



# CITY OF ANN ARBOR ENGINEERING

## SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT

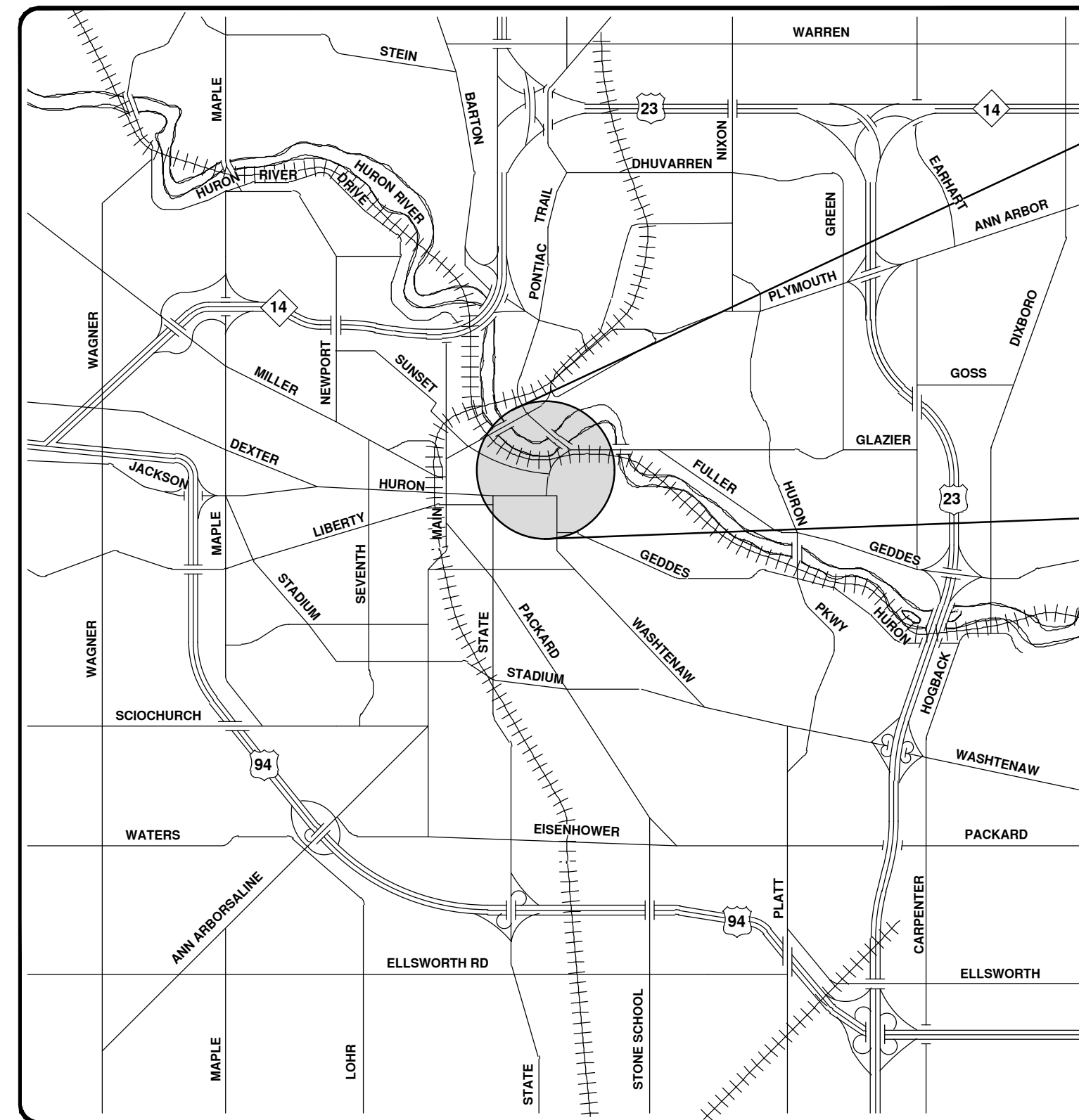
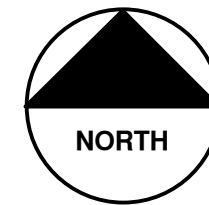
### NOTES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

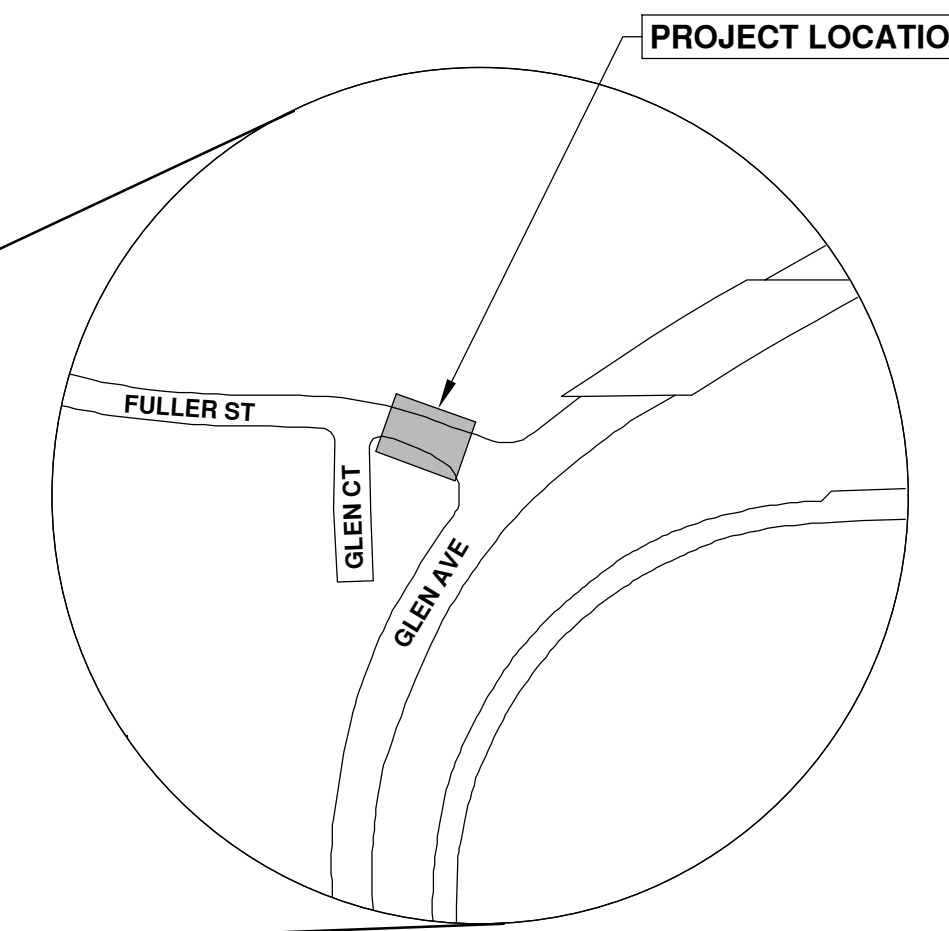
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.

ITB No. 4567, FILE No. 2014-027



VICINITY MAP



| SHEET LIST TABLE |  |
|------------------|--|
| SHEET NUMBER     | SHEET TITLE  |
| 1                | COVER SHEET  |
| 2                | EXISTING CONDITIONS  |
| 3                | PROPOSED UTILITY IMPROVEMENTS  |
| 4                | FULLER STREET SANITARY AND WATER PROFILE                                     |
| 5                | N-S SANITARY SEWER PROFILE   |
| 6                | PROPOSED ROAD IMPROVEMENTS   |
| 7                | SOUTHSIDE INTERCEPTOR SANITARY DIVERSION CHAMBER                             |
| 8                | SOUTHSIDE INTERCEPTOR SANITARY DIVERSION CHAMBER (SECTIONS AND DETAILS)      |
| 9                | SOUTHSIDE INTERCEPTOR SANITARY DIVERSION CHAMBER (REINFORCING STEEL LAYOUTS) |
| 10               | SOUTHSIDE INTERCEPTOR SANITARY DIVERSION CHAMBER (REINFORCING STEEL LAYOUTS) |
| 11               | DETOUR PLAN  |
| 12               | PAVEMENT MARKING PLAN  |
| 13               | SOIL BORING PLAN   |
| 14               | EXISTING 24" SANITARY SEWER ALONG GLEN AVENUE                                |
| 15 - 17          | MAINTENANCE OF PEDESTRIAN TRAFFIC DETAILS                                    |

| CITY OF ANN ARBOR STANDARD DETAILS |  |         |
|------------------------------------|--|---------|
| REQUIRED ON THIS PROJECT           | ITEM OF WORK   | DETAIL  |
| X                                  | UTILITY TRENCH - TYPE I (UNDER BITUMINOUS SURFACE)                     | SD-TD-1 |
| X                                  | UTILITY TRENCH - TYPE V (IN GREENBELT AREA OUTSIDE PAVEMENT INFLUENCE) | SD-TD-5 |
| X                                  | STANDARD MANHOLE (TYPE II) - FOR 36" TO 54" SEWERS                     | SD-S-2  |
| X                                  | SINGLE INLET STRUCTURE   | SD-S-10 |
| X                                  | THRUST BLOCK   | SD-W-2  |
| X                                  | MANHOLE CASTING ADJUSTMENT   | SD-GU-6 |
| X                                  | VALVE/MONUMENT BOX ADJUSTMENT  | SD-GU-7 |
| X                                  | STRUCTURE PLATE  | SD-GU-8 |
| X                                  | BARRIER CURB & GUTTER  | SD-R-1  |
| X                                  | SILT FENCE   | SD-EC-3 |
| X                                  | TREE PROTECTION  | SD-M-1  |

PREPARED UNDER THE SUPERVISION OF

*Kyle A. Patrick*  
KYLE A. PATRICK, P.E. - MI LICENSE No. 53635  
PROJECT MANAGER

01/18/2019  
DATE



Know what's below.  
Call before you dig.

| NO. | DATE     | DESCRIPTION    | BY    | CHECKED |
|-----|----------|----------------|-------|---------|
| 00  | 10-23-18 | ORIGINAL ISSUE | DPF   | MGN     |
|     |          |                | DRAWN | CHECKED |

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT

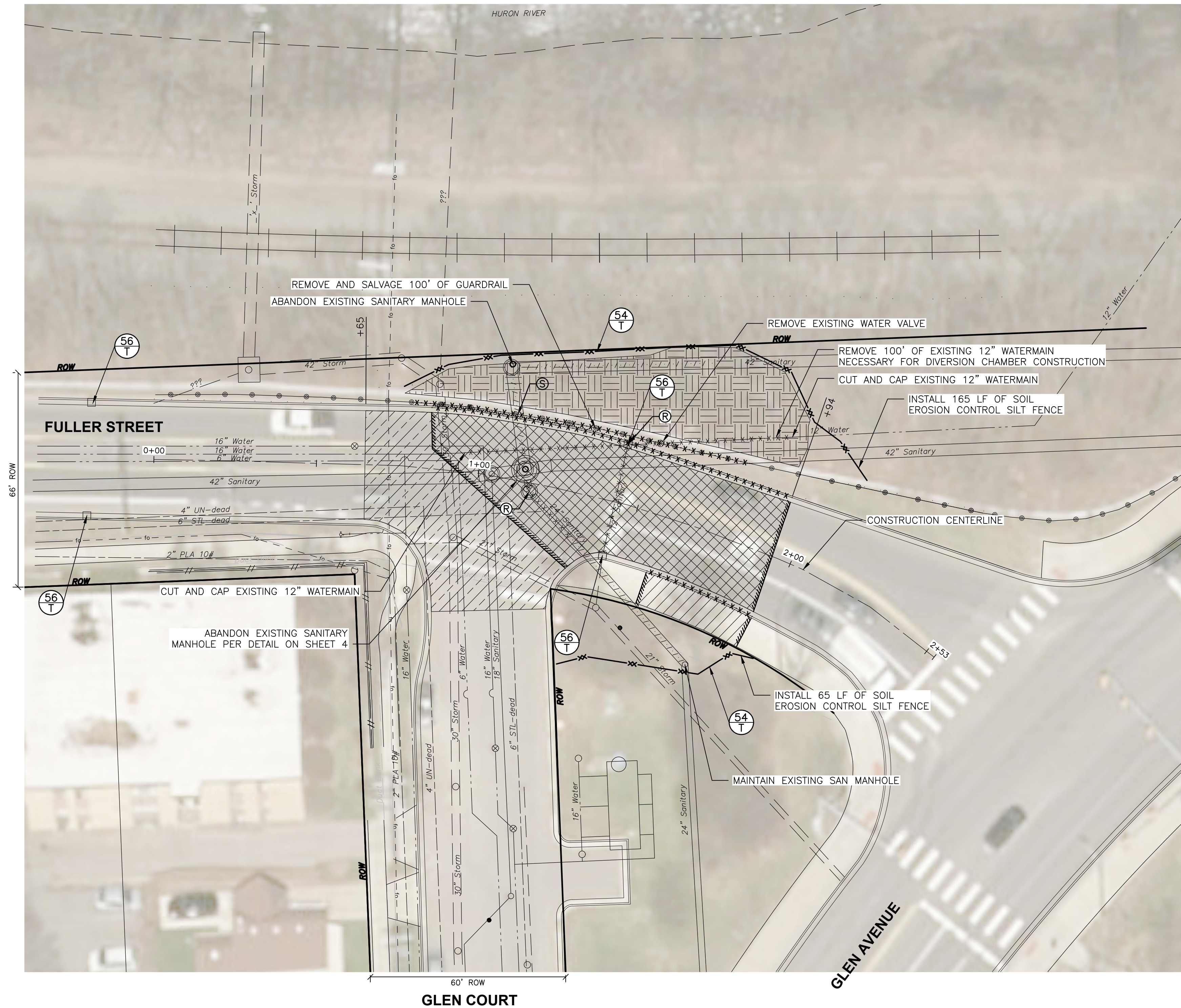
SCALE

SHEET No.

2014-027-1

1 OF 17

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### EXISTING CONDITIONS

SCALE: 1" = 20'

#### SYMBOL LEGEND

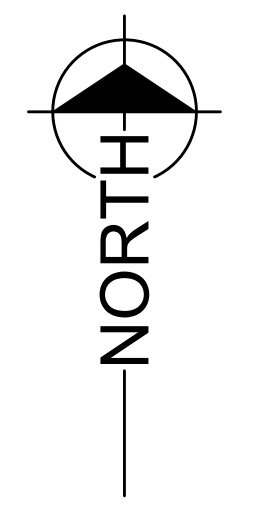
- REMOVE FULL-DEPTH HMA PAVEMENT
- COLD MILL HMA PAVEMENT (1.5")
- REMOVE CONCRETE SIDEWALK
- SAWCUT
- REMOVE CURB AND GUTTER, REMOVE AND SALVAGE GUARDRAIL
- REMOVE UTILITY
- ABANDON UTILITY
- REMOVE
- SALVAGE
- CLEARING

#### MDEQ SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

| KEY | DETAIL | CHARACTERISTICS  |
|-----|--------|--|
| 6   |        | Facilitates establishment of vegetative cover<br>Effective for drainageways with low velocity<br>Easily placed in small quantities by inexperienced personnel<br>Should include prepared topsoil bed |
| 54  |        | Use geotextile and posts or poles<br>May be constructed or prepackaged<br>Easy to construct and locate as necessary  |
| 56  |        | Manufactured filter bag inserted under casting.<br>Collects sediment at catch basin inlet.   |

TEMPORARY MEASURE

PERMANENT MEASURE



| REV. | DESCRIPTION                   | DATE       | DRAWN | CHECKED |
|------|-------------------------------|------------|-------|---------|
| 1    | ISSUED FOR OWNER REVIEW       | 12/21/2018 | JRP   |         |
| 2    | ISSUED FOR PRELIMINARY REVIEW | 8/24/2018  | JRP   |         |

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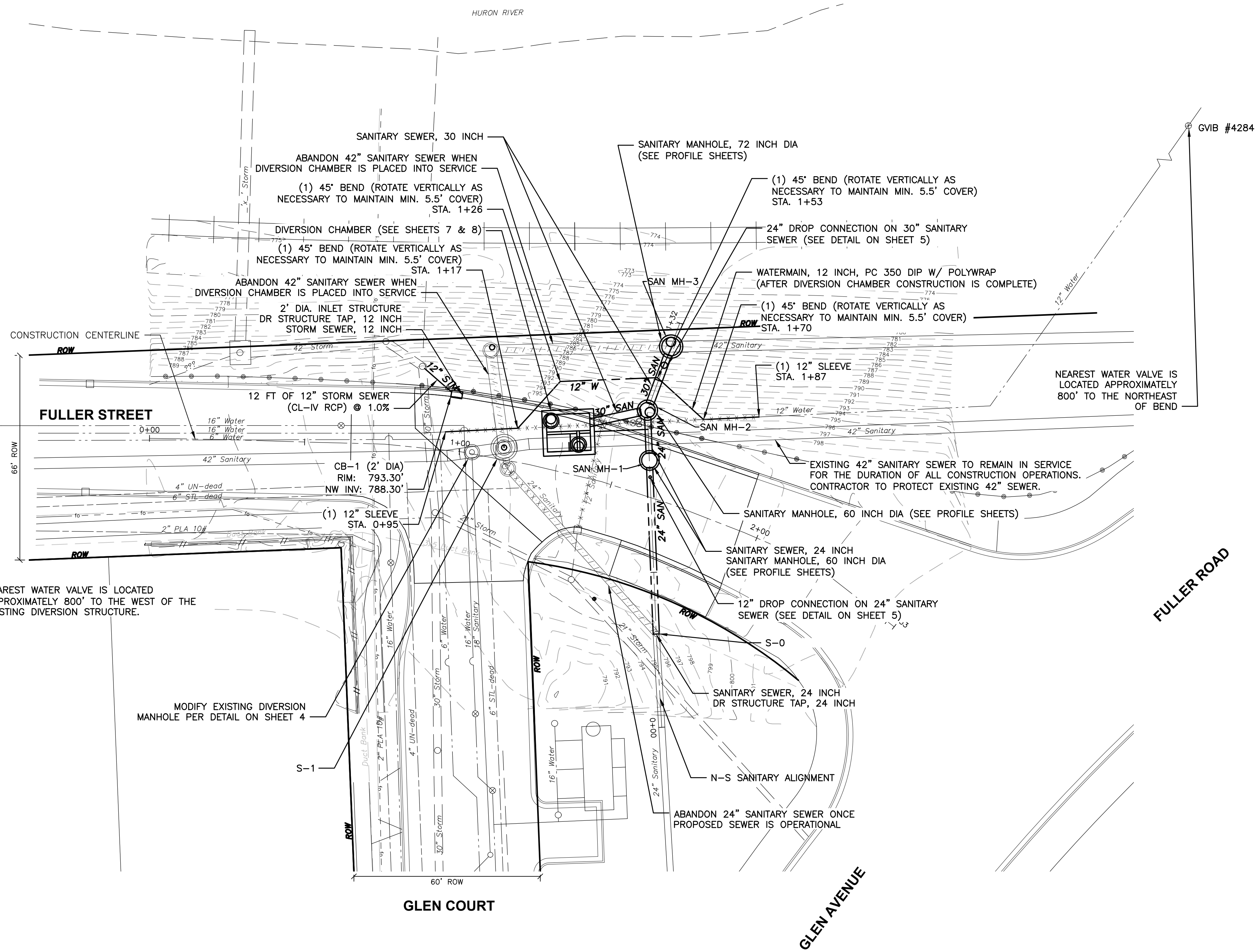
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT (GLEN/FULLER INTERSECTION) EXISTING CONDITIONS**

1" = 20'  
DRAWING No.  
2014 - 027

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**NOTE**


1. THE EXISTING 12" WATER MAIN IS INTENDED TO BE SHUT DOWN FOR THE DURATION OF THE JUNCTION CHAMBER AND SANITARY SEWER INSTALLATION. THE CONTRACTOR SHALL REINSTALL AND TEST THE WATER MAIN IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS ONCE THE SANITARY SEWER WORK HAS BEEN COMPLETED.
2. ALL SEWERS TO BE ABANDONED SHALL BE COMPLETELY FILLED BY PUMPING FLOWABLE FILL INTO THE PIPE(S). CONTRACTOR TO PROVIDE ALL FITTINGS, AIR RELIEFS, AND OTHER ACCESSORIES TO ENSURE THE WORK IS PROPERLY COMPLETED. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "SEWER, ANY SIZE OR DEPTH, ABANDON."
3. Maintain pedestrian access at all times during the entire duration of the project's work. See applicable plan sheets for additional information. This work shall be included in the Item of Work "Minor Traffic Devices, Max. \$ \_\_\_\_\_" and will not be paid for separately.
4. The Contractor shall conduct its operations and limit its excavation(s) and related work such that all applicable clearances associated with protecting the operation of the railroads are met. All costs associated with complying with this requirement shall not be paid for separately, but shall be included in the cost of the associated items of work.
5. Any excavation and associated sheeting and shoring that must be performed within the MDOT railroad ROW must be reviewed and approved by Amtrak prior to commencement of the work. The Contractor shall take this requirement into consideration GVI #8712 when preparing their project schedule and work plan. The City of Ann Arbor will pay for the reasonable review fees of the sheeting and shoring plans.

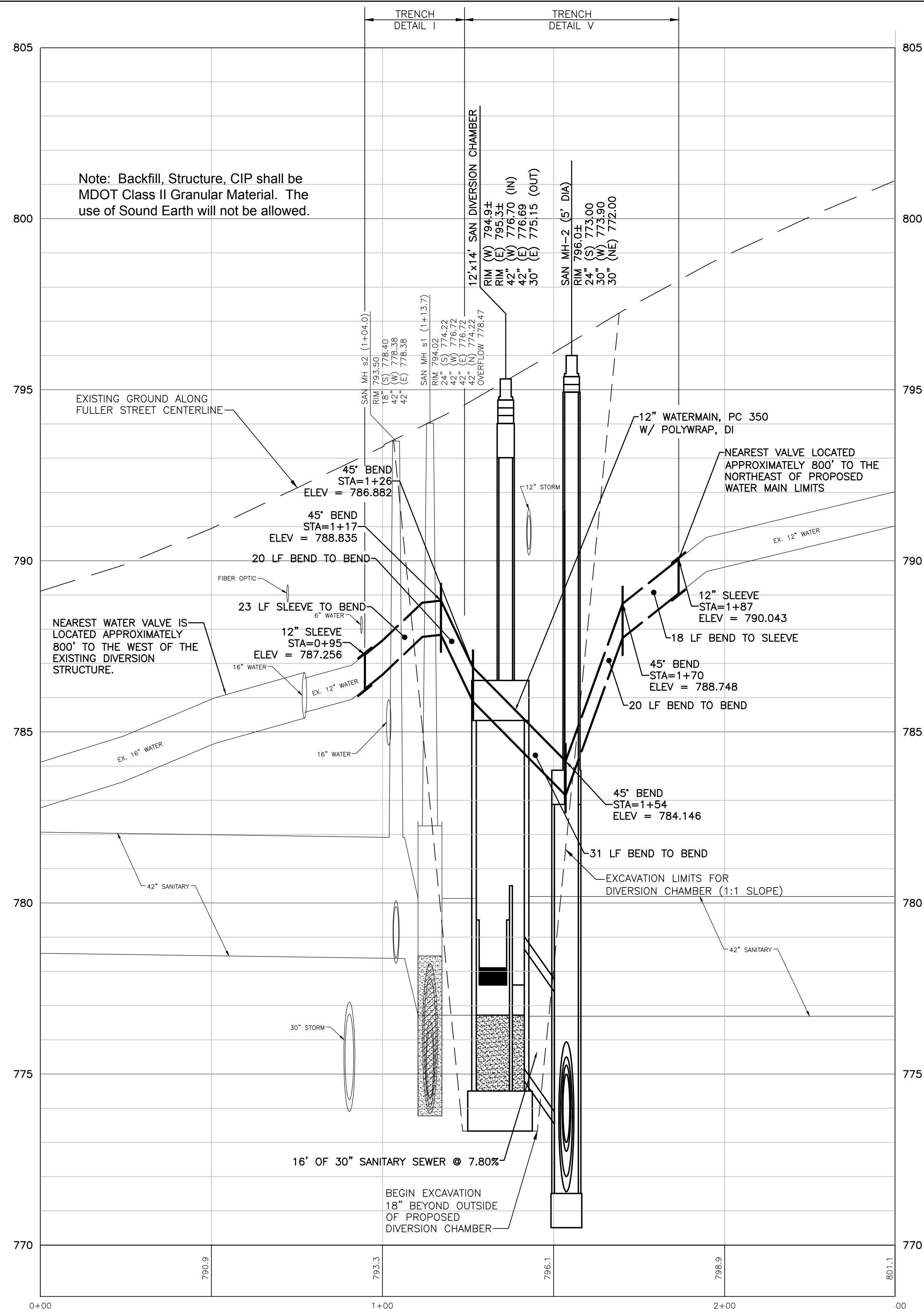


**PROPOSED UTILITY IMPROVEMENTS**

SCALE: 1" = 20'

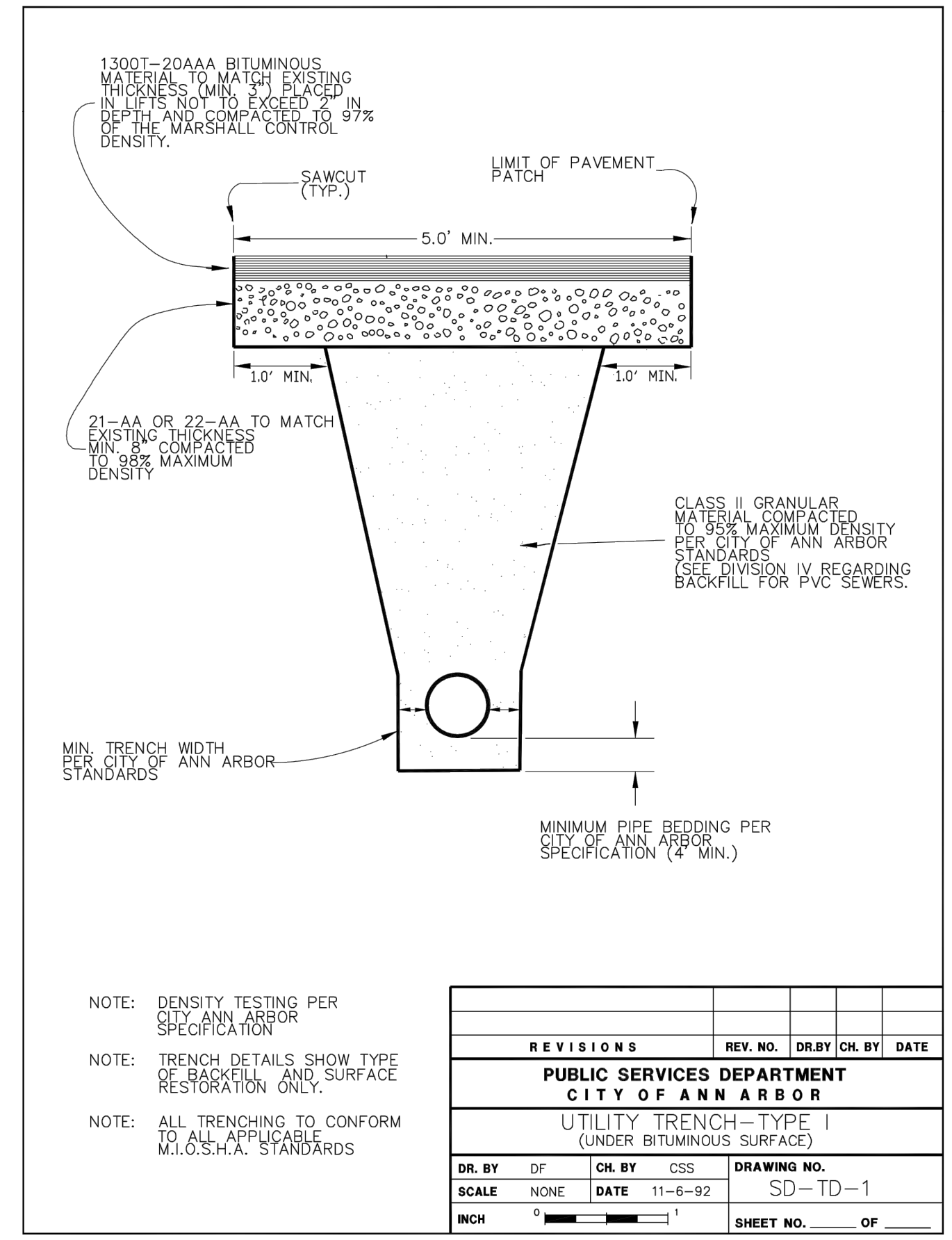


|  |  |
|--|--|
|    |  |
| <b>PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR</b><br>SOUTHSIDE INTERCEPTOR SANITARY<br>DIVERSION PROJECT (GLEN/FULLER INTERSECTION)<br>PROPOSED UTILITY IMPROVEMENTS |  |
| SHEET No.<br><b>3 OF 17</b>  | DRAWING No.<br>2014 - 027                  |
| ISSUED FOR OWNER REVIEW<br>12/21/2018<br>JRP   | DATE<br>8/24/2018<br>JRP                   |
| ISSUED FOR PRELIMINARY REVIEW<br>8/24/2018<br>JRP  | DATE<br>8/24/2018<br>JRP                   |
| CITY OF ANN ARBOR<br>PUBLIC SERVICE<br>301 EAST HURON STREET<br>P.O. BOX 8647<br>ANN ARBOR, MI 48107-8647<br>www.aagov.org   | KNOW WHAT'S BELOW.<br>Call Before you dig. |

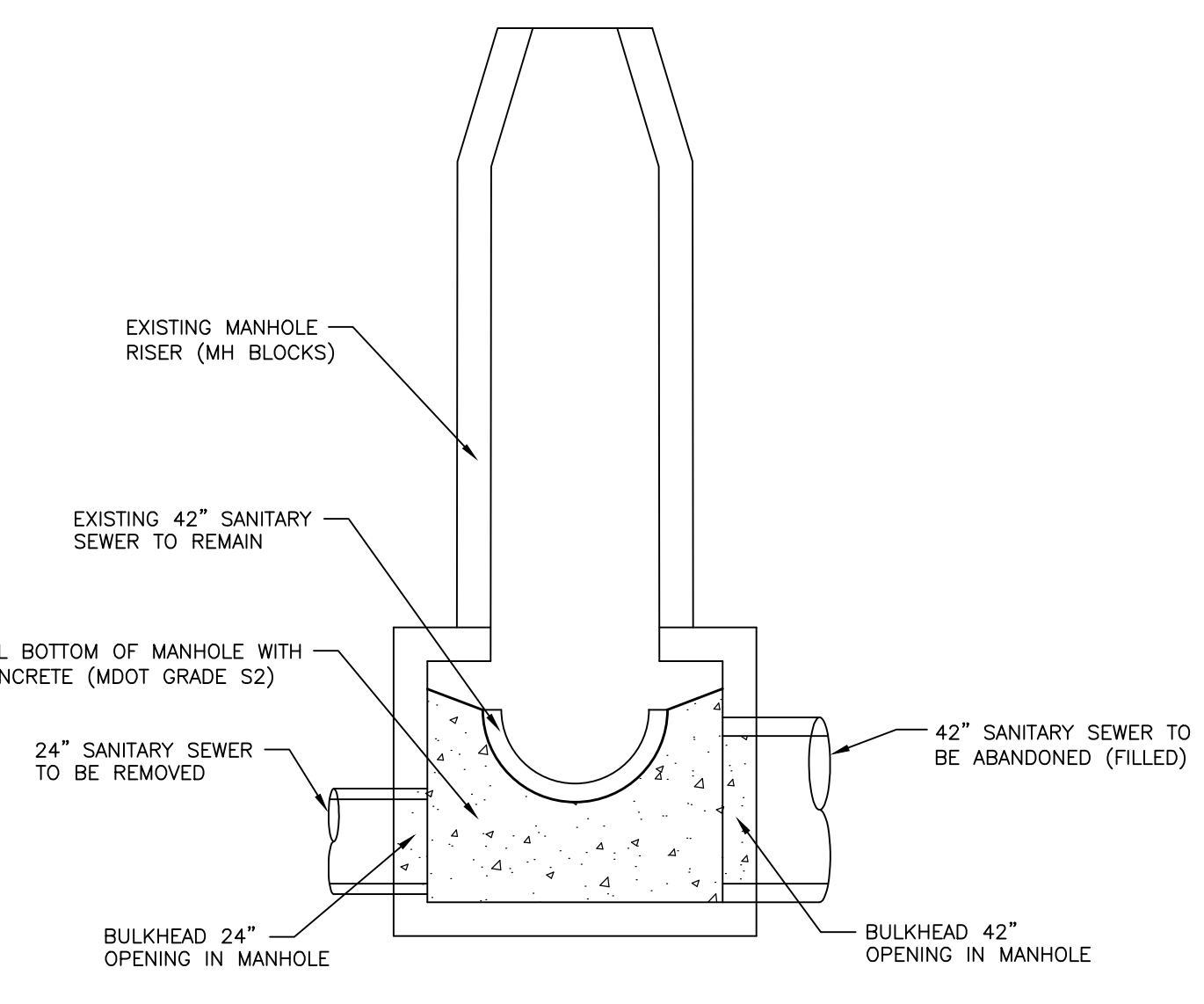


# FULLER STREET SANITARY SEWER AND WATER MAIN PROFILE

HORIZONTAL SCALE: 1" = 20'; VERTICAL SCALE: 1" = 2'

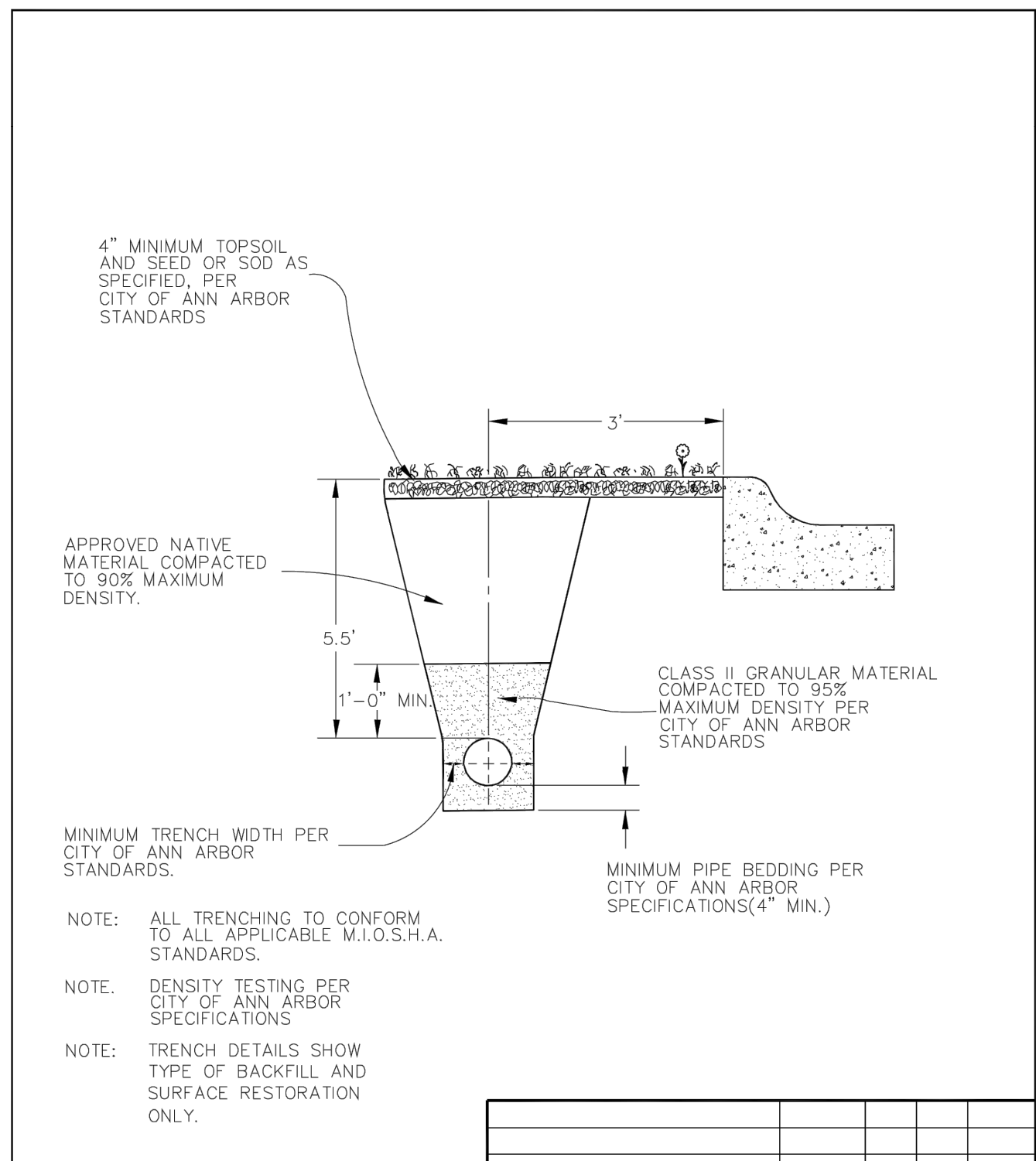
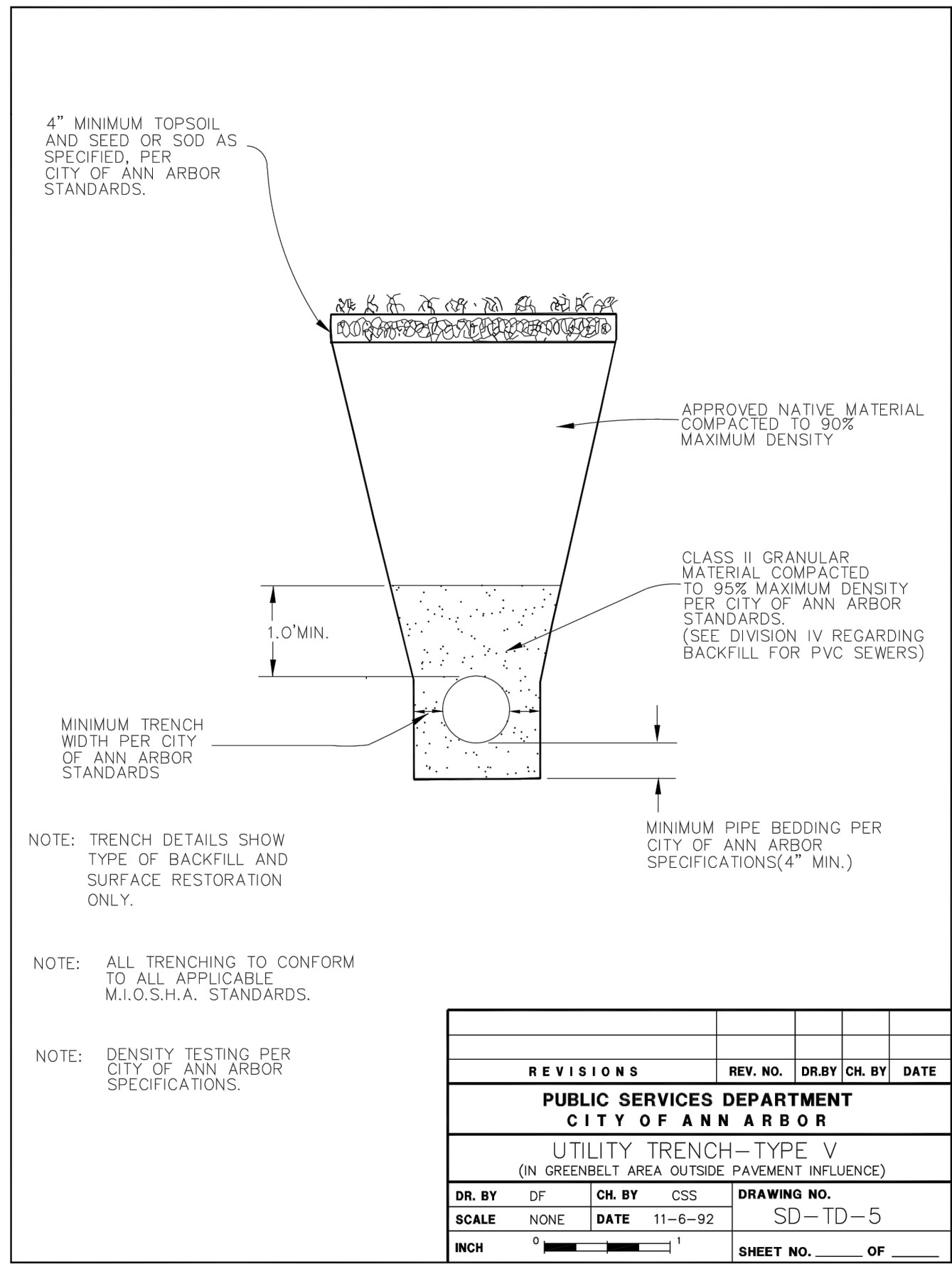


- NOTE**
- INSTALL 12" DUCTILE IRON WATER MAIN SUCH THAT 5.5' OF COVER IS MAINTAINED ALONG ITS ROUTE ACROSS THE SLOPE.



## MODIFICATION OF EXISTING DIVERSION CHAMBER (S-1)

NO SCALE  
THE WORK OF MODIFYING MANHOLE S-1 SHALL BE INCLUDED IN THE ITEM OF WORK "DR STRUCTURE, ANY SIZE OR DEPTH, ABANDON" AND WILL NOT BE PAID FOR SEPARATELY.



## UTILITY TRENCH-TYPE VIII (WATERMAIN AT TYPICAL CITY OF ANN ARBOR LOCATION 3' BEHIND B/C)

NO SCALE

**811**  
Know what's below. Call before you dig.

| REV.                          | DESCRIPTION | DATE       | DRAWN | CHECKED |
|-------------------------------|-------------|------------|-------|---------|
| ISSUED FOR OWNER REVIEW       | JRP         | 12/21/2018 | JRP   |         |
| ISSUED FOR PRELIMINARY REVIEW | JRP         | 8/24/2018  | JRP   |         |

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**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT (GLEN/FULLER INTERSECTION)**

**FULLER STREET SANITARY AND WATER PROFILE**

HORIZ. 1" = 20'; VERT. 1" = 2'

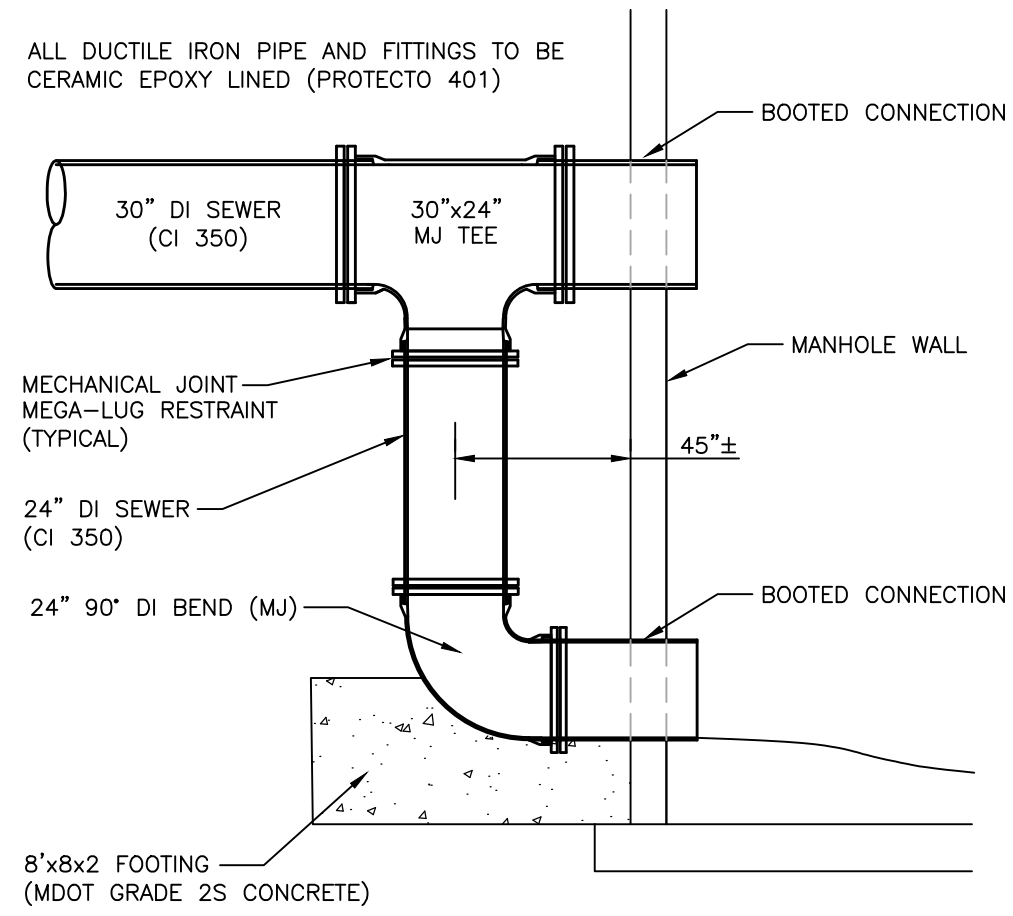
DRAWING NO. 2014-027

SHEET NO. 4 OF 17

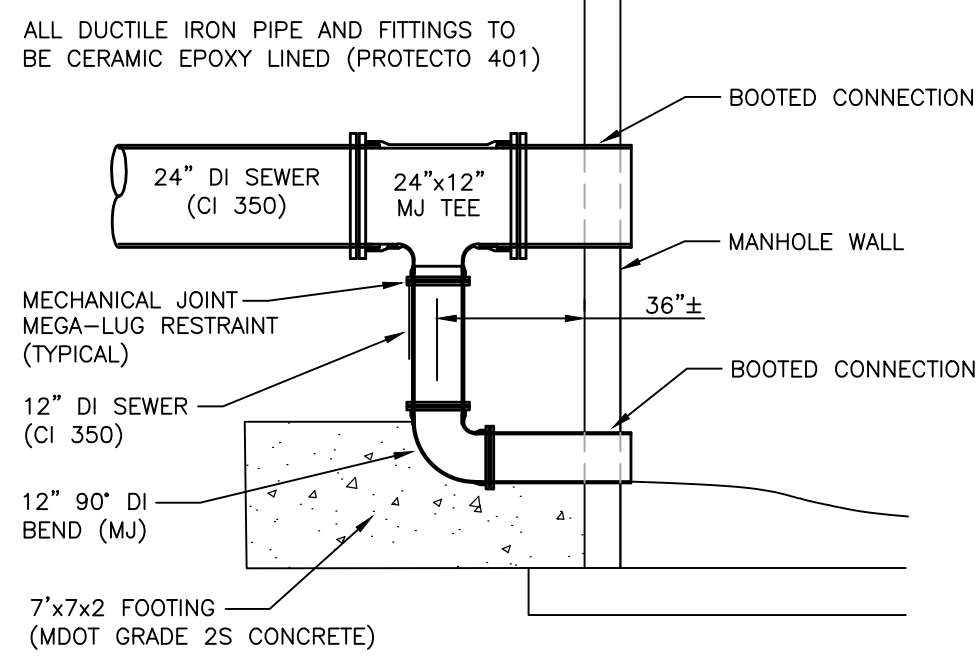
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**NOTE**

1. THE CONTRACTOR SHALL SAVE AND PROTECT THE EXISTING 42" SANITARY SEWER BY WHATEVER MEANS NECESSARY DURING THE INSTALLATION OF THE PROPOSED SANITARY SEWERS AND JUNCTION CHAMBER. SUPPORT EXISTING PIPES AS NEEDED DURING THE PERFORMANCE OF ALL WORK. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "GENERAL CONDITIONS."
2. TRENCH BACKFILL MATERIALS AND PIPE BEDDING SHALL BE IN ACCORDANCE WITH UTILITY TRENCH-TYPE 1 DETAIL OR UTILITY TRENCH-TYPE 5 DETAIL. REFER TO PROFILE VIEW FOR WHICH TRENCH DETAIL TO FOLLOW IN WHICH AREAS.



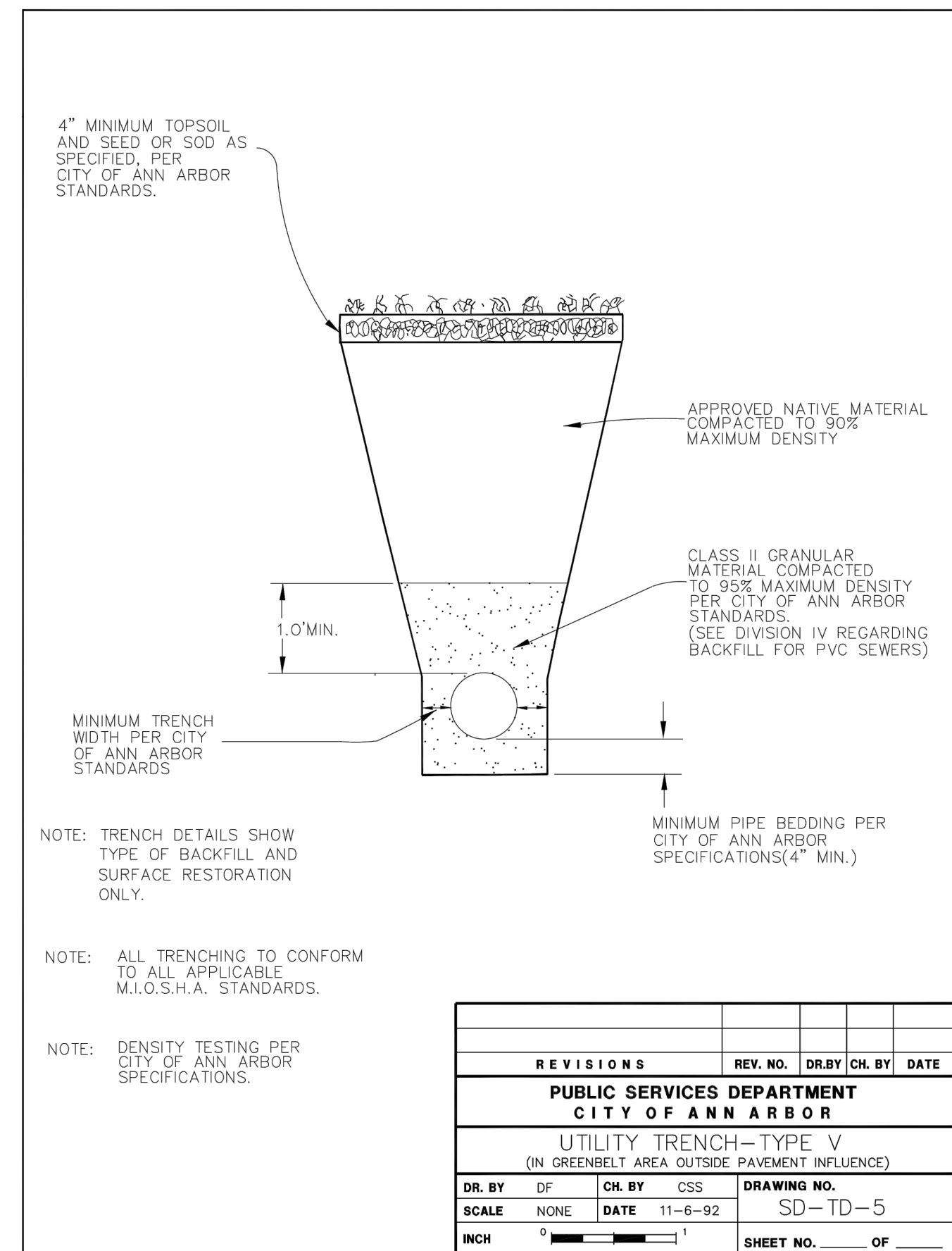
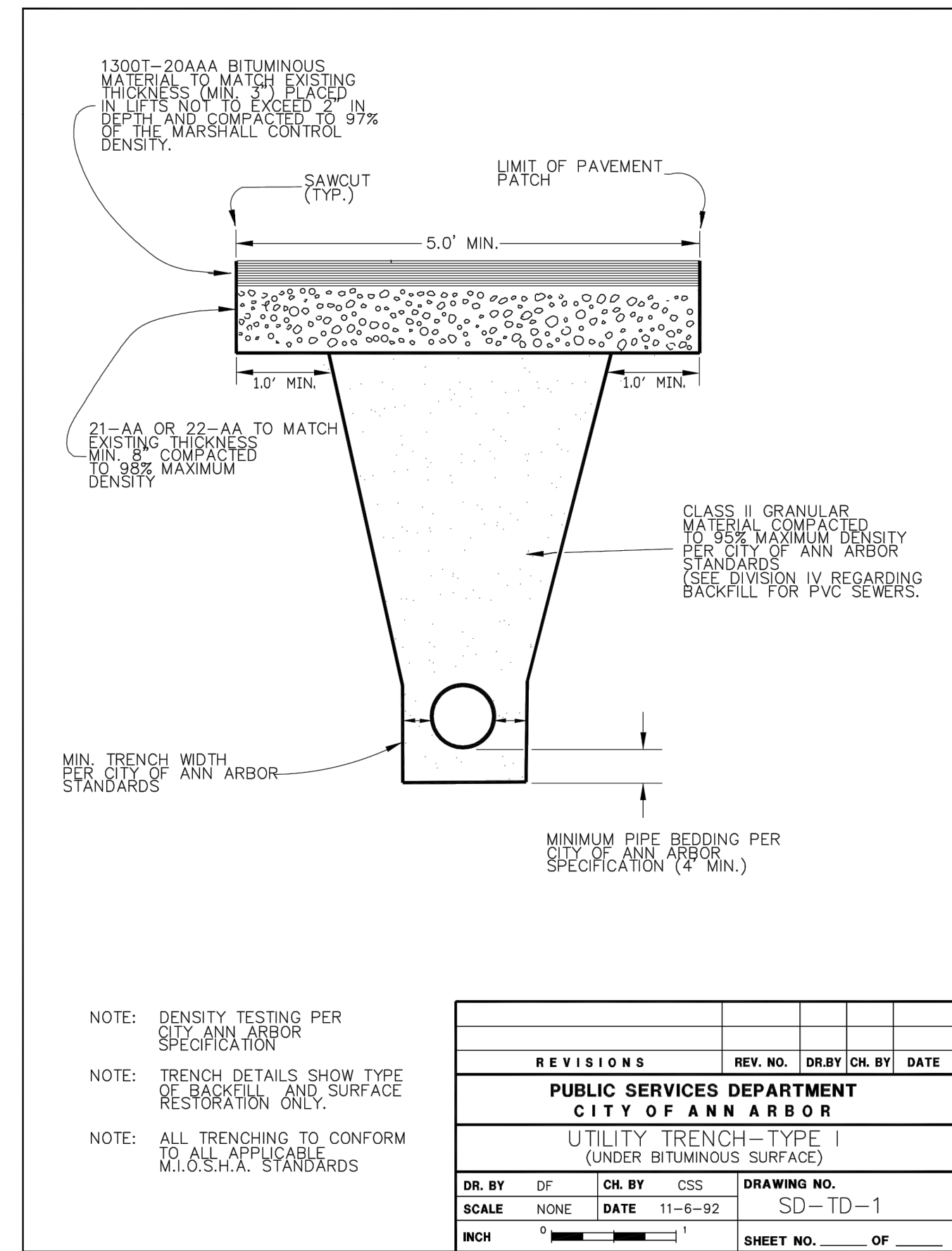
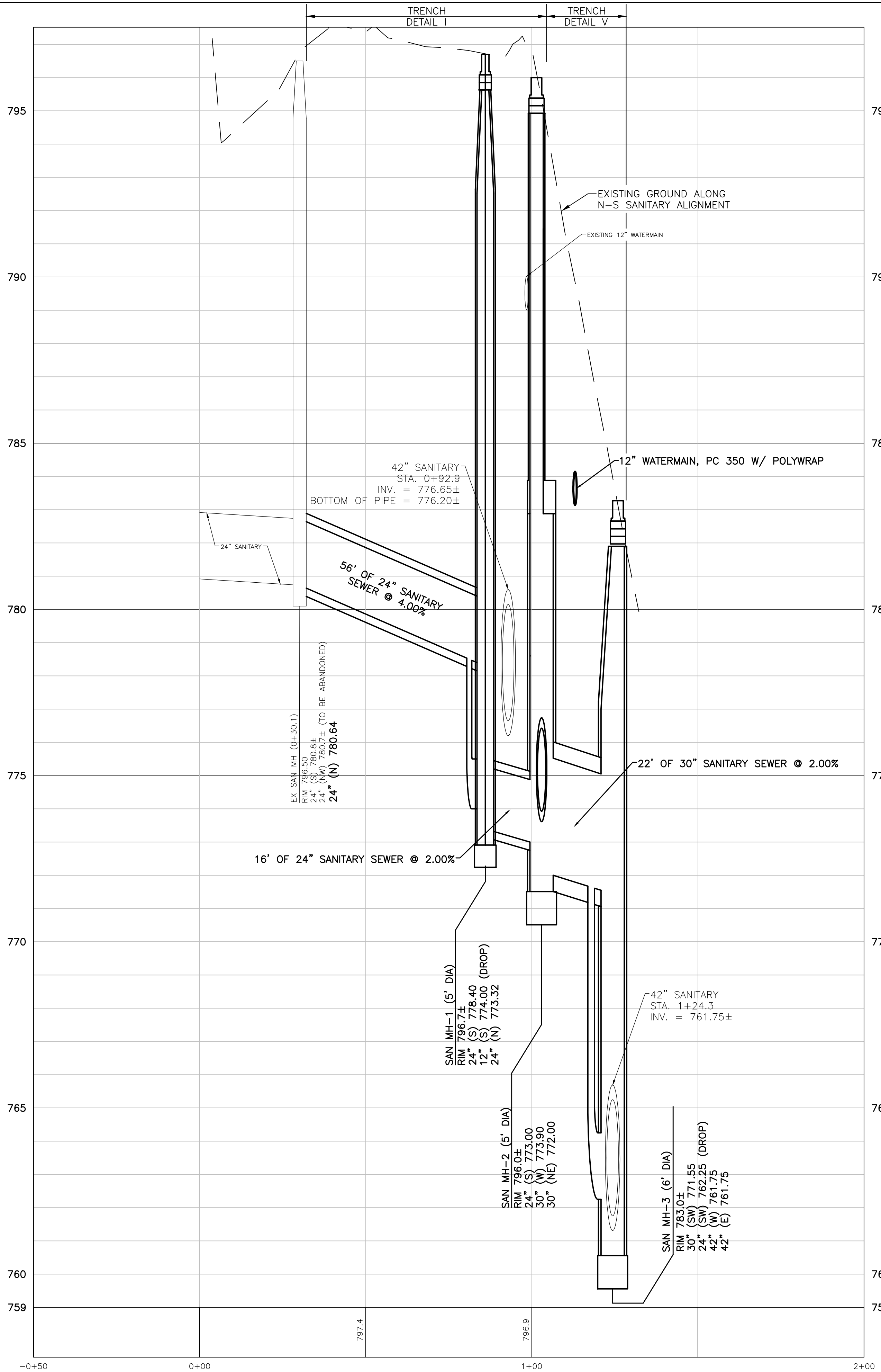
**24" DROP CONNECTION ON 30" SANITARY SEWER**  
NO SCALE




**12" DROP CONNECTION ON 24" SANITARY SEWER**  
NO SCALE

**N-S SANITARY SEWER PROFILE**

HORIZONTAL SCALE: 1" = 10'; VERTICAL SCALE: 1" = 2'





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| REV. | DATE       | DESCRIPTION                   | DRAWN | CHECKED |
|------|------------|-------------------------------|-------|---------|
|      |            |                               | JRP   |         |
|      | 12/21/2018 | ISSUED FOR OWNER REVIEW       | JRP   |         |
|      | 8/24/2018  | ISSUED FOR PRELIMINARY REVIEW | JRP   |         |

**PUBLIC SERVICES DEPARTMENT**  
**CITY OF ANN ARBOR**

UTILITY TRENCH-TYPE I  
(UNDER BITUMINOUS SURFACE)

| DR. BY | DF | CH. BY | CSS | DRAWING NO. |
|--------|----|--------|-----|-------------|
|        |    |        |     | SD-TD-1     |

SCALE NONE DATE 11-6-92 SHEET NO. OF

**PUBLIC SERVICES DEPARTMENT**  
**CITY OF ANN ARBOR**

UTILITY TRENCH-TYPE V  
(IN GREENBELT AREA OUTSIDE PAVEMENT INFLUENCE)

| DR. BY | DF | CH. BY | CSS | DRAWING NO. |
|--------|----|--------|-----|-------------|
|        |    |        |     | SD-TD-5     |

SCALE NONE DATE 11-6-92 SHEET NO. OF

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT (GLEN/FULLER INTERSECTION)**

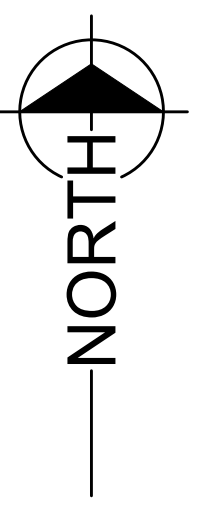
**N-S SANITARY SEWER PROFILE**

SHEET NO. **5 OF 17**

HORIZ. 1" = 20'; VERT. 1" = 2'

DRAWING NO. 2014-027

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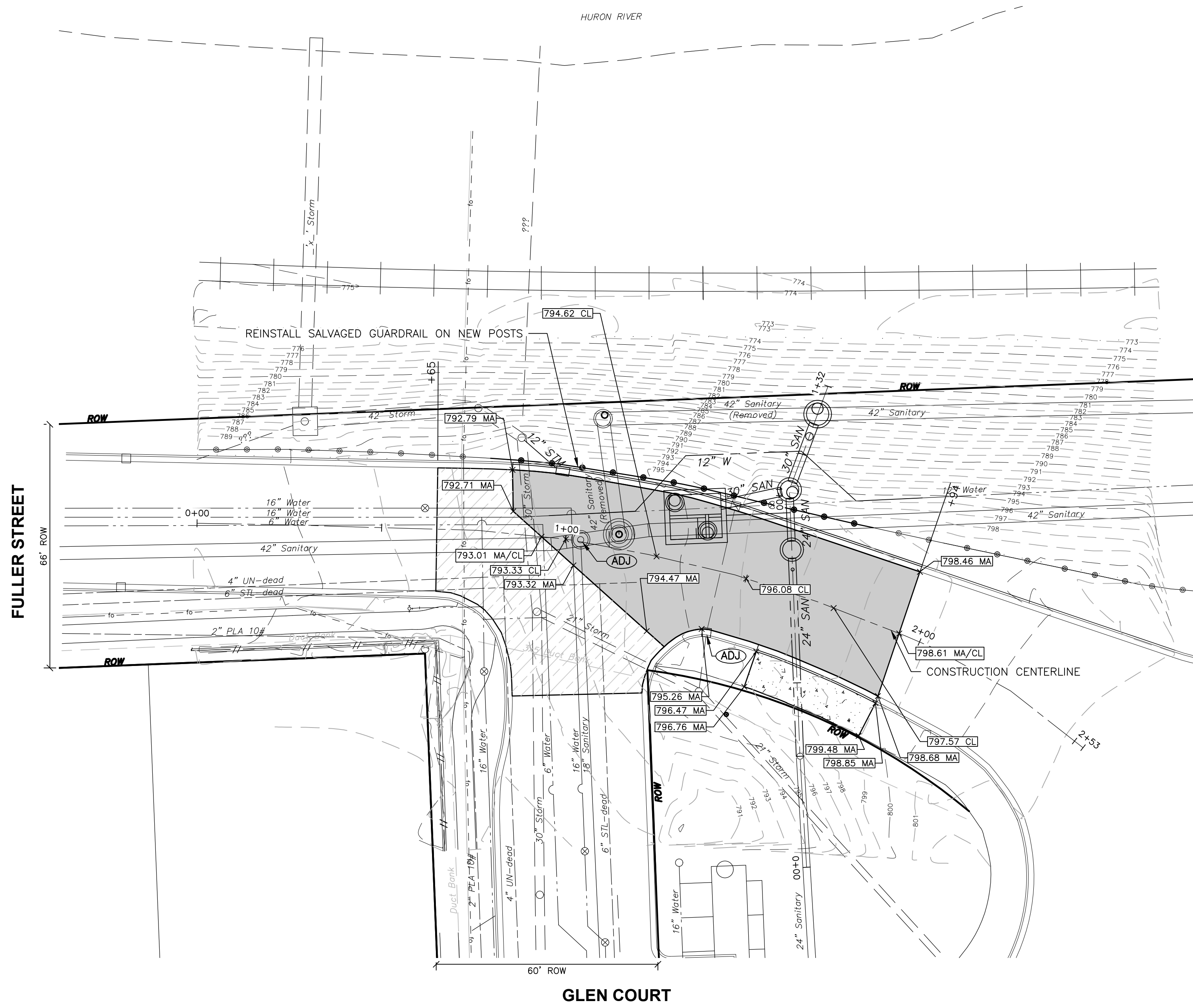
| REV. | DESCRIPTION                   | DATE       | DRAWN | CHECKED |
|------|-------------------------------|------------|-------|---------|
| 1    | ISSUED FOR OWNER REVIEW       | 12/21/2018 | JRP   |         |
| 2    | ISSUED FOR PRELIMINARY REVIEW | 8/24/2018  | JRP   |         |

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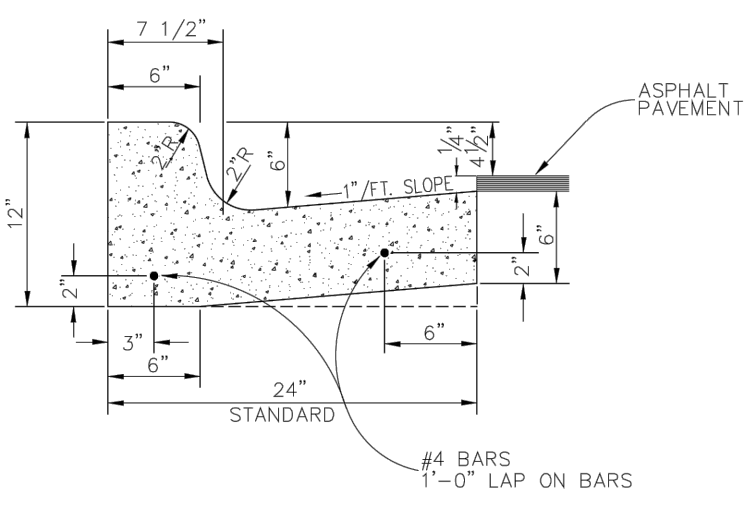
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT (GLEN/FULLER INTERSECTION)**  
**PROPOSED ROAD IMPROVEMENTS**

SHEET No. 6 OF 17  
DRAWING No. 2014-027  
1" = 20'

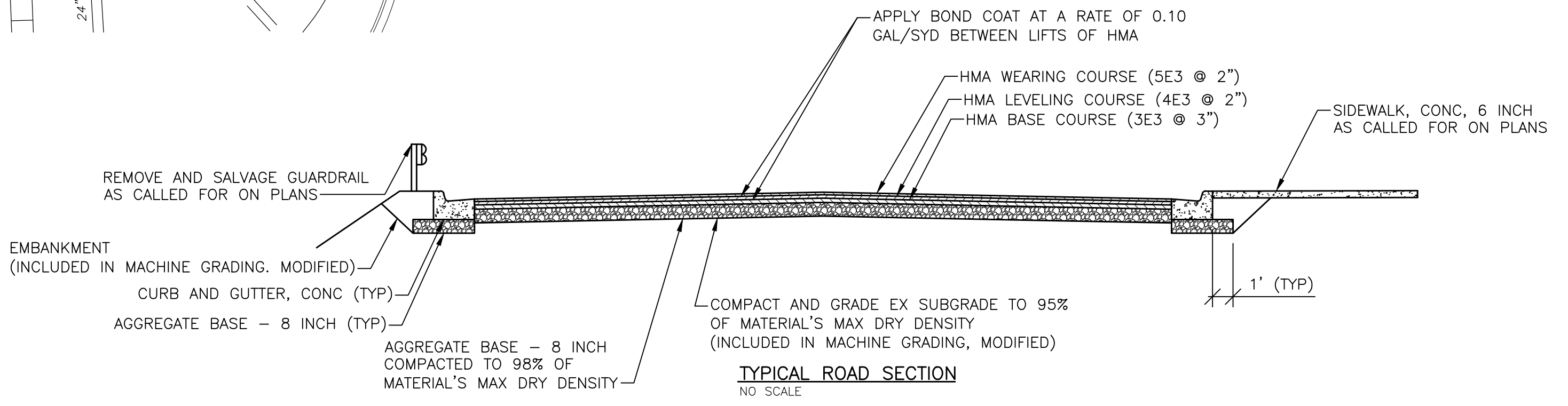


**SYMBOL LEGEND**

|  |  |
|--|--|
|  | FULL DEPTH HMA PAVEMENT                  |
|  | 2" MILLING AND HMA OVERLAY (2" HMA, 5E3) |
|  | HMA APPROACH                             |
|  | CONCRETE                                 |
|  | ADA TACTILE WARNING SURFACE              |
|  | ADJUST STRUCTURE COVER                   |



**CONCRETE CURB AND GUTTER**  
NO SCALE



**TYPICAL ROAD SECTION**  
NO SCALE

**PROPOSED ROAD IMPROVEMENTS**

SCALE: 1" = 20'







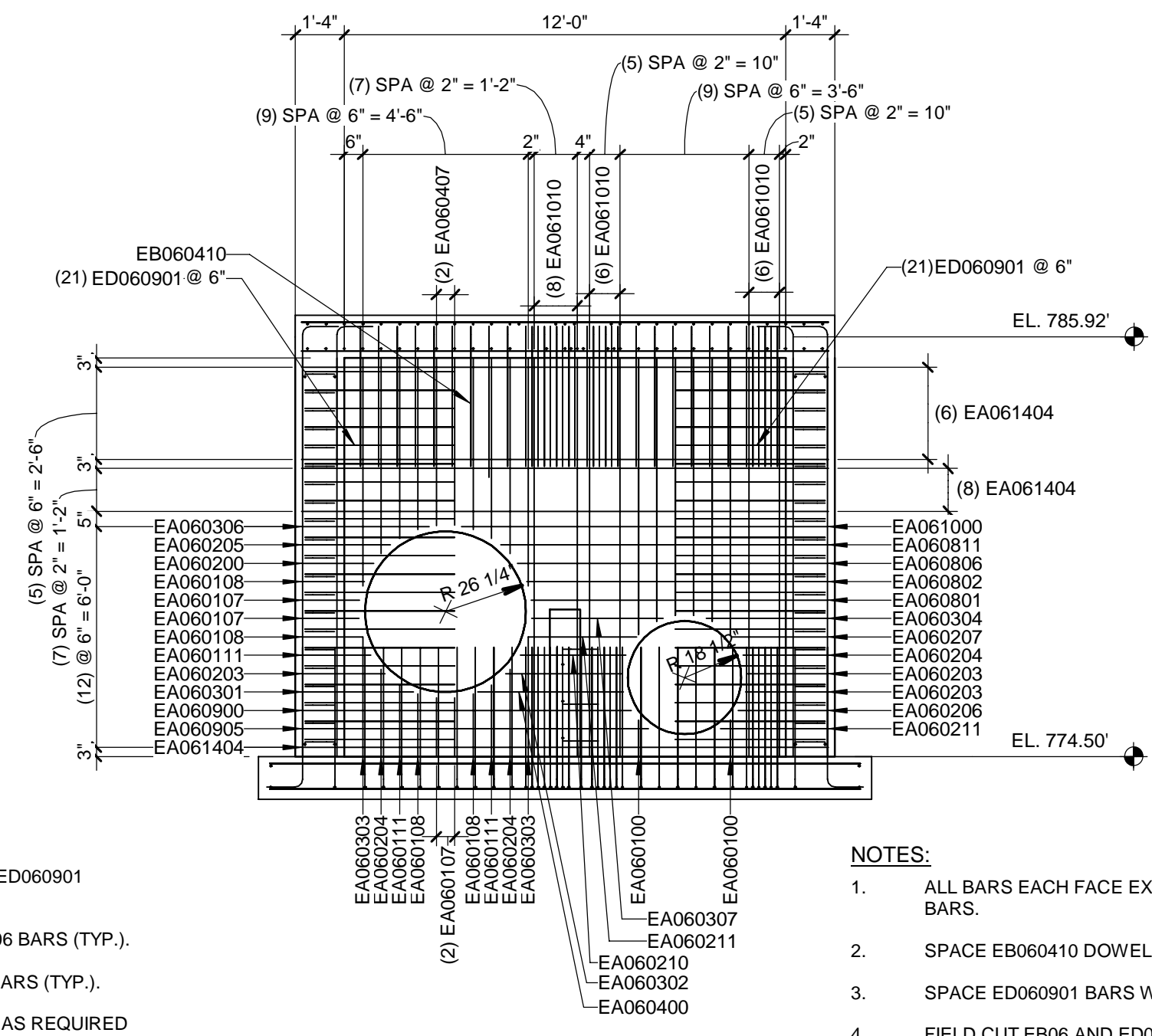
| REV.       | DESCRIPTION            | DATE | DRAWN | CHECKED |
|------------|------------------------|------|-------|---------|
| 10-29-2018 | ISSUED FOR PRELIMINARY |      | RFS   | JRP     |

### WALL DOWEL SCHEDULE

| BAR MARK     | QUANTITY   | A     | B      | WEIGHT          |
|--------------|------------|-------|--------|-----------------|
| ED060901     | 168        | 4'-1" | 0'-11" | 2289 lbf        |
| EB060501     | 1          | 4'-1" | 1'-1"  | 8 lbf           |
| EB060501     | 1          | 4'-1" | 1'-0"  | 8 lbf           |
| EB060501     | 3          | 4'-1" | 1'-0"  | 23 lbf          |
| EB060501     | 1          | 4'-1" | 1'-0"  | 8 lbf           |
| EB060410     | 2          | 1'-0" | 4'-2"  | 15 lbf          |
| EB060410     | 1          | 1'-1" | 3'-10" | 7 lbf           |
| EB060410     | 1          | 1'-0" | 3'-10" | 7 lbf           |
| EB060410     | 2          | 1'-0" | 3'-10" | 15 lbf          |
| EB060410     | 2          | 1'-0" | 3'-10" | 15 lbf          |
| EB060410     | 245        | 1'-0" | 3'-10" | 1779 lbf        |
| EB060304     | 6          | 2'-4" | 1'-0"  | 21 lbf          |
| EB060209     | 5          | 1'-9" | 1'-0"  | 21 lbf          |
| <b>TOTAL</b> | <b>438</b> |       |        | <b>4223 lbf</b> |

### WALL STRAIGHT BAR SCHEDULE

| BAR          | QUANTITY   | A       | WEIGHT          |
|--------------|------------|---------|-----------------|
| EA061604     | 84         | 16'-4"  | 2061 lbf        |
| EA061404     | 70         | 14'-4"  | 1507 lbf        |
| EA061310     | 3          | 13'-10" | 62 lbf          |
| EA061105     | 8          | 11'-5"  | 137 lbf         |
| EA061010     | 156        | 10'-10" | 2538 lbf        |
| EA061006     | 36         | 10'-6"  | 568 lbf         |
| EA061000     | 2          | 10'-0"  | 30 lbf          |
| EA060911     | 2          | 9'-11"  | 30 lbf          |
| EA060906     | 2          | 9'-6"   | 29 lbf          |
| EA060905     | 2          | 9'-5"   | 28 lbf          |
| EA060900     | 2          | 9'-0"   | 27 lbf          |
| EA060811     | 4          | 8'-11"  | 54 lbf          |
| EA060809     | 2          | 8'-9"   | 26 lbf          |
| EA060806     | 4          | 8'-6"   | 51 lbf          |
| EA060804     | 2          | 8'-4"   | 25 lbf          |
| EA060802     | 6          | 8'-2"   | 74 lbf          |
| EA060801     | 6          | 8'-1"   | 73 lbf          |
| EA060706     | 4          | 7'-6"   | 45 lbf          |
| EA060702     | 4          | 7'-2"   | 42 lbf          |
| EA060700     | 4          | 7'-0"   | 42 lbf          |
| EA060602     | 4          | 6'-2"   | 37 lbf          |
| EA060600     | 4          | 6'-2"   | 37 lbf          |
| EA060504     | 6          | 5'-4"   | 48 lbf          |
| EA060502     | 4          | 5'-2"   | 31 lbf          |
| EA060411     | 4          | 4'-11"  | 29 lbf          |
| EA060409     | 4          | 4'-9"   | 28 lbf          |
| EA060408     | 4          | 4'-8"   | 28 lbf          |
| EA060407     | 4          | 4'-7"   | 27 lbf          |
| EA060406     | 4          | 4'-6"   | 27 lbf          |
| EA060405     | 4          | 4'-5"   | 26 lbf          |
| EA060400     | 2          | 4'-0"   | 12 lbf          |
| EA060307     | 2          | 3'-7"   | 11 lbf          |
| EA060306     | 2          | 3'-6"   | 10 lbf          |
| EA060305     | 2          | 3'-5"   | 10 lbf          |
| EA060304     | 2          | 3'-4"   | 10 lbf          |
| EA060303     | 4          | 3'-3"   | 19 lbf          |
| EA060302     | 2          | 3'-2"   | 9 lbf           |
| EA060301     | 6          | 3'-1"   | 28 lbf          |
| EA060300     | 2          | 3'-0"   | 9 lbf           |
| EA060211     | 4          | 2'-11"  | 18 lbf          |
| EA060210     | 2          | 2'-10"  | 9 lbf           |
| EA060207     | 2          | 2'-7"   | 8 lbf           |
| EA060206     | 2          | 2'-6"   | 7 lbf           |
| EA060205     | 4          | 2'-5"   | 14 lbf          |
| EA060204     | 6          | 2'-4"   | 21 lbf          |
| EA060203     | 8          | 2'-3"   | 27 lbf          |
| EA060202     | 4          | 2'-2"   | 13 lbf          |
| EA060200     | 4          | 2'-0"   | 12 lbf          |
| EA060111     | 6          | 1'-11"  | 17 lbf          |
| EA060110     | 1          | 1'-10"  | 3 lbf           |
| EA060110     | 1          | 1'-10"  | 3 lbf           |
| EA060109     | 4          | 1'-9"   | 11 lbf          |
| EA060108     | 12         | 1'-8"   | 31 lbf          |
| EA060107     | 16         | 1'-7"   | 38 lbf          |
| EA060105     | 4          | 1'-5"   | 9 lbf           |
| EA060100     | 4          | 1'-0"   | 6 lbf           |
| <b>TOTAL</b> | <b>553</b> |         | <b>8133 lbf</b> |

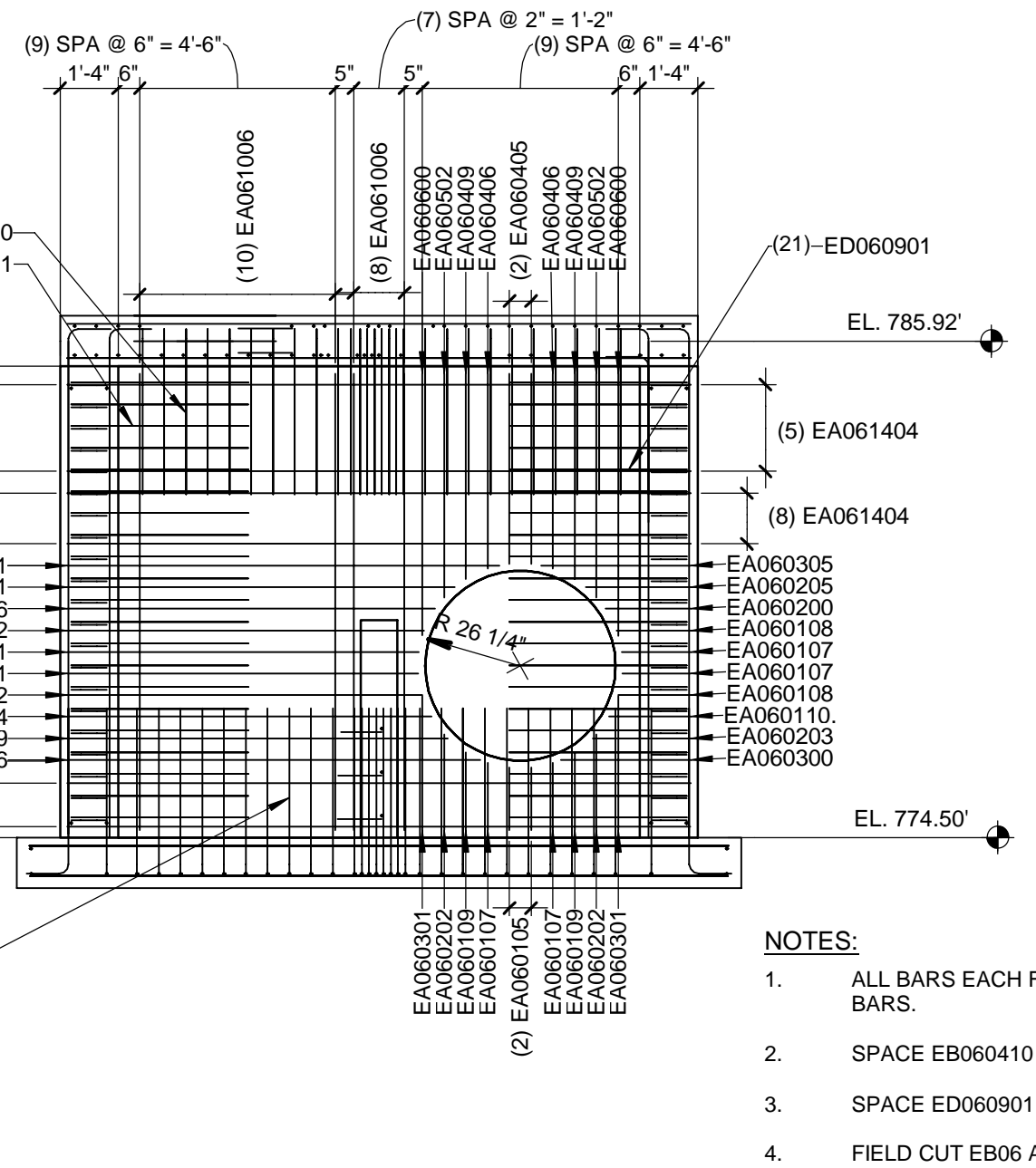
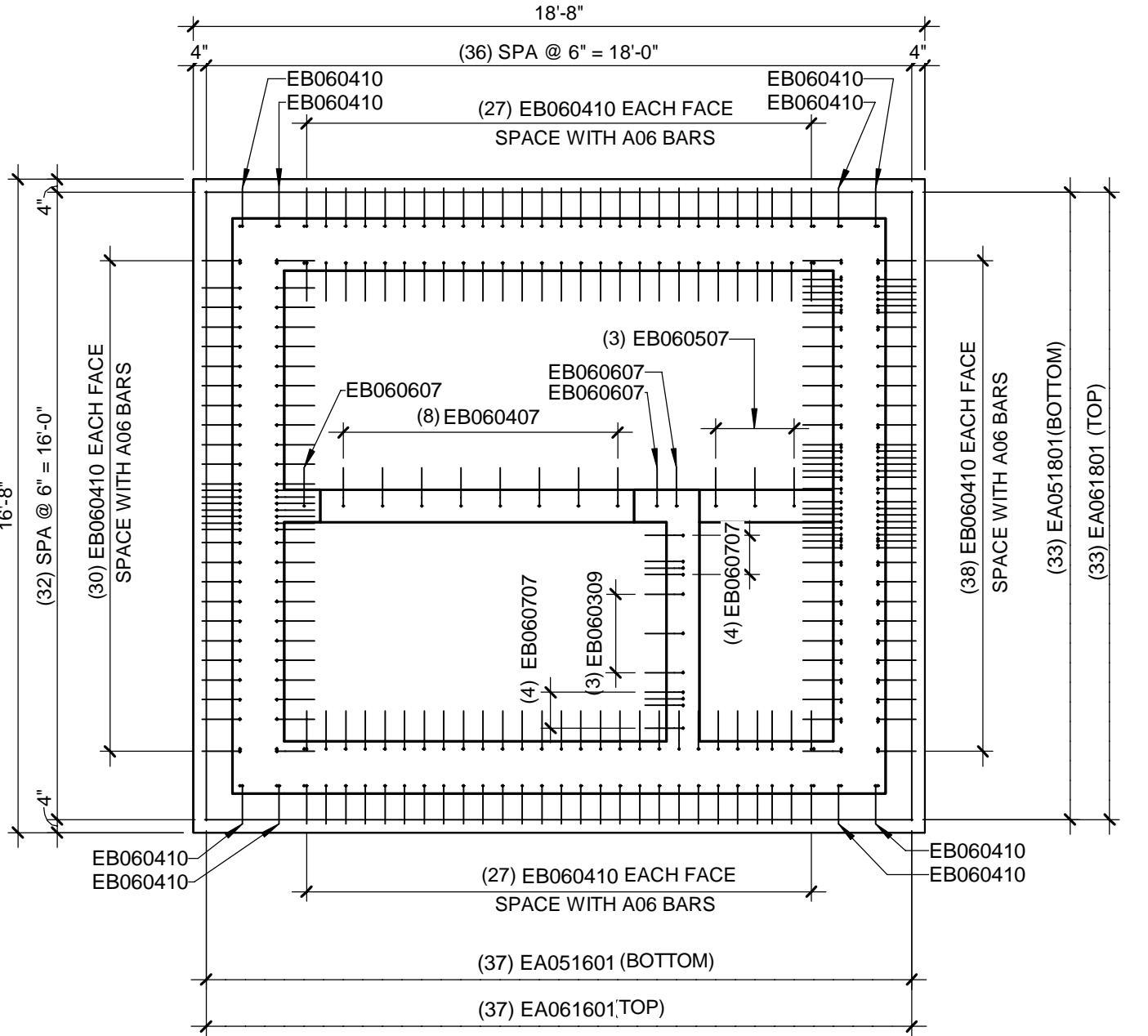
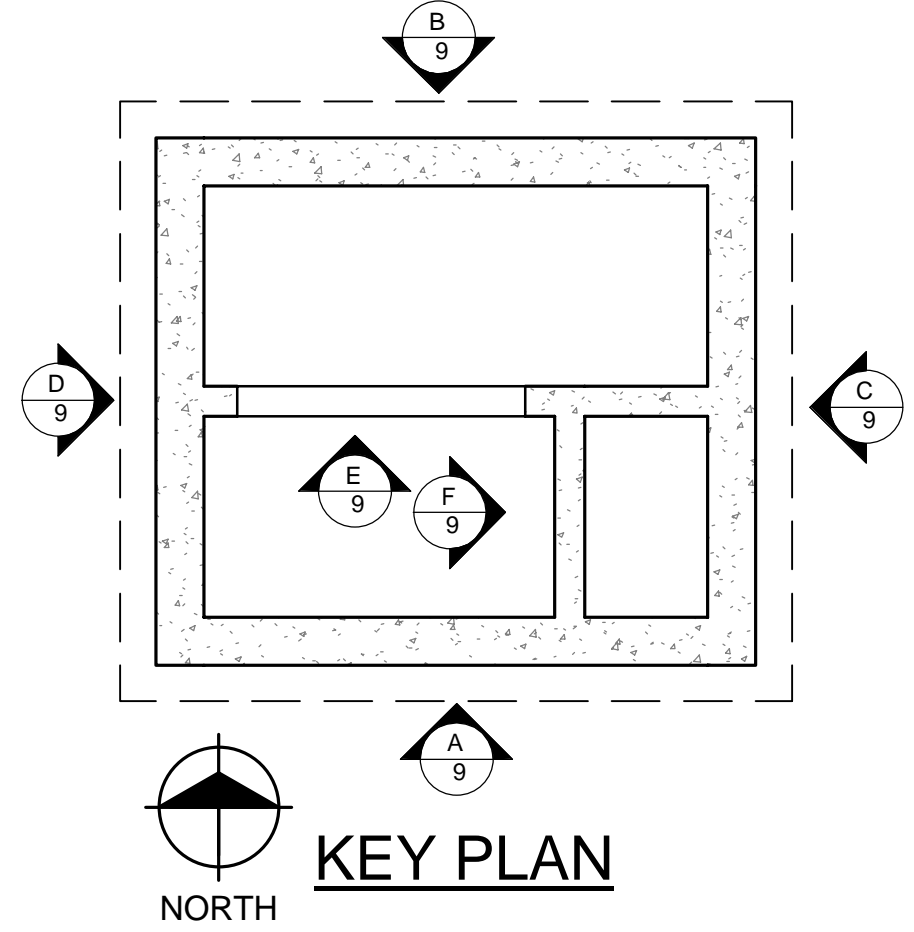
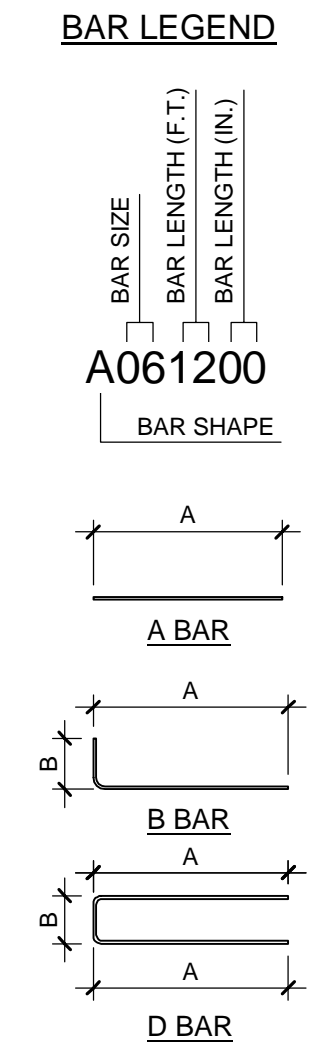


### BASE SLAB STRAIGHT BARS SCHEDULE

| BAR MARK     | QUANTITY   | A      | WEIGHT          |
|--------------|------------|--------|-----------------|
| EA061801     | 33         | 18'-1" | 895 lbf         |
| EA061601     | 37         | 16'-1" | 893 lbf         |
| EA051801     | 33         | 18'-1" | 621 lbf         |
| EA051601     | 37         | 16'-1" | 619 lbf         |
| <b>TOTAL</b> | <b>140</b> |        | <b>3029 lbf</b> |

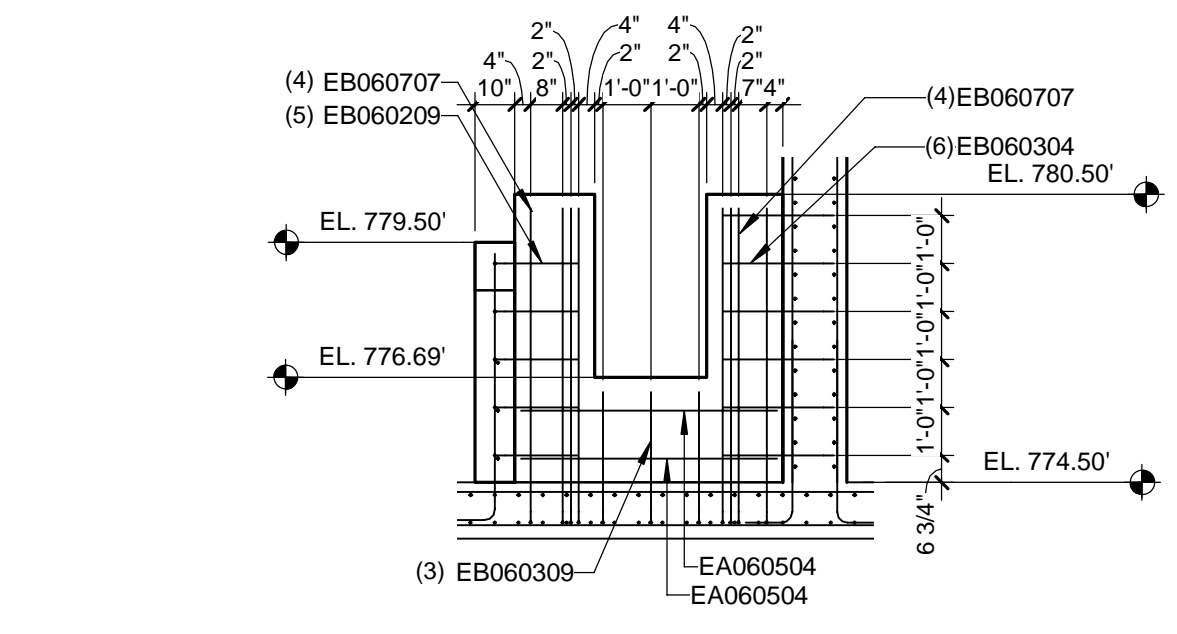
### BASE SLAB DOWEL SCHEDULE

| BAR MARK     | QUANTITY   | A      | B     | WEIGHT          |
|--------------|------------|--------|-------|-----------------|
| EB060707     | 8          | 1'-0"  | 6'-7" | 91 lbf          |
| EB060607     | 3          | 1'-0"  | 5'-7" | 30 lbf          |
| EB060507     | 3          | 1'-0"  | 4'-7" | 25 lbf          |
| EB060410     | 252        | 3'-10" | 1'-0" | 1829 lbf        |
| EB060407     | 8          | 1'-0"  | 3'-7" | 55 lbf          |
| EB060309     | 3          | 1'-0"  | 2'-9" | 17 lbf          |
| <b>TOTAL</b> | <b>277</b> |        |       | <b>2047 lbf</b> |



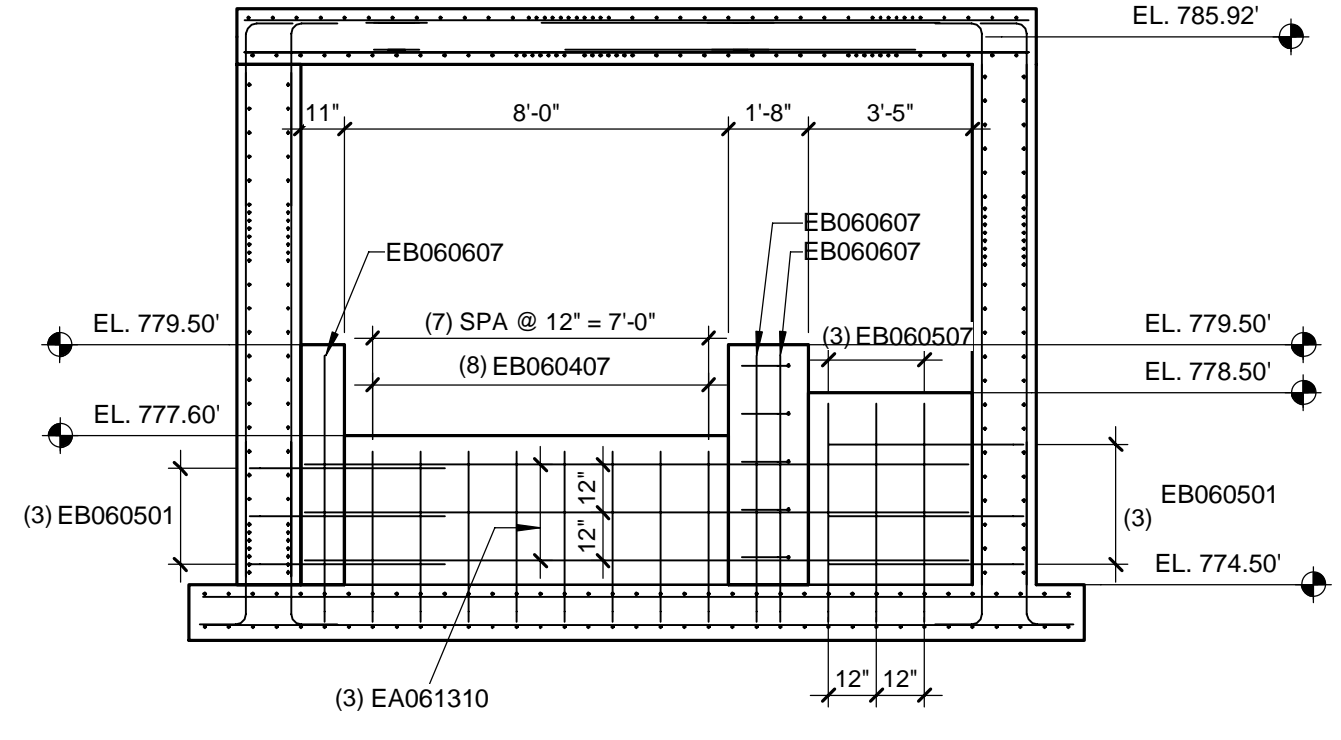
### A SOUTH WALL ELEVATION

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



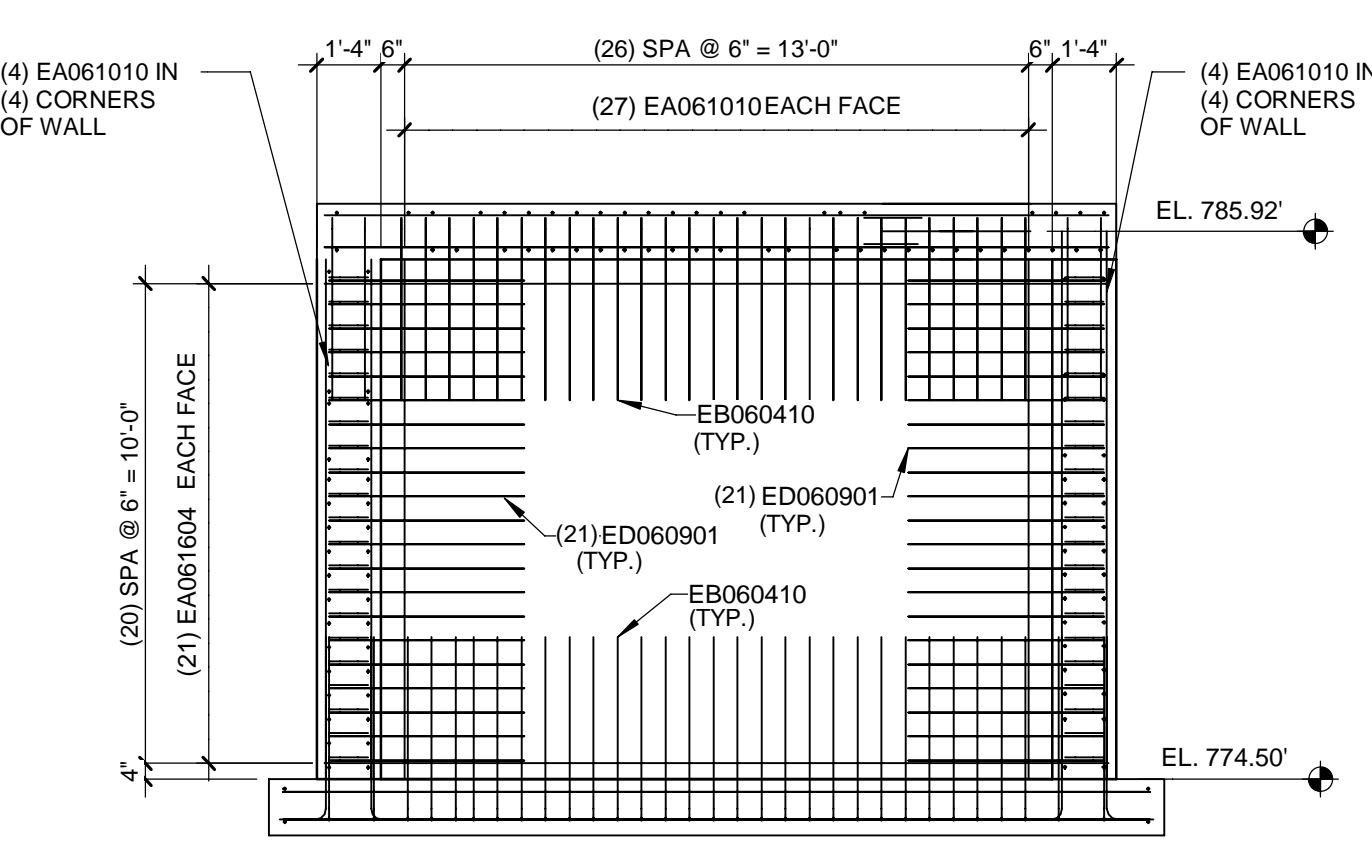
### F INTERIOR WALL ELEVATION

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



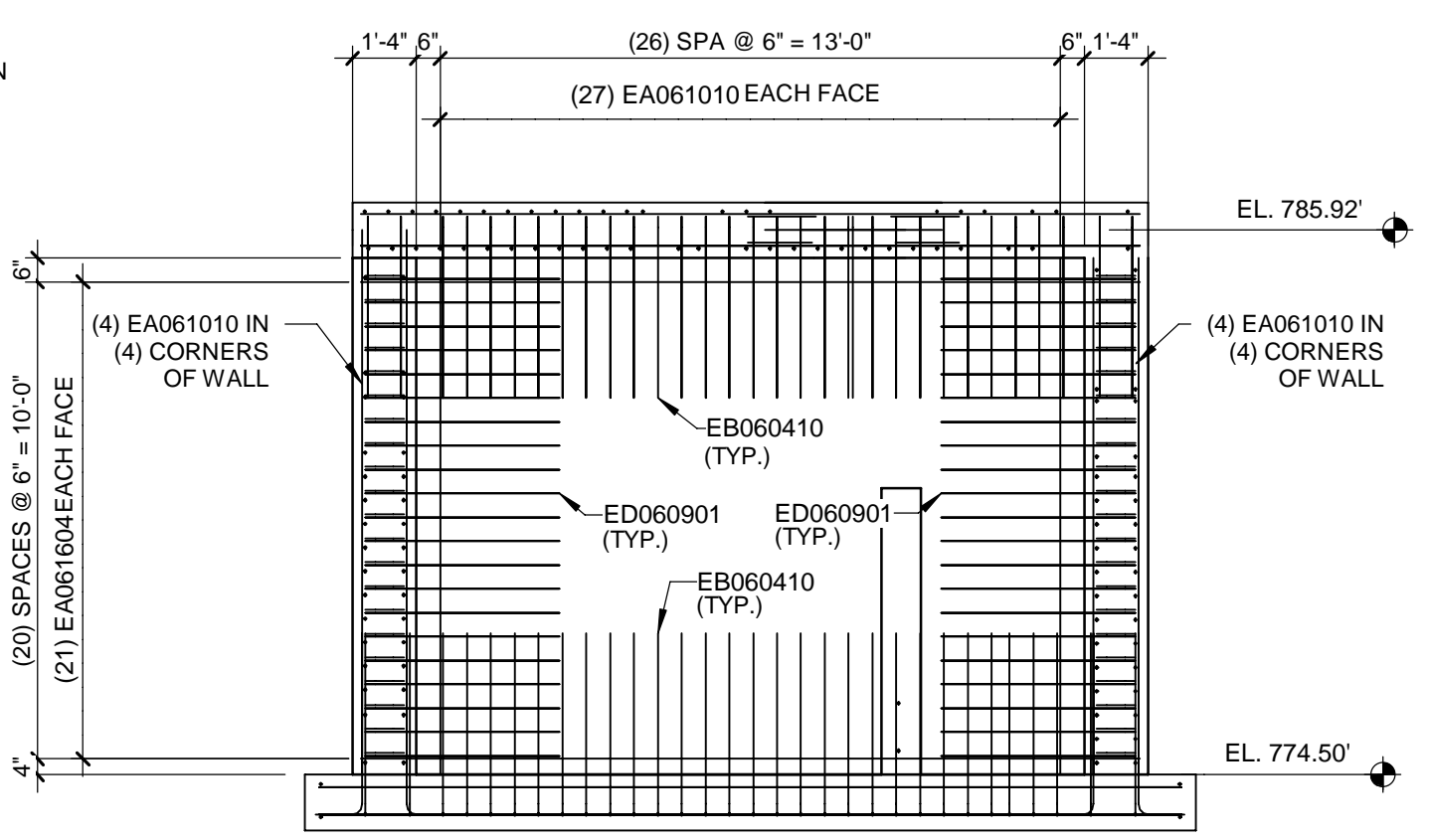
### E INTERIOR WALL ELEVATION

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



### B NORTH WALL ELEVATION

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



### A SOUTH WALL ELEVATION

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

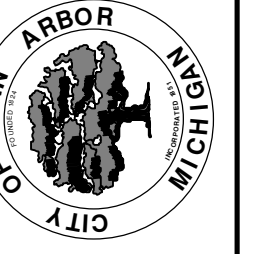


### BASE SLAB REINFORCING DETAIL

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

| REV. | DESCRIPTION             | DATE       | DRAWN | CHECKED |
|------|-------------------------|------------|-------|---------|
|      | ISSUED FOR: PRELIMINARY | 10-25-2018 | RFS   | JRP     |
|      |                         |            |       |         |

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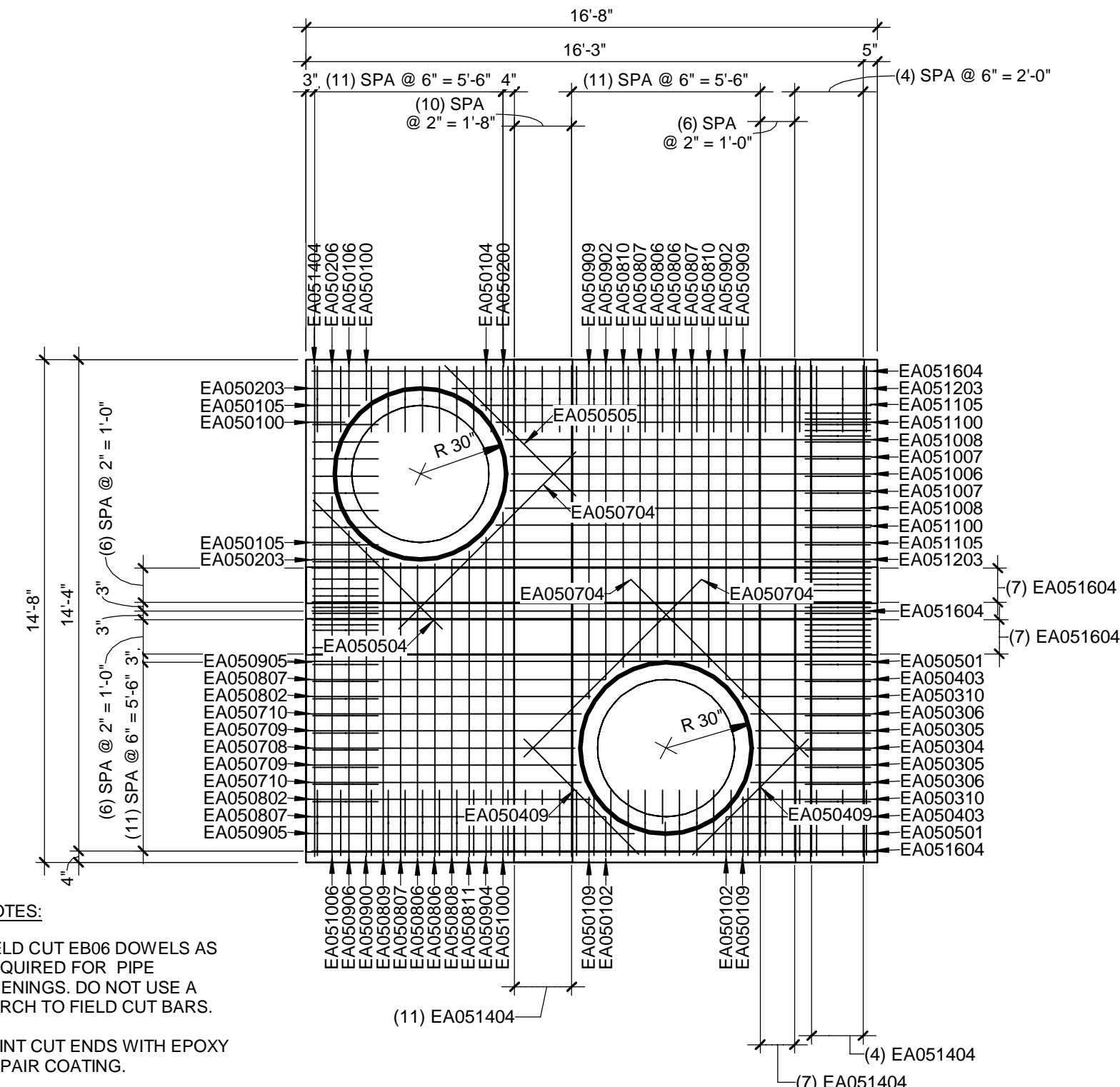


**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**  
**SOUTHSIDE INTERCEPTOR SANITARY**  
**DIVERSION PROJECT**  
**(GLEN / FULLER INTERSECTION)**

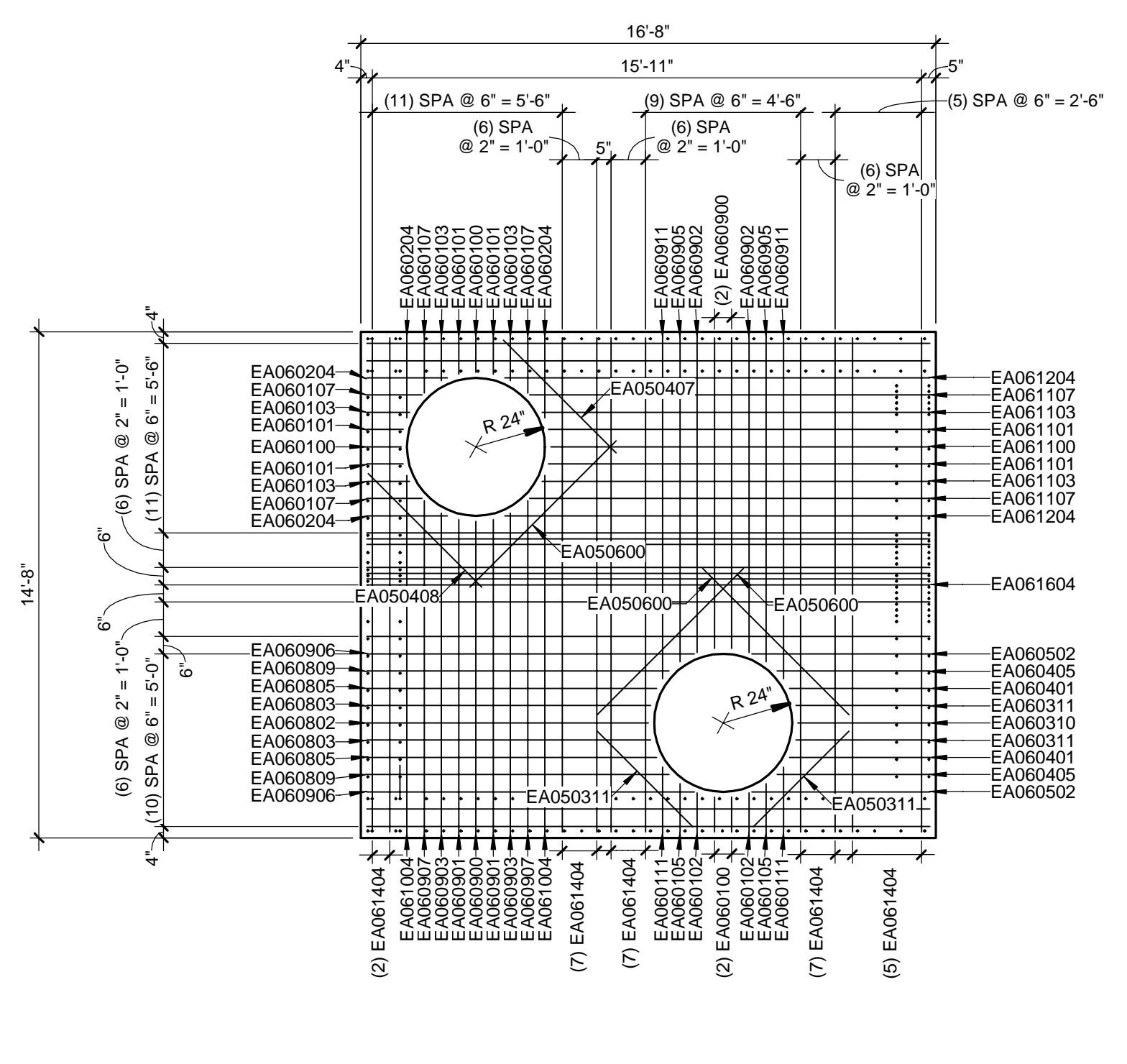
SCALE  
DRAWING No.  
2014 - 027

| TOP SLAB TOP BARS |            |        |                |
|-------------------|------------|--------|----------------|
| BAR               | QUANTITY   | A      | WEIGHT         |
| EA051604          | 17         | 16'-4" | 290 lb         |
| EA051404          | 23         | 14'-4" | 344 lb         |
| EA051203          | 2          | 12'-3" | 26 lb          |
| EA051105          | 2          | 11'-5" | 24 lb          |
| EA051100          | 2          | 11'-0" | 23 lb          |
| EA051008          | 2          | 10'-8" | 22 lb          |
| EA051007          | 2          | 10'-7" | 22 lb          |
| EA051006          | 2          | 10'-6" | 22 lb          |
| EA051000          | 1          | 10'-0" | 10 lb          |
| EA050909          | 2          | 9'-9"  | 20 lb          |
| EA050906          | 1          | 9'-6"  | 10 lb          |
| EA050905          | 2          | 9'-5"  | 20 lb          |
| EA050904          | 1          | 9'-4"  | 10 lb          |
| EA050902          | 2          | 9'-2"  | 19 lb          |
| EA050900          | 1          | 9'-0"  | 9 lb           |
| EA050811          | 1          | 8'-11" | 9 lb           |
| EA050810          | 2          | 8'-10" | 18 lb          |
| EA050809          | 1          | 8'-9"  | 9 lb           |
| EA050808          | 1          | 8'-8"  | 9 lb           |
| EA050807          | 5          | 8'-7"  | 45 lb          |
| EA050806          | 4          | 8'-6"  | 36 lb          |
| EA050802          | 2          | 8'-2"  | 17 lb          |
| EA050710          | 2          | 7'-10" | 16 lb          |
| EA050709          | 2          | 7'-9"  | 16 lb          |
| EA050708          | 1          | 7'-8"  | 8 lb           |
| EA050704          | 3          | 7'-4"  | 23 lb          |
| EA050505          | 1          | 5'-5"  | 6 lb           |
| EA050504          | 1          | 5'-4"  | 6 lb           |
| EA050501          | 2          | 5'-1"  | 11 lb          |
| EA050409          | 2          | 4'-9"  | 10 lb          |
| EA050403          | 2          | 4'-3"  | 9 lb           |
| EA050310          | 2          | 3'-10" | 8 lb           |
| EA050306          | 2          | 3'-6"  | 7 lb           |
| EA050305          | 2          | 3'-5"  | 7 lb           |
| EA050304          | 1          | 3'-4"  | 3 lb           |
| EA050206          | 1          | 2'-6"  | 3 lb           |
| EA050203          | 2          | 2'-3"  | 5 lb           |
| EA050200          | 1          | 2'-0"  | 2 lb           |
| EA050109          | 2          | 1'-9"  | 4 lb           |
| EA050106          | 1          | 1'-6"  | 2 lb           |
| EA050105          | 2          | 1'-5"  | 3 lb           |
| EA050104          | 1          | 1'-4"  | 1 lb           |
| EA050102          | 2          | 1'-2"  | 2 lb           |
| EA050100          | 2          | 1'-0"  | 2 lb           |
| <b>TOTAL</b>      | <b>115</b> |        | <b>1166 lb</b> |

| TOP SLAB BOTTOM BARS |            |        |                |
|----------------------|------------|--------|----------------|
| BAR                  | QUANTITY   | A      | WEIGHT         |
| EA061604             | 33         | 16'-4" | 810 lb         |
| EA061404             | 28         | 14'-4" | 603 lb         |
| EA061204             | 2          | 12'-4" | 37 lb          |
| EA061107             | 2          | 11'-7" | 35 lb          |
| EA061103             | 2          | 11'-3" | 34 lb          |
| EA061101             | 2          | 11'-1" | 33 lb          |
| EA061100             | 1          | 11'-0" | 17 lb          |
| EA061004             | 2          | 10'-4" | 31 lb          |
| EA060911             | 2          | 9'-11" | 30 lb          |
| EA060907             | 2          | 9'-7"  | 29 lb          |
| EA060906             | 2          | 9'-6"  | 29 lb          |
| EA060905             | 2          | 9'-5"  | 28 lb          |
| EA060903             | 2          | 9'-3"  | 28 lb          |
| EA060902             | 2          | 9'-2"  | 27 lb          |
| EA060901             | 2          | 9'-1"  | 27 lb          |
| EA060900             | 3          | 9'-0"  | 41 lb          |
| EA060809             | 2          | 8'-9"  | 26 lb          |
| EA060805             | 2          | 8'-5"  | 25 lb          |
| EA060803             | 2          | 8'-3"  | 25 lb          |
| EA060802             | 1          | 8'-2"  | 12 lb          |
| EA060502             | 2          | 5'-2"  | 16 lb          |
| EA060405             | 2          | 4'-5"  | 13 lb          |
| EA060401             | 2          | 4'-1"  | 12 lb          |
| EA060311             | 2          | 3'-11" | 12 lb          |
| EA060310             | 1          | 3'-10" | 6 lb           |
| EA060204             | 4          | 2'-4"  | 14 lb          |
| EA060111             | 2          | 1'-11" | 6 lb           |
| EA060107             | 4          | 1'-7"  | 10 lb          |
| EA060105             | 2          | 1'-5"  | 4 lb           |
| EA060103             | 4          | 1'-3"  | 7 lb           |
| EA060102             | 2          | 1'-2"  | 3 lb           |
| EA060101             | 4          | 1'-1"  | 6 lb           |
| EA060100             | 4          | 1'-0"  | 6 lb           |
| EA050600             | 3          | 6'-0"  | 19 lb          |
| EA050408             | 1          | 4'-8"  | 5 lb           |
| EA050407             | 1          | 4'-7"  | 5 lb           |
| EA050311             | 2          | 3'-11" | 8 lb           |
| <b>TOTAL: 87</b>     | <b>138</b> |        | <b>2078 lb</b> |



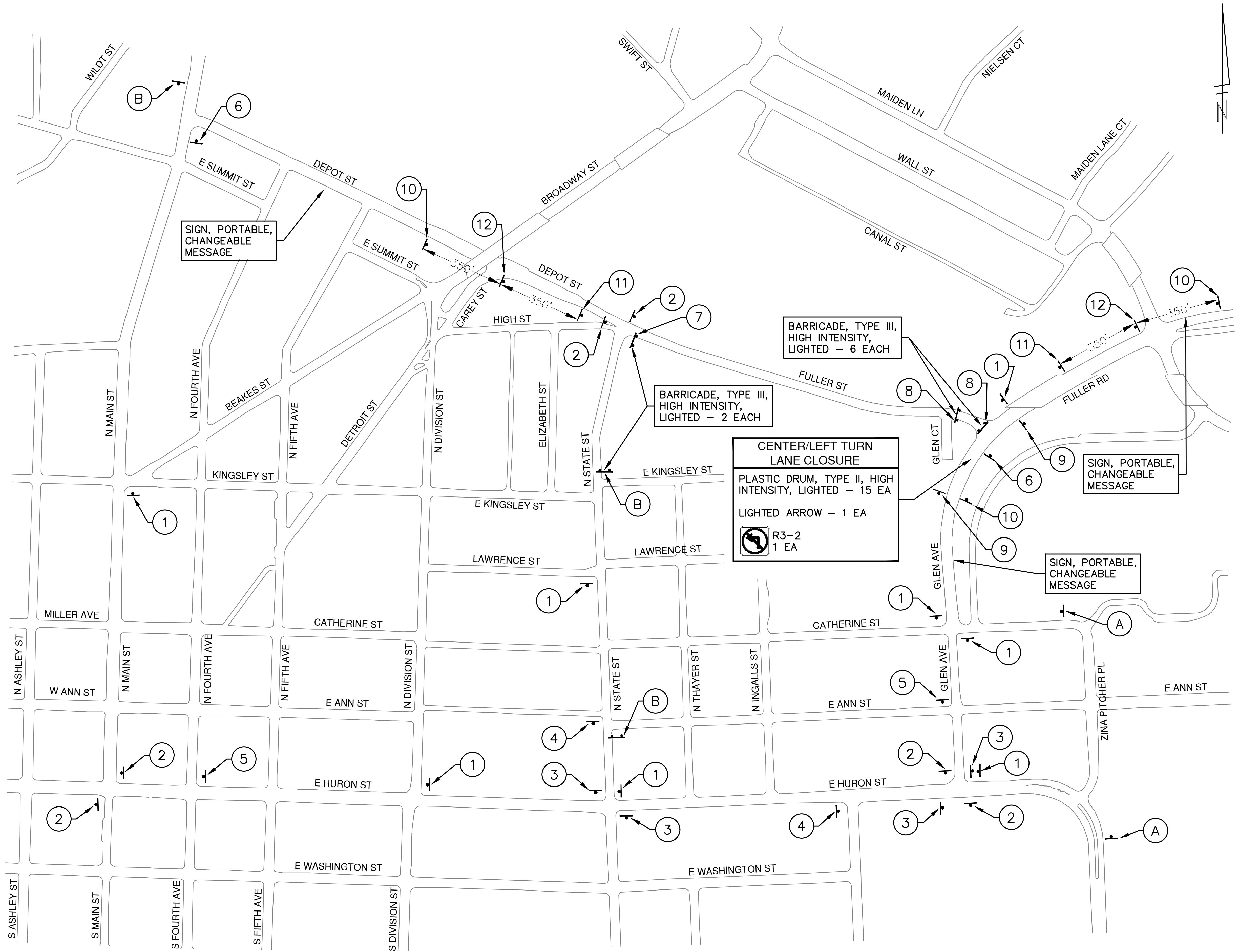
**TOP SLAB - TOP BARS**  
SCALE: 1/4" = 1'-0"  
NORTH



**TOP SLAB - BOTTOM BARS**  
SCALE: 1/4" = 1'-0"  
NORTH

R:\2014027 Fuller Glen\Plan Production\Primary\2014027DR.dwg Dwg Created: 24-Jan-19 - \_a2 standard b.w.stb - Plot Date: 28-Jan-19

| TRAFFIC CONTROL SIGN |  |          |
|----------------------|--|----------|
| SIGN                 | NUMBER   | QUANTITY |
|                      | D3-1   | 7        |
|                      | M4-9S 30"x24"  | 7        |
|                      | D3-1   | 6        |
|                      | M4-9R 30"x24"  | 6        |
|                      | D3-1   | 4        |
|                      | M4-9L 30"x24"  | 4        |
|                      | D3-1   | 2        |
|                      | M4-9SL 30"x24"   | 2        |
|                      | D3-1   | 2        |
|                      | M4-9SR 30"x24"   | 2        |
|                      | D3-1   | 2        |
|                      | M4-8A 24"x18"  | 2        |
|                      | R11-4 60"x30"  | 1        |
|                      | R11-2 48"x30"  | 2        |
|                      | G20-2 48"x24"  | 2        |
|                      | D3-1   | 3        |
|                      | W20-1 48"x48"  | 3        |
|                      | W20-2 48"x48"  | 2        |
|                      | D3-1   | 2        |
|                      | W20-3 48"x48"  | 2        |
|                      | SPECIAL 60x30  | 2        |
|                      | SPECIAL 60x30  | 3        |
|                      | R3-2 24x24   | 1        |
|                      | BARRICADE, TYPE III, HIGH INTENSITY, LIGHTED - 8 EA                |          |
|                      | PLASTIC DRUM, TYPE II, HIGH INTENSITY, LIGHTED - 15 EA             |          |
|                      | LIGHTED ARROW - 1 EA   |          |
|                      | SIGN, PORTABLE, CHANGEABLE MESSAGE - 3 EA                          |          |
|                      | VERIFY EXACT QUANTITY AND LOCATION WITH ENGINEER PRIOR TO ORDERING |          |



Know what's below. Call before you dig.

| REV. | DATE     | DRAWN | CHECKED | DESCRIPTION    |
|------|----------|-------|---------|----------------|
| 00   | 10-23-18 | DPF   | MGN     | ORIGINAL ISSUE |

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**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**  
**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT**  
**DETOUR PLAN**

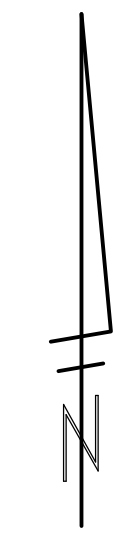
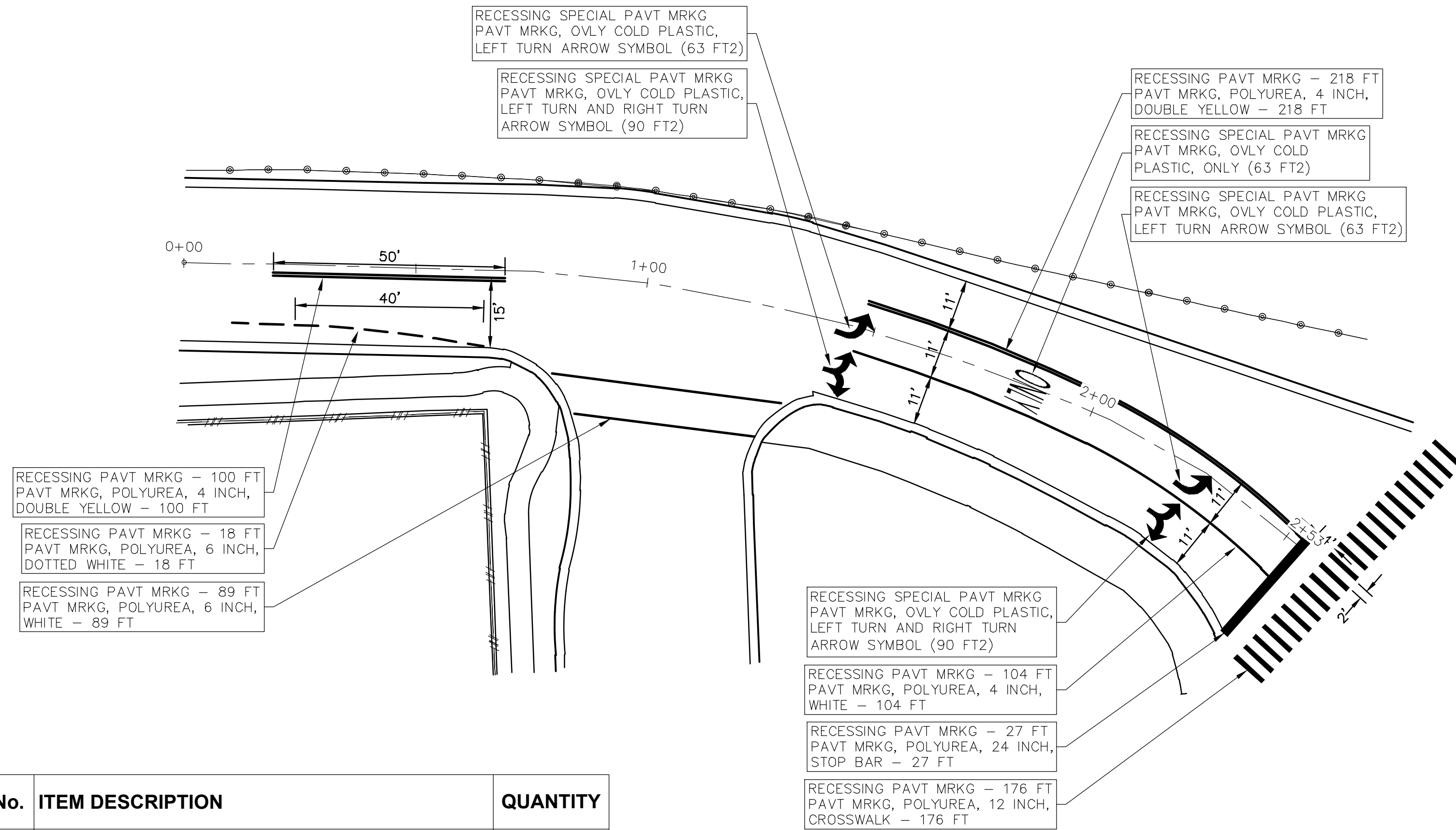
SCALE PLAN: 1" = 200'

DRAWING No. 2014-027-11

SHEET No. 11 OF 17

R:\2014027\_Fuller\_Glen\_Plan\_Production\Primary\2014027PMK.dwg Dwg Created: 16-Jan-19 --\_a2\_standard\_bw.stb -- Plot Date: 28-Jan-19

| ITEM No. | ITEM DESCRIPTION  | QUANTITY |
|----------|---|----------|
| 8110063  | Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym           | 2 EA     |
| 8110068  | Pavt Mrkg, Ovly Cold Plastic, Only                        | 1 EA     |
| 8110070  | Pavt Mrkg, Ovly Cold Plastic, Right and Lt Turn Arrow Sym | 2 EA     |
| 8110091  | Pavt Mrkg, Polyurea, 4 inch, White                        | 104 LF   |
| 8110092  | Pavt Mrkg, Polyurea, 4 inch, Yellow                       | 318 LF   |
| 8110093  | Pavt Mrkg, Polyurea, 6 inch, Crosswalk                    | 89 LF    |
| 8110094  | Pavt Mrkg, Polyurea, 6 inch, White                        | 18 LF    |
| 8110110  | Pavt Mrkg, Polyurea, 12 inch, Crosswalk                   | 176 LF   |
| 8110114  | Pavt Mrkg, Polyurea, 24 inch, Stop Bar                    | 27 LF    |
| 8110450  | Recessing Pavement Markings, Longit                       | 529 LF   |
| 8110451  | Recessing Pavement Markings, Transv                       | 599 LF   |



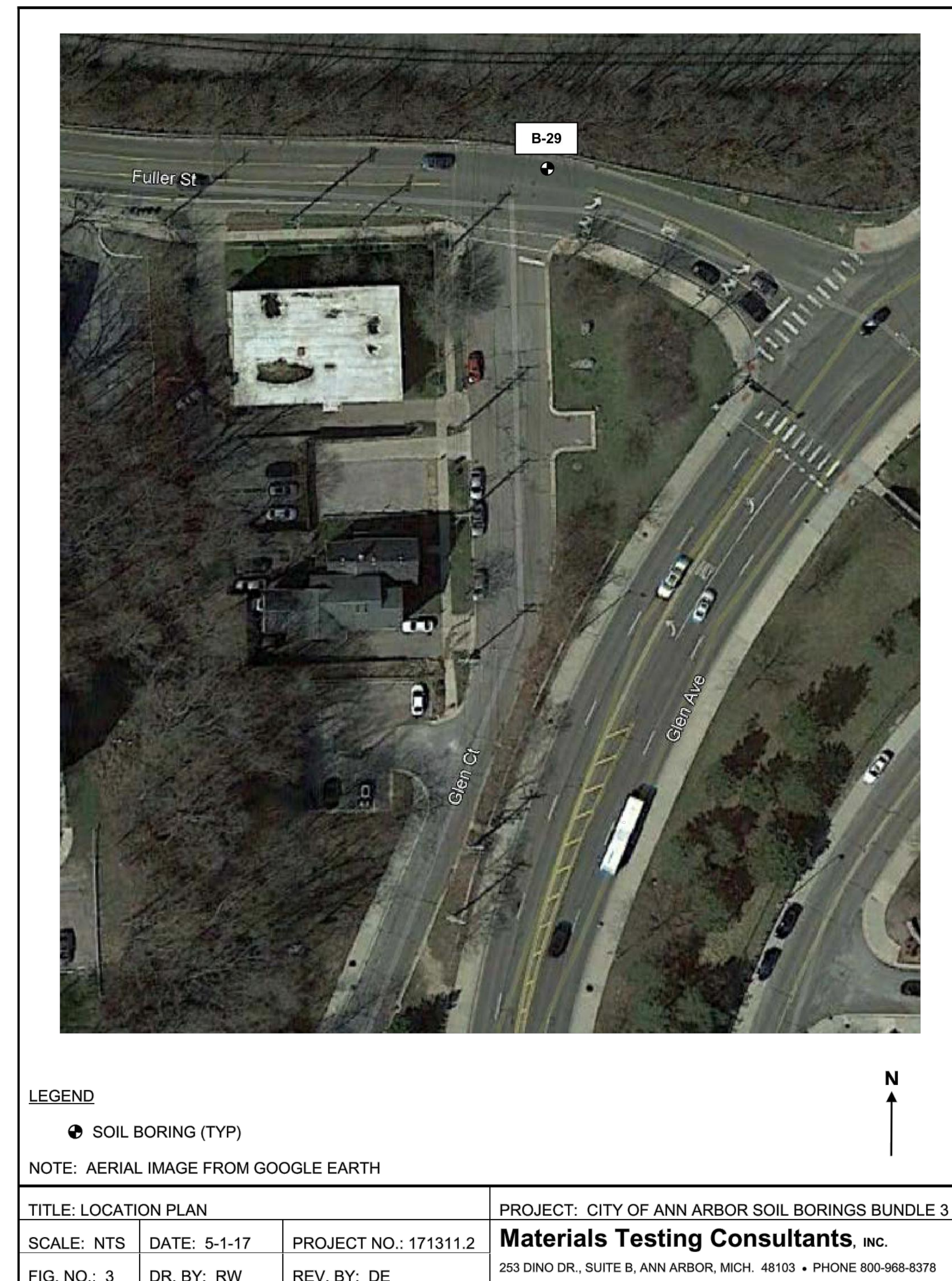
| REV. | DATE     | DESCRIPTION | DRAWN | CHECKED |
|------|----------|-------------|-------|---------|
| 00   | 10-23-18 |             | DPF   | MGN     |



R:\2014027 Fuller\_Glen\_Plan\_Production\Primary\20140275B.dwg Dwg\_Created: 16-Jan-19 --\_a2\_standard\_bw.stb -- Plot Date: 28-Jun-19

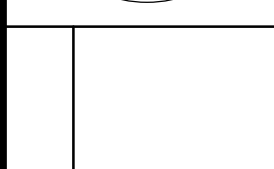
| MTC<br>Materials Testing Consultants  |           | LOG OF BORING  |            | Project No.: 171311.2                       |                    |   |        |       |        |  |
|---|-----------|--|------------|---|--------------------|---|--------|-------|--------|--|
| Project: City of Ann Arbor Street Borings Bundle No. 3  |           | Date Begin: 04/20/18   |            | Date End: 04/20/18                          |                    |   |        |       |        |  |
| Client: City of Ann Arbor, MI   |           | Tooling  |            | Groundwater, ft.                            |                    |   |        |       |        |  |
| Location: Ann Arbor, MI   |           | Casing HSA 3 1/4"  |            | During 25.0                                 |                    |   |        |       |        |  |
| Drill Type: CME 45  |           | Sampler SPT 2"   |            | End NA                                      |                    |   |        |       |        |  |
| Crew Chief: ZM Field Eng.: KD Rev. By: RW   |           | Core   |            | Seepage                                     |                    |   |        |       |        |  |
| Coordinates:  |           | Tube   |            | Date  |                    |   |        |       |        |  |
| Elevation: Datum:   |           | SPT Hammer Auto  |            | Depth, ft.                                  |                    |   |        |       |        |  |
| Notes: Located 170'E of 1028 Fuller Street Driveway Centerline, 5'S of Fuller St. North Curb                        |           | Depth Drilled: 35.0 ft.  |            |   |                    |   |        |       |        |  |
| Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 10.4 ft. |           | Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% |            | QP = Calibrated Penetrometer (tons/sq. ft.) |                    |   |        |       |        |  |
| Elev. FT.   | Depth FT. | Sample Number  | Recov. FT. | Penetration (Blows Per 6") ASTM D 1586      | *USCS Group Symbol | *DESCRIPTION  | QP tsf | MST % | DD pcf | REMARKS  |
| 1   |           |  |            |   |                    | 7" HMA, 12" Natural Aggregate Base  |        |       |        | Fill: 0' to 23'  |
| 2   |           | S-1  | 1.0        | 7-17-15<br>N=32                             |                    | Brown clayey SAND with gravel; mostly coarse to fine sand, little clayey fines, little coarse to fine gravel, moist, fill | 1.5    |       |        | S-1 to S-6, S-8 and S-9:<br>Poor recovery, possible coarse gravel/COBBLE<br>Driller noted COBBLE at 2.0' |
| 3   |           |  |            |   |                    |   |        |       |        |  |
| 4   |           | S-2  | 0.8        | 5-8-9<br>N=17                               | SC                 |   | 14     |       |        |  |
| 5   |           |  |            |   |                    | Brown poorly graded SAND with silt; mostly medium to fine sand, few silty fines, few fine gravel, moist, fill             |        |       |        | Driller noted COBBLE at 23.0'  |
| 6   |           |  |            |   |                    |   |        |       |        |  |
| 7   |           | S-3  | 1.2        | 6-3-4<br>N=7                                |                    |   | 11     |       |        |  |
| 8   |           |  |            |   |                    | Brown poorly graded GRAVEL; mostly fine gravel, few coarse to medium sand, trace silty fines, moist, fill                 | 8.0    |       |        | Augers charged with water at 30.0'   |
| 9   |           |  |            |   |                    |   |        |       |        |  |
| 10  |           | S-4  | 0.9        | 4-3-2<br>N=5                                | SP-SM              |   |        |       |        |  |
| 11  |           |  |            |   |                    | Brown silty SAND; mostly fine sand, some silty fines, moist, fill   | 12.0   |       |        | End of Boring  |
| 12  |           |  |            |   |                    |   |        |       |        |  |
| 13  |           |  |            |   |                    |   |        |       |        |  |
| 14  |           |  |            |   |                    | Brown poorly graded SAND with silt; mostly medium to fine sand, few silty fines, wet                                      | 17.0   |       |        |  |
| 15  |           | S-5  | 1.0        | 4-5-6<br>N=11                               | SM                 |   |        |       |        |  |
| 16  |           |  |            |   |                    |   |        |       |        |  |
| 17  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 23.0   |       |        |  |
| 18  |           |  |            |   |                    |   |        |       |        |  |
| 19  |           | S-6  | 0.7        | 2-2-2<br>N=4                                | GP                 |   |        |       |        |  |
| 20  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 23.0   |       |        |  |
| 21  |           |  |            |   |                    |   |        |       |        |  |
| 22  |           |  |            |   |                    |   |        |       |        |  |
| 23  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 23.0   |       |        |  |
| 24  |           | S-7  | 1.5        | 5-5-5<br>N=10                               | SP-SM              |   |        |       |        |  |
| 25  |           |  |            |   |                    |   |        |       |        |  |
| 26  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 32.0   |       |        |  |
| 27  |           |  |            |   |                    |   |        |       |        |  |
| 28  |           |  |            |   |                    |   |        |       |        |  |
| 29  |           | S-8  | 0.8        | 9-11-12<br>N=23                             | SP-SM              |   |        |       |        |  |
| 30  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 32.0   |       |        |  |
| 31  |           |  |            |   |                    |   |        |       |        |  |
| 32  |           |  |            |   |                    |   |        |       |        |  |
| 33  |           |  |            |   |                    | Brown sandy lean CLAY; mostly clayey fines, some medium to fine sand, moist   | 32.0   |       |        |  |
| 34  |           | S-9  | 1.1        | 5-6-9<br>N=15                               | CL                 |   | 2.5    | 11    |        |  |
| 35  |           |  |            |   |                    |   |        |       |        |  |

\* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.



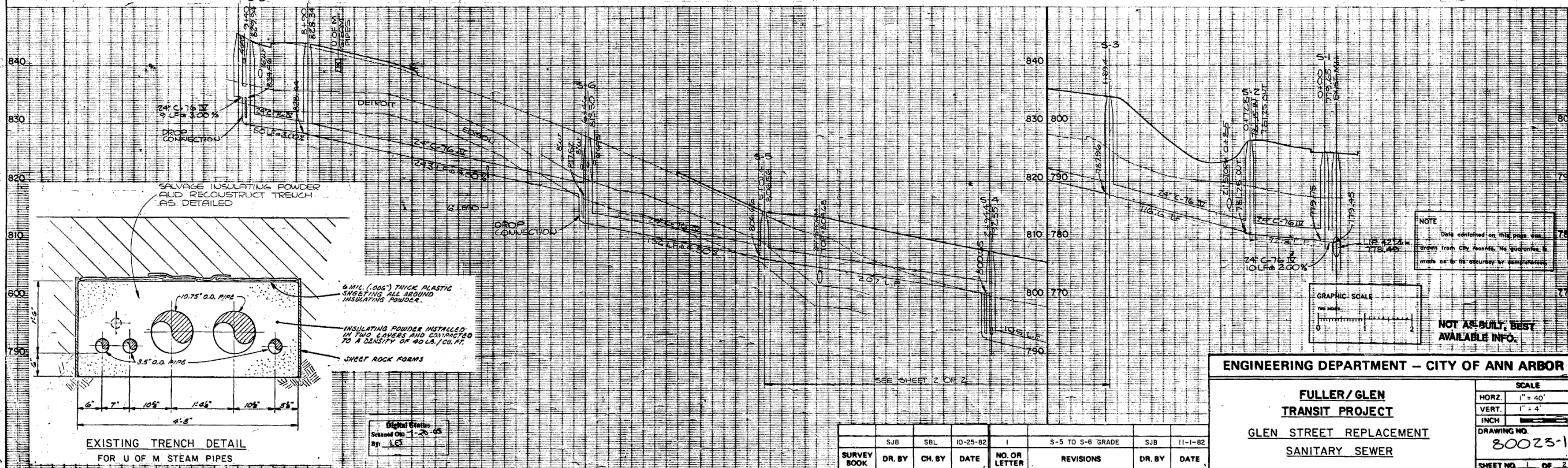
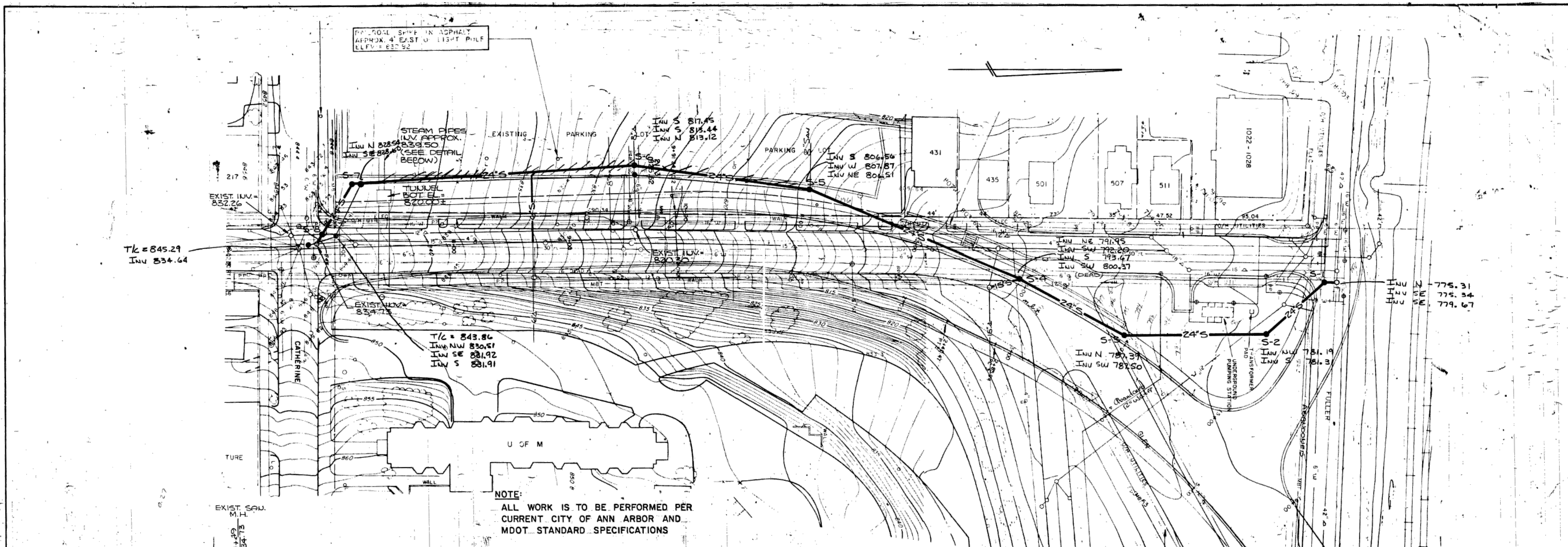
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|----------|-------------|----------|-------------|----------|-------------|
| 10-23-18 | DATE        | 10-23-18 | DATE        | 10-23-18 | DATE        |
|          | REV.        |          | REV.        |          | REV.        |
|          | DESCRIPTION |          | DESCRIPTION |          | DESCRIPTION |
|          | DRAWN       |          | DRAWN       |          | DRAWN       |
|          | CHECKED     |          | CHECKED     |          | CHECKED     |

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
SOUTHSIDE INTERCEPTOR SANITARY  
DIVERSION PROJECT  
SOIL BORINGS

FOR INFORMATION - TO BE USED TO DEVELOP BY-PASS PUMPING PLAN



**ENGINEERING DEPARTMENT - CITY OF ANN ARBOR**

**FULLER/GLEN TRANSIT PROJECT**

**GLEN STREET REPLACEMENT SANITARY SEWER**

|                        |          |
|------------------------|----------|
| SCALE                  |          |
| HORIZ.                 | 1" = 40' |
| VERT.                  | 1" = 4'  |
| DRAWING NO. 80023-1(2) |          |
| SHEET NO. 1 OF 2       |          |

|             |        |        |          |               |                  |        |         |
|-------------|--------|--------|----------|---------------|------------------|--------|---------|
| SURVEY BOOK | DR. BY | CH. BY | DATE     | NO. OR LETTER | REVISIONS        | DR. BY | DATE    |
| SJB         | SBL    |        | 10-25-82 | I             | S-5 TO S-6 GRADE | SJB    | 11-1-82 |

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**811**  
Know what's below. Call before you dig.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING  
SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT  
GLEN AVE. - EXISTING 24" SANITARY SEWER

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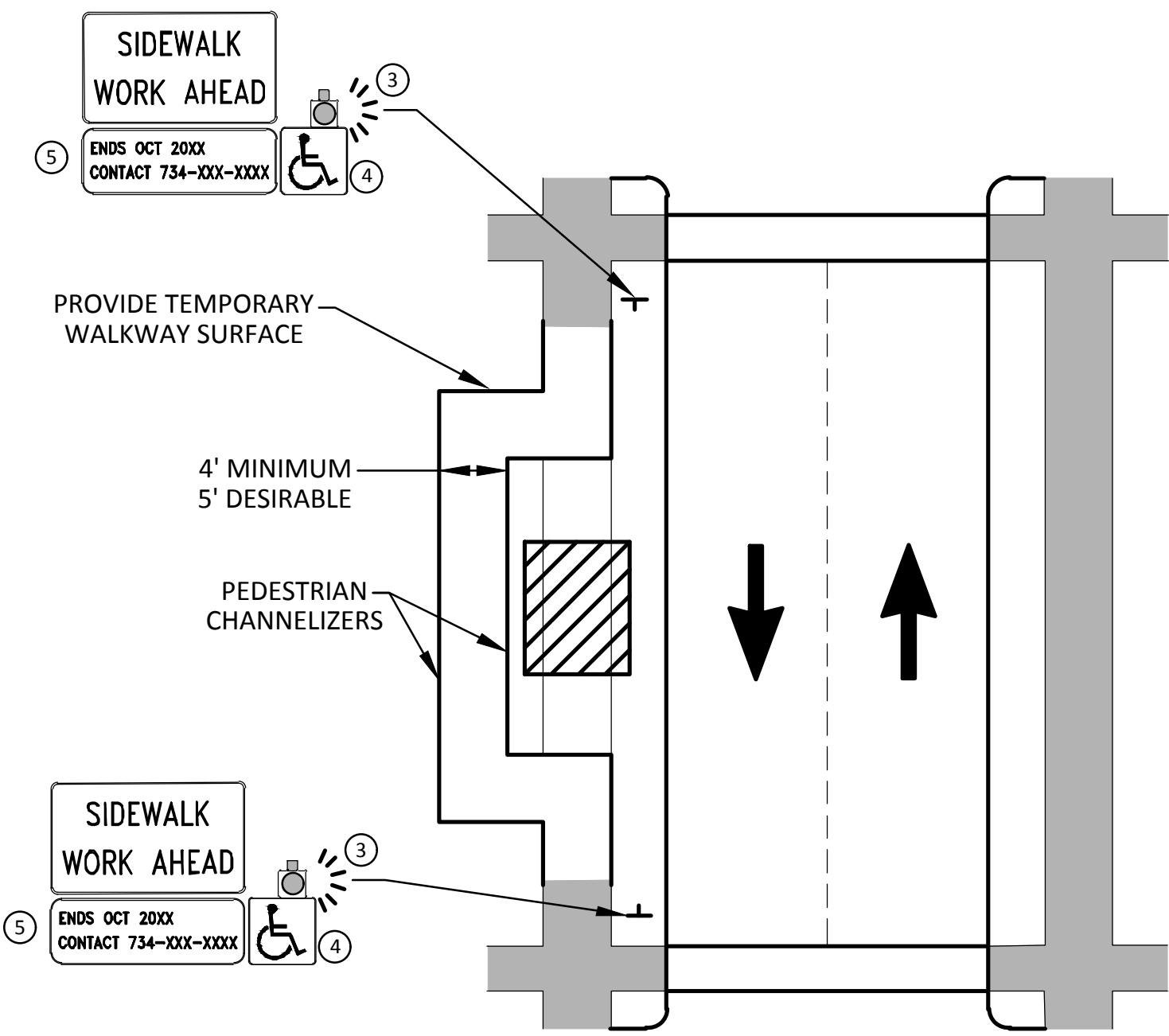
SCALE PLAN: T = 50'

DRAWING NO. 80023-1(2)  
SHEET NO. 1 OF 2

DATE: 10-23-18  
DRAWN: DPF  
CHECKED: MCN

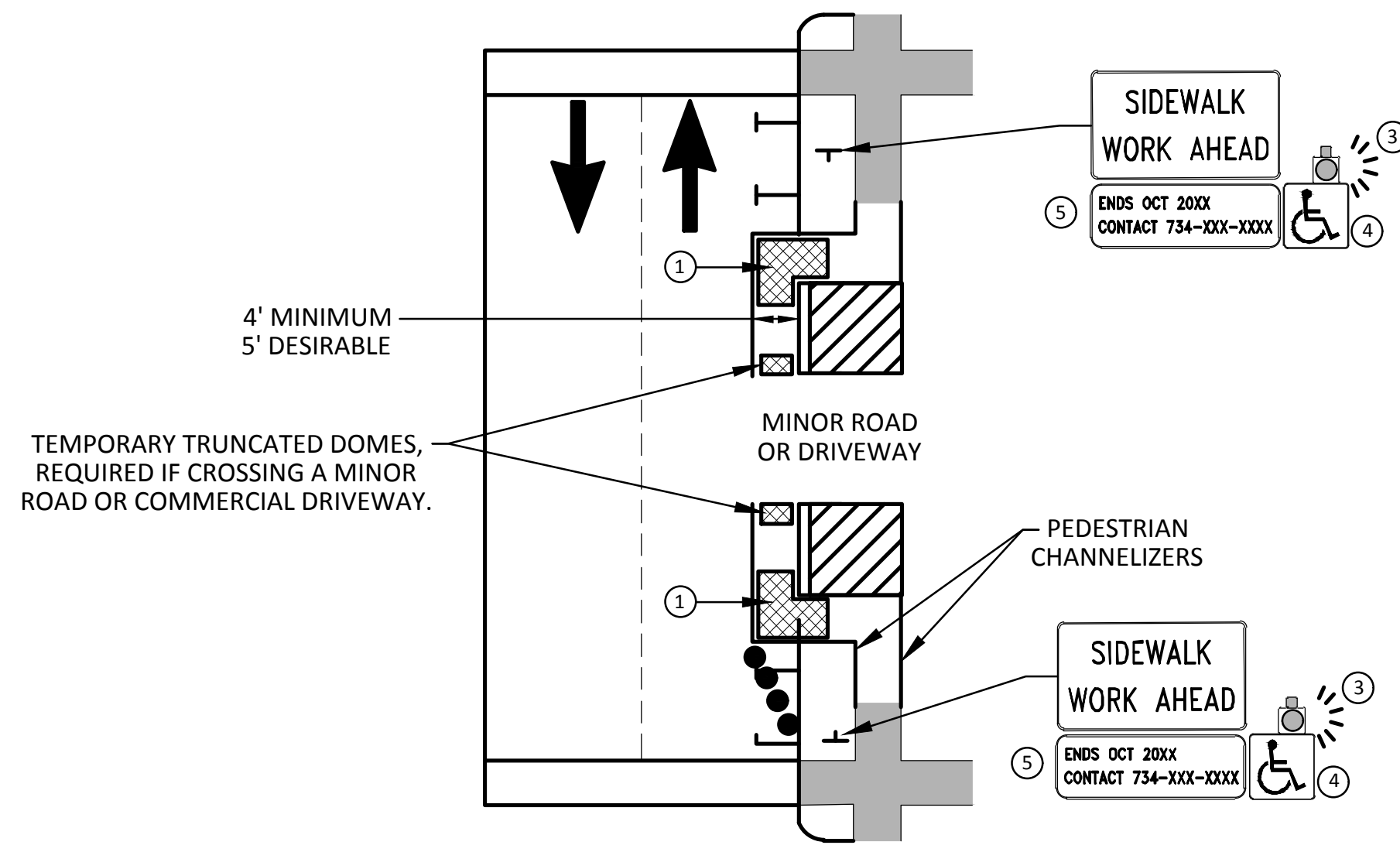
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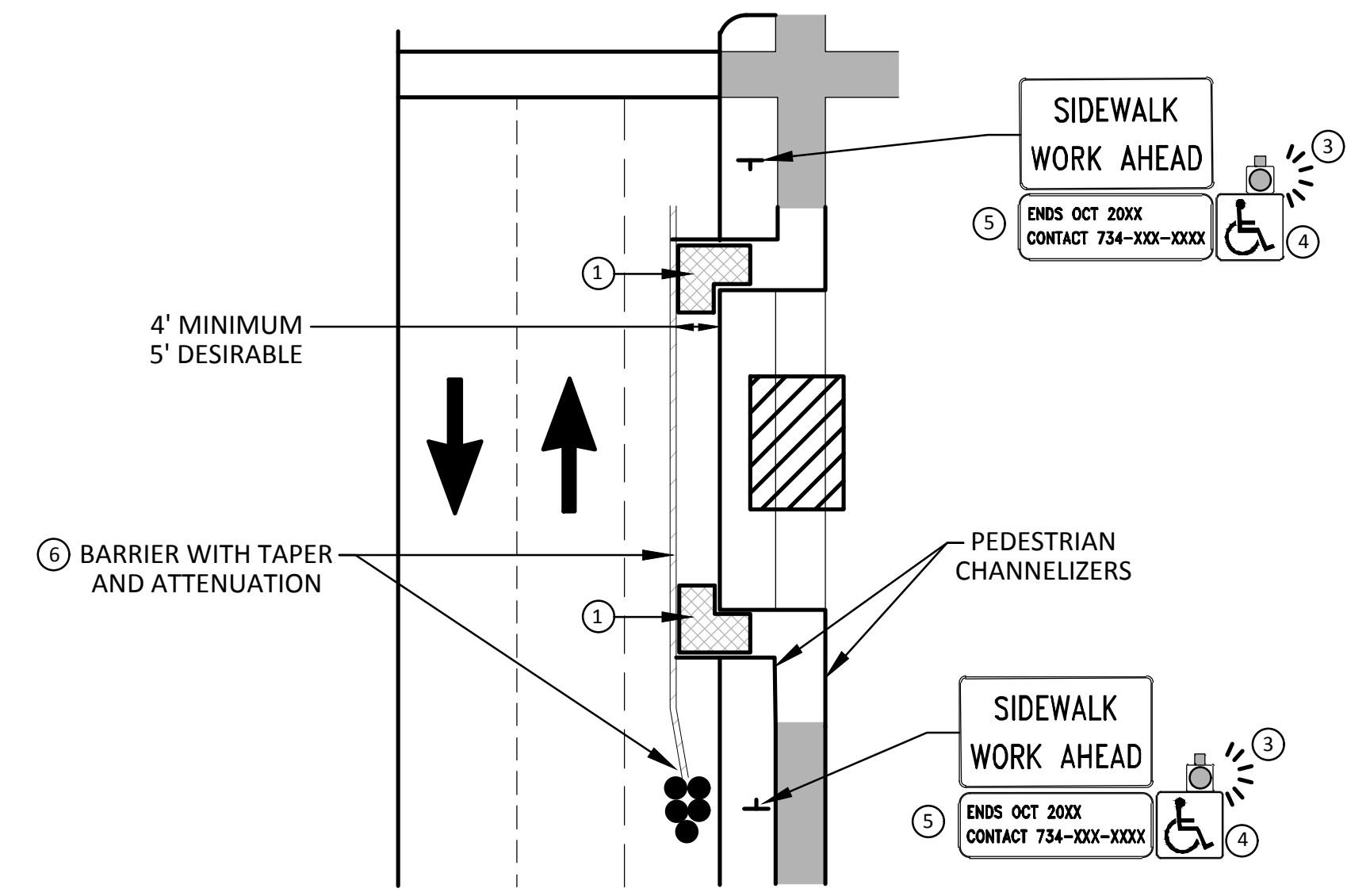


**BYPASS ON ADJACENT AVAILABLE  
RIGHT OF WAY**  
**BYPASS TYPE A**

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED  
SPEED OF 45 MPH OR LESS.



**SIDEWALK BYPASS USING PARKING OR  
SHOULDER ON LOW SPEED ROADWAY**  
**BYPASS TYPE B**



**SIDEWALK BYPASS USING  
SHOULDER OR PARKING LANE ON  
HIGH SPEED ROADWAY**  
**BYPASS TYPE C**

**GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS (NOT INCLUDING WEEKENDS & HOLIDAYS) PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A SIDEWALK CLOSURE.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

WHEN THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT OF TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF A TRAFFIC CONTROL DEVICE IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET.
3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE PROJECT PLANS.

**SPECIFIC NOTES**

- 1 TEMPORARY CURB RAMP WITH DETECTABLE WARNINGS.
- 2 5 DEVICE TAPER 25 FEET LONG, RECOMMENDED WHEN THE CLOSED AREA WAS USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 3 AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE SHOULD BE PROVIDED FOR SIGHT-IMPAIRED PEDESTRIANS.
- 4 THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE DISPLAYED WHEN ANY WALKWAY THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
- 5 TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR REPORTING HAZARDS.
- 6 SEE MMUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

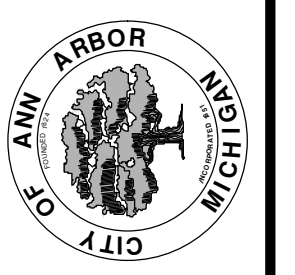
**LEGEND**

- ⊕ SIGN
- ▨ EXISTING PEDESTRIAN SURFACE
- ▩ WORK AREA
- ▤ PEDESTRIAN CHANNELIZATION DEVICE
- BARRIER
- ⌈⌋ SIDEWALK BARRICADE
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE



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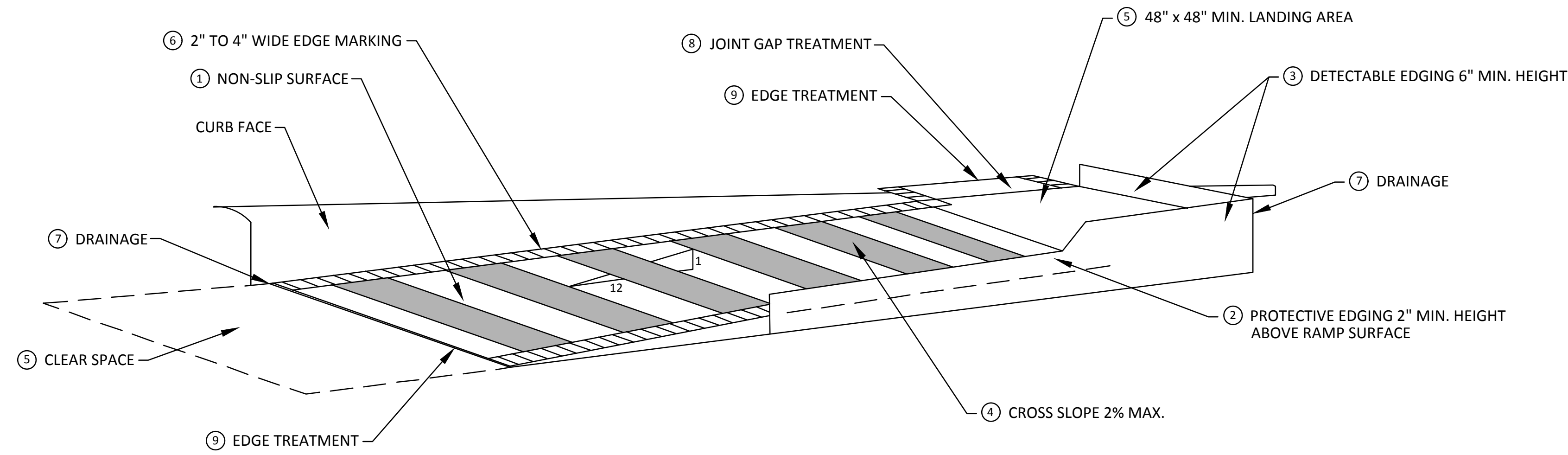
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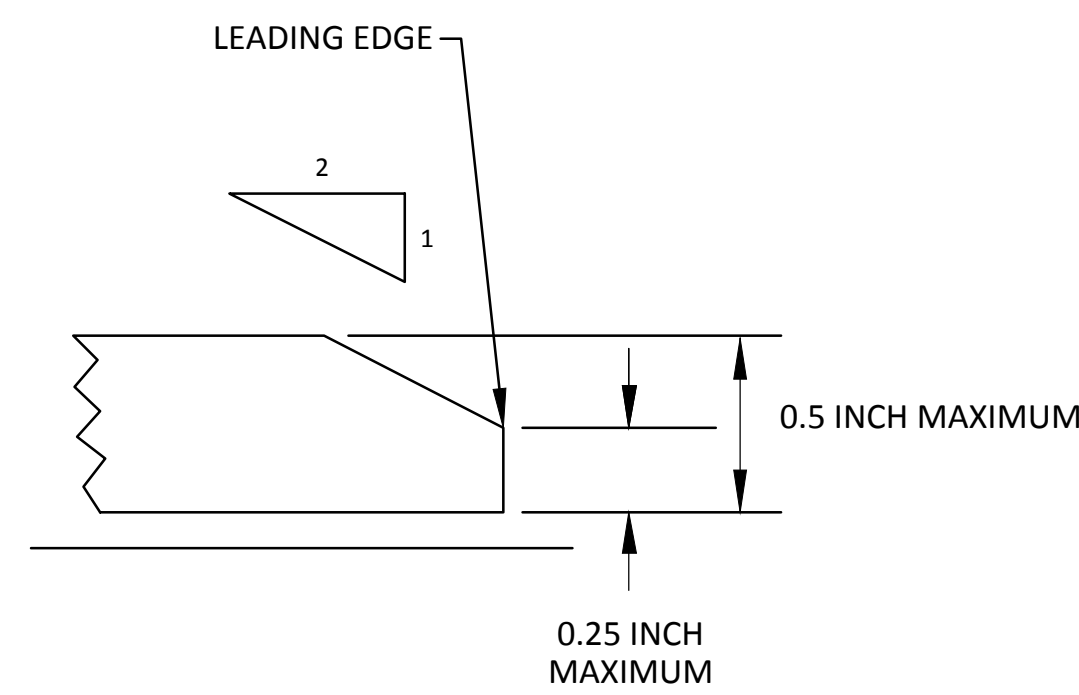
**PROJECT MANAGEMENT - CITY OF ANN ARBOR**  
**SOUTHSIDE INTERCEPTOR SANITARY DIVERSION PROJECT**  
MAINTENANCE OF PEDESTRIAN TRAFFIC DETAILS

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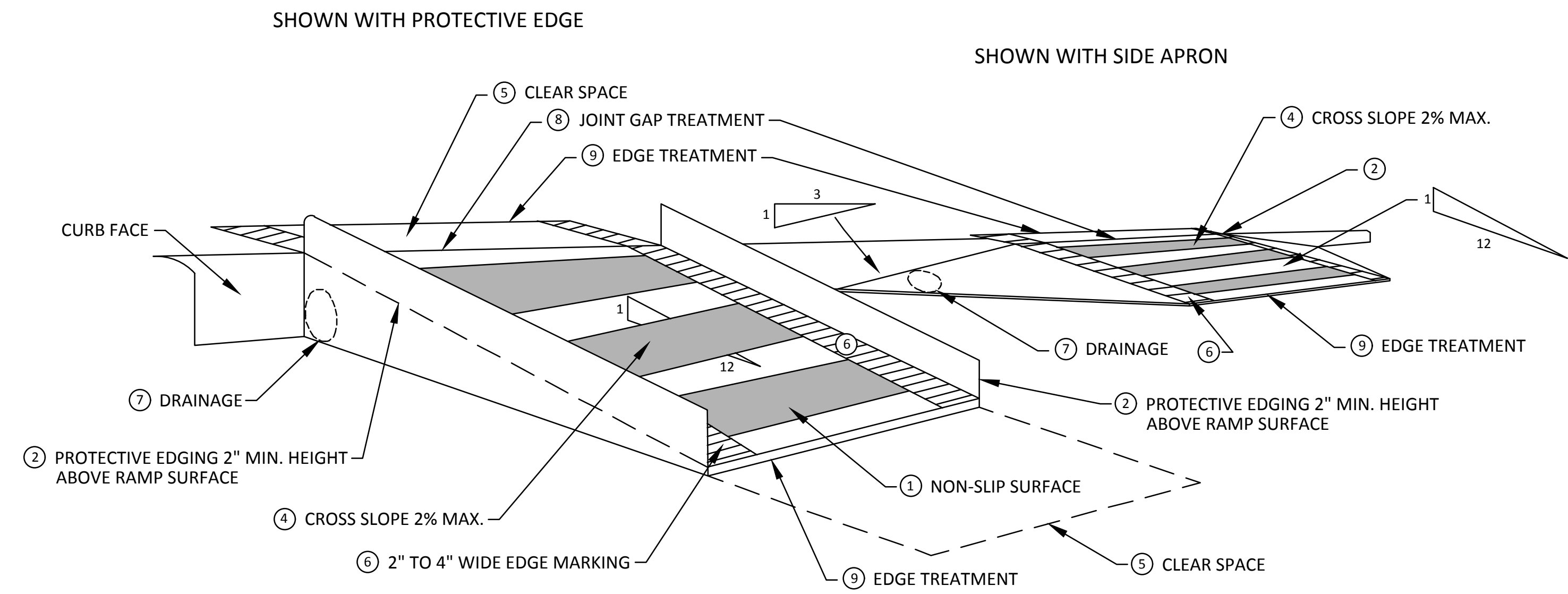
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**TEMPORARY CURB RAMP  
PARALLEL TO CURB**



**EDGE TREATMENT**



**TEMPORARY CURB RAMP  
PERPENDICULAR TO CURB**

**SPECIFIC NOTES**

- 1 CURB RAMP EDGING SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 4 CURB RAMP AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.
- 5 CLEAR SPACE OF 48" x 48" MIN. 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" WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
- 7 WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPEDED.
- 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.



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| 00  | 10-23-16 | ORIGINAL ISSUE | DFF   | MCN     |
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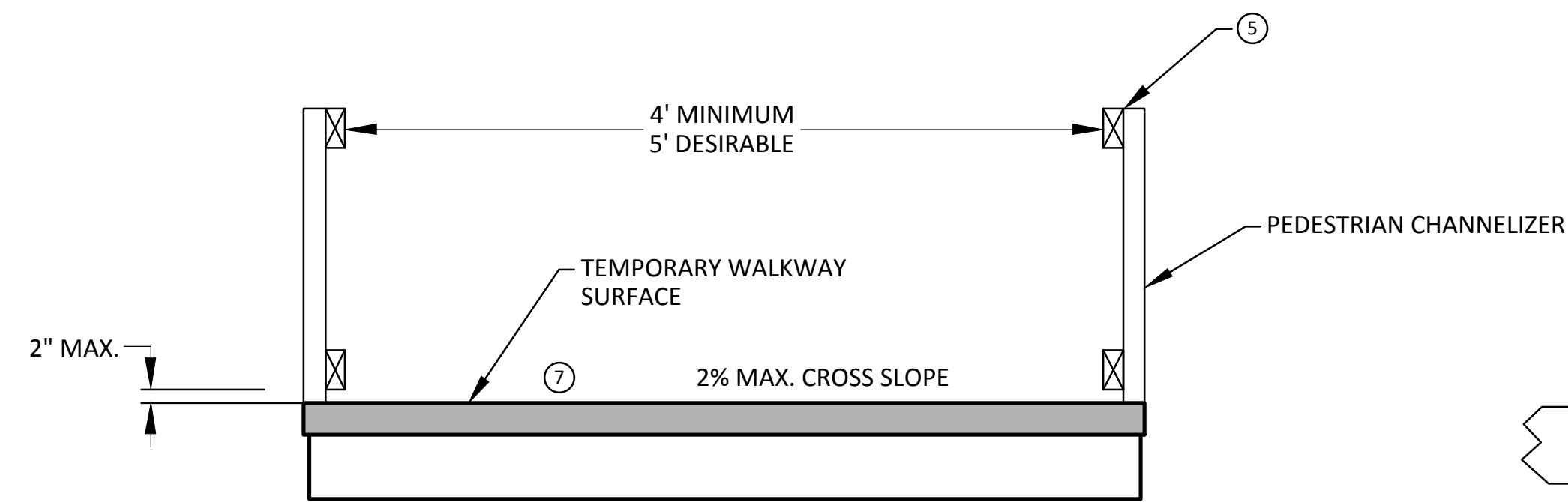


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MAINTENANCE OF PEDESTRIAN TRAFFIC DETAILS

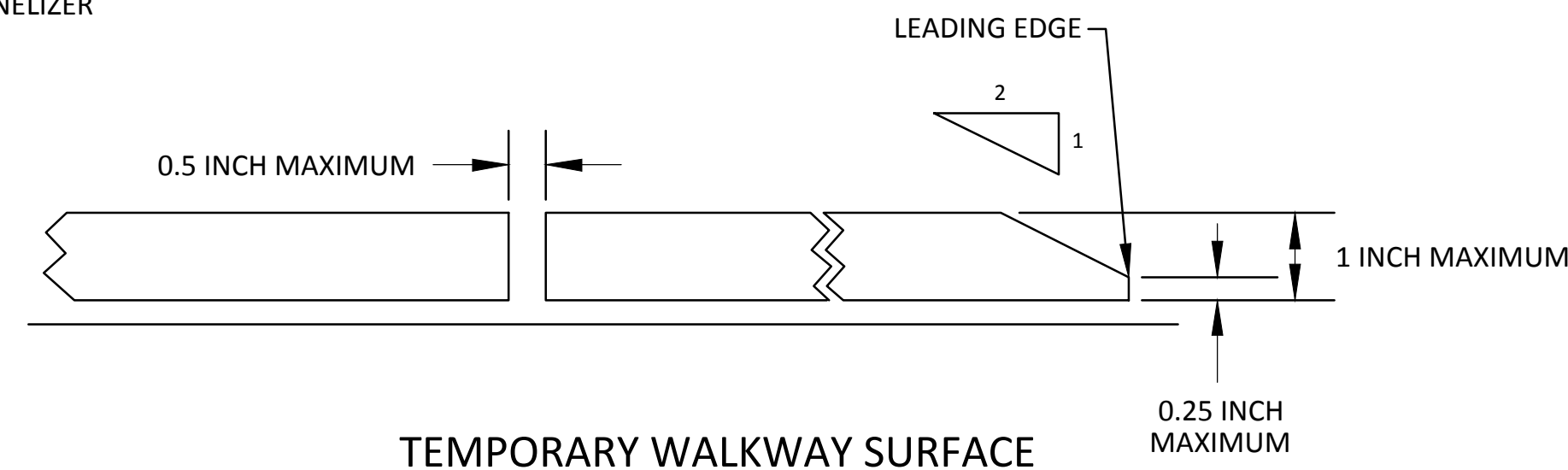
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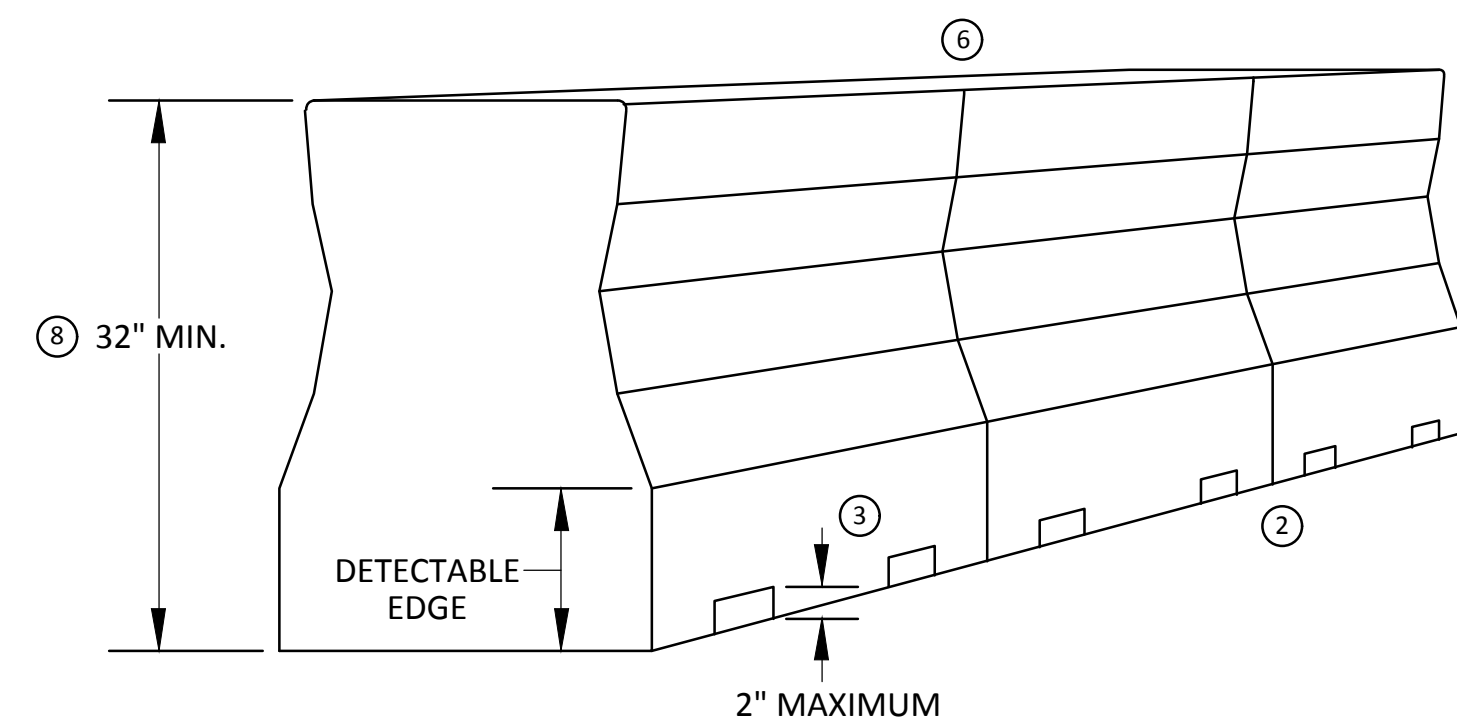
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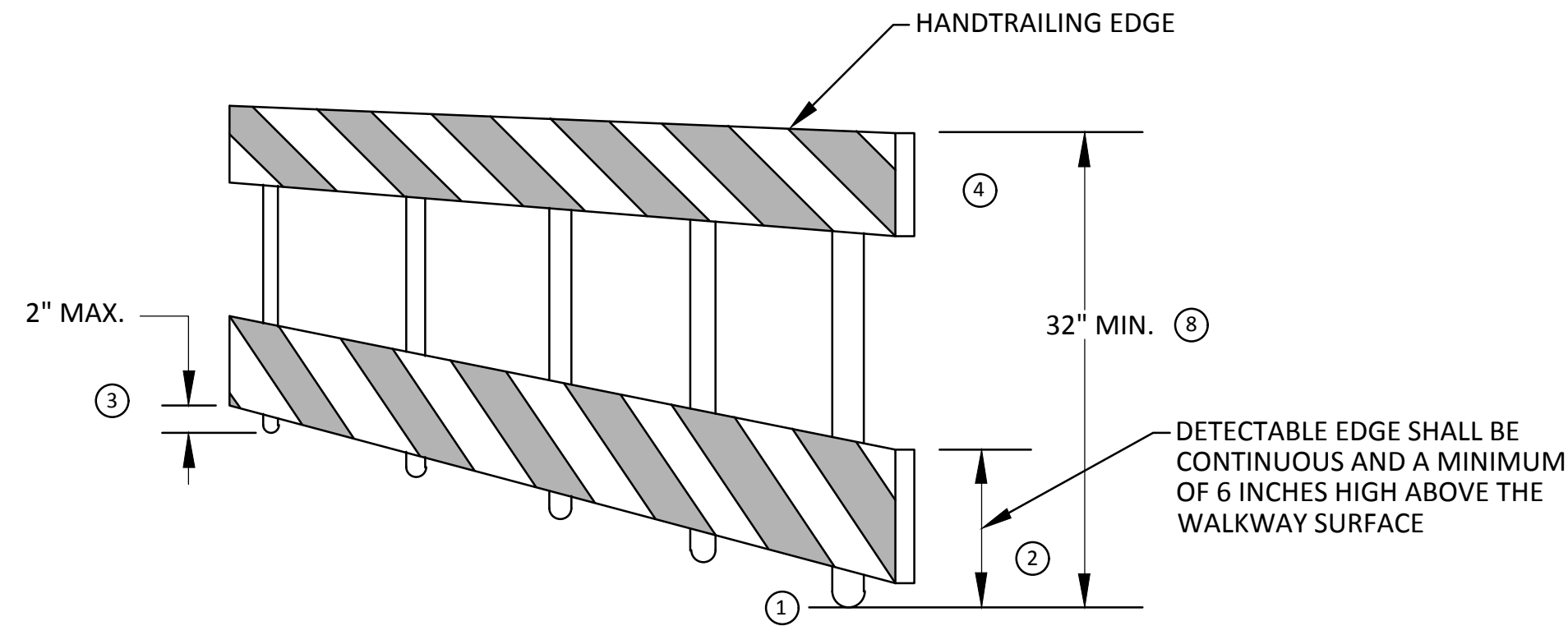
TEMPORARY PEDESTRIAN ACCESS



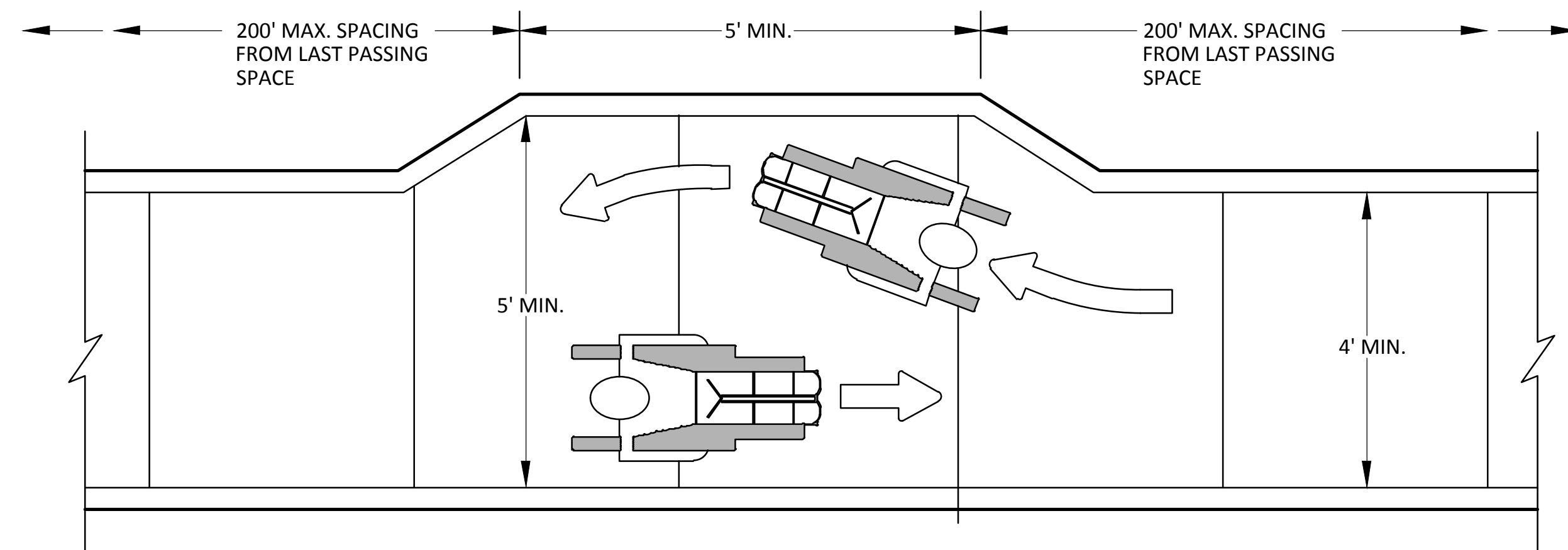
TEMPORARY WALKWAY SURFACE



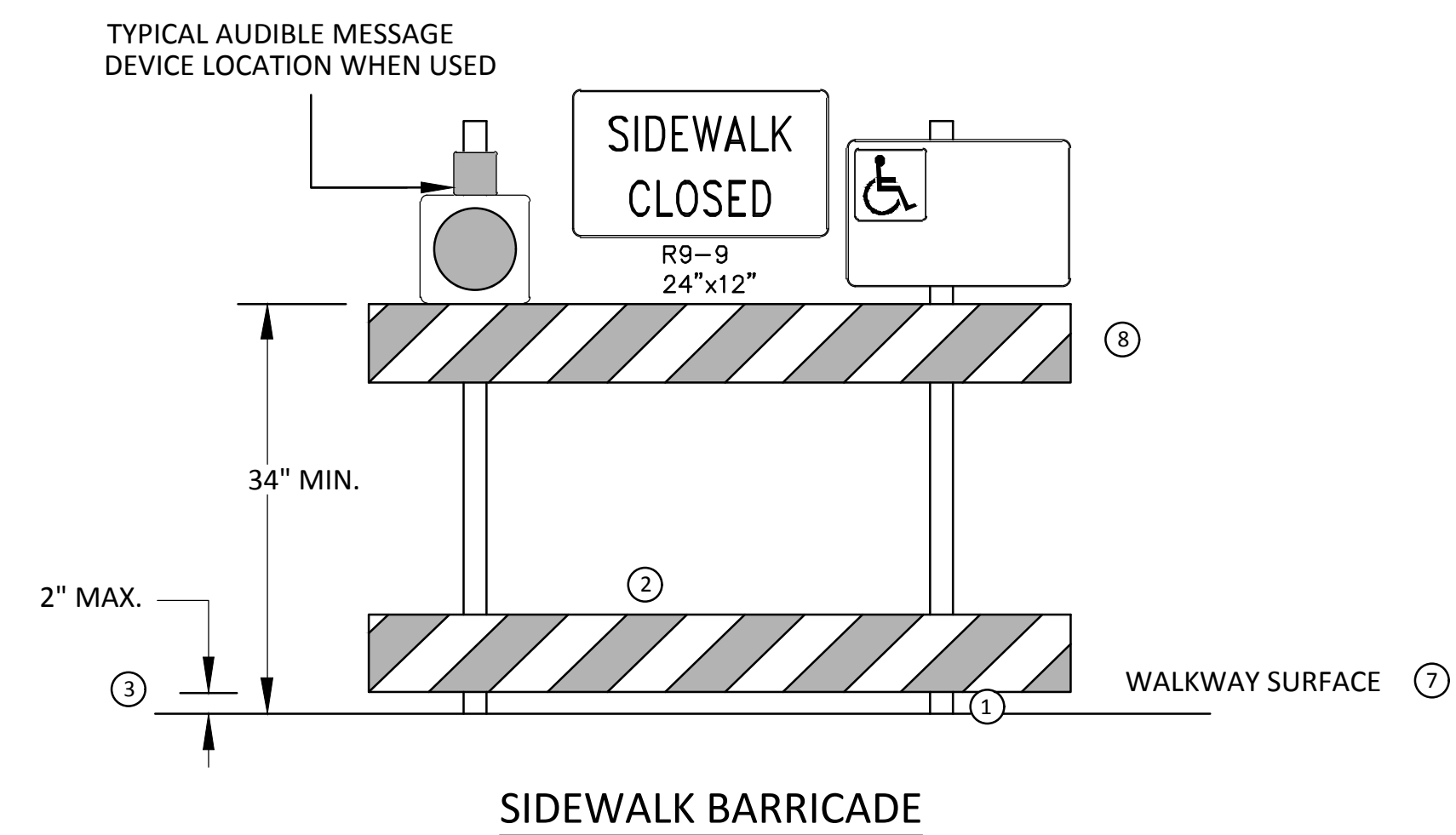
PEDESTRIAN CHANNELIZER USING A BARRIER  
(MINIMUM REQUIREMENTS)



PEDESTRIAN CHANNELIZER  
(MINIMUM REQUIREMENTS)



NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL



SIDEWALK BARRICADE

GENERAL NOTES

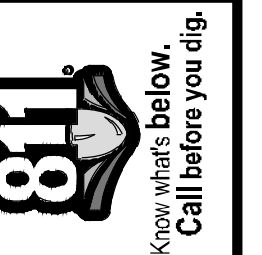
RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIER'S APPLICATION.

BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE BEING CLOSED.

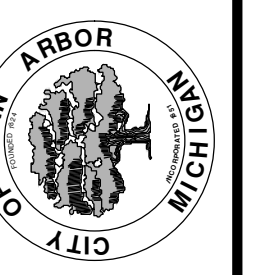
SPECIFIC NOTES

- 1 ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.
- 2 DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES IN HEIGHT ABOVE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE.
- 3 DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.
- 4 WHEN HAND GUIDANCE IS REQUIRED, THE TOP RAIL OR TOP SURFACE SHALL:
  - BE IN A VERTICAL PLANE PERPENDICULAR TO THE WALKWAY ABOVE THE DETECTABLE EDGE.
  - BE CONTINUOUS AT A HEIGHT OF 34 TO 38 INCHES ABOVE THE WALKWAY SURFACE, AND
  - BE SUPPORTED WITH MINIMAL INTERFERENCE TO THE PEDESTRIAN'S HANDS OR FINGERS.
- 5 ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.
- 6 ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.
- 7 A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.
- 8 LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.



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