESIVE DOWELS AT A MINIMUM OF 1'-0". PAYMENT WILL BE INCLUDED IN ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT, AS PER PLAN
- EXISTING REINFORCING STEEL TO REMAIN IN PLACE IS TO BE CLEANED ACCORDING TO C&MS 519.04. PAYMENT WILL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
- MINIMUM LAP LENGTHS:
 #5 BARS - 3'-1"
 #6 BARS - 3'-7"
 #8 BARS - 5'-4"

SFN	
4305434	
DESIGN AGENCY	
DESIGNER	CHECKER
CAE	JPL
REVIEWER	
DOR 10/30/24	
PROJECT ID	
112996	
SUBSET	TOTAL
7	24
SHEET	
TOTAL	
P.56	77



REAR RIGHT WINGWALL
 (REAR RIGHT WINGWALL SHOWN,
 FORWARD LEFT AND REAR LEFT SIMILAR)

FORWARD RIGHT WINGWALL

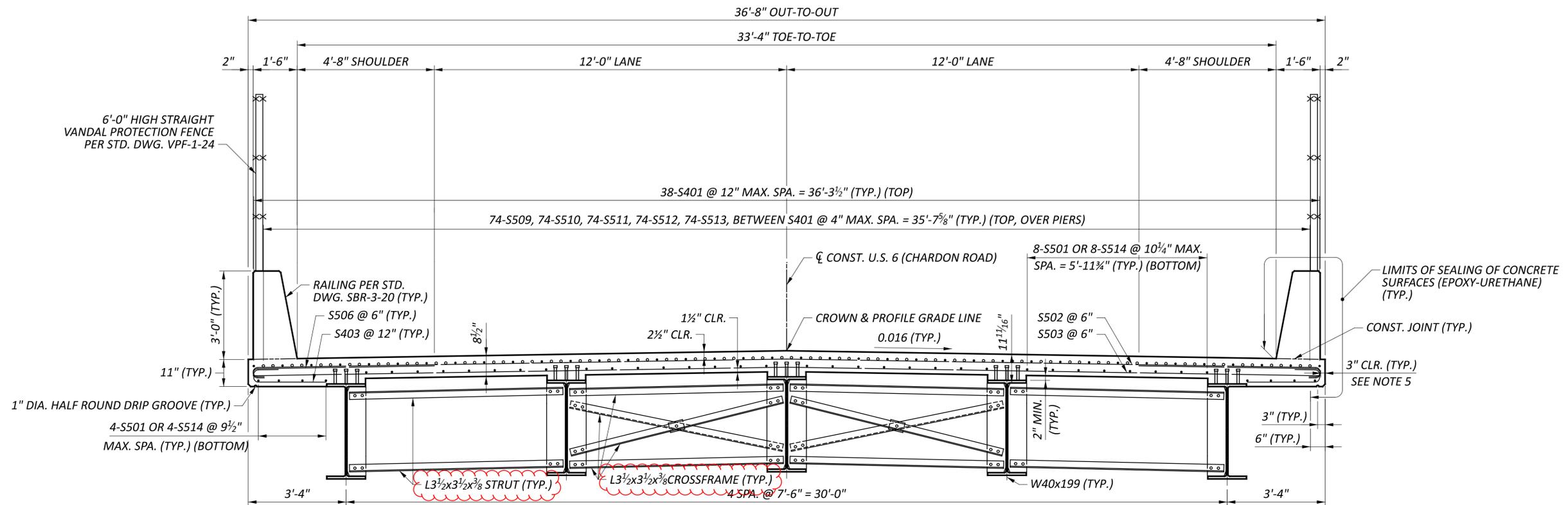


- LEGEND:**
- E.F. - EACH FACE
 - F.F. - FAR FACE
 - N.F. - NEAR FACE
 - F.L. - FORWARD LEFT
 - R.L. - REAR LEFT
 - R.R. - REAR RIGHT
 - # - DOWEL BAR

- NOTES:**
1. SEE SHEET 5/24 FOR ABUTMENT PLAN VIEWS.
 2. EMBED DOWELS AT A MINIMUM OF 1'-0". PAYMENT WILL BE INCLUDED IN ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALIC GROUT, AS PER PLAN.
 3. EXISTING REINFORCING STEEL TO REMAIN IN PLACE IS TO BE CLEANED ACCORDING TO C&MS 519.04. PAYMENT WILL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.
 4. MINIMUM LAP LENGTHS:
#5 BARS - 3' - 1"

WINGWALL ELEVATIONS AND DIMENSIONS								
LOCATION	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	DIM. A	DIM. B	DIM. C
FORWARD LEFT	878.56	878.95	874.51	866.76±	-	3'-8"	9'-7"	2'-6 1/2"
FORWARD RIGHT	879.09	879.47	874.93	866.76±	877.72	-	-	-
REAR LEFT	885.80	885.73	881.23	873.61±	884.07	2'-8 1/4"	10'-6 3/4"	2'-11 1/4"
REAR RIGHT	885.88	885.82	881.30	873.61±	-	3'-8"	9'-7"	3'-0 1/4"

SFN	4305434
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REVIEWER	
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112996	
SUBSET TOTAL	
8	24
SHEET TOTAL	
P.57	77



TRANSVERSE SECTION

NOTES:

- FOR DECK REINFORCEMENT, SEE SHEET 14/24.
- FOR CROSSFRAME LAYOUT AND DETAILS, SEE SHEETS 11/24 AND 13/24.
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 1/8" AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

 THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.
- S403 AND S506 TO BE BUNDLED WITH S502.
- LARGER SIDE CLEARANCE IS TO BE PROVIDED TO ALLOW FOR BETTER CONSTRUCTABILITY WHEN USING A SINGLE BAR ACROSS THE LENGTH OF THE DECK.

TRANSVERSE SECTION
 BRIDGE NO. LAK-00006-02.060
 U.S. 06 OVER I-271

SFN	
4305434	
DESIGN AGENCY	
DESIGNER	CHECKER
CAE	JPL
REVIEWER	
DOR 10/30/24	
PROJECT ID	
112996	
SUBSET	TOTAL
10	24
SHEET	TOTAL
P.59	77