

GENERAL GRADING NOTES

- (a) All surface drainage, including downspout discharge, shall be directed away from the building(s), including adjacent existing or future buildings.
- (b) Unless otherwise stipulated, the lot shall have a minimum slope of 1.5% and a maximum slope of 6%.
- (c) Should the average slope exceed 10%, the Director of Public Works or designate may require a retaining structure to reduce the grade differential to an acceptable amount.
- (d) The maximum slope between the dwelling unit and the side property line shall be 3 to 1. Otherwise, appropriate steps or retaining structures shall be required.
- (e) Drainage flows shall be confined to defined swales which shall be located as far from the dwelling units as possible.
- (f) Swales shall have a desirable minimum grade of 2%, an absolute minimum of 0.5% and a maximum grade of 6%.
- (g) The swale depth shall not be less than 150 mm and shall not exceed 600 mm. A desirable swale depth shall be 200 mm.
- (h) The side slope of swales shall not be steeper than 3 to 1.
- (i) The alignment of swales shall not change more than 45 degrees unless otherwise approved.
- (j) Rear and side yard swales shall:
 - Not be centred upon lot lines and must be located fully on subject lots.
 - Be located entirely on the subject lot/block if the adjoining land is outside the Subdivision or is a block within the Subdivision.
- (k) The maximum length of a rear yard swale from the high point to the outlet (rear yard catchbasin or other suitable outlet) shall be 70 metres unless otherwise approved. This maximum length of swale may be varied at the discretion of the Director of Public Works or designate depending on lot size, topography, and drainage area.
- (l) The maximum flow allowed in a side yard swale shall be that from two backyards.
- (m) Generally speaking, all semi-detached and minimum sized lots shall have rear lot drainage schemes. Sideyard swales shall only be permitted with approval of the Director of Public Works if the construction of such swales could be accommodated properly.
- (n) The minimum grade on driveways shall be 1.0%. The desirable maximum grade on driveways shall be 6%.
- (o) Depressed driveways sloping toward the dwelling units are generally discouraged and require special approval and storm sewer design considerations as specified in the Subdivision Agreement.
- (p) Side and back entrances and stairwells shall not be located adjacent to main swales or downspouts.
- (q) Window-wells should preferably be avoided but where they are required, special care shall be taken to insure that surface water from overland flow and from other sources such as downspouts shall not enter these wells. The edge of the window-well shall be higher than the adjacent ground.
- (r) Downspouts must discharge via splash pads (concrete or other suitable material) to grass surfaces. These splash pads shall extend a distance at least 1.2 metres away from the building.
- (s) Downspouts must direct the flow away from the building, not onto walks or driveways and not towards adjacent property.

ROAD WORK AND GRADING NOTES:

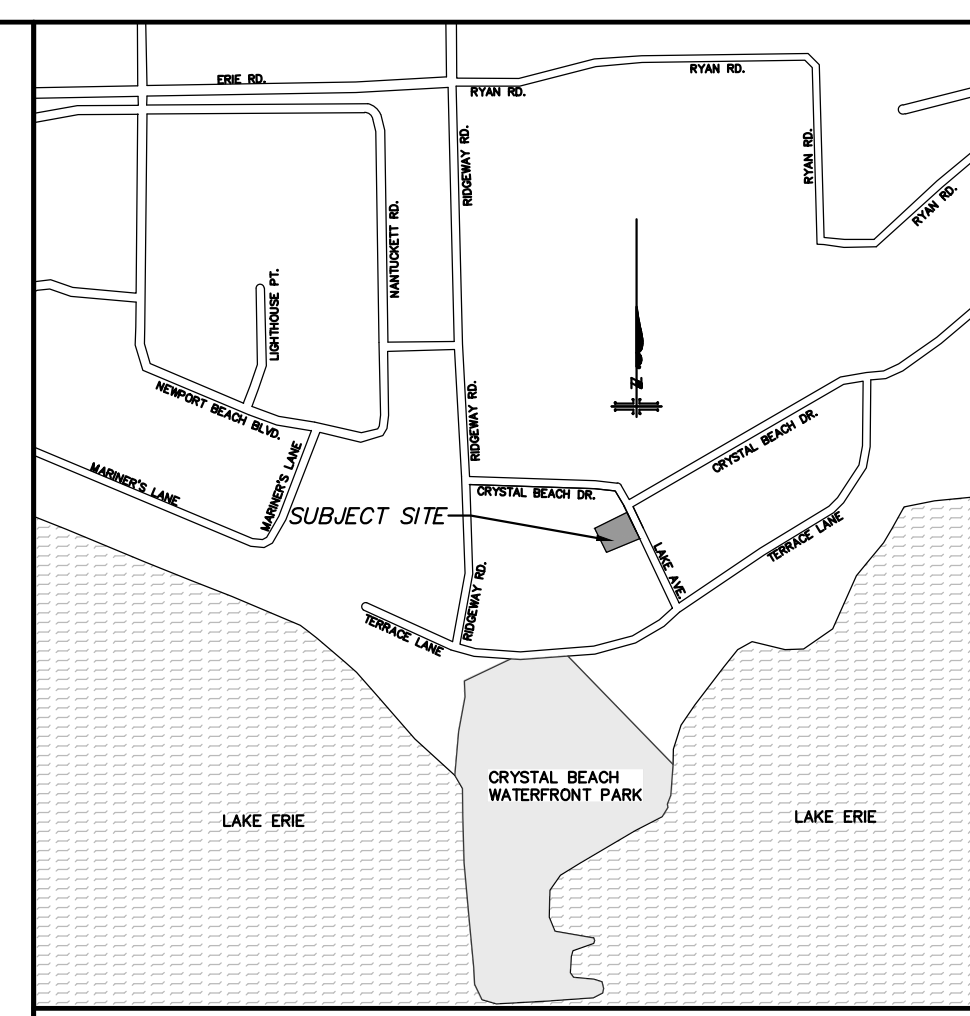
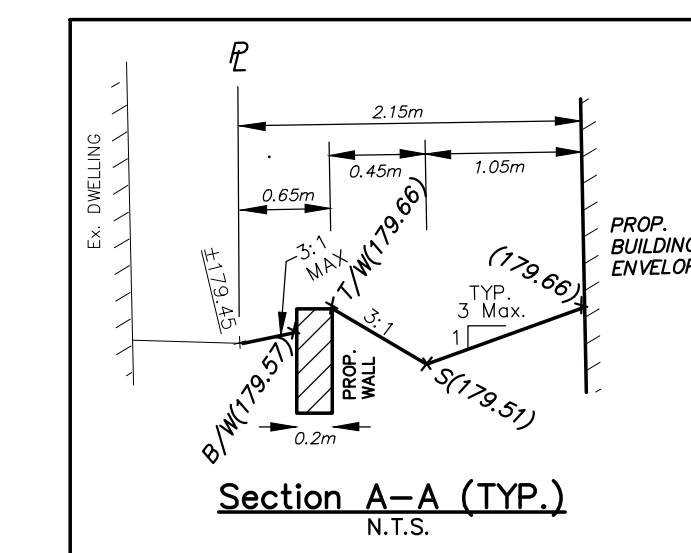
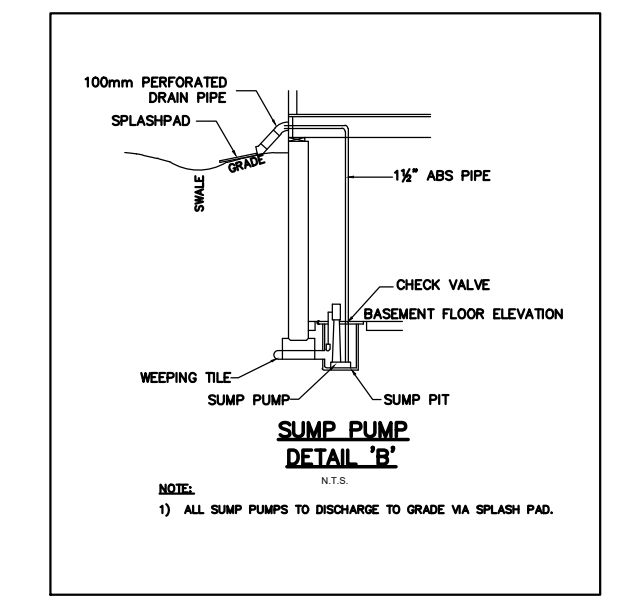
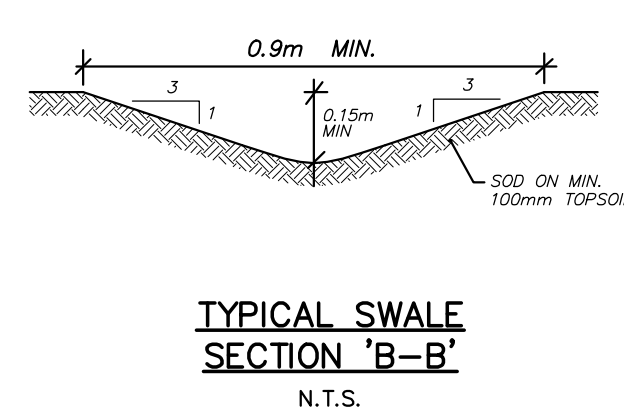
- 1. SIDEWALK SHALL CONFORM TO O.P.S.D. 310.010 AND 310.020.
- 2. THE FOLLOWING PAVEMENT STRUCTURES SHALL BE USED, UNLESS OTHERWISE SPECIFIED:
 - LOCAL ROADS - 20.0m R.O.W., 18.0m R.O.W.
 - 40mm ASPHALT SURFACE COURSE (HL3)
 - 50mm ASPHALT BINDER COURSE (HL8)
 - 450mm - 16mm DIAMETER CRUSHER RUN LIMESTONE (GRANULAR A)
- 3. BOULEVARDS SHALL BE A MINIMUM 100mm TOPSOIL AND NO. 1 NURSERY SOIL.
- 4. ROAD CROSS-SECTION LAYOUT SHALL BE IN ACCORDANCE WITH DETAILS SHOWN ON THIS PAGE.
- 5. LOT GRADING TO BE AS PER TOWN OF FORT ERIE STANDARDS.
- 6. MANHOLE COVERS AND CATCH BASIN LIDS TO BE SET TO BASE COURSE ASPHALT GRADE AND TO BE RAISED PRIOR TO TOP COURSE ASPHALT BEING LAID.
- 7. SUBDRAIN TO BE 100mm HDPE PERFORATED WITH FILTER SOCK IN TRENCH PER OPSD 216.021, UNWRAPPED TRENCH.

GENERAL NOTES:

- 1. All driveways from property lines for the first 7.5 metres shall be 2 to 5% grade, and up to 10% maximum grade thereafter.
- 2. The approval of this plan does not exempt the Owner or its bonded contractor from the requirements to obtain the various permits normally required to complete a construction project, such as, but not limited to the following: committee of adjustment, relocation of services, sewer and water permits,

LEGEND

±000.00	EXISTING GRADE ADJACENT	Ex.RS	EXISTING ROAD SIGN
0000.00	ORIGINAL GROUND ELEVATION	Ex.CW	EXISTING GUYWIRE
(0000.00)	PROPOSED GROUND ELEVATION	Ex.CS	EXISTING CURB STOP
000.00	PROPOSED MIN. FINISHED GRADE AT DWELLING	Ex.CB	EXISTING CATCH BASIN
→	DIRECTION OF SURFACE DRAINAGE SWALE	Ex.WV	EXISTING WATER VALVE
→	DIRECTION OF SHEET FLOW	Ex.HYD	EXISTING HYDRANT
→	SWALE INVERT ELEVATION	Ex.MH	EXISTING SANITARY MANHOLE
→	DRIVEWAY LOCATION	Ex.SMH	EXISTING STORM MANHOLE
→	PROPOSED RETAINING WALL		
●	EXISTING HYDRO POLE		
●	EXISTING HYDRO POLE & LIGHT STANDARD		
●	EXISTING LIGHT STANDARD		
●	PROPOSED LIGHT STANDARD		
●	PROPOSED HYDRO VAULT		
●	PROPOSED TRANSFORMER		
●	EXISTING HYDRO VAULT		
●	EXISTING FENCE		
●	EXISTING CONIFEROUS TREE WITH TREE TRUNK Ø IN MILLIMETRES		
●	EXISTING DECIDUOUS TREE WITH TREE TRUNK Ø IN MILLIMETRES		
●	EXISTING DRIPLINE		



KEY PLAN N.T.S.

BENCH MARK
ELEVATIONS HEREON ARE GEODETIC AND WERE DERIVED FROM THE TOPNET RKT NETWORK, NAD83 CRS, VERSION 3, EPOC 2010.

No.	Revision	By	Date
1.	1st Submission	A.N.	NOV 07, 2022

- GENERAL NOTES
- 1. TENDERERS SHALL SATISFY THEMSELVES AS TO THE NATURE OF THE GROUND AND BID ACCORDINGLY.
 - 2. ALL ROCK LINE INDICATIONS SHOWN ON THE PLAN MUST BE VERIFIED BY THE CONTRACTOR.
 - 3. CONTRACTOR SHALL VERIFY LOCATIONS AND INVERTS OF ALL EXISTING SANITARY AND STORM SEWERS AND WATERMANS, PRIVATE SEWER DRAINS AND WATER SERVICES, GASMANS, CABLE TV, HYDRO AND TELEPHONE DUCTS, ETC., AT START OF CONSTRUCTION.

ENGINEER

PROJECT OWNER:
ELITE BEAUTY MANAGEMENT

NOT ISSUED FOR CONSTRUCTION

MUNICIPALITY:
TOWN OF FORT ERIE
(CRYSTAL BEACH)

PROJECT NAME:
525 LAKE AVENUE

A.J. Clarke and Associates Ltd.
SURVEYORS • PLANNERS • ENGINEERS
25 MAIN STREET WEST, SUITE 300
HAMILTON, ONTARIO L8P 1H1
Tel: 905 528-8761 Fax: 905 528-2289
email: ajc@ajclarke.com

TITLE:
GRADING PLAN

SCALE: 1:100	DATE: OCT 2022
DESIGN: A.N.	DRAWN: S.Z.
DWC: 228004	SHT: 2