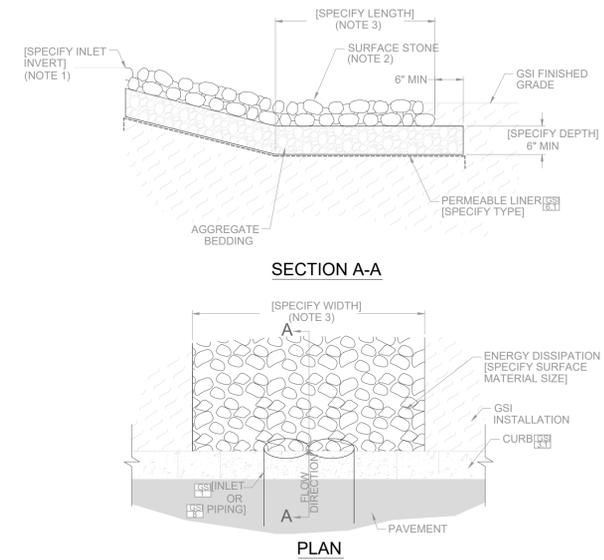


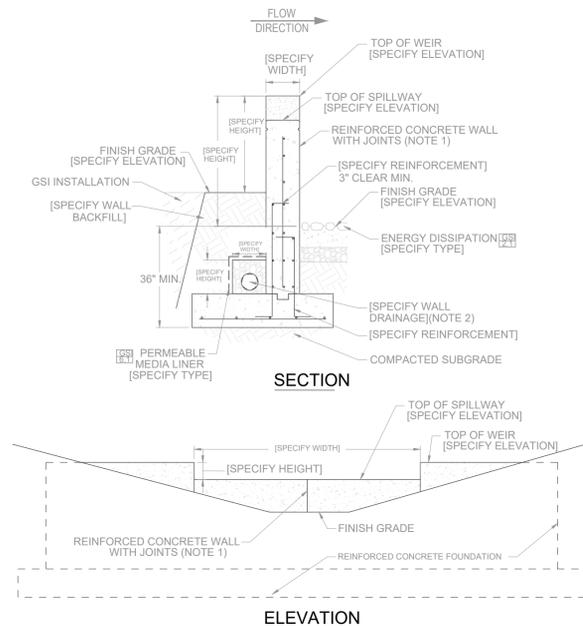
- NOTES:**
1. CONCRETE EMBEDDED SPLASH PAD SHALL BE PER 02941
 2. TOP OF SPLASH PAD ELEVATION SHALL NOT EXCEED THE HEIGHT OF THE INLET INVERT. (DESIGNER TO SPECIFY TOP OF STONE OR BRICK ELEVATION, AND MINIMUM AND MAXIMUM HEIGHT VARIATION BETWEEN SURFACE MATERIAL AND DEPTH OF EMBEDMENT IN CONCRETE BEDDING.) SURFACE MATERIAL SHOULD BE EMBEDDED A MINIMUM OF THE STONE/BRICK. (DESIGNER TO SPECIFY SURFACE MATERIAL TYPE, SIZE AND PATTERN OF SURFACE MATERIAL.)
 3. SPLASH PAD WIDTH SHALL BE MINIMUM TWICE INLET OPENING WIDTH OR PIPE DIAMETER. SPLASH PAD LENGTH SHALL BE A MINIMUM OF 3 TIMES THE THICKNESS OF THE SURFACE STONE AND CONCRETE BEDDING.

CONCRETE EMBEDDED SPLASH PAD



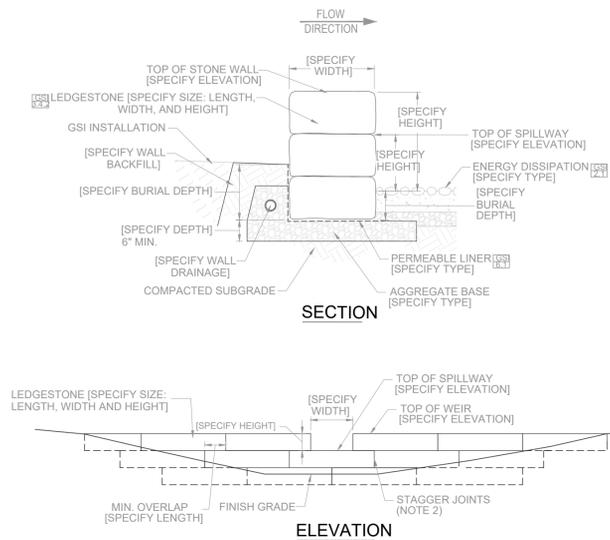
- NOTES:**
1. SURFACE STONE SPLASH PAD SHALL BE PER 02941.
 2. TOP OF SPLASH PAD ELEVATION SHALL NOT EXCEED THE HEIGHT OF THE INLET INVERT. (DESIGNER TO SPECIFY SIZE OF SURFACE STONE AND SPLASH PAD ELEVATION.)
 3. SPLASH PAD WIDTH SHALL BE MINIMUM TWICE INLET OPENING WIDTH OR PIPE DIAMETER. SPLASH PAD LENGTH SHALL BE A MINIMUM OF 3 TIMES THE THICKNESS OF SURFACE STONE AND AGGREGATE BEDDING.

SURFACE STONE SPLASH PAD



- NOTES:**
1. PROVIDE VERTICAL EXPANSION JOINTS AT (DESIGNER TO SPECIFY SPACING).
 2. WALL DRAINAGE SHALL HAVE A MINIMUM SLOPE OF 0.5% ALONG THE WEIR AND DAYLIGHT AT THE END OF THE WEIR OR TO WEEP HOLES.

CONCRETE SURFACE WEIR



- NOTES:**
1. LEDGESTONE SHALL BE PER SPEC 02942.
 2. STAGGER JOINTS SO THAT THERE IS A MINIMUM (SPECIFY LENGTH) OVERLAP BETWEEN LAYERS OF LEDGESTONE. ABUT END OF LEDGESTONE SO THAT JOINT SPACING DOES NOT EXCEED (SPECIFY WIDTH).

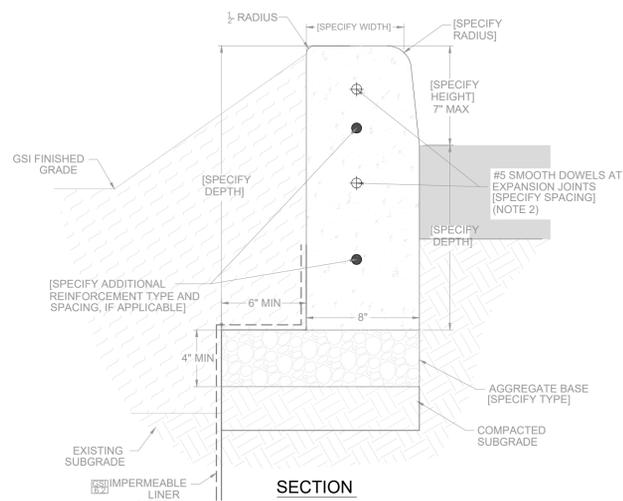
STACKED STONE SURFACE WEIR

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11-11-2025	NS	2026 SPECIFICATIONS



STANDARD DETAILS FOR
ENERGY DISSIPATION &
POLLUTANT REMOVAL

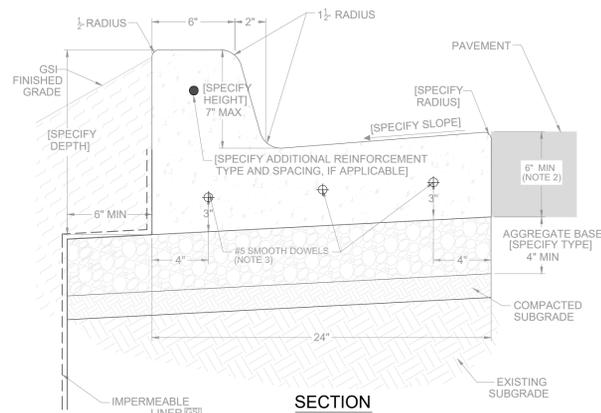
DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



NOTES:

- CURBING SHALL BE PER 02942.
- 1/2" WIDE EXPANSION JOINTS WITH 2" DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 100' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES. PREMOLDED NON-EXTRUDING FILLER HOMEX-300 (1/2" THICK) OR APPROVED EQUAL. JOINT SEALER (1" DEEP) SHALL BE AS ONE COMPONENT. GUN-GRADE, MOISTURE CURED EPOXY OR URETHANE SUCH AS "VULCUM 45" OR EQUAL AS APPROVED BY THE DESIGN PROFESSIONAL.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE TRENCH AND SHALL EXTEND 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

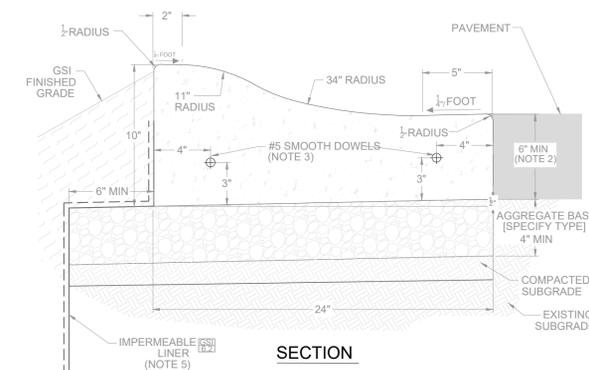
STRAIGHT CURB



NOTES:

- CURBING SHALL BE PER 02942.
- DEPTH OF CURB SHALL BE MINIMUM OF 8" THRU HANDICAP ACCESS RAMPS.
- 1/2" WIDE EXPANSION JOINTS WITH 2" DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 100' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES. PREMOLDED NON-EXTRUDING FILLER HOMEX-300 (1/2" THICK) OR APPROVED EQUAL. JOINT SEALER (1" DEEP) SHALL BE AS ONE COMPONENT. GUN-GRADE, MOISTURE CURED EPOXY OR URETHANE SUCH AS "VULCUM 45" OR EQUAL AS APPROVED BY THE DESIGN PROFESSIONAL.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE TRENCH AND SHALL EXTEND 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

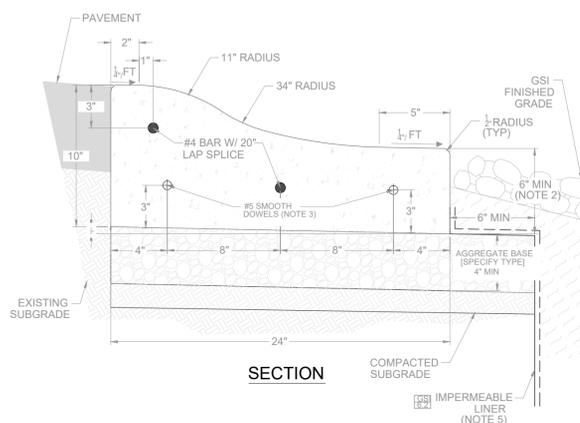
STRAIGHT BACK CURB & GUTTER



NOTES:

- CURBING SHALL BE PER 02942.
- DEPTH OF CURB SHALL BE MINIMUM OF 8" THRU HANDICAP ACCESS RAMPS.
- 1/2" WIDE EXPANSION JOINTS WITH 2" DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 100' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES. PREMOLDED NON-EXTRUDING FILLER HOMEX-300 (1/2" THICK) OR APPROVED EQUAL. JOINT SEALER (1" DEEP) SHALL BE AS ONE COMPONENT. GUN-GRADE, MOISTURE CURED EPOXY OR URETHANE SUCH AS "VULCUM 45" OR EQUAL AS APPROVED BY THE DESIGN PROFESSIONAL.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE TRENCH AND SHALL EXTEND 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

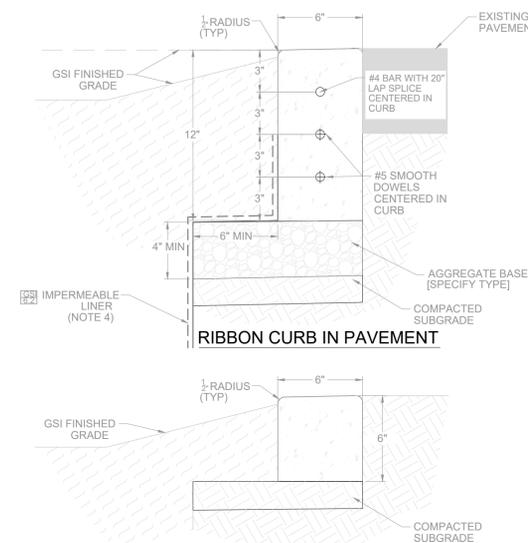
ROLL BACK CURB & GUTTER



NOTES:

- CURBING SHALL BE PER 02942.
- DEPTH OF CURB SHALL BE MINIMUM OF 8" THRU HANDICAP ACCESS RAMPS.
- 1/2" WIDE EXPANSION JOINTS WITH 2" DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 100' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES. PREMOLDED NON-EXTRUDING FILLER HOMEX-300 (1/2" THICK) OR APPROVED EQUAL. JOINT SEALER (1" DEEP) SHALL BE AS ONE COMPONENT. GUN-GRADE, MOISTURE CURED EPOXY OR URETHANE SUCH AS "VULCUM 45" OR EQUAL AS APPROVED BY THE DESIGN PROFESSIONAL.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE TRENCH AND SHALL EXTEND 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

REVERSE ROLL BACK CURB & GUTTER



NOTES:

- CURBING SHALL BE PER 02942.
- 1/2" WIDE EXPANSION JOINTS WITH 2" DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 100' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES. PREMOLDED NON-EXTRUDING FILLER HOMEX-300 (1/2" THICK) OR APPROVED EQUAL. JOINT SEALER (1" DEEP) SHALL BE AS ONE COMPONENT. GUN-GRADE, MOISTURE CURED EPOXY OR URETHANE SUCH AS "VULCUM 45" OR EQUAL AS APPROVED BY THE DESIGN PROFESSIONAL.
- 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE TRENCH AND SHALL EXTEND 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

RIBBON CURB

2026 EDITION

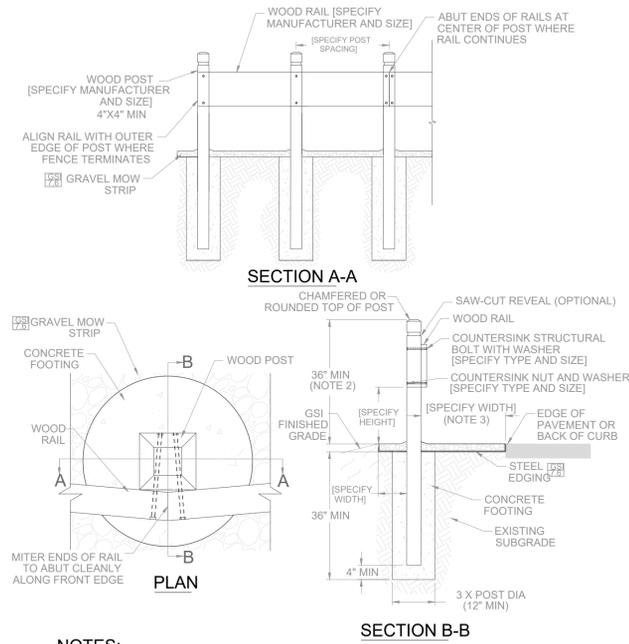
SHEET ____ OF ____

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11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



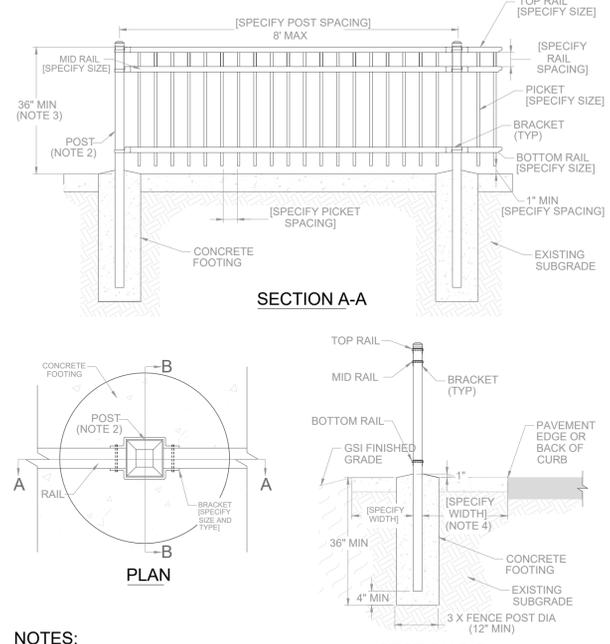
STANDARD DETAILS FOR
ABOVE GRADE BARRIERS

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



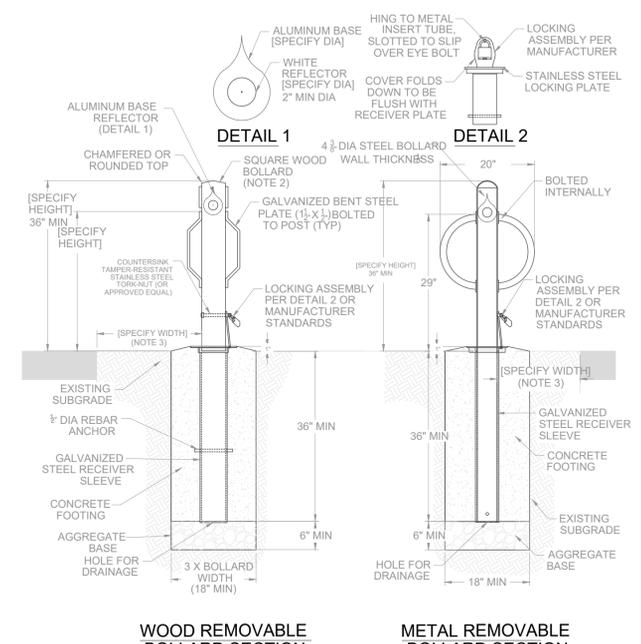
- NOTES:**
- WOOD FENCING SHALL BE PER 02942.
 - WHEN VERTICAL DROP BETWEEN PEDESTRIAN AREA AND GSI EXCEEDS 30 INCHES, MINIMUM FENCE HEIGHT OF 42 INCHES IS REQUIRED. (DESIGNER TO SPECIFY FENCE HEIGHT.)
 - WHEN FENCING IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.

WOOD FENCING



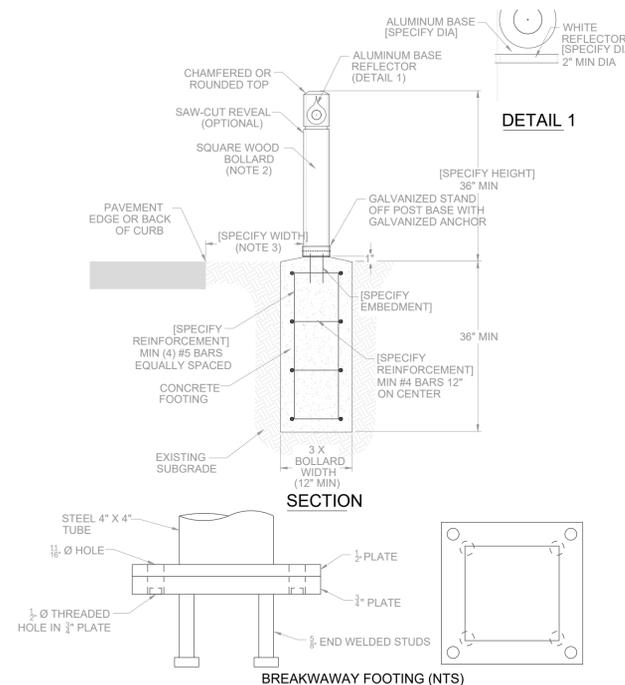
- NOTES:**
- METAL FENCING SHALL BE PER 02942.
 - POST SIZE DEPENDS ON FENCE HEIGHT, EXPECTED LOADING, AND WIND FORCE. (DESIGNER TO SPECIFY POST SIZE AND FINISH.)
 - WHEN VERTICAL DROP BETWEEN PEDESTRIAN AREA AND GSI EXCEEDS 30 INCHES, MINIMUM FENCE HEIGHT OF 42 INCHES IS REQUIRED.
 - WHEN FENCING IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.
 - DIMENSIONS SHOULD BE STANDARD PER MANUFACTURER REQUIREMENTS.

METAL FENCING



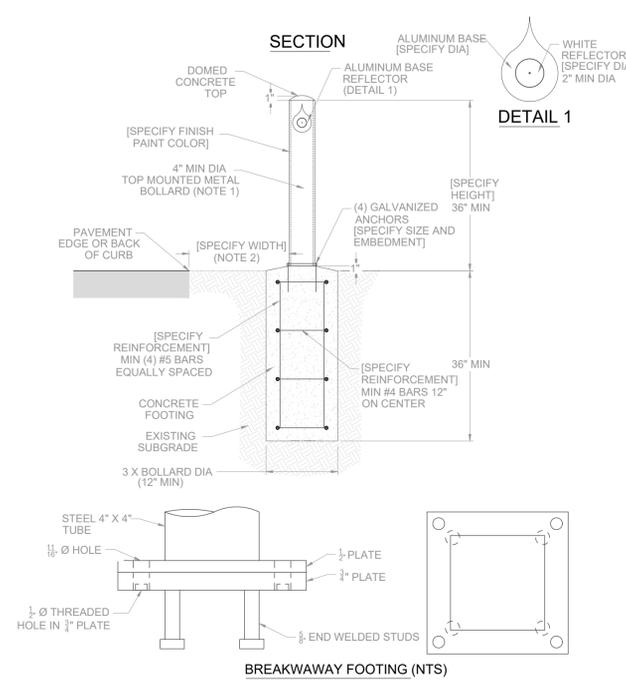
- NOTES:**
- REMOVABLE BOLLARD SHALL BE PER 02942.
 - (DESIGNER TO SPECIFY SIZE AND FINISH.)
 - WHEN BOLLARD IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.

REMOVABLE BOLLARD



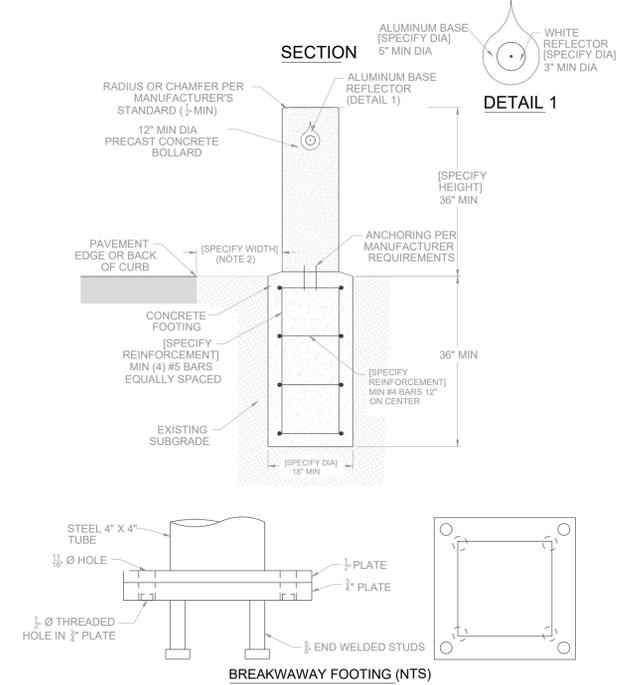
- NOTES:**
- WOOD BOLLARD SHALL BE PER 02942.
 - (DESIGNER TO SPECIFY SIZE AND FINISH.)
 - WHEN BOLLARD IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.

WOOD BOLLARD



- NOTES:**
- METAL BOLLARD SHALL BE MINIMUM SCHEDULE 40 STEEL AND CONCRETE FILLED PER 02942.
 - WHEN BOLLARD IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.

METAL BOLLARD



- NOTES:**
- PRECAST CONCRETE BOLLARD SHALL BE PER 02942.
 - WHEN BOLLARD IS APPLIED ADJACENT TO STREET PAVEMENT, A MINIMUM 2 FOOT OFFSET FROM THE FENCE POST TO THE EDGE OF PAVEMENT IS REQUIRED.

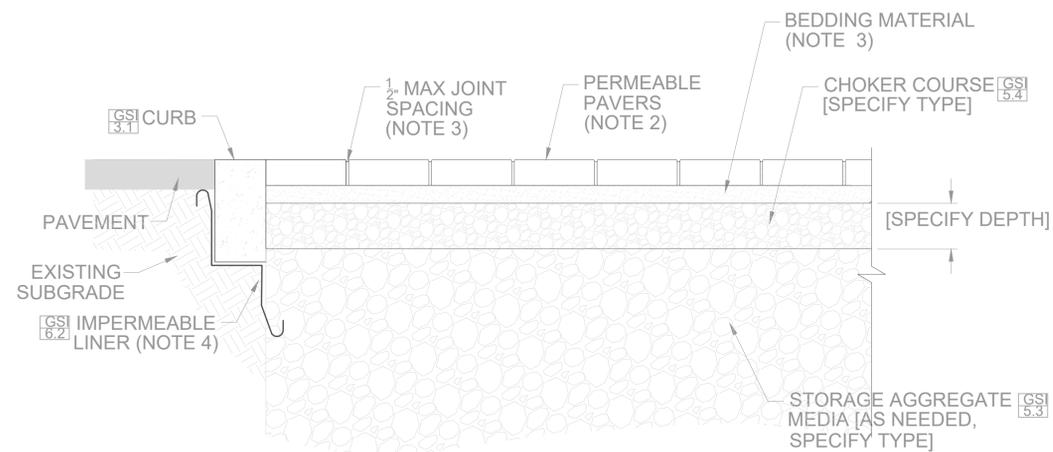
PRECAST CONCRETE BOLLARD

DATE	BY	REVISION
11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS

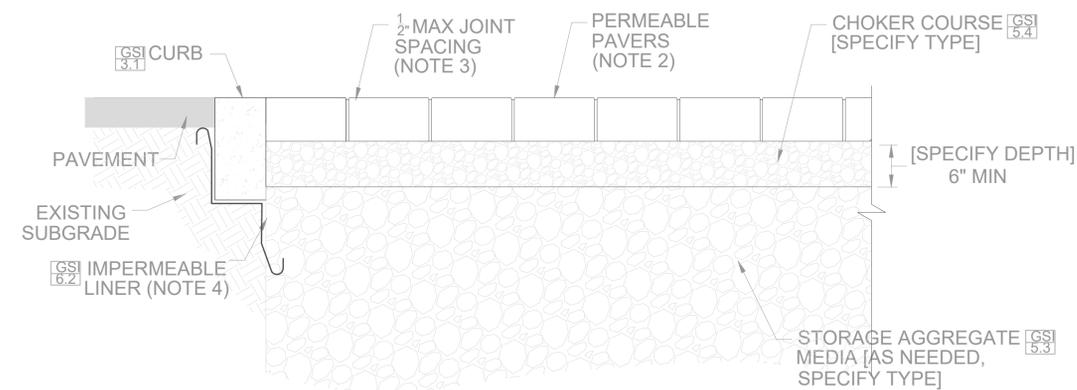


STANDARD DETAILS FOR ABOVE GRADE BARRIERS

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



PERMEABLE PAVERS WITH JOINTING MATERIAL

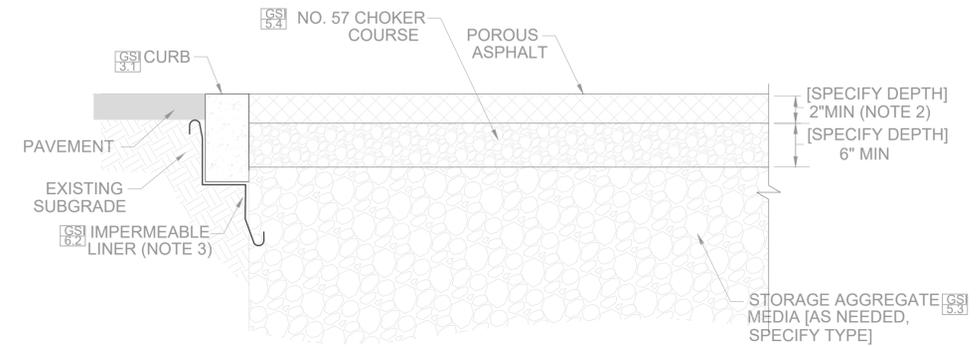


PERMEABLE PAVERS WITHOUT JOINTING MATERIAL

NOTES:

1. PERMEABLE PAVERS SHALL BE PER 02945.
2. [DESIGNER TO SPECIFY MANUFACTURER AND TYPE OF PERMEABLE PAVERS.] THICKNESS OF PERMEABLE PAVERS PER MANUFACTURER REQUIREMENTS DEPENDENT ON APPLICATION. PERMEABLE PAVERS SHALL HAVE CHAMFERED EDGES.
3. PERMEABLE PAVER JOINTS SHALL BE SPACED AND FILLED PER MANUFACTURER RECOMMENDATIONS. [DESIGNER TO SPECIFY JOINTING AND BEDDING MATERIAL TYPE, DEPTH, AND REQUIRED SPACING.]
4. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION.

PERMEABLE PAVERS

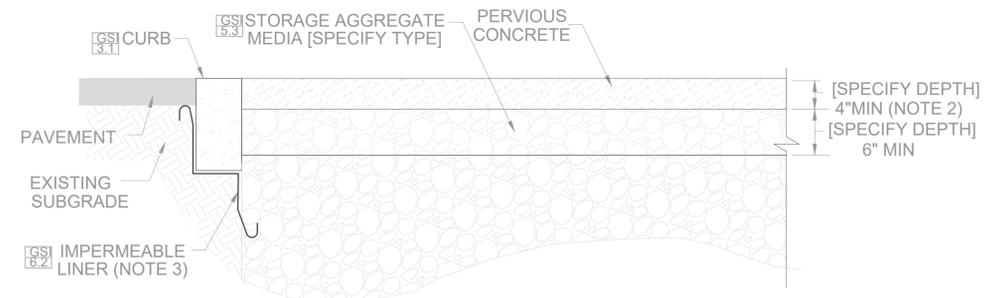


SECTION

NOTES:

1. POROUS ASPHALT SHALL BE PER 02944.
2. [DESIGNER TO SPECIFY DEPTH OF POROUS ASPHALT.] DEPTH SHALL BE DESIGNED TO WITHSTAND ANTICIPATED STRUCTURAL LOADING.
3. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

POROUS ASPHALT



SECTION

NOTES:

1. PERVIOUS CONCRETE SHALL BE PER 02943.
2. [DESIGNER TO SPECIFY DEPTH OF PERVIOUS CONCRETE.] DEPTH SHALL BE DESIGNED TO WITHSTAND ANTICIPATED STRUCTURAL LOADING.
3. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

PERVIOUS CONCRETE

2026 EDITION

SHEET ____ OF ____

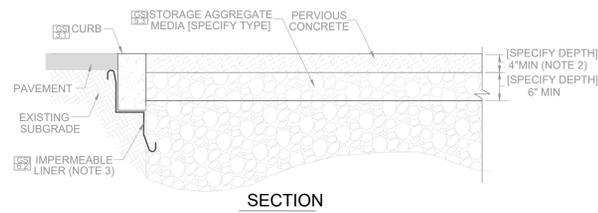
DATE	BY	REVISION
04-01-26	LJM	REPLACES ALL PREVIOUS VERSIONS OF TITLE SHEET TEMPLATE
04-01-25	LJM	REPLACES ALL PREVIOUS VERSIONS OF TITLE SHEET TEMPLATE



STANDARD DETAILS FOR
PERMEABLE PAVEMENT

DAVID P. CRONIN
CITY ENGINEER

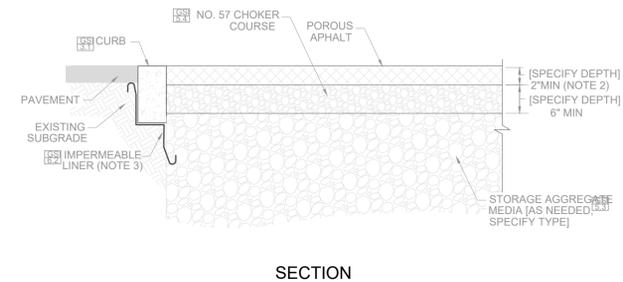
CRAIG S. OWENS
CITY MANAGER



NOTES:

1. PERVIOUS CONCRETE SHALL BE PER 02943.
2. [DESIGNER TO SPECIFY DEPTH OF PERVIOUS CONCRETE.] DEPTH SHALL BE DESIGNED TO WITHSTAND ANTICIPATED STRUCTURAL LOADING.
3. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

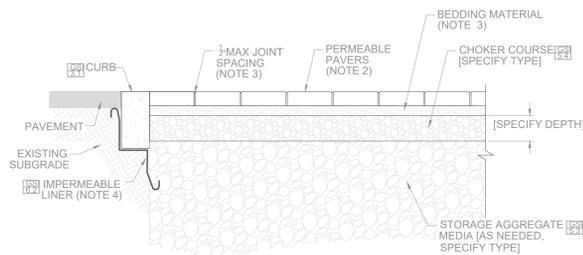
PERVIOUS CONCRETE



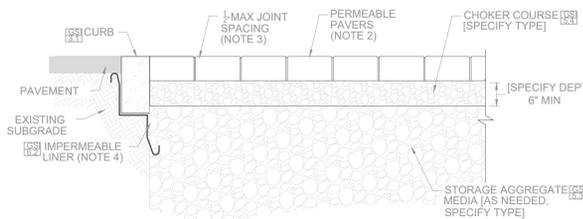
NOTES:

1. POROUS ASPHALT SHALL BE PER 02944.
2. [DESIGNER TO SPECIFY DEPTH OF POROUS ASPHALT.] DEPTH SHALL BE DESIGNED TO WITHSTAND ANTICIPATED STRUCTURAL LOADING.
3. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION. SPECIFY TYPE.

POROUS ASPHALT



PERMEABLE PAVERS WITH JOINTING MATERIAL



PERMEABLE PAVERS WITHOUT JOINTING MATERIAL

NOTES:

1. PERMEABLE PAVERS SHALL BE PER 02945.
2. [DESIGNER TO SPECIFY MANUFACTURER AND TYPE OF PERMEABLE PAVERS.] THICKNESS OF PERMEABLE PAVERS PER MANUFACTURER REQUIREMENTS DEPENDENT ON APPLICATION. PERMEABLE PAVERS SHALL HAVE CHAMFERED EDGES.
3. PERMEABLE PAVES JOINTS SHALL BE SPACED AND FILLED PER MANUFACTURER RECOMMENDATIONS. [DESIGNER TO SPECIFY JOINTING AND BEDDING MATERIAL TYPE, DEPTH, AND REQUIRED SPACING.]
4. IF GSI IS ADJACENT TO STREET PAVEMENT, AN IMPERMEABLE LINER IS REQUIRED ALONG THE STREET SIDE OF THE GSI AND SHALL EXTEND A MINIMUM OF 30" BELOW THE BOTTOM ELEVATION OF THE PAVEMENT SECTION.

PERMEABLE PAVERS

2026 EDITION

SHEET ____ OF ____

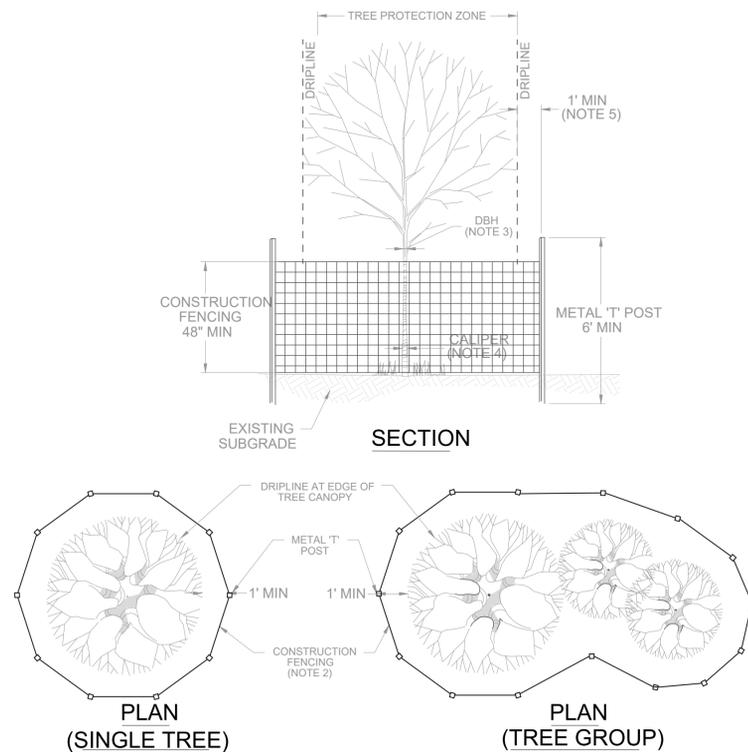
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11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



STANDARD DETAILS FOR
PERMEABLE PAVEMENT

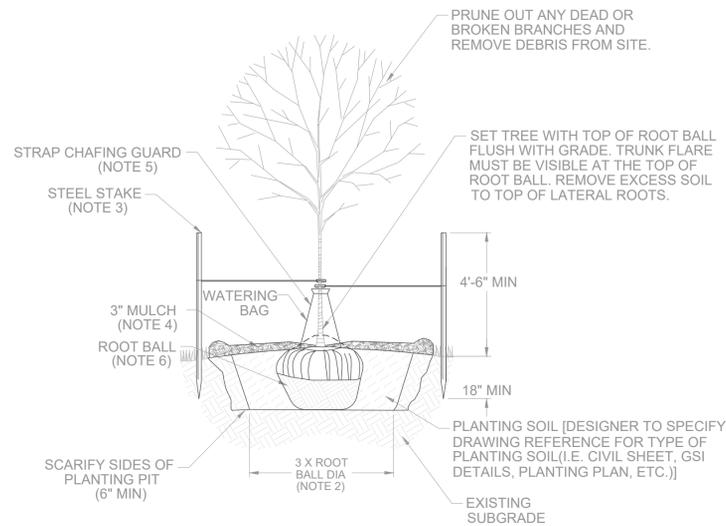
DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER



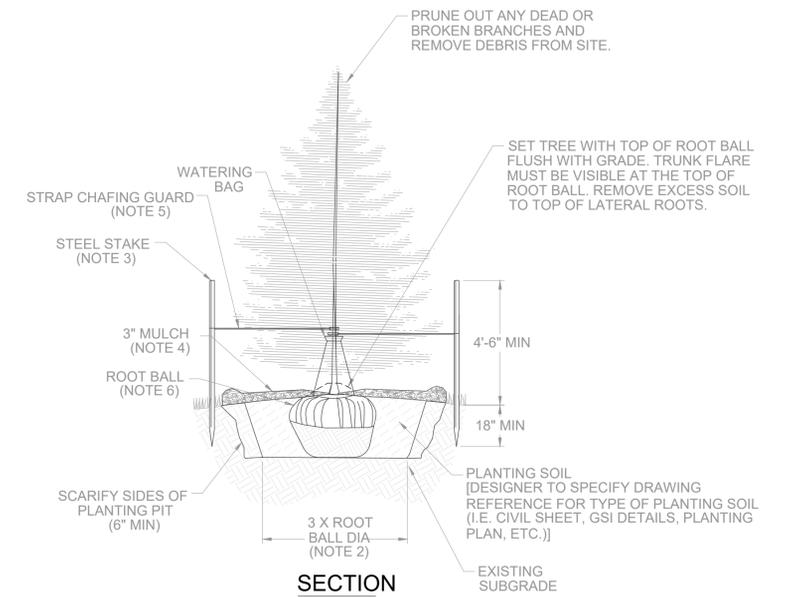
- NOTES:
1. TREE PROTECTION SHALL BE PER 02949.
 2. CONSTRUCTION FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION OPERATIONS.
 3. DIAMETER BREAST HEIGHT (DBH) SHALL BE MEASURED AS THE OUTSIDE BARK DIAMETER 4'-6" ABOVE THE GROUND ON THE UPHILL SIDE OF THE TREE.
 4. FOR TREES UP TO 4.5" IN DIAMETER, CALIPER SHALL BE MEASURED 6" ABOVE GROUND LEVEL. IF CALIPER MEASURED AT 6" ABOVE GROUND LEVEL EXCEEDS 4.5", THE CALIPER SHALL BE MEASURED AT 12" ABOVE GROUND LEVEL.
 5. LOCATE TREE PROTECTION FENCE 1' OUTSIDE DRIPLINE.

EXISTING TREE PROTECTION



- NOTES:
1. TREE PLANTING SHALL BE PER 02951.
 2. PLANTING PIT SHALL BE AT LEAST 3 TIMES WIDER THAN THE ROOT BALL DIAMETER, BUT NOT DEEPER. PLACE ROOT BALL ON UNDISTURBED SOIL WITH ROOT FLARE EVEN WITH OR 1" ABOVE GRADE.
 3. MINIMUM OF 2 STEEL STAKES SHALL BE SECURED INTO UNDISTURBED SOIL. PLACE STAKES NORTH AND SOUTH OF TREE. ALTERNATIVE STAKING MAY BE APPROVED.
 4. [DESIGNER TO SPECIFY TYPE OF MULCH.] DO NOT PLACE MULCH ON TRUNK OR TRUNK FLARE. BERM AT OUTER EDGES OF RING TO CREATE A SAUCER FORM. MULCH EXTENTS SHALL BE EQUAL TO PLANTING PIT DISTURBANCE AREA.
 5. SECURE TREE TO STAKES WITH STRAPS. STRAPS SHALL BE LOOSE ENOUGH TO ALLOW SOME MOVEMENT OF THE TRUNK WITH THE WIND.
 6. PLACE TREE WITHIN THE PLANTING HOLE, STRAIGHTEN IT, STABILIZE AND REMOVE BURLAP.
 7. TREES THAT DO NOT MEET THE SIZE REQUIREMENT AS DEFINED IN THE PLANTING PLAN (GSI-7.2) WILL BE REJECTED.

DECIDUOUS TREE PLANTING



- NOTES:
1. TREE PLANTING SHALL BE PER 02951.
 2. PLANTING PIT SHALL BE AT LEAST 3 TIMES WIDER THAN THE ROOT BALL DIAMETER, BUT NOT DEEPER. PLACE ROOT BALL ON UNDISTURBED SOIL WITH ROOT FLARE EVEN WITH OR 1" ABOVE GRADE.
 3. MINIMUM OF 2 STEEL STAKES SHALL BE SECURED INTO UNDISTURBED SOIL. PLACE STAKES NORTH AND SOUTH OF TREE. ALTERNATIVE STAKING MAY BE APPROVED.
 4. [DESIGNER TO SPECIFY TYPE OF MULCH.] DO NOT PLACE MULCH ON TRUNK OR TRUNK FLARE. BERM AT OUTER EDGES OF RING TO CREATE A SAUCER FORM. MULCH EXTENTS SHALL BE EQUAL TO PLANTING PIT DISTURBANCE AREA.
 5. SECURE TREE TO STAKES WITH STRAPS. STRAPS SHALL BE LOOSE ENOUGH TO ALLOW SOME MOVEMENT OF THE TRUNK WITH THE WIND.
 6. PLACE TREE WITHIN THE PLANTING HOLE, STRAIGHTEN IT, STABILIZE AND REMOVE BURLAP.
 7. TREES THAT DO NOT MEET THE SIZE REQUIREMENT AS DEFINED IN THE PLANTING PLAN (GSI-7.2) WILL BE REJECTED.
 8. USE OF EVERGREEN TREES SHALL BE RESERVED FOR AREAS OUTSIDE THE GSI PONDING AREAS.

EVERGREEN TREE PLANTING

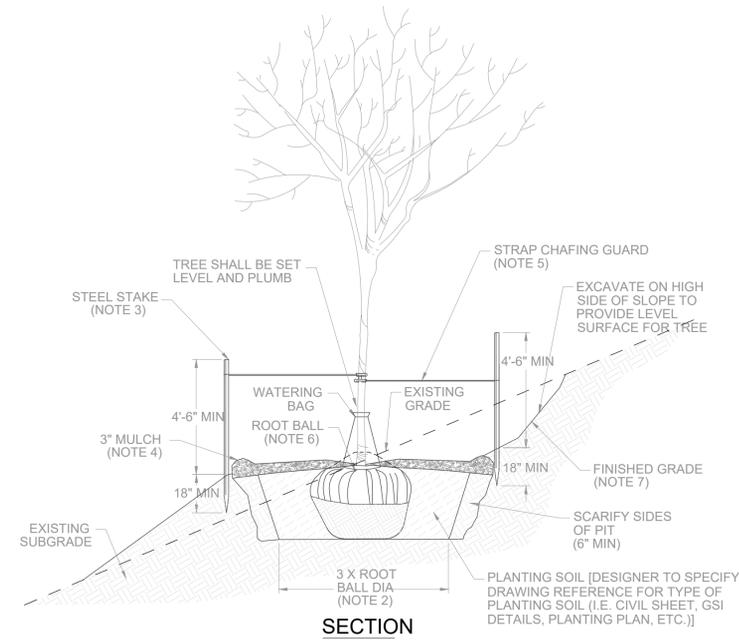
2026 EDITION SHEET ____ OF ____

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04-01-25	LJM	REPLACES ALL PREVIOUS VERSIONS OF TITLE SHEET TEMPLATE



STANDARD DETAILS FOR LANDSCAPING

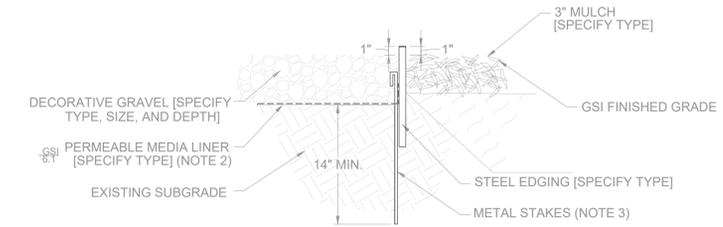
DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



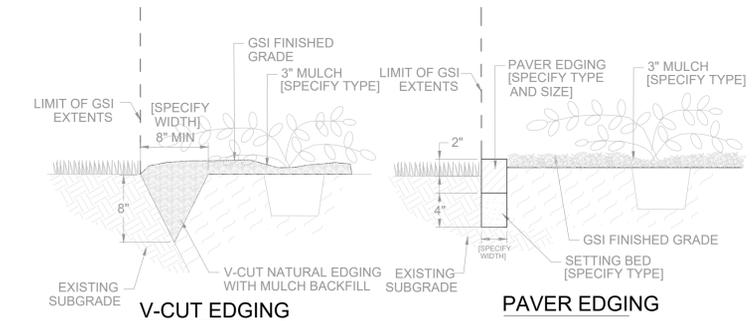
NOTES:

1. TREE PLANTING SHALL BE PER 02951.
2. PLANTING PIT SHALL BE AT LEAST 3 TIMES WIDER THAN THE ROOT BALL DIAMETER, BUT NOT DEEPER. PLACE ROOT BALL ON UNDISTURBED SOIL WITH ROOT FLARE EVEN WITH OR 1" ABOVE GRADE.
3. MINIMUM OF 2 STEEL STAKES SHALL BE SECURED INTO UNDISTURBED SOIL. PLACE STAKES ON OPPOSITE SIDES OF TRUNK WITH DOWNHILL STAKE SET IN EXISTING GRADE. ALTERNATIVE STAKING MAY BE APPROVED.
4. [DESIGNER TO SPECIFY TYPE OF MULCH.] DO NOT PLACE MULCH ON TRUNK OR TRUNK FLARE. BERM AT OUTER EDGES OF RING TO CREATE A SAUCER FORM. MULCH EXTENTS SHALL BE EQUAL TO PLANTING PIT DISTURBANCE AREA.
5. SECURE TREE TO STAKES WITH STRAPS. STRAPS SHALL BE LOOSE ENOUGH TO ALLOW SOME MOVEMENT OF THE TRUNK WITH THE WIND.
6. PLACE TREE WITHIN THE PLANTING HOLE. STRAIGHTEN IT, STABILIZE AND REMOVE A MINIMUM OF 1/3 OF ROOTBALL BURLAP AND WIRE OR TWINE CAGE. ROOT BALL SHALL BE SET LEVEL; PLACE TOP OF ROOT BALL AT EXISTING GRADE.
7. [DESIGNER TO SPECIFY MAXIMUM SLOPE FOR FINISHED GRADE.] PROVIDE NECESSARY EROSION CONTROL MEASURES TO ENSURE SOIL STABILITY ON FINISHED GRADE.
8. TREES THAT DO NOT MEET THE SIZE REQUIREMENT AS DEFINED IN THE PLANTING PLAN (GSI-7.2) WILL BE REJECTED.

TREE PLANTING ON SLOPE



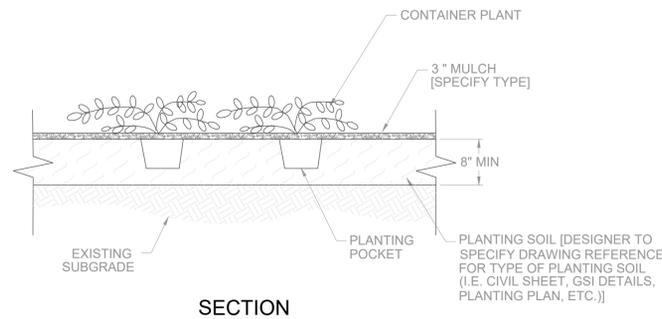
STEEL EDGING AND DECORATIVE GRAVEL MOW STRIP



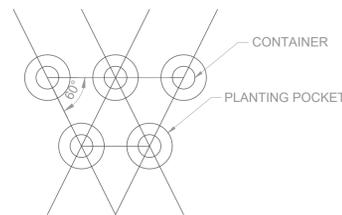
NOTES:

1. LANDSCAPE EDGING SHALL BE PER 02951.
2. PERMEABLE LINER SHALL NOT BE VISIBLE AT THE COMPLETION OF DECORATIVE GRAVEL INSTALLATION.
3. STAKE EDGING WITH METAL STAKES PER MANUFACTURER REQUIREMENTS.

LANDSCAPE EDGING



SECTION

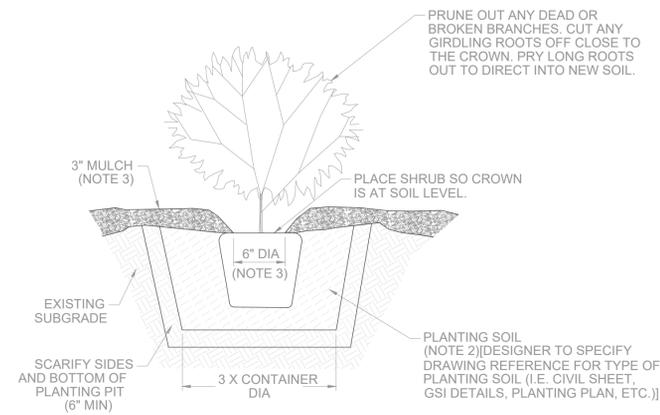


PLAN

NOTES:

1. CONTAINER PLANT SHALL BE PER 02951.
2. CONTRACTOR TO WATER THOROUGHLY AFTER PLANTING.

**CONTAINER PLANTING
(GRASSES, PERENNIALS, & GROUNDCOVERS)**



SECTION

NOTES:

1. SHRUB PLANTING SHALL BE PER 02951.
2. FILL PLANTING PIT WITH PLANTING SOIL. CONSTRUCT RING AROUND PLANTED SHRUB TO FORM SAUCER.
3. INSTALL 3" MULCH THROUGHOUT PLANTING BED. LEAVE A 6" BARE CIRCLE AT BASE OF PLANT. [DESIGNER TO SPECIFY TYPE OF MULCH.]
4. CONTRACTOR TO WATER THOROUGHLY AFTER PLANTING.

SHRUB PLANTING

2026 EDITION

SHEET ____ OF ____

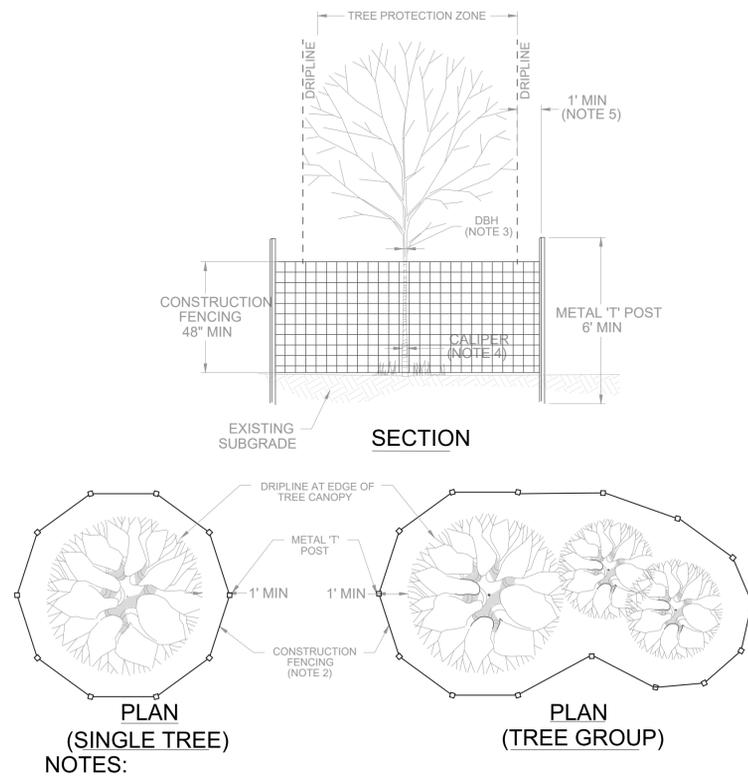
DATE	BY	REVISION
11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



STANDARD DETAILS FOR
LANDSCAPING

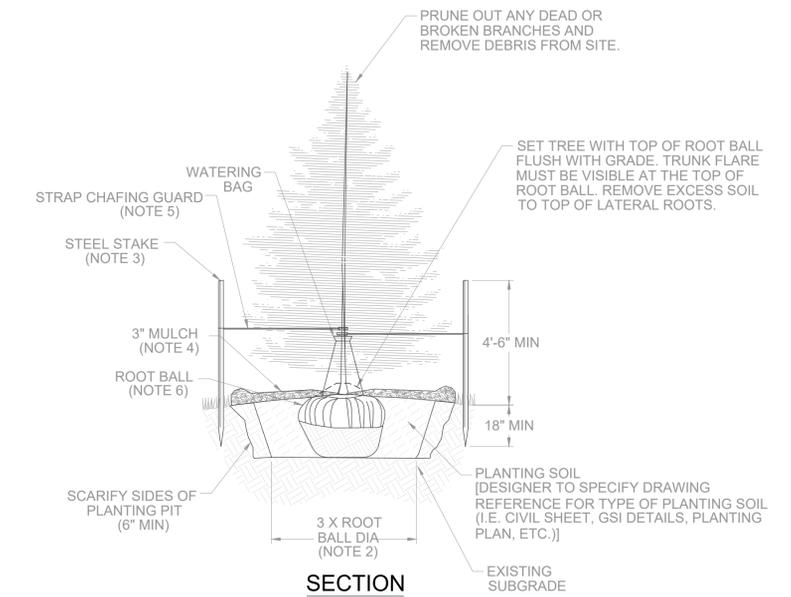
DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER



- NOTES:**
1. TREE PROTECTION SHALL BE PER 02949.
 2. CONSTRUCTION FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION OPERATIONS.
 3. DIAMETER BREAST HEIGHT (DBH) SHALL BE MEASURED AS THE OUTSIDE BARK DIAMETER 4'-6" ABOVE THE GROUND ON THE UPHILL SIDE OF THE TREE.
 4. FOR TREES UP TO 4.5" IN DIAMETER, CALIPER SHALL BE MEASURED 6" ABOVE GROUND LEVEL. IF CALIPER MEASURED AT 6" ABOVE GROUND LEVEL EXCEEDS 4.5", THE CALIPER SHALL BE MEASURED AT 12" ABOVE GROUND LEVEL.
 5. LOCATE TREE PROTECTION FENCE 1' OUTSIDE DRIPLINE.

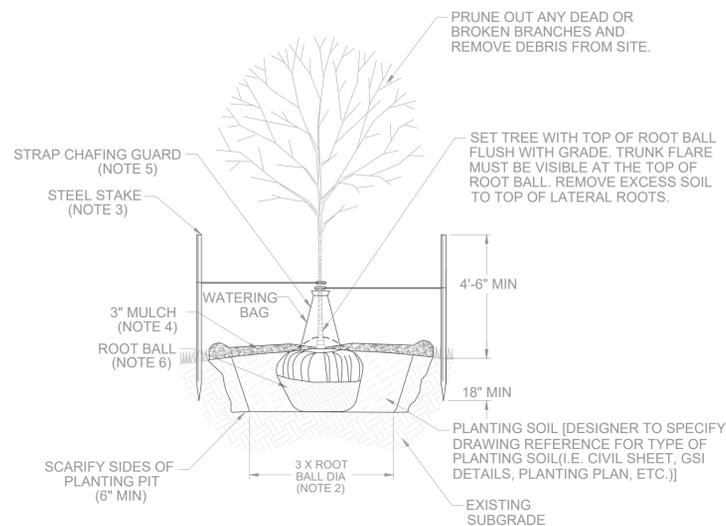
EXISTING TREE PROTECTION



NOTES:

1. TREE PLANTING SHALL BE PER 02951.
2. PLANTING PIT SHALL BE AT LEAST 3 TIMES WIDER THAN THE ROOT BALL DIAMETER, BUT NOT DEEPER. PLACE ROOT BALL ON UNDISTURBED SOIL WITH ROOT FLARE EVEN WITH OR 1" ABOVE GRADE.
3. MINIMUM OF 2 STEEL STAKES SHALL BE SECURED INTO UNDISTURBED SOIL. PLACE STAKES NORTH AND SOUTH OF TREE. ALTERNATIVE STAKING MAY BE APPROVED.
4. [DESIGNER TO SPECIFY TYPE OF MULCH.] DO NOT PLACE MULCH ON TRUNK OR TRUNK FLARE. BERM AT OUTER EDGES OF RING TO CREATE A SAUCER FORM. MULCH EXTENTS SHALL BE EQUAL TO PLANTING PIT DISTURBANCE AREA.
5. SECURE TREE TO STAKES WITH STRAPS. STRAPS SHALL BE LOOSE ENOUGH TO ALLOW SOME MOVEMENT OF THE TRUNK WITH THE WIND.
6. PLACE TREE WITHIN THE PLANTING HOLE, STRAIGHTEN IT, STABILIZE AND REMOVE EXCESS SOIL TO TOP OF LATERAL ROOTS.
7. TREES THAT DO NOT MEET THE SIZE REQUIREMENT AS DEFINED IN THE PLANTING PLAN (GSI-7.2) WILL BE REJECTED.
8. USE OF EVERGREEN TREES SHALL BE RESERVED FOR AREAS OUTSIDE THE GSI PONDING AREAS.

EVERGREEN TREE PLANTING



NOTES:

1. TREE PLANTING SHALL BE PER 02951.
2. PLANTING PIT SHALL BE AT LEAST 3 TIMES WIDER THAN THE ROOT BALL DIAMETER, BUT NOT DEEPER. PLACE ROOT BALL ON UNDISTURBED SOIL WITH ROOT FLARE EVEN WITH OR 1" ABOVE GRADE.
3. MINIMUM OF 2 STEEL STAKES SHALL BE SECURED INTO UNDISTURBED SOIL. PLACE STAKES NORTH AND SOUTH OF TREE. ALTERNATIVE STAKING MAY BE APPROVED.
4. [DESIGNER TO SPECIFY TYPE OF MULCH.] DO NOT PLACE MULCH ON TRUNK OR TRUNK FLARE. BERM AT OUTER EDGES OF RING TO CREATE A SAUCER FORM. MULCH EXTENTS SHALL BE EQUAL TO PLANTING PIT DISTURBANCE AREA.
5. SECURE TREE TO STAKES WITH STRAPS. STRAPS SHALL BE LOOSE ENOUGH TO ALLOW SOME MOVEMENT OF THE TRUNK WITH THE WIND.
6. PLACE TREE WITHIN THE PLANTING HOLE, STRAIGHTEN IT, STABILIZE AND REMOVE EXCESS SOIL TO TOP OF LATERAL ROOTS.
7. TREES THAT DO NOT MEET THE SIZE REQUIREMENT AS DEFINED IN THE PLANTING PLAN (GSI-7.2) WILL BE REJECTED.

DECIDUOUS TREE PLANTING

2026 EDITION

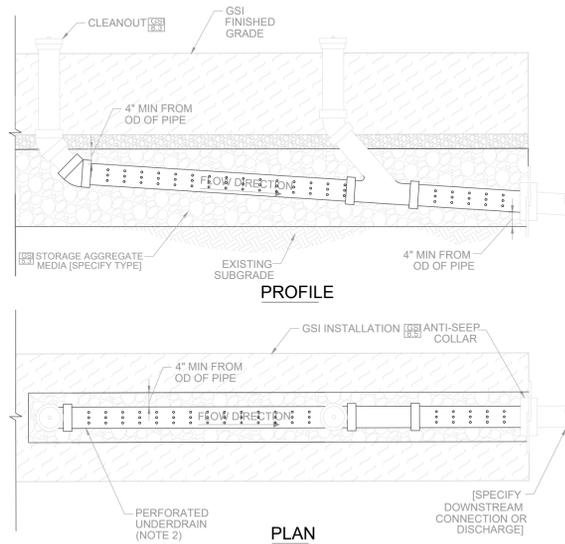
SHEET ____ OF ____

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11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



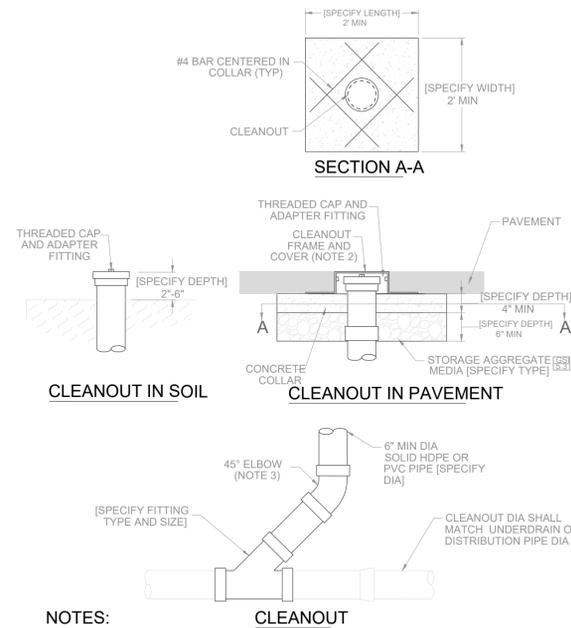
STANDARD DETAILS FOR LANDSCAPING

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



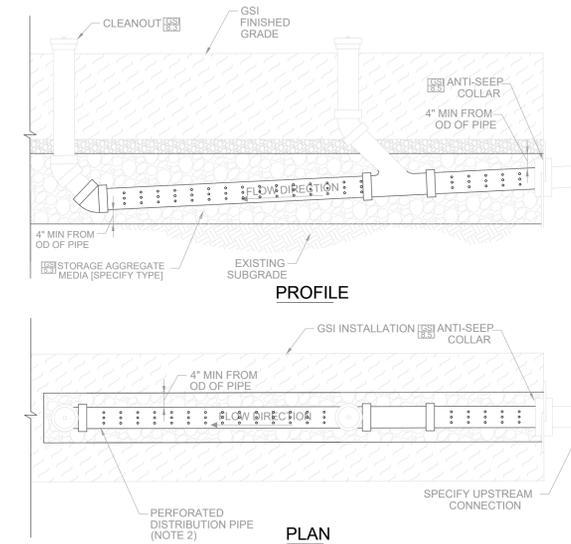
- NOTES:**
1. UNDERDRAIN SHALL BE PER 02954.
 2. [DESIGNER TO SPECIFY TYPE AND DIAMETER OF UNDERDRAIN.] UNDERDRAINS SHALL BE A MINIMUM OF 6\"/>

UNDERDRAIN



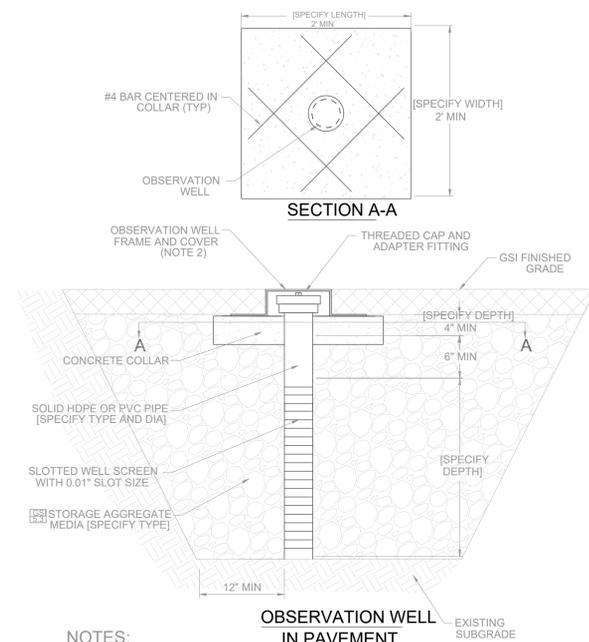
- NOTES:**
1. CLEANOUT SHALL BE PER 02954.
 2. CLEANOUT FRAME AND COVER SHALL BE NEENAH R-1976 OR APPROVED EQUAL FOR PAVEMENT APPLICATIONS. COVER SHALL BE CLEARLY MARKED WITH A UNIQUE IDENTIFIER PROVIDED BY OWNER. FRAME SHALL BE SECURED IN CONCRETE COLLAR IF NOT SECURED IN PAVEMENT SURFACE. COVERS IN PAVEMENT SHALL BE FLUSH WITH FINISHED GRADE.
 3. FITTINGS OF 45° ELBOWS CAN BE REPLACED WITH 90° ELBOW OR TEE FITTING WHEN CONSTRAINED BY DEPTH.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE STAKE DRIVEN INTO THE GROUND.

CLEANOUT



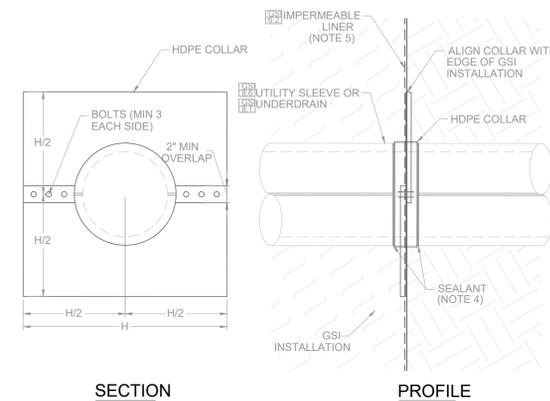
- NOTES:**
1. DISTRIBUTION PIPE SHALL BE PER 02954.
 2. [DESIGNER TO SPECIFY TYPE AND DIAMETER OF DISTRIBUTION PIPING.] DISTRIBUTION PIPE SHALL BE A MINIMUM OF 6\"/>

DISTRIBUTION PIPE



- NOTES:**
1. OBSERVATION WELL SHALL BE PER 02954.
 2. OBSERVATION WELL FRAME AND COVER SHALL BE NEENAH R-1976 FOR PAVEMENT APPLICATIONS. COVER SHALL BE CLEARLY MARKED WITH A UNIQUE IDENTIFIER PROVIDED BY OWNER. FRAME SHALL BE SECURED TO CONCRETE COLLAR IF NOT SECURED IN PAVEMENT SURFACE. COVERS IN PAVEMENT SHALL BE FLUSH WITH FINISHED GRADE.
 3. FITTINGS OF 45° ELBOWS CAN BE REPLACED WITH 90° ELBOW OR TEE FITTING WHEN CONSTRAINED BY DEPTH.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE STAKE DRIVEN INTO THE GROUND.

OBSERVATION WELL



- NOTES:**
1. ANTI-SEEP COLLAR SHALL BE PER 02954.
 2. ANTI-SEEP COLLAR SHALL BE USED IN CONJUNCTION WITH UTILITY SLEEVE OR AS SPECIFIED BY DESIGN PROFESSIONAL (IF APPLICABLE).
 3. DIMENSION 'H' SHALL BE A MINIMUM OF 3X THE DIAMETER OF THE UTILITY SERVICE, UTILITY SLEEVE OR PIPE (IF APPLICABLE).
 4. SEAL SURFACE OF UTILITY SLEEVE AND ANTI-SEEP COLLAR WITH WATER-TIGHT SEALANT, AS RECOMMENDED BY MANUFACTURER.
 5. IMPERMEABLE LINER SHALL BE INSTALLED ON INSIDE FACE OF ANTI-SEEP COLLAR UNLESS OTHERWISE NOTED BY THE DESIGN PROFESSIONAL.

HDPE ANTI-SEEP COLLAR

2026 EDITION

SHEET ____ OF ____

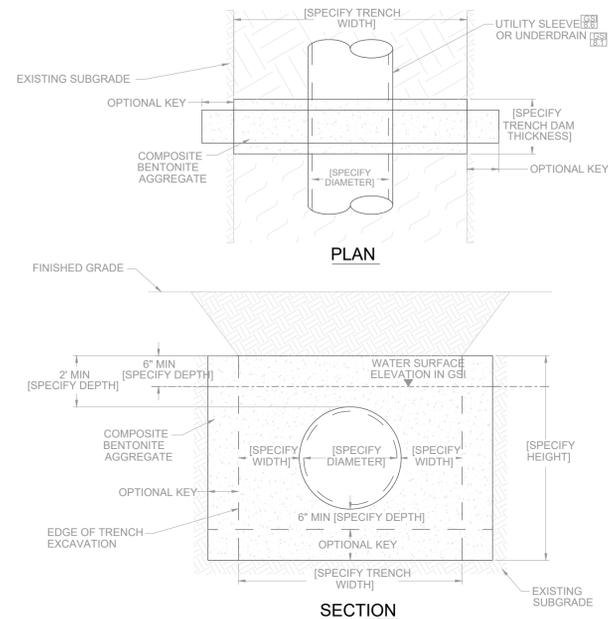
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04-01-26	LJM	REPLACES ALL PREVIOUS VERSIONS OF TITLE SHEET TEMPLATE
04-01-25	LJM	REPLACES ALL PREVIOUS VERSIONS OF TITLE SHEET TEMPLATE

Lawrence
KANSAS

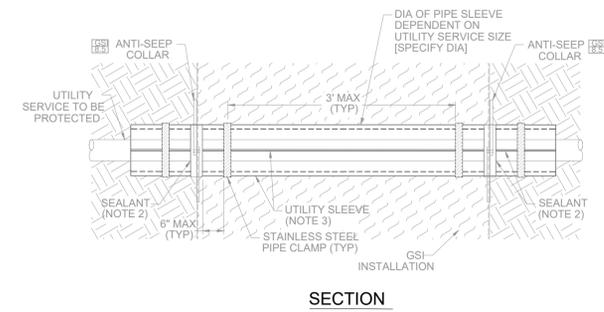
STANDARD DETAILS FOR
PIPING

DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER



- NOTES:**
1. ANTI-SEEP COLLAR SHALL BE PER 02954.
 2. ANTI-SEEP COLLAR SHALL BE USED IN CONJUNCTION WITH UTILITY SLEEVE OR AS SPECIFIED BY DESIGN PROFESSIONAL (IF APPLICABLE).



- NOTES:**
1. UTILITY SLEEVE SHALL BE PER 02954.
 2. SEAL SURFACE OF UTILITY SLEEVE AND ANTI-SEEP COLLAR WITH WATER-TIGHT SEALANT, AS RECOMMENDED BY MANUFACTURER.
 3. APPLY WATERTIGHT SEALANT BETWEEN TWO HALVES OF UTILITY SLEEVE.

UTILITY SLEEVE

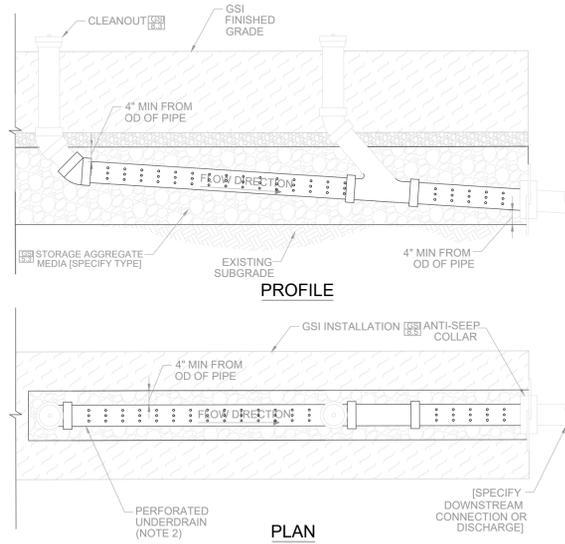
COMPOSITE BENTONITE AGGREGATE ANTI-SEEP COLLAR

DATE	BY	REVISION
11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



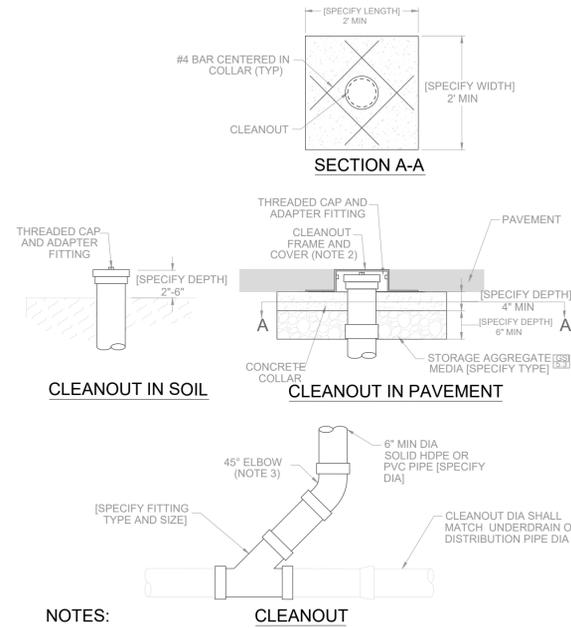
STANDARD DETAILS FOR
PIPING

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER



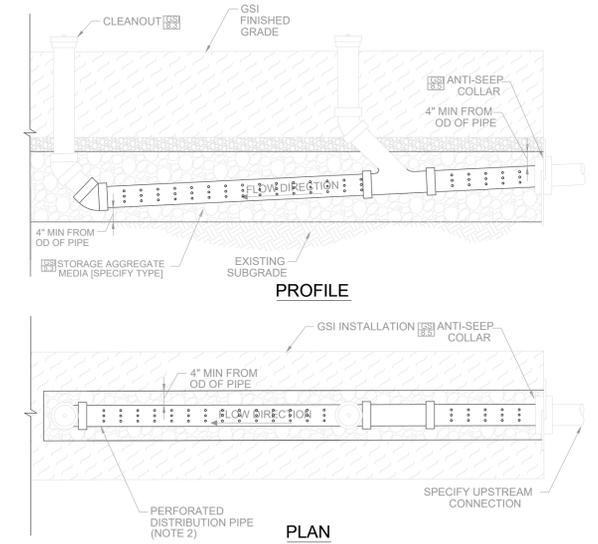
- NOTES:**
1. UNDERDRAIN SHALL BE PER 02954.
 2. [DESIGNER TO SPECIFY TYPE AND DIAMETER OF UNDERDRAIN.] UNDERDRAINS SHALL BE A MINIMUM OF 6" DIAMETER.

UNDERDRAIN



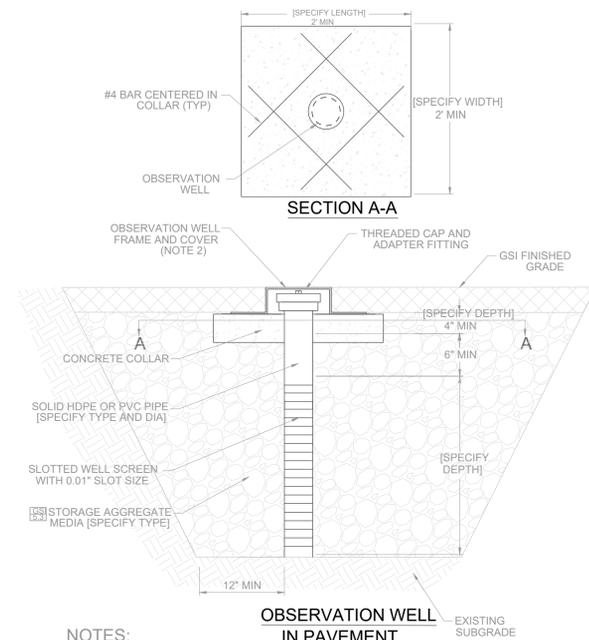
- NOTES:**
1. CLEANOUT SHALL BE PER 02954.
 2. CLEANOUT FRAME AND COVER SHALL BE NEENAH R-1976 OR APPROVED EQUAL FOR PAVEMENT APPLICATIONS. COVER SHALL BE CLEARLY MARKED WITH A UNIQUE IDENTIFIER PROVIDED BY OWNER. FRAME SHALL BE SECURED IN CONCRETE COLLAR IF NOT SECURED IN PAVEMENT SURFACE. COVERS IN PAVEMENT SHALL BE FLUSH WITH FINISHED GRADE.
 3. FITTINGS OF 45° ELBOWS CAN BE REPLACED WITH 90° ELBOW OR TEE FITTING WHEN CONSTRAINED BY DEPTH.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE STAKE DRIVEN INTO THE GROUND.

CLEANOUT



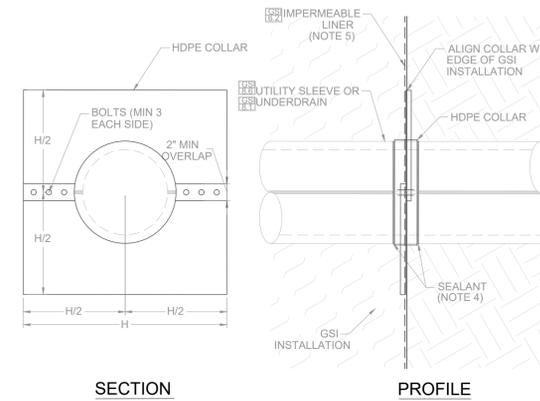
- NOTES:**
1. DISTRIBUTION PIPE SHALL BE PER 02954.
 2. [DESIGNER TO SPECIFY TYPE AND DIAMETER OF DISTRIBUTION PIPING.] DISTRIBUTION PIPE SHALL BE A MINIMUM OF 6" DIAMETER.

DISTRIBUTION PIPE



- NOTES:**
1. OBSERVATION WELL SHALL BE PER 02954.
 2. OBSERVATION WELL FRAME AND COVER SHALL BE NEENAH R-1976 FOR PAVEMENT APPLICATIONS. COVER SHALL BE CLEARLY MARKED WITH A UNIQUE IDENTIFIER PROVIDED BY OWNER. FRAME SHALL BE SECURED TO CONCRETE COLLAR IF NOT SECURED IN PAVEMENT SURFACE. COVERS IN PAVEMENT SHALL BE FLUSH WITH FINISHED GRADE.
 3. FITTINGS OF 45° ELBOWS CAN BE REPLACED WITH 90° ELBOW OR TEE FITTING WHEN CONSTRAINED BY DEPTH.
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OBSERVATION WELL



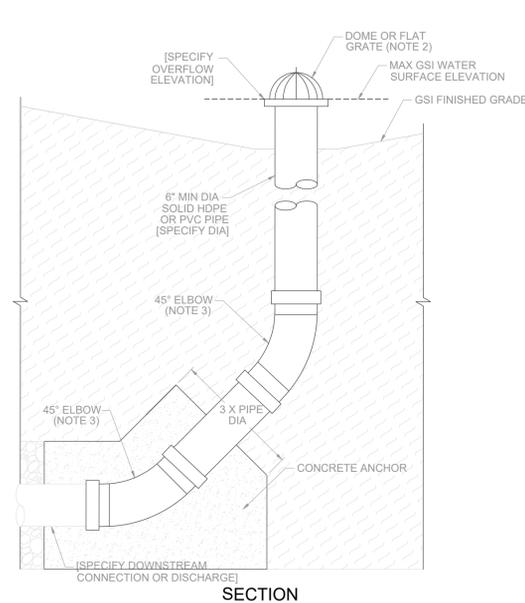
- NOTES:**
1. ANTI-SEEP COLLAR SHALL BE PER 02954.
 2. ANTI-SEEP COLLAR SHALL BE USED IN CONJUNCTION WITH UTILITY SLEEVE OR AS SPECIFIED BY DESIGN PROFESSIONAL (IF APPLICABLE).
 3. DIMENSION 'H' SHALL BE A MINIMUM OF 3X THE DIAMETER OF THE UTILITY SERVICE, UTILITY SLEEVE OR PIPE (IF APPLICABLE).
 4. SEAL SURFACE OF UTILITY SLEEVE AND ANTI-SEEP COLLAR WITH WATER-TIGHT SEALANT, AS RECOMMENDED BY MANUFACTURER.
 5. IMPERMEABLE LINER SHALL BE INSTALLED ON INSIDE FACE OF ANTI-SEEP COLLAR UNLESS OTHERWISE NOTED BY THE DESIGN PROFESSIONAL.

HDPE ANTI-SEEP COLLAR

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11-11-2025	SS	2026 SPECIFICATIONS
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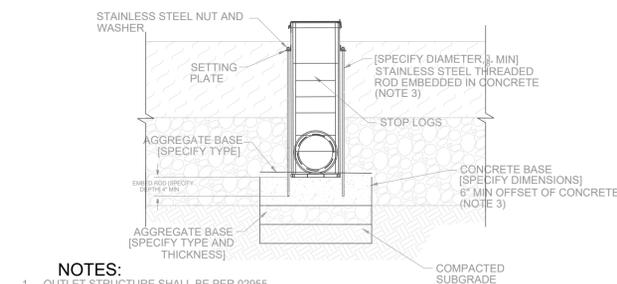
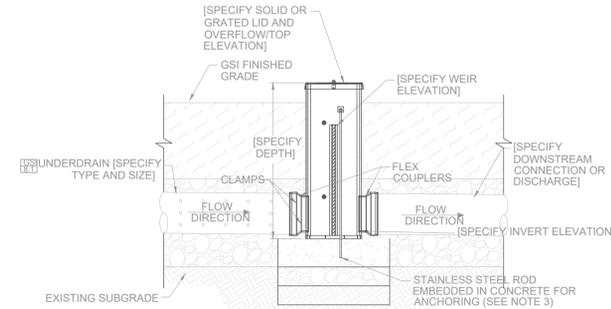


STANDARD DETAILS FOR
PIPING



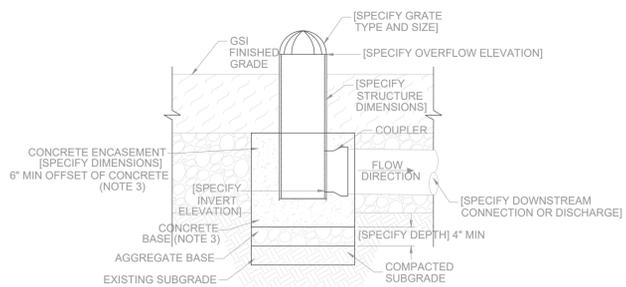
- NOTES:**
1. OVERFLOW RISER SHALL BE PER 02955.
 2. FRAMES, GRATES AND COVERS SHALL BE SPECIFIED BY THE DESIGN PROFESSIONAL. DOMED GRATE SHOWN FOR REFERENCE ONLY.
 3. FITTINGS OF 45° ELBOWS CAN BE REPLACED WITH 90° ELBOW OR TEE FITTING WHEN CONSTRAINED BY DEPTH. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE BOTTOM DRIVEN INTO THE GROUND.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE BOTTOM DRIVEN INTO THE GROUND.

OVERFLOW RISER

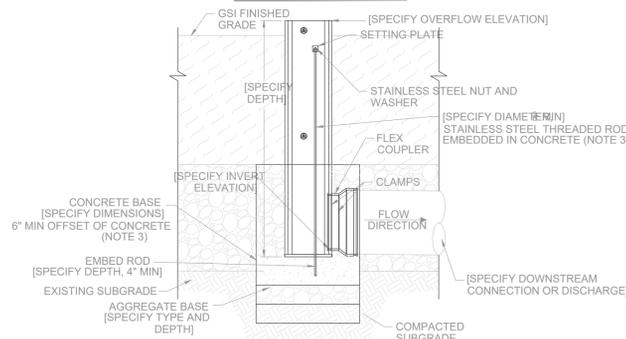


- NOTES:**
1. OUTLET STRUCTURE SHALL BE PER 02955.
 2. [DESIGNER TO SPECIFY MANUFACTURER AND PRODUCT.]
 3. [OUTLET CONTROL STRUCTURE AND ANCHORING SHALL BE DESIGNED TO RESIST BUOYANCY. DESIGNER TO SPECIFY DIMENSIONS AND REINFORCEMENT OF CONCRETE BASE AND ANCHORING (IF APPLICABLE). CONCRETE BASE WITH ANCHORING SHOWN FOR REFERENCE ONLY.] ANY METAL COMPONENTS OF STRUCTURE EMBEDDED IN CONCRETE MUST BE STAINLESS STEEL.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE BOTTOM DRIVEN INTO THE GROUND.

WEIR OUTLET CONTROL STRUCTURE (AGRIDRAIN EXAMPLE)



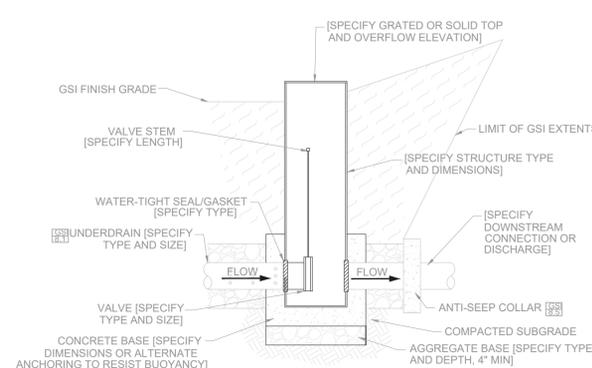
NYOPLAST EXAMPLE



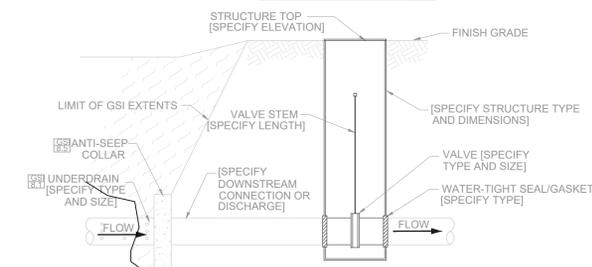
AGRIDRAIN EXAMPLE

- NOTES:**
1. OUTLET STRUCTURE SHALL BE PER 02955.
 2. [DESIGNER TO SPECIFY MANUFACTURER AND PRODUCT.]
 3. [OVERFLOW RISER AND ANCHORING SHALL BE DESIGNED TO RESIST BUOYANCY. DESIGNER TO SPECIFY DIMENSIONS AND REINFORCEMENT OF CONCRETE BASE AND ANCHORING (IF APPLICABLE). CONCRETE BASE WITH ANCHORING SHOWN FOR REFERENCE ONLY.] ANY METAL COMPONENTS OF STRUCTURE EMBEDDED IN CONCRETE MUST BE STAINLESS STEEL.
 4. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE BOTTOM DRIVEN INTO THE GROUND.

MANUFACTURED OVERFLOW RISER (NYOPLAST & AGRIDRAIN EXAMPLES)



INSIDE GSI EXTENTS



OUTSIDE GSI EXTENTS

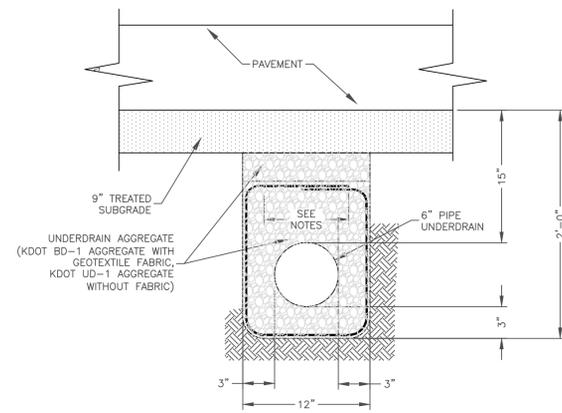
- NOTES:**
1. INSTALL VALVE PER MANUFACTURER RECOMMENDATIONS.
 2. A WOODEN 2 INCH X 2 INCH DEMARCATION STAKE IS REQUIRED AT ALL STRUCTURE LOCATIONS. THE STAKE SHALL BE PAINTED WHITE AND A MINIMUM OF 4 FEET LONG WITH THE BOTTOM 1/3 DRIVEN INTO THE GROUND.
 3. [DESIGNER TO SPECIFY VALVE OPEN/CLOSE PARAMETERS DURING AND AFTER CONSTRUCTION.]
 4. IF ROD OR HOOK IS REQUIRED FOR OPENING AND CLOSING THE VALVE THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING THE DEVICE, VERIFYING IT OPERATES APPROPRIATELY, AND PROVIDING IT TO THE OWNER UPON COMPLETION OF THE WORK.

VALVE OUTLET CONTROL STRUCTURE

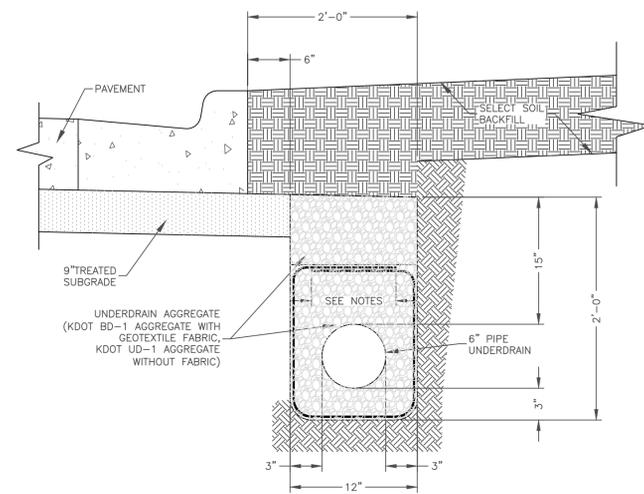
DATE	BY	REVISION
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11-11-2025	NS	2026 SPECIFICATIONS



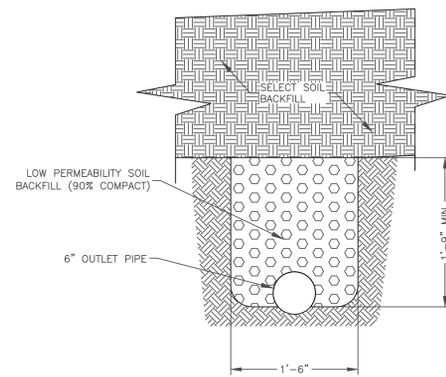
STANDARD DETAILS FOR
OUTLETS



PIPE UNDERDRAIN LATERAL A-A
NO SCALE

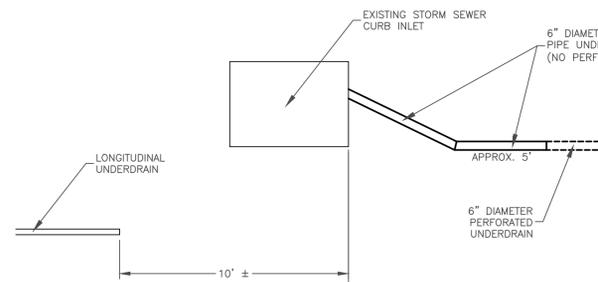


PIPE UNDERDRAIN BEHIND THE CURB B-B
NO SCALE

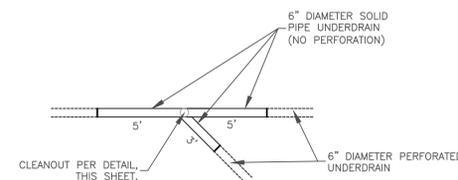


OUTLET PIPE
NO SCALE

UNDERDRAIN DETAILS

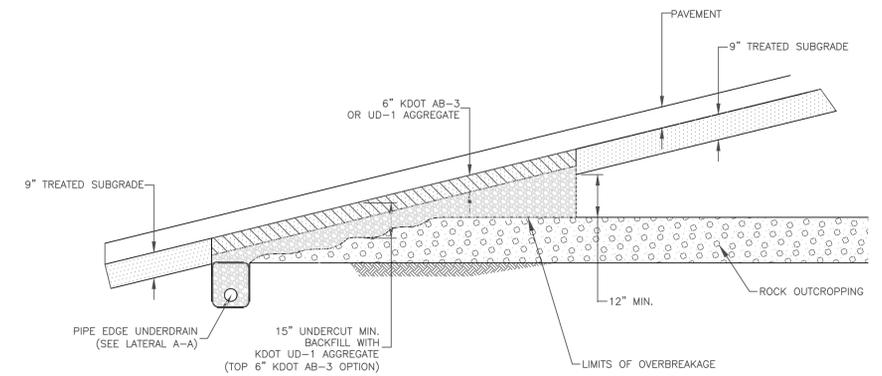


UNDERDRAIN CLEANOUT DETAIL
NO SCALE

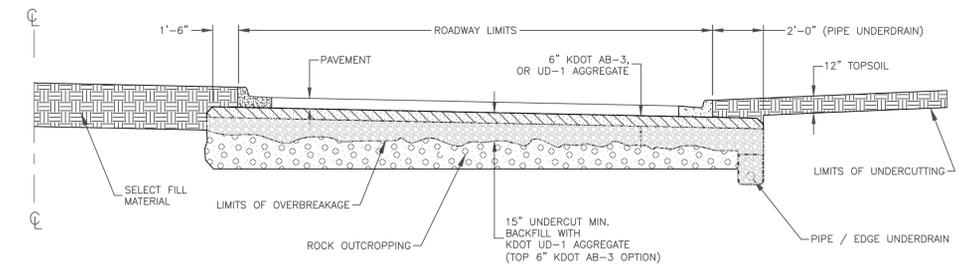


UNDERDRAIN NOTES:

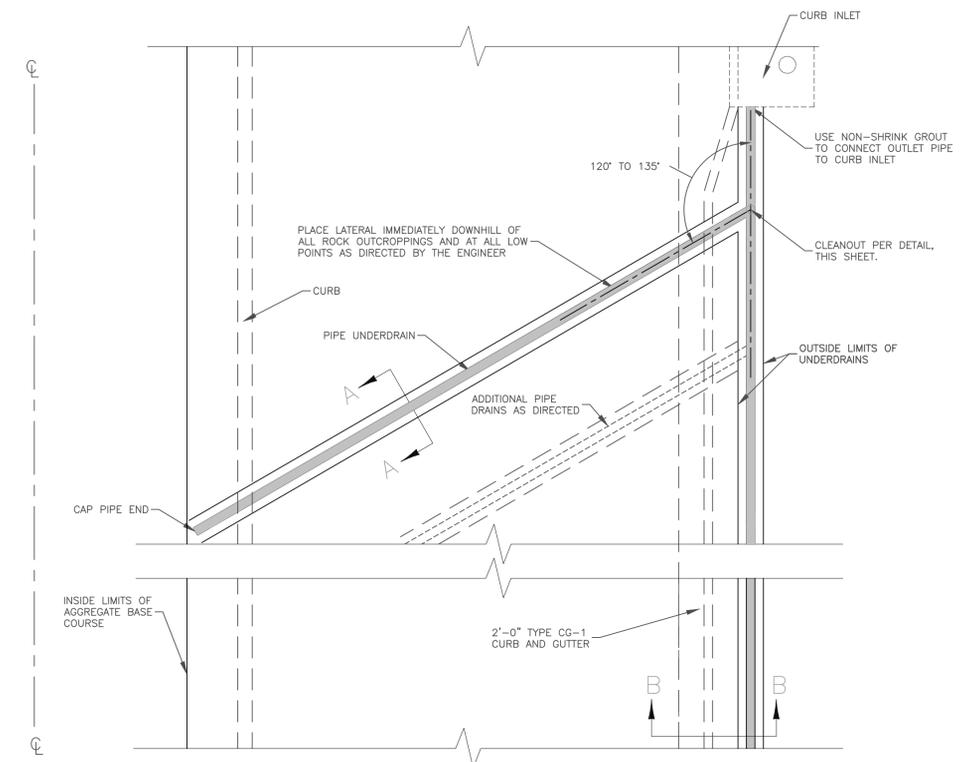
1. ALL ROADWAY EXCAVATIONS IN ROCK WILL BE UNDERCUT NO LESS THAN 15" BELOW BOTTOM OF PAVEMENT FOR THE FULL WIDTH OF THE ROADWAY AS SHOWN. UNDERCUT AND OVERBREAKAGE IN LIMESTONE AND DURABLE SHALE SHALL BE BACKFILLED WITH MATERIAL MEETING THE REQUIREMENTS OF AGGREGATE BASE COURSE (UD-1) SPECIFICATIONS. LAYERS OF EARTH OR SHALE SHALL NOT BE PERMITTED FOR BACKFILL UP TO THE BOTTOM OF THE AGGREGATE BASE COURSE.
2. A MINIMUM OF 12" OF SELECT SOIL (TOPSOIL) SHALL BE PLACED ON EXPOSED ROCK CUT OR FILL SLOPES, OUTSIDE THE LIMITS OF THE ROADWAY. ALL ROCK AND SHALE SLOPES SHALL BE BENCHED AT A MAXIMUM OF 2' VERTICAL INTERVALS, PRIOR TO PLACEMENT OF SELECT SOIL.
3. PROPOSED UNDERDRAIN PIPE LAYOUT, FLOWLINE ELEVATIONS, INLET CONNECTION POINTS, AND DETAILS SHALL BE APPROVED PRIOR TO CONSTRUCTION BY THE ENGINEER.
4. WHERE PIPE UNDERDRAINS ARE USED, ALL UNDERDRAIN OUTLET PIPES SHALL HAVE WATERTIGHT JOINTS. ALL OUTLET PIPES SHALL BE TIED INTO THE NEAREST STORM SEWER INLET AS APPROVED. WHERE EDGE UNDERDRAINS ARE USED, ALL UNDERDRAIN OUTLET PIPES SHALL HAVE MANUFACTURER JOINTS APPROVED BY THE ENGINEER. ALL CONNECTIONS BETWEEN UNDERDRAIN PIPES AND EDGE CONNECTORS OR CURB INLETS, SHALL BE MADE WITH 2' LENGTH OF OUTLET PIPE.
5. ALL UNDERDRAIN PIPES SHALL BE INSTALLED AT A MINIMUM SLOPE OF 1%. PIPE SHALL BE INSTALLED WITH THE PERFORATIONS PLACED DOWN.
6. GEOTEXTILE SEAMS SHALL BE OVERLAPPED AT A MINIMUM OF 12".
7. PIPE SHALL BE CONTECH A-2000, ADS N-12, OR APPROVED EQUAL.
8. THE CONTRACTOR SHALL NOT MIX UNDERDRAIN TYPES OF MATERIALS WITHIN ANY UNDERDRAIN SYSTEM.
9. STORAGE AGGREGATE MEDIA D50 GRADATION SHOULD BE LARGER THAN THE PIPE PERFORATION DIAMETER SPECIFIED.
10. MINIMUM UNDERDRAIN PIPE DIAMETER IS 6".



ROCK OUTCROPPING
NO SCALE



ROCK EXCAVATION / AGGREGATE BASE COURSE
NO SCALE



UNDERDRAIN LAYOUT
NO SCALE

2026 EDITION

SHEET ____ OF ____

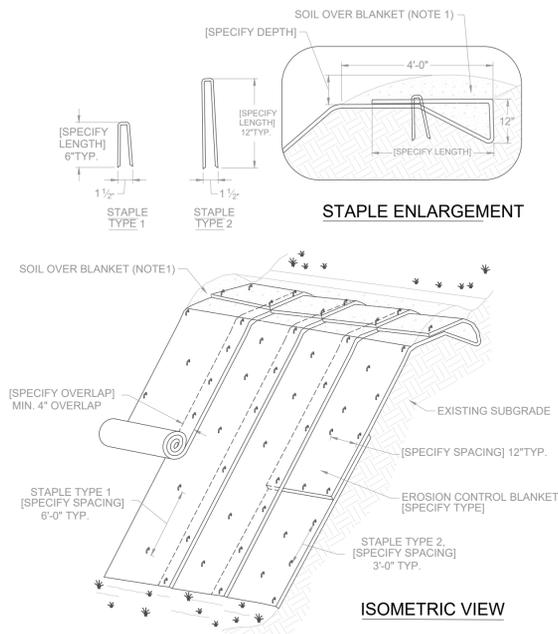
DATE	BY	REVISION
04-01-26	LJM	REPLACES ALL PREVIOUS VERSIONS OF UNDERDRAIN DETAILS
04-01-25	LJM	REPLACES ALL PREVIOUS VERSIONS OF UNDERDRAIN DETAILS



STANDARD DETAILS FOR
UNDERDRAINS

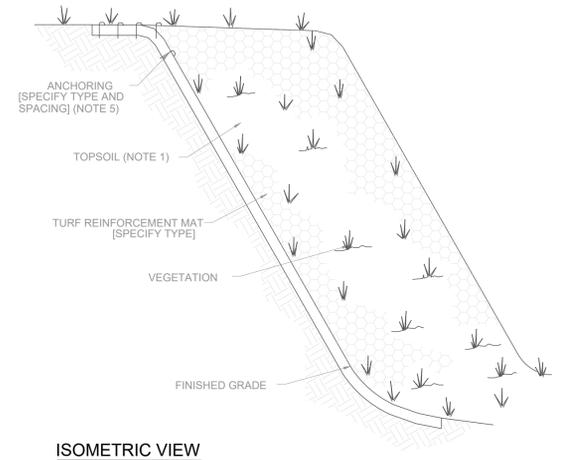
DAVID P. CRONIN
CITY ENGINEER

CRAIG S. OWENS
CITY MANAGER



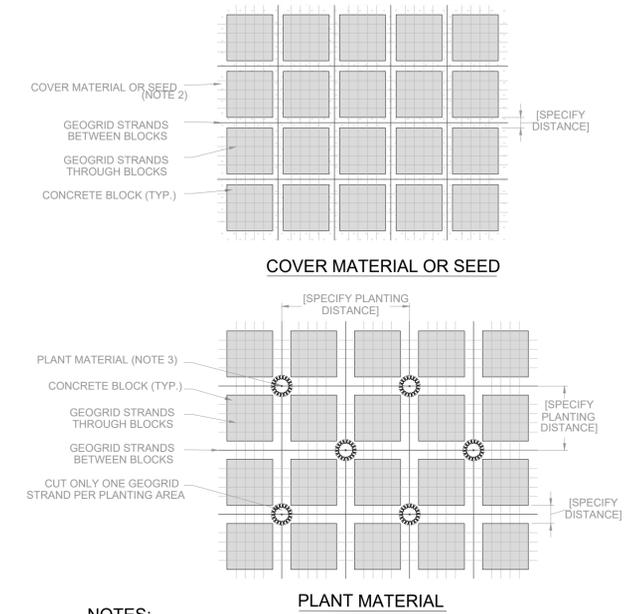
- NOTES:**
- TAMP SOIL OVER BLANKET.
 - SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 - APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 - LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 - INSTALL PER MANUFACTURER RECOMMENDATIONS. MANUFACTURER INSTRUCTIONS SUPERCEDE INFORMATION DEPICTED.

EROSION CONTROL BLANKET



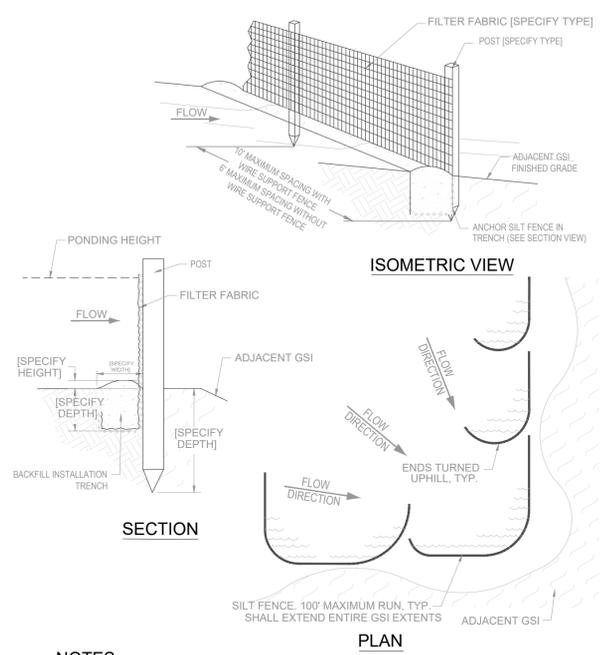
- NOTES:**
- SHAPE AND PREPARE SUBGRADE SURFACES FOR TOPSOILING.
 - INSTALL SPECIFIED TOPSOIL TO FINISHED GRADE AND COMPACT PER SPECIFICATIONS.
 - IF SEEDING, INSTALL SEED PRIOR TO PLACEMENT OF TRM.
 - IF PLANTING, INSTALL COVER CROP SEED PRIOR TO PLACING TRM. FOLLOWING TRM PLACEMENT, INSTALL PLANTS ACCORDING TO PLANS AND SPECIFICATIONS.
 - INSTALL TRM PER MANUFACTURER RECOMMENDATIONS. MANUFACTURER'S INSTRUCTIONS SUPERCEDE INFORMATION DEPICTED.

TURF REINFORCEMENT MAT



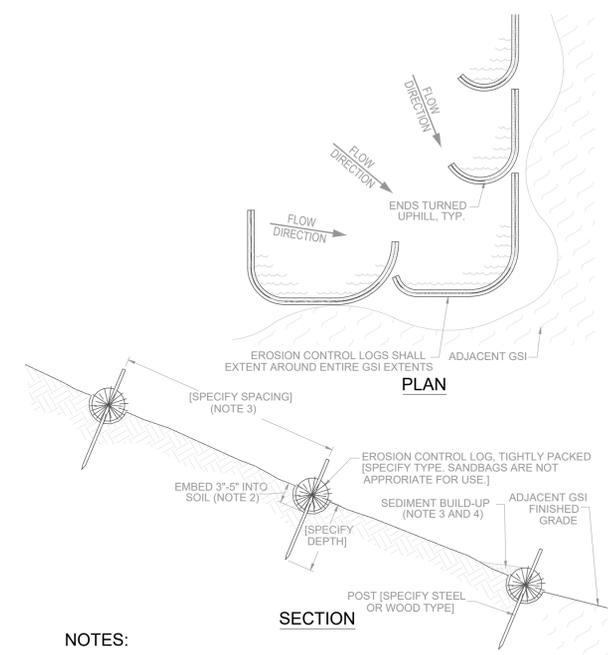
- NOTES:**
- SPACING AND INSTALLATION PER MANUFACTURER RECOMMENDATIONS.
 - SEED SHALL BE PER SPECIFICATION 02952 AND 02953.
 - PLANT MATERIAL SHALL BE PER SPECIFICATION 02951.
 - CONTRACTOR TO WATER THOROUGHLY AFTER PLANTING (AS APPLICABLE).

TIED CONCRETE BLOCK MAT



- NOTES:**
- INSTALL PER MANUFACTURER RECOMMENDATION.
 - INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.

SILT FENCE



- NOTES:**
- INSTALL PER MANUFACTURER RECOMMENDATIONS.
 - BARRIERS SHALL BE INSTALLED PERPENDICULAR TO THE DIRECTION OF FLOW.
 - SPACING DEPENDS ON SOIL TYPE AND SLOPE STEEPNESS.
 - INSPECT AND REPAIR BARRIERS AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

EROSION CONTROL LOGS IN SOIL

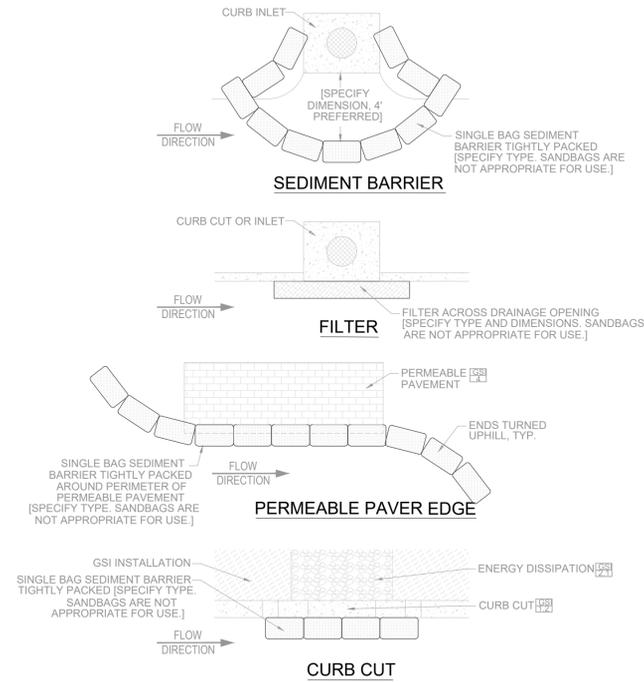
2026 EDITION SHEET ____ OF ____

DATE	BY	REVISION
11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS

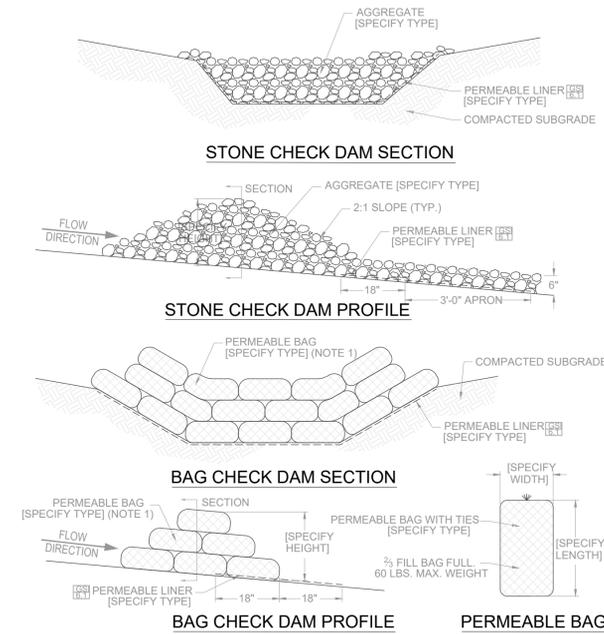


STANDARD DETAILS FOR
INTERNAL CONTROL, PROTECTION,
& STABILIZATION

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER

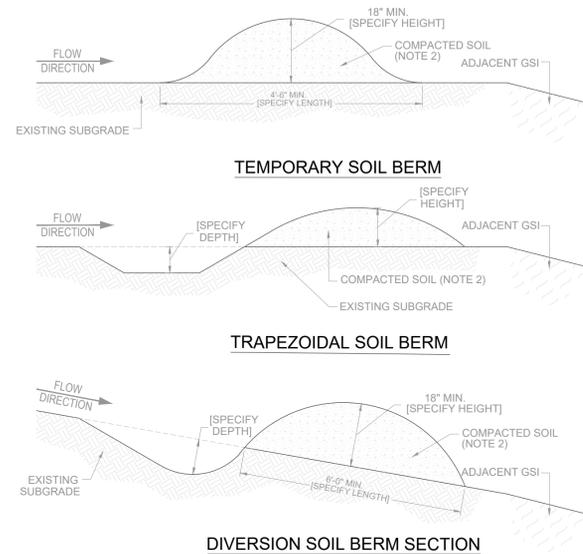


EROSION CONTROL LOGS ON PAVEMENT



NOTES:
1. STAGGER SPACING OF BAGS SO THAT GAPS DO NOT ALIGN.

CHECK DAM



NOTES:
1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS TO NOT INTERFERE WITH THE PROPER FUNCTION OF THE BERM.
2. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED BERM. FILL SHALL BE COMPOSED OF SOIL WHICH IS FREE OF ORGANIC DEBRIS, ROCKS, OR OTHER OBJECTABLE MATERIALS.

SOIL BERM

2026 EDITION SHEET ____ OF ____

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11-11-2025	SS	2026 SPECIFICATIONS
11-11-2025	NS	2026 SPECIFICATIONS



STANDARD DETAILS FOR
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& STABILIZATION**

DAVID P. CRONIN CITY ENGINEER CRAIG S. OWENS CITY MANAGER