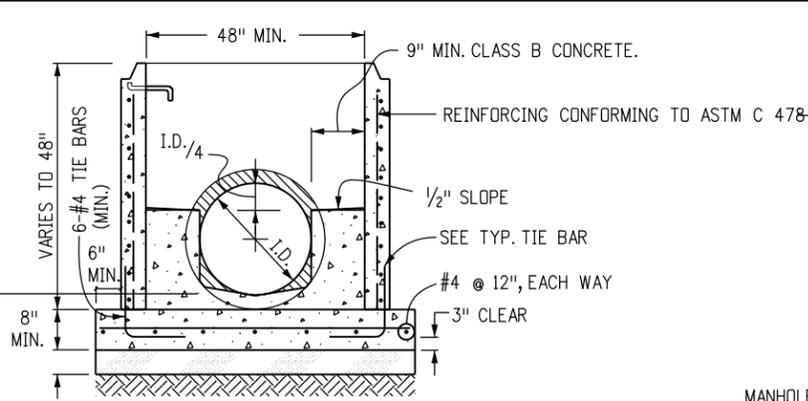
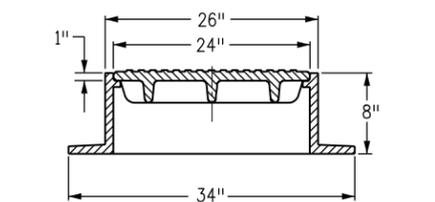
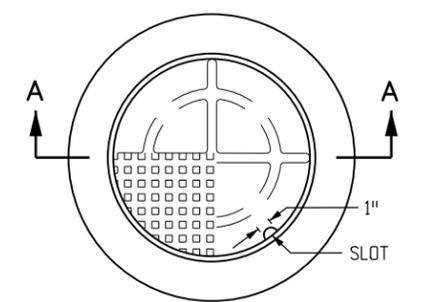
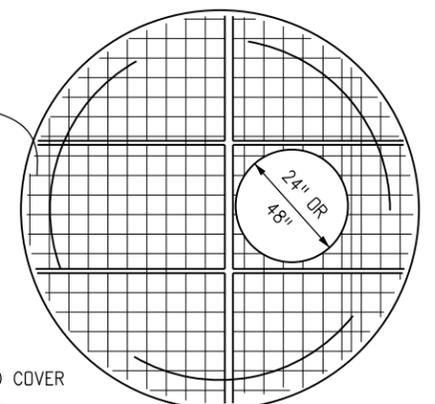


**SECTION B-B**

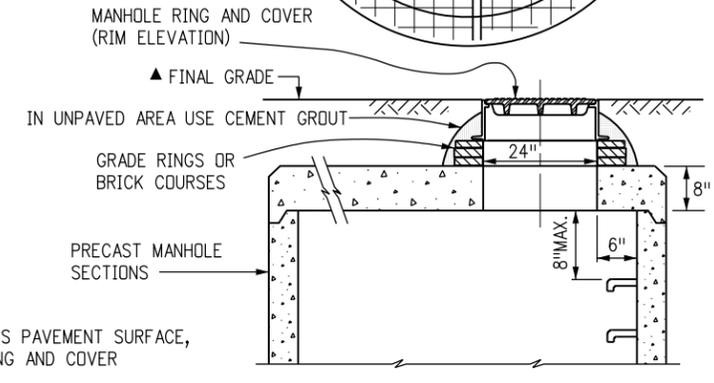


**SECTION D-D**



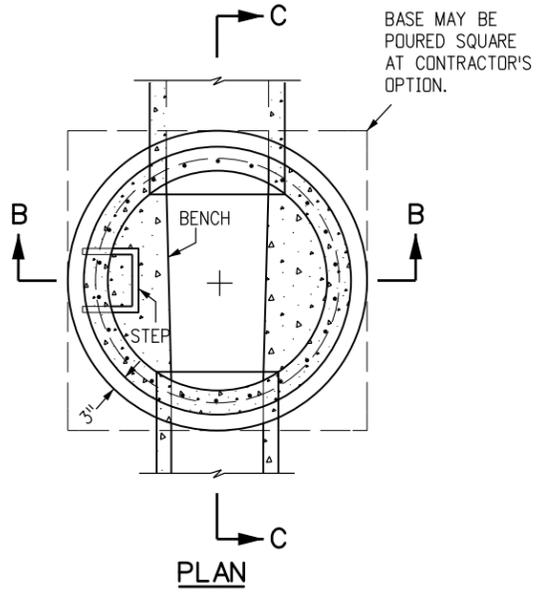
TOTAL WEIGHT: APPROXIMATELY 400 LBS. SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.

**SECTION A-A  
MANHOLE RING AND COVER**

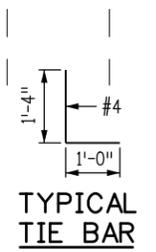


**FLAT TOP SECTION DETAIL**

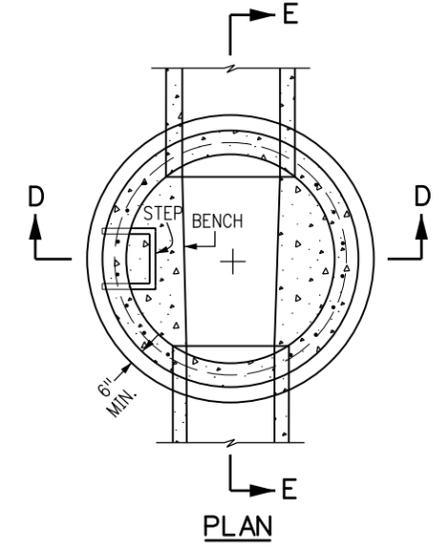
▲ WHEN FINAL GRADE IS PAVEMENT SURFACE, RECESS MANHOLE RING AND COVER 1/4" MIN. TO 1/2" MAX.



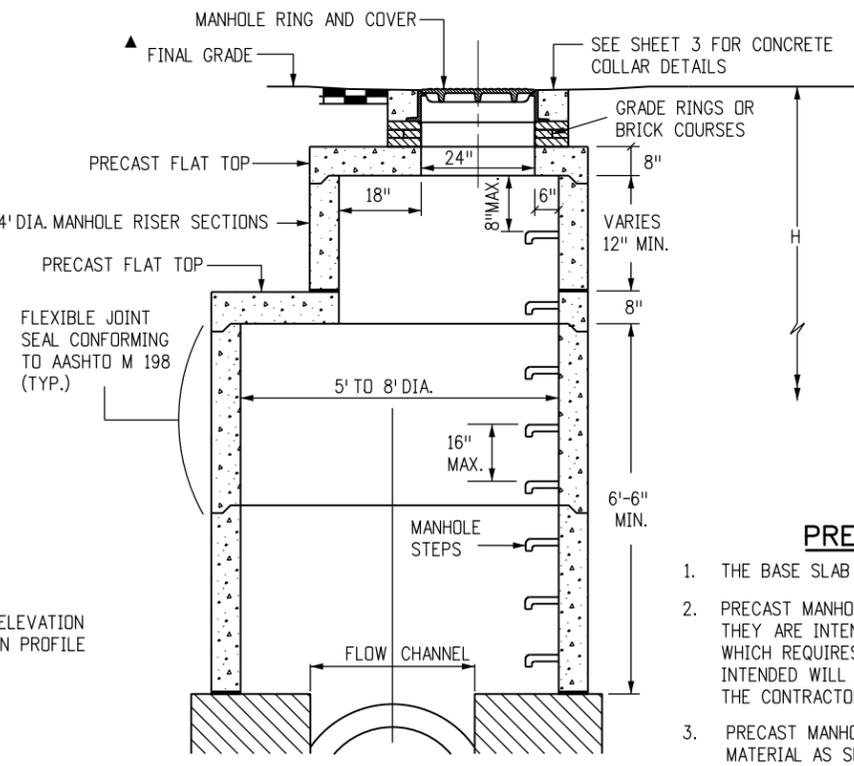
**PLAN**



**TYPICAL TIE BAR**



**PLAN**



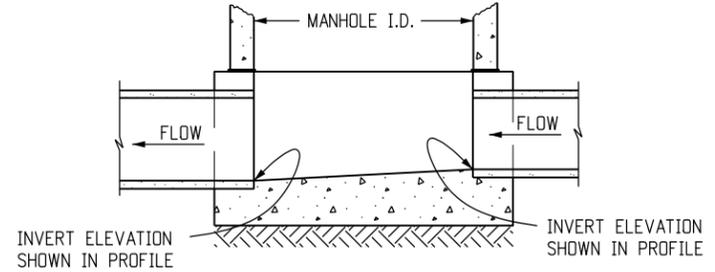
**MANHOLE RISER DETAIL**

**LEGEND**

- SUITABLE SUBGRADE
- GRANULAR BEDDING MATERIAL
- CONCRETE

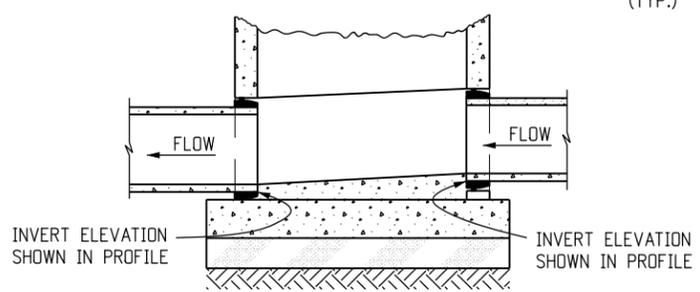
**PRECAST MANHOLE BASES NOTES:**

1. THE BASE SLAB SHALL BE POURED MONOLITHICALLY WITH BOTTOM RISER SECTION.
2. PRECAST MANHOLE BASES SHALL FIT THE CONDITIONS AND LOCATIONS FOR WHICH THEY ARE INTENDED WITHOUT ANY FIELD MODIFICATIONS. ANY MANHOLE BASE WHICH REQUIRES FIELD CUTTING OR MODIFICATION IN ORDER TO FIT THE LOCATIONS INTENDED WILL BE REJECTED BY THE ENGINEER AND REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT.
3. PRECAST MANHOLE BASES SHALL BE BEDDED ON AN APPROVED GRANULAR BEDDING MATERIAL AS SHOWN ABOVE.



**SECTION C-C**

**CAST-IN-PLACE SLAB BASE**



**SECTION E-E**

**PRECAST SLAB BASE**

**Computer File Information**

Creation Date: 07/31/19	(R-X)
Designer Initials: JBK	(R-X)
Last Modification Date: 07/31/19	(R-X)
Detailer Initials: LTA	(R-X)
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)

**Sheet Revisions**

Date:	Comments

**Colorado Department of Transportation**

2829 West Howard Place  
 CDDT HQ, 3rd Floor  
 Denver, CO 80204  
 Phone: 303-757-9021 FAX: 303-757-9868

**Project Development Branch**      **JBK**

**MANHOLES**

Issued by the Project Development Branch: July 31, 2019

**STANDARD PLAN NO.**

**M-604-20**

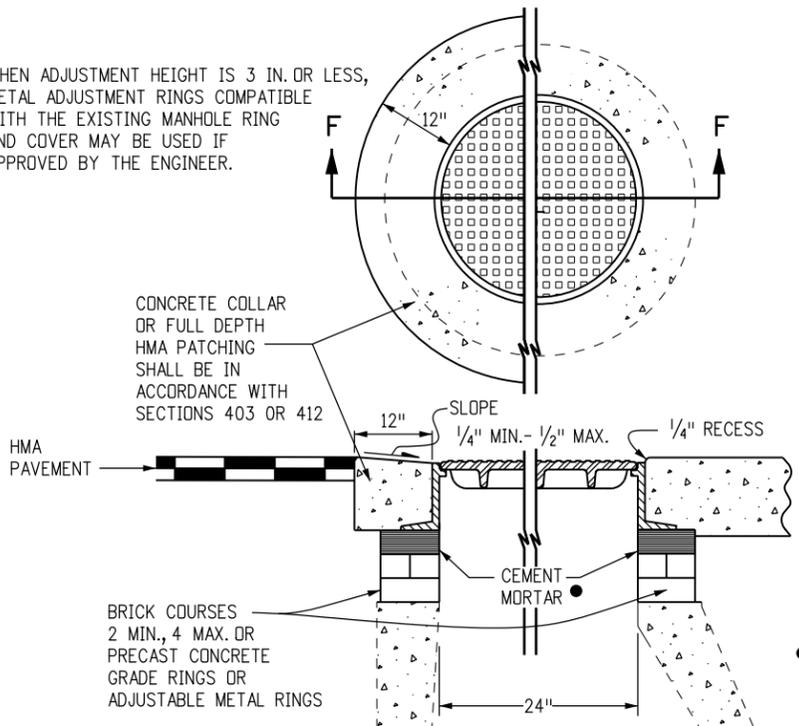
**Standard Sheet No. 2 of 3**

Project Sheet Number:

**T-BASE MANHOLES NOTES**

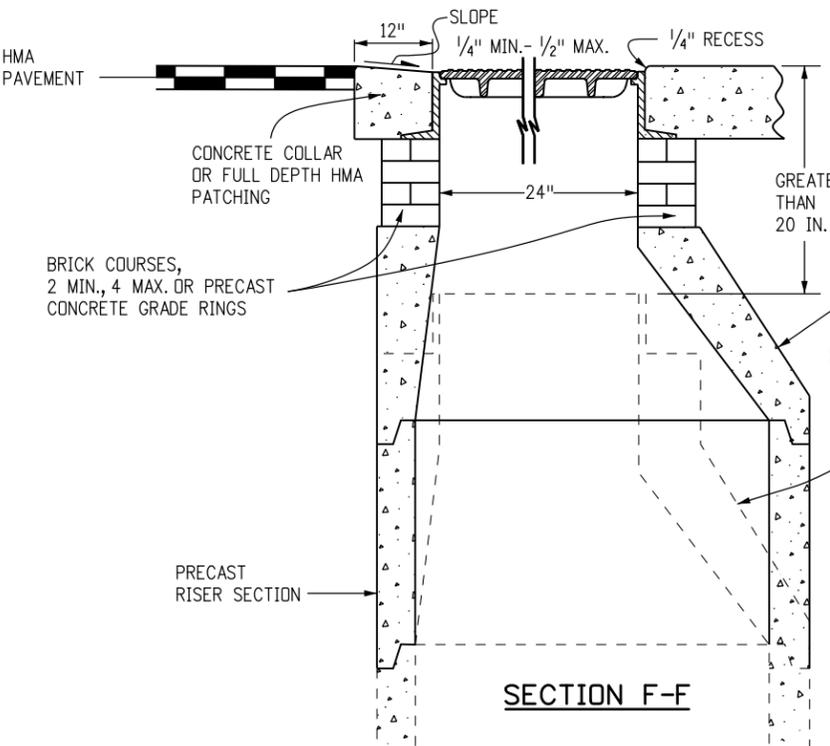
1. THE T-BASE SECTION SHALL BE SHOP-FABRICATED FOR DELIVERY TO THE CONSTRUCTION SITE AS A COMPLETE UNIT.
2. THESE DETAILS SHOW ONLY THE CONCEPTUAL AND STANDARD DIMENSIONAL REQUIREMENTS FOR TYPE T-BASE MANHOLES. THE CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. THE DETAILS SHOWN HEREIN APPLY ONLY TO 48 IN. AND GREATER DIAMETER PIPES.
3. EXCEPT FOR CLASS OF PIPE, SPECIFICATIONS FOR THE MANHOLE SHALL BE THE SAME AS THOSE REQUIRED FOR THE ADJOINING PIPE.
4. THE T-BASE SECTION SHALL MAINTAIN ITS INTERNAL SHAPE AND FLOW AREA. GROUTING OR FILLING SHALL BE APPLIED SO AS TO NOT DISTURB THE NORMAL FLOW OR REDUCE THE AREA.

WHEN ADJUSTMENT HEIGHT IS 3 IN. OR LESS, METAL ADJUSTMENT RINGS COMPATIBLE WITH THE EXISTING MANHOLE RING AND COVER MAY BE USED IF APPROVED BY THE ENGINEER.



**SECTION F-F  
ADJUST MANHOLE 20 IN. OR LESS**

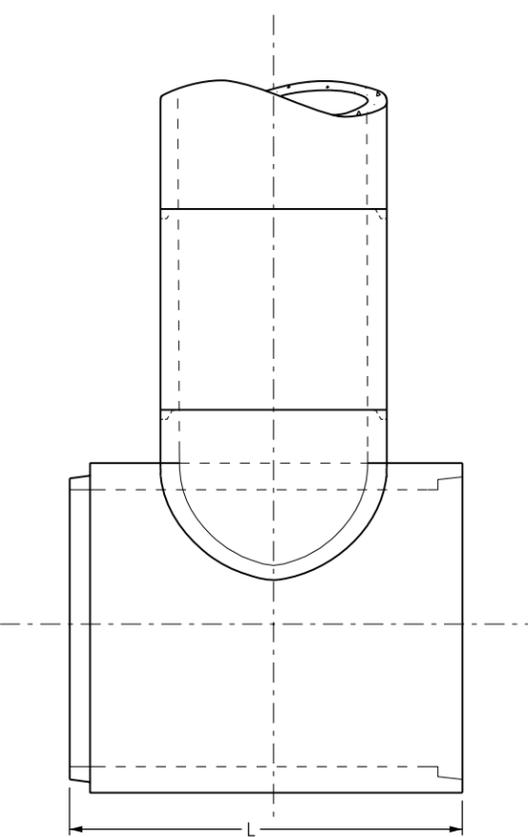
MORTAR THICKNESS MAY BE NONSYMMETRICAL TO MATCH CROSS SLOPE OF ROADWAY.



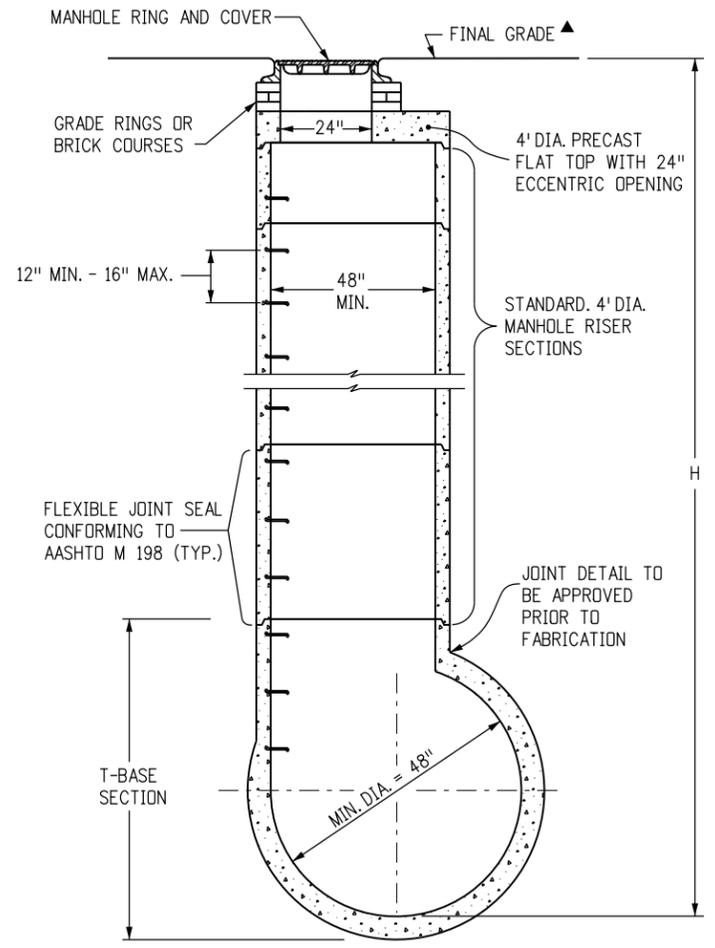
**SECTION F-F  
MODIFY MANHOLE GREATER THAN 20 IN.**

RESET ECCENTRIC CONE. WORK WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK

▲ WHEN FINAL GRADE IS PAVEMENT SURFACE, RECESS MANHOLE RING AND COVER 1/4" MIN. TO 1/2" MAX.



**CIRCULAR RIGID PIPE  
(LONGITUDINAL SECTION)**



**CIRCULAR RIGID PIPE  
(TRANSVERSE SECTION)**

**MANHOLE T-BASE**

<b>Computer File Information</b>		<b>Sheet Revisions</b>		Colorado Department of Transportation 2829 West Howard Place CDDT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868 <b>Project Development Branch</b>	<h1>MANHOLES</h1>	<b>STANDARD PLAN NO.</b>	
Creation Date: 07/31/19		Date:	Comments			M-604-20	
Designer Initials: JBK		(R-X)				Standard Sheet No. 3 of 3	
Last Modification Date: 07/31/19		(R-X)				Project Sheet Number:	
Detailer Initials: LTA		(R-X)					
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English		(R-X)		Issued by the Project Development Branch: July 31, 2019			