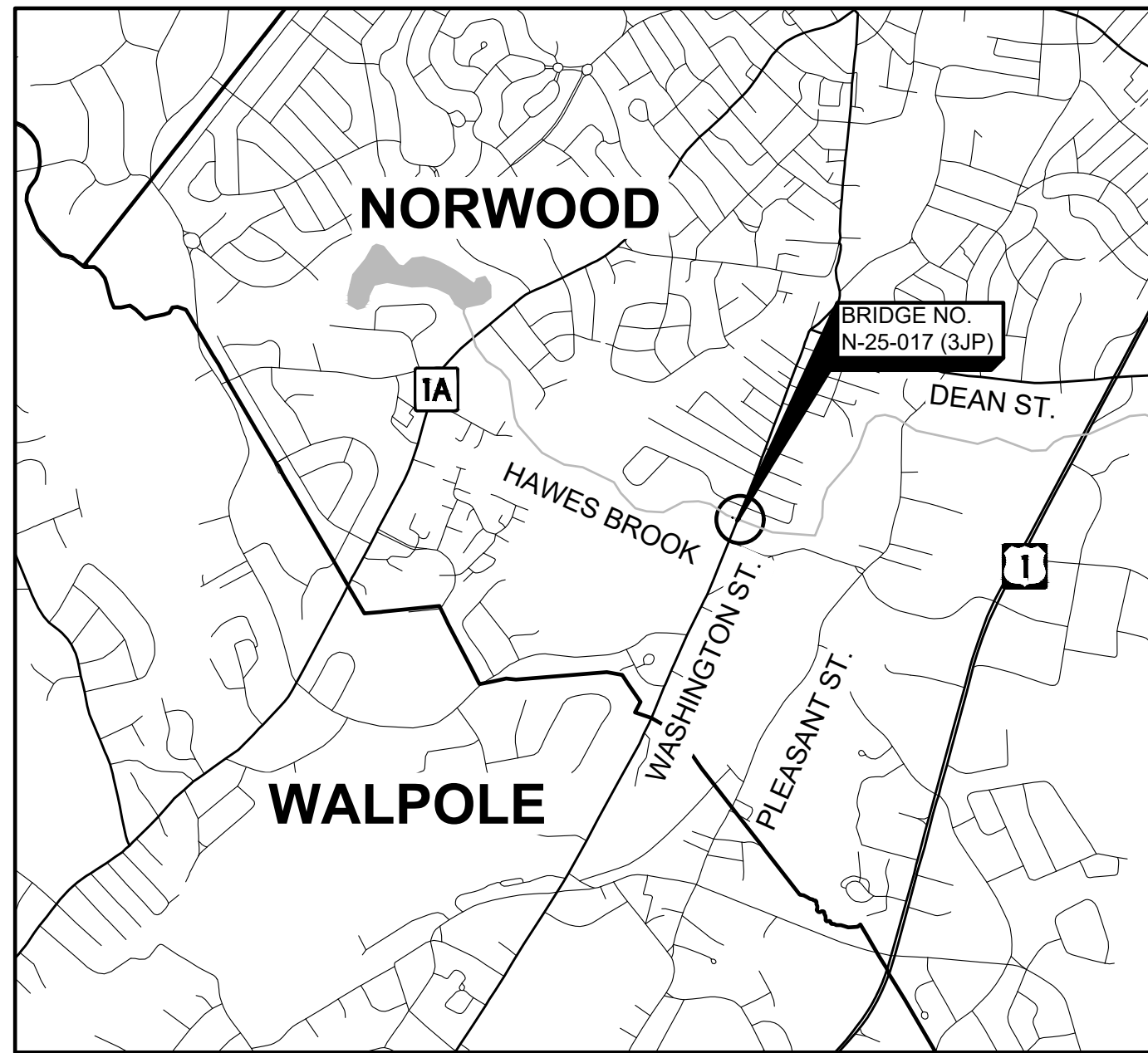
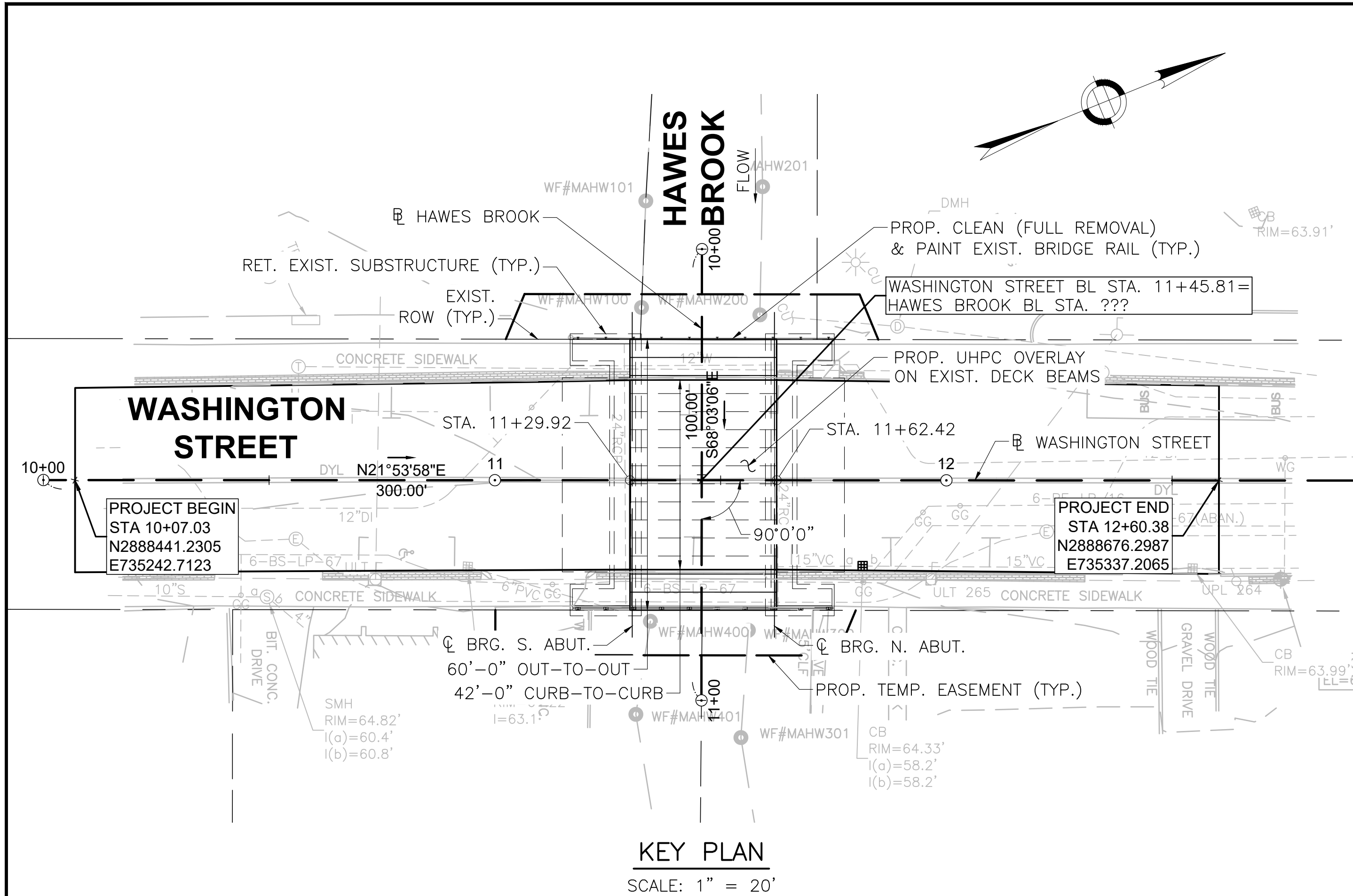




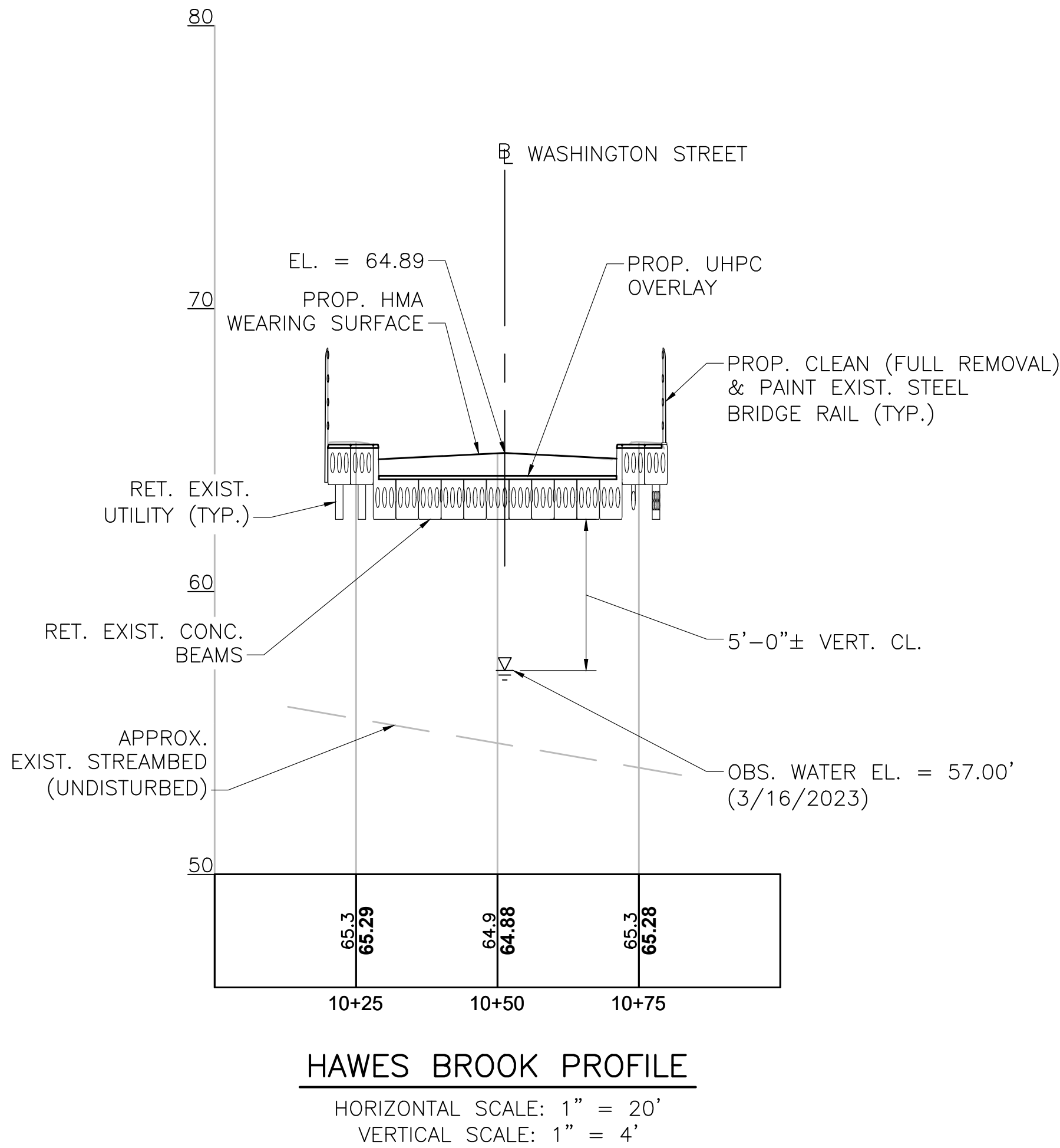
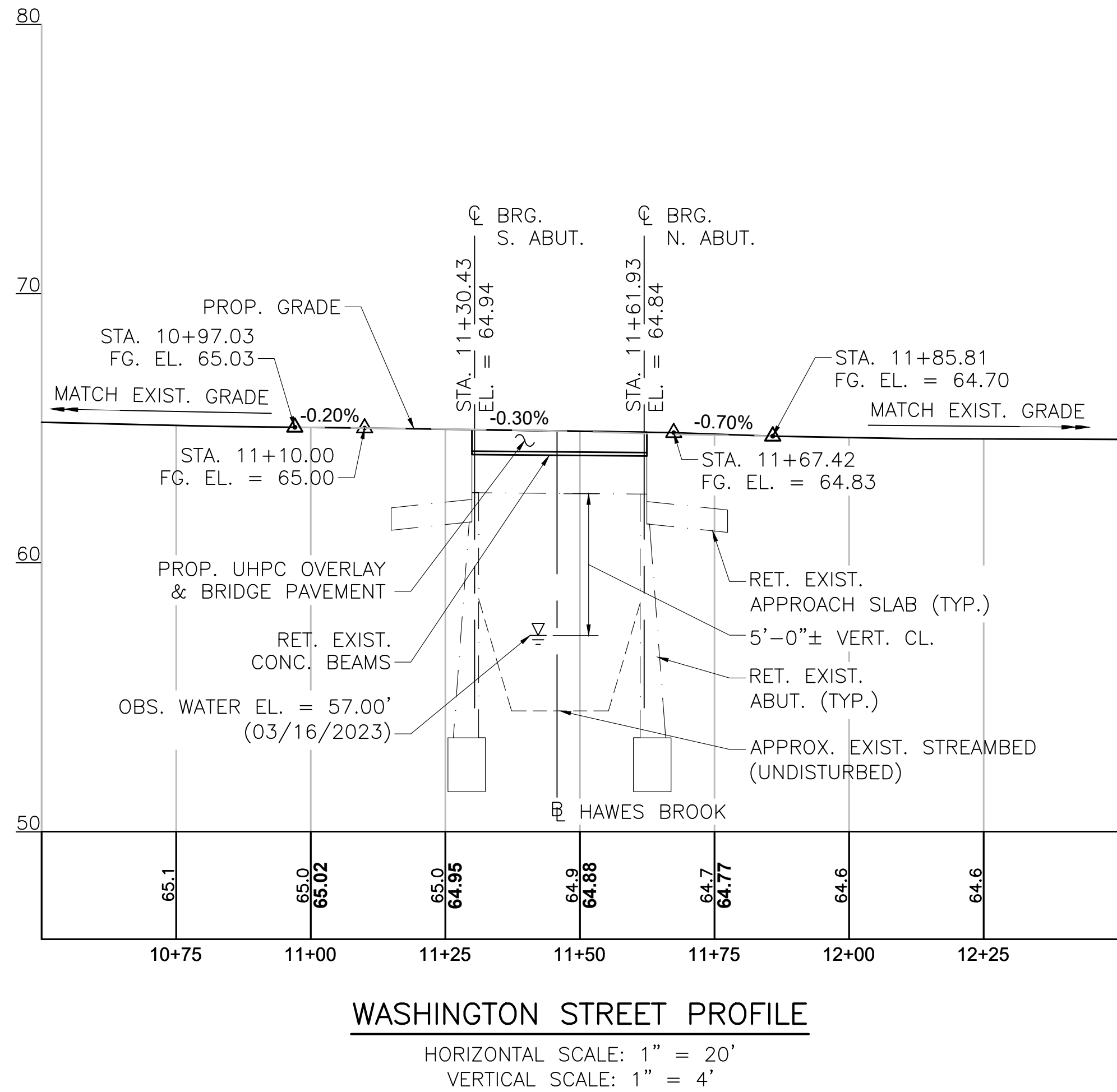
NORWOOD

WASHINGTON STREET OVER HAWES BROOK

| STATE           | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|--------------------|-----------|--------------|
| MA              | -                  | 1         | 13           |
| TEC PROJECT NO. |                    | T1304     |              |

KEY PLAN PROFILE AND LOCUS

| INDEX     |                                  |
|-----------|----------------------------------|
| SHEET NO. | TITLE                            |
| 1         | KEY PLAN PROFILE AND LOCUS       |
| 2         | GENERAL NOTES                    |
| 3         | PLAN AND ELEVATION               |
| 4         | DEMOLITION LIMITS                |
| 5         | SUPERSTRUCTURE REPAIR SCHEDULE   |
| 6         | GRADING & CONSTRUCTION PLAN      |
| 7         | CONSTRUCTION DETAILS (1 OF 2)    |
| 8         | CONSTRUCTION DETAILS (2 OF 2)    |
| 9         | SUPERSTRUCTURE REPAIR DETAILS    |
| 10        | PAVEMENT MARKING PLAN            |
| 11        | TRAFFIC MANAGEMENT PLAN (1 OF 3) |
| 12        | TRAFFIC MANAGEMENT PLAN (2 OF 3) |
| 13        | TRAFFIC MANAGEMENT PLAN (3 OF 3) |



COMMONWEALTH OF MASSACHUSETTS  
MassDOT, Highway Division  
APPROVED UNDER PROVISIONS OF  
MASS. GEN. LAWS CH 85 S 35  
*She Sam* 1/31/2024  
DISTRICT 5 BRIDGE ENGINEER DATE



JANUARY 31, 2024 ISSUED FOR CONSTRUCTION  
PROPOSED BRIDGE PRESERVATION  
NORWOOD  
WASHINGTON STREET  
OVER HAWES BROOK  
TOWN OF NORWOOD  
1 LYMAN PLACE  
NORWOOD, MA 02062



GENERAL NOTES:

DESIGN:

IN ACCORDANCE WITH THE 1983 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, MANUAL FOR MAINTENANCE INSPECTIONS OF BRIDGES, AND INTERIM SPECIFICATIONS, 1984 THROUGH 1988 FOR H20 LOADING AS REFERENCED IN THE EXISTING RATING REPORT.

EXISTING CONDITIONS:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING DETAILS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT ORDER ANY MATERIALS UNTIL THE REQUIRED MEASUREMENTS HAVE BEEN MADE ON THE STRUCTURE. ALL EXISTING BRIDGE DIMENSIONS SHOWN THROUGHOUT THESE PLANS ARE TAKEN FROM THE EXISTING BRIDGE PLANS, DATED 1966.

EXISTING BRIDGE PLANS:

PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE AND HAVE BEEN INCLUDED IN THE BIDDING PACKAGE.

SCALES:

DRAWINGS ARE TO SCALE FOR FULL SIZED SHEETS (24"X36") BUT ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF-SIZE PRINTS (A3).

BENCHMARK:

HYDRANT-BOLT OVER MAIN OUTLET  
EL. 66.62'  
N: 2888680.8185  
E: 735362.5930

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

MATERIALS:

SELF-CONSOLIDATING REPAIR MORTAR: CONCRETE SIDEWALK RESURFACING, PARTIAL AND FULL DEPTH CONCRETE BEAM REPAIRS

ULTRA HIGH PERFORMANCE CONCRETE: PROTECTICE OVERLAY ON TOP OF EXISTING ROADWAY BEAMS (SEE ITEM 476.36)

REINFORCEMENT:

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. ALL REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

| MODIFICATION CONDITION:                                      | #4 BARS | #5 BARS | #6 BARS |
|--------------------------------------------------------------|---------|---------|---------|
| 1. NONE                                                      | 16"     | 19"     | 23"     |
| 2. 12" OF CONCRETE BELOW BAR                                 | 20"     | 25"     | 30"     |
| 3. EPOXY COATED BARS, COVER < 3db, OR<br>CLEAR SPACING < 6db | 23"     | 29"     | 34"     |
| 4. COATED BARS, ALL OTHER CASES                              | 18"     | 23"     | 27"     |
| 5. CONDITION 2. AND 3.                                       | 26"     | 32"     | 39"     |
| 6. CONDITION 2. AND 4.                                       | 24"     | 30"     | 36"     |

ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

STEEL REINFORCEMENT MATS SHALL BE SECURED AGAINST DISPLACEMENT BY TYING INTERSECTION POINTS WITH A MAXIMUM OF TWELVE (12) INCHES BETWEEN TIED JOINTS.

REINFORCEMENT IS TO BE PLACED AT A CLEAR DISTANCE OF TWO (2) INCHES FROM THE FACE OF CONCRETE, UNLESS OTHERWISE SHOWN ON THE PLANS.

MEMBRANE WATERPROOFING

MEMBRANE WATERPROOFING APPLIED BETWEEN THE UHPC OVERLAY AND BRIDGE PAVEMENT SHALL BE MEMBRANE WATERPROOFING FOR BRIDGE DECKS, SPRAY APPLIED.

UTILITIES:

THE CONTRACTOR SHALL LOCATE AND PROTECT FROM DAMAGE ALL EXISTING UTILITIES. ALL EXISTING UTILITIES SHALL REMAIN IN PLACE AND ACTIVE THROUGHOUT THE DURATION OF CONSTRUCTION.

SHOP DRAWINGS:

THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS AS REQUIRED BY THE STANDARD SPECIFICATIONS AND THE LATEST MASSDOT BRIDGE MANUAL.

TRAFFIC CONTROL:

NO WORK SHALL OCCUR IN EACH PHASE UNTIL ALL TEMPORARY TRAFFIC CONTROL FEATURES ARE COMPLETED IN PLACE.

THE CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC THROUGH PHASE 1 AND PHASE 2.

CONSTRUCTION PHASING:

PHASES 1 & 2 ARE PERMITTED TO BE PERFORMED AT ANY TIME DURING THE CONTRACT DURATION, PROVIDED THAT ONLY ONE PHASE IS ONLINE AT A TIME.

PHASES 3 & 4 SHALL BE PERFORMED WITHIN 4-CONSECUTIVE WORK DAYS DURING EITHER THE FOLLOWING RANGE OF DATES:

APRIL 18, 2026 THROUGH APRIL 26, 2026

OR

JULY 6, 2026 THROUGH JULY 31, 2026

TRAFFIC SHALL BE COMPLETELY RESTORED BY THE END OF THE 4TH WORK DAY. CONTRACTOR IS PERMITTED TO WORK ON WEEKEND DAYS, BUT ONLY FOR PHASES 3 & 4 UNLESS OTHERWISE APPROVED BY THE TOWN.

THE CONTRACTOR SHALL COORDINATE WITH THE MBTA IN ADVANCE OF THE WEEKEND CLOSURE ON THE DETOUR FOR BUS ROUTE 34E.

CLEAN (FULL REMOVAL) AND PAINT STEEL RAILINGS:

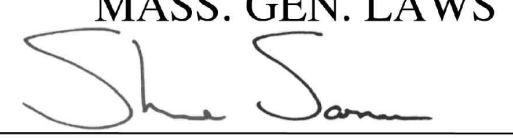
THE EXISTING STEEL BRIDGE RAILINGS AND ALL RELATED ELEMENTS (I.E. POSTS, BASEPLATES, BOLTS, ETC.) SHALL BE PAINTED STRUCTURAL STEEL MEETING THE PROVISIONS OF MASSDOT STANDARD SPECIFICATIONS SECTION 960. THE CONTRACTOR SHALL PAINT THE STEEL RAILINGS ON-SITE. THE RAILINGS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION.

ALL STEEL SHALL BE PAINTED USING A THREE-COAT SYSTEM WITH MATERIALS ACCEPTED BY THE NORTHEAST PROTECTIVE COATING COMMITTEE (NEPCOAT). THE FINISH COLOR SHALL BE DETERMINED AFTER CONTRACT AWARD AND SHALL BE COORDINATED WITH THE TOWN OF NORWOOD.

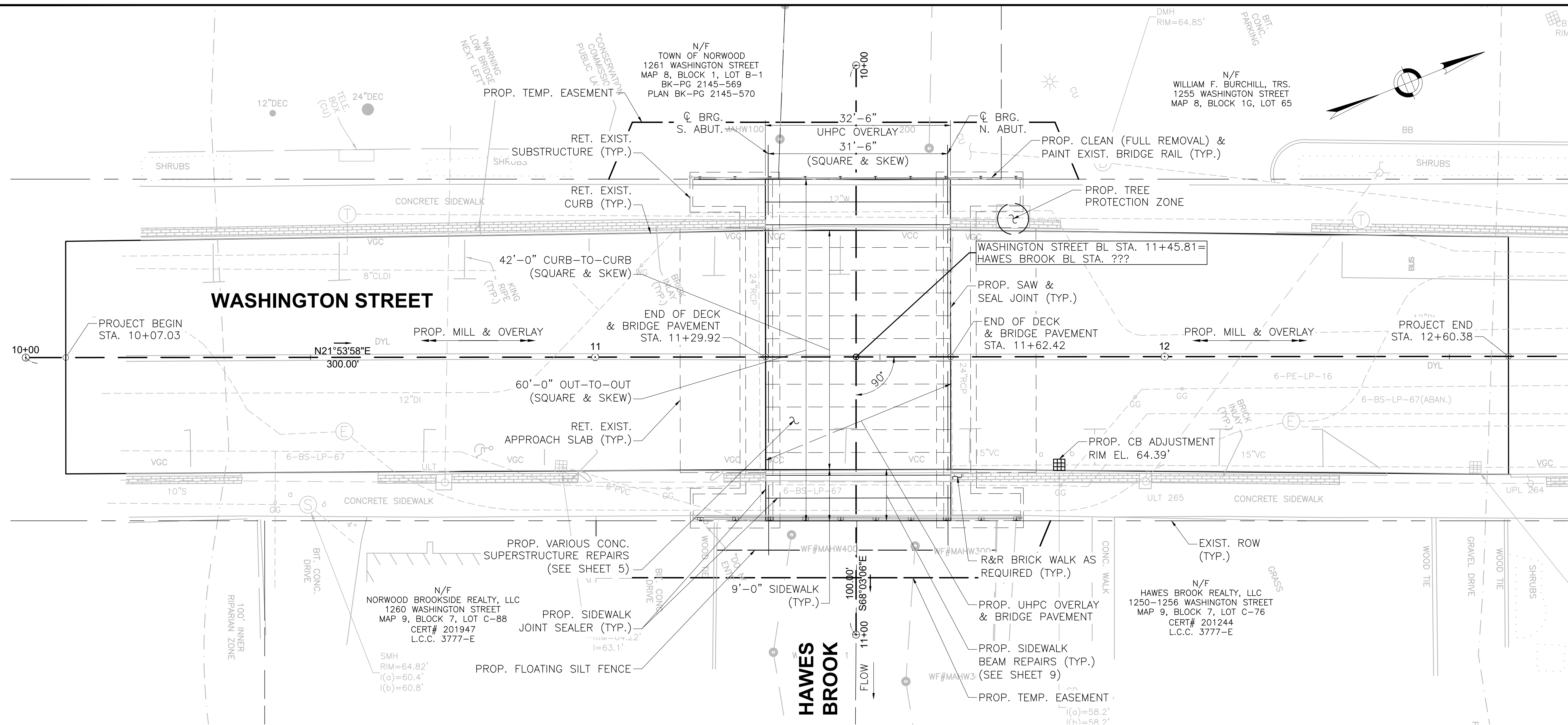
NORWOOD  
WASHINGTON STREET OVER HAWES BROOK

| STATE           | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|--------------------|-----------|--------------|
| MA              | -                  | 2         | 13           |
| TEC PROJECT NO. |                    | T1304     |              |

GENERAL NOTES

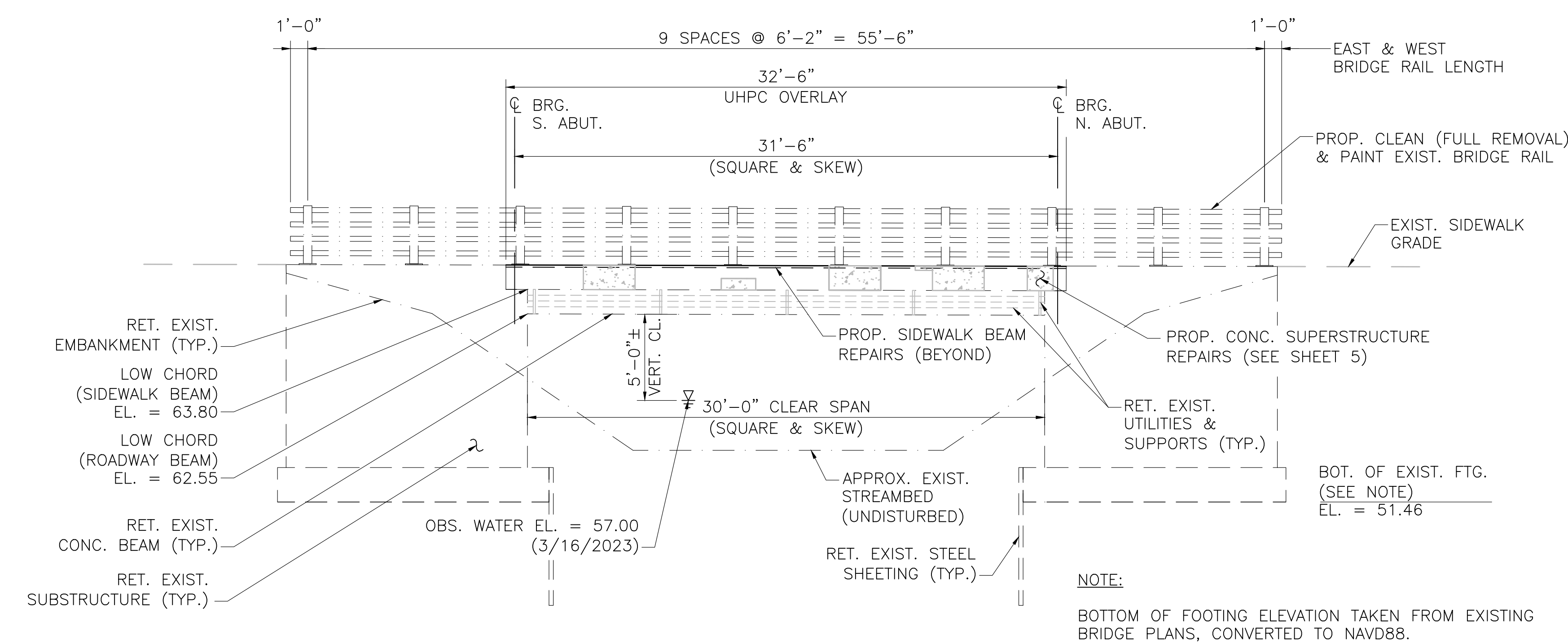
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MassDOT, Highway Division  
APPROVED UNDER PROVISIONS OF  
MASS. GEN. LAWS CH 85 S 35  
  
DISTRICT 5 BRIDGE ENGINEER  
1/31/2024  
DATE





PLAN  
SCALE: 1" = 10'

- NOTES:
- REFER TO CONSTRUCTION PLANS AND TEMPORARY TRAFFIC CONTROL PLANS FOR ADDITIONAL INFORMATION.
  - EXISTING BRIDGE GEOMETRY, DIMENSIONS, ELEVATIONS, ETC. ARE TAKEN FROM THE RECORD BRIDGE PLANS, DATED 1966. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO ORDERING MATERIALS.
  - ALL EXISTING UTILITIES SHALL REMAIN IN PLACE AND ACTIVE THROUGHOUT THE DURATION OF CONSTRUCTION.



EAST ELEVATION (WEST SIMILAR)  
SCALE: 1" = 5'

NOTE:  
BOTTOM OF FOOTING ELEVATION TAKEN FROM EXISTING BRIDGE PLANS, CONVERTED TO NAVD88.

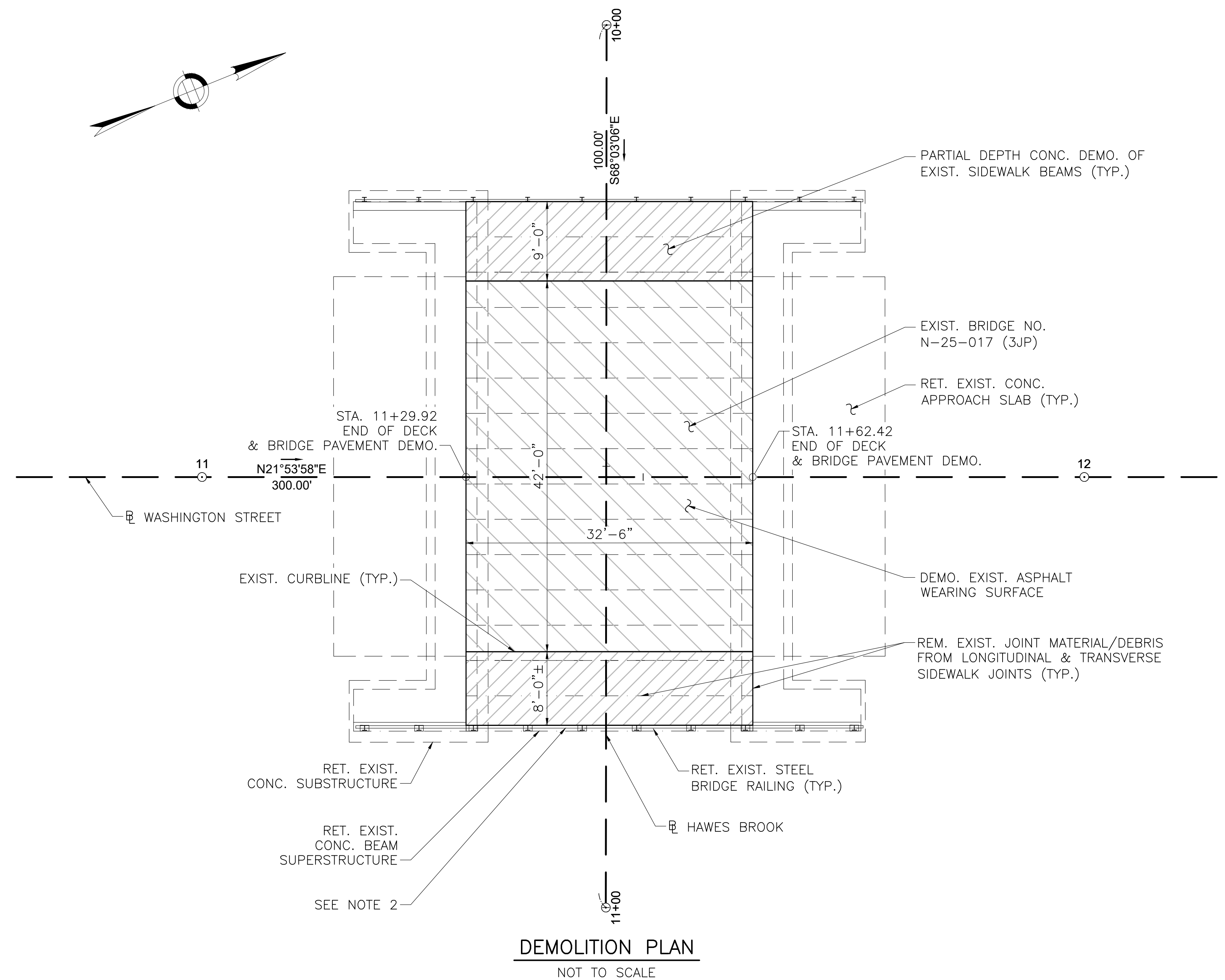
COMMONWEALTH OF MASSACHUSETTS  
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DISTRICT 5 BRIDGE ENGINEER DATE



NORWOOD  
WASHINGTON STREET OVER HAWES BROOK

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 4         | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

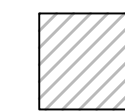
DEMOLITION LIMITS

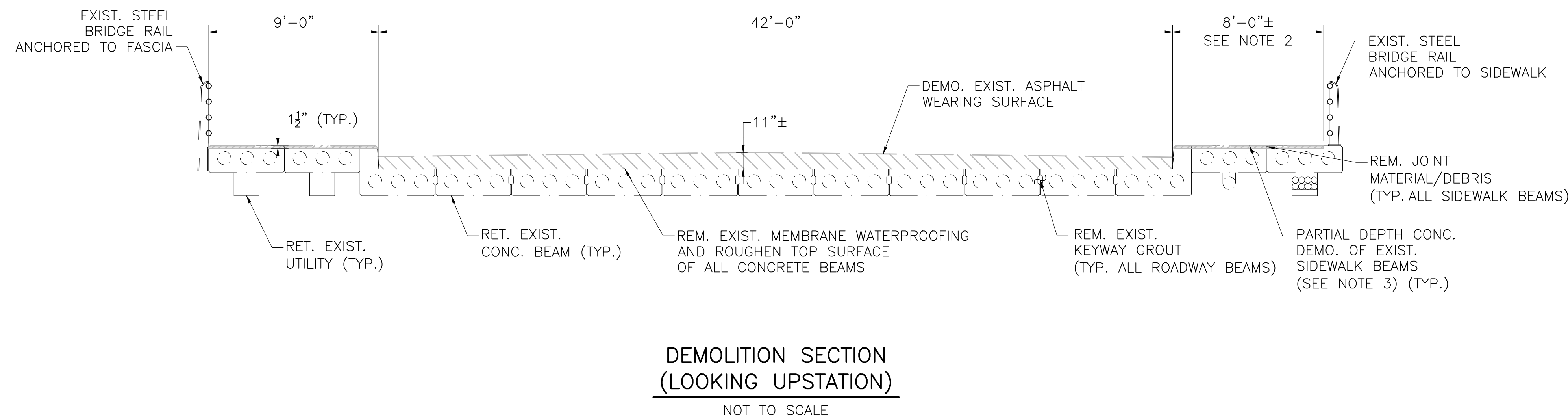


DEMOLITION NOTES:

- EXISTING BRIDGE GEOMETRY SHOWN THROUGHOUT THIS SHEET IS BASED ON EXISTING BRIDGE PLANS AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY AS-BUILT BRIDGE DIMENSIONS PRIOR TO DEMOLITION.
- EAST SIDEWALK DEMOLITION SHALL TERMINATE AT THE FRONT EDGE OF THE GUARDRAIL BASEPLATE.
- CONTRACTOR SHALL TAKE CARE NOT TO EXPOSE PRESTRESSING STRANDS DURING CONCRETE BEAM EXCAVATION. ANY DAMAGE TO PRESTRESSING STRANDS DUE TO DEMOLITION OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- DEMOLITION OF THE EXISTING ASPHALT WEARING SURFACE SHALL BE PERFORMED DURING FULL CLOSURE AS SHOWN IN THE TEMPORARY TRAFFIC CONTROL PLANS.
- PARTIAL DEMOLITION OF EXISTING SIDEWALK BEAMS SHALL BE PERFORMED DURING SHOULDER CLOSURES AS SHOWN IN THE TEMPORARY TRAFFIC CONTROL PLANS.
- DEMOLITION SHALL NOT BEGIN UNTIL EXISTING UTILITIES ARE LOCATED AND PROTECTED FROM DAMAGE, TEMPORARY TRAFFIC SAFETY FEATURES ARE IN PLACE, AND TEMPORARY TRAFFIC SIGNAGE IS APPROVED BY THE ENGINEER.
- TEMPORARY SHIELDING SHALL BE INSTALLED BENEATH THE BRIDGE PRIOR TO BEGINNING ANY CONCRETE REPAIRS.

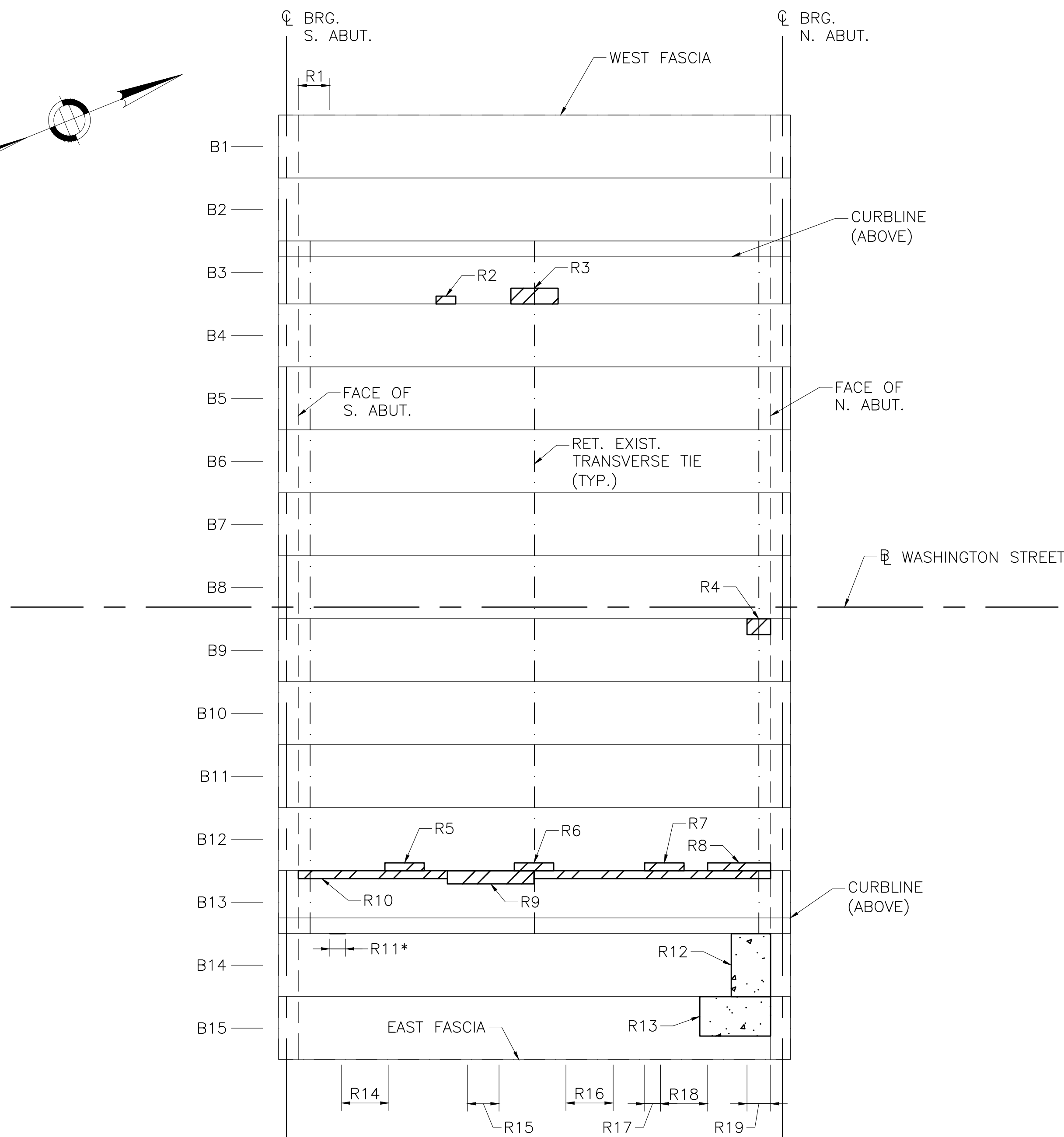
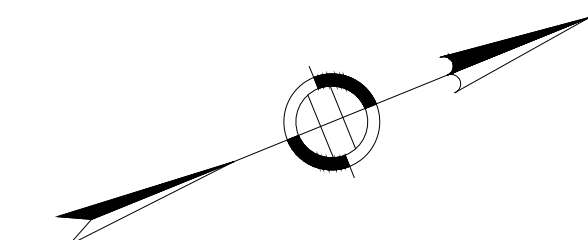
LEGEND:

-  LIMITS OF BRIDGE PAVEMENT DEMO.
-  LIMITS OF CONC. SIDEWALK BEAM DEMO.



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MassDOT, Highway Division  
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MASS. GEN. LAWS CH 85 S 35  
 1/31/2024  
DISTRICT 5 BRIDGE ENGINEER DATE





- NOTES:
- INTERNAL BEAM VOIDS NOT SHOWN FOR CLARITY.
  - DETERIORATION SHOWN ARE ALL LOCATED ON THE UNDERSIDE OF THE SUPERSTRUCTURE UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL TAKE CARE NOT TO EXPOSE TRANSVERSE TIES DURING CONCRETE BEAM EXCAVATION. ANY DAMAGE TO TRANSVERSE TIES DUE TO DEMOLITION OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

### SUPERSTRUCTURE REPAIR PLAN

NOT TO SCALE

#### LEGEND:

- DELAMINATION
- CONCRETE CRACKING
- SPALL
- SPALL W/ EXPOSED REBAR

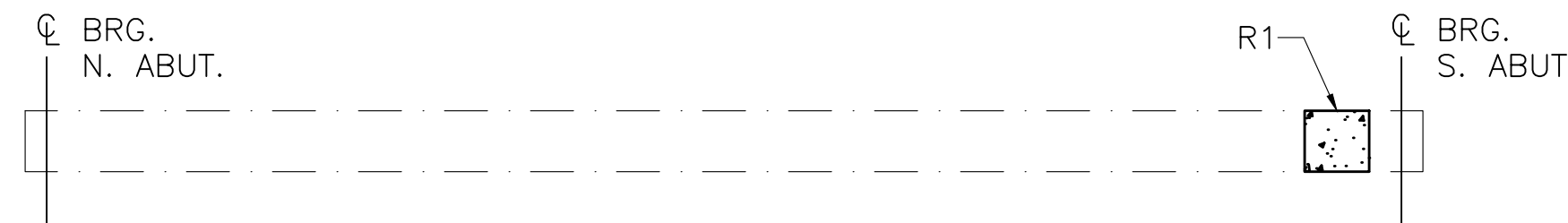
#### NOTES:

- BRIDGE ORIENTATION AND LABELING IS PER THE MASSDOT ROUTINE INSPECTION REPORT DATED 06-10-2021.
- THE DETERIORATED AREAS INDICATED HEREIN ARE BASED ON AVAILABLE INFORMATION AND ARE NOT INTENDED TO BE ALL INCLUSIVE, RATHER A REPRESENTATION OF THE REPAIRS TO BE PERFORMED. THE ENGINEER SHALL SOUND ALL CONCRETE SURFACES IN THE FIELD AND MARK OUT ALL REPAIR LOCATIONS BEFORE THE CONTRACTOR COMMENCES ANY REPAIRS.
- ALL DETERIORATED BEAM CONCRETE SHALL BE EXCAVATED TO THE LIMITS SPECIFIED ON SHEET 9.
- EXISTING BRIDGE PAVEMENT OVER BEAMS 3-13 OBSTRUCTS VIEW OF THE TOP SURFACE CONDITIONS. ENGINEER SHALL SOUND THE TOP SURFACE OF THE BEAMS TO IDENTIFY REPAIR LOCATIONS ONCE BRIDGE PAVEMENT DEMOLITION IS COMPLETE.

### NORWOOD WASHINGTON STREET OVER HAWES BROOK

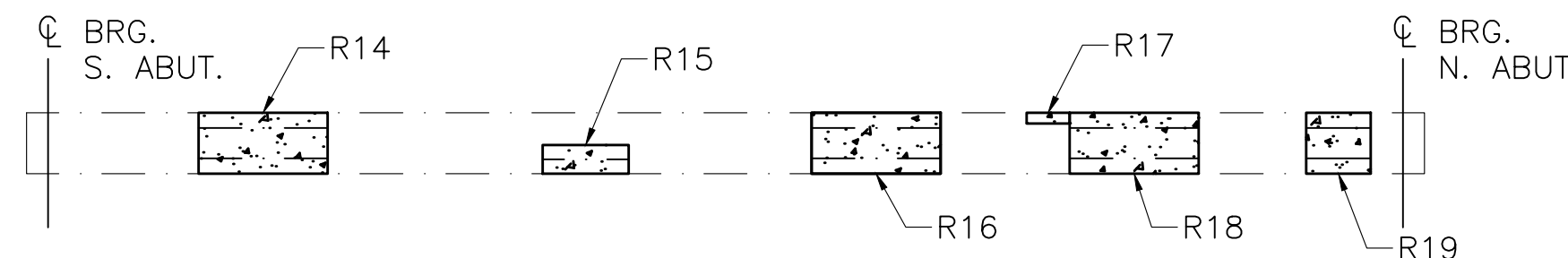
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 5         | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

### SUPERSTRUCTURE REPAIR SCHEDULE



### BEAM 1 REPAIR ELEVATION (LOOKING EAST)

NOT TO SCALE



### BEAM 15 REPAIR ELEVATION (LOOKING WEST)

NOT TO SCALE

| SUPERSTRUCTURE REPAIR SCHEDULE |          |                        |                     |              |             |           |
|--------------------------------|----------|------------------------|---------------------|--------------|-------------|-----------|
| REPAIR NO.                     | BEAM NO. | DEFICIENCY             | ASSUMED REPAIR TYPE | LENGTH (IN.) | WIDTH (IN.) | AREA (SF) |
| R1                             | B1       | SPALL W/ EXPOSED REBAR | FULL DEPTH          | 24           | 17          | 3.00      |
| R2                             | B3       | DELAMINATION           | PARTIAL DEPTH       | 15           | 6           | 1.00      |
| R3                             | B3       | DELAMINATION           | PARTIAL DEPTH       | 36           | 12          | 3.00      |
| R4                             | B9       | DELAMINATION           | PARTIAL DEPTH       | 18           | 12          | 2.00      |
| R5                             | B12      | DELAMINATION           | PARTIAL DEPTH       | 30           | 6           | 2.00      |
| R6                             | B12      | DELAMINATION           | PARTIAL DEPTH       | 30           | 6           | 2.00      |
| R7                             | B12      | DELAMINATION           | PARTIAL DEPTH       | 30           | 6           | 2.00      |
| R8                             | B12      | DELAMINATION           | PARTIAL DEPTH       | 48           | 6           | 2.00      |
| R9                             | B13      | DELAMINATION           | PARTIAL DEPTH       | 66           | 10          | 5.00      |
| R10                            | B13      | DELAMINATION           | PARTIAL DEPTH       | FL           | 6           | 15.00     |
| R11*                           | B13      | SPALL                  | PARTIAL DEPTH       | 12           | 4           | 1.00      |
| R12                            | B14      | SPALL                  | PARTIAL DEPTH       | 30           | FW          | 10.00     |
| R13                            | B15      | SPALL                  | PARTIAL DEPTH       | 54           | 30          | 12.00     |
| R14                            | B15      | SPALL W/ EXPOSED REBAR | FULL DEPTH          | 36           | FH          | 12.00     |
| R15                            | B15      | SPALL W/ EXPOSED REBAR | FULL DEPTH          | 24           | 8           | 2.00      |
| R16                            | B15      | SPALL W/ EXPOSED REBAR | FULL DEPTH          | 36           | FH          | 12.00     |
| R17                            | B15      | SPALL                  | PARTIAL DEPTH       | 18           | 4           | 1.00      |
| R18                            | B15      | SPALL W/ EXPOSED REBAR | FULL DEPTH          | 36           | FH          | 12.00     |
| R19                            | B15      | SPALL W/ EXPOSED REBAR | PARTIAL DEPTH       | 18           | 12          | 2.00      |

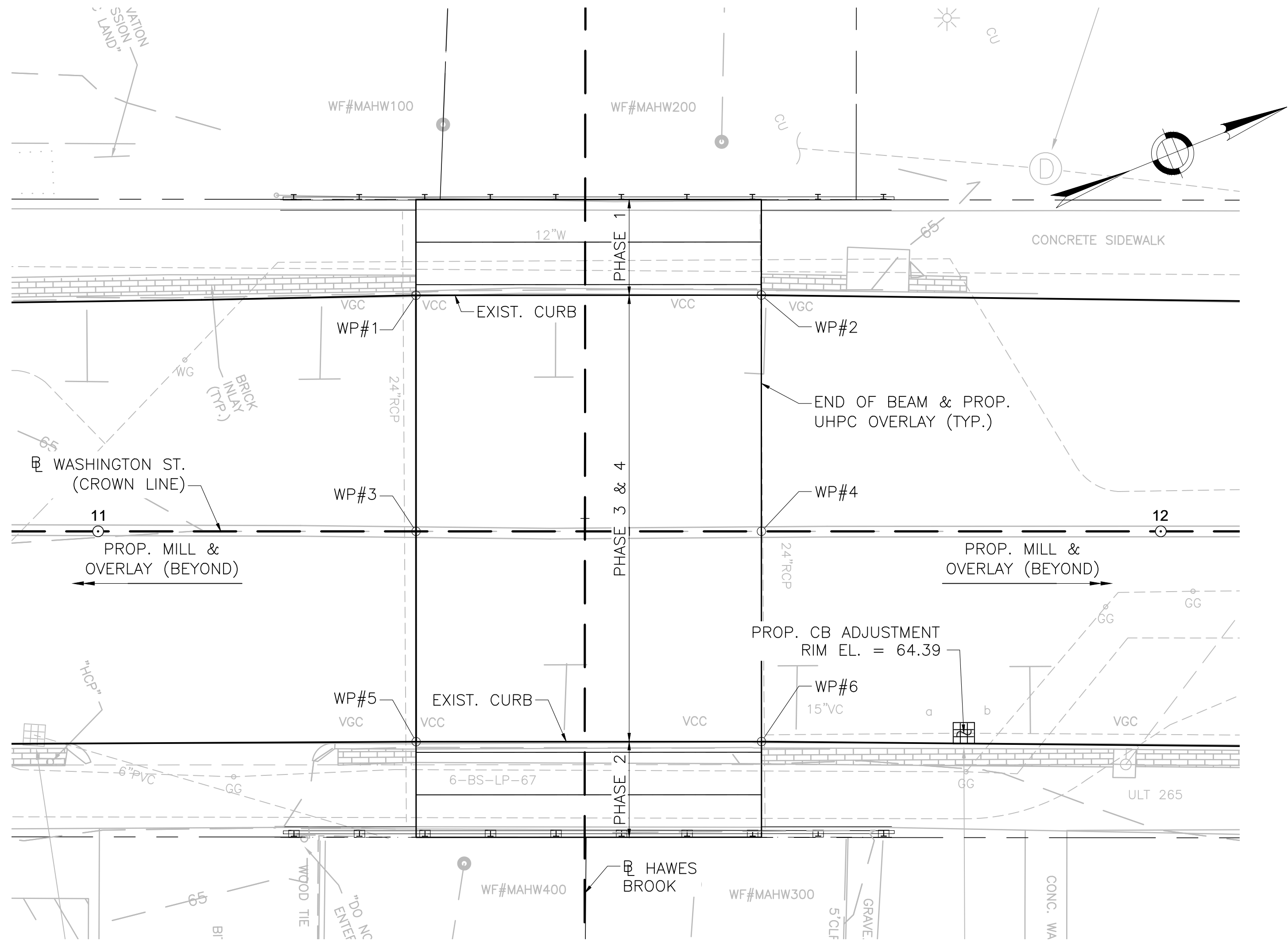
\*SPALL LOCATED ON THE EXPOSED VERTICAL FACE OF B13

| REPAIR SUMMARY          |          |    |
|-------------------------|----------|----|
| DEFICIENCY              | QUANTITY |    |
| DELAMINATION            | 34.00    | SF |
| SPALL                   | 24.00    | SF |
| SPALL W/ EXPOSED REBAR  | 43.00    | SF |
| ASSUMED TOPSIDE REPAIRS | 60.00    | SF |

NOTE: TOPSIDE REPAIRS ASSUME PARTIAL DEPTH ONLY

|                                      |           |
|--------------------------------------|-----------|
| <b>COMMONWEALTH OF MASSACHUSETTS</b> |           |
| <b>MassDOT, Highway Division</b>     |           |
| APPROVED UNDER PROVISIONS OF         |           |
| MASS. GEN. LAWS CH 85 S 35           |           |
|                                      | 1/31/2024 |
| DISTRICT 5 BRIDGE ENGINEER           | DATE      |

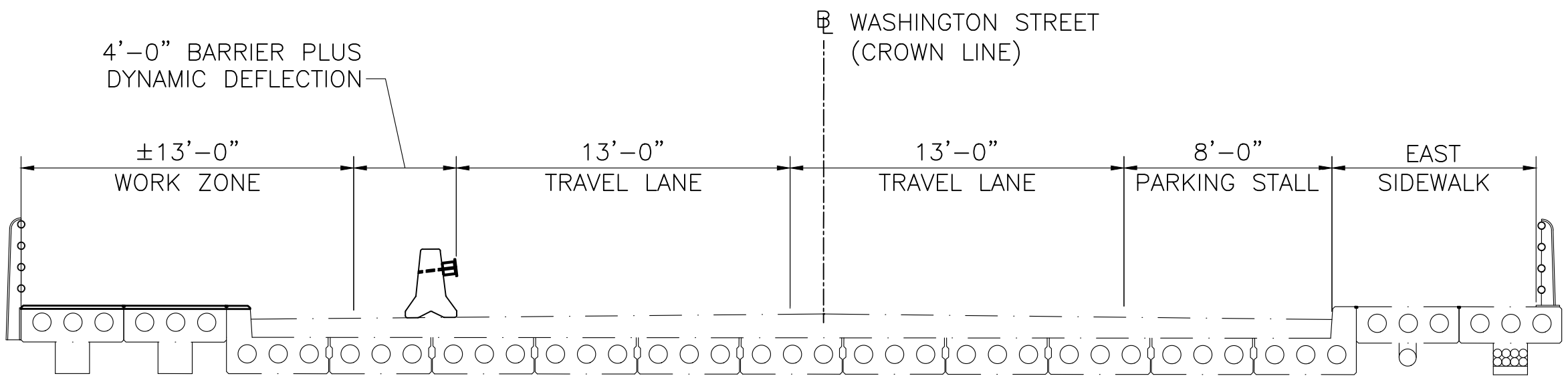




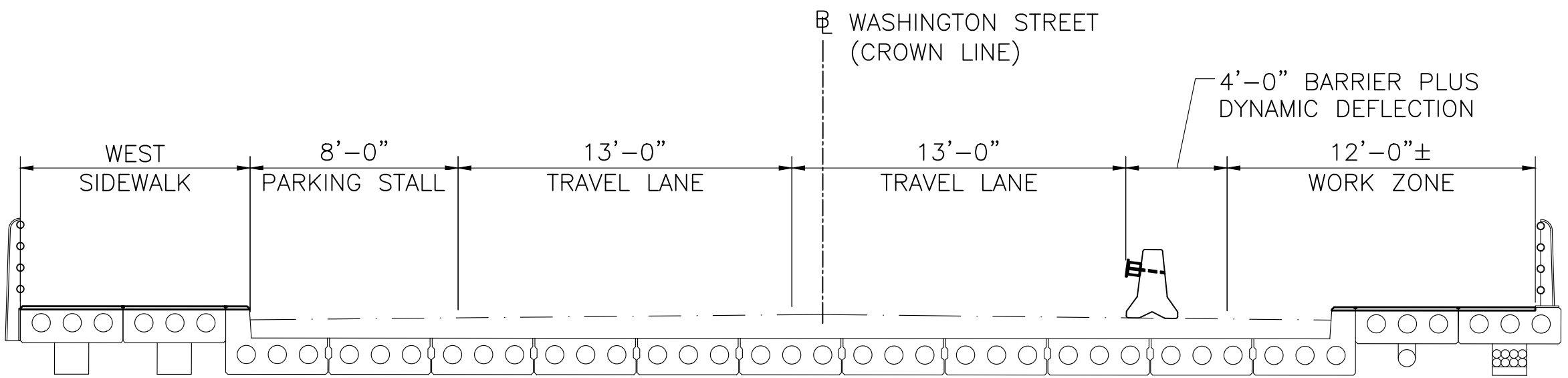
CONSTRUCTION PLAN  
SCALE: 1" = 8'

- CONSTRUCTION NOTES:
- WORK FOR EACH PHASE SHALL NOT COMMENCE UNTIL TRAFFIC CONTROL DEVICES ARE COMPLETED IN PLACE.
  - NORTH AND SOUTH APPROACH WORK SHALL TAKE PLACE DURING PHASE 4, SEE TTCP SHEET 12.
  - TOPSIDE REHABILITATION OF ROADWAY BEAMS SHALL TAKE PLACE CONCURRENTLY WITH TOPSIDE WORK. UNDERSIDE REHABILITATION OF ROADWAY BEAMS SHALL TAKE PLACE DURING ANY CONSTRUCTION PHASE.
  - REFER TO TEMPORARY TRAFFIC CONTROL SHEETS FOR ADDITIONAL INFORMATION ON CONSTRUCTION PHASING.
- CONSTRUCTION PHASE NOTES:
- PHASE 1: WEST SIDEWALK & PARKING LANE CLOSURE FOR SIDEWALK SURFACE REHABILITATION  
WEST BRIDGE RAIL CLEAN & PAINT
- PHASE 2: EAST SIDEWALK & PARKING LANE CLOSURE FOR SIDEWALK SURFACE REHABILITATION  
EAST BRIDGE RAIL CLEAN & PAINT
- PHASE 3: FULL CLOSURE FOR BRIDGE PAVEMENT DEMOLITION, TOPSIDE BEAM REHABILITATION, MEMBRANE WATERPROOFING, AND INSTALLATION OF UHPC OVERLAY
- PHASE 4: FULL CLOSURE FOR BRIDGE PAVEMENT AND MILLING & PAVING APPROACHES

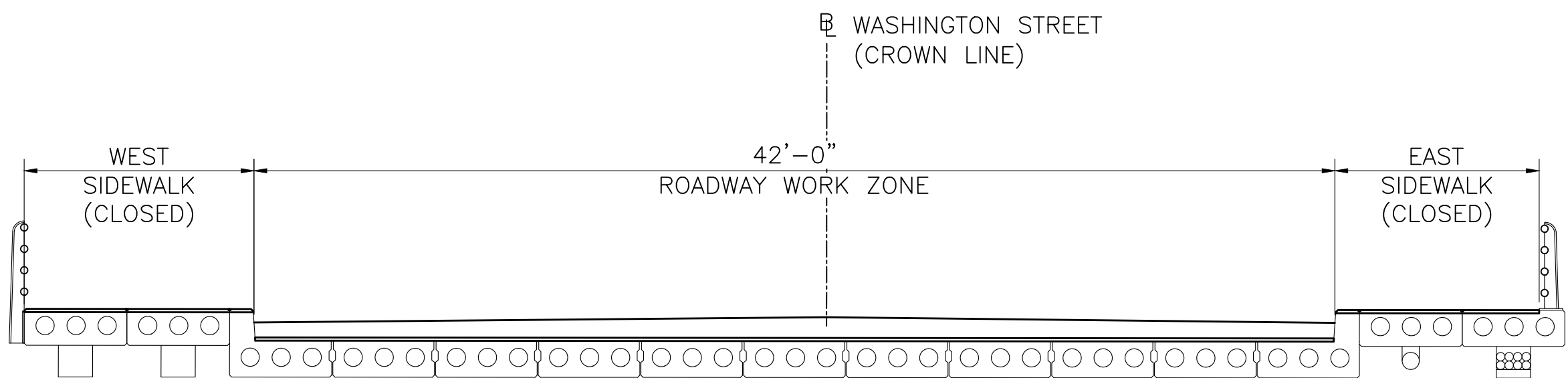
| WORK POINT TABLE |          |           |              |
|------------------|----------|-----------|--------------|
| WP               | STATION  | OFFSET    | FG ELEVATION |
| 1                | 11+29.91 | 22.21' LT | 64.72'       |
| 2                | 11+62.41 | 22.22' LT | 64.64'       |
| 3                | 11+29.92 | 0.00      | 64.94'       |
| 4                | 11+62.42 | 0.00      | 64.84'       |
| 5                | 11+29.92 | 19.79' RT | 64.74'       |
| 6                | 11+62.43 | 19.78' RT | 64.64'       |



PHASE 1 CROSS SECTION  
SCALE: 1" = 5'



PHASE 2 CROSS SECTION  
SCALE: 1" = 5'

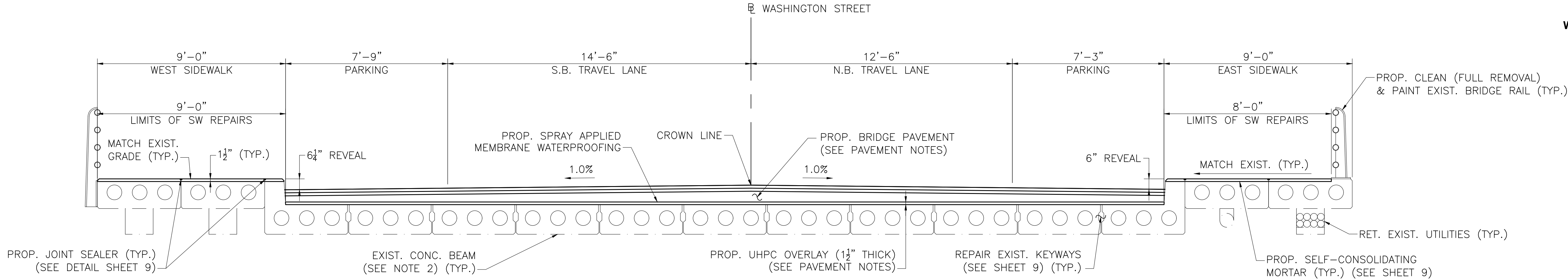


- NOTES:
- ROAD CLOSURE TO PERFORM WORK DESCRIBED IN PHASES 3 AND 4 SHALL OCCUR DURING A PERIOD OF 4 CONSECUTIVE WORK DAYS. TRAFFIC SHALL BE COMPLETELY RESTORED BY 3:00PM ON THE 4TH WORK DAY.
  - REFER TO TRAFFIC MANAGEMENT PLANS FOR ADDITIONAL INFORMATION ON BARRIER AND SIGN PLACEMENT.

PHASE 3 & 4 CROSS SECTION  
SCALE: 1" = 5'

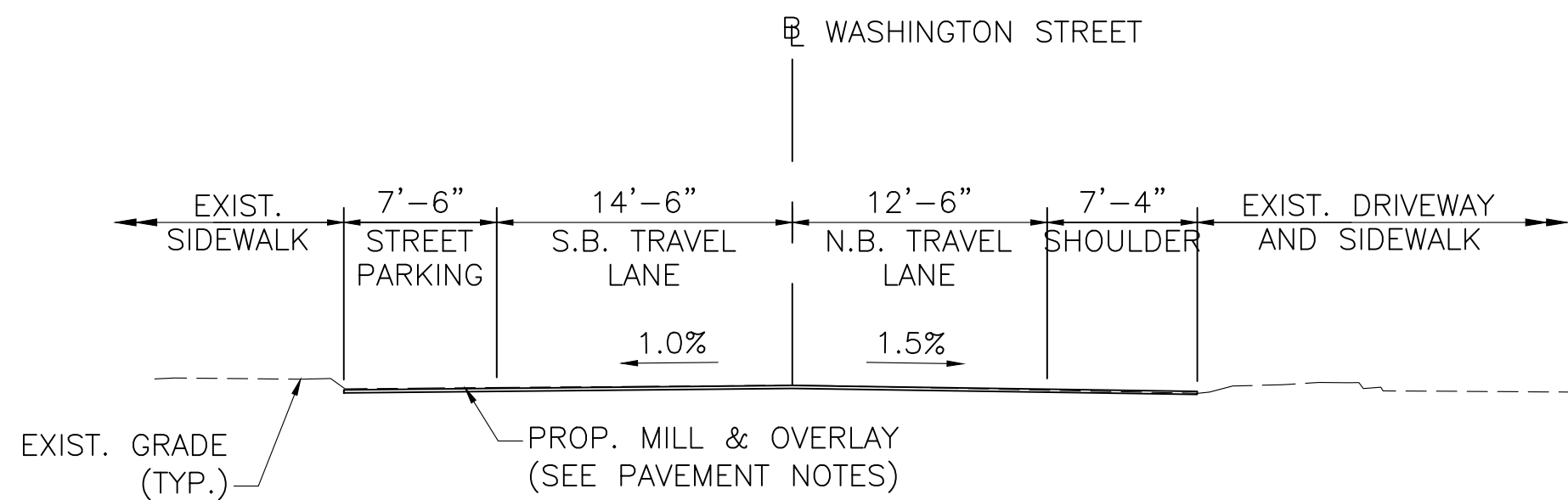
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DISTRICT 5 BRIDGE ENGINEER      DATE 1/31/2024





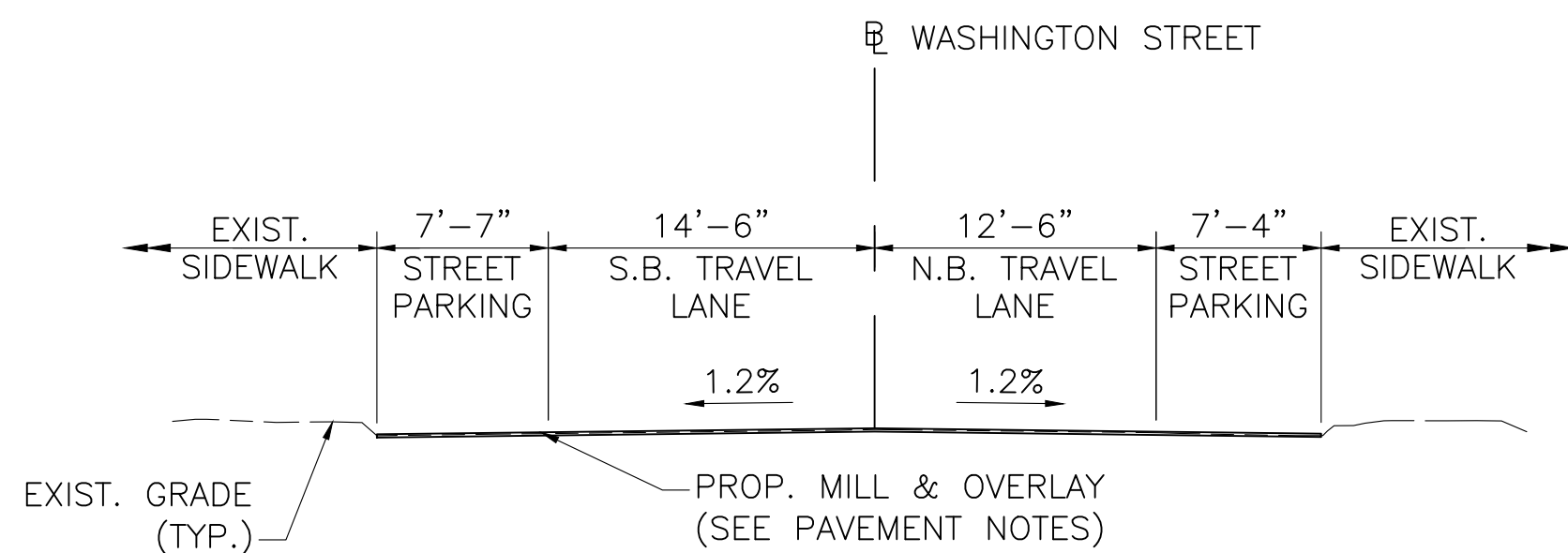
- NOTES:
- EXISTING BRIDGE GEOMETRY SHOWN THROUGHOUT THIS SHEET IS BASED ON EXISTING BRIDGE PLANS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY AS-BUILT BRIDGE DIMENSIONS PRIOR TO DEMOLITION.
  - TOP SURFACE OF ALL CONCRETE BEAMS SHALL BE ROUGHENED AND SOUNDED FOR DEFICIENCIES PRIOR TO PLACEMENT OF PROPOSED OVERLAYS. REFER TO DEMOLITION DETAILS ON SHEET 4.

TRANSVERSE SECTION  
SCALE: 3/8" = 1'-0"



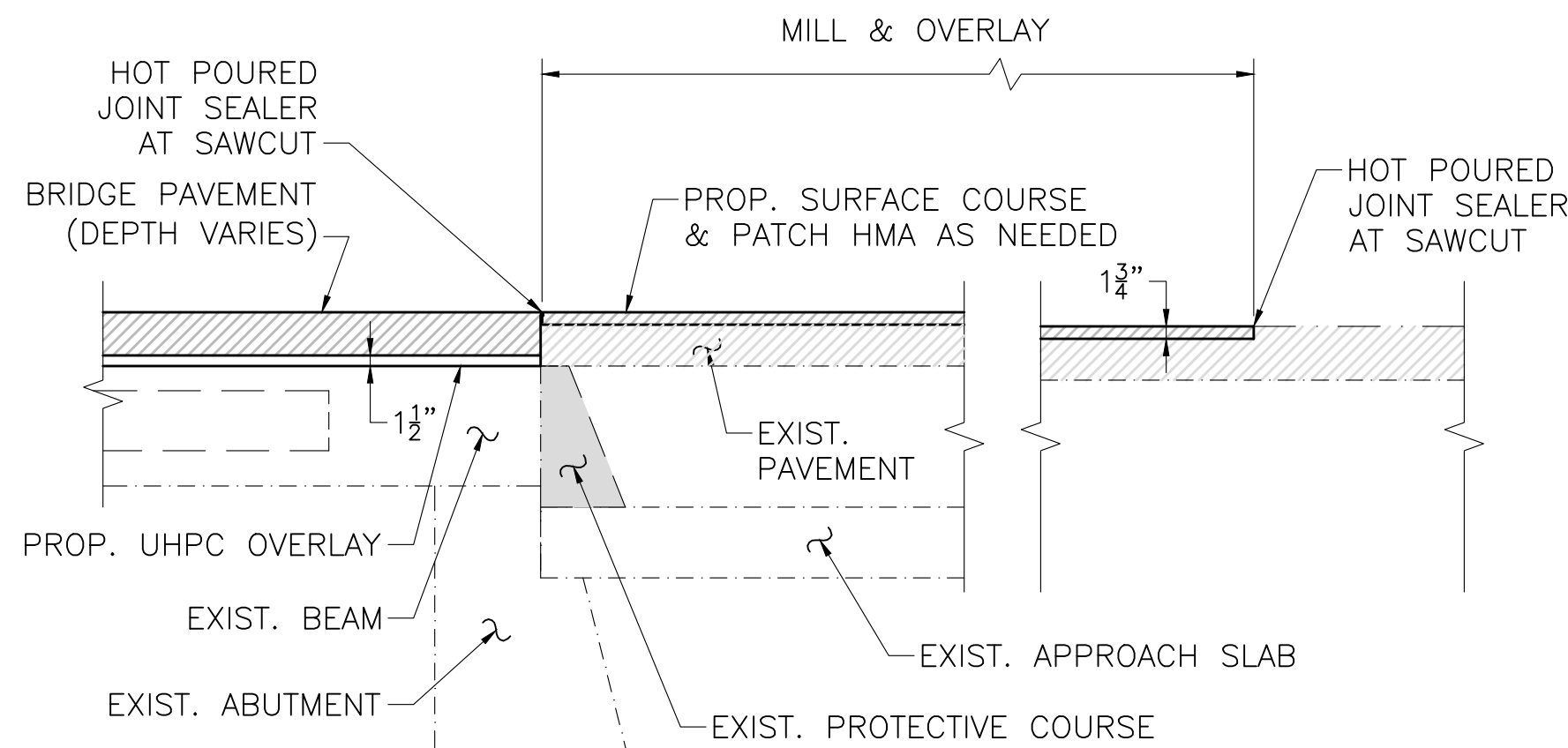
NOTE:  
SOUTH ROADWAY APPROACH SECTION TAKEN AT STATION 11+20.00 LOOKING UPSTATION.

SOUTH ROADWAY APPROACH SECTION  
NOT TO SCALE



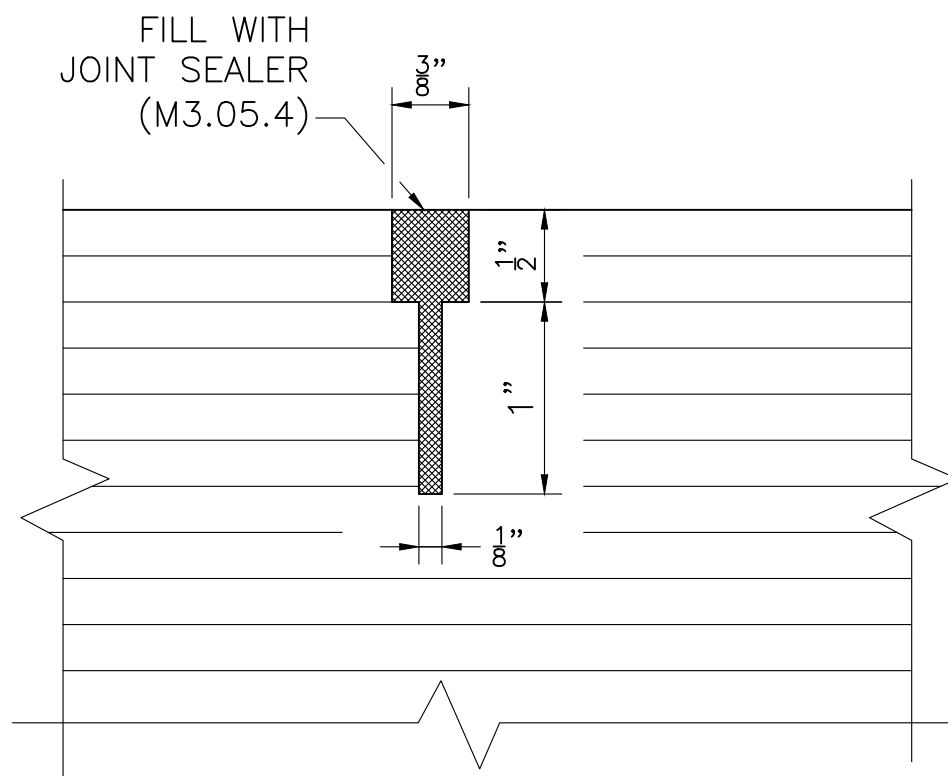
NOTE:  
NORTH ROADWAY APPROACH SECTION TAKEN AT STATION 11+70.00 LOOKING UPSTATION.

NORTH ROADWAY APPROACH SECTION  
NOT TO SCALE



NOTE:  
SEE LIMITS OF PAVEMENT NOTES FOR LENGTH OF PAVEMENT MILLING & OVERLAY.

END OF DECK DETAIL  
SCALE: 1 1/2" = 1'-0"



PAVEMENT SAWCUT DETAIL  
NOT TO SCALE

LIMITS OF PAVEMENT:

PROPOSED BRIDGE PAVEMENT  
STA 11+29.92 TO STA. 11+62.42

PROPOSED HMA MILLING AND OVERLAY  
STA. 10+07.03 TO STA. 11+29.92  
STA. 11+62.42 TO STA. 12+60.38

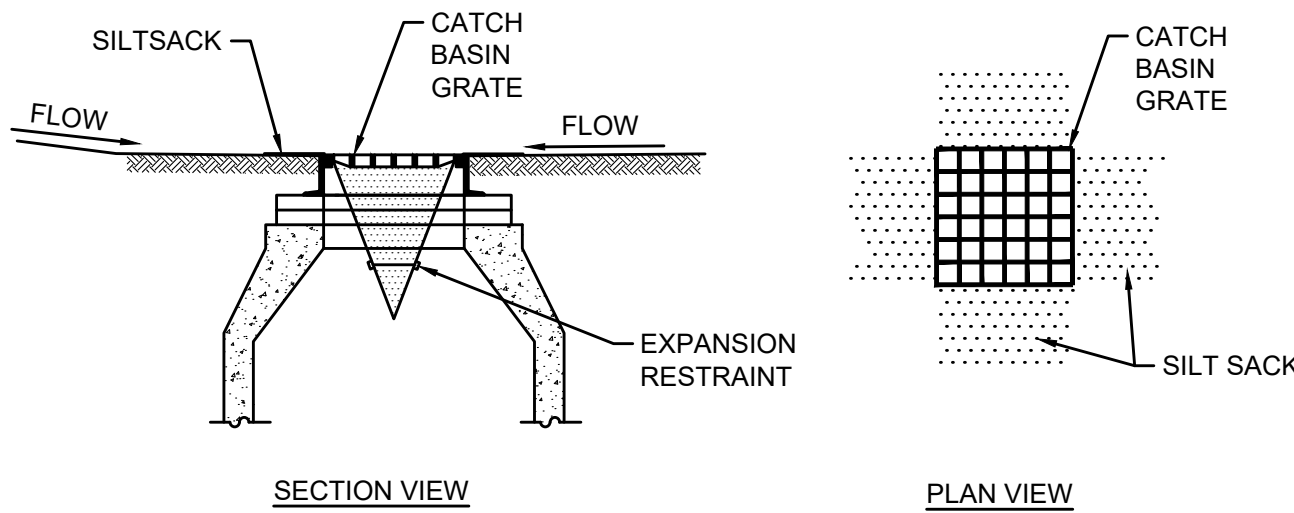
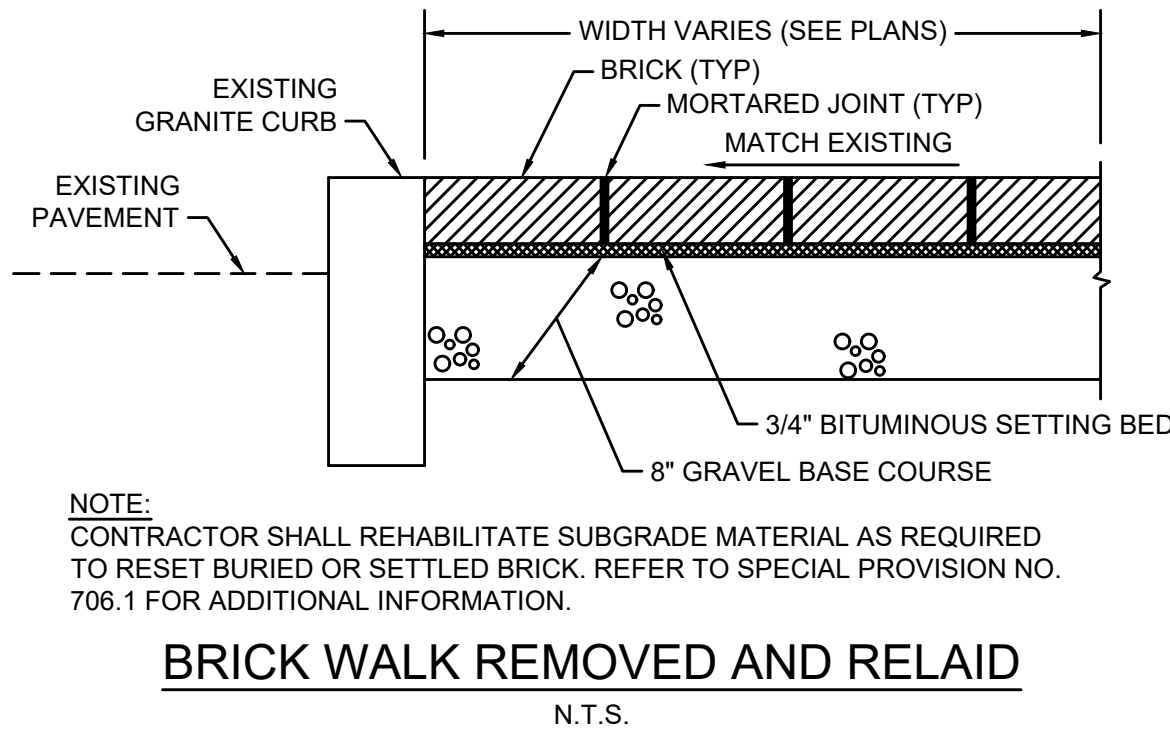
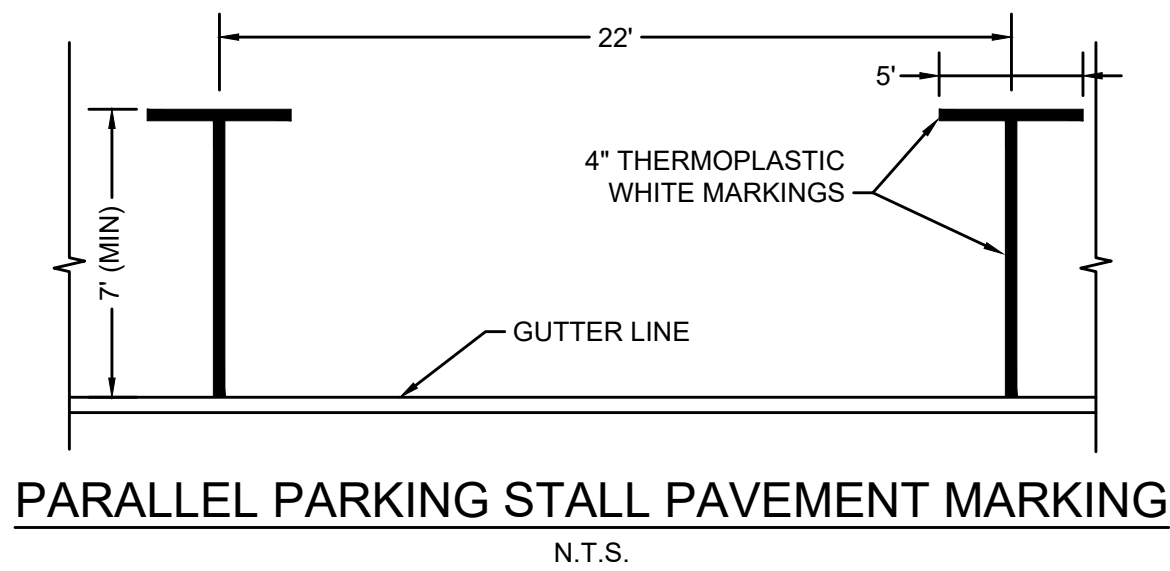
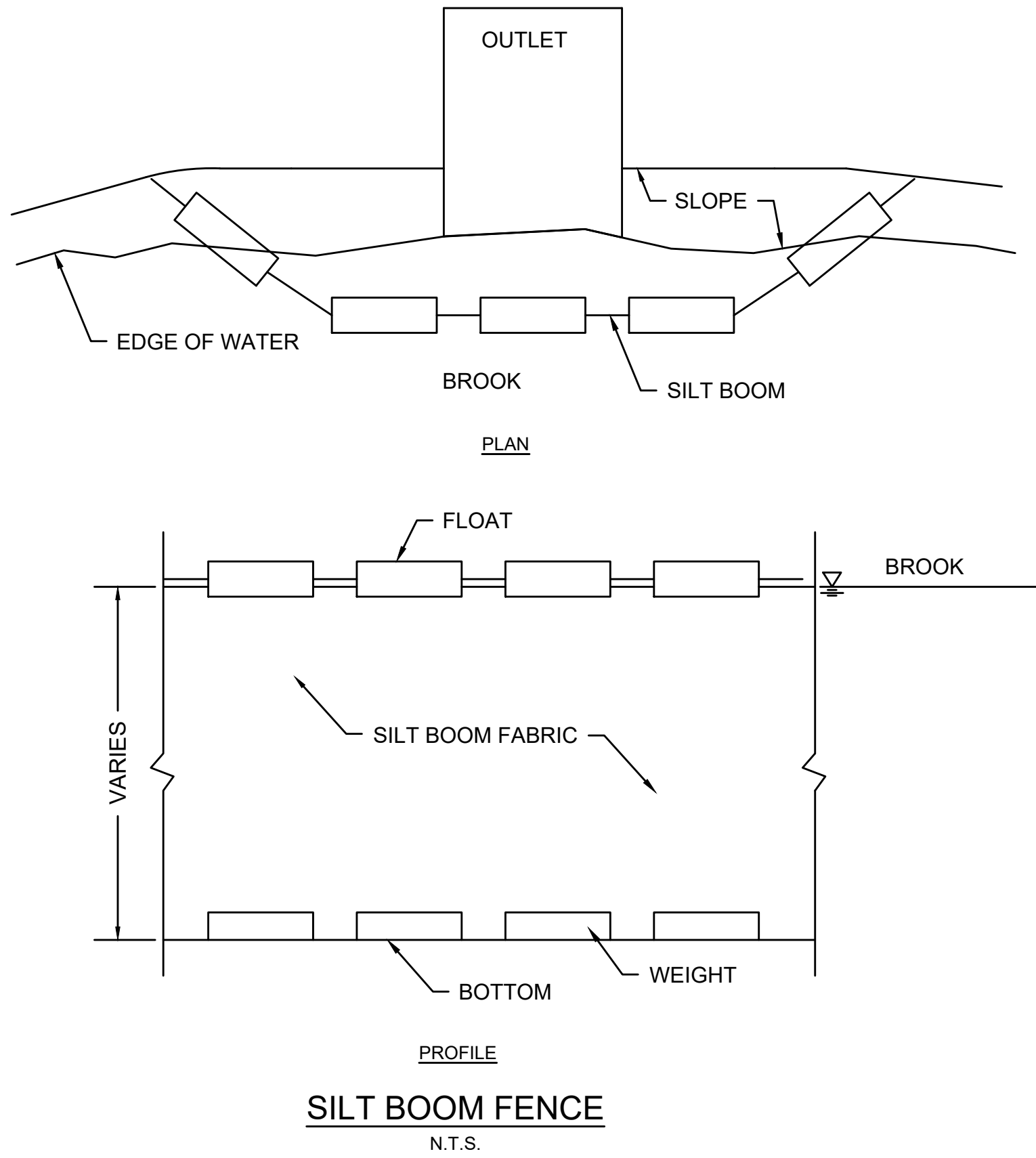
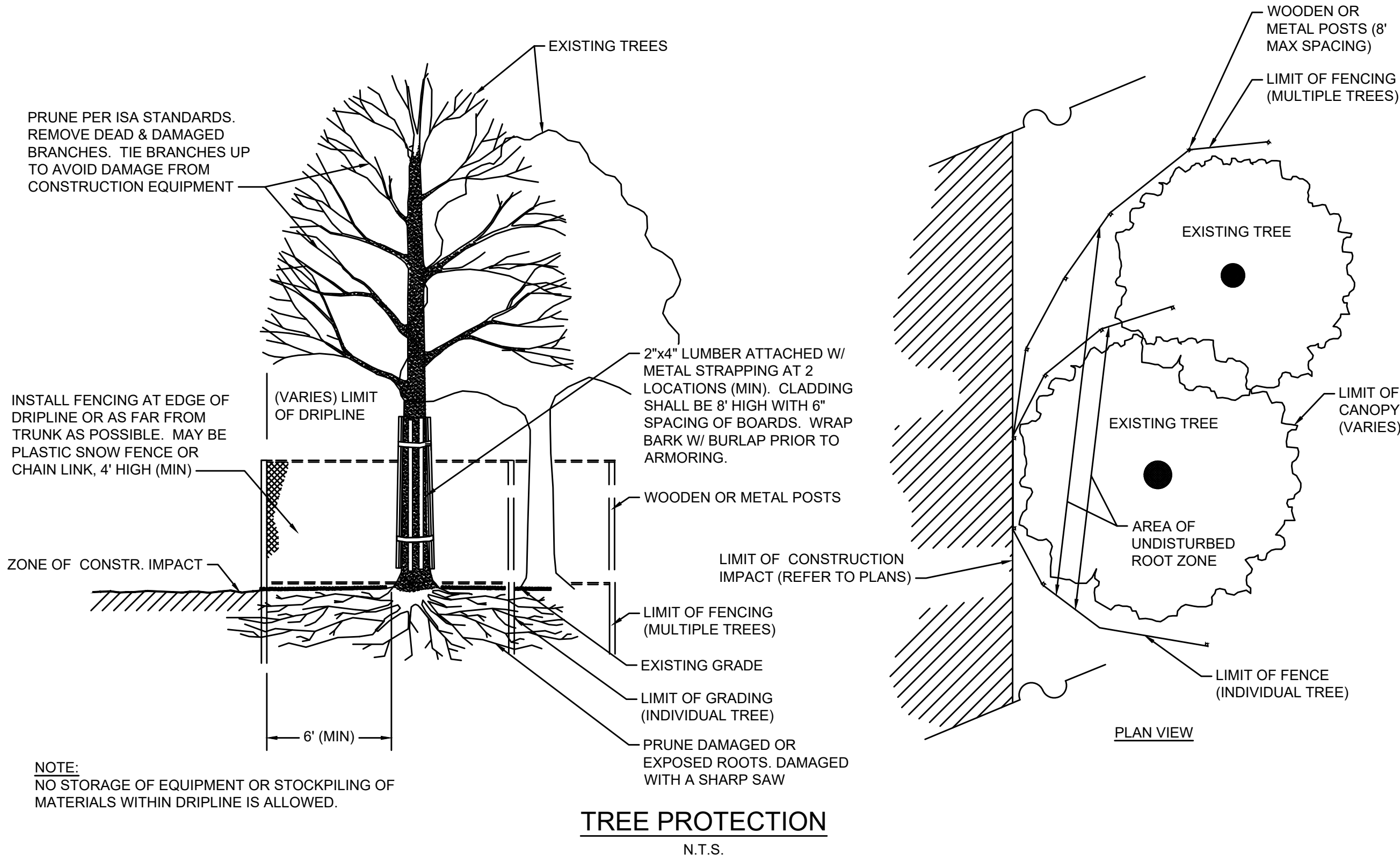
PAVEMENT NOTES:

PROPOSED BRIDGE PAVEMENT  
SURFACE: 1 1/2" SUPERPAVE BRIDGE SURFACE COURSE 9.5 (SSC-B-9.5) OVER  
1 1/2" SUPERPAVE BRIDGE PROTECTIVE COURSE 9.5 (SPC-B-9.5)  
BASE: VARIABLE DEPTH SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)  
(MIN. 3 1/2" AT CURB, MAX. 6" AT CROWN) OVER  
1 1/2" UHPC OVERLAY

PROPOSED HMA MILLING AND OVERLAY  
SURFACE: 1 1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER  
1 1/2" PAVEMENT FINE MILLING

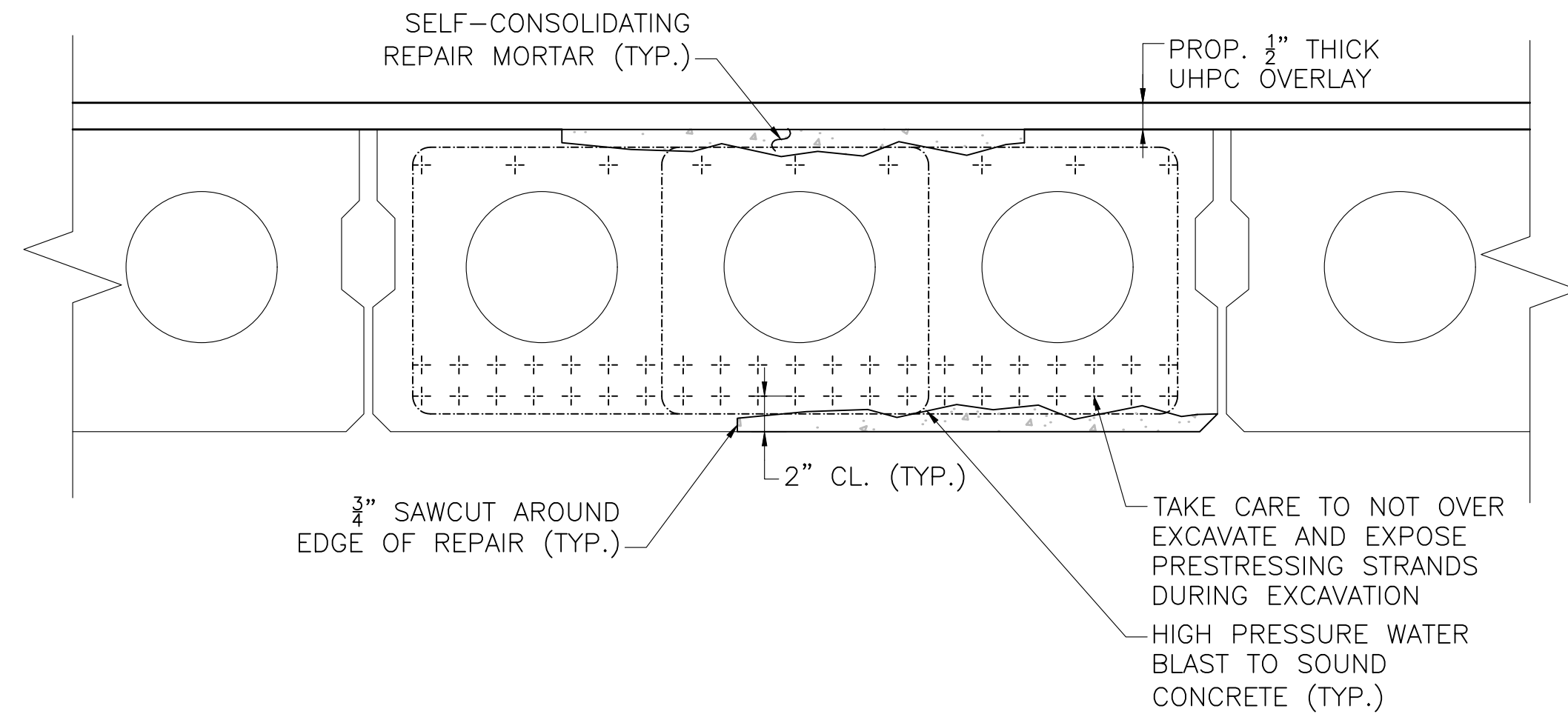
COMMONWEALTH OF MASSACHUSETTS  
MassDOT, Highway Division  
APPROVED UNDER PROVISIONS OF  
MASS. GEN. LAWS CH 85 S 35  
1/31/2024  
DISTRICT 5 BRIDGE ENGINEER DATE





- NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
  2. GRATE TO BE PLACED OVER SILT SACK.
  3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
- INLET PROTECTION SILT SACK IN CATCH BASIN**  
N.T.S.

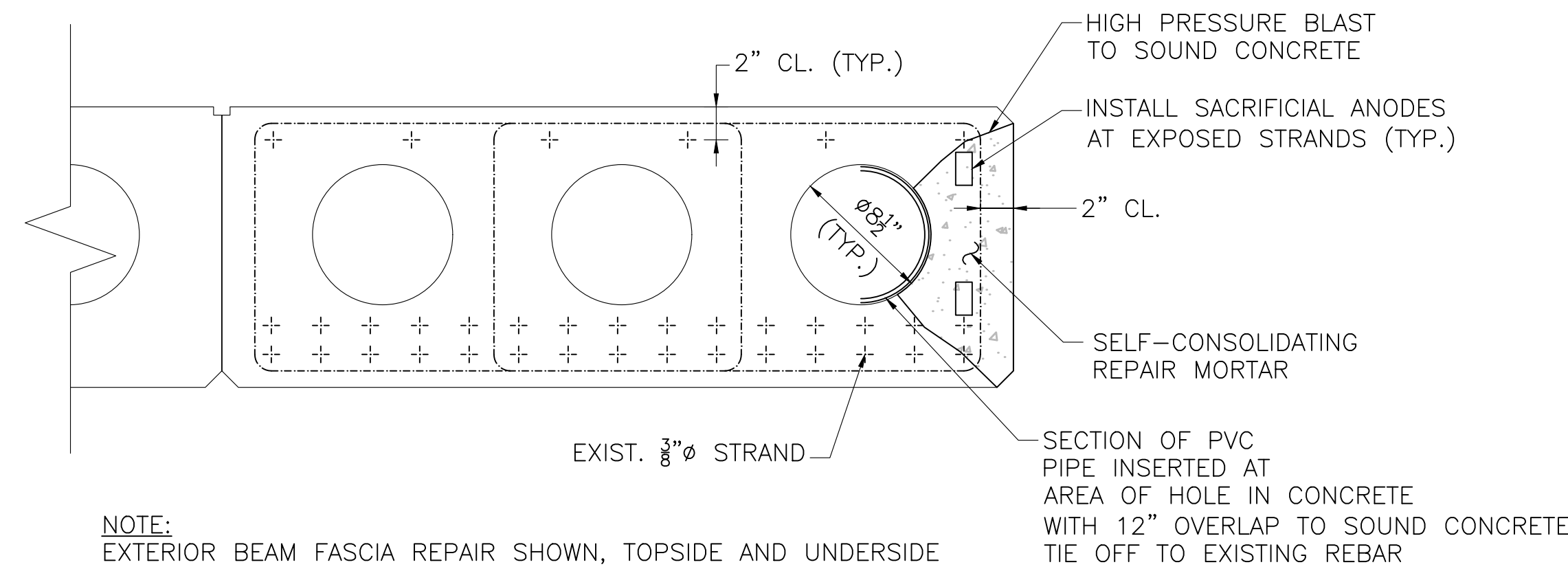




NOTE:  
TOPSIDE DETERIORATION SHALL BE REPAIRED PRIOR TO PLACING THE UHPC OVERLAY. SEE REPAIR SEQUENCE NOTES.

### PARTIAL DEPTH BEAM REPAIR

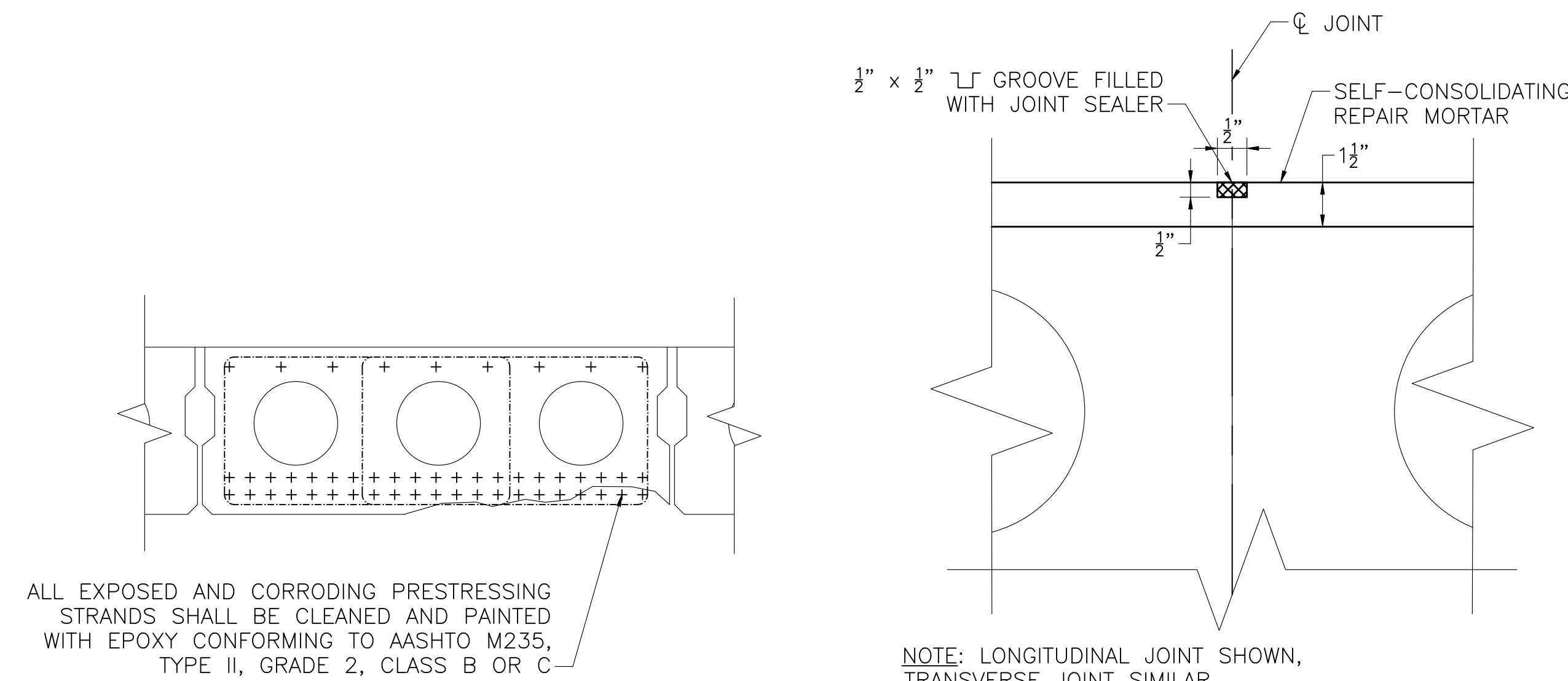
SCALE: 1 1/2" = 1'-0"



NOTE:  
EXTERIOR BEAM FASCIA REPAIR SHOWN, TOPSIDE AND UNDERSIDE REPAIR SIMILAR.

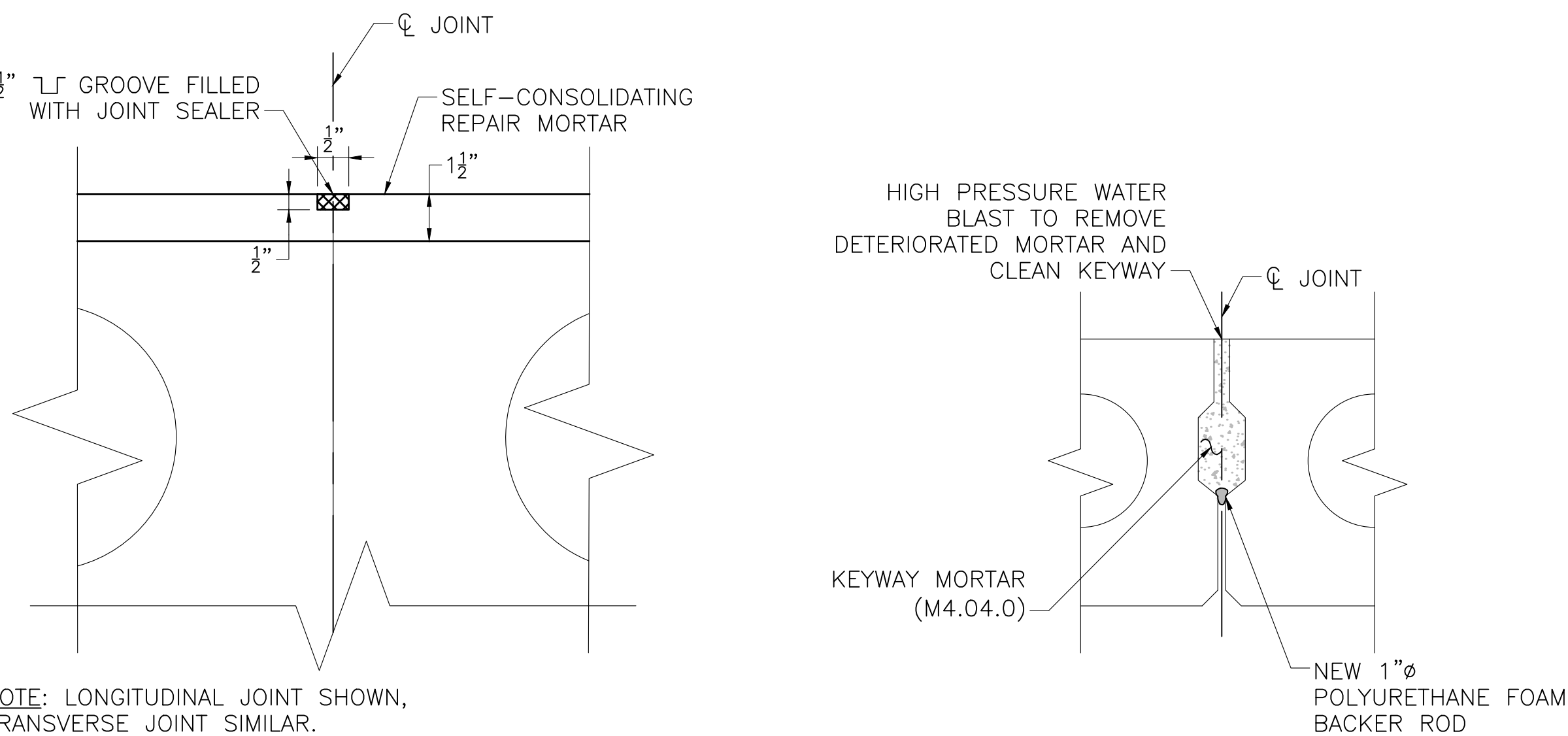
### FULL DEPTH BEAM REPAIR

SCALE: 1 1/2" = 1'-0"



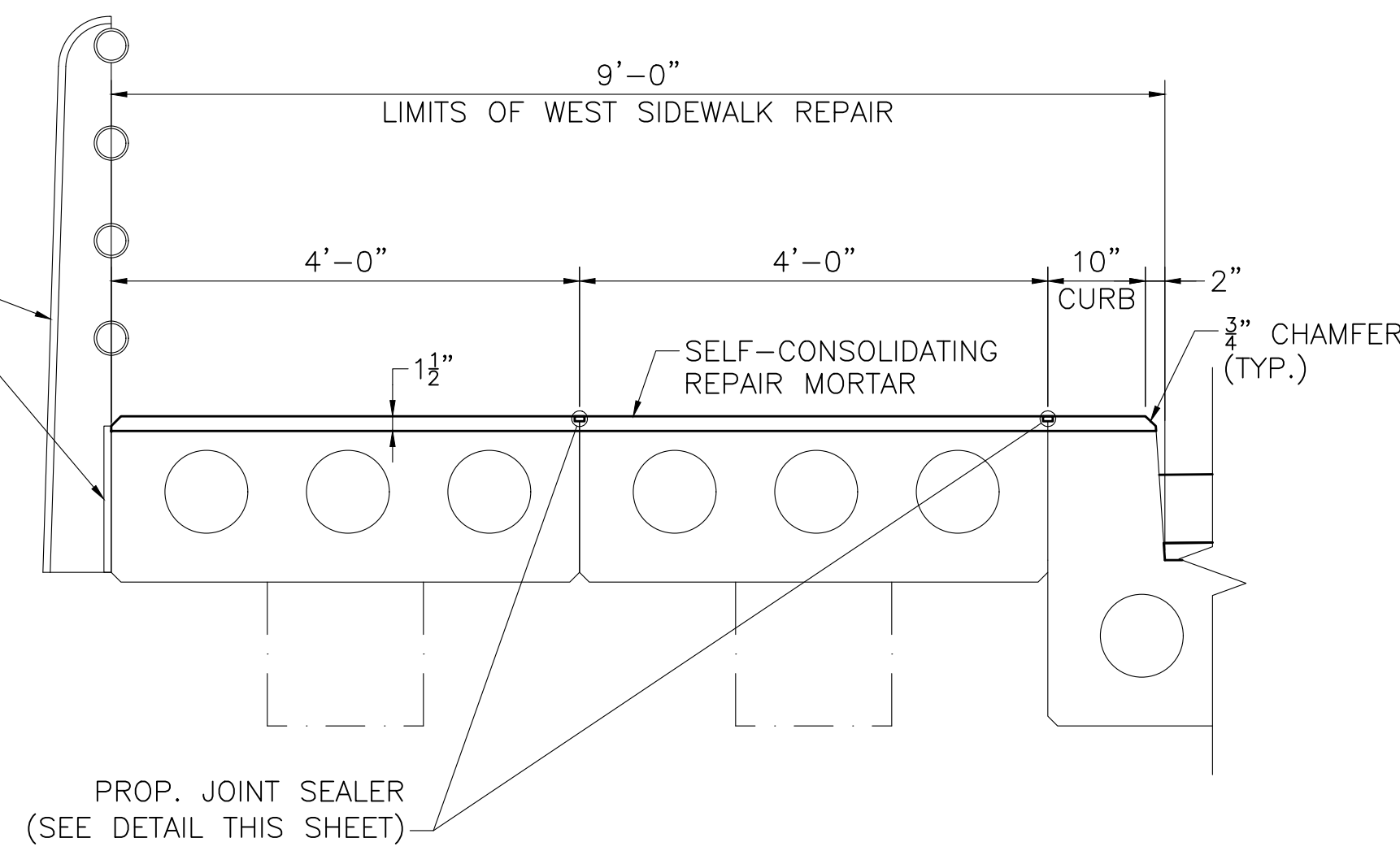
### EXPOSED STRAND REPAIR

NOT TO SCALE



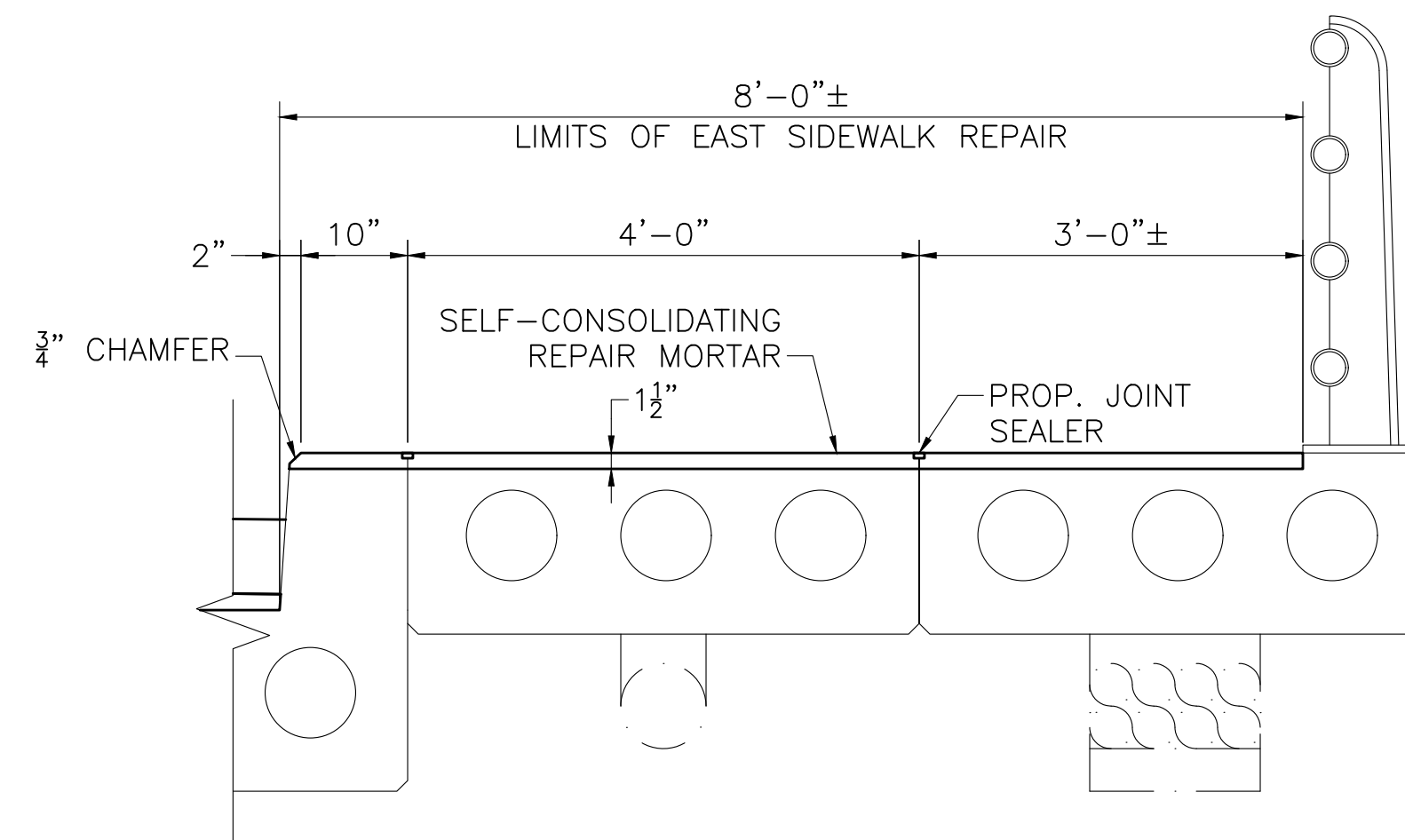
### SIDEWALK JOINT REPAIR DETAIL

NOT TO SCALE



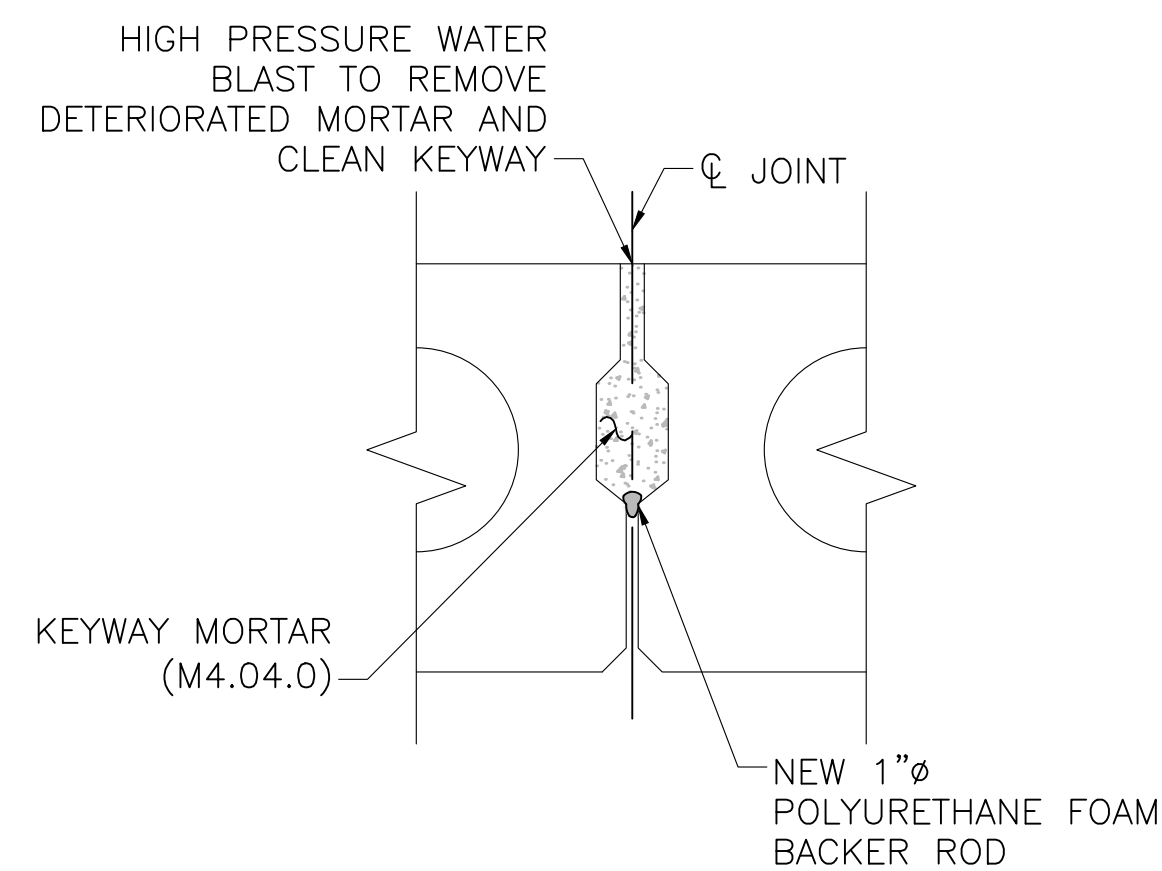
### WEST SIDEWALK REPAIR DETAIL

SCALE: 3/4" = 1'-0"



### EAST SIDEWALK REPAIR DETAIL

SCALE: 3/4" = 1'-0"



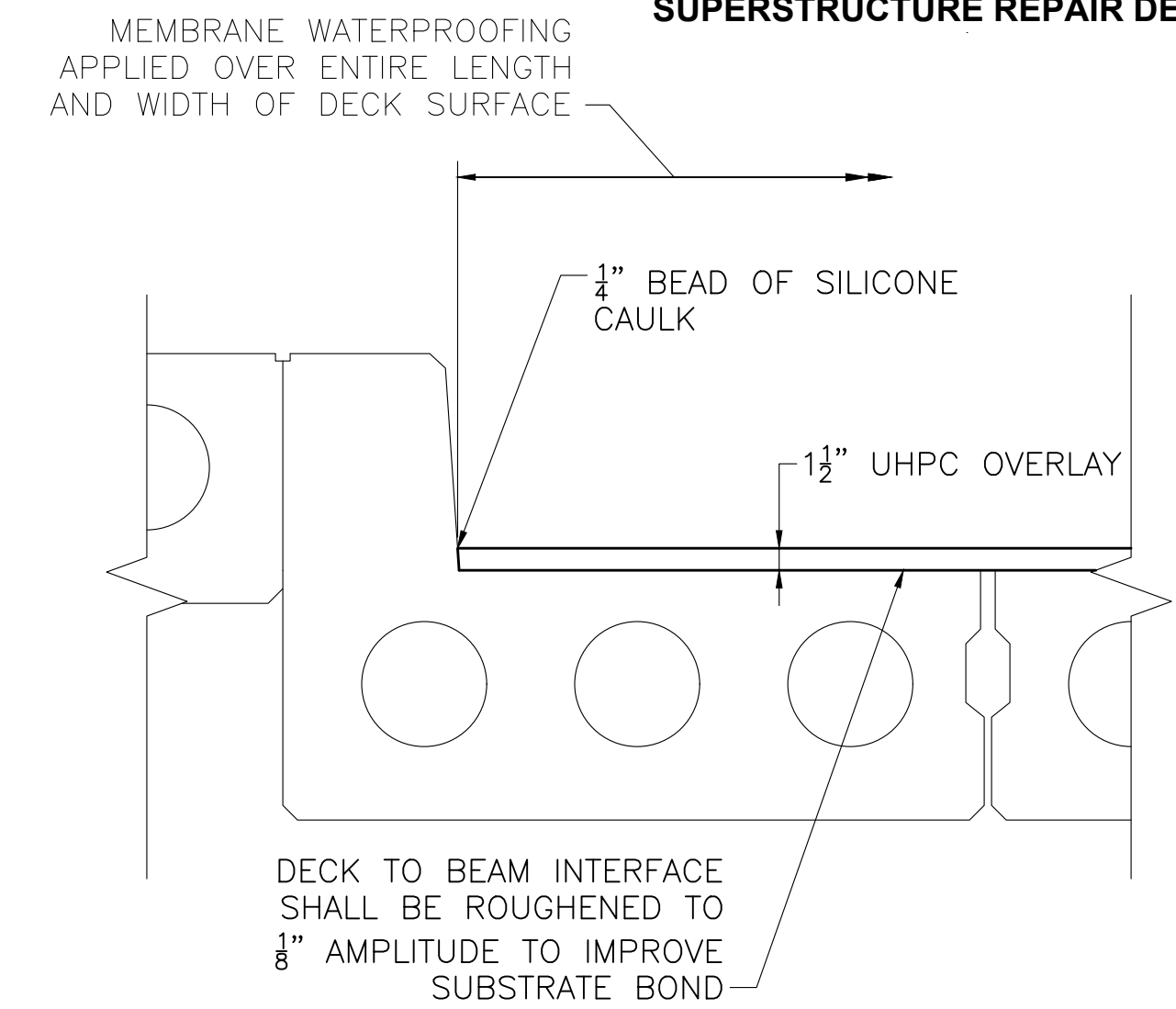
### SHEAR KEY REPAIR

NOT TO SCALE

### NORWOOD WASHINGTON STREET OVER HAWES BROOK

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 9         | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

### SUPERSTRUCTURE REPAIR DETAILS



### OVERLAY DETAIL AT CURB

SCALE: 1" = 1'-0"

### TOPSIDE ROADWAY BEAM REPAIR SEQUENCE NOTES:

1. IMPLEMENT APPROVED TEMPORARY TRAFFIC CONTROL PLAN PHASE 3.
2. EXCAVATE THE EXISTING ASPHALT WEARING SURFACE DOWN TO THE EXISTING DECK BEAMS. REMOVE ANY EXISTING MEMBRANE WATERPROOFING.
3. INSPECT THE TOP SURFACE OF ROADWAY BEAMS AND MARK OUT DETERIORATED AREAS TO BE APPROVED FOR REPAIR BY THE ENGINEER.
4. REMOVE DETERIORATED CONCRETE AT APPROVED REPAIR LOCATIONS. USING HIGH PRESSURE WATER BLASTING, CLEAN CONCRETE SUBSTRATE AND ANY EXISTING REBAR THAT IS TO REMAIN.
5. FULL DEPTH REPAIR ONLY: INSERT PVC PIPE SECTION AT AREA OF EXPOSED ROADWAY DECK BEAM VOID AND INSTALL SACRIFICIAL ANODES AT ANY EXPOSED PRE-STRESSING STRANDS (SEE FULL DEPTH REPAIR DETAIL).
6. CONCRETE SUBSTRATE IS TO BE PRE SOAKED FOR 24 HOURS IMMEDIATELY PRIOR TO THE APPLICATION OF REPAIR AND OVERLAY MATERIAL.
7. PLACE AND FINISH FRESH SELF-CONSOLIDATING REPAIR MORTAR OR A RAPID HARDENING CEMENTITIOUS PRODUCT WHILE SUBSTRATE IS STILL SATURATED AS SPECIFIED IN SPECIAL PROVISION ITEM 909.41.
8. USING HIGH PRESSURE WATER BLASTING, BLOW OUT AND CLEAN SHEAR KEYS ONE JOINT AT A TIME BETWEEN THE CONCRETE DECK BEAMS.
9. PLACE AND FINISH FRESH KEYWAY MORTAR AND NEW FOAM BACKER ROD.
10. AFTER TOPSIDE PATCH REPAIRS HAVE CURED, HIGH PRESSURE WATER BLAST ENTIRE TOPSIDE SURFACE OF ROADWAY DECK BEAMS TO CLEAN THE CONCRETE SUBSTRATE. ROUGHEN TO THE REQUIRED AMPLITUDE PRIOR TO PLACEMENT OF UHPC OVERLAY.
11. POUR UHPC OVERLAY TO A UNIFORM THICKNESS OF 1 1/2". INSTALLATION OF THE UHPC OVERLAY SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
12. APPLY MEMBRANE WATERPROOFING ON THE CURED UHPC SURFACE.
13. PLACE HMA WEARING SURFACE TO THE PROPOSED FINISHED GRADES.

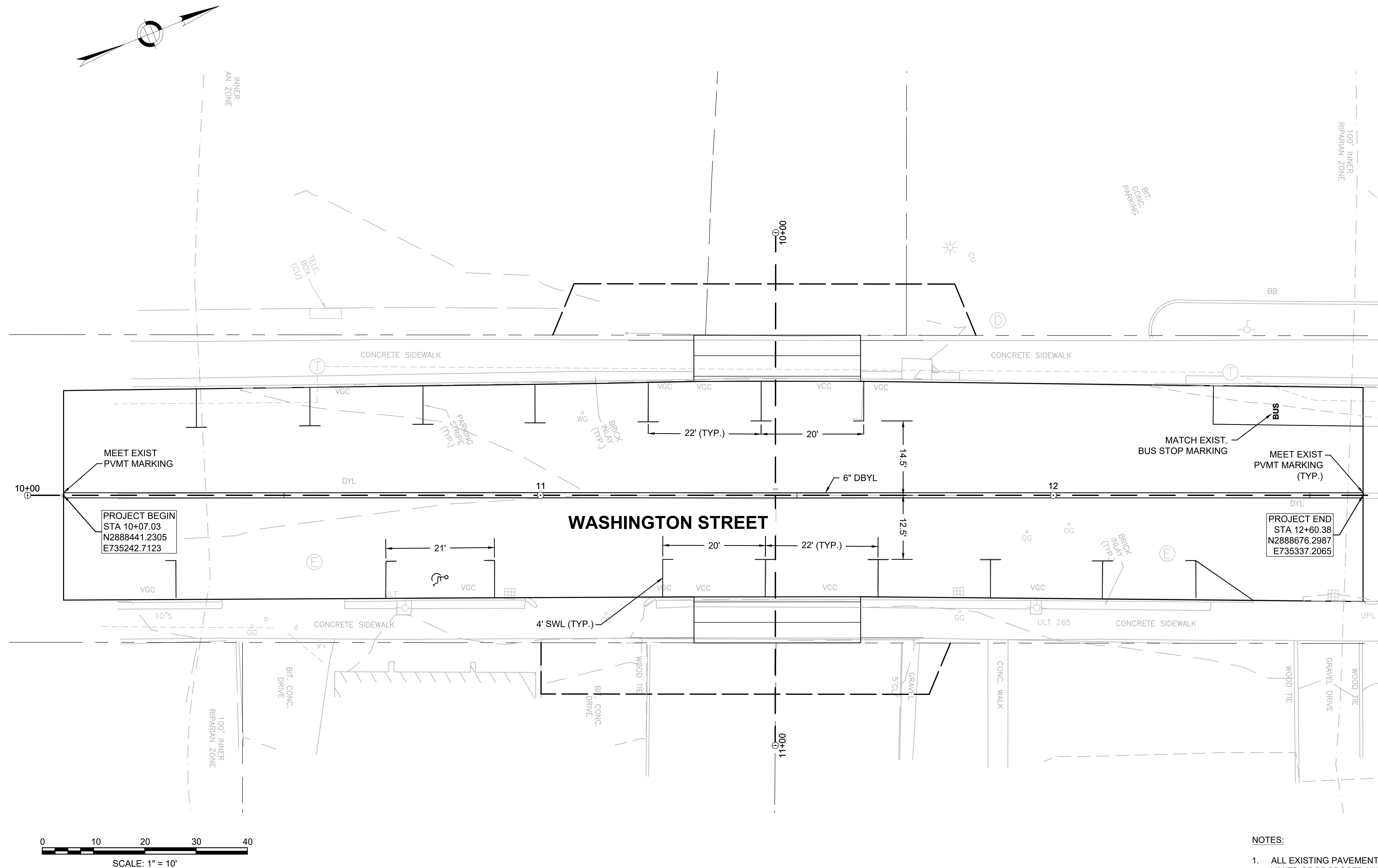
|                                      |           |
|--------------------------------------|-----------|
| <b>COMMONWEALTH OF MASSACHUSETTS</b> |           |
| MassDOT, Highway Division            |           |
| APPROVED UNDER PROVISIONS OF         |           |
| MASS. GEN. LAWS CH 85 S 35           |           |
| <i>Sh. Sam</i>                       | 1/31/2024 |
| DISTRICT 5 BRIDGE ENGINEER           | DATE      |



NORWOOD  
WASHINGTON STREET OVER HAWES BROOK

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 10        | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

PAVEMENT MARKING PLAN



- NOTES:
- ALL EXISTING PAVEMENT MARKINGS WITHIN THE LIMITS OF PROPOSED MILL & OVERLAY SHALL BE REPLACED.
  - ALL PAVEMENT MARKINGS WITHIN THE LIMITS OF WORK SHALL BE THERMOPLASTIC MATERIALS.
  - LANE WIDTH DIMENSIONS BASED ON LOCATION OF EXISTING LANE LINES.



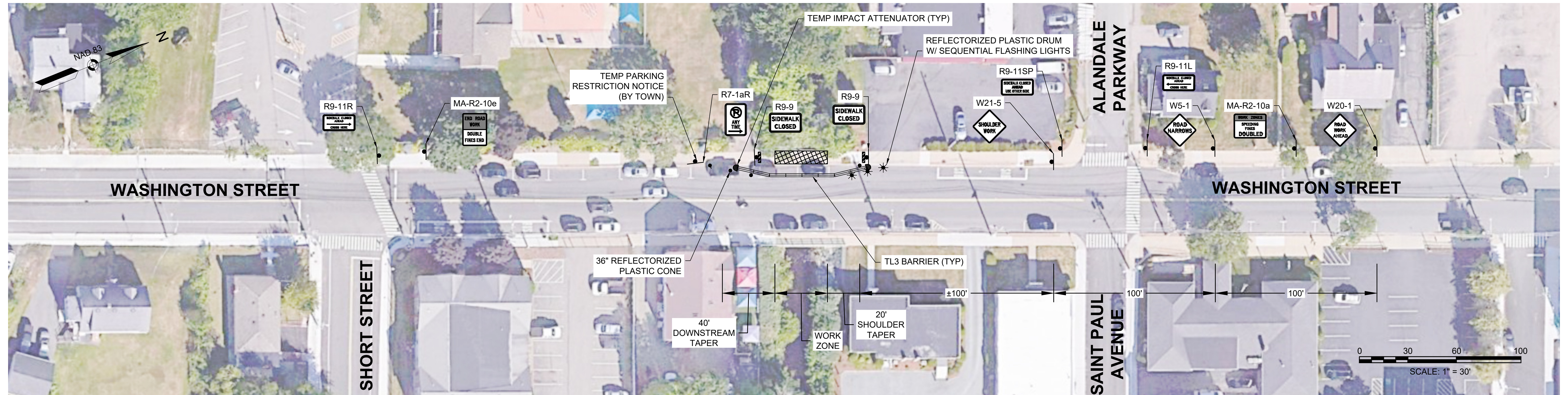
TEMPORARY TRAFFIC CONTROL LEGEND:

- WORK ZONE
- SIGN
- REFLECTORIZED PLASTIC DRUM
- TYPE III BARRICADE
- CONSTRUCTION BARRIER W/ REFLECTORS OR WARNING LIGHTS

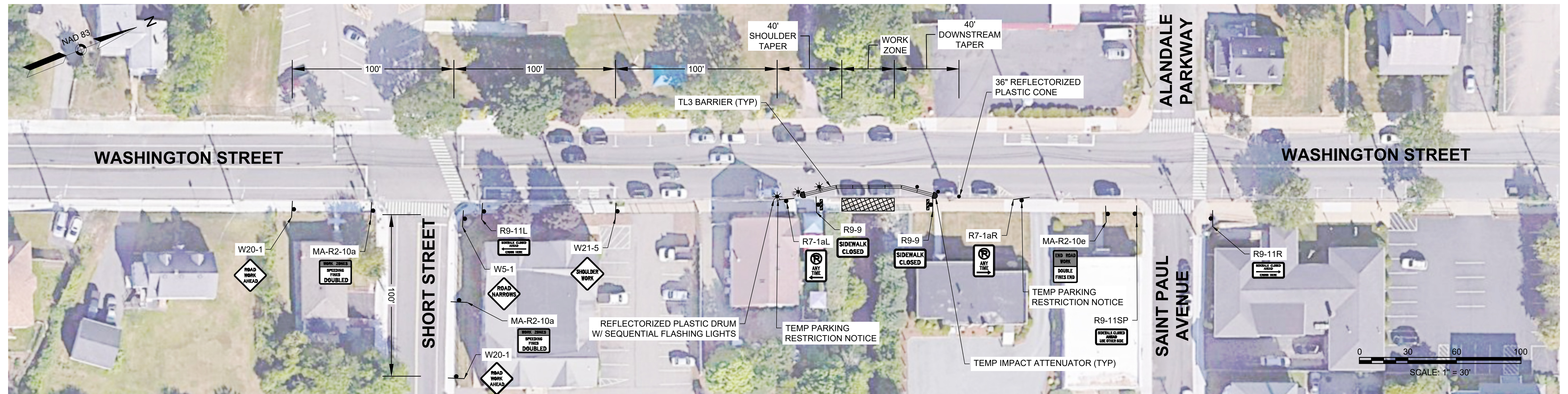
**NORWOOD**  
**WASHINGTON STREET OVER HAWES BROOK**

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 11        | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

**TRAFFIC MANAGEMENT PLAN (1 OF 3)**



PHASE 1 – NORTHSIDE SHOULDER CLOSURE  
SCALE: 1" = 30'



PHASE 2 – SOUTHSIDE SHOULDER CLOSURE  
SCALE: 1" = 30'







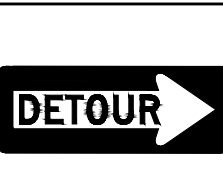
NOTES:

1. MASSDOT STANDARD SIGN.
2. CONTRACTOR TO FURNISH SIGNS CONSISTENT WITH 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. SEE MANUAL FOR TEXT AND LEGEND DIMENSIONS.

NORWOOD  
WASHINGTON STREET OVER HAWES BROOK

|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 13        | 13           |
| PROJECT FILE NO. |                    | T1304     |              |

TRAFFIC MANAGEMENT PLAN (3 OF 3)

| TRAFFIC SIGN SUMMARY     |                       |        |                                                                                       |                                                                                     |                     |                       |                                |                  |        |        |                                   |                        |                           |
|--------------------------|-----------------------|--------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|-----------------------|--------------------------------|------------------|--------|--------|-----------------------------------|------------------------|---------------------------|
| IDENTIFICATION<br>NUMBER | SIZE OF SIGN (INCHES) |        | LEGEND                                                                                | TEXT DIMENSIONS (INCHES)                                                            |                     |                       | NUMBER OF<br>SIGNS<br>REQUIRED | COLOR            |        |        | NUMBER OF<br>SUPPORTS<br>REQUIRED | UNIT<br>AREA<br>(S.F.) | AREA IN<br>SQUARE<br>FEET |
|                          | WIDTH                 | HEIGHT |                                                                                       | LETTER<br>HEIGHT                                                                    | VERTICAL<br>SPACING | ARROW<br>RTE.<br>MKR. |                                | BACK<br>GROUND   | LEGEND | BORDER |                                   |                        |                           |
| M4-9R                    | 30                    | 24     |    |  |                     |                       | 3                              | FLUOR.<br>ORANGE | BLACK  | BLACK  | 0<br>3 W/<br>W16-8P               | 5.00                   | 15.00                     |
| M4-9AL                   | 30                    | 24     |    |                                                                                     |                     |                       | 4                              | FLUOR.<br>ORANGE | BLACK  | BLACK  | 0<br>4 W/<br>W16-8P               | 5.00                   | 20.00                     |
| M4-9AR                   | 30                    | 24     |    |                                                                                     |                     |                       | 3                              | FLUOR.<br>ORANGE | BLACK  | BLACK  | 0<br>3 W/<br>W16-8P               | 5.00                   | 15.00                     |
| M4-9V                    | 30                    | 24     |    |                                                                                     |                     |                       | 5                              | FLUOR.<br>ORANGE | BLACK  | BLACK  | 0<br>5 W/<br>W16-8P               | 5.00                   | 25.00                     |
| M4-10R                   | 48                    | 18     |    |                                                                                     |                     |                       | 1                              | FLUOR.<br>ORANGE | BLACK  | BLACK  | 0<br>1 ON TYPE 3<br>BARRICADE     | 6.00                   | 6.00                      |
| M4-4SP                   | 20                    | 12     |   | 6C                                                                                  | 3<br>3              | N/A                   | 2                              | WHITE            | BLACK  | BLACK  | 0<br>2 W/<br>W16-8P               | 1.67                   | 3.33                      |
| W16-8P                   | 31                    | 8      |  | 4B / 2B                                                                             | 2<br>2              | N/A                   | 22                             | YELLOW           | BLACK  | BLACK  | 22                                | 1.72                   | 37.89                     |

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONTACT THE TOWN OF NORWOOD FOR COORDINATION ON PARKING RESTRICTIONS AND ASSOCIATED SIGNAGE FOR PHASE 1 AND PHASE 2 SET-UP. THE RESTRICTIONS NOTICE SHALL NOTE THAT ANY VEHICLE PARKED DURING THIS TIME WILL BE TOWED.
2. WASHINGTON STREET PHASE 3 AND PHASE 4 SHALL BE IN EFFECT DURING AN AGREED UPON 4 DAY CLOSURE PERIOD. EXISTING TRAFFIC CONDITIONS SHALL BE COMPLETELY RESTORED BY 3:00 PM ON THE 4TH DAY.
3. DRIVEWAY ACCESS SHALL BE MAINTAINED FOR "CAROL'S AUTO BODY", "BROOKSIDE CAFE", AND "MACCHI & MACCHI" BUSINESS DURING THE STAGE 3 BRIDGE WORK.
4. THE TOWN OF NORWOOD SHALL COORDINATE WITH THE "CAROL'S AUTO BODY", "BROOKSIDE CAFE", AND "MACCHI & MACCHI" OWNERS FOR TEMPORARY BLOCKING THE DRIVEWAY DURING THE PHASE 4 MILL & OVERLAY WORK. THE CONTRACTOR ON SITE SHALL GIVE ACCESS, IF FEASIBLE, ONLY TO "CAROL'S AUTO BODY" EMPLOYEES AS NEEDED.
5. ALL SIGNAGE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL (I.E. EXISTING HANDICAP PARKING SIGN) SHALL BE BAGGED DURING PERIODS WHERE WORK ZONE IS IN EFFECT.
6. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM WITH TO THE LAST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE MASSACHUSETTS AMENDMENTS TO THE MUTCD.
7. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE M.U.T.C.D.
8. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
9. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
10. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
11. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
12. ALL DRUMS AND/OR CONES SHALL BE SET @ 20' O.C. MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
13. MINIMUM LANE WIDTH TO BE 11'. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
14. THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS WHEN USED FOR NIGHT WORK BETWEEN DUSK AND DAWN.