

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



MASARDIS AROOSTOOK COUNTY ST. CROIX BRIDGE OVER ST. CROIX STREAM ROUTE 11 PROJECT NO. 18965.00 PROJECT LENGTH 0.047 mi. BRIDGE NO. 3766

LIST OF DRAWINGS

| | |
|---|-------|
| Title Sheet | 1 |
| Estimated Quantities & General Construction Notes | 2 |
| General Plan & Profile | 3 |
| Approach Cross - Sections | 4-10 |
| Staged Construction | 11 |
| Abutment No. 1 & 2 Rehabilitation | 12 |
| Shear Stud Layout & Bottom of Slab Elevations | 13 |
| Superstructure Plan | 14 |
| Superstructure Reinforcing Steel | 15 |
| Superstructure Details | 16-17 |
| Reinforcing Steel Schedule | 18 |
| Right of Way Map | 19 |

| | | |
|--|--------------------|----------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | APPROVED | DATE |
| COMMISSIONER: <i>[Signature]</i> | <i>[Signature]</i> | 12/14/17 |
| CHIEF ENGINEER: <i>[Signature]</i> | <i>[Signature]</i> | 12-15-17 |

| |
|---|
| |
| SIGNATURE: <i>[Signature]</i> P.E. NUMBER: 13553 DATE: 12-12-17 |

| PROJECT INFORMATION | |
|--------------------------|---------------------------|
| PROGRAM: BRIDGE | PROJECT MANAGER: M. WIGHT |
| DESIGNER: B. BARTLETT | CONSULTANT: |
| PROJECT RESIDENT: | CONTRACTOR: |
| PROJECT COMPLETION DATE: | |

| | |
|--|-----------------------------|
| 18965.00 MASARDIS ST. CROIX BRIDGE | WIN 18965.00 TITLE SHEET |
|--|-----------------------------|

| |
|--------------|
| SHEET NUMBER |
| 1 |
| OF 19 |

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 with 2015 & 2016 Interims Revisions.

DESIGN LOADING

Live Load ME. Legal Loads

TRAFFIC DATA

| | |
|-------------------------------------|------|
| Current (2017) AADT | 1420 |
| Future (2037) AADT | 1700 |
| DHV - % of AADT | 11 |
| Design Hour Volume | 187 |
| Heavy Trucks (% of AADT) | 30 |
| Heavy Trucks (% of DHV) | 30 |
| Directional Distribution (% of DHV) | 60 |
| 18 kip Equivalent P 2.0 | 483 |
| 18 kip Equivalent P 2.5 | 460 |
| Design Speed (mph) | 25 |

MATERIALS

| | |
|-----------------------------|-----------------------------|
| Concrete: | |
| Curbs & Transition Barriers | Class "LP" |
| All Other | Class "A" |
| Plain Reinforcing Steel | ASTM A 615/A 615M, Grade 60 |
| Stainless Reinforcing Steel | ASTM A955, Grade 75 |

BASIC DESIGN STRESSES

| | |
|-----------------------------|------------------|
| Concrete, Class A | f 'c = 4000 psi |
| Concrete, Class LP | f 'c = 5000 psi |
| Plain Reinforcing Steel | f y = 60,000 psi |
| Stainless Reinforcing Steel | f y = 75,000 psi |

UTILITIES

Emera Maine Northern New England Telephone
Fairpoint Maine Fiber Optic

MAINTENANCE OF TRAFFIC

Maintain one lane of alternating traffic using traffic signals.

| | |
|-------------------------|--|
| <u>PROJECT LOCATION</u> | Starting at the town line of T9 R5 Wels, head North 2.5 miles on Route 11 Latitude 46° 29' 57.9" N Longitude 68° 21' 59.9" W |
| <u>PROGRAM AREA</u> | Highway Bridges-Traditional |
| <u>OUTLINE OF WORK</u> | Deck Replacement & Substructure Rehabilitation |

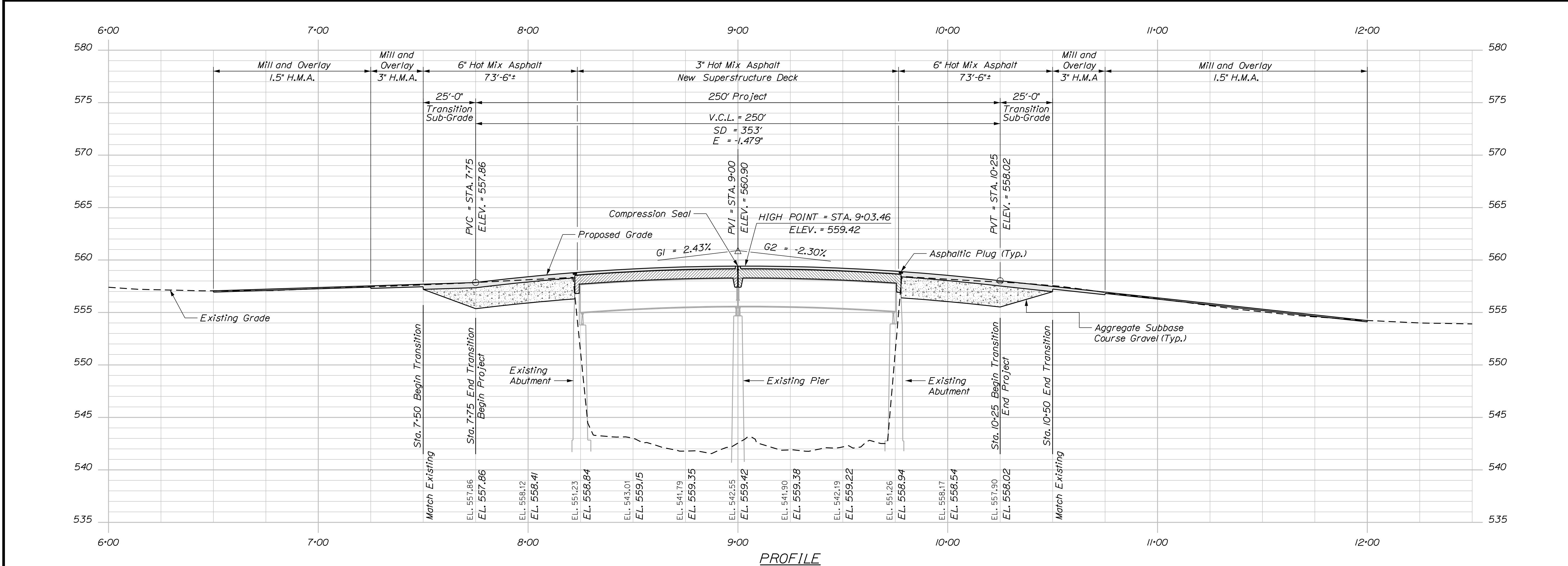
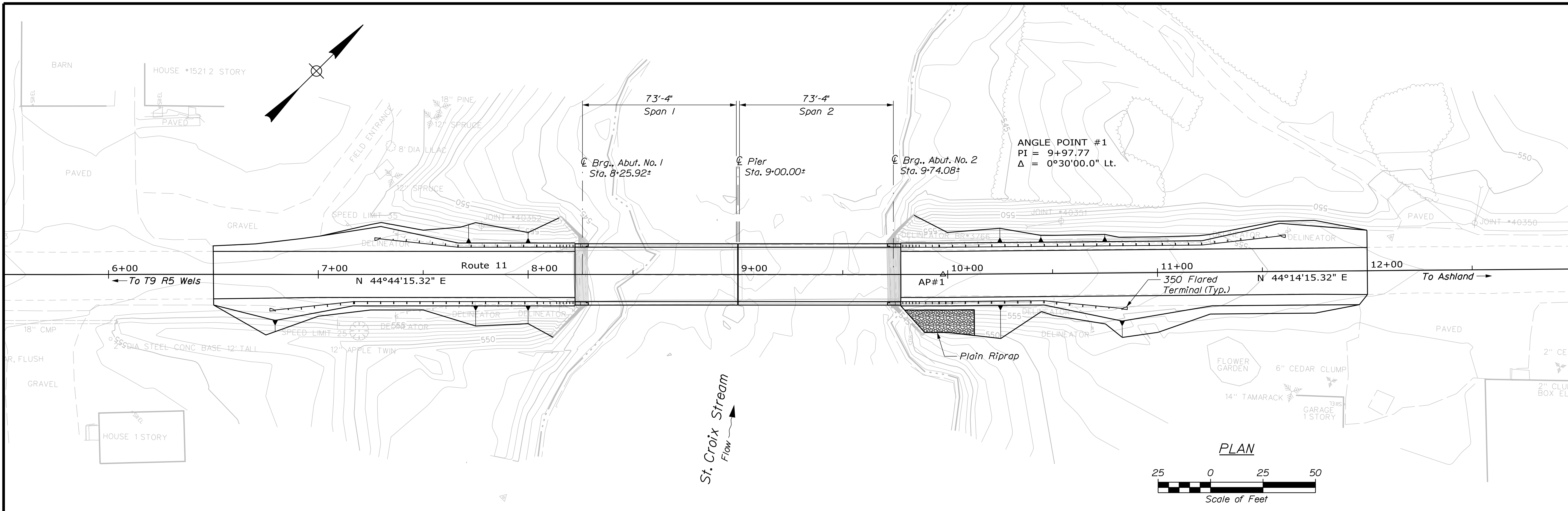
Filename: \\00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE User: Benjamin.J.Bartlett Date: 12/11/2017

Date: 12/12/2017

Username: David.Shaw

Division: BRIDGE

Filename: ...003_General_Plan&Profile.dgn



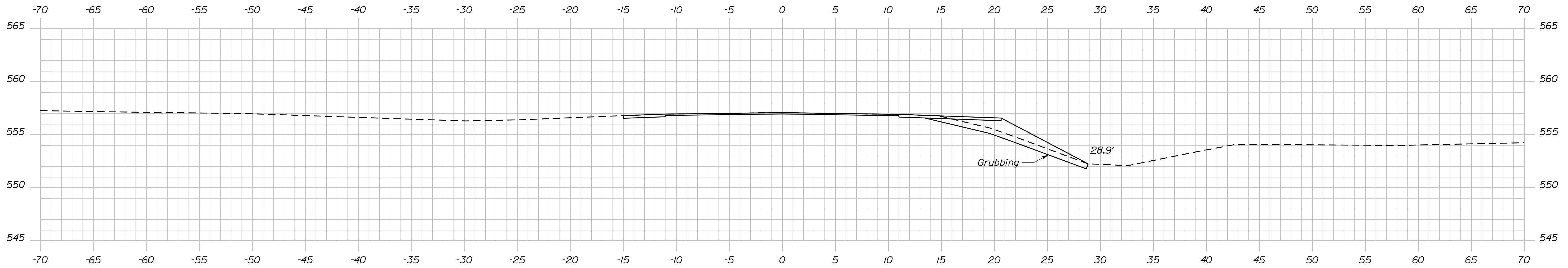
| | | | | | |
|------------------|--|------------------------------|--|------------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | | 18965.00 | |
| WIN | | 18965.00 | | BRIDGE NO. 3766 | |
| BRIDGE PLANS | | SIGNATURE | | P.E. NUMBER | |
| DATE | | DATE | | DATE | |
| BY | | BY | | BY | |
| M. WIGHT | | M. WIGHT | | M. WIGHT | |
| DESIGN-DETAILED | | DESIGN-DETAILED | | DESIGN-DETAILED | |
| CHECKED-REVIEWED | | CHECKED-REVIEWED | | CHECKED-REVIEWED | |
| DESIGN-REVIEWED | | DESIGN-REVIEWED | | DESIGN-REVIEWED | |
| REVISIONS 1 | | REVISIONS 1 | | REVISIONS 1 | |
| REVISIONS 2 | | REVISIONS 2 | | REVISIONS 2 | |
| REVISIONS 3 | | REVISIONS 3 | | REVISIONS 3 | |
| REVISIONS 4 | | REVISIONS 4 | | REVISIONS 4 | |
| FIELD CHANGES | | FIELD CHANGES | | FIELD CHANGES | |
| ST. CROIX BRIDGE | | ST. CROIX STREAM | | AROOSTOOK COUNTY | |
| MASARDIS | | GENERAL PLAN AND PROFILE | | SHEET NUMBER | |
| 3 | | OF 19 | | | |

Date: 12/12/2017

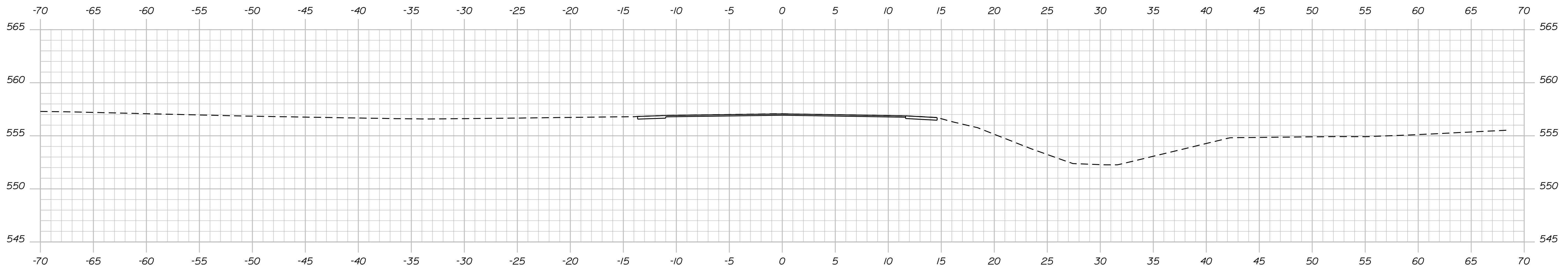
Username: David.Snow

Division: BRIDGE

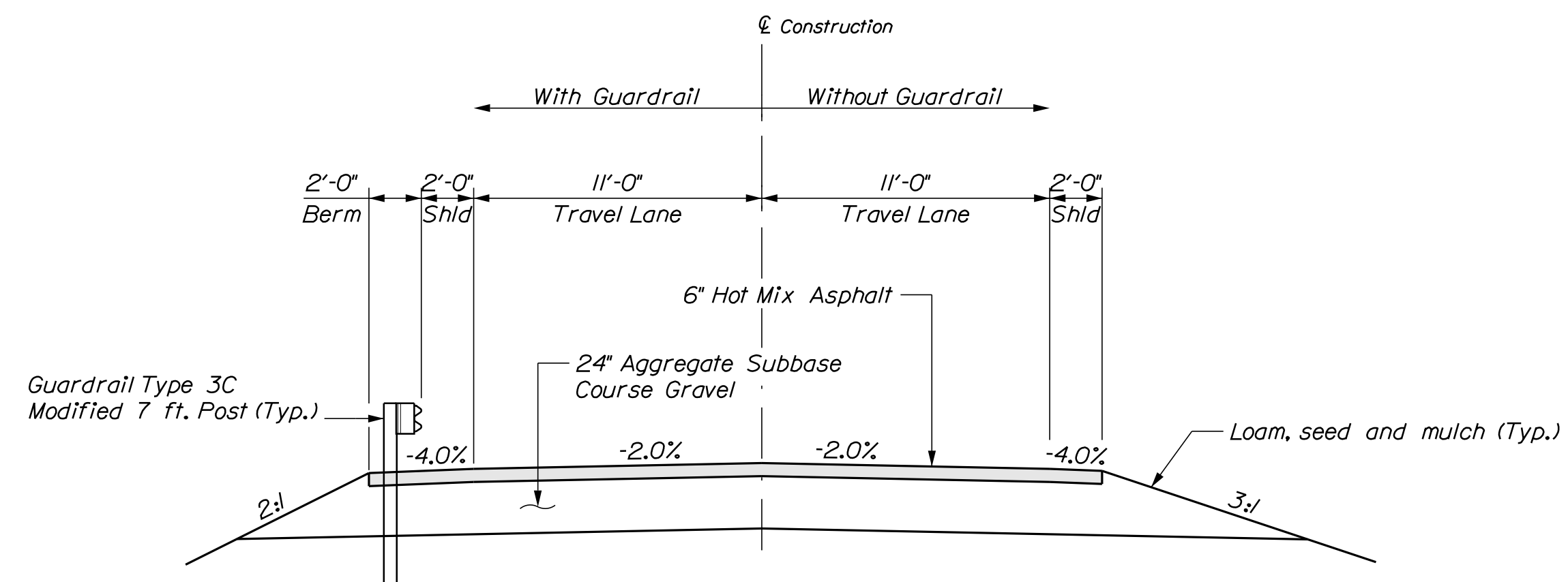
Filename: ... \004_XSECT_6+50-6+75_001.dgn



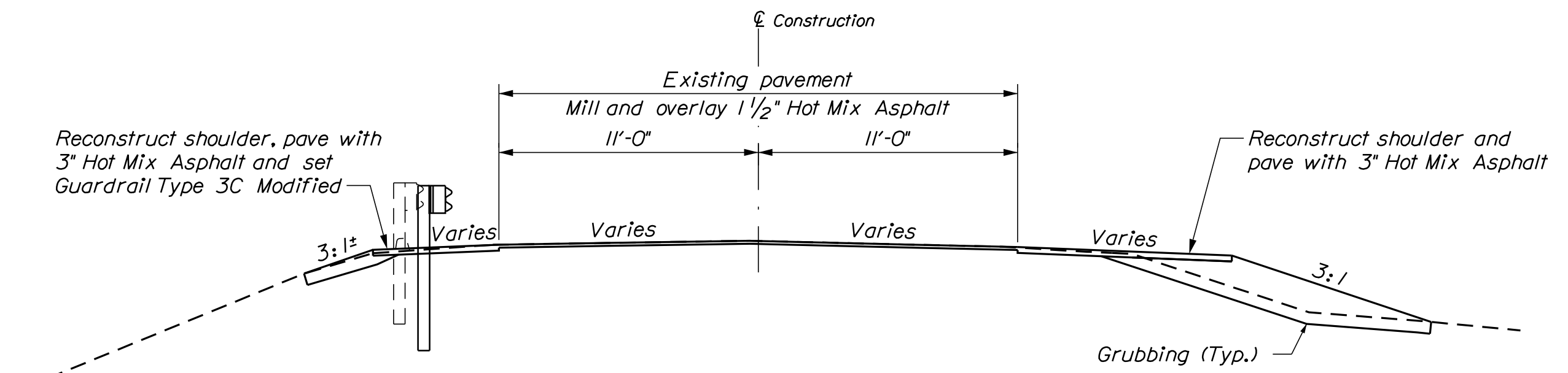
6+75.00



6+50.00



PROPOSED TYPICAL APPROACH SECTION



PROPOSED TYPICAL APPROACH SECTION

Sta. 6+50 to 7+50 and
Sta. 10+75 to 12+00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18965.00

WIN

18965.00

BRIDGE NO. 3766
BRIDGE PLANS

SIGNATURE

DATE

BY

M. WIGHT

B. BARTLETT

G. GUSTAFSON

DESIGN DETAILED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

SHEET NUMBER

4

OF 19

MASARDIS
ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY

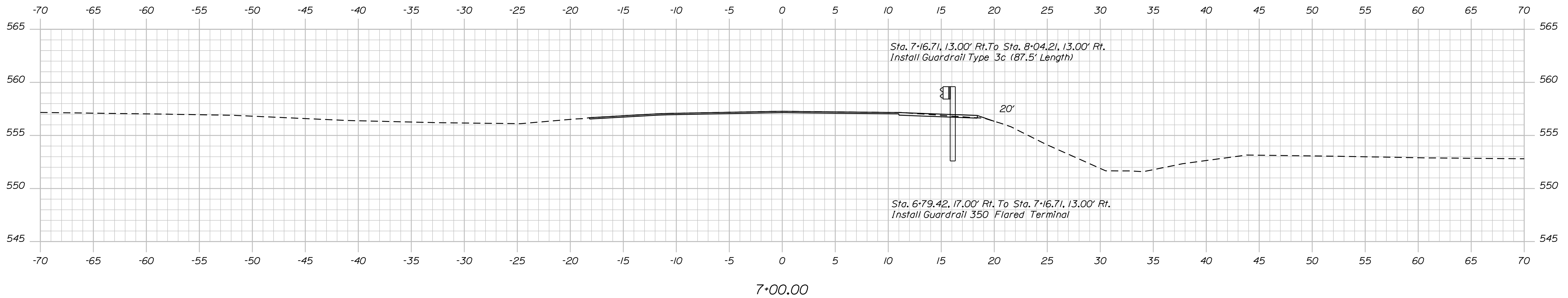
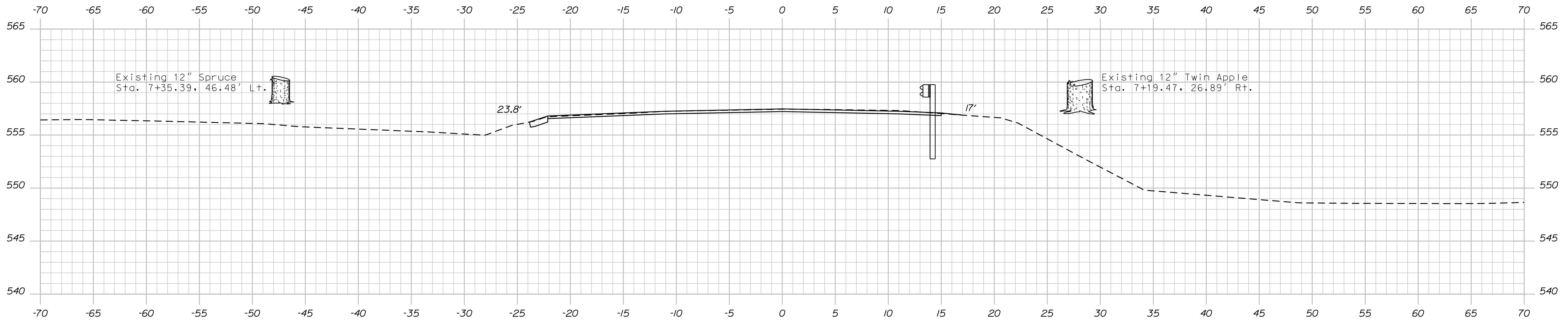
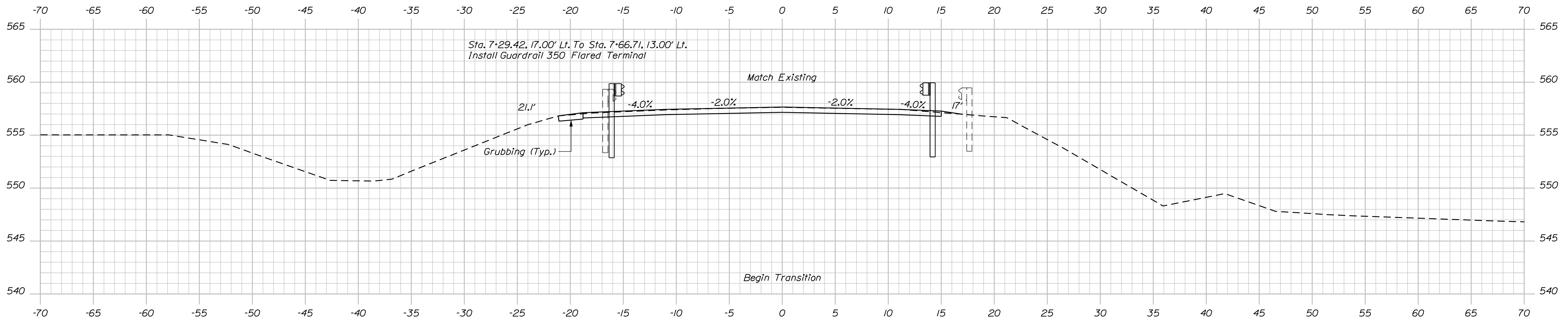
CROSS SECTIONS

Date: 12/12/2017

Username: David.Shaw

Division: BRIDGE

Filename: ... \005_XSECT_7+00-7+50_002.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

| | |
|---------------|------|
| DESIGNED BY | DATE |
| CHECKED BY | DATE |
| DESIGNED BY | DATE |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |
| SIGNATURE | |
| P.E. NUMBER | |
| DATE | |

| | | | |
|---------------|--------------|------|---------|
| PROJ. MANAGER | M. WIGHT | BY | DATE |
| DESIGNED BY | B. BARTLETT | DATE | 7/2017 |
| CHECKED BY | M. POULIN | DATE | 12/2017 |
| DESIGNED BY | G. GUSTAFSON | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY
MASARDIS
CROSS SECTIONS

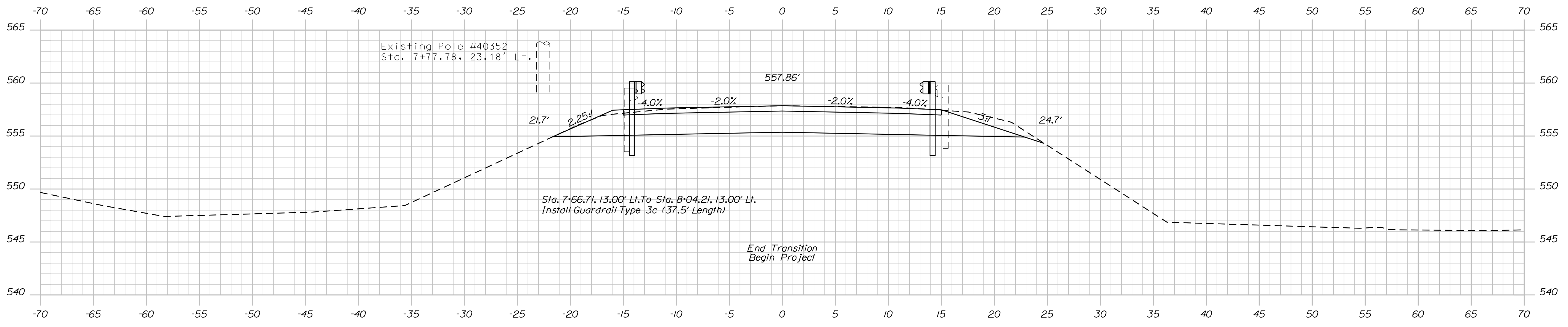
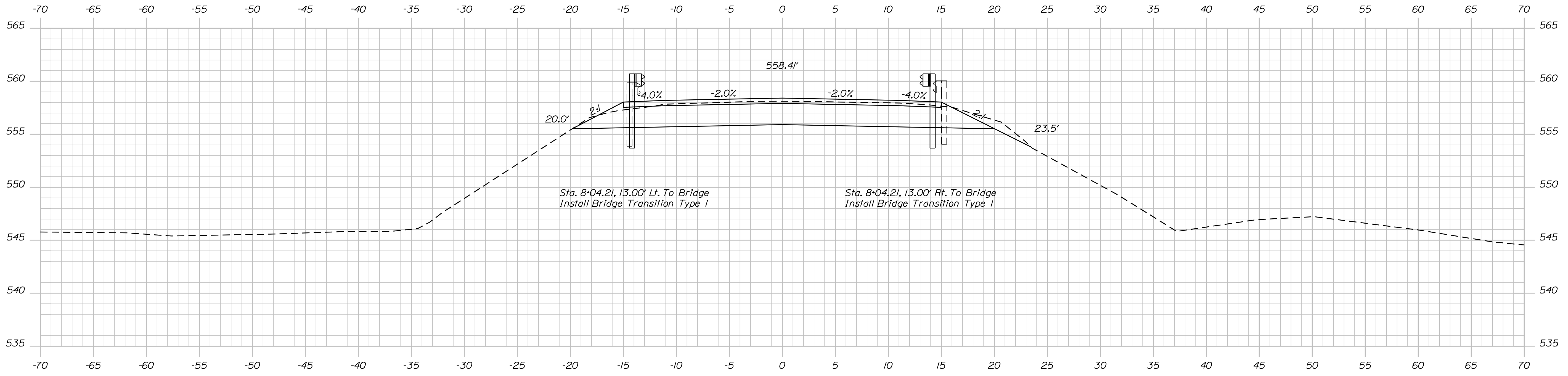
SHEET NUMBER
5
OF 19

Date: 12/12/2017

Username: David.Shaw

Division: BRIDGE

Filename: ... \006_XSECT_7+75-8+00_003.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

SIGNATURE
P.E. NUMBER
DATE

| PROJ. MANAGER | M. WIGHT | BY | DATE |
|------------------|--------------|-----------|---------|
| DESIGN DETAILED | B. BARTLETT | M. POULIN | 7/2017 |
| CHECKED/REVIEWED | G. GUSTAFSON | | 12/2017 |
| DESIGNS DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

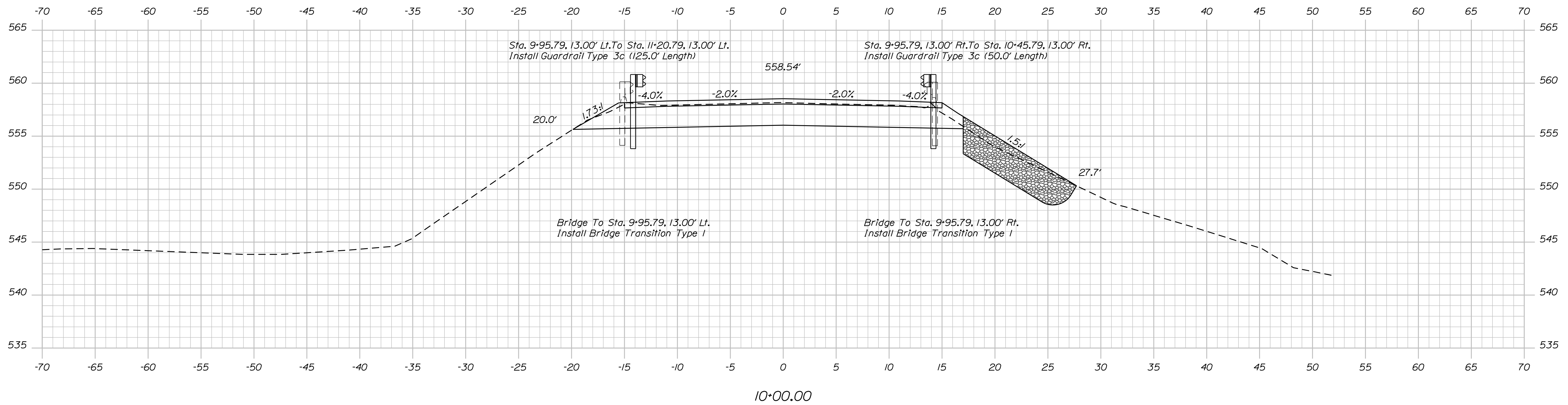
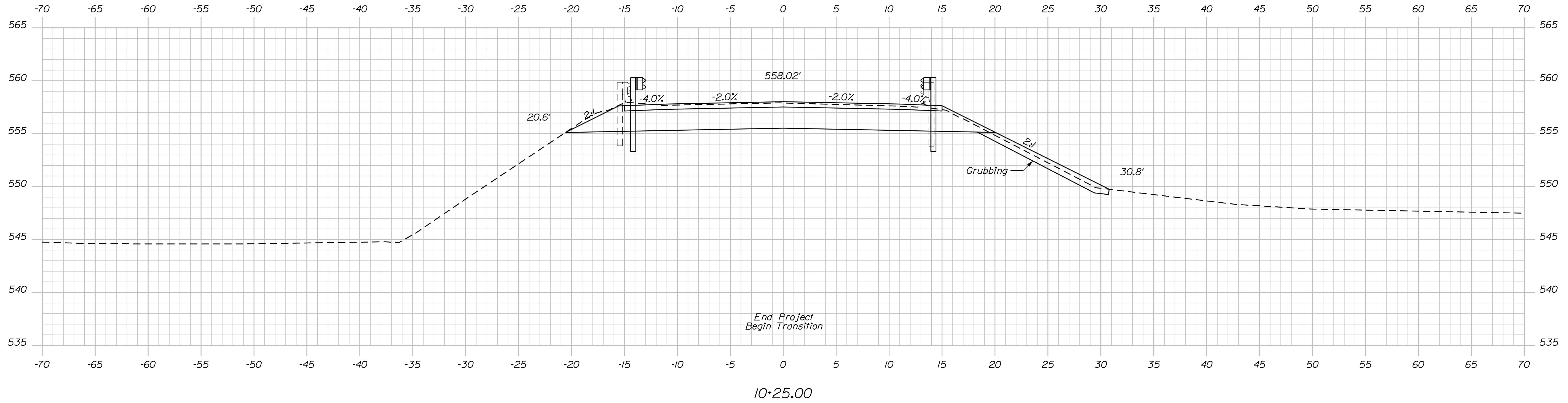
ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY
MASARDIS
CROSS SECTIONS

SHEET NUMBER
6
OF 19

Date: 12/12/2017

Username: David.Shaw

Filename: ... \007_XSECT_10+00-10+25_004.dgn Division: BRIDGE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

SIGNATURE
P.E. NUMBER
DATE

| PROJ. MANAGER | M. WIGHT | BY | DATE |
|------------------|--------------|-----------|---------|
| DESIGN-DETAILED | B. BARTLETT | M. POULIN | 7/2017 |
| CHECKED-REVIEWED | G. GUSTAFSON | | 12/2017 |
| DESIGNS-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY
MASARDIS
CROSS SECTIONS

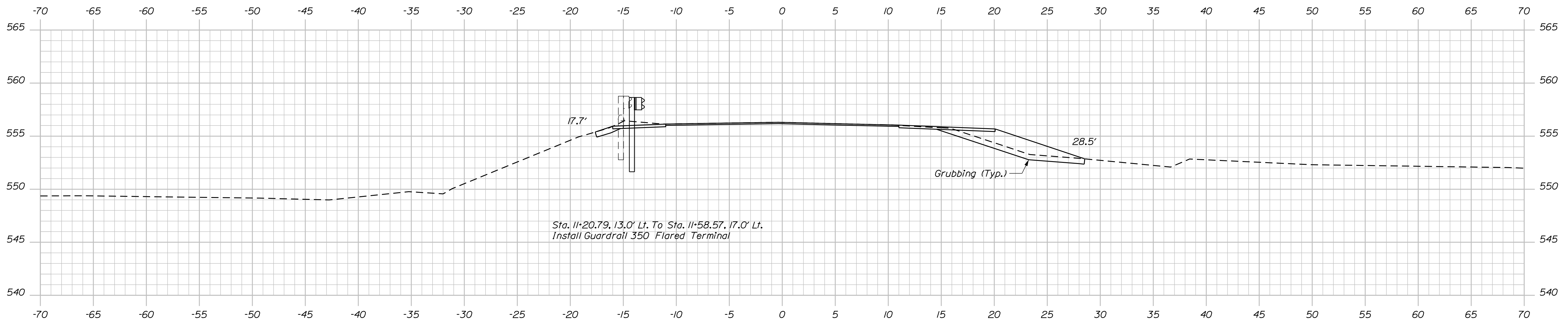
SHEET NUMBER
2
OF 19

Date: 12/12/2017

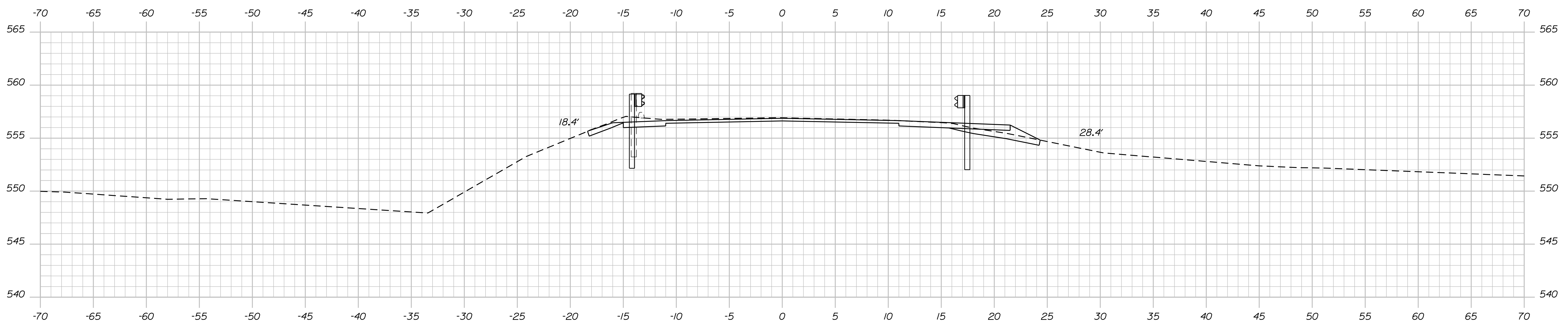
Username: David.Shaw

Division: BRIDGE

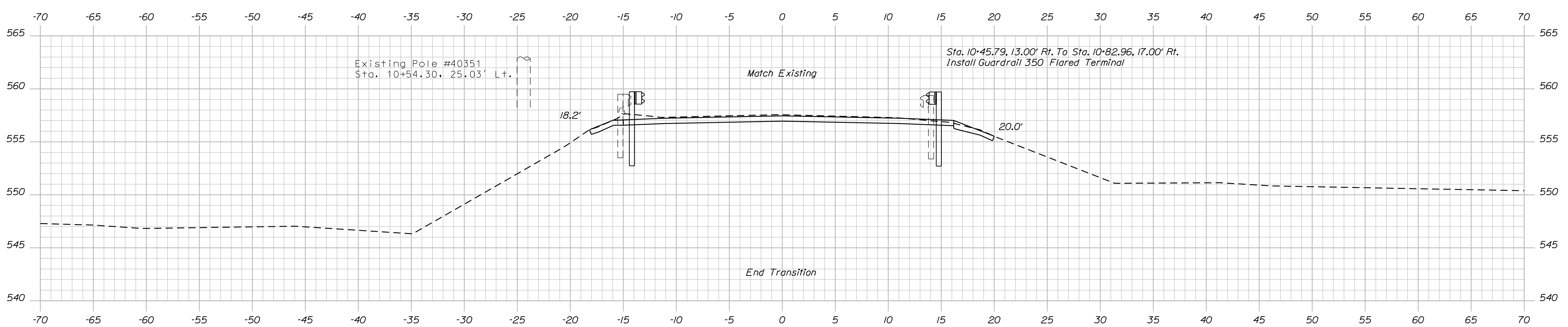
Filename: ... \008_XSECT_10+50-11+00_005.dgn



11+00.00



10+75.00



10+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

| | | | |
|------------------|--------------|---------|-------------|
| DESIGN-DETAILED | BY | DATE | SIGNATURE |
| CHECKED-REVIEWED | M. POULIN | 7/2017 | |
| DESIGN-DETAILED | G. GUSTAFSON | 12/2017 | |
| REVISIONS 1 | | | P.E. NUMBER |
| REVISIONS 2 | | | DATE |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY
CROSS SECTIONS

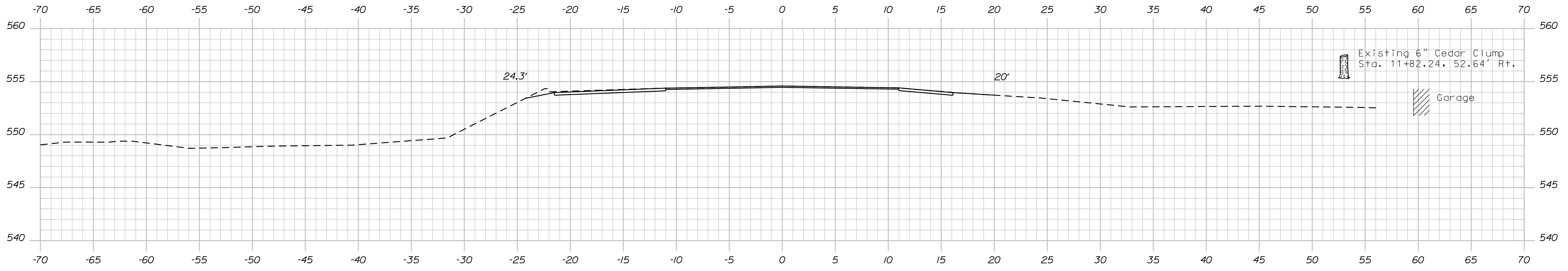
SHEET NUMBER
8
OF 19

Date: 12/12/2017

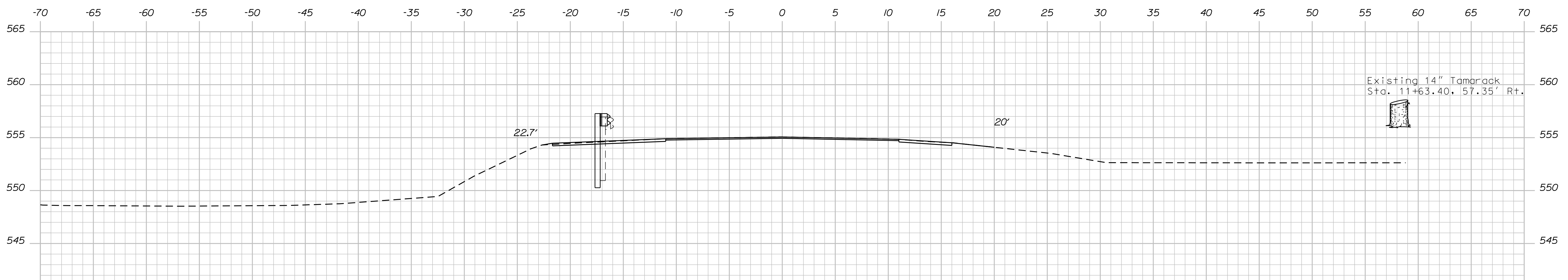
Username: David.Shaw

Division: BRIDGE

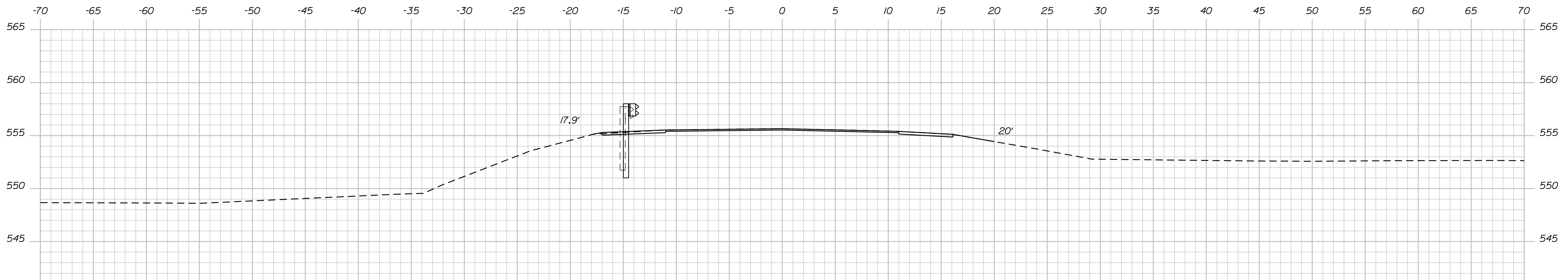
Filename: ... \009_XSECT_11+25-11+75_006.dgn



11+75.00



11+50.00



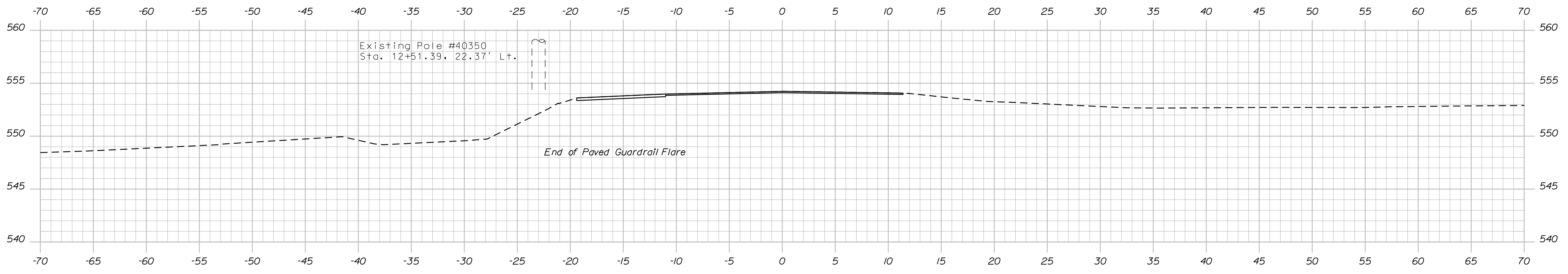
11+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

| | | | |
|------------------|--------------|-------------|---------|
| PROJ. MANAGER | M. WIGHT | BY | DATE |
| DESIGN-DETAILED | B. BARTLETT | M. POULIN | 7/2017 |
| CHECKED-REVIEWED | G. GUSTAFSON | | 12/2017 |
| DESIGNS-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |
| | | SIGNATURE | |
| | | P.E. NUMBER | |
| | | DATE | |

ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY
CROSS SECTIONS

SHEET NUMBER
9
OF 19



12+00.00

Sta. 12+00.00 to Sta. 12+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00

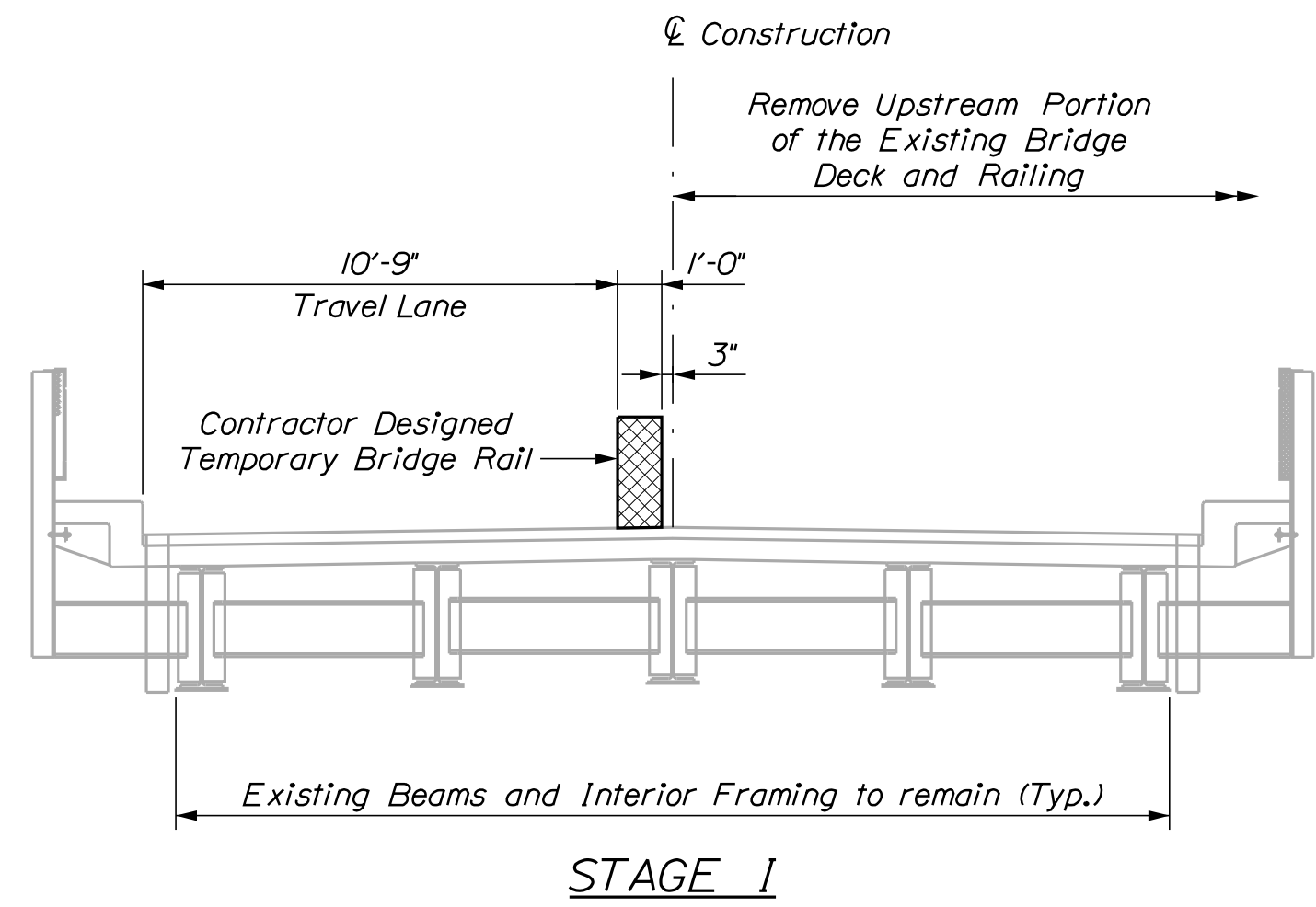
SIGNATURE
P.E. NUMBER
DATE

| PROJ. MANAGER | M. WIGHT | BY | DATE |
|-------------------|--------------|-----------|---------|
| DESIGN-DETAILED | B. BARTLETT | M. POULIN | 7/2017 |
| CHECKED-REVIEWED | G. GUSTAFSON | | 12/2017 |
| DESIGNS-DETAILED2 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

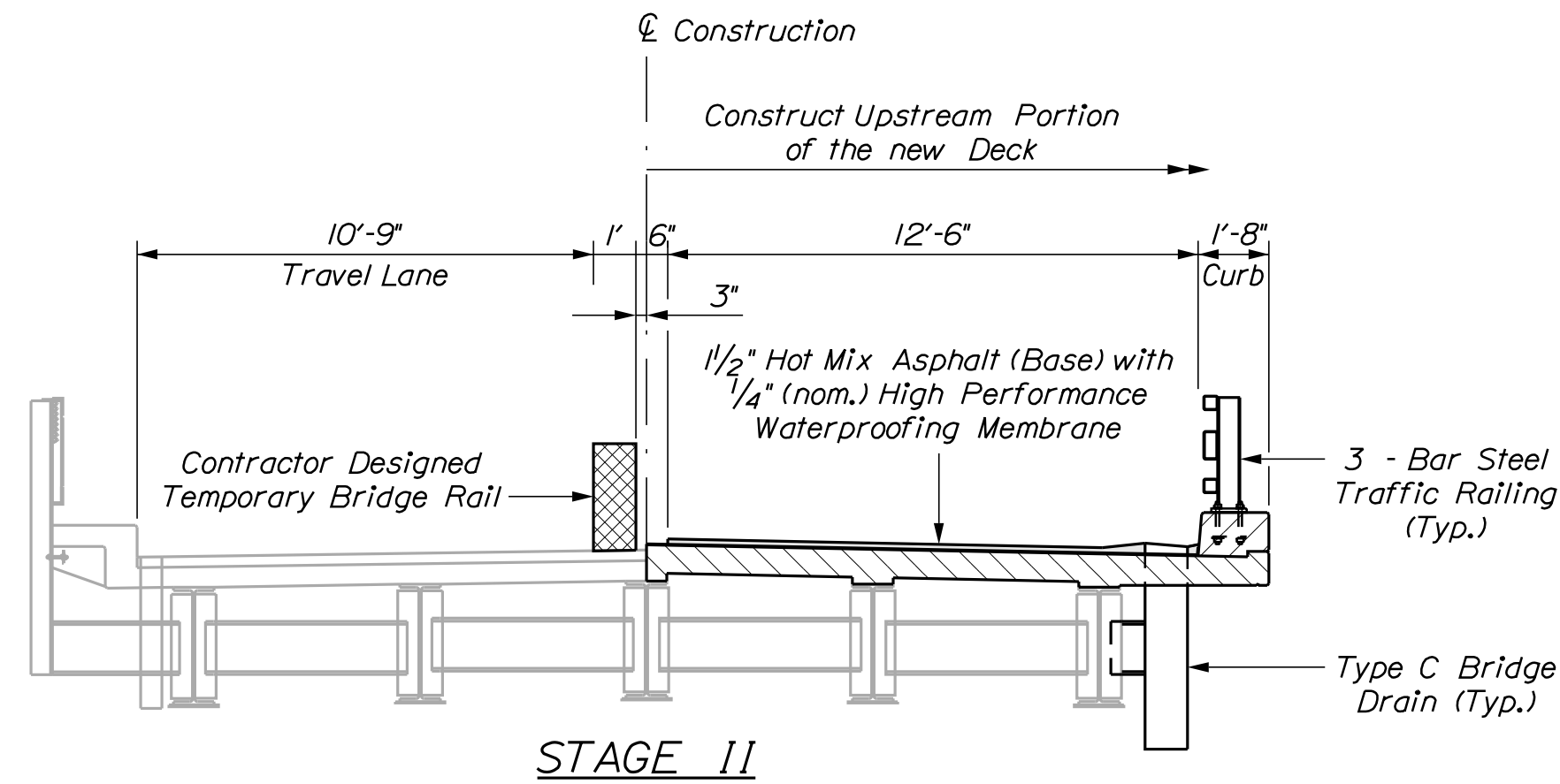
ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY
CROSS SECTIONS

SHEET NUMBER
10
OF 19

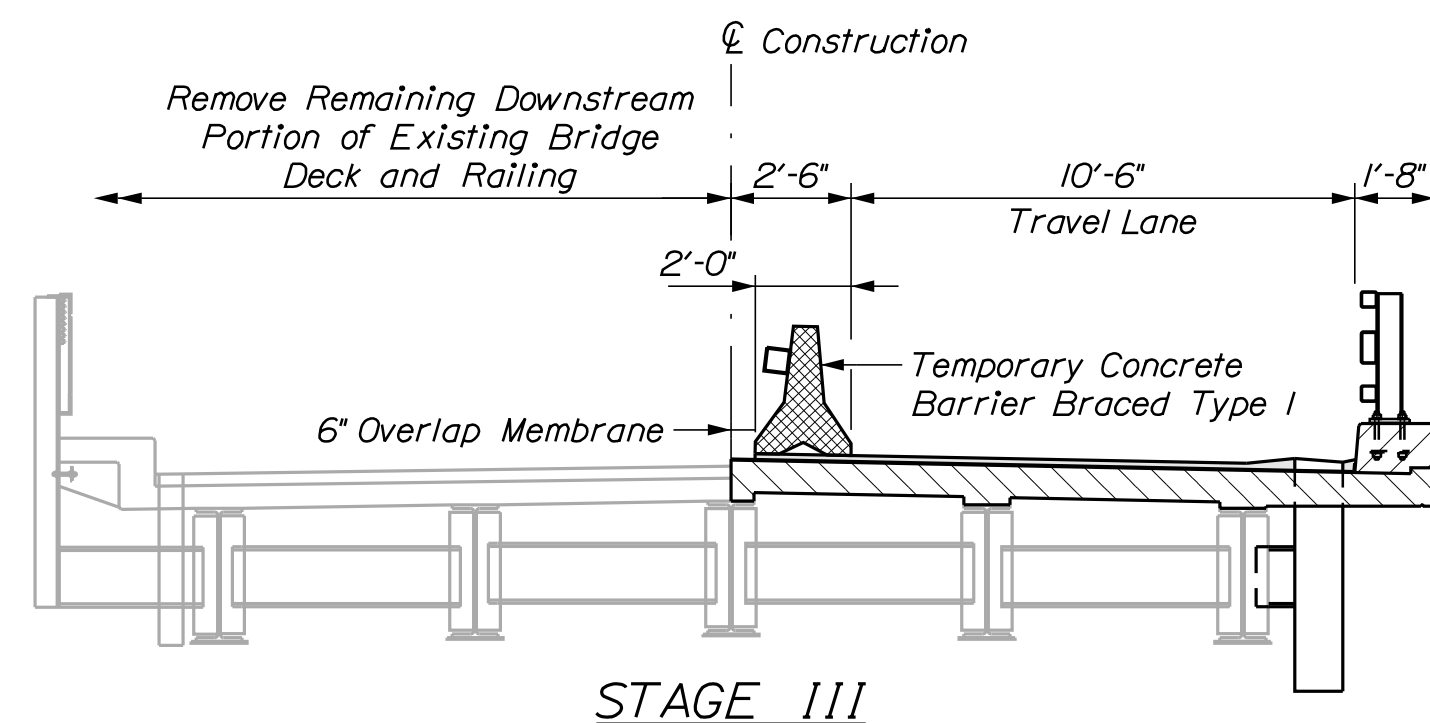
BRIDGE NO. 3766 WIN 18965.00 BRIDGE PLANS



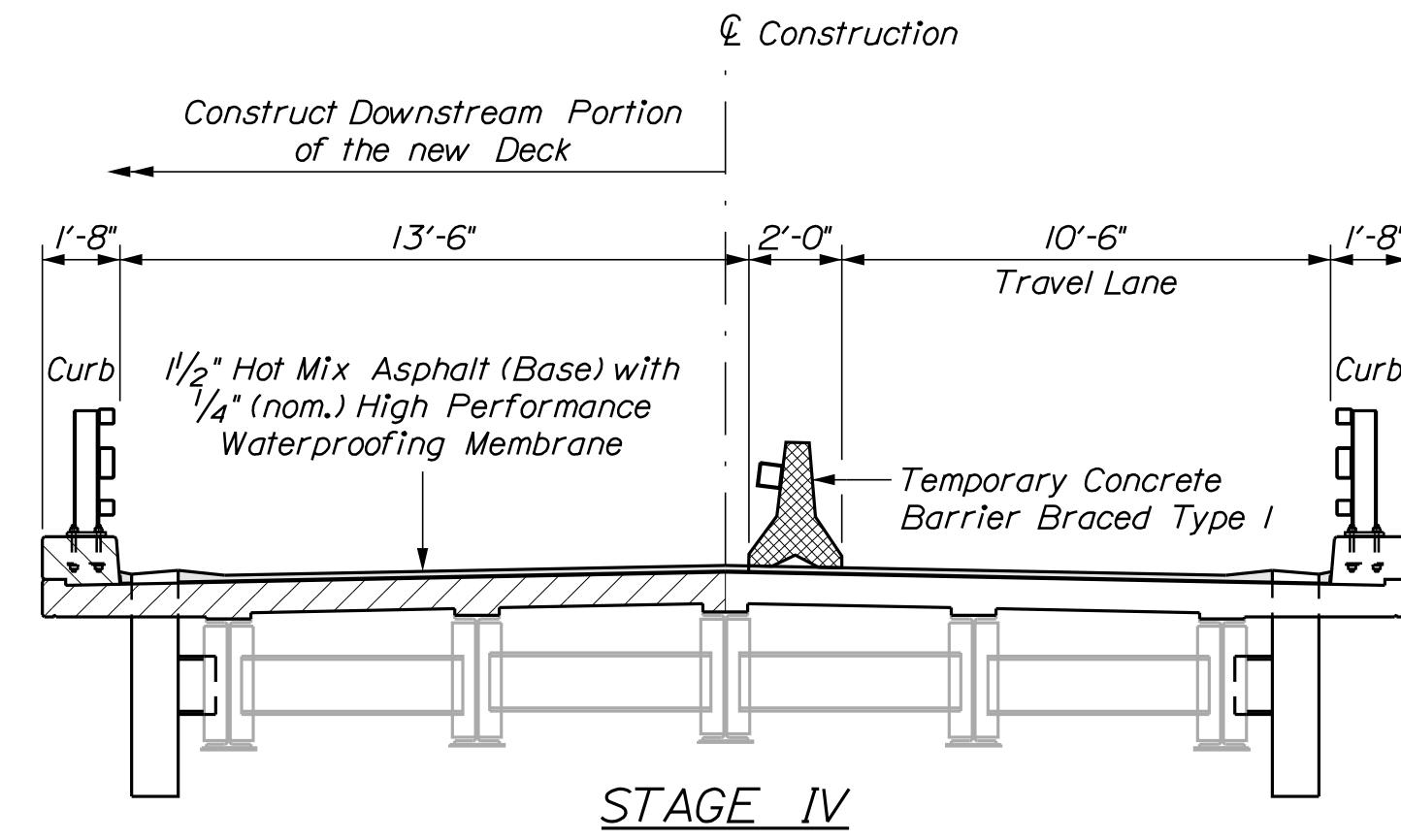
STAGE I



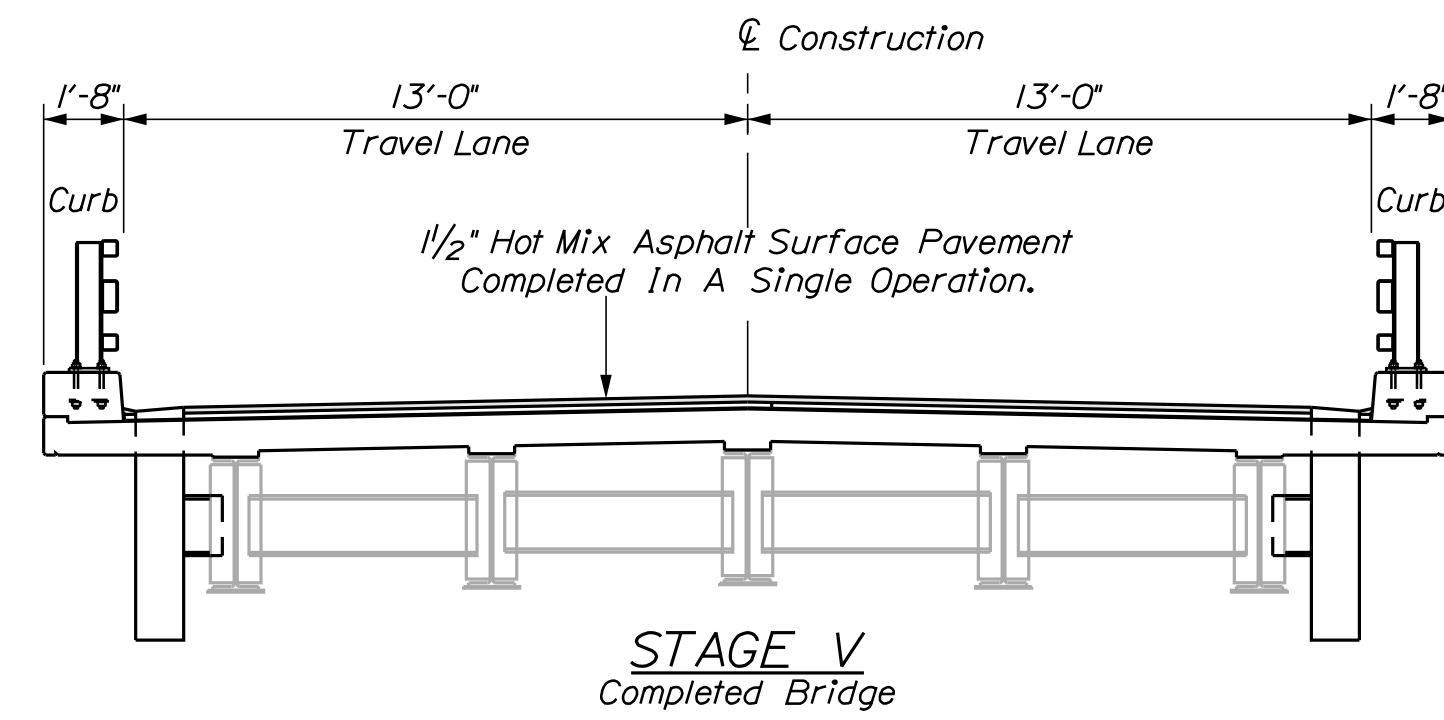
STAGE II



STAGE III



STAGE IV



STAGE V
Completed Bridge

Notes:

The Contractor shall remove the existing bridge rail such that the diaphragm/bracing is cut 1 inch maximum from the exterior connection plate. The Contractor shall use care not to damage the existing steel beam and connection plate when removing the bridge rail. Any damaged beams or plates shall be repaired as directed by the Resident at no expense to the Department.

Portions of the existing paint system may need to be removed in order to remove the existing bridge rail from the existing connection plate and to attach the new bridge drains to the existing beams. The Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by this work.

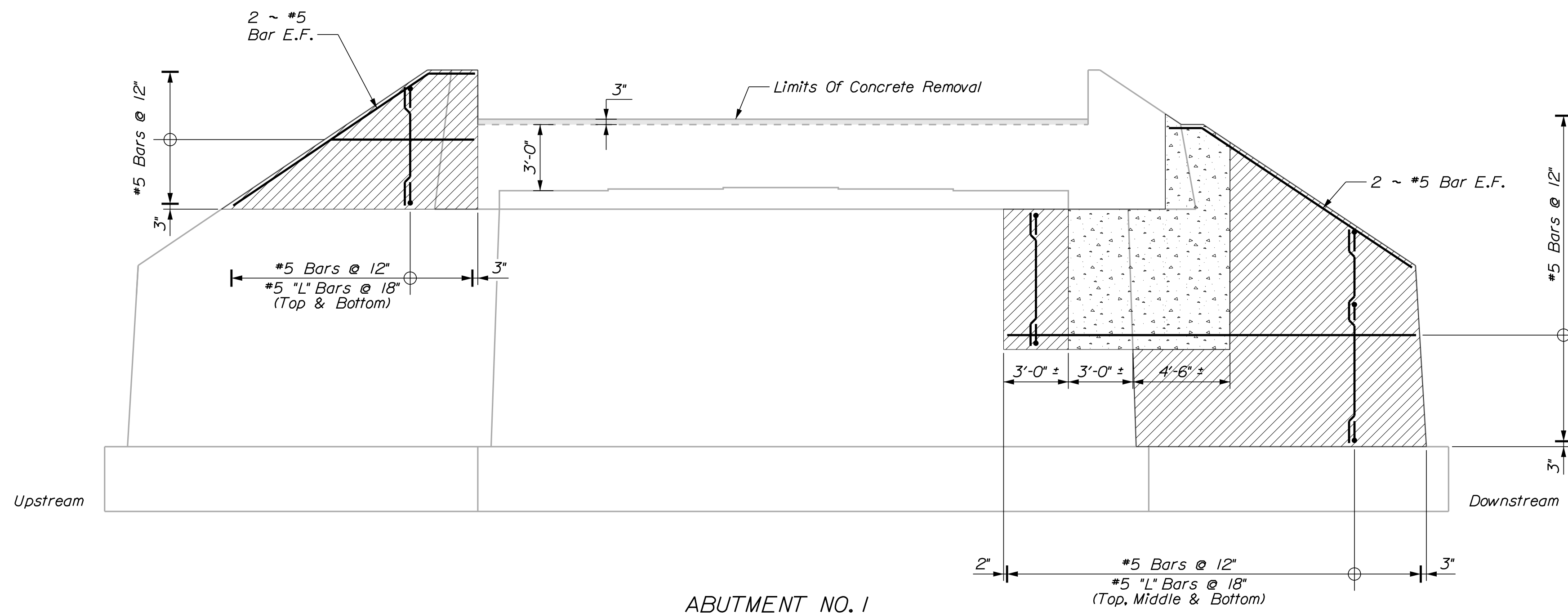
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
WIN
18965.00
BRIDGE NO. 3766
BRIDGE PLANS

| | | | |
|------------------|--------------|---------|--|
| PROJ. MANAGER | M. WIGHT | DATE | |
| DESIGN DETAILED | B. BARTLETT | 7/2017 | |
| CHECKED/REVIEWED | M. POULIN | 12/2017 | |
| DESIGN DETAILED | G. GUSTAFSON | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

| | |
|-------------|--|
| SIGNATURE | |
| P.E. NUMBER | |
| DATE | |

ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY
STAGE CONSTRUCTION PLANS

SHEET NUMBER
11
OF 19

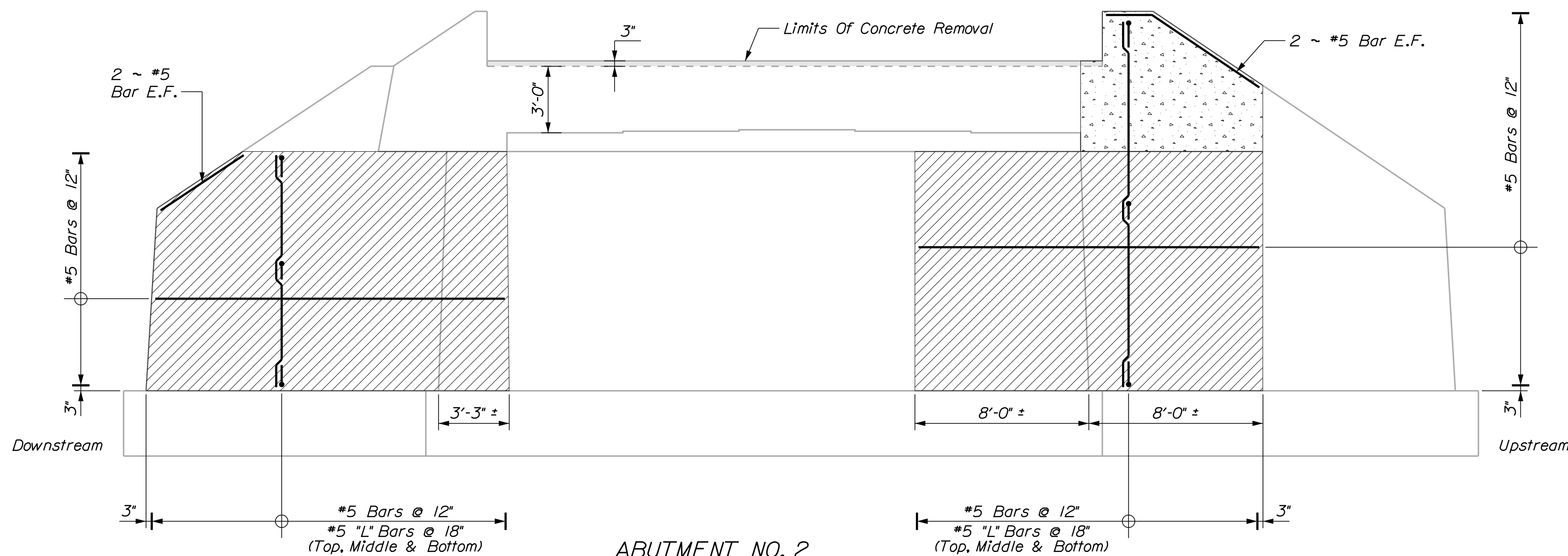


ABUTMENT NO. 1

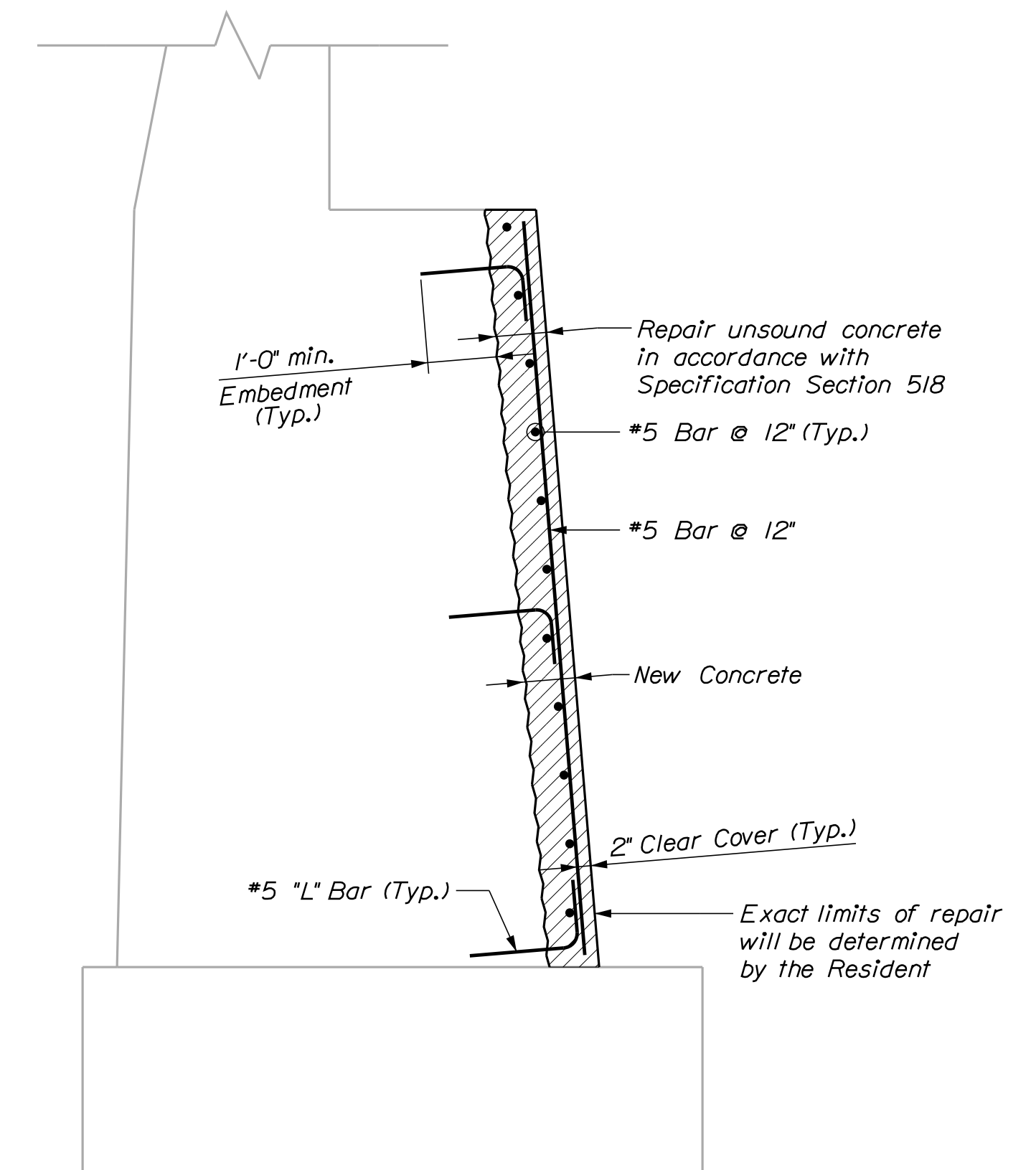
Abutment & Wingwall Notes:

1. The Contractor shall use care not to damage the existing reinforcing steel which is to remain. Any damaged reinforcing steel designated to remain shall be replaced as directed by the Resident at no expense to the Department.
2. Reinforcing steel shall have 2 inches of cover unless otherwise noted.
3. All dimensions based on or related to the existing bridge shall be verified in the field by the Contractor.
4. All exposed edges of concrete shall have a 3/4" chamfer unless noted otherwise.
5. Where drilling and anchoring reinforcement is specified, the Contractor shall use a material listed on the Maine Department of Transportation Qualified Products List of Concrete Adhesive Anchor Systems. The depth of embedment shall be sufficient to develop 125% of the yield strength of the bar per the manufacturer's recommendations or 12 inches, whichever is greater. Proposed anchoring material and embedment depth shall be submitted for approval. No separate payment will be made for drilling and anchoring of reinforcing steel, but shall be incidental to the related reinforcing pay item.
6. Top of all wingwalls in repair areas shall be Full Depth repairs as shown in the wingwall section and include the "U" bars at 12 inches on-center along the length of the wing.

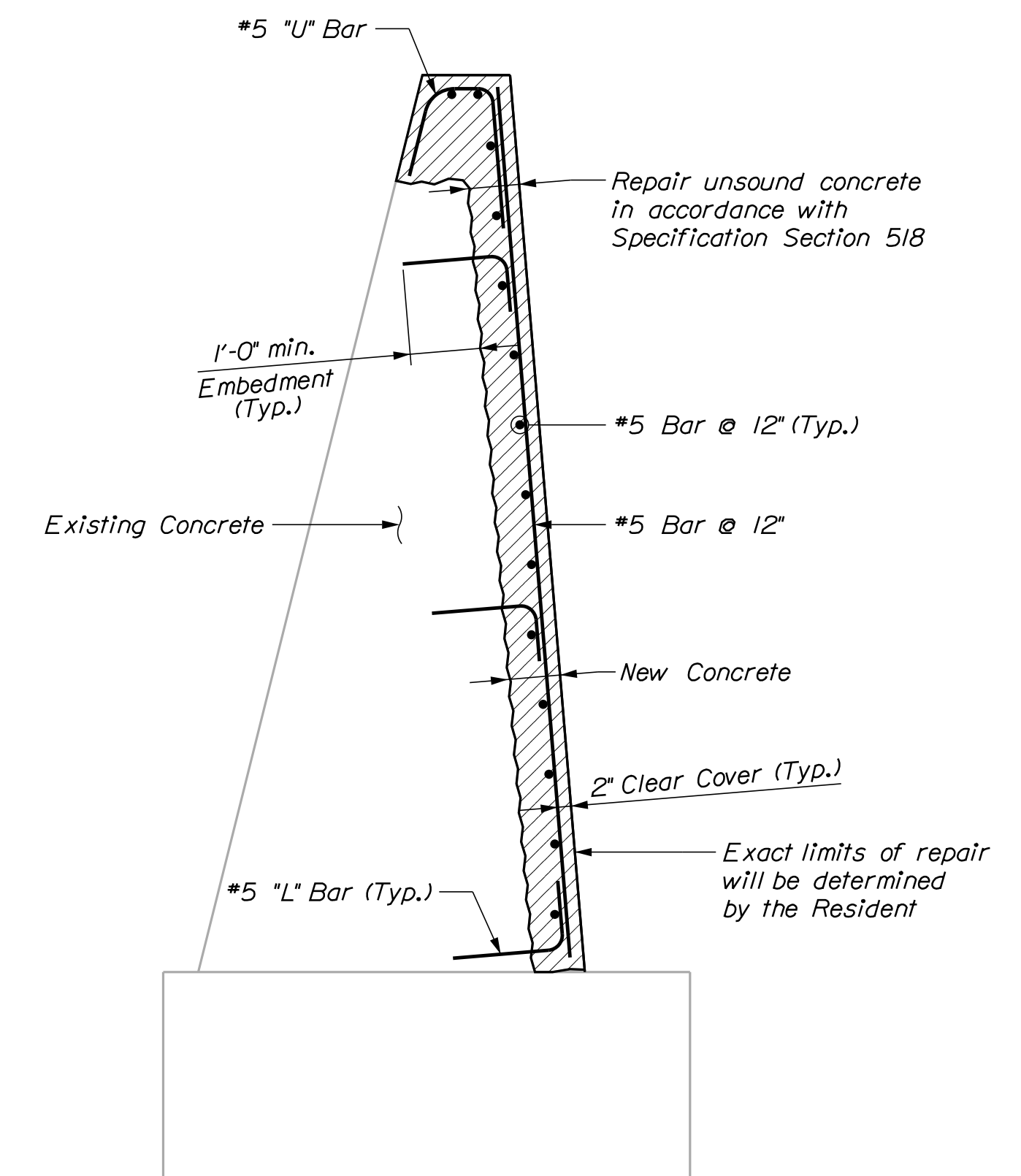
= < 8" Repair, with New Rebar Mat
 = > 8" Repair



ABUTMENT NO. 2



ABUTMENT SECTION



WINGWALL SECTION

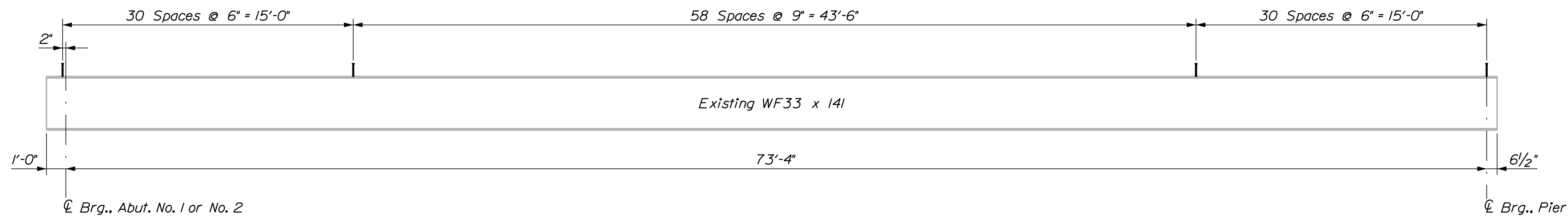
| | |
|--|-----------------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | 18965.00 |
| BRIDGE NO. 3766 | WIN 18965.00 |
| BRIDGE PLANS | |

| | |
|---------------|------|
| DESIGNED | DATE |
| CHECKED | DATE |
| DESIGNED | DATE |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

| | | |
|---------------|----|------|
| PROJ. MANAGER | BY | DATE |
| CHECKED | BY | DATE |
| DESIGNED | BY | DATE |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

| | |
|--|------------------|
| ST. CROIX BRIDGE | AROOSTOOK COUNTY |
| ST. CROIX STREAM | |
| MASARDIS | |
| ABUTMENT NO. 1 & 2 REHABILITATION DETAILS | |

| |
|--------------|
| SHEET NUMBER |
| 12 |
| OF 19 |



SHEAR CONNECTOR LAYOUT ~ EXTERIOR & INTERIOR GIRDERS
 Double studs ~ 238 studs per girder (10) = 2,380 studs

| Bottom of Slab Elevations in Feet | | | | | | | | | | | |
|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Girder | Abut. No. 1 | 7'-4" | 14'-8" | 22'-0" | 29'-4" | 36'-8" | 44'-0" | 51'-4" | 58'-8" | 66'-0" | Pier |
| 1 | 557.70 | 557.85 | 557.98 | 558.09 | 558.18 | 558.25 | 558.29 | 558.32 | 558.32 | 558.30 | 558.27 |
| 2 | 557.81 | 557.96 | 558.09 | 558.21 | 558.30 | 558.37 | 558.42 | 558.44 | 558.44 | 558.41 | 558.38 |
| 3 | 557.91 | 558.07 | 558.20 | 558.32 | 558.41 | 558.48 | 558.52 | 558.54 | 558.54 | 558.52 | 558.48 |
| 4 | 557.81 | 557.96 | 558.09 | 558.21 | 558.30 | 558.37 | 558.42 | 558.44 | 558.44 | 558.41 | 558.38 |
| 5 | 557.70 | 557.85 | 557.98 | 558.09 | 558.18 | 558.25 | 558.29 | 558.32 | 558.32 | 558.30 | 558.27 |

| Bottom of Slab Elevations in Feet | | | | | | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Girder | Pier | 7'-4" | 14'-8" | 22'-0" | 29'-4" | 36'-8" | 44'-0" | 51'-4" | 58'-8" | 66'-0" | Abut. No. 2 |
| 1 | 558.27 | 558.31 | 558.34 | 558.35 | 558.33 | 558.30 | 558.24 | 558.16 | 558.06 | 557.93 | 557.80 |
| 2 | 558.38 | 558.42 | 558.46 | 558.47 | 558.46 | 558.42 | 558.36 | 558.28 | 558.17 | 558.04 | 557.91 |
| 3 | 558.48 | 558.53 | 558.56 | 558.57 | 558.56 | 558.53 | 558.47 | 558.39 | 558.28 | 558.15 | 558.01 |
| 4 | 558.38 | 558.42 | 558.46 | 558.47 | 558.46 | 558.42 | 558.36 | 558.28 | 558.17 | 558.04 | 557.91 |
| 5 | 558.27 | 558.31 | 558.34 | 558.35 | 558.33 | 558.30 | 558.24 | 558.16 | 558.06 | 557.93 | 557.80 |

Shear Stud Notes:

1. If lead paint is encountered while cleaning top flanges, the Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste. Payment for this work shall be considered incidental to related concrete items.
2. Existing spiral shear connectors shall be removed such that they project 1 inch maximum above the top of the existing top flange unless they conflict with the installation of the new shear connectors or any other work. If the existing spiral shear connectors interfere with installation of the new shear connectors or any other work, they shall be removed completely and ground flush with the top flange. All costs associated with this work shall be incidental to related contract items.

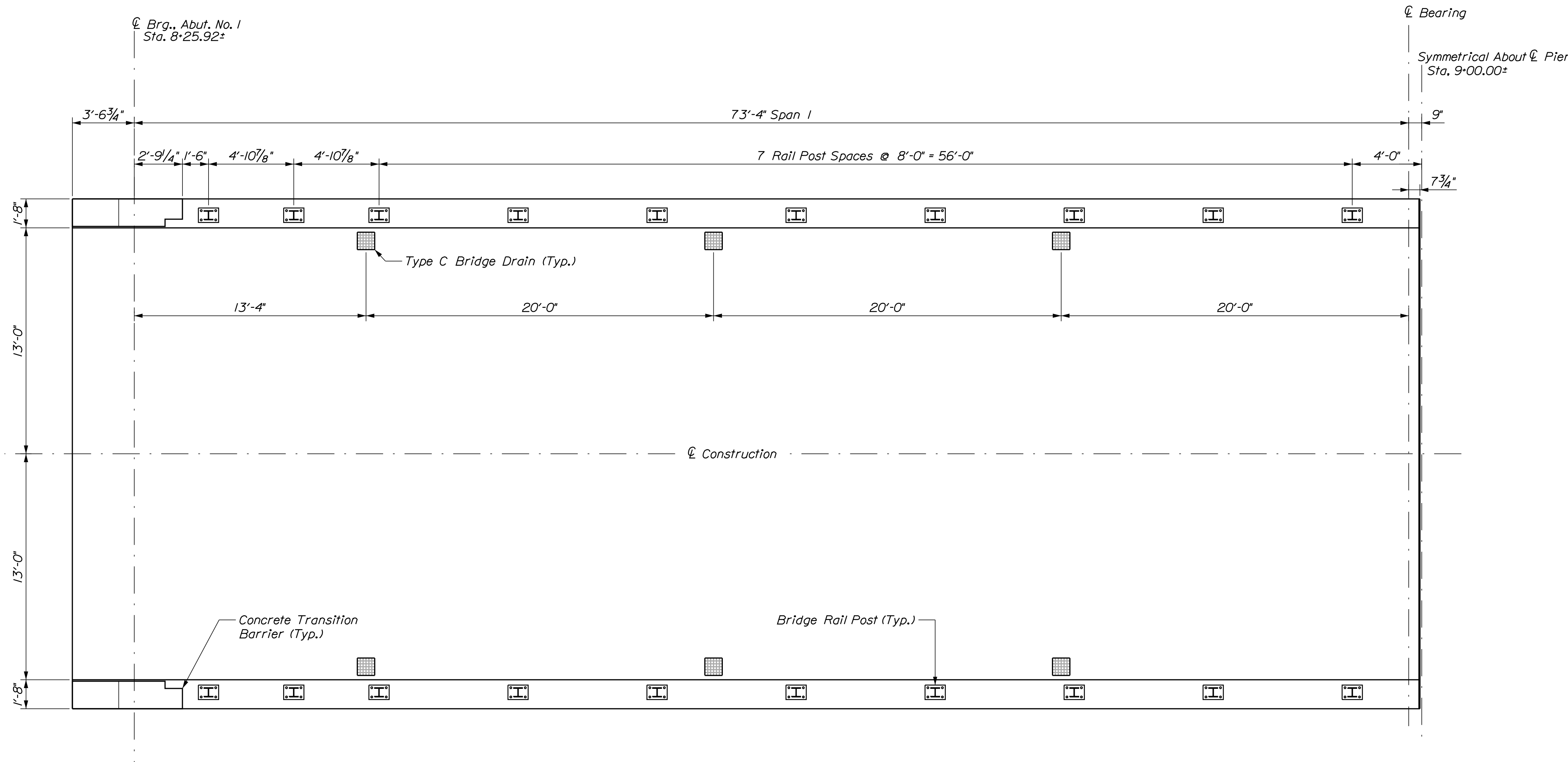
STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
18965.00
 WIN
 18965.00
 BRIDGE NO. 3766
 BRIDGE PLANS

DATE: 7/2017
 BY: M. POULIN
 M. WIGHT: G. GUSTAFSON
 SIGNATURE: _____
 P.E. NUMBER: _____
 DATE: _____

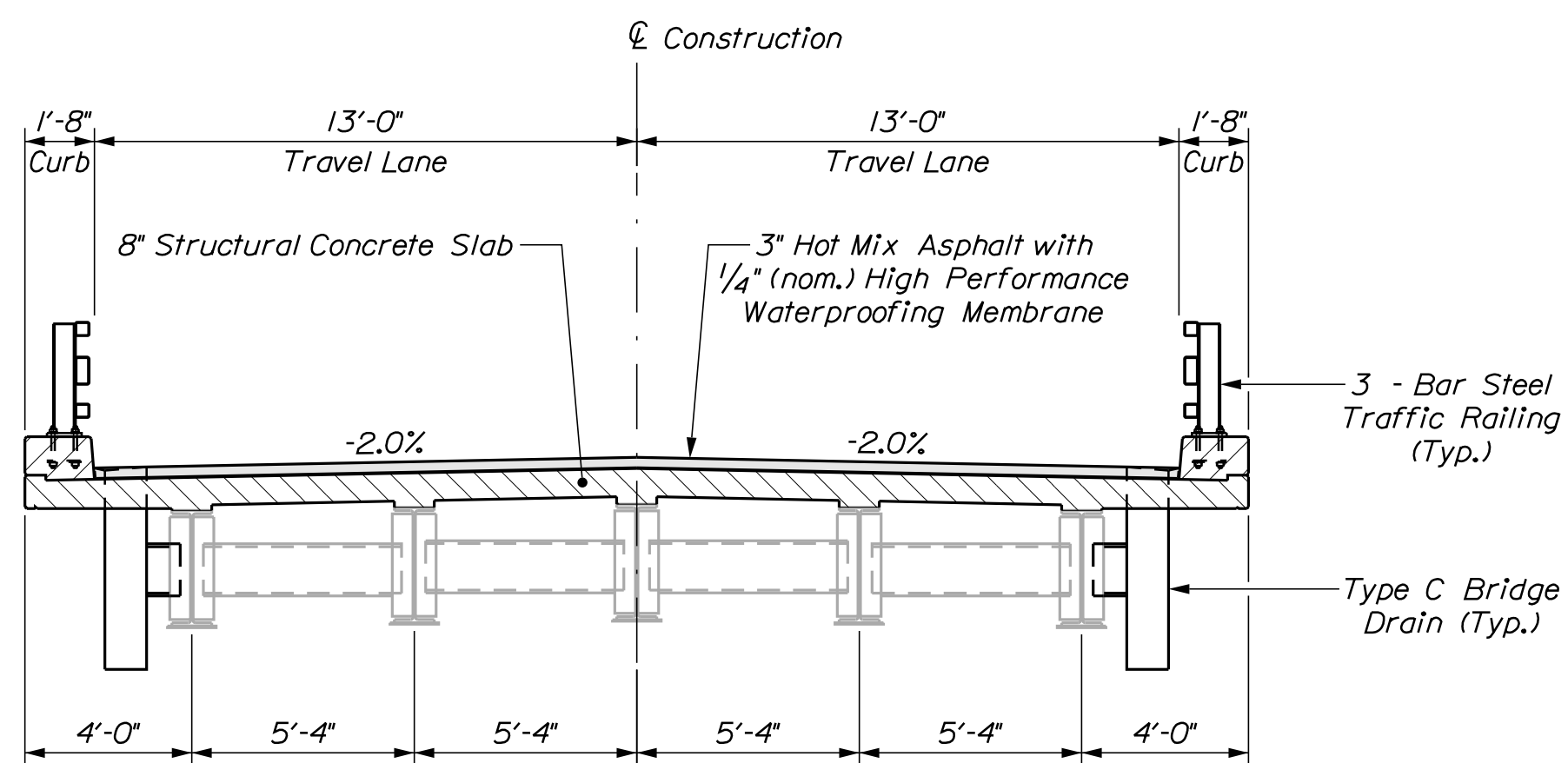
PROJ. MANAGER: _____
 DESIGN-DETAILED: _____
 CHECKED-REVIEWED: _____
 DESIGN-DETAILED: _____
 REVISIONS 1: _____
 REVISIONS 2: _____
 REVISIONS 3: _____
 REVISIONS 4: _____
 FIELD CHANGES: _____

ST. CROIX BRIDGE
 ST. CROIX STREAM
 MASARDIS AROOSTOOK COUNTY
SHEAR STUD LAYOUT & BOTTOM OF SLAB ELEVATIONS

SHEET NUMBER
13
 OF 19



HALF SUPERSTRUCTURE PLAN
Span No. 1, Span No. 2 Opposite Hand



PROPOSED TYPICAL BRIDGE SECTION

Superstructure Notes:

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
2. Adjust reinforcing steel to fit around the bridge drains in a manner approved by the Resident. Do not cut transverse reinforcing bars.
3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
4. The superstructure slab concrete for each span shall be placed in one continuous operation and the concrete shall be kept plastic until the entire placement has been made.
5. The formwork and its supports, over the full width of the structural slab, shall remain in place until a minimum of 48 hours has elapsed after placement of the final section of the slab. After this period, removal of formwork for sections meeting the requirements for form removal of Standard Specifications Section 502, Structural Concrete, may proceed.
6. Payment for reinforcing steel fabricated, delivered, and placed in the cast-in-place portion of the structural concrete slab will be considered incidental to the appropriate Standard Specifications Section 502 pay item. Payment for the stainless steel reinforcing in the curb will be covered under Items 503.26 and 503.27.
7. The compression seal to be furnished shall have a minimum Movement Rating as follows: Pier = 1/8 inch. The Department shall review the seal prior to fabrication of the expansion device.
8. The theoretical blocking used for design of the structure is 1/2" at the centerline of bearing of the abutments and pier. Refer to Standard Detail 502(03) for blocking details.
9. The Contractor shall stagger splice locations of longitudinal bars.
10. Precast Deck Panels will not be permitted as a substitute to the cast-in-place concrete deck.
11. The Contractor shall install transition barrier vertical closed stirrups as shown in Standard Details Section 526 prior to placement of the curb or sidewalk concrete. All reinforcing steel in the transition barrier shall be stainless steel.
12. All surface paving shall be completed in a single operation.
13. Overlap waterproofing membrane as shown in Staged Construction Details.

| | |
|------------------------------|-----------------|
| STATE OF MAINE | BRIDGE PLANS |
| DEPARTMENT OF TRANSPORTATION | 18965.00 |
| | WIN 18965.00 |
| | BRIDGE NO. 3766 |

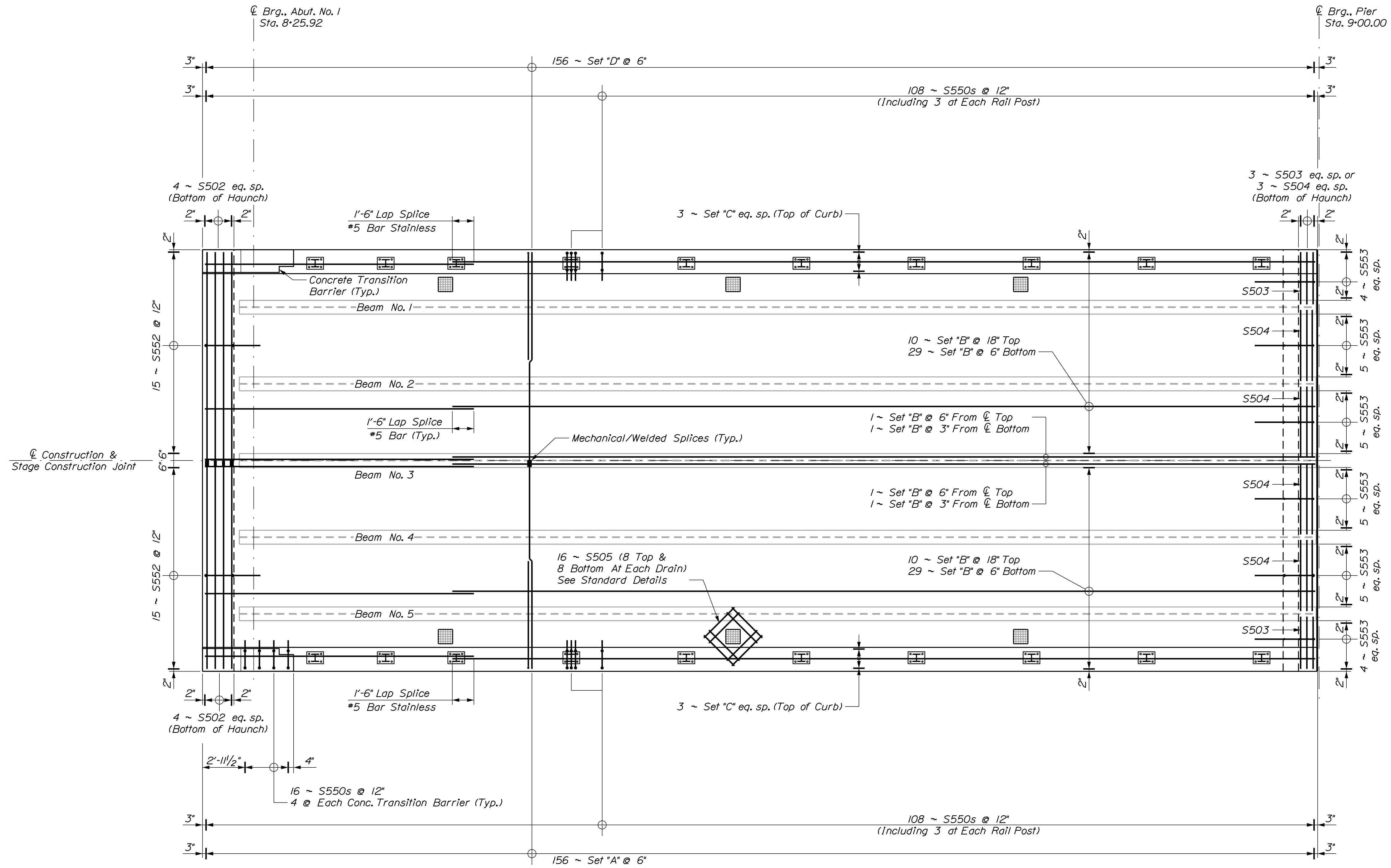
| | |
|------------------|---------|
| PROJ. MANAGER | DATE |
| DESIGN-DETAILED | 7/2017 |
| CHECKED-REVIEWED | 12/2017 |
| DESIGN-DETAILED | |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

| | |
|--------------|---------|
| BY | DATE |
| M. WIGHT | 7/2017 |
| B. BARTLETT | 12/2017 |
| M. POULIN | |
| G. GUSTAFSON | |
| SIGNATURE | |
| P.E. NUMBER | |
| DATE | |

| | |
|-----------------------------|------------------|
| ST. CROIX BRIDGE | AROOSTOOK COUNTY |
| ST. CROIX STREAM | |
| MASARDIS | |
| SUPERSTRUCTURE PLANS | |

SHEET NUMBER

14



Note:
Rebar S502 With Mechanical Welded Splices Will Have To Be Field Cut To Length.

Note:
S506s & S507s & S550s
s = Stainless

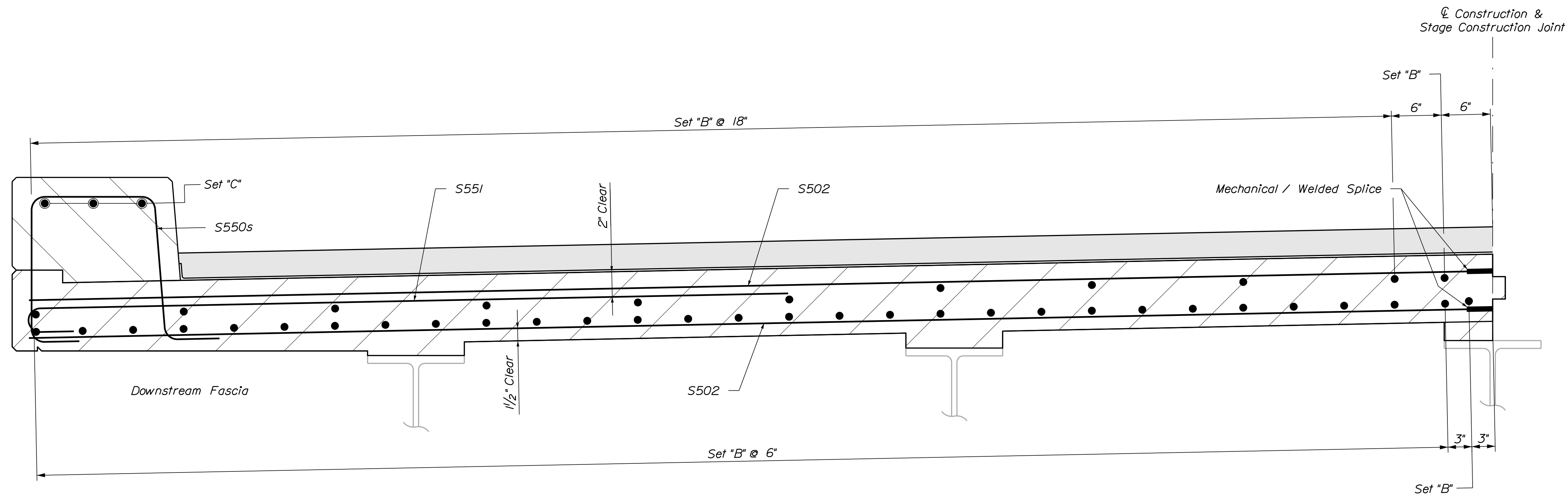
HALF SUPERSTRUCTURE PLAN
Span No. 1, Span No. 2 Opposite Hand

- Set "A"**
2 ~ S502 & 1 ~ S551
2 ~ Mechanical Welded Splices
- Set "B"**
1 ~ S500 & 1 ~ S501
- Set "C"**
1 ~ S506s & 1 ~ S507s
- Set "D"**
2 ~ S502 & 1 ~ S551

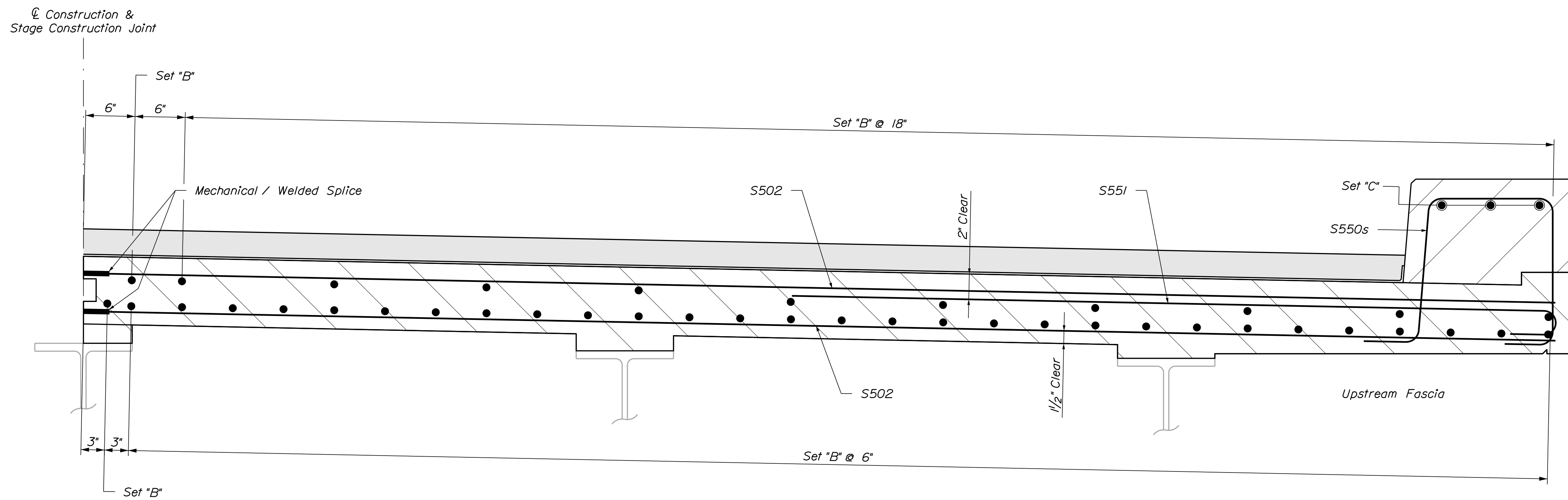
| | |
|-------------------|---------|
| PROJ. MANAGER | DATE |
| CHECKED-REVIEWED | 7/2017 |
| DESIGNED-REVIEWED | 12/2017 |
| DESIGNS DETAILED | |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

| | | |
|--------------|-----------|-------------|
| M. WIGHT | BY | SIGNATURE |
| B. BARTLETT | M. POULIN | |
| G. GUSTAFSON | | |
| | | P.E. NUMBER |
| | | DATE |

ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY
SUPERSTRUCTURE REINFORCING



HALF DOWNSTREAM TRANSVERSE REINFORCING SECTION



HALF UPSTREAM TRANSVERSE REINFORCING SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18965.00

BRIDGE NO. 3766 WIN 18965.00 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

| PROJ. MANAGER | M. WIGHT | BY | DATE |
|------------------|--------------|-----------|---------|
| DESIGN-DETAILED | B. BARTLETT | M. POULIN | 7/2017 |
| CHECKED-REVIEWED | G. GUSTAFSON | | 12/2017 |
| DESIGN-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

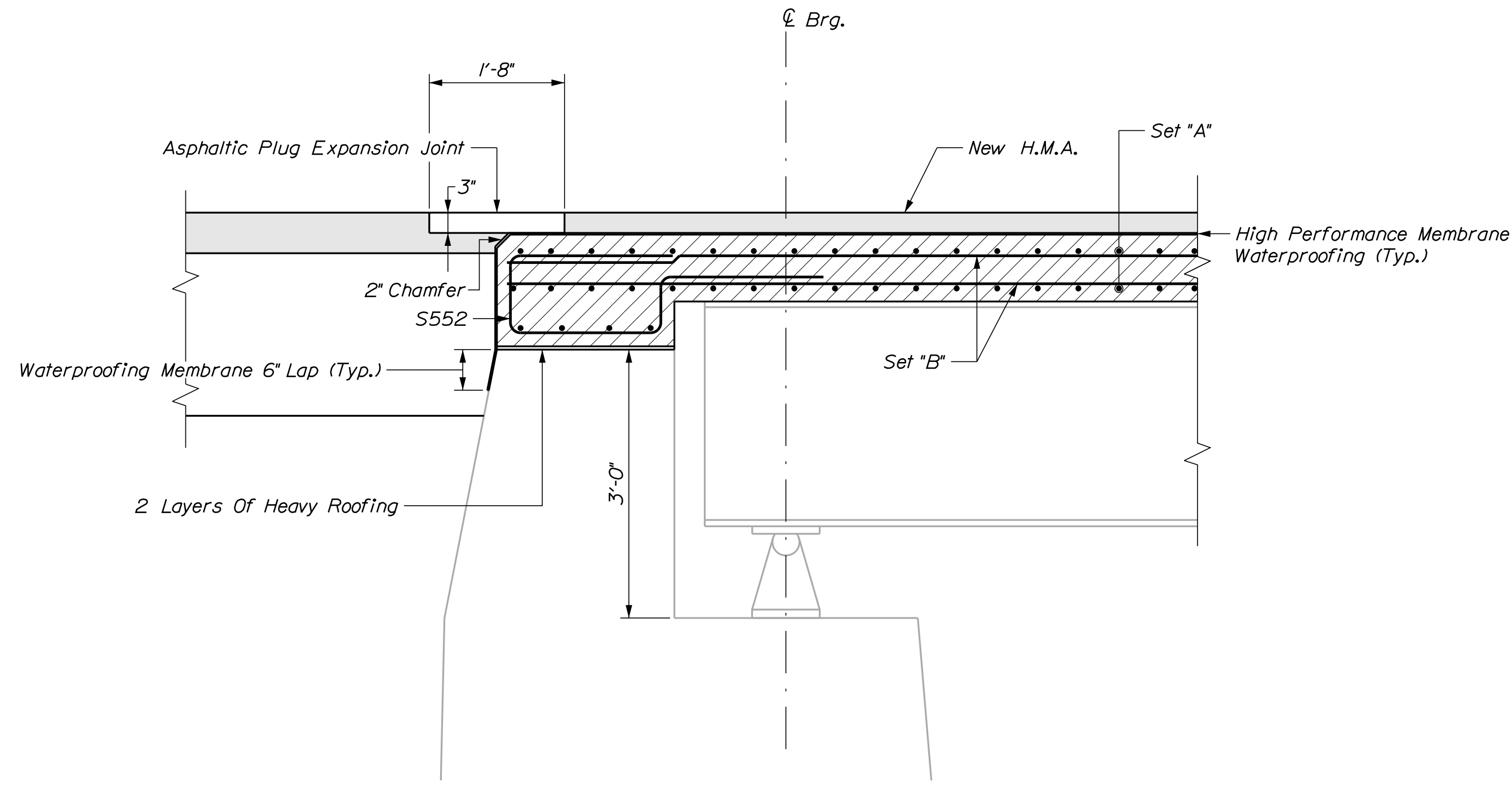
ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY

MASARDIS
SUPERSTRUCTURE DETAILS

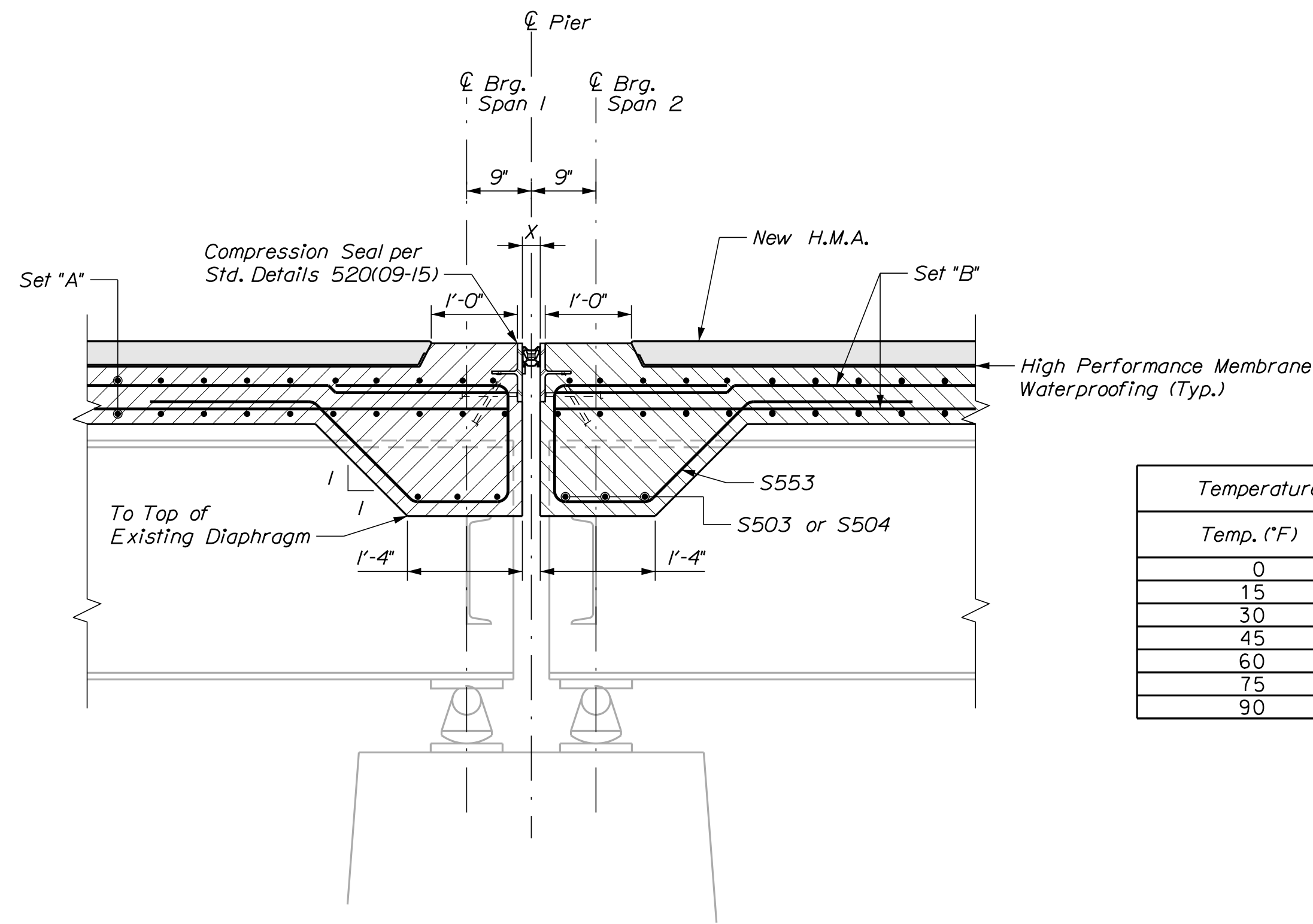
SHEET NUMBER

16

OF 19



SUPERSTRUCTURE SECTION OVER ABUTMENT NO. 1
(Abutment No. 2 Similar)



SUPERSTRUCTURE SECTION OVER PIER

| Temperature Adjustment Table | |
|------------------------------|-----------|
| Temp. (°F) | "X" (In.) |
| 0 | 2.99 |
| 15 | 2.82 |
| 30 | 2.64 |
| 45 | 2.46 |
| 60 | 2.29 |
| 75 | 2.11 |
| 90 | 1.94 |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
18965.00
BRIDGE NO. 3766
WIN
18965.00
BRIDGE PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

M. WIGHT
B. BARTLETT
G. GUSTAFSON

DATE
7/2017
12/2017

BY
M. POULIN

SIGNATURE
P.E. NUMBER
DATE

ST. CROIX BRIDGE
ST. CROIX STREAM
MASARDIS AROOSTOOK COUNTY

SUPERSTRUCTURE DETAILS

SHEET NUMBER
17
OF 19

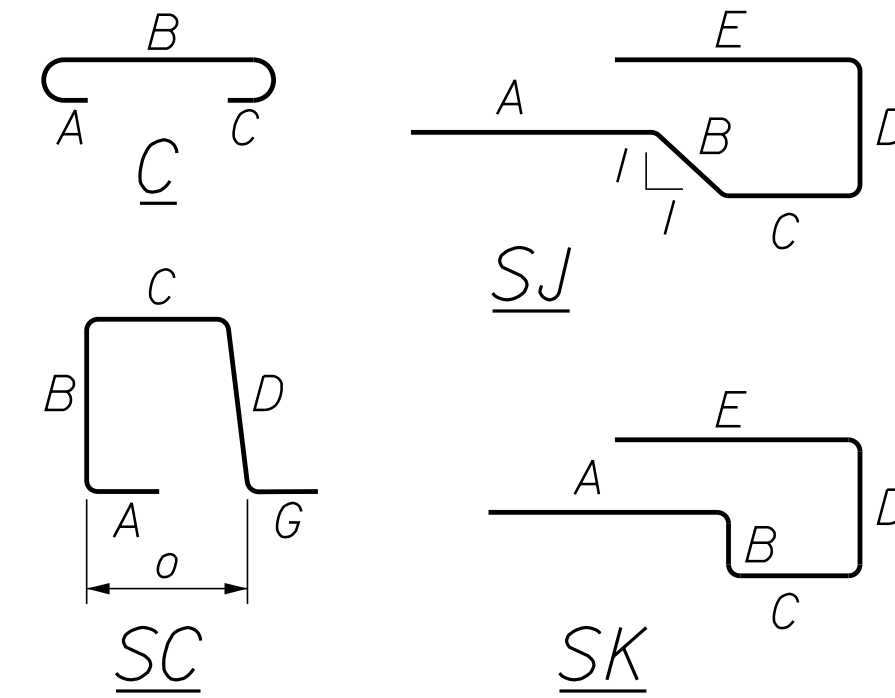
STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION |
|-------|-------|------------|---------------------|
| S500 | 164 | 60'-0" | Superstructure Slab |
| S501 | 164 | 18'-8 1/2" | Superstructure Slab |
| S502 | 1,264 | 14'-6" | Superstructure Slab |
| S503 | 12 | 3'-7" | Superstructure Slab |
| S504 | 24 | 4'-11" | Superstructure Slab |
| S505 | 192 | 3'-0" | Superstructure Slab |
| S506s | 12 | 18'-8 1/2" | Top of Curb |
| S507s | 12 | 60'-0" | Top of Curb |

BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|-------|------|--------|------|--------|-----------|--------|------------|-------|---|--------|---|-----------|---|-----------------------|
| S550s | 448 | 5'-1" | SC | 0'-10" | 1'-5" | 1'-3" | 1'-5" | | | 0'-10" | | 1'-4 1/2" | | Superstructure (Curb) |
| S551 | 624 | 7'-3" | C | 0'-7" | 6'-8" | | | | | | | | | Superstructure Slab |
| S552 | 60 | 7'-4" | SK | 2'-0" | 0'-6 1/2" | 1'-10" | 0'-11 1/2" | 2'-0" | | | | | | End Superstructure |
| S553 | 56 | 7'-10" | SJ | 2'-0" | 1'-6" | 1'-1" | 1'-3" | 2'-0" | | | | | | End Superstructure |

TYPE - BENDING DIAGRAMS



GENERAL NOTES

- The first two digits following the letter(s) of the mark indicate the size of the bar:
 Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6
- Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.
- All dimensions are out-to-out of bar.
- Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.
- Reinforcing Bar: ASTM A615/A615M, Grade 60 U.N.O.

Note:
Rebar S502 With Mechanical
Welded Splices Will Have To
Be Field Cut To Length.

Note:
S506s & S507s & S550s
s = Stainless

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18965.00

WIN

18965.00

BRIDGE NO. 3766

BRIDGE PLANS

DATE: 12/2017
SIGNATURE:

DATE: 7/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

DATE: 12/2017

SHEET NUMBER

18

OF 19

MASARDIS
ST. CROIX BRIDGE
ST. CROIX STREAM
AROOSTOOK COUNTY
REINFORCING
STEEL SCHEDULE

Town, County, State _____
 Approx. Property Lines _____
 Existing Right of Way _____
 Limits of Wrought Portion _____
 Control Of Access _____
 New Right of Way _____
 New Easement _____
 New Temporary Rights _____
 New R/W Within Existing R/W _____

New R/W Along Existing R/W _____
 Building _____
 Trees Conifer _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence _____
 Sign _____

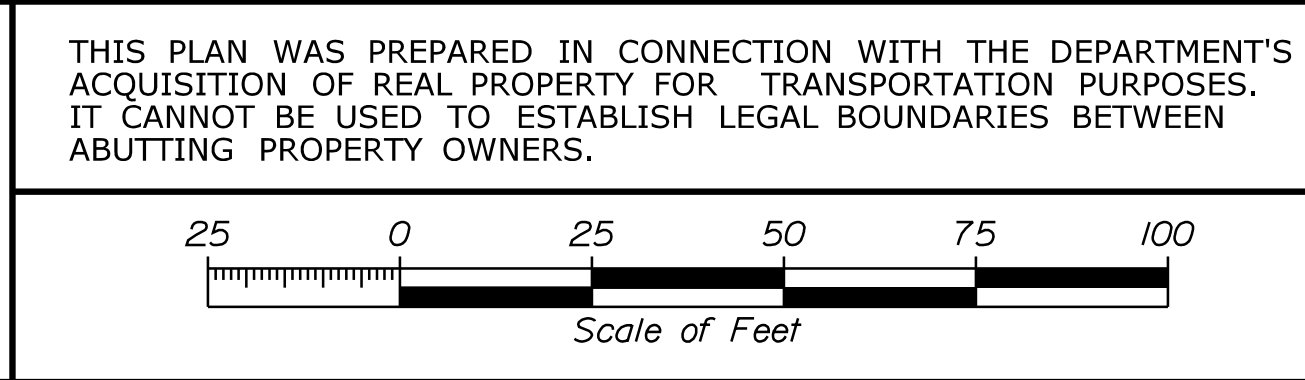
Clearing Limit Line _____
 Deciduous _____
 Bush Line _____
 Rock/Boulder _____
 Flag Pole _____
 BARB WIRE _____
 STOCKADE _____
 WELL _____
 Mailbox _____

PLAN LEGEND
 Existing Proposed
 Sanitary Sewer _____
 Telephone Line _____
 Electric Line _____
 Water Line _____
 Underdrain Line _____
 Gas Line _____
 Guardrail _____
 Culvert _____

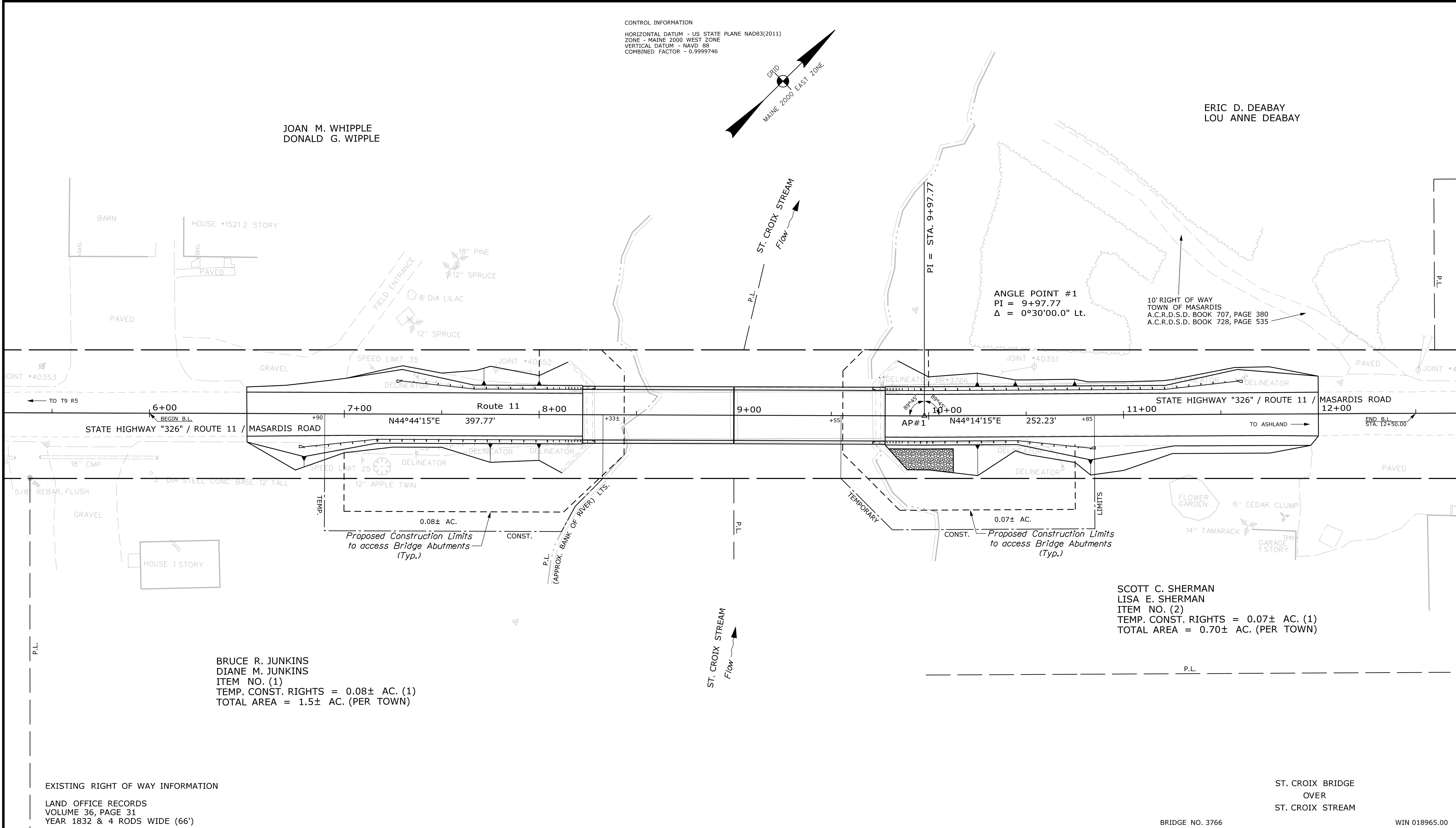
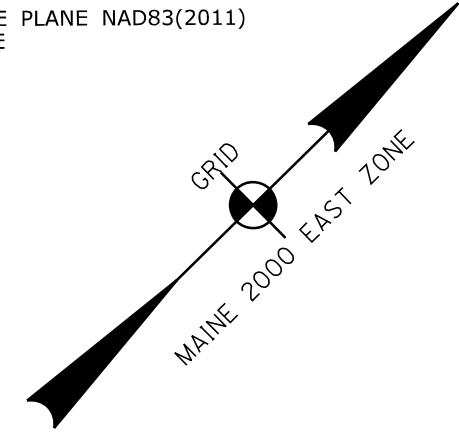
Travelled Way _____
 Ditch _____
 Catch Basin _____
 Manhole _____
 Sewer Manhole _____
 Utility Pole _____
 Fire Hydrant _____
 Curbing _____

Cut Line _____
 Stonewall _____
 Baseline _____
 Monument _____
 Iron Rod Found _____
 Replacement Pin Set _____

STATE OF MAINE
 REGISTRY OF DEEDS
 COUNTY _____
 RECEIVED _____
 at _____ h _____ m _____ M and recorded in
 Plan Book _____, Page _____
 Attest: _____ REGISTER



CONTROL INFORMATION
 HORIZONTAL DATUM - US STATE PLANE NAD83(2011)
 ZONE - MAINE 2000 WEST ZONE
 VERTICAL DATUM - NAVD 88
 COMBINED FACTOR - 0.9999746



BRUCE R. JUNKINS
 DIANE M. JUNKINS
 ITEM NO. (1)
 TEMP. CONST. RIGHTS = 0.08± AC. (1)
 TOTAL AREA = 1.5± AC. (PER TOWN)

SCOTT C. SHERMAN
 LISA E. SHERMAN
 ITEM NO. (2)
 TEMP. CONST. RIGHTS = 0.07± AC. (1)
 TOTAL AREA = 0.70± AC. (PER TOWN)

EXISTING RIGHT OF WAY INFORMATION
 LAND OFFICE RECORDS
 VOLUME 36, PAGE 31
 YEAR 1832 & 4 RODS WIDE (66')

ST. CROIX BRIDGE
 OVER
 ST. CROIX STREAM

BRIDGE NO. 3766 WIN 018965.00

| | |
|-------------------------|---------|
| TECH | CHECKED |
| EXISTING CONDITION PLAN | G.L.L. |
| FINAL RIGHT OF WAY | G.L.L. |
| AREAS | G.L.L. |
| | C.R.S. |

| |
|--|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460 |
| MASARDIS RIGHT OF WAY MAP |

| NO. | DATE | REVISIONS DESCRIPTION | BY | PLAN FILED IN PLAN BOOK | | PAGE | | COUNTY RECORD | | SOUTH | |
|-----|------|--------------------------|----|-------------------------|---------|------------|------|---------------|------|-------|------|
| | | | | NO. | GRANTOR | INSTRUMENT | DATE | BOOK | PAGE | COND. | DATE |
| | | | | | | | | | | | |

DAVID BERNHARDT
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER
 DATE _____

STATE HIGHWAY "326"
 ROUTE 11 / MASARDIS ROAD
 MASARDIS AROOSTOOK COUNTY
 STATE PROJECT NO. 18965.00
 SEPTEMBER 2017 RIGHT-OF-WAY MAP
 SCALE 1" = 25' SHEET 1 OF 1
 D.O.T. FILE NO. 2-600

SHEET NUMBER
19
 OF 19

Date: 12/12/2017

Username: David.Shaw

Division: BRIDGE

Filename: ... \00\ROW\MSTA\019_RWPLAN1.dgn