

**TRANSPORTATION MANAGEMENT PLAN - DESIGNATED TRAINED PERSON**

ENSURE ALL INDIVIDUALS CONTRACTED BY, SECURED BY, DIRECTED BY OR EMPLOYED BY THE CONTRACTOR WHOM ARE INVOLVED IN THE DEVELOPMENT, DESIGN, IMPLEMENTATION, OPERATION, INSPECTION AND ENFORCEMENT OF WORK ZONE RELATED TRANSPORTATION MANAGEMENT AND TRAFFIC CONTROL HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS EACH INDIVIDUAL IS REQUIRED TO MAKE. REPEAT TRAINING IN INTERVALS OF NO MORE THAN 5 YEARS TO REFLECT CHANGING PRACTICES.

DESIGNATE A TRAINED PERSON AT THE PROJECT LEVEL THAT HAS THE PRIMARY RESPONSIBILITY AND SUFFICIENT AUTHORITY FOR IMPLEMENTING AND MAINTAINING THE TRANSPORTATION MANAGEMENT PLAN (TMP) AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PROJECT. FOR INFORMATION AND REQUIREMENTS REGARDING TMPs AND RELATED COMPONENTS SEE ODOT TRAFFIC MANAGEMENT IN WORK ZONE POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)). MAINTAIN A 24-HOUR CONTACT FOR THE DESIGNATED TRAINED PERSON AND PROVIDE THIS CONTACT INFORMATION TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. THE DESIGNATED TRAINED PERSON SHALL BE PRESENT ON SITE FOR, AND INVOLVED WITH, EACH TEMPORARY TRAFFIC CONTROL SET UP/TAKE DOWN AND EACH PHASE CHANGE

THE DUTIES OF THE DESIGNATED TRAINED PERSON ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS IN ACCORDANCE WITH C&MS 614.03.
2. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.
3. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TEMPORARY TRAFFIC CONTROL (TTC) SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH C&MS 614.03.
4. ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
5. FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIMEFRAME DETERMINED BY THE ENGINEER.

THE DEPARTMENT WILL DEDUCT:

- A. THE PRORATED DAILY AMOUNT OF ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE DESIGNATED TRAINED PERSON FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.
- B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.
- C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCUR, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

**ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:
  - FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).
  - FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
    - o ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
    - o AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
    - o AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC. WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- o THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- o THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR
- o OTHER LOCATIONS AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

**ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)**

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE ..... 500 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**ITEM 619, FIELD OFFICE, TYPE C**

THE LOCATION OF THE FIELD OFFICE WILL NEED TO BE APPROVED BY THE ENGINEER PRIOR TO LEASING. THE OFFICE SHALL NOT BE LEASED UNTIL CONSTRUCTION BEGINS OR AT THE DISCRETION OF THE ENGINEER.

**INTERIM COMPLETION REQUIREMENTS**

THE PROJECT HAS AN INTERIM COMPLETION DATE OF NOVEMBER 1, 2026. ON OR BEFORE THE INTERIM COMPLETION DATE, ALL WORK INCLUDING FENCE SHALL BE COMPLETED, EXCEPT BRIDGE PAINTING.

THE CONTRACTOR SHALL BE ASSESSED A DAILY DISINCENTIVE IN THE AMOUNT OF \$3,500 PER DAY FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK AND ASSOCIATED INCIDENTALS RELATED TO THE WORK. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACTOR IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN C&MS 108.07 FOR THE REMAINDER OF THE CONTRACT.

Description or Location of Critical Work	Completion Date	Time Period	Disincentive \$ per Time Period
ALL WORK EXCEPT BRIDGE PAINTING	11/1/2026	Day	\$3,500





**ITEM 510, DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN**

INSTALL GALVANIZED DOWEL BARS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR BLACK REBAR PUBLISHED IN THE ICC-ES REPORTS LISTED BELOW.

THE HOLES FOR THE DOWEL BARS SHALL BE DRILLED WITH A HAMMER DRILL AND CARBIDE BIT. PRIOR TO THE INSTALLATION OF THE ANCHORS, THE HOLES SHALL BE CLEANED AND DRIED IN A MANNER CONSISTENT WITH THE NAUMUFACTURER'S REQUIREMENTS FOR DRY CONCRETE.

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

HILTI HIT-HY 200 ADHESIVE ANCHORS  
(ICC-ES REPORT ESR-3187)

DEWALT PURE110+ EPOXY ADHESIVE ANCHOR SYSTEM  
(ICC-ES REPORT ESR-3298)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS  
(ICC-ES REPORT ESR-4057)

ATC ULTRABOND HS-1CC ADHESIVE ANCHOR SYSTEM  
(ICC-ES REPORT ESR-4094)

THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICC-ES REPORTS FOR ACCEPTABLE PRODUCTS ARE AVAILABLE AT:  
WWW.ICC-ES.ORG/EVALUATION-REPORT-PROGRAM/REPORTS-DIRECTORY

PRIOR TO DRILLING HOLES, LOCATE EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL TO EITHER SIDE OF THE EXISTING BAR. THE DEPARTMENT WILL PAY FOR DOWEL HOLES AND GROUTING WITH ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

**ITEM 511, CLASS QC SCC CONCRETE, SUPERSTRUCTURE, AS PER PLAN**

THIS PAY ITEM INCLUDES CONCRETE BRIDGE RAILING ON AND ABOVE THE UPPER SURFACE OF THE APPROACH SLABS ONLY AND OTHER ITEMS SPECIFIED IN STANDARD DRAWINGS SBR-1-20 AND BR-2-15. LIGHTWEIGHT CONCRETE SHALL NOT BE USED FOR THE BRIDGE RAILING ON THE APPROACH SLABS. ALL STEEL REINFORCEMENT SHALL BE PAID FOR SEPARATELY.

**ITEM 511, CLASS QC3 CONCRETE, MISC.: LIGHTWEIGHT, SIDEWALK**  
GENERAL REQUIREMENTS: THE PROVISIONS OF CMS 511 SHALL APPLY EXCEPT AS NOTED BELOW.

THE CONCRETE FOR THE SIDEWALK SHALL HAVE A MAXIMUM DRY WEIGHT OF 120 LBS/CF. THE AGGREGATE SHALL BE WELL-GRADED AND MEET THE REQUIREMENTS OF ASTM C330. COMPRESSIVE STRENGTH SHALL BE 4500 PSI AT 28 DAYS. DESIGN PERMEABILITY SHALL BE LESS THAN 1500 COULOMBS. AIR CONTENT SHALL BE 7±2% FOR CONCRETE WITH A 1 INCH NOMINAL MAXIMUM SIZE AGGREGATE OR 8±2% FOR CONCRETE WITH A 3/8 INCH NOMINAL MAXIMUM AGGREGATE SIZE. ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. SUBMIT THE MIX DESIGN FOR REVIEW AND APPROVAL AS PER SUPPLEMENT 1126 PRIOR TO USE. THIS LIGHTWEIGHT CONCRETE WILL ONLY BE USED ON THE SIDEWALK ON THE BRIDGE DECK. LIGHTWEIGHT CONCRETE SHALL NOT BE USED ON THE SIDEWALK ON THE APPROACH SLABS.

ALL STEEL REINFORCEMENT WILL BE PAID FOR SEPARATELY.

**ITEM 511, CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT CLASS QC SCC, THE CONCRETE FOR THE CONCRETE BRIDGE RAILINGS SHALL HAVE A MAXIMUM DRY WEIGHT OF 120 LBS/CF AND THE AGGREGATE SHALL MEET THE REQUIREMENTS OF ASTM 330. COMPRESSIVE STRENGTH SHALL BE 4500 PSI AT 28 DAYS. DESIGN PERMEABILITY SHALL BE LESS THAN 1500 COULOMBS. AIR CONTENT SHALL BE 7±2% FOR CONCRETE WITH A 1 INCH NOMINAL MAXIMUM SIZE AGGREGATE OR 8±2% FOR CONCRETE WITH A 3/8 INCH NOMINAL MAXIMUM AGGREGATE SIZE. ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127. SUBMIT THE MIX DESIGN FOR REVIEW AND APPROVAL AS PER SUPPLEMENT 1126 PRIOR TO USE. THIS LIGHTWEIGHT CONCRETE WILL ONLY BE USED ON THE CONCRETE BRIDGE RAILINGS ON THE BRIDGE DECK. LIGHTWEIGHT CONCRETE SHALL NOT BE USED FOR THE BRIDGE RAILINGS ON THE APPROACH SLABS.

ALL STEEL REINFORCEMENT WILL BE PAID FOR SEPARATELY.

**ITEM 511, CONCRETE, MISC.: FORMLINER**

THE FOLLOWING REQUIREMENTS APPLY TO AREAS LABELED "TEXTURE TYPE A" AS SHOWN IN THE PLANS. WHERE "TEXTURE A" IS NOT INDICATED, THE CONCRETE IS TO BE FINISHED IN ACCORDANCE WITH C&MS 511.

FORMLINERS ARE TO BE MADE OF PLASTICIZED POLYVINYL CHLORIDE HAVING THE PROPERTY OF LONG-TERM FORM-RELEASE CAPABILITY FOR REUSE AND DURABILITY. THE MATERIAL IS TO HAVE SUFFICIENT FIRMNESS TO RESIST DEFORMATION FROM FRESHLY PLACED CONCRETE AND HAVE SUFFICIENT PLIABILITY TO PERMIT REMOVAL WITHOUT DAMAGE TO THE FORMLINERS OR TO EARLY AGE CONCRETE.

FORMLINERS ARE TO HAVE A SHORE A FIRMNESS OF APPROXIMATELY 25.

THE MAXIMUM THICKNESS OF THE DEEPEST UNDERCUTS IN THE TEXTURED FORMLINERS IS TO BE 1" IN DEPTH.

FORMLINER PANELS ARE TO BE A MINIMUM OF 4'-0" IN LENGTH AND PROVIDE CONTINUOUS LINERS FOR VERTICAL DIMENSIONS. IF DIMENSIONS TO BE FORMED ARE SMALLER THAN 4'-0" IN LENGTH, THE FORMLINER PANEL IS TO MATCH THAT OF THE AREA TO WHICH IT IS BEING APPLIED.

FORMLINERS ARE TO BE INSTALLED IN THE FORMS TO PROVIDE THE DIMENSIONAL RELATIONSHIP BETWEEN THE TEXTURED AND FLAT CONCRETE SURFACES AS SHOWN IN THE PLANS. FORMLINERS ARE TO BE ATTACHED FIRMLY TO PRIMARY FORM ELEMENTS TO ENSURE THAT THE FORMLINERS WILL BE TRUE AND STRAIGHT IN THE VERTICAL POSITION. ADJACENT EDGES OF FORMLINER PANELS ARE TO BE OVERLAPPED BY 1/16" ON EITHER SIDE OF EACH PANEL.

AFTER FORMS ARE STRIPED, IMPERFECTIONS IN THE FINISHED CONCRETE IS TO BE PATCHED WITH THE SAME MATERIALS AND MIX USED IN THE CONCRETE POUR TO RESTORE FULLY THE TEXTURED SURFACES TO THE SATISFACTION OF THE ENGINEER. "TEXTURE TYPE A" IS TO BE AS FOLLOWS:

TEXTURES TO BE OBTAINED THROUGH THE USE OF FORMLINERS ARE TO BE A SLIGHTLY ROUGH, GRANULAR SURFACE SIMILAR TO THE FOLLOWING STANDARD FORMLINER TEXTURE PATTERN, OR APPROVED EQUAL:

PATTERN NO.	DESCRIPTION	MANUFACTURER
17027	ASHLAR	FITZGERALD FORMLINERS
F70621	AGED ASHLAR	SYMONS (DAYTON SUPERIOR)
2025	ASHLAR	CUSTOM ROCK FORMLINER

**ITEM 511, CONCRETE, MISC.: FORMLINER (CONTINUED)**

FORMLINER MANUFACTURER INFORMATION:

FITZGERALD FORMLINERS  
1500 EAST CHESTNUT AVENUE  
SANTA ANA, CA 92701  
PHONE: (714)547-6710

DAYTON SUPERIOR CORPORATION  
1125 BYERS ROAD  
MIAMISBURG, OH 45342  
PHONE: (937)866-0711

CUSTOM ROCK FORMLINER  
2020 WEST 7TH STREET  
ST. PAUL, MN 55116  
PHONE: (651)699-1345

PRIOR TO BEGINNING ANY WORK, REPRESENTATIVE SHOP DRAWINGS DETAILING THE LAYOUT OF THE FINISHED PATTERN AND JOINT LOCATIONS, FORM TIE LOCATIONS, AND END, EDGE AND OTHER SPECIAL CONDITIONS ARE TO BE SUBMITTED TO THE FIELD ENGINEER FOR APPROVAL A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO BEGINNING WORK.

A PRE-INSTALLATION MEETING IS TO BE SCHEDULED WITH THE FIELD ENGINEER, CONTRACTOR, AND MANUFACTURER TO ASSURE THE UNDERSTANDING OF FORMLINER USE, AND REQUIREMENTS AND COORDINATION OF THE WORK. A REPRESENTATIVE FROM THE MANUFACTURER IS TO BE PRESENT FOR THE INITIAL SETUP, CONCRETE PLACEMENT, AND STRIPPING OF THE FORMLINERS.

PAYMENT FOR FORMLINERS AND AESTHETIC TREATMENTS, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE THE FINAL PRODUCT, TO BE MADE UNDER ITEM 511, CONCRETE MISC.: FORMLINER.

**ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)**

ALL EXPOSED SURFACES AS SHOWN IN THE PLANS SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE COLOR SHALL BE FEDERAL COLOR NUMBER 17778 (LIGHT NEUTRAL). THE SURFACES TO BE SEALED SHALL HAVE SURFACE PREPARATION PER C&MS 512.03(F). THE SURFACE AREA PAY QUANTITY IS BASED ON A FLAT SURFACE. ANY ADDITIONAL SEALING COSTS DUE TO THE FORMLINER SHALL BE INCLUDED IN THE UNIT BID FOR THIS ITEM.

**ITEM 514, SURFACE PREPARATION OF EXISTING STRUCUTRAL STEEL**

**ITEM 514, FIELD PAINTING OF EXISTING STRUCTURAL STEEL**  
THE ENDS OF BEAMS 1 THROUGH 5 TO BE ENCASED WITHIN THE ABUTMENT DIAPHRAGMS ARE TO BE BLASTED PER 514.13 AND PAINTED WITH ORGANIC ZINC PRIME COAT PRIOR TO ENCASEMENT. THE PRIME COAT SHALL BE 708.02B. ALL SURFACE PREPARATION OF THE EXISTING STRUCTURAL STEEL FOR FIELD PAINTING WILL BE PAID FOR UNDER ITEM 514, SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL. ALL PRIME COAT APPLICATION ON THE EXISTING STRUCTURAL STEEL WILL BE PAID FOR UNDER ITEM 514, FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT.

**ITEM 514, FIELD PAINTING OF EXISTING STRUCTURAL STEEL**

EXISTING STEEL SHALL BE CLEANED AND PAINTED WITH A PRIME, INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING OZEU. THE COLOR OF THE FINISHED COAT SHALL BE GREEN, FEDERAL COLOR NUMBER FS-595C-14277.

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

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, 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. THE DEPARTMENT WILL NOT PAY FOR THE COST OF 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 519, PATCHING CONCRETE STRUCTURE, AS PER PLAN**

THE QUANTITY GIVEN IN THE ESTIMATED QUANTITY TABLE HAS BEEN ESTIMATED FROM FIELD INSPECTION AND ORIGINAL PLANS. THE ACTUAL AREA OF PATCHING SHALL BE DETERMINED BY THE FIELD ENGINEER. PAYMENT SHALL BE MADE PER SQ. FT. AT THE PRICE BID FOR THE ACTUAL AREA PATCHED AND SHALL INCLUDE ALL COST FOR LABOR, MATERIALS AND EQUIPMENT.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN C&MS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED STEEL REINFORCEMENT. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

REMOVE THE FORMS WITHIN 24 HOURS AFTER PLACING CONCRETE AND FINISH ALL EXPOSED SURFACES BY RUBBING TO MATCH THE SURROUNDING SURFACE. APPLY MEMBRANE CURING ACCORDING TO C&MS 511.14, METHOD B, IMMEDIATELY AFTER RUBBING THE SURFACES.

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

THE CONCRETE REINFORCEMENT IN THE APPROACH SLABS AND SLEEPER SLABS SHALL BE GALVANIZED STEEL REINFORCEMENT PER CMS 709.16. PAYMENT FOR THE GALVANIZED STEEL REINFORCEMENT IN THE APPROACH SLABS AND SLEEPER SLABS SHALL BE INCLUDED WITH ITEM 526. THE APPROACH SLAB AND SLEEPER SLAB CONCRETE SHALL UTILIZE THE SAME MIX DESIGN AS THE BRIDGE DECK CONCRETE REQUIRED PER ITEM 511, CLASS QC2 CONCRETE, WITH QC/QA, BRIDGE DECK.

ALL EQUIPMENT, LABOR AND MATERIALS NEEDED TO CONSTRUCT THE APPROACH SLABS AS SHOWN IN THESE PLANS SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS, AS PER PLAN. THIS SHALL INCLUDE, BUT NOT LIMITED TO, ALL CONCRETE AND STEEL REINFORCEMENT IN THE APPROACH SLAB AND APPROACH SLAB SIDEWALK. BRIDGE RAILING CONCRETE AND STEEL REINFORCEMENT WITHIN THE RAILING SHALL BE PAID FOR SEPARATELY. SEALING OF CONCRETE SURFACES SHALL BE INCLUDED WITH ITEM 512 FOR PAYMENT. THE ADDITIONAL APPROACH SLAB SIDEWALK STEEL REINFORCEMENT NOT COVERED IN AS-1-15 IS DETAILED AND INCLUDED IN THE STEEL REINFORCEMENT BAR LIST.

SFN 1305352

DESIGN AGENCY



DESIGNER: BMG CHECKER: TLC

REVIEWER: JPC 03/07/25

PROJECT ID: 102753

SUBSET TOTAL: S.03 44

SHEET TOTAL: P.29 70

**ITEM 607, VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN**  
**ITEM 607, VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN**

IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS PROVIDED IN ODOT STANDARD BRIDGE DRAWING VPF-1-90, ALL GALVANIZED POSTS, RAILS, BASE PLATES AND HARDWARE SHALL BE COATED WITH TWO SHOP APPLIED COATS AS FOLLOWS:

COATING OF ALL FENCING ITEMS SHALL BE IN ACCORDANCE WITH C&MS 514, EXCEPT AS NOTED BELOW.

THE GALVANIZED COATING SYSTEM MAY BE APPLIED BY A GALVANIZER NOT PRE-QUALIFIED AS A FABRICATION SHOP UNDER SUPPLEMENT 1078, BUT THE PRE-QUALIFIED FABRICATOR OF THE FENCING SHALL BE RESPONSIBLE FOR THE QUALITY OF THE APPLIED GALVANIZED COATING SYSTEM AND ANY REPAIRS, RE-FABRICATION AND ADDITIONAL ASSEMBLIES REQUIRED TO ASSURE THE FABRICATED STEEL MEETS THE PLAN REQUIREMENTS.

THE TWO SHOP COATS SHALL BE APPLIED IN A STRUCTURAL STEEL FABRICATION SHOP HAVING PERMANENT BUILDINGS PER C&MS 513.04 AND PRE QUALIFIED AT THE UF LEVEL. THE PAINT QUALITY CONTROL SPECIALIST (QCS) SHALL BE QUALIFIED AS SPECIFIED IN C&MS 514.04.

PRIOR TO GALVANIZING, ALL CORNERS OF THERMALLY CUT OR SHEARED EDGES SHALL HAVE A 1/16" RADIUS OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE.

GALVANIZE THE FABRICATED FENCING AND HARDWARE ACCORDING TO C&MS 711.02, EXCEPT DO NOT PERFORM WATER QUENCHING.

AFTER GALVANIZATION, REMOVE ZINC HIGH SPOTS SUCH AS METAL DRIP LINE AND OTHERS THAT WOULD DETRACT FROM THE PAINT APPEARANCE BY SSPC SP2 OR SP3. TAKE CARE THAT THE BASE GALVANIZED COATING IS NOT REMOVED. CHECK REPAIRED AREAS FOR REQUIRED COATING THICKNESS.

REPAIR GALVANIZED COATING DAMAGED IN THE SHOP ACCORDING TO ASTM A780 METHOD A3. REPAIR GALVANIZED COATINGS DAMAGED IN THE FIELD ACCORDING TO ASTM A780 METHOD A1.

AFTER REMOVING HIGH SPOTS, CLEAN THE GALVANIZED COATING ACCORDING TO SSPC SP-1. THE CLEANING SOLUTION SHALL BE AN ALKALINE SOLUTION WITH A PH RANGING FROM A MINIMUM OF 11 TO A MAXIMUM OF 12. THIS SOLUTION CAN BE APPLIED BY IMMERSION, SPRAY OR SOFT NYLON BRUSH. FOLLOW CLEANING WITH A HOT WATER OR HOT PRESSURE WASHER RINSE. SEPARATE INDIVIDUAL PIECES AND POSITION TO FACILITATE DRAINAGE AND DRYING. THE PIECES ARE TO BE COMPLETELY DRY BEFORE PROCEEDING.

AFTER CLEANING, ABRASIVE BLAST THE PIECES ACCORDING TO SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.75 TO 1.00 MILS. SELECT THE BLASTING EQUIPMENT, TECHNIQUE, AND ABRASIVE MATERIAL TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF EXCESSIVE ZINC LAYERS. THE AMOUNT OF REMOVAL OF ZINC MILAGE SHALL NOT EXCEED 1.0 MIL. REMOVE ALL ABRASIVE RESIDUE WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING SURFACE PROFILE, SHOP APPLY A TWO COAT PAINT SYSTEM CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF C&MS 708.02. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD NUMBER 17038 BLACK. APPLY THE EPOXY COATING WITHIN 24 HOURS OF THE BRUSH-OFF BLASTING.

**ITEM 607, VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN (CONTINUED)**  
**ITEM 607, VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN (CONTINUED)**

PRIOR TO FABRICATION OF THE FENCING SYSTEM, FABRICATE A SAMPLE FENCE PANEL OF LENGTH AGREEABLE TO THE ENGINEER WHICH INCLUDES TWO POST, ALL HARDWARE, INCIDENTALS AND COATINGS. THE ENGINEER WILL USE THIS SAMPLE PANEL TO JUDGE ACCEPTANCE OF THE FABRICATION, COATINGS AND QUALITY CONTROL PROGRAM. AFTER THE REVIEW OF THIS SAMPLE, THE DEPARTMENT AND THE CONTRACTOR MAY AGREE UPON ANY FABRICATION, COATING, QUALITY CONTROL OR INSTALLATION CHANGES AS A MODIFICATION TO THESE NOTES. THE FABRICATION CAN PROCEED ANYTIME AFTER THE ACCEPTANCE OF THIS SAMPLE PANEL. THE SAMPLE PANEL MAY BE INCORPORATED INTO THE FINISHED WORK AT THE DISCRETION OF THE ENGINEER.

**ALTERNATIVE 1**

ALTERNATIVE 1 INCLUDES THE GALVANIZED STEEL REINFORCEMENT IN THE BRIDGE RAILING AND THE ODOT STANDARD 6' AND 12' CURVED COATED FABRIC VANDAL PROTECTION FENCING, AS PER PLAN. PAYMENT FOR THESE ITEMS ARE INCLUDED WITH THE PROJECT COST AND PAID BY ODOT.

**ALTERNATIVE 2**

ALTERNATIVE 2 INCLUDES THE GALVANIZED STEEL REINFORCEMENT IN THE BRIDGE RAILING, FORMLINER FOR CUSTOM "MIAMI TOWNSHIP" LETTERING IN THE BRIDGE RAILING AND CUSTOM COLORED SEALING OF THE "MIAMI TOWNSHIP" LETTERING. THE ADDITIONAL COST OF THE ENHANCEMENT ITEMS OVER ALTERNATIVE 1 COST SHALL BE PAID FOR BY MIAMI TOWNSHIP.

**ITEM 511, CONCRETE, MISC.: AESTHETIC TEST PANEL (ALTERNATIVE 2)**

TEST PANELS SHOWING THE FINAL PRODUCT OF "TEXTURE A", FLAT CONCRETE, AND LETTER INSET, WITH APPROPRIATE SEALING COLORS APPLIED ARE TO BE PROVIDED FOR ACCEPTANCE PRIOR TO CONSTRUCTION. TEST PANELS ARE TO BE A MINIMUM OF 10'-0"x 5'-0" x 6" IN SIZE, OR AS NEEDED TO PROVIDE A CLEAR REPRESENTATION OF ALL AESTHETIC TREATMENTS. ONE TEST SLAB IS TO BE REQUIRED WITH THE BRIDGE RAILING SEALING COLORS, LETTERING COLOR, AND "TEXTURE A". THE TEST PANEL IS TO BE CAST ON SITE USING THE SAME MATERIALS, EQUIPMENT, AND METHODS AS THOSE TO BE USED FOR THE FINAL PRODUCT.

PAYMENT FOR TEST PANEL, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS TO BE PAID UNDER ITEM 511, CONCRETE MISC.: AESTHETIC TEST PANEL.

**ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN (ALTERNATIVE 2)**

ALTERNATIVE 2 INCLUDES THE SEALING OF THE "MIAMI TOWNSHIP" LETTERING.

AESTHETIC LETTERING ON THE CONCRETE BRIDGE RAILING, AS SHOWN IN THE PLANS, SHALL BE SEALED WITH EPOXY-URETHANE SEALER FOR ALTERNATIVE 2. THE SURFACE TO BE SEALED SHALL HAVE SURFACE PREPARATION PER C&MS 512.03(F). THE COLOR IS TO BE BLACK, FEDERAL COLOR NUMBER FS-595C-17038.

THE SURFACE AREA PAY QUANTITY IS BASED ON A FLAT SURFACE. ANY ADDITIONAL SEALING COSTS DUE TO THE LETTER RELIEFS SHALL BE INCLUDED IN THE UNIT BID FOR THIS ITEM.

**ITEM SPECIAL, STRUCTURES, AESTHETIC LETTERING (ALTERNATIVE 2)**

FORMLINER FOR AESTHETIC LETTERING IS TO BE MADE OF PLASTICIZED POLYVINYL CHLORIDE. THE MATERIAL IS TO HAVE SUFFICIENT FIRMNESS TO RESIST DEFORMATION FROM FRESHLY PLACED CONCRETE AND HAVE SUFFICIENT PLIABILITY TO PERMIT REMOVAL WITHOUT DAMAGE TO THE FORMLINERS OR TO EARLY AGE CONCRETE.

FORMLINERS ARE TO HAVE A SHORE A FIRMNESS OF APPROXIMATELY 25.

LETTERING FORMLINER IS TO BE INSTALLED IN THE FORMS TO PROVIDE THE DIMENSIONAL RELATIONSHIP BETWEEN LETTERS AS SHOWN IN THE PLANS. FORMLINERS ARE TO BE ATTACHED TO THE PRIMARY FORM ELEMENTS TO ENSURE THAT THE FORMLINERS WILL BE TRUE AND STRAIGHT IN THE VERTICAL POSITION.

AFTER FORMS ARE STRIPPED, IMPERFECTIONS IN THE FINISHED CONCRETE ARE TO BE PATCHED WITH THE SAME MATERIALS AND MIX USED IN THE CONCRETE PLACEMENT TO RESTORE FULLY THE TEXTURED SURFACES TO THE SATISFACTION OF THE ENGINEER.

PRIOR TO BEGINNING ANY WORK, REPRESENTATIVE SHOP DRAWINGS DETAILING THE LAYOUT OF THE FINISHED PATTERN AND JOINT LOCATIONS, FORM TIE LOCATIONS, AND END, EDGE AND OTHER SPECIAL CONDITIONS ARE TO BE SUBMITTED TO THE FIELD ENGINEER FOR APPROVAL A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO BEGINNING WORK.

THE CONTRACTOR SHALL ALSO SUBMIT SHOP DRAWINGS FOR APPROVAL TO MIAMI TOWNSHIP. ALL PRODUCT INFORMATION AND SHOP DRAWINGS SHALL BE SUBMITTED PRIOR TO BEGINNING ANY WORK.

MIAMI TOWNSHIP CONTACT INFORMATION:  
 STEVE KELLY  
 5888 McPICKEN DRIVE  
 MIAMI TOWNSHIP, OH 45150  
 (513) 248-3700

A PRE-INSTALLATION MEETING IS TO BE SCHEDULED WITH THE FIELD ENGINEER, CONTRACTOR, AND MANUFACTURER TO ASSURE THE UNDERSTANDING OF FORMLINER USE, AND REQUIREMENTS AND COORDINATION OF THE WORK. A REPRESENTATIVE FROM THE MANUFACTURER IS TO BE PRESENT FOR THE INITIAL SETUP, CONCRETE PLACEMENT, AND STRIPPING OF THE FORMLINERS.

AESTHETIC LETTERING, INCLUDING ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PRODUCE THE FINISHED PRODUCT IS TO BE PAID FOR UNDER ITEM 530, SPECIAL, STRUCTURES, AESTHETIC LETTERING.

**PROPOSED WORK**

1. REMOVE TREES WITHIN 20 FEET OF THE BRIDGE.
2. REMOVE THE EXISTING CONCRETE DECK, APPROACH SLABS, CONCRETE BRIDGE RAILING, FENCE, AND EXPANSION JOINTS. REMOVE THE ABUTMENT BACKWALLS, WINGWALLS AND BEAM SEATS TO THE LIMITS SHOWN IN THE PLANS.
3. JACK SUPERSTRUCTURE AND REMOVE EXISTING PIER BEARINGS.
4. REMOVE EXISTING SEALER ON EXPOSED CONCRETE SURFACES TO REMAIN.
5. PATCH ALL AREAS WHERE UNSOUND CONCRETE IS LOCATED ON ABUTMENTS AND PIERS.
6. CONSTRUCT THE NEW PORTIONS OF THE ABUTMENTS AND WINGWALLS.
7. INSTALL NEW PIER ELASTOMERIC BEARING ASSEMBLIES.
8. WELD NEW SHEAR STUDS TO EXISTING BEAMS.
9. CONSTRUCT SEMI-INTEGRAL ABUTMENT DIAPHRAGMS.
10. CONSTRUCT NEW DECK AND APPROACH SLABS.
11. CONSTRUCT NEW BRIDGE RAILING AND SIDEWALK.
12. SEAL CONCRETE SURFACES WITH NON-EPOXY AND EPOXY-URETHANE SEALER TO THE LIMITS SHOWN IN THE PLANS.
13. PREPARE SURFACES AND PAINT EXISTING BEAMS AND CROSSFRAMES.
14. INSTALL NEW VANDAL PROTECTION FENCE TO THE LIMITS SHOWN IN THE PLANS.
15. REMOVE AND REPLACE APPROACH GUARDRAIL, END TERMINAL ASSEMBLIES AND BRIDGE TERMINAL ASSEMBLIES. SEE ROADWAY PLANS FOR MORE DETAILS.

**ABBREVIATIONS**

- ABUT. - ABUTMENT
- APPR. - APPROACH
- ADT - AVERAGE DAILY TRAFFIC
- ADTT - AVERAGE DAILY TRUCK TRAFFIC
- BM - BENCHMARK
- BOT. - BOTTOM
- BRG. - BEARING
- BTWN. - BETWEEN
- CONSTR. - CONSTRUCTION
- C.J. - CONSTRUCTION JOINT
- CL - CENTERLINE
- CLR. - CLEAR
- CMS/C&MS - CONSTRUCTION & MATERIAL SPECIFICATIONS
- DWG. - DIAMETER
- Ø - DRAWING
- E.F. - EACH FACE
- EL. - ELEVATION
- EQ. - EQUAL
- EX. - EXISTING
- F.A. - FORWARD ABUTMENT
- FWD. - FORWARD
- F.F. - FAR FACE
- LT. - LEFT
- MSC - MICRO-SILICA MODIFIED CONCRETE
- MGS - MIDWEST GUARDRAIL SYSTEM
- MIN. - MINIMUM
- N.F. - NEAR FACE
- NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
- O/O - OUT TO OUT
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- PROP. - PROPOSED
- R.A. - REAR ABUTMENT
- RT. - RIGHT
- SHLDR. - SHOULDER
- SPA. - SPACES
- STA. - STATION
- TYP. - TYPICAL
- T/T - TOE TO TOE
- U.N.O. - UNLESS NOTED OTHERWISE

SFN	
1305352	
DESIGN AGENCY	
DESIGNER	CHECKER
BMG	TLC
REVIEWER	
JPC 03/07/25	
PROJECT ID	
102753	
SUBSET	TOTAL
S.04	44
SHEET	
P.30	TOTAL
	70

MADE BY: CAS		DATE: 1/3/2024		ESTIMATED QUANTITIES						STRUCTURAL FILE NUMBER: 1305352			
CHECKED BY: BMG		DATE: 1/26/2024		ITEM	EXTENSION	01/IMS/13	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.
202	11203	LUMP		202	22901	343	SY	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	S.02/44
								APPROACH SLAB REMOVED, AS PER PLAN				343	S.02/44
503	21301	LUMP						UNCLASSIFIED EXCAVATION, AS PER PLAN				LUMP	S.02/44
509	26000	97,742	LB					GALVANIZED STEEL REINFORCEMENT	5,225	2,621	89,896		
510	10001	554	EACH					DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	356	198			S.03/44
511	33501	2	EACH					SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				S.17/44
511	34417	9	CY					CLASS QC SCC CONCRETE, SUPERSTRUCTURE, AS PER PLAN				9	S.03/44
511	34446	339	CY					CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			339		
511	34461	92	CY					CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN			92		S.03/44
511	43210	27	CY					CLASS QC1 CONCRETE, PIER		27			S.18/44
511	45710	42	CY					CLASS QC1 CONCRETE, ABUTMENT	42				
511	53014	37	CY					CLASS QC3 CONCRETE, MISC.: LIGHTWEIGHT, SIDEWALK			37		S.03/44
512	10050	210	SY					SEALING OF CONCRETE SURFACES (NON-EPOXY)			210		
512	10100	1,184	SY					SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	103	291	790		S.03/44
512	10600	3	FT					CONCRETE REPAIR BY EPOXY INJECTION	3				
512	74000	242	SY					REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	19	223			
513	20000	2,445	EACH					WELDED STUD SHEAR CONNECTORS			2,445		
513	95030	30	EACH					STRUCTURAL STEEL, MISC.: DRILLED HOLES			30		S.21/44
514	00050	14,204	SF					SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			14,204		S.03/44
514	00056	14,204	SF					FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			14,204		S.03/44
514	00060	14,204	SF					FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			14,204		S.03/44
514	00066	14,204	SF					FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			14,204		S.03/44
514	00504	23	MNHR					GRINDING FINNS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			23		
514	10000	7	EACH					FINAL INSPECTION REPAIR			7		
516	10010	67	FT					ARMORLESS PREFORMED JOINT SEAL				67	
516	13600	24	SF					1" PREFORMED EXPANSION JOINT FILLER			24		
516	13900	148	SF					2" PREFORMED EXPANSION JOINT FILLER			148		
516	14020	183	FT					SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	183				
516	44101	15	EACH					ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (15"x14.5"x2.648" BEARING WITH 16"x15.5"x2" LOAD PLATE)			15		S.20/44
516	47001	LUMP						JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP	S.03/44
518	21200	30	CY					POROUS BACKFILL WITH GEOTEXTILE FABRIC	30				
518	40000	82	FT					6" PERFORATED CORRUGATED PLASTIC PIPE	82				
518	40012	51	FT					6" NON-PERFORATED CORRUGATED PLASTIC PIPE	51				
519	11101	54	SF					PATCHING CONCRETE STRUCTURE, AS PER PLAN	20	34			S.03/44
526	25001	196	SY					REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN				196	S.03/44
526	90030	68	FT					TYPE C INSTALLATION				68	
607	39901	275	FT					VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN			275		S.04/44
607	39931	281	FT					VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN			281		S.04/44
625	25500	765	FT					CONDUIT, 3", 725.04				765	
625	29002	200	FT					TRENCH, 24" DEEP				200	
625	29940	6	EACH					BARRIER JUNCTION BOX				6	
625	30700	4	EACH					PULL BOX, 725.08, 18"				4	
625	33000	1	EACH					STRUCTURE GROUNDING SYSTEM				1	
625	36010	200	FT					UNDERGROUND WARNING/MARKING TAPE				200	
878	25000	LUMP						INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS				LUMP	

ESTIMATED QUANTITIES (1 OF 2)  
 BRIDGE NO. CLE-00275-00.430  
 BRANCH HILL MIAMIVILLE ROAD OVER I.R. 275

SFN 1305352  
 DESIGN AGENCY  
  
 DESIGNER: BMG CHECKER: TLC  
 REVIEWER: JPC 03/07/25  
 PROJECT ID: 102753  
 SUBSET TOTAL: S.06 44  
 SHEET TOTAL: P.32 70

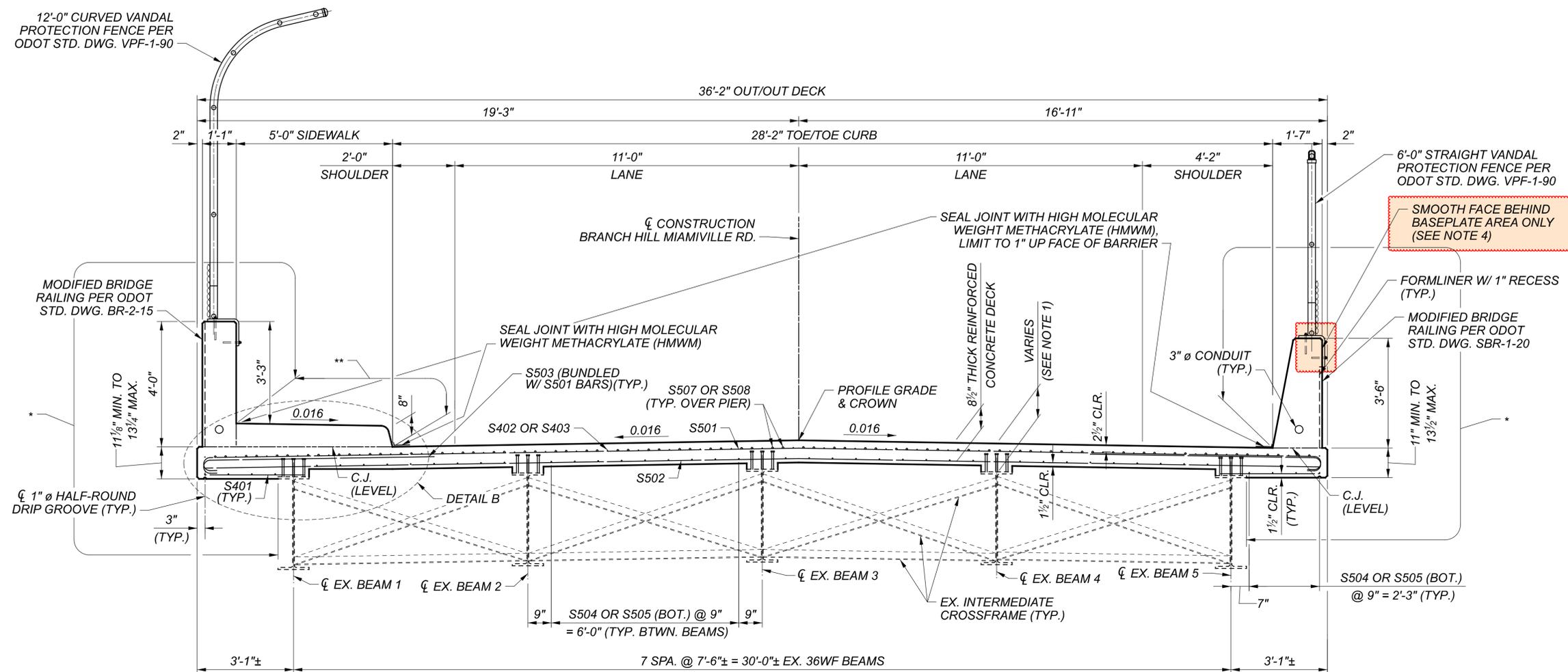
CLE-275-0.43

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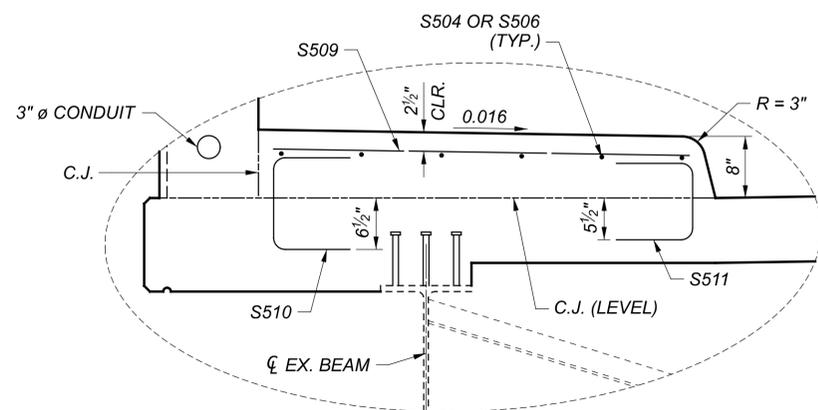
MADE BY: CAS		DATE: 1/3/2024		ESTIMATED QUANTITIES						STRUCTURAL FILE NUMBER: 1305352		
CHECKED BY: BMG		DATE: 1/26/2024										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION				ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.
<b>ALTERNATIVE 1</b>												
509	26000	16,455	LB	GALVANIZED STEEL REINFORCEMENT (ALTERNATIVE 1)						16,455		
509	30020	4,719	FT	NO. 4 DEFORMED GFRP REINFORCEMENT (ALTERNATIVE 1)						4,719		
511	71200	2,119	SF	CONCRETE, MISC.: FORMLINER (GENERIC) (ALTERNATIVE 1)						2,119		S.03/44
<b>ALTERNATIVE 2</b>												
509	26000	17,328	LB	GALVANIZED STEEL REINFORCEMENT (ALTERNATIVE 2)						17,328		
509	30020	4,806	FT	NO. 4 DEFORMED GFRP REINFORCEMENT (ALTERNATIVE 2)						4,806		
511	71200	1,204	SF	CONCRETE, MISC.: FORMLINER (LETTERING ENHANCED) (ALTERNATIVE 2)						1,204		S.03/44
511	81300	1	EACH	CONCRETE, MISC.: AESTHETIC TEST PANEL (LETTERING ENHANCED) (ALTERNATIVE 2)						1		S.04/44
512	10101	4	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN (BLACK) (LETTERING ENHANCED) (ALTERNATIVE 2)						4		S.04/44
SPECIAL	53000200	LUMP		STRUCTURES: AESTHETIC LETTERING (LETTERING ENHANCED) (ALTERNATIVE 2)						LUMP		S.04/44

ESTIMATED QUANTITIES (2 OF 2)  
 BRIDGE NO. CLE-00275-00.430  
 BRANCH HILL MIAMIVILLE ROAD OVER I.R. 275

SFN		1305352
DESIGN AGENCY		
		
DESIGNER	CHECKER	
BMG	TLC	
REVIEWER		
JPC	03/07/25	
PROJECT ID		
102753		
SUBSET	TOTAL	
S.07	44	
SHEET	TOTAL	
P.33	70	



**TRANSVERSE SECTION - ALTERNATIVE 1**



**DETAIL B**  
 (DECK AND RAILING REINFORCING NOT SHOWN FOR CLARITY)

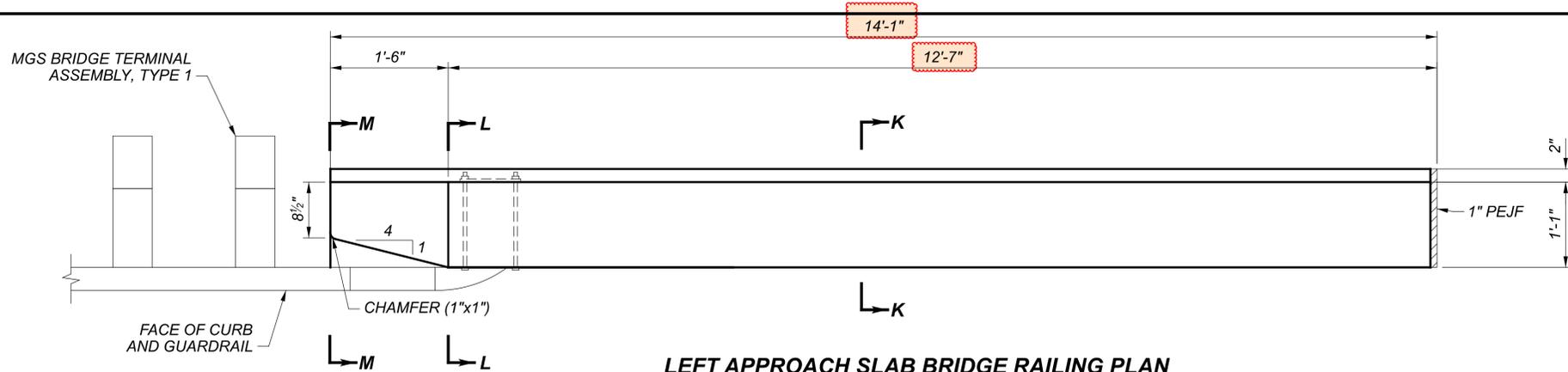
**LEGEND:**

- \* - LIMITS OF SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
- \*\* - LIMITS OF SEALING OF CONCRETE SURFACES (NON-EPOXY)

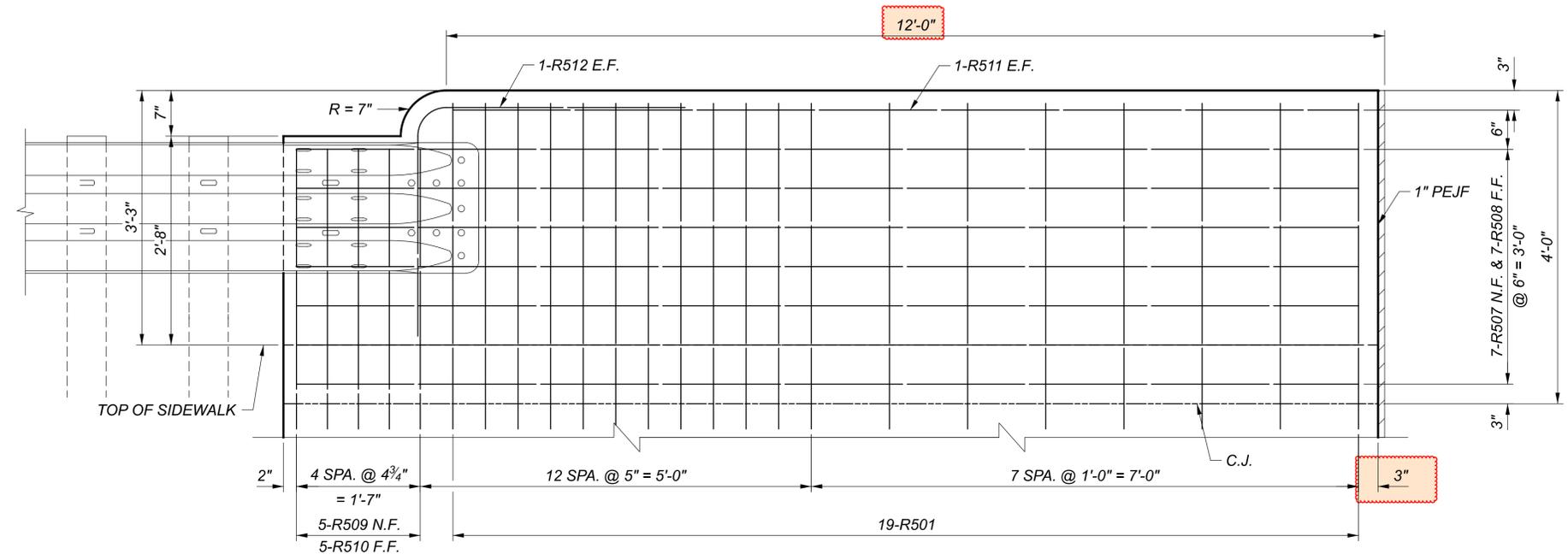
**NOTES:**

1. 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 VARIABLE HAUNCH THICKNESS WITH AN AVERAGE OF 4.17 INCHES 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.
2. FOR DECK PLAN, SEE SHEET [S.22/ 44].
3. FOR SCREED, TOP OF HAUNCH AND FINAL DECK ELEVATIONS, SEE SHEETS [S.25/ 44] AND [S.26/ 44].
4. FOR BRIDGE RAILING DETAILS, SEE SHEETS [S.28/ 44] TO [S.31/ 44].
5. HMWM INCLUDED WITH ITEM 511 PER CMS 511.19A.
6. CONDUIT TO BE INCLUDED WITH ITEM 625 - CONDUIT, 3", 725.04 FOR PAYMENT.

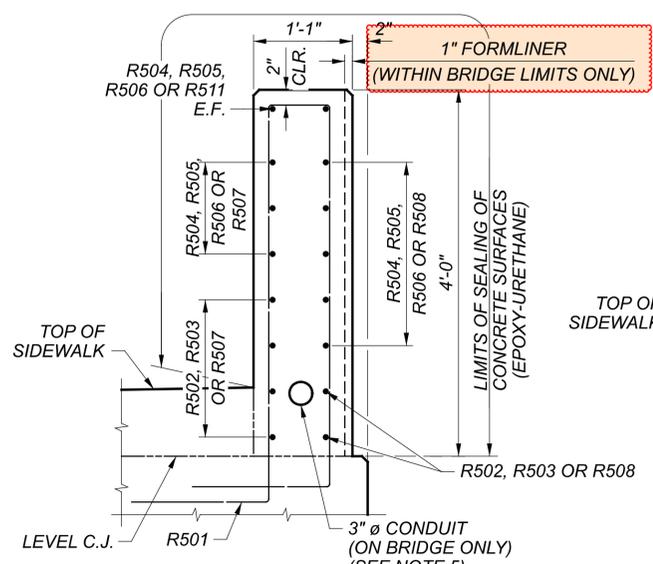
SFN	1305352
DESIGN AGENCY	<b>fishbeck</b>
DESIGNER	TLC
CHECKER	BMG
REVIEWER	JPC
PROJECT ID	102753
SUBSET	S.23
TOTAL	44
SHEET	P.49
TOTAL	70



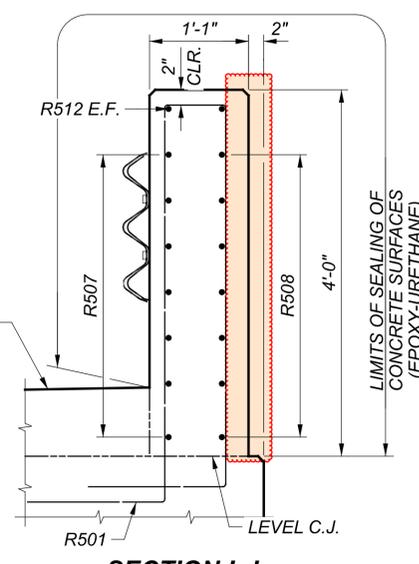
**LEFT APPROACH SLAB BRIDGE RAILING PLAN**  
 (NORTHWEST QUADRANT SHOWN, NORTHEAST SIMILAR)



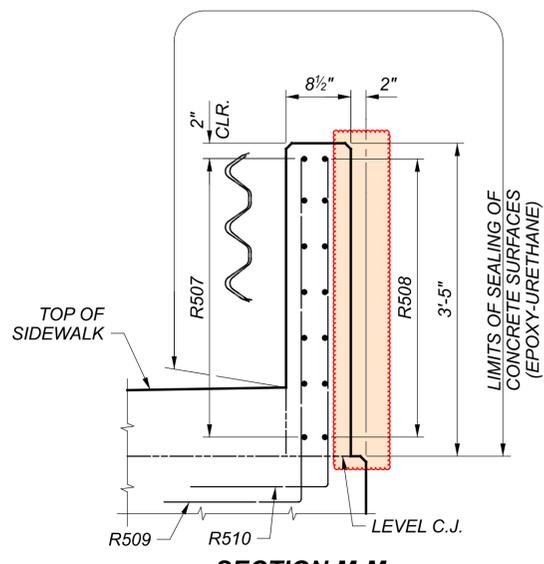
**LEFT APPROACH SLAB BRIDGE RAILING ELEVATION**  
 (NORTHWEST QUADRANT SHOWN, NORTHEAST SIMILAR)



**SECTION K-K**  
 (SIDEWALK AND APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY)



**SECTION L-L**  
 (SIDEWALK AND APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY)

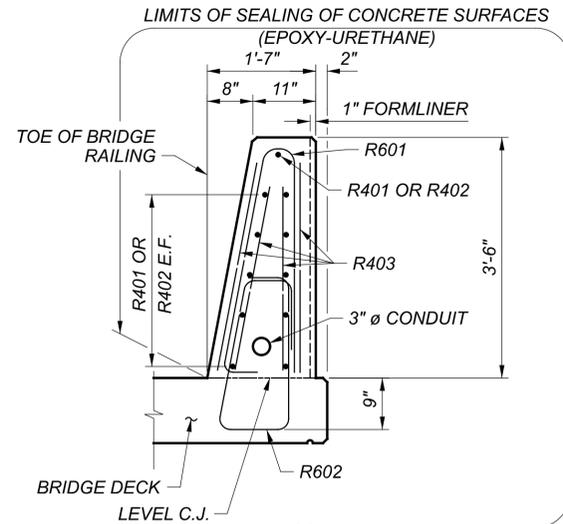


**SECTION M-M**  
 (SIDEWALK AND APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY)

**NOTES:**

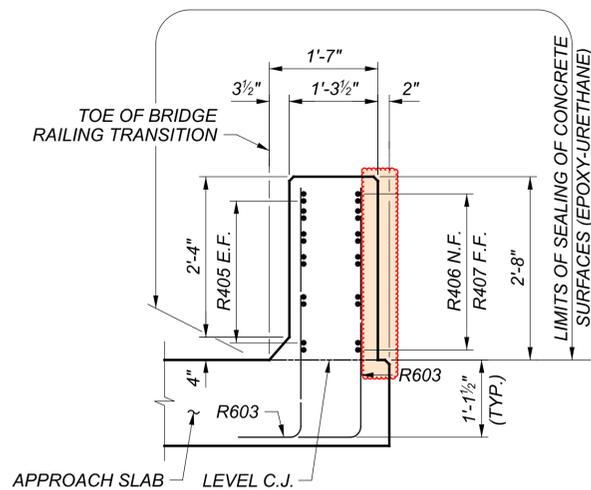
- FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STD. DWG. BR-2-15.
- FOR APPROACH SLAB DETAILS, SEE SHEETS [S.32/ 44] AND [S.33/ 44].
- FOR BRIDGE TERMINAL ASSEMBLY, SEE ROADWAY PLANS AND ODOT STD. DWG. MGS-3.1.
- LEFT SIDE BRIDGE RAILING CONCRETE ON THE APPROACH SLABS SHALL BE INCLUDED WITH ITEM 511 - CLASS QC SCC CONCRETE SUPERSTRUCTURE, AS PER PLAN FOR PAYMENT. BRIDGE RAILING REINFORCING TO BE INCLUDED WITH ITEM 509 - GALVANIZED STEEL REINFORCEMENT.
- FOR CONDUIT DETAILS AT EACH ABUTMENT END OF THE BRIDGE, REFER TO STD. DWG. HL-30.31.

SFN 1305352	
DESIGN AGENCY fishbeck	
DESIGNER TLC	CHECKER BMG
REVIEWER JPC 02/22/24	
PROJECT ID 102753	
SUBSET S.29	TOTAL 44
SHEET P.55	TOTAL 70



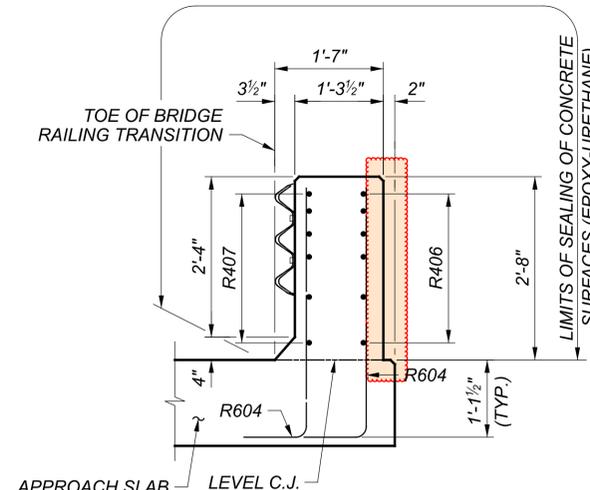
**SECTION N-N**

BRIDGE DECK REINFORCING AND VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY



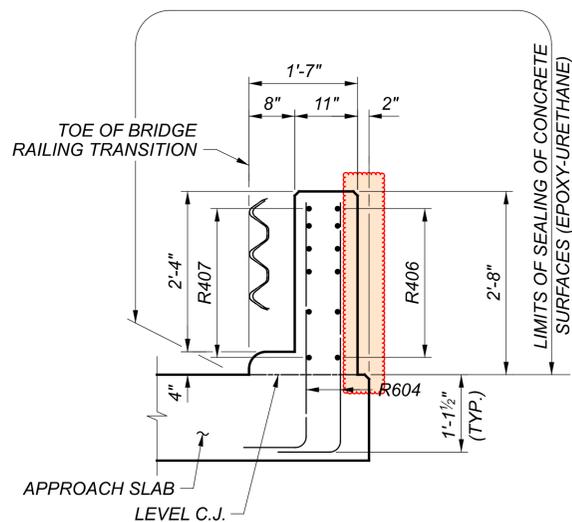
**SECTION P-P**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY



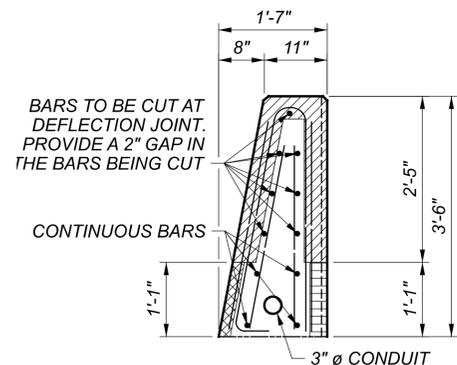
**SECTION Q-Q**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY

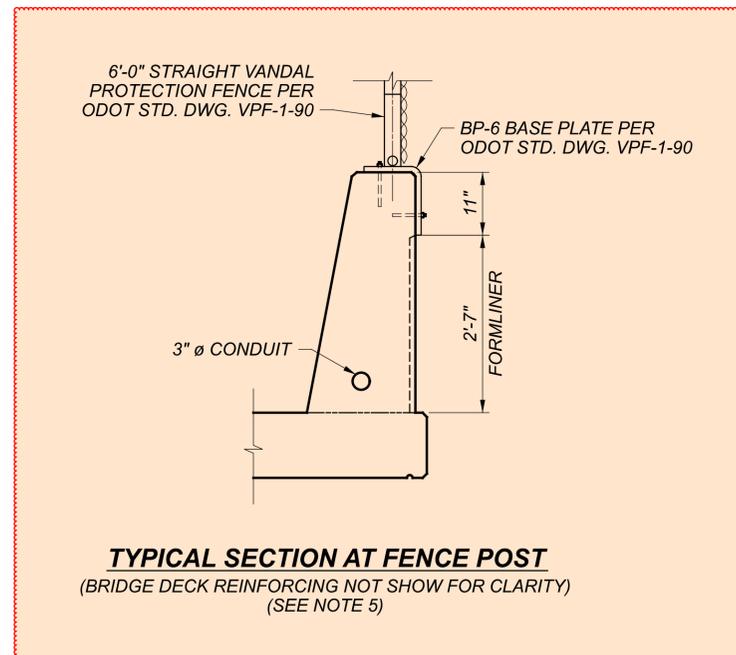


**SECTION R-R**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY



**DEFLECTION JOINT DETAIL**



**TYPICAL SECTION AT FENCE POST**

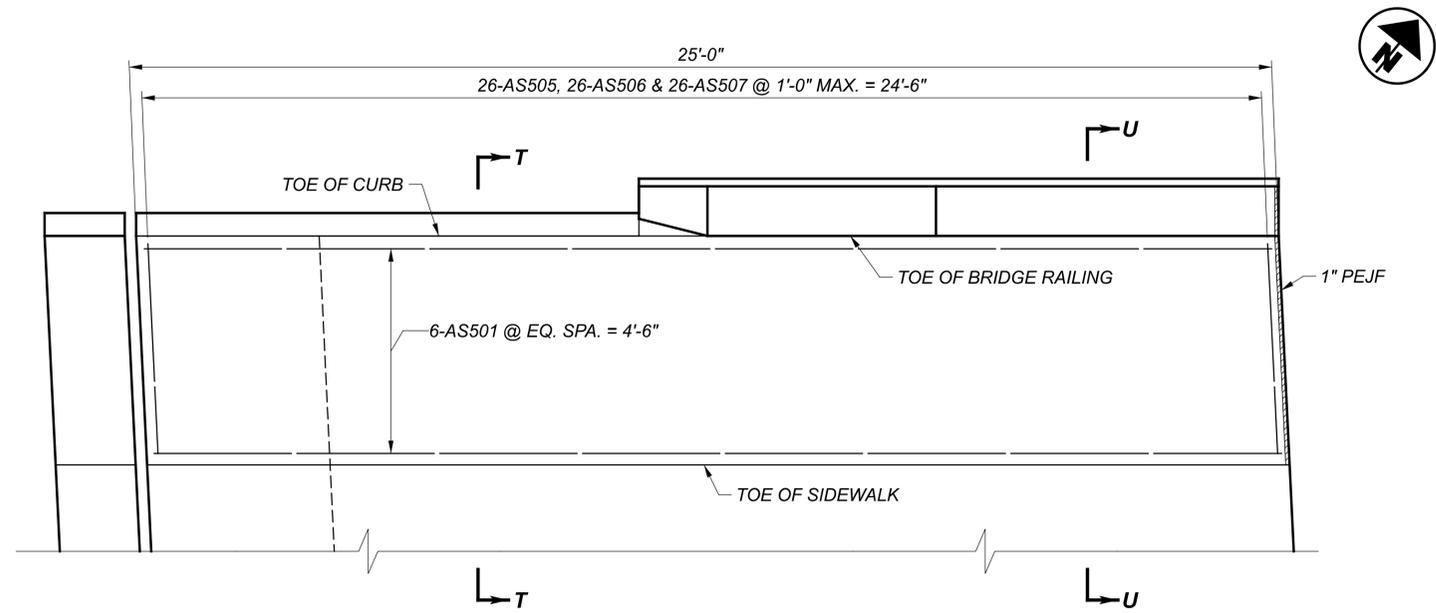
(BRIDGE DECK REINFORCING NOT SHOWN FOR CLARITY) (SEE NOTE 5)

**LEGEND:**

- 2" WIDE PREFORMED JOINT MATERIAL
- 3" WIDE PREFORMED JOINT MATERIAL
- 5" WIDE PREFORMED JOINT MATERIAL

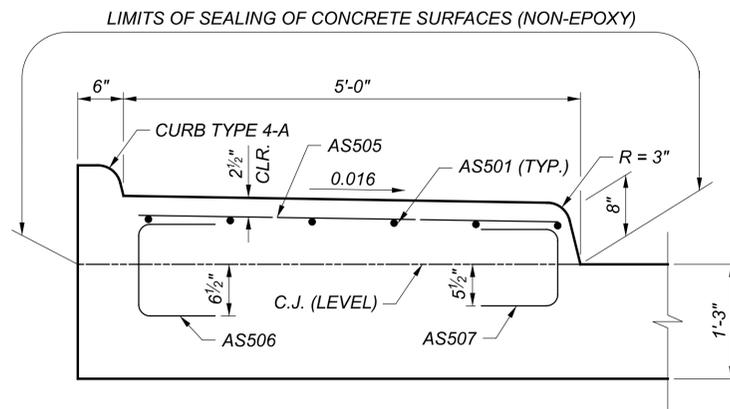
**NOTES:**

1. FOR ADDITIONAL BRIDGE RAILING DETAILS NOT SHOWN, SEE ODOT STD. DWG. SBR-1-20.
2. FOR LOCATION OF SECTIONS N-N THROUGH R-R AND ADDITIONAL NOTES, SEE SHEET S.30 / 44.
3. DEFLECTION JOINTS ARE TO BE CAST INTO THE BRIDGE RAILING AND HELD IN WITH CHAMFER STRIPS. THE EXCESS MATERIAL WILL BE TRIMMED TO THE BASE OF THE CHAMFER. THE MATERIAL USED NEEDS TO NOT ABSORB WATER AND HAVE SUFFICIENT RIGIDITY TO NOT SIGNIFICANTLY MOVE DURING THE CASTING OF THE BRIDGE RAILING. THE JOINT MATERIAL IS TO BE 0.5" IN THICKNESS AND WILL BE NOMAFLEX BY NOMACO OR FIBER LITE BY W.R. MEADOWS OR SIMILAR PRODUCT APPROVED BY THE ENGINEER.
4. FOR CONDUIT DETAILS AT EACH ABUTMENT END OF THE BRIDGE, REFER TO STD. DWG. HL-30.31.
5. THE FACE OF BRIDGE RAILING SHALL BE SMOOTH WITHOUT FORMLINER AT EACH BASE PLATE LOCATION AS SHOWN. BASE PLATE AREA IS 11" TALL x 15" WIDE. FORMLINER SHALL EXTEND FULL HEIGHT OF BRIDGE RAILING AT ALL OTHER LOCATIONS.

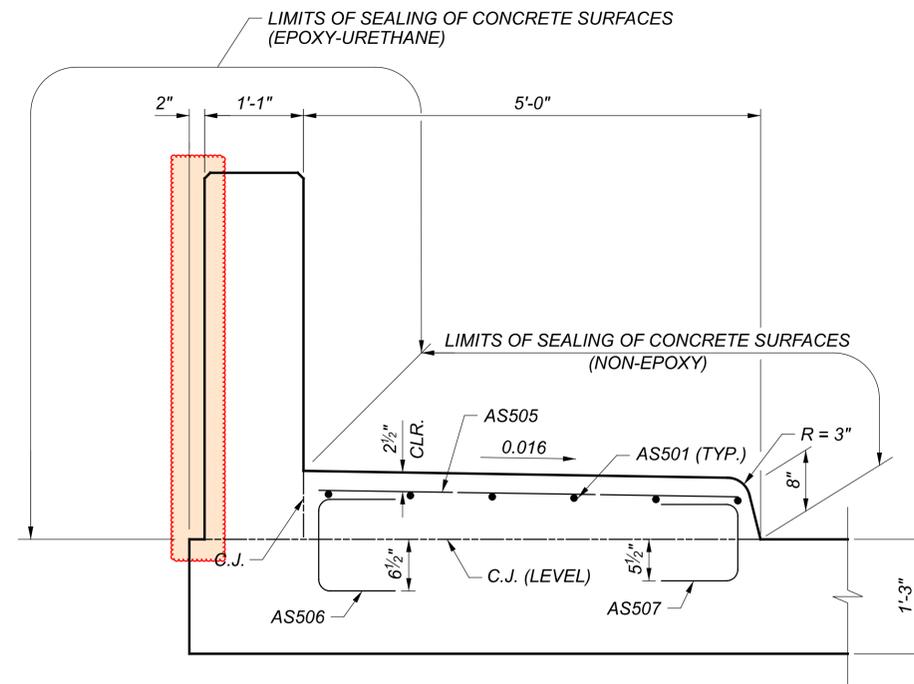


**APPROACH SLAB SIDEWALK PLAN**

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT OPPOSITE HAND)



**SECTION T-T**  
 APPROACH SLAB REINFORCING  
 NOT SHOWN FOR CLARITY



**SECTION U-U**  
 APPROACH SLAB REINFORCING  
 NOT SHOWN FOR CLARITY

**NOTES:**

1. FOR APPROACH SLAB PLAN AND NOTES, SEE SHEET S.32/44.

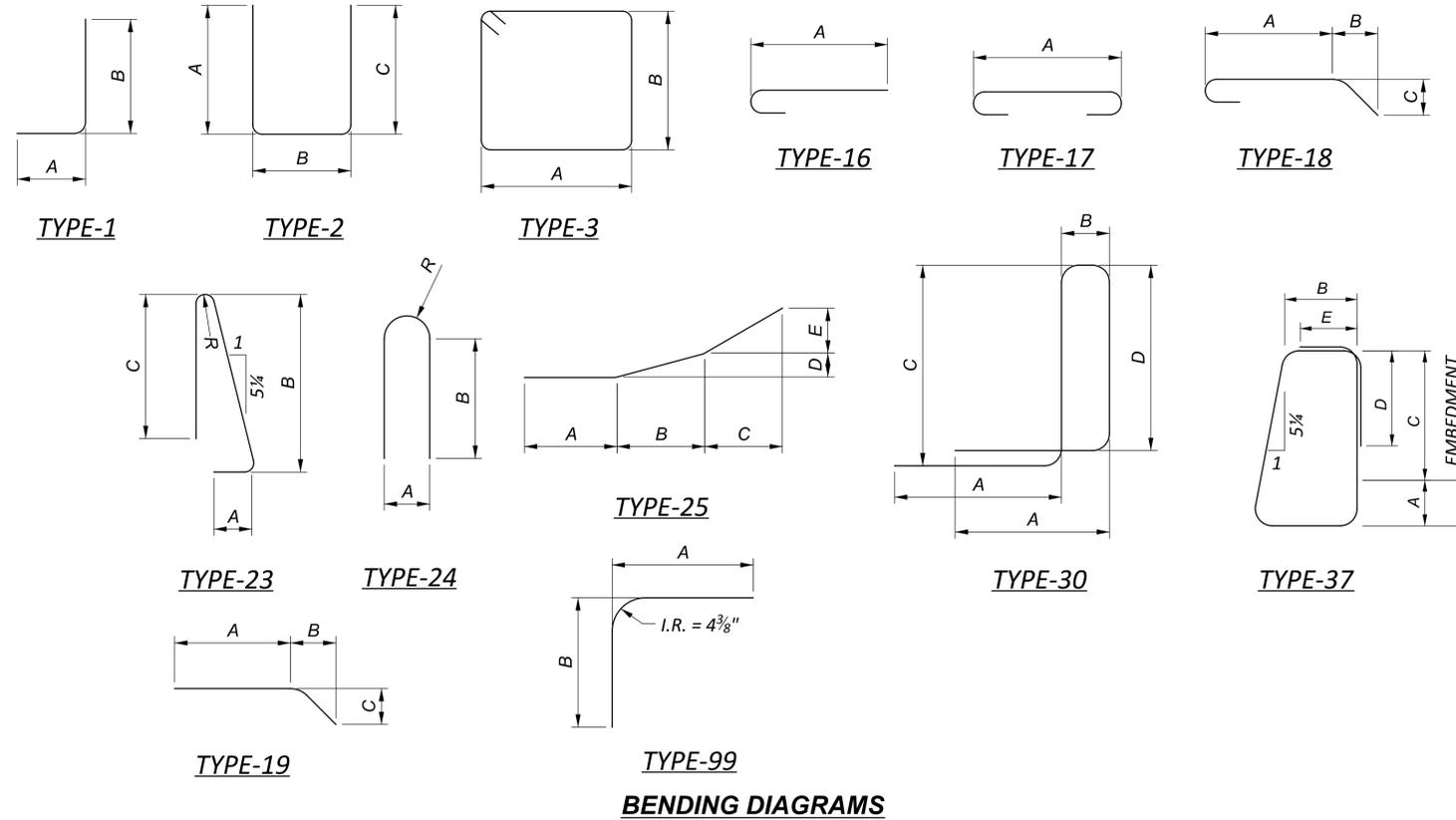
SFN	1305352
DESIGN AGENCY	<b>fishbeck</b>
DESIGNER	CAS
CHECKER	BMG
REVIEWER	JPC 02/22/24
PROJECT ID	102753
SUBSET	TOTAL
S.33	44
SHEET	TOTAL
P.59	70

MARK	NUMBER		LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
<b>BRIDGE RAILING - ALTERNATIVE 1 (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)</b>											
R401	99		30'-0"	2970'-0"	STR						
R402	11		21'-11"	241'-1"	STR						
R403	104		10'-0"	1040'-0"	STR						
R404	8		11'-4"	90'-8"	STR						
R405	24		10'-0"	240'-0"	STR						
R406	12		5'-1"	61'-0"	STR						
R407	12		6'-4"	76'-0"	25	2'-6"	2'-5"	1'-4"	0'-1 1/2"	0'-5"	
			<b>TOTAL</b>	4718'-9"							

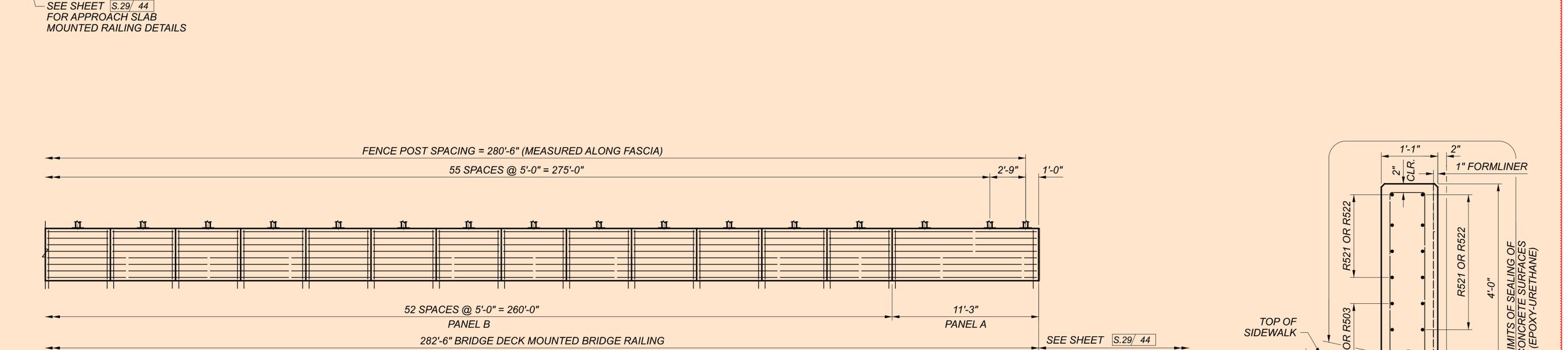
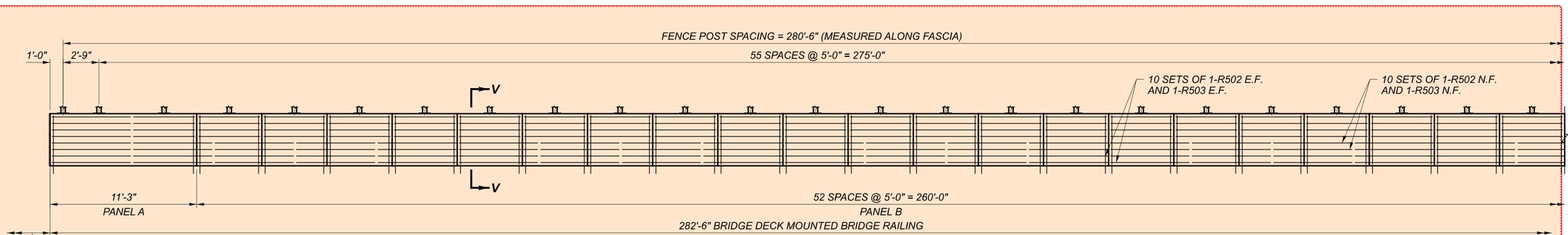
MARK	NUMBER		LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
<b>BRIDGE RAILING - ALTERNATIVE 2 (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)</b>											
R401	99		30'-0"	2970'-0"	STR						
R402	11		21'-11"	241'-1"	STR						
R404	8		11'-4"	90'-8"	STR						
R405	24		10'-0"	240'-0"	STR						
R406	12		5'-1"	61'-0"	STR						
R407	12		6'-4"	76'-0"	25	2'-6"	2'-5"	1'-4"	0'-1 1/2"	0'-5"	
R408	208		5'-5"	1126'-8"	STR						
			<b>TOTAL</b>	4805'-5"							

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
<b>BRIDGE RAILING - ALTERNATIVE 1 ONLY (GALVANIZED STEEL REINFORCEMENT - GSR)</b>											
R501	342		11'-10"	4,221	30	1'-6"	0'-8"	4'-5"	4'-3"		
R502	60		30'-0"	1,877	STR						
R503	6		13'-0"	81	STR						
R504	20		10'-11"	228	STR						
R505	200		6'-2"	1,286	STR						
R506	100		12'-8"	1,321	STR						
R507	14		13'-7"	198	19	12'-2"	1'-4"	0'-5"			
R508	14		13'-8"	200	STR						
R509	10		5'-3"	55	1	1'-6"	3'-10"				
R510	10		5'-1"	53	1	1'-6"	3'-8"				
R511	4		11'-7"	48	STR						
R512	4		6'-1"	25	99	3'-5"	2'-11"				
R601	310		7'-0"	3,259	23	0'-6"	3'-3"	3'-3"		0'-2"	
R602	310		7'-2"	3,337	37	0'-9"	0'-9 1/2"	1'-5"	1'-0"	0'-7"	
	2		4'-5"				3'-7"				
R603	S.O.	TO	TO	160	1	1'-0"	TO				0'-1"
	11		5'-3"				4'-5"				
R604	16		4'-5"	106	1	1'-0"	3'-7"				
			<b>BRIDGE RAILINGS TOTAL</b>	16,455 LBS							

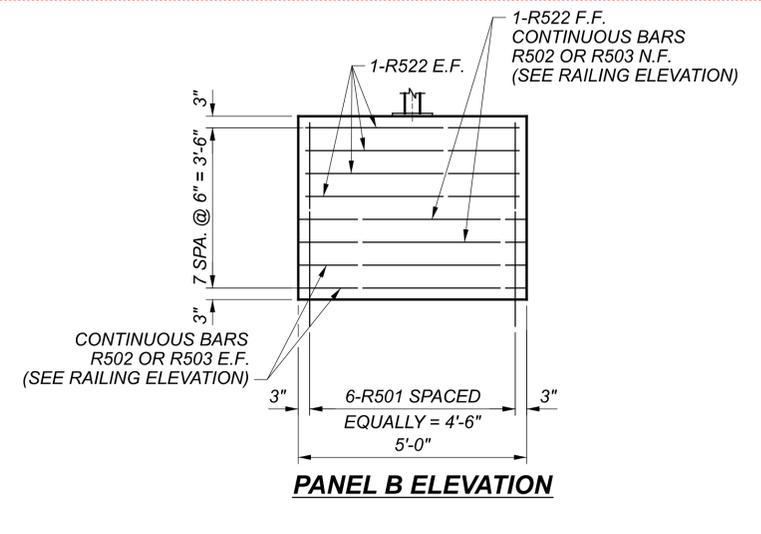
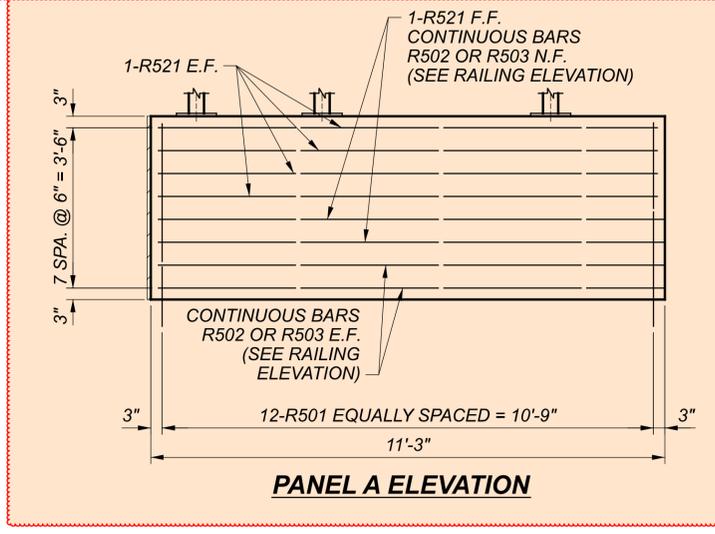
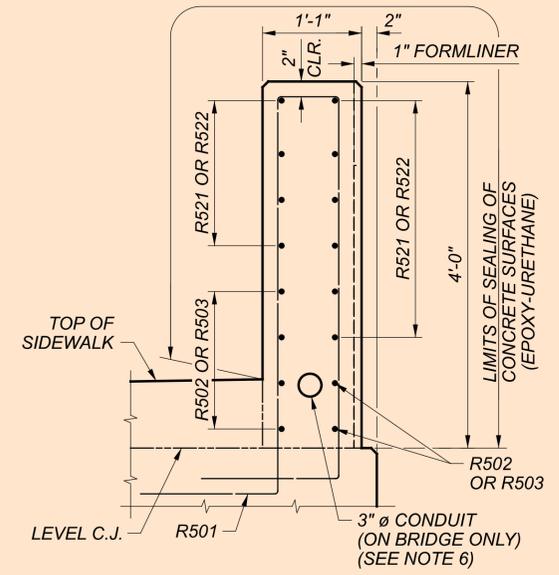
MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
<b>BRIDGE RAILING - ALTERNATIVE 2 ONLY (GALVANIZED STEEL REINFORCEMENT - GSR)</b>											
R501	374		11'-10"	4,616	30	1'-6"	0'-8"	4'-5"	4'-3"		
R502	60		30'-0"	1,877	STR						
R503	6		13'-0"	81	STR						
R521	20		10'-11"	228	STR						
R522	520		4'-8"	2,531	STR						
R507	14		13'-7"	198	19	12'-2"	1'-4"	0'-5"			
R508	14		13'-8"	200	STR						
R509	10		5'-3"	55	1	1'-6"	3'-10"				
R510	10		5'-1"	53	1	1'-6"	3'-8"				
R511	4		11'-7"	48	STR						
R512	4		6'-1"	25	99	3'-5"	2'-11"				
R601	336		7'-0"	3,533	23	0'-6"	3'-3"	3'-3"		0'-2"	
R602	336		7'-2"	3,617	37	0'-9"	0'-9 1/2"	1'-5"	1'-0"	0'-7"	
	2		4'-5"				3'-7"				
R603	S.O.	TO	TO	160	1	1'-0"	TO				0'-1"
	11		5'-3"				4'-5"				
R604	16		4'-5"	106	1	1'-0"	3'-7"				
			<b>BRIDGE RAILINGS TOTAL</b>	17,328 LBS							



- NOTES:**
- BRIDGE RAILING STEEL REINFORCEMENT VARIES BETWEEN ALTERNATIVES 1 AND 2 AS SHOWN ON THIS SHEET.
  - THE R407 BARS MAY BE PROVIDED AS GALVANIZED STEEL REINFORCEMENT IF GFRP FABRICATED SHAPE IS NOT AVAILABLE.
  - FOR ADDITIONAL NOTES, SEE SHEET [S.34 / 44].



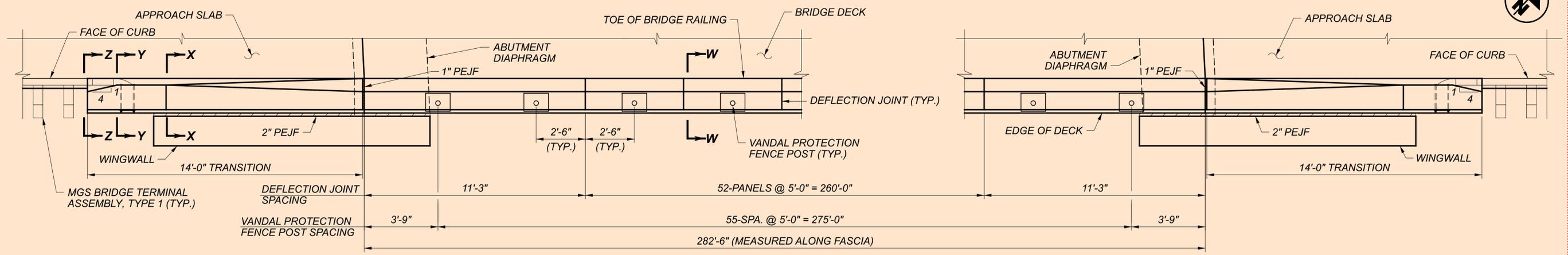
**LEFT RAILING ELEVATION - ALTERNATIVE 2**



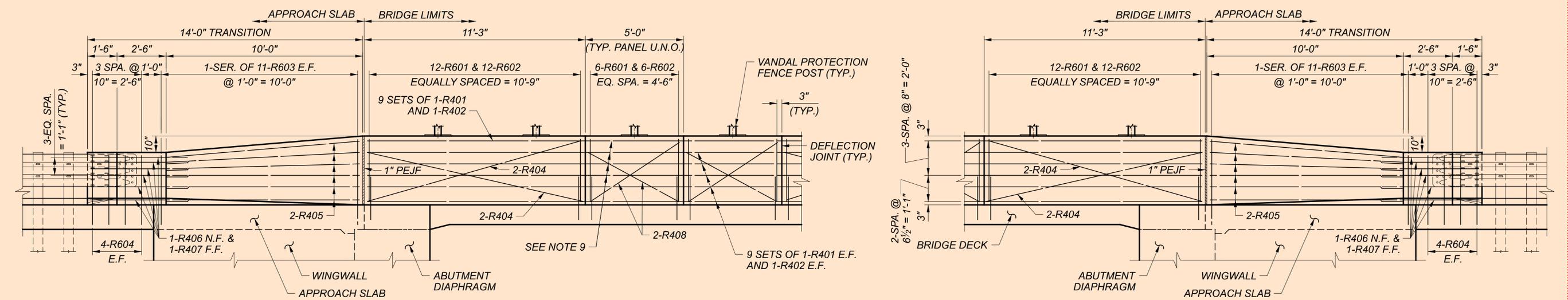
**NOTES:**

- FOR ADDITIONAL AESTHETIC DETAILS SEE SHEETS S.39/ 44 THRU S.40/ 44.
- MINIMUM BAR LAPS:  
NO. 5 BARS: 3'-1"
- LIMITS OF VANDEL PROTECTION FENCE SHALL BE AS SHOWN ON THIS SHEET. VANDEL PROTECTION FENCE SHALL NOT BE INSTALLED ON APPROACH SLAB BRIDGE RAILING.
- FOR APPROACH SLAB BRIDGE RAILING DETAILS SEE SHEET S.29/ 44.
- BRIDGE RAILING CONCRETE WITHIN THE BRIDGE LIMITS TO BE INCLUDED WITH ITEM 511 - CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN FOR PAYMENT. BRIDGE RAILING REINFORCING TO BE INCLUDED WITH ITEM 509-GALVANIZED STEEL REINFORCEMENT.
- FOR CONDUIT DETAILS AT EACH ABUTMENT END OF THE BRIDGE, REFER TO STD. DWG. HL-30.31.
- THE VANDAL PROTECTION FENCE ON THE LEFT SIDE BRIDGE RAILING SHALL BE 12'-0" CURVED FENCE CONFORMING TO POST SECTION PS-1 WITH BASE PLATE BP-3. FOR ADDITIONAL DETAILS AND NOTES SEE ODOT STD. DWG. VPF-1-90.

SFN 1305352	
DESIGN AGENCY	
<b>fishbeck</b>	
DESIGNER	CHECKER
TLC	BMG
REVIEWER	
JPC	03/07/25
PROJECT ID	
102753	
SUBSET	TOTAL
S.36	44
SHEET	
TOTAL	
P.62	70



**RIGHT BRIDGE RAILING PLAN**



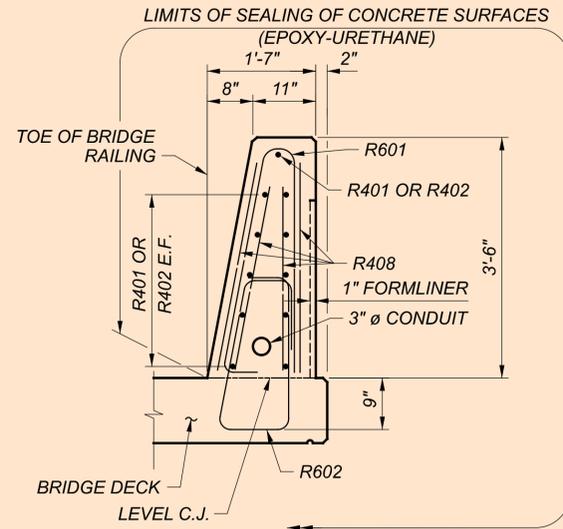
**RIGHT BRIDGE RAILING ELEVATION**

**NOTES:**

- BRIDGE RAILING CONCRETE WITHIN THE BRIDGE LIMITS TO BE INCLUDED WITH ITEM 511 - CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN FOR PAYMENT. BRIDGE RAILING CONCRETE ON THE APPROACH SLABS SHALL BE INCLUDED WITH ITEM 511 - CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN FOR PAYMENT. BRIDGE RAILING REINFORCING TO BE INCLUDED WITH ITEM 509 - GALVANIZED STEEL REINFORCEMENT AND ITEM 509 - NO. 4 GRFP DEFORMED BARS.
- FOR ADDITIONAL BRIDGE RAILING DETAILS NOT SHOWN, SEE ODOT STD. DWG. SBR-1-20.
- FOR BRIDGE TERMINAL ASSEMBLY, SEE ROADWAY PLANS AND ODOT STD. DWG. MGS-3.1.
- FOR BRIDGE RAILING SECTIONS AND DEFLECTION JOINT DETAILS, SEE SHEET S.38/44.
- FOR AESTHETIC TREATMENT OF BRIDGE RAILING, SEE GENERAL NOTES SHEET S.03/44.
- FOR APPROACH SLAB DETAILS, SEE SHEETS S.32/44 AND S.33/44.
- THE VANDAL PROTECTION FENCE ON THE RIGHT SIDE BRIDGE RAILING SHALL BE 6'-0" STRAIGHT FENCE CONFORMING TO POST SECTIONS PS-4 WITH BASE PLATE BP-6. FOR ADDITIONAL DETAILS AND NOTES, SEE ODOT STD. DWG. VPF-1-90.
- MINIMUM BAR LAPS:  
NO. 4 GRFP BARS: 1'-1"
- UPPER LONGITUDINAL REINFORCING STEEL SHALL BE CUT EITHER BEFORE REINFORCING INSTALLATION OR IN PLACE AFTER THE REINFORCING IS INSTALLED AND BEFORE THE INSTALLATION OF THE FORMS AND 1/2" JOINT MATERIAL.

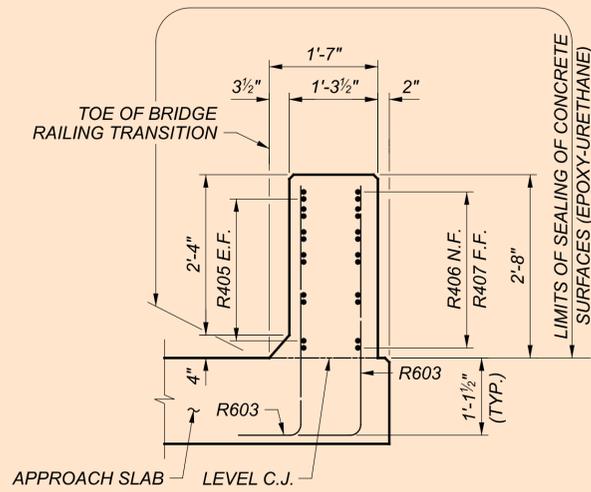
BRIDGE RAILING DETAILS (2 OF 3) - ALTERNATIVE 2  
 BRIDGE NO. CLE-00275-00.430  
 BRANCH HILL MIAMIVILLE ROAD OVER I.R. 275

SFN	1305352
DESIGN AGENCY	fishbeck
DESIGNER	CHECKER
BMV	BMG
REVIEWER	
JPC	03/07/25
PROJECT ID	102754
SUBSET	TOTAL
S.37	44
SHEET	TOTAL
P.63	70



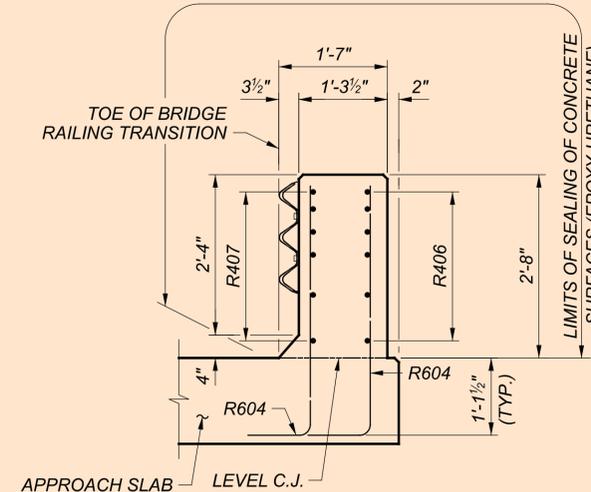
**SECTION W-W**

BRIDGE DECK REINFORCING AND VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY



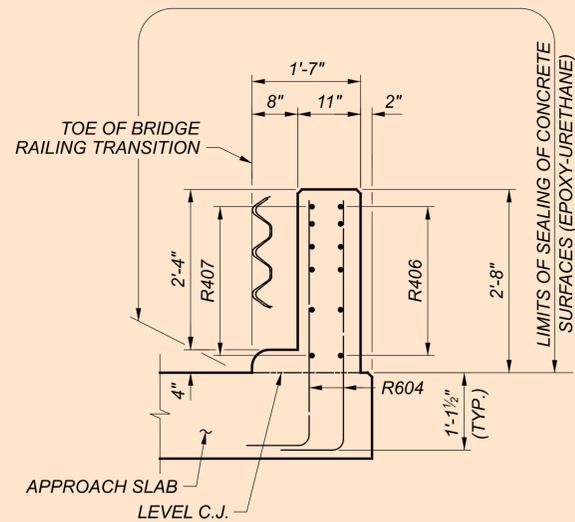
**SECTION X-X**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY



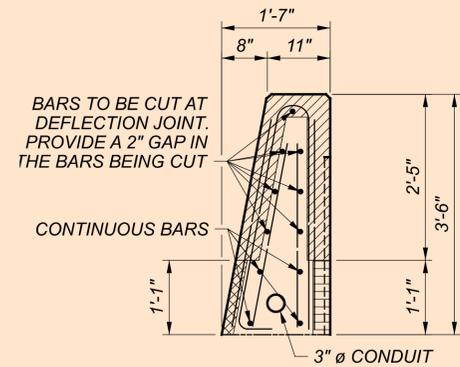
**SECTION Y-Y**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY



**SECTION Z-Z**

APPROACH SLAB REINFORCING NOT SHOWN FOR CLARITY



**DEFLECTION JOINT DETAIL**

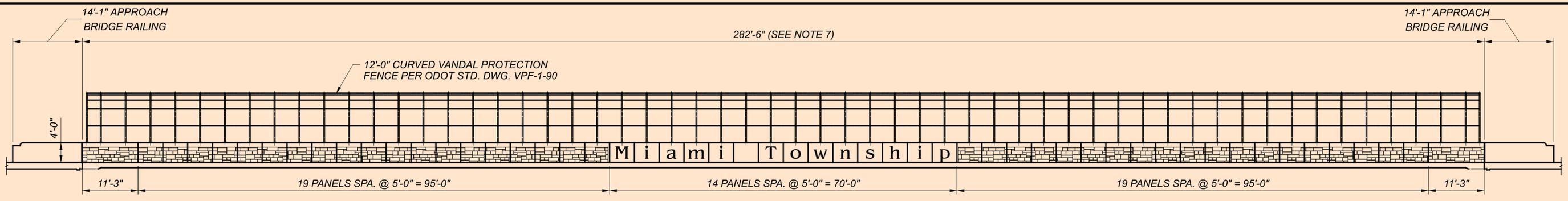
**LEGEND:**

- 2" WIDE PREFORMED JOINT MATERIAL
- 3" WIDE PREFORMED JOINT MATERIAL
- 5" WIDE PREFORMED JOINT MATERIAL

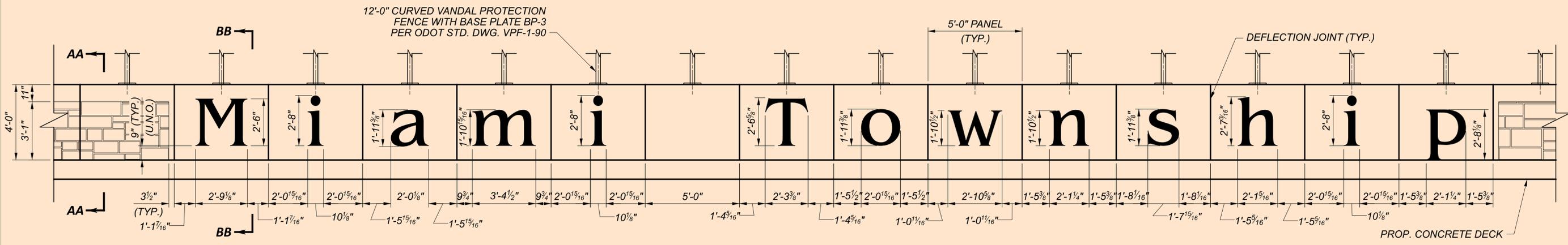
**NOTES:**

1. FOR ADDITIONAL BRIDGE RAILING DETAILS NOT SHOWN, SEE ODOT STD. DWG. SBR-1-20.
2. FOR LOCATION OF SECTIONS W-W THROUGH Z-Z AND ADDITIONAL NOTES, SEE SHEET S.36 / 44.
3. DEFLECTION JOINTS ARE TO BE CAST INTO THE BRIDGE RAILING AND HELD IN WITH CHAMFER STRIPS. THE EXCESS MATERIAL WILL BE TRIMMED TO THE BASE OF THE CHAMFER. THE MATERIAL USED NEEDS TO NOT ABSORB WATER AND HAVE SUFFICIENT RIGIDITY TO NOT SIGNIFICANTLY MOVE DURING THE CASTING OF THE BRIDGE RAILING. THE JOINT MATERIAL IS TO BE 0.5" IN THICKNESS AND WILL BE NOMAFLEX BY NOMACO OR FIBER LITE BY W.R. MEADOWS OR SIMILAR PRODUCT APPROVED BY THE ENGINEER.
4. FOR CONDUIT DETAILS AT EACH ABUTMENT END OF THE BRIDGE, REFER TO STD. DWG. HL-30.31.

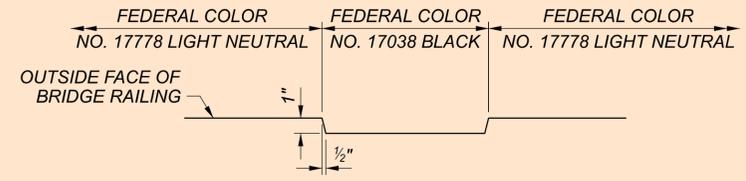
SFN	
1305352	
DESIGN AGENCY	
DESIGNER	CHECKER
BMV	BMG
REVIEWER	
JPC 03/07/25	
PROJECT ID	
102755	
SUBSET	TOTAL
S.38	44
SHEET	TOTAL
P.64	70



**LEFT BRIDGE RAILING AND FENCE ELEVATION**  
(VIEW FACING SOUTH)



**LEFT BRIDGE RAILING AESTHETIC LETTERING DETAILS**  
(VIEW FACING SOUTH)



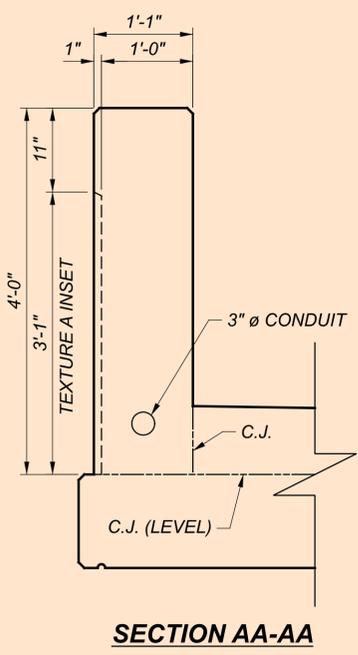
**LETTERING INSERT DETAIL**

**LEGEND:**

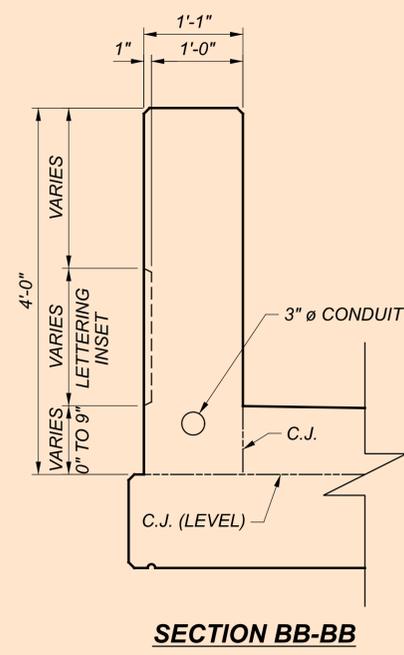


**NOTES:**

1. LETTER DIMENSIONS ARE PROVIDED TO THE OUTER EDGE OF THE INSERT.
2. LETTERING FONT IS TO BE AG BENGUIAT.
3. PAYMENT FOR BRIDGE RAILING LETTERING, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PRODUCE THE FINAL PRODUCT ARE TO BE PAID FOR AS LUMP SUM UNDER ITEM 530 - SPECIAL - STRUCTURES, AESTHETIC LETTERING. SEE GENERAL NOTES SHEET [S.04/44].
4. FOR FORMLINER DETAILS IN AREAS INDICATED AS TEXTURE A, SEE SHEET [S.03/44].
5. CONTRACTOR IS TO PRODUCE AN AESTHETIC TEST PANEL. SEE SHEET [S.04/44] FOR MORE INFORMATION.
6. VANDAL PROTECTION FENCE MESH AND EXISTING STEEL BEAMS NOT SHOWN FOR CLARITY.
7. ALTERNATIVE BID 1 IS FOR TEXTURE A TO BE TAKEN ACROSS THE ENTIRE LENGTH OF THE BRIDGE. THE BRIDGE RAILING CONCRETE AND EPOXY-URETHANE SEALER IS INCLUDED IN THE ESTIMATED QUANTITIES TABLE FOR ALTERNATIVE 1. THE LETTERING DEVELOPED ON THIS SHEET IS TO BE USED FOR ALTERNATIVE 2. THE EPOXY-URETHANE SEALER, AESTHETIC LETTERING, AND TEST SLAB QUANTITIES TO PERFORM THIS WORK IS TO BE CARRIED UNDER ALTERNATIVE 2 IN THE ESTIMATED QUANTITIES.

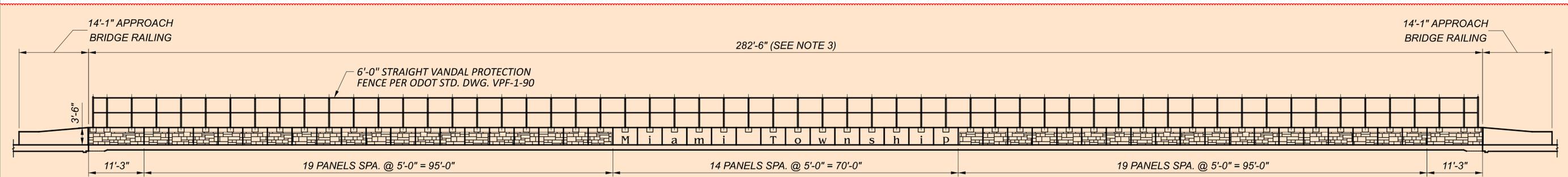


**SECTION AA-AA**

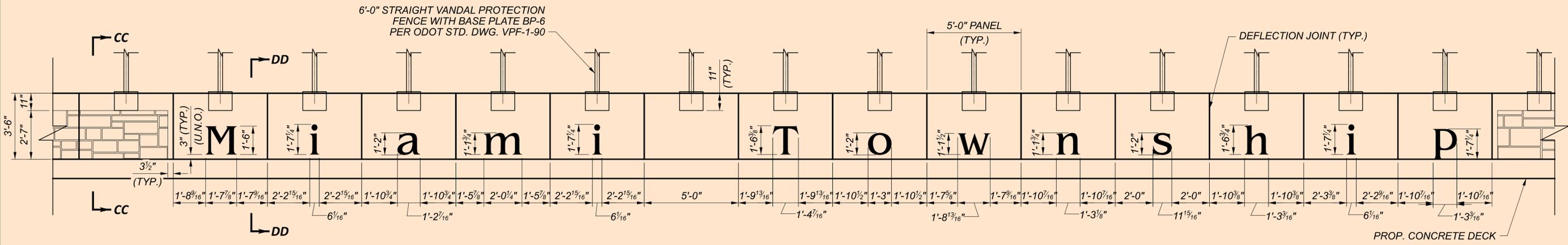


**SECTION BB-BB**

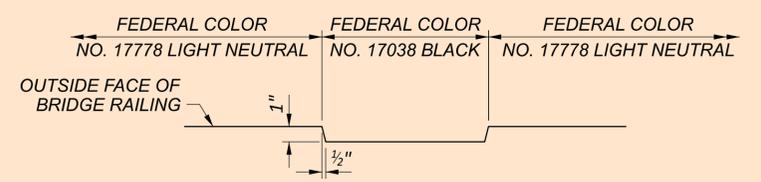
SFN	1305352
DESIGN AGENCY	fishbeck
DESIGNER	TLC
CHECKER	BMG
REVIEWER	JPC
PROJECT ID	102753
SUBSET	S.39
TOTAL	44
SHEET	P.65
TOTAL	70



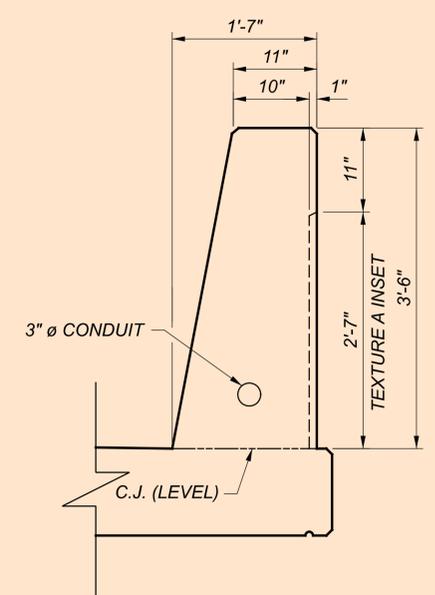
**RIGHT BRIDGE RAILING AND FENCE ELEVATION**  
 (VIEW FACING NORTH)



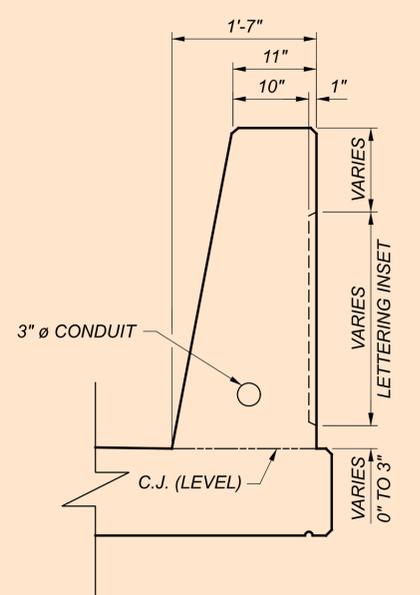
**RIGHT BRIDGE RAILING AESTHETIC LETTERING DETAILS**  
 (VIEW FACING NORTH)



**LETTERING INSERT DETAIL**



**SECTION CC-CC**



**SECTION DD-DD**

**LEGEND:**



**NOTES:**

- REFER TO SHEET [S.39/44] FOR ADDITIONAL NOTES AND DETAILS.
- VANDAL PROTECTION FENCE MESH AND EXISTING STEEL BEAMS NOT SHOWN FOR CLARITY.
- ALTERNATIVE BID 1 IS FOR TEXTURE A TO BE TAKEN ACROSS THE ENTIRE LENGTH OF THE BRIDGE. THE BRIDGE RAILING CONCRETE AND EPOXY-URETHANE SEALER IS INCLUDED IN THE ESTIMATED QUANTITIES TABLE FOR ALTERNATIVE 1. THE LETTERING DEVELOPED ON THIS SHEET IS TO BE USED FOR ALTERNATIVE 2. THE EPOXY-URETHANE SEALER, AESTHETIC LETTERING, AND TEST SLAB QUANTITIES TO PERFORM THIS WORK IS TO BE CARRIED UNDER ALTERNATIVE 2 IN THE ESTIMATED QUANTITIES.

SFN	
1305352	
DESIGN AGENCY	
fishbeck	
DESIGNER	CHECKER
TLC	BMG
REVIEWER	
JPC 03/07/25	
PROJECT ID	
102753	
SUBSET	TOTAL
S.40	44
SHEET	
TOTAL	
P.66	70

CLE-275-0.43

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**SHEET NO LONGER USED**

SFN

1305352

DESIGN AGENCY



DESIGNER

TLC

CHECKER

BMG

REVIEWER

JPC 02/22/24

PROJECT ID

102753

SUBSET TOTAL

S.41 44

SHEET TOTAL

P.67 70

CLE-275-0.43

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 3/13/2025 TIME: 3:48:07 PM USER: dqarrison

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**SHEET NO LONGER USED**

SFN	
1305352	
DESIGN AGENCY	
	
DESIGNER	CHECKER
TLC	BMG
REVIEWER	
JPC 02/22/24	
PROJECT ID	
102753	
SUBSET	TOTAL
S.42	44
SHEET	TOTAL
P.68	70

CLE-275-0.43

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**SHEET NO LONGER USED**

SFN	
1305352	
DESIGN AGENCY	
fishbeck	
DESIGNER	CHECKER
TLC	BMG
REVIEWER	
JPC 02/22/24	
PROJECT ID	
102753	
SUBSET	TOTAL
S.43	44
SHEET	TOTAL
P.69	70

CLE-275-0.43

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**SHEET NO LONGER USED**

SFN	
1305352	
DESIGN AGENCY	
	
DESIGNER	CHECKER
TLC	BMG
REVIEWER	
JPC 02/22/24	
PROJECT ID	
102753	
SUBSET	TOTAL
S.44	44
SHEET	TOTAL
P.70	70