NEW YORK STATE THRUWAY AUTHORITY
DEPARTMENT OF ENGINEERING

ALBANY, NY
JANUARY 30, 2024

AMENDMENT NO. 2
TO

CONTRACT TAA 23-25B
D214941
THRUWAY BRIDGE REHABILITATION
OVER THE WALLKILL RIVER, MP 81.72
IN THE ALBANY DIVISION
OF THE NEW YORK STATE THRUWAY
IN ULSTER COUNTY

IN THE LETTING OF

FEBRUARY 7, 2024

NOTE: This amendment shall be attached to and become a part of the Proposal for Contract **TAA 23-25B**

NOTICE

For Electronic Bidders, the Project's amended EBSX file will automatically account for any necessary item changes (deletions, changes in quantities, or additions) that this Amendment may describe as being required regarding the project's estimated cost. Instructions to make physical changes to the Project Proposal's bid sheets are intended for "paper" Bidders who choose to submit bids via paper.

Questions and Answers for this project are available from the Authority's website, specifically at: http://www.thruway.ny.gov/netdata/contractors/documents/d214941_taa23-25b_questions-and-answers-01-30-2024.pdf. This document may be updated periodically without formal issuance of an Amendment. Prospective bidders are advised to revisit this link weekly and before proposals are due, for any possible additional questions and answers information.

Additional Supplemental Information for this project is now available from the Authority's website, specifically at: http://www.thruway.ny.gov/netdata/contractors/documents/d214941_taa23-25b_supplemental-information-01-30-2024.zip
The revised quantity workups to reflect the changes as mentioned below are now available and are being provided as additional supplemental information.

PROPOSAL

1. **DELETE** the following Item:

Contract Proposal Page	Item No.	Description	Unit	Estimated Quantity
182	606.8904	Transition - HPBO (MOD) Corrugated Beam Median Barrier to Box Beam Median Barrier	Each	2.0

"Paper" Bidders (who submit bids via paper) shall **CROSS OUT** and not enter a bid for these items in the Contract Proposal. If the "paper" 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 in the Contract Plans and Contract Proposal.

2. **CHANGE** the estimated quantity for the following Items:

Contract Proposal Page	Item No.	Description	Unit	Initial Estimated Quantity	Revised Estimated Quantity
183	619.1715	Temporary Positive Barrier - Category 5 (Pinning Prohibited)	LF	3,130	660
183	619.1716	Temporary Positive Barrier - Category 6 (Pinning Prohibited)	LF	3,070	1,050
184	637.12 25	Engineer's Field Office -Type	Mnth	18	36

The "paper" Bidder shall **CROSS OUT** the estimated quantity shown for these items in the Contract Proposal, **WRITE IN** the revised estimated quantity, and submit its bid based on the noted changes. If the Bidder fails to make these changes, the Authority will do so and adjust the BID AMOUNT for the items and TOTAL BID, accordingly.

3. **ADD** the following Items**:**

Contract Proposal Page	Item No.	Description	Unit	Estimated Quantity
184A-A2	570.01	Lead Exposure Control Plan	LS	1
184A-A2	570.02	Medical Testing	DC	$8,000
184A-A2	570.03	Personal Exposure Monitoring Sample Analysis	DC	$4,000
184A-A2	570.04	Decontamination Facilities	CW	4
184A-A2	570.090001	Environmental Ground Protection (Northbound Structure)	LS	1
184A-A2	570.090002	Environmental Ground Protection (Southbound Structure)	LS	1
184A-A2	570.100001	Environmental Waterway Protection (Northbound Structure)	LS	1

Contract Proposal Page	Item No.	Description	Unit	Estimated Quantity
184A-A2	570.100002	Environmental Waterway Protection (Southbound Structure)	LS	1
184A-A2	606.8905	Transition: HPBO (MOD.) Corrugated Beam Median Barrier to Weak Post Corrugated Beam Median Barrier	Each	2.0
184A-A2	619.1711	Temporary Positive Barrier - Category 1 (Pinning Prohibited)	LF	2,815
184A-A2	619.1713	Temporary Positive Barrier - Category 3 (Pinning Prohibited)	LF	1,610

"Paper" Bidders must **RETURN THE ATTACHED PAGE 184A-A2** with its bid for this Contract.

PLANS

7. **CHANGE** Drawing Number GNN-1, Sheet 5 of 105 and **DELETE** reference to "TO BE COMPLETED BY OTHERS" on the Work to be Done Notes 6 & 17.

8. **CHANGE** Drawing Number TYP-1, Sheet 6 of 105 on the Typical Section – Mill and Fill detail under the Northbound Travel Lane, **DELETE** reference to (incorrect) Item 685.1205--25 and **REPLACE** with Item number 685.1206--25, instead.

9. **DELETE** Drawing Number TC-2, Sheet 9 of 105 and **REPLACE** with the attached new Drawing Number TC-2-A2, Sheet 9-A2 of 105.
   - Change in Temporary Positive Barrier

10. **DELETE** Drawing Number TC-6, Sheet 13 of 105 and **REPLACE** with the attached new Drawing Number TC-6-A2, Sheet 13-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

11. **DELETE** Drawing Number TC-7, Sheet 14 of 105 and **REPLACE** with the attached new Drawing Number TC-7-A2, Sheet 14-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

12. **DELETE** Drawing Number TC-8, Sheet 15 of 105 and **REPLACE** with the attached new Drawing Number TC-8-A2, Sheet 15-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

13. **DELETE** Drawing Number TC-9, Sheet 16 of 105 and **REPLACE** with the attached new Drawing Number TC-9-A2, Sheet 16-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

14. **DELETE** Drawing Number TC-10, Sheet 17 of 105 and **REPLACE** with the attached new Drawing Number TC-10-A2, Sheet 17-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

15. **DELETE** Drawing Number TC-12, Sheet 19 of 105 and **REPLACE** with the attached new Drawing Number TC-12-A2, Sheet 19-A2 of 105.
    - Change in Temporary Positive Barrier

16. **DELETE** Drawing Number TC-16, Sheet 23 of 105 and **REPLACE** with the attached new Drawing Number TC-16-A2, Sheet 23-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

17. **DELETE** Drawing Number TC-17, Sheet 24 of 105 and **REPLACE** with the attached new Drawing Number TC-17-A2, Sheet 24-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

18. **DELETE** Drawing Number TC-18, Sheet 25 of 105 and **REPLACE** with the attached new Drawing Number TC-18-A2, Sheet 25-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

19. **DELETE** Drawing Number TC-19, Sheet 26 of 105 and **REPLACE** with the attached new Drawing Number TC-19-A2, Sheet 26-A2 of 105.
    - Change in Temporary Positive Barrier
    - Previous reference to (incorrect) Item 403.25990025 (STAR Removal) has been updated to Item number 649.2599--25

20. **DELETE** Drawing Number TC-20, Sheet 27 of 105 and **REPLACE** with the attached new Drawing Number TC-20-A2, Sheet 27-A2 of 105.
    - Change in Temporary Positive Barrier

21. **CHANGE** Drawing Number ST-01, Sheet 42 of 105, on the Load Rating Table, under (LFR) **DELETE** the values of 74.52 Tons and 124.20 Tons and **REPLACE** with the values 74 Tons and 124 Tons, respectively. Under CONTROLLING MEMBER, **DELETE** previous reference to "POSITIVE MOMENT".

22. **CHANGE** Drawing Number ST-03, Sheet 44 of 105, in the STAGE 2 SECTION, **DELETE** only the leader pointing to the right, and **REPLACE** with a new leader and instruction that reads: TEMPORARY POSITIVE BARRIER – CATEGORY 3 (UNPINNED, ITEM 619.1713. The Category 3 Temporary Positive Barrier is required to protect the Stage 2 Superstructure Removal Area.

23. **CHANGE** Drawing Number ST-04, Sheet 45 of 105, in the STAGE 3 SECTION, **DELETE** the incorrect description and item number underneath the (Category 5) temporary positive barrier in between the Southbound and Northbound Temporary Lanes, and **REPLACE** with the following that will read: TEMPORARY POSITIVE BARRIER – CATEGORY 3 (UNPINNED, ITEM 619.1713. The Temporary Positive Barrier has been changed from a Category 5 to a Category 3.

24. **DELETE** Drawing Number ST-07, Sheet 48 of 105 and **REPLACE** with the attached new Drawing Number ST-07-A2, Sheet 48-A2 of 105.
- The Estimate of Quantities Table has been updated

25. **CHANGE** Drawing Number ST-08, Sheet 49 of 105, under **METALIZING NOTES**, and specifically Note **7**., **DELETE** the first sentence and **REPLACE** with the following first sentence that shall read: "THE DESIGN OF THIS STRUCTURE ASSUMES THAT THE STRUCTURAL STEEL IS COMPLETELY ERECTED AND CONCRETE COUNTERWEIGHTS AT BOTH ABUTMENTS POURED BEFORE IT IS ALLOWED TO DEFLECT UNDER ITS OWN DEAD LOAD.". The sentences that follow the first sentence in Note 7. remain the same. The intent of this change is to provide better direction on erection of drop-in segment in Span 2 after concrete counterweights are poured.

26. **DELETE** Drawing Number ST-09, Sheet 50 of 105 and **REPLACE** with the attached new Drawing Number ST-09-A2, Sheet 50-A2 of 105.
- Note 3 has been updated
- Location of fiber optic conduit moved to the front face of abutments
- Section marks have been added to match the Sections on Drawing Number ST-11

27. **DELETE** Drawing Number ST-10, Sheet 51 of 105 and **REPLACE** with the attached new Drawing Number ST-10-A2, Sheet 51-A2 of 105.
- Note 3 has been updated
- Location of fiber optic conduit moved to the front face of abutments
- Existing fiber optic conduit clipped at front face of abutments
- Section marks have been added to match the Sections on Drawing Number ST-11

28. **DELETE** Drawing Number ST-11, Sheet 52 of 105 and **REPLACE** with the attached new Drawing Number ST-11-A2, Sheet 52-A2 of 105.
- Seat Elevations have updated
- The limits of PCSD have been modified
- Section marks have been updated to reflect the appropriate drawings in which the sections are located
- The Note regarding "EXISTING DRAINAGE PIPE TO BE MAINTAINED" has been appended with "IF ENCOUNTERED DURING EXCAVATION"

29. **DELETE** Drawing Number ST-12, Sheet 53 of 105 and **REPLACE** with the attached new Drawing Number ST-12-A2, Sheet 53-A2 of 105.
- The Pile numbers have been revised
- The Rock Elevations have been updated
- The Pile Table has been updated

30. **DELETE** Drawing Number ST-13, Sheet 54 of 105 and **REPLACE** with the attached new Drawing Number ST-13-A2, Sheet 54-A2 of 105.
- The Pile numbers have been revised
- Other minor annotation revisions

31. **DELETE** Drawing Number ST-14, Sheet 55 of 105 and **REPLACE** with the attached new Drawing Number ST-14-A2, Sheet 55-A2 of 105.
- Notes have been added to identify lead paint on existing girders

32. **DELETE** Drawing Number ST-15, Sheet 56 of 105 and **REPLACE** with the attached new Drawing Number ST-15-A2, Sheet 56-A2 of 105.
- Updated the Item Table quantities
- Existing pedestal linework has been revised to match the existing and proposed elevations
- Repair hatches which were not previously shown have been added and quantities have been corrected
- Eliminated references to Class D repairs below the existing grade. No excavation is needed to make concrete repairs
- 13ft high concrete work previously hatched as Item 555.09, Class HP Concrete on the ELEVATION Detail on the far right of the Southbound side has been removed
- New Note 10. regarding Concrete Class A Repair has been added and it references Drawing Number ST-27

33. **DELETE** Drawing Number ST-16, Sheet 57 of 105 and **REPLACE** with the attached new Drawing Number ST-16-A2, Sheet 57-A2 of 105.
- Updated the Item Table quantities
- Proposed pedestal linework was changed
- Elevation for wingwall seat updated.
- Bearing plate linework is updated, incorporating the keeper plates.
- Anchor Bolt Layout table is updated

34. **DELETE** Drawing Number ST-17, Sheet 58 of 105 and **REPLACE** with the attached new Drawing Number ST-17-A2, Sheet 58-A2 of 105.
- Updated the Item Table quantities
- Repair hatches not previously shown have been added and quantities have been corrected

35. **DELETE** Drawing Number ST-18, Sheet 59 of 105 and **REPLACE** with the attached new Drawing Number ST-18-A2, Sheet 59-A2 of 105.
- Updated the Item Table quantities

36. **DELETE** Drawing Number ST-19, Sheet 60 of 105 and **REPLACE** with the attached new Drawing Number ST-19-A2, Sheet 60-A2 of 105.
- Updated the Item Table quantities
- Repair hatches not previously shown have been added and quantities have been corrected
- Pedestal Linework on the fascia pedestals for both pier caps have been updated

37. **DELETE** Drawing Number ST-20, Sheet 61 of 105 and **REPLACE** with the attached new Drawing Number ST-20-A2, Sheet 61-A2 of 105.
- Updated the Item Table quantities

38. **DELETE** Drawing Number ST-21, Sheet 62 of 105 and **REPLACE** with the attached new Drawing Number ST-21-A2, Sheet 62-A2 of 105.
- Updated the Item Table quantities
- Existing pedestal linework has been revised to match the existing and proposed elevations
- Repair hatches not previously shown have been added and quantities have been corrected

39. **DELETE** Drawing Number ST-22, Sheet 63 of 105 and **REPLACE** with the attached new Drawing Number ST-22-A2, Sheet 63-A2 of 105.
- Updated the Item Table quantities
- Bearing plate linework have been updated, incorporating the keeper plates
- The Anchor Bolt Layout Table has been updated

40. **DELETE** Drawing Number ST-23, Sheet 64 of 105 and **REPLACE** with the attached new Drawing Number ST-23-A2, Sheet 64-A2 of 105.
- Updated Existing pedestal elevations

41. **DELETE** Drawing Number ST-24, Sheet 65 of 105 and **REPLACE** with the attached new Drawing Number ST-24-A2, Sheet 65-A2 of 105.
- Updated Existing pedestal elevations

42. **DELETE** Drawing Number ST-25, Sheet 66 of 105 and **REPLACE** with the attached new Drawing Number ST-25-A2, Sheet 66-A2 of 105.
- Updated Existing pedestal elevations

43. **DELETE** Drawing Number ST-26, Sheet 67 of 105 and **REPLACE** with the attached new Drawing Number ST-26-A2, Sheet 67-A2 of 105.
- A callout was added to correctly identify an item number for drilling and grouting of rebars with pull out testing
- A new Note 7. has been added to provide information for the drilling and grouting (and with pull out testing) items
- A new Type D Waterstop Detail has been added to the top right corner of the drawing

44. **DELETE** Drawing Number ST-28, Sheet 69 of 105 and **REPLACE** with the attached new Drawing Number ST-28-A2, Sheet 69-A2 of 105.
- Keeper plate details have been added below the Notes
- On the Bearing Table, the Ez and Et Values and Width of Masonry Plate have been updated
- A Keeper load column was added before the Shape Factor column
- A New Note 14. has been added regarding the keeper plate height

45. **DELETE** Drawing Number ST-30, Sheet 71 of 105 and **REPLACE** with the attached new Drawing Number ST-30-A2, Sheet 71-A2 of 105.
- Bearing design loads and other Bearing Table values have been updated

46. **DELETE** Drawing Number ST-33, Sheet 74 of 105 and **REPLACE** with the attached new Drawing Number ST-33-A2, Sheet 74-A2 of 105.
- Two new notes have been added. An erection note now alerts the Contractor of single girder instability due to its long unbraced length, and the other is regarding steel material fabrication

47. **DELETE** Drawing Number ST-34, Sheet 75 of 105 and **REPLACE** with the attached new Drawing Number ST-34-A2, Sheet 75-A2 of 105.
- Note 4 has been revised for where welding is allowed, for the removal of metalizing to perform welding

48. **DELETE** Drawing Number ST-41, Sheet 82 of 105 and **REPLACE** with the attached new Drawing Number ST-41-A2, Sheet 82-A2 of 105.
- The Northbound Camber Table values have been updated

49. **DELETE** Drawing Number ST-42, Sheet 83 of 105 and **REPLACE** with the attached new Drawing Number ST-42-A2, Sheet 83-A2 of 105.
- The Southbound Camber Table values have been updated

50. **DELETE** Drawing Number ST-43, Sheet 84 of 105 and **REPLACE** with the attached new Drawing Number ST-43-A2, Sheet 84-A2 of 105.
- The Northbound Haunch Table values have been updated

51. **DELETE** Drawing Number ST-44, Sheet 85 of 105 and **REPLACE** with the attached new Drawing Number ST-44-A2, Sheet 85-A2 of 105.
- The Southbound Haunch Table values have been updated

52. **DELETE** Drawing Number ST-48, Sheet 89 of 105 and **REPLACE** with the attached new Drawing Number ST-48-A2, Sheet 89-A2 of 105.
- Quantities have been added to the Approach Slab Table
- Note 5 has been revised to remove sawcut grooving of exposed areas of the top of sleeper slab
- Note 7 has been revised and it now also references Drawing Numbers ST-49 and ST-50.

53. **DELETE** Drawing Number ST-49, Sheet 90 of 105 and **REPLACE** with the attached new Drawing Number ST-49-A2, Sheet 90-A2 of 105.
- A new Armorless Bridge Joint Section detail with Notes has been provided replacing the previous Joint Sealing Detail
- An Expansion Joint Opening Table is now provided

54. **DELETE** Drawing Number ST-50, Sheet 91 of 105 and **REPLACE** with the attached new Drawing Number ST-50-A2, Sheet 91-A2 of 105.
- A Note was added to Section A-A for the At Approach and Sleeper Slab Detail regarding the header concrete for the modular joint

55. **CHANGE** Drawing Number ST-57, Sheet 98 of 105, **DELETE** existing Note **3**. and **REPLACE** with the following Note **3**. "CONCRETE ANCHORS MUST HAVE A WORKING CAPACITY OF A COMBINED **5** KIPS IN SHEAR AND **12** KIPS IN TENSION.". The temporary concrete tie-downs angle size and concrete anchor loads are now provided.

56. **DELETE** Drawing Number ST-58, Sheet 99 of 105 and **REPLACE** with the attached new Drawing Number ST-58-A2, Sheet 99-A2 of 105.
- A previous reference to a Section A-A (between one and two, near the top left corner) has been removed from the Concrete Counterweight Layout Plan
- Note 4 has been updated to correct the pay item for the formwork to place the concrete for the counterweight. This work is now to be included under Item 555.0105, Concrete for Structures, Class A.

57. **DELETE** Drawing Number ST-62, Sheet 103 of 105 and **REPLACE** with the attached new Drawing Number ST-62-A2, Sheet 103-A2 of 105.
- The Substructure Bar lengths and quantities have been revised

58. **DELETE** Drawing Number ST-63, Sheet 104 of 105 and **REPLACE** with the attached new Drawing Number ST-63-A2, Sheet 104-A2 of 105.
- The Substructure Bar lengths and quantities have been revised

59. **DELETE** Drawing Number ST-64, Sheet 105 of 105 and **REPLACE** with the attached new Drawing Number ST-64-A2, Sheet 105-A2 of 105.
• The Barriers and Counterweights Bar lengths and quantities have been revised

The Bidder **MUST** complete Page **199** 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.

Brent E. Howard, P.E.
Acting Chief Engineer

Proposal Schedule of Items

Proposal ID: D214941 **Project(s):** A72128

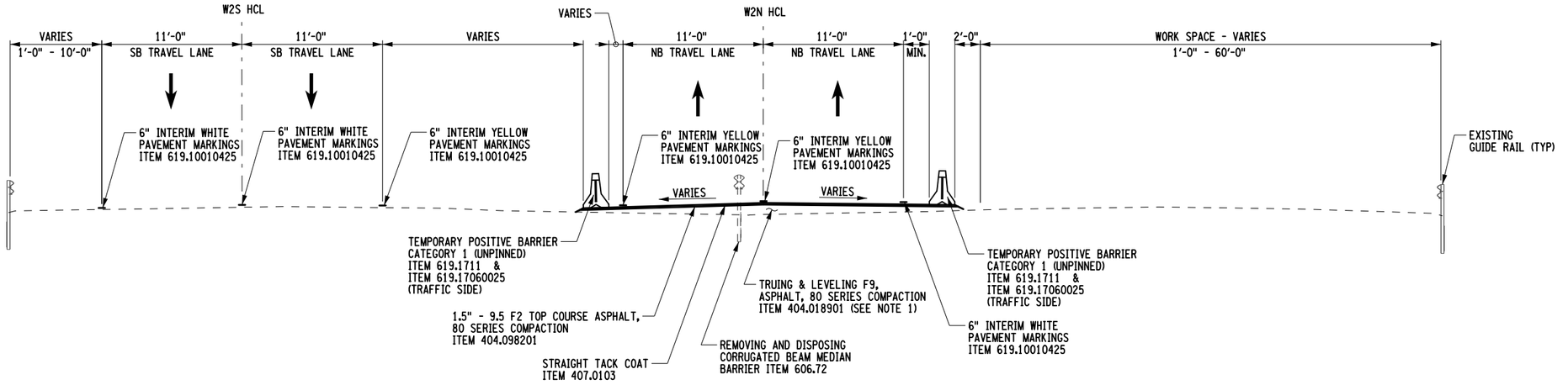
Contractor: _____

SECTION: 0001 SECTION 1

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID / Description	Approximate Quantity and Units	Unit Price Dollars	Unit Price Cents	Bid Amount Dollars	Bid Amount Cents
0300	570.01 LEAD EXPOSURE CONTROL PLAN	LUMP SUM	LUMP SUM		_____	_____
0302	570.02 MEDICAL TESTING	8,000.000 DC		1.00000		8,000.00
0304	570.03 PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	4,000.000 DC		1.00000		4,000.00
0306	570.04 DECONTAMINATION FACILITIES	4.000 CW	_____	_____	_____	_____
0308	570.090001 ENVIRONMENTAL GROUND PROTECTION	LUMP SUM	LUMP SUM		_____	_____
0310	570.090002 ENVIRONMENTAL GROUND PROTECTION	LUMP SUM	LUMP SUM		_____	_____
0312	570.100001 ENVROMENTAL WATERWAY PROTECTION	LUMP SUM	LUMP SUM		_____	_____
0314	570.100002 ENVIRONMENTAL WATERWAY PROTECTION	LUMP SUM	LUMP SUM		_____	_____
0316	606.8905 TRANSITION - HPBO (MOD) CORRUGATED BEAM MEDIAN BARRIER TO WEAK POST CORRUGATED MEDIAN BARRIER	2.000 EACH	_____	_____	_____	_____
0318	619.1711 TEMPORARY POSITIVE BARRIER - CATEGORY 1 (PINNING PROHIBITED)	2,815.000 LF	_____	_____	_____	_____
0320	619.1713 TEMPORARY POSITIVE BARRIER - CATEGORY 3 (PINNING PROHIBITED)	1,610.000 LF	_____	_____	_____	_____

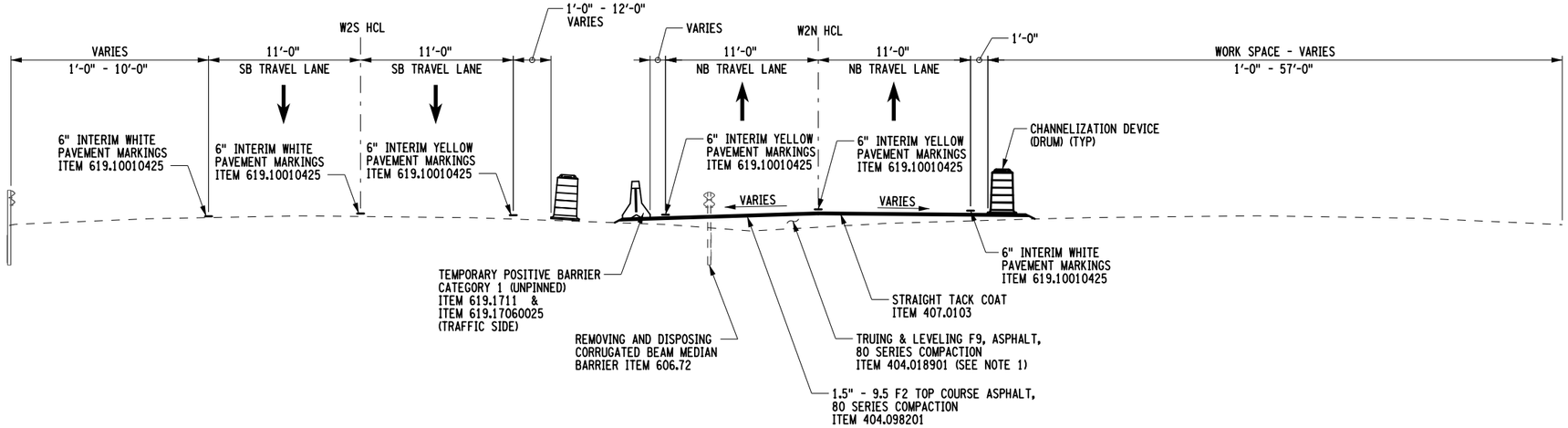
THIS SHEET SUPERSEDES SHEET 9
IN ITS ENTIRETY



STAGE 2 CROSSOVER SECTION

NTS

STA W2S 11+74 TO STA W2S 16+69
STA W2N 11+00 TO STA W2N 17+39



STAGE 2 CROSSOVER SECTION

NTS

STA W2S 23+58 TO STA W2S 29+76
STA W2N 24+26 TO STA W2N 30+66

NOTE:

1. REFER TO TC-7 AND TC-9 FOR EXISTING AND PROPOSED ELEVATIONS FOR TEMPORARY MEDIAN PAVEMENT.

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK ★ LICENSED PROFESSIONAL ENGINEER
MATTHEW WAYNE COLLINGWOOD
096625

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72	DATE: 01/24/2024
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 2	DRAWING NUMBER: TC-2

THIS SHEET SUPERSEDES SHEET 13
IN ITS ENTIRETY

13A2
105

GRID NORTH

R2-11
36"x48"
END HIGHER FINES ZONE

R2-12
(36"x54")
END WORK ZONE SPEED LIMIT

200′

POB W2S 10+00.00

6" INTERIM WHITE PAVEMENT MARKINGS ITEM 619.10010425

PI W2S 11+00.02

75′ BARRIER ITEM 619.1711

75′ OVERLAP

BEGIN MILLED-IN AUDIB DELINEATOR (MIARD) RE BY COLD MILLING ITEM 649.2599--25

MATCH LINE - SEE DWG. TC-5

NYS THRUWAY I-87 (SOUTHBOUND)

11′-0"±

W2S 10+00

AZ 344°00′33"

W2S 11+00

AZ 343°47′23"

11′-0"

W2S 12+00

POB W2N 10+00.00

6" INTERIM YELLOW PAVEMENT MARKINGS ITEM 619.10010425

PC W2N 11+00.01

6" INTERIM YELLOW PAVEMENT MARKINGS ITEM 619.10010425

BEGIN MILLED-IN AUDIBLE DELINEATOR (MIARD) REMOVAL BY COLD MILLING ITEM 649.2599--25

CBP-4
10-00.00

NYS THRUWAY I-87 (NORTHBOUND)

11′-0"±

W2N 10+00

AZ 343°50′07"

W2N 11+00

CURVE W2N1
R=2001.20′

W2N 12+00

11′-0"

12′ MIN.

100′

260′
SHOULDER TAPER

500′

400′

6" INTERIM WHITE PAVEMENT MARKINGS ITEM 619.10010425

PI W2N 12+38.89

145′ FLARED BARRIER ITEM 619.1711

TAPERED END SECTION

MATCH LINE - SEE DWG. TC-7

WORK ZONE — G20-5aP (36"x24")

STATE SPEED LIMIT 55 — R2-1 (36"x48")

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W2N1

PC =	STA. W2N 11+00.01
PRC =	STA. W2N 13+77.32
R =	2001.20′
L =	277.31′
T =	138.88′
Δ =	07°-56′-22"
emax =	N.C.

20 0 20 40 60 80′
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK ★ MATTHEW WAYNE COLLINGWOOD ★ LICENSED PROFESSIONAL ENGINEER 096625

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

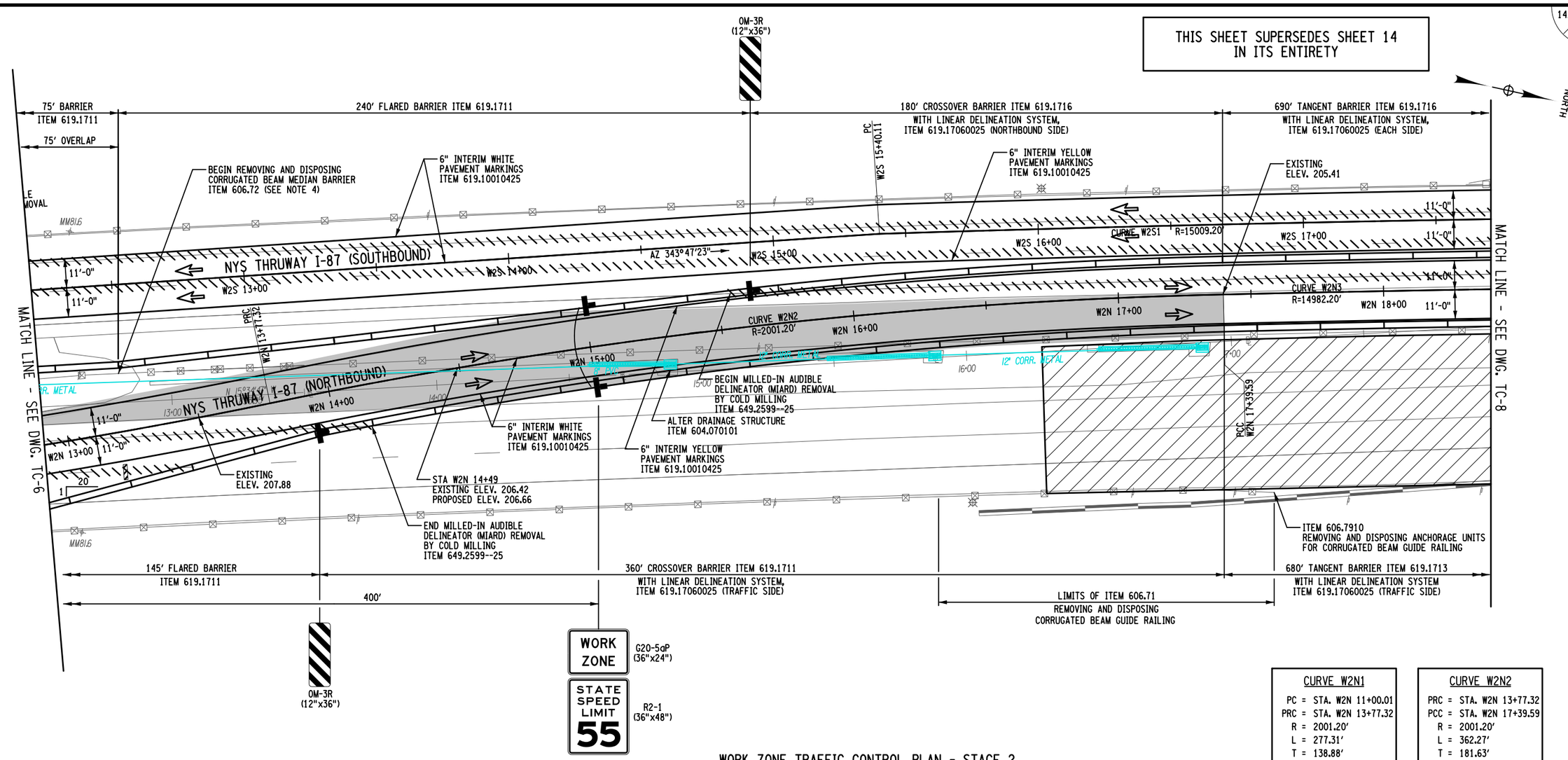
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (3 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: TC-6

FILE NAME = DESIGN SUPERVISOR M. COLLINGWOOD CHECK
USER = jmtpw11-[mtpw]-svc M. COLLINGWOOD DRAFTING T. BURTNICK CHECK
DATE/TIME = 24-JAN-2024 21:03 M. COLLINGWOOD DESIGN R. JABLONSKI

THIS SHEET SUPERSEDES SHEET 14
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXISTING CONCRETE BARRIER ALONG NORTHBOUND SHOULDER TO BE REMOVED AND RETURNED TO NYSTA. COST INCLUDED IN ITEM 619.01
4. EXPOSED END OF CORRUGATED BEAM MEDIAN RAIL TO BE TEMPORARILY ANCHORED TO GROUND UNDER ITEM 606.24 - ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER. ANCHORAGE UNIT SHALL BE REMOVED AT THE CONCLUSION OF STAGE 3 CONSTRUCTION UNDER ITEM 606.7910 - REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER

CURVE W2N1
PC = STA. W2N 11+00.01
PRC = STA. W2N 13+77.32
R = 2001.20'
L = 277.31'
T = 138.88'
Δ = 07°-56'-22"
emax = N.C.

CURVE W2N2
PRC = STA. W2N 13+77.32
PCC = STA. W2N 17+39.59
R = 2001.20'
L = 362.27'
T = 181.63'
Δ = 10°-22'-19"
emax = N.C.

CURVE W2N3
PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

CURVE W2S1
PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

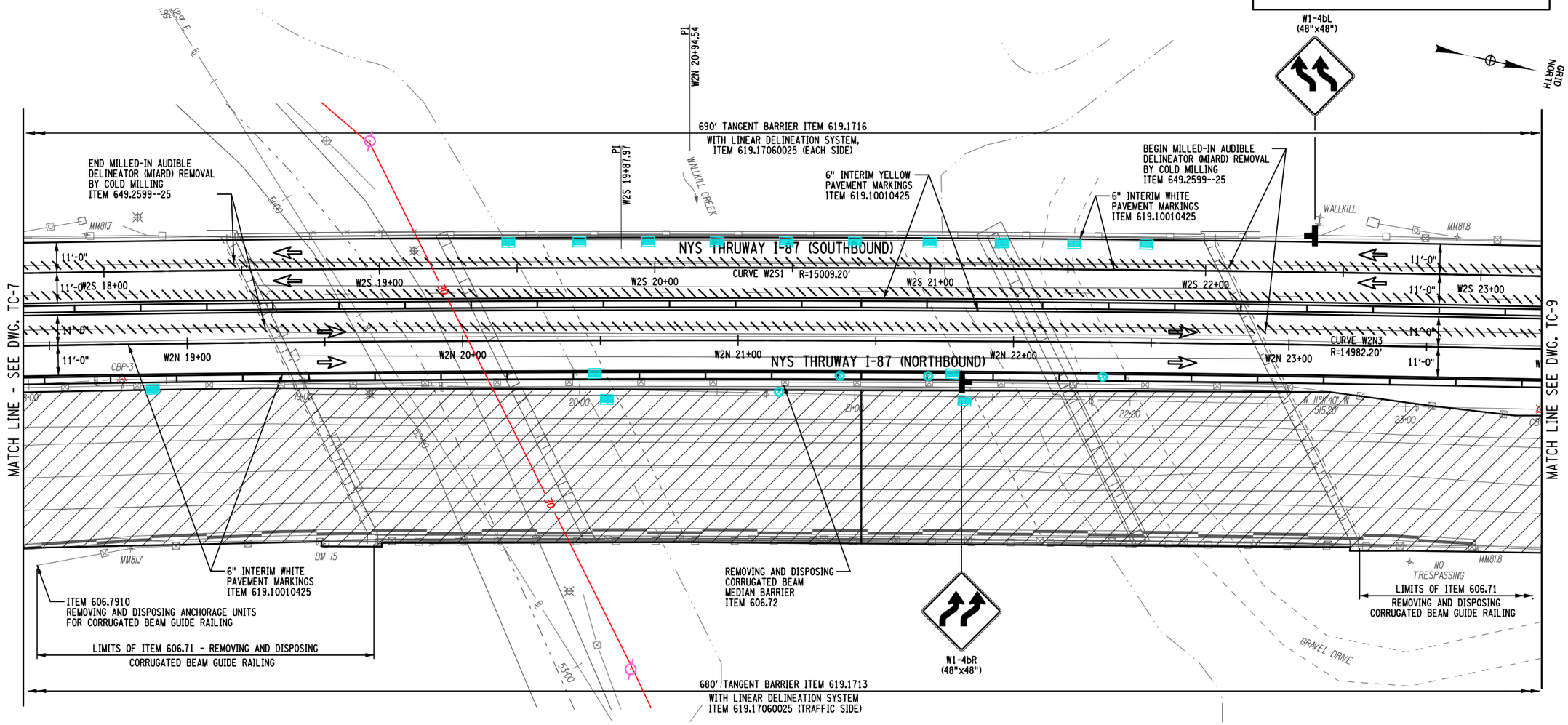
TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2
WALLKILL BRIDGE (4 OF 8)

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
TC-7

THIS SHEET SUPERSEDES SHEET 15
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXISTING CONCRETE BARRIER ALONG NORTHBOUND SHOULDER TO BE REMOVED AND RETURNED TO NYSTA. COST INCLUDED IN ITEM 619.01

CURVE W2S1

PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

CURVE W2N3

PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

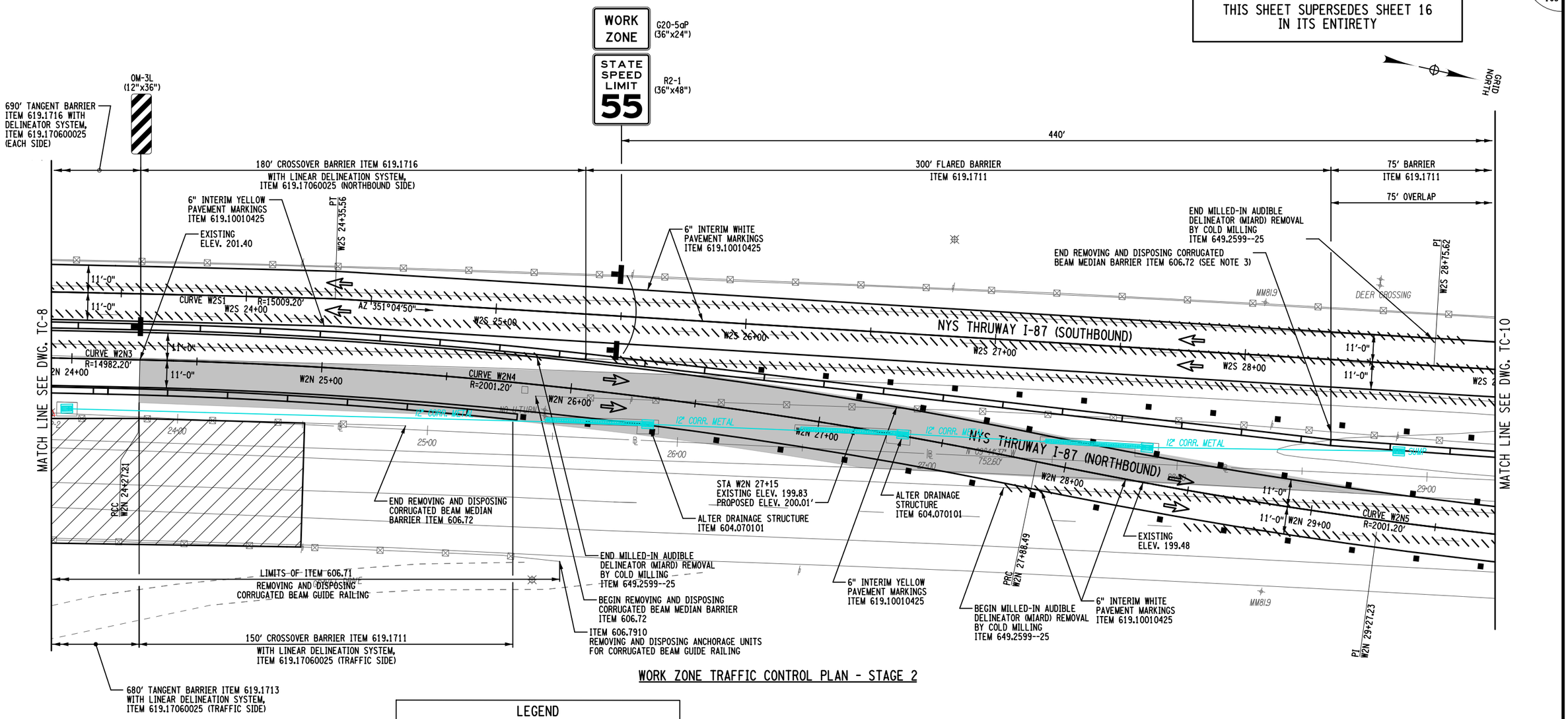
TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2
WALLKILL BRIDGE (5 OF 8)

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
TC-8

THIS SHEET SUPERSEDES SHEET 16
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXPOSED END OF CORRUGATED BEAM MEDIAN RAIL TO BE TEMPORARILY ANCHORED TO GROUND UNDER ITEM 606.24 - ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER. ANCHORAGE UNIT SHALL BE REMOVED AT THE CONCLUSION OF STAGE 3 CONSTRUCTION UNDER ITEM 606.7910 - REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER.

CURVE W2S1
PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

CURVE W2N3
PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

CURVE W2N4
PCC = STA. W2N 24+27.21
PRC = STA. W2N 27+88.49
R = 2001.20'
L = 361.28'
T = 181.13'
Δ = 10°-20'-37"
emax = N.C.

CURVE W2N5
PRC = STA. W2N 27+88.49
PT = STA. W2N 29+27.23
R = 2001.20'
L = 277.04'
T = 138.74'
Δ = 07°-55'-55"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

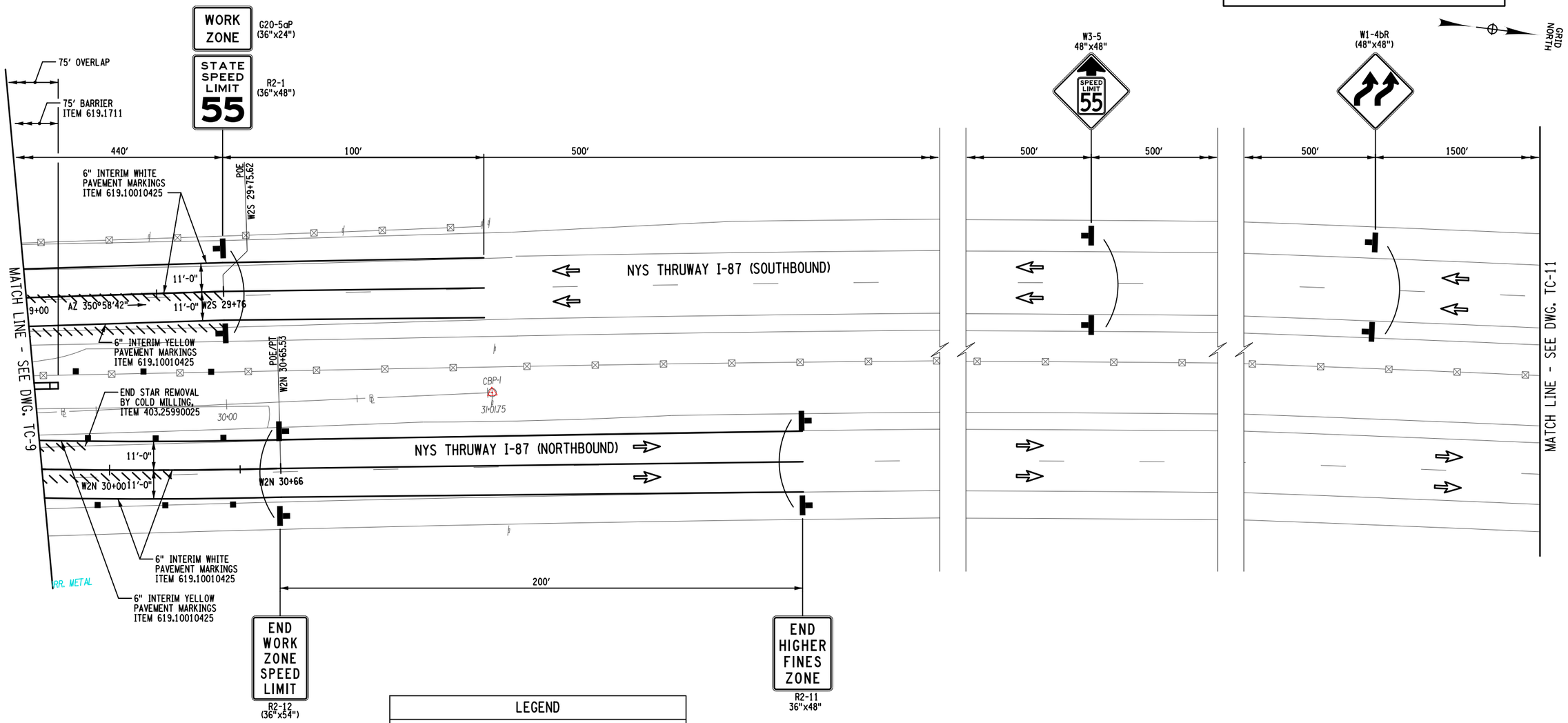
TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2
WALLKILL BRIDGE (6 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: TC-9

THIS SHEET SUPERSEDES SHEET 17
IN ITS ENTIRETY



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W2N5

PRC =	STA. W2N 27+88.49
PT =	STA. W2N 29+27.23
R =	2001.20'
L =	277.04'
T =	138.74'
Δ =	07°-55'-55"
emax =	N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK ★ MATTHEW WAYNE COLLINGWOOD ★ LICENSED PROFESSIONAL ENGINEER 096625

REVISIONS

DATE	DESCRIPTION	BY	SYM.

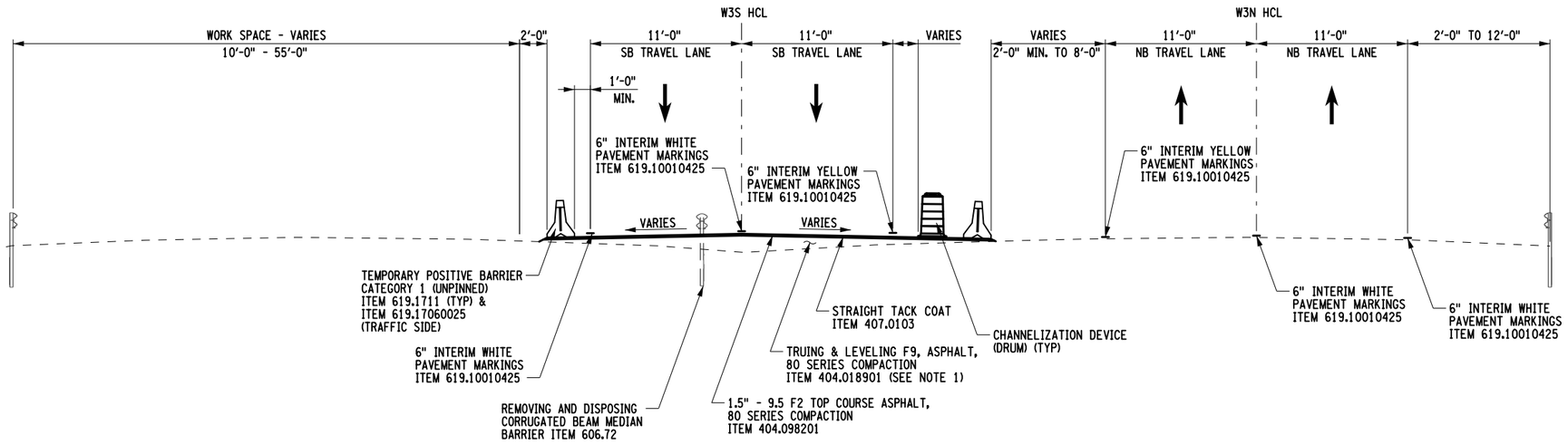
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (7 OF 8)

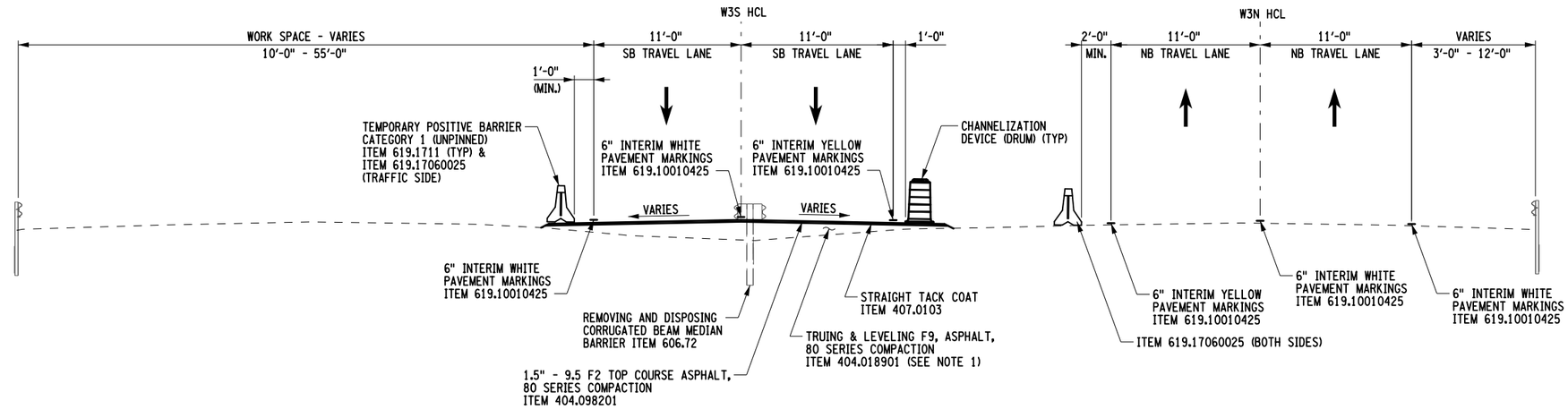
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: TC-10

THIS SHEET SUPERSEDES SHEET 19
IN ITS ENTIRETY



STAGE 3 CROSSOVER SECTION

NTS
STA W3S 10+00 TO STA W3S 15+54
STA W3N 10+00 TO STA W3N 15+64



STAGE 3 CROSSOVER SECTION

NTS
STA W3S 23+72 TO STA W3S 29+31
STA W3N 23+84 TO STA W3N 29+24

NOTE:

1. REFER TO TC-17 AND TC-19 FOR EXISTING AND PROPOSED ELEVATIONS FOR TEMPORARY MEDIAN PAVEMENT.

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

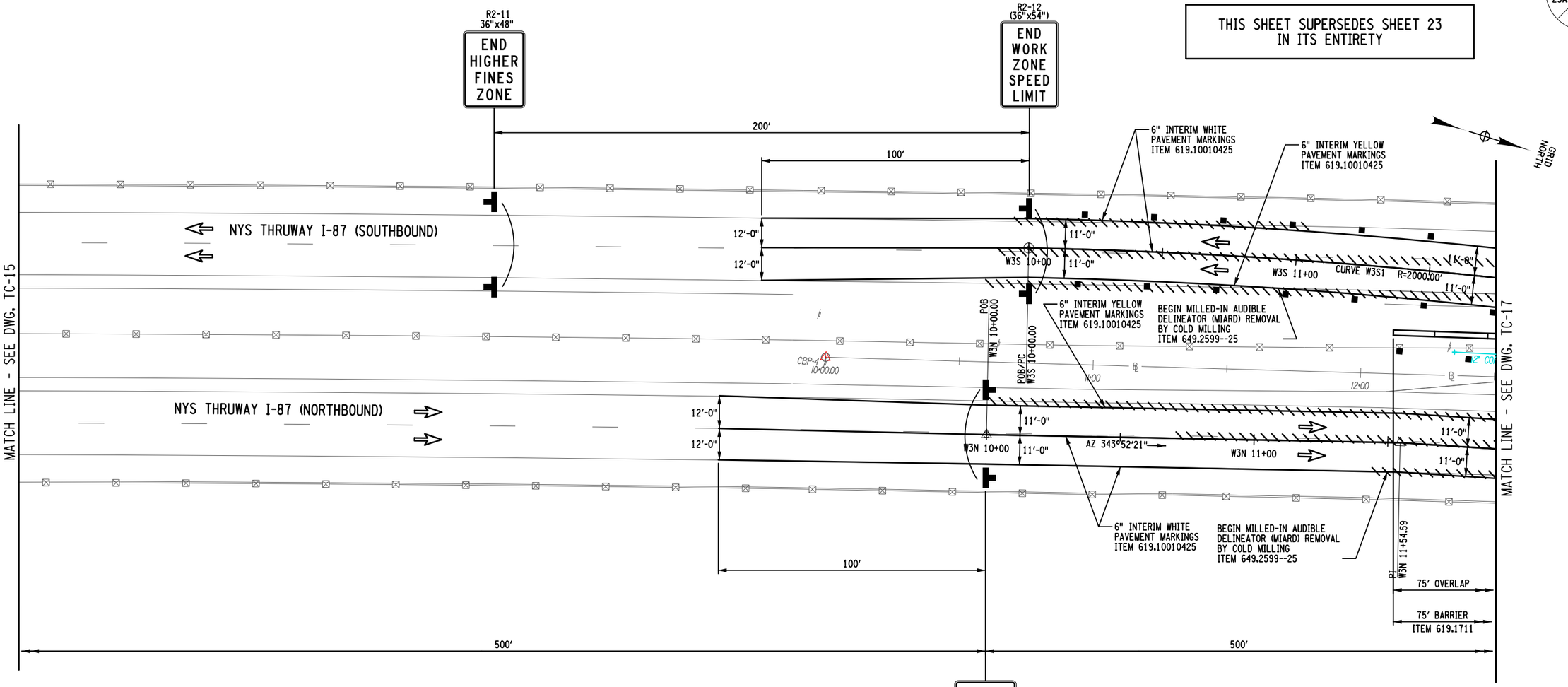
TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL
TYPICAL SECTIONS - STAGE 3

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
TC-12

THIS SHEET SUPERSEDES SHEET 23
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

WORK ZONE — G20-5aP (36"x24")

STATE SPEED LIMIT 55 — R2-1 (36"x48")

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S1

PC = STA. W3S 10+00.00
PRC = STA. W3S 13+62.68
R = 2000.00'
L = 362.68'
T = 181.84'
Δ = 10°-23'-24"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK ★ MATTHEW WAYNE COLLINGWOOD ★ LICENSED PROFESSIONAL ENGINEER 096625

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

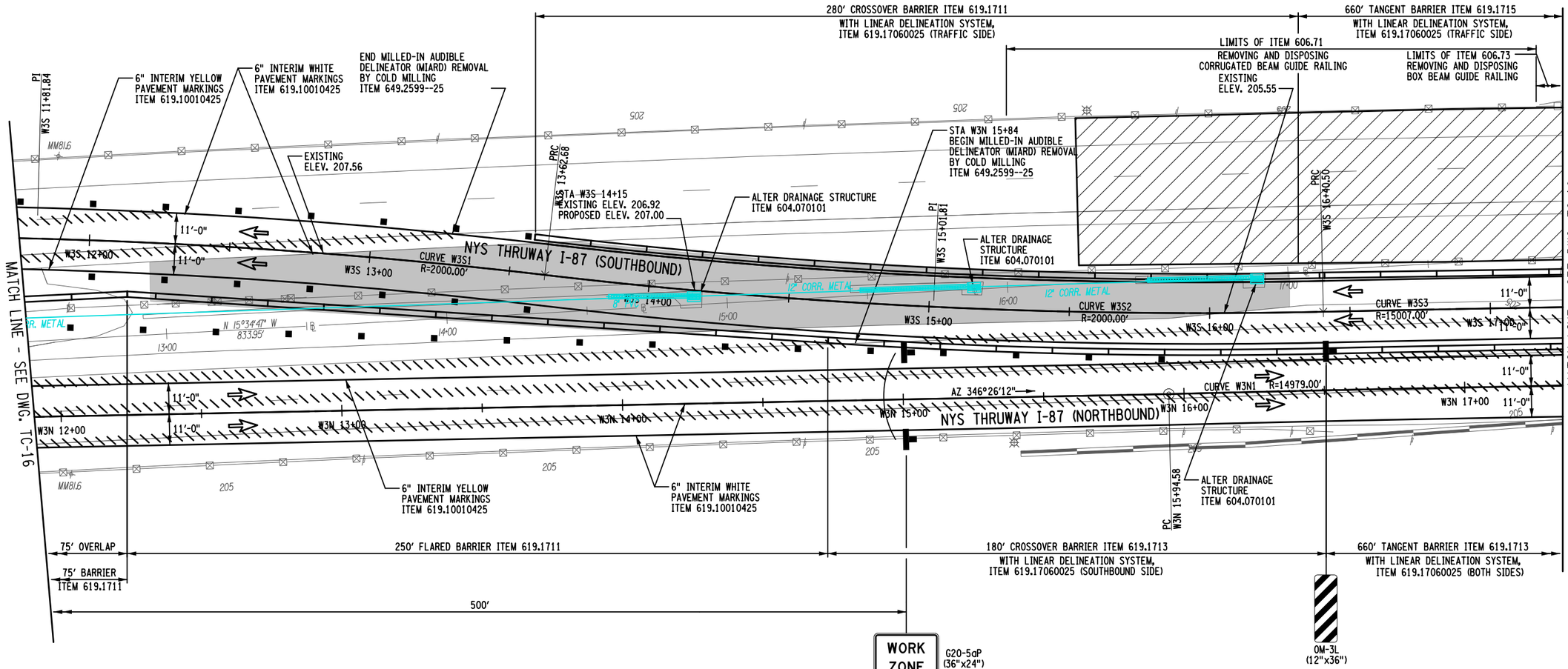
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (3 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: TC-16

THIS SHEET SUPERSEDES SHEET 24
IN ITS ENTIRETY

GRID NORTH



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S1	CURVE W3S2	CURVE W3S3	CURVE W3N1
PC = STA. W3S 10+00.00	PRC = STA. W3S 13+62.68	PRC = STA. W3S 16+40.50	PC = STA. W3N 15+94.58
PRC = STA. W3S 13+62.68	PRC = STA. W3S 16+40.50	PRC = STA. W3S 23+04.19	PT = STA. W3N 23+84.13
R = 2000.00'	R = 2000.00'	R = 15007.00'	R = 14979.00'
L = 362.68'	L = 277.82'	L = 663.69'	L = 789.56'
T = 181.84'	T = 139.13'	T = 331.90'	T = 394.87'
Δ = 10°-23'-24"	Δ = 07°-57'-32"	Δ = 02°-32'-02"	Δ = 03°-01'-13"
emax = N.C.	emax = N.C.	emax = N.C.	emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK
MATTHEW WAYNE COLLINGWOOD
096625
LICENSED PROFESSIONAL ENGINEER

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.

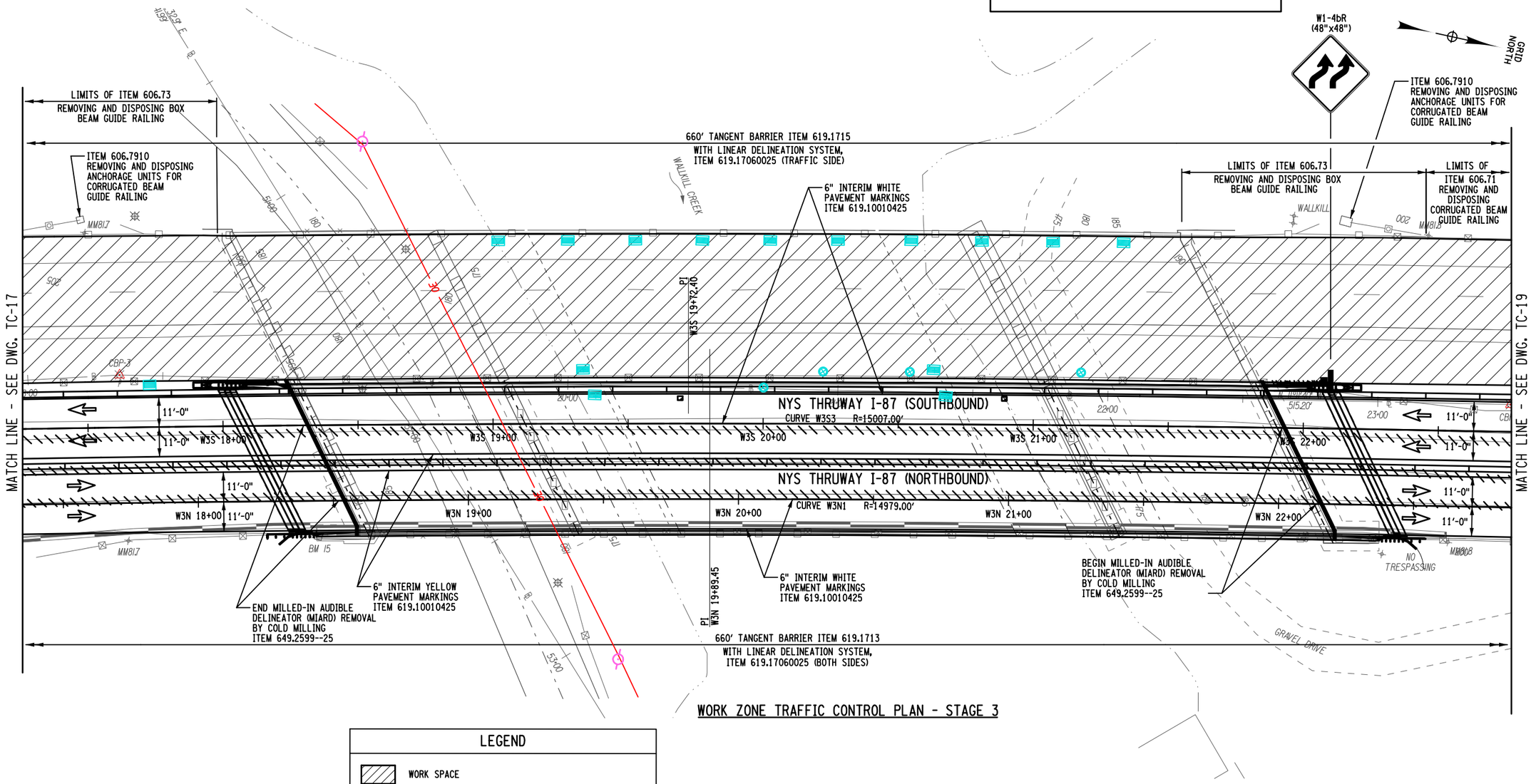
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (4 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	01/24/2024
DRAWING NUMBER:	TC-17

THIS SHEET SUPERSEDES SHEET 25
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S3	
PRC =	STA. W3S 16+40.50
PRC =	STA. W3S 23+04.19
R =	15007.00'
L =	663.69'
T =	331.90'
Δ =	02°-32'-02"
emax =	N.C.

CURVE W3N1	
PC =	STA. W3N 15+94.58
PT =	STA. W3N 23+84.13
R =	14979.00'
L =	789.56'
T =	394.87'
Δ =	03°-01'-13"
emax =	N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

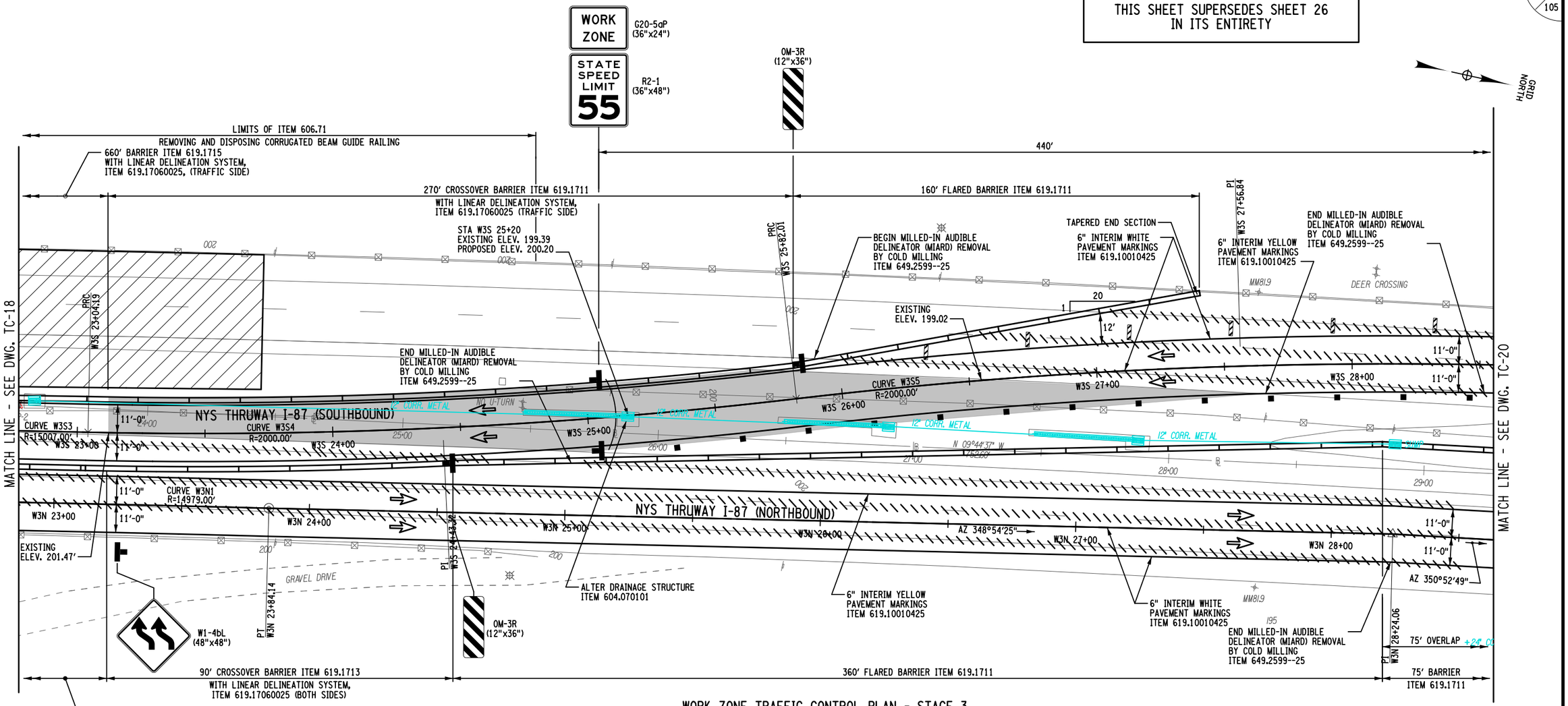
TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (5 OF 8)

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
TC-18

THIS SHEET SUPERSEDES SHEET 26
IN ITS ENTIRETY



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:
1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S3
PRC = STA. W3S 16+40.50
PRC = STA. W3S 23+04.19
R = 15007.00'
L = 663.69'
T = 331.90'
Δ = 02°-32'-02"
emax = N.C.

CURVE W3S4
PRC = STA. W3S 23+04.19
PRC = STA. W3S 25+82.01
R = 2000.00'
L = 277.82'
T = 139.13'
Δ = 07°-57'-32"
emax = N.C.

CURVE W3S5
PRC = STA. W3S 25+82.01
PT = STA. W3S 29+30.79
R = 2000.00'
L = 348.79'
T = 174.84'
Δ = 09°-59'-31"
emax = N.C.

CURVE W3N1
PC = STA. W3N 15+94.58
PT = STA. W3N 23+84.13
R = 14979.00'
L = 789.56'
T = 394.87'
Δ = 03°-01'-13"
emax = N.C.

20 0 20 40 60 80'
1" = 40'

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

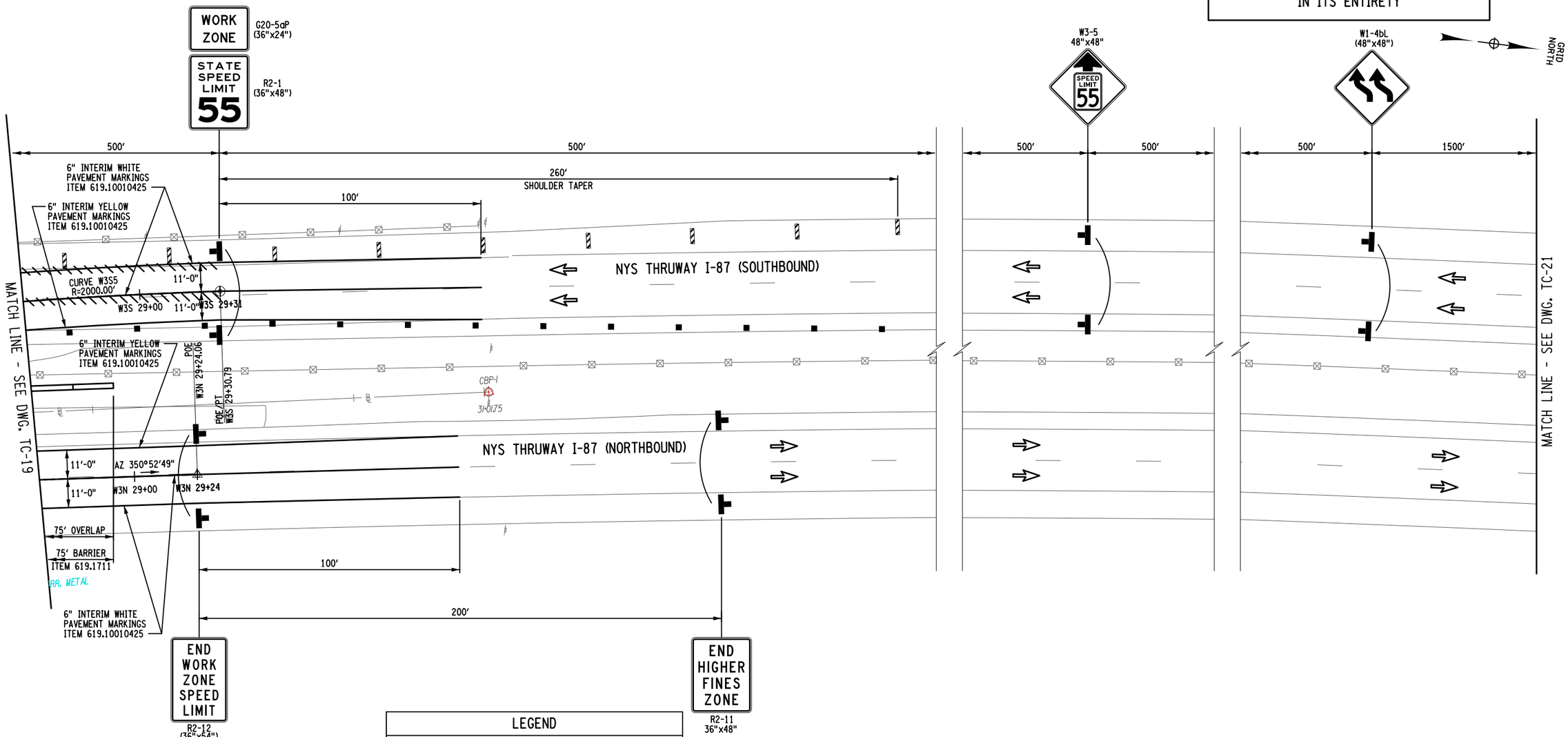
TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (6 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: TC-19

THIS SHEET SUPERSEDES SHEET 27
IN ITS ENTIRETY



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S5

PRC = STA. W3S 25+82.01
PT = STA. W3S 29+30.79
R = 2000.00′
L = 348.79′
T = 174.84′
Δ = 09°-59′-31"
emax = N.C.

20 0 20 40 60 80′
1" = 40′

ALTERED BY:
ON:

AFFIX SEAL: MATTHEW WAYNE COLLINGWOOD
ON: 01/24/2024

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (7 OF 8)

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
TC-20

THIS SHEET SUPERSEDES SHEET 48
IN ITS ENTIRETY

48A2
105

INDEX OF DRAWINGS

SHEET NUMBER	DESCRIPTION	DRAWING NUMBER
42	GENERAL PLAN & ELEVATION	ST-1
43	TYPICAL BRIDGE SECTIONS	ST-2
44	STAGE CONSTRUCTION SECTIONS (1 OF 2)	ST-3
45	STAGE CONSTRUCTION SECTIONS (2 OF 2)	ST-4
46	I-87 PROFILE (NORTHBOUND)	ST-5
47	I-87 PROFILE (SOUTHBOUND)	ST-6
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52	EXCAVATION AND EMBANKMENT SECTIONS	ST-11
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57	SOUTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS	ST-16
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63	NORTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS	ST-22
64	PEDESTAL DETAILS - 1	ST-23
65	PEDESTAL DETAILS - 2	ST-24
66	PEDESTAL DETAILS - 3	ST-25
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81	SOUTHBOUND MOMENT AND SHEAR AND, DESIGN LOAD TABLES (2 OF 2)	ST-40
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87	SOUTHBOUND SUPERSTRUCTURE SLAB REINFORCEMENT PLAN	ST-46
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100	MISCELLANEOUS DETAILS (4 OF 5)	ST-59
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ESTIMATE OF QUANTITES

ITEM NO.	DESCRIPTION	UNIT	QTY	FINAL QTY
202.120001	REMOVING EXISTING SUPERSTRUCTURE	LS	1	
202.120002	REMOVING EXISTING SUPERSTRUCTURE	LS	1	
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	20	
203.03	EMBANKMENT IN PLACE	CY	578	
203.21	SELECT STRUCTURAL FILL	CY	236	
206.01	STRUCTURE EXCAVATION	CY	811	
207.26	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	SY	213	
551.13	FURNISHING EQUIPMENT FOR DRIVING PILES	LS	1	
552.2001	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	28	
552.2002	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	50	
552.2101	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	12	
552.2102	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	12	
552.2201	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	40	
552.2202	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	62	
552.230201	UNTREATED WOODING LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	149	
552.230202	UNTREATED WOODING LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	148	
555.0105	CONCRETE FOR STRUCTURES, CLASS A	CY	686	
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	109	
556.0203	GALVANIZED BAR REINFORCEMENT FOR STRUCTURES	LB	67035	
556.03	STUD SHEAR CONNECTORS FOR BRIDGES	EA	25424	
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOM FORMWORK REQUIRED - TYPE 9 FRICTION	SY	4541	
557.2009	STRUCTURAL APPROACH SLAB WITH INTEGRAL WEARING SURFACE - TYPE 9 FRICTION	SY	701	
558.02	LONGITUDINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE	SY	4819	
559.01	PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE, DECKS AND BRIDGE DECK OVERLAYS	SF	43844	
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	13812	
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	14451	
564.510001	STRUCTURAL STEEL (NORTHBOUND SUPERSTRUCTURE)	LB	1077300	
564.510002	STRUCTURAL STEEL (SOUTHBOUND SUPERSTRUCTURE)	LB	1077300	
564.510003	STRUCTURAL STEEL (TEMPORARY TIE-DOWNS)	LB	4180	
564.510004	STRUCTURAL STEEL (COUNTERWEIGHTS)	LB	357000	
565.1523	TYPE M.R. EXPANSION BEARINGS (451K TO 675K)	EA	14	
565.1723	TYPE M.R. FIXED BEARINGS (451K TO 675K)	EA	14	
565.2034	TYPE E.B. EXPANSION BEARINGS (169K TO 225K)	EA	28	
566.02	MODULAR EXPANSION JOINT SYSTEM - TWO CELL	LF	119	
567.60	ARMORLESS BRIDGE JOINT	LF	119	
569.04	SINGLE SLOPE (HALF SECTION) CONCRETE BRIDGE BARRIER	LF	1568	
570.01	LEAD EXPOSURE CONTROL PLAN	LS	1	
570.02	MEDICAL TESTING	DC	8000	
570.03	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	DC	4000	
570.04	DECONTAMINATION FACILITIES	CW	4	
570.090001	ENVIRONMENTAL GROUND PROTECTION (NORTHBOUND STRUCTURE)	LS	1	
570.090002	ENVIRONMENTAL GROUND PROTECTION (SOUTHBOUND STRUCTURE)	LS	1	
570.100001	ENVIRONMENTAL WATERWAY PROTECTION (NORTHBOUND STRUCTURE)	LS	1	
570.100002	ENVIRONMENTAL WATERWAY PROTECTION (SOUTHBOUND STRUCTURE)	LS	1	
572.00020125	METALIZING	LS	1	
572.00020225	METALIZING	LS	1	
576.01	SCUPPERS (TYPE A)	EA	4	
576.21	DOWNSPOUT SYSTEM (PVC)	LF	28	
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	136	
582.05	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE	CY	1	
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE	SF	981	
586.0201	DRILLING AND GROUTING BOLTS OR REINFORCEMENT BARS	EA	787	
586.0301	DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TESTS	EA	529	
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	EA	310	
606.8903	TRANSITION: HPBO (MOD) CORRUGATED BEAM GUIDE RAIL TO SINGLE SLOPE CONCRETE HALF SECTION BARRIER	EA	8	
607.06120025	PROTECTIVE SCREENING (SNOW FENCE)	LF	83	
607.97000008	REMOVE AND RESET EXISTING FENCE	LF	38	
609.0301	STONE CURB - BRIDGE (TYPE A)	LF	121	
620.03	STONE FILL (LIGHT)	CY	8	
620.0801	BEDDING MATERIAL, TYPE 1	CY	9	
660.61002025	REIMBURSEMENT TO ADESTA, AN ALLIED UNIVERSAL COMPANY FOR FURNISHING UTILITY SERVICES	DC	1100000	
662.18130425	FURNISH AND INSTALL FIBER REINFORCED EPOXY (F.R.E.) CONDUIT	LF	960	
662.74125325	HDPE INNERDUCT 1 1/4 INCH ID	LF	2880	
683.50000025	NEMA 4X STAINLESS STEEL ENCLOSURE	EA	4	

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK
RYAN DOUGLAS HENDERSON
LICENSED PROFESSIONAL ENGINEER
82023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

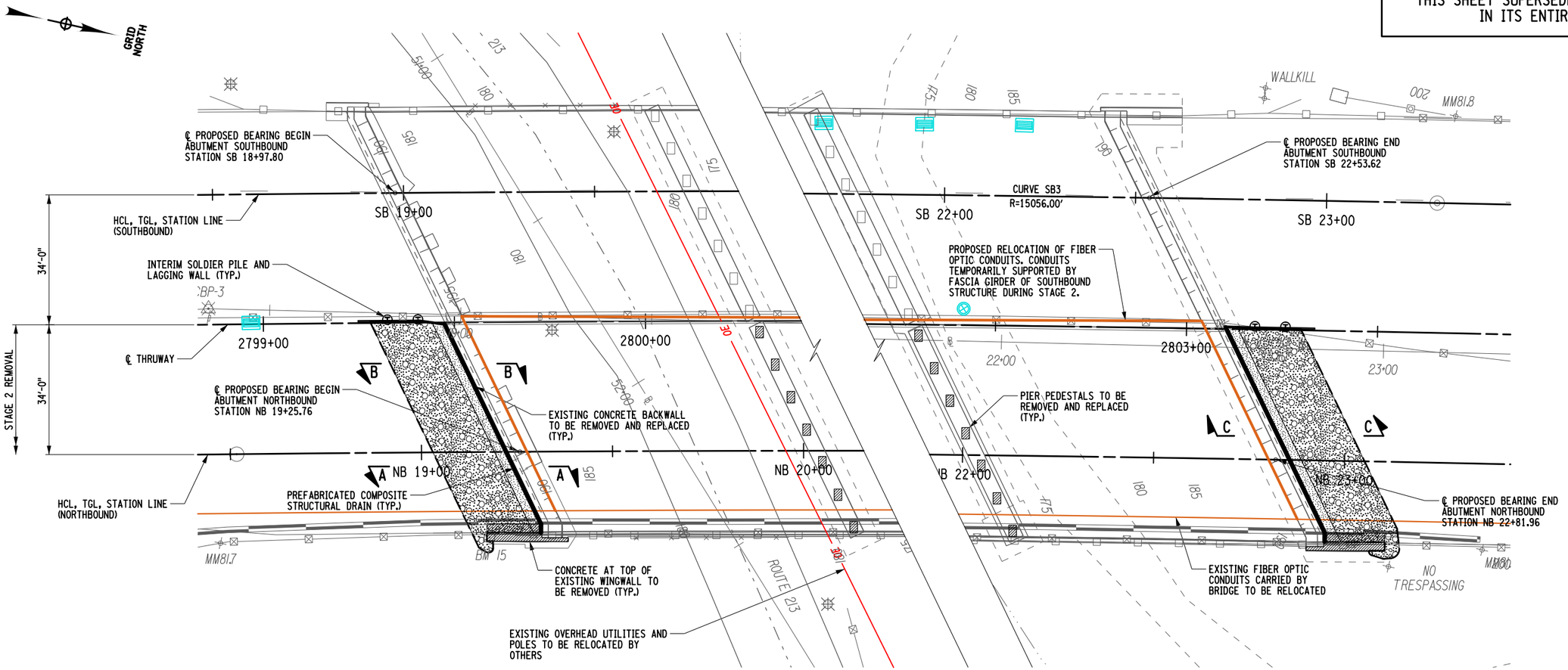
TITLE OF DRAWING
ESTIMATE OF QUANTITIES & INDEX OF DRAWINGS

CONTRACT NUMBER: TAA 23-25B

DATE: 01/24/2024

DRAWING NUMBER: ST-07

THIS SHEET SUPERSEDES SHEET 50
IN ITS ENTIRETY



STAGE 2 - EXCAVATION AND EMBANKMENT PLAN

15 0 15 30 45 60'
1" = 30'

INTERIM SOLDIER PILE AND LAGGING WALL ITEMS:
ITEM 552.2001 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2002 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2101 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2102 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2201 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2202 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.230201 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (BEGIN)
ITEM 552.230202 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (END)
ITEM 551.13 FURNISHING EQUIPMENT FOR DRIVING PILES

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES

1. FOR INTERIM SOLDIER PILING AND LAGGING WALL DETAILS, SEE DRAWINGS ST-12 THROUGH ST-13.
2. FOR REMOVAL DETAILS, SEE DRAWING ST-14.
3. FOR STAGE 3 EXCAVATION AND EMBANKMENT PLANS AND DETAILS, SEE DRAWINGS ST-10 THROUGH ST-11.
4. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT STANDARD PROCTOR MAXIMUM DENSITY.
5. HIGHWAY EMBANKMENT MATERIAL ITEM 203.03 AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL LINE.
6. FOR FIBER OPTIC CONDUIT RELOCATION DETAILS, SEE DRAWING ST-59

ALTERED BY:	AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON:	ON: 01/24/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

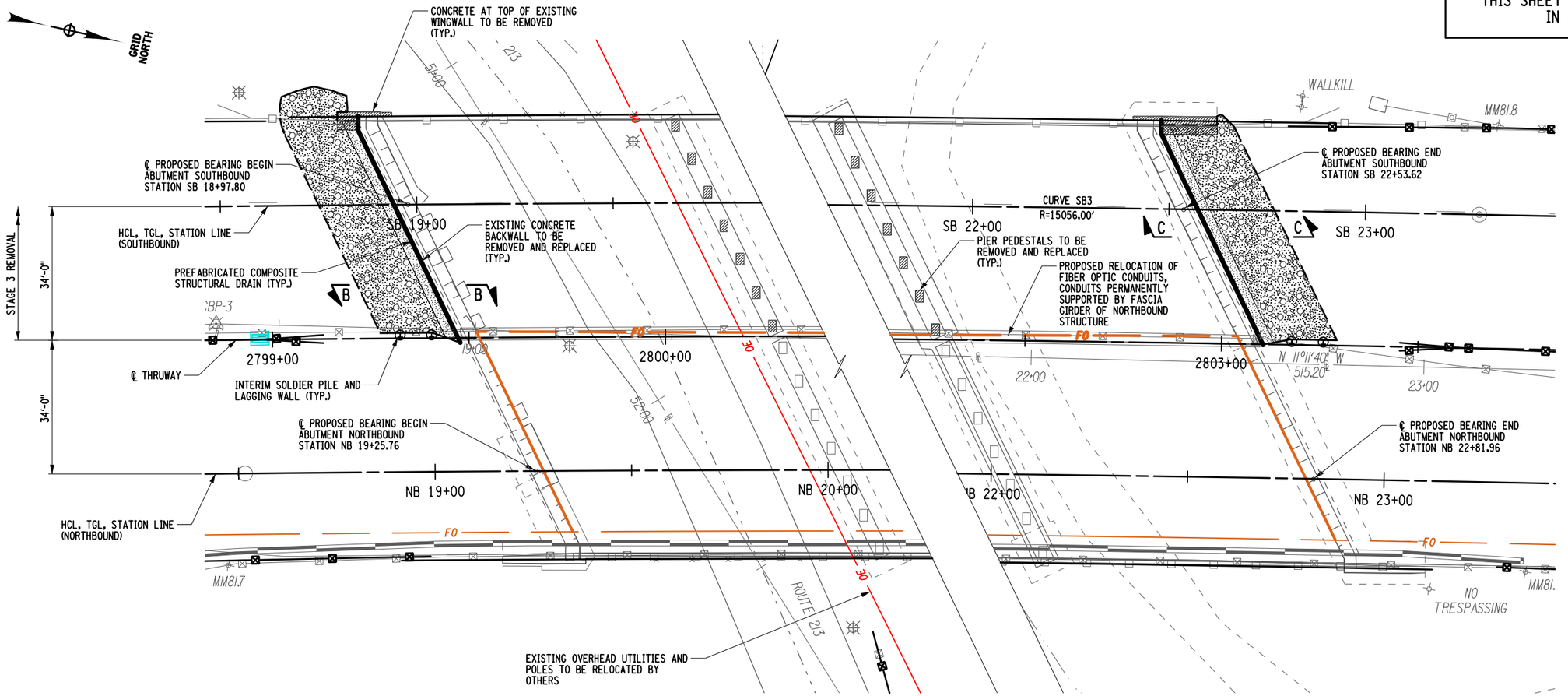
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: EXCAVATION AND EMBANKMENT PLAN STAGE 2

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-09

THIS SHEET SUPERSEDES SHEET 51
IN ITS ENTIRETY



STAGE 3 - EXCAVATION AND EMBANKMENT PLAN

15 0 15 30 45 60'
1" = 30'

INTERIM SOLDIER PILE AND LAGGING WALL ITEMS:
ITEM 552.2001 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2002 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2101 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2102 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2201 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2202 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.230201 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (BEGIN)
ITEM 552.230202 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (END)
ITEM 551.13 FURNISHING EQUIPMENT FOR DRIVING PILES

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES

1. FOR INTERIM SOLDIER PILING AND LAGGING WALL DETAILS, SEE DRAWINGS ST-12 THROUGH ST-13.
2. FOR REMOVAL DETAILS, SEE DRAWING ST-14.
3. FOR STAGE 2 EXCAVATION AND EMBANKMENT PLANS AND DETAILS, SEE DRAWINGS ST-09 AND ST-10.
4. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT STANDARD PROCTOR MAXIMUM DENSITY.
5. HIGHWAY EMBANKMENT MATERIAL ITEM 203.03 AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL LINE.
6. FOR FIBER OPTIC CONDUIT RELOCATION DETAILS, SEE DRAWING ST-59

ALTERED BY:	AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON:	ON: 01/24/2024

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 82023

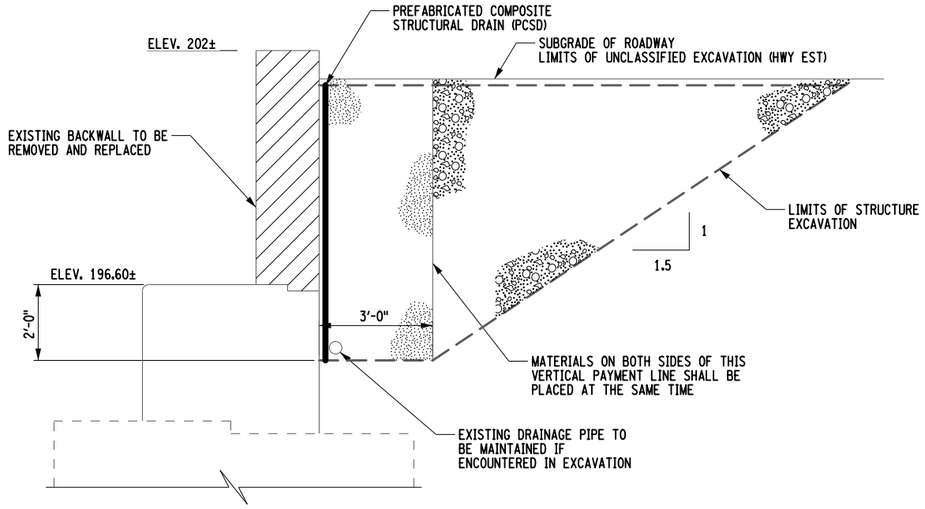
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

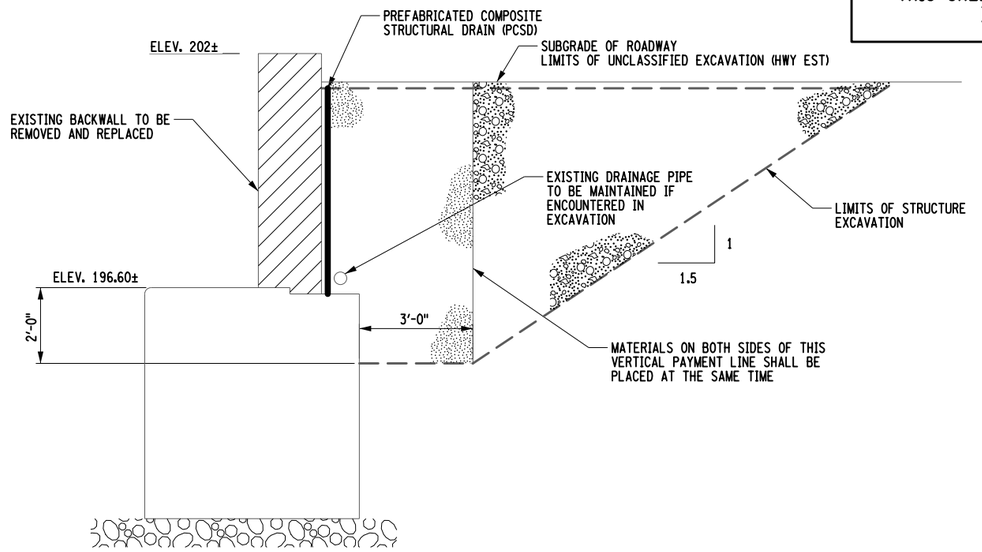
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	EXCAVATION AND EMBANKMENT PLAN STAGE 3
CONTRACT NUMBER:	TAA 23-25B
DATE:	01/24/2024
DRAWING NUMBER:	ST-10

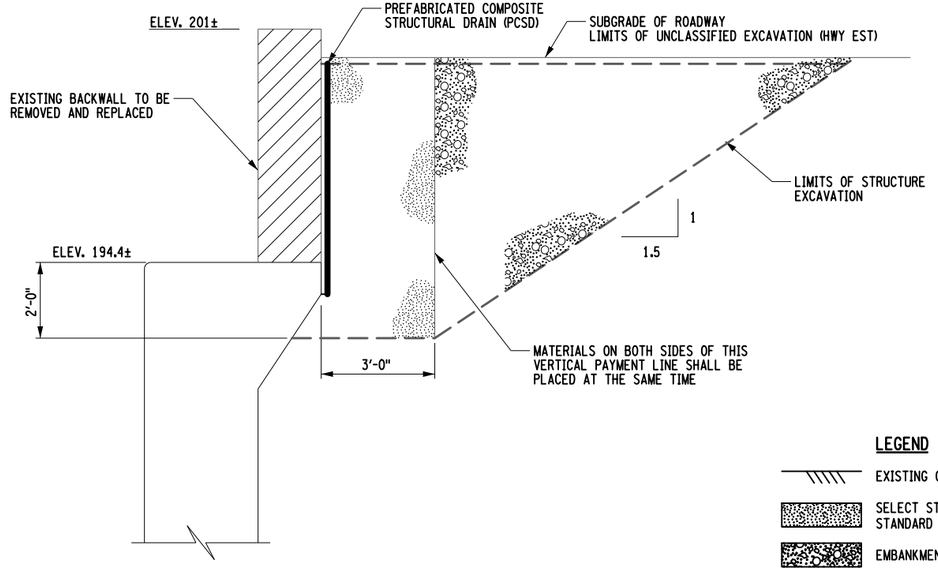
THIS SHEET SUPERSEDES SHEET 52
IN ITS ENTIRETY



A ST-9 TYPICAL BEGIN ABUTMENT SECTION
NOT TO SCALE



B ST-9 B ST-10 TYPICAL BEGIN ABUTMENT SECTION
NOT TO SCALE



C ST-9 C ST-10 TYPICAL END ABUTMENT SECTION
NOT TO SCALE

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES:

1. SEE ST-09 AND ST-10 FOR PLAN VIEWS OF EARTHWORK AND ADDITIONAL NOTES.
2. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY:	AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON:	ON: 01/24/2024

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 82023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

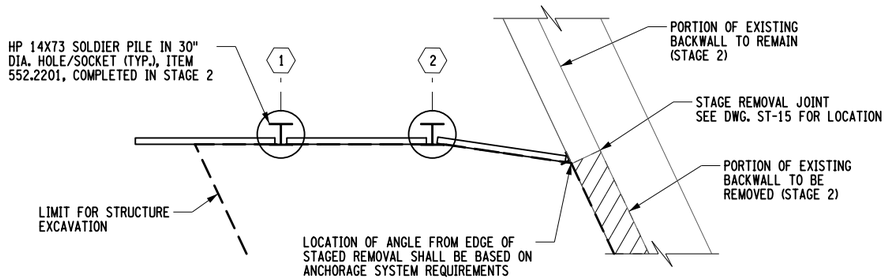
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 01/24/2024
TITLE OF DRAWING: EXCAVATION AND EMBANKMENT SECTIONS	DRAWING NUMBER: ST-11

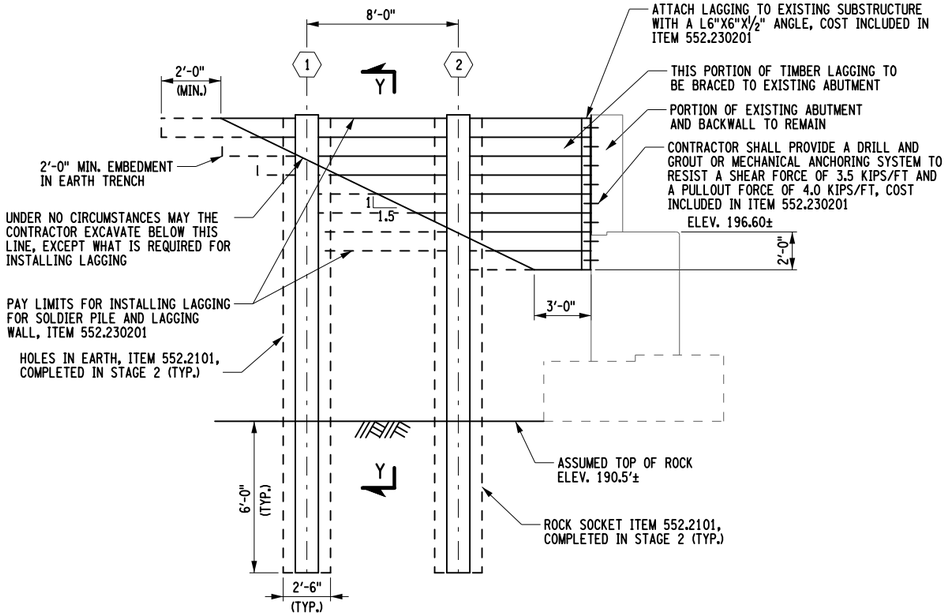
THIS SHEET SUPERSEDES SHEET 53
IN ITS ENTIRETY

GRID NORTH



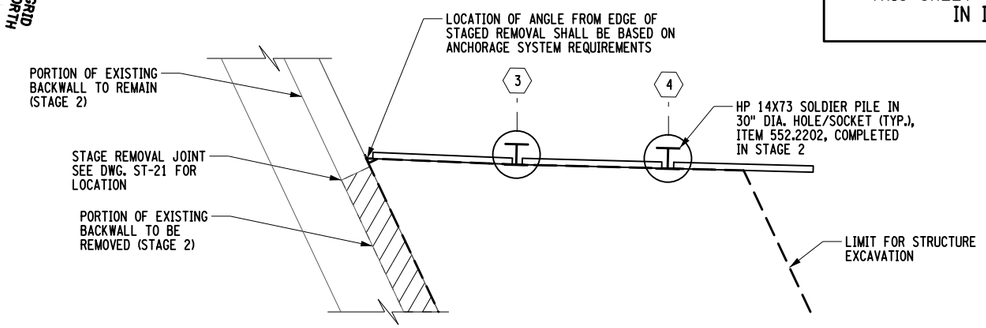
STAGE 2 PLAN - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



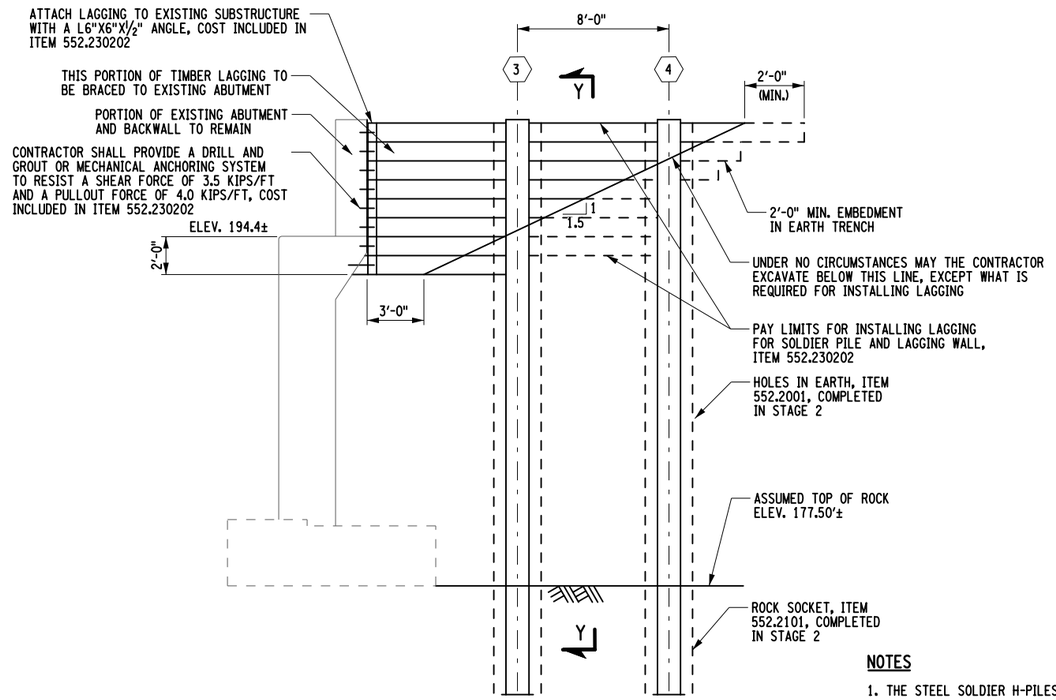
STAGE 2 ELEVATION - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



STAGE 2 PLAN - END BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



STAGE 2 ELEVATION - END BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE

PILE NUMBER	STATION	OFFSET (IN FEET)	PILE TOP ELEVATIONS (IN FEET)	DEPTH OF EXCAVATION (IN FEET)	REQUIRED PILE TIP ELEV. (IN FEET)	REQUIRED PILE LENGTH (IN FEET)	ASSUMED ROCK ELEVATION (IN FEET)	MINIMUM ROCK SOCKET (IN FEET)	MINIMUM PILE SECTION MODULUS (IN INCHES^3)	RECOMMENDED SOLDIER PILE SECTION	MINIMUM DIA. OF HOLE (IN INCHES)	AS-BUILT PILE LENGTH (IN FEET)
1	18+95.51	33.17 RT	204.35	2.26	184.50	19.09	190.50	6.00	107	HP14X73	30	
2	19+03.52	33.17 RT	204.35	7.05	184.50	19.09	190.50	6.00	107	HP14X73	30	
3	22+81.80	33.17 RT	202.18	6.22	171.50	30.07	177.50	6.00	107	HP14X73	30	
4	22+89.82	33.17 RT	202.18	1.43	171.50	30.07	177.50	6.00	107	HP14X73	30	

NOTE: STATION AND OFFSET GIVEN TO THE CENTER OF HOLE AND PILE.

NOTES

1. THE STEEL SOLDIER H-PILES SHALL BE ASTM 572 GRADE 50.
2. A SURCHARGE LOAD OF 250 PSF WAS APPLIED TO THE TOP OF THE WALL.
3. WHEN NO LONGER NECESSARY FOR EXCAVTION SUPPORT AFTER STAGE 3 BACKFILLING IS COMPLETE, REMOVE LAGGING AND CUT OFF AND REMOVE SOLDIER PILES TO THE SUBGRADE SURFACE.
4. SEE SECTION Y-Y ON DRAWING NO. ST-13.
5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 82023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

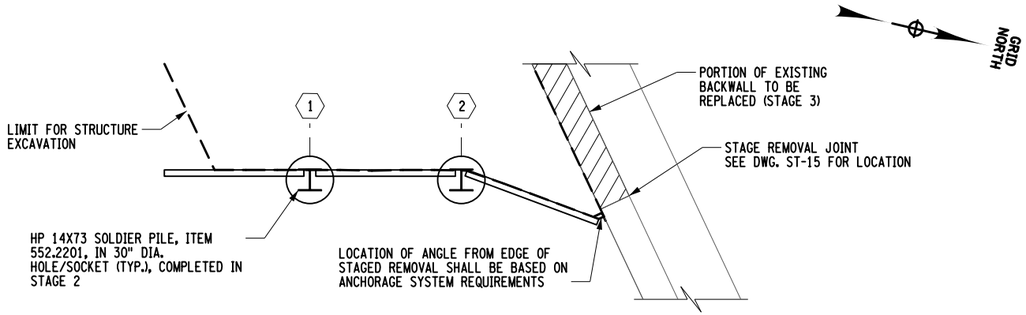
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: INTERIM SOLDIER PILE AND LAGGING WALL PLAN AND ELEVATION STAGE 2

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-12

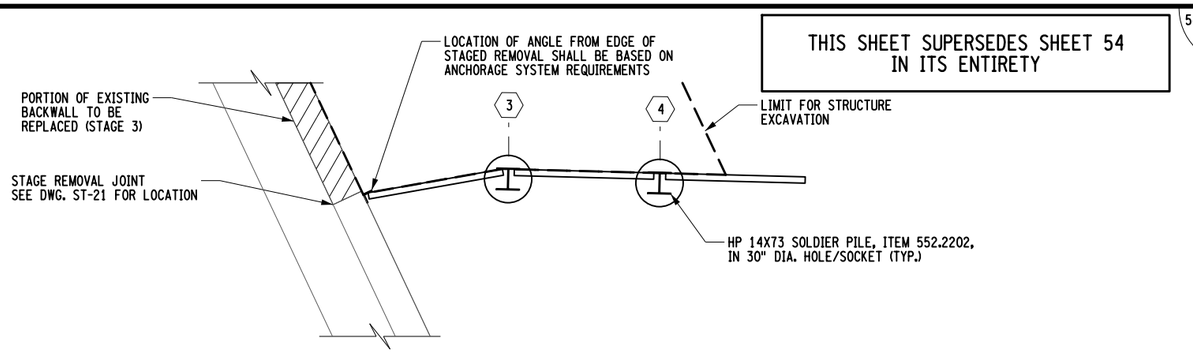
THIS SHEET SUPERSEDES SHEET 54
IN ITS ENTIRETY

54A2
105



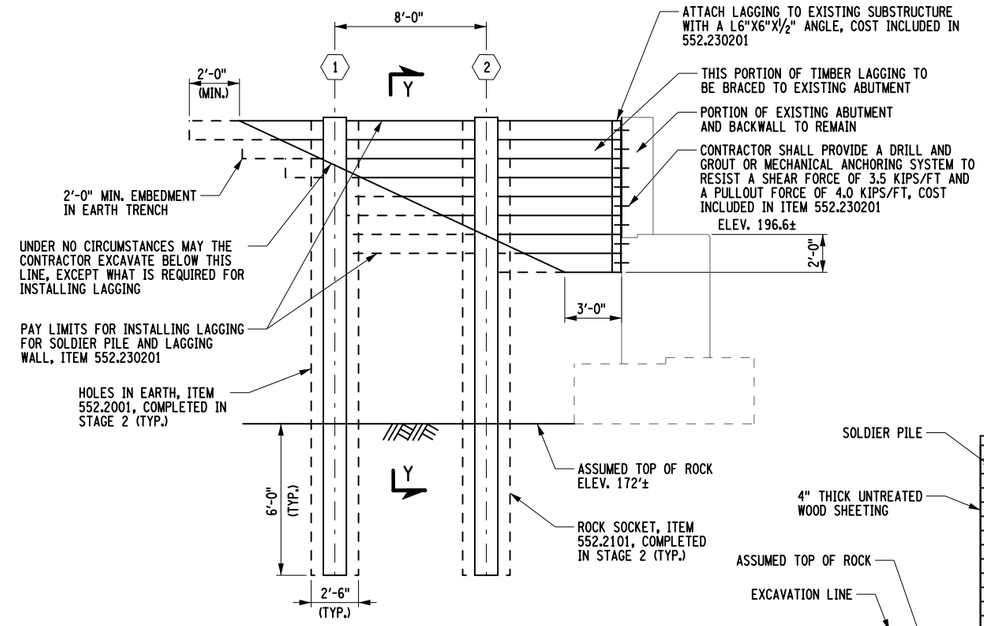
STAGE 3 PLAN - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



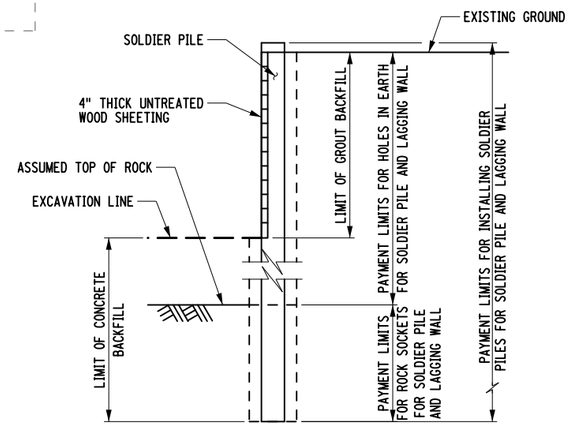
STAGE 3 PLAN - END BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



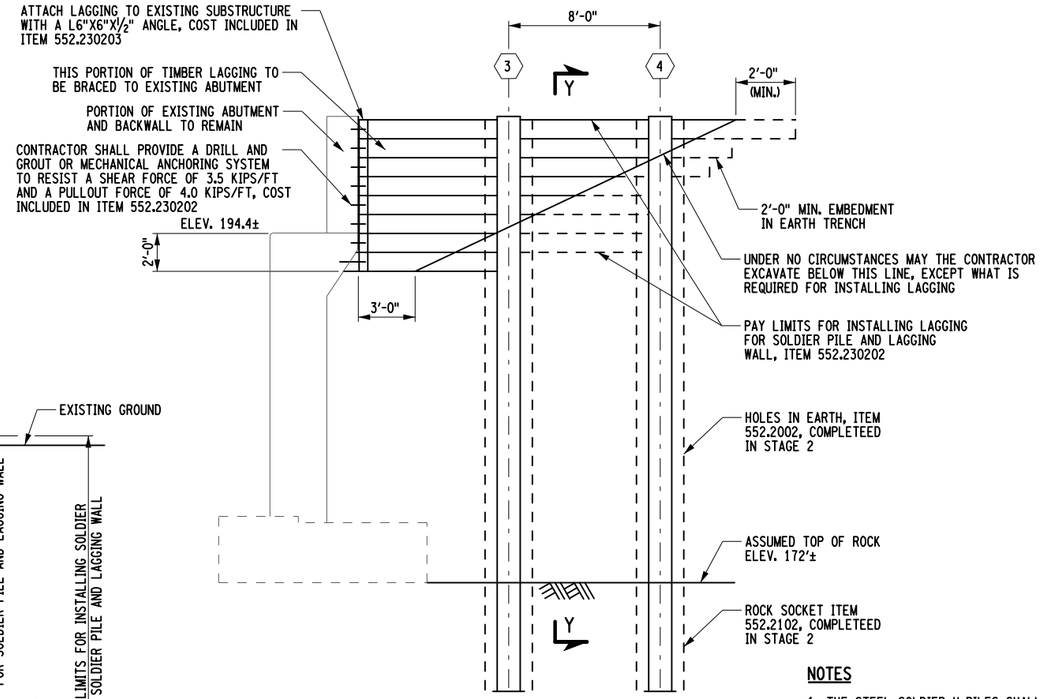
STAGE 3 ELEVATION - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



SECTION Y-Y FOR PILES PLACED IN A HOLE

NOT TO SCALE



STAGE 3 ELEVATION - END BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE

NOTES

1. THE STEEL SOLDIER H-PILES SHALL BE ASTM 572 GRADE 50.
2. A SURCHARGE LOAD OF 250 PSF WAS APPLIED TO THE TOP OF THE WALL.
3. WHEN NO LONGER NECESSARY FOR EXCAVTION SUPPORT AFTER STAGE 3 BACKFILLING IS COMPLETE, REMOVE LAGGING AND CUT OFF AND REMOVE SOLDIER PILES TO THE SUBGRADE SURFACE.
4. SEE PILE TABLE ON DRAWING NO. ST-12.
5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 82023

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

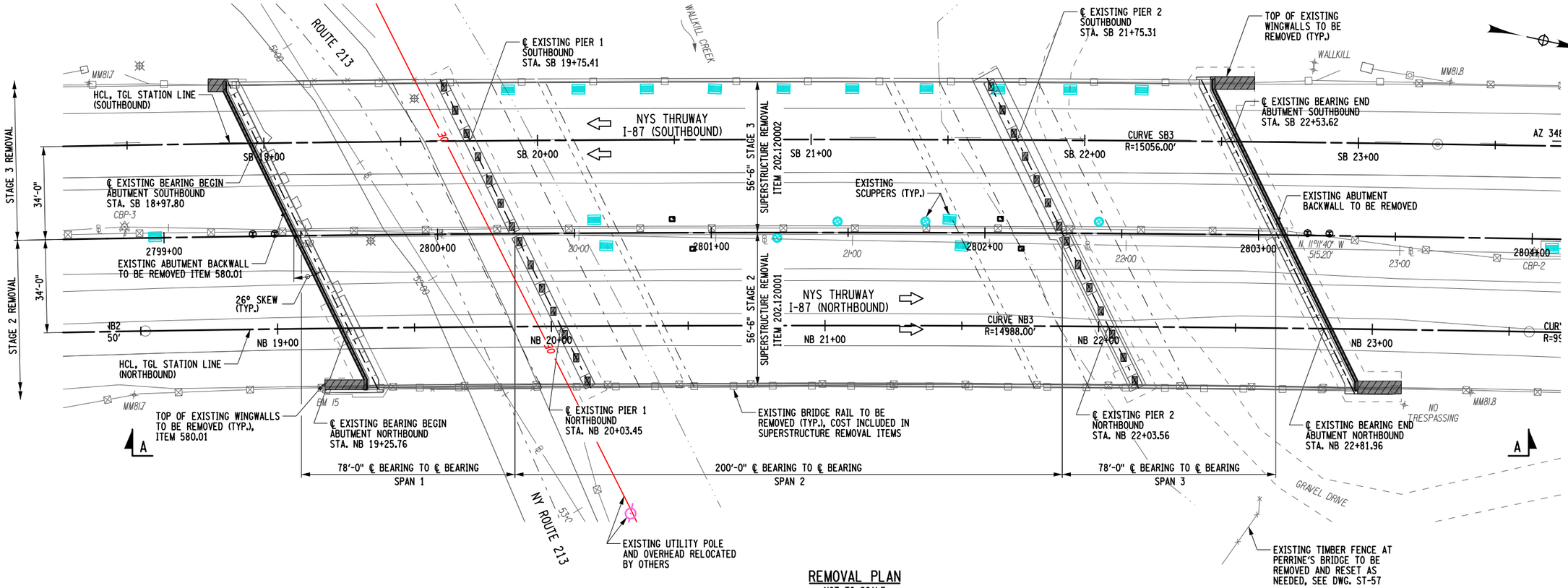
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: INTERIM SOLDIER PILE AND LAGGING WALL PLAN AND ELEVATION STAGE 3

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-13

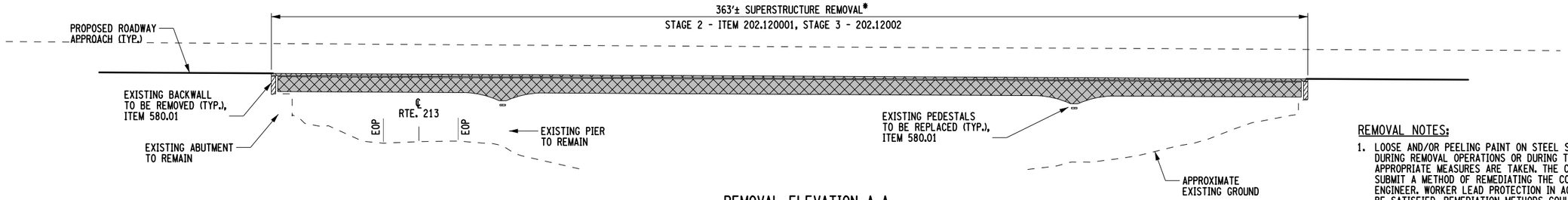
DESIGN SUPERVISOR = FILE NAME = C:\BENTLEYHOSTING\jmtpw11ics01$
USER = BENTLEYHOSTING\jmtpw11ics01$
DATE/TIME = 1/24/2024
R. HENDERSON
DESIGN
DRAFTING
CHECK
CHECK

THIS SHEET SUPERSEDES SHEET 55 IN ITS ENTIRETY

55A2
105



REMOVAL PLAN
NOT TO SCALE



REMOVAL ELEVATION A-A
NOT TO SCALE

LEGEND

* DENOTES DIMENSION MEASURED ALONG HCL.

LIMITS OF SUPERSTRUCTURE REMOVAL STAGE 2 - ITEM 202.120001, STAGE 3 - 202.120002

LIMITS OF CONCRETE REMOVAL, ITEM 580.01

NOTES:

1. SEE DWG. ST-8 FOR BRIDGE REMOVAL NOTES.
2. SEE DWG. ST-3 & ST-4 FOR BRIDGE STAGING SECTIONS.
3. SEE DWG. ST-15 THRU ST-27 FOR SUBSTRUCTURE REMOVAL DETAILS.
4. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

REMOVAL NOTES:

1. LOOSE AND/OR PEELING PAINT ON STEEL SURFACES MAY BECOME DISLODGED DURING REMOVAL OPERATIONS OR DURING TRANSPORTATION FROM THE SITE UNLESS APPROPRIATE MEASURES ARE TAKEN. THE CONTRACTOR SHALL FORMULATE AND SUBMIT A METHOD OF REMEDIATING THE CONDITION FOR APPROVAL BY THE ENGINEER. WORKER LEAD PROTECTION IN ACCORDANCE WITH 29 CFR 1926.62 SHALL BE SATISFIED. REMEDIATION METHODS COULD INCLUDE TRANSPORTING AFFECTED MEMBERS IN CLOSED TRUCKS, WRAPPING AFFECTED MEMBERS PRIOR TO REMOVAL, ENCAPSULATING THE LOOSE PAINT OR REMOVAL OF LOOSE PAINT PRIOR TO DISMANTLING OPERATIONS. THE COST OF REMEDIATING THIS CONDITION SHALL BE INCLUDED IN THE LUMP SUM PRICE(S) BID FOR THE SUPERSTRUCTURE REMOVAL ITEM(S) (OR THE UNIT PRICE BID FOR THE SUBSTRUCTURE REMOVAL ITEM.) THE USE OF ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEMS WILL BE REQUIRED. DEPENDING ON THE ALTERNATIVE CHOSEN, THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM MAY BE REQUIRED. BECAUSE OF THE ABOVE-MENTIONED CONDITION, THE CONTRACTOR SHALL EXAMINE THE CONDITION OF THE STRUCTURE'S PAINT PRIOR TO SUBMITTING A BID.
2. REFER TO SUBSECTION 107-05 OF THE STANDARD SPECIFICATIONS FOR SAFETY AND HEALTH REQUIREMENTS.
3. REFER TO DWG. ST-7 FOR 570 ITEMS RELATED TO LEAD BASED PAINT.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 82023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

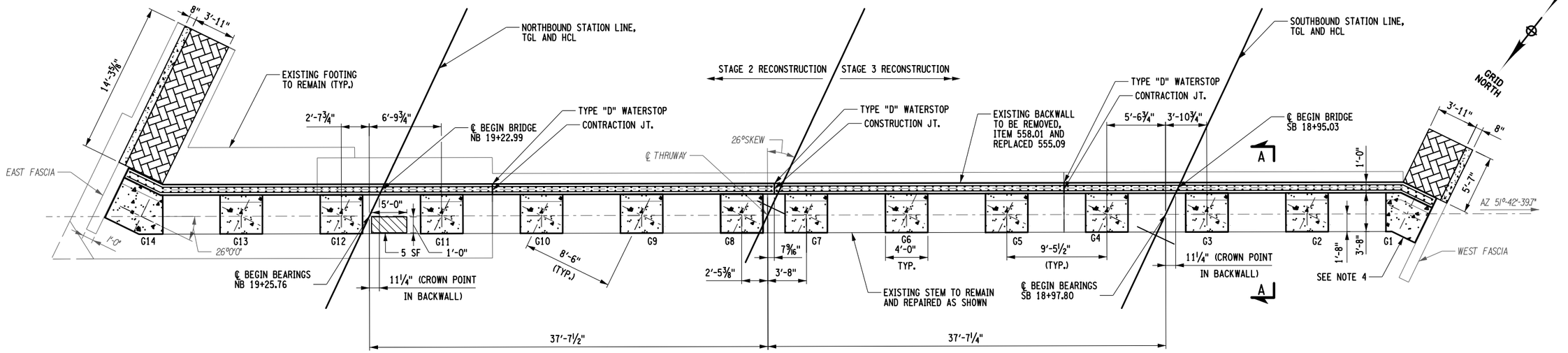
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

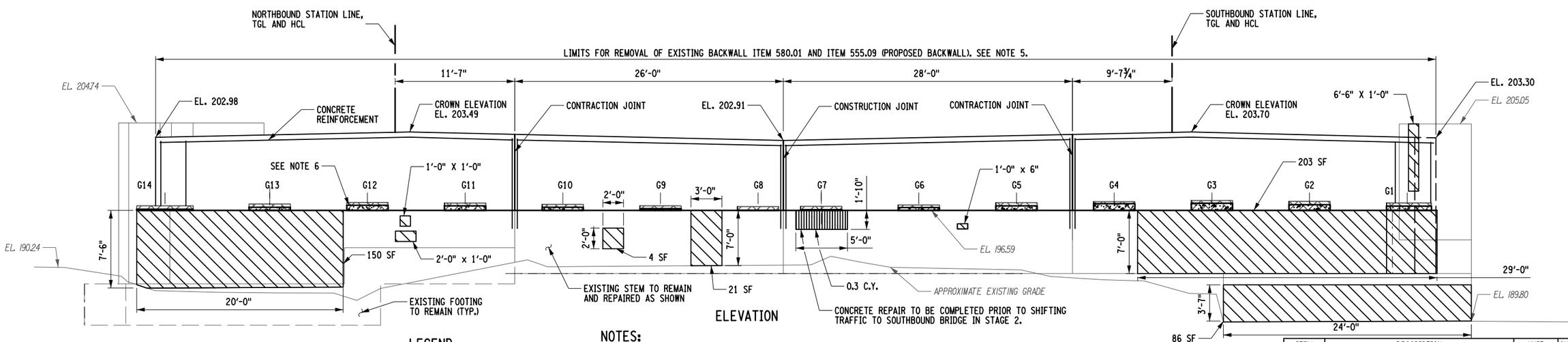
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: REMOVAL PLAN AND ELEVATION

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-14

THIS SHEET SUPERSEDES SHEET 56 IN ITS ENTIRETY



PLAN



ELEVATION

LEGEND:

ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE

ITEM 582.05 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS A CONCRETE

5 0 5 10 15 20

1" = 10'

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION AND MAKE REPAIRS AS PER DWG. NO. ST-27.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. SEE DWG. NO. ST-16 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
5. SEE DWG. NO. ST-26 FOR SECTION A-A, EXISTING BACKWALL REMOVAL AND PROPOSED BACKWALL VERTICAL RECONSTRUCTION LIMIT DETAILS.
6. SEE DWG. ST-24 FOR PEDESTAL ELEVATION DETAILS.
7. CONCRETE SPALL REPAIR AT G7 PEDESTAL SHALL BE COMPLETED PRIOR TO START OF STAGE 2 CONSTRUCTION.
8. PARTIAL BACKWALL REINFORCEMENT SHOWN ONLY FOR CLARITY PURPOSE.
9. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE), AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF THE ABUTMENT.
10. CLASS A CONCRETE REPAIR - AREA OF CONCRETE REPAIR LOCATED UNDER G7 OF THE SOUTH ABUTMENT WILL BE COMPLETED UNDER ITEM 582.05 USING THE SAME DETAILS ON THIS SHEET AND SHEET ST-27. FOR THE CLASS A CONCRETE REPAIR ALL REFERENCE TO ITEM 582.06 OR "CLASS D" IN THESE DETAILS AND NOTES WILL BE REPLACED WITH ITEM 582.06 AND "CLASS A", RESPECTIVELY.

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP•	CY	31.30
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	1980.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	1614.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	59.40
582.05	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS A CONCRETE	CY	0.30
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	479.00

• PEDESTAL AND WINGWALL QUANTITY NOT INCLUDED.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

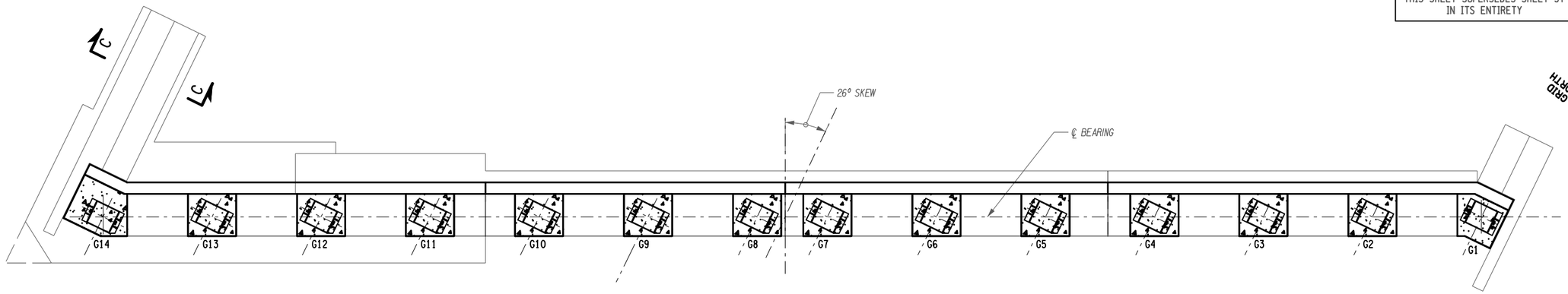
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: SOUTH ABUTMENT - PLAN AND ELEVATION

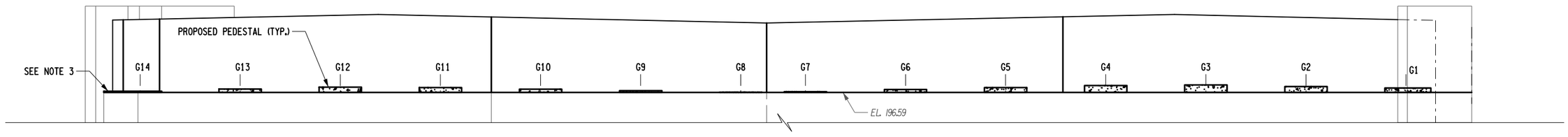
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-15

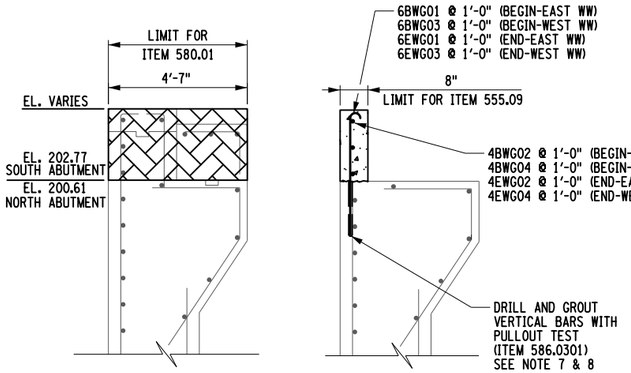
USER = KCEPC\jbolger
FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DESIGN Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK J.BOLGER
DATE/TIME = 1/24/2024

THIS SHEET SUPERSEDES SHEET 57 IN ITS ENTIRETY



PLAN

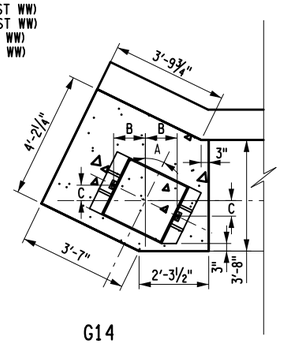




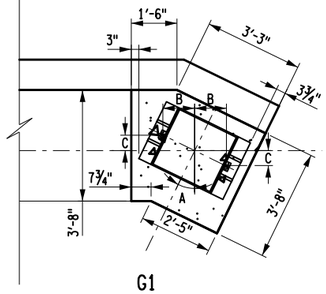
EXISTING SECTION C-C PROPOSED
(N.T.S.)
SE WINGWALL SECTION SHOWN
(SW, NW AND NE WINGWALLS SIMILAR)

ELEVATION

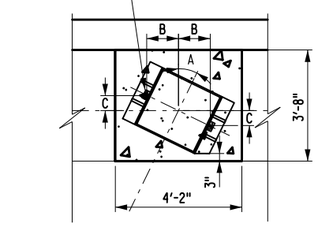
ANCHOR BOLT LAYOUT TABLE				
LOCATION	BRG. PT.	A	B1	C
SOUTH ABUTMENT	G1-G14	26°	1'-½"	6¼"



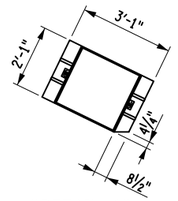
G14



G1



G2 THROUGH G13



"DETAIL A"
MASONRY ℄ CLIPPING

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP •	CY	3.20
580.01	REMOVAL OF STRUCTURAL CONCRETE •	CY	12.00
586.0201	DRILLING AND GROUTING OF VERTICAL BARS••	EA	166.00
586.0301	DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TEST••	EA	147.00

• PEDESTAL AND WINGWALL QUANTITY SHOWN

•• SOUTH ABUTMENT BACKWALL & WINGWALL

NOTES:

1. SEE DWG. NO. ST-28 FOR MASONRY PLATE DETAILS.
2. PROPOSED BACKWALL REINFORCEMENT NOT SHOWN FOR CLARITY.
3. SEE DWG. NO. ST-24 FOR PEDESTAL ELEVATION DETAILS.
4. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
5. ALL REINFORCEMENT TO BE PAID UNDER ITEM 556.0203 UNLESS OTHERWISE NOTED.
6. THE COST OF FURNISHING AND PLACING TYPE D WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.
7. NEW DRILL AND GROUT VERTICAL REINFORCEMENT AT REAR FACE SHALL BE PLACED BETWEEN EXISTING VERTICAL BARS
8. THE EMBEDMENT DEPTH SHOWN IN THE PLANS FOR DRILLING AND GROUTING IS FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S ENGINEER SHALL DETERMINE THE DEVELOPMENT LENGTH REQUIRED TO DEVELOP THE FULL STRENGTH OF THE ANCHOR ROD AND/OR REINFORCING BAR. THE CALCULATIONS SHALL BE BASED ON THE SIZE OF THE ROD/BAR, ACTUAL EDGE DISTANCE TO THE ROD/BAR, THE PROXIMITY TO OTHER RODS/BARS, ESTIMATED CONCRETE STRENGTH, AND THE GROUT SUPPLIERS' RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND DETAILS SEALED BY A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL.

LEGEND:

ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

EXPANSION BEARING LAYOUT
(PARTIAL PLAN - BACKWALL AND BRIDGE SEAT ONLY)
(N.T.S)

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
SOUTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS

CONTRACT NUMBER: TAA 23-25B

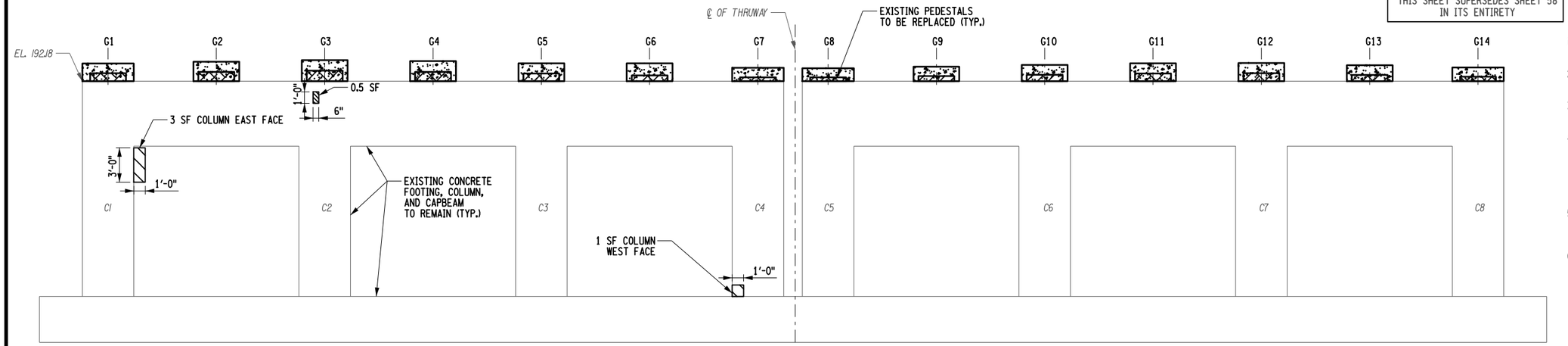
DATE: 01/24/2024

DRAWING NUMBER: ST-16

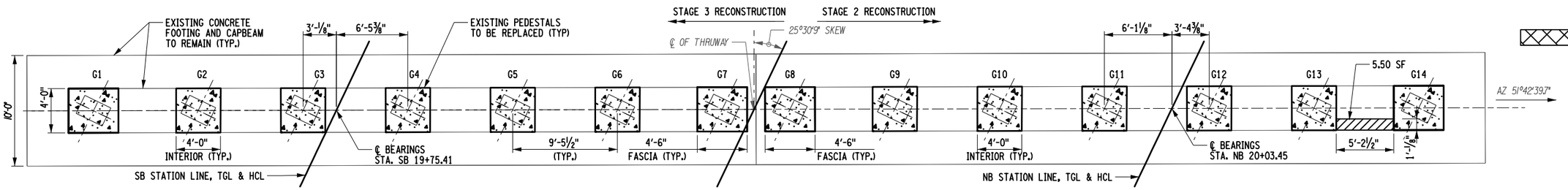
USER = KCEPC\jbolger
DATE/TIME = 1/24/2024
FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DESIGN Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
J.BOLGER

THIS SHEET SUPERSEDES SHEET 58 IN ITS ENTIRETY

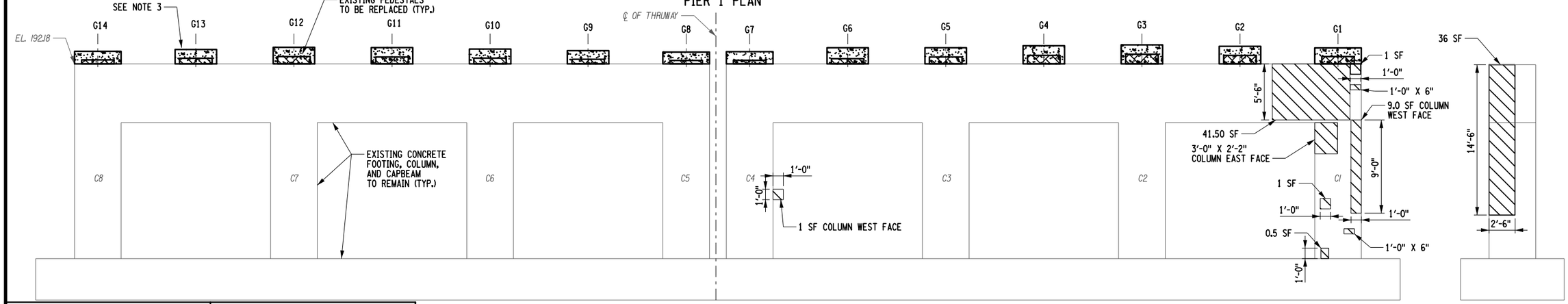
58A2 / 105



PIER 1 SOUTH ELEVATION



PIER 1 PLAN



PIER 1 NORTH ELEVATION

PIER 1 C1 (WEST FACE)

5 0 5 10 15 20

1" = 10'

NOTES:

1. SEE DWG. NO. ST-27 FOR CONCRETE REPAIR DETAILS.
2. SEE DWG. NO. ST-18 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
3. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
4. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION.
5. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
6. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF THE PIER.

LEGEND:

- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE
- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM	DESCRIPTION	UNIT	QUANTITY
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	106.50

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	12.70
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	688.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	4458.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	2.70

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

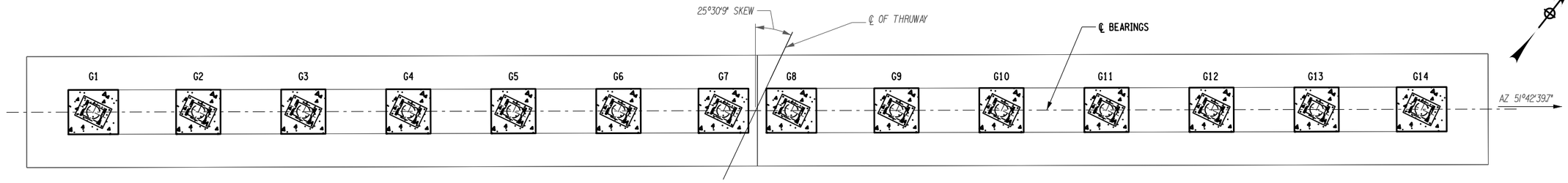
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: PIER 1 - PLAN AND ELEVATION

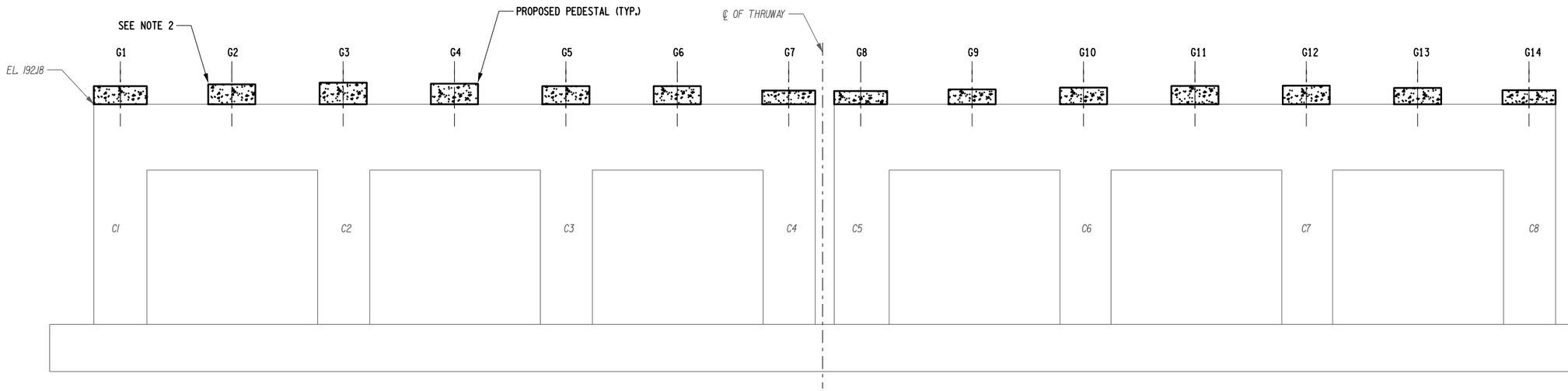
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-17

USER = KCEPC\jbolger
FILE NAME =
DATE/TIME = 1/24/2024
DESIGN SUPERVISOR: R.SHARMA
DESIGN: Y.GAUCHAN
DRAFTING: B.VADDI/C.VOHRA
CHECK: Y.GAUCHAN
CHECK: J.BOLGER

THIS SHEET SUPERSEDES SHEET 59 IN ITS ENTIRETY



PIER 1
PLAN



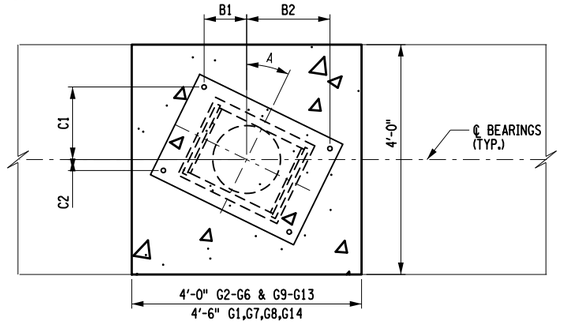
PIER 1
SOUTH ELEVATION

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	12.70

ANCHOR BOLT LAYOUT TABLE						
LOCATION	BRG. PT.	A1	B1	B2	C1	C2
PIER 1	G1-G14	26°	8 ⅞"	1'-3 ⅜"	1'- 13⅛"	⅞"

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP



MR (EXPANSION) BEARING LAYOUT
(PARTIAL PLAN)
(N.T.S)

NOTES:
1. SEE DWG. NO. ST-29 FOR MASONRY PLATE DETAILS.
2. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. APPLY PROTECTIVE SEALER, ITEM 559.04, TO ENTIRE SURFACE AREA OF PIER.

5 0 5 10 15 20
1" = 10'

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

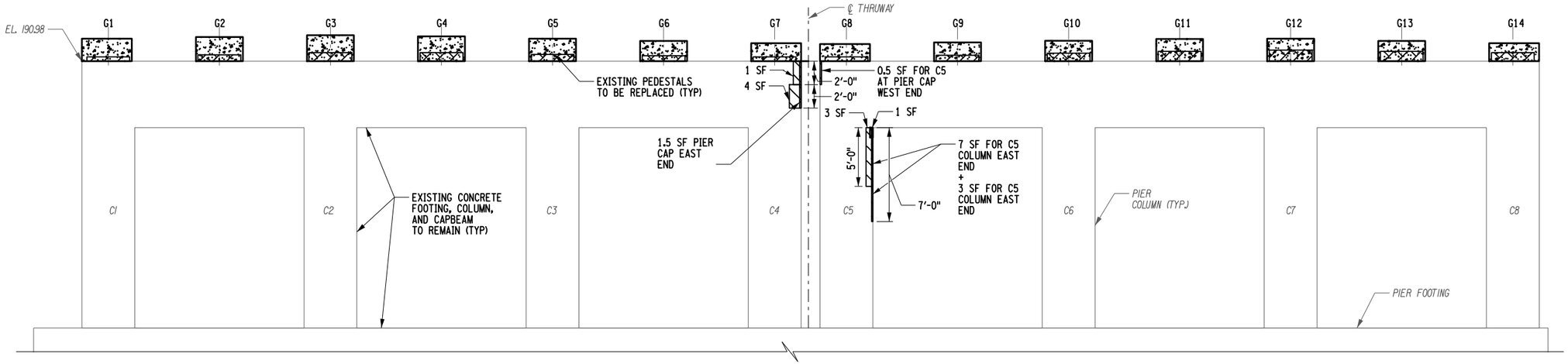
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

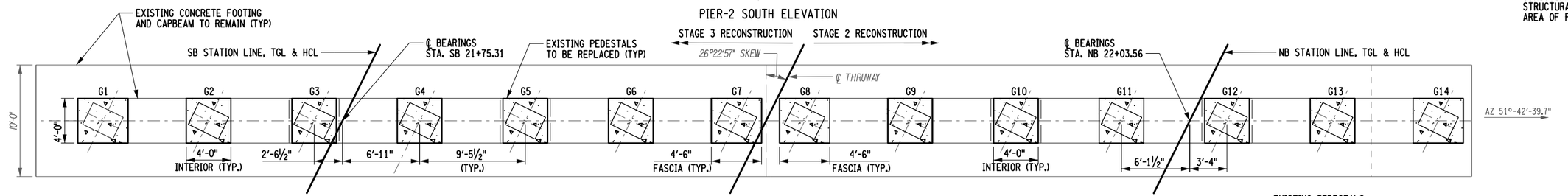
TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PIER 1 - BEARING LAYOUT AND PEDESTAL DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	01/24/2024
DRAWING NUMBER:	ST-18

USER = KCEPC\jbolger
FILE NAME =
DATE/TIME = 1/24/2024

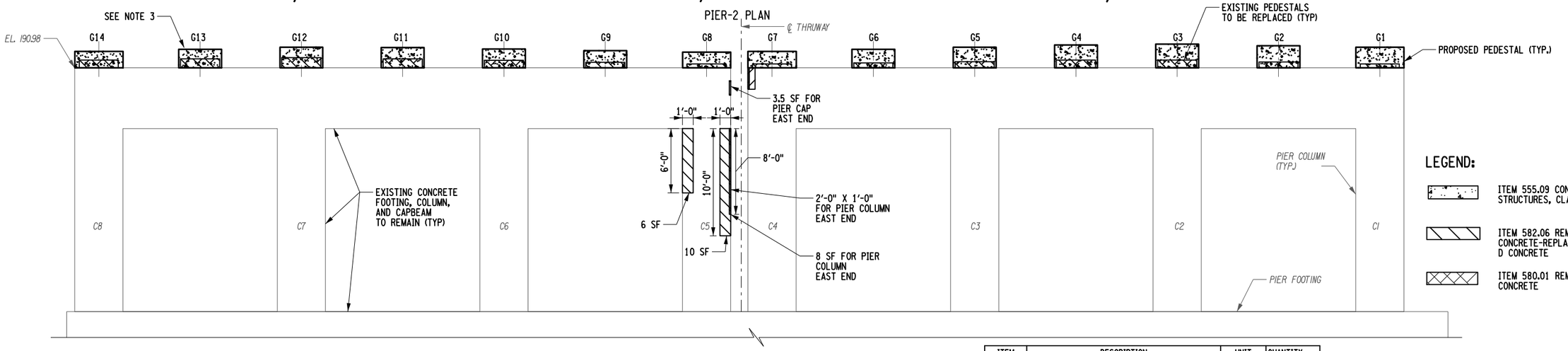
DESIGN SUPERVISOR	DESIGN	DRAFTING	CHECK	CHECK
R.SHARMA	Y.GAUCHAN	B.VADDI/C.VOHRA	J.BOLGER	Y.GAUCHAN



PIER-2 SOUTH ELEVATION



PIER-2 PLAN



PIER-2 NORTH ELEVATION

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. SEE DWG. ST-20 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
3. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
4. DETERIORATED PEDESTAL CONCRETE SHALL BE REMOVED UNDER ITEM 580.01.
5. ESTIMATE OF DETERIORATED CONCRETE IS BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION.
6. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
7. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF PIER.

LEGEND:

- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE
- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	15.60
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	727.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	4239.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	2.50
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	50.50

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:	AFFIX SEAL: Yogendra Gauchan
ON:	ON: 01/24/2024

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

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.

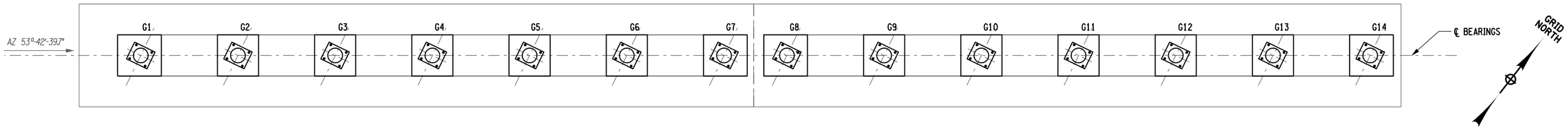
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

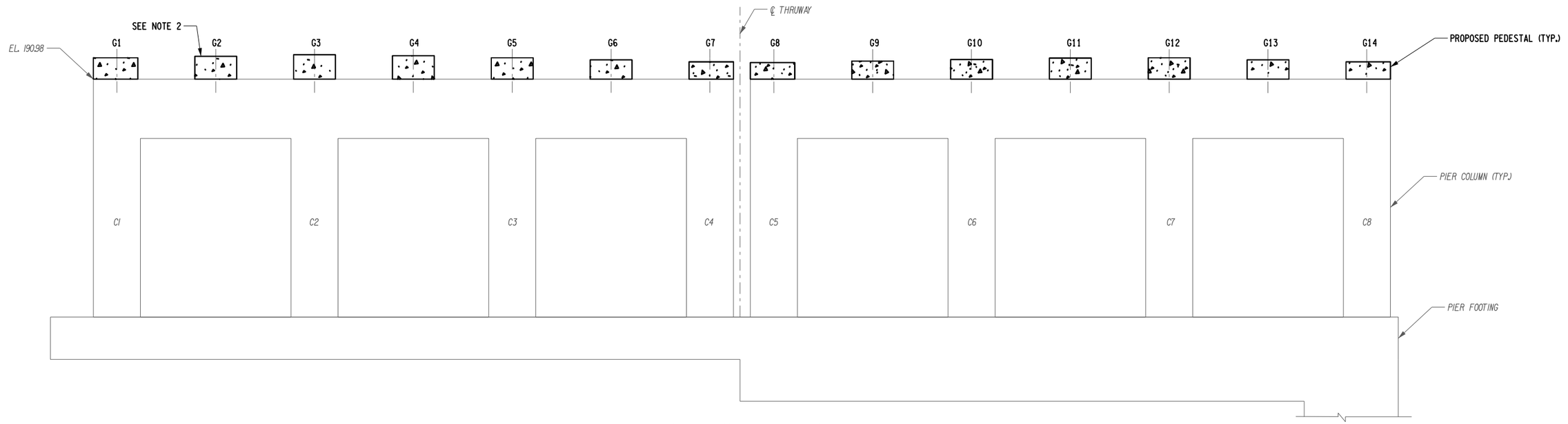
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 01/24/2024
TITLE OF DRAWING: PIER 2 - PLAN AND ELEVATION	DRAWING NUMBER: ST-19

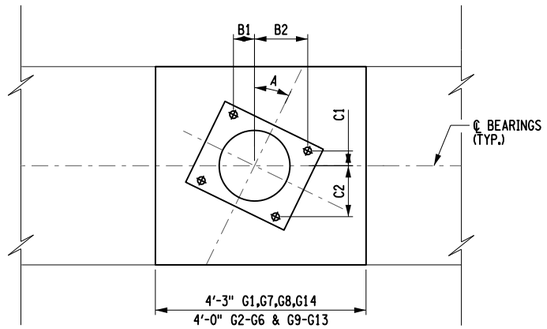
THIS SHEET SUPERSEDES SHEET 61 IN ITS ENTIRETY



PIER 2 PLAN



PIER 2 SOUTH ELEVATION



FIXED ROTATIONAL BEARING LAYOUT

N.T.S.

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	15.60

ANCHOR BOLT LAYOUT TABLE						
LOCATION	BRG. PT.	A	B1	B2	C1	C2
PIER 2	G1-G14	26°	2 1/16"	1'-7/8"	3 3/16"	1'- 3/8"

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

NOTES:

1. SEE DWG. NO. ST-29 FOR MASONRY PLATE DETAILS.
2. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. APPLY PROTECTIVE SEALER, ITEM 559.04, TO ENTIRE SURFACE AREA OF PIER.

5' 0 5' 10' 15' 20'

1" = 10'

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
PIER 2 - BEARING LAYOUT AND PEDESTAL DETAILS

CONTRACT NUMBER: TAA 23-25B

DATE: 01/24/2024

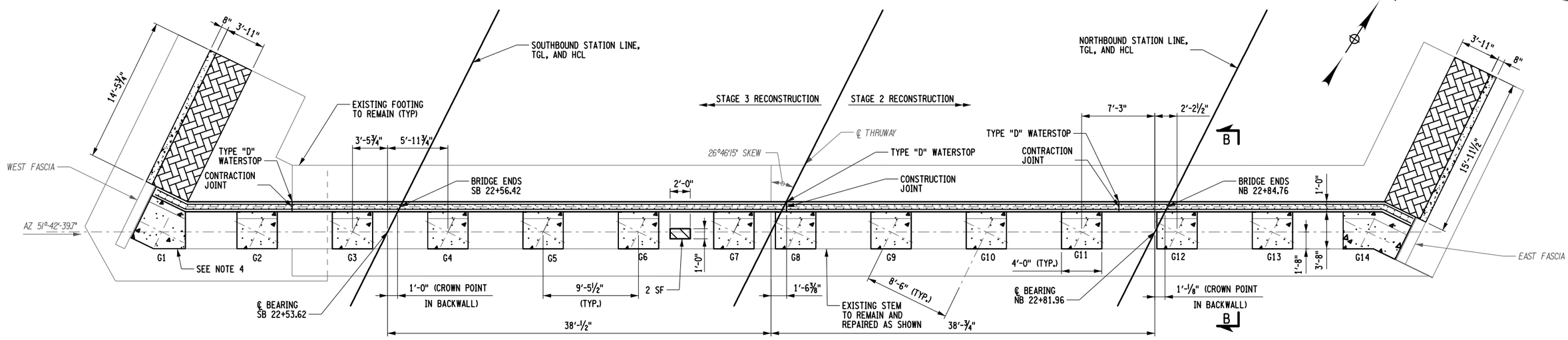
DRAWING NUMBER: ST-20

USER = KCEPC\jbolger
FILE NAME =
DATE/TIME = 1/24/2024

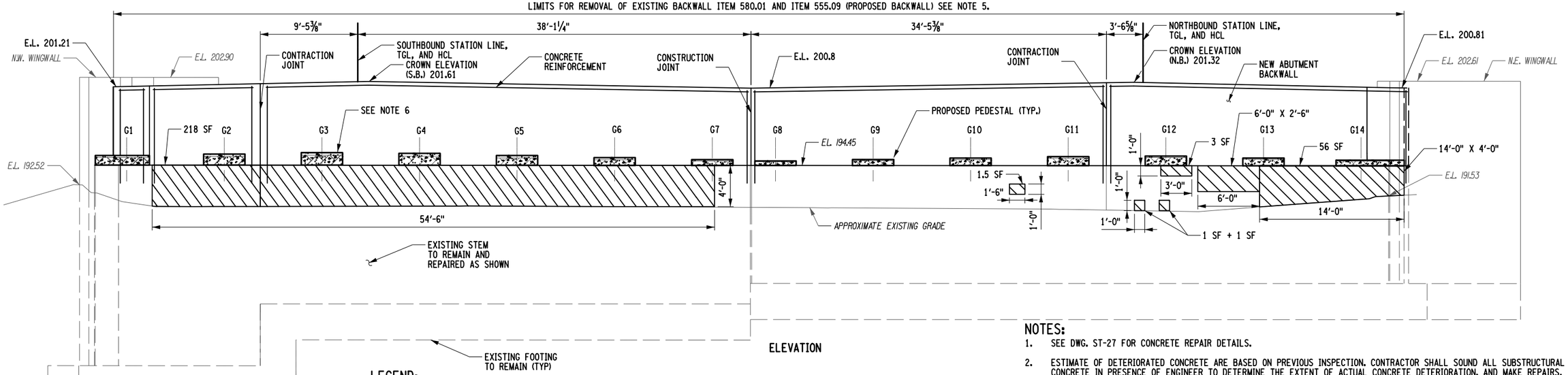
DESIGN SUPERVISOR: R.SHARMA
DRAFTING: J.BOLGER
DESIGN: B.VADDI/C.VOHRA
CHECK: Y.GAUCHAN
CHECK: Y.GAUCHAN

THIS SHEET SUPERSEDES SHEET 62 IN ITS ENTIRETY

GRID NORTH



PLAN



ELEVATION

LEGEND:

- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE
- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE

5 0 5 10 15 20

1" = 10'

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP*	CY	33.20
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	2474.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	3451.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	64.10
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	297.50

*PEDESTAL QUANTITY NOT INCLUDED

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION. AND MAKE REPAIRS, AS PER DWG. ST-27.
3. ALL ELEVATIONS MUST BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. SEE DWG. NO. ST-22 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
5. SEE DWG. NO. ST-26 FOR SECTION B-B, EXISTING BACKWALL REMOVAL AND PROPOSED BACKWALL VERTICAL RECONSTRUCTION LIMIT DETAILS.
6. SEE DWG. NO. ST-25 FOR PEDESTAL ELEVATION DETAILS.
7. PARTIAL BACKWALL REINFORCEMENT SHOWN ONLY FOR CLARITY PURPOSE.
8. THE COST OF FURNISHING AND PLACING WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.
9. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF ABUTMENT.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

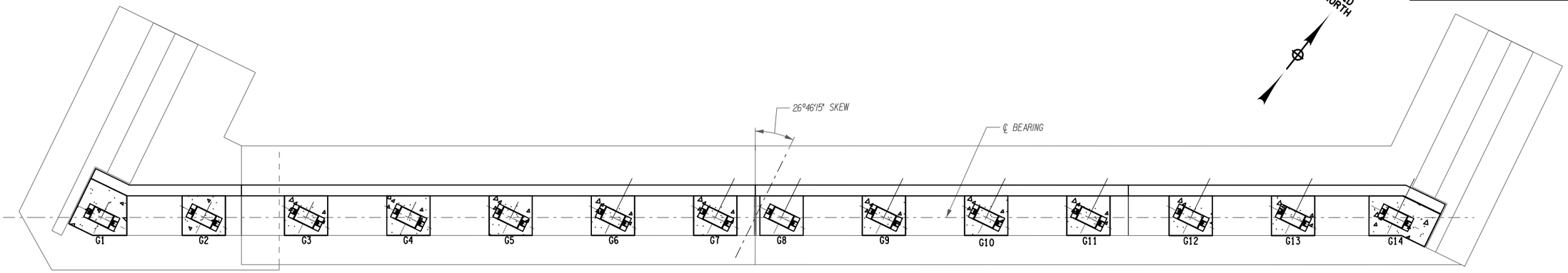
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

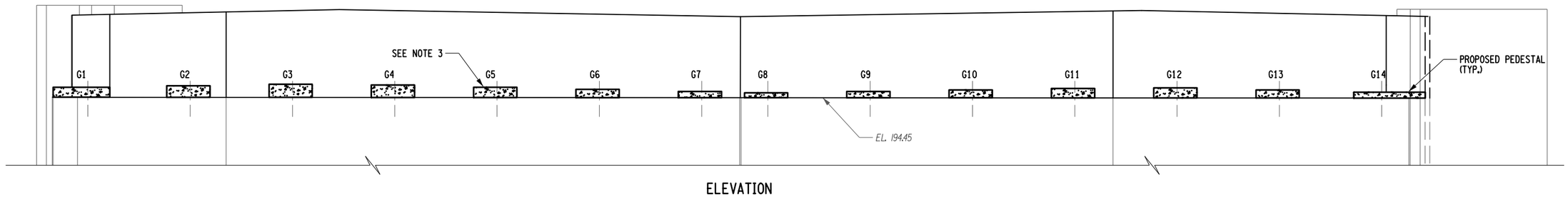
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: NORTH ABUTMENT - PLAN AND ELEVATION

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-21



PLAN

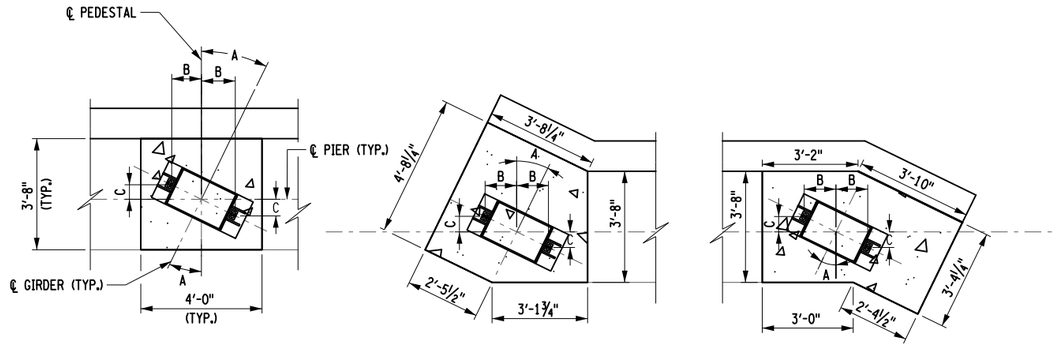


ELEVATION

ANCHOR BOLT LAYOUT TABLE				
LOCATION	BRG. PT.	A	B	C
NORTH ABUTMENT	G1-G14	26°	1'-½"	6 ¼"

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP•	CY	6.60
580.01	REMOVAL OF STRUCTURAL CONCRETE•	CY	5.10
586.0201	DRILLING AND GROUTING OF VERTICAL BARS••	EA	168.00
586.0301	DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TEST••	EA	158.00

• PEDESTAL QUANTITIES SHOWN
•• NORTH ABUTMENT BACKWALL AND WINGWALL



G2 THROUGH G13 G1 G14

EXPANSION BEARING LAYOUT
N.T.S.

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

NOTES:

1. SEE DWG. NO. ST-28 FOR MASONRY PLATE DETAILS.
2. PROPOSED BACKWALL REINFORCEMENT NOT SHOWN FOR CLARITY.
3. SEE DWG. NO. ST-25 FOR PEDESTAL ELEVATION DETAILS.
4. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
5. SEE ST-19 FOR WINGWALL SECTIONS.

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

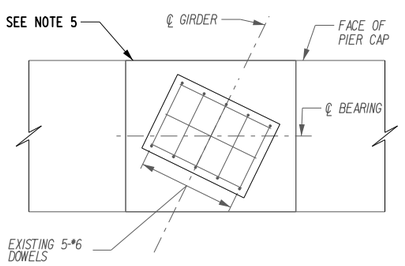
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	NORTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	01/24/2024
DRAWING NUMBER:	ST-22

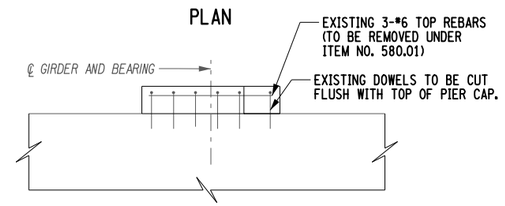
USER = KCEPC\jbolger
DATE/TIME = 1/24/2024
FILE NAME =

DESIGN SUPERVISOR	DESIGN	DRAFTING	CHECK	CHECK
R.SHARMA	Y.GAUCHAN	B.VADDI/C.VOHRA	J.BOLGER	Y.GAUCHAN

THIS SHEET SUPERSEDES SHEET 64
IN ITS ENTIRETY



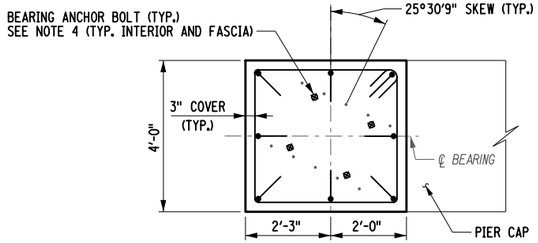
PLAN



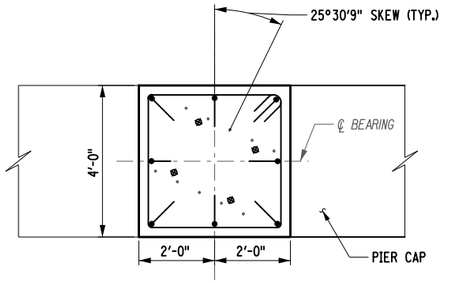
ELEVATION

EXISTING PEDESTAL REINFORCEMENT

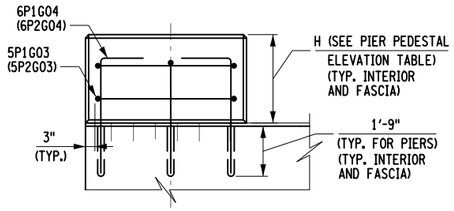
(TYPICAL FOR PIER 1)
(PIER 2 SIMILAR)



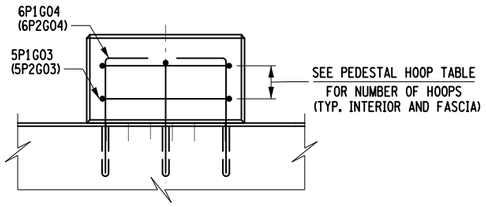
PLAN (FASCIA PEDESTAL)



PLAN (INTERIOR PEDESTAL)



ELEVATION (FASCIA PEDESTAL)



ELEVATION (INTERIOR PEDESTAL)

PROPOSED PEDESTAL REINFORCEMENT

(TYPICAL FOR PIER 1)
(PIER 2 SIMILAR)

PIER PEDESTAL ELEVATION (SEE NOTE 1 AND •)							
PIER 1	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)	PIER 2	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)
	EXISTING (FT)	PROPOSED (FT)			EXISTING (FT)	PROPOSED (FT)	
G1	192.89	193.72	18.48	G1	191.69	192.90	23.01
G2	192.99	193.87	20.28	G2	191.77	193.04	24.69
G3	193.14	194.01	21.96	G3	191.88	193.19	26.49
G4	192.97	193.93	21.00	G4	191.79	193.10	25.41
G5	192.83	193.73	18.60	G5	191.64	192.90	23.01
G6	192.66	193.54	16.32	G6	191.48	192.71	20.73
G7	192.49	193.35	14.04	G7	191.31	192.51	18.33
G8	192.51	193.31	13.56	G8	191.33	192.44	17.49
G9	192.64	193.45	15.24	G9	191.37	192.58	19.17
G10	192.72	193.60	17.04	G10	191.52	192.73	20.97
G11	192.83	193.74	18.72	G11	191.61	192.87	22.65
G12	192.87	193.77	19.08	G12	191.66	192.90	23.01
G13	192.76	193.57	16.68	G13	191.52	192.71	20.73
G14	192.62	193.38	14.40	G14	191.35	192.51	18.33

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
PIER 1	112
PIER 2	112

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

NOTES:

1. THE ELEVATIONS NOTED ON THIS DRAWING ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE PIERS SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF M.R. TYPE BEARINGS. THE CONTRACTOR SHALL COORDINATE AVAILABLE HEIGHTS WITH THE BEARING MANUFACTURER.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-18 AND ST-20 FOR PIER 1 AND PIER 2 ANCHOR BOLT LAYOUT DETAILS.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO. 555.09.
6. ALL REINFORCEMENT SHOWN SHALL BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING PIER SEAT SHALL BE PAID UNDER ITEM NO. 586.0201

• THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

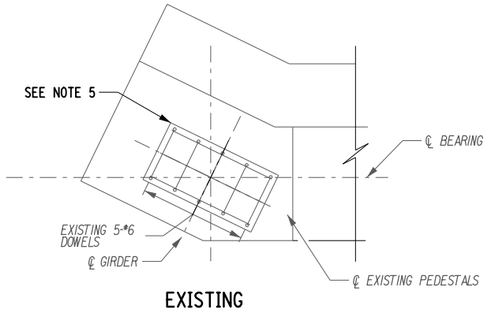
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: PEDESTAL DETAILS - 1

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-23

FILE NAME = USER = KGEPC\jbolger
DESIGN SUPERVISOR R.SHARMA
DRAFTING J.BOLGER
DESIGN B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK Y.GAUCHAN
DATE/TIME = 1/24/2024

THIS SHEET SUPERSEDES SHEET 65 IN ITS ENTIRETY



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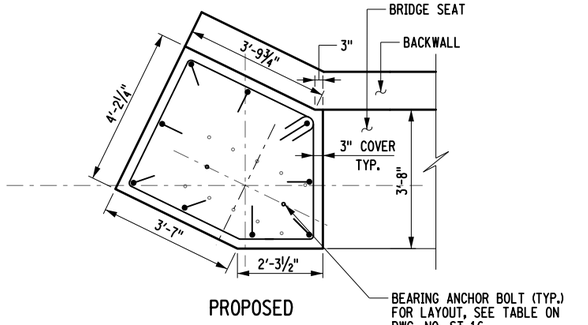
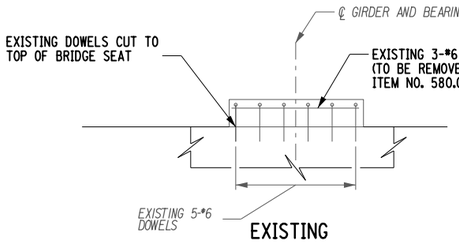


PROPOSED

PLAN



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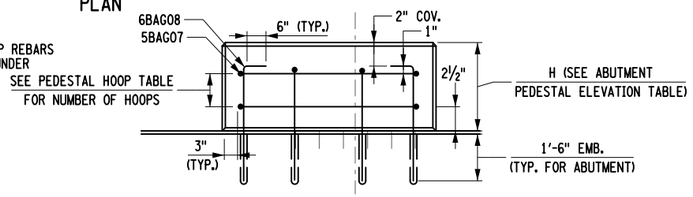
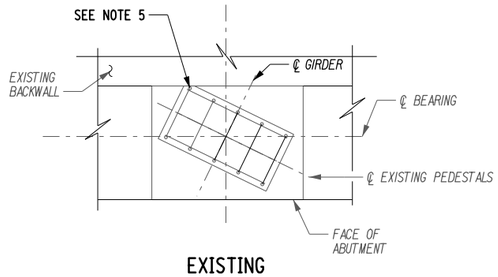


PROPOSED

ELEVATION
G14 PEDESTAL (SOUTH ABUTMENT)



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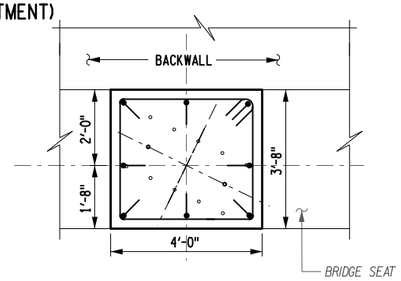
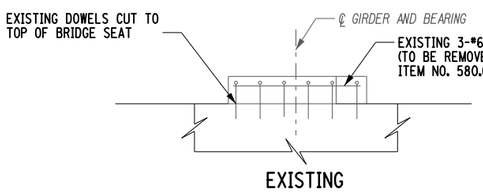


PROPOSED

PLAN



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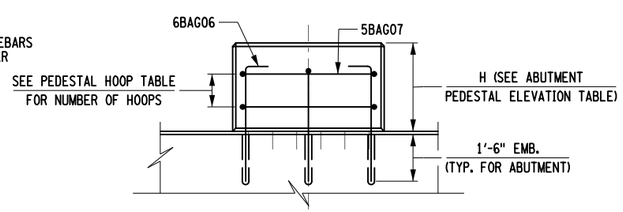
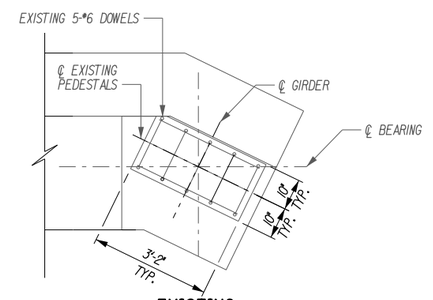


PROPOSED

ELEVATION
G2 THROUGH G13 PEDESTAL (SOUTH ABUTMENT)



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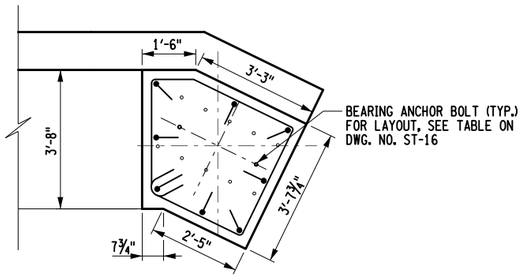
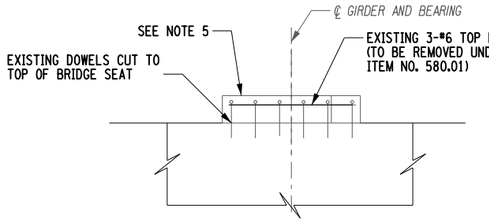


PROPOSED

PLAN



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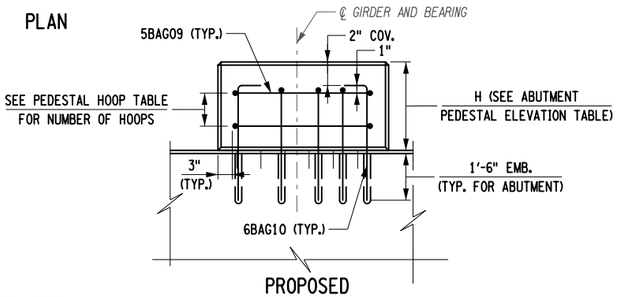


PROPOSED

ELEVATION
G1 PEDESTAL (SOUTH ABUTMENT)

ABUTMENT PEDESTAL ELEVATION (SEE NOTE 1 AND •)			
SOUTH ABUTMENT	ELEVATION (SEE NOTE 1) EXISTING (FT)	PROPOSED (FT)	PEDESTAL HEIGHT (IN) (SEE NOTE 2)
G1	197.32	197.00	4.93
G2	197.47	197.14	6.61
G3	197.55	197.29	8.41
G4	197.44	197.24	7.81
G5	197.34	197.04	5.41
G6	197.12	196.85	3.13••
G7	196.99	196.66	0.85••
G8	196.97	196.60	0.13••
G9	197.04	196.75	1.93••
G10	197.17	196.89	3.61••
G11	197.30	197.04	5.41
G12	197.36	197.09	6.01
G13	197.22	196.90	3.73••
G14	197.04	196.70	1.33••

•• THICKER MASONRY PLATE SHALL BE USED INSTEAD OF PEDESTAL WHERE PROPOSED PEDESTAL HEIGHT IS LESS THAN 4"

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
SOUTH ABUTMENT PEDESTAL	113

NOTES:

1. THE ELEVATION NOTED ON THIS DRAWINGS ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE ABUTMENT SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF E.B. TYPE BEARINGS.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-16 FOR SOUTH ABUTMENT ANCHOR BOLT LAYOUT DETAIL.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO. 555.09.
6. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING ABUTMENT SEAT SHALL BE PAID UNDER ITEM NO. 586.0201

•. THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMDATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

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.

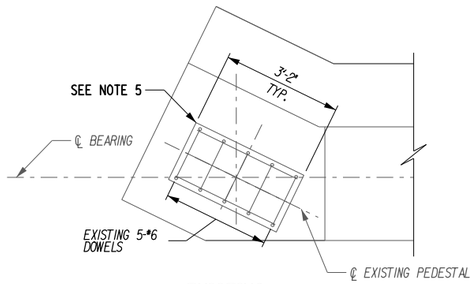
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PEDESTAL DETAILS - 2
CONTRACT NUMBER:	TAA 23-25B
DATE:	01/24/2024
DRAWING NUMBER:	ST-24

FILE NAME = DESIGN SUPERVISOR R.SHARMA
DATE/TIME = 1/24/2024 DESIGN Y.GAUCHAN
USER = KCEPC\jbolger CHECK J.BOLGER
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN



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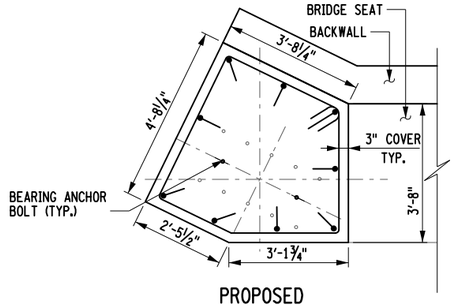
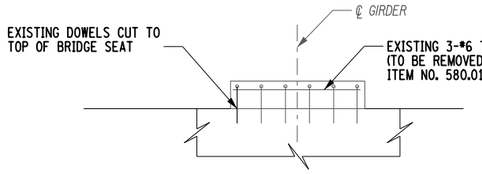


PROPOSED

PLAN



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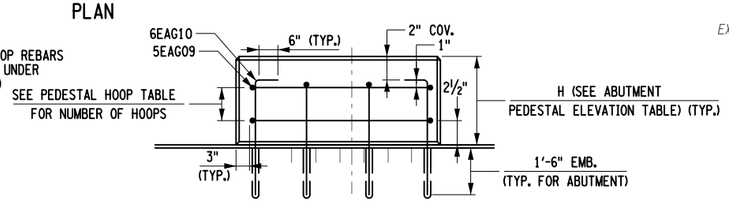
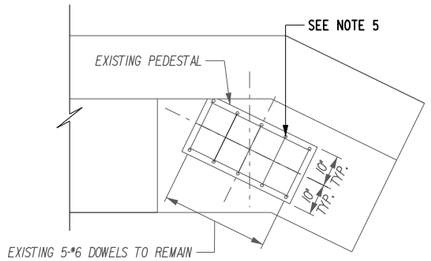


PROPOSED

ELEVATION
G1 PEDESTAL (NORTH ABUTMENT)



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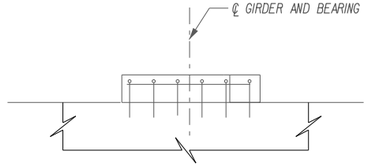

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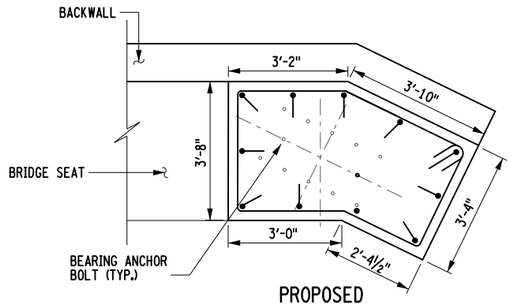
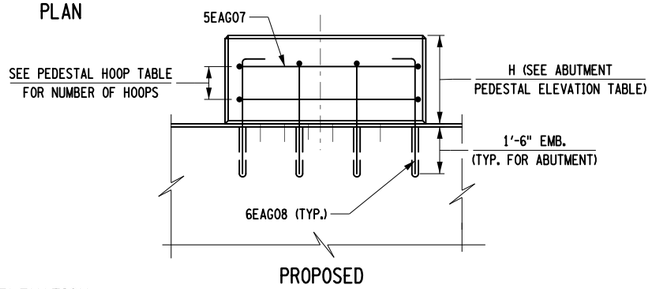


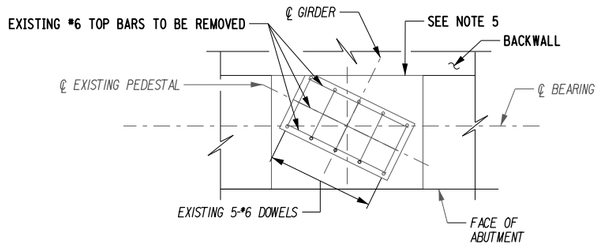
PROPOSED

PLAN



PROPOSED

ELEVATION
G14 PEDESTAL (NORTH ABUTMENT)



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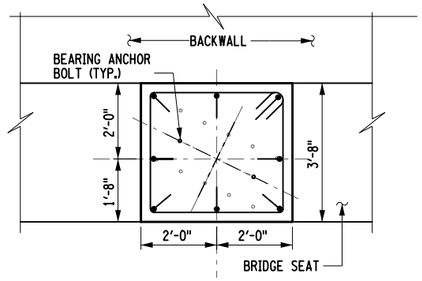
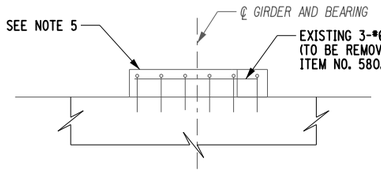
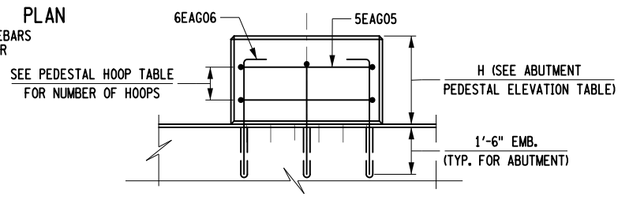


PROPOSED



EXISTING

PLAN



PROPOSED

ELEVATION
G2 THROUGH G13 PEDESTAL (NORTH ABUTMENT)

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

ABUTMENT PEDESTAL ELEVATION (SEE NOTE 1 AND •)			
NORTH ABUTMENT	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)
	EXISTING (FT)	PROPOSED (FT)	
G1	195.20	195.37	11.08
G2	195.28	195.51	12.76
G3	195.41	195.66	14.56
G4	195.33	195.59	13.72
G5	195.16	195.39	11.32
G6	194.99	195.20	9.04
G7	194.87	195.01	6.76
G8	194.82	194.89	5.32
G9	194.91	195.03	7.00
G10	195.03	195.17	8.68
G11	195.16	195.32	10.48
G12	195.24	195.38	11.20
G13	195.08	195.19	8.92
G14	194.91	194.99	6.52

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
NORTH ABUTMENT PEDESTAL	116

NOTES:

1. THE ELEVATION NOTED ON THIS DRAWINGS ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE ABUTMENT SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF E.B. TYPE BEARINGS.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-22 FOR NORTH ABUTMENT ANCHOR BOLT LAYOUT DETAIL.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO.555.09.
6. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING ABUTMENT SEAT SHALL BE PAID UNDER ITEM NO. 586.0201.

•. THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMDATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

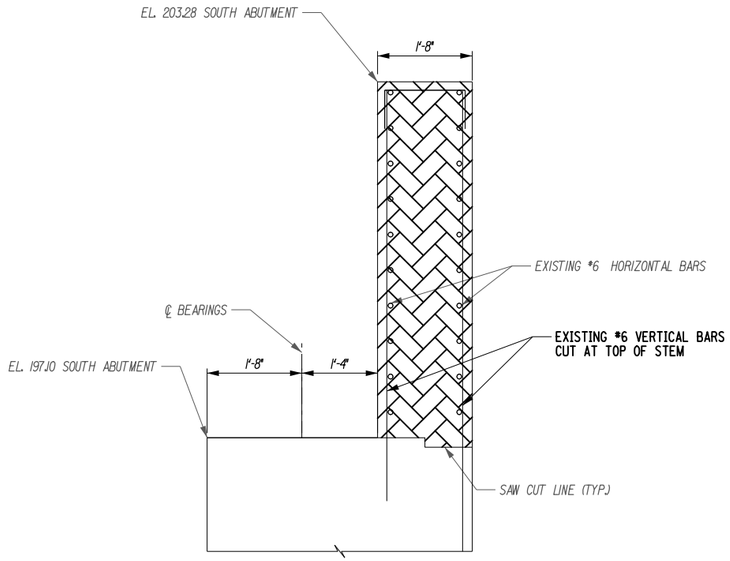
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: PEDESTAL DETAILS - 3

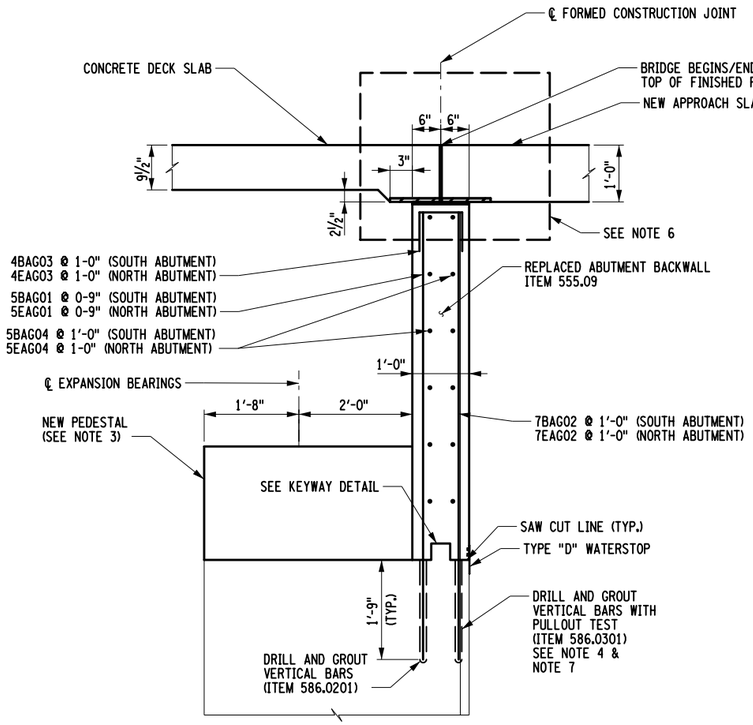
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-25

FILE NAME = DESIGN SUPERVISOR R.SHARMA
DATE/TIME = 1/24/2024 DESIGN Y.GAUCHAN
USER = KCEPC\jbolger CHECK J.BOLGER
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN

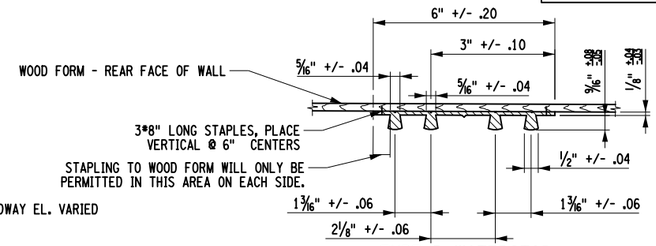
THIS SHEET SUPERSEDES SHEET 67 IN ITS ENTIRETY



EXISTING SOUTH ABUTMENT BACKWALL SECTION



PROPOSED ABUTMENT BACKWALL SECTION
SECTION A-A/ SECTION B-B

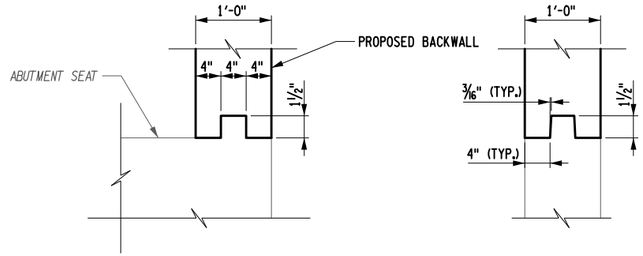


TYPE D WATERSTOP
NOT TO SCALE

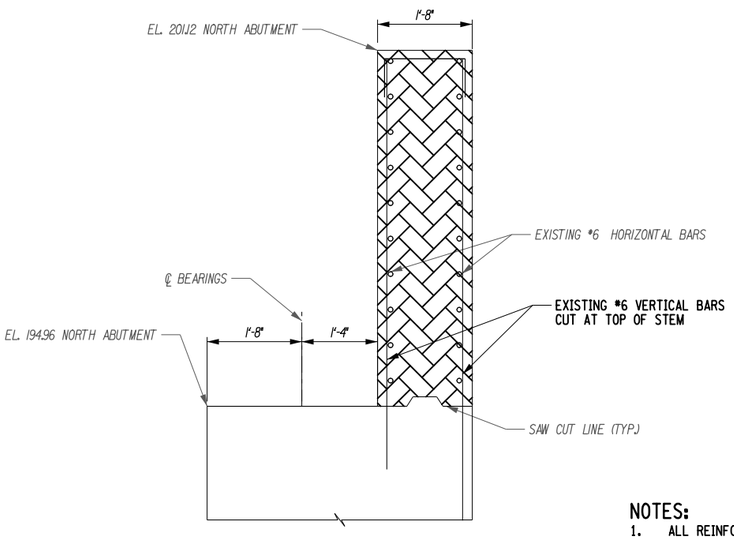
NOTES:

HOLES MUST NOT BE MADE IN WATERSTOP FOR ANY PURPOSE EXCEPT AS REQUIRED FOR STAPLING TO FORMS.

TYPE D WATERSTOP SHALL BE LIGHT GRAY IN COLOR.



KEYWAY DETAIL
(WATERSTOP NOT SHOWN)



EXISTING NORTH ABUTMENT BACKWALL SECTION

NOTES:

1. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
2. FOR ABUTMENT REINFORCING PLANS AND ELEVATIONS, SEE DWG. ST-15, ST-21.
3. FOR NEW PEDESTAL DETAILS AND ELEVATIONS, SEE DWG. ST-23, ST-24, ST-25.
4. NEW DRILL AND GROUT VERTICAL REINFORCEMENT AT REAR FACE SHALL BE PLACED BETWEEN EXISTING VERTICAL BARS.
5. ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS OTHERWISE NOTED.
6. SEE JOINTLESS ABUTMENT DETAIL ON DWG. ST-45.
7. THE EMBEDMENT DEPTH SHOWN IN THE PLANS FOR DRILLING AND GROUTING IS FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S ENGINEER SHALL DETERMINE THE DEVELOPMENT LENGTH REQUIRED TO DEVELOP THE FULL STRENGTH OF ANCHOR ROD AND/OR REINFORCING BAR. THE CALCULATIONS SHALL BE BASED ON THE SIZE OF THE ROD/BARS, ESTIMATED CONCRETE STRENGTH, AND THE GROUT SUPPLIERS' RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND DETAILS SEALED BY A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL.

LEGEND:

ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

1'-4" 0 1'-4" 2'-8" 4' 5'-4"
3/8" = 1'

ALTERED BY: ON:	AFFIX SEAL: John Bolger ON: 01/24/2024

STATE OF NEW YORK · JOHN BAIR BOLGER · LICENSED PROFESSIONAL ENGINEER · 098786

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.

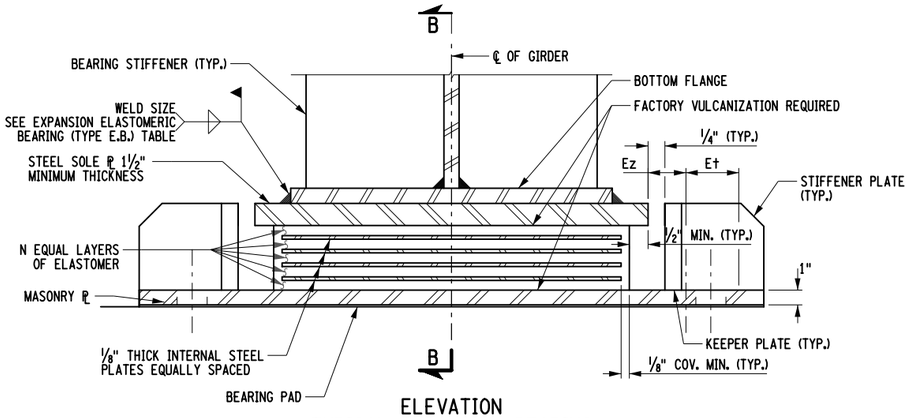
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

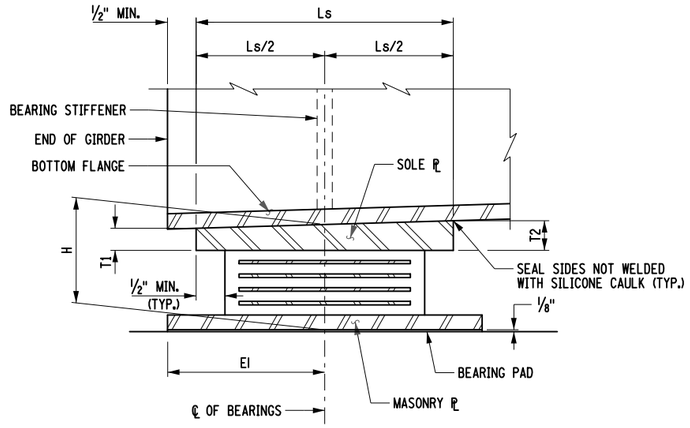
Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 01/24/2024
TITLE OF DRAWING: PROPOSED BACKWALL SECTIONS	DRAWING NUMBER: ST - 26

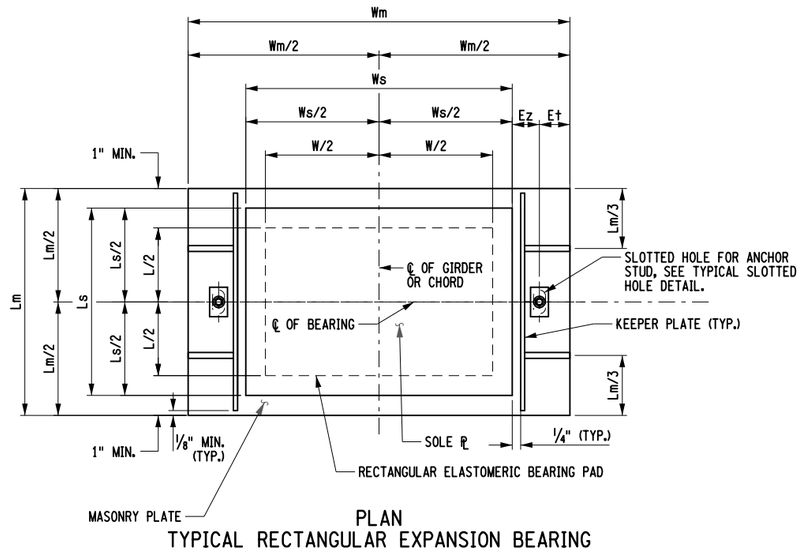
USER = KCEPC\jbolger
FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DRAFTING B.VADDI/C.VOHRA
DESIGN Y.GAUCHAN
CHECK Y.GAUCHAN
DATE/TIME = 1/24/2024
CHECK J.BOLGER



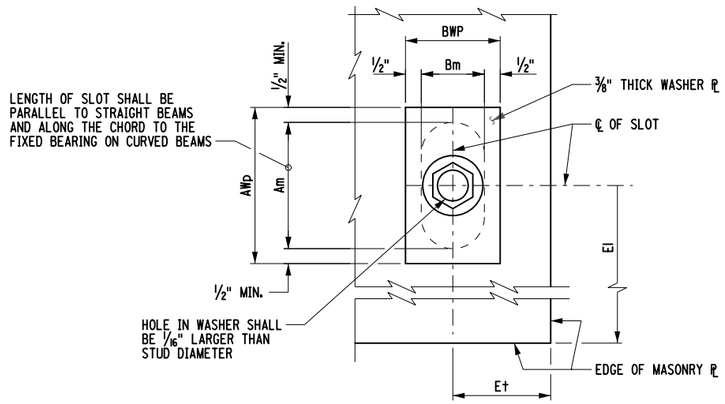
ELEVATION
TYPICAL EXPANSION BEARING



SECTION B-B



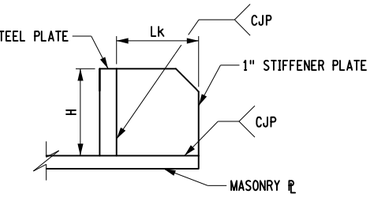
PLAN
TYPICAL RECTANGULAR EXPANSION BEARING



TYPICAL SLOTTED HOLE DETAIL
MASONRY PLATE

NOTES:

1. THE BEARINGS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 UNLESS OTHERWISE NOTED.
2. ALL ELASTOMER SHALL BE 50 DUROMETER HARDNESS ON THE SHORE A SCALE.
3. ALL STEEL EXCEPT THE INTERNAL STEEL PLATES SHALL CONFORM TO ASTM A709, GR. 50, UNLESS OTHERWISE NOTED.
4. BEARING PADS SHALL CONFORM TO ONE OF THE FOLLOWING MATERIAL SPECIFICATIONS: 728-01, 728-02 OR 728-03.
5. INSTALLATION ALIGNMENT:
   THE MAXIMUM VARIATION FROM PERFECT ALIGNMENT UNDER FULL DEAD LOAD SHALL NOT EXCEED 3/8". THIS VARIATION SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CENTERLINE OF THE HIGHEST ELASTOMER SURFACE AND THE CENTERLINE OF THE LOWEST ELASTOMER SURFACE.
6. CONCRETE SURFACES UNDER THE BEARINGS SHALL CONFORM TO SUBSECTION 565-3.02 "CONCRETE BEARING SURFACE PREPARATION" OF THE NEW YORK STATE STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS.
7. THE BEARING PAD, ANCHOR STUDS WASHER PLATES AND NUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.
8. IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF SOLE PLATE.
9. T2 IS UPSTATION OF T1.
10. TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
11. LOADS SHOWN IN THIS TABLE ARE UNFACTORED.
12. FOR PEDESTAL REINFORCEMENT DETAILS, SEE DWG. NO'S. ST-23, ST-24, ST-25.
13. FOR ANCHOR STUD LAYOUT DETAILS, SEE DWG. NO'S ST-16 AND ST-22.
14. KEEPER PLATE HEIGHT TO BE DETERMINED BASED ON CLEARANCE TO ALLOW FOR ANCHOR BOLT INSTALL.



LOCATION	Lk (IN)	H (IN)
SOUTH. ABUTMENT.	5	9
NORTH. ABUTMENT.	5	5

KEEPER PLATE DETAILS

EXPANSION ELASTOMERIC BEARING (TYPE E.B.) TABLE

LOCATION	ITEM NO.	QUANTITY REQUIRED	D.L. + S.D.L (kips)	L.L. WITHOUT IMPACT (kips)	TOTAL DESIGN REACTION (kips)	KEEPER LOAD (kips)	SHAPE FACTOR	ELASTOMER LAYER					HRT	COMP. AREA (SQ. In.)	SHEAR AREA (SQ. In.)	MASONRY PLATE								ANCHOR STUDS		WELD SIZE	WASHER PLATE		SOLE PLATE				BRG. H
								THK/LAYER	NO. LAYERS	L	W	D				Wm	Lm	Tm	Et	EI	Ez	Am	Bm	DIA.	STUDS/BRG.		AWp	BWp	Ws	Ls	T1	T2	
SOUTH. ABUTMENT.	565.2034	14	119	83	202	53	11.74	0.5	12	23	24		6	540	552	37	25	• 1	4.5	12.5	1.5	2.5	1.375	1	2	5/16	3.5	2.375	25	24	1.644	1.5	9.947
NORTH. ABUTMENT.	565.2034	14	122	85	206	53	8.24	0.5	4	14	20		2	272	280	37	16	1	5	8	2.5	2.5	1.375	1	2	5/16	3.5	2.375	23	15	1.5	1.5	4.875

• THE THICKNESS OF MASONRY PLATE WILL NEED TO BE MODIFIED WHERE PEDESTAL HEIGHT IS LESS THAN 4". SEE DWG. ST-24 FOR GIRDER LOCATION.

ALTERED BY:
ON:

AFFIX SEAL: John Bolger
ON: 01/24/2024

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

KS Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

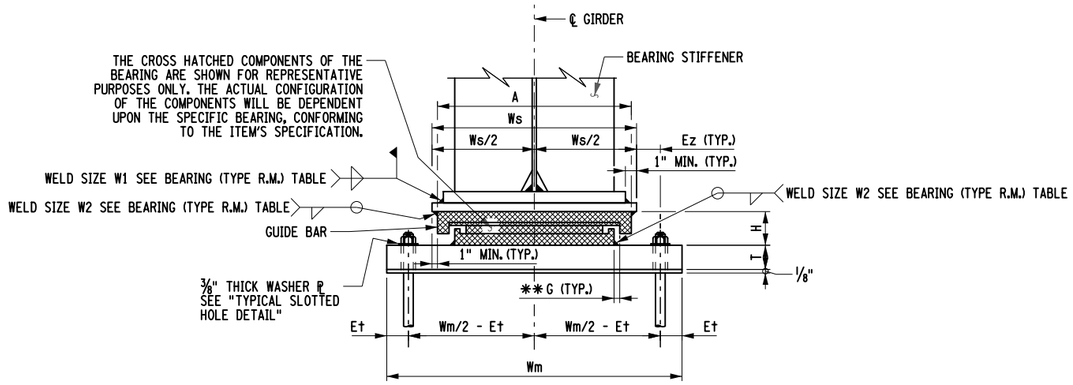
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
EXPANSION ELASTOMERIC BEARING DETAILS

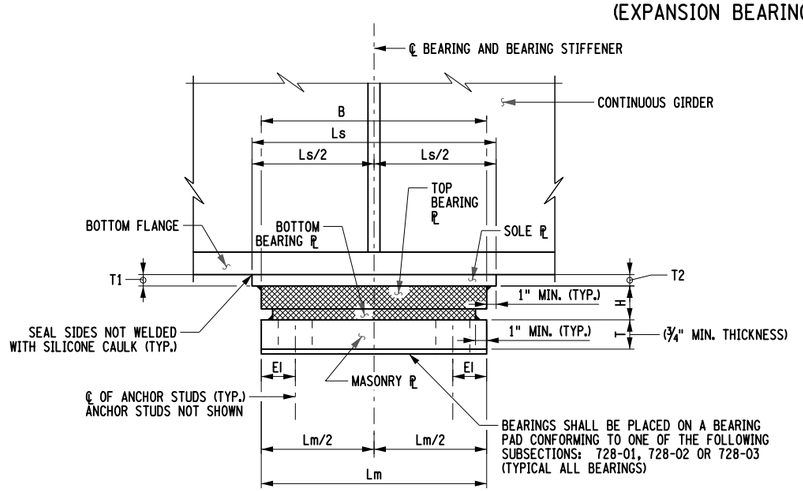
CONTRACT NUMBER: TAA 23-25B

DATE: 01/24/2024

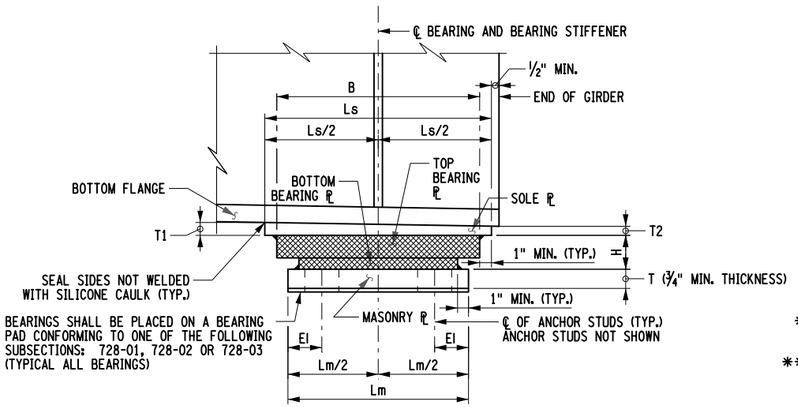
DRAWING NUMBER: ST-28



FRONT VIEW WITH ANCHOR STUDS
OUTSIDE OF SOLE PLATE
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)



SIDE VIEW AT AN
INTERIOR SUPPORT
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)



SIDE VIEW AT AN
END SUPPORT
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)

NOTES:

THE CONTRACTOR SHALL SUPPLY MULTI- ROTATIONAL STRUCTURAL BRIDGE BEARINGS CONFORMING TO THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 AND SUBJECT TO THE FOLLOWING CONDITIONS:

1. THE BEARING DEVICE SUPPLIED SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENT SHOWN ON THESE PLANS.
2. THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE ASSUMED TOTAL HEIGHT OF BEARING MECHANISM BETWEEN THE SOLE PLATE AND MASONRY PLATE USED BY THE DESIGNER TO ESTABLISH THE PEDESTAL ELEVATIONS. THE MINIMUM PEDESTAL HEIGHT SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE DEPUTY CHIEF ENGINEER (STRUCTURES).
3. ALL STEEL SHALL CONFORM TO ASTM A709, GR. 50.
4. ALL STEEL FABRICATION SHALL CONFORM TO THE PROVISIONS OF THE LATEST EDITION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
5. ALL METAL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A TEFLON SLIDING SURFACE FINISH.
6. ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
7. THE BEARING DEVICE, MASONRY PLATE, SOLE PLATE, ANCHOR STUDS, NUTS, WASHER PLATES, AND BEARING PAD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEMS.
8. IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF THE SOLE PLATE.
9. FOR BEARINGS OF CAPACITY ≥ 500 kips, USE 3/16" MINIMUM BEARING PAD IN LIEU OF 1/8".
10. WHEN THE THICKNESS OF THE MASONRY PLATE OR ANY OTHER PLATE BEING WELDED EXCEEDS 1 1/2", THE PLATES SHALL BE PREHEATED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
11. THE DIMENSIONS "A AND B" IN THE BEARING TABLE REPRESENT THE ASSUMED LOAD PLATE DIMENSIONS USED BY THE DESIGNER TO SIZE THE SOLE PLATE AND MASONRY PLATE.
12. FOR PEDESTAL REINFORCEMENT DETAILS, SEE DWG. NO ST-23.
13. FOR ANCHOR STUD LAYOUT DETAILS, SEE ST-18 AND ST-20.

* WHENEVER JACKING OF THE SUPERSTRUCTURE IS REQUIRED TO RESET THE BEARINGS, THE CONTRACTOR SHALL SUBMIT A JACKING PROCEDURE TO THE E.I.C. FOR APPROVAL.

** ONE WAY LONGITUDINAL MOVEMENT IS THE MAXIMUM ONE-WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARINGS ARE SET AT 68°F PLUS 1 INCH OF TOLERANCE.

*** ON WIDE STRUCTURES AND ON CURVED STRUCTURES PROVISIONS SHALL BE MADE FOR LIMITED LATERAL MOVEMENT.

MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. BEVELED SOLE PLATES ACCOUNT FOR GRADE & DL EFFECTS. BEARING DESIGN SHOULD ACCOUNT FOR GRADE EFFECTS WHEN SOLE PLATES ARE NOT BEVELED.

BEARING (TYPE R.M.) TABLE

LOCATION	FIX./EXP.	ITEM NO.	QUANTITY REQUIRED	DESIGN LOADS						*ONE WAY MOVEMENT	**(G) GUIDE CLEARANCE	MASONRY PLATE							WASHER PLATE		SOLE PLATE				LOAD PLATE		BRG. H	ANCHOR STUDS		WELD SIZE	
				VERTICAL (SERVICE)			STRENGTH																								
				DC	DW	LL+IM	VERT.	HORIZ.	ROTATION. (RAD)***			Lm	Wm	Tm	ET	EI	Am	Bm	AWp	BWp	Ls	Ws	T1	T2	A	B		DIA.	STUDS/BRG.	W1	W2
PIER. 1	EXP.	565.1523	14	322	27.5	226	840	125		2.529	0.379	23.375	33.25	1.625	2	3.25	2.5	1.375	3.5	2.375	25.875	28.5	0.905	0.75	26.5	22.75	8.25	1	4	5/16	5/16
PIER. 2	FIX.	565.1723	14	322	27.5	226	840	125		-	-	23.375	28.125	1	2	3.25	2.5	1.375	3.5	2.375	19	24	0.875	0.875	17	17	4.75	1	4	5/16	5/16

ALTERED BY:
ON:

AFFIX SEAL: John Bolger
ON: 01/24/2024

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

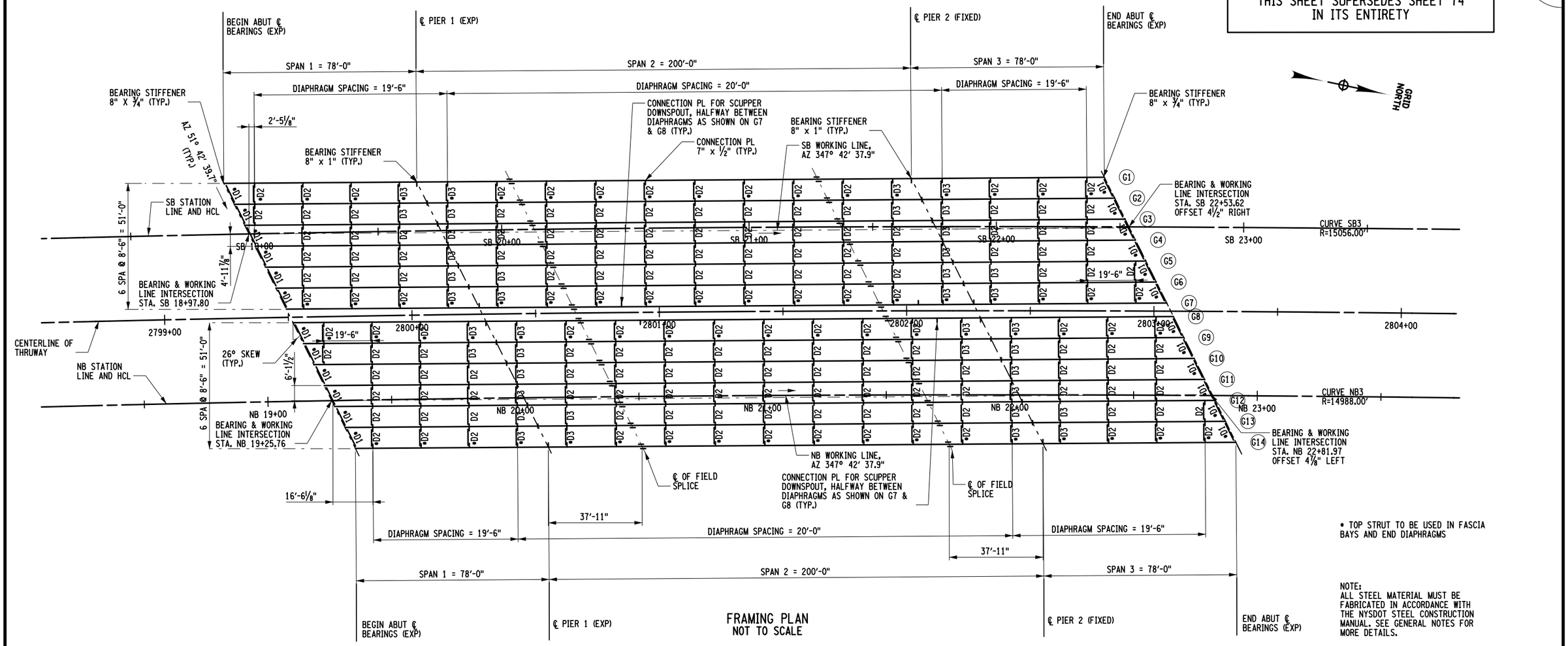
TITLE OF DRAWING
MULTI-ROTATIONAL
BEARING DETAILS (2 OF 2)

CONTRACT NUMBER: TAA 23-25B

DATE: 01/24/2024

DRAWING NUMBER: ST-30

THIS SHEET SUPERSEDES SHEET 74
IN ITS ENTIRETY

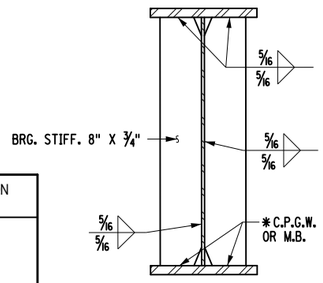


FRAMING PLAN
NOT TO SCALE

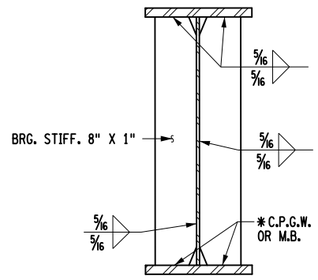
• TOP STRUT TO BE USED IN FASCIA BAYS AND END DIAPHRAGMS

NOTE:
ALL STEEL MATERIAL MUST BE FABRICATED IN ACCORDANCE WITH THE NYSDOT STEEL CONSTRUCTION MANUAL. SEE GENERAL NOTES FOR MORE DETAILS.

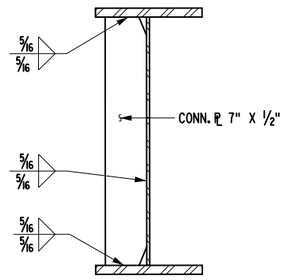
ERECTION NOTE:
A SINGLE GIRDER PLACED BETWEEN THE SPLICES IN SPAN 2 WILL BE UNSTABLE DUE TO THE LONG UNBRACED LENGTH. THE CONTRACTOR MUST PROVIDE SUPPORT OF THE GIRDER EITHER BY PICKING TWO GIRDERS AT A TIME OR BRACING A GIRDER FROM ANOTHER ADJACENT GIRDER. THE CONTRACTOR MUST PROVIDE HOW THE GIRDER WILL BE STABILIZED IN THEIR ERECTION PLAN SUBMITTAL.



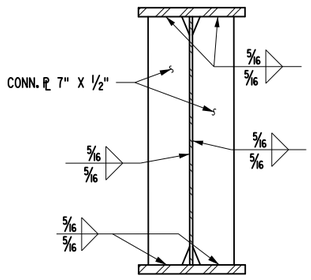
BEARING STIFFENER AT ABUTMENT



BEARING STIFFENER AT PIER



FASCIA GIRDER CONNECTION ℄



INTERIOR GIRDER CONNECTION ℄

NOTES:
* C.P.G.W. = COMPLETE PENETRATION GROOVE WELD
* M.B. = MILL TO BEAR

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 82023

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

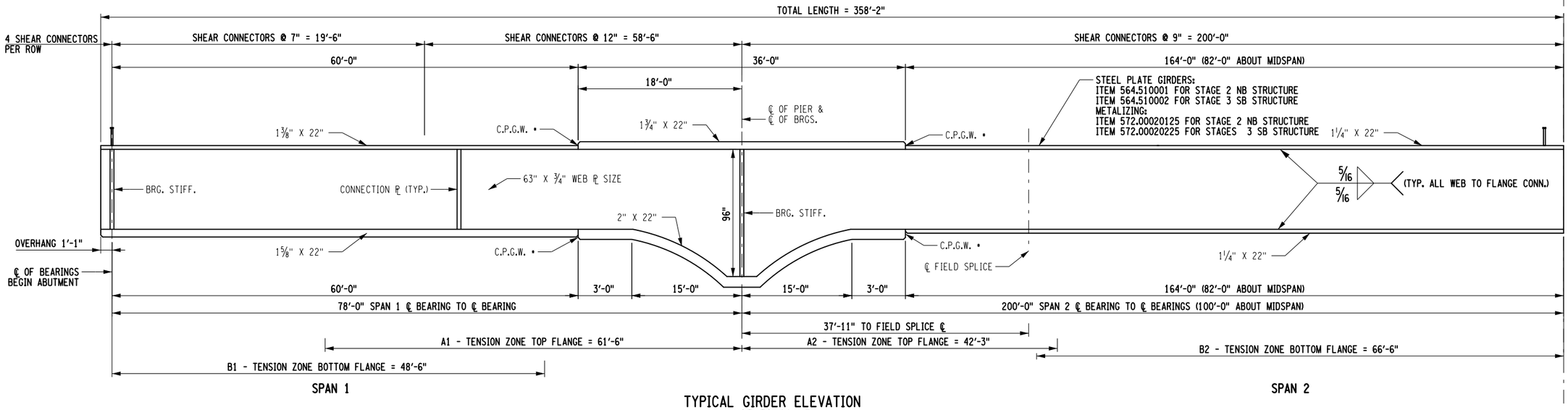
TITLE OF DRAWING
FRAMING PLAN

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-33

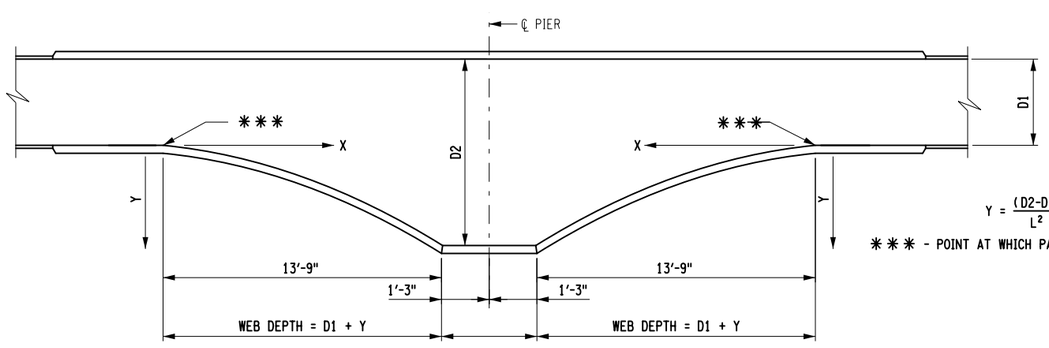
USER = BENTLEYHOSTING_jmtpw11cs01$
DATE/TIME = 1/24/2024
FILE NAME =
DESIGN SUPERVISOR R. HENDERSON
DESIGN
DRAFTING
CHECK

THIS SHEET SUPERSEDES SHEET 75
IN ITS ENTIRETY

GIRDER SYMMETRIC
ABOUT MIDSPAN



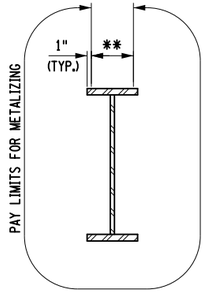
TYPICAL GIRDER ELEVATION
NOT TO SCALE



$Y = \frac{(D2-D1)}{L^2} X^2$ (X & Y IN FEET)

✱✱✱ - POINT AT WHICH PARABOLIC HAUNCH IS TANGENT TO THE WEB.

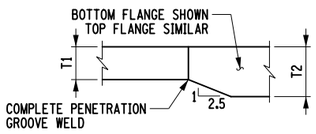
GIRDER HAUNCH DETAIL
NOT TO SCALE



✱✱ COAT THIS AREA WITH AN ORGANIC ZINC PRIMER CONFORMING TO NYSDOT MATERIAL SPECIFICATION 708-01 OR 708-02. PRIME COAT SHALL BE APPLIED AT A THICKNESS BETWEEN 0.5 AND 1.5 MILS. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE METALIZING ITEM.

ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.

METALIZING LIMITS
NOT TO SCALE

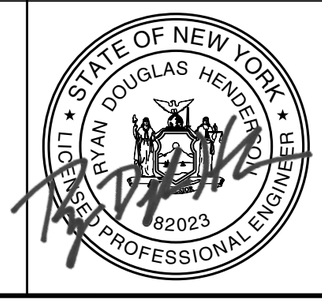


FLANGE THICKNESS TAPER

NOTES:
1. • C.P.G.W. = COMPLETE PENETRATION GROOVE WELD
2. FOR FRAMING PLAN SEE DRAWING ST-33.
3. UNLESS SHOWN IN DETAILS, THERE SHALL BE NO WELDING WITHIN THE TENSION ZONES. THE ATTACHMENT OF THE FORMING DEVICES OR OTHER CONSTRUCTION AIDS BY WELDING WITHIN THE TENSION AREA SHOWN IS PROHIBITED.
4. NO WELDING IS ALLOWED IN GIRDER TENSIONS ZONES. FOR FORMING DEVICES, IN AREAS WHERE WELDING IS ALLOWED, METALIZING TO BE REMOVED PRIOR TO WELDING.
5. THE ENDS OF ALL GIRDERS AND THE BEARING STIFFENERS SHALL BE VERTICAL UNDER FULL DEAD LOAD. ALL CONNECTION PLATES AND INTERMEDIATE STIFFENERS MAY BE PERPENDICULAR TO THE TOP FLANGES.
6. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024



NOT TO SCALE

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
GIRDER DETAILS

CONTRACT NUMBER:
TAA 23-25B

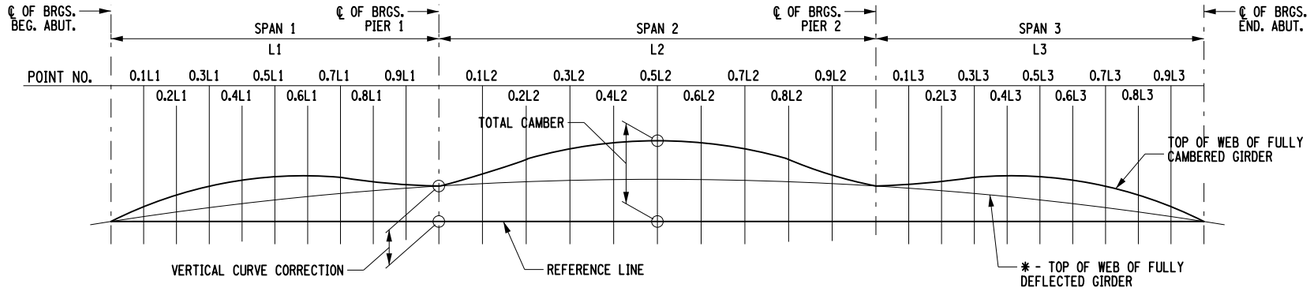
DATE:
01/24/2024

DRAWING NUMBER:
ST-34

THIS SHEET SUPERSEDES SHEET 82
IN ITS ENTIRETY

82A2
105

CAMBER TABLE		CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 8	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.045	0.075	0.100	0.105	0.100	0.075	0.045	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.015	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.060	0.155	0.250	0.320	0.345	0.320	0.250	0.155	0.060	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.015	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.020	0.040	0.065	0.080	0.085	0.080	0.065	0.040	0.020	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.050	-0.055	-0.055	-0.045	-0.030	0.000	0.105	0.260	0.420	0.530	0.570	0.530	0.420	0.260	0.105	0.000	-0.030	-0.045	-0.055	-0.055	-0.050	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 9	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.040	0.070	0.090	0.100	0.090	0.065	0.035	0.010	0.000	0.000	0.000	0.005	0.010	0.015	0.020	0.020	0.015	0.010	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.015	-0.020	-0.025	-0.025	-0.025	-0.015	0.000	0.060	0.155	0.245	0.315	0.340	0.310	0.240	0.145	0.055	0.000	-0.015	-0.020	-0.020	-0.020	-0.010	-0.005	0.000	0.005	0.005	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.015	-0.025	-0.030	-0.040	-0.050	-0.055	-0.055	-0.045	-0.025	0.000	0.105	0.255	0.410	0.525	0.560	0.520	0.405	0.250	0.100	0.000	-0.025	-0.040	-0.050	-0.045	-0.040	-0.030	-0.025	-0.015	-0.015	0.000
GIRDER 10	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.020	0.050	0.080	0.105	0.115	0.105	0.080	0.050	0.020	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	-0.005	-0.010	-0.015	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.260	0.330	0.355	0.330	0.260	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.015	-0.010	-0.005	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.030	-0.035	-0.045	-0.055	-0.060	-0.060	-0.050	-0.030	0.000	0.110	0.265	0.425	0.540	0.580	0.540	0.425	0.265	0.110	0.000	-0.030	-0.050	-0.060	-0.060	-0.055	-0.045	-0.040	-0.030	-0.020	0.000
GIRDER 11	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.015	0.045	0.080	0.105	0.110	0.105	0.080	0.045	0.015	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.255	0.330	0.355	0.330	0.255	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.055	-0.060	-0.055	-0.050	-0.030	0.000	0.105	0.265	0.420	0.535	0.575	0.535	0.420	0.265	0.105	0.000	-0.030	-0.050	-0.055	-0.060	-0.055	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 12	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.015	0.045	0.080	0.105	0.110	0.105	0.080	0.045	0.015	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.255	0.330	0.355	0.330	0.255	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.055	-0.060	-0.055	-0.050	-0.030	0.000	0.105	0.265	0.420	0.535	0.575	0.535	0.420	0.265	0.105	0.000	-0.030	-0.050	-0.055	-0.060	-0.055	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 13	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.010	0.015	0.020	0.020	0.015	0.010	0.005	0.000	0.000	0.000	0.010	0.035	0.065	0.090	0.100	0.090	0.070	0.040	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.005	0.005	0.000	-0.005	-0.010	-0.020	-0.020	-0.020	-0.015	0.000	0.055	0.145	0.240	0.310	0.340	0.315	0.245	0.155	0.060	0.000	-0.015	-0.025	-0.030	-0.025	-0.020	-0.015	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.015	-0.015	-0.025	-0.030	-0.040	-0.045	-0.050	-0.040	-0.025	0.000	0.100	0.250	0.405	0.520	0.560	0.525	0.410	0.260	0.105	0.000	-0.025	-0.045	-0.055	-0.055	-0.050	-0.040	-0.030	-0.025	-0.015	0.000
GIRDER 14	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.045	0.075	0.100	0.105	0.100	0.075	0.045	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	0.000	-0.005	-0.010	-0.015	-0.020	-0.020	-0.020	-0.010	0.000	0.050	0.130	0.210	0.270	0.295	0.270	0.215	0.130	0.050	0.000	-0.010	-0.020	-0.020	-0.020	-0.015	-0.010	-0.005	0.000	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.015	-0.020	-0.030	-0.035	-0.045	-0.050	-0.050	-0.040	-0.025	0.000	0.095	0.235	0.375	0.480	0.515	0.480	0.380	0.235	0.095	0.000	-0.025	-0.040	-0.050	-0.045	-0.040	-0.035	-0.025	-0.020	-0.015	0.000



CAMBER DIAGRAM - CONTINUOUS SPANS

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/30/2024

STATE OF NEW YORK ★ LICENSED PROFESSIONAL ENGINEER ★ RYAN DOUGLAS HENDERSON 082023

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
NORTHBOUND CAMBER TABLE AND DIAGRAM

CONTRACT NUMBER: TAA 23-25B

DATE: 01/29/2024

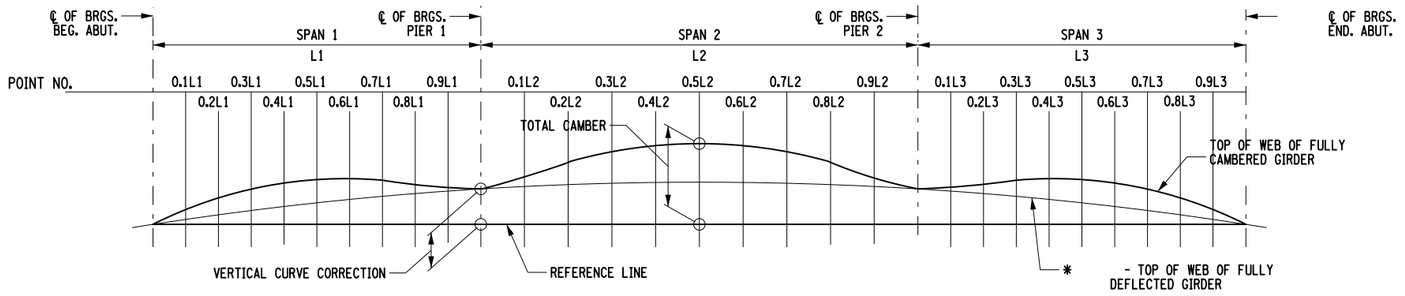
DRAWING NUMBER: ST-41

FILE NAME = DESIGN SUPERVISOR R. HENDERSON DESIGN DATE/TIME = 1/30/2024 CHECK DRAFTING USER = BENTLEYHOSTING\jmtpwllcs01$ CHECK

THIS SHEET SUPERSEDES SHEET 83
IN ITS ENTIRETY

83A2
105

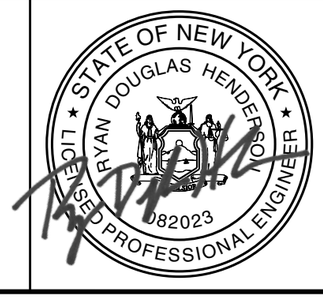
	CAMBER TABLE	CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 1	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.045	0.075	0.100	0.105	0.100	0.075	0.045	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.060	0.155	0.255	0.325	0.350	0.325	0.255	0.155	0.060	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.015	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.020	0.040	0.065	0.080	0.085	0.080	0.065	0.040	0.020	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.055	-0.060	-0.055	-0.045	-0.030	0.000	0.105	0.260	0.420	0.535	0.575	0.535	0.420	0.265	0.105	0.000	-0.030	-0.045	-0.055	-0.055	-0.050	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 2	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.040	0.070	0.090	0.100	0.090	0.065	0.035	0.010	0.000	0.000	0.000	0.005	0.010	0.015	0.020	0.020	0.015	0.010	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.015	-0.020	-0.025	-0.025	-0.025	-0.015	0.000	0.060	0.155	0.245	0.315	0.340	0.310	0.240	0.145	0.055	0.000	-0.015	-0.020	-0.020	-0.020	-0.010	-0.005	0.000	0.005	0.005	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.015	-0.025	-0.030	-0.040	-0.050	-0.055	-0.055	-0.045	-0.025	0.000	0.105	0.255	0.410	0.525	0.560	0.520	0.405	0.250	0.100	0.000	-0.025	-0.040	-0.050	-0.045	-0.040	-0.030	-0.025	-0.015	-0.015	0.000
GIRDER 3	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.020	0.050	0.080	0.105	0.115	0.105	0.080	0.050	0.020	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	-0.005	-0.010	-0.015	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.260	0.330	0.355	0.330	0.260	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.015	-0.010	-0.005	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.030	-0.035	-0.045	-0.055	-0.060	-0.060	-0.050	-0.030	0.000	0.110	0.265	0.425	0.540	0.580	0.540	0.425	0.265	0.110	0.000	-0.030	-0.050	-0.060	-0.060	-0.055	-0.045	-0.040	-0.030	-0.020	0.000
GIRDER 4	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.015	0.045	0.080	0.105	0.110	0.105	0.080	0.045	0.015	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.255	0.330	0.355	0.330	0.255	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.055	-0.060	-0.055	-0.050	-0.030	0.000	0.105	0.265	0.420	0.535	0.575	0.535	0.420	0.265	0.105	0.000	-0.030	-0.050	-0.055	-0.060	-0.055	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 5	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.005	0.005	0.005	0.000	0.000	-0.005	-0.005	-0.005	0.000	0.015	0.045	0.080	0.105	0.110	0.105	0.080	0.045	0.015	0.000	-0.005	-0.005	-0.005	0.000	0.000	0.005	0.005	0.005	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	-0.005	-0.010	-0.020	-0.025	-0.030	-0.030	-0.025	-0.015	0.000	0.065	0.160	0.255	0.330	0.355	0.330	0.255	0.160	0.065	0.000	-0.015	-0.025	-0.030	-0.030	-0.025	-0.020	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.025	-0.035	-0.045	-0.055	-0.060	-0.055	-0.050	-0.030	0.000	0.105	0.265	0.420	0.535	0.575	0.535	0.420	0.265	0.105	0.000	-0.030	-0.050	-0.055	-0.060	-0.055	-0.045	-0.035	-0.025	-0.020	0.000
GIRDER 6	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.010	0.015	0.020	0.020	0.015	0.010	0.005	0.000	0.000	0.000	0.010	0.035	0.065	0.090	0.100	0.090	0.070	0.040	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.005	0.005	0.000	-0.005	-0.010	-0.020	-0.020	-0.020	-0.015	0.000	0.055	0.145	0.240	0.310	0.340	0.315	0.245	0.155	0.060	0.000	-0.015	-0.025	-0.030	-0.025	-0.020	-0.015	-0.010	-0.005	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	0.000	0.015	0.040	0.060	0.075	0.085	0.075	0.060	0.040	0.015	0.000	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.015	-0.015	-0.025	-0.030	-0.040	-0.045	-0.050	-0.040	-0.025	0.000	0.100	0.250	0.405	0.520	0.560	0.525	0.410	0.260	0.105	0.000	-0.025	-0.045	-0.055	-0.055	-0.050	-0.040	-0.030	-0.025	-0.015	0.000
GIRDER 7	I. STEEL D.L. (ft)	0.000	-0.005	-0.005	-0.010	-0.010	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.025	0.065	0.105	0.130	0.140	0.130	0.105	0.065	0.025	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.010	-0.010	-0.005	-0.005	0.000
	I.A. STEEL + CONC. COUNTER D.L. (ft)	0.000	0.005	0.010	0.010	0.010	0.005	0.005	0.000	0.000	0.000	0.000	0.015	0.045	0.075	0.100	0.105	0.100	0.075	0.045	0.015	0.000	0.000	0.000	0.000	0.005	0.005	0.010	0.010	0.010	0.005	0.000
	II. CONCRETE D.L. (ft)	0.000	0.000	0.000	-0.005	-0.010	-0.015	-0.020	-0.020	-0.020	-0.010	0.000	0.050	0.130	0.210	0.265	0.290	0.265	0.210	0.130	0.050	0.000	-0.010	-0.020	-0.020	-0.020	-0.015	-0.010	-0.005	0.000	0.000	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.010	-0.005	0.000	0.020	0.045	0.065	0.085	0.090	0.085	0.065	0.045	0.020	0.000	-0.005	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.020	-0.020	-0.030	-0.035	-0.045	-0.050	-0.050	-0.040	-0.025	0.000	0.095	0.235	0.380	0.480	0.520	0.480	0.380	0.235	0.095	0.000	-0.025	-0.040	-0.050	-0.050	-0.045	-0.035	-0.030	-0.020	-0.020	0.000



CAMBER DIAGRAM - CONTINUOUS SPANS

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/30/2024



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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
SOUTHBOUND CAMBER TABLE AND DIAGRAM

CONTRACT NUMBER: TAA 23-25B

DATE: 01/29/2024

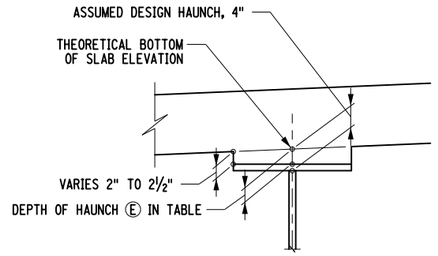
DRAWING NUMBER: ST-42

THIS SHEET SUPERSEDES SHEET 84
IN ITS ENTIRETY

	HAUNCH TABLE	CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 8	A. REQ'D BOTTOM OF SLAB ELEVATION	203.14	203.09	203.05	203.00	202.96	202.91	202.87	202.82	202.78	202.73	202.69	202.57	202.45	202.33	202.21	202.09	201.97	201.85	201.73	201.61	201.49	201.44	201.39	201.34	201.30	201.25	201.20	201.15	201.10	201.05	201.01
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.024	-0.034	-0.044	-0.052	-0.058	-0.059	-0.056	-0.045	-0.026	0.000	0.091	0.218	0.344	0.434	0.466	0.434	0.344	0.219	0.092	0.000	-0.026	-0.045	-0.056	-0.060	-0.058	-0.053	-0.044	-0.034	-0.024	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 9	A. REQ'D BOTTOM OF SLAB ELEVATION	203.28	203.24	203.19	203.15	203.10	203.06	203.01	202.97	202.92	202.88	202.83	202.71	202.60	202.48	202.36	202.24	202.12	202.00	201.88	201.75	201.63	201.58	201.54	201.49	201.44	201.39	201.34	201.29	201.25	201.20	201.15
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 10	A. REQ'D BOTTOM OF SLAB ELEVATION	203.43	203.39	203.34	203.30	203.25	203.21	203.16	203.11	203.07	203.02	202.98	202.86	202.74	202.62	202.50	202.38	202.26	202.14	202.02	201.90	201.78	201.73	201.68	201.63	201.58	201.54	201.49	201.44	201.39	201.34	201.29
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 11	A. REQ'D BOTTOM OF SLAB ELEVATION	203.58	203.53	203.49	203.44	203.40	203.35	203.31	203.26	203.21	203.17	203.12	203.01	202.89	202.77	202.65	202.53	202.41	202.29	202.16	202.04	201.92	201.87	201.82	201.78	201.73	201.68	201.63	201.58	201.53	201.48	201.44
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 12	A. REQ'D BOTTOM OF SLAB ELEVATION	203.63	203.58	203.53	203.48	203.44	203.39	203.34	203.29	203.24	203.20	203.15	203.03	202.91	202.78	202.66	202.54	202.43	202.31	202.19	202.07	201.95	201.91	201.86	201.82	201.77	201.73	201.68	201.64	201.59	201.55	201.50
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 13	A. REQ'D BOTTOM OF SLAB ELEVATION	203.43	203.39	203.34	203.29	203.24	203.19	203.14	203.10	203.05	203.00	202.95	202.83	202.71	202.59	202.47	202.35	202.23	202.11	201.99	201.88	201.76	201.71	201.67	201.62	201.58	201.53	201.49	201.44	201.40	201.35	201.31
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 14	A. REQ'D BOTTOM OF SLAB ELEVATION	203.24	203.19	203.14	203.09	203.05	203.00	202.95	202.90	202.85	202.81	202.76	202.64	202.52	202.39	202.27	202.15	202.04	201.92	201.80	201.68	201.56	201.52	201.47	201.43	201.38	201.34	201.29	201.25	201.20	201.16	201.11
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.021	-0.029	-0.037	-0.044	-0.049	-0.051	-0.047	-0.038	-0.022	0.000	0.080	0.192	0.303	0.382	0.411	0.383	0.303	0.192	0.080	0.000	-0.022	-0.038	-0.047	-0.050	-0.048	-0.043	-0.037	-0.029	-0.021	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															

•ASSUMES STEEL COMPLETELY ERECTED AND COUNTERWEIGHTS POURED

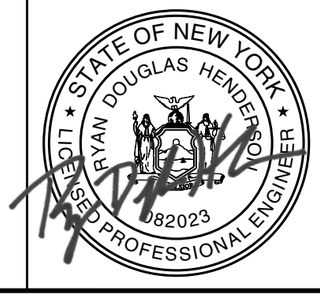
•• DOES NOT INCLUDE COUNTERWEIGHT LOADING



GIRDER HAUNCH DETAIL

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/30/2024



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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
NORTHBOUND HAUNCH TABLE AND DETAILS

CONTRACT NUMBER: TAA 23-25B

DATE: 01/29/2024

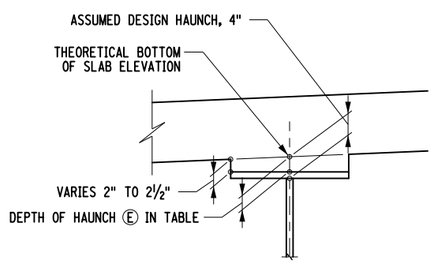
DRAWING NUMBER: ST-43

THIS SHEET SUPERSEDES SHEET 85
IN ITS ENTIRETY

	HAUNCH TABLE	CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 1	A. REQ'D BOTTOM OF SLAB ELEVATION	203.53	203.49	203.45	203.40	203.36	203.32	203.27	203.23	203.19	203.14	203.10	202.99	202.87	202.76	202.65	202.53	202.42	202.30	202.18	202.07	201.95	201.90	201.86	201.81	201.76	201.72	201.67	201.62	201.58	201.53	201.49
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.034	-0.044	-0.053	-0.058	-0.060	-0.056	-0.045	-0.026	0.000	0.092	0.219	0.346	0.436	0.468	0.436	0.346	0.220	0.092	0.000	-0.026	-0.045	-0.056	-0.060	-0.058	-0.052	-0.044	-0.034	-0.024	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 2	A. REQ'D BOTTOM OF SLAB ELEVATION	203.68	203.64	203.60	203.55	203.51	203.47	203.42	203.38	203.33	203.29	203.25	203.13	203.02	202.91	202.79	202.68	202.56	202.45	202.33	202.21	202.09	202.05	202.00	201.96	201.91	201.86	201.82	201.77	201.72	201.68	201.63
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 3	A. REQ'D BOTTOM OF SLAB ELEVATION	203.83	203.79	203.74	203.70	203.66	203.61	203.57	203.53	203.48	203.44	203.39	203.28	203.17	203.05	202.94	202.82	202.71	202.59	202.47	202.36	202.24	202.19	202.15	202.10	202.05	202.01	201.96	201.91	201.87	201.82	201.77
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 4	A. REQ'D BOTTOM OF SLAB ELEVATION	203.78	203.73	203.68	203.64	203.59	203.54	203.50	203.45	203.40	203.36	203.31	203.19	203.07	202.95	202.84	202.72	202.60	202.49	202.37	202.26	202.15	202.10	202.06	202.01	201.97	201.92	201.88	201.84	201.79	201.75	201.71
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 5	A. REQ'D BOTTOM OF SLAB ELEVATION	203.58	203.54	203.49	203.44	203.39	203.35	203.30	203.25	203.21	203.16	203.11	203.00	202.88	202.76	202.64	202.53	202.41	202.29	202.18	202.06	201.95	201.91	201.86	201.82	201.77	201.73	201.69	201.64	201.60	201.55	201.51
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 6	A. REQ'D BOTTOM OF SLAB ELEVATION	203.39	203.34	203.29	203.25	203.20	203.15	203.11	203.06	203.01	202.97	202.92	202.80	202.68	202.57	202.45	202.33	202.22	202.10	201.99	201.87	201.76	201.71	201.67	201.62	201.58	201.54	201.49	201.45	201.41	201.36	201.32
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.033	-0.042	-0.050	-0.056	-0.058	-0.054	-0.044	-0.025	0.000	0.090	0.217	0.342	0.432	0.464	0.432	0.342	0.217	0.091	0.000	-0.025	-0.044	-0.054	-0.058	-0.056	-0.050	-0.043	-0.033	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 7	A. REQ'D BOTTOM OF SLAB ELEVATION	203.19	203.15	203.10	203.05	203.01	202.96	202.91	202.87	202.82	202.77	202.73	202.61	202.49	202.37	202.25	202.14	202.02	201.91	201.79	201.68	201.56	201.52	201.47	201.43	201.39	201.34	201.30	201.25	201.21	201.17	201.12
	B. TOP OF STEEL EL. (FIELD MEASURE)•																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION••	0.000	-0.023	-0.031	-0.038	-0.045	-0.049	-0.051	-0.048	-0.038	-0.022	0.000	0.080	0.192	0.304	0.383	0.412	0.383	0.304	0.192	0.080	0.000	-0.022	-0.038	-0.048	-0.051	-0.050	-0.045	-0.039	-0.031	-0.023	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															

•ASSUMES STEEL COMPLETELY ERECTED AND COUNTERWEIGHTS POURED

•• DOES NOT INCLUDE COUNTERWEIGHT LOADING



GIRDER HAUNCH DETAIL

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/30/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · 082023 · LICENSED PROFESSIONAL ENGINEER

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

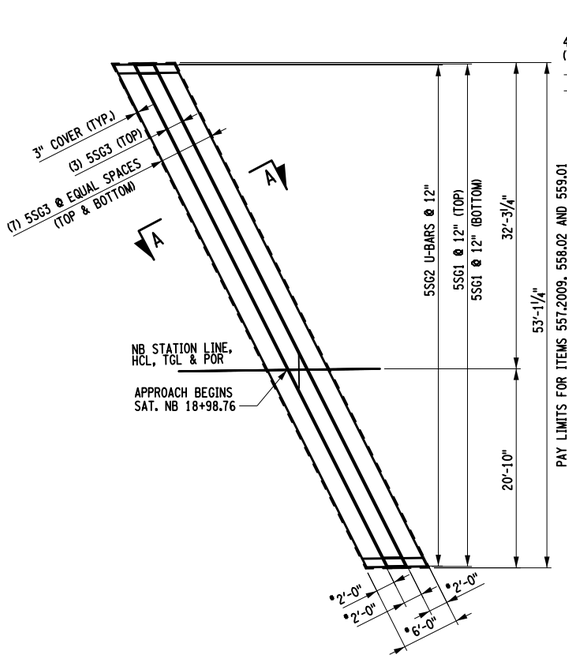
TITLE OF DRAWING
SOUTHBOUND HAUNCH TABLE AND DETAILS

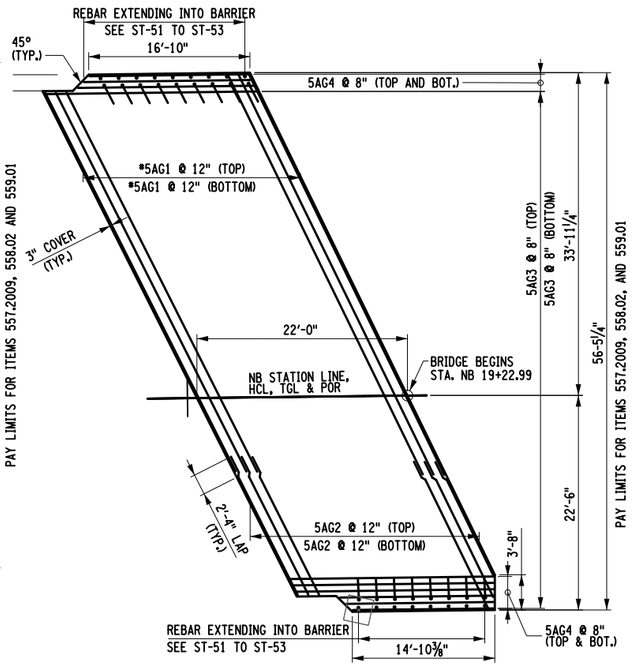
CONTRACT NUMBER:
TAA 23-25B

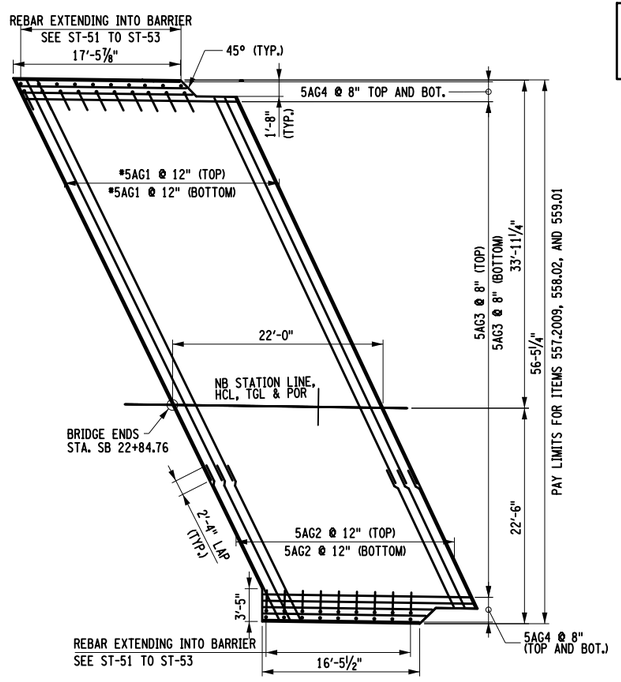
DATE:
01/29/2024

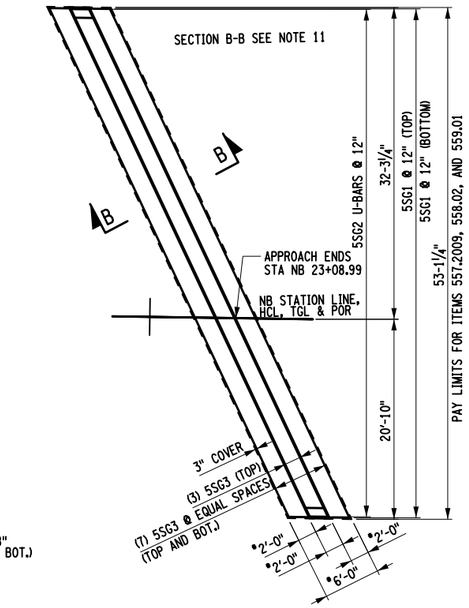
DRAWING NUMBER:
ST-44

THIS SHEET SUPERSEDES SHEET 89
IN ITS ENTIRETY







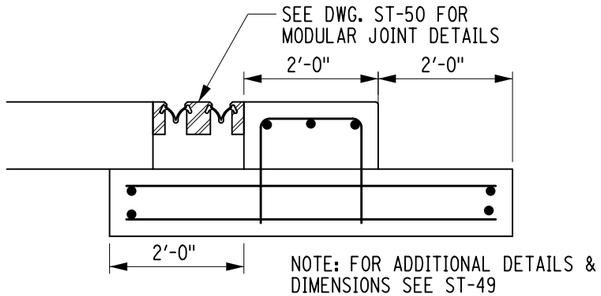


NORTHBOUND APPROACH AND SLEEPER REINFORCEMENT

NOT TO SCALE

DIMENSION SHOWN ALONG OR PERPENDICULAR TO HCL
(EXCEPT AS DESIGNATED BY •)

APPROACH SLAB TABLE			
LOCATION	CONCRETE APPROACH SLAB 557.2009 (SY)	LONGITUDINAL SAWCUT GROOVING 558.02 (SY)	PROTECTIVE SEALER 559.01 (SY)
BEGIN APPROACH SLAB	176	131	1296
END APPROACH SLAB	176	131	1300



NOTE: FOR ADDITIONAL DETAILS & DIMENSIONS SEE ST-49

SECTION A-A SLEEPER SLAB

NOT TO SCALE

NOTE:
1. EXCAVATION FOR SLEEPER SLABS SHALL BE CAREFULLY MADE AFTER COMPACTED ABUTMENT EMBANKMENT IS IN PLACE. THE SLEEPER SLABS SHALL BE FOUND ON UNDISTURBED COMPACT MATERIAL OR RE-COMPACTED MATERIAL. NO LOOSE BACKFILL SHALL BE ALLOWED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE SLEEPER SLAB FROM TEMPORARY LOADINGS OR ANY CONDITION WHICH COULD CAUSE MOVEMENTS OR UNEVEN SETTLEMENT OF THE SLEEPER SLAB.
2. TO PERMIT UNHINDERED LONGITUDINAL MOVEMENT OF SLAB, THE SURFACE OF THE SUBBASE COURSE MUST BE ACCURATELY CONTROLLED TO FOLLOW AND BE PARALLEL TO BE ROADWAY GRADE AND CROSS SLOPE. POLYETHYLENE CURING COVERS (WHITE OPAQUE) IN ACCORDANCE WITH MATERIAL SPECIFICATION SUBSECTION 711-04 SHALL BE PLACED ON FINISHED SUBBASE COURSE THE FULL WIDTH OF THE APPROACH SLAB PRIOR TO PLACEMENT OF THE REINFORCEMENT. THE CURING COVERS SHALL BE 0.004 INCH THICK, AND LAPS SHALL BE 2 FT. MINIMUM.
3. TOP OF SLEEPER SLABS SHALL BE STEEL TROWEL FINISHED AND COATED WITH A 0.04 INCH NOMINAL THICKNESS OF PERFORMANCE GRADE ASPHALT AS INDICATED IN THE PROPOSAL, OR MATERIAL SPECIFICATION 702-3101. THE TOP OF SLEEPER SLABS SHALL FOLLOW THE CROSS SLOPE AND GRADE OF THE ROADWAY, COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
4. FILL THE RECESS WITH A STRUCTURAL JOINT MATERIAL, LIQUID SEALANT, FROM THE DEPARTMENTS APPROVED LIST. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR THOSE SEALANTS THAT REQUIRES A PRIMER. THE CONCRETE SHALL CURE FOR MINIMUM OF 7 DAYS BEFORE JOINT IS SEALED. SEALING SHALL ONLY BE PREFORMED WHEN THE CONCRETE TEMPERATURE IS 40°F OR ABOVE. BOTH JOINT FACES SHALL BE SAND BLASTED TO ROUGHEN THE SURFACE AND TO REMOVE ALL SURFACE MOISTURE AND ANY OTHER MATERIAL THAT MAY INTERFERE WITH BOND.
5. TOP SURFACE OF STRUCTURAL SLABS AND APPROACH SLABS SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE ITEM. EXPOSED AREAS OF SLEEPER SLAB DO NOT NEED TO BE GROOVED.
6. COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES), MATERIAL SPECIFICATIONS 728-06, TWO 0.06 INCH THICK SHEETS. PRICE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
7. MOVEMENTS AT THE SLEEPER SLAB JOINTS ARE SHOWN WITHIN THE APPROPRIATE JOINT DETAILS ON DWG. ST-49 AND ST-50.
8. ALL REINFORCEMENT SHALL HAVE 3 INCH COVER UNLESS OTHERWISE NOTED.
9. (G) DENOTES GALVANIZED COATED BARS.
10. DETAILS NO THE DRAWINGS LABELED AS "NOT TO SCALE: ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALES IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
11. SEE SECTION B-B ON DWG ST-49

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 82023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

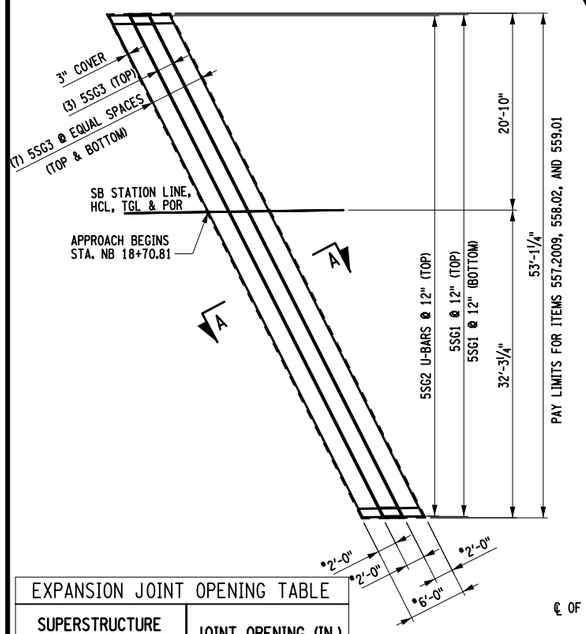
TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

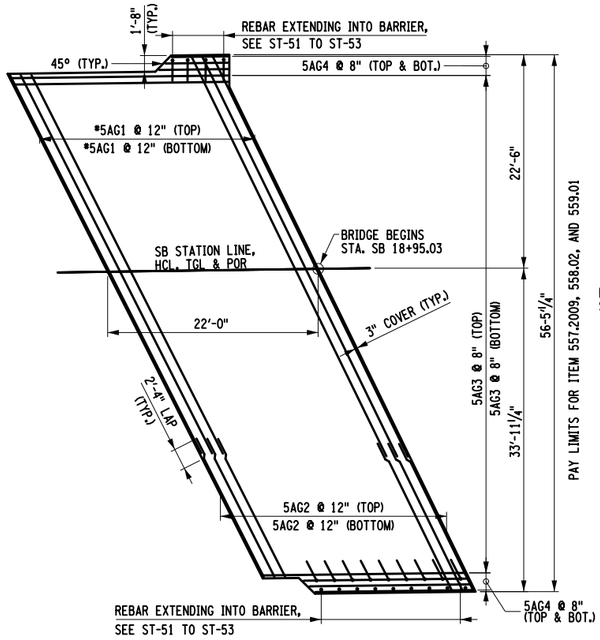
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

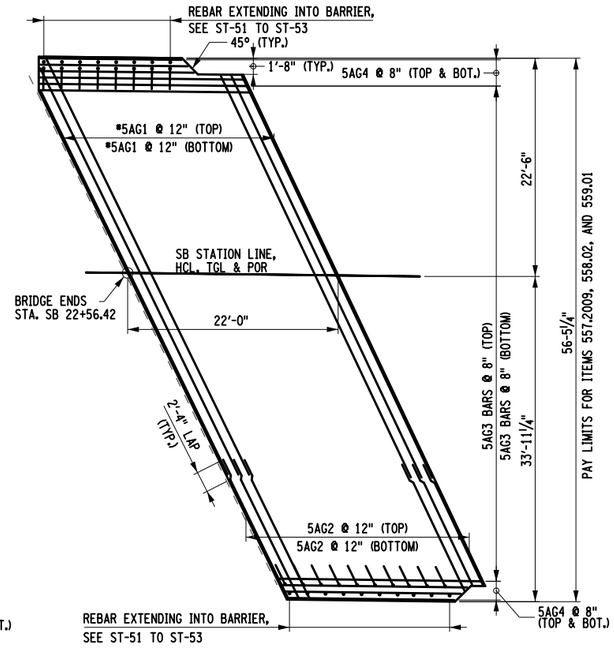
TITLE OF DRAWING
NORTHBOUND APPROACH SLAB REINFORCEMENT PLAN

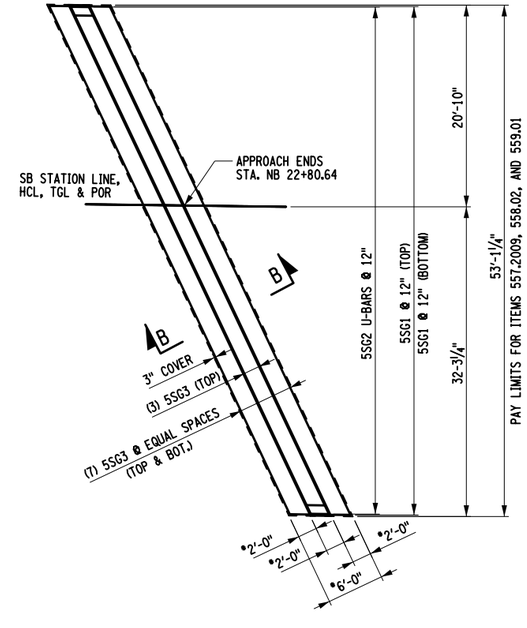
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-48

THIS SHEET SUPERSEDES SHEET 90
IN ITS ENTIRETY







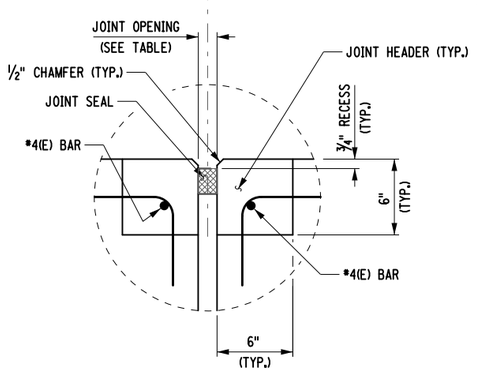


SOUTHBOUND APPROACH AND SLEEPER REINFORCEMENT

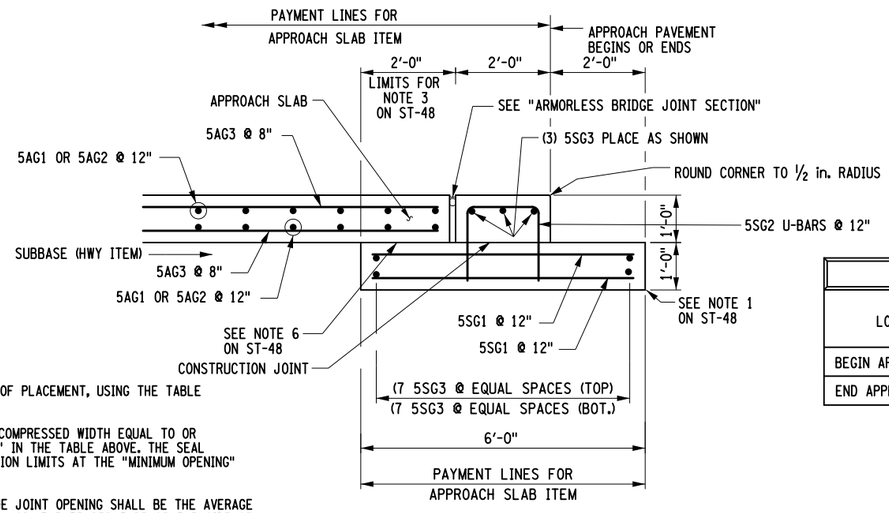
NOT TO SCALE

DIMENSION SHOWN ALONG OR PERPENDICULAR TO HCL
(EXCEPT AS DESIGNATED BY •)

EXPANSION JOINT OPENING TABLE	
SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)
30	1 5/8
35	1 5/8
40	1 5/8
45	1 5/8
50	1 1/2
55	1 1/2
60	1 1/2
65	1 3/8
70	1 3/8
75	1 1/4
80	1 1/4
85	1 1/4
90	1 1/8
95	1 1/8
100	1 1/8
105	1
110	1
NOTES:	
MIN. OPENING (IN.) = 1	
MAX. OPENING/REQ. MIN. SEAL WIDTH (IN.) = 2.125	
TOTAL MOVEMENT (IN.) = 1.125	



ARMORLESS BRIDGE JOINT SECTION



APPROACH SLAB TABLE			
LOCATION	CONCRETE APPROACH SLAB 557.2009 (SY)	LONGITUDINAL SAWCUT GROOVING 558.02 (SY)	PROTECTIVE SEALER 559.01 (SY)
BEGIN APPROACH SLAB	173	128	1271
END APPROACH SLAB	175	130	1288

NOTES:

THE "JOINT OPENING" SHALL BE DETERMINED AT THE TIME OF PLACEMENT, USING THE TABLE PROVIDED ON THIS DRAWING.

THE CONTRACTOR SHALL SUPPLY A JOINT SEAL WITH AN UNCOMPRESSED WIDTH EQUAL TO OR GREATER THAN THE DIMENSION NOTED AS "MIN. SEAL WIDTH" IN THE TABLE ABOVE. THE SEAL SUPPLIED SHALL NOT EXCEED THE MANUFACTURES COMPRESSION LIMITS AT THE "MINIMUM OPENING" NOTED IN THE TABLE.

THE SUPERSTRUCTURE TEMPERATURE USED TO DETERMINE THE JOINT OPENING SHALL BE THE AVERAGE TEMPERATURE OF THE BOTTOM OF THE GIRDER TOP FLANGES, (OR) THE TEMPERATURE OF THE SIDE OF A PRESTRESSED BEAM NOT DIRECTLY IN SUNLIGHT. A MINIMUM OF TWO TEMPERATURE READINGS PER SPAN SHALL BE USED TO CALCULATE THE AVERAGE SUPERSTRUCTURE TEMPERATURE.

ALL HEADER REINFORCEMENT SHALL HAVE A 2" MINIMUM COVER.

SECTION B-B SLEEPER SLAB

NOTES:
1. SEE SECTION A-A ON DWG. ST-48
2. SEE MODULAR JOINT DETAILS DWG. ST-50
3. SEE NOTES ON DWG. ST-48

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

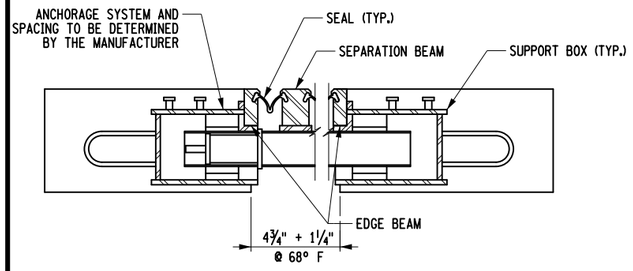
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

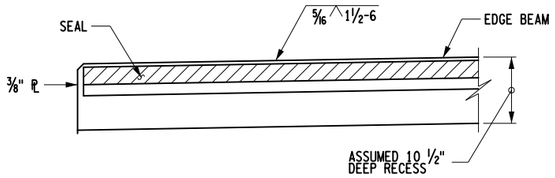
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 – BIN 5041189
TITLE OF DRAWING: SOUTHBOUND APPROACH SLAB REINFORCEMENT PLAN
CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-49

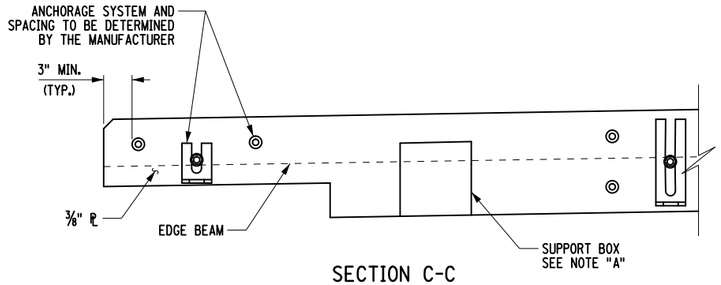
THIS SHEET SUPERSEDES SHEET 91
IN ITS ENTIRETY



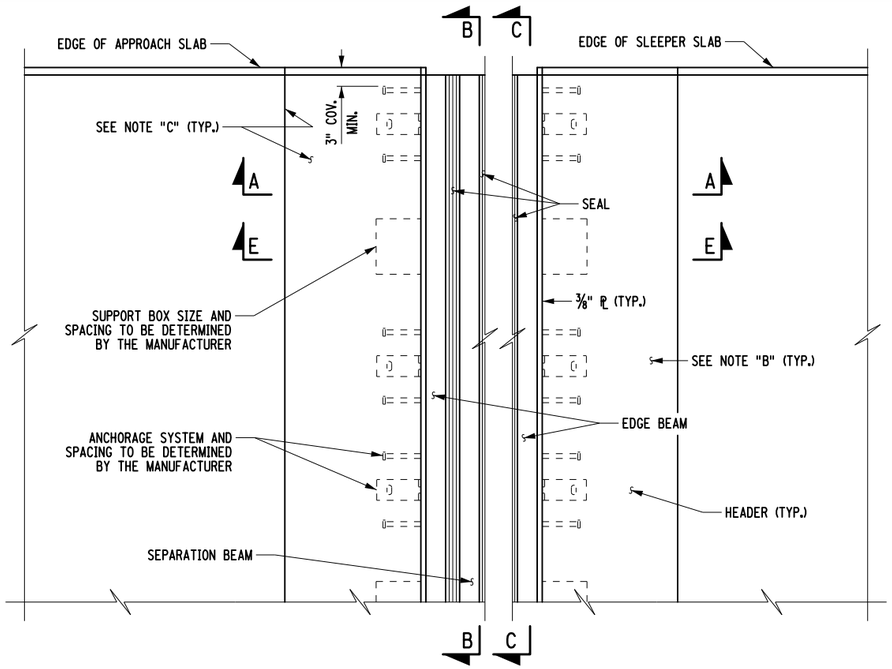
SECTION E-E
(HEADER ONLY SHOWN FOR CLARITY)



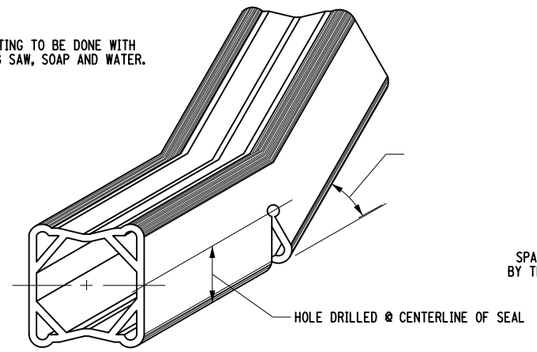
SECTION B-B



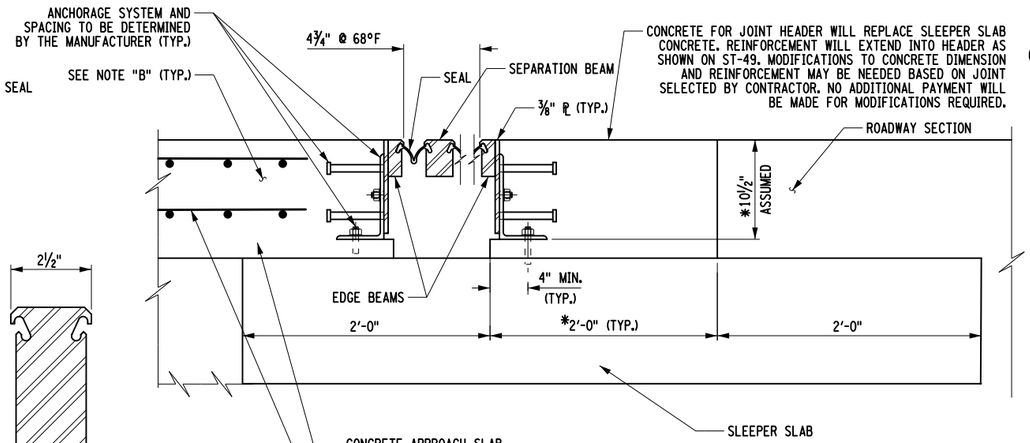
SECTION C-C



PARTIAL PLAN
(MULTICELL MODULAR JOINT SYSTEM AT APPROACH/SLEEPER SLAB)
ITEM 566.02

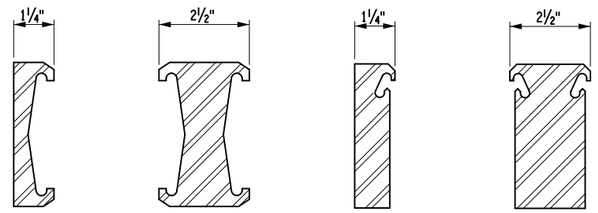


DETAIL FOR CUTTING
BOX SEAL

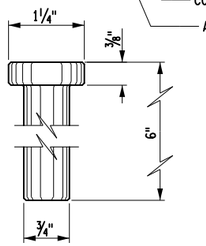


SECTION A-A AT APPROACH
AND SLEEPER SLAB

* IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THE DIMENSIONS SHOWN ARE ADEQUATE FOR THE JOINT PROVIDED.



EDGE BEAM FOR BOX SEAL | SEPARATION BEAM FOR BOX SEAL | EDGE BEAM FOR STRIP SEAL | SEPARATION BEAM FOR STRIP SEAL



DETAIL OF HEADED CONCRETE
ANCHOR STUD

STRIP SEAL CROSS SECTION

NOTE "B"

THE CONCRETE FURNISHED AND PLACED IN THE RECESSES FOR INSTALLING THE JOINT SYSTEM SHALL COMPLY WITH THE SPECIFICATIONS FOR THE CURRENT SLAB ITEM, EXCEPT THAT MACHINE FINISHING WILL NOT BE REQUIRED AND CURING TIME NEED NOT EXCEED 7 DAYS. THE COST FOR FURNISHING AND PLACING THIS CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE OF THE SLAB ITEM.

NOTES:

IT IS DESIRABLE TO HAVE THE MODULAR JOINT WITH ITS SEAL ASSEMBLED IN THE SHOP AND DELIVERED TO THE JOB SITE ALL SET FOR INSTALLATION IN ITS PREFORMED RECESS IN THE STRUCTURAL SLAB. IN CASES WHERE THE JOINT CANNOT BE ASSEMBLED IN THE SHOP, DUE TO ITS EXCESSIVE LENGTH CAUSING SHIPPING PROBLEMS, THE JOINT SHALL HAVE THE SEAL IN PLACE BEFORE THE STRUCTURE IS OPENED TO TRAFFIC, INCLUDING CONSTRUCTION TRAFFIC, AND BEFORE DISCONTINUING OPERATION WHEN WORK IS SUSPENDED DURING THE WINTER.

MODULAR JOINT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL JOINT SUPPLIED MAY VARY SIGNIFICANTLY FROM THE ONE SHOWN HERE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL REQUIRED DIMENSIONS IN THE FIELD, BASED ON FIELD VERIFIED DIMENSIONS, TO ACCOMMODATE THE ACTUAL MODULAR JOINT SUPPLIED.

STRIP SEAL OR BOX SEAL MAY BE USED AT THE CONTRACTOR'S OPTION.

THE SUPPLIER OF THE JOINT SYSTEM MUST BE ON THE NYSDOT APPROVED LIST.

THE ASSUMED DIMENSIONS OF THE BLOCKOUT (DEPTH AND WIDTH) ARE PLACED ON THE PLANS. IF THE JOINT SYSTEM SUPPLIED BY THE FABRICATOR/CONTRACTOR REQUIRES A CHANGE TO THE BLOCKOUT SIZE OR SUPPORT SYSTEM DETAILED IN THE PLANS, THAT CHANGE TO THE BLOCKOUT OR SUPPORT SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE CHANGES TO THE BLOCKOUT OR SUPPORT SYSTEM AS A RESULT OF THE SUPPLIED JOINT SYSTEM.

ENDS OF BOX SEAL TO BE CAPPED WITH NEOPRENE SPONGE AS APPROVED BY ENGINEER.

CAULKING COMPOUND FOR STRUCTURES CONFORMING TO N.Y.S. STANDARD SPECIFICATIONS SUBSECTION 705-06 SHALL BE USED TO SEAL BETWEEN THE CURB AND THE ⅜" PLATE. COST TO BE INCLUDED IN THE UNIT PRICE FOR THE CURB ITEM.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · 082023 · LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

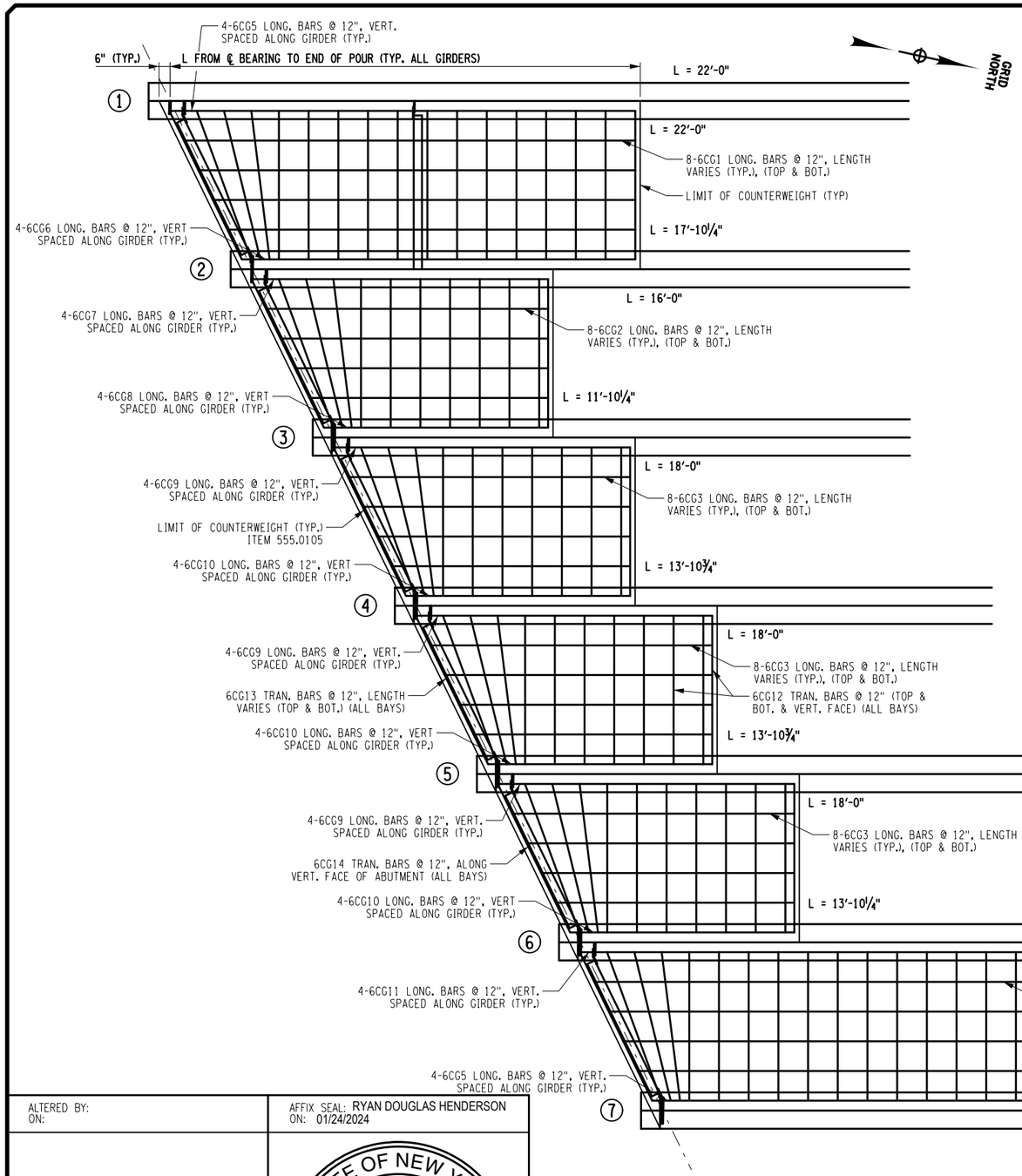
TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

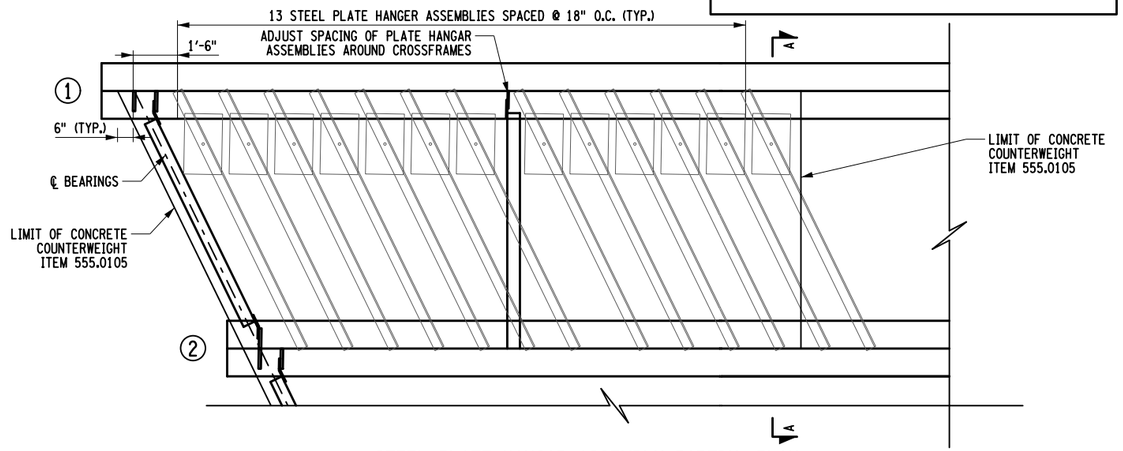
TITLE OF DRAWING
JOINT DETAILS

CONTRACT NUMBER: TAA 23-25B
DATE: 01/24/2024
DRAWING NUMBER: ST-50

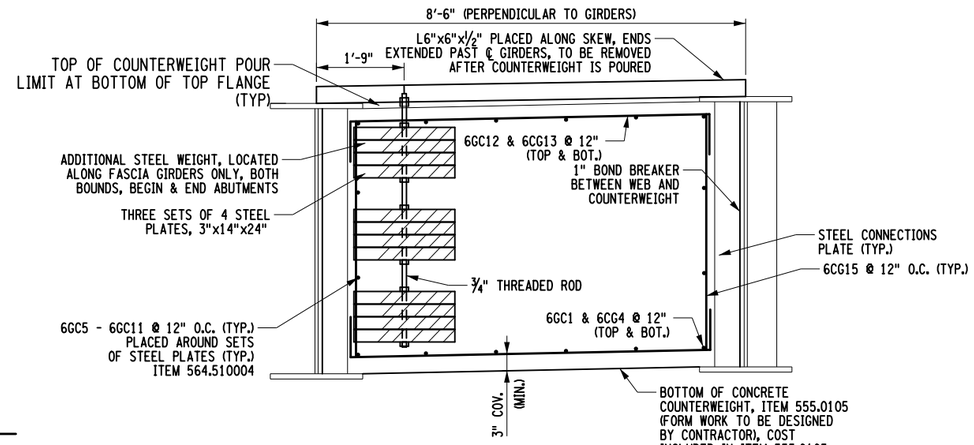
THIS SHEET SUPERSEDES SHEET 99
IN ITS ENTIRETY



CONCRETE COUNTERWEIGHT LAYOUT PLAN
(SOUTHBOUND BEGIN ABUTMENT SHOWN, NORTHBOUND AND END ABUTMENT SIMILAR)
NOT TO SCALE

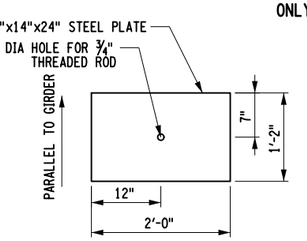


STEEL PLATE HANGAR ASSEMBLY PARTIAL PLAN
GIRDERS G1-G2 SHOWN AT BEGIN ABUTMENT, SOUTHBOUND
(G6-G7, G8-G9, & G13-G14, AND END ABUTMENT SIMILAR)
NOT TO SCALE



SECTION A-A
(TYPICAL ALL BAYS, HANGAR ASSEMBLIES ONLY AT G1, G7, G8, & G14)
NOT TO SCALE

NOTE: 6GC12, 6GC14, & 6GC15 AT VERTICAL EXPOSED FACE AND FACE AT ABUTMENT NOT SHOWN FOR CLARITY



STEEL PLATE DETAIL
NOT TO SCALE

NOTES:

1. THREADED ROD WILL BE ASTM 307 WITH DOUBLE ASTM F3125 WASHERS AND ASTM F3125 NUTS.
2. STEEL PLATES WILL BE ASTM A36
3. COST OF THREADED RODS, WASHERS, NUTS, AND ANGLES TO TEMPORARILY SUPPORT ASSEMBLE WILL BE INCIDENTAL TO THE WEIGHT OF THE STEEL PLATES AND INCLUDED IN THE COST FOR THE ITEM 564.510004.
4. ALL FORMWORK REQUIRED TO PLACE THE CONCRETE FOR THE COUNTERWEIGHTS WILL BE INCLUDED IN ITEM 555.0105.

ALTERED BY:
ON:

AFFIX SEAL: RYAN DOUGLAS HENDERSON
ON: 01/24/2024

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 82023

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 01/24/2024
TITLE OF DRAWING: MISCELLANEOUS DETAILS (3 OF 5)	DRAWING NUMBER: ST-58

BEGIN ABUTMENT BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4BAG03	126	2′-6"	17	211		1′-0"	0′-6"	1′-0"											
5BAG01	167	8′-10.3"	N1	1544														8′-10.3"	
5BAG04	38	60′-0"	N1	2379														60′-0"	
5BAG05	15	15′-2.7"	T1	239	0′-6.5"	3′-9"	3′-2"	3′-9"	3′-2"		0′-6.5"	0′-3.8"							
5BAG07	1	16′-9.5"	N4	18	0′-6.5"	3′-8.3"	3′-7.8"	0′-0"	3′-2"	1′-11.3"	3′-3.3"	0′-6.5"	0′-0"	0′-0"	1′-9"	0′-0"	10′-2"	3′-8.3"	1′-4.5"
5BAG09	1	13′-5.7"	N11	15	0′-6.5"	3′-1.7"	2′-7.8"	0′-0"	2′-11.5"	0′-0"	1′-3"	2′-11.3"	0′-6.5"	0′-0"	0′-0"	0′-0"	0′-5.8"	3′-1.8"	1′-0.2"
6BAG06	96	2′-7"	17	373		0′-6"	2′-1"	0′-0"											
6BAG08	9	1′-11"	17	26		0′-6"	1′-5"	0′-0"											
6BAG10	8	2′-3"	17	28		0′-6"	1′-9"	0′-0"											
7BAG02	167	8′-10.3"	N1	3025														8′-10.3"	
SUBTOTAL GALVANIZED BARS				7858 lb															

END ABUTMENT BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4EAG03	127	2′-6"	N1	213		1′-0"	0′-6"	1′-0"											
5EAG01	169	8′-10.3"	N1	1561														8′-10.3"	
5EAG04	38	60′-0"	17	2379														60′-0"	
5EAG05	27	14′-8.7"	N1	415		0′-6.5"	3′-6"	3′-2"	3′-6"	3′-2"	0′-6.5"	0′-3.8"							
5EAG07	2	18′-5.3"	N1	39	0′-6.5"	3′-2"	2′-10.5"	2′-1.3"	2′-10"	3′-6.3"	2′-10.3"	0′-6.5"		1′-10.8"	3′-2"		1′-6.8"	4′-1.3"	1′-3.5"
5EAG09	3	16′-9.8"	T1	53	0′-6.5"	4′-2.3"	3′-3.3"		3′-3.3"	2′-10.5"	2′-1.5"	0′-6.5"			2′-7"		1′-3"	4′-2.3"	1′-5"
6EAG06	96	2′-0"	N11	289		0′-6"	1′-6"												
6EAG08	8	1′-11"	N4	24		0′-6"	1′-5"												
6EAG10	9	1′-11"	N11	26		0′-6"	1′-5"												
7EAG02	169	8′-10.3"	N4	3059														8′-10.3"	
SUBTOTAL GALVANIZED BARS				8058 lb															

BEGIN ABUTMENT WINGWALL BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4BWG02	2	13.97′	N1	19														13.97′	
4BWG04	2	5.25′	N1	8														5.25′	
6BWG01	15	4.39′	1	99		3.80′								0.38′					
6BWG03	6	4.70′	1	43		4.11′								0.38′					
SUBTOTAL GALVANIZED BARS				169 lb															

END ABUTMENT WINGWALL BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4EWG02	2	14.15′	N1	19														14.15′	
4EWG04	2	15.63′	N1	21														15.63′	
6EWG01	15	4.71′	1	107		4.12′								0.38′					
6EWG03	16	4.42′	1	107		3.83′								0.38′					
SUBTOTAL GALVANIZED BARS				254 lb															

PIER 1 BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5P1G01	57	15′-4.8"	17	916	0′-6.5"	3′-6"	3′-6"	3′-6"	3′-6"		0′-6.5"	0′-3.8"							
6P1G02	80	3′-5.5"	17	416		0′-6"	2′-11.5"	0′-0"											
6P1G03	9	15′-10.8"	N1	215	0′-6.5"	3′-6"	3′-9"	3′-6"			0′-6.5"	0′-3.8"							
6P1G04	32	3′-5.5"	17	167		0′-6"	2′-11.5"	0′-0"											
SUBTOTAL GALVANIZED BARS				1714 lb															

PIER 2 BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)														
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5P2G01	75	15′-4.8"	T1	1205	0′-6.5"	3′-6"	3′-6"	3′-6"	3′-6"		0′-6.5"	0′-3.8"							
6P2G02	80	3′-9.5"	17	456		0′-6"	3′-3.5"	0′-0"											
6P2G03	12	15′-10.8"	T1	287	0′-6.5"	3′-9"	3′-6"	3′-9"			0′-6.5"	0′-3.8"							
6P2G04	32	3′-9.5"	17	183		0′-6"	3′-3.5"	0′-0"											
SUBTOTAL GALVANIZED BARS				2131 lb															

ALTERED BY:
ON:

AFFIX SEAL: John Bolger
ON: 01/24/2024

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
BARLIST-2

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
ST-62

SUPERSTRUCTURE SLAB (NORTH BOUND) BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4DG01	544	32'-4.5"	N1	11765														32'-4.5"	
4DG02	544	32'-4.5"	N1	11765														32'-4.5"	
4DG03	544	47'-6.2"	T5	17269	0'-6"	46'-8"					0'-0"			0'-4.3"					
4DG04	544	19'-1.3"	T5	6943	0'-6"	18'-3"					0'-0"			0'-4.3"					
4DG05	966	60'-0"	N1	38718														60'-0"	
4DG06	161	13'-2"	N1	1417														13'-2"	
4DG07	6	5'-3"	N1	22														5'-3"	
4DG08	190	7'-4.3"	1	934	0'-6"	6'-0"					0'-6"			0'-4.3"					
5DG01	36	60'-0"	N1	2253														60'-0"	
5DG02	12	17'-8"	N1	222														17'-8"	
5DG03	120	3'-8"	N1	459														3'-8"	
6DG01	85	60'-0"	N1	7661														60'-0"	
6DG02	87	60'-0"	N1	7841														60'-0"	
7DG01	1088	7'-8.5"	T5	17143	0'-10.8"	6'-1"					0'-0"			0'-8.8"					
7DG02	6	6'-7.8"	T5	82	0'-10.8"	5'-0.2"					0'-0"			0'-8.8"					
SUBTOTAL GALVANIZED BARS				124494 lb															

SUPERSTRUCTURE SLAB (SOUTH BOUND) BAR LIST

MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
4DG01	544	32'-4.5"	N1	11765														32'-4.5"	
4DG02	544	32'-4.5"	N1	11765														32'-4.5"	
4DG03	544	47'-6.2"	T5	17269	0'-6"	46'-8"					0'-0"			0'-4.3"					
4DG04	544	19'-1.3"	T5	6943	0'-6"	18'-3"					0'-0"			0'-4.3"					
4DG05	966	60'-0"	N1	38718														60'-0"	
4DG06	161	13'-2"	N1	1417														13'-2"	
4DG07	6	5'-3"	N1	22														5'-3"	
4DG08	190	7'-4.3"	1	934	0'-6"	6'-0"					0'-6"			0'-4.3"					
5DG01	36	60'-0"	N1	2253														60'-0"	
5DG02	12	17'-8"	N1	222														17'-8"	
5DG03	120	3'-8"	N1	459														3'-8"	
6DG01	85	60'-0"	N1	7661														60'-0"	
6DG02	87	60'-0"	N1	7841														60'-0"	
7DG01	1088	7'-8.5"	T5	17143	0'-10.8"	6'-1"					0'-0"			0'-8.8"					
7DG02	6	6'-7.8"	T5	82	0'-10.8"	5'-0.2"					0'-0"			0'-8.8"					
SUBTOTAL GALVANIZED BARS				124494 lb															

APPROACH SLAB (NORTH BOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5AG01	92	40'-0"	N1	3839														40'-0"	
5AG02	92	24'-10"	N2	2383														24'-10"	
5AG03	324	21'-8"	N3	7322														21'-8"	
5AG04•	32	21'-7.5"	N4	722														21'-7.5"	
LENGTH VARIES FROM 14.33' TO 21.66'																			
SUBTOTAL GALVANIZED BARS				14266 lb															

APPROACH SLAB (SOUTH BOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5AG01	92	40'-0"	N1	3839														40'-0"	
5AG02	92	25'-6"	N2	2447														25'-6"	
5AG03	324	21'-8"	N3	7322														21'-8"	
5AG04•	32	21'-7.5"	N4	722														21'-7.5"	
LENGTH VARIES FROM 5.75' TO 21.66'																			
SUBTOTAL GALVANIZED BARS				14330 lb															

SLEEPER SLAB (SOUTH BOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5SG01	220	5'-6"	N1	1263														5'-6"	
5SG02	110	4'-6"	N2	517		1'-6"	1'-6"	1'-6"											
5SG03	34	52'-4.75"	N3	1858														52'-4.75"	
SUBTOTAL GALVANIZED BARS				3638 lb															

SLEEPER SLAB (NORTH BOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5SG01	220	5'-6"	N1	1263														5'-6"	
5SG02	110	4'-6"	N2	517		1'-6"	1'-6"	1'-6"											
5SG03	34	52'-4.75"	N3	1858														52'-4.75"	
SUBTOTAL GALVANIZED BARS				3638 lb															

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
BAR LIST-3

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
ST-63

LEFT BARRIER (NORTHBOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5BG01	583	3'-3"	N1	1977														3'-3"	
5BG02	551	14'-10.5"	13	8549		3'-2"	0'-8.8"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	3'-1.3"		0'-7.5"	3'-0.8"	0'-3"
5BG03	32	6'-6.3"	13	218		2'-11"	0'-9.5"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	2'-10.5"		0'-7.5"	3'-0.8"	
5BG04	18	3'-11.4"	S11	75								1'-10"						0'-6"	
5BG05•	18	6'-5.4"	S11	122								3'-1"							
5BG06	10	5'-9.4"	T5	61	0'-7"	5'-4"								0'-5"					
6BG01	598	4'-1"	17	3668		1'-0"	3'-1"	0'-0"											
6BG02	32	4'-1"	17	197		1'-0"	3'-1"	0'-0"											
6BG03	18	4'-0.2"	N20	109		2'-0"	1'-0.2"	1'-0"				1'-5"	0'-8.3"		1'-5"	0'-8.8"			
7BG01	72	60'-0"	N1	8831														60'-0"	
7BG02	12	54'-8"	N1	1341														54'-8"	
• LENGTH VARIES FROM 2'-10" TO 3'-4"																			
SUBTOTAL GALVANIZED BARS				25148 lb															

RIGHT BARRIER (NORTHBOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5BG01	583	3'-3"	N1	1977														3'-3"	
5BG02	551	14'-10.5"	13	8549		3'-2"	0'-8.8"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	3'-1.3"		0'-7.5"	3'-0.8"	0'-3"
5BG03	32	6'-6.3"	13	218		2'-11"	0'-9.5"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	2'-10.5"		0'-7.5"	3'-0.8"	
5BG04	18	3'-11.4"	S11	75								1'-10"						0'-6"	
5BG05•	18	6'-2"	S11	116								3'-1"							
5BG06	10	5'-9.4"	T5	61	0'-7"	5'-4"								0.42'					
6BG01	598	4'-1"	17	3668		1'-0"	3'-1"	0'-0"											
6BG02	32	4'-1"	17	197		1'-0"	3'-1"	0'-0"											
6BG03	18	4'-0.2"	N20	109		2'-0"	1'-0.2"	1'-0"				1'-5"	0'-8.3"		1'-5"	0'-8.8"			
7BG01	72	60'-0"	N1	8831														60'-0"	
7BG02	12	54'-8"	N1	1341														54'-8"	
• LENGTH VARIES FROM 2'-10" TO 3'-4"																			
SUBTOTAL GALVANIZED BARS				25142 lb															

LEFT BARRIER (SOUTHBOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5BG01	583	3'-3"	N1	1977														3'-3"	
5BG02	551	14'-10.5"	13	8549		3'-2"	0'-8.8"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	3'-1.3"		0'-7.5"	3'-0.8"	0'-3"
5BG03	32	6'-6.3"	13	218		2'-11"	0'-9.5"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	2'-10.5"		0'-7.5"	3'-0.8"	
5BG04	18	3'-11.4"	S11	75								1'-10"						0'-6"	
5BG05•	18	6'-2"	S11	116								3'-1"							
5BG06	10	5'-9.4"	T5	61	0'-7"	5'-4"								0.42'					
6BG01	598	4'-1"	17	3668		1'-0"	3'-1"	0'-0"											
6BG02	32	4'-1"	17	197		1'-0"	3'-1"	0'-0"											
6BG03	18	4'-0.2"	N20	109		2'-0"	1'-0.2"	1'-0"				1'-5"	0'-8.3"		1'-5"	0'-8.8"			
7BG01	72	60'-0"	N1	8831														60'-0"	
7BG02	12	54'-8"	N1	1341														54'-8"	
• LENGTH VARIES FROM 2'-10" TO 3'-4"																			
SUBTOTAL GALVANIZED BARS				25142 lb															

RIGHT BARRIER (SOUTHBOUND) BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
5BG01	583	3'-3"	N1	1977														3'-3"	
5BG02	551	14'-10.5"	13	8549		3'-2"	0'-8.8"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	3'-1.3"		0'-7.5"	3'-0.8"	0'-3"
5BG03	32	6'-6.3"	13	218		2'-11"	0'-9.5"	2'-9.8"			0'-0"	1'-1.5"		0'-0"	2'-10.5"		0'-7.5"	3'-0.8"	
5BG04	18	3'-11.4"	S11	75								1'-10"						0'-6"	
5BG05•	18	6'-2"	S11	116								3'-1"							
5BG06	10	5'-9.4"	T5	61	0'-7"	5'-4"								0.42'					
6BG01	598	4'-1"	17	3668		1'-0"	3'-1"	0'-0"											
6BG02	32	4'-1"	17	197		1'-0"	3'-1"	0'-0"											
6BG03	18	4'-0.2"	N20	109		2'-0"	1'-0.2"	1'-0"				1'-5"	0'-8.3"		1'-5"	0'-8.8"			
7BG01	72	60'-0"	N1	8831														60'-0"	
7BG02	12	54'-8"	N1	1341														54'-8"	
• LENGTH VARIES FROM 2'-10" TO 3'-4"																			
SUBTOTAL GALVANIZED BARS				25142 lb															

BEGIN AND END ABUTMENT (NB & SB) COUNTERWEIGHT BAR LIST

BAR MARK	NO.	LENGTH	TYPE	WEIGHT (LB)	DETAIL DIMENSIONS (FT)													
					A	B	C	D	E	F	G	H / H1	H2	J	K / K1	K2	L	O	R
6CG01	64	19'-7.1"	N1	1884														19'-7.1"	
6CG02	64	13'-7.1"	N1	1307														13'-7.1"	
6CG03	192	15'-7.1"	N1	4497														15'-7.1"	
6CG04	64	23'-8.9"	N1	2283														23'-8.9"	
6CG05	32	21'-8"	N1	1042														21'-8"	
6CG06	24	17'-6.2"	N1	632														17'-6.2"	
6CG07	24	15'-8"	N1	565														15'-8"	
6CG08	24	11'-6.3"	N1	416														11'-6.3"	
6CG09	72	17'-4"	N1	1875														17'-4"	
6CG10	72	13'-6.3"	N1	1463														13'-6.3"	
6CG11	24	25'-9.8"	N1	931														25'-9.8"	
6CG12	904	9'-3"	17	12560		1'-1.5"	7'-0"	1'-1.5"											
6CG13	192	9'-7.7"	17	2782		1'-1.5"	7'-4.8"	1'-1.5"											
6CG14	144	10'-0.5"	17	2172		1'-1.5"	7'-9.5"	1'-1.5"											
6CG15	1234	4'-9"	N1	8804														4'-9"	
SUBTOTAL GALVANIZED BARS				43213 lb															

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 01/24/2024

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

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.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
BAR LIST-4

CONTRACT NUMBER:
TAA 23-25B

DATE:
01/24/2024

DRAWING NUMBER:
ST-64