Robinson+Cole

KENNETH C. BALDWIN

One State Street
Hartford, CT 06103
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

December 3, 2025

Via Federal Express

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Docket No. 502 – Application of Cellco Partnership d/b/a Verizon Wireless for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Wireless Telecommunications Facility at 118 Newton Road, Woodbridge, Connecticut**

Submission of Development and Management Plan

Dear Attorney Bachman:

Enclosed please find fifteen (15) copies of the following:

1. Development and Management ("D&M") Plans prepared by TEP Northeast (TEP OPCO, LLC) for the approved telecommunications facility at 118 Newton Road in Woodbridge, Connecticut incorporating the Council's conditions of approval. Also enclosed are two (2) full size (24" x 36") sets of D&M plans.

2. Structural Design Report, containing the monopole tower and foundation design, prepared by Sabre Industries, dated September 17, 2025.

3. Geotechnical Investigation Report prepared by TEP dated May 23, 2025.

We respectfully request that this information be reviewed and this matter be placed on the next available Siting Council agenda for approval. Please feel free to contact me if you have any questions or require additional information. Thank you.

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Mica Cardoza, First Selectman, Town of Woodbridge
Parties and Intervenors of Record

CELLCO PARTNERSHIP

verizon

CELLCO PARTNERSHIP d/b/a VERIZON WIRLESS

WOODBRIDGE N2 CT

DEVELOPMENT & MANAGEMENT PLAN - DOCKET No. 502

118 NEWTON ROAD
WOODBRIDGE, CT 06525

VICINITY MAP SCALE: 1"=500'

DIRECTIONS TO SITE:

FROM: VERIZON OFFICE ADDRESS 20 ALEXANDER DRIVE WALLINGFORD CT
HEAD SOUTHWEST TOWARD ALEXANDER DR
SLIGHT RIGHT TOWARD ALEXANDER DR
TURN RIGHT TOWARD ALEXANDER DR
TURN RIGHT ONTO ALEXANDER DR
TURN RIGHT ONTO BARNES INDUSTRIAL PARK RD
TURN LEFT AT THE 1ST CROSS STREET ONTO CT-68 W
TURN RIGHT
TURN RIGHT ONTO US-5 N/N COLONY RD
TURN LEFT TO MERGE ONTO CT-15 S TOWARD NEW HAVEN
FOLLOW CT-15 S TO CT-69 N/WHALLEY AVE IN NEW HAVEN.
TAKE EXIT 59 FROM CT-15 S
MERGE ONTO CT-15 S
TAKE CT-63 N/AMITY RD TO PROSPECT RD IN WOODBRIDGE
USE THE MIDDLE LANE TO TURN LEFT ONTO CT-69 N/WHALLEY AVE
TURN LEFT ONTO BRADLEY RD
TURN RIGHT ONTO CT-63 N/AMITY RD
TURN LEFT ONTO BURNT SWAMP RD
CONTINUE STRAIGHT ONTO PROSPECT RD
THE SITE IS ON THE LEFT

PROJECT SUMMARY

PROJECT ENGINEER

TEP NORTHEAST, (TEP OPCO, LLC.)
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: 1-(978)-557-5553

MEP ENGINEER

TEP NORTHEAST, (TEP OPCO, LLC.)
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: 1-(978)-557-5553

SURVEYOR

NORTHEAST SURVEY CONSULTANTS
116 PLEASANT ST., SUITE 302
EASTHAMPTON, MA 01027
TEL: 1-(413)-203-5144

UNDERGROUND SERVICE ALERT

CBYD 811
WWW.CBYD.COM
48 HOURS PRIOR

PROJECT SUMMARY

SITE NAME:	WOODBRIDGE N2 CT
SITE ADDRESS:	118 NEWTON ROAD WOODBRIDGE, CT 06525
PROPERTY OWNER:	SOUFRINE FAMILY TRUST MICHAEL SOUFRINE TRUSTEE 19 SOUNDVIEW DRIVE WOODBRIDGE, CT 06525
APPLICANT:	CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
SITE ACQUISITION CONTACT:	CHUCK WEBBERLY STRUCTURE CONSULTING GROUP 49 BRATTLE STREET ARLINGTON, MA 02474
LEGAL/REGULATORY COUNSEL:	KENNETH C. BALDWIN ESQ. ROBINSON + COLE LLP (860)275-8345
LATITUDE:	N41° 22' 04.22" N41.367839°
LONGITUDE:	W73° 00' 38.40" W 73.010669°

SHEET INDEX

SCOPE OF WORK INFO.

VERIZON WIRELESS IS PROPOSING TO INSTALL THE FOLLOWING IMPROVEMENTS ON PROPOSED TELECOMMUNICATION SITE:

- NEW 50'x50' FENCED LEASE AREA WITHIN EXISTING PARCEL OF LAND.

- NEW PANEL ANTENNAS: (3) ANTENNA PER SECTOR WITH (3) SECTORS, FOR A TOTAL OF (9) ANTENNAS.
- NEW RRHs: (2) RRHs PER SECTOR WITH (3) SECTORS, FOR A TOTAL OF (6) RRHs
- NEW (1) OVPs & (1) NGOVP: (2) OVPs TOTAL.

ITEMS LISTED ABOVE TO BE MOUNTED ON PROPOSED VERIZON TOWER.

- NEW EQUIPMENT CABINETS: (2) CABINETS WITH GENERATOR & PROPANE TANK ON PROPOSED CONCRETE PADS.

ITEMS LISTED ABOVE TO BE INSTALLED WITHIN THE PROPOSED 50'x50' FENCED COMPOUND.

- NEW POWER AND TELCO SERVICES WILL BE ROUTED UNDERGROUND FROM EXISTING UTILITY POLE TO PROPOSED ELECTRICAL METER AND HOFFMAN BOX ON PROPOSED H-FRAME AT EQUIPMENT AREA.
- FINAL UTILITY ROUTING TO BE DETERMINED/VERIFIED BY UTILITY COMPANIES.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRATTLE
35536
LICENSED PROFESSIONAL ENGINEER

11/24/25

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

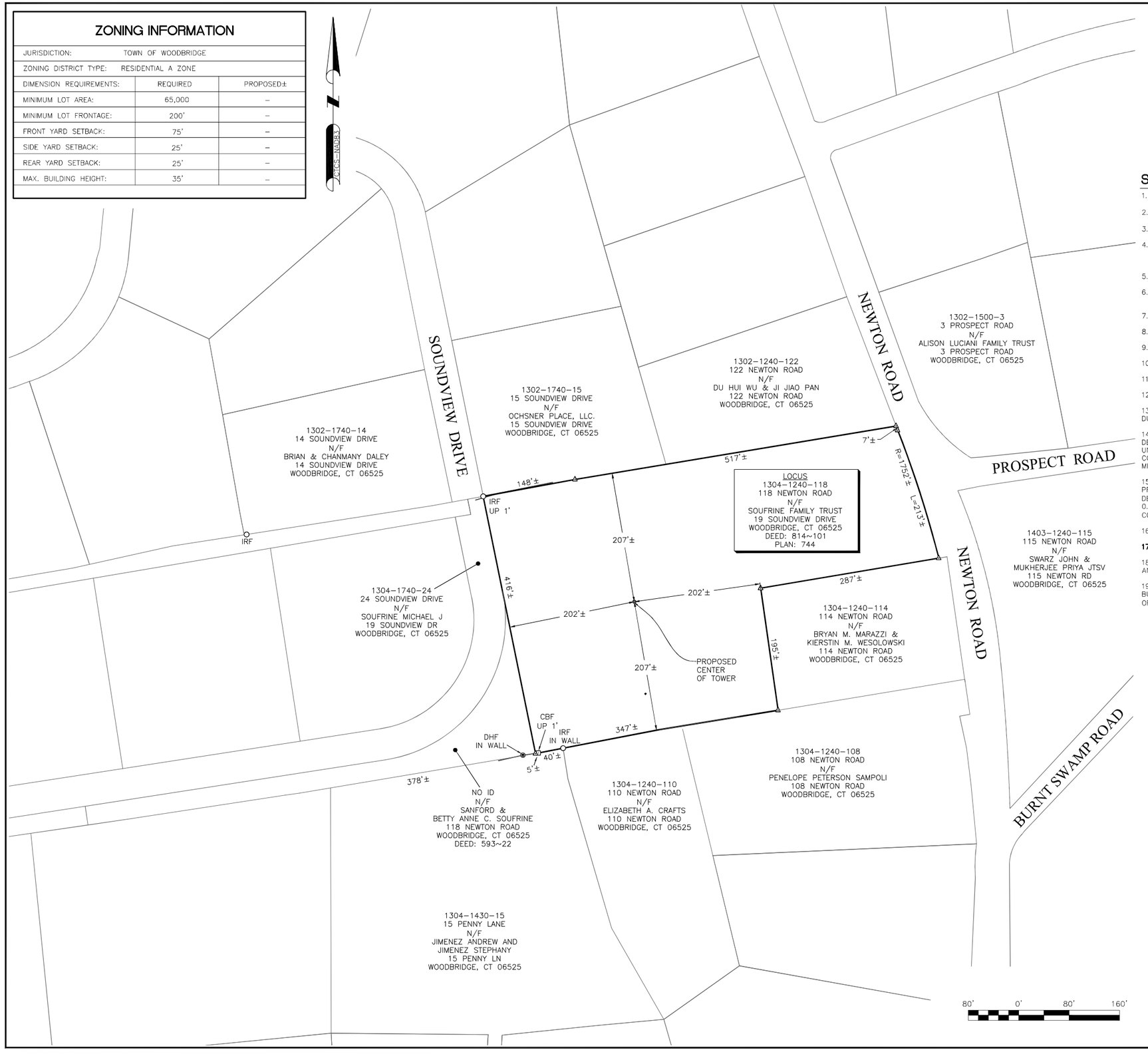
SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

ZONING INFORMATION

JURISDICTION:	TOWN OF WOODBRIDGE	
ZONING DISTRICT TYPE:	RESIDENTIAL A ZONE	
DIMENSION REQUIREMENTS:	REQUIRED	PROPOSED±
MINIMUM LOT AREA:	65,000	–
MINIMUM LOT FRONTAGE:	200'	–
FRONT YARD SETBACK:	75'	–
SIDE YARD SETBACK:	25'	–
REAR YARD SETBACK:	25'	–
MAX. BUILDING HEIGHT:	35'	–



LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- STONEWALL
- ○ IRON PIPE FOUND
- ⊡ CONC. BOUND FOUND
- ◉ DRILL HOLE FOUND
- △ CALCULATED POINT

SITE SPECIFIC NOTES:

1. FIELD SURVEY DATE: 06–02–2017 & 11–17–2022
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
4. OWNER: SOUFRINE FAMILY TRUST, 19 SOUNDVIEW DRIVE, WOODBRIDGE, CT 06525
5. SITE NAME: WOODBRIDGE N2 CT
6. SITE ADDRESS: 118 NEWTON ROAD, WOODBRIDGE, CT 06610
7. APPLICANT: VERIZON WIRELESS
8. JURISDICTION: TOWN OF WOODBRIDGE
9. TAX ID: 1304–1240–118
10. DEED REFERENCE: BOOK 814 PAGE 101
11. PLAN REFERENCE: PLAN 744
12. ZONING DISTRICT: RESIDENTIAL A ZONE
13. THE HORIZONTAL DATUM AND VERTICAL DATUM WERE DERIVED FROM A DUAL FREQUENCY GPS SURVEY.
14. ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE 1–800–322–4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
15. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE PROPOSED IMPROVEMENTS ON THIS PROPERTY ARE LOCATED IN AN AREA DESIGNATED AS ZONE X (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
COMMUNITY PANEL NO. 09009C0407J MAP REVISED: 05/16/2017
16. FIELD SURVEY BY EDM TOTAL STATION.
17. **THIS IS NOT A BOUNDARY SURVEY.**
18. ALL PROPERTY LINES SHOWN ARE FROM PLANS AND DEEDS OF RECORD AND THE TOWN OF WOODBRIDGE GIS AND ARE APPROXIMATE ONLY.
19. ABUTTING PROPERTY LINES, ABUTTING STREET LINES AND ABUTTING BUILDING LOCATIONS ARE AS TAKEN FROM THE REFERENCE PLANS, THE TOWN OF WOODBRIDGE ASSESSORS' MAPS & GIS AND ARE APPROXIMATE ONLY.

THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300B–1 THROUGH 20–300B–20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1997.

TYPE OF SURVEY: IMPROVEMENT LOCATION SURVEY

BOUNDARY SURVEY CATEGORY: DEPENDENT RESURVEY

CLASS OF ACCURACY: HORIZONTAL CLASS: D; TOPOGRAPHIC CLASS: T–2; VERTICAL CLASS: V–2

PURPOSE OF SURVEY: PROPOSED CELLULAR MONOPOLE

THIS DOCUMENT AND COPIES THEREOF ARE VALID ONLY IF THEY BEAR THE LIVE SIGNATURE AND EMBOSSED SEAL OF THE DESIGNATED PROFESSIONAL. UNAUTHORIZED ALTERATIONS RENDER ANY DECLARATION NULL AND VOID.

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

CHARLES G. GIDMAN, P.L.S. #70103

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

NORTHEAST SURVEY CONSULTANTS
3 Ferry Street
Studio 1 East
Easthampton, MA 01027
(413) 203–5144
northeastsurvey.com

STATE OF CONNECTICUT · CHARLES G. GIDMAN · 70103 · LICENSED LAND SURVEYOR

CHECKED BY: BCF

APPROVED BY: CCG

SUBMITTALS

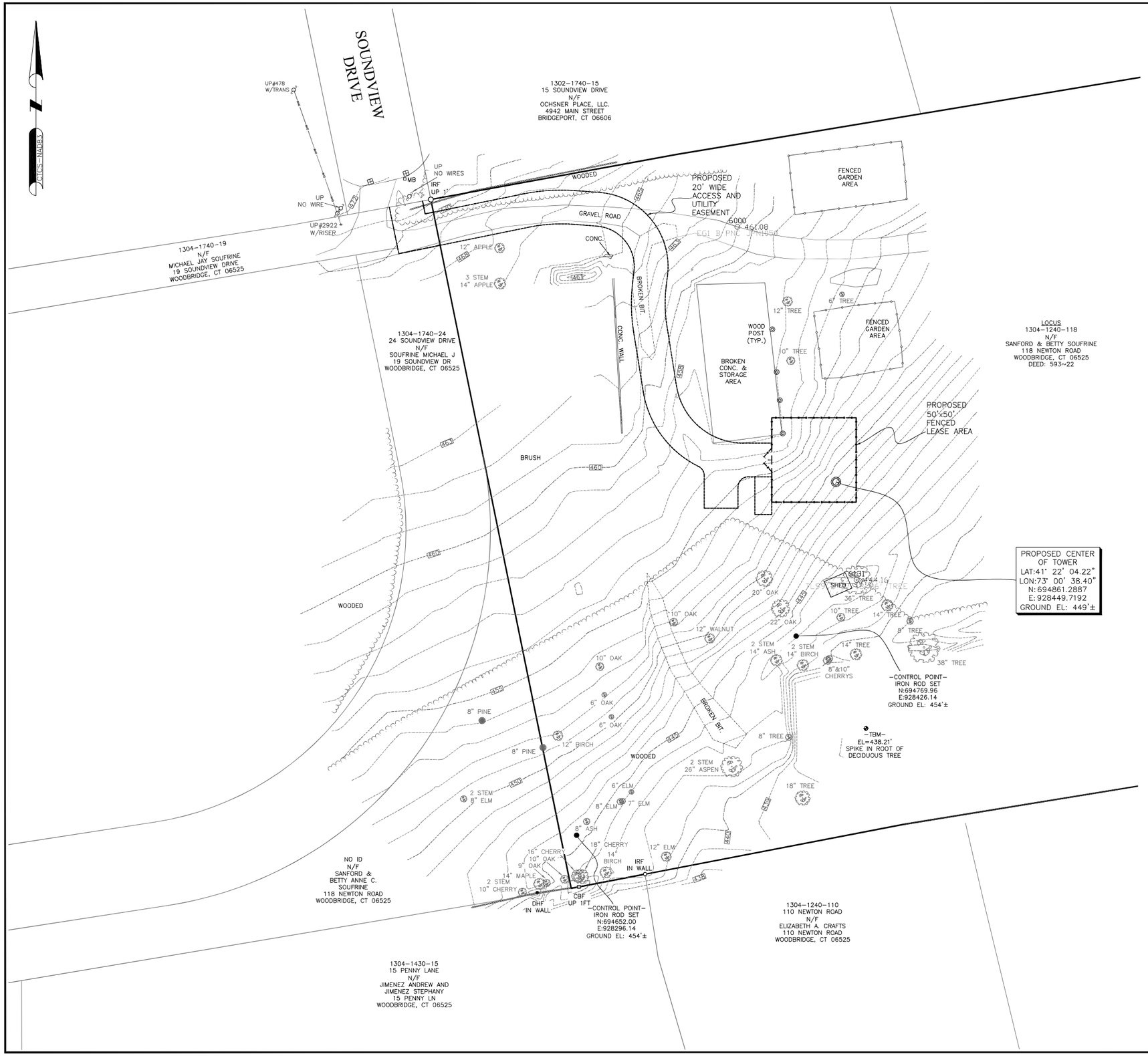
REV.	DATE	DESCRIPTION	BY
1	11/21/22	MOVE TOWER, ADD TOPO	BCF
0	06/26/17	ISSUED FOR REVIEW	JED

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
ABUTTERS PLAN

SHEET NUMBER
C-1



LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- CONTOUR LINE
- OVERHEAD WIRE
- STONEWALL
- TREELINE
- IRON PIPE FOUND
- CONC. BOUND FOUND
- DRILL HOLE FOUND
- TOWER CONTROL POINT
- TEMPORARY BENCHMARK
- CALCULATED POINT
- DECIDUOUS TREE
- UTILITY POLE
- CATCH BASIN
- MAILBOX

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

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STATE OF CONNECTICUT
CHARLES S. GURMAN
97CM25
LICENSED
LAND SURVEYOR

CHECKED BY: BCF

APPROVED BY: CCG

SUBMITTALS

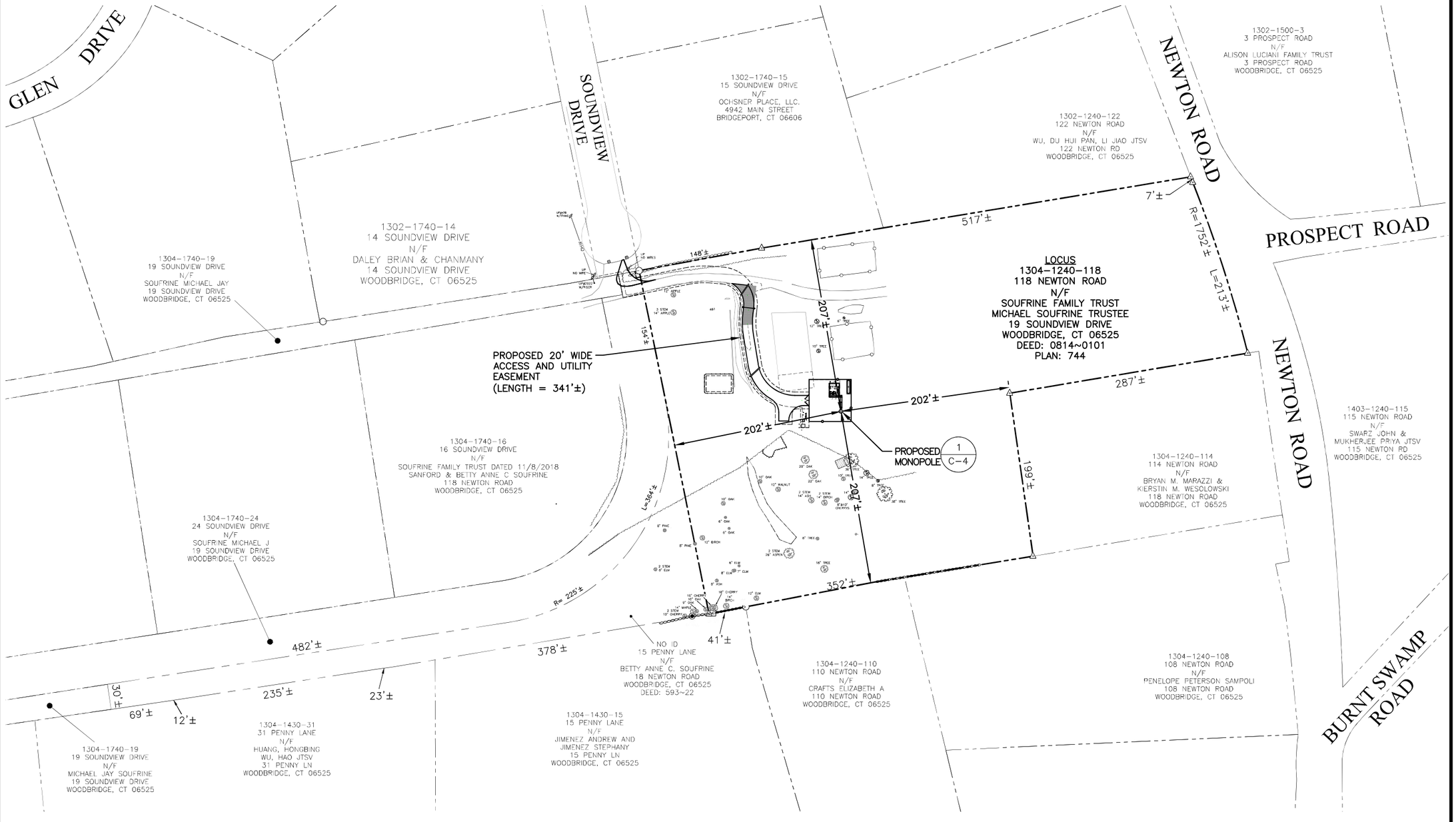
REV.	DATE	DESCRIPTION	BY
1	11/21/22	MOVE TOWER, ADD TOPO	BCF
0	06/26/17	ISSUED FOR REVIEW	JED

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
EXISTING CONDITIONS PLAN

SHEET NUMBER
C-2



OVERALL SITE PLAN 1 / C-3
22x34 SCALE: 1"=60'
11x17 SCALE: 1"=120'

GRAPHIC SCALE
0 30 60 120 180 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
OVERALL SITE PLAN

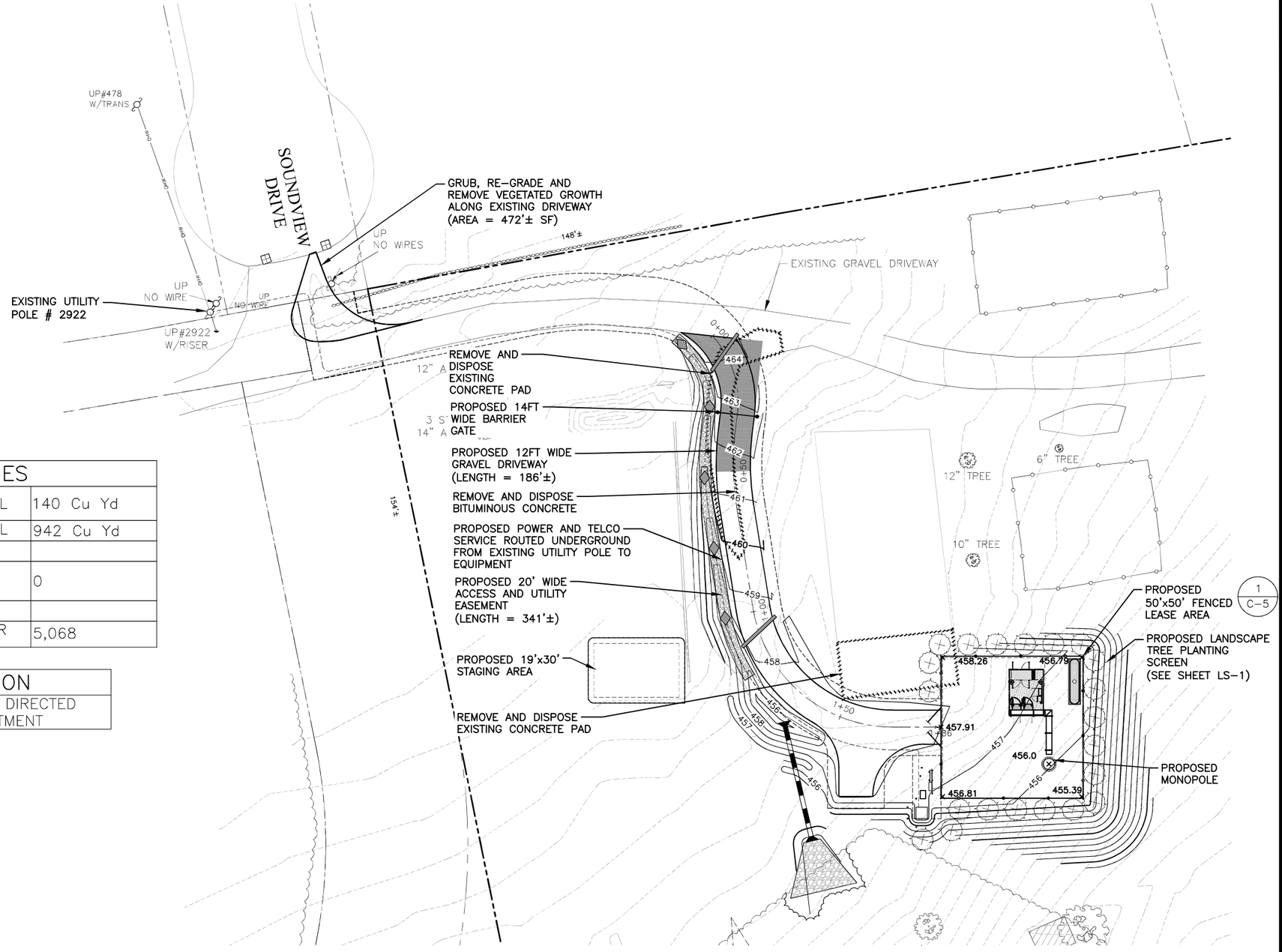
SHEET NUMBER
C-3

LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OHW — OVERHEAD WIRE (TRANSMISSION LINE)
- EXISTING CHAIN LINK FENCE
- S — EXISTING UNDERGROUND SEWER LINE
- A–1 / A–2 — DELINEATED WETLAND LINE
- EXISTING BUILDING
- PROPOSED EQUIPMENT CONCRETE PAD
- CB — CATCH BASIN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EXISTING TREE TO BE REMOVED
- G — EXISTING GROUND WELL
- S — EXISTING SEWER MANHOLE
- STONEWALL
- W — WELL
- UTILITY POLE
- 1086 — PROPOSED CONTOUR LINE
- PROPOSED CONSTRUCTION SILT SOCK
- PROPOSED TOWER

EARTHWORK VOLUMES	
APPROXIMATE VOLUME OF CUT MATERIAL	140 Cu Yd
APPROXIMATE VOLUME OF FILL MATERIAL	942 Cu Yd
APPROXIMATE NUMBER OF TREES TO BE REMOVED >/=6" DBH	0
PROPOSED IMPERVIOUS SURFACE COVER	5,068

HOURS OF CONSTRUCTION
MONDAY TO FRIDAY 7AM–7PM OR AS DIRECTED BY WOODBRIDGE BUILDING DEPARTMENT



MAGNETIC NORTH 13°13' TRUE NORTH

SITE PLAN (1 / C–6)

22x34 SCALE: 1"=20'
11x17 SCALE: 1"=40'

GRAPHIC SCALE
0 10 20 40 60 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

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NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

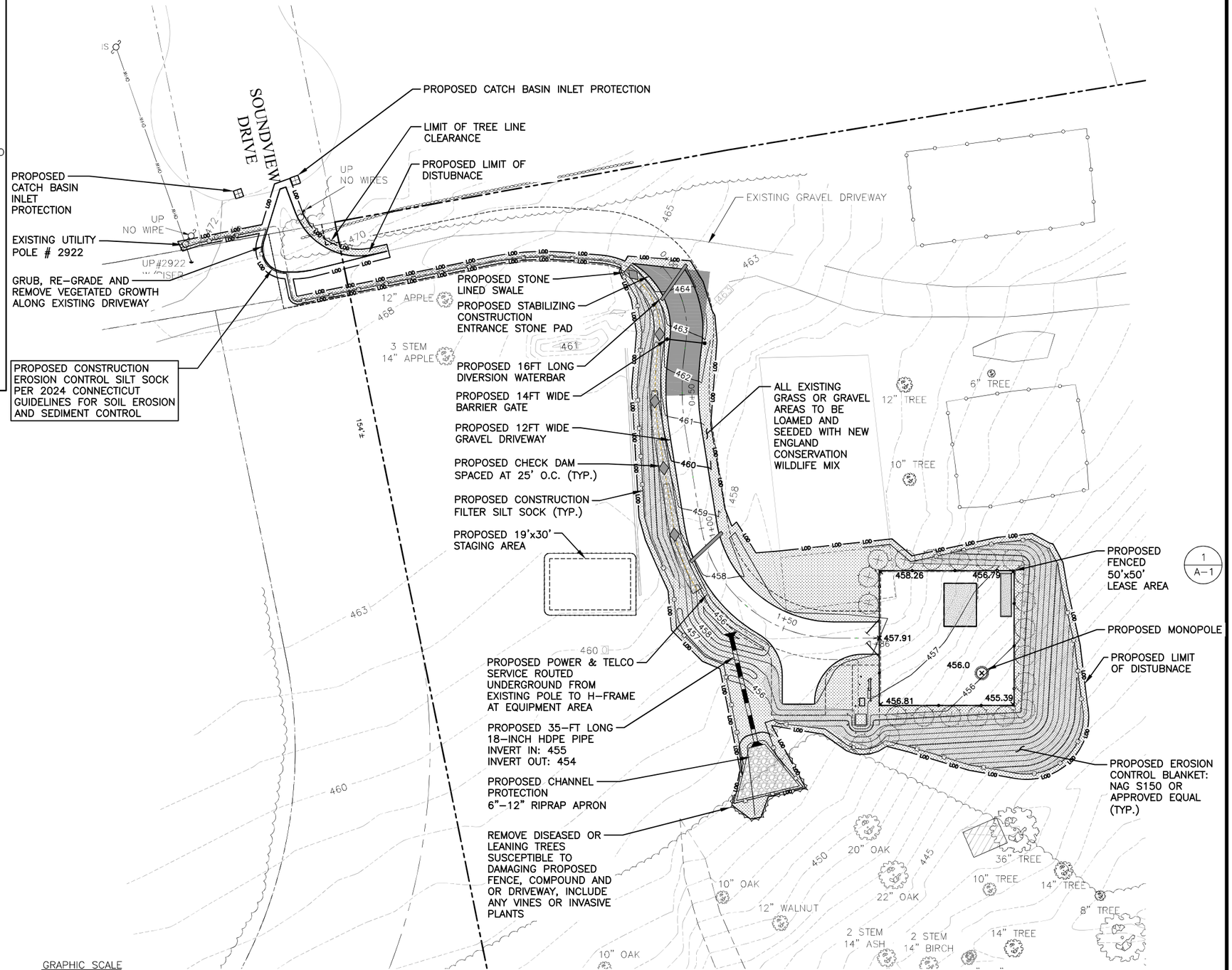
SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-4

LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OHW — OVERHEAD WIRE (TRANSMISSION LINE)
- EXISTING CHAIN LINK FENCE
- S — EXISTING UNDERGROUND SEWER LINE
- A–1 A–2 — DELINEATED WETLAND LINE
- EXISTING BUILDING
- PROPOSED EQUIPMENT CONCRETE PAD
- CB — CATCH BASIN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EXISTING TREE TO BE REMOVED
- G — EXISTING GROUND WELL
- S — EXISTING SEWER MANHOLE
- STONEWALL
- W — WELL
- UTILITY POLE
- 1086 — PROPOSED CONTOUR LINE
- PROPOSED CONSTRUCTION SILT SOCK
- PROPOSED TOWER



EROSION CONTROL AND SITE GRADING PLAN
22x34 SCALE: 1"=20'
11x17 SCALE: 1"=40'

1 C–5

GRAPHIC SCALE
0 10 20 40 60 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
REGISTERED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

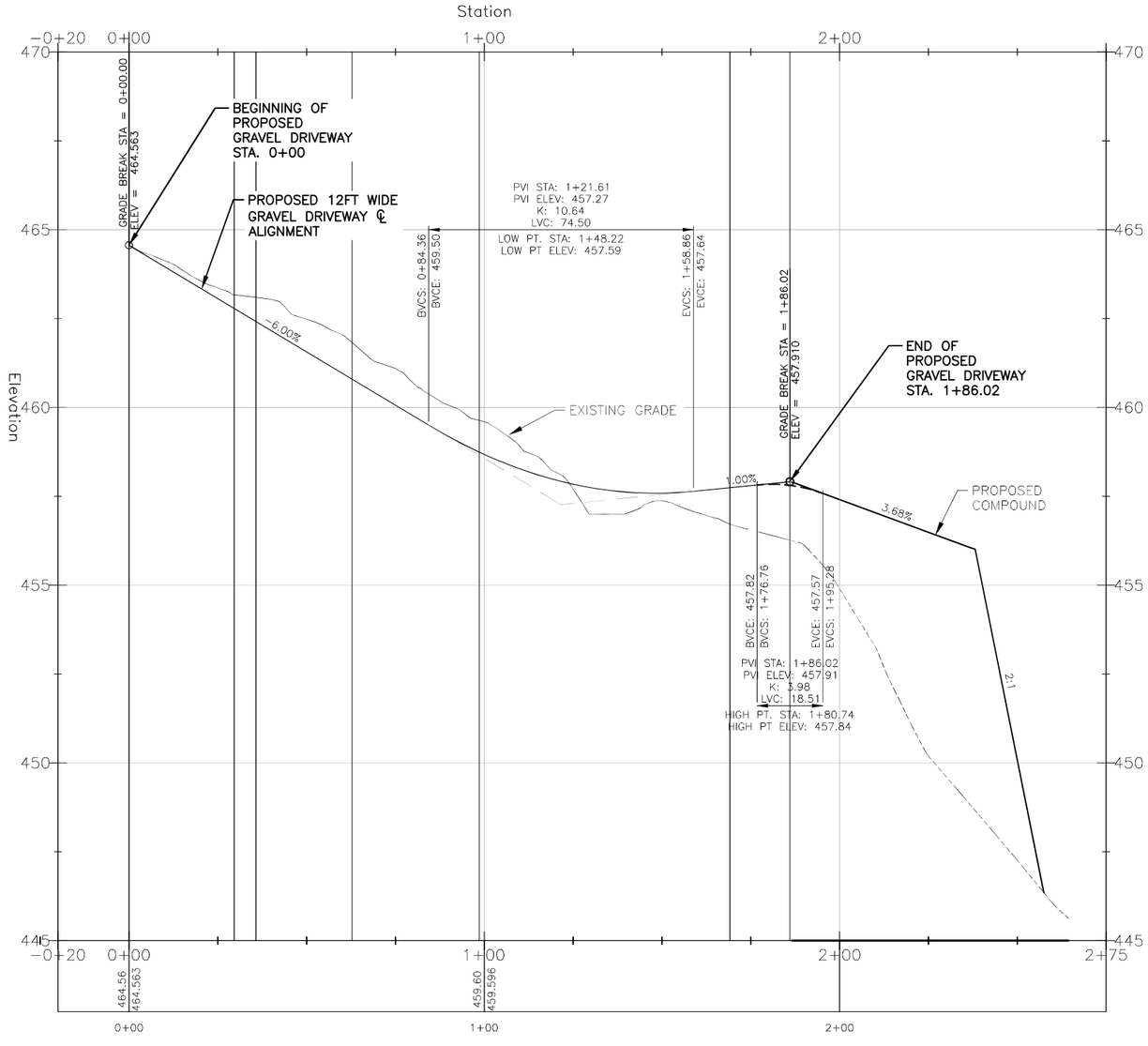
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
EROSION CONTROL AND SITE GRADING PLAN

SHEET NUMBER
C-5

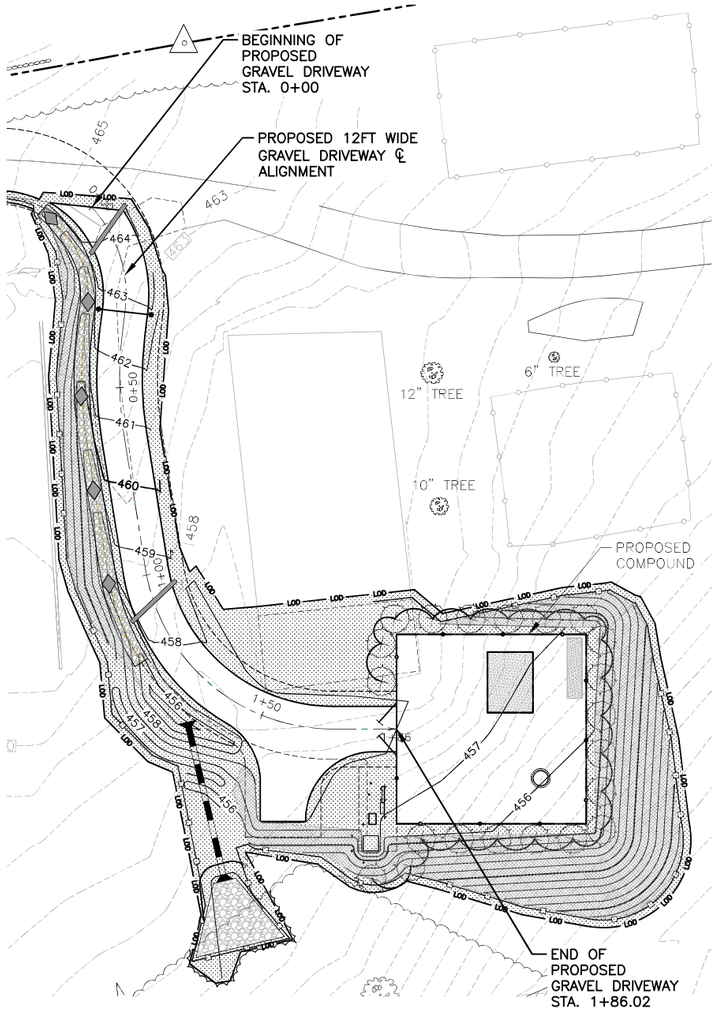


DRIVEWAY PROFILE (2 / C-6)
22x34 SCALE: 1"=20'
11x17 SCALE: 1"=40'

HORIZONTAL SCALE
0 10 20 40 60 FEET

VERTICAL SCALE
0 1 2 4 6 FEET

VERTICAL SCALE
22x34 VERTICAL SCALE: 1"=2'
11x17 VERTICAL SCALE: 1'=4'



13°13'
TRUE NORTH
MAGNETIC NORTH

DRIVEWAY PLAN (1 / C-6)
22x34 SCALE: 1"=20'
11x17 SCALE: 1"=40'

GRAPHIC SCALE
0 10 20 40 60 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

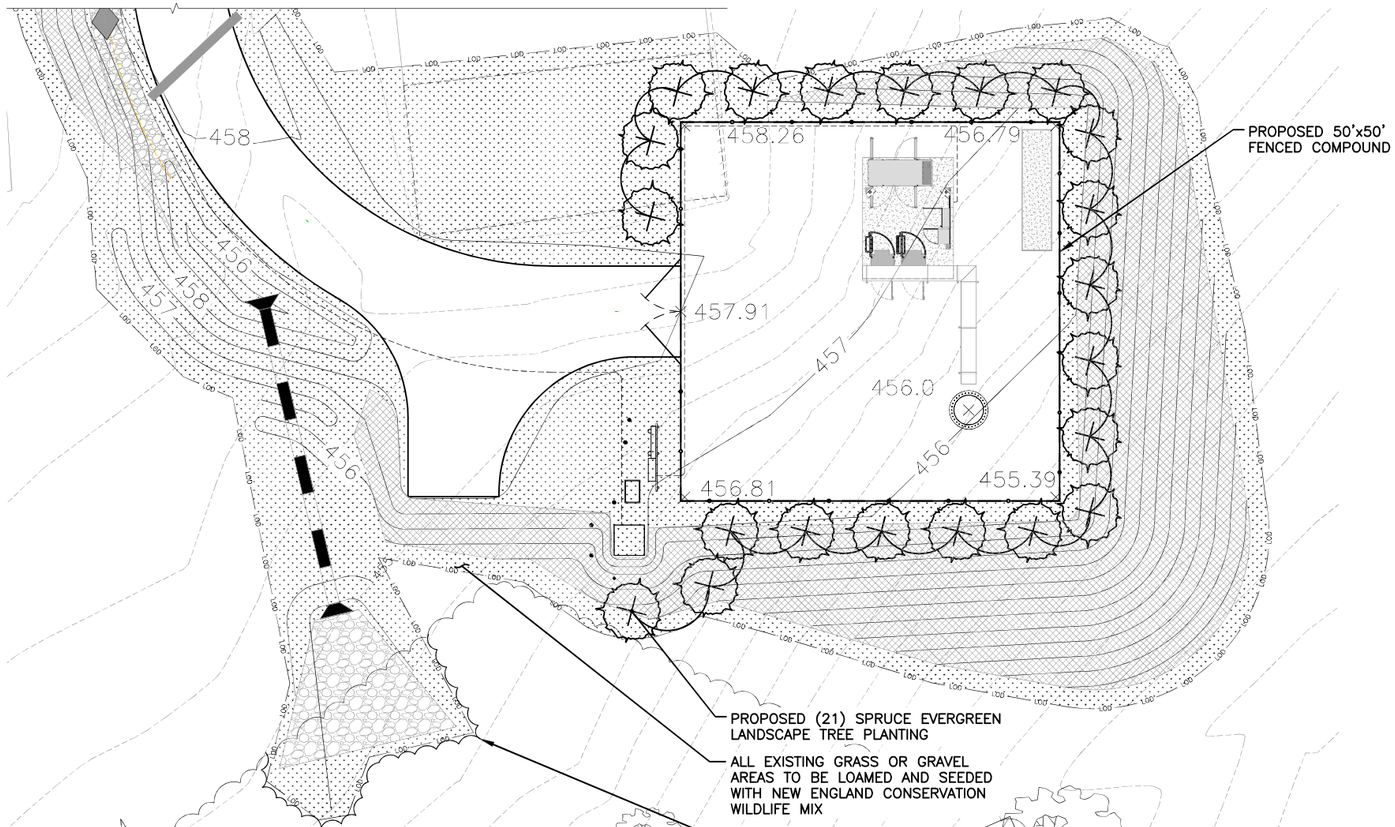
SITE NAME:
WOODBRIDGE N2 CT

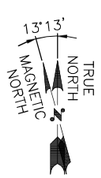
SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
DRIVEWAY PLAN AND PROFILE

SHEET NUMBER
C-6

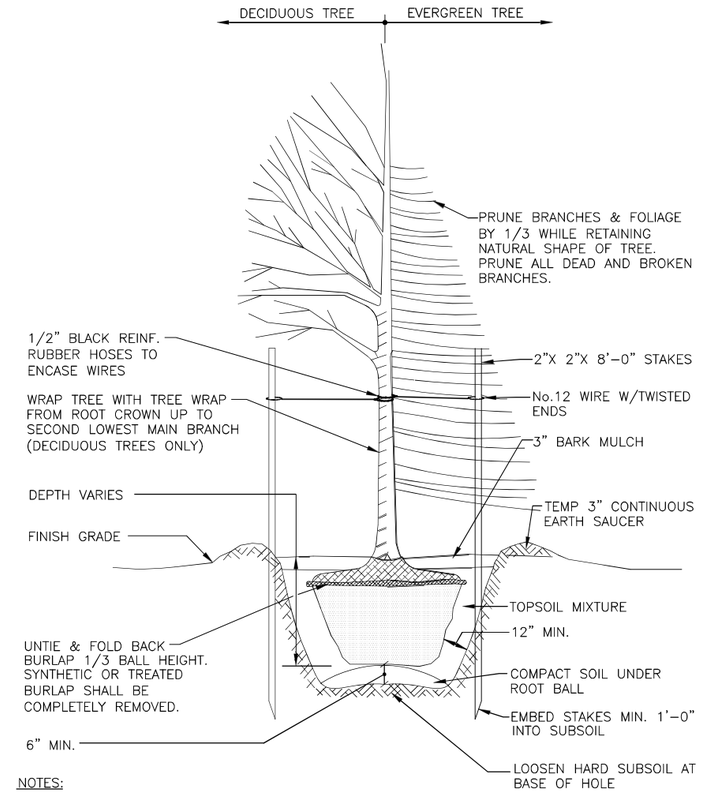
TREE PLANTING SCHEDULE				
BOTANICAL NAME	COMMON NAME	NUMBER OF TREES	PLANT SPACING	HEIGHT
PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	21	10'	6'–0"





LANDSCAPE PLAN 1 / LS–1
22x34 SCALE: 1"=10'
11x17 SCALE: 1"=20'

GRAPHIC SCALE
0 5 10 20 30 FEET



NOTES:

1. LANDSCAPE TREES SHALL BE A MINIMUM OF 6'–0" IN HEIGHT WHEN PLANTED.
2. SPECIES PROPOSED PICEA GLAUCA 'DENSATA' (BLACK HILLS SPRUCE)

PLANTING DETAIL 2 / LS–1
SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP
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45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
25536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

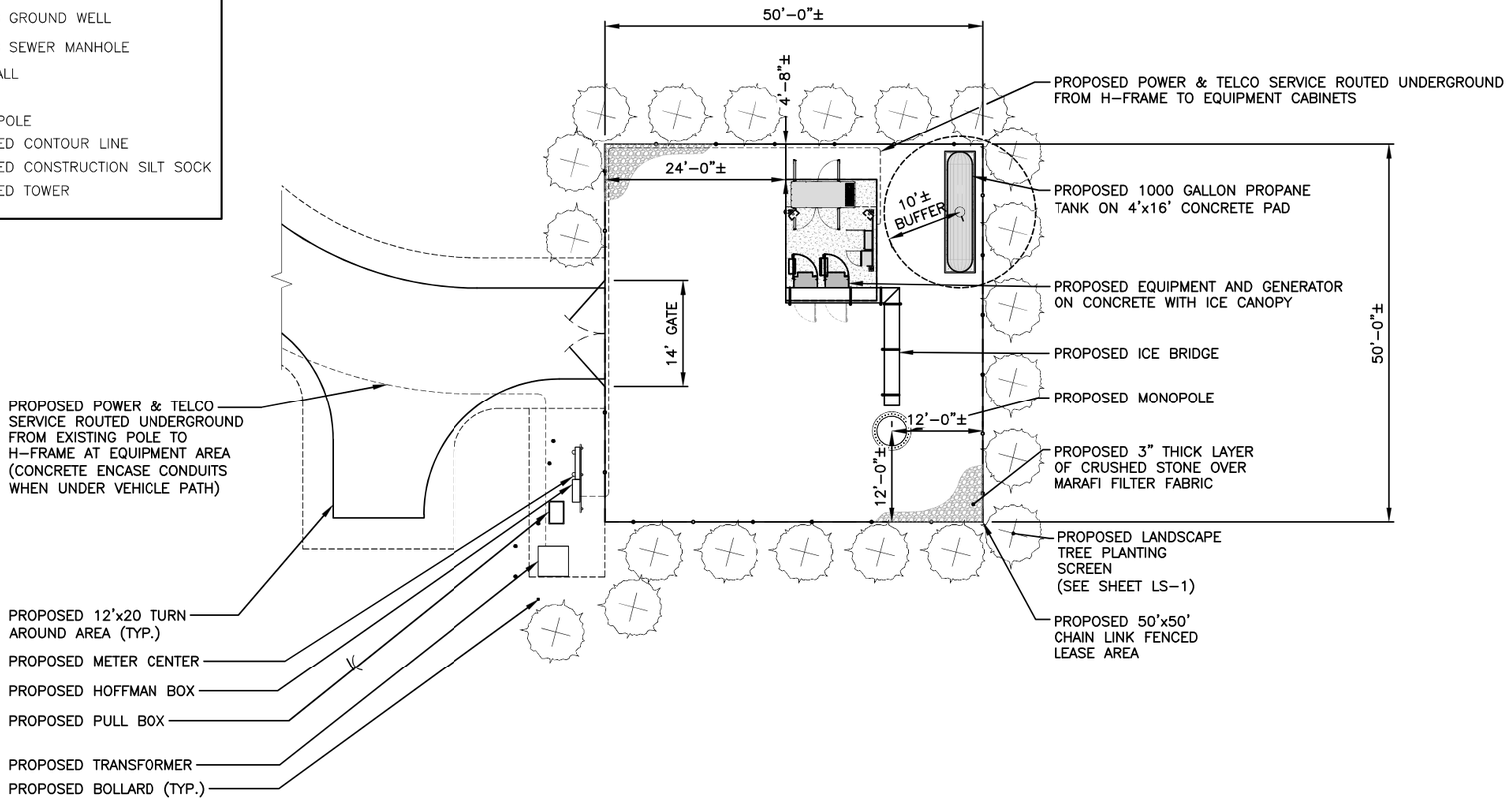
SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
LANDSCAPE PLAN AND DETAILS

SHEET NUMBER
LS-1

LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OHW — OVERHEAD WIRE (TRANSMISSION LINE)
- EXISTING CHAIN LINK FENCE
- S — EXISTING UNDERGROUND SEWER LINE
- A–1 / A–2 — DELINEATED WETLAND LINE
- EXISTING BUILDING
- PROPOSED EQUIPMENT CONCRETE PAD
- CB — CATCH BASIN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EXISTING TREE TO BE REMOVED
- G — EXISTING GROUND WELL
- S — EXISTING SEWER MANHOLE
- STONEWALL
- W — WELL
- UTILITY POLE
- 1086 — PROPOSED CONTOUR LINE
- PROPOSED CONSTRUCTION SILT SOCK
- PROPOSED TOWER



COMPOUND PLAN (1 / A–1)
22x34 SCALE: 1"=10'
11x17 SCALE: 1"=20'

GRAPHIC SCALE
0 5 10 20 30 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT — SCOTT C. BRANTLEY — 35536 — LICENSED PE

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

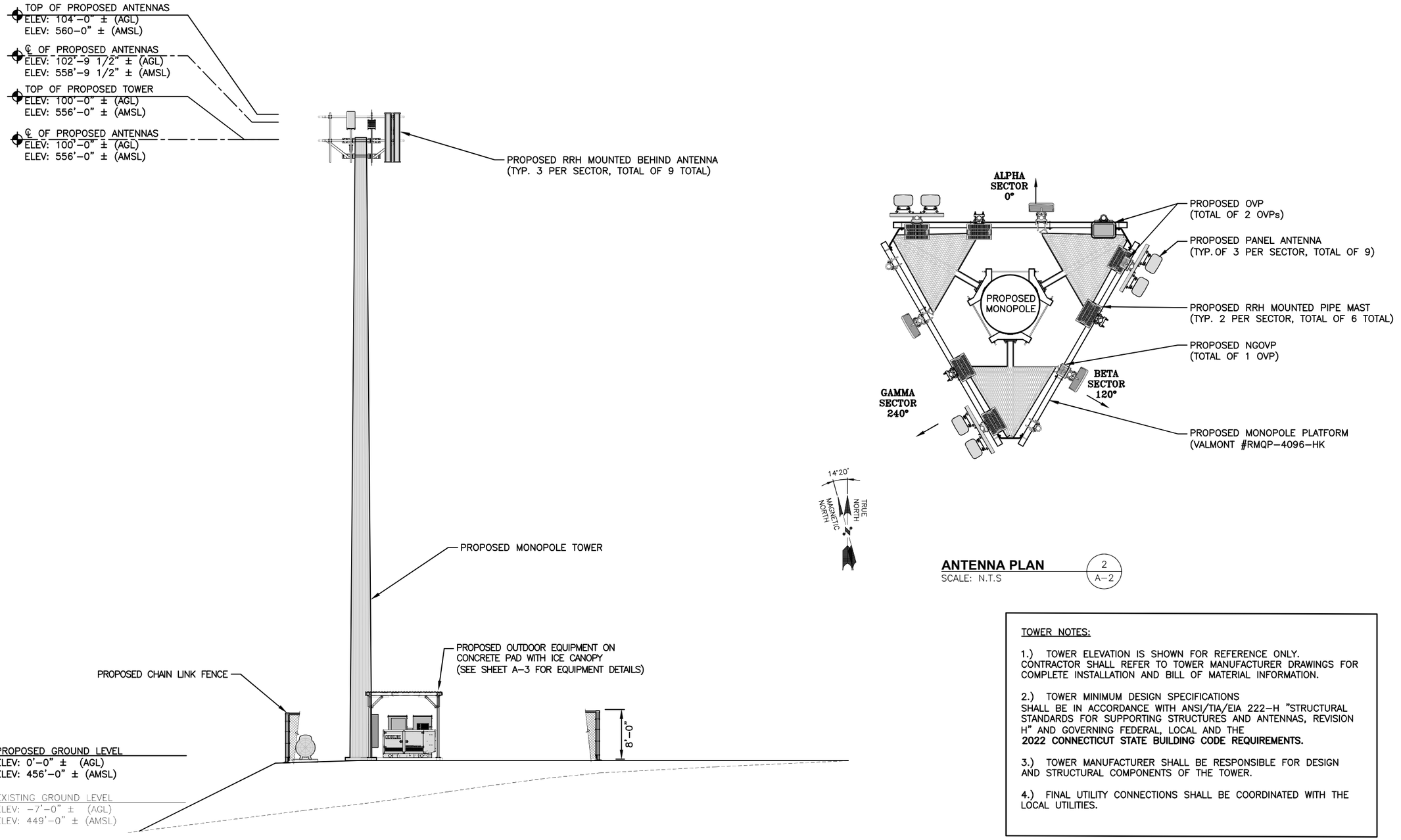
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
COMPOUND PLAN

SHEET NUMBER
A-1



ELEVATION (1 / A-2)
22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"

GRAPHIC SCALE
0 4 8 16 24 FEET

ANTENNA PLAN (2 / A-2)
SCALE: N.T.S

TOWER NOTES:

1.) TOWER ELEVATION IS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO TOWER MANUFACTURER DRAWINGS FOR COMPLETE INSTALLATION AND BILL OF MATERIAL INFORMATION.

2.) TOWER MINIMUM DESIGN SPECIFICATIONS SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA 222-H "STRUCTURAL STANDARDS FOR SUPPORTING STRUCTURES AND ANTENNAS, REVISION H" AND GOVERNING FEDERAL, LOCAL AND THE **2022 CONNECTICUT STATE BUILDING CODE REQUIREMENTS.**

3.) TOWER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF THE TOWER.

4.) FINAL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE LOCAL UTILITIES.

NOTE TO GENERAL CONTRACTOR:

'RF' DESIGN AND EQUIPMENT IS BASED UPON
RFDS ISSUED BY VZW DATED: 06/05/2025 REV4
THE CONTRACTOR OF RECORD SHALL CONTACT VZW PRIOR TO ANY AND ALL ORDERING/PURCHASING/INSTALLATION OF EQUIPMENT TO VERIFY THAT THE 'RF' LISTED IN THE DRAWING SET IS CURRENT AND UP TO DATE.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

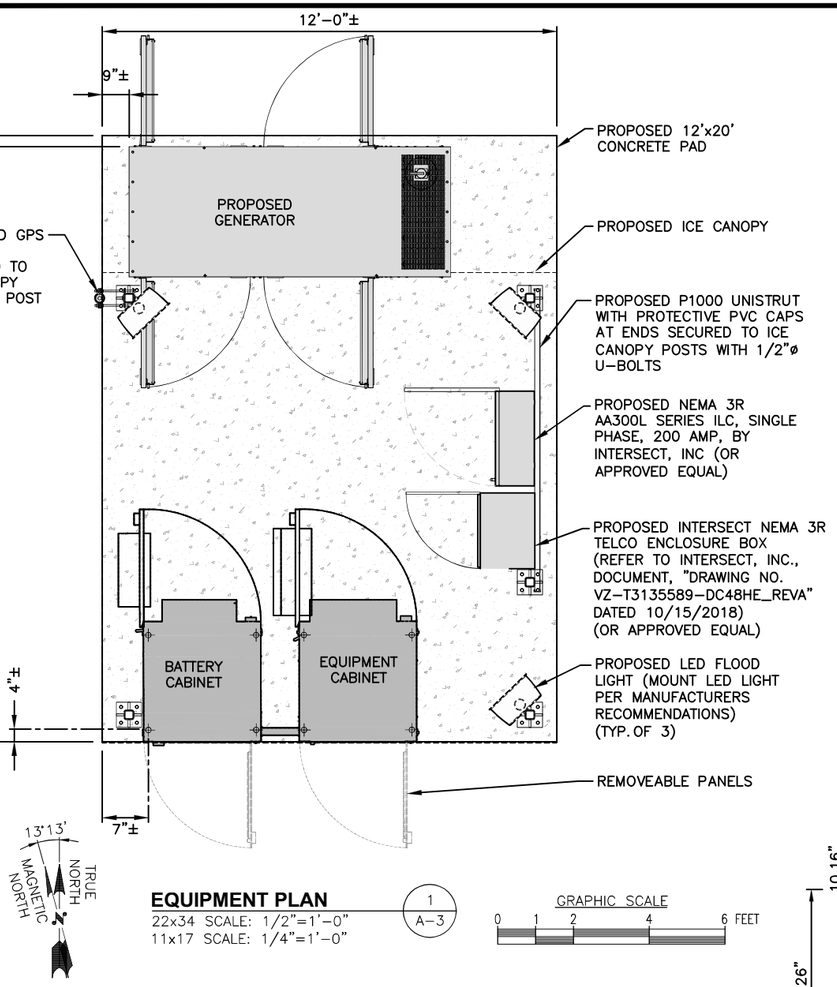
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
ELEVATION AND ANTENNA PLAN

SHEET NUMBER
A-2

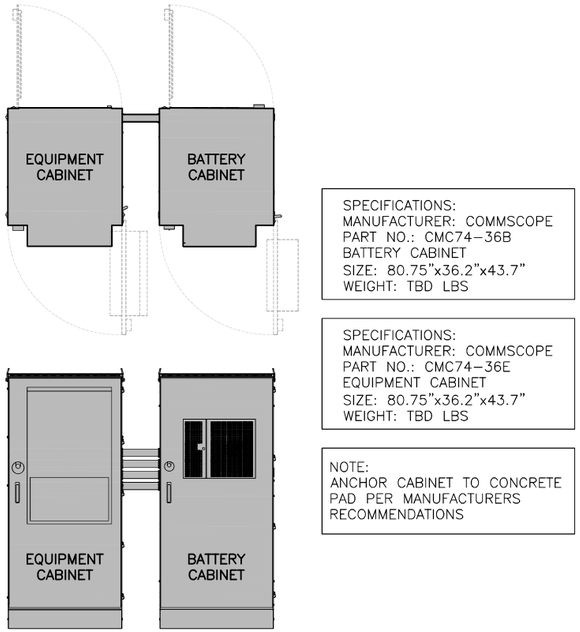


EQUIPMENT PLAN (1 / A-3)
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"

GRAPHIC SCALE
0 1 2 4 6 FEET

NOTE:

CONTRACTOR SHALL NOT INSTALL ANY HARDWARE/EQUIPMENT IN AND AROUND ANY WORKING AREAS THAT CREATE A TRIP HAZARD. E.O.R. SHALL BE NOTIFIED IF ANY EXISTING HARDWARE/EQUIPMENT CREATES A TRIP HAZARD PRIOR TO INSTALLATION.



SPECIFICATIONS:
MANUFACTURER: COMMSCOPE
PART NO.: CMC74-36B
BATTERY CABINET
SIZE: 80.75"x36.2"x43.7"
WEIGHT: TBD LBS

SPECIFICATIONS:
MANUFACTURER: COMMSCOPE
PART NO.: CMC74-36E
EQUIPMENT CABINET
SIZE: 80.75"x36.2"x43.7"
WEIGHT: TBD LBS

NOTE:
ANCHOR CABINET TO CONCRETE PAD PER MANUFACTURERS RECOMMENDATIONS

DUAL CABINET DETAIL (EQUIPMENT & BATTERY) (2 / A-3)
SCALE: N.T.S

INTERMATIC WP1220C

TYPE: DOUBLE GANG
HINGE: VERTICAL
INSERT: WP217
DEPTH: 2-1/4"
COLOR: CLEAR

OR APPROVED EQUIVALENT

INTERMATIC FF6H

TIME CYCLE: 6 HOURS
SWITCH: SPST
HOLD: NO

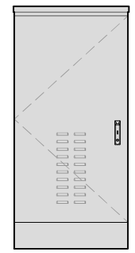
OR APPROVED EQUIVALENT

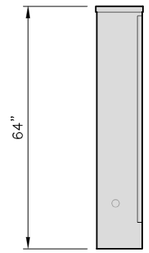
SWITCH DETAIL (5 / A-3)
SCALE: N.T.S

COOPER LIGHTING NFFLD NIGHT FALCON
NFFLD-A25-E-UNV-66-S-BK
SLIPFITTER MOUNT AND VANDAL SHIELD

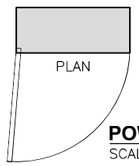
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

LED FLOOD LIGHT DETAIL (6 / A-3)
SCALE: N.T.S

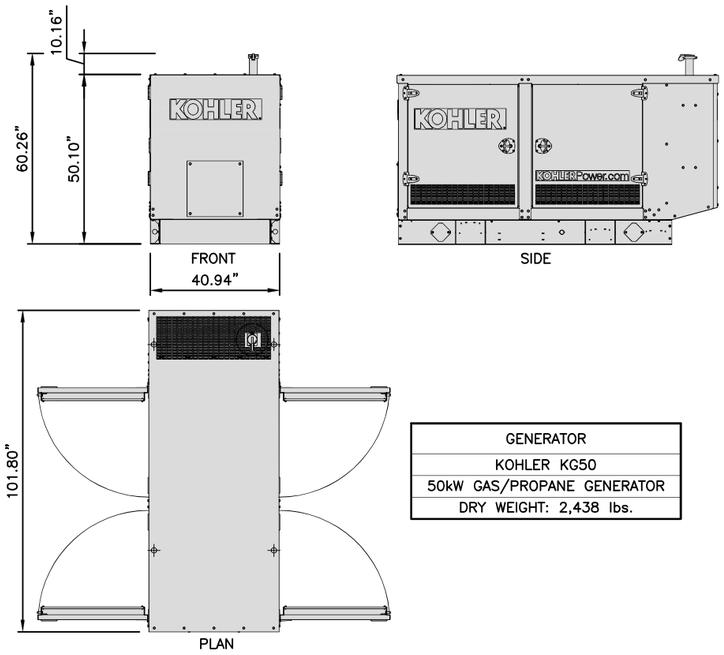




POWER TELCO CABINET	
INTERSECT, INC.	
AA-CL-3S PTLC SERIES	
200 AMP	150 lbs.



POWER TELCO CABINET DETAIL (3 / A-3)
SCALE: N.T.S



GENERATOR
KOHLER KG50
50kW GAS/PROPANE GENERATOR
DRY WEIGHT: 2,438 lbs.

GENERATOR DETAIL (4 / A-3)
SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
35536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

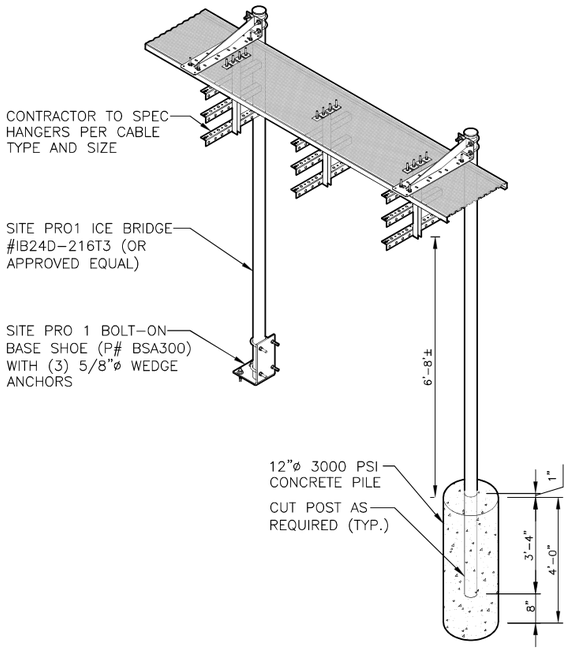
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

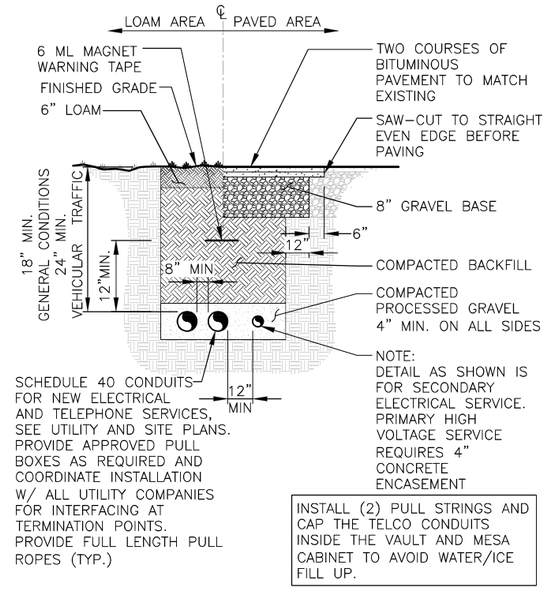
SHEET TITLE
EQUIPMENT PLAN AND DETAILS

SHEET NUMBER
A-3



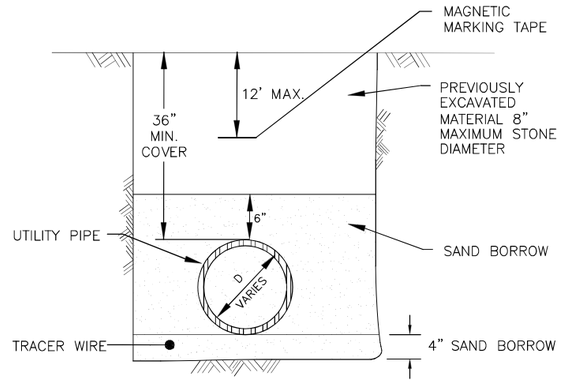
ICE BRIDGE DETAIL 1 / A-5
SCALE: N.T.S

INSTALL (2) PULL STRINGS AND CAP THE TELCO CONDUITS INSIDE THE VAULT AND MESA CABINET TO AVOID WATER/ICE FILL UP



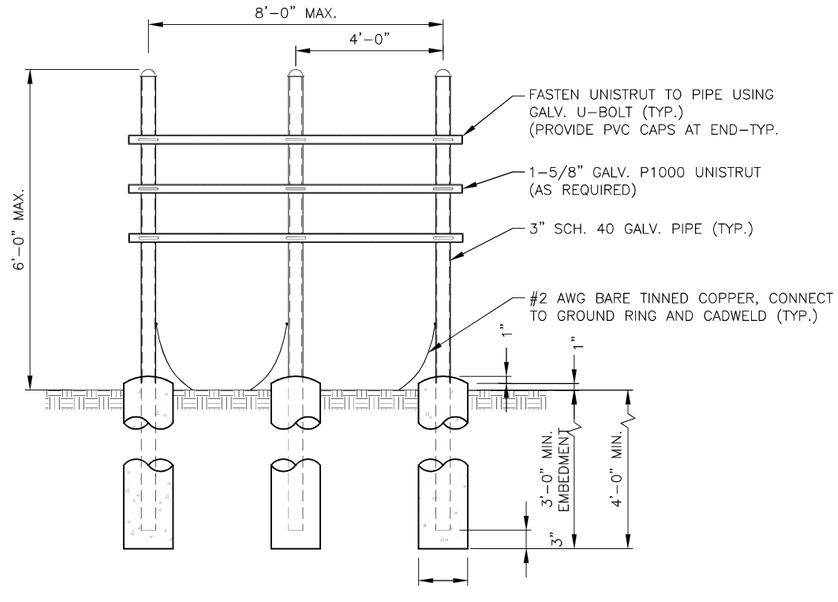
INSTALL (2) PULL STRINGS AND CAP THE TELCO CONDUITS INSIDE THE VAULT AND MESA CABINET TO AVOID WATER/ICE FILL UP.

BURIED CONDUIT DETAIL 2 / A-5
SCALE: N.T.S

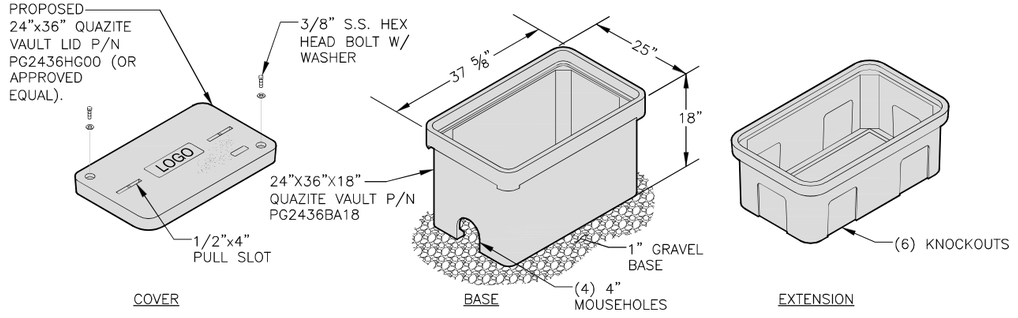


NOTES: 1 COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT (MINIMUM TWO PASSES) TO A MINIMUM DENSITY OF 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698. 2 PLACE BACKFILL MATERIALS IN MAXIMUM ONE FOOT LIFTS.

GAS PIPING TRENCH SECTION 3 / A-5
SCALE: N.T.S



H-FRAME DETAIL 4 / A-5
SCALE: N.T.S



NOTE:
1. THIS INFORMATION MAY NOT CONTAIN ALL DETAILS REQUIRED FOR CONSTRUCTION. APPROPRIATE MODIFICATION MAY BE REQUIRED TO ENSURE SUITABILITY OF THESE DRAWINGS FOR THE SPECIFIC APPLICATION. SEE SPECIFICATION PROVIDED BY ELECTRICAL DESIGNER FOR FURTHER DETAIL AND INSTALLATION.
2. PROVIDE STANDARD HANDHOLE. COVER COLOR SHALL BE AS SPECIFIED BY THE NIH.
3. PROVIDE 25mm (1") X 10mm (3/8") BELL PULL SLOT FOR EACH HANDHOLE.
4. COVER, RING AND BOX SHALL BE MADE OF SAME MATERIAL.
5. PROVIDE IMPRINTED LOGO TO MATCH.

FOR TELCO & POWER (IF NEEDED)

HANDHOLE DETAIL 5 / A-5
SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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TEP

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45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

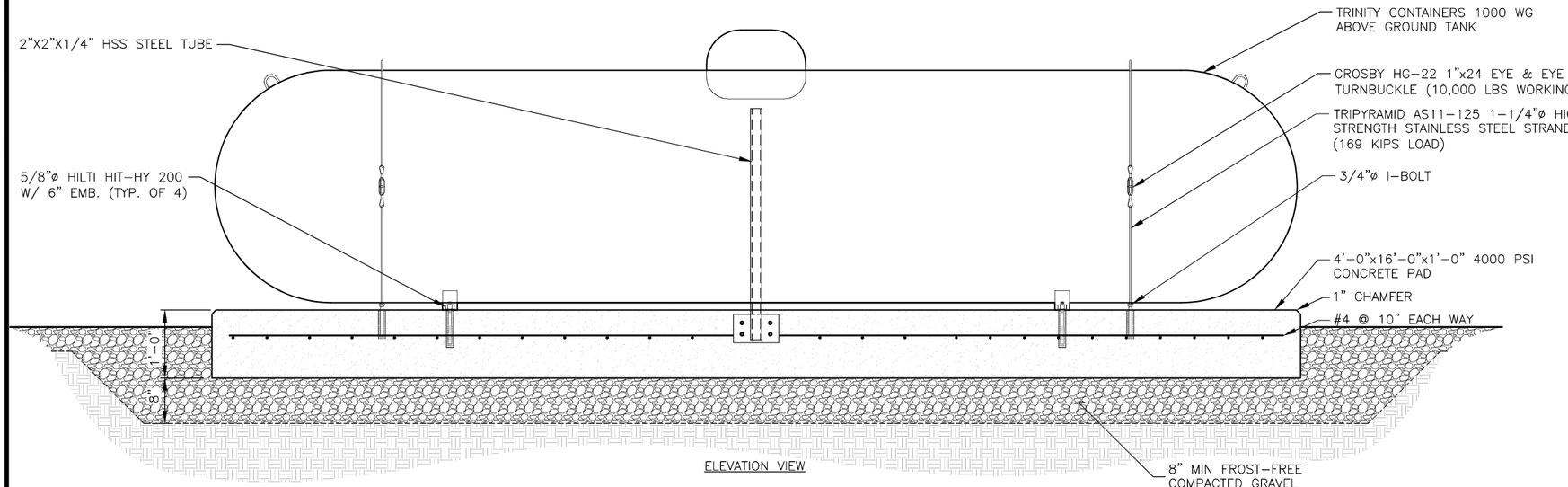
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

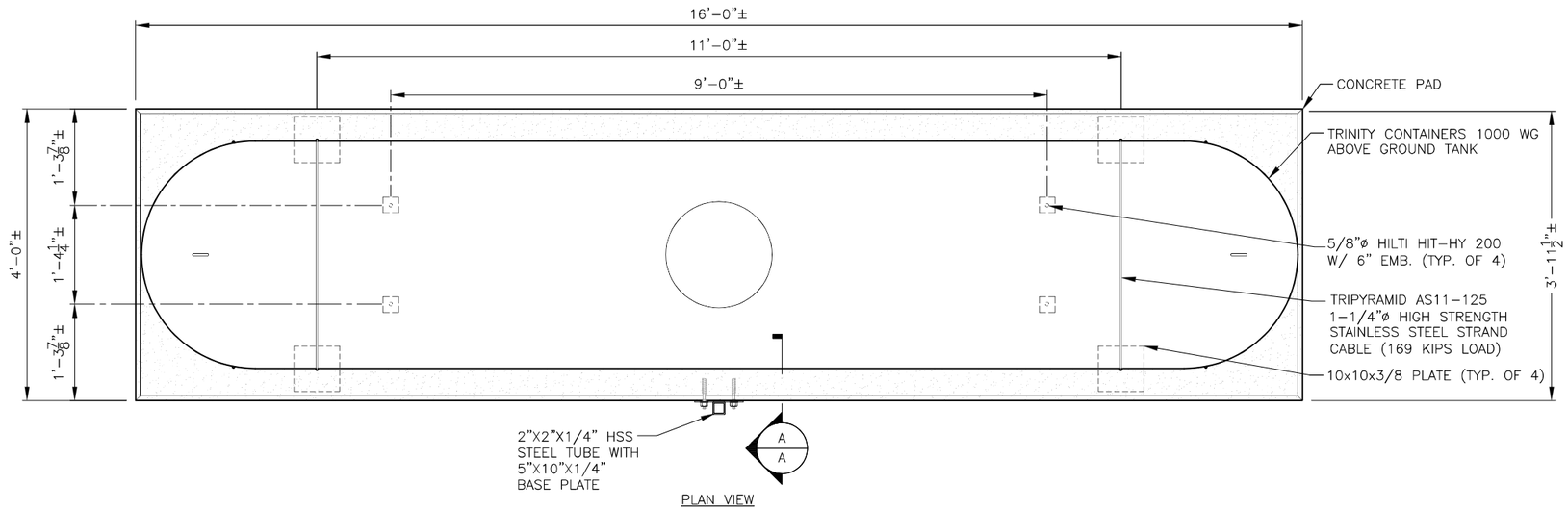
SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
CABLE SUPPORT DETAILS

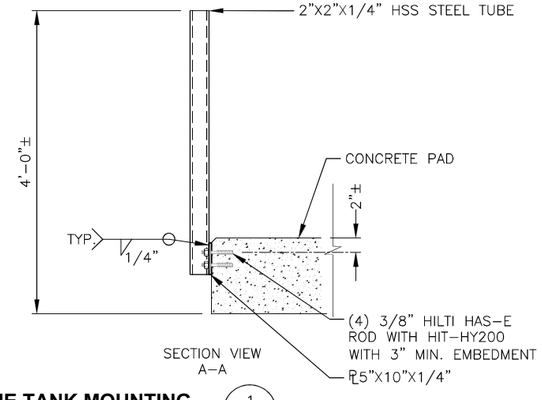
SHEET NUMBER
A-5



ELEVATION VIEW



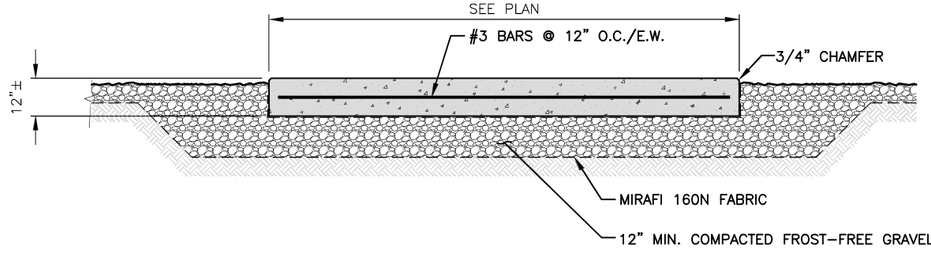
PLAN VIEW



SECTION VIEW A-A

PROPANE TANK MOUNTING 1 / A-5

22x34 SCALE: N.T.S



CONCRETE PAD DETAIL 2 / A-5

SCALE: N.T.S

FOUNDATION NOTES & CONCRETE SPECIFICATIONS:

1. FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
2. UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
3. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
4. REINFORCING BAR TO BE ASTM A615 GRADE 60.
5. WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
6. ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
7. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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TEP

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45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
PROFESSIONAL ENGINEER
LICENSED

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

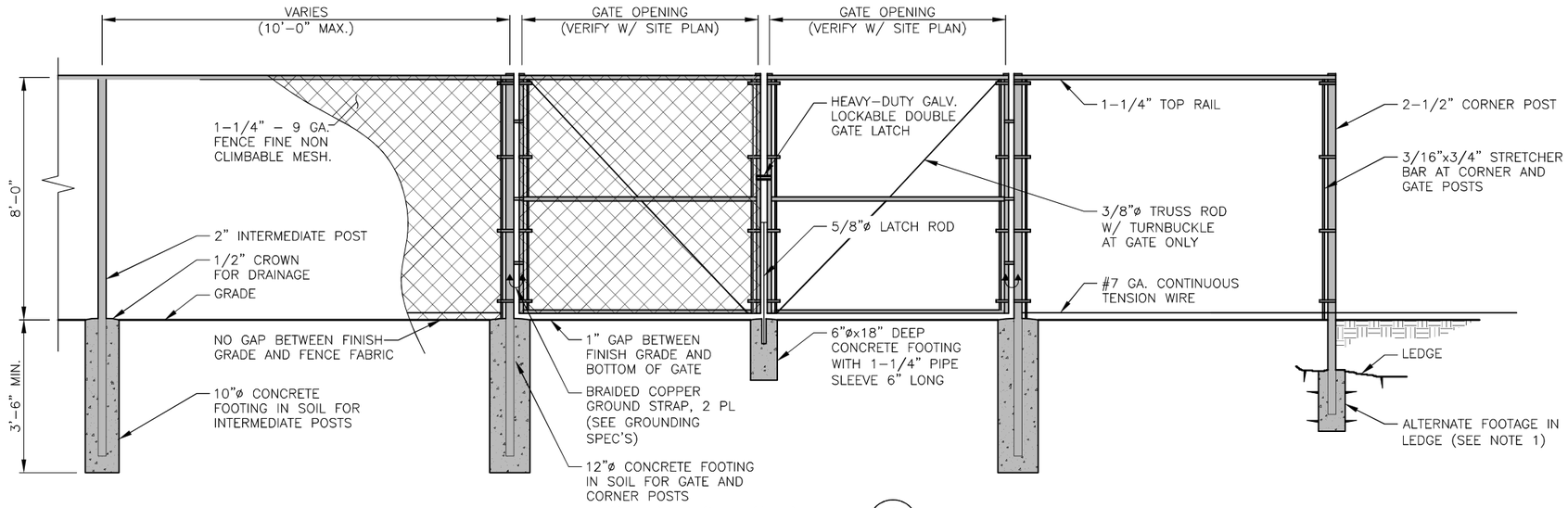
SHEET TITLE
PROPANE TANK SUPPORT DETAILS

SHEET NUMBER
A-5

FENCE NOTES

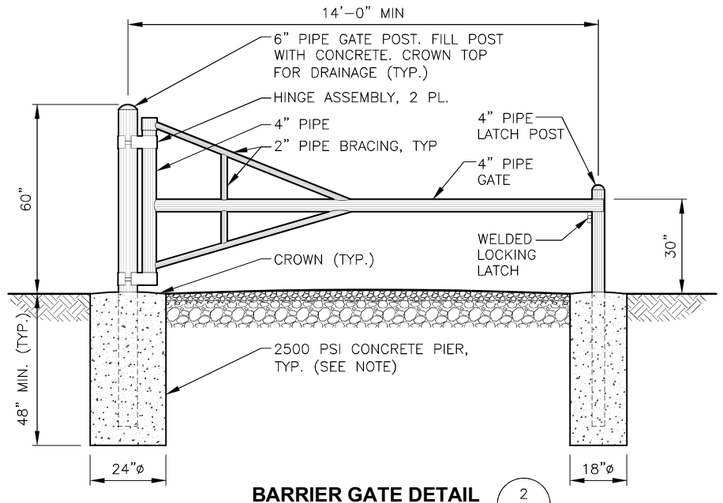
1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'–6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL–DRAINING GRAVEL.

2. ATTACH EACH GATE WITH 1–1/2 PAIR OF NON–LIFT–OFF TYPE, MALLEABLE IRON OR FORGING, PIN–TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.

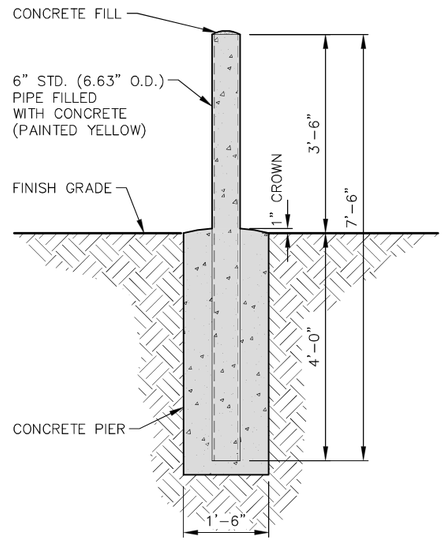


CHAINLINK FENCE DETAIL 1 / A–6
SCALE: N.T.S

NOTE:
FOR BURIED LEDGE AT LESS THAN 48" BELOW FINISH GRADE, CORE 12" DIAM. HOLE INTO LEDGE 18" DEEP. FILL AROUND PIPE WITH NON–SHRINK GROUT. USE COAL TAR ON BURIED LENGTH OF PIPE, AND BACKFILL TO FINISH GRADE.



BARRIER GATE DETAIL 2 / A–6
SCALE: N.T.S



CONCRETE FILLED BOLLARD 3 / A–6
22x34 SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT · SCOTT C. BRANTLEY · 25536 · LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

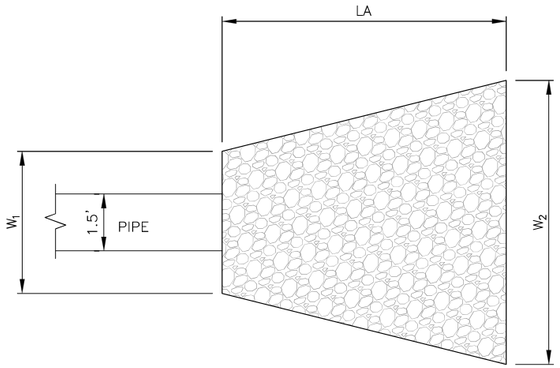
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

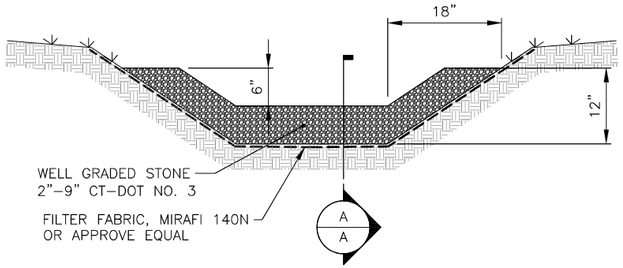
SHEET TITLE
FENCE, GATE AND BOLLARD DETAILS

SHEET NUMBER
A-6

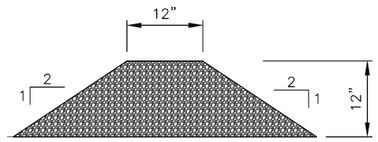


RIPRAP APPRON PLAN (1 / D-1)
22x34 SCALE: 1"=10'
11x17 SCALE: 1"=20'

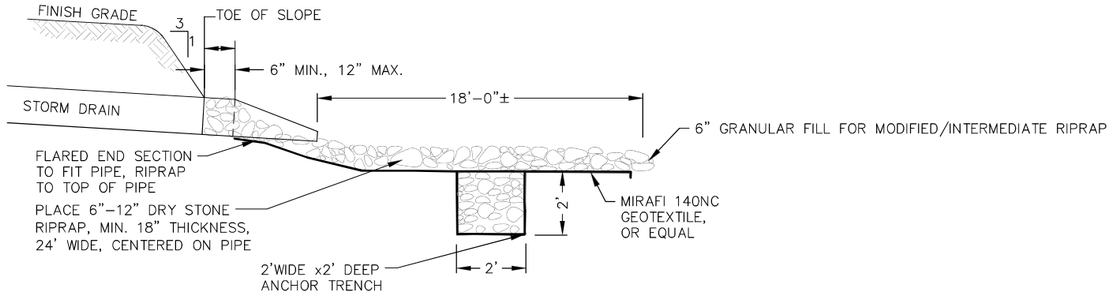
APRON LENGTH (La):	APRON WIDTH AT OUTLET (W_1):	APRON WIDTH (W_2):	SPECIFICATION
18'	6'	24'	MODIFIED



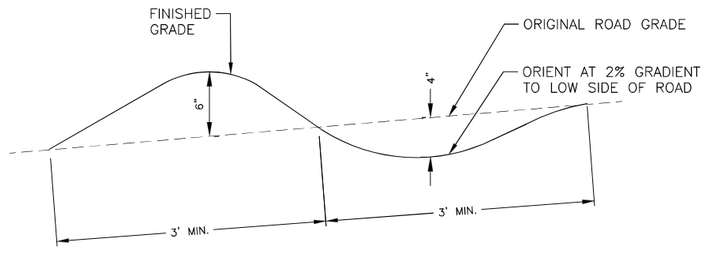
CHECK DAM DETAIL (3 / D-1)
SCALE: N.T.S



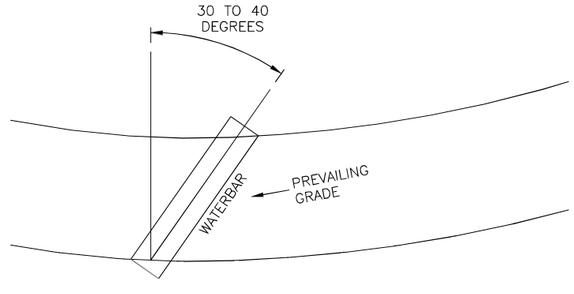
SECTION A-A



CHANNEL PROTECTION OUTLET LEVEL SPREADER (2 / A-6)
SCALE: N.T.S



SECTION VIEW



PLAN VIEW

RUN-OFF DIVERSION BERM DETAIL (4 / D-1)
SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
25506
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

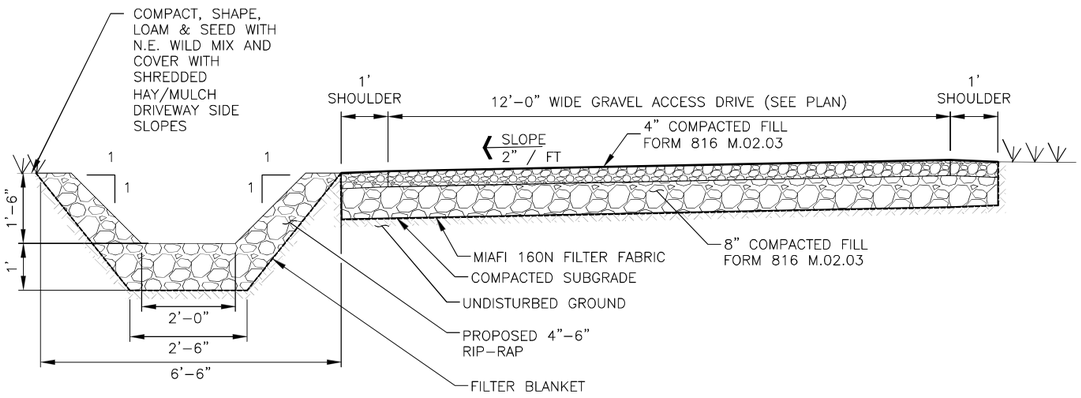
SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

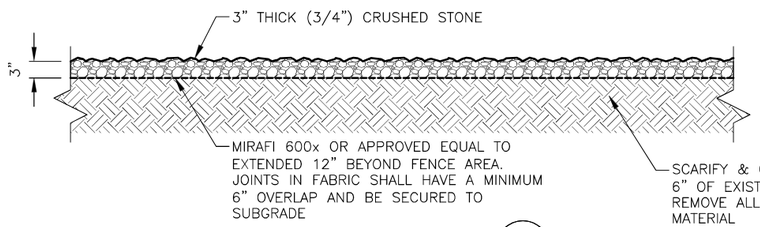
SHEET TITLE
DRAINAGE DETAILS

SHEET NUMBER
D-1

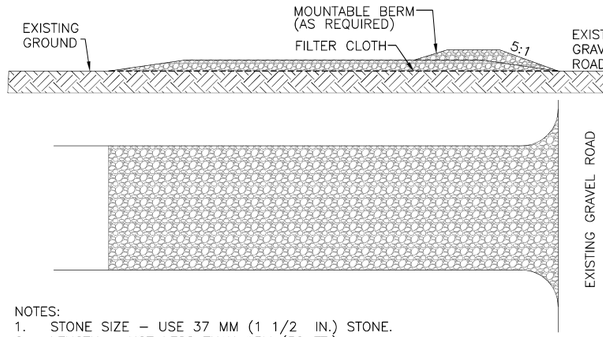
SQUARE MESH SIEVES	PERCENT PASSING BY WEIGHT (MASS)		
	A	B	C
PASS 5 INCH (125 MM)		100	
PASS 3 1/2 INCH (90 MM) 100		90–100	
PASS 1 1/2 INCH (37.5 MM)	55–100	55–95	100
PASS 3/4 INCH (19 MM)			45–80
PASS 1/4 INCH (6.3 MM) 2	5–60	25–60	25–60
PASS #10 (2.0 MM)	15–45	15–45	15–45
PASS #40 (425 MM)	5–25	5–25	5–25
PASS #100 (150 MM)	0–10	0–10	0–10
PASS #200 (75 MM)	0–5	0–5	0–5



RIPRAP APPRON SECTION 1 / D–2
SCALE: N.T.S



COMPOUND COVERING DETAIL 2 / D–2
SCALE: N.T.S



NOTES:
1. STONE SIZE – USE 37 MM (1 1/2 IN.) STONE.
2. LENGTH – NOT LESS THAN 15M (50 FT.)
3. THICKNESS – NOT LESS THAN 150MM (6 IN.).
4. WIDTH – 3.5 METER (TWELVE (12) FT.) MINIMUM,
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL 3 / D–2
SCALE: N.T.S

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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STATE OF CONNECTICUT · SCOTT C. BRANTLEY · 35536 · LICENSED ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
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SITE NAME:
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118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
DRAINAGE DETAILS

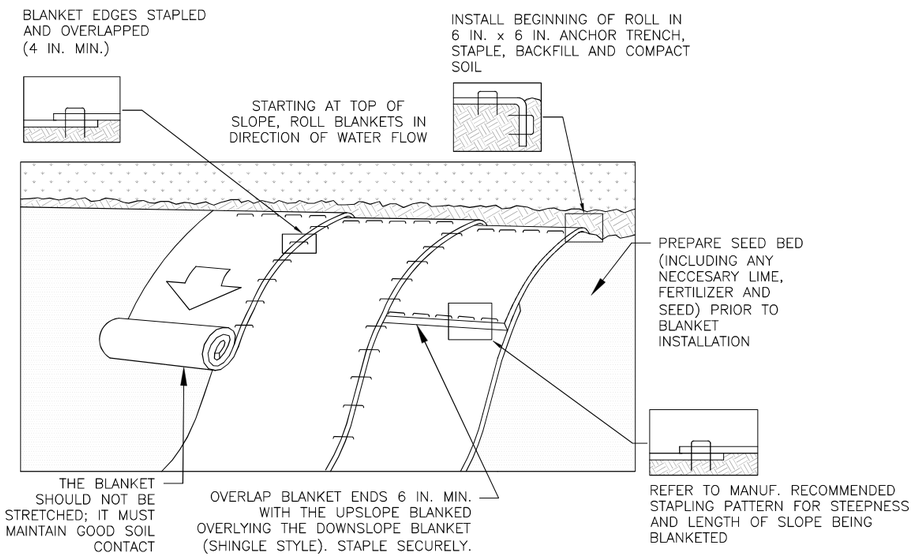
SHEET NUMBER
D-2

SEQUENCE OF CONSTRUCTION

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL THE RECPS DOWN HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE RECPS TYPE.
5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPS WIDTH.

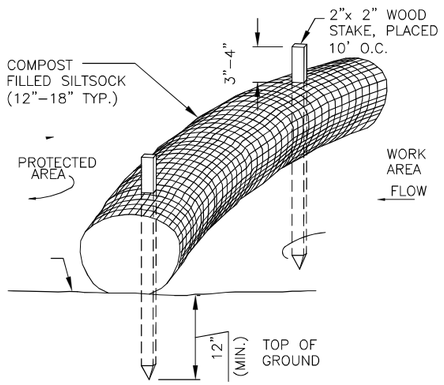
NOTES:

1. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
3. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
4. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.



NORTH AMERICAN S150

EROSION CONTROL BLANKET 1 / EC-1
SCALE: N.T.S



1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. SEE SPECIFICATIONS FOR SOCK SIZE, AND COMPOST FILL, REQUIREMENTS.

SILT SOCK DETAIL 2 / EC-1
SCALE: N.T.S

GENERAL CONSTRUCTION SEQUENCE:

THIS IS A GENERAL CONSTRUCTION SEQUENCE OUTLINE SOME ITEMS OF WHICH MAY NOT APPLY TO PARTICULAR SITES.

1) CLEAR AND GRUB AREAS OF PROPOSED CONSTRUCTION.
2) INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED.
3) REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEEDED TO PREVENT EROSION.
4) CONSTRUCT CLOSED DRAINAGE SYSTEM. PROTECT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.

CONSTRUCTION SEQUENCE:

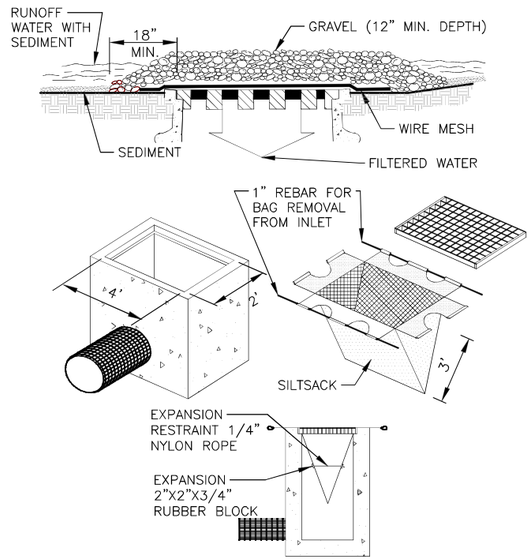
1. A WIRE MESH SHOULD BE PLACED OVER THE DROP INLET OR CURB OPENING SO THAT THE ENTIRE OPENING AND A MINIMUM OF 12 INCHES AROUND THE OPENING ARE COVERED BY THE MESH. THE MESH MAY BE ORDINARY HARDWARE CLOTH OR WIRE MESH WITH OPENINGS UP TO 1/2 INCH.

2. THE WIRE MESH SHOULD BE COVERED WITH CLEAN COARSE AGGREGATE SUCH AS SEWER STONE FOR A MINIMUM DEPTH OF 12 INCHES.

3) THE COARSE AGGREGATE SHOULD EXTEND AT LEAST 18 INCHES ON ALL SIDES OF THE DRAIN OPENING.

MAINTENANCE:

ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM THE TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.



NOTE: REGULAR FLOW = 40 GAL./MIN./SF.
HIGH = 200 GAL./MIN./SF.

STONE INLET PROTECTION DETAIL-ON SITE 3 / EC-1
SCALE: N.T.S

5) CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.
6) INSTALL UNDERGROUND UTILITIES.
7) BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION. NO AREA SHALL BE LEFT UNSTABILIZED FOR A TIME PERIOD OF MORE THAN 30 DAYS.
8) DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING.
9) BEGIN EXCAVATION FOR AND CONSTRUCTION OF TOWERS AND PLATFORMS.
10) FINISH PAVING ALL ROADWAYS, DRIVES, AND PARKING AREAS.
11) COMPLETE PERMANENT SEEDING AND LANDSCAPING.
12) NO STORM WATER FLOW SHALL BE DIVERTED TO ANY WETLANDS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED IN REGRADED AREAS.
13) AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDED AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

EROSION CONTROL MEASURES:

1) DISTURBED AREAS SHALL BE KEPT TO THE MINIMUM AREA NECESSARY TO CONSTRUCT THE ROADWAYS AND ASSOCIATED DRAINAGE FACILITIES.
2) HAY BALE BARRIERS AND SEDIMENT TRAPS SHALL BE INSTALLED AS REQUIRED. BARRIERS AND TRAPS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
3) BALED HAY AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY. NO SALT HAY SHALL BE USED.
4) FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
5) STOCKPILED MATERIALS SHALL BE PLACED IN AREAS SHOWN ON THE PLANS. STOCKPILES SHALL BE PROTECTED BY SILTATION FENCE AND SEEDED TO PREVENT EROSION. THESE MEASURES SHALL REMAIN UNTIL ALL MATERIAL HAS BEEN PLACED OR DISPOSED OFF SITE.
6) ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA.
7) APPLICATION OF GRASS SEED, FERTILIZERS AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

LIMESTONE: 75-100 LBS./1,000 SQUARE FEET.
FERTILIZER: RATE RECOMMENDED BY MANUFACTURER.
MULCH: HAY MULCH APPROXIMATELY 3 TONS/ACRE UNLESS EROSION CONTROL MATTING IS USED.

SEED MIX (SLOPES LESS THAN 4:1)	LBS./ACRE
CREEPING RED FESCUE	20
TALL FESCUE	20
REDTOP	2
	42

SLOPE MIX (SLOPES GREATER THAN 4:1)	LBS./ACRE
CREEPING RED FESCUE	20
TALL FESCUE	20
BIRDSFOOT TREEFOIL	8
	48

TREATMENT SWALE PLANTING SPECIFICATIONS

TALL FESCUE	20 LBS/ACRE	OR	0.45 LBS/10,000 SF
CREEPING RED FESCUE	20 LBS/ACRE	OR	0.45 LBS/10,000 SF
BIRDSFOOT TREFOIL	8 LBS/ACRE	OR	0.20 LBS/10,000 SF

LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT TIME OF SEEDING AND INCORPORATED INTO THE SOIL. THE FOLLOWING RATES ARE RECOMMENDED:

AGRICULTURAL LIMESTONE	2 TONS/ACRE	OR	100 LBS/1,000 SF
NITROGEN (N)	50 LBS/ACRE	OR	1.1 LBS/10,000 SF
PHOSPHATE (P205)	100 LBS/ACRE	OR	2.2 LBS/10,000 SF
POTASH (K20)	100 LBS/ACRE	OR	2.2 LBS/10,000 SF

(THIS IS EQUIVALENT TO 500 LBS/ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS/ACRE OF 5-10-10).

8) AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.
9) PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
10) ALL CATCH BASIN INLETS WILL BE PROTECTED WITH LOW POINT SEDIMENTATION BARRIER.
11) ALL STORM DRAINAGE OUTLETS WILL BE STABILIZE AND CLEANED AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
12) ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.
13) NO DISCHARGE SHALL BE DIRECTED TOWARDS ANY PROPOSED DITCHES, SWALES, OR PONDS UNTIL THEY HAVE BEEN PROPERLY STABILIZED.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

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TEP

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STATE OF CONNECTICUT SCOTT C. BRANTLEY 35536 LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
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1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
EROSION CONTROL NOTES AND DETAILS

SHEET NUMBER
EC-1

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
7. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DI.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
16. WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
17. ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS [1]
REQUIRED	MATERIAL SPECIFICATIONS REPORT [2]
N/A	FABRICATOR NDE INSPECTION
REQUIRED	PACKING SLIPS [3]
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS [4]
REQUIRED	FOUNDATION INSPECTIONS
REQUIRED	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION [5]
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
REQUIRED	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS [6]
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

1. REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
2. PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
3. PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
4. HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
5. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
6. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
4. VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
5. CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
6. EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

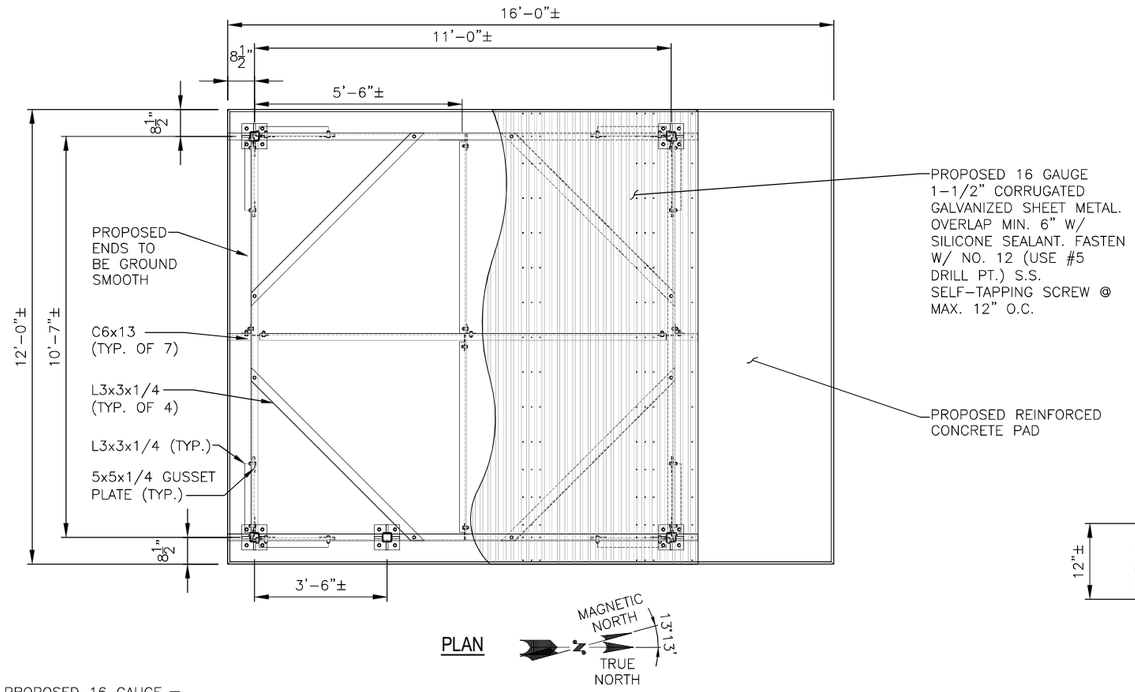
REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
STRUCTURAL NOTES & SPECIAL INSPECTIONS

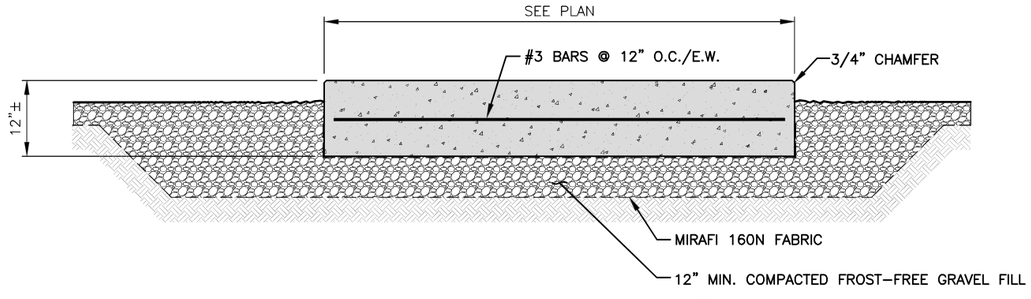
SHEET NUMBER
SN-1



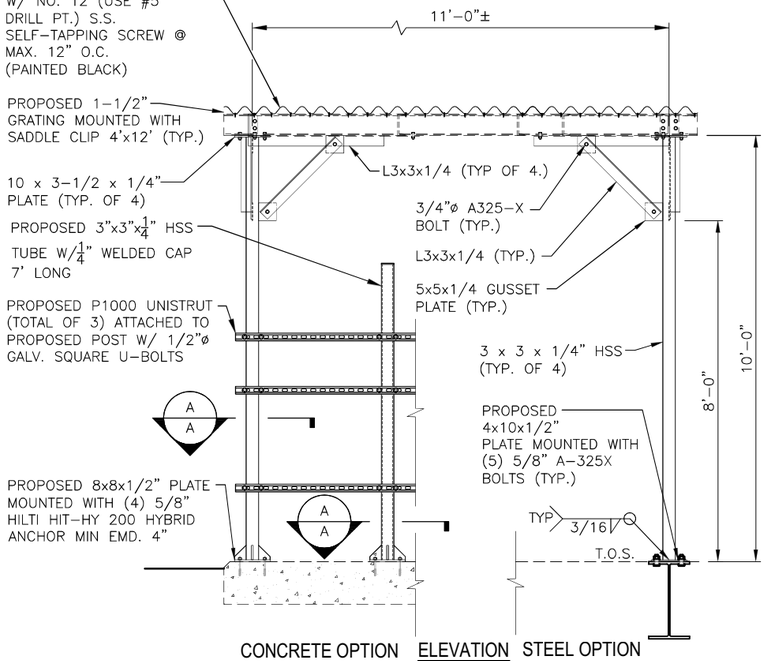
PLAN

FOUNDATION NOTES & CONCRETE SPECIFICATIONS:

1. FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
2. UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
3. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
4. REINFORCING BAR TO BE ASTM A615 GRADE 60.
5. WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
6. ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
7. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.

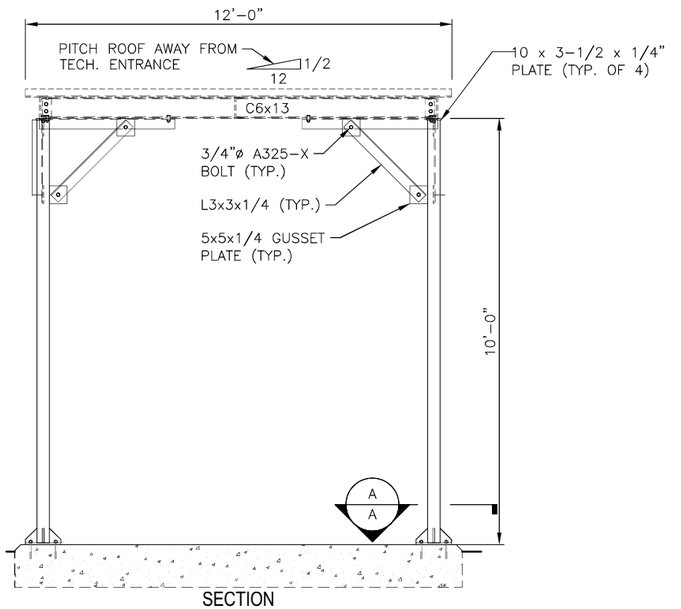


CONCRETE PAD DETAIL 2 S-1
SCALE: N.T.S



CONCRETE OPTION ELEVATION STEEL OPTION

ICE CANOPY DETAIL 1 S-1
22x34 SCALE: N.T.S



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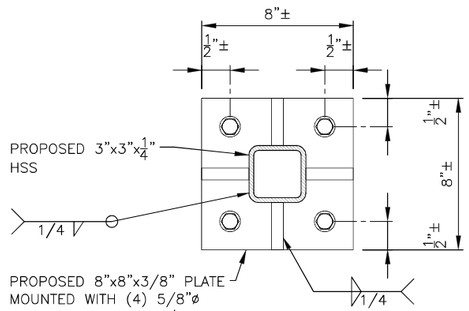


A-A

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

TEP

TEP OPCO, LLC.
45 BEECHWOOD DR.
NORTH ANDOVER, MA 01845
OFFICE: (978) 557-5553

STATE OF CONNECTICUT
SCOTT C. BRANTLEY
25536
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: JX

APPROVED BY: SCB

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
4	11/21/25	RELOCATED SITE	SLY
3	08/26/25	LOCUS OWNER CHANGE & GENSET	SLY
2	08/07/25	REDUCED LEASE AREA, ADD OVP	SLY
1	05/02/25	ADD LANDSCAPE PLAN	SLY
0	04/18/25	ISSUED FOR REVIEW	SLY

SITE NAME:
WOODBRIDGE N2 CT

SITE ADDRESS:
118 NEWTON ROAD
WOODBRIDGE, CT 06525

SHEET TITLE
ICE CANOPY AND CONCRETE PAD DETAILS

SHEET NUMBER
S-1

Sabre Industries™
INNOVATION DELIVERED

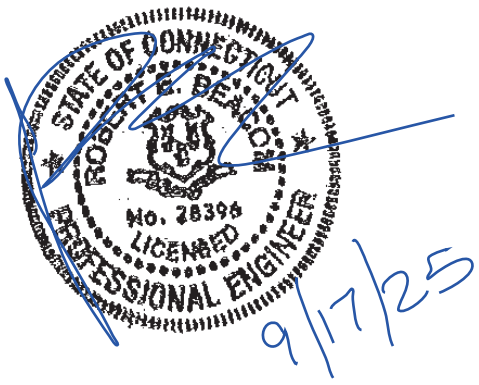
Structural Design Report

100' Extendible to 120' Monopole
Site: Woodbridge North 2, CT

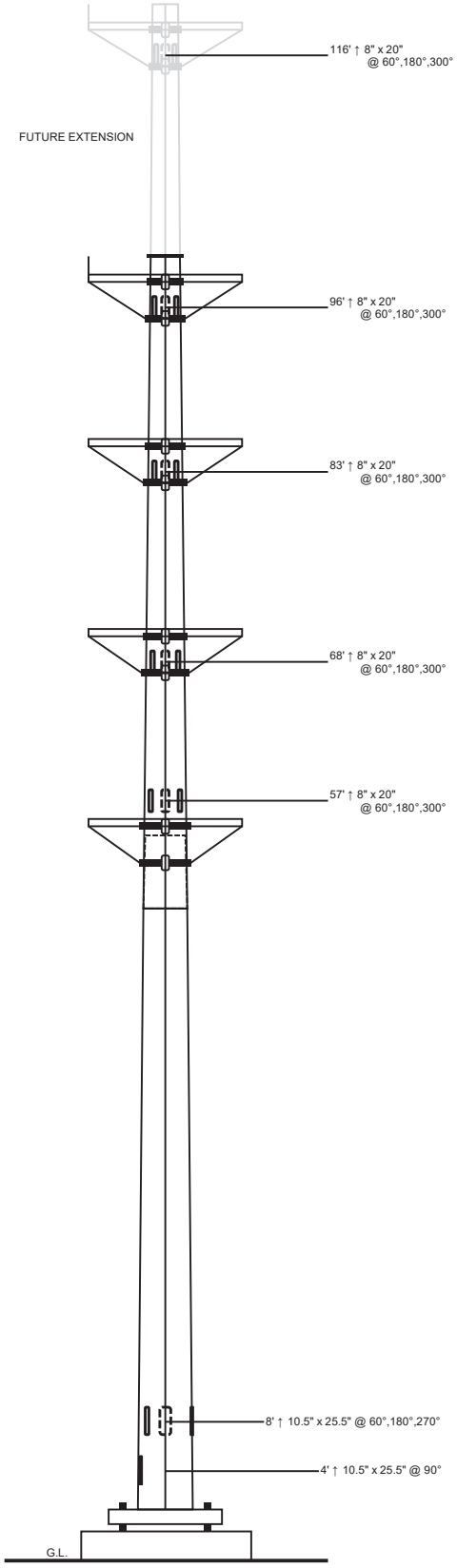
Prepared for: VERIZON WIRELESS
by: Sabre Industries ™

Job Number: 567144

September 17, 2025



Length (ft)	20'-0"	51'-6"	53'-3"
Number Of Sides		18	
Thickness (in)		1/4"	3/8"
Lap Splice (ft)			5' - 9"
Top Diameter (in)	23"	28.18"	39.54"
Bottom Diameter (in)	28.18"	41.53"	53.34"
Taper (in/ft)		0.2592	
Grade		A572-65	
Weight (lbs)	1908	6039	12053
Overall Steel Height (ft)	20 (Extension)	99	



Designed Appurtenance Loading

Elev	Description	Tx-Line
120***	(1) 25,000 sq.in. EPA (Verizon Specifications)	(3) 2 Inch Conduit
118***	Platform - 12'	
100	(1) 30,000 sq.in EPA (Verizon Specs.)	(3) 2 Inch Conduit
98	Platform - 12'	
85	Platform - 12'	
85	(1) 25,000 sq.in. EPA (Verizon Specifications)	(3) 2 Inch Conduit
70	Platform - 12'	
70	(1) 25,000 sq.in. EPA (Verizon Specifications)	(3) 2 Inch Conduit
55	Platform - 12'	
55	(1) 25,000 sq.in. EPA (Verizon Specifications)	(3) 2 Inch Conduit

Design Criteria - ANSI/TIA-222-H

Wind Speed (No Ice)	120 mph
Wind Speed (Ice)	50 mph
Design Ice Thickness	1.00 in
Risk Category	II
Exposure Category	B
Topographic Factor Procedure	Method 1 (Simplified)
Topographic Category	1
Ground Elevation	454 ft
Seismic Importance Factor, Ie	1.00
0.2-sec Spectral Response, Ss	0.201 g
1-sec Spectral Response, S1	0.054 g
Site Class	C
Seismic Design Category	B
Basic Seismic Force-Resisting System	Telecommunication Tower (Pole: Steel)

Limit State Load Combination Reactions

Load Combination	Axial (kips)	Shear (kips)	Moment (ft-k)	Deflection (ft)	Sway (deg)
1.2 D + 1.0 Wo	60.56	43.88	3741.56	5.98	5.05
0.9 D + 1.0 Wo	45.44	43.84	3696.31	5.88	4.96
1.2 D + 1.0 Di + 1.0 Wi	95.75	11.47	993.76	1.61	1.36
1.2 D + 1.0 Ev + 1.0 Eh	62.25	1.52	149.16	0.27	0.24
0.9 D - 1.0 Ev + 1.0 Eh	43.62	1.51	146.66	0.26	0.23
1.0 D + 1.0 Wo (Service @ 60 mph)	50.46	9.8	830.89	1.33	1.12

Base Plate Dimensions

Shape	Diameter	Thickness	Bolt Circle	Bolt Qty	Bolt Diameter
Round	65.75"	2"	60"	14	2.25"

Anchor Bolt Dimensions

Length	Diameter	Hole Diameter	Weight	Type	Finish
84"	2.25"	2.625"	1695.4	A615-75	Galv

Notes

1) Antenna Feed Lines Run Inside Pole
2) All dimensions are above ground level, unless otherwise specified.
3) Weights shown are estimates. Final weights may vary.
4) Full Height Step Bolts
5) Tower Rating: 91.6%
6) This tower design and, if applicable, the foundation design(s) shown on the following page(s) also meet or exceed the requirements of the 2022 Connecticut Building Code.

*** These Appurtenances cannot be installed until the Monopole has been extended.

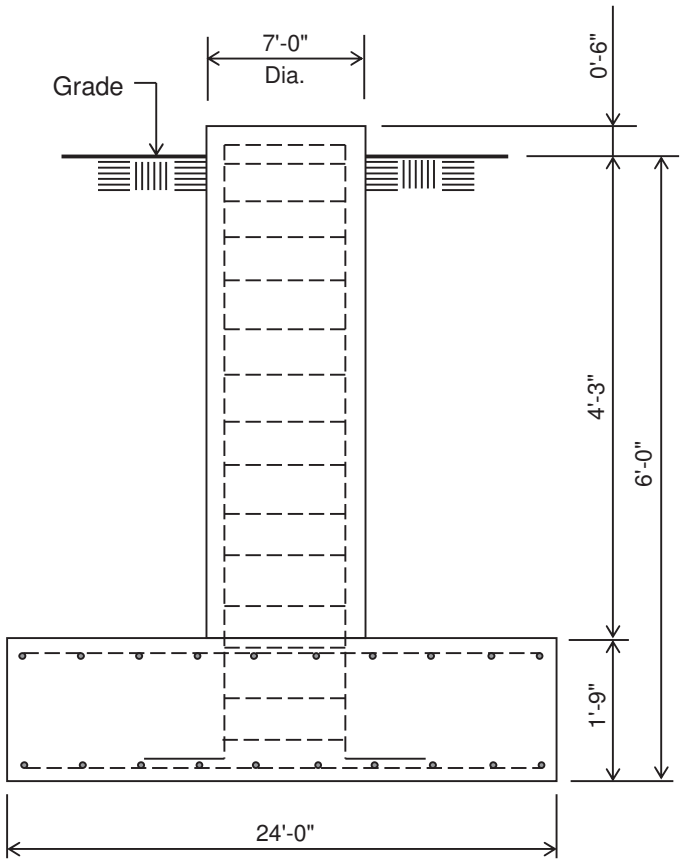
Sabre Industries
INNOVATION DELIVERED

Sabre Industries
7101 Southbridge Drive
P.O. Box 658
Sioux City, IA 51102-0658
Phone: (712) 258-6690
Fax: (712) 279-0814

Job:	**567144**
Customer:	VERIZON WIRELESS
Site Name:	Woodbridge North 2, CT
Description:	100' ext. 120' Monopole
Date:	9/17/2025 By: REB

No.: 567144
Date: 09/17/25
By: REB

Customer: VERIZON WIRELESS
Site: Woodbridge North 2, CT
100’ Monopole Extendible to 120’



ELEVATION VIEW
(44.10 Cu. Yds.)
(1 REQUIRED; NOT TO SCALE)

Notes:

1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-14.
2) Rebar to conform to ASTM specification A615 Grade 60.
3) All rebar to have a minimum of 3” concrete cover.
4) All exposed concrete corners to be chamfered 3/4”.
5) The foundation design is based on the geotechnical report by TEP, project no. 321638.1076726, dated May 23, 2025.
6) See the geotechnical report for compaction requirements, if specified.
7) 4.25 ft of soil cover is required over the entire area of the foundation slab.
8) This foundation is designed for a max capacity ratio of 95%.
9) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

Rebar Schedule for Pad and Pier	
Pier	(36) #8 vertical rebar w/ hooks at bottom w/ #5 ties, (2) within top 5" of pier, then 4" C/C
Pad	(30) #10 horizontal rebar evenly spaced each way top and bottom (120 total)

7101 Southbridge Drive - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.279.0814

Elev. Init.	Elev. Ext.	Qty.	Model	Mount	No Ice EPA	No Ice Weight	Escalated Ice (Initial Elevation) EPA	Escalated Ice (Initial Elevation) Weight	Escalated Ice (Ext Elevation) EPA	Escalated Ice (Ext Elevation) Weight
	119	1	25,000 sq.in. EPA (Verizon Specifications)	Same As Below	176.71	4.1	N/A	N/A	260.01	9.77
		9	No Antenna							
	117	N/A	N/A	H.D. Platform (Monopole Only) - 12'	18.3	1.78	N/A	N/A	28.51	2.14
99	99	1	30,000 sq.in EPA (Verizon Specs.)	Same As Below	211.43	4.1	262.26	9.67	260.76	9.67
		9	No Antenna							
97	97	N/A	N/A	H.D. Platform (Monopole Only) - 12'	18.3	1.78	28.32	2.14	28.32	2.14
84	84	1	25,000 sq.in. EPA (Verizon Specifications)	H.D. Platform (Monopole Only) - 12'	194.39	5.88	283.98	11.72	283.98	11.72
		9	No Antenna	Same As Above						
69	69	1	25,000 sq.in. EPA (Verizon Specifications)	H.D. Platform (Monopole Only) - 12'	194.39	5.88	282.24	11.61	282.24	11.61
		9	No Antenna	Same As Above						
54	54	1	25,000 sq.in. EPA (Verizon Specifications)	H.D. Platform (Monopole Only) - 12'	194.39	6.04	280.11	11.63	280.11	11.63
		9	No Antenna	Same As Above						

100' ext. 120' Monopole / Woodbridge North 2, CT

* All pole diameters shown on the following pages are across corners.
See profile drawing for widths across flats.

POLE GEOMETRY

ELEV ft	SECTION NAME	No. SIDE	OUTSIDE DIAM in	THICK -NESS in	RESISTANCES **Pn kip	RESISTANCES **Mn ft-kip	SPLICE TYPE	OVERLAP... LENGTH ft	OVERLAP... RATIO	w/t
119.0										
			23.35	0.250	1341.2	625.7				
	A	18								15.0
			28.62	0.250	1585.4	910.0				
99.0										
			28.62	0.250	1585.4	910.0				
	B	18								18.6
			40.65	0.250	1978.6	1621.7				
53.2										
			40.65	0.250	1978.6	1621.7				
	B/C	18					SLIP	5.75	1.68	
			41.67	0.375	3476.6	2904.2				
47.5										
			41.67	0.375	3476.6	2904.2				
	C	18								18.4
			54.17	0.375	4142.4	4516.8				
0.0										

POLE ASSEMBLY

SECTION NAME	BASE ELEV ft	BOLTS AT BASE OF SECTION... NUMBER	TYPE	DIAM in	STRENGTH ksi	THREADS IN SHEAR PLANE	CALC BASE ELEV ft
A	99.000	0	A325	0.00	92.0	0	99.000
B	47.500	0	A325	0.00	92.0	0	47.500
C	0.000	0	A325	0.00	92.0	0	0.000

POLE SECTIONS

SECTION NAME	No.of SIDES	LENGTH ft	OUTSIDE.DIAMETER BOT * in	OUTSIDE.DIAMETER TOP * in	BEND RAD in	MAT-ERIAL ID	FLANGE.ID BOT	FLANGE.ID TOP	FLANGE.WELD..GROUP.ID.. BOT	FLANGE.WELD..GROUP.ID.. TOP
A	18	20.00	28.62	23.35	0.625	1	0	0	0	0
B	18	51.50	42.17	28.62	0.625	2	0	0	0	0
C	18	53.25	54.17	40.15	0.625	3	0	0	0	0

* - Diameter of circumscribed circle

MATERIAL TYPES

TYPE OF SHAPE	TYPE NO	NO OF ELEM. &	ORIENT deg	HEIGHT in	WIDTH in	.THICKNESS. WEB in	.THICKNESS. FLANGE in	IRREGULARITY .PROJECTION. % OF AREA	ORIENT deg
PL	1	1	0.0	28.62	0.25	0.250	0.250	0.00	0.0
PL	2	1	0.0	42.17	0.25	0.250	0.250	0.00	0.0

PL 3 1 0.0 54.17 0.38 0.375 0.375 0.00 0.0

& - With respect to vertical

MATERIAL PROPERTIES

MATERIAL TYPE NO.	ELASTIC MODULUS ksi	UNIT WEIGHT pcf	.. STRENGTH .. Fu ksi	Fy ksi	THERMAL COEFFICIENT /deg
1	29000.0	490.0	80.0	65.0	0.00001170
2	29000.0	490.0	80.0	65.0	0.00001170
3	29000.0	490.0	80.0	65.0	0.00001170

* Only 5 condition(s) shown in full

LOADING CONDITION A

120 mph wind with no ice. Wind Azimuth: 0• (1.2 D + 1.0 Wo)

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	119.000	0.00	0.0	0.0	6.9713	4.9177	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.0000	1.5386	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.7185	2.1420	0.0000	0.0000
C	114.500	0.00	0.0	0.0	0.0256	0.0151	0.0000	0.0000
C	105.000	0.00	0.0	0.0	0.0277	0.0168	0.0000	0.0000
C	99.000	0.00	0.0	0.0	7.8945	4.9177	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0000	1.2756	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.6814	2.1420	0.0000	0.0000
C	95.000	0.00	0.0	0.0	0.0269	0.0168	0.0000	0.0000
C	85.000	0.00	0.0	0.0	0.0261	0.0168	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.0000	1.1047	0.0000	0.0000
C	84.000	0.00	0.0	0.0	6.9493	7.0597	0.0000	0.0000
C	75.000	0.00	0.0	0.0	0.0252	0.0168	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.0000	0.9074	0.0000	0.0000
C	69.000	0.00	0.0	0.0	6.5743	7.0597	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0242	0.0168	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0230	0.0168	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0000	0.7101	0.0000	0.0000
C	54.000	0.00	0.0	0.0	6.1365	7.2493	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0218	0.0168	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0203	0.0168	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0194	0.0168	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0194	0.0168	0.0000	0.0000
D	119.000	0.00	180.0	0.0	0.0507	0.0761	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0685	0.1265	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0673	0.3255	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0673	0.3255	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0667	0.2015	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0657	0.2164	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0656	0.2238	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0743	0.2535	0.0000	0.0000

LOADING CONDITION M

120 mph wind with no ice. Wind Azimuth: 0• (0.9 D + 1.0 Wo)

LOADS ON POLE

LOAD TYPE	ELEV	APPLY..LOAD..AT RADIUS	AZI	LOAD AZI	.....FORCES..... HORIZ	DOWN	.....MOMENTS..... VERTICAL	TORSNAL

	ft	ft			kip	kip	ft-kip	ft-kip
C	119.000	0.00	0.0	0.0	6.9713	3.6883	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.0000	1.1540	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.7185	1.6065	0.0000	0.0000
C	114.500	0.00	0.0	0.0	0.0256	0.0113	0.0000	0.0000
C	105.000	0.00	0.0	0.0	0.0277	0.0126	0.0000	0.0000
C	99.000	0.00	0.0	0.0	7.8945	3.6883	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0000	0.9567	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.6814	1.6065	0.0000	0.0000
C	95.000	0.00	0.0	0.0	0.0269	0.0126	0.0000	0.0000
C	85.000	0.00	0.0	0.0	0.0261	0.0126	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.0000	0.8285	0.0000	0.0000
C	84.000	0.00	0.0	0.0	6.9493	5.2948	0.0000	0.0000
C	75.000	0.00	0.0	0.0	0.0252	0.0126	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.0000	0.6806	0.0000	0.0000
C	69.000	0.00	0.0	0.0	6.5743	5.2948	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0242	0.0126	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0230	0.0126	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0000	0.5326	0.0000	0.0000
C	54.000	0.00	0.0	0.0	6.1365	5.4370	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0218	0.0126	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0203	0.0126	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0194	0.0126	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0194	0.0126	0.0000	0.0000
D	119.000	0.00	180.0	0.0	0.0507	0.0571	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0685	0.0949	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0673	0.2441	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0673	0.2441	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0667	0.1512	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0657	0.1623	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0656	0.1679	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0743	0.1901	0.0000	0.0000

==========

LOADING CONDITION Y ==========

50 mph wind with 1 ice. Wind Azimuth: 0• (1.2 D + 1.0 Di + 1.0 Wi)

LOADS ON POLE
==========

LOAD TYPE	ELEV	APPLY..LOAD..AT RADIUS	AZI	LOAD AZI	.....FORCES..... HORIZ	DOWN	.....MOMENTS..... VERTICAL	TORSNAL
	ft	ft			kip	kip	ft-kip	ft-kip
C	119.000	0.00	0.0	0.0	1.7823	10.6067	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.0000	1.5386	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.1955	2.5015	0.0000	0.0000
C	114.500	0.00	0.0	0.0	0.0243	0.0271	0.0000	0.0000
C	105.000	0.00	0.0	0.0	0.0261	0.0288	0.0000	0.0000
C	99.000	0.00	0.0	0.0	1.6963	10.5039	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0000	1.2756	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.1844	2.4950	0.0000	0.0000
C	95.000	0.00	0.0	0.0	0.0252	0.0288	0.0000	0.0000
C	85.000	0.00	0.0	0.0	0.0242	0.0288	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.0000	1.1047	0.0000	0.0000
C	84.000	0.00	0.0	0.0	1.7632	12.9033	0.0000	0.0000
C	75.000	0.00	0.0	0.0	0.0231	0.0288	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.0000	0.9074	0.0000	0.0000
C	69.000	0.00	0.0	0.0	1.6579	12.7909	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0219	0.0288	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0206	0.0288	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0000	0.7101	0.0000	0.0000
C	54.000	0.00	0.0	0.0	1.5361	12.8439	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0192	0.0288	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0175	0.0288	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0163	0.0288	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0156	0.0288	0.0000	0.0000
D	119.000	0.00	180.0	0.0	0.0168	0.1114	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0218	0.1799	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0214	0.3797	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0214	0.3797	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0212	0.2565	0.0000	0.0000
D	23.750	0.00	180.0	0.0	0.0207	0.2817	0.0000	0.0000
D	23.750	0.00	180.0	0.0	0.0214	0.2903	0.0000	0.0000

D	0.000	0.00	180.0	0.0	0.0232	0.3079	0.0000	0.0000

LOADING CONDITION AK

Seismic - Azimuth: 0• (1.2 D + 1.0 Ev + 1.0 Eh)

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	119.000	0.00	0.0	0.0	0.2780	5.0603	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.1171	2.2041	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.0841	1.5832	0.0000	0.0000
C	114.500	0.00	0.0	0.0	0.0008	0.0155	0.0000	0.0000
C	109.000	0.00	0.0	0.0	0.0777	1.6856	0.0000	0.0000
C	105.000	0.00	0.0	0.0	0.0007	0.0173	0.0000	0.0000
C	99.000	0.00	0.0	0.0	0.1924	5.0603	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0805	2.2041	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0479	1.3126	0.0000	0.0000
C	95.000	0.00	0.0	0.0	0.0006	0.0173	0.0000	0.0000
C	85.000	0.00	0.0	0.0	0.0005	0.0173	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.1989	7.2644	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.0311	1.1367	0.0000	0.0000
C	75.000	0.00	0.0	0.0	0.0004	0.0173	0.0000	0.0000
C	73.250	0.00	0.0	0.0	0.1234	5.9263	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.1342	7.2644	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.0172	0.9337	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0003	0.0173	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0002	0.0173	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0844	7.4595	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0083	0.7308	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0001	0.0173	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0001	0.0173	0.0000	0.0000
C	26.620	0.00	0.0	0.0	0.0336	12.2373	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0000	0.0173	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0000	0.0173	0.0000	0.0000
D	119.000	0.00	180.0	180.0	0.0000	0.0000	0.0000	0.0000
D	0.000	0.00	180.0	180.0	0.0000	0.0000	0.0000	0.0000

LOADING CONDITION AL

Seismic - Azimuth: 0• (0.9 D - 1.0 Ev + 1.0 Eh)

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	119.000	0.00	0.0	0.0	0.2780	3.5457	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.1171	1.5444	0.0000	0.0000
C	117.000	0.00	0.0	0.0	0.0841	1.1094	0.0000	0.0000
C	114.500	0.00	0.0	0.0	0.0008	0.0109	0.0000	0.0000
C	109.000	0.00	0.0	0.0	0.0777	1.1811	0.0000	0.0000
C	105.000	0.00	0.0	0.0	0.0007	0.0121	0.0000	0.0000
C	99.000	0.00	0.0	0.0	0.1924	3.5457	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0805	1.5444	0.0000	0.0000
C	97.000	0.00	0.0	0.0	0.0479	0.9197	0.0000	0.0000
C	95.000	0.00	0.0	0.0	0.0006	0.0121	0.0000	0.0000
C	85.000	0.00	0.0	0.0	0.0005	0.0121	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.1989	5.0901	0.0000	0.0000
C	84.000	0.00	0.0	0.0	0.0311	0.7965	0.0000	0.0000
C	75.000	0.00	0.0	0.0	0.0004	0.0121	0.0000	0.0000
C	73.250	0.00	0.0	0.0	0.1234	4.1525	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.1342	5.0901	0.0000	0.0000
C	69.000	0.00	0.0	0.0	0.0172	0.6543	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0003	0.0121	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0002	0.0121	0.0000	0.0000

C	54.000	0.00	0.0	0.0	0.0844	5.2268	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0083	0.5120	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0001	0.0121	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0001	0.0121	0.0000	0.0000
C	26.620	0.00	0.0	0.0	0.0336	8.5744	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0000	0.0121	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0000	0.0121	0.0000	0.0000
D	119.000	0.00	180.0	180.0	0.0000	0.0000	0.0000	0.0000
D	0.000	0.00	180.0	180.0	0.0000	0.0000	0.0000	0.0000

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100' ext. 120' Monopole / Woodbridge North 2, CT

MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)

==========

MAST ELEV ft	DEFLECTIONS (ft) HORIZONTAL ALONG	HORIZONTAL ACROSS	DOWN	ROTATIONS (deg) TILT ALONG	TILT ACROSS	TWIST
119.0	5.98E	0.02F	0.40K	5.05E	0.01F	0.00B
114.0	5.55E	0.02F	0.36K	5.03E	0.01F	0.00B
109.0	5.11E	0.01F	0.32K	4.98E	0.01F	0.00F
104.0	4.69E	0.01F	0.29K	4.89E	0.01F	0.00F
99.0	4.27E	0.01F	0.25K	4.78E	0.01F	0.00F
92.5	3.73E	0.01F	0.21K	4.60E	0.01F	0.00F
85.9	3.23E	0.01F	0.17K	4.36E	0.01F	0.00F
79.4	2.75E	0.01F	0.13K	4.08E	0.01F	0.00F
72.9	2.30E	0.01F	0.10K	3.76E	0.01F	0.00F
66.3	1.90E	0.01F	0.07C	3.40E	0.01F	0.00F
59.8	1.53E	0.00F	0.05C	3.01E	0.01F	0.00F
53.2	1.21E	0.00F	0.04C	2.59E	0.01F	0.00F
47.5	0.97E	0.00F	0.03C	2.33E	0.01F	0.00F
41.6	0.74E	0.00F	0.02C	2.05E	0.01F	0.00F
35.6	0.54E	0.00F	0.01C	1.76E	0.01F	0.00F
29.7	0.38E	0.00F	0.01C	1.46E	0.00F	0.00F
23.7	0.24E	0.00F	0.00C	1.16E	0.00F	0.00F
17.8	0.13E	0.00F	0.00C	0.87E	0.00F	0.00F
11.9	0.06E	0.00F	0.00C	0.57E	0.00F	0.00F
5.9	0.01E	0.00F	0.00AB	0.29E	0.00F	0.00F
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)

==========

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR ALONG kip	SHEAR.w.r.t.WIND.DIR ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	MOMENT.w.r.t.WIND.DIR ACROSS ft-kip	TORSION ft-kip
119.0						
	10.61 Y	6.99 P	-0.01 W	0.04 I	-0.02 W	0.00 W
	15.24 Y	7.99 P	-0.01 W	-40.61 I	0.02 W	0.01 Q
114.0						
	15.25 AC	8.03 U	0.03 R	-40.59 C	0.05 O	-0.01 I
	15.84 AC	8.29 U	0.03 R	-84.94 L	-0.16 R	0.02 Q
109.0						
	15.84 AC	8.30 A	0.04 E	-84.90 L	-0.10 X	0.02 C
	16.49 AC	8.59 A	0.04 E	-130.81 A	-0.28 R	0.03 B
104.0						
	16.49 AC	8.61 N	0.05 F	-130.81 A	-0.31 B	0.04 B
	17.14 AC	8.88 N	0.05 F	-178.26 L	-0.48 B	0.06 B
99.0						
	27.64 AA	16.79 U	0.09 F	-178.25 L	-0.49 B	0.05 B
	32.33 AA	17.86 U	0.09 F	-301.01 E	-0.78 B	0.09 B
92.5						
	32.33 AI	17.91 E	0.06 E	-300.98 E	-0.79 F	0.09 B
	33.26 AI	18.29 E	0.06 E	-428.48 E	-1.16 F	0.12 B
85.9						
	33.26 AA	18.30 E	0.07 F	-428.43 E	-1.14 F	0.12 B
	48.27 AA	25.67 E	0.07 F	-593.03 E	-1.61 F	0.16 B
79.4						
	48.27 AI	25.66 E	0.06 F	-593.04 E	-1.64 F	0.16 B
	49.32 AI	26.09 E	0.06 F	-774.23 E	-2.05 F	0.19 B
72.9						
	49.32 AI	26.11 E	0.09 F	-774.19 E	-2.04 F	0.19 B
	64.08 AI	33.10 E	0.09 F	-976.44 E	-2.63 F	0.22 B
66.3						
	64.08 AI	33.08 K	0.12 F	-976.46 E	-2.63 F	0.22 B
	65.22 AI	33.53 K	0.12 F	-1207.21 E	-3.38 F	0.27 F
59.8						
	65.22 AI	33.52 E	0.13 F	-1207.24 E	-3.37 F	0.27 F
	79.96 AI	40.12 E	0.13 F	-1444.61 E	-4.18 F	0.31 F
53.2						
	79.96 AI	40.13 E	0.12 F	-1444.61 E	-4.15 F	0.31 F
	82.14 AI	40.51 E	0.12 F	-1687.96 E	-4.81 F	0.35 F
47.5						
	82.14 AI	40.52 K	0.11 F	-1688.01 E	-4.80 F	0.35 F
	83.71 AI	40.94 K	0.11 F	-1940.70 E	-5.47 F	0.38 F
41.6						
	83.71 AI	40.93 N	0.14 F	-1940.73 E	-5.45 F	0.38 F
	85.29 AI	41.33 N	0.14 F	-2194.69 E	-6.25 F	0.41 F
35.6						
	85.29 AC	41.35 E	0.14 F	-2194.69 E	-6.25 F	0.41 F
	86.93 AC	41.76 E	0.14 F	-2450.04 E	-7.06 F	0.44 F
29.7						
	86.93 AI	41.77 E	0.16 F	-2450.05 E	-7.06 F	0.44 F
	88.62 AI	42.19 E	0.16 F	-2706.44 E	-8.01 F	0.47 F
23.7						
	88.62 AI	42.20 E	0.17 F	-2706.43 E	-8.01 F	0.47 F
	90.35 AI	42.60 E	0.17 F	-2963.92 E	-9.00 F	0.49 F
17.8						
	90.35 AI	42.58 E	0.17 F	-2963.92 E	-9.01 F	0.49 F
	92.15 AI	43.01 E	0.17 F	-3222.18 E	-10.02 F	0.51 F
11.9						
	92.15 AI	43.02 E	0.17 F	-3222.18 E	-10.01 F	0.51 F

	93.93 AI	43.45 E	0.17 F	-3481.48 E	-11.02 F	0.51 F
5.9						
	93.93 AI	43.44 E	0.17 F	-3481.48 E	-11.02 F	0.51 F
	95.75 AI	43.88 E	0.17 F	-3741.56 E	-12.03 F	0.52 F
base reaction	95.75 AI	-43.88 E	-0.17 F	3741.56 E	12.03 F	-0.52 F

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
119.00							
	0.01Y	0.00I	0.01P	0.01Y	YES	14.99A	45.2
	0.01Y	0.06I	0.01P	0.06I	YES	15.90A	45.2
114.00							
	0.01AC	0.06C	0.01U	0.06C	YES	15.90A	45.2
	0.01AC	0.11L	0.01U	0.12L	YES	16.82A	45.2
109.00							
	0.01AC	0.11L	0.01A	0.12L	YES	16.82A	45.2
	0.01AC	0.16A	0.01A	0.16A	YES	17.73A	45.2
104.00							
	0.01AC	0.16A	0.01N	0.16A	YES	17.73A	45.2
	0.01AC	0.20L	0.01N	0.20L	YES	18.64A	45.2
99.00							
	0.02AA	0.20L	0.02U	0.21L	YES	18.64A	45.2
	0.02AA	0.30E	0.02U	0.31E	YES	19.84A	45.2
92.46							
	0.02AI	0.30E	0.02E	0.31E	YES	19.84A	45.2
	0.02AI	0.39E	0.02E	0.40E	YES	21.03A	45.2
85.93							
	0.02AA	0.39E	0.02E	0.40E	YES	21.03A	45.2
	0.03AA	0.49E	0.03E	0.51E	YES	22.23A	45.2
79.39							
	0.03AI	0.49E	0.03E	0.51E	YES	22.23A	45.2
	0.03AI	0.59E	0.03E	0.61E	YES	23.42A	45.2
72.86							
	0.03AI	0.59E	0.03E	0.61E	YES	23.42A	45.2
	0.03AI	0.69E	0.04E	0.71E	YES	24.62A	45.2
66.32							
	0.03AI	0.69E	0.04K	0.71E	YES	24.62A	45.2
	0.03AI	0.80E	0.03K	0.82E	YES	25.81A	45.2
59.79							
	0.03AI	0.80E	0.03E	0.82E	YES	25.81A	45.2
	0.04AI	0.89E	0.04E	0.92E	YES	27.01A	45.2
53.25							
	0.02AI	0.52E	0.02E	0.53E	YES	17.89A	45.2
	0.02AI	0.57E	0.02E	0.58E	YES	18.59A	45.2
47.50							
	0.02AI	0.58E	0.02K	0.60E	YES	18.35A	45.2
	0.02AI	0.63E	0.02K	0.64E	YES	19.08A	45.2
41.56							
	0.02AI	0.63E	0.02N	0.64E	YES	19.08A	45.2
	0.02AI	0.67E	0.02N	0.68E	YES	19.80A	45.2
35.62							
	0.02AC	0.67E	0.02E	0.68E	YES	19.80A	45.2
	0.02AC	0.70E	0.02E	0.72E	YES	20.53A	45.2
29.69							
	0.02AI	0.70E	0.02E	0.72E	YES	20.53A	45.2

```
            0.02AI    0.73E     0.02E     0.75E     YES      21.25A       45.2
 23.75  ..........................................................................
            0.02AI    0.73E     0.02E     0.75E     YES      21.25A       45.2

            0.02AI    0.76E     0.02E     0.78E     YES      21.97A       45.2
 17.81  ..........................................................................
            0.02AI    0.76E     0.02E     0.78E     YES      21.97A       45.2

            0.02AI    0.79E     0.02E     0.80E     YES      22.70A       45.2
 11.87  ..........................................................................
            0.02AI    0.79E     0.02E     0.80E     YES      22.70A       45.2

            0.02AI    0.81E     0.02E     0.82E     YES      23.42A       45.2
  5.94  ..........................................................................
            0.02AI    0.81E     0.02E     0.82E     YES      23.42A       45.2

            0.02AI    0.83E     0.02E     0.84E     YES      24.14A       45.2
  0.00  ..........................................................................

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)
====================================================

    DOWN    SHEAR.w.r.t.WIND.DIR   MOMENT.w.r.t.WIND.DIR     TORSION
               ALONG      ACROSS       ALONG      ACROSS
     kip         kip         kip      ft-kip      ft-kip      ft-kip

   95.75       43.88        0.17    -3741.56      -12.03        0.52
      AI          E           F           E           F           F


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100' ext. 120' Monopole / Woodbridge North 2, CT


********************************************************************************
************************  Service Load Condition  ************************
********************************************************************************

* Only 1 condition(s) shown in full

 LOADING CONDITION  A    ======================================================

60 mph wind with no ice. Wind Azimuth: 0• (1.0 D + 1.0 Wo)


 LOADS ON POLE
 =============

 LOAD      ELEV  APPLY..LOAD..AT   LOAD  ......FORCES......  ......MOMENTS.....
 TYPE            RADIUS    AZI     AZI     HORIZ      DOWN  VERTICAL   TORSNAL
              ft        ft                    kip       kip    ft-kip    ft-kip

 C       119.000      0.00    0.0    0.0    1.5594    4.0981    0.0000    0.0000
 C       117.000      0.00    0.0    0.0    0.0000    1.2822    0.0000    0.0000
 C       117.000      0.00    0.0    0.0    0.1607    1.7850    0.0000    0.0000
 C       114.500      0.00    0.0    0.0    0.0057    0.0126    0.0000    0.0000
 C       105.000      0.00    0.0    0.0    0.0062    0.0140    0.0000    0.0000
 C        99.000      0.00    0.0    0.0    1.7659    4.0981    0.0000    0.0000
 C        97.000      0.00    0.0    0.0    0.0000    1.0630    0.0000    0.0000
 C        97.000      0.00    0.0    0.0    0.1524    1.7850    0.0000    0.0000
 C        95.000      0.00    0.0    0.0    0.0060    0.0140    0.0000    0.0000
 C        85.000      0.00    0.0    0.0    0.0058    0.0140    0.0000    0.0000
 C        84.000      0.00    0.0    0.0    0.0000    0.9206    0.0000    0.0000
 C        84.000      0.00    0.0    0.0    1.5544    5.8831    0.0000    0.0000
 C        75.000      0.00    0.0    0.0    0.0056    0.0140    0.0000    0.0000
```

C	69.000	0.00	0.0	0.0	0.0000	0.7562	0.0000	0.0000
C	69.000	0.00	0.0	0.0	1.4706	5.8831	0.0000	0.0000
C	65.000	0.00	0.0	0.0	0.0054	0.0140	0.0000	0.0000
C	55.000	0.00	0.0	0.0	0.0052	0.0140	0.0000	0.0000
C	54.000	0.00	0.0	0.0	0.0000	0.5918	0.0000	0.0000
C	54.000	0.00	0.0	0.0	1.3726	6.0411	0.0000	0.0000
C	45.000	0.00	0.0	0.0	0.0049	0.0140	0.0000	0.0000
C	35.000	0.00	0.0	0.0	0.0045	0.0140	0.0000	0.0000
C	25.000	0.00	0.0	0.0	0.0043	0.0140	0.0000	0.0000
C	15.000	0.00	0.0	0.0	0.0043	0.0140	0.0000	0.0000
D	119.000	0.00	180.0	0.0	0.0113	0.0635	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0153	0.1054	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0151	0.2712	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0151	0.2712	0.0000	0.0000
D	47.500	0.00	180.0	0.0	0.0149	0.1680	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0147	0.1803	0.0000	0.0000
D	29.687	0.00	180.0	0.0	0.0147	0.1865	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0166	0.2112	0.0000	0.0000

MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)

MAST ELEV ft	DEFLECTIONS (ft) HORIZONTAL ALONG	HORIZONTAL ACROSS	DOWN	ROTATIONS (deg) TILT ALONG	TILT ACROSS	TWIST
119.0	1.33K	0.00I	0.02K	1.12K	0.00I	0.00I
114.0	1.24K	0.00I	0.02K	1.12K	0.00I	0.00I
109.0	1.14K	0.00I	0.02K	1.10K	0.00I	0.00I
104.0	1.04K	0.00I	0.02K	1.08K	0.00I	0.00I
99.0	0.95K	0.00I	0.02K	1.06K	0.00I	0.00I
92.5	0.83K	0.00I	0.01K	1.02K	0.00I	0.00I
85.9	0.72K	0.00I	0.01K	0.97K	0.00I	0.00I
79.4	0.61K	0.00I	0.01K	0.91K	0.00I	0.00I
72.9	0.51K	0.00I	0.01K	0.83K	0.00I	0.00I
66.3	0.42K	0.00I	0.01K	0.75K	0.00I	0.00I
59.8	0.34K	0.00I	0.00K	0.67K	0.00I	0.00I
53.2	0.27K	0.00I	0.00K	0.58K	0.00I	0.00I
47.5	0.21K	0.00I	0.00K	0.52K	0.00I	0.00I
41.6	0.16K	0.00I	0.00K	0.45K	0.00I	0.00I
35.6	0.12K	0.00I	0.00K	0.39K	0.00I	0.00I
29.7	0.08K	0.00I	0.00K	0.32K	0.00I	0.00I
23.7	0.05K	0.00I	0.00K	0.26K	0.00I	0.00I
17.8	0.03K	0.00I	0.00K	0.19K	0.00I	0.00I
11.9	0.01K	0.00I	0.00K	0.13K	0.00I	0.00I
5.9	0.00K	0.00I	0.00A	0.06K	0.00I	0.00I
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR ALONG kip	SHEAR.w.r.t.WIND.DIR ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	MOMENT.w.r.t.WIND.DIR ACROSS ft-kip	TORSION ft-kip

119.0					
4.10 H	1.56 I	0.00 E	−0.01 C	−0.01 E	0.00 E
7.50 H	1.79 I	0.00 E	−9.02 A	0.01 E	0.00 K
114.0					
7.50 A	1.79 D	0.00 C	−9.03 I	0.01 E	0.00 I
7.85 A	1.85 D	0.00 C	−18.83 D	0.02 B	0.00 K
109.0					
7.85 A	1.84 L	−0.01 B	−18.83 D	−0.02 C	0.00 K
8.22 A	1.91 L	−0.01 B	−28.96 D	0.05 B	0.00 B
104.0					
8.22 A	1.92 K	0.01 H	−28.96 D	0.06 B	0.00 B
8.59 A	1.98 K	0.01 H	−39.47 D	−0.05 H	0.00 I
99.0					
12.69 A	3.75 K	0.01 K	−39.46 D	0.05 F	0.00 I
16.06 A	3.99 K	0.01 K	−66.69 K	−0.13 K	0.00 I
92.5					
16.06 A	3.99 K	0.01 K	−66.69 K	−0.13 K	0.00 I
16.60 A	4.08 K	0.01 K	−94.88 K	−0.17 K	0.00 I
85.9					
16.60 A	4.08 K	0.01 E	−94.89 K	−0.17 K	0.00 I
23.99 A	5.72 K	0.01 E	−131.31 K	−0.21 K	0.00 I
79.4					
23.99 A	5.72 K	0.01 I	−131.31 K	−0.21 K	0.00 I
24.60 A	5.82 K	0.01 I	−171.42 K	−0.24 K	0.01 I
72.9					
24.60 A	5.82 B	0.01 I	−171.42 K	−0.23 K	0.01 I
31.86 A	7.38 B	0.01 I	−216.17 K	−0.27 E	0.01 I
66.3					
31.86 A	7.38 B	0.02 I	−216.18 K	−0.28 E	0.01 I
32.52 A	7.49 B	0.02 I	−267.31 K	−0.34 I	0.01 I
59.8					
32.52 A	7.48 K	0.02 I	−267.31 K	−0.34 I	0.01 I
39.84 A	8.96 K	0.02 I	−319.96 K	−0.44 I	0.01 I
53.2					
39.84 A	8.96 B	0.02 I	−319.95 K	−0.44 I	0.01 I
41.40 A	9.05 B	0.02 I	−373.93 K	−0.53 I	0.01 I
47.5					
41.40 A	9.05 H	0.02 I	−373.94 K	−0.53 I	0.01 I
42.42 A	9.14 H	0.02 I	−429.98 K	−0.64 I	0.01 I
41.6					
42.42 A	9.14 K	0.02 I	−429.99 K	−0.64 I	0.01 I
43.46 A	9.23 K	0.02 I	−486.38 K	−0.75 I	0.02 I
35.6					
43.46 A	9.24 K	0.02 I	−486.38 K	−0.75 I	0.02 I
44.53 A	9.33 K	0.02 I	−543.13 K	−0.87 I	0.02 I
29.7					
44.53 A	9.33 K	0.02 I	−543.14 K	−0.87 I	0.02 I
45.66 A	9.42 K	0.02 I	−600.14 K	−1.00 I	0.02 I
23.7					
45.66 A	9.42 K	0.02 I	−600.14 K	−0.99 I	0.02 I
46.82 A	9.51 K	0.02 I	−657.43 K	−1.12 I	0.02 I
17.8					
46.82 A	9.51 K	0.02 I	−657.43 K	−1.12 I	0.02 I
48.01 A	9.61 K	0.02 I	−714.99 K	−1.26 I	0.02 I
11.9					
48.01 A	9.61 K	0.02 I	−714.99 K	−1.26 I	0.02 I
49.22 A	9.71 K	0.02 I	−772.82 K	−1.39 I	0.02 I
5.9					
49.22 A	9.71 K	0.02 I	−772.82 K	−1.39 I	0.02 I
50.46 A	9.80 K	0.02 I	−830.89 K	−1.52 I	0.02 I

base reaction	50.46 A	-9.80 K	-0.02 I	830.89 K	1.52 I	-0.02 I

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
119.00							
	0.00H	0.00C	0.00I	0.00C	YES	14.99A	45.2
	0.01H	0.01A	0.00I	0.02A	YES	15.90A	45.2
114.00							
	0.01A	0.01I	0.00D	0.02I	YES	15.90A	45.2
	0.01A	0.02D	0.00D	0.03D	YES	16.82A	45.2
109.00							
	0.01A	0.02D	0.00L	0.03D	YES	16.82A	45.2
	0.01A	0.03D	0.00L	0.04D	YES	17.73A	45.2
104.00							
	0.01A	0.03D	0.00K	0.04D	YES	17.73A	45.2
	0.01A	0.04D	0.00K	0.05D	YES	18.64A	45.2
99.00							
	0.01A	0.04D	0.00K	0.05D	YES	18.64A	45.2
	0.01A	0.07K	0.00K	0.08K	YES	19.84A	45.2
92.46							
	0.01A	0.07K	0.00K	0.08K	YES	19.84A	45.2
	0.01A	0.09K	0.00K	0.10K	YES	21.03A	45.2
85.93							
	0.01A	0.09K	0.00K	0.10K	YES	21.03A	45.2
	0.01A	0.11K	0.01K	0.12K	YES	22.23A	45.2
79.39							
	0.01A	0.11K	0.01K	0.12K	YES	22.23A	45.2
	0.01A	0.13K	0.01K	0.14K	YES	23.42A	45.2
72.86							
	0.01A	0.13K	0.01B	0.14K	YES	23.42A	45.2
	0.02A	0.15K	0.01B	0.17K	YES	24.62A	45.2
66.32							
	0.02A	0.15K	0.01B	0.17K	YES	24.62A	45.2
	0.02A	0.18K	0.01B	0.19K	YES	25.81A	45.2
59.79							
	0.02A	0.18K	0.01K	0.19K	YES	25.81A	45.2
	0.02A	0.20K	0.01K	0.22K	YES	27.01A	45.2
53.25							
	0.01A	0.12K	0.01B	0.13K	YES	17.89A	45.2
	0.01A	0.13K	0.01B	0.14K	YES	18.59A	45.2
47.50							
	0.01A	0.13K	0.01H	0.14K	YES	18.35A	45.2
	0.01A	0.14K	0.01H	0.15K	YES	19.08A	45.2
41.56							
	0.01A	0.14K	0.01K	0.15K	YES	19.08A	45.2
	0.01A	0.15K	0.01K	0.16K	YES	19.80A	45.2
35.62							
	0.01A	0.15K	0.01K	0.16K	YES	19.80A	45.2
	0.01A	0.16K	0.00K	0.17K	YES	20.53A	45.2
29.69							
	0.01A	0.16K	0.00K	0.17K	YES	20.53A	45.2
	0.01A	0.16K	0.00K	0.17K	YES	21.25A	45.2
23.75							
	0.01A	0.16K	0.00K	0.17K	YES	21.25A	45.2
	0.01A	0.17K	0.00K	0.18K	YES	21.97A	45.2
17.81							

```
            0.01A     0.17K     0.00K     0.18K     YES      21.97A       45.2

            0.01A     0.17K     0.00K     0.19K     YES      22.70A       45.2
 11.87  ..........................................................................
            0.01A     0.17K     0.00K     0.19K     YES      22.70A       45.2

            0.01A     0.18K     0.00K     0.19K     YES      23.42A       45.2
  5.94  ..........................................................................
            0.01A     0.18K     0.00K     0.19K     YES      23.42A       45.2

            0.01A     0.18K     0.00K     0.20K     YES      24.14A       45.2
  0.00  ..........................................................................

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)
====================================================

    DOWN     SHEAR.w.r.t.WIND.DIR   MOMENT.w.r.t.WIND.DIR     TORSION
                ALONG      ACROSS       ALONG      ACROSS
     kip          kip         kip      ft-kip      ft-kip      ft-kip

   50.46         9.80        0.02     -830.89       -1.52        0.02
      A            K           I           K           I           I


================================================================================
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Seismic Load Effects
Equivalent Lateral Force Procedure
ANSI/TIA-222-H

Parameters	
Risk Category	II
R	1.500
S_S	0.201
S_1	0.054
Site Class	C
T_L (sec)	6.000
F_a	1.300
F_v	1.500
S_{MS}	0.261
S_{M1}	0.081
S_{DS}	0.174
S_{D1}	0.054
T_s	0.310
I_e	1.000
Ω	1.500
C_S	0.030
E (ksi)	29,000
I_{top} (in^4)	1,183
I_{bot} (in^4)	22,396
I_{avg} (in^4)	11,789
g (in/s^2)	386.4
W_t (kips)	50.415
W_u (kips)	17.649
W_L (kips)	32.765
L_p (in)	1428
f_1 (Hertz)	0.369
T (sec)	2.713
k_e	2.0000
V_s (kips)	1.512
Seismic Design Category	B

Vertical Distribution of Seismic Forces

Description	h_i (ft.)	w_i (kips)	W_u (kips)	$w_i h_i^{ke}$	F_{sz} or E_h (kips)	E_V (kips)	1.2 D + 1.0 E_V (kips)	0.9 D - 1.0 E_V (kips)
Antenna Load	119.00	4.0981	4.0981	58,033.1941	0.2780	0.1426	5.0603	3.5457
Line Deadload	117.00	1.2822	0.0000	17,552.0358	0.0841	0.0446	1.5832	1.1094
Mount Load	117.00	1.7850	1.7850	24,434.8650	0.1171	0.0621	2.2041	1.5444
Step Bolts/Safety Climb Load	114.50	0.0126	0.0000	165.1892	0.0008	0.0004	0.0155	0.0109
Structure - Section 1	109.00	1.3651	0.0000	16,218.7531	0.0777	0.0475	1.6856	1.1811
Step Bolts/Safety Climb Load	105.00	0.0140	0.0000	154.3500	0.0007	0.0005	0.0173	0.0121
Antenna Load	99.00	4.0981	4.0981	40,165.4781	0.1924	0.1426	5.0603	3.5457
Line Deadload	97.00	1.0630	0.0000	10,001.7670	0.0479	0.0370	1.3126	0.9197
Mount Load	97.00	1.7850	1.7850	16,795.0650	0.0805	0.0621	2.2041	1.5444
Step Bolts/Safety Climb Load	95.00	0.0140	0.0000	126.3500	0.0006	0.0005	0.0173	0.0121
Step Bolts/Safety Climb Load	85.00	0.0140	0.0000	101.1500	0.0005	0.0005	0.0173	0.0121
Line Deadload	84.00	0.9206	0.0000	6,495.7536	0.0311	0.0320	1.1367	0.7965
Mount/Antenna Load	84.00	5.8831	5.8831	41,511.1536	0.1989	0.2047	7.2644	5.0901
Step Bolts/Safety Climb Load	75.00	0.0140	0.0000	78.7500	0.0004	0.0005	0.0173	0.0121
Structure - Section 2	73.25	4.7994	0.0000	25,751.4807	0.1234	0.1670	5.9263	4.1525
Line Deadload	69.00	0.7562	0.0000	3,600.2682	0.0172	0.0263	0.9337	0.6543
Mount/Antenna Load	69.00	5.8831	0.0000	28,009.4391	0.1342	0.2047	7.2644	5.0901
Step Bolts/Safety Climb Load	65.00	0.0140	0.0000	59.1500	0.0003	0.0005	0.0173	0.0121
Step Bolts/Safety Climb Load	55.00	0.0140	0.0000	42.3500	0.0002	0.0005	0.0173	0.0121
Line Deadload	54.00	0.5918	0.0000	1,725.6888	0.0083	0.0206	0.7308	0.5120
Mount/Antenna Load	54.00	6.0411	0.0000	17,615.8476	0.0844	0.2102	7.4595	5.2268
Step Bolts/Safety Climb Load	45.00	0.0140	0.0000	28.3500	0.0001	0.0005	0.0173	0.0121
Step Bolts/Safety Climb Load	35.00	0.0140	0.0000	17.1500	0.0001	0.0005	0.0173	0.0121
Structure - Section 3	26.62	9.9103	0.0000	7,022.6804	0.0336	0.3449	12.2373	8.5744
Step Bolts/Safety Climb Load	25.00	0.0140	0.0000	8.7500	0.0000	0.0005	0.0173	0.0121
Step Bolts/Safety Climb Load	15.00	0.0140	0.0000	3.1500	0.0000	0.0005	0.0173	0.0121
	Σ	50.41	17.6493	315,718.16	1.51	1.75	62.25	43.62

SO#: 567144
Site Name: Woodbridge North 2, CT
Date: 9/17/2025

Round Flange Plate and Bolts per ANSI/TIA 222-H
Elevation = 99 feet

Pole Data

Diameter:	28.18	in
Thickness:	0.25	in
Yield (Fy):	65	ksi
# of Sides:	18	"0" IF Round
Strength (Fu):	80	ksi

Reactions

Moment, Mu:	455	ft-kips
Axial, Pu:	15.25	kips
Shear, Vu:	16.78	kips

Bolt Data

Quantity:	14		
Diameter:	1	in	
Bolt Material:	A325		
Strength (Fu):	120	ksi	
Yield (Fy):	92	ksi	
BC Diam. (in):	31.75	BC Override:	

Flange Bolt Results

Allowable Φ*Rnt:	54.54	kips
Adjusted Φ*Rnt (due to shear):	54.51	kips
Maximum Bolt Tension:	48.04	kips
Bolt Interaction Ratio:	**88.1%**	**Pass**

Plate Data

Diameter (in):	34.25	Dia. Override:	
Thickness:	1.5	in	
Center Hole Diam.:	18	in	
Yield (Fy):	50	ksi	
Single-Rod B-eff:	6.39	in	
Drain Hole:	1	in. diameter	
Drain Location:	13	in. center of pole to center of drain hole	

Flange Plate Results

Compression Side Plate (Mu/Z):	16.5	ksi
Allowable Φ*Fy:	45.0	ksi
Compr. Plate Interaction Ratio:	**36.7%**	**Pass**

SO#: 567144
Site Name: Woodbridge North 2, CT
Date: 9/17/2025

Round Base Plate and Anchor Rods, per ANSI/TIA 222-H

Pole Data

Diameter:	53.340	in (flat to flat)
Thickness:	0.375	in
Yield (Fy):	65	ksi
# of Sides:	18	"0" IF Round
Strength (Fu):	80	ksi

Reactions

Moment, Mu:	3741.56	ft-kips
Axial, Pu:	60.56	kips
Shear, Vu:	43.88	kips

Anchor Rod Data

Quantity:	14		
Diameter:	2.25	in	
Rod Material:	A615		
Strength (Fu):	100	ksi	
Yield (Fy):	75	ksi	
BC Diam. (in):	60	BC Override:	60

Plate Data

Diameter (in):	65.75	Dia. Override:	65.75
Thickness:	2	in	
Yield (Fy):	50	ksi	
Eff Width/Rod:	12.09	in	
Drain Hole:	2.625	in. diameter	
Drain Location:	24.5	in. center of pole to center of drain hole	
Center Hole:	41	in. diameter	

Anchor Rod Results

(per 4.9.9)

Maximum Put:	210.56	Kips
Φt*Rnt:	243.75	Kips
Vu:	3.13	Kips
Φv*Rnv:	149.10	Kips
Tension Interaction Ratio:	0.75	
Maximum Puc:	218.13	Kips
Φc*Rnc:	268.39	Kips
Vu:	3.13	Kips
Φc*Rnvc:	120.77	Kips
Compression Interaction Ratio:	0.81	
Maximum Interaction Ratio:	**81.3%**	**Pass**

Base Plate Results

Base Plate (Mu/Z):	39.9	ksi	
Allowable Φ*Fy:	45.0	ksi	(per AISC)
Base Plate Interaction Ratio:	**88.7%**	**Pass**	

MAT FOUNDATION DESIGN BY SABRE INDUSTRIES

120' Monopole VERIZON WIRELESS Woodbridge North 2, CT (567144) 09/17/25 REB

Overall Loads:			
Factored Moment (ft-kips)	3938.48		
Factored Axial (kips)	63.75		
Factored Shear (kips)	46.19		
Bearing Design Strength (ksf)	23.53	Max. Net Bearing Press. (ksf)	4.52
Water Table Below Grade (ft)	999		
Width of Mat (ft)	24	Allowable Bearing Pressure (ksf)	15.69
Thickness of Mat (ft)	1.75	Safety Factor	2.00
Depth to Bottom of Slab (ft)	6	Ultimate Bearing Pressure (ksf)	31.38
Quantity of Bolts in Bolt Circle	14	Bearing Φs	0.75
Bolt Circle Diameter (in)	60		
Effective Anchor Bolt Embedment (in)	66.5		
Diameter of Pier (ft)	7	Minimum Pier Diameter (ft)	7.00
Ht. of Pier Above Ground (ft)	0.5	Equivalent Square b (ft)	6.20
Ht. of Pier Below Ground (ft)	4.25	Square Pier? (Y/N)	N
Quantity of Bars in Mat	30		
Bar Diameter in Mat (in)	1.27		
Area of Bars in Mat (in^2)	38.00		
Spacing of Bars in Mat (in)	9.68	Recommended Spacing (in)	5 to 12
Quantity of Bars Pier	36		
Bar Diameter in Pier (in)	1		
Tie Bar Diameter in Pier (in)	0.625		
Spacing of Ties (in)	4		
Area of Bars in Pier (in^2)	28.27	Minimum Pier A_s (in^2)	27.71
Spacing of Bars in Pier (in)	6.61	Recommended Spacing (in)	5 to 12
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.11		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd^3)	44.10		
Two-Way Shear Action:			
Average d (in)	16.73		
ϕv_c (ksi)	0.193	v_u (ksi)	0.117
$\phi v_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}$	0.302		
$\phi v_c = \phi(\alpha_s d/b_o+2)f'_c{}^{1/2}$	0.193	J (in^3)	8.524E+06
$\phi v_c = \phi 4f'_c{}^{1/2}$	0.201	c + d (in)	91.17
Shear perimeter, b_o (in)	364.69	$0.40M_{sc}$ (ft-kips)	1663.2
β_c	1		
One-Way Shear:			
ϕV_c (kips)	484.8	V_u (kips)	320.2
Stability:			
Overturning Design Strength (ft-k)	5216.7	Total Applied M (ft-k)	4238.7

Pier-Slab Transfer by Flexure:

b_{slab} (ft)	12.25		
ϕM_n (ft-kips)	2740.0	$0.60M_{sc}$ (ft-kips)	2494.7

Pier Design:

ϕV_n (kips)	1035.1	V_u (kips)	46.2
$\phi V_c=\phi 2(1+N_u/(2000A_g))f'_c{}^{1/2}b_wd$	571.3		
V_s (kips)	618.5	*** V_s max = 4 $f'_c{}^{1/2}b_wd$ (kips)	1514.7
Maximum Spacing (in)	8.71	(Only if Shear Ties are Required)	
Actual Hook Development (in)	15.46	Req'd Hook Development l_{dh} (in) - Tension	12.52
		Req'd Hook Development l_{dc} (in) - Compression	13.50

Flexure in Slab:

ϕM_n (ft-kips)	2684.1	M_u (ft-kips)	2086.8
a (in)	2.07		
Steel Ratio	0.00789		
β_1	0.825		
Maximum Steel Ratio (ρ_t)	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	99.00	Required Development in Pad (in)	34.08

Condition	1 is OK, 0 Fails
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Interaction Diagram	1
Two-Way Shear Action	1
One-Way Shear Action	1
Overturning	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Hook Development	1
Anchor Bolt Pullout	1
Anchor Bolt Punching Shear	1

Date: **May 23, 2025**

Timothy Parks
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Subject: Subsurface Exploration Report

Verizon Designation:	***Site Name:***	*Woodbridge North 2*
Engineering Firm Designation:	***TEP Project Number:***	*321638.1076726*
Site Data:	***118 Newton Road, Woodbridge, CT 06525 (New Haven County)*** ***Latitude N41° 22' 3.1", Longitude W73° 0' 40.4"*** ***100 Foot – Proposed Monopole Tower***	

Timothy Parks,

TEP is pleased to submit this **"Subsurface Exploration Report"** to evaluate subsurface conditions in the tower area as they pertain to providing support for the tower foundation.

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions in this report are based on the applicable standards of TEP's practice in this geographic area at the time this report was prepared. No other warranty, expressed or implied, is made.

TEP assumes the current ground surface elevation, tower location and subsequent centerline provided are correct and are consistent with the elevation and centerline to be used for construction of the structure. Should the ground surface elevation be altered and/or the tower location be moved or shifted TEP should be contacted to determine if additional borings are necessary.

The analyses and recommendations submitted herein are based, in part, upon the data obtained from the subsurface exploration. The soil conditions may vary from what is represented in the boring log. While some transitions may be gradual, subsurface conditions in other areas may be quite different. Should actual site conditions vary from those presented in this report, TEP should be provided the opportunity to amend its recommendations, as necessary.

We at TEP appreciate the opportunity of providing our continuing professional services to you and Verizon. If you have any questions or need further assistance on this or any other project, please give us a call.

Report Prepared/Reviewed by: Zeke A. Buchta, G.I.T. / John D. Longest, P.E.

Respectfully submitted by:

TEP Engineering, PLLC PEC.0002212

05/23/25

Scott C. Brantley, P.E.

TABLE OF CONTENTS

1) PROJECT DESCRIPTION

It is understood a monopole communications tower is being planned for construction at the above referenced site. The structure loads can be obtained from the tower manufacturer.

2) SITE EXPLORATION

The field exploration included the performance of one soil test boring (B-1). The boring was advanced to the auger refusal depth of 16.5 feet below ground surface (bgs) at the approximate location of the proposed monopole tower. The boring was performed by a track mounted drill rig using continuous flight hollow stem augers to advance the hole. Split-spoon samples and Standard Penetration Test (SPT) resistance values (N-values) were obtained in accordance with ASTM D1586 at a frequency of five samples in the top 10 feet and two samples prior to auger refusal.

The Split-spoon samples were transported to the TEP laboratory where they were classified by a qualified representative of the Geotechnical Engineer in general accordance with the Unified Soil Classification System (USCS), using visual-manual identification procedures (ASTM D2488).

A boring location plan showing the approximate boring location and the boring log presenting the subsurface information obtained, accompanied with a brief guide to interpreting the boring log, are included in Appendix A and B, respectively.

3) SITE CONDITIONS

The site is located at 118 Newton Road in Woodbridge, New Haven County, Connecticut. The proposed tower and compound are to be located in brushy area. The ground topography is moderately sloping downward to the southeast.

4) SUBSURFACE CONDITIONS

The following description of subsurface conditions is brief and general. For more detailed information, the individual boring log contained in Appendix B may be consulted.

4.1) Soil

The USCS classification of the soils encountered in the boring include SM and GP. The Standard Penetration Resistance (“N” Values) recorded in the subsurface materials range from 5 blows per foot of penetration to 50 blows with 3 inches of penetration.

4.2) Rock

Decomposed phyllite was encountered at a depth of 8 feet (bgs) transitioning to weathered phyllite at 10 feet (bgs) in the boring. Refusal of auger advancement was encountered at a depth of 16.5 feet (bgs) in the boring.

4.3) Subsurface Water

Subsurface water was not encountered in the boring at the time of drilling. It should be noted the subsurface water level will fluctuate during the year due to seasonal variations, precipitation events and construction activity in the area.

4.4) Frost

The Telecommunications Industry Association (TIA) frost depth for New Haven County, Connecticut is 40 inches.

5) TOWER FOUNDATION ANALYSIS

Based on the boring data, it is the opinion of TEP that a pier extending to a single large mat foundation or a single drilled shaft can be used to support the new tower. The following presents TEP's conclusions and recommendations regarding the foundation types.

5.1) Shallow Foundation

Based on preliminary site information, the site is located on moderately sloping ground. It is recommended that foundation designs account for site grades being raised with excavation spoils or that foundation drawings specify minimum embedment depths based on existing site elevations and factor in ground slopes.

The following values may be used for design of a shallow foundation. The foundation should bear a minimum of 40 inches below the ground surface to penetrate the frost depth and with sufficient depth to withstand overturning of the tower. To resist the overturning moment, the weight of the concrete and any soil directly above the foundation can be used. The values provided in Table 1 consider ground surface elevation at the time of the subsurface exploration and undisturbed, native materials. Due to the construction process disturbing the in-situ soils and reducing the soil densities above the new foundation from those provided in Table 1, TEP recommends that the foundation designer specify a minimum depth and unit weight for compacted backfill to resist overturning of the new shallow foundation.

Table 1 – Shallow Foundation Design Parameters

Depth (feet)		Subsurface Material	Gross Ultimate Bearing[1,2] (psf)	Cohesion[1] (psf)	Friction Angle[1] (degrees)	Effective Unit Weight (pcf)	Friction Factor
Top	Bottom						
0	2	SM[3]	4850	-	28	106	0.34
2	3.3	SM[3]	7950	-	28	114	0.34
3.3	4	SM	28050	-	38	114	0.47
4	6	SM	29975	-	45	116	0.50
6	8	GP	31375	-	39	115	0.49
8	10	Decomposed Phyllite	57075	-	45	120	0.50
10	15	Weathered Phyllite	64325	300	45	125	0.50

Notes:
1) These values should be considered ultimate soil parameters.
2) Bearing values consider a foundation width ranging from 12 to 25 feet and less than 1 inch of total settlement. Slope effects have been applied considering a maximum estimated slope of 7 degrees at and below the tower foundation.
3) Values have been modified to account for strength losses due to freeze/thaw cycles.

Bearing above the seasonal frost depth may lead to settlement and rotation, settlement of the base, and potential and progressive movement downhill. Foundations bearing above the frost depth may experience fluctuations in vertical movements with the annual frost/thaw. If tower foundation bears above frost depth, more frequent maintenance visits should be made.

5.2) Drilled Shaft Foundation

The following values may be used for design of a drilled shaft foundation. TEP recommends the side frictional and lateral resistance values developed in the top section of the caisson for a depth equal to half the diameter of the caisson or the frost depth, whichever is greater, be neglected in design calculations. Design of a drilled shaft foundation should ensure termination in a known material. The values presented in Table 2 are based on the ground surface elevation at the time of the subsurface exploration.

Table 2 – Drilled Shaft Foundation Design Parameters

Depth (feet)		Subsurface Material	Gross Ultimate Bearing[1] (psf)	Ultimate Side Frictional Resistance[1] (psf)	Cohesion[1] (psf)	Friction Angle[1] (degrees)	Effective Unit Weight (pcf)
Top	Bottom						
0	2	SM[2]	650	40	-	28	106
2	3.3	SM[2]	1575	100	-	28	114
3.3	4	SM	11625	210	-	38	114
4	6	SM	24325	370	-	45	116
6	8	GP	20250	440	-	39	115
8	10	Decomposed Phyllite	42525	680	-	45	120
10	15	Weathered Phyllite	72750	1130	300	45	125
15	16.5	Weathered Phyllite	82600	1290	100	45	125

Notes:
1) These values should be considered ultimate soil parameters.
2) Values have been modified to account for strength losses due to freeze/thaw cycles.

Relying on soil strengths above the seasonal frost depth may lead to settlement and rotation, and settlement of the base. Where analysis of foundations relies on strengths of soils above the frost depth, more frequent maintenance visits should be made to check plumb and verify vertical movements of the foundation have not occurred.

5.3) Modulus of Subgrade Reaction

A vertical modulus of subgrade reaction and a horizontal modulus of subgrade reaction may be derived using the following equations and soil parameters for analysis of foundations.

$$k_{s-v} = 12 \cdot SF \cdot q_a$$

$$k_{s-h} = k_{s-v} \cdot B$$

Where;

q_a = Allowable Bearing Capacity (ksf)
SF = Factor of Safety
B = Base width (ft), use 1 if B < 1ft.
$k_{s\text{-}v}$ = Vertical Modulus of Subgrade Reaction (kcf)
$k_{s\text{-}h}$ = Horizontal Modulus of Subgrade Reaction (ksf)

6) SEISMIC SITE CLASS

The Site Class, per Section 1613.2.2 of the 2018 International Building Code (2018 IBC) and Chapter 20 of ASCE 7 (2016), based on the site soil conditions is Site Class C.

7) SOIL RESISTIVITY

Soil resistivity testing was performed at the TEP laboratory in accordance with ASTM G57 (Standard Test Method for Measurement of Soil Resistivity Using the Four Electrode Soil Box Method). The test results indicate a resistivity 25,000 ohm-cm in the near-surface soils. It should be noted that soil resistivity will fluctuate during the year due to seasonal variations, precipitation events and depth below surface.

8) CONSTRUCTION CONSIDERATIONS - SHALLOW FOUNDATION

The following recommendations pertain to the newly proposed tower foundation only. Should additional recommendations be required for lightly loaded support structures, such as the equipment shelter, TEP can provide these, at the client's request, for an additional fee.

8.1) Excavation

The boring data indicates excavation to the expected subgrade level for the shallow foundation will extend through sand, decomposed phyllite, and weathered phyllite. A large, tracked excavator should be able to remove the materials with moderate to high difficulty. A large, tracked excavator with rock teeth and/or a pneumatic hammer will be necessary to remove the materials with difficulty. TEP anticipates the depth to the surface of the rock will vary outside of the boring location. Boulders and bedrock outcroppings are common to this geographic region and may also be encountered in the excavation area.

Excavations should be sloped or shored in accordance with local, state and federal regulations, including OSHA (29 CFR Part 1926) excavation trench safety standards. It is the responsibility of the contractor for site safety. This information is provided as a service and under no circumstance should TEP be assumed responsible for construction site safety.

8.2) Dewatering/Foundation Evaluation/Subgrade Preparation

As subsurface water was not encountered during the subsurface exploration, dewatering will not likely be required. However, should subsurface water be encountered during construction, it can likely be controlled with the use of a sump and pump system and/or trenches. Dewatering components should be placed to not interfere with the placement of backfill materials and/or concrete foundations and should be utilized to keep the localized water table below the bottom of any excavation.

After dewatering and excavation to the design elevation for the footing, the materials should be evaluated by a Geotechnical Engineer or a representative of the Geotechnical Engineer prior to reinforcement and concrete placement. This evaluation should include probing, shallow hand auger borings and dynamic cone penetrometer testing (ASTM STP 399) to help verify that suitable residual material lies directly under the foundation and to determine the need for any undercut and replacement of unsuitable materials. Loose surficial material should be compacted in the excavation prior to reinforcement and concrete placement to stabilize surface soil that may have become loose during the excavation process. TEP recommends a 6-inch layer of compacted dense-graded stone be placed just after excavation to aid in surface stability.

8.3) Fill Placement and Compaction

Backfill materials placed above the shallow foundation to the design subgrade elevation should not contain more than 5 percent by weight of organic matter, waste, debris or any otherwise deleterious materials. To be considered for use, backfill materials should have a maximum dry density of at least 100 pounds per cubic foot as determined by standard Proctor (ASTM D698), a Liquid Limit no greater than 40, a Plasticity Index no greater than 20, a maximum particle size of 4 inches, and 20 percent or less of the material having a particle size between 2 and 4 inches. Because small handheld or walk-behind compaction equipment will most likely be used, backfill should be placed in thin horizontal lifts not exceeding 6 inches (loose).

Fill placement should be monitored by a qualified Materials Technician working under the direction of a Geotechnical Engineer. In addition to the visual evaluation, a sufficient amount of in-place field density tests should be conducted to confirm the required compaction is being attained.

8.4) Reuse of Excavated Soil

The sand and decomposed phyllite that meets the above referenced criteria can be utilized as backfill based on dry soil and site conditions at the time of construction. It is not anticipated that the weathered phyllite at this site will be suitable for backfill without additional effort crushing the material. It is recommended that an off-site borrow source be identified prior to construction in the event the existing weathered phyllite proves difficult to use as a backfill material

9) CONSTRUCTION CONSIDERATIONS - DRILLED SHAFTS

Based on TEP's experience, a conventional drilled shaft rig (Hughes Tool LDH, or equivalent) can be used to excavate to the auger refusal depth of TEP's boring. An earth auger can typically penetrate the materials encountered to the depth of 8 feet with moderate to high difficulty. Materials below the depth of 8 feet may require a coring bit or roller-bit to remove. Boulders and bedrock outcroppings are sometimes encountered in this geographic region and may be encountered outside of the boring location. Special excavation equipment may be necessary for a shaft greater that 60-inches in diameter.

The following are general procedure recommendations in drilled shaft construction using the "dry" method:

1) Drilling equipment should have cutting teeth to result in a hole with little or no soil smeared or caked on the sides; a spiral like corrugated side should be produced. The shaft diameter should be at least equal to the design diameter for the full depth.

2) The drilled shaft should be drilled to satisfy a plumbness tolerance of 1.5 to 2 percent of the length and an eccentricity tolerance of 2 to 3 inches from plan location.

3) Refer to Section 4.3) for subsurface water information. Water will fluctuate during the year and during rain events. Any subsurface water should be removed by pumping, leaving no more than 3 inches in the bottom of the shaft excavation.

4) A removable steel casing may be installed in the shaft to prevent caving of the excavation sides due to soil relaxation. Loose soils in the bottom of the shaft should be removed.

5) The drilled shaft should be evaluated by the Geotechnical Engineer or their representative to confirm suitable end bearing conditions and to verify the proper diameter and bottom cleanliness. The shaft should be evaluated immediately prior to and during concrete operations.

6) The drilled shaft should be concreted as soon as practical after excavation to reduce the deterioration of the supporting soils due to caving and subsurface water intrusion.

7) The slump of the concrete is critical for the development of side shear resistance. TEP recommends a concrete mix having a slump of 6 to 8 inches be used with the minimum compressive strength specified by the structural engineer. A mix design incorporating super plasticizer will likely be required to obtain this slump.

8) The concrete may be allowed to fall freely through the open area in the reinforcing steel cage provided it is not allowed to strike the reinforcing steel or the casing prior to reaching the bottom of the shaft excavation.

9) The protective steel casing should be extracted as concrete is placed. A head of concrete should be maintained above the bottom of the casing to prevent soil and water intrusion into the concrete below the casing.

Due to sandy soil/gravel, the contractor may elect to utilize the “slurry” method for shaft construction. The following are general procedure recommendations in drilled shaft construction using the “slurry” method:

1) Slurry drilled shafts are constructed by conventional caisson drill rigs excavating beneath a drilling mud slurry. Typically, the slurry is introduced into the excavation after the water table has been penetrated and/or the soils on the sides of the excavation are observed to be caving-in. When the design shaft depth is reached, fluid concrete is placed through a tremie pipe at the bottom of the excavation.

2) The slurry level should be maintained at a minimum of 5 feet or one shaft diameter, whichever is greater, above the subsurface water level.

3) Inspection during excavation should include verification of plumbness, maintenance of sufficient slurry head, monitoring the specific gravity, pH and sand content of the drilling slurry, and monitoring any changes in the depth of the excavation between initial approval and prior to concreting.

4) A removable steel casing may be installed in the shaft to prevent caving of the excavation sides due to excavation disturbance and soil relaxation. Loose soils in the bottom of the shaft should be removed.

5) The specific gravity or relative density of the drilling mud slurry should be monitored from the initial mixing to the completion of the excavation. An increase in the specific gravity or density of the drilling slurry by as much as 10 percent is indicative of soil particles settling out of the slurry onto the bottom of the excavation. This settling will result in a reduction of the allowable bearing capacity of the bottom of the drilled shaft.

6) After approval, the drilled shaft should be concreted as soon as practical using a tremie pipe.

7) For slurry drilled shafts, the concrete should have a 6- to 8-inch slump prior to discharge into the tremie. The bottom of the tremie should be set at about one tremie pipe diameter above the excavation. A closure flap at the bottom of the tremie should be used, or a sliding plug introduced into the tremie before the concrete, to reduce the potential for the concrete being contaminated by the slurry. The bottom of the tremie must be maintained in concrete during placement, which should be continuous.

8) The protective steel casing should be extracted as concrete is placed. A head of concrete should be maintained above the bottom of the casing to prevent soil and water intrusion into the concrete below the casing.

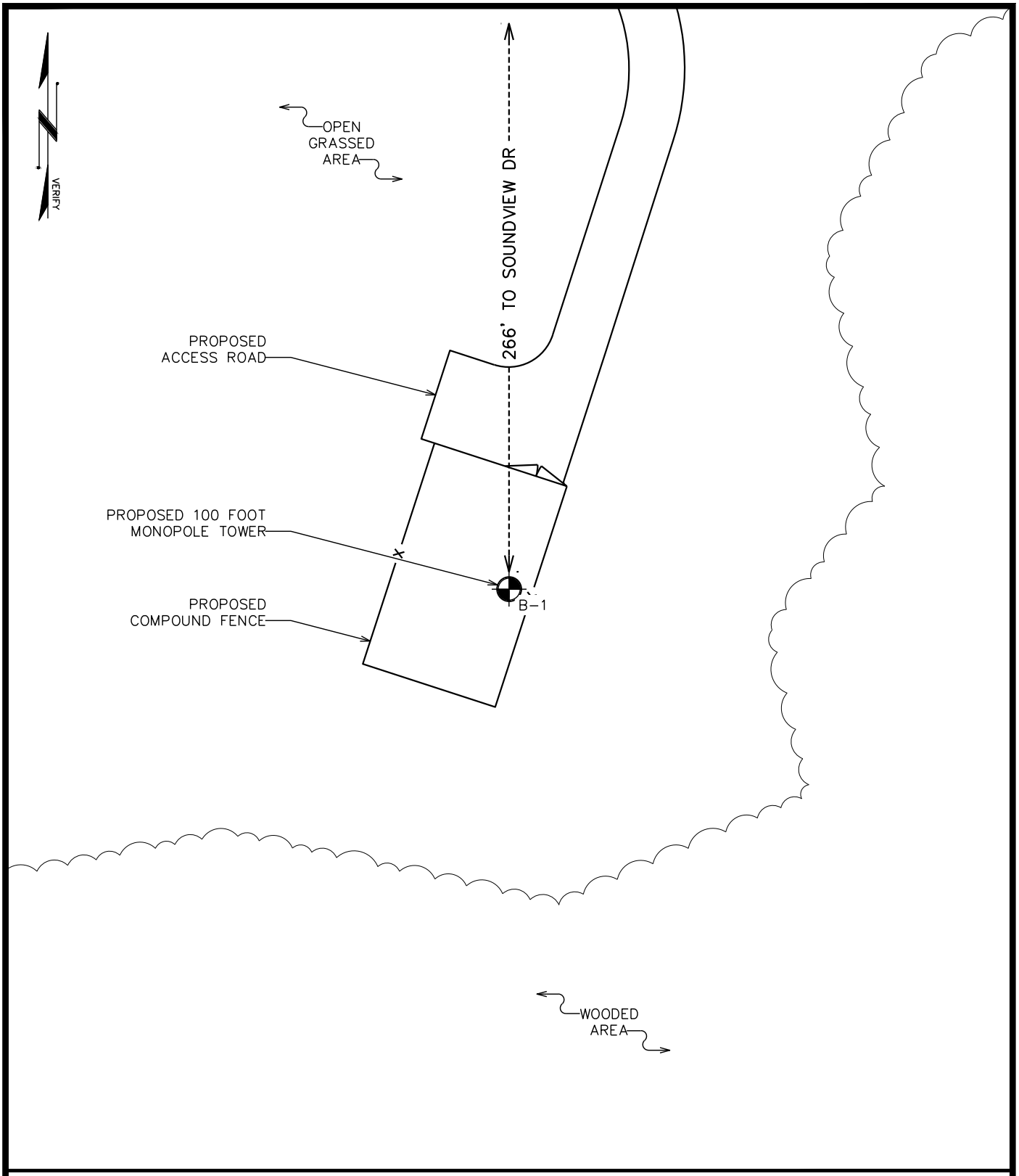
If variability in the subsurface materials is encountered, a representative of the Geotechnical Engineer should verify that the design parameters are valid during construction. Modification to the design values presented above may be required in the field.

10) SITE PHOTOGRAPHS

	Boring Location During Drilling Activities
	Boring Location During Drilling Activities

APPENDIX A

BORING LAYOUT



BORING LAYOUT

SCALE: N.T.S.

PREPARED BY:	PREPARED FOR:	PROJECT INFORMATION:	
TEP 326 TRYON ROAD RALEIGH, NC 27603 (919) 661-6351	verizon 1095 AVE OF THE AMERICANS NEW YORK, NY 10036 (212) 395-1000	**WOODBRIDGE NORTH 2** 118 NEWTON ROAD WOODBRIDGE, CT 06525 (NEW HAVEN COUNTY)	REVISION: 0 TEP JOB #: 321638.1076726 SHEET NUMBER: **C-1**

APPENDIX B

BORING LOG

TEP
326 Tryon Rd
Raleigh, NC 27603
919-661-6351
geotech@tepgroup.net

LOG OF BORING B-1

PROJECT	SITE ID:	TEP NO.:
Woodbridge North 2		321638

DATE STARTED	DRILLING METHOD	HOLE SIZE	CITY, STATE
4/29/2025	Hollow Stem Auger	3.25 in	Woodbridge, Connecticut

DATE COMPLETE	HAMMER WEIGHT/FALL	HAMMER TYPE	TOTAL DEPTH	DRILL RIG TYPE
4/29/2025	140lbs / 30in	Rope & cathead	16.5 FT	Yellow Track

GROUND EL.	LOGGED BY	CHECKED BY	BACKFILL	DEPTH/EL. GROUNDWATER
	RAB	JDL	Cuttings	Not Encountered

BORING LOCATION: At the approximate location of the proposed tower

SAMPLE NUMBER	SAMPLE LENGTH (INCHES)	BLOW COUNTS (N) / REC% / RQD%	ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION AND CLASSIFICATION	REMARKS	POCKET PEN TSF	UNCONFINED STRENGTH, PSF	UNIT WEIGHT PCF
				0	0.0-0.3: Topsoil - 4 inches				
S1	24	3-1-4-6 (5)			0.3-2.0: Loose, brown, fine to coarse, fine to coarse, silty SAND (SM), with gravel, trace rootlets, micaceous, moist				
S2	24	10-10-12-11 (22)			2.0-4.0: to medium dense, grayish brown, no rootlets				
S3	24	15-20-20-12 (40)		5	4.0-6.0: to dense, brown				
S4	24	9-16-14-28 (30)			6.0-8.0: Medium dense, grayish brown, fine to coarse, poorly graded GRAVEL (GP), with sand, trace silt, micaceous, moist				
S5	21	21-26-50-50/3"			8.0-10.0: Very dense, gray, decomposed PHYLLITE, micaceous, moist	Driller Note: Weathered rock from 7.7 feet bgs to the end of the boring			
S6	3	50/3"		10	10.0-16.5: Very dense, gray, weathered PHYLLITE, micaceous, moist				
S7	5.9	100/6"		15					
					16.5: Boring Terminated - Auger Refusal				

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Key to Soil Symbols and Terms

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE-GRAINED SOILS (major portions retained on No. 200 sieve): includes (1) clean gravel and sands and (2) silty or clayey gravels and sands. Condition is rated according to relative density as determined by laboratory tests or standard penetration resistance tests.

Descriptive Terms	SPT Blow Count
Very Loose	< 4
Loose	4 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	> 50

FINE-GRAINED SOILS (major portions passing on No. 200 sieve): includes (1) inorganic and organic silts and clays (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings, SPT blow count, or unconfined compression tests.

Descriptive Terms	SPT Blow Count
Very Soft	< 2
Soft	2 to 4
Medium Stiff	5 to 8
Stiff	9 to 15
Very Stiff	16 to 30
Hard	> 30

GENERAL NOTES

1. Classifications are bases on the Unified Soil Classification System and include consistency, moisture, and color. Field descriptions have been modified to reflect results of laboratory tests where deemed appropriate.

2. Surface elevations are based on topographic maps and estimated locations and should be considered approximate.

3. Descriptions on these boring logs apply only at the specific boring locations and at the time the borings were made. They are not guaranteed to be representative of subsurface condition at other locations or times.

	Group Symbols	Typical Names
	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	GP	Poorly-graded gravels, little or no fines/sands
	GM	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-silt mixtures
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly-graded sands, little or no fines/sands/gravels
	SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures
	ML	Inorganic silts and very fine sands, rock floor, silty or clayey fine sands or clayey silts with slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL	Organic silts and organic silty clays of low plasticity
	MH	Inorganic silts, micaceous or distomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
	PT	Peat and other highly organic soils

Sampler Symbols

- Split Spoon
- Standard Penetration Test (SPT)
- Pushed Shelby Tube
- Auger Cuttings
- Grab Sample
- Dynamic Cone Penetrometer
- Hand Auger
- Rock Core

Log Abbreviations

ATD - At Time of Drilling
AD - After Drilling
EOD - End of Drilling
RMR - Rock Mass Rating
WOH - Weight of Hammer
WOR - Weight of Rod
REC - Rock Core Recovery
RQD - Rock Quality Designation

Information Regarding This Subsurface Exploration Report

The information contained in this report has been specifically tailored to the needs of the client at the time the report was provided, for the specific purpose of the project named in this report. The attached report may not address the needs of contractors, civil engineers, or structural engineers. Anyone other than the named client should consult with the geotechnical engineer prior to utilizing the information contained in the report.

It is always recommended that the full report be read. While certain aspects of the report may seem unnecessary or irrelevant; just as each project and site are unique, so are the subsurface investigation reports and the information contained in them. Several factors can influence the contents of these reports, and the geotechnical engineer has taken into consideration the specific project, the project location, the client's objectives, potential future improvements, etc. If there is any question about whether the attached report pertains to your specific project or if you would like to verify that certain factors were considered in the preparation of this report, it is recommended that you contact the geotechnical engineer.

Geotechnical subsurface investigations often are prepared during the preliminary stages of a project and aspects of the project may change later on. Some changes may require a report revision or additional exploration. Some changes that often need to be brought to the attention of the geotechnical engineer include changes in location, size and/or type of structure, modifications to existing structures, grading around the project site, etc. Some naturally occurring changes can also develop that impact the information contained in this geotechnical report such as earthquakes, landslides, floods, subsurface water levels changing, etc. It is always recommended that the geotechnical be informed of known changes at the project site.

Subsurface exploration reports are generated based on the analysis and professional opinions of a geotechnical engineer based on the results of field and laboratory data. Often subsurface conditions can vary – sometimes significantly – across a site and over short distances. It often is helpful to retain the geotechnical engineer's services during the construction process. Otherwise, the geotechnical cannot assume responsibility or liability for report recommendations which may have needed to change based on changing site conditions or misinterpretation of recommendations.

Geotechnical engineers assemble testing and/or boring logs based on their interpretation of field and laboratory data. Testing and/or boring logs should always be coupled with the subsurface exploration report. The geotechnical engineer and Tower Engineering Professionals cannot be held reliable for interpretations, analyses, or recommendations based solely on the testing and/or boring log if it is independent of the prepared report.

The scope of the subsurface exploration report does not include an assessment or analysis of environmental conditions, determination of the presence or absence of wetlands or hazardous or toxic materials on or below the ground surface. Any notes regarding odors, fill, debris, or anything of that nature are offered as general information for the client, often to help identify or delineate natural soil boundaries.

TEP

For additional information, please contact the geotechnical engineer named in the attached report.