


**NOTES:**

1. PIPE MATERIAL AND FITTINGS SHALL BE SMOOTH WALL PVC SDR 28 CONFORMING TO CSA B182.2. PRIVATE DRAIN CONNECTION PIPES SHALL BE 150mm DIAMETER AND COLOUR CODED TO AVOID CROSS CONNECTIONS. ALL SANITARY PRIVATE DRAIN CONNECTIONS SHALL BE GREEN PVC AND ALL STORM PRIVATE DRAIN CONNECTIONS SHALL BE WHITE PVC.
2. CONNECTIONS TO EXISTING SEWER MAIN SHALL BE AS PER CITY STANDARD SPECIFICATIONS S-1 AND S-35. PRIVATE DRAIN CONNECTIONS INTO:
  - a) PVC PIPE  
THE CONTRACTOR SHALL BE REQUIRED TO USE ONLY PLANT MANUFACTURED TEES WHEN INSTALLING PRIVATE DRAIN CONNECTIONS. THE ANGULAR RISE OF THE CONNECTIONS SHALL BE BETWEEN 5 DEGREES AND 85 DEGREES. IF THE ANGLE OF THE RISER SECTIONS EXCEEDS 45 DEGREES, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL PVC COUPLING WITH STOP IMMEDIATELY BEYOND THE TEE FITTING. A SHORT SECTION OF PVC PIPE IS TO BE USED TO CONNECT THE COUPLING TO THE TEE FITTING. THE COUPLING SHALL REST DIRECTLY UPON THE BELL PORTION OF THE TEE FITTING.
  - b) CONCRETE PIPE  
CONCRETE PIPE 375mm DIAMETER AND LARGER MAY BE FIELD TAPPED IN PLACE. KOR-N-TEE PIPE-TO-PIPE CONNECTOR FITTINGS SHALL BE USED TO CONNECT PRIVATE DRAIN CONNECTION. THE PROPER SIZED CORE HOLE SHALL BE MACHINE DRILLED INTO THE CONCRETE PIPE TO ENSURE A SOUND AND WATERTIGHT JOINT.  
  
FIELD TAPPING OF CONCRETE PIPE SMALLER THAN 375mm IN DIAMETER IS NOT ALLOWED. SUCH A CONNECTION REQUIRES THE REMOVAL OF A SECTION OF PIPE AND THE INSTALLATION OF A PLANT MANUFACTURED CONCRETE OR PVC TEE FITTING USING MECHANICAL COUPLINGS THAT CONFORM TO CSA STANDARD B602 TO ENSURE A SOUND AND WATERTIGHT JOINT. THE USE OF WINGED PVC FITTINGS OR BELL ENDS OF STANDARD PVC PIPE WILL NOT BE ALLOWED.
  - c) BRICK SEWERS  
THE CONTRACTOR SHALL BE ALLOWED TO FIELD TAP BRICK SEWERS. KOR-N-TEE PIPE-TO-PIPE CONNECTOR FITTINGS SHALL BE USED TO CONNECT PRIVATE DRAIN CONNECTION, WHERE POSSIBLE. THE PROPER SIZED CORE HOLE SHALL BE MACHINE DRILLED INTO THE BRICK PIPE TO ENSURE A SOUND AND WATERTIGHT JOINT. OTHERWISE A CONCRETE, VITRIFIED CLAY OR ASBESTOS CEMENT FITTING MAY BE USED AND SET WITH A NON-SHRINKING, FAST SETTING GROUT AND A MINIMUM OF 12 HOURS SETTING TIME SHALL BE REQUIRED BEFORE BACKFILLING. PLASTIC FITTINGS SHALL NOT BE ACCEPTED WHEN TAPPING BRICK SEWERS. IN ALL CASES, THE CONTRACTOR SHALL ENSURE A SOUND AND WATERTIGHT JOINT, TO THE SATISFACTION OF THE CITY ENGINEER.
  - d) ASBESTOS/CEMENT PIPE  
ALL TAPS INTO ASBESTOS/CEMENT PIPE SHALL REQUIRE THE USE OF A MANUFACTURED TEE. THIS TEE SHALL BE CUT INTO THE EXISTING LINE AND SECURED WITH MECHANICAL COUPLINGS CONFORMING TO CSA STANDARD B602 TO ENSURE A SOUND AND WATERTIGHT JOINT.
  - e) VITRIFIED CLAY PIPE  
WHEN VITRIFIED CLAY PIPE IS ENCOUNTERED, A SECTION OF THIS PIPE MUST BE REMOVED AND REPLACED WITH EITHER A VITRIFIED CLAY MANUFACTURED FITTING OR A PVC FITTING. MECHANICAL COUPLINGS CONFORMING TO CSA STANDARD B602 SHALL BE USED TO ENSURE A SOUND AND WATERTIGHT JOINT.
  - f) RELINED SEWERS  
RELINED SEWERS THAT ARE 450mm DIAMETER OR LESS A PLANT MANUFACTURED TEE SHALL BE INSTALLED. THE HOST PIPE MATERIAL OF THE MAINLINE SEWER SHALL BE REMOVED AS NECESSARY TO ALLOW FOR THE MANUFACTURED TEE TO BE CUT INTO THE INSIDE LINER AND ALLOW THE MECHANICAL JOINT COUPLING TO BE SECURELY FASTENED TO THE INSIDE LINER, ENSURING A WATER TIGHT SEAL.  
  
RELINED SEWERS THAT ARE GREATER THAN 450mm MAY BE FIELD TAPPED IN PLACE. THE HOST PIPE MATERIAL OF THE MAINLINE SEWER SHALL BE REMOVED AS NECESSARY TO ALLOW FOR THE INSIDE LINER TO BE FIELD TAPPED IN PLACE. KOR-N-TEE PIPE-TO-PIPE CONNECTOR FITTINGS SHALL BE USED TO CONNECT PRIVATE DRAIN CONNECTIONS, WHENEVER FIELD CONDITIONS MEET MANUFACTURER'S REQUIREMENTS.

THE CITY ENGINEER RESERVES THE RIGHT TO CONSIDER OTHER METHODS, BUT IN ALL CASES A SOUND AND WATERTIGHT JOINT MUST BE ACHIEVED AND THE CITY ENGINEER SHALL BE THE SOLE JUDGE IN DETERMINING THE ACCEPTABILITY OF ALTERNATIVE METHODS.

3. FOR SINGLE PRIVATE DRAIN CONNECTION REPLACEMENTS
  - a) BACKFILL UNDER PAVEMENT SHALL BE IN ACCORDANCE WITH CITY OF WINDSOR STANDARD SPECIFICATION S-24.
  - b) BACKFILL UNDER BOULEVARD SHALL BE IN ACCORDANCE WITH CITY OF WINDSOR STANDARD SPECIFICATION S-4.
  - c) SURFACE PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF WINDSOR STANDARD SPECIFICATION S-29.
4. CLEAR STONE MAY BE 16mm OR 19mm IN ACCORDANCE WITH CITY OF WINDSOR STANDARD SPECIFICATION S-4.
5. REFER TO AS-325 FOR CLEANOUT DETAILS.

 <b>CITY OF WINDSOR</b> ENGINEERING DEPARTMENT	
<b>PRIVATE DRAIN CONNECTION DETAILS</b>	
DR'N BY: SS, AZ	DATE: APR, 2004
REV. DATE: JUN, 2024	CH'KD BY(ENG):PM, JH
CH'KD BY(GEO/OPS): PJU, AL	PASSED BY: FM
_____ CITY ENGINEER	
<b>AS-313</b>	

NOT TO SCALE