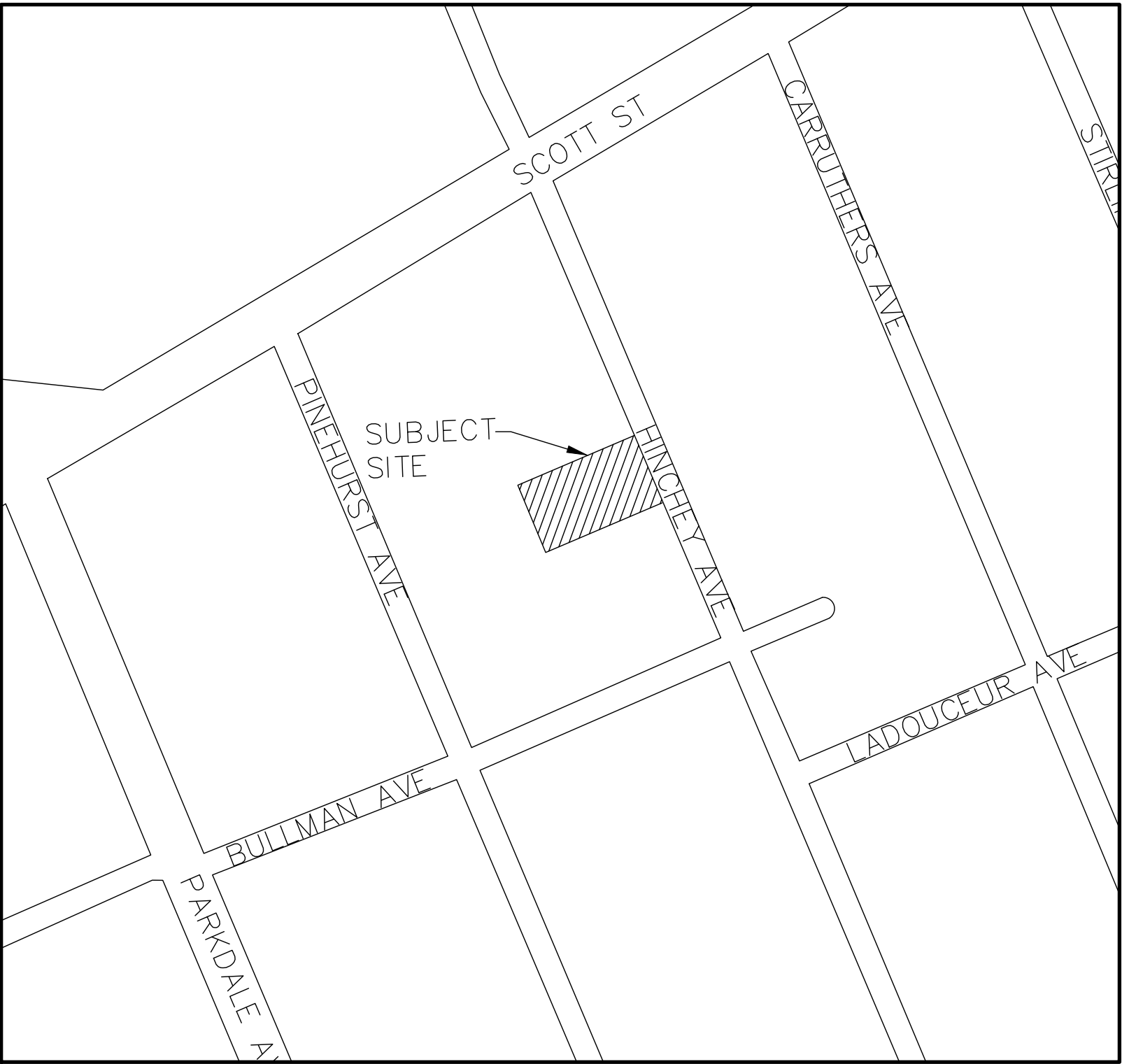


J.MURRAY-PROJECT MANAGEMENT &  
LAND DEVELOPMENT  
250-252 HINCHEY AVE  
CITY OF OTTAWA

DRAWING LIST

ND-1	NOTES AND DETAILS
SG-1	SITE GRADING PLAN
SS-1	SITE SERVICING PLAN
STM-1	PRE-DEVELOPMENT STORM CATCHMENT PLAN
STM-2	POST-DEVELOPMENT STORM CATCHMENT PLAN
EP-1	EROSION AND SEDIMENT CONTROL PLAN



CITY OF OTTAWA  
110 LAURIER AVE W  
OTTAWA, ONTARIO  
K1P 1J1

J.MURRAY-PROJECT MANAGEMENT & LAND DEVELOPMENT  
45 SPENCER STREET, SUITE 101  
OTTAWA, ONTARIO  
K1Y 2P5



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1. DRAWINGS

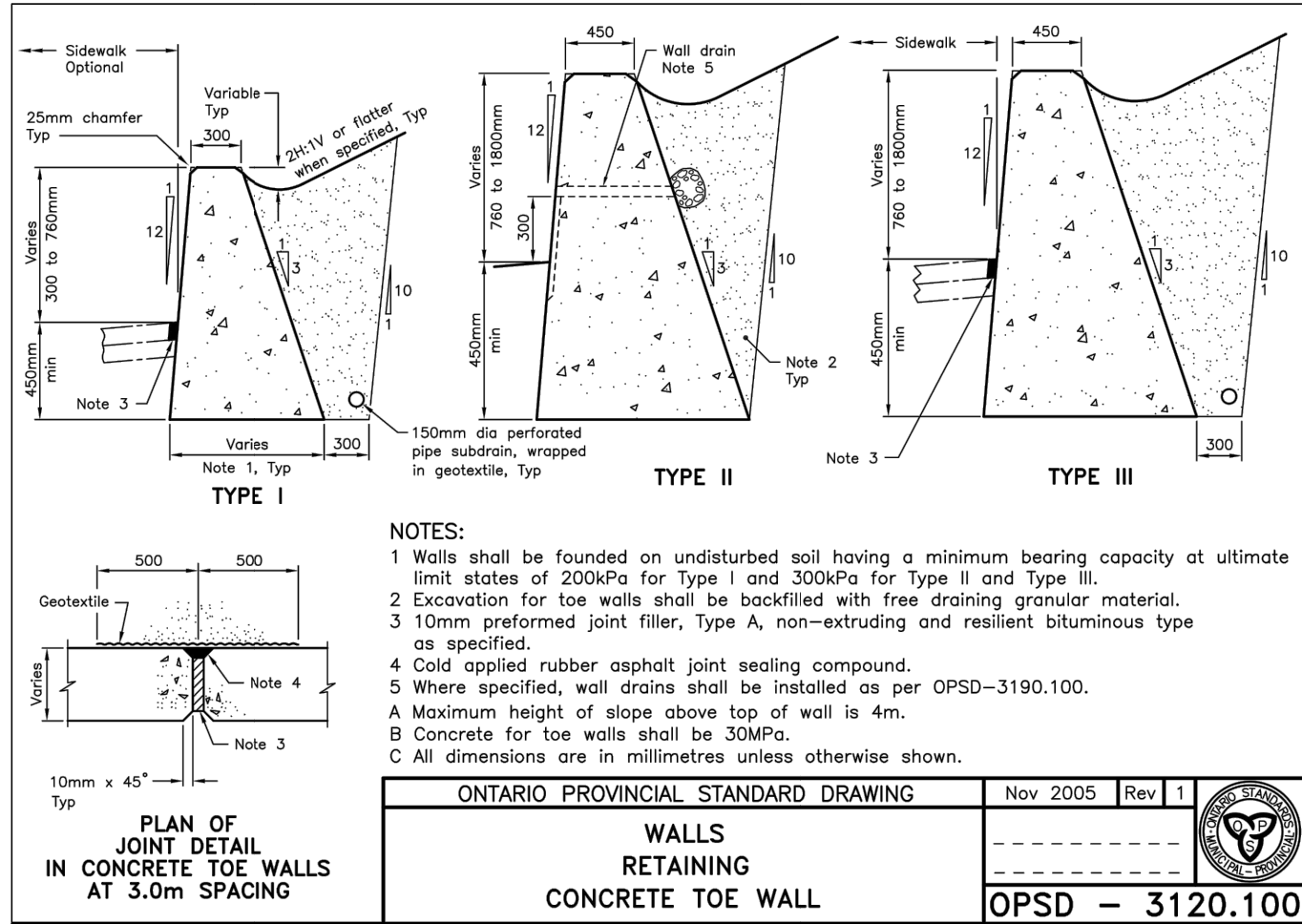
- A. THE NOTES ON THIS SHEET APPLY TO ALL WORKS UNDER THIS CONTRACT UNLESS OTHERWISE NOTED ON THE SPECIFIC DETAIL DWGS.
- B. THE STANDARD DRAWINGS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS, (OPSS) AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) CONSTITUTE PART OF THE PLANS OF THIS CONTRACT.
- C. THE STANDARD DRAWINGS INCLUDED WITH THESE PLANS ARE PROVIDED FOR CONVENIENCE ONLY AND ARE NOT TO BE CONSTRUED TO BE A COMPLETE SET FOR THE PURPOSE OF THE CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL RELEVANT STANDARD DRAWINGS AND SPECIFICATIONS AS REQUIRED FOR THIS CONTRACT.

2. MEASUREMENTS

- A. ALL DIMENSIONS ARE IN METRES, EXCEPT PIPE DIAMETERS, WHICH ARE IN MILLIMETRES, UNLESS SPECIFIED OTHERWISE.
- B. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION, AND ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

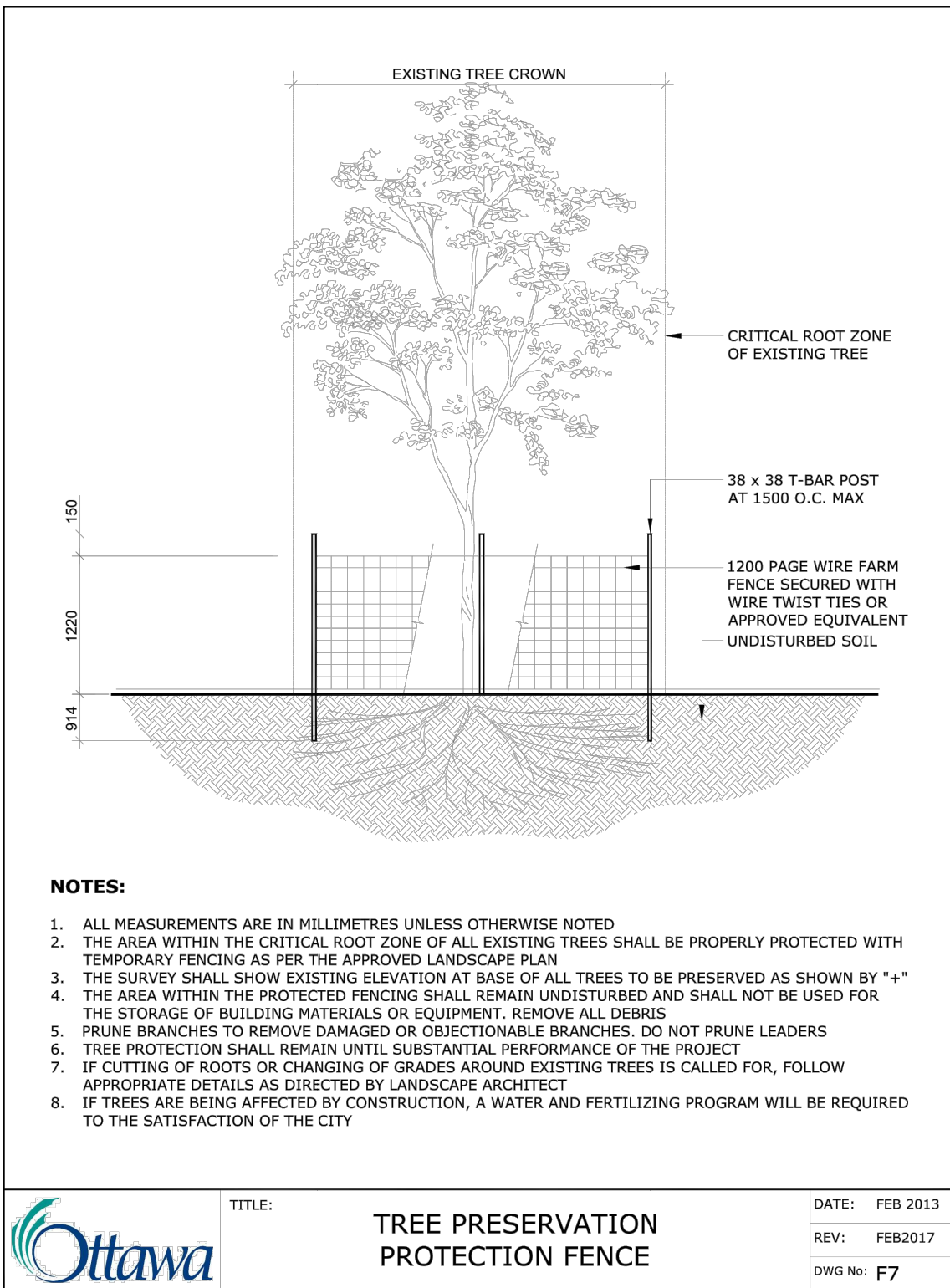
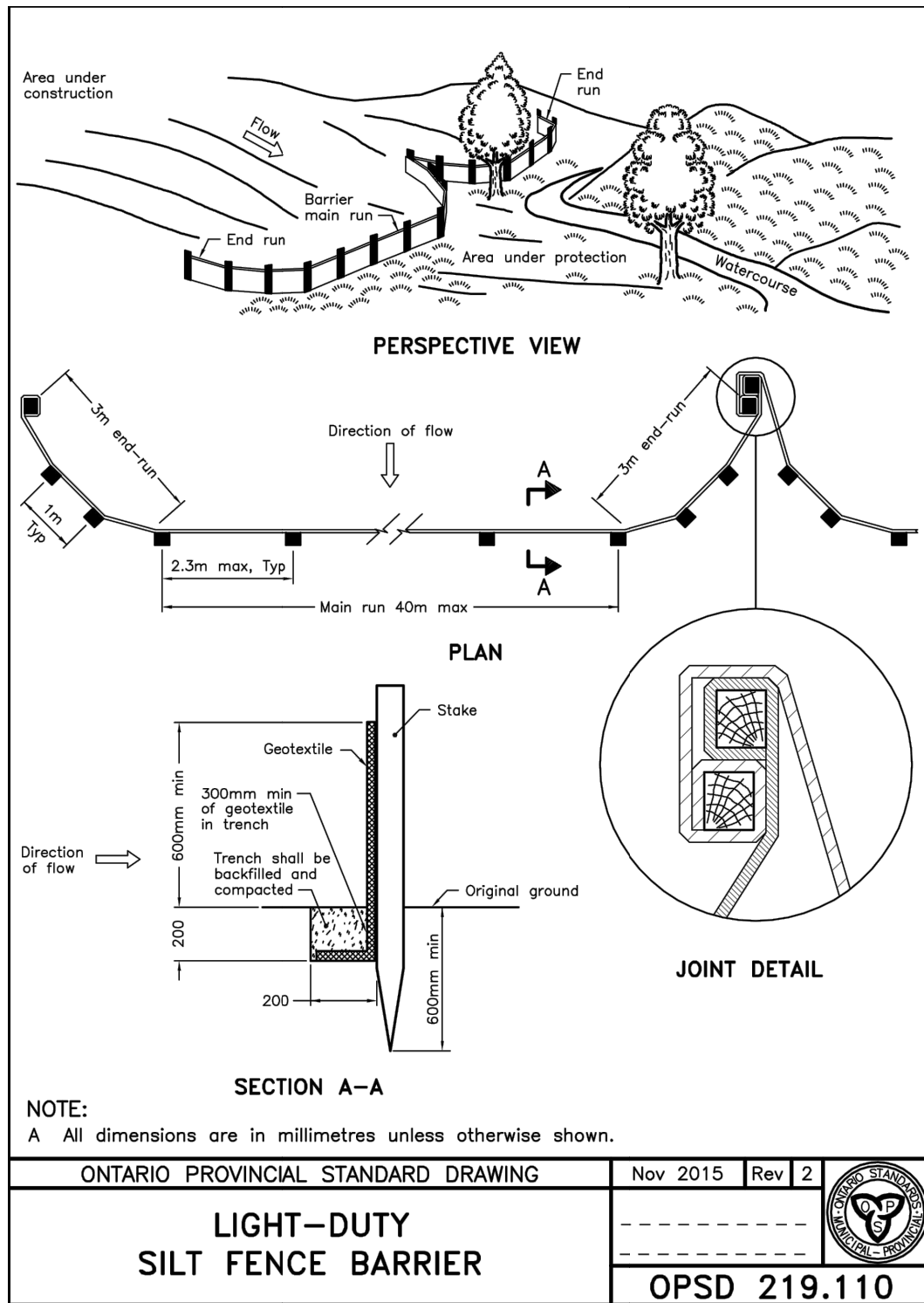
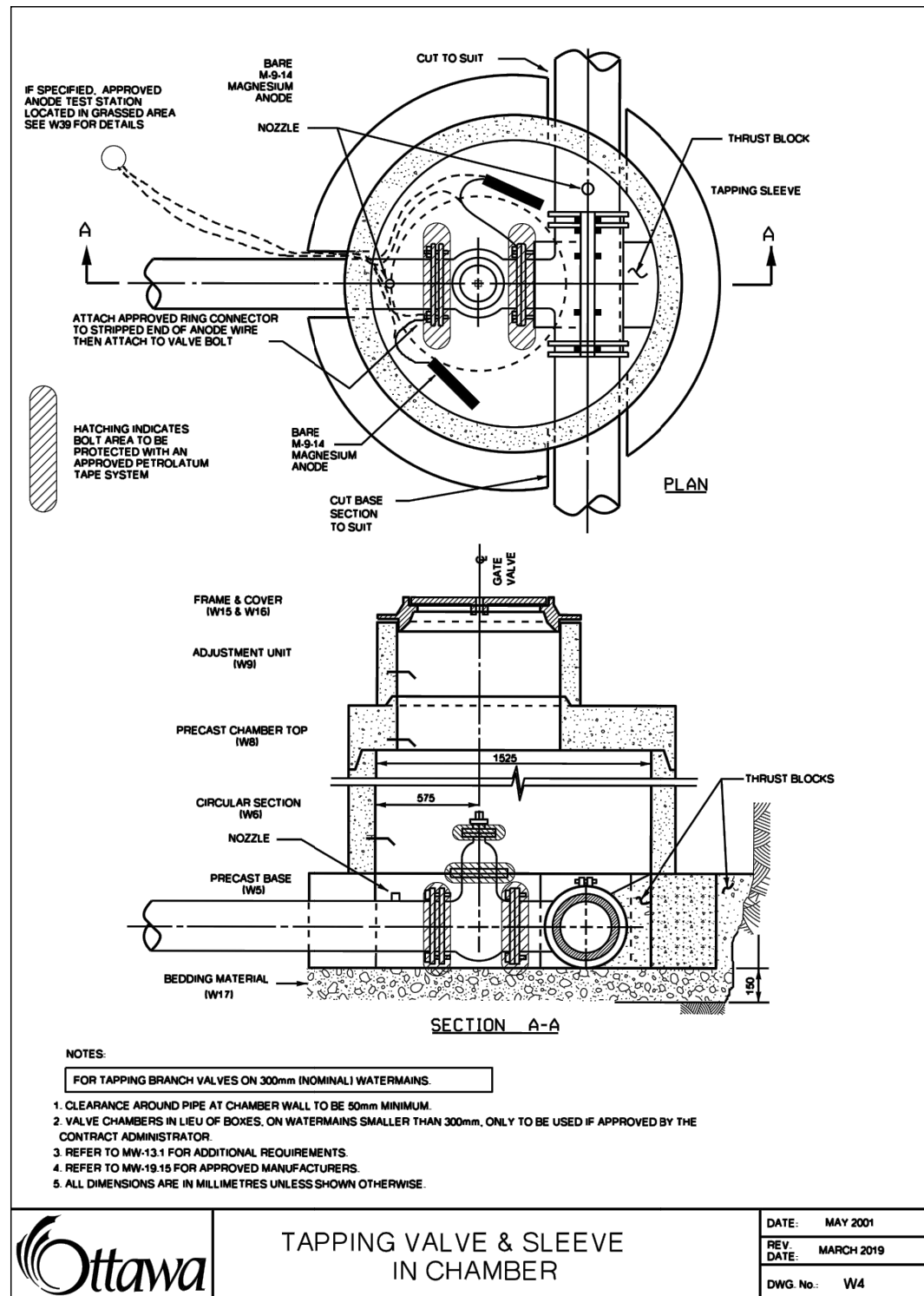
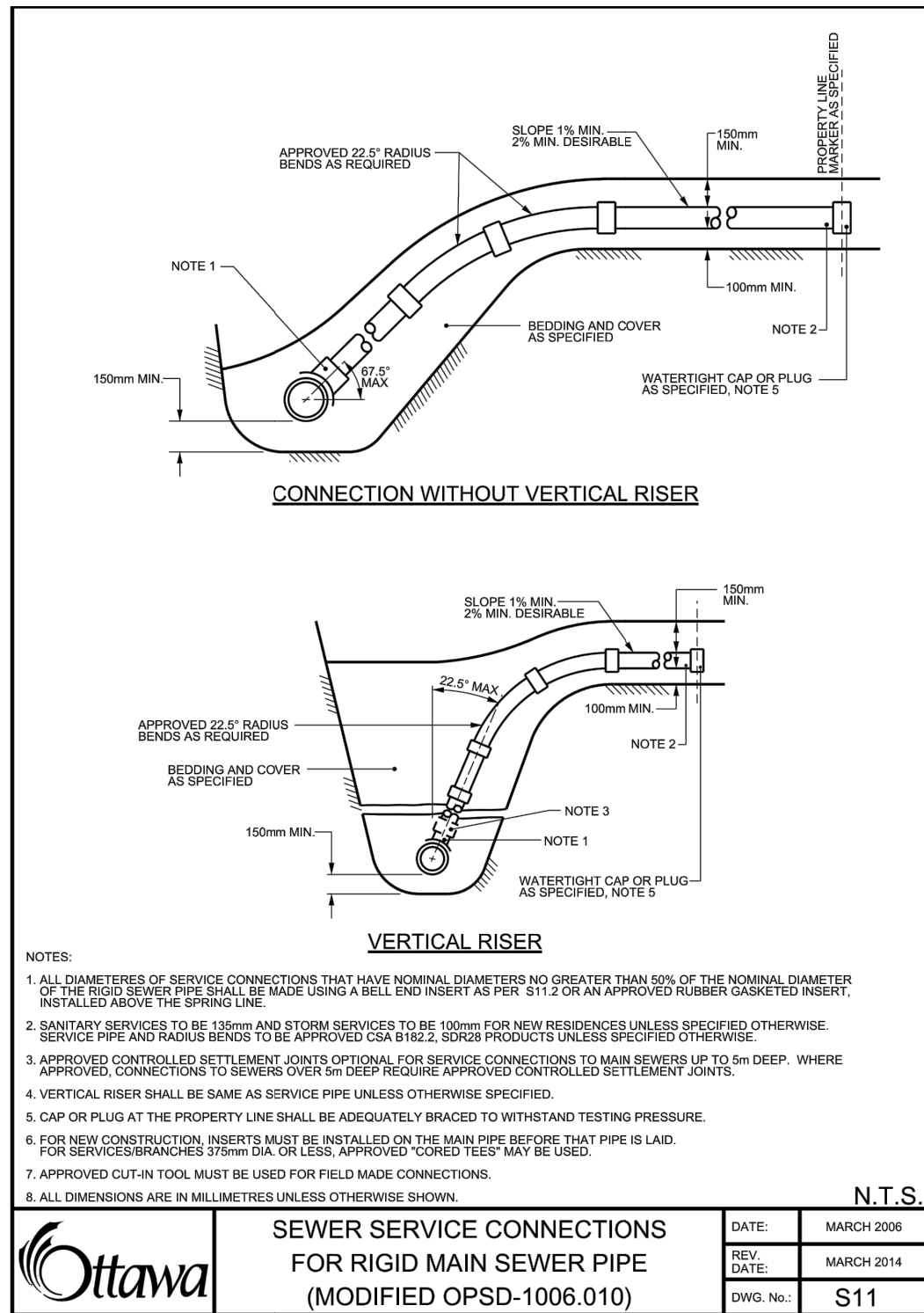
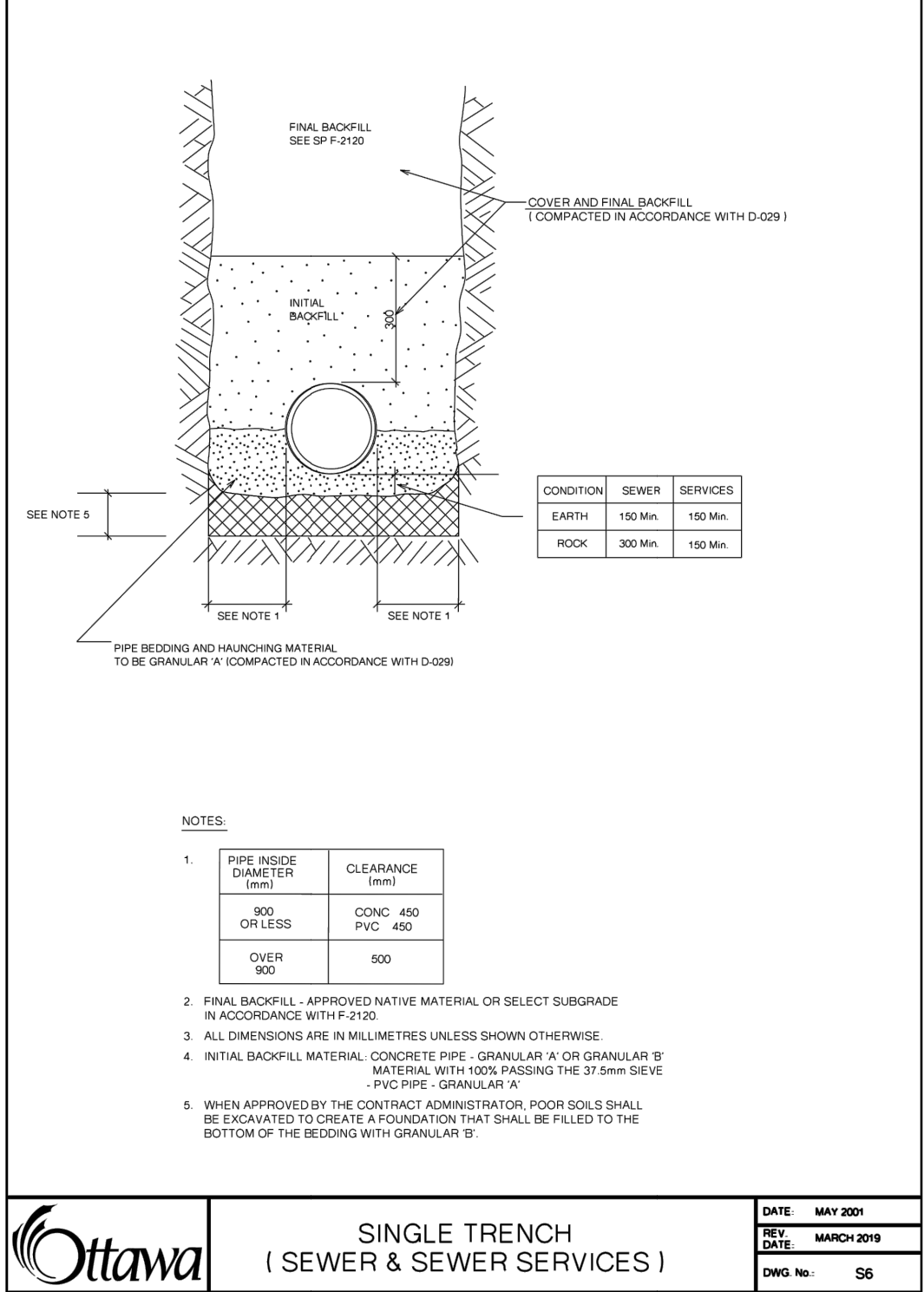
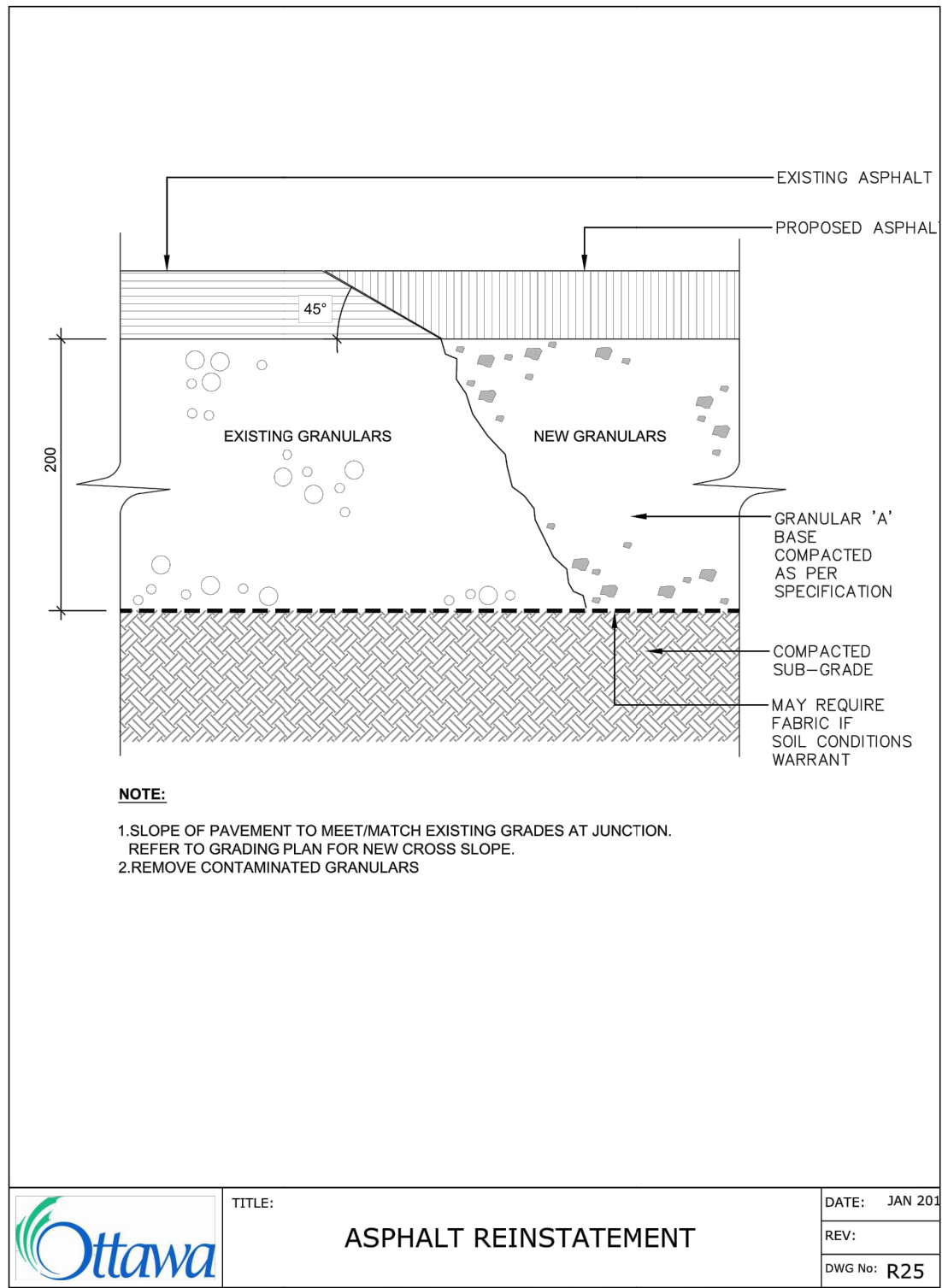
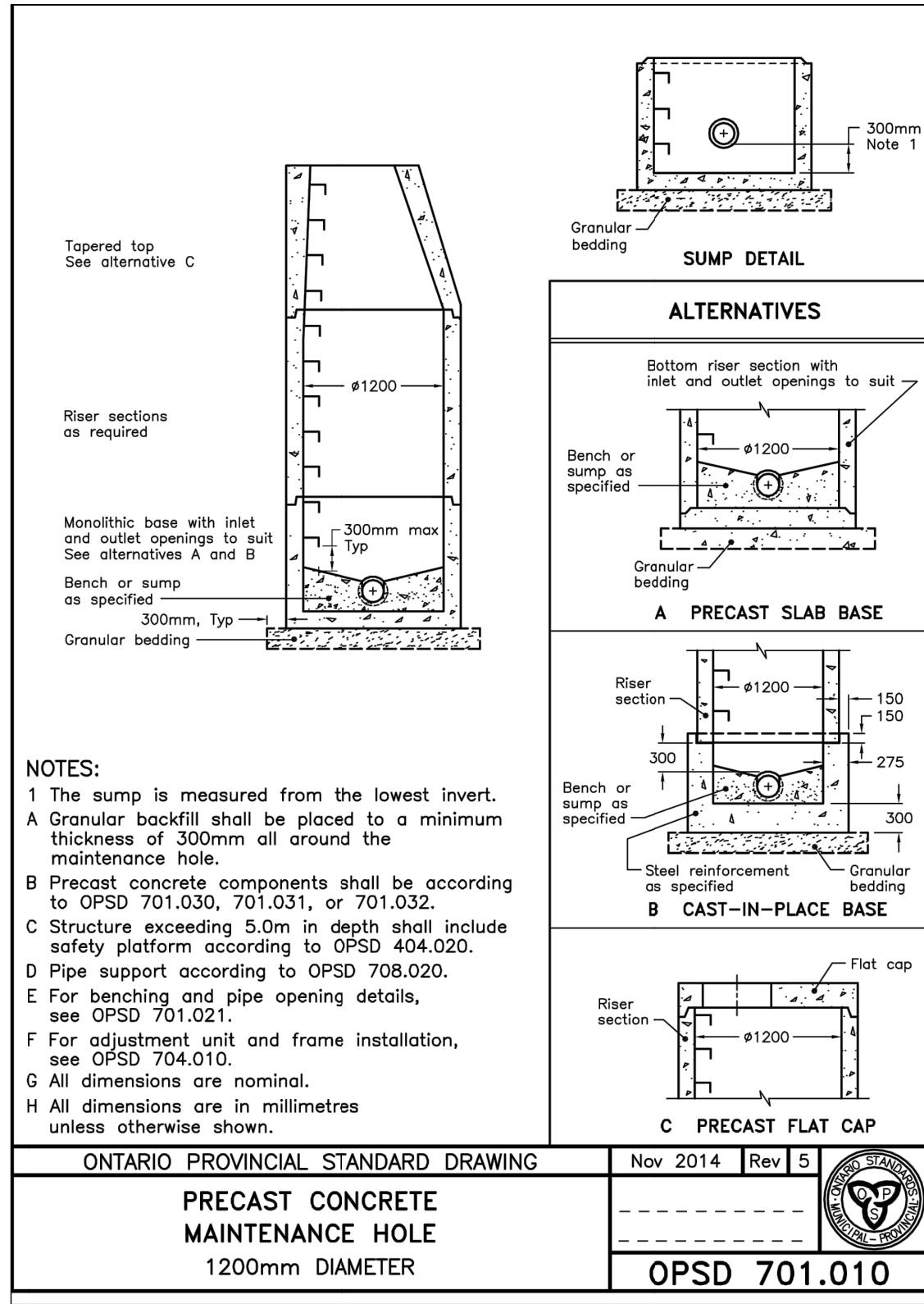
3. GENERAL

- A. EXISTING SERVICES AND UTILITIES SHOWN ON THESE CONTRACT DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE AND THEIR LOCATIONS ARE NOT GUARANTEED. THE CONTRACTOR SHALL INTERPRET THIS INFORMATION AS HE WISHES WITH THE UNDERSTANDING THAT THE OWNER DISCLAIMS ALL RESPONSIBILITY FOR ITS ACCURACY AND/OR SUFFICIENCY. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- B. NATIVE MATERIAL, SUITABLE FOR BACKFILL, SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- C. GRANULAR MATERIAL, USED FOR BACKFILL, SHALL BE PLACED IN LAYERS 150mm IN DEPTH MAXIMUM AND COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
- D. ALL DISTURBED AREAS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER, AS DETERMINED BY THE ENGINEER. ALL GRASS AND VEGETATION COVERED AREAS SHALL BE RESTORED BY PLACING 200mm OF APPROVED TOPSOIL AND NURSERY SOD UNLESS NOTED OTHERWISE.



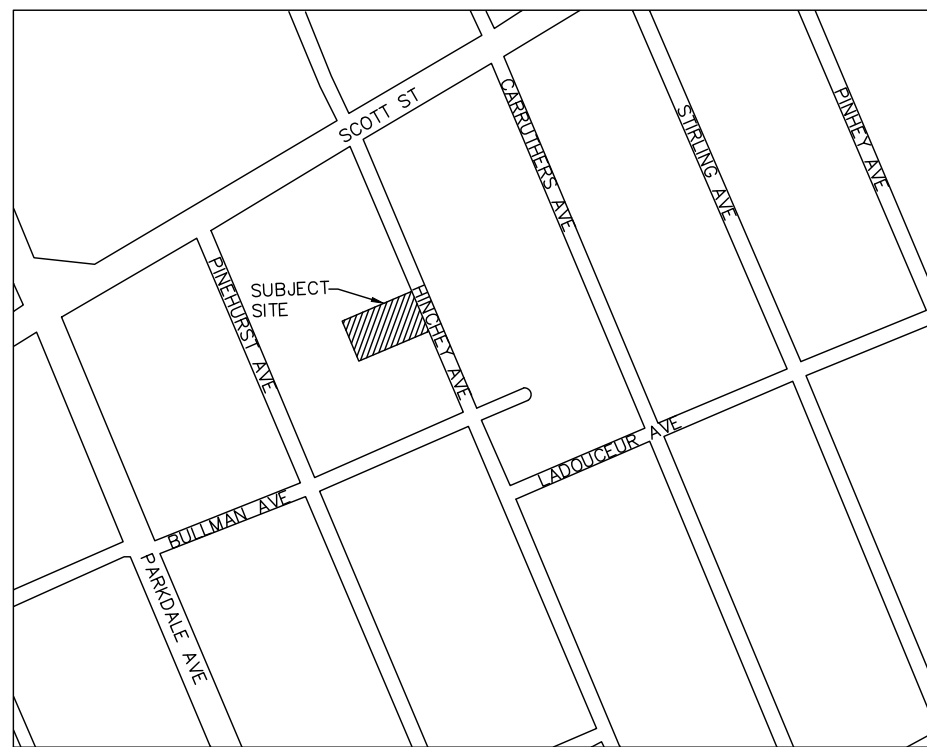
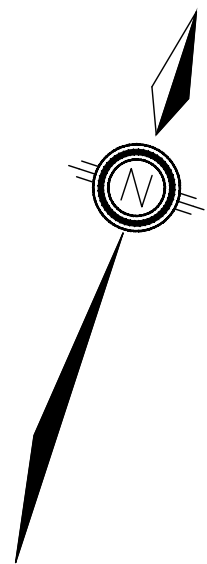
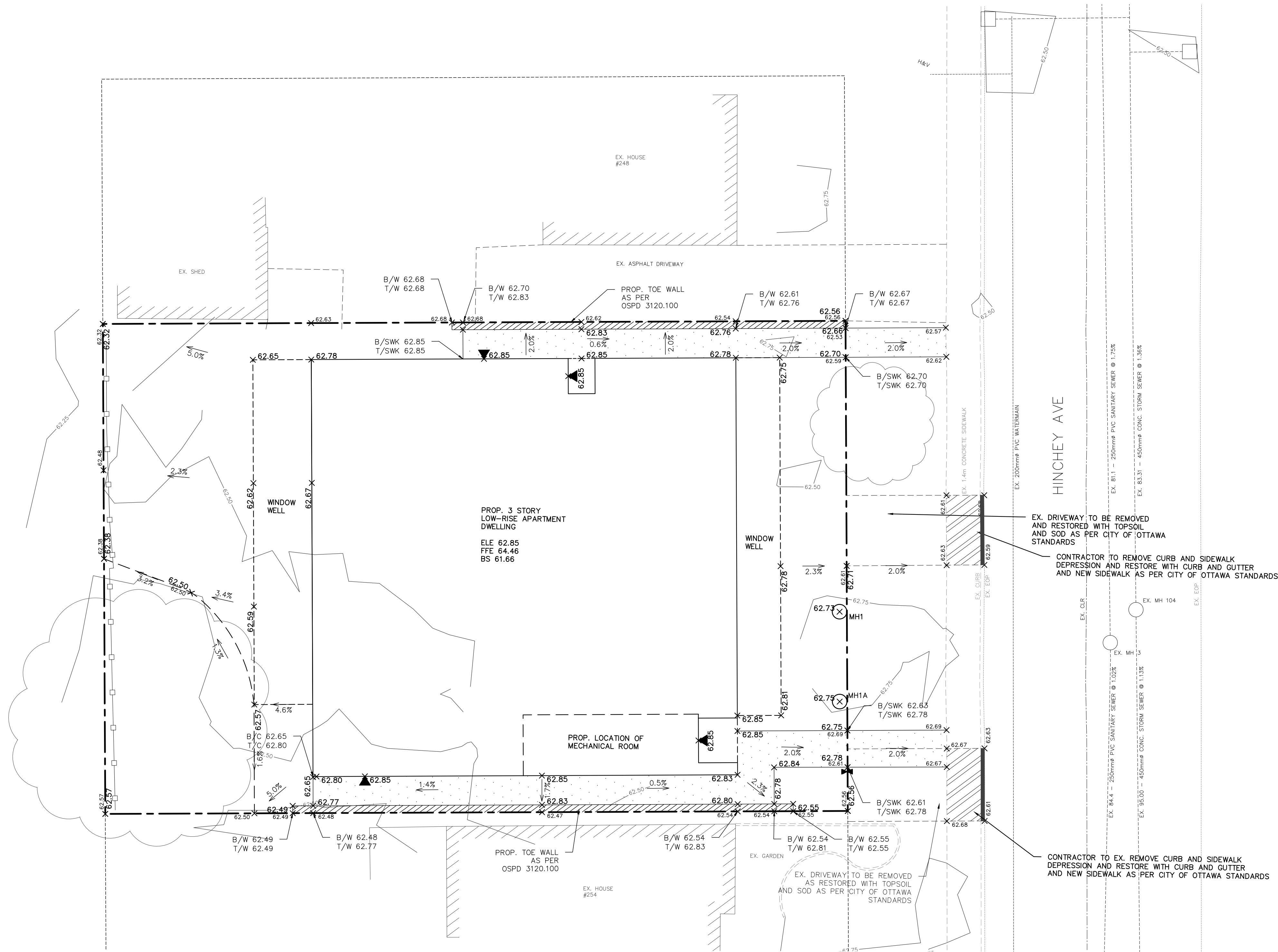
4. STORM SEWERS

- A. STORM SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD-802.010, (GRAN. 'A' EMBEDMENT MATERIAL) FOR FLEXIBLE PIPES AND OPSD-802.030 OR 802.031 CLASS B (GRAN. 'A' BEDDING MATERIAL) FOR RIGID PIPES UNLESS OTHERWISE APPROVED BY THE CITY OF OTTAWA.
- B. PRECAST MANHOLES SHALL BE 1200mm DIAMETER UNLESS OTHERWISE SPECIFIED, AND SHALL BE IN ACCORDANCE WITH OPSD-701.010, FRAME AND COVER SHALL BE IN ACCORDANCE WITH OPSD-401.010.
- C. SINGLE CATCHBASINS TO BE 600mm SQUARE PRECAST CONCRETE TO OPSD-703.010. FRAME AND GRATE TO OPSD-400.020.
- D. PLACE ALL CATCHBASIN LATERALS AT 2% GRADE UNLESS OTHERWISE NOTED. PIPE SIZE MINIMUM 250mm DIAMETER SINGLE, 300mm DIAMETER DOUBLE.
- E. FOR ALL PVC PIPES CONNECTING INTO CONCRETE MH'S AND CB'S USE PVC MH ADAPTER COATED WITH SAND.
- F. ALL CONNECTIONS TO THE STORM MAIN SHALL BE MADE WITH A STOM MANHOLE OR APPROVED FACTORY TEE CONNECTION AS PER OPSD-701.10 OR 708.03.
- G. MANHOLE BENCHING SHALL CONFORM WITH OPSD-701.021.
- H. MAINTENANCE HOLE TOPS (FRAMES) AND CATCH BASIN (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT GRADE AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACED. ALL ADJUSTMENT WILL BE IN ACCORDANCE WITH OPSD-704.010.
- I. ALL PIPE HANDLING INSTALLATIONS MUST BE IN STRICT COMPLIANCE WITH MANUFACTURERS INSTALLATION GUIDES AND THE O.C.P.A. OR UNIBELL GUIDELINES.
- J. ALL SEWERS WITH LESS THAN 1.2m OF COVER MUST BE INSULATED.
- K. PVC STORM PIPE MATERIAL TO BE PVC CERTIFIED TO C.S.A. STANDARDS 182.2 AND 182.4 LATEST AMENDMENT.
- L. CONCRETE STORM SEWER PIPE TO BE EQUAL TO CSA SPECIFICATION A257.1 (LATEST AMENDMENT)





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LEGEND


- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- CBMH CATCH BASIN
- MH STORM MANHOLE
- MH SANITARY MANHOLE
- SC SERVICE CAP
- HYD. FIRE HYDRANT
- VB WATER VALVE
- CS CURB STOP W/ SERVICE
- 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ) ( HIGH POINT
- ELE ENTRANCE LEVEL ELEVATION
- FFE FIRST FLOOR ELEVATION
- BS BASEMENT SLAB

NO.	REVISION NOTE	DATE	BY

BENCHMARK  
MAG NAIL IN HYDRO POLE IN FRONT OF 251 HINCHEY AVE  
ELEV 63.51

J.MURRAY-PROJECT MANAGEMENT  
250-252 HINCHEY AVE,  
OTTAWA, ON

SITE GRADING PLAN

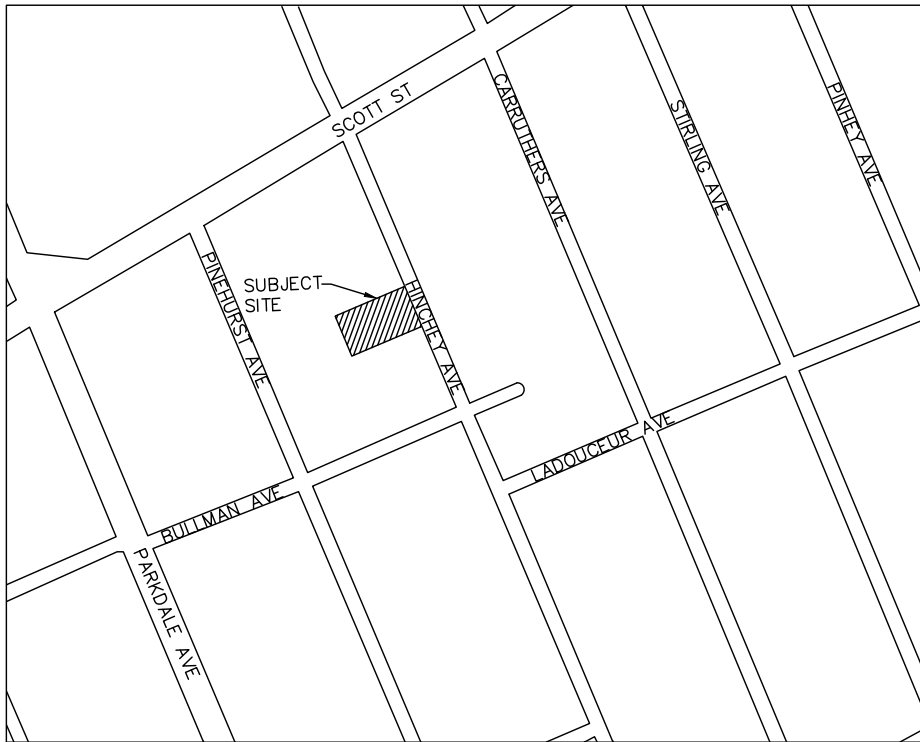
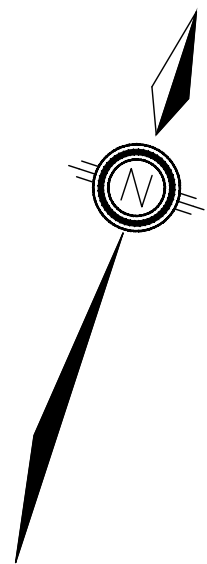
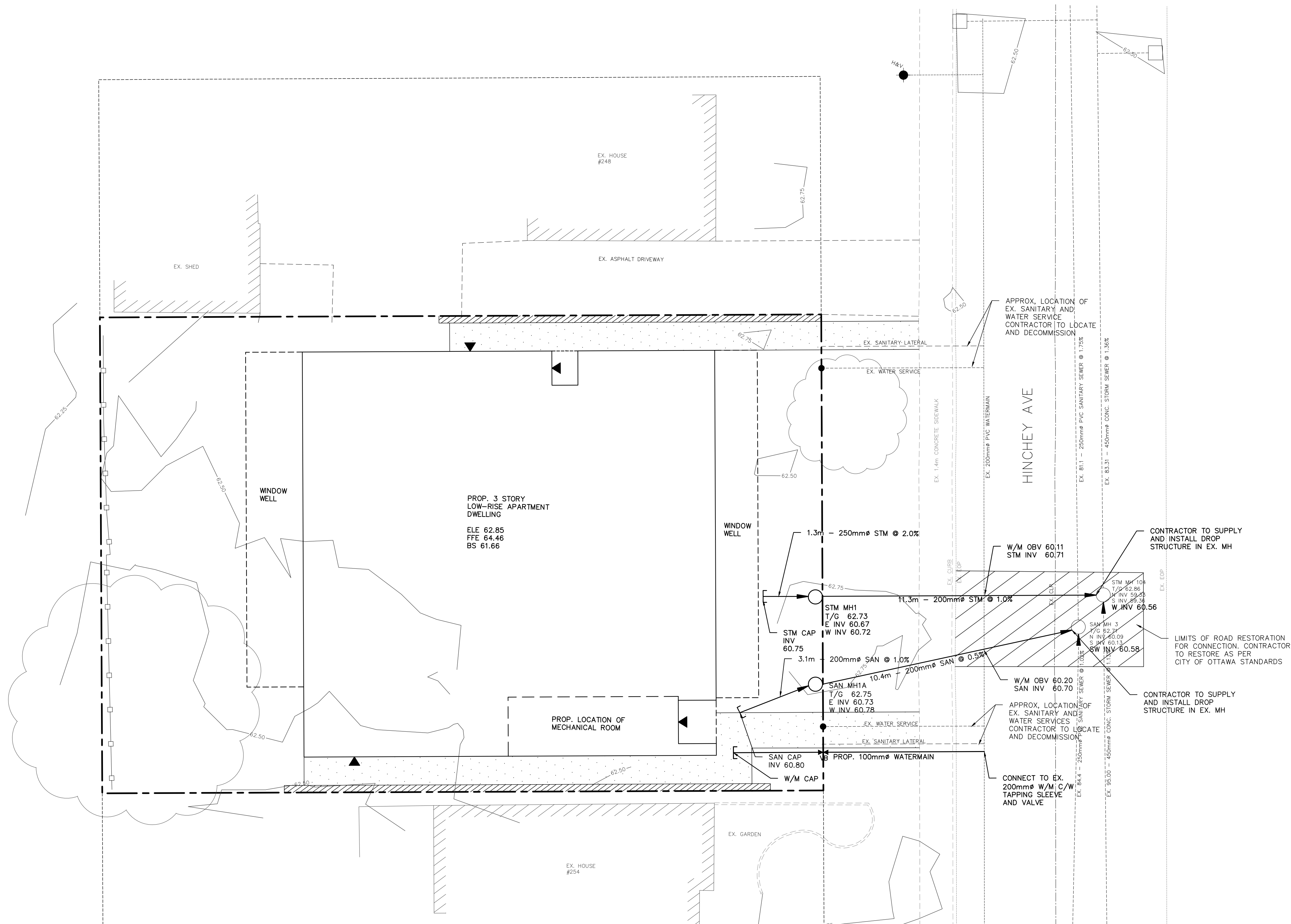


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KEYMAP  
NTS

LEGEND

- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- CBMH CATCH BASIN
- MH STORM MANHOLE
- MH SANITARY MANHOLE
- SERVICE CAP
- HYD. FIRE HYDRANT
- VB WATER VALVE
- CS CURB STOP W/ SERVICE
- × 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ) ( HIGH POINT

ELE	ENTRANCE LEVEL ELEVATION
FFE	FIRST FLOOR ELEVATION
BS	BASEMENT SLAB

BENCHMARK  
MAG NAIL IN HYDRO POLE IN FRONT OF 251 HINCHEY AVE  
ELEV 63.51

J.MURRAY-PROJECT MANAGEMENT  
250-252 HINCHEY AVE,  
OTTAWA, ON

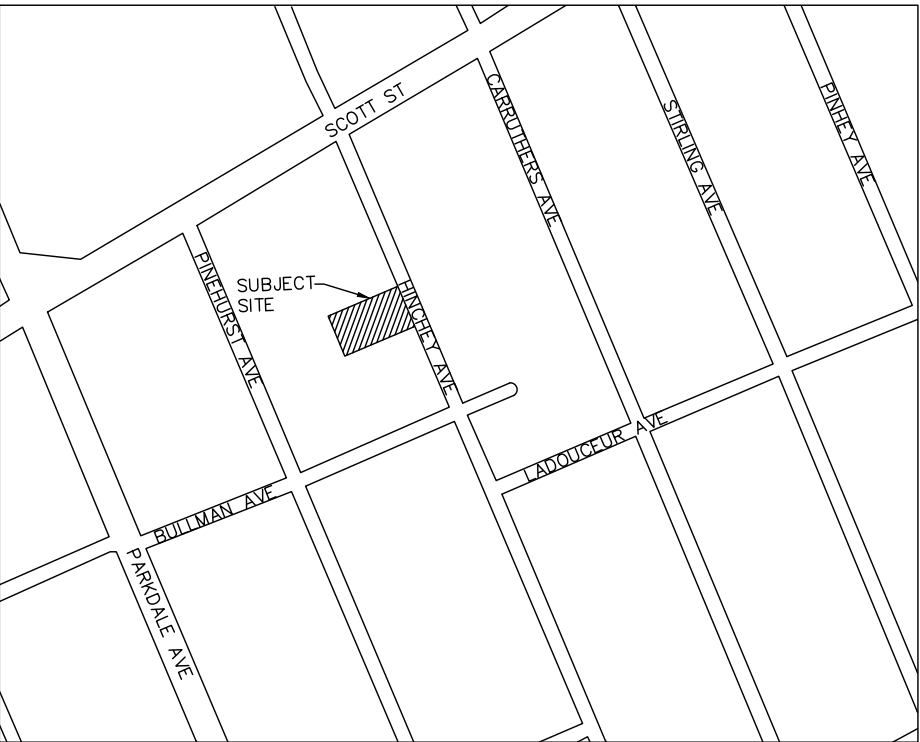
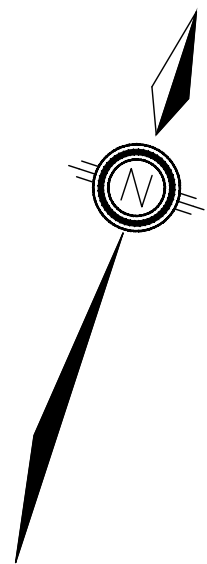
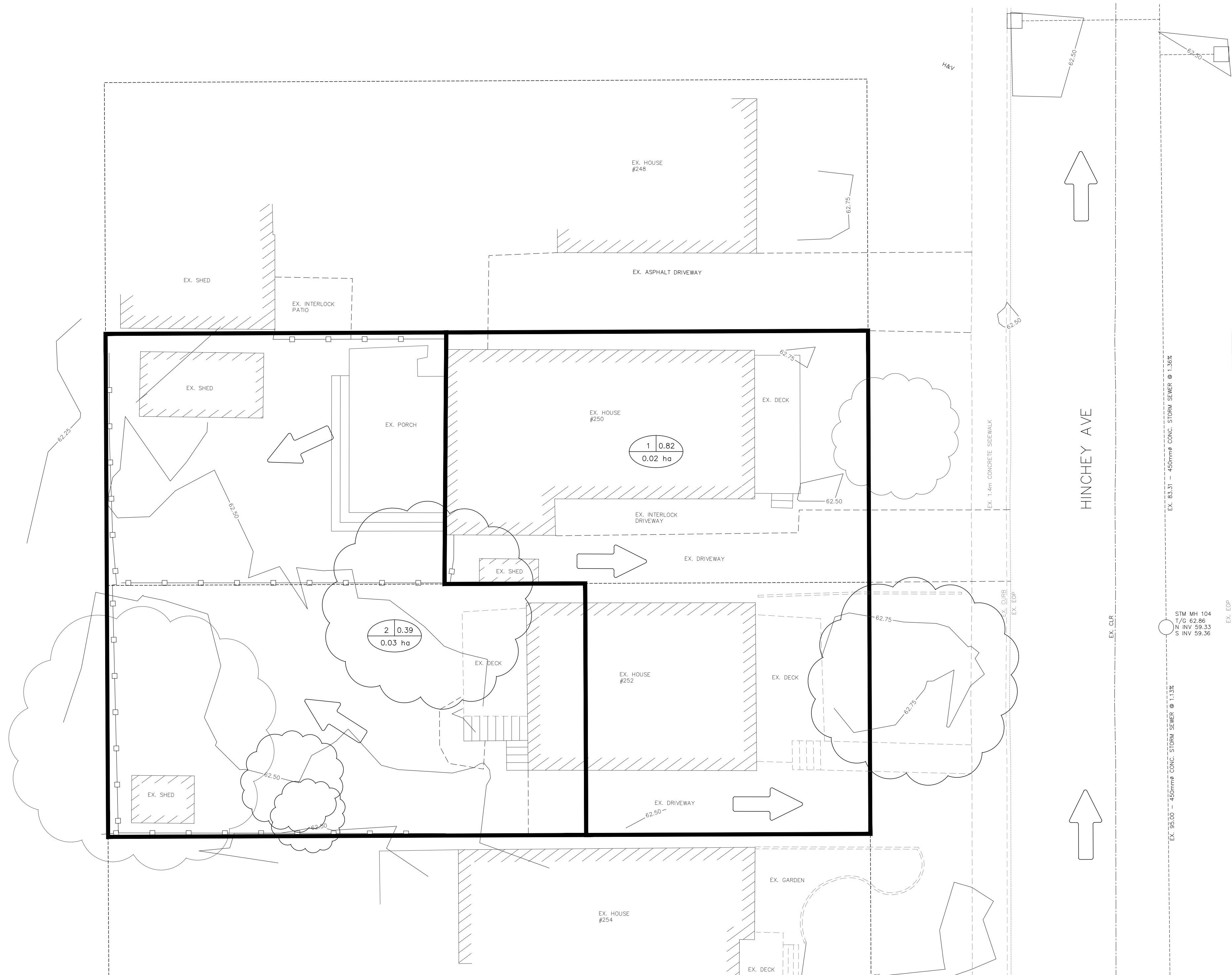


SITE SERVICING PLAN

DESIGNED BY	JP/NW	HORIZ SCALE	1:100	PROJECT #	19126
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KEYMAP  
NTS


LEGEND

- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- CBMH CATCH BASIN
- MH STORM MANHOLE
- MH SANITARY MANHOLE
- SC SERVICE CAP
- HYD. FIRE HYDRANT
- VB WATER VALVE
- CS CURB STOP W/ SERVICE
- 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ( ) HIGH POINT
- OVERLAND FLOW DIRECTION
- CATCHMENT AREA 1 0.75 RUNOFF COEFFICIENT
- 1.00 ha AREA IN HECTARES
- CATCHMENT BOUNDARY

BENCHMARK  
MAG NAIL IN HYDRO POLE IN FRONT OF 251 HINCHEY AVE  
ELEV 63.51

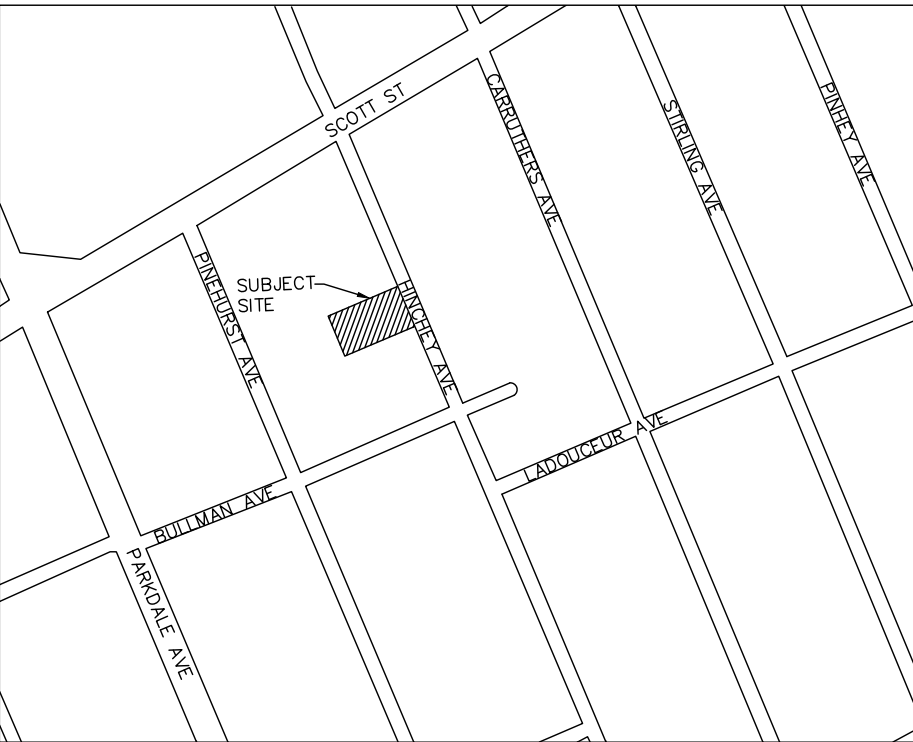
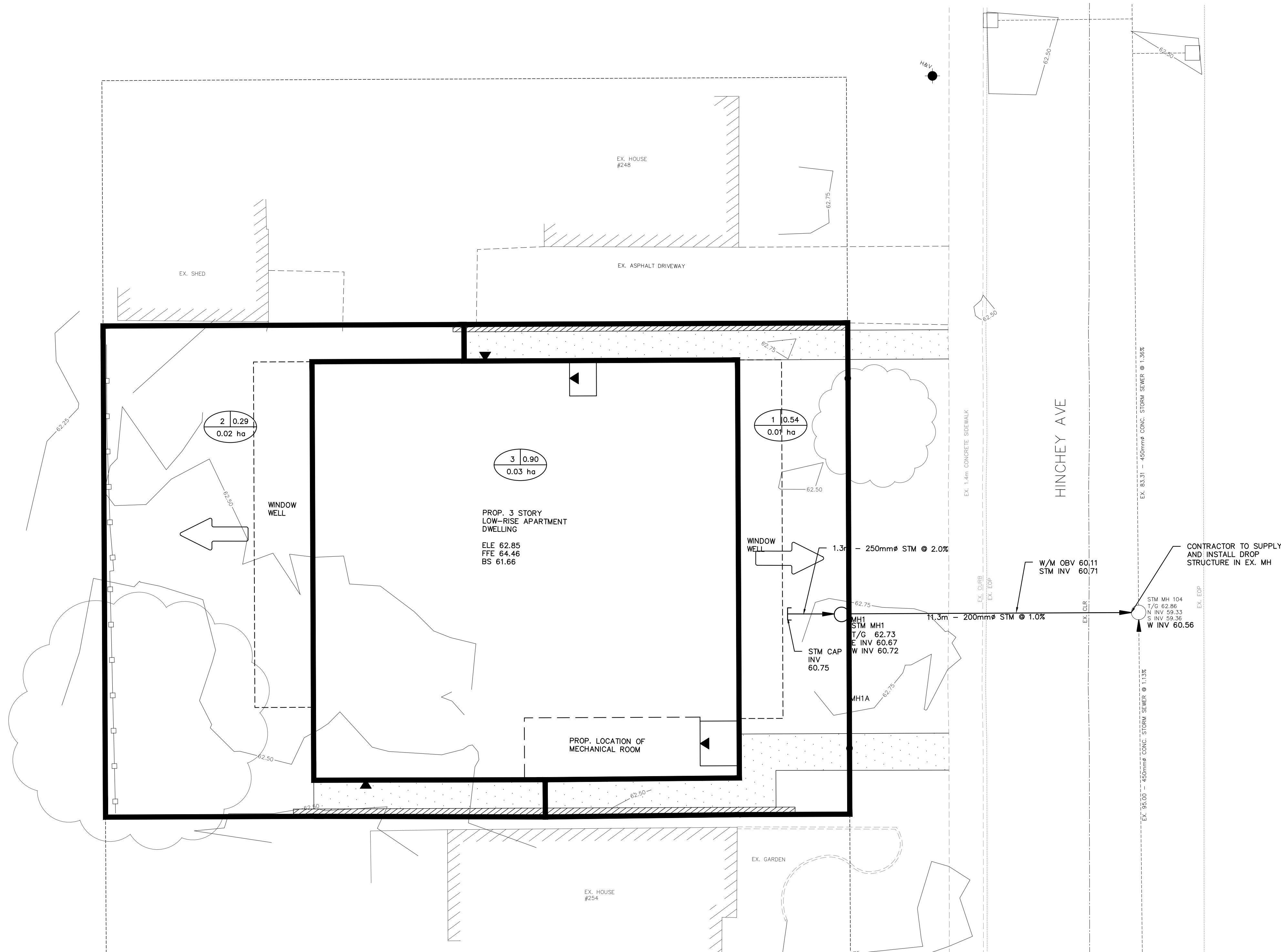
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250-252 HINCHEY AVE,  
OTTAWA, ON

PRE-DEVELOPMENT STORM  
CATCHMENT PLAN

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REVISION #		0	



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KEYMAP  
NTS

LEGEND


- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- CBMH CATCH BASIN
- MH STORM MANHOLE
- MH SANITARY MANHOLE
- SERVICE CAP
- HYD. FIRE HYDRANT
- VB WATER VALVE
- CS CURB STOP W/ SERVICE
- × 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ) ( HIGH POINT
- ➔ OVERLAND FLOW DIRECTION
- CATCHMENT AREA (1 0.75 RUNOFF COEFFICIENT)  
1.00 ha  
AREA IN HECTARES
- CATCHMENT BOUNDARY

ELE	ENTRANCE LEVEL ELEVATION
FFE	FIRST FLOOR ELEVATION
BS	BASEMENT SLAB

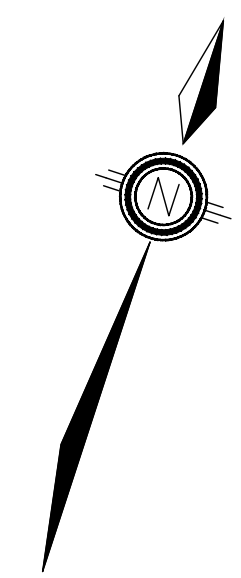
BENCHMARK  
MAG NAIL IN HYDRO POLE IN FRONT OF 251 HINCHEY AVE  
ELEV 63.51




















J.MURRAY-PROJECT MANAGEMENT  
250-252 HINCHEY AVE,  
OTTAWA, ON

POST-DEVELOPMENT STORM  
CATCHMENT PLAN

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DRAWN BY JP		VERT SCALE N/A	DRAWING # STM-2
CHECKED BY GMP		DATE FEBRUARY 2020	REVISION # 0





- |   |                              |
|---|------------------------------|
|    | CATCH BASIN                  |
|    | DOUBLE CATCH BASIN           |
|    | CATCH BASIN                  |
|    | STORM MANHOLE                |
|    | SANITARY MANHOLE             |
|    | SERVICE CAP                  |
|    | FIRE HYDRANT                 |
|    | WATER VALVE                  |
|    | CURB STOP<br>W/ SERVICE      |
|    | PROPOSED ELEVATION           |
|    | EXISTING ELEVATION           |
|    | PROPOSED DIRECTION AND GRADE |
|   | BACK OF CURB                 |
|  | EDGE OF PAVEMENT             |
|  | CURB CUT LOCATION            |
|  | HIGH POINT                   |
|  | EX. TREE TO REMAIN           |
|  | EX. TREE TO BE REMOVED       |
|  | SILT FENCE                   |

1. ENGINEER TO BE NOTIFIED PRIOR TO INITIATION OF ANY ON SITE WORKS.
2. SILT FENCE AS PER DETAILS.
3. VEGETATION REMOVAL MAY COMMENCE AFTER ALL SILT FENCE IS INSTALLED AND APPROVED BY THE ENGINEER.
4. COMMENCE WITH EARTH WORKS AND SITE SERVICING.
5. INSTALLATION OF PROPOSED INFILTRATION FACILITIES TO THE TIME OF LANDSCAPING WORKS.
6. EROSION CONTROL MEASURES TO BE MAINTAINED AS DIRECTED BY THE ENGINEER DURING THE CONSTRUCTION PERIOD. ADDITIONAL CONTROL MEASURES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
7. ALL DISTURBED GROUND LEFT INACTIVE FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH SEED, SOD, MULCH OR OTHER ADEQUATE COVERING, AS INSTRUCTED BY THE ENGINEER.

1. DISTURBED AREAS THAT HAVE FAILED TO HAVE STABLE GROUND COVER ESTABLISHED BY OCTOBER 30TH SHALL BE PROTECTED WITH A SILTATION CONTROL FENCE OR STRAW MULCH ETC. AND MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION BECOMES ESTABLISHED IN THE SUBSEQUENT GROWING SEASON.
2. ANY DEWATERING WASTE SHALL BE DISCHARGED TO A VEGETATED AREA AT LEAST 30m FROM ANY WATERCOURSE AND FILTERED. FILTERING METHODS MUST BE APPROVED BY THE SITE ADMINISTRATOR.
3. SILT FENCE SHALL BE PUT IN PLACE PRIOR TO AND MAINTAINED DURING ALL GRADING. SILT FENCE TO BE INSPECTED PRIOR TO COMMENCEMENT OF EARTH GRADING ACTIVITIES. SILT FENCE TO BE INSPECTED AND REPAIRED OR REPLACED IF DAMAGED AS DIRECTED BY THE SITE ADMINISTRATOR. SILT CONTROLS TO BE INSPECTED ON A REGULAR BASIS AND AFTER EVERY RAIN EVENT. INSTALLATION SHALL BE TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE PREPARED FOR UNEXPECTED CONDITIONS AND ACCORDINGLY HAVE STOCKPILED MATERIALS ON SITE FOR NECESSARY REPAIRS AS A RESULT OF FAILED OR INADEQUATE CONTROL MEASURES. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK, AND AFTER EVERY RAINFALL EVENT.
5. CONTRACTOR SHALL OBTAIN A CURRENT COPY AND BECOME FAMILIAR WITH OPSS 577, CONSTRUCTION SPECIFICATION FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS WELL AS ALL APPLICABLE MUNICIPAL STANDARDS.
6. THE CONTRACTOR MAY CONSIDER ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES. SUCH MEASURES SHOULD BE PRESENTED IN WRITING FOR APPROVAL OF THE SITE ADMINISTRATOR AND MUST BE APPROVED IN WRITING BY THE MUNICIPALITY AND CONSERVATION AUTHORITY.
7. THE TOPS OF ALL FILTER FABRIC MUST BE A MINIMUM OF 1.0 METRES ABOVE THE GROUND LEVEL AND ATTACHED TO THE FENCE WITH A CONTINUOUS STEEL WIRE. ALTERNATIVELY, THE FILTER FABRIC MUST BE FOLDED OVER THE TOP OF THE FENCE AND ATTACHED TO THE FENCE WITH WIRE LOOPED THROUGH THE FABRIC ON BOTH SIDES OF THE FENCE. FILTER FABRIC IS TO BE TERRAFIX 270R OR EQUIVALENT.
8. ALL DISTURBED GROUND LEFT FOR MORE THAN 30 DAYS SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, OR COVERING OR OTHER EQUIVALENT CONTROL MEASURES. THIS PERIOD OF INACTIVITY SHALL BE AT THE DISCRETION OF THE CITY OF OTTAWA'S MANAGER OF ENGINEERING BUT SHALL NOT EXCEED THIRTY DAYS OR SUCH LONGER PERIOD DEEMED ADVISABLE BY THE CITY OF OTTAWA'S MANAGER OF ENGINEERING.
9. CONTRACTOR RESPONSIBLE FOR MUD TRACKING, PREVENTION, AND MAINTENANCE ON PROGRESS COURT.
10. ROADS TO BE LEFT IN A BROOM SWEEP CONDITION AT THE END OF EACH WORK DAY.

NO.	REVISION	NOTE	DATE	BY

BENCHMARK  
MAG NAIL IN HYDRO POLE IN FRONT OF 251 HINCHEY AVE  
ELEV 63.51

J.MURRAY-PROJECT MANAGEMENT  
250-252 HINCHEY AVE,  
OTTAWA, ON

## EROSION PROTECTION AND REMOVALS PLAN



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DESIGNED BY	JP/NW	HORIZ SCALE	1:100	PROJECT #	19126
DRAWN BY	JP	VERT SCALE	N/A	DRAWING #	EPR-1
CHECKED BY	GMP	DATE	FEBRUARY 2020	REVISION #	0