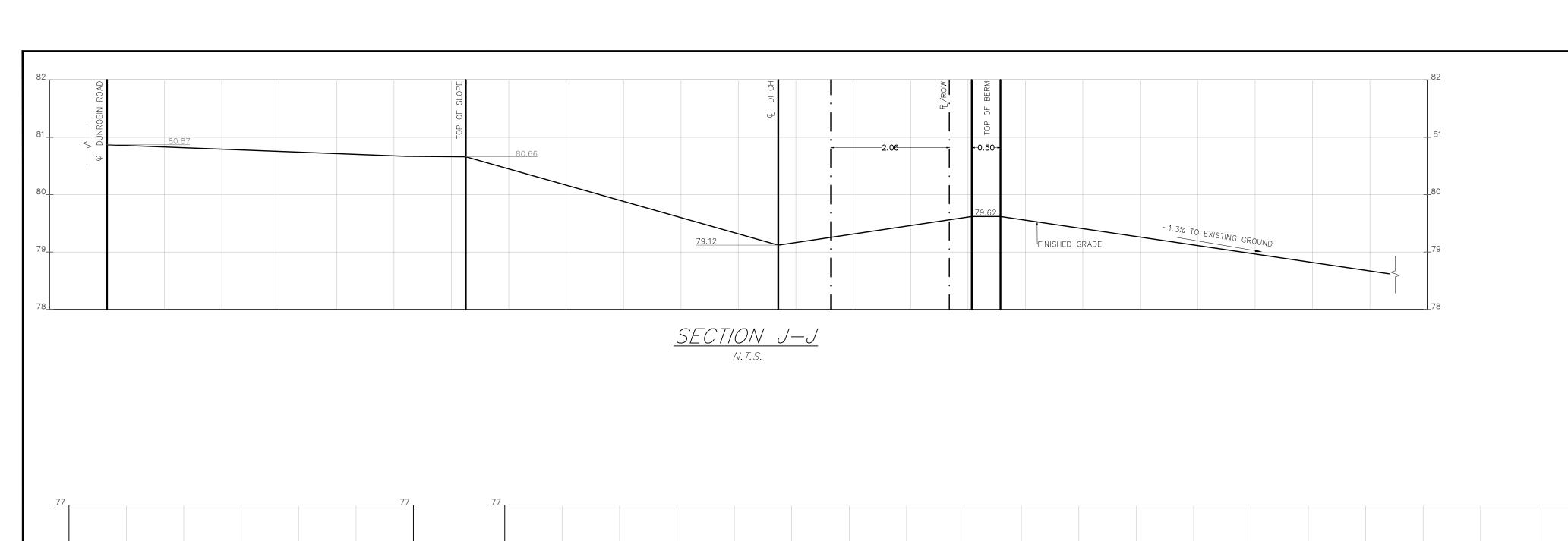


MUST BE CONDUCTED PRIOR TO PLACEMENT OF TOPSOIL OR SOD. ZBIGNIEW HAUDEROWICZ 200977 THIS IS NOT A LEGAL SURVEY. 10. HYDRO SERVICE TO BE INSTALLED ACCORDING TO THE SPECIFICATIONS OF EXISTING SERVICES INFORMATION SHOWN ARE BASED ON BEST CURRENT SERVICE PROVIDER AND THE MECHANICAL ENGINEER. INFORMATION. CONTRACTOR TO VERIFY EXACT LOCATION AND REPORT ANY Kollaard Associates
Engineers 11. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH MUNICIPAL 2025.MAR.27 2024/12/10 DISCREPANCIES TO KOLLAARD ASSOCIATES INC. STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS PROPOSED RESIDENTIAL SUBDIVISION S. E. deWit 4. CLIENT IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS. 12. ANY CHANGES MADE TO THIS PLAN MUST BE VERIFIED AND APPROVED BY CONTRACTOR TO VERIFY THAT APPROPRIATE PERMITS HAVE BEEN ACQUIRED PRIOR RESPONSE TO 5TH COMMENTS 2025.MAR.27 SC KOLLAARD ASSOCIATES, INC. 100079612 13. THIS DRAWING IS PART OF KOLLAARD ASSOCIATES DESIGN REPORT #200977 2024.DEC.10 SE 2050 DUNROBIN ROAD OTTAWA, ONTARIO RESPONSE TO 4TH COMMENTS AS NOTED . CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF UTILITIES. BOX 189 210 PRESCOTT STREET KEMPTVILLE, ONTARIO KOG 1JO FACSIMILE (613) 258-0475 PARTIAL RESPONSE TO 4TH COMMENTS ALL DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO 2024.SEP.10 SE (613) 860-0923 CONSTRUCTION. RESPONSE TO SECOND REVIEW COMMENTS 2024.APR.19 SE 8. THIS DRAWING IS NOT FOR CONSTRUCTION UNTIL ALL APPROVALS HAVE BEEN DETAILS DET DATE BY REVISION





FINISHED GRADE - BOTTOM OF SWALE

FINISHED GRADE - TOP OF SLOPE

150mmØ PERFORATED SINGLE WALL HDPE SUBDRAIN

RESPONSE TO 5TH COMMENTS

RESPONSE TO 4TH COMMENTS

PARTIAL RESPONSE TO 4TH COMMENTS

RESPONSE TO SECOND REVIEW COMMENTS

REVISION

2025.MAR.27

2024.DEC.10 SD

2024.SEP.10 SD

2024.APR.19 SI

DATE BY

FINISHED GRADE - TOP OF SLOPE

<sup>l</sup>20mm CLEAR STONE

DISTRIBUTION

AREA

SAND MANTLE AREA

MINIMUM LENGTH

15 m FROM

DISTRIBUTION PIPE

SEPTIC BED LEGEND

NOTES: 1. ALL DIMENSIONS ARE IN METRES, UNLESS OTHERWISE SPECIFIED; ALL ELEVATIONS 9. INSPECTION OF ROUGH GRADE BY KOLLAARD ASSOCIATES INC. AND MUNICIPALIT

MUST BE CONDUCTED PRIOR TO PLACEMENT OF TOPSOIL OR SOD.

SERVICE PROVIDER AND THE MECHANICAL ENGINEER.

KOLLAARD ASSOCIATES, INC.

10. HYDRO SERVICE TO BE INSTALLED ACCORDING TO THE SPECIFICATIONS OF

11. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH MUNICIPAL

13. THIS DRAWING IS PART OF KOLLAARD ASSOCIATES DESIGN REPORT #200977.

STANDARDS AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS

12. ANY CHANGES MADE TO THIS PLAN MUST BE VERIFIED AND APPROVED BY

\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_\_\_100y \_\_\_\_\_

150mmØ PERFORATED SINGLE WALL HDPE SUBDRAIN

OUTLINE OF SEPTIC

DISTRIBUTION PIPE -

OUTLINE OF SEPTIC

3. EXISTING SERVICES INFORMATION SHOWN ARE BASED ON BEST CURRENT

4. CLIENT IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS.

INFORMATION. CONTRACTOR TO VERIFY EXACT LOCATION AND REPORT ANY

6. CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF UTILITIES. ALL DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO

8. THIS DRAWING IS NOT FOR CONSTRUCTION UNTIL ALL APPROVALS HAVE BEEN

5. CONTRACTOR TO VERIFY THAT APPROPRIATE PERMITS HAVE BEEN ACQUIRED PRIOR

THIS IS NOT A LEGAL SURVEY.

TO ANY CONSTRUCTION.

CONSTRUCTION.

GRANTED.

DISCREPANCIES TO KOLLAARD ASSOCIATES INC.

BED AREA

BED AREA

FINISHED GRADE

BOTTOM OF SWALE

## NOTE: SUMP PUMPS TO BE UTILIZED FOR FOUNDATION DRAINAGE AS PER TECHNICAL BULLETIN ISTB-2019-02, DRAWING P01 & KOLLAARD GEOTECHNICAL REPORT 200977 TOF = VARIES - BACKFLOW PREVENTER 0.2m MIN. EQUIVALENT INSULATION PROTECTION ASPHALT SURFACE SPLASH PAD — CLEANOUT PROPOSED 100mm Ø PVC SDR 28 STORM SEWER PIPE SCHEDULE "80" 200mm Ø PVC SLEEVE FOUNDATION DRAINAGE LAYER 150mm SURROUND OF 20mm - CRUSHED STONE SUMP WITH PUMP (SUMP TO ALSO BE PERFORATED FOUNDATION DRAIN EQUIPPED WITH AN EMERGENCY BACKUP

SUBDRAIN OUTLET PROTECTION

C/W RODENT GRATE

200mm Ø ~ AS PER OPSD 206.050

CREEK BANK SLOPE BEYOND SWALE

ELEV = 73.42

<sup>l</sup>20mm CLEAR STONE

ELEV = 74.73

RIP RAP PROTECTION

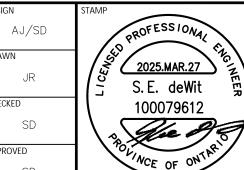
\_ ELEV = 74.17

TYPICAL FOUNDATION DRAIN AND SUMP DETAIL

Kollaard Associates 210 PRESCOTT STREET KEMPTVILLE, ONTARIO

FACSIMILE (613) 258-0475

(613) 860-0923



1E		PROJECT No.			
	ZBIGNIEW HAUDEROWICZ	200977			
ME		DATE			
	PROPOSED RESIDENTIAL SUBDIVISION	2024/12/10			
CATION		SCALE			
	2050 DUNROBIN ROAD OTTAWA, ONTARIO	AS NOTED			
		DRAWING No.			
	DETAILS (2)	DET(2)			

SEEDING - GENERAL

THE SEED MIXES BELOW SHOULD BE SOWED AT THE RATES RECOMMENDED BY THE SUPPLIER.

100 YR FLOOD ELEV

<u>▼</u>100y — 100y — 100y — 100y —

BOTTOM OF HARWOOD CREEK

= 75.33 JFSA 2022

2 YR FLOOD ELEV = 73.73 BASED ON FLOW DEPTH JFSA 2022

ELEV = 73.23

THE FOLLOWING SEED MIXES ARE INTENDED TO RESULT IN A VEGETATIVE COVER THAT REQUIRES NO MAINTENANCE. THE NATURALLY UN-MAINTAINED CONDITION WILL PROVIDE HEALTHY AND ADEQUATE COVER TO PROTECT THE SURFACES FROM EROSION, FACILITATE VEGETATIVE FILTRATION AND WILL PROVIDE NATURAL HABITAT FOR WILDLIFE.

THE SEED MIXES SHOULD BE SOWED IN COMBINATION WITH A NURSE CROP OF ANNUAL RYE OR OATS WHICH IS SOWED AT A RATE OF 22-25 KG/HA

STORAGE SWALE SEEDING

THE BOTTOM OF THE PROPOSED STORAGE SWALE SHOULD BE LIGHTLY SEEDED WITH SWEET CLOVER IN COMBINATION WITH A MIX SUCH AS WET MEADOW OR STORM POND SEED SUCH AS QS WET MEADOW MIXTURE AS SUPPLIED BY QUALITY SEEDS OR STORMPOND NATIVE SEED MIXTURE OR CREEK BANK NATIVE SEED MIXTURES SUPPLIED BY OSC SEEDS.

THE SIDES SLOPES OF THE STORAGE SWALE SHOULD BE SEEDED WITH A MEADOW MIX SUCH AS QS MEADOW MIXTURE AS SUPPLIED BY QUALITY SEEDS. PERIMETER AND OUTLET SWALE SEEDING

WHERE THE PROPOSED LONGITUDINAL SLOPE OF THE PERIMETER SWALES IS A MINIMUM OF 0.6 PERCENT, BOTH THE SIDES AND BOTTOM OF THE THE PERIMETER SWALES SHOULD BE SEEDED WITH A NATIVE MEADOW MIX SUCH AS QS MEADOW MIXTURE AS SUPPLIED BY QUALITY SEEDS. WHERE THE PROPOSED LONGITUDINAL SLOPE OF THE PERIMETER AND OUTLET SWALES IS LESS THAN 0.6 PERCENT, THE BOTTOMS OF THE PERIMETER SWALES SHOULD BE SEEDED WITH A NATIVE MIX SUCH AS WET MEADOW OR STORM POND SEED SUCH AS QS WET MEADOW MIXTURE AS SUPPLIED BY QUALITY SEEDS DISTURBED AND UNMAINTAINED REAR YARD AREAS

THE DISTURBED AND PROPOSED UNMAINTAINED AREAS IN THE REAR YARDS SHOULD BE LEVELED AND SEEDED WITH A NATIVE MEADOW MIX SUCH AS QS MEADOW MIXTURE AS SUPPLIED BY QUALITY SEEDS.

HARWOOD CREEK-OTTAWA, ONTARIO

- THE STANDARDS INDICATE MINIMUM DIMENSIONS THAT ARE TO BE INCORPORATED INTO THE DESIGN OF ANY NEW DEVELOPMENTS INVOLVING NEW AND EXISTING STREETS. ANY VARIATION TO THIS DESIGN WILL REQUIRE APPROVAL OF THE CITY OF OTTAWA. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH APPLICABLE CITY STANDARDS.
- ALL COMPOSITE UTILITY PLANS MUST ADHERE TO THE CITY OF OTTAWA'S STANDARD LOCATION OF UTILITY PLANT DRAWINGS IN ORDER TO RECEIVE APPROVAL THROUGH THE SITE PLAN CONTROL AND SUBDIVISION APPROVALS PROCESS.
- . TYPICAL CROSS SECTION BOULEVARD WIDTH SHALL BE MAINTAINED WHEN CONSTRUCTING CUL-DE-SACS AND CORNER LOTS REGARDLESS OF ROAD WAY GEOMETRY.
- WATERMAIN AND HYDRANTS TO BE INSTALLED ON SOUTH AND EAST SIDE OF R.O.W. WHEN POSSIBLE.
- SANITARY AND STORM SEWERS MAY BE INSTALLED OFF THE STREET CENTERLINE TO ACCOMMODATE LARGE SIZE SEWER PIPES AND STILL MAINTAIN THE CLEARANCES REQUIRED TO WATERMAINS.
- THE USE IN-ROAD CATCH BASINS INSTEAD OF CURB INLET CATCH BASINS SHALL BE APPROVED BY AN AUTHORIZED CITY REPRESENTATIVE.
- 8. THE USE OF BARRIER CURB AND MOUNTABLE CURB SHALL BE APPROVED BY AN AUTHORIZED CITY REPRESENTATIVE. MOUNTABLE CURB SHALL BE SPECIFIED FOR TYPICAL TOWNHOUSE DEVELOPMENTS.
- BUILDING SEWERS AND WATER SERVICES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARDS.
- 10. SANITARY AND STORM SERVICE CONNECTIONS WILL BE EXTENDED A MINIMUM OF 2.0m BEYOND THE PROPERTY LINE TO ALLOW FOR FUTURE CONNECTION. WATER SERVICE PIPE MATERIAL SHALL BE LAID IN ONE CONTINUOUS PIPE LENGTH (i.e. SPLICING
- AND JOINTING SHALL NOT BE PERMITTED) FROM INSIDE FACE OF THE BUILDING TO THE CURBSTOP AND FROM THE CURBSTOP TO THE MAIN / CORPORATION STOP. 1.5m CLEARANCE TO BE MAINTAINED AROUND WATER SERVICE POST.
- REFER TO UCC PROCEDURE MANUAL FOR UTILITY SPECIFICATION CONCERNING PLANT INSTALLATIONS.
- ALL PEDESTALS TO BE INSTALLED IN LINE WITH HYDRO TRANSFORMERS OR ON HOUSE SIDE OF TRENCH.
- THE BASE OF A HYDRO TRANSFORMER MUST BE LOCATED A MINIMUM OF 2.0m FROM THE EDGE OF A DRIVEWAY.
- 16. REQUIREMENTS FOR PROTECTIVE BOLLARDS AT TRANSFORMERS
  SHALL BE DETERMINED BY HYDRO OR HYDRO ONE ON A
  CASE BY CASE BASIS. SERVICE LATERALS MUST BE LOCATED A MINIMUM OF 3.0m FROM THE BASE OF A HYDRO TRANSFORMER.

- THE DEVELOPER SHALL SUPPLY AND INSTALL DUCTS FOR UTILITY CROSSINGS AT INTERSECTIONS.

19. TRAFFIC DUCT ALTERNATIVE PLACEMENT LOCATIONS ARE:

1) JOINT USE TRENCH (JUT) LOCATION OR

2) SAME OFFSET AS STREETLIGHT POLES IN A SEPARATE TRENCH.

20. OPTIONAL LOCATION FOR THE TRAFFIC COMMUNICATIONS DUCT IS A TRENCH LOCATED AT THE SAME OFFSET AS THE STREETLIGHT POLES.

21. TRAFFIC ELECTRICAL DUCTS SHALL BE PLACED IN JOINT USE DUCT BANKS 22. TRAFFIC HANDHOLES MAY BE LOCATED IN THE BOULEVARD AREA ADJACENT TO THE SIDEWALK.

23. USE OF THE FOUR PARTY—UTILITY TRENCH WILL BE CONSIDERED AS AN OPTION, BUT REQUIRES THE AGREEMENT OF ALL UTILITIES PRIOR TO THE THE DEVELOPMENT OF THE COMPOSITE UTILITY PLAN, AND MUST BE IN CONFORMANCE WITH THE GUIDELINES ESTABLISHED BY THE OTTAWA UTILITY COORDINATING COMMITTEE.

- SPECIFIC TREE SPECIES SHALL BE SELECTED FOR SOIL TYPES AND AVAILABLE SPACES FOR PLANTINGS.
- TREE PLACEMENT LOCATION AND TREE SPECIES WILL REQUIRE THE APPROVAL OF THE CITY. TREE PLANTING SHALL BE HAND EXCAVATED FOR THOSE LOCATIONS WITH LESS THAN 1 METRE CLEARANCE TO THE JUT.

EDGE OF TRAVELLED ROAD (PAVED OR GRAVE

SECTION A - A

I. APPROVED NEW CULVERT MATERIAL ONLY, MIN. 500mm UNLESS SPECIFIED OTHERWISE, DITCH AND CULVERT TO BE SIZED ACCORDING TO SEWER DESIGN GUIDELINE MANUAL.

3. ENTRANCE CULVERTS GREATER THAN 900mm DIA, OR MULTIPLE CULVERTS MUST BE APPROVED PRIOR TO INSTALLATION. CULVERTS OVER 12m LONG AND HEADWALLS REQUIRE APPROVAL AND PERMIT BY THE CITY.

7. WHERE SPECIFIED, APPROVED DITCHED PIPE TO BE AT A MINIMUM GRADE OF 0.5% AND BE NON-PERFORATED TYPE UNDER CULVERTS.

PRIVATE ENTRANCE

**DETAIL - RURAL** 

8. SEE MS 22.15 FOR APPROVED PRODUCTS. UNLESS OTHERWISE STATED IN THE CONTRACT, CONSTRUCTION AS PER OPSS 421.

2. LENGTH OF CULVERTS IS DEPENDENT UPON THE DEPTH OF DITCH AND WIDTH OF ENTRANCE.

5. REMOVE ALL ORGANICS FROM SIDE SLOPES AND DITCH BOTTOM PRIOR TO PLACING CULVERT AND GRANULARS.

4. IN FROST SUSCEPTIBLE SOILS SPECIAL BEDDING CONDITIONS WILL BE REQUIRED.

9. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

6. CULVERT TO BE COUNTERSUNK 10% OF ITS DIAMETER BELOW FINISHED DITCH INVERT.

\_ € CROWN OF DRIVEWAY

- EDGE OF DRIVEWAY T/SLOPE

SEE NOTE 4

AS PER DETAIL S9 SEE NOTE 7

DATE: MAY 2001

DWG. No.: S26

REV. MARCH 2016

PLAN VIEW

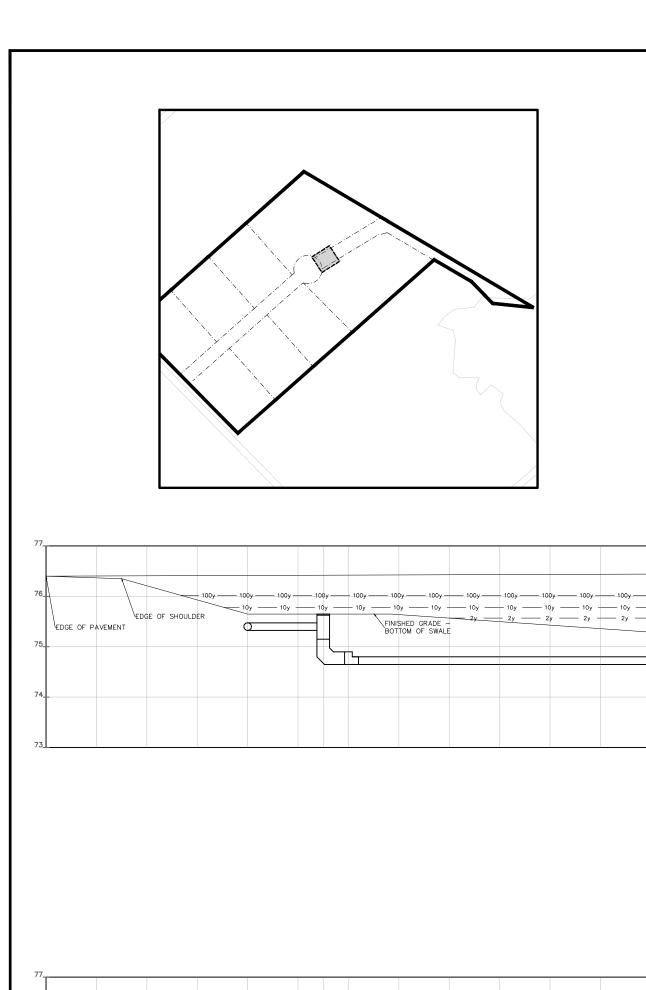
ROAD SHOULDER

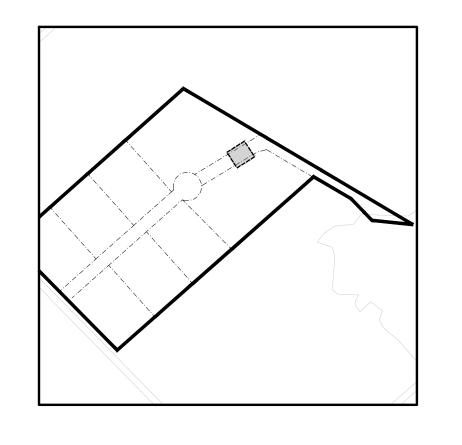
|.|.|.|.|.|.|

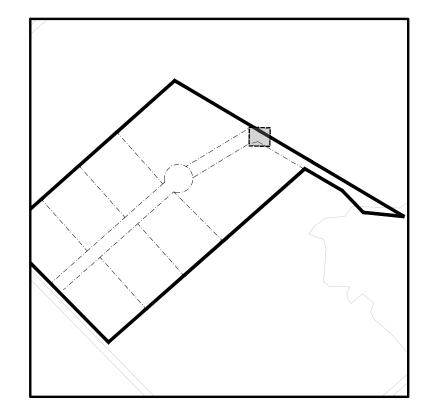
STANDARD NOTES **ROAD ALLOWANCE** 

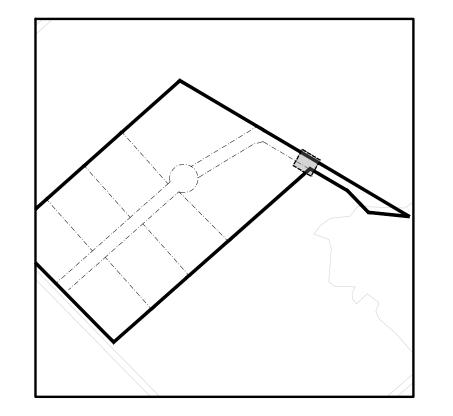
MARCH 2009

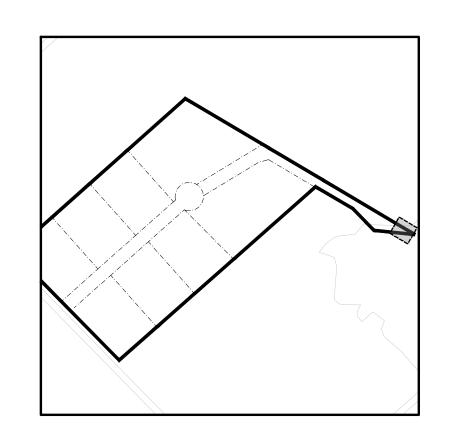
-BOTTOM OF DITC

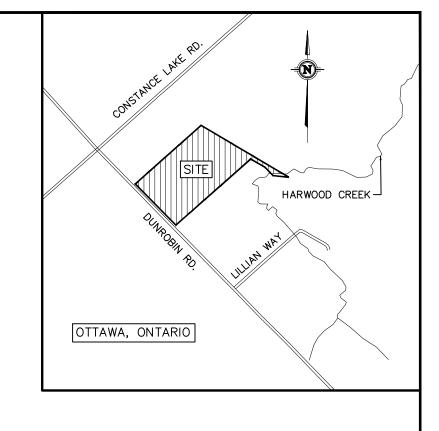


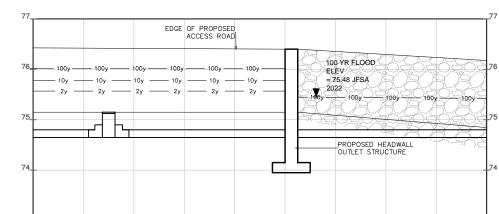


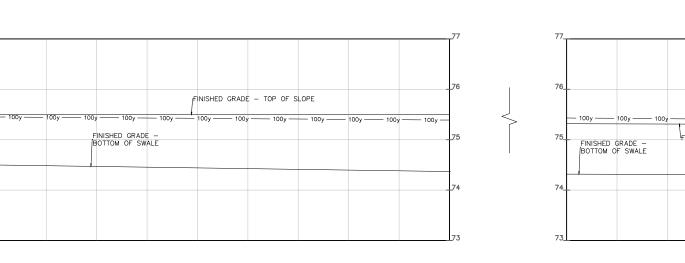


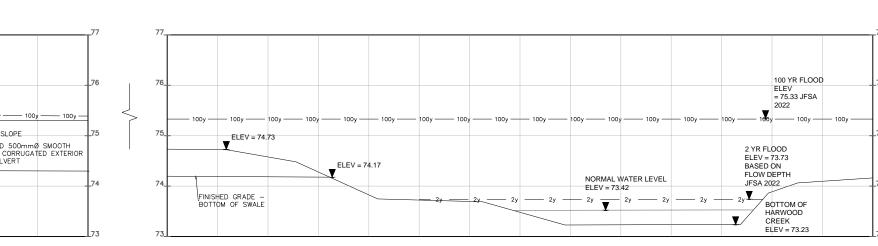








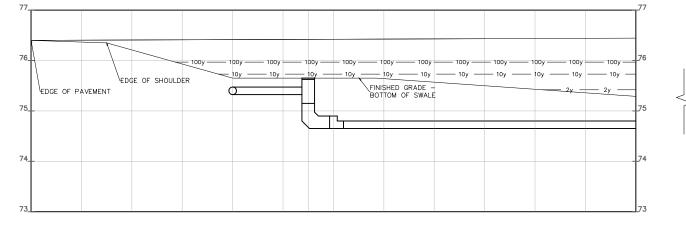


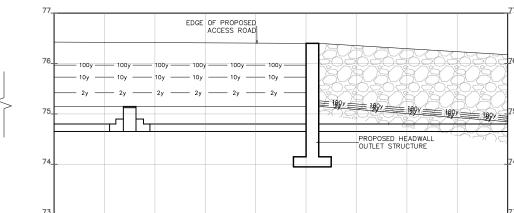


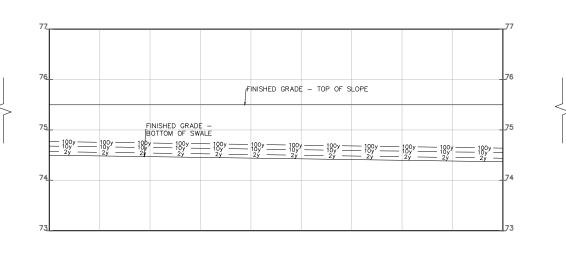
SWM POST DEVELOPMENT ELEVATIONS

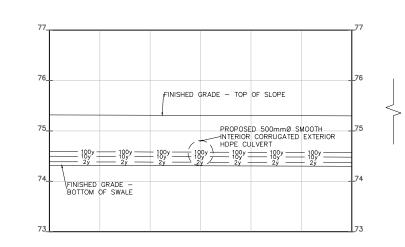
(COINCIDENT EVENT)

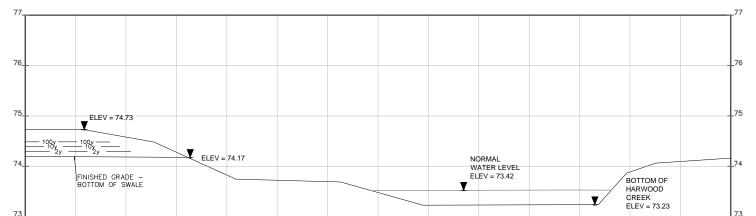
SCALE = 1:75



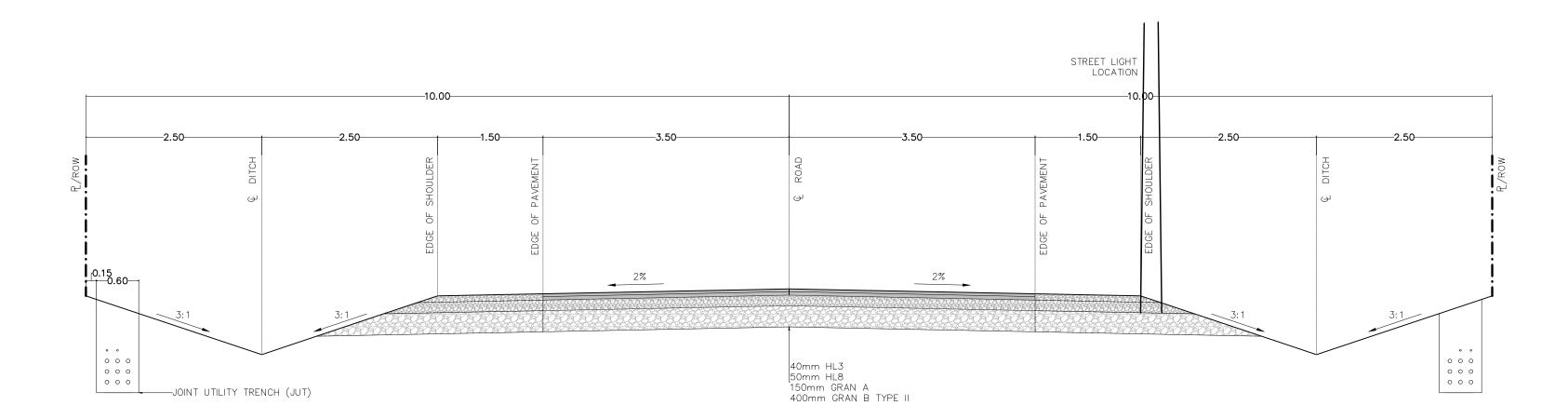


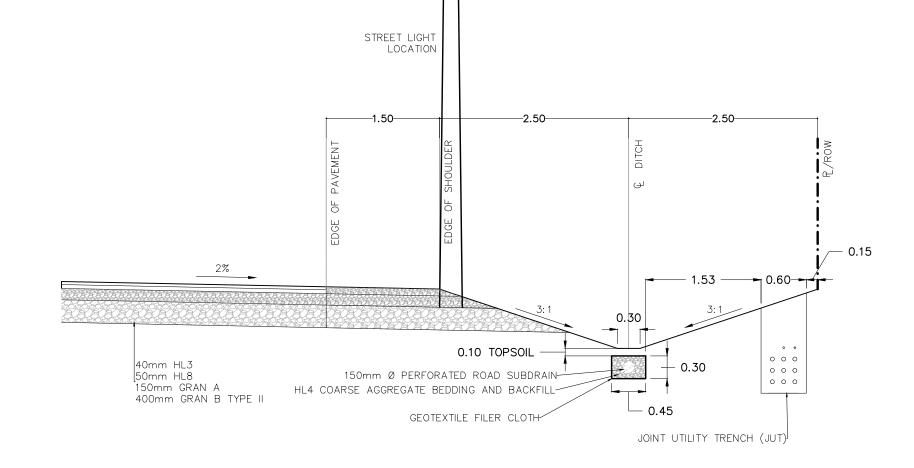






## SWM POST DEVELOPMENT ELEVATIONS (NON-COINCIDENT EVENT) SCALE = 1:75





TYPICAL ROAD SECTION

SCALE = 1:50

TYPICAL CUL-DE-SAC SECTION

SCALE = 1:50

NOTES: 1. ALL DIMENSIONS ARE IN METRES, UNLESS OTHERWISE SPECIFIED; ALL ELEVATIONS 9. INSPECTION OF ROUGH GRADE BY KOLLAARD ASSO	CIATES INC. AND MUNICIPALITY CONSULTANTS		DESIGN	CLIENT NAME		PROJECT No.
ARE IN METRES.  MUST BE CONDUCTED PRIOR TO PLACEMENT OF T			SD SOFESSION	<b>\</b>	ZBIGNIEW HAUDEROWICZ	200977
2. THIS IS NOT A LEGAL SURVEY. 10. HYDRO SERVICE TO BE INSTALLED ACCORDING TO	HE SPECIFICATIONS OF		l seker	$\langle \lambda   1$		2000, /
3. EXISTING SERVICES INFORMATION SHOWN ARE BASED ON BEST CURRENT SERVICE PROVIDER AND THE MECHANICAL ENGINEE	· · · · · · · · · · · · · · · · · · ·	(IX) Kollaard Associates	DRAWN &	PROJECT NAME		DATE
INFORMATION. CONTRACTOR TO VERIFY EXACT LOCATION AND REPORT ANY 11. ALL MATERIALS AND CONSTRUCTION TO BE IN ACC		(IL) Kollaard Associates	/ 💸 ( 2025.MAR.2)		DDODOCED DECIDENTIAL CUIDDIVICION	2025 /03 /27
DISCREPANCIES TO KOLLAARD ASSOCIATES INC.  STANDARDS AND ONTARIO PROVINCIAL STANDARDS		<b>       </b>   Nonaaru Associates	JR JS CE doWi	_ [1]	PROPOSED RESIDENTIAL SUBDIVISION	2025/03/27
4. CLIENT IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS.  12. ANY CHANGES MADE TO THIS PLAN MUST BE VERI	IED AND APPROVED BY	Engineers	S. E. deWi	72		
5. CONTRACTOR TO VERIFY THAT APPROPRIATE PERMITS HAVE BEEN ACQUIRED PRIOR KOLLAARD ASSOCIATES, INC.		Engineers	CHECKED 10007961	PROJECT LOCATION		SCALE
TO ANY CONSTRUCTION.  13. THIS DRAWING IS PART OF KOLLAARD ASSOCIATES	DESIGN REPORT #200977.				2050 DUNROBIN ROAD OTTAWA, ONTARIO	AS_NOTED
6. CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF UTILITIES.					2000 BOTTITODITE TOTAL OTTALLING	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		POV 180		761		
7. ALL DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO		BOX 189 210 PRESCOTT STREET (C4.7) CCC CA.7	SD	25		DRAWING No.
<ol> <li>ALL DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.</li> </ol>	4. RESPONSE TO 5TH COMMENTS 2025 MAR.27 SD	BOX 189 210 PRESCOTT STREET KEMPTVILLE, ONTARIO (613) 860-0923	APPROVED POLICE	(RR) DRAWING		DRAWING No.
7. ALL DIMENSIONS TO BE VERIFIED ON SITE BY CONTRACTOR PRIOR TO	4. RESPONSE TO 5TH COMMENTS 2025.MAR.27 SD	■ 180 282-222	APPROVED SD OF ON	RAPIO DRAWING	DETAILS(3)	DRAWING No.  DET(3)

