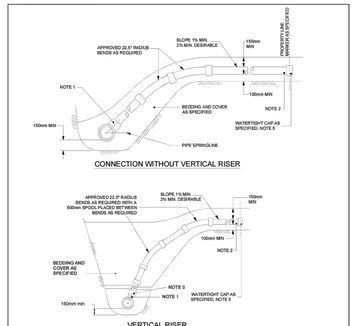


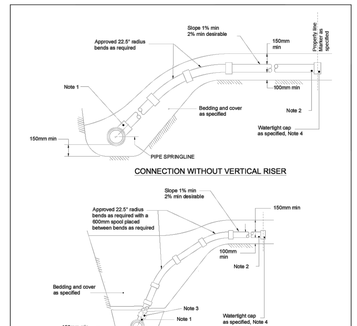
NOTES:
1. THIS DRAWING TO BE USED IN CONJUNCTION WITH S26.
2. LONGITUDINAL SLOPE OF SWALES/DITCHES ..2% MIN. WITH 1% OR GREATER PREFERRED.
3. PERFORATED HDPE PIPE TO BE PLACED AT MINIMUM GRADE OF 0.5%.
4. SEE MS 22.05 FOR APPROVED GEOTEXTILES.
5. POLYETHYLENE PIPE TO BE NON PERFORATED UNDER DRIVEWAYS AND BACKFILLED WITH APPROVED NATIVE BACKFILL.
6. ANY INCREASE IN TRENCH DEPTH BEYOND 1000mm MINIMUM SHALL RESULT IN A CORRESPONDING INCREASE IN THE DEPTH OF 20mm CLEAR STONE ABOVE PERFORATED PIPE.
7. APPROVED NON-WOVEN CLASS I GEOTEXTILE SHALL BE USED.
8. SEE MS 22.05 FOR APPROVED PRODUCTS.
9. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	DITCHED PIPE STORM SEWER INSTALLATION	DATE: MAY 2001 REV. DATE: MARCH 2007 DWG. No.: S9



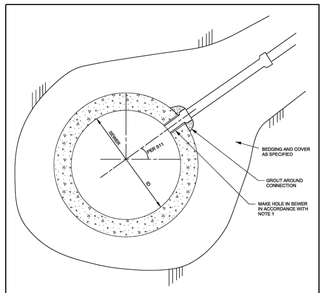
NOTES:
1. DIAMETER OF SERVICE CONNECTIONS SHALL BE NO GREATER THAN 50% OF THE DIAMETER OF THE RIGID SEWER MAIN. DIAMETER. THE CONNECTION SHALL BE MADE USING A BELL END INSERT PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN.
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 150mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE.SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR35 PRODUCTS UNLESS SPECIFIED OTHERWISE
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED
5. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES ON EXISTING MAINS, SEE DETAILS ON S11.1 AND S11.2
7. APPROVED CUT-IN TEES MUST BE USED FOR FIELD MADE CONNECTIONS
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
9. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

Ottawa	TITLE: SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE: MAR 2008 REV: MAR 2024 DWG No: S11



NOTES:
1. DIAMETER OF SERVICE CONNECTIONS SHALL BE NO GREATER THAN 50% OF THE DIAMETER OF THE FLEXIMAUR SEWER MAIN. DIAMETER. THE CONNECTION SHALL BE MADE USING AN APPROVED TEE OR WYE FITTINGS. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 150mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR35 PRODUCTS UNLESS SPECIFIED OTHERWISE
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

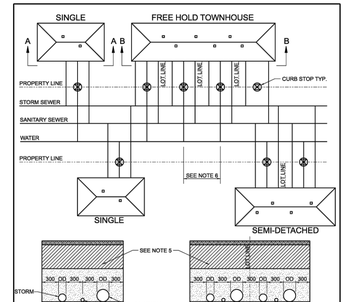
Ottawa	TITLE: SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE	DATE: MAR 2006 REV: MAR 2024 DWG No: S11.1



NOTES:
1. OPENING IN PIPE SHALL BE A ROUND MACHINE CUT HOLE.
2. INSERT TO CONSIST OF THE BELL END OF AN APPROVED SERVICE PIPE. LENGTH TO BE LIMITED SUCH THAT NO PART OF THE INSERT PROTRUDES INTO THE OPENING OF THE PIPE.
3. WRAP APPROVED WATER-TIGHT SEALANT AROUND THE SPIGOT PORTION OF THE BELL END PRIOR TO INSERTING. USE ENOUGH SEALANT TO ENSURE A TIGHT WATER-TIGHT CONNECTION THAT WILL HOLD THE BELL IN POSITION.
4. GROUT AROUND THE BELL END TO PROTECT THE SEALANT AND SUPPORT THE BELL.
5. ALL OTHER NOTES OF S11 APPLY.
6. SEE MS-22.15 FOR APPROVED SEALANT PRODUCTS.

N.T.S.

Ottawa	SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE USING BELL END INSERT METHOD	DATE: MARCH 2011 REV. DATE: DWG. No.: S11.2



SECTION A - A
COMMON TRENCH FOR SINGLE HOMES

SECTION B - B
COMMON TRENCH FOR SEMI-DETACHED AND TOWNHOUSES

NOTES:
1. NO HORIZONTAL BENDS IN RIGHT-OF-WAY UNLESS OTHERWISE APPROVED BY THE CITY.
2. MAXIMUM OF TWO 22.5° HORIZONTAL BENDS FOR SANITARY AND STORM SERVICES.
3. MAXIMUM OF ONE COUPLING ON A SANITARY OR STORM SERVICE. COUPLING IS TO BE LOCATED WITHIN 1 METER OF THE PROPERTY LINE.
4. SERVICES SHALL BE PERPENDICULAR TO THE STREET UNLESS OTHERWISE REFERRED.
5. STORM SERVICES LATERAL SHALL BE LOCATED TO THE LEFT OF SANITARY SERVICE LATERAL WHEN LOOKING AT THE STRUCTURE FROM THE STREET. SERVICE SIZES IN CONFORMANCE WITH S11.
6. SEE S7 FOR PIPE FOUNDATION, EMBEDMENT AND FINAL BACKFILL REQUIREMENTS.
7. MULTIPLE TAPS WITH SADDLES IN PVC WATERMAIN SHALL BE STAGGARED AND MINIMUM 600mm APART.
8. SEE S6 FOR TRENCH WIDTH DEPENDING ON GRADIENT AND/OR DEPTH OF COVER.
9. ALL DIMENSIONS ARE IN MILLIMETRES.

N.T.S.

Ottawa	TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING	DATE: MARCH 2011 REV. DATE: MARCH 2022 DWG. No.: S11.3

NOTES:
1. ALL DIMENSIONS SHOWN ARE FOR FINISHED CASTINGS ONLY. PATTERN MAKERS AND CASTING HOUSE SHOULD MAKE ALLOWANCES ACCORDINGLY.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
3. FOR NEW CONSTRUCTION WHERE SURFACE INLETS ARE SPECIFIED.
4. CASTINGS WITH METRIC DIMENSIONS NOT EXACTLY THE SAME AS SHOWN ABOVE WILL ALSO BE CONSIDERED.
5. ALTERNATE SOLID COVER TO HAVE EYE 25mm DIA. HOLE WITH 25mm APPROVED PLUG

Ottawa	HEAVY DUTY "FISH" TYPE ROUND CATCH BASIN COVER (MODIFIED OPSD-400.07)	DATE: MAY 2005 REV. DATE: MARCH 2017 DWG. No.: S19

NOTE:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

Ottawa	STANDARD CIRCULAR SANITARY & COMBINED MAINTENANCE HOLE COVER	DATE: MARCH 2009 REV. DATE: MARCH 2017 DWG. No.: S24

NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

Ottawa	STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER	DATE: MAR 2024 REV. DATE: MARCH 2017 DWG. No.: S24.1

NOTES:
1. MATERIAL - GREY IRON.
2. FOR MAINTENANCE HOLE COVER SEE DWG SDR, S24, S24.2
3. OPSD 400.001 HOLES/NO HOLES ARE ALSO ACCEPTED
4. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN.

Ottawa	STANDARD CIRCULAR FRAME FOR MAINTENANCE HOLES (MODIFIED OPSD-401.020)	DATE: MAY 2001 REV. DATE: MARCH 2018 DWG No.: S25

NOTES:
1. MATERIAL - GREY IRON.
2. FOR FRAME DETAIL SEE DETAIL DWG No. S25.
3. TOLERANCE +/- 1.0mm.
4. FOR CATCHBASIN MAINTENANCE HOLE APPLICATIONS ONLY.

Ottawa	CATCH BASIN MAINTENANCE HOLE COVER (MODIFIED OPSD-401.020)	DATE: MARCH 2009 REV. DATE: MARCH 2017 DWG. No.: S28.1

PIPE DIAMETER (INSIDE)	
SEWER	"T"
250mm	375mm
300mm	400mm
375mm	525mm
450mm	600mm
525mm	750mm
600mm	750mm

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. CUT STOCK PIPE PERPENDICULAR TOP OF CB SHALL BE MIN. 5cm ABOVE BOTTOM OF THE DITCH/SWALE AND BE LOCATED MIN. 2m FROM EDGE OF PAVEMENT.
3. MINUS 5cm PERFORATED PIPE INVERT FOR 7.5 HORIZONTAL SPACING DIAMETERS TO THE PIPE DIAMETER DOWNSTREAM OF THE CATCH BASIN. SEE DETAIL FOR PIPE DIAMETER.
4. CAST IRON FRAME TO BE SECURED TO PVC WITH 2 LAG BOLTS AS SHOWN.

Ottawa	CATCH BASIN – 'T' FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS	DATE: MARCH 2007 REV. DATE: MARCH 2021 DWG. No.: S30

PIPE DIAMETER (INSIDE)	
SEWER	"T"
250mm	375mm
300mm	400mm
375mm	525mm
450mm	600mm
525mm	750mm
600mm	750mm

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. FOR CATCHBASIN PIPE APPLICATIONS, TOP OF CB SHALL BE MIN. 5cm ABOVE BOTTOM OF THE DITCH/SWALE AND BE LOCATED MIN. 2m FROM EDGE OF PAVEMENT.
3. MINUS 5cm PERFORATED PIPE INVERT FOR 7.5 HORIZONTAL SPACING DIAMETERS TO THE PIPE DIAMETER DOWNSTREAM OF THE CATCH BASIN. SEE DETAIL FOR PIPE DIAMETER.
4. SEE MS-22.05 FOR ALTERNATE APPROVED DITCHING REINFORCEMENT.

Ottawa	CATCH BASIN - ELBOW FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS	DATE: MARCH 2007 REV. DATE: MARCH 2018 DWG. No.: S31

NOTES:
1. REFER TO CONSTRUCTION SPECIFICATION F-4414

Ottawa	TITLE: HYDRANT LOCATION	DATE: FEB 2013 REV: FEB 2025 DWG No: W18

NOTES:
FOR ALL WATERMAINS
1. SEE DETAIL W20 FOR HYDRANTS IN DITCH AREAS
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/RESTRAINING DEVICES TO BE INSTALLED ON THE FIRST VALVE IN EACH DIRECTION FROM TEES, BUT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE. RETAINING/RESTRAINING DEVICES TO BE UTILIZED.
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-19.4 AND F-4414
5. SEE SPF-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA
6. SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS
7. ALL BOLTS TO BE COATED WITH PETROLATUM TAPE UNLESS OTHERWISE NOTED
8. FOR ALL 300mm WATERMAINS USE A 300 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP.
9. FOR ALL 400mm WATERMAINS USE A 400 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP.
10. "DUCTILE IRON ONLY" THERMITE WELD TWO #8 AWG/M CABLES ACROSS EACH PIPEFITTING JOINT OR CONNECTION TO ENSURE ELECTRICAL CONTINUITY ALONG ALL METALLIC COMPONENTS
11. SEE DETAIL W17 FOR TRACER WIRE SPLICE DETAILS
12. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W65
13. TRACER WIRE SPLICES TO BE COMPLETED PER W67

Ottawa	TITLE: HYDRANT INSTALLATION - NEW CONSTRUCTION	DATE: MAY 2001 REV: MAR 2023 DWG No: W19

NOTES:
1. FOR AUXILIARY, SERVICES AND ISOLATION VALVES.

Ottawa	VALVE BOX ASSEMBLY	DATE: MAY 2001 REV. DATE: MARCH 2021 DWG. No.: W04

CAUTION
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

JOB BENCH MARK JBM ▲
FIRE HYDRANT TOP OF SPINDLE ELEVATION=93.57
NORTHING=5020457.01 EASTING=366125.53

TOPOGRAPHIC INFORMATION
PART OF LOT 24, CONCESSION 1 (RIDEAU FRONT)
CITY OF OTTAWA.
TOPOGRAPHIC INFORMATION PROVIDED BY FAIRHALL MOFFATT & WOODLAND LIMITED O.L.S (TP_AE175.DWG) SURVEY DATED AUGUST 29, 2024.
COORDINATES: (SMARTNET) MTM ZONE 9, NAD83 CSRS (2010).

REV	REVISION DESCRIPTION	DATE	BY	APPD
4	REISSUED FOR APPROVAL	10/02/26	AC	BMT
3	REISSUED FOR APPROVAL	07/15/26	SAB	BMT
2	ISSUED FOR APPROVAL	12/17/25	AC	BMT
1	ISSUED FOR APPROVAL	07/11/25	SAB	BMT

SCALE
NORTH

DESIGNED BY
LICENSED PROFESSIONAL ENGINEER J.L. FITZPATRICK 2026-10-05 PROVINCE OF ONTARIO

REVIEWED BY

CLIENT
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BASEPLAN	SAB
DESIGN	JLF
CHECKED	BMT
CAD	SAB
PROJECT MANAGER	BMT
APPROVED	BMT

PROJECT
CASSONE COURT
2028 MERIVALE ROAD
OTTAWA, ONTARIO

TITLE
STANDARD DETAILS
DETAIL SHEET 3

PROJECT No.	OTT-24015379-A0
SURVEY	FMW
DATE	MARCH 28, 2025
DRAWING No.	C402

Filename:\\exp\ottdata\ott\ott-24015379-a0\60 execution\65 drawings\24015379-a0-402.dwg
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