

## SECTION 100 - GENERAL SURFACE IMPROVEMENTS

| DESCRIPTION  | DETAIL No. |
|--|------------|
| ROADWAY SECTION ARTERIAL HIGHWAYS                              | W-101A     |
| ROADWAY SECTION ARTERIAL HIGHWAYS (NOTES)                      | W-101B     |
| ROADWAY SECTION URBAN/SUBURBAN AREAS <.5 AC                    | W-102A     |
| ROADWAY SECTION URBAN/SUBURBAN AREAS <.5 AC (NOTES)            | W-102B     |
| ROADWAY SECTION SUBURBAN 0.5-1.5 AC                            | W-103A     |
| ROADWAY SECTION SUBURBAN 0.5-1.5 AC (NOTES)                    | W-103B     |
| ROADWAY SECTION RURAL/SUBURBAN AREA >1.5 AC                    | W-104A     |
| ROADWAY SECTION RURAL/SUBURBAN AREA >1.5 AC (NOTES)            | W-104B     |
| ROADWAY SECTION COMMERCIAL COLLECTOR                           | W-105A     |
| ROADWAY SECTION COMMERCIAL COLLECTOR (NOTES)                   | W-105B     |
| ROADWAY SECTION PRIVATE ROADWAY URBAN/SUBURBAN <0.5 AC         | W-106A     |
| ROADWAY SECTION PRIVATE ROADWAY URBAN/SUBURBAN <0.5 AC (NOTES) | W-106B     |
| ROADWAY SECTION PRIVATE ROADWAY RURAL/SUBURBAN >0.5 AC         | W-107A     |
| ROADWAY SECTION PRIVATE ROADWAY RURAL/SUBURBAN >0.5 AC (NOTES) | W-107B     |
| PERMANENT EMERGENCY ACCESS ROAD                                | W-108      |
| ROUNDBOUT  | W-109      |
| LANDSCAPE ISLAND   | W-110A     |
| LANDSCAPE ISLAND (NOTES)                                       | W-110B     |
| CUL-DE-SAC   | W-111A     |
| CUL-DE-SAC (NOTES)   | W-111B     |
| CUL-DE-SAC (PRIVATE STREETS ONLY)                              | W-112A     |
| CUL-DE-SAC (PRIVATE STREETS ONLY) NOTES                        | W-112B     |
| TRANSIT BUS TURNOUT  | W-113A     |
| ECLIPSE STYLE TRANSIT SHELTER                                  | W-113B     |
| ECLIPSE STYLE TRANSIT SHELTER                                  | W-113C     |
| 6FT ROLLED BENCH WITH BACK SURFACE MOUNT -- EXPANDED METAL     | W-113D     |
| BUS STOP SHELTER PAD   | W-113E     |
| BUS TURNOUT STRUCTURAL   | W-114      |

|             |                  |   |  |                                      |
|-------------|------------------|---|--|--------------------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>SECTION 100 - GENERAL SURFACE IMPROVEMENTS</b><br><b>TABLE OF CONTENTS</b> | <b>SECTION NUMBER:</b><br><b>100</b> |
|             |                  |   | <b>DRAWING NUMBER:</b><br><b>i</b>   |                                      |
|             |                  |   | <b>DATE:</b><br><b>2/21/2022</b>   |                                      |
|             |                  |   |  |                                      |

## SECTION 100 - GENERAL SURFACE IMPROVEMENTS

| DESCRIPTION   | DETAIL No. |
|---|------------|
| PERMANENT PAVEMENT PATCH                                      | W-121A     |
| PERMANENT PAVEMENT PATCH (NOTES)                              | W-121B     |
| TEMPORARY AC PATCH  | W-122      |
| CHAMFERED CURB & GUTTER                                       | W-130A     |
| CHAMFERED CURB & GUTTER NOTES                                 | W-130B     |
| TYPE 1 P.C.C. CURB & GUTTER                                   | W-131A     |
| TYPE 1 P.C.C. CURB & GUTTER (NOTES)                           | W-131B     |
| P.C.C. SIDEWALK   | W-132A     |
| P.C.C. SIDEWALK (NOTES)                                       | W-132B     |
| PEDESTRIAN RAMP FOR THE DISABLED                              | W-133A     |
| PEDESTRIAN RAMP FOR THE DISABLED (NOTES)                      | W-133B     |
| P.C.C. VALLEY GUTTER  | W-134A     |
| P.C.C. VALLEY GUTTER (NOTES)                                  | W-134B     |
| MONOLITHIC CURB & GUTTER AND SIDEWALK                         | W-135A     |
| MONOLITHIC CURB & GUTTER AND SIDEWALK NOTES                   | W-135B     |
| RETROFIT CURB & GUTTER  | W-136      |
| P.C.C. MEDIAN CURB  | W-137      |
| DRIVEWAY GEOMETRICS   | W-141      |
| P.C.C. DRIVEWAY APRON W/ SIDEWALK                             | W-142A     |
| P.C.C. DRIVEWAY APRON W/O SIDEWALK                            | W-142B     |
| P.C.C. DRIVEWAY APRON W/ EX ADJACENT SIDEWALK                 | W-142C     |
| P.C.C. DRIVEWAY APRON NOTES                                   | W-142D     |
| ASPHALT AND GRAVEL DRIVEWAY APRONS (NO CURB AND GUTTER)       | W-143A     |
| ASPHALT AND GRAVEL DRIVEWAY APRONS (NO CURB AND GUTTER) NOTES | W-143B     |
| PRIVATE DRIVEWAY CONCRETE OR ASPHALT                          | W-144      |
| MONUMENTS   | W-151A     |
| MONUMENTS (NOTES)   | W-151B     |
| STEEL CATTLE GUARD  | W-152A     |
| STEEL CATTLE GUARD (NOTES)                                    | W-152B     |

|             |                  |   |  |                        |                        |           |
|-------------|------------------|---|--|------------------------|------------------------|-----------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>SECTION 100 - GENERAL SURFACE IMPROVEMENTS</b><br><b>TABLE OF CONTENTS</b> | <b>SECTION NUMBER:</b> | <b>100</b>             |           |
|             |                  |   |  |                        | <b>DRAWING NUMBER:</b> | ii        |
|             |                  |   |  |                        | <b>DATE:</b>           | 2/21/2022 |
|             |                  |   |  |                        |                        |           |

**SECTION 200 - SANITARY SEWER & STORM DRAIN  
IMPROVEMENTS**

| DESCRIPTION  | DETAIL<br>No. |
|--|---------------|
| DRAINAGE CHANNEL                                   | W-201A        |
| DRAINAGE CHANNEL (NOTES)                           | W-201B        |
| LOT LINE DRAINAGE SWALE (PRIVATE)                  | W-202A        |
| LOT LINE DRAINAGE SWALE (PRIVATE) NOTES            | W-202B        |
| SUBDRAIN   | W-203         |
| TRENCH EXCAVATION & BACKFILL (STORM & SEWER)       | W-204A        |
| TRENCH EXCAVATION & BACKFILL (STORM & SEWER) NOTES | W-204B        |
| UTILITY MAIN LOCATIONS                             | W-205         |
| WATER & SEWER SEPARATIONS                          | W-206A        |
| WATER & SEWER SEPARATIONS (NOTES)                  | W-206B        |
| WATER & SEWER SEPARATIONS NOTES                    | W-206C        |
| TRENCH DETAIL SANITARY SEWER                       | W-207         |
| CATCH BASIN TYPE 1                                 | W-210A        |
| CATCH BASIN TYPE 1 (NOTES)                         | W-210B        |
| CATCH BASIN TYPE 1 (NOTES)                         | W-210C        |
| DROP INLET TYPE 1A                                 | W-211         |
| CATCH BASIN TYPE 4R                                | W-212A        |
| CATCH BASIN TYPE 4R (NOTES)                        | W-212B        |
| CATCH BASIN TYPE 4R                                | W-212C        |
| SUMPLESS CATCH BASIN TYPE 4R                       | W-213A        |
| SUMPLESS CATCH BASIN TYPE 4R (NOTES)               | W-213B        |
| DUAL CATCH BASIN TYPE 4R                           | W-214         |
| HIGH CAPACITY CURB INLET                           | W-215         |
| MANHOLE TYPE 1A                                    | W-220A        |
| MANHOLE TYPE 1A (NOTES)                            | W-220B        |
| MANHOLE TYPE 3A                                    | W-221A        |
| MANHOLE TYPE 3A (NOTES)                            | W-221B        |

**SECTION 200 - SANITARY SEWER & STORM DRAIN  
IMPROVEMENTS**

| DESCRIPTION                              | DETAIL<br>No. |
|--|---------------|
| MANHOLE TYPE 4A                          | W-222A        |
| MANHOLE TYPE 4A (NOTES)                  | W-222B        |
| MANHOLE TYPE 5A                          | W-223A        |
| MANHOLE TYPE 5A (NOTES)                  | W-223B        |
| MANHOLE COLLAR                           | W-224         |
| TEMPORARY MANHOLE COVER                  | W-225         |
| 36" MANHOLE FRAME WITH 24" COVER ADAPTER | W-226         |
| CUT-OFF COLLAR                           | W-227         |
| SEWER LATERAL                            | W-230A        |
| SEWER LATERAL (NOTES)                    | W-230B        |
| SANITARY SEWER TAP SADDLE                | W-231         |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
**SECTION 200 - SANITARY SEWER &  
STORM DRAIN IMPROVEMENTS**  
TABLE OF CONTENTS

|                               |
|-------------------------------|
| SECTION NUMBER:<br><b>200</b> |
| DRAWING NUMBER:<br><b>iv</b>  |
| DATE:<br><b>2/21/2022</b>     |



## SECTION 300 - WATER SYSTEM IMPROVEMENTS

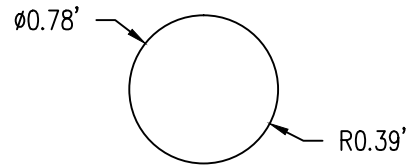
| DESCRIPTION                                 | DETAIL No. |
|---|------------|
| FIRE HYDRANT                                | W-301A     |
| FIRE HYDRANT (NOTES)                        | W-301B     |
| FIRE HYDRANT (NOTES)                        | W-301C     |
| FIRE HYDRANT (NOTES)                        | W-301D     |
| TRENCH DETAIL WATER                         | W-302      |
| VALVE DETAIL                                | W-303      |
| 1" COMBINATION AIR-RELEASE ASSEMBLY         | W-304A     |
| 1" COMBINATION AIR-RELEASE ASSEMBLY (NOTES) | W-304B     |
| 4" FLUSH VALVE ASSEMBLY TERMINUS            | W-305A     |
| 4" FLUSH VALVE ASSEMBLY TERMINUS (NOTES)    | W-305B     |
| 4" FLUSH VALVE ASSEMBLY IN-LINE             | W-306      |
| TEST STATION                                | W-307      |
| WATER SERVICE TAP & LINE                    | W-310A     |
| WATER SERVICE TAP & LINE (NOTES)            | W-310B     |
| 3/4" METER VAULT                            | W-311      |
| 1" METER VAULT                              | W-312      |
| 1-1/2" - 2" METER VAULT                     | W-313      |
| 3" - 4" METER VAULT                         | W-314      |
| THRUST RESTRAINT                            | W-320A     |
| THRUST RESTRAINT (NOTES)                    | W-320B     |
| DISTRIBUTION TAP                            | W-321      |
| PIPE SUPPORT                                | W-325      |
| PRESSURE GAUGE                              | W-326      |
| SAMPLE PORT IN VAULT                        | W-327      |
| SAMPLE PORT IN METER BOX                    | W-328      |
| SAMPLE PORT IN METER BOX WITH SERVICE       | W-329      |
| WATER LINE OFFSET                           | W-330      |
| RECLAIMED WATER SIGNAGE REQUIREMENTS        | W-340      |

|             |                  |   |                               |
|-------------|------------------|---|-------------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  <p style="margin: 0;">STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</p> <p style="margin: 0;"><b>SECTION 300 - WATER</b></p> <p style="margin: 0;"><b>SYSTEM IMPROVEMENTS</b></p> <p style="margin: 0;"><b>TABLE OF CONTENTS</b></p> | <b>SECTION NUMBER:</b><br>300 |
|             |                  |   | <b>DRAWING NUMBER:</b><br>V   |
|             |                  |   | <b>DATE:</b><br>2/21/2022     |
|             |                  |   |                               |

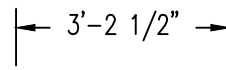
## SECTION 400 - TRAFFIC CONTROL IMPROVEMENTS

| DESCRIPTION                             | DETAIL<br>No. |
|---|---------------|
| STREET NAME SIGN                        | W-401         |
| STANDARD TRAFFIC SIGN                   | W-402A        |
| STANDARD TRAFFIC SIGN (DETAIL)          | W-402B        |
| STANDARD TRAFFIC SIGN (NOTES)           | W-402C        |
| EMERGENCY ACCESS CONTROL GATE           | W-403A        |
| EMERGENCY ACCESS CONTROL GATE           | W-403B        |
| EMERGENCY ACCESS CONTROL GATE           | W-403C        |
| SPEED BUMP LAYOUT, SIGNAGE AND STRIPING | W-404A        |
| SPEED BUMP (DETAILS)                    | W-404B        |
| MAILBOXES                               | W-410A        |
| MAILBOXES                               | W-410B        |
| SCHOOL SIGNAL                           | W-420A        |
| SCHOOL SIGNAL (NOTES)                   | W-420B        |
| END-OF-ROAD MARKER                      | W-430         |

SAMPLE MTEXT  
 TEXT STYLE: SX75  
 TEXT WIDTH: 1.57  
 TEXT HEIGHT: 0.10



SECTION/PLAN  
SUB HEADER TEXT



DIM TEXT WILL BE  
 OVERRIDDEN AS DRAWING  
 WILL NOT BE TO SCALE






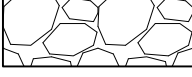

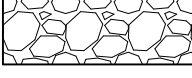


**NOTES:**

1. NOTE 1
2. NOTE 2
3. NOTE 3

← SAMPLE MLEADER  
 LEFT JUSTIFIED

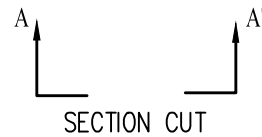
SAMPLE MLEADER  
 RIGHT JUSTIFIED ↘

- EXISTING LINEWORK
- PROPOSED LINEWORK (FINE)
- PROPOSED LINEWORK (MEDIUM)
- PROPOSED LINEWORK (BOLD)
- - - - - CENTER LINE TYPE
- - - - - HIDDEN LINE TYPE

-  PROPOSED CONCRETE
-  EXISTING CONCRETE
-  PROPOSED COMPACTED SOIL
-  EXISTING UNCOMPACTED SOIL
-  PROPOSED RIPRAP
-  EXISTING RIPRAP
-  PROPOSED GRAVEL/AGGREGATE
-  EXISTING GRAVEL/AGGREGATE
-  PROPOSED AC OR SEAL
-  EXISTING AC

| TABLE TITLE |         |         |         |
|-------------|---------|---------|---------|
| COLUMN1     | COLUMN2 | COLUMN3 | COLUMN4 |
| TABLE       | BODY    | TEXT    |         |
|             |         |         |         |
|             |         |         |         |
|             |         |         |         |

- ± PLUS OR MINUS
- DEGREES SYMBOL
- ℙ PROPERTY LINE
- ℄ CENTERLINE



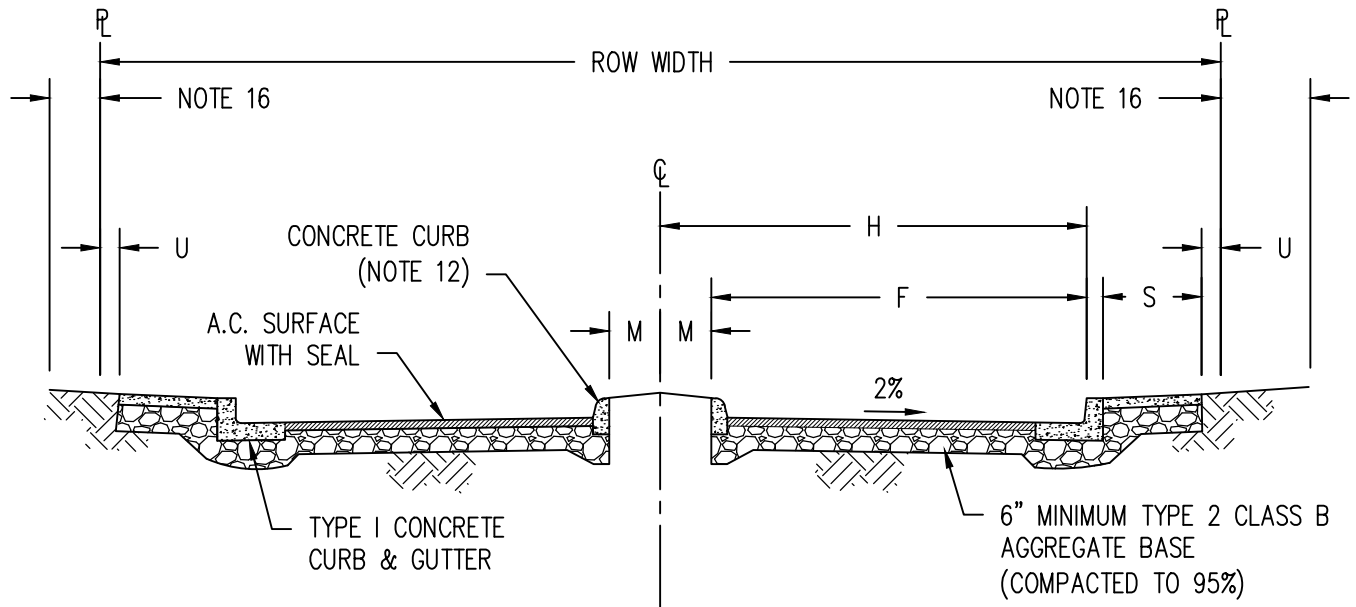
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**STANDARD CONTENT LEGEND**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br>---           |
| DRAWING NUMBER:<br><b>LEGEND</b> |
| DATE:<br>2/21/2022               |



| ROW | H  | F    | M   | S | U   | ADT         | REMARKS        |
|-----|----|------|-----|---|-----|-------------|----------------|
| 100 | 44 | 36   | 8   | 5 | 0.5 | SEE NOTE 18 | MAJOR ARTERIAL |
| 80  | 35 | 29.5 | 5.5 | 4 | 0.5 | SEE NOTE 18 | MINOR ARTERIAL |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




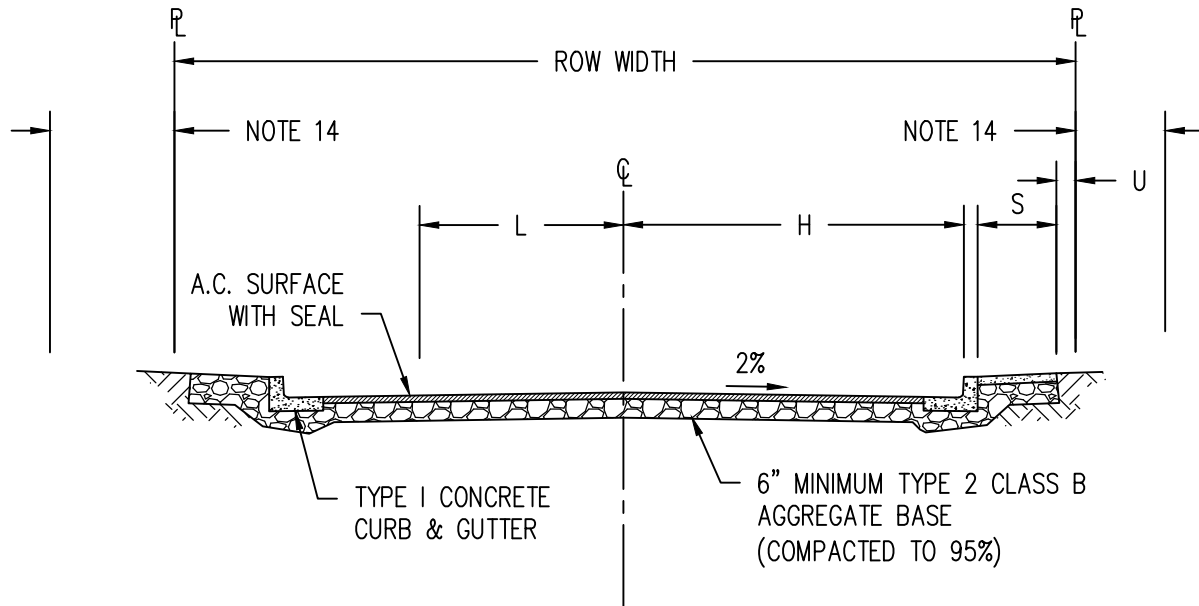
**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**ROADWAY SECTIONS**  
 GENERAL APPLICATIONS  
 ARTERIAL HIGHWAYS

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-101A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. F, H AND M ARE MEASURED TO THE FRONT FACE OF CURB. ROW IS RIGHT-OF-WAY; S IS SIDEWALK; ADT IS AVERAGE DAILY TRAFFIC, EACH DIRECTION.
3. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
4. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE & PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
5. ON-STREET PARKING NOT ALLOWED ON ARTERIALS.
6. STRUCTURAL SECTIONS SHALL BE DETERMINED BY GEOTECHNICAL ENGINEERING DESIGN, BUT IN NO CASE SHALL BE LESS THAN 5" A.C. OVER 6" AGGREGATE BASE.
7. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE WITH SIDEWALK AND L-SHAPED PER STANDARD DETAIL.
8. ALL SIDEWALK IS CONCRETE. SIDEWALK BOTH SIDES FOR ARTERIALS.
9. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
10. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
11. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS & SPECIFICATIONS.
12. MEDIAN IS CONCRETE CURB OR OTHER MEDIAN CONSTRUCTION APPROVED BY THE COUNTY ENGINEER.
13. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED.
14. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE THE ROADWAY SECTION.
15. TYPICAL STRIPING IS FOR 12' LANES.
16. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.
17. MAXIMUM ADT DEPENDENT ON RTC ACCESS CONTROL DESIGNATION.
18. ADT IS DETERMINED FROM REGIONAL ROAD IMPACT FEE SYSTEM, CAPITAL IMPROVEMENT PLAN EXHIBITS A AND B.

| <table border="1"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> | DATE      | REVISIONS |  |  |  |  |  |  |  |  |  |  |  | <p><b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b></p> <p><b>ROADWAY SECTIONS</b></p> <p>GENERAL APPLICATIONS</p> <p>ARTERIAL HIGHWAYS</p> | <table border="1"> <tr> <td>SECTION NUMBER:<br/><b>100</b></td> </tr> <tr> <td>DRAWING NUMBER:<br/><b>W-101B</b></td> </tr> <tr> <td>DATE:<br/><b>2/21/2022</b></td> </tr> </table> | SECTION NUMBER:<br><b>100</b> | DRAWING NUMBER:<br><b>W-101B</b> | DATE:<br><b>2/21/2022</b> |
|---|-----------|-----------|--|--|--|--|--|--|--|--|--|--|---|--|---|-------------------------------|----------------------------------|---------------------------|
| DATE  | REVISIONS |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| SECTION NUMBER:<br><b>100</b>   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| DRAWING NUMBER:<br><b>W-101B</b>  |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| DATE:<br><b>2/21/2022</b>   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |



| ROW | H  | S | U   | L  | B | PL | ADT MAX PER 2 TRAVEL LANES | REMARKS   |
|-----|----|---|-----|----|---|----|----------------------------|-----------|
| 52  | 20 | 5 | 0.5 | 12 | 4 | 0  | 7300                       | COLLECTOR |
| 42  | 16 | 4 | 0.5 | 11 | 0 | 2  | 1000                       | LOCAL     |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**


**ROADWAY SECTIONS**

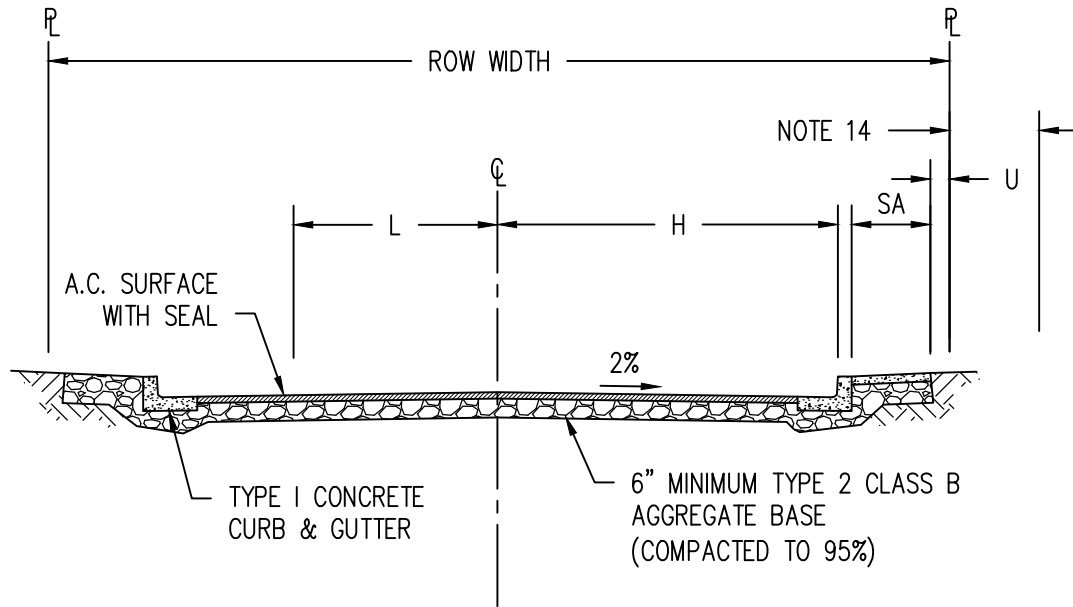
GENERAL APPLICATIONS  
 URBAN AREAS/SUBURBAN AREAS  
 LOT SIZE: LESS THAN 0.5 ACRES

|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>100    |
| <b>DRAWING NUMBER:</b><br>W-102A |
| <b>DATE:</b><br>2/21/2022        |

**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. H IS MEASURED TO THE FRONT FACE OF CURB.
3. L IS TRAVEL LANE; S IS SIDEWALK; B IS BICYCLE LANE; PL IS MAXIMUM NUMBER OF PARKING LANES ALLOWED; ROW IS RIGHT-OF-WAY; ADT IS AVERAGE DAILY TRAFFIC, EACH DIRECTION.
4. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
5. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
6. STRUCTURAL SECTIONS SHALL BE DETERMINED BY GEOTECHNICAL ENGINEERING DESIGN, BUT IN NO CASE SHALL BE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE FOR COLLECTOR STREETS AND 4" MIN. A.C. OVER 6" AGGREGATE BASE FOR LOCAL STREETS.
7. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE WITH SIDEWALK AND L-SHAPED PER STANDARD DETAIL.
8. SIDEWALK AREA IS CONCRETE BOTH SIDES FOR COLLECTORS (ONE SIDE FOR LOCALS). ALTERNATE SIDEWALK LOCATIONS/CONFIGURATIONS MUST BE APPROVED BY THE COUNTY ENGINEER.
9. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
10. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED TO STREETS ON WHICH 10 YEAR DESIGN ADT EXCEEDS 2000.
11. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
12. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
13. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE THE ROADWAY SECTION.
14. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

|  |           |   |   |                                  |
|--|-----------|---|---|----------------------------------|
| DATE   | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b> | SECTION NUMBER:<br><b>100</b>    |
|  |           |   |   | DRAWING NUMBER:<br><b>W-102B</b> |
|  |           |   |   | DATE:<br><b>2/21/2022</b>        |
|  |           |   |   |                                  |
|  |           |   |   |                                  |
| <b>ROADWAY SECTIONS</b><br>GENERAL APPLICATIONS<br>URBAN AREAS/SUBURBAN AREAS<br>LOT SIZE: LESS THAN 0.5 ACRES |           |   |   |                                  |



| ROW | H  | S | U   | L  | B | PL | ADT MAX PER 2 TRAVEL LANES | REMARKS   |
|-----|----|---|-----|----|---|----|----------------------------|-----------|
| 52  | 20 | 5 | 0.5 | 12 | 4 | 0  | 7300                       | COLLECTOR |
| 42  | 16 | 4 | 0.5 | 11 | 0 | 2  | 1000                       | LOCAL     |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**ROADWAY SECTIONS**  
 GENERAL APPLICATIONS  
 SUBURBAN AREAS  
 LOT SIZE: 0.5 - 1.5 ACRES

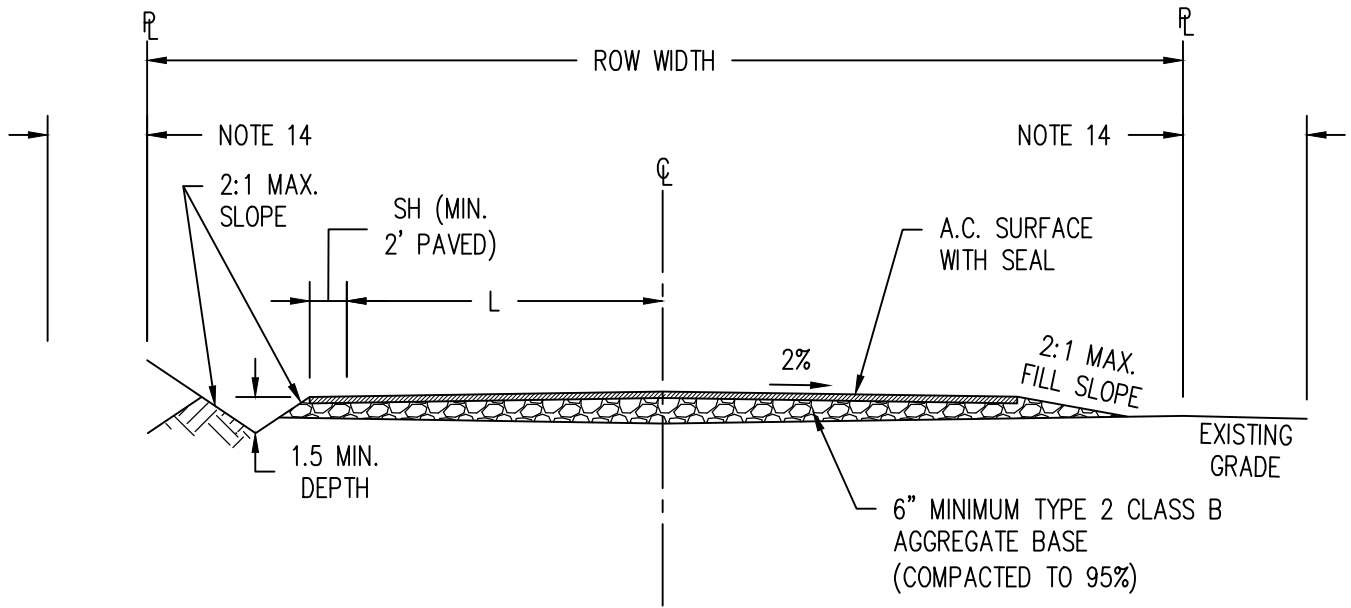
|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>100    |
| <b>DRAWING NUMBER:</b><br>W-103A |
| <b>DATE:</b><br>2/21/2022        |




**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. H IS MEASURED TO THE FRONT FACE OF CURB.
3. L IS TRAVEL LANE; SA IS SIDEWALK AREA; B IS BICYCLE LANE; ROW IS RIGHT-OF-WAY; PL IS MAXIMUM NUMBER OF PARKING LANES ALLOWED; ADT IS AVERAGE DAILY TRAFFIC, EACH DIRECTION.
4. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
5. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
6. STRUCTURAL SECTIONS SHALL BE DETERMINED BY GEOTECHNICAL ENGINEERING DESIGN, BUT IN NO CASE SHALL BE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE FOR COLLECTOR STREETS AND 4" MIN. A.C. OVER 6" AGGREGATE BASE FOR LOCAL STREETS.
7. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE WITH SIDEWALK AND L-SHAPED PER STANDARD DETAIL.
8. SIDEWALK AREA SHALL MEET LATEST ADA STANDARDS. BACKFILL SHALL BE TYPE 2 CLASS B BASE.
9. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
10. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED TO STREETS ON WHICH 10-YEAR DESIGN ADT EXCEEDS 2000.
11. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
12. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
13. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE THE ROADWAY SECTION.
14. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>ROADWAY SECTIONS</b><br>GENERAL APPLICATIONS<br>SUBURBAN AREAS<br>LOT SIZE: 0.5 - 1.5 ACRES | SECTION NUMBER: |
|------|-----------|---|---|-----------------|
|      |           |   |   | 100             |
|      |           |   |   | DRAWING NUMBER: |
|      |           |   |   | W-103B          |
|      |           |   |   | DATE:           |
|      |           | 2/21/2022   |   |                 |




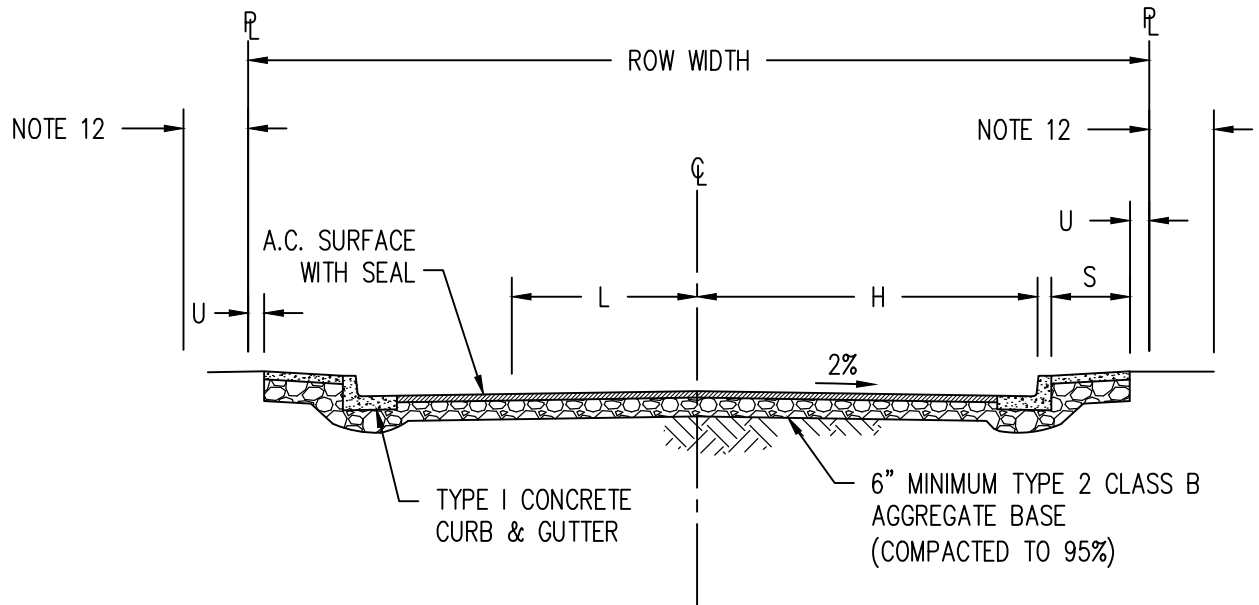
| ROW | H  | L  | B | SH      | ADT MAX PER 2 TRAVEL LANES | REMARKS   |
|-----|----|----|---|---------|----------------------------|-----------|
| 60  | 12 | 11 | - | 2' MIN. | 7300                       | COLLECTOR |
| 50  | 11 | 12 | - | 2' MIN. | 1000                       | LOCAL     |

|             |                  |   |   |                                  |
|-------------|------------------|---|---|----------------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b> | <b>SECTION NUMBER:</b><br>100    |
|             |                  |   | <b>ROADWAY SECTIONS</b>                               | <b>DRAWING NUMBER:</b><br>W-104A |
|             |                  |   | GENERAL APPLICATIONS                                  | <b>DATE:</b><br>2/21/2022        |
|             |                  |   | RURAL AREAS/SUBURBAN AREAS                            |                                  |
|             |                  |   | LOT SIZE: GREATER THAN 1.5 ACRES                      |                                  |

**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. H IS MEASURED TO THE FRONT FACE OF CURB.
3. L IS TRAVEL LANE; SH IS SHOULDER; B IS BICYCLE LANE; ROW IS RIGHT-OF-WAY; ADT IS AVERAGE DAILY TRAFFIC, EACH DIRECTION.
4. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
5. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
6. STRUCTURAL SECTIONS SHALL BE DETERMINED BY GEOTECHNICAL ENGINEERING DESIGN, BUT IN NO CASE SHALL BE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE FOR COLLECTOR STREETS AND 4" MIN. A.C. OVER 6" AGGREGATE BASE FOR LOCAL STREETS.
7. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE WITH SIDEWALK AND L-SHAPED PER STANDARD DETAIL.
8. SIDEWALK AREA SHALL BE AT 2% SLOPE TOWARDS TOP OF CURB AND COMPACTED 95% ASTM D-1557. BACKFILL SHALL BE TYPE 2 CLASS B BASE.
9. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
10. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED TO STREETS ON WHICH 10-YEAR DESIGN ADT EXCEEDS 2000.
11. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
12. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
13. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE THE ROADWAY SECTION.
14. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

|      |           |   |  |                           |
|------|-----------|---|--|---------------------------|
| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>ROADWAY SECTIONS</b><br>GENERAL APPLICATIONS<br>RURAL AREAS/SUBURBAN AREAS<br>LOT SIZE: GREATER THAN 1.5 ACRES | SECTION NUMBER:           |
|      |           |   |  | 100                       |
|      |           |   |  | DRAWING NUMBER:<br>W-104B |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |



| ROW | H  | S | U   | L  | B | PL | ADT MAX PER 2 TRAVEL LANES | REMARKS              |
|-----|----|---|-----|----|---|----|----------------------------|----------------------|
| 52  | 22 | 5 | 0.5 | 12 | 0 | 2  | 7300                       | COMMERCIAL COLLECTOR |
|     |    |   |     |    |   |    |                            |                      |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
ROADWAY SECTIONS

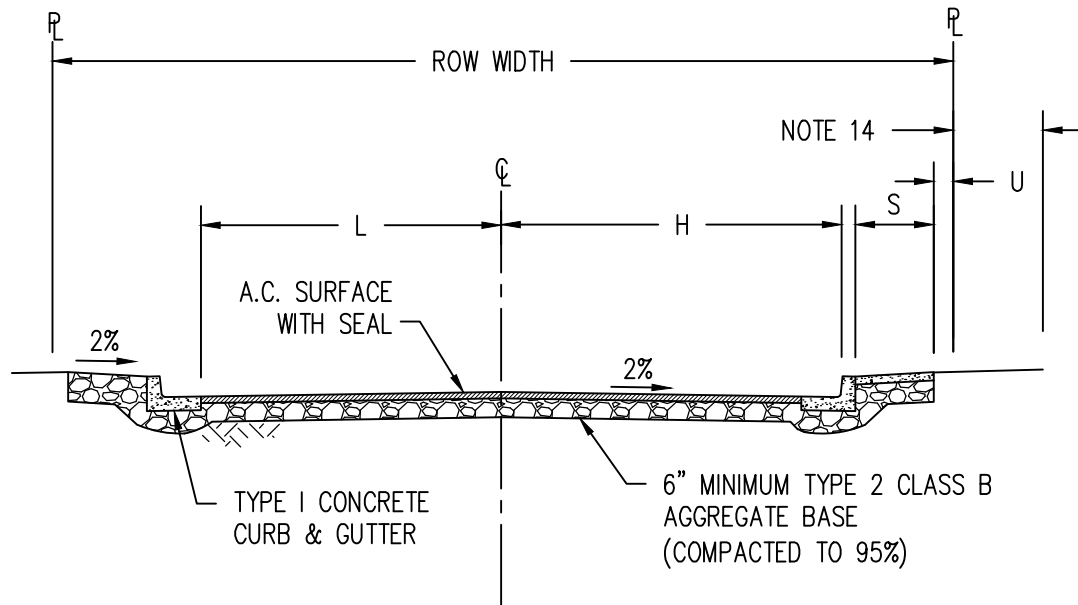
COMMERCIAL COLLECTOR  
FOR ALL SIZE LOTS

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-105A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. H IS MEASURED TO THE FRONT FACE OF CURB.
3. L=TRAVEL LANE; S=SIDEWALK; B=BICYCLE LANE; ROW=RIGHT-OF-WAY; PL IS MAXIMUM NUMBER OF PARKING LANES ALLOWED; ADT= AVERAGE DAILY TRAFFIC.
4. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
5. STRUCTURAL SECTIONS SHALL BE DESIGNED BY A REGISTERED ENGINEER FOR A TWENTY (20) YEAR LIFE BASED ON SUBGRADE CHARACTERISTICS AS DETERMINED BY A GEOTECHNICAL INVESTIGATION AND ANTICIPATED TRAFFIC VOLUME. REFER TO SECTION 110.436.60(d) OF THE WASHOE COUNTY DEVELOPMENT CODE FOR A MINIMUM PAVEMENT THICKNESS, IN NO CASE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE.
6. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE WITH SIDEWALK AND L-SHAPED PER STANDARD DETAIL.
7. SIDEWALK IS CONCRETE BOTH SIDES.
8. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
9. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
10. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
11. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE ROADWAY SECTION.
12. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

|      |           |   |  |                                  |
|------|-----------|---|--|----------------------------------|
| DATE | REVISIONS |  | <p align="center"><b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b></p> <p align="center"><b>ROADWAY SECTIONS</b></p> <p align="center">COMMERCIAL COLLECTOR<br/>FOR ALL SIZE LOTS</p> | SECTION NUMBER:<br><b>100</b>    |
|      |           |   |  | DRAWING NUMBER:<br><b>W-105B</b> |
|      |           |   |  | DATE:<br><b>2/21/2022</b>        |
|      |           |   |  |                                  |
|      |           |   |  |                                  |



| ROW | H    | S | U   | L  | B | PL | ADT MAX PER 2 TRAVEL LANES | REMARKS   |
|-----|------|---|-----|----|---|----|----------------------------|-----------|
| 38  | 13.5 | 5 | 0   | 12 | 4 | 0  | 7300                       | COLLECTOR |
| 36  | 12.5 | 4 | 1.0 | 11 | 0 | 0  | 1000                       | LOCAL     |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




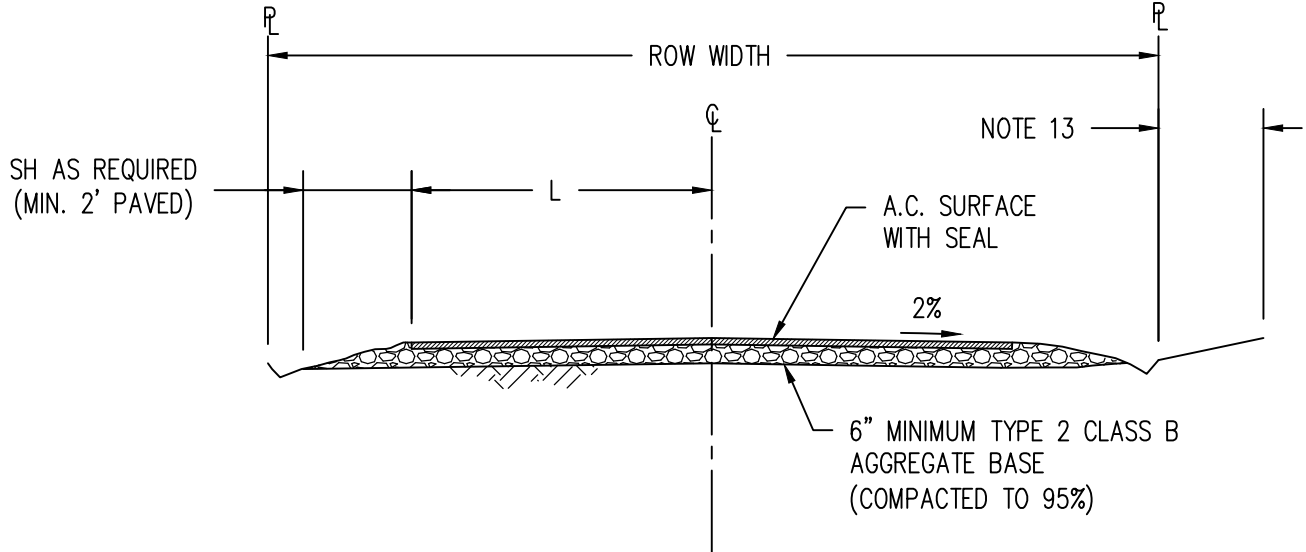
**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**ROADWAY SECTIONS**  
 PRIVATE ROADWAYS  
 URBAN AREAS/SUBURBAN AREAS  
 LOT SIZE: 0.5 OR LESS ACRES

|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>100    |
| <b>DRAWING NUMBER:</b><br>W-106A |
| <b>DATE:</b><br>2/21/2022        |

**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. H IS MEASURED TO THE FRONT FACE OF CURB.
3. L=TRAVEL LANE; S=SIDEWALK; B=BICYCLE LANE; ROW=RIGHT-OF-WAY; PL IS MAXIMUM NUMBER OF PARKING LANES ALLOWED; ADT= AVERAGE DAILY TRAFFIC.
4. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
5. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
6. STRUCTURAL SECTIONS SHALL BE DESIGNED BY A REGISTERED ENGINEER FOR A TWENTY (20) YEAR LIFE BASED ON SUBGRADE CHARACTERISTICS AS DETERMINED BY A GEOTECHNICAL INVESTIGATION AND ANTICIPATED TRAFFIC VOLUME. REFER TO SECTION 110.436.60(d) OF THE WASHOE COUNTY DEVELOPMENT CODE FOR A MINIMUM PAVEMENT THICKNESS, BUT IN NO CASE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE FOR COLLECTOR STREETS AND 4" A.C. OVER 6" AGGREGATE BASE FOR LOCAL STREETS.
7. ALL CURB AND GUTTER IS MONOLITHIC CONCRETE AND L-SHAPED PER STANDARD DETAIL.
8. SIDEWALK AREA SHALL MEET CURRENT ADA STANDARDS. BACKFILL SHALL BE EITHER TYPE 2 CLASS B BASE OR CLASS A BACKFILL.
9. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
10. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED TO STREETS ON WHICH 10-YEAR DESIGN ADT EXCEEDS 2000.
11. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
12. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
13. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE ROADWAY SECTION.
14. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

|  |           |   |   |                 |
|--|-----------|---|---|-----------------|
| DATE   | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b> | SECTION NUMBER: |
|  |           |   |   | 100             |
|  |           |   |   | DRAWING NUMBER: |
|  |           |   |   | W-106B          |
|  |           |   |   | DATE:           |
|  |           | 2/21/2022   |   |                 |
| <b>ROADWAY SECTIONS</b><br>PRIVATE ROADWAYS<br>URBAN AREAS/SUBURBAN AREAS<br>LOT SIZE: 0.5 OR LESS ACRES |           |   |   |                 |



| ROW | L  | B | SH | ADT MAX PER 2 TRAVEL LANES | REMARKS   |
|-----|----|---|----|----------------------------|-----------|
| 52  | 12 | - | -  | 7300                       | COLLECTOR |
| 42  | 11 | - | -  | 1000                       | LOCAL     |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**ROADWAY SECTIONS**

PRIVATE ROADWAYS  
RURAL AREAS/SUBURBAN AREAS  
LOT SIZE: GREATER THAN 0.5 ACRES

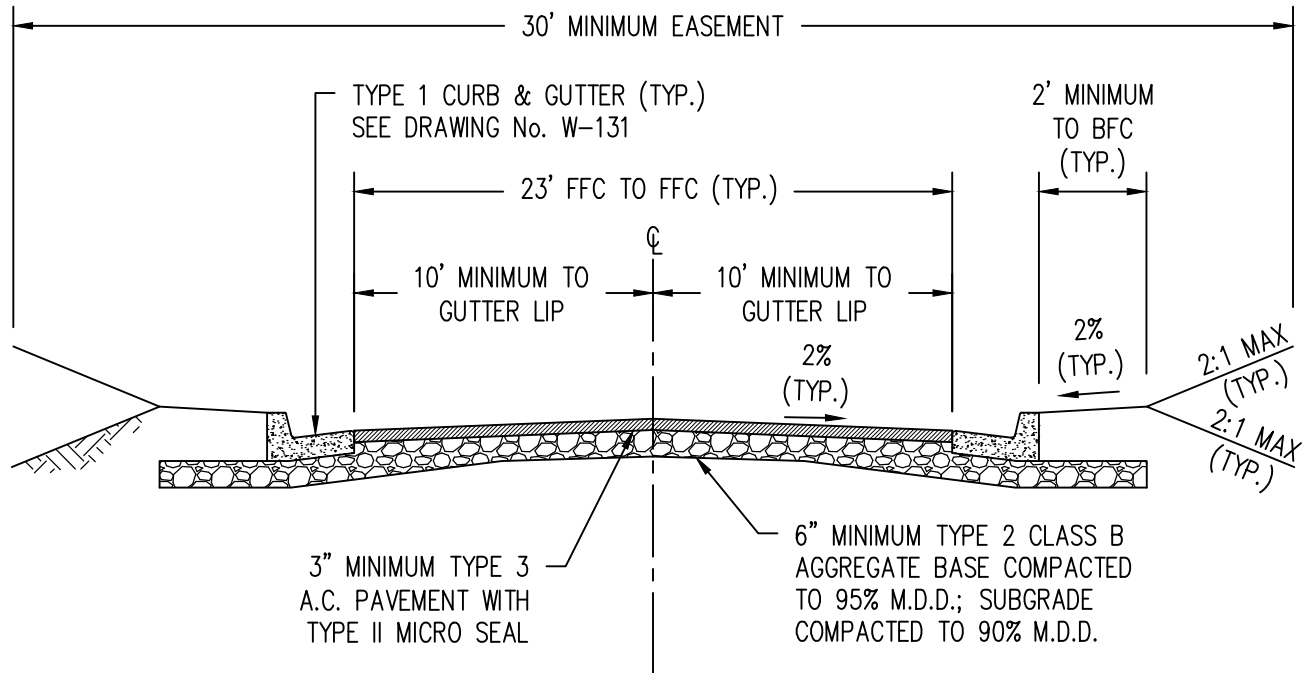
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-107A</b> |
| DATE:<br><b>2/21/2022</b>        |



**NOTES:**

1. ALL WIDTHS ARE IN FEET.
2. L=TRAVEL LANE; B=BICYCLE LANE; SH=SHOULDER; ROW=RIGHT-OF-WAY; ADT= AVERAGE DAILY TRAFFIC.
3. ADT REPRESENTS THE DESIGN VOLUME FOR A TWO LANE FACILITY, EACH DIRECTION.
4. BICYCLE LANES SHALL BE PROVIDED IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN ELEMENT OF THE REGIONAL TRANSPORTATION PLAN AND TO THE SATISFACTION OF THE COUNTY ENGINEER.
5. STRUCTURAL SECTIONS SHALL BE DESIGNED BY A REGISTERED ENGINEER FOR A TWENTY (20) YEAR LIFE BASED ON SUBGRADE CHARACTERISTICS AS DETERMINED BY A GEOTECHNICAL INVESTIGATION AND ANTICIPATED TRAFFIC VOLUME. REFER TO SECTION 110.436.60(d) OF THE WASHOE COUNTY DEVELOPMENT CODE FOR A MINIMUM PAVEMENT THICKNESS, BUT IN NO CASE LESS THAN 4" A.C. OVER 6" AGGREGATE BASE FOR COLLECTOR STREETS AND 4" A.C. OVER 6" AGGREGATE BASE FOR LOCAL STREETS.
6. ALL A.C. SURFACES SHALL BE SEALED IN ACCORDANCE WITH WASHOE COUNTY STANDARDS.
7. RESIDENTIAL DRIVEWAY ACCESS NOT ALLOWED TO STREETS ON WHICH 10-YEAR DESIGN ADT EXCEEDS 2000.
8. THE MINIMUM SHOULDER WIDTH SHALL BE 2 FEET; SHOULDER TO BE ENGINEERED, TYPE 2 CLASS B AGGREGATE BASE COURSE OR A.C. STRUCTURAL SECTION AS ABOVE, AS REQUIRED BY THE COUNTY ENGINEER.
9. EROSION PROTECTION REQUIRED FOR DRAINAGE DITCHES.
10. DESIGN OF IMPROVEMENTS TO BE DONE IN ACCORDANCE WITH ARTICLE 420, STORM DRAINAGE STANDARDS, AND ARTICLE 436, STREET DESIGN STANDARDS, OF THE WASHOE COUNTY DEVELOPMENT CODE.
11. ALL CONSTRUCTION IS TO BE DONE TO CURRENT WASHOE COUNTY STANDARDS AND SPECIFICATIONS.
12. SLOPE EASEMENTS MAY BE REQUIRED IN CERTAIN TERRAIN TO ACCOMMODATE ROADWAY SECTION.
13. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  |           | SECTION NUMBER: |
|------|-----------|---|---|-----------|-----------------|
|      |           |   | <b>ROADWAY SECTIONS</b><br>PRIVATE ROADWAYS<br>RURAL AREAS/SUBURBAN AREAS<br>LOT SIZE: GREATER THAN 0.5 ACRES |           | 100             |
|      |           |   |   |           | DRAWING NUMBER: |
|      |           |   |   |           | W-107B          |
|      |           |   |   | DATE:     |                 |
|      |           |   |   | 2/21/2022 |                 |



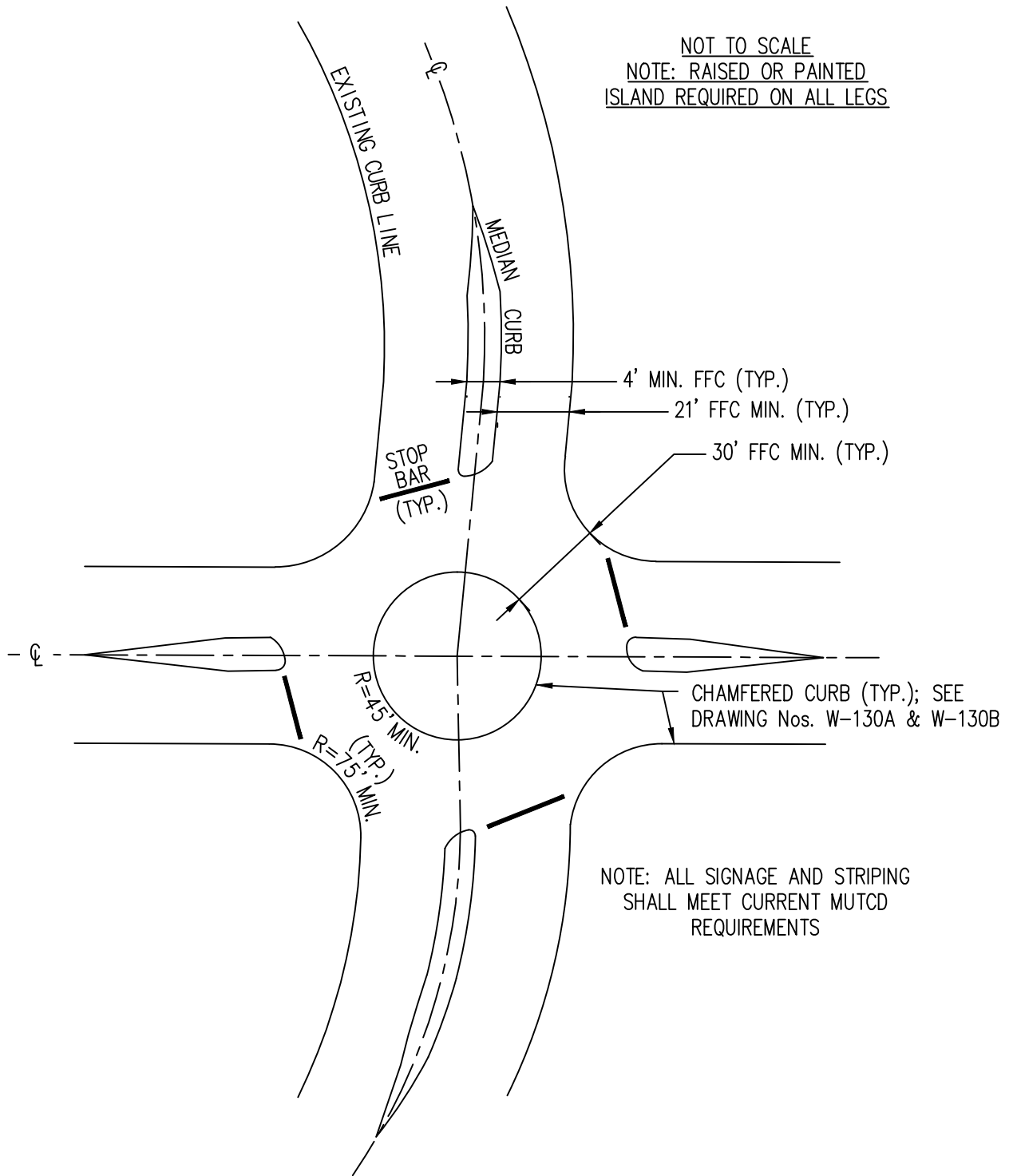
TYPICAL SECTION

**NOTES:**

1. ALL CONSTRUCTION SHALL CONFORM TO LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE LATEST STANDARD DETAILS AND ALL OTHER APPLICABLE CODES.
2. ONE 30"X30" SIGN SHALL BE PLACED ON EACH END OF EMERGENCY ACCESS ROAD AND SHALL READ "EMERGENCY VEHICLES ONLY. NOT A PUBLIC STREET." REFER TO DETAIL AND MUTCD.
3. ADDITIONAL EASEMENT MAY BE REQUIRED AT INTERSECTIONS.
4. BACKFILL FOR A MINIMUM DISTANCE OF 2' BEHIND CURB. BACKFILL SHALL BE COMPACTED TO 90% M.D.D. AND SHALL BE EITHER TYPE 2 CLASS B BASE OR CLASS A BACKFILL.
5. ADDITIONAL EASEMENTS AND ROADWAY WIDTH MAY BE REQUIRED BY COUNTY ENGINEER.
6. ALL GATES AND PAVEMENT WIDTHS SHALL BE TO THE SATISFACTION OF THE COUNTY ENGINEER AND LOCAL FIRE DEPARTMENT.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION           |  | SECTION NUMBER: |
|------|-----------|---|--|--|-----------------|
|      |           |   | <b>PERMANENT EMERGENCY ACCESS ROAD</b>                   |  | 100             |
|      |           |   |  |  | DRAWING NUMBER: |
|      |           |   | TO BE USED ONLY WITH THE APPROVAL OF THE COUNTY ENGINEER |  | DATE:           |

NOT TO SCALE  
 NOTE: RAISED OR PAINTED  
 ISLAND REQUIRED ON ALL LEGS



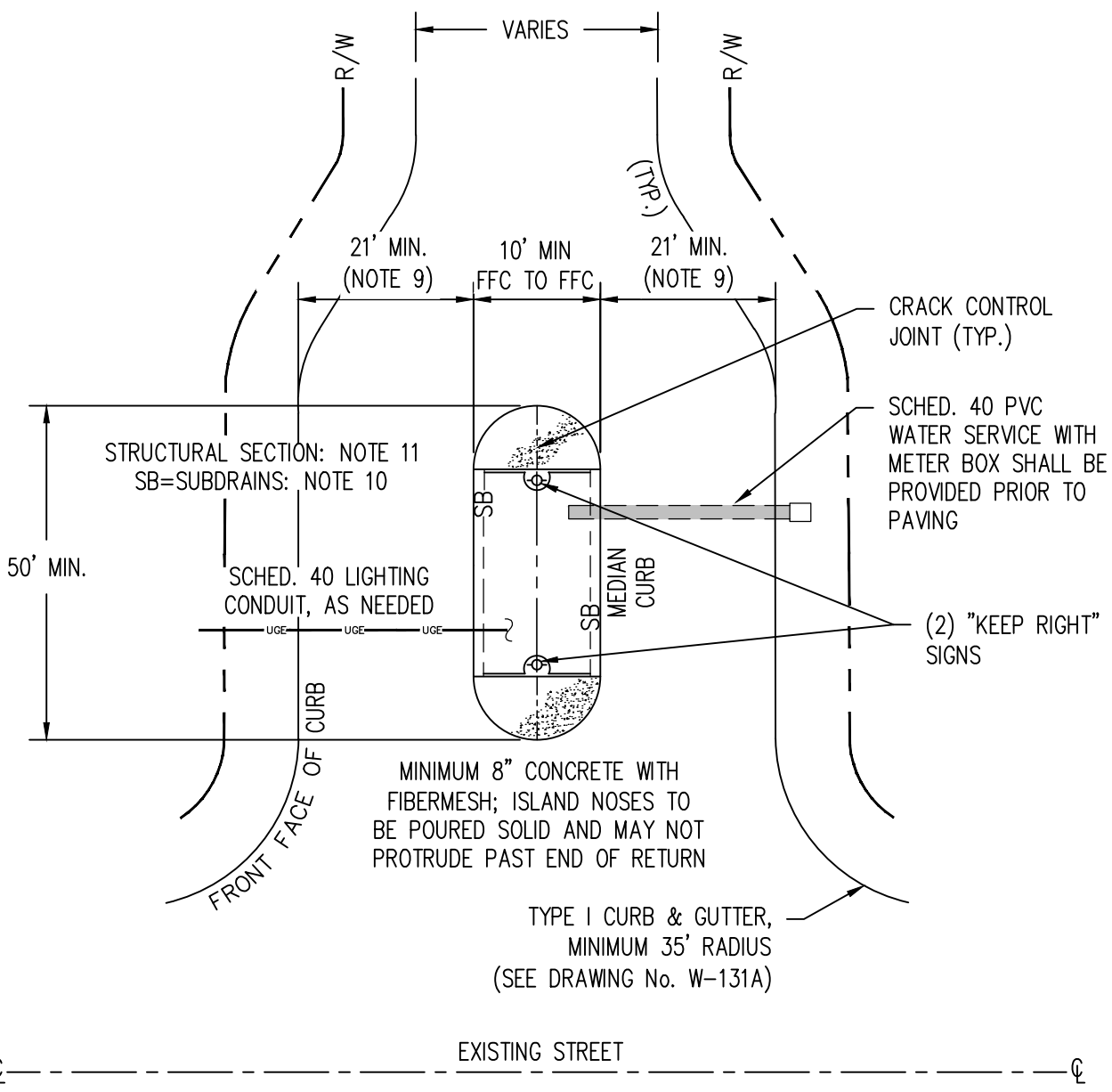
NOTE: ALL SIGNAGE AND STRIPING  
 SHALL MEET CURRENT MUTCD  
 REQUIREMENTS

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
 ROUNDABOUT

SECTION NUMBER:  
**100**  
 DRAWING NUMBER:  
**W-109**  
 DATE:  
**2/21/2022**



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |
|      |           |




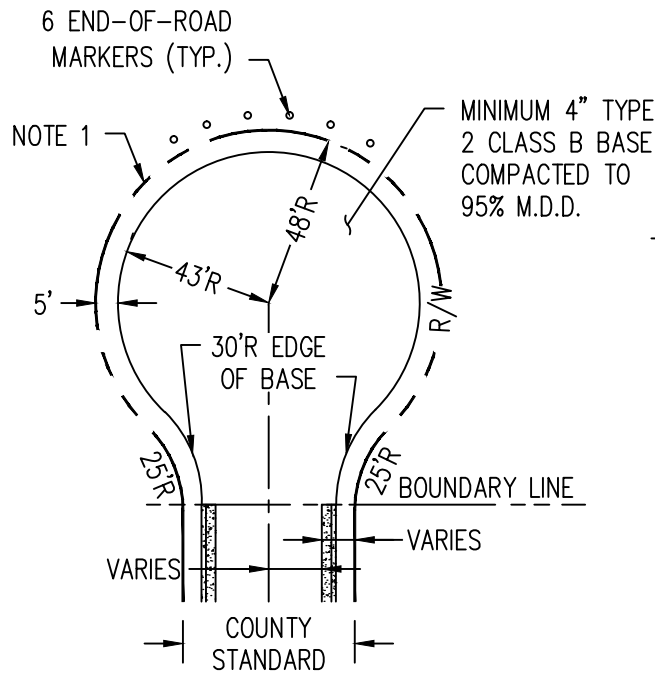
**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**LANDSCAPE ISLAND**

|                 |           |
|-----------------|-----------|
| SECTION NUMBER: | 100       |
| DRAWING NUMBER: | W-110A    |
| DATE:           | 2/21/2022 |

**NOTES:**

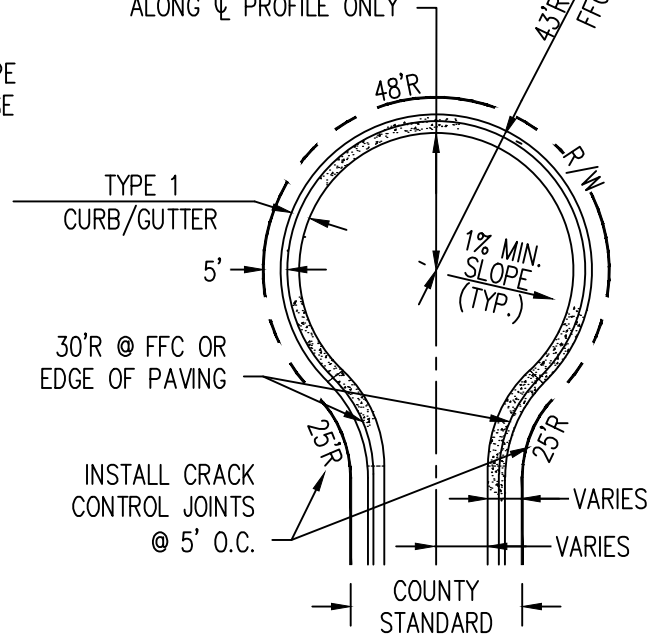
1. MEDIAN CURB SHALL BE WASHOE COUNTY TYPE I (DRAWING No. W-137). REFER TO DRAWING No. W-131B FOR CONCRETE REQUIREMENTS.
2. ADDITIONAL TRAFFIC CONTROL MARKINGS FOR ISLAND MAY BE REQUIRED BY COUNTY ENGINEER.
3. ALL LANDSCAPING WITHIN ISLAND SHALL BE IN ACCORDANCE WITH AASHTO AND APPROVED BY COUNTY ENGINEER.
4. ALL LANDSCAPING SHALL BE MAINTAINED BY HOMEOWNERS OR HOMEOWNER'S ASSOCIATION.
5. NO DRIVEWAY SHALL BE ALLOWED WITHIN 100' OF ANY PORTION OF AN ISLAND.
6. AN ENCROACHMENT/EXCAVATION PERMIT FOR THE ISLAND SHALL BE OBTAINED FROM THE COUNTY ENGINEER'S OFFICE.
7. ALL ROADWAY STRIPING FOR ISLAND SHALL BE PERFORMED BY DEVELOPER OR BUILDER.
8. COLORED CONCRETE MAY BE USED IF APPROVED BY COUNTY ENGINEER. MINIMUM CEMENT CONTENT SHALL BE 6.75 SACKS.
9. ADDITIONAL WIDTH (FRONT FACE TO FRONT FACE) MAY BE REQUIRED BY COUNTY ENGINEER.
10. MINIMUM 4" DIAMETER SUBDRAINS SHALL BE INSTALLED 1 FT BEHIND CURB AS SHOWN. SUBDRAIN SHALL BE INSTALLED MINIMUM DEPTH OF 3 FT BELOW THE TOP OF CURB, AND TIE INTO AN EXISTING DITCH OR STORM DRAIN.
11. THE MINIMUM STRUCTURAL SECTION FOR THE PAVEMENT WITHIN 50 FT OF NOSE OF ISLAND SHALL BE 5" OF ASPHALT ON 6" OF BASE.

|      |           |   |   |                                  |
|------|-----------|---|---|----------------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                | SECTION NUMBER:<br><b>100</b>    |
|      |           |   | <p style="text-align: center;">LANDSCAPE ISLAND<br/>NOTES</p> | DRAWING NUMBER:<br><b>W-110B</b> |
|      |           |   |   | DATE:<br><b>2/21/2022</b>        |
|      |           |   |   |                                  |



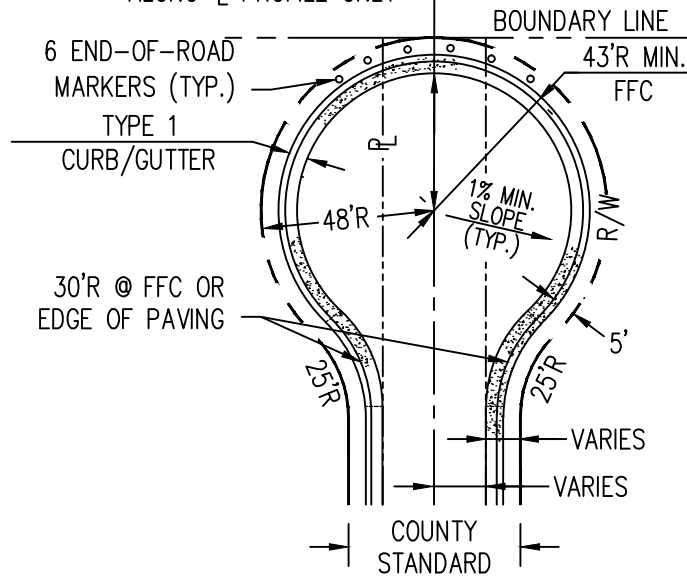
UNPAVED TEMPORARY  
N.T.S.

4.0% SLOPE FROM CENTER  
OF BULB TO LIP OF GUTTER  
ALONG  $\phi$  PROFILE ONLY



PAVED PERMANENT  
N.T.S.

4.0% SLOPE FROM CENTER  
OF BULB TO LIP OF GUTTER  
ALONG  $\phi$  PROFILE ONLY



PAVED TEMPORARY  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

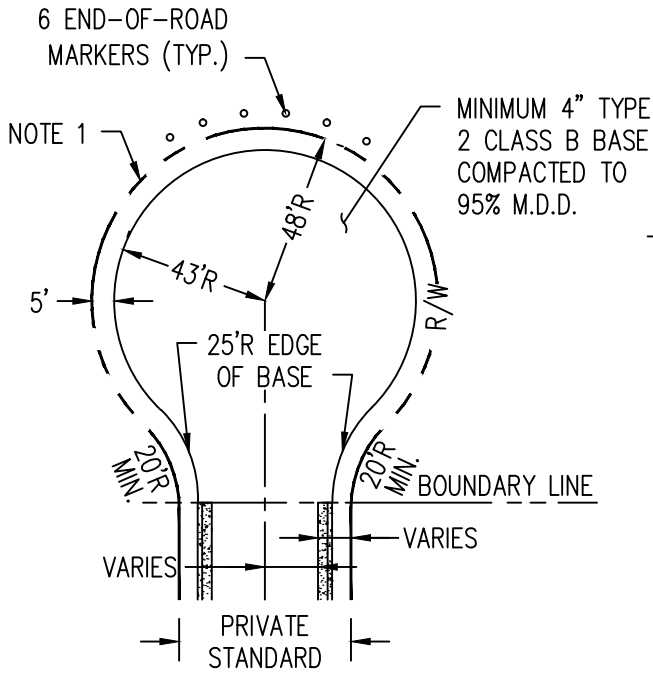
CUL-DE-SAC

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-111A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

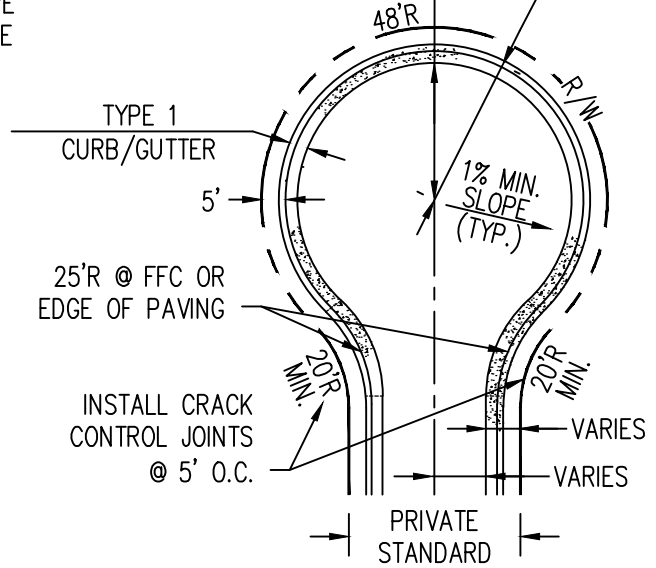
1. TEMPORARY TURNAROUND EASEMENT DOCUMENT REQUIRED WITH MINIMUM 48' RADIUS TO BE ABANDONED WITH STREET EXTENSION.
2. DRAINAGE OF UNPAVED TEMPORARY CUL-DE-SAC SHALL BE CONSISTENT WITH COUNTY STANDARDS, INCLUDING ARTICLE 420 STORM DRAINAGE AND TO BE USED ONLY IF STREET IS TO BE EXTENDED WITHIN 1 YEAR.
3. PAVED TEMPORARY TURNAROUND SHALL BE CONSTRUCTED WHEN AN OFF-SITE TEMPORARY TURNAROUND EASEMENT CANNOT BE OBTAINED AND STREET IS TO BE EXTENDED IN THE FUTURE. STRUCTURAL SECTION OF TURNAROUND TO MATCH STREET SECTION, REFER TO CODE 111.444 FOR CONSTRUCTION.
4. PAVED TEMPORARY TURNAROUND IS REQUIRED ON ALL FUTURE THROUGH-STREETS THAT FRONT LOTS, OR EXTEND MORE THAN 150 FEET BEYOND THE NEAREST INTERSECTING STREET.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER: |                 |
|------|-----------|---|--|-----------------|-----------------|
|      |           |   |  |                 | 100             |
|      |           |   |  | CUL-DE-SAC      | DRAWING NUMBER: |
|      |           |   |  | NOTES           | W-111B          |
|      |           |   |  | DATE:           |                 |
|      |           |   |  | 2/21/2022       |                 |



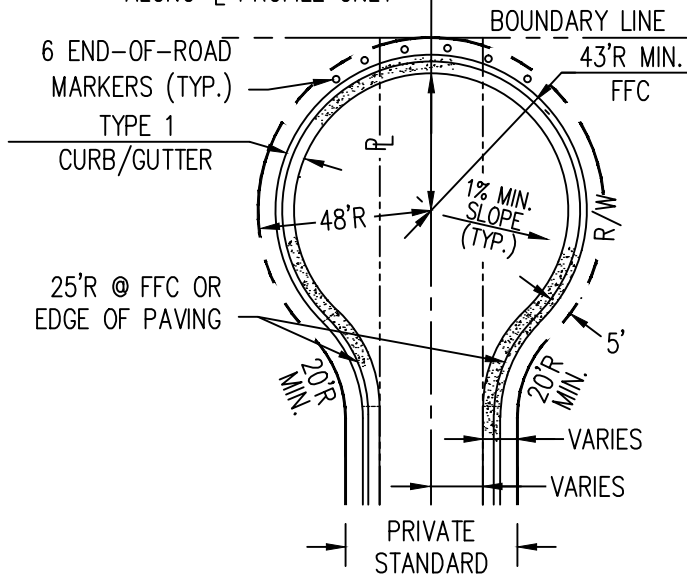
UNPAVED TEMPORARY  
N.T.S.

4.0% SLOPE FROM CENTER OF BULB TO LIP OF GUTTER ALONG  $\phi$  PROFILE ONLY



PAVED PERMANENT  
N.T.S.

4.0% SLOPE FROM CENTER OF BULB TO LIP OF GUTTER ALONG  $\phi$  PROFILE ONLY



PAVED TEMPORARY  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
CUL-DE-SAC  
(PRIVATE STREETS ONLY)

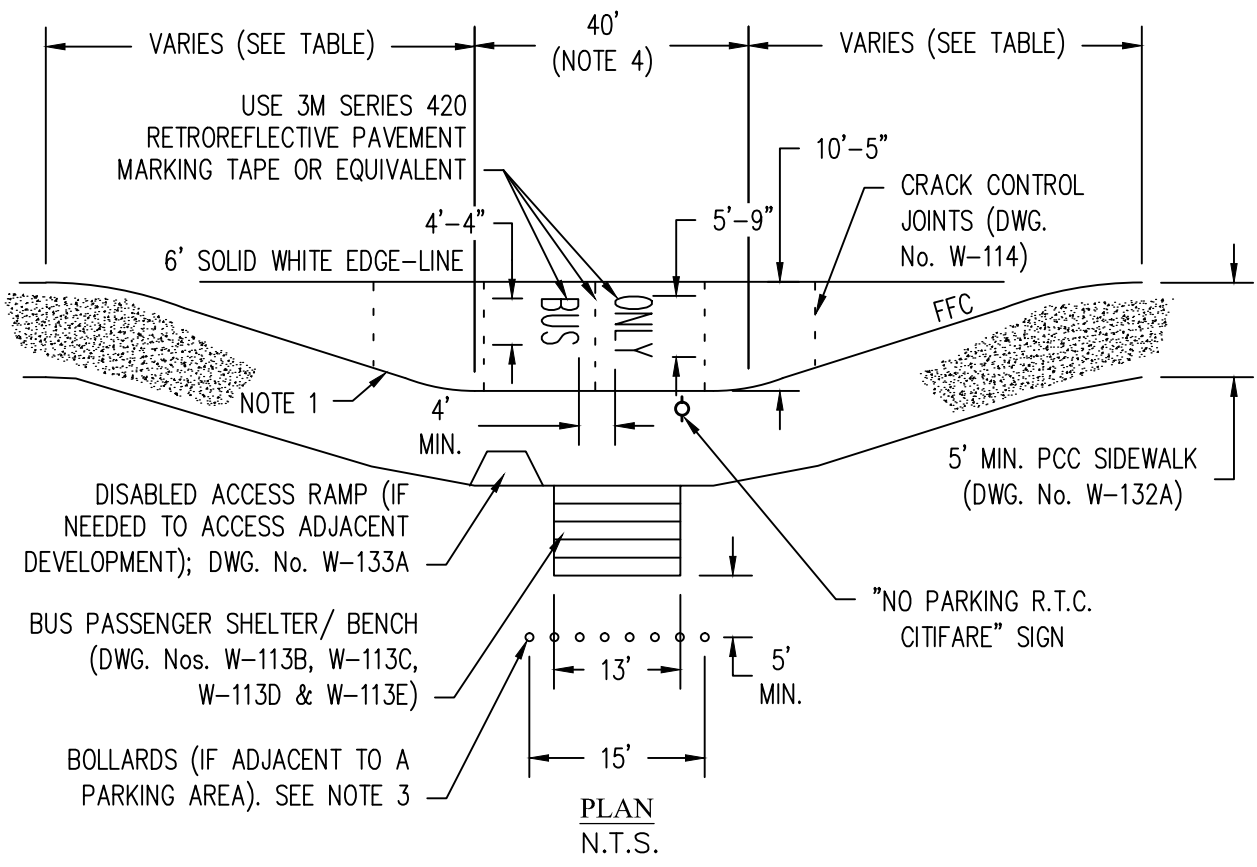
|                           |
|---------------------------|
| SECTION NUMBER:<br>100    |
| DRAWING NUMBER:<br>W-112A |
| DATE:<br>2/21/2022        |



**NOTES:**

1. TEMPORARY TURNAROUND EASEMENT DOCUMENT REQUIRED WITH MINIMUM 48' RADIUS TO BE ABANDONED WITH STREET EXTENSION.
2. DRAINAGE OF UNPAVED TEMPORARY CUL-DE-SAC SHALL BE CONSISTENT WITH COUNTY STANDARDS, INCLUDING ARTICLE 420 STORM DRAINAGE AND TO BE USED ONLY IF STREET IS TO BE EXTENDED WITHIN 1 YEAR.
3. PAVED TEMPORARY TURNAROUND SHALL BE CONSTRUCTED WHEN AN OFF-SITE TEMPORARY TURNAROUND EASEMENT CANNOT BE OBTAINED AND STREET IS TO BE EXTENDED IN THE FUTURE. STRUCTURAL SECTION OF TURNAROUND TO MATCH STREET SECTION, REFER TO CODE 111.444 FOR CONSTRUCTION.
4. PAVED TEMPORARY TURNAROUND IS REQUIRED ON ALL FUTURE THROUGH-STREETS THAT FRONT LOTS, OR EXTEND MORE THAN 150 FEET BEYOND THE NEAREST INTERSECTING STREET.


| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | CUL-DE-SAC                                     | 100             |
|      |           |   | (PRIVATE STREETS ONLY)                         | DRAWING NUMBER: |
|      |           |   |  | W-112B          |
|      |           |   |  | DATE:           |
|      |           |   | 2/21/2022                                      |                 |

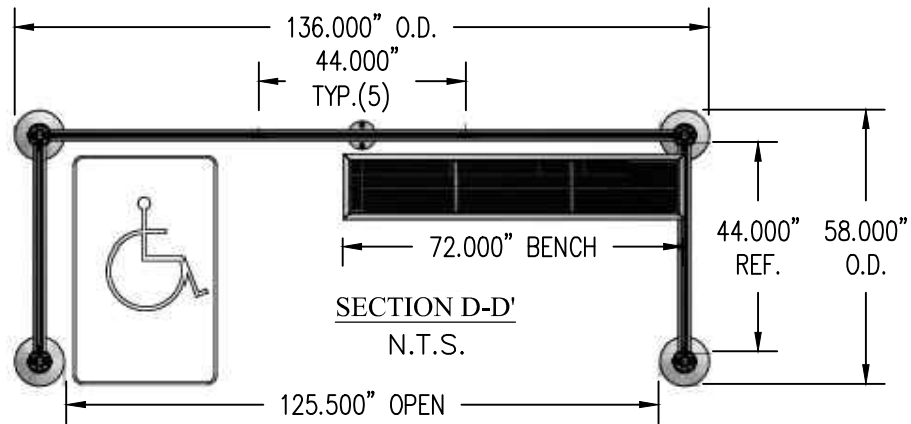
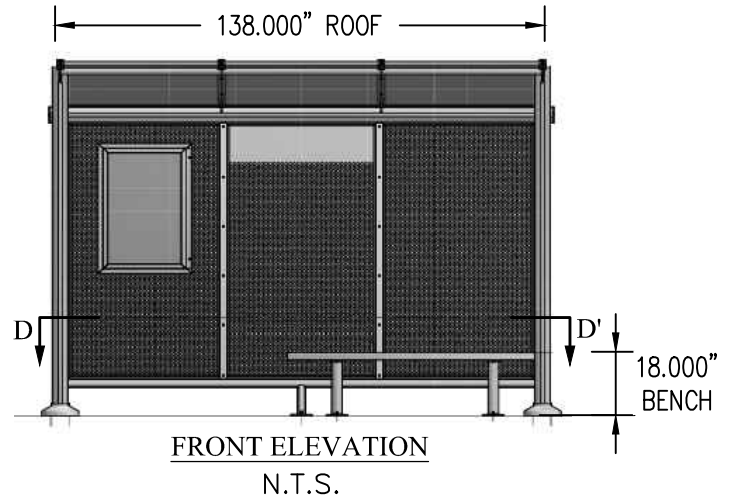
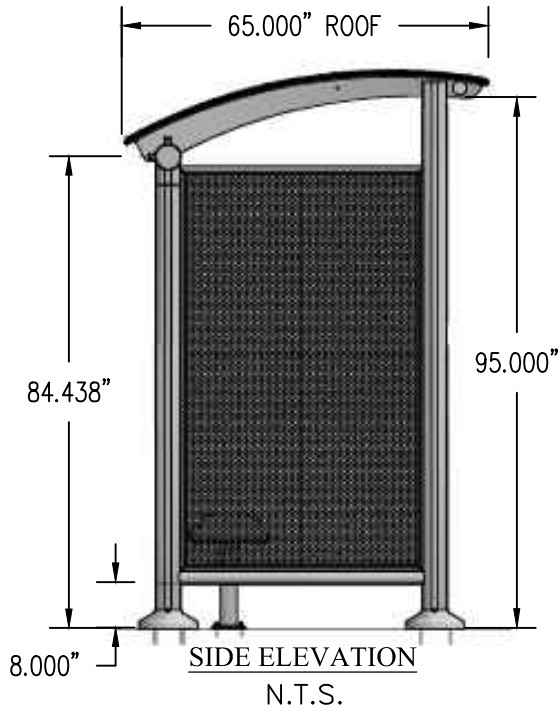


| LENGTH OF TRANSITION | POSTED SPEED LIMIT |
|----------------------|--------------------|
| 40'                  | 25 MPH OR LESS     |
| 60'                  | 26-35 MPH          |
| 80'                  | 36-45 MPH          |
| 100'                 | ABOVE 45 MPH       |

**NOTES:**

1. TYPICAL RADIUS=50', A STRAIGHT LINE TAPER OF ADEQUATE LENGTH MAY BE SUBSTITUTED FOR "X" ≥ 100'.
2. REFER TO DRAWING No. W-114 FOR STRUCTURAL SECTION FOR BUS TURNOUT.
3. MINIMUM RIGHT-OF-WAY REQUIRED IS 6.5'x13'. IF BOLLARDS OR RETAINING WALLS ARE NEEDED, INCREASE RIGHT-OF-WAY TO 7.5'x15'.
4. THIS BERTH IS FOR A SINGLE 40' VEHICLE; R.T.C. STAFF (Ph: 775-348-0480) SHALL BE CONTACTED TO DETERMINE IF MULTIPLE BERTHS WILL BE NEEDED. MINIMUM 2' CLEARANCE FOR BUS MIRROR IS REQUIRED BEHIND FRONT FACE OF CURB.

|      |           |   |  |                                  |
|------|-----------|---|--|----------------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br><b>100</b>    |
|      |           |   | TRANSIT BUS TURNOUT                            | DRAWING NUMBER:<br><b>W-113A</b> |
|      |           |   |  | DATE:<br><b>2/21/2022</b>        |
|      |           |   |  |                                  |




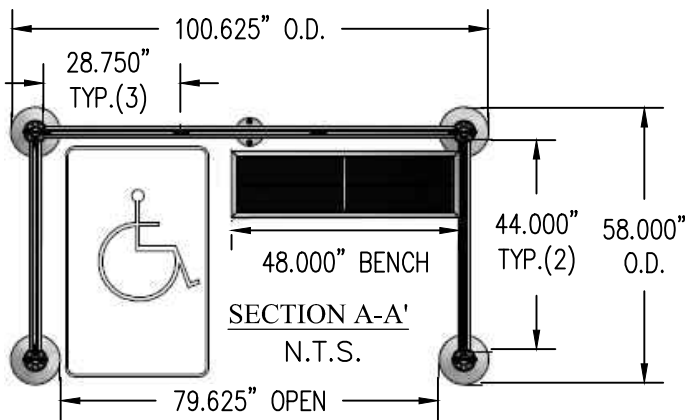
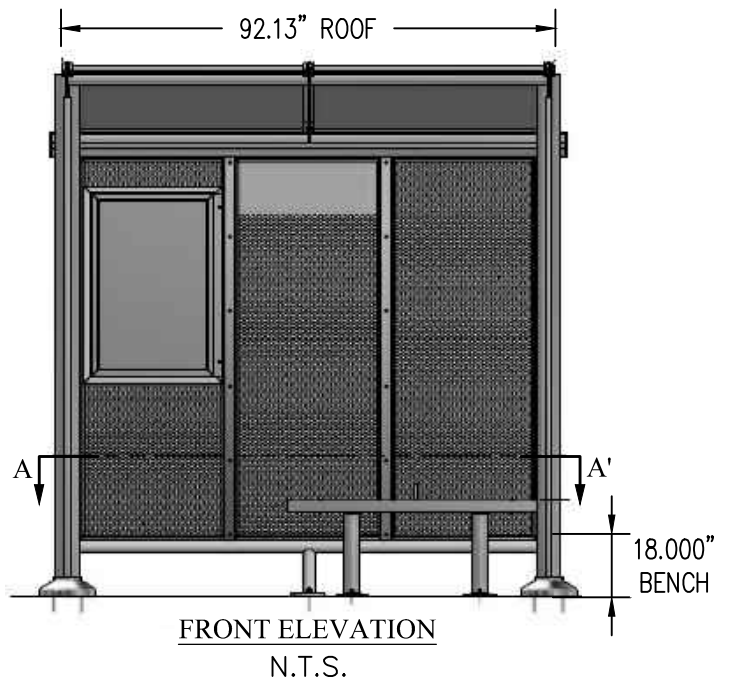
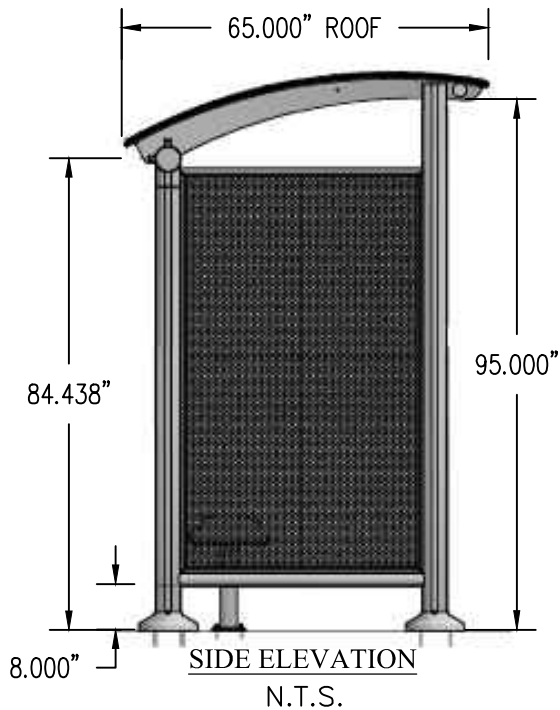
**QUANTITY (2) SHELTERS THUS**

**SPECIFICATIONS:**

1. T.B.D. POWDER COATED ALUMINUM STRUCTURE.
2. 0.090" PERFORATED ALUMINUM WALL GLAZING (1/4"Ø HOLES - 3/8" STAGGER)
3. 11" UPPER MARGIN FOR VINYL GRAPHIC (GRAPHIC BY OTHERS)
4. 6' ECLIPSE BENCH WITH T.B.D. HDPE BENCH SLAT AND TWO SEAT DIVIDERS
5. 23"x34" FRAMED DISPLAY CASE (SHIPPED LOOSE - LOCATE AS NEEDED)
6. (4) SPUN ALUMINUM COLUMN COVERS
7. 20 GALLON PERFORATED TRASH RECEPTACLE WITH BRACKET (NOT SHOWN)
8. 1/8" ALUMINUM ARCHED ROOF



| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>100    |
|------|-----------|---|--|---------------------------|
|      |           |   | <b>ECLIPSE STYLE<br/>TRANSIT SHELTER</b>       | DRAWING NUMBER:<br>W-113B |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |



**QUANTITY (8) SHELTERS THUS**

**SPECIFICATIONS:**

1. T.B.D. POWDER COATED ALUMINUM STRUCTURE.
2. 0.090" PERFORATED ALUMINUM WALL GLAZING (1/4"Ø HOLES - 3/8" STAGGER)
3. 11" UPPER MARGIN FOR VINYL GRAPHIC (GRAPHIC BY OTHERS)
4. 4' ECLIPSE BENCH WITH T.B.D. HDPE BENCH SLAT AND ONE SEAT DIVIDER
5. 23"x34" FRAMED DISPLAY CASE (SHIPPED LOOSE - LOCATE AS NEEDED)
6. (4) SPUN ALUMINUM COLUMN COVERS
7. 20 GALLON PERFORATED TRASH RECEPTACLE WITH BRACKET (NOT SHOWN)
8. 1/8" ALUMINUM ARCHED ROOF



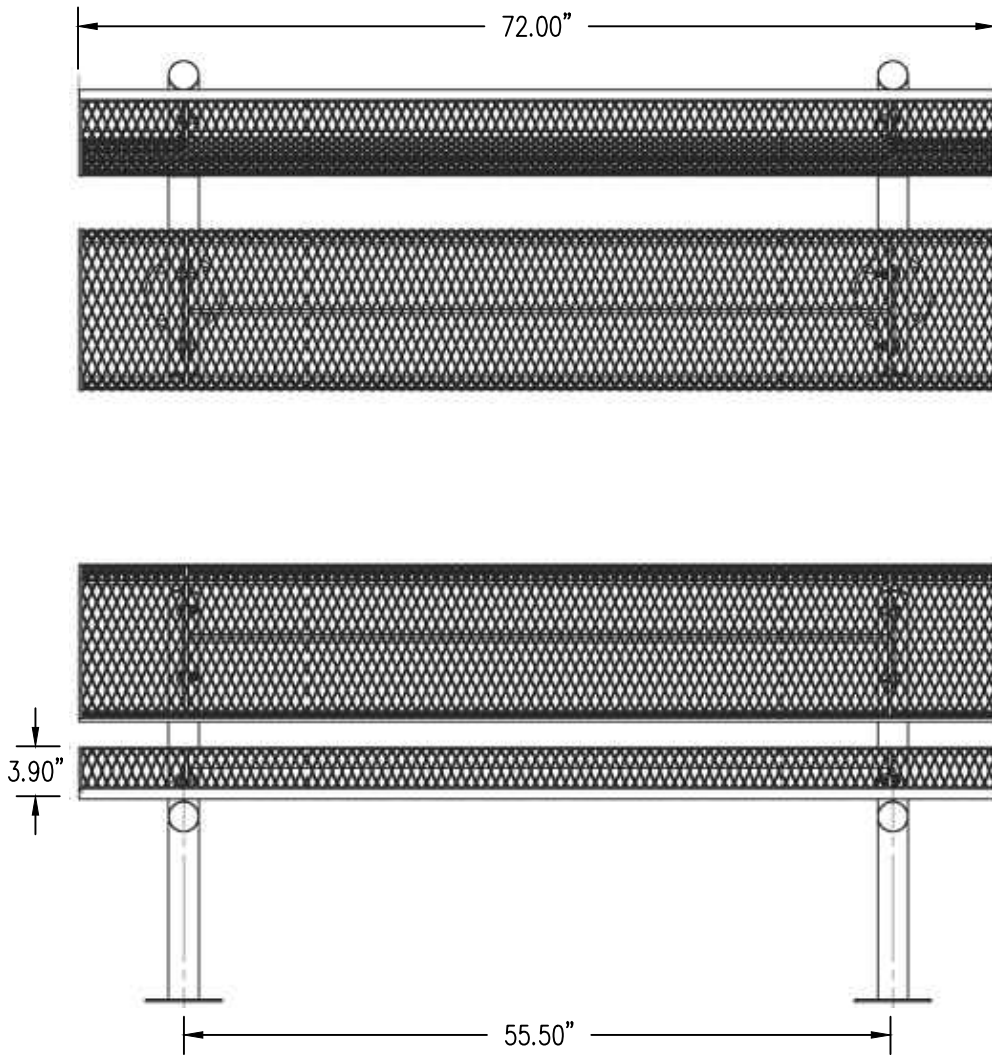
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |
|      |           |



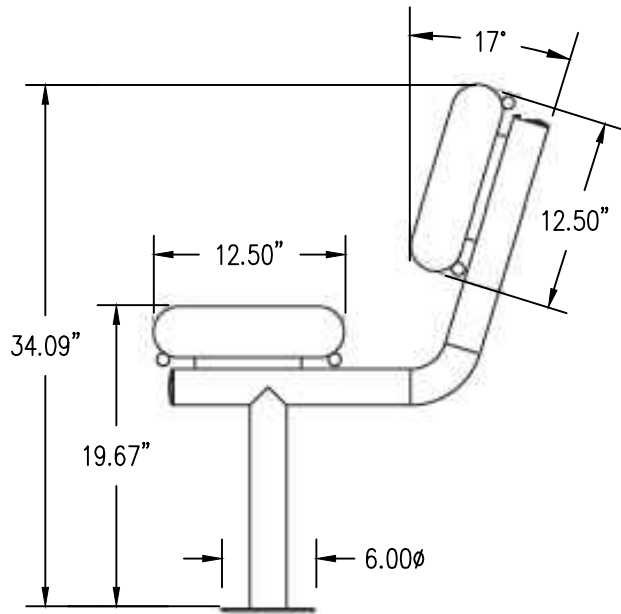
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**ECLIPSE STYLE  
TRANSIT SHELTER**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-113C</b> |
| DATE:<br><b>2/21/2022</b>        |



- SKU: 766be120  
 Variations:  
 766be120-6  
 766be120-18  
 766be120-30  
 766be120-42  
 766be120-54  
 766be120-66  
 766be120-78  
 766be120-90  
 766be120-102  
 766be120-114  
 766be120-126  
 766be120-138  
 766be120-150  
 766be120-162  
 766be120-174  
 766be120-186  
 766be120-198  
 766be120-210  
 766be120-222  
 766be120-234  
 766be120-246  
 766be120-258



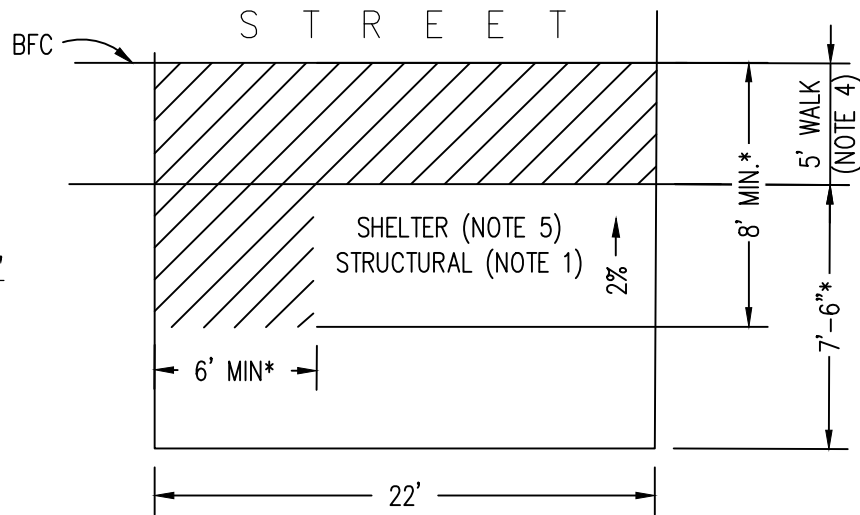
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**6FT ROLLED BENCH WITH**  
**BACK SURFACE MOUNT --**  
**EXPANDED METAL**

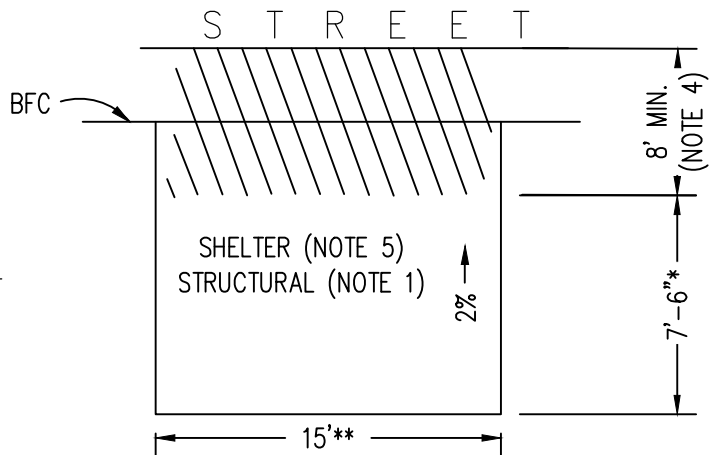
|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>100    |
| <b>DRAWING NUMBER:</b><br>W-113D |
| <b>DATE:</b><br>2/21/2022        |

OPTION "A"  
N.T.S.



 = NO OBSTACLES WITHIN AREA (MINIMUM ADA CLEAR ZONE: 5'x8')

OPTION "B"  
N.T.S.




\* = REDUCE 1' IF BOLLARDS/CURB/RETAINING WALLS ARE NOT REQUIRED BY RTC @ REAR OF PAD.

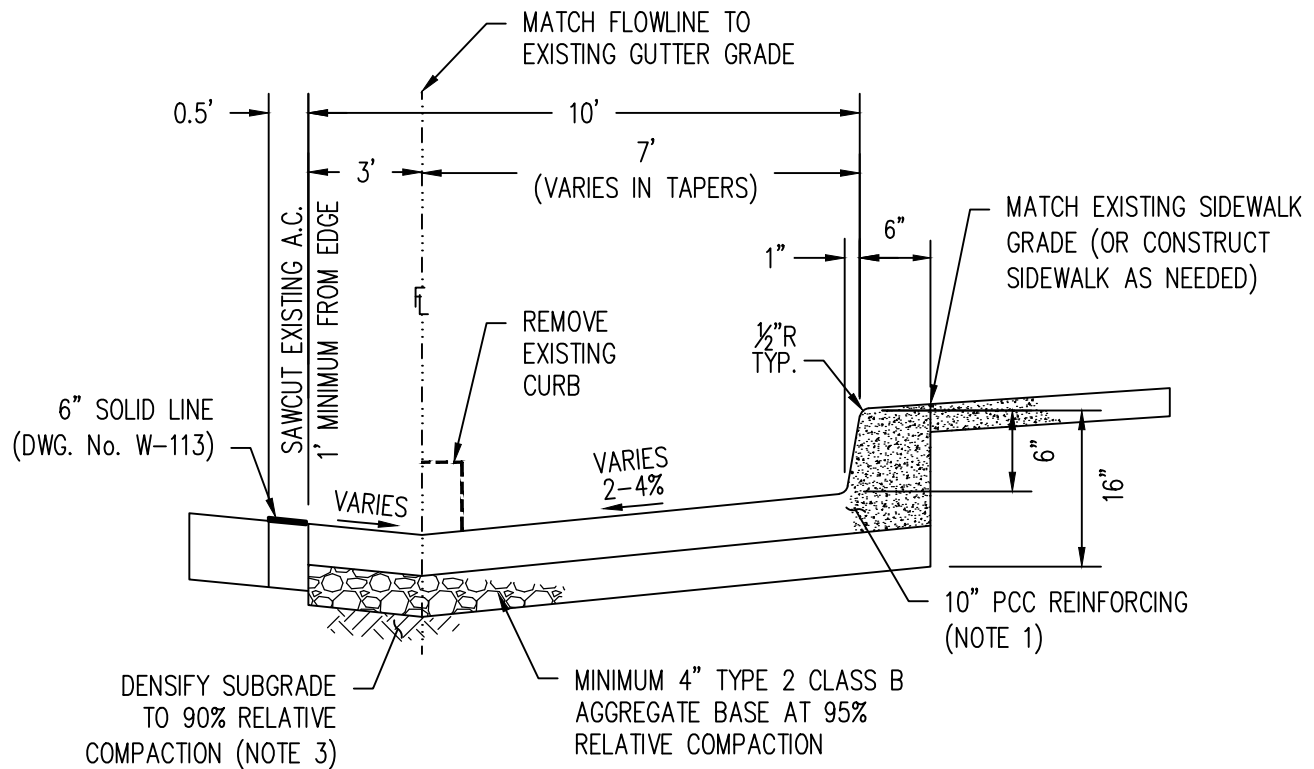
\*\* = REDUCE 1' IF CURB/RETAINING WALL IS NOT REQUIRED BY RTC @ ONE SIDE OF PAD.

REDUCE 2' IF CURBS/RETAINING WALLS ARE NOT REQUIRED BY RTC @ BOTH SIDES OF PAD.

**NOTES:**

1. 4" PORTLAND CEMENT CONCRETE (PCC) ON 4" TYPE 2 CLASS B BASE OF 6" PCC ON COMPACTED NATIVE SUBGRADE. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". REINFORCING SHALL CONSIST OF COLLATED FIBRILLATED POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), SECTION 202.
2. PREPARE SUBGRADE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
3. WEATHERPROOFING SILANE SEALER, HAVING A 40% SOLIDS CONCENTRATION, SUCH AS EUCCO-GUARD S-40, ENVIROSEAL 40, OR OTHER EQUIVALENT SILANE SEALER APPROVED BY THE RTC SHALL BE APPLIED TO CONCRETE SURFACE PER MANUFACTURER SPECIFICATIONS.
4. IF NO SIDEWALK EXISTS BETWEEN CURB AND SHELTER SITE, EXTEND PCC PAD TO BACK FACE OF CURB (BFC).
5. EXACT LOCATION OF CONCRETE PAD AND ORIENTATION OF SHELTER TO BE DETERMINED BY RTC.
6. OPTION "A" & "B": CURB, RETAINING WALLS OR OTHER PROTECTION ACCEPTABLE TO RTC SHALL BE REQUIRED FOR SLOPES LOCATED WITHIN 2' OF PAD.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>100 |                           |
|------|-----------|---|--|------------------------|---------------------------|
|      |           |   |  | BUS STOP SHELTER PAD   | DRAWING NUMBER:<br>W-113E |
|      |           |   |  |                        | DATE:<br>2/21/2022        |

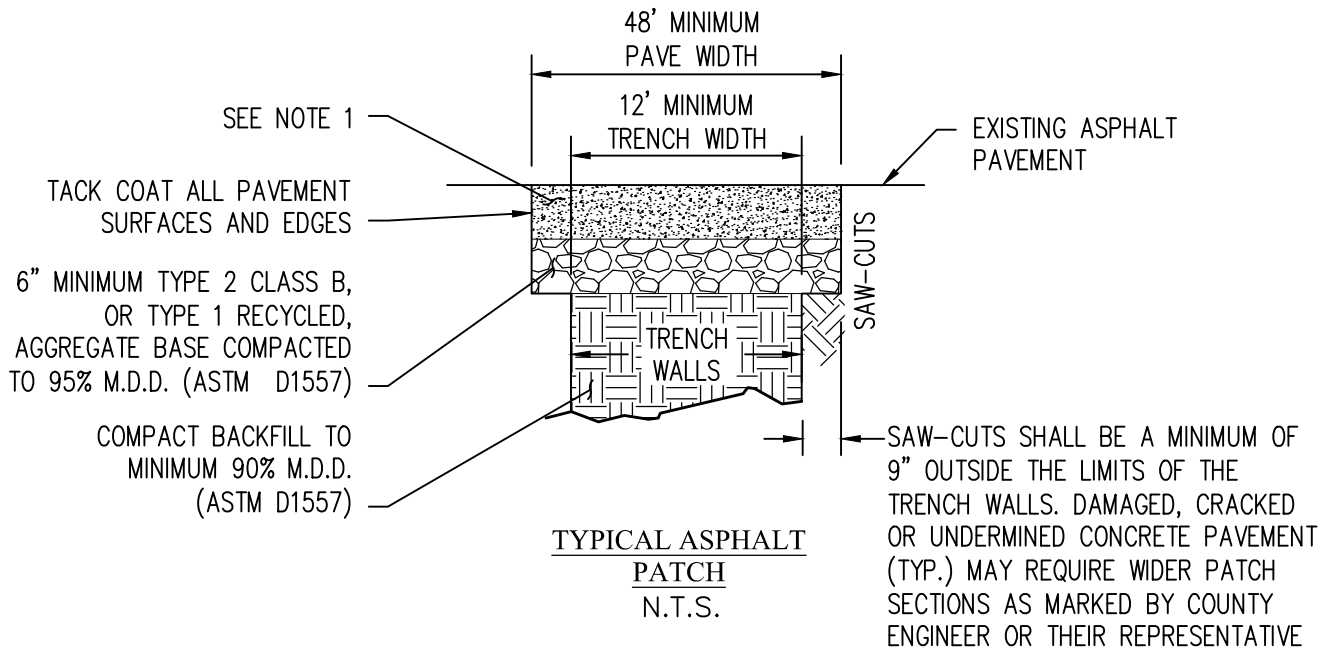
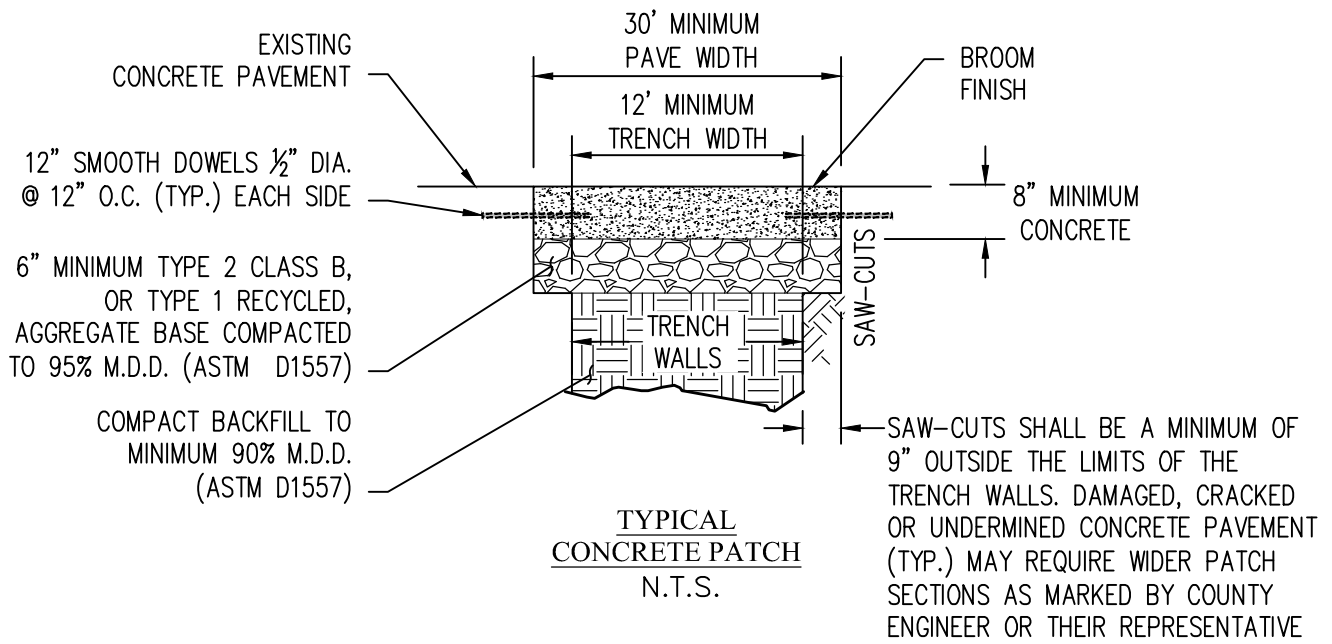


TYPICAL SECTION  
N.T.S.

**NOTES:**

1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". REINFORCING SHALL CONSIST OF COLLATED FIBRILLATED POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. TRANSVERSE/LONGITUDINAL CRACK CONTROL JOINTS SHALL BE PLACED ON 5 FOOT CENTERS.
3. SUBGRADE SOILS SHALL BE OVEREXCAVATED IN AREAS OF UNSTABLE OR EXPANSIVE SOILS TO CONFORM WITH SOILS REPORT OR WASHOE COUNTY REQUIREMENTS.
4. CONCRETE SHALL RECEIVE A MEDIUM BROOM FINISH.
5. CURING AGENTS SHALL BE APPLIED IMMEDIATELY AFTER FINAL FINISHING.

| DATE | REVISIONS | <br>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION<br><br>BUS TURNOUT STRUCTURAL | SECTION NUMBER: |                          |
|------|-----------|--|-----------------|--------------------------|
|      |           |  |                 | 100                      |
|      |           |  |                 | DRAWING NUMBER:<br>W-114 |
|      |           |  |                 | DATE:<br>2/21/2022       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION


**PERMANENT PAVEMENT PATCH**

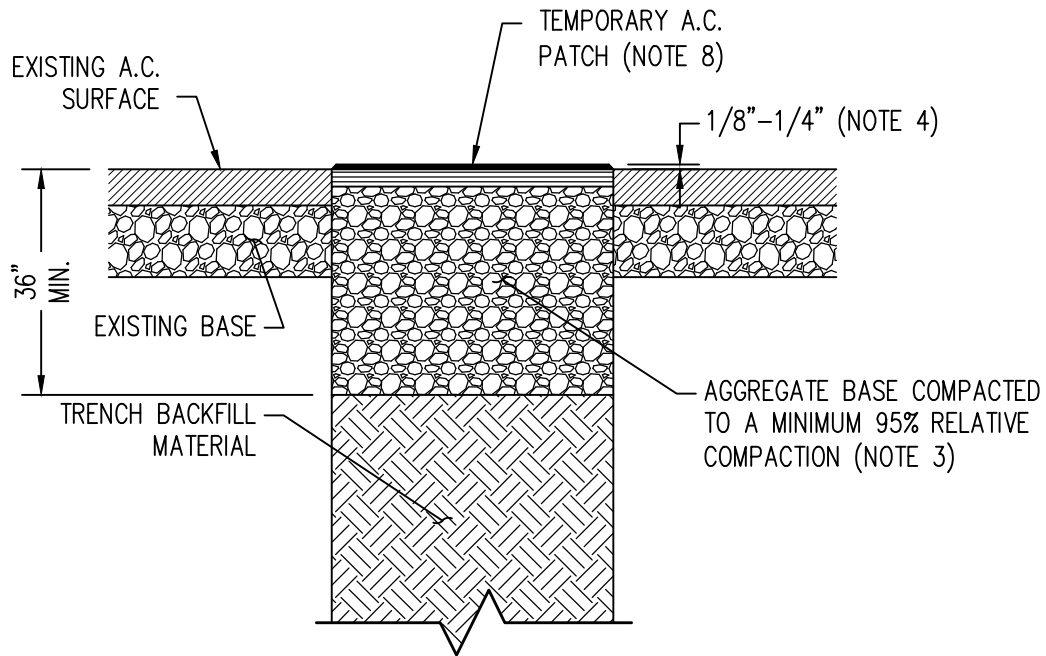
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-121A</b> |
| DATE:<br><b>2/21/2022</b>        |



**NOTES:**

1. TRUCKEE MEADOWS PERMANENT ASPHALT PATCH TO MATCH THE DEPTH OF THE CONTIGUOUS PAVEMENT, BUT NO LESS THAN 4 INCHES AND NO MORE THAN 8 INCHES.  
INCLINE VILLAGE PERMANENT ASPHALT PATCH TO MATCH THE DEPTH OF THE CONTIGUOUS PAVEMENT, BUT NO LESS THAN 6 INCHES AND NO MORE THAN 8 INCHES.
2. AN ENCROACHMENT/EXCAVATION PERMIT MUST BE OBTAINED FROM WASHOE COUNTY COMMUNITY SERVICES DEPARTMENT PRIOR TO CUTTING ANY PUBLIC RIGHT-OF-WAY.
3. ALL CONCRETE AND ASPHALT REMOVAL AND REPLACEMENT SHALL BE TO SAW-CUT LINES AND SHALL BE DONE BY EXCAVATION CONTRACTOR OR SUBCONTRACTOR. ALL SAW-CUTS SHALL BE VERTICAL AND IN STRAIGHT LINES PARALLEL OR PERPENDICULAR TO THE TRENCH OR TO THE SATISFACTION OF THE COUNTY ENGINEER. CONCRETE PAVEMENT PATCH: IF SAW-CUT IS WITHIN 36" OF EDGE OR JOINT ON PCC PAVE, REMOVE PCC TO EXISTING EDGE AND REPLACE ENTIRE SECTION. ASPHALT PATCH: IF SAW-CUT IS WITHIN 36" OF EDGE OF PAVEMENT, EDGE OF VALLEY GUTTER, LIP OF CURB AND GUTTER, OR A PREVIOUS PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE THE ENTIRE SECTION.
4. ALL CONCRETE SHALL BE A MINIMUM OF 6.25 SACKS OF TYPE II CEMENT (588 POUNDS PER CUBIC YARD OF CONCRETE) WITH FIBERMESH AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS; AIR ENTRAINMENT TO BE 4.5-7.5%. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH OR APPROVED EQUAL AND SHALL BE ADDED AT A RATE OF 1½ LBS PER CUBIC YARD OF CONCRETE.
5. HOT MIX ASPHALT SHALL BE TYPE 3, PG64-28 (OR COUNTY APPROVED EQUIVALENT), 3% VOIDS, 50 BLOWS PER SIDE MIX WITH 1.5% LIME AND NO MORE THAN 15% RECYCLED ASPHALT PAVEMENT COMPACTED TO A MINIMUM OF 93% RICE RELATIVE COMPACTION.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
7. DEPTH OF BASE TO BE 6" MINIMUM OR MATCH EXISTING BASE IF GREATER, INCLUDING UNPAVED STREETS.
8. CONCRETE SLURRY WITH MINIMUM OF 1 SACK OF CEMENT PER CUBIC YARD OF SLURRY OR OTHER APPROVED MIX DESIGN MAY BE USED FOR BASE COURSE, BEDDING OR BACKFILL IF APPROVED BY THE COUNTY ENGINEER AND UTILITY COMPANIES.
9. PERMANENT RESURFACING SHALL NOT BE PLACED ON TRENCHES BACKFILLED WITH CONCRETE SLURRY FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT OF THE CONCRETE SLURRY OR SIMILAR MATERIAL.
10. A NEGOTIATED RECONSTRUCTION, INCLUDING BUT NOT LIMITED TO GRIND AND OVERLAY, SHALL BE DETERMINED BY THE COUNTY ENGINEER DEPENDENT UPON THE EXTENT OF THE TRANSVERSE AND LONGITUDINAL EXCAVATIONS.
11. ALL PERMANENT PAVEMENT PATCHES REQUIRE ASPHALT SEAL COATS. THE TYPE SHALL BE DETERMINED BY THE COUNTY ENGINEER.

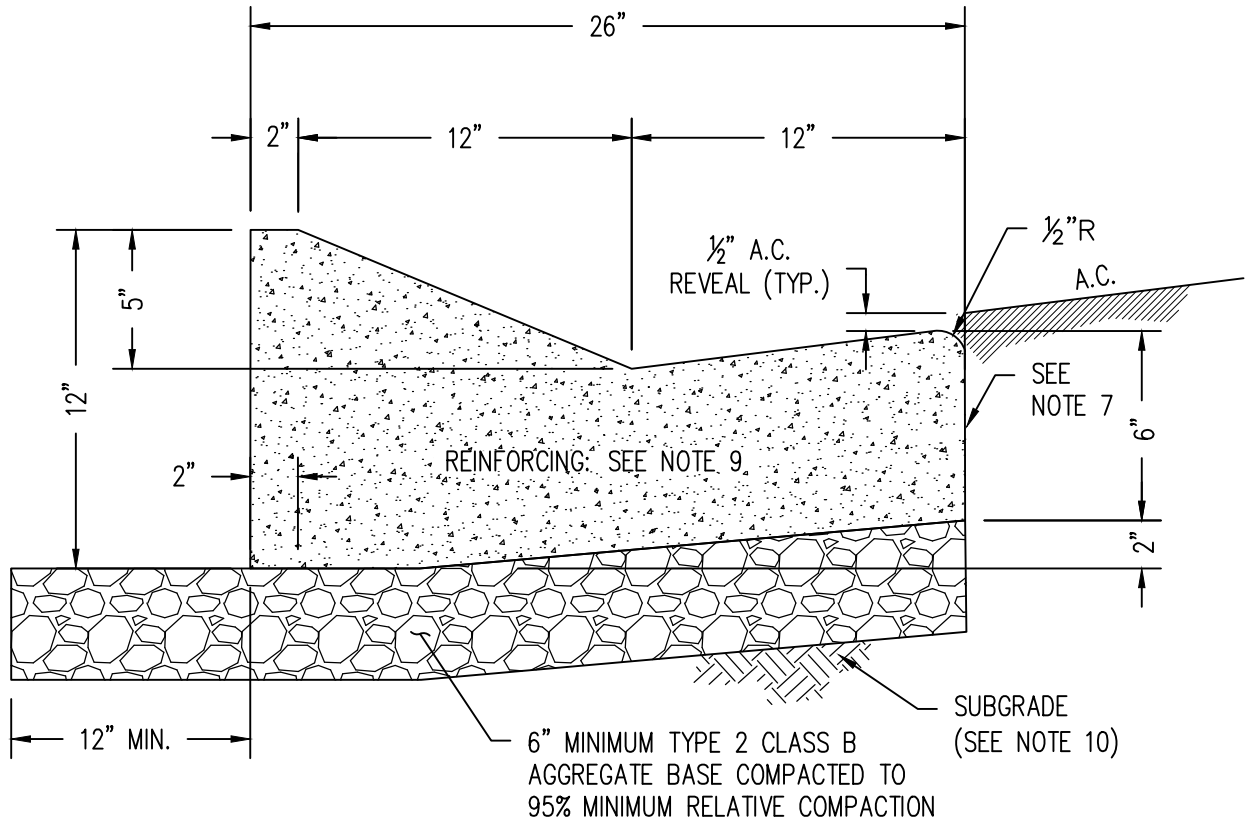
|             |                  |   |  |   |
|-------------|------------------|---|--|---|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>PERMANENT PAVEMENT PATCH</b> | <b>SECTION NUMBER:</b><br><b>100</b>    |
|             |                  |   |  | <b>DRAWING NUMBER:</b><br><b>W-121B</b> |
|             |                  |   |  | <b>DATE:</b><br><b>2/21/2022</b>        |
|             |                  |   |  |   |



**NOTES:**

1. PRIOR TO EXCAVATION, THE OUTLINE OF THE TRENCH SHALL BE VERTICALLY CUT FULL DEPTH THROUGH THE EXISTING ASPHALT SURFACE.
2. CARE SHALL BE EXERCISED TO PREVENT SLOUGHING AND UNDERMINING. IF THE TRENCH SLOUGHS, THE SURFACE SHALL BE WIDENED TO ELIMINATE THE UNDERMINED SECTION OF ASPHALT.
3. AGGREGATE BASE UNDER TEMPORARY PATCH SHALL BE A MINIMUM THICKNESS OF 36 INCHES BELOW THE EXISTING AC SURFACE. AGGREGATE BASE MATERIAL UNDER TEMPORARY PATCH SHALL BE TYPE 2 CLASS B CRUSHED AGGREGATE BASE.
4. TEMPORARY PATCHES SHALL BE PLACED AND COMPACTED. THE COMPACTED PATCH SHALL BE APPROXIMATELY 1/8" TO 1/4" ABOVE THE LEVEL OF THE ADJACENT PAVEMENT.
5. COMPACTATION OF BACKFILL, BASE AND A.C. TEMPORARY PATCH SHALL BE PERFORMED WITH APPROVED MECHANICAL TAMPERS. EQUIPMENT WHEEL ROLLING IS NOT PERMITTED.
6. ENTIRE AREA SHALL BE CLEANED OF ALL DIRT, DUST, DEBRIS, ETC. BEFORE LEAVING SITE. ANY SITE LEFT UNCLEANED WILL BE CLEANED BY THE COUNTY, AND ALL COSTS BACK-CHARGED TO THE CONTRACTOR.
7. TEMPORARY PATCH WORK AND PATCH MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL TEMPORARY PATCHES ON ALL STREETS SHALL BE HOT MIX ASPHALT A MINIMUM OF 3" THICK. HOT MIX ASPHALT SHALL BE TYPE 3, PG64-28 (OR COUNTY APPROVED EQUIVALENT), 3% VOIDS, 50 BLOWS PER SIDE MIX WITH 1.5% LIME AND NO MORE THAN 15% RECYCLED ASPHALT PAVEMENT COMPACTED TO A MINIMUM OF 93% RICE RELATIVE COMPACTION.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:          |
|------|-----------|---|--|--------------------------|
|      |           |   | TEMPORARY A.C.<br>TRENCH PATCH                 | 100                      |
|      |           |   |  | DRAWING NUMBER:<br>W-122 |
|      |           |   |  | DATE:<br>2/21/2022       |



SECTION  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

CHAMFERED CURB & GUTTER


SECTION NUMBER:  
100

DRAWING NUMBER:  
W-130A

DATE:  
2/21/2022

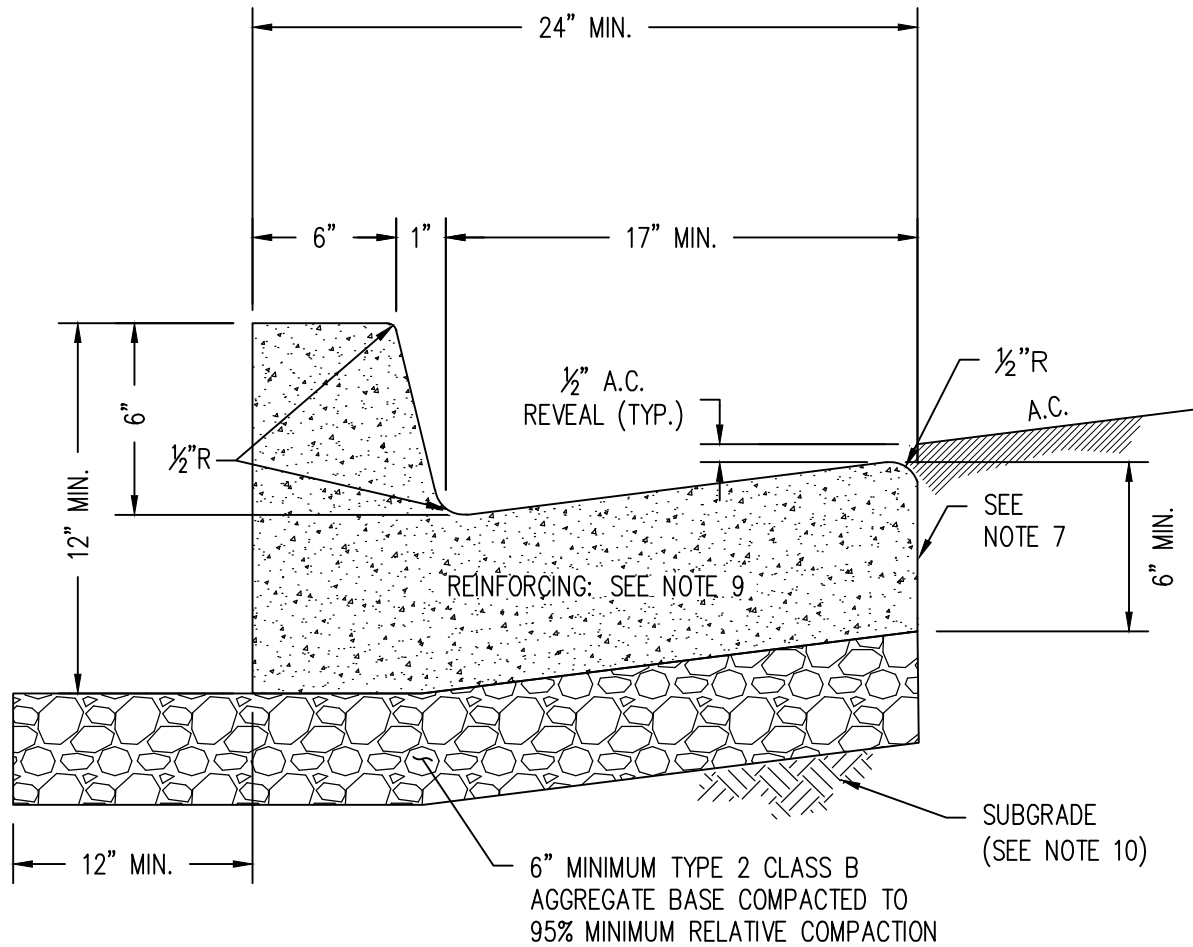
**NOTES:**

1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5–7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. CURB AND GUTTER SHALL HAVE WEAKENED PLANE JOINTS ON 10' CENTERS (MAXIMUM).
3. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
4. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.
5. FINISHING AND CURING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
6. TESTING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
7. SAWCUT ALONG LIP OF GUTTER WHEN REMOVING EXISTING CURB.
8. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE CURB UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
9. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
10. CURB AND GUTTER SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
11. CURB AND GUTTER SHALL RECEIVE A LIGHT BROOM FINISH PARALLEL TO FLOW.

|      |           |   |  |                 |
|------|-----------|---|--|-----------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION   | SECTION NUMBER: |
|      |           |   | <p style="text-align: center;"><b>CHAMFERED CURB &amp; GUTTER</b><br/><b>NOTES</b></p> | 100             |
|      |           |   |  | DRAWING NUMBER: |
|      |           |   | DATE:  |                 |

**W-130B**

**2/21/2022**



SECTION  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

TYPE 1 P.C.C. CURB & GUTTER


SECTION NUMBER:  
100

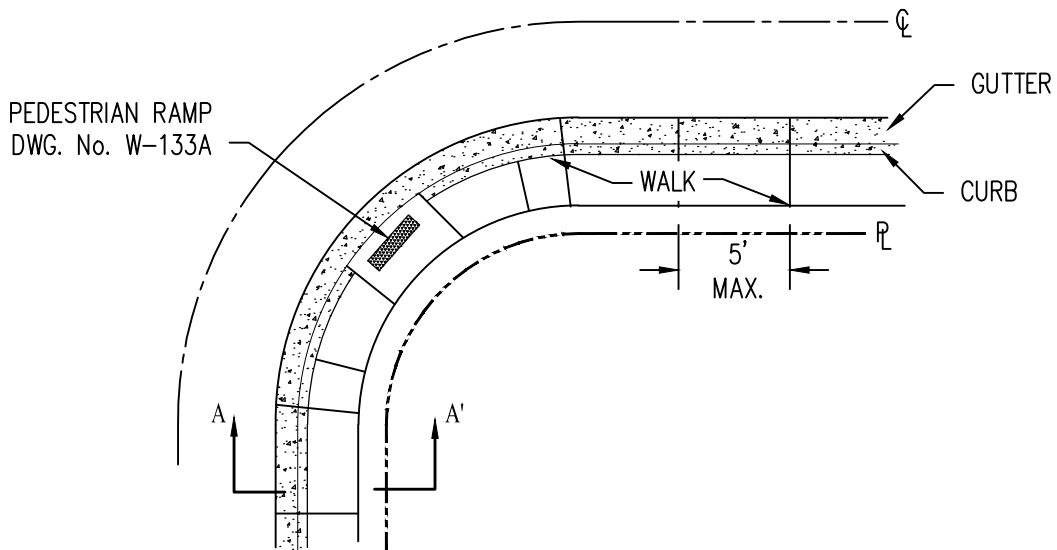
DRAWING NUMBER:  
W-131A

DATE:  
2/21/2022

**NOTES:**

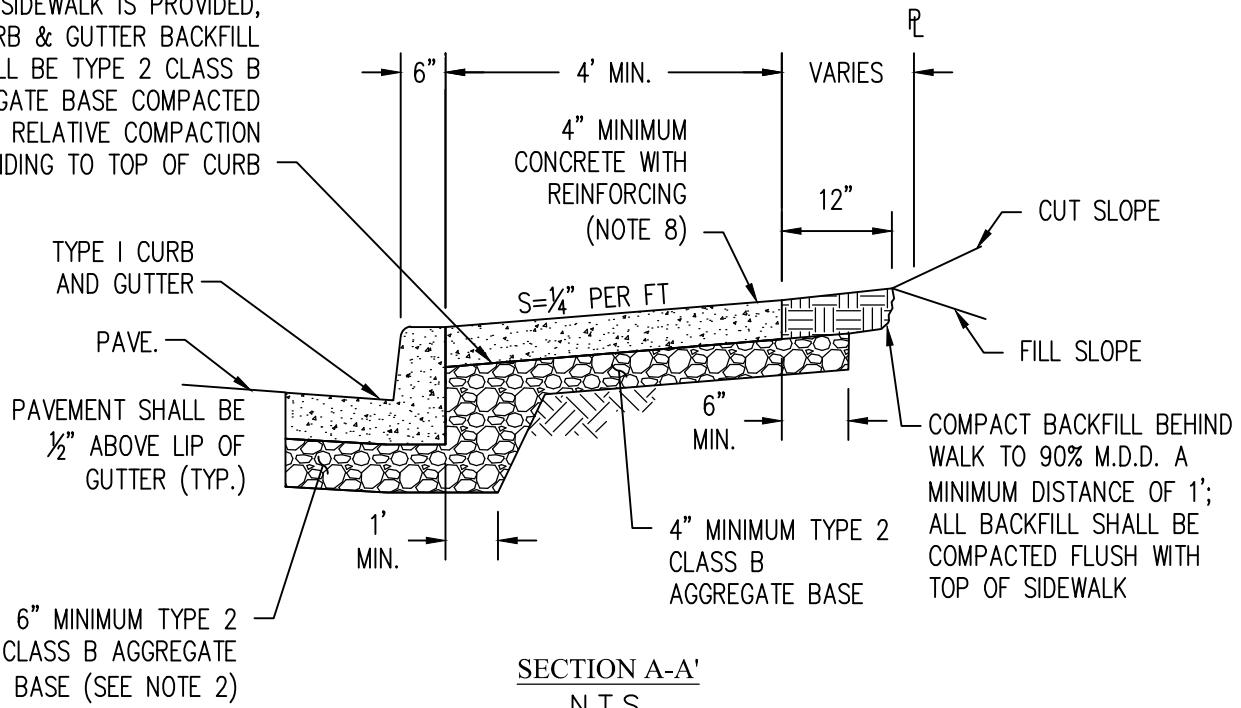
1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. CURB AND GUTTER SHALL HAVE WEAKENED PLANE JOINTS ON 10' CENTERS (MAXIMUM).
3. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
4. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.
5. FINISHING AND CURING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
6. TESTING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
7. SAWCUT ALONG LIP OF GUTTER WHEN REMOVING EXISTING CURB.
8. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE CURB UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
9. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
10. CURB AND GUTTER SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
11. CURB AND GUTTER SHALL RECEIVE A LIGHT BROOM FINISH PARALLEL TO FLOW.

|             |                  |   |   |                        |
|-------------|------------------|---|---|------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>TYPE 1 P.C.C. CURB &amp; GUTTER</b><br><br><b>NOTES</b> | <b>SECTION NUMBER:</b> |
|             |                  |   |   | <b>100</b>             |
|             |                  |   |   | <b>DRAWING NUMBER:</b> |
|             |                  |   |   | <b>W-131B</b>          |
|             |                  |   |   | <b>DATE:</b>           |
|             |                  |   |   | <b>2/21/2022</b>       |



PLAN  
N.T.S.

FOR CURB & GUTTER WHERE NO SIDEWALK IS PROVIDED, CURB & GUTTER BACKFILL SHALL BE TYPE 2 CLASS B AGGREGATE BASE COMPACTED TO 90% RELATIVE COMPACTION EXTENDING TO TOP OF CURB



SECTION A-A'  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

P.C.C. SIDEWALK

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-132A</b> |
| DATE:<br><b>2/21/2022</b>        |

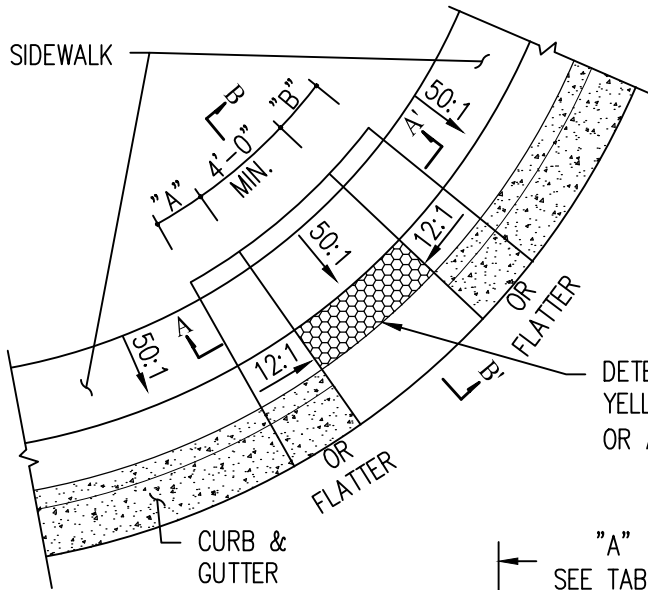
**NOTES:**

1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5–7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
3. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.
4. FINISHING AND CURING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
5. TESTING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
6. SIDEWALK REMOVAL SHALL BE TO NEAT SAWCUT LINES.
7. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE SIDEWALK UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
8. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
9. SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
10. SIDEWALK SHALL RECEIVE A LIGHT BROOM FINISH.
11. SEE ROADWAY SECTIONS FOR SIDEWALK WIDTHS.

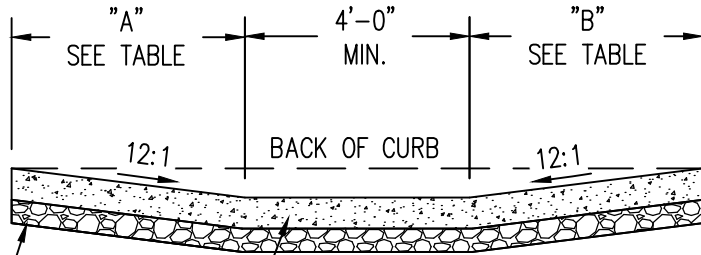
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION     | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | <p style="text-align: center;">P.C.C. SIDEWALK</p> | 100             |
|      |           |   |  | DRAWING NUMBER: |
|      |           |   |  | DATE:           |
|      |           |   | W-132B   |                 |
|      |           |   | 2/21/2022  |                 |



| GRADE% "B" TO "A" | "A" MINIMUM | "B" MINIMUM |
|-------------------|-------------|-------------|
| -6 TO -5.01       | 4' - 6"     | 21' - 6"    |
| -5 TO -4.01       | 4' - 6"     | 15' - 0"    |
| -4 TO -3.01       | 4' - 6"     | 12' - 0"    |
| -3 TO -2.01       | 5' - 0"     | 9' - 6"     |
| -2 TO -1.01       | 5' - 6"     | 8' - 0"     |
| -1 TO 1           | 7' - 0"     | 7' - 0"     |
| 1.01 TO 2         | 8' - 0"     | 5' - 6"     |
| 2.01 TO 3         | 9' - 6"     | 5' - 0"     |
| 3.01 TO 4         | 12' - 0"    | 4' - 6"     |
| 4.01 TO 5         | 15' - 0"    | 4' - 6"     |
| 5.01 TO 6         | 12' - 6"    | 4' - 6"     |



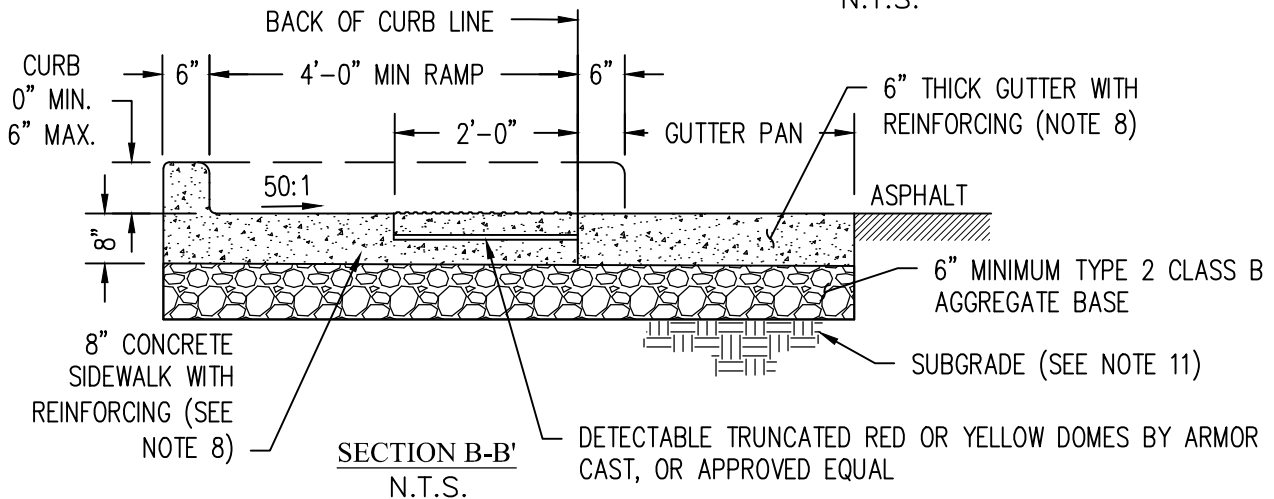
PLAN  
N.T.S.



SECTION A-A'  
N.T.S.

6" MINIMUM TYPE 2 CLASS B AGGREGATE BASE

8" CONCRETE SIDEWALK WITH REINFORCING (SEE NOTE 8)



SECTION B-B'  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

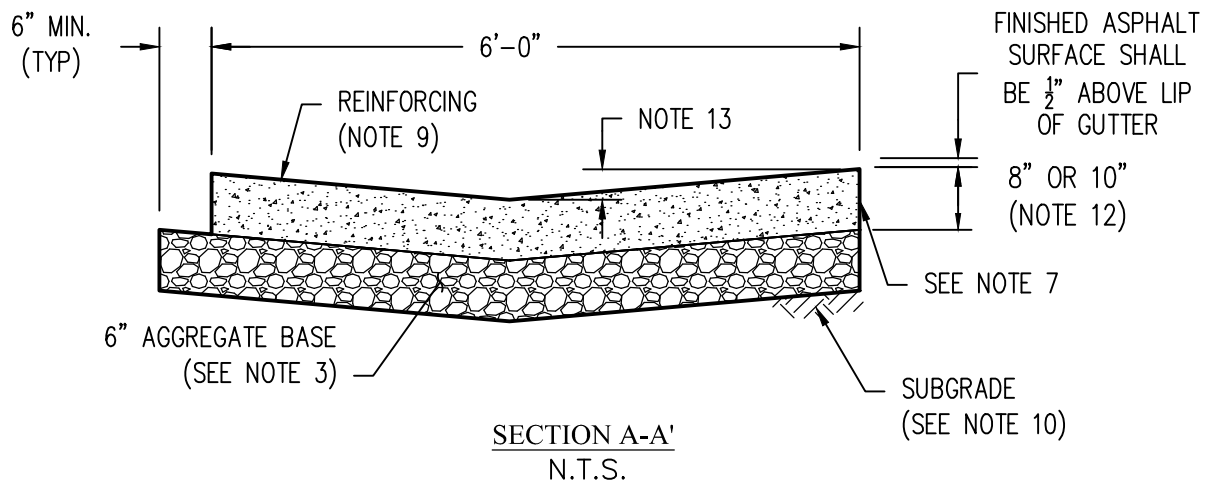
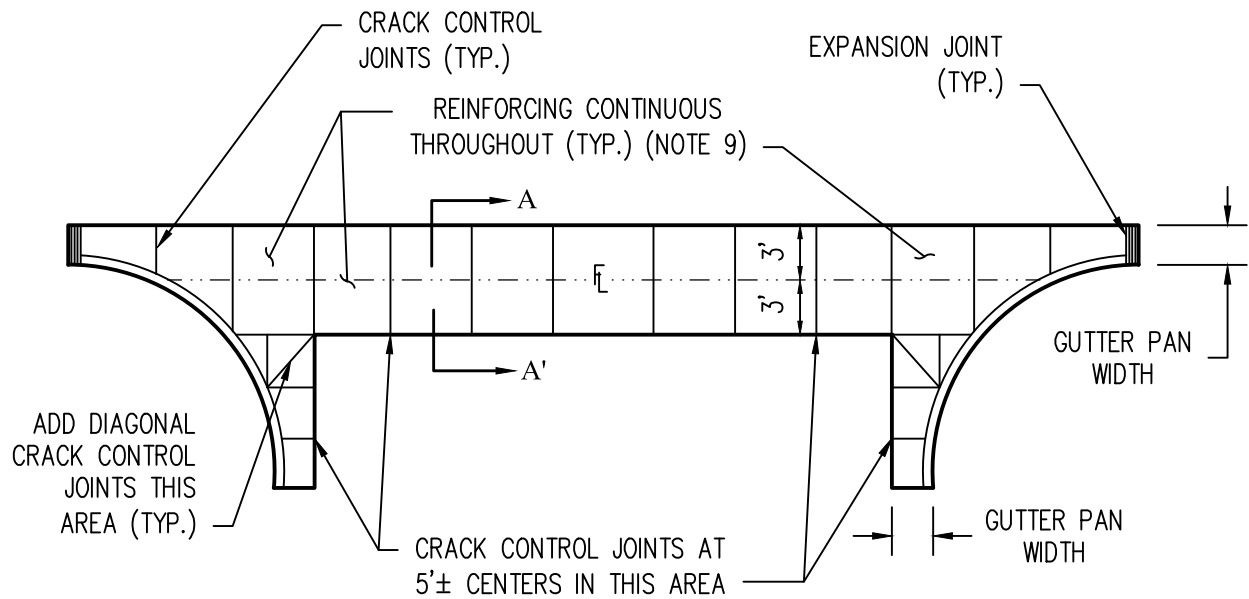
PEDESTRIAN RAMP

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-133A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL OF THE COUNTY ENGINEER.
2. TEXTURE TO BE HEAVY BROOM FINISH TRANSVERSE TO AXIS OF RAMP.
3. THE MID-BLOCK RAMP SHOWN IN DETAIL SHALL BE CENTERED IN CROSSWALK AND HAVE A MINIMUM CURB OPENING OF 6'.
4. SLOPE TO MEET EXISTING CONDITIONS.
5. ALL RAMPS SHALL BE LOCATED WITHIN CROSSWALK AREAS.
6. ALL CONCRETE SHALL BE REMOVED TO SAW-CUT OR EXPANSION JOINTS.
7. GUTTER PAN/SIDEWALK TRANSITION (SECTION "A-A") WILL BE SMOOTH WITH NO LIP AT THE GUTTER FLOWLINE TRANSITION. SECTION MAY BE MONOLITHIC POUR.
8. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
9. REFERENCE DRAWING Nos. W-131B AND W-132B FOR ADDITIONAL NOTES.
10. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
11. SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
12. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION               | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | <p style="text-align: center;">PEDESTRIAN RAMP<br/>NOTES</p> | 100             |
|      |           |   |  | DRAWING NUMBER: |
|      |           |   |  | DATE:           |
|      |           |   | W-133B   | 2/21/2022       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

P.C.C. VALLEY GUTTER

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-134A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**


1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5–7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. VALLEY GUTTER SHALL RECEIVE A MEDIUM BROOM FINISH PARALLEL TO FLOW.
3. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
4. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.
5. FINISHING AND CURING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
6. TESTING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
7. SAWCUT ALONG EDGE OF VALLEY GUTTER WHEN REMOVING EXISTING VALLEY GUTTER.
8. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE VALLEY GUTTER UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
9. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
10. SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
11. VALLEY GUTTER NOT PERMITTED ACROSS COLLECTOR OR ARTERIAL STREETS.
12. 8" P.C.C. TO BE USED IN RESIDENTIAL AREAS WHERE TRUCK OR BUS TRAFFIC IS LESS THAN 5% OF TOTAL TRAFFIC. 10" P.C.C. TO BE USED FOR COMMERCIAL DRIVEWAYS, ROADS OR STREETS WHERE TRUCK OR BUS TRAFFIC EXCEEDS 5% OF TOTAL TRAFFIC.
13. FLOWLINE VARIES TO MATCH GUTTER.

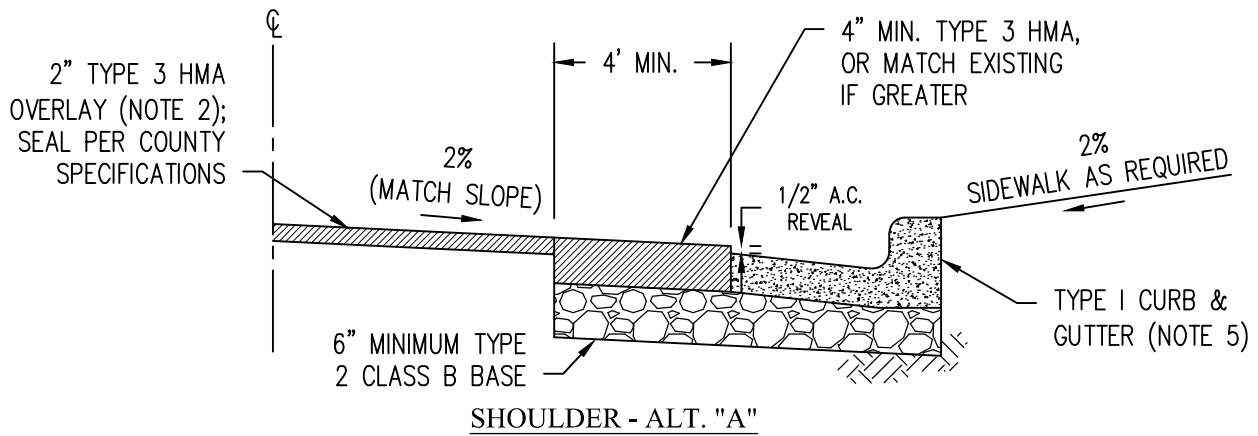
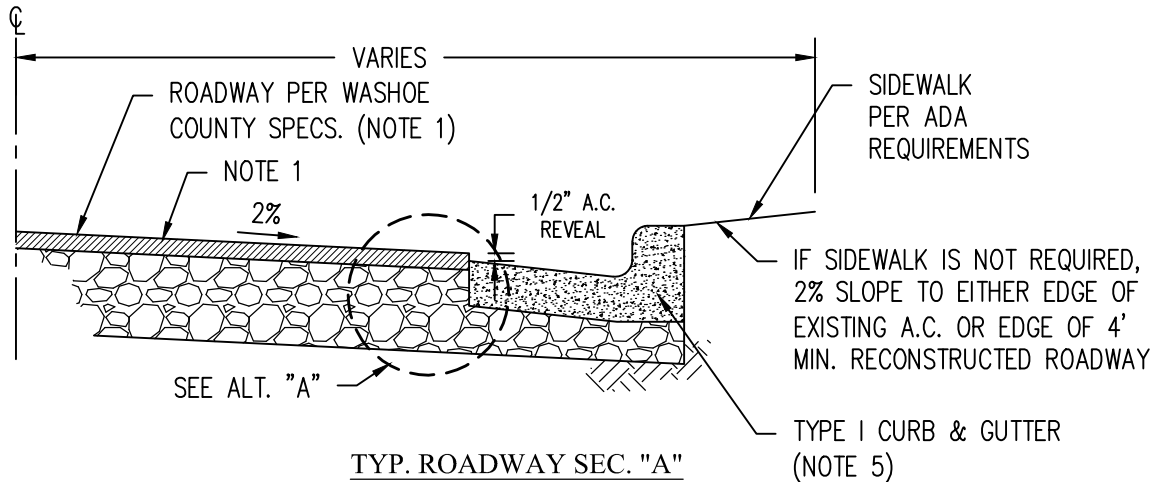
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:           |
|------|-----------|---|--|---------------------------|
|      |           |   | P.C.C. VALLEY GUTTER                           | 100                       |
|      |           |   | NOTES  | DRAWING NUMBER:<br>W-134B |
|      |           |   | DATE:<br>2/21/2022                             |                           |



**NOTES:**


1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5–7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". IF COLORED CONCRETE, CONCRETE SHALL BE A MINIMUM OF 7 SACKS OF TYPE II CEMENT (658 LBS) PER CUBIC YARD OF CONCRETE WITH A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS AND 4.5–7.5% AIR ENTRAINMENT.
2. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), EXCEPT WHERE SPECIFIED IN WASHOE COUNTY DETAILS AND SPECIFICATIONS.
3. ALL CRACK CONTROL JOINTS SHALL BE 7 FEET MAXIMUM.
4. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
5. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.
6. FINISHING AND CURING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
7. TESTING SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE SSPWC.
8. CURB REMOVAL SHALL BE TO NEAT SAWCUT LINES.
9. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE CURB AND SIDEWALK UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
10. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
11. CURB AND GUTTER AND SIDEWALK SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
12. SEE ROADWAY SECTIONS FOR SIDEWALK WIDTHS.
13. ALL DRIVEWAY APRONS SHALL CONFORM TO DRAWING Nos. W-142A, W-142B, W-142C, W-142D, W-142E AND W-141.
14. CURB AND GUTTER AND SIDEWALK SHALL RECEIVE A LIGHT BROOM FINISH.

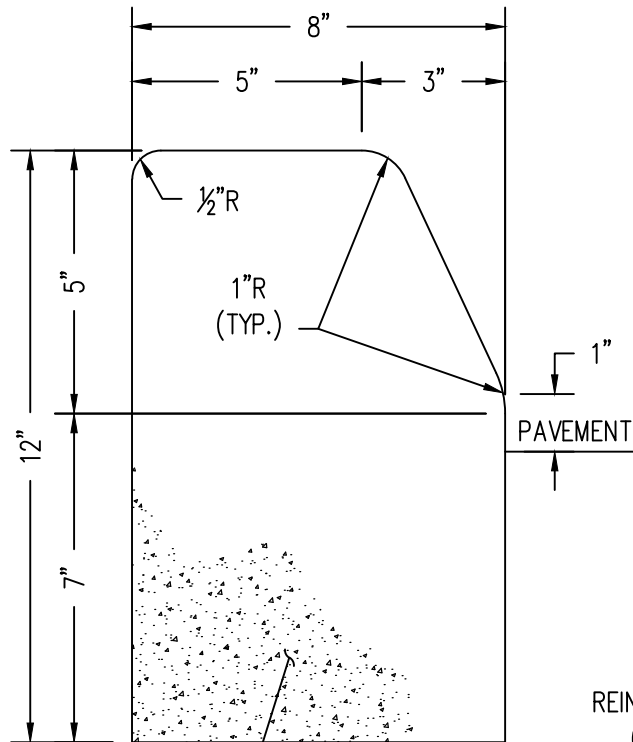
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |           |
|------|-----------|---|--|-----------|
|      |           |   | MONOLITHIC CURB & GUTTER                       |           |
|      |           |   | AND SIDEWALK                                   |           |
|      |           |   | NOTES  |           |
|      |           |   | SECTION NUMBER:                                | 100       |
|      |           |   | DRAWING NUMBER:                                | W-135B    |
|      |           |   | DATE:  | 2/21/2022 |



**NOTES:**

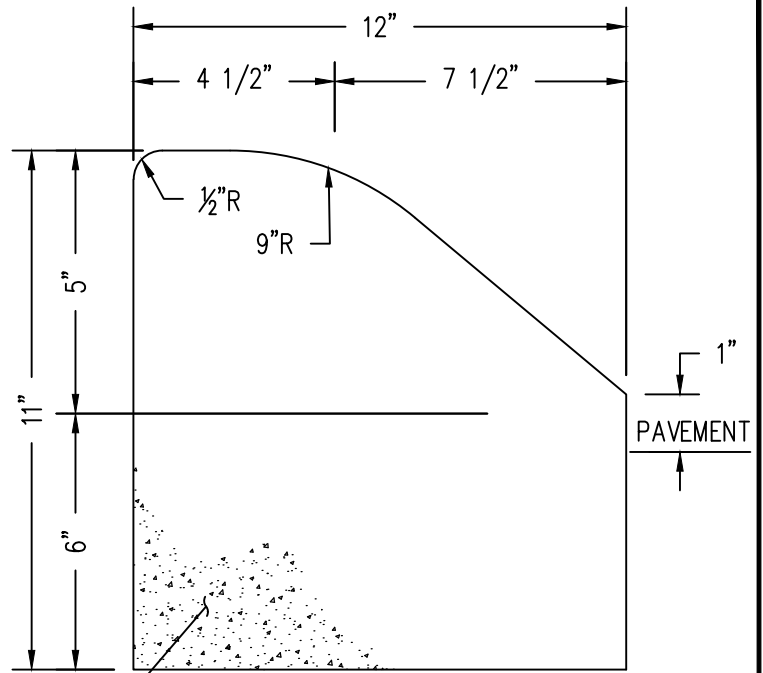
1. REMOVE EXISTING ASPHALT SURFACE TO STREET OR CROWN IN ROADWAY. RECONSTRUCT ROADWAY WITH 4" A MINIMUM TYPE 3 HMA ON 6" MINIMUM TYPE 2 CLASS B AGGREGATE BASE, OR MATCH EXISTING STRUCTURAL SECTION IF GREATER, AND SEAL PER COUNTY STANDARDS.
2. GRINDING OF EXISTING ASPHALT SURFACE MAY BE PERMITTED BY COUNTY ENGINEER IF EXISTING ASPHALT IS MINIMUM 4" THICK AND HAS A PAVEMENT CONDITION INDEX OF 65 OR GREATER.
3. MINIMUM PROFILE ON CURB AND GUTTER SHALL BE 0.5% OR ROADWAY MUST BE RECONSTRUCTED TO MEET MINIMUM SLOPE REQUIREMENTS.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS AND THE LATEST WASHOE COUNTY DETAILS.
5. ALL BACKFILL BEHIND CURB SHALL MEET THE LATEST WASHOE COUNTY REQUIREMENTS. 2' MINIMUM COMPACTED TO 90% M.D.D. AND SHALL BE EITHER TYPE 2 CLASS B BASE OR CLASS A BACKFILL @ 2% SLOPE TO CURB AND GUTTER.
6. FOR SIDEWALK, REFER TO DRAWING No. W-132.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION          |           | SECTION NUMBER: |
|------|-----------|---|---|-----------|-----------------|
|      |           |   | <p align="center"><b>RETROFIT CURB &amp; GUTTER</b></p> |           | 100             |
|      |           |   |   |           | DRAWING NUMBER: |
|      |           |   |   | W-136     |                 |
|      |           |   | DATE:   | 2/21/2022 |                 |



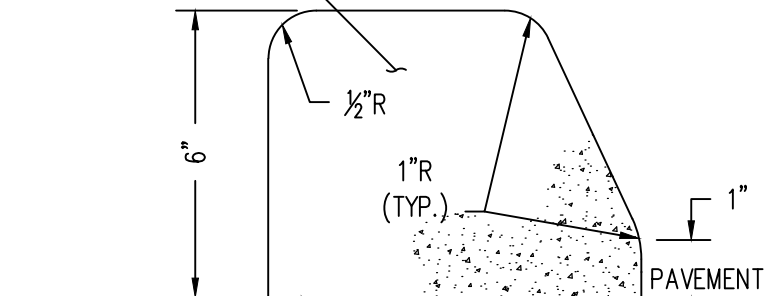
TYPE 1 P.C.C. MEDIAN CURB

REINFORCING  
(NOTE 3)



TYPE 3 P.C.C. MEDIAN CURB

REINFORCING  
(NOTE 3)



TYPE 2 P.C.C. MEDIAN CURB

EPOXY COAT (SEE NOTE 1)

EXTEND A.C. PAVING MINIMUM 6"  
BEYOND BACK FACE OF CURB ON  
TYPE 2 CURB ONLY

**NOTES:**

1. AN APPROVED EPOXY COAT BETWEEN THE CURB PAVEMENT SURFACE SHALL BE USED.
2. SEE NOTES FOR TYPE I CURB AND GUTTER, DRAWING No. W-131B.
3. ALL CONCRETE FOR TYPE 1, TYPE 2 OR TYPE 3 P.C.C. MEDIAN CURB SHALL BE REINFORCED COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
4. ALL NOSES ON MEDIAN CURB SHALL BE POURED SOLID FOR THE FULL WIDTH OF THE MEDIAN.
5. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4".

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

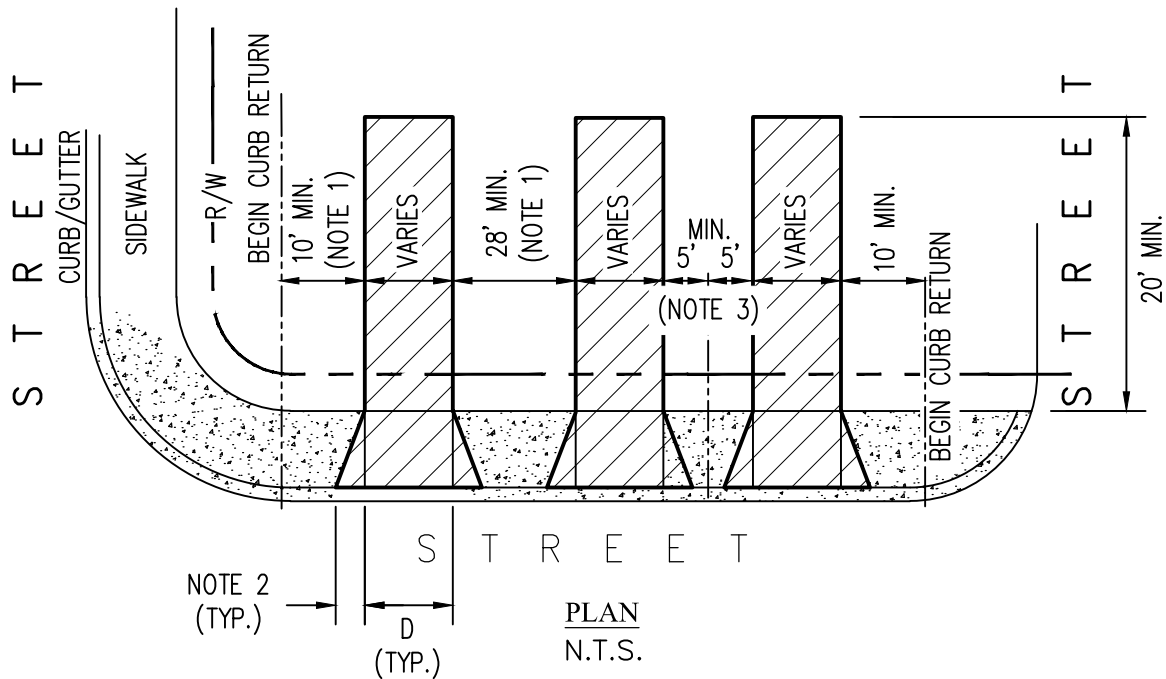


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

P.C.C. MEDIAN CURB

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>100</b>   |
| DRAWING NUMBER:<br><b>W-137</b> |
| DATE:<br><b>2/21/2022</b>       |



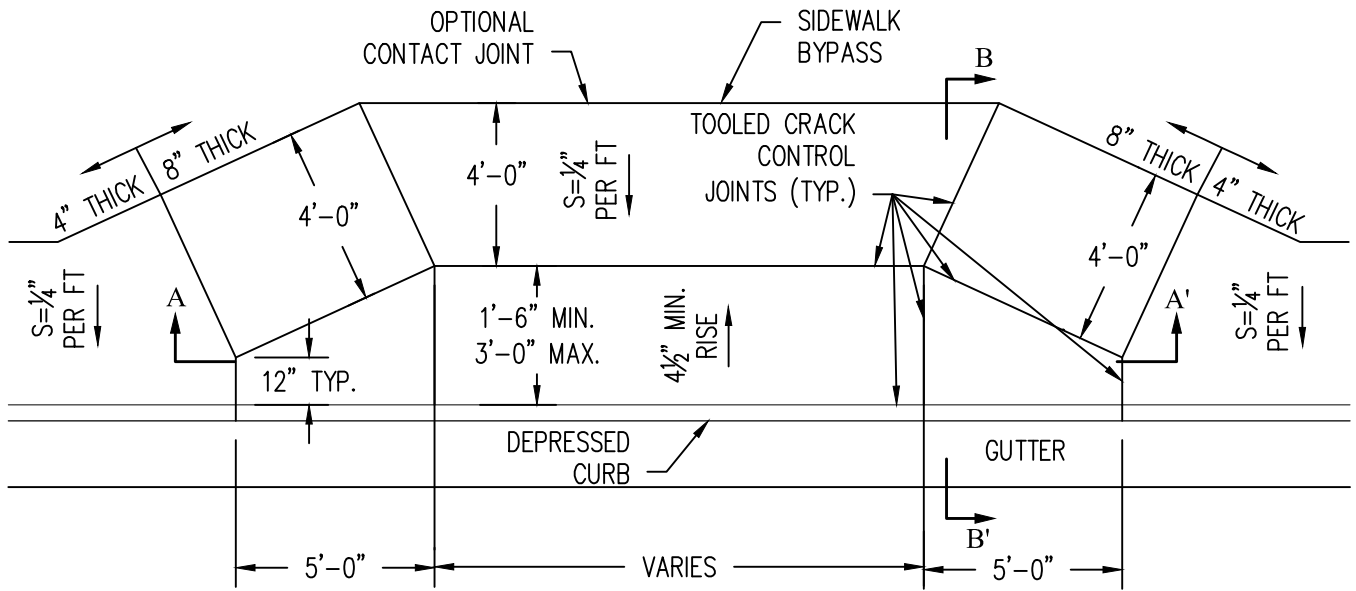


| DRIVEWAY (D) | RESIDENTIAL                                  | *MULTI-FAMILY & LIGHT COMMERCIAL | **HEAVY COMMERCIAL & INDUSTRIAL |
|--------------|--|----------------------------------|---------------------------------|
| 12' MIN.     | 1-CAR GARAGE/ACCESS DRIVEWAY                 | 14' MINIMUM (ONE-LANE)           | 20' MINIMUM (ONE-LANE)          |
| 16' MIN.     | 2-CAR GARAGE                                 | 36' MINIMUM (TWO-LANE)           | 40' MINIMUM (TWO-LANE)          |
| 24' MIN.     | 2-CAR GARAGE WITH RV PARKING OR 3 CAR GARAGE | 45' MINIMUM (3-LANES)***         | 54' MAXIMUM (3-LANES)***        |
| 40' MIN.     | 3-CAR GARAGE WITH RV PARKING OR 4 CAR GARAGE |                                  |                                 |

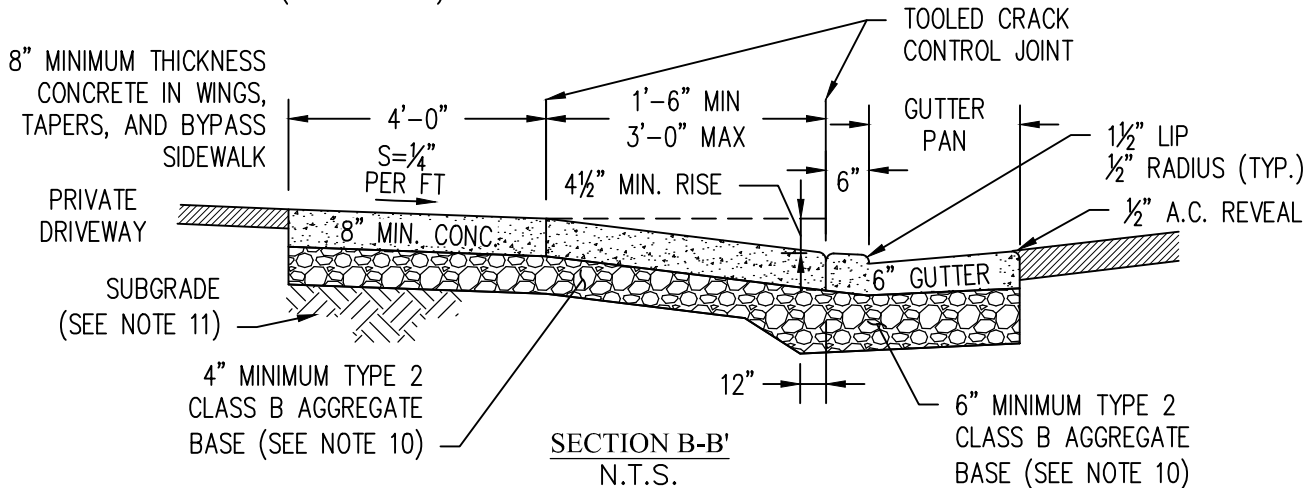
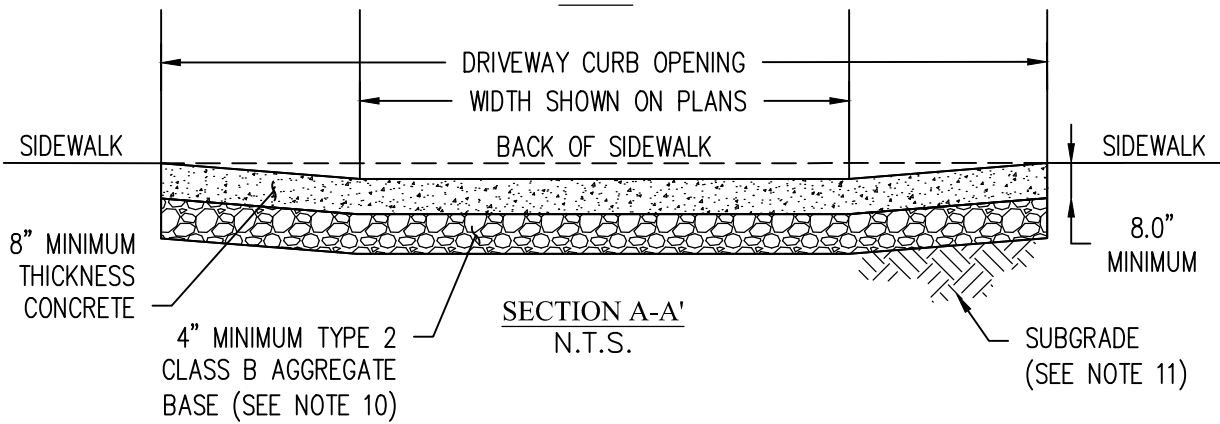
**NOTES:**

1. CIRCULAR DRIVEWAYS MAY BE INSTALLED WITH APPROVAL OF COUNTY ENGINEER.
2. REFER TO DRAWING Nos. W-142A, W-142B, W-142C, W-142D AND W-142E FOR TAPER LENGTH, NOTES AND CROSS SECTIONS.
3. 5' MINIMUM SPACE NOT REQUIRED ON SHARED DRIVEWAYS. \* = MULTI-RESIDENTIAL WITH 3 UNITS OR GREATER, OFFICE BUILDINGS AND OTHER COMMERCIAL BUILDINGS. \*\* = DRIVE-IN ESTABLISHMENTS, FACTORIES, SERVICE STATIONS, WAREHOUSES AND DISTRIBUTION, MANUFACTURING AND INDUSTRIAL. COUNTY ENGINEER MAY REQUIRE CURB RETURNS TO BE CONSTRUCTED WITH APPROPRIATE RADII. \*\*\* = MORE THAN 3 LANES REQUIRES COUNTY ENGINEER APPROVAL.

|      |           |   |  |                          |
|------|-----------|---|--|--------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>100   |
|      |           |   | DRIVEWAY GEOMETRICS                            | DRAWING NUMBER:<br>W-141 |
|      |           |   |  | DATE:<br>2/21/2022       |



TOOLED CRACK JOINTS ON APPROXIMATE 5 FT. CENTERS IN CURB AND GUTTER AND DRIVEWAY APRON WITHIN THE LIMITS OF THE DEPRESSED CURB  
PLAN

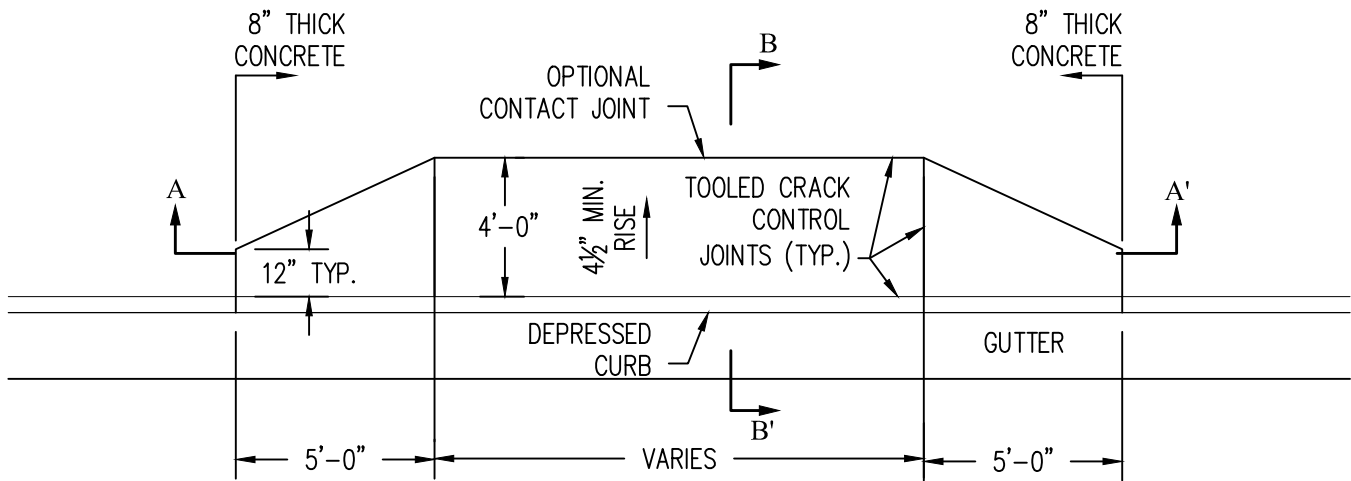


| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

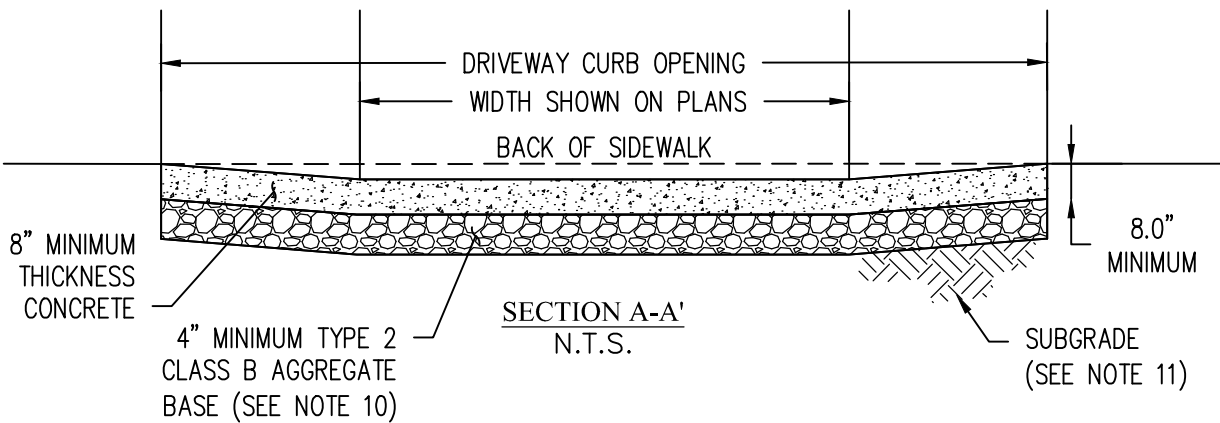


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
**P.C.C. DRIVEWAY APRON  
 (STREETS WITH SIDEWALK)**

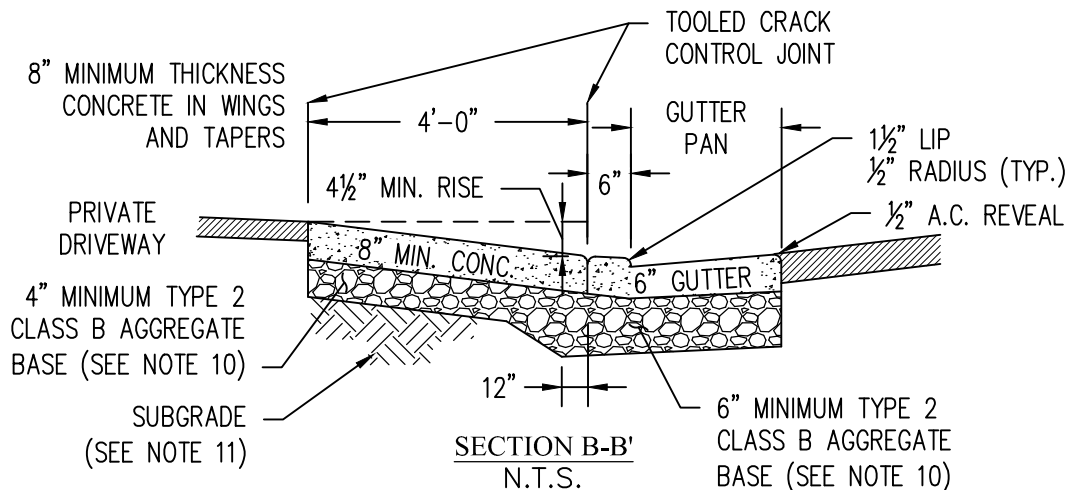
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-142A</b> |
| DATE:<br><b>2/21/2022</b>        |



TOOLED CRACK JOINTS ON APPROXIMATE 5 FT. CENTERS IN CURB AND GUTTER AND DRIVEWAY APRON WITHIN THE LIMITS OF THE DEPRESSED CURB  
PLAN



SECTION A-A'  
 N.T.S.



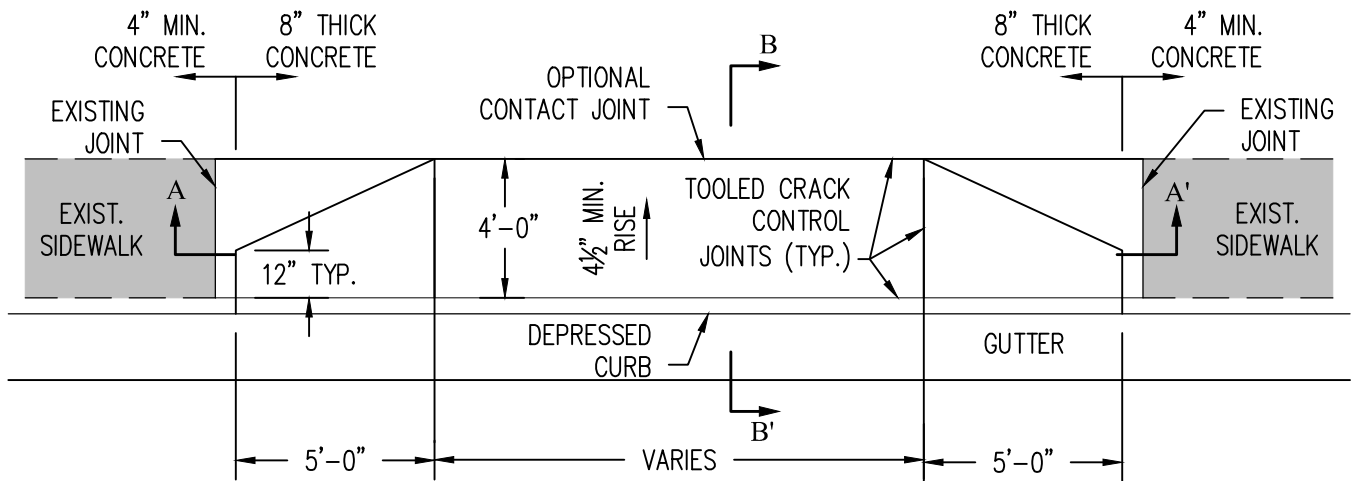
SECTION B-B'  
 N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

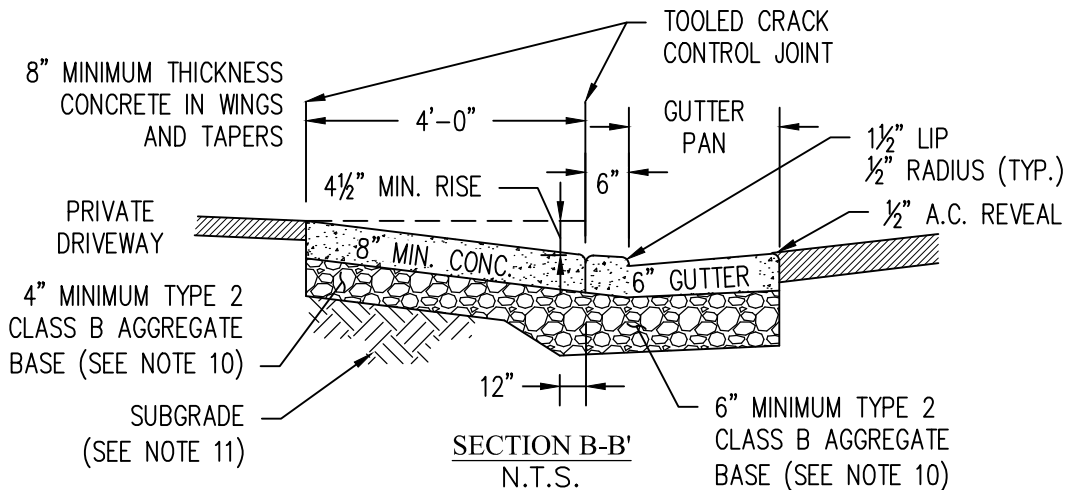
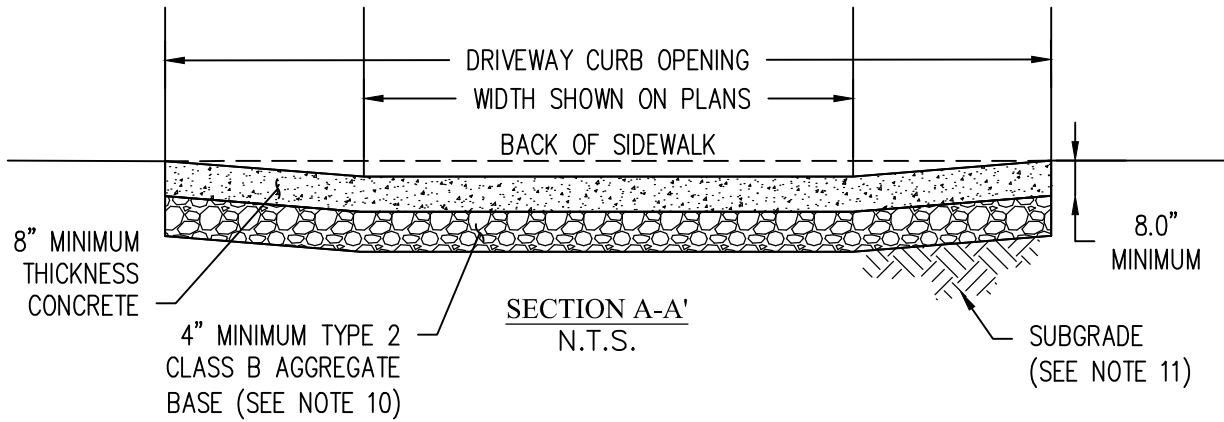


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
**P.C.C. DRIVEWAY APRON**  
 (STREETS WITH NO SIDEWALK)

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-142B</b> |
| DATE:<br><b>2/21/2022</b>        |



TOOLED CRACK JOINTS ON APPROXIMATE 5 FT. CENTERS IN CURB AND GUTTER AND DRIVEWAY APRON WITHIN THE LIMITS OF THE DEPRESSED CURB  
PLAN



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

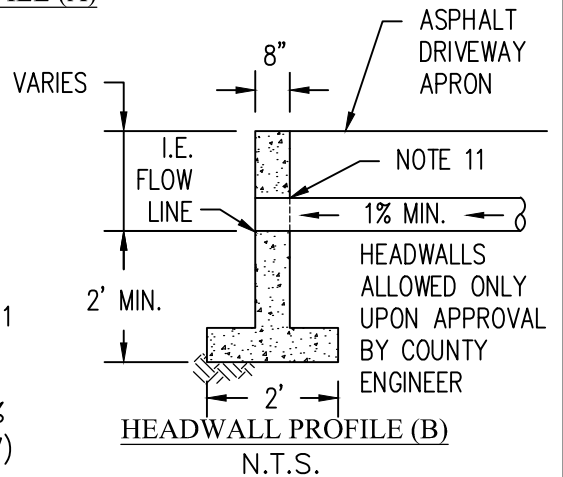
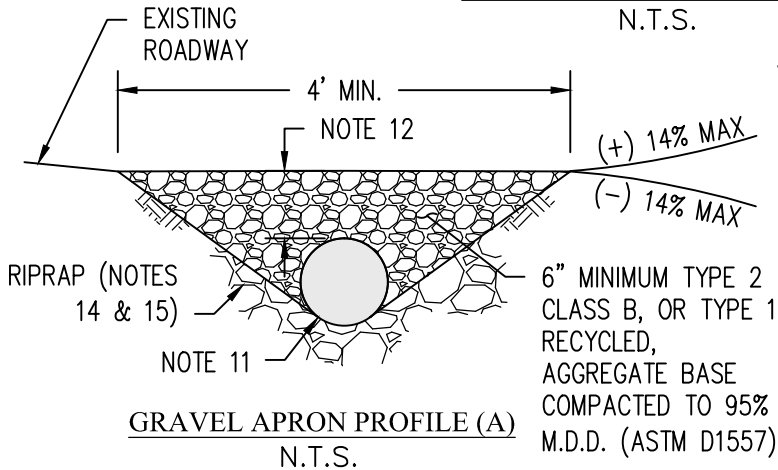
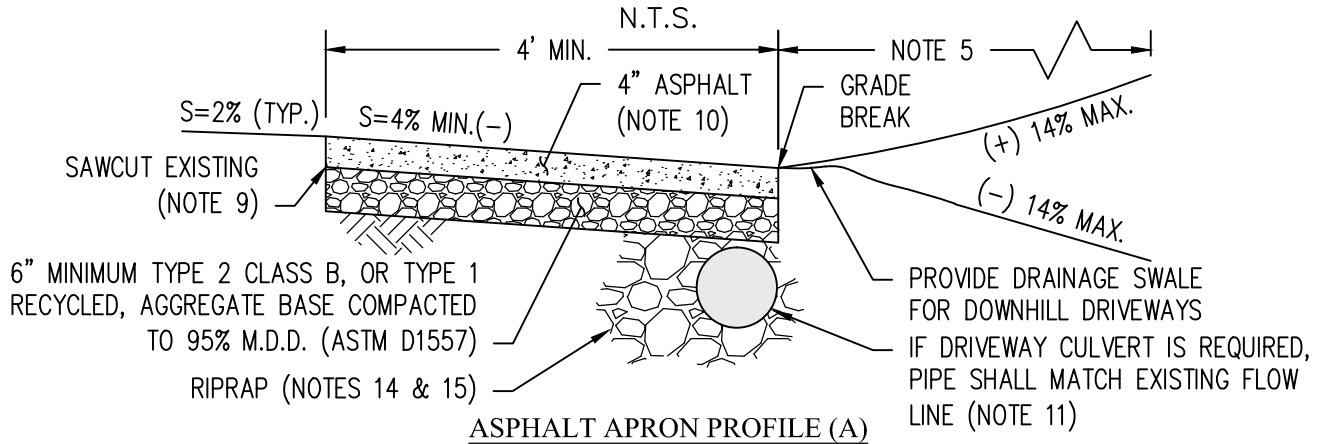
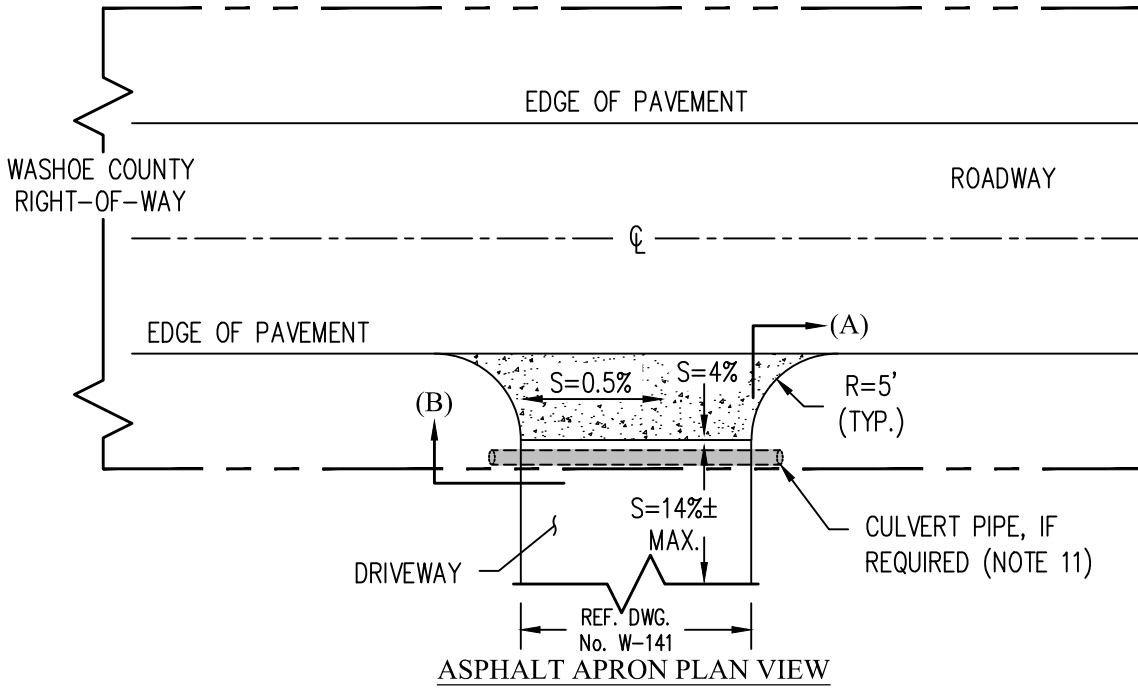
P.C.C. DRIVEWAY APRON  
 (WITH EXISTING ADJACENT SIDEWALK)

|                           |
|---------------------------|
| SECTION NUMBER:<br>100    |
| DRAWING NUMBER:<br>W-142C |
| DATE:<br>2/21/2022        |

**NOTES:**

1. DRAWING No. W-142A SHALL BE USED FOR NEW CONSTRUCTION WITH SIDEWALK. DRAWING No. W-142B SHALL BE USED FOR NEW OR RETROFIT CONSTRUCTION WHERE NO SIDEWALK IS EXISTING OR PROPOSED. DRAWING No. W-142C SHALL ONLY BE USED FOR RETROFIT CONSTRUCTION WHERE APPROVED BY COUNTY ENGINEER.
2. COMMERCIAL DRIVEWAYS TO USE 10-INCH THICK P.C.C. VALLEY GUTTER WITH EXTENDED CONCRETE APRON (DRAWING Nos. W-134A AND W-134B).
3. THESE DETAILS SHALL BE USED FOR ALL TYPES OF CONCRETE CURB, GUTTER AND ASPHALT BERM.
4. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". IF P.C.C. DRIVEWAY APRON IS COLORED CONCRETE, CONCRETE SHALL BE A MINIMUM OF 7 SACKS OF TYPE II CEMENT (658 LBS) PER CUBIC YARD OF CONCRETE WITH A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS AND 4.5-7.5% AIR ENTRAINMENT.
5. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), EXCEPT WHERE SPECIFIED IN WASHOE COUNTY DETAILS AND SPECIFICATIONS.
6. CONCRETE SHALL BE FINISHED AND CURED IN ACCORDANCE WITH METHODS FOUND IN THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
7. REINFORCING FOR ALL DRIVEWAY APRONS/CURB/GUTTERS SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
8. CONCRETE FOR DRIVEWAY APRON SHALL RECEIVE A MEDIUM BROOM FINISH.
9. REMOVE CONCRETE WHEN CONSTRUCTING DRIVEWAY WHERE CURB, GUTTER AND/OR SIDEWALK EXISTS. CURB REMOVAL SHALL BE TO NEAT SAWCUT LINES AND ALONG LIP OF GUTTER. ALL UNUSED DEPRESSED CURB SHALL BE REMOVED AND REPLACED WITH FULL HEIGHT CURB. CURB AND GUTTER AND APRON MAY BE POURED MONOLITHIC.
10. AGGREGATE BASE SHALL BE TYPE 2 CLASS B COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
11. SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
12. MAXIMUM SLOPE ON DRIVEWAYS SHALL BE 14%.
13. WASHOE COUNTY MAY REQUIRE THREE (3) 2" DIAMETER CORES TO VERIFY THICKNESS OF CONCRETE APRON. THE AVERAGE DEPTH OF THE 3 CORES SHALL BE A MINIMUM OF 8". APRONS NOT MEETING THE MINIMUM 8" DEPTH AS ESTABLISHED BY THE CORES SHALL BE REMOVED AND REPLACED.
14. NO EQUIPMENT SHALL BE PERMITTED ADJACENT TO OR ACROSS THE DRIVEWAY APRON UNTIL THE FOURTH DAY FOLLOWING PLACEMENT OF THE CONCRETE, OR UNTIL THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
15. EVAPORATION REDUCERS SHALL BE APPLIED IMMEDIATELY AFTER INITIAL CURING.

|      |           |   |   |                           |
|------|-----------|---|---|---------------------------|
| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>P.C.C. DRIVEWAY APRON</b><br><br><b>NOTES</b> | SECTION NUMBER:           |
|      |           |   |   | 100                       |
|      |           |   |   | DRAWING NUMBER:<br>W-142D |
|      |           |   |   | DATE:<br>2/21/2022        |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

ASPHALT AND GRAVEL DRIVEWAY APRONS

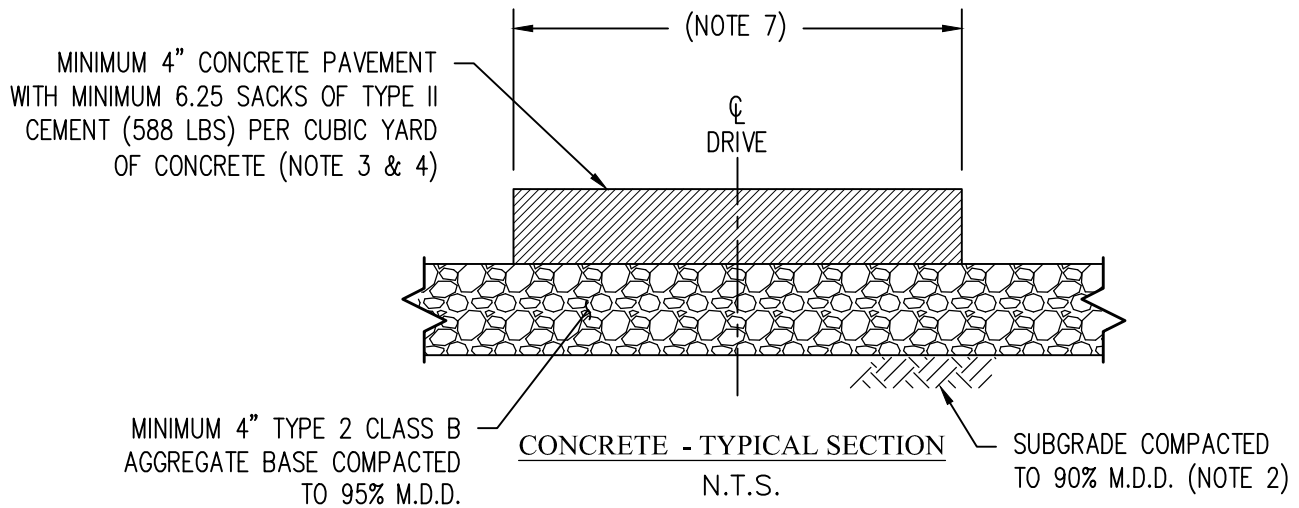
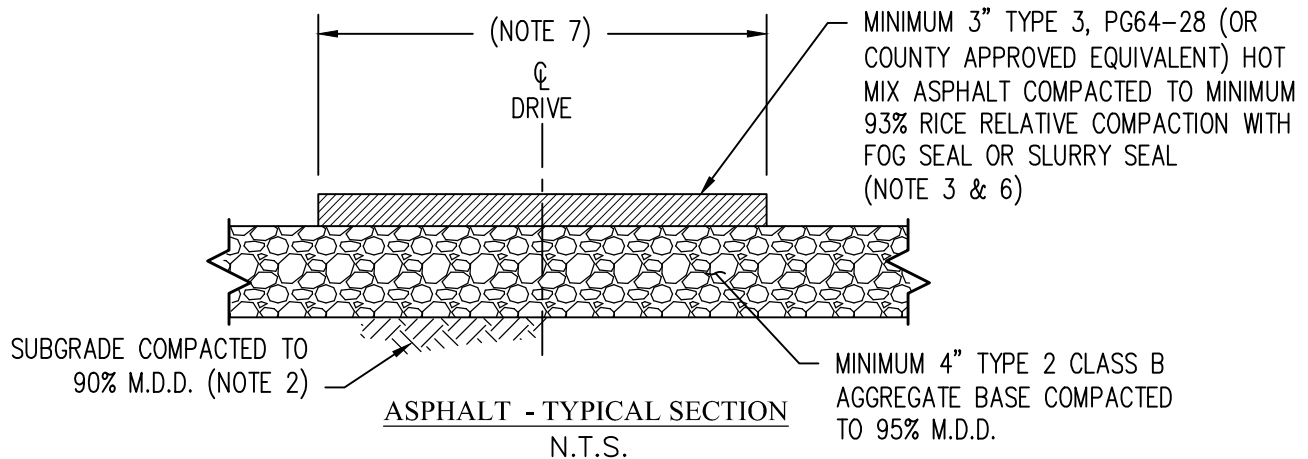
FOR USE WHERE NO CURB & GUTTER EXISTS

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-143A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. ENCROACHMENT/EXCAVATION PERMIT AND/OR A REVOCABLE OCCUPANCY PERMIT SHALL BE OBTAINED FROM THE WASHOE COUNTY COMMUNITY SERVICES DEPARTMENT PRIOR TO ANY WORK.
2. THE MAXIMUM SLOPE ON DRIVEWAYS SHALL NOT EXCEED 14%.
3. SUBGRADE SHALL BE COMPACTED TO 90% MINIMUM RELATIVE COMPACTION. IF EXPANSIVE OR UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, THE SOILS SHALL BE OVER-EXCAVATED TO CONFORM TO THE SOILS REPORT OR REQUIREMENTS OF WASHOE COUNTY. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY WASHOE COUNTY PRIOR TO PLACEMENT OF AGGREGATE BASE.
4. ALL WORK SHALL MEET THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
5. WHEN GRADE DIFFERENTIAL BETWEEN DRIVEWAY APRON AND ASPHALT EXCEEDS 6%, PROVIDE MINIMUM 6 FOOT VERTICAL CURVE TRANSITION BETWEEN BACK EDGE OF APRON AND DRIVEWAY.
6. NO PORTION OF THE DRIVEWAY SHALL BE PERMITTED WITHIN 5 FEET OF A PROPERTY LINE.
7. A MINIMUM OF 50 FEET MUST SEPARATE DRIVEWAY APPROACHES, CENTERLINE TO CENTERLINE, FOR CIRCULAR DRIVEWAYS ON ONE PROPERTY AS APPROVED BY THE COUNTY ENGINEER.
8. DRIVEWAY GEOMETRICS SHALL REFER TO THE WASHOE COUNTY STANDARD DRAWING No. W-141. CONCRETE DRIVEWAY APRONS SHALL REFER TO THE WASHOE COUNTY STANDARD DRAWING Nos. W-142A, W-142B, W-142C, W-142D AND W-142E.
9. MATCH WITH A NEAT LINE ALONG THE EXISTING EDGE OF PAVEMENT. SAWCUT A MINIMAL DISTANCE FROM THE EDGE AS NEEDED TO OBTAIN A SMOOTH MATCH LINE WITH A FULL DEPTH VERTICAL EDGE.
10. HOT MIX ASPHALT SHALL BE TYPE 3, PG64-28 (OR COUNTY APPROVED EQUIVALENT), 3% VOIDS, 50 BLOWS PER SIDE MIX WITH 1.5% LIME AND NO MORE THAN 15% RECYCLED ASPHALT PAVEMENT COMPACTED TO A MINIMUM OF 93% RICE RELATIVE COMPACTION.
11. MINIMUM SIZE CULVERT PIPE SHALL BE DETERMINED BY THE COUNTY ENGINEER. CULVERT PIPE IS TO BE ROUND OR ELLIPTICAL AND EITHER REINFORCED CONCRETE PIPE (RCP), GALVANIZED CORRUGATED METAL PIPE (CMP), OR HIGH DENSITY POLYETHYLENE (HDPE) MINIMUM CLASS S MEETING REQUIREMENTS OF AASHTO M294.
12. CULVERT PIPE INSTALLATION AND SOIL COVER DEPTH SHALL BE PER THE PIPE MANUFACTURER'S RECOMMENDATIONS. SOIL COVER SHALL BE TYPE 2 CLASS B, OR TYPE 1 RECYCLED, AGGREGATE BASE COMPACTED TO 95% MINIMUM RELATIVE COMPACTION PER ASTM D-1557.
13. CULVERT PIPE SHALL BE SLOPED TO MATCH EXISTING DITCH/ROAD GRADE, OR 1% MINIMUM.
14. CULVERT PIPE SHALL EXTEND A MINIMUM OF 2 FEET BEYOND THE TOE OF FILL WITH A MINIMUM OF 2 FEET OF RIPRAP HORIZONTALLY PAST END OF PIPE.
15. CLASS 150 RIPRAP TO BE PLACED AT PIPE INLETS AND OUTLETS. INSTALLATION OF FLARED END SECTIONS AND HEADWALLS SHALL BE DETERMINED BY THE COUNTY ENGINEER.
16. NO CONCRETE OR PAVER DRIVEWAYS ARE ALLOWED WITHIN 4 FEET OF THE EDGE OF PAVEMENT.
17. HYDRONIC OR HEATED DRIVEWAYS LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE ON A SEPARATE STATION.
18. WASHOE COUNTY SHALL NOT BE RESPONSIBLE FOR MAINTENANCE OF DRIVEWAY APRONS.
19. CURRENT AASHTO REQUIREMENTS FOR CLEAR ZONES SHALL BE MET.

| <table border="1"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> | DATE      | REVISIONS |  |  |  |  |  |  |  |  |  |  |  | <p><b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br/> <b>ASPHALT AND GRAVEL</b><br/> <b>DRIVEWAY APRONS NOTES</b><br/>         FOR USE WHERE NO CURB &amp; GUTTER EXISTS</p> | <table border="1"> <tr> <td><b>SECTION NUMBER:</b><br/>100</td> </tr> <tr> <td><b>DRAWING NUMBER:</b><br/>W-143B</td> </tr> <tr> <td><b>DATE:</b><br/>2/21/2022</td> </tr> </table> | <b>SECTION NUMBER:</b><br>100 | <b>DRAWING NUMBER:</b><br>W-143B | <b>DATE:</b><br>2/21/2022 |
|---|-----------|-----------|--|--|--|--|--|--|--|--|--|--|---|--|---|-------------------------------|----------------------------------|---------------------------|
| DATE  | REVISIONS |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
|   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| <b>SECTION NUMBER:</b><br>100   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| <b>DRAWING NUMBER:</b><br>W-143B  |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |
| <b>DATE:</b><br>2/21/2022   |           |           |  |  |  |  |  |  |  |  |  |  |   |  |   |                               |                                  |                           |



**NOTES:**

1. MINIMUM SLOPE SHALL BE 1% ON ASPHALT AND 0.4% ON CONCRETE.
2. SUBGRADE SOILS SHALL BE OVEREXCAVATED IN AREAS OF UNSTABLE OR EXPANSIVE SOILS TO CONFORM WITH SOILS REPORT OR WASHOE COUNTY REQUIREMENTS.
3. STRUCTURAL SECTIONS FOR COMMERCIAL DRIVEWAYS, APARTMENTS AND CONDOMINIUMS SHALL BE BASED UPON ENGINEERING DESIGN AND GEOMETRICS.
4. CONCRETE SHALL MEET REQUIREMENTS OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR CONCRETE EXPOSED TO FREEZE/THAW ENVIRONMENTS.
5. THIS STANDARD APPLIES UP TO A MAXIMUM OF TWO RESIDENTIAL LOTS SERVED BY A SINGLE DRIVEWAY.
6. MINIMUM 4" THICK, FULL DEPTH ASPHALT SECTION WITH FOG SEAL OR SLURRY SEAL MAY BE USED IN LIEU OF 3" ASPHALT ON 4" TYPE 2 CLASS B AGGREGATE BASE.
7. FOR MINIMUM WIDTHS WITHIN COUNTY RIGHT-OF-WAY, REFER TO DRAWING Nos. W-141, W-143A, W-143B, W-143C AND W-144.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**PRIVATE DRIVEWAY**  
**CONCRETE OR ASPHALT**

|                                 |
|---------------------------------|
| <b>SECTION NUMBER:</b><br>100   |
| <b>DRAWING NUMBER:</b><br>W-144 |
| <b>DATE:</b><br>2/21/2022       |



ASPHALT EDGE TO BE RE-COMPACTED AND  
 LEVELLED AFTER ASPHALT REMOVAL AND PRIOR  
 TO THE PLACEMENT OF THE CONCRETE COLLAR

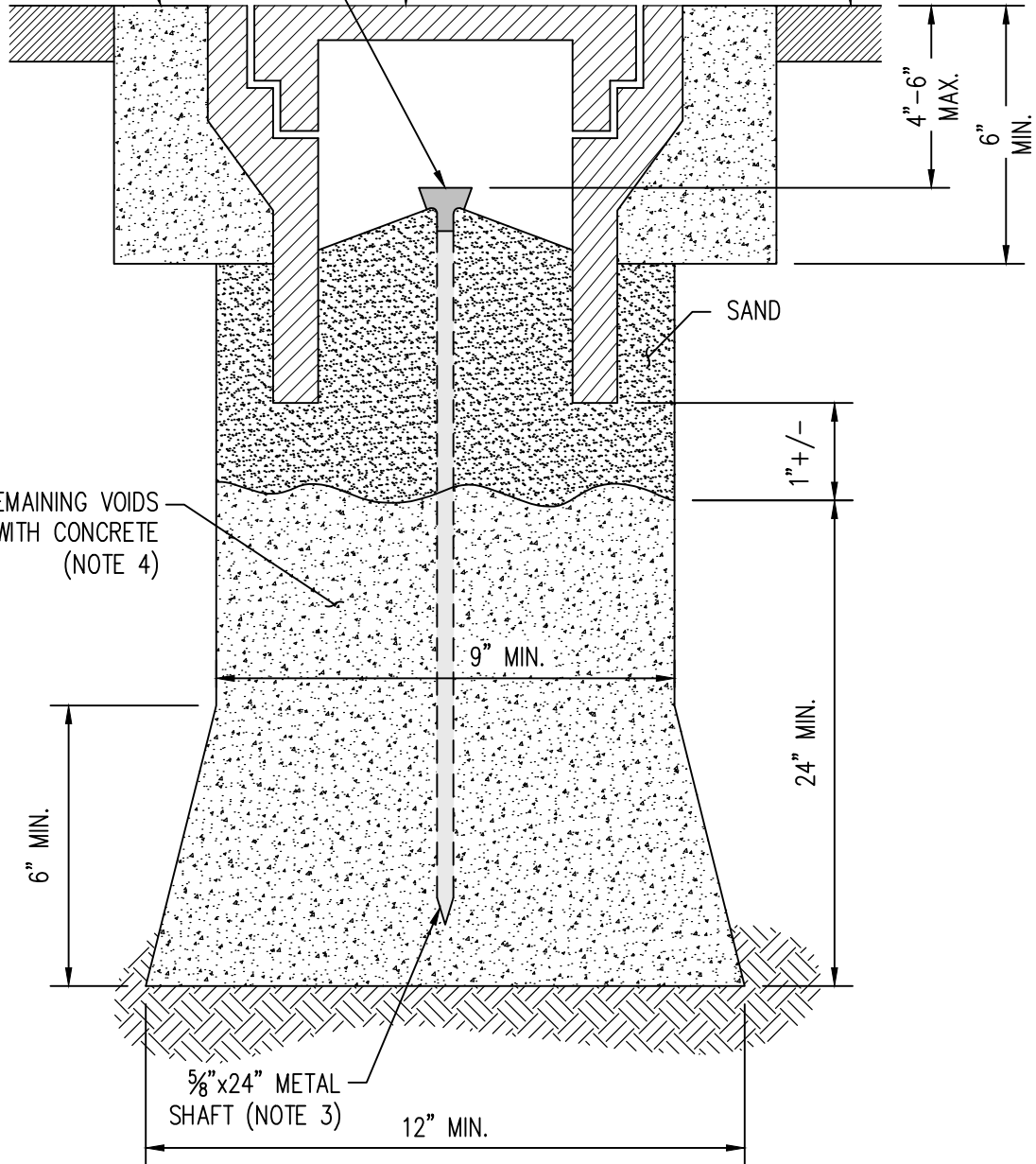
1 1/2" MINIMUM NON-FERROUS  
 CAP (NOTE 2)

P.C.C. COLLAR  
 (NOTE 4 & 5)

SURVEY BOX AND DEEP SEAT  
 COVER MARKED "SURVEY"  
 (D&L M-8046 AND M-8056,  
 OR EQUAL)

8"  
 MIN.

4"-6"  
 MAX.  
 6"  
 MIN.



SAND

1" +/-

FILL REMAINING VOIDS  
 WITH CONCRETE  
 (NOTE 4)

9" MIN.

24" MIN.

6" MIN.

5/8" x 24" METAL  
 SHAFT (NOTE 3)

12" MIN.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

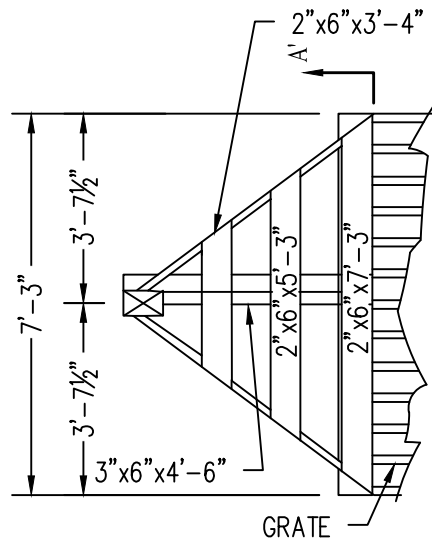
MONUMENTS

|                           |
|---------------------------|
| SECTION NUMBER:<br>100    |
| DRAWING NUMBER:<br>W-151A |
| DATE:<br>2/21/2022        |

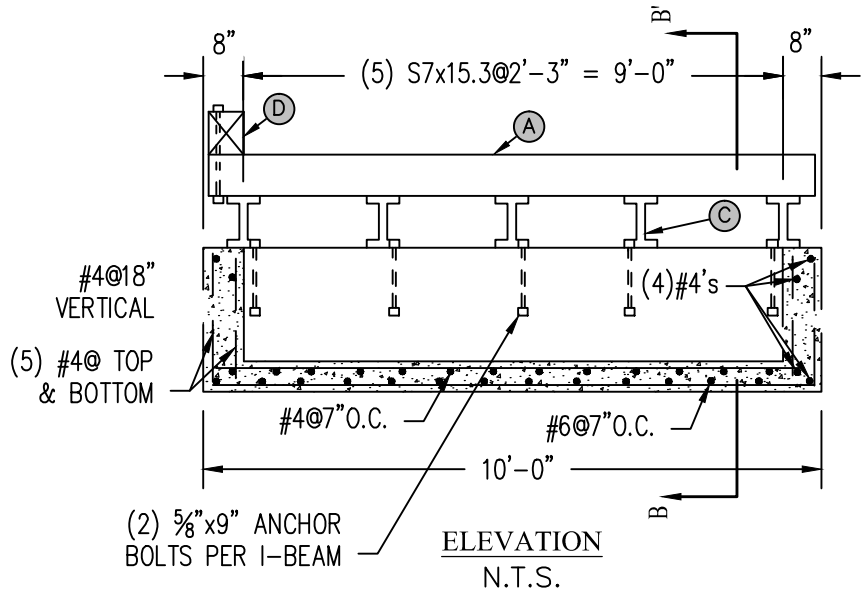
**NOTES:**

1. FERROUS METAL OVER MONUMENT FOR RECOVERY BY DIP NEEDLE OR MAGNETIC INSERT IN CAP.
2. 1 ½" MINIMUM NON-FERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NUMBER PERMANENTLY ATTACHED PRIOR TO PLACEMENT. PRE-PUNCHED CAPS SHALL NOT BE PERMITTED.
3. 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).
4. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. REINFORCING SHALL CONSIST OF POLYPROPYLENE OR CELLULOSE FIBERS ADDED TO THE P.C.C. AT 1.5 LBS PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

|      |           |   |   |                                  |
|------|-----------|---|---|----------------------------------|
| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>MONUMENTS</b><br><b>NOTES</b> | SECTION NUMBER:<br><b>100</b>    |
|      |           |   |   | DRAWING NUMBER:<br><b>W-151B</b> |
|      |           |   |   | DATE:<br><b>2/21/2022</b>        |
|      |           |   |   |                                  |
|      |           |   |   |                                  |



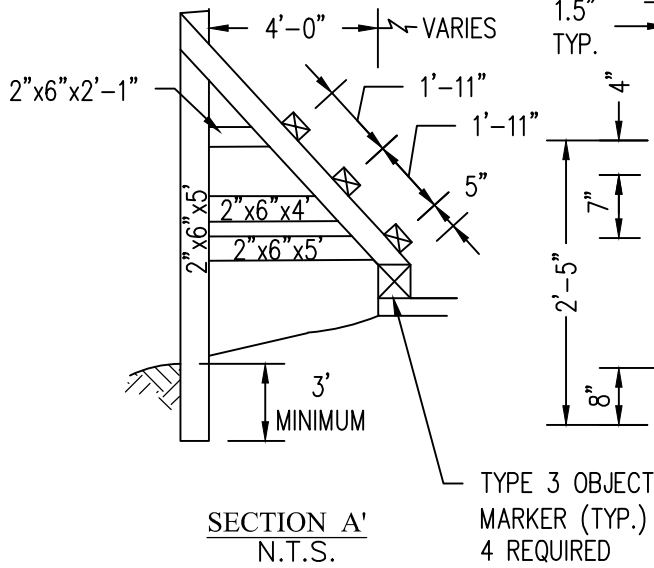
WING PLAN  
N.T.S.



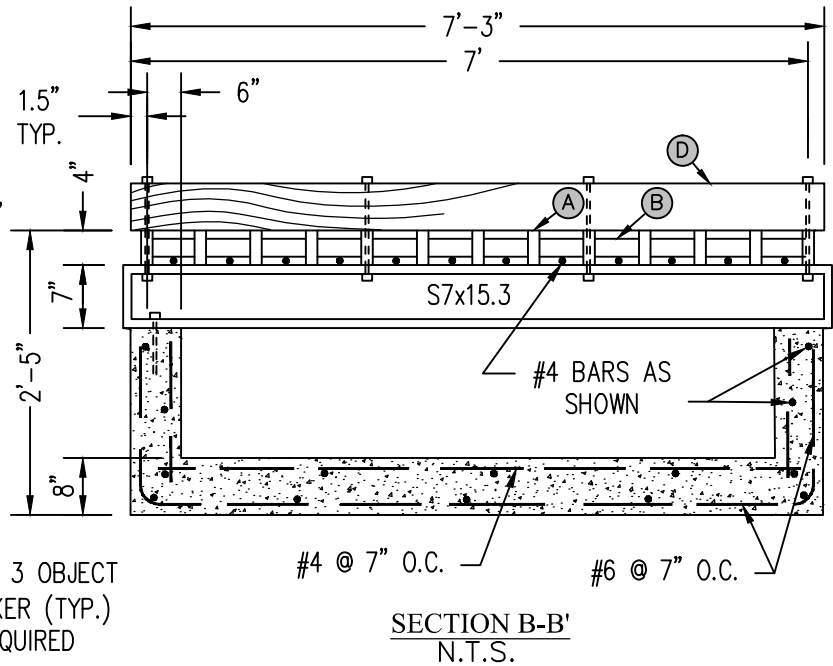
ELEVATION  
N.T.S.

**MATERIALS**

- Ⓐ 4"x2"x 1/4" STRUC TUBING @ 7" O.C.
- Ⓑ 5"x2 1/2"x 5/16" P L
- Ⓒ S7x15.3 @ 2'-3" O.C.
- Ⓓ 6"x6"x7'-3" TIMBER



SECTION A'  
N.T.S.



SECTION B-B'  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

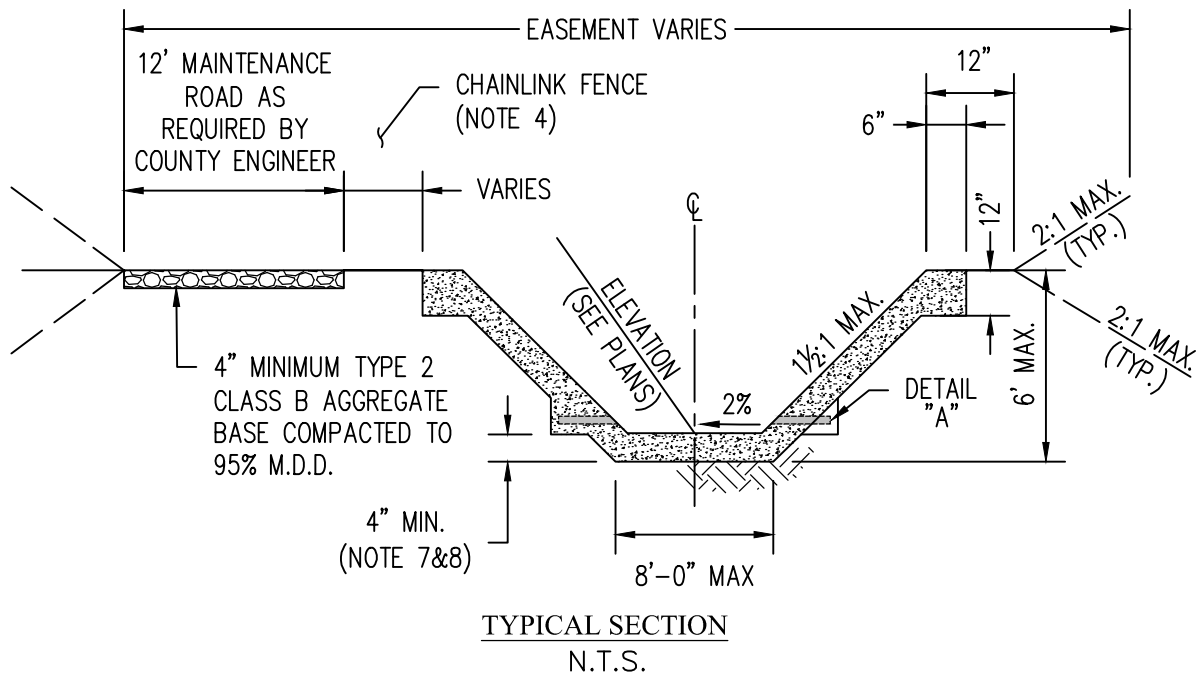
STEEL CATTLE GUARD

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>100</b>    |
| DRAWING NUMBER:<br><b>W-152A</b> |
| DATE:<br><b>2/21/2022</b>        |

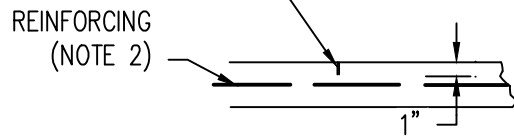
**NOTES:**

1. ALL CONCRETE SHALL BE A MINIMUM OF 6.25 SACKS OF TYPE II CEMENT (588 POUNDS PER CUBIC YARD OF CONCRETE) WITH FIBERMESH AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS; AIR ENTRAINMENT TO BE 4.5–7.5%. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH OR APPROVED EQUAL AND SHALL BE ADDED AT A RATE OF 1½ LBS PER CUBIC YARD OF CONCRETE.
2. ALL STEEL CONNECTIONS SHALL BE WELDED ¼” FILLET UNLESS OTHERWISE NOTED.
3. PROVIDE 8” DIAMETER HOLE AT ENDS FOR DRAINAGE OF CONCRETE BOX.
4. ALL NAILING TO BE WITH 20d NAILS.
5. STRUCTURE WIDTH CAN BE MADE IN ANY MULTIPLE OF THE GRATE WIDTH.
6. MANUFACTURED, APPROVED EQUAL CATTLE GUARD BY HEATON STEEL SUPPLY OF KLAMATH.

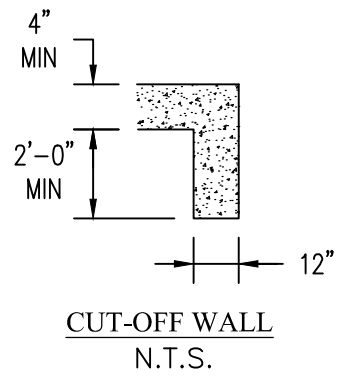
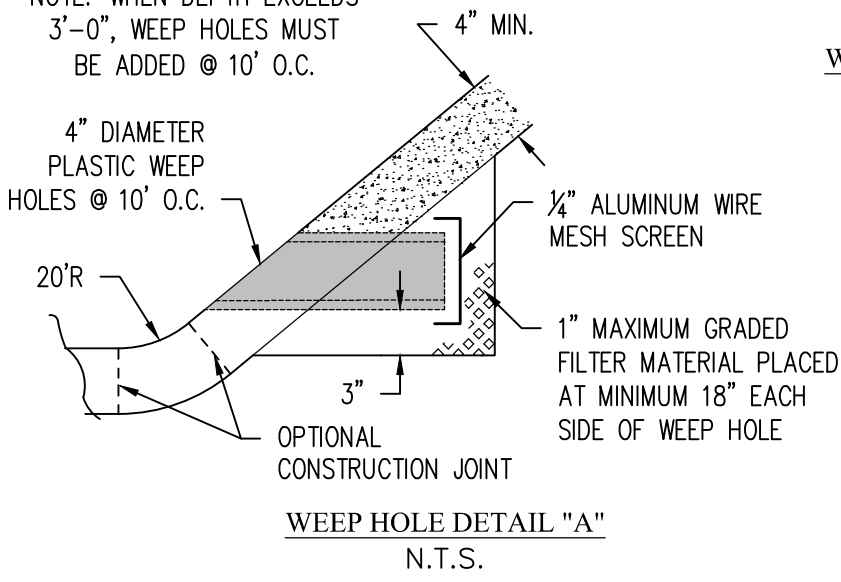
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:    |
|------|-----------|---|--|--------------------|
|      |           |   | STEEL CATTLE GUARD                             | 100                |
|      |           |   | NOTES  | DRAWING NUMBER:    |
|      |           |   |  | W-152B             |
|      |           |   |  | DATE:<br>2/21/2022 |




3/16" PREMOLDED JOINT MATERIAL, OR 1/8" SAWED JOINT, FILLED WITH APPROVED JOINT SEALER (NOTE 2)



NOTE: WHEN DEPTH EXCEEDS 3'-0", WEEP HOLES MUST BE ADDED @ 10' O.C.

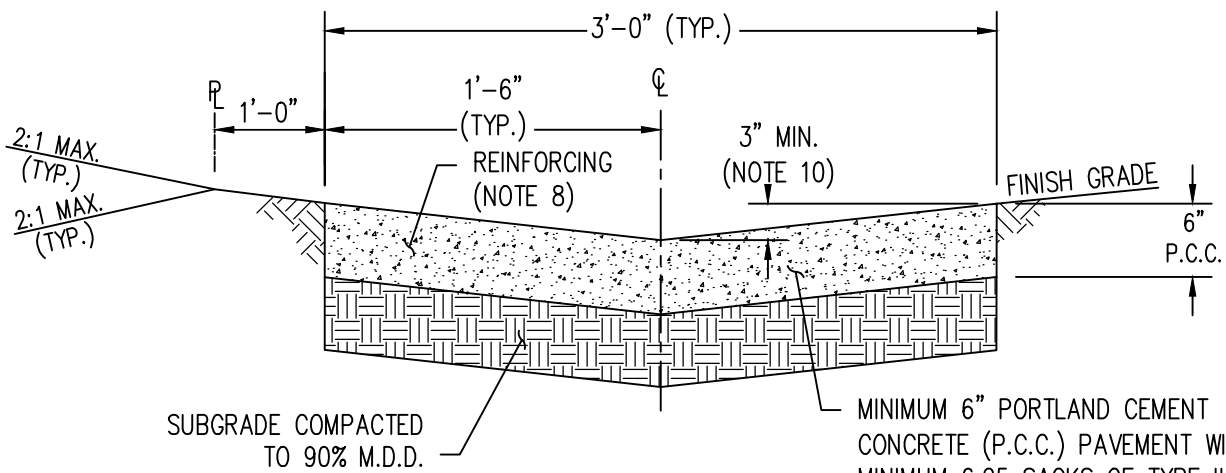


| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>200    |
|------|-----------|---|--|---------------------------|
|      |           |   | <b>DRAINAGE CHANNEL</b>                        | DRAWING NUMBER:<br>W-201A |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |

**NOTES:**

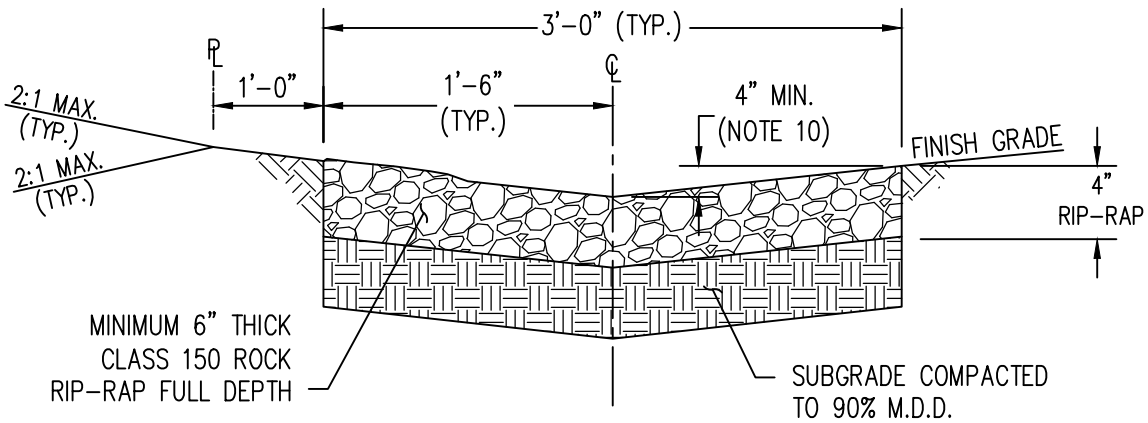
1. ACO STAINLESS STEEL SOCKETED PIPE, AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC., MAY BE SUBSTITUTED FOR PLASTIC PIPE AT WEEP HOLES.
2. WEAKENED PLANE JOINTS SHALL BE SEALED WITH APPROVED JOINT SEALER AND PLACED EVERY 10 FEET.
3. CUT-OFF WALLS SHALL BE CONSTRUCTED AT EACH END OF CHANNEL ALONG THE FULL WIDTH OF SECTION.
4. CHAINLINK FENCE SHALL BE AS REQUIRED BY COUNTY ENGINEER.
5. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
6. WEEP HOLES SHALL NOT BE USED IN IRRIGATION DITCHES.
7. DEPTH OF CONCRETE SHALL BE A MINIMUM OF 4 INCHES. ENGINEER MAY INCREASE DEPTH OF CONCRETE AS NECESSARY.
8. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

|      |           |   |   |                           |
|------|-----------|---|---|---------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                | SECTION NUMBER:<br>200    |
|      |           |   | <p style="text-align: center;">DRAINAGE CHANNEL<br/>NOTES</p> | DRAWING NUMBER:<br>W-201B |
|      |           |   |   | DATE:<br>2/21/2022        |
|      |           |   |   |                           |



**DETAIL "A"**  
N.T.S.

MINIMUM 6" PORTLAND CEMENT CONCRETE (P.C.C.) PAVEMENT WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE (NOTE 2)



**DETAIL "B"**  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

LOT LINE DRAINAGE SWALE  
(PRIVATE)

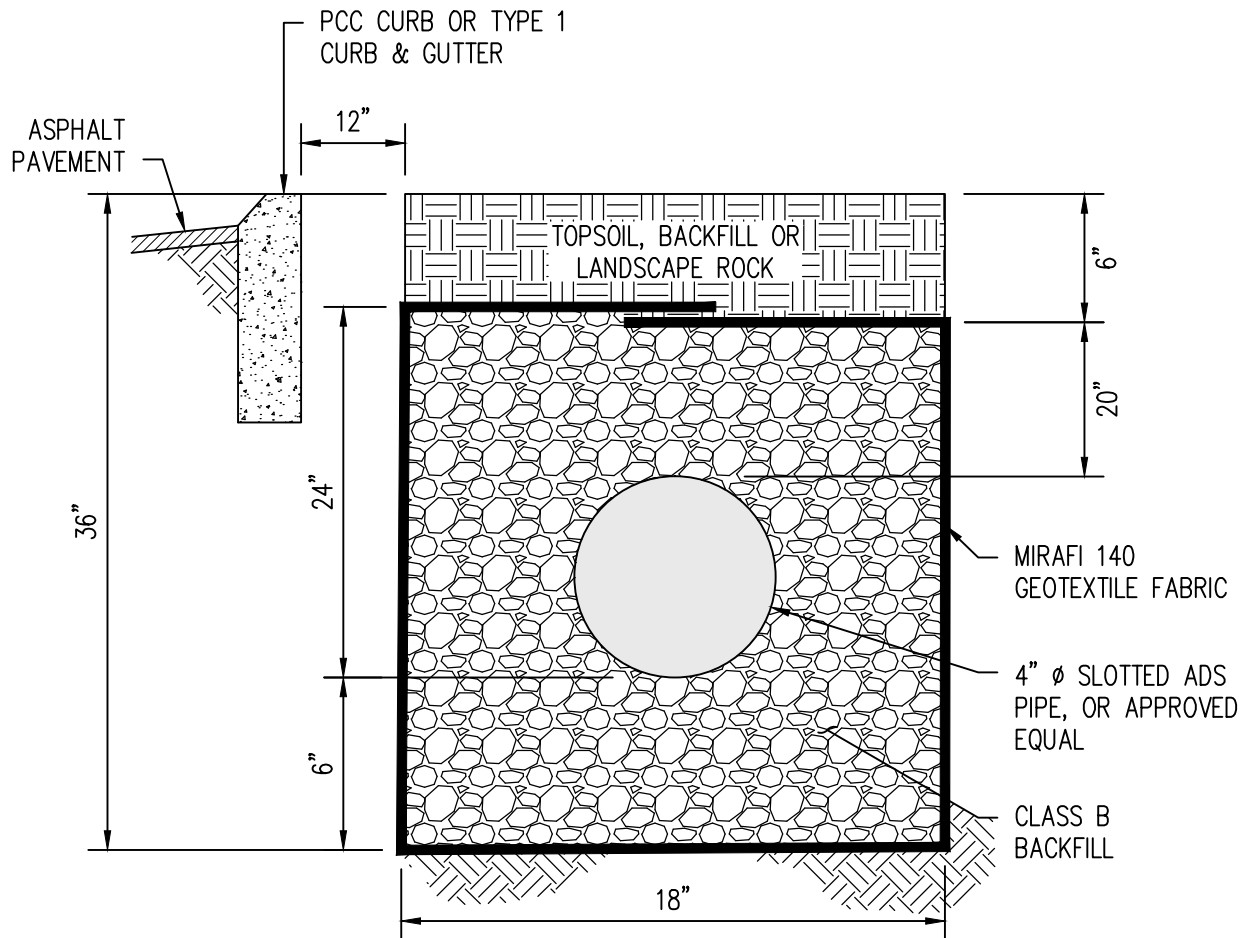
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-202A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. MAXIMUM DRAINAGE AREA SHALL BE 6 LOTS UNLESS OTHERWISE APPROVED BY COUNTY ENGINEER.
2. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5–7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
3. MAXIMUM FLOWLINE GRADE SHALL BE 10% ON DETAIL A. USE DETAIL B ON GRADES IN EXCESS OF 10%.
4. MAXIMUM CHANGE IN HORIZONTAL ALIGNMENT SHALL BE 10 DEGREES.
5. P.C.C. DRAINAGE SWALES SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
6. NOT APPROVED FOR TRAFFIC USE.
7. POINT OF DISCHARGE SHALL BE DIRECTLY INTO A CATCH BASIN OR DRAINAGE CHANNEL.
8. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
9. CONCRETE CURB SHALL BE REQUIRED AT ALL LOCATIONS WHERE CHANGES IN HORIZONTAL ALIGNMENT EXCEED 10 DEGREES.
10. ALL LOT LINE SWALES SHALL BE DESIGNED TO CARRY THE 100 YEAR STORM AND TO MEET THE REQUIREMENTS OF SSPWC.

|      |           |   |   |                           |
|------|-----------|---|---|---------------------------|
| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>LOT LINE DRAINAGE SWALE</b><br><b>(PRIVATE)</b><br><b>NOTES</b> | SECTION NUMBER:           |
|      |           |   |   | 200                       |
|      |           |   |   | DRAWING NUMBER:<br>W-202B |
|      |           |   |   | DATE:<br>2/21/2022        |





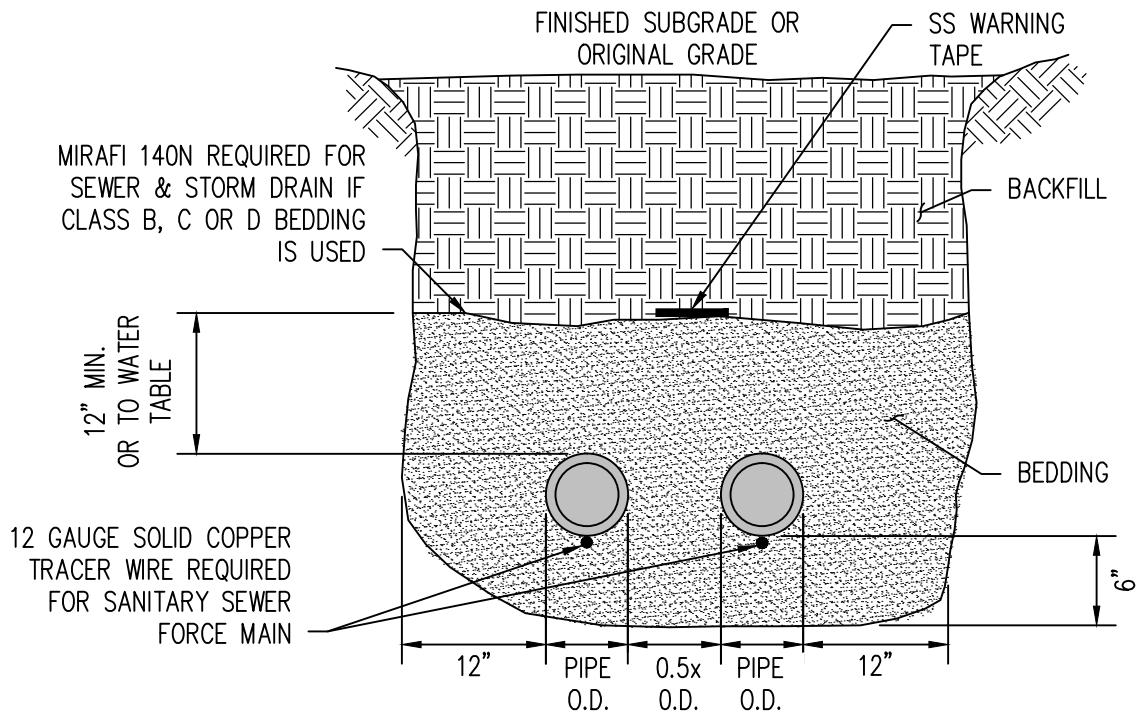
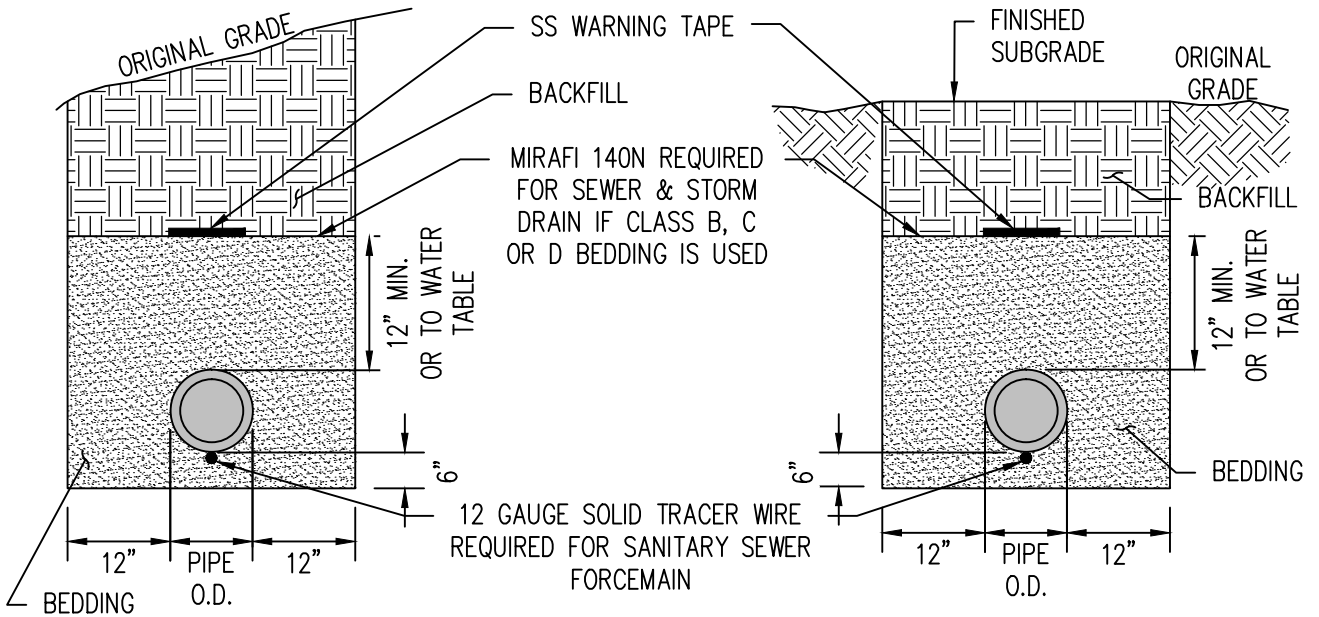
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SUBDRAIN

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-203</b> |
| DATE:<br><b>2/21/2022</b>       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



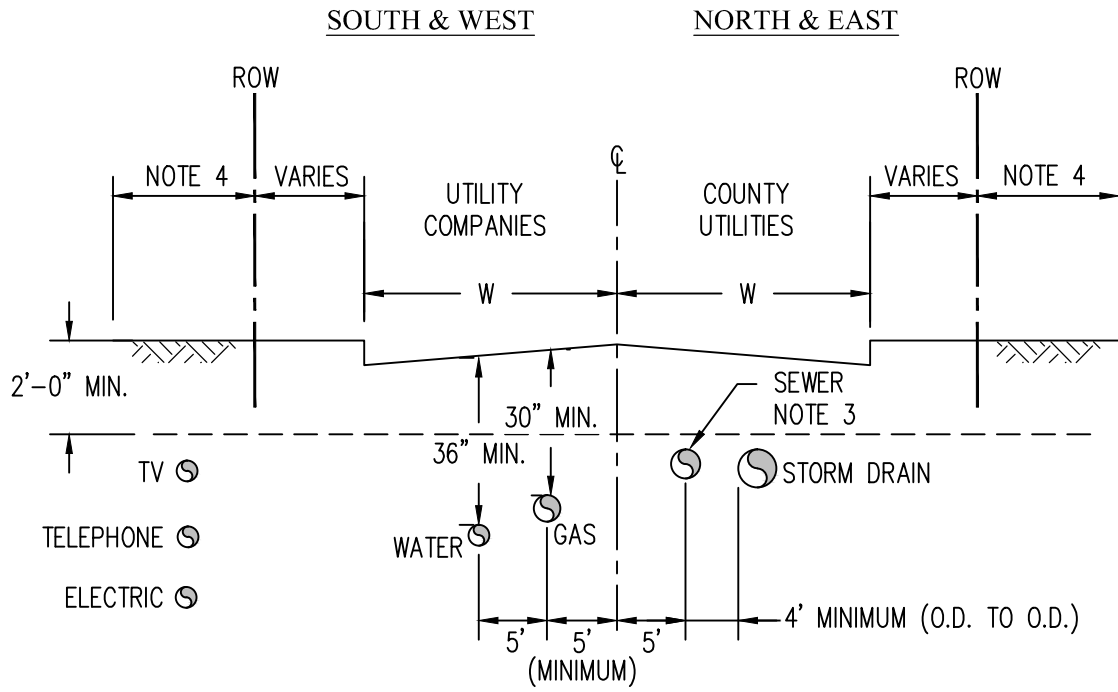
**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**TRENCH EXCAVATION**  
**& BACKFILL**  
 (STORM DRAIN & SANITARY SEWER)

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-204A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
2. BACKFILL SHALL MEET THE REQUIREMENTS FOR CLASS "E" BACKFILL IN 12" (MAXIMUM) LIFTS COMPACTED TO MINIMUM 90% OF MAXIMUM DRY DENSITY.
3. BEDDING MATERIAL SHALL MEET REQUIREMENTS FOR CLASS "A" BACKFILL AS SHOWN IN STANDARD SPECIFIED BY THE AGENCY AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DRY DENSITY.
4. FOR THE PURPOSE OF PAYMENT, EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUTS MAY BE NECESSARY, BUT THERE WILL BE ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
5. FOR TRENCHES IN ROADWAY SECTION, SEE TRENCH PATCH DETAILS, DRAWING Nos. W-121A & W-121B.
6. CLAY PLUGS SHALL BE INSTALLED IF CLASS B, C OR D BEDDING IS USED FOR SANITARY SEWER.
7. FOR PIPES 36" DIAMETER OR LARGER, DIMENSION FROM OUTSIDE EDGE OF PIPE TO TRENCH WALL SHALL BE 18".

| DATE | REVISIONS |  | <p style="text-align: center;"><b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION<br/>TRENCH EXCAVATION<br/>&amp; BACKFILL<br/>NOTES<br/>(STORM DRAIN &amp; SANITARY SEWER)</b></p> | SECTION NUMBER:<br><b>200</b>    |
|------|-----------|---|--|----------------------------------|
|      |           |   |  | DRAWING NUMBER:<br><b>W-204B</b> |
|      |           |   |  | DATE:<br><b>2/21/2022</b>        |
|      |           |   |  |                                  |
|      |           |   |  |                                  |



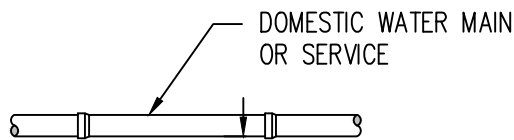
TYPICAL SECTION

**NOTES:**

1. SEE STANDARD DETAILS & SPECIFICATIONS AS PROVIDED BY ALL RELEVANT UTILITIES PROVIDERS FOR ALL UTILITIES IN A COMMON TRENCH.
2. MAINTAIN A MINIMUM SEPARATION OF 5 FEET BETWEEN GAS LINE AND WASHOE COUNTY UTILITIES WATER LINE.
3. 5 FEET MINIMUM FROM FINISHED GRADE TO FLOWLINE ON SANITARY SEWER LINE.
4. MINIMUM 7.5' PUBLIC UTILITY/TRAFFIC CONTROL SIGNAGE/PLOWED SNOW EASEMENT IS REQUIRED ON BOTH SIDES OF RIGHT-OF-WAY AS PER STANDARD DETAIL.

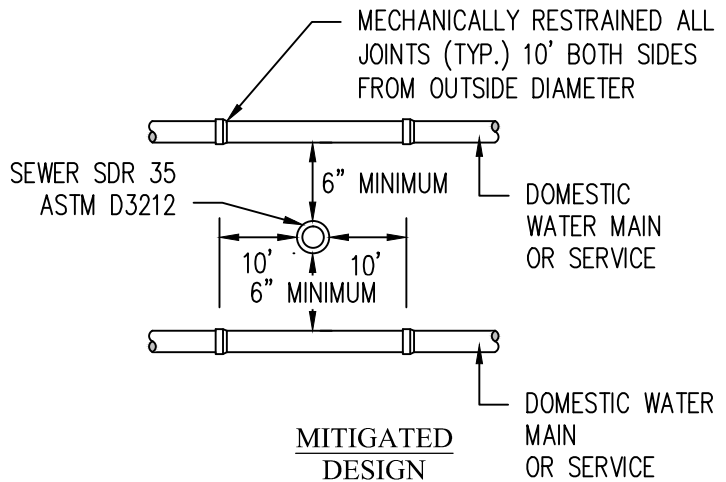
| DATE | REVISIONS | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>200   |
|------|-----------|--|--------------------------|
|      |           | UTILITY MAIN LOCATIONS                         | DRAWING NUMBER:<br>W-205 |
|      |           |  | DATE:<br>2/21/2022       |





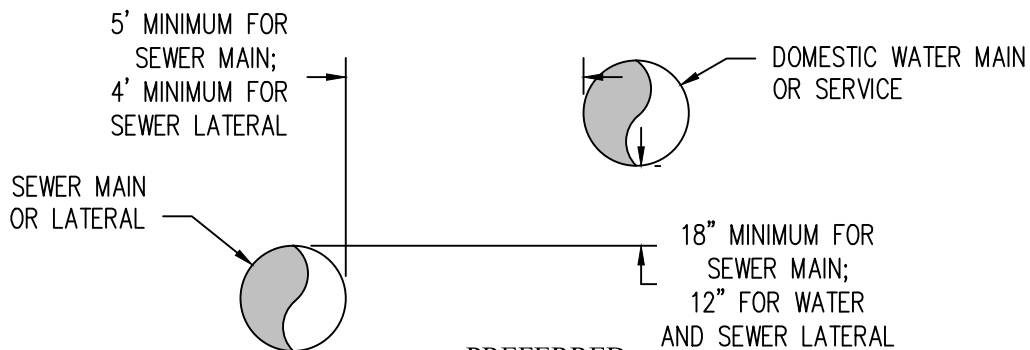
18" MINIMUM FOR SEWER MAIN;  
12" FOR WATER AND SEWER LATERAL

PREFERRED

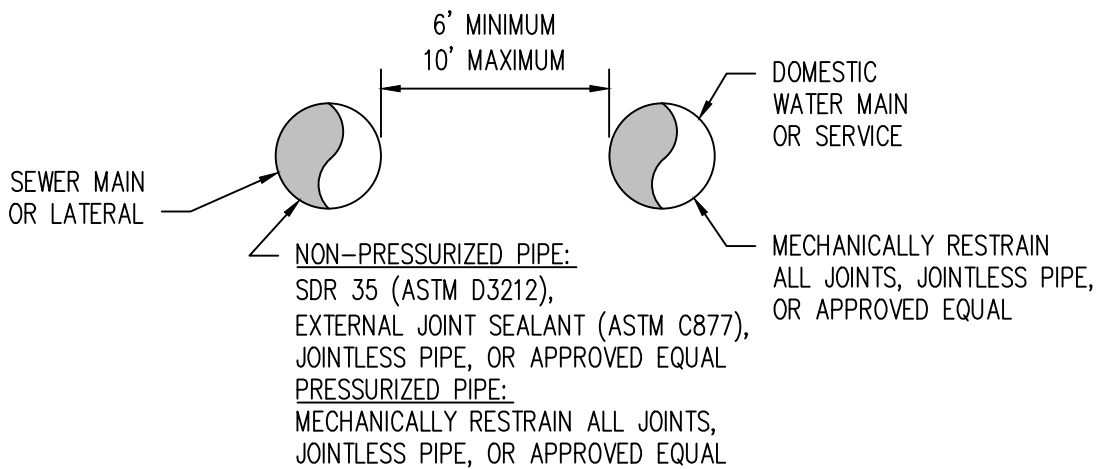


WATER CROSSING  
N.T.S.

MITIGATED DESIGN



PREFERRED



MITIGATED DESIGN

DOMESTIC WATER PARALLEL SEPARATIONS  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
WATER & SEWER SEPARATIONS

|                           |
|---------------------------|
| SECTION NUMBER:<br>200    |
| DRAWING NUMBER:<br>W-206A |
| DATE:<br>2/21/2022        |

**NOTES:**

1. A SEWER IS ANY NON-POTABLE LINE INCLUDING, BUT NOT LIMITED TO, MAINS AND LATERALS OF SANITARY SEWER, STORM DRAINS, PRESSURIZED FORCE MAINS AND RECLAIMED WASTEWATER.
2. MITIGATED CROSSING DESIGN CAN UTILIZE JOINTLESS PIPE PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), OR BSDW APPROVED EQUAL, FOR WATER AND SEWER. NON-SDR35 (ASTM D3212) SEWER PIPE MAY UTILIZE JOINTLESS PIPE OR APPROVED JOINT SEALANT MEETING ASTM C877.
3. NO VERTICAL SEPARATION IS REQUIRED IF THERE IS 10 FEET OR MORE SEPARATION BETWEEN WATER AND SEWER LINES.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | WATER & SEWER                                  | 200             |
|      |           |   | SEPARATIONS                                    | DRAWING NUMBER: |
|      |           |   | NOTES  | W-206B          |
|      |           |   |  | DATE:           |
|      |           |   |  | 2/21/2022       |

**NOTES:**

WATER CROSSING SEWER

TYPICAL SPECIAL PROTECTION FOR WATER LINE CROSSING WITH SEWER LINE

A SEWER IS ANY NON-POTABLE LINE INCLUDING, BUT NOT LIMITED TO, MAINS AND LATERALS OF SANITARY SEWER, STORM DRAINS, PRESSURIZED FORCE MAINS AND RECLAIMED WASTEWATER.

WATER MAIN CROSSING WITH RCP STORM DRAIN

WATER MAIN MUST CROSS A MINIMUM OF 18" ABOVE A RCP STORM DRAIN. IF THIS IS IMPRACTICAL, AND IF THE STORM DRAIN CROSSES ABOVE OR BELOW BY LESS THAN 18", THE FOLLOWING SPECIAL CONSTRUCTION METHODS MAY BE USED:

A MINIMUM OF 6" SEPARATION FROM OD TO OD, CONSTRUCT STORM DRAIN OF JOINTLESS PIPE OR RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C1619, OR APPROVED JOINT SEALANT MEETING ASTM C877, AND

- A. CONSTRUCT WATER WITH MECHANICALLY-RESTRAINED JOINTS WITHIN 10' OF OD OF CROSSING, OR UTILIZE JOINTLESS PIPE OR BSDW EQUAL.

WATER MAIN CROSSING WITH SEWER MAIN OR LATERAL

WATER MAIN MUST CROSS A MINIMUM OF 18" ABOVE A SANITARY SEWER MAIN, OR 12" ABOVE A SEWER LATERAL. IF THIS IS IMPRACTICAL, AND IF THE SEWER MAIN OR LATERAL CROSS ABOVE OR BELOW THE WATER MAIN AT LESS THAN THE ABOVE DISTANCES, THE FOLLOWING SPECIAL CONSTRUCTION METHODS MAY BE USED:

- A. A MINIMUM OF 6" SEPARATION FROM OD TO OD,
- B. CONSTRUCT SEWER OF SDR35 PVC (ASTM D3212) OR JOINTLESS PIPE OR RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C1619, OR APPROVED JOINT SEALANT MEETING ASTM C877, OR
- C. IF THE SEWER IS PRESSURIZED, MECHANICALLY RESTRAIN SEWER JOINTS WITHIN 10' FROM OD TO OD, OR JOINTLESS PIPE WITH NO JOINTS WITHIN 10' FROM OD TO OD, OR OTHER BSDW APPROVED ALTERNATIVE, AND
- D. CONSTRUCT WATER WITH MECHANICALLY-RESTRAINED JOINTS WITHIN 10' OF OD OF CROSSING, OR UTILIZE JOINTLESS PIPE OR BSDW EQUAL.


WATER SERVICE CROSSING WITH SEWER MAIN

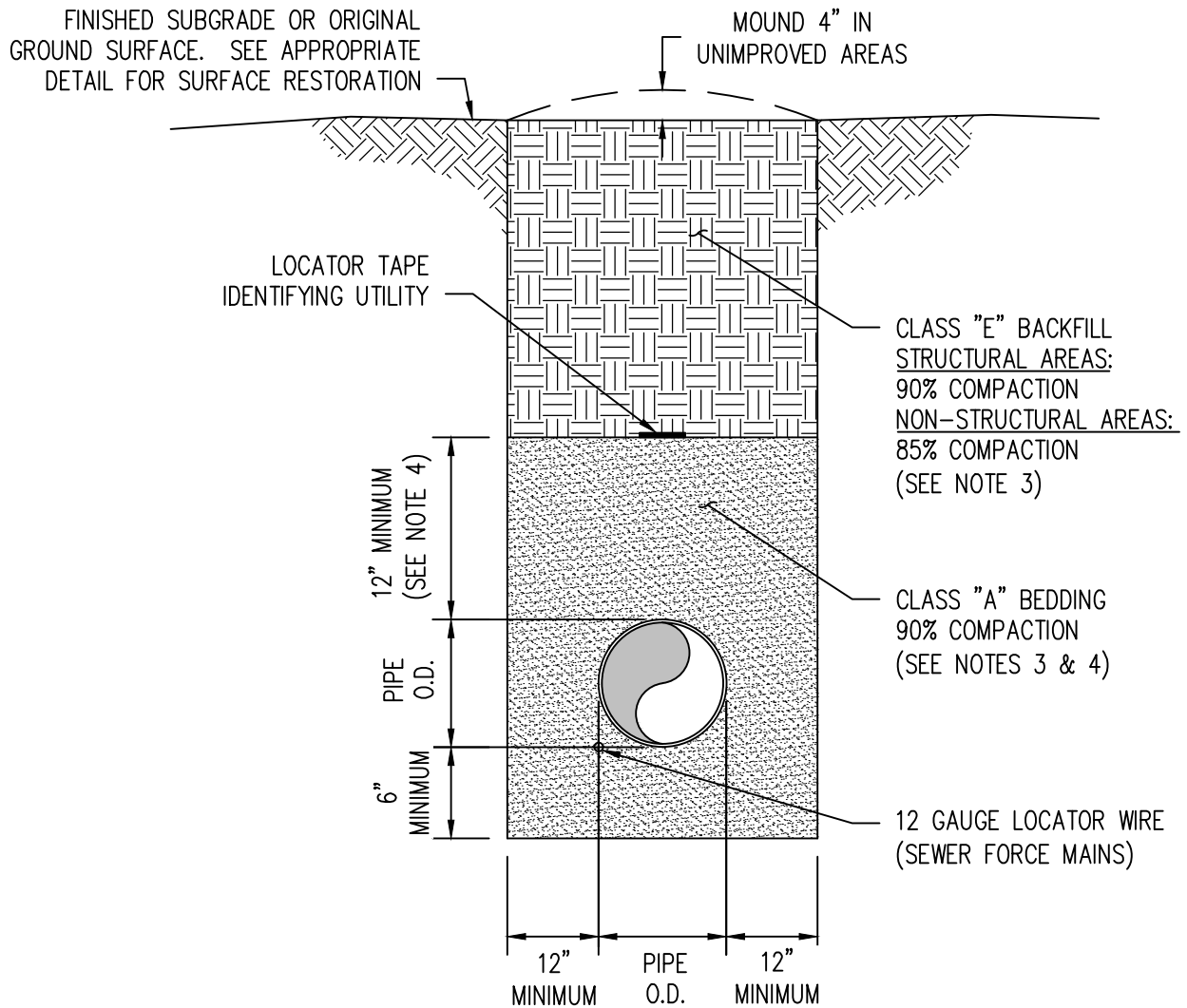
WATER SERVICE MUST CROSS A MINIMUM OF 18" ABOVE A SEWER MAIN. IF THIS IS IMPRACTICAL, AND IF THE SANITARY SEWER MAIN CROSSES ABOVE OR BELOW THE WATER SERVICE BY LESS THAN 18", THE FOLLOWING SPECIAL CONSTRUCTION METHODS MAY BE USED:

- A. A MINIMUM OF 6" SEPARATION FROM OD TO OD,
- B. CONSTRUCT SEWER OF SDR35 PVC (ASTM D3212) OR JOINTLESS PIPE OR RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C1619, OR APPROVED JOINT SEALANT MEETING ASTM C877, OR
- C. IF THE SEWER IS PRESSURIZED, MECHANICALLY RESTRAIN SEWER JOINTS WITHIN 10' FROM OD TO OD, OR JOINTLESS PIPE WITH NO JOINTS WITHIN 10' FROM OD TO OD, OR OTHER BSDW APPROVED ALTERNATIVE, AND
- D. THE WATER SERVICE MUST BE JOINTLESS POLYETHYLENE (PE) PIPE CONFORMING TO AWWA C901 OR C906 AND SSPWC FOR POTABLE WATER PRESSURE PIPE.

GENERAL

THESE NOTES ARE PROVIDED IN THE INTEREST OF FACILITATING THE APPROVAL PROCESS, WITH RESPECT TO POTABLE VS. NON-POTABLE PIPELINE SEPARATION. IT IS IN NO WAY INTENDED TO REPLACE OR SUPERCEDE NEVADA ADMINISTRATIVE CODE (NAC) 445A.6715 THROUGH 445A.67175. THE METHODS LISTED HEREIN ARE GENERALLY CONSIDERED ACCEPTABLE ALTERNATIVES TO THE AFOREMENTIONED NAC "SEPARATION" SUBSECTIONS OF THE REGULATION.

|             |                  |   |   |                        |
|-------------|------------------|---|---|------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><b>WATER &amp; SEWER</b><br><b>SEPARATIONS</b><br><b>NOTES</b> | <b>SECTION NUMBER:</b> |
|             |                  |   |   | <b>200</b>             |
|             |                  |   |   | <b>DRAWING NUMBER:</b> |
|             |                  |   |   | <b>W-206C</b>          |
|             |                  |   |   | <b>DATE:</b>           |
|             |                  |   |   | <b>2/21/2022</b>       |

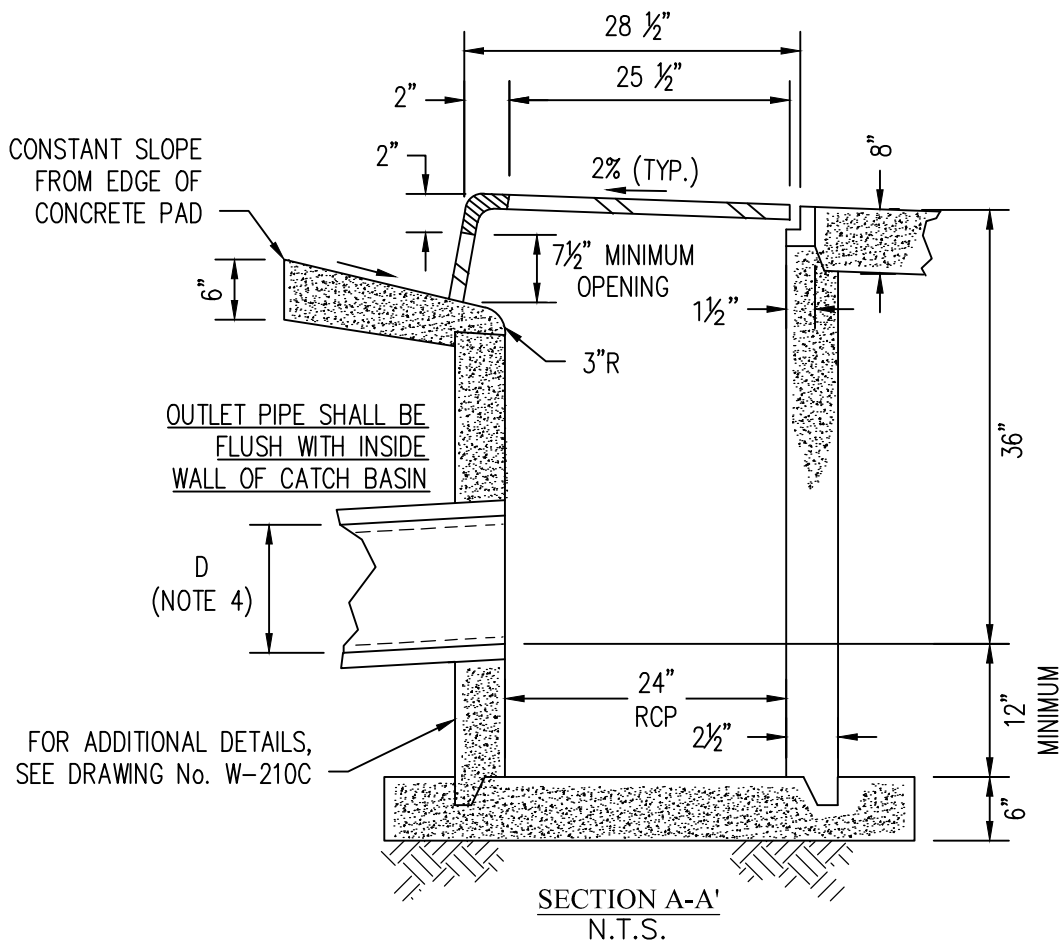
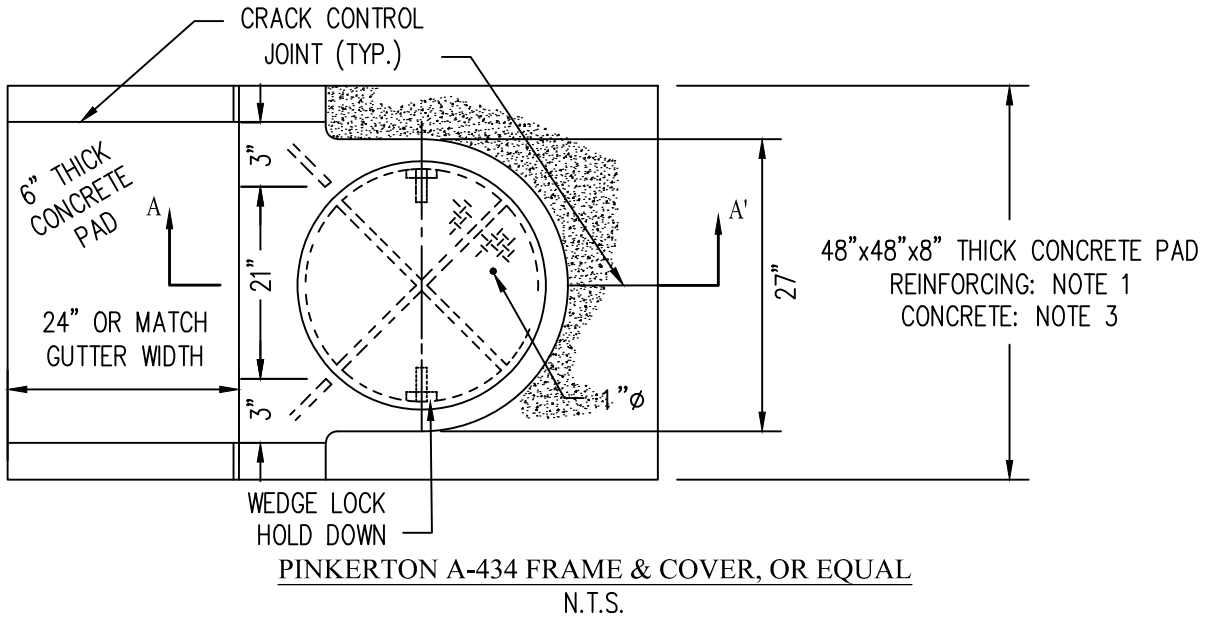


**NOTES:**

1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) LATEST EDITION.
2. ALL TRENCHING ACTIVITIES SHALL CONFORM TO O.S.H.A. REGULATIONS.
3. COMPACTION SHALL BE PERCENT RELATIVE COMPACTION BASED ON THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 AND WITHIN  $\pm 2\%$  OF OPTIMUM MOISTURE CONTENT.
4. IN HIGH GROUND WATER, CLASS "C" BEDDING TO HIGH GROUNDWATER MARK TOPPED WITH MIRAFI 140N FILTER FABRIC (OR APPROVED EQUAL) MAY BE USED IN LIEU OF CLASS "A", WITH THE APPROVAL OF THE ENGINEER.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>200   |
|------|-----------|---|--|--------------------------|
|      |           |   | SANITARY SEWER<br>TRENCH DETAIL                | DRAWING NUMBER:<br>W-207 |
|      |           |   |  | DATE:<br>2/21/2022       |
|      |           |   |  |                          |





| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

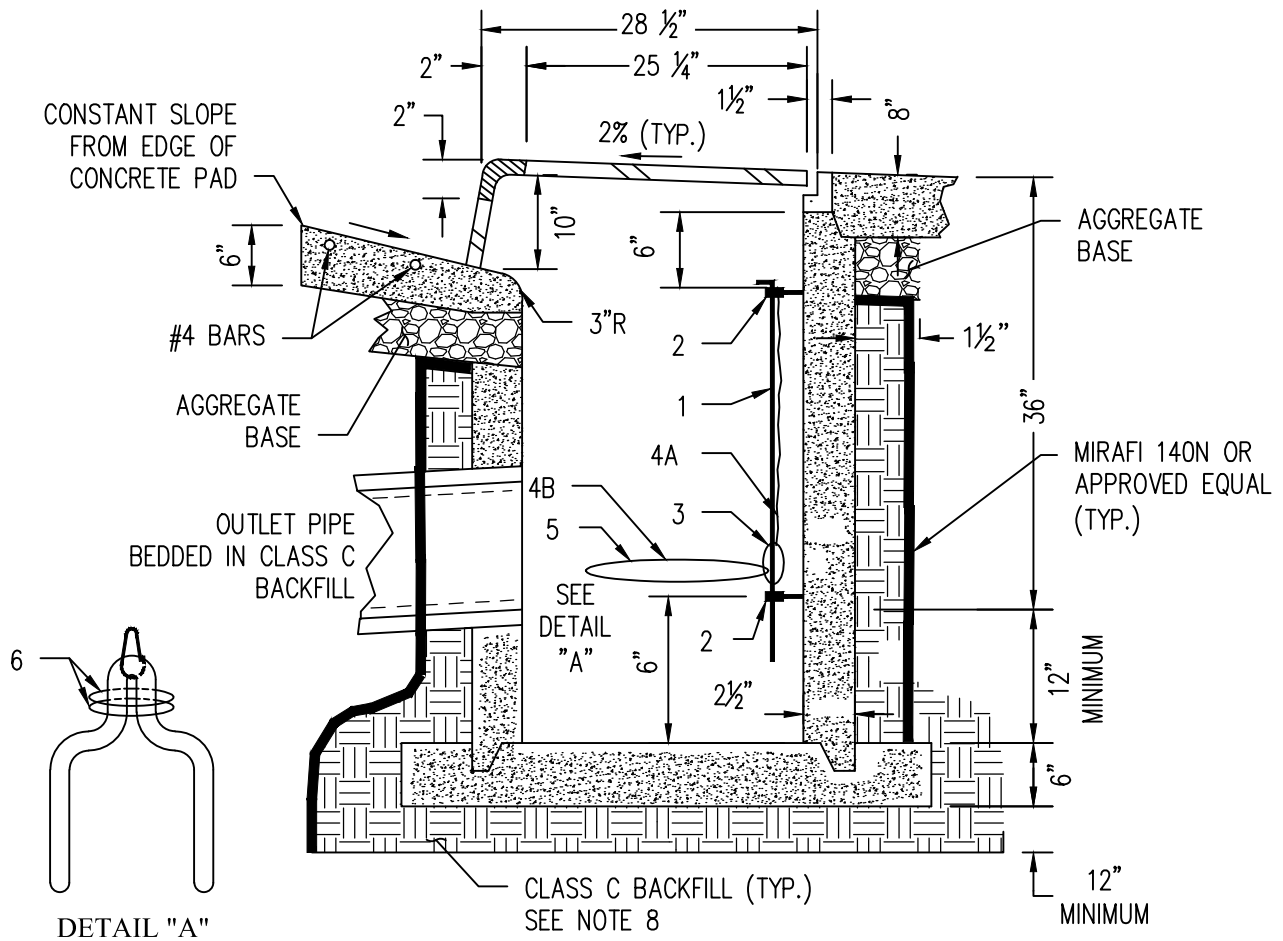
CATCH BASIN TYPE 1

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-210A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
2. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4".
3. AN 8" THICK CONCRETE PAD SHALL BE CONSTRUCTED AS SHOWN.
4. "D" SHALL HAVE A MINIMUM DIAMETER AS FOLLOWS: WASHOE COUNTY: D=12" DIAMETER RCP/PVC OR HDPE.
5. CONCRETE SHALL RECEIVE A MEDIUM BROOM FINISH.
6. 6" MINIMUM TYPE 2 AGGREGATE BASE SHALL BE PLACED AND COMPACTED BENEATH 4X4 CONCRETE PAD TO 95% RELATIVE COMPACTION.
7. IN WASHOE COUNTY, FOR USE OUTSIDE ROADWAY SECTION ONLY.
8. IN AREAS OF FINE GRAINED OR EXPANSIVE SOILS, CLASS C BACKFILL DEPTH SHALL BE 24 INCHES BELOW BOTTOM OF BARREL.

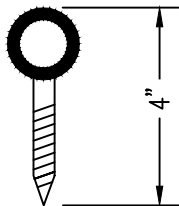
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                  | SECTION NUMBER:           |
|------|-----------|---|---|---------------------------|
|      |           |   | <p style="text-align: center;">CATCH BASIN TYPE 1<br/>NOTES</p> | 200                       |
|      |           |   |   | DRAWING NUMBER:<br>W-210B |
|      |           |   |   | DATE:<br>2/21/2022        |



DETAIL "A"



5/16" ALUMINUM SNAP RING DETAIL



5/16" STAINLESS LAG EYE BOLT DETAIL

**NOTES:**

1. 3/8" DIAMETER SMOOTH STEEL ROD WITH 90° 2" BEND
2. 5/16" DIAMETER X 4" LAG EYE BOLT EPOXIED INTO CATCH BASIN WALL OPPOSITE OF THE PIPE OUTLET
3. 2 3/4" X 5/16" ALUMINUM SNAP RING ATTACHED TO 3/8" ROD
- 4A. 1/4" NYLON ROPE ATTACHED TO TOP LAG EYE BOLT AND SNAP RING
- 4B. ATTACH OIL SOCK TO SNAP RING
5. OIL SOCK (SORBENT MODEL #L90898 OR APPROVED EQUAL)
6. NYLON TIES

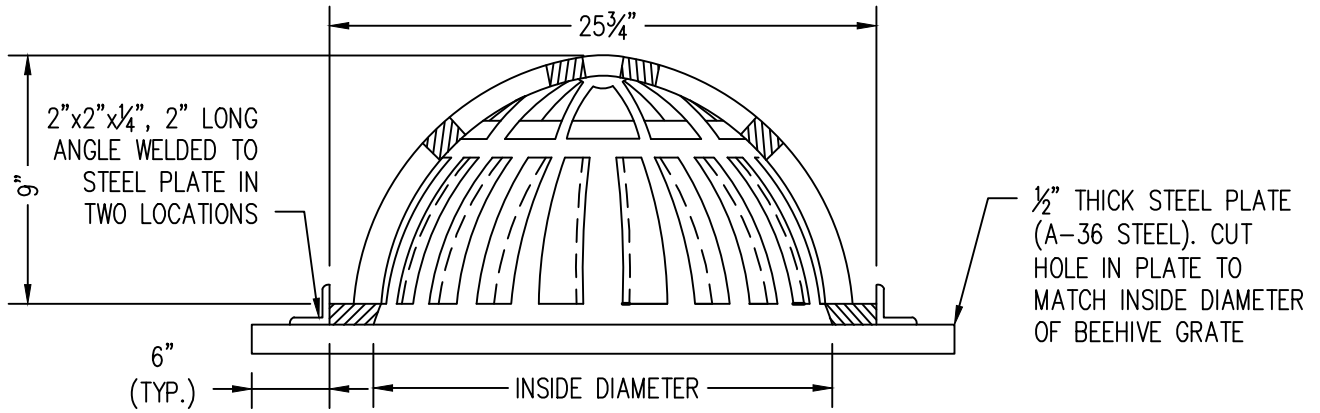
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

CATCH BASIN TYPE 1

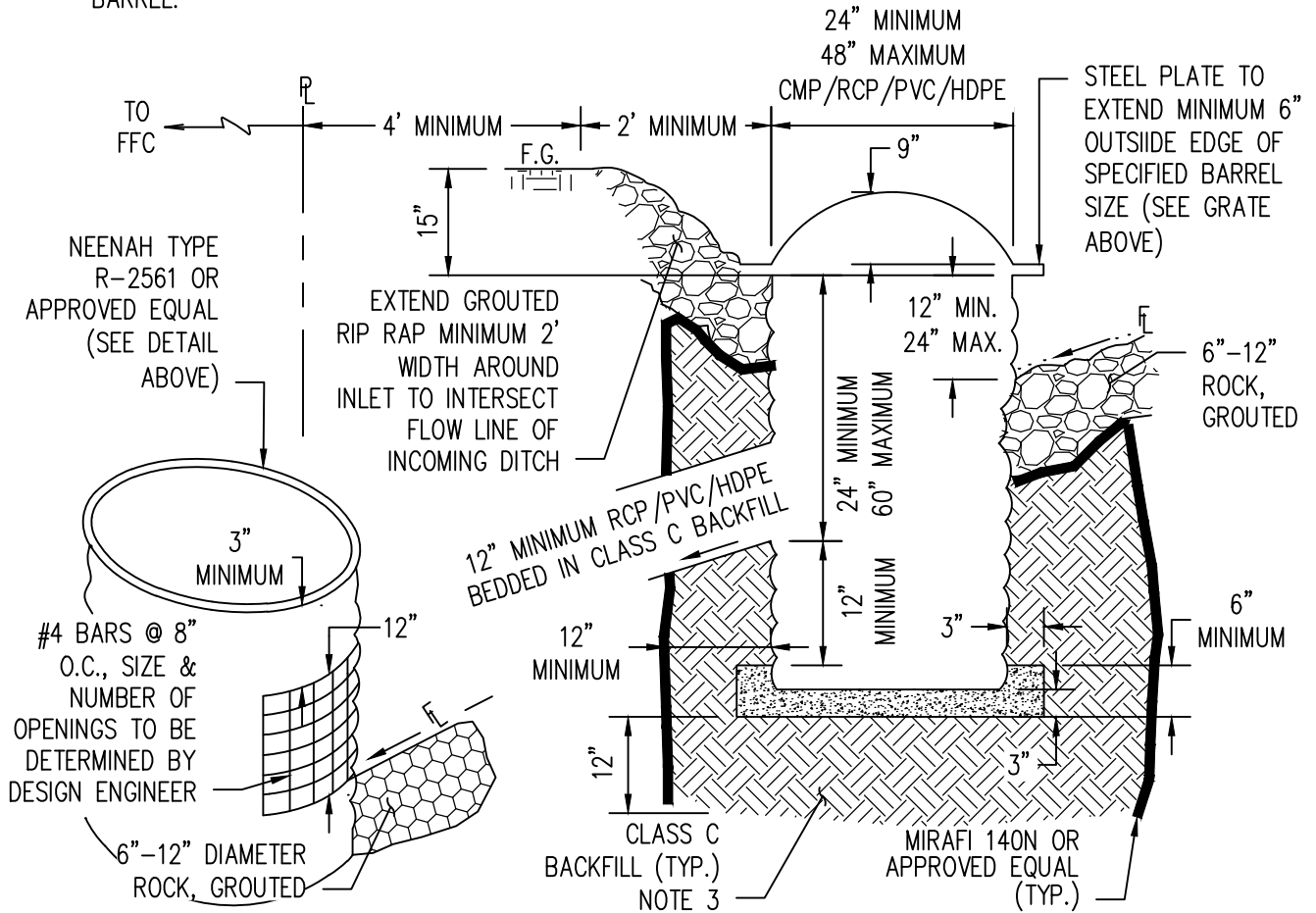
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-210C</b> |
| DATE:<br><b>2/21/2022</b>        |



R2561 HIGH NEENAH BEEHIVE  
GRATE, OR APPROVED EQUAL  
N.T.S.

**NOTES:**

1. OUTLET PIPE AND BARREL SIZES TO BE DETERMINED BY ENGINEER. NOT FOR USE WITHIN ROADWAY SECTION.
2. OUTLET PIPE SHALL BE BEDDED IN CLASS C BACKFILL.
3. IN AREAS OF FINE GRAINED OR EXPANSIVE SOILS, CLASS C BACKFILL SHALL BE AT 24" BELOW BOTTOM OF BARREL.



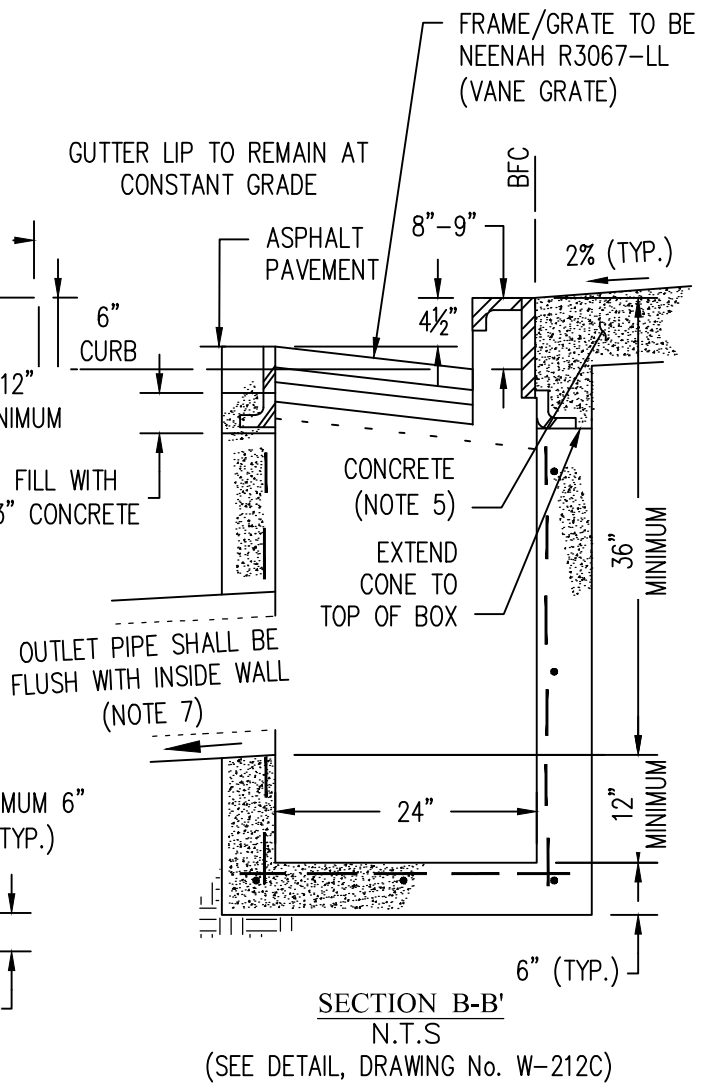
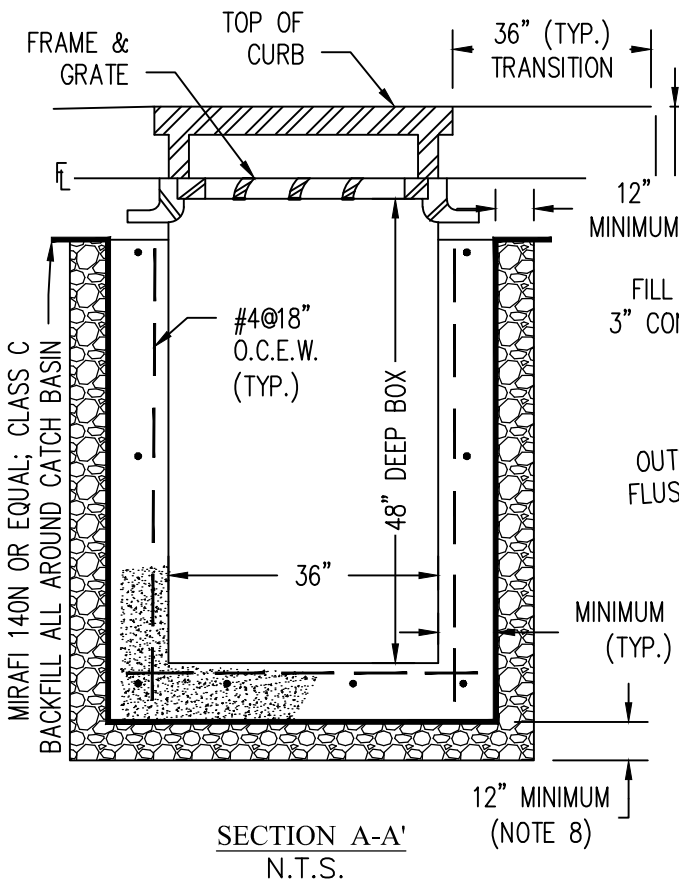
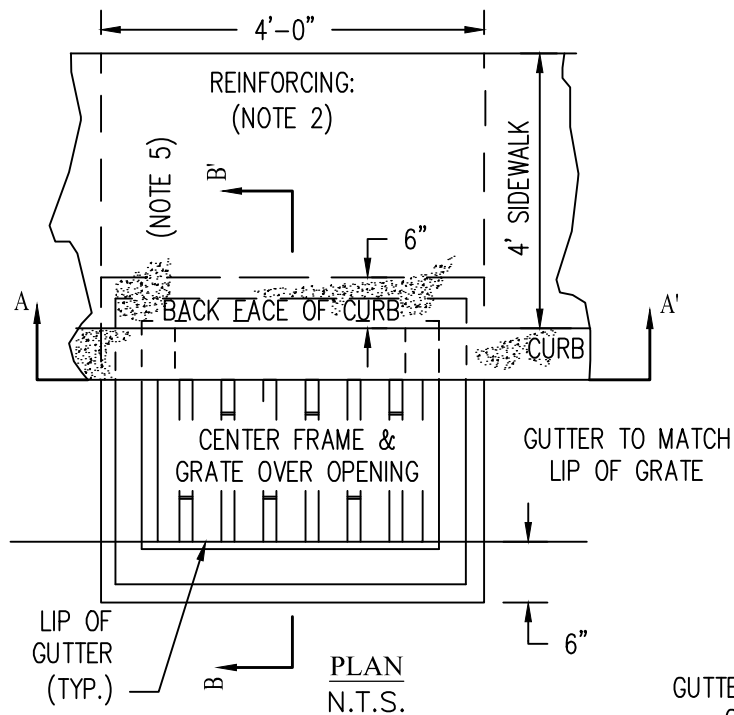
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DROP INLET TYPE 1A

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-211</b> |
| DATE:<br><b>2/21/2022</b>       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

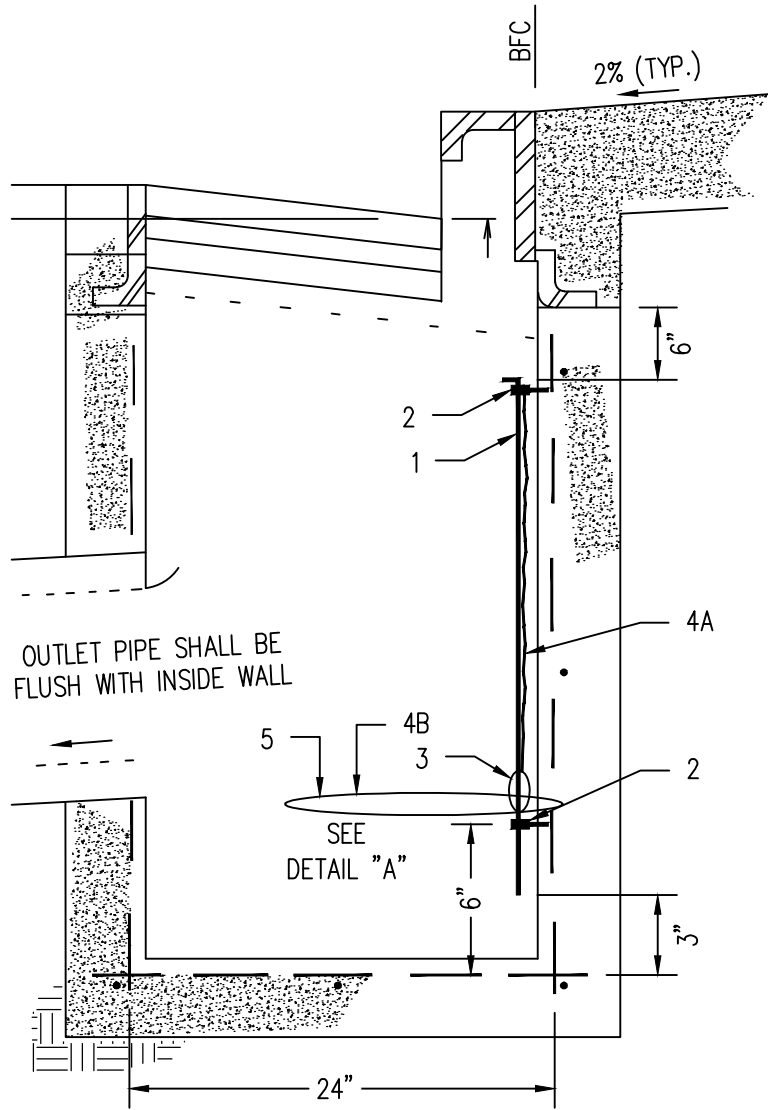
CATCH BASIN TYPE 4R

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-212A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

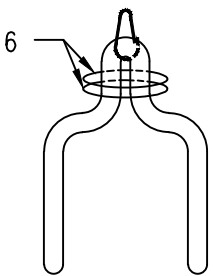
1. PORTLAND CEMENT CONCRETE (PCC) FOR CAST-IN-PLACE CATCH BASIN AND 4'x4' CONCRETE PAD SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4".
2. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
3. CONCRETE STRUCTURE MAY BE A PRE-CAST CONCRETE UNIT UPON APPROVAL OF THE WASHOE COUNTY ENGINEER.
4. FRAME AND GRATE SHALL BE D&L FOUNDRY 2436-4R-L (VANE GRATE), NEENAH R3067-L (VANE GRATE), OR APPROVED EQUAL.
5. 8" THICK CONCRETE PAD SHALL BE CONSTRUCTED AS SHOWN WHEN NOT LOCATED IN SIDEWALK. 6" OF TYPE 2 CLASS B AGGREGATE BASE SHALL BE PLACED AND COMPACTED BENEATH 4'x4' PAD TO 90% RELATIVE COMPACTION. EXTEND CONCRETE TO TOP OF BOX.
6. TYPE 4R CATCH BASINS SHALL BE USED ON ALL GRADES IN ALL SUMP LOCATIONS WITHIN ROADWAY SECTION.
7. OUTLET PIPE SHALL BE MINIMUM 12" DIAMETER RCP, PVC OR HDPE.
8. IN AREAS OF FINE GRAINED OR EXPANSIVE SOILS, CLASS C BACKFILL DEPTH BELOW THE BOTTOM OF THE BOX SHALL BE 24 INCHES.
9. CATCH BASIN OUTLET PIPE SHALL BE BEDDED IN CLASS C BACKFILL.

|             |                  |   |   |                        |
|-------------|------------------|---|---|------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>CATCH BASIN TYPE 4R</b><br><b>NOTES</b> | <b>SECTION NUMBER:</b> |
|             |                  |   |   | <b>200</b>             |
|             |                  |   |   | <b>DRAWING NUMBER:</b> |
|             |                  |   |   | <b>W-212B</b>          |
|             |                  |   |   | <b>DATE:</b>           |
|             |                  |   |   | <b>2/21/2022</b>       |



**NOTES:**

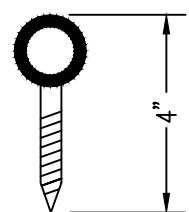
1.  $\frac{3}{8}$ " DIAMETER SMOOTH STEEL ROD WITH 90° 2" BEND
2.  $\frac{5}{16}$ " DIAMETER X 4" LAG EYE BOLT EPOXIED INTO CATCH BASIN WALL OPPOSITE OF THE PIPE OUTLET
3.  $2\frac{3}{4}$ " X  $\frac{5}{16}$ " ALUMINUM SNAP RING ATTACHED TO  $\frac{3}{8}$ " ROD
- 4A.  $\frac{1}{4}$ " NYLON ROPE ATTACHED TO TOP LAG EYE BOLT AND SNAP RING
- 4B. ATTACH OIL SOCK TO SNAP RING
5. OIL SOCK (SORBENT MODEL #L90898 OR APPROVED EQUAL)
6. NYLON TIES



DETAIL "A"

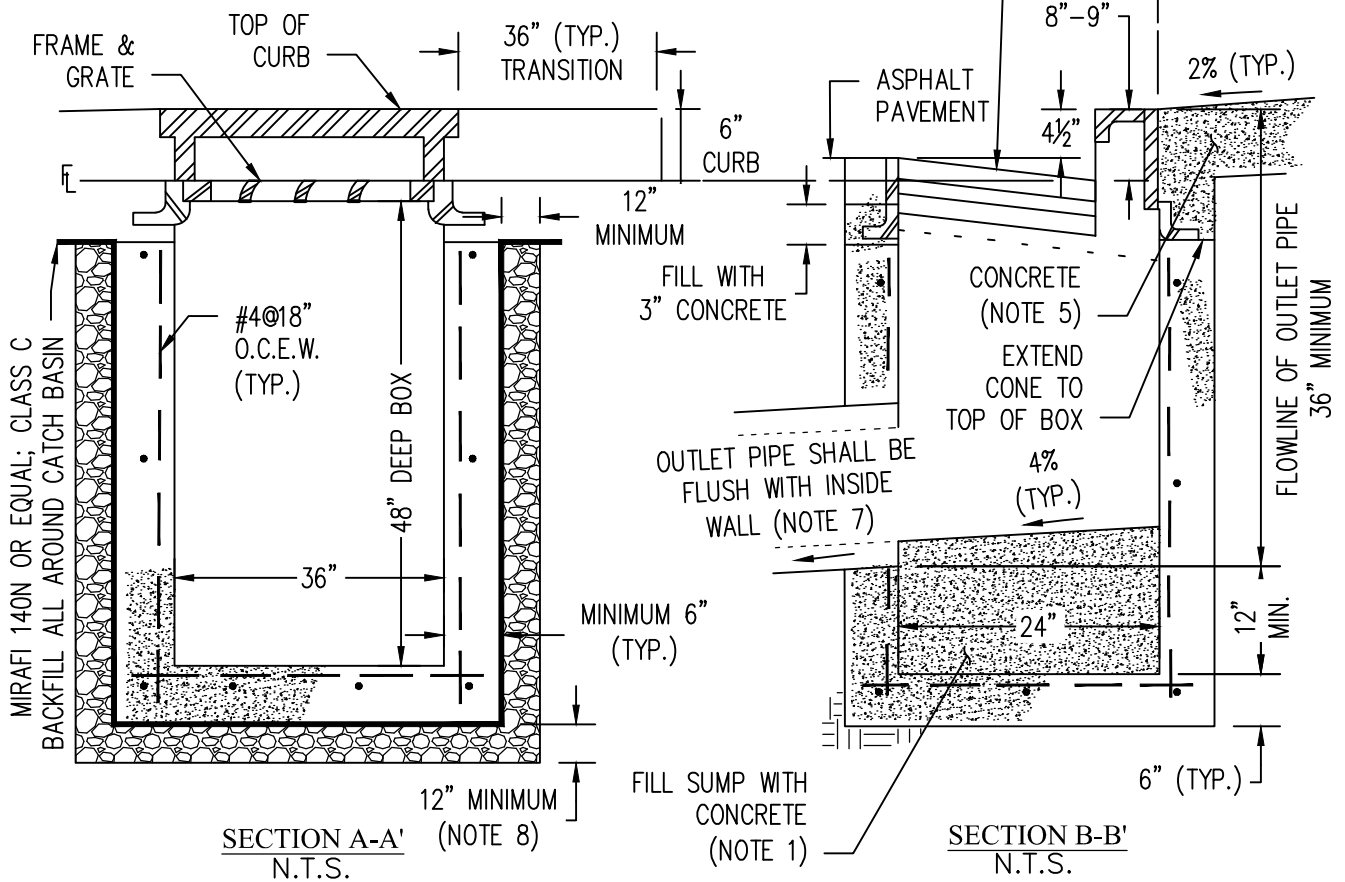
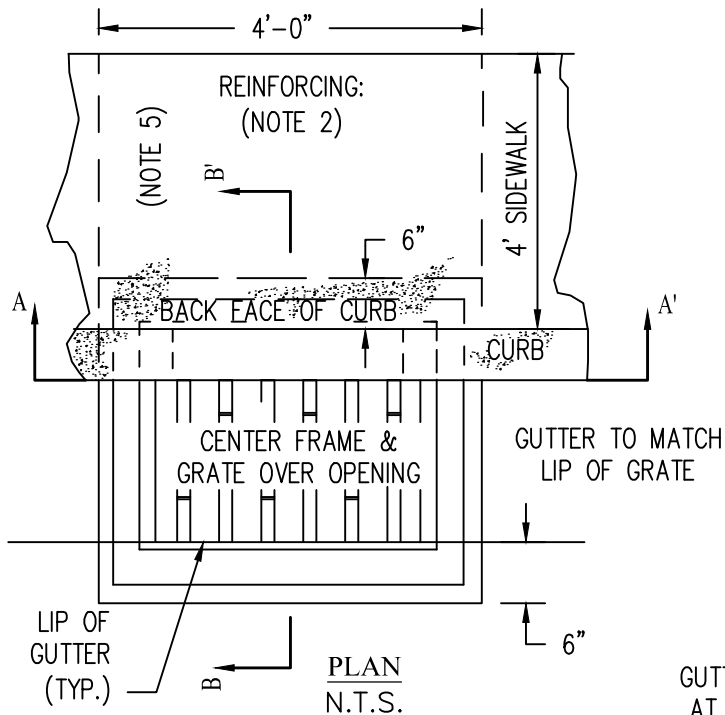


$\frac{5}{16}$ " ALUMINUM SNAP RING DETAIL



$\frac{5}{16}$ " STAINLESS LAG EYE BOLT DETAIL

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |       | SECTION NUMBER: |
|------|-----------|---|--|-------|-----------------|
|      |           |   | <h2>CATCH BASIN TYPE 4R</h2>                   |       | 200             |
|      |           |   |  |       | DRAWING NUMBER: |
|      |           |   |  |       | W-212C          |
|      |           |   |  | DATE: | 2/21/2022       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SUMPLESS CATCH BASIN

TYPE 4R

(USE ONLY WITH AN APPROVED TREATMENT VAULT)

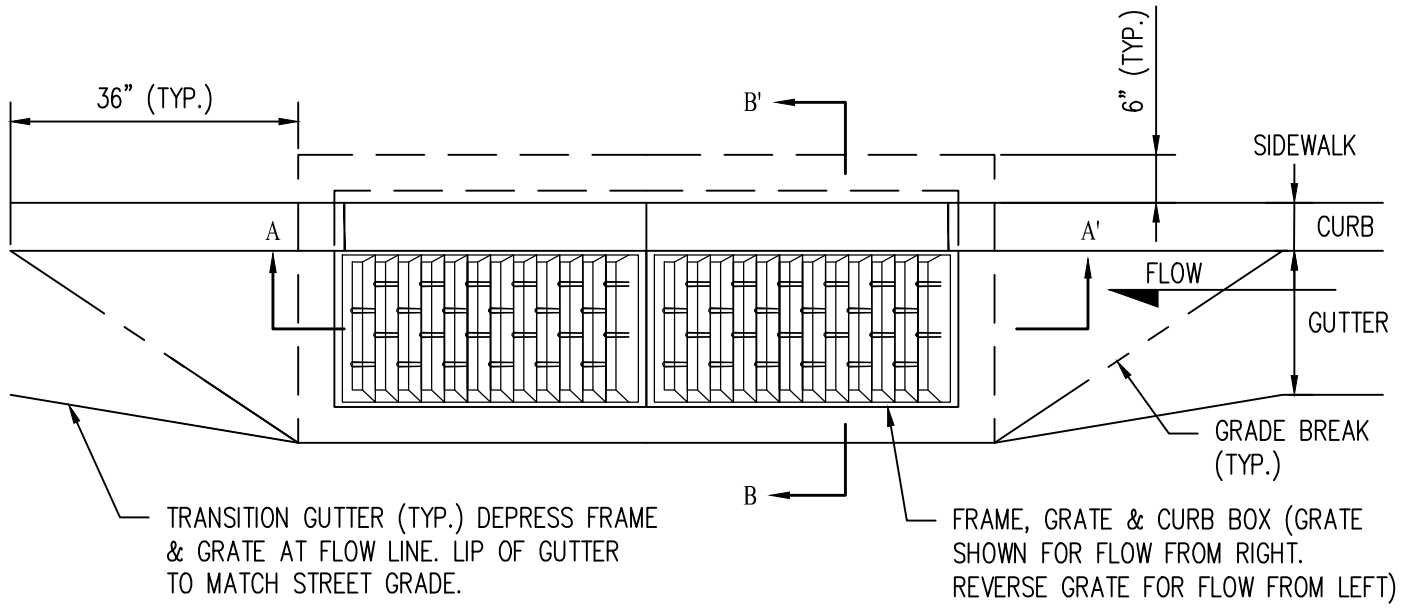
|                           |
|---------------------------|
| SECTION NUMBER:<br>200    |
| DRAWING NUMBER:<br>W-213A |
| DATE:<br>2/21/2022        |



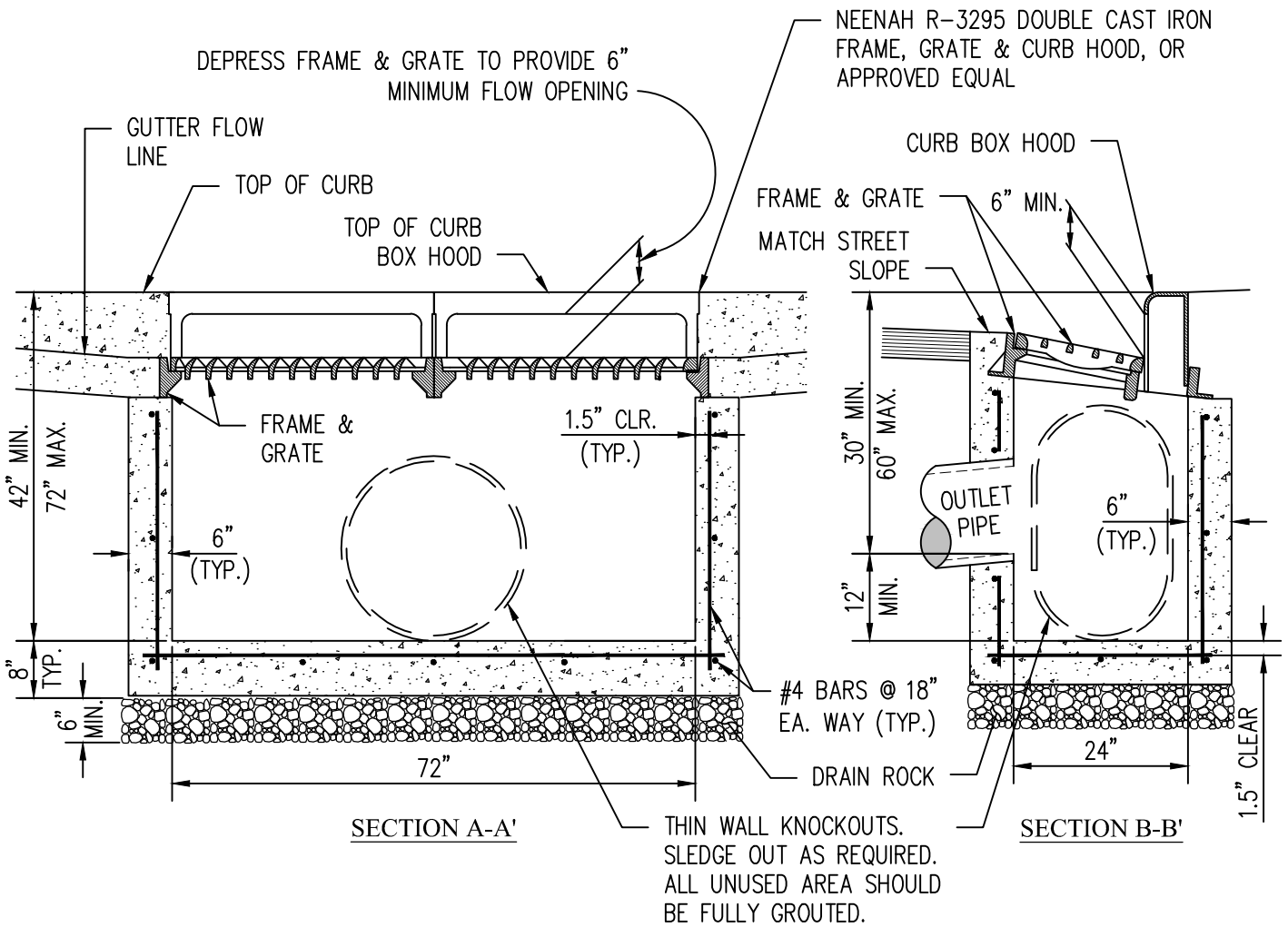
**NOTES:**

1. PORTLAND CEMENT CONCRETE (PCC) FOR CAST-IN-PLACE CATCH BASIN, SUMP AND 4'x4' CONCRETE PAD SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4".
2. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
3. CONCRETE STRUCTURE MAY BE A PRE-CAST CONCRETE UNIT UPON APPROVAL OF THE WASHOE COUNTY ENGINEER.
4. FRAME AND GRATE SHALL BE D&L FOUNDRY 2436-4R-L (VANE GRATE), NEENAH R3067-L (VANE GRATE), OR APPROVED EQUAL..
5. 8" THICK CONCRETE PAD SHALL BE CONSTRUCTED AS SHOWN WHEN NOT LOCATED IN SIDEWALK. 6" OF TYPE 2 CLASS B AGGREGATE BASE SHALL BE PLACED AND COMPACTED BENEATH 4'x4' PAD TO 90% RELATIVE COMPACTION. EXTEND CONCRETE TO TOP OF BOX.
6. TYPE 4R CATCH BASINS SHALL BE USED ON ALL GRADES IN ALL SUMP LOCATIONS WITHIN ROADWAY SECTION.
7. OUTLET PIPE SHALL BE MINIMUM 12" DIAMETER RCP, PVC OR HDPE.
8. IN AREAS OF FINE GRAINED OR EXPANSIVE SOILS, CLASS C BACKFILL DEPTH BELOW THE BOTTOM OF THE BOX SHALL BE 24 INCHES.
9. CATCH BASIN OUTLET PIPE SHALL BE BEDDED IN CLASS C BACKFILL.

| DATE | REVISIONS |  | <p style="text-align: center;">STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION<br/>           SUPPLESS CATCH BASIN<br/>           TYPE 4R<br/>           NOTES<br/>           (USE ONLY WITH AN APPROVED TREATMENT VAULT)</p> | SECTION NUMBER:<br>200    |
|------|-----------|---|--|---------------------------|
|      |           |   |  | DRAWING NUMBER:<br>W-213B |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |



PLAN



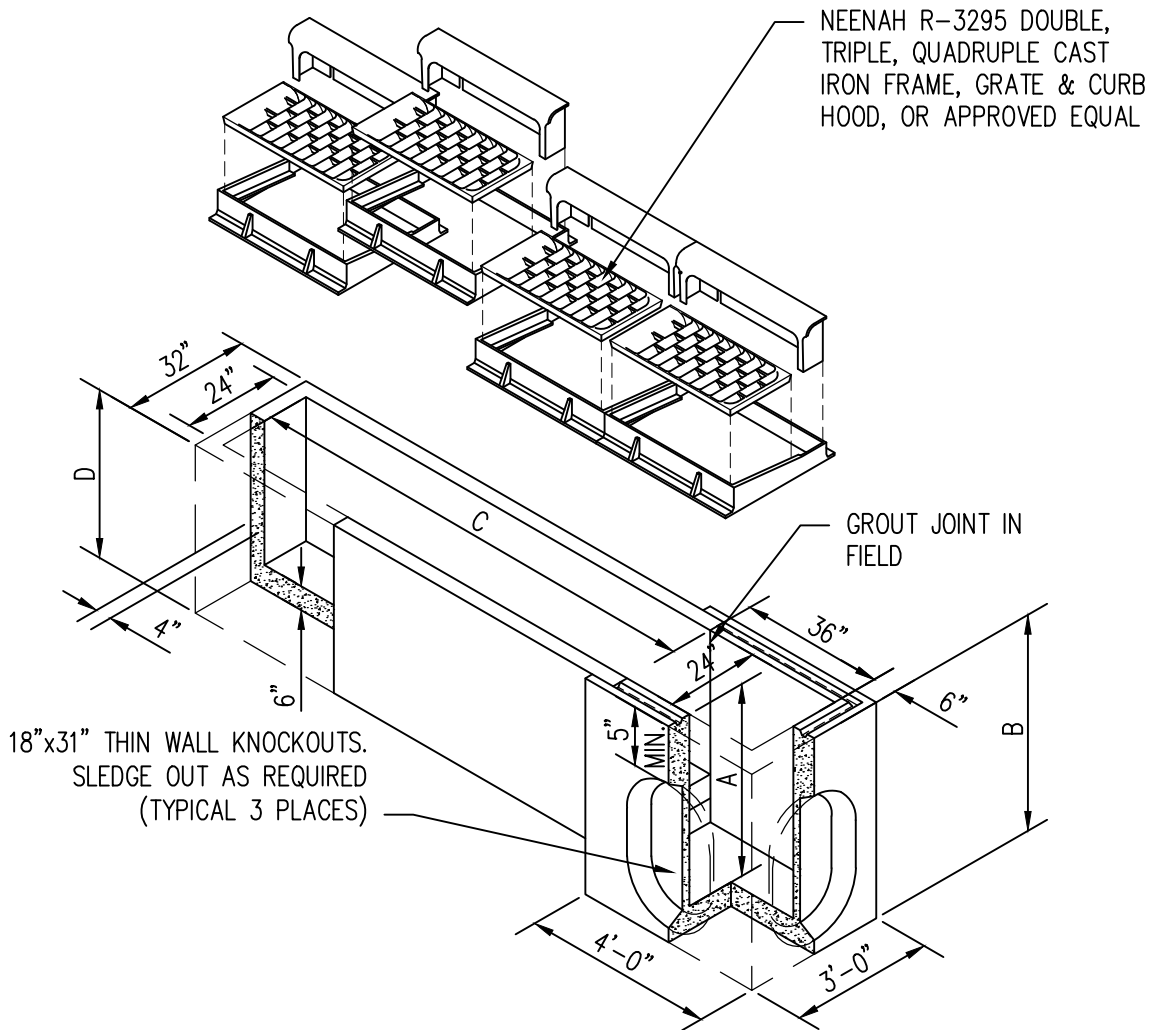
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

CATCH BASIN  
DUAL TYPE 4-R

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-214</b> |
| DATE:<br><b>2/01/2022</b>       |



**NOTES:**

1. A HIGH CAPACITY CURB INLET SHALL BE USED WHEN DESIGN FLOW RATES EXCEED THE CAPACITY OF A SINGLE CATCH BASIN.
2. FOR DIMENSIONS, NOTES, AND DETAILS NOT SHOWN, REFER TO THE APPLICABLE CATCH BASIN DETAIL DRAWINGS.

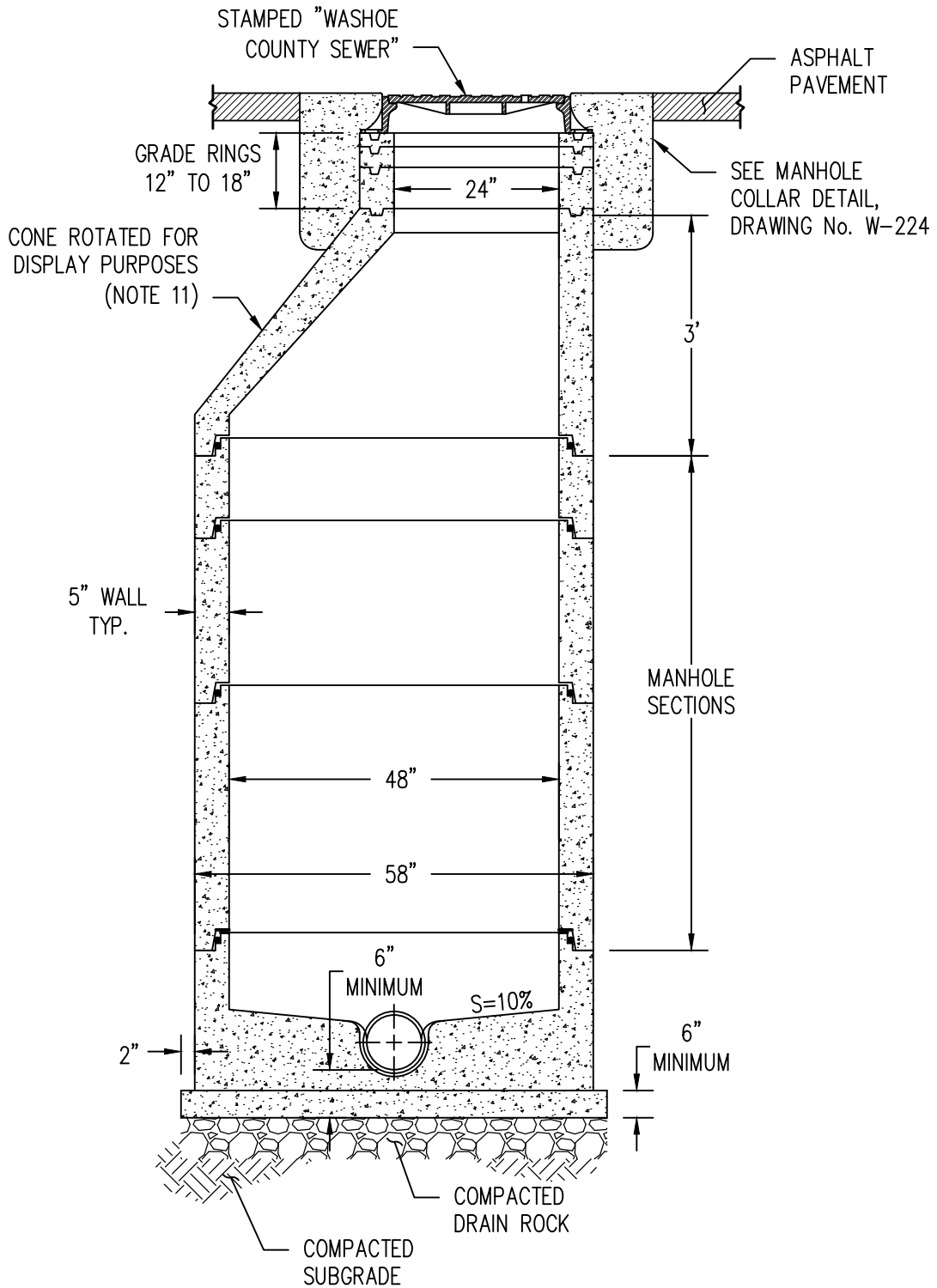
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**HIGH CAPACITY  
CURB INLET**

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-215</b> |
| DATE:<br><b>2/01/2022</b>       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

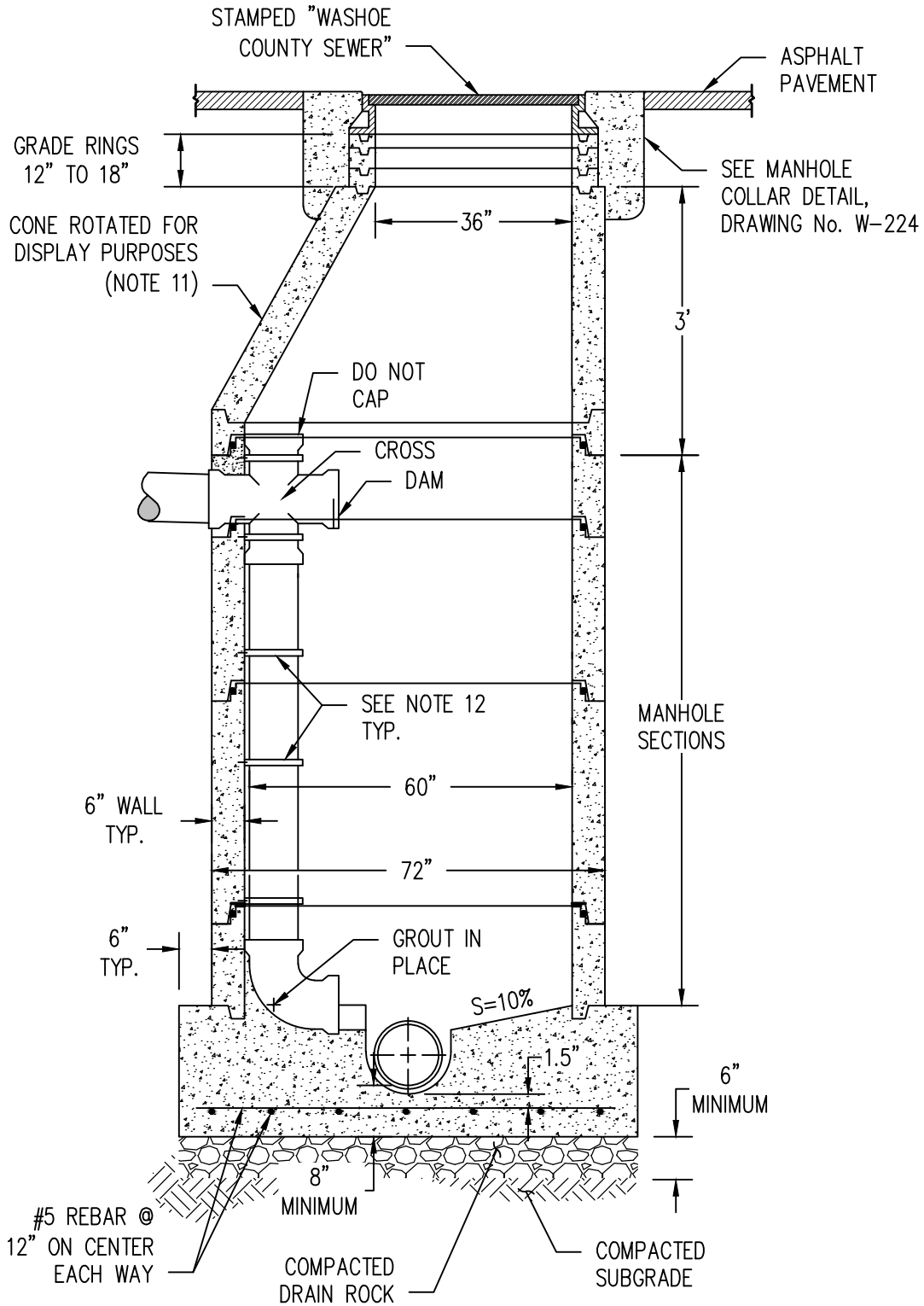
MANHOLE TYPE 1A

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-220A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

1. TYPE 1A MANHOLE TO BE UTILIZED AS FOLLOWS:
  - PIPE 18" AND SMALLER
  - PIPE 24" AND SMALLER ON TANGENT LINE AND GRADE
  - DEPTHS LESS THAN 18 FEET
2. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE SSPWC.
3. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. ALL MANHOLES SHALL INCLUDE D&L FOUNDRY 24FC-1032-WC FRAMES & COVER ASSEMBLIES, OR EQUAL, WITH "WASHOE COUNTY SEWER" CLEARLY STAMPED ON THE COVER.
5. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION & BACKFILL" OF THE SSPWC.
6. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC GASKET MATERIAL SUCH AS "RAM-NEK", OR EQUAL, AS PER MANUFACTURER'S RECOMMENDATIONS.
7. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF PRECAST MANHOLE BASES.
8. PIPE PENETRATIONS INTO MANHOLES SHALL BE WATER TIGHT.
9. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER THE REQUIREMENTS OF ASTM C-1244.
10. WHEN POSSIBLE, CONSTRUCT MANHOLE SECTIONS SO THAT STEPS ARE OPPOSITE OUTLET.

|             |                  |   |   |                        |
|-------------|------------------|---|---|------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>MANHOLE TYPE 1A</b><br><b>NOTES</b> | <b>SECTION NUMBER:</b> |
|             |                  |   |   | <b>200</b>             |
|             |                  |   |   | <b>DRAWING NUMBER:</b> |
|             |                  |   |   | <b>W-220B</b>          |
|             |                  |   |   | <b>DATE:</b>           |
|             |                  |   |   | <b>2/21/2022</b>       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

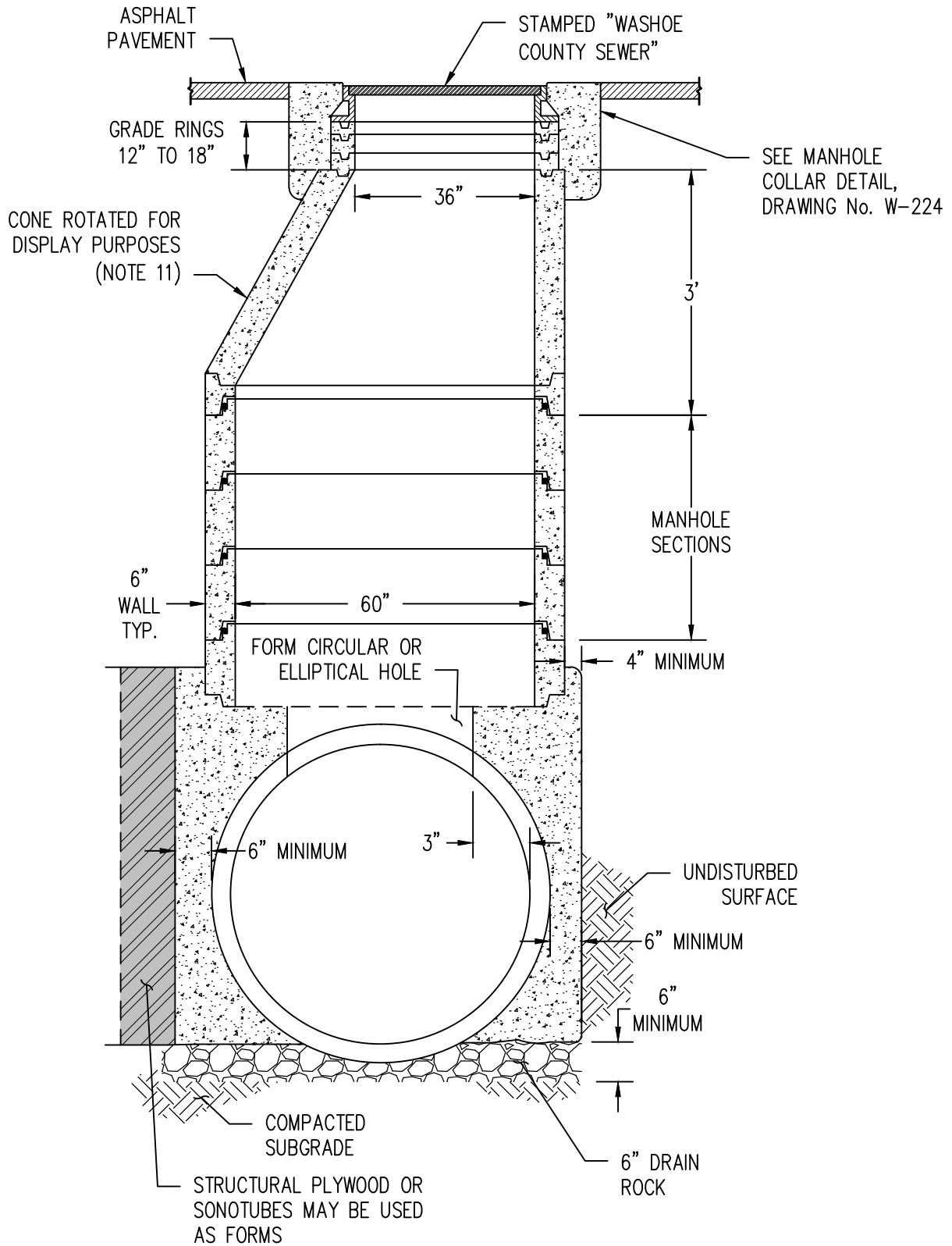
MANHOLE TYPE 3A

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-221A</b> |
| DATE:<br><b>2/21/2022</b>        |

NOTES:

1. TYPE 3A MANHOLE TO BE UTILIZED AS FOLLOWS:  
 -FOR DROPS GREATER THAN 2 FEET BUT NOT TO EXCEED 8 FEET
2. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE SSPWC.
3. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. ALL MANHOLES SHALL INCLUDE D&L FOUNDRY 24FC-1032-WC FRAMES & COVER ASSEMBLIES, OR EQUAL, WITH "WASHOE COUNTY SEWER" CLEARLY STAMPED ON THE COVER.
5. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION & BACKFILL" OF THE SSPWC.
6. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC GASKET MATERIAL SUCH AS "RAM-NEK", OR EQUAL, AS PER MANUFACTURER'S RECOMMENDATIONS.
7. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF PRECAST MANHOLE BASES.
8. PIPE PENETRATIONS INTO MANHOLES SHALL BE WATER TIGHT.
9. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER THE REQUIREMENTS OF ASTM C-1244.
10. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE.
11. USE 1"x $\frac{1}{8}$ " STAINLESS STEEL STRAP (TYPICAL) TOP, BOTTOM AND EVERY 3 FEET. USE  $\frac{1}{2}$ " SELF-TAPPING CONCRETE ANCHORS WITH  $\frac{1}{2}$ "x1 $\frac{1}{2}$ " STAINLESS STEEL BOLT AND STAINLESS STEEL LOCK WASHER.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION               | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | <p style="text-align: center;">MANHOLE TYPE 3A<br/>NOTES</p> | 200             |
|      |           |   |  | DRAWING NUMBER: |
|      |           |   |  | DATE:           |
|      |           |   | W-221B   | 2/21/2022       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION


MANHOLE TYPE 4A

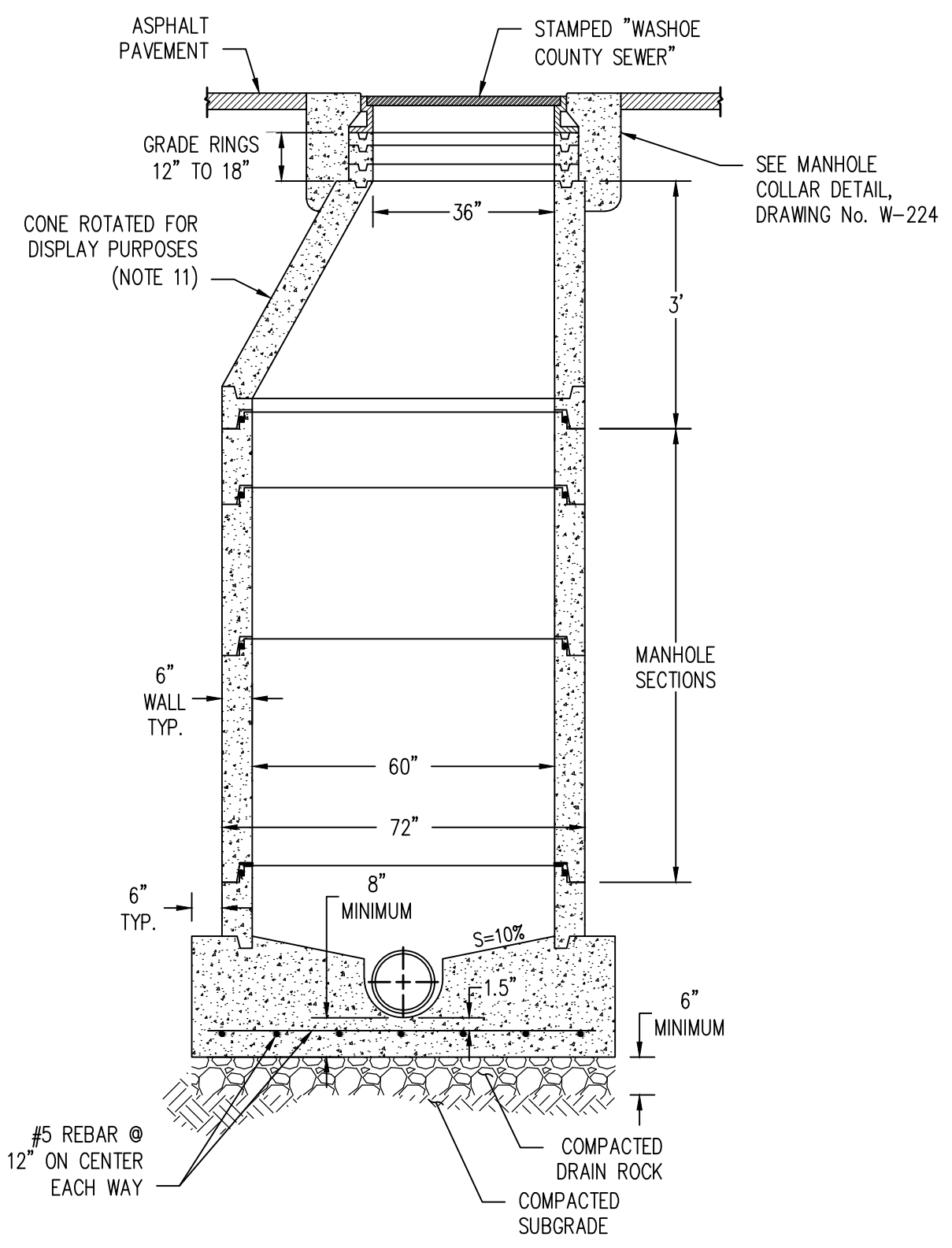
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-222A</b> |
| DATE:<br><b>2/21/2022</b>        |



**NOTES:**

1. TYPE 4A MANHOLE TO BE UTILIZED AS FOLLOWS:  
-ALL CASES FOR PIPE 30" AND GREATER
2. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE SSPWC.
3. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. ALL MANHOLES SHALL INCLUDE D&L FOUNDRY 24FC-1032-WC FRAMES & COVER ASSEMBLIES, OR EQUAL, WITH "WASHOE COUNTY SEWER" CLEARLY STAMPED ON THE COVER.
5. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION & BACKFILL" IN THE SSPWC.
6. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC GASKET MATERIAL SUCH AS "RAM-NEK", OR EQUAL, AS PER MANUFACTURER'S RECOMMENDATIONS.
7. EARTH IN PLACE CAN BE USED AS FORM.
8. STRUCTURAL PLYWOOD OR SONOTUBES IN PLACE CAN BE USED AS FORMS.

|      |           |   |  |                           |
|------|-----------|---|--|---------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION               | SECTION NUMBER:<br>200    |
|      |           |   | <p style="text-align: center;">MANHOLE TYPE 4A<br/>NOTES</p> | DRAWING NUMBER:<br>W-222B |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |
|      |           |   |  |                           |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

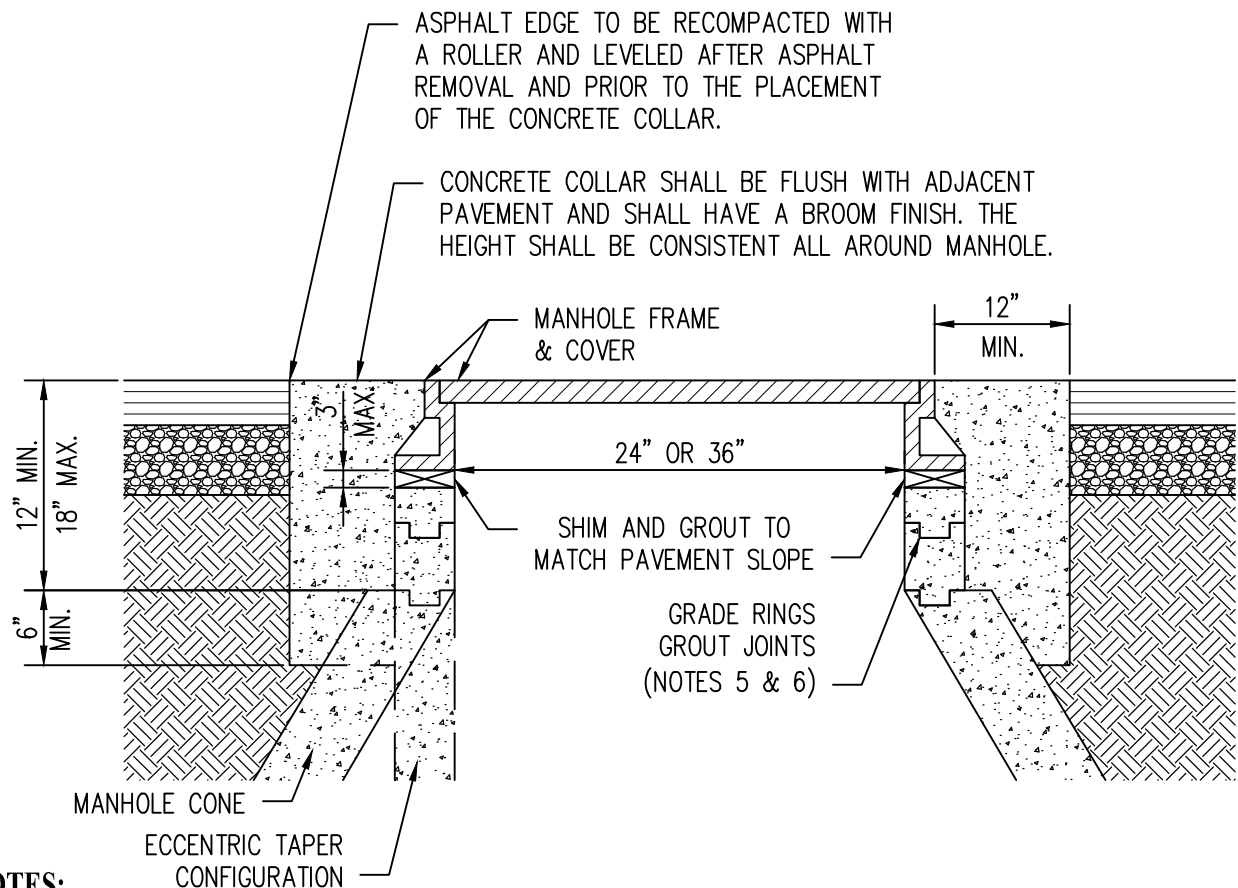
**MANHOLE TYPE 5A**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-223A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**


1. TYPE 5A MANHOLE TO BE UTILIZED AS FOLLOWS:  
 -FOR PIPE GREATER THAN 18" THRU 27"  
 -DEPTHS GREATER THAN 18 FEET
2. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE SSPWC.
3. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. ALL MANHOLES SHALL INCLUDE D&L FOUNDRY 24FC-1032-WC FRAMES & COVER ASSEMBLIES, OR EQUAL, WITH "WASHOE COUNTY SEWER" CLEARLY STAMPED ON THE COVER.
5. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION & BACKFILL" IN THE SSPWC.
6. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC GASKET MATERIAL SUCH AS "RAM-NEK", OR EQUAL, AS PER MANUFACTURER'S RECOMMENDATIONS.
7. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF PRECAST MANHOLE BASES.
8. PIPE PENETRATION INTO MANHOLES SHALL BE WATER TIGHT.
9. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER THE REQUIREMENTS OF ASTM C-1244.
10. REINFORCING STEEL SHALL BE AS SHOWN, UNLESS OTHERWISE NOTED.

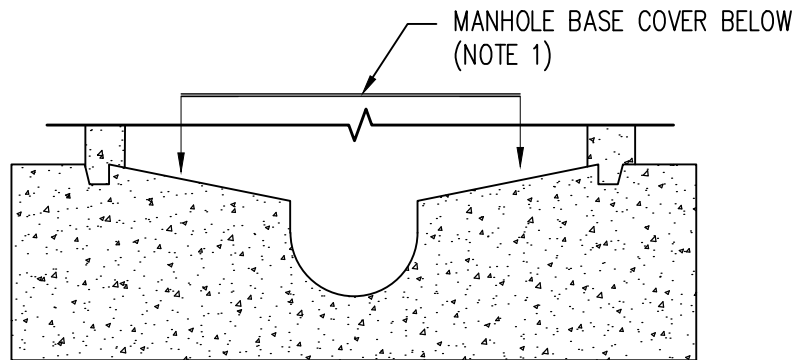
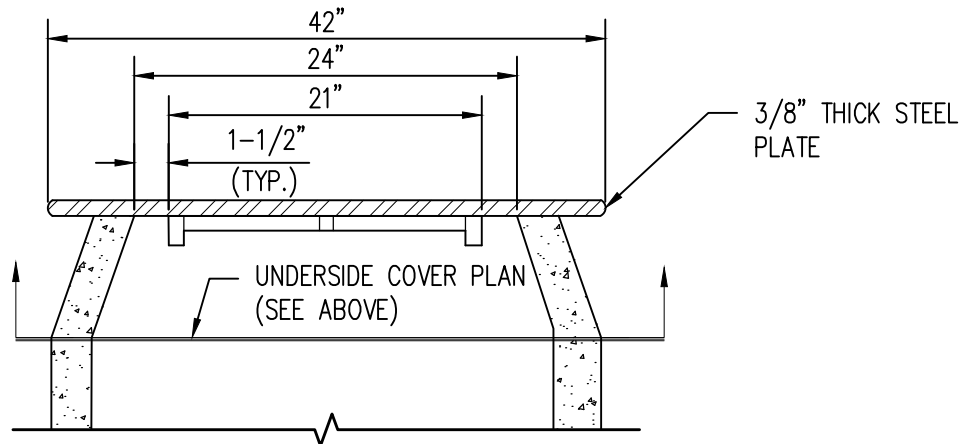
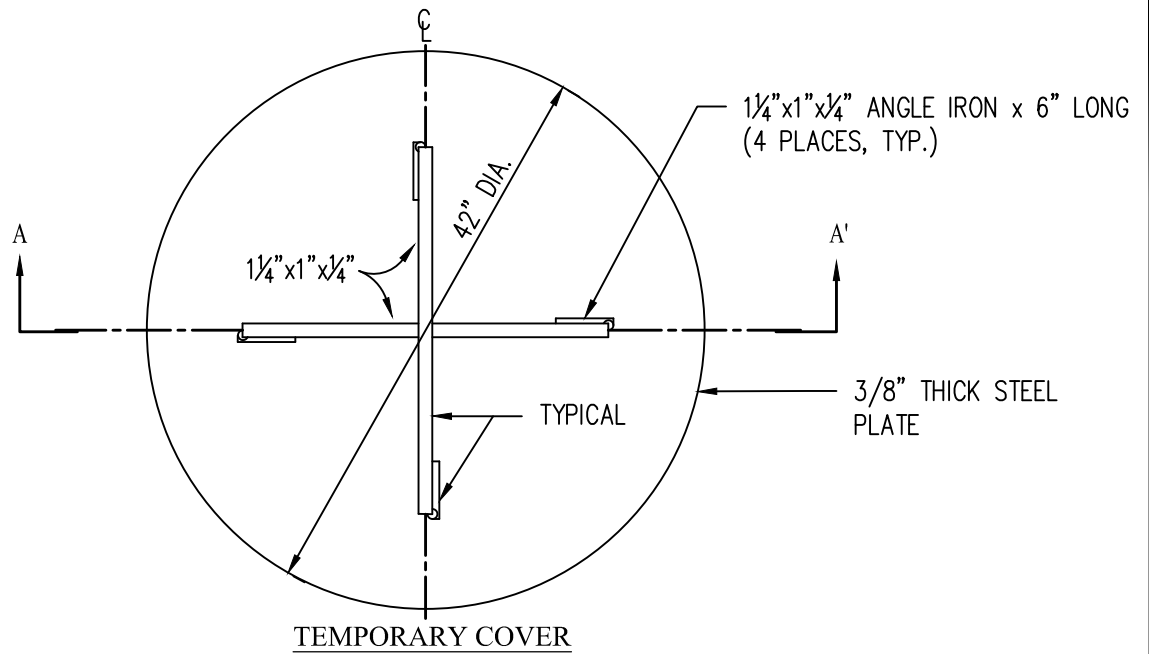
|             |                  |   |   |                                  |
|-------------|------------------|---|---|----------------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>MANHOLE TYPE 5A</b><br><b>NOTES</b> | <b>SECTION NUMBER:</b><br>200    |
|             |                  |   |   | <b>DRAWING NUMBER:</b><br>W-223B |
|             |                  |   |   | <b>DATE:</b><br>2/21/2022        |
|             |                  |   |   |                                  |



**NOTES:**

1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC.
2. CIRCUMSTANCES MAY REQUIRE THE NEED FOR SPECIAL TYPES OF TOP OF MANHOLE CONFIGURATIONS SUCH AS FLAT TOP, ABOVE GROUND, ETC. AS DIRECTED BY WASHOE COUNTY. DETAILED PLANS OF ANY SPECIAL TOP OF MANHOLE CONFIGURATIONS AND ASSOCIATED COLLARS MUST BE APPROVED BY THE COUNTY ENGINEER.
3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6-INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATERTIGHT FRAMES AND COVERS.
5. ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS WITH A MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIAL SHALL CONFORM TO SSPWC.
6. ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED.
7. MANHOLE COVER TO CLEARLY STATE "WASHOE COUNTY SEWER".

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |  | SECTION NUMBER: |
|------|-----------|---|--|--|-----------------|
|      |           |   | <h2>MANHOLE COLLAR</h2>                        |  | 200             |
|      |           |   |  |  | DRAWING NUMBER: |
|      |           |   |  |  | W-224           |
|      |           | DATE:   | 2/21/2022                                      |  |                 |



**NOTES:**

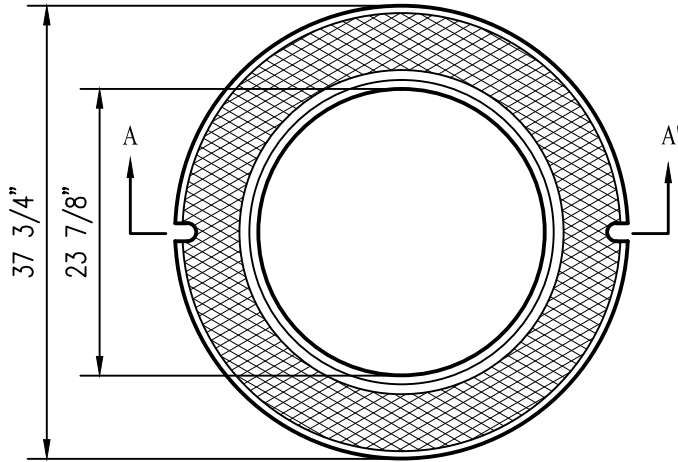
1. INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME & COVER AND GRADE RINGS TO ADJUST TO FINISH GRADE. INSTALL COVER OVER MANHOLE BASE TO PREVENT DEBRIS FROM ENTERING SEWER SYSTEM. THE MANHOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY ADJUSTMENTS OR GROUTING AND SHALL REMAIN IN PLACE WHILE ADJUSTMENTS OR GROUTING ARE BEING PERFORMED. REMOVE BASE COVER UPON ADJUSTMENT APPROVAL BY WASHOE COUNTY.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

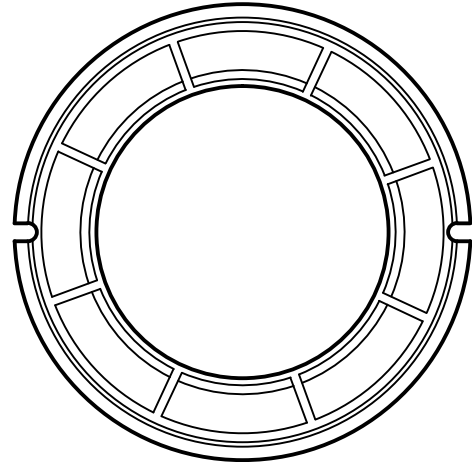


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
**TEMPORARY MANHOLE  
 COVER**

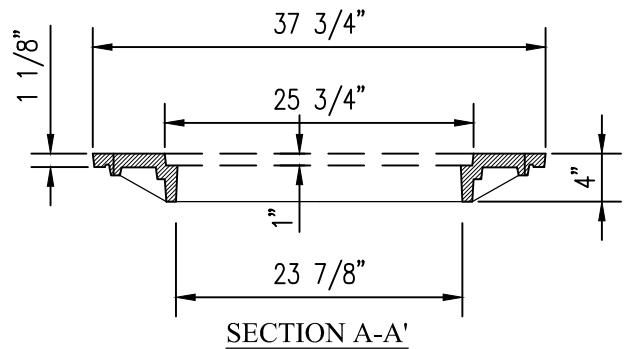
|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-225</b> |
| DATE:<br><b>2/21/2022</b>       |



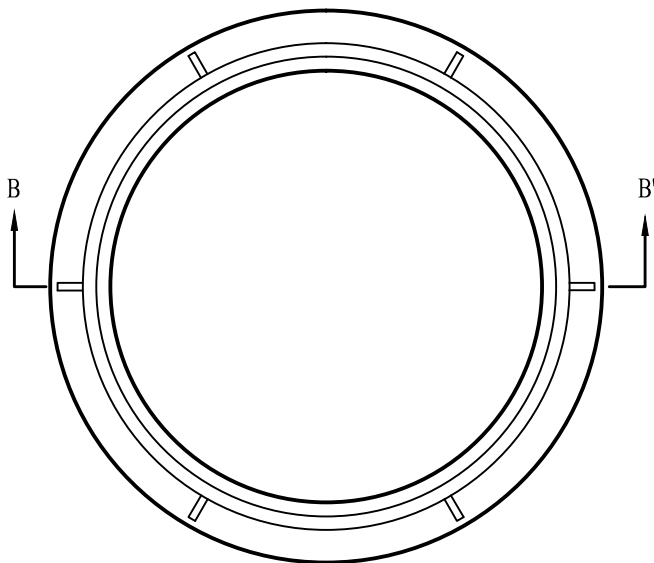
24" COVER ADAPTOR PLAN - TOP



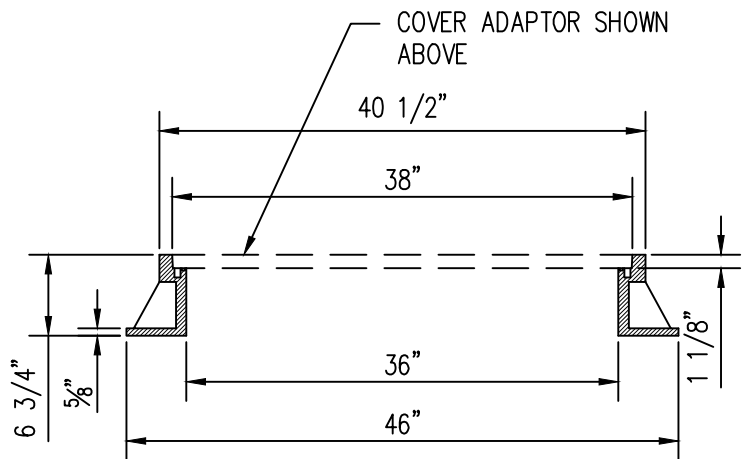
24" COVER ADAPTOR PLAN - BOTTOM



SECTION A-A'



36" MANHOLE FRAME



SECTION B-B'

**NOTES:**

1. 24" COVER ADAPTOR SHALL BE D&L FOUNDRY A1462-R5, TO ACCEPT D&L FOUNDRY A1032 MANHOLE COVERS AND TO SET IN D&L FOUNDRY A1462 FRAME, OR APPROVED EQUAL.
2. 36" MANHOLE FRAME SHALL BE D&L FOUNDRY A1462 FRAME, OR APPROVED EQUAL.
3. CASTINGS SHALL BE CAST GRAY IRON, AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO PAINT.
4. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
5. MANHOLE COVER ADAPTOR SHALL BE FREE OF HOOKS OR PROTRUSIONS THAT MAY HINDER REMOVAL.

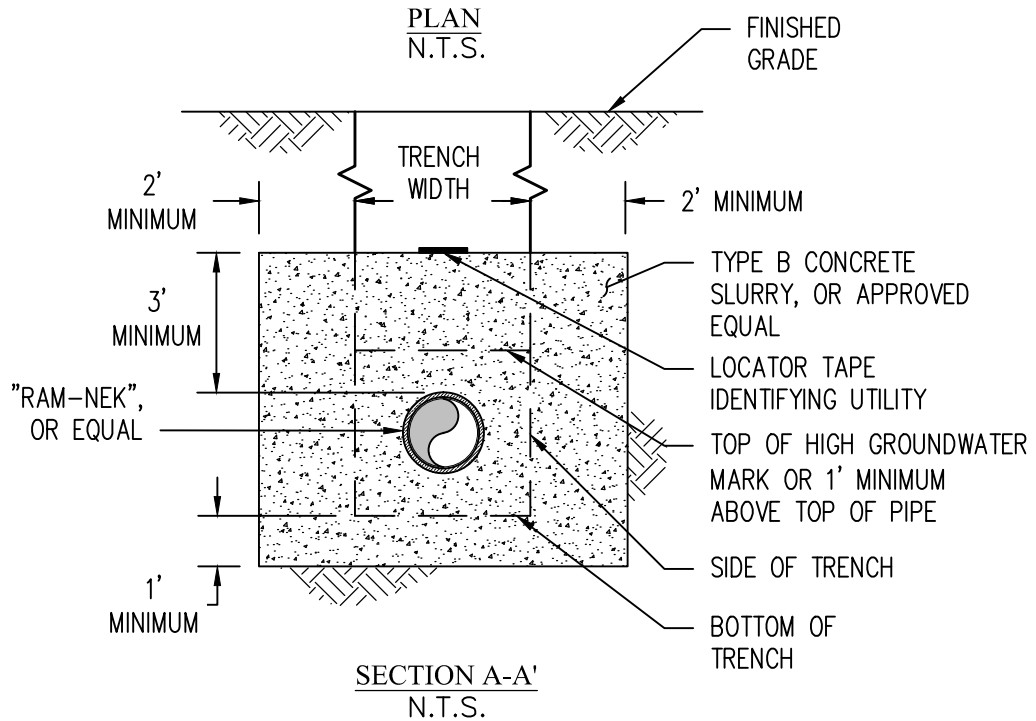
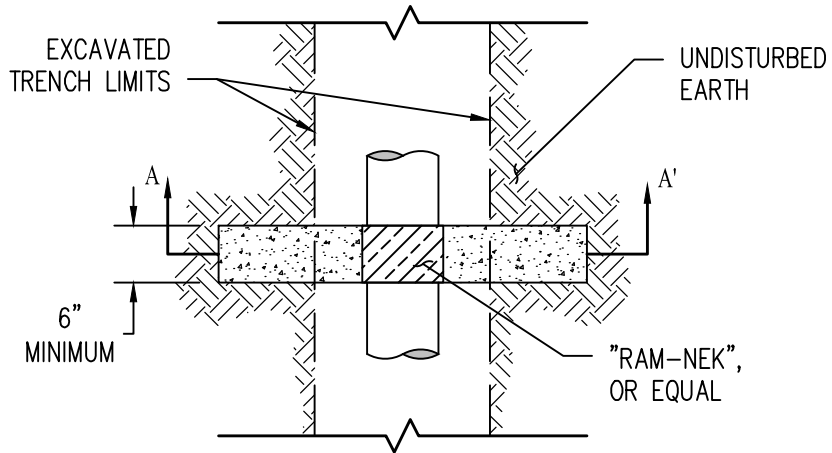
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

36" MANHOLE FRAME  
WITH 24" COVER ADAPTOR

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-226</b> |
| DATE:<br><b>2/21/2022</b>       |



**NOTES:**

1. WATER STOPS TO BE CONSTRUCTED UPSTREAM OF MANHOLES AND AT 500' MAXIMUM SPACING IN GROUNDWATER CONDITIONS AND WHERE TYPE 'C' BEDDING IS USED, OR OTHER LOCATIONS IDENTIFIED BY THE ENGINEER.
2. WRAP PIPE WITH "RAM-NEK", OR EQUAL, WHERE PIPE IS EXPOSED TO CONCRETE PRIOR TO POURING.
3. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED IN TRENCH DETAIL, DRAWING No. W-207 OR DRAWING No. W-302.
4. USE TYPE 'B' CONCRETE SLURRY.

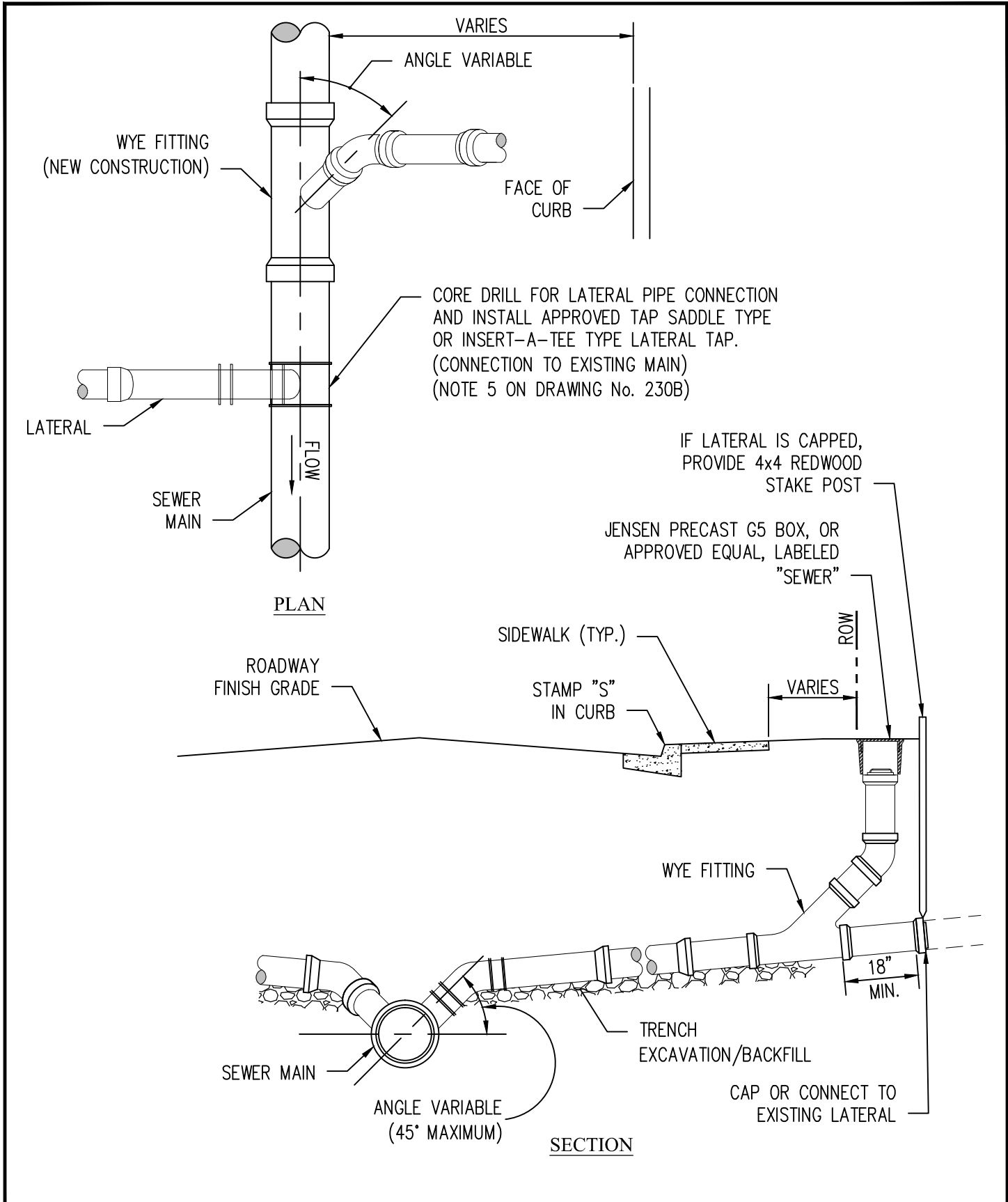
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

CUT-OFF COLLAR

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-227</b> |
| DATE:<br><b>2/21/2022</b>       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION


## SANITARY SEWER LATERAL

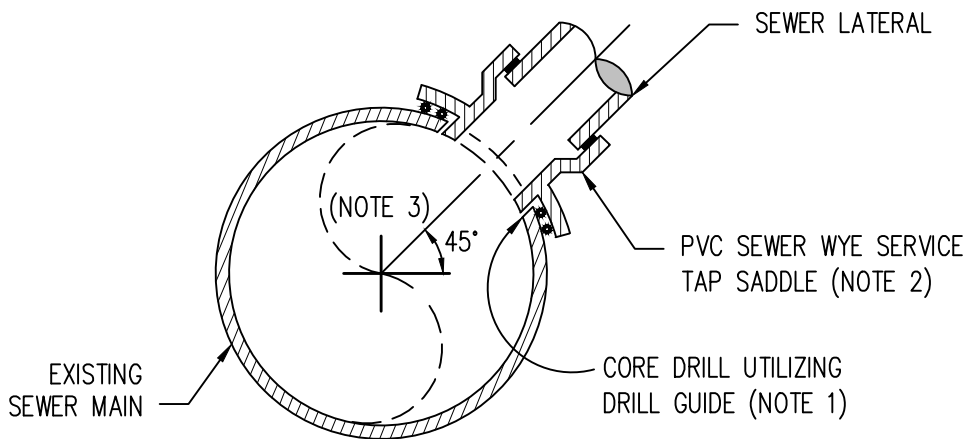
|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>200</b>    |
| DRAWING NUMBER:<br><b>W-230A</b> |
| DATE:<br><b>2/21/2022</b>        |



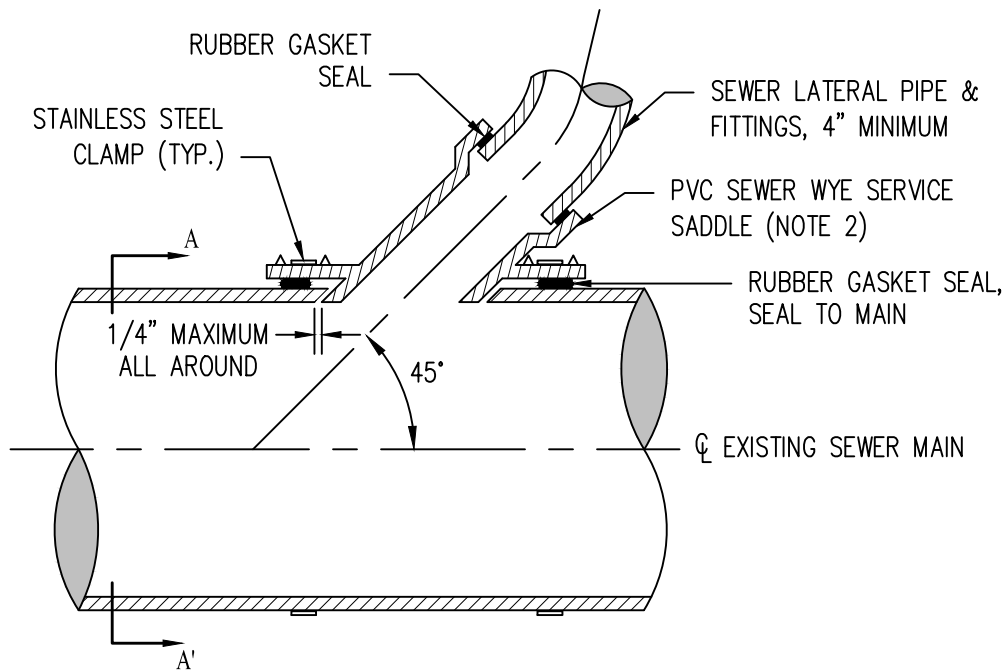
**NOTES:**

1. SEWER LATERALS SHALL HAVE A MINIMUM PIPE DIAMETER OF 4 INCHES.
2. ALL PLASTIC PIPE USED FOR SEWER SERVICE LATERAL CONSTRUCTION SHALL BE SOLID WALL AND SHALL MEET THE REQUIREMENTS OF ASTM D-2412, HAVE A MINIMUM STIFFNESS OF 46 PSI AS DEFINED BY THE REQUIREMENTS OF ASTM D-3034.
3. SERVICE LATERALS SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT (2%).
4. SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 36 INCHES IN THE PUBLIC RIGHT-OF-WAY AND IN EASEMENTS UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER. THE DEFINITION OF "COVER" IS THE DISTANCE FROM THE TOP OF PIPE TO FINISHED GRADE.
5. USE OF SEWER SERVICE TAP SADDLE CONNECTIONS SHALL NOT BE ALLOWED FOR NEW SEWER MAIN CONSTRUCTION. WHEN A TAP SADDLE CONNECTION IS TO BE USED ON AN EXISTING SEWER MAIN, IT SHALL BE A WYE SADDLE AND BE INSTALLED PER DETAIL DRAWING No. W-231.
6. SEWER LATERALS SHALL HAVE A CLEANOUT INSTALLED IMMEDIATELY UPSTREAM OF THE POINT WHERE THE SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY OR EASEMENT. A G5 BOX CLEARLY MARKED "SEWER" SHALL BE INSTALLED OVER THE TOP OF THE CLEANOUT RISER CAP PIPE.
7. SEWER LATERALS SHALL NOT BE CONNECTED DIRECTLY TO OR WITHIN 5 FEET OF A MANHOLE STRUCTURE.
8. EXISTING SEWER LATERALS SHALL BE CUT BACK TO SOUND MATERIAL FOR COUPLING. PLACE 6-INCH THICK CONCRETE PAD UNDER CONNECTION.
9. SEWER LATERAL CONNECTION SHALL BE STABILIZED WITH APPROVED MATERIAL FOLLOWING INSTALLATION. CONNECTION TO COUNTY SEWER MAIN MUST BE INSPECTED BY WASHOE COUNTY PRIOR TO BACKFILL.
10. NO LATERAL CONNECTIONS SHALL BE MADE DIRECTLY TO A SANITARY SEWER "INTERCEPTOR" UNLESS APPROVED BY THE COUNTY ENGINEER.
11. SEWER LATERALS SHALL NOT BE CONNECTED TO A SEWER MAIN UNLESS THE CONNECTION POINT IS BETWEEN TWO MANHOLE STRUCTURES.
12. EACH INDIVIDUAL PARCEL SHALL HAVE A MINIMUM OF ONE SEWER LATERAL. TWO OR MORE PARCELS SHALL NOT SHARE ONE SEWER LATERAL.
13. SANITARY SEWER LATERAL IDENTIFICATION AND LOCATING REQUIREMENTS SHALL BE PER WASHOE COUNTY SEWER DESIGN STANDARDS.
14. DISCONTINUANCE OF USE OF AN EXISTING SEWER LATERAL REQUIRES ABANDONMENT OF THE LATERAL. CUT, REMOVE 1 FOOT OF EXISTING LATERAL AND CAP BOTH ENDS OF THE EXISTING SEWER LATERAL TO BE ABANDONED WITHIN 6 INCHES OF THE SEWER MAIN. ABANDONMENT MUST BE INSPECTED BY THE COUNTY PRIOR TO BACKFILL.
15. PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                      | SECTION NUMBER:<br>200    |
|------|-----------|---|---|---------------------------|
|      |           |   | <p style="text-align: center;">SANITARY SEWER LATERAL<br/>NOTES</p> | DRAWING NUMBER:<br>W-230B |
|      |           |   |   | DATE:<br>2/21/2022        |
|      |           |   |   |                           |



SECTION A-A'  
N.T.S.



SIDE VIEW

**NOTES:**

1. EXISTING SEWER MAINS SHALL BE CORE DRILLED UTILIZING A DRILL GUIDE FOR A WYE SADDLE AND A CORE DRILL WITH A LENGTH EXCEEDING THE LATERAL DIAMETER, INSERT-A-DRILL IDY75 & EXTRA LONG HOLE SAW OR APPROVED EQUAL. DIAMOND CORE BITS SHALL BE USED ON NON-PVC MAINS.
2. SERVICE TAP SADDLES SHALL BE PVC SEWER WYE SADDLES. A ROMAC STYLE "CB" SEWER SADDLE OR APPROVED EQUAL MAY BE USED ON EXISTING SEWER MAINS ONLY WHEN MAIN IS NOT PVC.
3. SADDLES SHALL BE INSTALLED AT 45 DEGREES TO MAIN AS SHOWN IN SECTION A-A'. IN NO CASE SHALL A LATERAL CONNECTING TO THE EXISTING SEWER MAIN BE LOCATED DIRECTLY ON TOP OF THE PIPE, NOR SHALL IT MATCH THE FLOWLINE OF THE PIPE.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SANITARY SEWER  
TAP SADDLE

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>200</b>   |
| DRAWING NUMBER:<br><b>W-231</b> |
| DATE:<br><b>2/21/2022</b>       |

**FIRE HYDRANT COLOR SCHEDULE:**

RENO

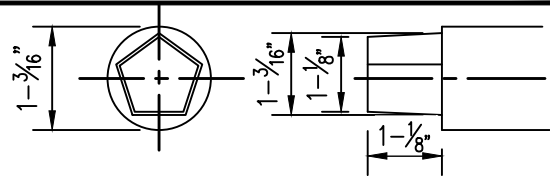
ALL HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.

SPARKS

PUBLIC HYDRANTS TO BE FACTORY ENAMELED SAFETY YELLOW.  
PRIVATE HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.

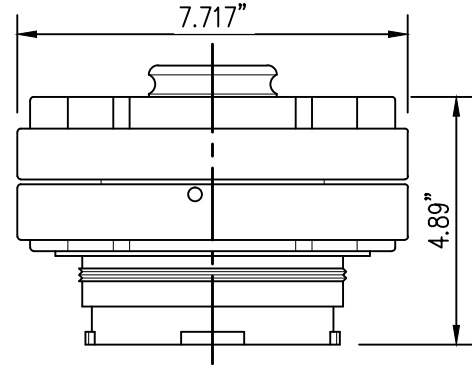
WASHOE COUNTY

PUBLIC HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.  
PRIVATE HYDRANTS TO BE FACTORY ENAMELED SAFETY RED WITH HIGH REFLECTIVE WHITE TOP.



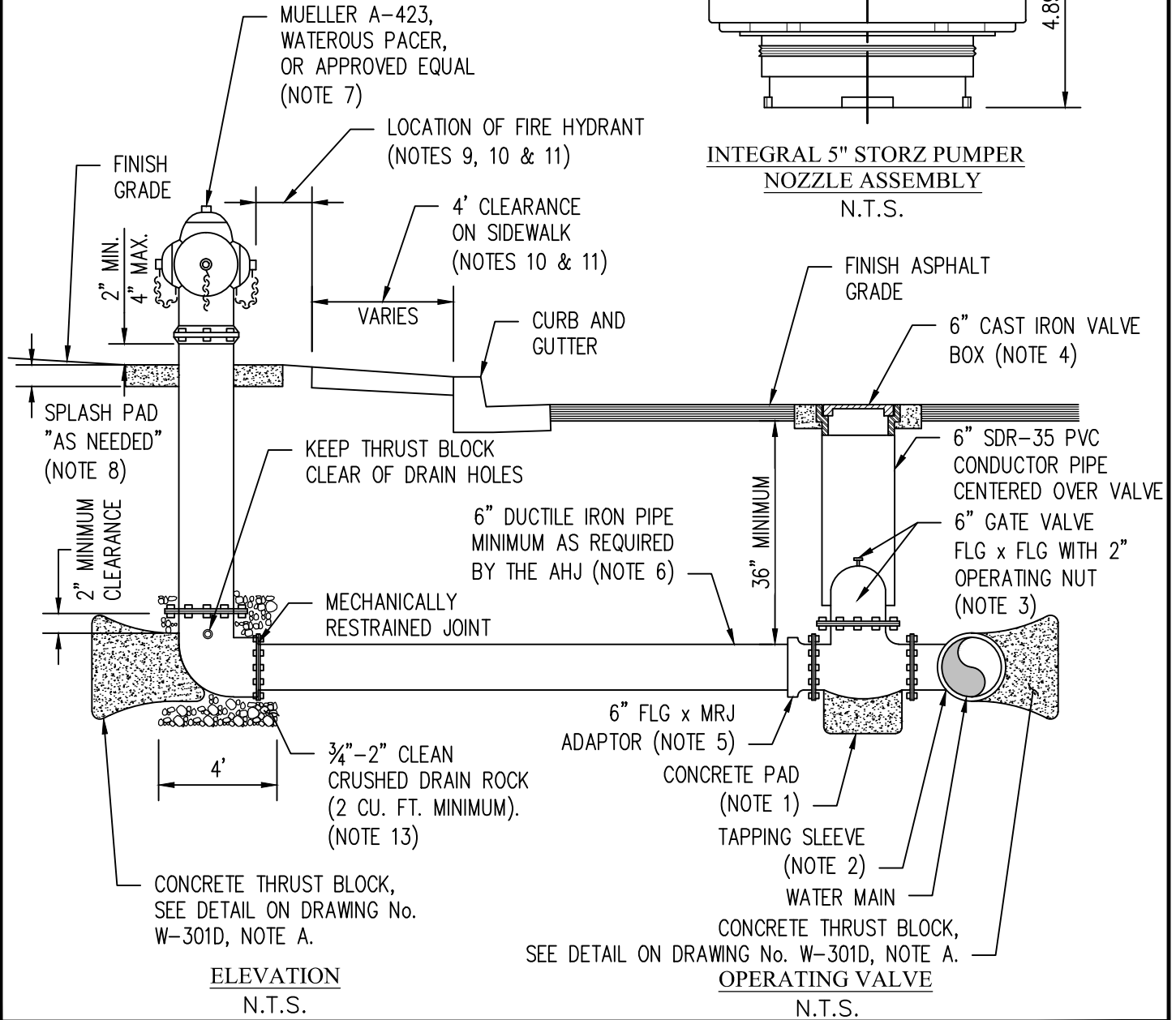
**OPERATING NUT - PENTAGON**

N.T.S.



**INTEGRAL 5" STORZ PUMPER NOZZLE ASSEMBLY**

N.T.S.



**ELEVATION**

N.T.S.

**OPERATING VALVE**

N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**FIRE HYDRANT**

|                 |                  |
|-----------------|------------------|
| SECTION NUMBER: | <b>300</b>       |
| DRAWING NUMBER: | <b>W-301A</b>    |
| DATE:           | <b>2/21/2022</b> |

**NOTES:**

1. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". MIX DESIGN SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY AUTHORITY HAVING JURISDICTION (AHJ). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE OR CELLULOSE FIBERS AS MANUFACTURED BY FIBERMESH, OR APPROVED EQUAL, AND SHALL BE ADDED AT A RATE OF 1.5 LBS PER CUBIC YARD OF CONCRETE. ALL MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY AHJ.

2. TAPPING SLEEVE  
HOT-TAP TAPPING SLEEVES SHALL BE FULL-CIRCLE ASTM A 240, TYPE 304 STAINLESS STEEL WITH FULL CIRCUMFERENCE GASKETS THROUGHOUT SLEEVE LENGTH WITH AWWA C207 CLASS D ANSI 150 LB. DRILLING ASTM A 240, TYPE 304 STAINLESS STEEL FLANGE. TYPE 304 STAINLESS STEEL STUD BOLTS, HEAVY HEX NUTS, AND WASHERS SHALL BE INCLUDED. HEAVY HEX NUTS AND STUD BOLTS SHALL BE COATED TO PREVENT GALLING. TYPE 304 STAINLESS STEEL TEST PLUG SHALL BE INCLUDED WITH THREADS COATED TO PREVENT GALLING. TAPPING SLEEVE SHALL BE RATED FOR A TEST PRESSURE OF 300 PSI AND WORKING PRESSURE OF 200 PSI. TAPPING SLEEVE SHALL BE ROMAC STYLE "SST" STAINLESS STEEL TAPPING SLEEVE AS MANUFACTURED BY ROMAC INDUSTRIES, INC.; SMITH-BLAIR 663 STAINLESS STEEL FLANGE TAPPING SLEEVE AS MANUFACTURED BY SMITH-BLAIR, INC.; OR EQUAL.


ALL WATER MAIN SHUT DOWNS AND/OR INSTALLATION OF TAPPING SLEEVES SHALL BE COORDINATED WITH THE WATER PURVEYOR IN THE AREA AND CONFORM TO THEIR REQUIREMENTS.

3. GATE VALVE  
GATE VALVE SHALL BE 6-INCH, FLG x FLG AND SHALL MEET AWWA C515, DUCTILE IRON BODY, NON-RISING STEM, RESILIENT-SEATED VALVE. GATE VALVE SHALL BE EQUIPPED WITH A 2-INCH OPERATING NUT FOR BURIED SERVICE. GATE VALVE SHALL BE FUSION EPOXY LINED AND COATED. ALL VALVES FOR BURIED SERVICE SHALL BE POLYETHYLENE ENCASED PER AWWA C105. GATE VALVE SHALL BE A MUELLER A-2361 RESILIENT WEDGE GATE VALVE; AMERICAN AVK COMPANY SERIES 65 AWWA C515 DUCTILE IRON GATE VALVE; OR APPROVED EQUAL.

4. 6" VALVE BOX SHALL BE D&L #8044 & #8056 OR APPROVED EQUAL. CASTINGS SHALL BE CAST IRON GRAY AND MEET THE REQUIREMENTS OF ASTM A48-74, CLASS 30B, NO PAINT.

5. 6-INCH FLG x MRJ ADAPTOR  
6-INCH FLG x MRJ ADAPTOR SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF AWWA STANDARDS C110/C153 AND C104. ALL FITTINGS SHALL BE POLYETHYLENE ENCASED PER AWWA C105. ADAPTOR SHALL BE ASPHALTIC COATED WITH CEMENT-MORTAR LINING PER AWWA C110/C153 AND C104.

6. 6-INCH MINIMUM DUCTILE IRON LATERAL PIPE  
ALL DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARDS C151, C104, AND C111 WITH PRESSURE CLASS 350, STANDARD CEMENT LINING, BITUMINOUS COATING, AND SHALL BE NSF-61 CERTIFIED. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE ENCASED WITH THICKNESS OF 4 MIL AND BE BLACK IN COLOR. MATERIAL SHALL BE HIGH-DENSITY, CROSS-LAMINATED FILM CONFORMING TO SECTION 4.1.3 OF AWWA STANDARD C105. TUBE SIZE SHALL BE AS LISTED IN TABLE 1 OF SAME STANDARD. DUCTILE IRON PIPE SHALL BE EQUIPPED WITH TYTON TYPE BELL AND SPIGOT JOINTS. DUCTILE IRON PIPE SHALL BE TYTON DUCTILE IRON PIPE AS MANUFACTURED BY U.S. PIPE, GRIFFIN TYTON JOINT DUCTILE IRON PIPE AS MANUFACTURED BY GRIFFIN PIPE PRODUCTS CO., INC., OR APPROVED EQUAL. EXCEPTIONS FOR PRIVATE INSTALLATION UPON APPROVAL FROM AHJ.

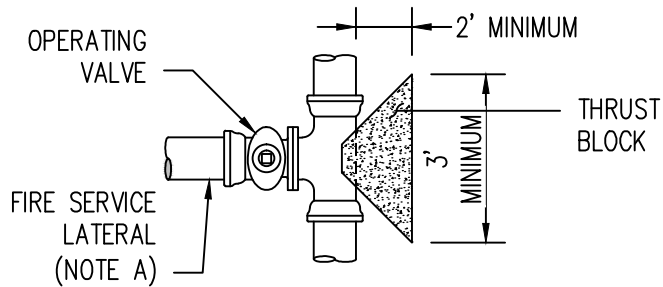
|      |           |   |  |                    |
|------|-----------|---|--|--------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                   | SECTION NUMBER:    |
|      |           |   | <p style="text-align: center;"><b>FIRE HYDRANT<br/>NOTES</b></p> | 300                |
|      |           |   |  | DRAWING NUMBER:    |
|      |           |   | W-301B   |                    |
|      |           |   |  | DATE:<br>2/21/2022 |

**NOTES (CONTINUED):**

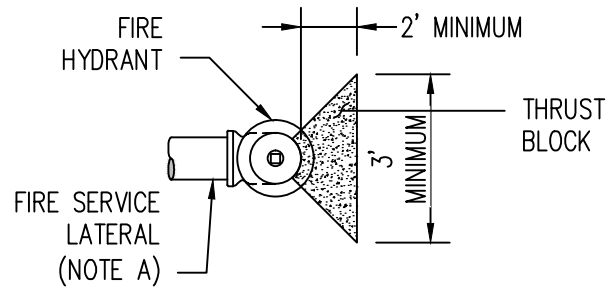
7. MUELLER A-423 OR AMERICAN WATEROUS PACER WB67-250 WITH 5-1/4" VALVE OPENING OR FIRE DEPARTMENT APPROVED EQUAL. RISER SHALL BE 4-FOOT OR 5-FOOT AND RISER TYPE SHALL BE SAME AS THE FIRE HYDRANT MANUFACTURER. HYDRANTS MUST BE FACTORY PAINTED TO BE ACCEPTED. ALL HYDRANTS SHALL HAVE TWO 2-1/2" HOSE NOZZLES AND ONE FACTORY INSTALLED INTEGRAL 5" STORZ PUMPER NOZZLE ASSEMBLY.
8. IF PROPOSED HYDRANT LOCATION IS WITHIN PARKWAY OR LANDSCAPE WHERE NO CONCRETE EXISTS, PLACE 36" DIAMETER ROUND OR 36"x36" SQUARE, 4" THICK REINFORCED CONCRETE SPLASH PAD AS REQUIRED BY THE AHJ. NO FENCES, LANDSCAPE FEATURES, OR OTHER OBSTRUCTIONS SHALL BE ALLOWED WITHIN 3- FEET OF ANY PORTION OF A FIRE HYDRANT. CLEARANCE IS MEASURED FROM ALL OBSTRUCTIONS TO THE NEAREST POINT ON THE FIRE HYDRANT.
9. FIRE HYDRANTS SHALL BE INSPECTED BY AHJ INSPECTOR. INSPECTIONS SHALL BE SCHEDULED A MINIMUM OF TWO BUSINESS DAYS PRIOR AND INSPECTIONS SHALL BE PERFORMED DURING REGULAR BUSINESS HOURS. CONTACT AHJ FIRE PREVENTION BUREAU TO SCHEDULE INSPECTIONS.
10. FIRE HYDRANTS SHALL BE PLACED WITH THE RIGHT-OF-WAY OR EASEMENT GRANTED OUTSIDE THE RIGHT-OF-WAY. FIRE HYDRANT PLACED WITHIN PEDESTRIAN WALKWAY AND/OR SIDEWALKS SHALL PROVIDE FOR A MINIMUM OF 4-FOOT CLEARANCE IN ACCORDANCE WITH PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
11. AHJ APPROVAL IS REQUIRED FOR HYDRANT LOCATION WHERE NO SIDEWALK EXISTS BEHIND CURB OR WHERE A LANDSCAPE STRIP IS BETWEEN THE CURB AND THE SIDEWALK.
12. FIRE HYDRANTS SHALL BE TESTED BY THE AHJ PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
13. FOR TRENCH EXCAVATION/BACKFILL SPECIFICATIONS, SEE DETAIL DRAWING NUMBER AS INDICATED BELOW. ALL DRAIN ROCK SHALL BE PLACED PRIOR TO INSPECTION AND BACKFILL.

| TRENCH EXCAVATION/BACKFILL |          |
|----------------------------|----------|
| AHJ                        | DETAIL # |
| RENO                       | R-122    |
| SPARKS                     | S-116    |
| WASHOE COUNTY              | W-204    |

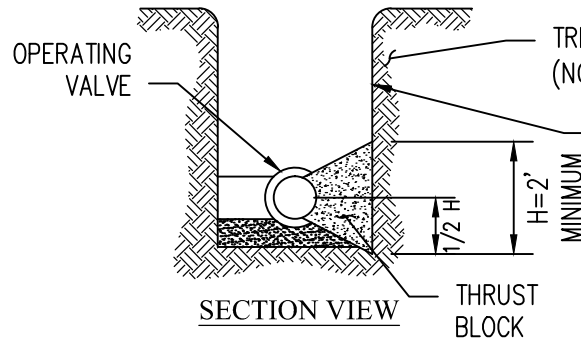
|             |                  |   |  |                                      |
|-------------|------------------|---|--|--------------------------------------|
| <b>DATE</b> | <b>REVISIONS</b> |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>FIRE HYDRANT NOTES</b> | <b>SECTION NUMBER:</b><br><b>300</b> |
|             |                  |   | <b>DRAWING NUMBER:</b><br><b>W-301C</b>  |                                      |
|             |                  |   | <b>DATE:</b><br><b>2/21/2022</b>   |                                      |
|             |                  |   |  |                                      |



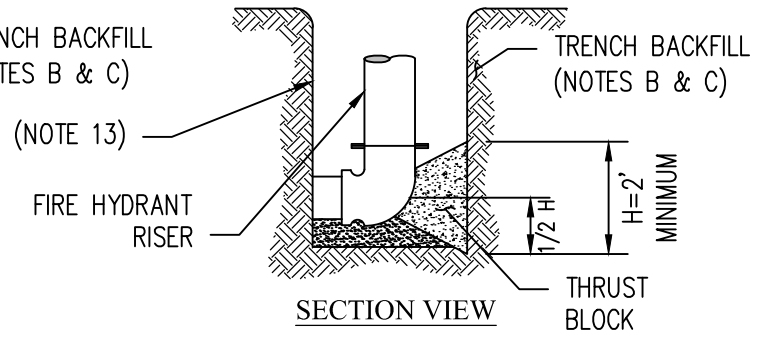
THRUST BLOCK AT OPERATING VALVE - PLAN VIEW



THRUST BLOCK AT FIRE HYDRANT - PLAN VIEW



SECTION VIEW  
THRUST BLOCK



SECTION VIEW  
THRUST BLOCK

**THRUST BLOCK NOTES:**

- A. THRUST BLOCK SIZE ASSUMES MAXIMUM 6" DIAMETER FIRE HYDRANT SERVICE. THRUST BLOCKS FOR LARGER SERVICES REQUIRE APPROVAL OF AHJ.
- B. THE THRUST BLOCK DESIGN SHALL BE BASED ON THE FORCE RESISTING CAPACITY OF THE NATIVE SOILS AS STATED IN THE SOILS EVALUATION REPORT SPECIFIC TO THE PROJECT SITE. THE CALCULATIONS SHOWN WITH THE THRUST BLOCK DESIGN AND SIZING TABLE SHALL BE BASED ON THE REQUIREMENTS OF THE MOST CURRENT NFPA 24, ARTICLE 10.8.2 REQUIREMENTS. THE SOIL EVALUATION REPORT OR A SINGLE PAGE, STAMPED SUMMARY SHALL BE SUBMITTED WITH THE PROJECT PLANS.
- C. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE PLACED WITH AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION, CUT-BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN PLACE THRUST BLOCK.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



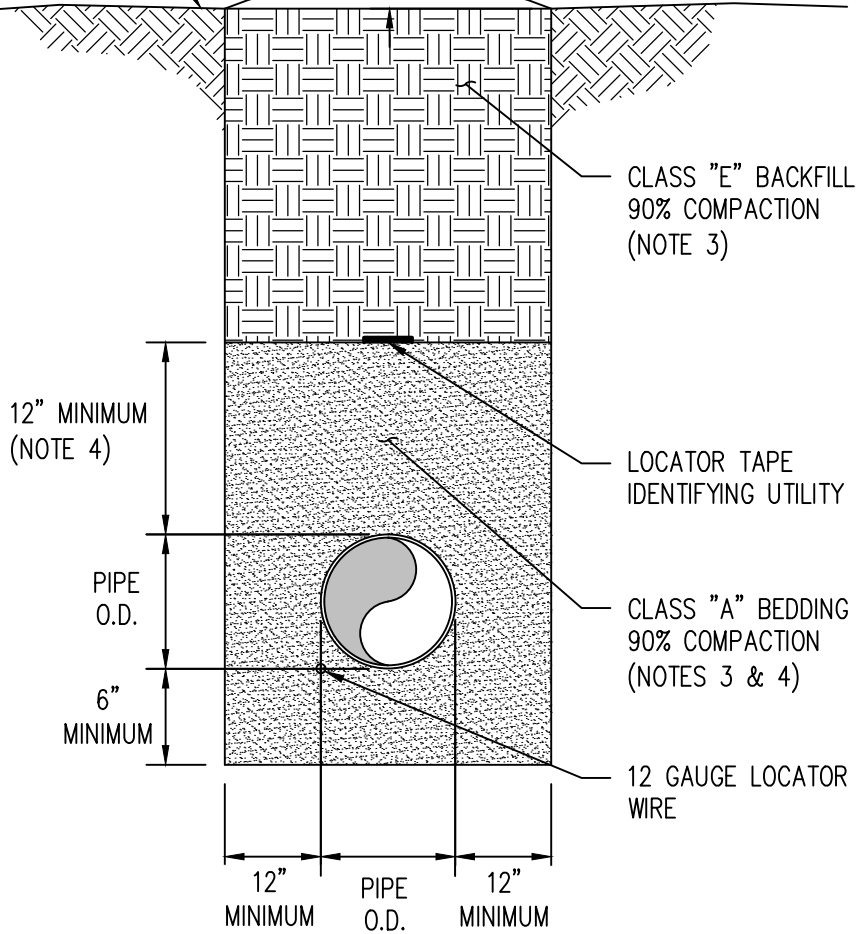
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**FIRE HYDRANT  
THRUST BLOCK DETAILS & NOTES**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>300</b>    |
| DRAWING NUMBER:<br><b>W-301D</b> |
| DATE:<br><b>2/21/2022</b>        |

FINISHED SUBGRADE OR ORIGINAL GROUND SURFACE. SEE APPROPRIATE DETAIL FOR SURFACE RESTORATION

MOUND 4" IN UNIMPROVED AREAS



**NOTES:**

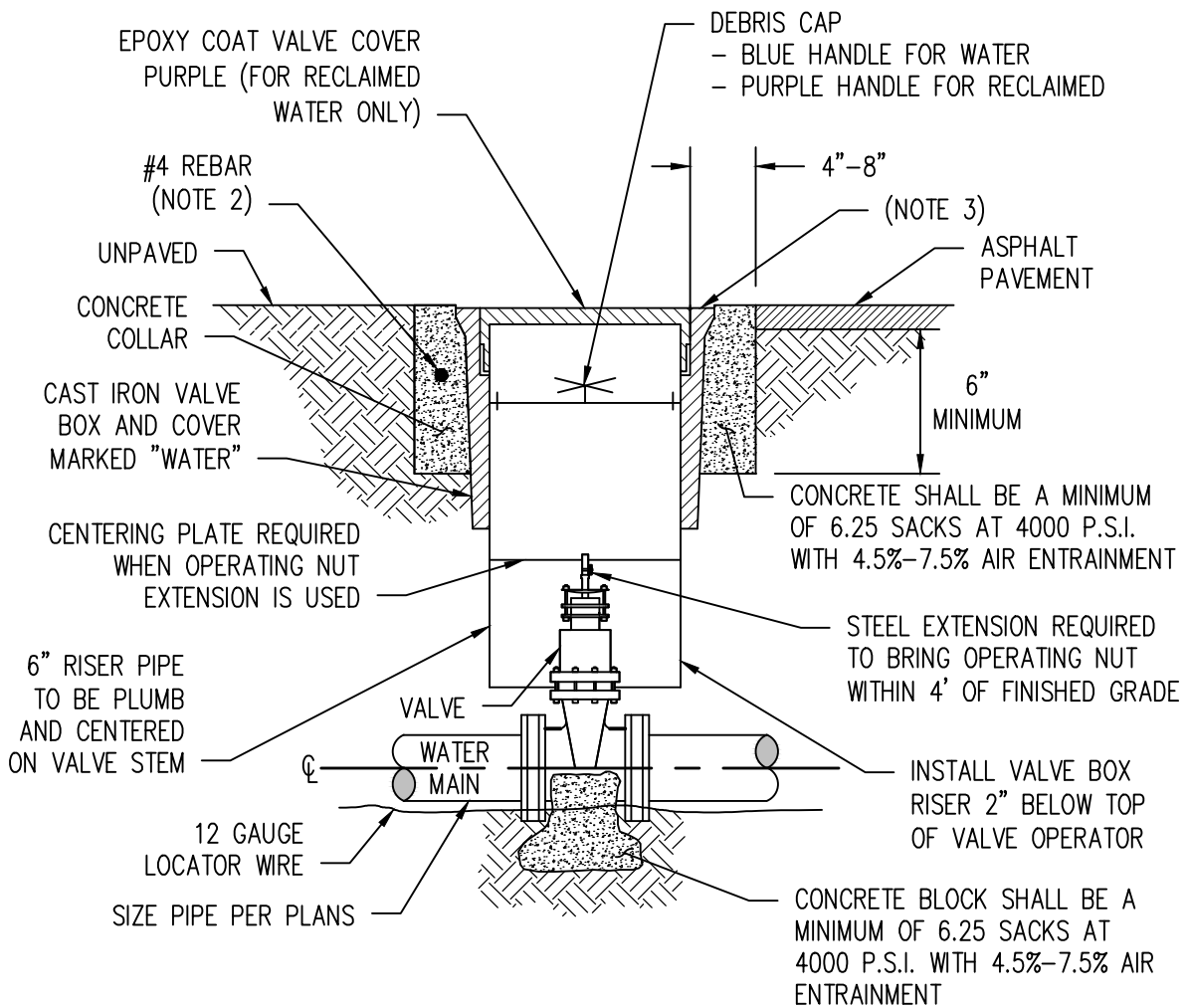
1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," (SSPWC) LATEST EDITION.
2. ALL TRENCHING ACTIVITIES SHALL CONFORM TO O.S.H.A. REGULATIONS.
3. COMPACTION SHALL BE 90 PERCENT RELATIVE COMPACTION BASED ON THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 AND WITHIN  $\pm 2\%$  OF OPTIMUM MOISTURE CONTENT.
4. IN HIGH GROUNDWATER, CLASS "C" BEDDING TO HIGH GROUNDWATER MARK TOPPED WITH MIRAFI 140N FILTER FABRIC, OR APPROVED EQUAL, MAY BE USED IN LIEU OF CLASS "A", WITH THE APPROVAL OF THE ENGINEER.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
TRENCH DETAIL  
WATER

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-302</b> |
| DATE:<br><b>2/21/2022</b>       |



**NOTES:**

1. MATERIAL USED FOR SUPPORT BLOCKING SHOULD NOT PREVENT ACCESS TO THE BOLT ASSEMBLY.
2. CONCRETE SHALL MEET THE REQUIREMENTS OF THE SSPWC. REBAR SHALL ONLY BE USED WHEN THE VALVE BOX IS LOCATED OUTSIDE OF PAVED AREAS.
3. VALVE BOXES TO BE SET  $\frac{3}{8}$ "- $\frac{5}{8}$ " BELOW FINISHED ROADWAY SURFACE. INSTALL OPERATING EXTENSION WITH OPERATING NUT RESTRAINING BOLT & TOP CENTERING PLATE. ANCHOR BARS & REDWOOD BLOCKS NOT REQUIRED WHEN OPERATING NUT IS AT GREATER DEPTH THAN 4' FROM FINISHED GRADE.
4. CONCRETE COLLARS IN THE WASHOE COUNTY ROADS SHALL BE BROUGHT TO GRADE ACCORDING TO THEIR RESPECTIVE REQUIREMENTS.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

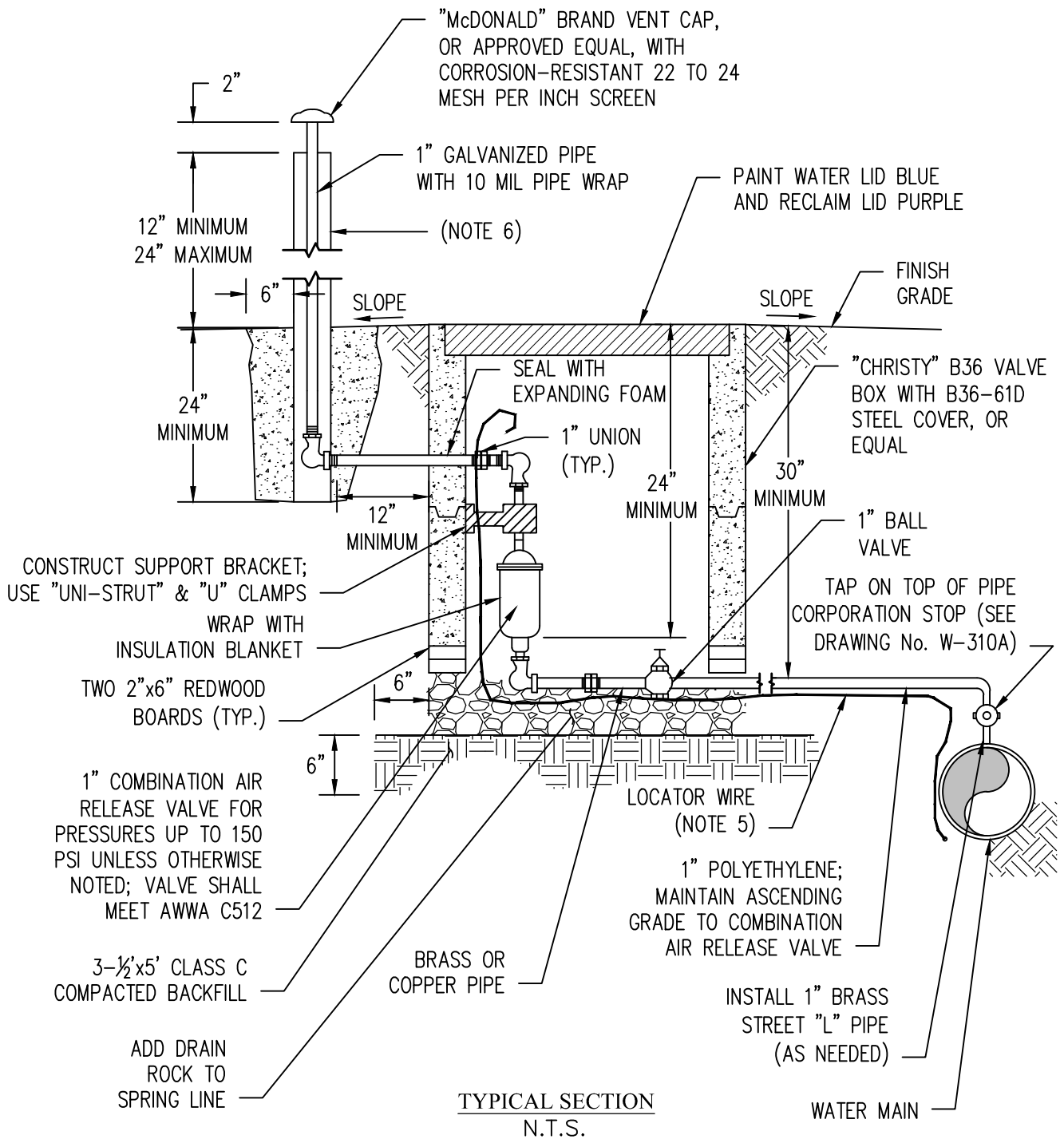


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

VALVE DETAIL

|                          |
|--------------------------|
| SECTION NUMBER:<br>300   |
| DRAWING NUMBER:<br>W-303 |
| DATE:<br>2/21/2022       |





| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

1" COMBINATION  
AIR-RELEASE ASSEMBLY

|                           |
|---------------------------|
| SECTION NUMBER:<br>300    |
| DRAWING NUMBER:<br>W-304A |
| DATE:<br>2/21/2022        |

**NOTES:**

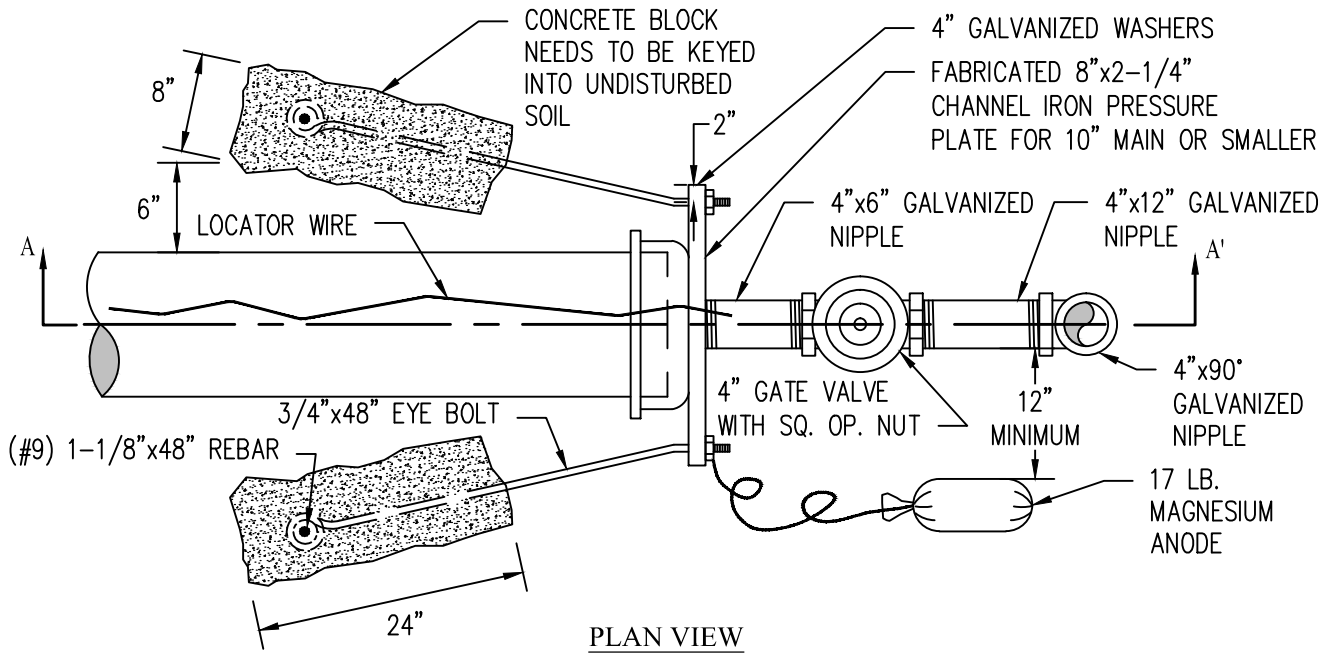
1. COMBINATION AIR RELEASE VALVES SHALL BE INSTALLED OUTSIDE OF PAVEMENT SECTION. SLOPE GROUND AWAY FROM VALVE BOX OR CONSTRUCT CURBING TO PROTECT FROM FLOODING BY SURFACE WATERS.
2. ALL PIPES SHALL HAVE POSITIVE SLOPE FROM MAIN LINE TO AIR/VACUUM VALVE, WITH 30" MINIMUM TO TOP OF PIPE.
3. DESIGN ENGINEER SHALL DETERMINE THE SIZE OF THE COMBINATION AIR RELEASE ASSEMBLY.
4. EXCAVATION & BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION & BACKFILL" IN THE SSPWC.
5. LOCATOR WIRE IS TO BE 12 GAUGE COATED COPPER WIRE, OR APPROVED EQUAL.
6. EITHER USE 4" DIAMETER STEEL PIPE, FILLED WITH CONCRETE, AND PLACED IN 24" OF CONCRETE, OR USE 4"x4" REDWOOD POST, 4'-6' LONG, ATTACHING VENT PIPE WITH "U" BOLTS IN TWO PLACES.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | 1" COMBINATION<br>AIR-RELEASE ASSEMBLY         | 300             |
|      |           |   | NOTES  | DRAWING NUMBER: |
|      |           |   |  | DATE:           |

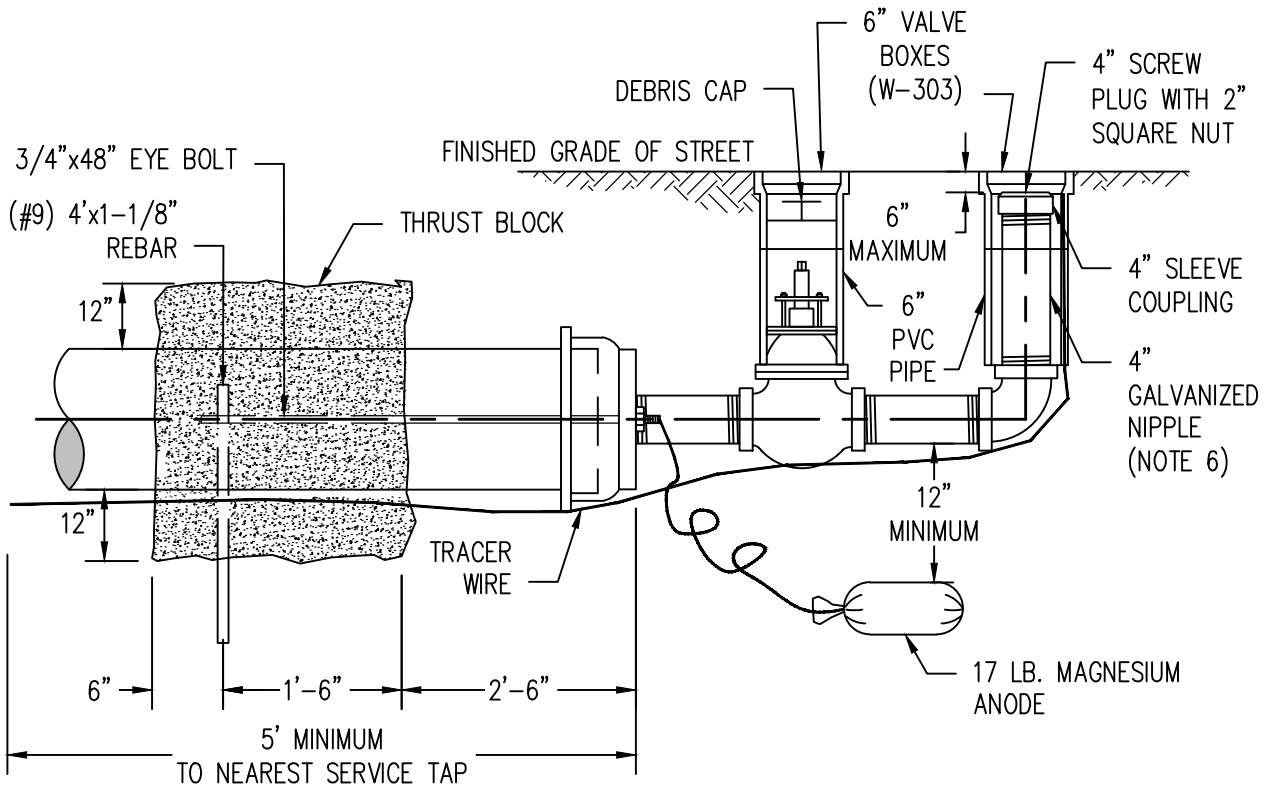


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
1" COMBINATION  
AIR-RELEASE ASSEMBLY  
NOTES

SECTION NUMBER:  
300  
DRAWING NUMBER:  
W-304B  
DATE:  
2/21/2022



PLAN VIEW  
N.T.S.



SECTION A-A'  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



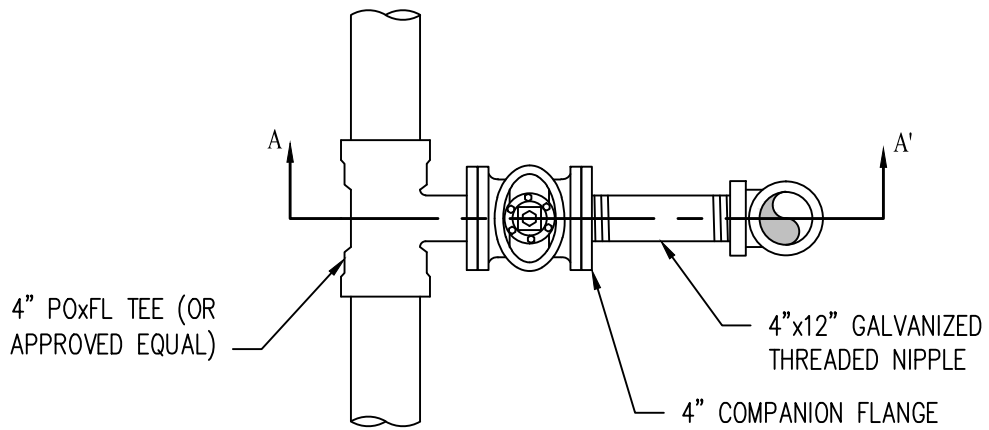
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
4" FLUSH VALVE ASSEMBLY  
TERMINUS

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>300</b>    |
| DRAWING NUMBER:<br><b>W-305A</b> |
| DATE:<br><b>2/21/2022</b>        |

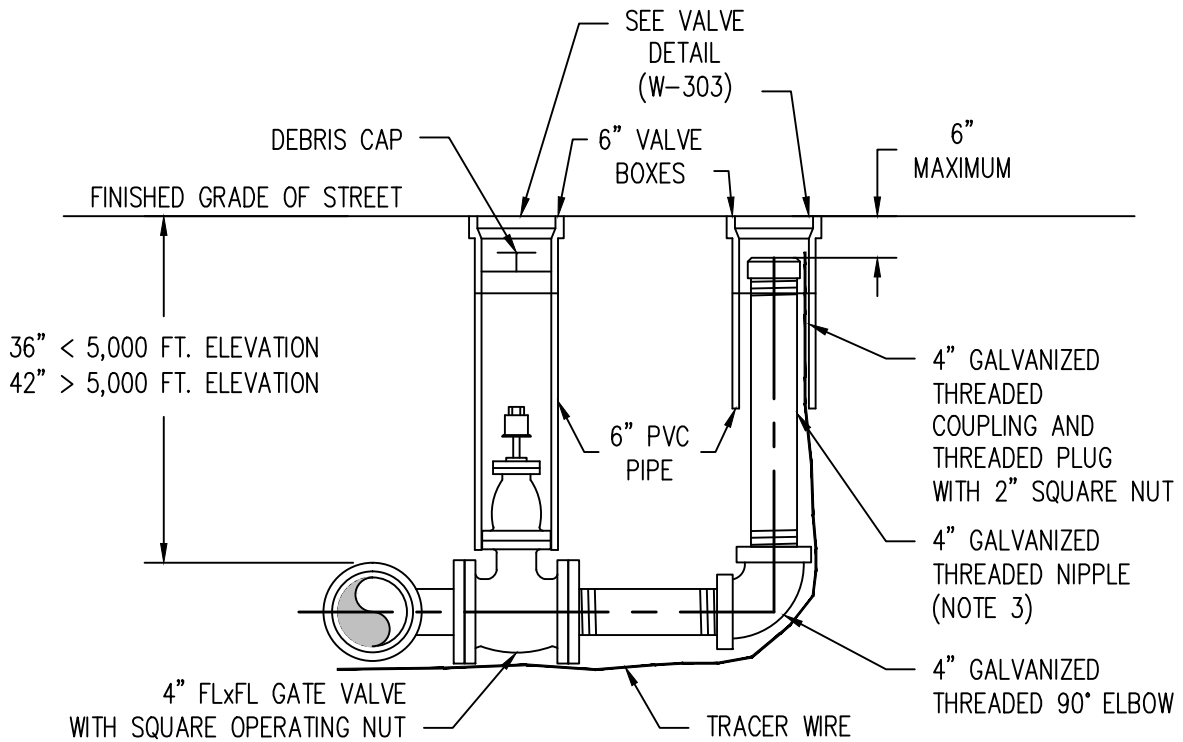
**NOTES:**

1. REQUIRES PRESSURE PLATE FABRICATED FROM 8"x2"-1/4" CHANNEL IRON.
2. IF MAIN IS AT EXTRA DEPTH, REQUEST ADDITIONAL 4" NIPPLES.
3. ALL EXPOSED METAL MUST BE COATED WITH MASTIC.
4. AMOUNT OF CONCRETE TO BE POURED FOR ANCHOR BLOCKS WILL BE DETERMINED BY SIZE OF PIPE AND SOIL CONDITIONS, WITH A MINIMUM OF 0.5 CUBIC YARDS OF CONCRETE ON EACH ANCHOR BLOCK. SUFFICIENT CONCRETE MUST BE POURED TO RESIST THRUST DUE TO PRESSURE IN THE PIPE. APPLICABLE THROUGH 10" ONLY. ANCHOR BLOCKS FOR LARGER SIZES TO BE SPECIFIED BY THE ENGINEER.
5. ANCHOR BLOCKS MUST BE KEYED IN AT LEAST 6" BELOW BOTTOM OF TRENCH AND KEYED INTO UNDISTURBED SOIL.
6. GALVANIZED NIPPLE SHALL BE CONTINUOUS OR TACK WELDED AT EACH JOINT.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION<br>4" FLUSH VALVE ASSEMBLY<br>TERMINUS<br>NOTES | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   |  | 300             |
|      |           |   |  | DRAWING NUMBER: |
|      |           |   |  | W-305B          |
|      |           |   |  | DATE:           |
|      |           |   |  | 2/21/2022       |



PLAN VIEW  
N.T.S.



SECTION A-A'  
N.T.S.

**NOTES:**

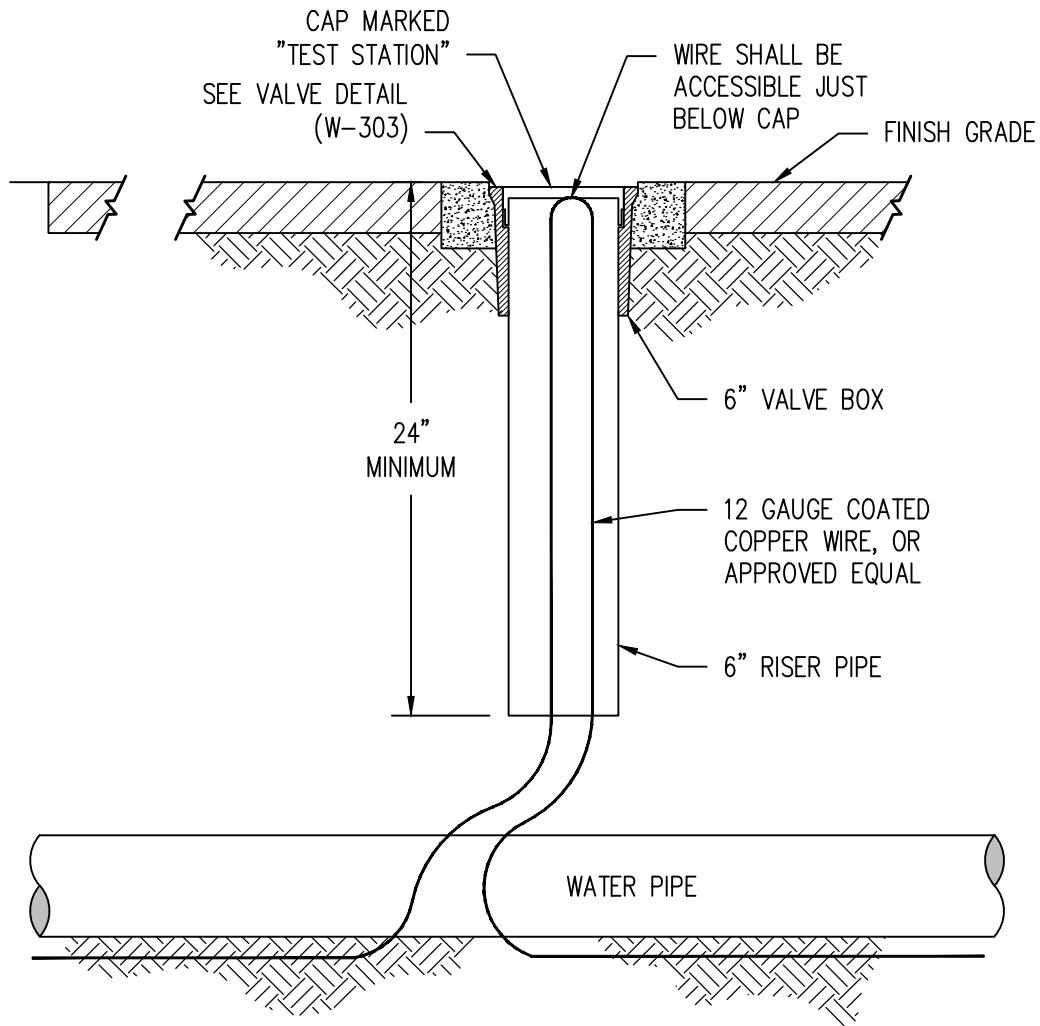
1. COAT ALL EXPOSED METAL WITH MASTIC.
2. ALL FITTINGS TO BE POLY-WRAPPED PRIOR TO CONCRETE PLACEMENT.
3. GALVANIZED NIPPLE SHALL BE CONTINUOUS OR TACK WELDED AT EACH JOINT.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
4" FLUSH VALVE ASSEMBLY  
IN-LINE

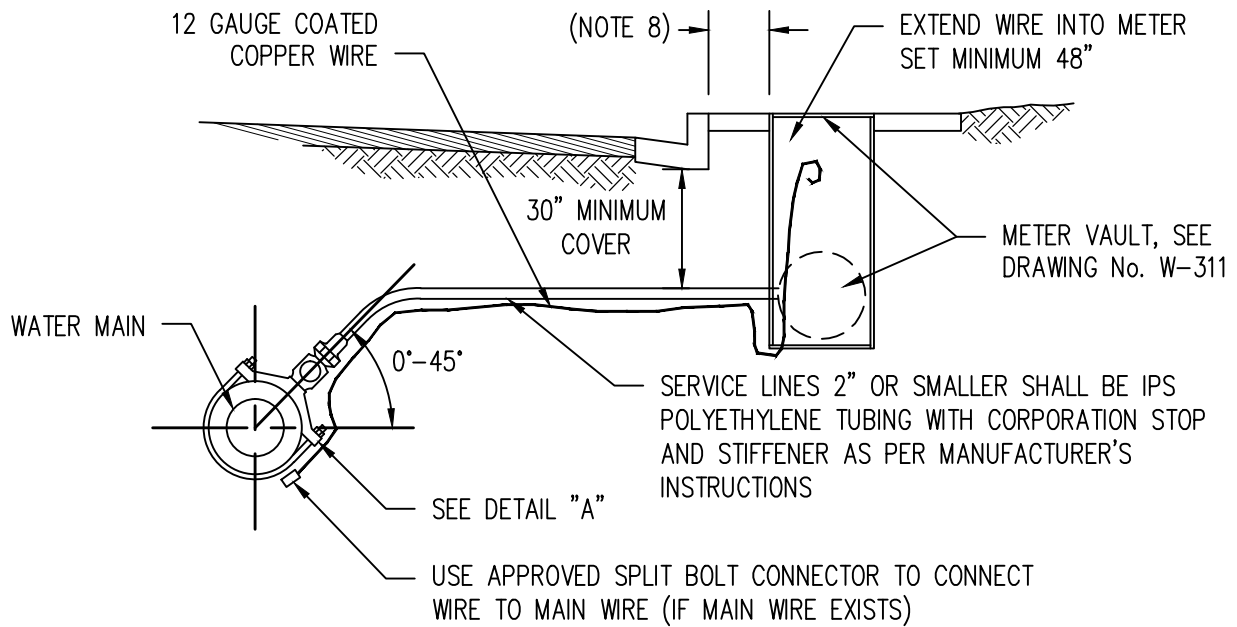
|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-306</b> |
| DATE:<br><b>2/21/2022</b>       |



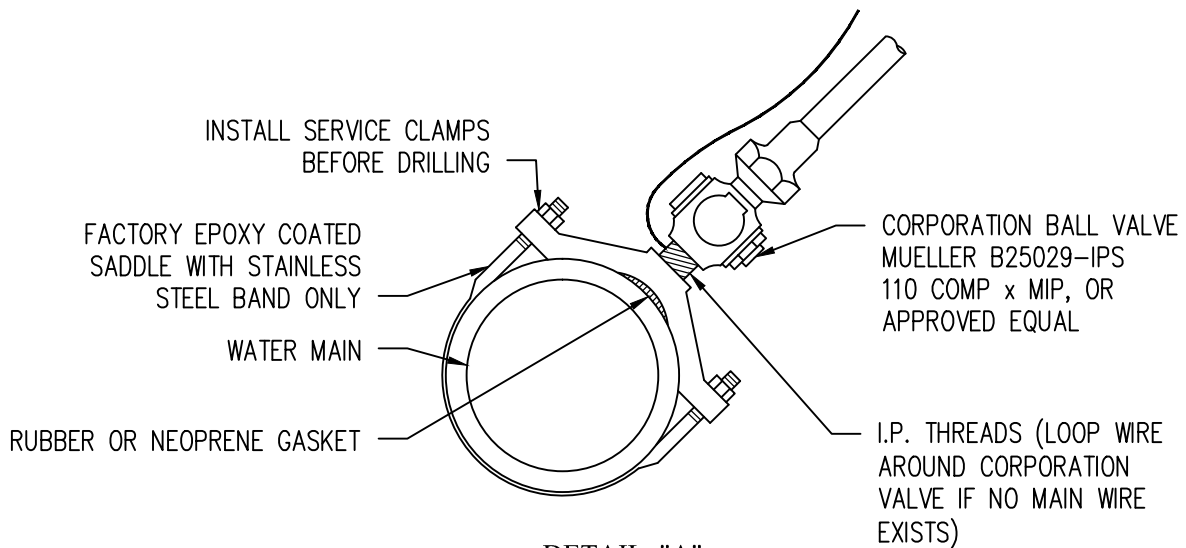
**NOTES:**

1. A TEST STATION SHALL BE LOCATED ADJACENT TO EACH FIRE HYDRANT, WHERE SHOWN ON THE PLANS, AND AT OTHER LOCATIONS SHOWN OR AS DIRECTED. MAXIMUM SPACING BETWEEN TEST STATIONS IS 500 FEET. EXTEND TRACER WIRE TO THE TEST STATION COVER. TRACER WIRE SHALL EXTEND A MINIMUM 12" BEYOND COVER.
2. TRACER WIRE SHALL BE PLACED UNDER SERVICE CONNECTIONS AND EXTEND UP TO METER BOX COVER.
3. TRACER WIRE SHALL BE CONNECTED TOGETHER USING AN APPROPRIATELY SIZED WIRE NUT. WRAP CONNECTION WITH U.L. LISTED ELECTRICAL TAPE.
4. PRIOR TO ACCEPTANCE OF THE WATER LINE, THE CONTRACTOR SHALL PERFORM A CONTINUITY TEST ON THE INSTALLED WIRE SYSTEM.
5. TRACER WIRE SHALL BE PLACED ON BEDDING MATERIAL PRIOR TO PIPE PLACEMENT.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br>300   |
|------|-----------|---|--|--------------------------|
|      |           |   | TEST STATION                                   | DRAWING NUMBER:<br>W-307 |
|      |           |   |  | DATE:<br>2/21/2022       |
|      |           |   |  |                          |



TYPICAL SECTION  
N.T.S.



DETAIL "A"  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |




STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

WATER SERVICE TAP & LINE

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>300</b>    |
| DRAWING NUMBER:<br><b>W-310A</b> |
| DATE:<br><b>2/21/2022</b>        |

**NOTES:**

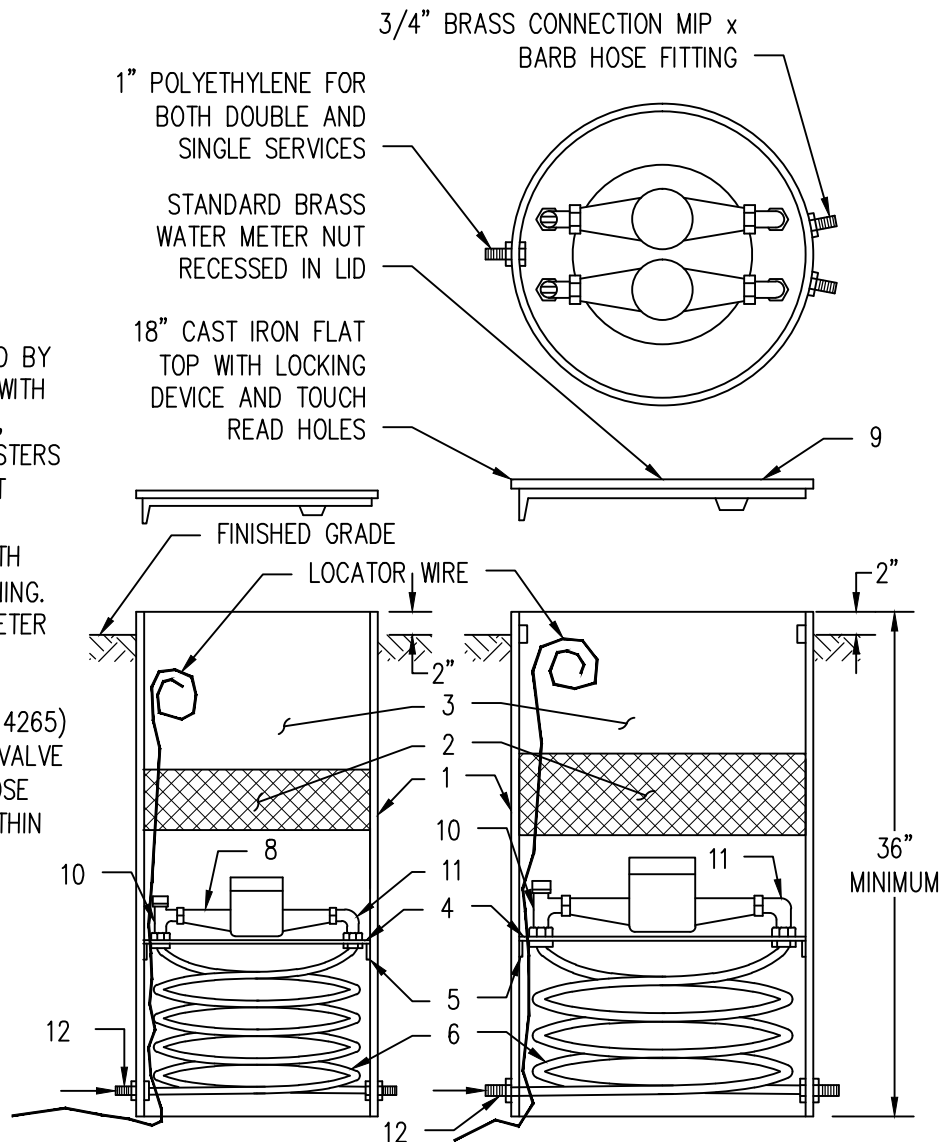
1. ALL SERVICE LINE COUPLING FITTINGS SHALL BE MUELLER IPS 110 COMP. X MIP, OR APPROVED EQUAL.
2. ALL SERVICE VALVES SHALL BE SAME SIZE AS SERVICE LINES.
3. SERVICE CLAMPS SHALL BE FACTORY COATED EPOXY WITH STAINLESS STEEL BAND.
4. MINIMUM DISTANCE BETWEEN TAPS AND MAINLINE FITTING, INCLUDING BELLS, SHALL BE 18”.
5. ENTITY REQUESTING ABANDONMENT SHALL REMOVE EXISTING WATER BOX AND EXPOSE CORPORATION STOP FOR SHUT-OFF. ALL PLUMBING SHALL BE DISCONNECTED FROM CORPORATION AND PLUGGED AT BOTH ENDS. WATER UTILITY SHALL BE NOTIFIED FOR INSPECTION OF CORPORATION ASSEMBLY PRIOR TO BACKFILLING.
6. UPON ABANDONING OF SERVICE TAP, WATER UTILITY SHALL BE NOTIFIED SO THE METER CAN BE REMOVED.
7. TAPPING SADDLE MUST BE AT 45° ANGLE. EXCEPTIONS MUST BE APPROVED BY THE COUNTY ENGINEER.
8. ALL METER SETS TO BE PLACED A MAXIMUM OF 5’ FROM BACK FACE OF CURB. IN AREAS WHERE NO CURB IS PRESENT, THE FRONT OF THE METER IS TO BE SET AS DIRECTED BY THE COUNTY ENGINEER.

|      |           |   |  |                           |
|------|-----------|---|--|---------------------------|
| DATE | REVISIONS |  | <b>STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION</b><br><br><b>WATER SERVICE TAP &amp; LINE</b><br><br><b>NOTES</b> | SECTION NUMBER:           |
|      |           |   |  | 300                       |
|      |           |   |  | DRAWING NUMBER:<br>W-310B |
|      |           |   |  | DATE:<br>2/21/2022        |
|      |           |   |  |                           |



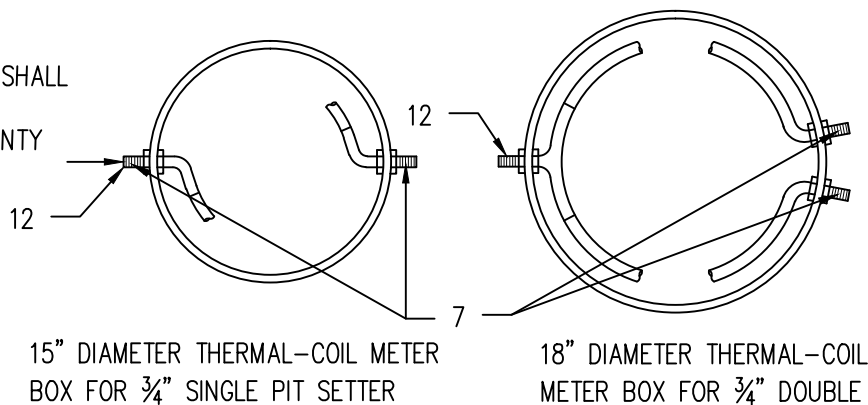
**LEGEND:**

1. PVC BOX, MINIMUM WALL THICKNESS 0.3"
2. INSULATION
3. AIR SPACE
4. PLATFORM
5. PLATFORM SUPPORT
6. POLYBUTYLENE
7. I.P.S. THREADS
8. WATER METER, APPROVED BY THE COUNTY ENGINEER, WITH REMOTE READING DEVICE, SENSUS iPERL (ICE REGISTERS WITH FLEXNET END POINT TRANSMITTERS).
9. CAST IRON FLAT TOP WITH 1 3/4" TRANSPONDER OPENING. EPOXY COAT RECLAIM METER LIDS PURPLE
10. MUELLER VALVE, OR APPROVED EQUAL (NO. 14265)
11. MUELLER ANGLE CHECK VALVE
12. INLET LINE TO BE 1". HOSE TERMINUS TO REMAIN WITHIN 15° OF HORIZONTAL



**NOTES:**

1. SERVICE LINE, SIZE AS SHOWN, WITH COUPLING ADAPTOR.
2. PIT SETTER EXTENSION SHALL ONLY BE USED UPON APPROVAL BY THE COUNTY ENGINEER.



15" DIAMETER THERMAL-COIL METER BOX FOR 3/4" SINGLE PIT SETTER

18" DIAMETER THERMAL-COIL METER BOX FOR 3/4" DOUBLE

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

3/4" METER VAULT

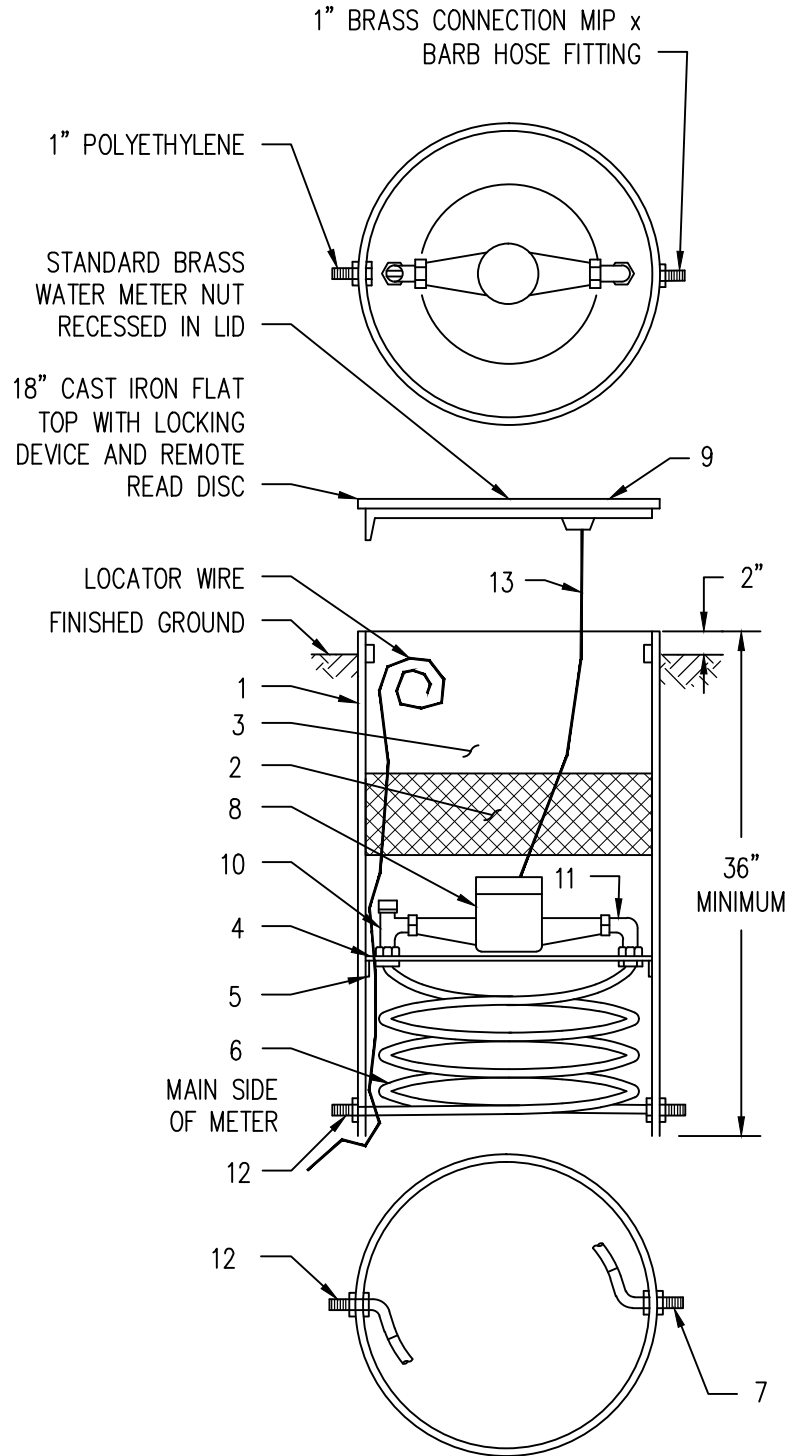
|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-311</b> |
| DATE:<br><b>2/21/2022</b>       |

**LEGEND:**

1. PVC BOX, MINIMUM WALL THICKNESS 0.3"
2. STYROFOAM INSULATION
3. AIR SPACE
4. PLATFORM
5. PLATFORM SUPPORT
6. POLYBUTYLENE
7. I.P.S. THREADS
8. WATER METER, APPROVED BY THE COUNTY ENGINEER, WITH REMOTE READING DEVICE, SENSUS iPERL (ICE REGISTERS WITH FLEXNET END POINT TRANSMITTERS)
9. CAST IRON FLAT TOP WITH 1 3/4" TRANSPONDER OPENING. EPOXY COAT RECLAIM METER TOPS PURPLE
10. MUELLER VALVE, OR APPROVED EQUAL (NO. 14244)
11. MUELLER ANGLE CHECK VALVE
12. INLET LINE TO BE 1". HOSE TERMINUS TO REMAIN WITHIN 15° OF HORIZONTAL
13. REMOTE READ WIRE

**NOTES:**

1. SERVICE LINE, SIZE AS SHOWN, WITH COUPLING ADAPTOR
2. PIT SETTER EXTENSION SHALL ONLY BE USED UPON APPROVAL BY THE COUNTY ENGINEER



18" DIAMETER THERMAL-COIL METER BOX FOR 1" SINGLE PIT SETTER

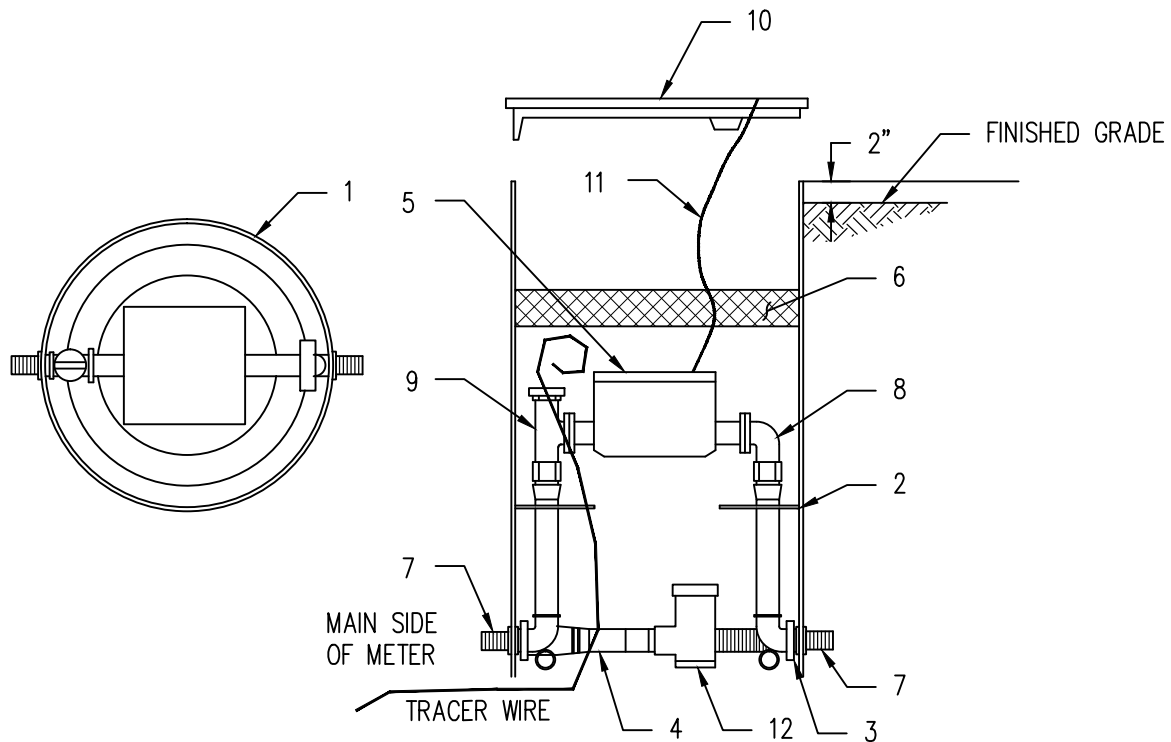
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

1" METER VAULT

|                          |
|--------------------------|
| SECTION NUMBER:<br>300   |
| DRAWING NUMBER:<br>W-312 |
| DATE:<br>2/21/2022       |



**LEGEND:**

1. RIGID PVC MATERIAL
2. ROUND STYLES
3. SETTER ANCHORED IN PLACE FOR STABILITY
4. LOCKING BYPASS WITH STOP
5. INDICATE ON PLANS WHETHER POSITIVE DISPLACEMENT OR COMPOUND SENSUS METER WITH REMOTE READ. THE COUNTY ENGINEER WILL APPROVE METER TYPE BASED ON SIZE AND APPLICATION. SENSUS iPERL (ICE REGISTERS WITH FLEXNET END POINT TRANSMITTERS).
6. STYROFOAM INSULATION
7. MIP INLET AND OUTLET CONNECTIONS TO MATCH SERVICE SIZE
8. MUELLER ANGLE CHECK VALVE
9. LOCKWING ANGLE VALVE
10. CAST IRON FLAT TOP WITH LOCKING DEVICE AND 1 3/4" TRANSPONDER OPENING. EPOXY COAT RECLAIM METER TOPS PURPLE
11. REMOTE READ WIRE
12. IN-LINE CHECK VALVE

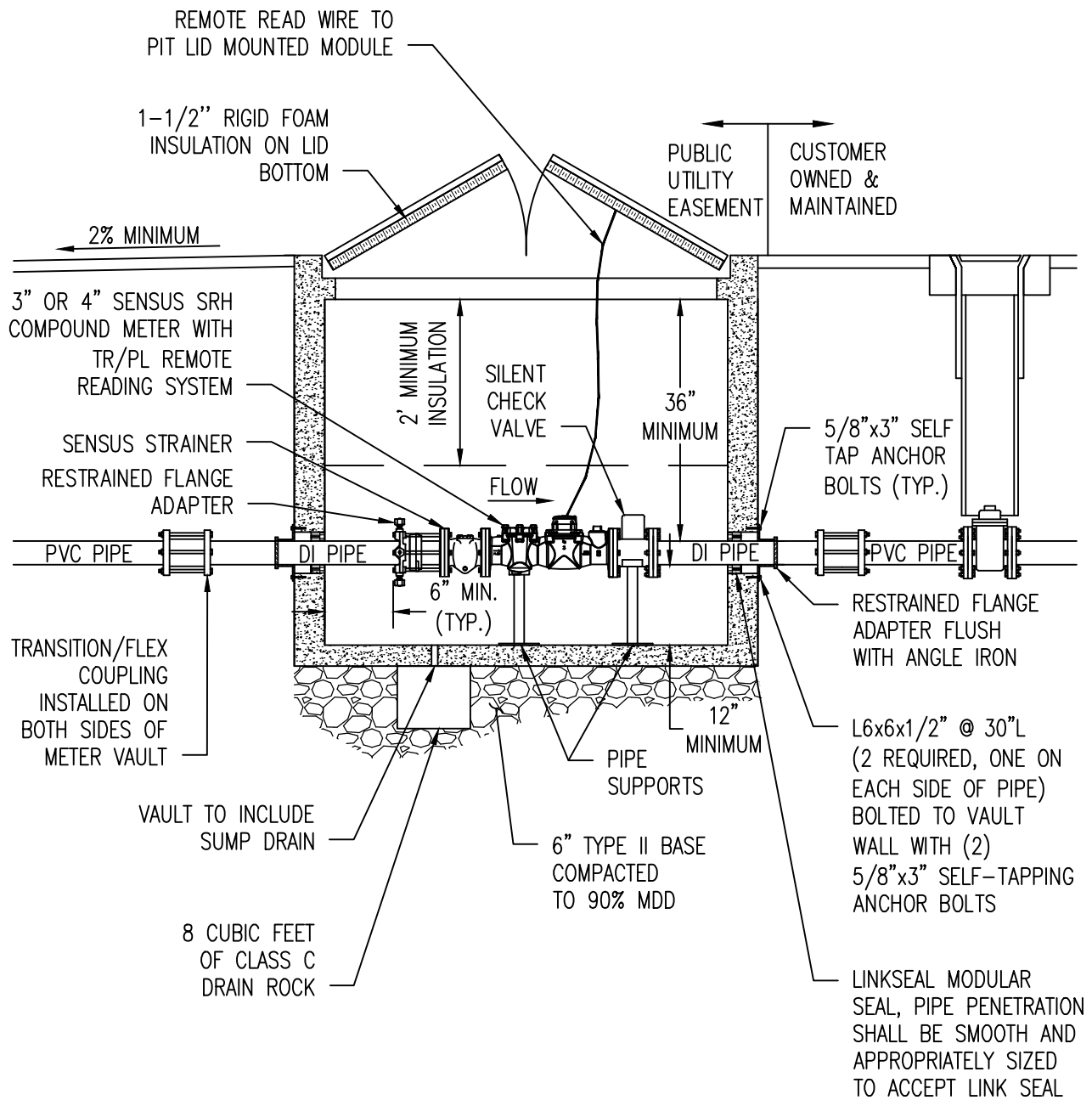
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

1 1/2" - 2" METER VAULT

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-313</b> |
| DATE:<br><b>2/21/2022</b>       |



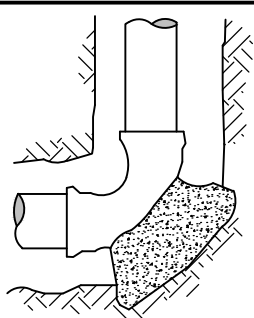
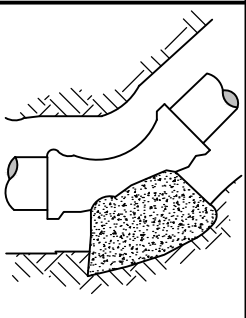
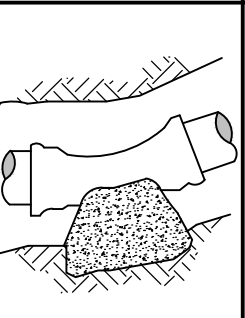
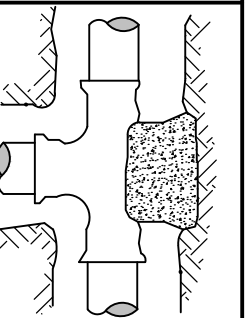
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

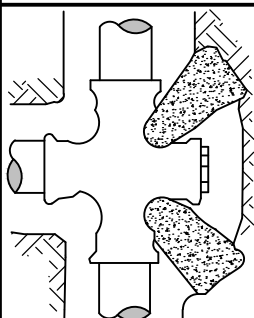
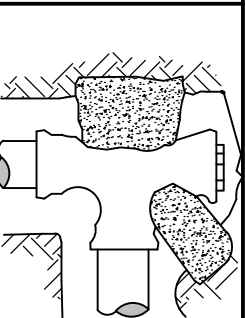


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

3" - 4" METER VAULT

|                 |           |
|-----------------|-----------|
| SECTION NUMBER: | 300       |
| DRAWING NUMBER: | W-314     |
| DATE:           | 2/21/2022 |

| TYPE OF FITTING      | 90° BEND  | 45° BEND  | 11¼° OR 22½° BEND  | TEE OR DEAD END   |
|----------------------|---|---|--|---|
| TYPICAL INSTALLATION |  |  |  |  |

| TYPE OF FITTING      | CROSS WITH PLUG  | TEE WITH PLUG  |
|----------------------|--|--|
| TYPICAL INSTALLATION |  |  |

**MINIMUM THRUST BLOCK BEARING AREA (SQ. FT.) -**  
SEE NOTE 2, DRAWING No. W-320B

| TYPE OF FITTING | 90° BEND | 45° BEND | 11¼° OR 22½° BEND | TEE OR DEAD END | TEE WITH PLUG | CROSS WITH PLUG | IN-LINE VALVE |
|-----------------|----------|----------|-------------------|-----------------|---------------|-----------------|---------------|
| SIZE OF PIPE    | 4"       | 2        | 1                 | 1               | 2             | 2               | 2             |
|                 | 6"       | 4        | 4                 | 2               | 4             | 4               | 4             |
|                 | 8"       | 7        | 4                 | 2               | 5             | 7               | 7             |
|                 | 10"      | 12       | 6                 | 3               | 8             | 12              | 12            |
|                 | 12"      | 16       | 10                | 5               | 12            | 16              | 16            |
|                 | 14"      | 20       | 12                | 6               | 14            | 20              | 20            |
|                 | 16"      | 27       | 15                | 8               | 18            | 27              | 27            |
|                 | 18"      | 45       | 25                | 13              | 32            | 45              | 45            |
|                 | 24"      | 65       | 35                | 18              | 48            | 65              | 65            |

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



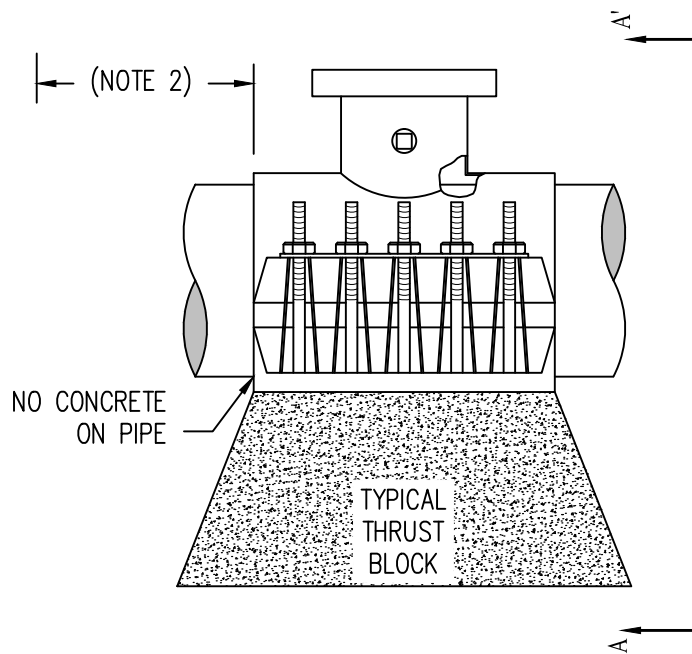
**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**  
**THRUST RESTRAINT**

|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>300    |
| <b>DRAWING NUMBER:</b><br>W-320A |
| <b>DATE:</b><br>2/21/2022        |

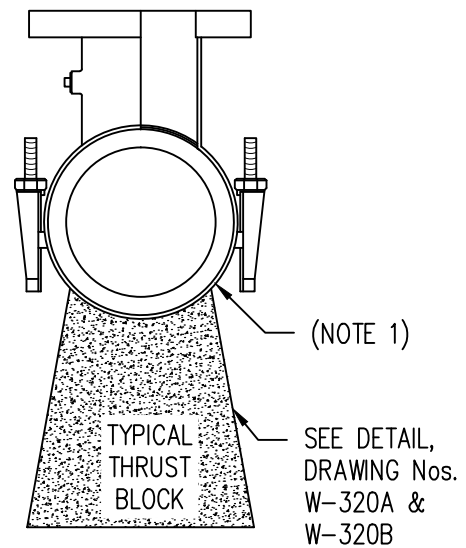
**NOTES:**

1. THRUST BLOCKS TO BE CONSTRUCTED OF 4000 PSI CONCRETE PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. MINIMUM AREAS GIVEN ARE FOR PRESSURE CLASS 235 PIPE AT TEST PRESSURE OF 150 PSI, WITH 2000 PSI BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO APPROVAL OF ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE.
5. WRAP ALL FITTINGS WITH POLY-WRAP PRIOR TO CONCRETE PLACEMENT.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER: |
|------|-----------|---|--|-----------------|
|      |           |   | THRUST RESTRAINT                               | 300             |
|      |           |   | NOTES  | DRAWING NUMBER: |
|      |           |   |  | W-320B          |
|      |           |   |  | DATE:           |
|      |           |   |  | 2/21/2022       |



PLAN VIEW  
N.T.S.



SECTION A-A'  
N.T.S.

**MATERIAL SPECIFICATIONS:**

SHELL: 304 STAINLESS STEEL

LUGS: 304 STAINLESS STEEL

BOLTS, WASHERS, AND NUTS: NC ROLLED THREAD  
304 STAINLESS STEEL, 5/8" DIAMETER

GASKETS: VIRGIN SBR COMPOUND FOR WATER  
SERVICE. ASTM D2000-80MA 4AA607  
FULL GASKET. 360° PIPE COVERAGE 150 PSI  
WORKING PRESSURE

FLANGES: 304 STAINLESS STEEL OR HIGH TENSILE  
DUCTILE (NODULAR) IRON, ASTM A536-80, GRADE  
65-45-12

**NOTES:**

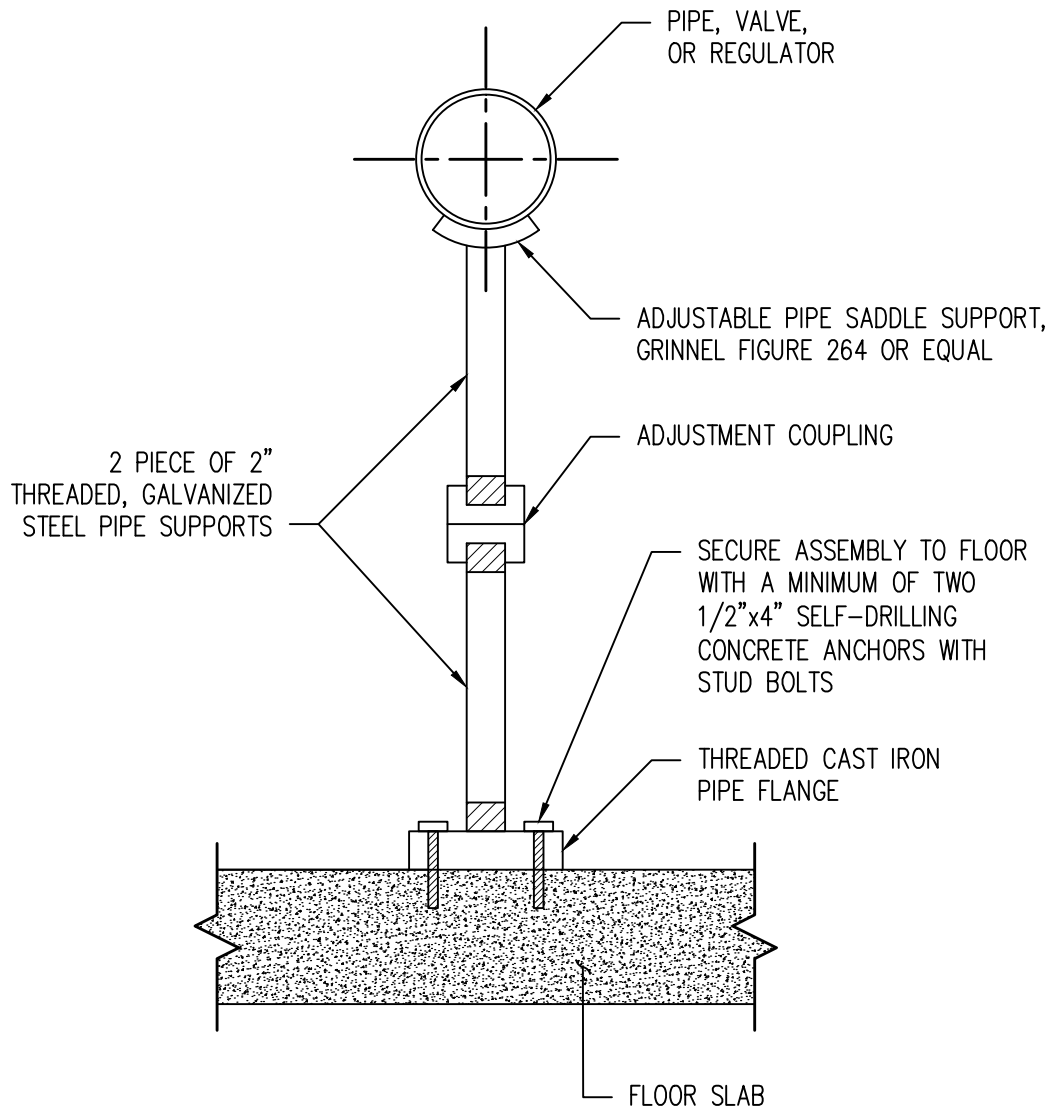
1. MATERIAL USED FOR THRUST BLOCKING SHOULD NOT PREVENT ACCESS TO THE BOLT ASSEMBLY.
2. MINIMUM DISTANCE BETWEEN SADDLE, COLLARS, JOINTS, SERVICES, TAPS, ETC. WILL BE 18" CLEAR.
3. SADDLE TO BE HYDROSTATICALLY PRESSURE TESTED TO CLASS RATING OF THE PIPE PRIOR TO TAP.
4. ALL FITTINGS TO BE POLY-WRAPPED PRIOR TO CONCRETE PLACEMENT.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  
DISTRIBUTION TAP

|                          |
|--------------------------|
| SECTION NUMBER:<br>300   |
| DRAWING NUMBER:<br>W-321 |
| DATE:<br>2/21/2022       |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

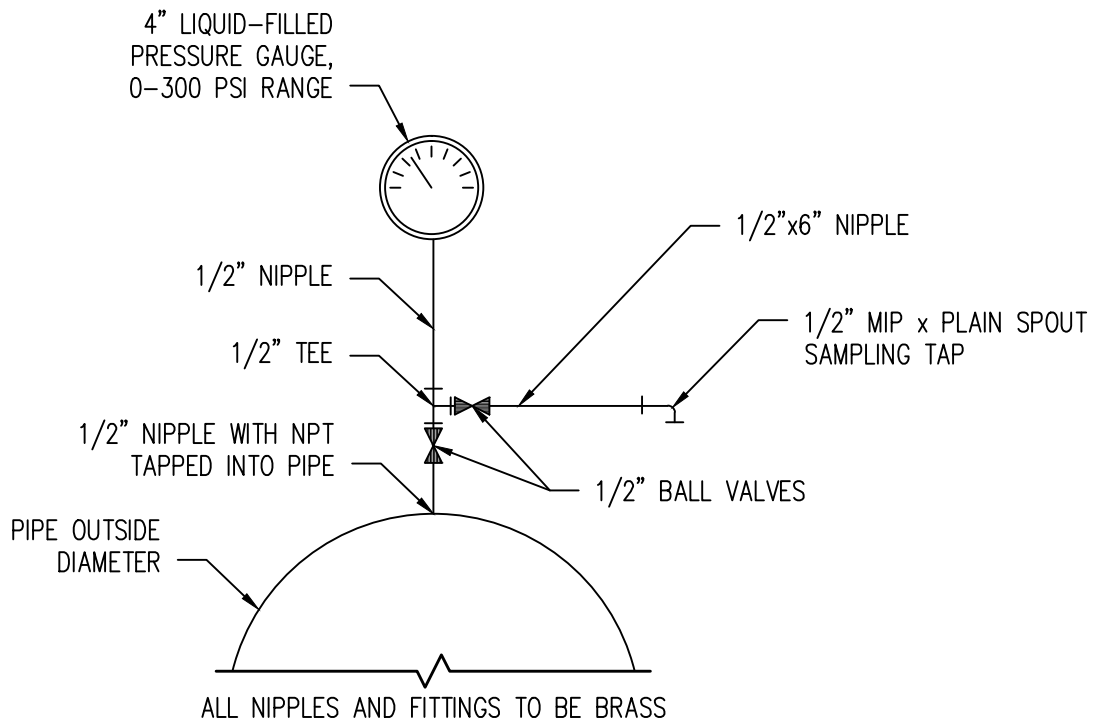


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

PIPE SUPPORT

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-325</b> |
| DATE:<br><b>2/21/2022</b>       |





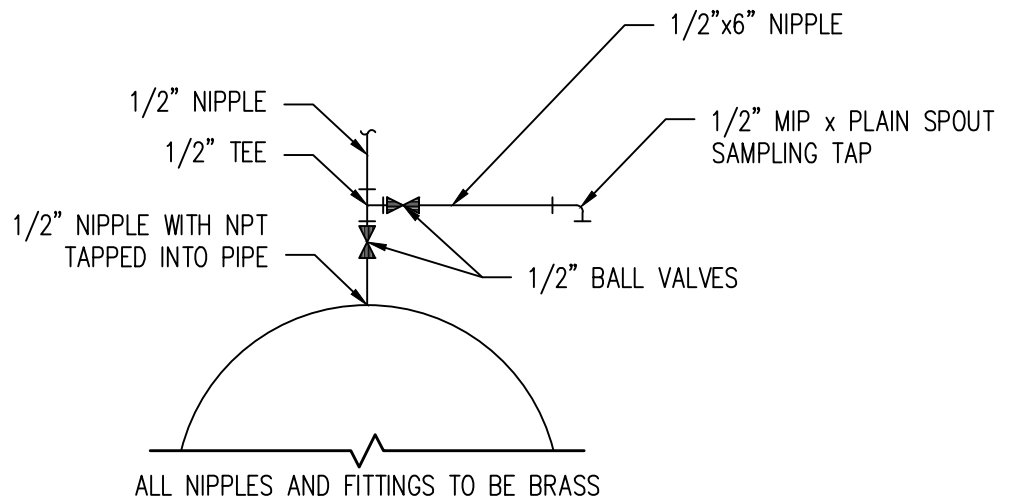
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

PRESSURE GAUGE

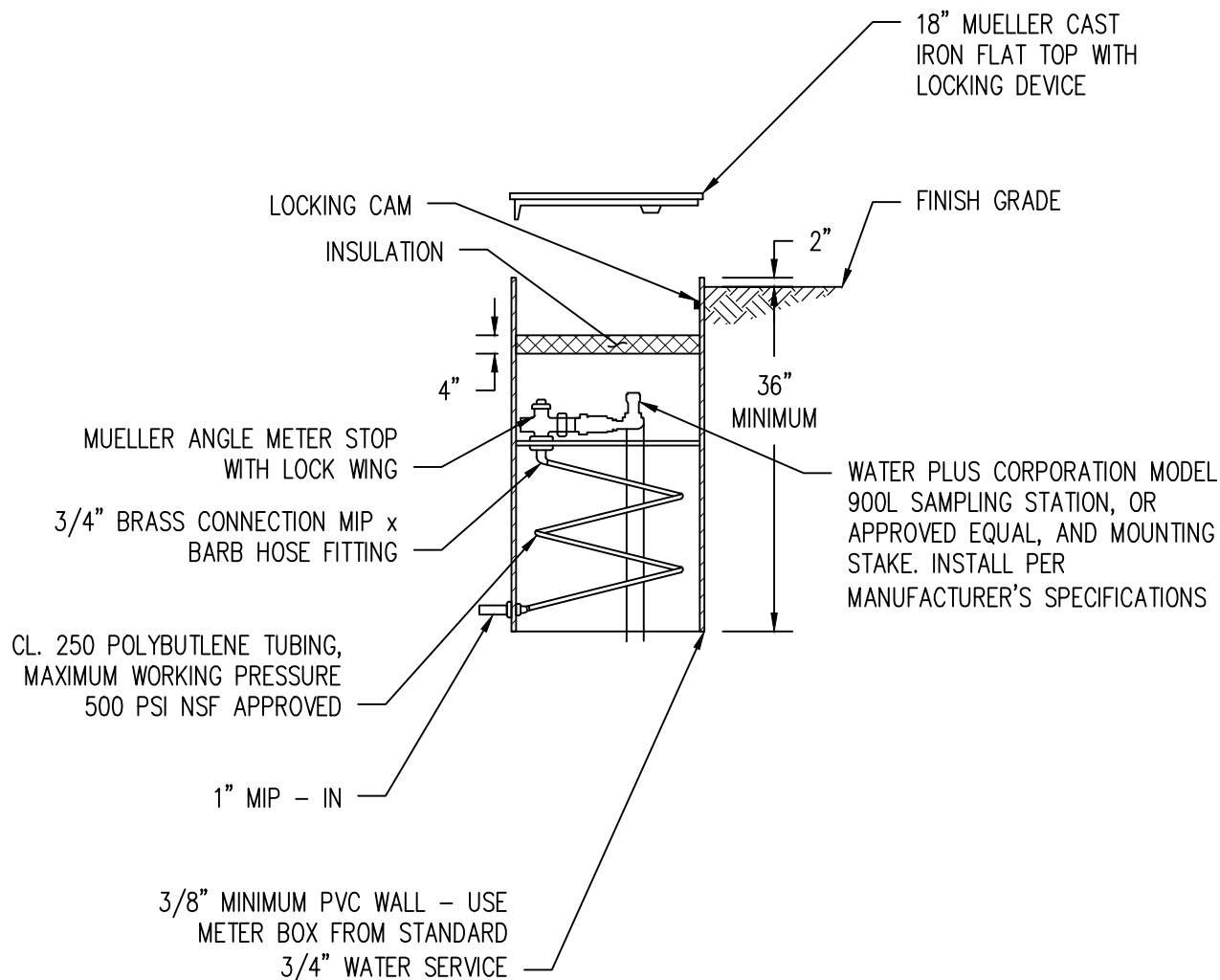
|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-326</b> |
| DATE:<br><b>2/21/2022</b>       |



**NOTES:**

1. MINIMUM SPOUT OUTLET DIAMETER TO BE  $\frac{3}{8}$ ".
2. INSIDE SURFACE OF SPOUT TO BE SMOOTH, NO INTERNAL THREADS AT SPOUT EXIT.
3. SPOUT TO EXTEND BEYOND OUTSIDE DIAMETER OF PIPE.
4. SAMPLER TO BE ABLE TO THROTTLE BALL VALVE TO VARY SAMPLE FLOW RATE.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:      |                          |
|------|-----------|---|--|----------------------|--------------------------|
|      |           |   |  |                      | 300                      |
|      |           |   |  | SAMPLE PORT IN VAULT | DRAWING NUMBER:<br>W-327 |
|      |           |   |  | DATE:<br>2/21/2022   |                          |



**NOTES:**

1. MOUNTING PLATFORM FOR SAMPLING STATION NOT SHOWN FOR CLARITY.
2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
3. SAMPLE PORT BOX SHALL BE INSTALLED BEHIND AND WITHIN 1' FROM PROPERTY LINE AND INSIDE PUBLIC USE EASEMENT, OR AS OTHERWISE DIRECTED BY ENGINEER.
4. SAMPLE PORT BOX SHALL NOT BE LOCATED IN THE SIDEWALK.

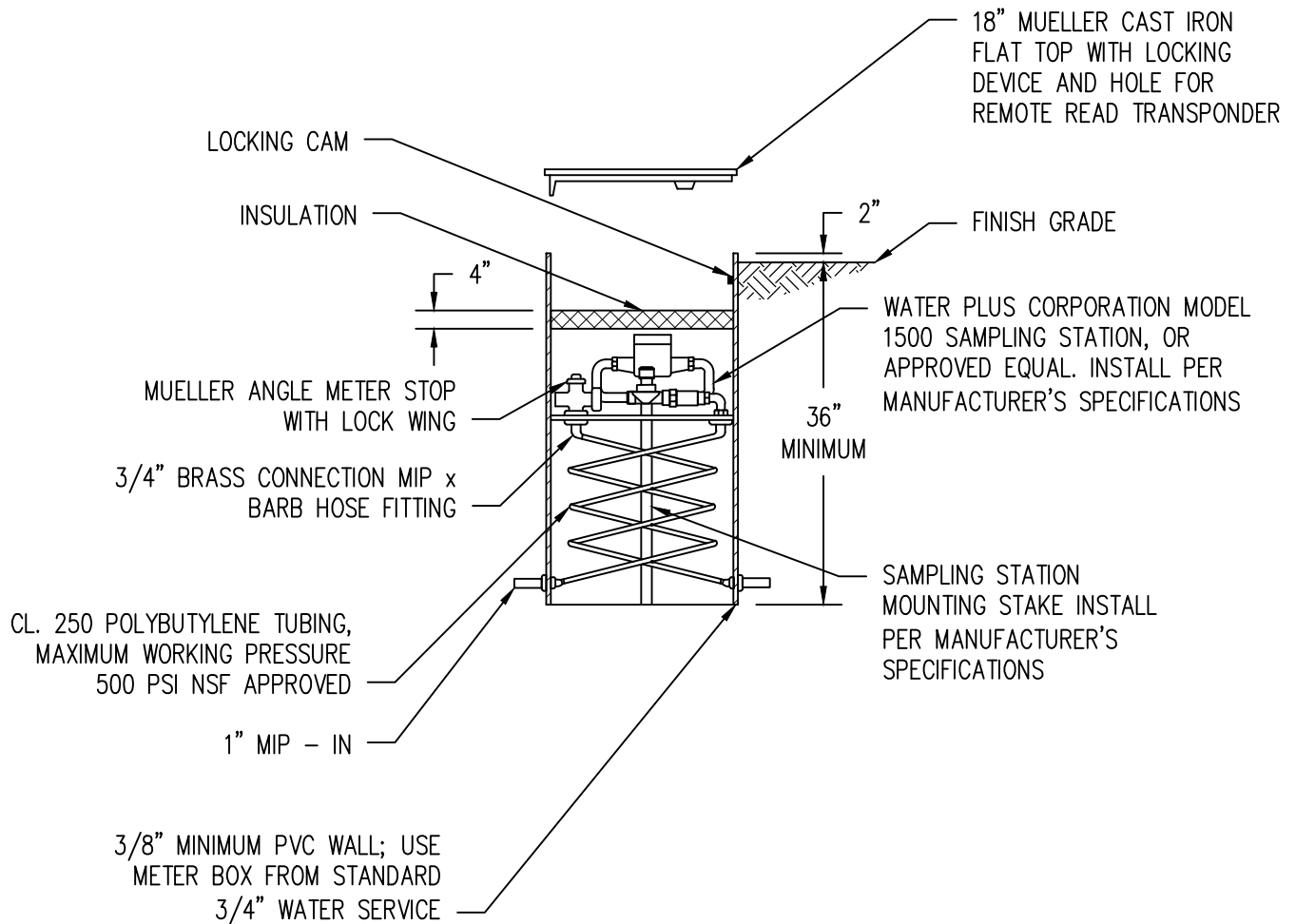
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SAMPLE PORT IN METER BOX

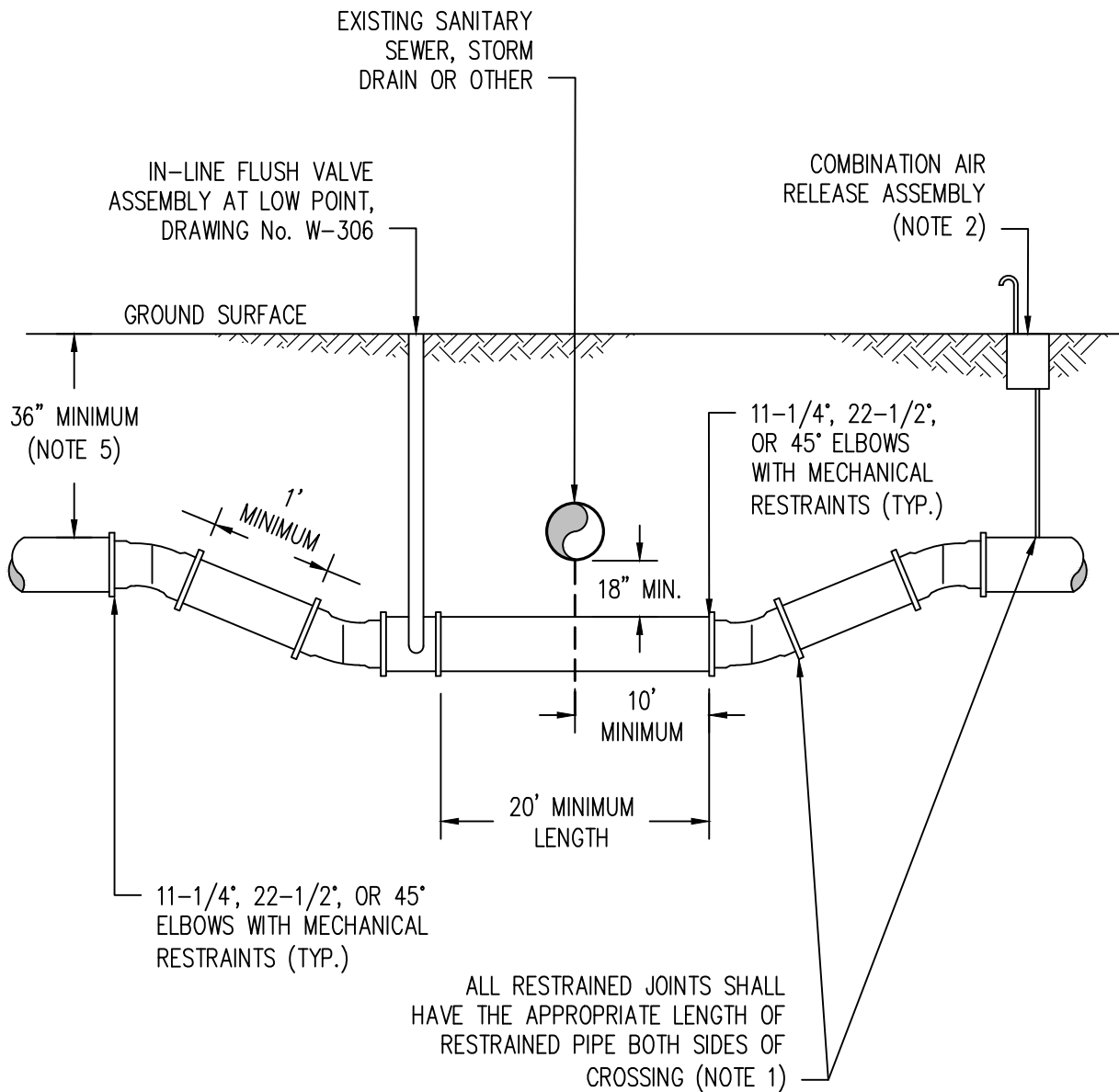
|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-328</b> |
| DATE:<br><b>2/21/2022</b>       |



**NOTES:**

1. PLATFORM NOT SHOWN FOR CLARITY.
2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
3. METER BOX SHALL BE INSTALLED BEHIND AND WITHIN 1' FROM PROPERTY LINE AND INSIDE PUBLIC USE EASEMENT, OR AS OTHERWISE DIRECTED BY ENGINEER.
4. METER BOX SHALL NOT BE LOCATED IN THE SIDEWALK.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                         |                  | SECTION NUMBER: |
|------|-----------|---|--|------------------|-----------------|
|      |           |   | <p align="center"><b>SAMPLE PORT IN METER BOX<br/>WITH SERVICE</b></p> |                  | <b>300</b>      |
|      |           |   |  |                  | DRAWING NUMBER: |
|      |           |   |  | <b>W-329</b>     |                 |
|      |           |   | DATE:  | <b>2/21/2022</b> |                 |



**NOTES:**

1. RESTRAINED LENGTH CALCULATIONS MUST BE PREPARED AND PROVIDED BY A NEVADA LICENSED ENGINEER.
2. COMBINATION AIR VALVES TO BE INSTALLED AT ALL HIGH POINTS AND TO BE SIZED BY THE ENGINEER.
3. ALL CROSSINGS CLEARANCES AND PROTECTIONS SHALL CONFORM TO NAC 445A.
4. ALL FITTINGS SHALL CONFORM TO AWWA C110, C153 AND/OR C111.
5. MINIMUM DEPTH TO TOP OF PIPE = 42" IF ELEVATION > 5000'.

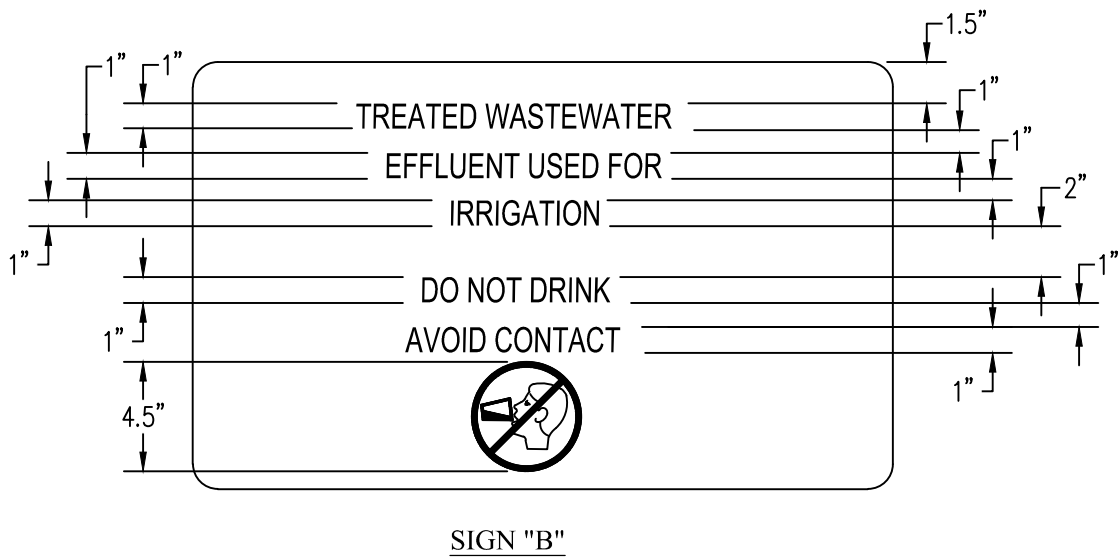
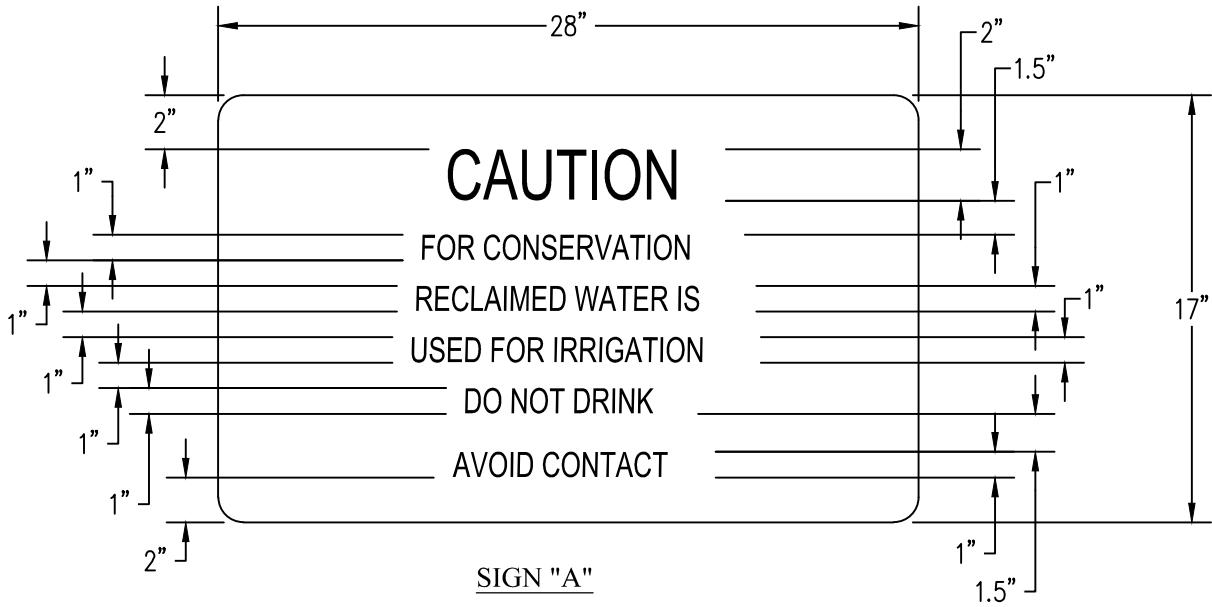
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

WATER LINE OFFSET

|                                 |
|---------------------------------|
| SECTION NUMBER:<br><b>300</b>   |
| DRAWING NUMBER:<br><b>W-330</b> |
| DATE:<br><b>2/21/2022</b>       |

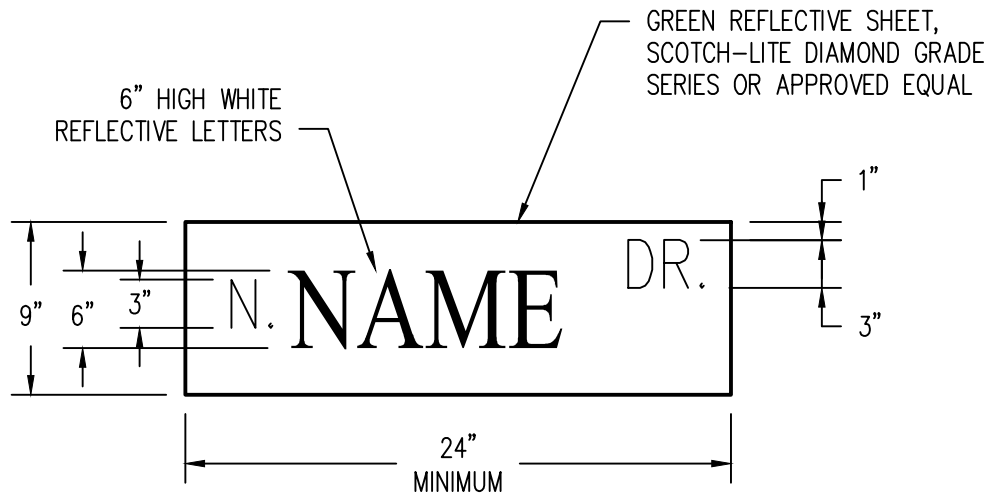


**NOTES:**

1. LETTERING IS WHITE. BACKGROUND IS PURPLE. SIGN "A" IS TO BE USED IN CONJUNCTION WITH ANY FENCED, RECLAIMED FACILITY; SIGN "B" TO BE USED WHEN ADVERTISING LANDSCAPE ISLANDS, MEDIANS, ETC.
2. SIGN MATERIAL SHALL BE 0.1-INCH THICK ALUMINUM. ALUMINUM SHALL BE DEGREASED BEFORE PAINTING. PAINT SHALL BE ALKYD ENAMEL.
3. MAXIMUM SPACING FOR ROADWAY LANDSCAPING SHALL BE 500 FEET.
4. SIGN "A" TO BE POSTED AT EACH ENTRANCE TO THE PROPERTY.
5. SIGN SIZE MAY BE SCALED DOWN TO 8"x12" WHEN REQUIRED BY THE COUNTY ENGINEER.

| DATE | REVISIONS | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br><b>300</b>   |
|------|-----------|--|---------------------------------|
|      |           | RECLAIMED WATER SIGNAGE<br>REQUIREMENTS        | DRAWING NUMBER:<br><b>W-340</b> |
|      |           |  | DATE:<br><b>2/21/2022</b>       |



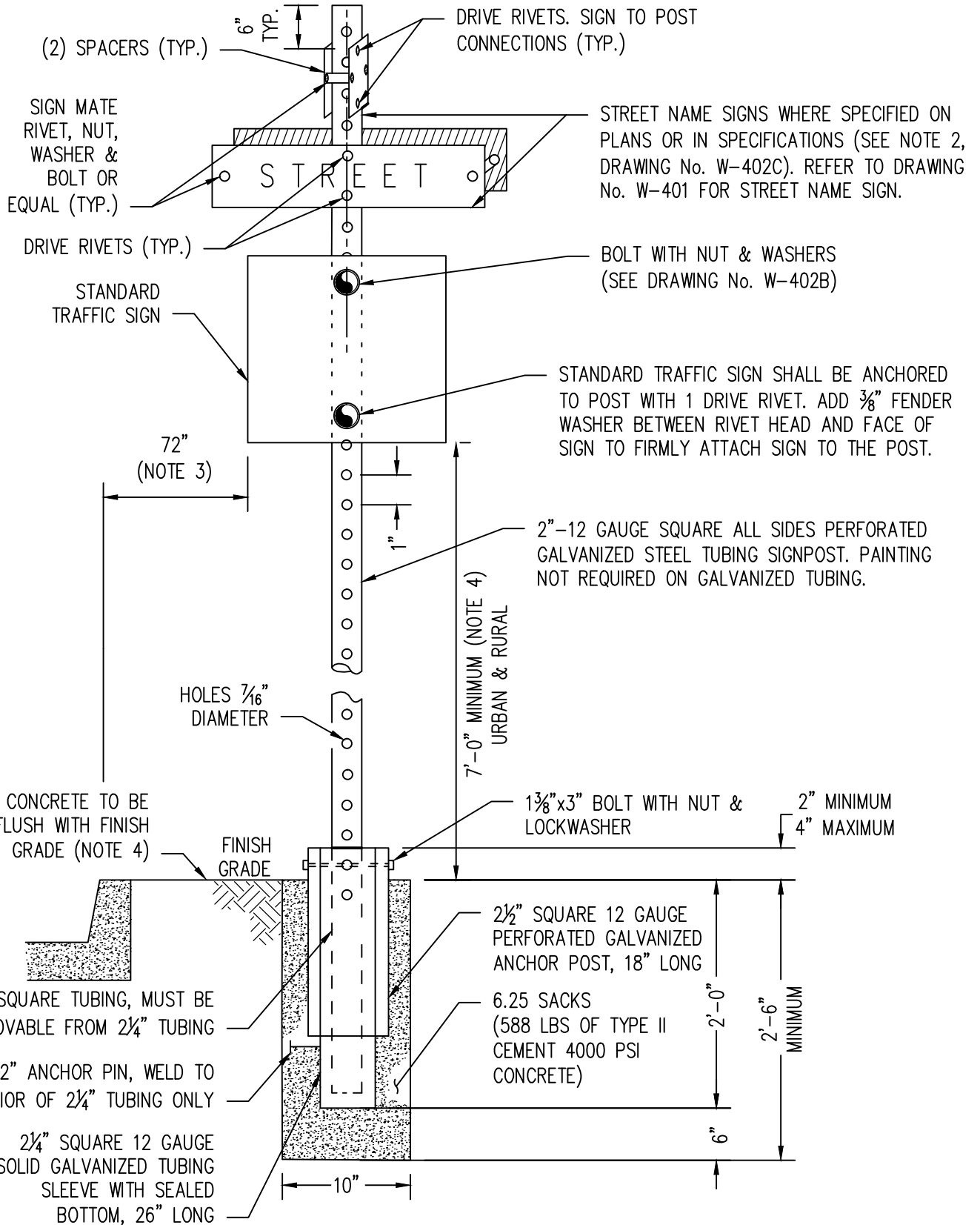


TYPICAL SIGN  
N.T.S.

**NOTES:**

1. STREET NAME SIGN SHALL BE IN CONFORMANCE WITH LATEST EDITION OF THE M.U.T.C.D.
2. ALL SIGN LETTERING SHALL BE IN UPPERCASE LETTERS AND PROVIDED IN THE STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS.
3. REFLECTIVE MATERIALS SHALL BE MOUNTED ON .080 GAUGE FLAT PLATE ALUMINUM NO. 6061-T6.
4. REFER TO STANDARD DETAIL, DRAWING No. W-402, FOR MOUNTING AND POLE REQUIREMENTS, UNLESS OTHERWISE SPECIFIED.
5. A MINIMUM OF 4 SIGNS, PLACED BACK-TO-BACK PER STANDARD DETAIL, DRAWING No. W-402, FOR EACH STREET, IS REQUIRED.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |                         | SECTION NUMBER: |                 |
|------|-----------|---|--|-------------------------|-----------------|-----------------|
|      |           |   |  | <b>STREET NAME SIGN</b> |                 | 400             |
|      |           |   |  |                         |                 | DRAWING NUMBER: |
|      |           |   |  | DATE:                   | 2/21/2022       |                 |



| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

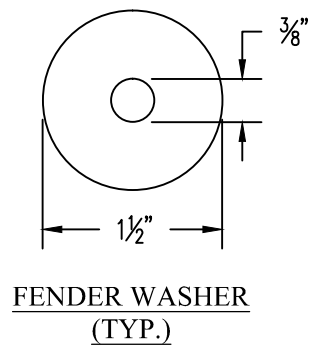
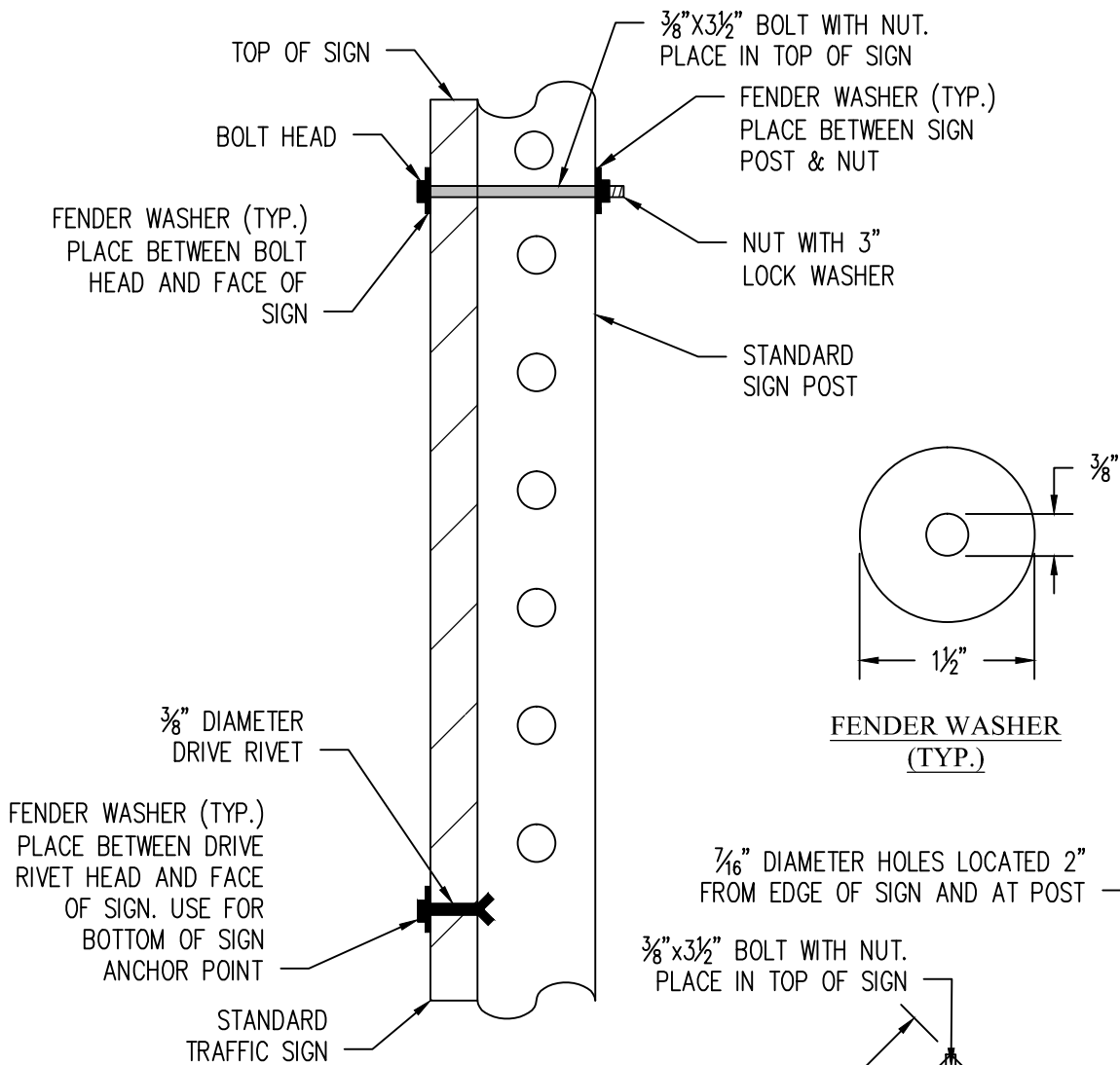


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**STANDARD TRAFFIC SIGN**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-402A</b> |
| DATE:<br><b>2/21/2022</b>        |

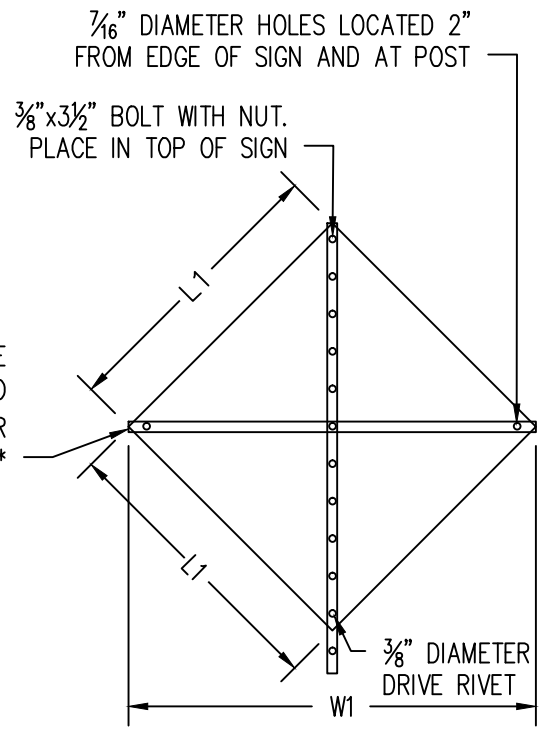




1 1/2" WIDE BY 3/8" THICK STEEL STRAP (SEE CHART FOR LENGTH). ANCHOR STEEL STRAP TO SIGN AND POST WITH THREE (3) 3/8" DIAMETER GRADE 5 BOLTS PER TYPICAL BOLT DETAIL \*

| L1  | W1  |
|-----|-----|
| 30" | 43" |
| 36" | 51" |
| 42" | 60" |

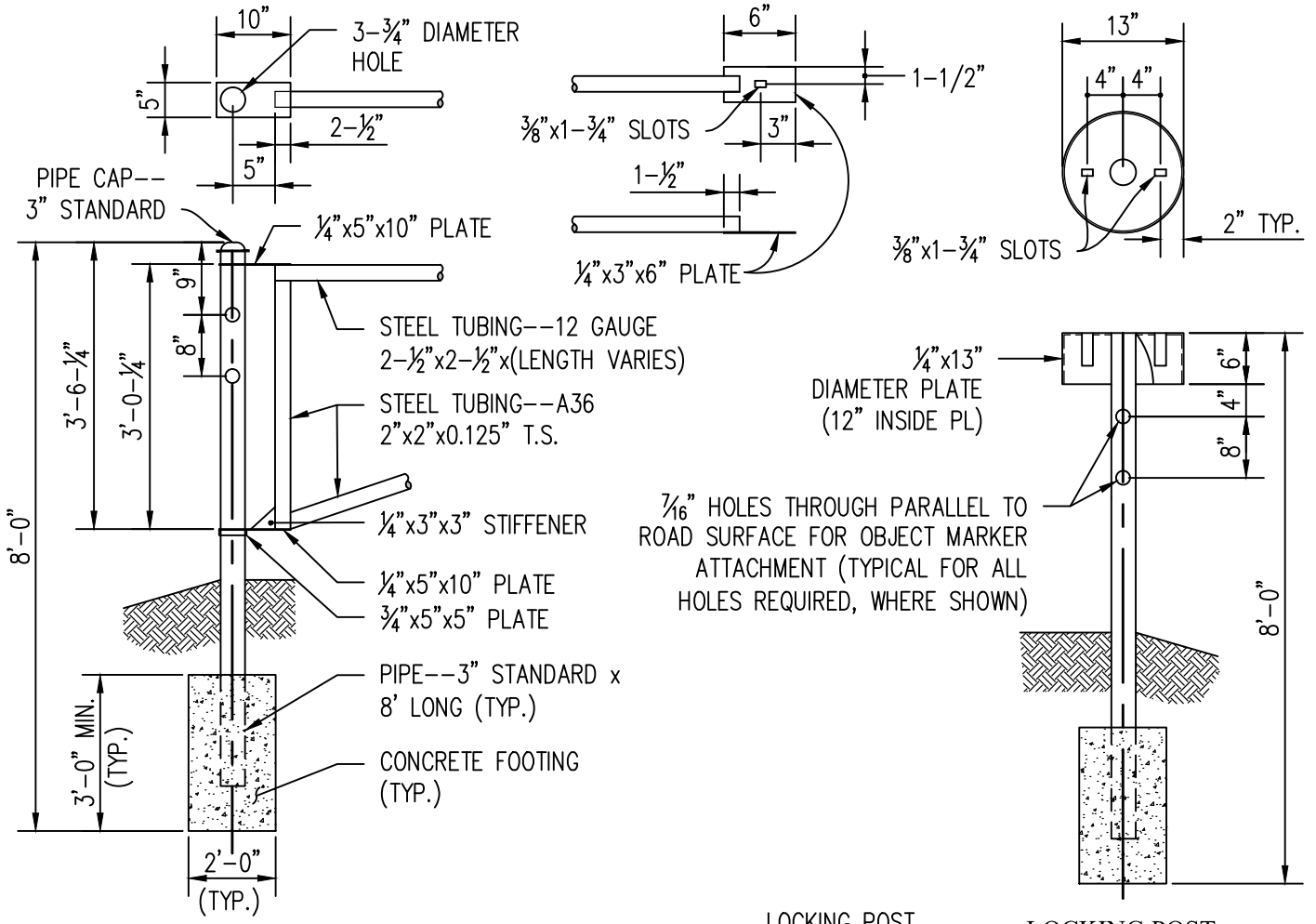
\* STEEL STRAP REQUIRED ON ALL SQUARE, RECTANGULAR OR TRIANGULAR WHEN "L1" IS 30" OR GREATER



**NOTES:**

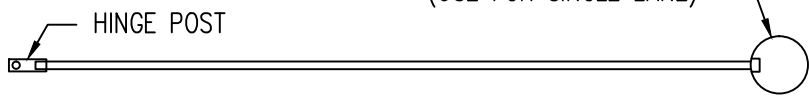
1. SIGN SHEETING FOR ALL SIGNS SHALL BE DIAMOND GRADE. SIGN THICKNESS SHALL BE .080 GAUGE MINIMUM. ALL MATERIALS & SIZES SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). COUNTY SPECIFICATIONS & DIMENSIONS SHALL PREVAIL WHEN THEY EXCEED THE MINIMUM AS REQUIRED BY THE M.U.T.C.D.
2. SIGNS SHALL BE MOUNTED WITH VANDAL-PROOF HARDWARE.
3. ON STREETS WHERE CURB DOES NOT EXIST, SET EDGE OF SIGN CLOSEST TO ROADWAY AT A MINIMUM OF 6 FEET FROM PAVEMENT EDGE.
4. 7'-0" MINIMUM DIMENSION IS MEASURED FROM FINISHED GRADE AT POST LOCATION WHERE CURB EXISTS, OR FROM FINISHED PAVEMENT SHOULDER WHERE NO CURB EXISTS.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:       |                 |
|------|-----------|---|--|-----------------------|-----------------|
|      |           |   |  | STANDARD TRAFFIC SIGN | 400             |
|      |           |   |  | NOTES                 | DRAWING NUMBER: |
|      |           |   |  |                       | W-402C          |
|      |           |   |  | DATE:                 |                 |
|      |           |   |  | 2/21/2022             |                 |

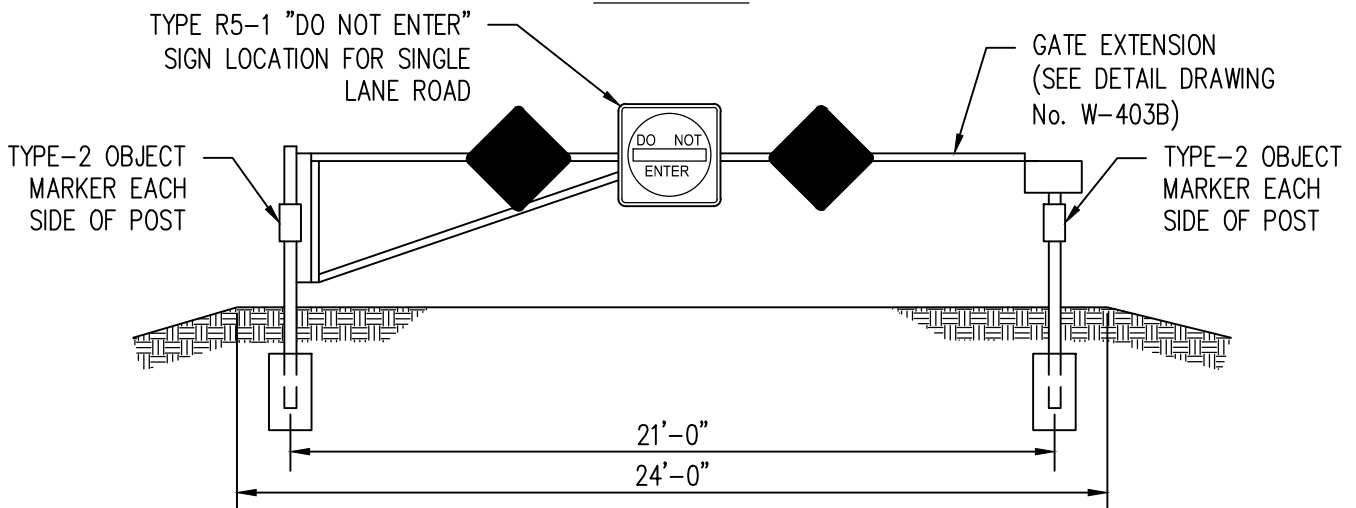


HINGE POST DETAIL

LOCKING POST

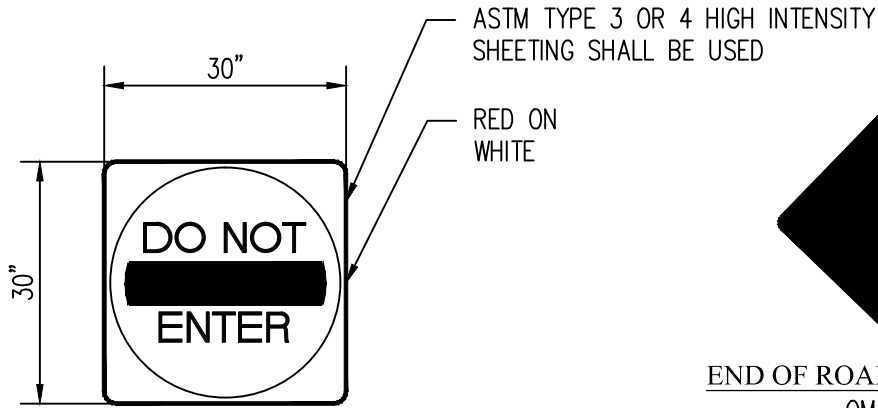


PLAN VIEW

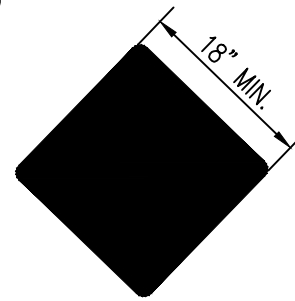


ELEVATION VIEW

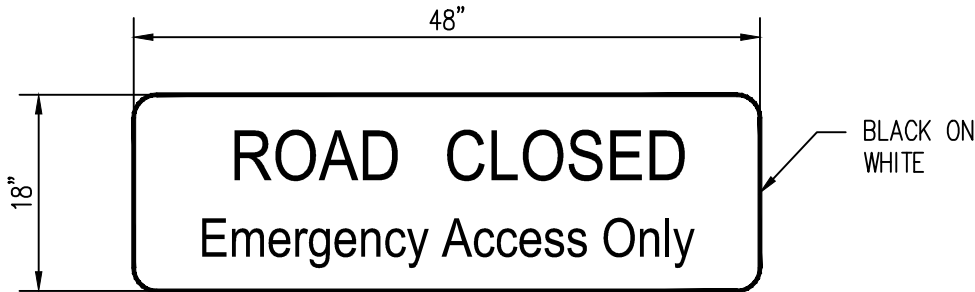
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |           | SECTION NUMBER: |
|------|-----------|---|--|-----------|-----------------|
|      |           |   | <b>EMERGENCY ACCESS<br/>CONTROL GATE</b>       |           | 400             |
|      |           |   |  |           | DRAWING NUMBER: |
|      |           |   |  | W-403A    |                 |
|      |           |   | DATE:  | 2/21/2022 |                 |



**DO NOT ENTER SIGN**  
TYPE R5-1

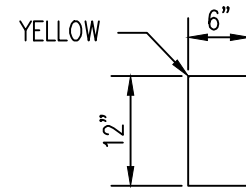


**END OF ROADWAY MARKER**  
OM4-3  
RETROREFLECTIVE RED DIAMOND PANEL

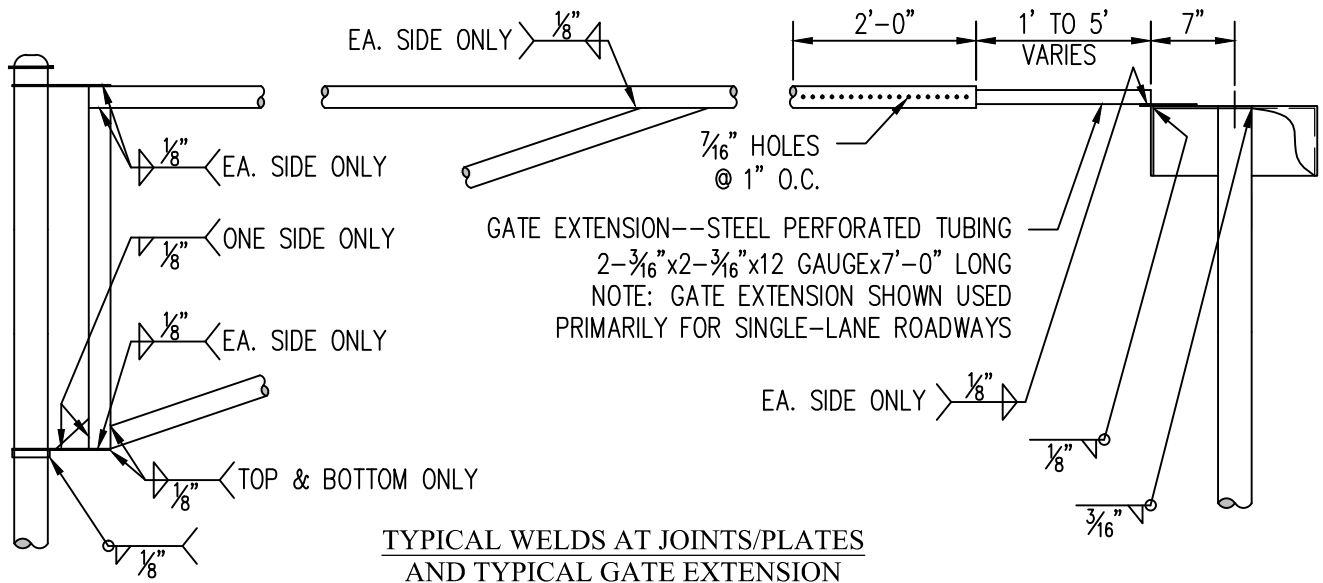


**EMERGENCY ACCESS ROAD CLOSED SIGN \*\***

\*\* UTILIZE THIS SIGN IN LIEU OF THE "DO NOT ENTER" SIGN WHEN ACCESS BY THE FIRE DEPARTMENT IS REQUIRED.



**OBJECT MARKER**  
TYPE-2



**TYPICAL WELDS AT JOINTS/PLATES**  
**AND TYPICAL GATE EXTENSION**

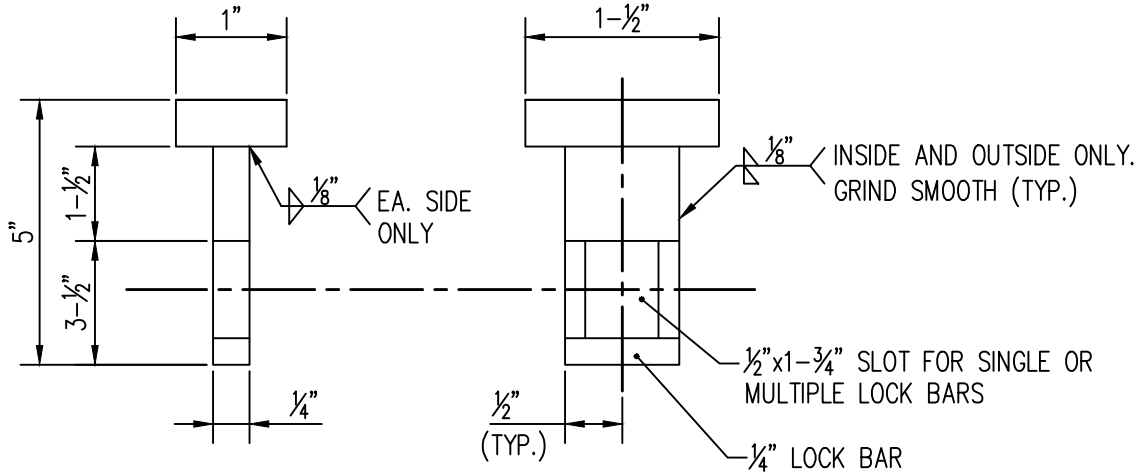
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**EMERGENCY ACCESS**  
**CONTROL GATE**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-403B</b> |
| DATE:<br><b>2/21/2022</b>        |



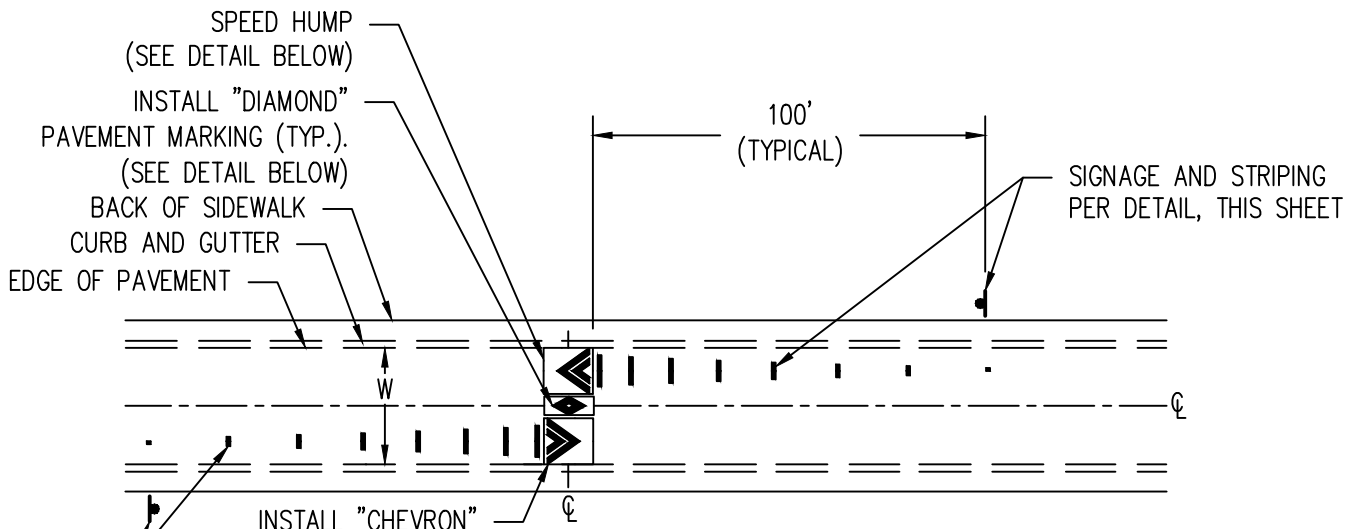
**NOTES (APPLY TO WASHOE COUNTY DETAILS W-403A, W-403B AND W-403C):**

1. ALL HOLES DRILLED THROUGH TO BE 7/16" DIAMETER. HOLES TYPICALLY DRILLED VERTICAL OR HORIZONTAL TO TRAVELED WAY SURFACE.
2. ALL THREADS OF ALL BOLTS USED ARE TO BE PEENED AFTER INSTALLATION/USAGE TO PREVENT BOLT REMOVAL.
3. ALL MEMBERS OF THE GATE ASSEMBLY SHALL BE FABRICATED FROM THE STANDARD STEEL SECTIONS. FABRICATED MEMBERS SHALL RECEIVE ONE SHOP COAT OF ALUMINUM PAINT AFTER FABRICATION. ALUMINUM PAINT SHALL CONFORM TO AASHTO SPECIFICATION M69-70. HARDWARE SHALL BE CADMIUM PLATED.
4. SUBSTITUTE ITEM No. 11 SIGN FOR ITEM No. 6 SIGN WHEN ACCESS BY THE FIRE DEPARTMENT IS REQUIRED.

MATERIALS LIST

| ITEM No. | No. REQ'D. | DESCRIPTION   |
|----------|------------|---|
| 1        | 1          | GATES AND GATE EXTENSIONS   |
| 2        | 1          | HINGE POST, WITH PIPE CAPS  |
| 3        | 1          | MASTER LOCKING PINS   |
| 4        | 1          | LOCKING POST  |
| 5        | 2          | OM4-3 END OF ROADWAY MARKER   |
| 6        | 1          | 18"X30" ROAD CLOSED SIGN  |
| 7        | 4          | 6"X12" TYPE-2 OBJECT MARKERS  |
| 8        | 2          | 3/8"X3" MACHINE BOLT FOR GATE EXTENSIONS                              |
| 9        | 6          | 3/8"X4" CARRIAGE BOLT WITH 1 CUT AND 1 LOCK WASHER FOR SIGNS ON GATES |
| 10       | 6          | 3/8"X6" CARRIAGE BOLT WITH 1 CUT AND 1 LOCK WASHER FOR OBJECT MARKERS |
| 11       | 1          | 18"X48" ROAD CLOSED EMERGENCY ACCESS ONLY SIGN                        |

|      |           |   |  |                                  |
|------|-----------|---|--|----------------------------------|
| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | SECTION NUMBER:<br><b>400</b>    |
|      |           |   | <b>EMERGENCY ACCESS<br/>CONTROL GATE</b>       | DRAWING NUMBER:<br><b>W-403C</b> |
|      |           |   |  | DATE:<br><b>2/21/2022</b>        |
|      |           |   |  |                                  |

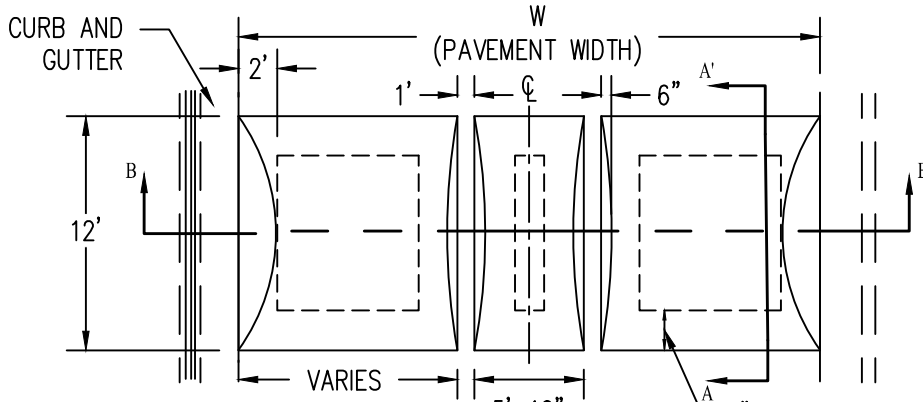


**SIGNAGE AND STRIPING OVERVIEW**

N.T.S.

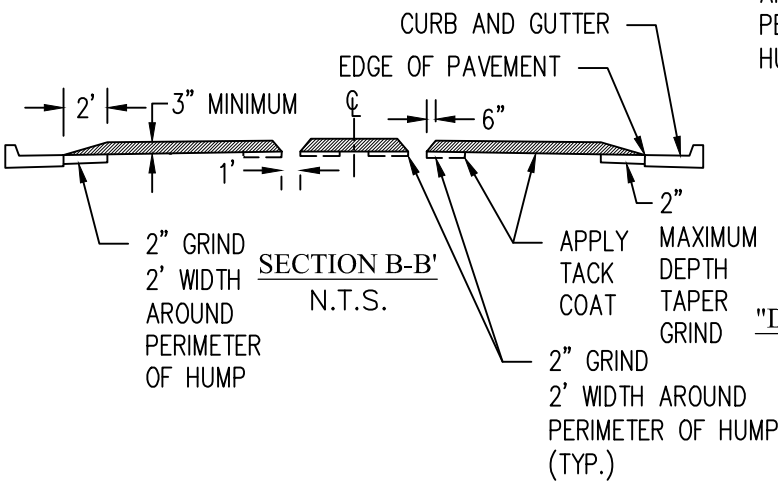
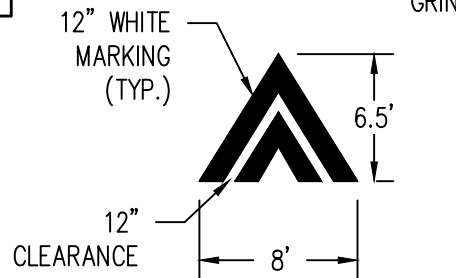
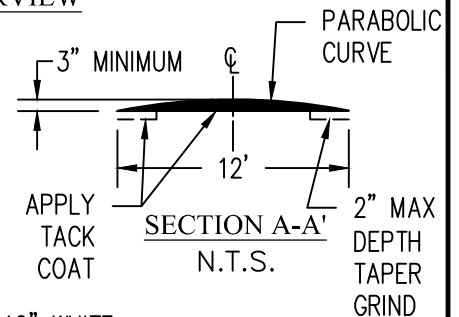
SIGNAGE AND STRIPING PER DETAIL, THIS SHEET

2' PERIMETER GRIND 2" DEEP



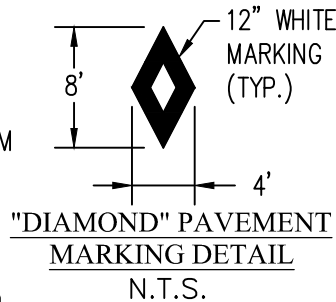
**SPEED HUMP PLAN VIEW**

N.T.S.



**SECTION B-B'**

N.T.S.



**'DIAMOND' PAVEMENT MARKING DETAIL**

N.T.S.

NOTE:  
ASPHALT TO BE CONSTRUCTED TO THE SPECIFICATIONS OF THE WASHOE COUNTY PERMANENT PAVEMENT PATCH DETAIL, DRAWING No. W-121.

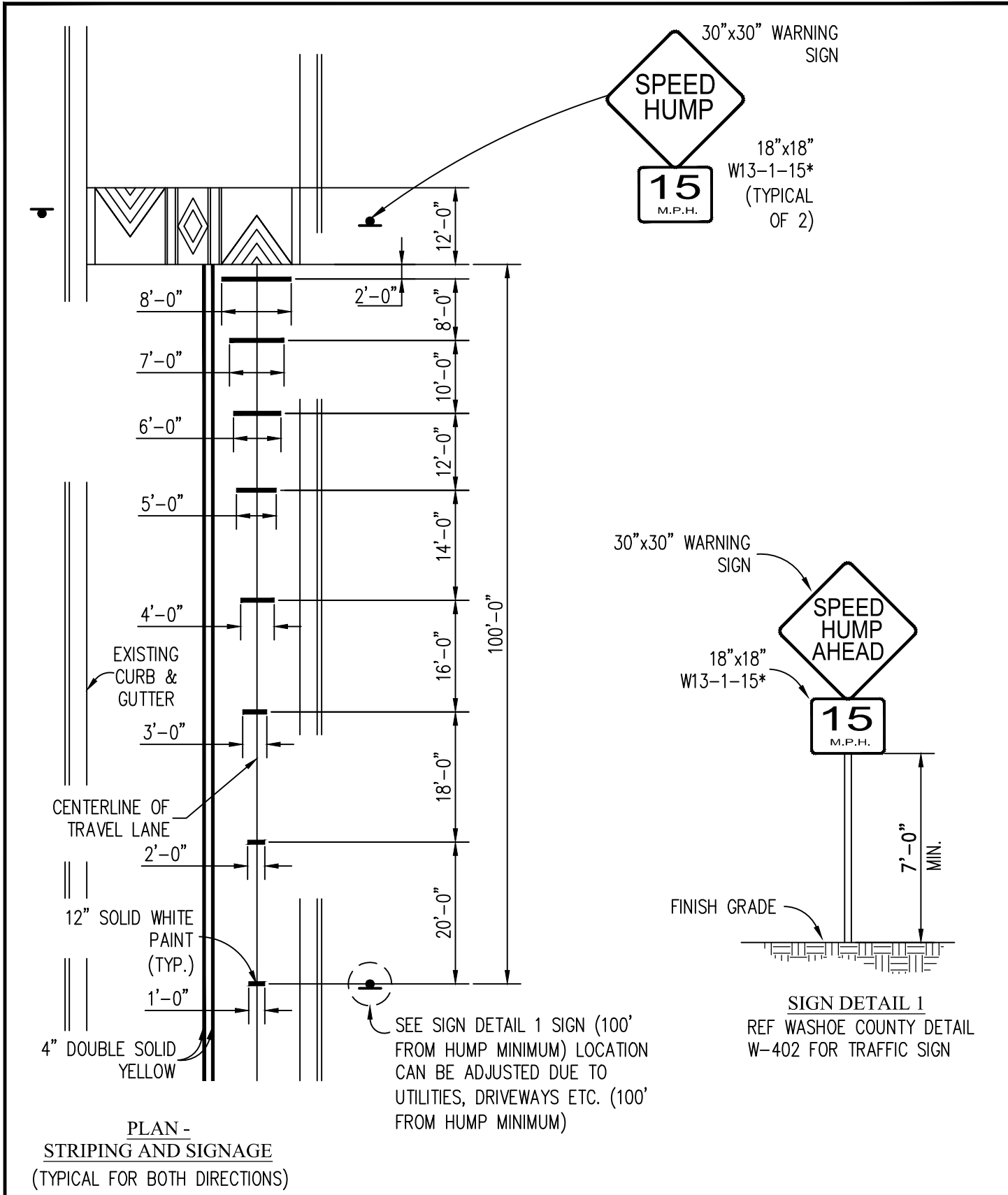
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**SPEED HUMP DETAILS**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-404A</b> |
| DATE:<br><b>2/21/2022</b>        |



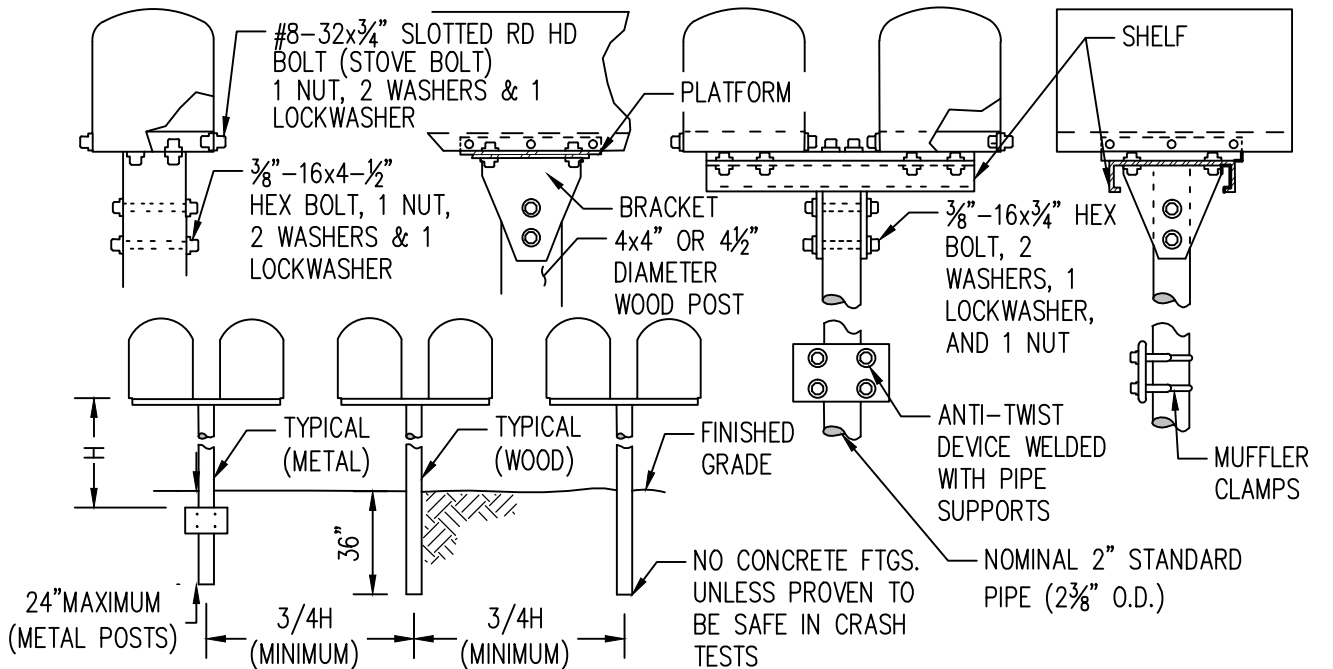
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**SPEED HUMP SIGNAGE  
AND STRIPING**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-404B</b> |
| DATE:<br><b>2/21/2022</b>        |

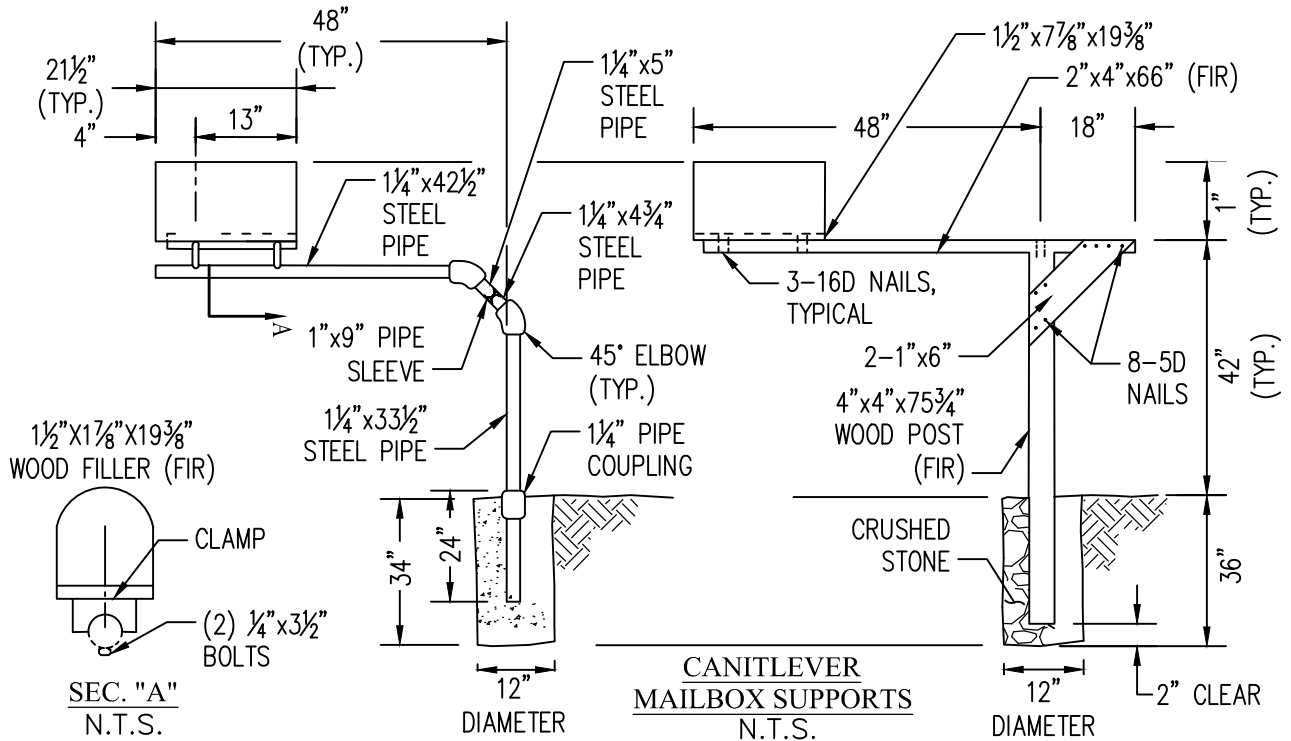


**SPACING FOR MULTIPLE POST INSTALLATION**  
N.T.S.

**SINGLE & DOUBLE MAILBOX ASSEMBLIES**  
N.T.S.

**NOTES:**

1. CALL "USA UNDERGROUND ALERT" PRIOR TO CONSTRUCTION.
2. THE POST-TO-BOX ATTACHMENT SHOULD BE OF SUFFICIENT STRENGTH TO PREVENT THE BOX FROM SEPARATING FROM THE POST TOP IF THE INSTALLATION IS STRUCK BY A VEHICLE.



**SEC. "A"**  
N.T.S.

**CANILEVER MAILBOX SUPPORTS**  
N.T.S.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |

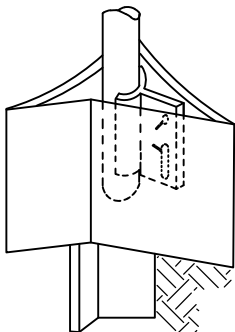
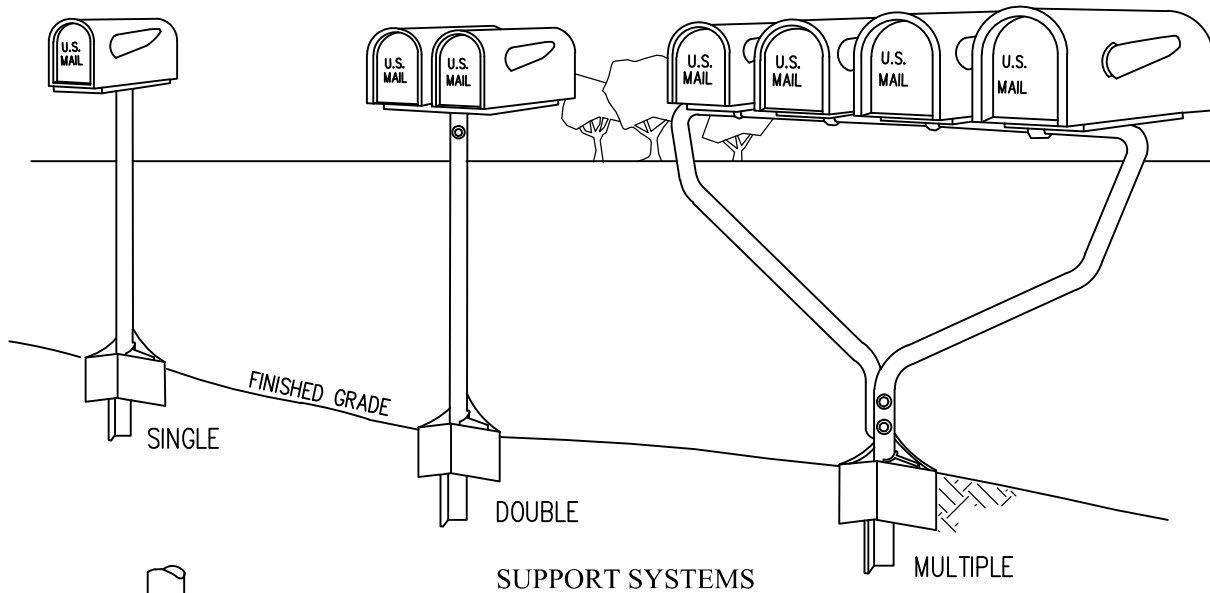


**STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**

**MAILBOXES**

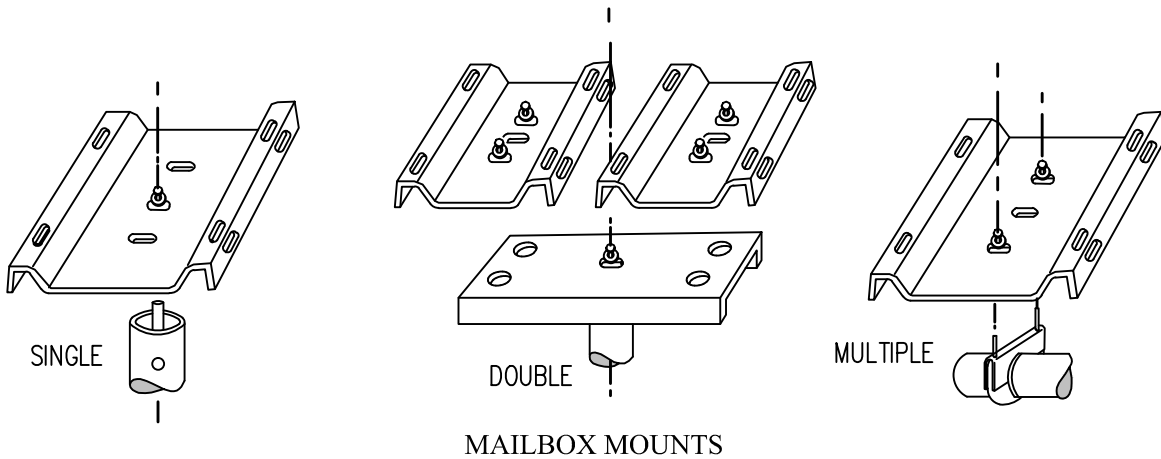
|                                  |
|----------------------------------|
| <b>SECTION NUMBER:</b><br>400    |
| <b>DRAWING NUMBER:</b><br>W-410A |
| <b>DATE:</b><br>2/21/2022        |





**NOTES:**

SUPPORT FRAME AND FOUNDATION  
ARE PROPRIETARY PRODUCTS



SINGLE & MULTIPLE MAILBOX ASSEMBLIES APPROVED ALTERNATES  
N.T.S.

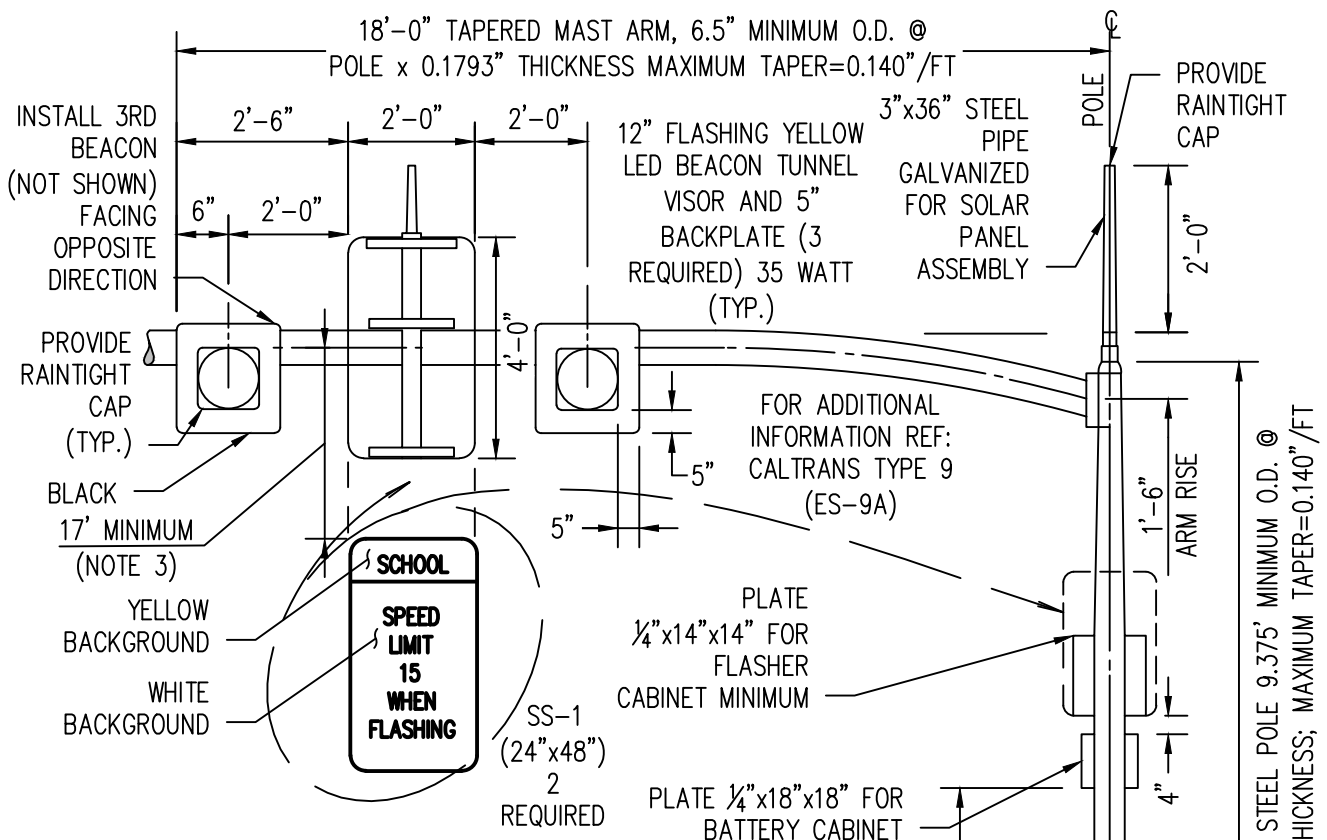
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

**MAILBOXES**

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-410B</b> |
| DATE:<br><b>2/21/2022</b>        |



**FRAME DETAILS (TYPE 9A) CONTROL ASSEMBLY SPECIFICATIONS**

- TEMPERATURE RANGE -30° TO +74°C
- CONTRACTOR INSTALLED
- SOLAR POWERED
- TWO BATTERIES IN A SEPARATE CABINET
- VOLTAGE REGULATOR
- CURRENT & VOLTAGE METERS (IN CABINET)
- SEPARATE CABINET FOR ELECTRONICS
- GEL-CEL BATTERIES
- 100AMP HOUR
- 12VDC FLASHER
- CRP2102 TIME-SWITCHED WITH ANTENNAE & CPC HARNESS (154.9950 Mhz X RADIO FREQUENCY)

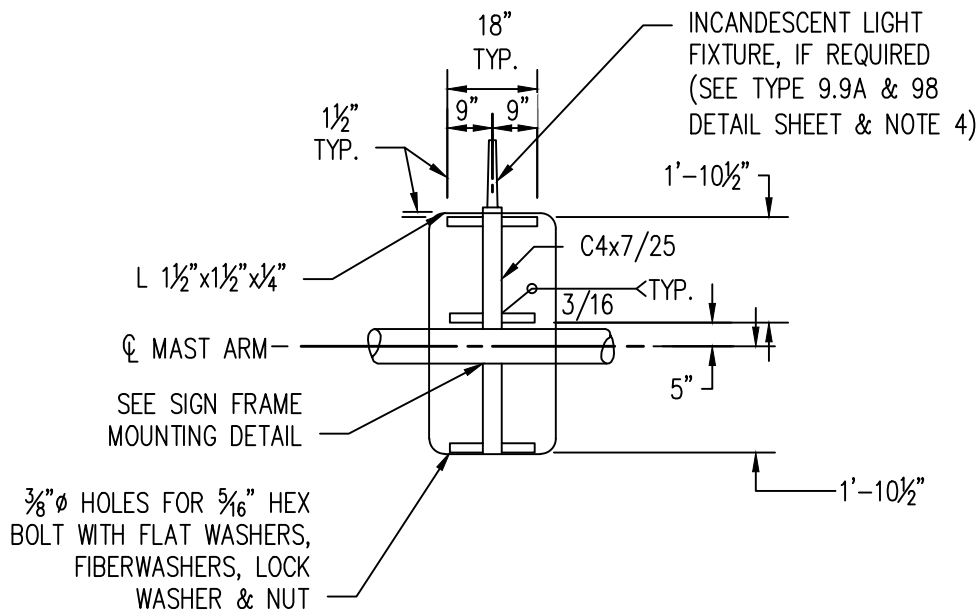
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SCHOOL SIGNAL

|                                  |
|----------------------------------|
| SECTION NUMBER:<br><b>400</b>    |
| DRAWING NUMBER:<br><b>W-420A</b> |
| DATE:<br><b>2/21/2022</b>        |



FRAME DETAILS (TYPE 9A)

NOTES:

1. ALL SPLICES BETWEEN FLOURESCENT FUTURE SOCKETS SHALL BE WATERPROOFED.
2. INSTALL FLASHING BEACONS AND SIGN FRAME. FLASHING BEACONS TO BE MAT MOUNTED ON PIPE TENNON (ES-85 DETAIL S).
3. VERTICAL CLEARANCE TO BE 17'-0" MINIMUM BETWEEN ROADWAY & BOTTOM OF SIGN PANEL OR LIGHTING FIXTURE BRACKET.
4. SPECIAL PROVISIONS OR PLANS WILL INDICATE WHEN INCANDESCENT LIGHTING FIXTURE IS REQUIRED ON TYPE 9A OR 9B SIGN FRAMES.
5. ALL TYPE 9 SIGN FRAMES SHALL BE PROVIDED WITH A 36" FLOURSCENT SIGN LIGHTING EQUIPMENT.
6. ANCHOR BOLTS SHALL BE ASTM A-307.
4. ALL CONCRETE SHALL BE A MINIMUM OF 6.25 SACKS OF TYPE II CEMENT (588 POUNDS PER CUBIC YARD OF CONCRETE) WITH FIBERMESH AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS; AIR ENTRAINMENT TO BE 4.5-7.5%. REINFORCING SHALL CONSIST OF COLLATED, FIBRILLATED, POLYPROPYLENE FIBERS AS MANUFACTURED BY FIBERMESH OR APPROVED EQUAL AND SHALL BE ADDED AT A RATE OF 1 1/2 LBS PER CUBIC YARD OF CONCRETE.

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |
|      |           |



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

SCHOOL SIGNAL  
NOTES

SECTION NUMBER:

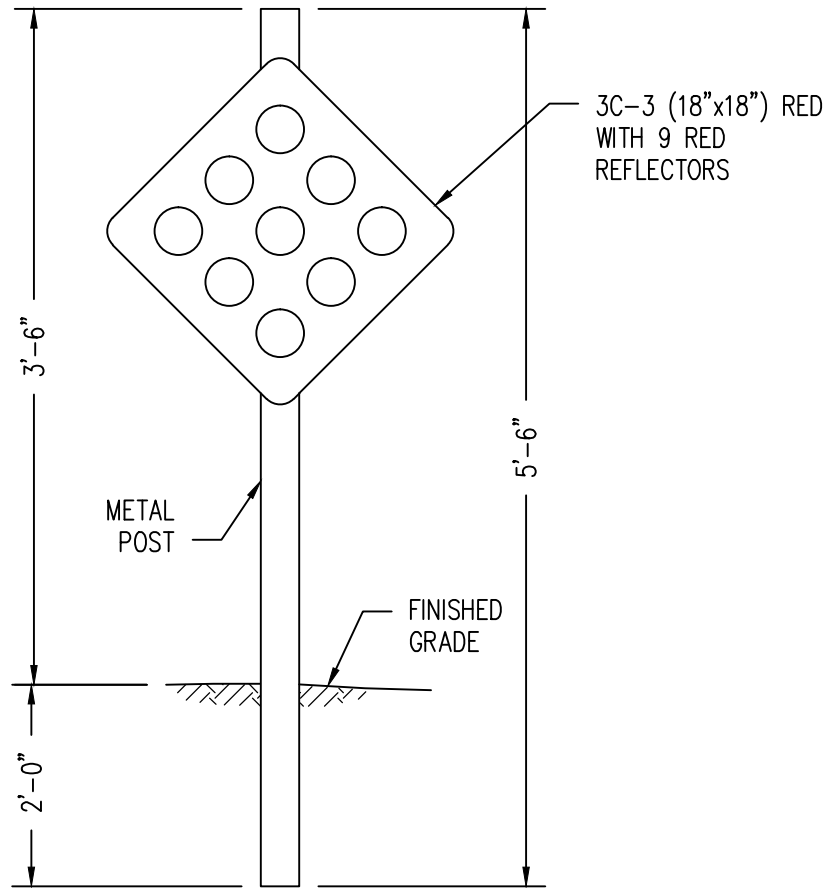
400

DRAWING NUMBER:

W-420B

DATE:


2/21/2022



TYPICAL INSTALLATION  
N.T.S.

NOTES:

1. ALL POSTS SHALL BE METAL.
2. WHERE GUARD RAIL IS TO BE INSTALLED, POST MAY BE OMITTED AND REFLECTOR PLATES SHALL BE INSTALLED ON GUARDRAIL POSTS.
3. WHERE CURB EXISTS, END OF ROAD MARKER SHALL BE INSTALLED 60 FEET FROM FRONT FACE OF CURB.
4. SPACING OF MARKERS TO BE DETERMINED BY THE COUNTY ENGINEER.

| DATE | REVISIONS |  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |           | SECTION NUMBER: |
|------|-----------|---|--|-----------|-----------------|
|      |           |   | <h2>END-OF-ROAD MARKER</h2>                    |           | 400             |
|      |           |   |  |           | DRAWING NUMBER: |
|      |           |   |  |           | W-430           |
|      |           |   | DATE:  | 2/21/2022 |                 |