



DRAINAGE MEMORANDUM

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Date: November 12, 2015

To: City of Kirkland
Public Works Department

From: Anna Nguyen, P.E.

Subject: Xue Short Plat | Drainage Design
Project Address: 12933 – 79th Place NE; Kirkland, WA



11/12/2015

Design Requirements

The City of Kirkland utilizes the 2009 King County Surface Water Manual (KCSWM) and the City of Kirkland Addendum to the 2009 King County Surface Water Design (January 2010) for its drainage requirements. Per Section 1.1.2 of the KCSWM and Figure 1.1.2.A, the project is subject to Small Project Drainage Review because the project is a “single family residential... project that results in $\geq 2,000$ sf of new impervious surface... AND... The project results in $\leq 10,000$ sf of total impervious surface added since 1/8/01... no more than 5,000 square feet of new impervious surface, and no more than 35,000 square feet of new pervious surface”

The project meets the Small Project criteria as follows:

- The project is a single family residential project.
- Proposed net new impervious surface, including frontage improvements is 4,280 SF
- Total impervious surface is 6,301 SF; therefore, does not exceed 10,000 SF.

Proposed New Impervious Surfaces (SF)	
House	2,200
Driveway	500
Frontage Improvements	1,580
Total New Impervious Surface	4,280

The KCSWDM defines new pervious surface as “...the conversion of native pervious surface to non-native pervious surface...” The site does not contain native pervious surface. Therefore, there is no new target pervious surface.

Project Description

Existing Site Conditions

The project is located at 12933 – 79th Place NE in the City of Kirkland, Washington. The property is developed with a single family residence (SFR), which will remain. The general topography of the site slopes from the eastern property boundary to the western property boundary. Elevations on the site vary from a high point of 350 feet at the eastern property line to 336 feet at the western property line, with grades varying between 5.0% to 40.0%.

Proposed Site Improvements

The project proposes to short plat the property into two (2) total lots and construct one (1) new SFR, along with associated utilities and frontage improvements. The existing SFR on the property will be remain.

Soils Information

The Soils Conservation Service (SCS) mapped the soils information in the project as predominately AgC, Alderwood gravelly sandy loam. This type of soil is moderately well drained.



Figure 1 – Soils Map (Not-to-Scale)

Proposed Stormwater Management Techniques

Stormwater from the roof will be collected and conveyed to the public storm drain system located along Juanita Drive NE via an infiltration trench with a perforated tightline connection.

Erosion & Sediment Control Plan

All erosion and sediment control (ESC) measures shall be governed by the requirements of the City of Kirkland. Erosion control measures have been included on the TESC Plan to assist the contractor in complying with these requirements and designed to prevent sediment-laden run-off from leaving the site during construction.

Trapping Sediment

Erosion/ sedimentation control is achieved by a combination of structural measures, cover measures, and construction practices that are tailored to fit the specific site. ESC control measures will be used to reduce erosion and retain sediment on the construction site. The control measures will be selected to fit specific site and seasonal conditions. Refer to attached ESC details. The following items will be used to control erosion and sedimentation processes:

- Filter fabric fences (silt fences)
- Ground cover measures such as straw cover and/or hydroseeding
- Dust control

Construction Sequence and Procedure

Prior to the start of any grading activity upon the site, all erosion control measures, including installation of a stabilized construction entrance, shall be installed in accordance with the construction documents.

The best construction practice will be employed to properly clear and grade the site and to schedule construction activities. The planned construction sequence for the construction of the site is as follows:

1. Flag or fence clearing limits.
2. Install perimeter protection (silt fence, brush barrier, etc.).
3. Maintain and relocate erosion control measures or install new measures so that as site conditions change the erosion and sediment control is always in accordance with the City of Kirkland.
4. Cover all areas that will be unworked for more than seven days during the dry season or two days during the wet season with straw, wood fiber mulch, compost, plastic sheeting or equivalent.
5. Upon completion of the project, all disturbed areas must be stabilized and BMPs removed as appropriate.

Operations and Maintenance

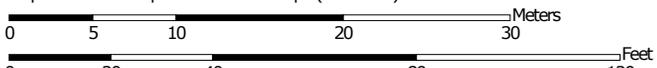
The owner of the property shall be responsible for maintaining the infiltration trench per the City of Kirkland Small Project Drainage Requirements. Proper maintenance is important for adequate functioning of the stormwater facilities. A maintenance checklist is provided in the appendix.

Soil Information

Soil Map—King County Area, Washington



Map Scale: 1:450 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: King County Area, Washington
 Survey Area Data: Version 11, Sep 14, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 31, 2013—Oct 6, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

King County Area, Washington (WA633)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgC	Alderwood gravelly sandy loam, 8 to 15 percent slopes	0.5	100.0%
Totals for Area of Interest		0.5	100.0%

King County Area, Washington

AgC—Alderwood gravelly sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2t626

Elevation: 50 to 800 feet

Mean annual precipitation: 20 to 60 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 160 to 240 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Alderwood and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alderwood

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Nose slope, talf

Down-slope shape: Linear, convex

Across-slope shape: Convex

Parent material: Glacial drift and/or glacial outwash over dense glaciomarine deposits

Typical profile

A - 0 to 7 inches: gravelly sandy loam

Bw1 - 7 to 21 inches: very gravelly sandy loam

Bw2 - 21 to 30 inches: very gravelly sandy loam

Bg - 30 to 35 inches: very gravelly sandy loam

2Cd1 - 35 to 43 inches: very gravelly sandy loam

2Cd2 - 43 to 59 inches: very gravelly sandy loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 39 inches to densic material

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 18 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: B

Other vegetative classification: Limited Depth Soils
(G002XN302WA), Limited Depth Soils (G002XS301WA),
Limited Depth Soils (G002XF303WA)

Minor Components

Everett

Percent of map unit: 5 percent
Landform: Eskers, kames, moraines
Landform position (two-dimensional): Shoulder, footslope
Landform position (three-dimensional): Crest, base slope
Down-slope shape: Convex
Across-slope shape: Convex

Indianola

Percent of map unit: 5 percent
Landform: Eskers, kames, terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear

Shalcar

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave

Norma

Percent of map unit: 2 percent
Landform: Depressions, drainageways
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Concave

Data Source Information

Soil Survey Area: King County Area, Washington
Survey Area Data: Version 11, Sep 14, 2015

Drainage & Erosion Control Plans

STORM DRAINAGE - NOTES:

1. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
2. BEFORE ANY CONSTRUCTION WORKS DEPARTMENT, OBTAINED ALL CITY, COUNTY, STATE, FEDERAL AND OTHER REQUIRED PERMITS, AND HAVE POSTED ALL REQUIRED BONDS.
3. ALL STORM DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF KIRKLAND PUBLIC WORKS PRE-APPROVED PLANS AND POLICES AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, PREPARED BY WSDOT AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA).
4. ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL. ALL CHANGES SHALL BE SUBMITTED TO THE CITY.
5. A COPY OF THE APPROVED STORM WATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

6. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR SIMILARLY STABILIZED TO THE SATISFACTION OF THE CITY OF KIRKLAND DEPARTMENT OF PUBLIC WORKS FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.
7. MINIMUM COVER OVER STORM DRAINAGE PIPES IN ROW OR VEHICULAR PATH SHALL BE 18 INCHES, UNLESS OTHER DESIGN IS APPROVED.
8. STEEL PITCH SHALL HAVE ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
9. ALL CATCH BASINS SHALL BE TYPE I UNLESS OTHERWISE NOTED. CATCH BASINS WITH A DEPTH OF OVER FIVE FEET (5') TO THE PIPE INVERT SHALL BE A TYPE II CATCH BASIN. TYPE II CATCH BASINS EXCEEDING FIVE FEET (5') IN DEPTH SHALL HAVE A STANDARD LADDER INSTALLED.
10. ALL STORM DRAINAGE MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE STAKED FOR LINE AND GRADE PRIOR TO STARTING CONSTRUCTION.

11. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF ONE FOOT (1') AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-5" ROCK(40%-70% PASSING; 2"-4" ROCK(30%-40% PASSING; 2"MINUS ROCK(10%-20% PASSING.
12. ALL PIPE, MANHOLES, CATCH BASINS, AND APPURTENANCES SHALL BE Laid ON A PROPERLY PREPARED FOUNDTION IN ACCORDANCE WITH THE CURRENT STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (WSDOT). THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL, AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL, TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORM, DENSE, UNYIELDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING," THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSENEED, REGRADED AND COMPACTED TO FORM A DENSE UNYIELDING BASE. ALL PIPE BEDDING SHALL BE AWA CLASS B, TYPE I, OR BETTER. PIPE SHALL NOT BE INSTALLED ON SOIL, FROZEN EARTH, LARGE BOULDERS, OR ROCK. PIPE BEDDING FOR FLEXIBLE PIPES SHALL BE PE4 GRAVEL TO THE SPRINGLINE OF THE PIPE.

13. CONSTRUCTION OF DEWATERING (GROUNDWATER) SYSTEMS SHALL BE IN ACCORDANCE WITH THE APWA STANDARD SPECIFICATIONS.
14. ISSUANCE OF A BUILDING OR LAND SURFACE MODIFICATION PERMIT BY THE CITY OF KIRKLAND DOES NOT RELIEVE THE OWNER OF THE CONTINUING LEGAL OBLIGATION AND/OR LIABILITY CONNECTED WITH STORM SURFACE WATER DISPOSITION. FURTHER, THE CITY OF KIRKLAND DOES NOT ACCEPT ANY OBLIGATION FOR THE PROPER FUNCTIONING AND MAINTENANCE OF THE SYSTEM DURING OR FOLLOWING CONSTRUCTION EXCEPT AS OUTLINED IN THE CITY OF KIRKLAND PUBLIC WORKS STANDARDS.

15. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, CONEED SPACE PROTECTION, FLAGGERS AND ANY OTHER REQUIRED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT THE RIGHT-OF-WAY FROM UNAUTHORIZED ENTRY AND USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES, AND RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL WATER FLOW. SHALL REQUIRE A TRAFFIC CONTROL PLAN, AS APPROVED BY THE CITY OF KIRKLAND. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS, TRAFFIC CONTROL, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY.

17. NO FINAL CUT OR FILL SLOPE SHALL EXCEED SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL, WITHOUT STABILIZATION BY ROCKERY OR BY A STRUCTURAL RETAINING WALL.
18. ALL MANHOLE LADDERS SHALL BE FIRMLY ATTACHED AND EXTEND TO WITHIN 1' OF THE BOTTOM OF THE STRUCTURE.

19. APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION INSPECTOR AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE DEVELOPMENT ENGINEER PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT.

20. THE UNDERGROUND UTILITY LOCATION SERVICE SHALL BE CONTACTED FOR FIELD LOCATION OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE CONTACTED IF A UTILITY CONFLICT EXISTS. FOR UTILITY LOCATION IN KING COUNTY, CALL 1-800-424-5555. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

21. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, WIDTHS, THICKNESSES, AND ELEVATIONS OF ALL EXISTING PAVEMENTS AND STRUCTURES THAT ARE TO INTERFERE WITH NEW WORK. PROVIDE ALL TRIMMING, CUTTING, SAW CUTTING, GRADING, LEVELING, SLOPING, COATING, AND OTHER WORK, INCLUDING MATERIALS AS NECESSARY TO CAUSE THE INTERFACE WITH EXISTING WORKS TO BE PROPER, ACCEPTABLE TO THE ENGINEER AND THE CITY OF KIRKLAND. COMPLETE IN PLACE AND READY TO USE.

22. ALL INLET, MANHOLE, AND CATCH BASIN FRAMES AND GRATINGS SHALL NOT BE ADJUSTED TO GRADE UNTIL IMMEDIATELY PRIOR TO FINAL PAVING. ALL CATCH BASIN GRATINGS SHALL BE SET 0.10 BELOW PAVEMENT LEVEL.

23. OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAY SHALL BE BACKFILLED ONLY WITH 5/8" MINUS CRUSHED ROCK AND MECHANICALLY COMPACTED. UNLESS OTHERWISE APPROVED BY THE CITY, FOR STREETS CLASSIFIED AS ARTERIALS OR COLLECTORS, BACKFILL FOR CROSSINGS SHALL BE CDF. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW OR JACKHAMMER IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE A MINIMUM OF 1" THICKER THAN THE ORIGINAL ASPHALT WITH A MINIMUM THICKNESS OF 2". SEE STANDARD D.02.

24. ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE CITY CONSTRUCTION INSPECTOR BEFORE PROJECT APPROVAL AND/OR THE RELEASE OF THE PROJECTS PERFORMANCE BOND.

25. GROUT ALL SEAMS AND OPENINGS IN ALL INLETS, CATCH BASINS, AND MANHOLES. JETSET GROUT IS NOT ALLOWED.
26. WHEN WIDENING AN EXISTING ROADWAY WHERE AN EXISTING TYPE I CATCH BASIN WILL REMAIN IN THE TRAVEL LANE, THE EXISTING FRAME AND COVER SHALL BE REPLACED WITH A ROUND, LOCKING FRAME AND COVER.

27. FOR OTHER THAN SINGLE-FAMILY DWELLINGS, ALL EXPOSED OR READILY EXPOSED INDOOR STORM DRAINAGE PIPING/PLUMBING SHALL BE LABELED WITH THE WORDS "STORM DRAIN" WITH MINIMUM 2 INCH HIGH LETTERS.

CONTACTS

APPLICANT/OWNER:	CIVIL ENGINEER:	SURVEYOR:
OWNER 12933 79TH PLACE NE KIRKLAND, WA 98034 (425) 785-8859	PBG, LLC 5130 S. 166TH LANE SEATAC, WA 98188 (206) 446-1292	SITE SURVEYING & MAPPING, INC. 10115 - 214TH AVE NE REDMOND, WA 98053 (253) 298-4412
CONTACT: GAOCHEUNG LI	CONTACT: HAN PHAN, P.E.	CONTACT: THOMAS WOLDENDORP, P.L.S.

UTILITIES

WATER:	SEWER:	POWER GAS:	TELEPHONE:
NORTHSHORE UTILITY DISTRICT 6830 NE 185TH STREET KENMORE, WA 98028 (425) 398-4400	NORTHSHORE UTILITY DISTRICT16801 6830 NE 185TH STREET KENMORE, WA 98028 (425) 398-4400	PUGET SOUND ENERGY 1-800-321-4123	CENTURYLINK 1-800-475-7526

XUE SHORT PLAT

**12933 79TH PLACE NE
KIRKLAND, WA 98034
NE 1/4, SEC 25, TWP 26N, R1NG 4E, W.M.**

ROADWAY - NOTES:

1. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
2. ALL ROADWAY WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE CURRENT APWA AND CITY OF KIRKLAND STANDARDS AND SPECIFICATIONS.
3. ALL PUBLIC ROADWAYS SHALL BE CONSTRUCTED OF 2" CLASS "B" AC PAVING ON 4" ASPHALT-TREATED BASE (ATB), UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DEPARTMENT.
4. A COPY OF THE APPROVED ROADWAY PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. DENSITY TEST REPORTS WILL BE REQUIRED FOR ALL PUBLIC ROADWAYS AND ALL PRIVATE ROADWAYS WITHIN PLATS, ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.
6. ALL COMMERCIAL AND RESIDENTIAL DRIVEWAYS MUST CONFORM TO THE CITY OF KIRKLAND DEPARTMENT OF PUBLIC WORKS DRIVEWAY POLICY.
7. ALL CONCRETE FOR SIDEWALKS AND CURB AND GUTTER MUST BE 4,000 PSI MINIMUM, (6-3/4 SACK MIX.)
8. IN THE CASE OF NEW ROAD CONSTRUCTION OR RECONSTRUCTION REQUIRING MAILBOXES TO BE MOVED OR REARRANGED, THE DEVELOPER/CONTRACTOR SHALL COORDINATE WITH THE U.S. POSTAL SERVICE FOR THE NEW LOCATION OF THE MAILBOX STRUCTURE.
9. ANY ROADWAY SIGNAGE OR STRIPING REMOVED OR TEMPORARILY MOVED BY THE CONTRACTOR SHALL BE RESTORED SO AS TO MEET THE CURRENT CITY OF KIRKLAND STANDARDS.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY TRAFFIC CONTROL TO ENSURE TRAFFIC SAFETY DURING CONSTRUCTION ACTIVITIES. THEREFORE, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS PRIOR TO STARTING ANY WORK IN THE RIGHT-OF-WAY. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR AS MODIFIED BY THE TRAFFIC ENGINEER.

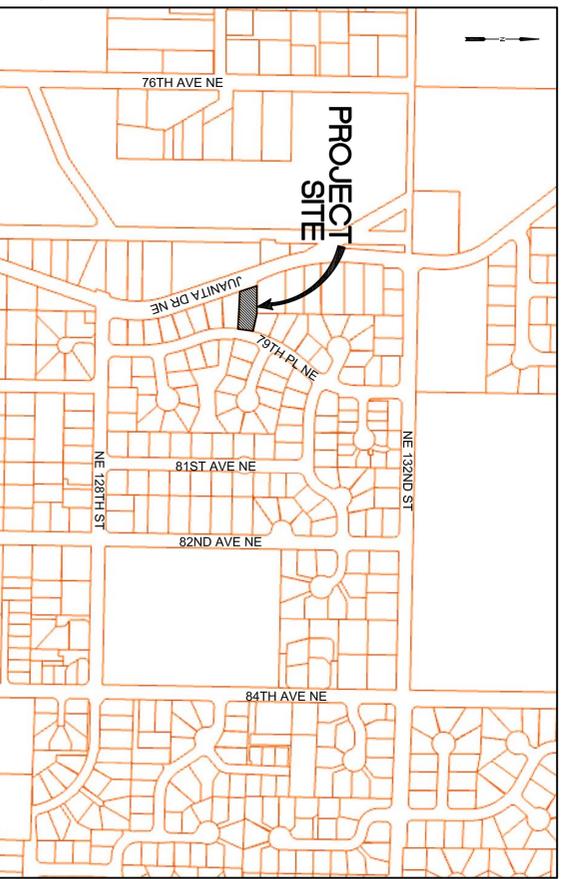
11. WHERE A SIDEWALK IS TO BE CONSTRUCTED ABOVE A SLOPE OR ADJACENT TO A ROCKERY, OR RETAINING WALL WHERE THE LOWEST FINISHED ELEVATION OF THE SLOPE, ROCKERY, OR RETAINING WALL IS TO BE THIRTY INCHES (30') OR MORE BELOW THE FINISHED ELEVATION OF THE SIDEWALK, A SAFETY RAILING SHALL BE REQUIRED WHEN: (A) THE PLANE OF THE WALL FACE IS LESS THAN 4' IN HORIZONTAL DISTANCE FROM THE OUTSIDE EDGE OF THE SIDEWALK; (B) THE SLOPES ADJACENT TO THE SIDEWALK AVERAGE GREATER THAN TWO TO ONE.
12. THE MAXIMUM GRADE FOR PRIVATE ROADWAYS SHALL BE TWENTY PERCENT (20%), OR FIFTEEN PERCENT (15%) IF USED FOR FIRE ACCESS. FOR PUBLIC ROADWAYS, THE MAXIMUM GRADE SHALL BE FIFTEEN PERCENT (15%).
13. DEAD-END STREETS SHALL BE APPROPRIATELY SIGNED AND BARRICADED. SEE MOST CURRENT EDITION OF THE MUTCD.
14. SIDEWALK AND CURB AND GUTTER CANNOT BE POURED MONOLITHICALLY. THERE MUST BE A COLD JOINT OR FULL-DEPTH EXPANSION JOINT BETWEEN THEM.
15. MEASURES SHALL BE TAKEN BY THE DEVELOPER TO PROVIDE GROUND COVER IN AREAS WITHIN THE RIGHT-OF-WAY WHICH HAVE BEEN STRIPPED OF NATURAL VEGETATION OR HAVE A POTENTIAL FOR EROSION.
16. THE DEVELOPER SHALL COORDINATE WITH PUGET POWER FOR THE DESIGN AND INSTALLATION OF STREET LIGHTS ON ALL NEWLY-CREATED PUBLIC ROADWAYS AND EXISTING ROADWAYS.
17. WHEN AN EXISTING ROADWAY IS TO RECEIVE A HALF-STREET OVERLAY, THE EXISTING ROADWAY MUST BE COLD PLANNED AT THE EDGE OF THE GUTTER AND CENTERLINE. WHEN THE EXISTING ROADWAY IS TO RECEIVE A FULL-STREET OVERLAY, IT MUST BE COLD PLANNED AT THE EDGE OF BOTH GUTTERS. SEE CITY OF KIRKLAND STANDARD DETAIL NO. R.13.
18. ALL NEW SIGNS REQUIRED IN THE PUBLIC RIGHT-OF-WAY MUST BE PURCHASED FROM, AND INSTALLED BY, THE CITY OF KIRKLAND PUBLIC WORKS DEPARTMENT.
19. WHEN INSTALLING NEW SIDEWALK, THE AREA BEHIND THE SIDEWALK MUST BE GRADED SO THAT THE YARD DRAINAGE DOES NOT DRAIN OVER THE SIDEWALK.
20. ANY EXISTING PUBLIC IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED PRIOR TO FINAL INSPECTION.
21. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC STREETS FREE FROM MUD AND DEBRIS AT ALL TIMES. THE CONTRACTOR SHALL BE PREPARED TO USE POWER SWEEPERS OR OTHER PIECES OF EQUIPMENT NECESSARY TO KEEP THE ROADWAYS CLEAN.
22. BACKFILL IN ALL STREET CUTS ON ARTERIALS WILL BE CONTROL DENSITY FILL (CDF). CONTRACTOR MUST PROVIDE STEEL PLATING NECESSARY TO ALLOW THE CDF TO CURE.
23. WHEN CONSTRUCTING NEW CURB AND GUTTER WHICH DOES NOT ALIGN WITH THE EXISTING EDGE OF PAVEMENT, THE ROADWAY MUST BE TAPERED FROM THE ENDS OF THE NEW CURB AND GUTTER TO MATCH THE EXISTING PAVEMENT. THE ENTRY TAPER INTO THE NEW IMPROVEMENTS SHALL BE 5:1, AND LEAVING THE NEW IMPROVEMENTS SHALL BE 10:1.
24. WHEN AN EXISTING ROADWAY IS TO BE WIDENED, THE EXISTING PAVEMENT MUST BE SAW CUT AT LEAST ONE FOOT FROM THE EDGE TO PROVIDE A PROPER MATCH BETWEEN NEW AND EXISTING ASPHALT. HOWEVER, WHEN THE EXISTING PAVEMENT CONTAINS ALLIGATED AREAS, THOSE AREAS MUST BE REMOVED PRIOR TO WIDENING. ALL SAW CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE RIGHT-OF-WAY CENTERLINE.
25. ALL ROCKERIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE MOST CURRENT GUIDELINES OF THE ASSOCIATION.

CITY OF KIRKLAND

CABLE:	PUBLIC WORKS INSPECTION REQUEST LINE PHONE
COMCAST 1-800-934-6489	(425)-587-3805

VERTICAL DATUM

POINT ID NO. 493
TOP OF MONUMENT IN CASE AT THE INTERSECTION
OF NE 132ND STREET AND 84TH AVENUE NE.
ELEVATION: 419.897 FEET - NAVD 88



VICINITY MAP

TAX PARCEL NUMBER
3275740010

LEGAL DESCRIPTION
LOT 1, HIDDEN CREST DIVISION 2, ACCORDING TO THE PLAT RECORDED IN VOLUME 97 OF PLATS PAGES 75-75, IN KING COUNTY, WASHINGTON;
SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KING, STATE OF WASHINGTON.

LEGEND

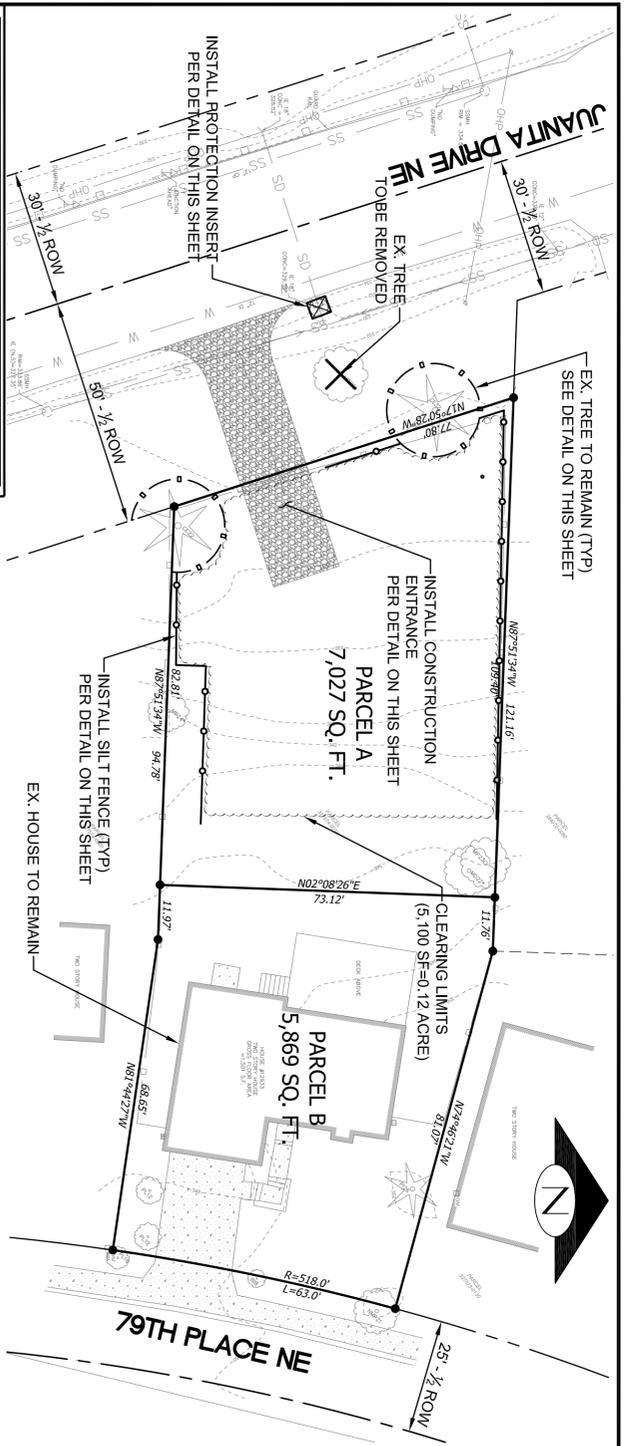
-----	PROPERTY LINE
-----	ADJACENT PROPERTY LINE
-----	ROW CENTERLINE
-----	ROW LINE
-----	BSBL
-----	PROPOSED SIDE SEWER LINE
-----	PROPOSED STORM LINE
-----	PROPOSED WATER SERVICE LINE
-----	PROPOSED INFILTRATION TRENCH
-----	CORNER SET
●	WATER METER
■	ASPHALT PAVEMENT
■	CEMENT CONCRETE PAVEMENT

DRAWING INDEX

REFERENCE SHEET NO.	DRAWING TITLE
CV	COVER SHEET AND NOTES
EC1	TESC PLAN AND DETAILS
PG1	ROADWAY / DRAINAGE / UTILITY PLAN AND PROFILE
PG2	SECTION AND DETAILS



REFERENCE SHEET NO. CV	SHEET 1 OF 4 SHEETS	XUE SHORT PLAT 12933 79TH PLACE NE KIRKLAND, WA 98034	
DATE	BY	REVISION DESCRIPTION	
JOB NO. R15550 DESIGNED BY: H. H. PHAN DRAWN BY: H. H. PHAN CHECKED BY: PROJ. MNGR:		ISSUE DATE 10-25-2015 PBG, LLC Land Development and Civil Engineering Consultants 5130 South 166th Lane SeaTac, WA 98188 T (206) 229-6422	

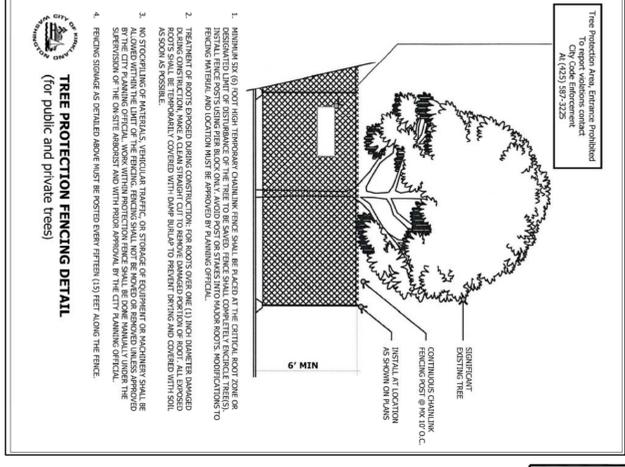


EARTHWORK VOLUME ESTIMATES:
CUT (CY) 10
FILL (CY) 25



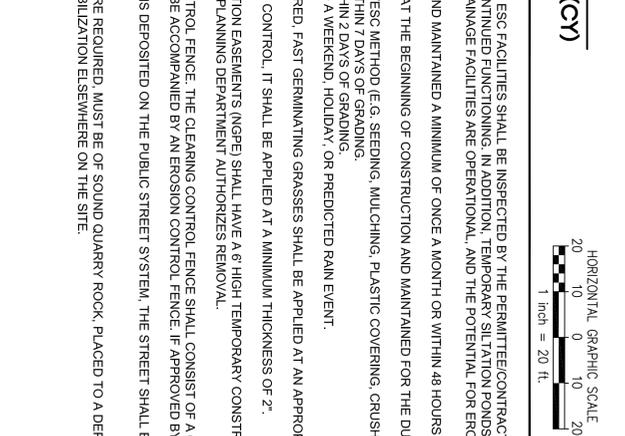
EROSION/SEDIMENTATION CONTROL - PLAN NOTES:

1. THE APPROVED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
 A. CONDUCT PRE-CONSTRUCTION MEETING.
 B. FLAG OR FENCE CLEARING LIMITS.
 C. POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
 D. INSTALL CATCH BASIN PROTECTION IF REQUIRED.
 E. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
 F. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 G. CONSTRUCT SEDIMENT PONDS AND TRAPS.
 H. GRADE AND STABILIZE CONSTRUCTION ROADS.
 I. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 J. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF KIRKLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 K. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
 L. COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
 M. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN 7 DAYS.
 N. SEED OR SOO ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 O. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.
2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF KIRKLAND STANDARDS AND SPECIFICATIONS.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY FLAGGED IN THE FIELD BY CLEARING CONTROL FENCE PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
5. THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
6. A COPY OF THE APPROVED ESC PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
7. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, WHEREVER POSSIBLE. MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
8. THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY OF KIRKLAND INSPECTOR.
9. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SLOOPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.

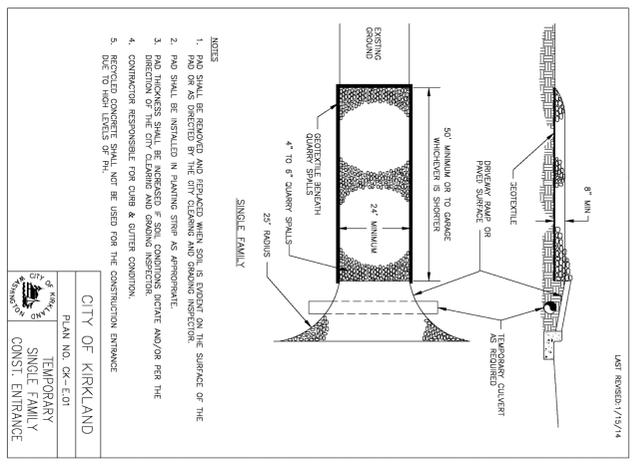


1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAIN-LINK FENCE SHALL BE INSTALLED AT THE CENTRAL ROOT ZONE OR CENTRAL CANOPY OF THE TREE TO BE PROTECTED. THE FENCE SHALL BE INSTALLED AT THE CENTRAL ROOT ZONE OR CENTRAL CANOPY OF THE TREE TO BE PROTECTED. THE FENCE SHALL BE INSTALLED AT THE CENTRAL ROOT ZONE OR CENTRAL CANOPY OF THE TREE TO BE PROTECTED.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED ROOTS SHALL BE TEMPORARILY COVERED WITH LAYER MULCH TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STORAGE OF MATERIALS, UTILITY TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE TREE PROTECTION FENCE. THE FENCE SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE TREE PROTECTION FENCE BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE SOME MINIMUM 12 INCHES FROM THE PROTECTION OF THE ON-SITE WORKERS AND WITHIN FROM APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SHALL BE INSTALLED ABOVE AND BE INSTALLED EVERY FIFTEEN (15) FEET ALONG THE FENCE.

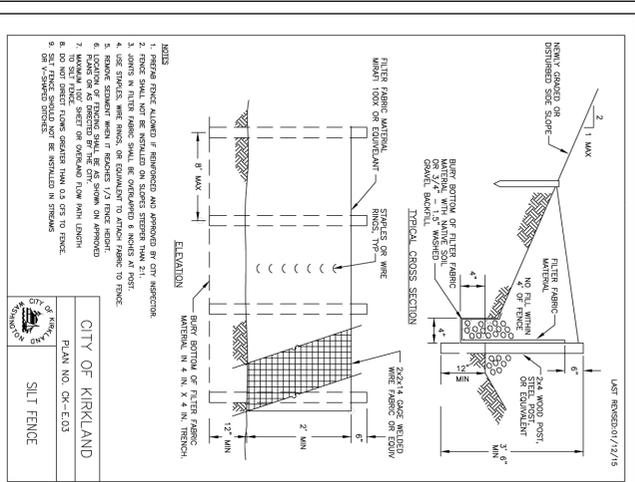
10. THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS. EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROL SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED. PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEWS OF THE ESC FACILITIES.
11. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.
12. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
13. ALL DENUDED SOILS MUST BE STABILIZED WITH AN APPROVED TESC METHOD (E.G. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES:
 • MAY 1 TO SEPTEMBER 30 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING.
 • OCTOBER 1 TO APRIL 30 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING.
 • STABILIZE SOILS AT THE END OF THE WORKDAY PRIOR TO A WEEKEND, HOLIDAY, OR PREDICTED RAIN EVENT.
14. WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
15. WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".
16. ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 6' HIGH TEMPORARY CONSTRUCTION FENCE (CHAIN LINK WITH PIER BLOCKS) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL THE PLANNING DEPARTMENT AUTHORIZES REMOVAL.
17. CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6-FT. HIGH CHAIN LINK FENCE ADJACENT THE DRIP LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UPSLOPE OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE CITY, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.
18. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
19. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 1"-2" ROCK/10%-20% PASSING. RECYCLED CONCRETE SHALL NOT BE USED FOR CONSTRUCTION ENTRANCE OR TEMPORARY STABILIZATION ELSEWHERE ON THE SITE.



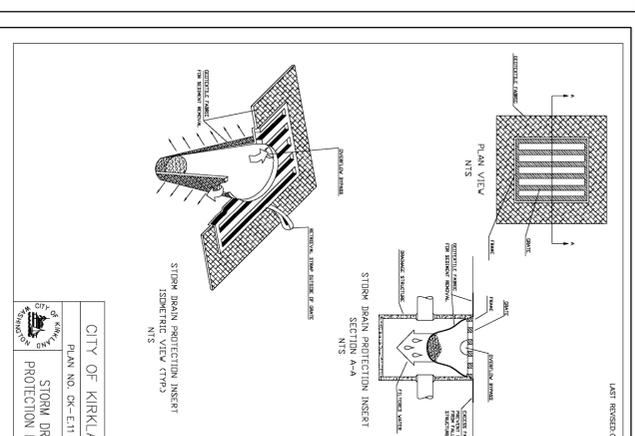
20. IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
21. ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.
22. AT NO TIME SHALL MORE THAN 1' OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED IMMEDIATELY FOLLOWING REMOVAL OF EROSION CONTROL BMPs. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
23. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.
24. ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'. ACCUMULATION AS DETERMINED BY THE CITY OF KIRKLAND. ALSO, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
25. PRIOR TO THE OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDED AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
26. ANY AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT (INCLUDING A 5-FOOT BUFFER) MUST BE SURROUNDED BY SILT FENCE PRIOR TO CONSTRUCTION AND UNTIL FINAL STABILIZATION OF THE SITE TO PREVENT SOIL COMPACTION AND SILTATION BY CONSTRUCTION ACTIVITIES.
27. IF THE TEMPORARY CONSTRUCTION ENTRANCE OR ANY OTHER AREA WITH HEAVY VEHICLE LOADING IS LOCATED IN THE SAME AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT, 6" OF SEDIMENT BELOW THE GRAVEL SHALL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION FACILITY OR PERVIOUS PAVEMENT TO REMOVE FINES ACCUMULATED DURING CONSTRUCTION).
28. ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE ADEQUATE PROTECTION FROM SEDIMENT. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE CITY INSPECTOR SHALL BE PROTECTED WITH A STORM DRAIN PROTECTION INSERT OR EQUIVALENT.
29. IF A SEDIMENT POND IS NOT PROPOSED, A BAKER TANK OR OTHER TEMPORARY GROUND AND/OR SURFACE WATER STORAGE TANK MAY BE REQUIRED DURING CONSTRUCTION, DEPENDENT ON WEATHER CONDITIONS.
30. DO NOT FLUSH CONCRETE BY PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINER.
31. CONSTRUCTION DEWATERING DISCHARGES SHALL ALWAYS MEET WATER QUALITY GUIDELINES LISTED IN COP POLICY E-1. SPECIFICALLY, DISCHARGES TO THE PUBLIC SEWER (NEAR PIPES) SHALL NOT BE ALLOWED. DISCHARGES FROM PIPES (PERMANENT AND TEMPORARY) SHALL BE TREATED TO MEET THE CITY OF KIRKLAND'S SANITARY SEWER TREATMENT PLANT (STWTP) REQUIREMENTS (206-25-3000) AND NOTIFICATION TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR.



1. THIS SHALL BE CONSTRUCTED AND MAINTAINED WITHIN THE CITY OF KIRKLAND.
2. THIS SHALL BE INSTALLED IN PLACING STRIP AS APPROPRIATE.
3. THE THICKNESS SHALL BE INCREASED IF SOIL CONDITIONS DRYER AND/OR PER THE DIRECTION OF THE CITY CLEARING AND GRADING INSPECTOR.
4. CONTRACTOR RESPONSIBLE FOR CURB & GUTTER CONSTRUCTION.
5. RECYCLED CONCRETE SHALL NOT BE USED FOR THE CONSTRUCTION ENTRANCE.



1. THIS SHALL BE CONSTRUCTED AND MAINTAINED WITHIN THE CITY OF KIRKLAND.
2. THIS SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2:1.
3. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT MOST.
4. USE STAPLES AND RINGS OR EQUIVALENT TO ATTACH FABRIC TO FENCE.
5. STAPLES AND RINGS SHALL BE AS SHOWN ON APPROVED DRAWING.
6. LOCATION OF FILTER FABRIC SHALL BE AS SHOWN ON APPROVED DRAWING.
7. MINIMUM 100' SHEET OF FABRIC FROM EACH END.
8. DO NOT DIRECT FLOWS DEEPER THAN 6" ON TO EROSION CONTROL FABRIC.
9. SILT FENCE SHOULD BE INSTALLED IN STREAMS.



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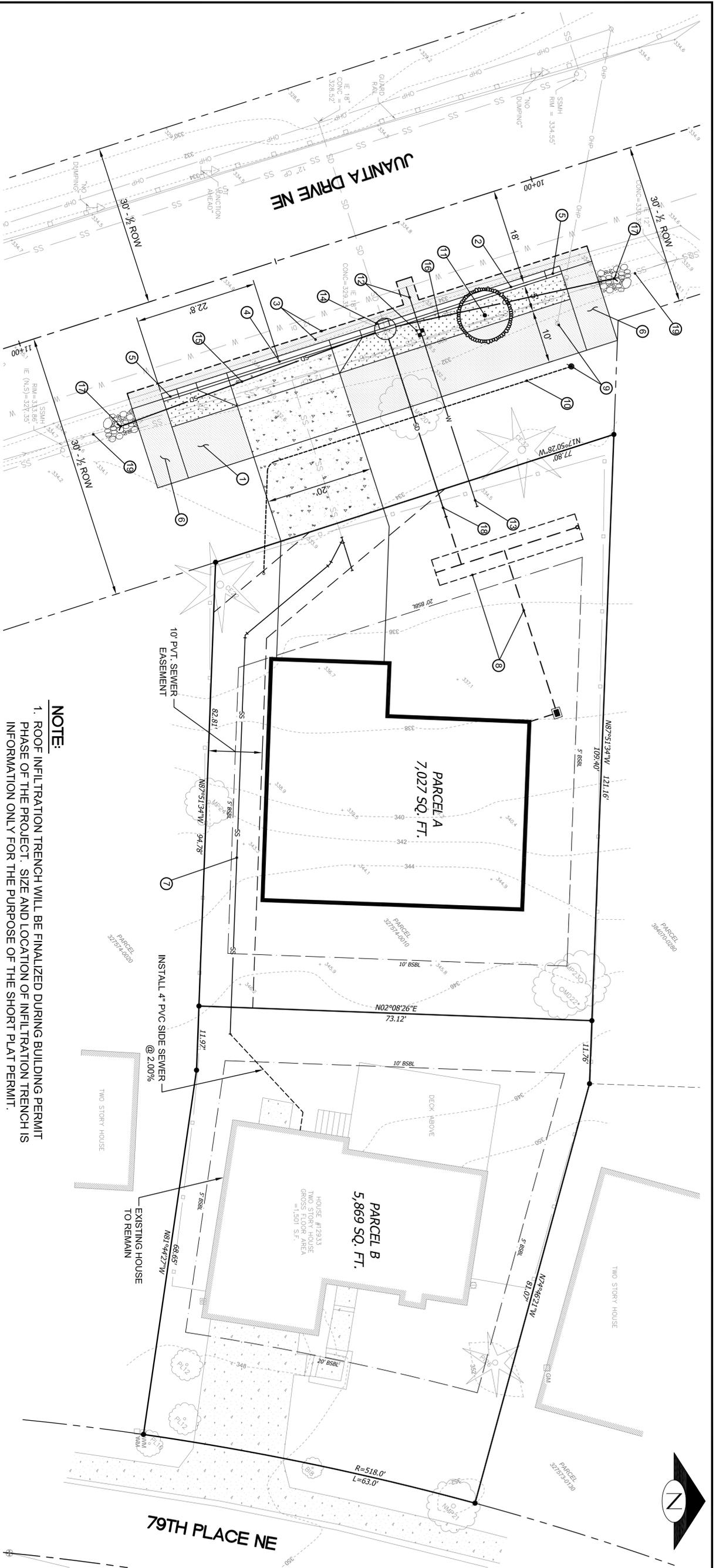
JOB NO. R15550	ISSUE DATE 11-05-2015
DESIGNED BY: H. H. PHAN	CHECKED BY: H. H. PHAN
DRAWN BY: H. H. PHAN	PROJ. MNGR:

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XUE SHORT PLAT
 12933 79TH PLACE NE
 KIRKLAND, WA 98034

TESC PLAN AND DETAILS

REFERENCE SHEET NO. **EC1**
 SHEET **2** OF **4** SHEETS



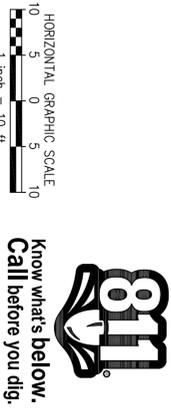
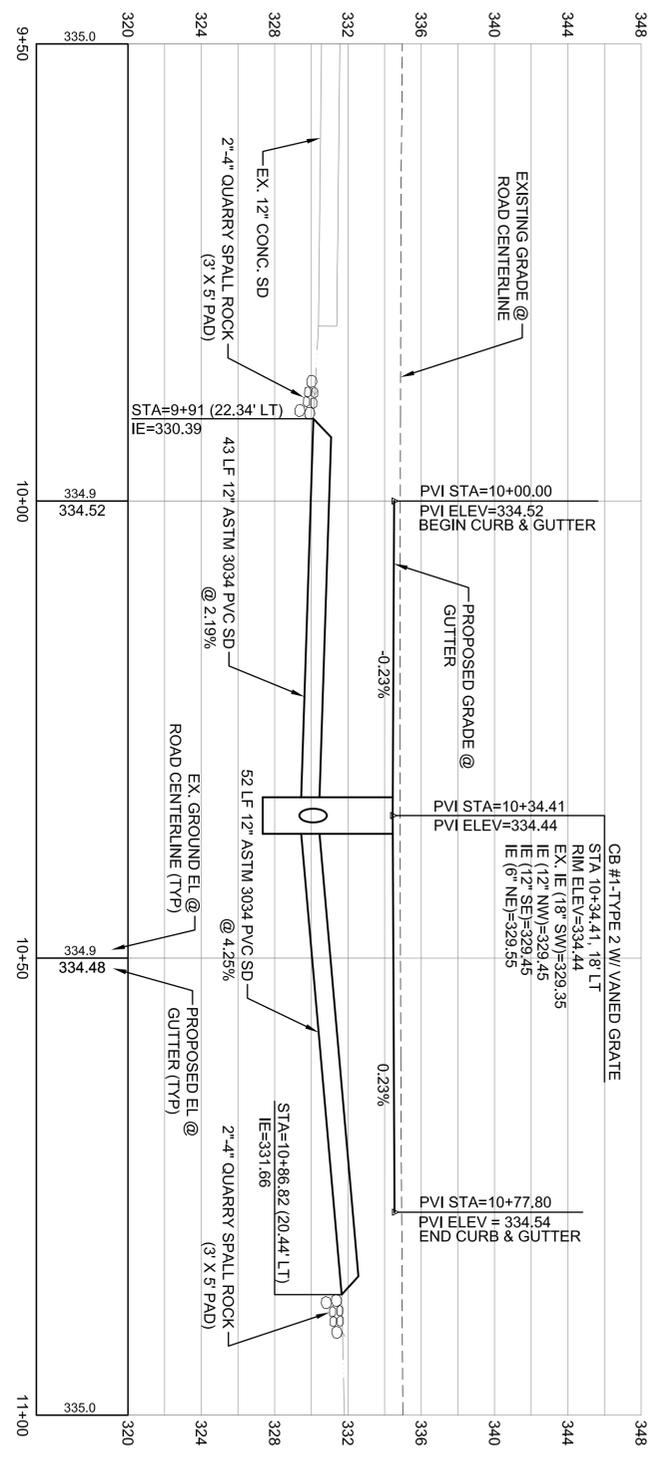
NOTE:
 1. ROOF INFILTRATION TRENCH WILL BE FINALIZED DURING BUILDING PERMIT PHASE OF THE PROJECT. SIZE AND LOCATION OF INFILTRATION TRENCH IS INFORMATION ONLY FOR THE PURPOSE OF THE SHORT PLAT PERMIT.

CONSTRUCTION NOTES:

- ① CONSTRUCT 10' WIDE ASPHALT PATHWAY. SEE TYPICAL SECTION ON SHEET PG2.
- ② CONSTRUCT CONCRETE CURB & GUTTER TYPE A PER DETAIL KC-R-17.
- ③ SAWCUT & CONSTRUCT PAVEMENT SECTION PER TYPICAL SECTION ON SHEET PG2.
- ④ CONSTRUCT 20" WIDE CONCRETE DRIVEWAY (6" THICK OVER 4" MINIMUM ¾ GRAVEL) ON RIGHT OF WAY PORTION PER DETAIL 3 ON SHEET PG2. STA 11+55, 18' LT.
- ⑤ CONSTRUCT 3" TRANSITION TO FULL HEIGHT CURB.
- ⑥ CONSTRUCT ASPHALT TRANSITION RAMP PER DETAIL 1 ON SHEET PG2.
- ⑦ INSTALL 100 LF 6" SIDE SEWER @ 2.00% MIN.
- ⑧ CONSTRUCT (5W X 28L X 22D) ROOF / FOOTING INFILTRATION TRENCH PER DETAIL KC-D-22 & KC-D-22A WITH PERFORATED TIGHTLINE CONNECTION. SEE NOTE 1.
- ⑨ RELOCATE POWER POLE BY OTHERS.
- ⑩ UTILITY TRENCH (POWER & COMMUNICATION CONDUITS).
- ⑪ PLANT PACIFIC SUNSET MAPLE (AGER TRUNCATUM X PLATANOIDES WARRENED) (2" CALIBER) PER DETAIL KC-R-48.
- ⑫ INSTALL 1" WATER LINE & ¾" WATER METER (BY NORTHSORE UTILITY DISTRICT).
- ⑬ INSTALL 34 LF 1" WATER SERVICE LINE.
- ⑭ INSTALL CATCH BASIN TYPE 2 WITH VANED GRATE PER DETAIL KC-D-09. STA 10+34.41 (18' LT)
- ⑮ INSTALL 52 LF 12" ASTM 3034 PVC SD @ 4.25%.
- ⑯ INSTALL 43 LF 12" ASTM 3034 PVC SD @ 2.19%.
- ⑰ INSTALL 2"-4" QUARRY SPALL ROCK (3W X 5L PAD) AND DETAIL 2 ON SHEET PG2.
- ⑱ INSTALL 34 LF 6" ASTM 3034 PVC STORM STUB @ 2.00%.
- ⑲ REGRADE DITCH FOR POSITIVE DRAINAGE IF REQUIRES.

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL GRADES PRIOR TO CONSTRUCTION.
2. SEE SHEET PG2 FOR ROADWAY SECTION AND DETAILS.



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			DESIGNED BY:	H. H. PHAN					
			CHECKED BY:						
			PROJ. MNGR:						

Maintenance Checklist

NO. 2 – INFILTRATION FACILITIES			
Maintenance Component	Defect or Problem	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
Inlet/Outlet Pipes	Sediment accumulation	Sediment filling 20% or more of the pipe.	Inlet/outlet pipes clear of sediment.
	Trash and debris	Trash and debris accumulated in inlet/outlet pipes (includes floatables and non-floatables).	No trash or debris in pipes.
	Damaged	Cracks wider than ½-inch at the joint of the inlet/outlet pipes or any evidence of soil entering at the joints of the inlet/outlet pipes.	No cracks more than ¼-inch wide at the joint of the inlet/outlet pipe.
Access Manhole	Cover/lid not in place	Cover/lid is missing or only partially in place. Any open manhole requires immediate maintenance.	Manhole access covered.
	Locking mechanism not working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts cannot be seated. Self-locking cover/lid does not work.	Mechanism opens with proper tools.
	Cover/lid difficult to remove	One maintenance person cannot remove cover/lid after applying 80 lbs of lift.	Cover/lid can be removed and reinstalled by one maintenance person.
	Ladder rungs unsafe	Missing rungs, misalignment, rust, or cracks.	Ladder meets design standards. Allows maintenance person safe access.
Large access doors/plate	Damaged or difficult to open	Large access doors or plates cannot be opened/removed using normal equipment.	Replace or repair access door so it can be opened as designed.
	Gaps, doesn't cover completely	Large access doors not flat and/or access opening not completely covered.	Doors close flat and covers access opening completely.
	Lifting Rings missing, rusted	Lifting rings not capable of lifting weight of door or plate.	Lifting rings sufficient to lift or remove door or plate.
Infiltration Pond, Tank, Vault, Trench, or Small Basin Filter Bags	Plugged	Filter bag more than ½ full.	Replace filter bag or redesign system.
Infiltration Pond, Tank, Vault, Trench, or Small Basin Pre-settling Ponds and Vaults	Sediment accumulation	6" or more of sediment has accumulated.	Pre-settling occurs as designed
Infiltration Pond, Rock Filter	Plugged	High water level on upstream side of filter remains for extended period of time or little or no water flows through filter during heavy rain storms.	Rock filter replaced evaluate need for filter and remove if not necessary.
Infiltration Pond Emergency Overflow Spillway	Rock missing	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil at the top of out flow path of spillway. Rip-rap on inside slopes need not be replaced.	Spillway restored to design standards.
	Tree growth	Tree growth impedes flow or threatens stability of spillway.	Trees removed.