DRAWING NOTES

1.0 GENERAL

1.1 CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

1.2 DO NOT SCALE DRAWINGS

1.3 CONTRACTOR TO REPORT ALL DISCOVERIES OF ERRORS, OMISSIONS OR DISCREPANCIES TO THE ARCHITECT OR DESIGN ENGINEER AS APPLICABLE.

1.4 USE ONLY THE LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION" 1.5 ALL CONSTRUCTION SHALL COMPLY WITH CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. 1.6 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS. 1.7 FOR LEGAL SURVEY INFORMATION REFER TO REGISTERED PLAN.

1.8 REFER TO SITE PLAN BY S. J. LAWRENCE ARCHITECT INCORPORATED.

1.09 CONTRACTOR TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES AS IDENTIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.). DURING ALL PHASES OF THE SITE PREPARATION AND CONSTRUCTION THE MEASURES ARE TO BE MAINTAINED TO THE SATISFACTION OF THE ENGINEER AND CITY OF OTTAWA IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL. SHOULD ANY ADDITIONAL MEASURES BE REQUIRED TO ADDRESS FIELD CONDITIONS THEY SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR THE CITY OF OTTAWA. SUCH ADDITIONAL MEASURES MAY INCLUDE BUT NOT BE LIMITED TO INSTALLATION OF FILTER CLOTHS ACROSS MANHOLE AND CATCHBASIN LIDS TO PREVENT SEDIMENT FROM ENTERING THE STRUCTURE

AND INSTALLATION AND MAINTENANCE OF A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED. 1.10 ALL IRON WORK ELEVATIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MINOR ADJUSTMENTS AS

1.11 ALL CONCRETE CURBS AND SIDEWALKS TO CONFORM TO CITY STANDARDS SC1.1 AND SC1.4. ALL ONSITE CURBS TO BE BARRIER TYPE, WITH DEPRESSIONS AS NOTED. 1.12 ALL CONCRETE SHALL BE "NORMAL PORTLAND CEMENT" IN ACCORDANCE WITH O.P.S.S. 1350 AND SHALL

ACHIEVE A MINIMUM STRENGTH OF 30MPa AT 28 DAYS. 1.13 ALL CONSTRUCTION TRAFFIC TO ACCESS SITE FROM BANK STREET.

1.14 FOR GEOTECHNICAL REPORT SEE GEOTECHNICAL INVESTIGATION PROPOSED COMMERCIAL DEVELOPMENT - 4836 BANK STREET, OTTAWA, ON. REPORT № PG2934-LET.01 REVISON 1 BY PATERSON GROUP DATED NOV. 19 2019. FOR GEOTECHNICAL REPORT ON DUN SKIPPER DRIVE SEE GEOTECHNICAL NVESTIGATION PROPOSED RESIDENTIAL DEVELOPMENT REMER LANDS OTTAWA, ONTARIO REPORT #13-1121-0083 (1042/2042) PREPARED BY GOLDER ASSOCIATES.

1.15 CONTRACTOR TO PROTECT EXISTING INFRASTRUCTURE AND PROPERTY SUCH AS TREES, PARKING METERS, SIDEWALKS, CURBS, ASPHALT, AND STREET SIGNS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR TO PAY THE COST TO REINSTATE OR REPLACE ANY DAMAGED INFRASTRUCTURE OR PROPERTY TO THE SATISFACTION OF THE CITY

1.16 THE POSITION OF POLE LINES, CONDUITS, WATERMAIN, SEWERS, AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS. AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL INFORM ITSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, SHALL PROTECT ALL UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

1.17 CONTRACTOR TO SUPPLY SUITABLE FILL MATERIAL WHERE REQUIRED TO ROUGH GRADE THE SITE. ALL

IMPORTED FILL MATERIAL TO BE CERTIFIED AS ACCEPTABLE BY THE GEOTECHNICAL ENGINEER 1.18 CONTRACTOR TO HAUL EXCESS MATERIAL OFFSITE AS NECESSARY TO GRADE SITE TO MEET THE PROPOSED GRADES. ALL EXCESS MATERIAL TO BE HAULED OFFSITE AND DISPOSED OF AT AN APPROVED DUMP SITE. SHOULD THE CONTRACTOR DISCOVER ANY HAZARDOUS MATERIAL, CONTRACTOR IS TO NOTIFY NGINEER. ENGINEER TO DETERMINE APPROPRIATE DISPOSAL METHOD/LOCATION. 1.19 FILL MATERIAL WITHIN THE PARKING LOT AND BUILDING PAD AREAS, AND SUPPORTING BUILDING FOUNDATIONS SHALL BE COMPACTED TO 98% STANDARD MODIFIED PROCTOR DENSITY AND TO THE

1.20 ALL COMPACTION METHODS TO BE PERFORMED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER TO INCLUDE BUT NOT BE LIMITED TO THE THICKNESS OF LIFTS, AND COMPACTION EQUIPMENT USED 1.21 ALL DISTURBED BOULEVARDS TO BE REINSTATED WITH SOD ON 100mm TOPSOIL

1.22 UTILITY DUCTS TO BE INSTALLED PRIOR TO ROAD BASE CONSTRUCTION. 1.23 CLAY DIKES TO BE INSTALLED WHERE INDICATED ON THE DRAWINGS OR AS APPROVED AND DIRECTED BY THE GEOTECHNICAL ENGINEER ALL IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. 1.24 ALL UTILITY BOXES (i.e. PEDESTALS, TRANSFORMERS, ETC) ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF OTTAWA'S "GUIDELINES FOR UTILITY PEDESTALS WITHIN THE ROAD

1.25 FOR SITE BENCH MARK SEE SURVEY BY H. A. KEN SHIPMAN SURVEYING LTD. REF. NO. GL-495.

2.0 SANITARY

SATISFACTION OF THE GEOTECHNICAL ENGINEER.

2.1 ALL SANITARY SEWER MAINS TO BE CSA CERTIFIED. BELL AND SPIGOT TYPE. ONLY FACTORY FITTINGS TO BE USED. SEWER TO BE INSTALLED AS PER OSPD 1005.01. SANITARY SEWER MATERIALS TO BE: 250mmØ AND SMALLER - PVC DR 35

2.2 ALL SANITARY MAINTENANCE HOLES TO BE 1.2m DIAMETER AS PER CITY OF OTTAWA STANDARDS COMPLETE WITH BENCHING, RUNGS, FRAME AND COVER, DROP PIPES AND LANDINGS WHERE NEEDED. 2.3 SANITARY MANHOLE COVERS TO BE CITY OF OTTAWA STD. S25 (MOD. OPSD. 401.020). SANITARY MANHOLE COVER TO BE CLOSED COVER TYPE, AS PER CITY STANDARD \$24

2.4 SANITARY SEWER LEAKAGE TEST AND CCTV INSPECTION SHALL BE COMPLETED AS PER CITY SPECIFICATIONS PRIOR TO INSTALLATION OF BASE COURSE ASPHALT.

 $2.5\,\mathrm{ANY}$ SANITARY SEWER WITH LESS THAN $2.0\mathrm{m}$ COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA STANDARD W22, OR AS APPROVED BY THE ENGINEER.

2.6 CONNECTION TO THE EXISTING SANITARY SEWER TO BE INCLUDED IN THE COST FOR SANITARY SEWER INSTALLATION. THIS INCLUDES REINSTATEMENT OF ROAD CUTS TO CITY STANDARDS.

3.1 ALL STORM SEWERS TO BE CSA CERTIFIED, BELL AND SPIGOT TYPE. ALL STORM SEWERS TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ONLY FACTORY FITTINGS TO BE USED. STORM SEWER MATERIALS TO BE: 375mmØ AND SMALLER - PVC DR 35 450mmØ AND LARGER - 100-D REINFORCED CONCRETE.

3.2 ALL STORM MAINTENANCE HOLES TO BE SIZED IN ACCORDANCE WITH THE PLANS AND AS PER CITY OF OTTAWA STANDARDS COMPLETE WITH BENCHING, RUNGS, AND FRAME AND COVER.

<u>LEGEND:</u>

MH3A EXISTING SANITARY MANHOLE

CB T/G 99.76 EXISTING STREET CATCHBASIN

CICB C/G 99.76 EXISTING CURB INLET CATCHBASIN

⊗ V&VB EXISTING VALVE AND VALVE BOX

⊗ V&C EXISTING VALVE AND CHAMBER

_____ EXISTING DEPRESSED BARRIER CURB

---- PERF. SUBDRAIN (SIZE AS NOTED)

PRV PRESSURE REDUCING VALVE

PIPE CROSSING IDENTIFICATION

INLET CONTROL DEVICE LOCATION

HEAVY DUTY ASPHALT / FIRE ROUTE

PROTECTIVE BOLLARD

WATERMAIN IDENTIFICATION

EXISTING CONCRETE SIDEWALK

SIAMESE CONNECTION (IF REQUIRED)

→ B/F 100.56 EXISTING HYDRANT

METER

RM REMOTE METER

EXISTING BARRIER CURB

MH3 EXISTING STORM MANHOLE

3.3 STORM MH COVERS TO BE OPEN TYPE. AS PER CITY STANDARD \$24. FRAMES TO BE PER CITY OF OTTAWA STD, S25, CONTRACTOR TO INSTALL FILTER FABRIC LINDER STORM MH COVER UNTIL SODDING IS COMPLETE 3.4 STORM MAINTENANCE HOLES TO BE OPSD. SIZE AS SPECIFIED. TAPER TOP.

3.5 ALL CATCH BASINS TO BE AS PER OPSD 705.010, FRAME & FISH TYPE GRATE AS PER CITY OF OTTAWA STD. 3.6 150mm DIAMETER SOCK-WRAPPED PERFORATED PVC SUBDRAINS TO BE INSTALLED AT THE LIMIT OF THE

HEAVY DUTY ROAD STRUCTURE WHERE IT MEETS THE LIGHT DUTY ROAD STRUCTURE AND AT ALL CB'S IN HEAVY DUTY ROADS AS IDENTIFIED ON PLAN. SUBDRAINS TO DISCHARGE TO CB'S AS SHOWN. 3.7 ANY STORM SEWER WITH LESS THAN 2.0m COVER REQUIRES THERMAL INSULATION AS PER CITY OF TAWA STANDARD W22, OR AS APPROVED BY THE ENGINEER.

3.8 CONNECTION TO THE EXISTING STORM SEWER TO BE INCLUDED IN THE COST FOR STORM SEWER INSTALLATION. THIS INCLUDES REINSTATEMENT OF ROAD CUT TO CITY STANDARDS. 3.9 CONTRACTOR TO PROVIDE IPEX-TEMPEST MHF ICD'S SHOP DRAWINGS, OR EQUIVALENT, FOR ENGINEERS

REVIEW PRIOR TO ORDERING ICD'S.

4.1 ALL WATERMAINS TO BE PVC DR 18, WITH MINIMUM COVER OF 2.4m AND INSTALLED PER CITY OF OTTAWA STANDARDS W17. ALL DOMESTIC WATER SERVICES ARE TO BE 200mmØ. 4.2 THRUST BLOCKS TO BE INSTALLED AT ALL BENDS, TEES, AND CAPS ALL TO CITY STANDARDS W25.3 AND

4.3 CONTRACTOR TO CONDUCT PRESSURE AND LEAKAGE TESTING OF ALL WATERMAINS AND DISINFECT AND CHLORINATE ALL WATERMAINS TO THE SATISFACTION OF M.O.E. AND THE CITY OF OTTAWA. 4.4 TRACER WIRE TO BE INSTALLED ALONG THE FULL LENGTH OF WATERMAIN AND ATTACHED TO EACH MAIN STOP AS PER CITY OF OTTAWA STANDARD W36.

4.5 ALL COMPONENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE CATHODICALLY PROTECTED AS PER CITY OF OTTAWA STANDARD W40 4.6 ALL VALVES & VALVE BOXES AND CHAMBERS, HYDRANTS, AND HYDRANT VALVES AND ASSEMBLIES SHALL BE INSTALLED AS PER CITY OF OTTAWA STANDARDS W19 & W24.

4.7 ANY WATERMAIN WITH LESS THAN 2.4m COVER REQUIRES THERMAL INSULATION AS PER CITY OF OTTAWA

4.8 CONTRACTOR IS RESPONSIBLE FOR ACQUIRING THE WATER PERMIT FROM THE CITY OF OTTAWA AND PAYMENT OF ANY FFES ASSOCIATED WITH SECURING THE WATER PERMIT. OWNER IS RESPONSIBLE FOR REIMBURSING THE CONTRACTOR FOR THE ACTUAL COST OF ACQUIRING THE WATER PERMIT.

4.9 CONNECTION TO EXISTING WATERMAIN TO BE INCLUDED IN THE COST FOR THE WATERMAIN INSTALLATION.

THIS COST INCLUDES REINSTATEMENT OF ROAD CUTS TO CITY STANDARD R10. 5.0 PARKING LOT AND WORK IN PUBLIC RIGHTS OF WAY

5.1 CONTRACTOR TO REINSTATE ROAD CUTS PER CITY OF OTTAWA STANDARD R-10.

5.2 THE CONTRACTOR SHALL PREPARE A TRAFFIC MANAGEMENT PLAN FOR REVIEW AND APPROVAL BY THE CITY OF OTTAWA. CONTRACTOR TO MAINTAIN TRAFFIC FLOW DURING THE ENTIRE CONSTRUCTION PERIOD.

MAINTENANCE OF ROAD CUTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVISION OF FLAGMEN, DETOURS AS NECESSARY, BARRICADES AND SIGNS TO THE FULL SATISFACTION OF THE ENGINEER AND ROAD AUTHORITY SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

5.3 CONTRACTOR TO PREPARE SUBGRADE, INCLUDING PROOFROLLING, TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER PRIOR TO THE COMMENCEMENT OF PLACEMENT OF GRANULAR B MATERIAL

5.4 FILL TO BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT REQUIREMENTS 5.5 CONTRACTOR TO SUPPLY, PLACE AND COMPACT GRANULAR B MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOETCHNICAL ENGINEER, CONTRACTOR TO PROVIDE ENGINEER WITH SAMPLES OF GRANULAR B MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL ENGINEER THAT THE MATERIAL MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

5.6 GRANULAR A MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL ENGINEER OF

5.7 CONTRACTOR TO SUPPLY, PLACE AND COMPACT GRANULAR A MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOETCHNICAL ENGINEER. CONTRACTOR TO PROVIDE ENGINEER WITH SAMPLES OF GRANULAR A MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL ENGINEER THAT THE MATERIAL MEETS THE GRADATION REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

5.8 ASPHALT MATERIAL TO BE PLACED ONLY UPON APPROVAL BY THE GEOTECHNICAL ENGINEER OF GRANULAR A PLACEMENT.

5.9 CONTRACTOR TO SUPPLY, PLACE AND COMPACT ASPHALT MATERIAL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. CONTRACTOR TO PROVIDE ENGINEER WITH SAMPLES OF ASPHALT MATERIAL FOR TESTING AND CERTIFICATION FROM THE GEOTECHNICAL ENGINEER THAT THE MATERIAL MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

5.10 CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING LINE AND GRADE IN ACCORDANCE WITH THE PLANS, AND FOR PROVIDING THE ENGINEER WITH VERIFICATION PRIOR TO PLACEMENT. 5.11 DITCHES DISTURBED DURING CULVERT INSTALLATION AND GRADING OPERATIONS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION AND FLOWLINE GRADES.

5 12 EXISTING EAST SIDE ROAD DITCH ALONG PALLADIUM DRIVE TO BE REALIGNED AS PER THE GRADING PLAN ADJACENT AREAS BETWEEN ROAD SIDE DITCH AND PARKING LOT TO BE RE GRADED AS PER THE GRADING PLAN. ALL RE GRADED AREAS IN EXISTING PUBLIC RIGHTS OF WAY AND ANY OTHER DISTURBED AREAS IN EXISTING PUBLIC RIGHTS OF WAY ARE TO BE FINISHED WITH SOD ON 100mm TOPSOIL

THE CONTRACTOR DISCOVER ANY HAZARDOUS MATERIAL, CONTRACTOR IS TO NOTIFY ENGINEER. ENGINEER TO DETERMINE APPROPRIATE DISPOSAL METHOD/LOCATION. 5.14 PAVEMENT STRUCTURE (MATERIAL TYPES AND THICKNESSES) FOR HEAVY DUTY AND LIGHT DUTY AREAS

TO BE AS SPECIFIED IN THE GEOTECHNICAL REPORT AND SHOWN ON THE PLANS.

MH3A SANITARY MANHOLE

STORM MANHOLE

RYCB REAR YARD CATCHBASIN c/w GUTTER GRADE

GECB REAK TARD LINE
T/G 100.25 C/W TOP OF GRATE 3000)

⊗ V&VB VALVE AND VALVE BOX

200mmø SAN SANITARY SEWER & FLOW DIRECTION

825mmø STM SEWER & FLOW DIRECTION

200¢ WATERMAIN WATERMAIN

200¢ RED 150¢ WATERMAIN REDUCER

2 VBENDS VERTICAL BEND LOCATION

PROPERTY LINE

PROPOSED MAIL BOX

VALVE AND CHAMBER

⊕HYD B/F 100.56 HYDRANT c/w BOTTOM OF FLANGE ELEVATION

DEPRESSED BARRIER CURB AS PER SC1.1

BARRIER CURB AND GUTTER AS PER SC1.2

PROPOSED CONCRETE SIDEWALK

CATCHBASIN c/w TOP OF GRATE

REAR YARD "END" CATCHBASIN

5.13 ALL EXCESS MATERIAL TO BE HAULED OFFSITE AND DISPOSED OF AT AN APPROVED DUMP SITE, SHOULD

PROPOSED SWALE C/W FLOW DIRECTION

PROPOSED DITCH C/W FLOW DIRECTION AND SLOPE

104.60 103.59

86.45 EX×

_____96.79

F.F.E.=106.30

U.S.F.=104.30

SLOPE C/W FLOW DIRECTION

PROPOSED SPOT GRADE

PROPOSED SWALE GRADE

TIE INTO EXISTING GRADE

TOP OF RETAINING WALL

CLAY DYKES PER S8

PROPOSED TRANSFORMER

PROPOSED BIKE RACK

RETAINING WALL

FULL STATIC PONDING GRADE

MAJOR OVERLAND FLOW ROUTE

PROPOSED SWALE HIGH POINT

LOT CORNER GRADE C/W EXISTING GROUND

PROPOSED BOTTOM OF RETAINING WALL

PRELIMINARY ROOF DRAIN LOCATION

TEST PITS (SEE GEOTECHNICAL REPORT)

PROPOSED BUILDING FINISHED FLOOR

PROPOSED UNDERSIDE OF FOOTING ELEVATION

TERRACING 3:1 MAXIMUM UNLESS NOTED OTHERWISE

CATCH BASIN DATA TABLE											
				ELEVATION			OUTLET PIPE				
STRUCTURE	AREA	STRUCTURE	COVER	TOP OF	INV	INVERT		TYPE	HEAD	FLOW	ICD TYPE
ID	ID			GRATE	INLET	OUTLET	(mm)	ITPE			
CB1	MH8	OPSD 705.010	S19	102.05		100.570	200	HDPE PERF	1.65	13.00	Tempest Vortex
CB2	МН9В	OPSD 705.010	S19	101.75		100.350	200	HDPE PERF			
CB3	МН9	OPSD 705.010	S19	102.45		100.950	200	PVC DR-35	1.65	10.00	Tempest Vortex
CB4	MH10A	OPSD 705.010	S19	102.50		101.200	200	PVC DR-35	1.4	6.00	Tempest Vortex
CB5	CBMH1A	OPSD 705.010	S19	101.33		99.980	200	PVC DR-35	1.4	15.00	Tempest Vortex
CB6	CBMH1B	OPSD 705.010	S19	101.45		100.200	200	PVC DR-35	1.4	20.00	Tempest HF - Type A
CB7	CBMH1C	OPSD 705.010	S19	101.30		100.050	200	PVC DR-35	1.4	30.00	Tempest HF - Type B
CB8	MH1B	OPSD 705.010	S19	100.60		99.400	200	PVC DR-35	1.4	47.00	Tempest HF - Type D
СВ9	MH1A	OPSD 705.010	S19	100.66		99.420	200	PVC DR-35	1.35	43.00	Tempest HF - Type D
CB10	MH1D	OPSD 705.010	S19	100.40		98.850	200	PVC DR-35	1.65	45.00	Tempest HF - Type B
CB11	MH1E	OPSD 705.010	S19	100.55		98.930	200	PVC DR-35	1.65	15.00	Tempest Vortex
CB12	MH2B	OPSD 705.010	S19	100.40		99.100	200	PVC DR-35			
CB13	MH3	OPSD 705.010	S19	100.30	99.000	99.000	200	PVC DR-35	1.5	36.00	Tempest HF - Type B
CB14	MH4	OPSD 705.010	S19	100.45		99.000	200	PVC DR-35	1.5	37.00	Tempest HF - Type B
CB15	СВМНЗВ	OPSD 705.010	S19	100.92		99.470	200	PVC DR-35	1.65	6.00	Tempest Vortex
CB16	MH5B	OPSD 705.010	S19	100.65		100.020	200	PVC DR-35	1.65	6.00	Tempest Vortex
CB17	MH5A	OPSD 705.010	S19	101.35		99.690	200	PVC DR-35	1.65	6.00	Tempest Vortex
CB18	MH11	OPSD 705.010	S19	100.03		98.320	200	PVC DR-35	1.65	15.00	Tempest Vortex
СВМН1	MH10B	OPSD 701.010	S25 & S28.1 Open	102.21		99.795	250	PVC DR-35	2.54	20.0	Tempest Vortex
CBMH2	СВМН2	OPSD 701.010	S25 & S28.1 Open	101.50		99.016	300	PVC DR-35	2.834	20.0	Tempest Vortex
СВМНЗ	СВМНЗА	OPSD 701.010	S25 & S28.1 Open	100.45		98.705	200	PVC DR-35	2.045	6.0	Tempest Vortex
TCB1	MH11	CITY STD S29	S30/S31	98.70		97.700	450	HDPE PERF			
ECB2	MH11	CITY STD S29	S30/S31	100.04		98.300	450	HDPE PERF			

Bold font indicates CB's with ICD's Revision: 2020-04-20

	STATION	DESCRIPTION	FINISHED	TOP OF WATERMAIN	WATERMAIN	AS-BUILT
_	10+000	CONNECT TO EV. 400 CANADA	GRADE (m)		COVER	WATERMAIN
Α	0+000 0+008.59	CONNECT TO EX. 400Ø W/M	101.45 101.67	99.16 99.27	2.29	
	0+008.59	200Ø V&VB	101.57	99.17	2.40 2.40	
	0+024.72	 200Ø x 150Ø HY DRANT TEE	101.76	99.36	2.40	
В	0+034.70	150Ø x 200Ø TEE	102.05	99.65	2.40	
	0+040		102.21	99.81	2.40	
	0+048.82	200Ø – 11 1/4° BEND	102.42	100.02	2.40	
С	0+050.57	200Ø x 200Ø TEE	102.45	100.05	2.40	
	0+052.57	200Ø V&VB	102.46	100.06	2.40	
	0+060		102.55	100.15	2.40	
	0+080		102.65	100.25	2.40	
	0+97.676	200Ø x 150Ø HY DRANT TEE	102.68	100.28	2.40	
	0+100		102.68	100.28	2.40	
	0+100.58	200Ø x 200Ø TEE DOMESTIC WATER SERVICE	102.70	100.30	2.40	
	0+120		102.70	100.30	2.40	
	0+133.06	200Ø – 11 1/4° BEND	102.56	100.16	2.40	
	0+136.02		102.56	100.16	2.40	
D	0+142.04	200Ø x 200Ø TEE	102.42	100.02	2.40	
	0+143.71	200Ø V&VB	102.37	99.97	2.40	
E	0+144.76	200Ø CAP	102.33	99.93	2.40	
С	0+000	200Ø x 200Ø TEE	102.45	100.05	2.40	
	0+000	200Ø x 200Ø TEE 200Ø – 11 1/4° BEND	102.45	99.99	2.40	
	0+004.04	200Ø - 11 1/4 BBND	102.34	99.94	2.40	
	0+020		101.91	99.51	2.40	
	0+040		101.35	98.95	2.40	
	0+056.69	200Ø x 150Ø HY DRANT TEE	100.90	98.50	2.40	
	0+060		100.74	98.34	2.40	
	0+062.44		100.66	98.26	2.40	
	0.081.06	200Ø – 22 1/2° BEND	100.47	98.07	2.40	
	0+084.95	200Ø – 22 1/2° BEND	100.44	98.04	2.40	
	0+088.64	200Ø – 11 1/4° BEND	100.40	98.00	2.40	
	0+093.48	2000 x 2000 TEE DOMESTIC WATER SERVICE	100.41	98.01	2.40	
	0+096.06	200Ø – 22 1/2° BEND	100.44	98.04	2.40	
	0+099.51	200Ø – 22 1/2° BEND	100.47	98.07	2.40	
	0+120		100.56	98.16	2.40	
	0+130.23	200Ø x 150Ø HY DRANT TEE	100.66	98.26	2.40	
	0+136.32	200Ø x 200Ø TEE DOMESTIC WATER SERVICE	100.82	98.42	2.40	
	0+140 0+160		100.85 100.88	98.45	2.40	
	0+171.94	1000G 44.4/4° DEND	100.88	98.48 98.57	2.40	
	0+171.94	200Ø – 11 1/4° BEND 200Ø V&VB	100.97	98.58	2.40 2.40	
F	0+177.30	200Ø x 200Ø CROSS	101.03	98.63	2.40	
Г	0+179.04	200Ø V & V B	101.01	98.61	2.40	
G	0+182.36	200Ø CAP	100.89	98.49	2.40	
		2002 0.11			2.10	
Н	0+000	CONNECT TO EX. 400Ø W/M	101.05	97.80	3.25	
	0+008.79	200Ø V&VB	101.06	98.66	2.40	
	0+012.26	200Ø – 11 1/4° BEND	101.04	98.64	2.40	
	0+020		100.96	98.56	2.40	
F	0+043.52	200Ø x 200Ø CROSS	101.03	98.63	2.40	
	0+048.81		101.12	98.72	2.40	
	0+058.52	200Ø V&VB	101.22	98.82	2.40	
	0+060		101.23	98.83	2.40	
	0+080		101.41	99.01	2.40	
	0+100		101.73	99.33	2.40	
	0+120		102.23	99.83	2.40	
	0+133.36 0+137.59	200Ø V&VB	102.42 102.42	100.02 100.02	2.40	
D	U⊤137.58 	200Ø x 200Ø TEE	102.42	100.02	2.40	
-	0+000	150Ø x 200Ø TEE	102.05	99.65	2.40	
В	0+000	150Ø X 200Ø TEE 150Ø V&VB	102.05	99.69	2.40	
	0+003	1500 V Q V D	102.09	99.93	2.40	
	0+025.62	150Ø x 150Ø TEE DOMESTIC WATER SERVICE	102.31	99.91	2.40	
	0+028.10	150Ø CAP	102.29	99.89	2.40	

WATERMAIN SCHEDULE

LILY XU, MCIP, RPP MANAGER, DEVELOPMENT REVIEW SOUTH PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

> APPROVED By Lily Xu at 10:34 am, Jul 08, 2020

STM STRUCTURE TABLE								
NAME	RIM ELEV.	INVERT IN	INVERT IN AS-BUILT	INVERT OUT	INVERT OUT AS-BUILT	DESCRIPTION		
CB18	100.57			SW98.320		Eccentric Cylinder Metric		
СВМН1	102.22	SW100.250		N99.795		1200mmø OPSD-701.010		
СВМН2	101.50	S99.066		W99.016		1200mmø OPSD-701.010		
СВМНЗ	100.83	SW99.321 NW98.116		SE98.116		1200mmø OPSD-701.010		
EXBLK900	99.20			NW95.298		1350mm BULKHEAD		
EXMH6140	98.93	SE95.266		SW95.206		2438mm x 2438mm RECTANGULAR METRIC		
MH1	101.16			NW98.605		1200mmø OPSD-701.010		
MH2	100.41	SE98.200		W98.125		1200mmø OPSD-701.010		
мнз	100.39	E98.092		SW97.762		1200mmø OPSD-701.010		
MH4	102.14	NE97.623 E98.900		NW97.623		1200mmø OPSD-701.010		
MH5	100.96	SE97.584 W99.130		N97.584		1200mmø OPSD-701.010		
MH7	102.35	SW99.562		E99.362		1200mmø OPSD-701.010		
мн8	102.45	SE99.780		NE99.758		1200mmø OPSD-701.010		
мн9	102.76			NW100.179		1200mmø OPSD-701.010		
MH10	102.68			NE100.499		1200mmø OPSD-701.010		
MH11	100.49	NE98.230		SE98.230		1200mmø OPSD-701.010		
MH12	101.51	S97.475		N97.455		1200mmø OPSD-701.010		

NAME	RIM ELEV.	INVERT IN	INVERT IN AS-BUILT	INVERT OUT	INVERT OUT AS-BUILT	DESCRIPTION
EXBLK6138A	0.00					200mm BULKHEAD
EXMH6138A	101.10	S97.028		W96.968		1200mmø OPSD-701.0
MH1A	101.53			NW98.004		1200mmø OPSD-701.0
MH2A	100.43	SE97.713		W97.683		1200mmø OPSD-701.0
мнза	100.41	E97.640		SW97.610		1200mmø OPSD-701.0
MH4A	102.09	NE97.370		NW97.340		1200mmø OPSD-701.0
MH5A	98.09	SE97.288 W98.640		N97.228		1200mmø OPSD-701.0
MH6A	101.01	S97.110		N97.065		1200mmø OPSD-701.0
MH7A	102.36			E98.852		1200mmø OPSD-701.0

							13	
							12	
	Crossing Schedule						11	
.75	0.8 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	98.95		10	
3.80	0.35 m CLEARAN	CE OVER 4	450 Ф STIV	1 OBV	98.45			
3.85	0.25 m CLEARAN	CE OVER 2	200 Ф STIV	1 OBV	98.60		9	
9.55	0.8 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	98.75		8	REVISED AS PER CITY COMM
9.55	0.25 m CLEARAN	CE OVER 4	450 Ф STIV	1 OBV	99.30	*INSULATE PER W22		
7.58	0.2 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.38		7	REVISED AS PER CITY COMM
9.50	0.95 m CLEARAN	CE OVER	750 Ф STM	1 OBV	98.55		6	ISSUED FOR TENDER
9.50	2.1 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.40		_	
3.55	0.8 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.75		5	REVISED AS PER CITY COMM
3.00	0.50 (min) m CLEARAN	CE UNDER 2	200 Ф SAN	INV	98.50		4	REVISED AS PER CITY COMM
3.00	0.50 (min) m CLEARAN	CE UNDER 2	200 Ф STM	1 INV	98.50			DEVICED AC DED DATEDOON
3.56	0.65 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.91		3	REVISED AS PER PATERSON
3.75	0.9 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.85		2	REVISED AS PER NEW SITE F
3.20	0.7 m CLEARAN	CE UNDER 2	200 Ф STM	1 INV	98.90		1	ISSUED FOR SPA
3.40	0.50 (min) m CLEARAN	CE UNDER 2	200 Ф SAN	INV	98.90		'	1000LD I OK OFA
3.87	0.75 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	98.12		No.	REVISION
3.40	0.50 (min) m CLEARAN	CE UNDER 2	200 Ф STM	1 INV	98.90			
3.95	0.8 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	98.15			
3.40	0.9 m CLEARAN	CE UNDER 2	200 Ф STM	1 INV	99.30			
0.00	0.50 (min) m CLEARAN	CE UNDER 2	250 Ф STM	1 INV	100.50			
3.83	0.25 m CLEARAN		525 Φ STIV		98.58	*INSULATE PER W22		
3.78	0.5 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	98.28			
'.42	0.2 m CLEARAN	CE OVER 2	200 Ф SAN	OBV	97.22			
3.90	0.35 m CLEARAN	CE OVER	750 Ф STIV	1 OBV	98.55			

200 Ф WM OBV 99.1

200 Ф WM OBV 99.4 750 Ф S<u>TM OBV 98.2</u>

750 Φ STM OBV 97.8

200 Ф WM OBV 97.44 1.8 m CLEARANCE OVER REVISED 2020-03-13

1.8 m CLEARANCE OVER

1.4 m CLEARANCE OVER

2.5 m CLEARANCE OVER 2.9 m CLEARANCE OVER

PAVEMENT STRUCTURE **

150 Ф WM INV

200 Φ SAN INV

200 Φ SAN INV

200 Ф WM INV

200 Φ WM INV

750 Φ STM INV

200 Φ WM INV

200 Ф WM INV

200 Ф STM INV

200 Ф WM OBV

200 Ф WM OBV

200 Φ STM INV

200 Ф STM INV

200 Ф WM OBV

200 Ф WM OBV 98.

200 Ф STM INV 98

200 Ф WM OBV 9

200 Φ STM INV 200 Ф WM OBV | **21** | 200 Φ WM OBV 100

200 Ф WM INV

200 Φ WM INV

750 Ф STM INV

400 Ф WM INV

3 PARTY DUCT INV 100.84

GAS INV 100.98

GAS INV 100.78

GAS INV 99.24

CAR ONLY PARKING AREAS:

50mm WEAR COURSE - HL-3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE 150mm BASE - OPSS GRANULAR "A" CRUSHED STONE 300mm SUBBASE - OPSS GRANULAR "B" TYPE II

SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR "B" TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL OR FILL

HEAVY TRUCK PARKING AREAS AND ACCESS LANES:

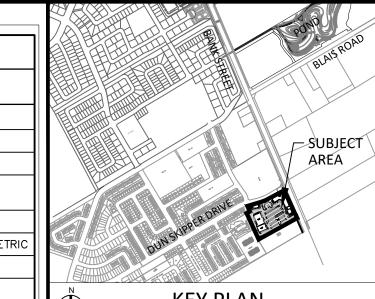
40mm WEAR COURSE - SUPERPAVE 12.5 ASPHALTIC CONCRETE 50mm BINDER COURSE - SUPERPAVE 19.0 ASPHALTIC CONCRETE 150mm BASE COURSE - OPSS GRANULAR "A" CRUSHED STONE 400mm SUBBASE - OPSS GRANULAR "B" TYPE II

SUBGRADE - EITHER FILL, IN SITU SOIL, OR OPSS GRANULAR "B" TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL OR FILL

EXISTING DUN SKIPPER DRIVE ***

40mm WEAR COURSE - SUPERPAVE 12.5 ASPHALTIC CONCRETE 2x50mm BINDER COURSE - SUPERPAVE 19.0 ASPHALTIC CONCRETE 150mm BASE COURSE - OPSS GRANULAR "A" CRUSHED STONE 450mm SUBBASE - OPSS GRANULAR "B" TYPE II

** REFER TO GEOTECHNICAL REPORT PG2934-LET.01 REVISION 1 DATED NOV. 19-2019 *** REFER TO GEOTECHNICAL REPORT No. 12-1121-0286 BY GOLDER ASSOCIATES.



. SEE DRAWING C-010 FOR ADDITIONAL DETAILS AND

2. SITE BENCHMARK TO BE OBTAINED FROM LEGAL SURVEYOR H.A. KEN SHIPMAN SURVEYING LTD.

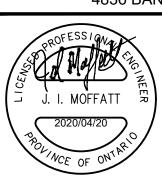
• • •			
13			
12			
11			
10			
9			
8	REVISED AS PER CITY COMMENTS	JIM	2020:04:20
7	REVISED AS PER CITY COMMENTS	JIM	2020:04:02
6	ISSUED FOR TENDER	JIM	2020:03:18
5	REVISED AS PER CITY COMMENTS	JIM	2020:03:13
4	REVISED AS PER CITY COMMENTS	JIM	2019:12:09
3	REVISED AS PER PATERSON COMMENTS	JIM	2019:11:20
2	REVISED AS PER NEW SITE PLAN AND CITY COMMENTS	JIM	2019:10:11
1	ISSUED FOR SPA	JIM	2019:04:15
No.	REVISIONS	Ву	Date

IBI GROUP

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Project Title

BANK STREET DEVELOPMENT 4836 BANK STREET



DETAILS AND NOTES

N.T.S.

SEL FEB. 2019 JIM Drawing No. 119351

#17977