				OIVALLI			510	
1.	ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.	10.	ALL STORM SERVICES TO BE EQUI	PPED WI	TH APPROVED BACKWATER VALVES.			
2.	THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR IS RESPONSIBLE				ALL BE AS PER CITY OF OTTAWA STD. S24, S24.	AND S25.		
	TO PROVIDE THE LOCATION AND STATUS OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION OF PLANT AND EQUIPMENT FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING		SAFETY PLATFORMS SHALL BE IN A		ANCE WITH OPSD 404.02. NCE WITH CITY OF OTTAWA SPECIFICATIONS A	ND OPSD 1003	3 01	
	JURISDICTION.		STORM SEWER MANHOLES SERVIN	IG LOCAL	_ SEWERS LESS THAN 900mm SHALL BE CONST	RUCTED WITH		۱ SU
3.	THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND ELEVATIONS OF EXISTING SERVICES AND STRUCTURES TO BE CONNECTED TO AND EXISTING SERVICES THAT MAY BE DAMAGED OR CAUSE CONFLICTS PRIOR TO	15			E BENCHING IN ACCORDANCE WITH OPSD 701 . BE IN ACCORDANCE WITH CITY OF OTTAWA ST		SD 705 0'	20
	CONSTRUCTION OF ANY NEW SEWER, WATER AND/OR STORM WATER WORKS. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES, INTERPRETATIONS, CHANGES AND ADDITIONS TO THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE	10.			L BE AS PER CITY OF OTTAWA STD. S19 FOR RE			
	ENGINEER, WHEN NOTED AND BEFORE PROCEEDING WITH CONSTRUCTION WORKS. DO NOT CONTINUE CONSTRUCTION IN AREAS WHERE DISCREPANCIES APPEAR UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED.	16.	CURB INLET TYPE CATCH BASIN (C AS PER CITY OF OTTAWA STD. S22		LL BE IN ACCORDANCE WITH CITY OF OTTAWA	STD. S3. AND (GRATE SI	HAL
4.	ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED. ALL DRAWINGS SHOULD NOT BE SCALED BY THE CONTRACTOR. ANY MISSING OR QUESTIONABLE	17.		LEADS S	HALL BE 200mmØ AND 250mmØ (MIN) RESPECT	VELY, 1.0% SL	_OPE (MII	٩.)
	DIMENSIONS ARE TO BE CONFIRMED WITH THE ENGINEER IN WRITING.	18.	UNLESS OTHERWISE NOTED.	IN MANH	OLES SHALL HAVE SUMPS WITH 300m DEPTH, U	INLESS OTHER	RWISE NO	DTE
-	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.				BASINS ARE INSTALLED AT THE LOW POINT OF			
0.	REGULATIONS FOR CONSTRUCTION PROJECTS", THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.	20.			DESIGNED BASED ON BEDDING CONDITIONS SP HE CONTRACTOR SHALL BE REQUIRED TO PRO			DIN
7.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE		DIFFERENT TYPE OF BEDDING OR	A HIGHEF	R PIPE STRENGTH AT HIS OWN EXPENSE AND S ENT REPAIRS MADE NECESSARY BY THE WIDEN	HALL ALSO BE		
		21.			INSPECTION OF ALL NEWLY INSTALLED STORM BE PERFORMED IMMEDIATELY AFTER SEWERS		EXISTIN	3
8.	ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE.	W	ATERMAIN NOTES					
9.	THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON CITY STREETS. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO THE M.T.O. BOOK 7 AND T.A.C MANUAL OF	1.			TION SHALL CONFORM TO THE LATEST REVISIO ONTARIO PROVINCIAL STANDARD DRAWINGS (
	UNIFORM TRAFFIC CONTROL DEVICES (LATEST AMENDMENT).		(OPSS).	JTAVVA,	UNTARIO PROVINCIAL STANDARD DRAWINGS (JFSD) AND SF	ECIFICA	101
10.	THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.	2.			Y WATER WORKS INSPECTOR IS ON SITE. WAT ATION BACKFILL AND ROAD REINSTATEMENT B			3 BY
11.	THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.	3.	ALL PVC WATERMAINS SHALL BE E	QUAL TO	AWWA C-900 CLASS 150, SDR 18, OR APPROVE	D EQUAL.		
	EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.	4.			L BE IN ACCORDANCE WITH CITY OF OTTAWA S ER MATERIAL SHALL BE SPECIFIED BY PROJEC			
13.	THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR.	5.	ALL PVC WATERMAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTA		D WITH A 10 GAUGE STRANDED COPPER TWU C W36.	R RWU TRACE	ER WIRE I	N
14.	THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED.	6.			COPPER AS PER CITY OF OTTAWA STD. W26 U ARE TO BE INSTALLED AS PER CITY OF OTTAW.			
15.	ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED AY THE CONTRACTOR. REVIEW WITH ENGINEER AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.			(100mm",	EXTENDING FROM THE INVERT T0 1.0m ABOVE			
16.	ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT.	7.	CATHODIC PROTECTION IS REQUIR	RED ON A	LL METALLIC FITTINGS AS PER CITY OF OTTAW	A STD. W40 AN	JD W42.	
17.	ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. FOR GEOTECHNICAL INFORMATION REFER		VALVE BOXES SHALL BE INSTALLED					A • ·
18	TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY EXP. SERVICES INC, DATED FEBRUARY 21, 2025. THE CONTRACTOR SHALL APPRAISE HIS/HER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE	9.	ALL FIRE HYDRANTS TO BE INSTAL CITY STANDARD CROSS SECTIONS		PER CITY STANDARD W19 AND LOCATED AS PER	CULY STANDA	יאי 18 יאי.	μNΕ
	ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. THE CONTRACTOR SHALL NOT MAKE ANY CLAIM FOR ANY EXTRA COST DUE TO ANY SUCH GROUND CONDITIONS VARYING FROM THOSE ANTICIPATED BY THE CONTRACTOR.		ALL WATERMAINS TO BE INSTALLE					
19	DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED "ISSUED FOR CONSTRUCTION".				CITY OF OTTAWA DWGS: W25.3 AND W25.4, W25.			I ES
-	FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY ANNIS O'SULLIVAN VOLLEBEK. DATED JUNE 7, 2023.		THAN HALF THAT RECOMMENDED I	BY THE N	IANUFACTURER.			
21.	CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.		DISINFECTION AND TESTING OF WA		N TO BE IN ACCORDANCE WITH CITY OF OTTAW	A STANDARDS	3.	
22.	ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING.				MPORARY CAPS, PLUGS AND BLOW-OFFS AND I	IOZZLES REQU	UIRED FC)R
23.	STREET LIGHTING SHALL BE TO CITY OF OTTAWA STANDARDS.	16	TESTING AND DISINFECTION OF TH		RMAN. VER AND BELOW SEWER SHALL BE IN ACCORD.			
SA	ANITARY SEWER NOTES		STD. W25.2 AND W25, RESPECTIVE	LY, WHEF	RE WATERMAN COVER IS LESS THAN 2.4m.			
1.	ALL SANITARY SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS	17.	WHERE THE SEPARATION BETWEE INSULATED AS PER CITY OF OTTAW		CES AND MANHOLES IS LESS THAN 1.2m, WATE N23.	R SERVICES AF	RE TO BE	:
	AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).	18.			TICAL CLEARANCE BETWEEN WATERMAIN AND STD W25.2. FOR CROSSING UNDER SEWER, TH			25M
2.	ALL SANITARY SEWERS SHALL BE PVC SDR 35, IPEX "RING-TITE" (OR EQUIVALENT), AS PER CSA STANDARD 8182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE NOTED.		THE SEWERS IS REQUIRED TO PRE	EVENT EX	5. FOR CROSSING UNDER SEWER, ADEQUATE S (CESSIVE DEFLECTION OF JOINTS AND SETTLIN F CROSSING SO THAT THE JOINTS WILL BE EQU	G. THE LENGT	TH OF WA	TEF
3.	SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B BEDDING UNLESS OTHERWISE NOTED.	_	POSSIBLE FROM THE SEWER.					
4.	ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX "RING-TITE" (OR EQUIVALENT), ANY COLOR EXCEPT WHITE AND		OADWAY SPECIFICATI					
5	MARKED WITH A 50MM X 100MM WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0 M ABOVE GRADE PAINTED RED. SEWER BEDDING AS PER CITY STANDARD S6 & S7. GRANULAR 'A' BEDDING TO BE INCREASED TO 300MM WHERE	1.	ALL TOPSOIL AND ORGANIC MATER COMMENCEMENT OF CONSTRUCTI		LL BE STRIPPED WITHIN THE ROAD ALLOWANCI	E PRIOR TO TH	ΙE	
0.	SEWERS ARE BELOW THE GROUNDWATER TABLE.	2.			CE WITH CITY OF OTTAWA STD. SCI.1.1(BARRIEF SHALL BE MADE FOR CURB DEPRESSIONS AT			ΞWA
6.	SANITARY SEWER MANHOLES SHALL BE BENCHED AS PER OPSD 701.021. SANITARY MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24 AND S25. SAFETY PLATFORMS SHALL BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.	3.			CE WITH CITY OF OTTAWA STD. R1. SUBDRAINS ALLED BOTH SIDES AT LOWPOINTS AND ON THE			
7.	THE CONTRACTOR SHALL CONDUCT INFILTRATION/EXFILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWER INSTALLATION AND		CATCHBASINS.					
	VIEWED BY THE ENGINEER.	4.	PAVEMENT REINSTATEMENT FOR S R10 AND OPSD 509.010, OPSS 310.	SERVICE	AND UTILITY CUTS SHALL BE IN ACCORDANCE	WITH CITY OF (OTTAWA	STE
8.	THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.	5.	GRANULAR "A" SHALL BE PLACED T AREA.	o a mini	MUM THICKNESS OF 300mm AROUND ALL STRU	CTURES WITH	IN PAVEN	ЛЕN
	ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.	6.	ALL GRANULAR FOR ROADS SHALL	. BE COM	PACTED TO A MINIMUM OF 98% STANDARD PRO	OCTOR DENSIT	Ϋ́.	
10.	THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE SANITARY SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.	7.	ASPHALT WEAR COURSE SHALL NO HAVE BEEN CARRIED OUT TO THE S		ACED UNTIL THE VIDEO INSPECTION OF SEWER CTION OF THE ENGINEER.	S & NECESSA	RY REPA	IRS
11.	ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF	8.	SUB- EXCAVATE SOFT AREAS AND	FILL WIT	H GRANULAR 'B' COMPACTED IN MAXIMUM 300n	Im LIFTS.		
12	OTTAWA STANDARD DRAWING S14.1. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE	9.	FEBRUARY 21, 2025:		INVESTIGATION REPORT PREPARED BY EXP SE CTED TO 92-97% MRD, 65mm THICKNESS HL3/SP	,		
	DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.		OPSS 1010 GRAN A BASE (CRUSHE	D LIMEST	TED TO 92-97% MRD, 65mm THICKNESS HL3/SP TONE), COMPACTED TO 100% SPMDD, 150mm TH E, COMPACTED TO 100% SPMDD, 450mm THICKN	IICKNESS		
13.	MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010	G	ENERAL NOTES FOR G	<u>GRAD</u>	ING			
<u>S</u>	FORM SEWER NOTES		IT SHALL BE THE BUILDER'S RESPO	NSIBILIT	Y TO ENSURE THAT GRADING AROUND HYDRAI	,	,	ANE
1.	ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS)	2.			CITY OF OTTAWA, HYDRO AND UTILITY COMPA			ЕРТ
2.	SPECIFICATIONS (OPSS). ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT).		WHERE APPROVED SWALE OR CAT	CH BASI	N OUTLETS ARE PROVIDED.			
	ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.L (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).	3.	CONTRACTOR TO ADJUST EXISTING TO FINAL GRADE AS REQUIRED.	G CATCH	BASINS, MANHOLES, FIRE HYDRANTS, VALVE (MANIBERS ANI	valve ע	GΟΣ
3.	ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. 8182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.	4.	CONTRACTOR SHALL TAKE ALL NEE BUILDINGS DURING EXCAVATION A		Y PRECAUTIONS TO PROTECT EXISTING FOUND STRUCTION PERIOD.	ATIONS OF AD	JACENT	
4.	THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013.	5.	GRADING IN GRASSED AREAS WILL TERRACING.	. BE BET\	WEEN 2% TO 7%. GRADES IN EXCESS OF 7% W	LL REQUIRE A	MAXIMU	M 3:
	RIGID STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% SPMDD.							
5.	SEWER BEDDING AS PER CITY STANDARD S6 & S7.							
6.	ALL STORM LATERALS SHALL BE PVC SDR 28, WHITE IN COLOR AND MARKED WITH A 50mm X 100mm WOODEN MARKER EXTENDING FROM THE INVERT TO 1.0M ABOVE GRADE PAINTED GREEN.							
7.	ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.							
8.	WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE							
	AUTION							
СС	E POSITION OF ALL POLE LINES, DNDUITS, WATERMAINS, SEWERS AND OTHER IDERGROUND AND OVERGROUND UTILITIES							-
AN SH	ND STRUCTURES IS NOT NECESSARILY HOWN ON THE CONTRACT DRAWINGS, AND							-
PC	HERE SHOWN, THE ACCURACY OF THE DISITION OF SUCH UTILITIES AND RUCTURES IS NOT GUARANTEED. BEFORE						1	
	ARTING WORK. DETERMINE THE EXACT							1

GENERAL NOTES:

REV REVISION DESCRIPTION

OCATION OF ALL SUCH UTILITIES AND

AMAGE TO THEM.

STRUCTURES AND ASSUME ALL LIABILITY FOR

9. MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. IN AREAS WHERE ADEQUATE FROST COVER CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010

DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.

STORM SEWER MANHOLES SERVING LOCAL SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP.

FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701 .021.

SINGLE AND DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S1. AND OPSD 705.020, RESPECTIVELY. FRAMES AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S19 FOR REAR LOT CATCHBASINS, AND

CURB INLET TYPE CATCH BASIN (CICB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3. AND GRATE SHALL BE

SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200mmØ AND 250mmØ (MIN) RESPECTIVELY, 1.0% SLOPE (MIN.)

ALL CATCHBASINS AND CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300m DEPTH, UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS.

THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING. A

DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.

THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM SEWERS AND EXISTING

SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.

ALL WATERMAIN MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND

SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS

NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. WATERMAIN CONNECTIONS BY

CITY OF OTTAWA FORCES WITH ALL EXCAVATION BACKFILL AND ROAD REINSTATEMENT BY CONTRACTOR.

ALL PVC WATERMAINS SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR 18, OR APPROVED EQUAL.

WATERMAINS TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.

ALL PVC WATERMAINS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN

WATER SERVICES ARE TO BE TYPE K SOFT COPPER AS PER CITY OF OTTAWA STD. W26 UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICES CROSSING SEWERS ARE TO BE INSTALLED AS PER CITY OF OTTAWA STD. W38. WATER SERVICES

SHALL BE MARKED WITH A "50mm X 100mm", EXTENDING FROM THE INVERT T0 1.0m ABOVE GRADE PAINTED BLUE. STAND

CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.

ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY STANDARD W18 AND/OR

THRUST BLOCKS AND RESTRAINT AS PER CITY OF OTTAWA DWGS: W25.3 AND W25.4, W25.5 AND W25.6.

WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS

DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.

INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA

WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2m, WATER SERVICES ARE TO BE

AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25M FOR

CROSSING OVER THE SEWER. AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER. THE MINIMUM VERTICAL CLEARANCE IS 0.50M AS PER CITY STD. W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR

HE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER

PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS

ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE

CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SCI.1.1(BARRIER CURB) AND SC1.3 (MOUNTABLE CURB), AS NOTED. PROVISION SHALL BE MADE FOR CURB DEPRESSIONS AT SIDEWALKS AND DRIVEWAYS.

ROAD SUBDRAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R1. SUBDRAINS SHALL BE 6m IN LENGTH AT

AVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD.

GRANULAR "A" SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT

ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.

ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS

SUB- EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.

PAVEMENT STRUCTURE AS PER GEOTECH INVESTIGATION REPORT PREPARED BY EXP SERVICES INC., DATED

ASPHALTIC CONCRETE (PG 58-34), COMPACTED TO 92-97% MRD, 65mm THICKNESS HL3/SP12.5mm/CAT. B OPSS 1010 GRAN A BASE (CRUSHED LIMESTONE), COMPACTED TO 100% SPMDD, 150mm THICKNESS OPSDD 1010 GRANULAR B TYPE II SUB BASE, COMPACTED TO 100% SPMDD, 450mm THICKNESS

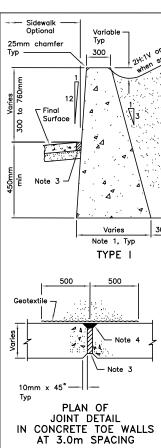
T SHALL BE THE BUILDER'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORMERS, AND JTILITY PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.

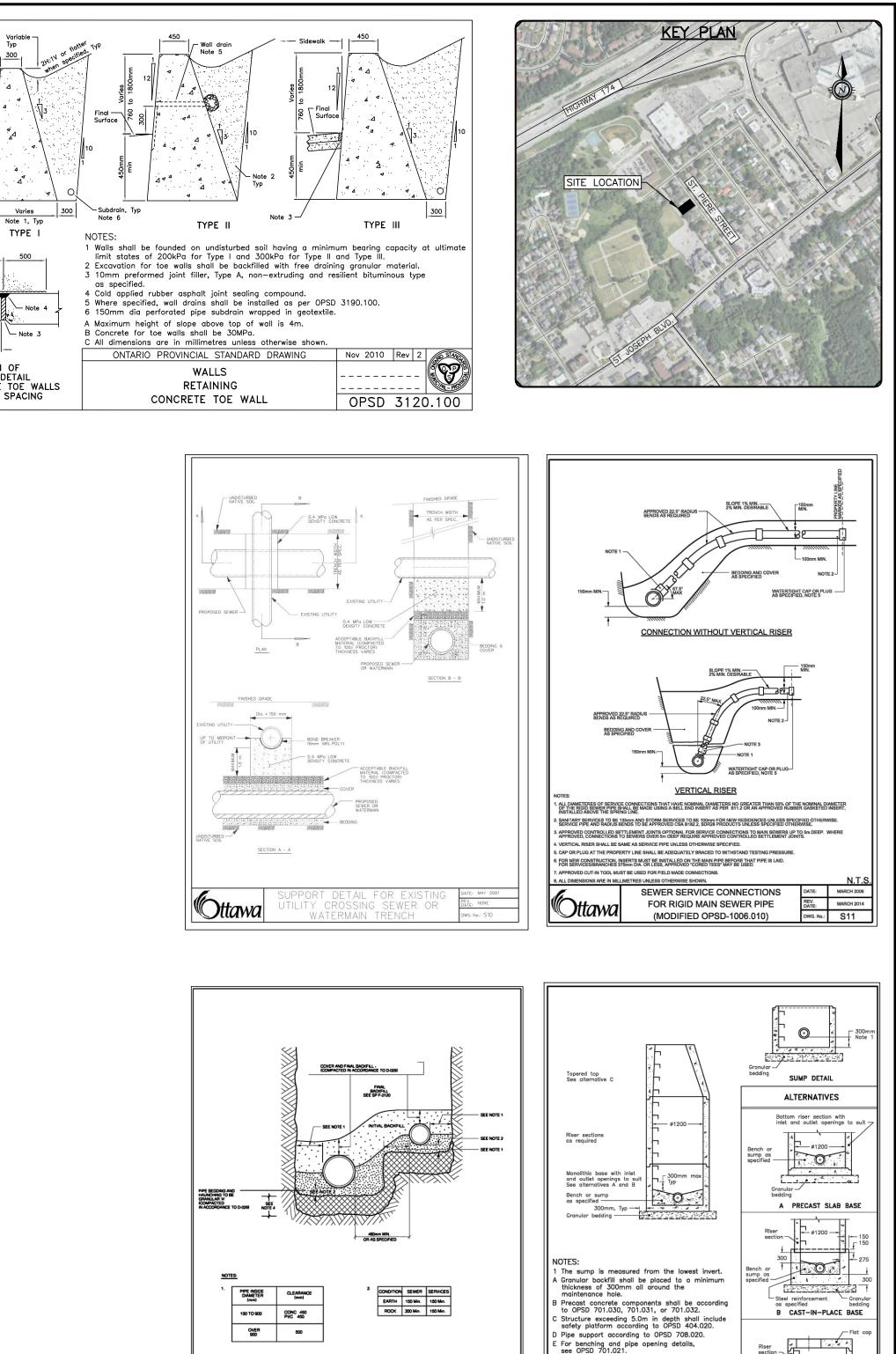
ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT

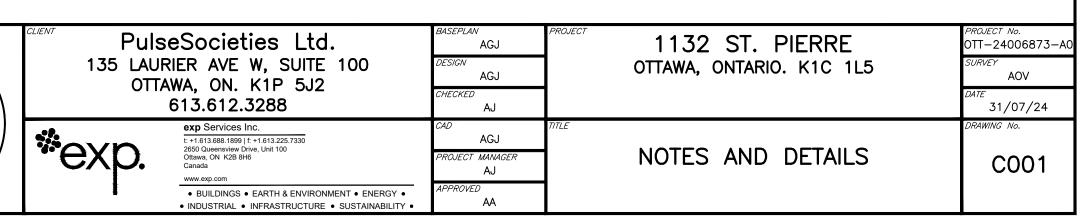
CONTRACTOR TO ADJUST EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VALVE BOXES

GRADING IN GRASSED AREAS WILL BE BETWEEN 2% TO 7%. GRADES IN EXCESS OF 7% WILL REQUIRE A MAXIMUM 3:1

								SCALE	DESIGNED BY	REVIEWED BY	
										PROFESSIONA	
										5 A. K. Juint Vo	
										A. K. JARIWALA	
			3	RE-ISSUED FOR SPA	29/05/25	AGJ	AJ	NORTH		100562090	
			2	RE-ISSUED FOR SPA	11/10/24	AGJ	AJ			2025/05/30	
			1	SPA	06/08/24	AGJ	AJ			ROLINCE OF ONTARY	
DATE	BY	APPD	REV	REVISION DESCRIPTION	DATE	BY	APPD			ICE OF O.	







DATE: MAY 2001

DWG. No.: S7

REV. MARCH 2019 DATE: MARCH 2019

F For adjustment unit and frame installation, see OPSD 704.010.

ONTARIO PROVINCIAL STANDARD DRAWING

PRECAST CONCRETE

MAINTENANCE HOLE

1200mm DIAMETER

G All dimensions are nominal. H All dimensions are in millimetres unless otherwise shown.

3. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.

WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOLS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 19.

INITIAL BACKFILL: CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B' WITH 100% PASSING THE 37-5mm SIEVE PVC PIPE - GRANULAR 'A'

5. SEE S11.3 FOR TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING

(SEWERS & SEWER SERVICES)

COMBINED TRENCH

. _____ ø1200 _____•

C PRECAST FLAT CAP

Nov 2014 Rev 5

OPSD 701.010

E