

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
A PETITION OF CELLCO PARTNERSHIP : PETITION NO. _____
D/B/A VERIZON WIRELESS FOR A :
DECLARATORY RULING ON THE NEED TO :
OBTAIN A SITING COUNCIL CERTIFICATE :
FOR THE INSTALLATION OF A WIRELESS :
TELECOMMUNICATIONS FACILITY AT :
1270 NORTH HIGH STREET, EAST HAVEN, :
CONNECTICUT : SEPTEMBER 10, 2019

PETITION FOR A DECLARATORY RULING:
INSTALLATION HAVING NO
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. Introduction

Pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies (“R.C.S.A.”), Cellco Partnership d/b/a Verizon Wireless (“Cellco”) hereby petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Petition”) that the installation of a roof-top telecommunications facility at 1270 North High Street (State Route 100) in East Haven, Connecticut (the “Property”) would not have a substantial adverse environmental effect and would not require the issuance of a Certificate of Environmental Compatibility and Public Need (“Certificate”) under Connecticut General Statutes (“C.G.S.”) Section 16-50k(a). The Property is owned by Woodview Associates. Cellco refers to this cell site as its “East Haven North Facility”.

II. Factual Background

The Property is a 9.11-acre parcel in East Haven’s Planned Elderly Facilities District (PEFD) zone and is the home of the Woodview Senior Housing Community. The Property is surrounded by residential uses along High Street, Maple Street and Foxon Road. See Attachment

1 – Site Vicinity and Site Schematic Maps (Aerial Photograph).

In March of 2014, New Cingular Wireless PCS, LLC (AT&T) filed Petition No. 1096 with the Council seeking approval to install a 45-foot tall guyed lattice tower on the easterly portion of the roof of the building at the Property. AT&T's equipment was going to be installed inside the building. The Council approved Petition No. 1096 on April 15, 2014. AT&T never constructed the facility and has since cancelled the site and terminated its Lease with Woodview Associates.

III. Proposed East Haven North Facility

Cellco is licensed to provide wireless telecommunications services in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency ranges in East Haven and throughout the State of Connecticut. Cellco has identified a need for improved wireless service in northerly portions of East Haven, in the area around the Property. Cellco currently provides service in the area from its existing Branford cell site, a tower site at 180 North Main Street in Branford; Northford cell site, a tower site at 88 Parsonage Road in North Branford; North Haven South cell site, a tower site at 100 Universal Drive in North Haven; Branford 2 cell site, a tower site at 405 Brushy Plain Road in Branford; New Haven NE cell site, a roof-top facility at 339 Eastern Street in New Haven; Branford SW cell site, a tower site at 850 West Main Street in Branford; and East Haven cell site, a roof-top facility at 65 Messina Drive in East Haven.

The proposed East Haven North Facility will consist of a 55-foot monopole tower installed in the center portion on the roof of the building. Cellco will install six (6) panel antennas (two (2) antennas per sector) and six (6) remote radio heads ("RRHs") at the top of the tower. Equipment associated with Cellco's antennas and a 30 kW natural gas generator will be located on a 12'-6" x 34' steel platform in the center portion of the roof of the building. Power

and telephone service to the East Haven North Facility will extend from existing service at the Property. (See Cellco's Project Plans included in Attachment 2). Specifications for Cellco's antennas, RRHs and generator are included in Attachment 3.

The tower will be designed to accommodate two additional wireless carriers below the Cellco antennas. Currently, no other carriers have expressed an interest in the proposed roof-top tower.

IV. Discussion

A. The Proposed Facility Modifications Will Not Have A Substantial Adverse Environmental Effect

The Public Utility Environmental Standards Act (the "Act"), C.G.S. § 16-50g et seq., provides for the orderly and environmentally compatible development of telecommunications towers in the state to avoid "a significant impact on the environment and ecology of the State of Connecticut." C.G.S. § 16-50g. To achieve these goals, the Act established the Council, and requires a Certificate of Environmental Compatibility and Public Need for the construction of cellular telecommunication towers "that may, as determined by the council, have a substantial adverse environmental effect". C.G.S. § 16-50k(a).

1. Physical Environmental Effects

Cellco respectfully submits that the installation of the proposed roof-top telecommunications facility will not involve a significant alteration in the physical and environmental characteristics of the Property. All improvements will be installed on the roof of the building. No ground disturbance, of any kind, is required to make these improvements.

2. Visual Effects

Cellco also submits that visibility of the proposed East Haven North Facility would be minimal due to its location, existing vegetation surrounding the Property and the proximity of

nearby residences. A majority of the views are restricted to locations along Foxon Road (Route 80) to the west of the Property within existing commercial use areas. The combination of the facility's relatively low height and the presence of mature trees on the Property and in the surrounding areas, serves to minimize the overall visual impact of the facility. A complete visual assessment including photo-simulations (the "Visual Assessment") is included in Attachment 4.

3. FCC Compliance

Radio frequency ("RF") emissions from the proposed facility will be well below the standards adopted by the Federal Communications Commission ("FCC"). Included in Attachment 5 is a General Power Density Calculation table that demonstrates that Cellco's East Haven North Facility will operate well within (25.08%) the FCC safety standard.

4. FAA Summary Report

Included in Attachment 6 is a Federal Airways & Airspace Summary Report (the "FAA Report") verifying that the proposed roof-top tower does not constitute a hazard to air navigation and would not, therefore, require obstruction marking or lighting. Notification to the FAA is not required.

B. Notice to the Town, Property Owner and Abutting Landowners

On September 10, 2019, a copy of this Petition was sent to East Haven Mayor, Joseph Maturo, Jr.; Christopher Soto, East Haven Planning and Zoning Enforcement Officer; and Woodview Associates, the owner of the Property. Copies of the letters sent to Mayor Maturo, Mr. Soto and Woodview Associates are included in Attachment 7.


A copy of this Petition was also sent to the owners of land that is considered to abut the Property. A sample abutter's letter and the list of those abutting landowners to whom notice was sent is included in Attachment 8.

V. Conclusion

Based on the information provided above, Cellco respectfully requests that the Council issue a determination, in the form of a declaratory ruling, that the installation of a roof-top tower supporting six (6) antennas and six (6) RRHs, the installation of a steel platform, related equipment and a backup generator, as described above, will not have a substantial adverse environmental effect and does not require the issuance of a Certificate of Environmental Compatibility and Public Need pursuant to § 16-50k of the General Statutes.

Respectfully submitted,

CELLCO PARTNERSHIP d/b/a VERIZON
WIRELESS

By  _____
Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
Its Attorneys

ATTACHMENT 1



- Legend**
- ✕ Proposed Verizon Wireless Facility
 - ✕ Surrounding Verizon Wireless Facilities
 - Municipal Boundary

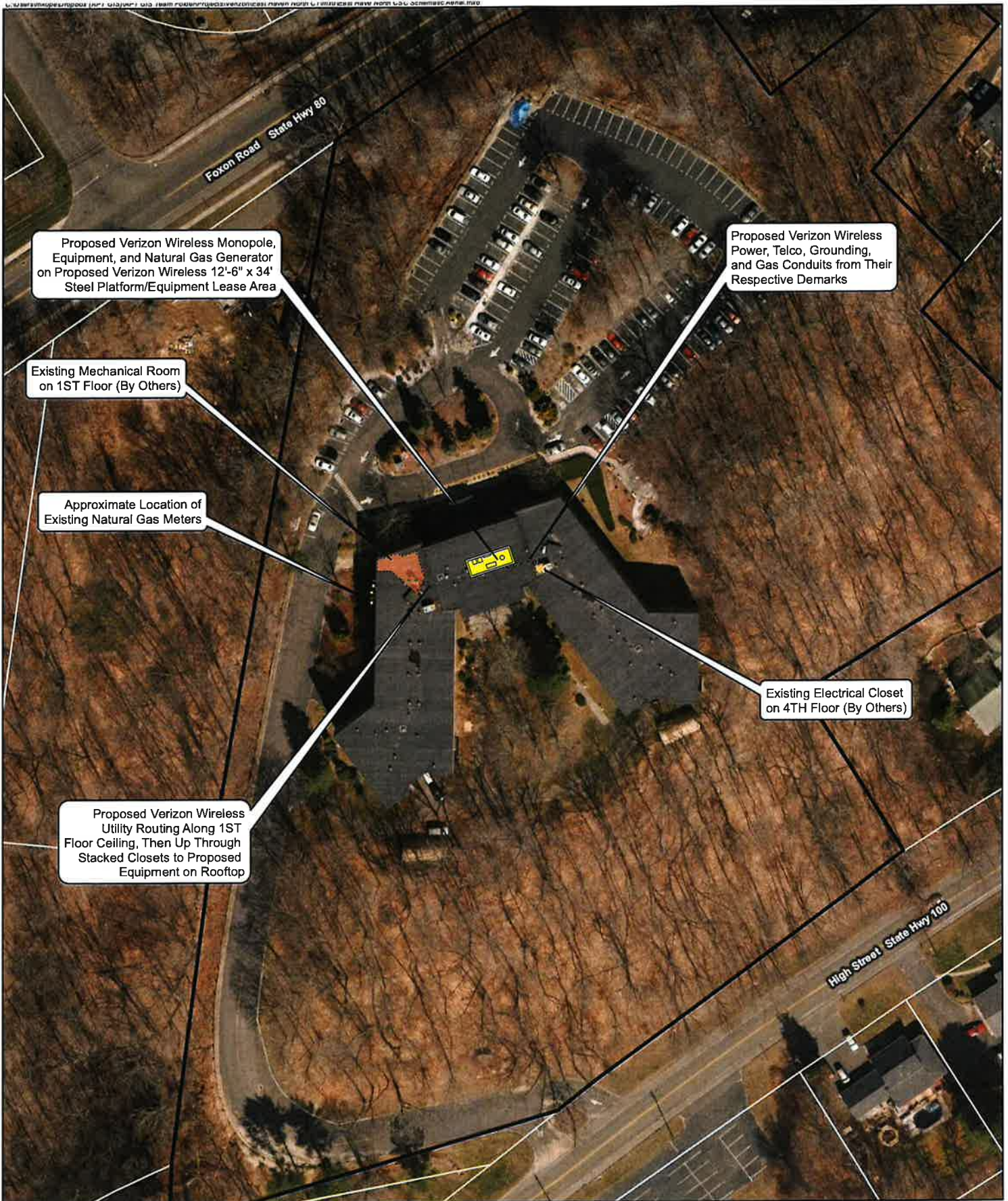
Base Map Source: ESRI World Imagery
 Map Scale: 1 inch = 4,500 feet
 Map Date: May 2019



Site Vicinity Map

Proposed Wireless Telecommunications Facility
 East Haven N CT
 1270 High Street
 East Haven, Connecticut





- Legend**
- Proposed Verizon Wireless Lease Area
 - Proposed Verizon Wireless Equipment
 - Proposed Verizon Wireless Utility Routing
 - Existing Mechanical Room (By Others)
 - Existing Electrical Closet (By Others)
 - Existing Equipment (By Others)
 - Subject Property
 - Approximate Parcel Boundary

Map Notes:
 Base Map Source: 2016 CT ECO Imagery
 Map Scale: 1 inch = 100 feet
 Map Date: May 2019



Site Schematic

Proposed Wireless
 Telecommunications Facility
 East Haven N CT
 1270 North High Street
 East Haven, Connecticut



ATTACHMENT 2

2014-2015

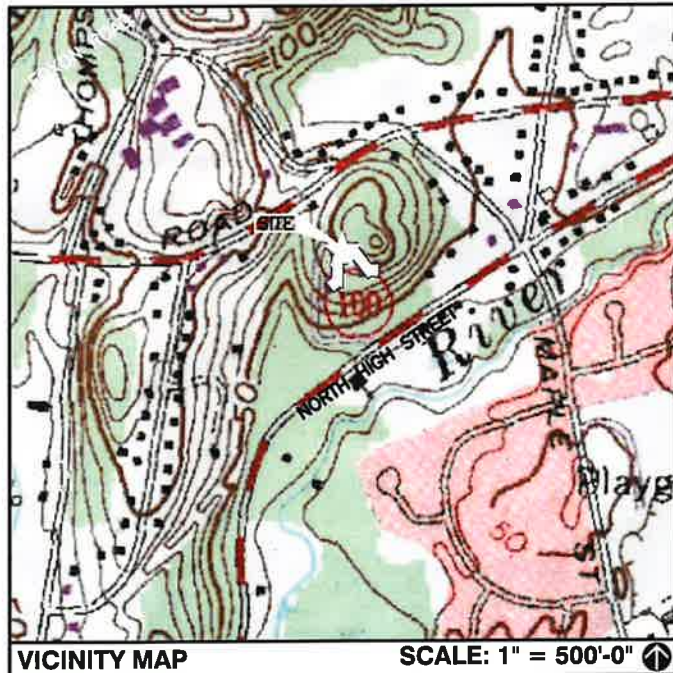
CELLCO PARTNERSHIP

d.b.a. **verizon**

WIRELESS COMMUNICATIONS FACILITY

EAST HAVEN N CT

1270 NORTH HIGH STREET
EAST HAVEN, CT 06512



DIRECTIONS TO SITE:
 HEAD NORTH ON ALEXANDER DR TOWARD BARNES INDUSTRIAL ROAD S.
 TURN RIGHT ONTO BARNES INDUSTRIAL RD S
 TURN RIGHT ONTO CT-68 E
 TURN RIGHT ONTO THE INTERSTATE 91 S RAMP TO NEW HAVEN
 FOLLOW I-91 S TO CT-17 N/MIDDLETOWN AVE IN NEW HAVEN.
 TAKE EXIT 8 FROM I-91 S
 MERGE ONTO I-91 S
 TAKE EXIT 8 FOR CT-17/MIDDLETOWN AVE TOWARD CT-80/N BRANFORD
 TAKE FOXON BLVD TO N HIGH ST IN EAST HAVEN
 USE THE LEFT 2 LANES TO TURN LEFT ONTO CT-17 N/MIDDLETOWN AVE
 CONTINUE STRAIGHT ONTO FOXON BLVD
 TURN RIGHT ONTO HUNT LN
 TURN RIGHT ONTO N HIGH ST
 DESTINATION WILL BE ON THE RIGHT
 1270 N HIGH ST EAST HAVEN, CT 06512

CONSULTANT TEAM	
PROJECT ENGINEER	
HUDSON DESIGN GROUP, LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: 1-(978)-557-5553 FAX: 1-(978)-336-5586	
MEP ENGINEER	
HUDSON DESIGN GROUP, LLC 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: 1-(978)-557-5553 FAX: 1-(978)-336-5586	

PROJECT SUMMARY	
SITE NAME:	EAST HAVEN N CT
SITE ADDRESS:	1270 NORTH HIGH STREET EAST HAVEN, CT 06512
APPLICANT:	CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
SITE ACQUISITION CONTACT:	ALEKSEY TYURIN STRUCTURE CONSULTING GROUP (860)-933-1534
LEGAL/REGULATORY COUNSEL:	KENNETH C. BALDWIN ESQ. ROBINSON + COLE LLP (860)275-8345
LATITUDE:	N41° 19' 19.20"
LONGITUDE:	W72° 50' 46.70"
GROUND ELEVATION:	102'± AMSL

SHEET INDEX	
SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
C-1	ABUTTERS PLAN
C-2	SITE PLAN
A-1	EQUIPMENT PLAN
A-2	ELEVATION
A-3	ELEVATION

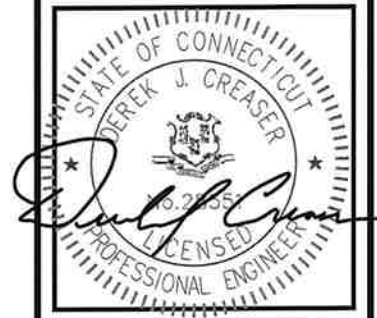
SCOPE OF WORK INFO.	
VERIZON WIRELESS IS PROPOSING TO INSTALL THE FOLLOWING:	
<ul style="list-style-type: none"> NEW PANEL ANTENNAS: (2) ANTENNAS PER SECTOR WITH (3) SECTORS, FOR A TOTAL OF (6) ANTENNAS. NEW RRHs: (2) RRHs PER SECTOR WITH (3) SECTORS, FOR A TOTAL OF (6) RRHs NEW DIPLEXERS: (1) DIPLEXER PER SECTOR WITH (3) SECTORS, FOR A TOTAL OF (3) DIPLEXERS NEW JUNCTION BOXES: (2) JUNCTION BOX TOTAL. 	
ITEMS LISTED ABOVE TO BE MOUNTED ON PROPOSED 55'± MONOPOLE ON STEEL PLATFORM ATOP ROOF.	
<ul style="list-style-type: none"> NEW EQUIPMENT: (2) CABINETS, (1) NATURAL GAS GENERATOR, (1) HOFFMAN TELCO BOX, (1) POWER DISTRIBUTION BOX AND (1) GPS ANTENNA 	
ITEMS LISTED ABOVE TO BE MOUNTED ON PROPOSED STEEL PLATFORM ATOP ROOF.	
<ul style="list-style-type: none"> POWER AND TELCO UTILITIES DEPICTED HERE IN ARE TENTATIVE. FINAL ROUTING TO BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PHASE OF THE PROJECT. 	

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

HGD
HUDSON
Design Group LLC

45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
3	06/13/19	REVISED PER COMMENTS	SLY
2	05/10/19	REVISED PER COMMENTS	SLY
1	09/20/18	REVISED MOUNT	KAM
0	08/14/17	ISSUED FOR REVIEW	SF

SITE NAME:
EAST HAVEN N CT

SITE ADDRESS:
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586



CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	06/13/19	REVISED PER COMMENTS	SLY
2	05/16/19	REVISED PER COMMENTS	SLY
1	08/20/18	REVISED MOUNT	KAM
0	08/14/17	ISSUED FOR REVIEW	SF

SITE NAME:

EAST HAVEN N CT

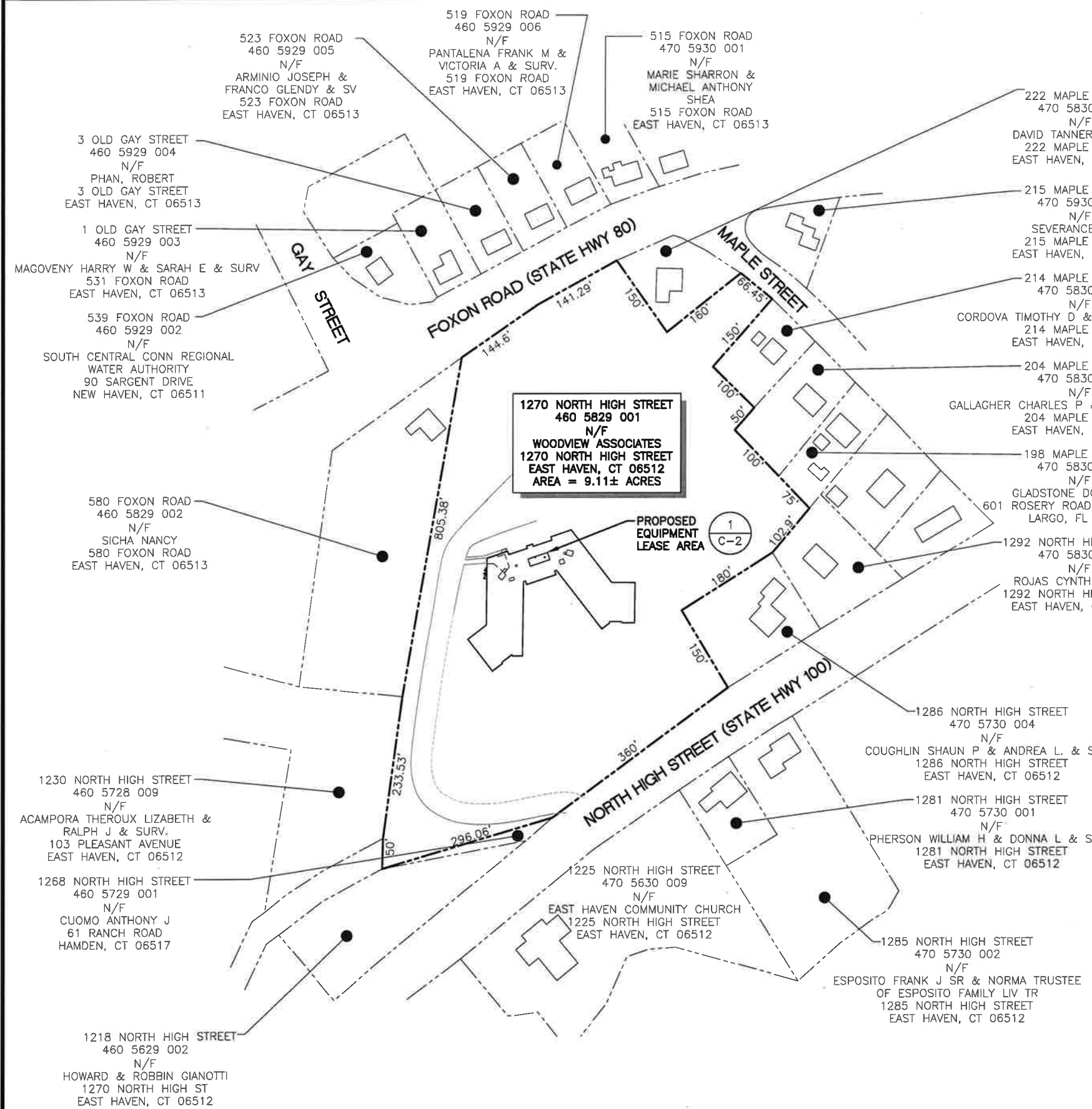
SITE ADDRESS:
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE

ABUTTERS PLAN

SHEET NUMBER

C-1



SITE SPECIFIC NOTES:

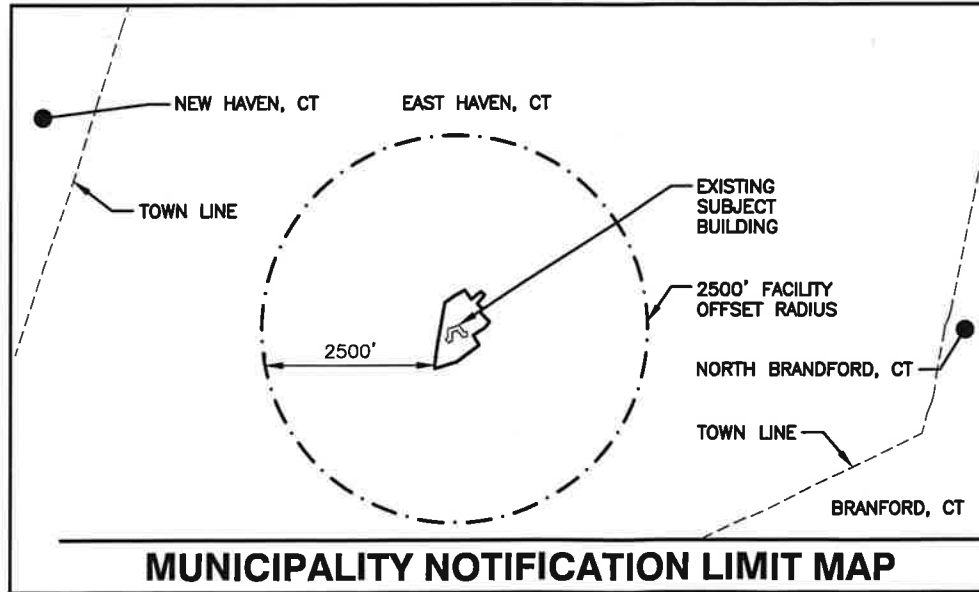
PROPERTY LINE INFORMATION IS COMPILED FROM ASSESSORS PLAN AND RECORD DOCUMENTS AND IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY SURVEY, AND IS SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. A FULL BOUNDARY SURVEY WAS NOT PERFORMED

SOURCE:

TOWN OF EAST HAVEN, CT GIS MAP
ACCESSED ON SEPTEMBER, 2018

LEGEND:

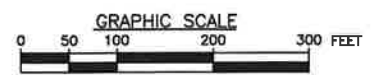
- PROPERTY LINE-SUBJECT PARCEL
- PROPERTY LINE-ABUTTERS
- (E) BUILDING
- xxx-xx ASSESSORS MAP-BLOCK-LOT NO.



ABUTTER'S PLAN

22x34 SCALE: 1"=100'-0"
11x17 SCALE: 1"=200'-0"

1
C-1





45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586



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SUBMITTALS

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2	05/10/19	REVISED PER COMMENTS	SLY
1	09/20/18	REVISED MOUNT	KAM
0	09/14/17	ISSUED FOR REVIEW	SF

SITE NAME:

EAST HAVEN N CT

SITE ADDRESS:

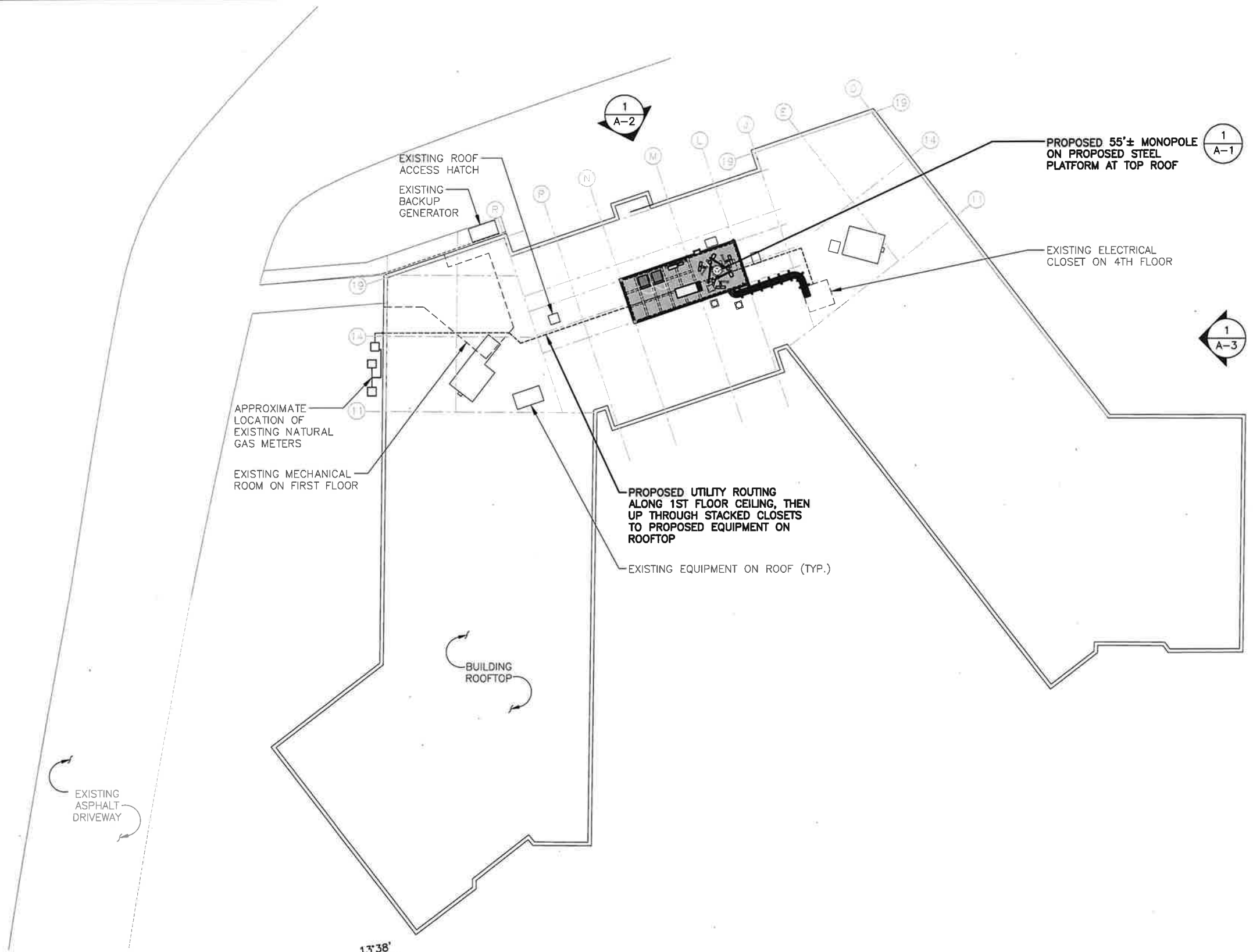
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE

SITE PLAN

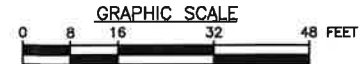
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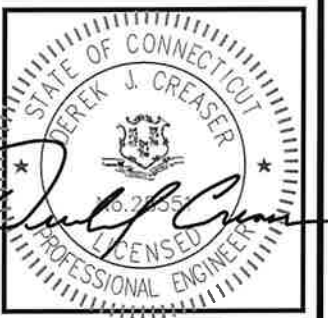
C-2



ROOF PLAN
22x34 SCALE: 1/16"=1'-0"
11x17 SCALE: 1/32"=1'-0"

1
C-2





CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
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2	05/10/19	REVISED PER COMMENTS	SLY
1	09/20/18	REVISED MOUNT	KAM
0	09/14/17	ISSUED FOR REVIEW	SF

SITE NAME:

EAST HAVEN N CT

SITE ADDRESS:

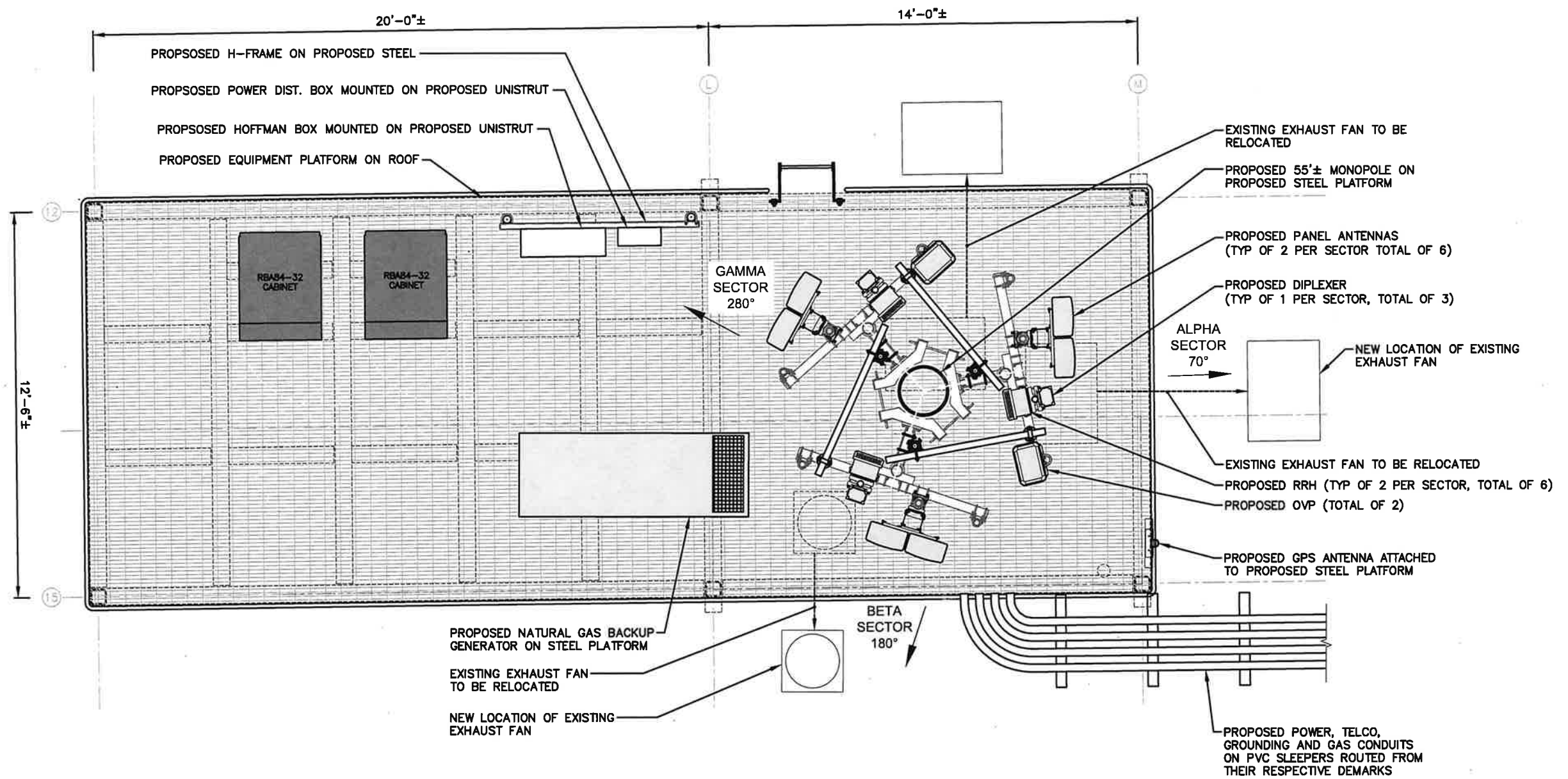
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE

**EQUIPMENT
PLAN**

SHEET NUMBER

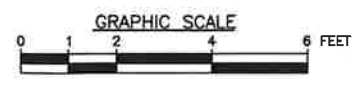
A-1



EQUIPMENT PLAN

22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"

1
A-1





CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	06/13/19	REVISED PER COMMENTS	SLY
2	05/10/19	REVISED PER COMMENTS	SLY
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SITE NAME:

EAST HAVEN N CT

SITE ADDRESS:

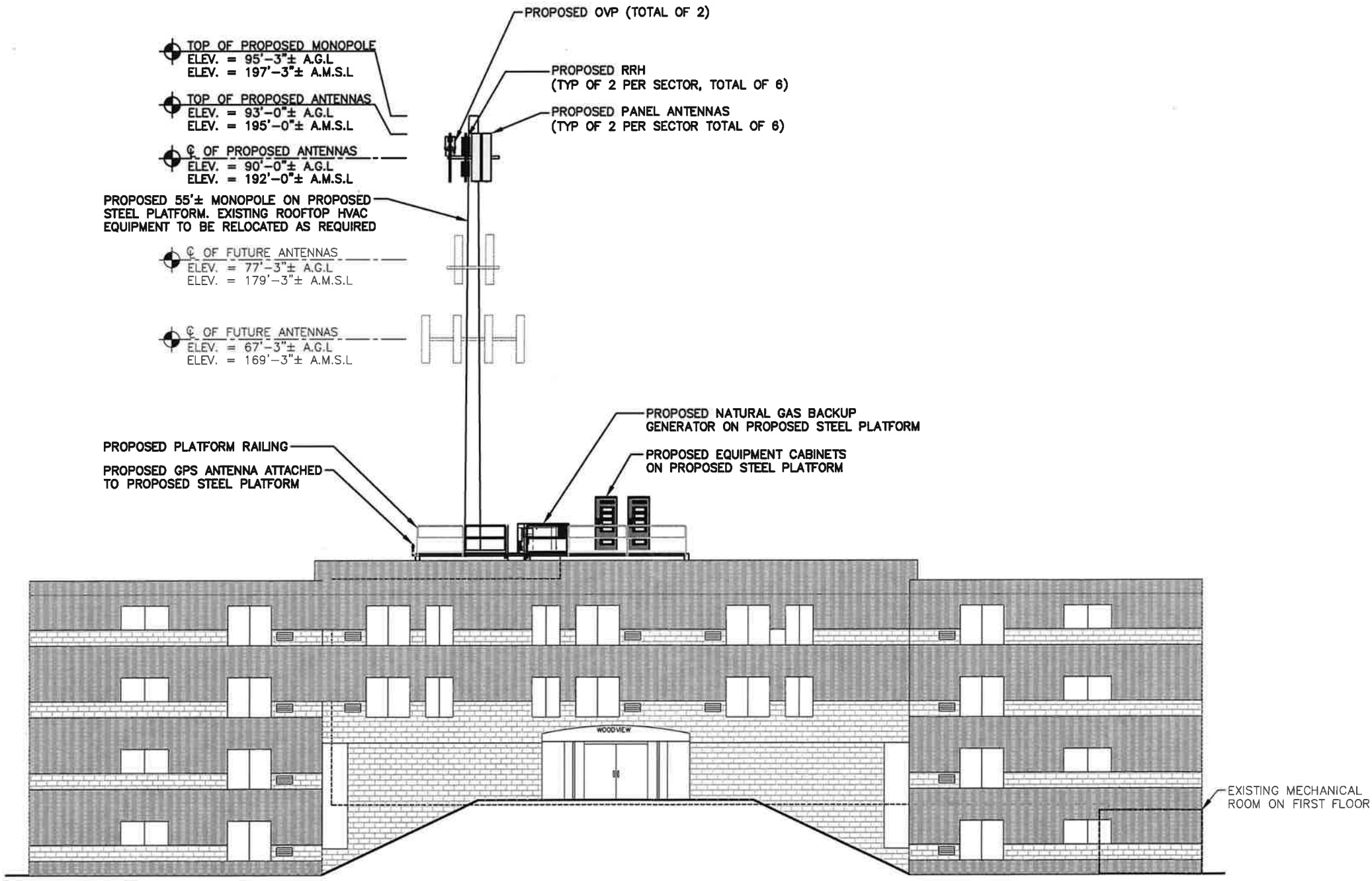
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE

ELEVATION

SHEET NUMBER

A-2



TOP OF PROPOSED MONOPOLE
ELEV. = 95'-3"± A.G.L.
ELEV. = 197'-3"± A.M.S.L.

TOP OF PROPOSED ANTENNAS
ELEV. = 93'-0"± A.G.L.
ELEV. = 195'-0"± A.M.S.L.

☉ OF PROPOSED ANTENNAS
ELEV. = 90'-0"± A.G.L.
ELEV. = 192'-0"± A.M.S.L.

☉ OF FUTURE ANTENNAS
ELEV. = 77'-3"± A.G.L.
ELEV. = 179'-3"± A.M.S.L.

☉ OF FUTURE ANTENNAS
ELEV. = 67'-3"± A.G.L.
ELEV. = 169'-3"± A.M.S.L.

TOP OF PROPOSED STEEL PLATFORM
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ELEV. = 142'-3"± A.M.S.L.

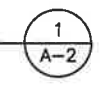
TOP OF EXISTING PARAPET
ELEV. = 39'-5"± A.G.L.
ELEV. = 141'-5"± A.M.S.L.

TOP OF ROOF
ELEV. = 37'-3"± A.G.L.
ELEV. = 139'-3"± A.M.S.L.

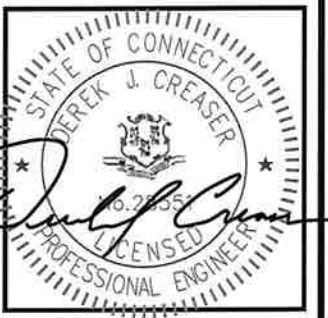
GRADE
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ELEV. = 102'-0"± A.M.S.L.

NORTHWEST ELEVATION

22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"



NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. DATED: APRIL 15, 2019



CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	08/13/19	REVISED PER COMMENTS	SLY
2	05/10/19	REVISED PER COMMENTS	SLY
1	09/20/18	REVISED MOUNT	KAM
0	09/14/17	ISSUED FOR REVIEW	SF

SITE NAME:

EAST HAVEN N CT

SITE ADDRESS:

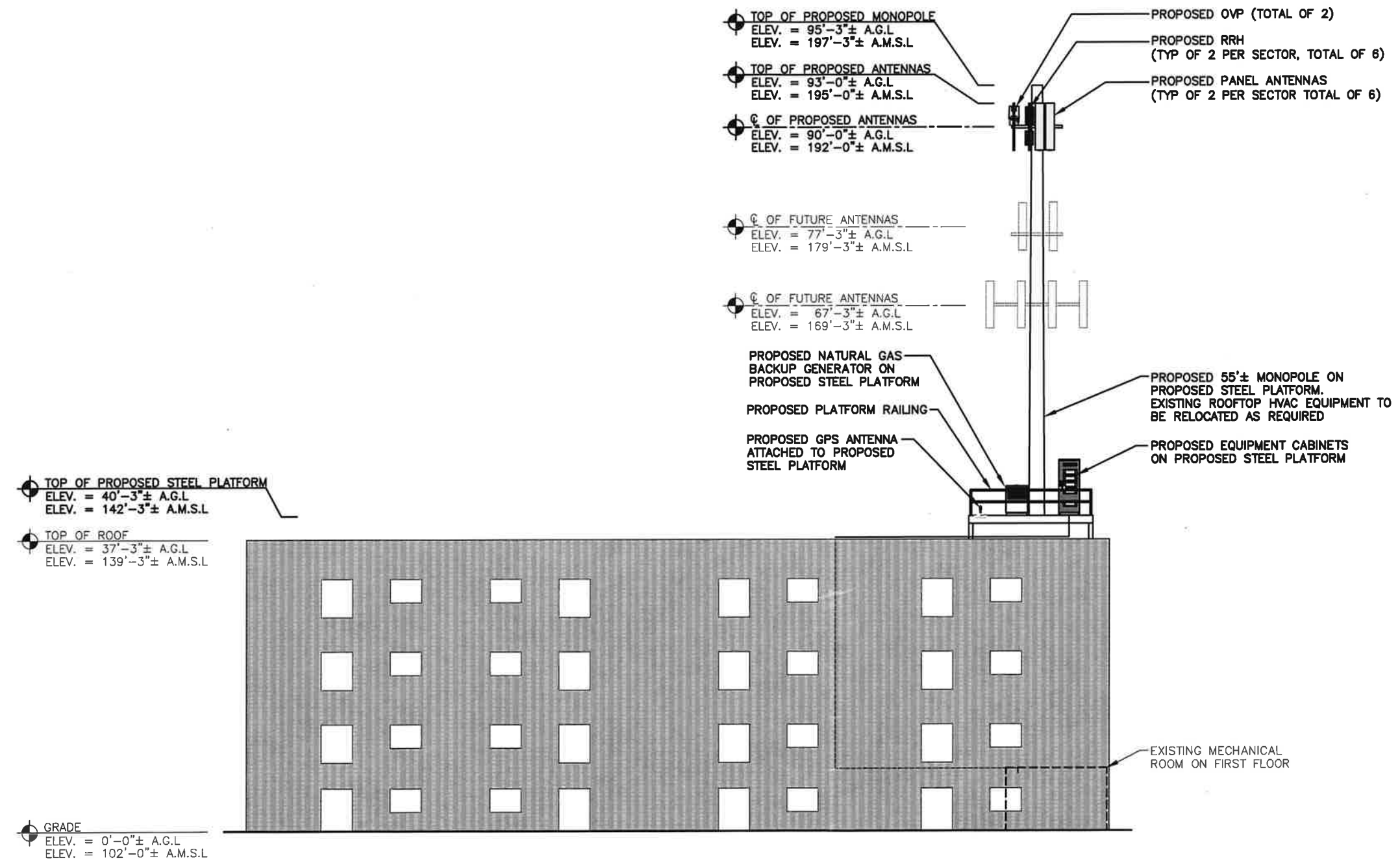
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512

SHEET TITLE

ELEVATION

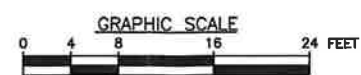
SHEET NUMBER

A-3



NORTHEAST ELEVATION

22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"



NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC.
DATED: APRIL 15, 2019

ATTACHMENT 3

JAHH-65B-R3B



8-port sector antenna, 2x 698–787, 2x 824–894 and 4x 1695–2360 MHz, 65° HPBW, 3x RET and low bands have diplexers. Internal SBT's on first LB (Port 1) and first HB (Port 5).

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One RET for 700MHz, one RET for 850MHz, and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO
- Internal filter on low band and interleaved dipole technology providing for attractive, low wind load mechanical package
- Separate RS-485 RET input/output for low and high band

Electrical Specifications

Frequency Band, MHz	698–787	824–894	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	14.5	15.8	18.0	18.4	18.5	18.8
Beamwidth, Horizontal, degrees	67	65	63	63	65	68
Beamwidth, Vertical, degrees	12.4	10.5	5.7	5.2	4.9	4.4
Beam Tilt, degrees	2–14	2–14	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	18	18	20	20	21	23
Front-to-Back Ratio at 180°, dB	32	34	31	35	36	38
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	200	200	300	300	300	250
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	698–787	824–894	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	14.3	14.9	17.6	18.1	18.2	18.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.5	±0.6	±0.4	±0.5	±0.6
Gain by Beam Tilt, average, dBi	2 ° 14.3 8 ° 14.3 14 ° 14.3	2 ° 15.0 8 ° 14.9 14 ° 15.4	0 ° 17.2 5 ° 17.6 10 ° 17.6	0 ° 17.6 5 ° 18.2 10 ° 18.2	0 ° 17.7 5 ° 18.3 10 ° 18.3	0 ° 17.9 5 ° 18.7 10 ° 18.7
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.4	±4	±2.4	±2.9	±2.7
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.5	±0.3	±0.2	±0.3	±0.1
USLS, beampeak to 20° above beampeak, dB	18	17	17	18	19	18
Front-to-Back Total Power at 180° ± 30°, dB	25	24	26	29	27	29
CPR at Boresight, dB	22	23	20	21	21	24
CPR at Sector, dB	11	12	11	11	11	8

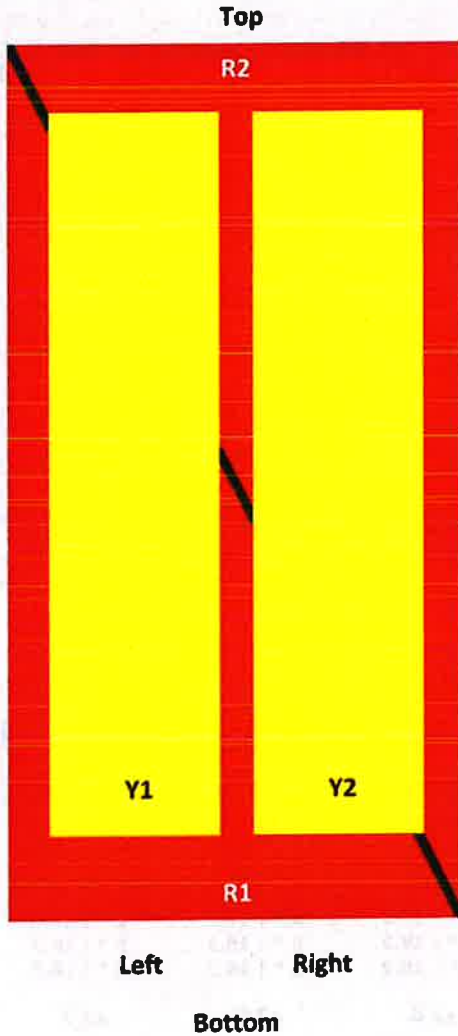
* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

JAHH-65B-R3B

Array Layout

JAHH-65A-R3B JAHH-65B-R3B JAHH-65C-R3B

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-798	1-2	1	ANXXXXXXXXXXXXX1
R2	824-894	3-4	2	ANXXXXXXXXXXXXX2
Y1	1695-2360	5-6	3	ANXXXXXXXXXXXXX3
Y2	1695-2360	7-8		



View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band

1695 – 2360 MHz | 698 – 787 MHz | 824 – 894 MHz

page 2 of 4
February 26, 2019

JAHH-65B-R3B

Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage

Mechanical Specifications

RF Connector Quantity, total	8
RF Connector Quantity, low band	4
RF Connector Quantity, high band	4
RF Connector Interface	4.3-10 Female
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	301.0 N @ 150 km/h 67.7 lbf @ 150 km/h
Wind Loading, lateral	254.0 N @ 150 km/h 57.1 lbf @ 150 km/h
Wind Loading, maximum	638.0 N @ 150 km/h 143.4 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1828.0 mm 72.0 in
Width	350.0 mm 13.8 in
Depth	208.0 mm 8.2 in
Net Weight, without mounting kit	28.7 kg 63.3 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 Port 5
Internal RET	High band (1) Low band (2)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male

JAHH-65B-R3B

Packed Dimensions

Length	1975.0 mm 77.8 in
Width	456.0 mm 18.0 in
Depth	357.0 mm 14.1 in
Shipping Weight	42.0 kg 92.6 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

Classification

Compliant by Exemption

Designed, manufactured and/or distributed under this quality management system

Above Maximum Concentration Value (MCV)



Included Products

BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note

Severe environmental conditions may degrade optimum performance

SAMSUNG

Dual-Band Radio Unit 700/850MHz (B13/B5) RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
B13: DL(746-756MHz)/UL(777-787MHz)
B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit AWS/PCS (B66/B2)

RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD

Operating Frequencies:

B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)

B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)

Instantaneous Bandwidth:

70MHz(B66) + 60MHz(B2)

RF Chain: 4T4R/2T4R/2T2R

Output Power: Total 320W

DU-RU Interface: CPRI (10Gbps)

Dimensions: 380 x 380 x 255mm (36.8L)

Weight: 38.3kg

Input Power: -48V DC

Operating Temp.: -40 - 55°(w/o solar load)

Cooling: Natural convection



**EPA-Certified for Stationary
Emergency Applications**

Ratings Range

		60 Hz
Standby:	kW	30
	kVA	30-38



The Kohler® Advantage

- **High Quality Power**
Kohler generators provide advanced voltage and frequency regulation along with ultra-low levels of harmonic distortion for excellent generator power quality to protect your valuable electronics.
- **Extraordinary Reliability**
Kohler is known for extraordinary reliability and performance and backs that up with a premium five-year or 2000 hour limited warranty.
- **All-Aluminum Sound Enclosure**
Durable aluminum sound-attenuating enclosure.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	Natural Gas 130°C Rise		LP Gas 130°C Rise	
				Standby Rating kW/kVA	Amps	Standby Rating kW/kVA	Amps
4D8.3	120/208	3	60	30/38	106	30/38	106
	127/220	3	60	30/38	100	30/38	100
	120/240	3	60	30/38	92	30/38	92
	120/240	1	60	30/30	125	30/30	125
	139/240	3	60	30/38	92	30/38	92
	220/380	3	60	30/38	58	30/38	58
	277/480	3	60	30/38	46	30/38	46
4P7BX	347/600	3	60	30/38	37	30/38	37
	120/208	3	60	30/38	106	30/38	106
	127/220	3	60	30/38	100	30/38	100
	120/240	3	60	30/38	92	30/38	92
	120/240	1	60	30/30	125	30/30	125
	139/240	3	60	30/38	92	30/38	92
	220/380	3	60	30/38	58	30/38	58
4E8.3	277/480	3	60	30/38	46	30/38	46
	120/240	1	60	30/30	125	30/30	125
4Q7BX	120/240	1	60	30/30	125	30/30	125

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set accepts rated load in one step.
- A five-year/2000 hour limited warranty covers all generator set systems and components. A five-year extended comprehensive limited warranty is also available.
- Engine Features
 - Powerful and reliable 2.2 L turbocharged liquid-cooled engine
 - Electronic engine management system.
 - Simple field conversion between natural gas and LPG fuels while maintaining emission certification.
- Innovative Cooling System
 - Electronically controlled fan speeds minimize generator set sound signature.
- Alternator features:
 - Kohler's wound field excitation system with its unique PowerBoost™ design delivers great voltage response and short-circuit capability.
 - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
 - The brushless, rotating-field alternator has broadrange re-connectability.
- Kohler designed controller for one-source system integration and remote communication. See Controller on page 3.
- Certifications
 - The generator set engine is certified by the Environmental Protection Agency (EPA) to conform to the New Source Performance Standard (NSPS) for stationary spark-ignited emissions.
 - UL 2200/cUL listing is available.
 - The generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
 - CSA certification is available.
 - Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters.
- Approved for stationary standby applications in locations served by a reliable utility source.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Exciter type	Brushless, Wound-Field
Leads: quantity, type	
4D	12, Reconnectable
4E	4, 110-120/220-240 V
4PX	12, Reconnectable
4QX	4, 110-120/220-240 V
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V 4D8.3 (12 lead)	120
240 V 4E8.3 (4 lead)	74
480 V 4P7BX (12 lead)	180
240 V 4Q7BX (4 lead)	113

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Application Data

Engine

Engine Specifications	
Manufacturer	Kohler
Engine: model, type	KG2204T, 2.2 L, 4-Cycle Turbocharged
Cylinder arrangement	In-line 4
Displacement, L (cu. in.)	2.2 (134.25)
Bore and stroke, mm (in.)	91 x 86 (3.5 x 3.4)
Compression ratio	10.5:1
Piston speed, m/min. (ft./min.)	340 (1016)
Main bearings: quantity, type	5, plain alloy steel
Rated rpm	1800
Max power at rated RPM, kW (HP)	
LPG	47.8 (64.1)
Natural Gas	47.6 (63.9)
Cylinder head material	Cast Iron
Piston type and material	High Silicon Aluminum
Crankshaft material	Nodular Iron
Valve (exhaust) material	Forged Steel
Governor type	Electronic
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±1.0%
Frequency	Fixed
Air cleaner type, all models	Dry

Engine Electrical

Engine Electrical System	
Ignition system	Electronic
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	14
Ampere rating	90
Starter motor rated voltage (DC)	12
Battery, recommended cold cranking amps (CCA):	
Qty., rating for -18°C (0°F)	One, 630
Battery voltage (DC)	12
Battery group size	24

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust temperature at rated kW, dry exhaust, °C (°F)	610 (1130)
Maximum allowable back pressure, kPa (in. Hg)	7.5 (2.2)

Fuel

Fuel System	
Fuel type	Natural Gas or LPG
Fuel supply line inlet	1 NPTF
Natural gas fuel supply pressure, kPa (in. H ₂ O)	1.24-2.74 (5-11)
LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24-2.74 (5-11)

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	—
Ethane, % by volume	4.0 max.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C ₄ and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 max.	
Lower heating value, MJ/m ³ (Btu/ft ³), min.	33.2 (890)	84.2 (2260)

* Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

Application Data

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) ‡	4.2 (4.4)
Oil added during oil change (on average), L (qt.) ‡	3.3 (3.5)
Oil pan capacity with filter, L (qt.) ‡	8.5 (9.0)
Oil filter: quantity, type ‡	1, Cartridge
‡ Kohler recommends the use of Kohler Genuine oil and filters.	

Cooling

Radiator System	
Ambient temperature, °C (°F)	50 (122)
Engine jacket water capacity, L (gal.)	2.65 (0.7)
Radiator system capacity, including engine, L (gal.)	13.2 (3.5)
Engine jacket water flow, Lpm (gpm)	62 (16.4)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	22.5 (1280)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	qty. 3 @ 406 (16)
Fan power requirements (powered by engine battery charging alternator)	12 VDC, 18 amps each

Operation Requirements

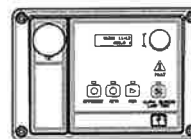
Air Requirements	
Radiator-cooled cooling air, m ³ /min. (scfm) ‡	51 (1800)
Combustion air, m ³ /min. (cfm)	1.6 (57)
Air over engine m ³ /min. (cfm)	25 (883)
† Air density = 1.20 kg/m ³ (0.075 lbm/ft ³)	

Fuel Consumption ‡	
Natural Gas, m ³ /hr. (cfh) at % load	Standby Ratings
100%	11.9 (421)
75%	10.0 (355)
50%	8.2 (289)
25%	6.3 (223)
0%	4.5 (158)
LP Gas, m ³ /hr. (cfh) at % load	Standby Ratings
100%	4.6 (164)
75%	3.7 (131)
50%	2.8 (99)
25%	1.9 (66)
0%	1.0 (34)

‡ Nominal fuel rating: Natural gas, 37 MJ/m³ (1000 Btu/ft.³)
 LP vapor, 93 MJ/m³ (2500 Btu/ft.³)

LP vapor conversion factors:
 8.58 ft.³ = 1 lb.
 0.535 m³ = 1 kg.
 36.39 ft.³ = 1 gal.

Controller



APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

Sound Enclosure

- Durable aluminum, sound-attenuating enclosure with quiet operation of 57 dB(A) log average @ 7 m (23 ft.) at no load.
- Internally mounted silencer.
- Fade-, scratch, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.

Standard Features

- Alternator Protection
- Aluminum Sound Enclosure with Enclosed Silencer
- Battery Rack and Cables
- Flexible Fuel Line
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Low Fuel Pressure Switch (with NFPA fuel module)
- Oil Drain Extension
- Operation and Installation Literature
- Standard 5-Year Limited Warranty

Available Options

Approvals and Listings

- CSA Certified
- UL 2200 Listing

Controller

- 15-Relay Dry Contact Board
- Communication Products
- Input/Output Module (2 inputs, 5 outputs)
- Lockable Emergency Stop (lockout/tagout)
- Low Fuel Pressure Warning Switch
- Manual Key Switch
- Manual Speed Adjust
- Remote Annunciator Panel
- Remote Emergency Stop
- Run Relay

Enclosure Accessories

- Enclosure Doors for 291 kph (181 mph) Wind load

Starting Aids*

- Block Heater, 110-120 V
- Block Heater, 220-240 V

Oil Pan Heater*

- Oil Pan Heater, 110-120 V
- Oil Pan Heater, 190-240 V

* One block heater or oil pan heater is required for ambient temperatures below 0°C (32°F). At temperatures below -18°C (0°F) installation of both heaters is required.

Electrical System

- Alternator Strip Heater
- Battery
- Battery Charger, 6 Amp
- Battery Charger, 10 Amp w/Alarms
- Battery Heater
- Temperature Compensation for 10 Amp Battery Charger

Miscellaneous

- Certified Test Report
- Engine Fluids Added
- Maintenance Kit (filters, spark plugs, oil)
- Rated Power Factor Testing

Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

Warranty

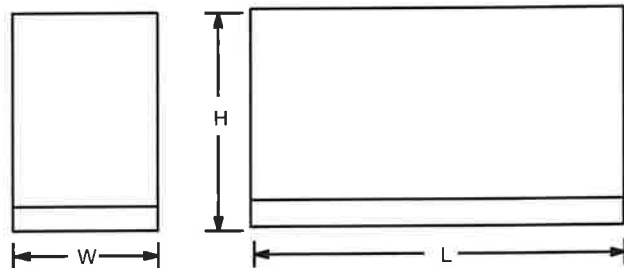
- Optional Extended 5-Year/2000 Hour Comprehensive Limited Warranty

Other Options

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Dimensions and Weights

Overall Size, L x W x H, mm (in.): 2280 x 830 x 1182
 (89.8 x 32.7 x 46.5)
 Weight, with engine fluids, kg (lb.): 635 (1432)



NOTE: This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

ATTACHMENT 4

Photographic Documentations & Simulations

EAST HAVEN N CT
1270 NORTH HIGH STREET
EAST HAVEN, CT 06512



Prepared in June 2019 by:
All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Prepared for Verizon Wireless



VISUAL ASSESSMENT REPORT

Cellco Partnership d/b/a Verizon Wireless ("Verizon") is seeking approval for the development of a new wireless communications facility ("Facility") at 1270 North High Street in East Haven, Connecticut ("Host Property" or "Site"). At the request of Verizon, All-Points Technology Corporation, P.C. ("APT") completed this assessment to evaluate the potential visual effects of the proposed Facility from within a two-mile radius (the "Study Area"). The neighboring municipalities of North Haven, New Haven, Branford and North Branford are located within portions of the Study Area.

Project Undertaking

Verizon plans to collocate a new Facility on a new tower on the roof of a multi-story residential building that occupies the central portion of the Site. The Facility would include a ± 55 -foot steel monopole installed on a 3-foot steel platform atop the ± 37 -foot-tall building, bringing the total Facility height to ± 95 feet above ground level ("AGL"). Verizon would install three (3) antenna arrays, each with two (2) antennas and appurtenances, at centerline heights of 90 feet AGL. Cabinets and associated equipment will be installed on the same 12'-6" by 34'-0" steel platform to which the monopole is attached. The Facility is designed to accommodate additional wireless service providers.

Project Setting

The Host Property is located south of Foxon Road (State Route 80), north of North High Street and to the west of Maple Street. The Site building houses the Woodview Elderly Housing Assisted Living facility. Generally, land use within the immediate vicinity of the Site is residential in nature. Single-family residentially-developed properties are located east, west and south of the Host Property; the Thompson Gardens apartment complex is located to the northwest.

The topography throughout the Study Area is characterized as rolling hills. Ground elevations range from approximately 5 feet to 310 feet above mean sea level. Tree cover within the Study Area (consisting primarily of mixed deciduous hardwoods with interspersed stands of conifers) occupies approximately $\pm 2,700$ acres of the 8,042-acre Study Area ($\pm 33\%$). Lake Saltonstall, located to the south, occupies approximately ± 250 acres of the 8,042-acre Study Area ($\pm 3\%$).

Methodology

APT used the combination of a predictive computer model, in-field analysis, and a review of various data sources to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of visibility throughout the entire Study Area, including private properties and other areas inaccessible for direct observation. The in-field analyses included a balloon float and field reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory seasonal and year-round view locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap GIS¹ software and available GIS data. The predictive model incorporates Project and Study Area-specific data, including the site location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight).

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the extent of the Study Area utilizing State of Connecticut 2016 LiDAR² LAS³ data points. LiDAR is a remote-sensing technology that develops elevation data by measuring the time it takes for laser light to return from the surface to the instrument's sensors. The varying reflectivity of objects also means that the "returns" can be classified based on the characteristics of the reflected light, normally into categories such as "bare earth," "vegetation," "road," or "building." Derived from the 2016 LiDAR data, the LAS datasets contain the corresponding elevation point data and return classification values. The Study Area DSM incorporates the first return LAS dataset values that are associated with the highest feature in the landscape, typically a treetop, top of a building, and/or the highest point of other tall structures.

Once the DSM was generated, ESRI's Viewshed Tool was utilized to identify locations within the Study Area where the proposed Facility may be visible. ESRI's Viewshed Tool predicts visibility by identifying those cells⁴ within the DSM that can be seen from an observer location (the proposed Facility). Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto an aerial photograph and topographic base map. Since the DSM includes the highest relative feature in the landscape, isolated "visible" cells are often indicated within heavily forested areas (e.g., from the top of the highest tree) or on building rooftops during the initial processing. It is recognized that these areas do not represent typical viewer locations and overstate visibility. As such, the resulting polygon feature is further refined by extracting those areas. The viewshed results are also cross-checked against the most current aerial photographs to assess whether significant changes (a new housing development, for example) have occurred since the time the LiDAR-based LAS datasets were captured.

The results of the preliminary analysis are intended to provide a representation of those areas where portions of the Facility *may* potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of five (5) feet above the ground and the combination of intervening topography, trees and other vegetation, and structures. However, the Facility may not necessarily be visible from all locations within those areas identified by the predictive model, which has limitations. For instance, it is important to note that the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occur with distance. As a result, some areas depicted on the viewshed maps as theoretically offering potential visibility of the Facility may be over-predicted because the quality of those

¹ ArcMap is a Geographic Information System desktop application developed by the Environmental Systems Research Institute for creating maps, performing spatial analysis, and managing geographic data.

² Light Detection and Ranging

³ An LAS file is an industry-standard binary format for storing airborne LiDAR data.

⁴ Each DSM cell size is 1 square meter.

views is not sufficient for the human eye to recognize the Facility or discriminate it from other surrounding or intervening objects.

Seasonal Visibility

Visibility also varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Beyond the variabilities associated with density of woodland stands found within any given Study Area, each individual tree also has its own unique trunk, pole timber and branching patterns that provide varying degrees of screening in leafless conditions which, as introduced above, cannot be precisely modeled. Seasonal visibility is therefore estimated based on a combination of factors including the type, size, and density of trees within a given area; topographic constraints; and other visual obstructions that may be present. Taking into account these considerations, areas depicting seasonal visibility on the viewshed maps are intended to represent locations from where there is a potential for views through intervening trees, as opposed to indicating that leaf-off views will exist from within an entire seasonally-shaded area.

To refine the estimate of seasonal visibility through the trees, forested areas were manually adjusted to eliminate 500-foot wide areas of vegetation surrounding the Facility and perimeters of forested areas with otherwise unimpeded aspects toward the site. This distance, although considered conservative, is based on 20+ years of field experience and observations, and assumes that a person standing within a forested area will not be able to discern an object like the Facility beyond 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations (but not all) within 500 feet could provide visibility of at least a portion of the Facility during "leaf-off" conditions.

Balloon Float and Field Reconnaissance

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation. The balloon float and field review were completed on May 29, 2019. The balloon float consisted of raising a brightly colored, approximately four-foot diameter, helium-filled balloon tethered to a string height of ± 95 feet AGL⁵. The balloon was flown from the ground approximately 30 feet from the proposed Facility rooftop location. The photographic simulations were generated taking this factor into account and adjusted accordingly, thereby depicting the proposed Facility in its proposed location. Weather conditions were favorable for the in-field activity with calm to moderate winds (4 mph to 10 mph and below).

Once the balloon was secured, APT conducted a Study Area reconnaissance by driving along the local and State roads and other publicly accessible locations to document and inventory where the balloon could be seen above and through the tree canopy. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

Photographic Documentation and Simulations

During the Study Area reconnaissance, APT obtained photo-documentation of representative locations where the balloon was visible. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D

⁵ The bottom of the balloon represented the top of monopole.

digital camera body and Canon EF 24 to 105 millimeter (“mm”) zoom lens.⁶ APT typically uses a standard focal length of 50mm to present a consistent field of view. On occasion, photos are taken at lower focal lengths to provide a greater depth of field and context to the scene by including surrounding features within the photograph. During this evaluation, photos 11, 24, 27 and 30 were taken at a 24mm focal length.

Photographic simulations were generated to portray scaled renderings of the proposed Facility from seven (7) locations presented herein where the Facility may be recognizable above or through the trees. Using field data, site plan information and 3-dimension (3D) modeling software, spatially referenced models of the site and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs, which were ultimately composited and merged with the existing conditions photographs (using Photoshop image editing software). The scale of the subjects in the photograph (the balloon) and its corresponding simulation (the Facility) are proportional to their surroundings.

For presentation purposes in this report, the photographs were produced in an approximate 7-inch by 10.5-inch format. When reproducing the images in this format size, we believe it is important to present the largest view while providing key contextual landscape elements (existing development, street signs, utility poles, etc.) so that the viewer can determine the proportionate scale of each object within the scene.

Photo-documentation of the field reconnaissance and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The field reconnaissance photos that include the balloon in the view provide visual reference points for the approximate height and location of the proposed Facility relative to the scene.

All simulations were created to represent the proposed Facility height of ±95 feet AGL. The photo-simulations are intended to provide the reader with a general understanding of the different view characteristics associated with the Facility from various locations. Photographs were taken from publicly-accessible areas and unobstructed view lines were chosen wherever possible.

The table on the following page summarizes the photographs and simulations presented in the attachment to this report, and includes a description of each location, view orientation, the distance from where the photo was taken relative to the proposed Facility site, and the general characteristics of the view. The photo locations are depicted on the photolog and viewshed maps provided as attachments to this report.

⁶ The Canon EOS 6D is a full-framed camera which includes a lens receptor of the same size as the film used in 35mm cameras. As such, the images produced are comparable to those taken with a conventional 35mm camera.

View	Location	Orientation	Distance to Site	Visibility
1	Crest Avenue at Foxon Road	East	±0.73 Mile	Not Visible
2	Foxon Road	East	±0.50 Mile	Visible
3	Strong Street at Green Street	Northeast	±0.57 Mile	Not Visible
4	645 Foxon Road – Rite Aid Pharmacy Parking Lot	East	±0.24 Mile	Not Visible
5	Renshaw Drive	Northeast	±0.40 Mile	Visible
6	Renshaw Drive	Northeast	±0.37 Mile	Not Visible
7	Pleasant Drive	Northeast	±0.27 Mile	Not Visible
8	Gay Street	Southeast	±0.22 Mile	Visible
9	Sylvan Hills Road	South	±0.21 Mile	Not Visible
10	Gay Street at Foxon Road	Southeast	±481 Feet	Not Visible
11	Maple Street*	Southwest	±0.12 Mile	Not Visible
12	Hunt Lane at Foxon Road	Southwest	±0.23 Mile	Not Visible
13	Foxon Road	Southwest	±0.48 Mile	Not Visible
14	Deer Run Elementary School Driveway – 311 Foxon Road	Southwest	±0.61 Mile	Not Visible
15	Wheelbarrow Lane at Foxon Road	Southwest	±0.73 Mile	Not Visible
16	East Haven High School – 35 Wheelbarrow Lane	Southwest	±0.84 Mile	Not Visible
17	Rock Street	Northwest	±1.12 Miles	Not Visible
18	Warwick Lane	Northwest	±0.61 Mile	Not Visible
19	Rock Street	Northwest	±0.48 Mile	Not Visible
20	Rock Street at Cecelia Drive	Northwest	±0.48 Mile	Visible
21	Rock Street at Cecelia Drive	Northwest	±0.48 Mile	Not Visible
22	Cecelia Drive	Northwest	±0.46 Mile	Not Visible
23	Kennedy Memorial Field	Northwest	±0.43 Mile	Visible
24	Kennedy Memorial Field at Maple Street*	Northwest	±0.26 Mile	Not Visible
25	Maple Street	Northwest	±0.27 Mile	Visible
26	Maple Street	Northwest	±0.28 Mile	Not Visible
27	Maple Street*	Northwest	±0.21 Mile	Not Visible
28	North High Street	Northeast	±0.79 Mile	Not Visible
29	North High Street Adjacent to Host Property	North	±0.10 Mile	Not Visible
30	Host Property**	South	±215 Feet	Visible

* Photograph was taken at 24 mm focal length

**Photograph was taken at 24 mm focal length but adjusted to 35 mm focal length

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the field reconnaissance, the photo locations, areas that experienced recent land use changes and those places where the initial model was found to over or under-predict visibility. Once the additional data was integrated into the model, APT re-calculated the visibility of the proposed Facility from within the Study Area.

Conclusions

In general, visibility of the proposed Facility would be minimal and the majority of views restricted primarily to locations along the Route 80 commercial corridor. Areas from where the Facility would be visible comprise ± 13 acres of year-round visibility and ± 21 acres of seasonal visibility. Cumulatively, this equals less than one percent (approximately 0.42%) of the Study Area. As seen on the visibility maps, the views beyond the Host Property would be limited to locations in and around the Thompson Gardens apartment complex and nearby areas to the northwest (within ± 0.25 mile); intermittently along a ± 0.5 -mile stretch of Foxon Road to the west; and select areas to the southeast (on Cecelia Drive, Maple Street and Kennedy Memorial Field). The combination of the proposed Facility's relatively low height and presence of mature trees (both in the immediate area of the Host Property and throughout much of the Study Area) serves to minimize the extent of overall visibility.

Proximity to Schools And Commercial Child Day Care Centers

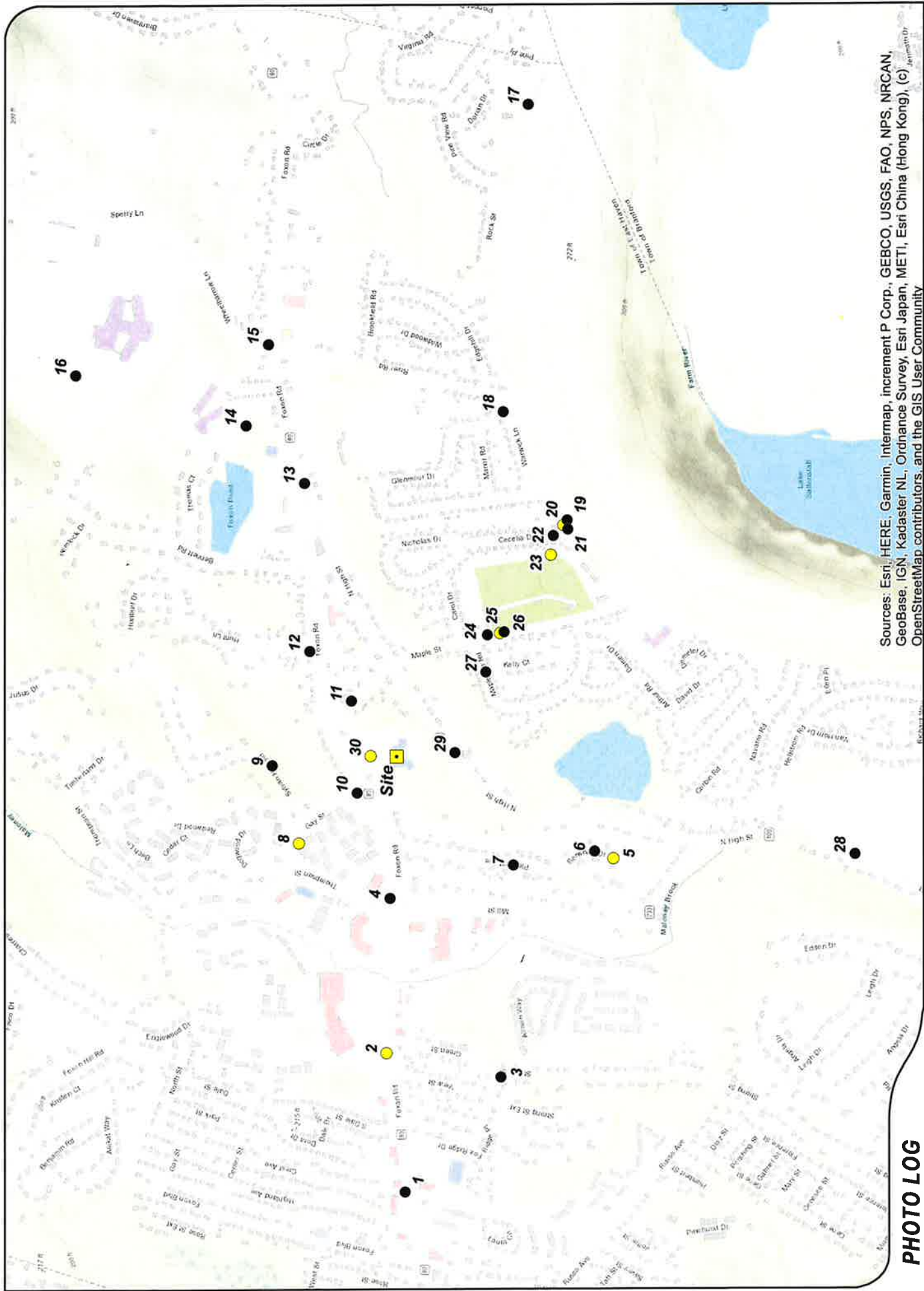
No schools or commercial child day care centers are located within 250 feet of the Host Property. The nearest school is the Deer Run Elementary School, located approximately 0.65 mile to the northeast at 311 Foxon Road in East Haven. The nearest commercial child day care center is Kid's Connection II, located approximately 0.17 mile to the west at 140 Pleasant Avenue in East Haven. No views of the Facility are anticipated at either location.

Limitations

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field review and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the field review included partly cloudy skies.

ATTACHMENTS



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

PHOTO LOG

- Legend
- Site
 - Visible
 - Not Visible





EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	CREST AVENUE AT FOXON ROAD	EAST	+/- 0.73 MILE	NOT VISIBLE



PHOTOGRAPHED ON 5/29/2019

769



PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	FOXON ROAD	EAST	+/- 0.50 MILE	VISIBLE





PROPOSED

PHOTO

2

LOCATION

FOXON ROAD

ORIENTATION

EAST

DISTANCE TO SITE

+/- 0.50 MILE

VISIBILITY

VISIBLE



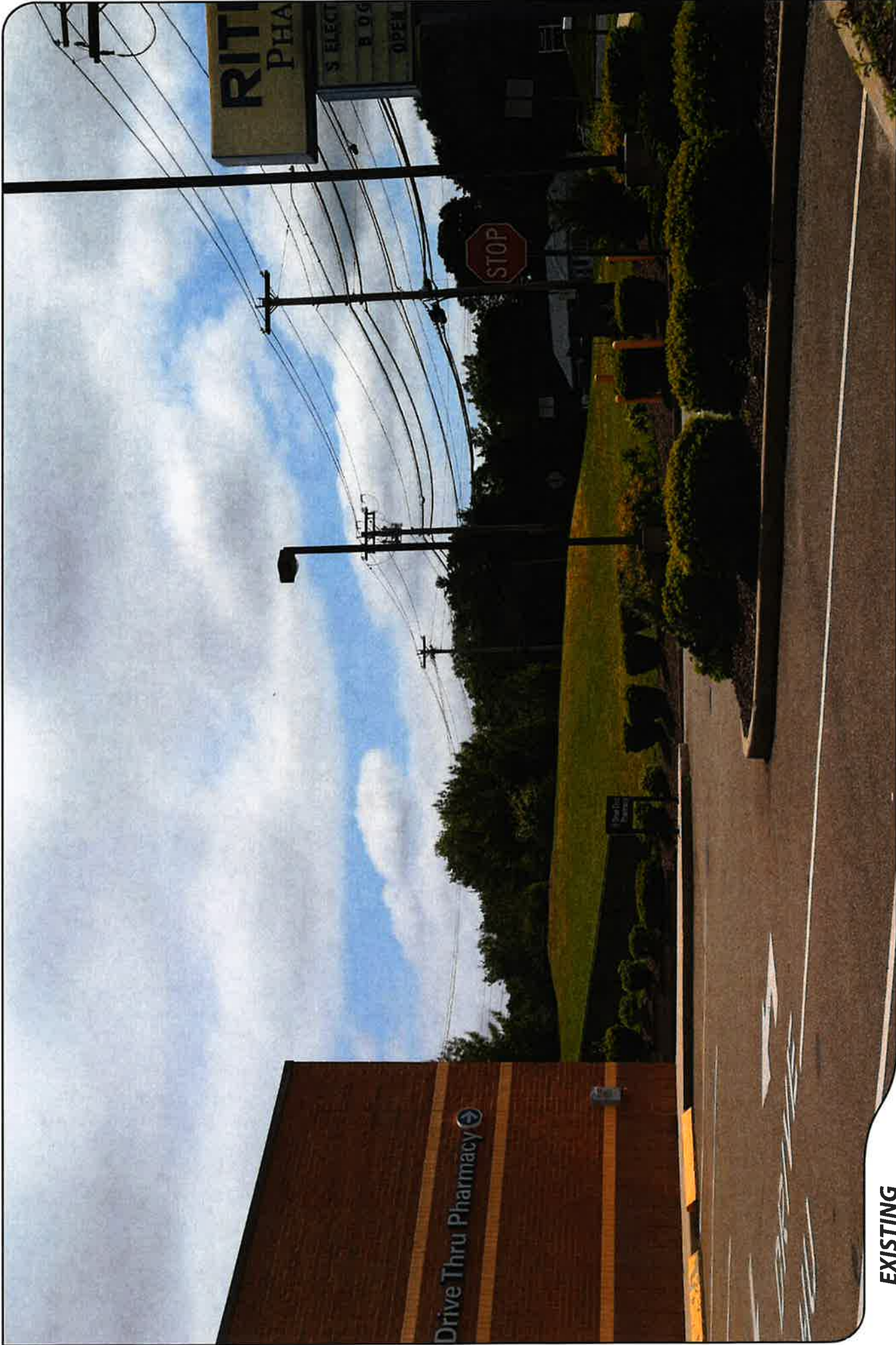


PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	STRONG STREET AT GREEN STREET	NORTHEAST	+/- 0.57 MILE	NOT VISIBLE



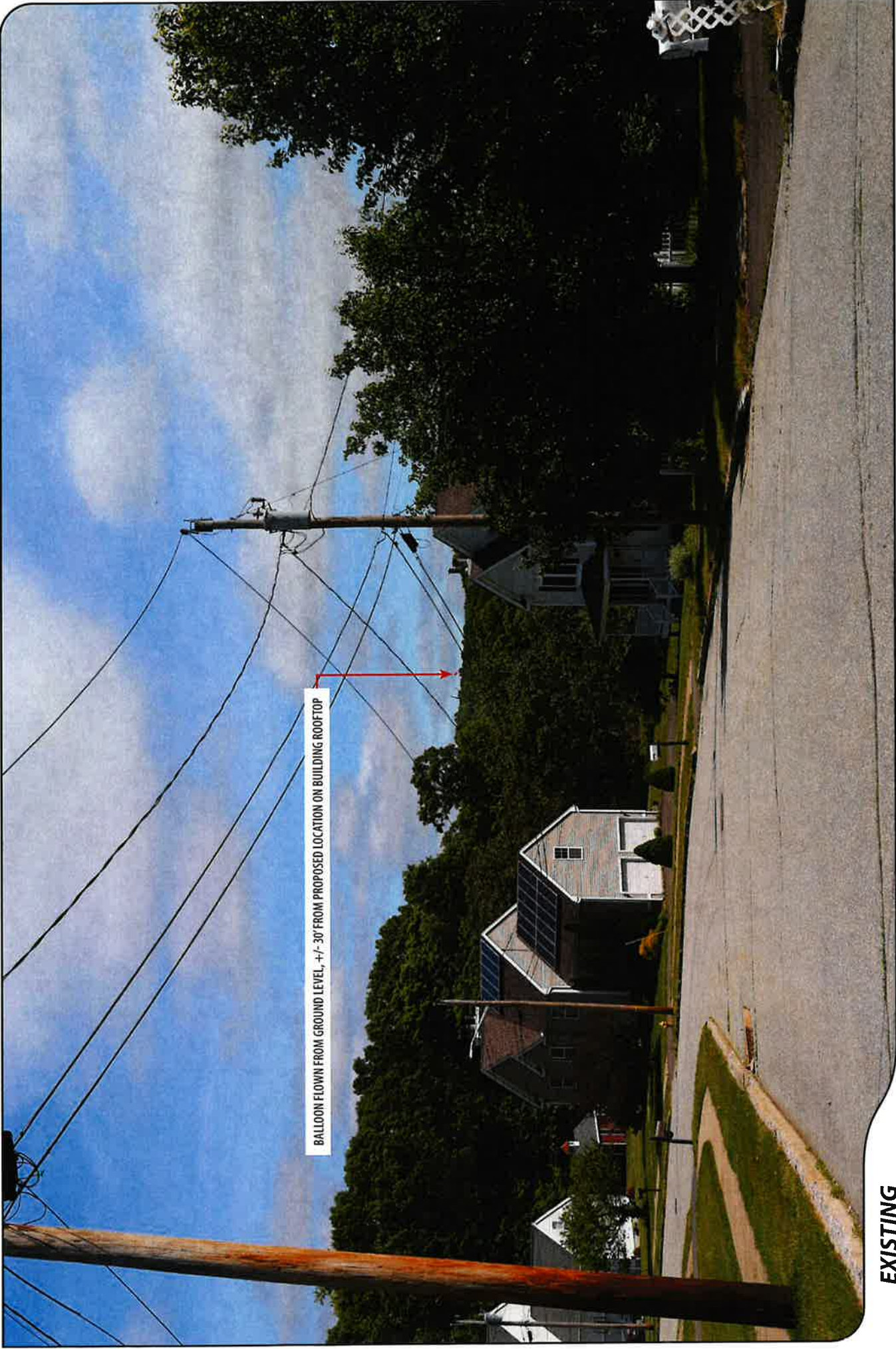


PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	645 FOXON ROAD - RITE AID PHARMACY PARKING LOT	EAST	+/- 0.24 MILE	NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY*
5	RENSHAW DRIVE	NORTHEAST	+/- 0.40 MILE	VISIBLE





PROPOSED

PHOTO

5

LOCATION

RENSHAW DRIVE

ORIENTATION

NORTHEAST

DISTANCE TO SITE

+/- 0.40 MILE

VISIBILITY

VISIBLE





PHOTOGRAPHED ON 5/22/2019

EXISTING

PHOTO

6

LOCATION

RENSHAW DRIVE

ORIENTATION

NORTHEAST

DISTANCE TO SITE

+/- 0.37 MILE

VISIBILITY

NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	PLEASANT DRIVE	NORTHEAST	+/- 0.27 MILE	NOT VISIBLE





BALLOON FLOWN FROM GROUND LEVEL, +/- 30' FROM PROPOSED LOCATION ON BUILDING ROOFTOP

EXISTING

PHOTO
8

LOCATION
GAY STREET

ORIENTATION
SOUTHEAST

DISTANCE TO SITE
+/- 0.22 MILE

VISIBILITY
VISIBLE





PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	GAY STREET	SOUTHEAST	+/- 0.22 MILE	VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	SYLVAN HILLS ROAD	SOUTH	+/- 0.21 MILE	NOT VISIBLE





PHOTOGRAPH ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	GAY STREET AT FOXON ROAD	SOUTHEAST	+/- 481 FEET	NOT VISIBLE



verizon



EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	MAPLE STREET	SOUTHWEST	+/- 0.12 MILE	NOT VISIBLE



PHOTOGRAPHED ON 5/29/2019
24mm Focal Length

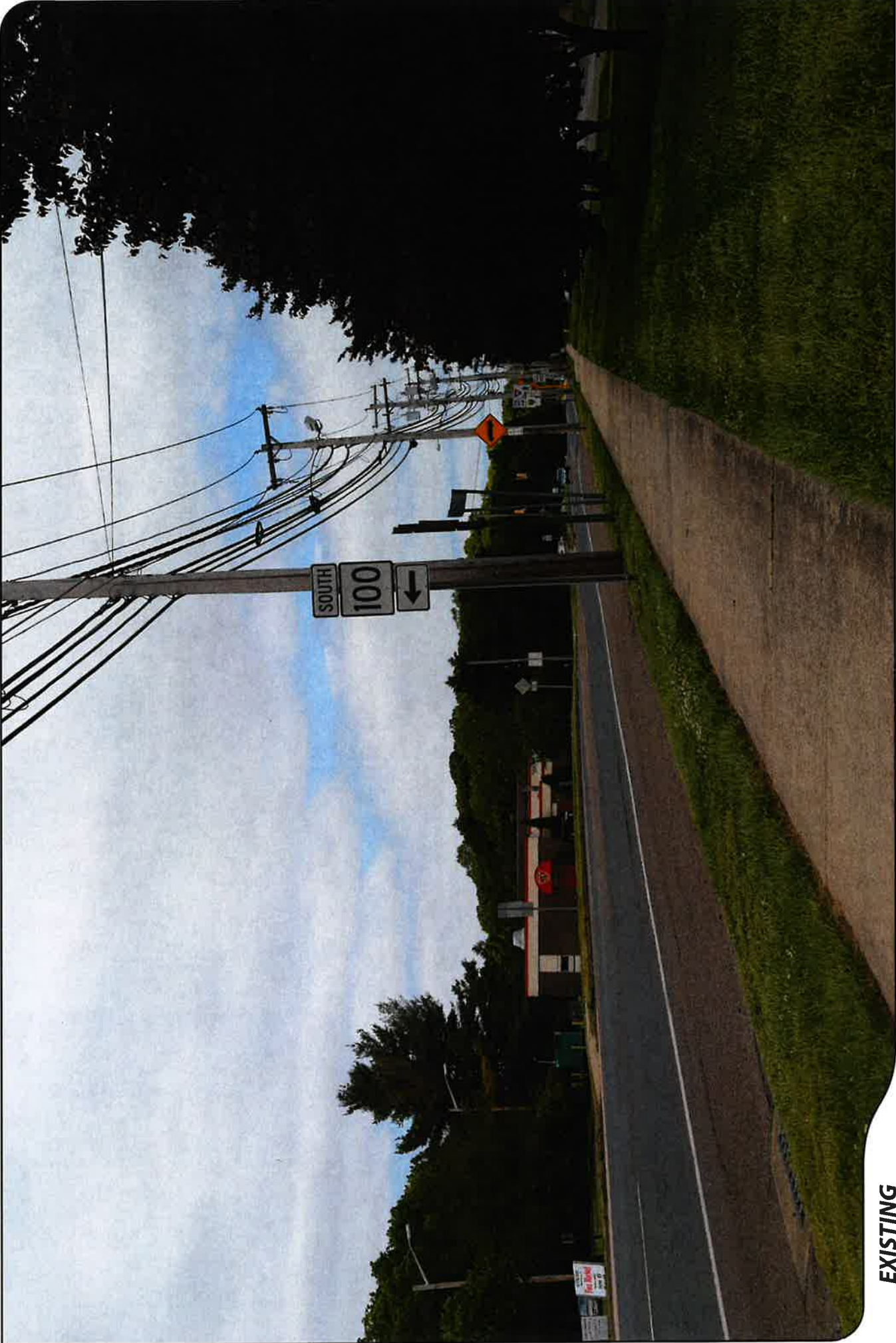


PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	HUNT LANE AT FOXON ROAD	SOUTHWEST	+/- 0.23 MILE	NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO 13	LOCATION FOXON ROAD	ORIENTATION SOUTHWEST	DISTANCE TO SITE +/- 0.48 MILE	VISIBILITY NOT VISIBLE
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EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	DEER RUN ELEMENTARY SCHOOL DRIVEWAY - 311 FOXON ROAD	SOUTHWEST	+/- 0.61 MILE	NOT VISIBLE





EXISTING

PHOTO

15

LOCATION

WHEELBARROW LANE AT FOXON ROAD

ORIENTATION

SOUTHWEST

DISTANCE TO SITE

+/- 0.73 MILE

VISIBILITY

NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	EAST HAVEN HIGH SCHOOL - 35 WHEELBARROW LANE	SOUTHWEST	+/- 0.84 MILE	NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO

17

LOCATION

ROCK STREET

ORIENTATION

NORTHWEST

DISTANCE TO SITE

+/- 1.12 MILES

VISIBILITY

NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	WARWICK LANE	NORTHWEST	+/- 0.61 MILE	NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO 19	LOCATION ROCK STREET	ORIENTATION NORTHWEST	DISTANCE TO SITE +/- 0.48 MILE	VISIBILITY NOT VISIBLE
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BALLOON FLOWIN FROM GROUND LEVEL, +/- 30' FROM PROPOSED LOCATION ON BUILDING ROOFTOP

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	ROCK STREET AT CECELIA DRIVE	NORTHWEST	+/- 0.48 MILE	VISIBLE





PROPOSED

PHOTO
20

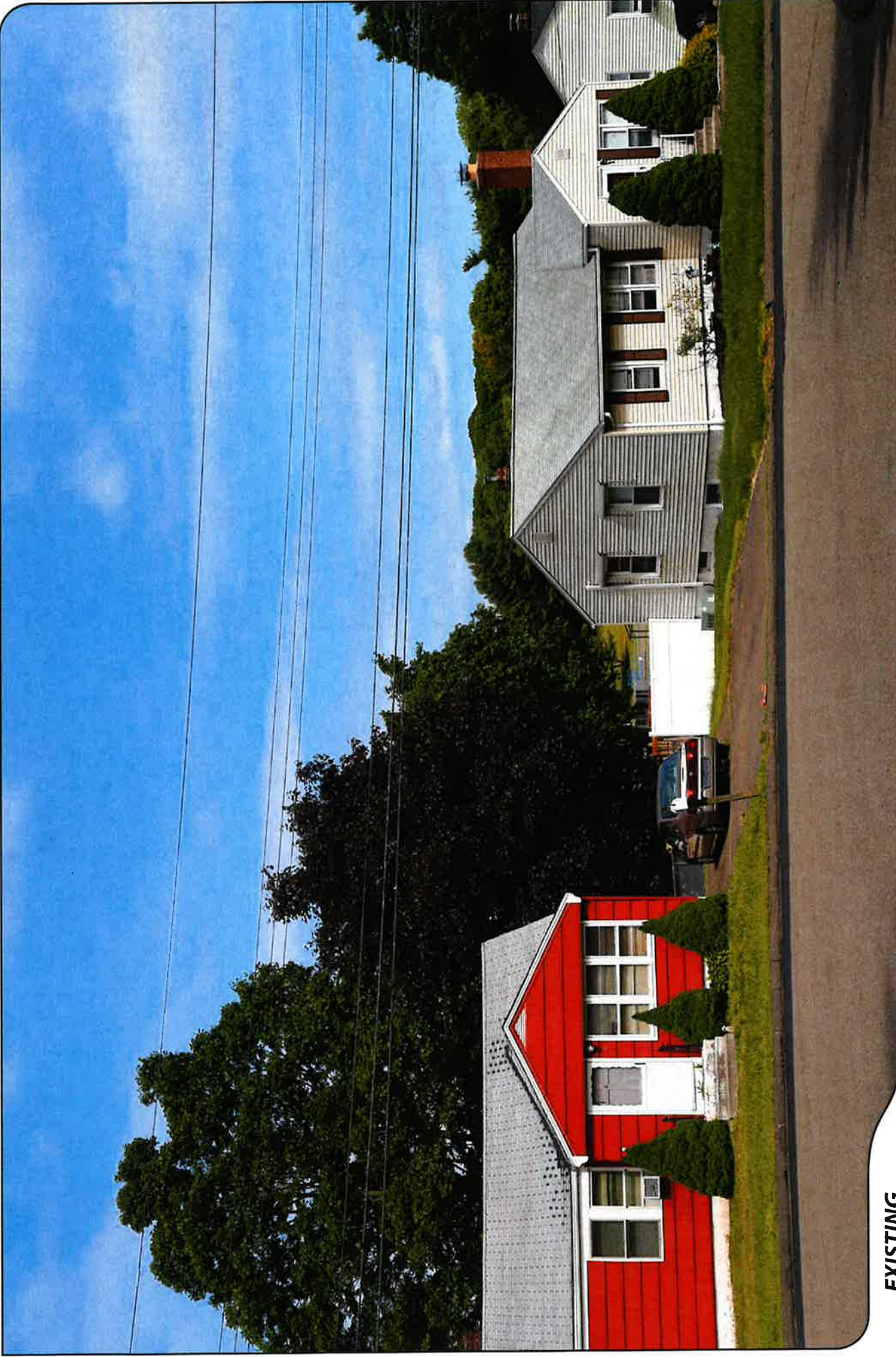
LOCATION
ROCK STREET AT CECELIA DRIVE

ORIENTATION
NORTHWEST

DISTANCE TO SITE
+/- 0.48 MILE

VISIBILITY
VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO

21

LOCATION

ROCK STREET AT CECELIA DRIVE

ORIENTATION

NORTHWEST

DISTANCE TO SITE

+/- 0.48 MILE

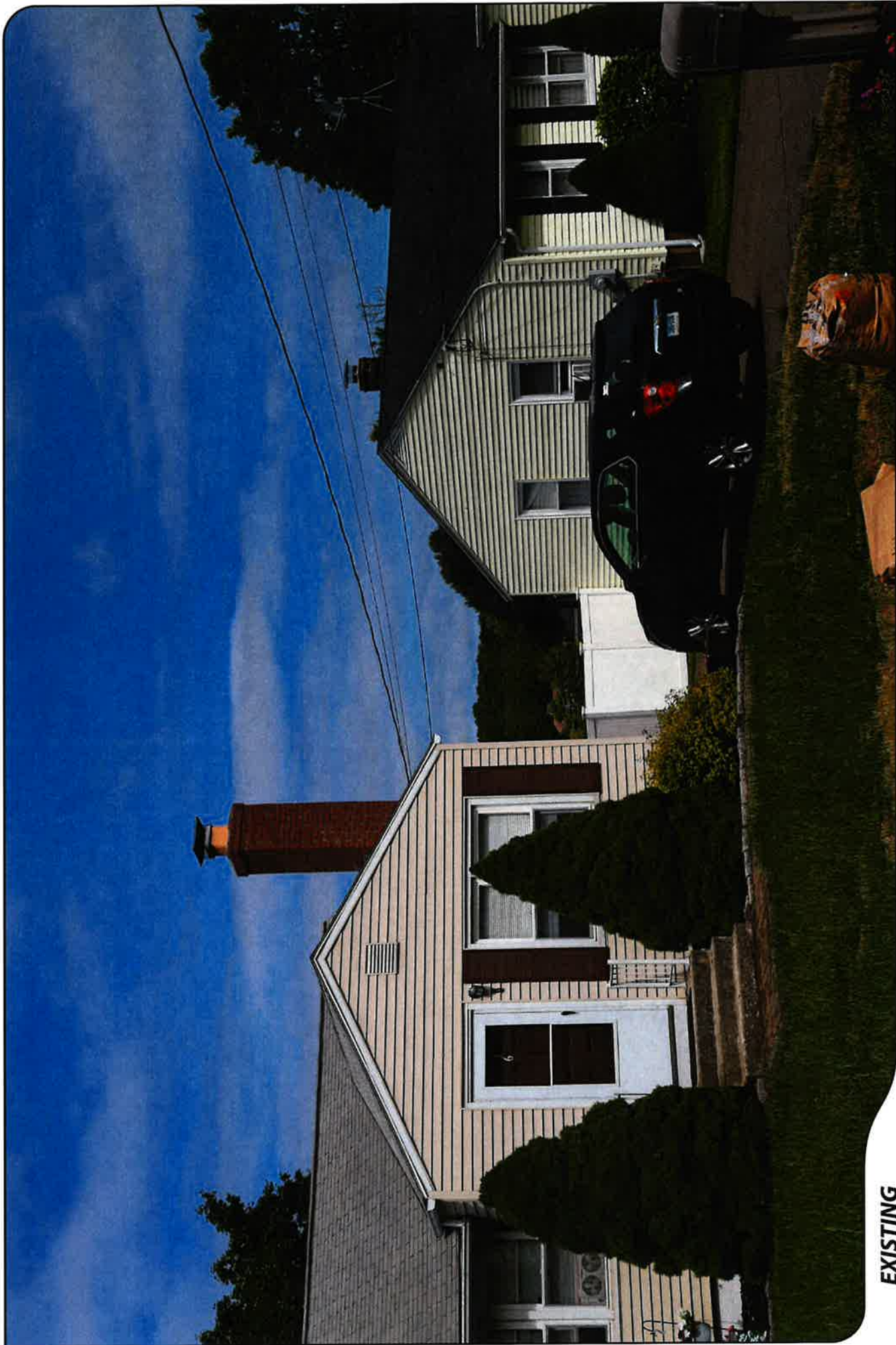
VISIBILITY

NOT VISIBLE



ALL-POINTS
TECHNOLOGY CORPORATION





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO

22

LOCATION

CECELIA DRIVE

ORIENTATION

NORTHWEST

DISTANCE TO SITE

+/- 0.46 MILE

VISIBILITY

NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	KENNEDY MEMORIAL FIELD	NORTHWEST	+/- 0.43 MILE	VISIBLE





PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	KENNEDY MEMORIAL FIELD	NORTHWEST	+/- 0.43 MILE	VISIBLE

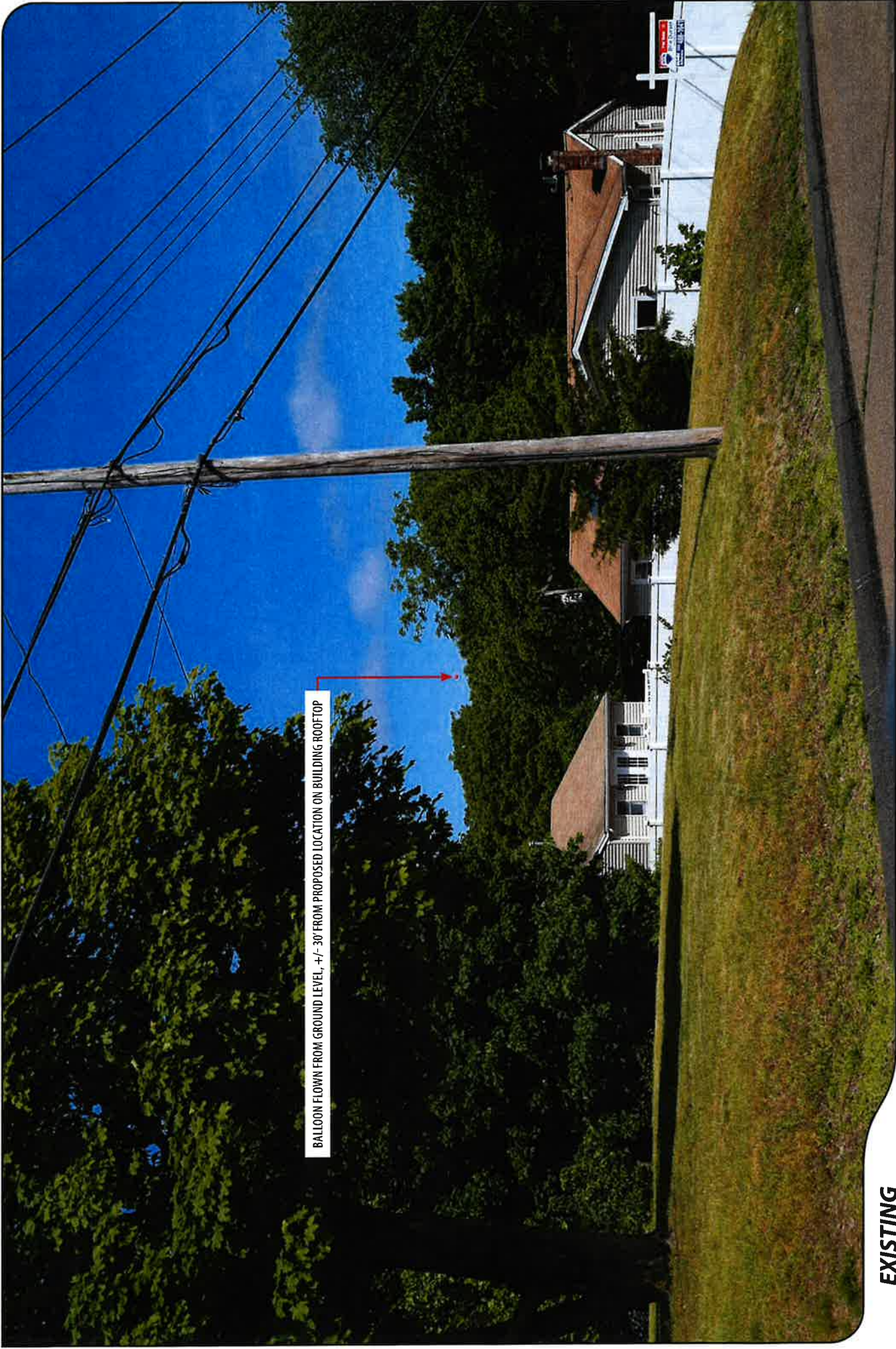




EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
24	KENNEDY MEMORIAL FIELD AT MAPLE STREET	NORTHWEST	+/- 0.26 MILE	NOT VISIBLE





BALLOON FLOWN FROM GROUND LEVEL, +/- 30' FROM PROPOSED LOCATION ON BUILDING ROOFTOP

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	MAPLE STREET	NORTHWEST	+/- 0.27 MILE	VISIBLE





PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	MAPLE STREET	NORTHWEST	+/- 0.27 MILE	VISIBLE



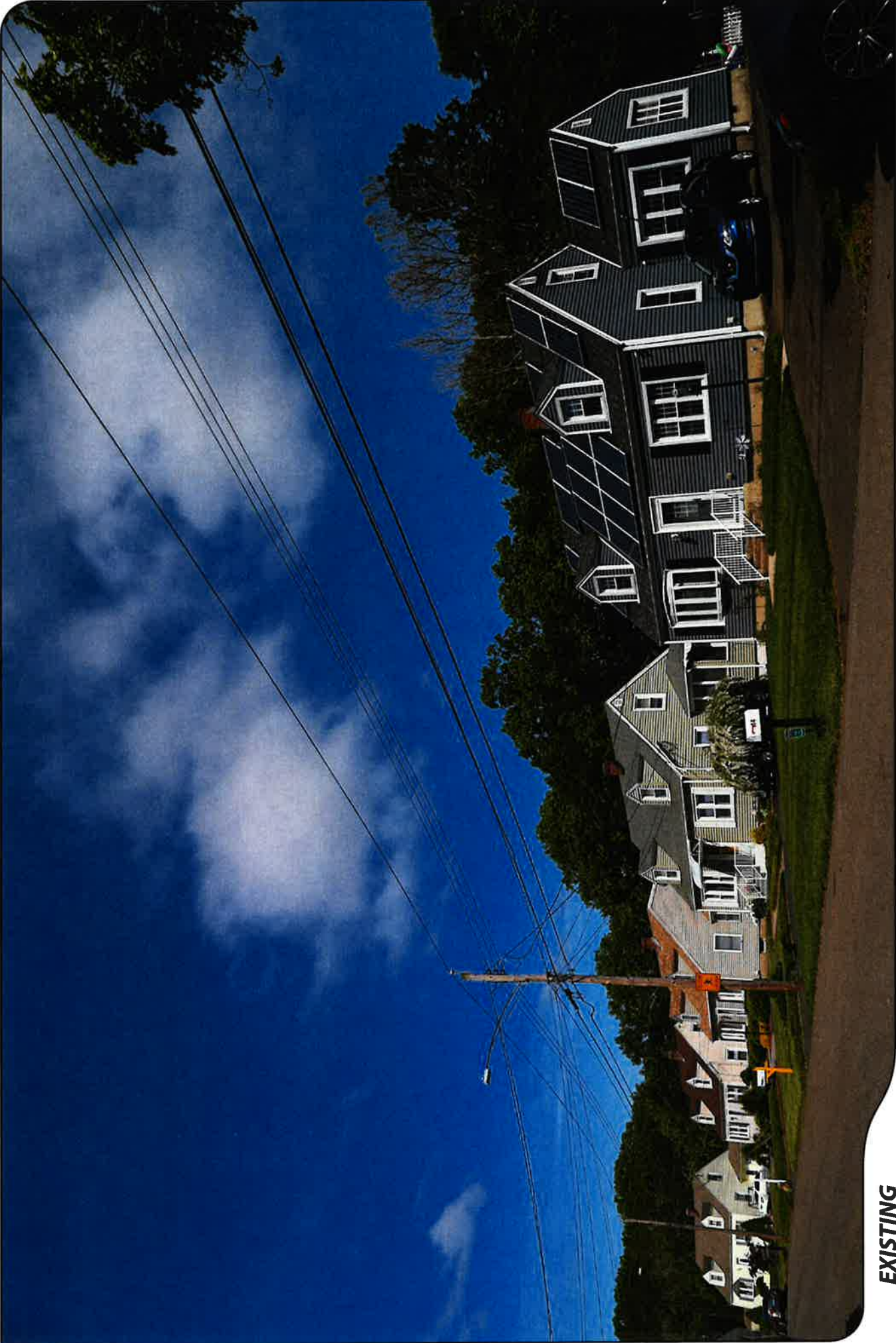


PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	MAPLE STREET	NORTHWEST	+/- 0.28 MILE	NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019
24mm Focal Length

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	MAPLE STREET	NORTHWEST	+/- 0.21 MILE	NOT VISIBLE



verizon



PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO

28

LOCATION

NORTH HIGH STREET

ORIENTATION

NORTHEAST

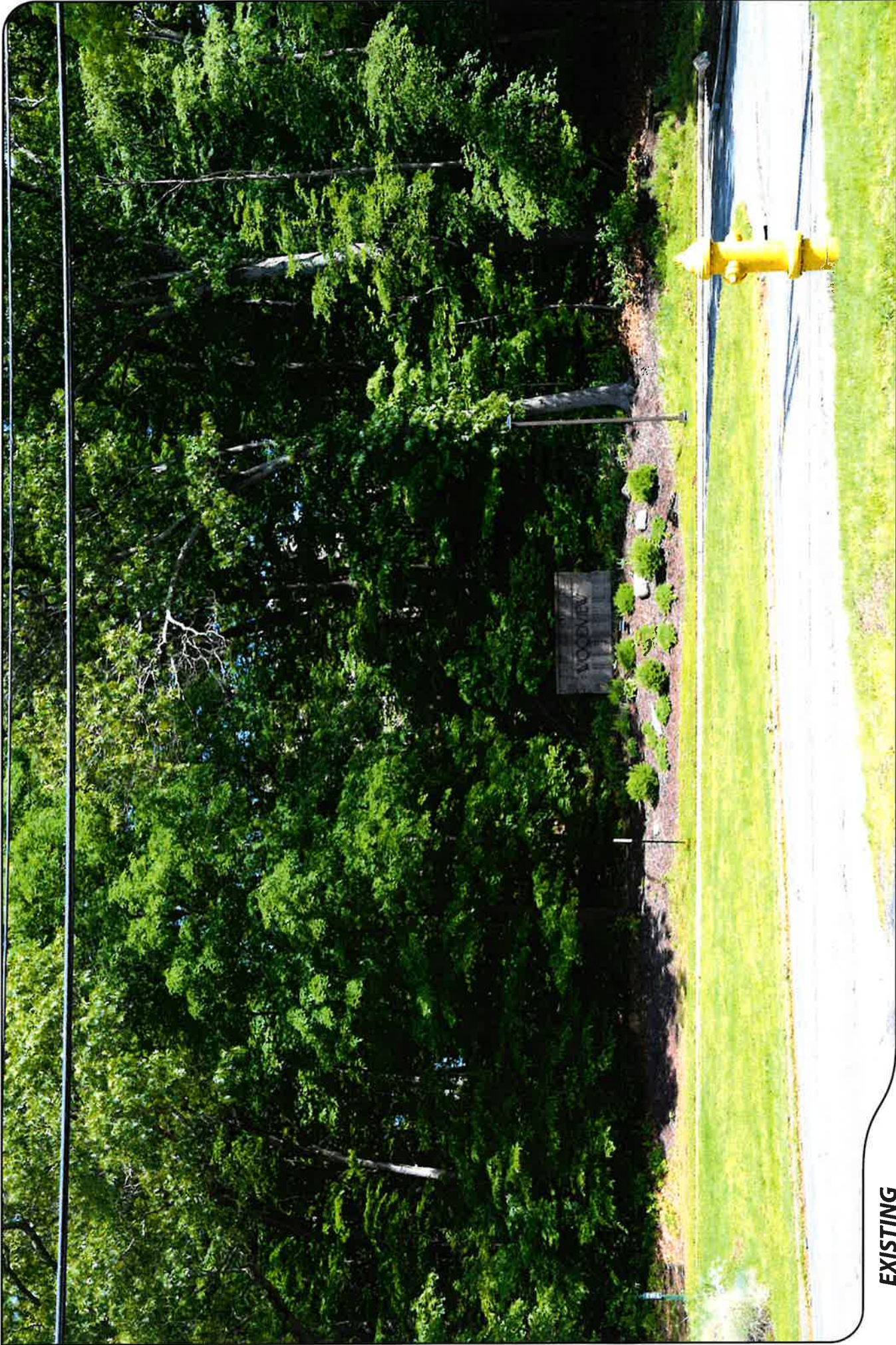
DISTANCE TO SITE

+/- 0.79 MILE

VISIBILITY

NOT VISIBLE





PHOTOGRAPHED ON 5/29/2019

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	NORTH HIGH STREET ADJACENT TO HOST PROPERTY	NORTH	+/- 0.10 MILE	NOT VISIBLE





EXISTING

PHOTO
30

LOCATION
HOST PROPERTY

ORIENTATION
SOUTH

DISTANCE TO SITE
+/- 215 FEET

VISIBILITY
VISIBLE





PROPOSED

PHOTO

30

LOCATION

HOST PROPERTY

ORIENTATION

SOUTH

DISTANCE TO SITE

+/- 215 FEET

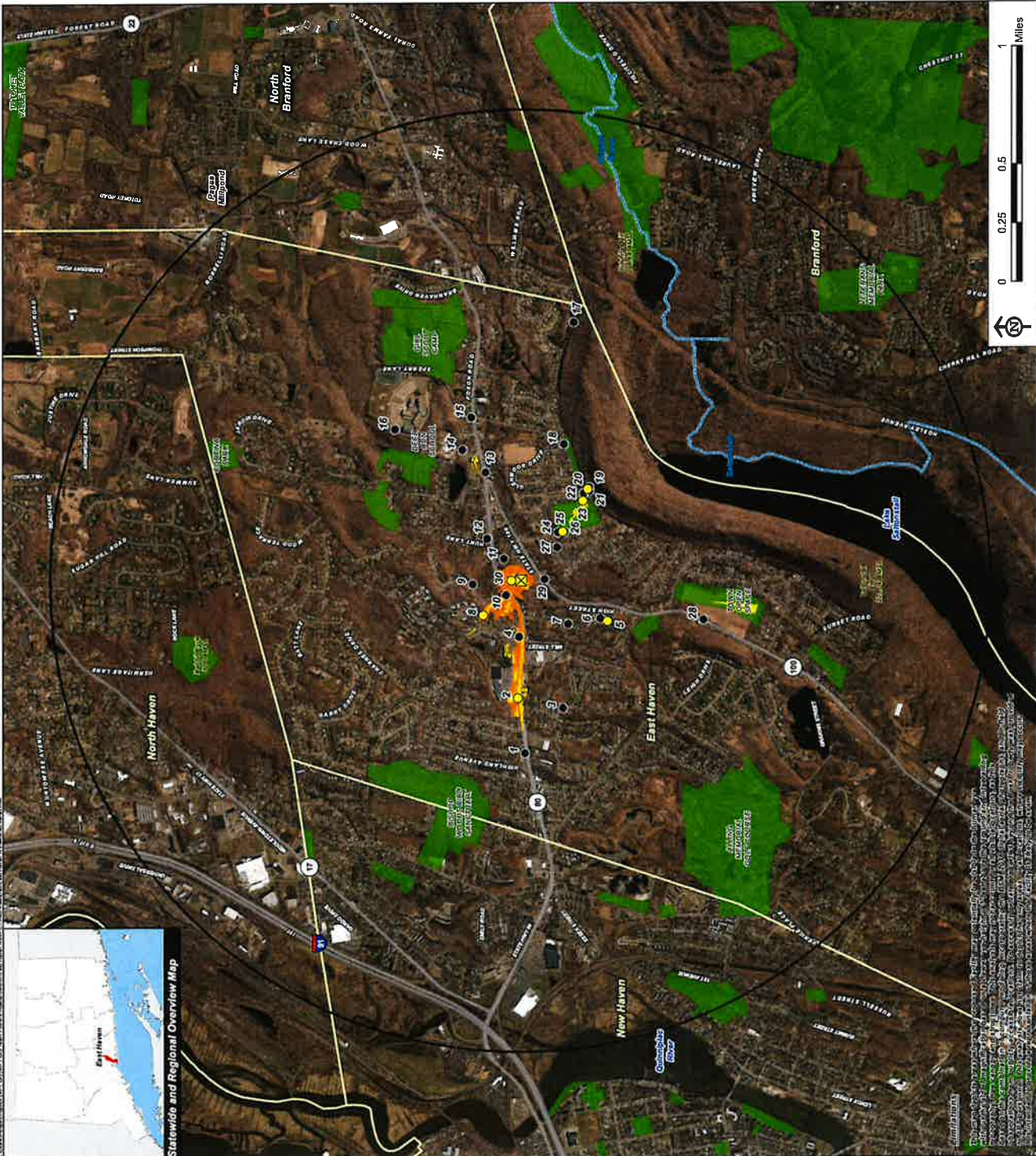
VISIBILITY

VISIBLE



ALL-POINTS
TECHNOLOGY CORPORATION





Viewshed Analysis Map

Proposed Wireless Telecommunications Facility East Haven N CT 1270 North High Street East Haven, Connecticut

Proposed facility height is 95 feet AGL.
Forest canopy height is derived from LIDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres of land.
Map information field verified by APT on May 29, 2019
Base Map Source: 2016 Aerial Photograph (CTECO)
Map Date: June 2019

- Legend**
- Proposed Site
 - Study Area (2-Mile Radius)
 - Photo Location (May 29, 2019)
 - Not Visible
 - Year-Round Visibility
 - Predicted Year-Round Visibility (13 Acres)
 - Areas of Potential Seasonal Visibility (21 Acres)
 - Municipal Boundary
 - Toll
 - Scenic Highway
 - DEEP Boat Launches
 - Municipal and Private Open Spaces Property
 - State Forestland
 - Protected Open Space Property
 - Federal
 - Land Trust
 - Municipal
 - Private
 - State

Data Sources:

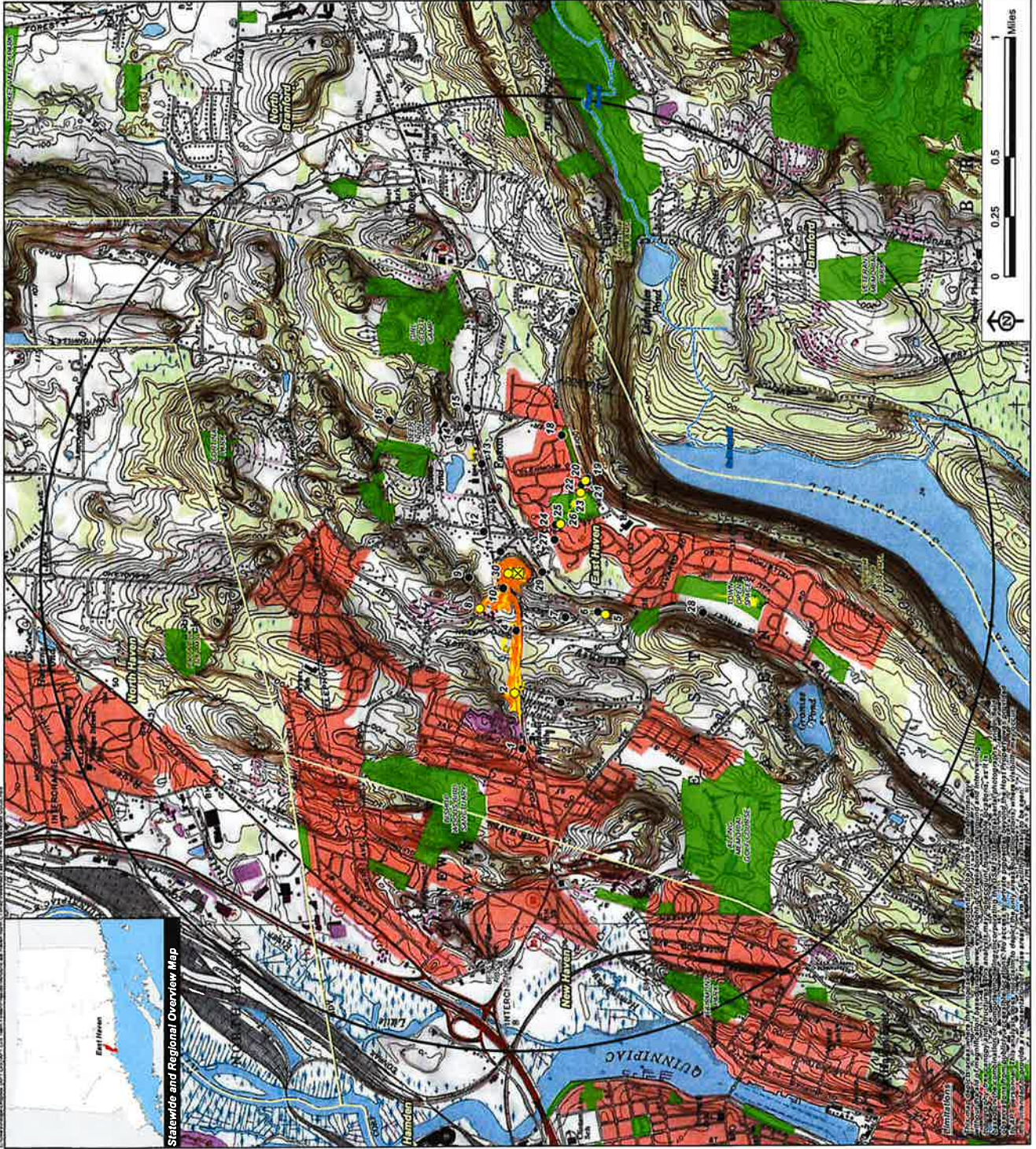
Physical Geography / Elevation Data
A digital surface model (DSM) was created from the State of Connecticut 2018 LIDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Spaces, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP.
Scenic Routes: CT DOT State Scenic Highways (2015); Municipal Scenic Routes (compiled by APT)

Identified Open Spaces & Recreation Areas
Connecticut Department of Energy and Environmental Protection (DEEP); DEEP Property (May 2007); Federal Open Space Inventory (FOSI); National Wetlands Inventory (NWI) (2002); National Wetlands Inventory (NWI) (2002); Connecticut Forest & Parks (Connecticut); Walk Route East & West (2008); The Guide to the Blue-Blazed Hiking Trails of Western Connecticut (compiled by APT)

Other
CTDOT Scenic Signs (based on Department of Transportation data)

NOTE
The features listed above appear on the Viewshed Map. Only those features within the area of the project are shown.



Viewshed Analysis Map

Proposed Wireless Telecommunications Facility

East Haven N CT

1270 North High Street

East Haven, Connecticut

Proposed facility height is 95 feet AGL.
 Forest canopy height is derived from LIDAR data.
 Study area encompasses a two-mile radius and includes 8,042 acres of land.
 Map information field verified by APT on May 29, 2019
 Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, New Haven, CT (1984) and Branford, CT (1967)
 Map Date: June 2019

- Legend**
- Proposed Site
 - Study Area (2-Mile Radius)
 - Photo Locations (May 29, 2019)
 - Not Visible
 - Year-Round Visibility
 - Predicted Year-Round Visibility (13 Acres)
 - Areas of Potential Seasonal Visibility (21 Acres)
 - Municipal Boundary
 - Trail
 - Scenic Highway
 - DEEP Boat Launches
 - Municipal and Private Open Space Property
 - State Forest/Park
 - Protected Open Space Property
 - Federal
 - Land Trust
 - Municipal
 - Private
 - State

Data Sources:

Physical Geography / Background Data
 A digital surface model (DSM) was created from the State of Connecticut 2016 LIDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.
 Municipal Open Space, State Recreation Areas, Trail, County Recreation Areas, and Town Boundary data obtained from CT DEEP.
 Scenic Routes: CT DOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Protected Open Space & Recreation Areas
 Connecticut Department of Environmental Protection (DEEP), DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)
 Connecticut Forest & Parks Association, Connecticut Walk Books East & West
 The Guide for the Blue-Blazed Hiking Trails of Western Connecticut Western Connecticut, 18th Edition, 2006

Other
 CT DOT Scenic Signs (based on Department of Transportation data)

Notes
 *Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.

ATTACHMENT 5

Site Name: EAST HAVEN N CT
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm ²)	Maximum Permissible Exposure* (mW/cm ²)	Fraction of MPE (%)
VZW 700	746	1	972	972	90	0.0432	0.4973	8.68%
VZW 850 LTE	869	1	468	468	90	0.0208	0.5793	3.59%
VZW PCS	1970	1	1439	1439	90	0.0639	1.0000	6.39%
VZW AWS	2145	1	1447	1447	90	0.0643	1.0000	6.43%
Total Percentage of Maximum Permissible Exposure								25.08%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

ATTACHMENT 6

* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *

*

Airspace User: Your Name

File: EAST_HAVEN_N_CT

Location: New Haven, CT

Latitude: 41°-19'-19.20" Longitude:
72°-50'-46.70"

SITE ELEVATION AMSL.....102 ft.
STRUCTURE HEIGHT.....95 ft.
OVERALL HEIGHT AMSL.....197 ft.
SURVEY HEIGHT AMSL.....197 ft.

NOTICE CRITERIA

- FAR 77.9(a): NNR (DNE 200 ft AGL)
- FAR 77.9(b): NNR (DNE Notice Slope)
- FAR 77.9(c): NNR (Not a Traverse Way)
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for HVN
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for MMK
- FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at

bottom

of this report.

Notice to the FAA is not required at the analyzed location and height
for slope, height or Straight-In procedures. Please review the 'Air
Navigation'
section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS

- FAR 77.17(a) (1): DNE 499 ft AGL
- FAR 77.17(a) (2): DNE - Airport Surface
- FAR 77.19(a): DNE - Horizontal Surface
- FAR 77.19(b): DNE - Conical Surface
- FAR 77.19(c): DNE - Primary Surface
- FAR 77.19(d): DNE - Approach Surface

FAR 77.19(e): DNE - Approach Transitional Surface
 FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: HVN: TWEED-NEW HAVEN

Type: A RD: 21593.64 RE: 12.3
 FAR 77.17(a)(1): DNE
 FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
 VFR Horizontal Surface: DNE
 VFR Conical Surface: DNE
 VFR Primary Surface: DNE
 VFR Approach Surface: DNE
 VFR Transitional Surface: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: MMK: MERIDEN MARKHAM MUNI

Type: A RD: 66757.27 RE: 98.6
 FAR 77.17(a)(1): DNE
 FAR 77.17(a)(2): Does Not Apply.
 VFR Horizontal Surface: DNE
 VFR Conical Surface: DNE
 VFR Primary Surface: DNE
 VFR Approach Surface: DNE
 VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)

FAR 77.17(a)(3) Departure Surface Criteria (40:1)
 DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)

FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
 The Maximum Height Permitted is 0 ft AMSL

PRIVATE LANDING FACILITIES

FACIL	BEARING	RANGE	DELTA
ARP FAA			
IDENT TYP NAME	To FACIL	IN NM	
ELEVATION IFR			
-----	-----	-----	-----
CT84 HEL PARTYKA CHEVROLET	317.73	4.18	
+147			
No Impact to Private Landing Facility Structure is beyond notice limit by 20398 feet.			
1CT2 HEL YALE NEW HAVEN HOSPITAL	255.52	4.22	-22
No Impact to Private Landing Facility Structure 22 ft below heliport.			
CT40 HEL BOB THOMAS FORD	311.79	4.3	+117
No Impact to Private Landing Facility Structure is beyond notice limit by 21127 feet.			

AIR NAVIGATION ELECTRONIC FACILITIES

GRND ANGLE	FAC APCH IDNT BEAR	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST LOCATION
.50	HVN 16	LOCALIZER	I	109.1	212.58	20771	+180	CT RWY 02 TWEED-NEW
.26	HVN	ATCT	ON	A/G	207.32	23072	+106	CT TWEED-NEW HAVEN
-.03	MAD	VOR/DME	R	110.4	94.06	42439	-19	CT MADISON
-.28	JWE	NDB	I	36	286.84	76318	-374	CT CLERA
.11	BDR	VOR/DME	R	108.8	232.37	96480	+188	CT BRIDGEPORT
-.26	HFD	VOR/DME	R	114.9	35.06	142216	-652	CT HARTFORD
.04	CCC	VOR/DME	R	117.2	174.79	143564	+112	NY CALVERTON
0.00	KOKX	RADAR WXL	Y		181.66	166375	+2	NY NEW YORK
-.05	QVH	RADAR ARSR	Y	1326.9	164.87	167361	-154	NY RIVERHEAD
.05	FOK	TACAN	R	111.0	161.54	186080	+147	NY SUFFOLK CO
MacAR 0.00	ISP	RADAR	ON	2735.	200.01	200076	+15	NY LONG ISLAND
-.14	CMK	VOR/DME	R	116.6	265.43	202540	-497	NY CARMEL
.05	HTO	VORTAC	R	113.6	135.35	207020	+175	NY HAMPTON
-.01	BDL	RADAR	ON		11.22	229084	-39	CT BRADLEY INTL

CFR Title 47, §1.30000-§1.30004

AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.

Movement Method Proof as specified in §73.151(c) is not required. Please review 'AM Station Report' for details.

Nearest AM Station: WAVZ @ 9182 meters.

Airspace® Summary Version 19.3.528

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04-25-2019
 08:57:03

ATTACHMENT 7

September 10, 2019

Via Certificate of Mailing

Joseph Maturo, Jr., Mayor
Town of East Haven
250 Main Street
East Haven, CT 06512

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility at 1270 North High Street, East Haven, Connecticut**

Dear Mayor Maturo:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to establish a new telecommunications facility on the roof of the Woodview Senior Housing Community building at 1270 North High Street in East Haven (the “Property”).

The facility will consist of six (6) panel antennas and six (6) remote radio heads (“RRHs”) attached to a 55-foot tower in the center portion of the roof of the building. Equipment associated with Cellco’s antennas and a 30 kW natural gas backup generator will be located on a 12’-6” x 34’ steel platform near the base of the tower.

A copy of the full Petition is attached for your review. Landowners whose parcels are considered to abut the Property were also sent notice of this filing along with a copy of the Petition.

Robinson+Cole

Joseph Maturo, Jr., Mayor
September 10, 2019
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

Attachment

September 10, 2019

Via Certificate of Mailing

Christopher Soto, Planning and Zoning Enforcement Officer
Town of East Haven
250 Main Street
East Haven, CT 06512

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility at 1270 North High Street, East Haven, Connecticut**

Dear Mr. Soto:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to establish a new telecommunications facility on the roof of the Woodview Senior Housing Community building at 1270 North High Street in East Haven (the “Property”).

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A copy of the full Petition is attached for your review. Landowners whose parcels are considered to abut the Property were also sent notice of this filing along with a copy of the Petition.

19776081-v1

Robinson + Cole

Christopher Soto, Planning and Zoning Enforcement Officer
September 10, 2019
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

Attachment

September 10, 2019

Via Certificate of Mailing

Woodview Associates
1270 North High Street
East Haven, CT 06512

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility at 1270 North High Street, East Haven, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to establish a new telecommunications facility on the roof of the Woodview Senior Housing Community building at 1270 North High Street in East Haven (the “Property”).

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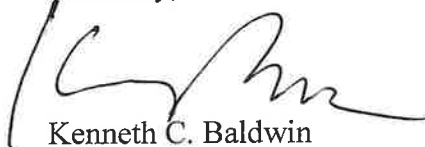
A copy of the full Petition is attached for your review. Landowners whose parcels are considered to abut the Property were also sent notice of this filing along with a copy of the Petition.

Robinson+Cole

Woodview Associates
September 10, 2019
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Baldwin', written over a light blue horizontal line.

Kenneth C. Baldwin

Attachment

ATTACHMENT 8

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

September 10, 2019

Via Certificate of Mailing

«Name_and_Address»

Re: Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility at 1270 North High Street, East Haven, Connecticut

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to establish a new telecommunications facility on the roof of the Woodview Senior Housing Community building at 1270 North High Street in East Haven (the “Property”).

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September 10, 2019
Page 2

This notice is being sent to you because you are listed on the Town Assessor's records as an owner of land that abuts the Property. If you have any questions regarding the Petition, the Council's process for reviewing the Petition or the details of the filing itself, please feel free to contact me at the number listed above. You may also contact the Council directly at 860-827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTING PROPERTY OWNERS

**1270 NORTH HIGH STREET
EAST HAVEN, CONNECTICUT**

	Property Address	Owner's and Mailing Address
1.	539 Foxon Road	South Central Connecticut Regional Water 90 Sargent Drive New Haven, CT 06511
2.	1 Old Gay Street	Sarah E. and Harry Magoveny 531 Foxon Road East Haven, CT 06513
3.	3 Old Gay Street	Robert L. Phan 3 Old Gay Street East Haven, CT 06513
4.	523 Foxon Road	Joseph Armino and Glendy Franco 523 Foxon Road East Haven, CT 06513
5.	519 Foxon Road	Frank and Victoria Pantalena 519 Foxon Road East Haven, CT 06513
6.	515 Foxon Road	Michael Anthony Shea and Marie Sharron 515 Foxon Road East Haven, CT 06513
7.	222 Maple Street	David Tanner and Maria Samperi 222 Maple Street East Haven, CT 06513
8.	215 Maple Street	Jane Severance 215 Maple Street East Haven, CT 06513
9.	214 Maple Street	Timothy and Rae Ann Cordova 214 Maple Street East Haven, CT 06513

	Property Address	Owner's and Mailing Address
10.	204 Maple Street	Charles and Carol Gallagher 204 Maple Street East Haven, CT 06513
11.	198 Maple Street	Douglas B. Gladstone 601 Rosery Road NE #1804 Largo, FL 33770
12.	1292 North High Street	Cynthia Wanda Rojas 1292 North High Street East Haven, CT 06512
13.	1286 North High Street	Shaun P. and Andrea Coughlin 1286 North High Street East Haven, CT 06512
14.	1285 North High Street	Norma and Frank Esposito, Jr. 1285 North High Street East Haven, CT 06512
15.	1281 North High Street	William and Donna Pherson 1281 North High Street East Haven, CT 06512
16.	1225 North High Street	East Haven Community Church 1225 North High Street East Haven, CT 06512
17.	1268 North High Street	Anthony J. Cuomo 61 Ranch Road Hamden, CT 06517
18.	1218 North High Street	Howard and Robbin Gianotti 1270 North High Street East Haven, CT 06512
19.	1230 North High Street	Ralph J. and Lizbeth Theroux Acampora 103 Pleasant Avenue East Haven, CT 06512
20.	580 Foxon Road	Nancy Sicha 580 Foxon Road East Haven, CT 06513