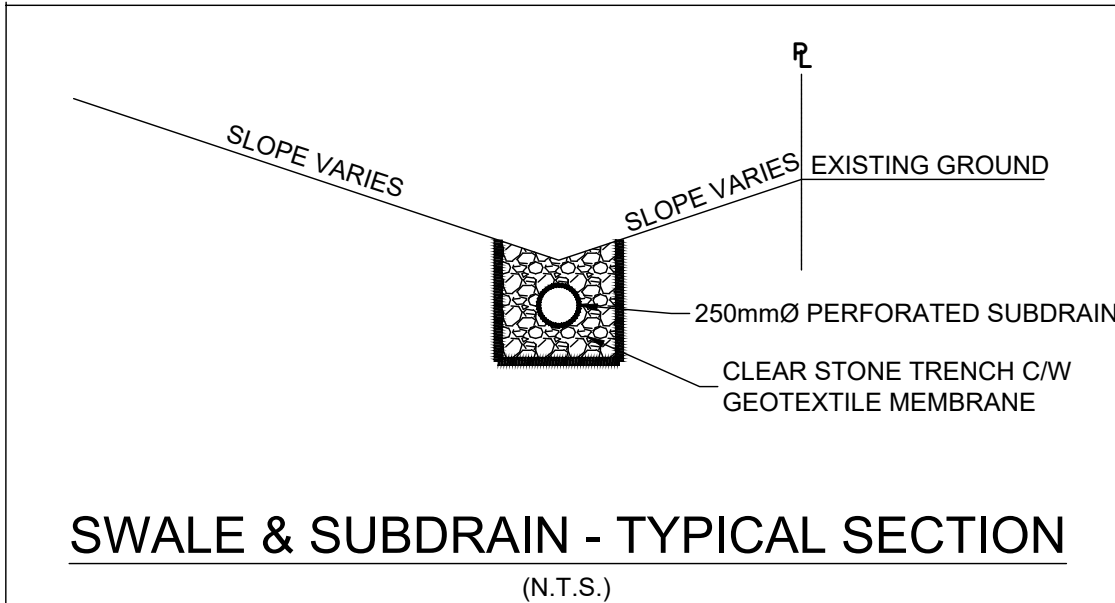
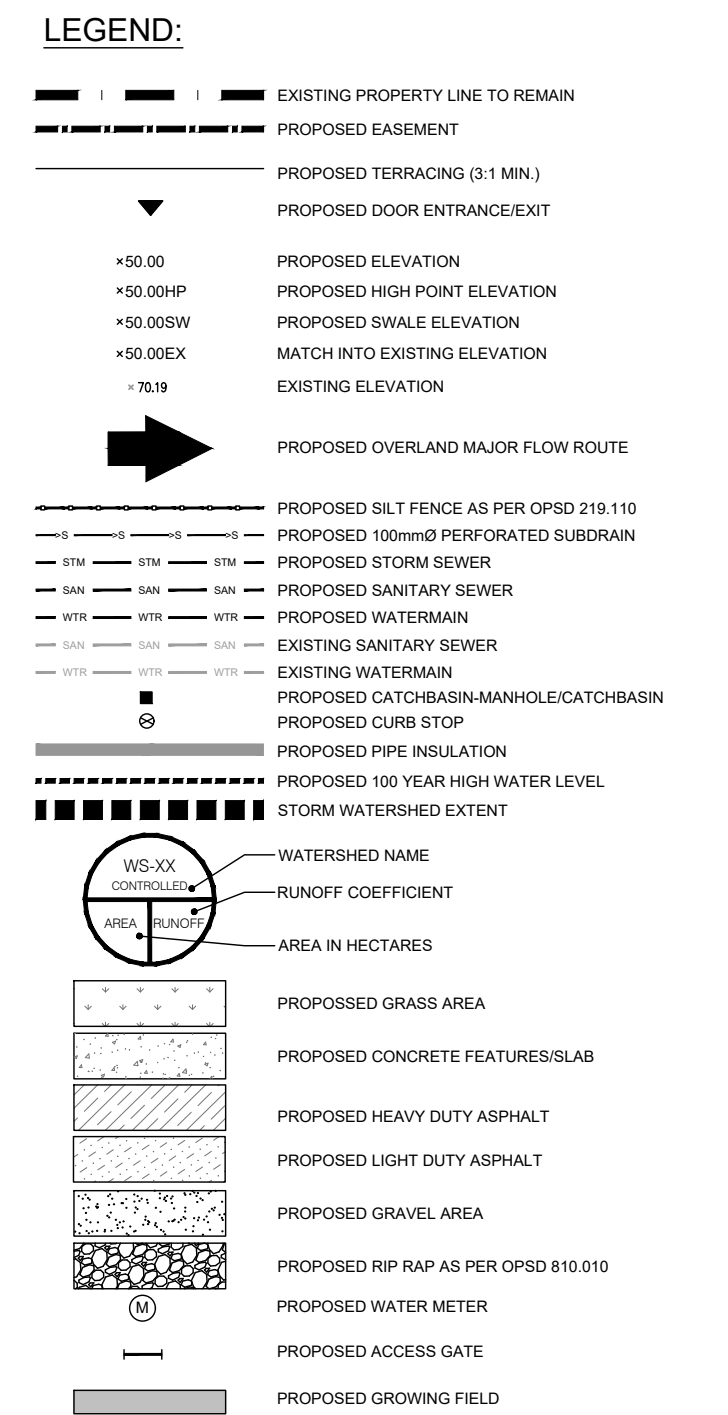
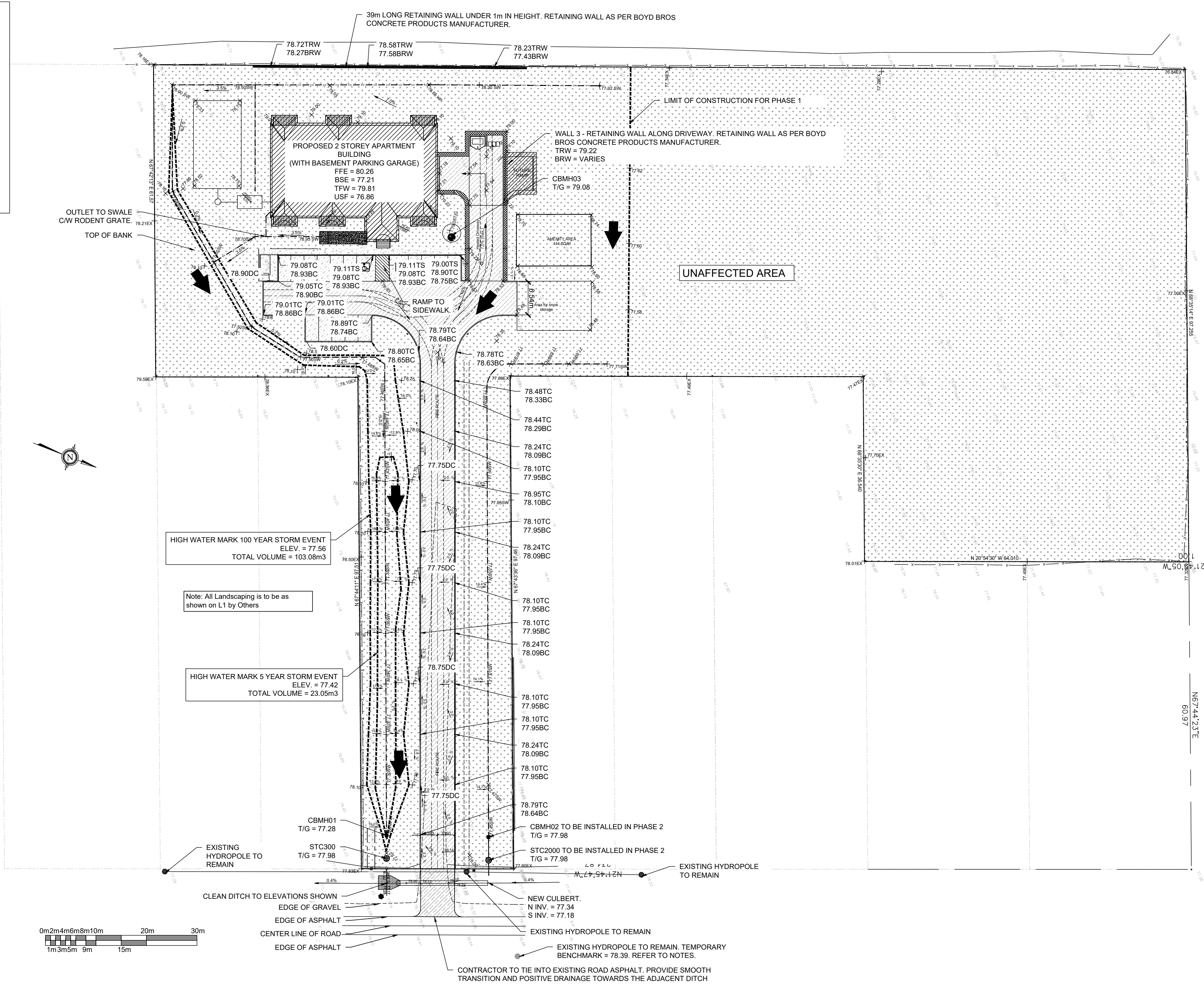
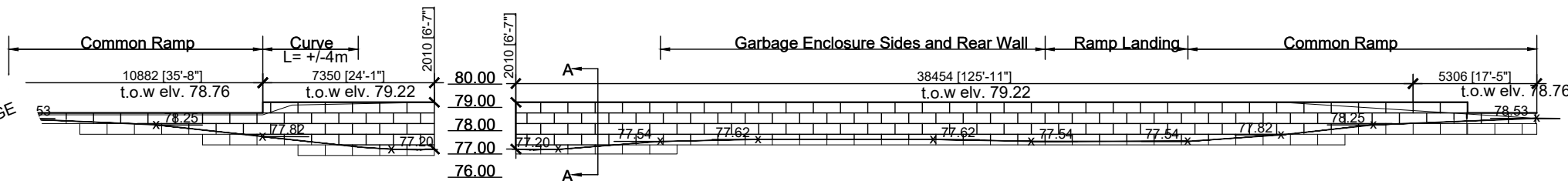




Section	Ponding Elevation (m)	Swale Elevation (m)	Average Area (sq m)	Length (m)	Volume (cu m)	Capacity (cu m)
1	77.56	77.28	0.311	10.000	3.110	3.110
2	77.56	77.30	1.061	10.000	10.605	13.915
3	77.56	77.32	1.593	10.000	15.928	29.843
4	77.56	77.34	1.384	10.000	13.843	43.685
5	77.56	77.36	1.237	10.000	12.365	56.050
6	77.56	77.38	1.057	10.000	10.565	66.615
7	77.56	77.40	0.925	10.000	9.245	75.360
8	77.56	77.42	0.847	10.000	8.470	84.430
9	77.56	77.44	0.847	10.000	8.470	92.900
10	77.56	77.46	0.535	7.978	4.268	97.168
11	77.56	77.48	0.288	10.664	3.066	100.234
12	77.56	77.50	0.112	12.083	1.348	101.583
13	77.56	77.52	0.040	30.975	1.227	102.809
14	77.56	77.56	0.040	20.94	0.271	103.080
Target Storage					88.82	

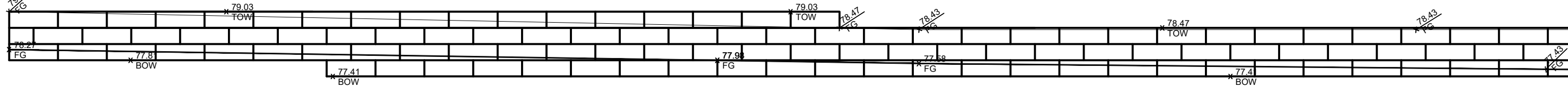


WALL 3 ELEVATION DETAIL

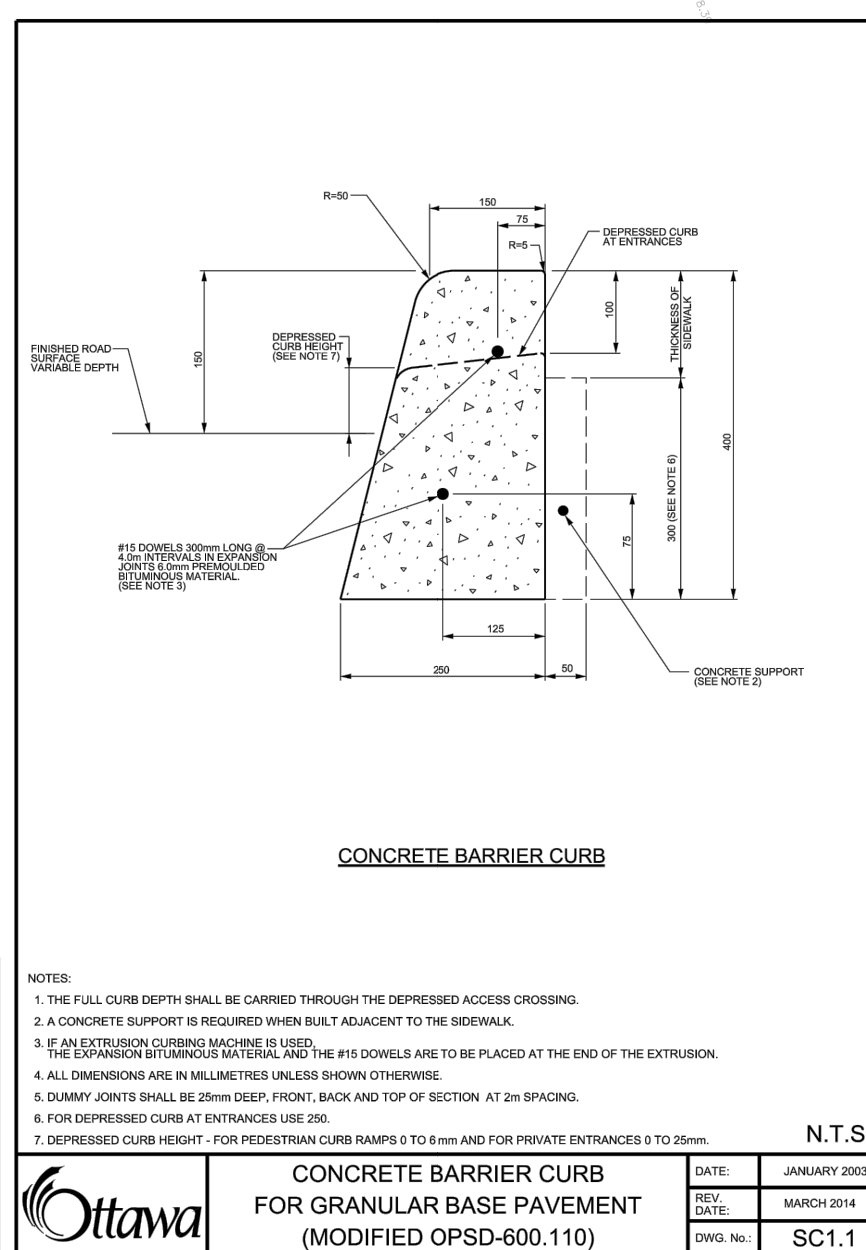


*Note: Stone to be precast cobble units by Boyd Bros Concrete Products or equivalent, and be designed and installed as per manufacturer's recommendations
*Note: Top row to be type "block 28"
*Note: Bottom row to be type "block 60" except where wall is 2 rows or less. Bottom row to have minimum 6" burial or more as per plan.
*Note: All other rows to be type "block 41" as well as base course where wall is 2 rows or less.
*Note: Refer to appendices to letter "Comments to Site Plan application" dated January 9, 2015 for retaining wall design calculations.
*Note: Wall design to be by manufacturer.

WALL 4 ELEVATION DETAIL



*Note: Stone to be precast cobble units by Boyd Bros Concrete Products or equivalent, and be designed and installed as per manufacturer's recommendations
*Note: Bottom row to be type "block 60" except where wall is 2 rows or less. Bottom row to have minimum 6" burial or more as per plan.
*Note: All other rows to be type "block 41" as well as base course where wall is 2 rows or less.
*Note: Cross section A-A in Wall 3 Cross section applies Wall 4 as well.
*Note: Wall design to be by manufacturer.



CONCRETE BARRIER CURB
FOR GRANULAR BASE PAVEMENT
(MODIFIED OPSD-600.110)

NOTES:
1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSION ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN WALL IS ADJACENT TO THE SIDEWALK.
3. IF AN EXTENSION CURBING MACHINE IS USED, THE #10 CONCRETE SHALL BE PLACED AT THE END OF THE EXTENSION.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.
5. DAMP JENTS SHALL BE 20mm DEEP FROM BACK AND TOP OF SECTION AT 2m SPACING.
6. FOR DEPRESSION CURB AT ENTRANCES USE 280.
7. DEPRESSION CURB HEIGHT: FOR PEDESTRIAN CURB RAMP 8 TO 10mm AND FOR PRIVATE ENTRANCES 0 TO 20mm.

CONCRETE BARRIER CURB
FOR GRANULAR BASE PAVEMENT
(MODIFIED OPSD-600.110)

DATE: JANUARY 2020
DRAWN BY: BF + GB
CHECKED BY: GB
DATE: 03-2020
SCALE: 1:500
PROJECT NUMBER: 19-276

- Elevations shown on plans are geodetic in meters and taken from topographical survey drawing by Arpenlage Dutrasac Surveying Inc. July 2013.
- Project T.B.M. (Temporary Benchmark). Nail in Utility Pole on East side of Rockdale Road Elev. = 78.39.
- All water works to respect requirements of the City of Ottawa and to conform to the latest revision of Standard Tendering Documents as prepared by city.
- All catch basin manholes and sewers work to be constructed as per the requirements of the City of Ottawa.
- Pipes sizes shall be as shown on drawing.
- Pipes material to be as follows:
 - storm sewer - PVC SDR28
 - watermain - PVC DR18
 - sanitary sewer - SDR 35
 - sub-drain - flexible perforated heavy duty polyethylene pipe c/w polyester sock filter by BIG'O or equivalent.
- All water services shall have 2.4 m frost cover minimum.
- Existing services and utilities shown on this drawing are taken from best available records but are not complete. Contractor is required to check in field for location and all elevation of pipes and check with utility companies before digging or ordering any material. Advise engineer of any discrepancies for recommendations and directions, prior to ordering any materials or starting any work.
- Geotechnical Report, perform by Morey Associates Ltd. (report# 013300, written September 2013), forms part of our specifications and requirements. Contractor must be fully cognizant of its content and respect its recommendations.
- Stormwater Management Report by Blanchard Letendre Engineering Ltd., forms part of our specifications and requirements. The contractor must be fully cognizant of its content and respect its recommendations.
- All plumbing and electrical work to be coordinated with civil engineering.
- Notify engineer for inspection prior to backfilling or covering any pipes or appurtenances.
- Contractor to respect grading around building to be 0.15m minimum below top of foundation or any siding or finish wall material.
- All works for private approach including any temporary construction access to the site lane shall be constructed in accordance with requirements of the City of Ottawa standards.
- Contractor to prevent erosion and sedimentation damages by installing geosocks under cover of existing down stream catch basins and also take necessary measures to prevent erosion and sediment deposit on adjacent property. Provide also straw wall with pickets & geotextile at perimeter of property.
- All pipe bedding to be as per the City of Ottawa requirements and as specified in geotechnical report.
- Contractor to obtain clearance certificate from all agencies, authorities and utility company prior to making any excavation. Provide copy of clearance certificate to engineer prior to start of construction.
- MH#1 & MH#2 are to be as per OPSD 705.010. MH#3 is to be as per OPSD 701.015 complete with transition slab, 1200mm diameter riser and 1200mm diameter precast flat cap.
- All catch basin manholes shall be cleaned and empty annually for the purpose of capturing sediment.
- Refer to site plan by Blanchard Letendre Engineering Ltd. for details of curb radius, dimensions of lanes, parking stalls, set back requirements and site data.
- Location of street water is approximate and contractor to verify the exact distance and elevation.
- Contractor to perform all testing verification, cleaning and preparation as per the requirements of the City of Ottawa before final approval.
- Major overland flow is @ an elevation of 77.65 m.
- Proposed grade elevations to match existing elevations at property line or as per plan.
- All proposed grades greater than 7% are proposed average grades. Contractor to use construct slope using terracing.
- Floor drains are to be drained into an oil grit interceptor prior to discharged a septic system

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THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE OF ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO BLANCHARD LETENDRE ENGINEERING LTD. WITHOUT DELAY. THE CONTRACTOR SHALL OBTAIN AND DRAWINGS ARE THE PROPERTY OF BLANCHARD LETENDRE ENGINEERING LTD. REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY BLANCHARD LETENDRE ENGINEERING LTD. IS STRICTLY PROHIBITED.

ENGINEERING STAMP



#8		
#7		
#6		
#5		
#4		
#3		
#2	ISSUED FOR CITY COMMENTS 7	24 / 08 / 2020
#1	ISSUED FOR CITY COMMENTS 6	26 / 03 / 2020
NO.	REVISION	DATE (DD/MM/YYYY)

BLANCHARD LETENDRE ENGINEERING
767, Notre Dame, Local 42, Embrun, Ontario,
(613) 693-0700 K0A 1W1 blengineering.ca

CLIENT:

BERGERON CONSTRUCTION
172 ST. THOMAS ROAD
VARS, ON, K0A 3H0

PROJECT:

12 UNIT APARTMENT BUILDING
6574 ROCKDALE ROAD
VARS, ON

DRAWING:

SITE GRADING PLAN

PAPER FORMAT: 24x36
DRAWN BY: BF + GB
CHECKED BY: GB
DATE: 03-2020
SCALE: 1:500
PROJECT NUMBER: 19-276

PAGE:
C200