

- DETERMINED BY AN UP-TO-DATE LAND TITLES DRAINAGE AWAY FROM THE BUILDING. GRADING OF PARKING LOTS, ROADWAYS AND THE CONTRACTOR IS TO OBTAIN AND PAY FOR LANDSCAPED AREAS PRIOR TO PLACEMENT OF
- ALL NECESSARY PERMITS AND APPROVALS FROM NOTED SHALL BE RECTIFIED TO THE CITY'S THE CONTRACTOR IS RESPONSIBLE FOR ALL
  - NOTIFY THE ENGINEER PROMPTLY.
- DRAWINGS. IF THERE IS ANY DISCREPANCY THE • ELECTRICAL SERVICE - HYDRO ONE,
  - TELEPHONE SERVICE BELL CANADA, • TELEVISION SERVICE - ROGERS.
- CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO ONE, BELL AND CURBING AND DEBRIS, OFF SITE AS DIRECTED BY
- SPECIFICATIONS ARE FOLLOWED DURING TOPSOIL TO BE STRIPPED AND STOCKPILED FOR CONSTRUCTION REHABILITATION. CLEAN FILL TO BE PLACED IN
- OF REMOVALS AND REINSTATEMENT WHEREVER

  19. SLEEVE ALL SEWERS PASSING THROUGH RETAINING WALL OR STAIR FOOTINGS.
- CONTRACTOR TO MINIMIZE THE ACTUAL LIMITS POSSIBLE, AND SHALL MAKE THEIR OWN JUDGEMENT AND ACCOUNT FOR ALL MATERIAL AND LABOUR REQUIRED FOR ADEQUATELY REINSTATING THE AREA TO PRE-CONSTRUCTION CONDITIONS OR BETTER, AND BEAR THE COST

FILL AREAS AND COMPACTED TO 95%

SEARCH AND A SUBSEQUENT CADASTRAL

ONTARIO LAND SURVEYOR.

THE CITY BEFORE COMMENCING

SURVEY PERFORMED AND CERTIFIED BY AN

LOCATION, SIZE, MATERIAL AND ELEVATION OF

ALL EXISTING UTILITIES PRIOR TO COMMENCING

CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR EXISTING UTILITIES

CONTRACTOR IS TO NOTIFY THE ENGINEER

RESTORE ALL TRENCHES AND SURFACES OF

PUBLIC ROAD ALLOWANCES TO CONDITION

AND TO THE SATISFACTION OF THE CITY

EXCAVATE AND DISPOSE OF ALL EXCESS

THE ENGINEER AND THE CITY.

STANDARD PROCTOR DENSITY.

**EXCAVATED MATERIAL. SUCH AS ASPHALT** 

AUTHORITIES.

**EQUAL OR BETTER THAN ORIGINAL CONDITION** 

WHETHER OR NOT SHOWN ON THESE

- WITH CITY STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE POSITIVE 14. CONTACT THE CITY FOR INSPECTION OF ROUGH
- ASPHALT AND TOPSOIL. ALL DEFICIENCIES SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR
- THE CONTRACTOR IS TO DETERMINE THE EXACT

  15. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO
  - 16. ELECTRICAL, GAS, TELEPHONE AND TELEVISION SERVICE LOCATIONS ARE SUBJECT TO THE

GAS SERVICE - ENBRIDGE

- 16. INSTALLATION TO BE IN ACCORDANCE WITH
- 17. CONTRACTOR TO ENSURE ALL APPLICABLE OPS
- OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE 18. ALL PROPOSED CURB TO BE CONCRETE BARRIER TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES. CURB UNLESS OTHERWISE SPECIFIED.
- 20. THIS PLAN MUST BE READ IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION COMPLETED BY PATERSON GROUP, DATED JUNE

- 3. SANITARY SEWERS AND CONNECTIONS 150mmØ AND SMALLER TO BE PVC SDR-28.
- SEWERS AND CONNECTIONS 200mmØ AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B" EXCEPT AT RISERS, UNLESS
- 5. SEWERS AND WATERMAINS LOCATED PARALLEL TO FACH OTHER SHOULD BE CONSTRUCTED IN SEPARATE TRENCHES. WHEN IT IS IMPOSSIBLE OR NOT PRACTICAL TO MAINTAIN VERTICAL AND/OR HORIZONTAL SEPARATION PER MECP STANDARDS, ALL SEWERS SHOULD BE CONSTRUCTED OF WATERMAIN QUALITY PIPE, PRESSURE TESTED IN PLACE AT A PRESSURE OF 350 kPa (50 psi) WITHOUT LEAKAGE USING THE TESTING METHODOLOGY IN ONTARIO PROVINCIAL STANDARD
- 6. INSULATE ALL STORM AND SANITARY SEWERS/SERVICES THAT HAVE LESS THAN 2.0m OF COVER WITH THERMAL INSULATION AS PER CITY DETAIL \$35, OPTION A.

SPECIFICATION 701 (OPSS 701) OF THE OPS.

- 7. SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE SEWERMAIN AS PER CITY OF OTTAWA STANDARD DRAWING S11, S11.1 & S11.2.
- SHOWN AND DETAILED TO WITHIN 1.0m OF BUILDING. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH 2"x4"X8' LONG MARKER. 9. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS ON SITE, OUTLET CONNECTION TO THE MAIN AND PIPES 150mmØ

8. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS

10. DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO SANITARY SEWER MAIN. 11. EXISTING INVERTS SHALL BE CONFIRMED PRIOR TO ORDERING

STRUCTURES.

- SITE. NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY. CONNECTIONS TO BE COMPLETED BY CITY FORCES. EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY SITE SERVICING CONTRACTOR.
- 7. CONCRETE THRUST BLOCKS TO CONFORM TO CITY STANDARD W25.3.
- 8. WATERMAIN 100-300mmØ TO BE CLASS 150 DR-18 PVC OR APPROVED
- 9. ALL PVC WATERMAIN SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY STANDARD
- 10. FIRE HYDRANTS SHALL CONFORM TO CITY STANDARDS W18, W19, AND W20. 11. VALVE BOXES SHALL CONFORM TO CITY STANDARD W24. 12. 300mmØ VALVES AND SMALLER TO BE INSTALLED WITH VALVE BOXES AS PER
- CITY STANDARD W24. 400mmØ VALVES AND LARGER TO BE INSTALLED WITH BUTTERFLY VALVES AND VALVE CHAMBERS AS PER CITY STANDARD W2.
- 13. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER/UTILITY IS 0.25m FOR CROSSING OVER THE SEWER, AS PER CITY DETAIL W25.2 FOR CROSSING UNDER SEWER. THE MINIMUM VERTICAL CLEARANCE IS 0.5m AS PER CITY DETAIL W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE 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 POSSIBLE FROM THE SEWER
- 14. SLEEVE ALL WATER SERVICES & WATERMAINS PASSING THROUGH RETAINING WALL OR STAIR FOOTINGS
- 15. CONTRACTOR SHALL PHASE THE WORK IN SUCH A MANNER TO LIMIT SERVICE DISRUPTIONS TO EXISTING RESIDENTS. SHOULD TEMPORARY WATER SUPPLY BE SPECIFIED WITHIN THE CONTRACT DOCUMENTS, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE CITY AND BEAR ALL COSTS RELATED TO TEMPORARY SERVICING.

NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB3	72.49		NE70.385	STRUC: OPSD 705.010 FRAME: CITY S19 COVER: CITY S19
CB4	72.50		SW70.012	STRUC: OPSD 705.010 FRAME: CITY S19 COVER: CITY S19
вмн6	72.58	NW69.630 SE69.630	NE69.610	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S28.1
MH1	72.07	S69.641 SE69.640	NW69.617	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S28.1
MH2	72.58	SE69.683	N69.673	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24.1
MH5	72.71	E70.280	NW69.831	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24.1

ELEV.

72.11

72.54

72.62

71.21

MH1A

MH2A

MH3A

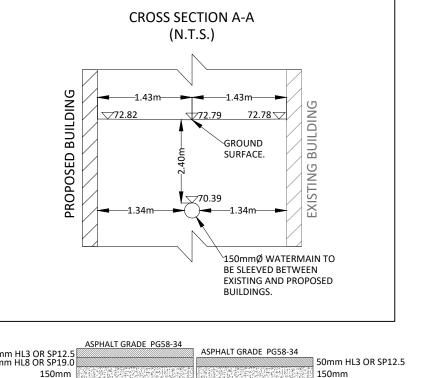
MH4A

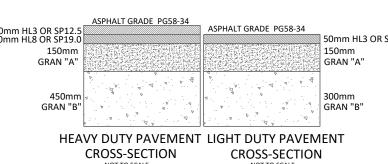
LOCATION	DESCRIPTION	SEPARATION	ELEVATIO
1	375mmØ STM SEWER INV 69.60 525mmØ SAN SEWER OBV 66.43	3.17	71.77
2	375mmØ STM SEWER OBV 70.03 50mmØ WTR SERVICE INV *70.33*	0.30	72.63
3	150mmØ STM SERVICE INV 69.99 200mmØ SAN SEWER OBV 69.19	0.80	72.63
4	150mmØ STM SERVICE INV 69.69 150mmØ SAN SERVICE OBV 69.42	0.27	72.64
5	375mmØ STM SEWER OBV 70.15 50mmØ WTR SERVICE INV *70.45*	0.30	72.71
6	200mmØ CB LEAD INV 70.58 200mmØ WTR MAIN OBV ±70.03	0.55	72.67
7	200mmØ CB LEAD INV 70.98 50mmØ WTR SERVICE OBV ±70.24	0.76	72.73
8	200mmØ STM SERVICE INV 69.59 150mmØ SAN SERVICE OBV 69.36	0.23	71.22
9	200mmØ SAN SEWER OBV 69.07 50mmØ WTR SERVICE INV ±70.22	1.15	72.62
10	150mmØ WTR MAIN OBV **68.74** 150mmØ SAN SERVICE INV 69.24	0.50	71.22
11	150mmØ WTR MAIN INV *70.12* 150mmØ STM SERVICE OBV 69.82	0.30	72.62
12	150mmØ WTR MAIN OBV 68.78 200mmØ STM SEWER INV 69.58	0.80	71.18
13	150mmØ WTR MAIN OBV **68.64** 200mmØ SAN SERVICE INV 69.14	0.50	71.17
14	200mmØ WTR MAIN INV *70.20* 200mmØ STM SEWER OBV 69.90	0.30	72.19
15	200mmØ WTR MAIN INV *69.85* 150mmØ SAN SEWER OBV 69.27	0.58	72.25
16	375mmØ STM SEWER INV 69.64 150mmØ SAN SEWER OBV 69.16	0.48	72.16
17	250mmØ STM SEWER INV 69.49 200mmØ SAN SEWER OBV 69.30	0.19	71.30
18	50mmØ WTR SERVICE OBV ±70.18 150mmØ WTR MAIN INV **±70.33**	0.15	72.69
CROSSING A	NOTES WATERMAIN RAISED TO PROVIDE MINIMUN BOVE SEWER. INSULATE PER CITY STANDARD W23. DENOTES WATERMAIN LOWERED BELOW STANDAF .5m SEPARATION FOR CROSSING UNDER SEWER.		

SAN STRUC	N STRUCTURE TABLE			
INVERT IN	INVERT OUT	DESCRIPTION		
S68.762 E68.958	NW68.730	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24		
SE68.919	N68.891	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24		
\$69.267	NW69.240	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24		
W69.190 SE69.190	NE69.159	STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24		FL
			,	

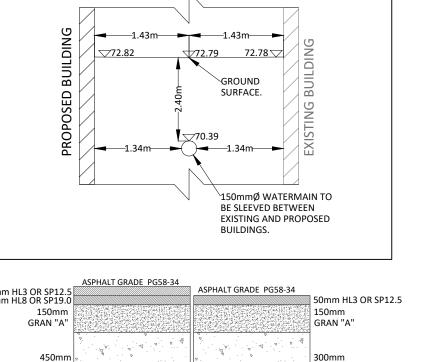
1	375mmØ STM SEWER INV 69.60	3.17	71.77	
	525mmØ SAN SEWER OBV 66.43	3.17	/1.//	
2	375mmØ STM SEWER OBV 70.03	0.30	72.63	
	50mmØ WTR SERVICE INV *70.33*	0.30		
3	150mmØ STM SERVICE INV 69.99	0.80	72.63	
3	200mmØ SAN SEWER OBV 69.19	0.80		
4	150mmØ STM SERVICE INV 69.69	0.27	72.64	
4	150mmØ SAN SERVICE OBV 69.42	0.27		
_	375mmØ STM SEWER OBV 70.15	0.20	72.74	
5	50mmØ WTR SERVICE INV *70.45*	0.30	72.71	
	200mmØ CB LEAD INV 70.58	0.55	72.67	
6	200mmØ WTR MAIN OBV ±70.03	0.55		
	200mmØ CB LEAD INV 70.98			
7	50mmØ WTR SERVICE OBV ±70.24	0.76	72.73	
_	200mmØ STM SERVICE INV 69.59			
8	150mmØ SAN SERVICE OBV 69.36	0.23	71.22	
	200mmØ SAN SEWER OBV 69.07			
9	50mmØ WTR SERVICE INV ±70.22	1.15	72.62	
	150mmØ WTR MAIN OBV **68.74**		71.22	
10	150mmØ SAN SERVICE INV 69.24	0.50		
	150mmØ WTR MAIN INV *70.12*		72.62	
11	150mmØ STM SERVICE OBV 69.82	0.30		
	150mmØ WTR MAIN OBV 68.78			
12	,	0.80	71.18	
	200mmØ STM SEWER INV 69.58 150mmØ WTR MAIN OBV **68.64**			
13		0.50	71.17	
	200mmØ SAN SERVICE INV 69.14 200mmØ WTR MAIN INV *70.20*			
14		0.30	72.19	
	200mmØ STM SEWER OBV 69.90 200mmØ WTR MAIN INV *69.85*			
15		0.58	72.25	
	150mmØ SAN SEWER OBV 69.27			
16	375mmØ STM SEWER INV 69.64	0.48	72.16	
	150mmØ SAN SEWER OBV 69.16			
17	250mmØ STM SEWER INV 69.49	0.19	71.30	
	200mmØ SAN SEWER OBV 69.30	0.25	, 1.50	
18	50mmØ WTR SERVICE OBV ±70.18	0.15	72.69	
	150mmØ WTR MAIN INV **±70.33**			
	NOTES WATERMAIN RAISED TO PROVIDE MINIMUN		TION FOR	
	BOVE SEWER. INSULATE PER CITY STANDARD W23			
LEV** - C	DENOTES WATERMAIN LOWERED BELOW STANDAR	RD 2.4m COVER	TO PROVIDE	
IMUM 0	.5m SEPARATION FOR CROSSING UNDER SEWER.			

ROOF DRAINS (B1)			
TYPE OF CONTROL DEVICE	PE OF CONTROL DEVICE WATTS DRAINAGE RD-100-A-ADJ (OPEN)		
NUMBER OF ROOF DRAINS	3	3	
MAXIMUM DEPTH (m)	0.150		
MAXIMUM STORAGE (m³)	36.50		
	5-YEAR	100-YR	
STORAGE REQUIRED (m³)	18.56	35.17	
STORAGE AVAILABLE (m³)	19.46	36.50	
DEPTH OF FLOW (m)	0.080	0.150	
FLOW PER ROOF DRAIN (L/s)	1.01	1.89	
TOTAL FLOW (L/s)	3.03	5.68	





ASPHALT CROSS-SECTIONS TO CONFORM TO GEOTECHNICAL REPORT COMPLETED BY PATERSON GROUP, DATED JUNE 27, 2023



TRENCH REINSTATEMENT TO INCLUDE STEP KEY AS PER CITY DETAIL R10.

190 O'CONNOR STREET, SUITE 100 **BLOCK 3 REDEVELOPMENT** 

SITE SERVICING PLAN

1:200 CCO-23-3120

**CSV ARCHITECTS** 

OTTAWA, ON K2P 2R3

1360 OGILVIE ROAD