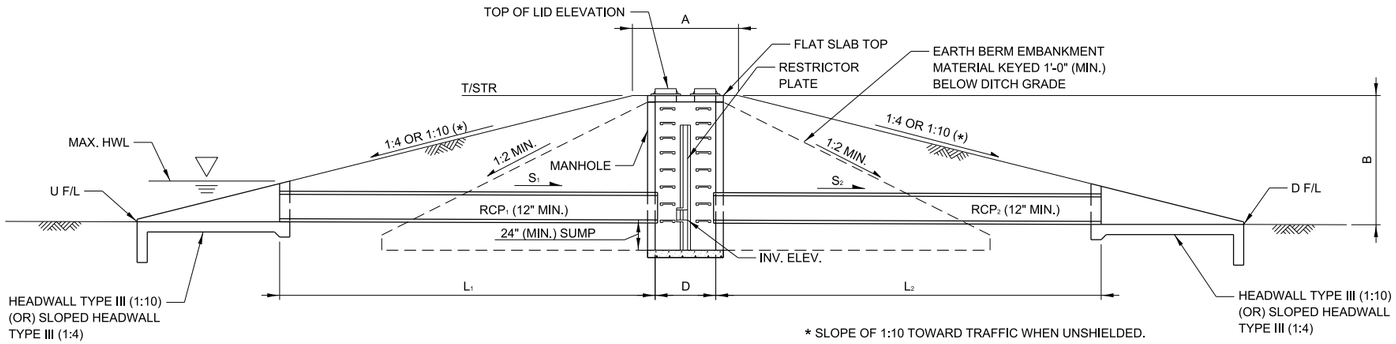
Illinois Tollway Base Sheet Revisions

Section M	Base Sheet Drawings	
	Drawing	**Modification Summary** **Effective: 03-01-2023**
	Drainage (DRN)-Series 600	
	M-DRN-603	**ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM**
		Added Note to Designer Number 5.
	M-DRN-606	**SECTION THROUGH MOMENT SLAB WITH DRAINAGE STRUCTURE DETAIL**
		Added a call-out on the plan indicating a 5' minimum distance between the grate and the expansion joint or end of slab.
	M-DRN-607	**NOISE ABATEMENT WALL DRAINAGE DETAILS (ROADWAY SIDE)**
		Added typical section for balanced soil load when embedment depth is > 1 foot.
	M-DRN-608	**NOISE ABATEMENT WALL DRAINAGE DETAILS (RESIDENTIAL SIDE)**
		Revised typical sections to show Aggregate Shoulder, Type B between the NAW panel and the drainage structure.

New Sheet

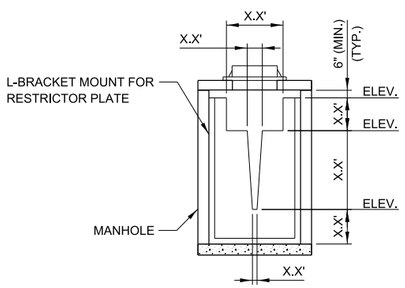
Retired Standard



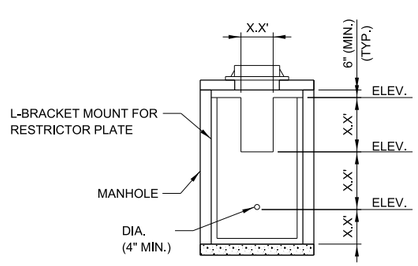
* SLOPE OF 1:10 TOWARD TRAFFIC WHEN UNSHIELDED.

PROFILE VIEW

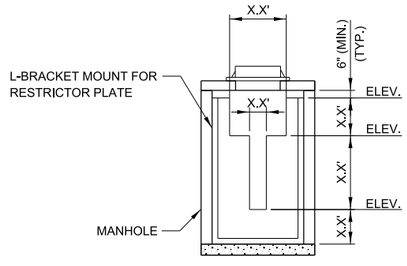
DESIGN ELEMENTS	UNITS	VALUES
DRAINAGE AREA	X (ACRES)	
STORAGE VOLUME	V (CU. YD.)	
CHECK DAM TOP WIDTH	A (FEET)	
CHECK DAM HEIGHT	B (FEET)	
MANHOLE	D (DIAMETER)	
MANHOLE-GRATE	TYPE	
HORIZONTAL PIPE (RCP)1	P_1 (DIAMETER)	
HORIZONTAL PIPE (RCP)1	L_1 (FEET)	
HORIZONTAL PIPE (RCP)1	S_1 (SLOPE)	
HORIZONTAL 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)	



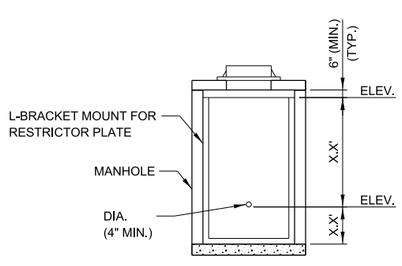
RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL



RESTRICTOR PLATE DETAIL

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

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.

SAMPLE
RESTRICTOR PLATE DETAILS

OUTLET CONTROL STRUCTURE
(CHECK DAM)

NOTES:

1. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT. (V:H).

2. THE CONTRACTOR HAS THE OPTION TO USE A CONCRETE RESTRICTOR PLATE THAT IS PRECAST WITHIN THE DRAINAGE STRUCTURE.

Illinois Tollway

OUTLET CONTROL STRUCTURE CHECK DAM DETAILS

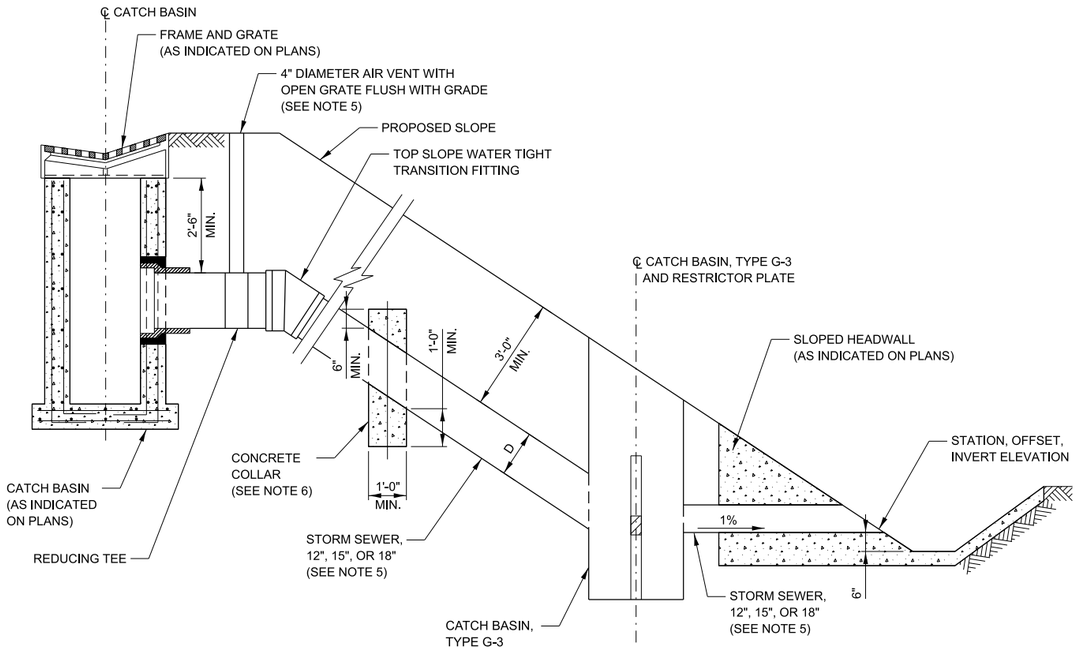
VERSION:	STANDARD:	SHEET:
2021-03	M-DRN-600	1 OF 1

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

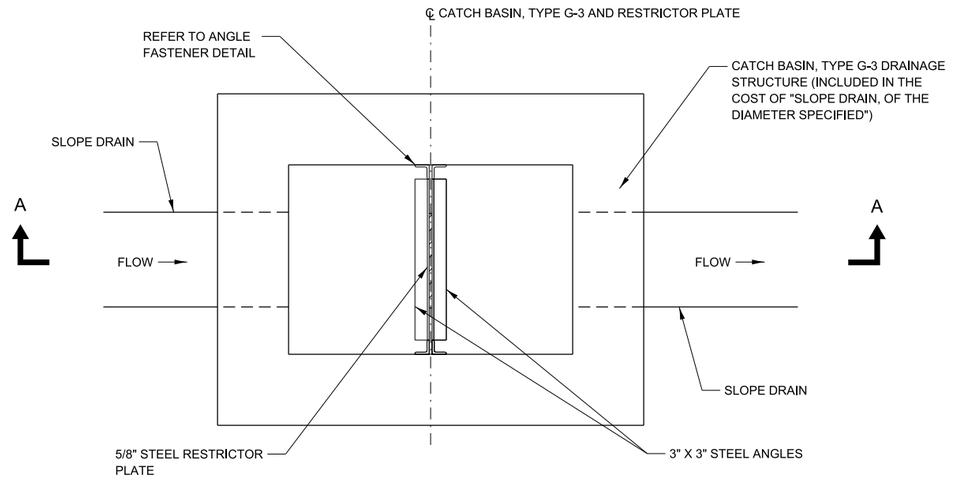
NOTES TO DESIGNER

1. FOR SLOPES 1:3 OR FLATTER, PLACE A MINIMUM OF ONE CONCRETE COLLAR AT THE MIDDLE PIPE JOINT IF SLOPE DRAIN LENGTH ≤ 80 FEET. IF SLOPE DRAIN LENGTH > 80 FEET, PLACE CONCRETE COLLARS AT A MAXIMUM 40 FOOT SPACING.
2. FOR SLOPES STEEPER THAN 1:3, PLACE CONCRETE COLLARS AT A MAXIMUM 20 FOOT SPACING.
3. THE AIR VENT IS REQUIRED WHEN HW/D ≥ 0.8 TO PREVENT CAVITATION.

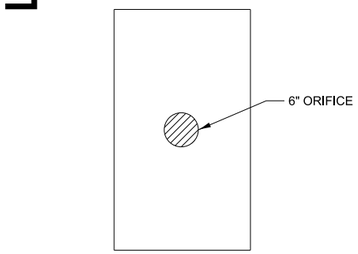


SLOPE DRAIN

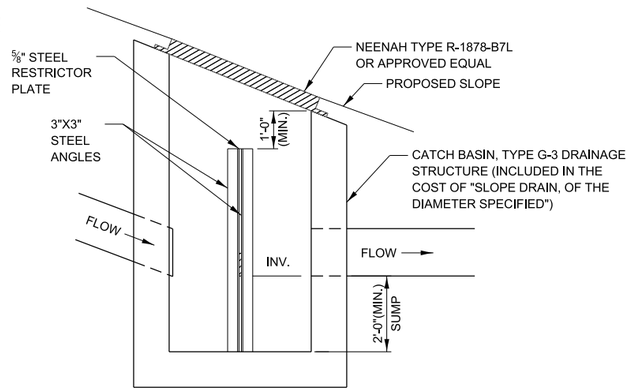
SLOPE DRAIN PIPE NO.	D (IN)	LENGTH (FT)	CONCRETE COLLAR			CATCH BASIN, TYPE G-3			INV.	TOP OF RESTRICTOR PLATE ELEVATION
			STATION	OFFSET (FT)	OFFSET (LT/RT)	STATION	OFFSET (FT)	OFFSET (LT/RT)		



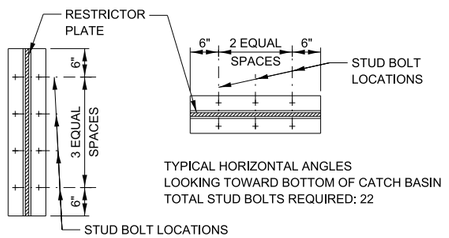
CATCH BASIN, TYPE G-3
DRAINAGE STRUCTURE PLAN



RESTRICTOR PLATE DETAIL



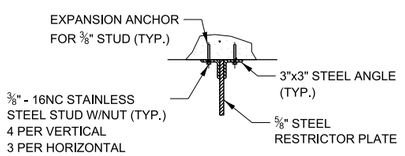
SECTION A-A



STEEL ANGLE BOLTING DETAILS

NOTES:

1. THE STORM SEWERS, CONCRETE COLLAR, CATCH BASIN, TYPE G-3, RESTRICTOR PLATE, ANGLES AND HARDWARE 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.
6. THE MINIMUM CONCRETE COLLAR WIDTH SHALL BE D + 24".
7. ALL STEEL ANGLES AND PLATES SHALL BE GALVANIZED AFTER FABRICATION.
8. STEEL PLATE AND ANGLES SHALL BE IN ACCORDANCE WITH AASHTO M 270 GRADE 36.
9. ANGLES SHALL BE 3" X 3" X 3/8".
10. VERTICAL ANGLES SHALL EXTEND FROM THE BOTTOM OF THE CATCH BASIN TO THE TOP OF THE RESTRICTOR PLATE.
11. HORIZONTAL ANGLES SHALL EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.



ANGLE FASTENER DETAIL

Illinois Tollway

SLOPE DRAIN

VERSION:	STANDARD:	SHEET:
2021-03	M-DRN-601	1 OF 1

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PLOT DATE: 11/28/2022 PLOT TIME: 10:44:52 AM
PLOTTED BY: Brian Ruddy
MODEL NAME: M-DRN-601
FILE NAME: pw://wsp-us-pw.bentley.com:wsp-us-pw-02/Documents/Illinois Tollway GEG (0976RR)/_PWSetup/WorkSets/Illinois Tollway GEG (0976RR)/Standards/z_Working/Standard Drawings and Base Sheets/Base Sheets/Section - M/600 DRN/M-DRN-601.dgn
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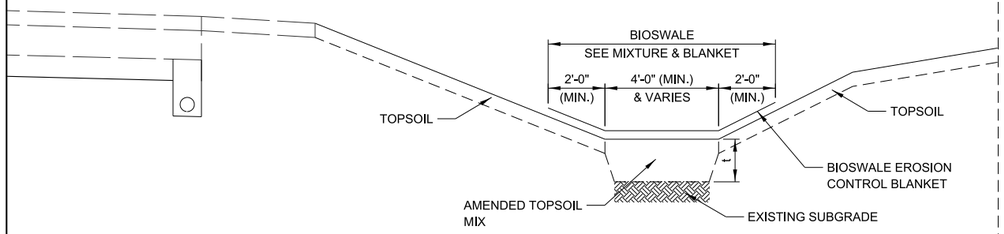
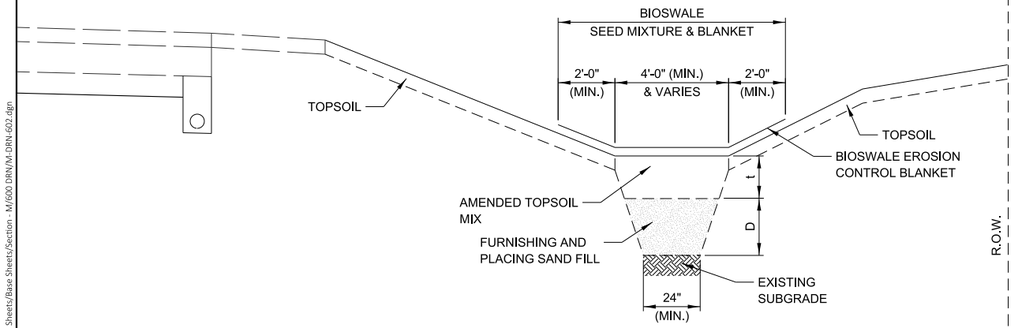
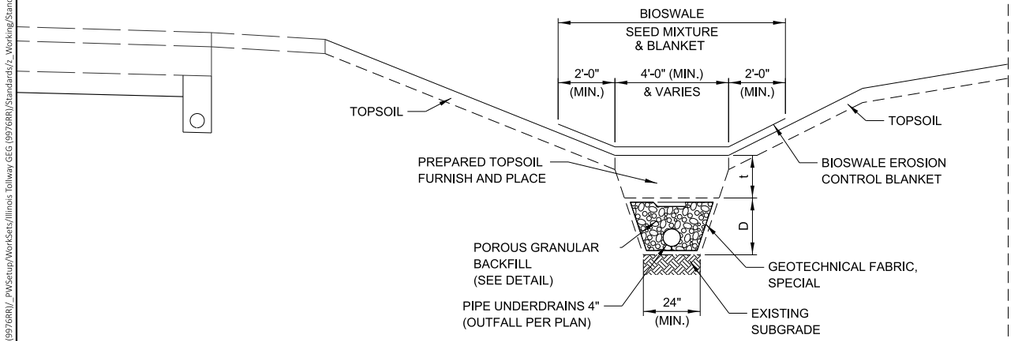


BIOSWALE, TYPE 1



BIOSWALE, TYPE 2



BIOSWALE, TYPE 3

R.O.W.

R.O.W.

BIOSWALE NO.	BIOSWALE TYPE	BEGIN STATION	END STATION	PREP/AMENDED TOPSOIL THICKNESS (t)	BIOSWALE BASE (D)

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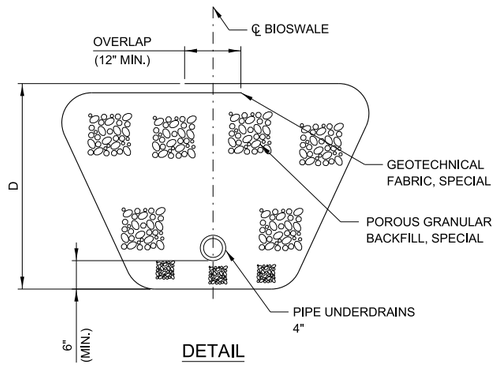
NOTES TO DESIGNER

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.



DETAIL

NOTES:

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

Illinois Tollway

BIOSWALE

VERSION:	STANDARD:	SHEET:
2016-03	M-DRN-602	1 OF 1

PLOT DRIVER: pw://wsp-us-pw.bentley.com:wsp-us-pw-02/Documents/Illinois Tollway GEG (9976RR)/_PWSetup/WorkSets/Illinois Tollway GEG (9976RR)/Standards/PlotDrv/pdf-rTollway.pltcfg
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PLOTTED BY: brian.rudy
MODEL NAME: M-DRN-602
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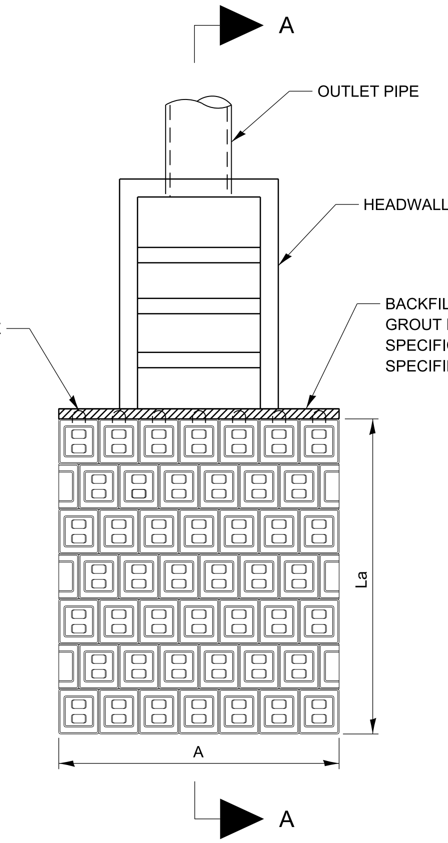
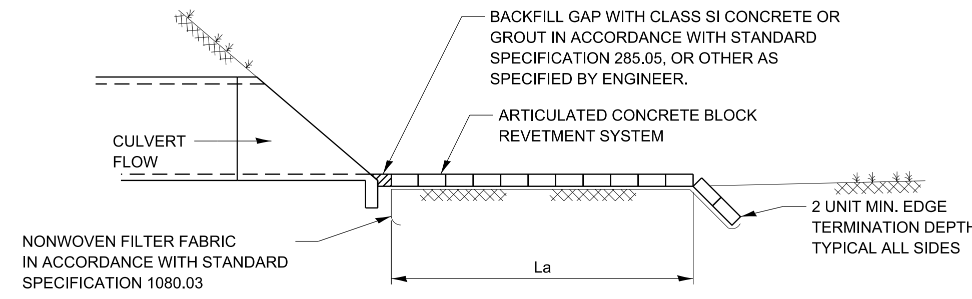
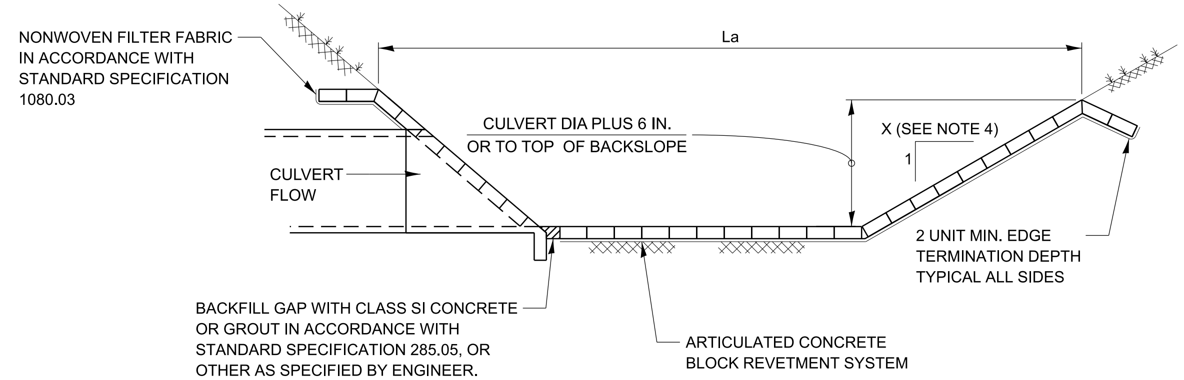


OUTLET PROTECTION DETAIL
NOT TO SCALE



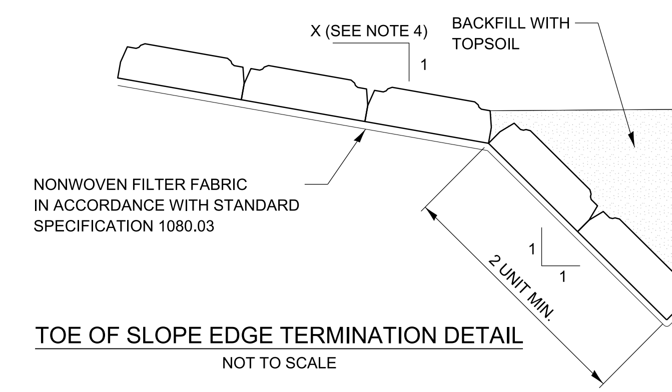
SECTION A-A (NO DEFINED CHANNEL)
NOT TO SCALE



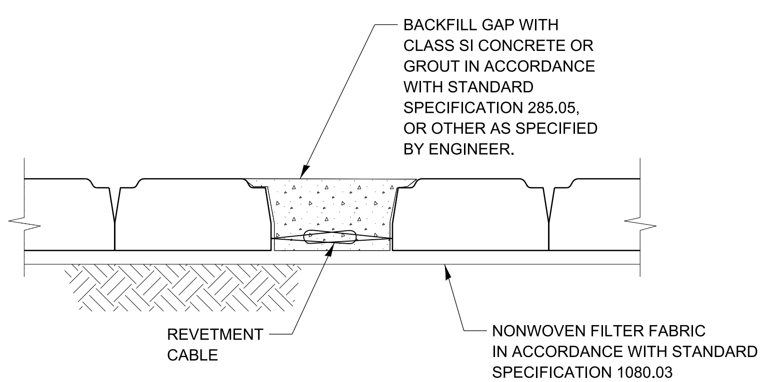
SECTION A-A (DEFINED CHANNEL)
NOT TO SCALE

ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM (ACBRS) SCHEDULE

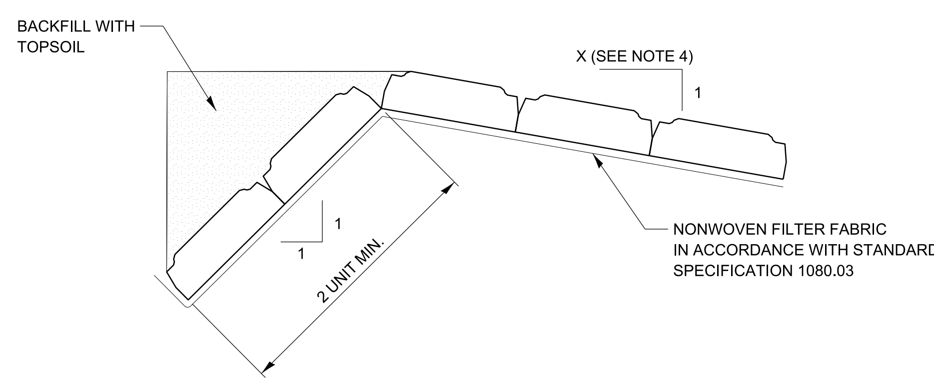
STRUCTURE NO.	D (IN)	La (FT)	A (FT)	PAY LENGTH (FT) (SEE NOTE 3)	PAY WIDTH (FT) (SEE NOTE 3)	BLOCK TYPE	MAT CONFIGURATION	ACBRS (SQ YD)



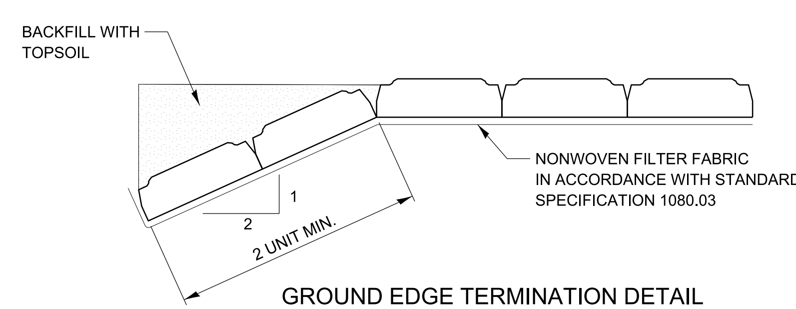
TOE OF SLOPE EDGE TERMINATION DETAIL
NOT TO SCALE



TYPICAL MAT TO MAT
NOT TO SCALE



TOP OF SLOPE EDGE TERMINATION DETAIL
NOT TO SCALE



GROUND EDGE TERMINATION DETAIL
NOT TO SCALE

NOTES:

1. 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.
2. THE TOP OF BLOCK ELEVATION SHALL BE AT OR BELOW THE DITCH FLOW LINE, OR FINISHED SURFACE.
3. PAY LENGTH IS EQUAL TO DIMENSION "La" 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.
4. THE MAXIMUM BANK SLOPE FOR AN ACBRS SHALL BE 1:2 (V:H).

NOTES TO DESIGNER

1. THE AREA OF MEASURE WILL INCLUDE THE COMPLETE INSTALLED MATS, INCLUDING BOTH VISIBLE AREA AND THE BURIED EDGE PORTIONS OF THE INSTALLATION WHICH ARE NOT VISIBLE UPON PROJECT COMPLETION (EDGE TERMINATION).
2. THE STANDARD MAT DIMENSIONS ARE 8 FT BY 12 FT AND 8 FT BY 20 FT. THE DESIGNER SHOULD SPECIFY THE AREAS OF MEASURE IN THOSE INCREMENTS, TO THE EXTENT POSSIBLE. LOOSE BLOCKS ARE ALSO AVAILABLE WHERE THOSE INCREMENTS ARE NOT FEASIBLE.
3. THE NONWOVEN FILTER FABRIC SHALL BE INCLUDED IN THE COST OF THE ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM OF THE TYPE SPECIFIED.
4. THE NONWOVEN FILTER FABRIC SHALL NOT BE INCLUDED IF A DEEP-ROOTED PLANT IS USED IN CONJUNCTION WITH THE ACBRS.
5. TOPSOIL USED TO BACKFILL THE REVETMENT SYSTEM SHALL BE INCLUDED IN THE COST OF THE ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM OF THE TYPE SPECIFIED. SEEDING AND EROSION CONTROL BLANKET TYPE SHALL BE SHOWN ON THE LANDSCAPE PLANS AND WILL BE PAID FOR SEPARATELY.

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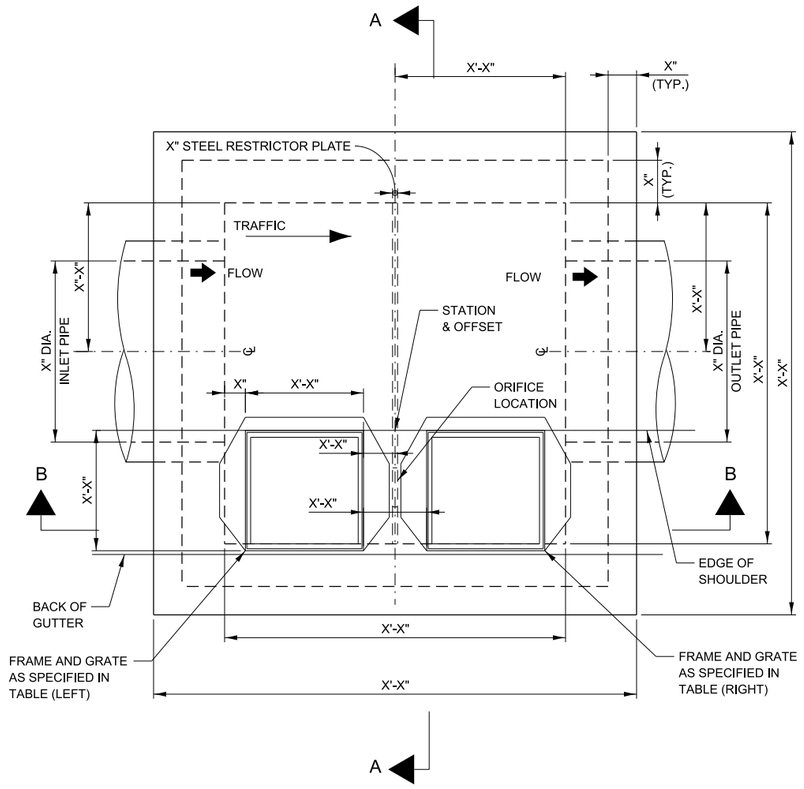
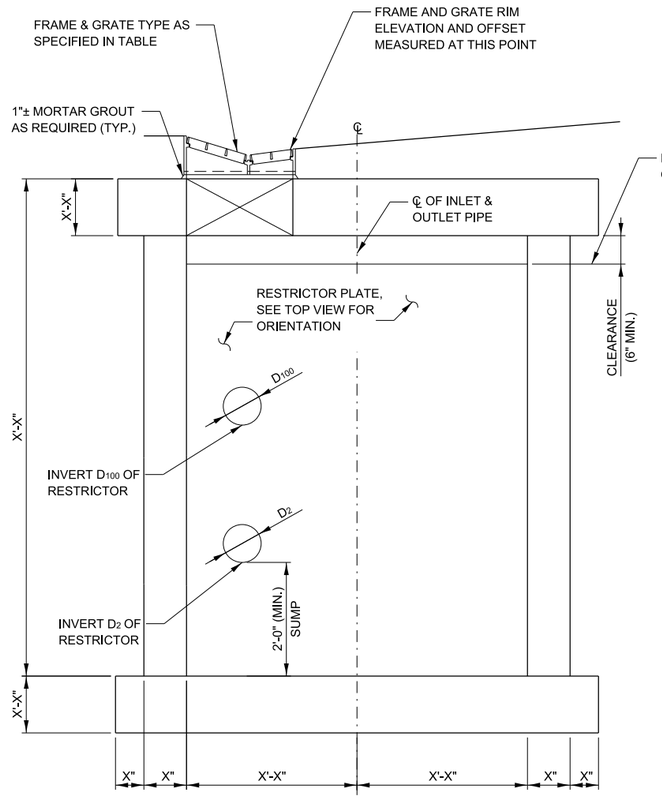
Illinois Tollway

ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM

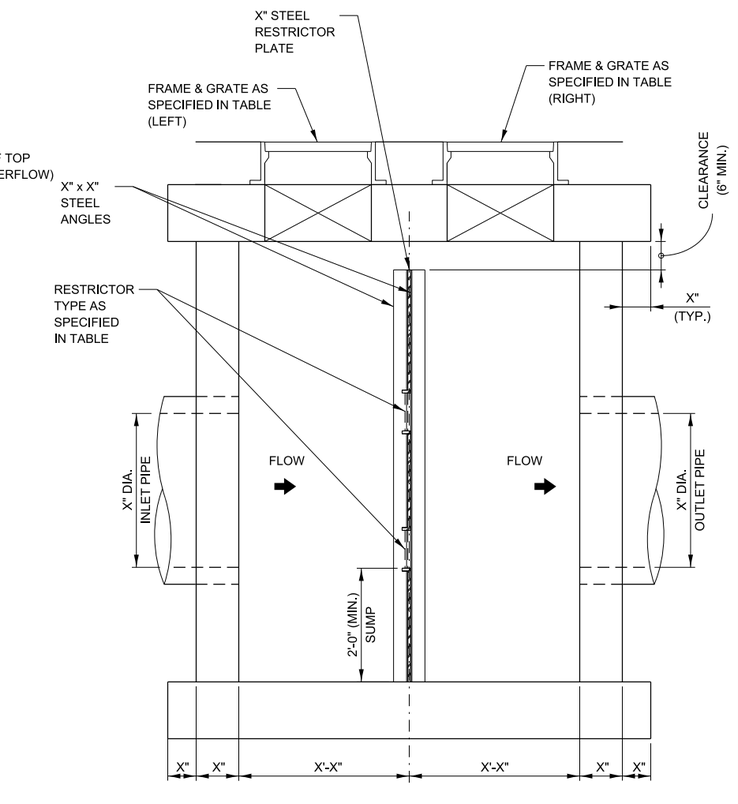
VERSION:	STANDARD:	SHEET:
2023-03	M-DRN-603	1 OF 1



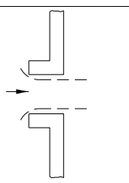
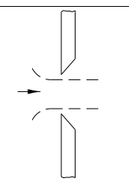
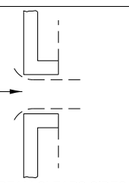
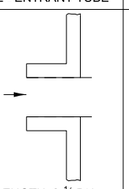
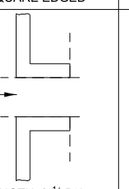
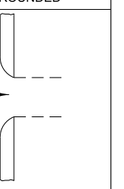
TOP VIEW



SECTION A-A

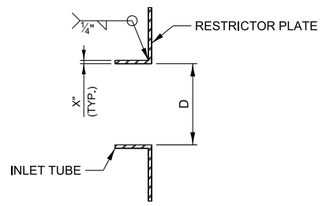


SECTION B-B

RESTRICTOR TYPE					
1	2	3	4	5	6
RE - ENTRANT TUBE	SHARP EDGES	SQUARE EDGED	RE - ENTRANT TUBE	SQUARE EDGED	ROUNDED
					
LENGTH ½ TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-½ DIA.	LENGTH: 2-½ DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

RESTRICTOR TYPES

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES



INLET TUBE DETAIL

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

STRUCTURE NUMBER	*STATION	*OFFSET (FT)	OFFSET LT/RT	STRUCTURE TYPE	FRAME AND GRATE	F&G RIM ELEV		INV D_{100}	D_{100} (IN)	INV D_2	D_2 (IN)	INLET PIPE DIAMETER (IN)	OUTLET PIPE DIAMETER (IN)	TOP OF RESTRICTOR PLATE ELEV	RESTRICTOR TYPE	CLEARANCE (FT)
						LT	RT									

*SEE TOP VIEW FOR STRUCTURE STATION AND OFFSET

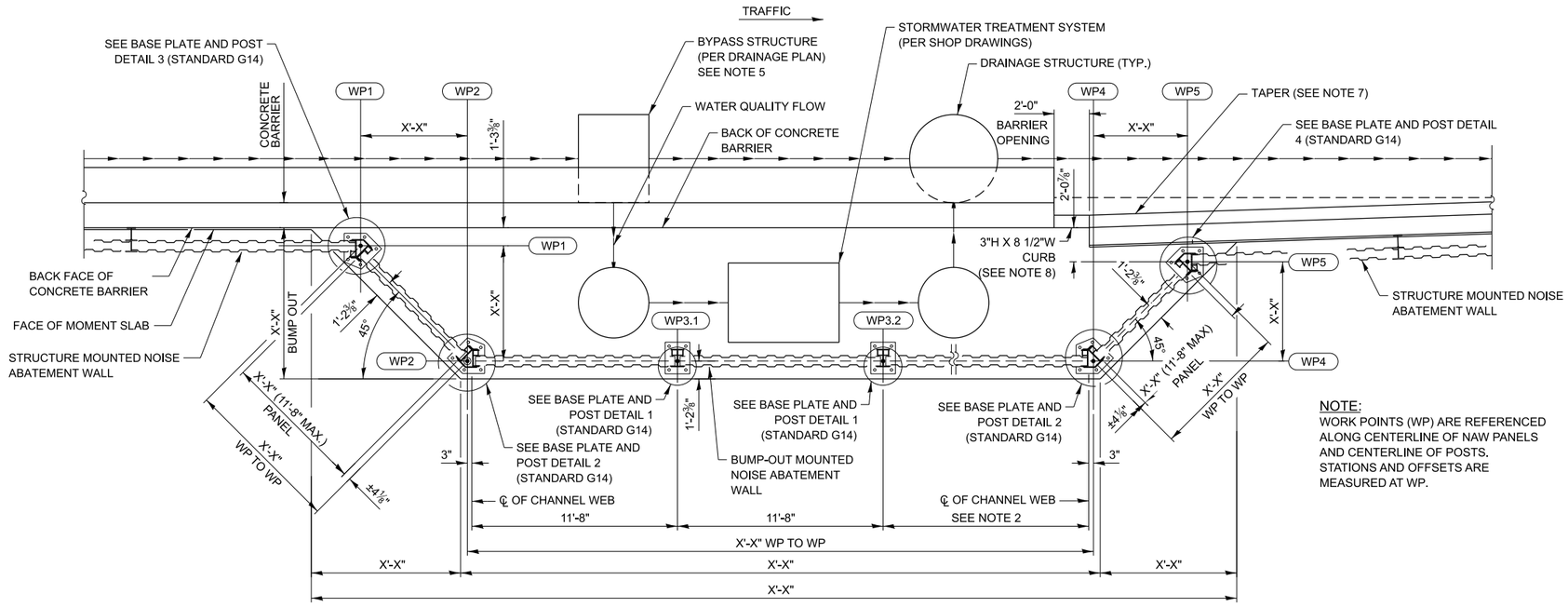
NOTES TO DESIGNER

1. DSE SHALL DESIGN STEEL ANGLE BOLTS AND FASTENERS FOR THE RESTRICTOR PLATES. DETAILS ARE TO BE PROVIDED ON THIS SHEET.
2. DSE SHALL PROVIDE REINFORCEMENT DETAILS. DESIGN SHALL BE IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, LATEST EDITION, WITH IL-120 OR HL-93 LOADING REQUIREMENTS, WHICHEVER GOVERNS (REFER TO STRUCTURE DESIGN MANUAL).
3. ALL DIMENSIONS DESIGNATED "X" ARE REQUIRED AND SHALL BE UPDATED BY THE DSE.

Illinois Tollway

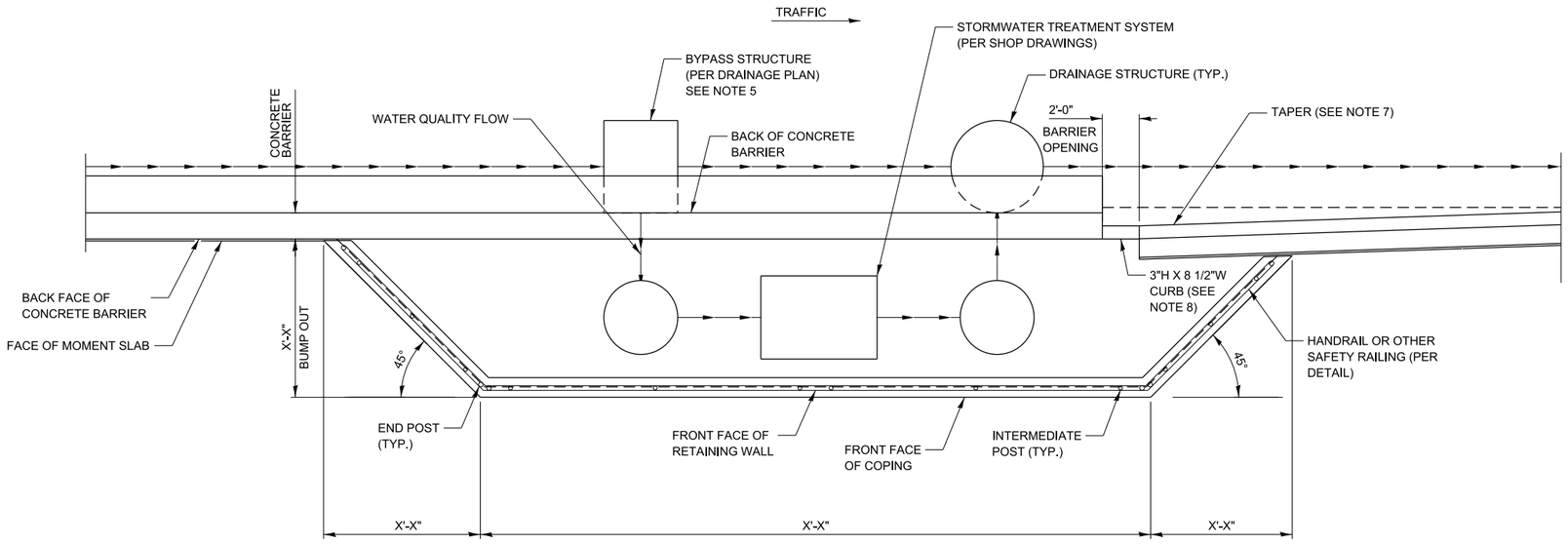
CATCH BASIN TYPE G (SPECIAL) WITH RESTRICTOR

VERSION:	STANDARD:	SHEET:
2021-03	M-DRN-604	1 OF 1



PLAN - STRUCTURE MOUNTED NOISE ABATEMENT WALL EXAMPLE

NOTE:
WORK POINTS (WP) ARE REFERENCED ALONG CENTERLINE OF NAW PANELS AND CENTERLINE OF POSTS. STATIONS AND OFFSETS ARE MEASURED AT WP.



PLAN - RETAINING WALL EXAMPLE

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTES TO DESIGNER

1. THIS BASE SHEET REPRESENTS THE TYPICAL DETAILS FOR BUMP-OUT RETAINING WALLS OR MOUNTED, NOISE ABATEMENT WALLS. THE DSE IS RESPONSIBLE FOR COMPLETING THE TABLES AND INCLUDING THEM IN THEIR CONTRACT PLANS. IF ANY OF THE DESIGN PARAMETERS IN THE ILLINOIS TOLLWAY STANDARD ARE EXCEEDED, THE DSE WILL BE RESPONSIBLE FOR DESIGN CALCULATIONS AND DETAILS FOR THOSE COMPONENTS. THE GP&E SHEET AND REMAINING NAW PLANS SHALL BE IN ACCORDANCE WITH ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL ARTICLES 6.2.5 AND 23.3.
2. USE SPECIALTY PANEL AND POST SPACING AT END OF WALL TO ACCOMMODATE TYPICAL 11'-8" POST SPACING ALONG THE STRAIGHT LENGTH OF WALL. POST SPACING SHOULD NOT EXCEED LIMITS WITHIN THE ILLINOIS TOLLWAY STANDARD. IF LIMITS ARE EXCEEDED, DSE TO DESIGN AND DETAIL ALL COMPONENTS. THE "SPX" DESIGNATION FOR SPECIALTY PANELS SHOULD BE USED FOR ALL PANELS WITHIN BAY WITH THE SAME WIDTH.
3. BUMP-OUT MOUNTED NAW DETAILS MAY BE USED WITH SYSTEMWIDE STRUCTURE MOUNTED NAW DETAILS SHOWN IN STANDARD G12 AND M-BRG-529. DSE TO UPDATE ACCORDINGLY FOR SYSTEMWIDE GEOMETRY.
4. THIS SHEET IS NOT TO SCALE. DESIGNER TO DETERMINE APPROPRIATE SCALE ON GENERAL PLAN AND ELEVATION SHEET TO ACCURATELY REPRESENT REQUIRED INFORMATION.
5. A BYPASS STRUCTURE IS REQUIRED IF THE PEAK FLOW EXCEEDS THE CAPACITY OF THE STORMWATER TREATMENT SYSTEM'S INTERNAL OVERFLOW WEIR OR TO REDUCE THE SIZE OF THE STORMWATER TREATMENT SYSTEM.
6. ALL DIMENSIONS DESIGNATED "X" ARE REQUIRED AND SHALL BE UPDATED BY THE DSE.
7. TAPER RATE FOR MAINLINE INSTALLATIONS SHALL BE 30:1. TAPER RATE FOR RAMPS AND C-D ROADWAYS SHALL NOT EXCEED THE RATES SHOWN IN AASHTO RDG TABLE 5-9.
8. THE CURB SHALL BE PAID FOR AS CONCRETE SUPERSTRUCTURE.

Illinois Tollway

BUMP OUT FOR STORMWATER TREATMENT SYSTEM

VERSION:	STANDARD:	SHEET:
2022-03	M-DRN-605	1 OF 1

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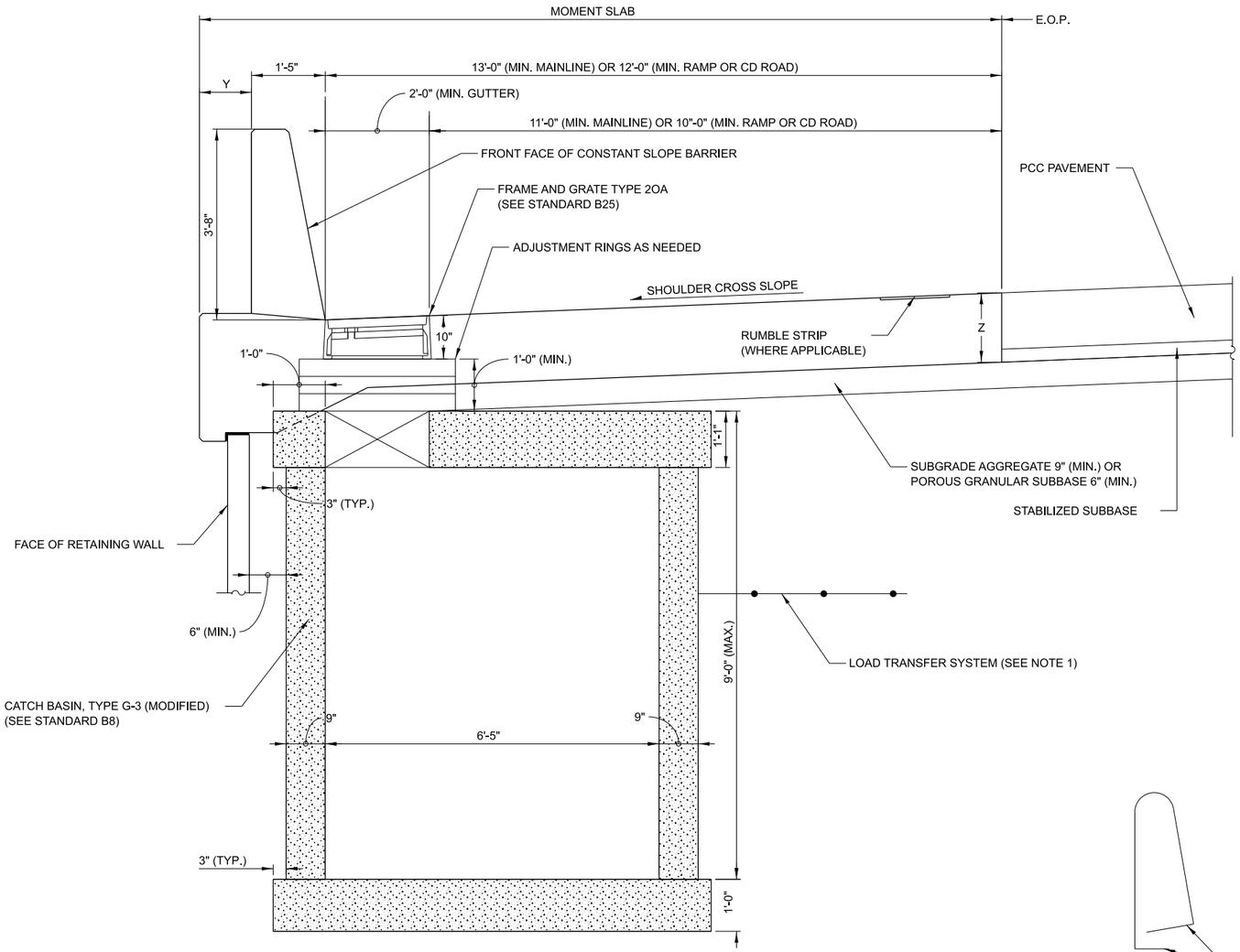
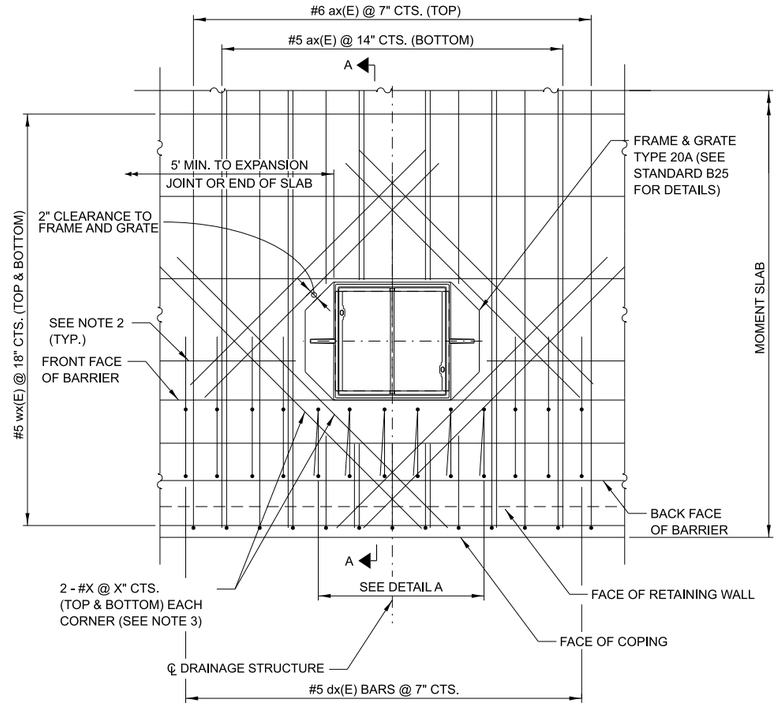


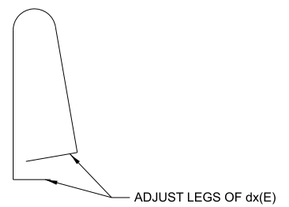
SECTION A-A THROUGH MOMENT SLAB WITH CATCH BASIN

REINFORCEMENT NOT SHOWN FOR CLARITY



PLAN - DRAINAGE STRUCTURE

TOP REINFORCING IN BARRIER NOT SHOWN FOR CLARITY



DETAIL A

NOTES:

1. MSE WALL SUPPLIER TO DESIGN LOAD TRANSFER SYSTEM TO ACCOMMODATE DRAINAGE STRUCTURE.
2. FIELD CUT MOMENT SLAB REINFORCEMENT ONLY AS REQUIRED FOR DRAINAGE STRUCTURE.
3. PLACE BARS SYMMETRICALLY ABOUT CENTERLINE OF DRAINAGE STRUCTURE AS SPACE PERMITS.

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTES TO DESIGNER

1. THE PURPOSE OF THIS BASE SHEET IS TO SHOW THE PLACEMENT OF THE DRAINAGE STRUCTURE. DSE SHALL REFER TO THE STRUCTURE DESIGN MANUAL FOR THE DESIGN OF ALL STRUCTURAL ELEMENTS.
2. ALL VALUES DESIGNATED "X" ARE REQUIRED AND SHALL BE PROVIDED BY THE DSE.
3. USE 1'-0" MAXIMUM FOR DIMENSION Y TO ENSURE DRAINAGE STRUCTURE CAN BE LOCATED AT THE FRONT FACE OF BARRIER WALL.
4. USE 1'-4" MINIMUM FOR DIMENSION Z. THICKNESS MAY BE MODIFIED TO ACCOMMODATE ADJACENT PAVEMENT.
5. THIS BASE SHEET ILLUSTRATES TYPICAL DETAILS FOR A 44" BARRIER AND MOMENT SLAB WITH CATCH BASIN TYPE G-3 (MODIFIED) WITH FRAME AND GRATE TYPE 20A. DESIGNER SHALL MODIFY DETAILS FOR OTHER TYPES OF MOMENT SLABS, BARRIER HEIGHT AND / OR DRAINAGE STRUCTURES.
6. DESIGNER SHALL REPLACE BAR MARK CALLOUTS DESIGNATED a(E) THROUGH w(E) WITH ACTUAL BAR MARKS.

Illinois Tollway

SECTION THROUGH MOMENT SLAB WITH DRAINAGE STRUCTURE DETAIL

VERSION:	STANDARD:	SHEET:
2023-03	M-DRN-606	1 OF 1

PLOT DRIVER: pw://wsp-us-pw.bentley.com:wsp-us-pw-02/Documents/Illinois Tollway GEC (9976RR)/_PWSetup/WorkSets/Illinois Tollway GEC (9976RR)/Standards/PlotDrv/pdf-IlTollway.pltcfg
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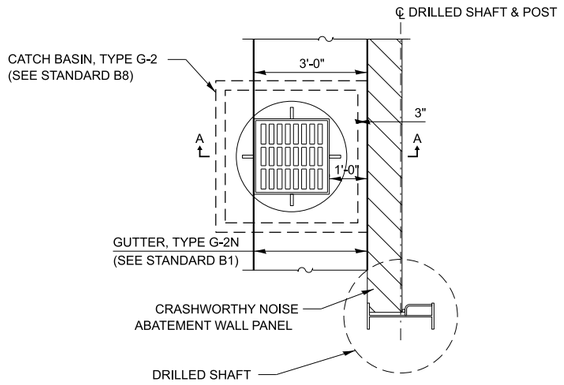
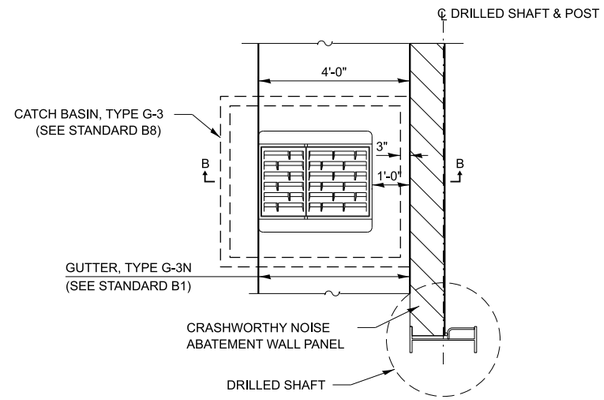
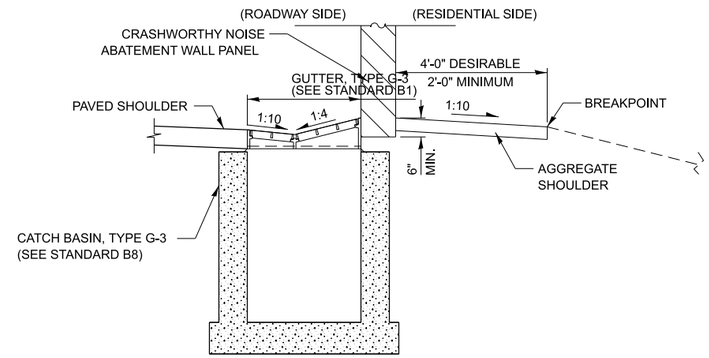


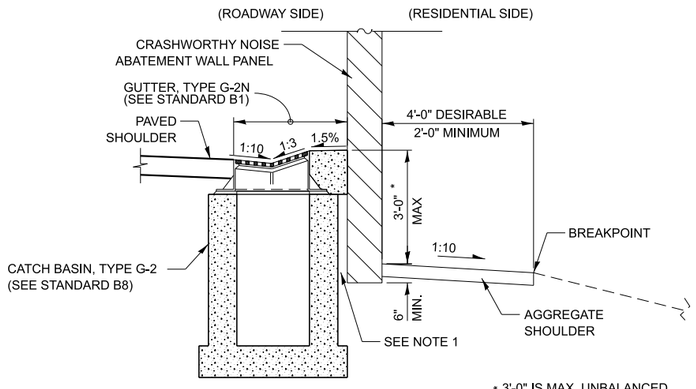
PLAN VIEW



PLAN VIEW

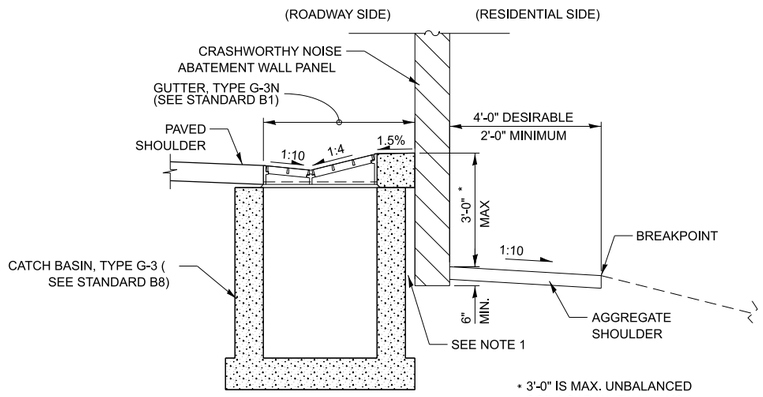


TYPICAL SECTION - GUTTER, TYPE G-3 OR GUTTER, TYPE G-2
(GUTTER, TYPE G-3 SHOWN)
(BALANCED SOIL LOAD, WHEN PANEL EMBEDMENT DEPTH IS ≤ 1 FT)



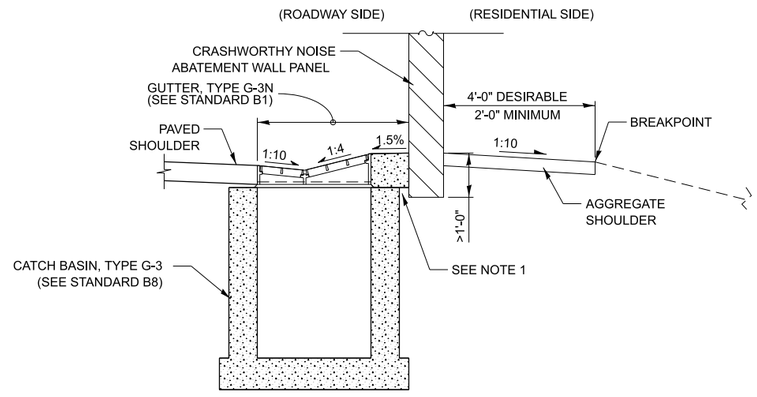
SECTION A-A
GUTTER, TYPE G-2N
(UNBALANCED SOIL LOAD, WHEN
DRAINAGE STRUCTURE IS ON HIGH SIDE)

* 3'-0" IS MAX. UNBALANCED SOIL LOAD WHEN NAW IS PLACED INSIDE CLEAR ZONE TO MAINTAIN TL-4 TEST LEVEL.



SECTION B-B
GUTTER, TYPE G-3N
(UNBALANCED SOIL LOAD, WHEN
DRAINAGE STRUCTURE IS ON HIGH SIDE)

* 3'-0" IS MAX. UNBALANCED SOIL LOAD WHEN NAW IS PLACED INSIDE CLEAR ZONE TO MAINTAIN TL-4 TEST LEVEL.



TYPICAL SECTION - GUTTER, TYPE G-3N OR GUTTER, TYPE G-2N
(GUTTER TYPE G-3N SHOWN)
(BALANCED SOIL LOAD, WHEN PANEL EMBEDMENT DEPTH IS > 1 FT.)

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTES TO DESIGNER

1. FOR NOISE ABATEMENT WALL DETAILS, REFER TO ILLINOIS TOLLWAY STANDARD DRAWINGS G15 AND G16.
2. FOR THE SELECTION OF GUTTER TYPE, REFER TO ROADWAY DESIGN CRITERIA MANUAL, ARTICLE 2.6.6.

NOTES:

1. FILL GAP WITH CLSM, GROUT OR CLASS SI CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

Illinois Tollway

NOISE ABATEMENT WALL DRAINAGE DETAILS (ROADWAY SIDE)

VERSION:	STANDARD:	SHEET:
2023-03	M-DRN-607	1 OF 1

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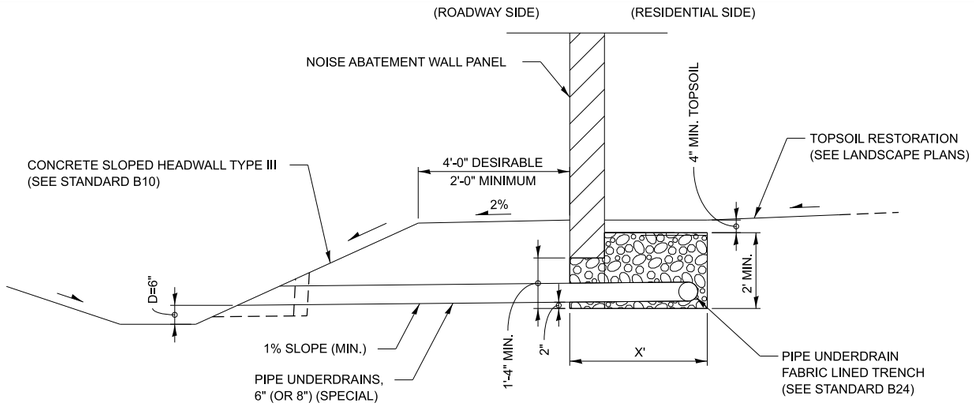
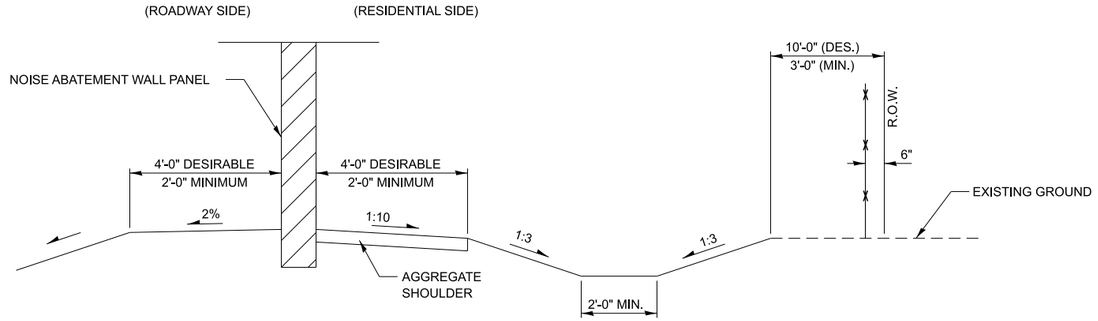
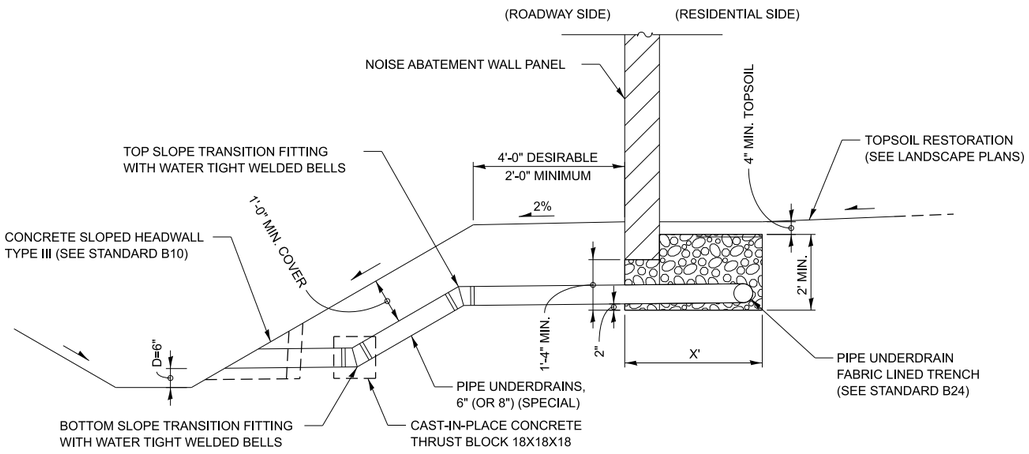


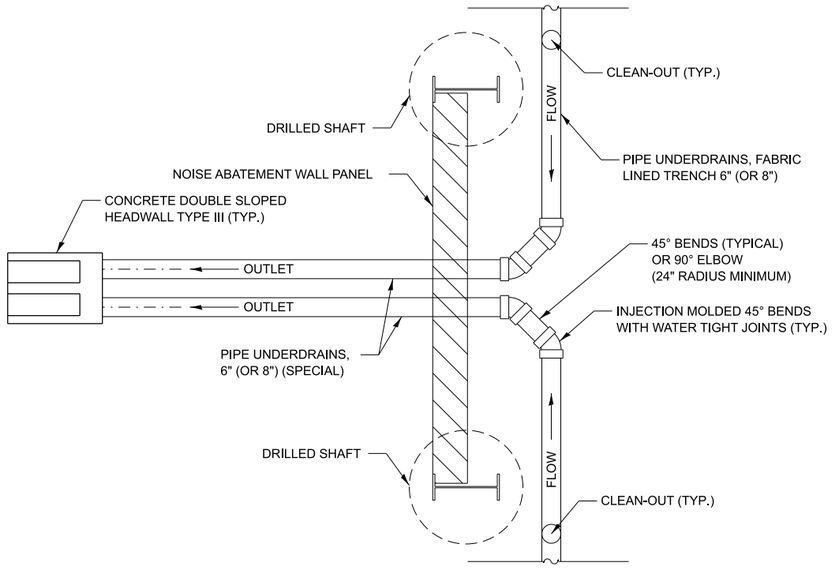
TYPICAL SECTION - PIPE UNDERDRAIN



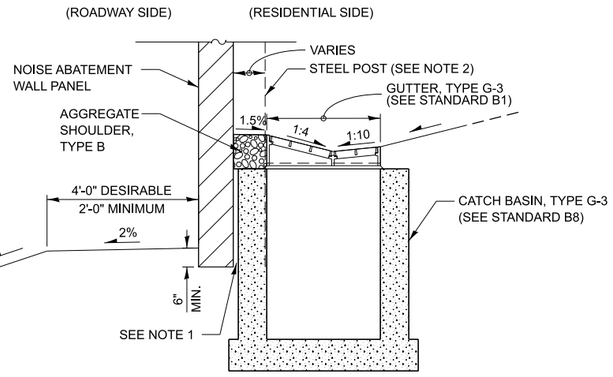
TYPICAL SECTION - DITCH AT THE TOP OF BACKSLOPE



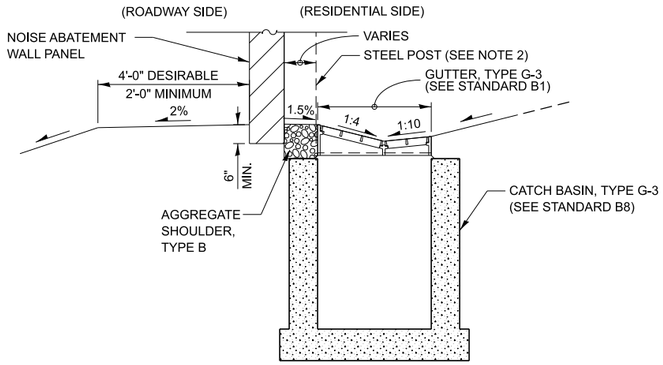
TYPICAL SECTION - PIPE UNDERDRAIN ON HIGH FILL SLOPE



PLAN VIEW - PIPE UNDERDRAIN



TYPICAL SECTION - GUTTER, TYPE G-3 OR GUTTER, TYPE G-2
(GUTTER, TYPE G-3 SHOWN)
(UNBALANCED SOIL LOAD, WHEN DRAINAGE STRUCTURE IS ON HIGH SIDE)



TYPICAL SECTION - GUTTER, TYPE G-3 OR GUTTER, TYPE G-2
(GUTTER, TYPE G-3 SHOWN)
(BALANCED SOIL LOAD, WHEN PANEL EMBEDMENT DEPTH IS ≤ 1 FT)

NOTE TO DESIGNER

THIS BASE SHEET SHOWS TYPICAL 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 BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTES TO DESIGNER

1. THE DETAILS SHOWN ARE ACCEPTABLE OPTIONS TO DRAIN THE AREA ADJACENT TO A NOISE ABATEMENT WALL (RESIDENTIAL SIDE). THE MOST FEASIBLE OPTION IS SITE SPECIFIC. IF GUTTER IS USED, REFER TO ROADWAY DESIGN CRITERIA MANUAL, ARTICLE 2.6.6 FOR THE SELECTION OF GUTTER TYPE. THE DESIGNER IS RESPONSIBLE FOR PROVIDING SUPPORTING DRAINAGE CALCULATIONS TO DETERMINE THE MOST FEASIBLE OPTION. THE DESIGNER IS ALSO RESPONSIBLE FOR DESIGNING AND DETAILING ALL DITCHES, DRAINAGE STRUCTURES AND STORM SEWERS ON THE DRAINAGE PLAN AND PROFILES.
2. DETERMINE DIMENSION X TO OFFSET PIPE UNDERDRAIN TO AVOID CONFLICT WITH THE DRILLED SHAFTS.
3. PIPE UNDERDRAINS SHALL MEET THE REQUIREMENTS OF DDM ARTICLE 9.7.2, DDM TABLE 9.3 AND STANDARD B24.
4. FOR NOISE ABATEMENT WALL DETAILS, REFER TO ILLINOIS TOLLWAY STANDARD DRAWINGS G15 AND G16.

NOTES:

1. FILL GAP WITH CLSM, GROUT OR CLASS SI CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. PROVIDE JOINT FILLER BETWEEN THE STEEL POST AND GUTTER.

Illinois Tollway

NOISE ABATEMENT WALL DRAINAGE DETAILS (RESIDENTIAL SIDE)

VERSION:	STANDARD:	SHEET:
2023-03	M-DRN-608	1 OF 1

PLOT DRIVER: pw://wsp-us-pw.bentley.com:wsp-us-pw-02/Documents/Illinois Tollway GEC (997GRR)/_PWSetup/WorkSets/Illinois Tollway GEC (997GRR)/Standards/PlotDrv/pdf-itTollway.pltcfg
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