

EROSION AND SEDIMENT CONTROL NARRATIVES :

- 1. PROJECT DESCRIPTION
THE SITE IS IDENTIFIED AS LT 2 OF PCL PT BLK 22, WINDOWVER HEIGHTS AND IS LOCATED AT 348 WINDOWVER AVE NW, VIENNA, 22180. THE SITE CONTAINS 16,000 SF (0.367 AC) OF LAND AREA AND ZONED RS-16. THE DISTURBED AREA DUE TO THE REDEVELOPMENT OF THE LOT WILL BE 0.293 ACRES. THE PROJECT INVOLVES DEMOLITION OF THE EXISTING 2-STORY DWELLING, DRIVEWAY, WALKWAY, AND CONSTRUCTION OF A NEW 2-STORY SINGLE FAMILY DWELLING. THE EXISTING DRIVEWAY ENTRANCE WILL BE USED AS A CONSTRUCTION ENTRANCE AND REMOVED AFTERWARDS. A NEW DRIVEWAY AND APRON IS PROPOSED FOR THIS NEW DWELLING. THE SITE IS CURRENTLY SERVED BY THE PUBLIC SEWER AND PUBLIC WATER SYSTEM.
THE SITE WILL HAVE TOTAL IMPERVIOUS AREA OF 4,438 SQ FT AS COMPARED TO THE PREDEVELOPMENT IMPERVIOUS AREA OF 3,606 SQ FT. THE NET INCREASE OF IMPERVIOUS AREA IS 832 SQ FT. THE TOTAL IMPERVIOUS AREA IS 27.74%. PLEASE REFER TO THE COMPUTATIONS ON SHEET #6. INFILTRATION TRENCH WILL BE PROVIDED FOR WATER QUANTITY AND WATER QUALITY PURPOSES. THIS FACILITY HAS BEEN DESIGNED TO ACCOMMODATE THE 1" RUNOFF TO MITIGATE THE INCREASED RUNOFF FROM PART OF THE ROOF DOWNSPOUTS. REFER SHEET #8 FOR DETAILS AND DESIGN OF THE INFILTRATION TRENCH. BY PROVIDING THIS FACILITY, THERE WILL BE A REMOVAL OF PHOSPHOROUS BY 0.07 LB/ YEAR FOR WATER QUALITY PURPOSES AND THERE WILL BE A NET REDUCTION OF 89 CF OF RUNOFF.
2. EXISTING SITE CONDITIONS
THE SITE IS AN INTERIOR LOT AND IS DEVELOPED WITH A SINGLE-FAMILY DWELLING. THE LOT WITHIN THE ROW, ONLY THE TREES IMPACTED BY THE CONSTRUCTION WILL BE REMOVED AS SHOWN ON THE PLANS. THE EXISTING VEGETATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE.
THE STUDY LOT FALLS WITHIN ACCOTINK CREEK WATERSHED. THE ON-SITE DRAINAGE AREA CONSISTS OF 0.367 ACRES OF TOTAL ON-SITE DRAINAGE AREA AND CONTRIBUTES ABOUT 1.07 CFS OF RUNOFF FROM THE 10-YEAR STORM EVENTS. THE LOT PRESENT TWO DRAINAGE AREAS WITH TWO OUTFALL LOCATIONS. RUNOFF FROM THE STUDY LOT FLOW TO THE NORTH-WEST DIRECTION INTO THE WINDOWVER AVE, THEN THE RUNOFF WILL CONTINUE INTO THE CURB INLET LOCATED ALONG WINDOWVER AVE, THEN ALONG THE CLOSED SYSTEM UNTIL OUTFALLS ACCOTINK CREEK WATERSHED. THE OTHER PART OF THE LOT FLOW TO THE SOUTH-EAST DIRECTION ENTER INTO THE CURB AND GUTTER OF MAPLE AVE, THEN ALONG THE CURB TO THE EAST DIRECTION AND THEN ALONG THE CLOSED SYSTEM UNTIL OUTFALLS INTO DIFFICULT RUN ACCOTINK CREEK.
ADJACENT AREA
THE LOT IS SURROUNDED BY SINGLE FAMILY LOT 86A FROM THE NORTH DIRECTION, LOT 86C FROM THE WEST-SOUTH AND LOT 2560 AND FRONTAGE TO WINDOWVER AVE.
3. OFFSITE AREAS
OFFSITE AREAS WILL NOT BE DISTURBED DURING CONSTRUCTION ACTIVITIES EXCEPT DURING THE INSTALLATION OF THE NEW 1" WATER LINE, WATER METER AND DRIVEWAY APRON. THE DEBRIS RESULTING FROM THE DEMOLITION ACTIVITIES WILL BE HAULED AWAY TO AN APPROVED DUMPING SITE AS FREQUENTLY AS REQUIRED.
4. SOILS
THE SOIL OF THE SUBJECT LOT COMPRISES OF ONE SOIL CLASS TYPE 105B (WHEATON-GLENELG COMPLEX). SILT FENCE WILL BE INSTALLED ALONG THE LOWER LIMIT OF DISTURBANCE TO CONTROL SEDIMENT TRANSPORT.
5. CRITICAL AREAS
THE SITE DOES NOT APPEAR TO HAVE SERIOUS EROSION PROBLEM. SILT FENCE WILL BE INSTALLED ALONG THE LIMIT OF CLEARING AND GRADING. CRITICAL SLOPE IS NOT PROPOSED ON THE SITE. THE SITE DOES NOT APPEAR TO HAVE SERIOUS EROSION PROBLEM.
6. EROSION AND SEDIMENT CONTROL MEASURES
ALL SILTATION CONTROL MEASURES WILL BE INSTALLED ALONG LOW LAND OF DISTURBED AREA AS SHOWN ON THE GRADING PLAN IN PHASE I STAGE OF THE PROJECT. OWNER WILL CALL THE TOWN INSPECTOR 24 HOURS PRIOR TO THE START OF ANY CONSTRUCTION TO SCHEDULE AN INSPECTION. REFER TO SHEET 5 FOR EROSION AND SEDIMENT CONTROL SEQUENCES, PHASE I AND II. THE SPECIFICATION OF THE SUPER SILT FENCE AND SILT FENCE SHALL BE AS STATED ON SHEET #11. STREET SWEEPING WILL BE DONE TO REMOVE ALL THE SEDIMENTS TRANSPORTED BY THE CONSTRUCTION VEHICLES TO THE PUBLIC STREET AS FREQUENTLY AS REQUIRED. ALL THE EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AND KEPT FUNCTIONAL AS DESCRIBED UNDER MAINTENANCE PROGRAM.
7. PERMANENT STABILIZATION
PERMANENT OR TEMPORARY SOIL STABILIZATION WILL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SEEDING AND MULCHING ARE TO BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL NOT BE WORKED OUT FOR SEVEN OR MORE CALENDAR DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
8. STORMWATER RUNOFF CONSIDERATION
THIS PROJECT WILL RESULT IN A INCREASE IN SURFACE RUNOFF AS A RESULT OF THE INCREASED IMPERVIOUS AREA (832 SF). THE POST-DEVELOPMENT RUNOFF WILL INCREASE TO 1.07 CFS AND 0.83 CFS FROM THE 10-YEAR AND 2-YEAR STORM EVENTS AS COMPARED TO THE PRE-DEVELOPMENT RUNOFF RATE OF 0.99 CFS AND 0.77 CFS RESPECTIVELY. PLEASE REFER TO THE COMPUTATIONS ON SHEET #6. THE OVERALL RUNOFF WILL INCREASE 0.07 CFS AND 0.06 CFS FROM THE 10-YEAR AND 2-YEAR STORMS. THE OUTFALL ANALYSIS HAS BEEN PERFORMED IN ITS EXISTING AND PROPOSED CONDITIONS AND IT SHOWS THAT AN ADEQUATE OUTFALL EXISTS FOR THE SITE. NO ADVERSE IMPACTS WILL BE ANTICIPATED WITH THE IMPLEMENTATION OF THE BMP FACILITY. THE TOTAL IMPERVIOUS AREA OF THE SITE IS 27.74%.
9. CALCULATIONS
THE PRE- AND POST- DEVELOPMENT RUNOFF FOR 2-YR AND 10-YR STORMS, IMPERVIOUS AREA ACREAGE CALCULATIONS, "C" FACTOR CALCULATIONS ARE PROVIDED ON SHEET #6. THE RATIONAL METHOD HAS BEEN USED TO ESTIMATE THE PEAK RUNOFF.

SEWER HOUSE CONNECTION NOTE:

THE NEW DWELLING IS PROPOSED TO BE CONNECTED TO THE EXISTING SEWER LATERAL. THE LOCATION OF THE EXISTING SANITARY SEWER LATERAL SHOWN ON THE PLAN IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE EXACT LOCATION AND INVERT ELEVATION OF THE LATERAL. IF THE EXISTING LATERAL IS DEEMED UNACCEPTABLE, THEN A NEW SEWER HOUSE LATERAL IS PROVIDED WITH CLEAN-OUTS AT 50 FEET INTERVALS. GRAVITY FLOW IS DESIRABLE TO THE MAXIMUM EXTENT POSSIBLE. IF GRAVITY FLOW IS NOT POSSIBLE, THEN AN EJECTOR PUMP SHALL BE PROVIDED FOR THE BASEMENT PLUMBING.

WATER HOUSE CONNECTION NOTE:

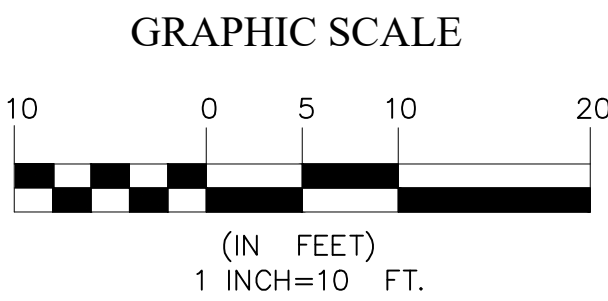
THE NEW DWELLING WILL BE CONNECTED BY 1" WATER LINE FROM THE PROPOSED 1" WATER METER AS SHOWN ON THE PLANS. THE LOCATION OF THE EXISTING WATER MAIN SHOWN ON THE PLANS IS APPROXIMATE ONLY BUT WILL BE REMOVED. REFER SHEET #3 FOR THE DETAIL OF 1" WATER METER.

WATERSHED AND DISTURBED AREA NOTE
WATERSHED: ACCOTINK CREEK
DISTURBED AREA= 12,773 SF (0.293 AC)
TOTAL IMPERVIOUS AREA = 4,458 SF

TREE PLANTING NOTE:
TREES TO BE PLANTED OUTSIDE THE LIMIT OF DISTURBANCE WILL BE MANUALLY PLANTED WITH MINIMUM LAND DISTURBANCE AS NECESSARY. REFER SHEET 8 FOR PROPOSED TREE PLANTING SCHEDULES.
NOTE:
SEEDING ON THE LOT AREA IS PERMANENT ONLY. NO TEMPORARY SEEDING IS PROPOSED FOR THE SITE WITHIN THE DISTURBED AREA.

Table with 3 columns: DESCRIPTION, REQUIRED, PROVIDED. Rows include LOT AREA, LOT COVERAGE, SETBACKS, SIDE, REAR, LOT WIDTH, BUILDING HT, and TREE COVER.

Table with 2 columns: DESCRIPTIONS, AREA. Rows include DWELLING, DRIVEWAY, FRONT PORCH, TOTAL AREA, and LOT COVERAGE.



NOTE:
ALL EXISTING STRUCTURES TO BE REMOVED NOT SHOWN ON THIS PLAN FOR CLARITY PURPOSES. REFER SHEET #1 FOR ALL EXISTING STRUCTURES THAT WILL BE REMOVED.

ATTACHMENT 05

PHASE II LEGEND

Legend symbols and descriptions: EXISTING 2' CONTOUR LINE, PROPOSED 2' CONTOUR LINE, EXISTING SPOT ELEVATION, PROPOSED SPOT ELEVATION, EASEMENT, SANITARY MAIN, WATER LINE MAIN, GAS LINE MAIN, EDGE OF PAVEMENT, EXISTING FENCE, PROPOSED FENCE, PROPOSED STRUCTURES, EXISTING STRUCTURES REMAIN, BRL, LIMITS OF CLEARING, SILT FENCE 3.05, SUPER SILT FENCE, ROOT PRUNING TRENCH, TREE PROTECTION FENCE 3.38, TRENCHLESS SUPER SILT FENCE, FLOW DIRECTION, SOIL BORING LOCATION, EXISTING TREE TO BE PRESERVED, 4" UNDERGROUND PIPE TO BMP 0.5% MIN.

NOTE:
THIS IS A STANDARD LEGEND DRAWING. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS DRAWING AND MAY NOT BE USED IN THIS PROJECT.

Project information block including: GeoEnv Engineers logo, project title 'LT 2 WINDOWVER HEIGHTS 348 WINDOWVER AVE NW', revision table, professional seal, and sheet number '2'.