

Index of Details Storm Drainage

Plate No.

Name

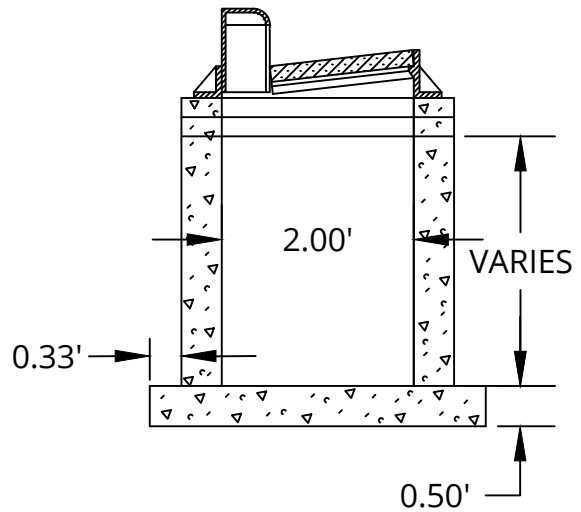
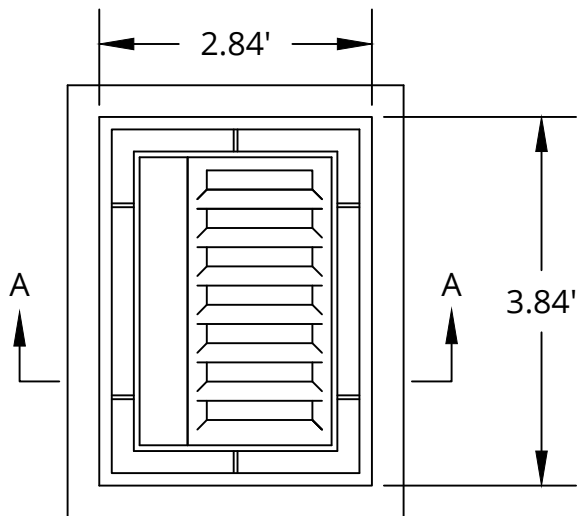
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2024 STANDARD DETAIL PLATE

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SECTION A-A

NOTES:

1. INSIDE DIMENSIONS 2.00' X 3.00'
2. BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
3. PIPE CUT OUTS TO BE LOCATED WHERE REQUIRED.
4. STRENGTH DESIGN OF BASE SLAB AND STRUCTURE PER MANUFACTURER.
5. SEE DETAIL MI-3 FOR ADJUSTING RING CONSTRUCTION
6. SEE SD-5 FOR CASTING SCHEDULE

24" x 36" CATCH BASIN

Plate No. SD-1



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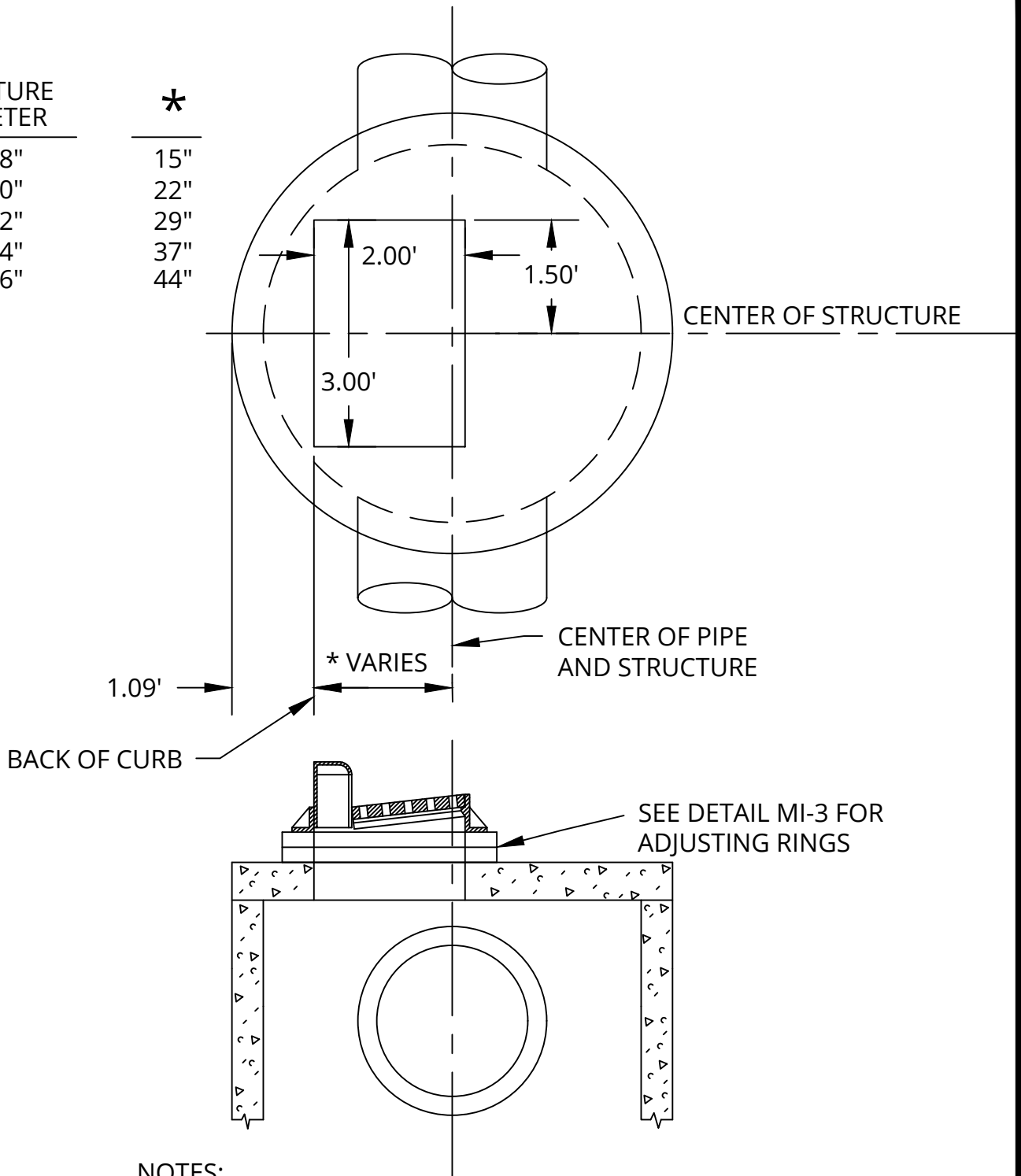
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STRUCTURE
DIAMETER

48"
60"
72"
84"
96"

*

15"
22"
29"
37"
44"



NOTES:

1. STRENGTH DESIGN OF COVER SHALL BE PER MNDOT STANDARD PLATE 4020.
2. SEE SD-5 FOR CASTING SCHEDULE

RECTANGULAR OPENING CB COVER

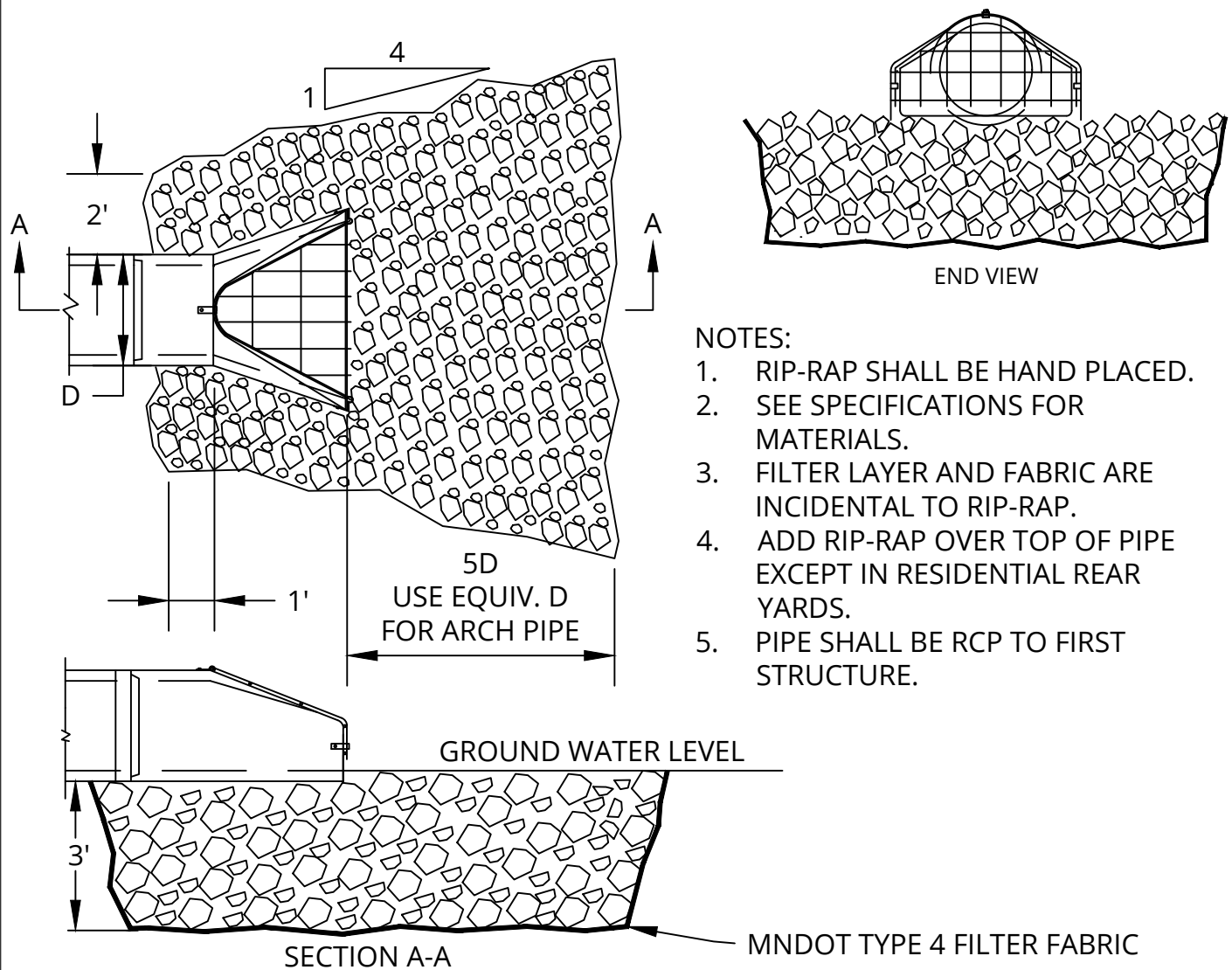
Plate No. SD-2



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NOTES:

1. RIP-RAP SHALL BE HAND PLACED.
2. SEE SPECIFICATIONS FOR MATERIALS.
3. FILTER LAYER AND FABRIC ARE INCIDENTAL TO RIP-RAP.
4. ADD RIP-RAP OVER TOP OF PIPE EXCEPT IN RESIDENTIAL REAR YARDS.
5. PIPE SHALL BE RCP TO FIRST STRUCTURE.

RIP-RAP QUANTITIES (C.Y.)

PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP
12"	6	24"	14	42"	35
15"	8	27"	17	48"	43
18"	9	30"	21	54"	50
21"	12	36"	28	60"	58

HEAVY DUTY TRASH GUARD REQUIRED ON:

- UPSTREAM APRONS
- DOWNSTREAM APRONS 30" OR LARGER IN MAINTAINED RESIDENTIAL AREAS
- NO TRASH GUARD ON DITCH CROSSINGS UNLESS OTHERWISE DIRECTED

RIP-RAP FOR OUTLET TO WET DITCH OR BASIN

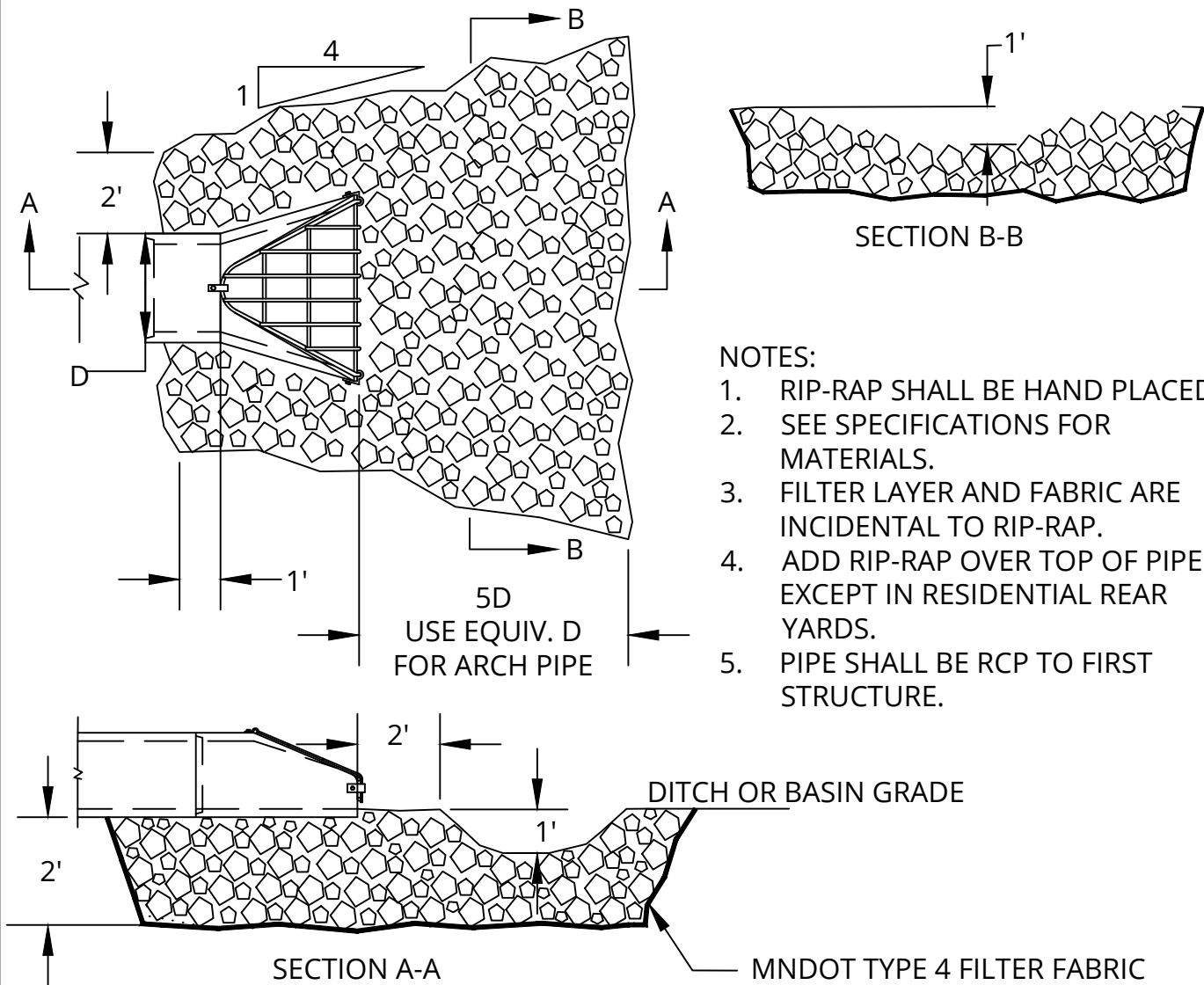
Plate No. SD-3



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RIP-RAP QUANTITIES (C.Y.)

PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP
12"	4	24"	10	42"	23
15"	5	27"	12	48"	29
18"	6	30"	14	54"	34
21"	8	36"	19	60"	39

HEAVY DUTY TRASH GUARD REQUIRED ON:

- UPSTREAM APRONS
- DOWNSTREAM APRONS 30" OR LARGER
IN MAINTAINED RESIDENTIAL AREAS
- NO TRASH GUARD ON DITCH CROSSINGS
UNLESS OTHERWISE DIRECTED

**RIP-RAP FOR OUTLET TO
DRY DITCH OR BASIN**

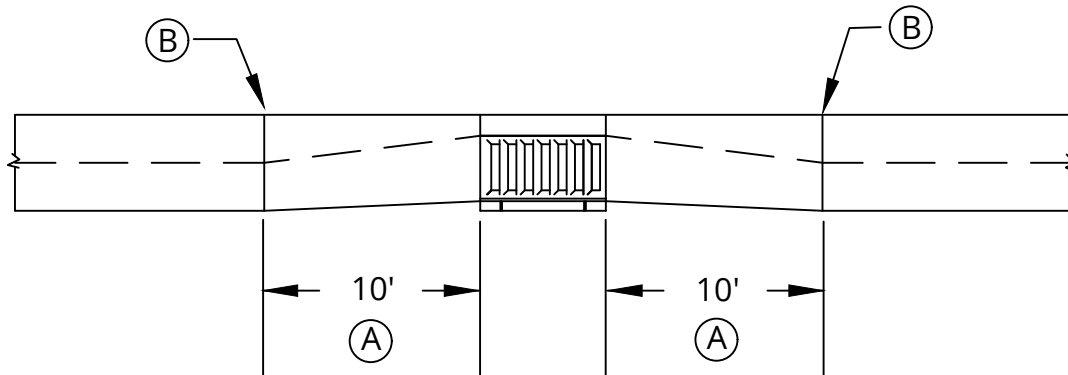
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(A) - 10' TRANSITION FROM CASTING OPENING TO D312 CURBING.

(B) - EXPANSION JOINT.

CASTING SCHEDULE

STRUCTURE TYPE	NEENAH CASTING TYPE
MANHOLE (DIA. VARIES)	R-1733 W/ PLATEN LID
CATCH BASIN (DIA. VARIES)	R-3067-V (SEE BLAINE PLATE SD-2)
24" X 36"	R-3067-V (SEE BLAINE PLATE SD-1)
24" X 36"	R-3290-A (DRIVEWAYS)
MNDOT TYPE "H"	R-3250-1 (B STYLE CURBING)
MNDOT TYPE "H"	R-3508-A2 (D312 STYLE CURBING)
MNDOT TYPE "H"	R-2577-1 TYPE C GRATE (OPEN SPACES)

NOTES:

1. IF CATCHBASIN IS NOT LOCATED ON PROPERTY LINE, DO NOT USE 24" X 36" STRUCTURE.
2. CATCH BASIN CASTINGS SHALL BE R-3067-V VANE GRATE FOR FLOW THRU AND BI-DIRECTIONAL R-3067-VB VANE GRATE IN SAG LOCATIONS.

CATCH BASIN/CURBING & CASTING SCHEDULE

Plate No. SD-5



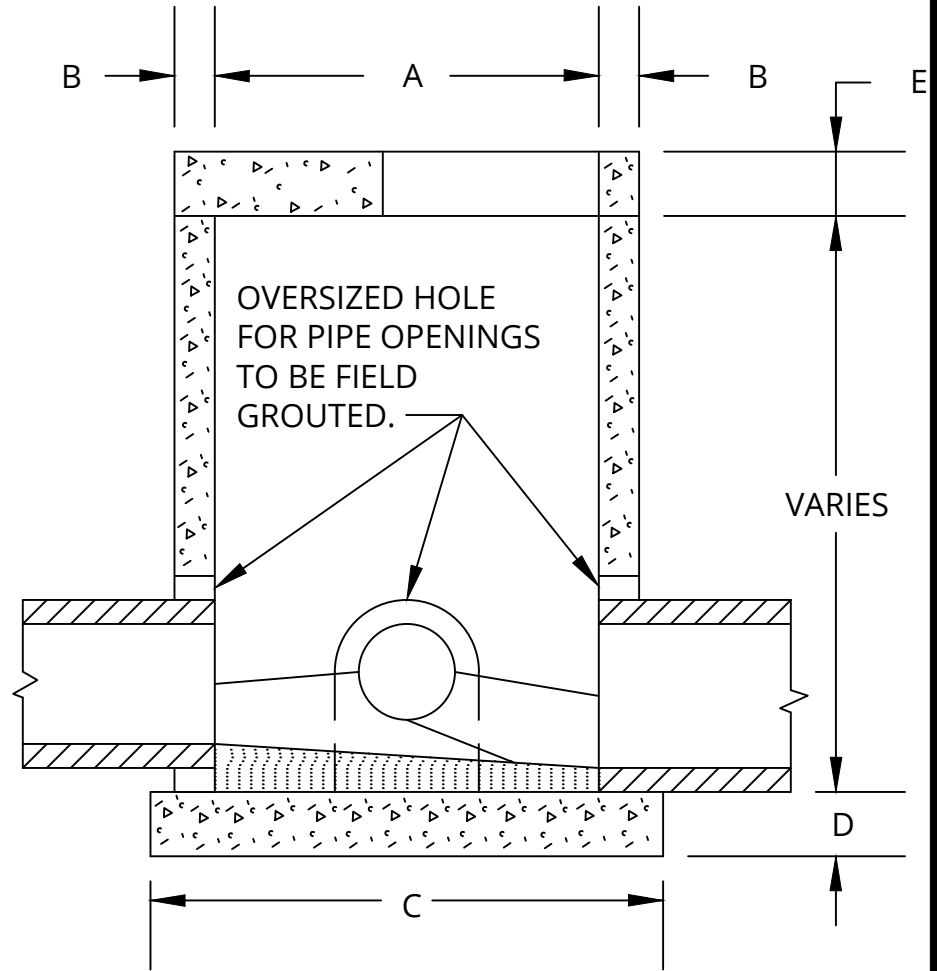
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NOTES:

1. 54" THRU 120" DIA. STRUCTURES ARE MANUFACTURED WITH BELL END FACING DOWN.
2. STRUCTURES ARE MANUFACTURED IN ACCORDANCE WITH ASTM C-478 AND MNDOT STANDARD PLATE 4005 WITH RUBBER GASKET JOINTS.
3. REFER TO BLAINE DETAIL MI-3 FOR CASTING, ADJUSTING RINGS, AND STEPS.
4. PROVIDE MORTAR FILLETS TO FIT THE BOTTOM PORTION OF PIPE TO DIRECT FLOW TO OUTLET HALF-WAY UP PIPE MINIMUM.
5. COVER SLAB DESIGN VARIES WITH CASTING.
6. REINFORCING STEEL SHALL BE PER ASTM C-478 AND MNDOT PLATE 4005.



A	B	C	D	E
48"	5"	64"	6"	6"
54"	5.5"	72"	8"	8"
60"	6"	78"	8"	8"
66"	6.5"	85"	8"	8"
72"	7"	92"	8"	8"
78"	7.5"	100"	8"	8"
84"	8"	106"	8"	8"
90"	8.5"	114"	8"	8"
96"	9"	120"	8"	8"
102"	9.5"	127"	12"	8"
108"	10"	132"	12"	12"
120"	10"	146"	12"	12"

STANDARD STORM SEWER CATCH BASIN/MANHOLE & MANHOLE

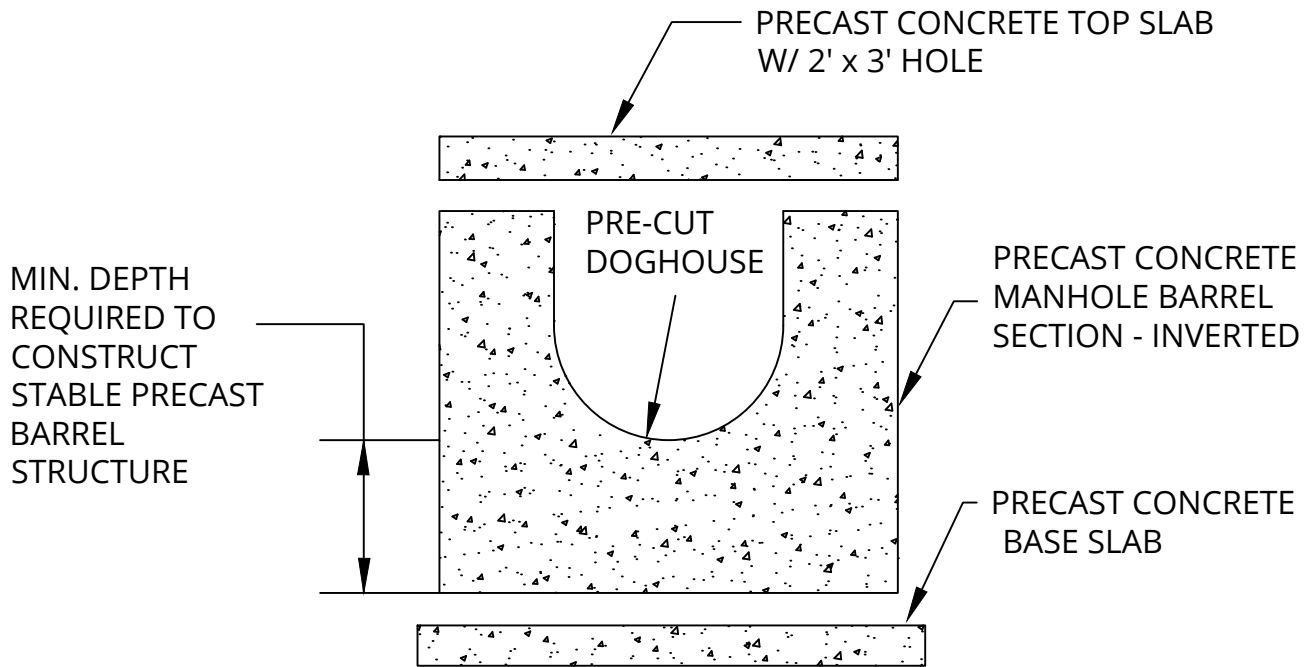
Plate No. SD-6



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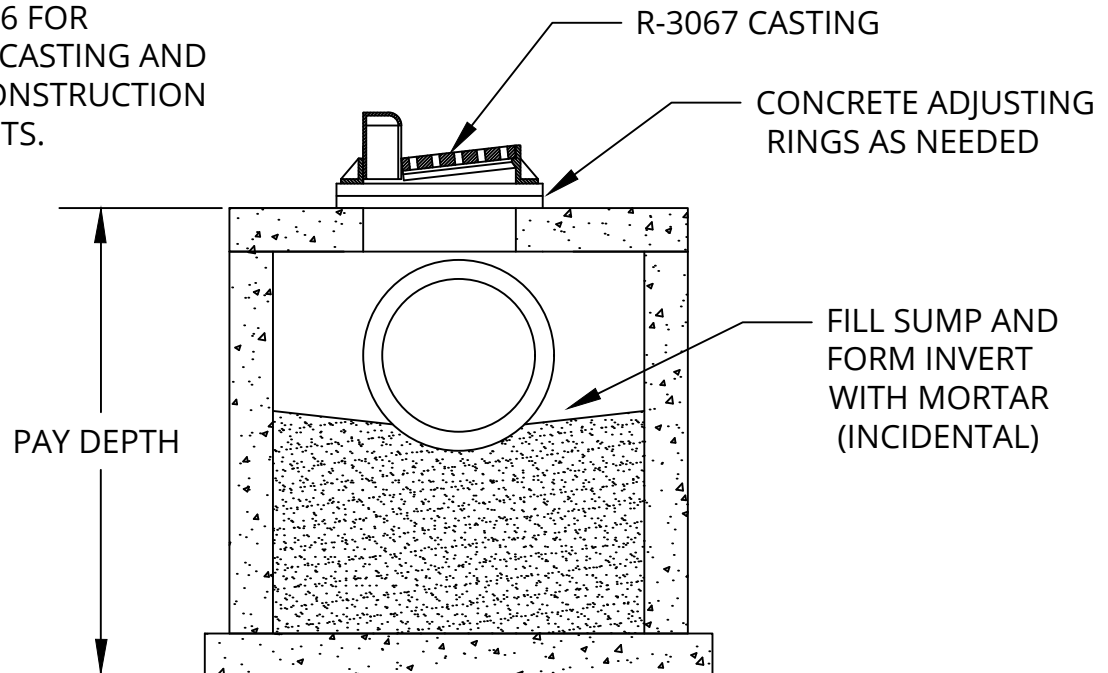
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PRECAST COMPONENTS

REFERENCE BLAINE DETAILS
MI-3 AND SD-6 FOR
ADDITIONAL CASTING AND
MANHOLE CONSTRUCTION
REQUIREMENTS.



ASSEMBLED STRUCTURE

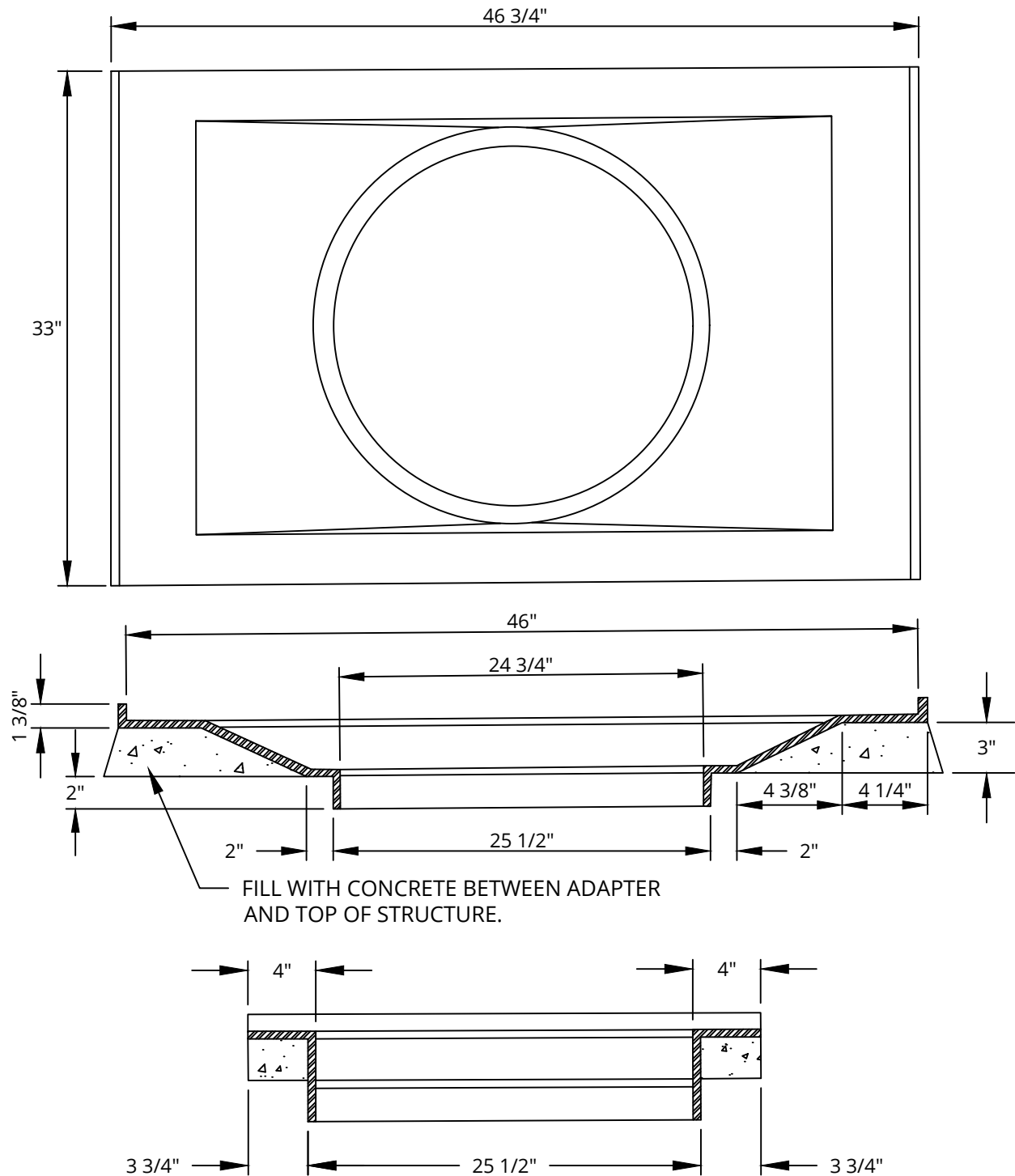
SHALLOW DEPTH BASIN MANHOLE Plate No. SD-7



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NOTE: INSTALL ADAPTER PLATE ON TO STRUCTURE FIRST. THEN INSTALL 2" X 3" RINGS ON TOP OF ADAPTER PLATE FOR PROPER HEIGHT. RINGS ARE TO BE WRAPPED IN FABRIC AND 1/4 INCH OF GROUT BETWEEN RINGS.

R-3067-27 ADAPTER PLATE

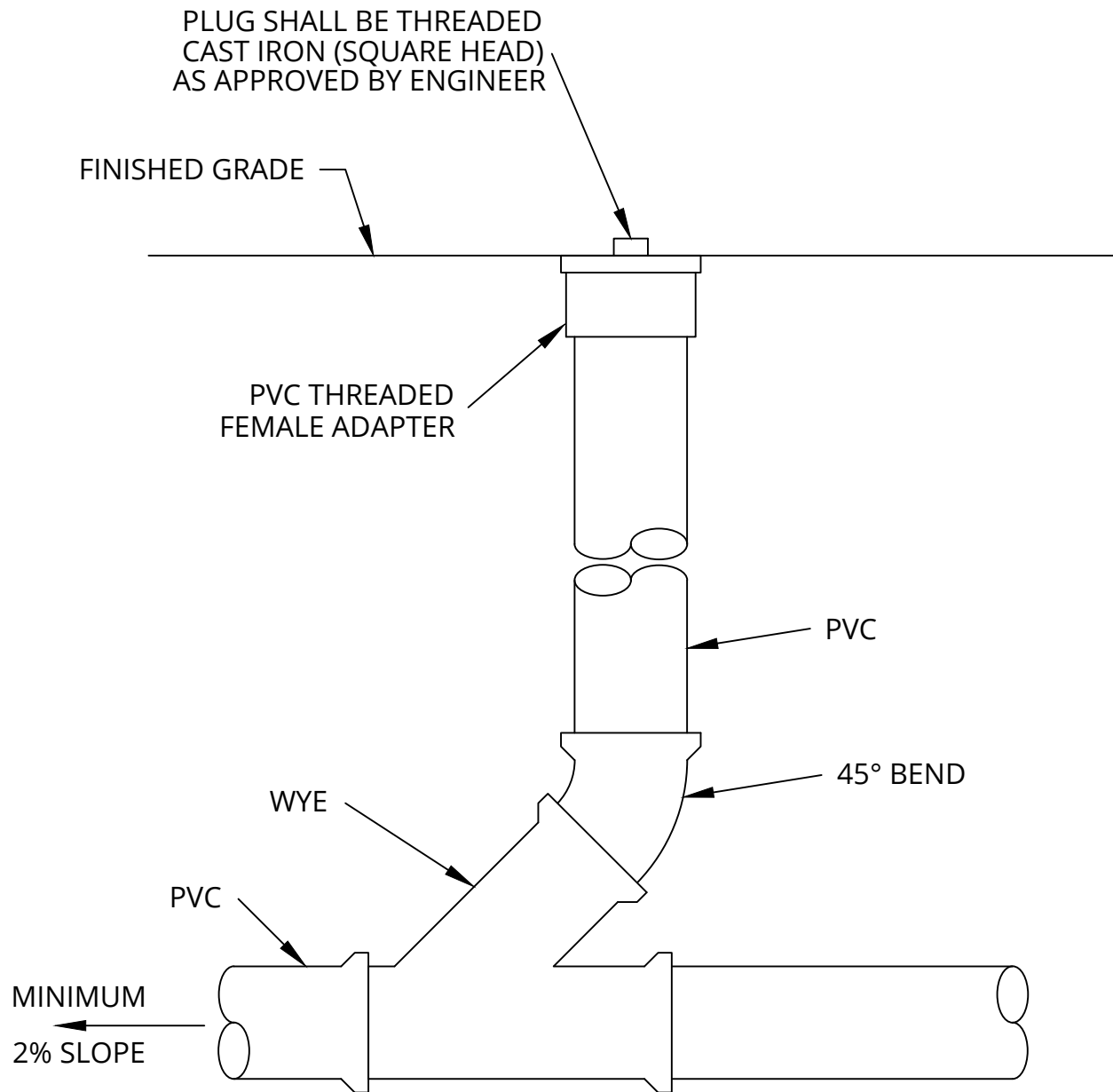
Plate No. SD-8



2024 STANDARD DETAIL PLATE

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NOTES:

- SIZES: UP TO 10" DIAMETER
- REFER TO PROJECT DOCUMENTS FOR PVC TYPE. IF NOT NOTED PVC TYPE IS TO BE SCHEDULE 40 WITH SOLVENT WELD JOINTS.
- CLEAN OUTS ARE REQUIRED AT 100' SPACING AND AT CHANGE OF DIRECTION.

PVC STORM SEWER CLEAN OUT

Plate No. SD-9



2024 STANDARD DETAIL PLATE

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