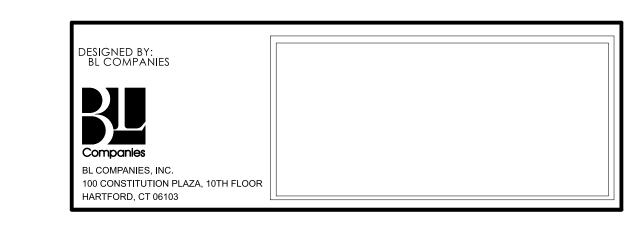
04 - STRUCTURES INDEX OF DRAWINGS								
DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE					
S-01	INDEX OF DRAWING - STRUCTURES	S-10	SCUPPER DETAILS					
S-02	GENERAL PLAN AND NOTES	S-11	STRUCTURE RELATED ELECTRICAL DETAILS					
S-03	BRIDGE NO. 03191A DEMOLITION PLAN	S-12	CONDUIT EXPANSION FITTINGS					
S-04	BRIDGE NO. 03191F DEMOLITION PLAN 1	S-13	EMBANKMENT WALL (SITE NO. 1)					
S-05	BRIDGE NO. 03191F DEMOLITION PLAN 2							
S-06	BRIDGE NO. 03191A DECK PLAN							
S-07	F-SHAPE PARAPET - DETAILS							
S-08	F-SHAPE PARAPET - REINFORCEMENT							
S-09	CHAIN LINK FENCE DETAILS							



CONNECTICUT DEPARTMENT OF TRANSPORTATION

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

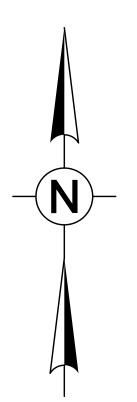
WATERBURY

INDEX OF DRAWINGS - STRUCTURES

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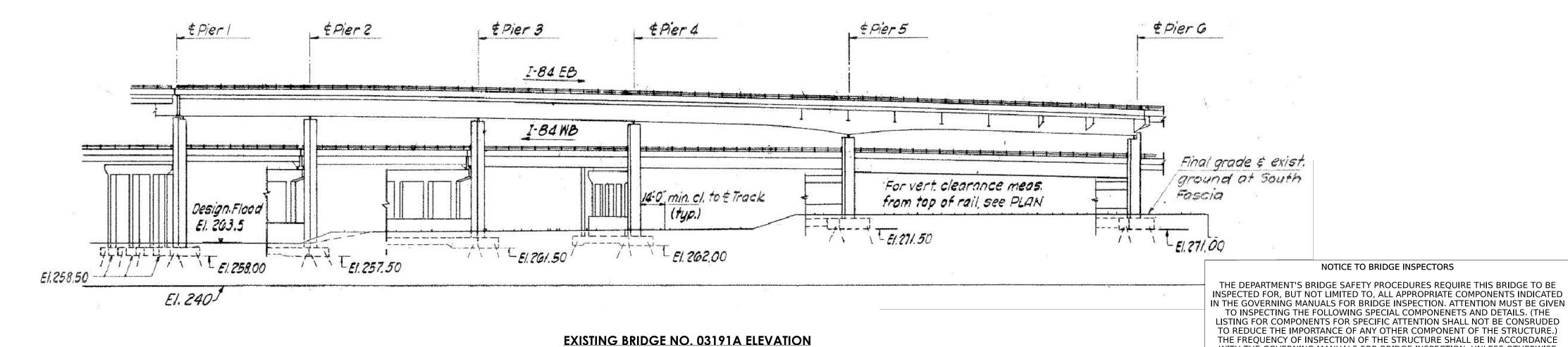
0151-0340 SHEET NO.:

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GENERAL PLAN SCALE: 1"=40"



SCALE: NOT TO SCALE

PROJECT TITLE:

GENERAL NOTES

- SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 819 (2024), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2025, AND SPECIAL PROVISIONS.
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (TENTH EDITION 2024), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE AND ROADWAY STRUCTURES DESIGN MANUAL (2025).
- MATERIAL STRENGTHS:

 $...f'_{c} = 4,000 PSI$ CLASS PCC 04462 $....f'_{s} = 5,000 PSI$

THE CONCRETE STRENGTH, f'_, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01 - CONCRETE FOR STRUCTURES, AND M.03 - PORTLAND CEMENT CONCRETE.

ASTM A615 GRADE 75. $f_y = 75,000 \text{ PSI}$

- 4. LIVE LOAD: TBD
- FUTURE PAVING ALLOWANCE: NONE
- BITUMINOUS CONCRETE OVERLAY: THIS SHALL CONSIST OF TWO LIFTS. THE FIRST SHALL BE HMA \$0.25 TRAFFIC LEVEL 2 (1" THICK) AND THE SECOND SHALL BE PMA \$0.375 TRAFFIC LEVEL 3 (1.5" THICK).
- <u>DIMENSIONS:</u> WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.
- EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.
- <u>UTILITIES:</u> THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS AND SHALL BE PROTECTED DURING CONSTRUCTION: CTDOT ILLUMINATION. THE CONTRACTOR SHALL COORDINATE ALL WORK RELATED TO UTILITY RELOCATION WITH THE RESPECTIVE UTILITY COMPANIES.
- 9. MASH TEST LEVEL: THE F-SHAPE PARAPET MEETS THE TL-4 CRITERIA FOR MASH 2016.

CONCRETE NOTES

- REMAIN-IN-PLACE FORMS: THE USE OF REMAIN-IN-PLACE FORMS ON THIS STRUCTURE IS NOT
- THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST-IN-PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENTS	PCC CLASS
BRIDGE DECK CONCRETE	BRIDGE DECK, CONCRETE CURB	CLASS PCC05562
PARAPET CONCRETE	F-SHAPE PARAPET	CLASS PCC04462

- EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1"X1" UNLESS DIMENSIONED
- CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED
- REINFORCEMENT: ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. HEADED REINFORCEMENT SHALL CONFORM TO ASTM A970, CLASS HA. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE
- PREFORMED EXPANSION JOINT FILLER: THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER IS PAID FOR AS "1" PREFORMED EXPANSION JOINT FILLER FOR BRIDGES."
- CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

ADHESIVE BONDED ANCHOR NOTES

INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED."

- 1. THE COMPRESSIVE STRENGTH OF THE EXISTING CONCRETE IN THE DESIGN OF ADHESIVE BONDED ANCHORS WAS 3.0 KSI.
- 2. THE REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 AND BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS.
- WHEN DRILLING HOLES, IF EXISTING REINFORCEMENT IS ENCOUNTERED, RELOCATE HOLE MAINTAINING REQUIRED CONCRETE COVER. THE USE OF CORE DRILLING THROUGH THE EXISTING REINFORCEMENT IS NOT PERMITTED.
- 4. THE ANCHORS SHALL BE FIELD TESTED UNDER A PROOF TEST LOAD TO VERIFY THE INSTALLATION PROCEDURES AND INSTALLED ADHESIVE BONDED ANCHOR STRENGTH. THE FOLLOWING TABLE DETAILS THE MINIMUM NUMBER OF ANCHORS AT EACH LOCATION TO BE FIELD TESTED TO THE TABULATED PROOF LOAD:

LOCATION		ANCHOR DESCRIPTION	MIN. NUMBER OF ANCHORS TO BE TESTED	PROOF TEST LOAD (KIPS)	
	CONCRETE CURB	#4 REBAR ANCHOR EMBEDDED 6"	0	N/A	

UNLESS OTHERWISE SPECIFIED, THE ENGINEER SHALL RANDOMLY SELECT THE ANCHORS TO BE TESTED.

THE WORK TO FURNISH THE ANCHORS AND ADHESIVE BONDING MATERIAL, DRILLING HOLES, INSTALL ANCHORS, AND INSPECT AND TEST THE ANCHORS SHALL BE PAID FOR UNDER THE ITEM "DRILLING HOLES AND BONDING ANCHORS."

CTDOT

CONNECTICUT **DEPARTMENT OF TRANSPORTATION**

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

fown(s):

COMPONENT OR DETAIL

WATERBURY

NONE

DRAWING TITLE:

STRUCTURE SHEET REFERENCE

WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE

DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.

N/A

GENERAL PLAN AND

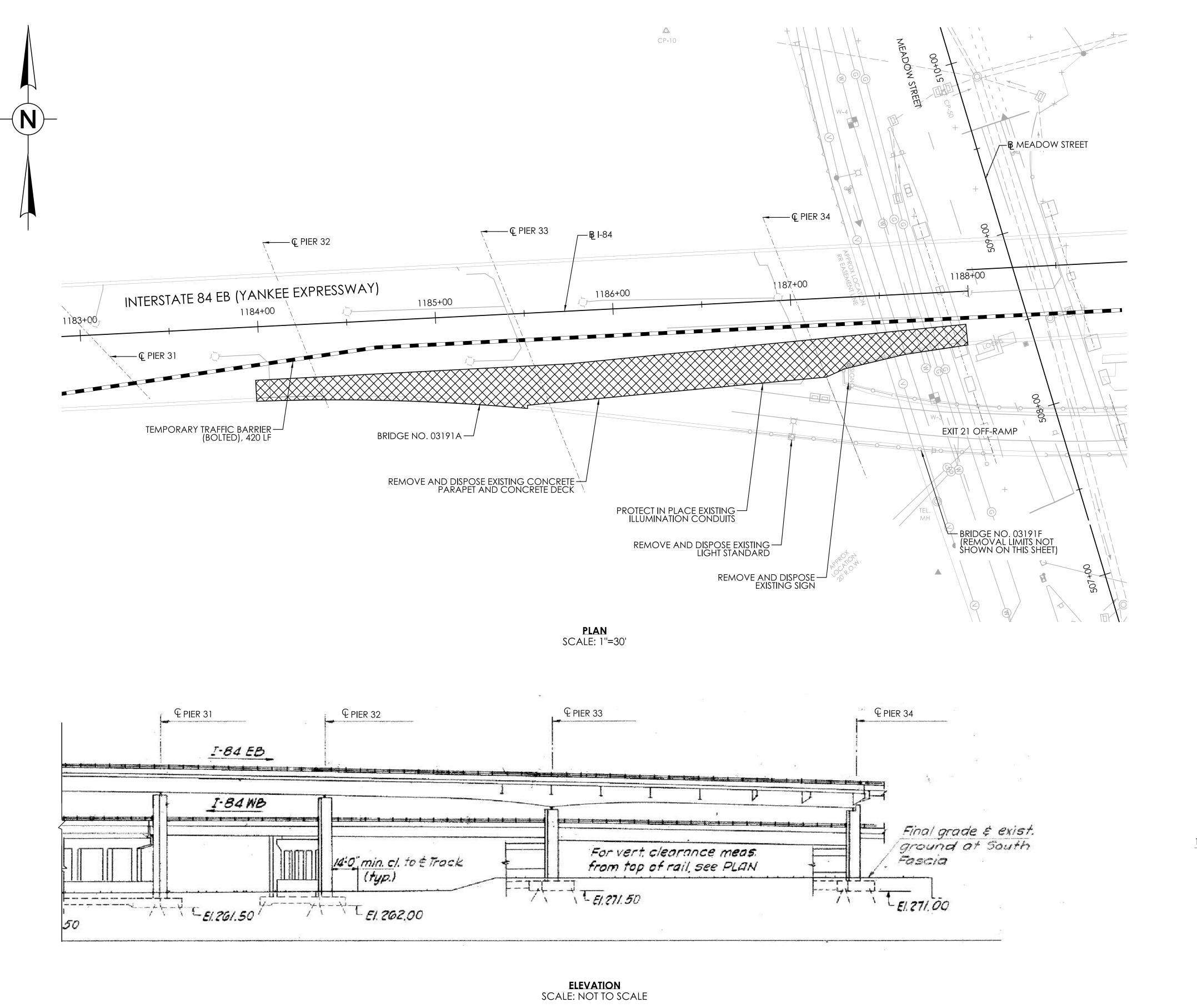
PROJECT NO.: 0151-0340 SHEET NO.:

S-02 04.02

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SCALE AS NOTED

PLOTTED DATE: 7/8/2025

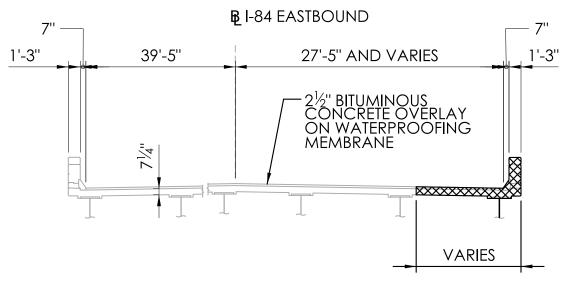


NOTES:

- LOCATION OF BEAMS SHOWN BASED ON RECORD PLANS AND WERE NOT SURVEYED IN THE FIELD. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING COMPONENTS AND IDENTIFYING POTENTIAL CONFLICTS.
- THE SEQUENCE OF CONSTRUCTION SHOWN, INCLUDING STAGING AREAS FOR CRANES AND MATERIALS, ARE SUGGESTIONS BY THE ENGINEER. THE CONTRACTOR SHALL DETERMINE ACTUAL MEANS AND METHODS OF DEMOLITION AND PREPARE AND SUBMIT WORKING DRAWINGS TO THE ENGINEER FOR REVIEW.
- A DEBRIS SHIELD SHALL BE PROVIDED TO PROTECT ADJACENT TRAFFIC FROM CONSTRUCTION ACTIVITIES AND DEBRIS. EXTENT OF DEBRIS SHIELD MAY VARY DEPENDING ON CONTRACTOR MEANS AND METHODS.
- FOR EASE OF CONSTRUCTION AND INSPECTION, IT IS ANTICIPATED THAT THE RAMP WILL BE REMOVED AFTER THE PROPOSED PARAPET AND DECK WORK IS PERFORMED.
- DURING ALL DEMOLITION WORK, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES TO
- SEE TRAFFIC PLANS FOR ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS AND REQUIREMENTS.
- EXISTING REINFORCEMENT IN DECK TO REMAIN. CONTRACTOR TO CLEAN AND APPLY NEW ZINC-RICH PAINT PROTECTIVE COATING BEFORE INSTALLING NEW BAR. CLEANING AND APPLYING PROTECTIVE COATING SHALL BE PAID FOR UNDER THE ITEM "BRIDGE DECK CONCRETE".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK ABOVE THE RAILROAD RIGHT-OF-WAY WITH THE METRO NORTH.
- REMOVAL OF BRIDGE DECK CONCRETE AND PARAPETS FOR THE NEW PARAPET CONSTRUCTION AND AS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF SUPERSTRUCTURE".
- 10. LOCATION OF ILLUMINATION CONDUITS SHOWN ARE APPROXIMATE AND BASED ON RECORD PLANS AND WERE NOT SUVEYED IN THE FIELD.

ANTICIPATED SEQUENCE OF CONSTRUCTION:

- INSTALL TEMPORARY TRAFFIC CONTROL MEASURES TO ALLOW FOR PAVEMENT AND DECK REMOVAL, EXCLUSIVE OF TEMPORARY BARRIER.
- REMOVE BRIDGE PAVEMENT TO LIMITS SHOWN.
- INSTALL TEMPORARY TRAFFIC BARRIER (BOLTED).
- 4. INSTALL TEMPORARY DEBRIS SHIELD.
- REMOVE EXISTING DECK AND PARAPET TO LIMITS SHOWN.
- 6. INSTALL NEW CONCRETE DECK, CONCRETE PARAPET, CONCRETE CURB AND FENCE.
- REMOVE TEMPORARY DEBRIS SHIELD AND TEMPORARY TRAFFIC BARRIER (BOLTED).
- 8. APPLY NEW MEMBRANE WATERPROOFING ON DECK AND PAVE.
- 9. REMOVE REMAINING TRAFFIC CONTROL DEVICES.



EXSTING TYPICAL SECTION SCALE: NOT TO SCALE

SCALE AS NOTED

CTDOT

CONNECTICUT DEPARTMENT OF TRANSPORTATION

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

WATERBURY

BRIDGE NO. 03191A **DEMOLITION PLAN**

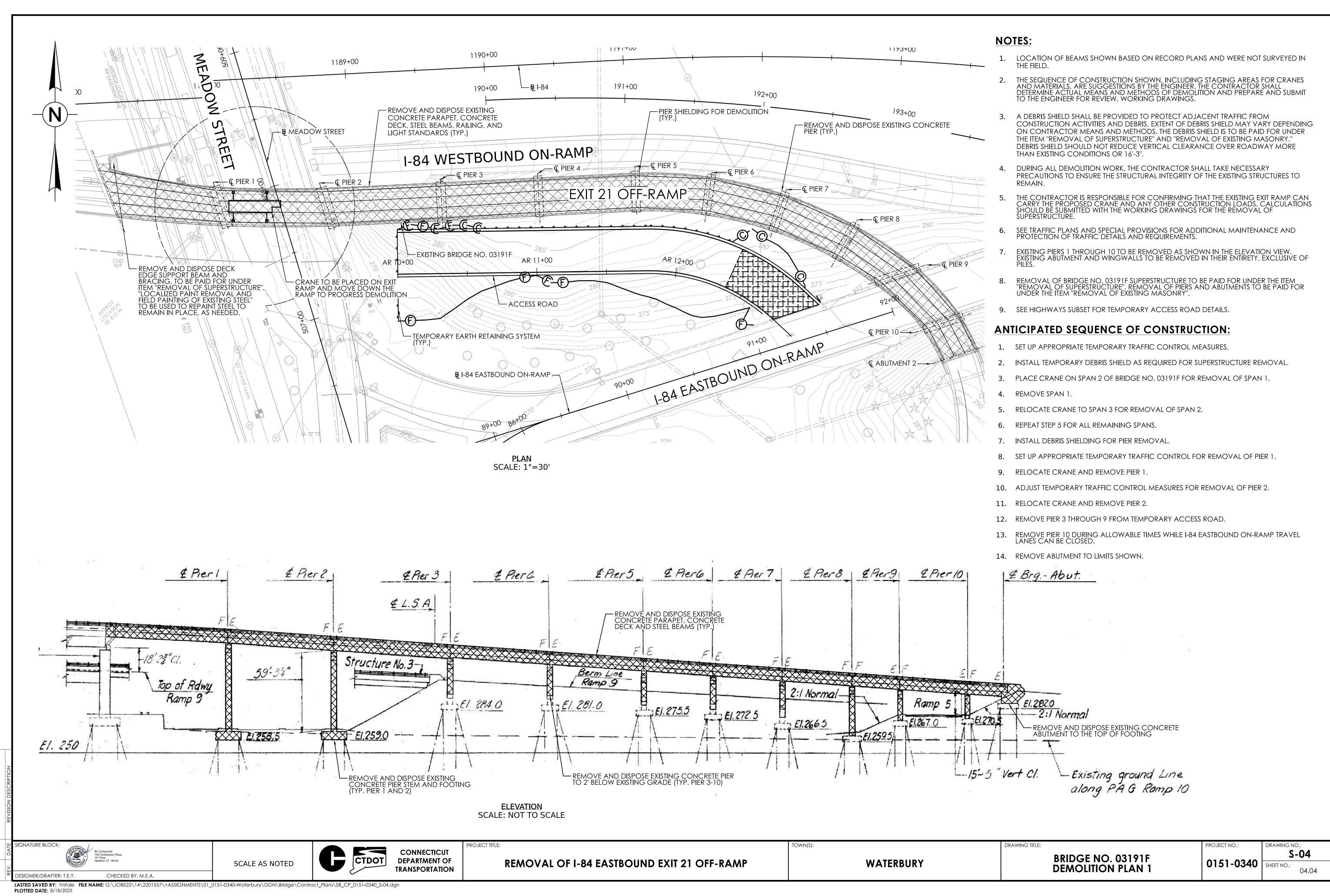
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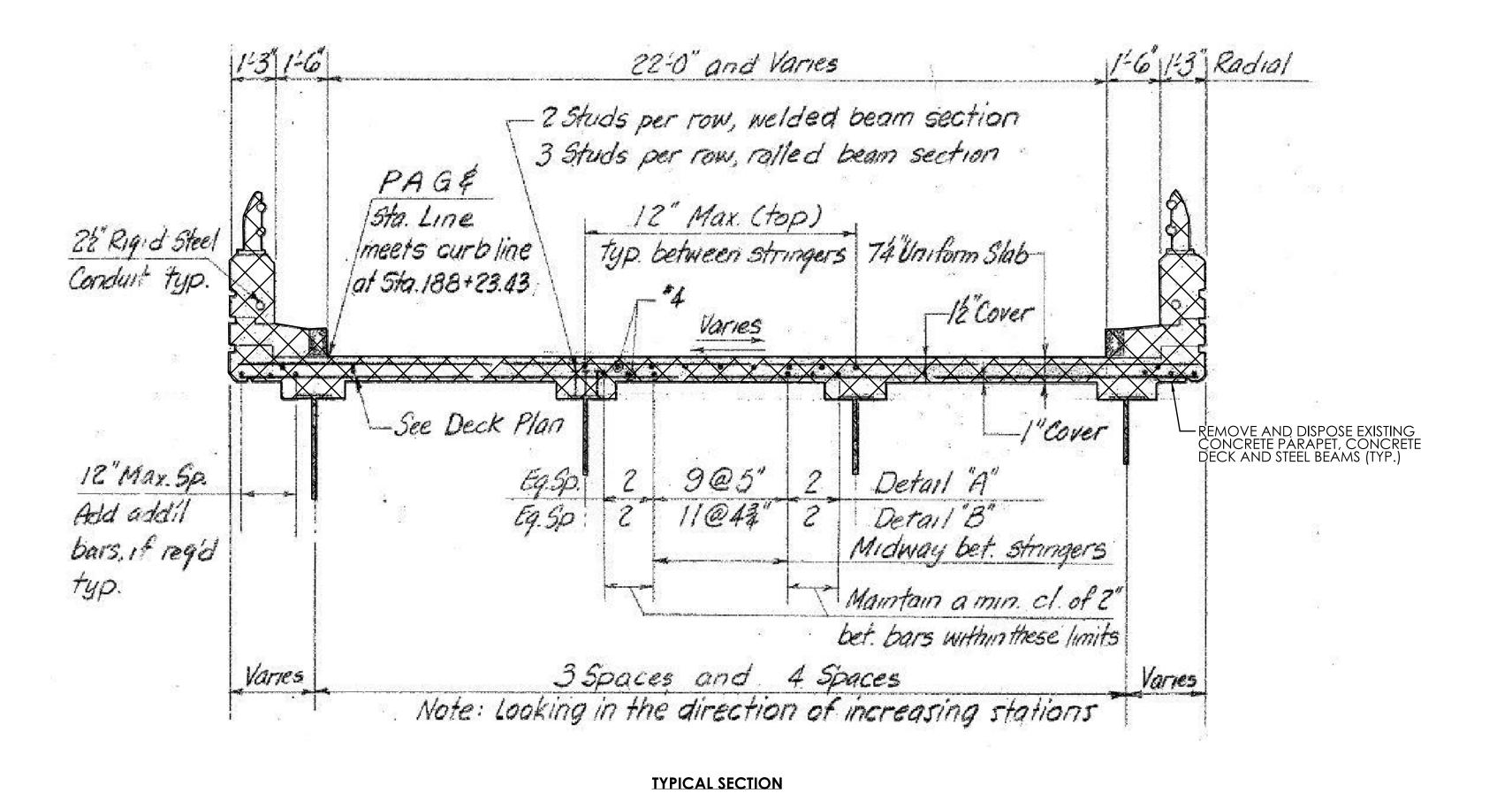
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S-03

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SCALE: NOT TO SCALE

NOTES:

- 1. LOCATION OF BEAMS SHOWN BASED ON RECORD PLANS AND WERE NOT SURVEYED IN
- THE SEQUENCE OF CONSTRUCTION SHOWN, INCLUDING STAGING AREAS FOR CRANES AND MATERIALS, ARE SUGGESTIONS BY THE ENGINEER. THE CONTRACTOR SHALL DETERMINE ACTUAL MEANS AND METHODS OF DEMOLITION AND PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW, WORKING DRAWINGS.
- A DEBRIS SHIELD SHALL BE PROVIDED TO PROTECT ADJACENT TRAFFIC FROM CONSTRUCTION ACTIVITIES AND DEBRIS. EXTENT OF DEBRIS SHIELD MAY VARY DEPENDING ON CONTRACTOR MEANS AND METHODS.
- DURING ALL DEMOLITION WORK, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES TO REMAIN.
- THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT THE EXISTING EXIT RAMP CAN CARRY THE PROPOSED CRANE AND ANY OTHER CONSTRUCTION LOADS. CALCULATIONS SHOULD BE SUBMITTED WITH THE WORKING DRAWINGS FOR THE REMOVAL OF SUPERSTRUCTURE.
- SEE TRAFFIC PLANS FOR ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS AND REQUIREMENTS.
- SEE BRIDGE NO. 03191F DEMOLITION PLAN 1 SHEET FOR ANTICIPATED SEQUENCE OF CONSTRUCTION.

CTDOT

CONNECTICUT **DEPARTMENT OF** TRANSPORTATION **REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP**

WATERBURY

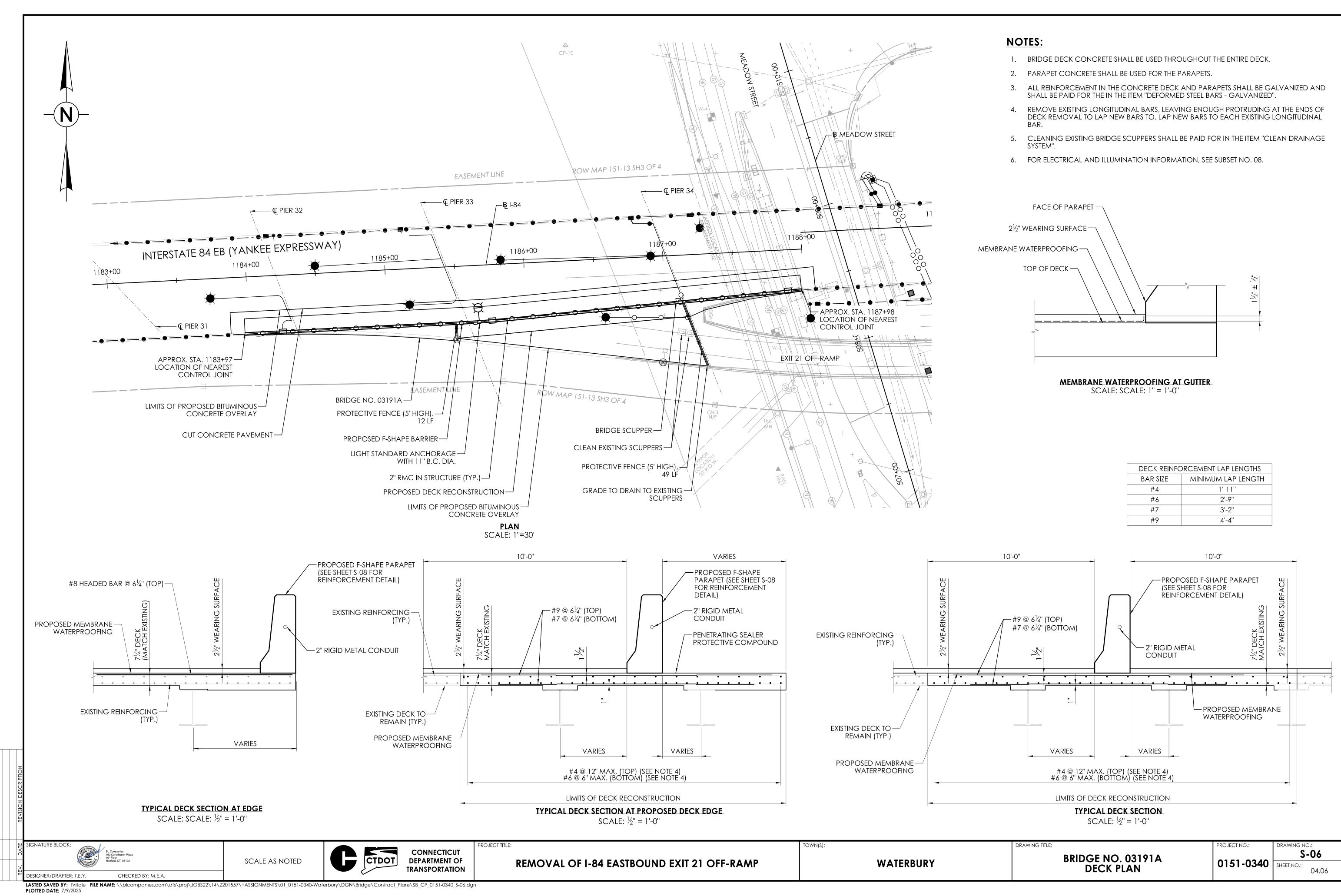
BRIDGE NO.03191F DEMOLITION PLAN 2

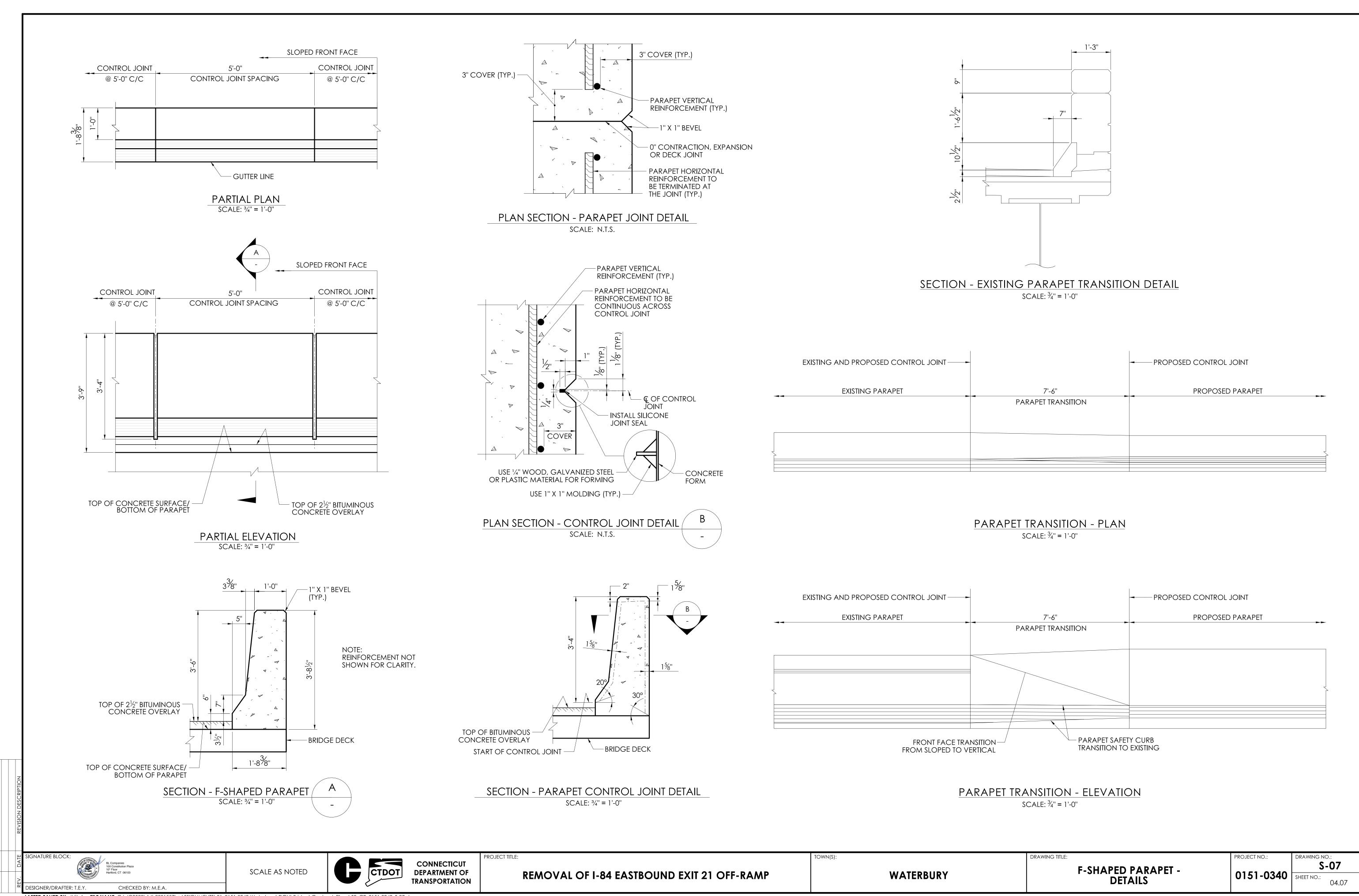
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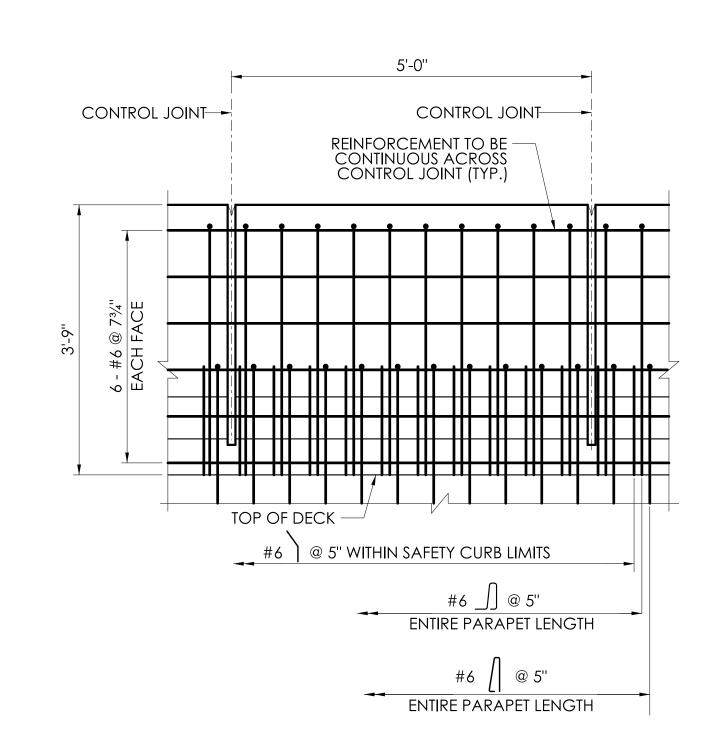
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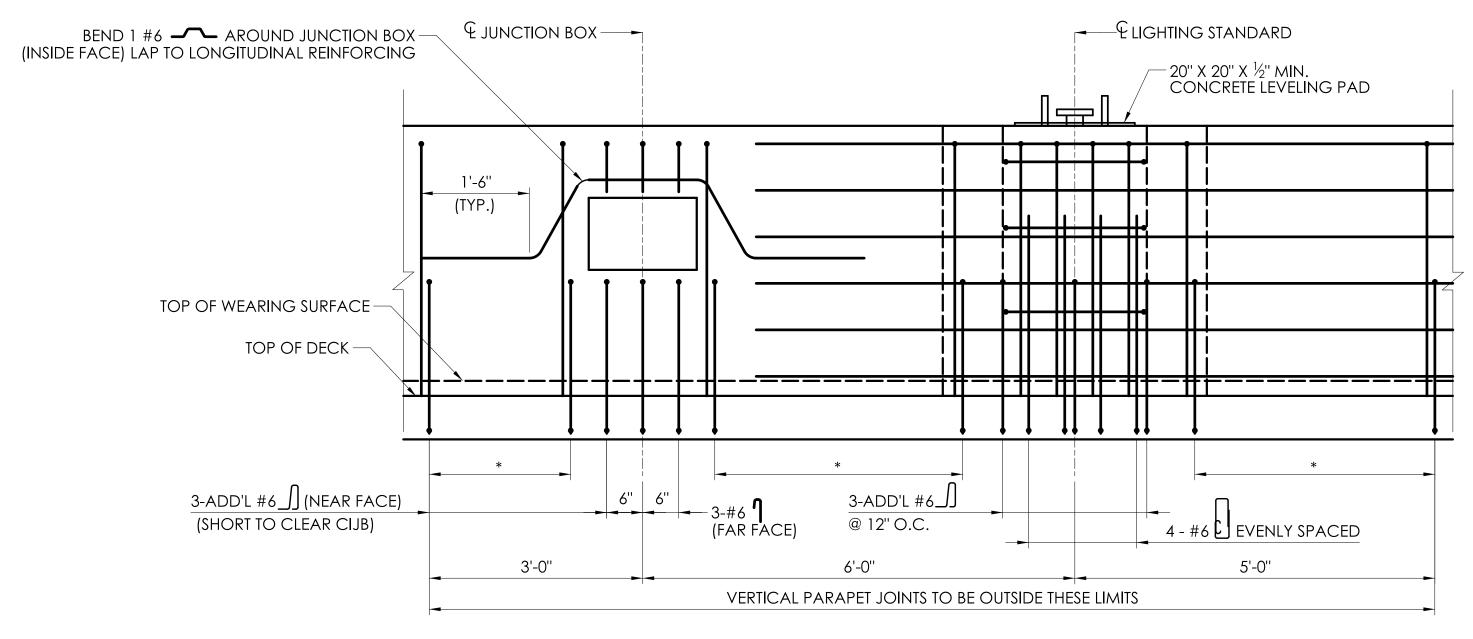
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SCALE AS NOTED





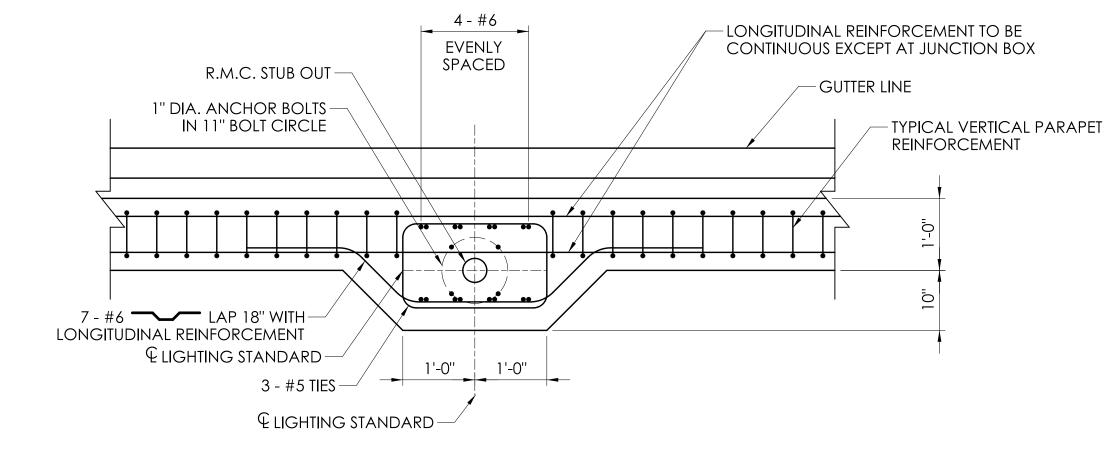




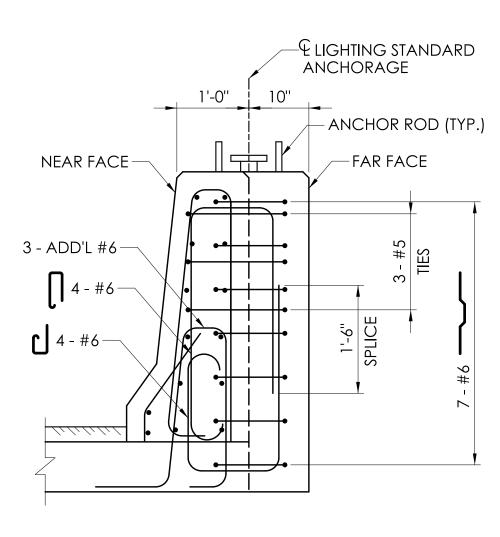
* = TYPICAL PARAPET REINFORCEMENT TO BE DOUBLED IN THESE AREAS.

PARAPET BUILD-OUT ELEVATION

SCALE: 3/4"=1"

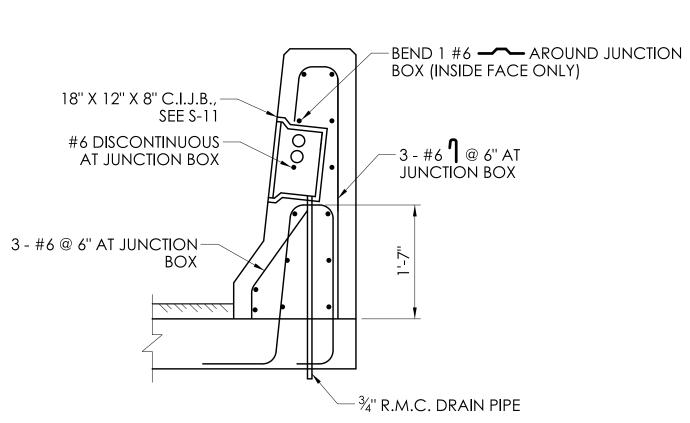


PARAPET BUILD-OUT PLAN SCALE: 3/4"=1"



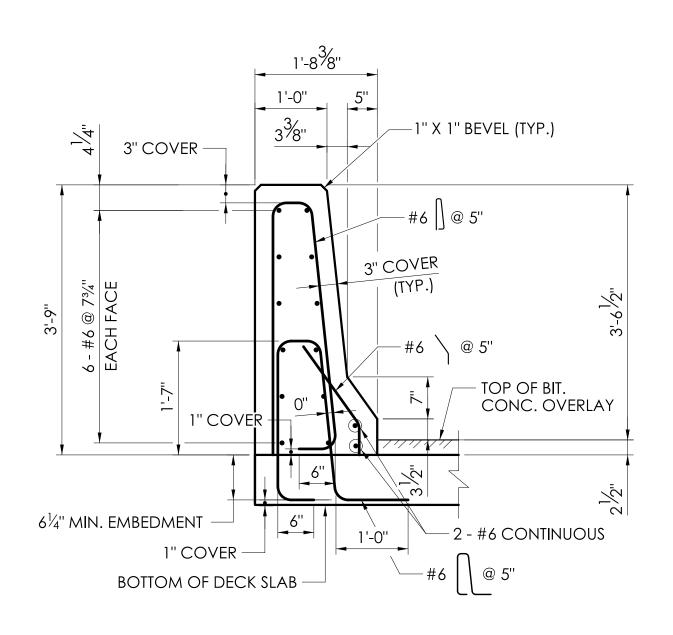
PARAPET BUILD-OUT SECTION

SCALE: 3/4"=1"



JUNCTION BOX SECTION SCALE: 3/4"=1"

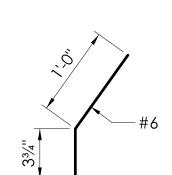
PARTIAL ELEVATION - TYPICAL REINFORCED CONCRETE PARAPET DETAILS SCALE: 3/4" = 1'-0"



PARAPET ON DECK SLAB SCALE: 3/4" = 1'-0"

REINFORCEMENT SPLICE NOTES:

- . THE SPLICE LENGTH FOR THE REINFORCEMENT IN THE PARAPETS SHALL BE AS FOLLOWS UNLESS DIMENSIONED OTHERWISE: BAR SIZE SPLICE LENGTH 2'-6''
- . THE SPLICES SHALL BE ALTERNATED SO THAT 50% OR LESS OF THE LONGITUDINAL BARS ARE SPLICED AT THE SAME LOCATION.



SAFETY CURB REBAR SCALE: N.T.S.

SCALE AS NOTED

CTDOT

CONNECTICUT DEPARTMENT OF TRANSPORTATION PROJECT TITLE: **REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP**

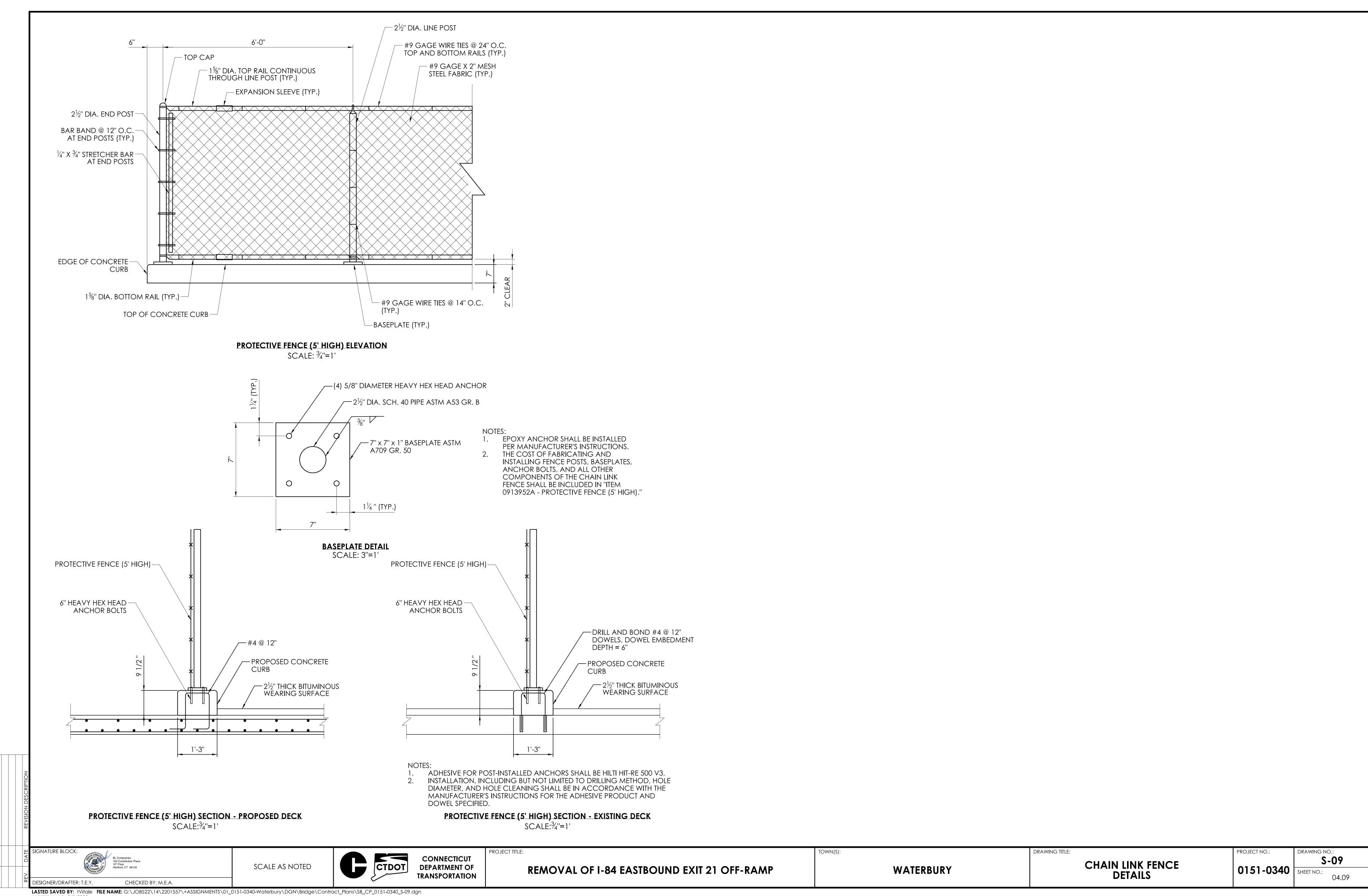
WATERBURY

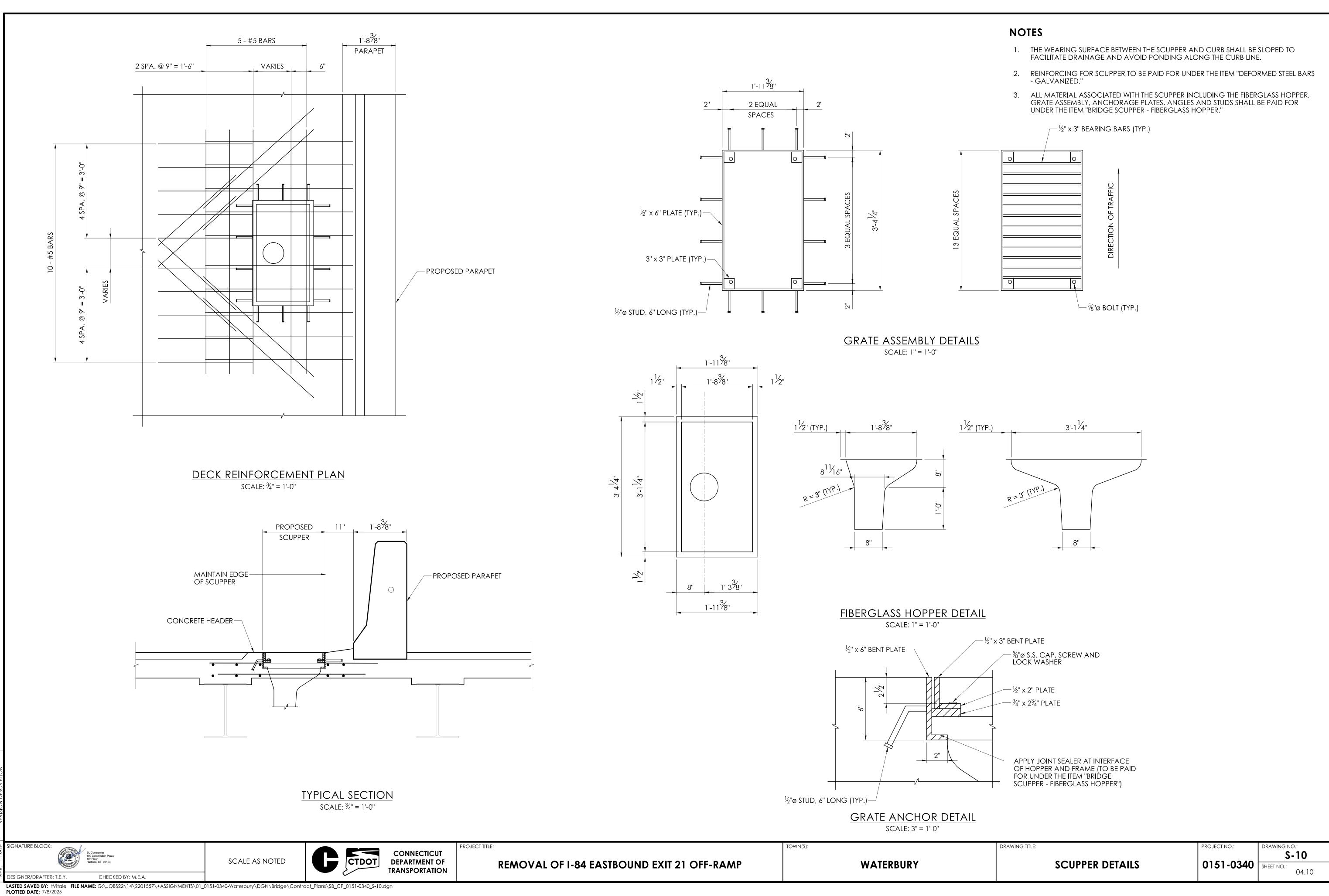
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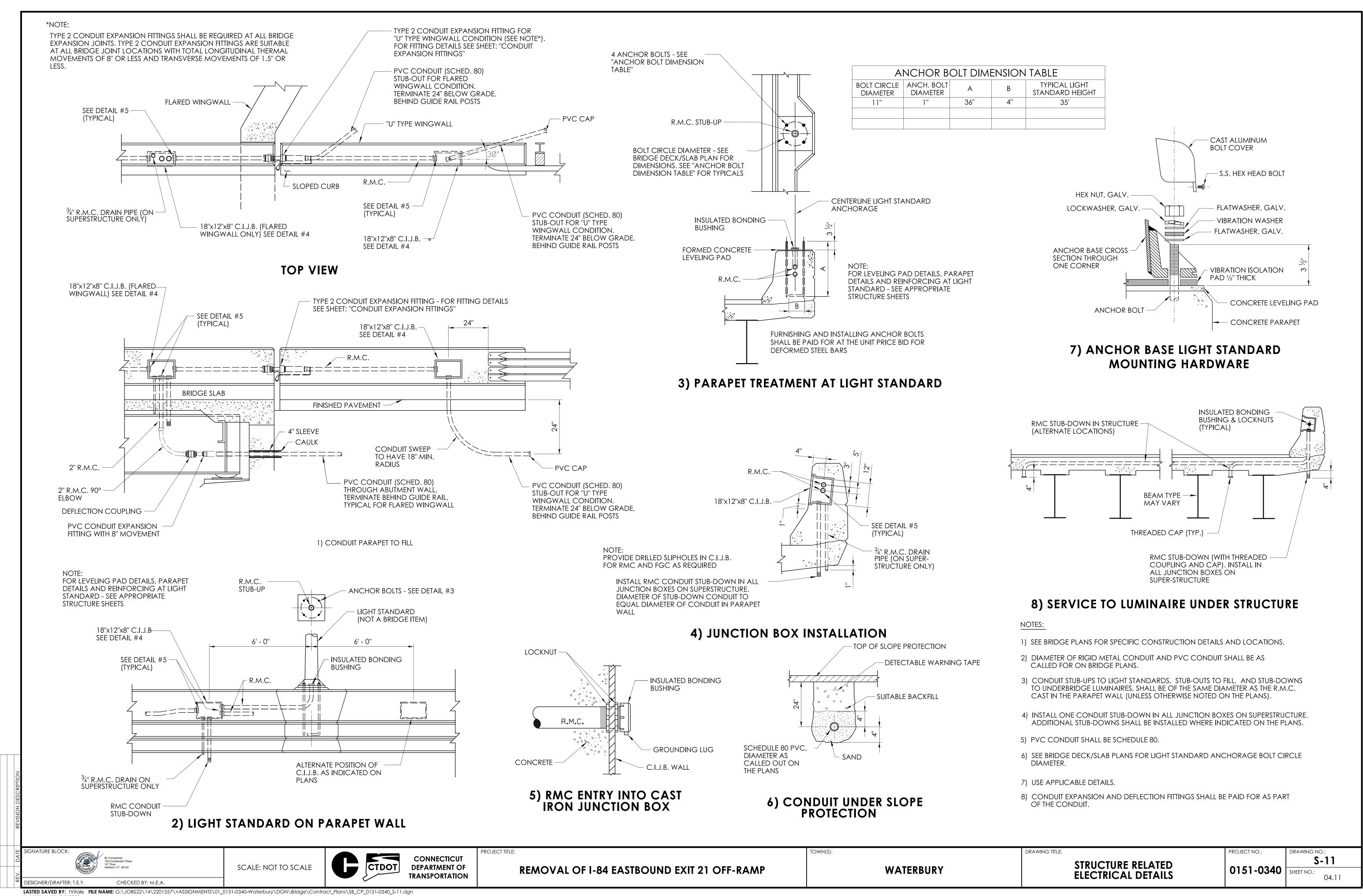
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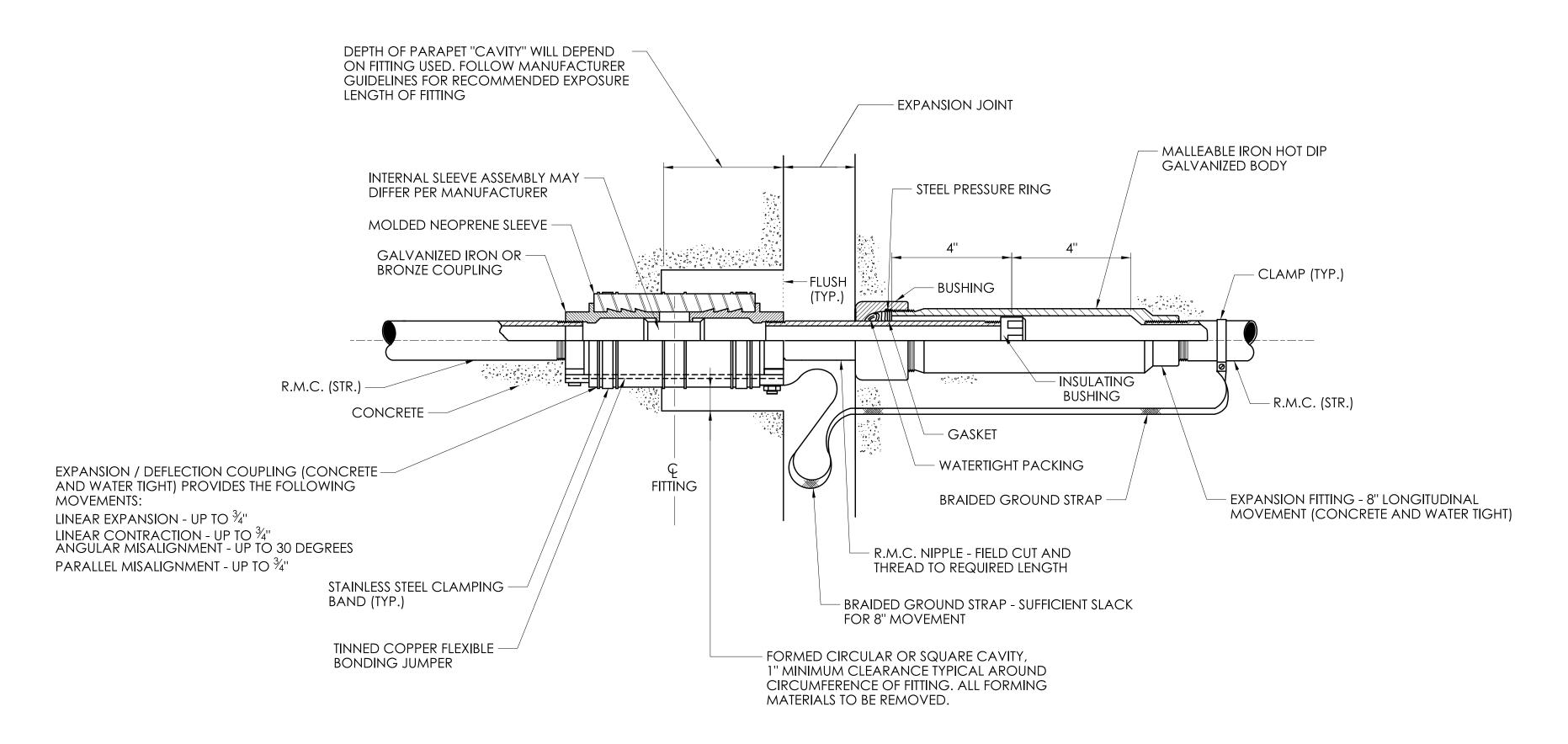
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CHECKED BY: M.E.A.

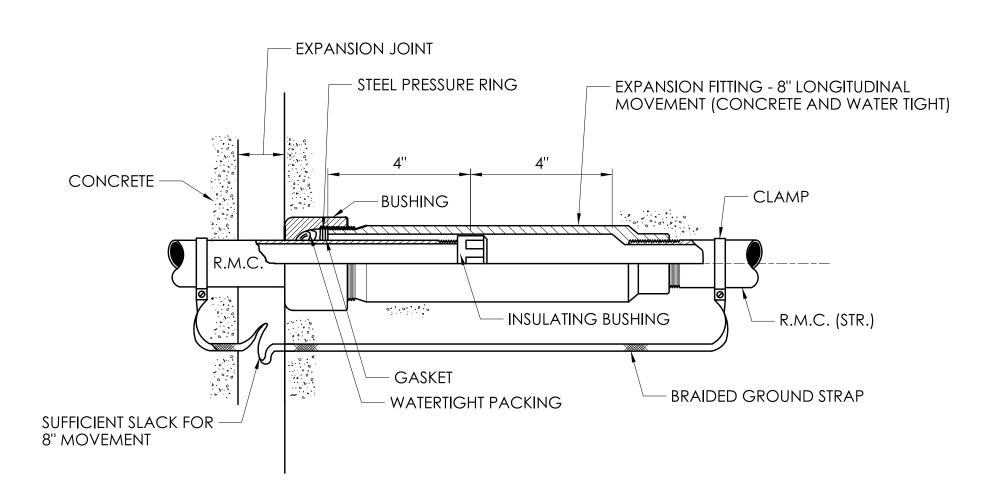








EXPANSION FITTING TYPE 2



EXPANSION FITTING TYPE 1

NOTES:

- 1) TYPE 1 CONDUIT EXPANSION FITTINGS SHALL BE REQUIRED AT ALL EXPANSION JOINT LOCATIONS IN CAST-IN-PLACE CONCRETE RETAINING WALLS SHARING COMMON PILE SUPPORTED FOOTINGS.
- 2) TYPE 2 CONDUIT EXPANSION FITTINGS SHALL BE REQUIRED AT ALL BRIDGE EXPANSION JOINTS.

 TYPE 2 CONDUIT EXPANSION FITTINGS ARE SUITABLE AT ALL BRIDGE JOINT LOCATIONS WITH TOTAL LONGITUDINAL THERMAL MOVEMENTS OF 8" OR LESS AND TRANSVERSE MOVEMENTS OF 1.5" OR LESS.
- 3) TYPE 2 CONDUIT EXPANSION FITTINGS SHALL BE REQUIRED AT ALL EXPANSION JOINT LOCATIONS IN CAST-IN-PLACE RETAINING WALLS WHERE THE FOUNDATION TRANSITIONS FROM A PILE SUPPORTED FOUNDATION TO A SPREAD FOOTING FOUNDATION.
- 4) ORIENTATION OF CONDUIT EXPANSION FITTING SHALL BE FIELD DETERMINED.

SCALE: NOT TO SCALE

SCALE: NO

