

STORMWATER DRAINAGE CONTROL CERTIFICATE

Land Use Planning Division

www.multco.us/landuse ▪ Email: land.use.planning@multco.us ▪ Phone: (503) 988-3043



> 500 SQUARE FEET OF NEW / REPLACED IMPERVIOUS SURFACES

NOTE TO PROPERTY OWNER/APPLICANT: Please have an Oregon Licensed Professional Engineer fill out this Certificate and attach a signed site plan, stamped and signed storm water system details, and stamped and signed storm water calculations used to support the conclusion. Please note that replacement of existing structures does not provide a credit to the square footage threshold.

Property Address or Legal Description: 11499 NE McLoughlin Pkwy, Cascade Locks 97014

Description of Project: Wireless Equipment Compound and Access Road (Vertical)

The following stormwater drainage control system will be required:

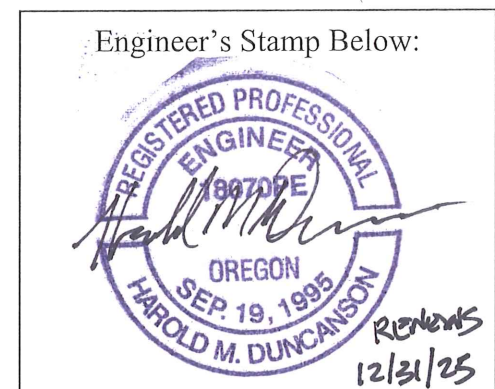
- ☐ Use of Gutter, downspout, and splash block drainage control system;
- ☒ Natural Infiltration Process; or **(DISPERSAL)**
- ☐ Construction of an on-site storm water drainage control system.

MULTNOMAH COUNTY TRANSPORTATION DIVISION	
☐ ACCEPTED	
☐ ACCEPTED WITH COMMENTS	
☒ APPROVED	
☐ APPROVED AS NOTED	
☐ RETURNED FOR CORRECTION	
DOCUMENTS BEARING THIS STAMP ARE SUBJECT TO THE PROVISIONS SET FORTH IN SECTION 00150 OF THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION THAT ARE ACTIVE FOR THIS PROJECT. REVIEW IS ONLY FOR GENERAL CONFORMANCE AND COMPLIANCE OF THE PROJECT AND DOES NOT EXTEND TO MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH CONTRACT DOCUMENTS, DIMENSIONS AND FABRICATION TO BE CONFIRMED AND COMPLETED AT THE JOB SITE FOR PROGRESS AND COORDINATION OF THE WORK OF ALL TRADES AND SATISFACTORY WORK PERFORMANCE.	
BY buenr DATE 12/4/2025	

The rate of stormwater runoff attributed to the new/replaced development for a 10-year/24-hour storm event will be no greater than that which existed prior to any development as measured from the property line or from the point of discharge into a water body with the use of the designated system [MCC 39.6235].

I certify the attached signed site plan showing the areas needed for the chosen system type, stamped and signed storm water system design details, and stamped and signed calculations dated 9/25/25 will meet the requirements listed above.

Signature: 
Print Name: Harold Duncanson
Business Name: Duncanson Co
Address: 145 SW 155th Street, #102, Burien, WA 98166
Phone #: 206-244-4141
Email: haroldd@duncansonco.com
Date: 9/25/2025



NOTE TO ENGINEER: Please check one box above. Multnomah County does not use the City of Portland's storm water ordinance. As part of your review, MCC 39.6235 requires that you must consider all new, replaced, and existing structures and impervious areas and determine that the newly generated stormwater from the new or replaced impervious surfaces is in compliance with Multnomah County Code for a 10-year/24-hour storm event. This Storm Water Drainage Control Certificate does not apply to shingle or roof replacement on lawfully established structures.

§ 39.6235 STORMWATER DRAINAGE CONTROL.

(A) Persons creating new or replacing existing impervious surfaces exceeding 500 square feet shall install a stormwater drainage system as provided in this section. This subsection (A) does not apply to shingle or roof replacement on lawful structures.

(B) The provisions of this section are in addition to and not in lieu of any other provision of the code regulating stormwater or its drainage and other impacts and effects, including but not limited to regulation thereof in the SEC overlay.

(C) The provisions of this section are in addition to and not in lieu of stormwater and drainage requirements in the Multnomah County Road Rules and Design and Construction Manual, including those requirements relating to impervious surfaces and proposals to discharge stormwater onto a county right-of-way.

(D) The stormwater drainage system required in subsection (A) shall be designed to ensure that the rate of runoff for the 10-year 24-hour storm event is no greater than that which existed prior to development at the property line or point of discharge into a water body.

(E) At a minimum, to establish satisfaction of the standards in this section and all other applicable stormwater-related regulations in this code, the following information must be provided to the planning director:

- (1) A site plan drawn to scale, showing the property line locations, ground topography (contours), boundaries of all ground disturbing activities, roads and driveways, existing and proposed structures and buildings, existing and proposed sanitary tank and drainfields (primary and reserve), location of stormwater disposal, trees and vegetation proposed for both removal and planting and an outline of wooded areas, water bodies and existing drywells;
- (2) Documentation establishing approval of any new stormwater surcharges to a sanitary drainfield by the City of Portland Sanitarian and/or any other agency authorized to review waste disposal systems;
- (3) Certified statement, and supporting information and documentation, by an Oregon licensed Professional Engineer that the proposed or existing stormwater drainage system satisfies all standards set forth in this section and all other stormwater drainage system standards in this code; and
- (4) Any other report, information, plan, certification or documentation necessary to establish satisfaction of all standards set forth in this section and all other applicable stormwater-related regulations in this code, such as, but not limited to, analyses and explanations of soil characteristics, engineering solutions, and proposed stream and upland environmental protection measures. .



DUNCANSON

Company, Inc.

DCI 99544.3035

MEMO REPORT

To: Multnomah County Department of Community Services

From: Harold Duncanson

Date: 9/25/25

Subject: Verizon US-OR-5099—Tumalt
11499 NE McLoughlin PKWY
Cascade Locks, OR 97014
Runoff Calculation Summary



The Verizon Tumalt project involves construction of a wireless communication facility at the above referenced location. The project will convert approximately 4,500 SF (0.103 acre) of grass and forest area to crushed rock surface on a 10-acre parcel. Runoff from the new impervious surface will disperse and infiltrate over 150 feet of on-site forested area before reaching the downstream property line.

Attached are calculation results for the predeveloped and postdeveloped conditions for this project for the 10-year, 24-hour storm. The NRCS WinTR-55 computer program was used to perform the calculations, using a Type IA rainfall distribution and a 10-year precipitation of 3.4 inches. The results show the project will have no practical increase (<0.01 CFS) in peak runoff at the downstream property line.

Please call if you have any questions.

SURVEYING

LAND PLANNING

WinTR-55 Current Data Description

--- Identification Data ---

User: HMD Date: 9/19/2025
 Project: Tumalt3 Units: English
 SubTitle: Areal Units: Acres
 State: Oregon
 County: Multnomah
 Filename: X:\Projects\1999 Projects\99544\LDT 3000-3099\995443035 US-OR-5099 Tumalt\WinTR55\Tumalt3.w55

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Predev	Existing Site Conditions	Outlet	10	62	0.1
Postdev	Developed Site	Outlet	10	62	0.1

Total area: 20 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.4	2.9	3.4	3.8	.0	.0	.0

Storm Data Source: User-provided custom storm data
 Rainfall Distribution Type: Type IA
 Dimensionless Unit Hydrograph: <standard>

HMD

Tumalt3

Multnomah County, Oregon

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
2.4	2.9	3.4	3.8	.0	.0	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type IA
Dimensionless Unit Hydrograph: <standard>

HMD

Tumalt3

Multnomah County, Oregon

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 10-Yr (cfs)
------------------------------------	---

SUBAREAS

Predev	0.43
--------	------

Postdev	0.43
---------	------

$\Delta < 0.00$ CFS

REACHES

OUTLET	0.85
--------	------

HMD

Tumalt3

Multnomah County, Oregon

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 10-Yr (cfs) (hr)
------------------------------------	--

SUBAREAS

Predev	0.43 8.04
--------	--------------

Postdev	0.43 8.04
---------	--------------

REACHES

OUTLET	0.85
--------	------

HMD

Tumalt3

Multnomah County, Oregon

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Predev	10.00	0.100	62	Outlet	Existing Site Conditions
Postdev	10.00	0.100	62	Outlet	Developed Site
Total Area:	20 (ac)				

HMD

Tumalt3

Multnomah County, Oregon

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)

Predev SHEET	100	0.1500	0.150				0.084
						Time of Concentration	0.1
							=====
Postdev SHEET	100	0.1500	0.150				0.084
						Time of Concentration	0.1
							=====

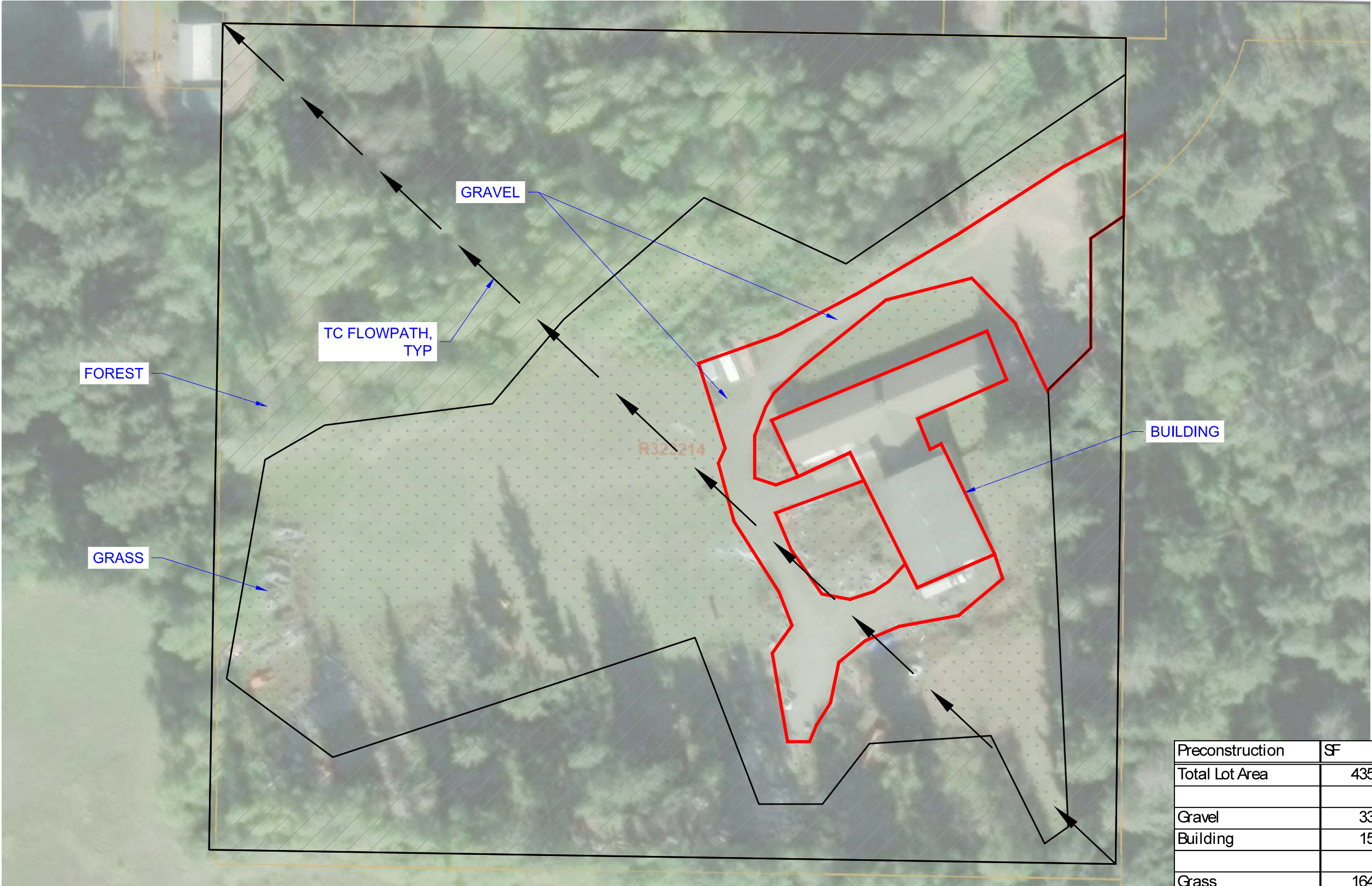
HMD

Tumalt3

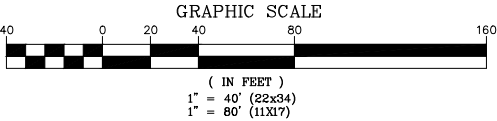
Multnomah County, Oregon

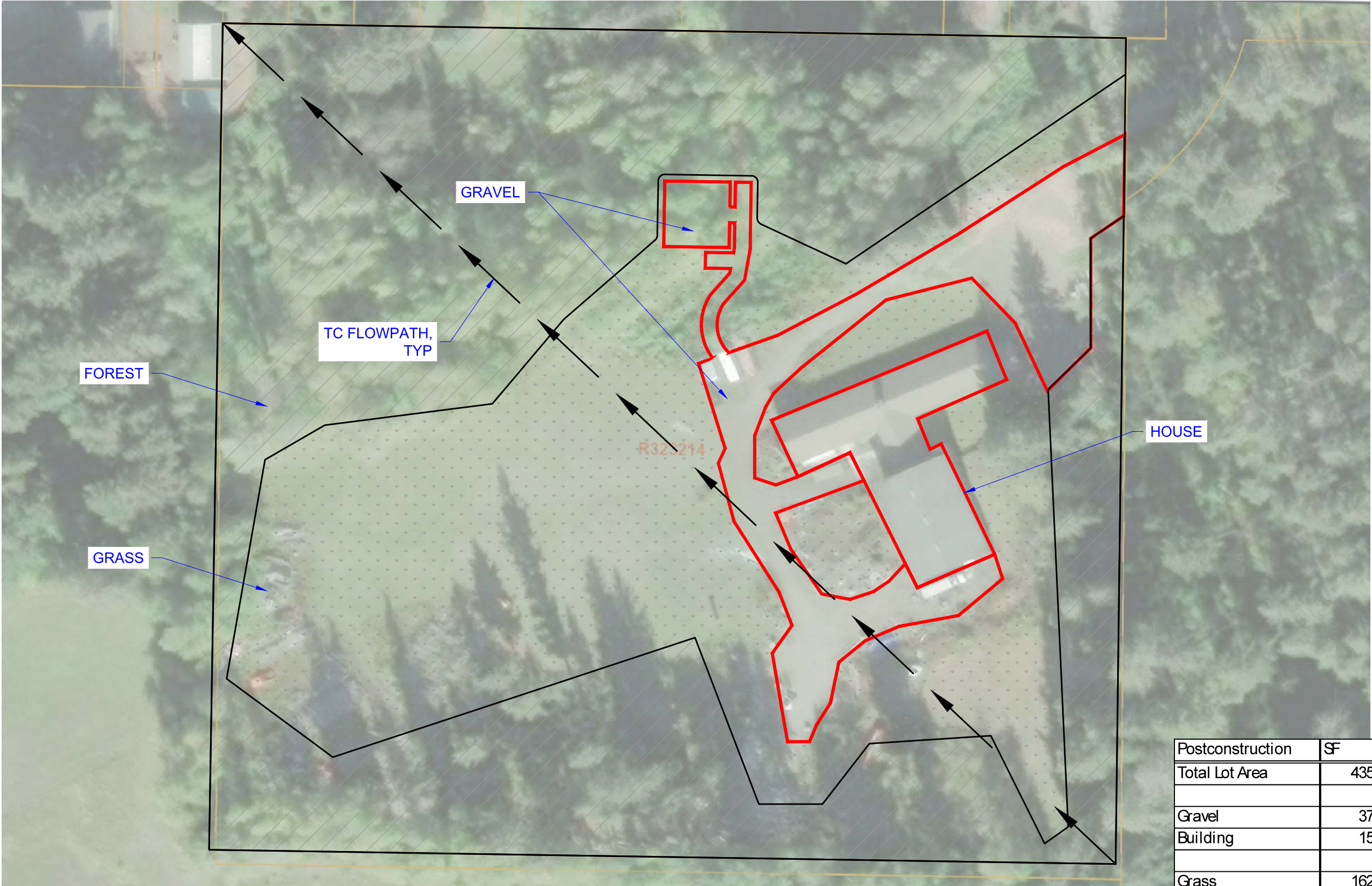
Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Predev	Paved parking lots, roofs, driveways	B	.345	98
	Gravel (w/ right-of-way)	B	.765	85
	Brush - brush, weed, grass mix (fair)	B	3.783	56
	Woods (fair)	B	5.11	60
	Total Area / Weighted Curve Number		10 ==	62 ==
Postdev	Paved parking lots, roofs, driveways	B	.345	98
	Gravel (w/ right-of-way)	B	.868	85
	Brush - brush, weed, grass mix (fair)	B	3.731	56
	Woods (fair)	B	5.059	60
	Total Area / Weighted Curve Number		10 ==	62 ==

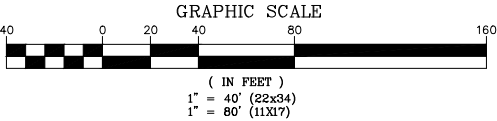


Preconstruction	SF	AC
Total Lot Area	435,722	10.003
Gravel	33,321	0.765
Building	15,027	0.345
Grass	164,769	3.783
Forest	222,605	5.110

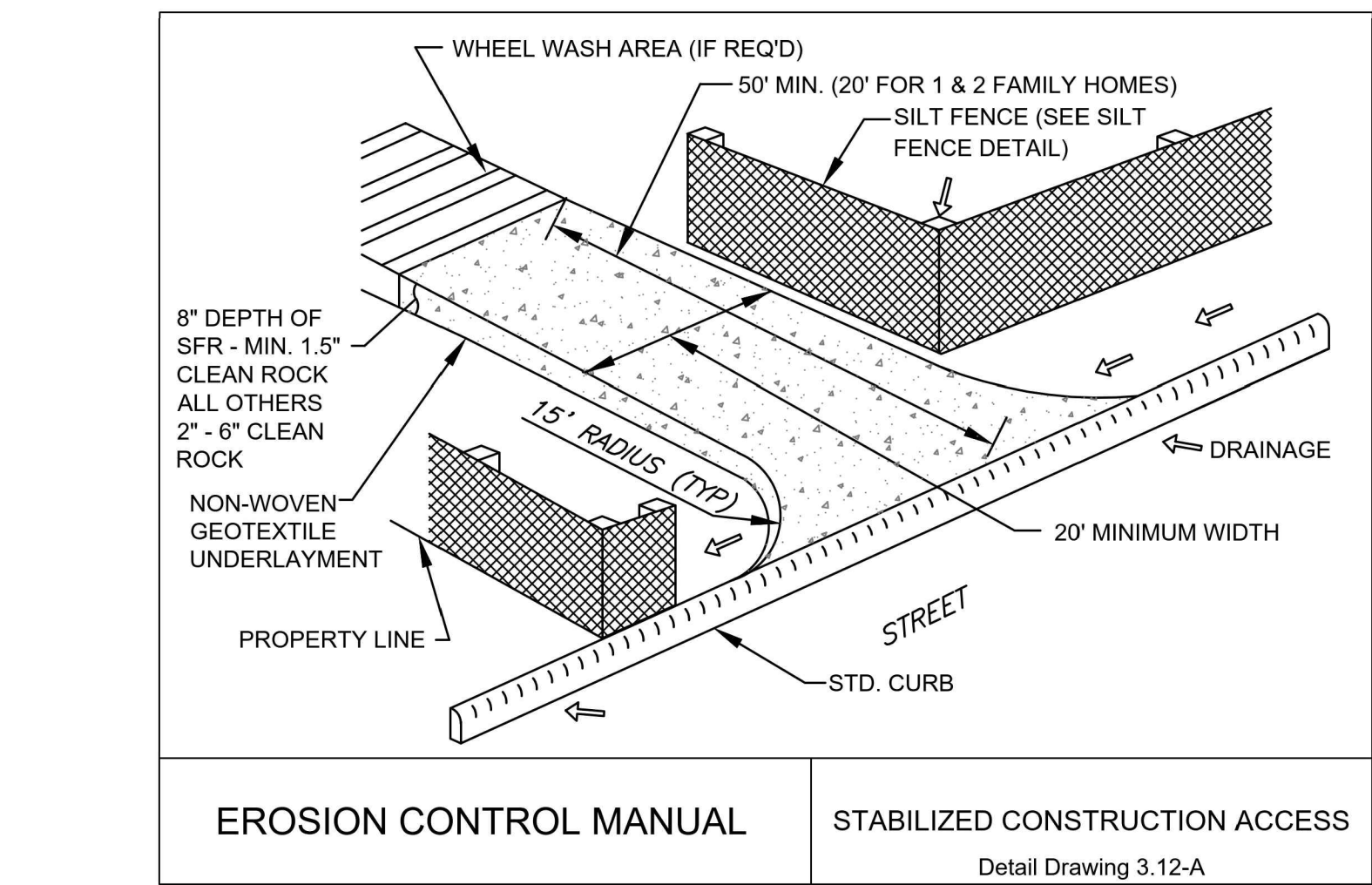




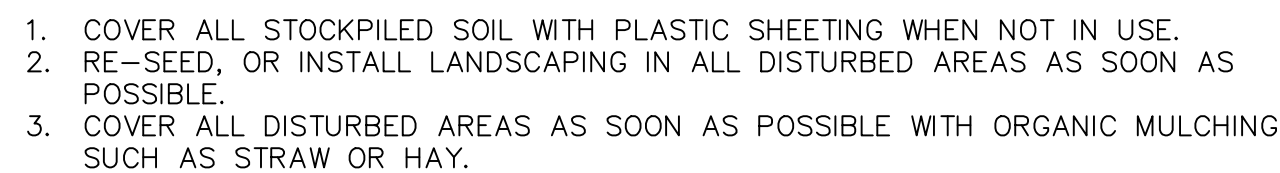
Postconstruction	SF	AC
Total Lot Area	435,722	10.003
Gravel	37,815	0.868
Building	15,027	0.345
Grass	162,503	3.731
Forest	220,377	5.059



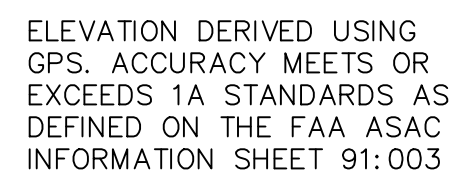
US-OR-5099 - TUMALT



1. PROVIDE PLASTIC COVERING OR OTHER SUITABLE MEANS FOR KEEPING RAINFALL AND RUNOFF OFF OF POTENTIALLY POLLUTING MATERIALS AND WASTES.
2. LIGHTING IS REQUIRED IF FUELING (PROVIDED BY SERVICE TRUCKS) OCCURS AT NIGHT.
3. DRIP PANS OR PLASTIC SHEETING IS REQUIRED WHEN EQUIPMENT MAINTENANCE IS PERFORMED ON-SITE.
4. CONTRACTOR SHALL DEVELOP A SPILL PREVENTION PLAN AND MAINTAIN APPROPRIATE SPILL RESPONSE SUPPLIES FOR ANY TOXIC OR HAZARDOUS LIQUIDS STORED OR USED ON SITE.



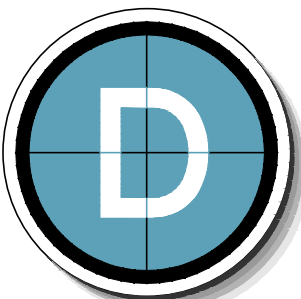
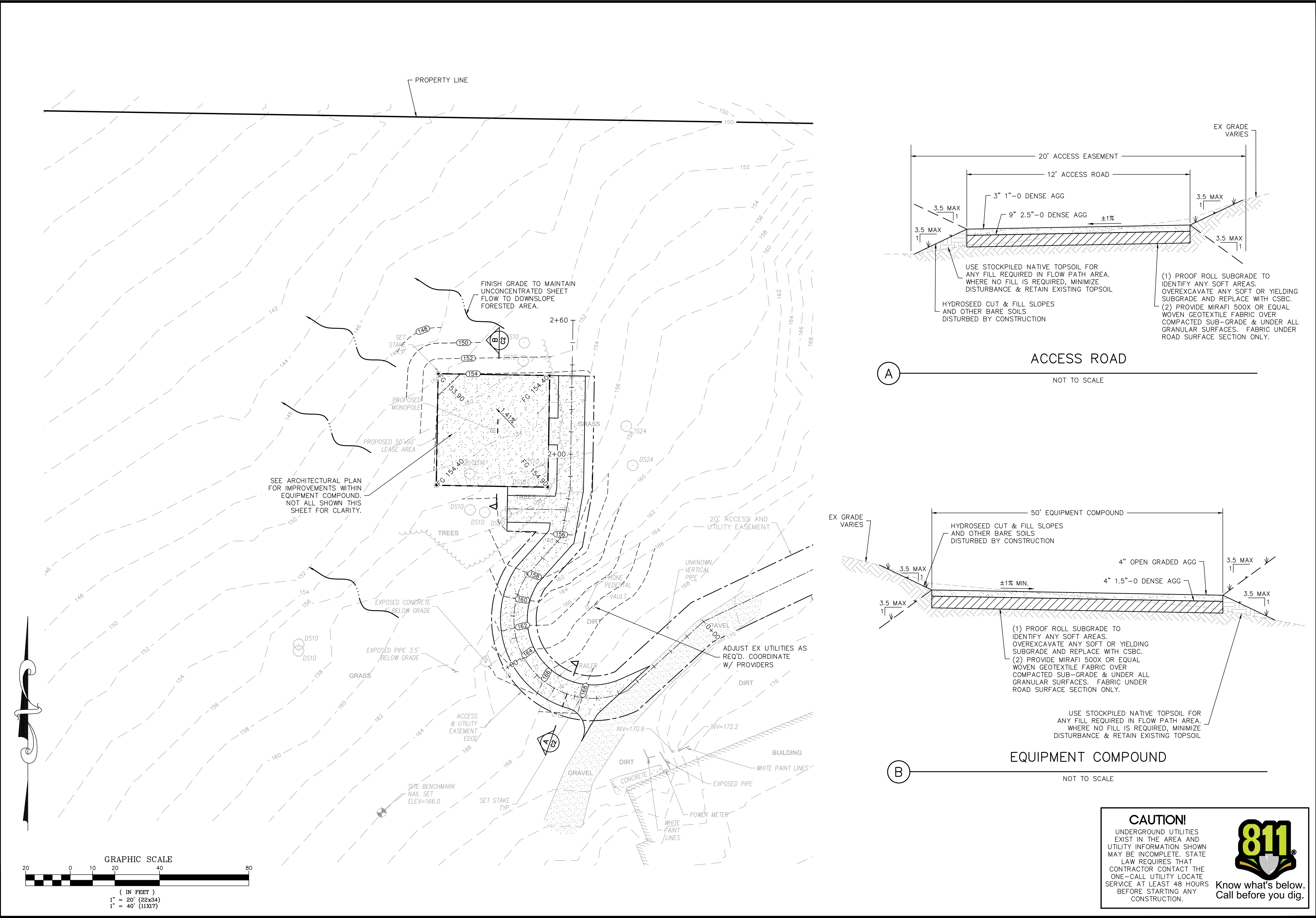
CONTROL BMPs TO REDUCE DUST AND SEDIMENT TRANSPORT SHALL BE APPLIED AS SOON AS PRACTICABLE, BUT IN NO CASE MORE THAN 7 DAYS AFTER GROUND-DISTURBING ACTIVITY OCCURS.



C1	EROSION, SEDIMENT AND POLLUTION CONTROL PLAN
C2	ROAD AND GRADING PLAN
C3	DETAILS
EX1	SLOPE HEATMAP EXHIBIT

UNDERGROUND UTILITIES
EXIST IN THE AREA AND
UTILITY INFORMATION SHOWN
MAY BE INCOMPLETE. STATE
LAW REQUIRES THAT
CONTRACTOR CONTACT THE
ONE-CALL UTILITY LOCATE
SERVICE AT LEAST 48 HOURS
BEFORE STARTING ANY
CONSTRUCTION.



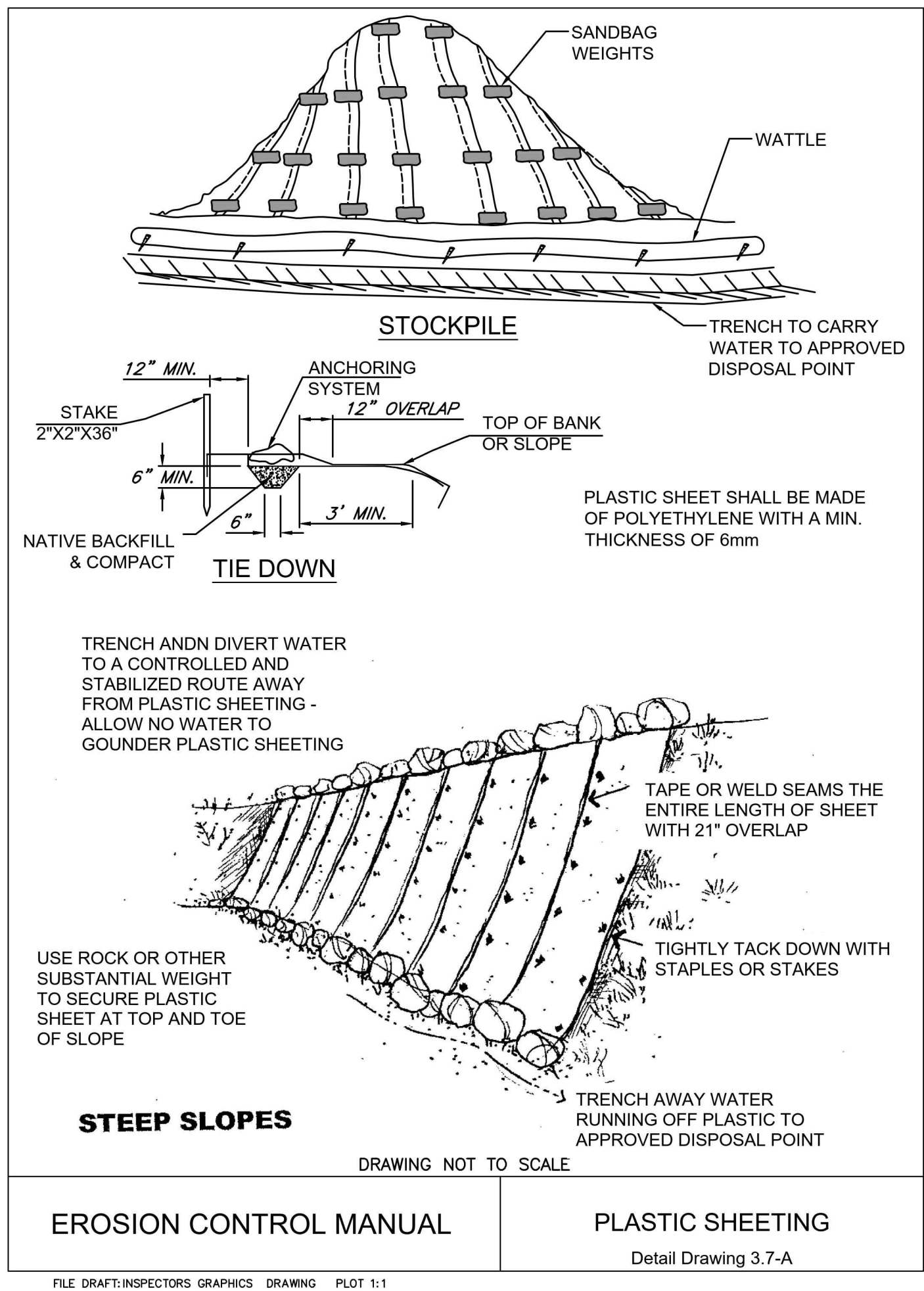
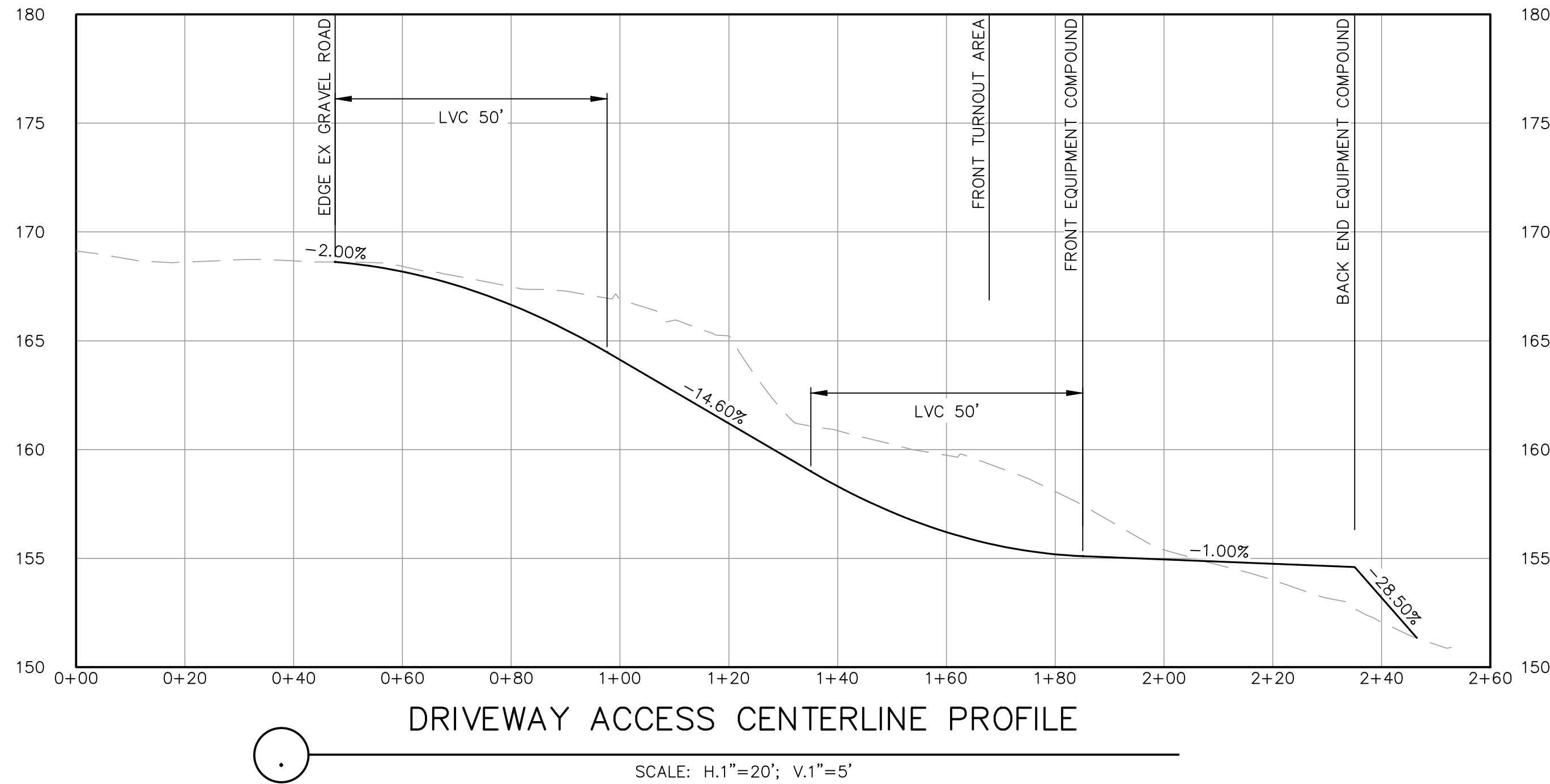


FIELD CREW:	CR/JW
FIELD BOOK:	657/130
DRAWN BY:	DLS
JOB #:	99544.3035
DATE:	9/25/2025

REVISIONS

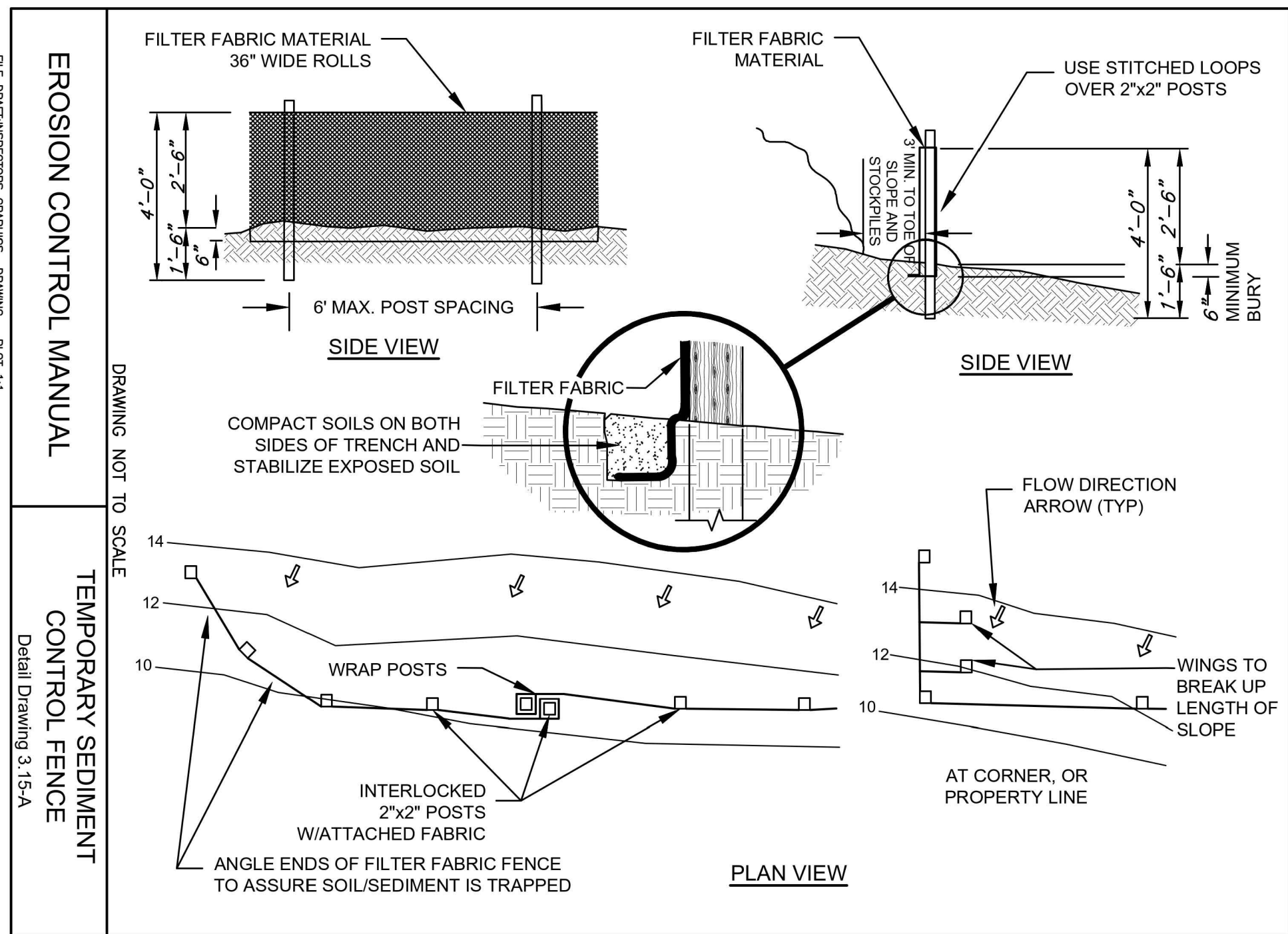
DATE	DESCRIPTION	BY





PLASTIC COVERING

NOT TO SCALE



SILT FENCE

NOT TO SCALE

CAUTION!

UNDERGROUND UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY BE INCOMPLETE. STATE LAW REQUIRES THAT CONTRACTOR CONTACT THE ONE-CALL UTILITY LOCATE SERVICE AT LEAST 48 HOURS BEFORE STARTING ANY CONSTRUCTION.



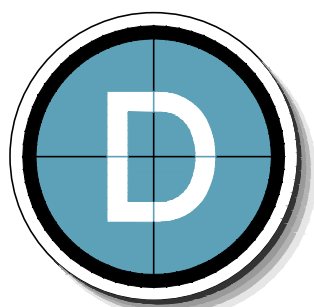
Know what's below.
Call before you dig.



THE TOWERS, LLC
750 PARK OF COMMERCE DRIVE
SUITE 200
BOCA RATON, FL 33487

verizon

Acom
CONSULTING INC.



DUNCANSON

Company, Inc.

145 SW 155th Street, Suite 102
Seattle, Washington 98166
Phone 206.244.4141
Fax 206.244.4455

SITE

US-OR-5099
TUMALT

11499 NE McLOUGHLIN PKWY
CASCADE LOCKS, OR 97014
MULTNOMAH COUNTY

THIS DRAWING WAS CREATED FOR THE
EXCLUSIVE USE OF THE CLIENT NAMED HEREON,
AND IS NOT TO BE USED IN WHOLE OR IN PART
WITHOUT WRITTEN AUTHORIZATION FROM
SABO CLIENT.

© 2025 DUNCANSON COMPANY, INC.

FIELD CREW:	CR/JW
FIELD BOOK:	657/130
DRAWN BY:	DLS
JOB #:	99544.3035
DATE:	9/25/2025

REVISIONS

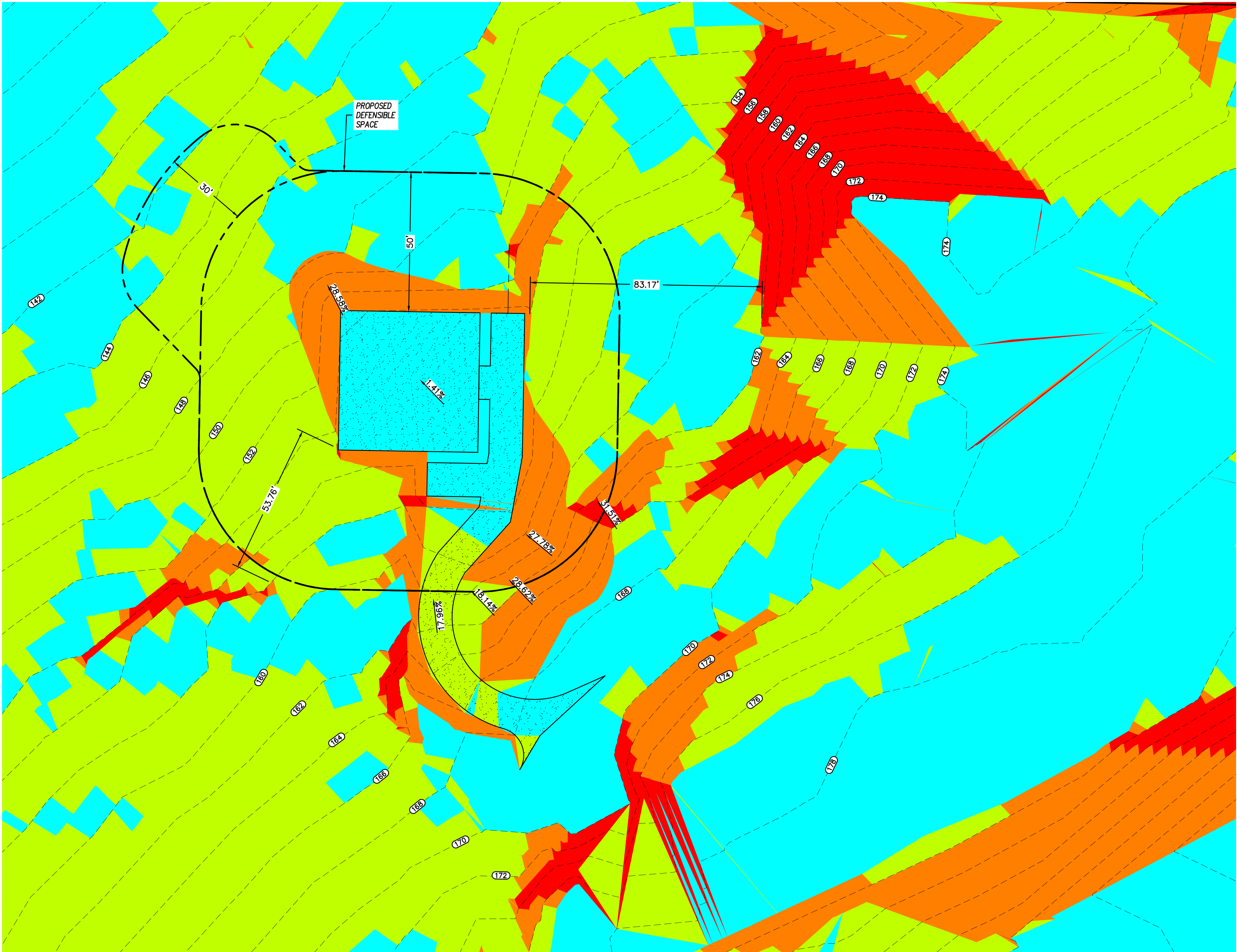
DATE	DESCRIPTION	BY



SHEET TITLE
ADDITIONAL DETAILS
SEC 2, TWP 1 N, RNG 6 E, WM

SHEET NUMBER

C3



SLOPE LEGEND

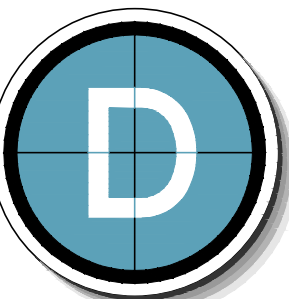


CAUTION!
UNDERGROUND UTILITIES
EXIST IN THE AREA AND
UTILITY INFORMATION SHOWN
MAY BE INCOMPLETE. STATE
LAW REQUIRES THAT
CONTRACTOR CONTACT THE
ONE-CALL UTILITY LOCATE
SERVICE AT LEAST 48 HOURS
BEFORE STARTING ANY
CONSTRUCTION.

811
Know what's below.
Call before you dig.



THE TOWERS, LLC
750 PARK OF COMMERCE DRIVE
SUITE 200
BOCA RATON, FL 33487



DUNCANSON
Company, Inc.
145 SW 155th Street, Suite 102
Seattle, Washington 98166
Phone 206.244.4141
Fax 206.244.4455

SITE
**US-OR-5099
TUMALT**
11499 NE McLOUGHLIN PKWY
CASCADE LOCKS, OR 97014
MULTNOMAH COUNTY

THIS DRAWING WAS CREATED FOR THE
EXCLUSIVE USE OF THE CLIENT NAMED HEREON,
AND IS NOT TO BE USED IN WHOLE OR IN PART
WITHOUT WRITTEN AUTHORIZATION FROM
SAD CLIENT.
© 2025 DUNCANSON COMPANY, INC.

FIELD CREW:	CR/JW
FIELD BOOK:	657/130
DRAWN BY:	DLS
JOB #:	99544.3035
DATE:	9/25/2025

REVISIONS

DATE	DESCRIPTION	BY



SHEET TITLE
**SLOPE HEATMAP EXHIBIT
SEC 2, TWP 1 N, RNG 6 E, WM**

SHEET NUMBER
EX1