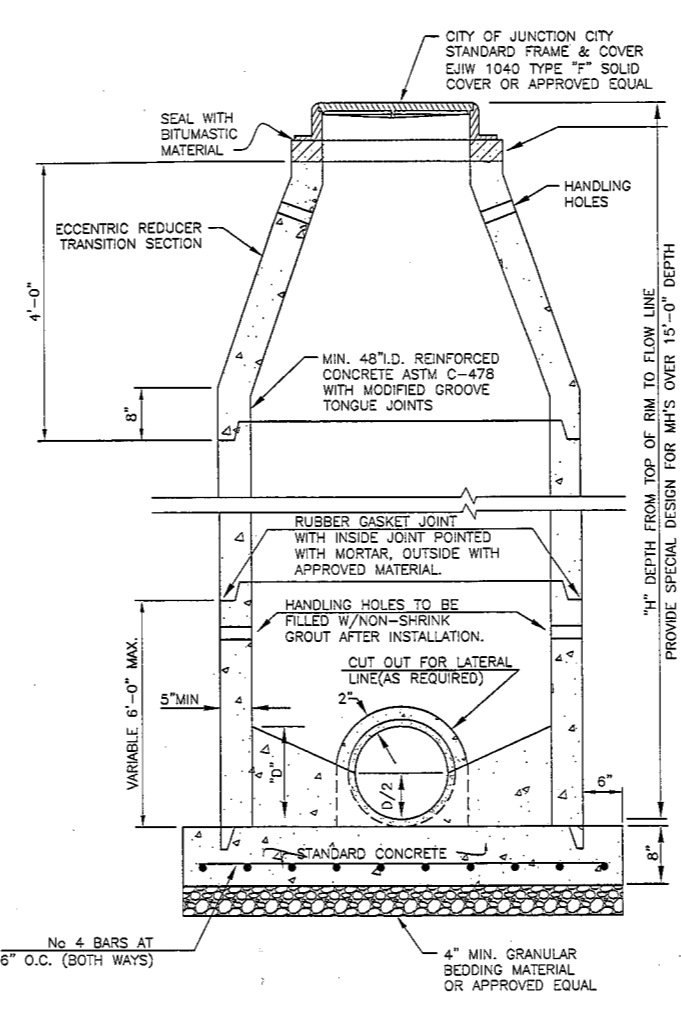


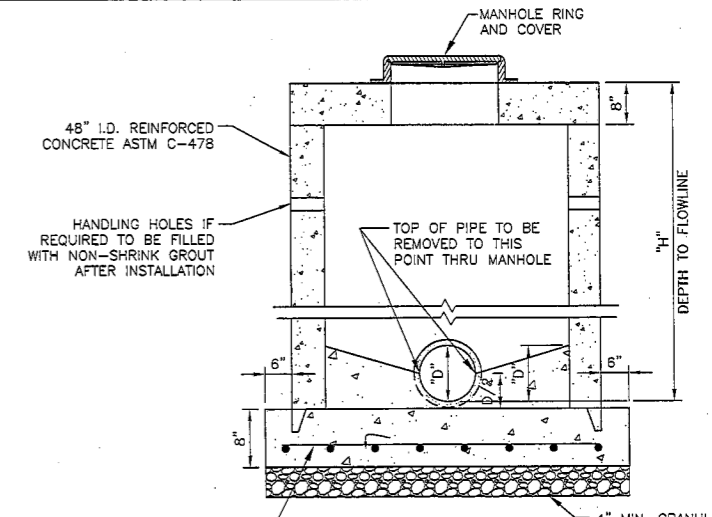
**DROP MANHOLE CONNECTION**  
N.T.S.

NOTE:  
INTERNAL DROP CONNECTIONS WILL BE CONSIDERED ON A CASE BY CASE BASIS, BY THE CITY ENGINEER.



**SANITARY MANHOLE**  
N.T.S.

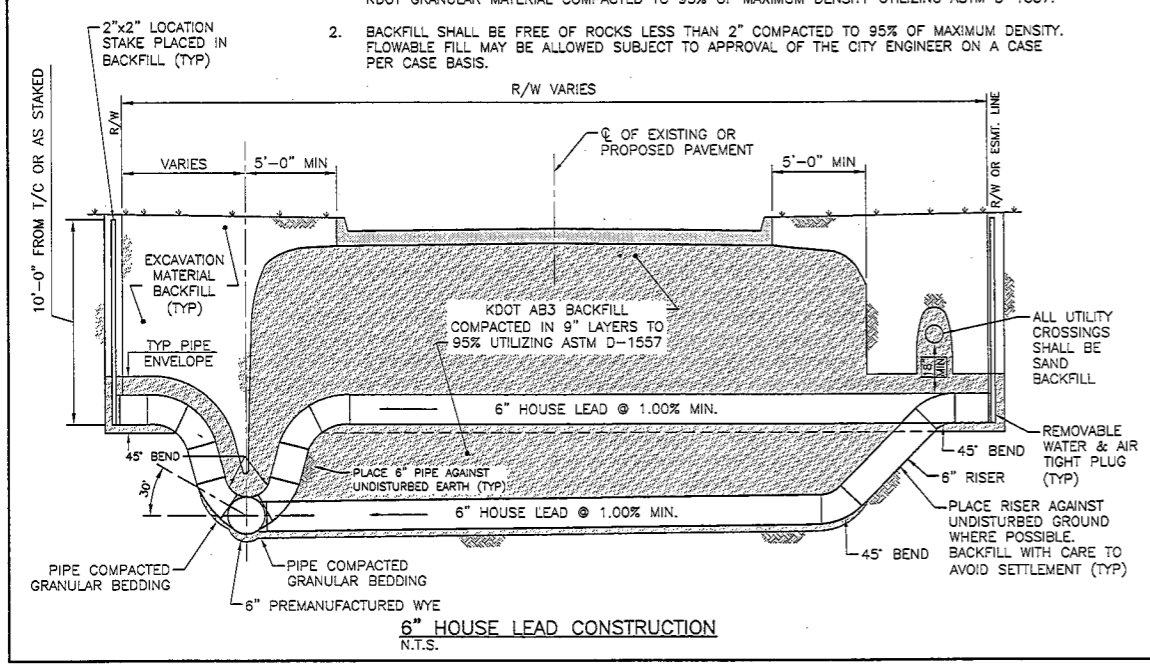
- SANITARY GENERAL NOTES:**
1. ALL MANHOLES ARE TO BE PRECAST CONCRETE AND OF ECCENTRIC CONE TYPE UNLESS PRIOR APPROVAL HAS BEEN GIVEN BY THE CITY ENGINEER.
  2. REINFORCEMENT IN ALL SECTIONS SHALL EQUAL OR EXCEED ASTM C-478 SPECIFICATIONS.
  3. MANHOLE RING AND COVER SHALL BE NEEHAH R-1736, EAST JORDAN 1040, TYPE A OR APPROVED EQUAL.
  4. A DROP MANHOLE SHALL BE CONSTRUCTED WHEN THE FLOWLINE OF THE INCOMING LINE IS GREATER THAN 24 INCH ABOVE THE FLOWLINE OF THE MANHOLE INVERT.
  5. STEPS SHALL NOT BE INSTALLED IN MANHOLE SECTIONS.
  6. MANHOLE SPACING SHALL NOT EXCEED 400 FEET WITHOUT APPROVAL OF CITY ENGINEER.
  7. MANHOLES OVER 15'-0" DEPTH SHALL HAVE A 5'-0" MINIMUM DIAMETER.
  8. 2" TO 6" CONCRETE GRADE RINGS WITH FINISHED TOP AND BOTTOM SURFACES, GRADE RINGS SHALL BE USED ONLY IN LAWN AREAS WITH RUBBER GASKETS, CONCRETE BRICKS AND MORTAR IN ALL OTHER AREAS. OUTSIDE FINISHED WITH 1/2" PARGING SHALL BE 1:2 CEMENT MORTAR ONE COAT.
  9. ALL EXCAVATION SHALL BE UNCLASSIFIED.
  10. BEDDING MATERIAL SHALL BE 1/2" TO 3/4" CLEAN CRUSHED ROCK.
  11. TRENCH BANKS SHALL BE CUT BACK ON SLOPES IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
  12. MATERIAL FOR ALL PUBLIC SANITARY SEWER MAINS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
  13. ALL PRIVATE SANITARY SEWER LATERALS SHALL BE 6" PVC, SDR-26.
  14. ALL WATER LINES SHALL HORIZONTALLY CLEAR STORM SEWER STRUCTURES BY 5' AND SANITARY SEWER STRUCTURES AND MAINS BY 10'. WATER MAINS SHALL VERTICALLY CLEAR STORM SEWER STRUCTURES AND SANITARY SEWER MAINS BY 18".
  15. MAXIMUM TRENCH WIDTH SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS. MAXIMUM TRENCH WIDTH IS DEFINED AS THE HORIZONTAL PLANE MEASURED 6" ABOVE THE TOP OF PIPE, PERPENDICULAR TO THE SEWER ALIGNMENT.



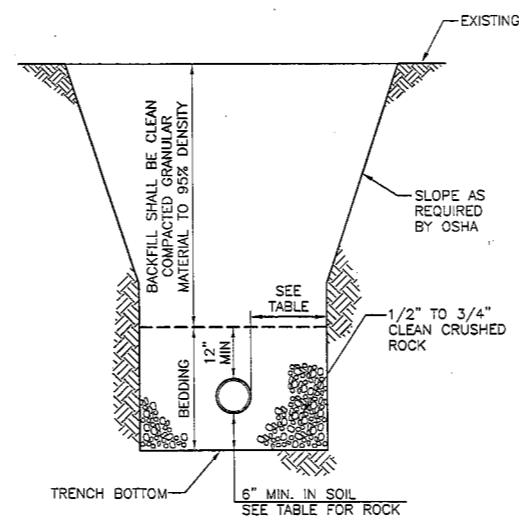
**SHALLOW MANHOLE**  
N.T.S.

**NOTES:**

1. ALL UTILITIES, PUBLIC OR PRIVATE, THAT FALL WITHIN A ONE ON ONE ZONE OF INFLUENCE FROM A POINT 5'-0" BEHIND BACK OF CURB AT TOP OF CURB SHALL BE BACKFILLED WITH KDOT GRANULAR MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY UTILIZING ASTM D-1557.
2. BACKFILL SHALL BE FREE OF ROCKS LESS THAN 2" COMPACTED TO 95% OF MAXIMUM DENSITY. FLOWABLE FILL MAY BE ALLOWED SUBJECT TO APPROVAL OF THE CITY ENGINEER ON A CASE PER CASE BASIS.



**6" HOUSE LEAD CONSTRUCTION**  
N.T.S.



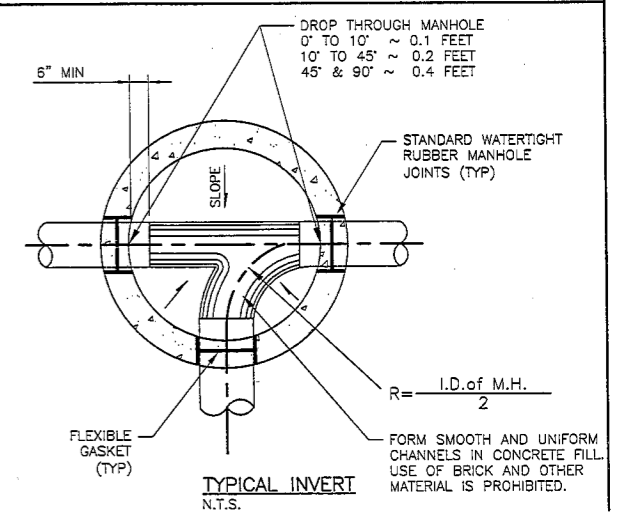
**TYP PIPE ENVELOPE (PVC)**

**UNDERGROUND PIPE INSTALLATION FOR SANITARY SEWER LINES**  
N.T.S.

MINIMUM TRENCH WIDTHS AND PIPE CLEARANCES (IN)			
NOMINAL PIPE DIAMETER	TRENCH WIDTH	PIPE SIDE CLEARANCE (SOIL/ROCK)	PIPE BOTTOM CLEARANCE (SOIL/ROCK)
8	22	6/6	6/6
10	30	6/6	6/6
24	36	6/6	6/6
30	48	8/9	6/9
36	72	12/12	6/9

**NOTES:**

1. ALL EXCAVATION SHALL BE UNCLASSIFIED.
2. TRENCH BANKS SHALL BE CUT BACK ON SLOPES IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
3. MAXIMUM TRENCH WIDTH SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS. MAXIMUM TRENCH WIDTH IS DEFINED AS THE HORIZONTAL PLANE MEASURED 6" ABOVE THE TOP OF PIPE, PERPENDICULAR TO THE SEWER ALIGNMENT.



**TYPICAL INVERT**  
N.T.S.



CITY OF JUNCTION CITY, KANSAS

**SANITARY SEWER DETAILS**

MUNICIPAL SERVICES DIRECTOR  
GREGORY S. McCAFFERY, P.E.

DATE:  
10/08/2013

ENGINEERING DEPARTMENT  
700 N JEFFERSON  
JUNCTION CITY, KS 66441  
(785) 238-3103

DESIGN: -  
DRAWN: -

SHEET 1 OF 2