

STANDARD TYPE A MANHOLE
FRAME & COVER SEE STD.
MD 383.31 & MD 383.32

FRAME ANCHORAGE
SEE STD.
MD 384.02

TOP OF COVER

GRADE ADJUSTMENT RING SEE STD.
MD 384.01

LADDER RUNGS
SEE NOTE 6

ECCENTRIC CONE UNIT SEE
STD. MD 384.01

RISER UNIT
SEE STD.
MD 384.01

JOINTS
SEE NOTE 5

WALL REINF.
SEE NOTE 3

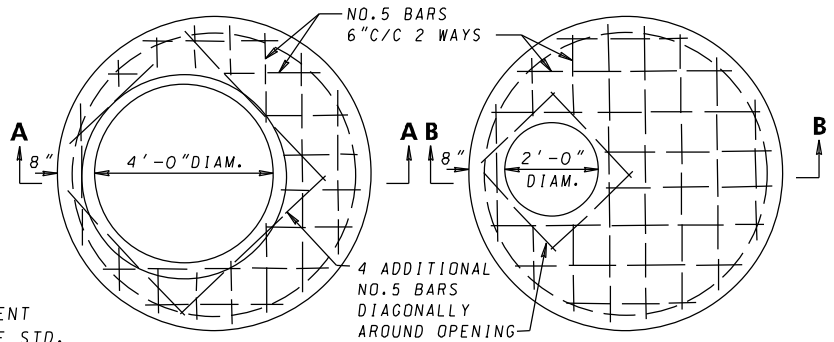
CHANNEL
SEE NOTE 9

CONCRETE OR BRICK ON EDGE
1/4" FALL PER FOOT

ADDITIONAL NO.3 BARS
SEE NOTE 7

BASE & BASE REINFORCING
SEE NOTE 4

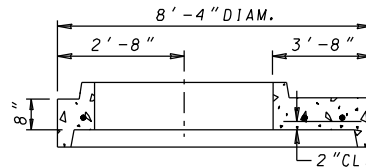
PROVIDE 6" MIN. BEDDING OF NO.57
AGGREGATE ON FIRM SUBGRADE
(BY OTHERS)



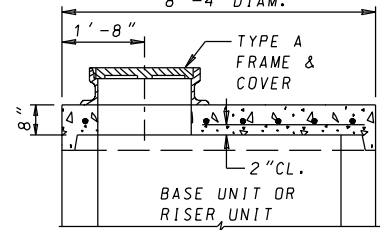
FLATTOP REDUCER

FLAT SLAB TOP

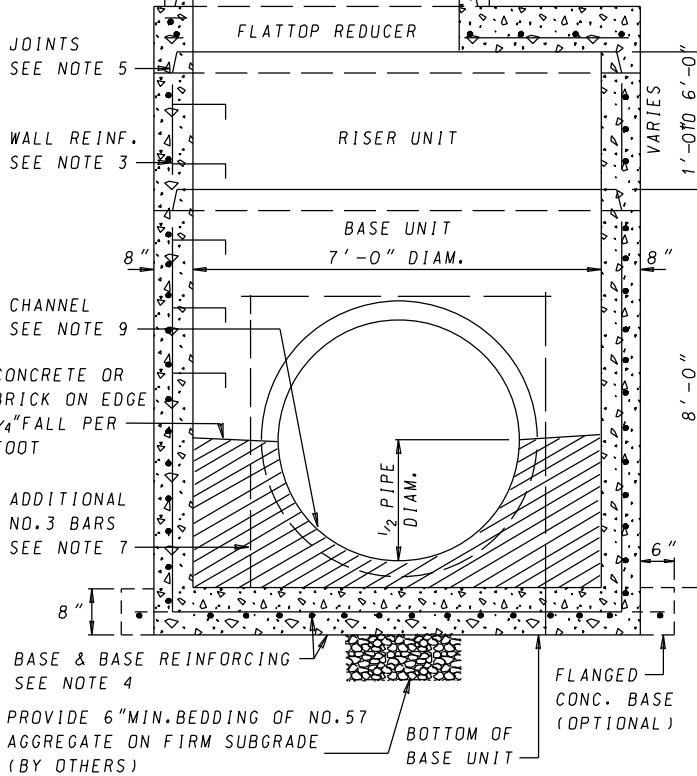
(SHOWN WITHOUT FRAME & COVER)
8'-4" DIAM.



SECTION A-A



SECTION B-B



SECTION VIEW

NOTES

- MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
- CONCRETE SHALL BE MIX NO.6 (4500 PSI).
- WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS AND ECCENTRIC CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.21 IN²/FT AND MAXIMUM SPACING OF 5" FOR THE 84" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 52. REINFORCEMENT SHALL MEET ASTM A 615, GRADE 60.
- BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.48 IN²/FT AND A MAXIMUM SPACING OF 4" WITH 2" COVER FROM THE TOP OF BASE. THE BASE SHALL BE CAST MONOLITHIC WITH THE UNIT OR JOINTED PER THE MANUFACTURER'S DESIGN.
- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING (WHERE APPLICABLE) MORTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 AND C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
- LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-4" MAXIMUM C/C. RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR 383.92. LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
- WHEN THE DISTANCE BETWEEN MULTIPLE PIPE OPENING IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6" ADDITIONAL NO.3 BARS ARE REQUIRED AROUND OPENINGS.
- LIFT HOLES OR LIFT EYES SHALL BE APPRIVED IN EACH SECTION FOR HANDLING.
- MIX NO.2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
- THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STD. 384.13 FOR DETAILS.
- MINIMUM DEPTH PAYMENT PER EACH SHALL BE 10'-1" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 10'-1". THE COST OF THE DRIP STONE LANDING, NO.57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.
- MANHOLE HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT
	APPROVAL • SHA REVISIONS
	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 2-22-91
	APPROVAL 1-2-91
	REVISD 10-7-14
REVISD 9-29-14	
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REVISD	REVISD

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

**84" DIAMETER PRECAST MANHOLE
FOR 54" & 60" PIPES**

STANDARD NO.

MD 384.07