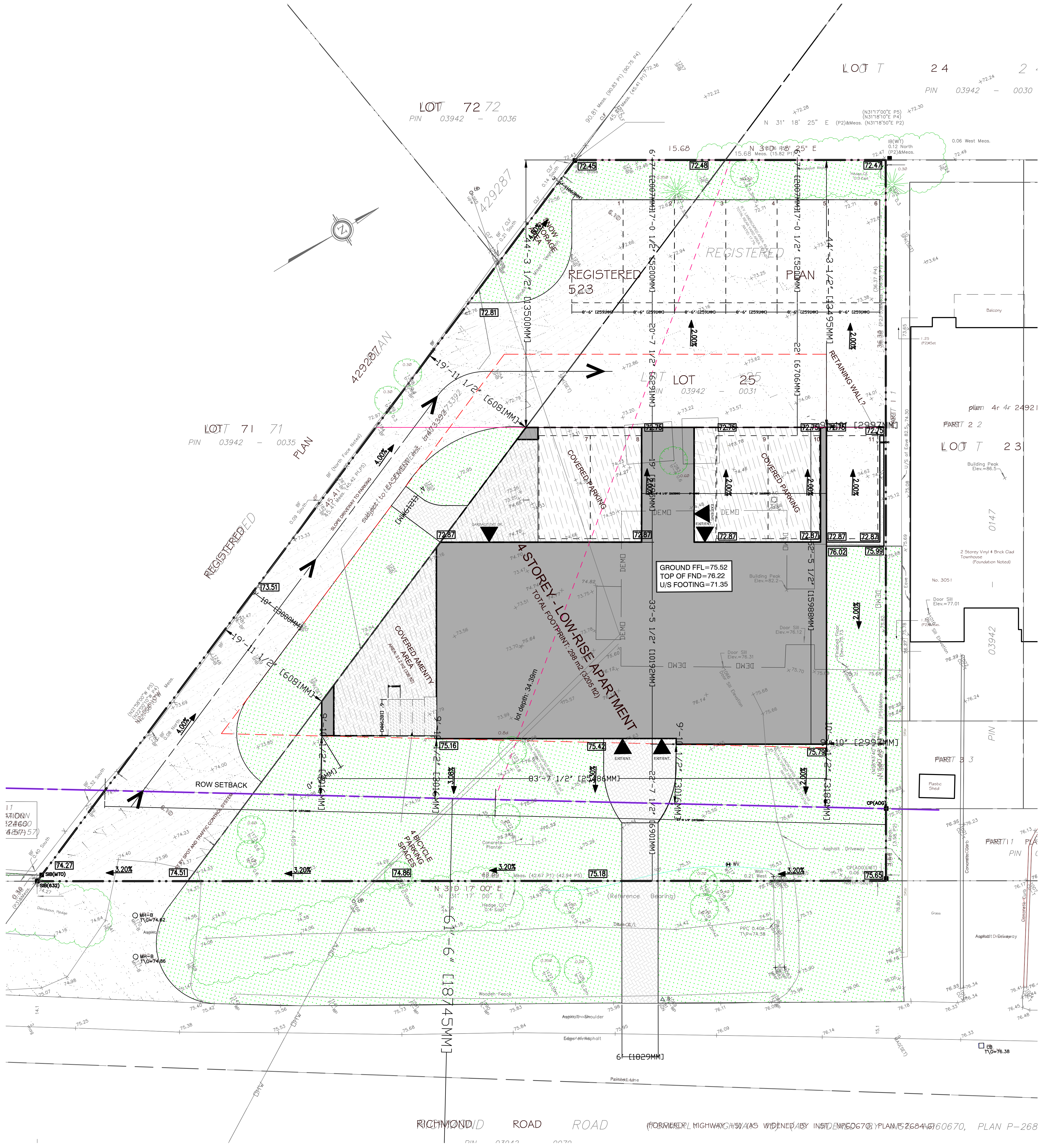

PROVIDE FROST PROTECTION FOR FOOTING ABOVE 1.5m BELOW THE SURROUNDING GRADE

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES.
THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

GENERAL NOTES FOR SERVICING

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.
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14. ABUTTING PROPERTY GRADES TO BE MATCHED.
15. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
16. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
17. 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.
18. AT PROPOSED UTILITIES 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.
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24. a) PAVEMENT STRUCTURE SHALL CONSIST OF FOR CAR ONLY PARKING AREAS:
    65 mm ASPHALTIC CONCRETE (PG 58–34), 92% to 97 % MRD
    150 mm GRANULAR A BASE (OPSS 1010) (CRUSHED LIMESTONE), 100% SPMDD
    300 mm GRANULAR B TYPE II SUB–BASE (OPSS 1010), 100% SPMDD
    SUBGRADE– APPROVED EXISTING FILL, SUBGRADE AND IMPORTED GRANULAR FILL (COMPACTED TO 95% SPMDD)

25. CONTRACTOR TO REINSTATE PAVER STONES IN CITY ROW.

NOTES WATERMAIN

24. ALL WATERMAIN AND WATERMAIN APPURTENANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.

25. ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 1B MEETING AWWA SPECIFICATION C900. STANDARD LATERAL MATERIAL SERVICES UP TO 50MM IS COPPER TYPE 'K'.

26. ALL WATER MAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE FROM UTILITIES OBVERT 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 OTIAWA STANDARD W22.

27. WATER MAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17.

28. VALVE BOX TO BE AS PER CITY OF OTIAWA STANDARD W24.

29. CONCRETE THRUST BLOCKS AND MECHANICAL RESTRAINTS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, REDUCERS, ENDS OF MAINS AND CONNECTIONS 100mm AND LARGER, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25.3 &: W25.4.

30. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 &: W42.

31. FIRE HYDRANTS TO BE A5 PER CITY OF OTTAWA STANDARD W19. (NOT REQUIRED)

32. IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

"TYPICAL WATER SERVICE LINE AS PER W26(FOR 19MM & 25MM DIA. WATER SERVICES). AND TO BE INSTALLED AT 1 M FROM THE FOUNDATION WALLS

NOTES: SANITARY SEWER AND MANHOLES

34. ALL SANITARY SEWER, SANITARY SEWER APPURTENANCE AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

36. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.

37. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.

38. ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTIAWA STANDARD S25 AND 524. (NOT APPLICABLE)

39. SANITARY BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14.1 OR S14.2

40. STORM BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14

NOTES: STORM SEWERS AND STRUCTURES

41. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

NOTES: EROSION AND SEDIMENT CONTROL

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LEGEND

SAN 250mmø SAN	EXISTING MAIN SANITARY SEWER
STM 300mmø STM	EXISTING MAIN STORM SEWER
WTM 203mmø WTM	EXISTING MAIN WATERMAIN
G G	EXISTING MAIN GAS LINE
	EXISTING CENTRE OF ROAD
	EXISTING SANITARY LATERAL
	EXISTING WATER LATERAL
	EXISTING STORM LATERAL
B B	EXISTING BURIED TELEPHONE
T	EXISTING OVERHEAD TELEPHONE
	EXISTING OVERHEAD HYDRO
	EXISTING UNDERGROUND HYDRO
	BUILDING FOUNDATION
	BUILDING ROOF
	PROPERTY LINE
	SETBACK LINE
	RIGHT OF WAY
	EXISTING WOOD FENCE
	EXISTING CHAIN LINK FENCE
/// ///	EXISTING SIDEWALK
	EXISTING DEPRESSED CURB
	EXISTING CONCRETE CURB
	BENCHMARK RIM SANITARY MANHOLE
SA	EXISTING SANITARY MANHOLE
	EXISTING STORM MANHOLE
	EXISTING CATCHBASIN
	EXISTING VALVE AND VALVE CHAMBER
⊘	EXISTING VALVE AND VALVE BOX
FH	EXISTING FIRE HYDRANT
▭GM	EXISTING GAS METER
UP ○	EXISTING HYDRO POLE
■CP	EXISTING CORNER POST
× 58.14	EXISTING GRADE ELEVATION
AC	EXISTING AIR CONDITIONNER
S 135mmø S	PROPOSED SANITARY LATERAL SEWER
ST 135mmø ST	PROPOSED STORM LATERAL SEWER
W 152mmø W	PROPOSED WATERMAIN LATERAL
	PROPOSED DEMOLITION
	PROPOSED SILT FENCING
	PROPOSED SEVERANCE
	PROPOSED SWALE
▨	PROPOSED DEPRESSED CURB
SANMH	PROPOSED SANITARY MANHOLE
STMMH	PROPOSED STORM MANHOLE
CBMH	PROPOSED CATCH BASIN
RM	PROPOSED WATER REMOTE METER
M	PROPOSED WATER METER
⊗	PROPOSED CURB STOP
FFL	FINISHED FLOOR LEVEL ELEVATION
BFL	BASEMENT FLOOR LEVEL ELEVATION
U.S.F	UNDERSIDE OF THE FOOTING
F.D	FLOOR DRAIN
◁	BUILDING ENTRY
	DOWNSPOUTS LOCATION W/ SPLASH PAD
WP	WATER POST
58.20	PROPOSED ELEVATION
2.00% →	PROPOSED GRADING SLOPE BETWEEN2–7%, GRADING OVER 7% MUST BE TERRACED TO A MAXIMUM SLOPE OF 3H:1
	GRASS
	EXISTING INTERLOCK
	LIGHT DUTY (PARKING) 50mm HL3 150mm GRANULAR 'A' 300mm GRANULAR 'B' TYPE II sub grade in situ soil,compacted fill or opss granular B placed over in situ soil or compacted materials
	PROPOSED CONCRETE
	PROPOSED STREET ASPHALT OVERLAY
	EXTENT OF EXCAVATION FOR SERVICES
●	ROOF DRAIN RESTRICTOR TO L/S
○	5 YEAR FLOOD PONDING LIMITS
○	10 YEAR FLOOD PONDING LIMITS
	LEVEL AREA
▭	PROPOSED SCUPPERS
	WATER SAMPLING CHAMBER
SP	SUMP PUMP FOR FOUNDATION DRAINAGE
	EXISTING DECIDUOUS TREE
	EXISTING CONIFEROUS TREE
○	EXISTING TREES TO BE REMOVED
	PROPOSED TREE
	PROPOSED SHRUBS
	PROPOSED ANNUAL GRASSES
A1 0.39 0.90	STORM DRAINAGE AREA NUMBER STORM DRAINAGE AREA IN HECTARES RUN-OFF COEFFICIENT

W.Elias & Associates
CONSULTING ENGINEERS

204 BOREALIS CR.
OTTAWA, ON K1K 4V1
TEL 613-762-7800
WISSAMELIAS@GMAIL.COM

CIVIL
STRUCTURE
ELECTRICAL
MECHANICAL

CONSULTANT:

SEAL:
W.Elias El-Hage
13035501
JUNE 10 2022

CLIENT:
OTTAWA ONTARIO

PROJECT:

4 STOREY LOW-RISE APARTMENT BUILDING
3055 RICHMOND ROAD
OTTAWA, ON K2B 6S6

KEY PLAN:

DISCLAIMER: COPYRIGHT:
THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY W.ELIAS ENGINEERING . THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK.
THIS DRAWING IS NOT TO BE SCALED.

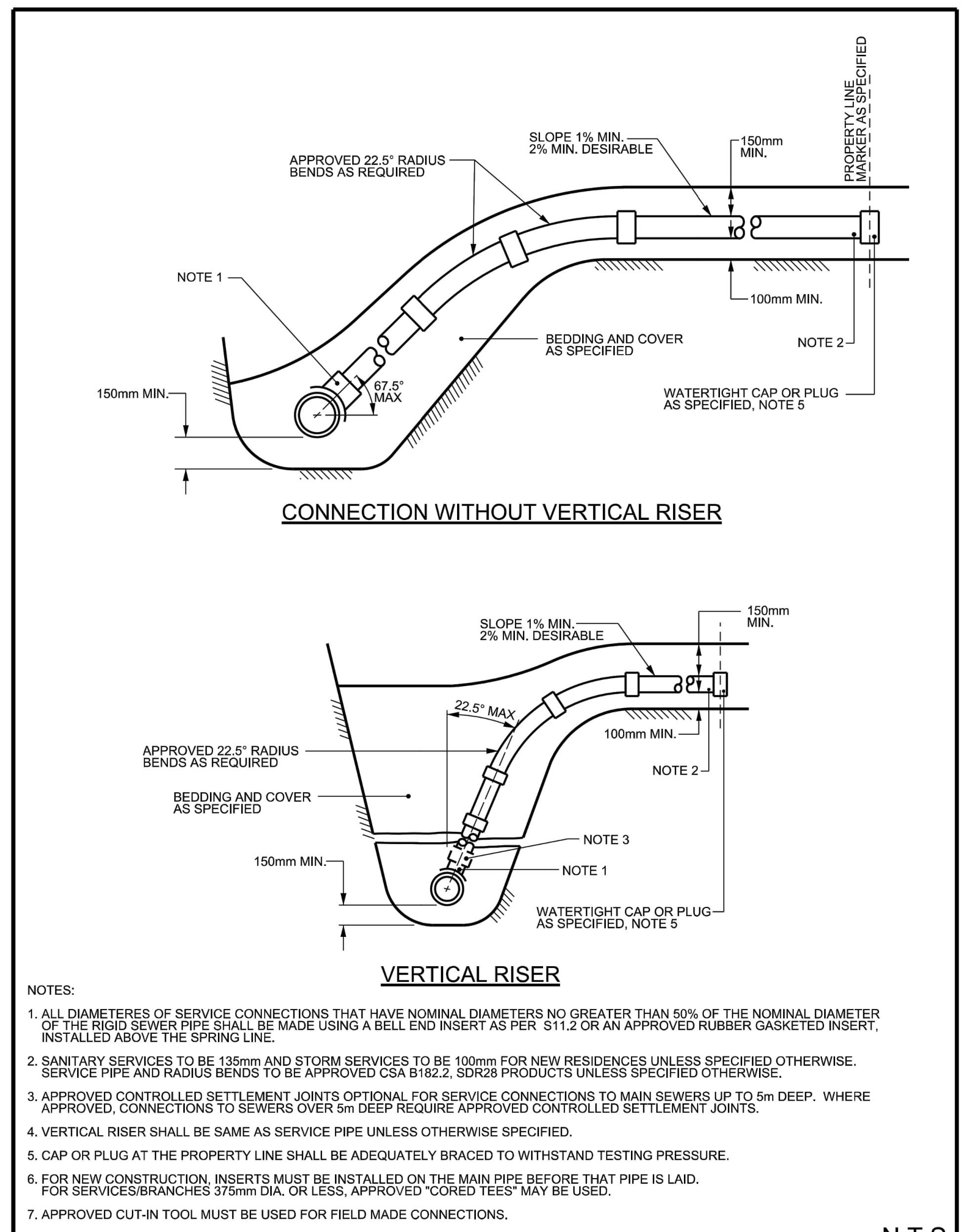
ISSUED FOR – REVISION:

IS	RE	DATE	DESCRIPTION
1		06/10/2022	ISSUED FOR REVIEW

PROJECT NO: 2022–120
DATE: 2022–06–10
ORIGINAL SCALE: 1:100
DESIGNED BY: R.E
DRAWN BY: R.E
CHECKED BY: W.E
IF THIS BAR IS NOT 1" LONG, ADJUST YOUR PLOTTING SCALE.
1"
DISCIPLINE:
TITLE:

GRADING PLAN

SHEET NUMBER: G1
SHEET #: OF
ISSUE: ISSUED FOR REVIEW
DATE OF: 2022–06–10
REV #: –

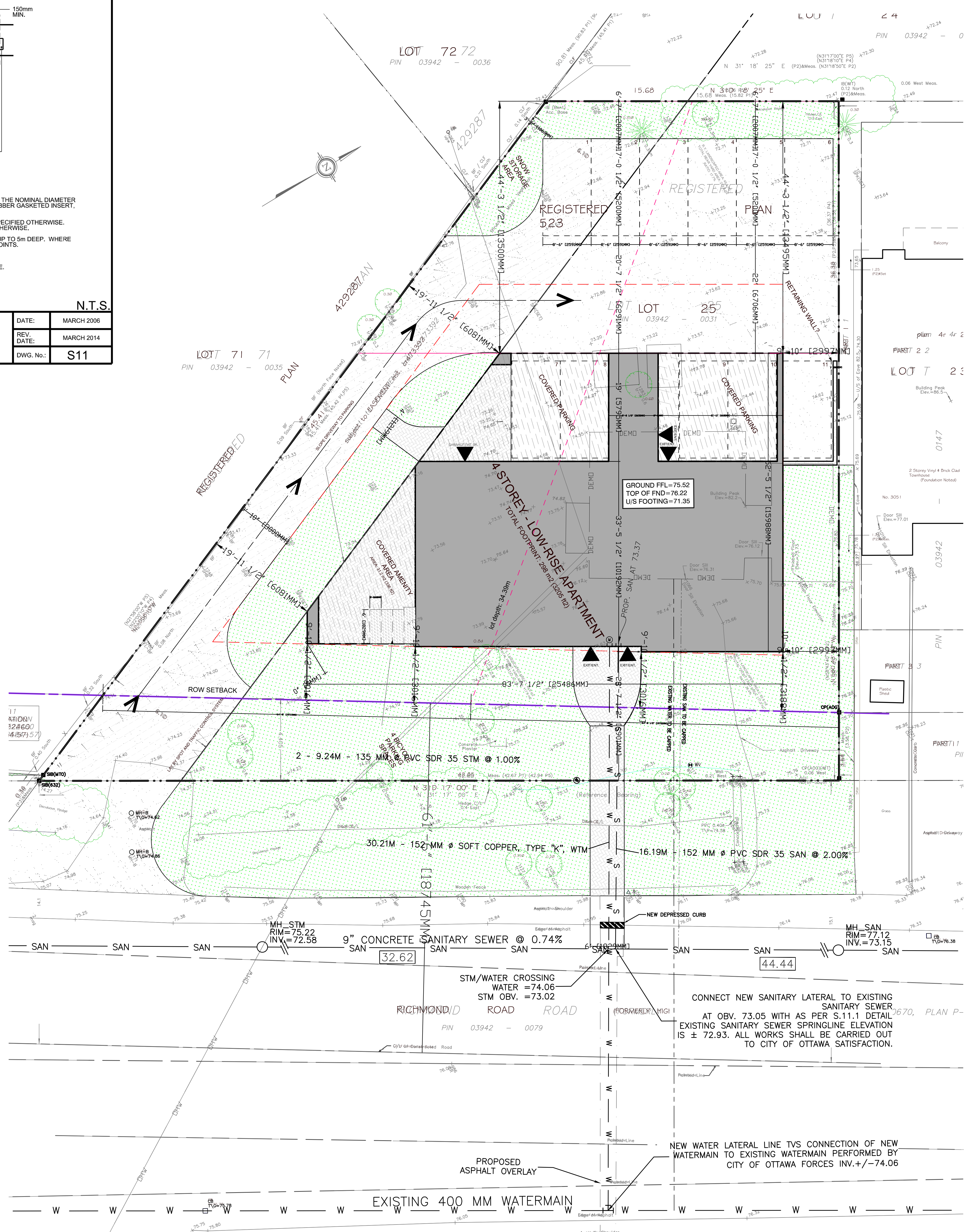


NOTES:

1. ALL DIAMETERES OF SERVICE CONNECTIONS THAT HAVE NOMINAL DIAMETERS NO GREATER THAN 50% OF THE NOMINAL DIAMETER OF THE RIGID SEWER PIPE SHALL BE MADE USING A BELL END INSERT AS PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT, INSTALLED ABOVE THE SPRING LINE.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 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 OR PLUG 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 375mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

Ottawa	SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE:	MARCH 2006
		REV. DATE:	MARCH 2014
		DWG. No.:	S11



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STM 300mmø STM	EXISTING MAIN STORM SEWER
WTM 203mmø WTM	EXISTING MAIN WATERMAIN
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T	EXISTING OVERHEAD TELEPHONE
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/// ///	EXISTING SIDEWALK
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	EXISTING CONCRETE CURB
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	EXTENT OF EXCAVATION FOR SERVICES
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○	5 YEAR FLOOD PONDING LIMITS
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Civil
Structure
electrical
mechanical

CONSULTANT:

SEAL:

W.Elias-El-Hage
13085501
JUNE 10 2022

CLIENT:

OTTAWA ONTARIO

PROJECT:

4 STOREY LOW-RISE
APARTMENT BUILDING
3055 RICHMOND ROAD
OTTAWA, ON K2B 6S6

KEY PLAN:

DISCLAIMER: COPYRIGHT:

ISSUED FOR – REVISION:

IS	RE	DATE	DESCRIPTION
1		06/10/2022	ISSUED FOR REVIEW

PROJECT NO: 2022–120	DATE: 2022–06–10
ORIGINAL SCALE: 1:100	IF THIS BAR IS NOT 1" LONG, ADJUST YOUR PLOTTING SCALE.
DESIGNED BY: R.E	
DRAWN BY: R.E	
CHECKED BY: W.E	1"

DISCIPLINE:

TITLE:

SERVICING PLAN

SHEET NUMBER:

S1

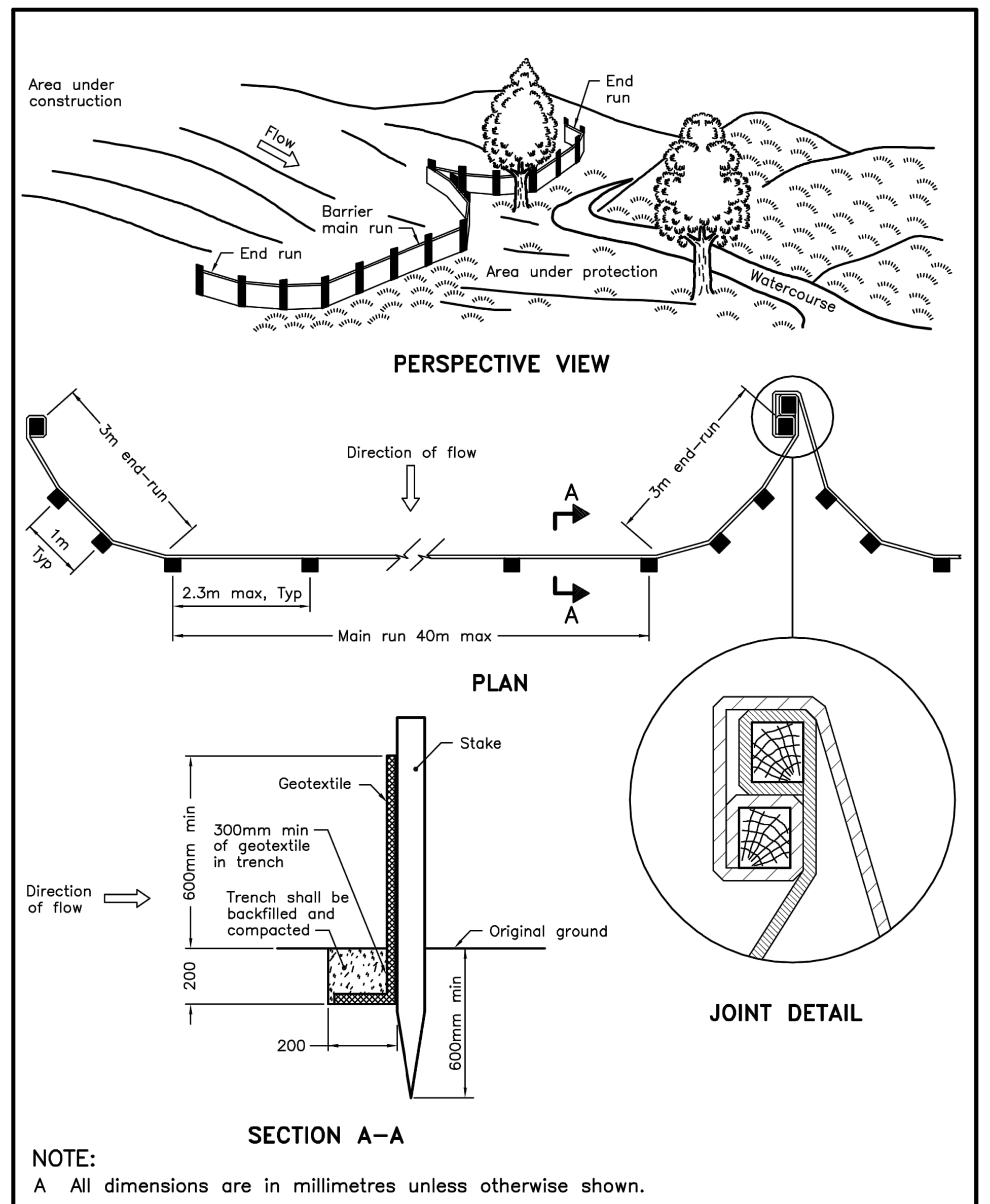
SHEET #: OF

ISSUE:

ISSUED FOR REVIEW

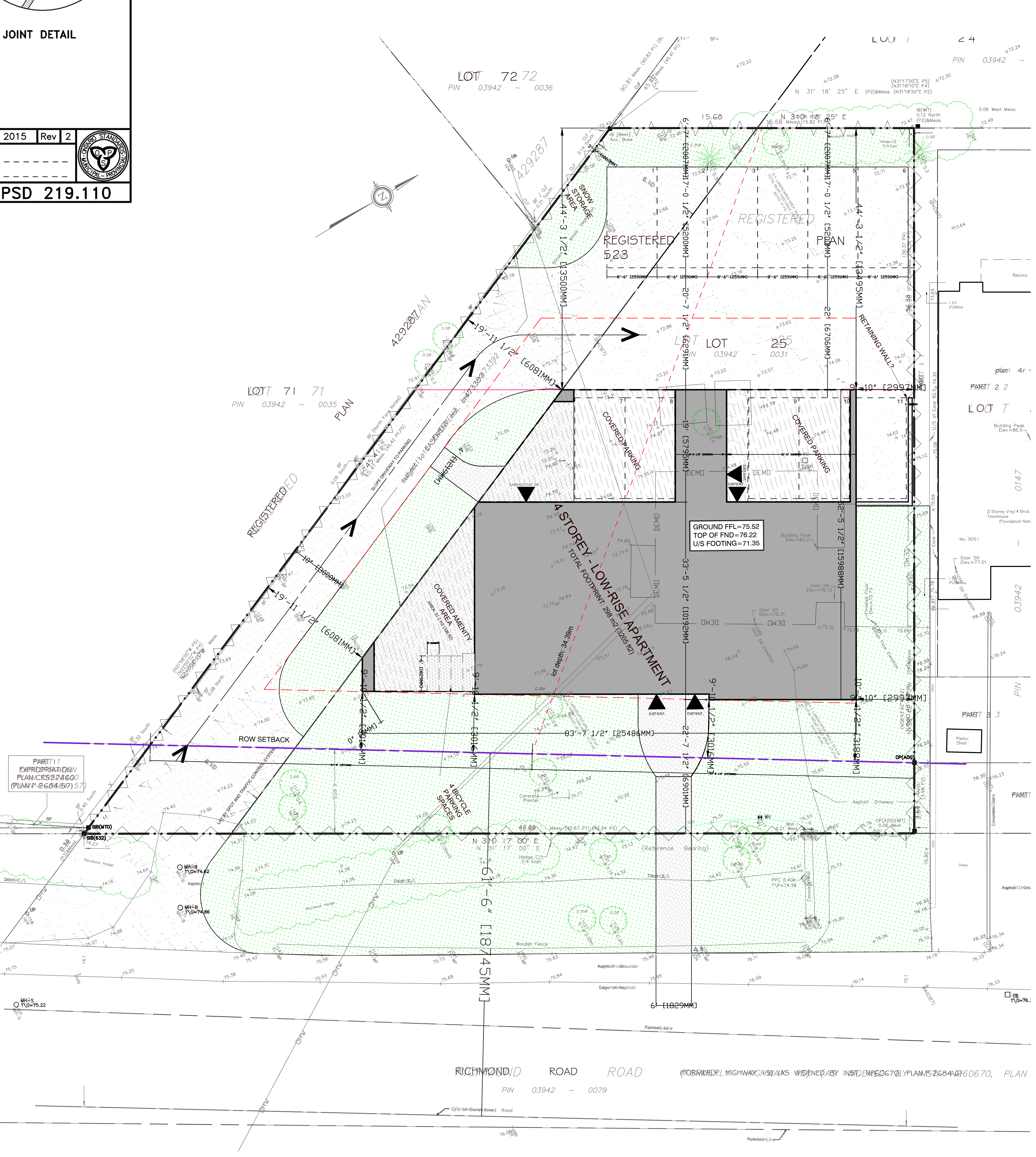
DATE OF: 2022–06–10

REV #: –



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
LIGHT–DUTY SILT FENCE BARRIER	OPSD 219.110	



NOTE:

PROVIDE FROST PROTECTION FOR FOOTING ABOVE 1.5m BELOW THE SURROUNDING GRADE

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GENERAL NOTES FOR SERVICING

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 LAYOUT AND REMOVALS. REFER TO LANDSCAPE PLAN FOR LANDSCAPED DETAILS AND OTHER RELEVANT INFORMATION. AU. INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. TOPOGRAPHIC SURVEY COMPLETED ON 17TH DAY OF NOVEMBER 2021 AND PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. CONTRACTOR TO VERIFY IN THE FIELD PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
7. THE LOCATION OF UNDERGROUND SERVICES ARE BASED ON THE SURVEY PROVIDED WITH THE INFORMATION FROM THE CITY OF OTTAWA DRAWINGS "P&P2 – RICHMOND ROAD SANITARY SEWER", DATED NOVEMBER 7TH, 1962. 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. JOB BENCH MARK AS INDICATED ON THE DRAWINGS
10. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
11. 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 MINIMIUM
12. 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.
13. 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.
14. ABUTTING PROPERTY GRADES TO BE MATCHED.
15. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
16. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
17. 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.
18. AT PROPOSED UTILITIES 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.
19. SERVICE TRENCHES ON MUNICIPAL RIGHT OF WAY TO BE REINSTATED AS PER CITY OF OTIAWA DETAIL R10.
20. PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB–SURFACES FOR FOOTINGS, SERVICES AND PAVEMENT STRUCTURES.

FOR ANY SOILS RELATED INFORMATION, REFER TO THE GEOTECHNICAL INVESTIGATION REPORT BY EXP Services

24. a) PAVEMENT STRUCTURE SHALL CONSIST OF FOR CAR ONLY PARKING AREAS:
    65 mm ASPHALTIC CONCRETE (PG 58–34), 92% to 97 % MRD
    150 mm GRANULAR A BASE (OPSS 1010) (CRUSHED LIMESTONE), 100% SPMDD
    300 mm GRANULAR B TYPE II SUB–BASE (OPSS 1010), 100% SPMDD
    SUBGRADE– APPROVED EXISTING FILL, SUBGRADE AND IMPORTED GRANULAR FILL (COMPACTED TO 95% SPMDD)

25. CONTRACTOR TO REINSTATE PAVER STONES IN CITY ROW.

NOTES WATERMAIN

24. ALL WATERMAIN AND WATERMAIN APPURTENANCES, MATERIALS, CONSTRUCTION AND TESTING METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA AND MINISTRY OF ENVIRONMENT STANDARDS AND SPECIFICATIONS.

25. ALL WATERMAIN 300mm DIAMETER AND SMALLER TO BE POLY VINYL CHLORIDE (PVC) CLASS 150 DR 1B MEETING AWWA SPECIFICATION C900. STANDARD LATERAL MATERIAL SERVICES UP TO 50MM IS COPPER TYPE 'K'.

26. ALL WATER MAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE WATERMAINS CROSS OVER OTHER UTILITIES, A MINIMUM 0.30m CLEARANCE FROM UTILITIES OBVERT 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 OTIAWA STANDARD W22.

27. WATER MAIN BEDDING TO BE AS PER CITY OF OTTAWA STANDARD W17.

28. VALVE BOX TO BE AS PER CITY OF OTIAWA STANDARD W24.

29. CONCRETE THRUST BLOCKS AND MECHANICAL RESTRAINTS ARE TO BE INSTALLED AT ALL TEES, BENDS, HYDRANTS, REDUCERS, ENDS OF MAINS AND CONNECTIONS 100mm AND LARGER, IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25.3 &: W25.4.

30. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 &: W42.

31. FIRE HYDRANTS TO BE A5 PER CITY OF OTTAWA STANDARD W19. (NOT REQUIRED)

32. IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

"TYPICAL WATER SERVICE LINE AS PER W26(FOR 19MM & 25MM DIA. WATER SERVICES). AND TO BE INSTALLED AT 1 M FROM THE FOUNDATION WALLS

NOTES: SANITARY SEWER AND MANHOLES

34. ALL SANITARY SEWER, SANITARY SEWER APPURTENANCE AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

36. SEWER BEDDING AS PER CITY OF OTTAWA DETAIL S6.

37. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.

38. ALL SANITARY MANHOLES 1200mm IN DIAMETER TO BE AS PER OPSD 701.01. FRAME AND COVER TO BE AS PER CITY OF OTIAWA STANDARD S25 AND 524. (NOT APPLICABLE)

39. SANITARY BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14.1 OR S14.2

40. STORM BACKWATER VALVES TO BE PROVIDED FOR EACH BUILDING CLOSE TO THE FOUNDATION WALL NEAR SERVICES ENTRY AS PER CITY OF OTTAWA STD S14

NOTES: STORM SEWERS AND STRUCTURES

41. ALL STORM SEWER MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

NOTES: EROSION AND SEDIMENT CONTROL

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CIVIL
STRUCTURE
ELECTRICAL
MECHANICAL

CONSULTANT:

SEAL:
W. Elias El-Hage
13085501
JUNE 10 2022

CLIENT:
OTTAWA ONTARIO

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4 STOREY LOW–RISE
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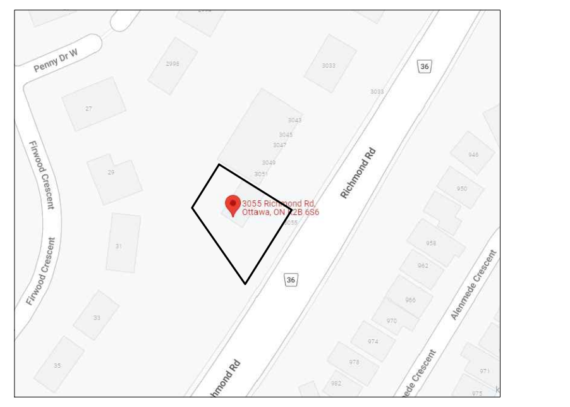
KEY PLAN:



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DRAWN BY: R.E	
CHECKED BY: W.E	1"

DISCIPLINE:

TITLE:
EROSION PLAN

SHEET NUMBER:
E1
SHEET #: OF

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