

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

TRAFFIC DATA

| | |
|-------------------------------------|------|
| Current (2022) AADT | 6380 |
| Future (2042) AADT | 7020 |
| DHV - % of AADT | 10 |
| Design Hour Volume | 702 |
| Heavy Trucks (% of AADT) | 13 |
| Heavy Trucks (% of DHV) | 10 |
| Directional Distribution (% of DHV) | 50 |
| 18 kip Equivalent P 2.0 | 1025 |
| 18 kip Equivalent P 2.5 | 976 |
| Design Speed (mph) | 25 |

MATERIALS

| | |
|-----------------------------------|-----------------------------|
| Concrete (Unless noted otherwise) | Class "A" |
| Concrete Joint Headers | Class "LP" |
| Reinforcing: | |
| Plain Reinforcing Steel: | ASTM A 615/A 615M, Grade 60 |
| Structural Steel: All Material | ASTM A 36/A 36M |

BASIC DESIGN STRESSES

| | |
|--------------------------|------------------|
| Concrete: | |
| Class "A" | f 'c = 4,000 psi |
| Class "LP" | f 'c = 5,000 psi |
| Reinforcing: | |
| Plain Reinforcing Steel: | f y = 60,000 psi |
| Structural Steel | F y = 36,000 psi |

RUMFORD
OXFORD COUNTY
MORSE BRIDGE
OVER
ANDROSCOGGIN RIVER
ROUTE 108 BRIDGE STREET
FEDERAL AID PROJECT NO. 2529300
PROJECT LENGTH 0.066 mi.
BRIDGE NO. 2585

LIST OF DRAWINGS

| | |
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| Title Sheet | 1 |
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UTILITIES

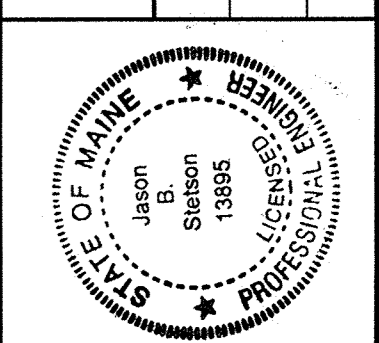
Central Maine Power
Charter Communications
FirstLight
Consolidated Communications
Rumford Water District
Rumford-Mexico Sewerage District

MAINTENANCE OF TRAFFIC

Bridge closure with off-site detour

| | |
|------------------|---|
| PROJECT LOCATION | Morse Bridge (#2585) over the Androscoggin River. Located 0.04 of a mile east of Route 2. Lat./Long. 44°32'36.5" N 70°32'47.4" W |
| PROGRAM AREA | Bridge Program |
| OUTLINE OF WORK | Joint Modification Wearing Surface Replacement |

| | | |
|--|----------|------------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | APPROVED | DATE |
| COMMISSIONER: <i>[Signature]</i> | | 10-23-23 |
| CHIEF ENGINEER: <i>[Signature]</i> | | 10-23-2023 |

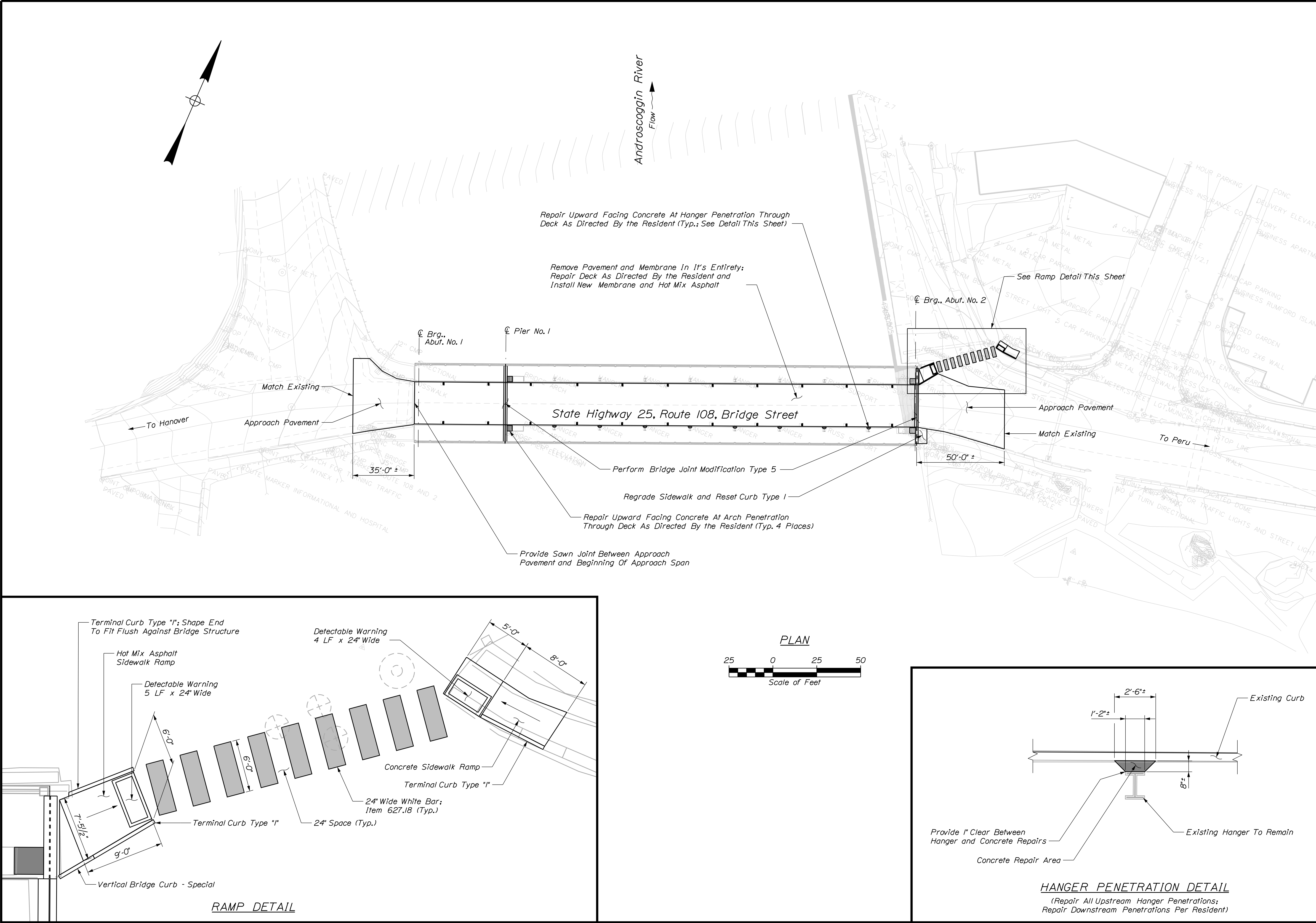


| | | | |
|--------------------|-----------|-------------|------|
| <i>[Signature]</i> | SIGNATURE | P.E. NUMBER | DATE |
| | 13885 | 10/12/2023 | |

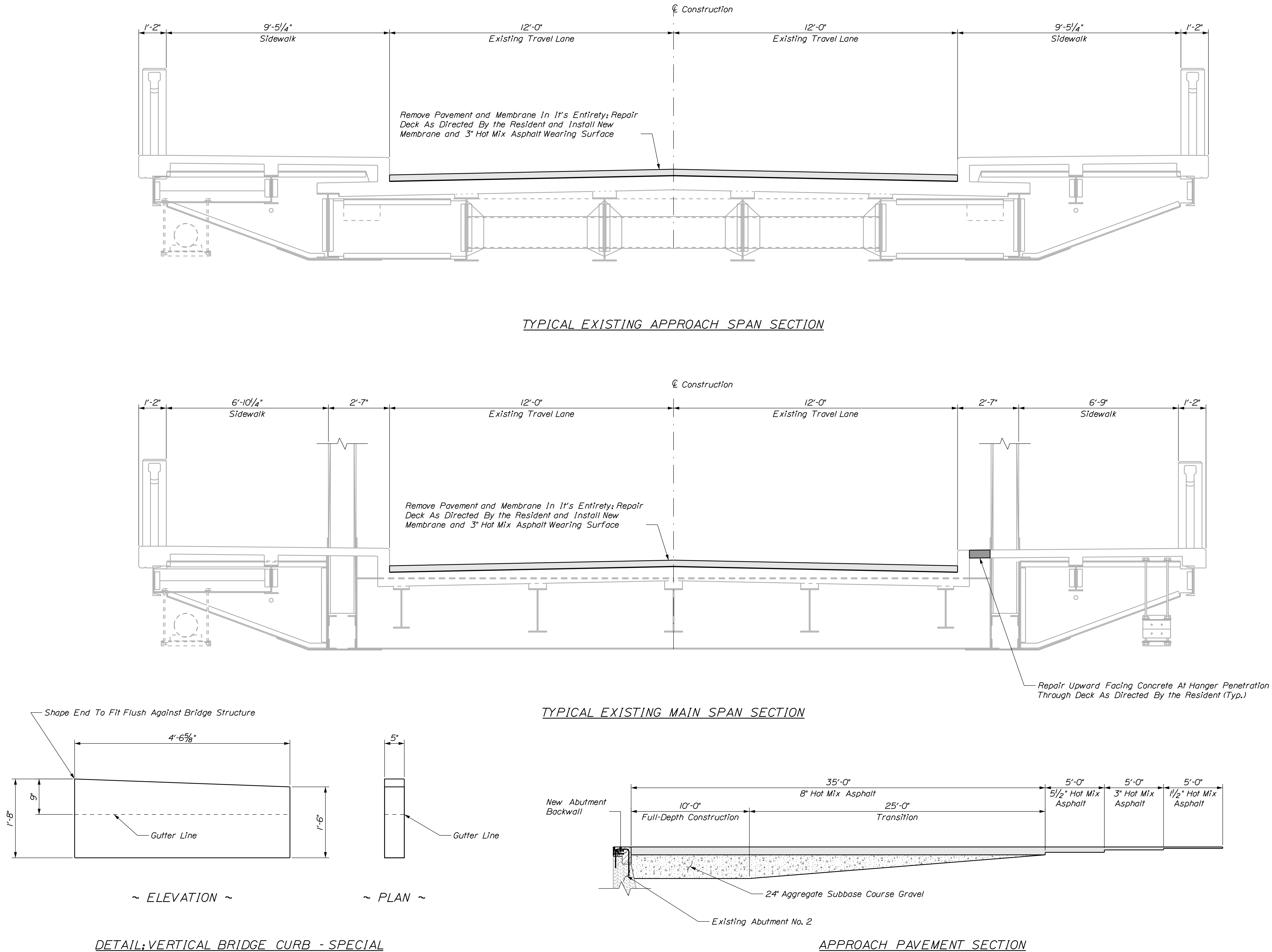
| PROJECT INFORMATION | | | | | |
|-------------------------|----------------|------------------|------------|------------|------------|
| PROGRAM | Bridge Program | PROJECT MANAGER | J. Stetson | DESIGNER | J. Stetson |
| CONSULTANT | N/A | PROJECT RESIDENT | | CONTRACTOR | |
| PROJECT COMPLETION DATE | | | | | |

| | |
|-------------------------|-------------|
| RUMFORD MORSE BRIDGE | TITLE SHEET |
|-------------------------|-------------|

| |
|--------------|
| SHEET NUMBER |
| 1 |
| OF 11 |



| | | | |
|-----------------|--|------------------------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | |
| RUMFORD | | OXFORD COUNTY | |
| MORSE BRIDGE | | ANDROSCOGGIN RIVER | |
| SHEET NUMBER | | GENERAL PLAN | |
| 3 | | OF 11 | |
| BRIDGE NO. 2585 | | WIN | |
| 25293.00 | | 2529300 | |
| BRIDGE PLANS | | DATE | |
| SIGNATURE | | P.E. NUMBER | |
| DATE | | DATE | |
| J. STETSON | | R. MAYER | |
| AUG. 2023 | | AUG. 2023 | |
| DESIGN-REVIEWED | | DESIGN-REVIEWED | |
| DESIGN-DETAILED | | DESIGN-DETAILED | |
| REVISIONS 1 | | REVISIONS 1 | |
| REVISIONS 2 | | REVISIONS 2 | |
| REVISIONS 3 | | REVISIONS 3 | |
| REVISIONS 4 | | REVISIONS 4 | |
| FIELD CHANGES | | FIELD CHANGES | |



| | | | | | | | | | | | |
|----------------|--|------------------------------|--|---------------|--|---------|--|---------------------------------------|--|--------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | | 2529300 | | WIN | | BRIDGE NO. 2585 | | BRIDGE PLANS | |
| MORSE BRIDGE | | ANDROSCOGGIN RIVER | | OXFORD COUNTY | | RUMFORD | | BRIDGE TYPICAL SECTIONS & CURB DETAIL | | SHEET NUMBER | |
| | | | | | | | | | | 4 | |
| | | | | | | | | | | OF 11 | |

Date:10/11/2023

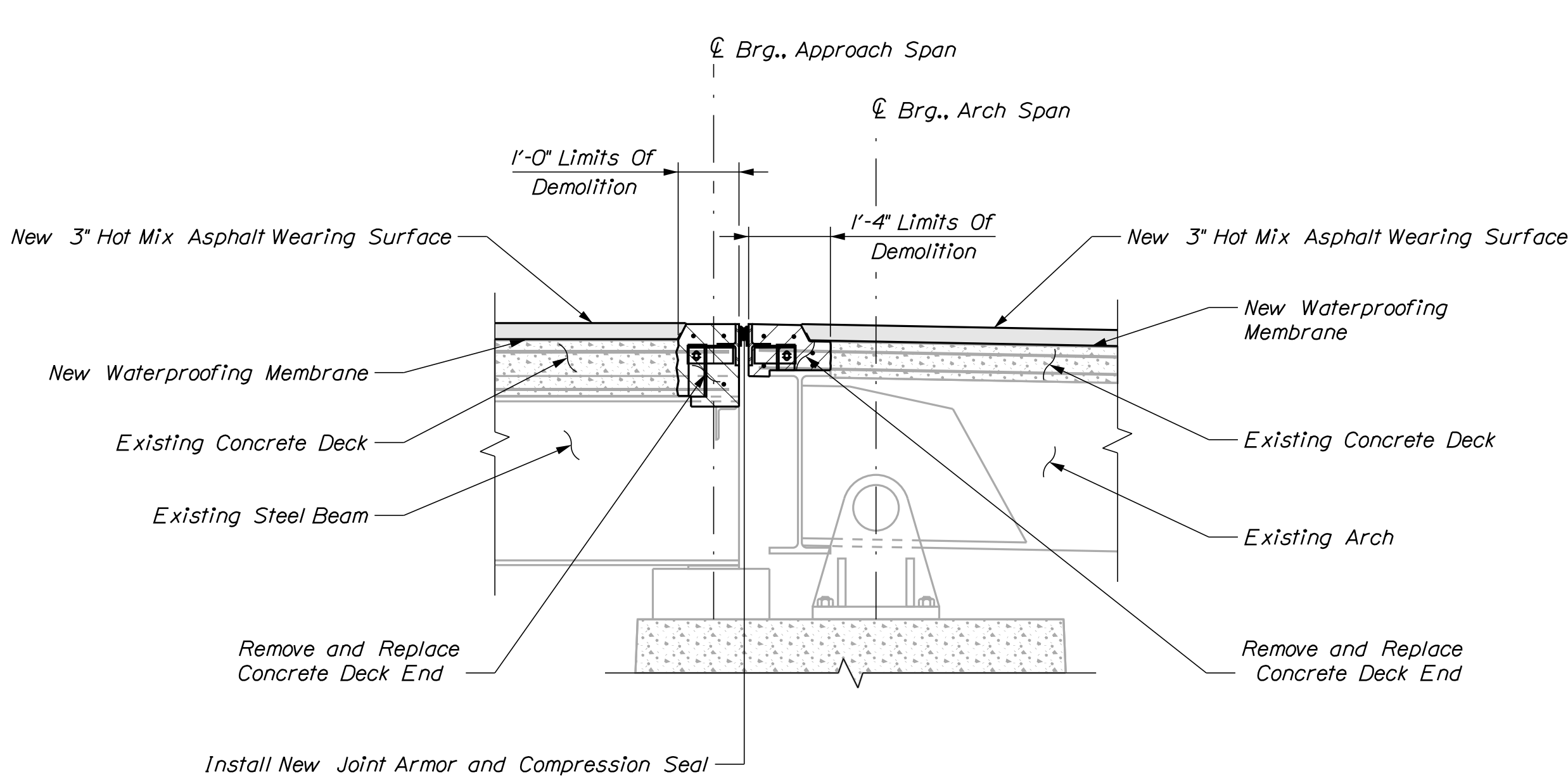
Username: Richard.Mayer

Division: BRIDGE

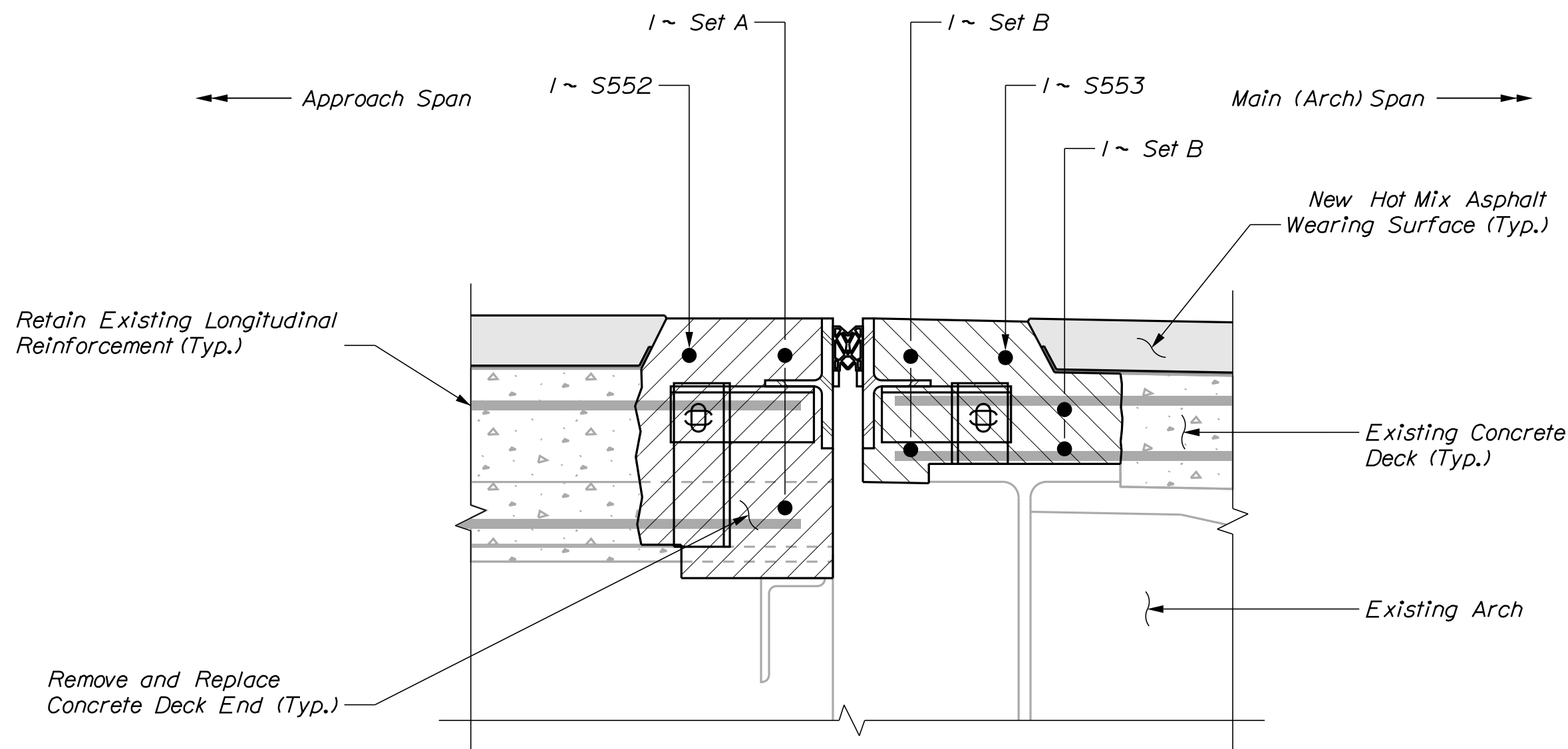
Filename: ... \MSTAD005_Joint Details.dgn

NOTE:

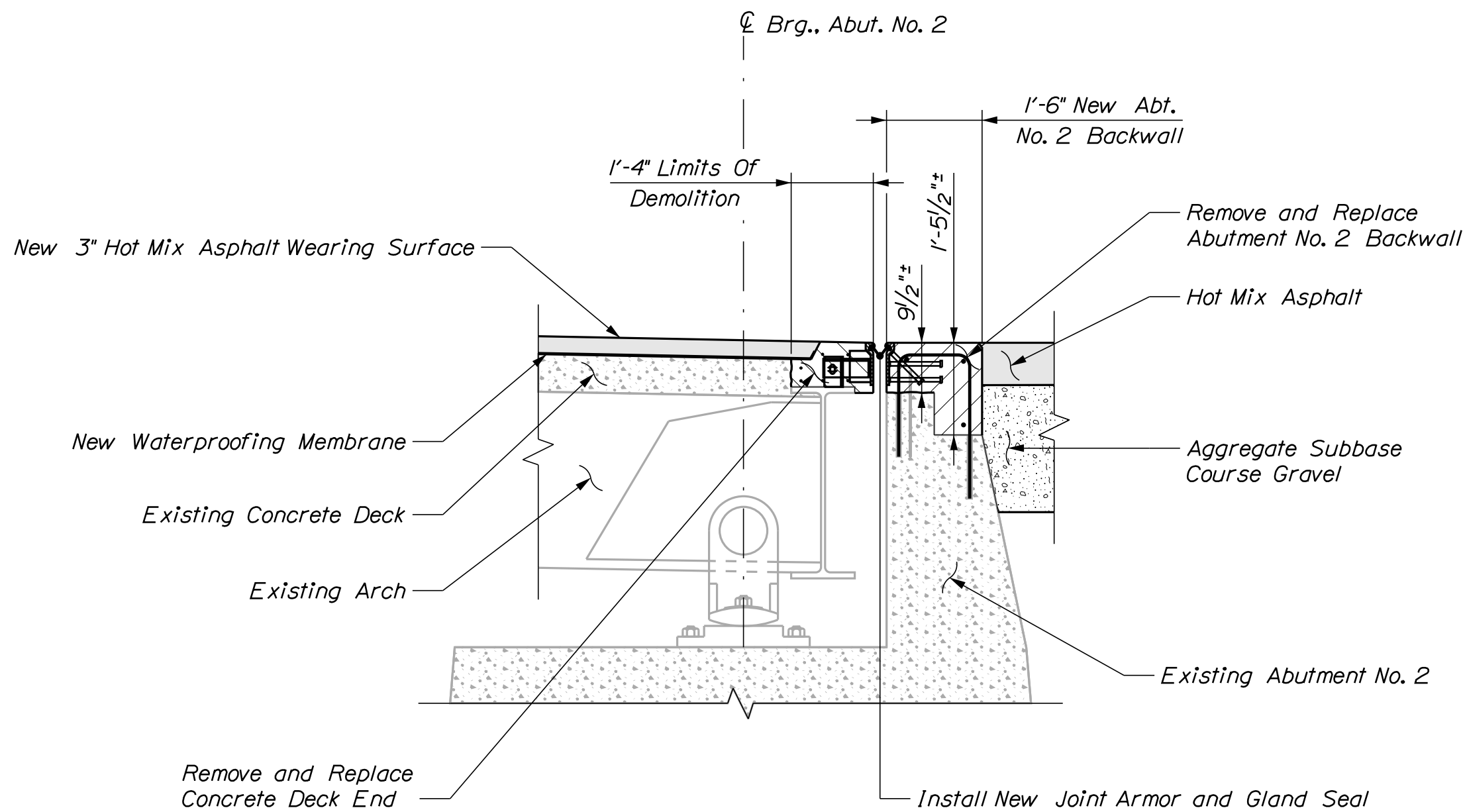
1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.



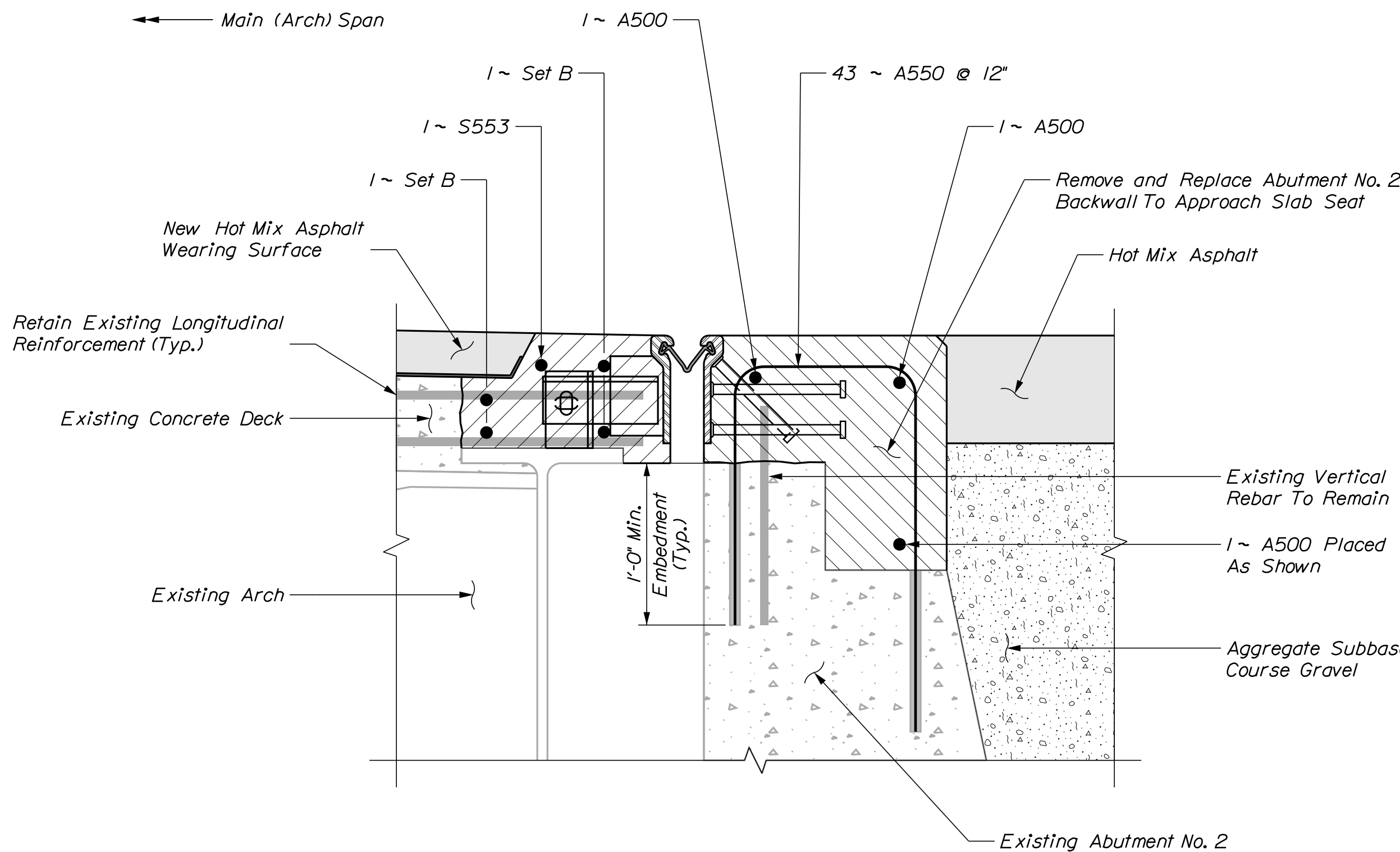
BRIDGE JOINT MODIFICATION TYPE 5
PIER NO. 1 COMPRESSION SEAL



BRIDGE JOINT MODIFICATION TYPE 5
PIER NO. 1 COMPRESSION SEAL
REINFORCEMENT SECTION

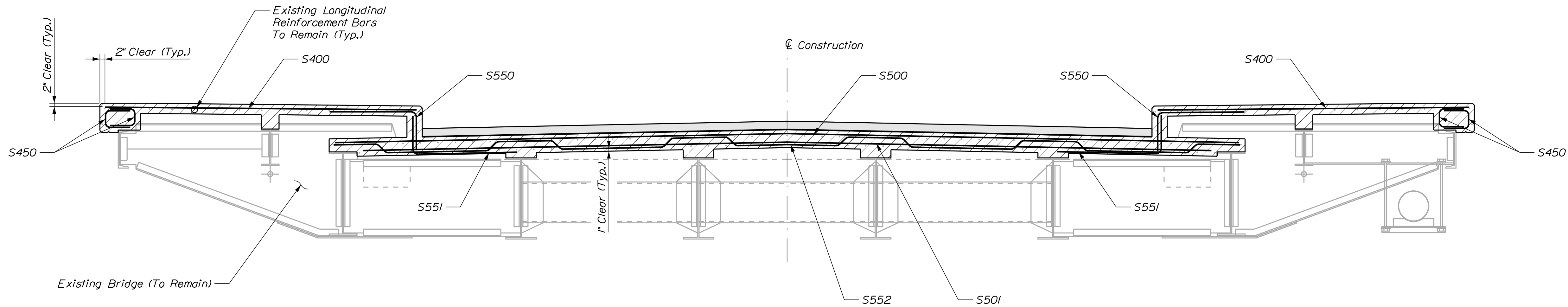


BRIDGE JOINT MODIFICATION TYPE 5
ABUTMENT NO. 2 GLAND SEAL

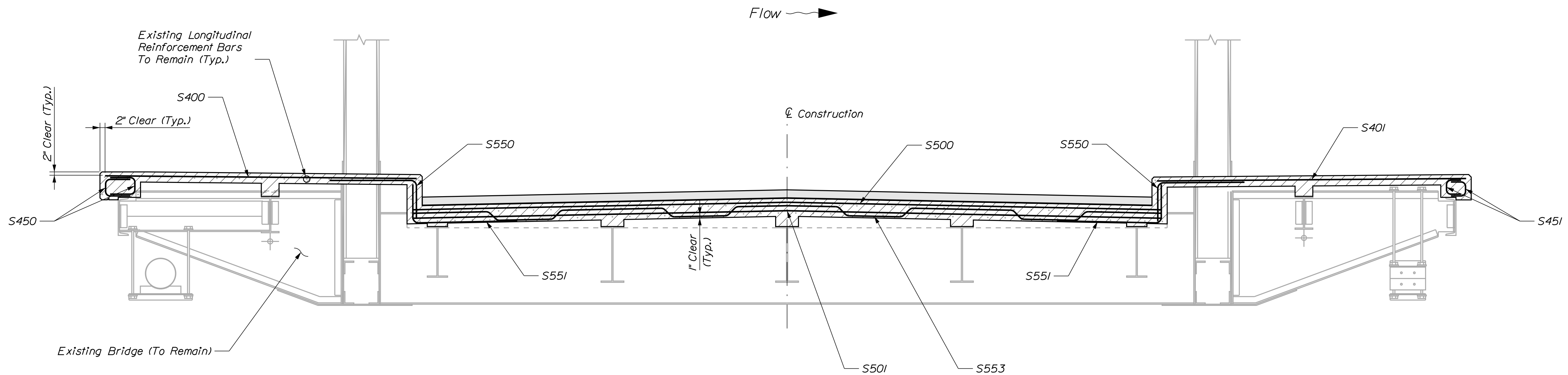


BRIDGE JOINT MODIFICATION TYPE 5
ABUTMENT NO. 2 GLAND SEAL
REINFORCEMENT SECTION

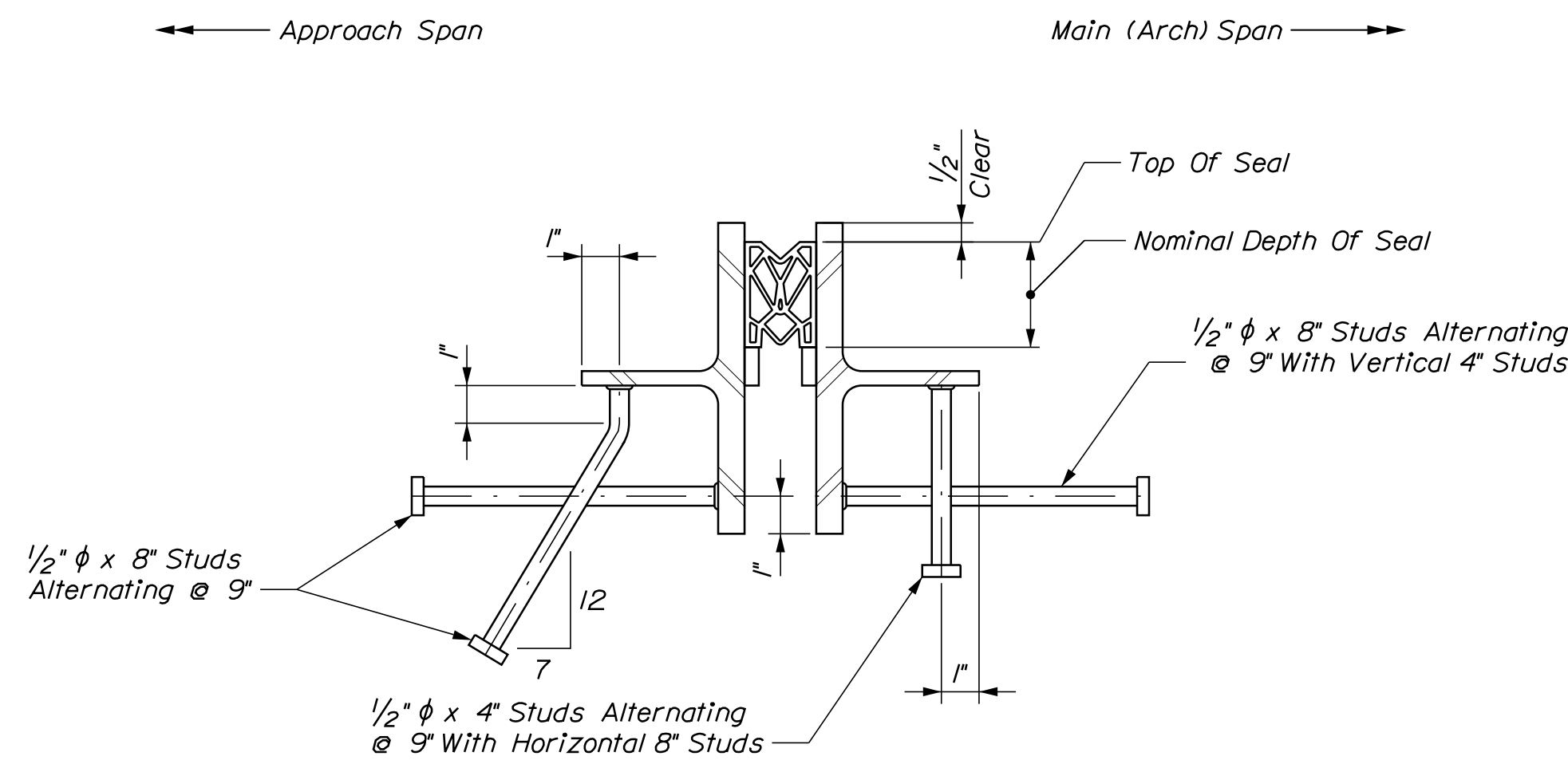
| | | | | | | | | | | | |
|-----------------|--|------------------------------|--|-----------------|--|-----------------|--|-----------------------|--|---------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | | 2529300 | | WIN | | BRIDGE NO. 2585 | | BRIDGE PLANS | |
| MORSE BRIDGE | | ANDROSCOGGIN RIVER | | OXFORD COUNTY | | RUMFORD | | BRIDGE JOINT DETAILS; | | 1 OF 2 | |
| SHEET NUMBER | | 5 | | OF 11 | | DATE | | SIGNATURE | | P.E. NUMBER | |
| BY | | J. STETSON | | R. MAYER | | AUG. 2023 | | DATE | | P.E. NUMBER | |
| DESIGN-DETAILED | | DESIGN-REVIEWED | | DESIGN-DETAILED | | DESIGN-REVIEWED | | REVISIONS 1 | | REVISIONS 2 | |
| REVISIONS 1 | | REVISIONS 2 | | REVISIONS 3 | | REVISIONS 4 | | FIELD CHANGES | | FIELD CHANGES | |



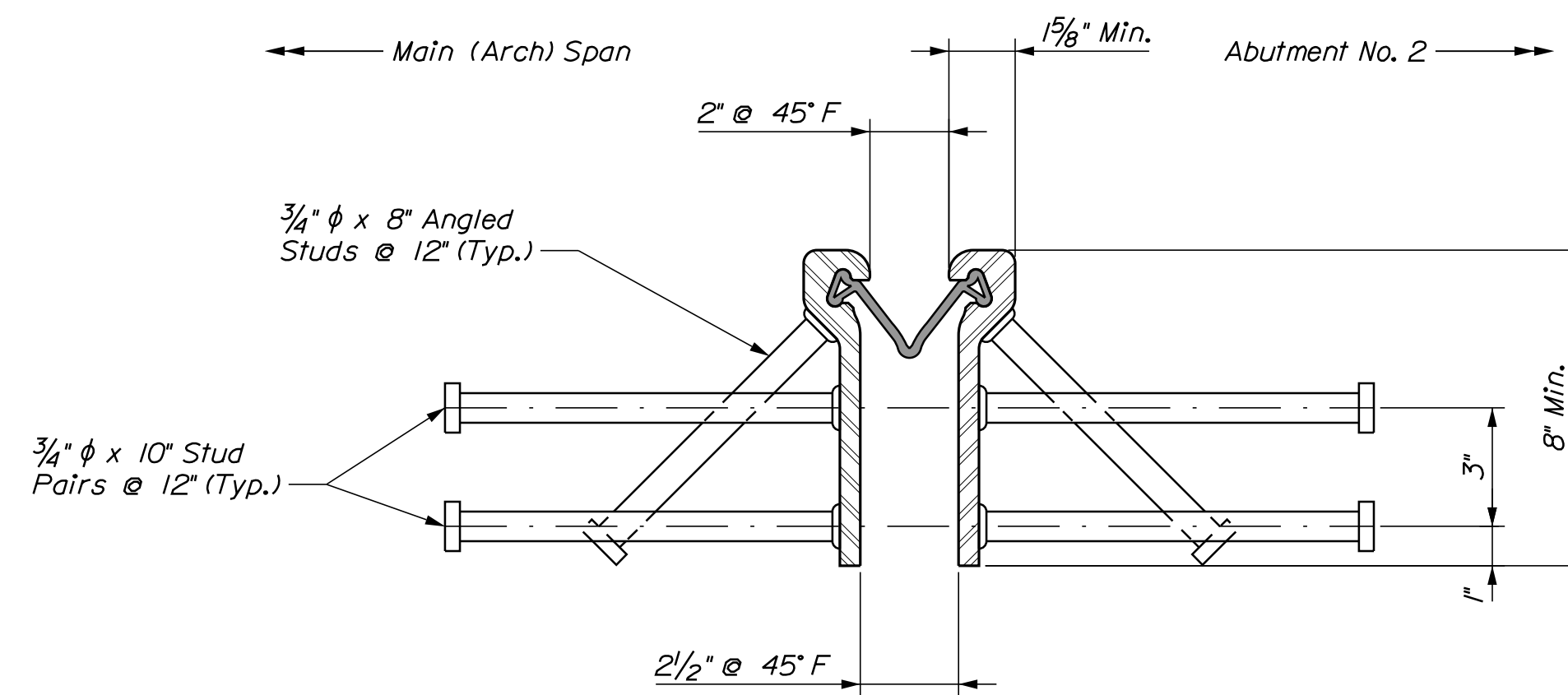
TRANSVERSE REINFORCEMENT SECTION - APPROACH SPAN JOINT HEADER



TRANSVERSE REINFORCEMENT SECTION - MAIN (ARCH) SPAN JOINT HEADER



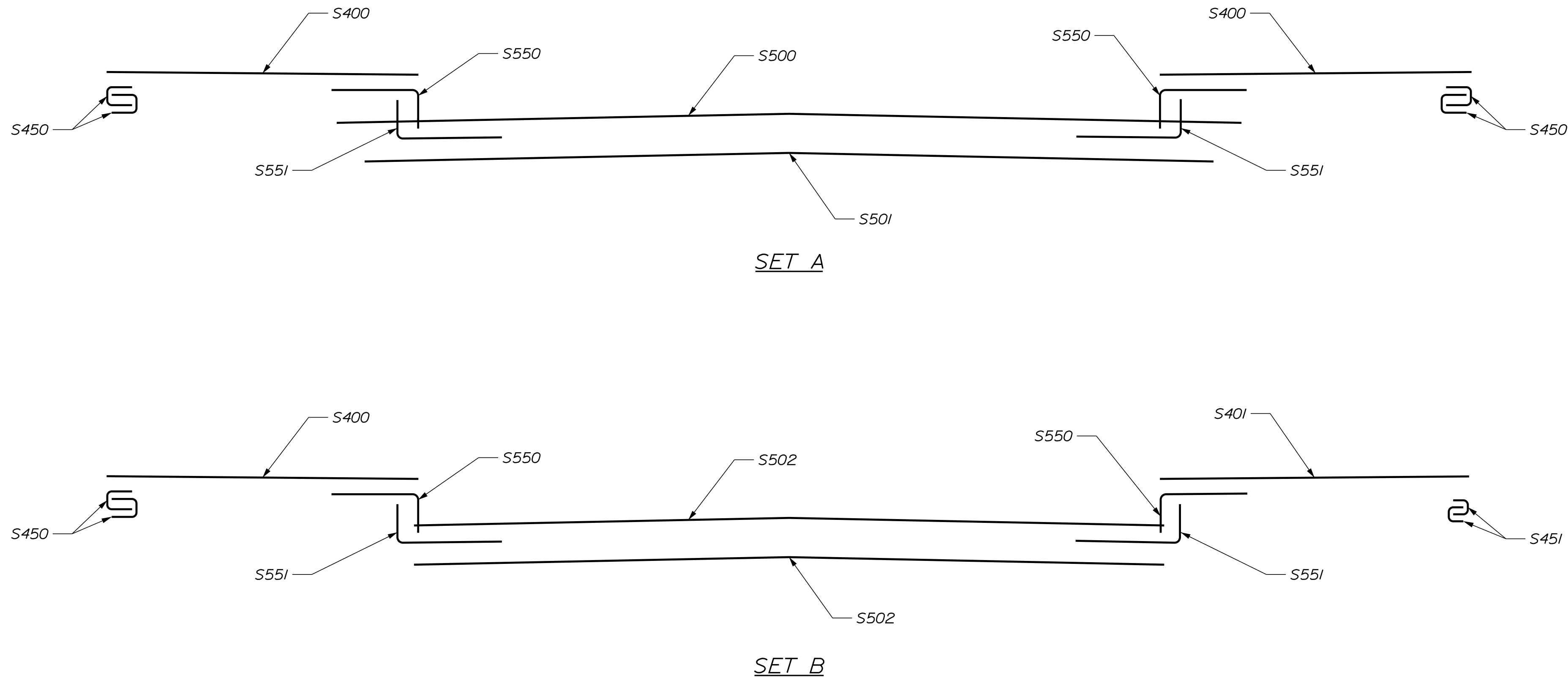
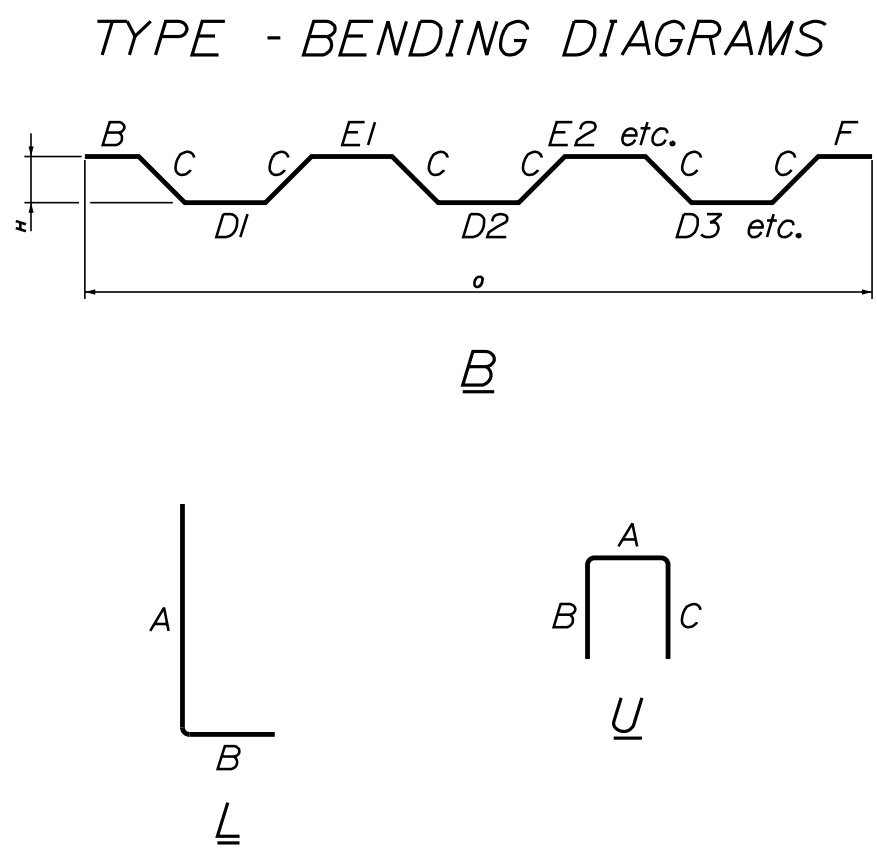
COMPRESSION SEAL TYPICAL SECTION
(Section Shown To Illustrate Revised Stud Layout)



GLAND SEAL TYPICAL SECTION
(Section Shown To Illustrate Revised Stud Layout)

| PROJ. MANAGER | J. STETSON | BY | R. MAYER | DATE | AUG. 2023 |
|-------------------|------------|----|----------|------|-----------|
| CHECKED-REVIEWED | J. STETSON | | | | |
| DESIGNED-DETAILED | | | | | |
| REVISIONS 1 | | | | | |
| REVISIONS 2 | | | | | |
| REVISIONS 3 | | | | | |
| REVISIONS 4 | | | | | |
| FIELD CHANGES | | | | | |

| | |
|--|----------------------------------|
| MORSE BRIDGE ANDROSCOGGIN RIVER RUMFORD OXFORD COUNTY | SIGNATURE P.E. NUMBER DATE |
| BRIDGE JOINT DETAILS; 2 OF 2 | |

[illegible]

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.

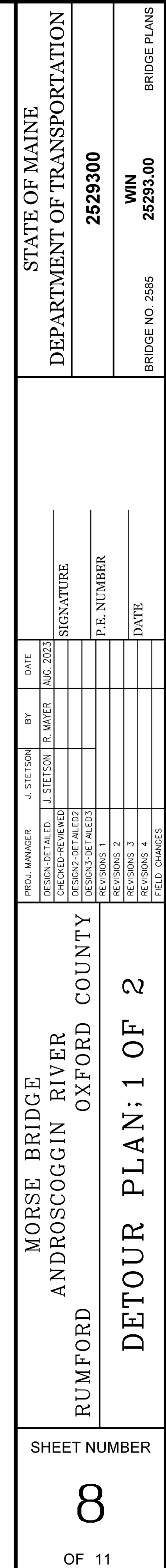
Plain Reinforcing Steel: ASTM A 615, Grade 60
Stainless Steel Reinforcing: ASTM A955, Grade 75
Glass Fiber Reinforced Polymer: ASTM D7957
Low-Carbon Chromium Steel: ASTM A1035, Type CS, Grade 100

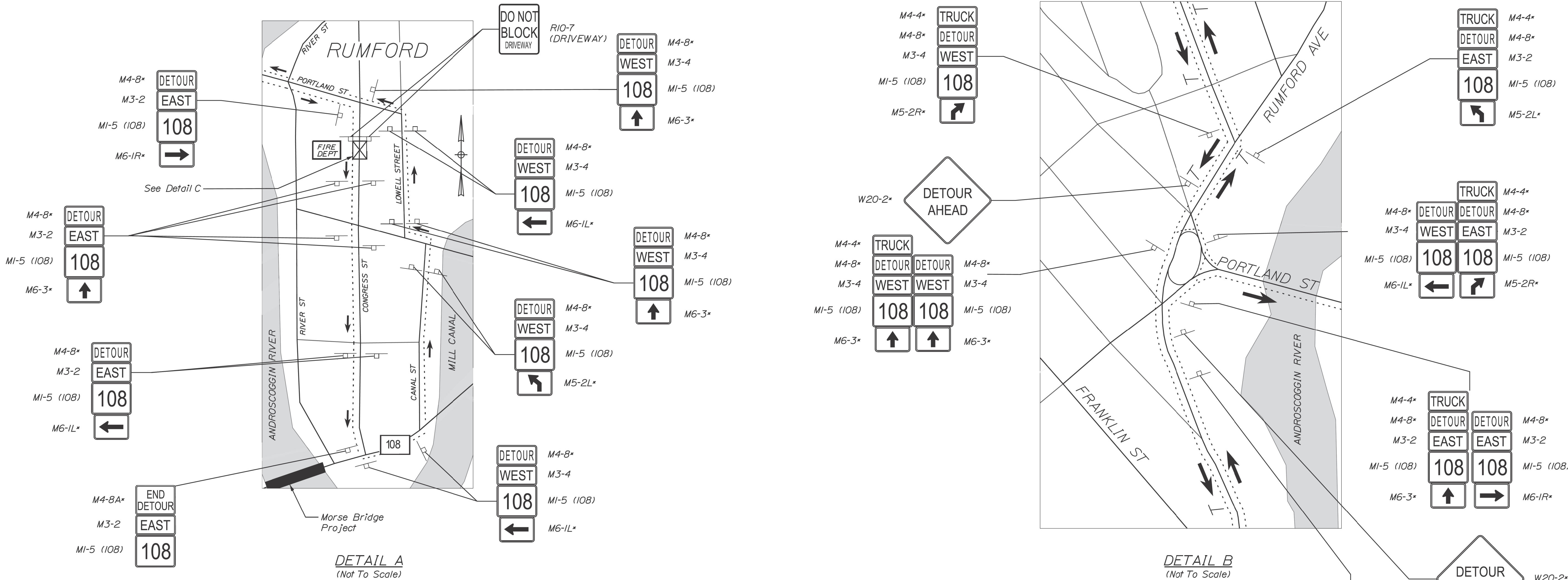
GENERAL NOTES

1. The first digit(s) 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
Mark "P1404" = bar size #14

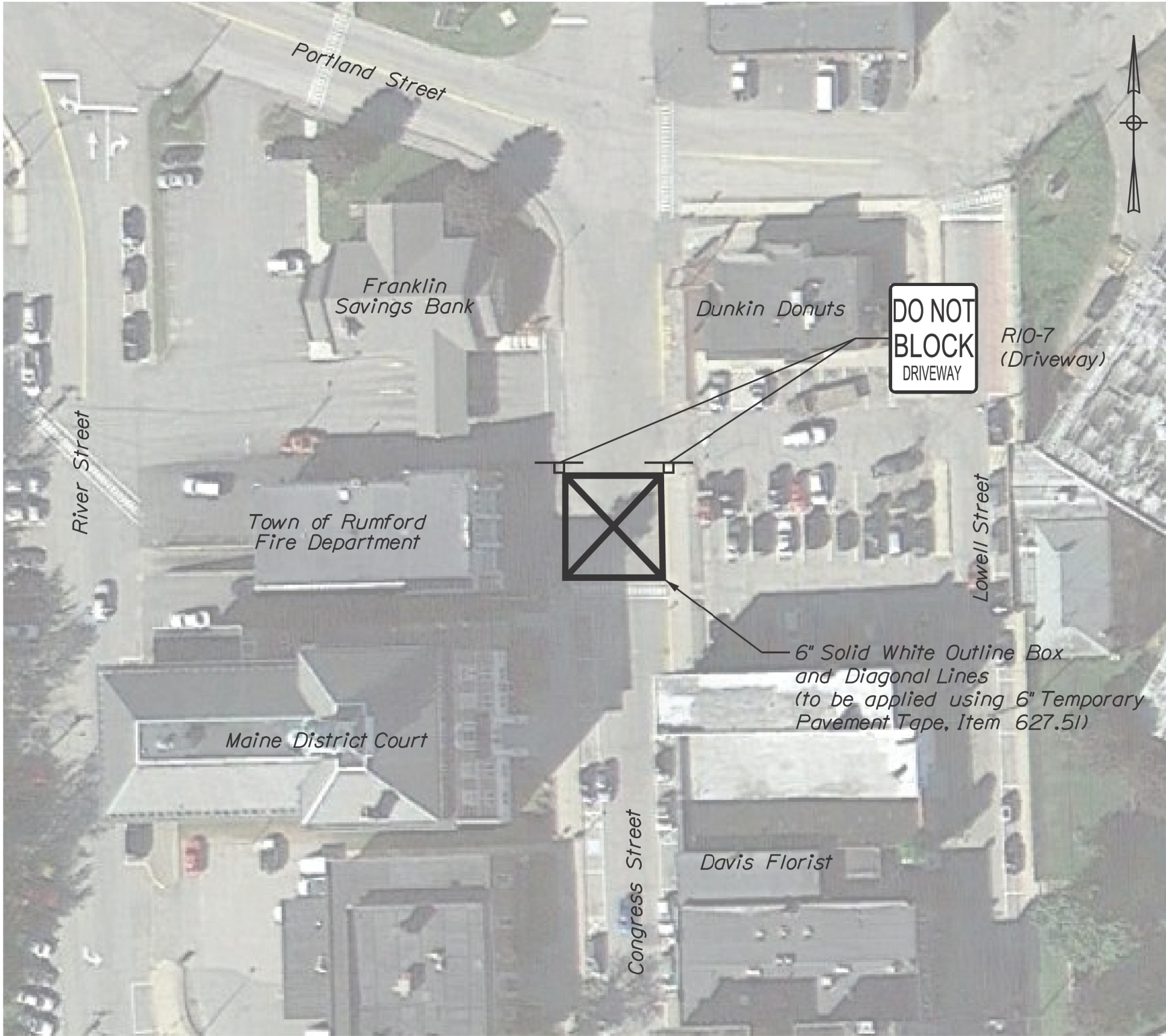
2. All reinforcement bars shall be Plain Reinforcing Steel





DETOUR SIGNING NOTES

1. Exact sign locations will be coordinated between the Contractor and the Resident. Signs shall be in accordance with latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Standard Highway Signs (SHS) book, and the Maine Department of Transportation Standard Details.
2. Portable Changeable Message Signs "PCMS" shall be placed where designated on the Plans or as directed by the Resident 14 days prior to the start of construction to warn of impending detours. These shall then be deployed to locations specified by the Resident once construction has begun if necessary. Payment for these signs, including relocating during construction, shall be included in Item 652.4I, "Portable-Changeable Message Sign."
3. Installation of detour signs shall not block any existing traffic control sign assemblies and shall modify or be placed adjacent to existing sign assemblies when possible. The Contractor shall maintain at least 200 feet between sign assemblies whenever possible.
4. Existing signs that are in conflict with the traffic flow of the detour shall be removed or covered by the Contractor. All signs removed or covered shall be replaced or uncovered when the detour is disassembled. Payment for this work will be incidental to the 652 Items.



DETAIL C
(Not to Scale)

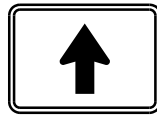






| PCMS MESSAGES | | | | |
|---------------|------------------------|------------------------|------------------------|------------------------|
| | PCMS #1 & #2 | PCMS #3 | PCMS #4 | PCMS #5 |
| SCREEN 1 | RT. 108 TRAFFIC | THROUGH TRAFFIC | THROUGH TRAFFIC | THROUGH TRAFFIC |
| SCREEN 2 | POINTS EAST OF RUMFORD | POINTS WEST OF RUMFORD | POINTS WEST OF RUMFORD | POINTS EAST OF RUMFORD |
| SCREEN 3 | FOLLOW DETOUR | STAY ON RT. 2 | FOLLOW DETOUR | STAY ON RT. 2 |

LEGEND:

- * Black Lettering On Fluorescent Orange Background
- Detour Route
- Sign Post

| | | | | | | | | | | | |
|----------------|--|------------------------------|--|---------------|--|---------|--|---------------------|--|--------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | | 2529300 | | WIN | | BRIDGE NO. 2585 | | BRIDGE PLANS | |
| MORSE BRIDGE | | ANDROSCOGGIN RIVER | | OXFORD COUNTY | | RUMFORD | | DETOUR PLAN: 2 OF 2 | | SHEET NUMBER | |
| 9 | | OF 11 | | | | | | | | | |

| MUTCD NUMBER | SIZE OF SIGN | | TEXT | COLOR | | TEXT DIMENSIONS | | | | | | NUMBER OF SIGNS REQUIRED | SIGN AREA (SQ. FEET) | |
|-----------------|--------------|--------|---------------------------|-----------------|------------------|---|--|---------------------|--|------------------|--|--------------------------------|----------------------|---------------|
| | WIDTH | HEIGHT | | BACK- GROUND | LEGEND BORDER | LETTER HEIGHT | | VERTICAL SPACING | | SHIELD/ ARROW | | | NOM. AREA | TOTAL AREA |
| M1-5 (108) | 30" | 24" | <div>108</div> | WHITE | BLACK | TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" | | | | | | 49 | 5 | 245 |
| M3-2 | 24" | 12" | <div>EAST</div> | WHITE | BLACK | | | | | | | 22 | 2 | 44 |
| M3-4 | 24" | 12" | <div>WEST</div> | WHITE | BLACK | | | | | | | 23 | 2 | 46 |
| M4-4 | 24" | 12" | <div>TRUCK</div> | ORANGE | BLACK | | | | | | | 18 | 2 | 36 |
| M4-5 | 24" | 12" | <div>TO</div> | WHITE | BLACK | | | | | | | 2 | 2 | 4 |
| M4-8A | 24" | 18" | <div>END DETOUR</div> | ORANGE | BLACK | | | | | | | 4 | 3 | 12 |
| M4-8 | 24" | 12" | <div>DETOUR</div> | ORANGE | BLACK | | | | | | | 41 | 2 | 82 |
| M4-10L | 48" | 18" | <div>← DETOUR</div> | ORANGE | BLACK | | | | | | | 1 | 6 | 6 |
| M4-10R | 48" | 18" | <div>DETOUR →</div> | ORANGE | BLACK | | | | | | | 1 | 6 | 6 |
| M5-2L | 21" | 15" | <div>↖</div> | ORANGE | BLACK | | | | | | | 4 | 2.19 | 8.76 |
| M5-2R | 21" | 15" | <div>↗</div> | ORANGE | BLACK | | | | | | | 5 | 2.19 | 10.95 |
| M6-1L | 21" | 15" | <div>←</div> | ORANGE | BLACK | | | | | | | 13 | 2.19 | 28.47 |
| M6-1R | 21" | 15" | <div>→</div> | ORANGE | BLACK | | | | | | | 6 | 2.19 | 13.14 |

| MUTCD NUMBER | SIZE OF SIGN | | TEXT | COLOR | | TEXT DIMENSIONS | | | | | | NUMBER OF SIGNS REQUIRED | SIGN AREA (SQ. FEET) | |
|---------------------|--------------|--------|--|-----------------|------------------|---|--|---------------------|--|------------------|--|--------------------------------|----------------------|---------------|
| | WIDTH | HEIGHT | | BACK- GROUND | LEGEND BORDER | LETTER HEIGHT | | VERTICAL SPACING | | SHIELD/ ARROW | | | NOM. AREA | TOTAL AREA |
| M6-3 | 21" | 15" |  | ORANGE | BLACK | TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" | | | | | | 15 | 2.19 | 32.85 |
| R10-7 (DRIVEWAY) | 24" | 30" |  | WHITE | BLACK | | | | | | | 2 | 5 | 10 |
| R11-2 | 48" | 30" |  | WHITE | BLACK | | | | | | | 2 | 10 | 20 |
| W20-2 | 36" | 36" |  | ORANGE | BLACK | | | | | | | 7 | 9 | 63 |
| W20-3 (AHEAD) | 36" | 36" |  | ORANGE | BLACK | | | | | | | 1 | 9 | 9 |
| CS-1 | 60" | 40" |  | ORANGE | BLACK | 6C 5C 5C 4C | | 4" 4" 4" | | | | 3 | 16.67 | 50 |
| CS-2 | 60" | 40" |  | ORANGE | BLACK | 6C 5C 5C 4C | | 4" 4" 4" | | | | 1 | 16.67 | 16.67 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
RUMFORD
RIGHT OF WAY MAP