

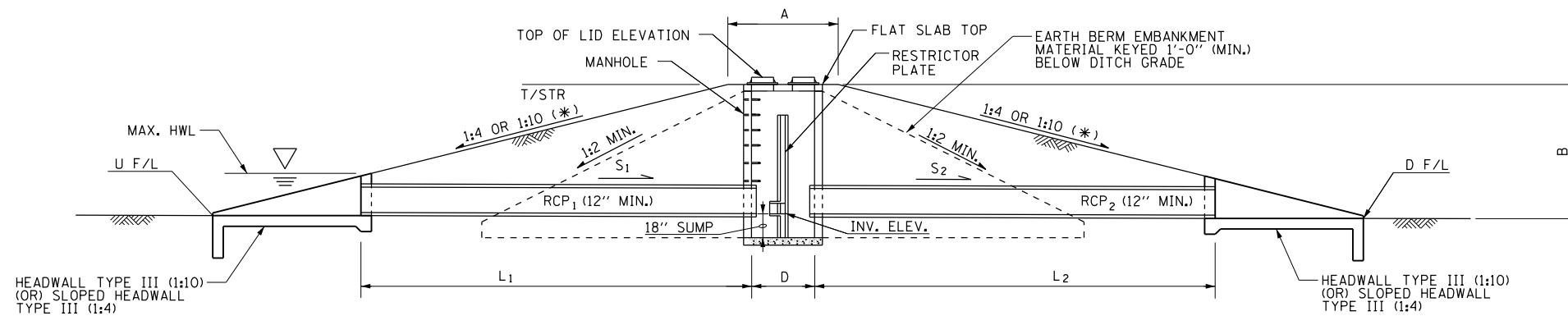
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| Illinois Tollway Base Sheet Revisions |
|---------------------------------------|

| Section M Base Sheet Drawings | |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Drawing | Modification Summary |
| | Effective: 03-01-2019 |
| Drainage (DRN)-Series 600 | |
| M-DRN-600 | Outlet Control Structure Check Dam Details |
| | Added note to designer stating that steel angle bolts and fasteners shall be designed by the DSE and provided on this sheet. |
| | Added Note 2 giving option to contractor to use a concrete restrictor plate instead of steel. |
| | Changed call-outs from "Weir Plate" to "Restrictor Plate". |
| | Reworded Design Element from "Weir Plate-Release Rate" to "2-Year and 100-Year Release Rate". |
| | Restrictor Manhole was re-drawn to show two lids. |
| | Revised minimum clearance from top of restrictor plate to bottom of the manhole's top slab from 8" to 6". |
| M-DRN-601 | Slope Drain |
| | Added Note 5 stating what the allowable pipe materials are for slope drains. |
| | Provided a column for pipe diameter in the summary table. |
| | Added note to designer stating that steel angle bolts and fasteners shall be designed by the DSE and provided on this sheet. |
| | Changed call-outs from "Weir Plate" to "Restrictor Plate". |
| M-DRN-603 | Articulated Concrete Block Revetment System |
| | Added columns for "Pay Length" and "Pay Width" in the summary table. |
| | Added "Notes to Designer". |
| | Removed column for Block Configuration in the summary table as this information is provided in Note 1. |
| | Removed dimension "B". |

 New Sheet

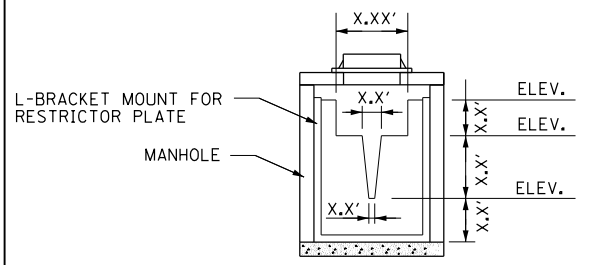
 Retired Standard

DRAFT
NOT FOR CONSTRUCTION

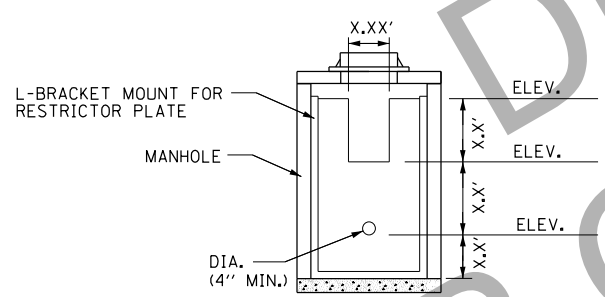


PROFILE VIEW

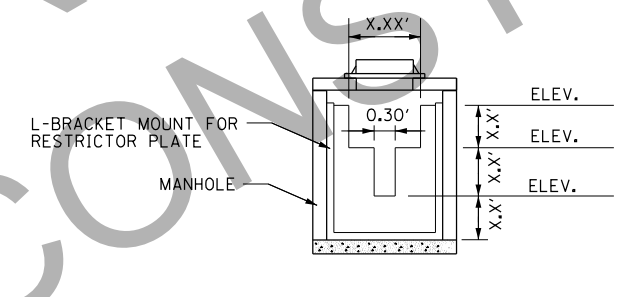
| DESIGN ELEMENTS | | VALUES |
|-------------------------------------|----------------------------|--------|
| DRAINAGE AREA | X (ACRES) | |
| STORAGE VOLUME | V (CU. YD.) | |
| CHECK DAM TOP WIDTH | A (FEET) | |
| CHECK DAM HEIGHT | B (FEET) | |
| MANHOLE | D (DIAMETER) | |
| MANHOLE-GRATE | TYPE | |
| HORIZONTAL PIPE (RCP ₁) | P ₁ (DIAMETER) | |
| HORIZONTAL PIPE (RCP ₁) | L ₁ (FEET) | |
| HORIZONTAL PIPE (RCP ₁) | S ₁ (SLOPE) | |
| HORIZONTAL PIPE (RCP ₂) | P ₂ (DIAMETER) | |
| HORIZONTAL PIPE (RCP ₂) | L ₂ (FEET) | |
| HORIZONTAL PIPE (RCP ₂) | S ₂ (SLOPE) (%) | |
| RESTRICTOR PLATE-DETAIL | SHAPE | |
| 2-YEAR RELEASE RATE | CFS | |
| 100-YEAR RELEASE RATE | CFS | |
| HEADWALL TYPE III (1:10) | PIPE DIAMETER | |
| SLOPED HEADWALL TYPE III (1:4) | PIPE DIAMETER | |
| HIGH WATER ELEVATION | HWL (FEET) | |
| TOP OF STRUCTURE ELEVATION | T/STR (FEET) | |
| UPSTREAM FLOWLINE | U F/L (FEET) | |
| DOWNSTREAM FLOWLINE | D F/L (FEET) | |



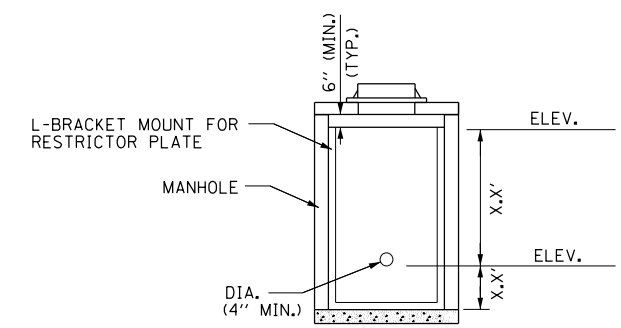
RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL

SAMPLE RESTRICTOR PLATE DETAILS

NOTE:

- ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT. (V:H).
- THE CONTRACTOR HAS THE OPTION TO USE A CONCRETE RESTRICTOR PLATE THAT IS PRECAST WITHIN THE DRAINAGE STRUCTURE.

NOTE TO DESIGNER

1. DSE SHALL DESIGN STEEL ANGLE BOLTS AND FASTENERS FOR THE STEEL RESTRICTOR PLATES. DETAILS ARE TO BE PROVIDED ON THIS SHEET.

OUTLET CONTROL STRUCTURE (CHECK DAM)

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

M-DRN-600

OUTLET CONTROL STRUCTURE CHECK DAM DETAILS

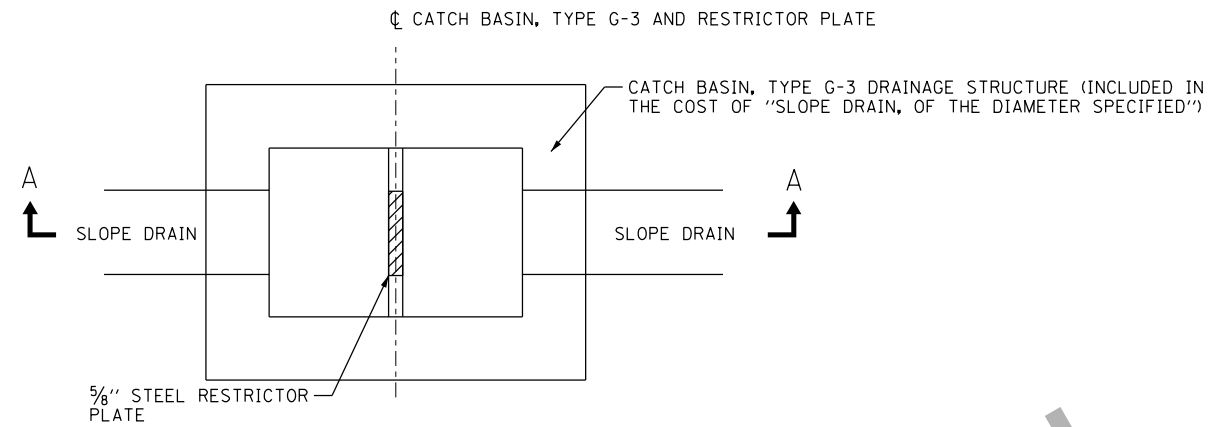
DATE
3-1-2019

NOTE TO DESIGNER

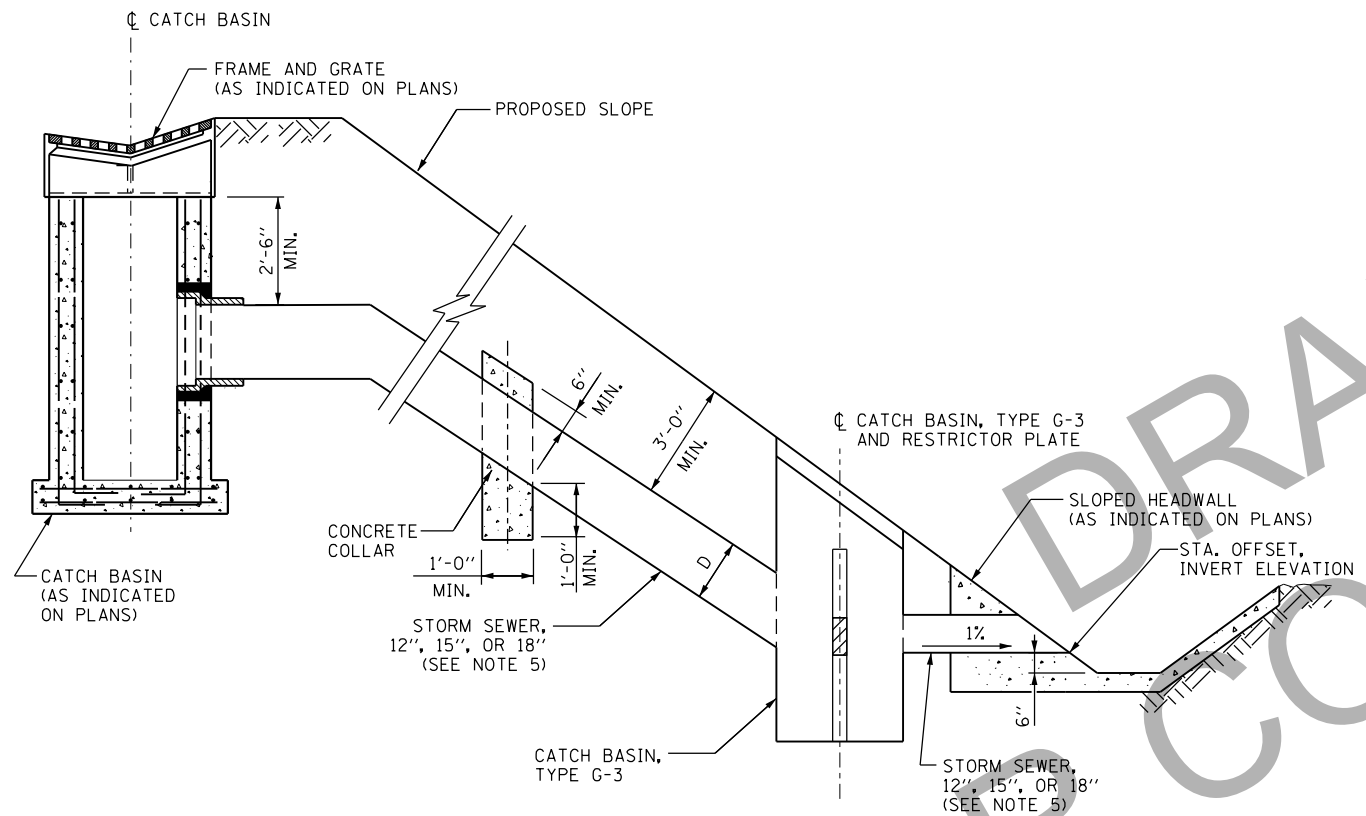
THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTE TO DESIGNER

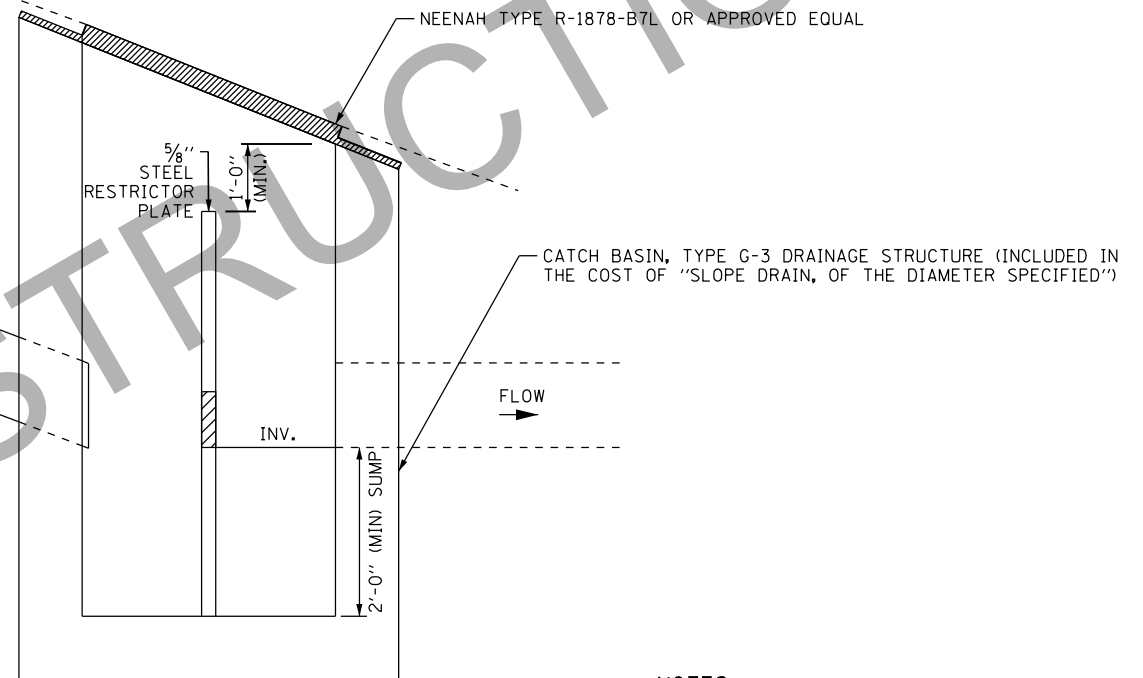
DSE SHALL DESIGN STEEL ANGLE BOLTS AND FASTENERS FOR THE STEEL RESTRICTOR PLATES. DETAILS ARE TO BE PROVIDED ON THIS SHEET.



CATCH BASIN, TYPE G-3 DRAINAGE STRUCTURE PLAN



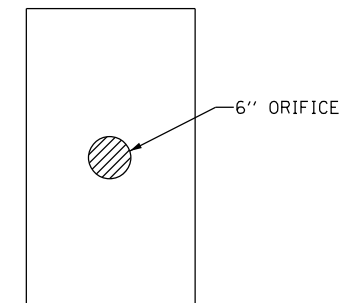
SLOPE DRAIN



SECTION A-A

NOTES:

1. THE STORM SEWER, CONCRETE COLLAR, CATCH BASIN, TYPE G-3, RESTRICTOR PLATE AND FRAME AND GRATE, SHALL BE INCLUDED IN THE COST OF SLOPE DRAIN OF THE DIAMETER SPECIFIED.
2. SEE ILLINOIS TOLLWAY STANDARD B8 FOR DIMENSION OF CATCH BASIN, TYPE G-3 STRUCTURE.
3. THE TOP OF THE CATCH BASIN, TYPE G-3 SHALL BE CUT IN THE FIELD TO MATCH THE PROPOSED EMBANKMENT SLOPE.
4. THE CONTRACTOR HAS THE OPTION TO USE A CONCRETE RESTRICTOR PLATE THAT IS PRECAST WITHIN THE DRAINAGE STRUCTURE.
5. PIPE MATERIAL SHALL BE HDPE WITH SMOOTH INTERIOR OR EPOXY COATED CORRUGATED GALVANIZED STEEL PIPE OF THE SIZE SPECIFIED.



RESTRICTOR PLATE DETAIL

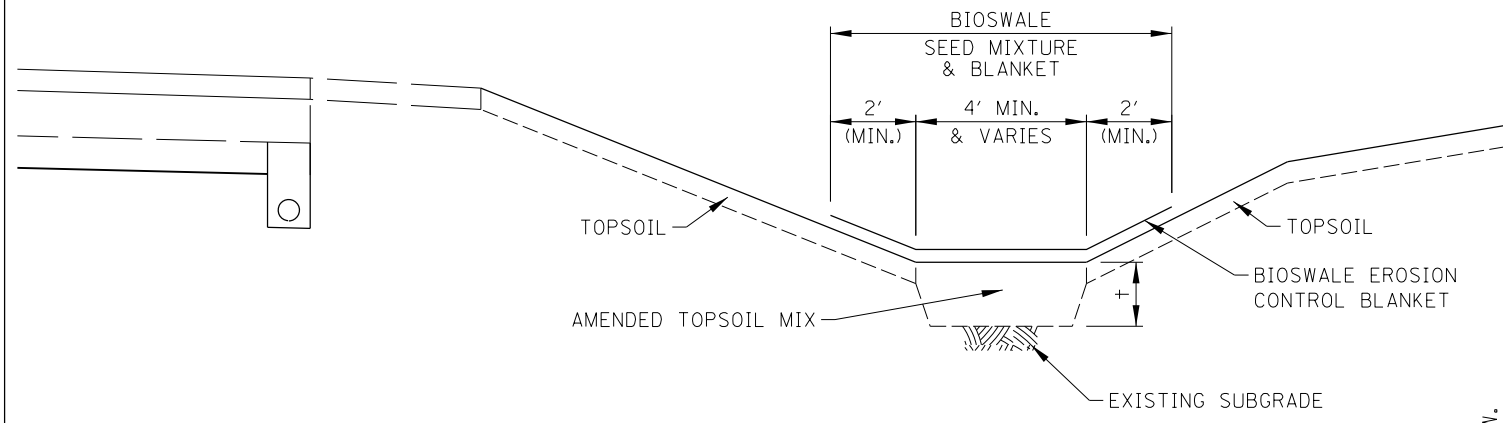
| DRAIN NO. | D (IN) | CONC. COLLAR | | CATCH BASIN, TYPE G-3 | | INV. | TOP OF RESTRICTOR PLATE ELEVATION |
|-----------|--------|--------------|--------|-----------------------|--------|------|-----------------------------------|
| | | STATION | OFFSET | STATION | OFFSET | | |
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M-DRN-601

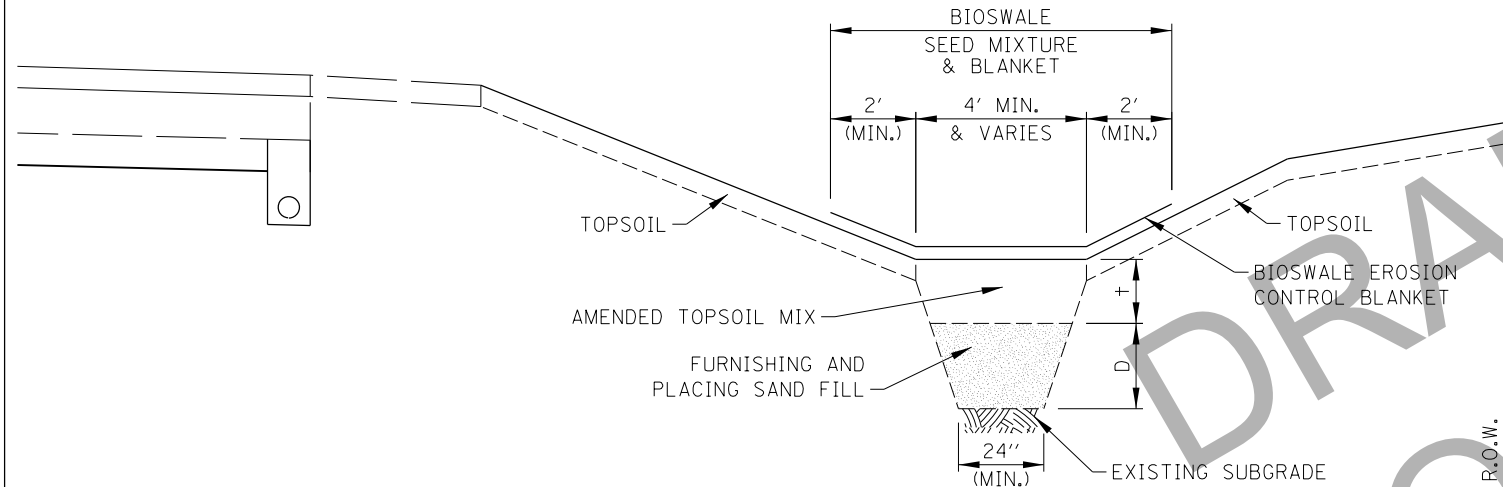


SLOPE DRAIN

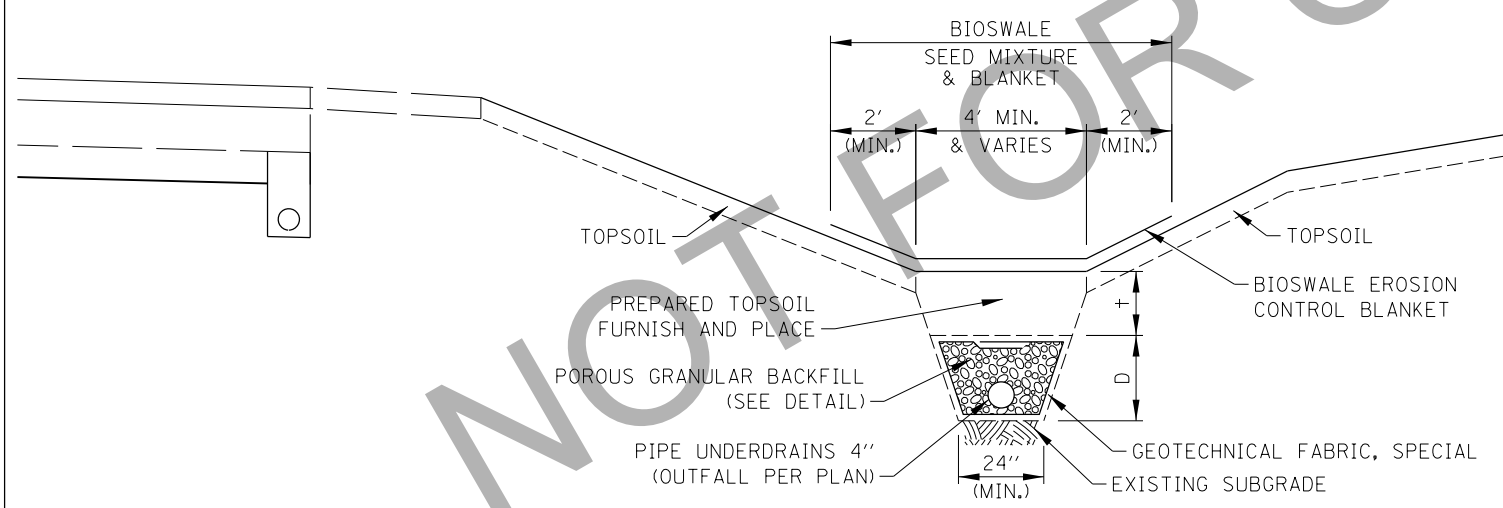
DATE
3-1-2019



BIOSWALE, TYPE 1



BIOSWALE, TYPE 2



BIOSWALE, TYPE 3

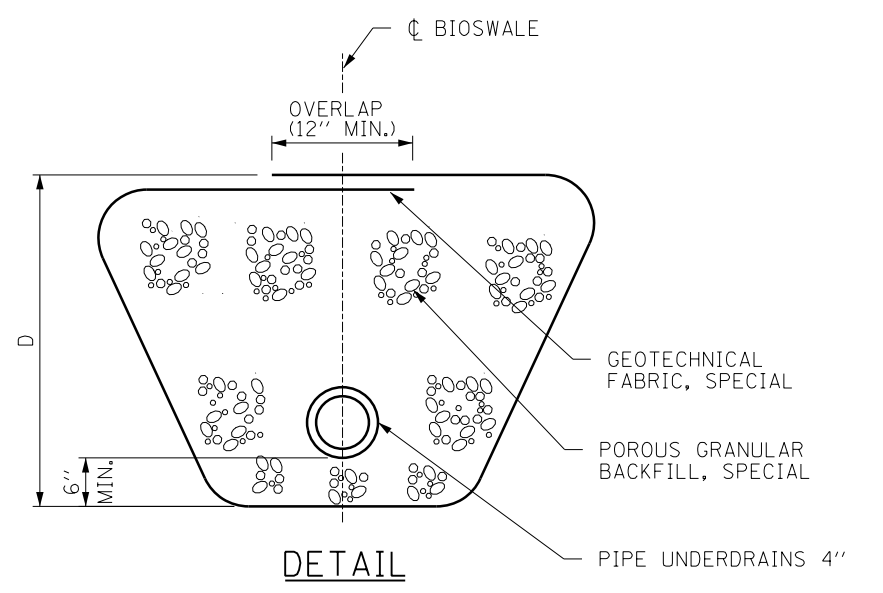
| BIOSWALE NO. | BIOSWALE TYPE | BEGIN STATION | END STATION | PREP/AMENDED TOPSOIL THICKNESS (+) | BIOSWALE BASE (D) |
|--------------|---------------|---------------|-------------|------------------------------------|-------------------|
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NOTE TO DESIGNER

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NOTES TO DESIGNER

1. ALL UNDER DRAINS SHALL EITHER OUTLET AT GRADE OR TO A DRAINAGE STRUCTURE AND GRAVITY DRAIN.
2. ALL UNDER DRAINS SHALL HAVE AN INLET ON THE UPSTREAM END AND EVERY 500' MINIMUM TO SERVE AS A CLEAN OUT.



NOTES:

1. THE ENDS OF THE PIPE UNDERDRAIN OUTLET AT GRADE SHALL BE PROTECTED BY A PERMANENT RODENT SHIELD IN ACCORDANCE WITH STANDARD B24.

M-DRN-602

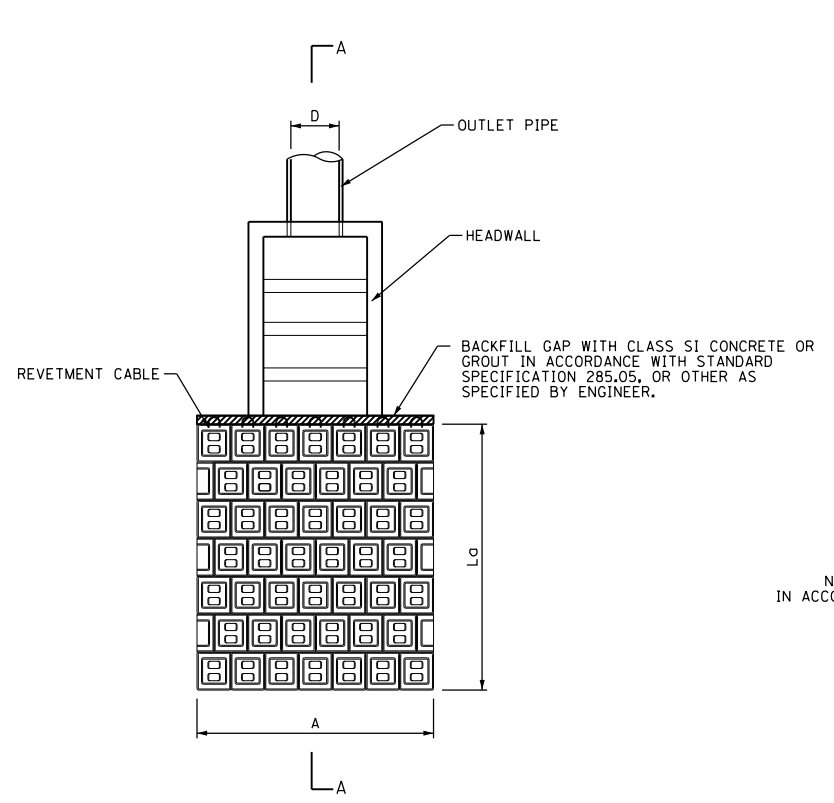


BIOSWALE

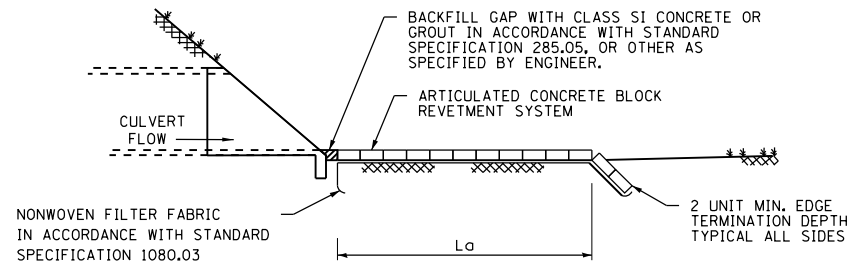
DATE
3-31-2016

ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM (ACBRS) SCHEDULE

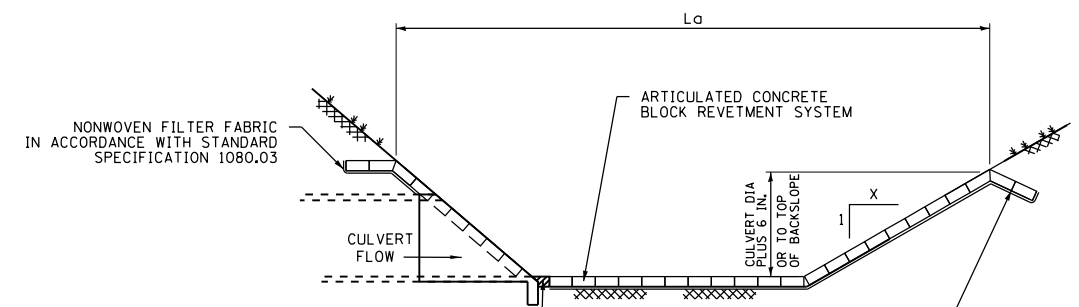
| STRUCTURE NO. | D (IN) | L ₀ (FT) | A (FT) | PAY LENGTH (FT) (SEE NOTE 3) | PAY WIDTH (FT) (SEE NOTE 3) | BLOCK TYPE | MAT CONFIGURATION | ACBRS (SQ YD) |
|---------------|--------|---------------------|--------|------------------------------|-----------------------------|------------|-------------------|---------------|
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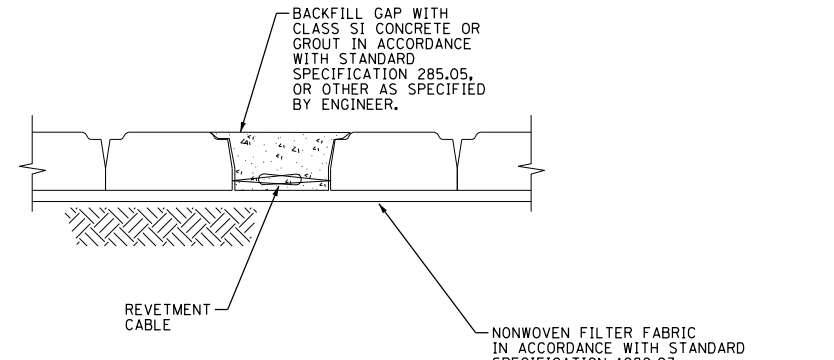
OUTLET PROTECTION DETAIL
(NOT TO SCALE)



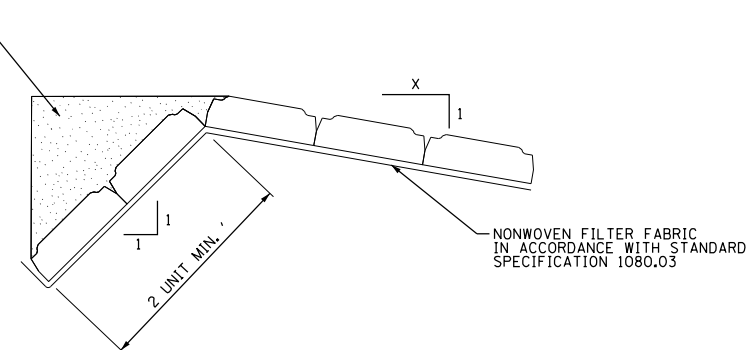
SECTION A-A (NO DEFINED CHANNEL)
(NOT TO SCALE)



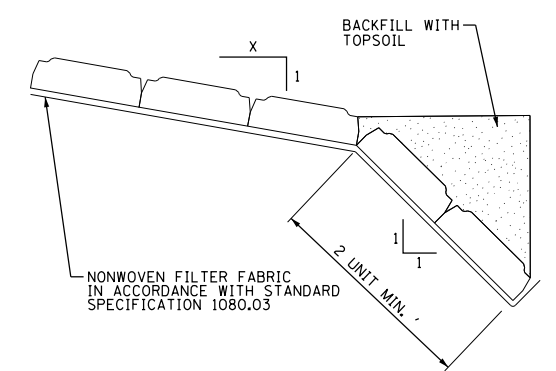
SECTION A-A (DEFINED CHANNEL)
(NOT TO SCALE)



TYPICAL MAT TO MAT
(NOT TO SCALE)



TOP OF SLOPE EDGE TERMINATION DETAIL
(NOT TO SCALE)



TOE OF SLOPE EDGE TERMINATION DETAIL
(NOT TO SCALE)

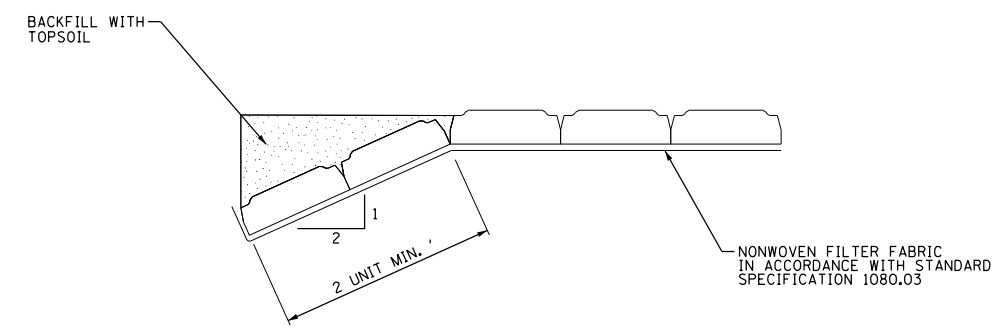
NOTES TO DESIGNER

- THE AREA OF MEASUREMENT WILL INCLUDE THE COMPLETE INSTALLED MATS, INCLUDING BOTH THE VISIBLE AREA AND THE BURIED EDGE PORTIONS OF THE INSTALLATION WHICH ARE NOT VISIBLE UPON PROJECT COMPLETION (EDGE TERMINATION).
- THE NONWOVEN FILTER FABRIC SHALL BE INCLUDED IN THE COST OF THE ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM OF THE TYPE SPECIFIED.

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- NOTES:**
- EACH BLOCK SHALL INCORPORATE INTERLOCKING SURFACES THAT MINIMIZE LATERAL DISPLACEMENT OF THE BLOCKS WITHIN THE MATS WHEN THEY ARE LIFTED BY THE LONGITUDINAL REVETMENT CABLES. HAND PLACED INTERLOCKING BLOCKS ARE ALSO ACCEPTABLE.
 - THE TOP OF BLOCK ELEVATION SHALL BE AT OR BELOW THE DITCH FLOW LINE, OR FINISHED SURFACE.
 - PAY LENGTH IS EQUAL TO DIMENSION "L₀" PLUS THE TOTAL ESTIMATED LENGTH OF THE BURIED PORTION OF THE BLOCKS. PAY WIDTH IS EQUAL TO DIMENSION "A" PLUS THE TOTAL ESTIMATED WIDTH OF THE BURIED PORTION OF THE BLOCKS.



GROUND EDGE TERMINATION DETAIL
(NOT TO SCALE)

M-DRN-603



ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM

DATE
3-01-2019