

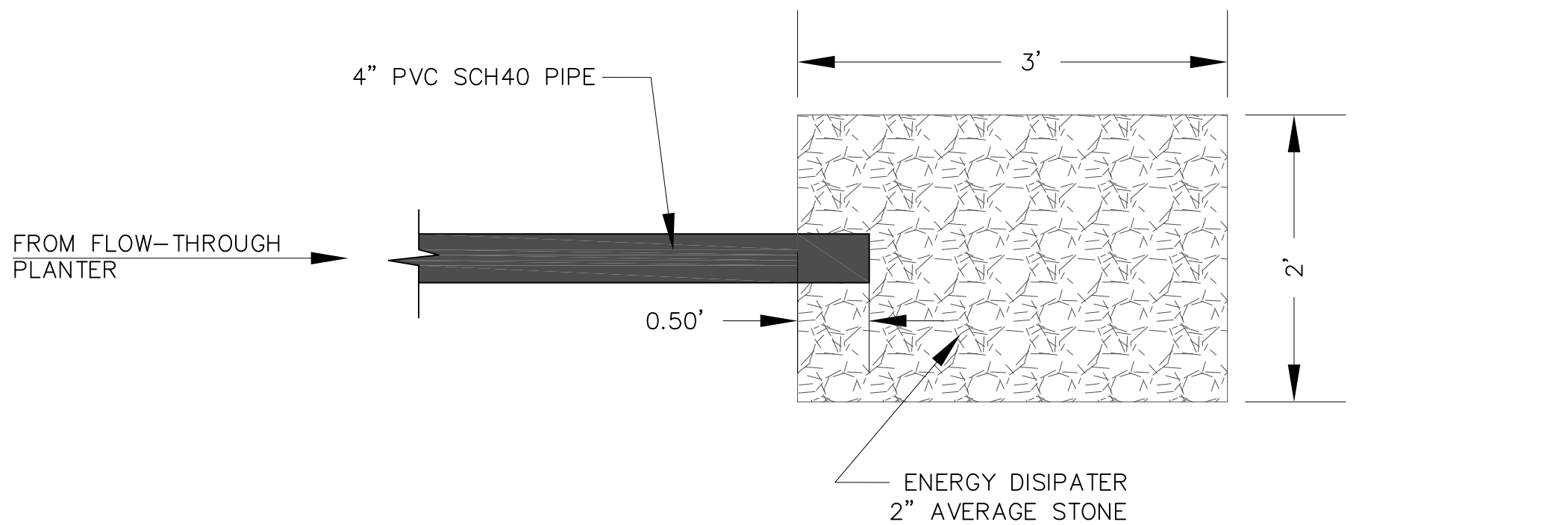
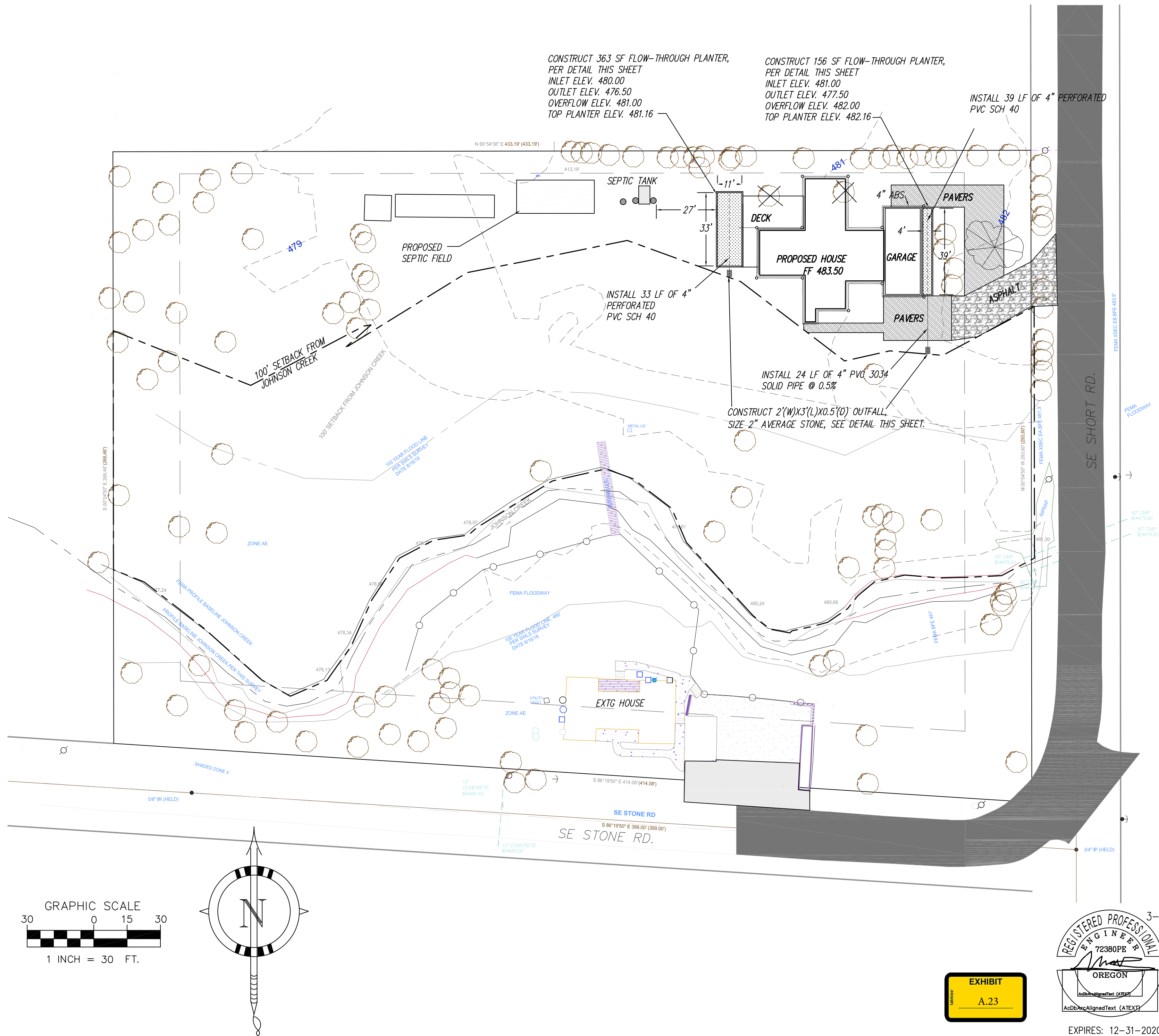
FLOW-THROUGH PLANTER CROSS-SECTION
N.T.S.

- NOTES:
1. LOW POINT CRAWL SPACE TO DRAIN OUTFALL INTO VEGETATION. INSTALL 1/4" GALVANIZED SCREEN WITH STAINLESS STEEL CLAMPS TO SECURE SCREEN WITH BACKFLOW PREVENTER INSTALLED INSIDE CRAWL SPACE.
 2. A BACKFLOW PREVENTER SHALL BE INSTALLED WITHIN THE CRAWL SPACE ON THE LOW POINT CRAWL SPACE DRAIN.
 3. CONTRACTOR SHALL GRADE AROUND THE ENTIRE HOME 5% FOR 10 FEET MINIMUM TO CREATE POSITIVE DRAINAGE AWAY FROM HOME.
 4. DRIVEWAY STORMWATER RUNOFF TO BE DISPERSED THROUGH NATURAL VEGETATION. CONTRACTOR TO PREVENT LOW SPOTS AND CREATE POSITIVE GRADE AWAY FROM DRIVEWAY.
 5. PLANTER REQUIRES 4" REINFORCED WALLS FROM CONCRETE, STONE, BRICK OR OTHER DURABLE MATERIAL. FOR PLANTING, SEE THE LANDSCAPE PLANS.

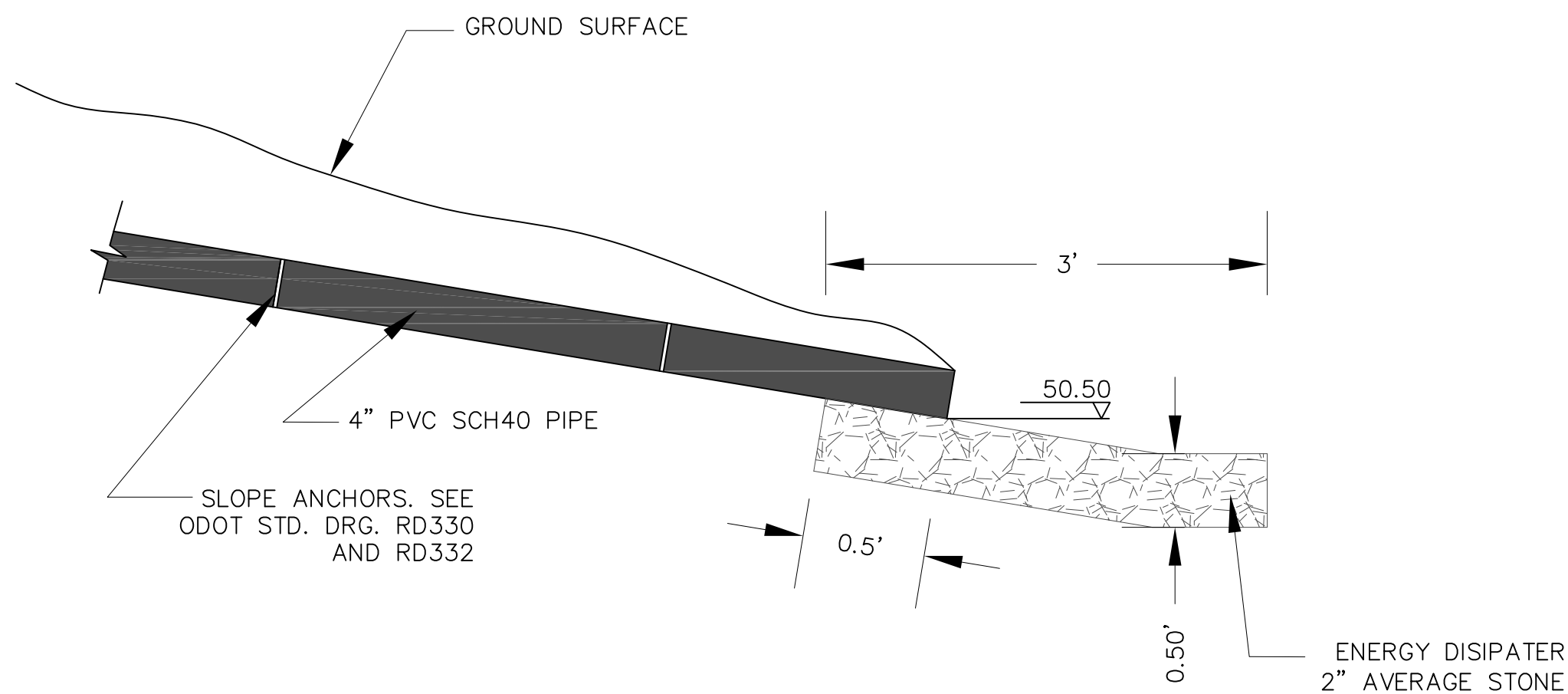
PARCEL INFORMATION:
ADDRESS: 29619 SE STONE RD.
GRESHAM, OR 97080

PROPERTY ID # R342188
STATE ID 1SE19DC 200
TAX ROLL: TL 200, SEC. 19, T. 1N, R4E, MULTNOMAH CO., OR
LOT AREA: 2.6 AC

IMPERVIOUS AREA:	
HOUSE	2,046 SF
GARAGE	640 SF
DRIVEWAY-ASPHALT	665 SF
PAVER AREA	1,050 SF
EXTG HOUSE	1,188 SF
EXTG GARAGE	268 SF
EXTG DRIVEWAY-ASPHALT	2,423 SF
TOTAL	8,280 SF
LOT AREA	
IMPERVIOUS AREA COVERAGE	115,709 SF
	7.2%



OUTFALL DETAIL - PLAN VIEW
N.T.S.



OUTFALL DETAIL - PROFILE VIEW
N.T.S.

PROJECT: PALAMARYUK RESIDENCE

STORMWATER PLAN

NW CIVIL DESIGN, LLC

CIVIL ENGINEERING / CONSTRUCTION MANAGEMENT
9715 NE 100TH WAY, VANCOUVER, WA 98662
PH: 360.607.0654, FAX: 360.685.8366

MINIMUM MONITORING AND RECORDKEEPING REQUIREMENTS

1. Visual Monitoring

- a. The following must be monitored visually by a designated Erosion and Sediment Control Inspector:
- All areas of the site disturbed by construction activity to ensure that BMPs are in proper working order.
 - Discharge point(s) identified in the ESCP for evidence of or the potential for the discharge of pollutants (including sediment and turbidity), and to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to surface waters. Where discharge points are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practical.
 - BMPs identified in the current ESCP to assess whether they are functioning properly.
 - Locations where vehicles enter or exit the site for evidence of off-site sediment tracking.
 - Areas used for storage of materials that are exposed to precipitation for evidence of spillage or other potential to contaminate stormwater runoff.

- b. All ESCP controls and practices must be monitored visually according to the following schedule:

Site Condition	Minimum Frequency
1. Active period	Daily when stormwater runoff, including runoff from snow melt, is occurring. At least once every fourteen (14) calendar days, regardless of whether stormwater runoff is occurring.
2. Prior to the site becoming inactive or in anticipation of site inaccessibility	Once to ensure that erosion and sediment control measure are in working order. Any necessary maintenance and repair must be made prior to leaving the site.
3. Inactive periods greater than fourteen (14) consecutive calendar days	Once every month.
4. Periods during which the site is inaccessible due to inclement weather	If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location.
5. Periods during which discharge is unlikely due to frozen conditions.	Monthly. Resume monitoring immediately upon melt, or when weather conditions make discharges likely.

c. Documentation of visual monitoring.

All visual monitoring must document the following:

- Visual monitoring date and inspector's name.
- The construction site name as it appears on the registrant's permit.
- The file or site number.
- Weather conditions during the inspection, the approximate amount of precipitation since the last inspection, and approximate amount of precipitation during the last 24 hours.
- Observations for each discharge location. If a discharge location is inaccessible due to safety hazard, document the hazard and record the inspections noted at a relevant discharge point or downstream location if practical.
 - For each discharge point, make observations:
 - At the discharge location if the discharge is to a conveyance system leading to surface waters;
 - From the discharge point to 50 feet downstream if the discharge is to surface waters; and
 - At any location where more than one-half of the width of the receiving surface water is affected.
 - For each area observed, document the following:
 - For turbidity and color, describe any apparent color and the clarity of the discharge, and any apparent difference in comparison with the surface waters.
 - Describe any sheen or floating material, or record that it is absent. If present, it could indicate concern about a possible spill or leakage from vehicles or materials storage.
- Location(s) of BMPs in need of maintenance, inspections of all BMPs, including erosion and sediment controls, chemical and waste controls, locations where vehicles enter and exit the site, status of areas that are under temporary or final stabilization, soil stockpile areas, and non-stormwater pollution (for example, paints, oils, fuels, or adhesives) controls.
- Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
- Location(s) where additional BMPs are needed that did not exist at the time of inspection; and
- Corrective action required and implementation dates.
- All revisions and documentation of reasons for changes or modifications to the ESCP and other corrective measures.

2. Recordkeeping

- a. The permit registrant must keep the ESCP, all revisions to the ESCP, and all visual monitoring records on site.
- b. Upon request, the permit registrant must deliver the above records to DEQ, Agent, or the local municipality within three (3) working days of the request.
- c. During inactive periods of greater than seven (7) consecutive calendar days, the above records must be retained by the permit registrant but do not need to be at the construction site.
- d. The permit registrant must retain all visual monitoring records for at least three (3) years after termination of permit coverage.

Erosion Control Notes

(1) Fill shall be composed of earth materials only.

(2) Persons conducting ground disturbing activities shall utilize erosion and sediment control best management practices. Erosion and sediment control measures must be utilized such that no visible or measurable erosion or sediment shall exit the site, enter the public right-of-way, or be deposited into any water body or storm drainage system.

(3) Erosion and sediment control measures shall be installed prior to commencement of ground disturbing activity and are to be maintained, in working order, through all phases of development;

(4) Ground disturbing activity shall be done in a manner which will minimize soil erosion, stabilize the soil as quickly as practicable, and expose the smallest practical area at any one time during construction. (5) Development plans shall minimize cut or fill operations and ensure conformity with topography so as to create the least erosion potential and adequately accommodate the volume and velocity of surface runoff.

(5) Sediment in the runoff water shall be trapped by use of debris basins, silt traps, or other measures until the disturbed area is stabilized.

(6) Disposed spoil material or stockpiled topsoil shall be prevented from eroding into water bodies by applying mulch or other protective covering; or by location at a sufficient distance from water bodies or by other sediment reduction measures.

(7) Such non-erosion pollution associated with construction such as pesticides, fertilizers, petrochemicals, solid wastes, construction chemicals, or wastewaters shall be prevented from leaving the construction site through proper handling, disposal, continuous site monitoring and clean-up activities.

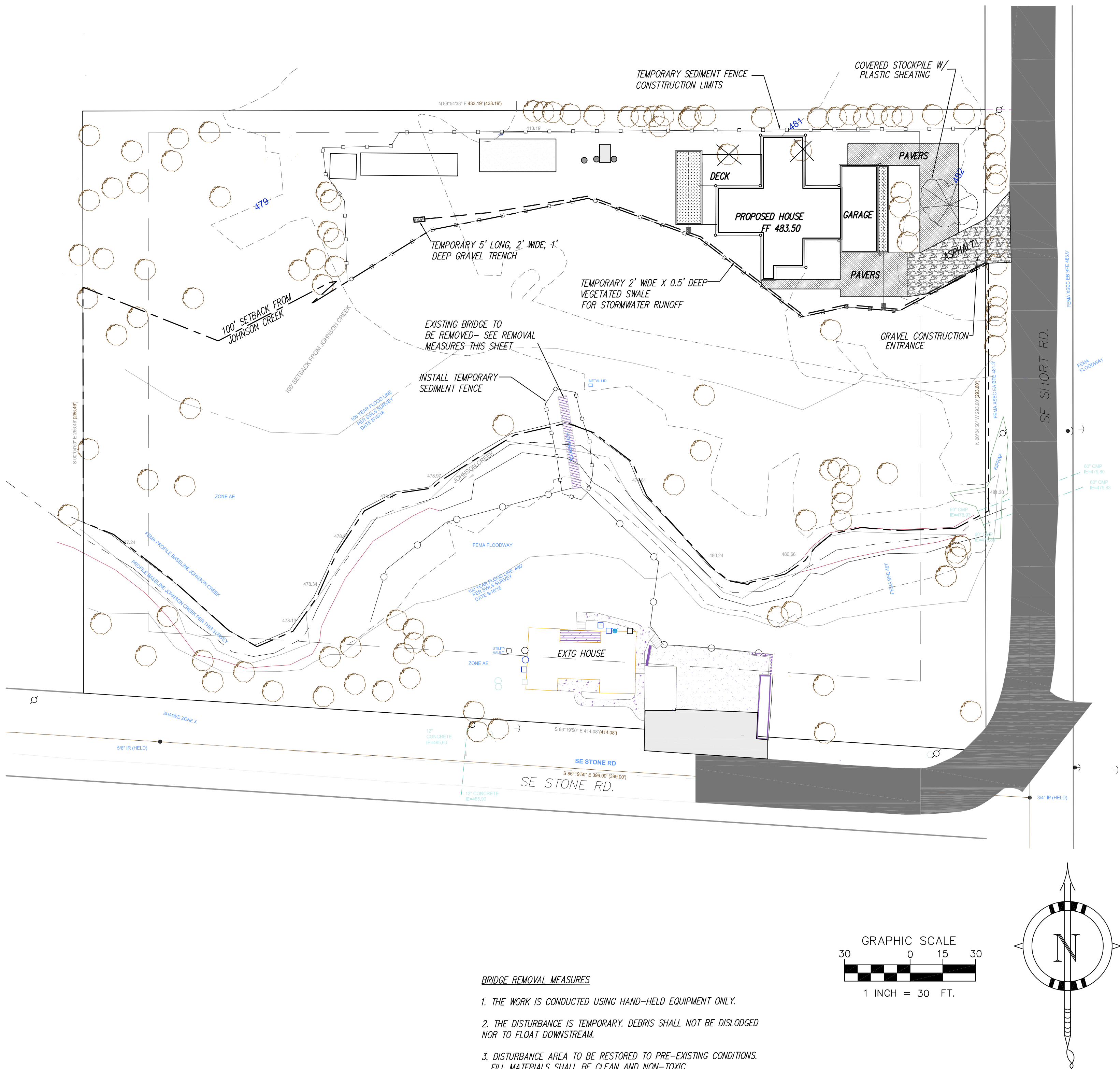
(8) The total daily number of fill haul truck trips shall not cause a transportation impact (as defined in the Multnomah County Road Rules) to the transportation system or fill haul truck travel routes.

(9) Fill trucks shall be constructed, loaded, covered, or otherwise managed to prevent any of their load from dropping, sifting, leaking, or otherwise escaping from the vehicle. No fill shall be tracked or discharged in any manner onto any public right-of-way.

(10) No compensation, monetary or otherwise, shall be received by the property owner for the receipt or placement of fill.

RECOMMENDED CONSTRUCTION SEQUENCE FOR EROSION CONTROL

- PRE-CONSTRUCTION MEETING.
- FLAG OR FENCE CLEARING LIMITS.
- POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF EROSION CONTROL SUPERVISOR.
- INSTALL CATCH BASIN PROTECTION IF REQUIRED.
- GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
- INSTALL PERIMETER PROTECTION (SILT FENCE, ETC).
- GRADE AND STABILIZE CONSTRUCTION ROADS.
- CONSTRUCT SURFACE WATER CONTROLS SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- RELOCATE SURFACE WATER CONTROLS AND 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 GRESHAM EROSION AND SEDIMENT CONTROL STANDARDS.
- COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN 7 DAYS DURING THE DRY SEASON OR 2 DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
- STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
- SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON COMPLETION OF PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.



BRIDGE REMOVAL MEASURES

- THE WORK IS CONDUCTED USING HAND-HELD EQUIPMENT ONLY.
- THE DISTURBANCE IS TEMPORARY. DEBRIS SHALL NOT BE DISLODGED NOR TO FLOAT DOWNSTREAM.
- DISTURBANCE AREA TO BE RESTORED TO PRE-EXISTING CONDITIONS. FILL MATERIALS SHALL BE CLEAN AND NON-TOXIC.



EXPIRES: 12-31-2020

PROJECT: PALAMARYUK RESIDENCE

EROSION CONTROL PLAN

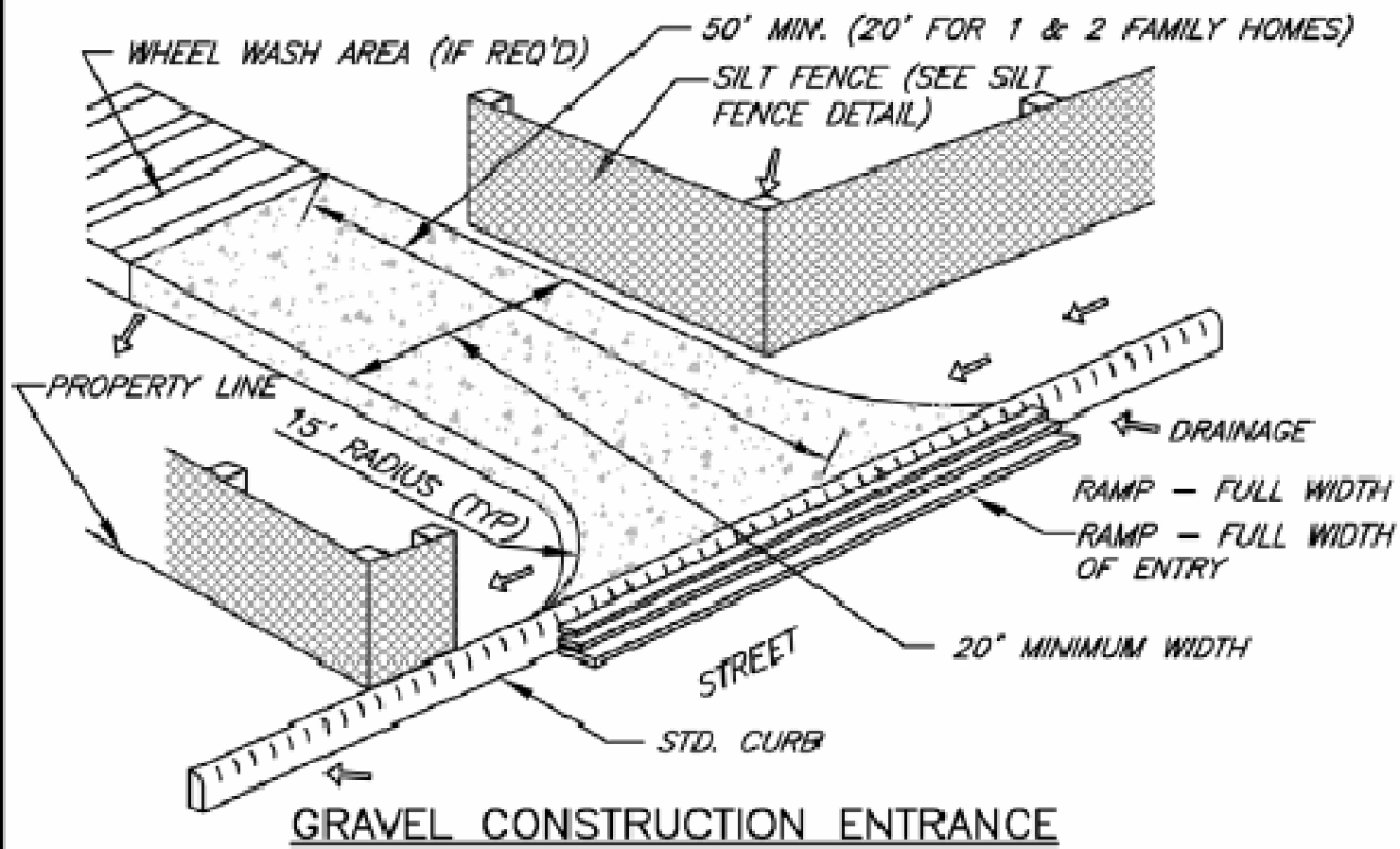
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3

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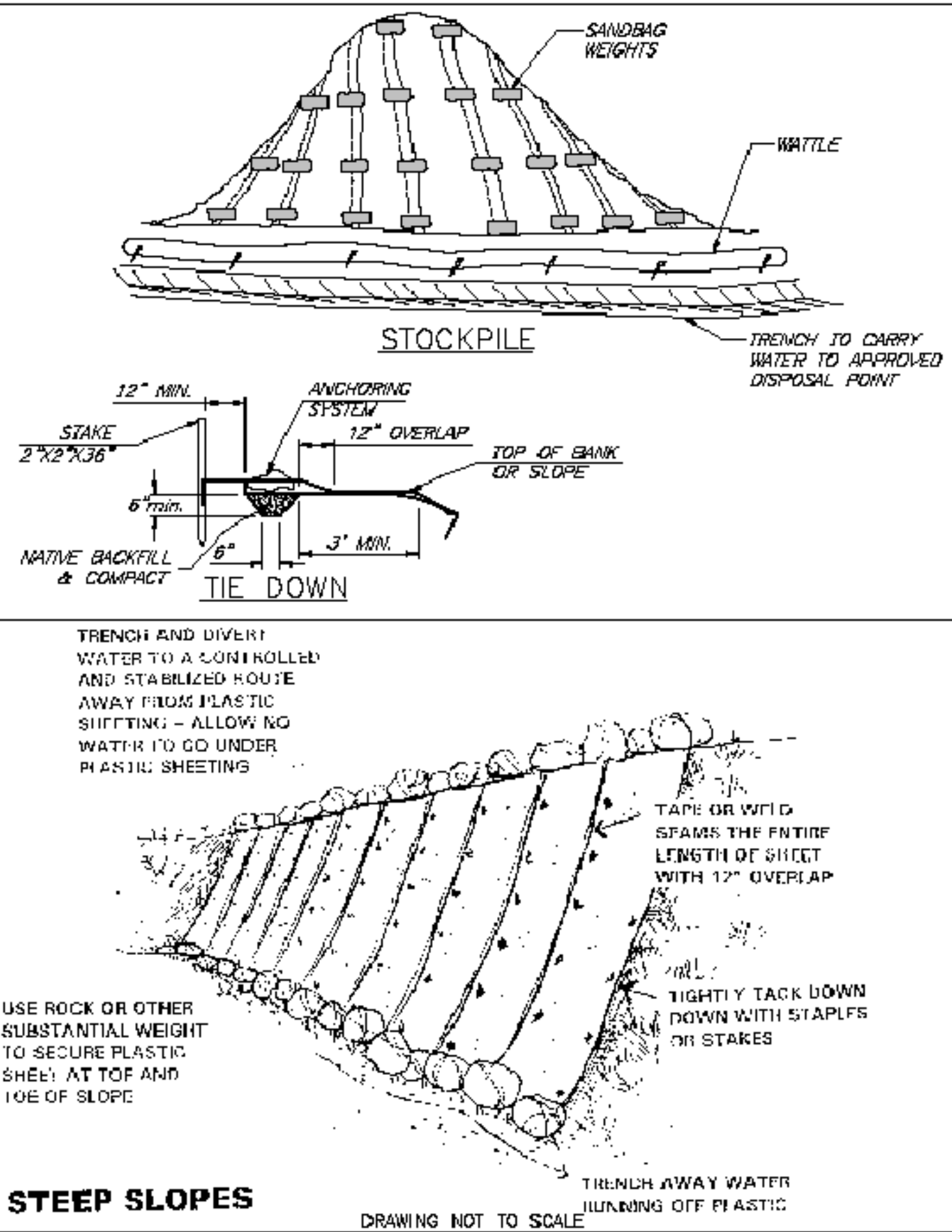
Figure 4.2-A Rock Construction Entrance



EROSION CONTROL MANUAL

GRAVEL CONSTRUCTION ENTRANCE
Detail Drawing 4.2-A

FILE: DRAFT/INSPECTORS GRAPHICS DRAWING DR 3.31 PLOT 14



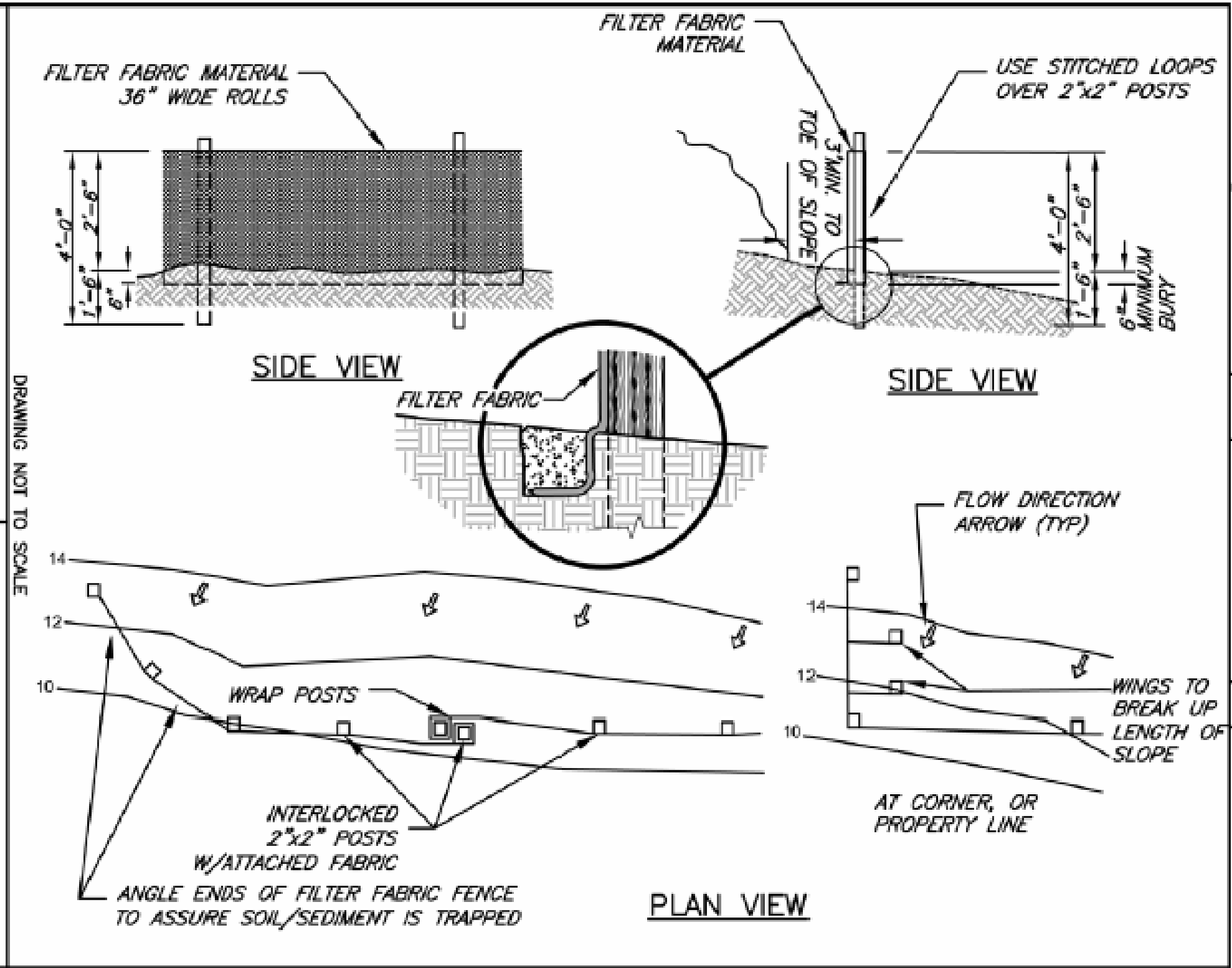
STEEP SLOPES

EROSION CONTROL MANUAL

PLASTIC SHEETING
Detail Drawing 4.5-E

EROSION CONTROL MANUAL

TEMPORARY SEDIMENT FENCE
Detail Drawing 4.3-A



PROJECT: PALAMARYUK RESIDENCE

EROSION CONTROL DETAILS

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