



DUNCANSON

Company, Inc.

DCI 99544.3054

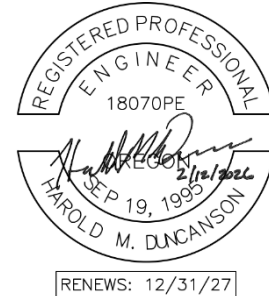
MEMO REPORT

To: Multnomah County Department of Community Services

From: Harold Duncanson

Date: 11/21/25(revised 2/12/26)

Subject: Verizon US-OR-5116—Sauvie
14443 NW Charlton RD
Portland, OR 97231
Runoff Calculation Summary



The Verizon Sauvie project involves construction of a wireless communication facility at the above referenced location. The project will convert approximately 9,500 SF (0.218 acre) of grass and forest area to crushed rock surface on a 3.5-acre parcel. Runoff from the new impervious surface will disperse and infiltrate over an average of over 100 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 no runoff for both the predeveloped and postdeveloped conditions. This is reasonable given the minor amounts of existing and proposed impervious, large proportion of vegetative cover and Class A soils.

Please call if you have any questions.

SURVEYING

LAND PLANNING

WinTR-55 Current Data Description

--- Identification Data ---

User: HMD Date: 2/12/2026
 Project: Sauvie Units: English
 SubTitle: Areal Units: Acres
 State: Oregon
 County: Multnomah
 Filename: C:\Users\dans\Desktop\Hydrocad\Sauvie.w55

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Predev		Outlet	3.5	40	0.1
Postdev		Outlet	3.5	43	0.100

Total area: 7 (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

Sauvie

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>

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Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period			
	2-Yr (cfs)	5-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)

SUBAREAS				
Predev	.00	.00	.00	.00
Postdev	.00	.00	.00	.00
REACHES				
OUTLET	.00	.00	.00	.00

No Runoff, Pre- or
Post-development

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Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow 2-Yr (cfs) (hr)	and Peak 5-Yr (cfs) (hr)	Time (hr) 10-Yr (cfs) (hr)	by Rainfall 25-Yr (cfs) (hr)	Return Period
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SUBAREAS

Predev	.00	.00	.00	.00	
	n/a	n/a	n/a	n/a	

Postdev	.00	.00	.00	.00	
	n/a	n/a	n/a	n/a	

REACHES

OUTLET	.00	.00	.00	.00	
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Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Predev	3.50	0.100	40	Outlet	
Postdev	3.50	0.100	43	Outlet	

Total Area:	7 (ac)				

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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							
User-provided							0.1
					Time of Concentration		0.1
							=====
Postdev							
User-provided							0.100
					Time of Concentration		0.100
							=====

HMD

Sauvie

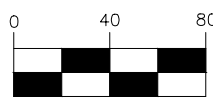
Multnomah County, Oregon

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use		Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Predev	Open space; grass cover > 75%	(good)	A	1.517	39
	Gravel (w/ right-of-way)		A	.265	76
	Woods	(fair)	A	1.716	36
	Total Area / Weighted Curve Number			3.5	40
				===	==
Postdev	Open space; grass cover > 75%	(good)	A	1.611	39
	Gravel (w/ right-of-way)		A	.483	76
	Woods	(fair)	A	1.405	36
	Total Area / Weighted Curve Number			3.5	43
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GRAPHIC SCALE



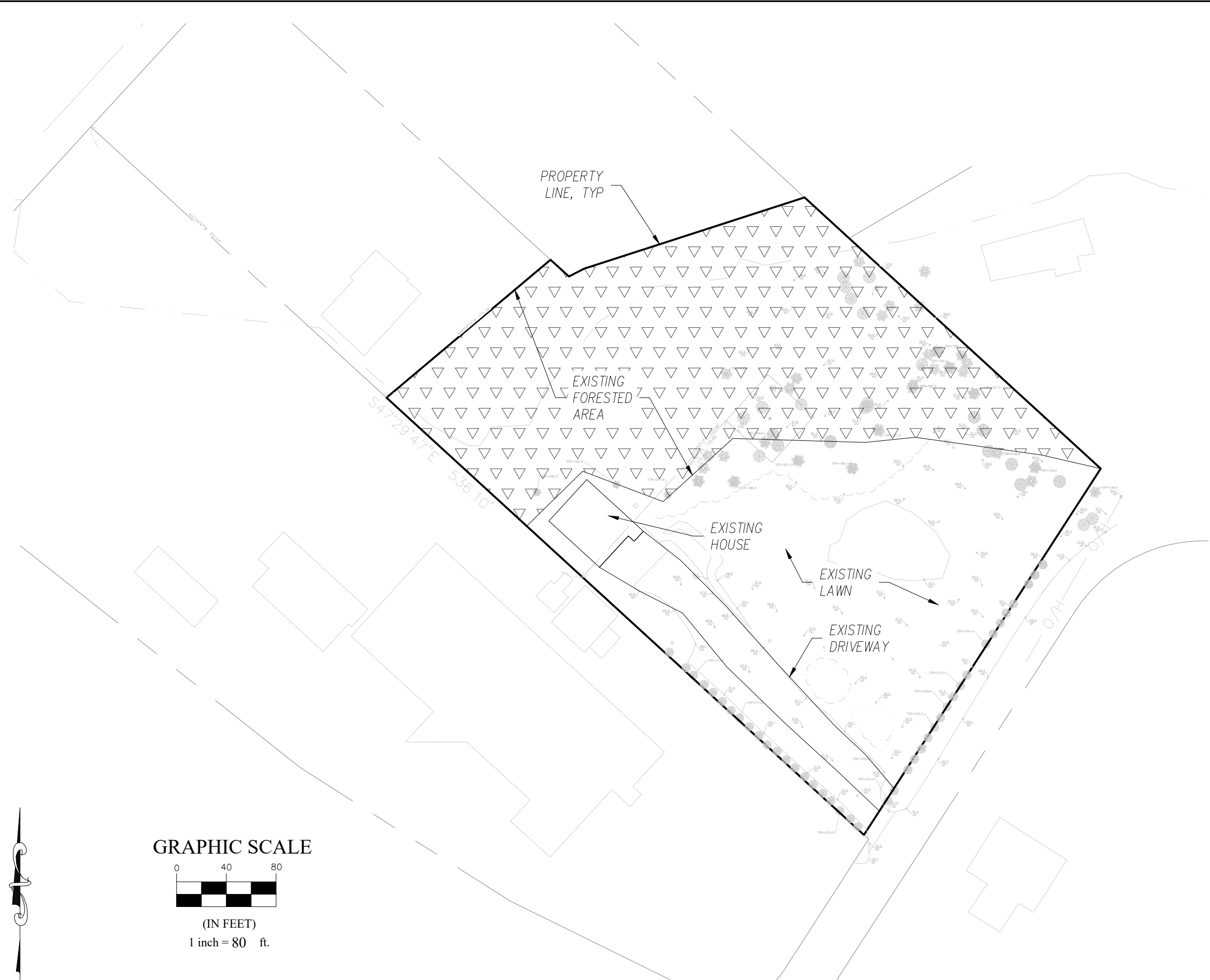
(IN FEET)
1 inch = 80 ft.



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PARCEL MAP

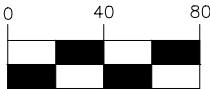
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AREAS

	SF	AC
TOTAL	152,394	3.498
FOREST	74,743	1.716
LAWN	66,086	1.517
IMPERVIOUS	11,565	0.265

GRAPHIC SCALE



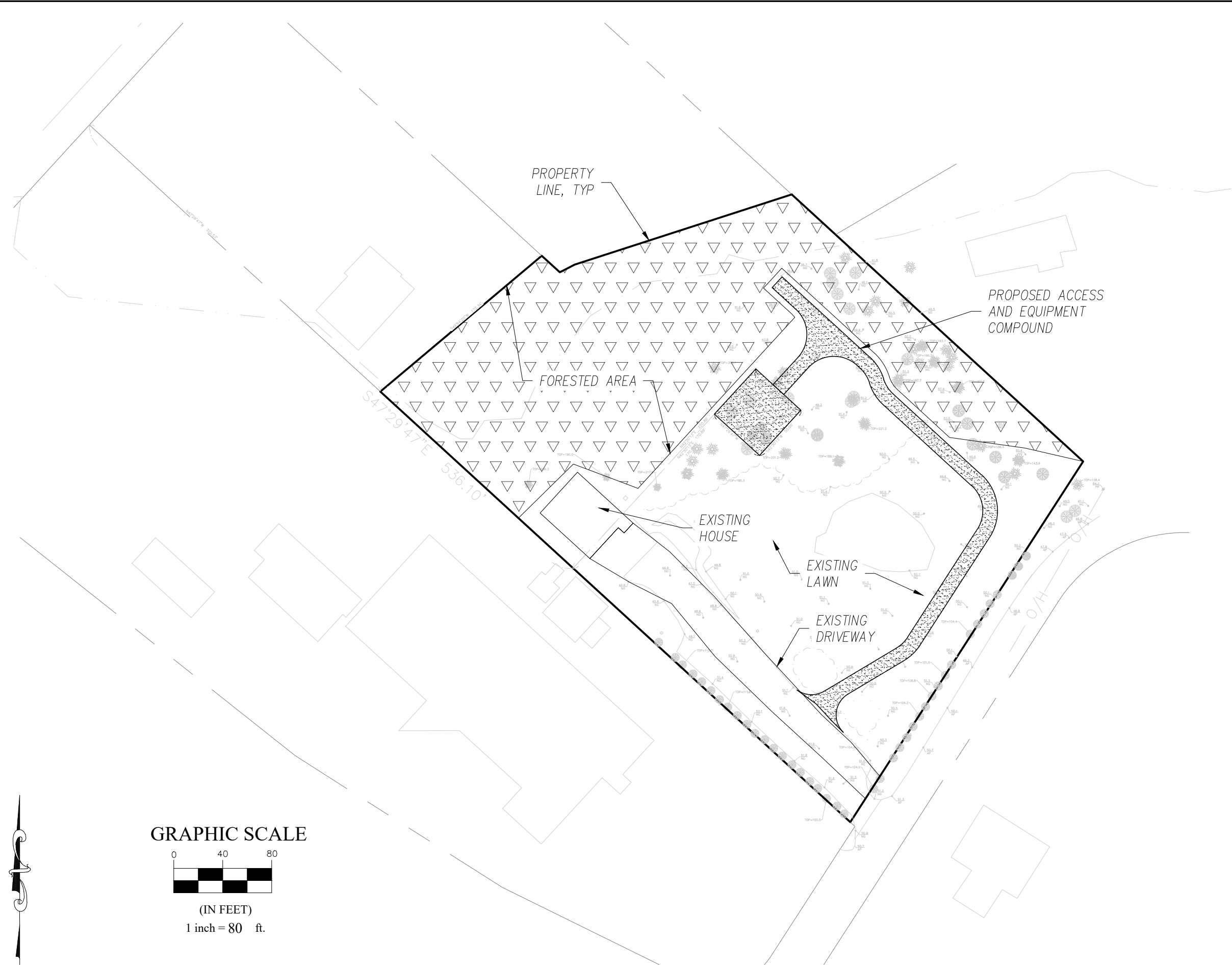
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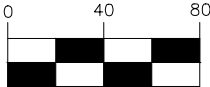
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PRE-CONSTRUCTION

Scale: 1"=80'	Drawn: DLS	Job No. 99544.3054
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GRAPHIC SCALE



1 inch = 80 ft.

AREAS

	SF	AC
TOTAL	152,394	3.498
FOREST	61,196	1.405
LAWN	70,176	1.611
IMPERVIOUS	21,022	0.483



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POST CONSTRUCTION

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