

**LEGEND**

	PROPOSED GRADE AND DIRECTION OF FLOW		HYDRANT WITH TOP OF FLANGE ELEVATION
	PROPOSED ELEVATION AT HIGH POINT		STORM MANHOLE
	PROPOSED ELEVATION		CATCHBASIN WITH TOP OF GRATE ELEVATION
	EXISTING SPOT ELEVATION		LANDSCAPE TYPE CATCHBASIN WITH TOP OF GRATE ELEVATION
	EXISTING ELEVATION AT BACK OF SIDEWALK		VALVE & VALVE BOX LOCATION
	EXISTING CONTOUR ELEVATION		FF= FINISHED FLOOR
	UTILITY POLE AND GUY WIRE		TF= TOP OF FOUNDATION
	MAJOR OVERLAND FLOW DIRECTION		USS= UNDERSIDE OF SLAB
	TERRACE GRADE (3:1 MAX)		USF= UNDERSIDE OF FOOTING
	SWALE AND TERRACE		EP= EDGE OF PAVEMENT
	MAX STATIC PONDING LIMITS		TC= TOP OF CURB
	100-YR PONDING LIMITS		
	100-YR +20% PONDING LIMITS		

**GENERAL NOTES:**

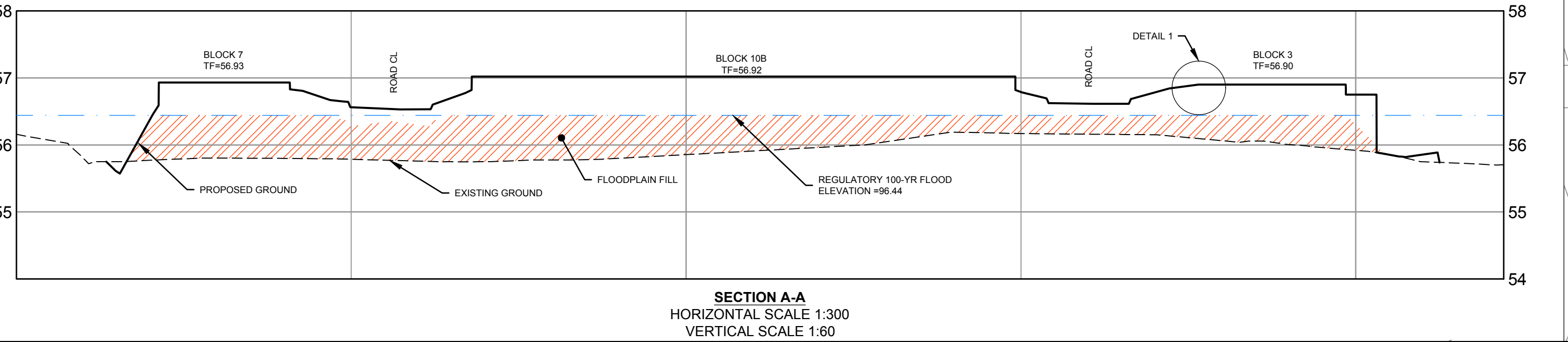
- DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SURVEYING AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
- CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING, INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED. AMOUNT OF INSURANCE TO BE SPECIFIED BY OWNERS AGENT.
- CONNECT TO EXISTING SYSTEMS AS DETAIL, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS.
- OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.
- RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF CITY OF OTTAWA AUTHORITIES.
  - ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DETAIL R-10.
  - THICKNESS OF GRANULAR MATERIAL AND ASPHALT LAYERS TO MATCH EXISTING.
  - BOULEVARDS SHALL BE REINSTITUTED WITH 100mm OF TOPSOIL, SEED AND MULCH.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY ENGINEER.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- REFER TO GEOTECHNICAL INVESTIGATION PG4951-1 (DATED JULY 15, 2019), PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS.
- PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCHBASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS.

**GRADING AND PAVEMENT NOTES:**

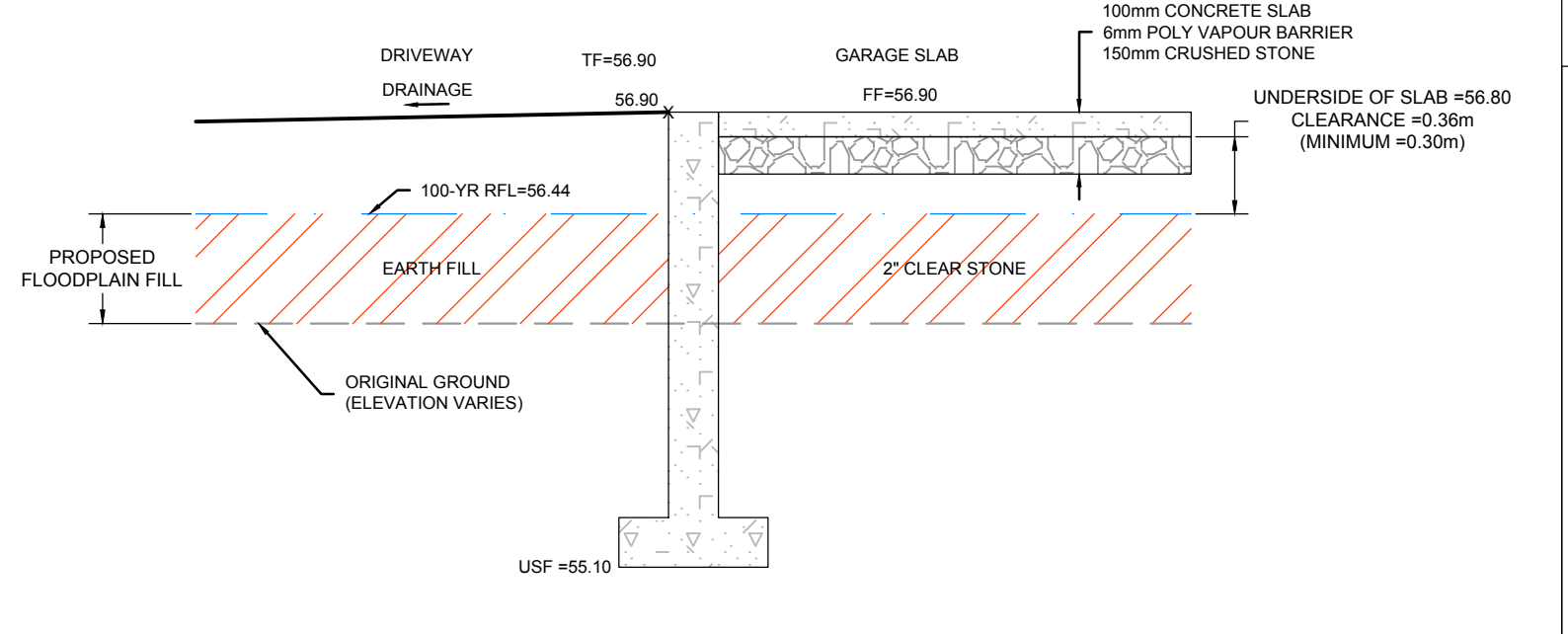
- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED HARD SURFACE (ie. PAVEMENT, CURB, SIDEWALK, ETC.) AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER. SITE ENGINEER TO BE NOTIFIED PRIOR TO THE PLACEMENT OF GRANULARS.
- EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE HEAVILY PROOF ROLLED WITH A LARGE (10 TON) VIBRATORY STEEL DRUM ROLLER UNDER DRY CONDITIONS AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
- ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- THE GRANULAR BASE SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE PLACED IN MAXIMUM 300mm LIFTS AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
- ROADWAY SUBGRADE TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION TO REVIEW IF A WOVEN GEOTEXTILE IS REQUIRED BELOW THE GRANULAR MATERIALS, AND TO CONFIRM THE DEPTH AND COMPACTION OF GRANULAR 'B'.
- PRIOR TO PLACEMENT OF TOPLIFT, THE CONTRACTOR SHALL ADJUST ALL STRUCTURES TO FINAL GRADE PER CITY OF OTTAWA STANDARDS.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
- ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
- ALL CURBS SHALL BE MOUNTABLE CURB UNLESS OTHERWISE NOTED AND CONSTRUCTED PER CITY OF OTTAWA STANDARD (SC1.3).
- REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.

PONDING ID	STRUCTURE	PONDING				MAX STATIC PONDING DEPTH (m)	MAX STATIC PONDING DEPTH (m)
		100 YEAR PONDING ELEVATION	100 YEAR PONDING DEPTH (m)	100 YEAR +20% PONDING ELEVATION	100 YEAR +20% PONDING DEPTH (m)		
P1	CB1	56.66	0.23	56.72	0.29	56.58	0.15
P2	CB2	56.64	0.26	56.71	0.33	56.53	0.15
P3	CB3	56.58	0.15	56.67	0.24	56.58	0.15
P4	CB4	56.65	0.15	56.73	0.23	56.65	0.15
P5	CB5	56.69	0.13	56.77	0.21	56.71	0.15
P6	CB6	56.70	0.22	56.75	0.27	56.63	0.15
P7	CB7	56.70	0.13	56.77	0.20	56.72	0.15
P8	CB8	56.75	0.20	56.80	0.25	56.70	0.15
P9	CB9	56.75	0.14	56.81	0.20	56.76	0.15
P10	CB10	56.82	0.19	56.85	0.22	56.78	0.15
P11	CB11	56.83	0.16	56.89	0.22	56.82	0.15
P12	CB12	56.49	0.11	56.64	0.26	56.50	0.12
P13	LCB1	56.80	0.15	56.86	0.21	56.80	0.25
P14	LCB2	56.79	0.14	56.85	0.20	56.80	0.15
P15	LCB3	56.78	0.23	56.82	0.27	56.70	0.15
P16	LCB4	56.53	0.08	56.64	0.19	56.61	0.16
P17	LCB5	56.62	0.17	56.70	0.34	56.60	0.15
P18	LCB6	56.62	0.21	56.70	0.36	56.65	0.24
P19	LCB7	56.62	0.00	56.70	0.13	56.65	0.19
P20	LCB10	56.53	0.31	56.57	0.16	56.50	0.28
P21	RYCB3	56.75	0.18	56.75	0.35	56.75	0.18

**SITE CROSS SECTION**



SECTION A-A  
HORIZONTAL SCALE 1:300  
VERTICAL SCALE 1:60

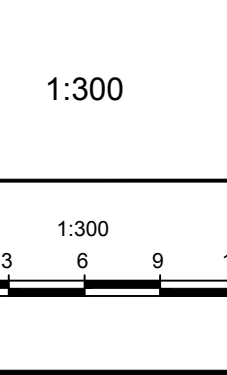


DETAIL 1 - FLOOD PROOFING (BLOCK 3)  
N.T.S.

**PAVEMENT STRUCTURE:**

40mm	ASPHALT SP12.5
50mm	ASPHALT SP19.0
150mm	GRAN "A" TOTAL DEPTH
400mm	GRAN "B" TYPE II TOTAL DEPTH
60mm	

**SCALE**



**FOR REVIEW ONLY**

DTD  
LRW  
DTD  
LRW  
MAB

**NOVATECH**  
Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6  
Telephone: (613) 254-9643  
Facsimile: (613) 254-5867  
Website: www.novatech-eng.com

**CITY OF OTTAWA**  
200 BARIBEAU STREET

**GRADING PLAN**

PROJECT NO: 119068  
REV # 3  
DRAWING NO: 119068-GR

NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS 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, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

