

A PORTION OF A PORTION OF THE SE QUARTER OF SECTION 01, TOWNSHIP 24 N., RANGE 04 E., W.M.

**SOIL QUALITY GUIDLINES**

2014 SWMMW, BMP T5.13

- SOIL RETENTION. RETAIN, IN A UNDISTURBED STATE THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCK-PILE THE DUFF LAYER AND TOPSOIL, IF ANY, ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SIT WHERE FEASIBLE.
- SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
  - A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 5-10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
  - MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL
  - USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
    - THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN ONLY BE MET USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION WITH THE EXCEPTION THAT THE COMPOST MUST HAVE AN ORGANIC MATTER CONTENT OF 40 PERCENT TO 65 PERCENT, AND A CARBON TO NITROGEN RATIO BETWEEN 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTING COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
    - CALCULATED AMENDMENT RATES MAY BE ME THROUGH USE OF COMPOSTED MATERIALS AS DEFINED ABOVE, OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220

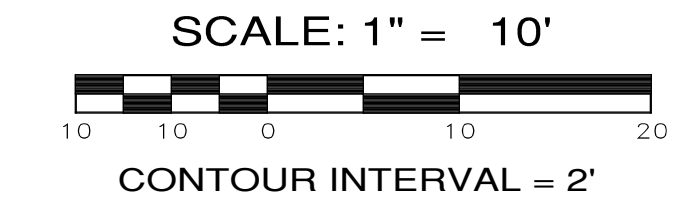
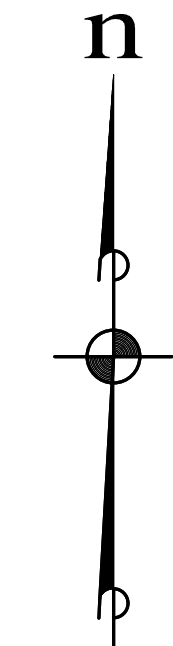
**SOIL AMENDMENT OPTIONS**

2014 SWMMW, BMP T5.13

- IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ON THIS SHEET CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
- OPTION 1: LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
  - OPTION 2: AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
  - OPTION 3: STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
  - OPTION 4: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.
- MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

**POST CONSTRUCTION SOIL INSPECTION**

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.



**SITE DATA**

PARCEL NUMBER: 545230-2145  
 SITE ADDRESS: 2215 80TH AVE SE, MERCER ISLAND, WA 98040  
 SITE AREA: 8,800 SF (RECORDED), 8,810 SF (SURVEYED)  
 ZONING: R-8.5  
 REQUIRED SETBACKS:  
 FRONT/GARAGE: 20 FT  
 BACK: 25 FT  
 INTERIOR: 10 FT EA (15 FT TOTAL)

**ON-SITE IMPERVIOUS**

NEW PLUS REPLACED  
 TRIBUTARY TO DETENTION TANK  
 SINGLE FAMILY ROOFTOP 2,495 SF (0.057 AC TO PUMP)  
 CONCRETE DRIVE 437 SF  
 TOTAL 2,932 SF (0.067 AC)  
 SHEET FLOW DISPERSION  
 EXPOSED WALKWAYS 233 SF

**PROJECT IMPACTS**

EXISTING (ALL TO BE REMOVED)  
 SINGLE FAMILY ROOFTOP 3,629 SF  
 SIDEWALK 0 SF  
 BACK PATIO 112 SF  
 DECK 317 SF  
 SITE DRIVEWAY 850 SF  
 TOTAL 4,908 SF  
 REPLACED  
 SINGLE FAMILY ROOFTOP 2,495 SF  
 SIDEWALK 233 SF  
 DECK 49 SF  
 TOTAL REPLACED 2,777 SF  
 NEW  
 DRIVEWAY 437 SF  
 TOTAL NEW 437 SF  
 NEW + REPLACED 3,214 SF

**EARTHWORK QUANTITIES**

CUT 0 CY  
 FILL 80 CY  
 NET 80 CY (FILL)

EARTHWORK VOLUMES SHOWN ARE ESTIMATES ONLY. CONTRACTOR SHALL VERIFY VOLUMES AS NEEDED.

**FOOTING DRAIN NOTE**

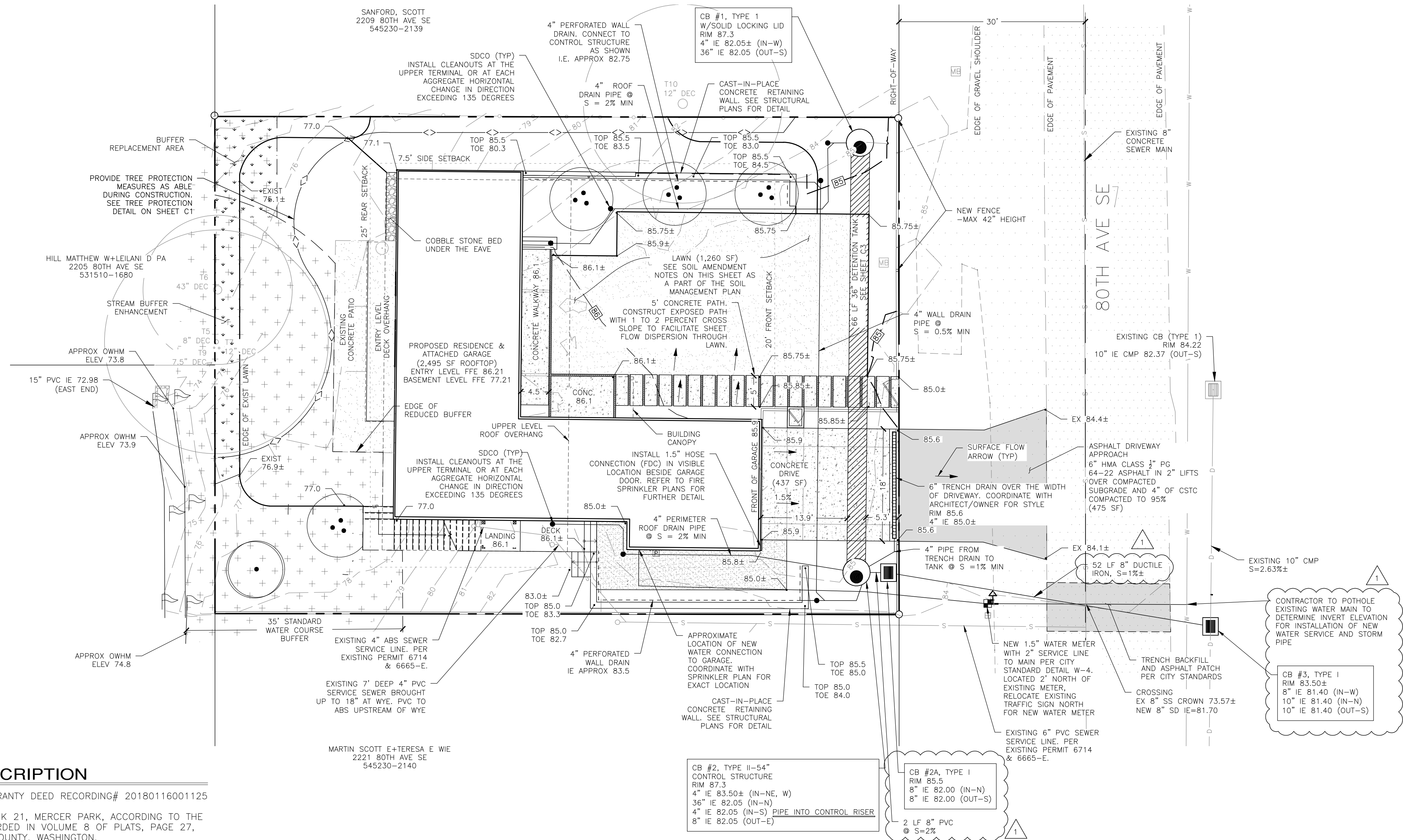
THE EXISTING FOOTING DRAIN WILL NOT BE ALTERED AND REMAIN IN PLACE. NO NEW CONNECTION FROM ANY SOURCES TO THE EXISTING FOOTING DRAIN ARE ALLOWED. IF THERE ARE ALTERATIONS OR CONNECTIONS TO THE EXISTING FOOTING DRAIN ARE NEEDED DURING THE CONSTRUCTION, THEN A NEW DESIGN FOR THE FOOTING DRAIN MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

**LEGAL DESCRIPTION**

PER STATUTORY WARRANTY DEED RECORDING# 20180116001125  
 LOTS 3 AND 4, BLOCK 21, MERCER PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 9 OF PLATS, PAGE 27, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SEE THE TOPOGRAPHY MAP PREPARED BY TERRANE LAND SURVEYING FOR THIS PROJECT FOR FURTHER PROJECT DESCRIPTION, CONTROL, AND EXISTING TOPOGRAPHY INFORMATION.



REVISIONS		
NO.	DESCRIPTION/DATE	BY
1	CITY COMMENTS AUGUST 1, 2019	ESM
2	CITY COMMENTS SEPTEMBER 23, 2019	ESM
3	CITY COMMENTS JANUARY 14, 2020	ESM
4	ADDED BACK PATIO MAY 14, 2020	ESM
Δ	REVISED PER INSPECTOR 01/14/2021	ESM



ESM CONSULTING ENGINEERS LLC  
 33400 8th Ave S, Suite 205  
 Federal Way, WA 98003  
 (206) 838-6113  
 (206) 297-9900  
 www.esmcivil.com  
 Civil Engineering  
 Land Planning  
 Landscape Architecture  
 Project Management  
 Surveying  
 Public Works

MZA ARCHITECTURE  
**PAEK RESIDENCE**  
 DRAINAGE & GRADING PLAN  
 CITY OF MERCER ISLAND, WASHINGTON  
 JOB NO.: 1954-003-018  
 DWG. NAME:  
 DESIGNED BY: BML  
 DRAWN BY: BML  
 CHECKED BY:  
 DATE: 01/14/2021  
 DATE OF PRINT:  
**C2**  
 OF SHEETS

CALL 48 HOURS BEFORE YOU DIG  
 811

File: \\mzm\pmp\ESM-0085\1954\03\1018\p\p\1954003018-Paek Residence CIVL-Rev-1\_2021-01-14.dwg  
 Plotted By: Brandon Loucks  
 1/14/2021 3:32 PM