

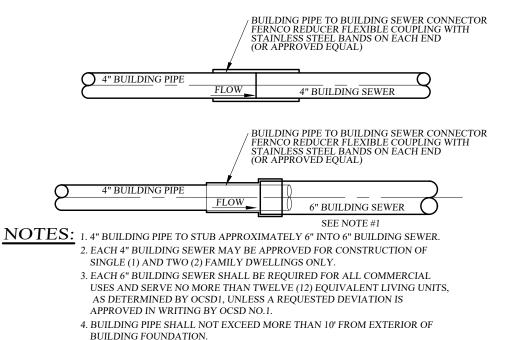
VERTICAL SEPARATION DETAIL



HORIZONTAL SEPARATION DETAIL

NOTE: THE SEPARATION REQUIREMENT SHALL CONFORM TO CURRENT ORANGE COUNTY DEPARTMENT OF HEALTH STATUES, CODES, RULES, REGULATIONS AND LAWS AS THEY APPLY. ANY DEVIATION FROM THE ABOVE SEPARATION REQUIREMENTS SHA REQUIRE WRITTEN APPROVAL FROM THE ORANGE COUNTY DEPARTMENT OF HEAL

WATER/SEWER SEPARATION REQUIREMENTS

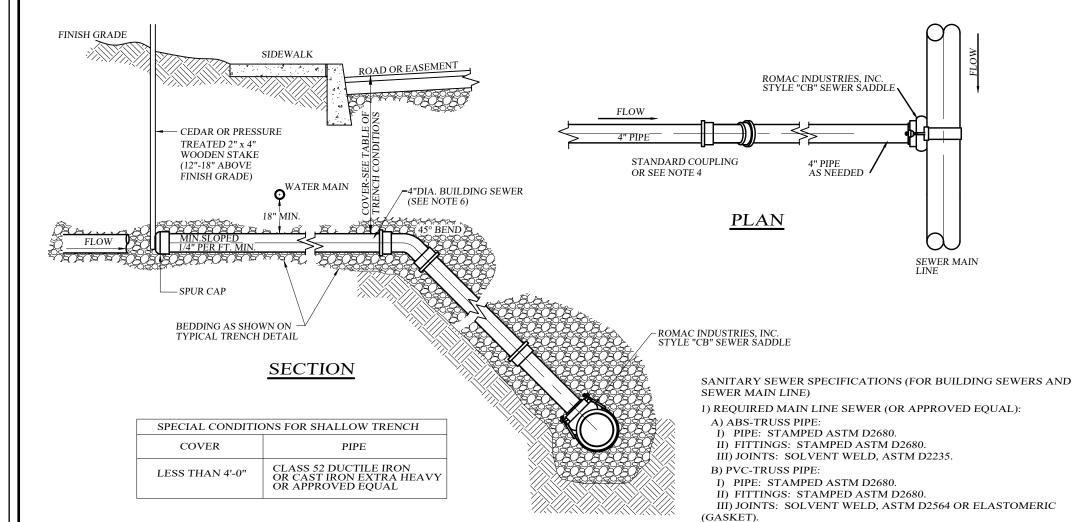


BUILDING PIPE TO BUILDING SEWER CONNECTION

COUPLING (OR APPROVED EQUAL).

5. 6" BUILDING PIPE TO 6" BUILDING SEWER SHALL BE MADE BY INSTALLING

A TYPE 1, STYLE 62 DRESSER COUPLING OR DRESSER STYLE 262 HYRAX



1. EACH 6" BUILDING SEWER SHALL PROVIDE SERVICE FOR NO MORE THAN TWELVE (12) EQUIVALENT LIVING UNITS, AS DETERMINED BY OCSD NO. 1 UNLESS A REQUESTED DEVIATION IS APPROVED IN WRITING BY SEWER DEPARTMENT. 2. ALL APPROVED BUILDING SEWER PIPE MATERIAL FOR EACH CONNECTION MADE SHALL BE CONSTRUCTED FROM THE SAME MATERIAL. 3. MINIMUM HORIZONTAL SEPARATION BETWEEN SPUR CAP AND SIDEWALK SHALL BE 2'-0". IN ALL CASES THE SPUR CAP LOCATION

SHALL EXTEND A MINIMUM HORIZONTAL DISTANCE OF 2'-0" ONTO ALL BUILDING LOT PROPERTIES. 4. TRANSITION BETWEEN DIFFERENT PIPE MATERIAL (AS APPROVED) SHALL BE MADE BY INSTALLING A TYPE 1, STYLE 62 DRESSER COUPLING OR DRESSER STYLE 262 HYMAX COUPLING (OR APPROVED

5. SADDLE CONNECTION SHALL BE A FITTING CONSTRUCTED SPECIFICALLY FOR THE INSTALLED MAIN LINE SEWER MATERIAL CLASS (OR APPROVED EQUAL). 6. THE BUILDINGS SEWER SHOWN FROM THE MAIN LINE SOURCE SADDLE CONNECTION FITTING TO THE SPUR CAP SHALL MEET THE SPECIFICATIONS SHOWN FOR ii) 6" SEWER SERVICE LATERALS. 7. 4" BUILDING SEWER LATERAL MAY BE APPROVED FOR CONSTRUCTION

BUILDING LATERAL SEWERS (INCLUDING COMMERCIAL) SHALL BE 6" IN DIA. -

OF SINGLE (1) AND TWO (2) FAMILY DWELLINGS ONLY. ALL OTHER

III) OTHER REQUIRED PIPE MATERIALS FOR 6" LATERAL AND SEWER MAIN LINE (OR APPROVED EQUAL): A) CAST IRON, EXTRA HEAVY, COATED, HUB & PLAIN END, ASTM C-74 WITH ELASTOMERIC COMPRESSION GASKET (ASTM C-564). B) DUCTILE IRON PIPE: CLASS 52, CEMENT LINED AND TAR COATED

C) PVC - SDR 26 HEAVY WALL PIPE

D) PVC - SDR 35 SOLID WALL PIPE

A) PVC - SDR 35 SOLID WALL PIPE

B) PVC - SDR 26 HEAVY WALL PIPE

I) PIPE (8"-15" DIAMETER): STAMPED ASTM 3034.

I) PIPE (8"-15" DIAMETER): STAMPED ASTM D3034.

II) FITTINGS: STAMPED ASTM 3034 OR F679.

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OR SOLVENT WELD ASTM D2564.

I) PIPE STAMPED ASTM D3034 AND SDR 35.

OR SOLVENT WELD ASTM D2564.

I) PIPE STAMPED ASTM D3034 AND SDR 26.

II) FITTINGS: STAMPED D3034 AND SDR 26.

OR SOLVENT WELD ASTM D2564.

I) PIPE STAMPED ASTM D2751 AND SDR 23.5.

III) JOINTS: SOLVENT WELD ASTM D2564.

II) FITTINGS: STAMPED SDR 23.5 AND ASTM D2751.

C) PVC - SDR 23.5 ABS SOLID WALL PIPE

II) FITTINGS: STAMPED SDR 35 AND ASTM 3034.

PIPE (18" AND GREATER DIAMETER): STAMPED ASTM F679.

III) JOINTS: SOLVENT WELD ASTM 2564 OR ELASTOMERIC (GASKET).

III) JOINTS: BELL & SPIGOT WITH ELASTOMETRIC GASKET ASTM D3034

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PIPE (18" OR GREATER DIAMETER): STAMPED ASTM F769.

II) REQUIRED 6" BUILDING LATERAL SEWER (OR APPROVED EQUAL):

SEWER MAIN

FRAME AND COVER CAMPBELL FOUNDRY CO. PATTERN NO. 1009 (24"Ø CLEAR OPENING) OR 1013 (34"Ø CLEAR OPENING) STAMPED — SANITARY (AS APPROVED) COAT EXTERIOR OF BRICK COURSE AND BASE-COURSES OF BRICK OR OF FRAME WITH BITUMINOUS COATING TO SUIT GRADE AREA OF CIRCUMFERENTIAL INSIDE SURFACE VERTICAL STEEL, 12 SQ. IN. PER. LIN. FT.-FOR SAFE DECENT AND ASCENT CONE SECTION — TAPERED JOINT AND O-RING STEPS 12" O.C. (ALUMINUM — GASKET ASTM: C-361 & C-443 ALLOY OR STEEL W/ PLASTIC COATING. RISER SECTIONS 4' HIGH MAX. -- BITUMINOUS COATING FLEXIBLE MANHOLE SLEEVE AS MANUFACTURED BY "KOR-N-SEAL" OR APPROVED EQUAL -BENCH TO BE FORMED AND BUILT SEE O.C.S.D. NO. 1 TYPICAL TRENCH DETAIL — 48' DIA – BY CONTRACTOR. (BENCH SHALL BE REGARDING INSTALLATION OF CLAY/ SLOPED 1" MIN. FROM CENTER OF BENTONITE BARRIER DAMS. MANHOLE TO WALLS.) BASE RISER SECTION - MIN. 4" COMPACTED GRAVEL PASSING 1" MAX. PROTECTION INTO MANHOLE A 3/4" SIEVE AND RETAINED ON A 2/8" SIEVE. AT PIPING SPRINGLINE AND IN NO CASE LESS THAN FLUSH WITH INSIDE OF - UNDISTURBED SUB GRADE MANHOLE MANHOLE ASSEMBLY

PRECAST REINFORCED CONCRETE MANHOLE

-MANHOLE TO MEET CURRENT REQUIREMENTS OF ASTM: C-478 -JOINTS: LOCK TYPE WITH ROUND RUBBER GASKETS. THE WEIGHT OF EACH SECTION MUST MAKE AN INFILTRATION PROOF JOINT

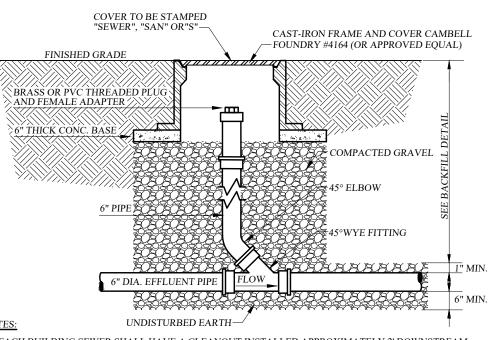
BY FORCING THE GASKET TIGHT. -ALL MATERIALS AND CONSTRUCTION SHALL MEET THE

REQUIREMENTS OF OCSD NO. 1 -MANHOLE TO BE SUITABLE FOR H-20 LOADING.

-MANHOLE EXTERIOR MUST BE 100% BITUMINOUS COATING.

ROMAC INDUSTRIES, INC STYLE "CB" SEWER SADDLE CONNECTIO STAINLESS STEEL STRAP 1. ALL APPROVED BUILDING SEWER PIPE MATERIAL FOR EACH CONNECTION MADE SHALL BE CONSTRUCTED FROM THE SAME 2. SADDLE CONNECTION TO BE STYLE "CB" SEWER SADDLE AS MANUFACTURED BY ROMAC INDUSTRIES, INC. OR APPROVED EQUAL 3. REFER TO DETAIL SPECIFICATIONS FOR STYLE "CB" SEWER SADDLE AS PROVIDED BY ROMAC INDUSTRIES, INC. FOR INSTALLATION GUIDELINES. 4. INSTALLATION AND MATERIALS OF THE SADDLE CONNECTION TO CONFORM WITH O.C.S.D. NO. 1 CRITERIA . THERE WILL BE NO DEVIATION FROM THE APPROVED PLAN WITHOUT WRITTEN APPROVAL FROM THE SEWER DEPARTMENT.

SADDLE CONNECTION DETAIL



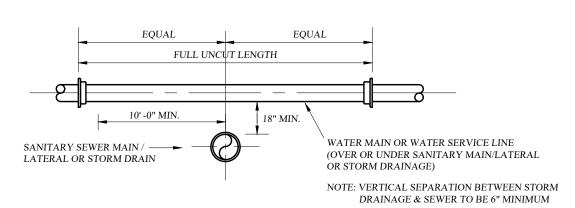
1. EACH BUILDING SEWER SHALL HAVE A CLEANOUT INSTALLED APPROXIMATELY 2' DOWNSTREAM OF THE BUILDING PIPE TO BUILDING SEWER CONNECTION. THEREAFTER, CLEANOUTS SHALL BE INSTALLED ALONG THE BUILDING SEWER APPROXIMATELY EVERY 100' (MAXIMUM). FOR THE PURPOSE OF CLEANOUT LOCATIONS, DISTANCE SHALL BE MEASURED FROM THE FIRST CLEANOUT LOCATED DOWNSTREAM OF THE HOUSE PIPE TO BUILDING SEWER CONNECTION, HENCE DOWNSTREAM ALONG THE BUILDING SEWER TO THE CENTER OF THE SEWER MAIN LINI (GENERALLY LOCATED IN THE CENTER OF THE STREET).

2. A CLEANOUT LOCATED IN A ROAD, DRIVEWAY OR PARKING AREA SHALL REQUIRE A CAMBELL FOUNDARY

BUILDING SEWER CLEAN-OUT DETAIL

1) PIPE BEDDING SHALL BE A CLASS I ASTM D2321 EMBEDMENT MATERIAL THAT SHALL BE EITHER CRUSHED STONE OR WASHED GRAVEL PASSING A 3/4 " SIEVE AND RETAINED ON A 3/8" SIEVE. THE EMBEDMENT MATERIAL SHALL BE HAND TAMPED AND COMPACTED TO 90 % OF THE MAXIMUM DENSITY OF THE EMBEDMENT MATERIAL AS DETERMINED BY STANDARD PROTECTOR TEST IN ACCORDANCE WITH AASHTO DESIGNATION T-99. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A GO-NO-GO TESTING GAUGE, AS DEFINED IN THE GREEN-TITE (TRADEMARK) PVC GRAVITY SEWER PIPE INSTALLATION GUIDE AS PUBLISHED BY J-M PIPE (OR APPROVED EOUAL) FOR TESTING DEFLECTION OF MAIN LINE SEWER PIPE. AS DIRECTED BY OCSD. MAXIMUM MAIN LINE SEWER DEFLECTION SHALL BE NO GREATER THAN 5%.

- 2) BACKFILL FROM 12 IN. TO 24 IN. ABOVE THE PIPE EMBEDMENT MATERIAL SHALL BE FINE EARTH FREE FROM CINDERS AND SHALL BE MECHANICALLY COMPACTED. REMAINING BACKFILL SHALL BE FREE FROM LARGE CLODS, NATURAL DEBRIS, ROCKS, AND CINDERS
- 3) PLACE EMBEDMENT MATERIAL BY HAND AND HAND COMPACT UNDER AND AROUND SIDES OF PIPE. PLACE EMBEDMENT MATERIAL IN 6" LAYERS ABOVE TOP OF PIPE, AND HAND COMPACT TO A POINT 12 INCH MAXIMUM ABOVE THE TOP
- 4) THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A COMPETENT PERSON DURING ALL PHASES OF CONSTRUCTION WHOSE DUTY SHALL BE TO INSURE THAT ALL PHASES OF CONSTRUCTION ARE IN FULL COMPLIANCE WITH OCSD NO.1 SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES, RULES, REGULATIONS AND LAWS INCLUDING, BUT NOT LIMITED TO, UNITED STATES DEPARTMENT OF LABOR FOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND N.Y.S. DEPARTMENT OF LABOR FOR SECTION 1910.146 PERMIT REQUIRED CONFINED SPACE ENTRY, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION SECTION 1926.650 EXCAVATION GENERAL PROTECTION REQUIREMENTS AND OSHA SECTION 1926.651 TRENCHING AND SHORING, STATE OF NEW YORK UNIFORM FIRE PREVENTION AND BUILDING CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES.
- 5) ALL APPROVED MAIN LINE SEWER PIPE SHALL BE THE SAME MATERIAL FROM MAN-HOLE TO MAN-HOLE.
- 6) FILL SECTION AREA MUST BE GRADED WITH THE PLACEMENT OF SUITABLE SOIL MATERIAL, AS DETERMINED BY THE PROJECT SITE ENGINEER, IN 12" (MAX) LAYERS COMPACTED TO 95% OF THE MAXIMUM DENSITY OF THE SOIL AS DETERMINED BY THE STANDARD PROTECTOR TEST (ASSHTO DESIGNATION T-99) TO 2'-0" (MIN.) ABOVE TOP OF PIPE AT A MINIMUM WIDTH OF O.D. +4'-0" BEFORE TRENCH EXCAVATING.
- 7) WHERE ROCK IS ENCOUNTERED IN TRENCH BOTTOM, UNDERCUT MUST BE MADE BETWEEN 12" MIN. TO 24" MAX
- 8) WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN TRENCH BOTTOM, UNDERCUT TO SUITABLE MATERIAL (AS APPROVED BY

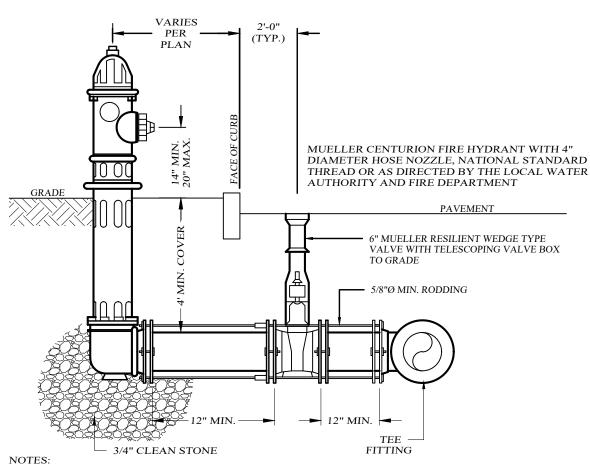


VERTICAL SEPARATION DETAIL



NOTE: THE SEPARATION REQUIREMENT SHALL CONFORM TO CURRENT ORANGE COUNTY DEPARTMENT OF HEALTH STATUES, CODES, RULES, REGULATIONS AND LAWS AS

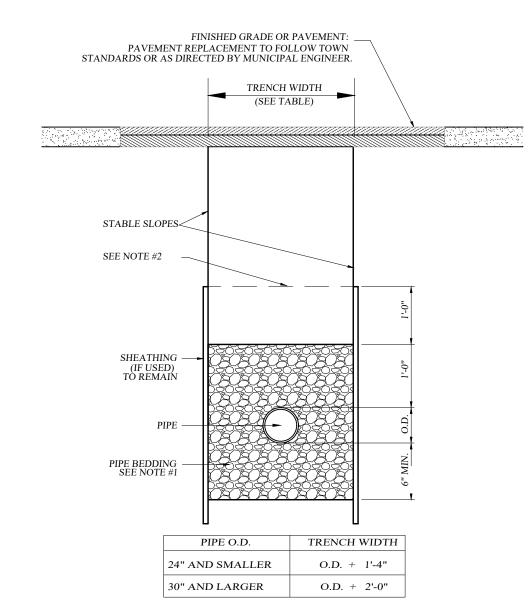
THEY APPLY. ANY DEVIATION FROM THE ABOVE SEPARATION REQUIREMENTS SHALL REQUIRE WRITTEN APPROVAL FROM THE ORANGE COUNTY DEPARTMENT OF HEALT WATER/SEWER SEPARATION REQUIREMENTS



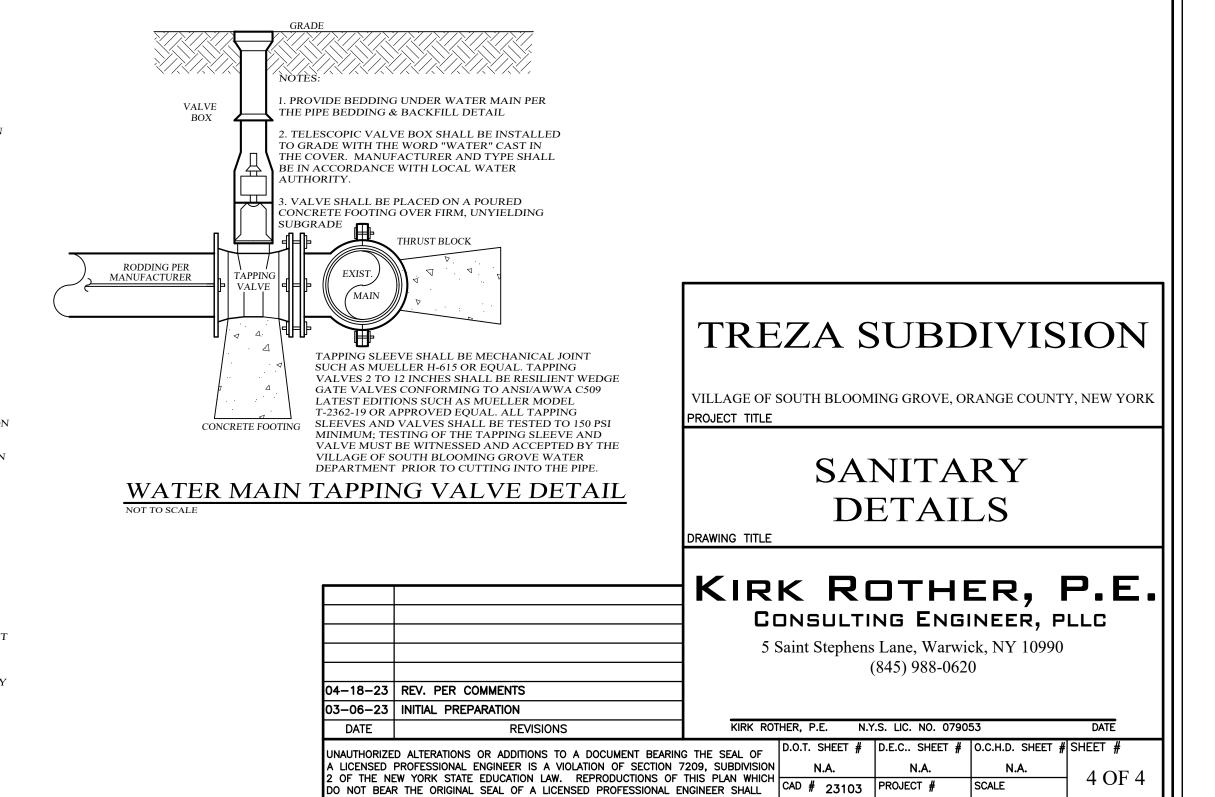
1. INSTALL 1/2 CUBIC YARD 3/4" CLEAN STONE AROUND THE HYDRANT BASE FOR HYDRANT DRAIN. 2. ALL CONNECTIONS TO BE MECHANICAL JOINT TYPE RESTRAINED BY 5/8"Ø RODDING OR AS SPECIFIED BY LOCAL AUTHORITY

WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST REVSION OF ALL APPLICABLE STANDARDS RELATING TO THE CONSTRUCTION OF WATER WORKS FOR POTABLE CONSUMPTION INCLUDING AWWA, ANSI, ASTM, NSF AND MANUFACTURER, AMOUNG OTHERS.

FIRE HYDRANT DETAIL



TYPICAL TRENCH DETAIL (SANITARY SEWER)



23103.0

AS SHOWN

SKETCH

SEWER MAIN CONNECTION DETAIL

