

NEW YORK STATE THRUWAY AUTHORITY
DEPARTMENT OF ENGINEERING

ALBANY, NY
SEPTEMBER 26, 2016

AMENDMENT NO. 1
TO

CONTRACT TAB 16-45B
D214537
REPAIR OF THE IMPACT DAMAGED BRIDGE AT MP 426.18
IN THE BUFFALO DIVISION
OF THE NEW YORK STATE THRUWAY
IN ERIE COUNTY

IN THE LETTING OF
OCTOBER 12, 2016

NOTE: This amendment shall be attached to and become a part of the Proposal for Contract [TAB 16-45B](#).

PROPOSAL

1. **DELETE** page 10 and **SUBSTITUTE** the attached page 10-A1. October 21 has been removed from the list of available weekend closures.
2. **DELETE** page 11 and **SUBSTITUTE** the attached page 11-A1.
3. **DELETE** the following Item:

<u>Contract</u> <u>Proposal Page</u>	<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated</u> <u>Quantity</u>
4 and 192	557.9009 25	Installation of Prefabricated Deck Panels	SF	1212

The Bidder shall **CROSS OUT** and not enter a bid for these items in the Contract Proposal. If the Bidder fails to make these changes, the Authority will do so and adjust the TOTAL BID accordingly.

DELETE all other references to the above item(s) in the Contract Plans and Contract Proposal.

4. **ADD** the following Item(s):

<u>Contract</u> <u>Proposal Page</u>	<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated</u> <u>Quantity</u>
4 and 196A-A1	564.99164525	Unloading and Erection of Prefabricated Superstructure(s) and Components	LS	1

The Bidder must **RETURN THE ATTACHED PAGE 196A-A1** with its bid for this Contract.

ADD the above item and quantity to the Estimate of Quantities table in the Contract Plans.

ADD the attached Special Specification for Item 564.99164525, page 94A-A1.

PLANS

5. **DELETE** Drawing GN, Sheet 3/21, and **SUBSTITUTE** the attached Drawing GN, Sheet 3-A1.
6. **DELETE** Drawing S-1, Sheet 4/21, and **SUBSTITUTE** the attached Drawing S-1, Sheet 4-A1.
7. **DELETE** Drawing S-2, Sheet 5/21, and **SUBSTITUTE** the attached Drawing S-2, Sheet 5-A1.
8. **DELETE** Drawing S-3, Sheet 6/21, and **SUBSTITUTE** the attached Drawing S-3, Sheet 6-A1.
9. **DELETE** Drawing S-4, Sheet 7/21, and **SUBSTITUTE** the attached Drawing S-4, Sheet 7-A1.
10. **DELETE** Drawing S-5, Sheet 8/21, and **SUBSTITUTE** the attached Drawing S-5, Sheet 8-A1.
11. **DELETE** Drawing S-6, Sheet 9/21, and **SUBSTITUTE** the attached Drawing S-6, Sheet 9-A1.
12. **DELETE** Drawing S-7, Sheet 10/21, and **SUBSTITUTE** the attached Drawing S-7, Sheet 10-A1.
13. **DELETE** Drawing S-8, Sheet 11/21, and **SUBSTITUTE** the attached Drawing S-8, Sheet 11-A1.
14. **DELETE** Drawing S-9, Sheet 12/21, and **SUBSTITUTE** the attached Drawing S-9, Sheet 12-A1.
15. **DELETE** Drawing S-10, Sheet 13/21, and **SUBSTITUTE** the attached Drawing S-10, Sheet 13-A1.
16. **DELETE** Drawing S-11, Sheet 14/21, and **SUBSTITUTE** the attached Drawing S-11, Sheet 14-A1.
17. **DELETE** Drawing S-12, Sheet 15/21, and **SUBSTITUTE** the attached Drawing S-12, Sheet 15-A1.

The Bidder **MUST** complete Page **208** of the Proposal acknowledging receipt of this amendment. If the Bidder fails to complete the "Amendment Acknowledgement" sheet, his bid could be declared informal thereby delaying award of the contract.

PLEASE BE GOVERNED ACCORDINGLY WHEN SUBMITTING BIDS.

Catherine T. Sheridan, P.E.
Chief Engineer

SPECIAL NOTE

Dates of available weekend closures:

November 4th @ 7PM until November 7th @ 6AM

November 11th @ 7PM until November 14th @ 6AM *

November 18th @ 7PM until November 21st @ 6AM

These dates are only applicable for 2016.

Work done on the earlier weekend with these available dates is obviously better due to the threat of incimate weather in the Buffalo area during this time of year.

* Due to Veteran's Day Observance, the Interchange closure or any closure cannot be in place between the hours of 6:00 AM Thursday, November 10, 2016 and 11:00 PM Friday, November 11, 2016. This constitutes a 4 hour later start, but the completion remains 6:00 AM Monday, November 14. All other conditions apply.

INCENTIVE/DISINCENTIVE CLAUSE**SPECIAL NOTE**

The Authority has granted use of a single weekend closure of the Interchange 53 Ramps serving traffic from I-90 East to I-190 North from 7:00 PM Friday evening until 6:00 AM Monday morning.

Failure to achieve opening of the full Interchange to traffic operations by 6:00 AM Monday morning will result in assessment of deductions - disincentive damages as provided in Table #1. Deductions outlined within Table #1 for each increment of time traffic is not returned to the ramp will be cumulative. These deductions – disincentives begin 6:01AM on Monday and continue until Completion of Work, as defined for this Special Note, is achieved. The maximum assessment for failure to return traffic operations due either to incomplete work at the impacted bridge or as a result of Contractor damage to other transportation infrastructure during this period of work is **\$150,000.**

Later than 6:00AM until 6:30 AM	\$1,500
Later than 6:30AM until 7:00AM	\$2,000
Later than 7:00AM until 7:30AM	\$2,250
Later than 7:30AM until 8:00AM	\$2,500
Later than 8:00AM until 8:30AM	\$3,000
Later than 8:30AM until 9:00AM	\$3,500
Later than 9:00AM until 3:00PM	\$1,500/hr.
Later than 3:00PM until 3:30PM	\$1,500
Later than 3:30PM until 4:00PM	\$2,000
Later than 4:00PM until 4:30AM	\$2,250
Later than 4:30PM until 5:00PM	\$2,500
Later than 5:00PM until 5:30PM	\$3,000
Later than 5:30PM until 6:00PM	\$3,500
Later than 6:00PM until 6:00AM	\$1,500/hr.

* Closures of I-90 Mainline are limited to the restrictions as outlined in the Proposal.

The importance of minimizing traffic impacts is so critical that the Thruway Authority has committed to pay on early completion incentive bonus for early return of traffic operations in less than the 59 weekend hours allotted for Completion of Work. The Thruway will pay this early completion incentive if all design plan requirements and specifications are met. This incentive shall be paid at a rate of \$3,000 per hour for every hour work is completed prior to 6:00 AM Monday. The maximum incentive payment is limited to \$90,000 (30 hrs. x \$3,000/hr.).

For this Special Note, Completion of Work shall be defined as: Finalizing all bridge superstructure work for the impacted bridge structure and site work necessary to open and return the full Interchange and Mainline to unimpeded traffic. This work also includes provision of stabilized grading of all disturbed areas caused by the contractor operations to specified inclined slopes or flatter. Completion of Work will not be considered as achieved until any damage to Interchange bridges or highway elements caused by the contractor operations, that disrupt traffic at Interchange 53 and the highway mainline, are sufficiently corrected to return the affected feature to normal traffic and normal traffic flow.

ITEM 564.99164525 - UNLOADING AND ERECTION OF PREFABRICATED SUPERSTRUCTURE(S) AND COMPONENTS**1. DESCRIPTION:**

- 1.01 This work shall consist of coordinating delivery of, unloading and erecting/installation of prefabricated superstructure(s) and associated components that have been pre-purchased by the Authority at the designated location in accordance with the contract documents.

2. MATERIALS:

- 2.01 All materials required for the unloading and temporary storage of the prefabricated superstructure(s) and components, shall be in accordance with New York State Standard Specifications, the New York State Steel Construction Manual and or the Prestressed Concrete Construction Manual.
- 2.02 All materials required for the erection of the prefabricated superstructure(s) and components, shall be in accordance with the New York State Standard Specifications and the New York State Steel Construction Manual and or the Prestressed Concrete Construction Manual.

3. CONSTRUCTION DETAILS:

- 3.01 All work required for the unloading, temporary storage and erection/installation of the prefabricated superstructure(s) and components, shall conform to the standards for construction and safety governing the work and in accordance with the contract documents, the New York State Standard Specifications, the New York State Steel Construction Manual, and or the Prestressed Concrete Construction Manual.
- 3.02 The prefabricated superstructure(s) and components shall be unloaded and if necessary, temporarily stored as required by the Contractor in accordance with New York State Standard Specifications, the New York State Steel Construction Manual and or the Prestressed Concrete Construction Manual.

SPECIAL NOTE: The Contractor shall coordinate the delivery of the prefabricated superstructure(s) and components with the fabricator/hauler in order to reduce, or eliminate, the on-site storage time of the prefabricated superstructure(s) and components.

- 3.03 The prefabricated superstructure(s) and components shall be erected in accordance with the New York State Standard Specifications, the New York State Steel Construction Manual and or Prestressed Concrete Construction Manual.
- 3.04 The Contractor shall conduct his operations in accordance with the contract documents, including the Schedule and Suspension of work and Traffic Management requirements.

4. METHOD OF MEASUREMENT:

- 4.01 The work associated with unloading, storage and erection of the prefabricated superstructure(s) and associated components installed at the permanent location will be measured for payment on a lump sum basis.

5. BASIS OF PAYMENT:

- 5.01 The price bid shall include all labor, materials and equipment necessary to complete the work. No separate payment will be made for storage.
- 5.02 No progress payments will be made.

196A-A1

CPIN B53025

DATE 10/12/2016

CONT D214537

PAGE 1

LN # ITEM DESCRIPTION	EST OF QUANTITIES AND UNITS	UNIT PRICE		BID AMOUNT	
		DOLLARS	CENTS	DOLLARS	CENTS
0100 ITEM:564.99164525 LUMP SUM UNLOADING AND ERECTION OF PREFABRICATED SUPERSTRUCTURE(S) AND COMPONENTS	NEC				
	LUMP SUM				
PLEASE BE SURE A BID IS ENTERED FOR EACH ITEM, EXCEPT AS DIRECTED FOR OPTIONAL ITEMS.					

DESCRIPTION:

THE WORK SHALL INCLUDE REPAIR OF DAMAGE TO STRUCTURAL STEEL COMPONENTS OF PRIMARY AND SECONDARY STRUCTURAL MEMBERS RESULTING FROM IMPACT, CORROSION LOSS, FATIGUE CRACKS, ETC., INCLUDING REPAIRS TO STRINGERS, GIRDERS, COLUMNS, DIAPHRAGMS, CROSS FRAMES, ETC. AS IDENTIFIED AND AS LOCATED ON THE PLANS OR OTHER CONTRACT DOCUMENTS.

UNDEFINED DAMAGE:

THE CONTRACTOR SHALL NOTE THAT ADDITIONAL REPAIR WORK MAY BE NECESSARY AS THE CONTRACT PROGRESSES. PRIOR TO MAKING ANY REPAIRS NOT IDENTIFIED ON THE CURRENT CONTRACT DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SUBMIT A DESCRIPTION OF THE DAMAGE TO THE AUTHORITY FOR EVALUATION AND PREPARATION OF REPAIR METHODS.

CONTRACTOR SUBMITTALS REQUIRING APPROVAL PRIOR TO THE START OF WORK:

1. WELDING PROCEDURE SPECIFICATIONS AND WHEN REQUIRED BY SECTION 8 OF THE NYSSCM, WELDING PROCEDURE QUALIFICATION RECORDS.
2. EVIDENCE THAT ALL WELDERS/WELDING OPERATORS ARE QUALIFIED TO PROCESS AND POSITION ETC. IN ACCORDANCE WITH SECTION 8 OF THE NYSSCM.
3. CERTIFICATIONS OF ALL PERSONNEL ENGAGED IN NONDESTRUCTIVE TESTING.

GENERAL REQUIREMENTS:

1. ALL STRUCTURAL STEEL FABRICATION, ERECTION, WELDING, HEATING, NONDESTRUCTIVE TESTING, ETC. SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (NYSSCM) WITH CURRENT ADDENDA, EXCEPT AS MODIFIED HEREIN.
2. THE MANUAL SHIELDED METAL ARC WELDING (SMAR) PROCESS SHALL BE USED FOR ALL FIELD REPAIR WELDING. THE FLUX CORED ARC WELDING (FCAW) PROCESS WITH EXTERNAL GAS SHIELDING OR THE SUBMERGED ARC WELDING (SAW) PROCESS MAY BE USED AS APPROPRIATE, SUBJECT TO APPROVAL OF THE DIRECTOR OF ENGINEERING SERVICES, AND SUBJECT TO QUALIFICATION AS REQUIRED BY THE NYS STEEL CONSTRUCTION MANUAL. ALL COSTS ASSOCIATED WITH THE QUALIFICATION OF THE FCAM AND SAW PROCESSES SHALL BE BORNE BY THE CONTRACTOR.
3. ALL NEW WELDS IN TENSION AREAS OF MAIN MEMBERS MUST BE TESTED FOR SOUNDNESS USING THE APPROPRIATE TEST METHOD, AS SHOWN IN THE CONTRACT DOCUMENTS. EXISTING WELDS IN TENSION AREAS; WELDS IN COMPRESSION AREAS OF MAIN MEMBERS; BASE METAL; AND SECONDARY MEMBERS MAY REQUIRE TESTING, AS SHOWN IN THE CONTRACT DOCUMENTS.
4. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, A MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED ON AND WITHIN 12" OF ANY AREAS THAT WERE HEATED, STRAIGHTENED, GROUND TO REMOVE SCRAPES AND GOUGES OR WELDED.

MATERIALS:

1. ALL NEW STEEL COMPONENTS SHALL BE OF DOMESTIC ORIGIN. THIS SHALL INCLUDE STRUCTURAL STEEL SHAPES, PLATES, FASTENERS ETC.
2. NEW MATERIALS FOR THIS WORK MUST CONFORM TO THE LATEST EDITION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, INCLUDING CURRENT ADDENDA, OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS OR OTHERWISE DESCRIBED HEREIN, AS FOLLOWS: (ALL REFERENCES TO METRIC DIMENSIONS SHALL BE CONVERTED TO ENGLISH)
3. TWO COPIES OF CERTIFIED MILL TEST REPORTS FOR ALL STRUCTURAL STEEL AND FASTENERS SHALL BE PROVIDED TO THE ENGINEER.
4. TWO COPIES OF CERTIFICATES OF CONFORMANCE FROM THE GALVANIZER FOR ALL GALVANIZED SURFACES SHALL BE PROVIDED TO THE ENGINEER.

A. STRUCTURAL STEEL - STANDARD SPECIFICATION 715-01

ALL NEW STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ASTM A709 GR 36, UNLESS NOTED OTHERWISE. THE CONTRACTOR MAY SUBSTITUTE ASTM A709 GR 50 OR GR 50W, IF MATERIAL SUBSTITUTIONS ARE MADE, THE CONTRACTOR SHALL NOTIFY THE AUTHORITY PRIOR TO THEIR PURCHASE.

ALL NEW STRUCTURAL STEEL SHAPES AND PLATES USED IN AREAS SUBJECT TO TENSILE STRESS (GIRDER WEBS, FLANGES, COVER PLATES ETC.) SHALL BE FURNISHED TO MEET MINIMUM CVN-TOUGHNESS REQUIREMENTS (15 FT.LBS. @ 40°F.). THE DIRECTION OF ROLLING MUST BE PARALLEL TO THE DIRECTION OF PRIMARY STRESS. STRUCTURAL STEEL USED FOR REPLACEMENT CONNECTION PLATES AND DIAPHRAGMS SHALL NOT REQUIRE CVN TOUGHNESS TESTING.

B. HIGH STRENGTH BOLTS, NUTS AND WASHERS - STANDARD SPECIFICATION 715-14

ALL PLAIN FASTENERS SHALL BE ASTM A325 TYPE 1 HIGH STRENGTH BOLTS WITH ASTM A563 GR C, D, DH OR ASTM A194 GR 2, 2H NUTS AND TWO ASTM F436 WASHERS.

WHEN SHOWN ON THE CONTRACT DRAWINGS, GALVANIZED FASTENERS SHALL BE ASTM A325 TYPE 1 HIGH STRENGTH BOLTS WITH ASTM A563 GR DH OR ASTM A194 GR 2H NUTS AND TWO ASTM F436 WASHERS. GALVANIZING SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 719-01. GALVANIZED COATINGS AND REPAIR METHODS, TYPE II, ZINC COATING (HOT DIP) ON IRON AND STEEL HARDWARE.

WASHERS SHALL BE INSTALLED UNDER BOTH THE BOLT HEAD AND NUT.

C. GALVANIZING - STANDARD SPECIFICATION 719-01

MATERIAL SHALL BE GALVANIZED WHEN SPECIFIED ON THE CONTRACT PLANS.

D. ANCHOR BOLTS (NON-STAINLESS STEEL) STANDARD SPECIFICATION 723-60

ANCHOR BOLTS SHALL BE OF THE DIAMETER, TYPE AND GRADE SPECIFIED ON THE CONTRACT PLANS.

BOLTED CONNECTIONS:

1. ALL BOLTED CONNECTIONS SHALL BE FRICTION TYPE. PRIOR TO ASSEMBLY, INNER PLIES SHALL BE FREE OF OIL, GREASE, LOOSE SCALE, BURRS, DIRT, PAINT AND OTHER FOREIGN MATERIAL THAT WILL PREVENT THE SOLID SEATING OF THE PARTS.
2. BOLT HOLES SHALL BE 1/16" LARGER IN DIAMETER THAN THE BOLT DIAMETER.
3. WHENEVER EXISTING HOLES IN STEEL MEMBERS ARE USED AS A TEMPLATE FOR THE DRILLING OF NEW HOLES, THE NEW BOLT HOLES SHALL BE MADE USING HOUGEN OR JANCY TYPE DRILLS. TWIST DRILLS WILL NOT BE ALLOWED.
4. BOLTING AND BOLT TENSION VERIFICATION SHALL BE IN ACCORDANCE WITH SECTION 10 OF THE NYSSCM.

WELDING:

1. ALL FIELD WELDING SHALL BE PERFORMED USING 5/32" DIAMETER PROPERLY DRIED E7018 ELECTRODES, AND APPROVED SMAW WELDING PROCEDURE SPECIFICATIONS
2. PROPERLY DRIED ELECTRODES SHALL BE DEFINED AS FOLLOWS: ALL SMAW ELECTRODES SHALL BE FURNISHED IN HERMETICALLY SEALED CONTAINERS AND SHALL BE DRIED AT LEAST TWO HOURS, BUT NOT TO EXCEED FOUR HOURS, BETWEEN 450°F (230°C) AND 500°F (260°C) BEFORE THEY ARE USED. AFTER DRYING, ELECTRODES SHALL IMMEDIATELY BE PLACED IN A STORAGE OVEN HELD CONTINUOUSLY AT 250°F (120°C) UNTIL THEY ARE USED IN THE WORK. ONE OVEN MAY BE USED PROVIDING PROPER TEMPERATURE CONTROLS ARE MAINTAINED. THE TIME THAT THE ELECTRODES MAY BE KEPT FROM THE OVEN BEFORE USE WILL BE AS DESCRIBED IN ARTICLE 711 OF THE NYSSCM.
3. ALL WELDING SHALL BE PERFORMED BY NEW YORK STATE CERTIFIED WELDERS/WELDING OPERATORS QUALIFIED TO PROCESS AND POSITION IN ACCORDANCE WITH SECTION 8 OF THE NYSSCM. ALL COSTS ASSOCIATED WITH WELDER/WELDING OPERATOR QUALIFICATION SHALL BE BORNE BY THE CONTRACTOR.
4. MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE 400°F, EXCEPT AS APPROVED BY THE DIRECTOR OF ENGINEERING SERVICES FOR SPECIFIC APPLICATIONS. HEAT MEASUREMENTS SHALL BE MADE AT LEAST 3 INCHES BOTH Laterally AND IN ADVANCE OF THE WELDING.
5. MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL ALSO APPLY TO THE INSTALLATION OF TACK WELDS.
6. TEMPERATURE INDICATING CRAYONS SHALL BE IN THE POSSESSION OF ALL WELDERS WHILE PERFORMING WORK.
7. THE INSTALLATION OF TEMPORARY ATTACHMENTS, TEMPORARY WELDS AND/OR TACK WELDS, NOT TO BE INCORPORATED INTO PERMANENT WELDS, WILL NOT BE ALLOWED UNLESS SPECIFICALLY APPROVED. ALL UNAUTHORIZED WELDING WILL BE CAUSE FOR THE REJECTION OF THE AFFECTED MATERIAL. THE COST TO REPAIR OR REPLACE THE REJECTED MATERIAL SHALL BE BORNE BY THE CONTRACTOR
8. ALL AIR CARBON ARC GOUGING SHALL BE FOLLOWED BY GRINDING TO REMOVE ANY CARBON PICK UP.

EVALUATING, REMOVING AND INSTALLING REPLACEMENT DIAPHRAGMS AND CONNECTION PLATES:

WHEN AN EXISTING DIAPHRAGM AND/OR CONNECTION PLATE IS TO BE REMOVED AND REPLACED, PAINT AND DEBRIS SHALL BE REMOVED FROM THE CONNECTION PLATE AND 12" ON EITHER SIDE OF THE CONNECTION PLATE WELDS AND ON BOTH SIDES OF THE GIRDER.

REMOVAL MAY BE BY AIR CARBON ARC GOUGING OR FLAME CUTTING.

CONNECTION PLATES SHALL BE REMOVED BY CUTTING TO WITHIN 1/8" MIN. OF ADJACENT BASE METAL. THE REMAINING WELD AND CONNECTION PLATE BASE METAL SHALL BE REMOVED BY GRINDING FLUSH WITH ADJACENT BASE METAL.

A VISUAL AND MAGNETIC PARTICLE TEST SHALL BE PERFORMED OF THE WELD REMOVAL AREA AND ADJACENT BASE METAL.

ALL REJECTABLE INDICATIONS SHALL BE REPORTED TO THE NYS THRUWAY AUTHORITY METALS ENGINEERING UNIT FOR DISPOSITION.

REPAIR OF NICKS, SCRAPES AND GOUGES:

1. NICKS, SCRAPES AND GOUGES IN COMPONENTS OF STEEL MEMBERS MAY BE REPAIRED BY GRINDING TO A SLOPE OF 1 ON 10, AND BLENDING IN SMOOTHLY TO ADJACENT BASE METAL, PROVIDING:
 - A. THE THICKNESS OF THE MATERIAL IS NOT REDUCED BY MORE THAN 20% OF THE ORIGINAL NOMINAL THICKNESS.
 - B. THE WIDTH OF THE FLANGE OR COVER PLATE IS NOT REDUCED BY MORE THAN 5% OF THE ORIGINAL NOMINAL WIDTH.
 - C. THE GOUGE DOES NOT REDUCE THE NOMINAL CROSS SECTIONAL AREA OF THE COMPONENT BY MORE THAN 5% OF THE ORIGINAL NOMINAL CROSS SECTION. A COMPONENT IS DEFINED AS A WEB OR FLANGE OF A PLATE GIRDER, A WEB OR FLANGE OF A ROLLED BEAM GIRDER, A COVER PLATE EXCLUSIVE OF WELDS, A LEG OF AN ANGLE, ETC.
2. NICKS, SCRAPES AND GOUGES THAT EXCEED THE ABOVE LIMITS MUST BE REPAIRED USING AN APPROVED PROCEDURE SIMILAR TO THE FOLLOWING:
 - A. PREPARE THE SURFACE BY GRINDING.
 - B. WELD WITH APPROVED PROCEDURES TO COMPLETELY FILL THE GOUGE.
 - C. GRIND FLUSH AND SMOOTH WITH THE ADJACENT BASE METAL.
 - D. ULTRASONIC TEST THE REPAIR WELD.
3. ALL FINAL GRINDING MUST BE PARALLEL TO THE DIRECTION OF APPLIED STRESS IN THE MEMBER UNLESS THE SURFACE ROUGHNESS MEETS OR EXCEEDS AN ANSI 125 FINISH.

INSPECTION AND NONDESTRUCTIVE TESTING:

QUALIFICATIONS

1. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF QUALIFIED PERSONNEL TO PERFORM INSPECTION AND TESTING OF THE WORK. THE TYPE OF INSPECTION AND THE LOCATION SHALL BE AS SHOWN IN THE CONTRACT DOCUMENTS. THE FOLLOWING ARE CONSIDERED ACCEPTABLE QUALIFICATIONS:
 2. PERSONNEL PERFORMING VISUAL INSPECTION SHALL POSSESS A CURRENT CERTIFICATION AS AN AMERICAN WELDING SOCIETY(AWS) CERTIFIED WELDING INSPECTOR (CWI) IN ACCORDANCE WITH THE PROVISIONS OF AWS QC1, STANDARD AND GUIDE FOR QUALIFICATION AND CERTIFICATION OF WELDING INSPECTORS.
 3. PERSONNEL PERFORMING DYE PENETRANT, MAGNETIC PARTICLE OR RADIOGRAPHIC INSPECTION SHALL BE QUALIFIED IN ACCORDANCE WITH THE CURRENT EDITION OF THE AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING RECOMMENDED PRACTICE NO. SNT-TC-1A. ONLY INDIVIDUALS QUALIFIED FOR NDT LEVEL I AND WORKING UNDER THE SUPERVISION OF AN INDIVIDUAL QUALIFIED TO NDT LEVEL II, OR AN INDIVIDUAL QUALIFIED FOR NDT LEVEL II MAY PERFORM NONDESTRUCTIVE TESTING.
 4. PERSONNEL PERFORMING ULTRASONIC TESTING MUST BE CERTIFIED BY TESTS ADMINISTERED BY NYSOOT. A LIST OF NYSOOT CERTIFIED ULTRASONIC TECHNICIANS IS AVAILABLE UPON REQUEST.

NONDESTRUCTIVE TESTING:

1. RADIOGRAPHIC INSPECTION (RT), WHEN REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16 OF THE NYSSCM.
2. ULTRASONIC TESTING (UT), WHEN REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 17 OF THE NYSSCM. WELD FLAWS SHALL BE EVALUATED FOR ACCEPTANCE OR REJECTION IN ACCORDANCE WITH TABLE 1700B-HIGHWAY & RAILWAY BRIDGES.
3. MAGNETIC PARTICLE INSPECTION (MT), WHEN REQUIRED, MUST BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18 OF THE NYSSCM USING THE YOKE TECHNIQUE, EXCEPT THAT SEPARATE TESTS MUST BE PERFORMED USING BOTH AC OUTPUT CURRENT TO INSPECT FOR SURFACE DISCONTINUITIES AND HALF WAVE RECTIFIED DC OUTPUT CURRENT TO INSPECT FOR NEAR SURFACE DISCONTINUITIES. THE YOKE MUST BE CAPABLE OF PRODUCING A FIELD STRENGTH OF 10 POUNDS (4.5 KG) MINIMUM FOR ALTERNATING CURRENT AND 40 POUNDS (18 KG) MINIMUM FOR DIRECT CURRENT AT THE MAXIMUM POLE SPACING TO BE USED IN THE WORK. THE PROO METHOD SHALL NOT BE USED.
4. DYE PENETRANT INSPECTION (PT), WHEN REQUIRED, MUST BE PERFORMED IN ACCORDANCE WITH SECTION 19 OF THE NYSSCM. DYE PENETRANT TESTING MAY BE SUBSTITUTED FOR MAGNETIC PARTICLE TESTING WHEN APPROVED BY THE ENGINEER.

DESIGNED BY: K. KAYSER
CHECKED BY: M. CIOFFI
DRAFTED BY: J. DISHON
CHECKED BY: K. KAYSER

ALTERED ON:	AFFIXED ON: 9/23/16
SIGNATURE: STAMP:	SIGNATURE: STAMP:



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM

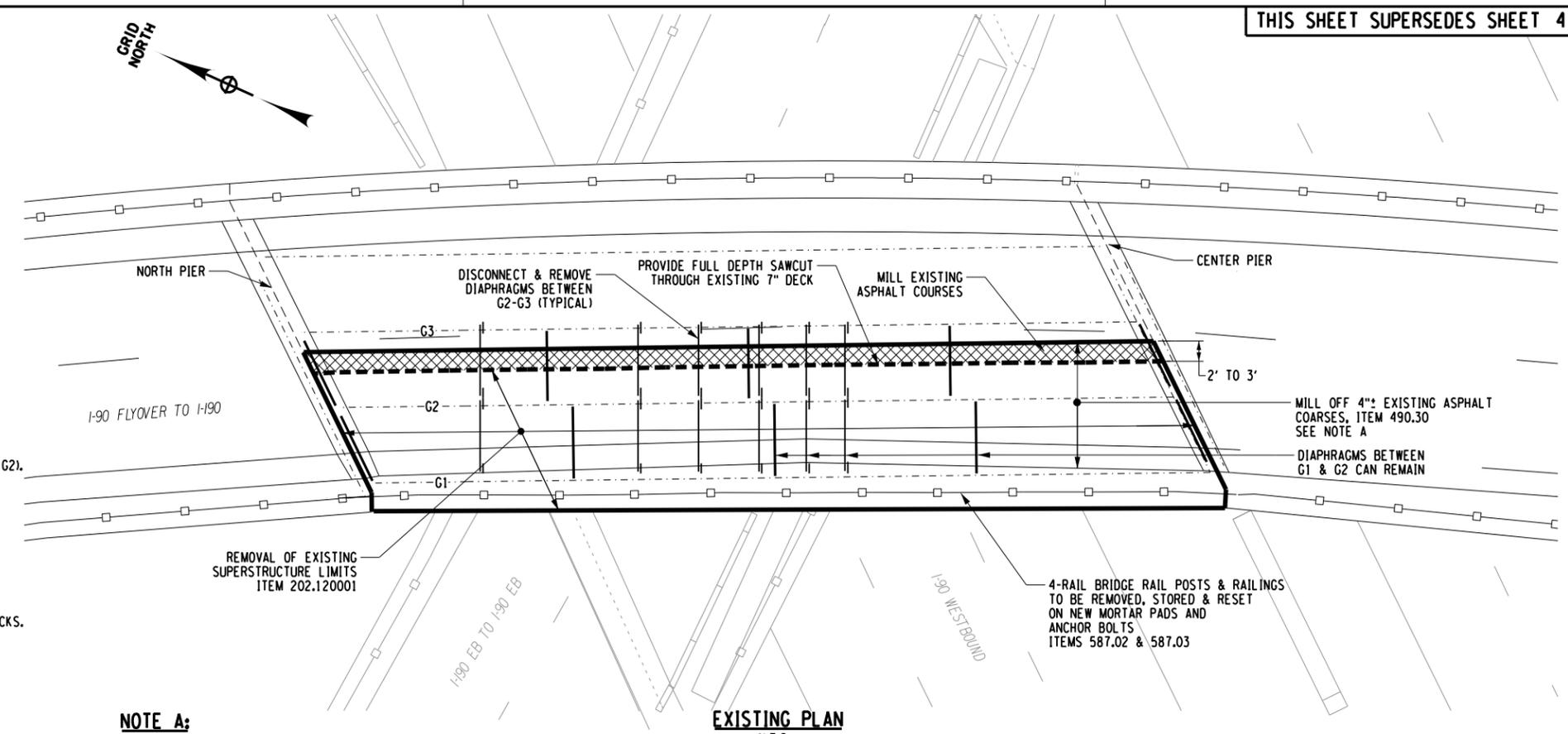


Thruway Authority | **Canal Corporation**

TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT M.P. 426.18	CONTRACT NUMBER: TAB 16-45B
LOCATION OF PROJECT INTERCHANGE 53 RAMP BRIDGE OVER I-90	DATE: 8/25/16
TITLE OF DRAWING GENERAL NOTES	DRAWING NUMBER: GN

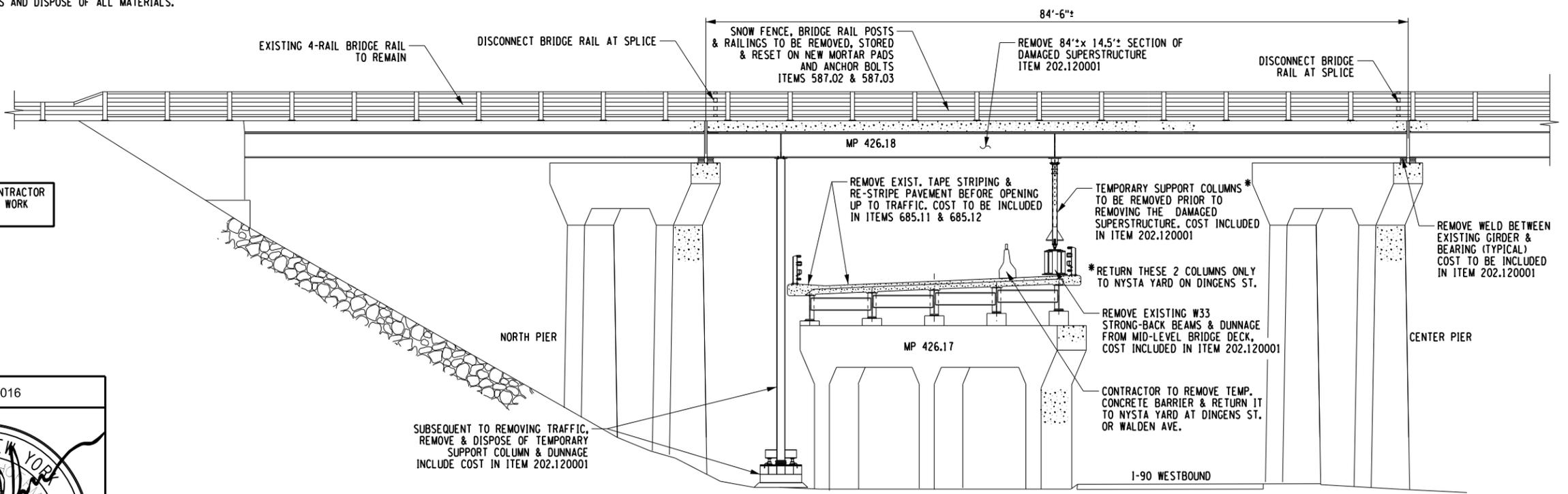
SCOPE OF WORK:

- CONTRACTOR TO COORDINATE SCHEDULING AND TIMING FOR ANY PREPARATORY WORK DIRECTLY WITH NYSTA BUFFALO DIVISION MAINTENANCE.
- COORDINATE THE SCHEDULING OF A FRIDAY EVENING TO MONDAY MORNING CLOSURE OF BOTH RAMPS.
- CONTRACTOR IS RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL INCLUDING:
 - CLOSURE AND REOPENING OF TOP LEVEL RAMP INCLUDING INSTALLATION AND REMOVAL OF DETOUR SIGNAGE.
 - CLOSURE AND REOPENING OF MID-LEVEL RAMP INCLUDING INSTALLATION AND REMOVAL OF DETOUR SIGNAGE.
 - DAYTIME AND NIGHT-TIME LANE CLOSURES ON I-90 WB AS PERMITTED BY CONTRACT DOCUMENTS.
 - COORDINATE FOR SHORT TERM CLOSURE OF ALL 3 90-WB LANES WHEN REMOVING EXISTING BRIDGE & INSTALLING NEW UNIT.
- COORDINATE DIRECTLY WITH FORT MILLER & NYSTA DIVISION FOR EXACT TIME & LOCATION FOR DELIVERY OF SUPERSTRUCTURE REPLACEMENT UNIT.
- AS NEEDED OR WARRANTED, EXCAVATE EMBANKMENT AND CONSTRUCT 25-35 FT. RADIUS - LEVEL STAGING AREA FOR CRANE PLACEMENT (POTENTIALLY ON EXISTING HAUL ROAD). REMOVE TREES AND CONSTRUCT LEVEL LAYDOWN AREA FOR REMOVAL OF DAMAGED SUPERSTRUCTURE SECTION.
- REMOVE 100' FT. GUIDE RAIL FROM 90 WB RIGHT SHOULDER AND INSTALL 200 TO 300 FT. TEMPORARY BARRIER AS NEEDED ALONG EDGE OF DRIVING LANE.
- CRANE DELIVERY AND CRANE & COUNTERWEIGHT SET UP.
- DURING THE DESIGNATED WEEKEND (FROM FRIDAY EVENING TO MONDAY MORNING), SHUT DOWN BOTH RAMPS TO PERFORM THE FOLLOWING:
 - REMOVE TEMPORARY CONCRETE BARRIER ON MID-LEVEL RAMP & DELIVER TO NYSTA YARD ON DINGENS ST. OR WALDEN AVE. AS DIRECTED.
 - REMOVE TEMPORARY COLUMNS, STRONGBACKS AND OTHER TEMPORARY WORKS.
 - DISCONNECT DIAPHRAGMS BETWEEN GIRDERS G2 AND G3, REMOVE INTERFERING CABLE RESTRAINERS ON G1 & G2.
 - MILL OFF THE EXISTING ASPHALT OVERLAY FROM SPAN BEING REMOVED.
 - MARK OUT SAWCUT AND LIMITS OF SUPERSTRUCTURE REMOVAL CONFIRM WITH ENGINEER.
 - LONGITUDINAL SAWCUT DECK AND ARMORED JOINT.
 - DISCONNECT EXISTING GIRDERS FROM EXISTING BEARINGS.
 - DISCONNECT BRIDGE RAILING AT BOTH ENDS OF SPAN.
 - REMOVE THE DAMAGED SUPERSTRUCTURE SECTION (G1 & G2).
 - REMOVE & STORE EXISTING BRIDGE RAIL & SNOW FENCE.
- ERECT AND NEW SUPERSTRUCTURE UNIT & CONNECT 5 NEW DIAPHRAGMS BETWEEN G2-G3.
 - INSTALL SHIM PLATES (ONLY IF NEC.) AND WELD NEW GIRDERS TO EXISTING BEARINGS.
 - INSTALL LONGITUDINAL JOINT ASSEMBLY TO UNDERSIDE OF REMAINING, EXISTING DECK AND JOIN THE TWO DECKS.
 - POUR GROUT IN NARROW LONGITUDINAL JOINT BETWEEN EXISTING DECK & NEW PRECAST UNIT.
 - INSTALL NEW JOINT ELASTOMERIC CONCRETE HEADERS AND CLOSED CELL FOAM JOINT SEAL.
 - INSTALL WATERPROOFING MEMBRANE.
 - PLACE NEW TWO-COURSE ASPHALT OVERLAY.
 - REINSTALL BRIDGE RAIL AND SNOW FENCE AND SPlice BACK TO EXISTING RAILINGS.
 - REMOVE ANY TEMPORARY STRIPES ON LOWER BRIDGE.
 - RESTRIPES LOWER BRIDGE TO PRE-HIT CONFIGURATION; RESTRIPES TOP-LEVEL BRIDGE AS NEEDED.
- REMOVE CLOSURES AND OPEN TOP LEVEL BRIDGES AND MID-LEVEL BRIDGE TO TRAFFIC.
- REMOVE DETOUR SIGNS.
- COMPLETE THE DEMOLITION OF THE EXISTING BRIDGE DECK AND GIRDERS AND DISPOSE OF ALL MATERIALS.
- DISMANTLE AND DEMOBILIZE CRANE.
- RE-INSTALL BOX BEAM RAILING ALONG 90 WB DRIVING LANE SHOULDER.
- REMOVE TEMPORARY BARRIER AND RE-OPEN 90 WB SHOULDER.
- RECONSTRUCT EMBANKMENT, REPLACE LIGHT STONE FILL SLOPE PROTECTION, RESTORE STAGING AREA.
- TOUCH UP PAINTING OF WELDS, BOLTS, ETC.



NOTE A:
MILLING OF EXISTING ASPHALT FROM ON TOP OF DAMAGED DECK IS SOLELY TO REDUCE WEIGHT. IF REMOVING EXISTING SPAN IN 2 PIECES, MILLING OF THIS AREA MAY BE OMITTED.

THIS CONSTITUTES A SUGGESTED SEQUENCE OF WORK, HOWEVER THE CONTRACTOR HAS COMPLETE DISCRETION ON THE SEQUENCE AND ACCOMPLISHMENT OF WORK AS IT CONFORMS TO THE DRAWINGS & SPECIFICATIONS.



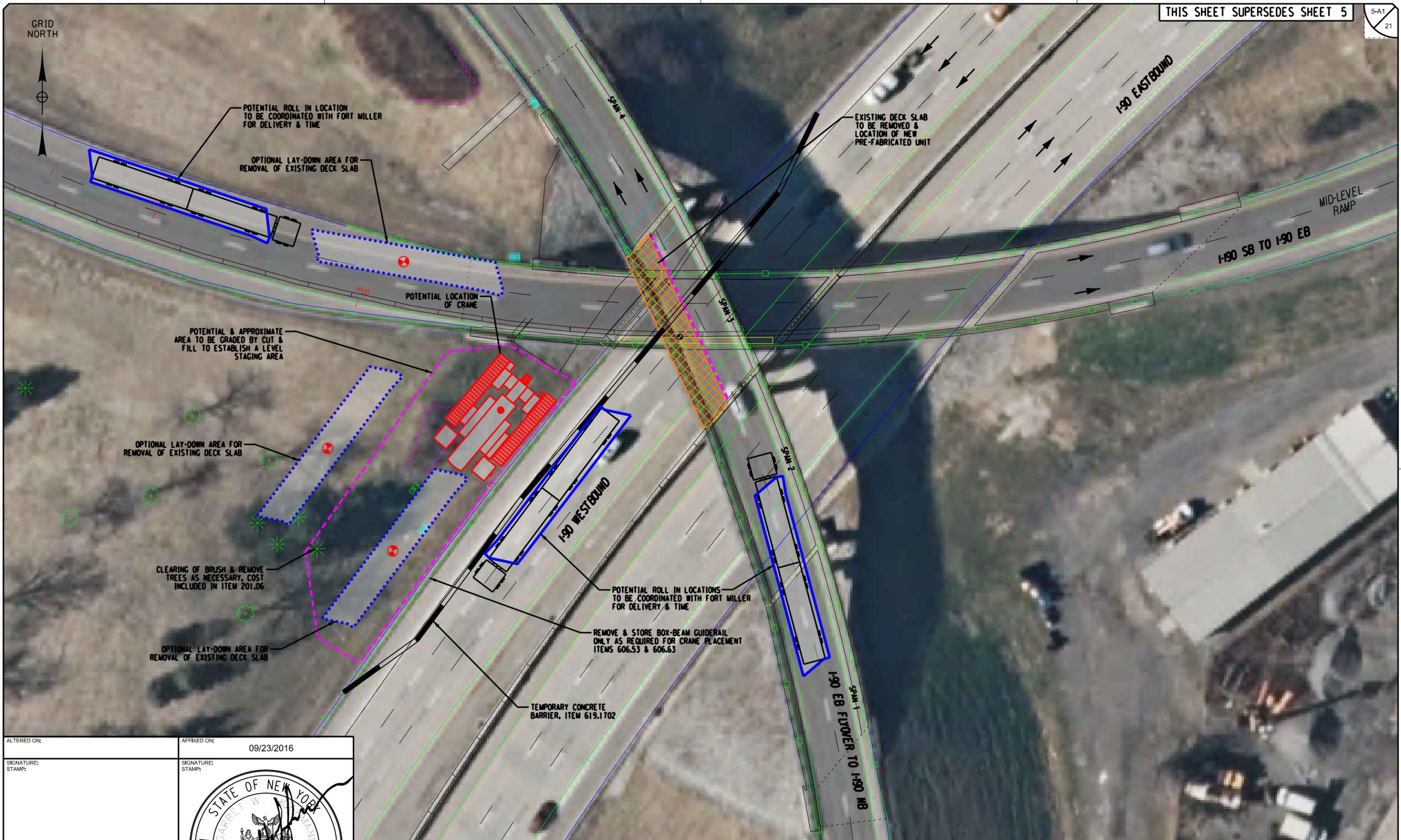
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REVISIONS			
DATE	DESCRIPTION	BY	SYM.

Thruway Authority Canal Corporation	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING GENERAL PLAN, ELEVATION & SCOPE OF WORK	DRAWING NUMBER: S-1

FILE NAME = V:\Projects\BNY\21414\Reports\426.18_190_Ramp (Top Level)\Final Plans\5-1-General Plan & Elevation.dgn
 DATE/TIME = 9/23/2016
 USER = 1719
 DESIGN SUPERVISOR: G. HOFFMANN
 DESIGNED BY: S. KINSIMAN
 CHECKED BY: G. HOFFMANN
 DRAFTED BY: J. HARTWELL
 CHECKED BY: S. SCHUKRAFT



CHECKED BY: S. SCHUKRAFT
 DRAFTED BY: J. HARTWELL
 CHECKED BY: G. HOFFMANN
 DESIGNED BY: S. KINSIMAN
 DESIGN SUPERVISOR: G. HOFFMANN

FILE NAME = V:\Projects\BNY\21414\Reports\426.18_190_Ramp (Top Level)\2016 - Bridge Hit\CADD\Final Plans\S-2_Aerial Plan - Potential Staging Notes.dgn
 DATE/TIME = 9/23/2016
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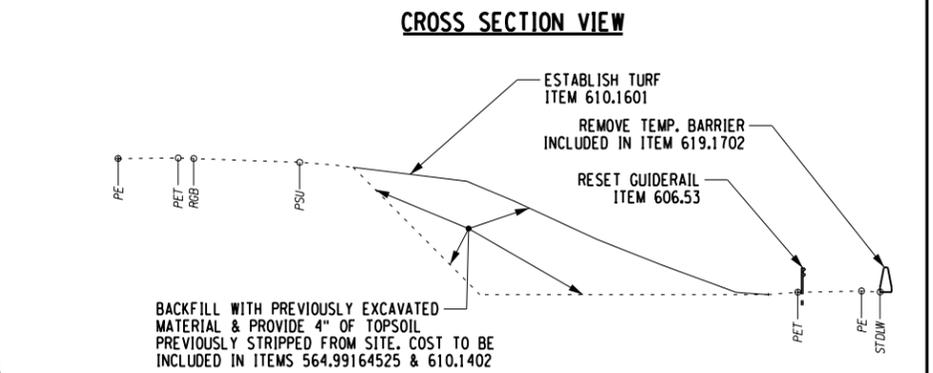
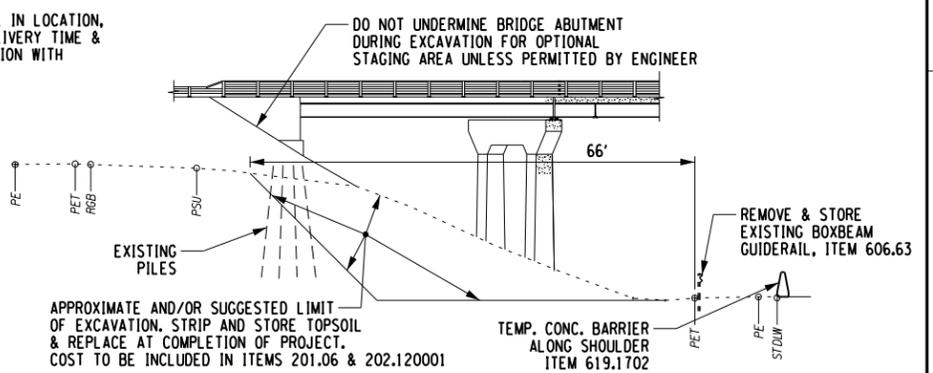
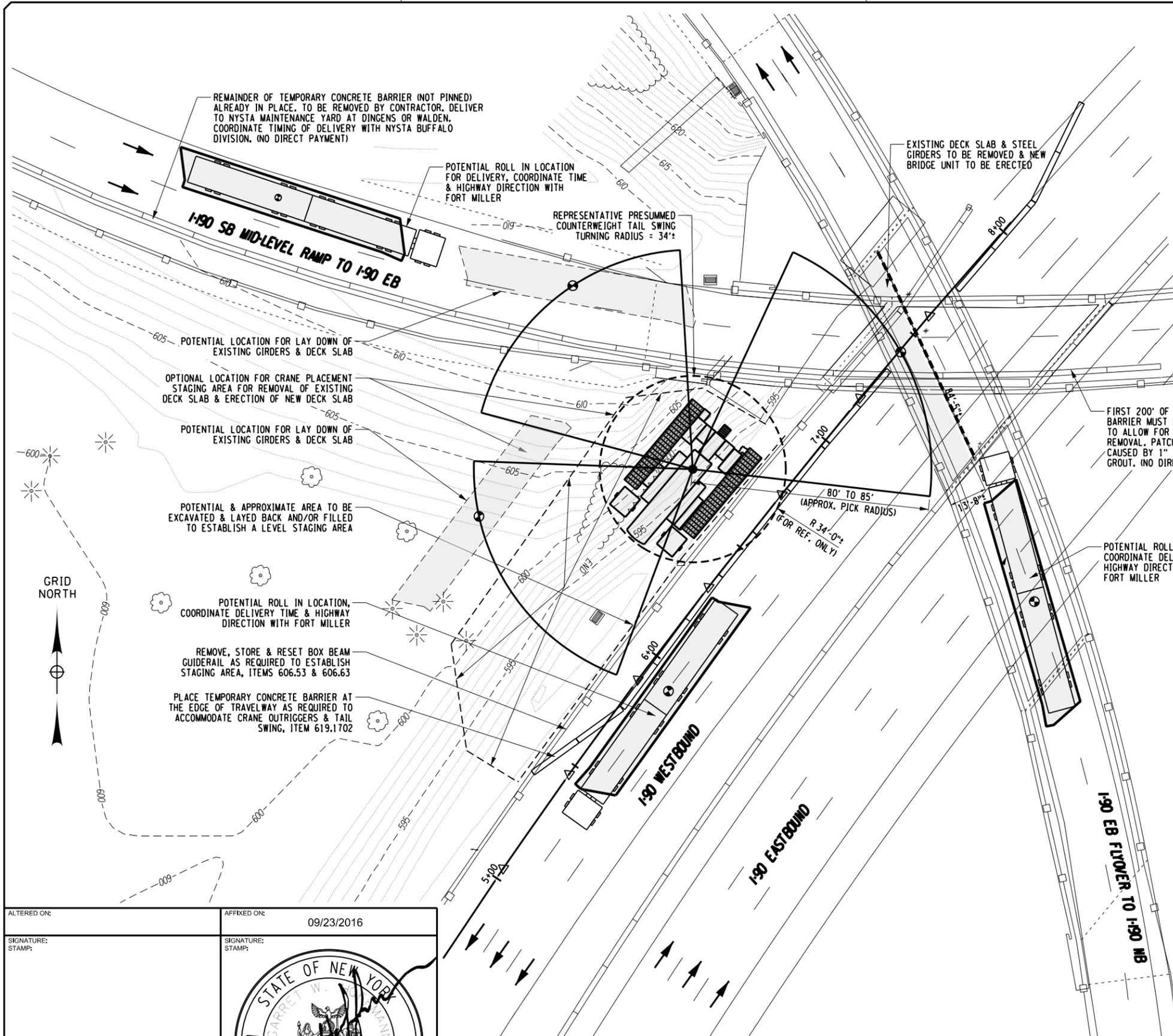
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TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
TITLE OF DRAWING AERIAL PLAN POTENTIAL STAGING AREA	DRAWING NUMBER: S-2

NOTES:

- COORDINATE DIRECTLY WITH FORT MILLER FOR SCHEDULE, LOCATION & DIRECTION FOR DELIVERY OF SUPERSTRUCTURE REPLACEMENT SECTION.
- CONTRACTOR SHALL DETERMINE LOCATION OF STAGING AREA. POTENTIAL STAGING AREA SHOWN HERE IS ONLY FOR A SUGGESTED EXAMPLE.
- CONTRACTOR SHALL DETERMINE THE LIMITS OF EXCAVATION TO ESTABLISH A SUITABLE LEVEL STAGING AREA AND LAYDOWN AREA. DO NOT UNDERMINE EXISTING BRIDGE ABUTMENT FOOTING DURING EXCAVATION. POTENTIAL EXCAVATION LIMITS ARE SHOWN. EXCAVATE EMBANKMENT AND CONSTRUCT 25-35 FT. RADIUS - LEVEL AREA FOR CRANE PLACEMENT ON EXISTING HAUL ROAD. REMOVE ONLY THOSE INTERFERING TREES NECESSARY TO ESTABLISH STAGING AREA. REMOVAL OF TREES SHALL BE APPROVED BY THE NYSTA
- APPROXIMATE LIMITS OF GUIDE RAIL REMOVAL AND TEMPORARY CONCRETE BARRIER ARE SHOWN. REMOVE 100' FT. GUIDE RAIL FROM 90 WB AND INSTALL 200' TO 300' FT. TEMPORARY BARRIER AS NEEDED ALONG EDGE OF DRIVING LANE.
- CONTRACTOR SHALL DETERMINE THE LOCATIONS OF EXISTING DECK SLAB LAY DOWN AREA AND NEW DECK ROLL-IN LOCATION OF NEW DECK SLAB. POTENTIAL LOCATIONS ARE SHOWN FOR ILLUSTRATION.
- WORK TO RESTORE THE STAGING AREA INCLUDES, BUT IS NOT LIMITED TO:
 - DEMOLITION & REMOVAL OF EXISTING DECK SLAB FROM THE STAGING AREA AND OR SITE
 - DEMOLITION OF THE CRANE
 - BACKFILL STAGING AREA AND RECONSTRUCTED EMBANKMENT WITH PREVIOUSLY EXCAVATED MATERIAL
 - PLACE AND GRADE TOPSOIL OVER BACKFILL
 - ESTABLISH TURF WITH SEED AND MULCH
 - RESET STORED BOX BEAM GUIDE RAIL
 - REMOVE TEMPORARY CONCRETE BARRIER FROM I-90 WESTBOUND
 - REPLACE LIGHT STONE FILL SLOPE PROTECTION UNDER & ADJACENT TO ABUTMENT SLOPE

COST OF RESTORATION SHALL BE INCLUDED IN ITEMS 201.06, 202.120001 & 564.99164525



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DRAFTED BY: J. HARTWELL
CHECKED BY: G. HOFFMANN
DESIGNED BY: S. KINSIMAN
DESIGN SUPERVISOR: G. HOFFMANN

FILE NAME = V:\Projects\BNY\24144\Reports\426.18 190 Ramp (Top Level)\2016 - Bridge Hit\CAADD\Final Plans\5-3.Site Plan & Sections.dgn
DATE/TIME = 9/23/2016
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DATE	DESCRIPTION	BY	SYM.

Thruway Authority 	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING SITE PLAN & SECTIONS	DRAWING NUMBER: S-3

PAYMENT NOTE:
ALL COSTS ASSOCIATED WITH EXISTING DAMAGED GIRDER & DECK REMOVAL INCLUDING REMOVAL OF DIAPHRAGMS & CABLE RESTRAINERS, WELD REMOVAL, TEMPORARY COLUMN & STRONG BACK REMOVAL, DECK DEMOLITION AND ALL DISPOSAL COSTS SHALL BE INCLUDED IN ITEM 202.120001

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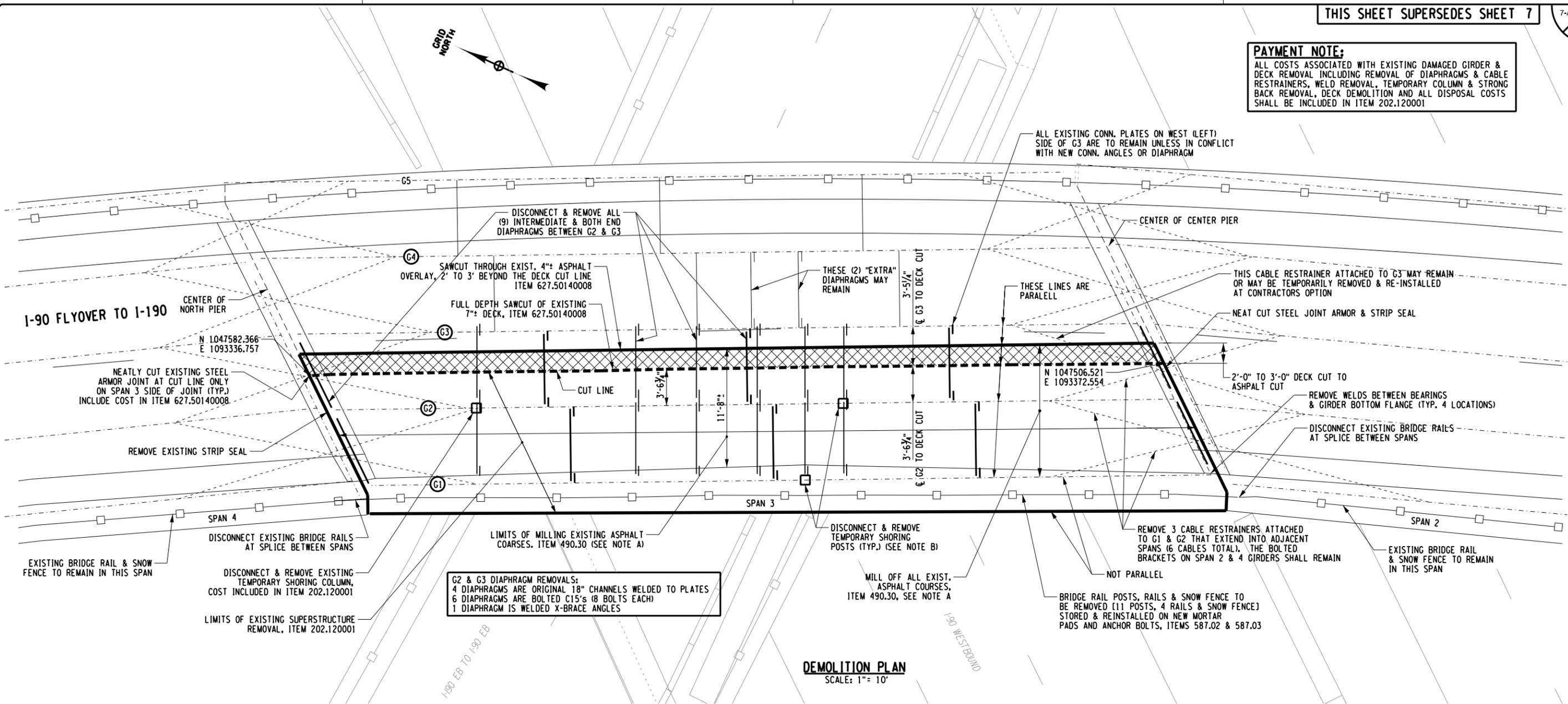
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DESIGNED BY: S. KINSIMAN

DESIGN SUPERVISOR: G. HOFFMANN

FILE NAME = V:\Projects\BNY\21414\Reports\426.18_190 Ramp (Top Level)\2016 - Bridge Hit\CADD\Final Plans\S-4_Demolition Plan & Removal Notes.dgn
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G2 & G3 DIAPHRAGM REMOVALS:
4 DIAPHRAGMS ARE ORIGINAL 18" CHANNELS WELDED TO PLATES
6 DIAPHRAGMS ARE BOLTED C15's (8 BOLTS EACH)
1 DIAPHRAGM IS WELDED X-BRACE ANGLES

DEMOLITION PLAN
SCALE: 1" = 10'

REMOVAL OF DAMAGED SUPERSTRUCTURE SECTION - SUGGESTED OPERATIONS

1. DISCONNECT, REMOVE AND STORE EXISTING 4-RAIL BRIDGE, SNOW FENCE AND GUIDE RAIL POSTS. THIS MAY BE ACCOMPLISHED BEFORE OR AFTER SPAN REMOVAL.
2. MILL OFF 4" ASPHALT FROM TOP OF DAMAGED SPAN.
3. REMOVE ADD'L 2' TO 3' WIDE STRIP OF EXISTING ASPHALT OVERLAY BEYOND THE DECK CUT LINE LOCATED BETWEEN GIRDER G2 AND GIRDER G3.
4. MARK OUT SAWCUT LIMITS OF SUPERSTRUCTURE REMOVAL. CONFIRM WITH ENGINEER
5. FOR THE SPAN TO BE REMOVED, CUT THROUGH STEEL ARMOR EXPANSION JOINT AT BOTH PIERS. REMOVE EXISTING PREFORMED CLOSED CELL FOAM JOINT MATERIAL AT BOTH PIERS.
6. PROVIDE FULL DEPTH LONGITUDINAL SAW CUT THROUGH THE EXISTING SLAB ALONG CUT LINE
7. REMOVE WELDS BETWEEN EXISTING BEARINGS AND GIRDER FLANGES - JACK GIRDERS G1 & G2, TO CONFIRM THEY ARE FREE FROM BEARINGS.
8. DISCONNECT AND REMOVE BOTH END DIAPHRAGMS AND 9 INTERMEDIATE DIAPHRAGMS BETWEEN GIRDERS G2 AND G3. EXISTING CONNECTION PLATES ON THE WEST (LEFT) SIDE OF G3 SHALL REMAIN IN PLACE UNLESS THEY INTERFERE WITH THE NEW CONNECTION ANGLES OR DIAPHRAGMS. EXISTING CONNECTION PLATES THAT INTERFERE SHALL BE REMOVED.
9. DISCONNECT AND REMOVE THE 3 TEMPORARY SHORING POSTS BELOW G1 AND G2. RETURN THE TWO ADJUSTABLE POSTS TO NYSTA YARD ON DINGENS STREET.
10. DISCONNECT AND REMOVE INTERFERING STEEL RESTRAINER CABLES FROM G1 AND G2 AT BOTH PIERS (6 TOTAL).
11. CORE HOLES THROUGH DECK AS NEEDED TO ACCOMODATE SLINGS & RIGGING. HOOK CRANE TO SLINGS & SPREADERS ON EXISTING BRIDGE. THIS CAN BE CONCURRENT WHILE WAITING ON OTHER TASKS TO FINISH.
12. PICK EXISTING GIRDERS & DECK AND LOWER TO GROUND.
13. DEMOLISH EXISTING DECK AND REMOVE EXISTING BRIDGE COMPONENTS FROM STAGING AREA.

BRIDGE REMOVAL/ERECTION NOTES:

1. THE EXISTING SPAN BEING REMOVED WEIGHS APPROXIMATELY 97.5 TONS, INCLUDING THE RAILING, BUT EXCLUDING ANY ASPHALT. THE CONTRACTOR SHALL INDEPENDENTLY CHECK THIS WEIGHT AND ADD ANY SLINGS, RIGGING OR HOOK WEIGHTS TO DETERMINE THE TOTAL PICK WEIGHT.
2. THIS WEIGHT ASSUMES THE FULL 7" DECK IS STILL PRESENT. THE CONTRACTOR MAY ELECT TO MILL ADDITIONAL CONCRETE THICKNESS (1" OFF FROM THE TOP OF THE DECK OR MILL OFF THE 4" CONCRETE "SWALE" TO THE RAILING TO REDUCE THE TOTAL WEIGHT. THE CONTRACTOR MAY ELECT TO REMOVE AN ADDITIONAL PORTION OF THE DECK "OVERHANG" BETWEEN G3-G3 BEYOND THE CUT LINE TO REDUCE WEIGHT.
3. THE CONTRACTOR MAY ALSO ELECT TO REMOVE THE BRIDGE RAILINGS, FENCING AND/OR POSTS IN ADVANCE OF SPAN REMOVAL TO REDUCE WEIGHT.
4. THE CONTRACTOR SHALL HAVE THE OPTION TO REMOVE THE EXISTING SPAN IN TWO PIECES, ONE GIRDER AT A TIME. THIS MAY REQUIRE THAT THE LONGITUDINAL CUT AND SOME DIAPHRAGM REMOVAL OCCUR AFTER THE FIRST GIRDER WERE REMOVED AND MAY REQUIRE THE CRANE TO BE HOOKED TO THE SECOND GIRDER PRIOR TO DIAPHRAGM REMOVAL, OR OTHER MEANS EMPLOYED TO ENSURE GIRDER STABILITY.
5. THE MEANS, METHODS AND SEQUENCE OF SPAN REMOVAL AND TYPE AND PLACEMENT OF THE CRANE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN TO THE ENGINEER 1 WEEK PRIOR TO SPAN REMOVAL. THE DEMOLITION / ERECTION PLAN SHALL PROVIDE INFORMATION ON THE TYPE OF CRANE, CRANE LOCATION, CRANE MATS, ALL RIGGING, PICK RADIUS, PICK WEIGHTS, CRANE CAPACITY CHARTS, RIGGING CAPACITIES, LOCATION OF SPAN LAYDOWN AREA, LOCATION OF NEW UNITS FOR LIFTING, SEQUENCE OF OPERATIONS AND ANY OTHER PERTINENT INFORMATION. THE CONTRACTOR AND ERECTOR SHALL REVIEW THE PROCEDURE, SEQUENCE AND SCHEDULE OF DEMOLITION AND ERECTION WITH THE E.I.C. THE DAY BEFORE DEMOLITION BEGINS.

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DATE	DESCRIPTION	BY	SYM.

TITLE OF PROJECT:
REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18
LOCATION OF PROJECT:
EXIT 53 RAMP - MP426.18 (TOP LEVEL)
TITLE OF DRAWING:
DEMOLITION PLAN & REMOVAL NOTES

CONTRACT NUMBER:
TAB 16-45B
D214537
DATE:
09/23/16
DRAWING NUMBER:
S-4



REMOVE SHORING POST UNDER TOP-LEVEL GIRDERS G1 & G2



REMOVE SHORING POST UNDER TOP-LEVEL GIRDERS G1 & G2



CONNECTION PLATES ON G3 TO REMAIN (TYP.) REMOVE ALL DIAPHRAGMS BETWEEN G2 & G3 (TYP.)



DISCONNECT & REMOVE SHORING POSTS UNDER G1 & G2 ITEM 202.120001

200'± OF "PINNED" CONCRETE BARRIER TO BE REMOVED BY CONTRACTOR PRIOR TO REMOVING THE COLUMNS. FILL HOLES IN DECK FROM 1" PINS WITH APPROVED GROUT. INCLUDE COST IN ITEM 202.120001

RETURN THE TWO ADJUSTABLE POSTS TO NYSTA YARD ON DINGENS STREET

RETURN THE PRECAST BARRIER TO NYSTA YARD AT DINGENS OR WALDEN

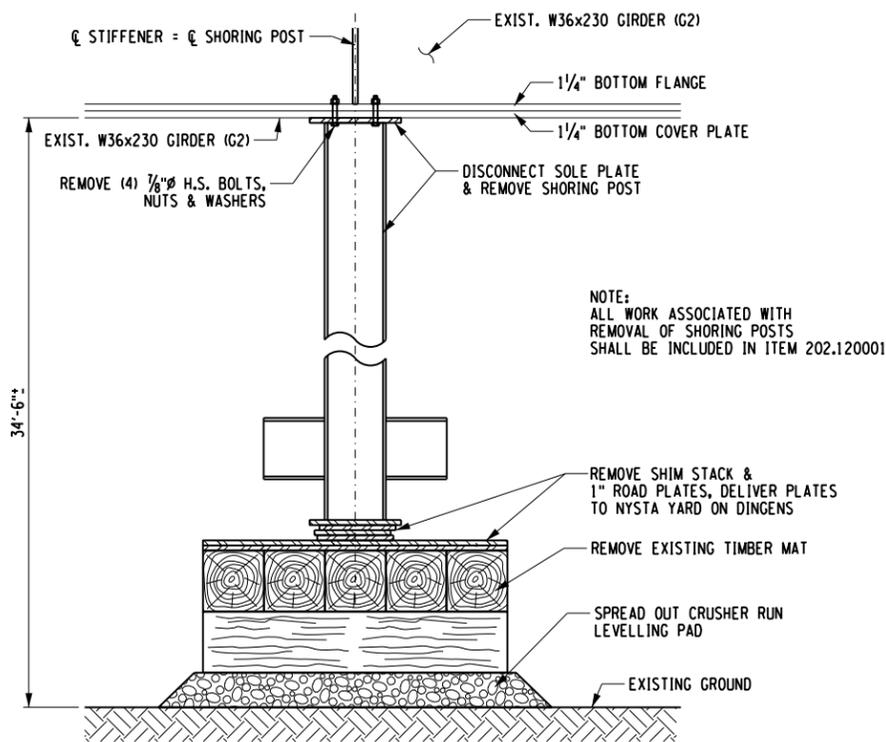
PAYMENT NOTE:

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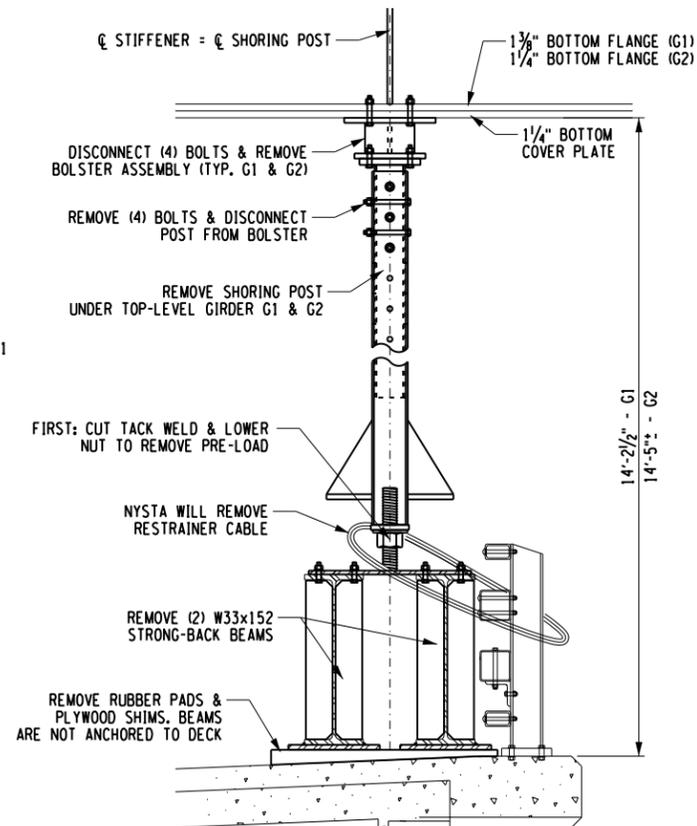


DISCONNECT & REMOVE 3 RESTRAINER CABLES FROM G1 & G2 ITEM 202.120001

DISCONNECT & REMOVE SHORING POST ITEM 202.120001



NORTH SHORING POST REMOVAL DETAIL (UNDER G2 ONLY)



SOUTH SHORING POST REMOVAL DETAIL (UNDER G1 & G2)

NOTE: REMOVE & DISPOSE OF RUBBER PAD & PLYWOOD SHIMS AT BOTH ENDS OF GIRDERS (GIRDERS ARE NOT ANCHORED TO DECK)

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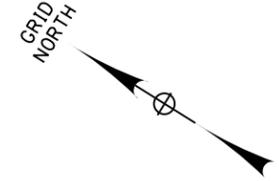
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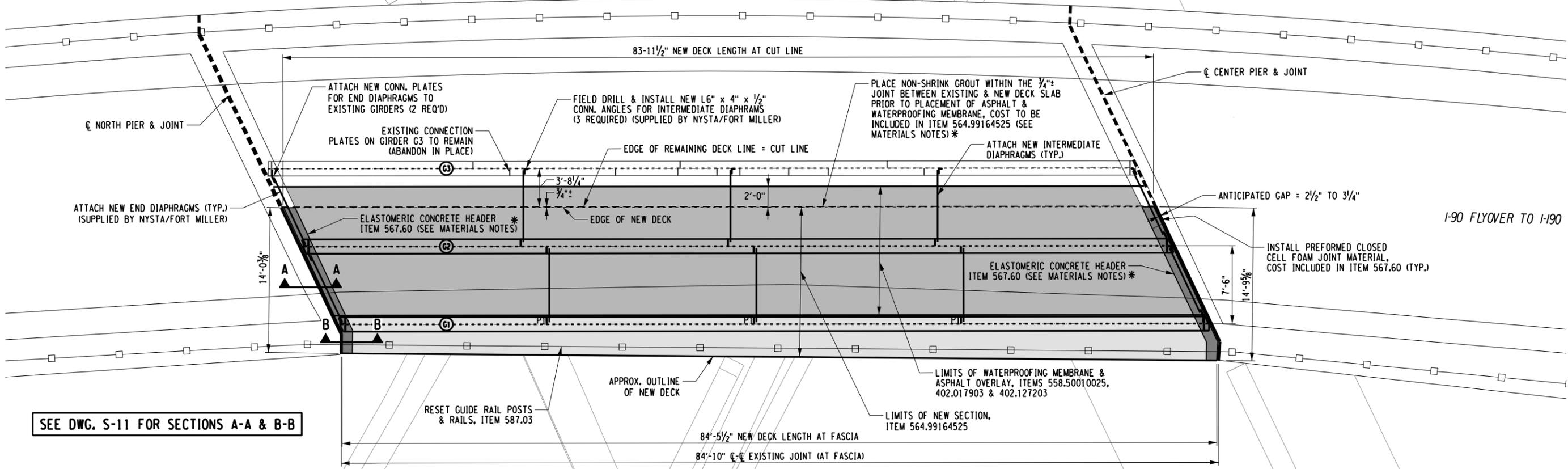
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LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
TITLE OF DRAWING DEMOLITION DETAILS	DRAWING NUMBER: S-5

FILE NAME = V:\Projects\BNY\24144\Reports\426.18_190_Ramp_Top_Level\1\2016 - Bridge Hit\CADD\Final Plans\S-5_Demo_details.dgn
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 USER = 1719
 DESIGN SUPERVISOR: G. HOFFMANN
 DESIGNED BY: S. KINSIMAN
 CHECKED BY: G. HOFFMANN
 DRAFTED BY: J. HARTWELL
 CHECKED BY: S. SCHUKRAFT



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SEE DWG. S-11 FOR SECTIONS A-A & B-B

PROPOSED DECK PLAN

- LIMITS OF NEW ASPHALT OVERLAY
- ELASTOMERIC CONCRETE HEADER
- CONCRETE DECK "WASH/SWALE"

ERECTION OF NEW SUPERSTRUCTURE SECTION

1. COORDINATE DIRECTLY WITH FORT MILLER FOR DELIVERY & LOCATION OF REPLACEMENT SUPERSTRUCTURE UNIT.
2. CLEAN OFF EXISTING BEARINGS OF DEBRIS.
3. TRANSFER RIGGING, SLINGS & SPREADERS TO NEW BRIDGE SUPERSTRUCTURE UNIT AND HOOK TO CRANE. TEST LIFT NEW UNIT IN PLACE IF WARRANTED.
4. LIFT & SWING NEW BRIDGE INTO PLACE AND SET ON EXISTING BEARINGS.
5. ENGINEER AND CONTRACTOR SHALL EXAMINE HOW WELL THE NEW UNIT SITS ON BEARINGS, AND HOW WELL NEW DECK IS ALIGNED WITH BOTTOM OF EXISTING DECK AND HOW WELL THE EXPANSION JOINTS ARE ALIGNED VERTICALLY & HORIZONTALLY.
6. LIFT UNIT UP SLIGHTLY OFF BEARINGS AND USE SHIM PLATES BETWEEN BEARINGS AND GIRDERS AS REQUIRED TO RESET ELEVATION OF DECK TO MATCH EXISTING BOTTOM OF DECK AND BETTER MATCH ALIGNMENT AT THE JOINTS.
7. LINE UP LONGITUDINAL CONNECTION ANGLES, DRILL HOLES AND ATTACH TO BOTTOM SIDE OF EXISTING DECK WITH EXPANSION ANCHORS.
8. DRILL & INSTALL EXPANSION ANCHORS AND INSTALL LONGITUDINAL JOINT ANGLE.
9. JOIN THE TWO DECKS TIGHT TOGETHER AND BOLT CONNECTION BRACKETS TOGETHER.
10. ATTACH END AND INTERMEDIATE DIAPHRAGM CONNECTION PLATES OR ANGLES TO G3.
11. INSTALL END AND INTERMEDIATE DIAPHRAGMS BETWEEN G2 AND G3.
12. PLACE A APPROVED NON-SHRINK GROUT* ALONG LONGITUDINAL JOINT BETWEEN EXISTING AND NEW DECK SLABS.
13. WELD GIRDERS TO BEARINGS.
14. INSTALL ELASTOMERIC CONCRETE JOINT HEADERS.
15. INSTALL NEW WATERPROOFING MEMBRANE.
16. INSTALL NEW ASPHALT OVERLAY.
17. CONSTRUCT BRIDGE RAIL CEMENT MORTAR PADS.
18. REINSTALL STORED GUIDE RAIL/FENCE POSTS, GUIDE RAILS AND SNOW FENCING.
19. PLACE PREFORMED CLOSED CELL FOAM JOINT MATERIAL.
20. SPLICE BRIDGE RAILING.
21. TOUCH UP PAINTING OF WELDS, BOLTS, ETC.
22. REFER TO DRAWINGS S-8 TO S-12 FOR CONNECTION DETAILS.

* MATERIALS NOTES
NON-SHRINK GROUT SHALL BE CON-SET OR KEM-SET OR APPROVED EQUIVALENT.

ELASTOMERIC CONCRETE SHALL BE WABOCRETE II, ELASTOCRETE OR OTHER EQUIVALENT APPROVED BY ENGINEER OFF NYSOT MATERIALS LIST.

TOTAL WEIGHT OF NEW PRECAST UNIT = 91 TONS, EXCL. ANY SLINGS OR RIGGING

PAYMENT NOTE:
ALL WORK SHOWN ON THESE DRAWINGS REQUIRE FOR ERECTING THE NEW SPAN IS INCLUDED IN ITEM 564.99164525. THIS ITEM SHALL INCLUDE:
-EXCAVATION AND LEVELLING OF STAGING AREA
-MOBILIZATION, OPERATION AND DEMOBILIZATION OF THE CRANE.
-ERECTION OF THE NEW SPAN UNIT
-INSTALLATION OF DIAPHRAGMS
-INSTALLATION OF LONGITUDINAL JOINT STEEL INCLUDING SUPPLYING AND INSTALLING EXPANSION ANCHORS.
-GROUTING OF THE JOINT BETWEEN OLD & NEW DECKS
-WELDING NEW GIRDERS TO EXISTING BEARINGS
-ANY TOUCH UP PAINTING OR COLD SPRAY GALVANIZING
-RESTORATION OF EMBANKMENT AND STAGING AREA.
-ANY OTHER WORK ASSOCIATED WITH NEW SPAN ERECTION

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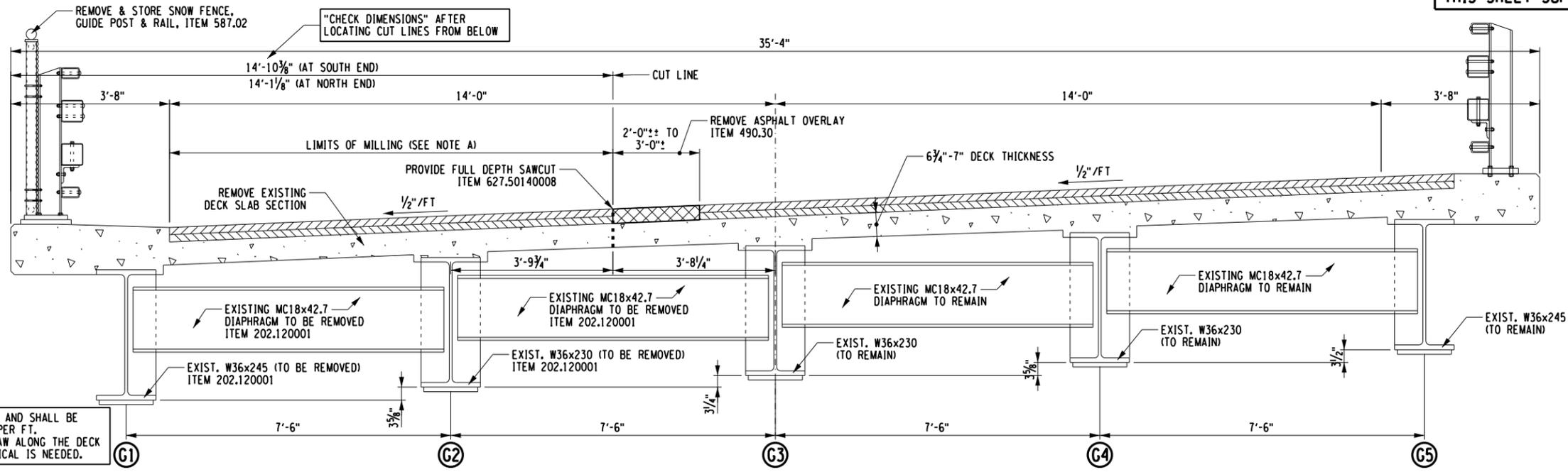
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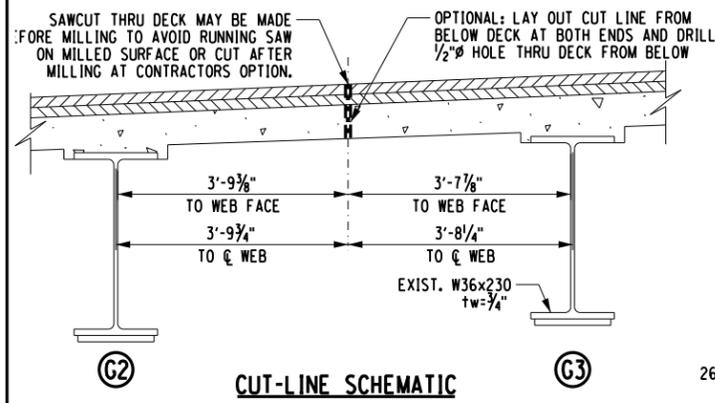
	Thruway Authority 	Canal Corporation 	TITLE OF PROJECT: REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18 LOCATION OF PROJECT: EXIT 53 RAMP - MP426.18 (TOP LEVEL) TITLE OF DRAWING: PROPOSED PLAN & ERECTION NOTES
CONTRACT NUMBER: TAB 16-45B D214537			DATE: 09/23/16
DRAWING NUMBER: S-6			DATE: 09/23/16

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DRAFTED BY: J. HARTWELL
CHECKED BY: G. HOFFMANN
DESIGNED BY: S. KINSIMAN
DESIGN SUPERVISOR: G. HOFFMANN

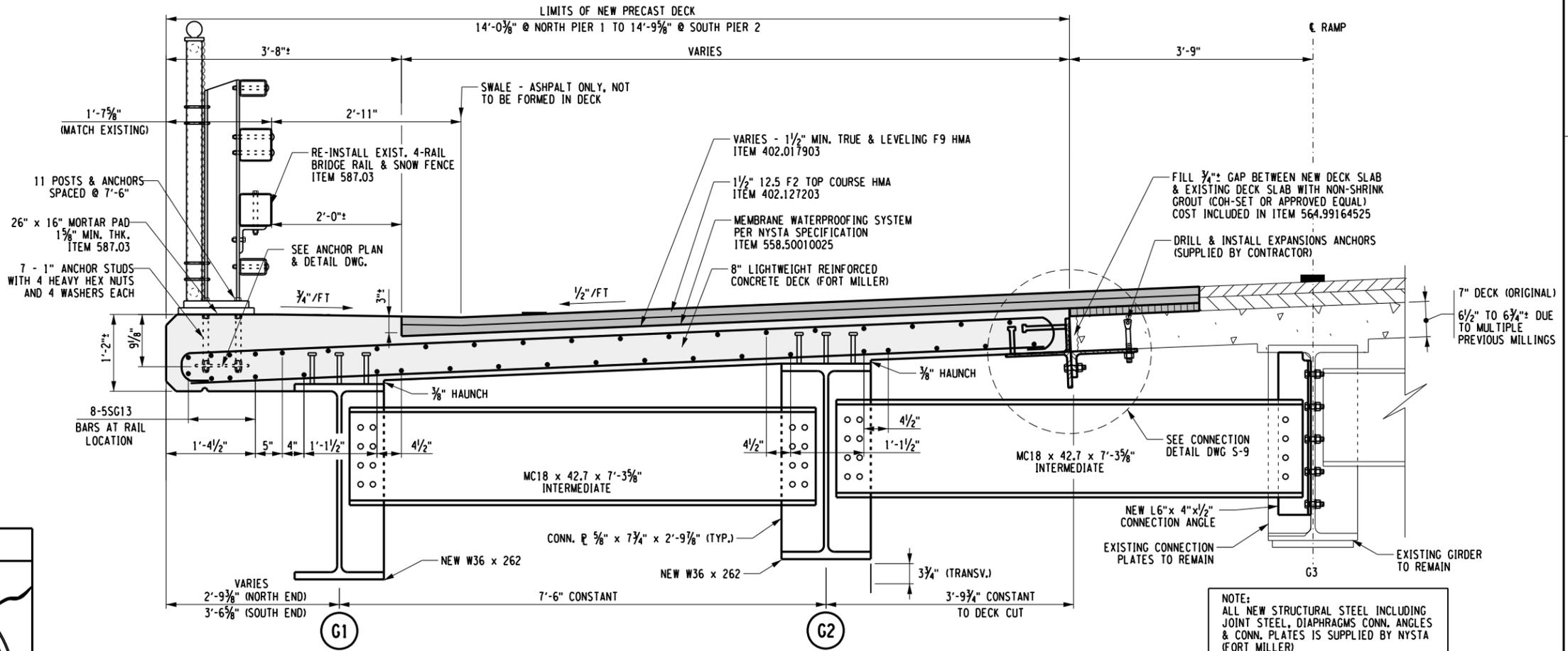
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DATE/TIME = 9/23/2016
USER = 1719



NOTE: CUT LINE IS NOT VERTICAL AND SHALL BE CUT PERPENDICULAR TO THE 1/2" PER FT. CROSS-SLOPE, SIMPLY RUN THE SAW ALONG THE DECK AS IS, NO ADJUSTMENT FOR VERTICAL IS NEEDED.



EXISTING TRANSVERSE SECTION
(MIDSPAN OF SPAN 2)



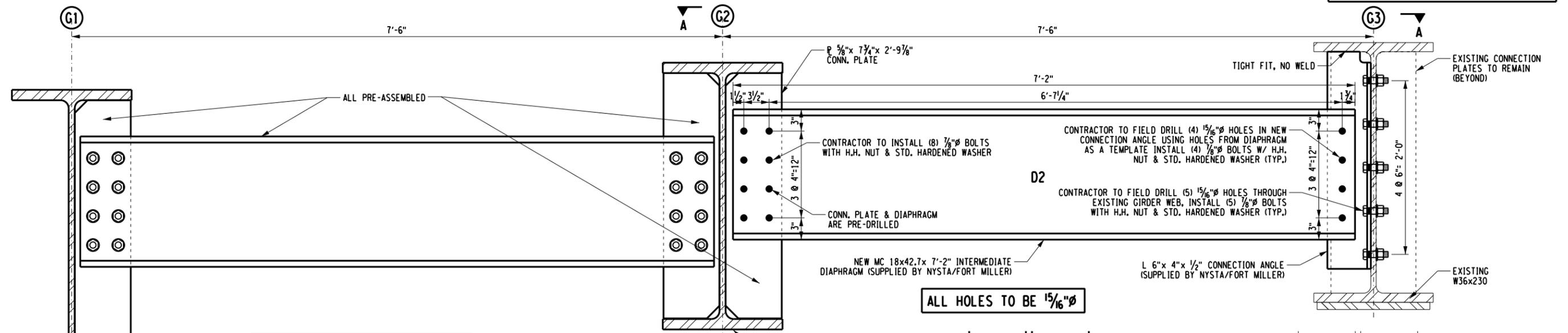
NOTE:
ALL NEW STRUCTURAL STEEL INCLUDING JOINT STEEL, DIAPHRAGMS CONN. ANGLES & CONN. PLATES IS SUPPLIED BY NYSTA (FORT MILLER)

ALTERED ON:	AFFIXED ON: 09/23/2016
SIGNATURE: STAMP:	SIGNATURE: STAMP:

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

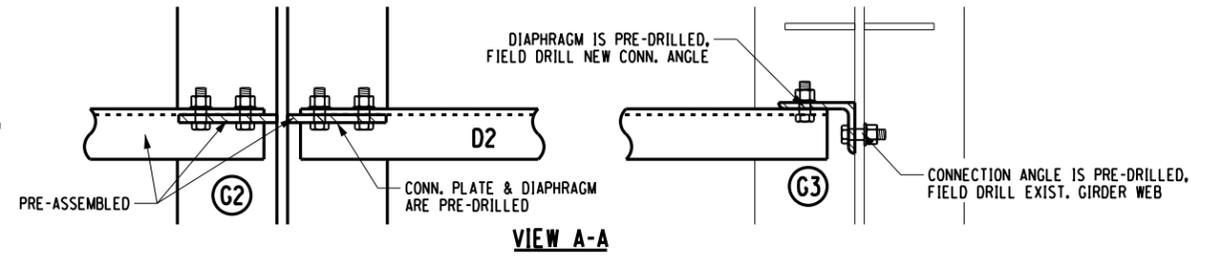
Thruway Authority 	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING TRANSVERSE BRIDGE SECTIONS	DRAWING NUMBER: S-7



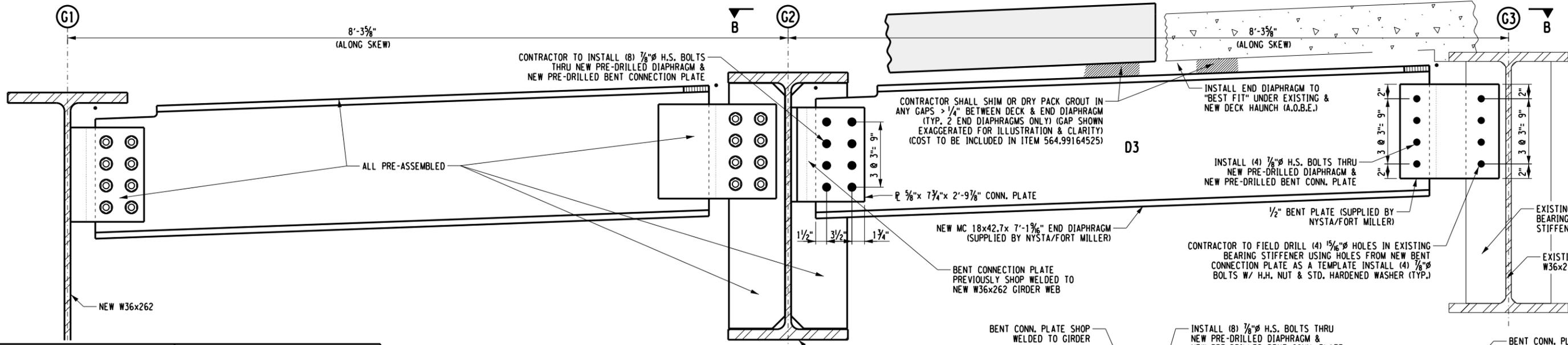
NOTE: ALL FIELD PARTS (DIAPHRAGMS, CONNECTION ANGLES, BENT PLATES & ALL FIELD BOLTS WILL BE SUPPLIED BY NYSTA (FORT MILLER)

ALL DIAPHRAGM ASSEMBLY IS INCLUDED IN ITEM 564.99164525, INCLUDING ALL FIELD DRILLING, FIELD WELDING, BOLTING, TORQUING, SHIMMING OR MINOR ADJUSTMENTS NEEDED TO PROPERLY FIT-UP THE DIAPHRAGMS

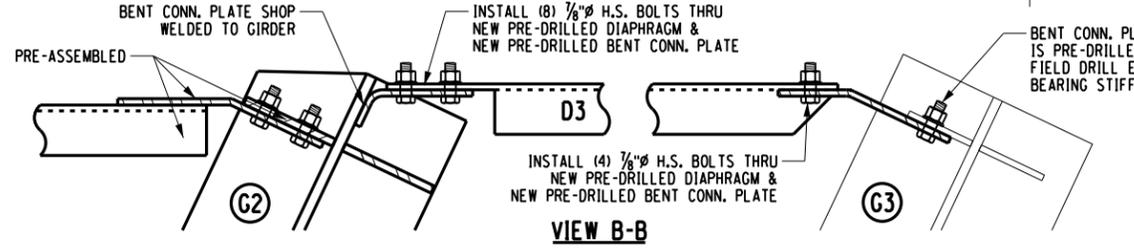
INTERMEDIATE DIAPHRAGM CONNECTION DETAIL
(LOOKING NORTH)
(TYP. ALL 3 LOCATIONS)



VIEW A-A



NORTH END DIAPHRAGM CONNECTION DETAIL
(LOOKING NORTH - NORTH PIER)
(SOUTH END DIAPHRAGMS SIMILAR)



VIEW B-B

ALTERED ON:	AFFIXED ON:
SIGNATURE: STAMP:	09/23/2016 SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY

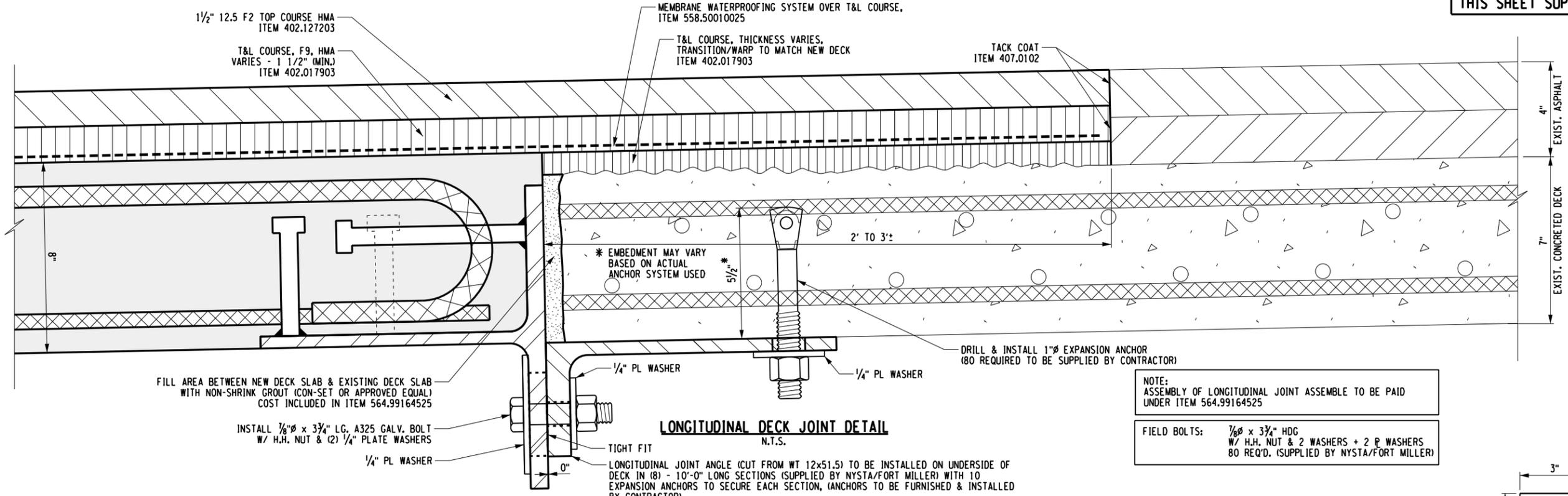
Thruway Authority | **Canal Corporation**

CHA
2300 Main Place Tower
Buffalo, NY 14202-3722
716.847.6300 • www.chacorporation.com

TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
TITLE OF DRAWING END & INTERMEDIATE DIAPHRAGM DETAILS	DRAWING NUMBER: S-8

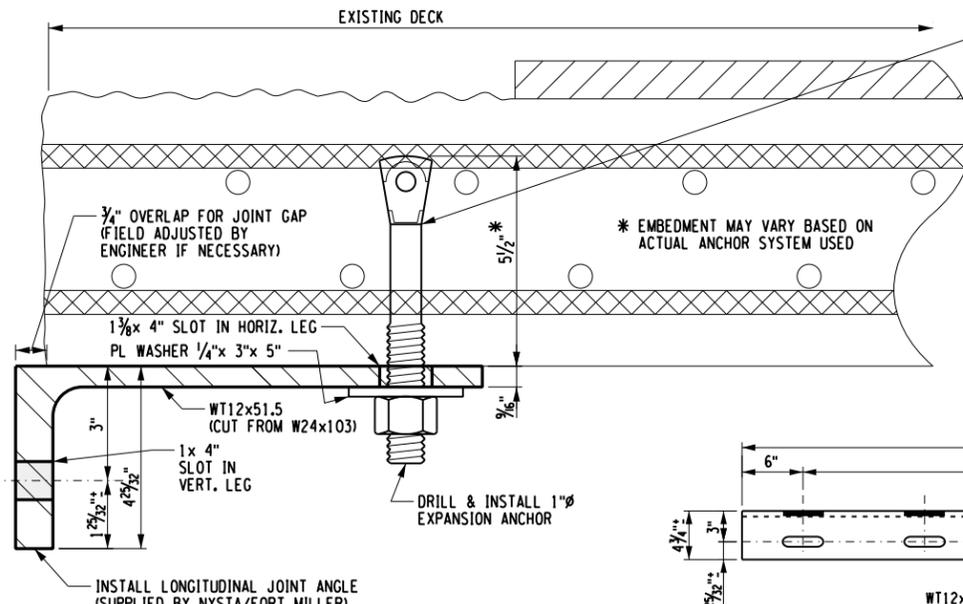
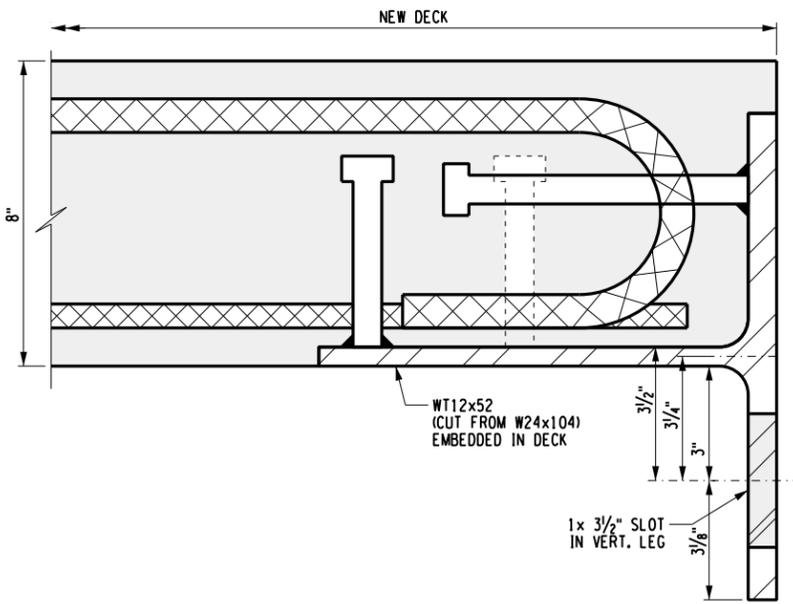
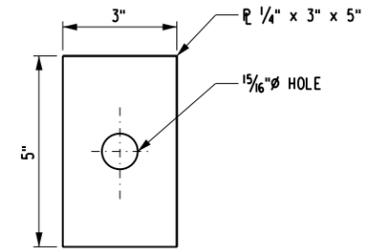
FILE NAME = V:\Projects\BNY\24144\Reports\426.18_190_Ramp (Top Level)\2016 - Bridge Hit\CADD\Final Plans\S-8_End & Int. Diaphragm Details.dgn
 DATE/TIME = 9/23/2016
 USER = 1719
 DESIGN SUPERVISOR: G. HOFFMANN
 DESIGNED BY: S. KINSIMAN
 CHECKED BY: G. HOFFMANN
 DRAFTED BY: J. HARTWELL
 CHECKED BY: S. SCHUKRAFT

CHECKED BY: S. SCHUKRAFT
DRAFTED BY: J. HARTWELL
CHECKED BY: G. HOFFMANN
DESIGNED BY: S. KINSIMAN
DESIGN SUPERVISOR: G. HOFFMANN

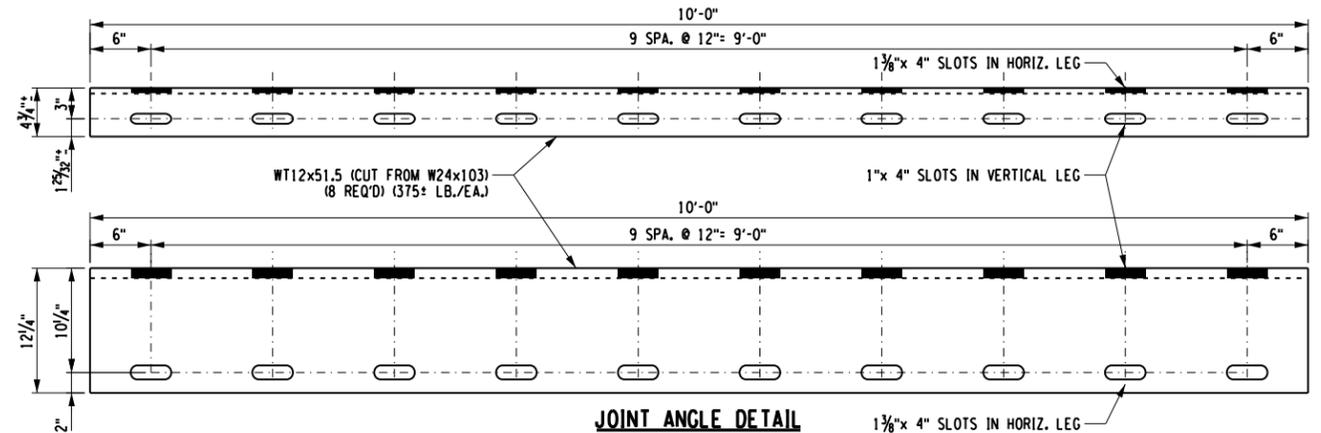


NOTE:
ASSEMBLY OF LONGITUDINAL JOINT ASSEMBLY TO BE PAID
UNDER ITEM 564.99164525

FIELD BOLTS: 7/8"Ø x 3 3/4" HDG
W/ H.H. NUT & 2 P WASHERS + 2 P WASHERS
80 REQ'D. (SUPPLIED BY NYSTA/FORT MILLER)



HILTI M24 x 9/4" HSL-3 HEAVY DUTY SLEEVE ANCHOR
OR
1"Ø x 9" KWIK BOLT III EXPANSION WEDGE ANCHOR
OR
POWERS FASTENERS 1"Ø x 9" POWER BOLT
OR
POWERS FASTENERS 1"Ø x 9" POWER STUD WEDGE ANCHOR
(ALL FASTENERS TO BE GALVANIZED & SUPPLIED BY G.C.)
ALTERNATE 1"Ø FASTENER MAY BE PERMITTED IF ULTIMATE
SHEAR STRENGTH > 32 KIPS
80 ANCHORS REQUIRED TO BE SUPPLIED BY CONTRACTOR,
TO BE PAID UNDER ITEM 564.99164525



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REVISIONS			
DATE	DESCRIPTION	BY	SYM.
	ALL STEEL A709 GR. 50KSI NO C.V.N. CERTIFICATION ALL STEEL GALVANIZED		

	Thruway Authority Canal Corporation	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
		LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
		TITLE OF DRAWING LONGITUDINAL CONNECTION DETAILS	DRAWING NUMBER: S-9

FILE NAME = V:\Projects\BNY\24144\Reports\426.18_190_Ramp (Top Level)\2016 - Bridge Hit\CAADD\Final Plans\S-9_Longitudinal Connection Details.dgn
DATE/TIME = 9/23/2016
USER = 1719

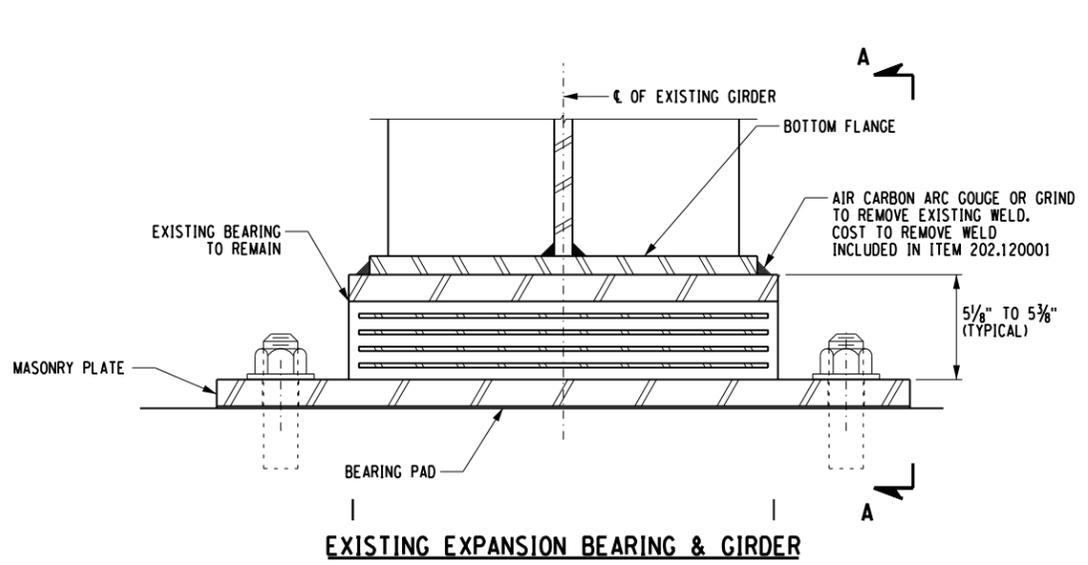
CHECKED BY: S. SCHUKRAFT

DRAFTED BY: J. HARTWELL

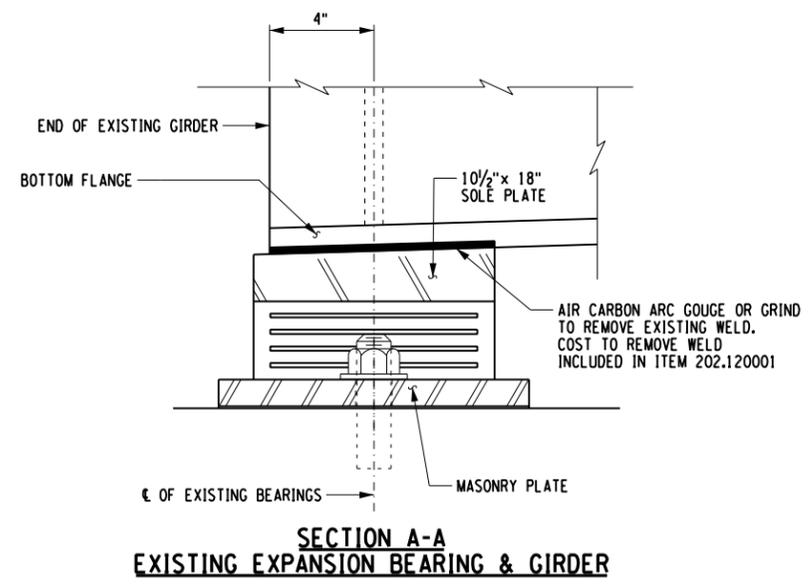
CHECKED BY: G. HOFFMANN

DESIGNED BY: S. KINSIMAN

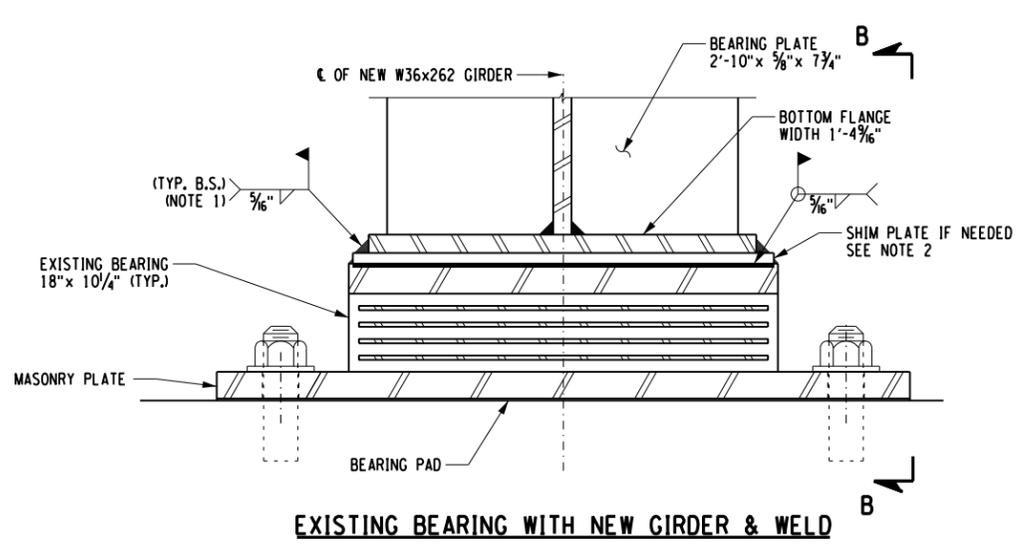
DESIGN SUPERVISOR: G. HOFFMANN



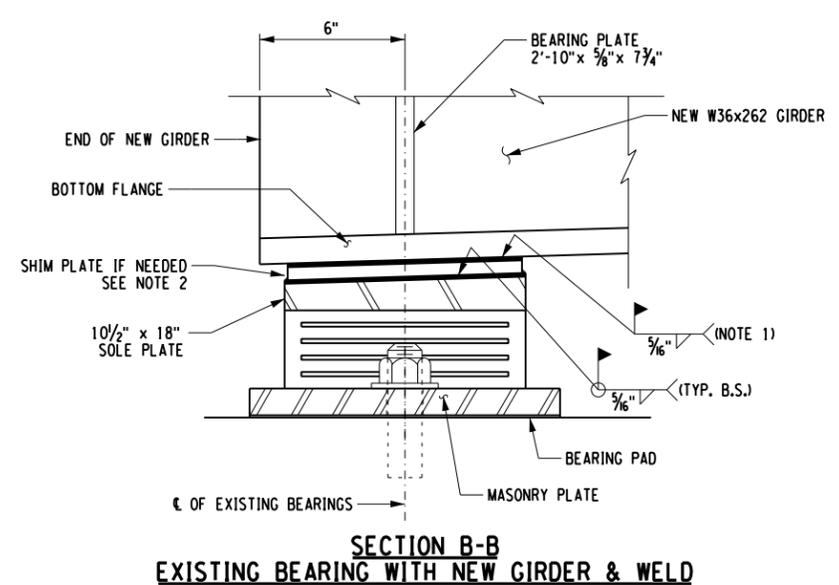
EXISTING EXPANSION BEARING & GIRDER



SECTION A-A
EXISTING EXPANSION BEARING & GIRDER



EXISTING BEARING WITH NEW GIRDER & WELD



SECTION B-B
EXISTING BEARING WITH NEW GIRDER & WELD

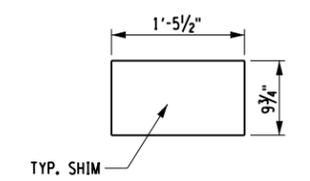


G1 NORTH PIER BEARING



G1 NORTH PIER BEARING

- NOTES:
1. THE FIELD WELD CONNECTING THE BOTTOM FLANGE TO THE SOLE PLATE SHALL BE MADE ON BOTH SIDES OF THE FLANGE. AREAS OF METALIZING DAMAGED BY WELDING SHALL BE COATED WITH ZINC RICH PAINT. ALL WORK TO BE INCLUDED IN ITEM 564.99164525.
 2. FOR SHIMMING GIRDER ON BEARING TO ALLOW FOR VERTICAL ADJUSTMENT THE FOLLOWING SHIMS WILL BE PROVIDED TO BE USED IF REQ'D.
 - Mk. 2SM1 - P 7/8 x 9 3/4 x 1'-5 1/2" (QTY 2)
 - Mk. 2SM2 - P 1/2 x 9 3/4 x 1'-5 1/2" (QTY 2)
 - Mk. 2SM3 - P 3/8 x 9 3/4 x 1'-5 1/2" (QTY 2)
 - Mk. 2SM4 - P 1/4 x 9 3/4 x 1'-5 1/2" (QTY 2)
 - Mk. 2SM5 - P 1/8 x 9 3/4 x 1'-5 1/2" (QTY 2)



COST TO BE INCLUDED IN ITEM 564.99164525

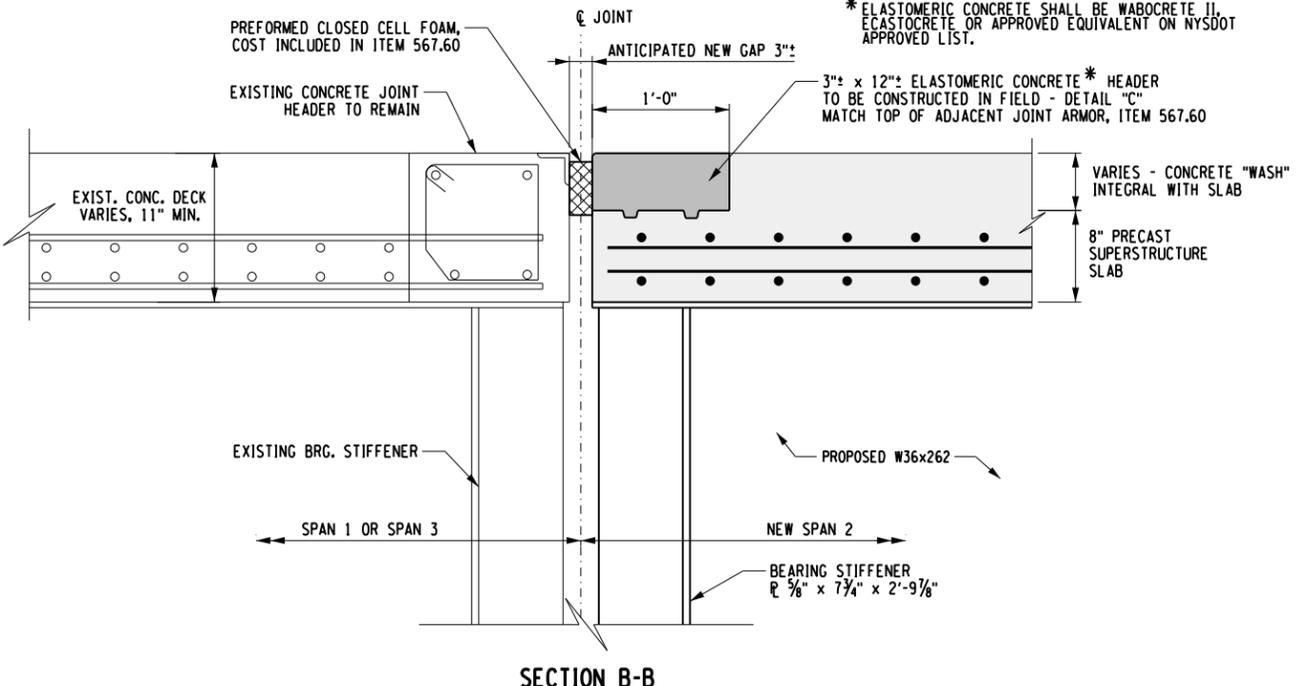
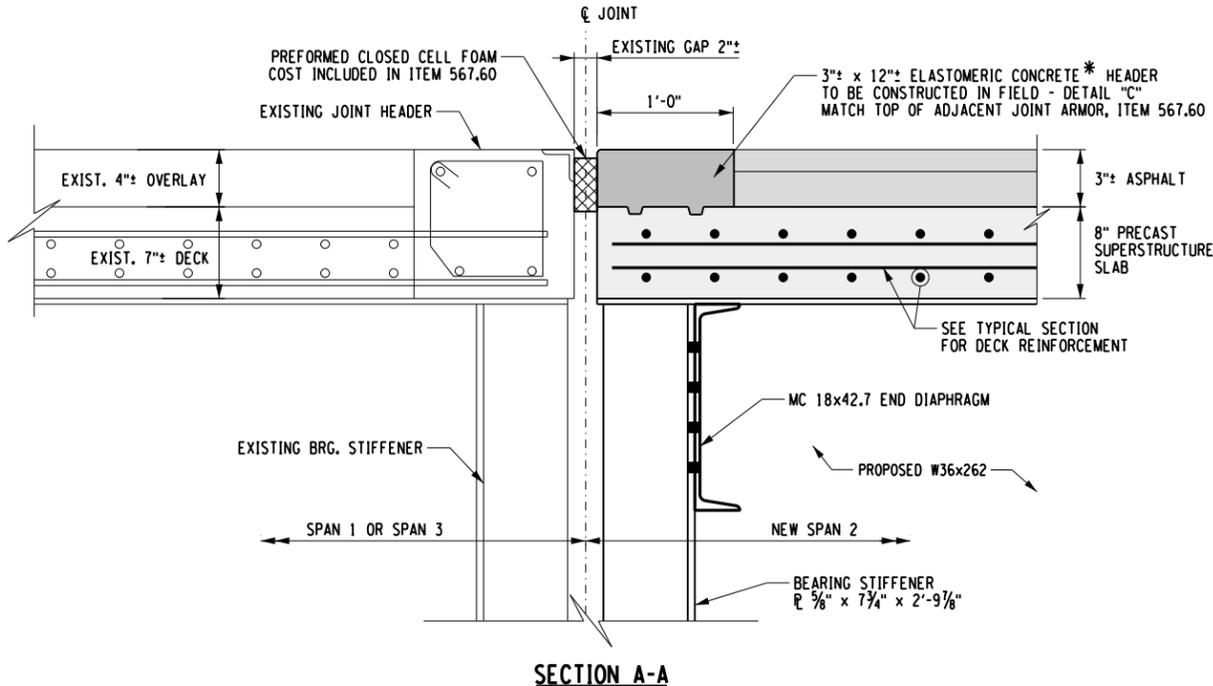
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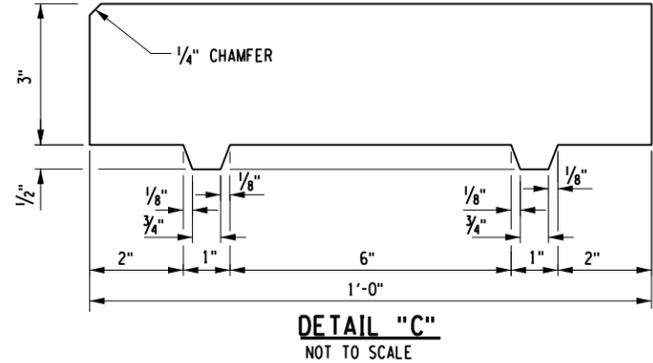
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

Thruway Authority Canal Corporation	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING BEARING DETAILS	DRAWING NUMBER: S-10

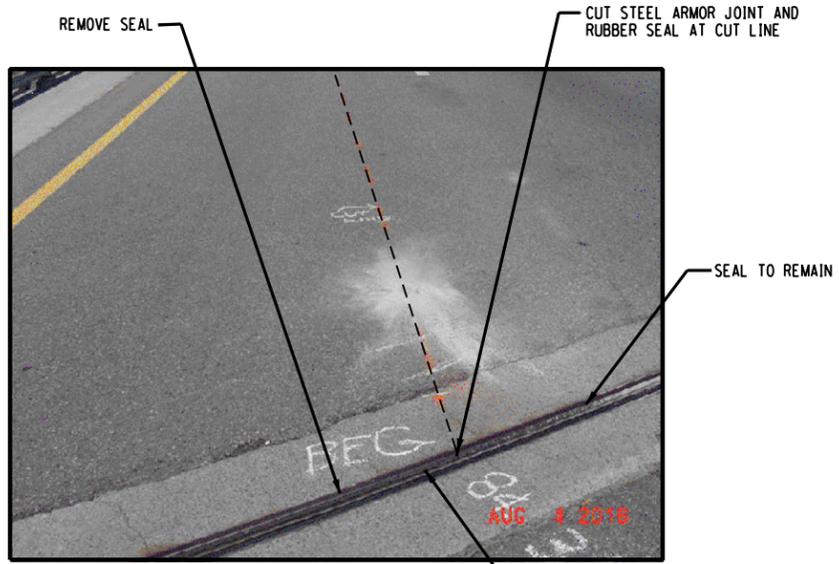
FILE NAME = V:\Projects\BNY\21414\Reports\426.18_190_Ramp (Top Level)\2016 - Bridge Hit\CADD\Final Plans\5-10_Bearing Details.dgn
DATE/TIME = 9/23/2016
USER = 1719



* ELASTOMERIC CONCRETE SHALL BE WABOCRETE II, ECASOCRETE OR APPROVED EQUIVALENT ON NYS DOT APPROVED LIST.



BEGIN (SOUTH)



BEGIN (SOUTH)

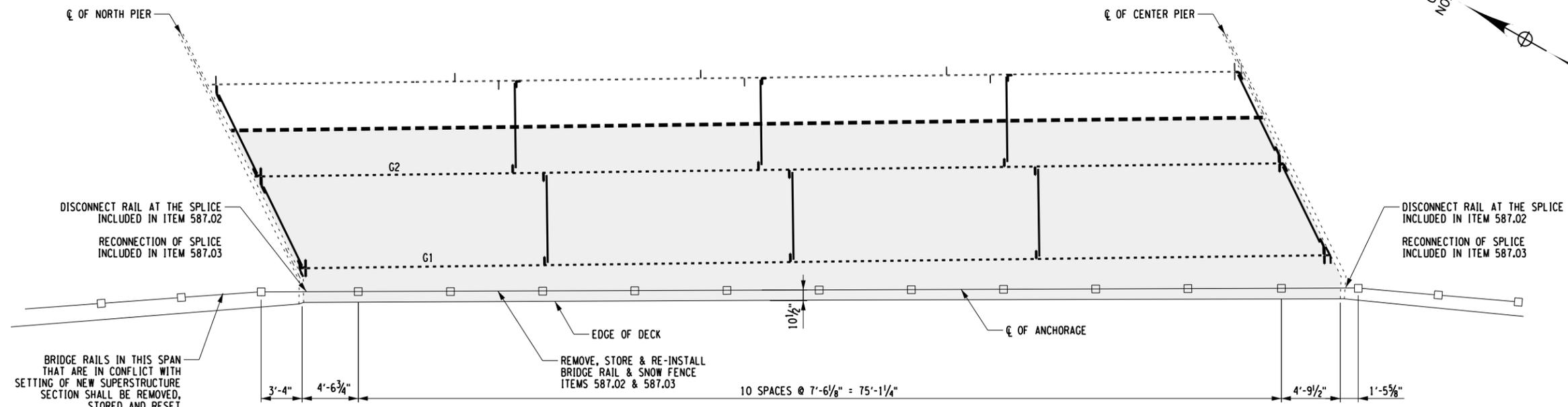
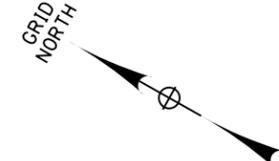
ALTERED ON:	AFFIXED ON: 09/23/2016
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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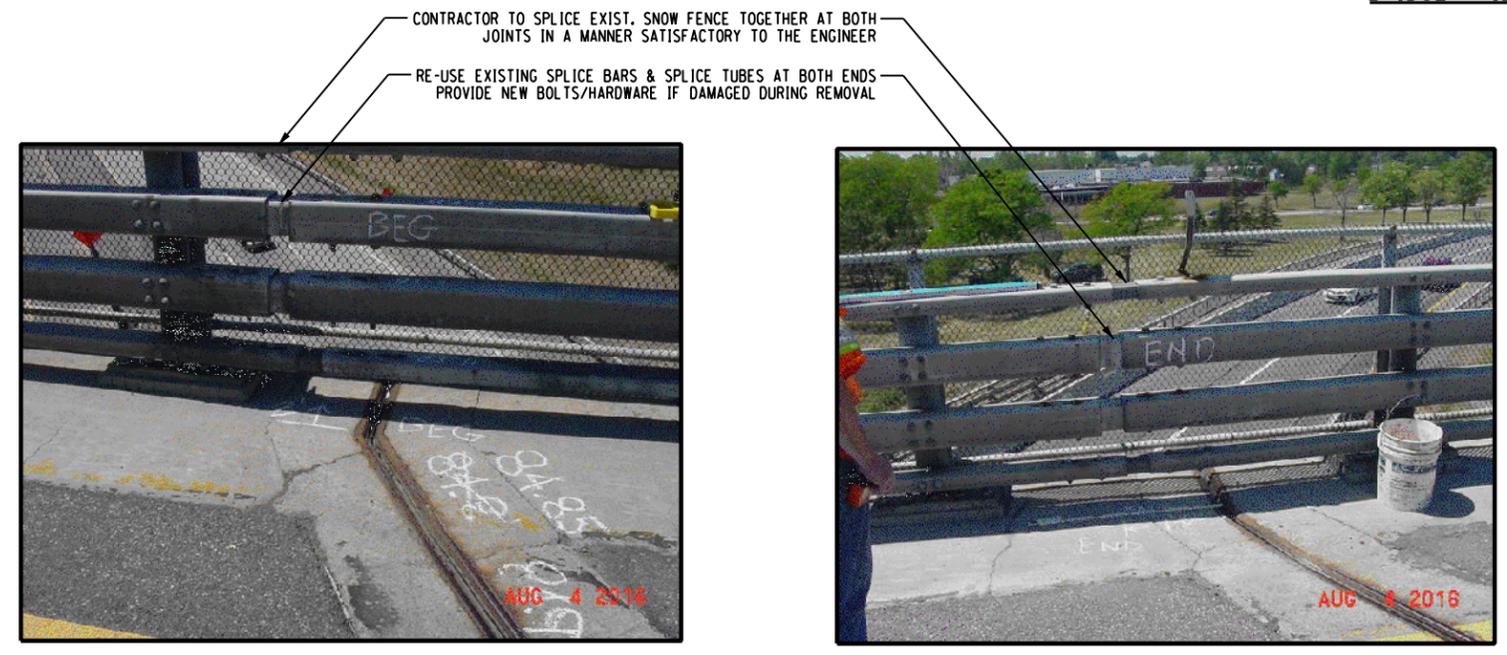
REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL

Thruway Authority Canal Corporation	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING JOINT DETAILS	DRAWING NUMBER: S-11

FILE NAME = V:\Projects\BNY\2144\Reports\426.18_190_Ramp_Top_Level\1\2016 - Bridge Hit\CADD\Final Plans\11-Joint_Details.dgn
 DATE/TIME = 9/23/2016
 USER = 1719
 DESIGN SUPERVISOR: G. HOFFMANN
 DESIGNED BY: S. KINSIMAN
 CHECKED BY: G. HOFFMANN
 DRAFTED BY: J. HARTWELL
 CHECKED BY: S. SCHUKRAFT

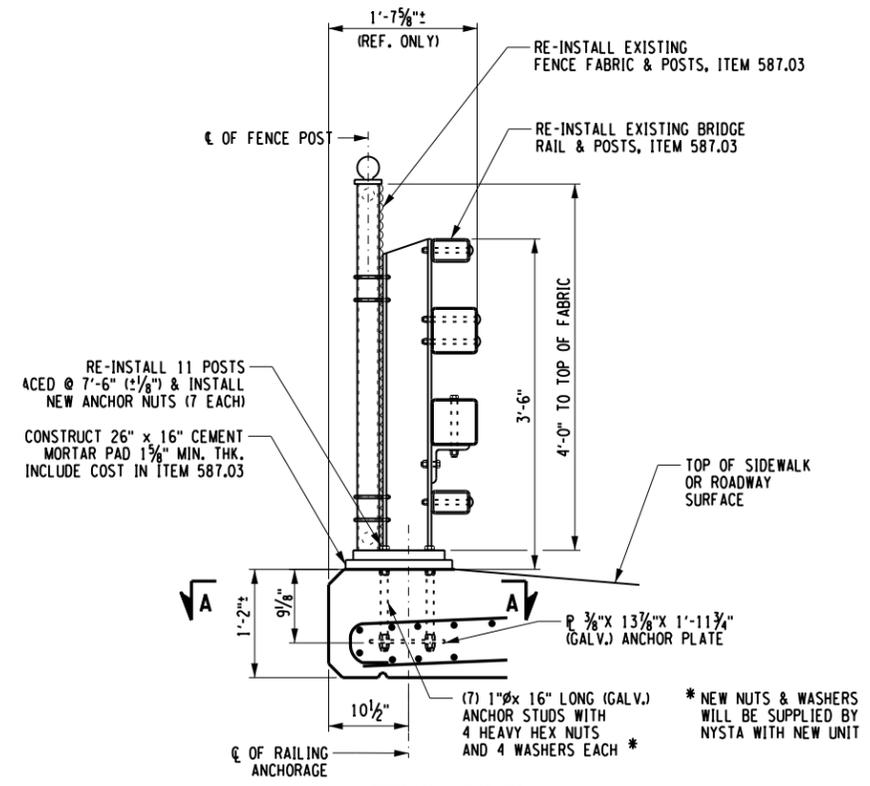


BRIDGE RAIL LAYOUT PLAN



BRIDGE RAIL SPLICE (SOUTH PIER)

BRIDGE RAIL SPLICE (NORTH PIER)



TYPICAL SECTION SNOW FENCE & GUIDERAIL ANCHORAGE

ALTERED ON:	AFFIXED ON: 09/23/2016
SIGNATURE: STAMP:	SIGNATURE: STAMP:

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REVISIONS			
DATE	DESCRIPTION	BY	SYMBOL

Thruway Authority Canal Corporation	TITLE OF PROJECT REPAIRS TO THE IMPACT DAMAGED BRIDGE AT MP 426.18	CONTRACT NUMBER: TAB 16-45B D214537
	LOCATION OF PROJECT EXIT 53 RAMP - MP426.18 (TOP LEVEL)	DATE: 09/23/16
	TITLE OF DRAWING BRIDGE RAIL PLAN & DETAILS	DRAWING NUMBER: S-12

FILE NAME = V:\Projects\BNY\24144\Reports\426.18_190_Ramp (Top Level)\2016 - Bridge Hit\CADD\Final Plans\5-12_Bridge Rail Plan & Details.dgn
 DATE/TIME = 9/23/2016
 USER = 1719
 DESIGN SUPERVISOR: G. HOFFMANN
 CHECKED BY: S. KINSIMAN
 DRAFTED BY: J. HARTWELL
 CHECKED BY: S. SCHUKRAFT