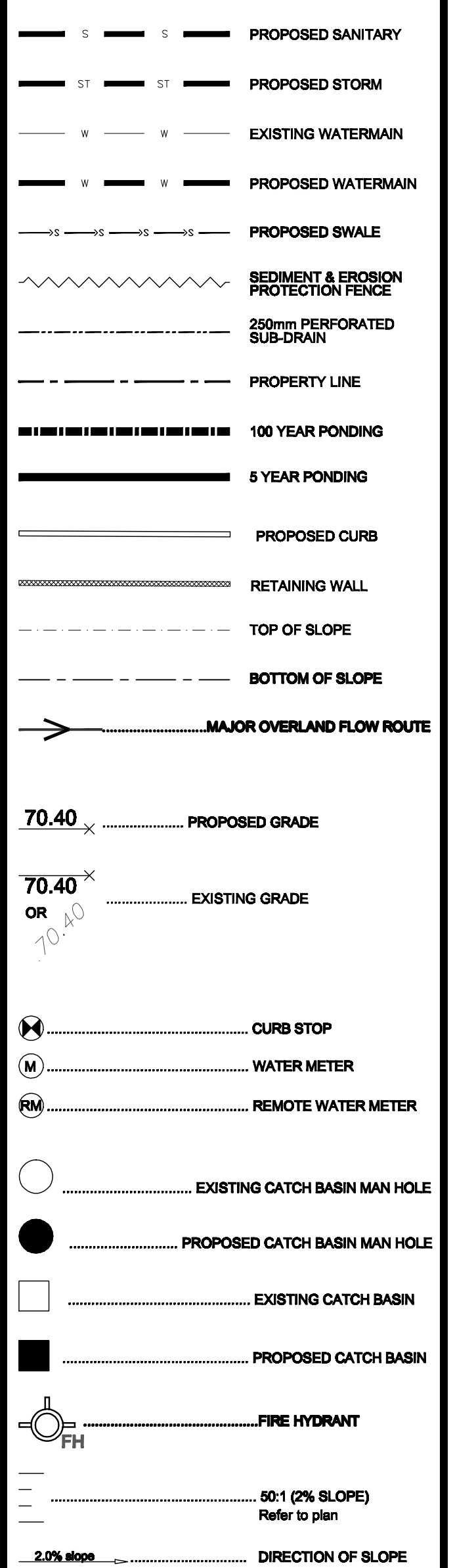


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LEGEND:



- NOTES:**
- LP LOW POINT
 - HP HIGHPOINT
 - FEE FINISHED FLOOR ELEVATION
 - BSE BASEMENT (TOP OF) SLAB ELEV.
 - TFW TOP OF FOUNDATION WALL
 - USF UNDERSIDE OF FOOTING
 - TRW TOP OF RETAINING WALL
 - UP UTILITY POLE
 - DC DEPRESSED CURB
 - TOP OF CURB
 - INV PIPE INVERT
 - T/G TOP OF GRATE
 - F/G FINISHED GRADE ELEVATION
 - CB CATCH BASIN
 - MH MANHOLE
 - FH FIRE HYDRANT
 - OHW OVERHEAD WIRE
 - C.S.W. CENTRELINE OF SWALE
 - ICD INLET CONTROL DEVICE

#	Revision	Date
#5	Revised Per City Comments	January 13, 2015
#4	Revised Per City Comments	September 17, 2014
#3	Revised Per City Comments	April 15, 2014
#2	Coordination with Enviro. Engineer	November 11, 2013
#1	Issued For Client Review	October 22, 2013
No.	Revision	Date

A. Dagenais & Assoc. Inc.
 CONSULTING ENGINEERS & ARCHITECT
 INGENIEURS CONSEILS ET ARCHITECTE

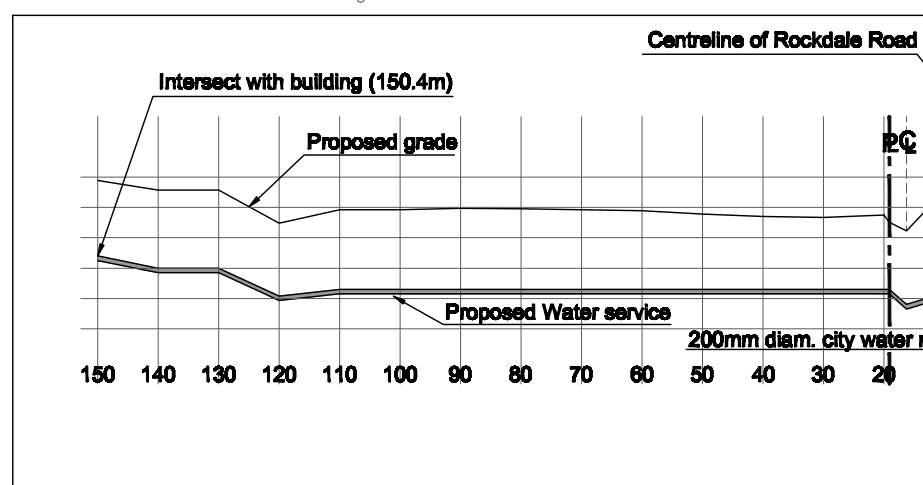
 931, Notre Dame, P.O. Box 180
 Embury, Ontario, K0A 1W0
 (613) 693-0700

12 Unit Apartment Building
 Rollin Development
 5574 Rockdale Road, Vars, Ontario
Grading/Drainage & Servicing Plan
 Drawn by: M.J.
 Checked by: A.F.D.
 Date: September 2013
 Scale: As shown
 Folder #: 013-286

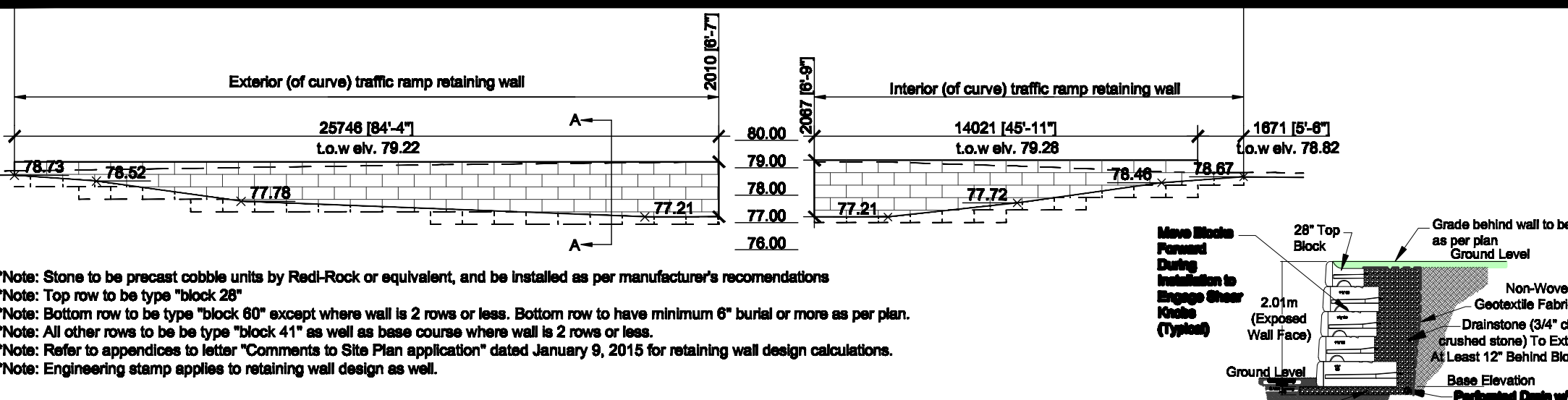
Stamp: LICENSED PROFESSIONAL ENGINEER
 A. DAGENAIS
 13/01/15
 PROVINCE OF ONTARIO
 Page number: **SS2**
 of 2

SITE SERVICING NOTES

1. Elevations shown on plans are geodetic in meters and taken from topographical survey drawing by Arpentage Dufresac Surveying Inc. July 2013.
2. Project T.B.M. (Temporary Benchmark), Nail in Utility Pole on East side of Rockdale Road Elev. = 78.39.
3. 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.
4. All catch basin manholes and sewers work to be constructed as per the requirements of the City of Ottawa.
5. Pipes sizes shall be as shown on drawing.
6. 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.
7. All water services shall have 2.4 m frost cover minimum.
8. 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.
9. Geotechnical Report, perform by Morsy 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.
10. Stormwater Management Report by A. Dagenais and Assoc. Consulting and Forensics engineers and Architects, forms part of our specifications and requirements. The contractor must be fully cognizant of its content and respect its recommendations.
11. All plumbing and electrical work to be coordinated with civil engineering.
12. Notify engineer for inspection prior to backfilling or covering any pipes or appurtenances.
13. Contractor to respect grading around building to be 0.15m minimum below top of foundation or any siding or finish wall material.
14. All works for private approach including any temporary construction access to the site line shall be constructed in accordance with requirements of the City of Ottawa standards.
15. 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 wail with pickets & geotextile at perimeter of property.
16. All pipe bedding to be as per the City of Ottawa requirements and as specified in geotechnical report.
17. 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.
18. CB#1 is to be as per OPSD 705.010. MH#2 is to be as per OPSD 701.015 complete with transition slab, 1200mm diameter riser and 1200mm diameter precast flat cap.
19. All catch basin manholes shall be cleaned and empty annually for the purpose of capturing sediment.
20. Refer to site/landscape plan by A. Dagenais & Assoc. for details of curb radius, dimensions of lanes, parking stalls, set back requirements and site data.
21. Location of street water is approximate and contractor to verify the exact distance and elevation.
22. Contractor to perform all testing verification, cleaning and preparation as per the requirements of the City of Ottawa before final approval.
23. Major overland flow is @ an elevation of 77.75 m.
24. Asphalt details and road foundation, as well as parking foundation should be as per details on SS1.
25. Proposed grade elevations to match existing elevations at property line or as per plan.
26. All proposed grades greater than 7% are proposed average grades. Contractor to use construct slope using terracing.



GRADING/DRAINAGE & SERVICING PLAN
 SCALE: 1:250



*Note: Stone to be precast cobble units by Red-Rock or equivalent, and be 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: Engineering stamp applies to retaining wall design as well.

RETAINING WALL ELEVATIONS
 SCALE: 1:200

