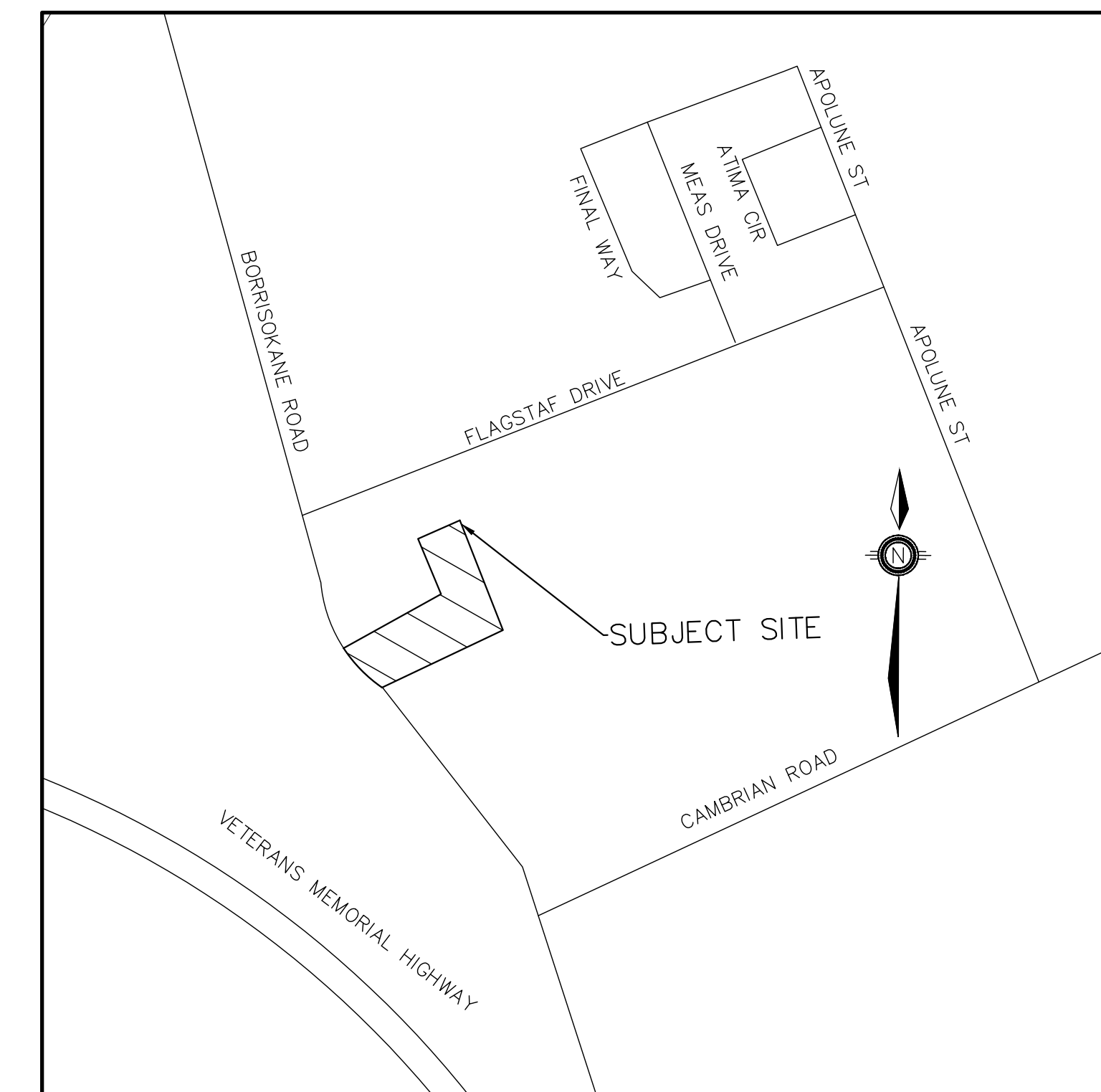


**KOREAN COMMUNITY CHURCH  
3555 BORRISOKANE ROAD,  
CITY OF OTTAWA**

**DRAWING LIST**

- ND-1 NOTES AND DETAILS (1 OF 3)
- ND-2 NOTES AND DETAILS (2 OF 3)
- ND-3 NOTES AND DETAILS (3 OF 3)
- SG-1 SITE GRADING PLAN
- SG-2 FUTURE BUILDING ADDITION GRADING PLAN
- SS-1 SITE SERVICING PLAN
- SS-2 FUTURE BUILDING ADDITION SERVICING PLAN
- STM-1 PRE-DEVELOPMENT STORM CATCHMENT PLAN
- STM-2 POST-DEVELOPMENT STORM CATCHMENT PLAN
- EP-1 EROSION PROTECTION PLAN



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

**OTTAWA KOREAN COMMUNITY CHURCH  
384 ARLINGTON AVE.  
OTTAWA ONTARIO,  
K1R 6Z5**



**PEARSON  
ENGINEERING**  
PEARSONENG.COM PH. 705.719.4785



**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 SOO UNLESS NOTED OTHERWISE.

**4. SANITARY & STORM SEWERS**

- A. SANITARY 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-705.010, 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 SDR 35, 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)
- M. SANITARY MAINTENANCE HOLE SHALL HAVE WATERTIGHT GRAME AND COVER IN FONDING AREAS AS PER OPSD 401.030
- N. SERVICE CONNECTIONS AND UTILITY CUTS TO BE BACKFILLED WITH UNSHRINKABLE FILL.
- O. SEWER PIPES TO BE BACKFILLED UP TO 300mm ABOVE TOP, WITH A GRANULAR MATERIAL TO AIDE COMPACTION IN TIGHT SPACES WITHOUT DAMAGING PIPES.

**5. WATERMAIN**

- A. WATERMAIN SHALL BE CONSTRUCTED TO THE LATEST CITY OF OTTAWA STANDARDS, AND OR THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS)
- B. ALL WATER SERVICES LESS THAN OR EQUAL TO 50mm DIA SHALL BE TYPE "K" COPPER.
- C. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS SPECIFIED OTHERWISE
- D. VALVE BOXES SHALL BE INSTALLED PER CITY OF OTTAWA STD W24.
- E. THRUST BLOCKS FOR WATERMAINS TO BE INSTALLED PER CITY OF OTTAWA STD. W25.3 AND W25.4.
- F. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY CAPS, PLUGS, BLOW-OFFS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
- G. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. W25.2 AND W25.
- H. WATER SERVICES ARE TO BE INSULATED PER CITY STD. W23 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 2.4M.
- I. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER/UTILITY IS 0.5m AS PER MOE GUIDELINES.
- J. ALL WATERMAINS SHALL HAVE A MINIMUM COVER OR 2.4M, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD DWG W22.
- K. FIRE HYDRANT INSTALLATION AS PER STD DWG W19. ALL BOTTOM OF HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10M ABOVE PROPOSED FINISHED GRADE AT HYDRANT; FIRE HYDRANT LOCATION AS PER STD DWG W18.
- L. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50MM BLOW OFF UNLESS OTHERWISE NOTED.
- M. ALL WATERMAINS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE DIRECTED. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED.

**PAVEMENT STRUCTURE**

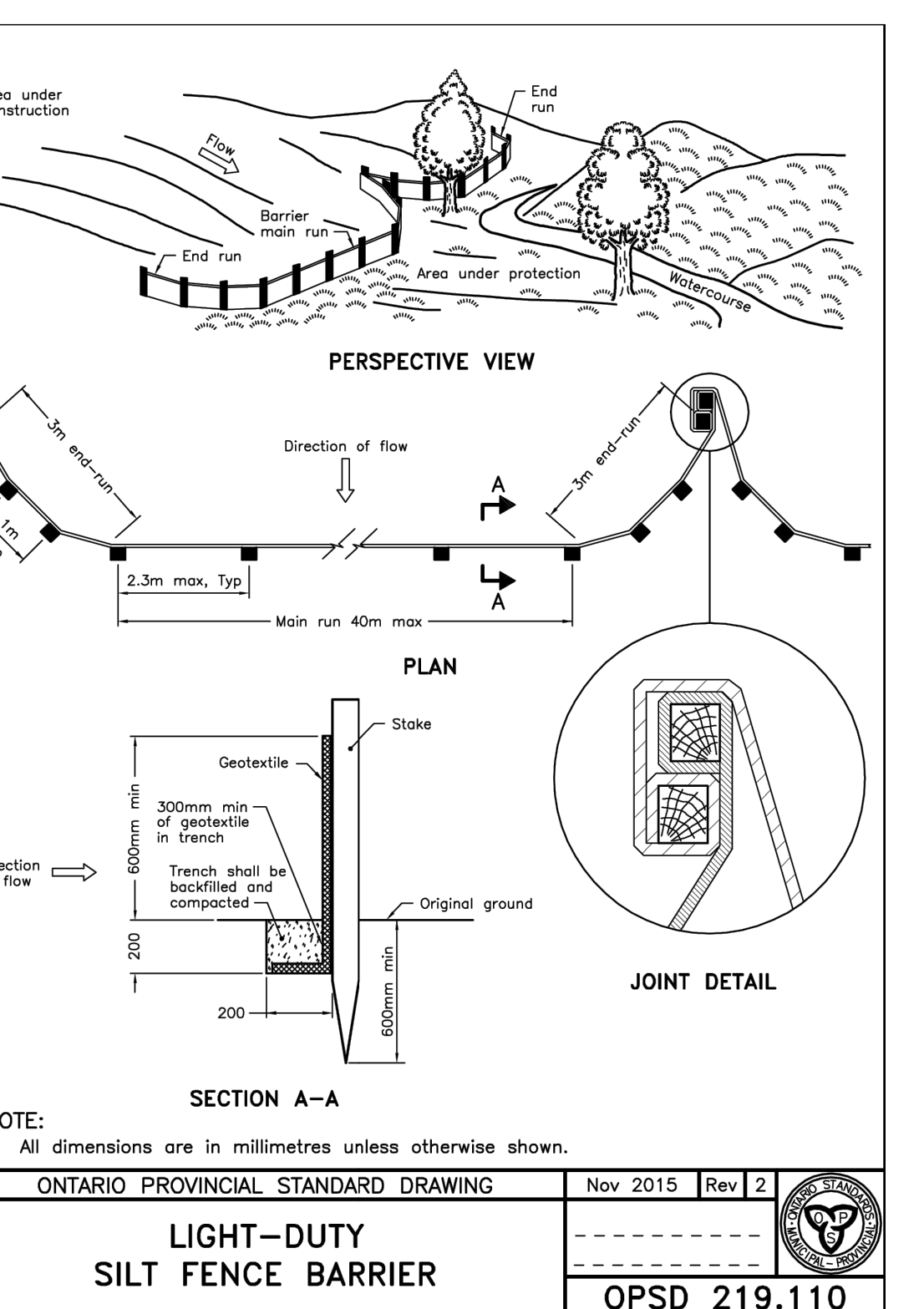
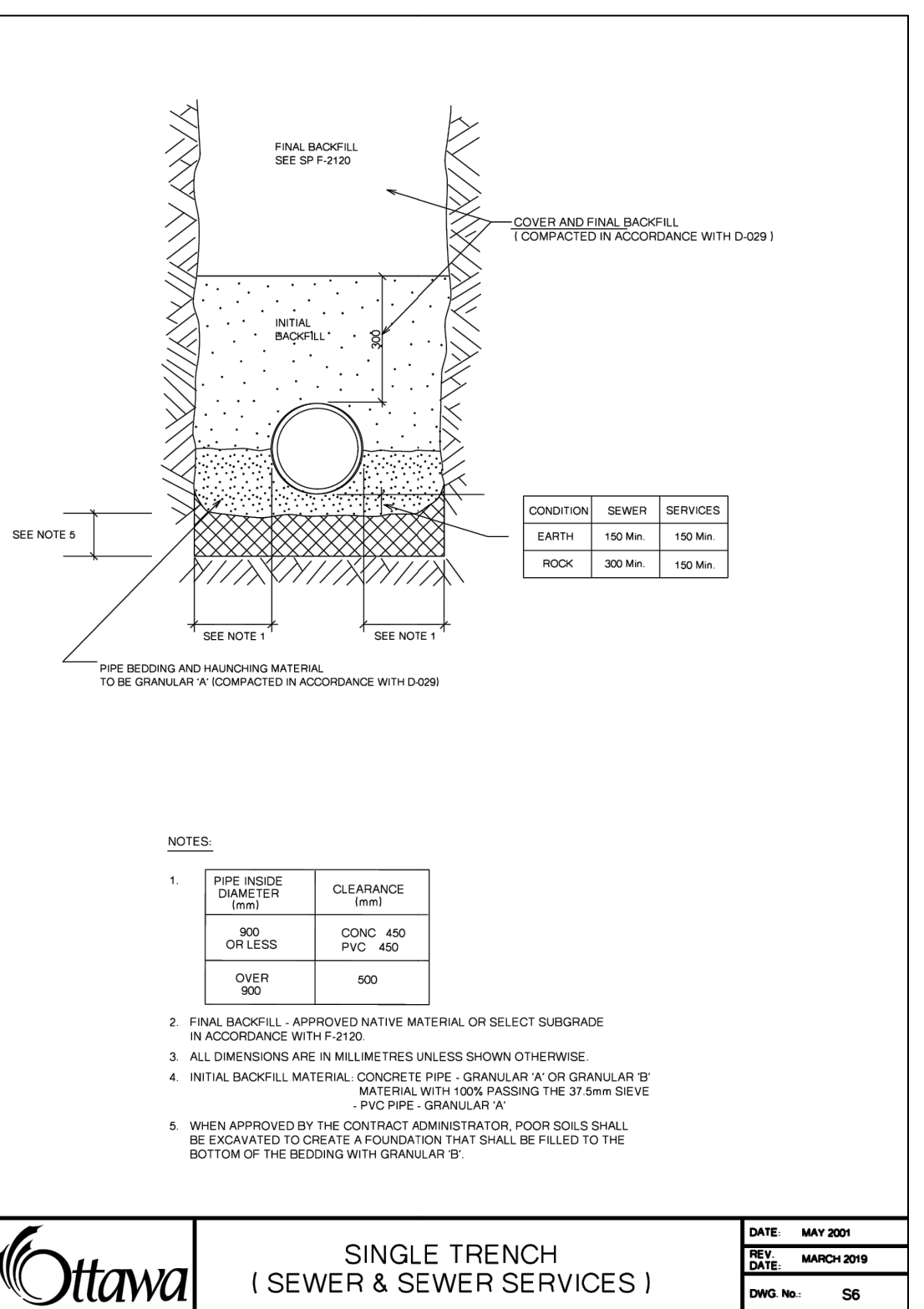
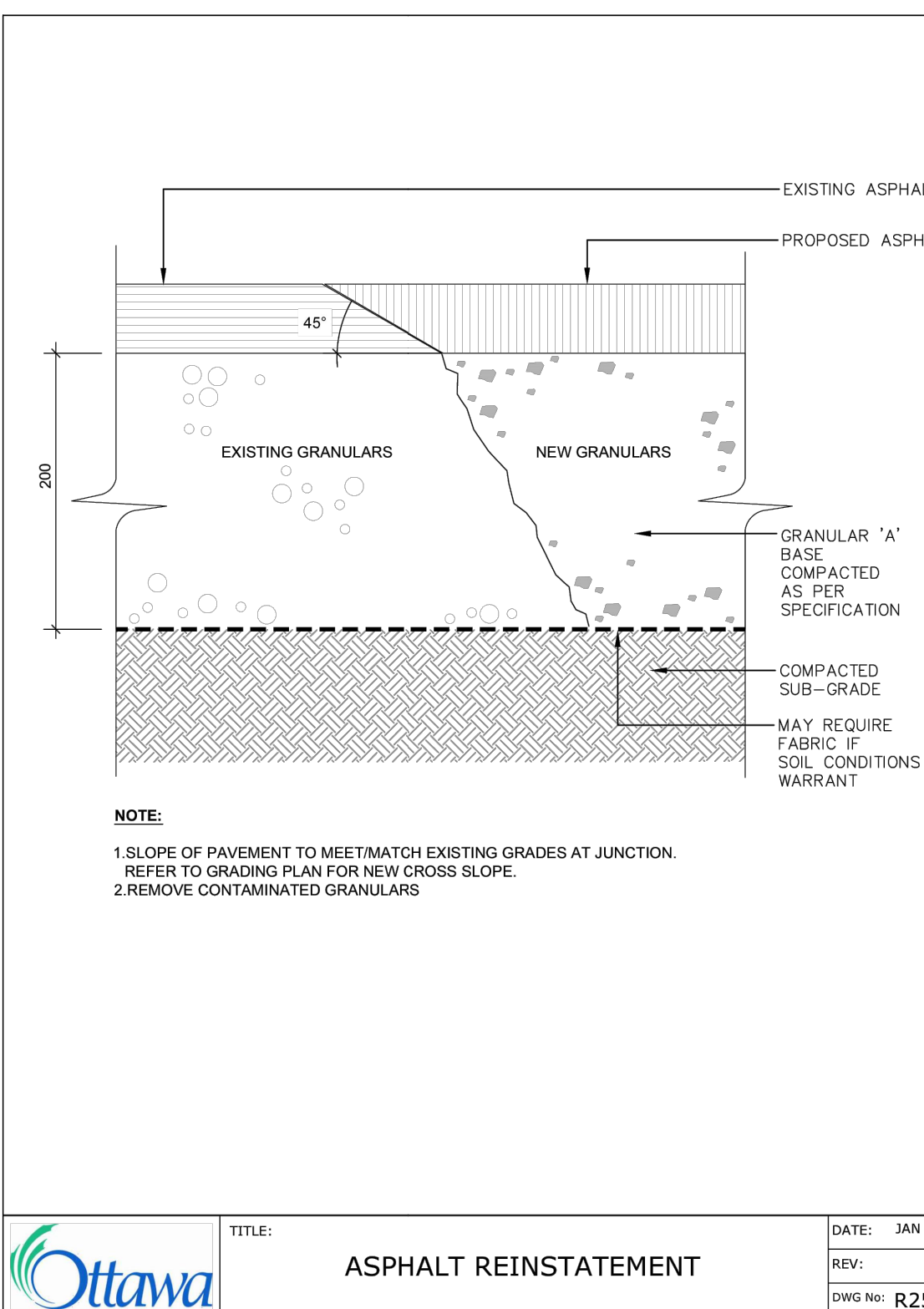
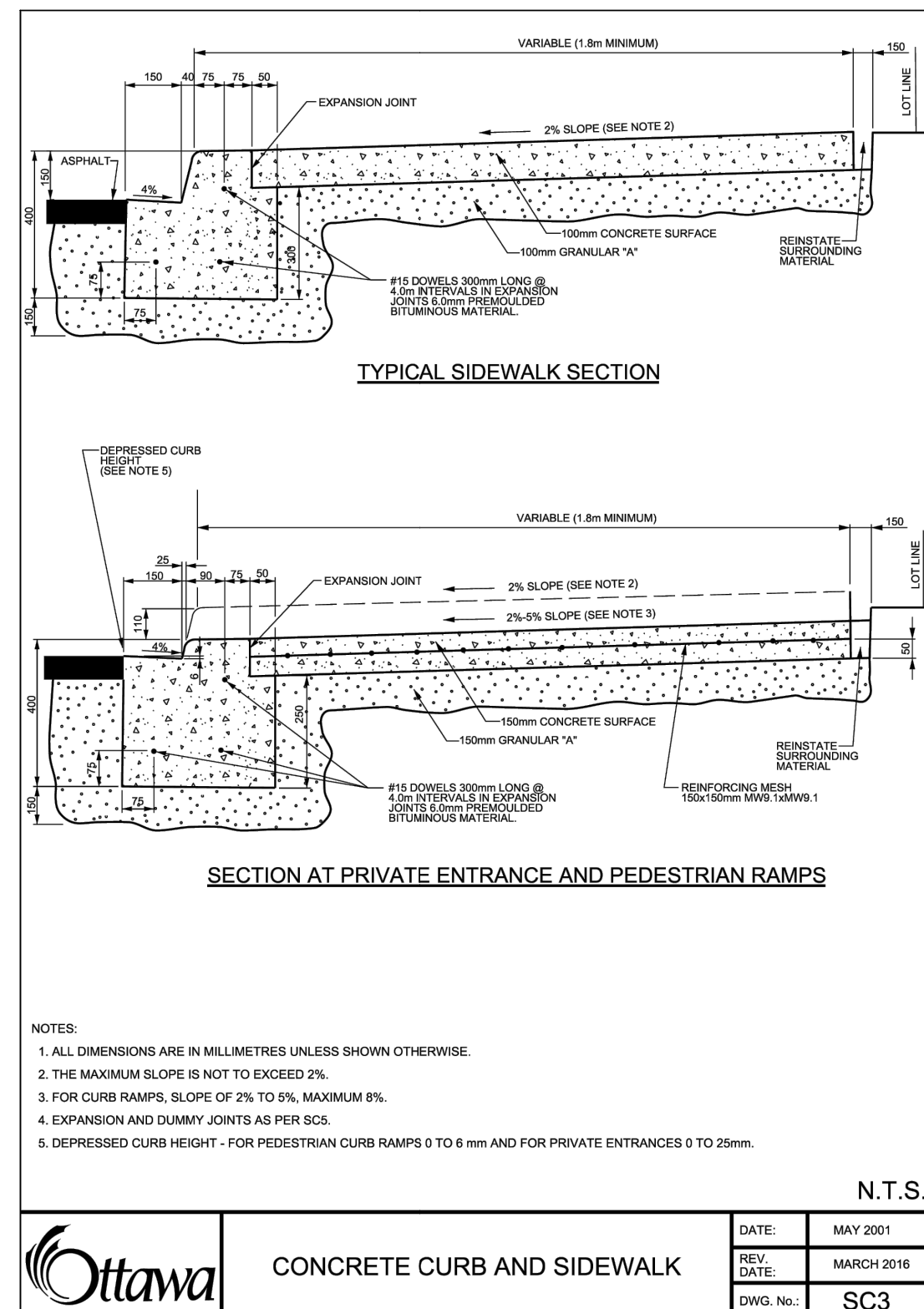
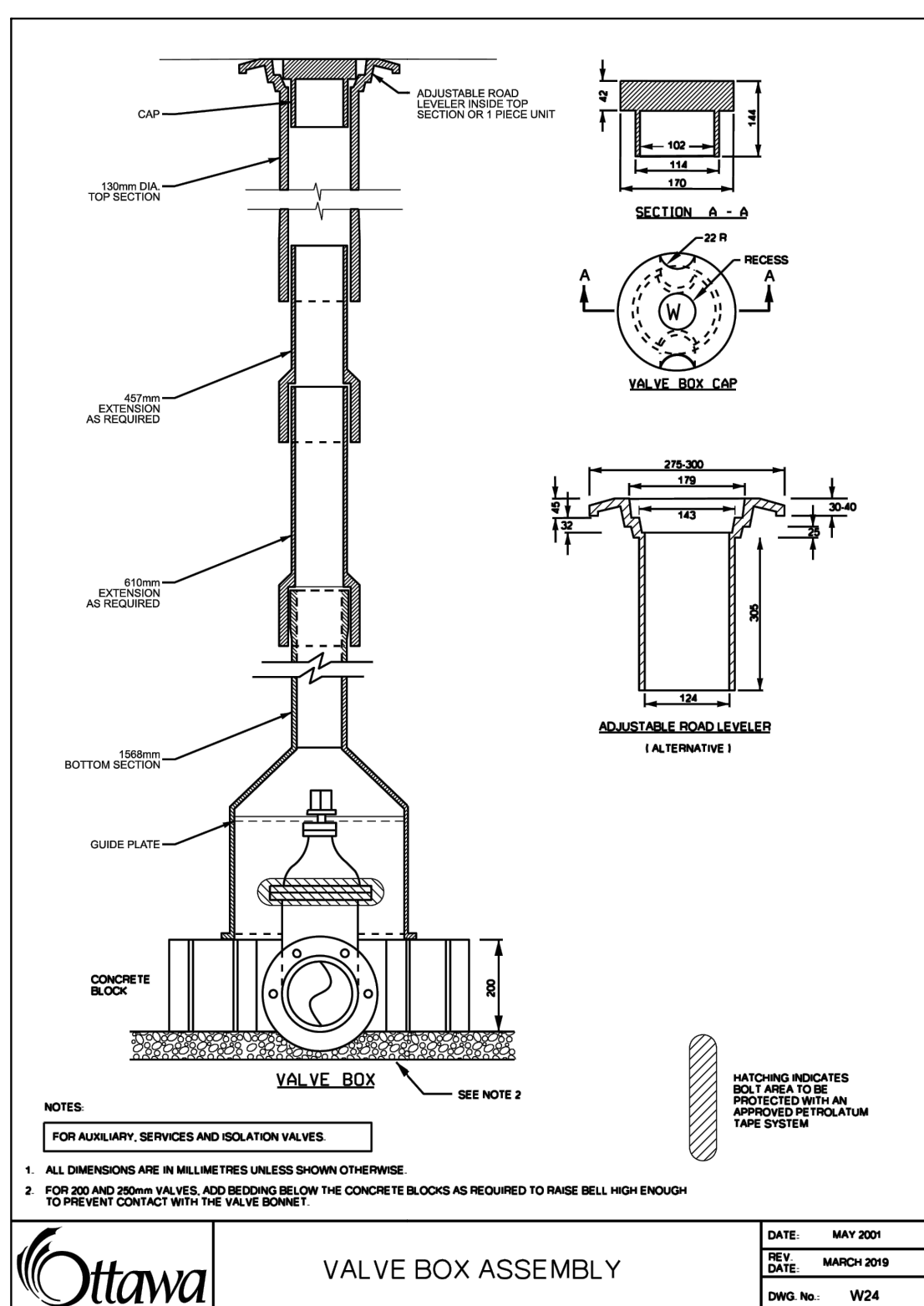
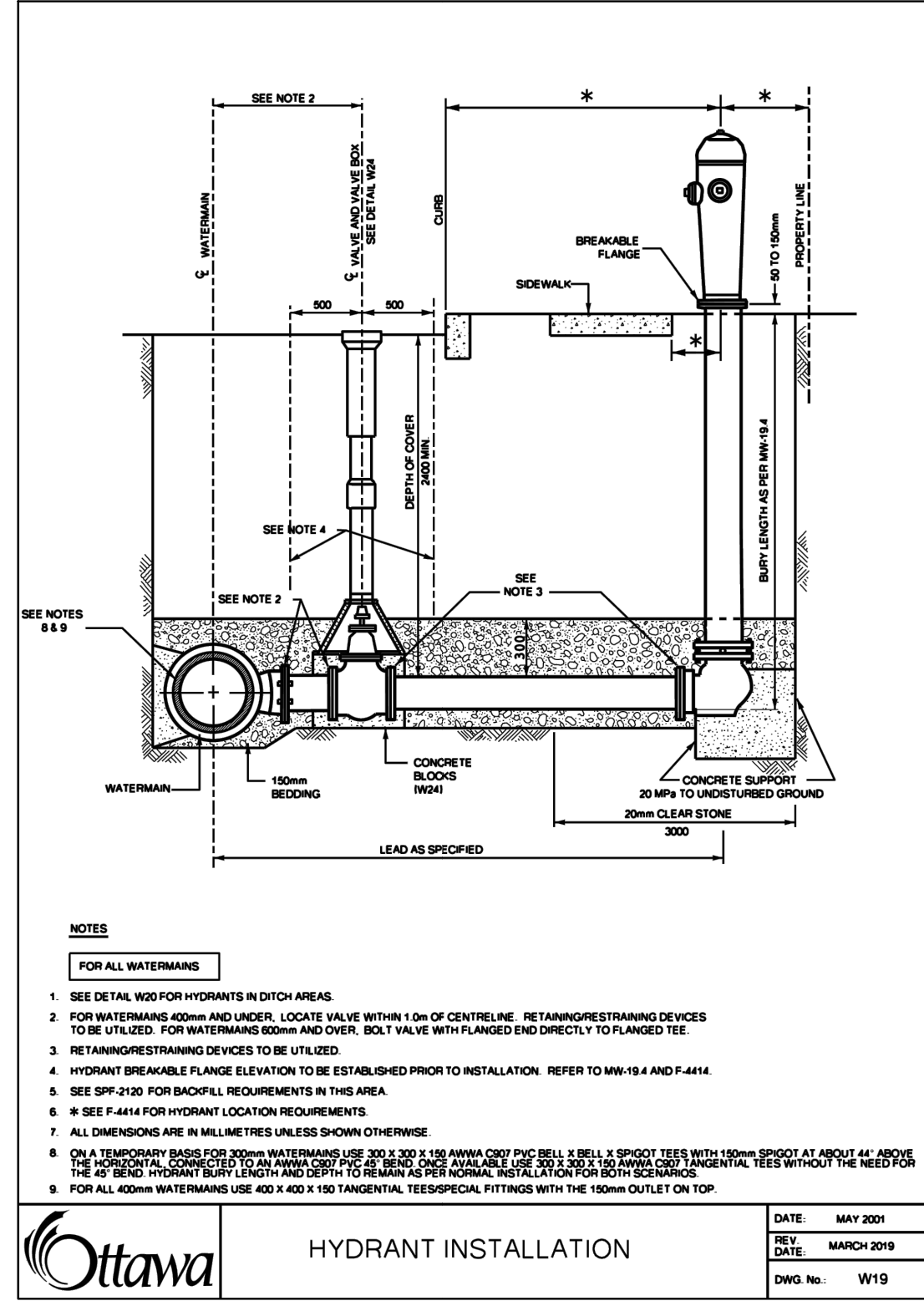
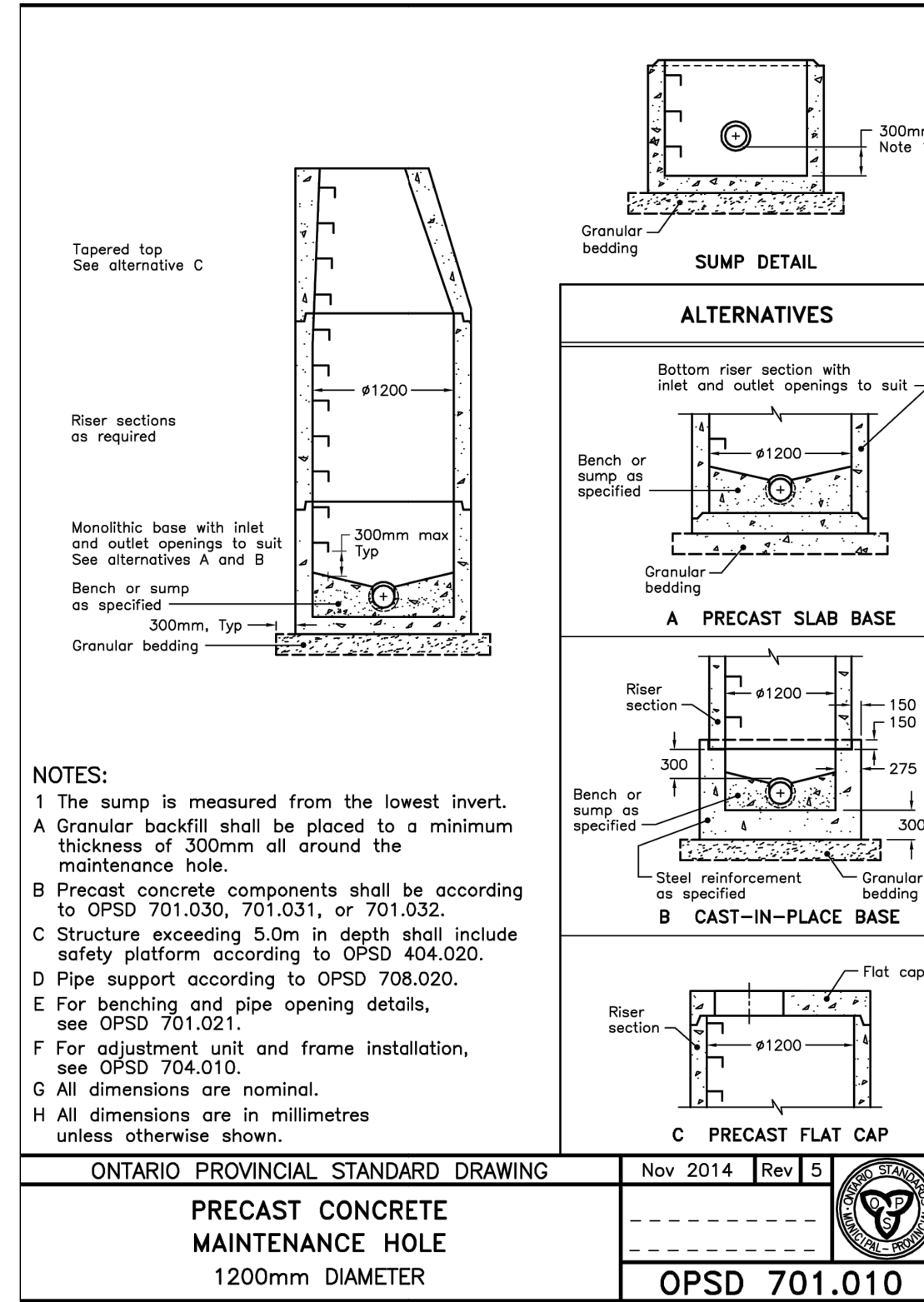
REFERENCED FROM GEOTECHNICAL REPORT COMPLETED BY PATERSON GROUP DATED SEPTEMBER 27, 2023

**CAR PARKING AREAS**

50mm SURFACE COURSE - HL3 ASPHALT  
150mm GRANULAR BASE - OPSS GRAN A CRUSHED STONE  
300mm GRANULAR "B" SUBBASE TYPE 2

**FIRE ROUTE**

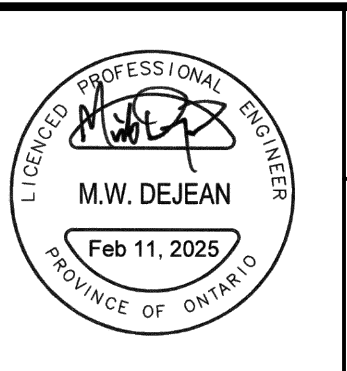
40mm SURFACE COURSE - HL3 ASPHALT  
50mm BASE COURSE - HL8 ASPHALT  
150mm GRANULAR BASE - OPSS GRAN A CRUSHED STONE  
400mm GRANULAR "B" SUBBASE TYPE 2



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06.	PHASE 1 BUILDING LAYOUT	02/11/25	JM
05.	UPDATED SNOW STORAGE	10/16/24	JM
04.	AS PER 3rd SUBMISSION COMMENTS	10/04/24	JM
03.	AS PER UPDATED SITE PLAN	07/04/24	JM
02.	AS PER 2nd SUBMISSION COMMENTS	02/12/24	JM
NO.	REVISION NOTE	DATE	BY

BENCHMARK	
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.	
ELEV. 92.96	



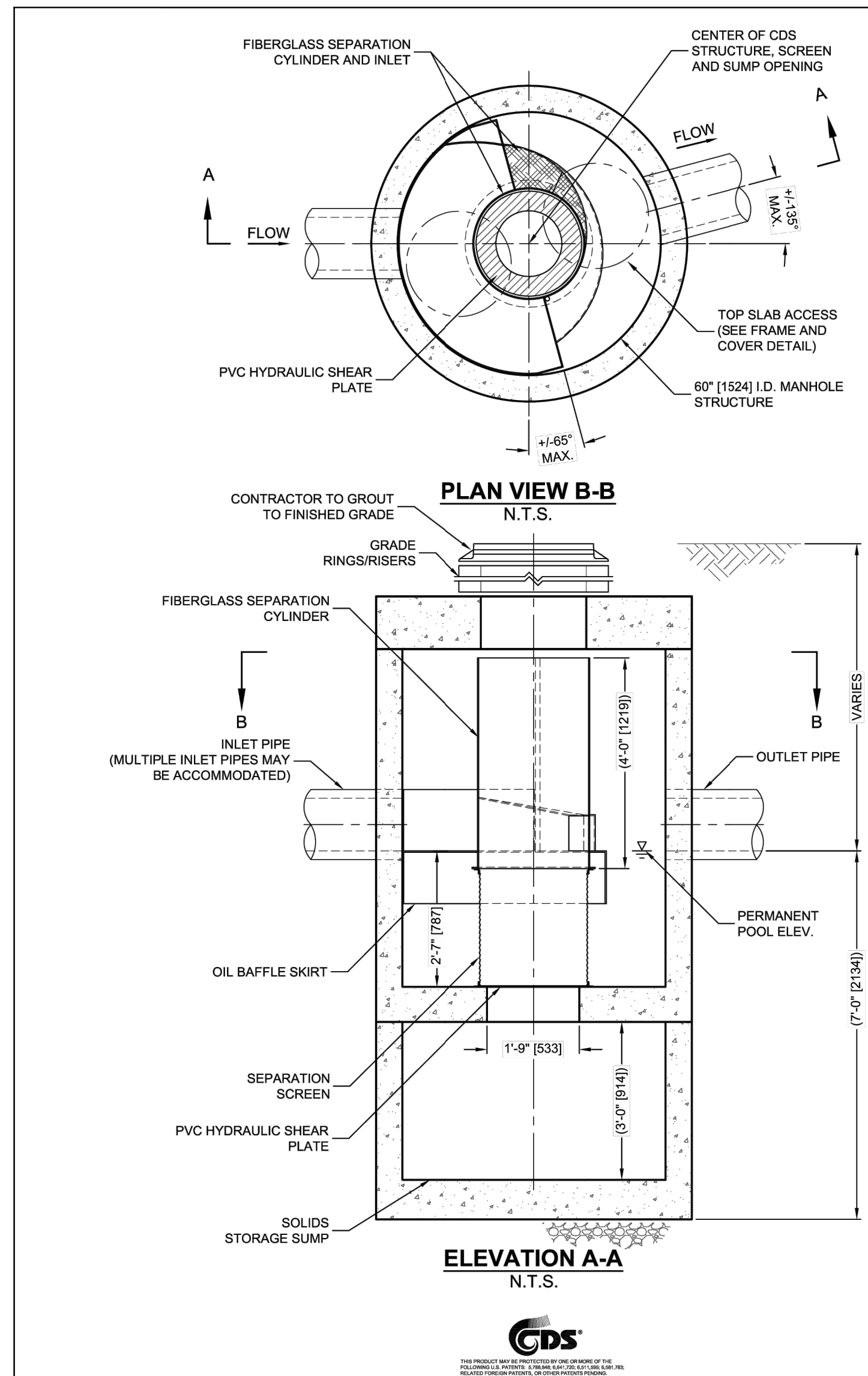
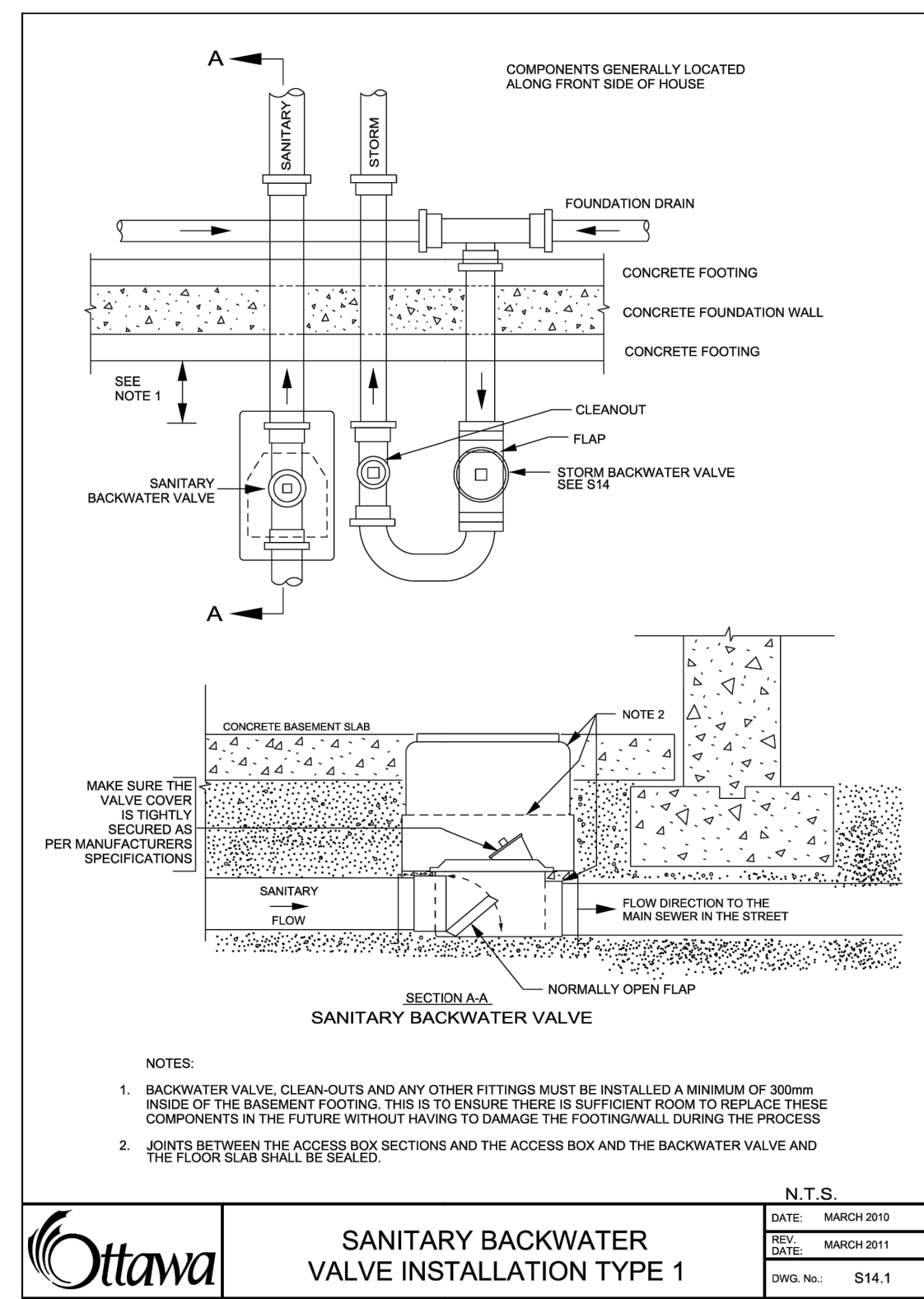
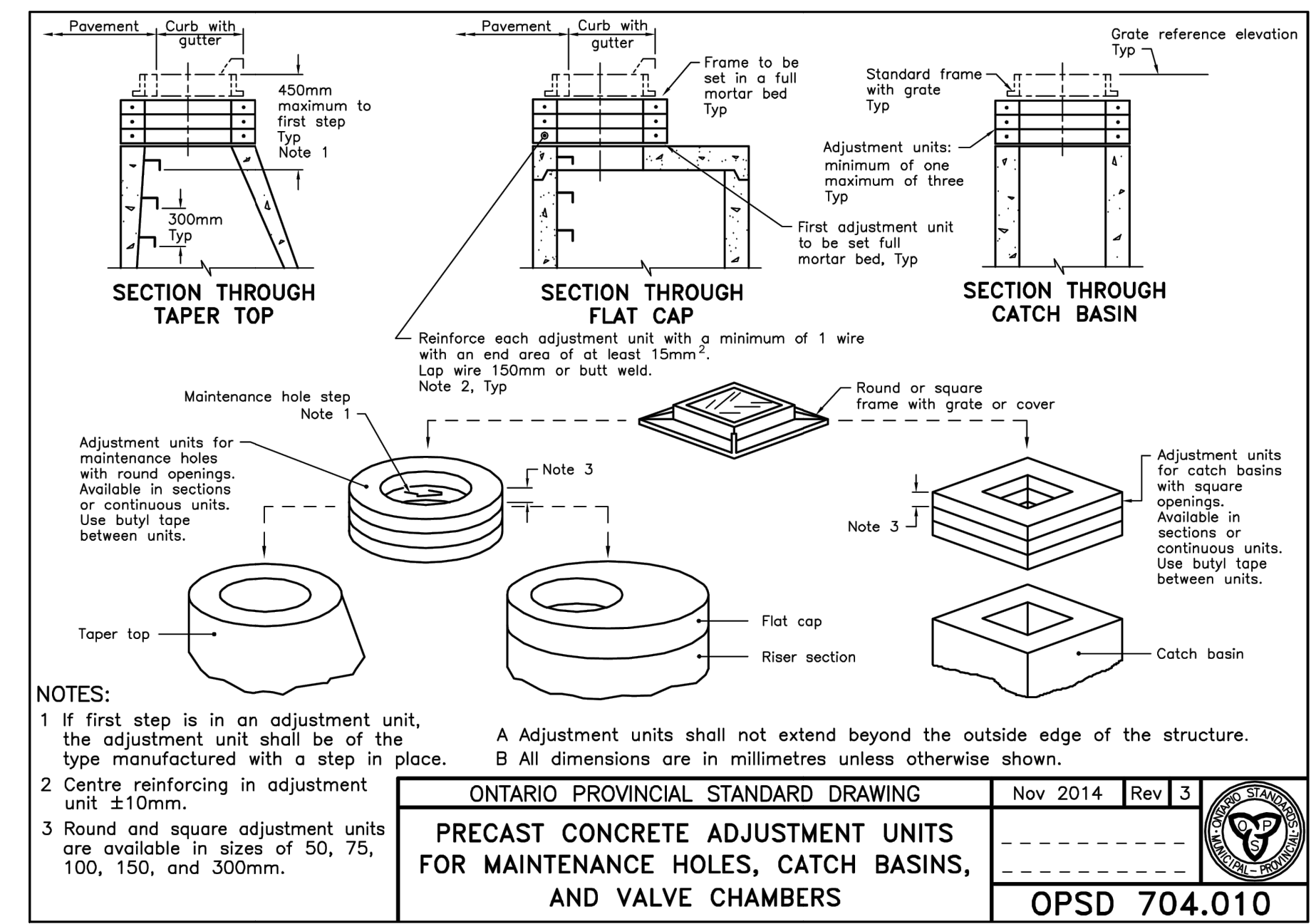
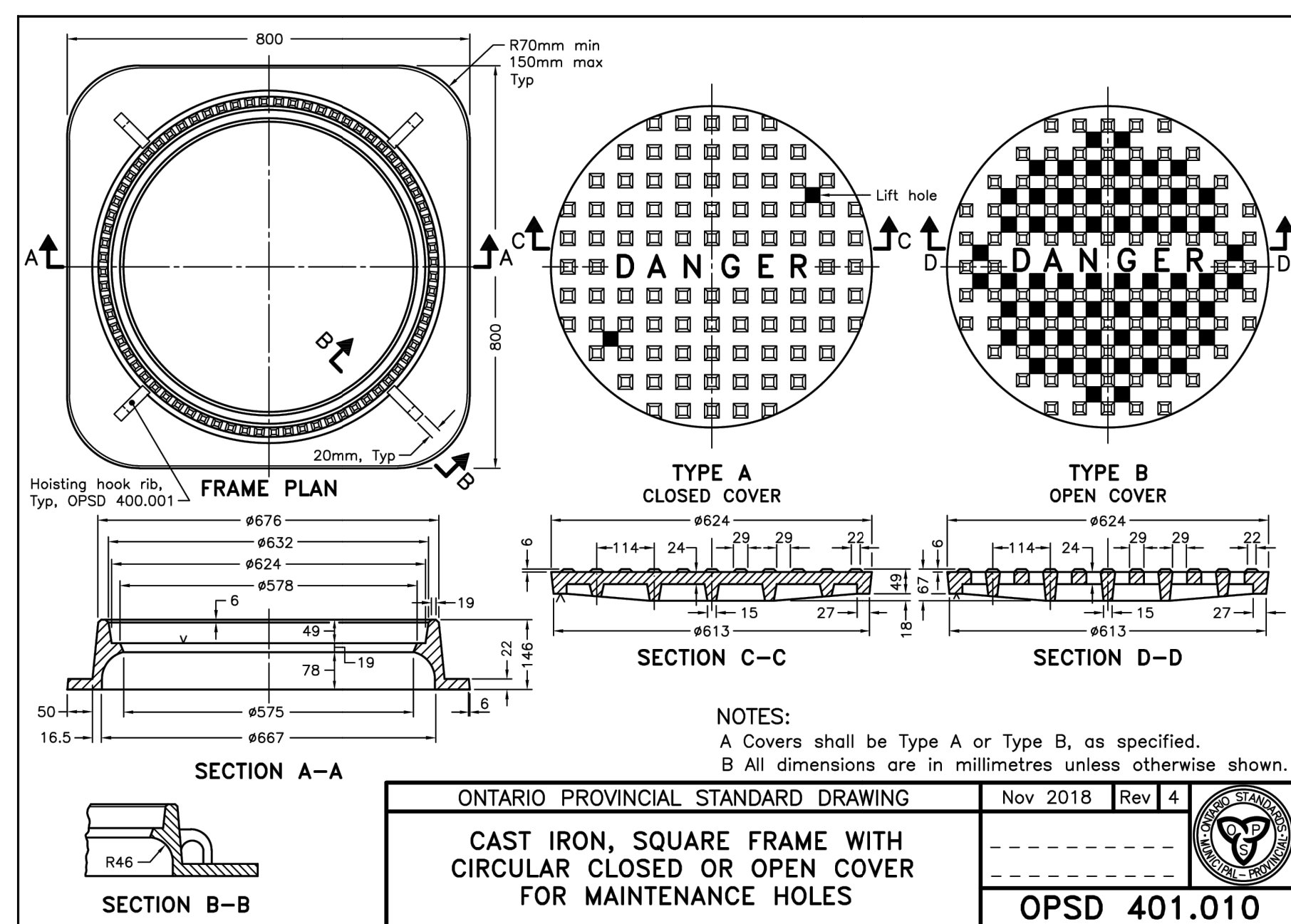
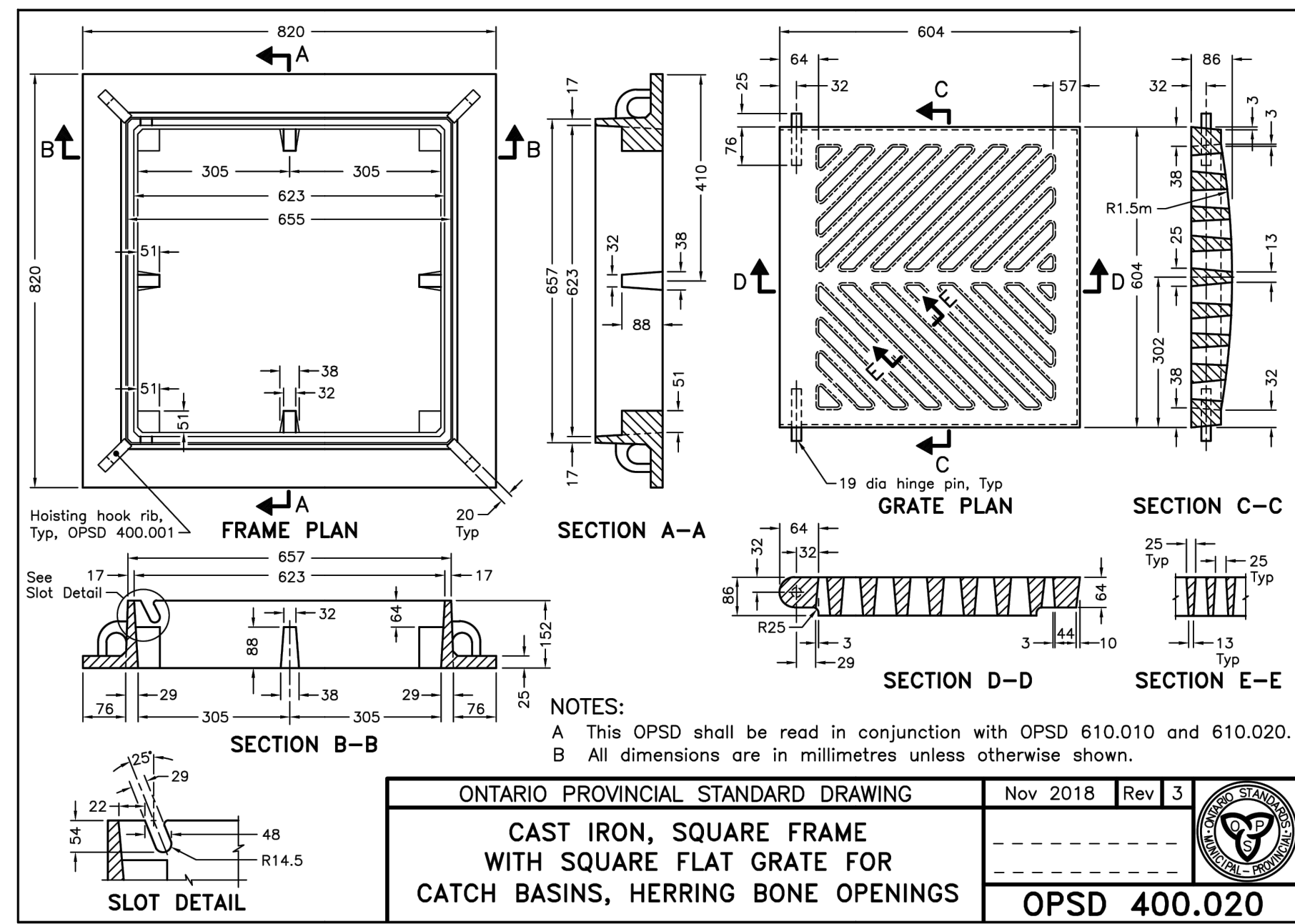
KOREAN COMMUNITY CHURCH  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

NOTES AND DETAILS  
(1 OF 3)

DESIGNED BY	NW/MWD	HORIZ SCALE	N/A	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	ND-1
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6





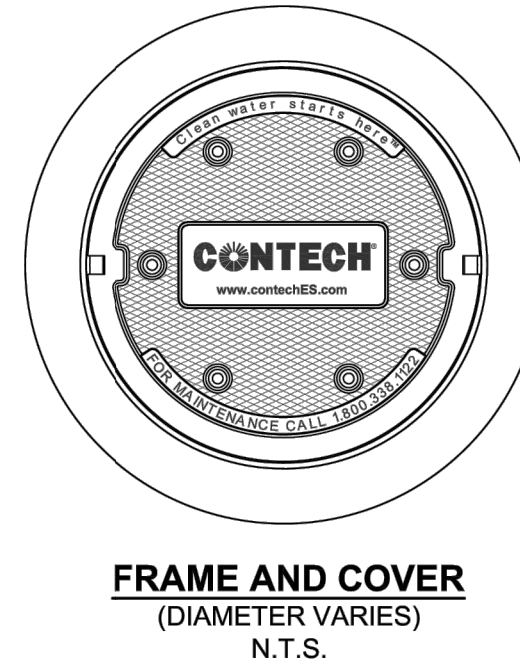


**CDS PMSU2020-5-C DESIGN NOTES**

THE STANDARD CDS PMSU2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

**CONFIGURATION DESCRIPTION**

GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
CUSTOMIZABLE SUMP DEPTH AVAILABLE
ANTI-FLOTATION DESIGN AVAILABLE UPON REQUEST



**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)	*		
PEAK FLOW RATE (CFS OR L/s)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
SCREEN APERTURE (2400 OR 4700)	*		
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	*

NOTES/SPECIAL REQUIREMENTS:  
 \* PER ENGINEER OF RECORD

**GENERAL NOTES**  
 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.  
 2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.  
 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE: [www.contechES.com](http://www.contechES.com)  
 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.  
 5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 308) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.  
 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

**INSTALLATION NOTES**  
 A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.  
 B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).  
 C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.  
 D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.  
 E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH**  
 ENGINEERED SOLUTIONS LLC  
[www.contechES.com](http://www.contechES.com)  
 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45389  
 800-338-1122 513-645-7000 513-645-7993 FAX

CDS PMSU2020-5-C  
 INLINE CDS  
 STANDARD DETAIL

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06.	PHASE 1 BUILDING LAYOUT	02/11/25	JM
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NO.	REVISION NOTE	DATE	BY

**BENCHMARK**  
 SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
 ELEV: 92.96



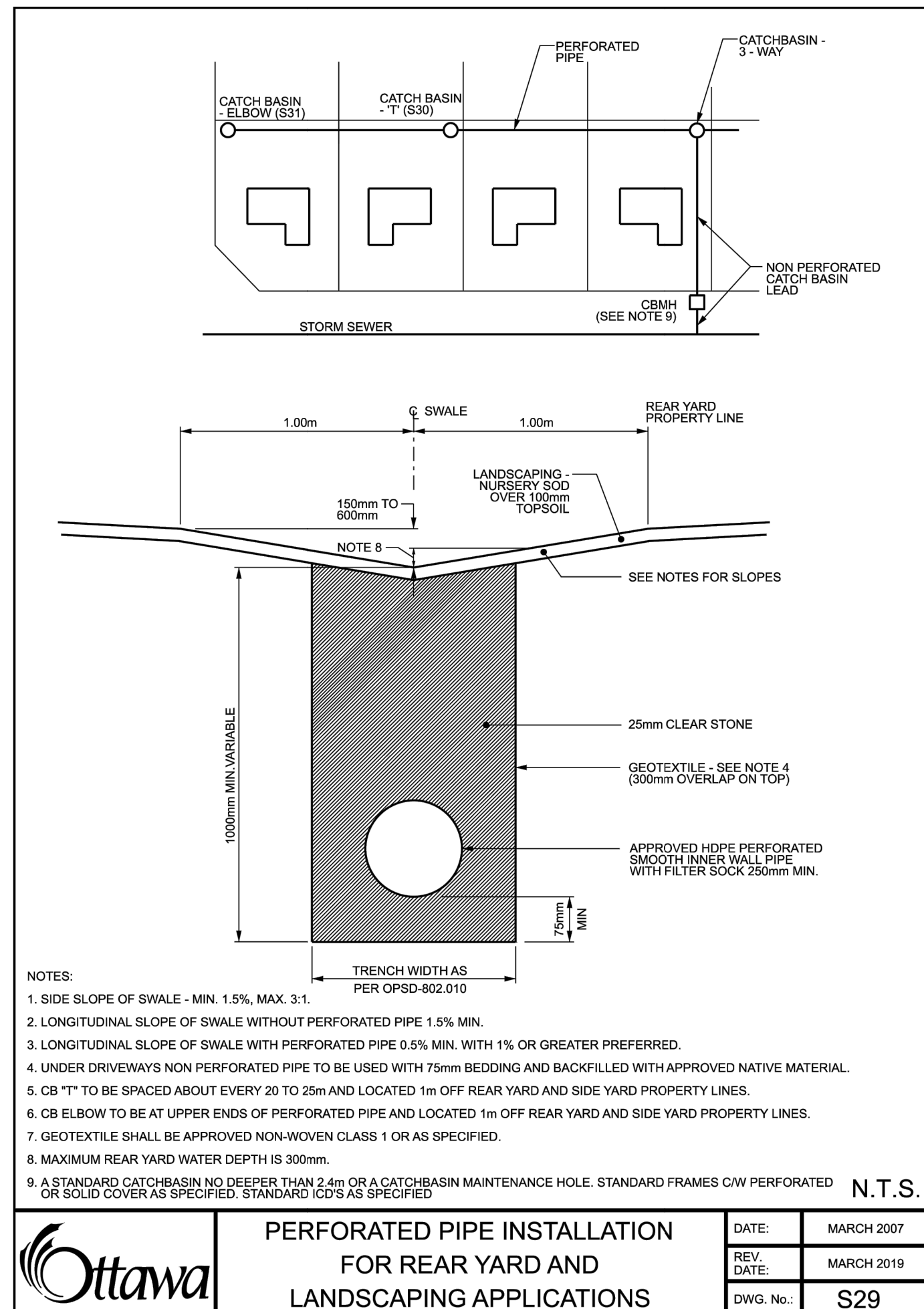
**KOREAN COMMUNITY CHURCH**  
 3555 BORRISOKANE ROAD  
 CITY OF OTTAWA

NOTES AND DETAILS  
 (2 OF 3)

DESIGNED BY	NW/MWD	HORIZ SCALE	N/A	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	ND-2
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6

**PEARSON ENGINEERING**  
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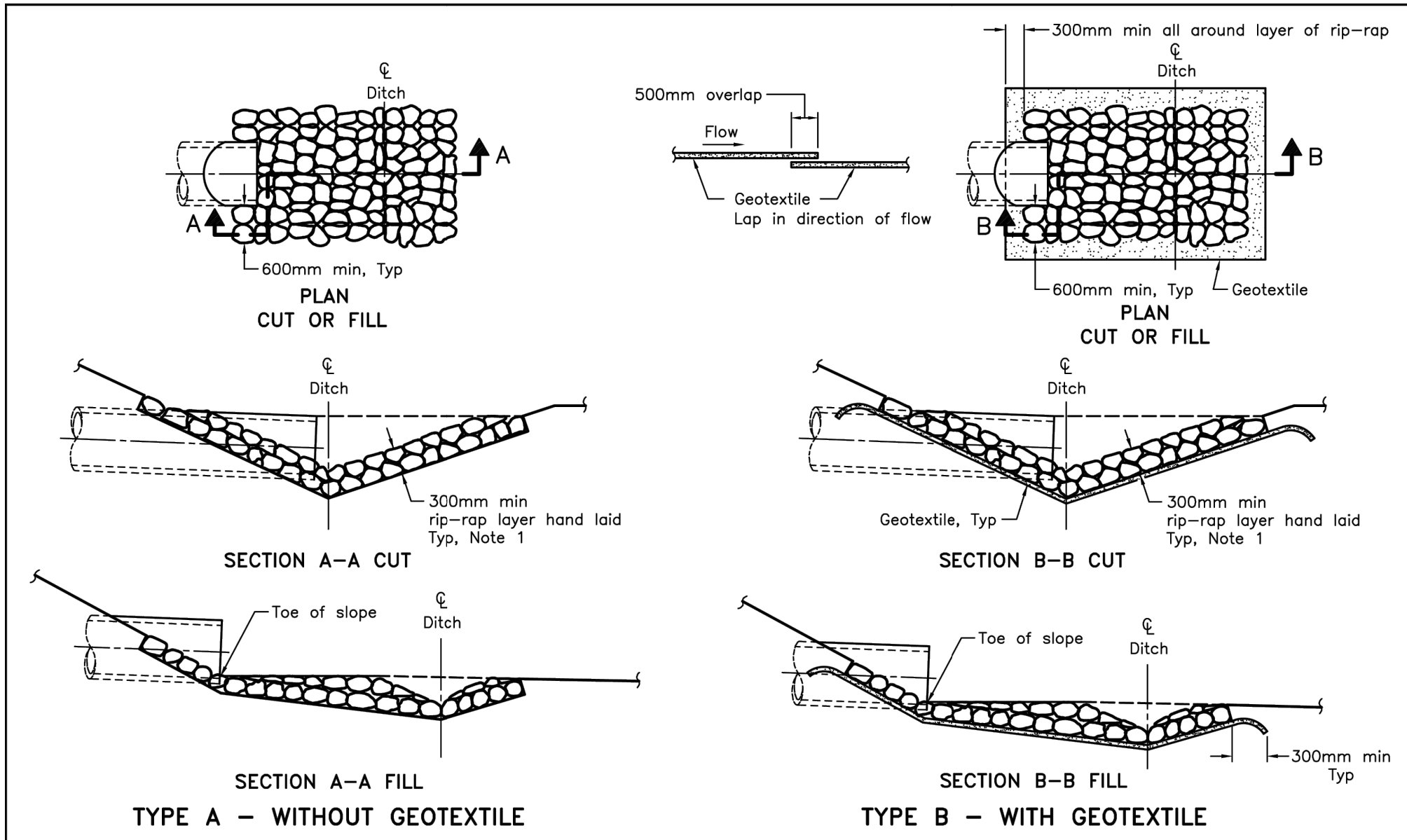




NOTES:

- SIDE SLOPE OF SWALE - MIN. 1.5%, MAX. 3:1.
- LONGITUDINAL SLOPE OF SWALE WITH PERFORATED PIPE 0.5% MIN. WITH 1% OR GREATER PREFERRED.
- LONGITUDINAL SLOPE OF SWALE WITHOUT PERFORATED PIPE 1.5% MIN.
- UNDER DRIVEWAYS NON PERFORATED PIPE TO BE USED WITH 75mm BEDDING AND BACKFILLED WITH APPROVED NATIVE MATERIAL.
- CB "T" TO BE SPACED ABOUT EVERY 20 TO 25m AND LOCATED 1m OFF REAR YARD AND SIDE YARD PROPERTY LINES.
- CB ELBOW TO BE AT UPPER ENDS OF PERFORATED PIPE AND LOCATED 1m OFF REAR YARD AND SIDE YARD PROPERTY LINES.
- GEOTEXTILE SHALL BE APPROVED NON-WOVEN CLASS 1 OR AS SPECIFIED.
- MAXIMUM REAR YARD WATER DEPTH IS 300mm.
- A STANDARD CATCHBASIN NO DEEPER THAN 2.4m OR A CATCHBASIN MAINTENANCE HOLE. STANDARD FRAMES CW PERFORATED OR SOLID COVER AS SPECIFIED. STANDARD KIDS AS SPECIFIED.

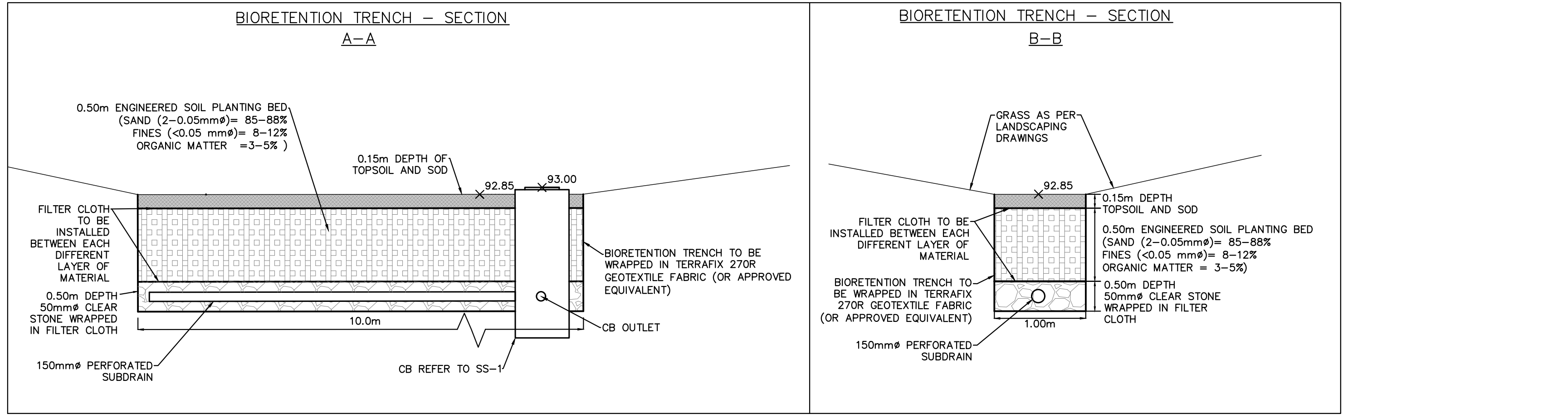
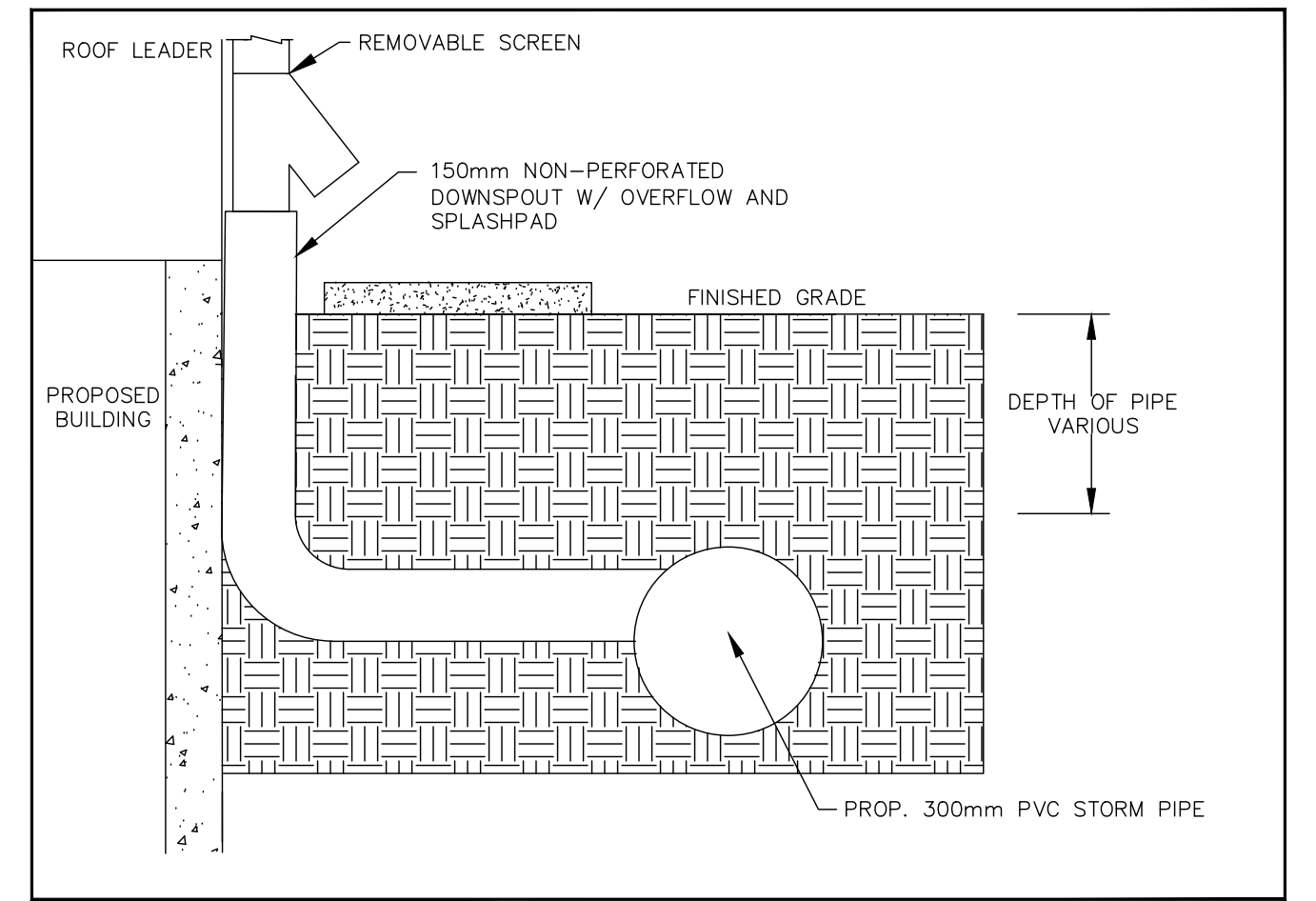
N.T.S.



NOTES:

- The thickness of the rip-rap layer shall be at least 1.5 times the rip-rap mean diameter.

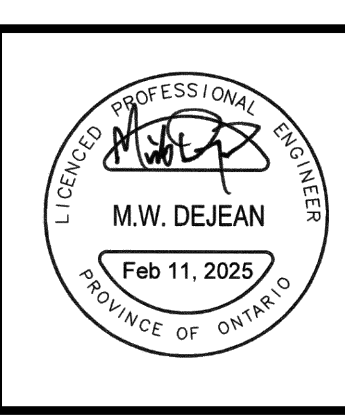
A All dimensions are in millimetres unless otherwise shown.



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NO.	REVISION NOTE	DATE	BY
06.	PHASE 1 BUILDING LAYOUT	02/11/25	JM
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**BENCHMARK**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
ELEV. 92.96



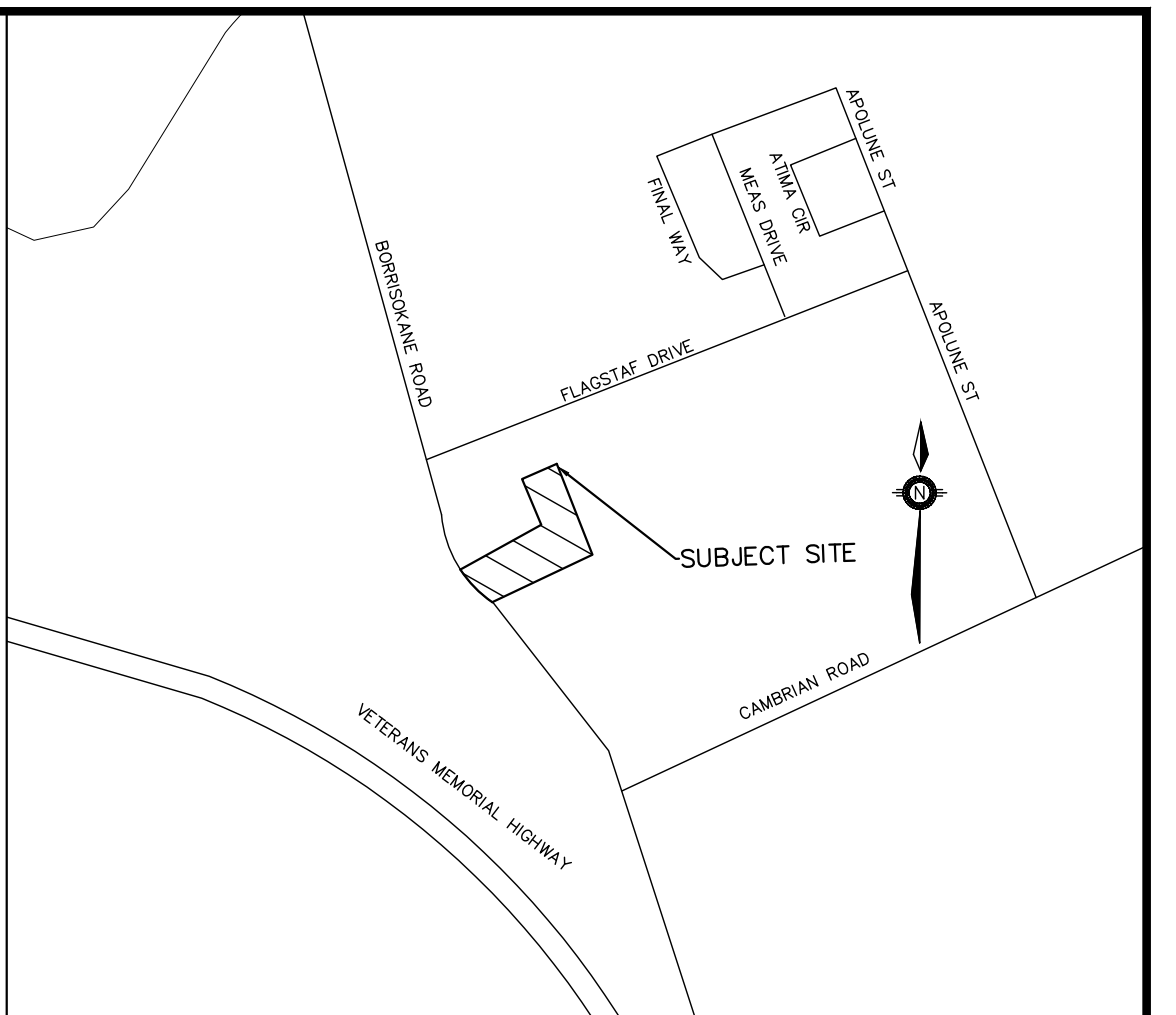
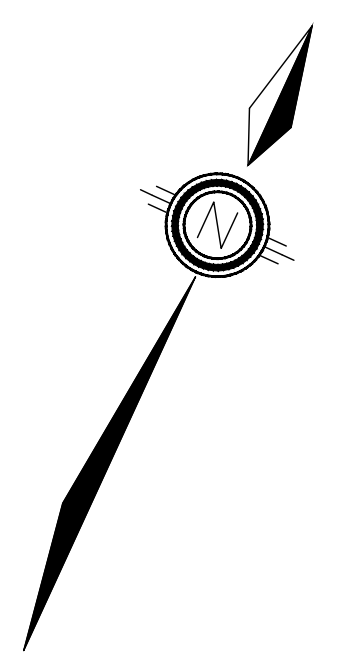
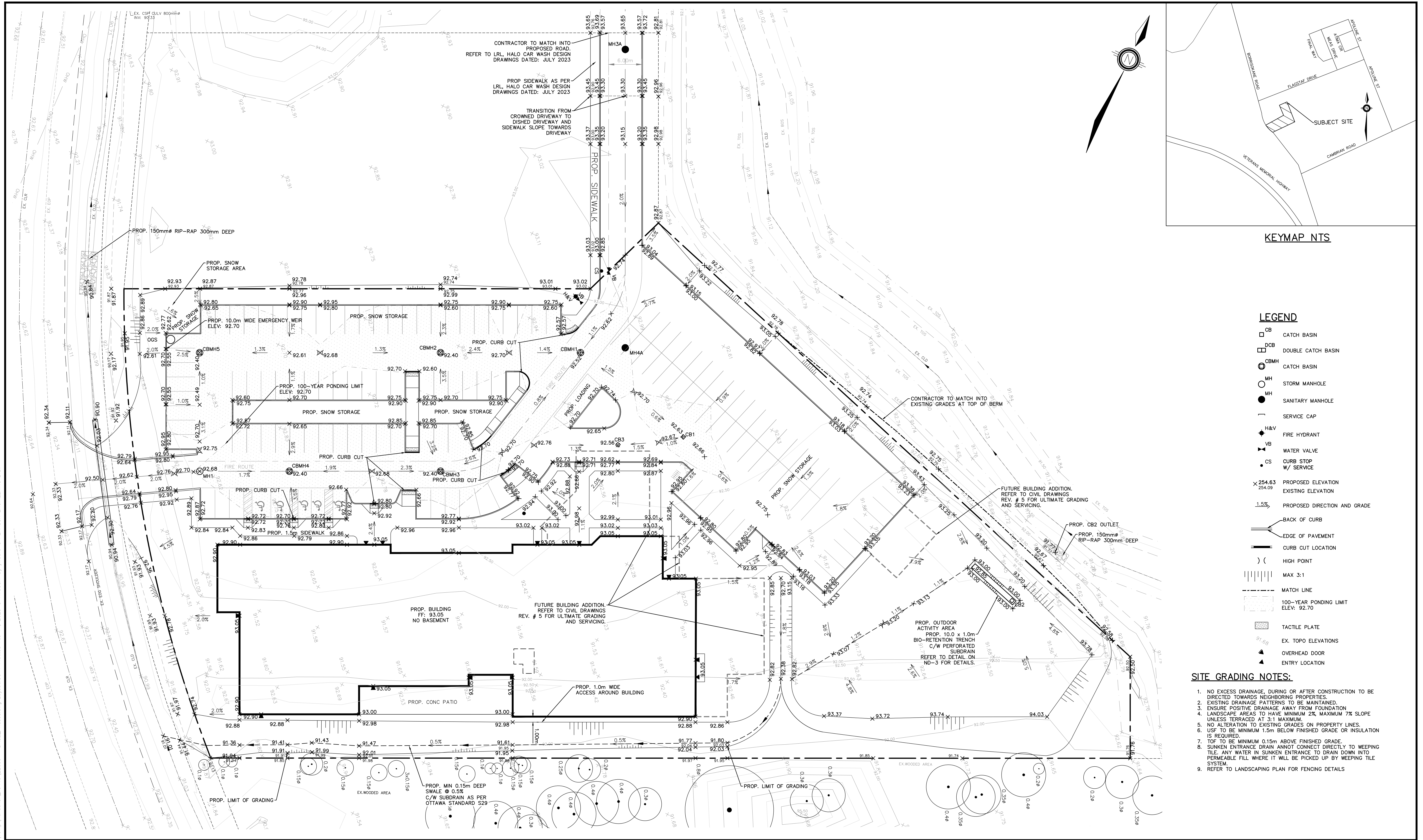
**KOREAN COMMUNITY CHURCH**  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

NOTES AND DETAILS  
(3 OF 3)

DESIGNED BY	NW/MWD	HORIZ SCALE	N/A	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	ND-3
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6







KEYMAP NTS

LEGEND

- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- ⊙ CBMH CATCH BASIN
- ⊙ MH STORM MANHOLE
- ⊙ MH SANITARY MANHOLE
- SERVICE CAP
- ◆ H&V FIRE HYDRANT
- ▼ VB WATER VALVE
- CS CURB STOP W/ SERVICE
- × 254.63 EXISTING ELEVATION
- × 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ) ( HIGH POINT
- ||| MAX 3:1
- - - MATCH LINE
- 100-YEAR PONDING LIMIT ELEV. 92.70
- ▨ TACTILE PLATE
- EX. TOPO ELEVATIONS
- ▲ OVERHEAD DOOR
- ▲ ENTRY LOCATION

SITE GRADING NOTES:

1. NO EXCESS DRAINAGE, DURING OR AFTER CONSTRUCTION TO BE DIRECTED TOWARDS NEIGHBORING PROPERTIES.
2. EXISTING DRAINAGE PATTERNS TO BE MAINTAINED.
3. ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATION.
4. LANDSCAPE AREAS TO HAVE MINIMUM 2% MAXIMUM 7% SLOPE UNLESS TERRACED AT 3:1 MAXIMUM.
5. NO ALTERATION TO EXISTING GRADES ON PROPERTY LINES.
6. USF TO BE MINIMUM 1.5m BELOW FINISHED GRADE OR INSULATION IS REQUIRED.
7. TOF TO BE MINIMUM 0.15m ABOVE FINISHED GRADE.
8. SUNKEN ENTRANCE DRAIN ANNOT CONNECT DIRECTLY TO WEeping TILE. ANY WATER IN SUNKEN ENTRANCE TO DRAIN DOWN INTO PERMEABLE FILL WHERE IT WILL BE PICKED UP BY WEeping TILE SYSTEM.
9. REFER TO LANDSCAPING PLAN FOR FENCING DETAILS

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**BENCHMARK:**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
ELEV: 92.96



KOREAN COMMUNITY CHURCH  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

SITE GRADING PLAN

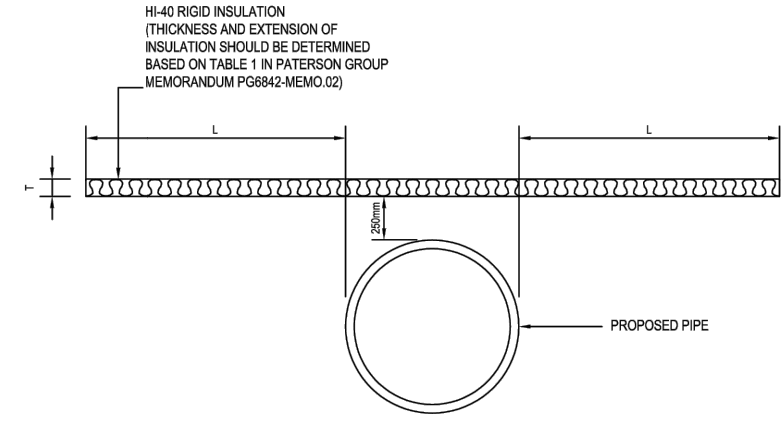
PEARSON ENGINEERING  
PEARSONENG.COM PH. 705.719.4785

DESIGNED BY	NW/MWD	HORIZ SCALE	1:300	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	SG-1
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6





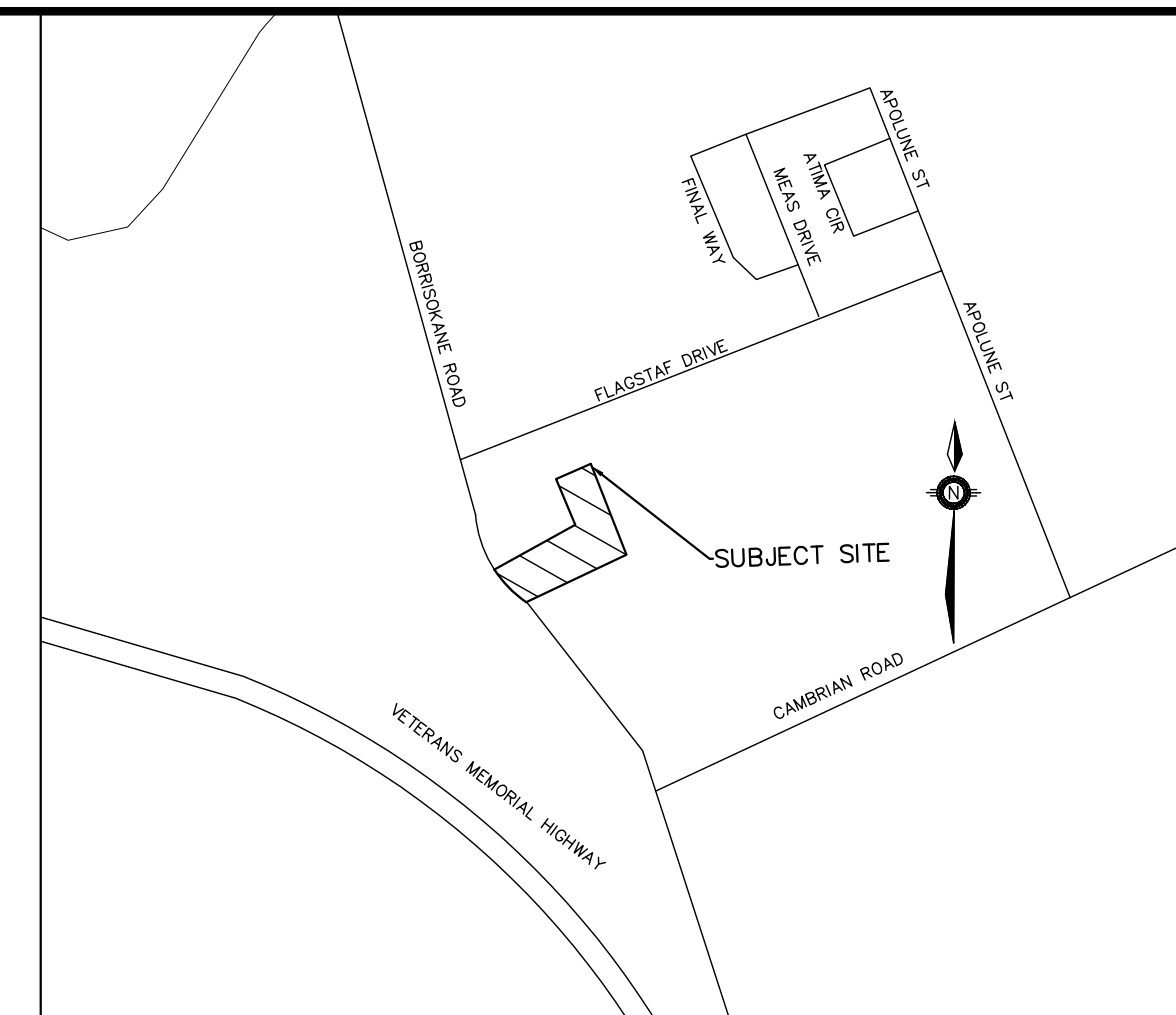




**PATERSON GROUP**  
SOLUTION ORIENTED ENGINEERING

**TYPICAL FROST INSULATION DETAIL**

Scale: N.T.S.	Date: 02/20/24
Drawn by: JMC	Report No.: P080-MEMO-02
Checked by: YZ	Drawing No.: FIG.2
Approved by: JA	Revision No.:

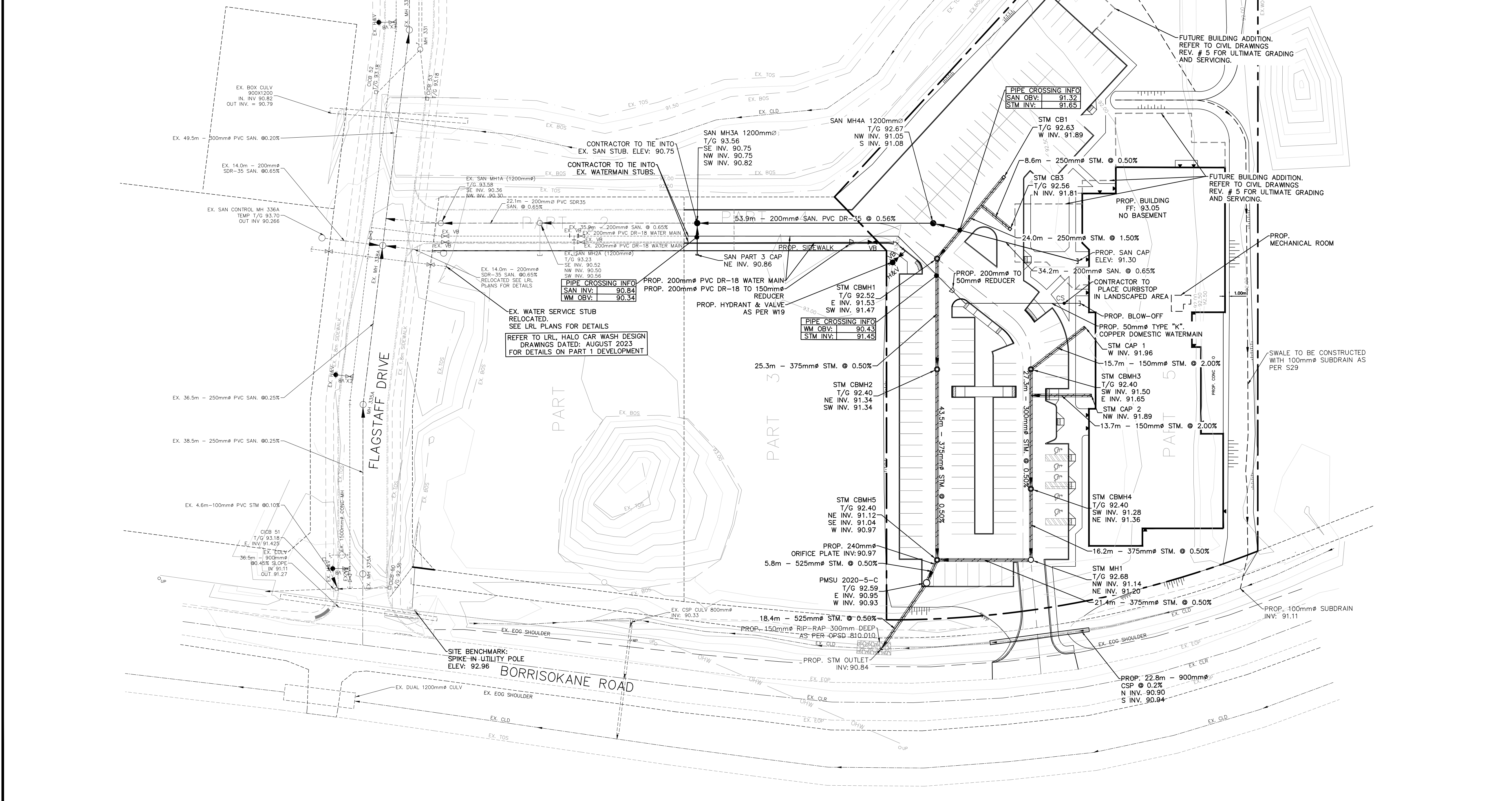


KEYMAP NTS

**LEGEND**

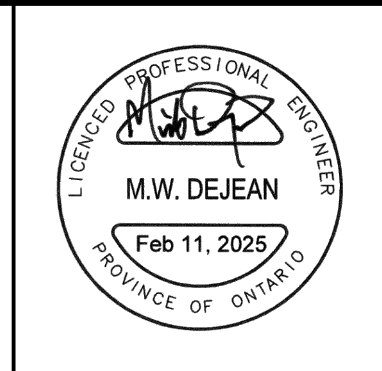
- CB CATCH BASIN
- DCB DOUBLE CATCH BASIN
- CBMH CATCH BASIN
- MH STORM MANHOLE
- MH SANITARY MANHOLE
- SERVICE CAP
- ◆ H&V FIRE HYDRANT
- ▼ VB WATER VALVE
- CS CURB STOP W/ SERVICE
- × 254.63 PROPOSED ELEVATION
- 254.09 EXISTING ELEVATION
- 1.5% PROPOSED DIRECTION AND GRADE
- BACK OF CURB
- EDGE OF PAVEMENT
- CURB CUT LOCATION
- ) ( HIGH POINT
- PROPOSED PIPE INSULATION AS PER SS-1 DETAIL
- ▲ OVERHEAD DOOR
- ▲ ENTRY LOCATION

- SITE SERVICING NOTES:**
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM CITY OF OTTAWA BEFORE COMMENCING WORK.
  - REFER TO CITY OF OTTAWA STANDARD R10 FOR ASPHALT TILE INS.
  - BACKWATER VALVES TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD S14, AND S14.1 OR S14.2
  - EXISTING SERVICES TO BE BLANKED AT MAIN.
  - THERMAL INSULATION TO BE PROVIDED FOR WATER SERVICES LESS THAN 2.4m FROM OPEN STRUCTURES AS PER CITY OF OTTAWA STANDARD W23.
  - WATER SERVICE TO HAVE MORE THAN 2.4m OF COVER OR BE INSULATED AS PER CITY OF OTTAWA STANDARD DRAWING W22.
  - SUNKEN ENTRANCE DRAIN CANNOT CONNECT DIRECTLY TO WEEPING TILE ANY WATER IN SUNKEN ENTRANCE TO DRAIN DOWN INTO PERMEABLE FILL WHERE IT WILL BE PICKED UP BY WEEPING TILE SYSTEM.



NO.	REVISION NOTE	DATE	BY
06.	PHASE 1 BUILDING LAYOUT	02/11/25	JM
05.	UPDATED SNOW STORAGE	10/16/24	JM
04.	AS PER 3rd SUBMISSION COMMENTS	10/04/24	JM
03.	AS PER UPDATED SITE PLAN	07/04/24	JM
02.	AS PER 2nd SUBMISSION COMMENTS	02/12/24	JM

**BENCHMARK**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
ELEV: 92.96



**KOREAN COMMUNITY CHURCH**  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

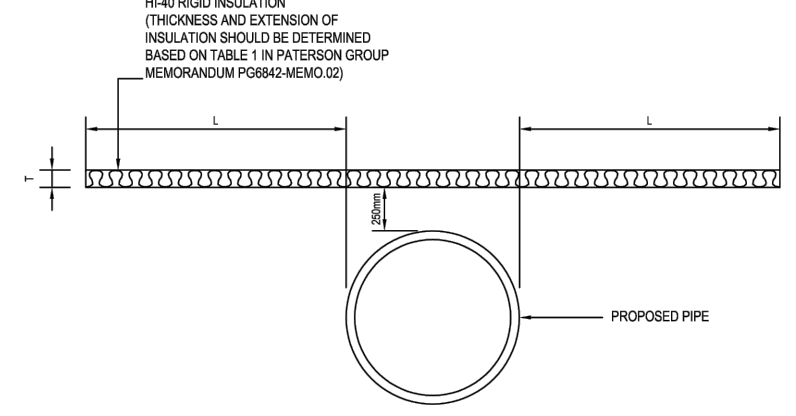
**SITE SERVICING PLAN**

**PEARSON ENGINEERING**  
PEARSONENG.COM PH. 705.719.4785

DESIGNED BY	NW/MWD	HORIZ SCALE	1:500	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	SS-1
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6

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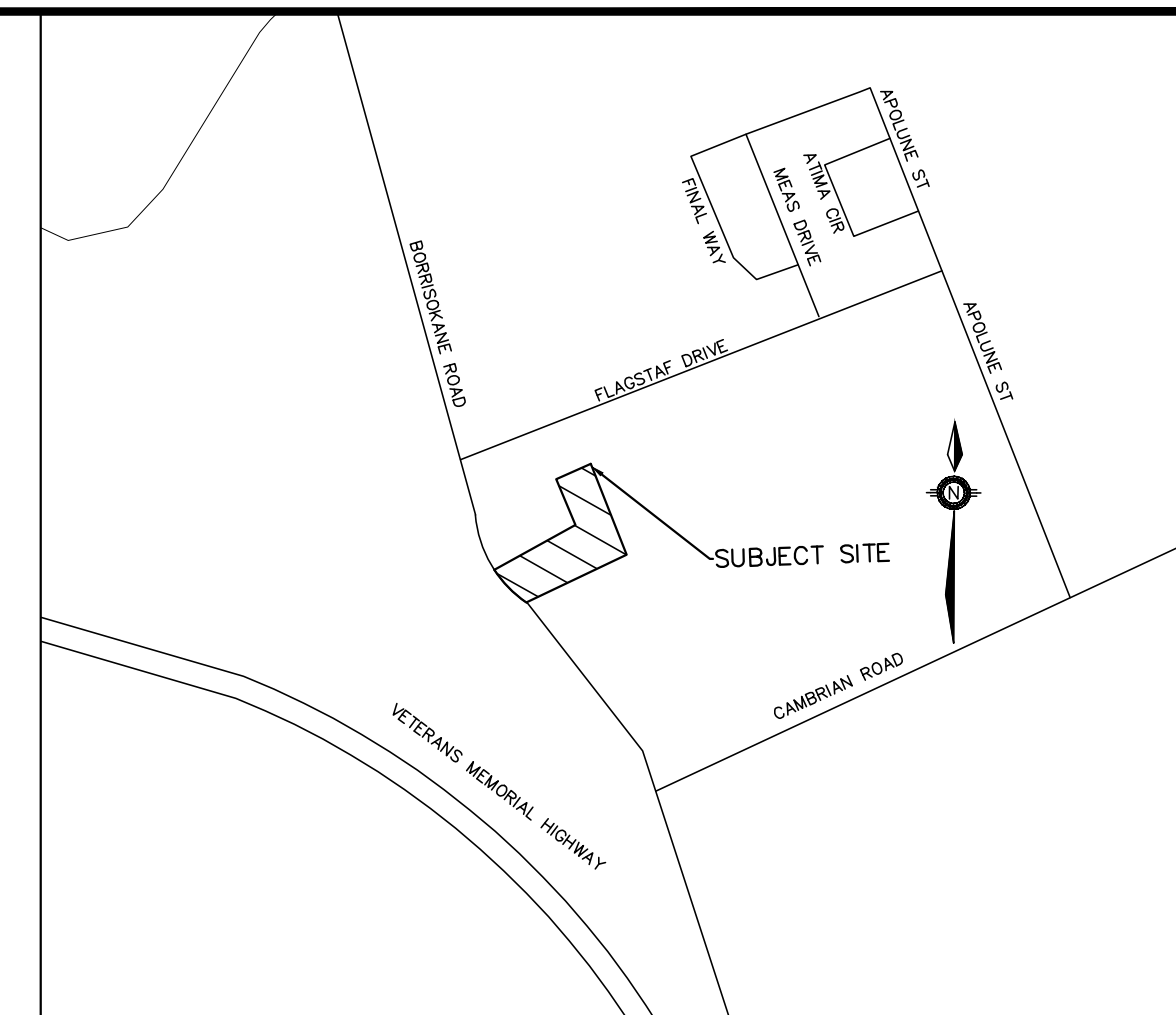




**PATERSON GROUP**  
SOLUTION ORIENTED ENGINEERING

**TYPICAL FROST INSULATION DETAIL**

Scale:	N.T.S.	Date:	02/20/24
Drawn by:	MPG	Report No.:	POSSA-MEMO-02
Checked by:	YZ	Drawing No.:	FIG.2
Approved by:	PA	Revision No.:	

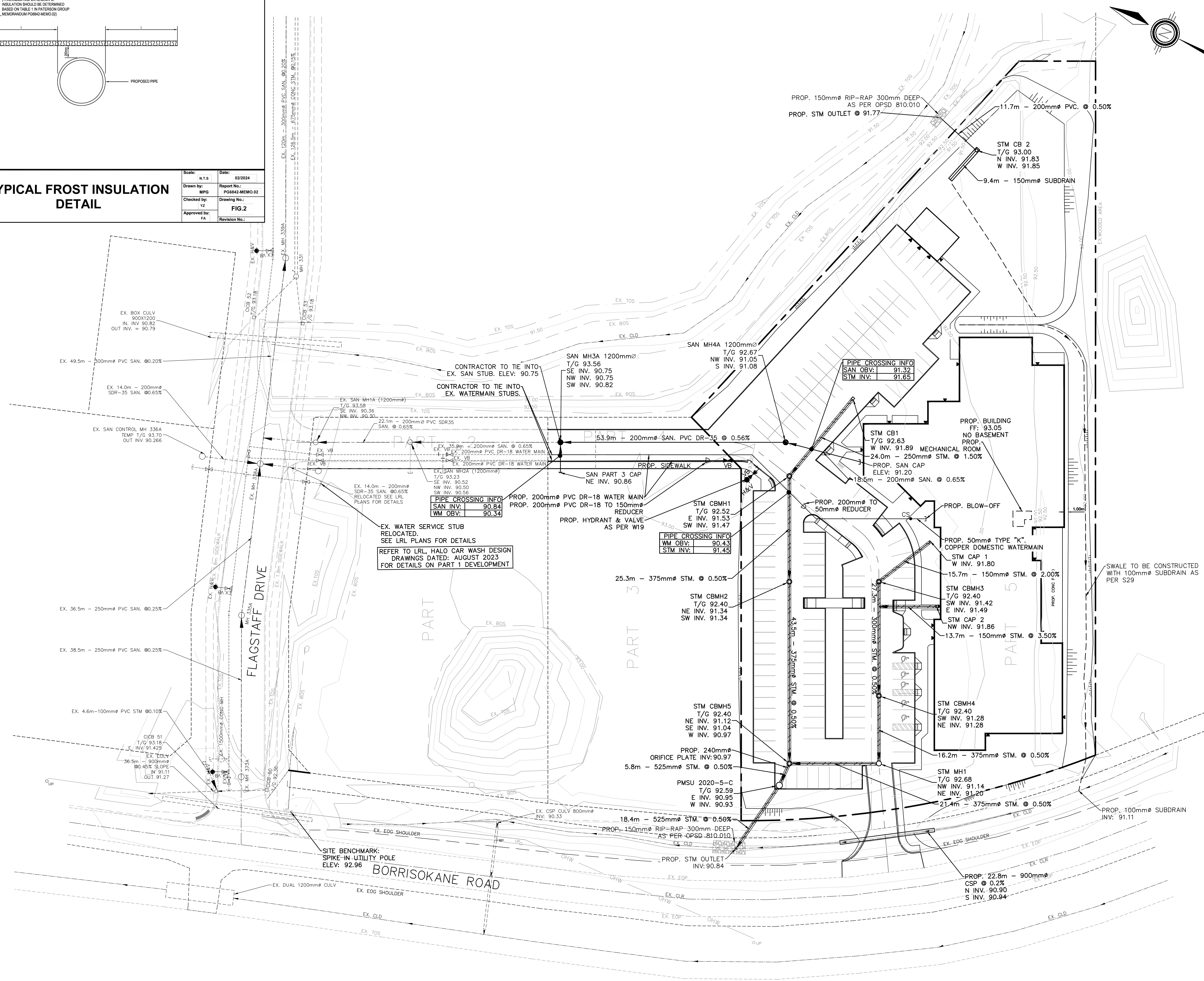


KEYMAP NTS

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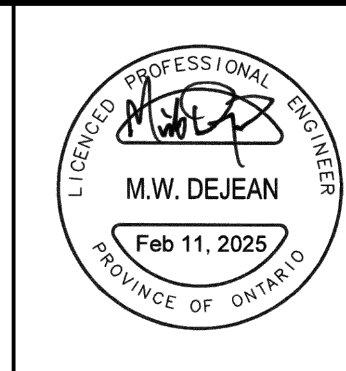
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- SERVICE CAP
- ◆ H&V FIRE HYDRANT
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- ▨ PROPOSED PIPE INSULATION AS PER SS-1 DETAIL
- ▲ OVERHEAD DOOR
- ▲ ENTRY LOCATION

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03.	AS PER UPDATED SITE PLAN	07/04/24	JM
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**BENCHMARK**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
ELEV: 92.96



**KOREAN COMMUNITY CHURCH**  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

**FUTURE BUILDING ADDITION SERVICING PLAN**

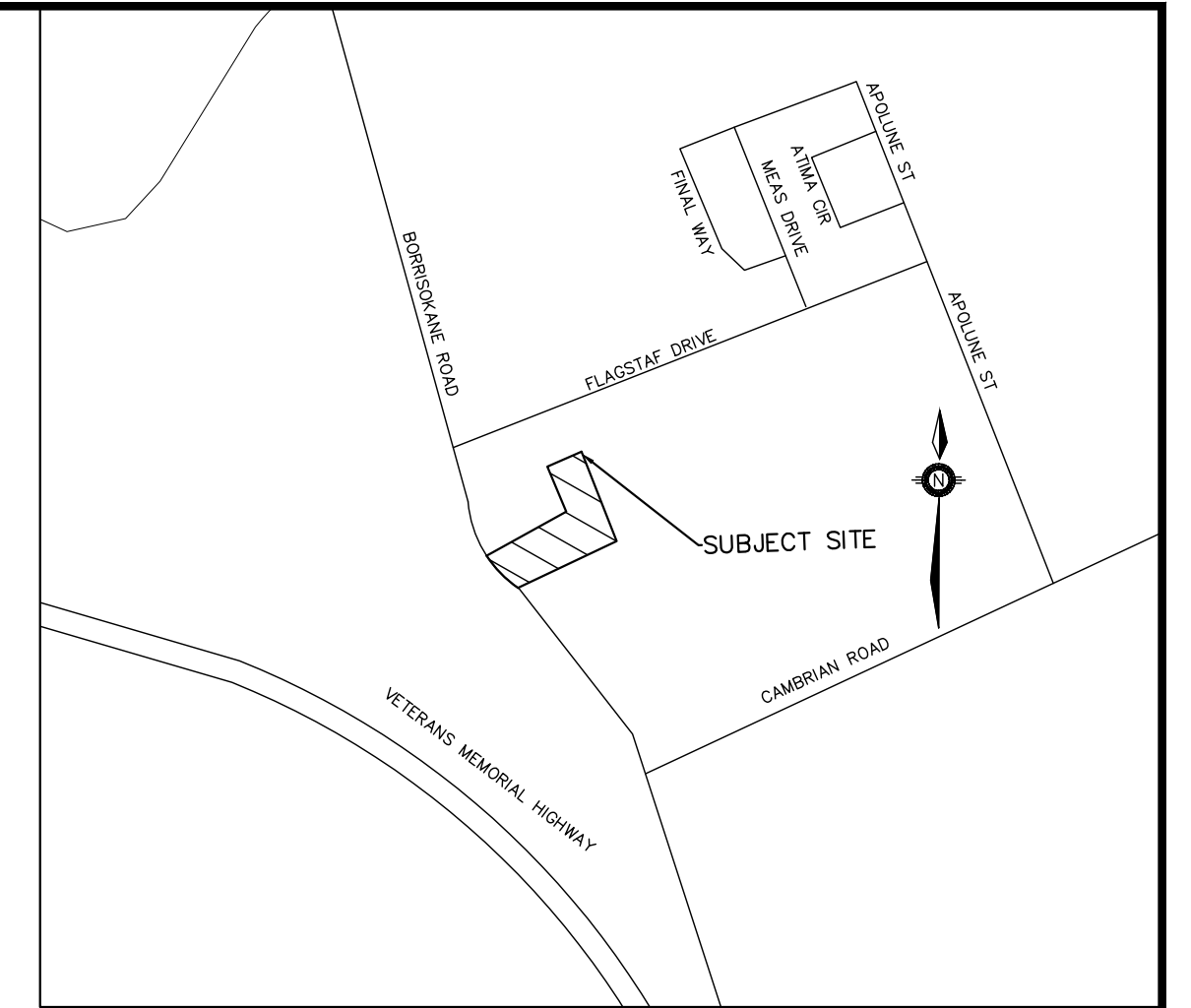
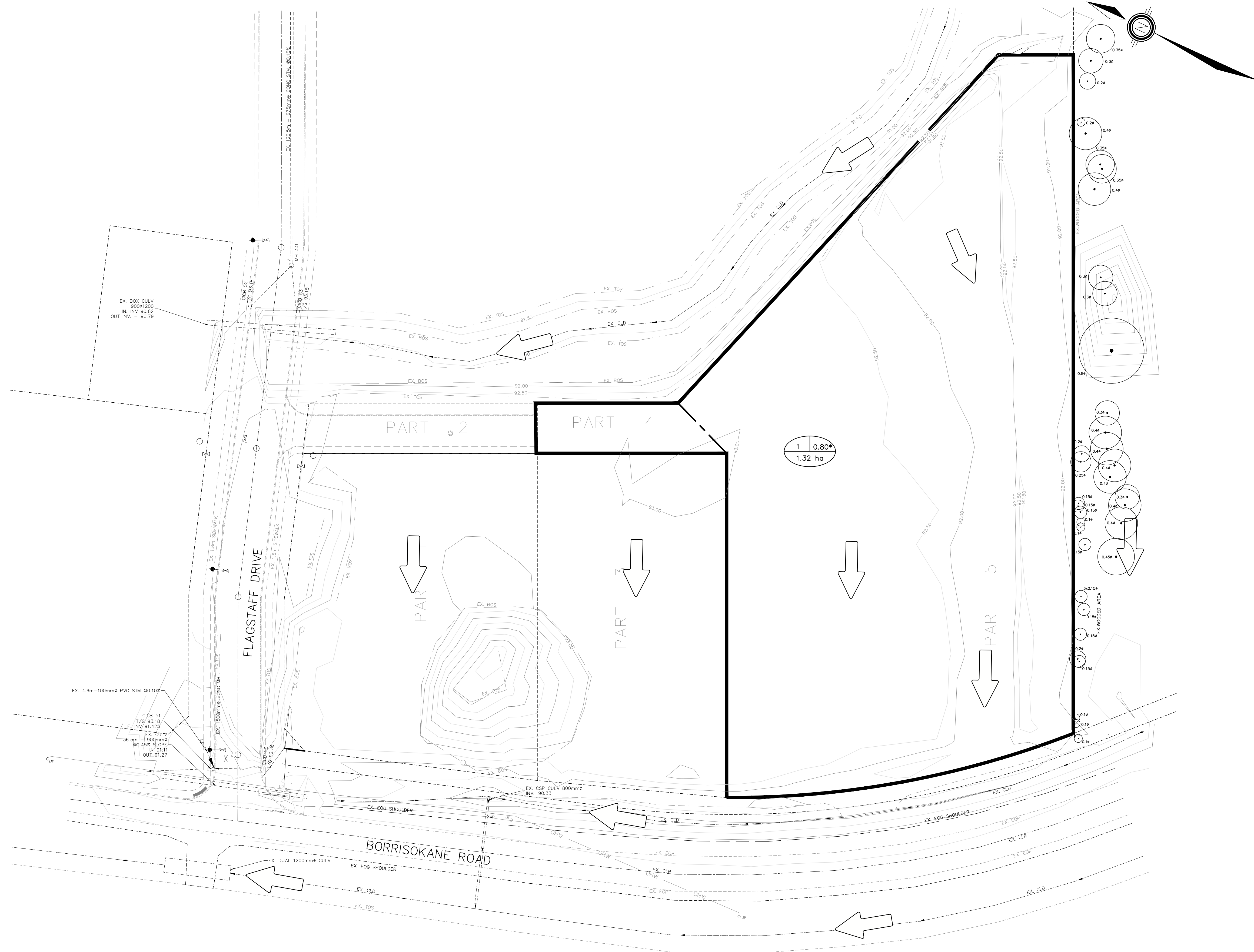
**PEARSON ENGINEERING**  
PEARSONENG.COM PH. 705.719.4785

DESIGNED BY	NW/MWD	HORIZ SCALE	1:500	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	SS-2
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6

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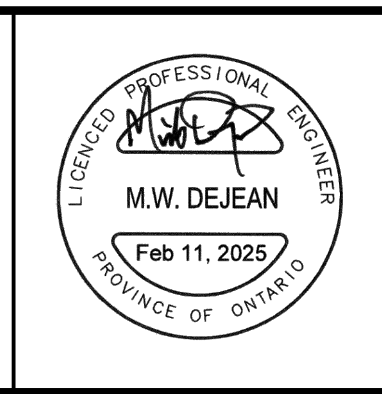
**LEGEND**

- OVERLAND FLOW DIRECTION
- CATCHMENT AREA (1, 0.75, 1.00 ha) RUNOFF COEFFICIENT (0.75, 1.00)
- CATCHMENT BOUNDARY

\*ALLOWABLE RUNOFF TAKEN FROM DSEL DESIGN BRIEF FOR THE HALF MOON BAY WEST SUBDIVISION PH. 3 DATED NOVEMBER 18, 2021

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**BENCHMARK**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
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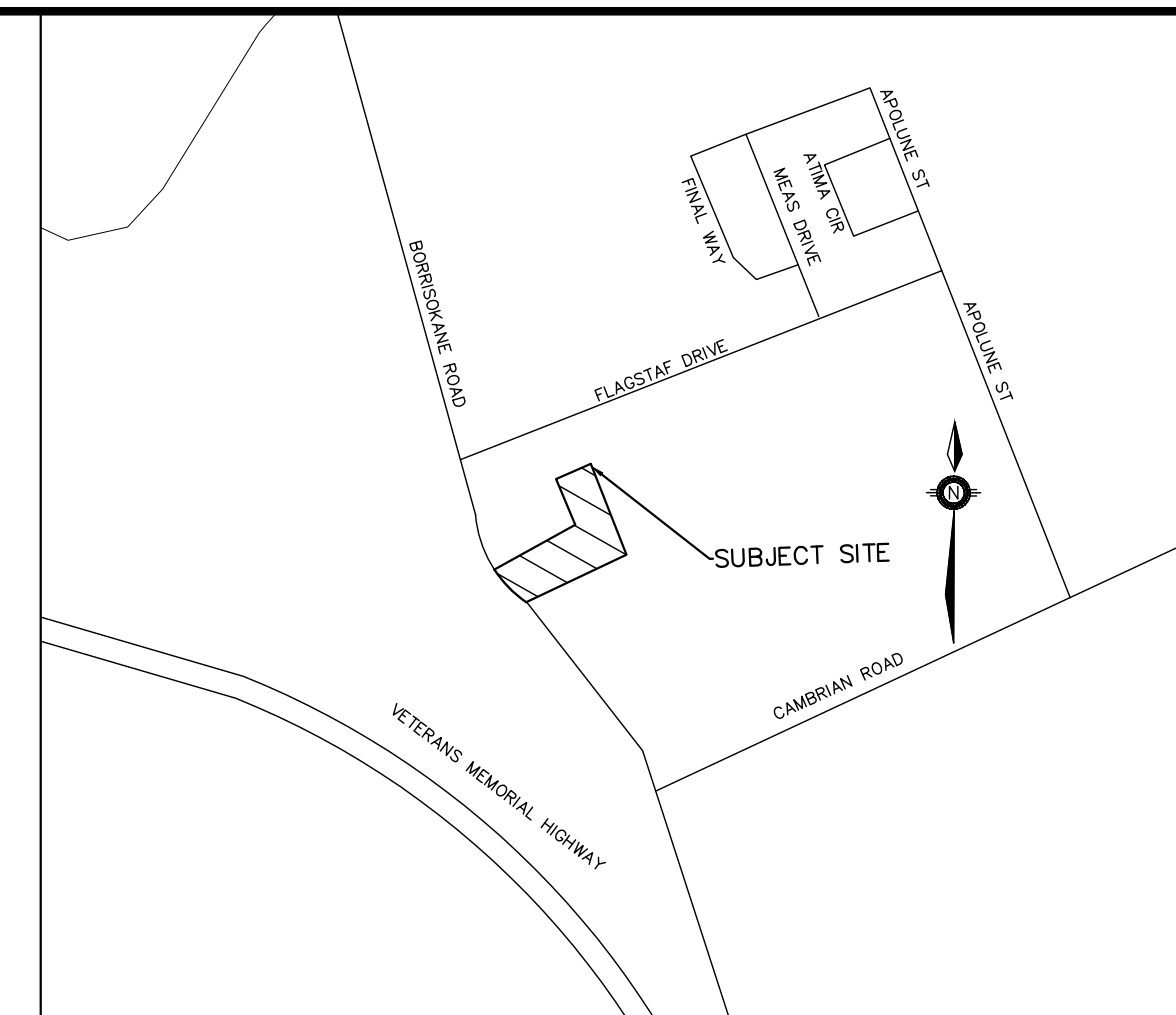
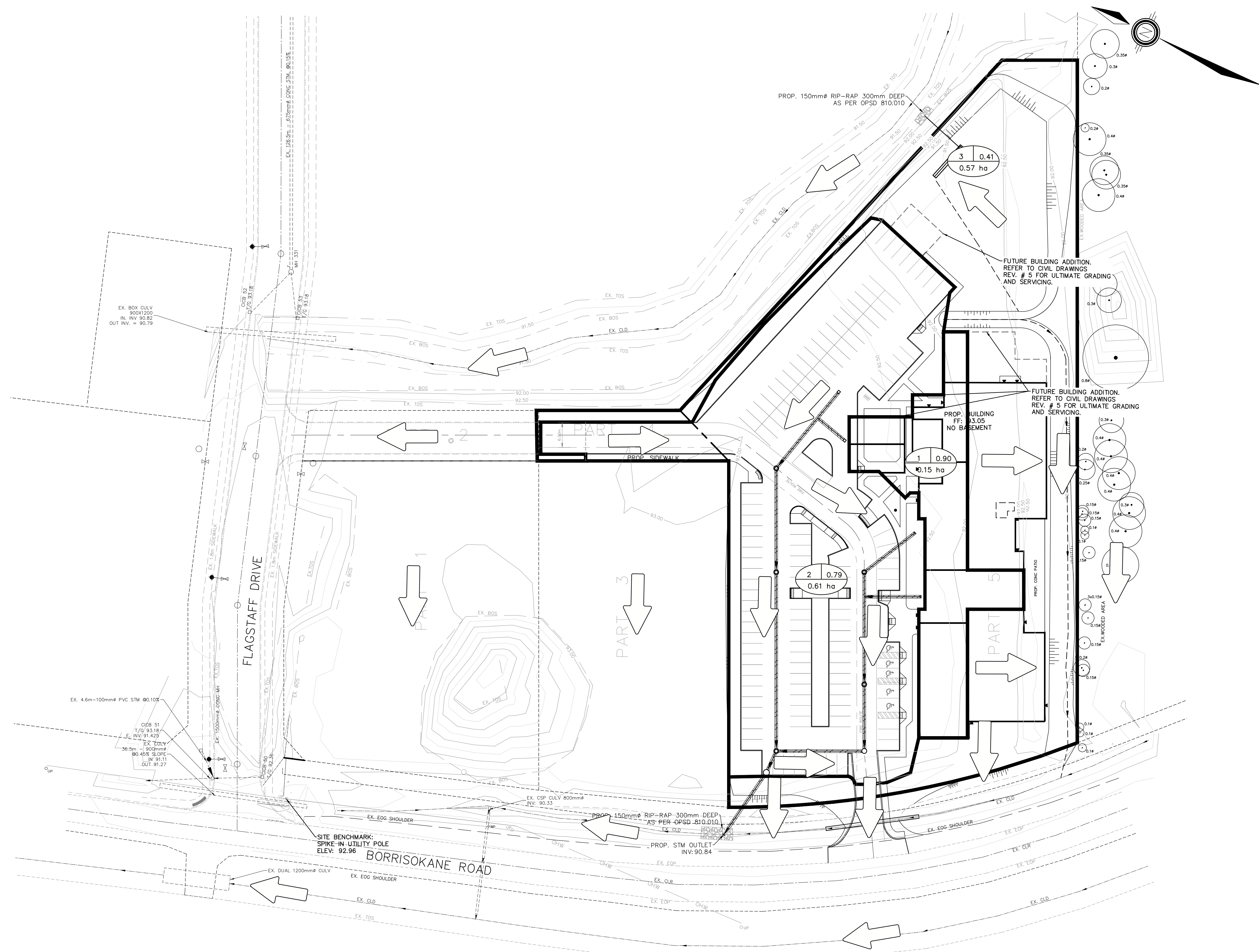
KOREAN COMMUNITY CHURCH  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

PRE-DEVELOPMENT STORM  
CATCHMENT PLAN

DESIGNED BY	NW/MWD	HORIZ SCALE	1:500	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	STM-1
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6



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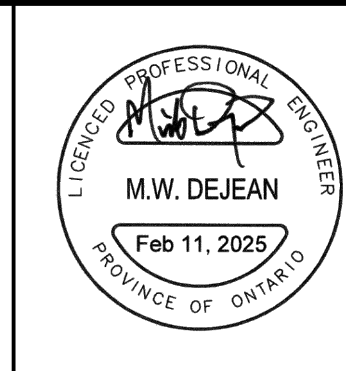
KEYMAP NTS

**LEGEND**

- OVERLAND FLOW DIRECTION
- CATCHMENT AREA (1, 0.79, 1.00 ha) RUNOFF COEFFICIENT  
AREA IN HECTARES
- CATCHMENT BOUNDARY

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**BENCHMARK**  
SPIKE-IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISOKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
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KOREAN COMMUNITY CHURCH  
3555 BORRISOKANE ROAD  
CITY OF OTTAWA

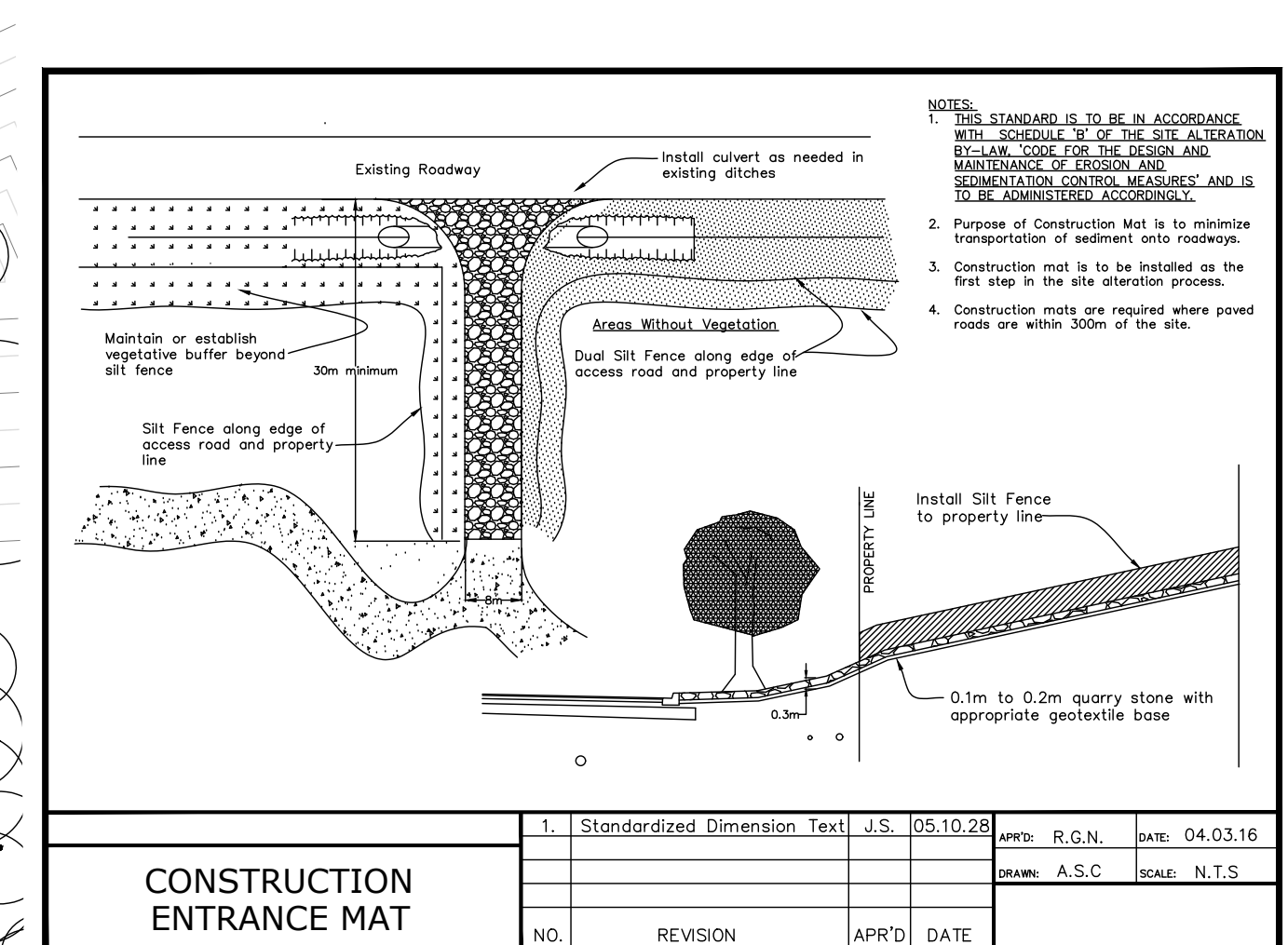
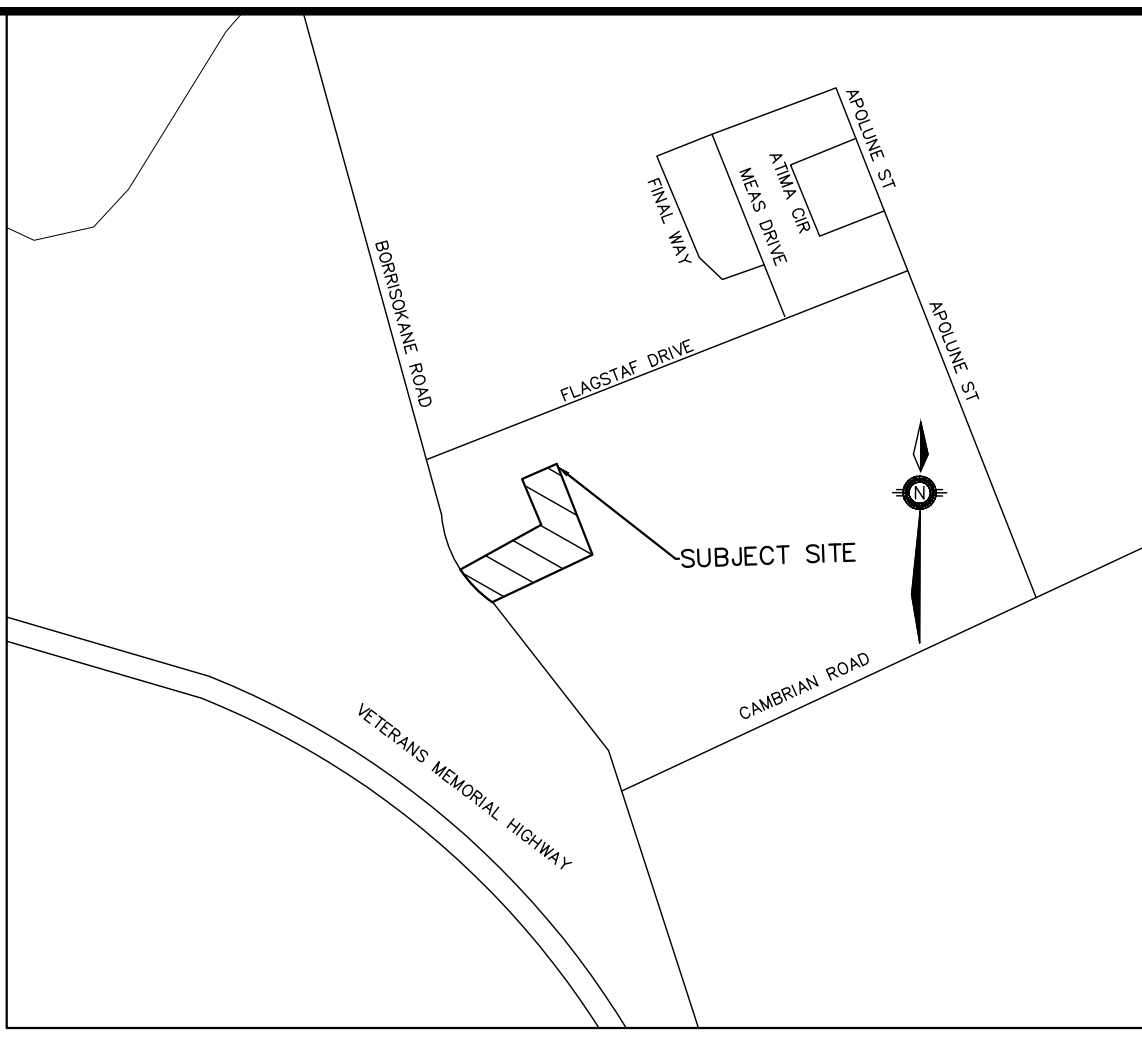
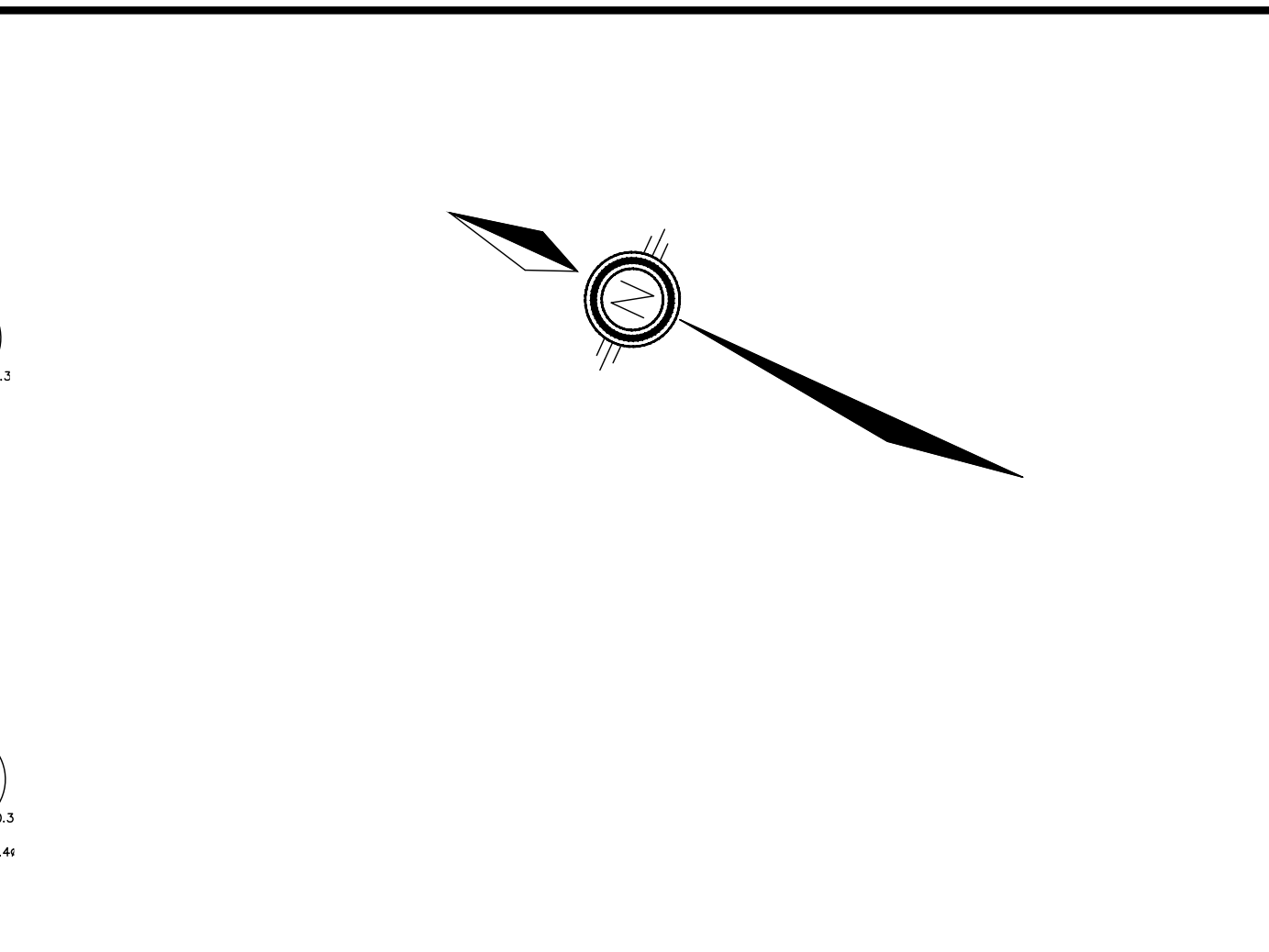
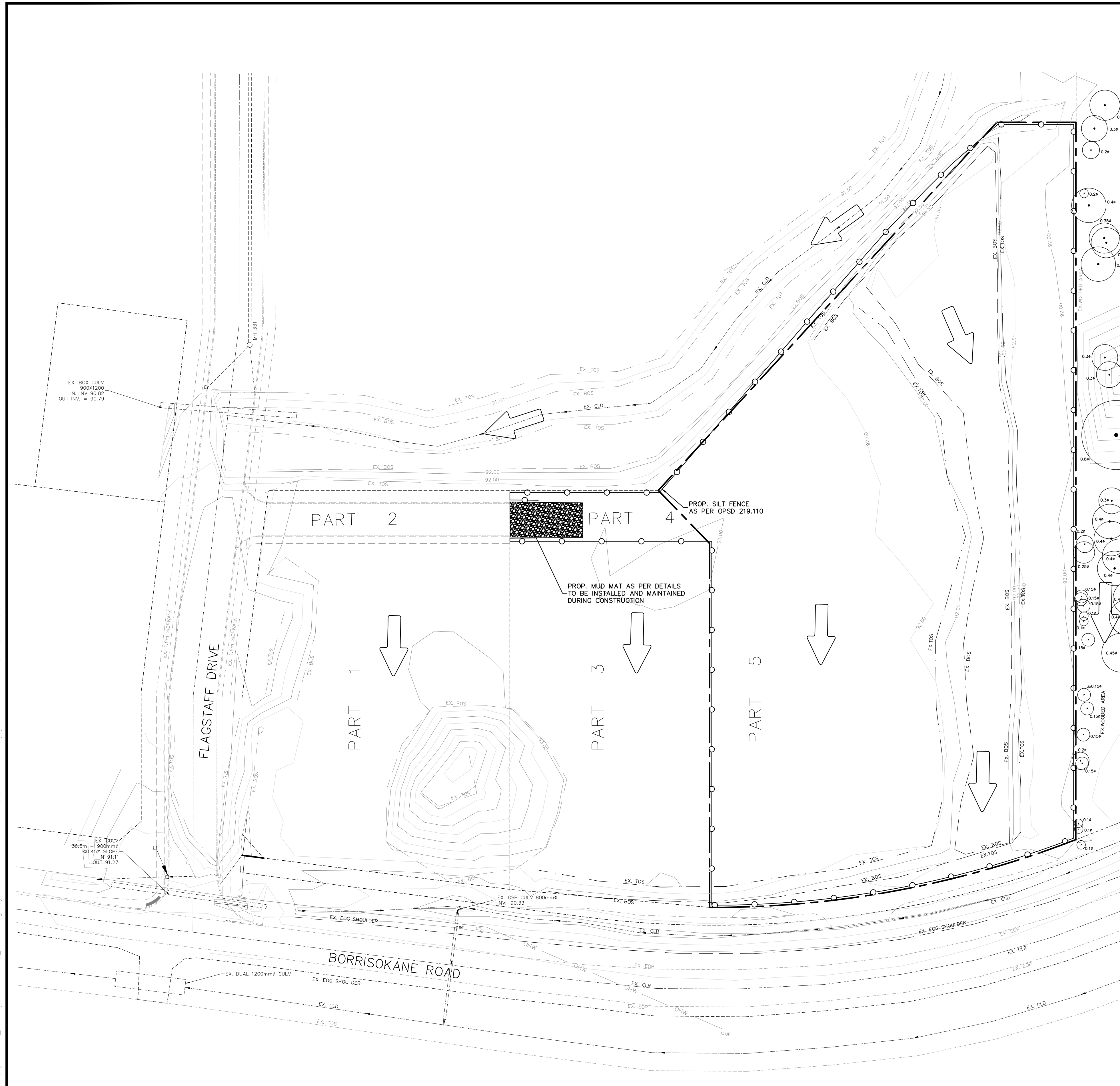


POST-DEVELOPMENT STORM  
CATCHMENT PLAN

DESIGNED BY	NW/MWD	HORIZ SCALE	1:500	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	STM-2
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6



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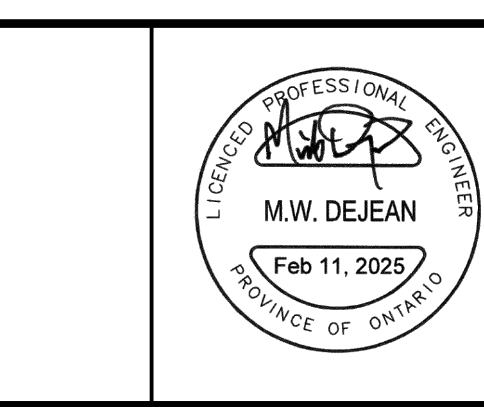
- KEYMAP NTS**
- LEGEND**
- EX. CB
  - EX. DCB
  - ⊙ EX. CBMH
  - EX. MH
  - EX. MH
  - HYD.
  - ▽ VB
  - PROP. SILT FENCE
  - PROPERTY LINE
  - ➔ OVERLAND FLOW ROUTE

- SEQUENCE OF CONSTRUCTION**
- ENGINEER TO BE NOTIFIED PRIOR TO INITIATION OF ANY ON SITE WORKS.
  - SILT FENCE AS PER OPSD 219.110
  - VEGETATION REMOVAL MAY COMMENCE AFTER ALL SILT FENCE IS INSTALLED AND APPROVED BY THE ENGINEER.
  - COMMENCE WITH EARTH WORKS AND SITE SERVICING.
  - INSTALLATION OF PROPOSED INFILTRATION FACILITIES TO THE TIME OF LANDSCAPING WORKS.
  - 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.
  - ALL DISTURBED GROUND LEFT INACTIVE FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH SEED, SOIL, MULCH OR OTHER ADEQUATE COVERING, AS INSTRUCTED BY THE ENGINEER.

- NOTES FOR SEDIMENT & EROSION CONTROL**
- 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.
  - 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.
  - 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.
  - 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.
  - CONTRACTOR SHALL OBTAIN A CURRENT COPY AND BECOME FAMILIAR WITH OPSD 577, CONSTRUCTION SPECIFICATION FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS WELL AS ALL APPLICABLE MUNICIPAL STANDARDS.
  - 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.
  - 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.
  - 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 BUT SHALL NOT EXCEED THIRTY DAYS OR SUCH LONGER PERIOD DEEMED ADVISABLE BY THE CITY OF OTTAWA'S PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT.
  - CONTRACTOR RESPONSIBLE FOR MUD TRACKING, PREVENTION, AND MAINTENANCE ON BORRISKANE RD.
  - ROADS TO BE LEFT IN A BROOM SWEEP CONDITION AT THE END OF EACH WORK DAY.
  - 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.

06.	PHASE 1 BUILDING LAYOUT	02/11/25	JM
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NO.	REVISION NOTE	DATE	BY

**BENCHMARK**  
SPIKE IN UTILITY POLE LOCATED ON THE SE CORNER OF THE BORRISKANE RD. AND PROMENADE FLAGSTAFF DR. INTERSECTION.  
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**KOREAN COMMUNITY CHURCH**  
3555 BORRISKANE ROAD  
CITY OF OTTAWA

**EROSION PROTECTION AND REMOVALS PLAN**

**PEARSON ENGINEERING**  
PEARSONENG.COM PH. 705.719.4785

DESIGNED BY	NW/MWD	HORIZ SCALE	1:500	PROJECT #	22099
DRAWN BY	JM	VERT SCALE	N/A	DRAWING #	EPR-1
CHECKED BY	MWD	DATE	JUNE 2023	REVISION #	6