

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS,
WATERMANS, 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.

No.	REVISION	DATE	BY
1.	SITE PLAN SUBMISSION	MAY 31/19	MAB

SCALE
1:150
0 2 4 6

DESIGN	LRW
CHECKED	MAB
DRAWN	CB
CHECKED	MAB
APPROVED	JGR

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER

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PROVINCE OF ONTARIO

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2019.05.31

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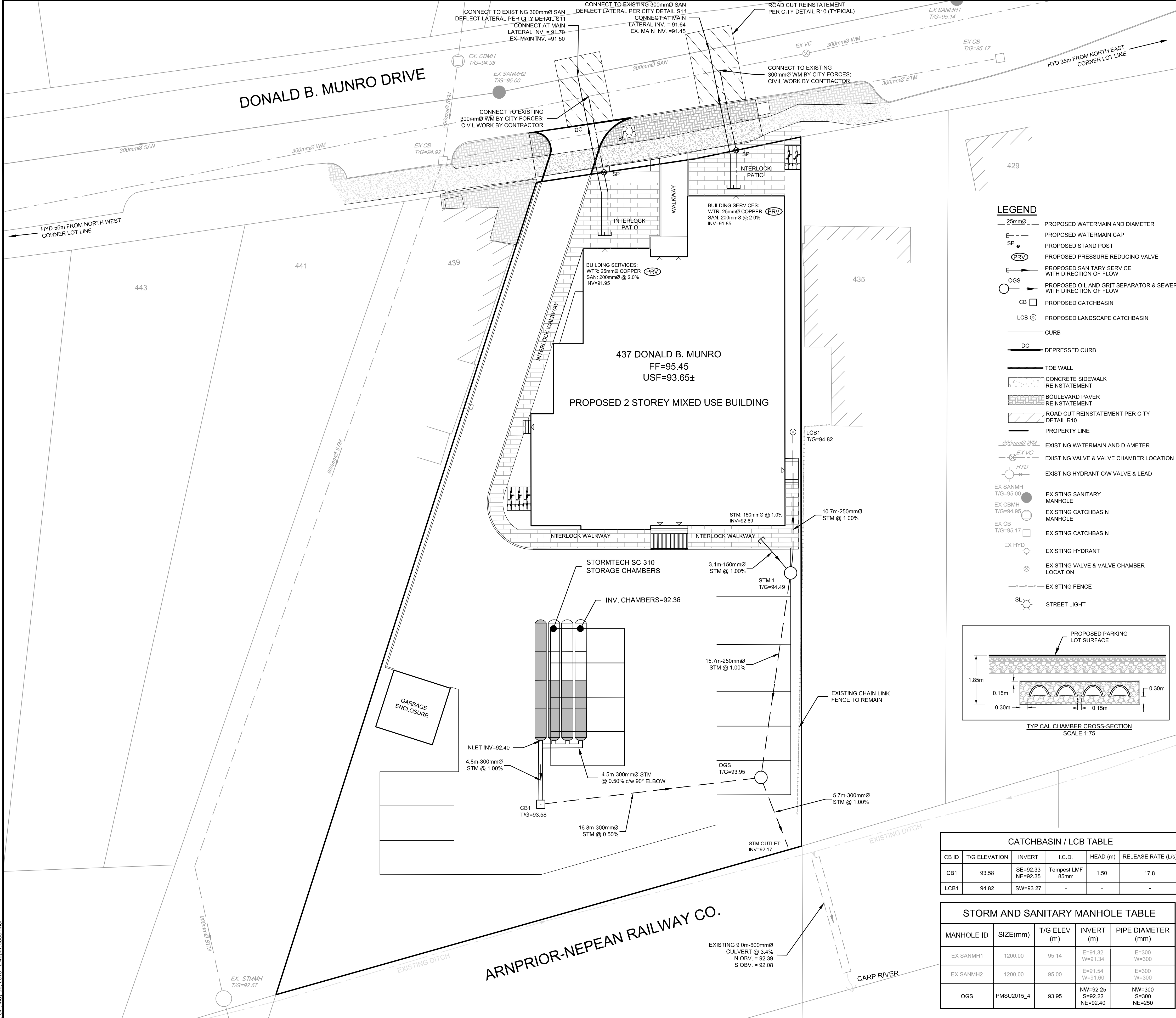
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CITY OF OTTAWA	PROJECT NO.
437 - DONALD B. MUNRO DRIVE	119023
SERVICING PLAN	REV
	REV # 1
	DRAWING NO.
	119023-GP

M:\2019\119023\CA\DWG\119023-GP.dwg, GP, May 30, 2019 - 2:49pm, chadimae



LEGEND

25mmØ

PROPOSED WATERMAIN AND DIAMETER

SP

PROPOSED WATERMAIN CAP

PRV

PROPOSED STAND POST

PRV

PROPOSED PRESSURE REDUCING VALVE

OGS

PROPOSED SANITARY SERVICE WITH DIRECTION OF FLOW

OGS

PROPOSED OIL AND GRIT SEPARATOR & SEWER WITH DIRECTION OF FLOW

CB

PROPOSED CATCHBASIN

LCB

PROPOSED LANDSCAPE CATCHBASIN

CURB

CURB

DC

DEPRESSED CURB

TOE WALL

TOE WALL

CONCRETE SIDEWALK REINSTATEMENT

CONCRETE SIDEWALK REINSTATEMENT

BOULEVARD PAVEMENT REINSTATEMENT

BOULEVARD PAVEMENT REINSTATEMENT

ROAD CUT REINSTATEMENT PER CITY DETAIL R10

ROAD CUT REINSTATEMENT PER CITY DETAIL R10

PROPERTY LINE

PROPERTY LINE

600mmØ WM

EXISTING WATERMAIN AND DIAMETER

EX VC

EXISTING VALVE & VALVE CHAMBER LOCATION

HYD

EXISTING HYDRANT CW VALVE & LEAD

EX SANMH

EXISTING SANITARY MANHOLE

EX CBMH

EXISTING CATCHBASIN MANHOLE

EX CB

EXISTING CATCHBASIN

EX HYD

EXISTING HYDRANT

EX VALVE

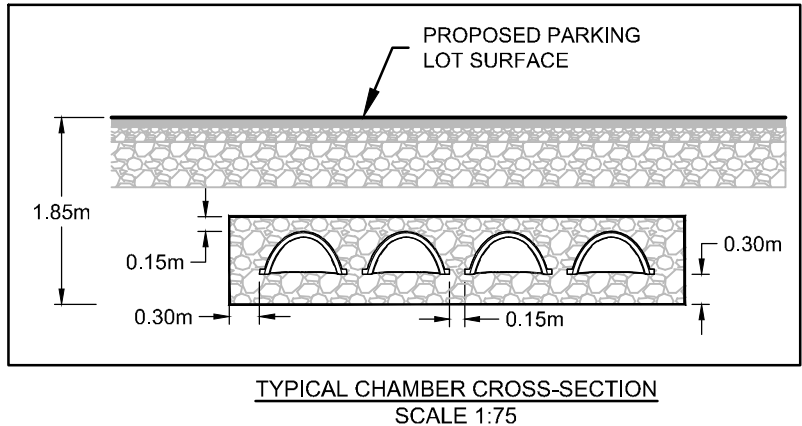
EXISTING VALVE & VALVE CHAMBER LOCATION

SL

EXISTING FENCE

SL

STREET LIGHT



CATCHBASIN / LCB TABLE					
CB ID	T/G ELEVATION	INVERT	I.C.D.	HEAD (m)	RELEASE RATE (L/s)
CB1	93.58	SE=92.33 NE=92.35	Tempest LMF 85mm	1.50	17.8
LCB1	94.82	SW=93.27	-	-	-

STORM AND SANITARY MANHOLE TABLE				
MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
EX SANMH1	1200.00	95.14	E=91.32 W=91.34	E=300 W=300
EX SANMH2	1200.00	95.00	E=91.54 W=91.60	E=300 W=300
OGS	PMSU2015_4	93.95	NW=92.25 S=92.22 NE=92.40	NW=300 S=300 NE=250

NORTH

KEY PLAN

N.T.S.

- GENERAL NOTES & INSTRUCTIONS:
1.

THE ORIGINAL GROUND ELEVATIONS, SERVICING, UTILITY, AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
2.

THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES, INCLUDING THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION. ALL TO THE SATISFACTION OF THE ENGINEER.
3.

PRIOR TO CONSTRUCTION START, THE CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE TO THE ENGINEER IN THE AMOUNT AND TYPE OUTLINED IN THE CONTRACT AGREEMENT. THE INSURANCE POLICY SHALL NAME THE OWNER, ENGINEER, AND MUNICIPALITY AS CO-INSURED.
4.

COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
5.

CONFIRM DIMENSIONS AND LAYOUT INFORMATION BEFORE CONSTRUCTION START, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
6.

ELEVATIONS ARE GEODETTIC AND UTILIZE METRIC UNITS. DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
7.

OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE CONSTRUCTION START.
8.

ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST MUNICIPAL STANDARDS AND SPECIFICATIONS, AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
9.

RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER, TO THE SATISFACTION OF THE ENGINEER.
10.

ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT" AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR IS DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
11.

CONSTRUCTION SIGNAGE MUST CONFORM TO THE CURRENT MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

- REPORTS & REFERENCE PLANS:
1.

REFER TO SITE PLAN AND ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT AND DETAILS.
2.

REFER TO LANDSCAPE ARCHITECTURE PLANS FOR HARDSCAPE FEATURES AND PLANTING INFORMATION.
3.

REFER TO THE SERVICING BRIEF R-2019-098 DATED MAY 31, 2019 FOR SERVICING DESIGN DETAILS.
4.

REFER TO GEOTECHNICAL REPORT PG4916-1 DATED MAY 24, 2019 PREPARED BY PATERSON FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT SHALL REVIEW SITE CONDITIONS

- STORM SEWERS:
1.

CONTRACTOR SHALL SUPPLY AND INSTALL ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH CURRENT MUNICIPAL STANDARDS AND SPECIFICATIONS (APPLIES TO STORM AND SANITARY SEWERS).
2.

REINFORCED CONCRETE STORM SEWER PIPES SHALL BE IN ACCORDANCE WITH CSA A257.2. NON-REINFORCED CONCRETE STORM SEWER PIPES SHALL BE IN ACCORDANCE WITH CSA A257.1. PIPE SHALL BE JOINTED WITH STANDARD RUBBERIZED GASKETS PER CSA A257.3. LATEST AMENDMENT APPLIES TO ALL OF THE ABOVE ITEMS.
3.

STORM SEWER TRENCHING SHALL BE IN ACCORDANCE WITH OTTAWA DETAIL S6 AND S7.
4.

PIPE BEDDING, COVER AND BACKFILL TO BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.010/802.013 FOR FLEXIBLE PIPE, AND 802.031/802.033 FOR RIGID PIPE. PIPE BEDDING SHALL BE CLASS "B", UNLESS OTHERWISE NOTED, AND SHALL CONSIST OF 150mm GRANULAR "A" (300mm IN ROCK) COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
5.

PVC STORM SEWERS SHALL BE SDR35 APPROVED PER CSA B182.2, UNLESS OTHERWISE NOTED.
6.

STORM LATERAL TO BE 150mmØ WHITE PVC SDR28 WITH A 1.0% GRADIENT (MIN). CONSTRUCT SERVICES TO WITHIN 1.0m OF THE BUILDING FACE AND CAP. MARK WITH A WOODEN 50mm x 100mm STAKE PAINTED GREEN THAT EXTENDS 1.0m ABOVE GROUND.
7.

SERVICE CONNECTIONS TO SEWER MAIN IN ACCORDANCE WITH OTTAWA DETAIL S11 OR S11.1 AS APPROPRIATE.
8.

STORM MANHOLE FRAME AND COVER SHALL BE PER OTTAWA DETAIL S24.1, AND S25.
9.

CATCH BASINS IN ACCORDANCE WITH OTTAWA DETAIL S1 (CONCRETE GUTTER), S3 (INLET CATCHBASIN), AND OPSD 705.010. FRAME AND GRATE PER OTTAWA DETAIL S19 FOR BOTH ROADWAY AND REAR YARD STRUCTURES.
10.

CATCH BASIN LEADS SHALL BE 200mmØ WITH A 1.0% (MIN) SLOPE (USE 250mm LEAD FOR DOUBLE CB STRUCTURES).
11.

CATCH BASINS AND CBMH STRUCTURES TO HAVE 600mm DEEP SUMPS.
12.

CCTV ALL STORM SEWERS 250mm OR GREATER PRIOR TO PLACEMENT OF ASPHALT BASE COURSE.

- SANITARY SEWERS:
1.

SANITARY SEWER TRENCH PER OTTAWA DETAIL S6 AND S7 WITH A CLASS "B" BEDDING.
2.

SANITARY LATERALS TO BE 200mmØ NON-WHITE PVC SDR35, IPEX "RING-TITE" (OR EQUIVALENT) WITH A 1.0% GRADIENT (2.0% PREFERRED). CONSTRUCT SERVICES TO WITHIN 1.0m OF THE BUILDING FACE AND CAP. MARK WITH A WOODEN 50mm x 100mm STAKE PAINTED RED THAT EXTENDS 1.0m ABOVE THE GROUND. LATERALS IN GENERAL CONFORMANCE WITH DETAIL S11.3, SECTION A-A.
3.

BACK WATER VALVES SHALL BE INSTALLED ON ALL SANITARY SERVICES PER OTTAWA DETAIL S14.1 OR S14.2.
4.

SANITARY MANHOLE FRAME AND COVERS PER OTTAWA DETAIL S24 AND S25.
5.

SAFETY PLATFORMS PER OPSD 404.02.
6.

CONTRACTOR TO PERFORM LEAKAGE TEST ON SANITARY SEWER IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24.
7.

CCTV ALL SANITARY SEWERS 200mm OR GREATER PRIOR TO PLACEMENT OF ASPHALT BASE COURSE.

- WATER SUPPLY:
1.

WATERMAIN TRENCH AND BEDDING IN ACCORDANCE WITH OTTAWA DETAIL W17.
2.

PVC FITTINGS SHALL BE INSTALLED WITH A TRACER WIRE IN ACCORDANCE WITH OTTAWA DETAIL W36.
3.

THE WATER SERVICES SHALL BE 25mmØ COPPER. WATER SERVICE SHALL BE MARKED WITH A 50mm x 100mm STAKE PAINTED BLUE.
4.

CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER OTTAWA DETAIL W40 AND W42.
5.

INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWERS IN ACCORDANCE WITH OTTAWA DETAIL W25.2 AND W25 (APPLICABLE IF WATERMAIN COVER IS LESS THAN 2.4M).
6.

INSULATE WATER SERVICES PER OTTAWA DETAIL W23, WHEN SEPARATION BETWEEN SERVICE AND MANHOLE IS LESS THAN 1.2m.
7.

MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER OR UTILITY IS 0.25m WHEN CROSSING OVER A PIPE (W25.2), AND 0.50m WHEN CROSSING UNDER A PIPE (W25). THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ADEQUATE SUPPORT TO THE EXISTING INFRASTRUCTURE.
8.

WATER SERVICES CROSSING SEWERS SHALL BE INSTALLED PER OTTAWA DETAIL W38.