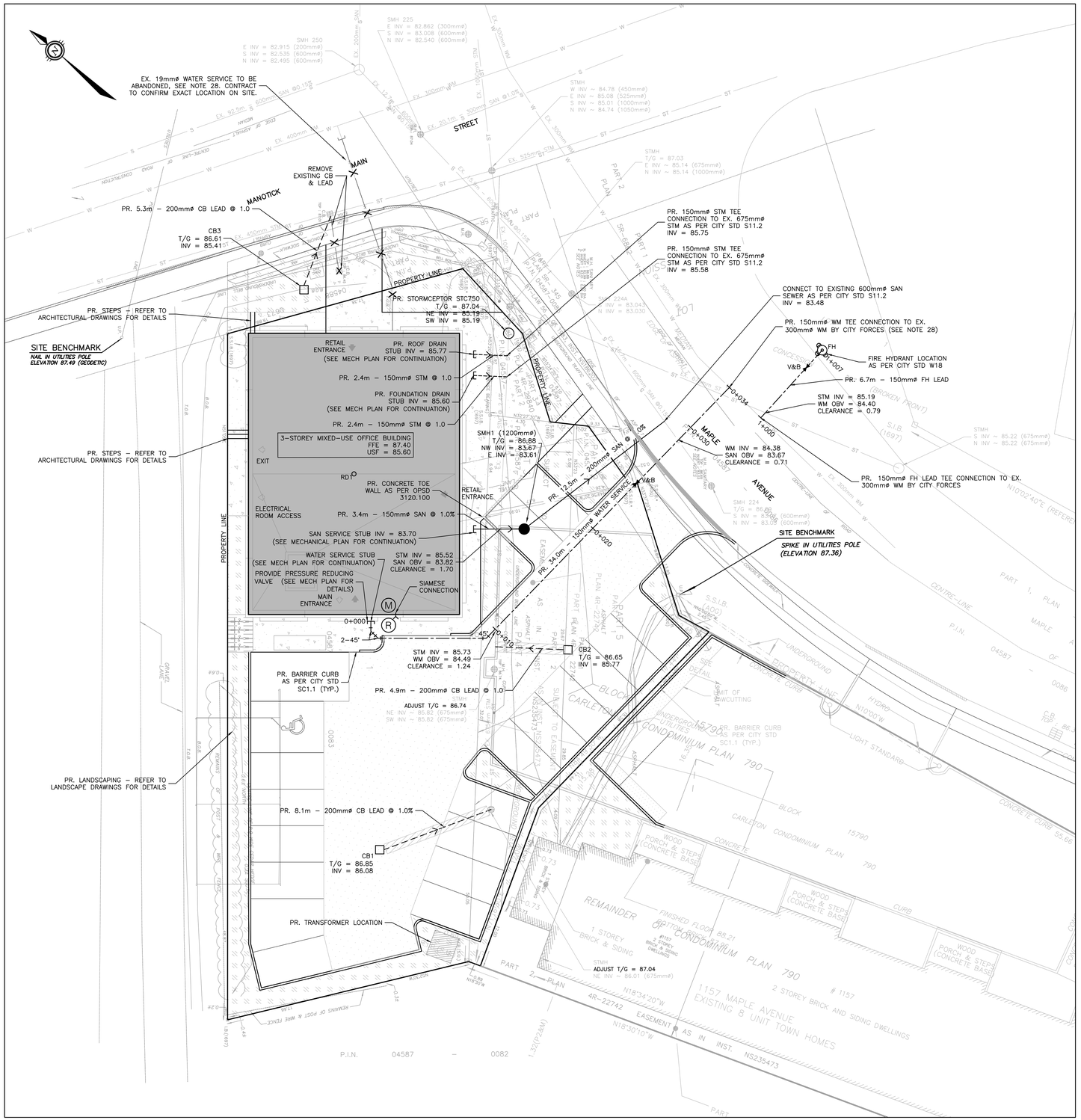


NOTES: GENERAL

1. ALL SERVICES, MATERIALS, CONSTRUCTION METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND REGULATIONS OF THE: CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS, ONTARIO PROVINCIAL SPECIFICATION STANDARD SPECIFICATION (OPSS) AND ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), UNLESS OTHERWISE SPECIFIED, TO THE SATISFACTION OF THE CITY AND THE CONSULTANT.
2. THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES, STRUCTURES AND APPURTENANCES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWING, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SATISFY HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM DURING THE COURSE OF CONSTRUCTION. ANY RELOCATION OF EXISTING UTILITIES REQUIRED BY THE DEVELOPMENT OF SUBJECT LANDS IS TO BE UNDERTAKEN AT CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR MUST NOTIFY ALL EXISTING UTILITY COMPANY OFFICIALS FIVE (5) BUSINESS DAYS PRIOR TO START OF CONSTRUCTION AND HAVE ALL EXISTING UTILITIES AND SERVICES LOCATED IN THE FIELD OR EXPOSED PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO HYDRO, BELL, CABLE TV, AND CONSUMERS GAS LINES.
4. ALL TRENCHING AND EXCAVATIONS TO BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
5. REFER TO ARCHITECTS PLANS FOR BUILDING DIMENSIONS AND LAYOUT. REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. ALL INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. TOPOGRAPHIC SURVEY COMPLETED AND PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. DATED FEBRUARY 2, 2017. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION OF ANY WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
7. THE LOCATION OF UNDERGROUND SERVICES ARE BASED ON THE SURVEY PROVIDED BY H.A. KEN SHIPMAN SURVEYING LTD. TOGETHER WITH THE INFORMATION FROM THE CITY OF OTTAWA ASBUILT PLAN NO. 14121 (CONTRACT NO: 15B06-2055, SHEETS 17, 18, 23 AND 42) BY J.L.RICHARDS. HOWEVER, CONTRACTOR MUST ENSURE THAT THIS INFORMATION IS VERIFIED PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
8. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
9. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
10. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM.
11. ALL DISTURBED AREAS OUTSIDE PROPOSED GRADING LIMITS TO BE RESTORED TO ORIGINAL ELEVATIONS AND CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL RESTORATION SHALL BE COMPLETED WITH THE GEOTECHNICAL REQUIREMENTS FOR BACKFILL AND COMPACTION.
12. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
13. ABUTTING PROPERTY GRADES TO BE MATCHED UNLESS SPECIFIED OTHERWISE.
14. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
16. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
17. SERVICE TRENCHES ON MUNICIPAL RIGHT OF WAY TO BE REINSTATED AS PER CITY OF OTTAWA DETAIL R10.
18. PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB-SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES.
19. FOR ANY SOILS RELATED INFORMATION, REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY PATERSON GROUP DATED JANUARY 18, 2017.
20. LIGHT DUTY PAVEMENT STRUCTURE SHALL CONSIST OF:
    300 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD.
    150 mm - OPSS GRANULAR A COMPACTED TO 100% SPD.
    50 mm - HL3 OR SUPERPAVE 12.5 COMPACTED TO 96% MARSHALL DENSITY
21. HEAVY DUTY PAVEMENT STRUCTURE SHALL CONSIST OF:
    450 mm - OPSS GRANULAR B TYPE II COMPACTED TO 100% SPD.
    150 mm - OPSS GRANULAR A COMPACTED TO 100% SPD.
    50 mm - HL8 OR SUPERPAVE 19.0 COMPACTED TO 96% MARSHALL DENSITY
    40mm - HL3 OR SUPERPAVE 12.5 COMPACTED TO 96% MARSHALL DENSITY

NOTES: WATERMAIN

22. ALL WATERMAIN AND WATERMAIN APPURTANANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.
23. THE WATERMAIN SHALL BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 18 MEETING AWWA SPECIFICATION C900.
24. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM 0.25m CLEARANCE SHALL BE MAINTAINED; WHERE WATERMAINS CROSS UNDER OTHER UTILITIES, A MINIMUM 0.50m CLEARANCE SHALL BE MAINTAINED. WHERE THE MINIMUM SEPARATION CANNOT BE ACHIEVED, THE WATERMAIN SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W25 AND W25.2. WHERE 2.4m MINIMUM DEPTH CANNOT BE ACHIEVED, THERMAL INSULATION SHALL BE PROVIDED AS PER CITY OF OTTAWA STANDARD W22.
25. WATERMAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17.
26. VALVE AND VALVE BOX TO BE AS PER CITY OF OTTAWA STANDARD W24.
27. FIRE HYDRANTS TO BE AS PER CITY OF OTTAWA STANDARD W19.
28. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 & W42.
29. ALL CONNECTIONS OF NEW WATERMAIN TO EXISTING WATERMAIN & ALL BLANKINGS OF EXISTING MAINS AND SERVICES SHALL BE PERFORMED BY CITY OF OTTAWA FORCES. THE CONTRACTOR SHALL PROVIDE EXCAVATION, BACKFILL AND REINSTATEMENT. THE CONTRACTOR SHALL CONSTRUCT WATER SERVICES APPURTENANCES AS PER CITY OF OTTAWA SPECIFICATIONS & SHALL COORDINATE AND PAY ALL RELATED COST OF CONNECTION, INSPECTION AND DISINFECTION BY CITY FORCES.

NOTES: SANITARY SEWER AND MANHOLES

30. ALL SANITARY SEWER, SANITARY SEWER APPURTANANCES AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
31. SANITARY SEWER PIPE SIZE 150mm DIAMETER AND GREATER TO BE PVC SDR-35 (UNLESS SPECIFIED OTHERWISE) WITH RUBBER GASKET TYPE JOINTS IN CONFORMANCE WITH CSA B-182.2,3,4.
32. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
33. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.
34. ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24.

NOTES: STORM SEWERS AND STRUCTURES

35. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
36. STORM SEWERS 450mm DIAMETER AND SMALLER SHALL BE PVC SDR-35, WITH RUBBER GASKET PER CSA A-257.3. STORM SEWERS 525mm DIAMETER AND LARGER SHALL BE CONCRETE CLASS CL-100D.
37. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.
38. ALL STORM MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTTAWA STANDARD S25 AND S24.1.
39. CATCH BASINS TO BE AS PER OPSD 705.010 WITH FRAME AND COVERS TO OPSD 400.010. ALL CATCH BASIN MANHOLES TO BE OPSD 701.010 WITH FRAME AND COVER TO CITY OF OTTAWA STANDARD S25 AND S26.1.
40. ALL CATCHBASIN LEADS TO BE MINIMUM 200mm DIAMETER AT MINIMUM 1.0% SLOPE UNLESS OTHERWISE SPECIFIED.
41. ROOF DRAINS SHALL BE BY WATTS DRAINAGE. DRAINS SHALL BE SELECTED BASED ON THE RELEASE RATES.

ROOF DRAIN SUMMARY

Drainage Area	Deck Drain	5 Year Event			100 Year Event		
		5-YR Peak Flow (L/s)	5-YR Ponding Depth (mm)	5-YR Ponding Volume (m^3)	100-YR Peak Flow (L/s)	100-YR Ponding Depth (mm)	100-YR Ponding Volume (m^3)
BLDG	RD1	1.4	108	5.6	1.7	135	11.0

INLET CONTROL DEVICES SUMMARY

	CB1	CB2
RELEASE RATE (L/s)	1.1	7.0
HEAD (m)	1.01	2.03
HYDROVEX TYPE	40SVHV-1	75SVHV-1

LEGEND:

- PROPERTY LINE
- EXISTING WATERMAIN
- EXISTING FIRE HYDRANT
- EXISTING V&VB
- EXISTING VALVE CHAMBER
- PROPOSED WATERMAIN
- FH PROPOSED FIRE HYDRANT
- V&B PROPOSED V&VB
- R PROPOSED REMOTE METER
- M PROPOSED METER
- SMH EXISTING SANITARY SEWER AND MANHOLE
- SMH PROPOSED SANITARY SEWER AND MANHOLE
- STMH EXISTING STORM SEWER AND MANHOLE
- STMH PROPOSED STORM SEWER AND MANHOLE
- CB PROPOSED DECK DRAINS OR CATCHBASINS
- RD PROPOSED ROOF DRAINS
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- DC PROPOSED DEPRESSED CURB
- EXISTING BUILDING OR STRUCTURE
- PROPOSED BUILDING OR STRUCTURE
- 86.55* EXISTING GRADE
- 87.21+ PROPOSED GRADE
- 87.35(tc)+ PROPOSED GRADE (TOP OF CURB)
- 87.87(tw)+ PROPOSED GRADE (TOP OF WALL)
- 87.87(s)+ PROPOSED GRADE (SWALE)
- 87.87(tl)+ PROPOSED GRADE (TOP OF LANDING)
- 0.4% PROPOSED DIRECTION OF FLOW AND SLOPE
- PROPOSED SILT FENCE AS PER OPSD 219.110
- PROPOSED MUD MAT
- PROPOSED TERRACING
- EXISTING SERVICE TO BE REMOVED
- PROPOSED DRAINAGE BOUNDARY
- OVERLAND MAJOR FLOW ROUTE
- HI-40 STYROFOAM INSULATION
- HEAVY DUTY ASPHALT PAVEMENT (NOTE 21)
- A-XX UNCONTROLLED A R — A-XX DENOTES WATERSHED NAME; A DENOTES AREA IN m^2; R DENOTES RUNOFF COEFFICIENT

150mm WATERMAIN SCHEDULE

CHAINAGES	DESCRIPTION	TOP OF GROUND	TOP OF WATERMAIN
0+000	STUB AT BUILDING	87.39	84.99
0+001	45° BEND	87.42	85.02
0+002	45° BEND	87.43	85.03
0+009	45° BEND	86.93	84.53
0+010	675mm STORM CROSSING	86.89	84.49
0+020		86.81	84.41
0+024	VALVEBOX	86.74	84.34
0+029	600mm SANITARY CROSSING	86.78	84.38
0+030		86.81	84.41
0+034	TEE CONNECTION TO EXISTING 300mm	86.87	84.47

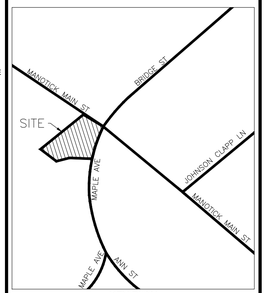
FIRE HYDRANT LEAD SCHEDULE

CHAINAGES	DESCRIPTION	TOP OF GROUND	TOP OF WATERMAIN
1+000	TEE CONNECTION TO EXISTING 300mm	86.82	84.42
1+001	675mm STORM CROSSING	86.80	84.40
1+005	VALVEBOX	86.74	84.34
1+007	FIRE HYDRANT	86.70	84.30

GENERAL NOTES:

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



KEY PLAN
(N.T.S)

APPROVED ☐ REFUSED ☐

THIS_____ DAY OF _____, 20____

DERRICK MOODIE, MANAGER
DEVELOPMENT REVIEW WEST
PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

No.	REVISIONS	BY	DATE
01	ISSUED FOR SPC & ZBA	D.G.	MAR 2, 2017

HORIZONTAL SCALE:
3.0m 1.5 0 3.0 6.0m
SCALE: 1:150

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
Mar 2, 2017
PROVINCE OF ONTARIO

NOT VALID UNLESS SIGNED AND DATED

MMM GROUP
2611 Queensview Dr. Ottawa, ON Canada K2B 8K2
t: 613.829.2800 f: 613.829.8299 www.wspgroup.com

CLIENT
1846253 ONTARIO INC.
STEPHEN PHILIP
5572 CARRISON DRIVE
MANOTICK, ON K4M 1K7
TEL: (613) 608-7216

DESIGNED BY:	DRAWN BY:	APPROVED BY:
D.G.	I.J.	I.J.

PROJECT
MANOTICK MIXED-USE OFFICE BUILDING
5514 MANOTICK MAIN ST.,
MANOTICK, ONTARIO

DRAWING TITLE
SITE SERVICING PLAN

PROJECT NO. 17M-00198-00

DRAWING NO. C.02

D07-XX-XX-XXXX

FILENAME: V:\10-13 MI-LD\5514 Manotick Main St\5. Drawings\Working drawings\5514 Manotick - Engineering Drawings.dwg
PLOTDATE: Mar 02, 2017 - 1:16pm, gincelpound