





## GENERAL SYMBOLS

| EXISTING   | PROPOSED   | DESCRIPTION                                |
|------------|------------|--------------------------------------------|
| JB         | JB         | JERSEY BARRIER                             |
| CB         | CB         | CATCH BASIN                                |
| CB         | CB         | CATCH BASIN CURB INLET                     |
| FP         | FP         | FLAG POLE                                  |
| GP         | GP         | GAS PUMP                                   |
| MB         | MB         | MAIL BOX                                   |
|            |            | POST SQUARE                                |
|            |            | POST CIRCULAR                              |
| WELL       | WELL       | WELL                                       |
| EHH        | EHH        | ELECTRIC HANDHOLE                          |
|            |            | FENCE GATE POST                            |
| GG         | GG         | GAS GATE                                   |
| BHL #      | BHL #      | BORING HOLE                                |
| MW #       | MW #       | MONITORING WELL                            |
| TP #       | TP #       | TEST PIT                                   |
|            |            | HYDRANT                                    |
|            |            | LIGHT POLE                                 |
| CO.BD.     |            | COUNTY BOUND                               |
|            |            | GPS POINT                                  |
|            |            | CABLE MANHOLE                              |
|            |            | DRAINAGE MANHOLE                           |
|            |            | ELECTRIC MANHOLE                           |
|            |            | GAS MANHOLE                                |
|            |            | MISC MANHOLE                               |
|            |            | SEWER MANHOLE                              |
|            |            | TELEPHONE MANHOLE                          |
|            |            | WATER MANHOLE                              |
| MHB        | MHB        | MASSACHUSETTS HIGHWAY BOUND MONUMENT       |
| MON        |            | STONE BOUND                                |
| SB         |            | TOWN OR CITY BOUND                         |
| TB         |            | TRAVERSE OR TRIANGULATION STATION          |
| TPL or GUY | TPL or GUY | TROLLEY POLE OR GUY POLE                   |
| HTP        |            | TRANSMISSION POLE                          |
| UFB        | UFB        | UTILITY POLE W/ FIREBOX                    |
| UPDL       | UPDL       | UTILITY POLE WITH DOUBLE LIGHT             |
| ULT        | ULT        | UTILITY POLE W / 1 LIGHT                   |
| UPL        | UPL        | UTILITY POLE                               |
|            |            | BUSH                                       |
|            |            | TREE                                       |
|            |            | STUMP                                      |
|            |            | SWAMP / MARSH                              |
| WG         | WG         | WATER GATE                                 |
| PM         | PM         | PARKING METER                              |
|            |            | OVERHEAD CABLE/WIRE                        |
|            |            | CURBING                                    |
|            |            | CONTOURS (ON-THE-GROUND SURVEY DATA)       |
|            |            | CONTOURS (PHOTOGRAMMETRIC DATA)            |
|            |            | UNDERGROUND DRAIN PIPE (DOUBLE LIGHT)      |
|            |            | UNDERGROUND ELECTRIC DUCT (DOUBLE LINE)    |
|            |            | UNDERGROUND GAS MAIN (DOUBLE LINE)         |
|            |            | UNDERGROUND SEWER MAIN (DOUBLE LINE)       |
|            |            | UNDERGROUND TELEPHONE DUCT (DOUBLE LINE)   |
|            |            | UNDERGROUND WATER MAIN (DOUBLE LINE)       |
|            |            | BALANCED STONE WALL                        |
|            |            | GUARD RAIL - STEEL POSTS                   |
|            |            | GUARD RAIL - WOOD POSTS                    |
|            |            | CHAIN LINK OR METAL FENCE                  |
|            |            | WOOD FENCE                                 |
|            |            | HAY BALES/SILT FENCE                       |
|            |            | TREE LINE                                  |
|            |            | SAWCUT LINE                                |
|            |            | TOP OR BOTTOM OF SLOPE                     |
|            |            | LIMIT OF EDGE OF PAVEMENT OR COLD PATCH    |
|            |            | BANK OF RIVER OR STREAM                    |
|            |            | BORDER OF WETLAND                          |
|            |            | 100 FT WETLAND BUFFER                      |
|            |            | 200 FT RIVERFRONT BUFFER                   |
|            |            | STATE HIGHWAY LAYOUT                       |
|            |            | TOWN OR CITY LAYOUT                        |
|            |            | COUNTY LAYOUT                              |
|            |            | RAILROAD SIDELINE                          |
|            |            | TOWN OR CITY BOUNDARY LINE                 |
|            |            | PROPERTY LINE OR APPROXIMATE PROPERTY LINE |
|            |            | EASEMENT                                   |

## TRAFFIC SYMBOLS

| EXISTING | PROPOSED | DESCRIPTION                                                          |
|----------|----------|----------------------------------------------------------------------|
|          |          | CONTROLLER PHASE ACTUATED                                            |
|          |          | TRAFFIC SIGNAL HEAD (SIZE AS NOTED)                                  |
|          |          | WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)          |
|          |          | VIDEO DETECTION CAMERA                                               |
|          |          | MICROWAVE DETECTOR                                                   |
|          |          | PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE |
|          |          | EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT                       |
|          |          | VEHICULAR SIGNAL HEAD                                                |
|          |          | VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED                          |
|          |          | FLASHING BEACON                                                      |
|          |          | PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)              |
|          |          | RAILROAD SIGNAL                                                      |
|          |          | SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)               |
|          |          | MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)                       |
|          |          | HIGH MAST POLE OR TOWER                                              |
|          |          | SIGN AND POST                                                        |
|          |          | SIGN AND POST (2 POSTS)                                              |
|          |          | MAST ARM WITH LUMINAIRE                                              |
|          |          | OPTICAL PRE-EMPTION DETECTOR                                         |
|          |          | CONTROL CABINET, GROUND MOUNTED                                      |
|          |          | CONTROL CABINET, POLE MOUNTED                                        |
|          |          | FLASHING BEACON CONTROL AND METER PEDESTAL                           |
|          |          | LOAD CENTER ASSEMBLY                                                 |
|          |          | PULL BOX 12"x12" (OR AS NOTED)                                       |
|          |          | ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)                              |
|          |          | TRAFFIC SIGNAL CONDUIT                                               |

## PAVEMENT MARKINGS SYMBOLS

| EXISTING                                                                              | PROPOSED                                                                                      | DESCRIPTION                                     |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------|
|  | <br>ONLY | PAVEMENT ARROW - WHITE<br>LEGEND "ONLY" - WHITE |
|  | SL                                                                                            | STOP LINE                                       |
|  |  CW      | CROSSWALK                                       |
|  | SWL                                                                                           | SOLID WHITE LINE                                |
|  | SYL                                                                                           | SOLID YELLOW LINE                               |
|  | BWL                                                                                           | BROKEN WHITE LINE                               |
|  | BYL                                                                                           | BROKEN YELLOW LINE                              |
|  | DWL                                                                                           | DOTTED WHITE LINE                               |
|  | DYL                                                                                           | DOTTED YELLOW LINE                              |
|  | DWLEx                                                                                         | DOTTED WHITE LINE EXTENSION                     |
|  | DYLEx                                                                                         | DOTTED YELLOW LINE EXTENSION                    |
|  | DBWL                                                                                          | DOUBLE WHITE LINE                               |
|  | DYCL                                                                                          | DOUBLE YELLOW CENTER LINE                       |

## ABBREVIATIONS

| GENERAL       |                                      |
|---------------|--------------------------------------|
| AADT          | ANNUAL AVERAGE DAILY TRAFFIC         |
| ABAN          | ABANDON                              |
| ADJ           | ADJUST                               |
| APPROX.       | APPROXIMATE                          |
| A.C.          | ASPHALT CONCRETE                     |
| ACCM PIPE     | ASPHALT COATED CORRUGATED METAL PIPE |
| BIT.          | BITUMINOUS                           |
| BC            | BOTTOM OF CURB                       |
| BD.           | BOUND                                |
| BL            | BASELINE                             |
| BLDG          | BUILDING                             |
| BM            | BENCHMARK                            |
| BO            | BY OTHERS                            |
| BOS           | BOTTOM OF SLOPE                      |
| BR.           | BRIDGE                               |
| CB            | CATCH BASIN                          |
| CBCI          | CATCH BASIN WITH CURB INLET          |
| CC            | CEMENT CONCRETE                      |
| CCM           | CEMENT CONCRETE MASONRY              |
| CEM           | CEMENT                               |
| CI            | CURB INLET                           |
| CIP           | CAST IRON PIPE                       |
| CLF           | CHAIN LINK FENCE                     |
| CL            | CENTERLINE                           |
| CMP           | CORRUGATED METAL PIPE                |
| CSP           | CORRUGATED STEEL PIPE                |
| CO.           | COUNTY                               |
| CONC          | CONCRETE                             |
| CONT          | CONTINUOUS                           |
| CONST         | CONSTRUCTION                         |
| CR GR         | CROWN GRADE                          |
| DHV           | DESIGN HOURLY VOLUME                 |
| DI            | DROP INLET                           |
| DIA           | DIAMETER                             |
| DIP           | DUCTILE IRON PIPE                    |
| DW            | STEADY DON'T WALK - PORTLAND ORANGE  |
| DWY           | DRIVEWAY                             |
| ELEV (or EL.) | ELEVATION                            |
| EMB           | EMBANKMENT                           |
| EOP           | EDGE OF PAVEMENT                     |
| EXIST (or EX) | EXISTING                             |
| EXC           | EXCAVATION                           |
| F&C           | FRAME AND COVER                      |
| F&G           | FRAME AND GRATE                      |
| FDN.          | FOUNDATION                           |
| FLDSTN        | FIELDSTONE                           |
| GAR           | GARAGE                               |
| GD            | GROUND                               |
| GG            | GAS GATE                             |
| GI            | GUTTER INLET                         |
| GIP           | GALVANIZED IRON PIPE                 |
| GRAN          | GRANITE                              |
| GRAV          | GRAVEL                               |
| GRD           | GUARD                                |
| HDW           | HEADWALL                             |
| HMA           | HOT MIX ASPHALT                      |
| HOR           | HORIZONTAL                           |
| HYD           | HYDRANT                              |
| INV           | INVERT                               |
| JCT           | JUNCTION                             |
| L             | LENGTH OF CURVE                      |
| LB            | LEACH BASIN                          |
| LP            | LIGHT POLE                           |
| LT            | LEFT                                 |
| MAX           | MAXIMUM                              |
| MB            | MAILBOX                              |
| MH            | MANHOLE                              |
| MHB           | MASSACHUSETTS HIGHWAY BOUND          |
| MIN           | MINIMUM                              |
| NIC           | NOT IN CONTRACT                      |
| NO.           | NUMBER                               |
| PC            | POINT OF CURVATURE                   |
| PCC           | POINT OF COMPOUND CURVATURE          |
| P.G.L.        | PROFILE GRADE LINE                   |
| PI            | POINT OF INTERSECTION                |
| POC           | POINT ON CURVE                       |
| POT           | POINT ON TANGENT                     |
| PRC           | POINT OF REVERSE CURVATURE           |
| PROJ          | PROJECT                              |
| PROP          | PROPOSED                             |
| PSB           | PLANTABLE SOIL BORROW                |
| PT            | POINT OF TANGENCY                    |
| PVC           | POINT OF VERTICAL CURVATURE          |
| PVI           | POINT OF VERTICAL INTERSECTION       |
| PVT           | POINT OF VERTICAL TANGENCY           |
| PVMT          | PAVEMENT                             |
| PWW           | PAVED WATER WAY                      |

**WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST**

|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 2         | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

## LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

| <u>GENERAL</u> |                                   |
|----------------|-----------------------------------|
| R              | RADIUS OF CURVATURE               |
| R&D            | REMOVE AND DISPOSE                |
| RCP            | REINFORCED CONCRETE PIPE          |
| RD             | ROAD                              |
| RDWAY          | ROADWAY                           |
| REM            | REMOVE                            |
| RET            | RETAIN                            |
| RET WALL       | RETAINING WALL                    |
| ROW            | RIGHT OF WAY                      |
| RR             | RAILROAD                          |
| R&R            | REMOVE AND RESET                  |
| R&S            | REMOVE AND STACK                  |
| RT             | RIGHT                             |
| SB             | STONE BOUND                       |
| SHLD           | SHOULDER                          |
| SMH            | SEWER MANHOLE                     |
| ST             | STREET                            |
| STA            | STATION                           |
| SSD            | STOPPING SIGHT DISTANCE           |
| SHLO           | STATE HIGHWAY LAYOUT LINE         |
| SW             | SIDEWALK                          |
| T              | TANGENT DISTANCE OF CURVE/TRUCK % |
| TAN            | TANGENT                           |
| TEMP           | TEMPORARY                         |
| TC             | TOP OF CURB                       |
| TOS            | TOP OF SLOPE                      |
| TYP            | TYPICAL                           |
| UP             | UTILITY POLE                      |
| VAR            | VARIES                            |
| VERT           | VERTICAL                          |
| VC             | VERTICAL CURVE                    |
| WCR            | WHEEL CHAIR RAMP                  |
| WG             | WATER GATE                        |
| WIP            | WROUGHT IRON PIPE                 |
| WM             | WATER METER/WATER MAIN            |
| X-SECT         | CROSS SECTION                     |

## TRAFFIC SIGNAL

|        |                                |
|--------|--------------------------------|
| CAB.   | CABINET                        |
| CCVE   | CLOSED CIRCUIT VIDEO EQUIPMENT |
| DW     | STEADY DON'T WALK              |
| FDW    | FLASHING DON'T WALK            |
| FR     | FLASHING CIRCULAR RED          |
| FRL    | FLASHING RED LEFT ARROW        |
| FRR    | FLASHING RED RIGHT ARROW       |
| FY     | FLASHING CIRCULAR AMBER        |
| FYL    | FLASHING AMBER LEFT ARROW      |
| FYR    | FLASHING AMBER RIGHT ARROW     |
| G      | STEADY CIRCULAR GREEN          |
| GL     | STEADY GREEN LEFT ARROW        |
| GR     | STEADY GREEN RIGHT ARROW       |
| GSL    | STEADY GREEN SLASH LEFT ARROW  |
| GSR    | STEADY GREEN SLASH RIGHT ARROW |
| GV     | STEADY GREEN VERTICAL ARROW    |
| OL     | OVERLAP                        |
| PED    | PEDESTRIAN                     |
| PTZ    | PAN, TILE, ZOOM                |
| R      | STEADY CIRCULAR RED            |
| RL     | STEADY RED LEFT ARROW          |
| RR     | STEADY RED RIGHT ARROW         |
| TR SIG | TRAFFIC SIGNAL                 |
| TSC    | TRAFFIC SIGNAL CONDUIT         |
| W      | STEADY WALK                    |
| Y      | STEADY CIRCULAR AMBER          |
| YL     | STEADY AMBER LEFT ARROW        |









WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE                   | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------------------------|--------------------|-----------|--------------|
| MA                      | -                  | 4         | 58           |
| PROJECT FILE NO. 608180 |                    |           |              |

KEY PLAN

PROJECT END  
STA 202+50  
N2937166.3972  
E713278.8741

PROJECT BEGIN  
STA 186+70  
N2936771.7809  
E711749.1079

ROUTE 9  
(WORCESTER STREET)

SPRAGUE ROAD

AUDUBON ROAD

ROUTE 9 WB

ROUTE 9 EB

ALBA ROAD

ALBA ROAD

WINDEMERE ROAD

BERNARD STREET

WALL STREET

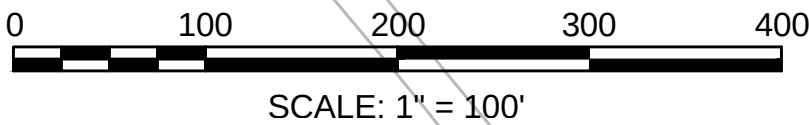
KINGSBURY STREET

DONIZETTI STREET

FRANCIS ROAD

SHEET NUMBER LEGEND

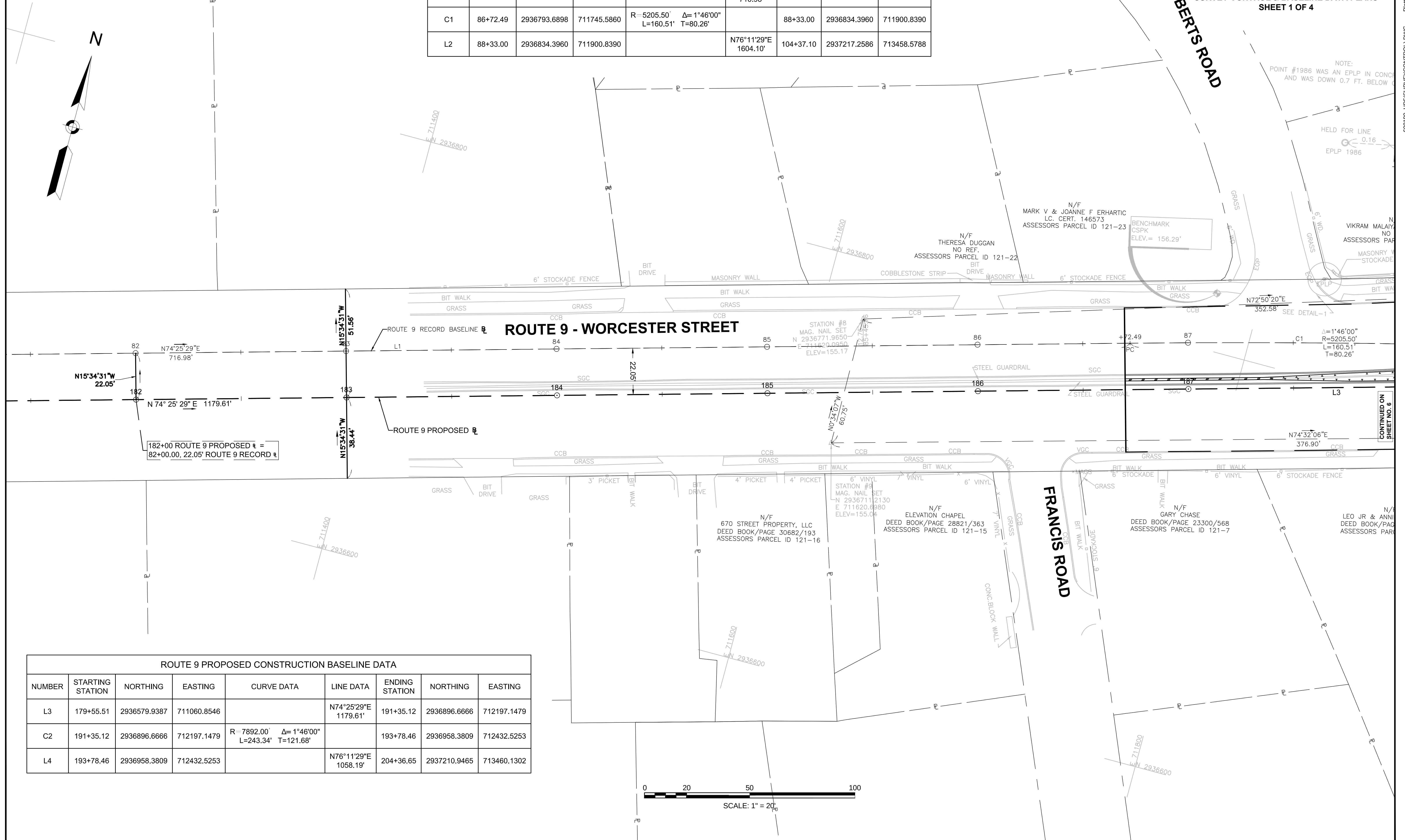
- # CONSTRUCTION PLANS
- # CURB TIE AND GRADING PLANS
- # DRAINAGE AND UTILITY PLANS
- # LANDSCAPE PLANS
- # TRAFFIC SIGN & PAVEMENT MARKINGS PLANS



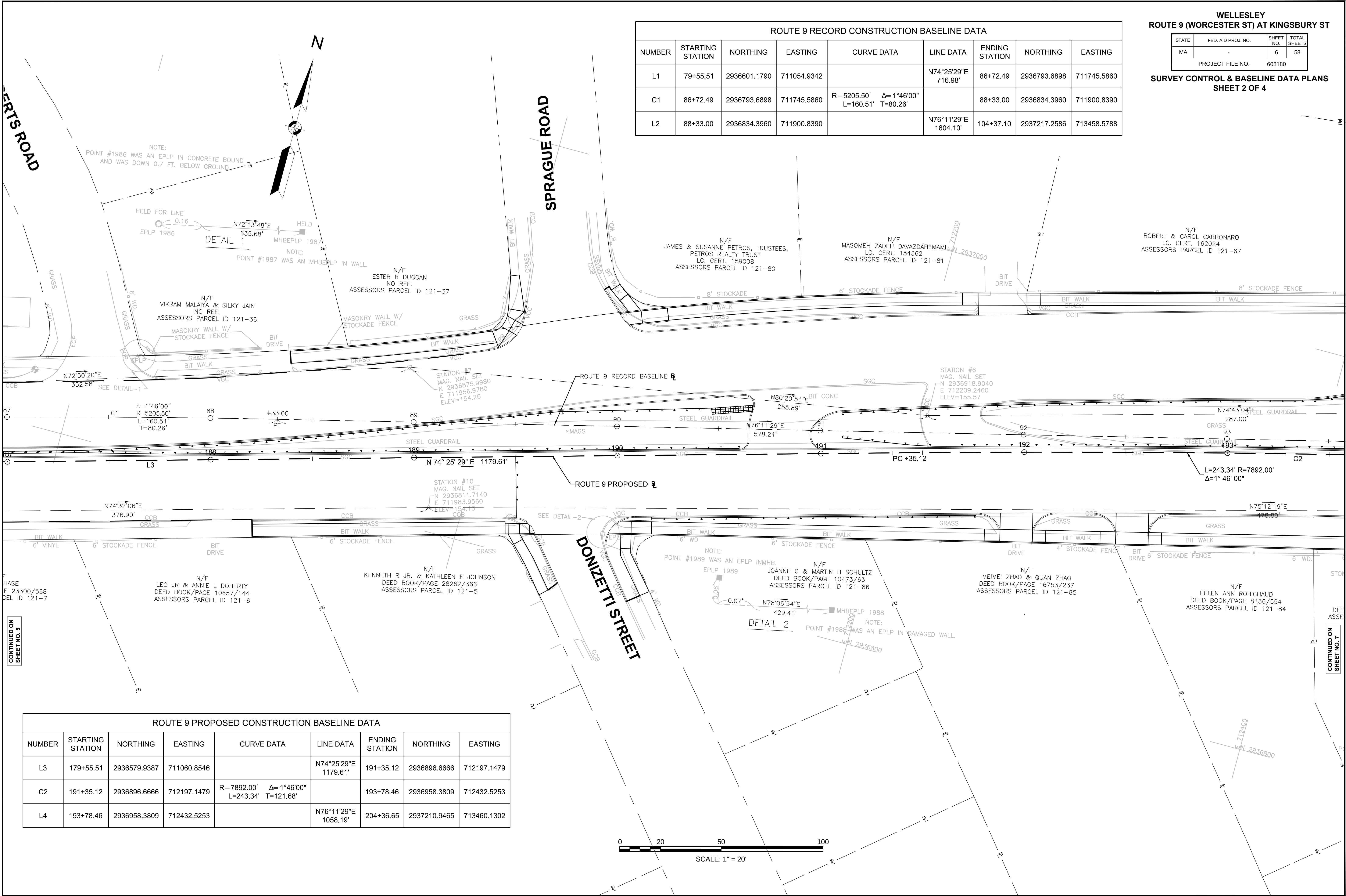


| ROUTE 9 RECORD CONSTRUCTION BASELINE DATA |                  |              |             |                                             |                         |                |              |             |
|-------------------------------------------|------------------|--------------|-------------|---------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                    | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                  | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L1                                        | 79+55.51         | 2936601.1790 | 711054.9342 |                                             | N74°25'29"E<br>716.98'  | 86+72.49       | 2936793.6898 | 711745.5860 |
| C1                                        | 86+72.49         | 2936793.6898 | 711745.5860 | R=5205.50' Δ=1°46'00"<br>L=160.51' T=80.26' |                         | 88+33.00       | 2936834.3960 | 711900.8390 |
| L2                                        | 88+33.00         | 2936834.3960 | 711900.8390 |                                             | N76°11'29"E<br>1604.10' | 104+37.10      | 2937217.2586 | 713458.5788 |

| WELLESLEY                              |                    |           |              |
|----------------------------------------|--------------------|-----------|--------------|
| ROUTE 9 (WORCESTER ST) AT KINGSBURY ST |                    |           |              |
| STATE                                  | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA.                                    | -                  | 5         | 58           |
| PROJECT FILE NO.                       |                    | 608180    |              |







| ROUTE 9 RECORD CONSTRUCTION BASELINE DATA |                  |              |             |                                                |                         |                |              |             |
|-------------------------------------------|------------------|--------------|-------------|------------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                    | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                     | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L1                                        | 79+55.51         | 2936601.1790 | 711054.9342 |                                                | N74°25'29"E<br>716.98'  | 86+72.49       | 2936793.6898 | 711745.5860 |
| C1                                        | 86+72.49         | 2936793.6898 | 711745.5860 | R = 5205.50' Δ= 1°46'00"<br>L=160.51' T=80.26' |                         | 88+33.00       | 2936834.3960 | 711900.8390 |
| L2                                        | 88+33.00         | 2936834.3960 | 711900.8390 |                                                | N76°11'29"E<br>1604.10' | 104+37.10      | 2937217.2586 | 713458.5788 |

WELLESLEY

ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

|       |                    |           |              |
|-------|--------------------|-----------|--------------|
| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA    | -                  | 6         | 58           |

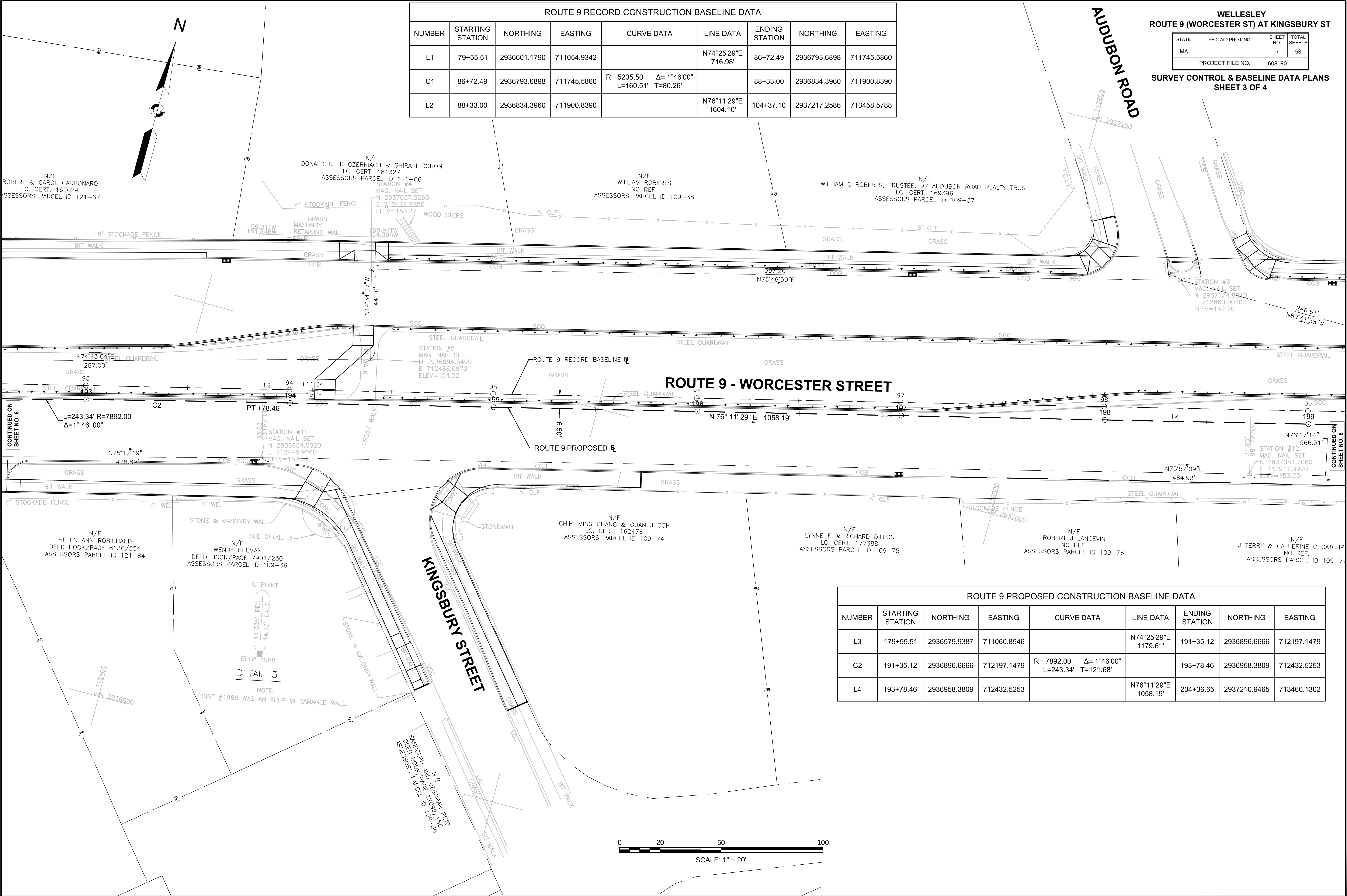
PROJECT FILE NO. 608180

SURVEY CONTROL & BASELINE DATA PLANS

SHEET 2 OF 4

| ROUTE 9 PROPOSED CONSTRUCTION BASELINE DATA |                  |              |             |                                                 |                         |                |              |             |
|---------------------------------------------|------------------|--------------|-------------|-------------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                      | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                      | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L3                                          | 179+55.51        | 2936579.9387 | 711060.8546 |                                                 | N74°25'29"E<br>1179.61' | 191+35.12      | 2936896.6666 | 712197.1479 |
| C2                                          | 191+35.12        | 2936896.6666 | 712197.1479 | R = 7892.00' Δ= 1°46'00"<br>L=243.34' T=121.68' |                         | 193+78.46      | 2936958.3809 | 712432.5253 |
| L4                                          | 193+78.46        | 2936958.3809 | 712432.5253 |                                                 | N76°11'29"E<br>1058.19' | 204+36.65      | 2937210.9465 | 713460.1302 |





| ROUTE 9 RECORD CONSTRUCTION BASELINE DATA |                  |              |             |                                            |                         |                |              |             |
|-------------------------------------------|------------------|--------------|-------------|--------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                    | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                 | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L1                                        | 79+55.51         | 2936601.1790 | 711054.9342 |                                            | N74°25'29"E<br>716.98'  | 86+72.49       | 2936793.6898 | 711745.5860 |
| C1                                        | 86+72.49         | 2936793.6898 | 711745.5860 | R= 5205.50' Δ= 1°46'00" L=160.51' T=80.26' |                         | 88+33.00       | 2936834.3960 | 711900.8390 |
| L2                                        | 88+33.00         | 2936834.3960 | 711900.8390 |                                            | N76°11'29"E<br>1604.10' | 104+37.10      | 2937217.2586 | 713458.5788 |

WELLESLEY

ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 7         | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

SURVEY CONTROL & BASELINE DATA PLANS

SHEET 3 OF 4

| ROUTE 9 PROPOSED CONSTRUCTION BASELINE DATA |                  |              |             |                                             |                         |                |              |             |
|---------------------------------------------|------------------|--------------|-------------|---------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                      | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                  | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L3                                          | 179+55.51        | 2936579.9387 | 711060.8546 |                                             | N74°25'29"E<br>1179.61' | 191+35.12      | 2936896.6666 | 712197.1479 |
| C2                                          | 191+35.12        | 2936896.6666 | 712197.1479 | R= 7892.00' Δ= 1°46'00" L=243.34' T=121.68' |                         | 193+78.46      | 2936958.3809 | 712432.5253 |
| L4                                          | 193+78.46        | 2936958.3809 | 712432.5253 |                                             | N76°11'29"E<br>1058.19' | 204+36.65      | 2937210.9465 | 713460.1302 |



WELLESLEY

ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

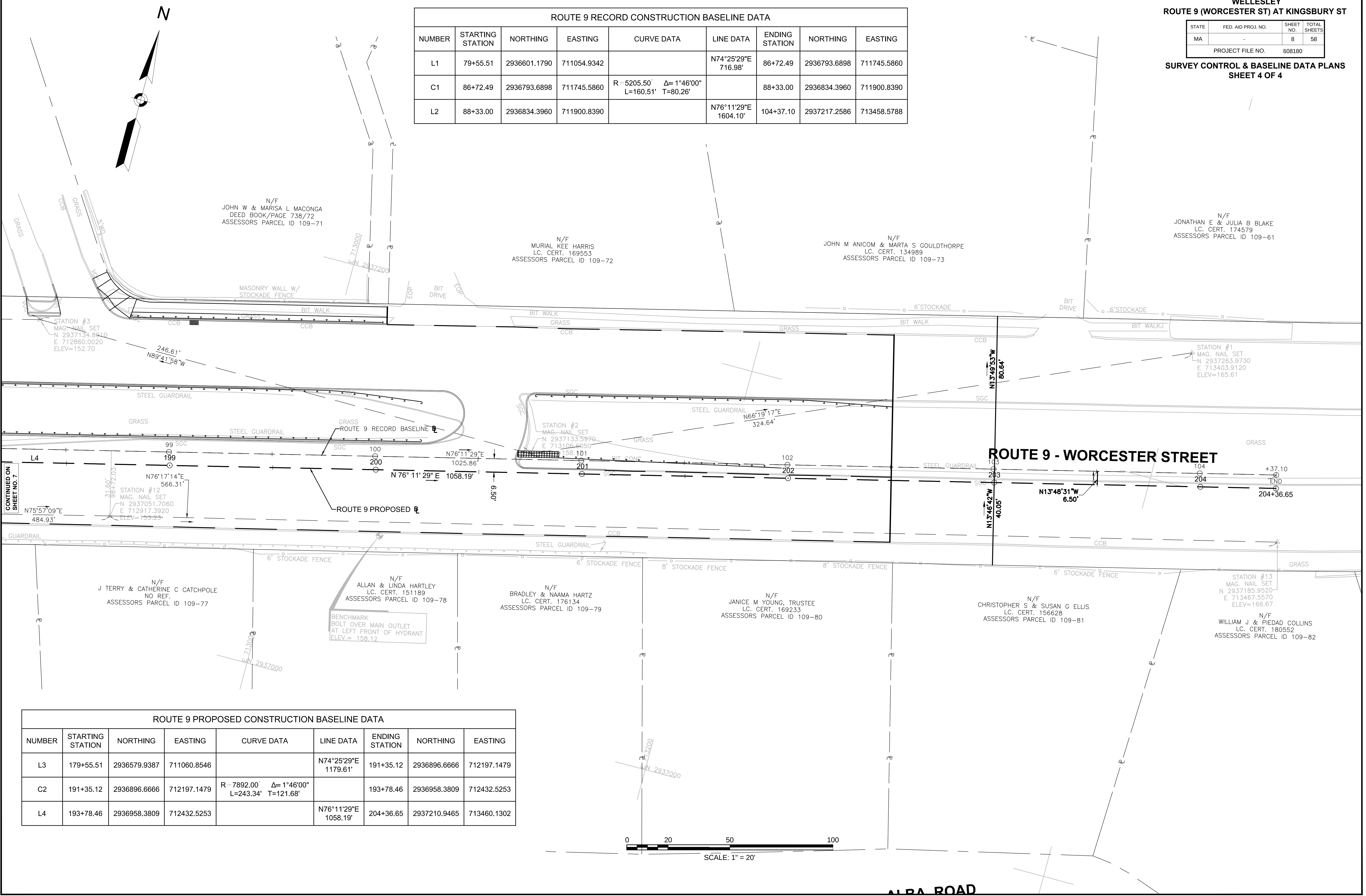
|       |                    |           |              |
|-------|--------------------|-----------|--------------|
| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA    | -                  | 8         | 58           |

PROJECT FILE NO. 608180

SURVEY CONTROL & BASELINE DATA PLANS

SHEET 4 OF 4

| ROUTE 9 RECORD CONSTRUCTION BASELINE DATA |                  |              |             |                                             |                         |                |              |             |
|-------------------------------------------|------------------|--------------|-------------|---------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                    | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                  | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L1                                        | 79+55.51         | 2936601.1790 | 711054.9342 |                                             | N74°25'29"E<br>716.98'  | 86+72.49       | 2936793.6898 | 711745.5860 |
| C1                                        | 86+72.49         | 2936793.6898 | 711745.5860 | R=5205.50' Δ=1°46'00"<br>L=160.51' T=80.26' |                         | 88+33.00       | 2936834.3960 | 711900.8390 |
| L2                                        | 88+33.00         | 2936834.3960 | 711900.8390 |                                             | N76°11'29"E<br>1604.10' | 104+37.10      | 2937217.2586 | 713458.5788 |



| ROUTE 9 PROPOSED CONSTRUCTION BASELINE DATA |                  |              |             |                                              |                         |                |              |             |
|---------------------------------------------|------------------|--------------|-------------|----------------------------------------------|-------------------------|----------------|--------------|-------------|
| NUMBER                                      | STARTING STATION | NORTHING     | EASTING     | CURVE DATA                                   | LINE DATA               | ENDING STATION | NORTHING     | EASTING     |
| L3                                          | 179+55.51        | 2936579.9387 | 711060.8546 |                                              | N74°25'29"E<br>1179.61' | 191+35.12      | 2936896.6666 | 712197.1479 |
| C2                                          | 191+35.12        | 2936896.6666 | 712197.1479 | R=7892.00' Δ=1°46'00"<br>L=243.34' T=121.68' |                         | 193+78.46      | 2936958.3809 | 712432.5253 |
| L4                                          | 193+78.46        | 2936958.3809 | 712432.5253 |                                              | N76°11'29"E<br>1058.19' | 204+36.65      | 2937210.9465 | 713460.1302 |

CONTINUED ON  
SHEET NO. 7

ALBA ROAD



### PAVEMENT NOTES

|                         |                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| SURFACE COURSE:         | 1.5" HMA SURFACE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-SC-ARGG) OVER<br>1/20 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER      |
| INTERMEDIATE<br>COURSE: | 1.5" HMA INTERMEDIATE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-IC-ARGG) OVER<br>1/15 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER |

|                      |                                                                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SURFACE COURSE:      | 1.5" HMA SURFACE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-SC-ARGG) OVER<br><br>1/20 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER                                                                                                          |
| INTERMEDIATE COURSE: | 1.5" HMA INTERMEDIATE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-IC-ARGG) OVER<br><br>1/15 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER                                                                                                     |
| SUB-BASE:            | VARIABLE DEPTH HMA FOR PATCHING<br>COMPACTED LEVEL WITH TOP OF EXISTING REINFORCED<br>CONCRETE BASE OVER<br><br>4.5" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER<br>4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER<br>8" GRAVEL BORROW, TYPE b |

|                         |                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SURFACE COURSE:         | 1.5" HMA SURFACE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-SC-ARGG) OVER<br><br>1/20 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER                                                                                                                                                                  |
| INTERMEDIATE<br>COURSE: | 1.5" HMA INTERMEDIATE COURSE -<br>ASPHALT RUBBER GAP GRADED (HMA-IC-ARGG) OVER<br><br>1/15 GAL ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER                                                                                                                                                             |
| SUB-BASE:               | VARIABLE DEPTH HMA FOR PATCHING<br>COMPACTED DOWN TO TOP OF EXIST. REINFORCED<br>CONCRETE BASE OVER<br><br>6" HES CEM CONC BASE<br>LEVEL WITH TOP OF EXIST. REINFORCED CONCRETE BASE)<br>OVER<br><br>VARIABLE DEPTH DENSE GRADED CRUSHED STONE SUBBASE<br>TO BOTTOM OF EXIST. REINFORCED CONCRETE BASE |

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER  
2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

FOUNDATION: 8" GRAVEL BORROW, TYPE b

SURFACE: 2.5" HOT MIX ASPHALT WALK SURFACE OVER  
FOUNDATION: 8" GRAVEL BORROW, TYPE b

SURFACE: 4" CEMENT CONCRETE WALK SURFACE  
4000 PSI, 3/4", 610 OVER

FOUNDATION: 8" GRAVEL BORROW, TYPE b

1. PROP. RESURFACING MILLING AND OVERLAY SHALL EXTEND OVER BRIDGES AT WESTON ROAD AND CLIFF ROAD
2. BRIDGE CLEARANCES AT ALL UNDERPASSES SHALL BE MAINTAINED AND NOT BE REDUCED BY RESURFACING.
3. PAVEMENT MILLING SHALL PROVIDE A 2% CROSS SLOPE FOR ALL NORMAL SECTIONS AND SHALL MAINTAIN ALL EXIST. SUPERELEVATIONS AND TRANSITIONS.
4. ASPHALT EMULSION FOR TACK COAT SHALL BE GRADE RS-1H.

EXISTING TOWN LAYOUT (50'±)

APPROX. TOWN LAYOUT

VARIES (3.5'±) GRASS BUFFER

5.00' HMA SIDEWALK

2'±

PROTECT & RETAIN STONE MASONRY WALL (TYP)

1.5%\*

MEET EXIST.

PROP 4" LOAM & SEED (1V:6H OR FLATTER)

6" (TYP)

SAWCUT

PROP. FULL DEPTH PAVEMENT BOX WIDENING

R&R EXIST. VERTICAL GRANITE CURB STD. DWG E 106.3.0

5.00' SHLDR

10.50' TRAVEL LANE SOUTHBOUND

10.50' TRAVEL LANE NORTHBOUND

5.00' SHLDR

3'-0" GRASS BUFFER

5.00' HMA SIDEWALK

0.50'

1.5%\*

MEET EXIST.

PROP 4" LOAM & SEED (1V:6H OR FLATTER)

6" (TYP)

SAWCUT

PROP. FULL DEPTH PAVEMENT BOX WIDENING

R&R EXIST. VERTICAL GRANITE CURB STD. DWG E 106.3.0

6" (TYP)

PROPOSED PAVEMENT MILLING AND OVERLAY

MATCH EXIST.

MATCH EXIST.

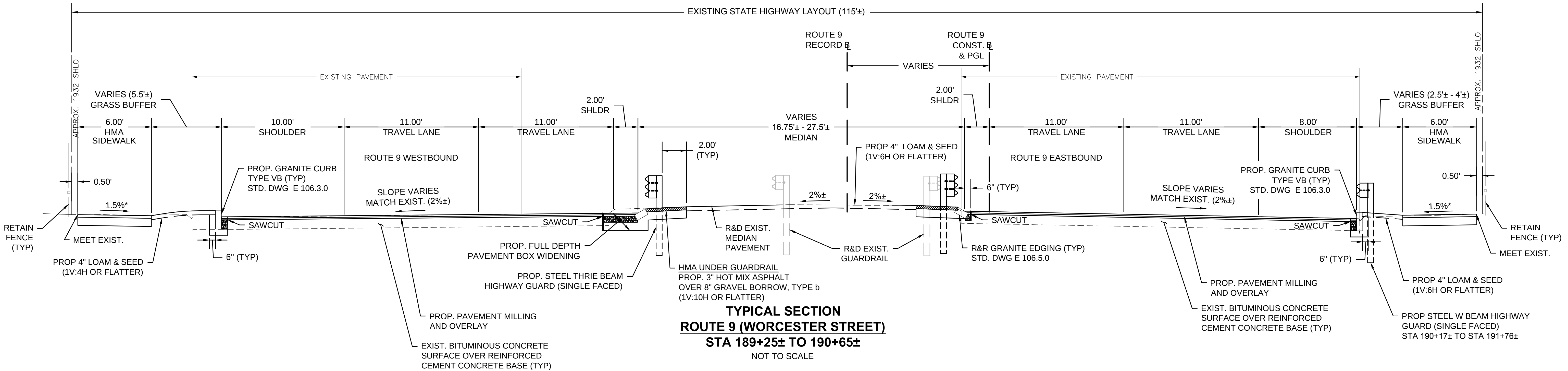
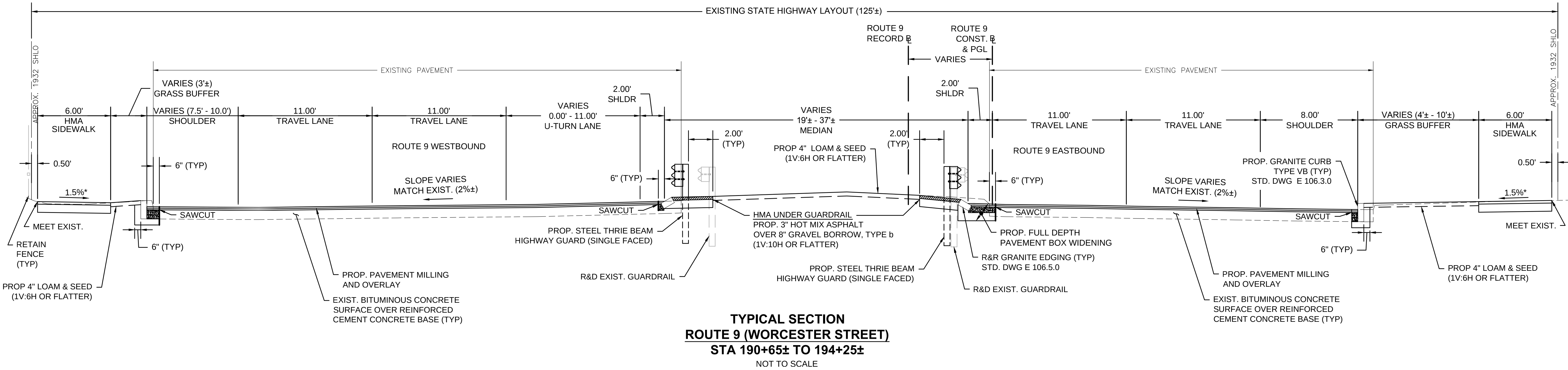
NOT TO SCALE



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE                   | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------------------------|--------------------|-----------|--------------|
| MA                      | -                  | 10        | 58           |
| PROJECT FILE NO. 608180 |                    |           |              |

TYPICAL SECTIONS  
SHEET 2 OF 4



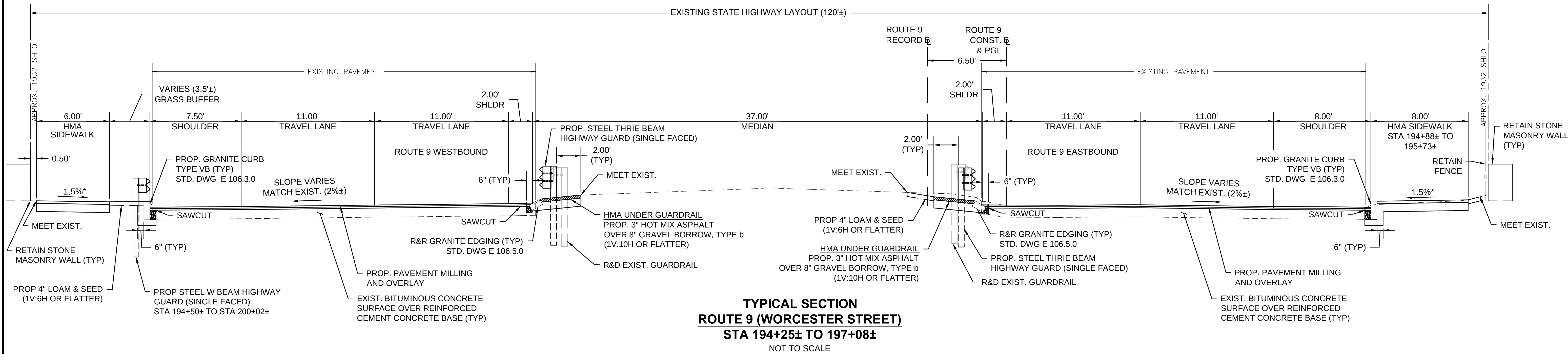
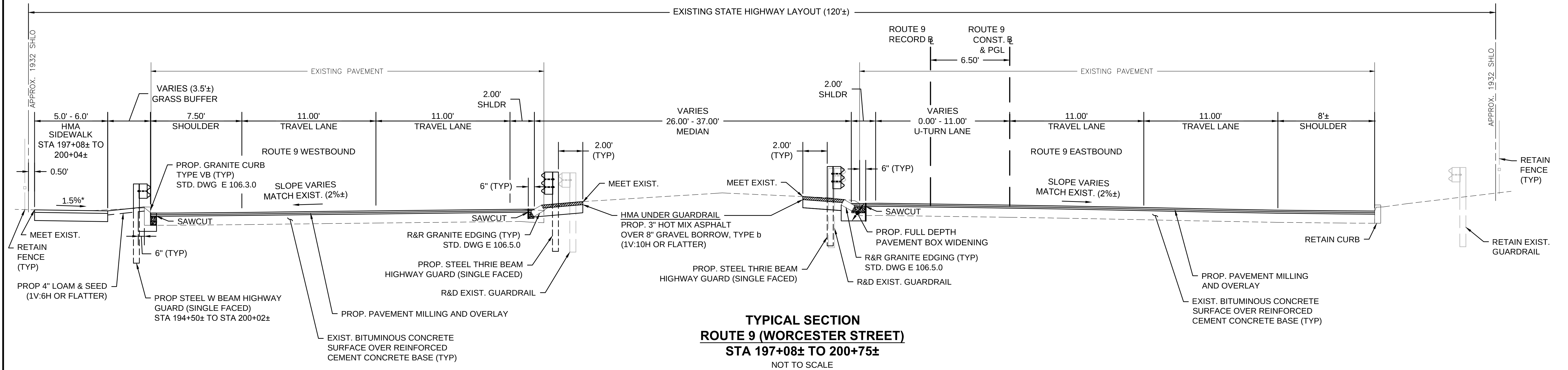
\* SIDEWALK CROSS-SLOPE SHALL BE 1.5% WITH A CONSTRUCTION TOLERANCE OF 0.5%±



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 11        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TYPICAL SECTIONS  
SHEET 3 OF 4



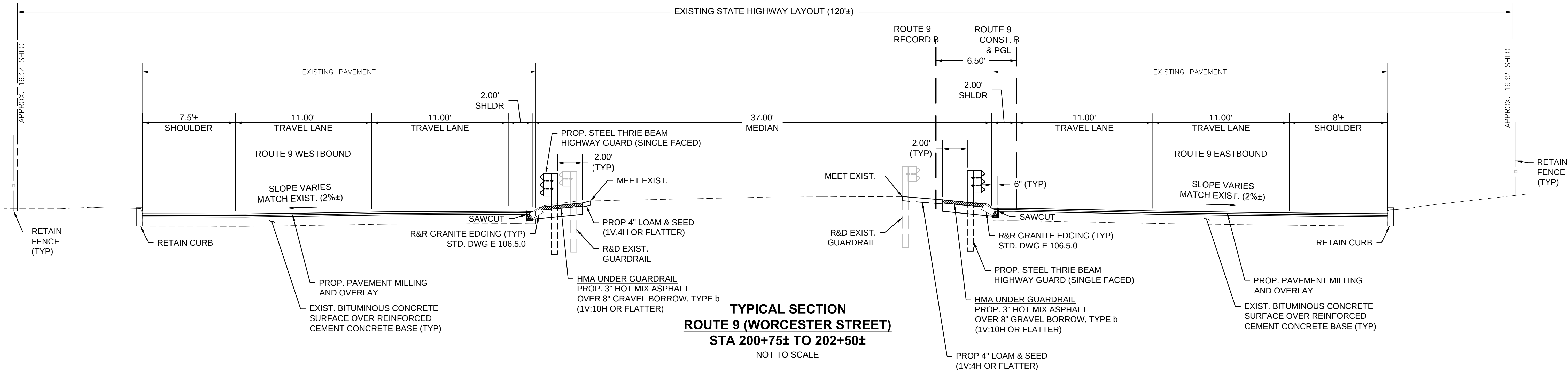
\* SIDEWALK CROSS-SLOPE SHALL BE 1.5% WITH A CONSTRUCTION TOLERANCE OF 0.5%±



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 12        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TYPICAL SECTIONS  
SHEET 4 OF 4

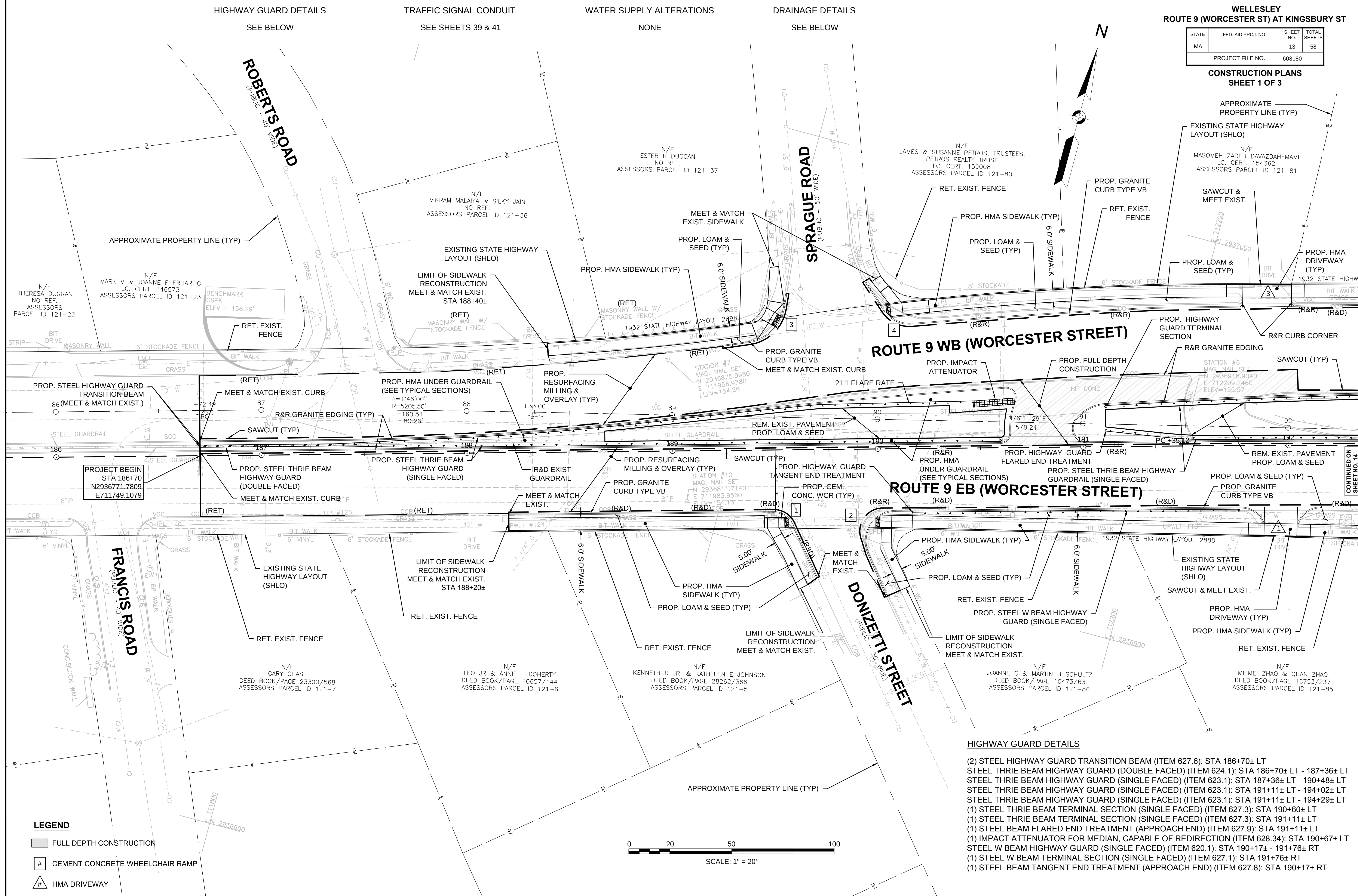




**WELLESLEY**  
**ROUTE 9 (WORCESTER ST) AT KINGSBURY ST**

|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 13        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CONSTRUCTION PLANS  
SHEET 1 OF 3





HIGHWAY GUARD DETAILS

SEE BELOW

TRAFFIC SIGNAL CONDUIT

SEE SHEETS 39 & 41

WATER SUPPLY ALTERATIONS

NONE

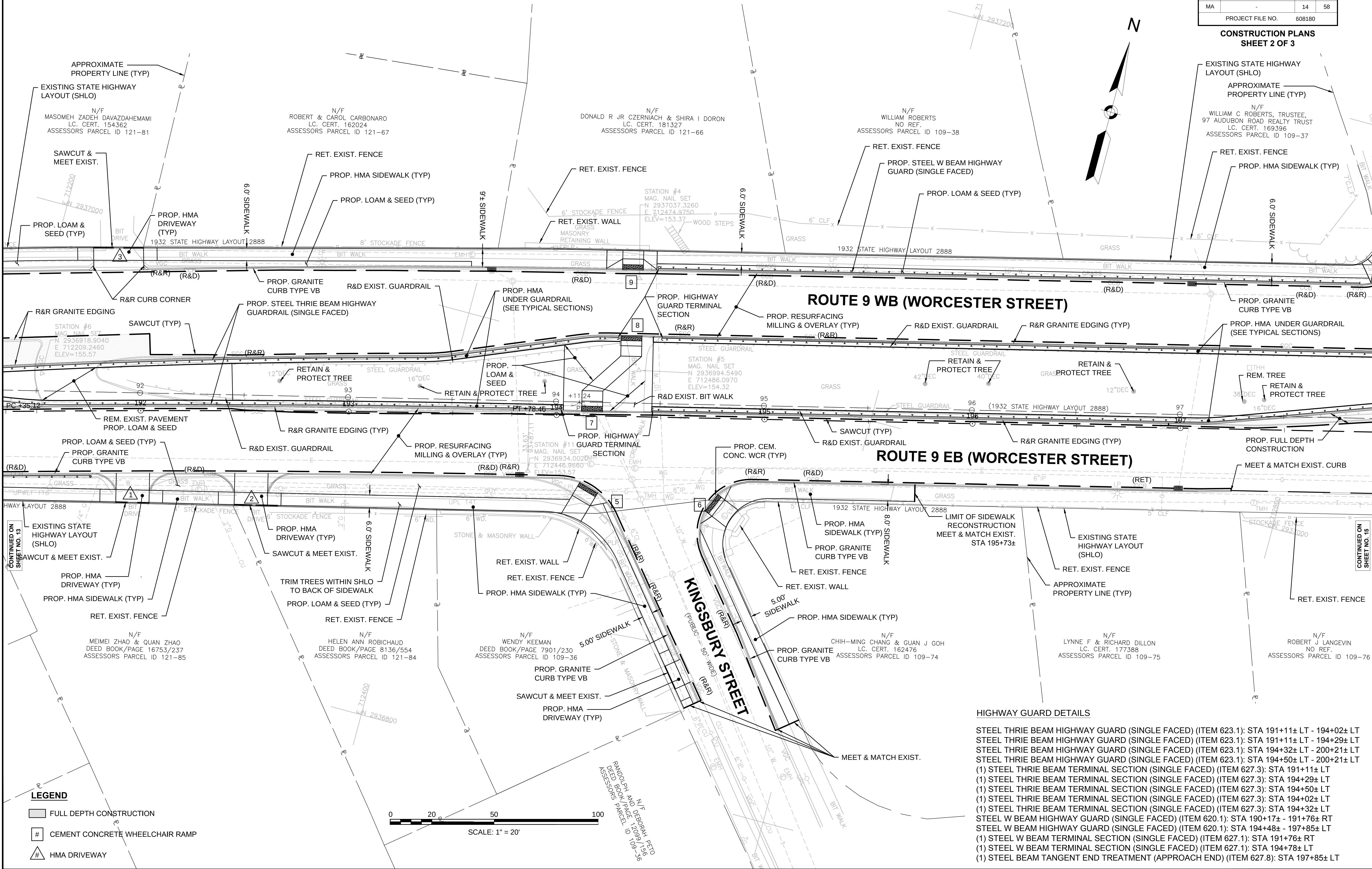
DRAINAGE DETAILS

SEE BELOW

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 14        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CONSTRUCTION PLANS  
SHEET 2 OF 3

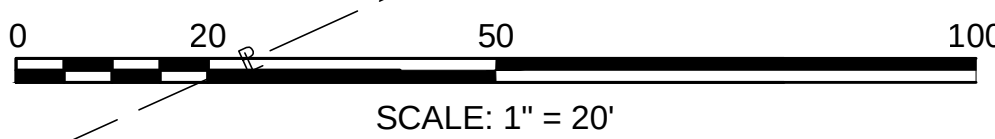


HIGHWAY GUARD DETAILS

- STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 191+11± LT - 194+02± LT  
 STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 191+11± LT - 194+29± LT  
 STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 194+32± LT - 200+21± LT  
 STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 194+50± LT - 200+21± LT  
 (1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 191+11± LT  
 (1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 194+29± LT  
 (1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 194+50± LT  
 (1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 194+02± LT  
 (1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 194+32± LT  
 STEEL W BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 620.1): STA 190+17± - 191+76± RT  
 STEEL W BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 620.1): STA 194+48± - 197+85± LT  
 (1) STEEL W BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.1): STA 191+76± RT  
 (1) STEEL W BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.1): STA 194+78± LT  
 (1) STEEL BEAM TANGENT END TREATMENT (APPROACH END) (ITEM 627.8): STA 197+85± LT

LEGEND

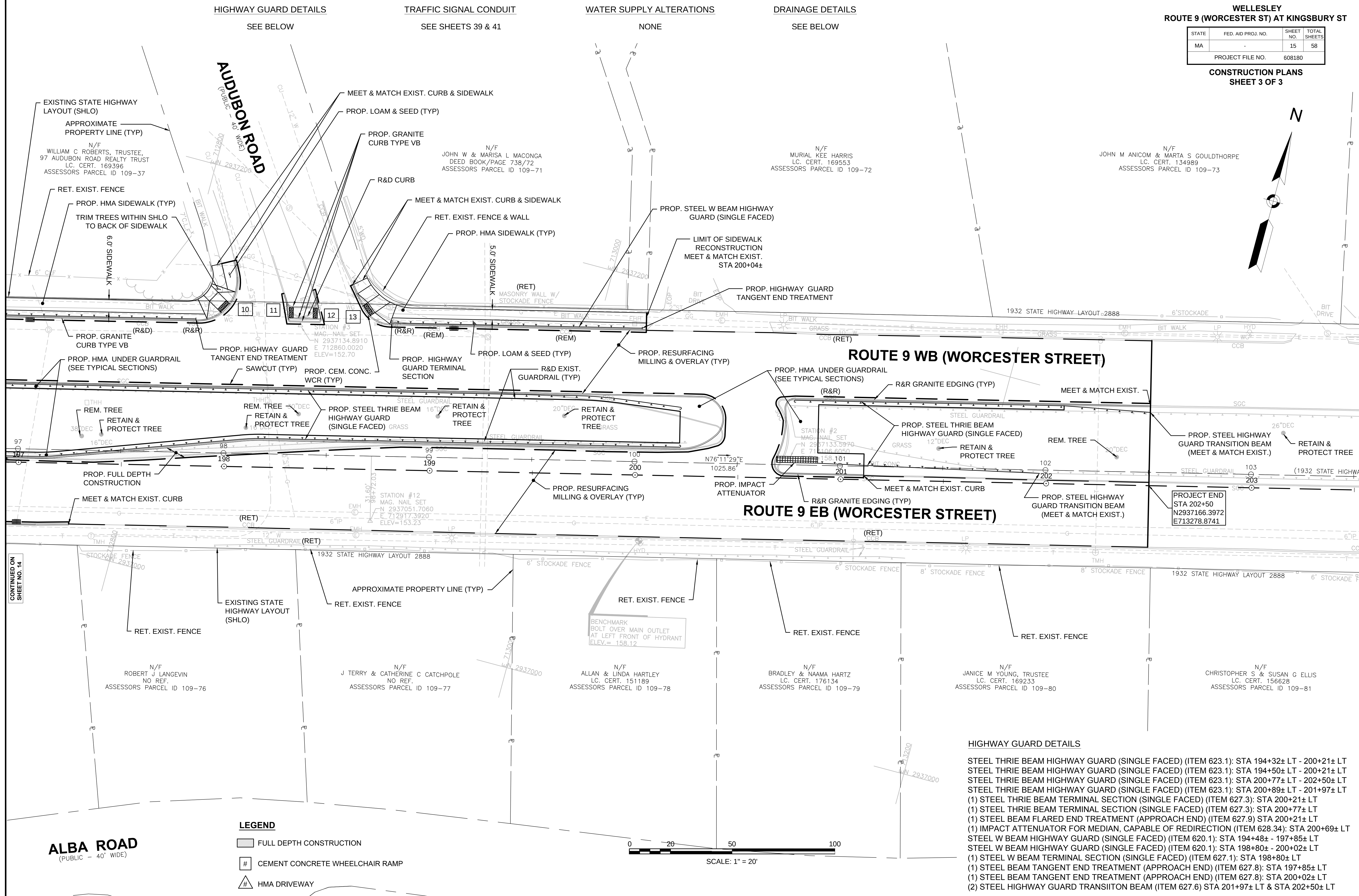
- FULL DEPTH CONSTRUCTION
- CEMENT CONCRETE WHEELCHAIR RAMP
- HMA DRIVEWAY





|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 15        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CONSTRUCTION PL  
SHEET 3 OF 3



HIGHWAY GUARD DETAILS

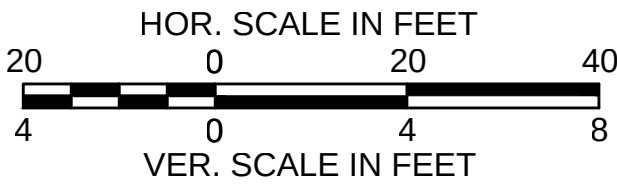
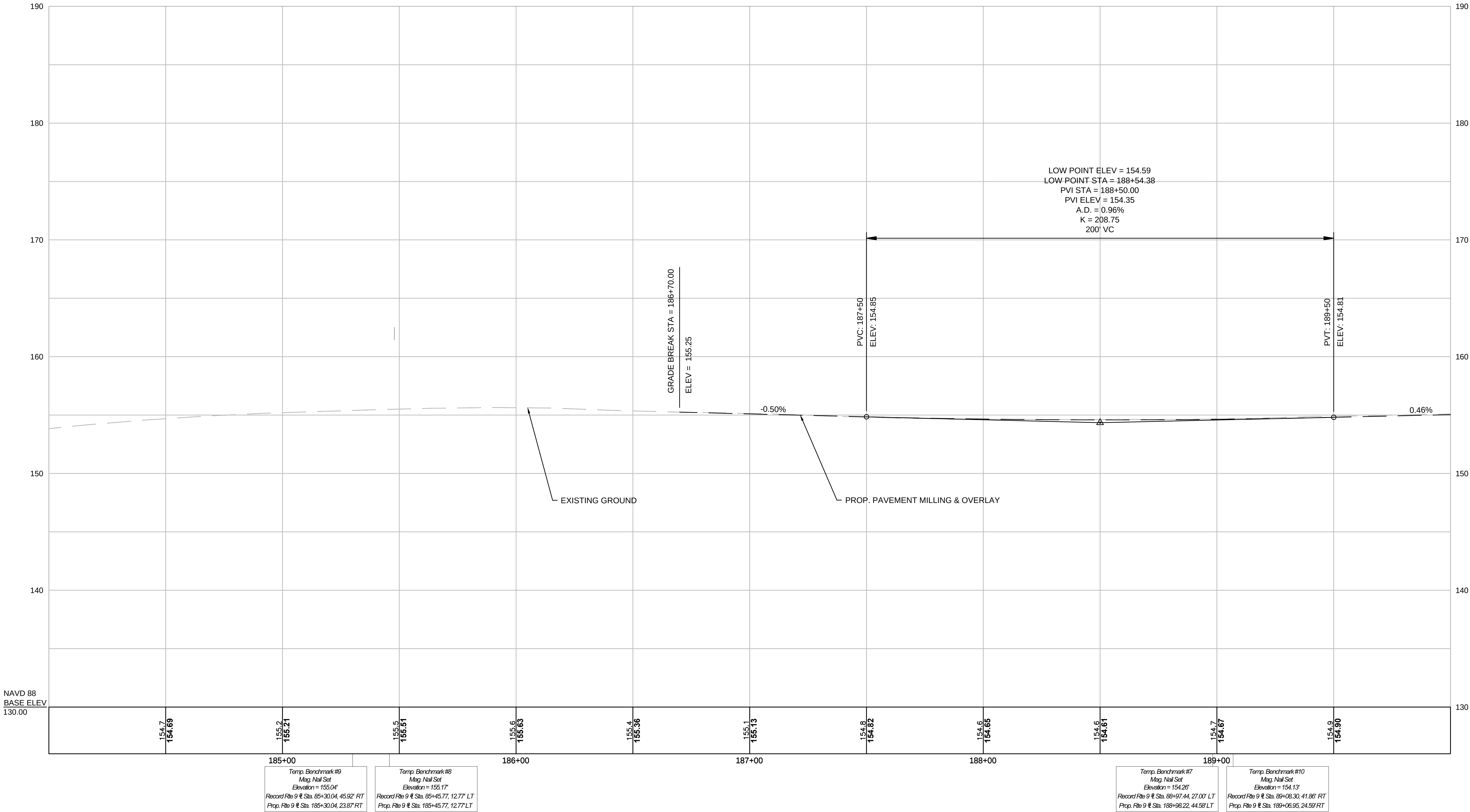
STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 194+32± LT - 200+21± LT  
STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 194+50± LT - 200+21± LT  
STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 200+77± LT - 202+50± LT  
STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 623.1): STA 200+89± LT - 201+97± LT  
(1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 200+21± LT  
(1) STEEL THRIE BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.3): STA 200+77± LT  
(1) STEEL BEAM FLARED END TREATMENT (APPROACH END) (ITEM 627.9) STA 200+21± LT  
(1) IMPACT ATTENUATOR FOR MEDIAN, CAPABLE OF REDIRECTION (ITEM 628.34): STA 200+69± LT  
STEEL W BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 620.1): STA 194+48± - 197+85± LT  
STEEL W BEAM HIGHWAY GUARD (SINGLE FACED) (ITEM 620.1): STA 198+80± - 200+02± LT  
(1) STEEL W BEAM TERMINAL SECTION (SINGLE FACED) (ITEM 627.1): STA 198+80± LT  
(1) STEEL BEAM TANGENT END TREATMENT (APPROACH END) (ITEM 627.8): STA 197+85± LT  
(1) STEEL BEAM TANGENT END TREATMENT (APPROACH END) (ITEM 627.8): STA 200+02± LT  
(2) STEEL HIGHWAY GUARD TRANSITION BEAM (ITEM 627.6) STA 201+97± LT & STA 202+50± LT



| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 16        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

NOTE:  
PROFILE GEOMETRY AND ELEVATION DATA ARE  
FOR INFORMATIONAL PURPOSES ONLY. THE  
ACTUAL OVERLAY DEPTH IS TO BE CONSTRUCTED  
AS SHOWN ON THE TYPICAL SECTIONS.

PROFILE - ROUTE 9 CONSTRUCTION BASELINE

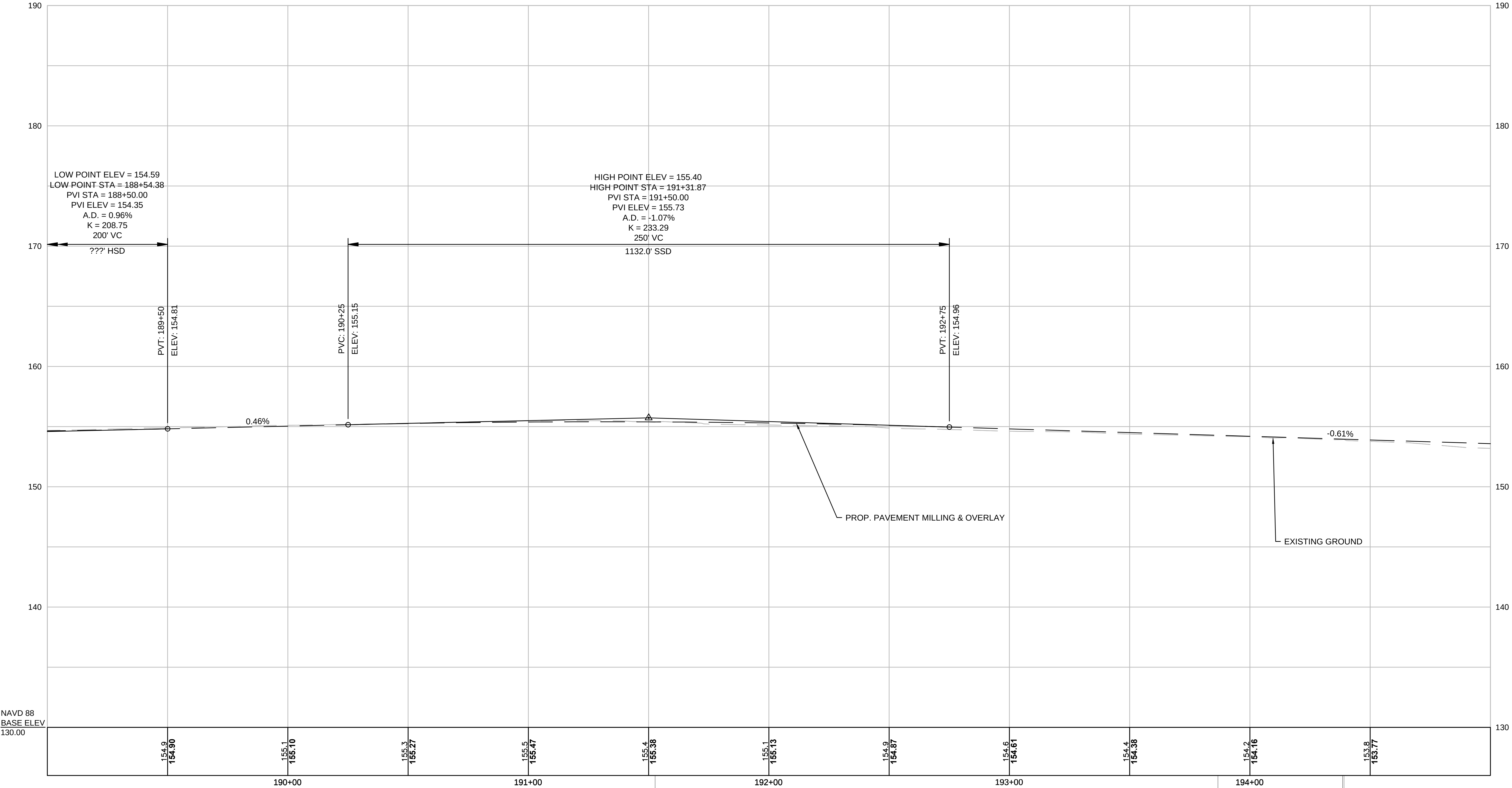


FOR CONSTRUCTION PLANS:  
SEE SHEET NO. 13



| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 17        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

NOTE:  
PROFILE GEOMETRY AND ELEVATION DATA ARE  
FOR INFORMATIONAL PURPOSES ONLY. THE  
ACTUAL OVERLAY DEPTH IS TO BE CONSTRUCTED  
AS SHOWN ON THE TYPICAL SECTIONS.



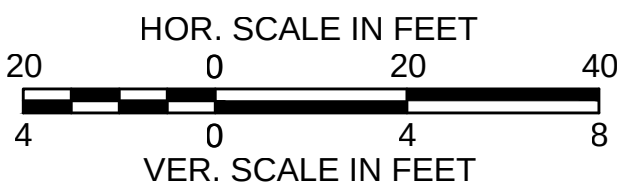
NAVD 88  
BASE ELEV  
130.00

Temp. Benchmark #6  
Mag. Nail Set  
Elevation = 155.57'  
Record Rte 9 @ Sta. 91+52.66, 8.46' LT  
Prop. Rte 9 @ Sta. 191+52.70, 18.19' LT

Temp. Benchmark #11  
Mag. Nail Set  
Elevation = 153.57'  
Record Rte 9 @ Sta. 93+87.11, 33.63' RT  
Prop. Rte 9 @ Sta. 193+86.67, 27.12' RT

Temp. Benchmark #4  
Mag. Nail Set  
Elevation = 153.37'  
Record Rte 9 @ Sta. 94+38.97, 60.03' LT  
Prop. Rte 9 @ Sta. 194+38.53, 66.53' LT

Temp. Benchmark #5  
Mag. Nail Set  
Elevation = 154.32'  
Record Rte 9 @ Sta. 94+39.57, 15.84' LT  
Prop. Rte 9 @ Sta. 194+39.12, 22.34' LT

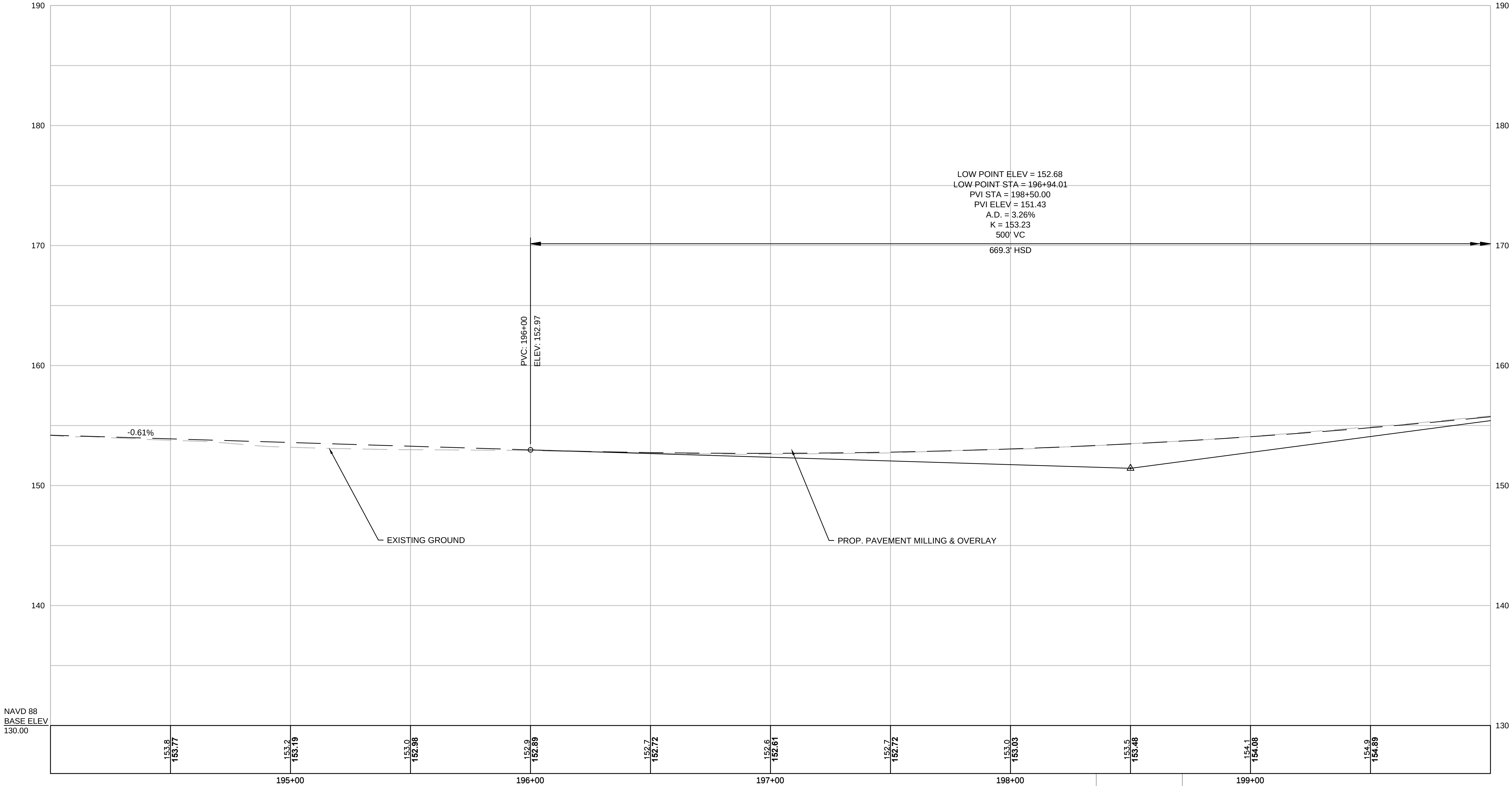


FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 13 & 14

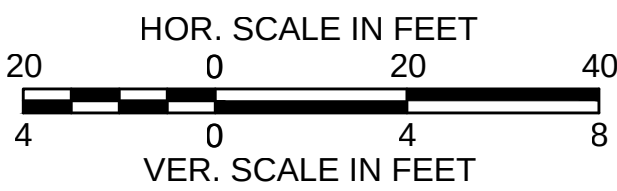


| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 18        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

NOTE:  
PROFILE GEOMETRY AND ELEVATION DATA ARE  
FOR INFORMATIONAL PURPOSES ONLY. THE  
ACTUAL OVERLAY DEPTH IS TO BE CONSTRUCTED  
AS SHOWN ON THE TYPICAL SECTIONS.



NAVD 88  
BASE ELEV  
130.00

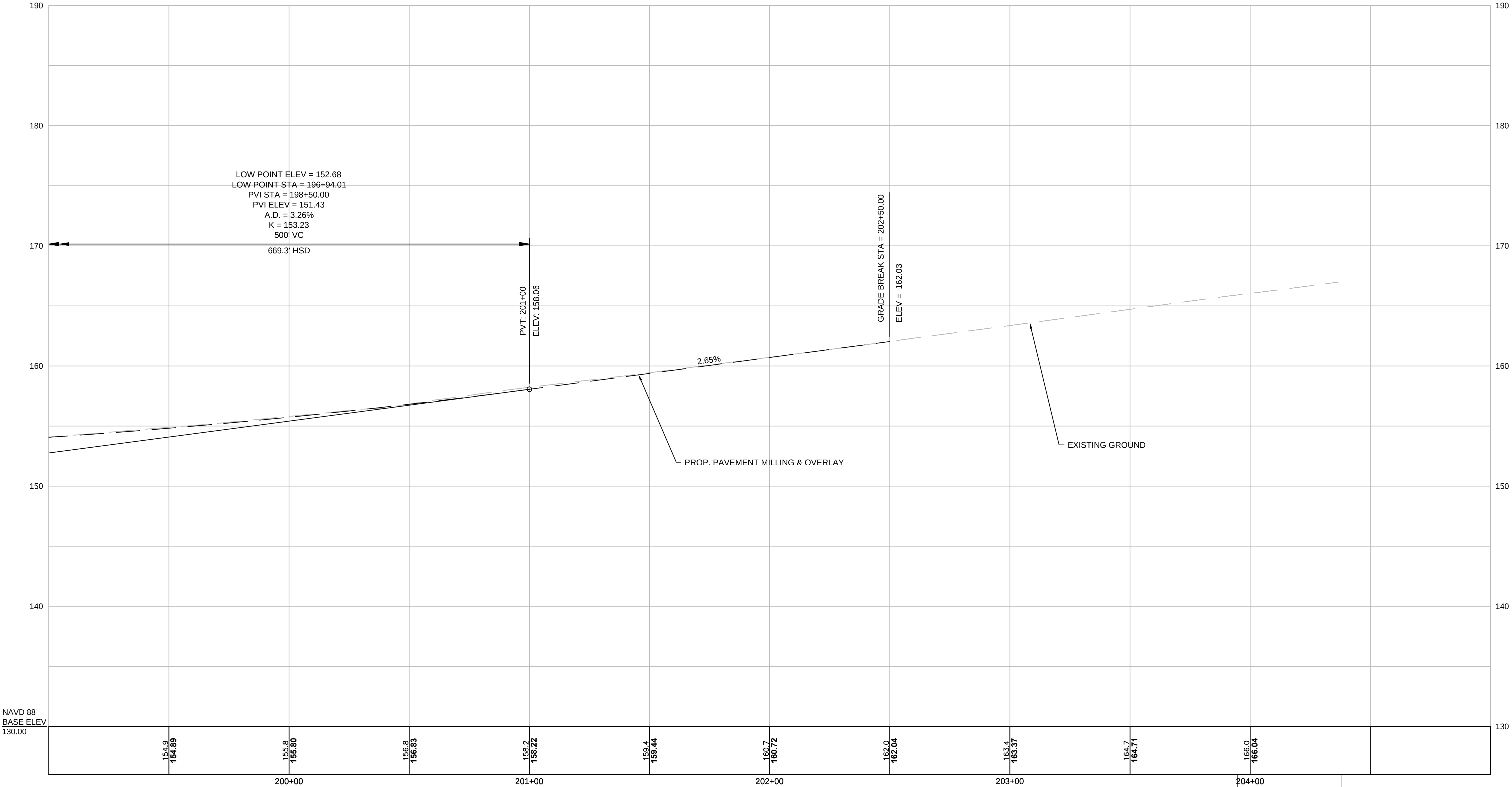


FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 14 & 15



| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 19        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

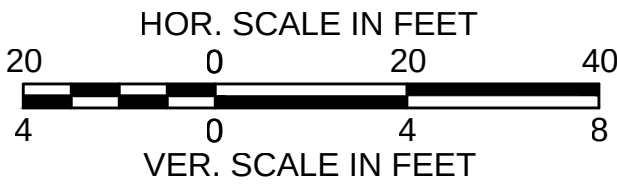
NOTE:  
PROFILE GEOMETRY AND ELEVATION DATA ARE  
FOR INFORMATIONAL PURPOSES ONLY. THE  
ACTUAL OVERLAY DEPTH IS TO BE CONSTRUCTED  
AS SHOWN ON THE TYPICAL SECTIONS.



Temp. Benchmark #2  
Mag. Nail Set  
Elevation = 158.17'  
Record Rte 9 @ Sta. 100+75.33, 2.76' LT  
Prop. Rte 9 @ Sta. 200+74.88, 9.26' LT

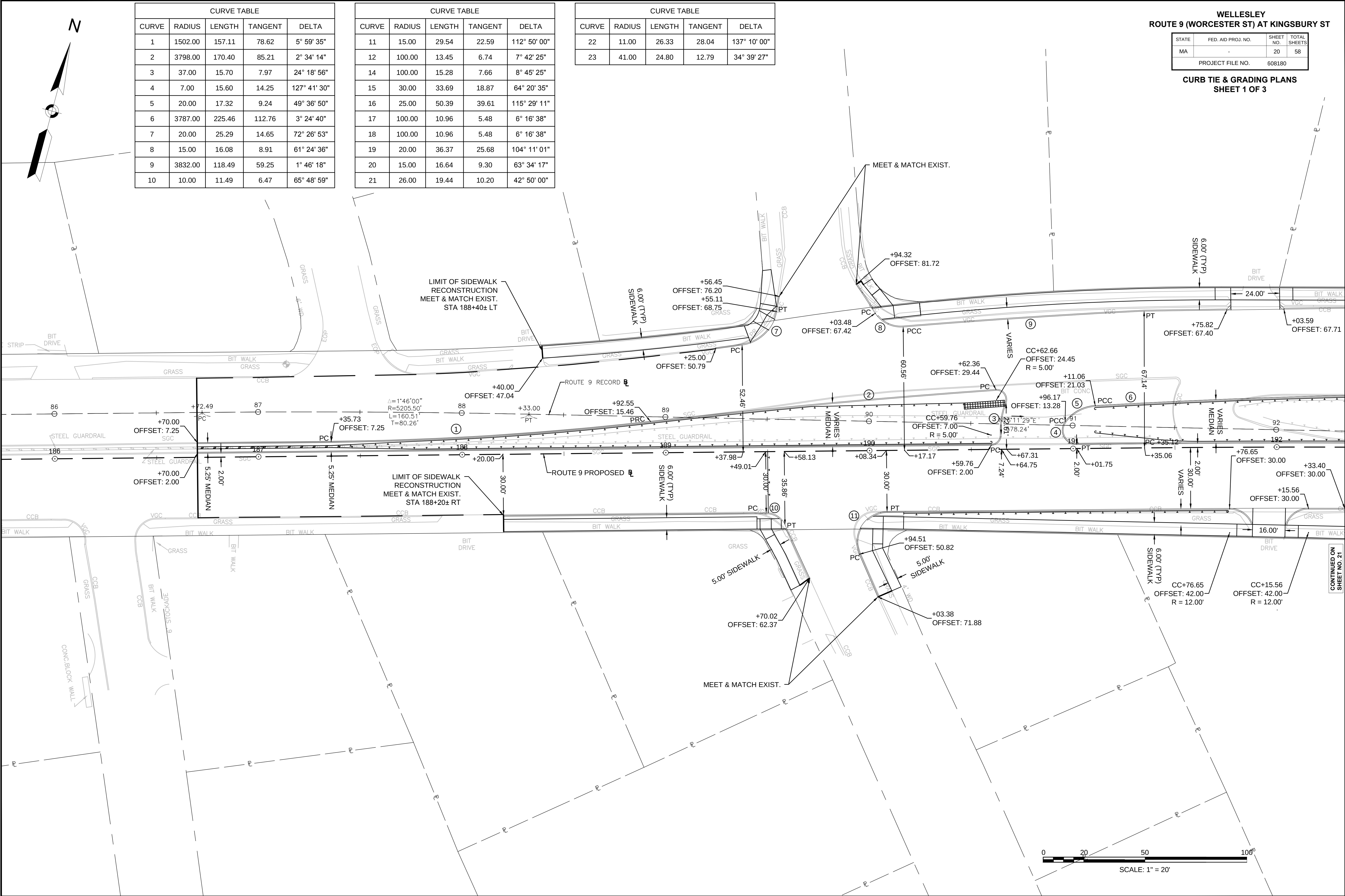
Temp. Benchmark #1  
Mag. Nail Set  
Elevation = 165.61'  
Record Rte 9 @ Sta. 103+95.16, 58.41' LT  
Prop. Rte 9 @ Sta. 203+94.71, 64.91' LT

Temp. Benchmark #13  
Mag. Nail Set  
Elevation = 166.67'  
Record Rte 9 @ Sta. 104+38.34, 32.54' RT  
Prop. Rte 9 @ Sta. 204+37.90, 26.04' RT



FOR CONSTRUCTION PLANS:  
SEE SHEET NO. 15





| CURVE TABLE |         |        |         |              |
|-------------|---------|--------|---------|--------------|
| CURVE       | RADIUS  | LENGTH | TANGENT | DELTA        |
| 1           | 1502.00 | 157.11 | 78.62   | 5° 59' 35"   |
| 2           | 3798.00 | 170.40 | 85.21   | 2° 34' 14"   |
| 3           | 37.00   | 15.70  | 7.97    | 24° 18' 56"  |
| 4           | 7.00    | 15.60  | 14.25   | 127° 41' 30" |
| 5           | 20.00   | 17.32  | 9.24    | 49° 36' 50"  |
| 6           | 3787.00 | 225.46 | 112.76  | 3° 24' 40"   |
| 7           | 20.00   | 25.29  | 14.65   | 72° 26' 53"  |
| 8           | 15.00   | 16.08  | 8.91    | 61° 24' 36"  |
| 9           | 3832.00 | 118.49 | 59.25   | 1° 46' 18"   |
| 10          | 10.00   | 11.49  | 6.47    | 65° 48' 59"  |

| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 11          | 15.00  | 29.54  | 22.59   | 112° 50' 00" |
| 12          | 100.00 | 13.45  | 6.74    | 7° 42' 25"   |
| 14          | 100.00 | 15.28  | 7.66    | 8° 45' 25"   |
| 15          | 30.00  | 33.69  | 18.87   | 64° 20' 35"  |
| 16          | 25.00  | 50.39  | 39.61   | 115° 29' 11" |
| 17          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 18          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 19          | 20.00  | 36.37  | 25.68   | 104° 11' 01" |
| 20          | 15.00  | 16.64  | 9.30    | 63° 34' 17"  |
| 21          | 26.00  | 19.44  | 10.20   | 42° 50' 00"  |

| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 22          | 11.00  | 26.33  | 28.04   | 137° 10' 00" |
| 23          | 41.00  | 24.80  | 12.79   | 34° 39' 27"  |

WELLESLEY

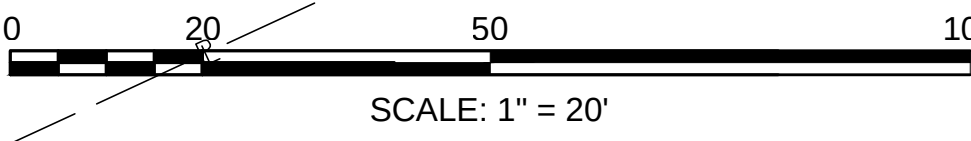
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

|       |                    |           |              |
|-------|--------------------|-----------|--------------|
| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA    | -                  | 20        | 58           |

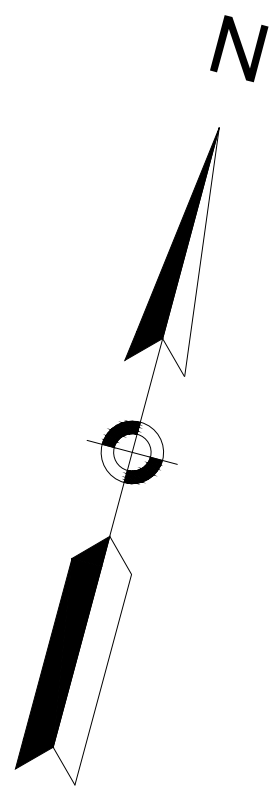
PROJECT FILE NO. 608180

CURB TIE & GRADING PLANS

SHEET 1 OF 3







| CURVE TABLE |         |        |         |              |
|-------------|---------|--------|---------|--------------|
| CURVE       | RADIUS  | LENGTH | TANGENT | DELTA        |
| 1           | 1502.00 | 157.11 | 78.62   | 5° 59' 35"   |
| 2           | 3798.00 | 170.40 | 85.21   | 2° 34' 14"   |
| 3           | 37.00   | 15.70  | 7.97    | 24° 18' 56"  |
| 4           | 7.00    | 15.60  | 14.25   | 127° 41' 30" |
| 5           | 20.00   | 17.32  | 9.24    | 49° 36' 50"  |
| 6           | 3787.00 | 225.46 | 112.76  | 3° 24' 40"   |
| 7           | 20.00   | 25.29  | 14.65   | 72° 26' 53"  |
| 8           | 15.00   | 16.08  | 8.91    | 61° 24' 36"  |
| 9           | 3832.00 | 118.49 | 59.25   | 1° 46' 18"   |
| 10          | 10.00   | 11.49  | 6.47    | 65° 48' 59"  |

| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 11          | 15.00  | 29.54  | 22.59   | 112° 50' 00" |
| 12          | 100.00 | 13.45  | 6.74    | 7° 42' 25"   |
| 14          | 100.00 | 15.28  | 7.66    | 8° 45' 25"   |
| 15          | 30.00  | 33.69  | 18.87   | 64° 20' 35"  |
| 16          | 25.00  | 50.39  | 39.61   | 115° 29' 11" |
| 17          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 18          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 19          | 20.00  | 36.37  | 25.68   | 104° 11' 01" |
| 20          | 15.00  | 16.64  | 9.30    | 63° 34' 17"  |
| 21          | 26.00  | 19.44  | 10.20   | 42° 50' 00"  |

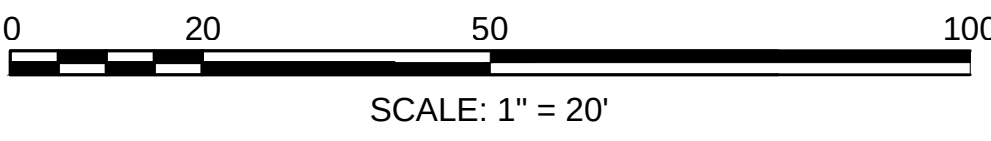
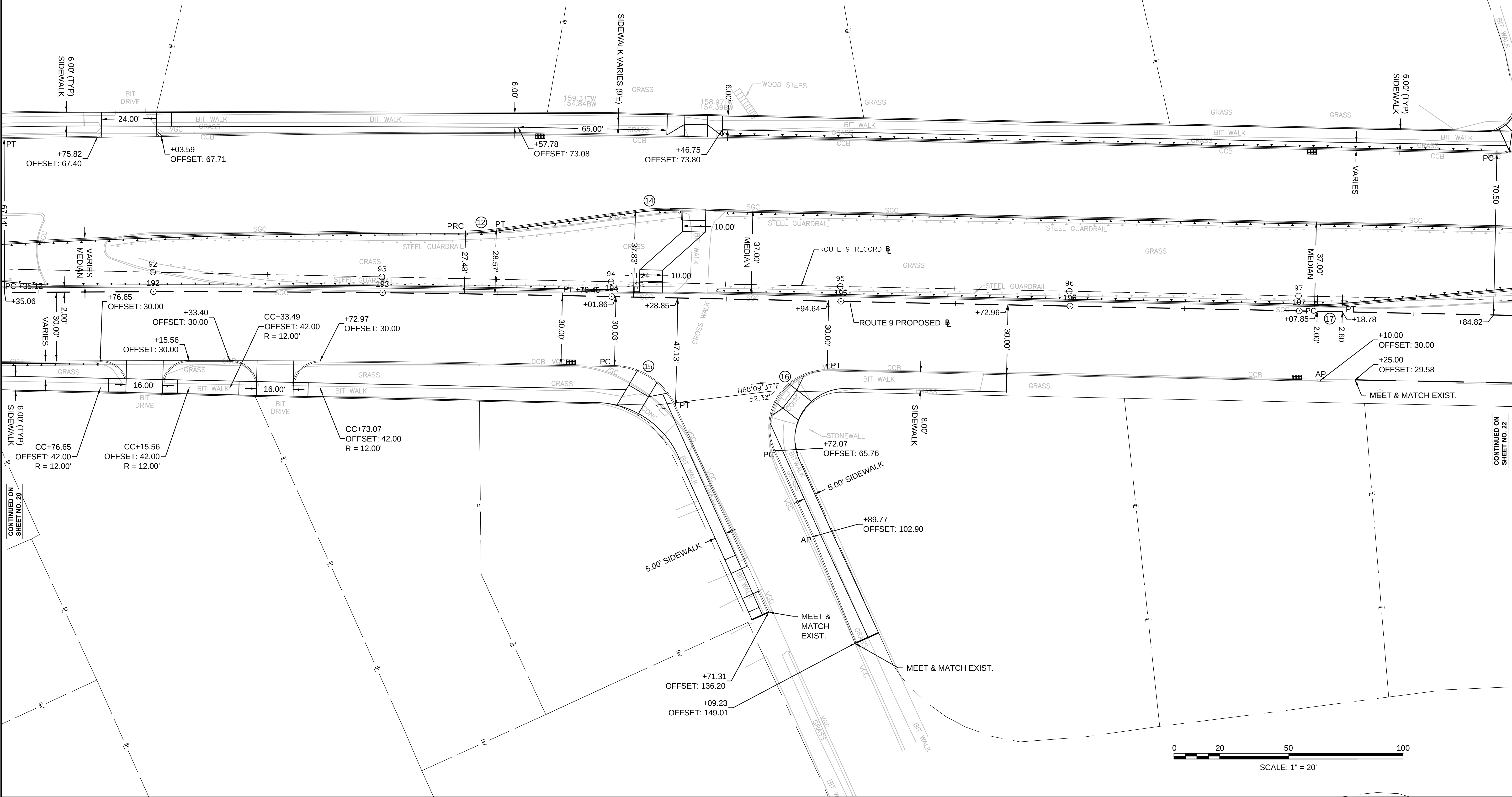
| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 22          | 11.00  | 26.33  | 28.04   | 137° 10' 00" |
| 23          | 41.00  | 24.80  | 12.79   | 34° 39' 27"  |

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------|--------------------|-----------|--------------|
| MA    | -                  | 21        | 58           |

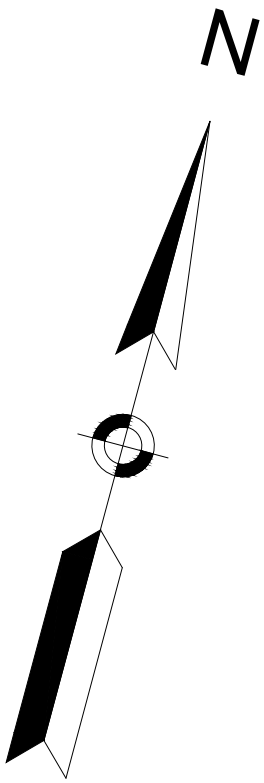
CURB TIE & GRADING PLANS  
SHEET 2 OF 3

PROJECT FILE NO. 608180



CONTINUED ON  
SHEET NO. 22





| CURVE TABLE |         |        |         |              |
|-------------|---------|--------|---------|--------------|
| CURVE       | RADIUS  | LENGTH | TANGENT | DELTA        |
| 1           | 1502.00 | 157.11 | 78.62   | 5° 59' 35"   |
| 2           | 3798.00 | 170.40 | 85.21   | 2° 34' 14"   |
| 3           | 37.00   | 15.70  | 7.97    | 24° 18' 56"  |
| 4           | 7.00    | 15.60  | 14.25   | 127° 41' 30" |
| 5           | 20.00   | 17.32  | 9.24    | 49° 36' 50"  |
| 6           | 3787.00 | 225.46 | 112.76  | 3° 24' 40"   |
| 7           | 20.00   | 25.29  | 14.65   | 72° 26' 53"  |
| 8           | 15.00   | 16.08  | 8.91    | 61° 24' 36"  |
| 9           | 3832.00 | 118.49 | 59.25   | 1° 46' 18"   |
| 10          | 10.00   | 11.49  | 6.47    | 65° 48' 59"  |

| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 11          | 15.00  | 29.54  | 22.59   | 112° 50' 00" |
| 12          | 100.00 | 13.45  | 6.74    | 7° 42' 25"   |
| 14          | 100.00 | 15.28  | 7.66    | 8° 45' 25"   |
| 15          | 30.00  | 33.69  | 18.87   | 64° 20' 35"  |
| 16          | 25.00  | 50.39  | 39.61   | 115° 29' 11" |
| 17          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 18          | 100.00 | 10.96  | 5.48    | 6° 16' 38"   |
| 19          | 20.00  | 36.37  | 25.68   | 104° 11' 01" |
| 20          | 15.00  | 16.64  | 9.30    | 63° 34' 17"  |
| 21          | 26.00  | 19.44  | 10.20   | 42° 50' 00"  |

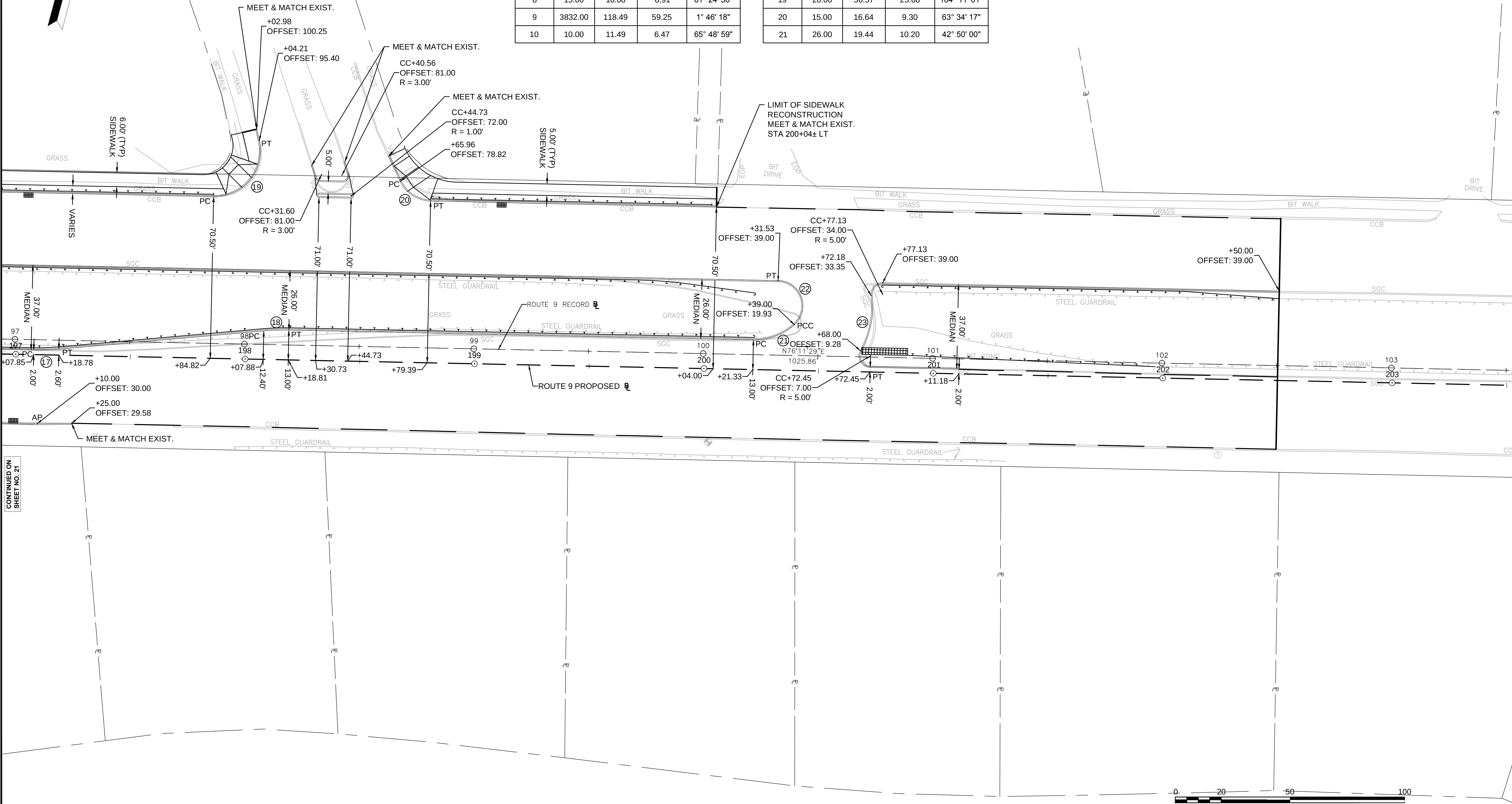
| CURVE TABLE |        |        |         |              |
|-------------|--------|--------|---------|--------------|
| CURVE       | RADIUS | LENGTH | TANGENT | DELTA        |
| 22          | 11.00  | 26.33  | 28.04   | 137° 10' 00" |
| 23          | 41.00  | 24.80  | 12.79   | 34° 39' 27"  |

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

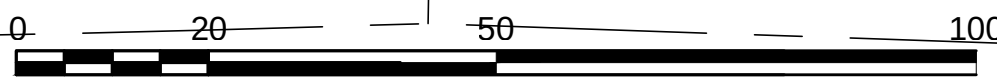
| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------|--------------------|-----------|--------------|
| MA    | -                  | 22        | 58           |

PROJECT FILE NO. 608180

CURB TIE & GRADING PLANS  
SHEET 3 OF 3



CONTINUED ON  
SHEET NO. 21



SCALE: 1" = 20'







DRAINAGE DETAILS

SEE BELOW

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 24        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

DRAINAGE & UTILITY PLANS  
SHEET 2 OF 3

N/F  
WILLIAM C. ROBERTS, TRUSTEE,  
97 AUDUBON ROAD REALTY TRUST  
LC. CERT. 169396  
ASSESSORS PARCEL ID 109-37

N/F  
WILLIAM C. ROBERTS  
NO REF.  
ASSESSORS PARCEL ID 109-38

N/F  
DONALD R JR CZERNIACH & SHIRA I DORON  
LC. CERT. 181327  
ASSESSORS PARCEL ID 121-66

N/F  
ROBERT & CAROL CARBONARO  
LC. CERT. 162024  
ASSESSORS PARCEL ID 121-67

N/F  
MASOMEH ZADEH DAVAZDAHEMAMI  
LC. CERT. 154362  
ASSESSORS PARCEL ID 121-81

ROUTE 9 WB  
(WORCESTER STREET)

ROUTE 9 WB (WORCESTER STREET)

ROUTE 9 EB  
(WORCESTER STREET)

ROUTE 9 EB (WORCESTER STREET)

KINGSBURY STREET

ALBA ROAD

LEGEND

FULL DEPTH PAVEMENT BOX WIDENING

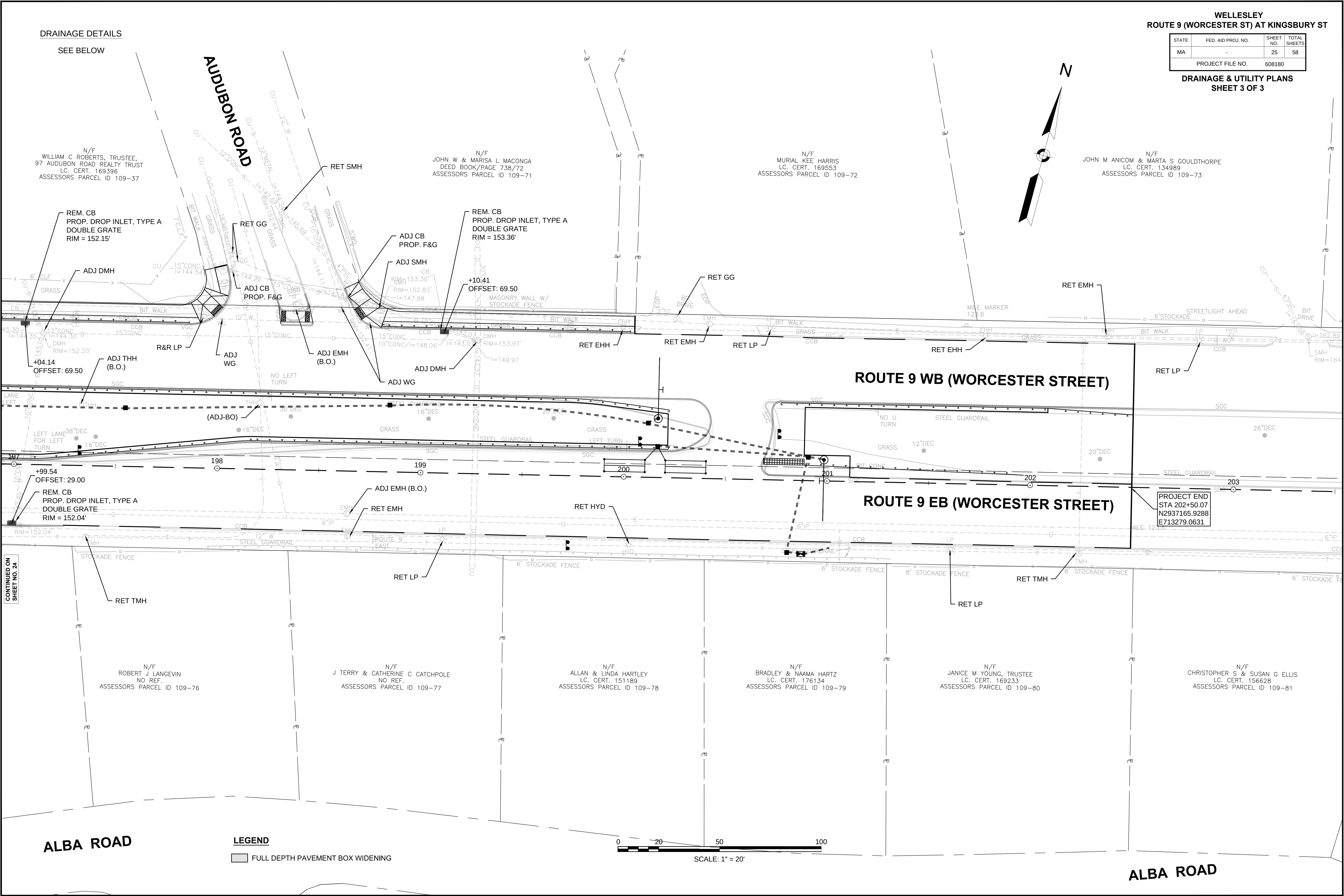
0 20 50 100  
SCALE: 1" = 20'



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 25        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

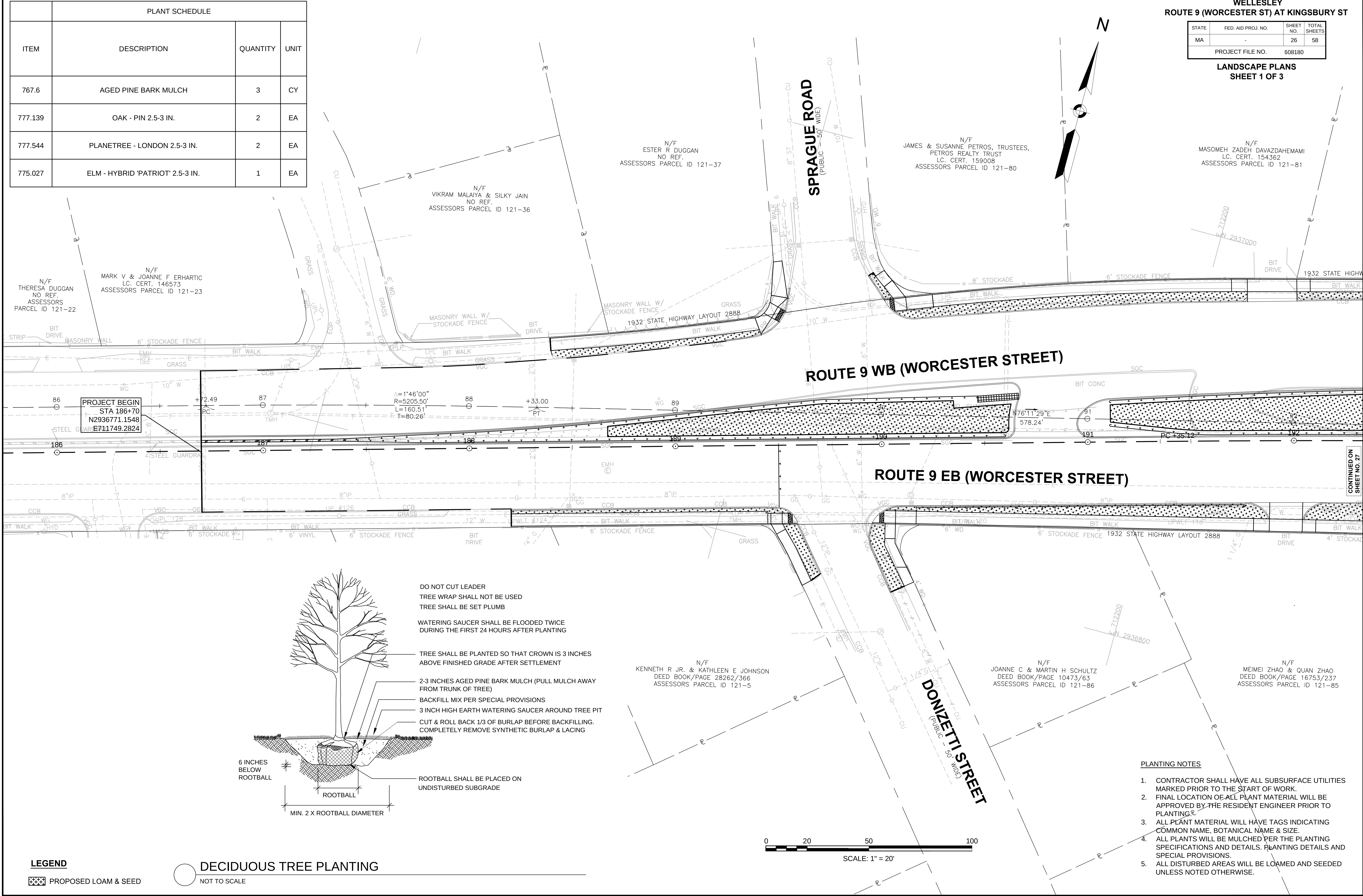
DRAINAGE & UTILITY PLANS  
SHEET 3 OF 3





| PLANT SCHEDULE |                                  |          |      |
|----------------|----------------------------------|----------|------|
| ITEM           | DESCRIPTION                      | QUANTITY | UNIT |
| 767.6          | AGED PINE BARK MULCH             | 3        | CY   |
| 777.139        | OAK - PIN 2.5-3 IN.              | 2        | EA   |
| 777.544        | PLANETREEE - LONDON 2.5-3 IN.    | 2        | EA   |
| 775.027        | ELM - HYBRID 'PATRIOT' 2.5-3 IN. | 1        | EA   |

| WELLESLEY                              |                    |           |              |
|----------------------------------------|--------------------|-----------|--------------|
| ROUTE 9 (WORCESTER ST) AT KINGSBURY ST |                    |           |              |
| STATE                                  | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA                                     | -                  | 26        | 58           |
| PROJECT FILE NO. 608180                |                    |           |              |
| LANDSCAPE PLANS                        |                    |           |              |
| SHEET 1 OF 3                           |                    |           |              |





HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 27        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

LANDSCAPE PLANS  
SHEET 2 OF 3

N/F  
WILLIAM C. ROBERTS, TRUSTEE,  
97 AUDUBON ROAD REALTY TRUST  
LC. CERT. 169396  
ASSESSORS PARCEL ID 109-37

N/F  
MASOMEH ZADEH DAVAZDAHEMAMI  
LC. CERT. 154362  
ASSESSORS PARCEL ID 121-81

N/F  
ROBERT & CAROL CARBONARO  
LC. CERT. 162024  
ASSESSORS PARCEL ID 121-67

N/F  
DONALD R JR CZERNIACH & SHIRA I DORON  
LC. CERT. 181327  
ASSESSORS PARCEL ID 121-66

N/F  
WILLIAM ROBERTS  
NO REF.  
ASSESSORS PARCEL ID 109-38

ROUTE 9 WB (WORCESTER STREET)

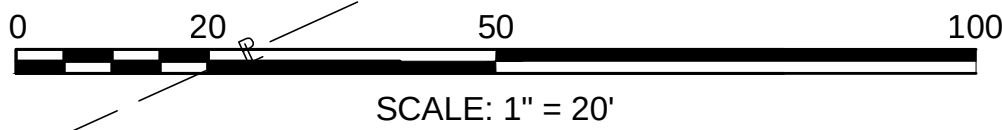
ROUTE 9 EB (WORCESTER STREET)

KINGSBURY STREET  
(PUBLIC - 50' WIDE)

ALBA ROAD  
(PUBLIC - 40' WIDE)

LEGEND

PROPOSED LOAM & SEED





HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

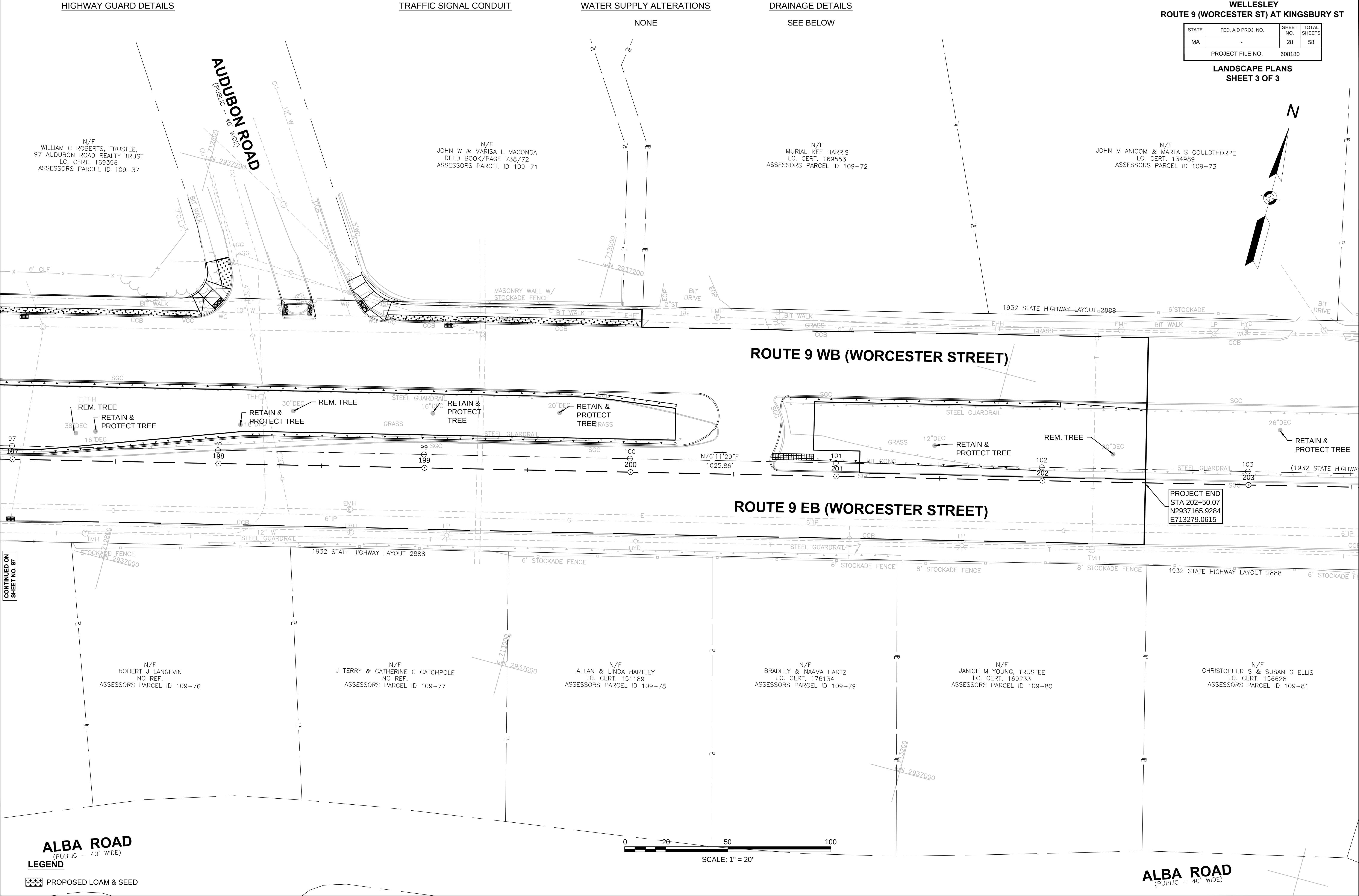
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 28        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

LANDSCAPE PLANS  
SHEET 3 OF 3



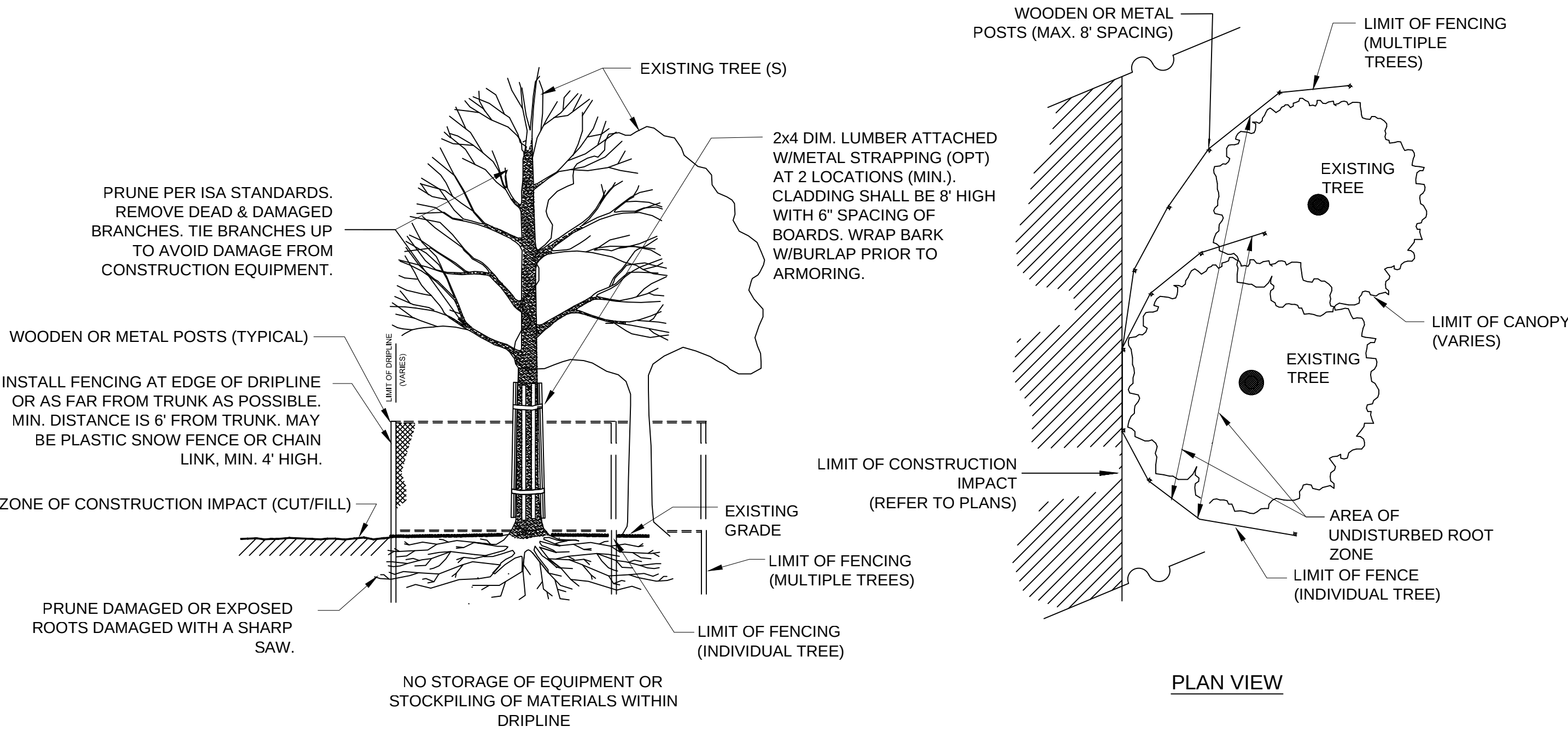
ALBA ROAD  
(PUBLIC - 40' WIDE)

LEGEND

PROPOSED LOAM & SEED

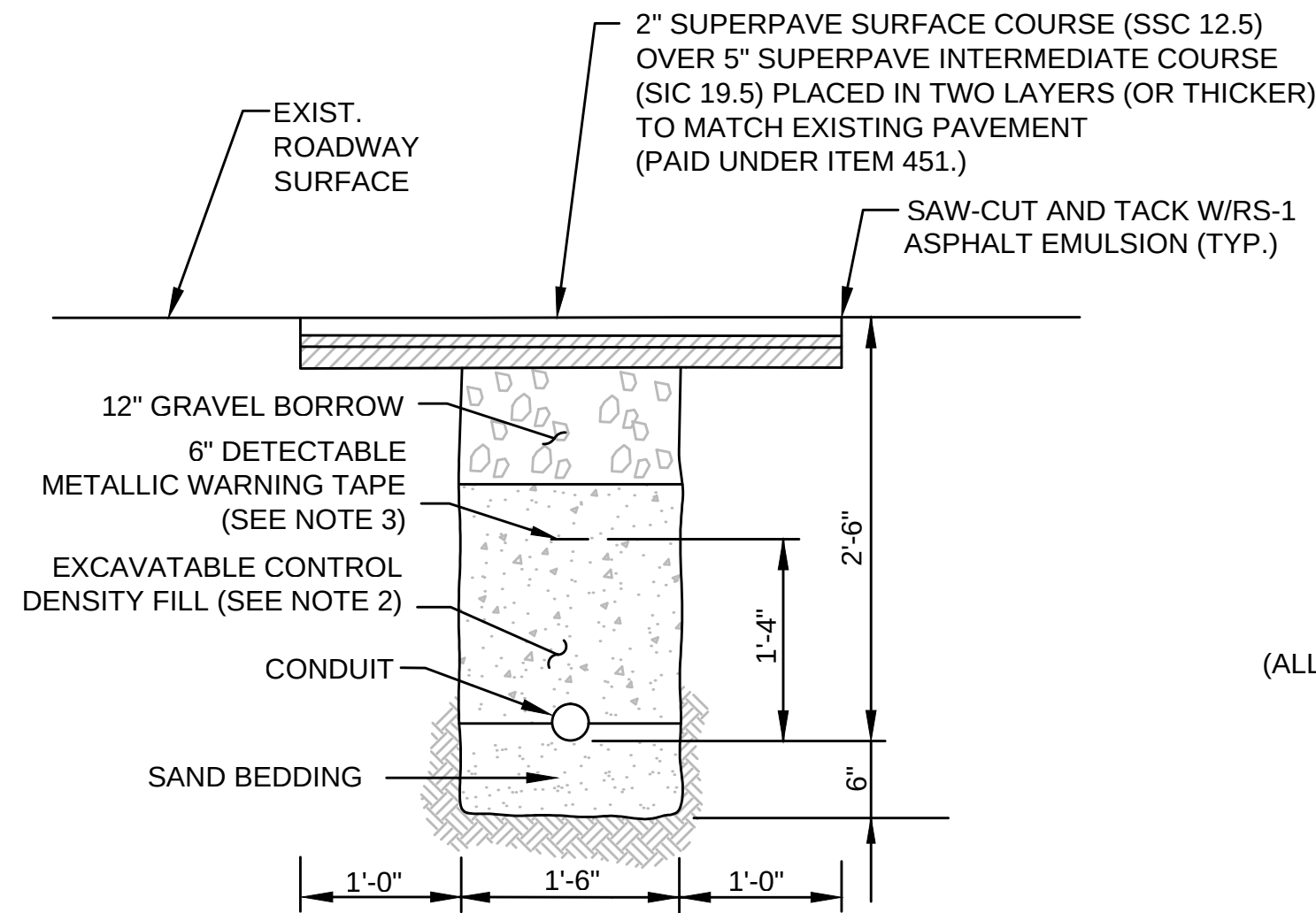
ALBA ROAD  
(PUBLIC - 40' WIDE)





NOT TO SCALE

TREE PROTECTION-EXISTING TREE(S)

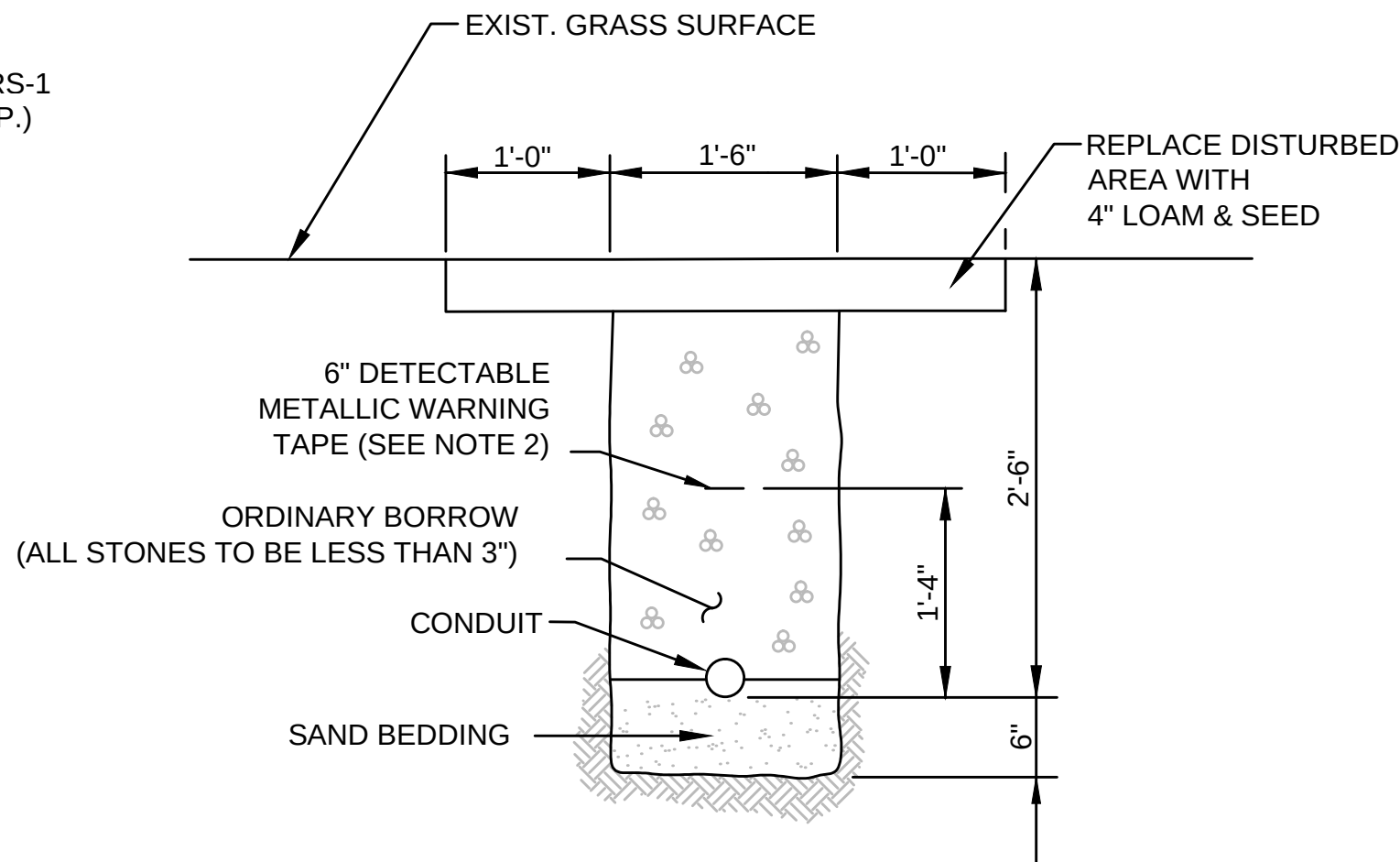


NOTES:

- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE, UNLESS OTHERWISE APPROVED BY MASSDOT.
- CONTROL DENSITY FILL SHALL BE TYPE 2E AND MEET THE REQUIREMENTS OF SUBSECTION M4.08.0
- WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

CONDUIT CROSSING ROADWAY

NOT TO SCALE

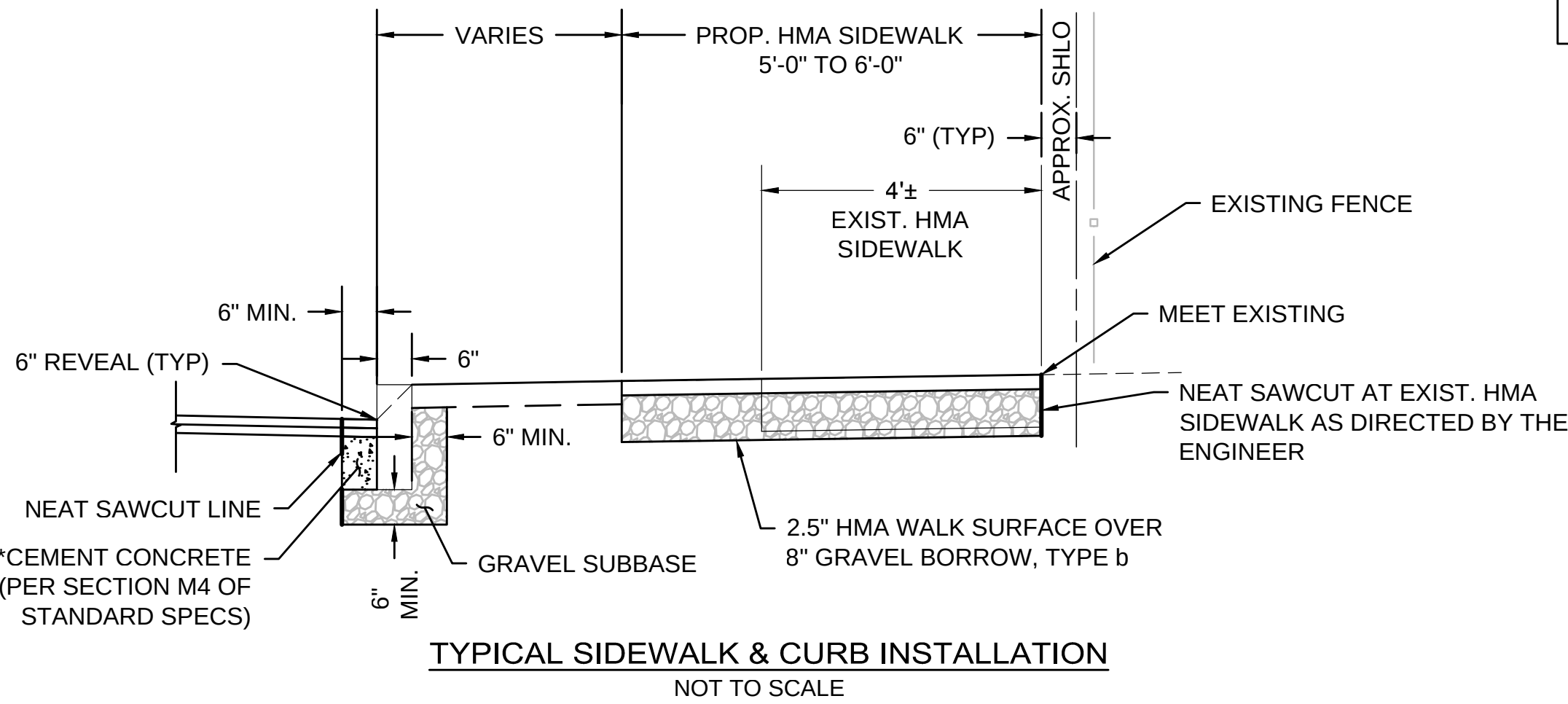


NOTES:

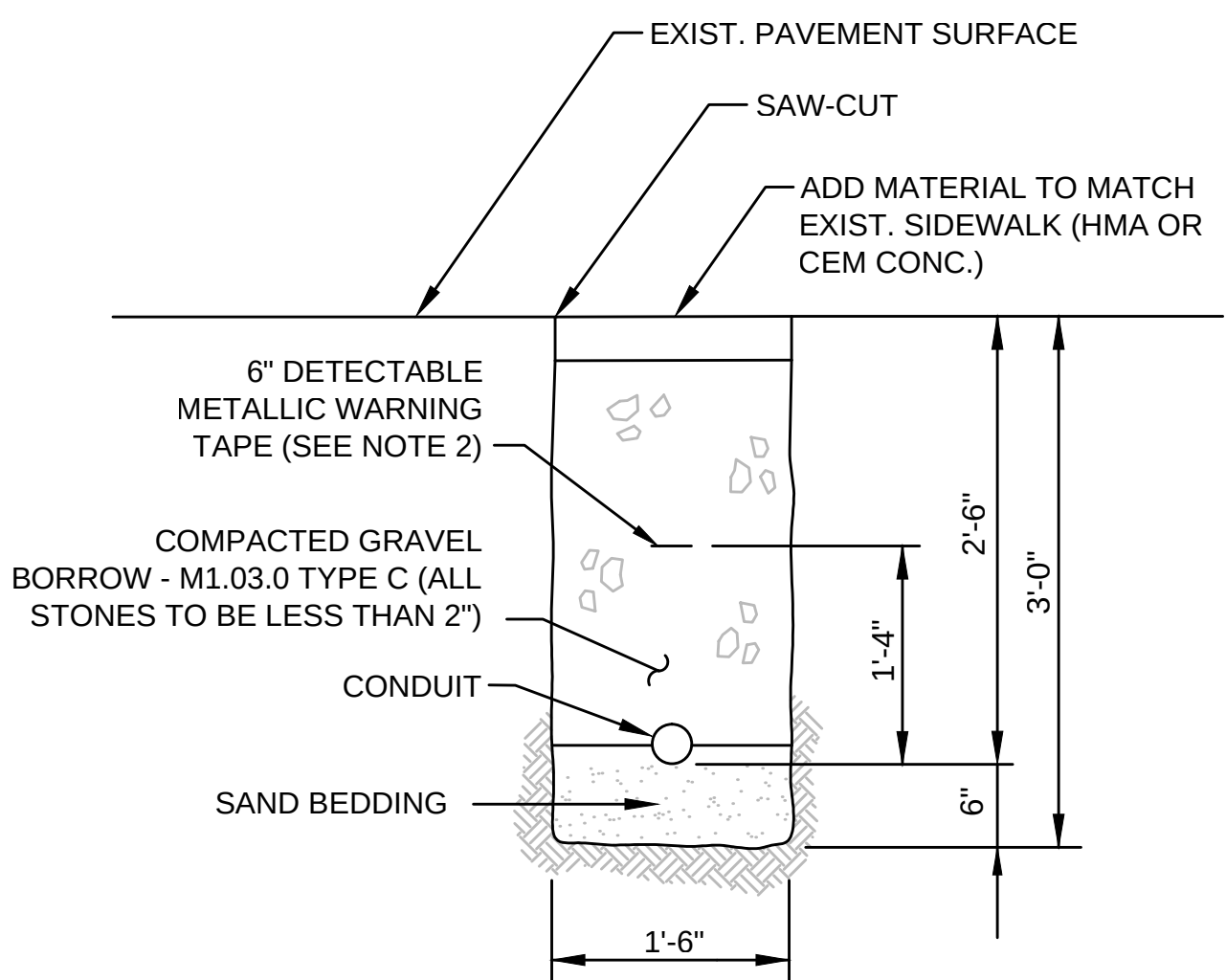
- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE, UNLESS OTHERWISE APPROVED BY MASSDOT.
- WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

CONDUIT UNDER GRASS AREAS

NOT TO SCALE



\* PAYMENT PER FOOT OF CURB IS INCLUSIVE OF ALL ITEMS OF WORK REQUIRED TO COMPLETE PROPER INSTLLATION OF CURB

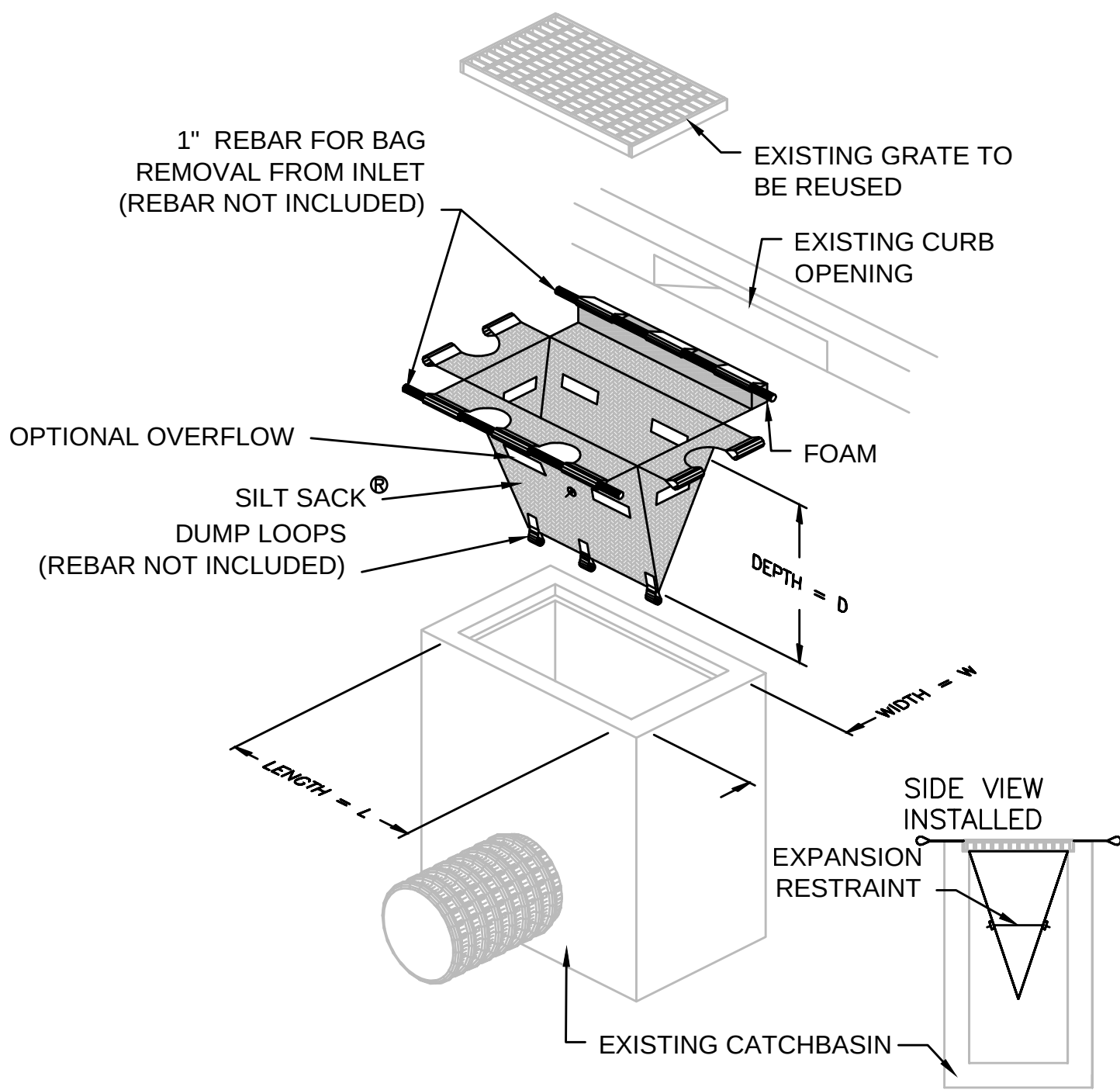


NOTES:

- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE, UNLESS OTHERWISE APPROVED BY MASSDOT.
- WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

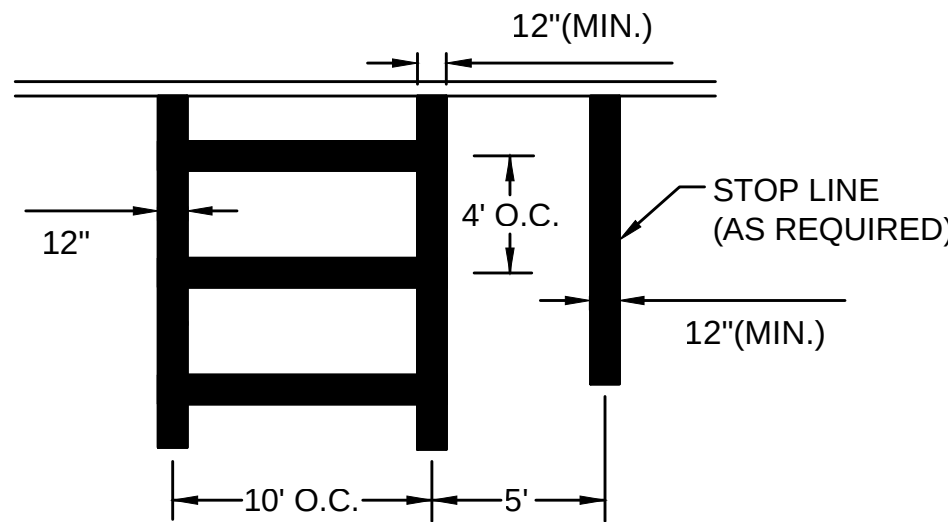
CONDUIT UNDER SIDEWALK

NOT TO SCALE



CATCH BASIN W/ SILTSACK  
INLET PROTECTION

NOT TO SCALE



NOTES:

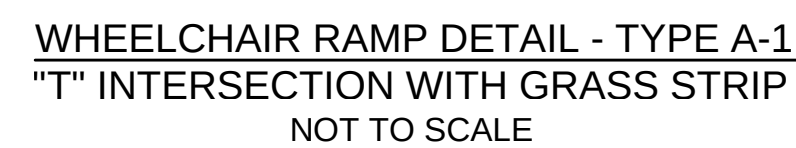
- ALL PROPOSED STOP LINES AND CROSSWALKS SHALL BE REFLECTORIZED THERMOPLASTIC.

CROSSWALK & STOP LINE

NOT TO SCALE



608180\_HD11(DETAILS).DWG Plotted on 29-Jun-2016 11:17 AM



| WHEELCHAIR RAMP DATA |          |           |           |                    |                      |                      |                             |                           |                          |                        |             |
|----------------------|----------|-----------|-----------|--------------------|----------------------|----------------------|-----------------------------|---------------------------|--------------------------|------------------------|-------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | ℓ RAMP LENGTH (W1) | ℓ SIDEWALK WIDTH (W) | ℓ RAMP OPENING WIDTH | MINOR ROAD RAMP LENGTH (W2) | MINOR ROAD SIDEWALK WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |             |
|                      |          |           |           |                    |                      |                      |                             |                           |                          | LEFT SIDE              | RIGHT SIDE  |
| 1                    | A-1      | 189+57.92 | 35.44' RT | 13'-6"             | 5'-0"                | 4'-0"                | 4'-6"                       | 5'-0"                     | -1.30%                   | 6'-6"                  | 9'-0" (HSL) |

LEGEND:

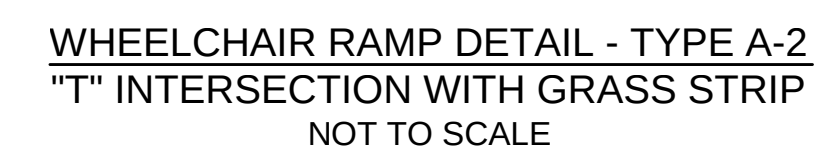
|     |                                                 |
|-----|-------------------------------------------------|
| HSL | =HIGH SIDE TRANSITION LENGTH<br>(SEE E 107.9.0) |
| W   | =SIDEWALK WIDTH                                 |
| W1  | =PERPENDICULAR RAMP LENGTH                      |
| *   | =TOLERANCE FOR CONSTRUCTION 0.5%                |

KEY:

 AREA OF CEMENT CONCRETE WHEELCHAIR RAMP (ITEM 701.2)

NOTES:

1. DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL TRANSITION RAMPS ACCORDING TO CONSTRUCTION STANDARD DETAIL E 107.6.5.
2. DETECTABLE WARNING PANELS FOR ALL PEDESTRIAN RAMPS SHALL BE YELLOW.
3. TRANSITION CURB FROM 0" REVEAL TO 6" REVEAL AS SHOWN IN TABLES. SLOPE TOPSOIL TO MEET EDGE OF RAMP.

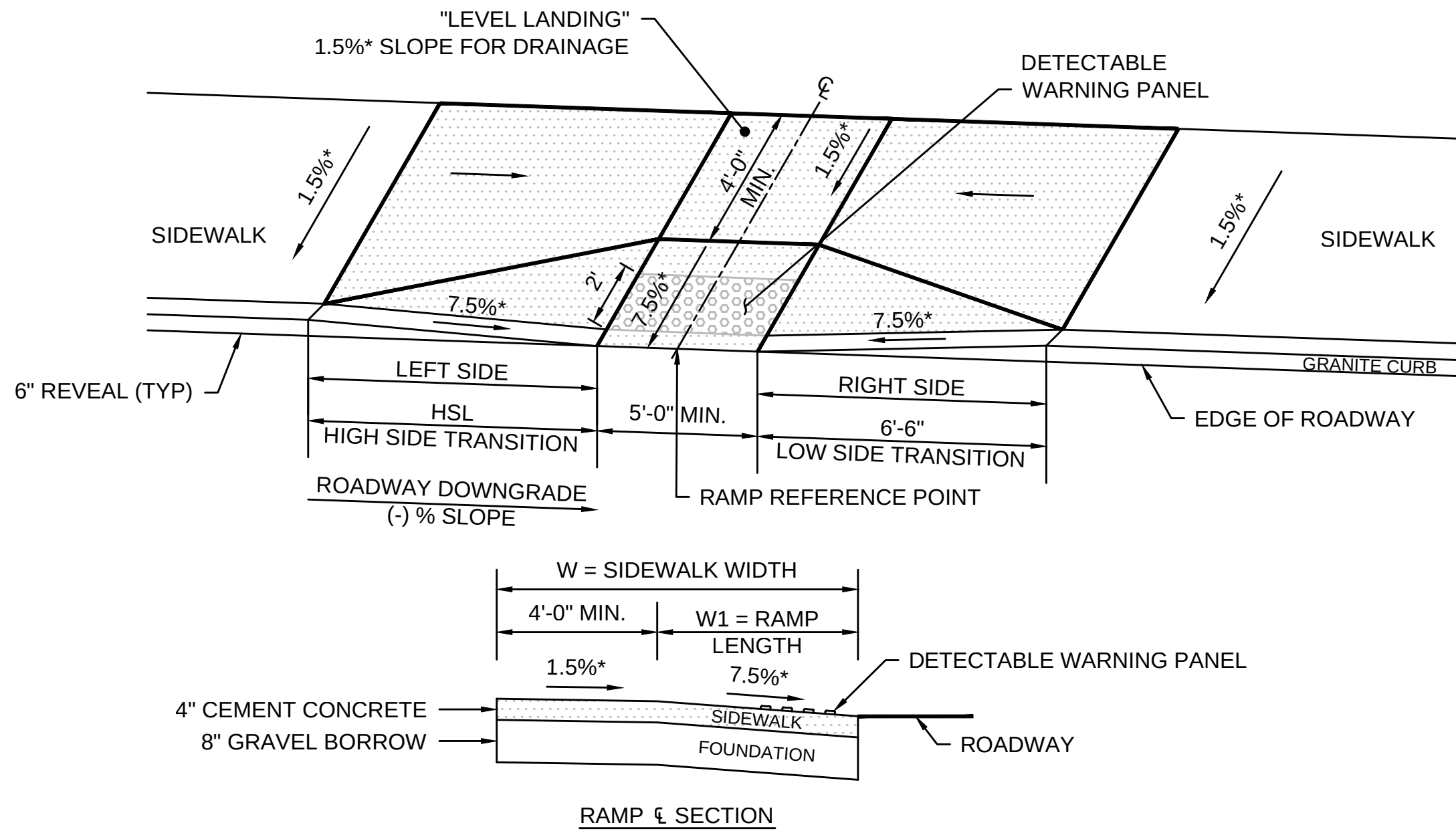


| WHEELCHAIR RAMP DATA |          |           |           |                    |                      |                      |                             |                           |                          |                        |            |
|----------------------|----------|-----------|-----------|--------------------|----------------------|----------------------|-----------------------------|---------------------------|--------------------------|------------------------|------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | ℓ RAMP LENGTH (W1) | ℓ SIDEWALK WIDTH (W) | ℓ RAMP OPENING WIDTH | MINOR ROAD RAMP LENGTH (W2) | MINOR ROAD SIDEWALK WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |            |
|                      |          |           |           |                    |                      |                      |                             |                           |                          | LEFT SIDE              | RIGHT SIDE |
| 2                    | A-2      | 189+97.08 | 35.09' RT | 19'-4"             | 6'-0"                | 4'-0"                | 7'-6"                       | 5'-0"                     | -0.75%                   | 7'-8" (HSL)            | 6'-6"      |
| 4                    | A-2      | 190+03.68 | 67.12' LT | 22'-0"             | 6'-0"                | 4'-0"                | 9'-0"                       | 5'-0"                     | -1.80%                   | 9'-0" (HSL)            | 6'-6"      |



| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 31        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CONSTRUCTION DETAILS  
SHEET 3 OF 6  
WHEELCHAIR RAMP DETAILS



WHEELCHAIR RAMP DETAIL - TYPE B  
STANDARD DETAIL E 107.2.0  
LESS THAN 12'-4" SIDEWALK  
NOT TO SCALE

| WHEELCHAIR RAMP DATA |          |           |           |                  |                    |                    |                          |                        |              |
|----------------------|----------|-----------|-----------|------------------|--------------------|--------------------|--------------------------|------------------------|--------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | RAMP LENGTH (W1) | SIDEWALK WIDTH (W) | RAMP OPENING WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |              |
|                      |          |           |           |                  |                    |                    |                          | LEFT SIDE              | RIGHT SIDE   |
| 3                    | B        | 189+52.73 | 62.26' LT | 4'-6"            | 8'-6"              | 6'-0"              | -2.80%                   | 11'-0" (HSL)           | 6'-6"        |
| 9                    | B        | 194+35.26 | 70.50' LT | 5'-4"            | 9'-4"              | 10'-0"             | -0.80%                   | 7'-8" (HSL)            | 6'-6"        |
| 10                   | B        | 197+99.34 | 76.75' LT | 8'-4"            | 12'-4"             | 6'-0"              | -1.00%                   | 7'-8" (HSL)            | 6'-6"        |
| 13                   | B        | 198+67.21 | 76.75' LT | 3'-6"            | 11'-2"             | 6'-0"              | -2.60%                   | 6'-6"                  | 11'-0" (HSL) |

LEGEND:

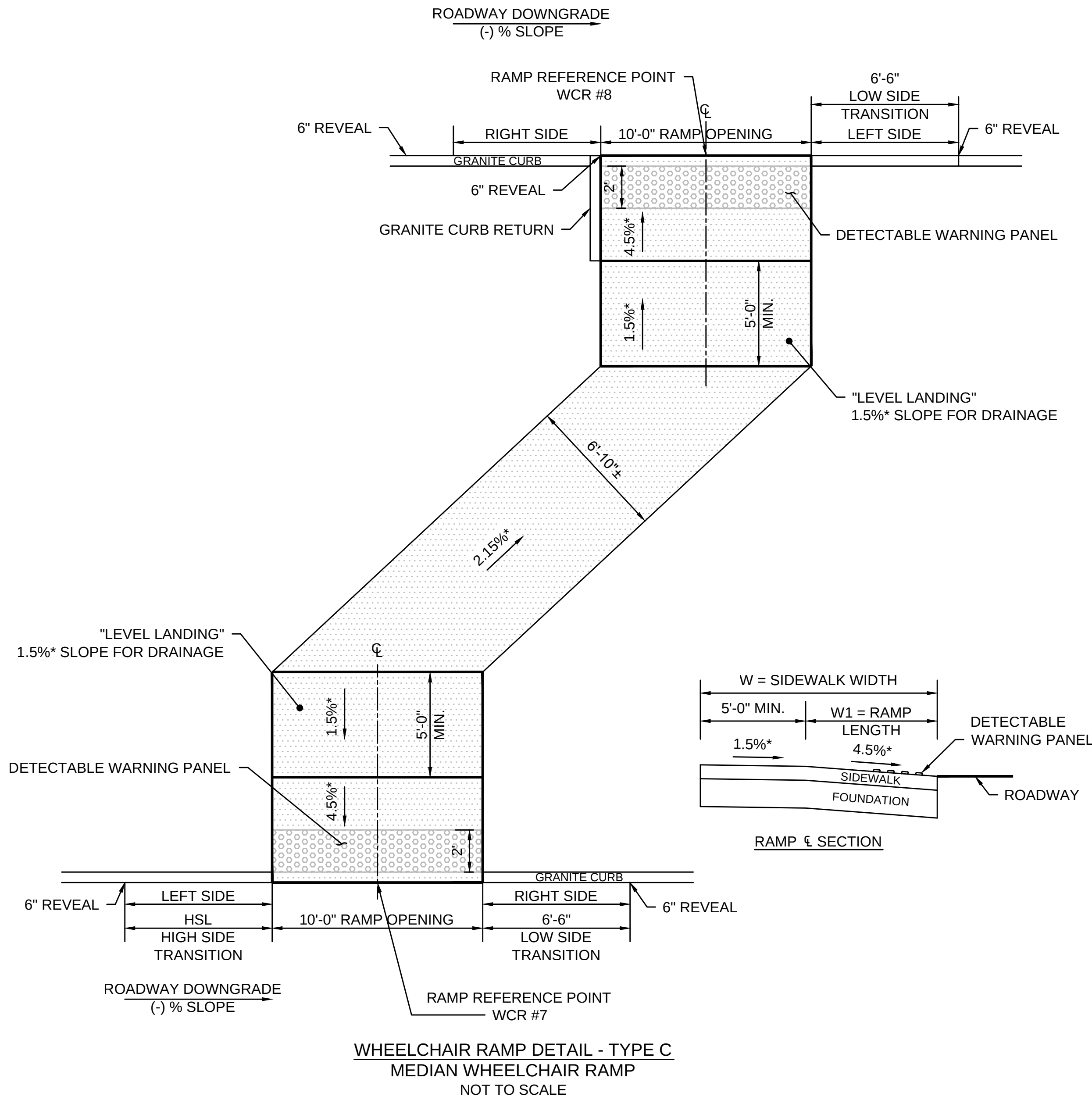
HSL =HIGH SIDE TRANSITION LENGTH  
(SEE E 107.9.0)  
W =SIDEWALK WIDTH  
W1 =PERPENDICULAR RAMP LENGTH  
\* =TOLERANCE FOR CONSTRUCTION 0.5%

KEY:

AREA OF CEMENT CONCRETE WHEELCHAIR RAMP (ITEM 701.2)

NOTES:

- DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL TRANSITION RAMPS ACCORDING TO CONSTRUCTION STANDARD DETAIL E 107.6.5.
- DETECTABLE WARNING PANELS FOR ALL PEDESTRIAN RAMPS SHALL BE YELLOW.
- TRANSITION CURB FROM 0" REVEAL TO 6" REVEAL AS SHOWN IN TABLES. SLOPE TOPSOIL TO MEET EDGE OF RAMP.



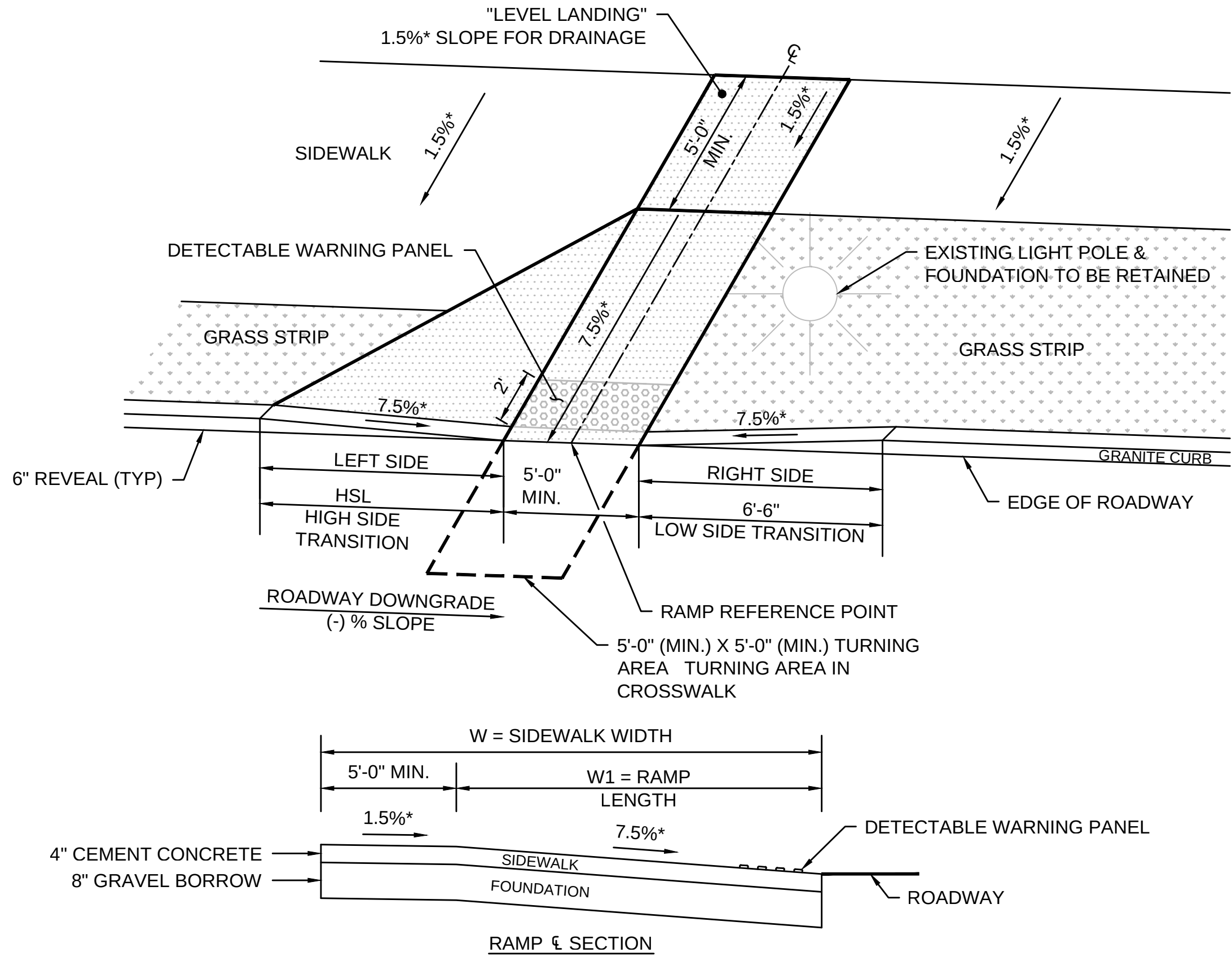
WHEELCHAIR RAMP DETAIL - TYPE C  
MEDIAN WHEELCHAIR RAMP  
NOT TO SCALE

| WHEELCHAIR RAMP DATA |          |           |           |                  |                    |                    |                          |                        |            |
|----------------------|----------|-----------|-----------|------------------|--------------------|--------------------|--------------------------|------------------------|------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | RAMP LENGTH (W1) | SIDEWALK WIDTH (W) | RAMP OPENING WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |            |
|                      |          |           |           |                  |                    |                    |                          | LEFT SIDE              | RIGHT SIDE |
| 7                    | C        | 194+16.99 | 2.00' LT  | 5'-0"            | 10'-0"             | 10'-0"             | -1.30%                   | 9'-0" (HSL)            | 6'-6"      |
| 8                    | C        | 194+35.26 | 39.00' LT | 5'-0"            | 10'-0"             | 10'-0"             | -0.70%                   | 6'-6"                  | N/A        |



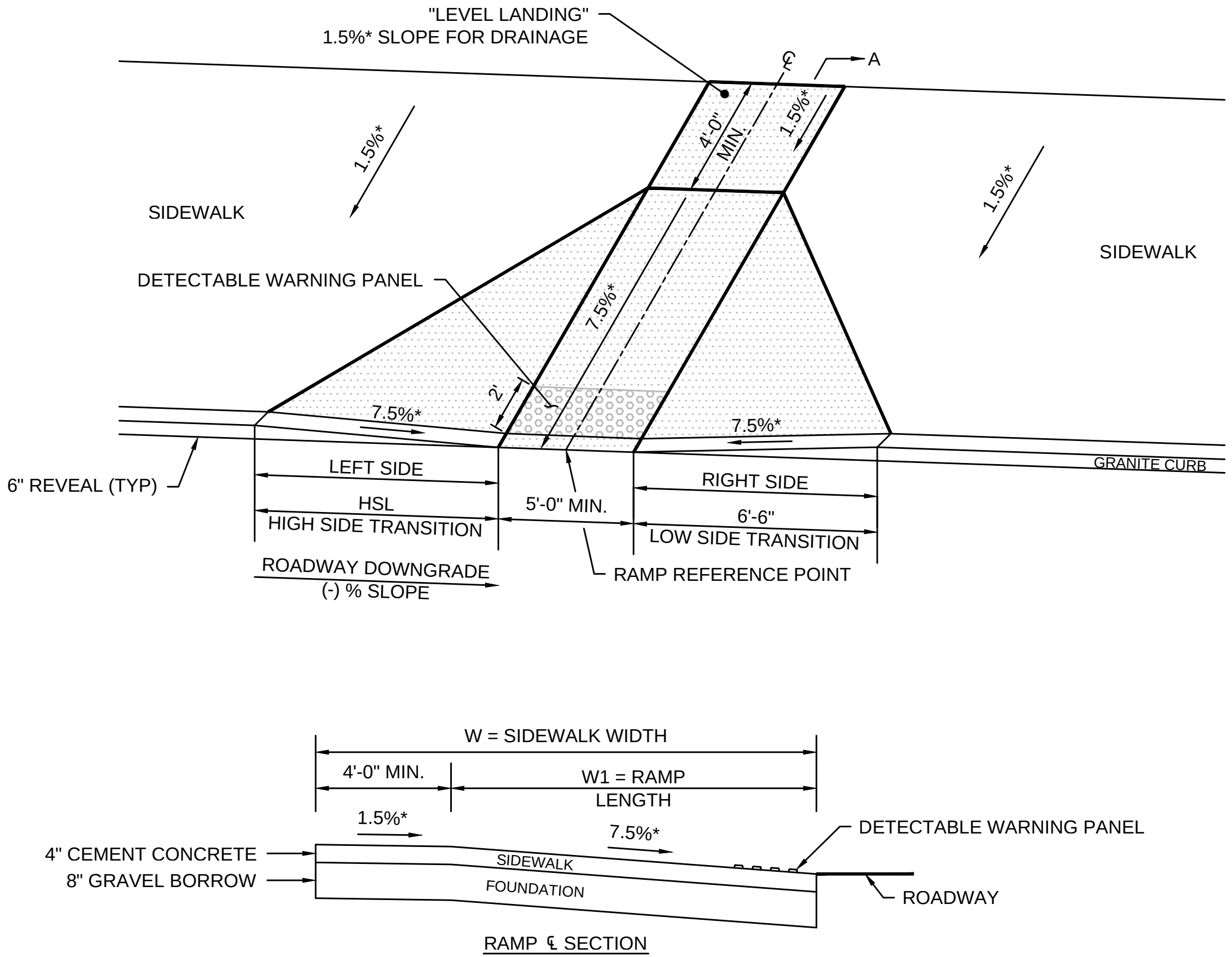
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 32        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CONSTRUCTION DETAILS  
SHEET 4 OF 6  
WHEELCHAIR RAMP DETAILS



WHEELCHAIR RAMP DETAIL - TYPE D  
GREATER THAN 12'-4" SIDEWALK  
WITH GRASS STRIP  
NOT TO SCALE

| WHEELCHAIR RAMP DATA |          |           |           |                    |                      |                      |                          |                        |            |
|----------------------|----------|-----------|-----------|--------------------|----------------------|----------------------|--------------------------|------------------------|------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | ℓ RAMP LENGTH (W1) | ℓ SIDEWALK WIDTH (W) | ℓ RAMP OPENING WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |            |
|                      |          |           |           |                    |                      |                      |                          | LEFT SIDE              | RIGHT SIDE |
| 5                    | D        | 194+16.55 | 33.93' LT | 9'-4"              | 17'±                 | 10'-0"               | -0.70%                   | 7'-8" (HSL)            | 6'-6"      |



WHEELCHAIR RAMP DETAIL - TYPE E  
STANDARD DETAIL E 107.3.0  
GREATER THAN 12'-4" SIDEWALK  
NOT TO SCALE

| WHEELCHAIR RAMP DATA |          |           |           |                    |                      |                      |                          |                        |            |
|----------------------|----------|-----------|-----------|--------------------|----------------------|----------------------|--------------------------|------------------------|------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | ℓ RAMP LENGTH (W1) | ℓ SIDEWALK WIDTH (W) | ℓ RAMP OPENING WIDTH | ROADWAY GUTTER SLOPE (±) | CURB TRANSITION LENGTH |            |
|                      |          |           |           |                    |                      |                      |                          | LEFT SIDE              | RIGHT SIDE |
| 6                    | E        | 194+74.60 | 40.05' LT | 5'-0"              | 12'-9"±              | 10'-0"               | -0.90%                   | 7'-8" (HSL)            | 6'-6"      |

LEGEND:

HSL =HIGH SIDE TRANSITION LENGTH  
(SEE E 107.9.0)  
W =SIDEWALK WIDTH  
W1 =PERPENDICULAR RAMP LENGTH  
\* =TOLERANCE FOR CONSTRUCTION 0.5%

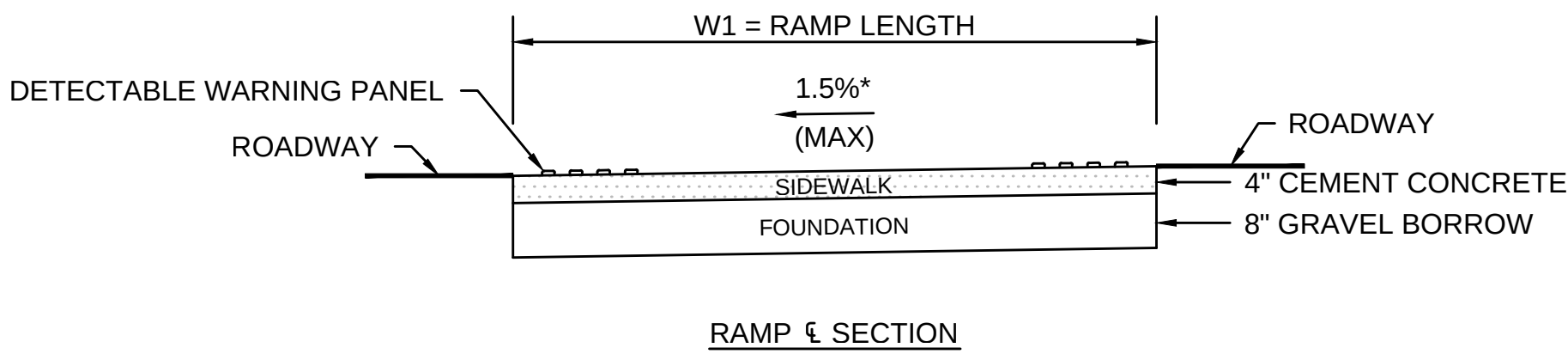
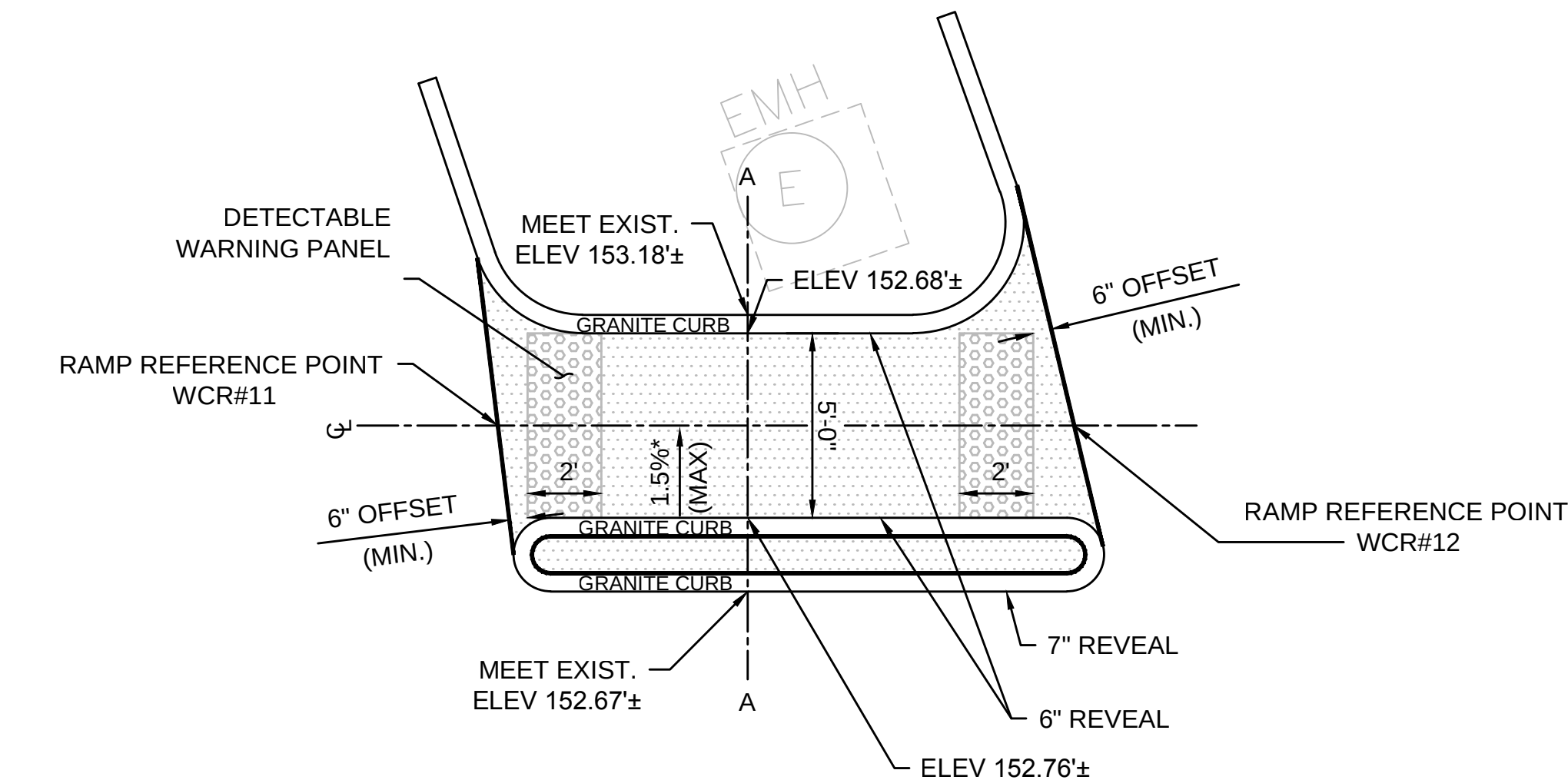
KEY:

AREA OF CEMENT CONCRETE WHEELCHAIR  
RAMP (ITEM 701.2)

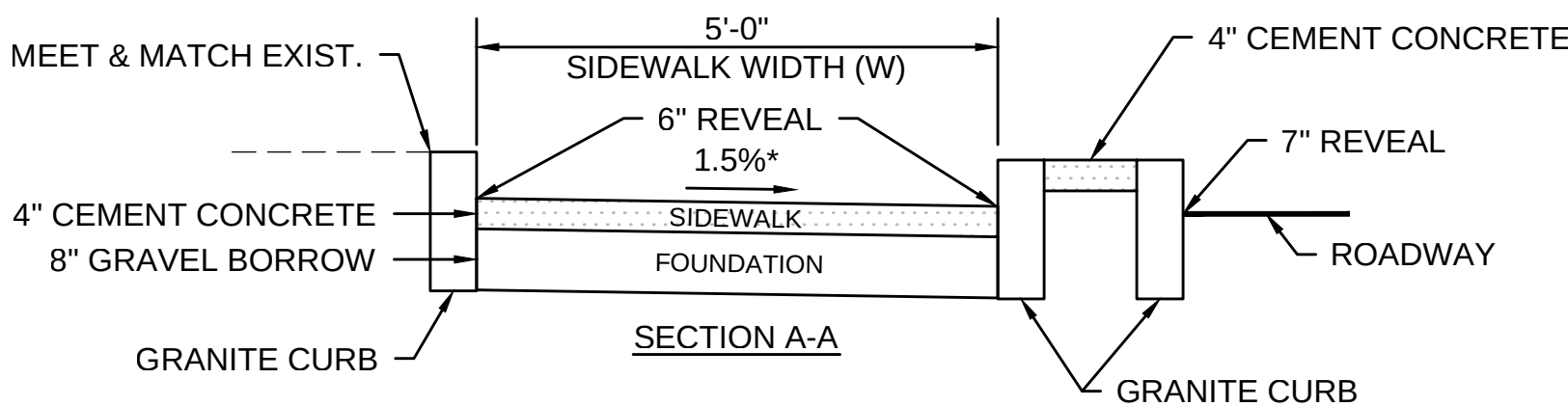
NOTES:

- DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL TRANSITION RAMPS ACCORDING TO CONSTRUCTION STANDARD DETAIL E 107.6.5.
- DETECTABLE WARNING PANELS FOR ALL PEDESTRIAN RAMPS SHALL BE YELLOW.
- TRANSITION CURB FROM 0" REVEAL TO 6" REVEAL AS SHOWN IN TABLES. SLOPE TOPSOIL TO MEET EDGE OF RAMP.





WHEELCHAIR RAMP DETAIL - TYPE F  
RAMPS 11 & 12  
NOT TO SCALE

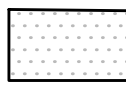


| WHEELCHAIR RAMP DATA |          |           |           |                    |                        |                      |
|----------------------|----------|-----------|-----------|--------------------|------------------------|----------------------|
| WCR #                | WCR TYPE | STATION   | OFFSET    | ℓ RAMP LENGTH (W1) | A-A SIDEWALK WIDTH (W) | ℓ RAMP OPENING WIDTH |
| 11                   | F        | 198+29.31 | 75.50' LT | 15'-7"             | 5'-0"                  | 5'-0"                |
| 12                   | F        | 198+44.93 | 75.50' LT |                    |                        |                      |

LEGEND:

- HSL=HIGH SIDE TRANSITION LENGTH  
(SEE E 107.9.0)
- W=SIDEWALK WIDTH
- W1=PERPENDICULAR RAMP LENGTH
- \*=TOLERANCE FOR CONSTRUCTION 0.5%

KEY:

-  AREA OF CEMENT CONCRETE WHEELCHAIR RAMP (ITEM 701.2)

NOTES:

1. DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL TRANSITION RAMPS ACCORDING TO CONSTRUCTION STANDARD DETAIL E 107.6.5.
2. DETECTABLE WARNING PANELS FOR ALL PEDESTRIAN RAMPS SHALL BE YELLOW.
3. TRANSITION CURB FROM 0" REVEAL TO 6" REVEAL AS SHOWN IN TABLES. SLOPE TOPSOIL TO MEET EDGE OF RAMP.



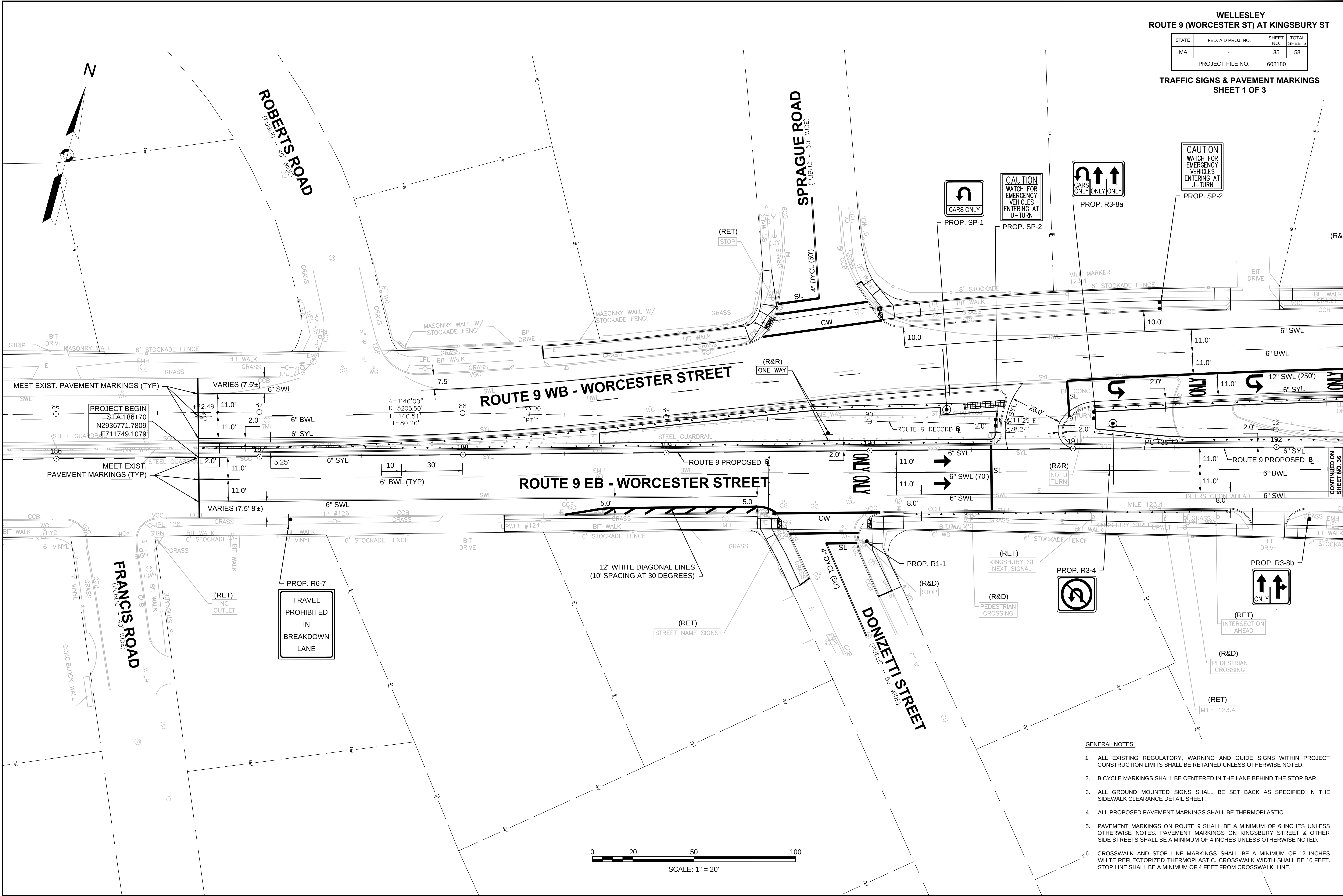




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

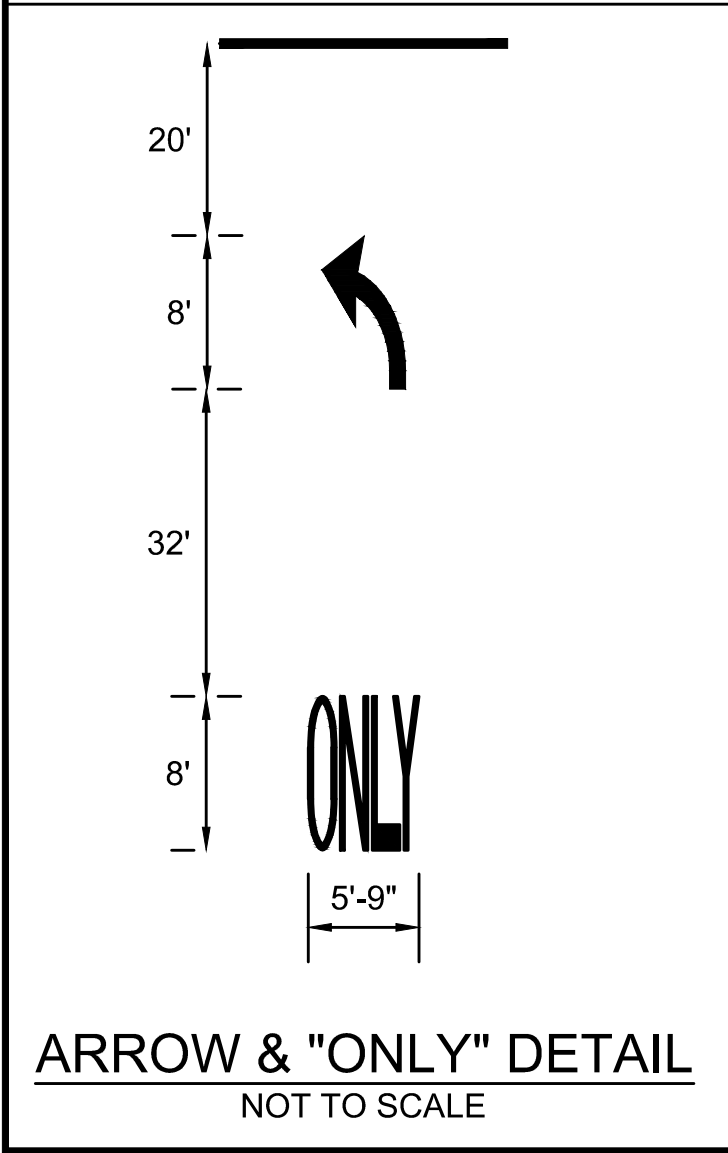
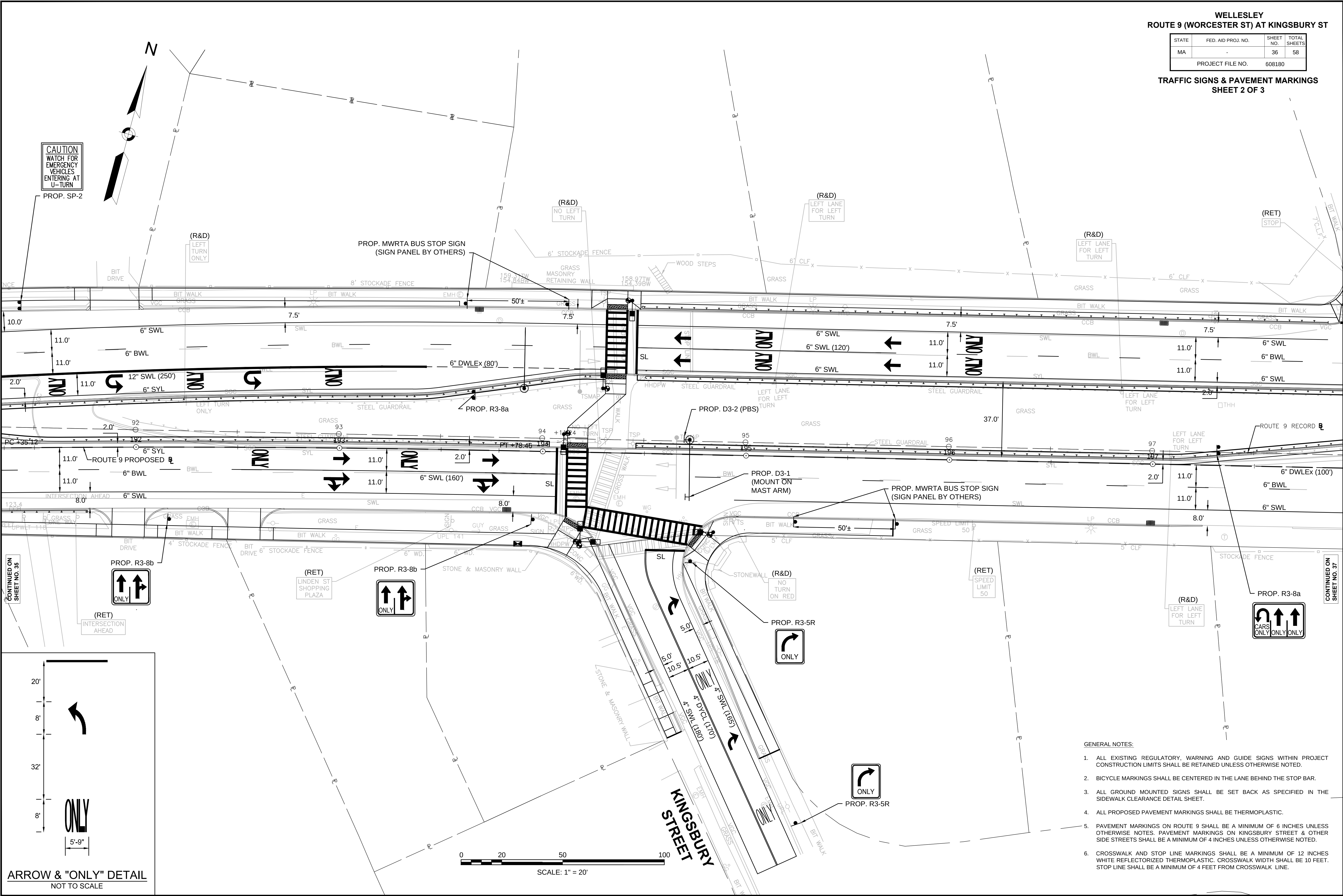
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 35        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TRAFFIC SIGNS & PAVEMENT MARKINGS  
SHEET 1 OF 3



- GENERAL NOTES:
- ALL EXISTING REGULATORY, WARNING AND GUIDE SIGNS WITHIN PROJECT CONSTRUCTION LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED.
  - BICYCLE MARKINGS SHALL BE CENTERED IN THE LANE BEHIND THE STOP BAR.
  - ALL GROUND MOUNTED SIGNS SHALL BE SET BACK AS SPECIFIED IN THE SIDEWALK CLEARANCE DETAIL SHEET.
  - ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
  - PAVEMENT MARKINGS ON ROUTE 9 SHALL BE A MINIMUM OF 6 INCHES UNLESS OTHERWISE NOTES. PAVEMENT MARKINGS ON KINGSBURY STREET & OTHER SIDE STREETS SHALL BE A MINIMUM OF 4 INCHES UNLESS OTHERWISE NOTED.
  - CROSSWALK AND STOP LINE MARKINGS SHALL BE A MINIMUM OF 12 INCHES WHITE REFLECTORIZED THERMOPLASTIC. CROSSWALK WIDTH SHALL BE 10 FEET. STOP LINE SHALL BE A MINIMUM OF 4 FEET FROM CROSSWALK LINE.





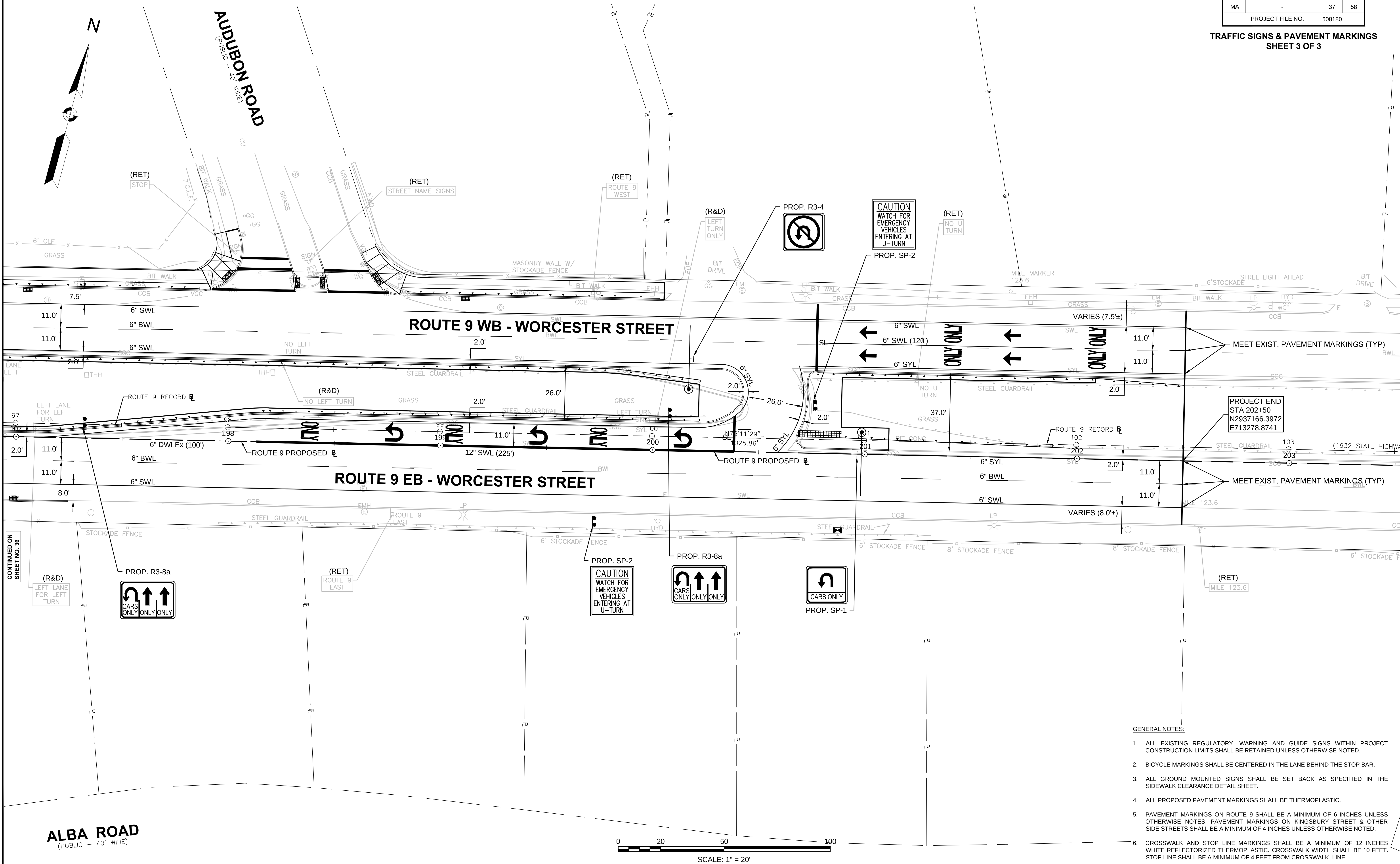
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- ALL EXISTING REGULATORY, WARNING AND GUIDE SIGNS WITHIN PROJECT CONSTRUCTION LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED.
  - BICYCLE MARKINGS SHALL BE CENTERED IN THE LANE BEHIND THE STOP BAR.
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WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 37        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TRAFFIC SIGNS & PAVEMENT MARKINGS  
SHEET 3 OF 3



- GENERAL NOTES:
- ALL EXISTING REGULATORY, WARNING AND GUIDE SIGNS WITHIN PROJECT CONSTRUCTION LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED.
  - BICYCLE MARKINGS SHALL BE CENTERED IN THE LANE BEHIND THE STOP BAR.
  - ALL GROUND MOUNTED SIGNS SHALL BE SET BACK AS SPECIFIED IN THE SIDEWALK CLEARANCE DETAIL SHEET.
  - ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
  - PAVEMENT MARKINGS ON ROUTE 9 SHALL BE A MINIMUM OF 6 INCHES UNLESS OTHERWISE NOTES. PAVEMENT MARKINGS ON KINGSBURY STREET & OTHER SIDE STREETS SHALL BE A MINIMUM OF 4 INCHES UNLESS OTHERWISE NOTED.
  - CROSSWALK AND STOP LINE MARKINGS SHALL BE A MINIMUM OF 12 INCHES WHITE REFLECTORIZED THERMOPLASTIC. CROSSWALK WIDTH SHALL BE 10 FEET. STOP LINE SHALL BE A MINIMUM OF 4 FEET FROM CROSSWALK LINE.

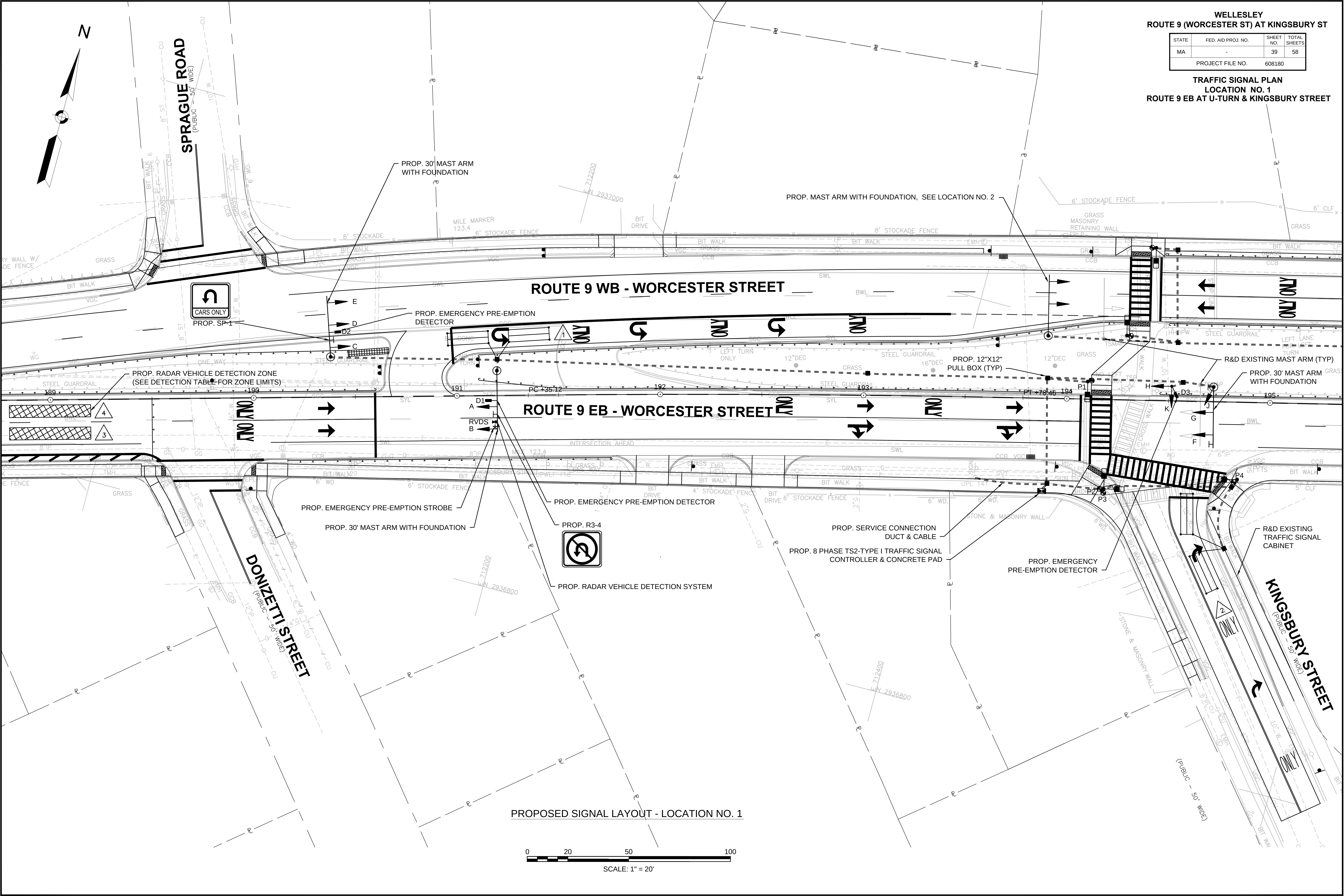


TRAFFIC SIGN SUMMARY

| IDENTIFI-<br>CATION<br>NUMBER | SIZE OF SIGN |        | TEXT                                                                                  | TEXT DIMENSIONS (INCHES)          |                                             |                    | NUMBER<br>OF<br>SIGNS<br>REQUIRED | COLOR           |               |        | POST SIZE<br>AND<br>NUMBER<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. MKR. |                                   | BACK-<br>GROUND | LEGEND        | BORDER |                                        |                        |                           |
| R1-1                          | 36"          | 36"    |    | ①                                 | ①                                           | ①                  | 1                                 | RED             | WHITE         | WHITE  | P5-1                                   | 7.5                    | 7.5                       |
| R3-4                          | 36"          | 36"    |    |                                   |                                             |                    | 2                                 | WHITE           | RED/<br>BLACK | BLACK  | 2 MTD. ON<br>TS MAST ARM               | 9.0                    | 18.0                      |
| R3-5R                         | 30"          | 36"    |    |                                   |                                             |                    | 2                                 | WHITE           | BLACK         | BLACK  | P5-2                                   | 7.5                    | 15.0                      |
| R3-8a                         | 60"          | 36"    |    |                                   |                                             |                    | 4                                 | WHITE           | BLACK         | BLACK  | P5-8                                   | 15.0                   | 60.0                      |
| R3-8b                         | 40"          | 36"    |    | ↓                                 | ↓                                           | ↓                  | 2                                 | WHITE           | BLACK         | BLACK  | P5-2                                   | 10.0                   | 20.0                      |
| R6-7                          | 36"          | 48"    |   | ②                                 | ②                                           | ②                  | 1                                 | WHITE           | BLACK         | -      | P5-2                                   | 12.0                   | 12.0                      |
| D3-1                          | VARIES       | 18"    |  | ↓                                 | ↓                                           | ↓                  | 1                                 | GREEN           | WHITE         | WHITE  | MOUNT ON<br>MAST ARM                   | --                     | EACH                      |
| D3-2                          | VARIES       | 18"    |  | ↓                                 | ↓                                           | ↓                  | 1                                 | GREEN           | WHITE         | WHITE  | MOUNT ON<br>MAST ARM                   | --                     | EACH                      |
| SP-1                          | 30"          | 36"    |  |                                   |                                             |                    | 2                                 | WHITE           | BLACK         | BLACK  | 2 MTD. ON<br>TS MAST ARM               | 7.5                    | 15.0                      |
| SP-2                          | 36"          | 48"    |  | 6C<br>0.5<br>4C<br>4C<br>4C<br>4C | 3.8<br>2.5<br>2<br>2.5<br>2.5<br>2.5<br>3.2 |                    | 4                                 | YELLOW          | BLACK         | BLACK  | P5-8                                   | 12.0                   | 48.0                      |

① SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS  
② SEE MASSDOT STANDARDS

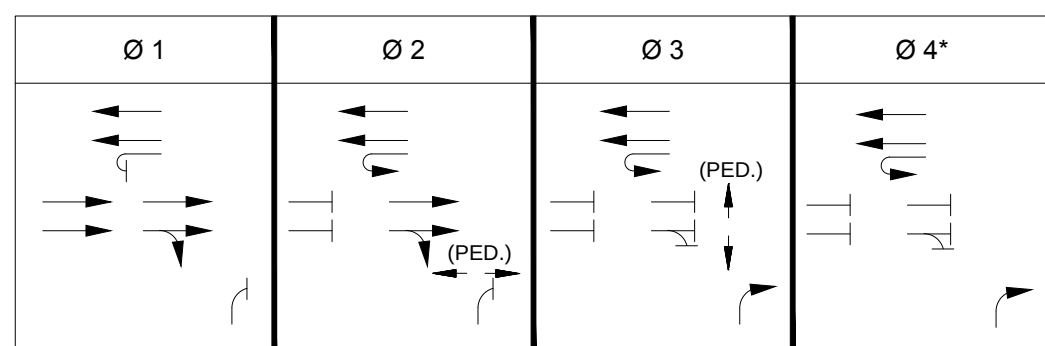




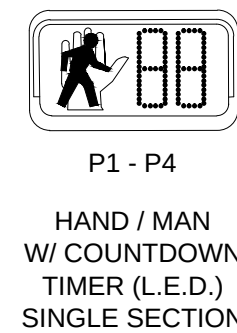
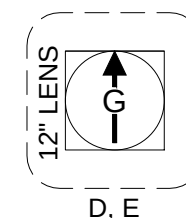
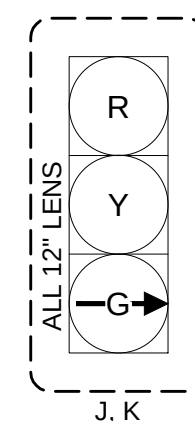
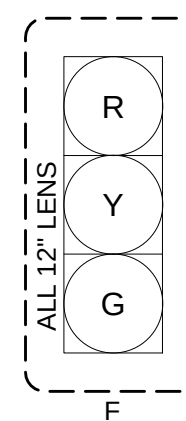
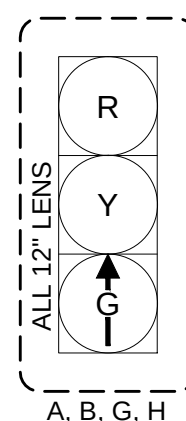
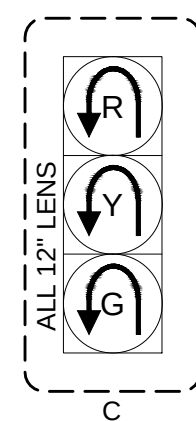


|                  |                    |           |              |
|------------------|--------------------|-----------|--------------|
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
| MA               | -                  | 40        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TRAFFIC SIGNAL DATA SHEET  
LOCATION NO. 1  
ROUTE 9 EB AT U-TURN & KINGSBURY STREET



## SIGNAL IDENTIFICATION

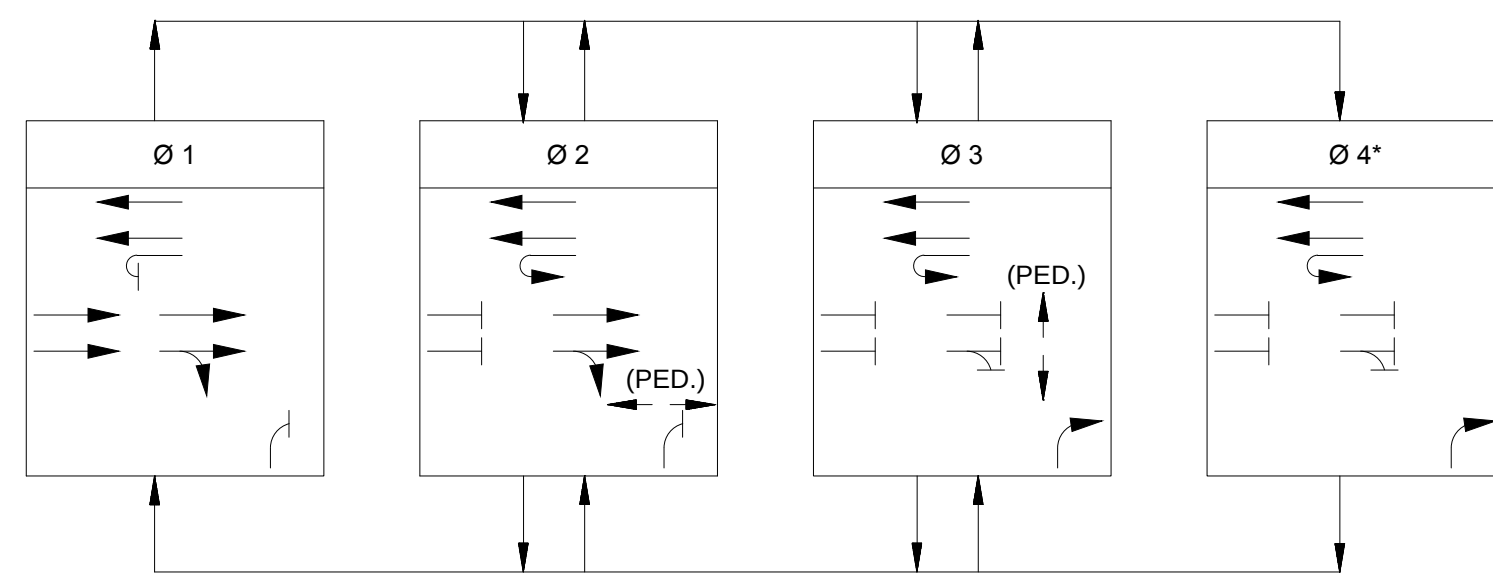


NOTES:

1. ALL PROPOSED SIGNAL HEADS SHALL BE RIGIDLY MOUNTED WITH BACK PLATES AND TUNNEL VISORS.
2. ALL SIGNAL BACK PLATES SHALL BE 5"± NON-LOUVERED WITH 3" YELLOW RETROREFLECTIVE BORDER
3. ALL PROPOSED SIGNAL DISPLAYS SHALL BE EQUIPPED WITH L.E.D. MODULES.

[illegible]

## PREFERENTIAL PHASING SEQUENCE



\*Ø4 TO COME WITH DELAYED SETTING & IF RIGHT TURNING TRAFFIC FROM KINGSBURY STREET CANNOT FIND GAP

SEQUENCE & TIMING NOTES:

1. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
2. THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES.
3. IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.

## FIRE PREEMPTION SCHEDULE

| DETECTOR & PRIORITY | PREEMPTION PHASE | MOVEMENT                                                                              | VEHICLE PHASE ASSIGNMENT |
|---------------------|------------------|---------------------------------------------------------------------------------------|--------------------------|
| D1                  | 1                |  | Ø 1                      |
| D2                  | 2                |  | Ø 2                      |
| D3                  | 3                |  | Ø 4                      |

**EMERGENCY VEHICLE PREEMPTION OPERATION:**

1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATION AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
2. PREEMPTION SIGNAL FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
4. PREEMPTION MINIMUM GREENS SHALL BE SIX SECONDS.
5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
6. ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MASSDOT PRIOR TO OPERATION.

## DETECTOR DATA

| DETECTOR<br>NUMBER | NO. SECTION /<br>SIZE    | NO. OF<br>TURNS | OPERATIONS | DELAY /<br>EXTEND | CALL<br>PHASE | LOOP<br>CONNECTIONS |
|--------------------|--------------------------|-----------------|------------|-------------------|---------------|---------------------|
| 1                  | 2 - 6'X20'<br>QUADRUPOLE | 2 - 4 - 2       | PRESENCE   | 0                 | Ø 2           | SERIES              |
| 2                  | 2 - 6'X20'<br>QUADRUPOLE | 2 - 4 - 2       | PRESENCE   | 20                | Ø 4           | SERIES              |

NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY

## RADAR DETECTOR SYSTEM DATA

| DETECTOR<br>NUMBER                                                                    | BEGIN ZONE         | END ZONE           | RVDS # | DELAY /<br>EXTEND | CALL<br>PHASE |
|---------------------------------------------------------------------------------------|--------------------|--------------------|--------|-------------------|---------------|
|  | 100' FROM<br>EB SL | 400' FROM<br>EB SL | 1      | 0                 | Ø 1           |
|  | 100' FROM<br>EB SL | 400' FROM<br>EB SL | 1      | 0                 | Ø 1           |

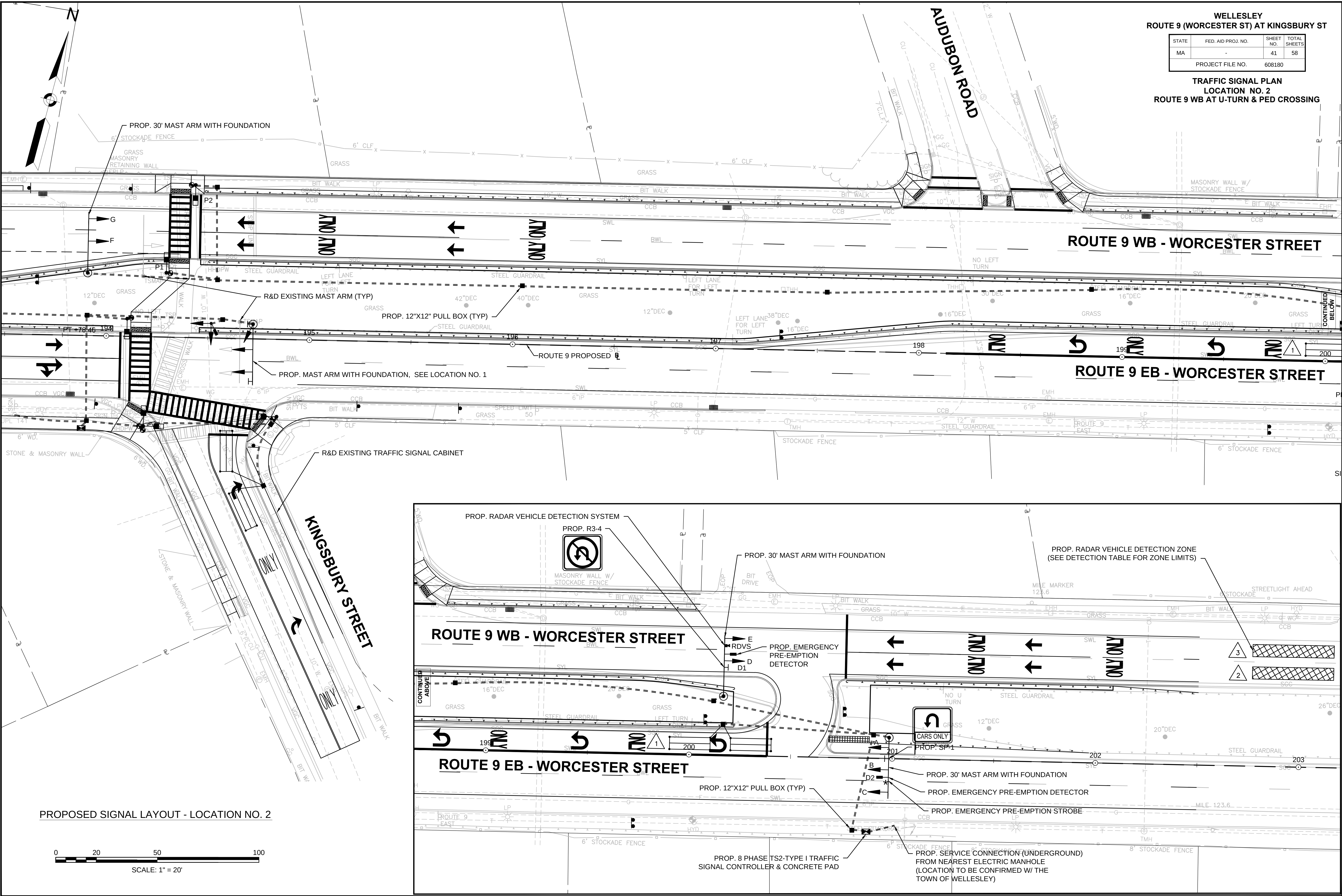
NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 41        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TRAFFIC SIGNAL PLAN  
LOCATION NO. 2  
ROUTE 9 WB AT U-TURN & PED CROSSING





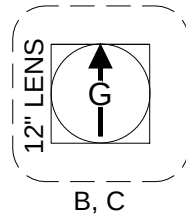
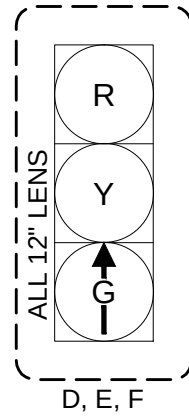
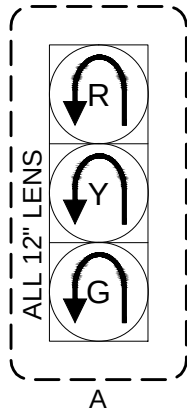
WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 42        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

TRAFFIC SIGNAL DATA SHEET  
LOCATION NO. 2  
ROUTE 9 WB AT U-TURN & PED CROSSING

| SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL (ISOLATED) |           |          |          |    |    |          |    |    |       |    |    |             |
|----------------------------------------------------------|-----------|----------|----------|----|----|----------|----|----|-------|----|----|-------------|
| STREET                                                   | DIRECTION | HOUSINGS | 1        | 2  | 3  | 4        | 5  | 6  | 7     | 8  | 9  | FLASH OPER. |
| ROUTE 9                                                  | EB        | A        |          |    |    |          |    |    |       |    |    |             |
| ROUTE 9                                                  | EB        | B,C      |          |    |    |          |    |    |       |    |    | -           |
| ROUTE 9                                                  | WB        | D,E      |          |    |    |          |    |    |       |    |    | FY          |
| ROUTE 9                                                  | WB        | F,G      |          |    |    |          |    |    |       |    |    | FY          |
| PEDESTRIAN X-ING                                         | NB-SB     | P1-P2    | DW       | DW | DW | DW       | DW | DW | W/FDW | DW | DW | OUT         |
| TIMING IN SECONDS                                        |           |          |          |    |    |          |    |    |       |    |    |             |
| MINIMUM GREEN (INITIAL)                                  |           |          | 20       |    |    | 6        |    |    |       |    |    |             |
| PASSAGE TIME (VEHICLE)                                   |           |          | 2        |    |    | 2        |    |    |       |    |    |             |
| MAXIMUM 1                                                |           |          | 70       |    |    | 24       |    |    |       |    |    |             |
| MAXIMUM 2                                                |           |          | -        |    |    | -        |    |    |       |    |    |             |
| YELLOW CLEARANCE                                         |           |          |          | 4  |    |          | 4  |    |       | 3  |    |             |
| RED CLEARANCE                                            |           |          |          |    | 2  |          |    | 1  |       |    | 1  |             |
| PEDESTRIAN INTERVAL                                      |           |          |          |    |    |          |    |    | 7/14  |    |    |             |
| EMERGENCY ONLY                                           |           |          |          |    |    |          |    |    |       |    |    |             |
| DETECTOR                                                 |           |          | NON-LOCK |    |    | NON-LOCK |    |    | LOCK  |    |    |             |
| RECALL                                                   |           |          | SOFT     |    |    | OFF      |    |    | -     |    |    |             |

SIGNAL IDENTIFICATION

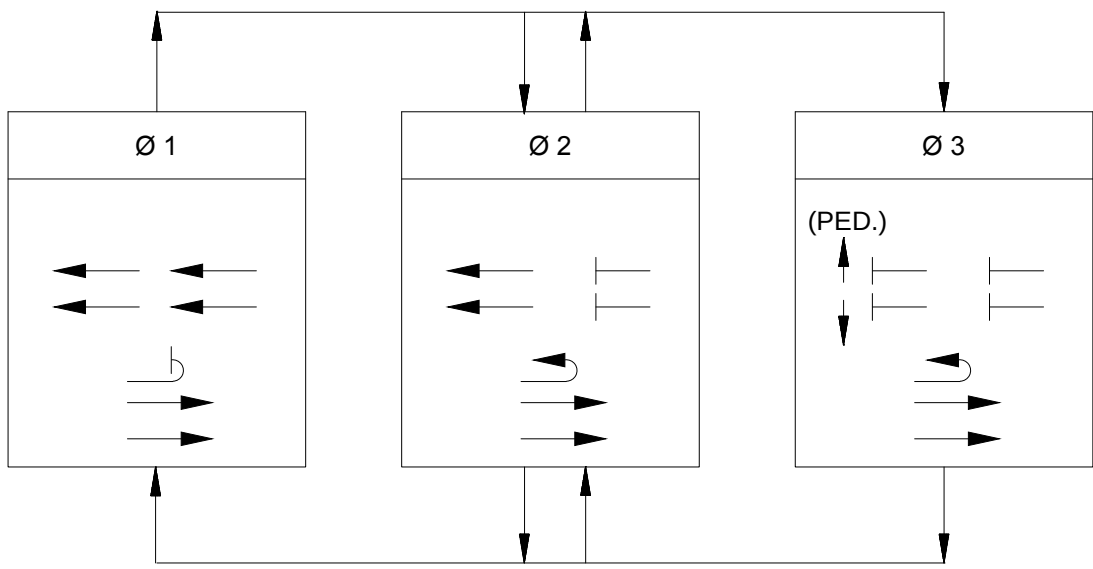


NOTES:

- ALL PROPOSED SIGNAL HEADS SHALL BE RIGID MOUNTED WITH BACK PLATES AND TUNNEL VISORS.
- ALL SIGNAL BACK PLATES SHALL BE 5'± NON-LOUVERED WITH 3" YELLOW RETROREFLECTIVE BORDER
- ALL PROPOSED SIGNAL DISPLAYS SHALL BE EQUIPPED WITH L.E.D. MODULES.

| ITEM 815.2<br>MAJOR ITEMS REQUIRED                                                                                                                       |          |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------|
| PAY ITEM                                                                                                                                                 | QUANTITY | ITEM                                                                                         |
| 815.2                                                                                                                                                    | 1        | 8Ø TS 2 TYPE 1 CONTROLLER IN A TYPE 6 BASE MOUNTED CABINET INCL. FOUNDATION AND CONCRETE PAD |
|                                                                                                                                                          | 3        | SIGNAL MAST ARM 30 FT (TYPE II, STEEL MONOLEVER WITH FOUNDATION)                             |
|                                                                                                                                                          | 2        | TS POST 8" STANDARD INCL. FOUNDATION                                                         |
|                                                                                                                                                          | 4        | SIGNAL HEAD, 3-SECTION, 12" LENSES WITH 5" BACKPLATE                                         |
|                                                                                                                                                          | 2        | SIGNAL HEAD, 1-SECTION, 12" LENS                                                             |
|                                                                                                                                                          | 2        | COUNTDOWN PEDESTRIAN SIGNAL HEAD (P1 THRU P4)                                                |
|                                                                                                                                                          | 2        | APS PEDESTRIAN PUSH BUTTON W/R10-3f AND SIGN SADDLE                                          |
|                                                                                                                                                          | 8        | PULL BOX - 12"X12"                                                                           |
|                                                                                                                                                          | 2        | WIRE LOOP DETECTOR                                                                           |
|                                                                                                                                                          | 1        | LOOP AMPLIFIER - DUAL CHANNEL                                                                |
|                                                                                                                                                          | 1        | RADAR DETECTION SYSTEM & CABLE (DILEMMA ZONE DETECTION)                                      |
|                                                                                                                                                          | 2        | EMERGENCY PRE-EMPTION OPTICAL DETECTORS & DETECTOR CABLE                                     |
|                                                                                                                                                          | 1        | EMERGENCY PRE-EMPTION 4 CHANNEL PHASE SELECTOR                                               |
|                                                                                                                                                          | 1        | EMERGENCY PRE-EMPTION SYSTEM CHASSIS                                                         |
|                                                                                                                                                          | 1        | EMERGENCY PRE-EMPTION STROBE (WHITE LENS)                                                    |
|                                                                                                                                                          | 1        | SERVICE CONNECTION (UNDERGROUND)                                                             |
| PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIALAND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING TRAFFIC CONTROL SIGNAL. |          |                                                                                              |

PREFERENTIAL PHASING SEQUENCE



SEQUENCE & TIMING NOTES:

- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
- THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASED.
- IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DUURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.

FIRE PREEMPTION SCHEDULE

| DETECTOR & PRIORITY | PREEMPTION PHASE | MOVEMENT | VEHICLE PHASE ASSIGNMENT |
|---------------------|------------------|----------|--------------------------|
| D1                  | 1                |          | Ø 1                      |
| D2                  | 2                |          | Ø 2                      |

EMERGENCY VEHICLE PREEMPTION OPERATION:

- EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATION AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
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- PREEMPTION MINIMUM GREENS SHALL BE SIX SECONDS.
- NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- ACTUAL TIMMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MASSDOT PRIOR TO OPERATION.

DETECTOR DATA

| DETECTOR NUMBER | NO. SECTION / SIZE    | NO. OF TURNS | OPERATIONS | DELAY / EXTEND | CALL PHASE | LOOP CONNECTIONS |
|-----------------|-----------------------|--------------|------------|----------------|------------|------------------|
|                 | 2 - 6'X20' QUADRUPOLE | 2 -4 - 2     | PRESENCE   | 0              | Ø 2        | SERIES           |

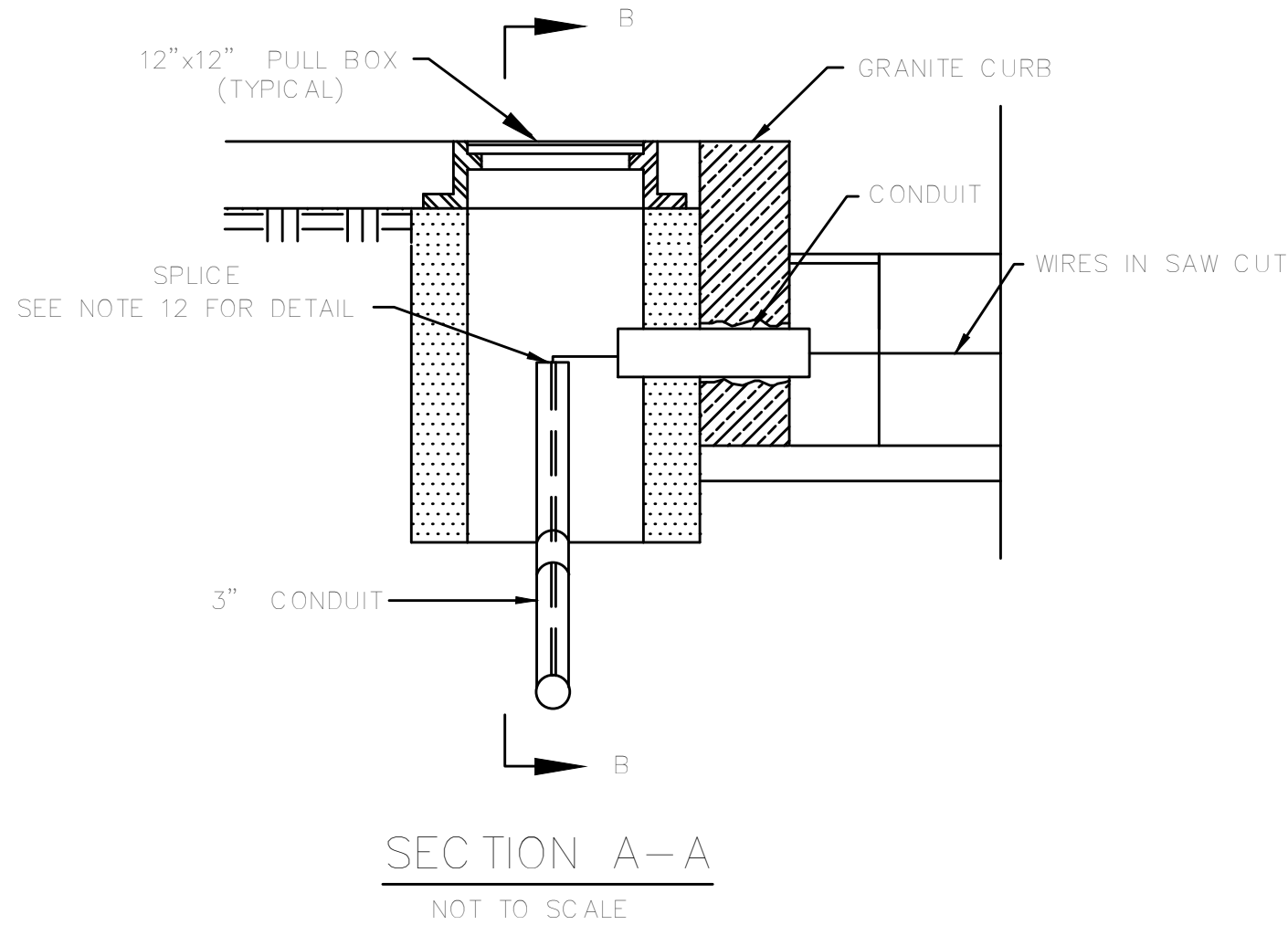
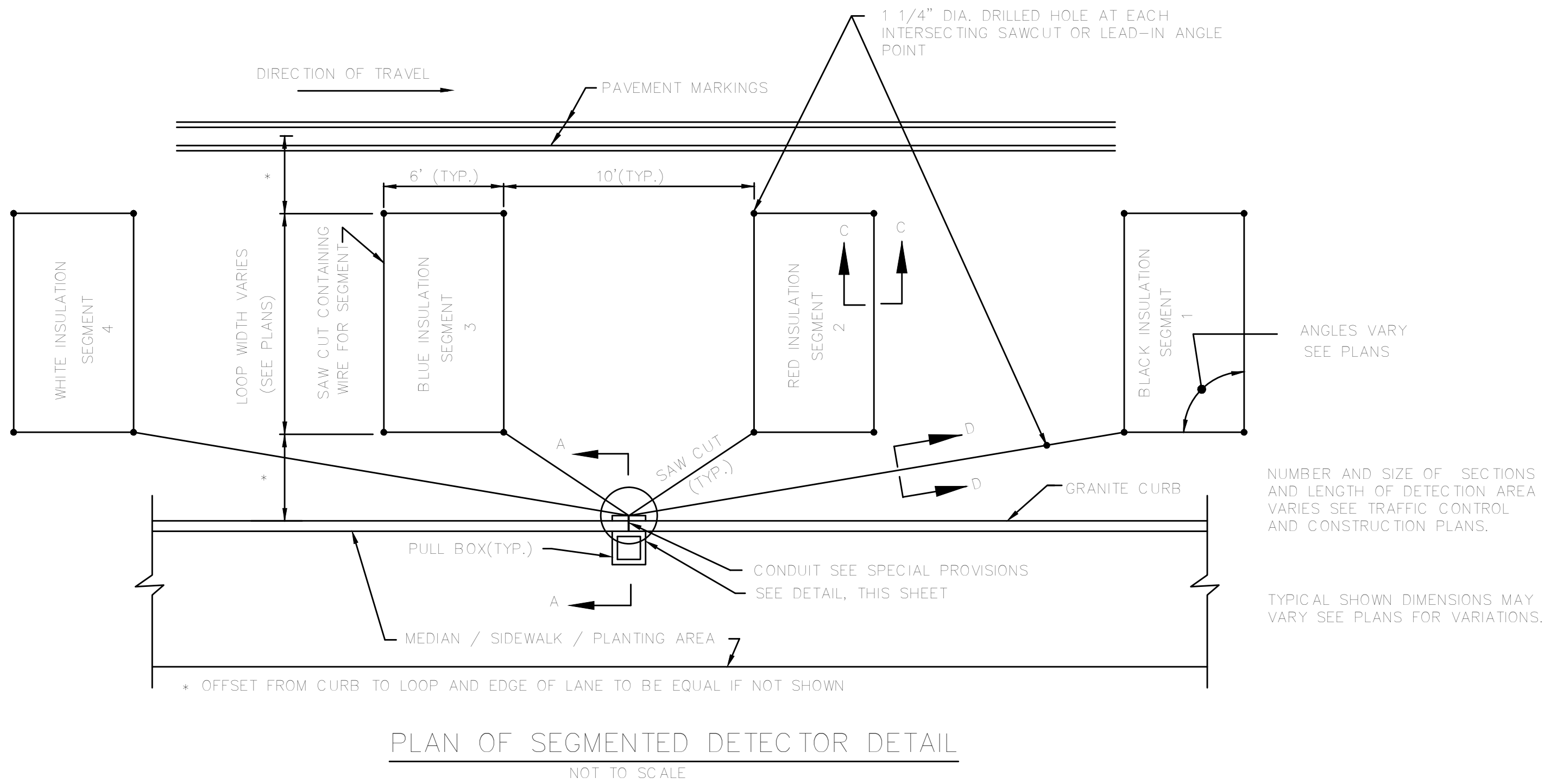
NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY

RADAR DETECTOR SYSTEM DATA

| DETECTOR NUMBER | BEGIN ZONE      | END ZONE        | RVDS # | DELAY / EXTEND | CALL PHASE |
|-----------------|-----------------|-----------------|--------|----------------|------------|
|                 | 100' FROM WB SL | 400' FROM WB SL | 1      | 0              | Ø 1        |
|                 | 100' FROM WB SL | 400' FROM WB SL | 1      | 0              | Ø 1        |

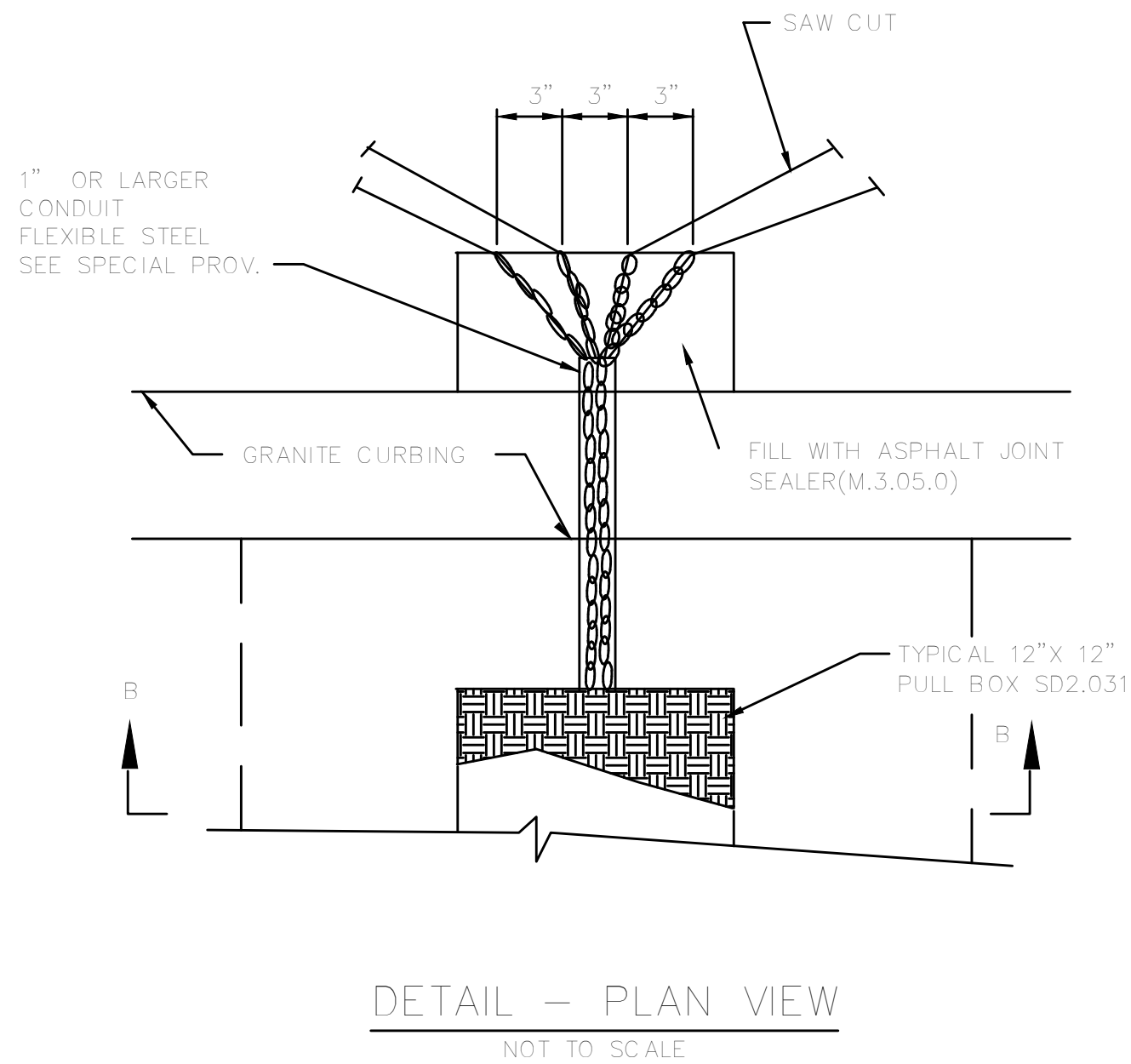
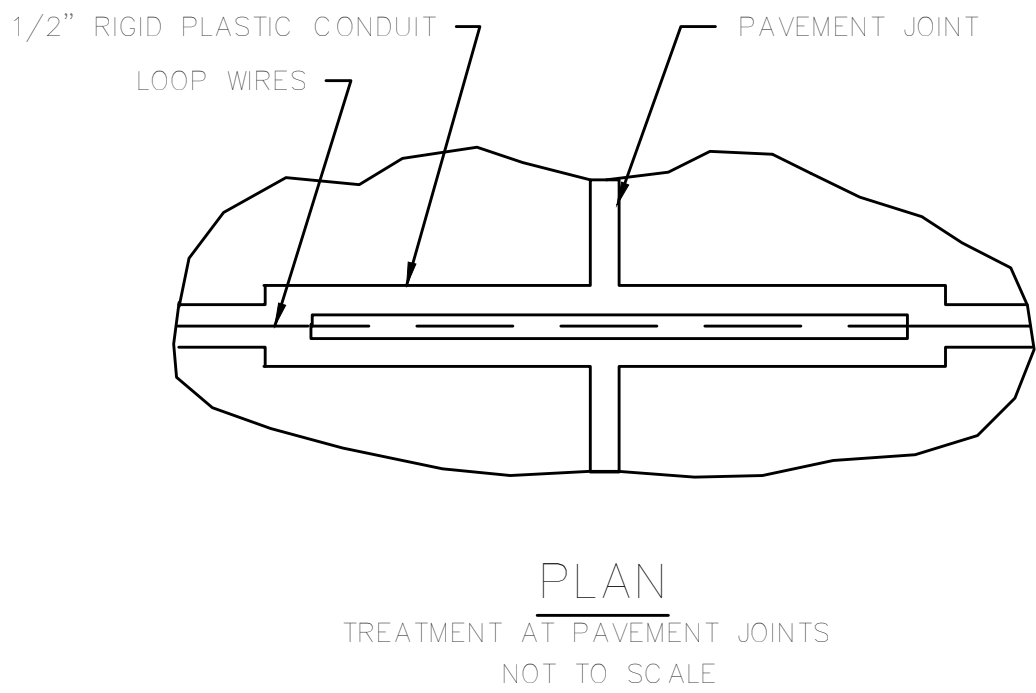
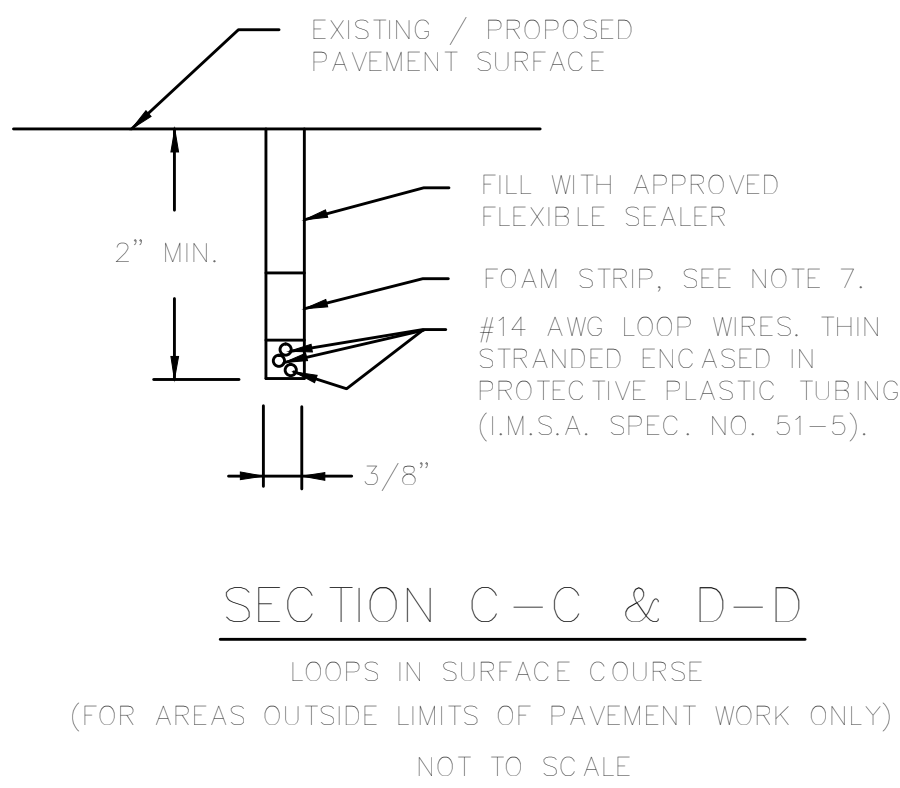
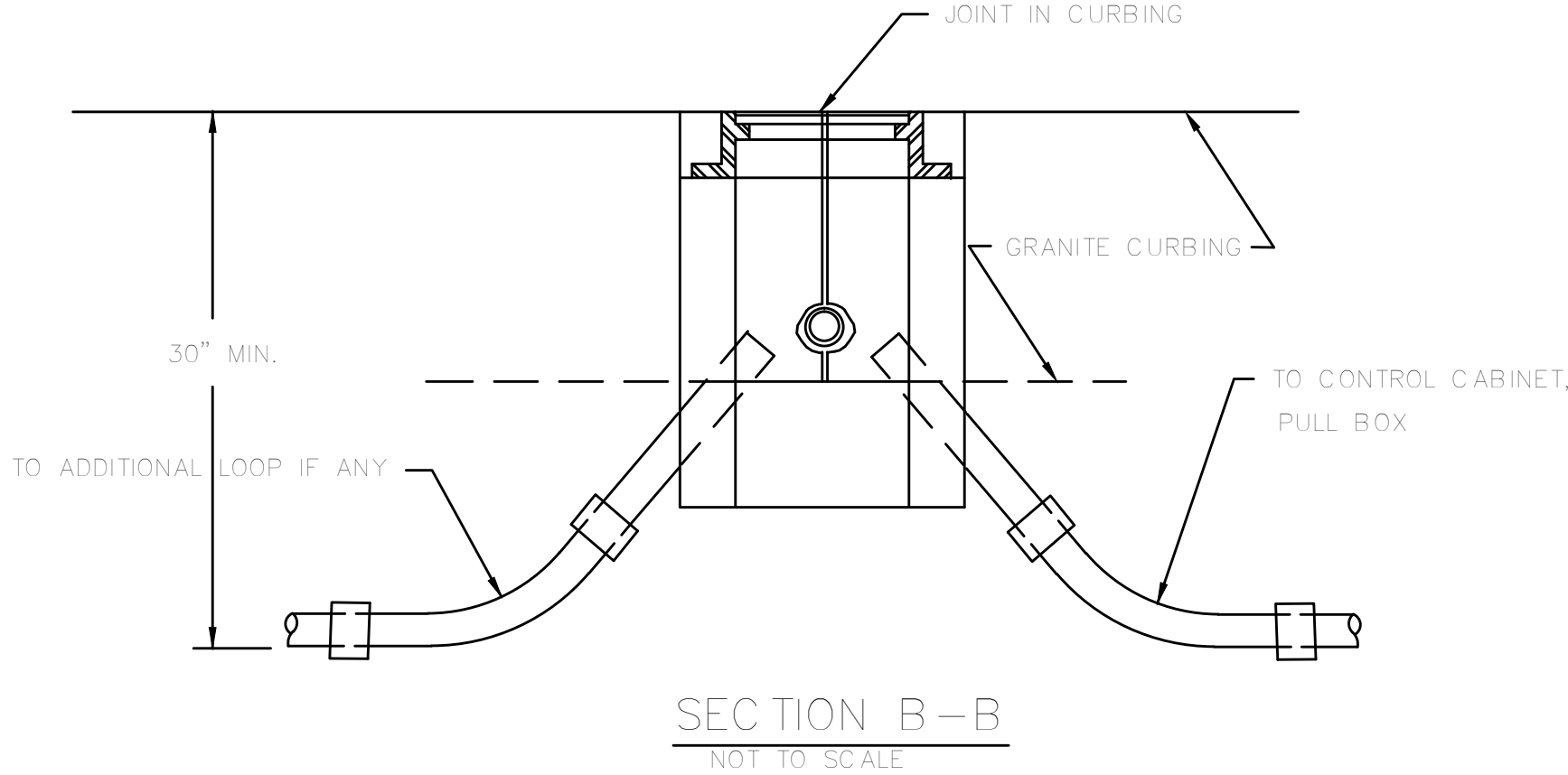
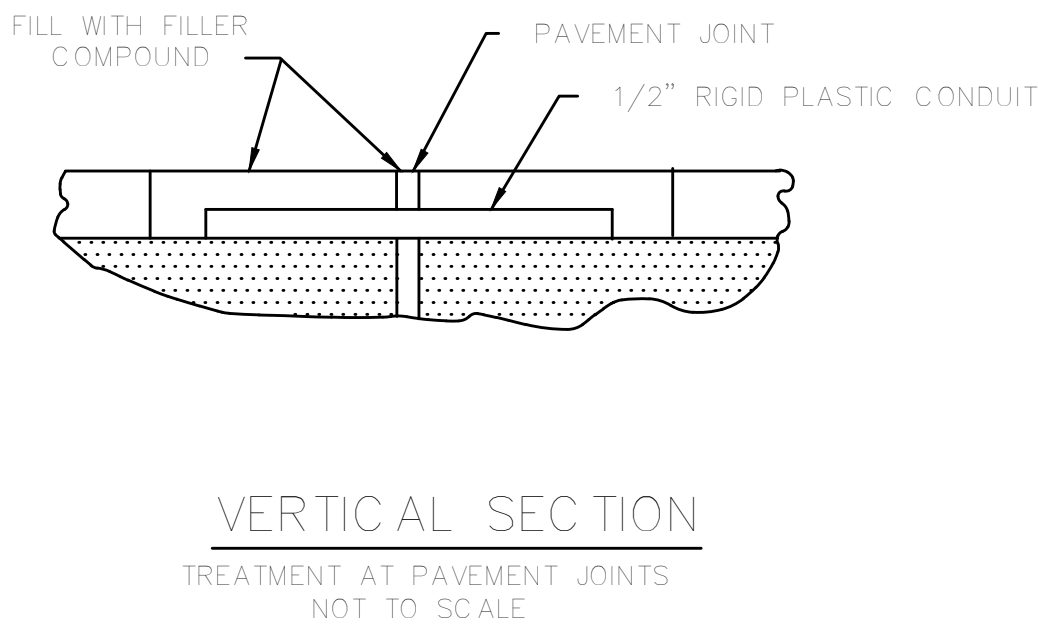
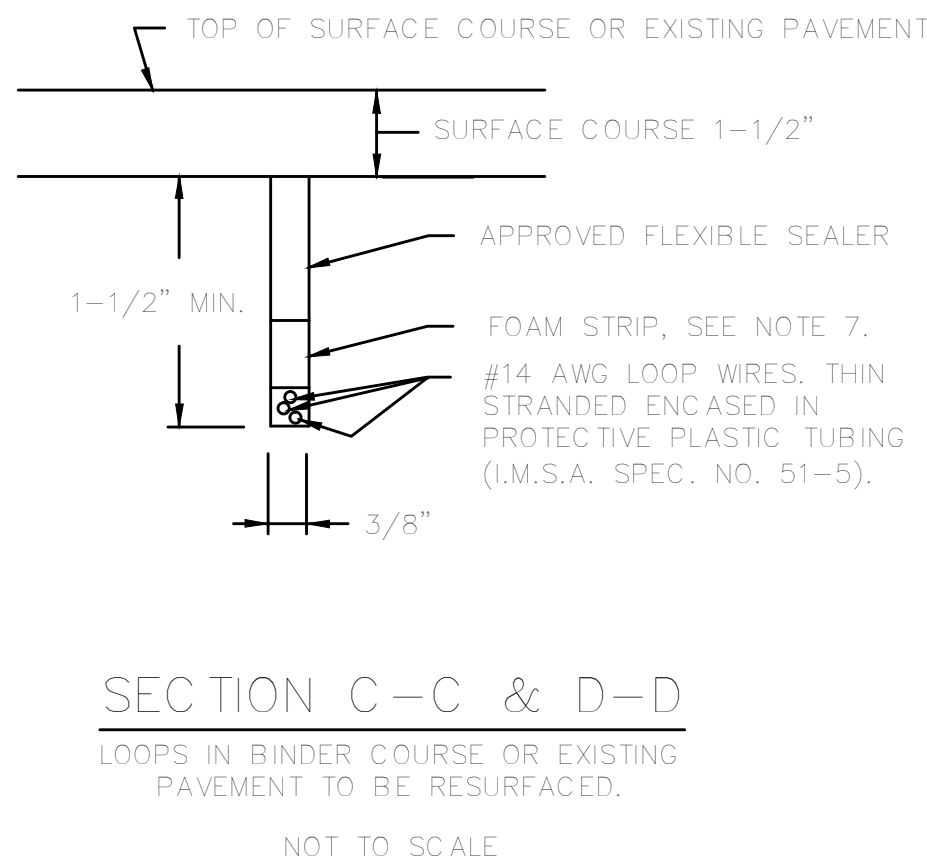
NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY





DETECTOR NOTES

- IN HANDHOLE, SPLICE ALL SEGMENTS TO TYPE II-SHIELDED LOOP DETECTOR LEAD-IN CABLE. SEGMENTS SHALL BE SPLICED IN PARALLEL, IN SERIES, OR IN A COMBINATION OF PARALLEL & SERIES AS SHOWN ON THE PLAN SHEET FOR EACH DETECTOR. NUMBER OF TURNS OF WIRE SHALL ALSO BE AS SHOWN ON THE PLAN SHEET FOR EACH DETECTOR. SEE NOTE 12.
  - SEE SPECIAL PROVISIONS FOR REQUIREMENTS OF DETECTOR AMPLIFIER.
  - LEAD IN WIRES SHALL BE TWISTED FROM SEGMENT TO SPLICE WITH SHIELDED CABLE. FIVE TURNS PER FOOT. LEAD-IN SHALL BE TYPE II (M8.16, II).
  - BEFORE STARTING ANY SPLICING, THE ELECTRICAL CONTRACTOR SHALL FURNISH DATA SHEETS ON THE MATERIALS AND/OR METHODS TO BE USED IN ACCORDANCE WITH THE DEPARTMENTS STANDARD OPERATING PROCEDURES FOR APPROVAL OF SHOP DRAWINGS, SEE SECTION 815.64, ESPECIALLY PARAGRAPH 1.
  - THE METALLIC SHIELD WHICH SHALL ENCASE THE DETECTOR LEADS FROM A SPLICE (TYPICALLY LOCATED IN A PULL BOX NEAR THE ROADWAY COMPONENT OF THE DETECTOR) TO THE CONTROLLER, AND THE DRAIN WIRE UNDER THE METALLIC SHIELD, SHALL NOT BE GROUNDED TO THE EARTH GROUNDING BUS IN THE CONTROLLER, AND THE SHIELD AND DRAIN WIRE SHALL BE CAREFULLY INSULATED FROM THE TRANSFORMER NEUTRAL OR FROM EARTH GROUND AT ALL OTHER POINTS ALONG ITS LENGTH. SPECIFICALLY, THIS INCLUDES CAREFUL INSULATION OF THE EXPOSED PORTION OF THE SHIELD AND THE DRAIN WIRE AT THE END AWAY FROM THE CONTROLLER WHERE IT IS SPLICED TO WIRES LEADING TO THE ROADWAY COMPONENT OF THE DETECTOR. THIS IS IMPORTANT TO AVOID A GROUND RETURN LOOP.
  - FILL ALL CONDUIT OPENINGS WITH DUCT SEAL.
  - AFTER SAW CUTS ARE COMPLETE, BLOW OUT WATER WITH OIL-FREE COMPRESSED AIR UNTIL CUTS ARE CLEAN AND DRY. INSERT WIRE INTO CLEAN SLOT WITH A BLUNT, SMOOTH, ROUND-EDGED TOOL OF WOOD OR PLASTIC SUCH AS PAINT STIRRER. DO NOT USE A SCREWDRIVER. THEN INSERT FOAM PLASTIC HOLD DOWN STRIPS, SIMILAR TO ETHA FOAM SB. STRIPS SHALL BE ABOUT 2" LONG, PLACED IN THE SLOT ABOUT EVERY 2 FEET THEN POUR SEALER, TAKING CARE TO ELIMINATE BUBBLES.
  - THE COMBINED ROADWAY LOOP, TWISTED LEAD-IN WIRES, SPLICE AND SHIELDED LEAD-IN CABLE SHALL HAVE A RESISTANCE TO GROUND AT LEAST 100 MEGOHMS. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
  - DETAIL IS THE SAME FOR INSTALLATION OF SINGLE (ONE SEGMENT) SMALL WIRE LOOP DETECTOR.
  - CUT LOOPS IN BINDER AND FILL WITH APPROVED FLEXIBLE SEALER.
  - DETECTOR WIRE SHALL BE A DIFFERENT COLOR FOR EACH SEGMENT OF A DETECTOR GROUP. SEE DETAIL.
  - SPLICING PATTERN P= SERIES/PARALLEL: SPLICE SEGMENTS 1 AND 3 OF AN INDIVIDUAL DETECTOR IN SERIES. SPLICE SEGMENTS 2 AND 4 IN SERIES. SPLICE THE RESULTANT TWO GROUPS IN PARALLEL. SPLICE THE RESULTANT COMBINATION TO ONE LEAD-IN CABLE. CONNECT THIS CABLE TO AN OTHERWISE UNUSED AMPLIFIER CHANNEL.
- SPLICING PATTERN S= SERIES: SPLICE ALL SEGMENTS (TYPICALLY FOUR, BUT MAY BE LESS) OF AN INDIVIDUAL DETECTOR IN SERIES. SPLICE THE RESULTANT COMBINATION TO ONE LEAD-IN CABLE TO AN OTHERWISE UNUSED AMPLIFIER CHANNEL.





| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 44        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

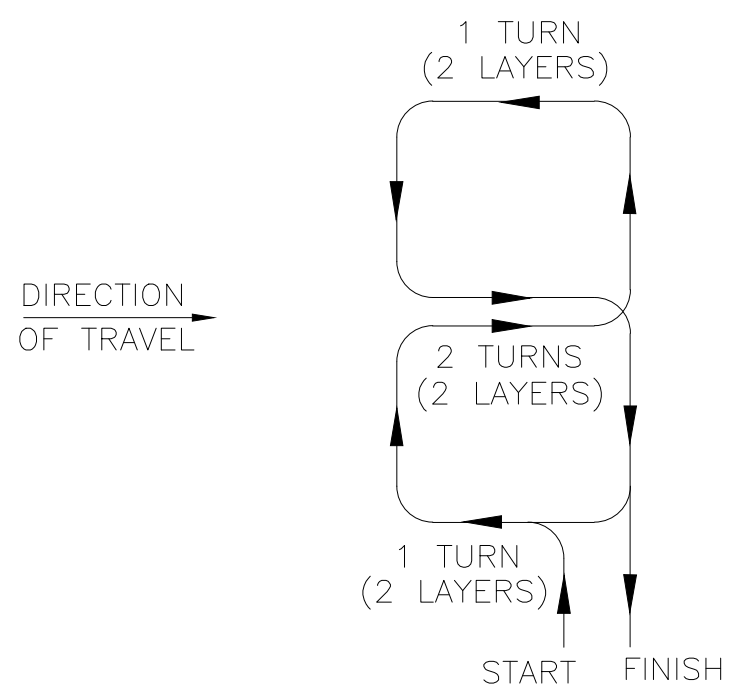
TRAFFIC SIGNAL DETAILS - 2  
BICYCLE LOOP DETECTOR

BICYCLE LOOP DETECTOR DETAILS

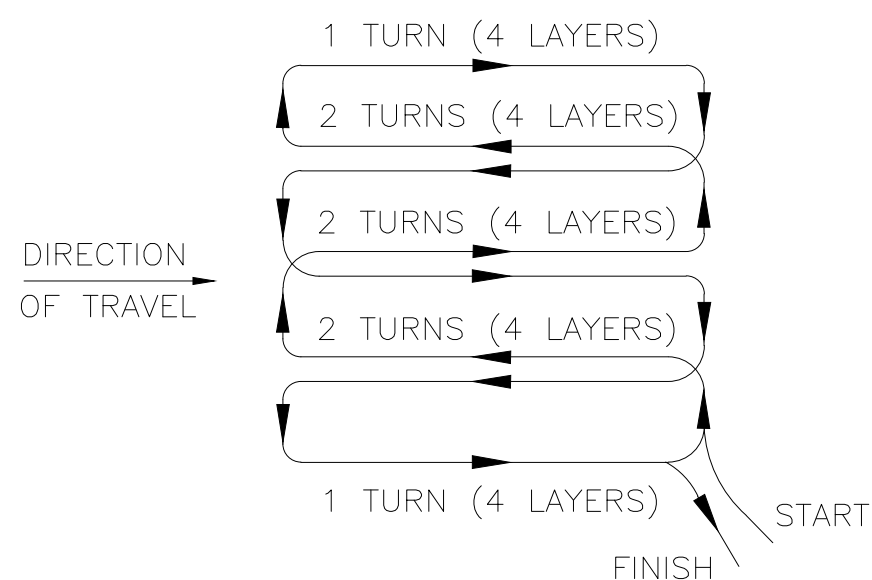
NOTES:

- REFER TO VEHICLE LOOP DETECTOR DETAIL SHEET FOR ADDITIONAL NOTES AND CONSTRUCTION DETAILS.
- ALL DETAILS ARE GRAPHICAL WITH NO SCALE.
- THE NUMBER, SIZE, LOCATION AND LENGTH OF DETECTION AREA VARIES AND SHALL BE DETERMINED BY THE DESIGNER REFER TO TRAFFIC SIGNAL PLAN.
- BICYCLE LOOPS SHALL BE CONNECTED TO SEPARATE LOOP DETECTOR AMPLIFIERS CAPABLE OF HIGHER LEVELS OF SENSITIVITY.
- BICYCLE LOOPS SHALL BE INSTALLED IN THE BASE COURSE OF EXISTING PAVEMENT. THE EXISTING PAVEMENT SHALL BE COLD PLANED TO THE BASE COURSE AND SAWCUT FOR LOOP INSTALLATION.
- SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED FOR ALL BICYCLE DETECTORS TO INFORM CYCLISTS OF THE DETECTION AREA.
- OFFSETS FROM LANE LINE EQUAL UNLESS OTHERWISE NOTED. SEE PLANS.
- TYPE Q DETECTORS SHALL BE WIRED IN A FIGURE EIGHT PATTERN WITH A DOUBLE LAYER DESIGN (12-4-2") WITH 2 TURNS IN THE PERIMETER SLOTS AND 4 TURNS IN THE CENTER SLOT AS SHOWN IN THE WINDING DETAIL.
- BICYCLES WILL BE DETECTED WITHIN 4 IN. OF THE INTERIOR LONGITUDINAL LOOP WIRES FOR TYPE Q AND D-Q DETECTORS.
- PROVIDE 3 TURNS FOR TYPE D-1 DETECTORS.
- INSTALL 2 LAYERS OF WIRE WOUND IN THE SAME DIRECTION IN BOTH LAYERS FOR TYPE D-2 DETECTORS. THE RESULT IS 4 TURNS IN EACH DIAGONAL.
- RIGHT JUSTIFIED LOOP DETECTORS SHALL BE CONSIDERED FOR THE FOLLOWING CONDITIONS:
  - BICYCLE STOPPING ON THE RIGHT SIDE OF A THRU TRAVEL LANE.
  - BICYCLE STOPPING ON THE RIGHT SIDE OF AN EXCLUSIVE LEFT TURN LANE.
- LEFT JUSTIFIED LOOP DETECTORS SHALL BE CONSIDERED FOR THE FOLLOWING CONDITIONS:
  - BICYCLE STOPPING ON THE LEFT SIDE OF A SHARED LEFT/THRU LANE.
  - BICYCLE STOPPING JUST TO THE RIGHT OF THE CENTERLINE WHEN TURNING LEFT ON A TWO-LANE ROADWAY.
- RECTANGULAR LOOP DETECTORS SHALL BE CONSIDERED FOR BICYCLES STOPPING ON EITHER THE LEFT OR RIGHT SIDE OF A TWO-LANE ROADWAY. THE MINIMUM OFFSET FROM LANE LINE OR CURB LINE SHALL BE 1.0 FT.
- PAVEMENT CORES OR TEST PITS MAY BE REQUIRED TO DETERMINE THE DEPTH OF EXISTING PAVEMENT AND CONFIRM THAT THE DETECTION OPTION CHOSEN AND CORRESPONDING WINDING PATTERN CAN BE ACCOMMODATED.
- THESE DETAILS APPLY TO BICYCLE LOOPS INSTALLED IN ROADWAYS. PUSH BUTTON ACTUATION SHALL BE CONSIDERED FOR RECREATIONAL BIKE PATHS.
- THE MINIMUM DIMENSION FOR L SHALL BE 6 FT. MIN. FOR DETECTORS TYPE D-Q, D-1 & D-2. FINAL DIMENSIONS SHALL BE DETERMINED BY THE DESIGN ENGINEER.

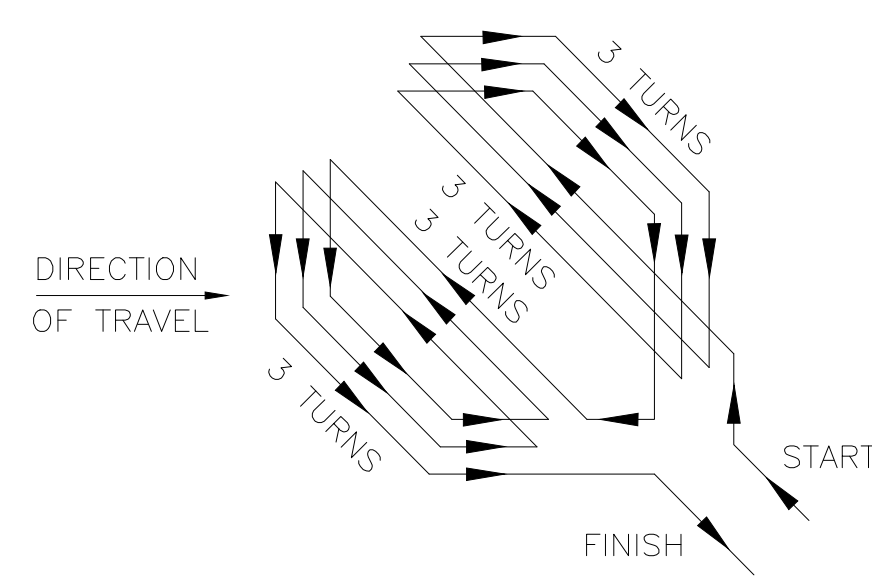
WINDING DETAILS



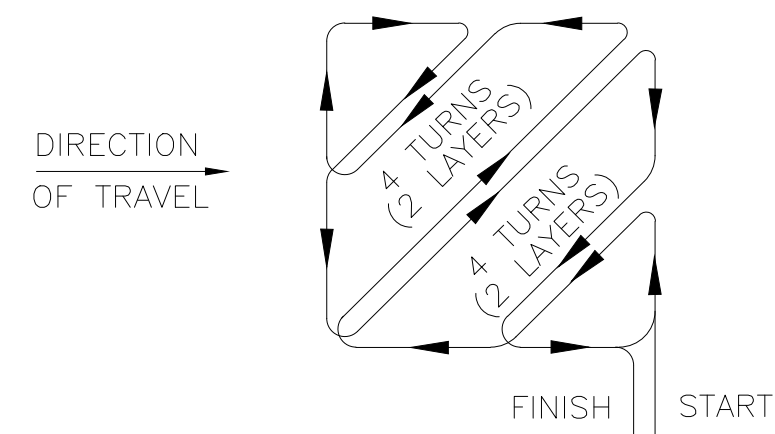
TYPE Q DETECTOR



TYPE D-Q DETECTOR

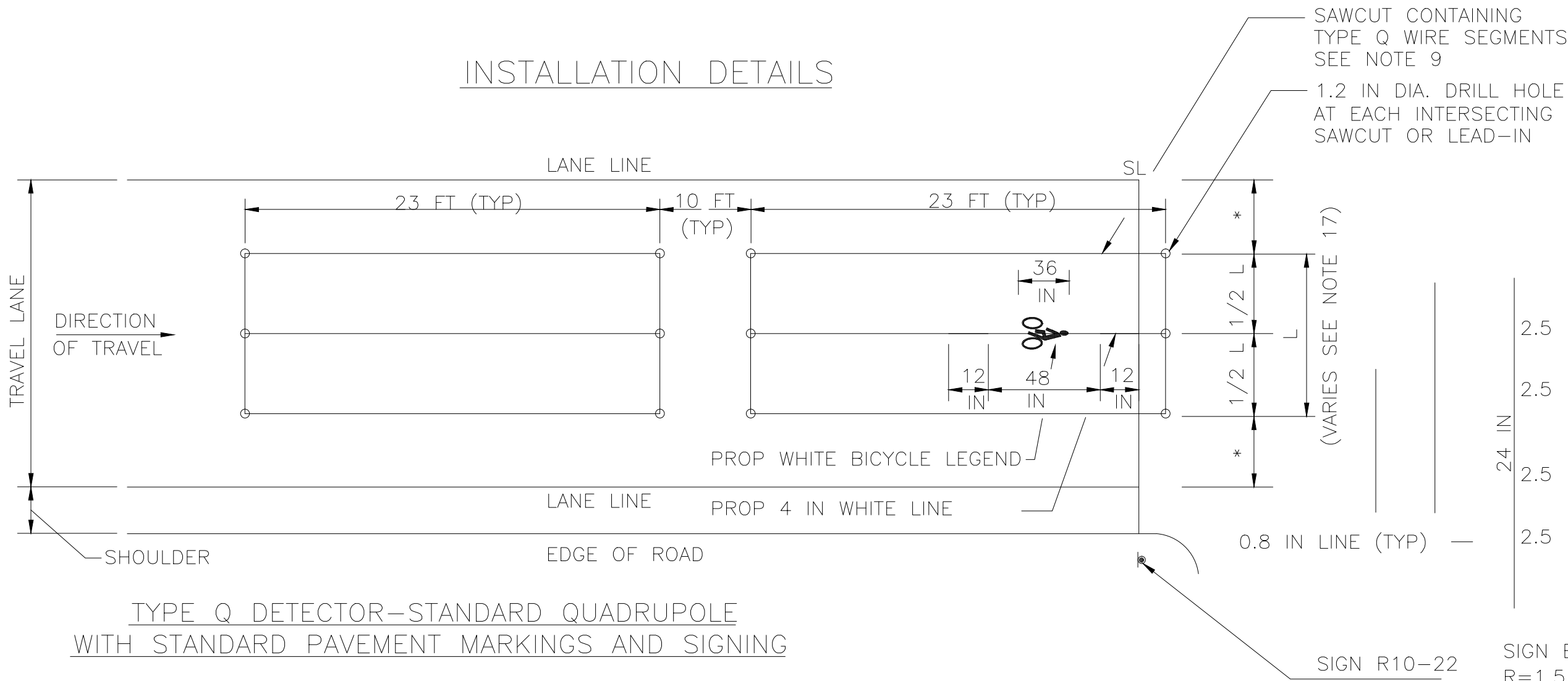


TYPE D-1 DETECTOR

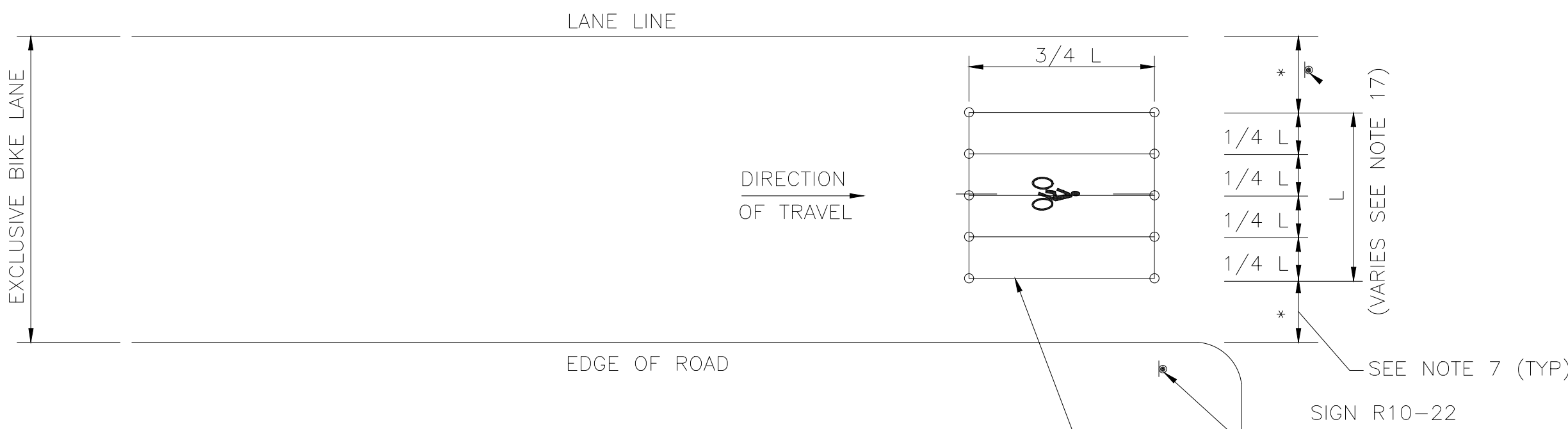


TYPE D-2 DETECTOR

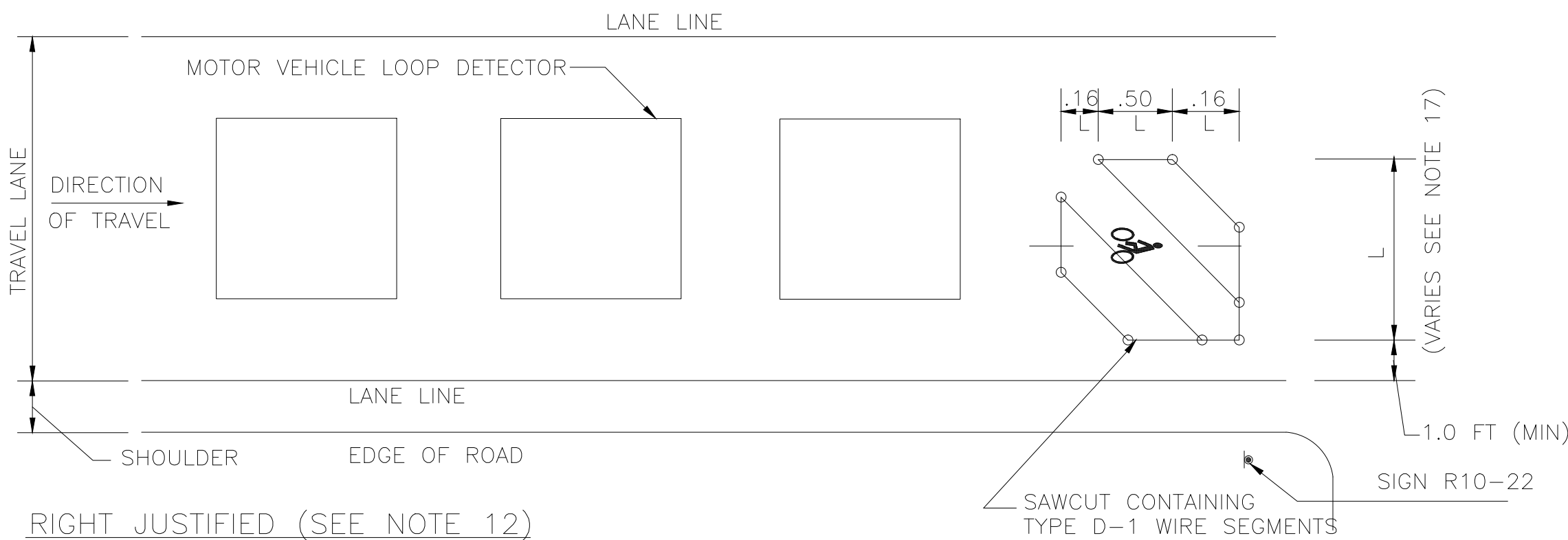
INSTALLATION DETAILS



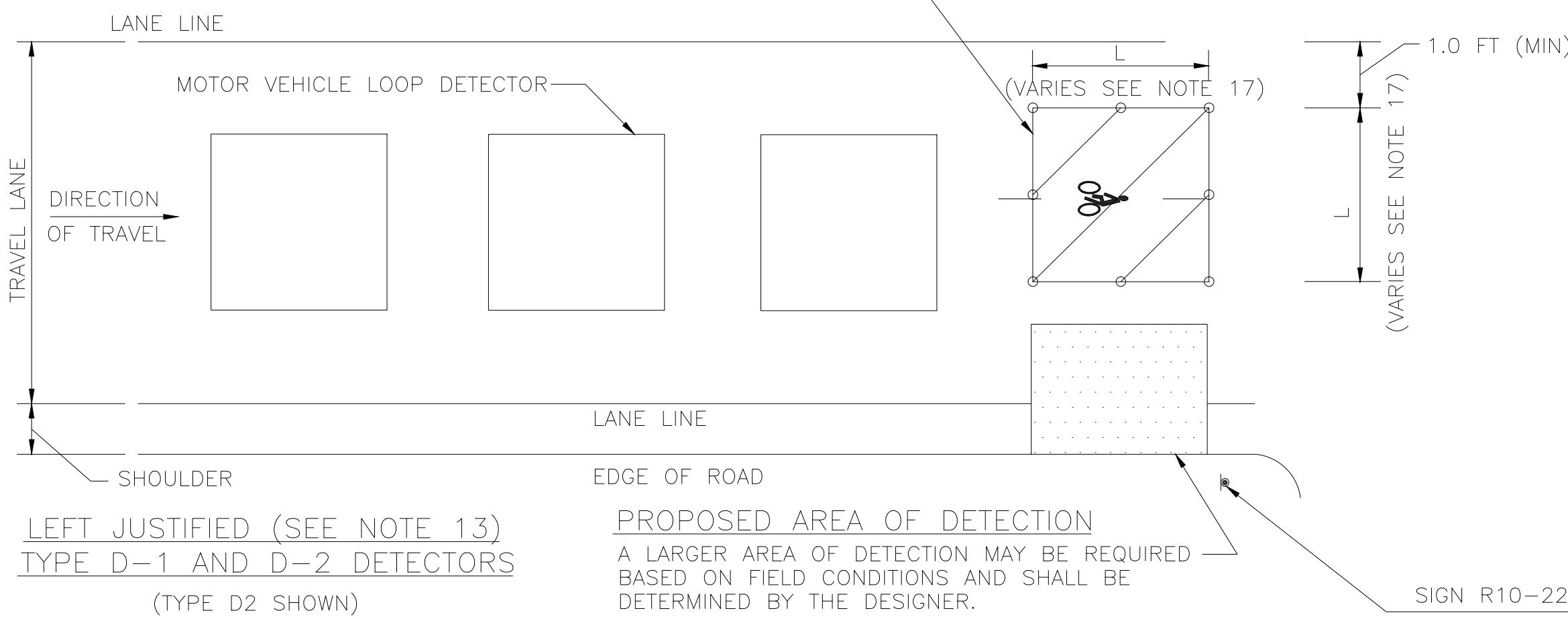
TYPE Q DETECTOR-STANDARD QUADRUPOLE  
WITH STANDARD PAVEMENT MARKINGS AND SIGNING



TYPE D-Q DETECTOR-DOUBLE QUADRUPOLE

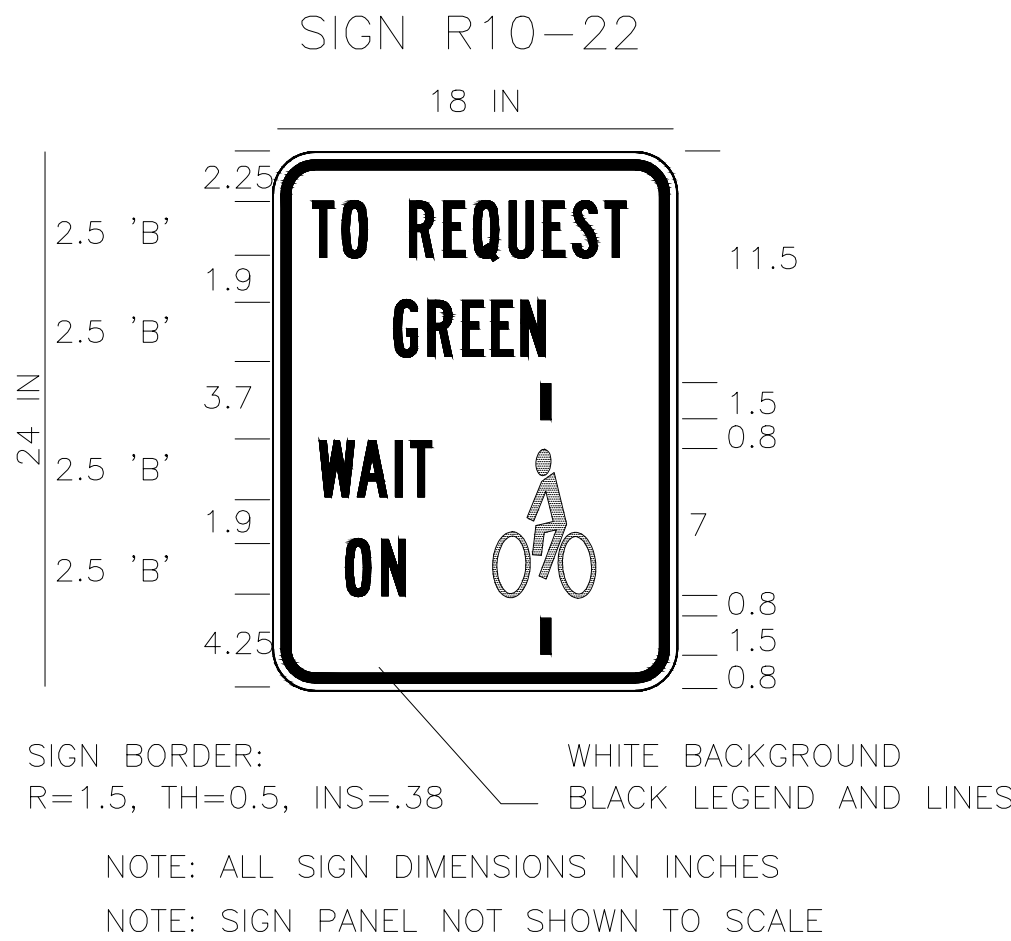


RIGHT JUSTIFIED (SEE NOTE 12)  
TYPE D-1 AND D-2 DETECTORS  
(TYPE D1 SHOWN)

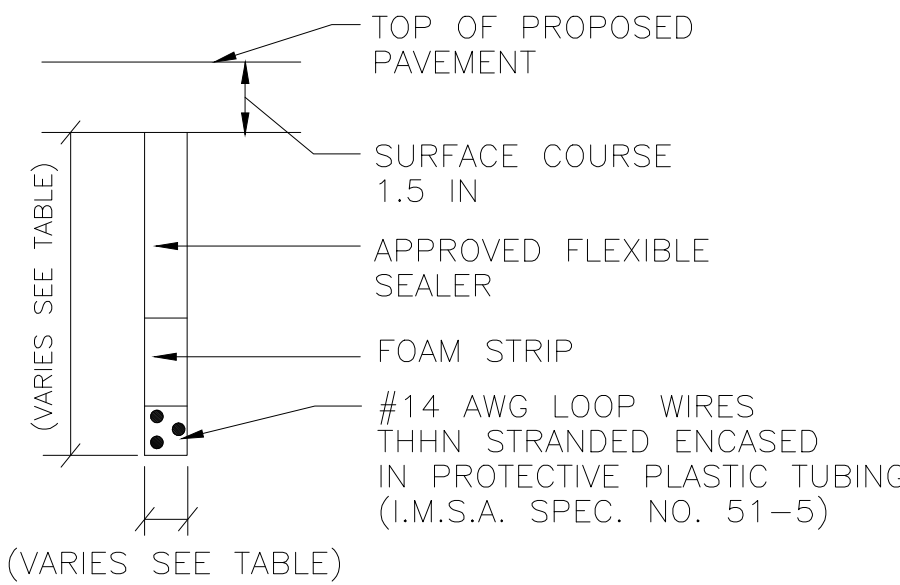


LEFT JUSTIFIED (SEE NOTE 13)  
TYPE D-1 AND D-2 DETECTORS  
(TYPE D2 SHOWN)

PROPOSED AREA OF DETECTION  
A LARGER AREA OF DETECTION MAY BE REQUIRED  
BASED ON FIELD CONDITIONS AND SHALL BE  
DETERMINED BY THE DESIGNER.



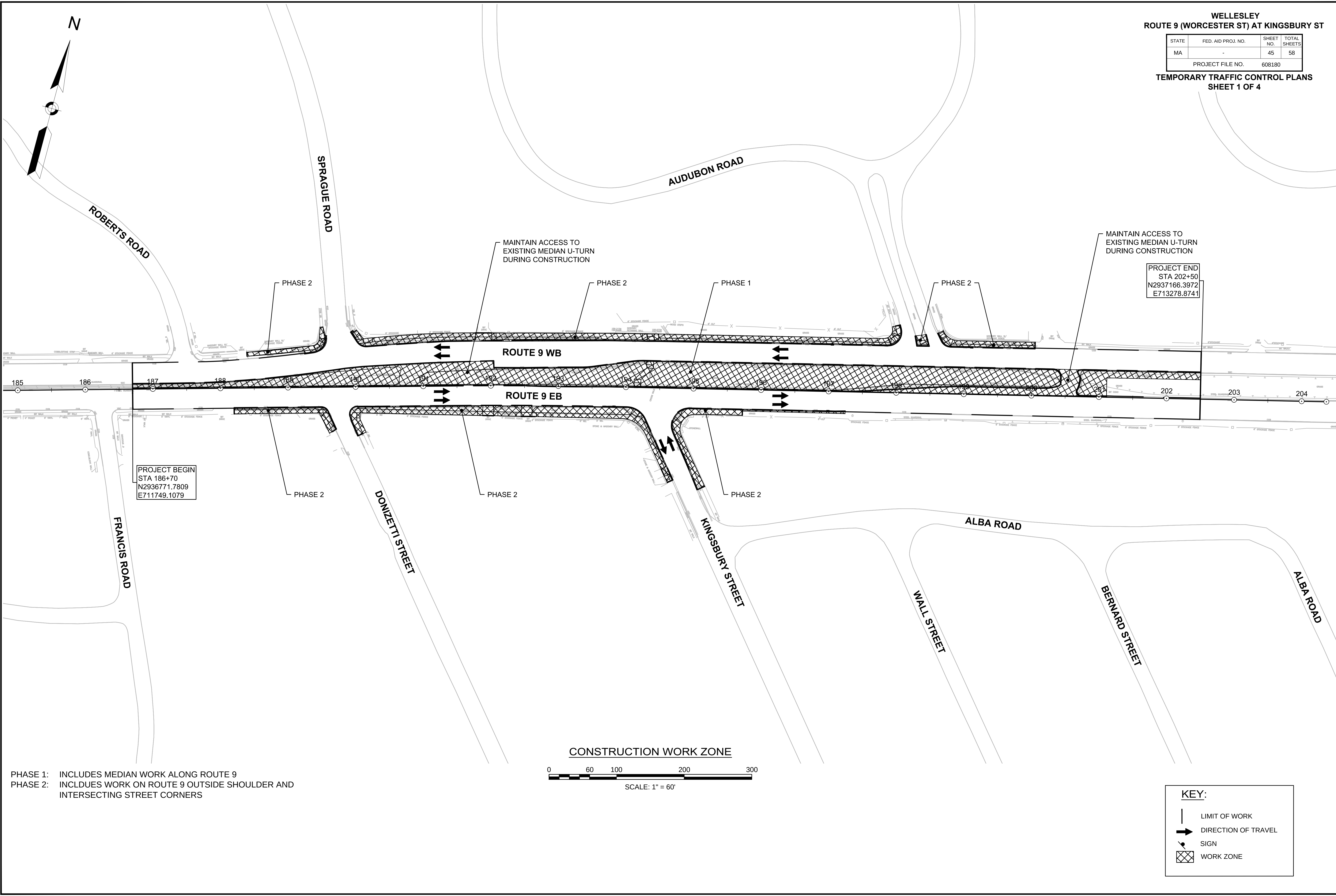
NOTE: ALL SIGN DIMENSIONS IN INCHES  
NOTE: SIGN PANEL NOT SHOWN TO SCALE



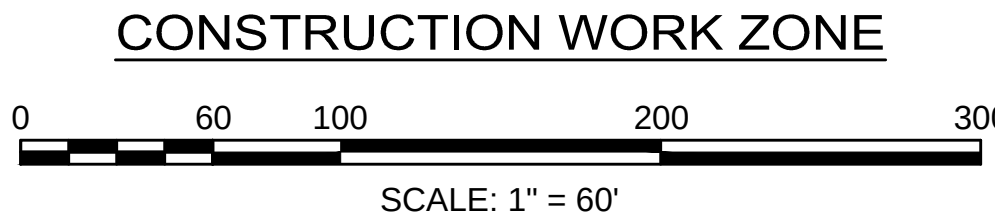
SECTION THRU LOOP DETECTOR

| SAWCUT SLOT DEPTH GUIDE |            |            |
|-------------------------|------------|------------|
| TURNS OF WIRE           | SLOT SIZE  |            |
|                         | DEPTH (IN) | WIDTH (IN) |
| 1                       | 1.5        | 0.5        |
| 2                       | 1.5        | 0.5        |
| 3                       | 1.5        | 0.5        |
| 4                       | 2.0        | 0.5        |
| 5                       | 2.0        | 0.5        |
| 6                       | 2.0        | 0.5        |
| 7                       | 2.0        | 0.5        |
| 8                       | 2.0        | 0.5        |





PHASE 1: INCLUDES MEDIAN WORK ALONG ROUTE 9  
PHASE 2: INCLDUES WORK ON ROUTE 9 OUTSIDE SHOULDER AND INTERSECTING STREET CORNERS



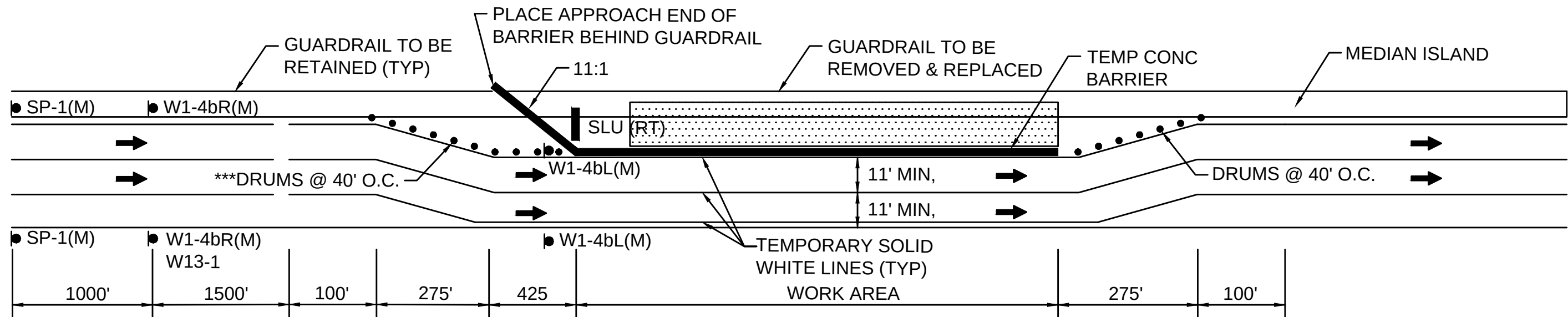
KEY:

- LIMIT OF WORK
- DIRECTION OF TRAVEL
- SIGN
- WORK ZONE



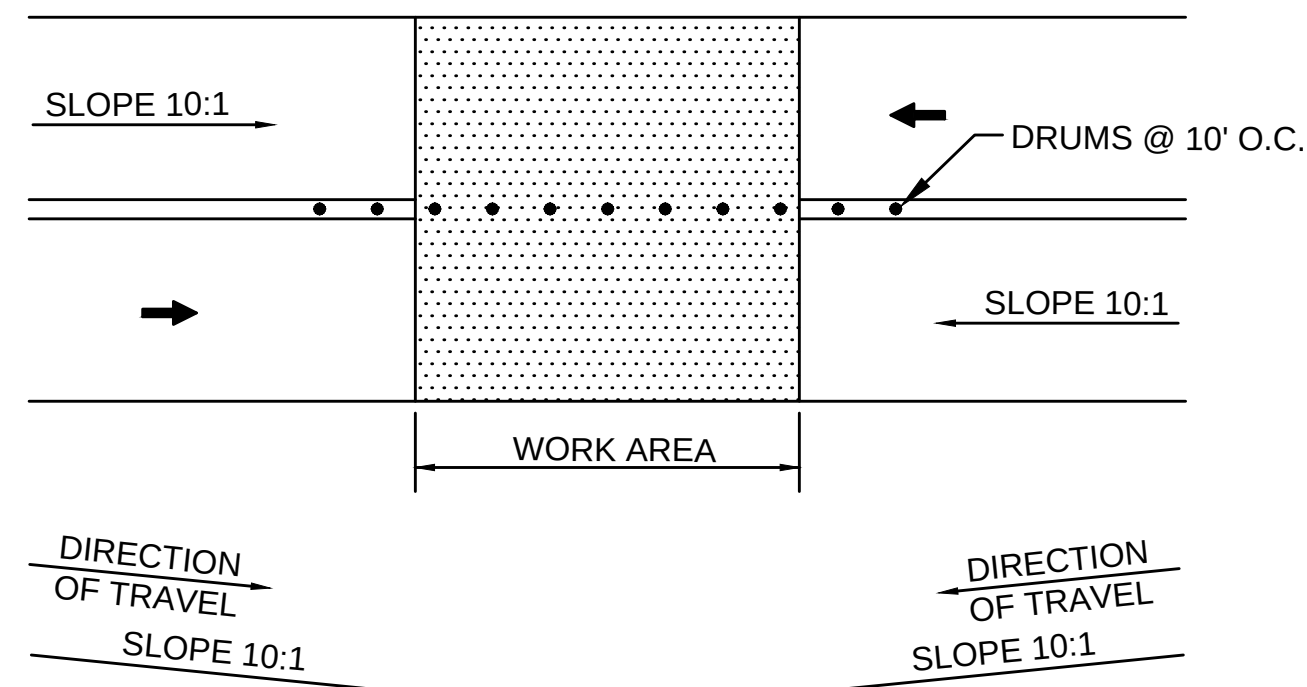
OPERATIONAL SIGNING

LANE CLOSURES SHOWN ARE FOR TEMPORARY CONSTRUCTION.  
ALL DRUMS AND SIGNS ARE SHOWN AS THEY SHOULD APPEAR DURING  
THE WORKING DAY, OR WHILE OPERATING IN THE WORK ZONE.



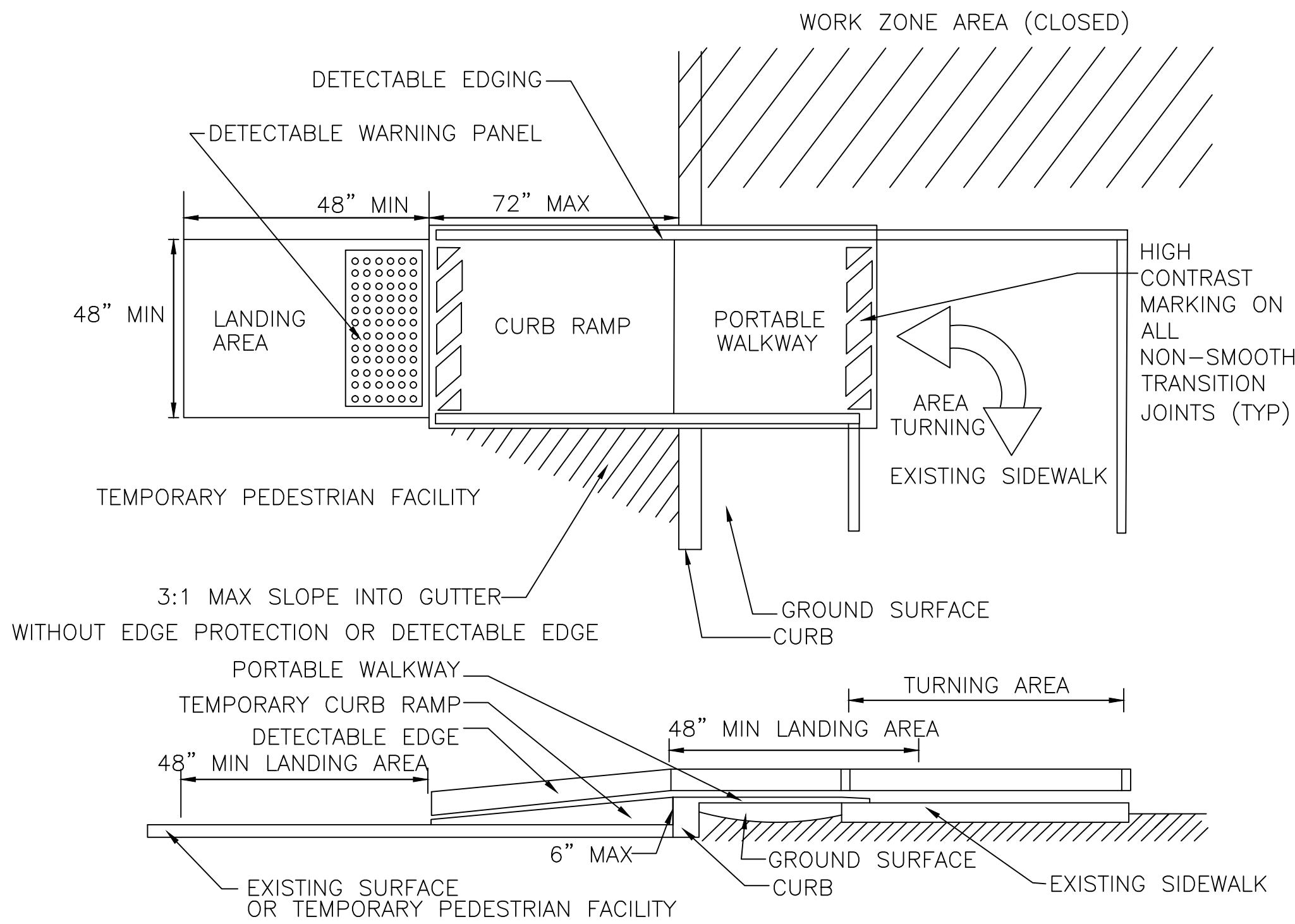
\*\*\* SEE NOTE 16

PERMANENT LANE SHIFT - MEDIAN WORK ZONE  
NOT TO SCALE



SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF  
WORK DAY

TEMPORARY PAVEMENT TRANSITION DETAIL  
NOT TO SCALE



TEMPORARY CURB RAMP-TYPE 2

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
5. CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR 2 TO 4 IN. WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- TEMPORARY TRAFFIC CONTROL SIGN

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

| TYPE OF TAPER                   | TAPER LENGTH (L)*                           |
|---------------------------------|---------------------------------------------|
| MERGING TAPER                   | AT LEAST L                                  |
| SHIFTING TAPER                  | AT LEAST 0.5L                               |
| SHOULDER TAPER                  | AT LEAST 0.33L                              |
| ONE-LANE, TWO-WAY TRAFFIC TAPER | 50 FT MIN.(15 m) 100 FT(30 m) MAX.          |
| DOWNSTEAM TAPER                 | 50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE |

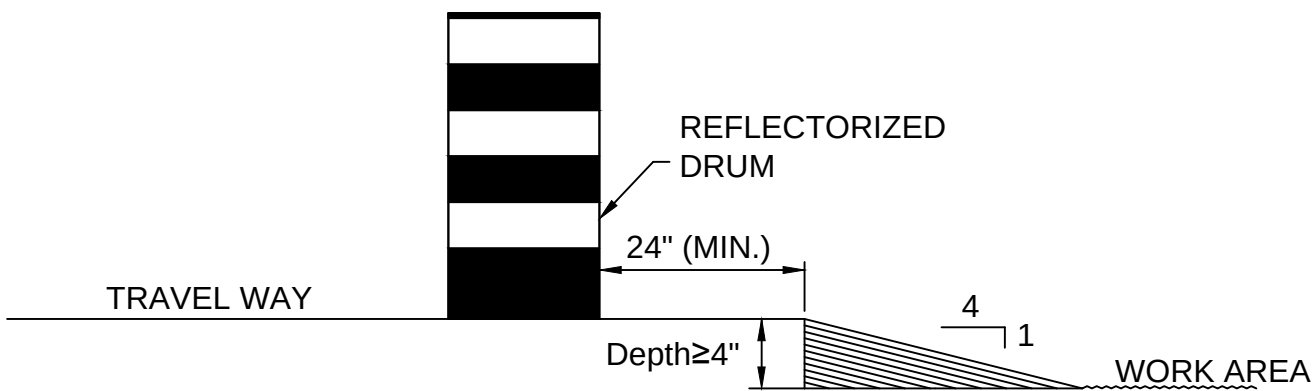
FORMULAS FOR DETERMINING TAPER LENGTHS

| SPEED LIMIT (S) | TAPER LENGTH (L)<br>FEET | SPEED LIMIT (S) | TAPER LENGTH (L)<br>Meters |
|-----------------|--------------------------|-----------------|----------------------------|
| 40 MPH OR LESS  | $L = \frac{WS^2}{60}$    | 60 KM/H OR LESS | $L = \frac{WS^2}{155}$     |
| 45 MPH OR MORE  | $L = WS$                 | 70 KM/H OR MORE | $L = \frac{WS}{1.6}$       |

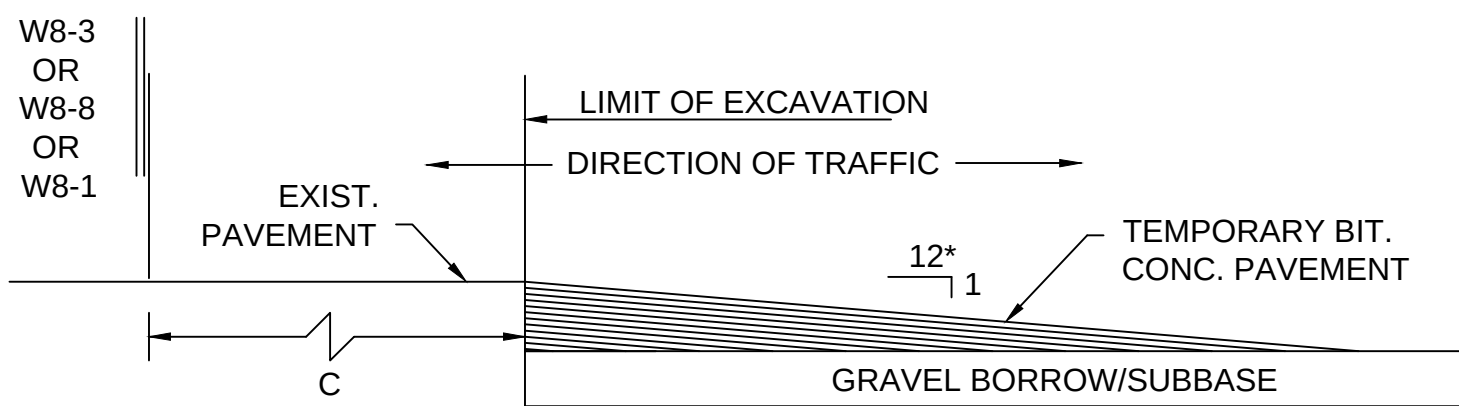
WHERE: L = TAPER LENGTH IN FEET (METERS)

W = WIDTH OF OFFSET IN FEET (METERS)

S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO  
WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH (KM/H)



LATERAL DROP-OFF DETAIL  
NOT TO SCALE



LONGITUDINAL DROP-OFF DETAIL  
NOT TO SCALE

WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------|--------------------|-----------|--------------|
| MA    | -                  | 46        | 58           |

TEMPORARY TRAFFIC CONTROL PLANS  
SHEET 2 OF 4

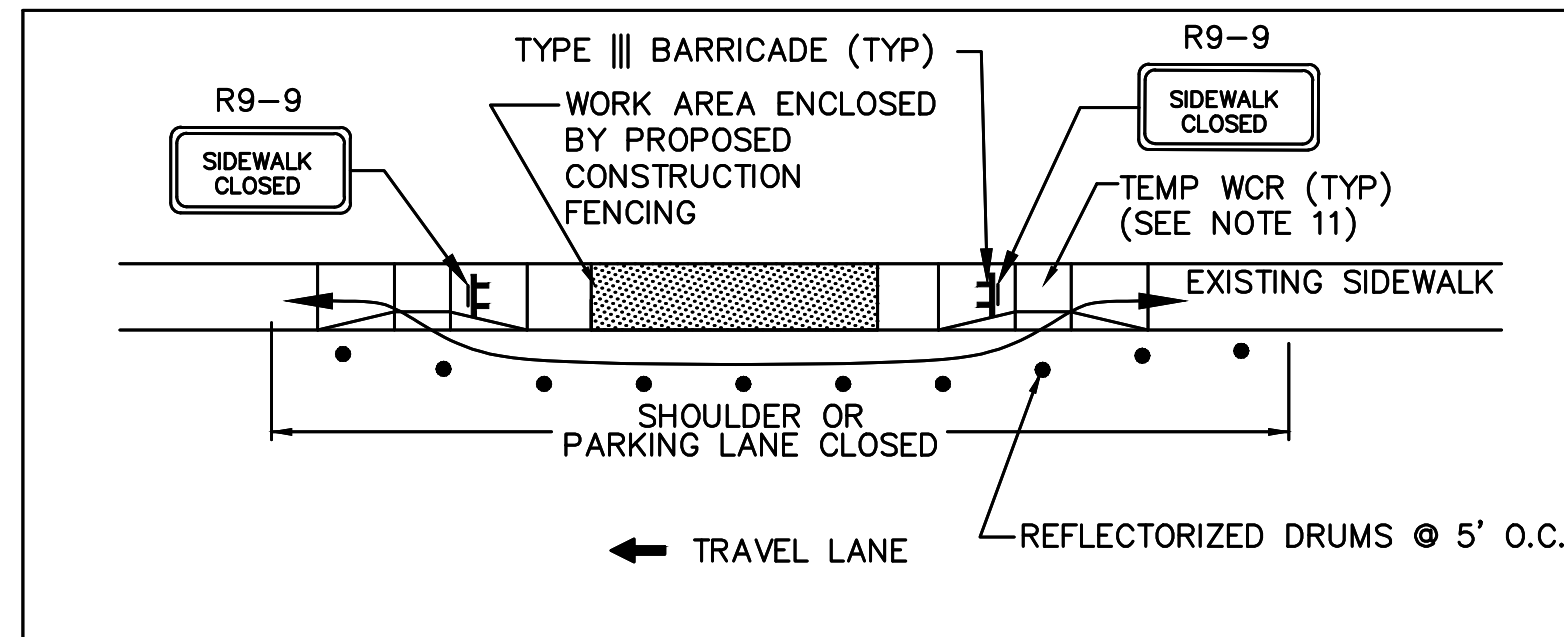
TRAFFIC MANAGEMENT NOTES

1. ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED. ALL ROADSIDE ELEMENTS SHALL CONFORM TO THE LATEST REVISION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) ROADSIDE DESIGN GUIDE.
2. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS.
3. WORK HOURS SHALL BE 9:30AM TO 3:00PM MONDAY THRU FRIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER. WORK SHALL NOT AFFECT TRAFFIC PATTERNS DURING PEAK TRAFFIC PERIODS. PEAK TRAFFIC PERIODS ARE DEFINED AS MONDAY THRU FRIDAY 7:00AM-9:00AM AND 3:00PM-6:00PM.
4. ALL DRUMS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
5. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
6. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
7. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
8. EXCAVATION EDGES IN EXCESS OF 4" DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL OR SOIL TO COMPACTED 4:1 SLOPE.
9. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED.
10. NON-ESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
11. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS REQUESTED BY THE ENGINEER WITH SUBMISSION OF AN ENGINEERING STUDY TO MASSDOT.
12. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT ABOVE THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN
13. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT ABOVE THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
14. SIGNS MOUNTED ON P5 POSTS REQUIRE A MINIMUM 7 FOOT MOUNTING HEIGHT ABOVE THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
15. W20-1c SIGNS SHOWN ON ADVANCE SIGN SCHEMATIC MAY BE USED IN LIEU OF W20-1c SIGNS SHOWN ON DETAILS IF MINIMUM SIGN SPACING IS MET.
16. THE FIRST THREE (3) REFLECTORIZED DRUMS OF ANY TAPER SHALL HAVE TYPE C (STEADY BURN) LIGHTS FOR NIGHT-TIME CONSTRUCTION OPERATIONS.
17. SPECIAL LIGHTING UNITS (SLU) SHALL BE REQUIRED FOR ALL NIGHT-TIME CONSTRUCTION OPERATIONS ONLY IN ACCORDANCE WITH THE MUTCD OR AS REQUESTED BY THE ENGINEER.
18. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE OF COLD PLANED OR MICRO-MILLED AREAS OR AS DIRECTED BY THE ENGINEER.
19. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY ON STATE RECOGNIZED HOLIDAYS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
20. ALL REFLECTORIZED TRAFFIC CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
21. 36" HIGH CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPERS.

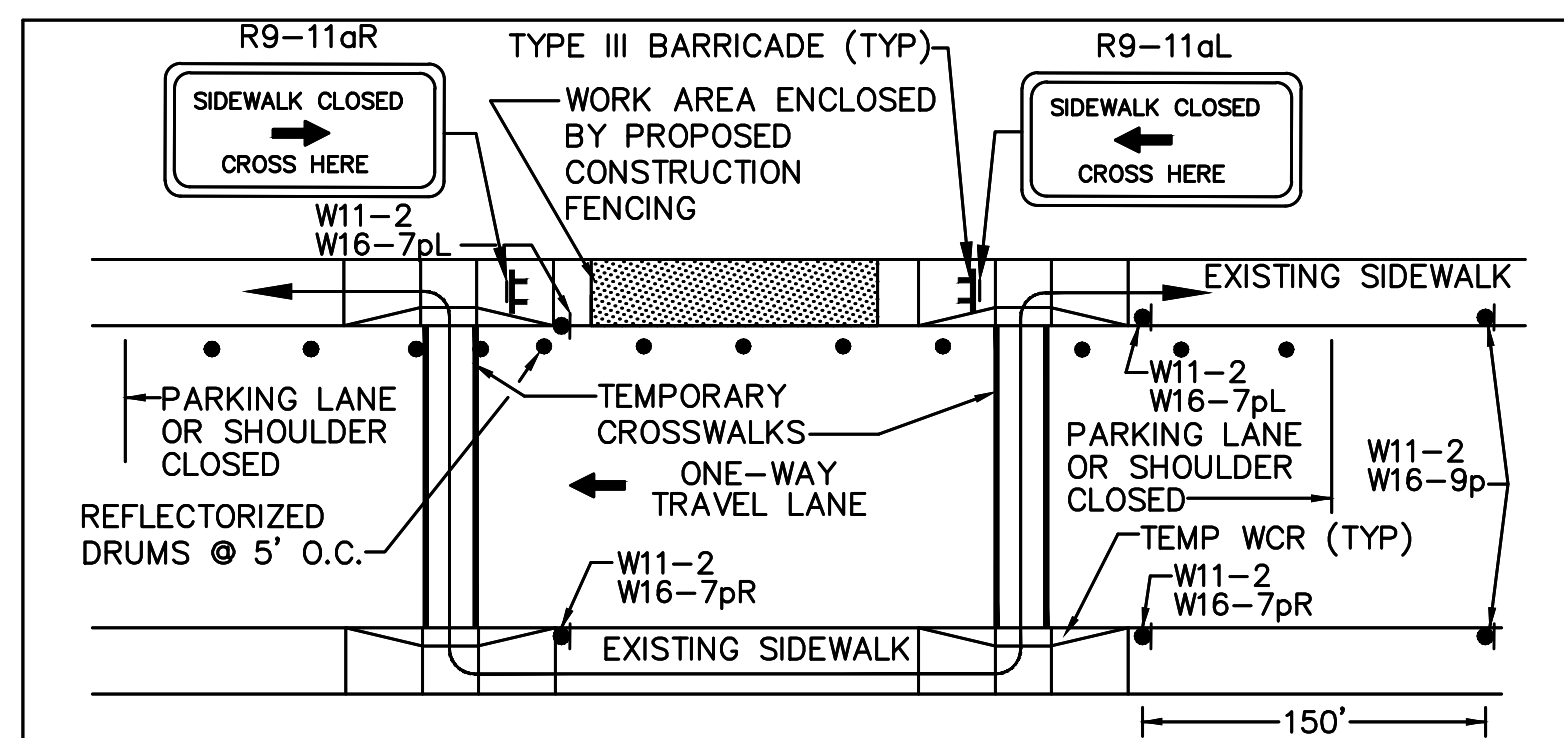


## PEDESTRIAN BYPASS

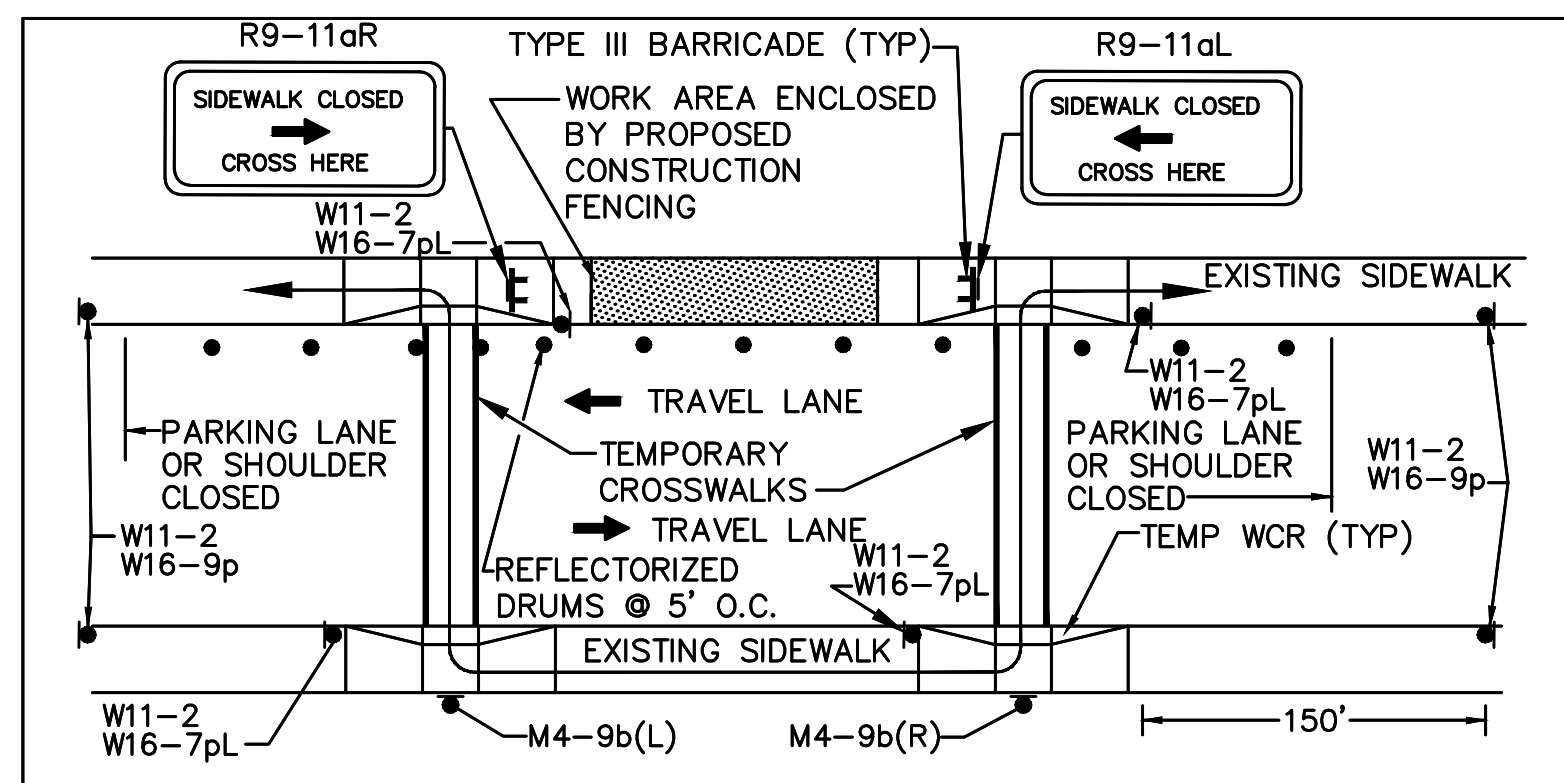
TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING AND AS DIRECTED BY THE ENGINEER.



**TYPE I**  
NOT TO SCALE



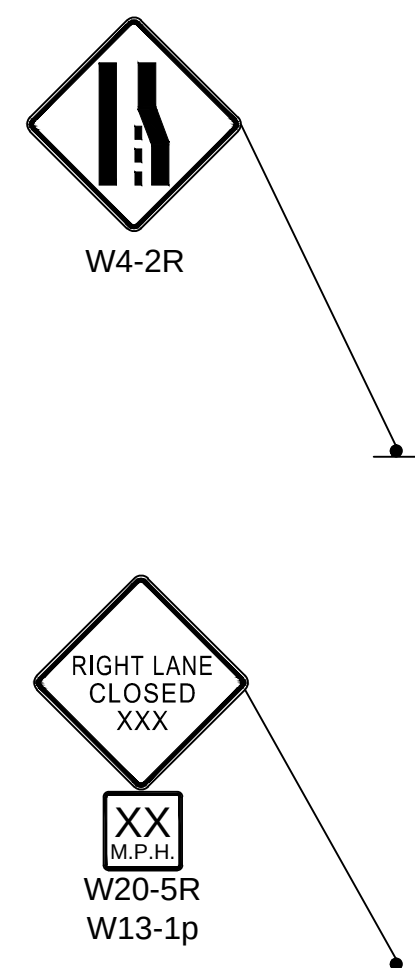
**TYPE II**  
NOT TO SCALE



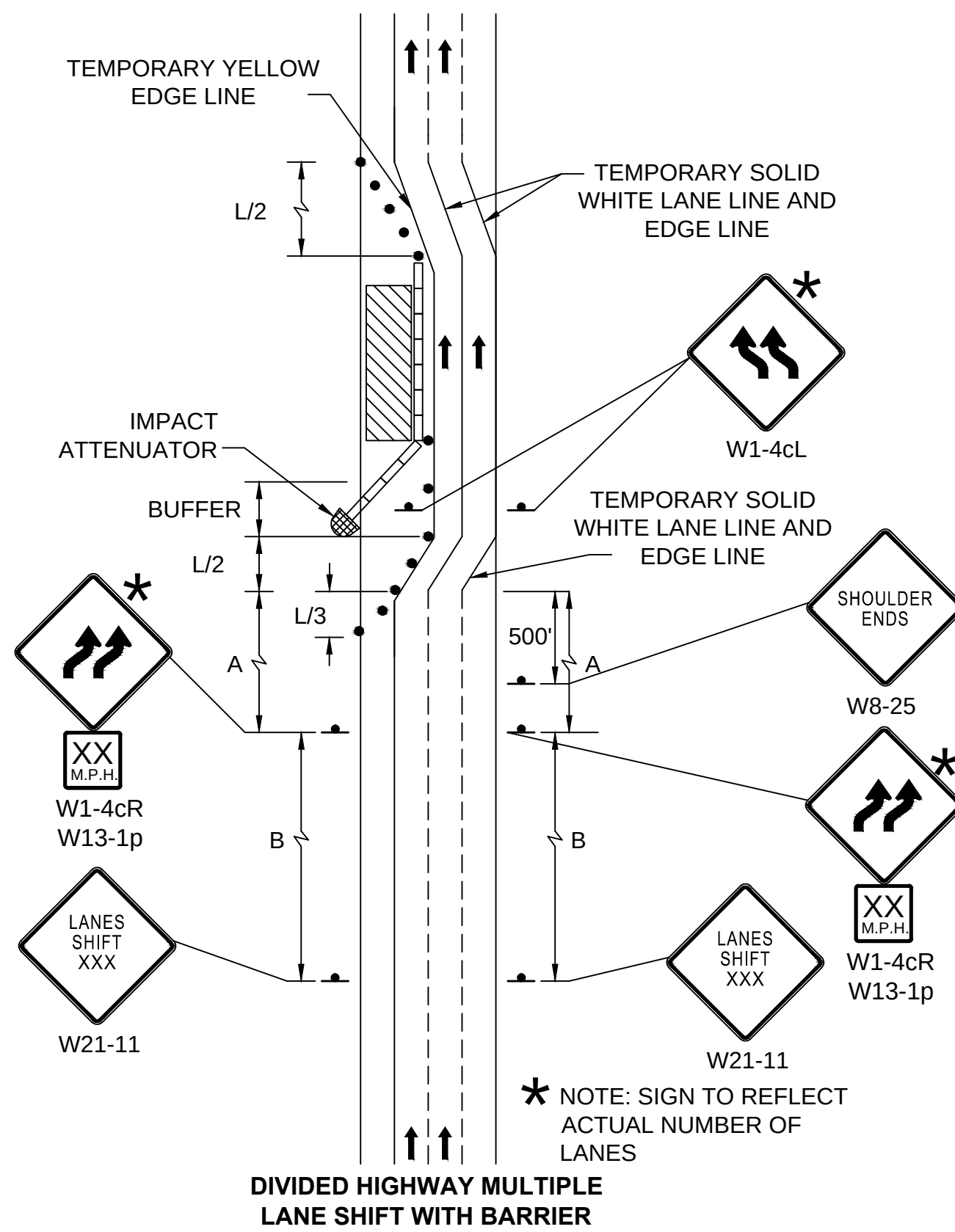
**TYPE III**  
NOT TO SCALE

### NOTES:

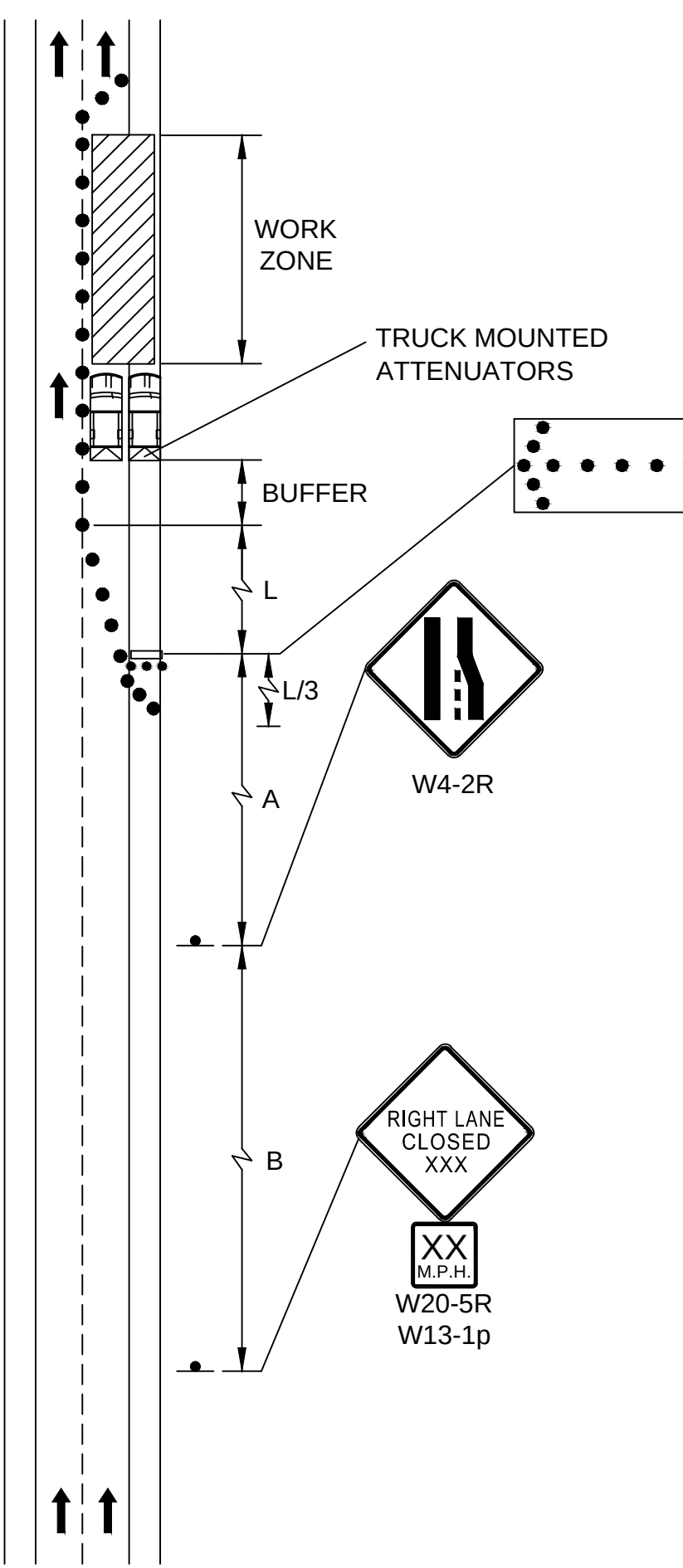
1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. ———> INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II AND TYPE III, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS.
9. TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
10. W16-7pR OR W16-7pL SIGNS SHALL BE USED IN COMBINATION WITH W11-2 SIGNS AS DIRECTED BY THE ENGINEER.
11. EXISTING WHEELCHAIR RAMPS (WCR) MAY BE USED IN LIEU OF TEMPORARY WHEELCHAIR RAMPS FOR TEMPORARY DETOURS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



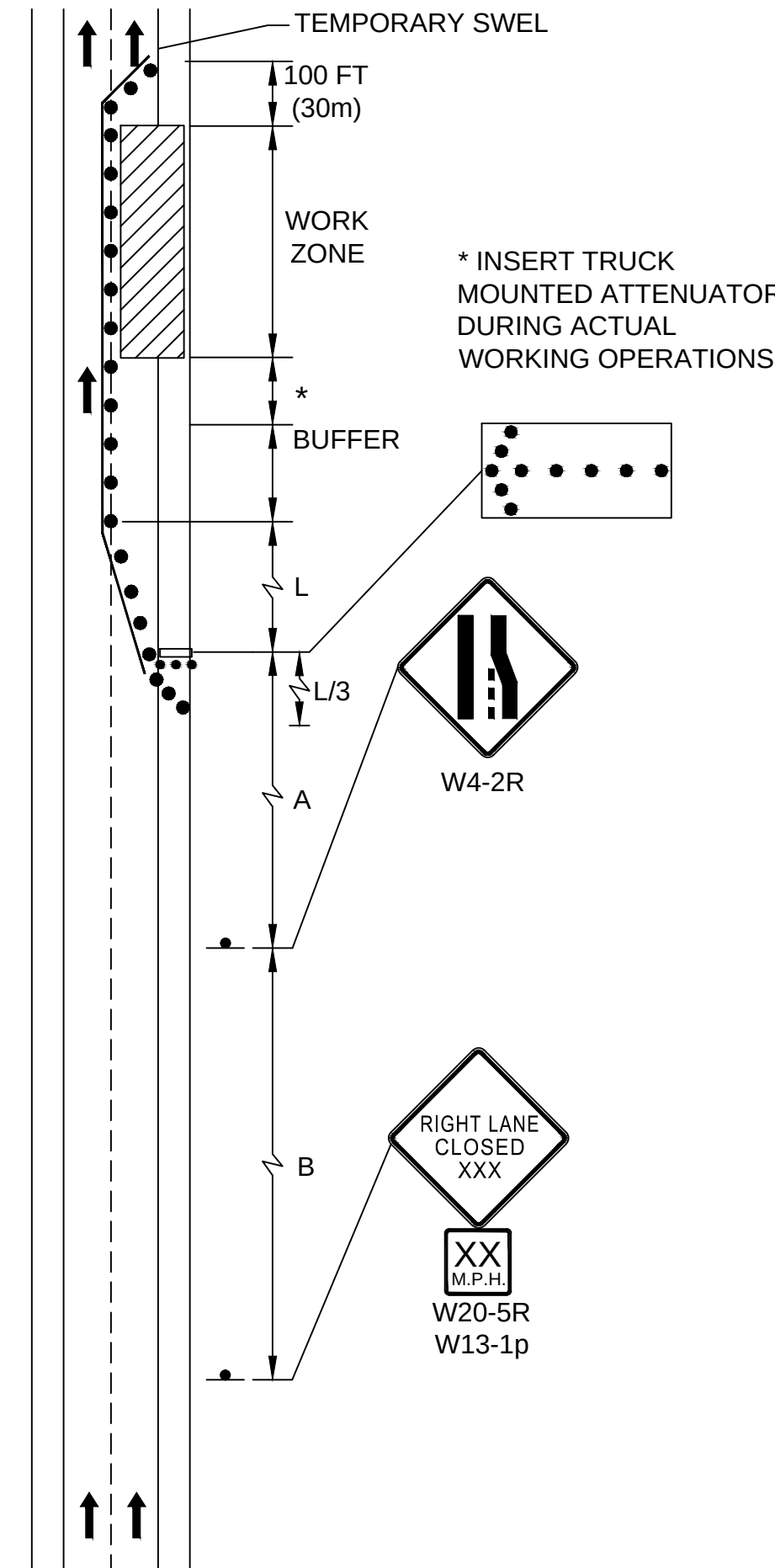
**DIVIDED HIGHWAY/LANE CLOSURE  
(SHORT TERM)**



**DIVIDED HIGHWAY MULTIPLE  
LANE SHIFT WITH BARRIER**



**DIVIDED HIGHWAY STATIONARY LANE CLOSURE  
(LONG TERM AND INTERMEDIATE)**

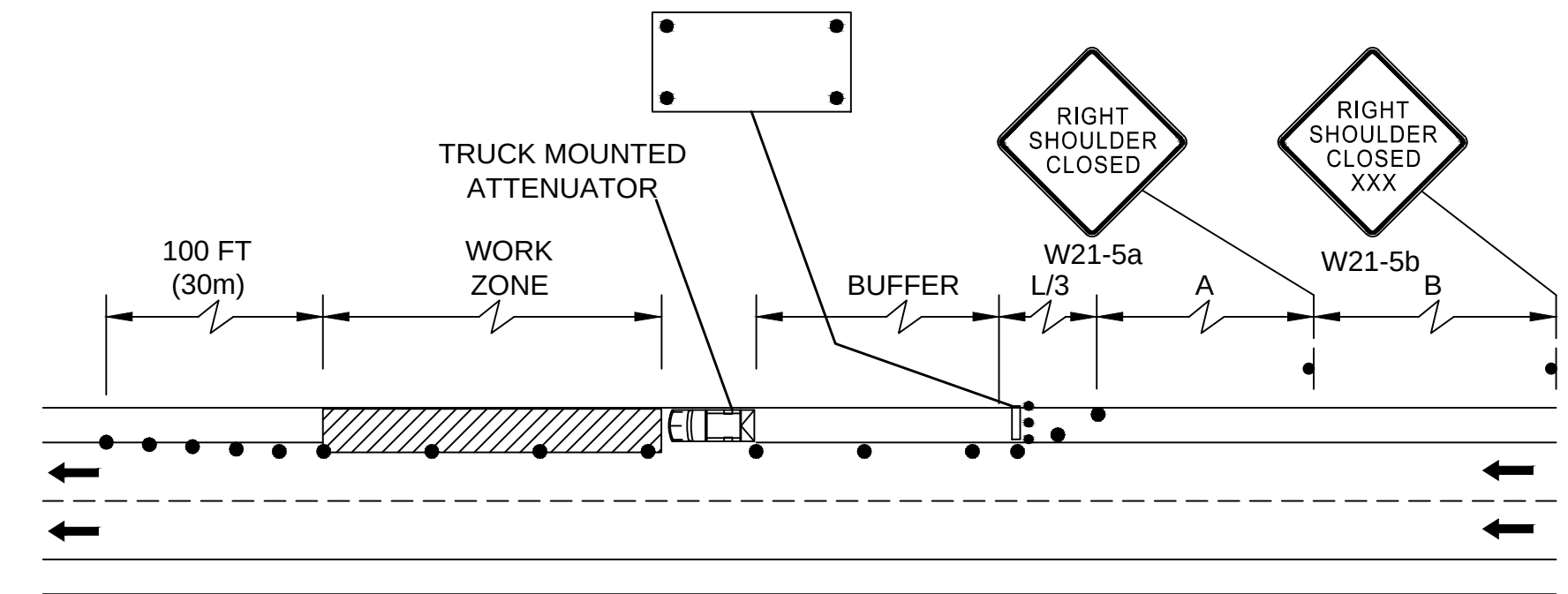


## WELLESLEY ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

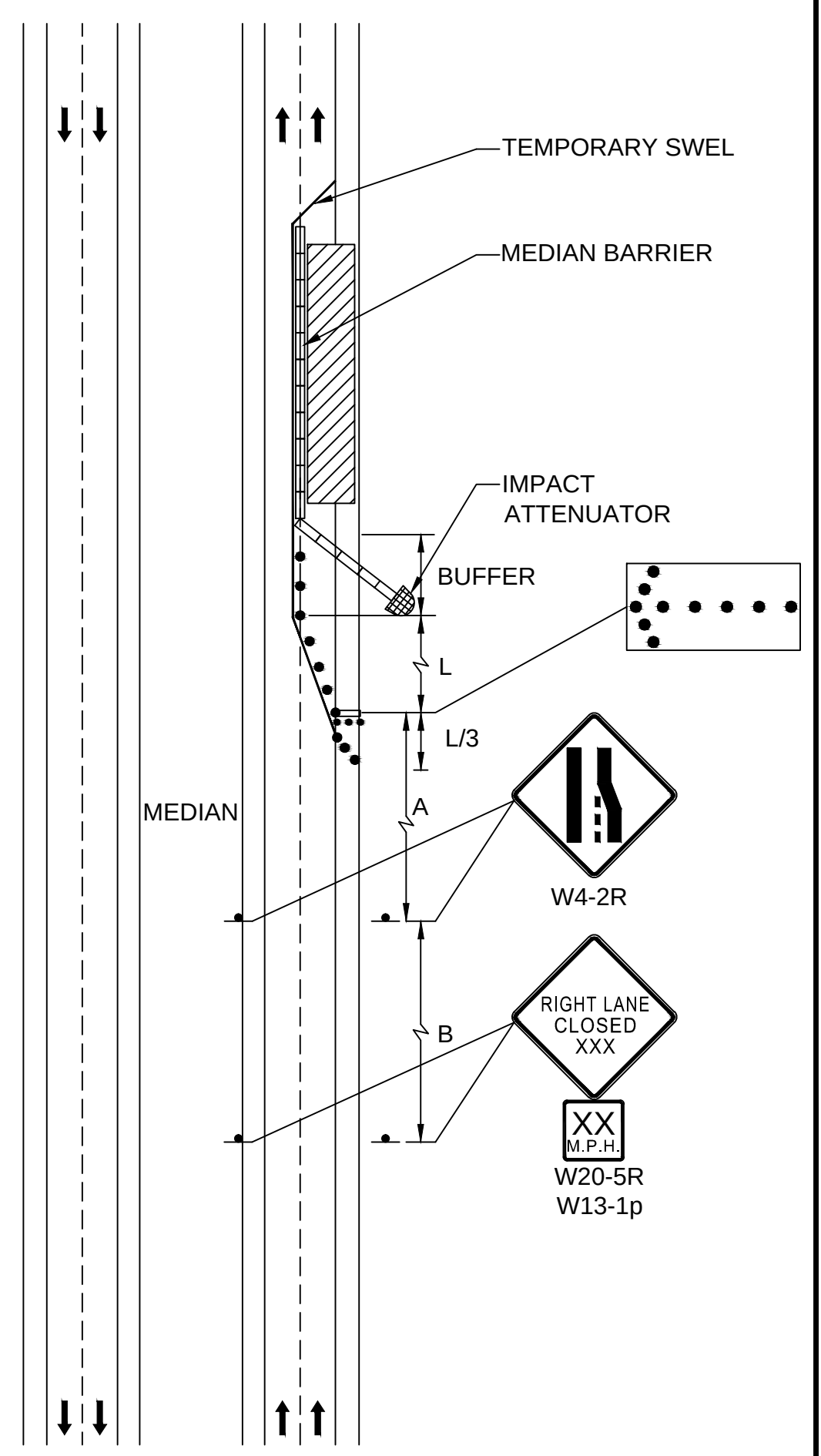
| STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|-------|--------------------|-----------|--------------|
| MA    | -                  | 47        | 58           |

PROJECT FILE NO. 608180

## TEMPORARY TRAFFIC CONTROL PLANS SHEET 3 OF 4



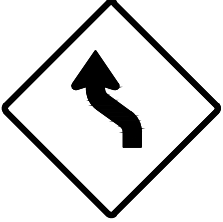
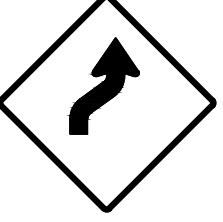
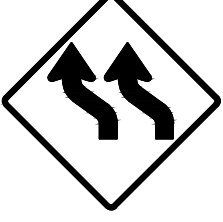
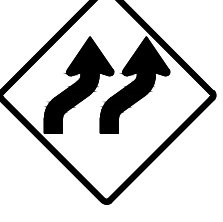
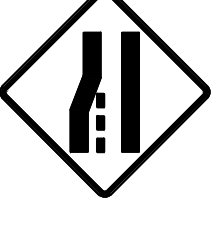
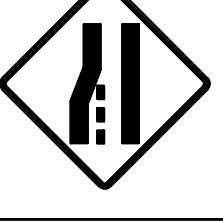
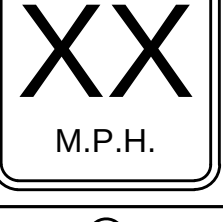
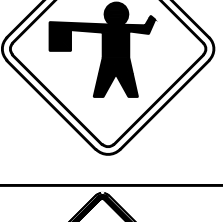
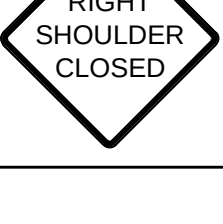
**DIVIDED HIGHWAY  
SHOULDER CLOSED**

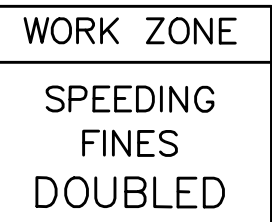
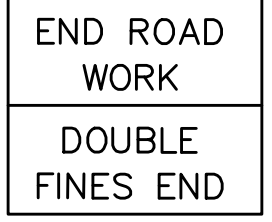
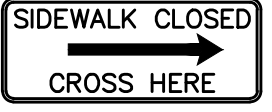
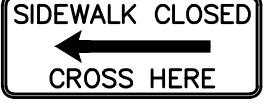


**DIVIDED HIGHWAY ONE LANE  
CLOSED WITH BARRIER**



CONSTRUCTION TRAFFIC SIGN SUMMARY

| IDENTIFI-<br>CATION<br>NUMBER | SIZE OF SIGN |        | SIGN<br>DIAGRAM                                                                     | #<br>REQ'D<br>✱ | UNIT<br>AREA<br>S.F. | AREA IN<br>SQUARE<br>FEET |
|-------------------------------|--------------|--------|-------------------------------------------------------------------------------------|-----------------|----------------------|---------------------------|
|                               | WIDTH        | HEIGHT |                                                                                     |                 |                      |                           |
| W1-4L                         | 36"          | 36"    |    | 2               | 9.00                 | 18.00                     |
| W1-4R                         | 36"          | 36"    |    | 2               | 9.00                 | 18.00                     |
| W1-4bL                        | 36"          | 36"    |    | 2               | 9.00                 | 18.00                     |
| W1-4bR                        | 36"          | 36"    |    | 2               | 9.00                 | 18.00                     |
| W4-2L                         | 36"          | 36"    |    | 2               | 9.00                 | 18.00                     |
| W4-2R                         | 36"          | 36"    |   | 2               | 9.00                 | 18.00                     |
| W5-1                          | 36"          | 36"    |  | 2               | 9.00                 | 18.00                     |
| W13-1p                        | 24"          | 24"    |  | 2               | 4.00                 | 8.00                      |
| W20-1                         | 36"          | 36"    |  | 4               | 9.00                 | 36.00                     |
| W20-4                         | 36"          | 36"    |  | 2               | 9.00                 | 18.00                     |
| W20-7                         | 36"          | 36"    |  | 2               | 9.00                 | 18.00                     |
| W20-5L                        | 36"          | 36"    |  | 2               | 9.00                 | 18.00                     |
| W20-7b                        | 36"          | 36"    |  | 4               | 9.00                 | 36.00                     |
| W21-5a                        | 36"          | 36"    |  | 2               | 9.00                 | 18.00                     |

| IDENTIFI-<br>CATION<br>NUMBER | SIZE OF SIGN |        | SIGN<br>DIAGRAM                                                                       | #<br>REQ'D<br>✱ | UNIT<br>AREA<br>S.F. | AREA IN<br>SQUARE<br>FEET |
|-------------------------------|--------------|--------|---------------------------------------------------------------------------------------|-----------------|----------------------|---------------------------|
|                               | WIDTH        | HEIGHT |                                                                                       |                 |                      |                           |
| R2-10a                        | 30"          | 24"    |    | 6               | 5.00                 | 30.00                     |
| R2-10e                        | 30"          | 48"    |    | 6               | 10.00                | 60.00                     |
| R4-7                          | 24"          | 30"    |    | 2               | 5.00                 | 10.00                     |
| R9-9                          | 24"          | 12"    |    | 4               | 2.00                 | 8.00                      |
| R9-11R                        | 24"          | 18"    |    | 2               | 3.00                 | 6.00                      |
| R9-11L                        | 24"          | 18"    |    | 2               | 3.00                 | 6.00                      |
| W11-2                         | 30"          | 30"    |   | 4               | 6.25                 | 25.00                     |
| W16-7PL                       | 24"          | 18"    |  | 4               | 3.00                 | 12.00                     |

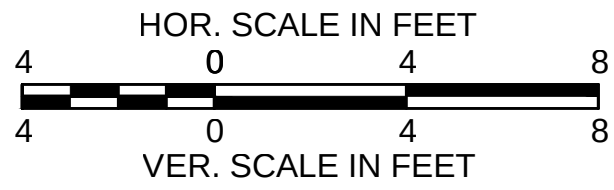
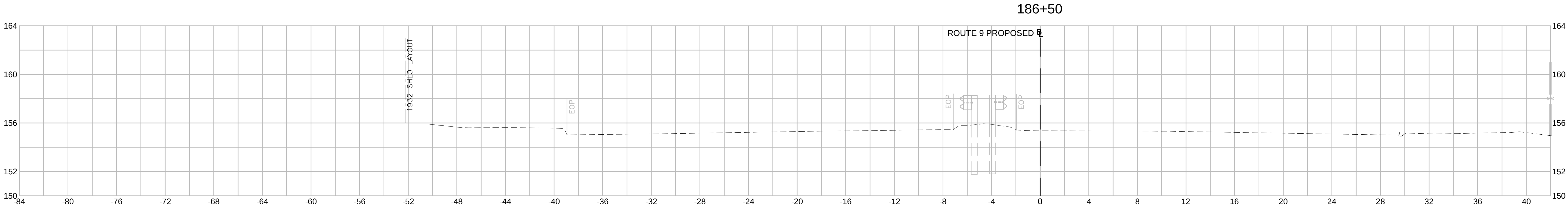
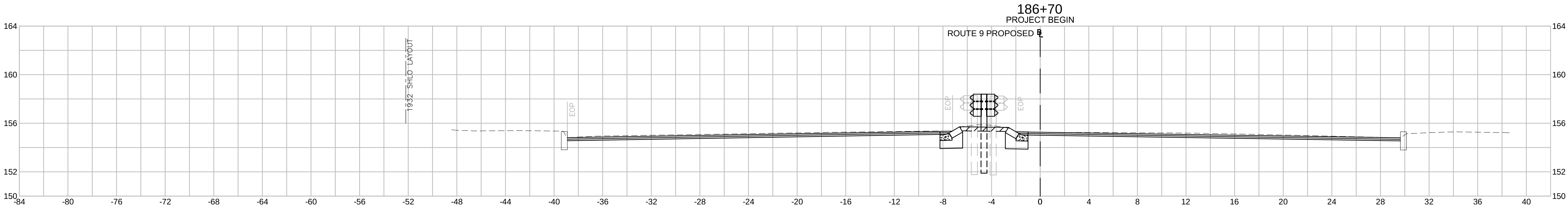
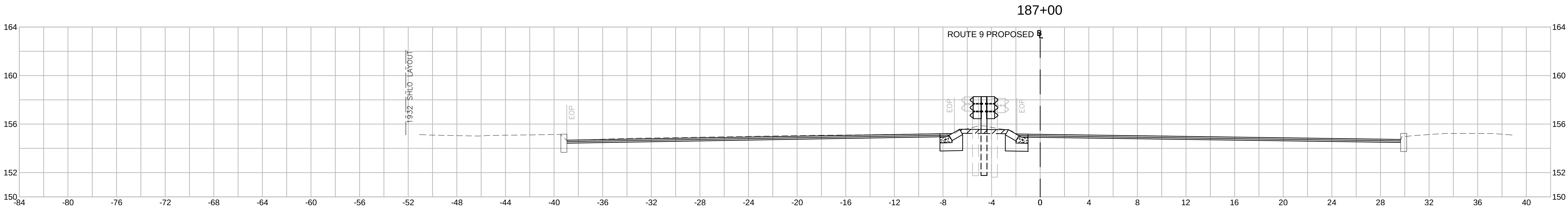
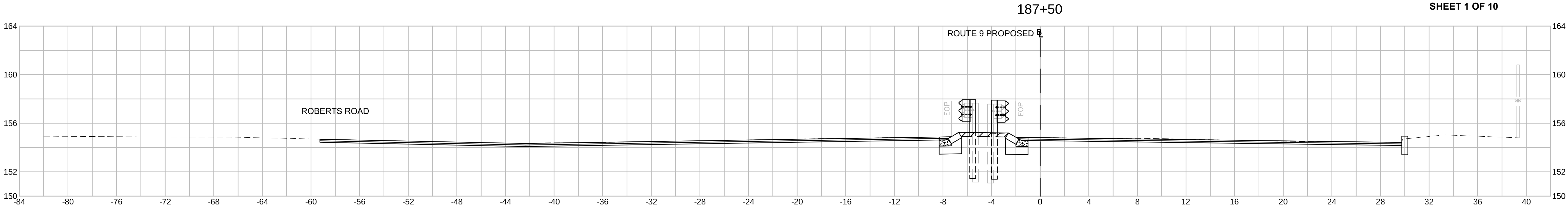
✱ NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY



WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 49        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 1 OF 10

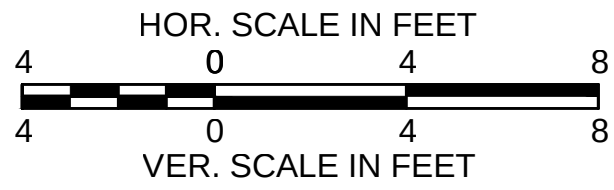
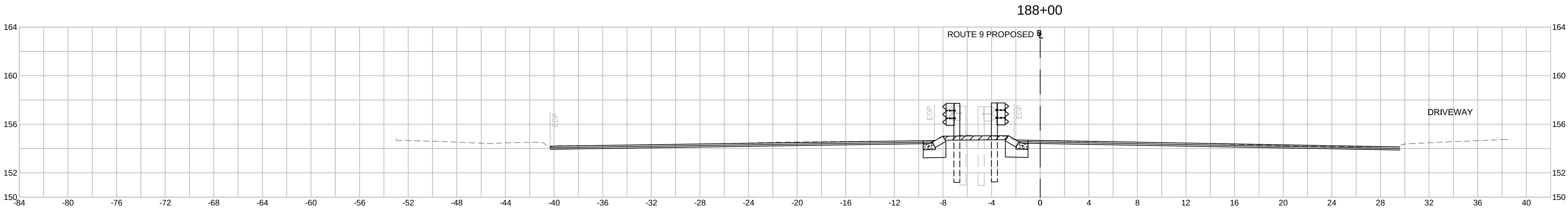
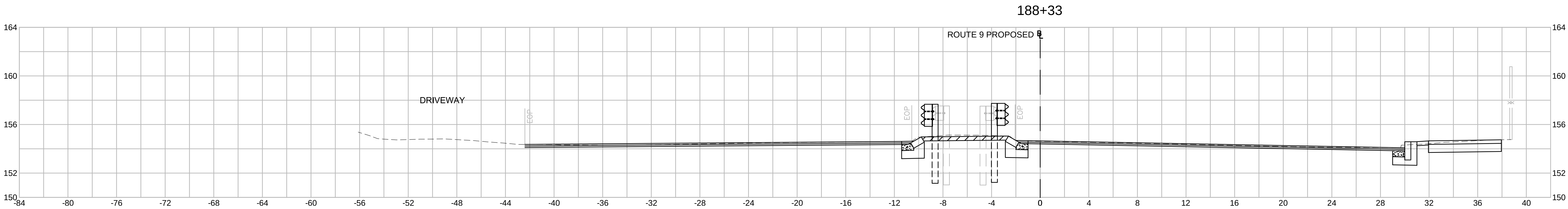
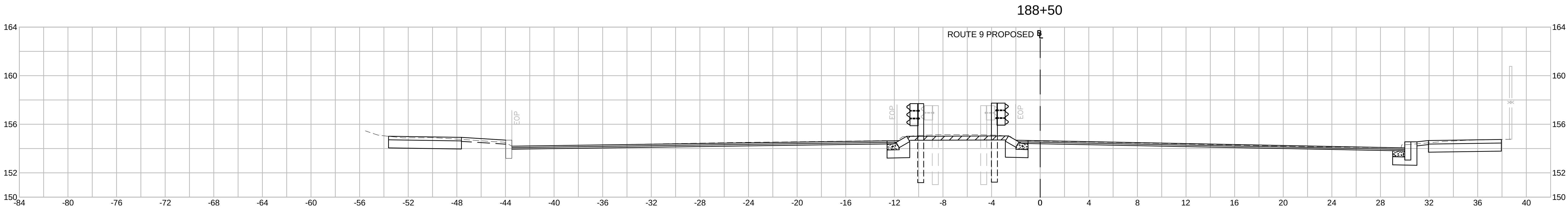
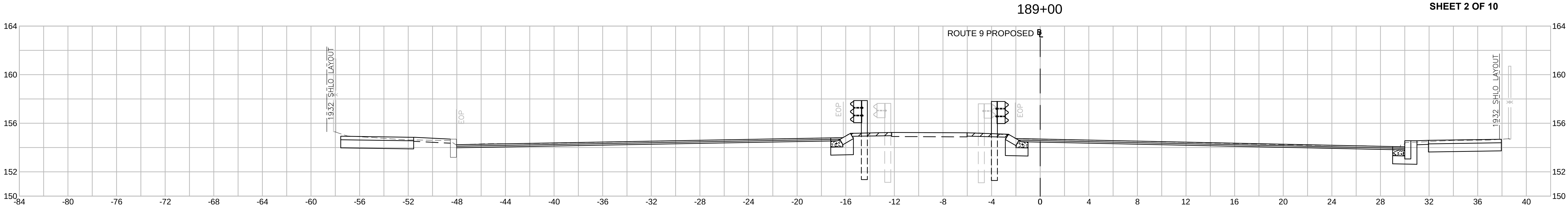




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 50        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 2 OF 10

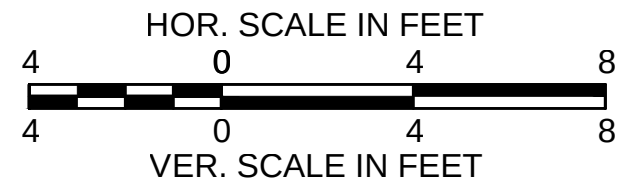
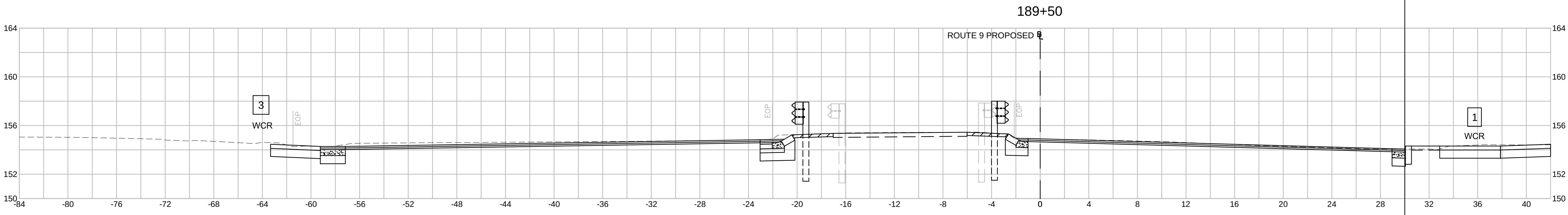
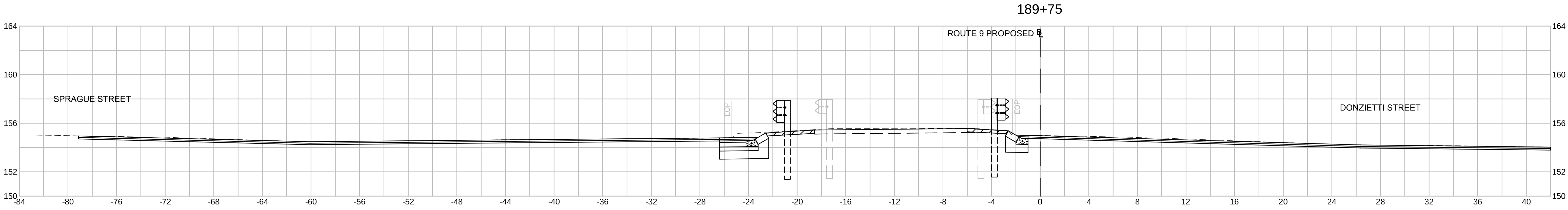
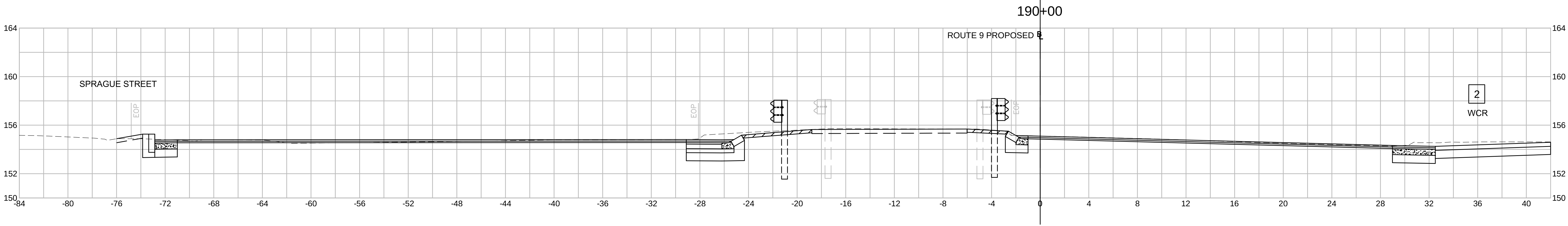
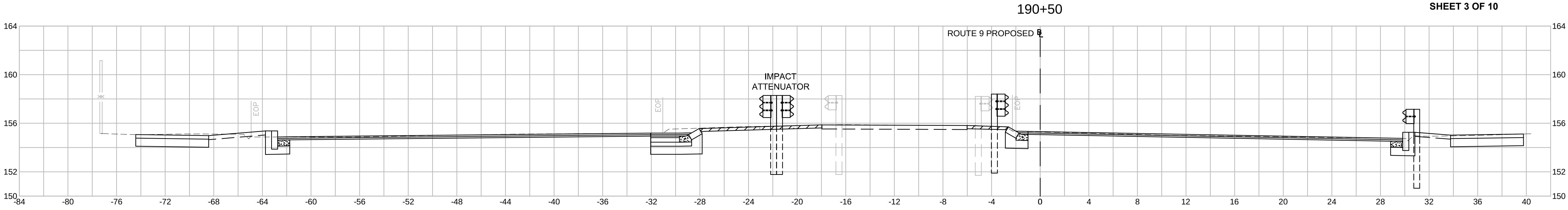




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 51        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 3 OF 10

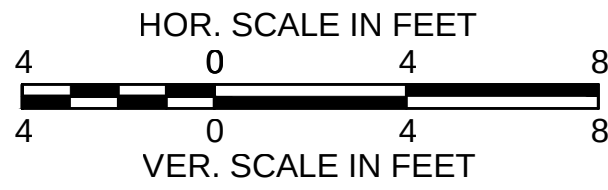
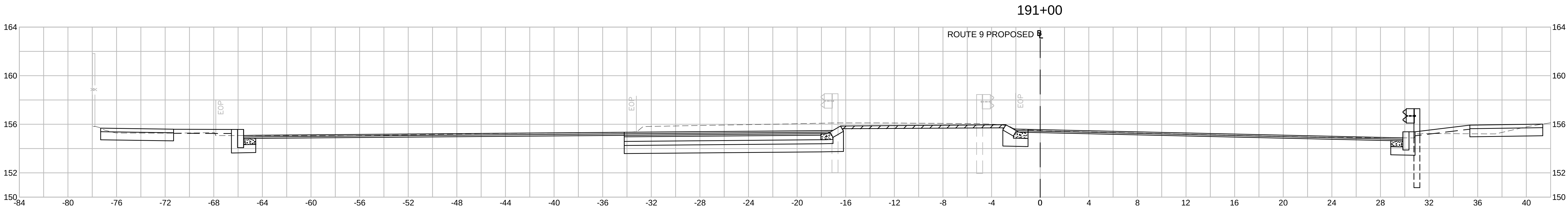
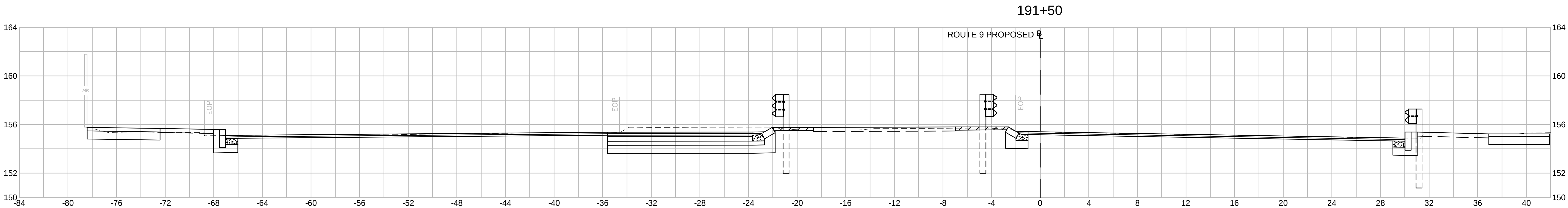
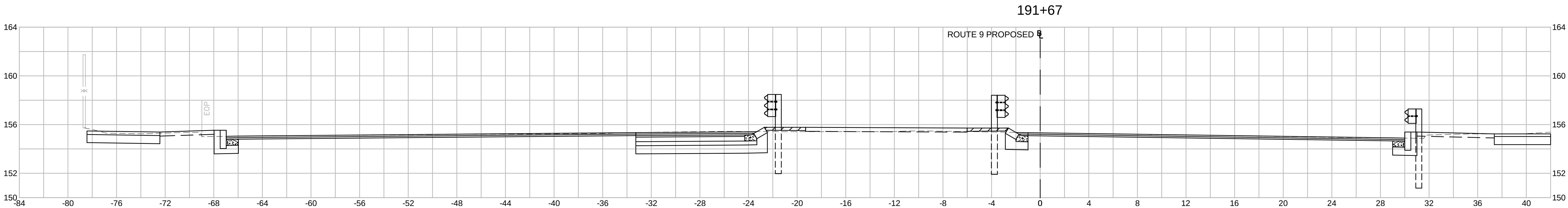
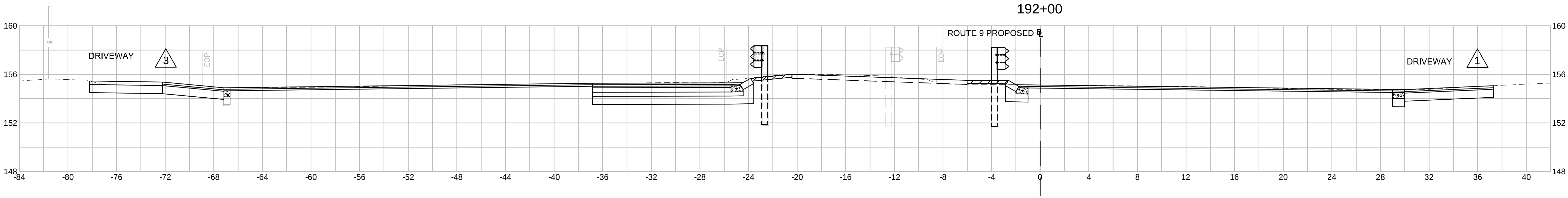




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 52        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 4 OF 10

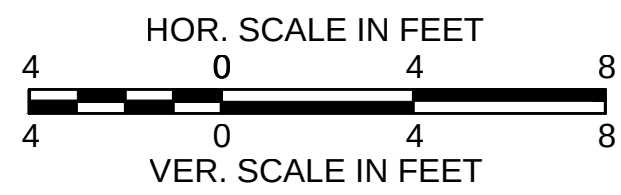
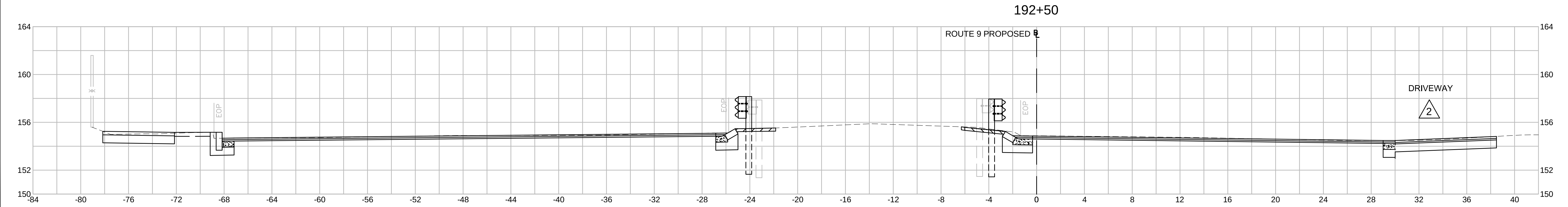
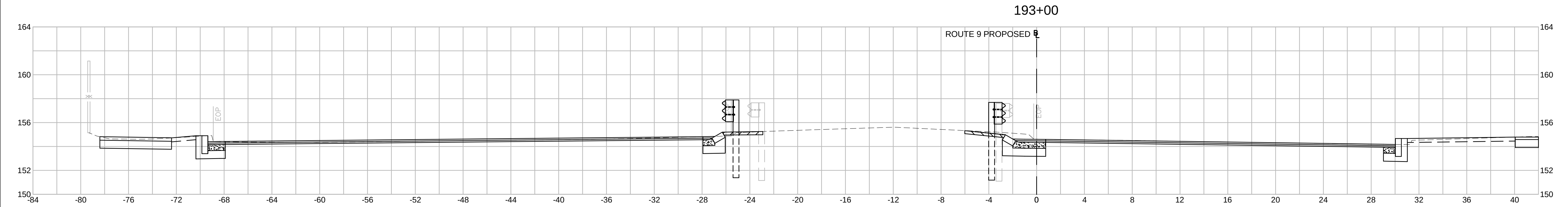
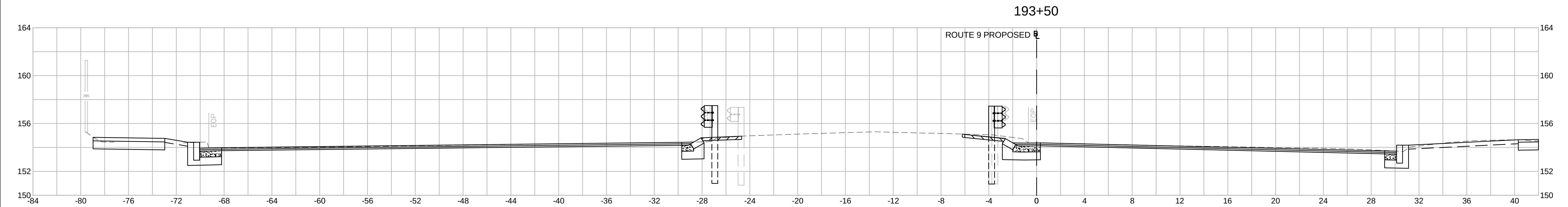
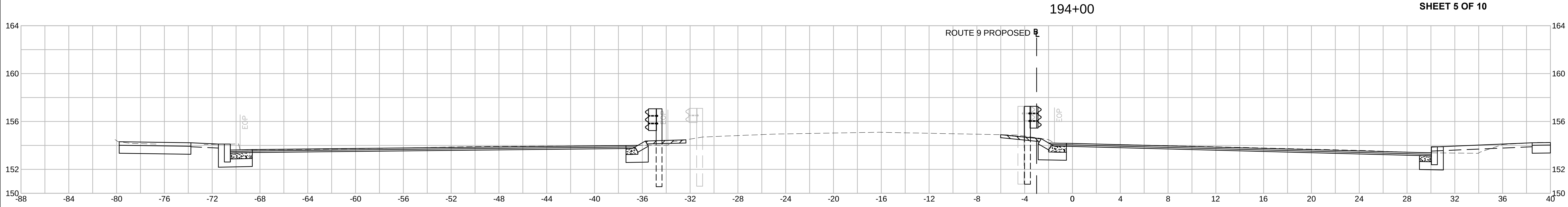




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 53        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 5 OF 10

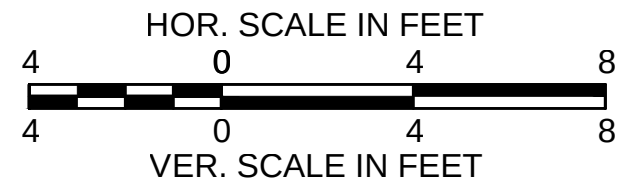
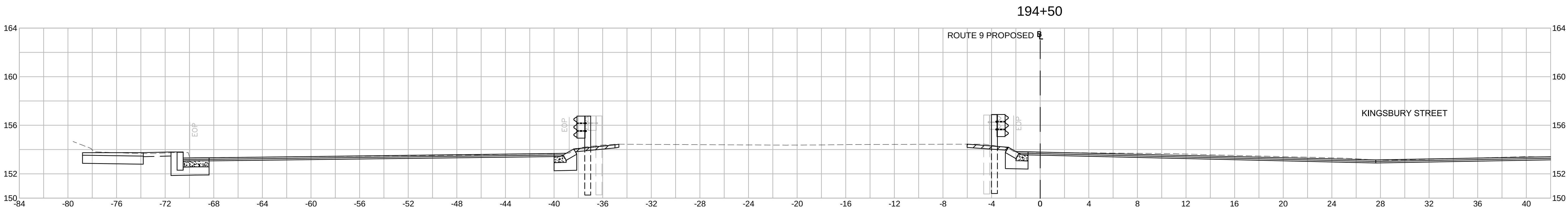
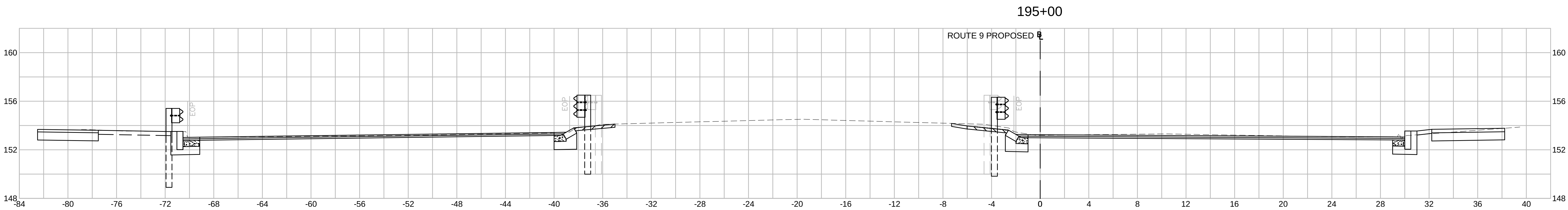
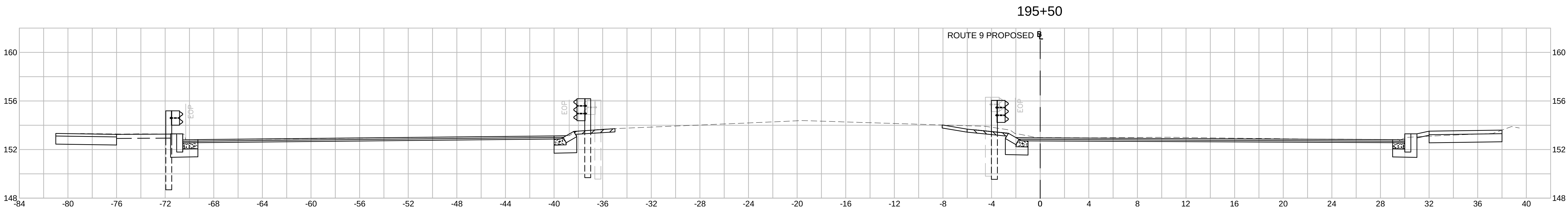
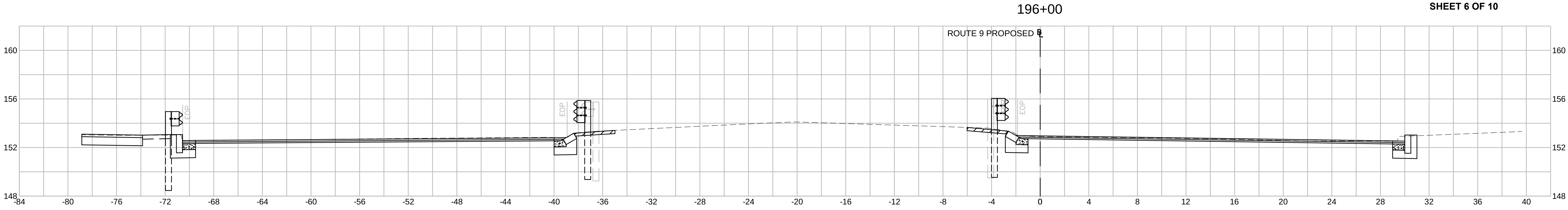




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 54        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 6 OF 10



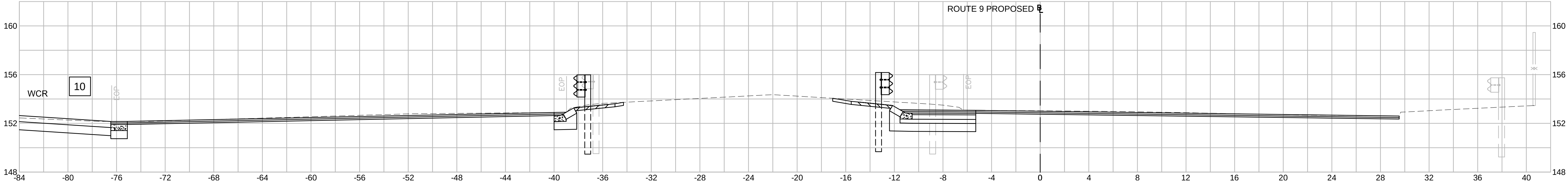


WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

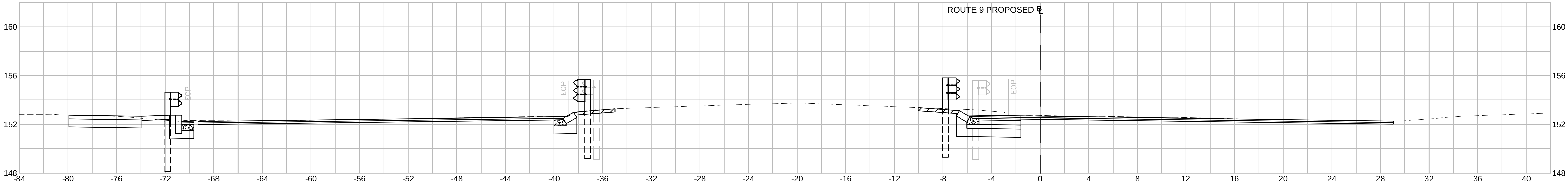
| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 55        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 7 OF 10

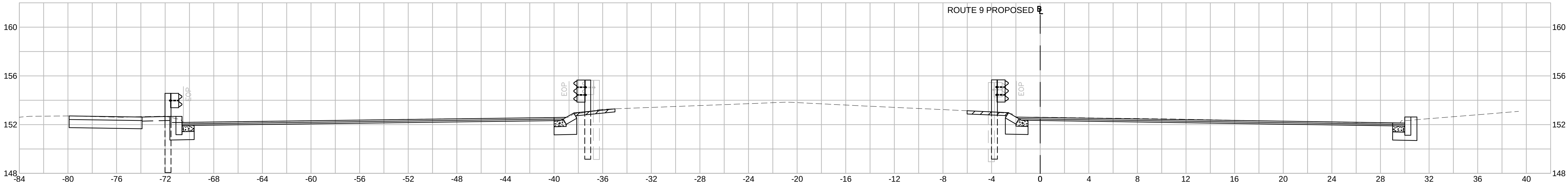
198+00



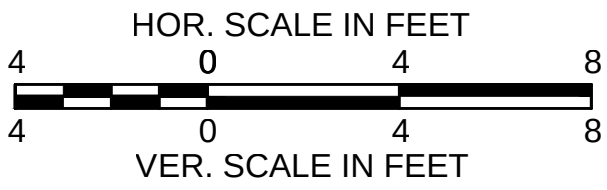
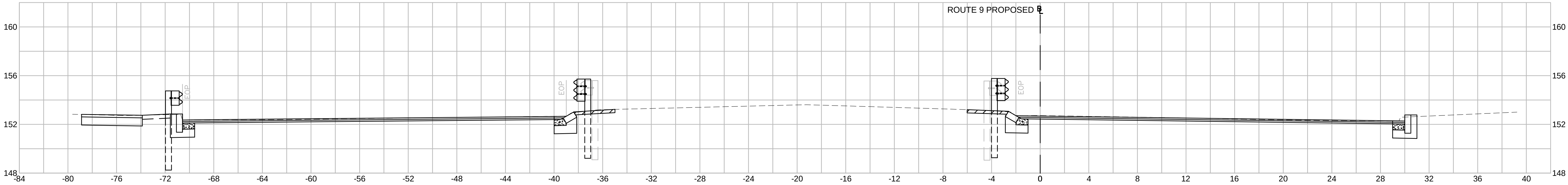
197+50



197+00



196+50

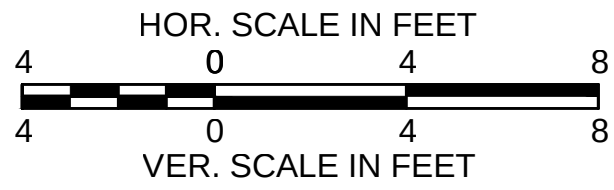
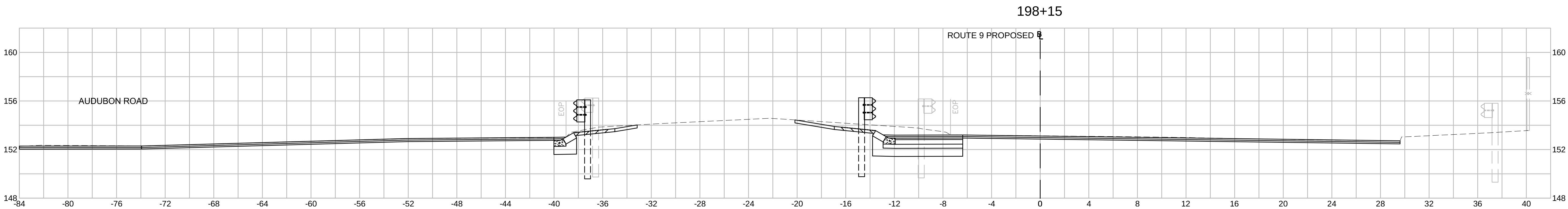
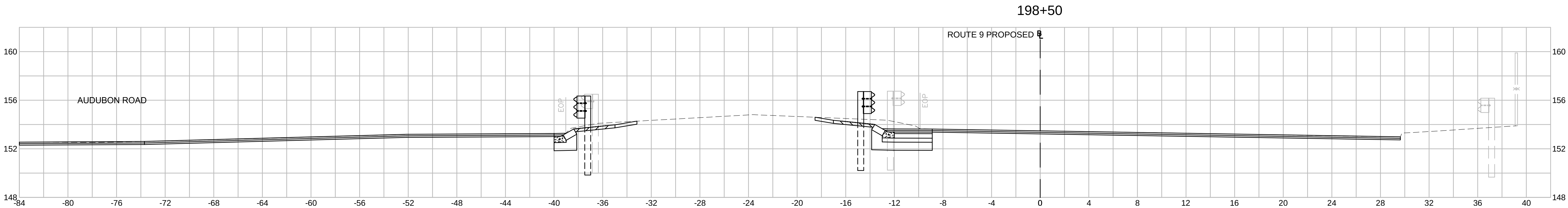
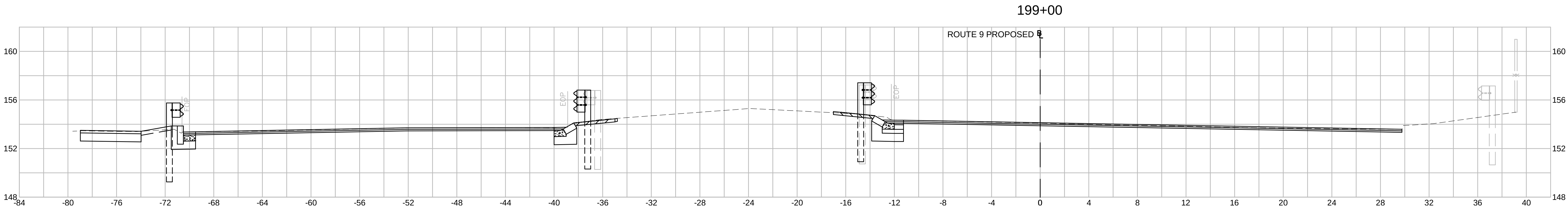
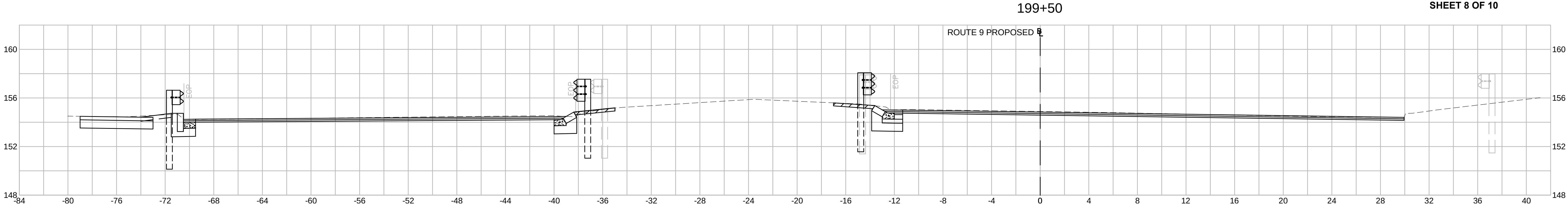




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 56        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 8 OF 10

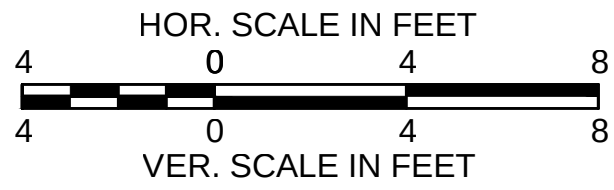
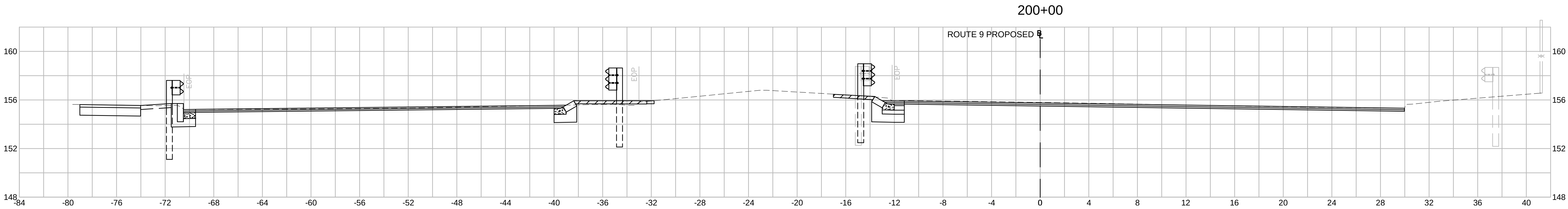
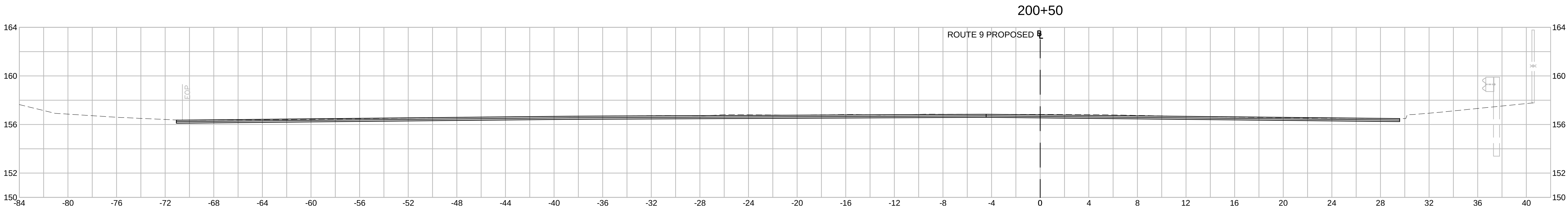
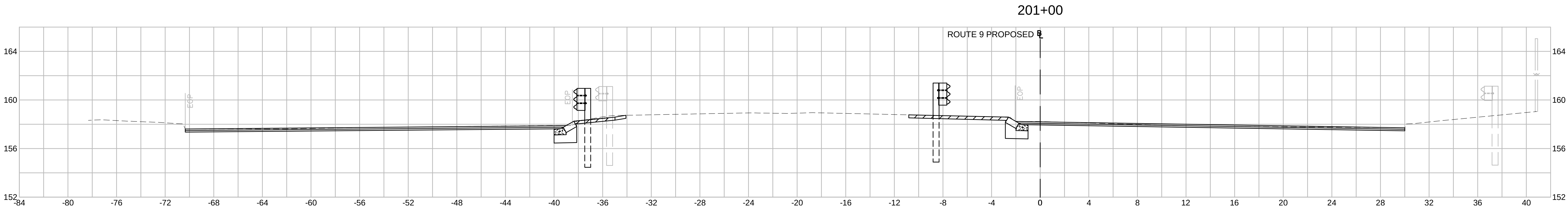
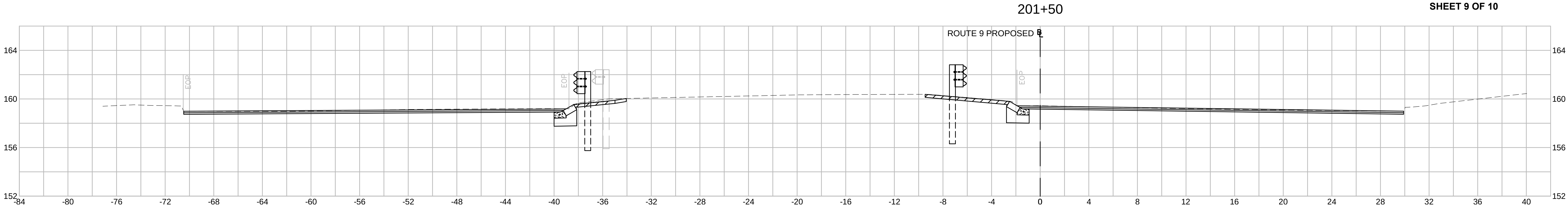




WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 57        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

CROSS SECTIONS  
SHEET 9 OF 10



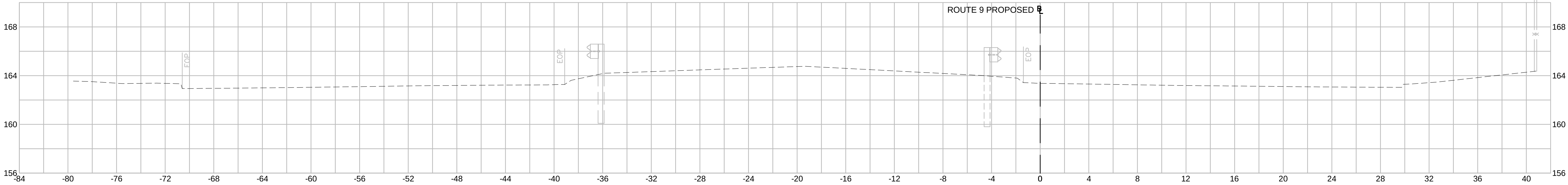


WELLESLEY  
ROUTE 9 (WORCESTER ST) AT KINGSBURY ST

| STATE            | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|------------------|--------------------|-----------|--------------|
| MA               | -                  | 58        | 58           |
| PROJECT FILE NO. |                    | 608180    |              |

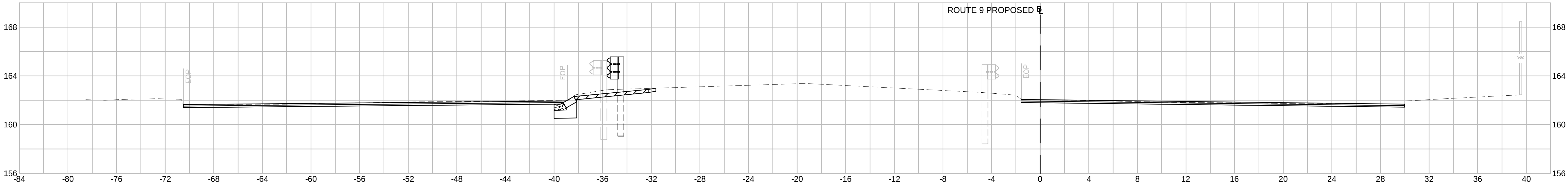
CROSS SECTIONS  
SHEET 10 OF 10

203+00



202+50

PROJECT END



202+00

