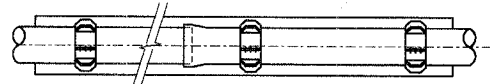


SEAL ANNUAL SPACE, TYP. EACH END (SEE NOTE 4)  
 - STEEL CASING PIPE DIAMETER (SEE TABLE)  
 ASTM A139, GRADE B (SMYS = 35,000 PSI)  
 MIN. THICKNESS SHALL BE 3/8" UNLESS OTHERWISE NOTED.

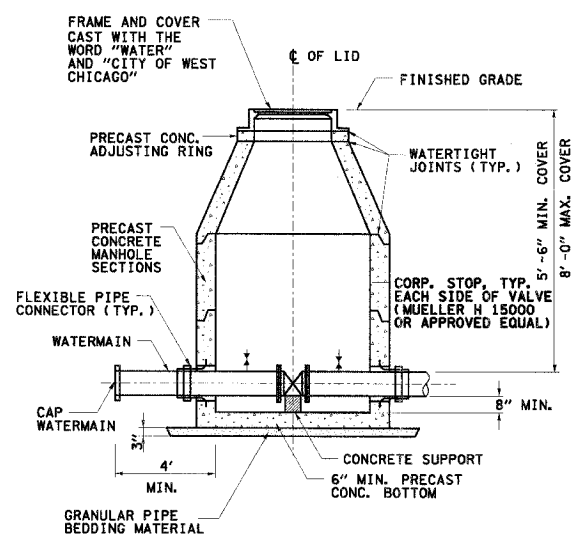
CASING SPACER, TYP., TO BE LOCATED APPROXIMATELY EVERY 6 FEET. (SEE NOTE 3)



CARRIER PIPE DIA.	STEEL CASING PIPE DIA.
	D.I.P. DIA.
12"	24"
14"-16"	30"
18"	36"
20"-21"	36"
24"	42"

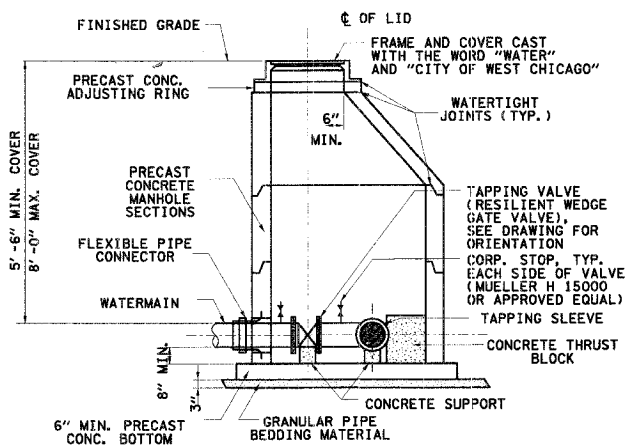
**STEEL CASING PIPE DETAIL**  
N.T.S.

- NOTES:
1. STEEL CASING SHALL BE ONE CONTINUOUS SECTION
  2. SMYS - SPECIFIC MINIMUM YIELD STRENGTH
  3. CASING SPACERS TO BE CASCADE MODEL CSS OR APPROVED EQUAL.
  4. CASING END SEALS TO BE CASCADE MODEL CSES END SEALS OR APPROVED EQUAL. MORTARING OF CASING ENDS SUBJECT ONLY TO PRE-APPROVAL.
  5. FOR WATERMAIN ALL PUSH JOINTS IN CASING SHALL HAVE "FIELD LOCK GASKETS".



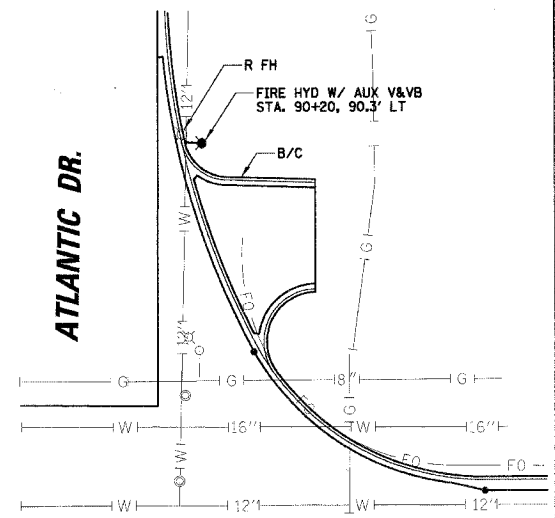
- NOTES:
1. VALVE VAULTS SHALL BE PRE-CAST CONCRETE WITH CONCENTRIC CONE REQUIRED.
  2. LIDS SHALL BE NEEHAH R 1772 TYPE "B" OR EJIW 1022-1 HD OR APPROVED EQUAL.
  3. EZ-STICK GASKET OR APPROVED EQUAL SHALL BE INSTALLED AT ALL JOINTS.
  4. USE 4'-0" DIAMETER FOR WATERMAIN SIZES 4" THRU 8"  
 USE 5'-0" DIAMETER FOR WATERMAIN SIZES 10" THRU 20"  
 USE 6'-0" DIAMETER FOR WATERMAIN SIZES GREATER THAN 20"

**STANDARD VALVE VAULT DETAIL**  
N.T.S.

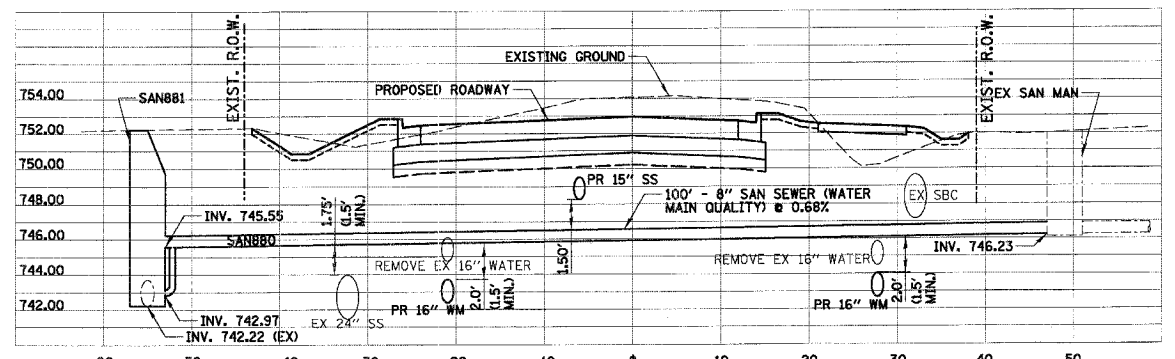


- NOTES:
1. VALVE VAULTS SHALL BE PRE-CAST CONCRETE WITH ECCENTRIC CONE REQUIRED.
  2. USE 5'-0" DIAMETER FOR WATERMAIN SIZES 4" THRU 12"
  3. USE 6'-0" DIAMETER FOR WATERMAIN SIZES 16" OR GREATER
  4. LIDS SHALL BE NEEHAH R 1772 TYPE "B" OR EJIW 1022-1 HD OR APPROVED EQUAL.
  5. EZ-STICK GASKET OR APPROVED EQUAL SHALL BE INSTALLED AT ALL JOINTS.
  6. TAPPING SLEEVE SHALL BE MUELLER CAST IRON MJ #615, AMERICAN FLOW CONTROL DUCTILE IRON SERIES 2800, TYLER/UNION DUCTILE IRON, US PIPE DUCTILE IRON T-9 OR APPROVED EQUAL.

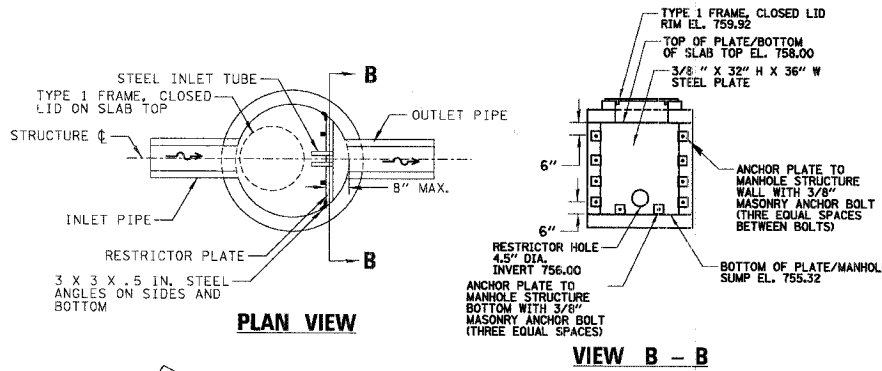
**PRESSURE CONNECT VALVE VAULT DETAIL**  
N.T.S.



**ATLANTIC DR. FIRE HYDRANT DETAIL**  
N.T.S.

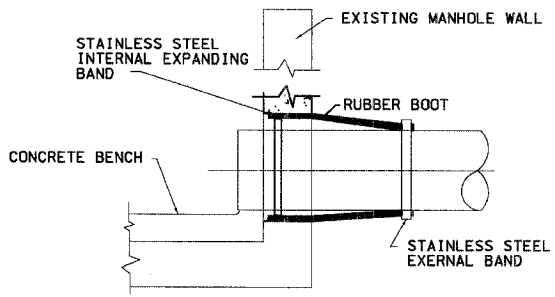


**SANITARY SEWER PROFILE STA. 68+25.0**  
LOOKING EAST



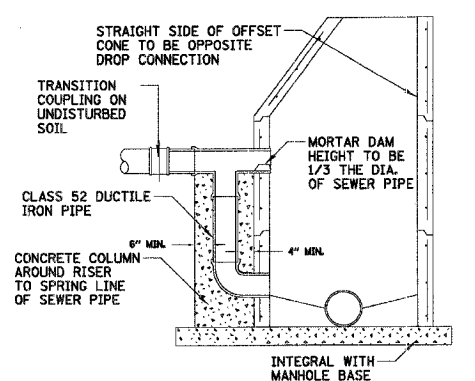
**PLAN VIEW**

**VIEW B - B**

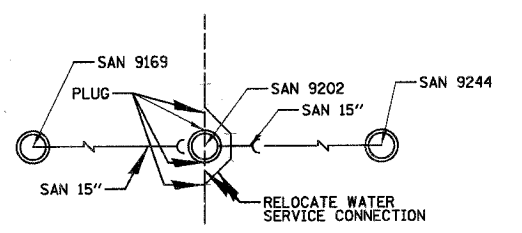


**CORING BOOT**  
N.T.S.

- GENERAL NOTES:
1. CORE-DRILL CIRCULAR OPENING IN MANHOLE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
  2. KOR-N-SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC.) OR APPROVED EQUAL SHALL BE USED FOR WATERTIGHT CONNECTION.
  3. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW SANITARY SEWER CONNECTION.
  4. CLEAN EXISTING MANHOLE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
  5. WORK REQUIRED IS INCLUDED IN SANITARY SEWER PIPE, OF REQUIRED SIZE.



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



**DETAIL 1 WATER SERVICE CONNECTION**  
STA. 114+77  
N.T.S.

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**HAWTHORNE LANE**  
**SANITARY SEWER AND**  
**WATER MAIN DETAILS**  
 SCALE: 10'  
 DATE: 12/8/2006  
 DRAWN BY: PMM  
 DESIGN BY: BLL  
 CHECKED BY: JCS

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