Connecticut
still revolutionary
Department of Economic and Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | DECD.org

PROJECT REVIEW COVER FORM

This is: ■ a new submittal ☐ supplemental information ☐ other Date Submitted: 8/12/20

PROJECT INFORMATION

Project Name: Branford DOT Tower Replacement

Project Proponent: Department of Emergency Services and Public Protection
The individual or group sponsoring, organizing, or proposing the project.

Project Street Address: Leetes Island Road
Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town: Branford County: New Haven
Please use the municipality name and **not** the village or hamlet.

PROJECT DESCRIPTION (REQUIRED)

Please summarize the project below. In a separate attachment, describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction.

Replacement of a 100' monopole tower with an equal sized self-supporting, lattice telecommunications tower.

Adding a 12' x 34' equipment shelter with generator room. All to be built within a 50' x 50' fenced compound.

List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:

Agency Type	Agency Name	Program Name
■ State ☐ Federal	Department of Emergency Services and Public Protection	Funded by State bonding
■ State ☐ Federal	Department of Transportation	Not providing funding
☐ State ☐ Federal		
☐ State ☐ Federal		

If there is no state or federal agency involvement, please state the reason for your review request:
N/A

FOR SHPO USE ONLY

Based on the information submitted to our office for the above named property and project, it is the opinion of the Connecticut State Historic Preservation Office that no historic properties will be affected by the proposed activities.*

Mary Dunne/Catherine Labadia Date
Deputy State Historic Preservation Officer

*All other determinations of effect will result in a formal letter from this office

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PROJECT REVIEW COVER FORM

CULTURAL RESOURCES IDENTIFICATION

Background research for previously identified historic properties within a project area may be undertaken at the SHPO's office. To schedule an appointment, please contact Catherine Labadia, 860-500-2329 or Catherine.labadia@ct.gov. Some applicants may find it advantageous to hire a qualified historic preservation professional to complete the identification and evaluation of historic properties.

Are there any historic properties listed on the State or National Register of Historic Places within the project area?

☐ Yes ■ No ☐ Do Not Know **If yes**, please identify: _____

Architecture

Are there any buildings, structures, or objects within the project area (houses, bridges, barns, walls, etc.)?

☐ Yes (attach clearly labelled photographs of each resource and applicable property cards from the municipality assessor)

■ No (proceed to next section)

Date of existing building/structures/objects? _____

If the project involves rehabilitation, demolition, or alterations to existing buildings older than 50 years, provide a work plan (If window replacements are proposed, provide representative photographs of existing windows).

Archeology

Does the proposed project involve ground disturbing activities?

■ Yes (provide below or attach a description of current and prior land use and disturbances. Attach an excerpt of the soil survey map for the project area. These can be created for free at: https://websoilsurvey.nrcs.usda.gov

Udorthents-Urban land complex in half of the parent parcel and Wethersfield loam in the other half of the lot; see attached Phase I Env. Site Survey & NRCS Soil Report

☐ No

CHECKLIST (Did you attach the following information?)

Required for all Projects	Required for Projects with architectural resources
■ Completed Form	☐ Work plans for rehabilitation or renovation
■ Map clearly labelled depicting project area	■ Assessor's Property Card
■ Photographs of current site conditions	Required for Projects with ground disturbing activities
■ Site or project plans for new construction	■ Soil survey map
Suggested Attachments, as needed	
■ Supporting documents needed to explain project	■ Supporting documents identifying historic properties
■ Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)	

PROJECT CONTACT

Name: Mark Gorka Firm/Agency: DESPP - DSET

Address: 1111 Country Club Road

City: Middletown State: CT Zip: 06457

Phone: 860-508-9684 Email: mark.gorka@ct.gov

Federal and state laws exist to ensure that agencies, or their designated applicants, consider the impacts of their projects on historic resources. At a minimum, submission of this completed form with its attachments constitutes a request for review by the Connecticut SHPO. The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant. The role of SHPO is to review, comment, and consult. SHPO's ability to complete a timely project review largely depends on the quality of the materials submitted. Please mail the completed form with all attachments to the attention of: Environmental Review, State Historic Preservation Office, 450 Columbus Boulevard, Suite 5, Hartford, CT. **Electronic submissions are not accepted at this time**.

CONNECTICUT DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION (DESPP)

COMMUNICATIONS UPGRADE PROJECT

BRANFORD DOT FACILITY

LEETES ISLAND RD
BRANFORD, CT 06405

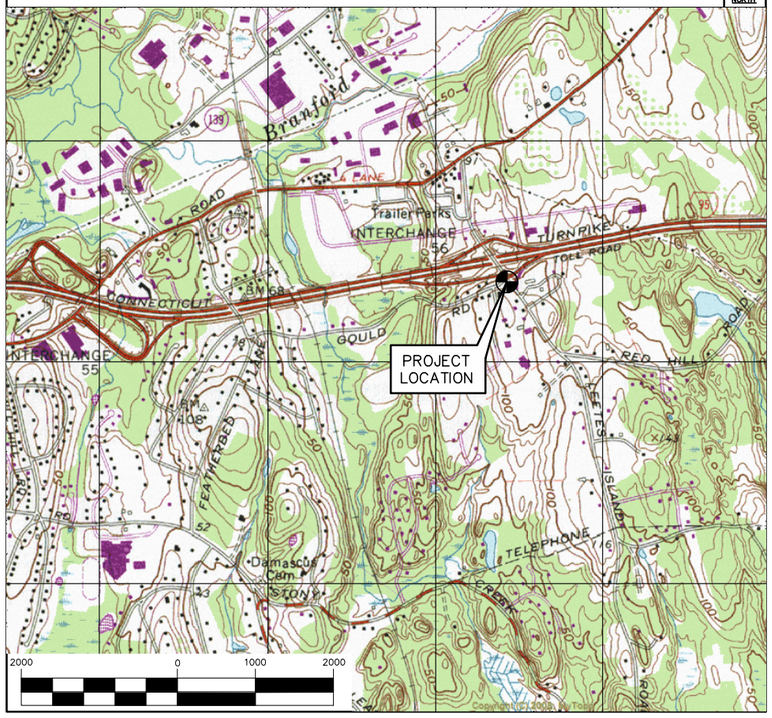
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E-8	ELECTRICAL SPECIFICATIONS	0
E-9	ELECTRICAL SPECIFICATIONS	0

SITE COORDINATES: LATITUDE: 41° 17' 41.60" N
LONGITUDE: 72° 45' 42.40" W
GROUND ELEVATION: ±106' AMSL

COORDINATES AND GROUND ELEVATION PROVIDED BY PYRAMID NETWORK SERVICES

VICINITY MAP — **SCALE: 1" = 2000'** — NORTH



PROJECT SCOPE

1. INSTALL (1) NEW TX ANTENNA
2. INSTALL (2) NEW RX ANTENNA
3. INSTALL (1) TOWER TOP AMPLIFER
4. INSTALL (3) NEW SIDE ARM MOUNTS
5. A PROPOSED ±12'x34' PREFABRICATED EQUIPMENT SHELTER WITH INDOOR GENERATOR ROOM
6. INSTALL (1) NEW COAX CABLE ICE BRIDGE
7. INSTALL (1) 1000 GAL. UNDERGROUND PROPANE TANK
8. INSTALL (1) NEW 4" PVC INTERCONNECT CONDUIT
9. NEW ±50'x50' EQUIPMENT COMPOUND FENCED IN WITH ±8' TALL BARBED WIRE CHAINLINK FENCE
10. TWO (2) GPS ANTENNAS MOUNTED ON A PROPOSED CABLE ICE BRIDGE
11. PROPOSED NEW 400 AMP UNDERGROUND ELECTRICAL SERVICE TO NEW ELECTRIC METER AND DISCONNECT MOUNTED ON THE PROPOSED EQUIPMENT SHELTER.
12. A NEW SINGLE PHASE UNINTERRUPTIBLE POWER SUPPLY (10 TO 20 KVA), UPS CHARGER AND 100 AMP DISCONNECT SWITCH WILL BE INSTALLED WITHIN THE PROPOSED EQUIPMENT SHELTER.

PROJECT SUMMARY

SITE NAME:	BRANFORD DOT FACILITY
SITE ADDRESS:	LEETES ISLAND RD BRANFORD, CT 06405
PROPERTY OWNER:	STATE OF CONNECTICUT LEETES ISLAND RD BRANFORD, CT 06405
CUSTOMER CONTACT:	CONNECTICUT DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION (DESPP) (860) 685-8090
PROJECT MANAGER:	MOTOROLA SOLUTIONS GARY FLEISCH (203) 231-1397 PYRAMID NETWORK SERVICES, LLC ROB MCCABE (315) 373-3040
PROJECT ENGINEER:	MOTOROLA SOLUTIONS ROB CADY (860) 456-4091
ENGINEER OF RECORD:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD ROAD BRANFORD, CT 06405
CENTEK CONTACT:	CARLO F. CENTORE, P.E. (203) 433-7511 EXT 122

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PYRAMID Network Services, LLC
MOTOROLA SOLUTIONS

CENTEK engineering
Centered on Solutions℠
www.CentekEng.com
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(203) 488-8587 Fax
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REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	07/28/20	ASC	LGL	ISSUED FOR CONSTRUCTION

Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD
BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: TITLE SHEET

Dwg. No.: T - 1

Sheet 1 of 23

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CT STATE BUILDING CODE AND AMENDMENTS.

1. DESIGN CRITERIA:

- WIND LOAD: PER TIA 222 G (ANTENNA MOUNTS): 115 MPH (3 SECOND GUST)
- RISK CATEGORY: II (BASED ON IBC TABLE 1604.5)
- NOMINAL DESIGN SPEED (OTHER STRUCTURE): 101 MPH (Vasd) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7–10) PER 2015 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.
- SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7–10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE, INCLUDING THE TIA–222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2018 CONNECTICUT FIRE SAFETY CODE AND 2017 NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD–OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS–BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
7. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
9. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
10. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
11. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
12. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE SITE OWNER'S CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON–SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
14. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
16. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
18. THE CONTRACTOR SHALL CONTACT "DIG SAFE" (DIAL 811) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
19. CONTRACTOR SHALL COMPLY WITH OWNERS ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

SITE NOTES

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. ALL RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED OFF SITE AND BE LEGALLY DISPOSED, AT NO ADDITIONAL COST.
4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.
5. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
6. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
7. THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
8. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
9. IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

EARTHWORK NOTES

1. COMPACTED GRAVEL FILL SHALL BE FURNISHED AND PLACED AS A FOUNDATION FOR STRUCTURES, WHERE SHOWN ON THE CONTRACT DRAWINGS OR DIRECTED BY THE ENGINEER.
2. CRUSHED STONE FILL SHALL BE PLACED IN 12" MAX. LIFTS AND CONSOLIDATED USING A HAND OPERATED VIBRATORY PLATE COMPACTOR WITH A MINIMUM OF 2 PAQSSES OF COMPACTOR PER LIFT.
3. COMPACTED GRAVEL FILL TO BE WELL GRADED BANK RUN GRAVEL MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
1 ½"	100
No. 4	40–70
No. 100	5–20
No. 200	4–8

4. CRUSHED STONE TO BE UNIFORMLY GRADED, CLEAN, HARD PROCESS AGGREGATE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
1"	100
¾"	90–100
½"	0–15
⅜"	0–5

5. SELECT BACKFILL FOR FOUNDATION WALLS SHALL BE FREE OF ORGANIC MATERIAL, TOPSOIL, DEBRIS AND BOULDERS LARGER THAN 6".
6. GRAVEL AND GRANULAR FILL SHALL BE INSTALLED IN 8" MAX. LIFTS. COMPACTED TO 95% MIN. AT MAX. DRY DENSITY.
7. NON WOVEN GEOTEXTILE FOR SEPARATION PURPOSES SHALL BE MIRAFI 140N, OR ENGINEER APPROVED EQUAL.

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REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	07/28/20	ASC	LGL	ISSUED FOR CONSTRUCTION

Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: NOTES AND SPECIFICATIONS

Dwg. No.: N – 1

NOTES AND SPECIFICATIONS

SLAB ON GRADE CONSTRUCTION:

1. PLACE AND COMPACT GRAVEL FILL IN LAYERS NOT TO EXCEED 10" BEFORE COMPACTION. DETERMINE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557 AND MAKE ONE (1) FIELD DENSITY TEST IN ACCORDANCE WITH ASTM D2167 FOR EACH 50 CUBIC YARDS OF COMPACTED FILL, BUT NOT LESS THAN ONE (1) PER LAYER, TO ENSURE COMPACTION TO 95% OF MAXIMUM DRY DENSITY.

2. SAW CUT CONTROL JOINTS 1 /8" WIDE AND TO A DEPTH EQUAL TO 1 /4 OF THE SLAB THICKNESS. CONSTRUCTION JOINTS AS REQUIRED SHALL BE KEYED AND LOCATED AT CONTROL JOINT INTERVALS. ALL CONTROL JOINTS SHALL BE FILLED WITH EUCO EPOXY #600 EPOXY JOINT FILLER AS MANUFACTURED BY EUCLID CHEMICAL CO. OR APPROVED EQUAL.

3. SAW CUT CONTROL JOINTS AT 20'–0" ON CENTER MAXIMUM WITHIN 12 HOURS OF CONCRETE PLACEMENT.

4. SLABS ON GRADE FINISHES: STEEL TROWEL FINISH AS DEFINED IN ACI 301. CURE SLAB WITH SONNEBORN KURE–N–SEAL WB OR APPROVED EQUAL, APPLIED AS RECOMMENDED BY MANUFACTURER.

5. CONSTRUCTION JOINT SPACING IN FOUNDATION WALLS SHALL NOT EXCEED 40 FEET NOR 20 FEET FROM ANY CORNER. JOINTS SHALL BE KEYED AND HORIZONTAL BARS SHALL EXTEND THRU JOINT AND BE 48 BAR DIAMETER SPLICED.

6. IN REINFORCED CONCRETE WALLS AND FOOTINGS, PROVIDE CORNER DOWELS OF THE SAME SIZE AND AT THE SAME SPACING AS HORIZONTAL REINFORCING. DOWELS SHALL HAVE A 48 BAR DIAMETER SPLICE WITH HORIZONTAL REINFORCING EACH DIRECTION.

7. WHERE FOOTINGS ARE IN CLOSE PROXIMITY TO SUBSURFACE PIPING, TOP OF FOOTING SHALL BE LOWERED TO PROVIDE A MINIMUM OF 8" BELOW INVERT ELEVATION OF PIPING.

8. CONCRETE PIERS (IF PROVIDED): PLACE CONCRETE PIERS AND WALLS TOGETHER, SET PIER STEEL AND EXTEND WALL STEEL THROUGH PIER VERTICAL BARS. PROVIDE DOWELS WITH STANDARD HOOK FROM FOOTINGS AT ALL PIERS. SIZE AND QUANTITY OF DOWELS TO MATCH VERTICAL PIER REINFORCING.

9. PROVIDE CORROSION RESISTANT ACCESSORIES IN ALL EXPOSED CONCRETE.

10. RUB ALL EXPOSED CONCRETE SURFACES SMOOTH AND FINISH WITH CEMENT GROUT.

11. PROVIDE AIR ENTRAINMENT IN ALL EXTERIOR CONCRETE AS WELL AS GARAGE AND PORCH SLABS THAT WILL BE EXPOSED TO DEICING SALTS.

FOUNDATION CONSTRUCTION NOTES

1. ALL FOOTINGS SHALL BE PLACED ON SUITABLE, COMPACTED SOIL HAVING ADEQUATE BEARING CAPACITY AND FREE OF ORGANIC CONTENT, CLAY, OR OTHER UNSUITABLE MATERIAL. ADDITIONAL EXCAVATION MAY BE REQUIRED BELOW FOOTING ELEVATIONS INDICATED IF UNSUITABLE MATERIAL IS ENCOUNTERED.

2. SUBGRADE PREPARATION: IF UNSUITABLE SOIL IS ENCOUNTERED, REMOVE ALL UNSUITABLE MATERIALS FROM BELOW PROPOSED STRUCTURE FOUNDATIONS AND COMPACT EXPOSED SOIL SURFACES. PLACE AND COMPACT APPROVED GRAVEL FILL. PLACEMENT OF ALL COMPACTED FILL MUST BE UNDER SUPERVISION OF AN APPROVED TESTING LABORATORY. FILL SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 10" BEFORE COMPACTION. DETERMINE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557–70 AND MAKE ONE (1) FIELD DENSITY TEST IN ACCORDANCE WITH ASTM D2167–66 FOR EACH 50 CUBIC YARDS OF COMPACTED FILL. BUT NOT LESS THAN ONE (1) PER LAYER, TO INSURE COMPACTION TO 95% OF MAX. DRY DENSITY.

3. ALL SOIL SURROUNDING AND UNDER ALL FOOTINGS SHALL BE KEPT REASONABLY DRY AND PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION.

4. WHERE GROUNDWATER IS ENCOUNTERED, DEWATERING SHALL BE ACCOMPLISHED CONTINUOUSLY AND COMPLETELY DURING FOUNDATION CONSTRUCTION. PROVIDE CRUSHED STONE AS REQUIRED TO STABILIZE FOOTING SUBGRADE.

5. ALL FOOTINGS ARE TO REST ON FIRM SOIL, REGARDLESS OF ELEVATIONS SHOWN ON THE DRAWINGS, BUT IN NO CASE MAY FOOTING ELEVATIONS BE HIGHER THAN INDICATED ON THE FOUNDATION PLAN, UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

6. FOUNDATION WATERPROOFING AND DAMPPROOFING SHALL COMPLY WITH BUILDING CODE REQUIREMENTS UNLESS A MORE SUBSTANTIAL SYSTEM IS INDICATED OR SPECIFIED.

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Project Name:
BRANFORD DOT FACILITY

Location:
LEETES ISLAND RD
BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: NOTES AND SPECIFICATIONS

Dwg. No.: N – 2

Sheet 3 of 23

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No. 16694
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1 / C–0 **SITE LOCATION MAP**

SCALE: 1" = 250'

NORTH

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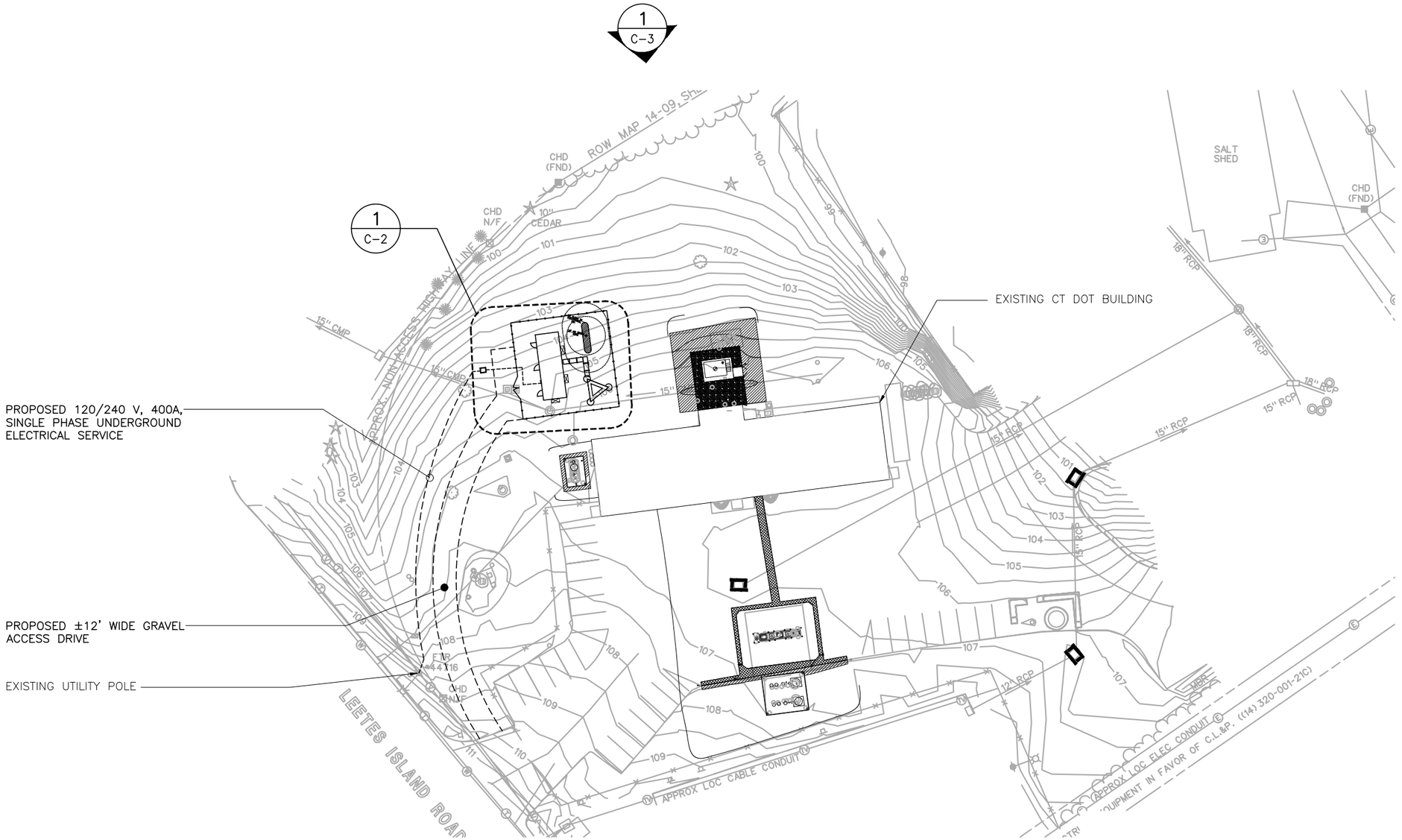
Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD
BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: SITE LOCATION MAP

Dwg. No.: C – 0



1 / C-1 **SITE PLAN - PROPOSED**
SCALE: 1" = 60'- 0"

APPROXIMATE NORTH

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

PROFESSIONAL ENGINEER SEAL
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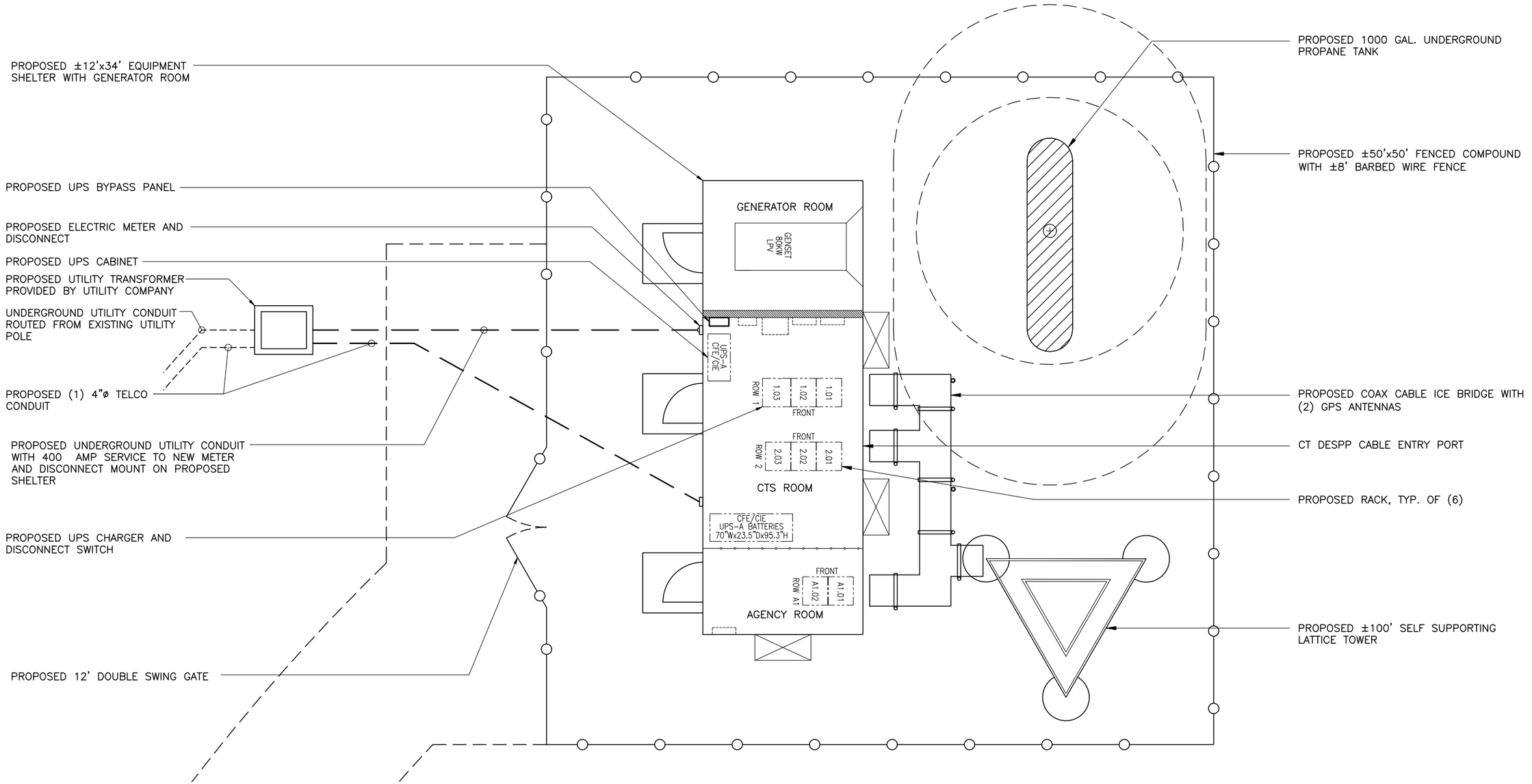
Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD
BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: PARTIAL SITE PLAN

Dwg. No.: C - 1



1 / C-2 **COMPOUND PLAN - PROPOSED**

SCALE: 1/8" = 1'- 0"

APPROXIMATE NORTH

PROFESSIONAL ENGINEER SEAL

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(203) 488-8587 Fax
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REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	07/28/20	ASC	LGL	ISSUED FOR CONSTRUCTION

Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: PARTIAL SITE PLAN

Dwg. No.: C - 2

ANTENNA MODEL	BASE HEIGHT	ANTENNA SIZE	ANTENNA TYPE	QUANTITY	LINE TYPE	LINE SIZE
DBSPECTRA DS7C09P36U–D	100'	14.2'L x 3"ø	DESPP TROOP F P25 TX OMNI	1	AVA TRANSMISSION	(1) 1–5/8"
DBSPECTRA DS7C09P36U–D	100'	14.2'L x 3"ø	DESPP TROOP F P25 RX OMNI (INVERTED)	1	AVA TRANSMISSION	(1) 1–5/8"
DBSPECTRA DS7C09P36U–D	100'	14.2'L x 3"ø	DESPP TROOP F P25 DIVERSITY RX (INVERTED)	1	AVA TRANSMISSION	(1) 1–5/8"
TX/RX 432F–83W–01–T	100'	15"LX12"WX7.5"D	DESPP TROOP F DIVERSITY TTA	1	LDF TRANSMISSION	(1) 1/2"
DBSPECTRA DS7C09P36U–D	100'	14.2'L x 3"ø	DESPP MUTUAL AID RX OMNI (INVERTED)	1	AVA TRANSMISSION	(1) 1–5/8"
DBSPECTRA DS7C09P36U–D	100'	14.2'L x 3"ø	DESPP MUTUAL AID TX OMNI	1	AVA TRANSMISSION	(1) 1–5/8"
DBSPECTRA DS4F06P36U–D	60'	14.2'L x 3"ø	TOWN OF GUILFORD OMNI	1	AVA TRANSMISSION	(1) 1–5/8"
DBSPECTRA DS4F06P36D6D	70'	14.2'L x 3"ø	TOWN OF BRANFORD DUAL WHIP	1	AVA TRANSMISSION	(2) 1–5/8"
DBSPECTRA DS4F06P36D6D	100'	14.2'L x 3"ø	TOWN OF BRANFORD DUAL WHIP	1	AVA TRANSMISSION	(2) 1–5/8"

NOTES:

1) INSTALL APPROXIMATELY 150' OF 1–5/8" AVA TRANSMISSION LINE, CONNECTED TO THE DESPP TROOP F P25 TX OMNI ANTENNA AND A SURGE PROTECTOR IN THE EQUIPMENT SHELTER.

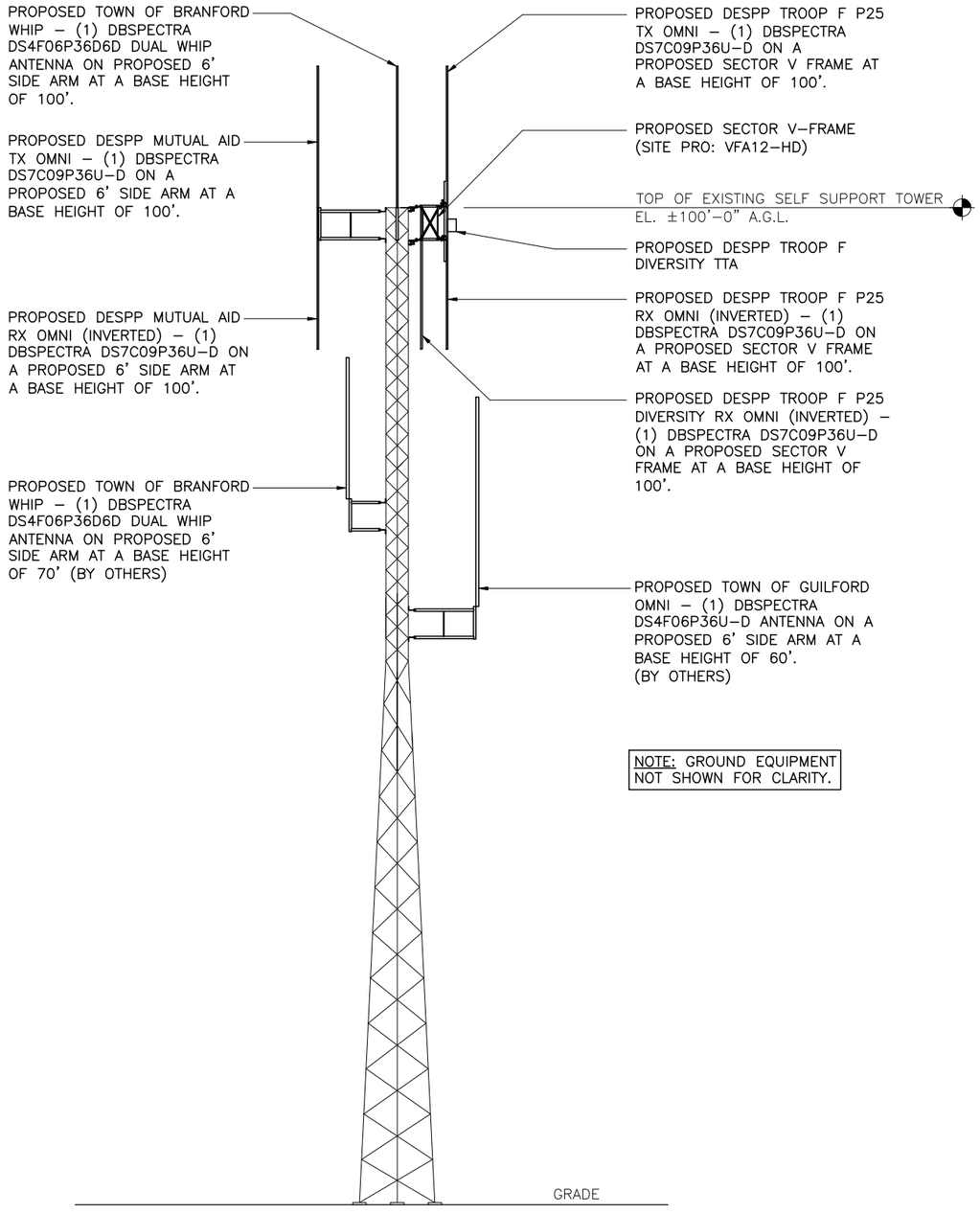
2) CONNECT DESPP TROOP F P25 RX OMNI ANTENNA TO NEW TTA. INSTALL APPROXIMATELY 150' OF 1–5/8" AVA TRANSMISSION LINE CONNECTED TO THE TTA RF DOWN A CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.

3) CONNECT DESPP TROOP F P25 DIVERSITY RX OMNI ANTENNA TO NEW TTA. INSTALL APPROXIMATELY 150' OF 1–5/8" AVA TRANSMISSION LINE CONNECTED TO THE TTA RF DOWN B CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.

4) INSTALL APPROXIMATELY 150' OF 1/2" LDF TRANSMISSION LINE, CONNECTED TO THE TTA TEST CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.

5) INSTALL APPROXIMATELY 150' OF 1–5/8" AVA TRANSMISSION LINE, CONNECTED TO THE DESPP MUTUAL AID RX OMNI ANTENNA AND SURGE PROTECTOR IN THE EQUIPMENT SHELTER.

6) INSTALL APPROXIMATELY 150' OF 1–5/8" AVA TRANSMISSION LINE, CONNECTED TO THE DESPP MUTUAL AID TX OMNI ANTENNA AND SURGE PROTECTOR IN THE EQUIPMENT SHELTER.



NOTE: GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

1 / C–3 **PROPOSED TOWER ELEVATION**

SCALE: 1" = 15'– 0"

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Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: TOWER ELEVATION

Dwg. No.: C – 3

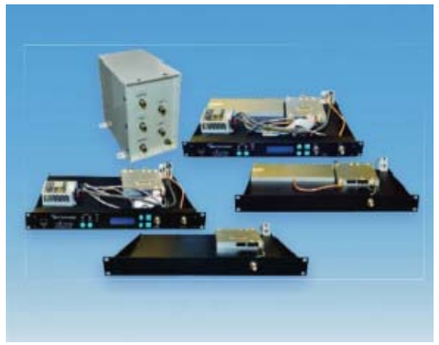
DB SPECTRA: DS4F06P36D-6D

DB SPECTRA: DSC09P36U-D

PROPOSED ANTENNAS		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: DB SPECTRA MODEL: DS7C09P36U-D	14.2'L x 2.5"ø	66 LBS.
MAKE: DB SPECTRA MODEL: DS4F06P36D-6D	21.0'L x 3.5"ø	65 LBS.

1 C-4 ANTENNA DETAILS

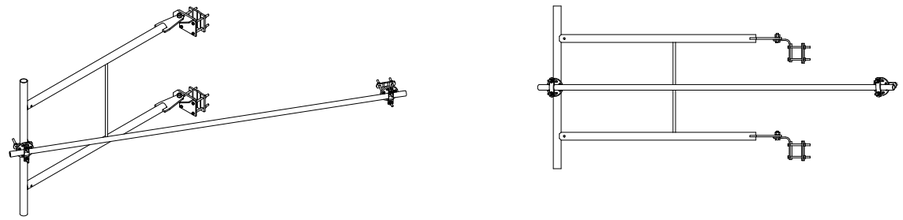
SCALE: NOT TO SCALE



PROPOSED TX/RX AMPLIFIER		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: TX/RX MODEL 432F-83W-01-T	11.3"L x 7"W X 10.2"D	25 LBS.

2 C-4 TX/RX AMPLIFIER DETAIL

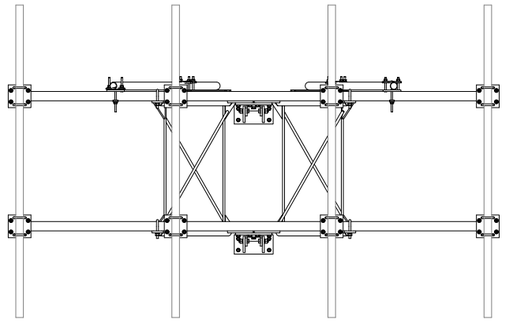
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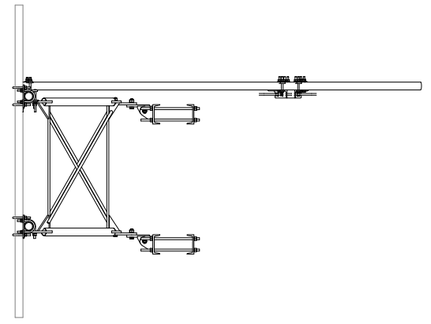


SITEPRO: (P/N: PSA6)

3 C-4 6' SIDE ARM MOUNT DETAIL

SCALE: NOT TO SCALE





SITEPRO: (P/N: VFA12-HD)

4 C-4 V-FRAME MOUNT DETAIL

SCALE: NOT TO SCALE

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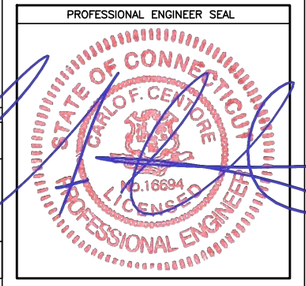
Centek Project No.: 19160.04

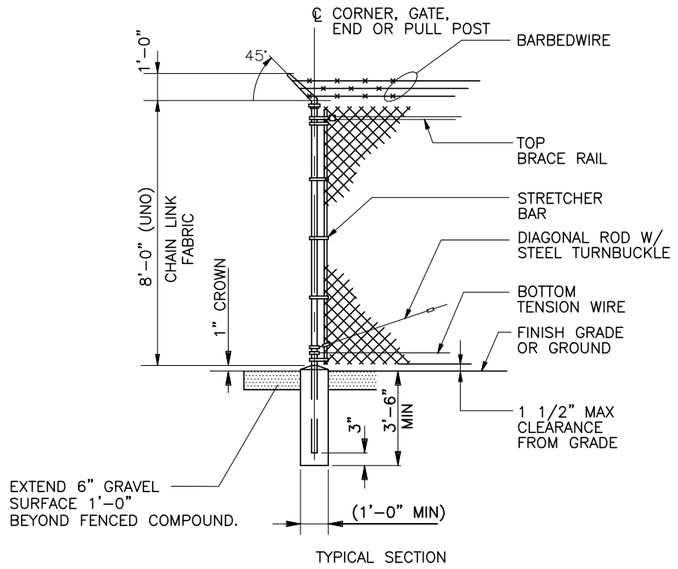
Drawing Title.: TYPICAL DETAILS

Dwg. No.: C - 4

Sheet 8 of 23

PROFESSIONAL ENGINEER SEAL





TYPICAL SECTION

1 / C-5 **WOVEN WIRE FENCE DETAIL**

NOT TO SCALE

WOVEN WIRE FENCE NOTES:

1. GATE POST, CORNER, TERMINAL OR PULL POST 2 ½"ø SCHEDULE 40 PIPE FOR GATE WIDTHS UP THRU 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM–F1083.
2. LINE POST: 2"ø SCHEDULE 40 PIPE PER ASTM–F1083.
3. GATE FRAME: 1 ½"ø SCHEDULE 40 PIPE PER ASTM–F1083.
4. TOP RAIL & BRACE RAIL: 1 ½"ø SCHEDULE 40 PIPE PER ASTM–F1083.
5. FABRIC: 12 GA. CORE WIRE SIZE 1 ¼" MESH, CONFORMING TO ASTM–A392.
6. TIE WIRE: MINIMUM 11 GA. GALVANIZED STEEL AT POSTS AND RAILS. A SINGLE WRAP OF FABRIC TIE AND TENSION WIRE BY HOG RINGS SPACED 24" INTERVALS.
7. TENSION WIRE: 7 GA. GALVANIZED STEEL.
8. GATE LATCH: DROP DOWN LOCKABLE FORK HATCH AND LOCK, KEYED TO OWNER'S REQUIREMENTS.
9. HEIGHT TO MATCH EXISTING.

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CARLO F. CENTORE
NO. 16694
LICENSED
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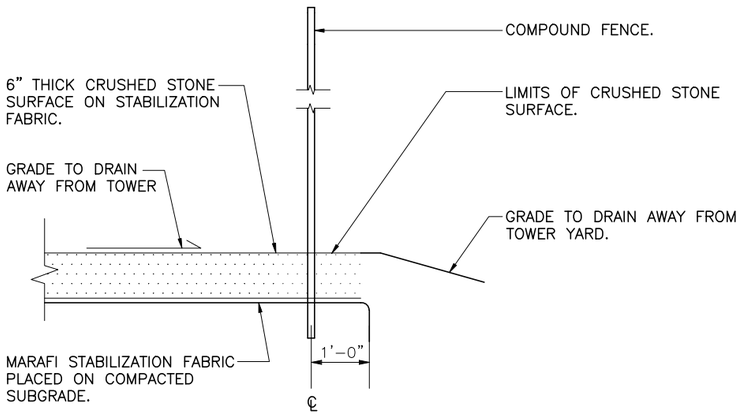
Project Name: BRANFORD DOT FACILITY

Location: LEETES ISLAND RD
BRANFORD, CT 06405

Centek Project No.: 19160.04

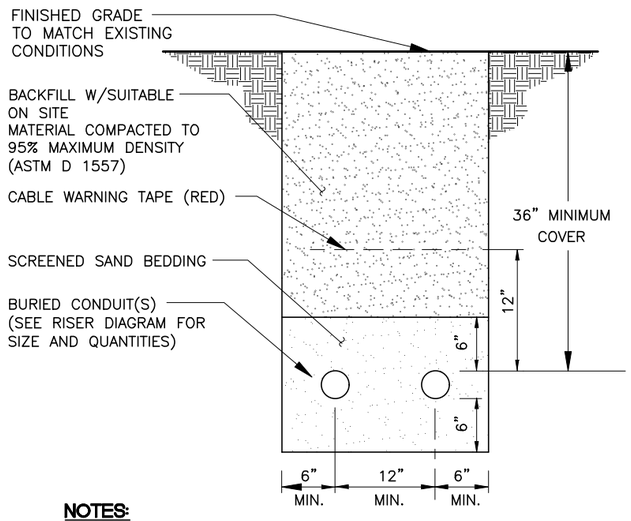
Drawing Title.: TYPICAL DETAILS

Dwg. No.: C - 5



1 / C-6 **COMPOUND SURFACING DETAIL**

NOT TO SCALE

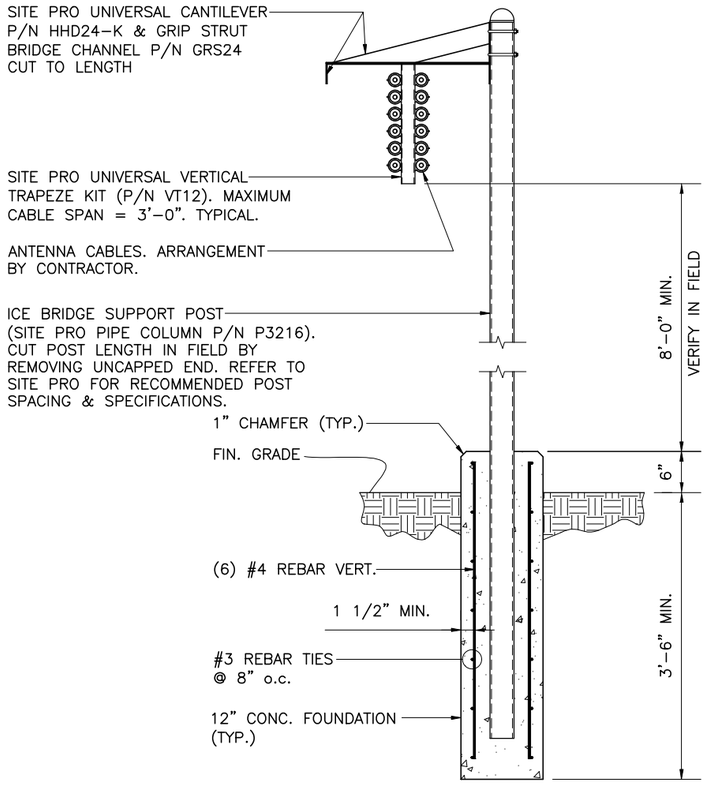


NOTES:

1. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
2. WHERE SHALLOW BEDROCK IS ENCOUNTERED BETWEEN UTILITY SOURCE AND SERVICE EQUIPMENT, COORDINATE WITH UTILITY COMPANY FOR BURIAL DEPTH REQUIREMENTS.
3. COORDINATE WITH ELECTRICAL ENGINEER WHERE SHALLOW BEDROCK IS ENCOUNTERED BETWEEN SERVICE EQUIPMENT AND EQUIPMENT SHELTER.

3 / C-6 **TYPICAL ELECTRICAL TRENCH DETAIL**

NOT TO SCALE



2 / C-6 **SINGLE-POST ICE BRIDGE DETAIL**

NOT TO SCALE

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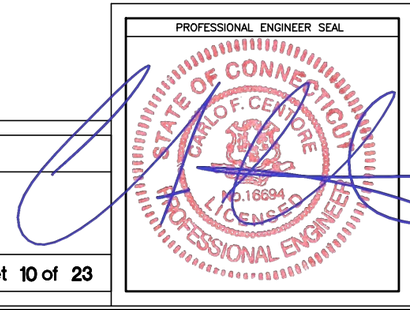
Centek Project No.: 19160.04

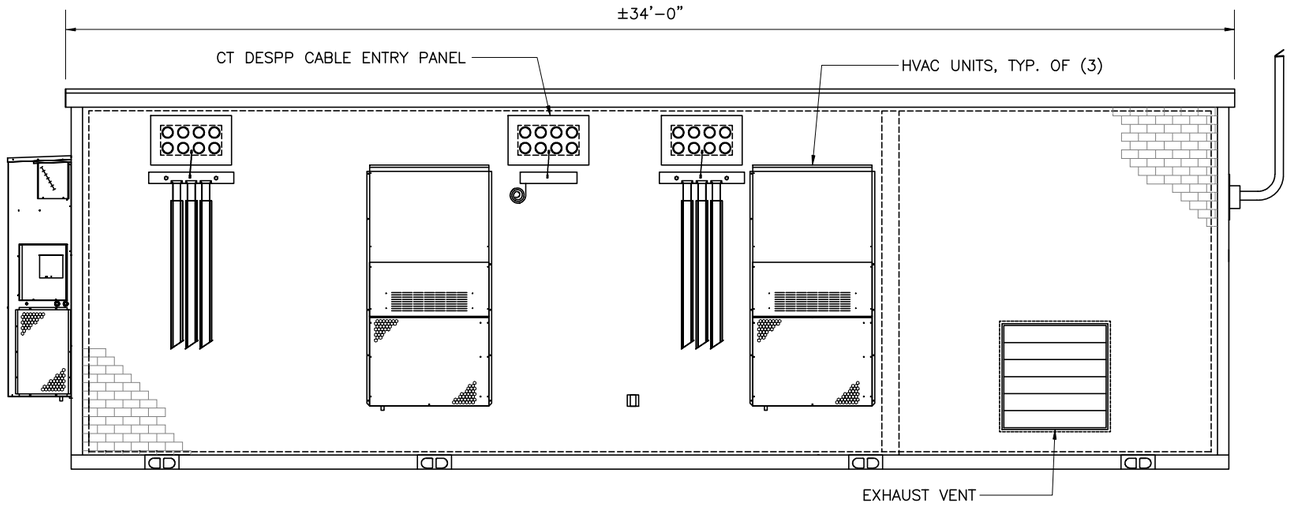
Drawing Title.: TYPICAL DETAILS

Dwg. No.: C - 6

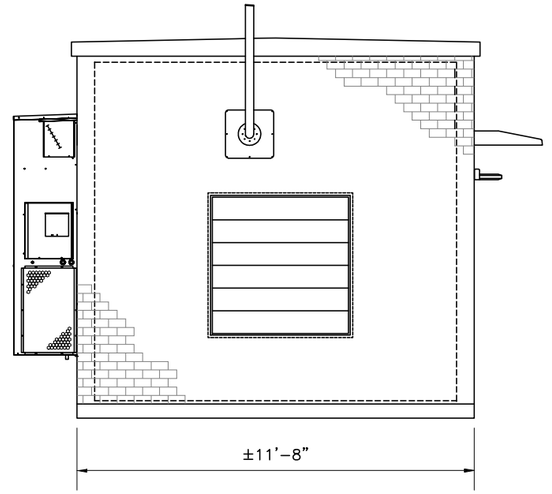
Sheet 10 of 23

PROFESSIONAL ENGINEER SEAL

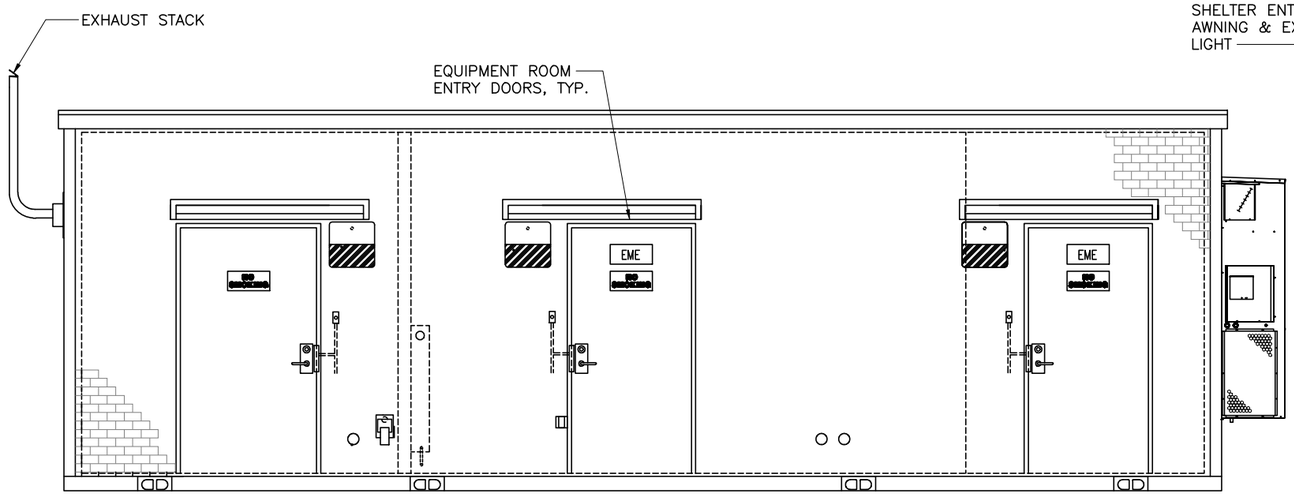




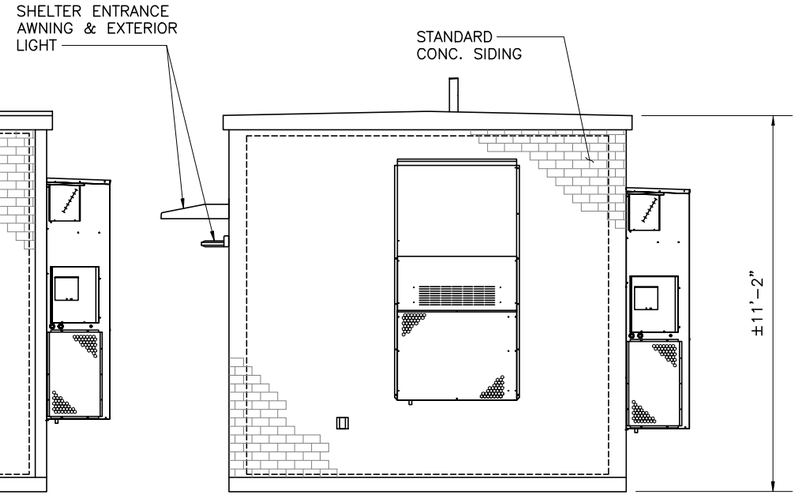
REAR WALL ELEVATION



LEFT WALL ELEVATION



FRONT WALL ELEVATION



RIGHT WALL ELEVATION

1 / C-7 **EQUIPMENT SHELTER ELEVATIONS**

SCALE: NOT TO SCALE

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Centek Project No.: 19160.04

Drawing Title.: EQUIPMENT SHELTER ELEVATIONS

Dwg. No.: C - 7

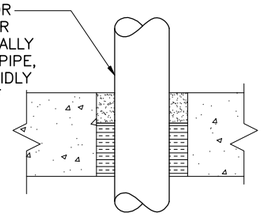
PROFESSIONAL ENGINEER SEAL

STATE OF CONNECTICUT
CARL F. CENTORE
NO. 16694
LICENSED
PROFESSIONAL ENGINEER

FLOOR OR WALL	MIN. THICK.	MAX. PIPE DIA.	MIN. ANNULAR SPACE	MAX. ANNULAR SPACE	MIN. FILL MAT. THICK.	MIN. FORM. MAT. THICK.	F RATING
F	3 3/4"	1 1/2"	3/8"	2 1/8"	1"	2 3/4"	2
F	3 3/4"	6"	3/8"	3/4"	1"	2 3/4"	2
F	3 3/4"	6"	3/8"	1"	2"	1 3/4"	2
F	4 1/2"	1 1/2"	3/8"	2 1/8"	1"	3 1/2"	3
F	4 1/2"	6"	3/8"	3/4"	1"	3 1/2"	3
F	4 1/2"	6"	3/8"	1"	2"	2 1/2"	3
W	5 1/2"	1 1/2"	3/8"	2 1/8"	1"	3 1/2"	3
W	5 1/2"	6"	3/8"	3/4"	1"	3 1/2"	3
W	6 1/2"	1 1/2"	3/8"	2 1/8"	2"	2 1/2"	3
W	6 1/2"	6"	3/8"	1"	2"	2 1/2"	3

THROUGH PENETRANTS
ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL.

FORMING MATERIAL SHALL BE A MIN. OF 1 1/2" THICK OF MIN. 4.0 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED IN OPENING, USG INTERIORS–TYPE SAF



THICKNESS OF SEALANT APPLIED FLUSH W/THE TOP SURFACE OF BOTH SIDES OF FLOOR/WALL (SEE TABLE), USG INTERIORS–TYPE SS

UL SYSTEM NUMBER: CAJ1020

F RATING – 3 HR.

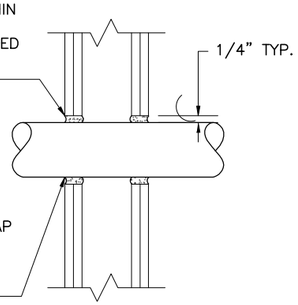
4 C–8 PIPE AND CONDUIT PENETRATION DETAIL IN CONCRETE OR MASONRY

N.T.S.

MAX. DIA. OF THROUGH PENETRANT	NOMINAL ANNULAR SPACE IN.	FILL MATERIAL TYPE
1"	1/2"	FSP 1100 PUTTY
2"	1"	FS 1900 SEALANT

ONE 2"ø SCHEDULE 40 PVC PIPE TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY

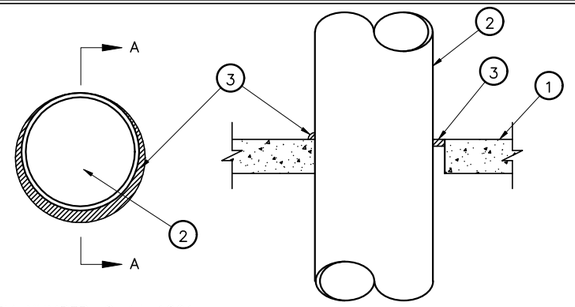
SEALANT, MIN. OF 1 1/4" THICK, FLUSH WITH BOTH SURFACES OF WALL FOR 2 HR. ASSEMBLY, 5/8" THICK FOF 1 HR. ASSEMBLY. A 5/8" CROWN AROUND CONDUIT WITH A 1" MIN. LAP AROUND OPENING SEALANT: INTERNAT'L PROTECTIVE COATINGS CORP–FSP 110 PUTTY OR FS1900 SEALANT



UL SYSTEM NUMBER:
WL2038
F RATING – 1 & 2 HR.

5 C–8 PVC CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD

N.T.S.



UL SYSTEM NUMBER: C–AJ–1291
F RATING – 2–HR

SECTION A–A

3 C–8 METAL PIPE THROUGH CONCRETE FLOOR/ WALL OR BLOCK WALL

N.T.S.

NOTES:

1. FLOOR OR WALL ASSEMBLY – MIN 2–1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 30–7/8 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

   A. STEEL FLOOR UNIT/FLOOR ASSEMBLY (NOT SHOWN) – AS AN ALTERNATE TO ITEM 1, THE FLOOR ASSEMBLY MAY CONSIST OF A FLUTED STEEL FLOOR UNIT/ CONCRETE FLOOR ASSEMBLY. THE FLOOR ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL FLOOR CEILING DESIGN IN THE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   B. CONCRETE – MIN 2–1/2 IN. THICK REINFORCED LIGHTWEIGHT ON NORMAL WEIGHT (100–150 PCF) CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS.

   C. STEEL FLOOR AND FORM UNITS* – COMPOSITE OR NON–COMPOSITE 1–1/2 TO 3 IN. DEEP FLUTED GALV STEEL UNITS AS SPECIFIED IN THE INDIVIDUAL FLOOR–CEILING DESIGN. MAX DIAM OF OPENING IS 30–7/8 IN.

2. THROUGH–PENETRANT – ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. TO MAX 7/8 IN. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:

   A. STEEL PIPE NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

   B. IRON PIPE NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.

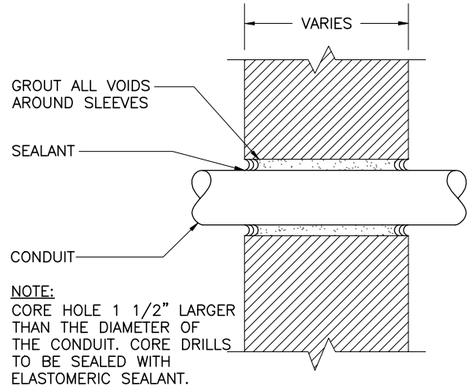
   C. COPPER PIPE NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

   D. COPPER TUBING NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

   E. CONDUIT NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.

   F. CONDUIT NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).

3. FILL, VOID OR CAVITY MATERIAL* – SEALANT – MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MIN 1/4 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.



NOTE:
CORE HOLE 1 1/2" LARGER THAN THE DIAMETER OF THE CONDUIT. CORE DRILLS TO BE SEALED WITH ELASTOMERIC SEALANT.

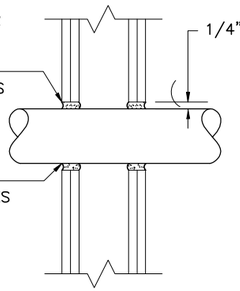
1 C–8 PIPE AND CONDUIT PENETRATION DETAIL IN NON-RATED PARTITION

N.T.S.

PIPE OR CONDUIT	ANNULAR SPACE IN.	MIN. FILL MATERIAL THICKNESS	F RATING HR
PIPE	3/4"	1 1/4"	2
CONDUIT	3/4"	3/4"	1

ONE 2"ø METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY

FILL VOID WITH CAULK, FLUSH WITH BOTH SURFACES OF WALL (SEE TABLE)
SEALANT: TREMCO INC, TREMSTOP–WBM

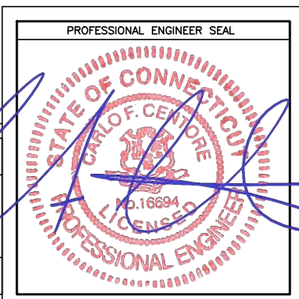


UL SYSTEM NUMBER: WL1051
F RATING – 1 & 2 HR.

2 C–8 PIPE AND CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD

N.T.S.

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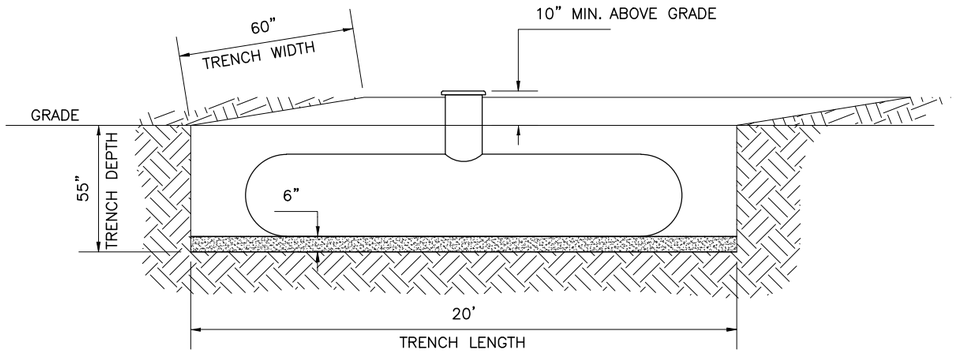
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Drawing Title.: CONDUIT PENETRATION DETAILS

Dwg. No.: C - 8



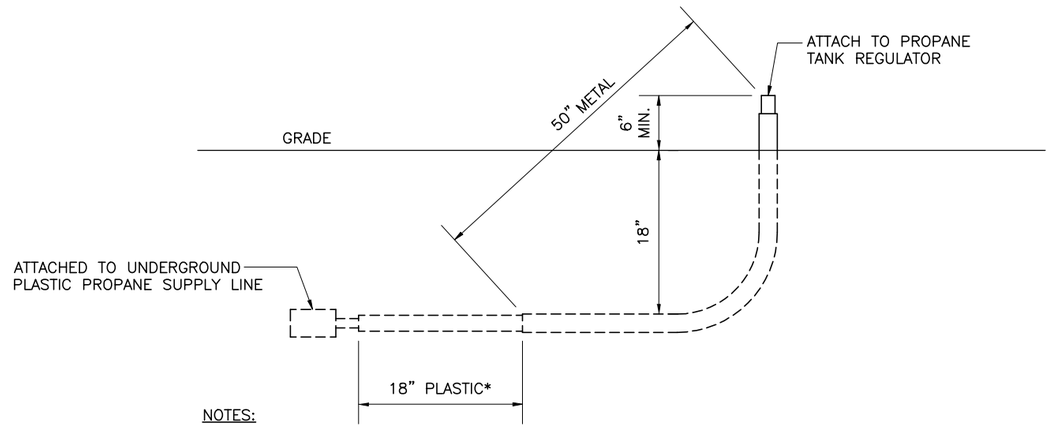
1000 GAL. UNDERGROUND ASME TANK WITH 24" RISER

NOTES:

1. THE TOP OF THE 24" DOME MUST BE A MINIMUM OF 10 TO 12" ABOVE GRADE LEVEL.
2. THE TANK MUST BE BURIED IN ACCORDANCE WITH THE NFPA 58 & 54 AND LOCAL GUIDELINES.
3. TWO ANODE BAGS ARE NEEDED.
4. 6" OF SCREENED SAND MUST BE INSTALLED AROUND THE ENTIRE TANK BEFORE ANY OTHER FILL CAN BE PUT ONTO THE TANK.
5. TRENCH FOR THE GAS LINE NEEDS TO BE 24" DEEP WITH 6" OF SAND FROM THE TANK TO THE 2ND STAGE REGULATOR. ANY LESS THAN DEPTH, THE GAS LINE MUST BE INSTALLED IN CONDUIT.
6. REFER TO TANK MANUFACTURER FOR ANY/ALL INSTALLATION REQUIREMENT AND SPECIFICATIONS..

1 / C-9 **TYP. PROPANE TANK INSTALL. DETAIL**

NOT TO SCALE



NOTES:

1. *PLASTIC PROPANE SUPPLY LINE MUST BE PROTECTED WITH CONDUIT IF IT CAN NOT BE BURIED 18" OR MORE DEEP WITH SAND TO PROTECT IT (AT LEAST 1" OF SAND AROUND THE PIPE REQUIRED FOR PLASTIC)
2. POLYETHYLENE PIPE AND TUBING AND THERMOPLASTIC COMPRESSION–TYPE MECHANICAL FITTINGS SHALL BE INSTALLED OUTSIDE UNDERGROUND WITH A MINIMUM 18 IN. (460mm) OF COVER. THE COVER SHALL BE PERMITTED TO BE REDUCED TO 12 IN. (300mm) IF EXTERNAL DAMAGE TO THE PIPE OR TUBING IS NOT LIKELY TO RESULT. IF A MINIMUM OF 12 IN. (300mm) OF COVER CANNOT BE MAINTAINED, THE PIPING SHALL BE INSTALLED IN CONDUIT OR BRIDGED (SHIELDED). UNDERGROUND POLYETHYLENE PIPING SYSTEMS SHALL REQUIRE ASSEMBLED ANODELESS RISERS TO TERMINATE ABOVE GROUND. THE HORIZONTAL PORTION OF RISERS SHALL BE BURIED AT LEAST 12 IN. (300mm) BELOW GRADE AND THE CASING MATERIAL USED FOR THE RISERS SHALL BE PROTECTED AGAINST CORROSION.

2 / C-9 **PROPANE SUPPLY LINE DETAIL**

SCALE: 1" = 1'– 0"

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Drawing Title.: TYPICAL DETAILS

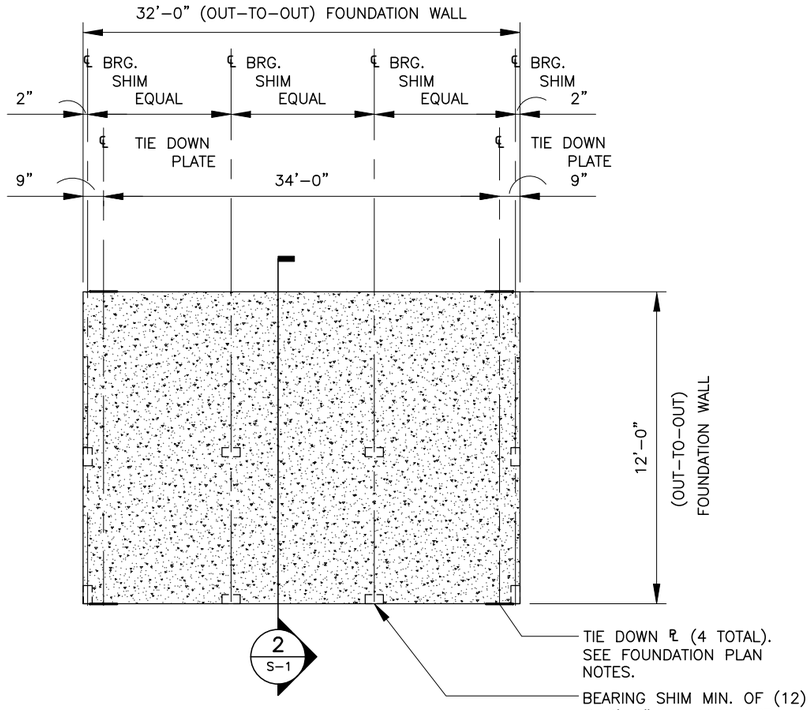
Dwg. No.: C - 9

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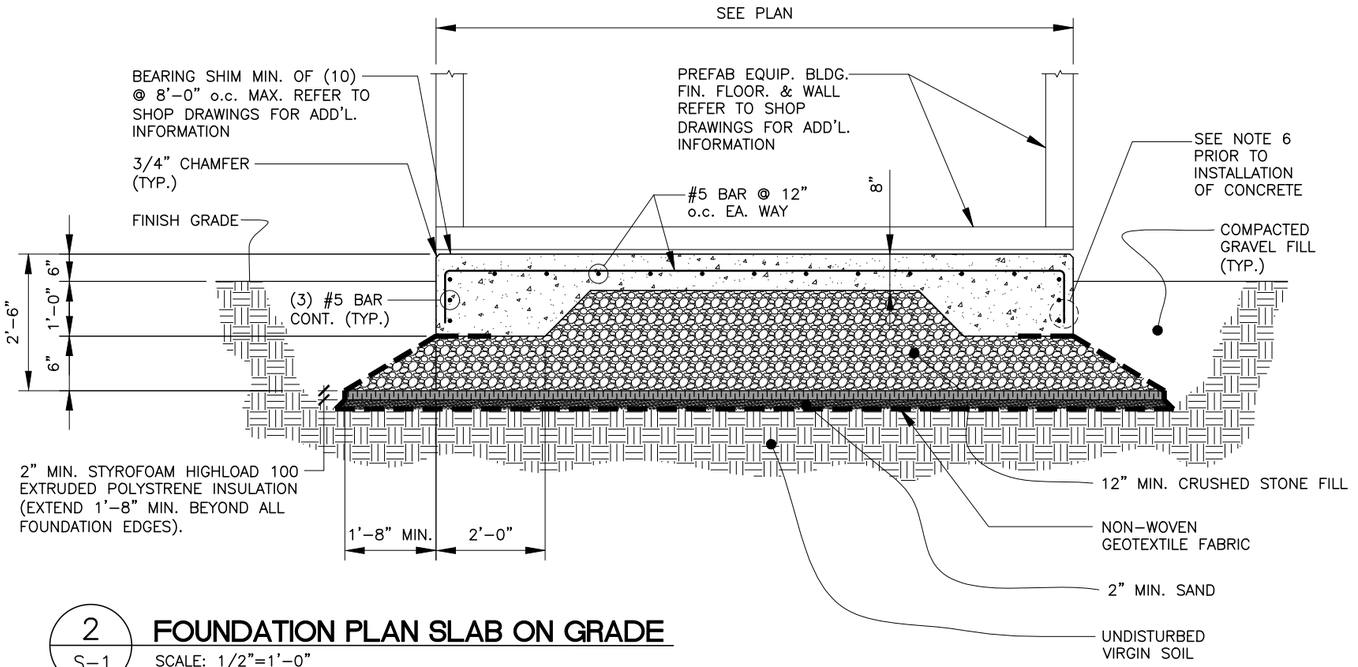
EQUIPMENT SHELTER BY OTHERS. VERIFY ALL SHELTER DIMENSIONS, EQUIPMENT DIMENSIONS, EQUIPMENT LOCATIONS AND UTILITY OPENINGS WITH BUILDING SHOP DRAWINGS PRIOR TO COMMENCEMENT OF WORK.



1 S–1 **FOUNDATION PLAN**
SCALE: NTS

FOUNDATION PLAN NOTES:

1. BEARING SHIMS, TIE–DOWN PLATES AND ASSOCIATED INSTALLATION ANCHORS PROVIDED BY SHELTER MANUFACTURER. CONTRACTOR SHALL VERIFY ALL SHIM & TIE–DOWN QUANTITIES AND LOCATIONS WITH MANUFACTURER PRIOR TO PERFORMING FOUNDATION WORK.
2. SLAB/ TOP OF WALL TOLERANCE IS 1/4"±
3. TOP 8" OF FOUNDATION SIDES MUST BE FORMED FLAT TO ACCEPT TIE–DOWN PLATES.
4. REFER TO NOTES ON N–2 FOR ADDITIONAL REQUIREMENTS.
5. PER NEC REQUIREMENTS, THE REBAR IN FOUNDATION AND FOOTING SHALL BE BONDED TO GROUND RING WITH A #2 AWG SOLID CONDUCTOR USING LISTED AND APPROVED METHODS.
6. PROVIDE PVC SLEEVES FOR UTILITY CONDUIT PASSAGE THROUGH FOUNDATION OR CAST CONDUITS IN PLACE. REFER TO ELECTRICAL DRAWINGS FOR CONDUIT SIZES AND QUANTITIES.



2 S–1 **FOUNDATION PLAN SLAB ON GRADE**
SCALE: 1/2"=1'–0"

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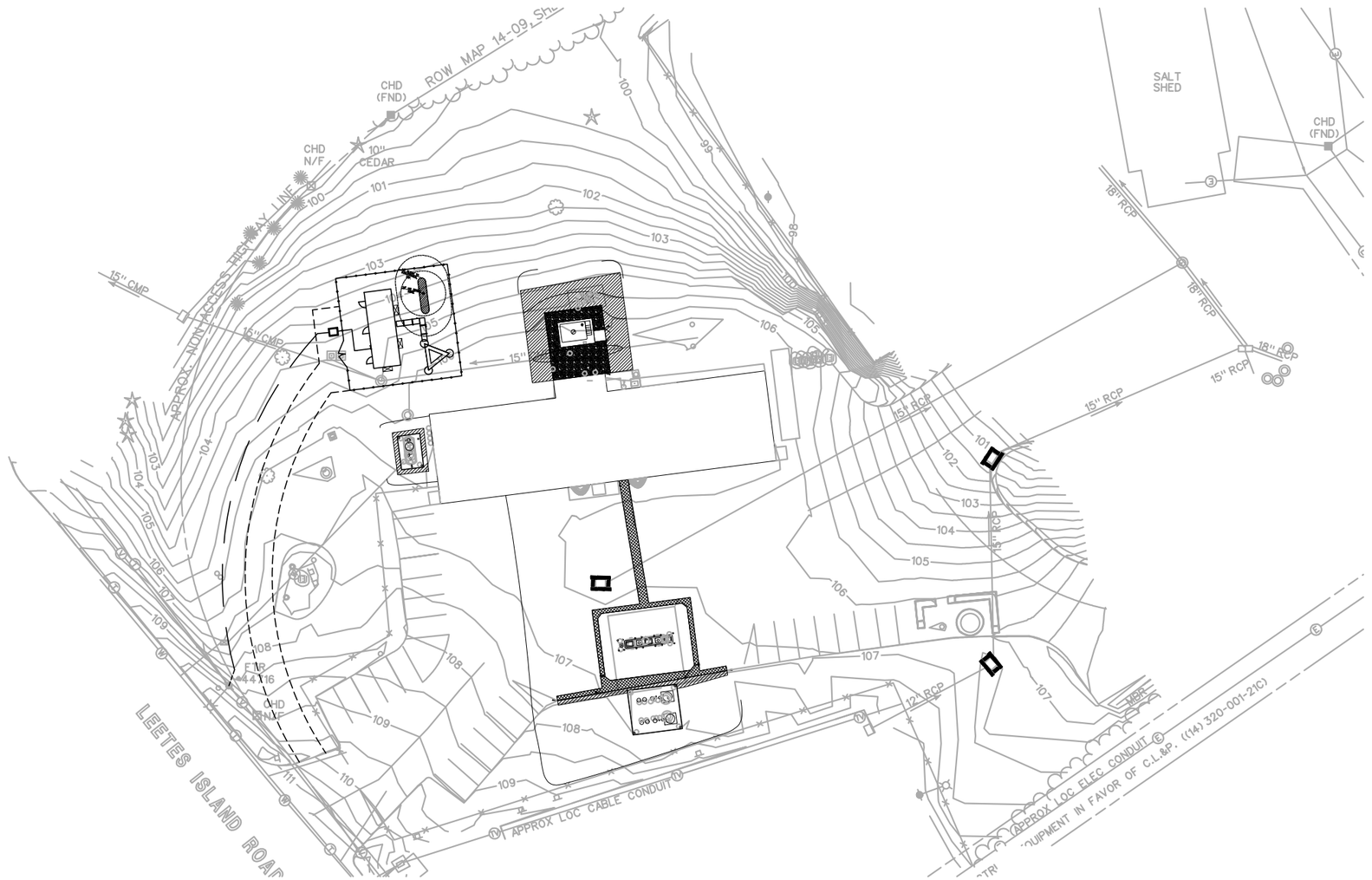
Centek Project No.: 19160.04

Drawing Title.: FOUNDATION PLAN AND NOTES

Dwg. No.: S – 1

Sheet 14 of 23

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1 / E-1 **SITE PLAN - PROPOSED**

SCALE: 1" = 60'- 0"

APPROXIMATE NORTH

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

1 inch = 60 ft.

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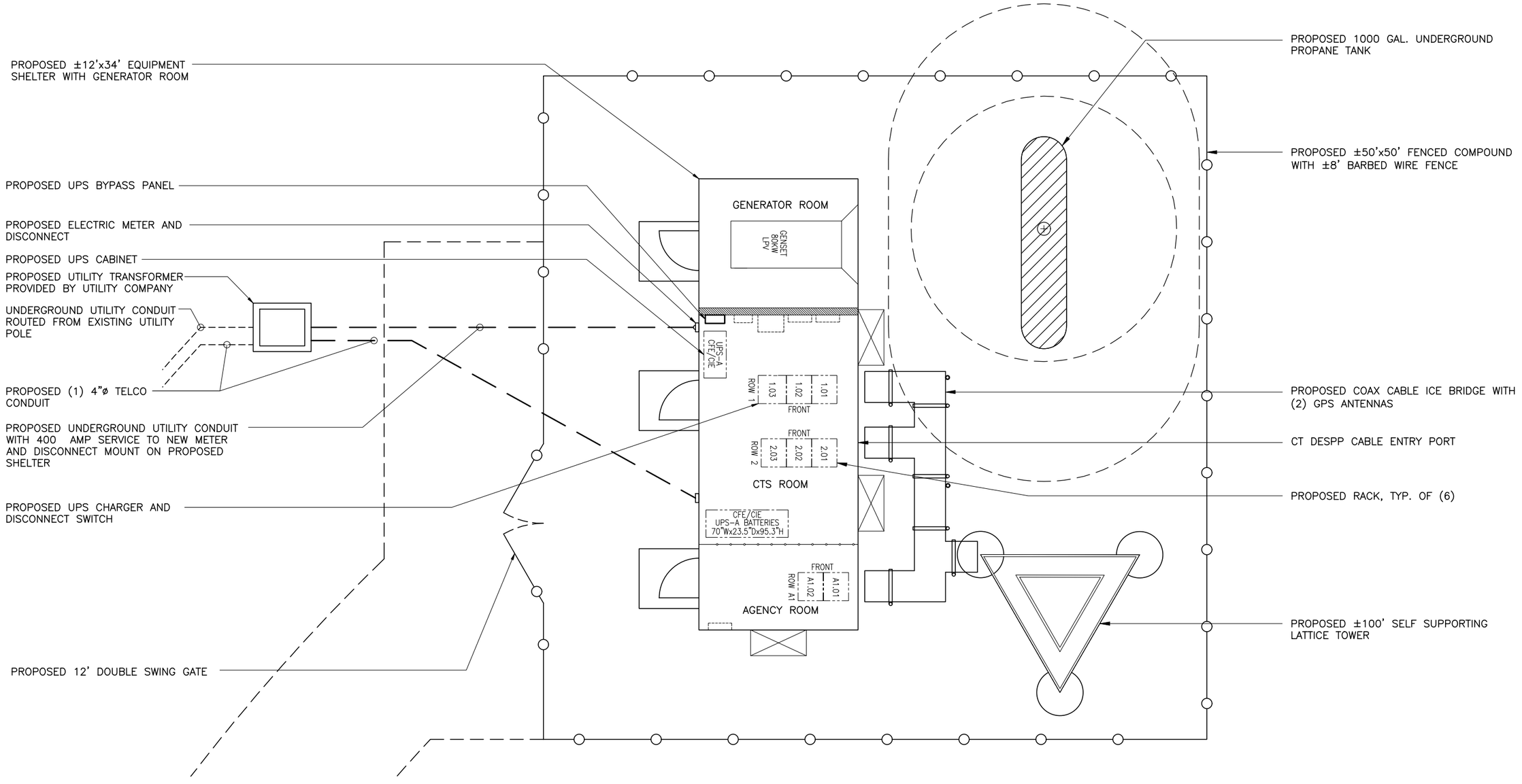
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Drawing Title.: SITE PLAN

Dwg. No.: E - 1

Sheet 15 of 23



1 / E-2 **COMPOUND PLAN - PROPOSED**

SCALE: 1/8" = 1'- 0"

APPROXIMATE NORTH

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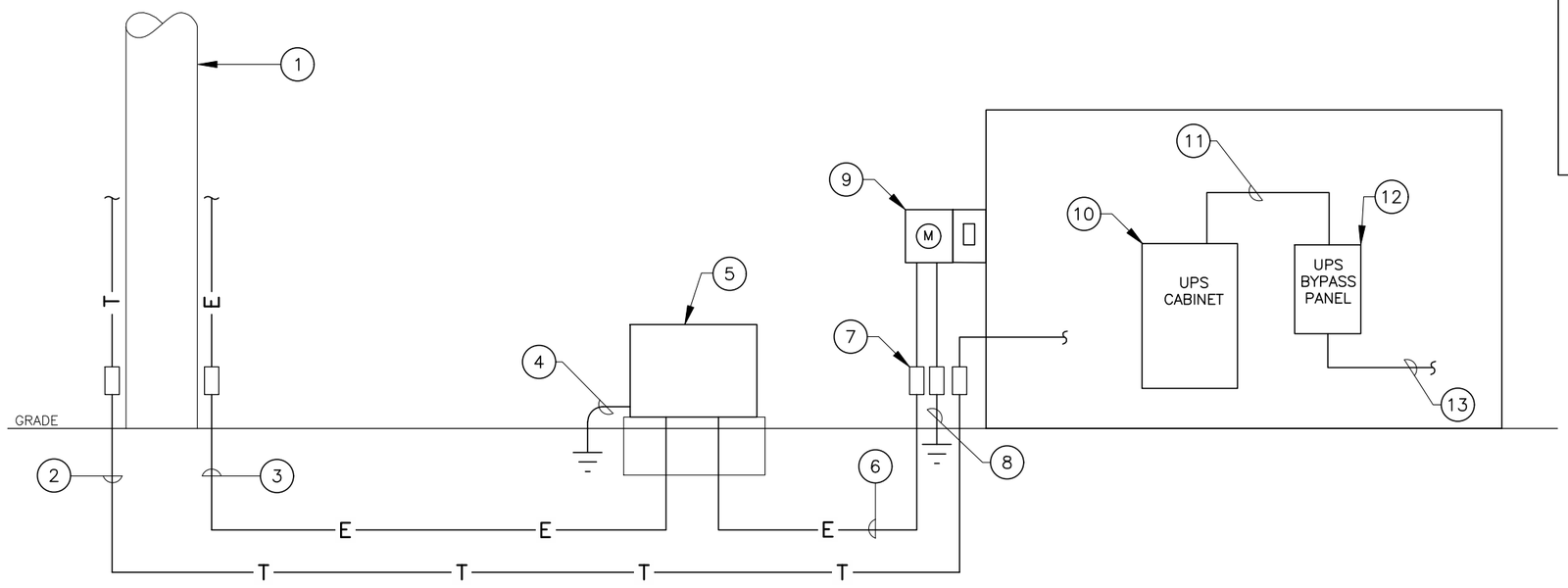
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Centek Project No.: 19160.04

Drawing Title.: COMPOUND PLAN

Dwg. No.: E - 2

Sheet 16 of 23



1 / E-3 **ELECTRICAL RISER DIAGRAM**

SCALE: NOT TO SCALE

GROUNDING PLAN NOTES

1. EXISTING UTILITY POLE TO BE USED. REFER TO SITE SURVEY AND UTILITY PLAN.
2. ONE 4" CONDUIT WITH PULL ROPE FOR TELEPHONE COMPANY CONDUCTORS. CONDUCTORS PROVIDED BY TELEPHONE COMPANY FROM UTILITY POLE TO TELCO BACKBOARD IN EQUIPMENT SHELTER. PROVIDE ALL COUPLINGS, ADAPTERS, SWEEPS, AND ASSOCIATED HARDWARE. MATERIAL SHALL BE PER TELEPHONE COMPANY SPECIFICATIONS.
3. 3" CONDUIT FOR PRIMARY ELECTRIC CONDUCTORS. CONDUCTORS PROVIDED BY UTILITY COMPANY FROM UTILITY POLE TO TRANSFORMER. PROVIDE ALL COUPLINGS, ADAPTERS, SWEEPS, AND ASSOCIATED HARDWARE. MATERIAL SHALL BE PER UTILITY COMPANY SPECIFICATIONS
4. PROVIDE TRANSFORMER GROUNDING PER NEC AND UTILITY COMPANY SPECIFICATIONS.
5. TRANSFORMER PROVIDED BY UTILITY COMPANY. TRANSFORMER VAULT, HOUSING, AND GROUND GRID BY ELECTRICAL CONTRACTOR, PER UTILITY COMPANY SPECIFICATIONS. COORDINATE LOCATION IN FIELD WITH UTILITY COMPANY
6. (3) 600 KCMIL, 4"C.
7. EXPANSION COUPLING TYP.
8. #1/0 AWG GROUNDING CONDUCTOR IN 3/4" PVC CONDUIT.
9. 400A, SINGLE PHASE, 120/240V, UTILITY METER DISCONNECT WITH 400A 2 POLE CIRCUIT BREAKER.ALL EQUIPMENT MUST BE UTILITY COMPANY APPROVED.
10. 20 KVA, 120/240V, SINGLE PHASE, UPS CABINET
11. (3) #1 AWG, (1) #8 AWG GROUND, 1-1/2"C
12. 100A, 120/240V, SINGLE PHASE, UPS BYPASS PANEL
13. UPS CONNECTION TO OWNERS EQUIPMENT. COORDINATE REQUIREMENTS WITH CONSTRUCTION MANAGER.

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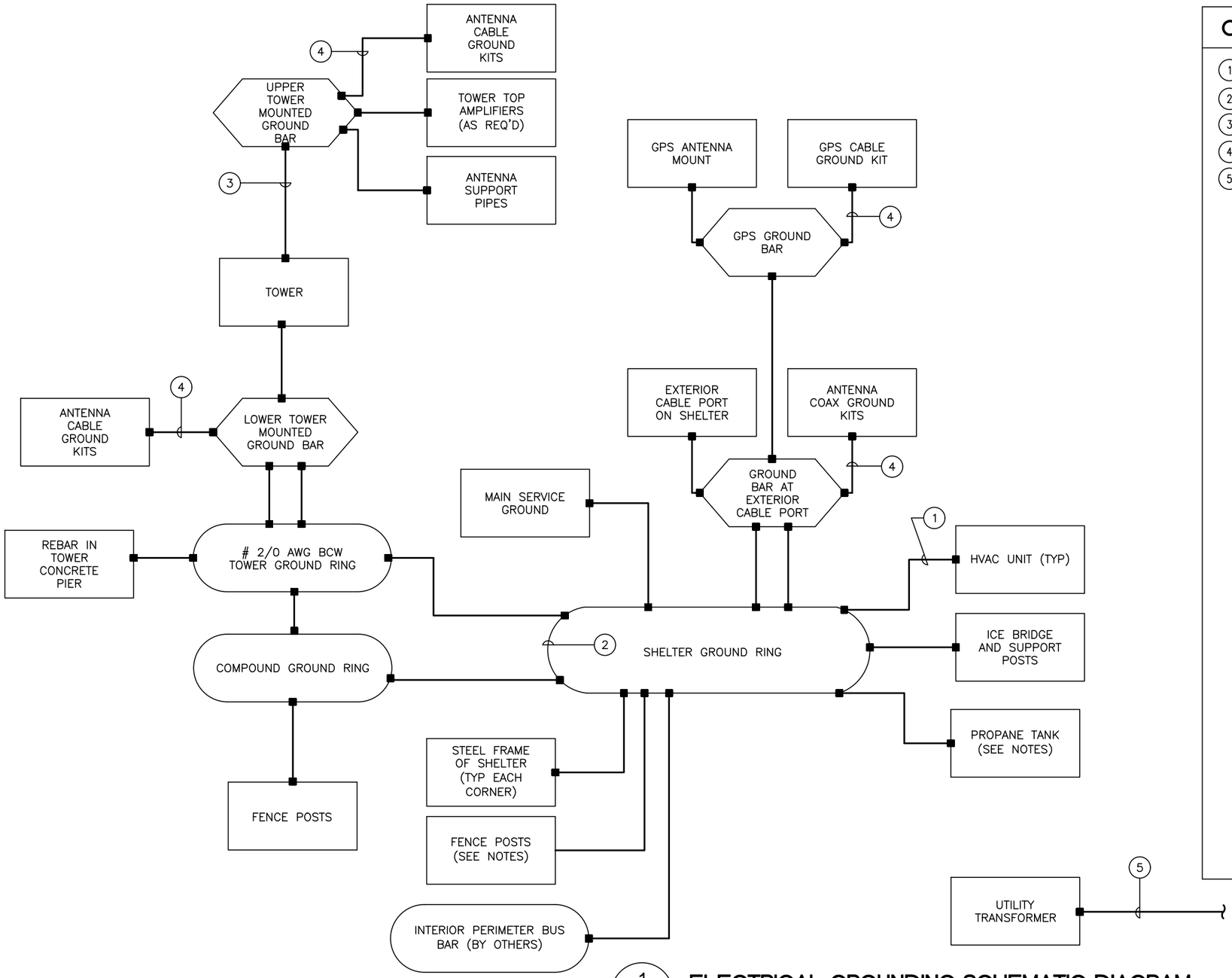
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Drawing Title.: ELECTRICAL RISER DIAGRAM

Dwg. No.: E - 3

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1 / E-4 **ELECTRICAL GROUNDING SCHEMATIC DIAGRAM**

SCALE: NOT TO SCALE

GROUNDING SCHEMATIC NOTES

1. #2 AWG GREEN INSULATED
2. GROUND RING, #2 AWG BCW
3. #2/0 GREEN INSULATED
4. #6 AWG
5. TRANSFORMER GROUNDING PER NEC AND UTILITY COMPANY STANDARDS

GENERAL NOTES:

1. UNLESS OTHERWISE NOTED OR REQUIRED BY CODE, GROUND CONDUCTORS SHOWN SHALL BE #2 AWG (SOLID TINNED BCW – EXTERIOR; STRANDED GREEN INSULATED – INTERIOR).
2. BOND CABLE TRAY AND ICE BRIDGE SECTIONS TOGETHER WITH #6 AWG STRANDED GREEN INSULATED JUMPERS.
3. ALL SECTOR GROUND BARS SHALL BE BONDED TOGETHER WITH #2 AWG SOLID TINNED BCW.
4. ALL BONDS TO TOWER SHALL BE MADE IN STRICT ACCORDANCE WITH SPECIFICATIONS OF TOWER MANUFACTURER OR STRUCTURAL ENGINEER.
5. REFER TO GROUNDING PLAN FOR LOCATION OF GROUNDING DEVICES.
6. REFER TO ALL ELECTRICAL AND GROUNDING DETAILS.
7. COORDINATE ALL TOWER MOUNTED EQUIPMENT WITH OWNER.
8. ALL TOWER MOUNTED AMPLIFIERS AND ASSOCIATED EQUIPMENT SHALL BE BONDED TO THE SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS.
9. ALL FENCE POSTS WITHIN 6' OF EQUIPMENT SHELTER SHALL BE BONDED TO GROUND RING.
10. ALL GROUNDING SHALL BE IN ACCORDANCE WITH NEC AND OWNER'S REQUIREMENTS.
11. ALL EXPOSED METAL OBJECTS IN SHELTER SHALL BE BONDED TO THE HALO GROUND WITHIN THAT ROOM.
12. REFER TO RISER DIAGRAM FOR SPECIFICATIONS OF SERVICE GROUND AND TRANSFORMER GROUND.
13. BOND PROPANE TANK TO GROUND RING PER NEC AND MANUFACTURERS SPECIFICATIONS. COORDINATE WITH TANK MANUFACTURER FOR REQUIREMENTS PRIOR TO INSTALLATION.

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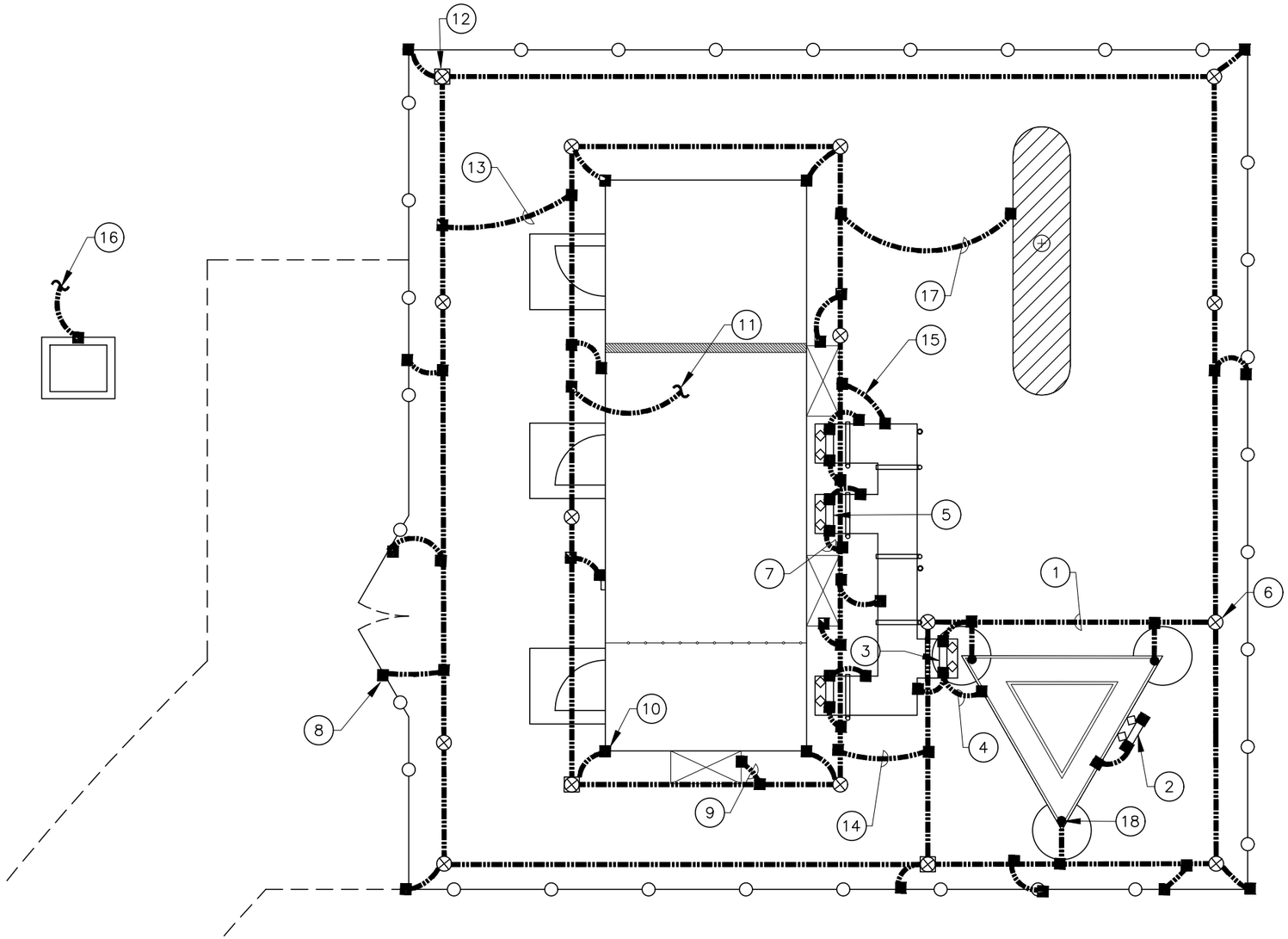
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Drawing Title.: ELECTRICAL SCHEMATIC DIAGRAM

Dwg. No.: E - 4

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1 / E-5 **ELECTRICAL GROUNDING PLAN**

SCALE: NOT TO SCALE

GROUNDING PLAN NOTES

1. #2 SOLID TINNED BCW GROUND RING (3'-0" FROM OUTSIDE EDGE OF EQUIPMENT FOUNDATION) (TYP.)
2. UPPER TOWER MOUNTED GROUND BAR.
3. LOWER TOWER MOUNTED GROUND BAR.
4. BOND LOWER TOWER MOUNTED GROUND BAR TO TOWER STEEL.
5. GROUND BAR TYP.
6. GROUNDING ROD (TYP.).
7. BOND GROUND BAR TO EQUIPMENT SHELTER GROUND RING TYP.
8. BOND TO FENCE AND FENCE GATES PER DETAIL. (TYPICAL ALL FENCE POSTS WITHIN 6' OF EQUIPMENT).
9. BOND HVAC EQUIPMENT TO EQUIPMENT SHELTER GROUND RING WITH #2 AWG BCW.
10. EXOTHERMIC WELD EQUIPMENT SHELTER TO GROUND RING (TYP. EACH CORNER).
11. EXTEND GROUND RING PIGTAIL THROUGH SHELTER AND BOND TO HALO GROUND DOWNLEAD. (TYP. OF 1)
12. GROUNDING ROD WITH ACCESS (TYP.)
13. BOND EQUIPMENT SHELTER GROUND RING TO COMPOUND GROUND RING WITH #2 AWG BCW.
14. BOND EQUIPMENT SHELTER GROUND RING TO TOWER GROUND RING WITH #2 AWG BCW.
15. ICE BRIDGE POST AND COVER. BOND EACH SECTION AND SUPPORT TO GROUND RING PER DETAIL.
16. GROUND TRANSFORMER PER NEC AND UTILITY COMPANY REQUIREMENTS.
17. BOND PROPANE TANK TO GROUND RING PER NEC AND MANUFACTURERS SPECIFICATIONS
18. CONNECT TOWER BASE TO TOWER GROUND RING. TYPICAL (3) PLACES. EXOTHERMIC WELD TO TOWER BASE PLATE OR GROUNDING LUG PROVIDE BY TOWER MANUFACTURER. DO NOT CADWELD TO TOWER.

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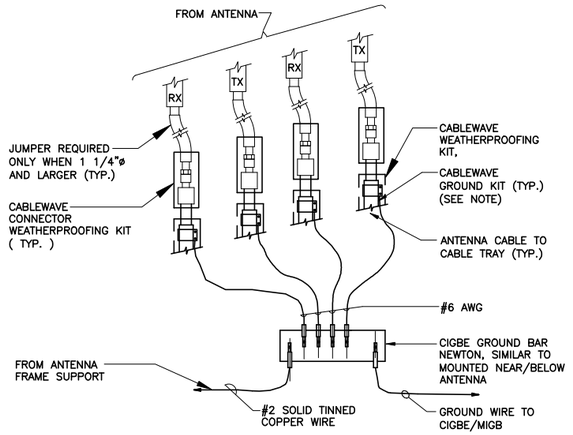
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Drawing Title.: ELECTRICAL GROUNDING PLAN

Dwg. No.: E - 5

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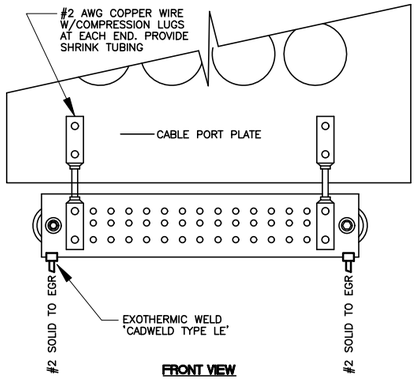
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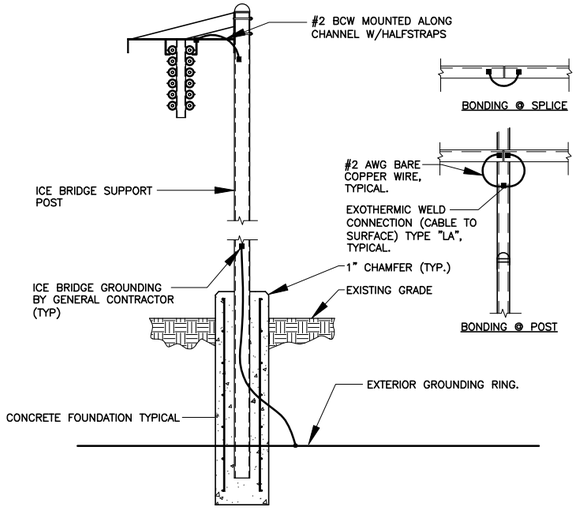
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

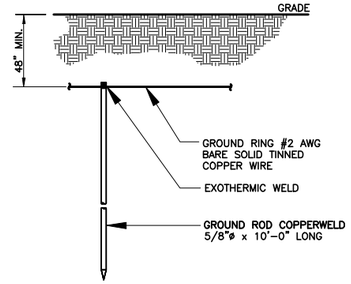
1 / E-6 **CONNECTION OF GROUND WIRES TO GROUND BAR**
NOT TO SCALE



2 / E-6 **CABLEPORT GROUND BAR LUG CONNECTION**
NOT TO SCALE



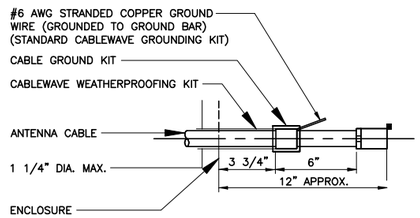
3 / E-6 **ICE BRIDGE BONDING DETAIL**
NOT TO SCALE



NOTES:

1. USE GROUND PLATE DETAIL IF 10 FT. GROUND ROD DEPTH CANNOT BE ACHIEVED DUE TO LEDGE CONDITION OR IF EXISTING TOWER FOUNDATION IS ENCOUNTERED.

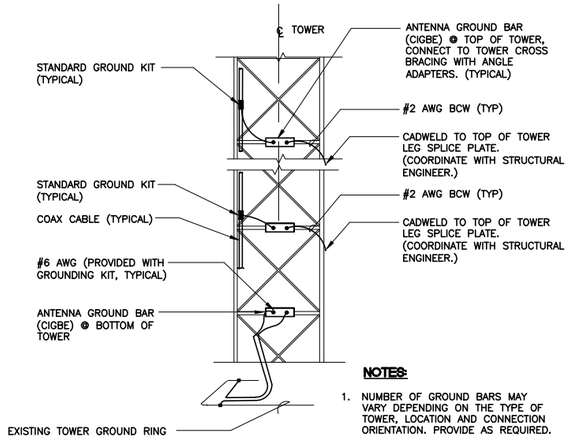
4 / E-6 **GROUND ROD DETAIL**
NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

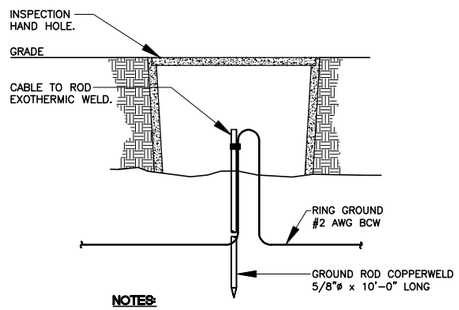
5 / E-6 **ANTENNA CABLE GROUNDING DETAIL**
NOT TO SCALE



NOTES:

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.

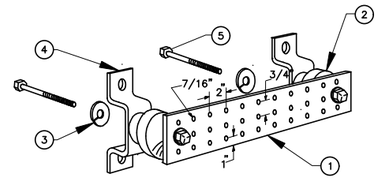
6 / E-6 **ANTENNA CABLE GROUNDING - LATTICE TOWER**
NOT TO SCALE



NOTES:

1. INSPECTION HAND HOLE MAY BE CONCRETE OR PVC AND SHALL BE A MINIMUM OF 12" DIA x 18" DEEP.

7 / E-6 **GROUND ROD WITH ACCESS DETAIL**
NOT TO SCALE



NOTES

1. TINNED COPPER GROUND BAR, 1/4" x 4" x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. NOT USED
3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056.
5. 5/8-11 x 1" STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS.

8 / E-7 **GROUND BAR DETAIL**
NOT TO SCALE

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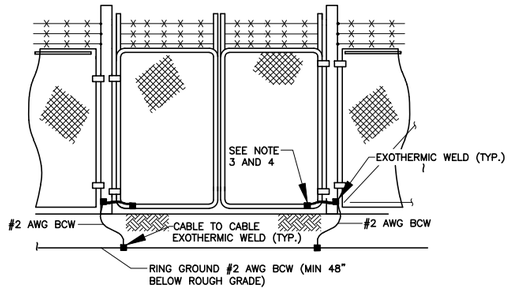
Centek Project No.: 19160.04

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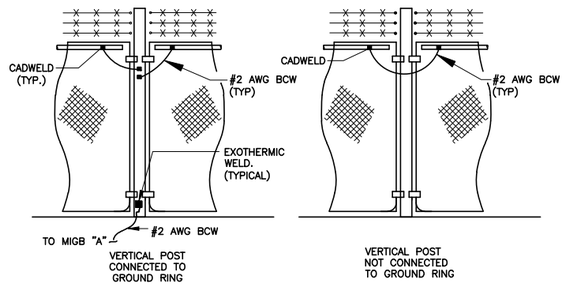
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NOTES:

1. THE #2 AWG, BCW, FROM THE RING GROUND SHALL BE CADWELDED TO THE POST, ABOVE GRADE.
2. BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING.
3. GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
4. GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

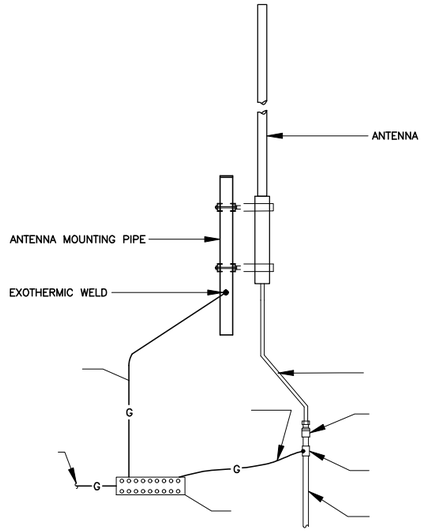
1 / E-7 **FENCE GATE GROUNDING**
NOT TO SCALE



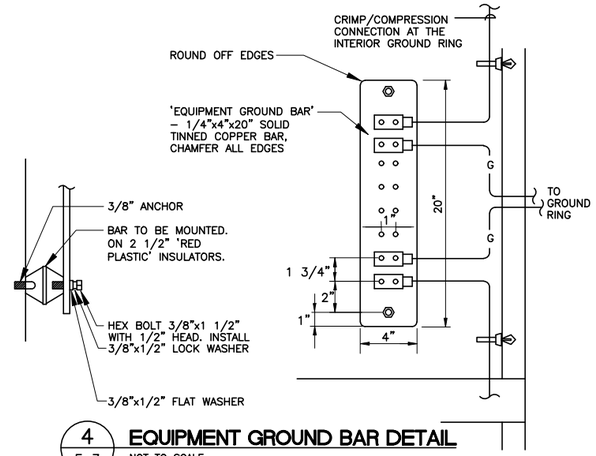
NOTES:

1. VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER AND AT EACH GATE POST. AS A MINIMUM ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100 FOOT STRAIGHT RUN OF FENCE.
2. HORIZONTAL POLES SHALL BE BONDED TO EACH OTHER.
3. BOND EACH HORIZONTAL POLE / BRACE TO EACH OTHER AND TO EACH VERTICAL POST THAT IS BONDED TO THE EXTERIOR GROUND RING.

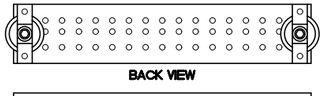
2 / E-7 **GROUND-STD. DETAIL FENCE GROUNDING**
NOT TO SCALE

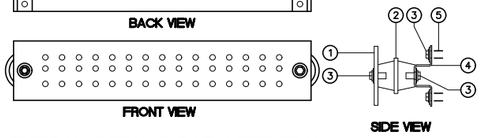


3 / E-7 **TYPICAL ANTENNA GROUNDING DETAIL**
NOT TO SCALE

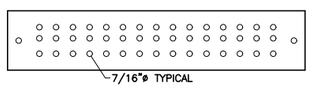


4 / E-7 **EQUIPMENT GROUND BAR DETAIL**
NOT TO SCALE





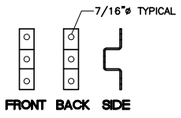
TYPICAL GROUND BAR ASSEMBLY
N.T.S.



TYPICAL GROUND BAR - DIMENSIONS
N.T.S.

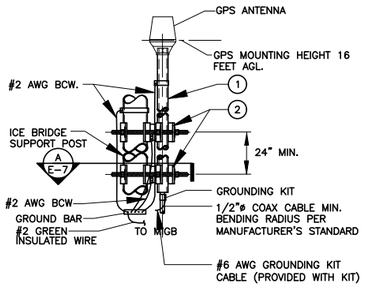
NOTES

1. HIGH CONDUCTIVITY TINNED COPPER BAR 1'-8"Lx4"Wx1/4"D.
2. RED COLORED STANDOFF INSULATOR PLASTIC #1872-1A.
3. STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS, SPLIT LOCKWASHER AND FLAT WASHER.
4. 1"Wx1/8"T STAINLESS STEEL TYPE 304 BRACKET.
5. STAINLESS STEEL TYPE 304 HARDWARE – 3/8"ø EXPANSION BOLT FOR CONCRETE.

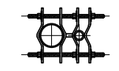


BRACKET FOR GROUND BAR-DIMENSIONS
N.T.S.

5 / E-7 **MASTER/EQUIPMENT GROUND BAR DETAILS**
N.T.S.



GPS ANTENNA MOUNTING BRACKET



A / E-7 **SECTION**
NOT TO SCALE

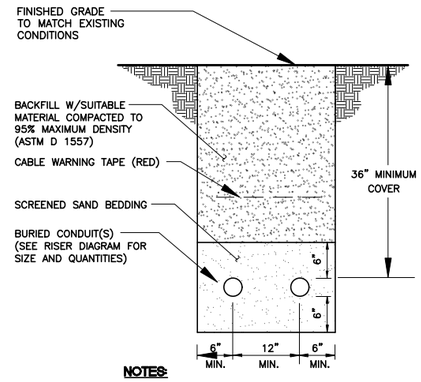
BILL OF MATERIALS

ITEM	DESCRIPTION	QUANTITY
1	2-1/2"ø SCH. 40 x 8'-0" LG. MAX SS OR GALV. PIPE	1
2	UNIVERSAL CLAMP SET.	2

NOTES

1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 2-1/2" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 24 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

6 / E-7 **GPS GROUNDING/MOUNTING BRACKET DETAIL**
NOT TO SCALE



NOTES:

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
3. WHERE SHALLOW BEDROCK IS ENCOUNTERED BETWEEN UTILITY SOURCE AND SERVICE EQUIPMENT, COORDINATE WITH UTILITY COMPANY FOR BURIAL DEPTH REQUIREMENTS.
4. COORDINATE WITH ELECTRICAL ENGINEER WHERE SHALLOW BEDROCK IS ENCOUNTERED BETWEEN SERVICE EQUIPMENT AND EQUIPMENT SHELTER.

7 / E-7 **TYPICAL ELECTRICAL TRENCH DETAIL**
NOT TO SCALE

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PYRAMID Network Services, LLC
MOTOROLA SOLUTIONS

CENTEK engineering
Centered on Solutions℠
www.CentekEng.com
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road, Branford, CT 06405

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BRANFORD, CT 06405

Centek Project No.: 19160.04

Drawing Title.: ELECTRICAL DETAILS

Dwg. No.: E - 7

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.01. SCOPE OF WORK

A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

1. INSTALL, TRANSFORMER AND NEW 400A, 240/120V, SINGLE PHASE UTILITY METER DISCONNECT WITH 400A 2 POLE CIRCUIT BREAKER FOR OWNER AND ASSOCIATED DISTRIBUTION EQUIPMENT. (AS REQUIRED BY UTILITY CO.)

2. NEW SITE TELEPHONE SERVICE AS SPECIFIED BY TELEPHONE COMPANY.

3. FEEDERS AND BRANCH CIRCUIT WIRING TO PANELS, AND EQUIPMENT AS INDICATED OR NOTED ON PLANS.

4. GROUNDING SYSTEMS, CONSISTING OF ANTENNA GROUNDING, GROUND BARS, ETC.

5. FIELD MEASURE EXISTING ELECTRICAL SERVICES TO CONFIRM AVAILABLE EXISTING POWER.

6. COORDINATE ALL WORK SHOWN, ON THESE PLANS WITH LOCAL UTILITY COMPANIES.

B. LOCAL UTILITY COMPANIES SHALL PROVIDE THE FOLLOWING:

1. TELEPHONE CABLES.

2. SHUTDOWN OF SERVICE (COORDINATE WITH OWNER).

C. CONTRACTOR SHALL CONFER WITH LOCAL UTILITY COMPANIES TO ASCERTAIN THE LIMITS OF THEIR WORK AND SHALL INCLUDE IN BID ANY CHARGES OR FEES MADE BY THE UTILITY COMPANIES FOR THEIR PORTION OF THE WORK AND SHALL PROVIDE AND INSTALL ALL ITEMS REQUIRED, BUT NOT PROVIDED BY UTILITY COMPANY.

D. ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL INSTALLATION WITH ELECTRIC UTILITY CO. PRIOR TO INSTALLATION.

E. CONTRACTOR SHALL COORDINATE WITH TELEPHONE UTILITY COMPANY FOR LOCATION OF TELEPHONE SERVICE AND TO DETERMINE ANY REQUIRED EQUIPMENT TO BE INSTALLED BY CONTRACTOR.

1.02. GENERAL REQUIREMENTS

A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.

B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.

E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LOCAL TELEPHONE COMPANY THAT MAY BE REQUIRED FOR THE INSTALLATION OF TELEPHONE SERVICE TO THE PROPOSED CELLULAR SITE.

F. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.

G. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.

H. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.

I. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.

J. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

K. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.

L. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.

M. PROVIDE TEMPORARY POWER AND LIGHTING IN WORK AREAS AS REQUIRED.

N. SHOP DRAWINGS:

1. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE ON THIS PROJECT, GIVING ALL DETAILS, WHICH INCLUDE DIMENSIONS, CAPACITIES, ETC.

2. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF ALL TEST REPORTS CALLED FOR IN THE SPECIFICATIONS AND DRAWINGS.

O. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16111

1.01. CONDUIT

A. MINIMUM CONDUIT SIZE FOR BRANCH CIRCUITS, LOW VOLTAGE CONTROL AND ALARM CIRCUITS SHALL BE 3/4" CONDUITS SHALL BE PROPERLY FASTENED AS REQUIRED BY THE N.E.C.

CONDUIT MATERIAL SHALL BE AS FOLLOWS:

1. ELECTRIC METALLIC TUBING (EMT) – BRANCH CIRCUITS INSIDE EQUIPMENT ROOM

2. GALVANIZED RIGID CONDUIT (GRC) – FEEDERS AND CIRCUITS EXPOSED TO EXTERIOR & UNDERGROUND.

3. LIQUID TIGHT FLEXIBLE METAL CONDUIT – FOR SHORT LENGTHS (MAX. 3'-0") WIRING TO VIBRATING EQUIPMENT (HVAC UNITS, MOTORS, ETC.) IN WET LOCATIONS.

4. FLEXIBLE METAL CONDUIT – FOR SHORT LENGTHS (MAX. 3'-0") WIRING TO VIBRATING EQUIPMENT IN DRY LOCATIONS.

5. PVC CONDUIT – WHERE SHOWN ON GROUNDING DETAILS.

SECTION 16123

1.01. CONDUCTORS

A. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:

	120/208/240V	277/480V
LINE	COLOR	COLOR
A	BLACK	BROWN
B	RED	ORANGE
C	BLUE	YELLOW
N	CONTINUOUS WHITE	GREY
G	CONTINUOUS GREEN	GREEN WITH YELLOW STRIPE

B. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.

SECTION 16170

1.01. DISCONNECT SWITCHES

A. FUSIBLE AND NON-FUSIBLE, 600V, HEAVY DUTY DISCONNECT SWITCHES SHALL BE AS MANUFACTURED BY SQUARE "D". PROVIDE FUSES AS CALLED FOR ON THE CONTRACT DRAWINGS. AMPERE RATING SHALL BE CONSISTENT WITH LOAD BEING SERVED. DISCONNECT SWITCH COVER SHALL BE MECHANICALLY INTERLOCKED TO PREVENT COVER FROM OPENING WHEN THE SWITCH IS IN THE "ON" POSITION. EXTERIOR APPLICATIONS SHALL BE NEMA 3R CONSTRUCTION WITH PADLOCK FEATURE.

SECTION 16195

1.01. LABELING AND IDENTIFICATION NOMENCLATURE FOR ELECTRICAL EQUIPMENT

A. CONTRACTOR SHALL FURNISH AND INSTALL NON-METALLIC ENGRAVED BACK-LIT NAMEPLATES ON ALL PANELS AND MAJOR ITEMS OF ELECTRICAL EQUIPMENT.

B. LETTERS TO BE WHITE ON BLACK BACKGROUND WITH LETTERS 1-1/2 INCH HIGH WITH 1/4 INCH MARGIN.

C. IDENTIFICATION NOMENCLATURE SHALL BE IN ACCORDANCE WITH OWNER'S STANDARDS.

D. PROVIDE NAMEPLATE FOR PORTABLE ENGINE/GENERATOR CONNECTION SHOWING VOLTAGE KVA/KW RATING, # PHASE, AND # OF WIRES. PLATE TO BE PLASTIC ENGRAVED, RED WITH WHITE LETTERS.

E. ALL RECEPTACLES, SWITCHES, DISCONNECT SWITCHES, ETC. SHALL BE LABELED WITH THE CORRECT BRANCH CIRCUIT NUMBER SERVED BY MEANS OF PERMANENT PRESSED TYPE BLACK 1/4" TRANSFER LETTERING. (FOR EXAMPLE: "MDP-5", ETC.).

F. PROVIDE A NAMEPLATE AT THE SERVICE EQUIPMENT INDICATING THE TYPE AND LOCATION OF THE ON SITE GENERATOR.

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PYRAMID Network Services, LLC
MOTOROLA SOLUTIONS

CENTEK engineering
Centered on Solutions℠
www.CentekEng.com
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road, Branford, CT 06405

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Drawing Title: ELECTRICAL SPECIFICATIONS

Dwg. No.: E - 8

ELECTRICAL SPECIFICATIONS

SECTION 16450

1.01. GROUNDING

A. GROUNDING SHALL CONFORM WITH THE MOTOROLA R56 STANDARD LATEST VERSION AND ALL FEDERAL, STATE, AND LOCAL CODES. IN THE EVENT OF A CONFLICT, MEET THE MOST STRINGENT REQUIREMENT.

B. ALL NON–CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.

C. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.

D. GROUNDING OF PANELBOARDS:

1. PANELBOARD SHALL BE GROUNDED BY TERMINATING THE PANELBOARD FEEDER'S EQUIPMENT GROUND CONDUCTOR TO THE EQUIPMENT GROUND BAR KIT(S) LUGGED TO THE CABINET. ENSURE THAT THE SURFACE BETWEEN THE KIT AND CABINET ARE BARE METAL TO BARE METAL. PRIME AND PAINT OVER TO PREVENT CORROSION.

2. CONDUIT(S) TERMINATING INTO THE PANELBOARD SHALL HAVE GROUNDING TYPE BUSHINGS. THE BUSHINGS SHALL BE BONDED TOGETHER WITH BARE #10 AWG COPPER CONDUCTOR WHICH IN TURN IS TERMINATED INTO THE PANELBOARD'S EQUIPMENT GROUND BAR KIT(S).

E. EQUIPMENT GROUNDING CONDUCTOR:

1. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250–122.

2. THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.

3. EACH FEEDER OR BRANCH CIRCUIT SHALL HAVE EQUIPMENT GROUND CONDUCTOR(S) INSTALLED IN THE SAME RACEWAY(S).

F. GROUNDING SYSTEM:

CONTRACTOR SHALL PROVIDE A GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 10 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3–POINT GROUNDING TEST. (REFER TO SECTION 16960).

PROVIDE THE GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:

1. GROUND BARS
2. EXTERIOR GROUNDING (WHERE REQUIRED DUE TO MEASURED AC RESISTANCE GREATER THAN SPECIFIED).
3. ANTENNA GROUND CONNECTIONS AND PLATES.

G. CONTRACTOR, AFTER COMPLETION OF THE COMPLETE GROUNDING SYSTEM BUT PRIOR TO CONCEALMENT/BURIAL OF SAME, SHALL NOTIFY OWNER'S WIRELESS PROJECT ENGINEER WHO WILL HAVE A DESIGN ENGINEER VISIT SITE AND MAKE A VISUAL INSPECTION OF THE GROUNDING GRID AND CONNECTIONS OF THE SYSTEM.

H. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

SECTION 16470

1.01. DISTRIBUTION EQUIPMENT

A. REFER TO CONTRACT DRAWINGS FOR DETAILS AND SCHEDULES.

SECTION 16960

1.01. TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:

TEST 1: THERMAL OVERLOAD AND MAGNETIC TRIP TEST, AND CABLE INSULATION TEST FOR ALL CIRCUIT BREAKERS RATED 100 AMPS OR GREATER.

TEST 2: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.

2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.

3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.

B. THESE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNER'S CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION REPRESENTATIVE AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.

C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM'S REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.

D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

SECTION 16961

1.01. TESTS BY CONTRACTOR

A. ALL TESTS AS REQUIRED UPON COMPLETION OF WORK, SHALL BE MADE BY THIS CONTRACTOR. THESE SHALL BE CONTINUITY AND INSULATION TESTS; TEST TO DETERMINE THE QUALITY OF MATERIALS, ETC. AND SHALL BE MADE IN ACCORDANCE WITH N.E.C. RECOMMENDATIONS. ALL FEEDERS AND BRANCH CIRCUIT WIRING (EXCEPT CLASS 2 SIGNAL CIRCUITS) MUST BE TESTED FREE FROM SHORT CIRCUIT AND GROUND FAULT CONDITIONS AT 500V IN A REASONABLY DRY AMBIENT OF APPROXIMATELY 70 DEGREES F.

B. CONTRACTOR SHALL PERFORM LOAD PHASE BALANCING TESTS. CIRCUITS SHALL BE SO CONNECTED TO THE PANELBOARDS SUCH THAT THE NEW LOAD IS DISTRIBUTED AS EQUALLY AS POSSIBLE BETWEEN EACH LOAD AND NEUTRAL. 10% SHALL BE CONSIDERED AS A REASONABLE AND ACCEPTABLE ALLOWANCE. BRANCH CIRCUITS SHALL BE BALANCED ON THEIR OWN PANELBOARDS; FEEDER LOADS SHALL, IN TURN, BE BALANCED ON THE SERVICE EQUIPMENT. REASONABLE LOAD TEST SHALL BE ARRANGED TO VERIFY LOAD BALANCE IF REQUESTED BY THE ENGINEER.

C. ALL TESTS, UPON REQUEST, SHALL BE REPEATED IN THE PRESENCE OF OWNER'S REPRESENTATIVE. ALL TESTS SHALL BE DOCUMENTED AND TURNED OVER TO OWNER. OWNER SHALL HAVE THE AUTHORITY TO STOP ANY OF THE WORK NOT BEING PROPERLY INSTALLED. ALL SUCH DETECTED WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER AND THE TESTS SHALL BE REPEATED.

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut



August 12, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 20, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 30, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
87B	Wethersfield loam, 3 to 8 percent slopes	3.3	59.6%
306	Udorthents-Urban land complex	2.2	40.4%
Totals for Area of Interest		**5.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Connecticut

87B—Wethersfield loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lrh
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wethersfield and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Drumlins, hills
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Coarse-loamy lodgment till derived from basalt and/or sandstone and shale

Typical profile

Ap - 0 to 3 inches: loam
Bw1 - 3 to 13 inches: loam
Bw2 - 13 to 27 inches: gravelly loam
Cd - 27 to 65 inches: gravelly loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F145XY012CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Yalesville

Percent of map unit: 5 percent
Landform: Hills, ridges

Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ludlow

Percent of map unit: 5 percent
Landform: Drumlins, hills
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Cheshire

Percent of map unit: 5 percent
Landform: Hills, till plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Wilbraham

Percent of map unit: 3 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Menlo

Percent of map unit: 2 percent
Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

306—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lmg
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 50 percent
Urban land: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Drift

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 54 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Unnamed, undisturbed soils

Percent of map unit: 8 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Branford DOT
Leetes Island Road
Branford, Connecticut 06405
CBRE Project Number: TS00423786
Issuance Date: May 26, 2020

Prepared For:

PYRAMID Network Services, LLC

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www.cbre.com/assessment

CBRE

70 West Red Oak Lane
White Plains, New York 10604
914.694.9600 Tel
914.694.1335 Fax

May 26, 2020

Mr. Rob McCabe
Pyramid Network Services, LLC
6519 Towpath Road
East Syracuse, NY 13057

Re: Phase I Environmental Site Assessment
Branford DOT
Leetes Island Road
Branford, Connecticut 06405
CBRE Project Number: TS00423786

Dear Mr. McCabe:

CBRE, Inc. (CBRE) is pleased to submit this copy of our Phase I Environmental Site Assessment on the above-referenced property. This report outlines the findings of CBRE's site reconnaissance, historical land use research, review of governmental records, and interviews.

I declare that, to the best of my professional knowledge and belief, I meet the definition of *environmental professional* as defined in § 312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject property*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Please call the undersigned should you have any questions.

Sincerely,

CBRE, Inc. | Telecom Advisory Services

Prepared By:

Robert Strother
Project Manager
(914) 740-1957

Prepared By:

Chris Beetham
Senior Project Manager
(914) 597-6981

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1.0 EXECUTIVE SUMMARY

This report documents CBRE's findings from our Phase I Environmental Site Assessment for the property located at 69 Leets Island Road, designated as Parcel ID: H05/J05 007/0022A in the Town of Branford, New Haven County, Connecticut (the "Parent Parcel"). The Parent Parcel is situated in a suburban area characterized by single-family residential development, commercial development, light industrial development, agricultural land, and wooded land. The Parent Parcel consists of an approximately five-acre parcel improved with one 6,184 square-foot garage and office building with oil heating constructed in 1958, and one 8,288 square-foot, wood-framed storage barn with no heating systems constructed in 1995. In addition, the Parent Parcel includes a fueling station with tanks installed in 1999, and concrete structures for stockpiling soil. The Parent Parcel is operated by the Department of Transportation and is owned by the State of Connecticut.

Pursuant to lease exhibits prepared by Centek Engineering, dated February 24, 2020 and last revised on April 13, 2020, Pyramid Network Services, LLC proposes to construct a wireless telecommunications facility on a proposed 50' x 50' fenced-in lease area to be located in the northwestern portion of the Parent Parcel. The proposed tower facility will include a 100-foot self-supporting tower, 12' x 34' equipment shelter with a generator room, an ice bridge with two GPS antennas, and a utility conduit.

Coaxial cables will be routed from the proposed equipment shelter to the proposed tower via a proposed ice bridge. Pyramid Network Services, LLC plans to construct a 12' wide gravel access drive from the Parent Parcel's entrance on Leetes Island Road and curving to the northeast towards the proposed tower facility. Power and telco conduits will be routed underground from an existing utility pole near Leetes Island Road to the proposed tower facility, following the path of the proposed driveway. The proposed 50' x 50' lease area, access and utility easements, and all areas proposed to be disturbed is hereby referred to as the "Subject" and is the focus of this report.

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Parent Parcel. However, the following historical recognized environmental condition (HREC) was identified:

Leaking Underground Storage Tank (LUST) and SPILLS Listings

One LUST incident and two Spills listings were identified on the Parent Parcel, each of which have been granted regulatory closure by the CT DEEP.

- The Branford Maintenance Facility at 69 Leetes Island Road was identified as the site of LUST Case ID: 35176 (aka LUST ID: 7101 and Spill Case No. 9808521). According to the database, on December 14, 1998, a release of diesel and motor

fuel was detected originating from the Parent Parcel's USTs. The depth to the groundwater was measured at 9.5 feet below grade and flowing to the east, and the classification was set at GA, indicating that the groundwater is assumed to be suitable for drinking without treatment. Based on the associated Spill Case number and CPCS listing, a sheen was discovered on the groundwater at the diesel fuel and gasoline fueling station, specifically around a 4,000-gallon, steel diesel fuel or gasoline tank. Approximately 80 gallons of diesel fuel and gasoline was recovered during remediation. A Phase II was requested and soil removal was performed. The response from the Oil and Chemical Spill Response Division (OCSRD) was complete as of March 10, 1999. In addition, the CT DEEP has granted this LUST incident a LUST Status 4, indicating that remediation is complete. Furthermore, based on the dates of the spill and the reference to a steel diesel or gasoline tank, the release must refer to the refueling station located approximately 170 feet to the southeast of the proposed Subject Property area. The tanks in this area were excavated and removed in 1999 to be replaced with the existing fiberglass-reinforced plastic USTs. No subsequent LUST/Spill listing was found associated with the newer USTs. Based on the removal and replacement of the source USTs, presence of groundwater monitoring wells and leak detection equipment on the replacement USTs, which have not reported any subsequent LUST/Spill incidents, the Complete regulatory status of the LUST incident, and eastward groundwater flow of the area of the USTs, which is crossgradient to the proposed area of the Subject Property, it is not suspected that this LUST listing represents an environmental concern to the Subject Property.

- Spill Case No. 6519, occurred at the Parent Parcel on November 30, 1993. A subcontractor for the Department of Transportation knocked over a non-PCB electrical transformer and released approximately 20 gallons of dielectric fluid. Two gallons of the material entered a catch basin and some to the nearby marsh area. The material was contained with pads and sand, and impacted soils were excavated. Based This incident was granted a Closed status by the CT DEEP on November 30, 1993, the same day as the incident. Based on the remedial actions performed, type of material released, and regulatory status, it is not suspected that this incident represents an environmental concern to the Subject Property.

- Spill Case No. 9706103 occurred on October 22, 1997 when a nozzle removed from the gasoline dispenser released approximately 125 gallons of gasoline to the ground surface and a catch basin. ETI was retained to remediate the release. The catch basin was pumped out and al impacted soils were removed. The CT DEEP granted this incident a Closed and Terminated status, indicating that it has been remediated to the satisfaction of the department. Based on the remedial actions performed, and the contained nature of the release, it is not suspected that this spill represents an environmental concern to the Subject Property.

2.0 INTRODUCTION

2.1 General and Reliance

CBRE was retained by Pyramid Network Services, LLC to prepare a Phase I Environmental Site Assessment for the Parent Parcel, in conformance with ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13. Any exceptions to, or deletions from, this practice are described below.

CBRE has produced this document under an agreement between CBRE and Pyramid Network Services, LLC. All terms and conditions of that agreement are included within this document by reference. This report was prepared for and may be relied upon by Pyramid Network Services, LLC. Any future party seeking to rely on this report may apply to CBRE and Pyramid Network Services, LLC for a letter of reliance.

2.2 Purpose and Scope

2.2.1 Purpose

The purpose of this report is to identify Recognized Environmental Conditions in connection with the property, using the methodology recommended by ASTM International in order to qualify for the innocent landowner defense to CERCLA liability and/or to help understand potential environmental conditions that could materially impact the operation of the business associated with the Parent Parcel. Specifically, this methodology is referred to as *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* Designation: E 1527-13.

The term Recognized Environmental Conditions is defined by ASTM Standard E 1527-13 as "...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

2.2.2 Scope

In general, the scope of this assessment consisted of reviewing reasonably ascertainable information and environmental data relating to the property; interviewing readily

available persons knowledgeable about the site; reviewing readily available maps, aerial photographs and records maintained by federal, state, and local regulatory agencies; and conducting a site visit.

Of importance, the client is advised that federal, state, and local laws may impose environmental assessment obligations beyond the scope of this practice. The client is also notified that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the Parent Parcel that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance.

The specific scope of this assignment included the following:

- Performing a site reconnaissance to characterize on-site conditions and assess the site's location with respect to surrounding property uses and natural surface features. In addition, CBRE conducted a reconnaissance of nearby surrounding roads and readily accessible adjacent properties to identify obvious potential environmental conditions on neighboring properties. Photographs taken as part of the site reconnaissance are provided in Appendix A.

    - The site visit was conducted on May 11, 2020, by Mr. Robert Strother representing CBRE. The site was not represented at the time of the site visit.

    - Weather conditions were partly cloudy with a temperature of approximately 55°F at the time of our site survey. CBRE conducted the site reconnaissance in a systematic manner, surveying in a grid pattern.

- Interviewing persons familiar with the property to obtain information on present and previous on-site activities potentially resulting in the environmental degradation of the site or adjoining properties. An AAI User Questionnaire was provided to the User. In this questionnaire, CBRE requested title records as well as information pertaining to whether or not any environmental liens or activity and use limitations were associated with the property. The purpose of this questionnaire was to satisfy the user interview all appropriate inquiry requirements and disclose any previous or existing hazardous waste or toxic material conditions, which may not have been apparent at the time of our site reconnaissance.

- If provided, reviewing of information such as previously prepared appraisals, building plans and specifications, and environmental reports.

- Reviewing readily available historical documents, such as topographic maps, aerial photographs, and/or city directories to identify previous activities on and in the

vicinity of the Parent Parcel. Copies of these documents are included in Appendix C.

- Reviewing readily available environmental databases maintained by federal, state, and local agencies within the approximate minimum search distances as described within the Regulatory Review Section 5.0 of this report. A copy of the Computerized Environmental Report, provided by Environmental Data Resources, Inc. (EDR) can be referenced in Appendix D.

- Conducting a visual survey of readily accessible areas to identify the presence of the most obvious and common types of suspect ACMs. The basis for "suspect" determination is taken from the materials listed in Appendix G of the United States Environmental protection Agency (USEPA) publication Managing Asbestos in Place (also known as the Green Book). All building materials listed within Appendix G of the Green Book are considered to be suspect ACMs at the Subject. This screening is not intended to be used for demolition, abatement, renovation, or repair work.

  THIS LIMITED SURVEY IS NOT TO BE CONSTRUED AS A COMPREHENSIVE ASBESTOS SURVEY, WHICH OFTEN ENTAILS DESTRUCTIVE TESTING OR THE SURVEY OF AREAS BEHIND WALLS, ABOVE CEILINGS, IN TENANT SPACES, AND IN OTHER TYPICALLY INACCESSIBLE AREAS. MOREOVER, CBRE DOES NOT WARRANT THAT ALL ACMs AT THE SUBJECT HAVE BEEN IDENTIFIED.

- In the course of conducting representative observations of areas that are readily accessible, easily visible, and safe with respect to the field observer, CBRE will report the presence of material quantities of microbial growth.

- This limited scan is not to be construed as a microbial growth survey, which entails a thorough specific inspection and also often includes destructive testing or the survey of areas behind walls, above ceilings, in tenant spaces, and in other typically inaccessible areas. Moreover, CBRE does not warrant that all microbial growth at the Subject has been identified, as mold may exist in inaccessible or non-observable areas or may have amplified subsequent to our site survey.

- During our walkthrough survey, CBRE noted the condition of the paint. Note, a compliance audit for lead-containing paint was not conducted. In addition, if the tower was painted, testing for lead-containing paint was not conducted without prior written approval by CLIENT. NOTWITHSTANDING, THIS SCAN FOR LEAD-CONTAINING PAINT SHOULD NOT BE CONSTRUED AS AN IN-DEPTH LEAD-CONTAINING PAINT SURVEY.

2.3 Data Gaps

According to §3.3.20 of ASTM Standard E 1527-13 a data gap is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts to gather same. Data gaps may result from incompleteness in any of the activities required by the ASTM Standard. The following data gaps occurred in connection with this report:

Data Gap	Explanation	Significance of Gap
Site History	Site history not conducted in five-year intervals (See § 4)	Low - not likely to alter Report's conclusions due to CBRE's search of standard historical sources of information such as aerial photographs, historic topographic maps, reviews of previous investigations, and interviews with knowledgeable individuals who were familiar with the property.
User Interview	AAI User Questionnaire not returned to CBRE	Low - not likely to alter Report's conclusions
Former Owner or Operator Interview	Unable to interview former site owner or operator due to inability to locate	Low - not likely to alter Report's conclusions
Governmental Records	FOIA requests not returned	Unknown. However, if receipt of FOIA requests alters the Report's conclusion, the client will be notified
Property Title Report	No property title was provided for review.	Low - considering the historical use of the property, a copy of the land title would not likely alter the Report's conclusions.

3.0 SITE DESCRIPTION

Property Information	
Street Address	69 Leetes Island Road
City, County, and State	Town of Branford, New Haven County, Connecticut 06405
Legal Designation	Block 7, Lot 22A
Subject Area	50'x50' Fenced Compound
Coordinates	41°17'41.6"N and 72°45'42.4"W
Parent Parcel Area	Five Acres
Roads on or Adjoining the Property	The property has road frontage along Leetes Island Road to the west.

Surrounding Land Use		
Direction	Adjacent Properties	Surrounding Properties
North	Across Interstate-95, are a gasoline filling station (48 Leetes Island Road) and a truck stop (3 East Industrial Road)	A shopping plaza, commercial properties, a trailer park, vacant land, and agricultural land farther north
South	A single-family residence (90 Leetes Island Road) and woodland.	Commercial and residential properties, a church, agricultural land, and vacant land farther south
East	HW Zuwalick & Son's sawmill (36 Zuwalick Lane)	Vacant land and single-family residences farther east.
West	Across Leetes Island road are Fischer Excavating (89 Leetes Island Road); New Age Motors (82 Leetes Island Road); Rodeway Inn & Suites (81 Leetes Island Road); and a single-family residence (72 Gould Lane)	Commercial and residential properties farther west with commercial facilities on the other side of I-95.
Of note, several adjoining/surrounding properties were identified on regulatory databases indicative of environmentally sensitive operations. Please see the regulatory review section of this report for additional discussion regarding these facilities.		
Physiographic Setting		

Geologic Conditions	There are no predominant geological surface features such as rock outcroppings on the Subject. According to the Bedrock Geological Map of Connecticut, dated 1985, compiled by John Rodgers for the CT Geological and Natural History Survey, the Parent Parcel is situated on a mixture of the Plainfield Formation (Zp), Stony Creek Granite Gneiss (Zsc), and Narragansett Pier Granite (Pn), The Plainfield Formation consists of interlayered light-gray, thin-bedded quartzite, in places with feldspar, mica, graphite, or pyrite, light- to medium-gray gneiss composed of quartz, oligoclase, and biotite (rarely microcline), medium- to dark-gray schist composed of quartz, oligoclase, biotite, sillimanite, and garnet, dark-gray or green gneiss composed of plagioclase, quartz, biotite, and hornblende (commonly with diopside), amphibolite, diopsite-bearing quartzite, and calc-silicate rock. In places contains quartz-sillimanite nodules. Stony Creek Granite Gneiss (Zsc is a red to pink, unevenly medium to very coarse grained, variably foliated granite or granite gneiss, composed of oligoclase, K-feldspar, and quartz with minor biotite and magnetite, sporadic garnet (in foliated varieties), and local muscovite. Narragansett Pier Granite (Pn) is a pink to red, medium to coarse-grained, massive granite
Soil Conditions	According to the Soil Survey of New Haven County, Connecticut, dated September 2016, issued by the United States Department of Agriculture, Soil Conservation Service, the soils at the site are classified as Udorthents-Urban land complex in the northwestern half of the parent parcel (46.2% of the Subject Property's land area) and Wethersfield loam, 3 to 8 percent slopes on the southwestern half of the lot (53.8%). Udorthents soils consist of loam from 0 to 5 inches, gravelly loam from 5 to 21 inches, and very gravelly sandy loam from 21 to 80 inches. This soil is well drained. Depth to the water table is about 54 to 72 inches and depth to a restrictive feature is more than 80 inches. Urban Land complex are those soils in which the soil's original structure and content have been so altered by human activities it has lost its original characteristics and is thus unidentifiable. The Wethersfield series consists of coarse-loamy, mixed, mesic Typic Fragiochrepts, which are well-drained, nonstony to extremely stony and have a reddish brown loam B horizon over a reddish brown fine sandy loam Cx horizon. These soils are formed in compact glacial till that was derived mainly from reddish colored sandstone, conglomerate, akrose, shale, and some basalt.
Hydrogeologic / Hydrologic Conditions	Under natural, undisturbed conditions, shallow groundwater flow generally follows the topography of the land surface and, on this basis, the topography suggests that groundwater flow across the Parent Parcel is in a northeasterly direction. However, localized conditions can alter flow direction and thus the presumed flow may not coincide with the actual in the area.

Topographic Conditions	The Parent Parcel slopes from the southwest to the northeast at an approximate grade of 3%. The topography of the area is characterized as essentially gently sloping. According to the United States Geological Survey (USGS) *Branford, CT* 7.5 Minute Series topographic map, the Subject's topographic elevation is approximately 103 feet above mean sea level ("amsl").
Wetlands	CBRE reviewed the National Wetlands Inventory Geographic Information Systems (GIS) Mapper which includes a federal wetlands data layer prepared by the US Department of the Interior, Fish and Wildlife Service. CBRE also reviewed the Town of Branford Geographic & Property Information Application, which includes a state freshwater wetlands data layer. Review of the aforementioned wetlands mapping indicated that the Subject is not located on a federal or state designated wetlands area. The southeast-adjacent lot includes a freshwater emergent wetland located approximately 460 feet from the Subject. Additionally, CBRE did not observe visual evidence of potential wetland areas on or adjacent to the Subject. It should be noted that a detailed wetland study or wetland delineation was not within the scope of this report.
Flood Plains	CBRE reviewed the applicable FEMA flood plain map (09009C0467K) for the Subject. According to this review, the Subject is not located within or near a mapped floodplain.
Site Improvements	
Utilities	Water: South Central Connecticut Regional Water Authority Sanitary Sewer: town of Branford Storm Sewer: Town of Branford Electric: Eversource Natural Gas: Connecticut Natural Gas (CNG) Telecom: Verizon
Description of Improvements	The Parent Parcel is improved with a one-story garage and office building constructed in 1956, a storage barn constructed in 1995, a fueling station with tanks installed in 1999, and concrete structures for stockpiling soil. The Parent Parcel is operated by the Department of Transportation. The parcel is owned by the State of Connecticut.
Current Property Use	The Parent Parcel is occupied by State of Connecticut Department of Transportation as a garage, fueling station, offices, soil storage facility, and storage for de-icing tanks. The southern portion of the parcel includes a Park & Ride parking lot. Please refer to the Site Reconnaissance section for a discussion on the USTs identified at the Parent Parcel.

Subject Description

Pursuant to lease exhibits prepared by Centek Engineering, dated February 24, 2020 and last revised on April 13, 2020, Pyramid Network Services, LLC proposes to construct a wireless telecommunications facility on a proposed 50' x 50' fenced-in lease area to be located in the northwestern portion of the Parent Parcel. The proposed tower facility will include a 100-foot self-supporting tower, 12' x 34' equipment shelter with a generator room, an ice bridge with two GPS antennas, and a utility conduit. Coaxial cables will be routed from the proposed equipment shelter to the proposed tower via a proposed ice bridge. Pyramid Network Services, LLC plans to construct a 12' wide gravel access drive from the Parent Parcel's entrance on Leetes Island Road and curving to the northeast towards the proposed tower facility. Power and telco conduits will be routed underground from an existing utility pole near Leetes Island Road to the proposed tower facility, following the path of the proposed driveway.

4.0 HISTORICAL USE

The Parent Parcel was historically agricultural land and an access road to an east-adjacent property (researched back to 1934) prior to the development of the existing Department of Transportation garage in 1958. As indicated by the 1959 aerial photograph, the existing DOT garage, fueling station, soil stockpiling area, and a second outbuilding were constructed. By 1980, the Park & Ride lot on the southern area of the property was paved and the concrete apron for the garage's historic UST was depicted north of the garage. By 1995, the outbuilding was demolished and the existing storage barn was constructed. By 2005, the paved area of the oil-water separator tank was depicted on the aerial photograph.

None of the historical uses of the property are considered a REC for the Subject or Parent Parcel; however, the presence of USTs and an associated LUST listing for a former tank constitutes an HREC for the Parent Parcel. Please refer to the regulatory review section for additional discussion.

The review of historical information regarding the Parent Parcel and surrounding areas is presented below.

Historical Review	
Historical Source	**Observations**
Topographic Maps	Topographic maps dated 1954, 1967, 1972, 1984 and 2012 were reviewed. **Parent Parcel:** In the 1954 topographic map, the Parent Parcel consisted of undeveloped land with a road running west-east to an east-adjacent residence. The existing DOT garage and a shed were constructed by at least 1967. **Surrounding Properties:** In the 1954 topographic maps, the adjacent and surrounding properties consisted of agricultural land, residences, and the Connecticut Turnpike. By 1967, a residence was constructed on the east-adjacent lot and new commercial properties were constructed to the south. By 1984, new commercial and residential properties were constructed throughout the surrounding area. To the north across the Connecticut Turnpike is the existing truck stop and farther northwest are new commercial buildings.
Fire Insurance Maps	No fire insurance maps were available for the Parent Parcel area based on a search of fire insurance maps performed by EDR.

Historical Review	
Historical Source	**Observations**
Aerial Photographs	Aerial photographs dated 1934, 1949, 1951, 1959, 1963, 1966, 1970, 1972, 1980, 1986, 1992, 1996, 2005, 2008, 2012, and 2016 were reviewed. **Parent Parcel:** In the 1934 through 1951 aerial photographs, the Parent Parcel appears to consist of agricultural land and vacant land, with no visible structures or other development except for a road leading to an east-adjacent residence. By 1959, the existing DOT garage, fueling station, soil stockpiling area, and a second outbuilding were constructed. By 1980, the Park & Ride lot was paved. The concrete apron for the garage's historic UST is depicted north of the building. By 1996, the outbuilding was demolished and the existing storage barn was constructed. By 2005, the paved area of the oil-water separator tank was depicted. **Surrounding Properties:** In the 1934 through 1951 aerial photographs, the surrounding properties are primarily agricultural land, residences, and undeveloped woodland. By 1959, the north-adjacent highway was paved Commercial development was observed circa 1966 and expanded through present. Gasoline filling stations were observed to the northwest by 1970 and the north-adjacent truck stop was built in 1980. Larger commercial properties and a shopping plaza were constructed by 1986.
Chain-of-Title	Although requested, a copy of the Chain-of-Title for the Parent Parcel has not been provided to CBRE for review.
Previous Reports	Although requested, no previously prepared environmental reports such as Phase I or II Environmental Site Assessments, lead paint surveys, lead-in-water surveys, asbestos surveys, or geotechnical reports were provided for our review.
Property Tax Records	According to the tax assessor records reviewed, the Parent Parcel consists of a 5-acre parcel identified as Parcel ID: H05/J05 007/0022A. The buildings consist of one 6,184 square-foot garage and office building with oil heating constructed in 1958, and one 8,288 square-foot, wood-framed storage barn with no heating systems constructed in 1995. Please refer to the UST section above for a discussion on the oil heating equipment. No additional records of any tanks, spills or other occurrences which could create a recognized environmental condition for the Parent Parcel were identified in the Assessor's Office files.
Interviews	CBRE interviewed Mr. David Hartley of the Connecticut Department of Transportation over the phone at the time of site reconnaissance. According to Mr. Hartley the Parent Parcel includes a heating oil AST, diesel-fired emergency generator, and a fuel dispenser with gasoline and diesel USTs. Mr. Hartley had no knowledge of any environmental concerns pertaining to the Parent Parcel.
Additional Resources	CBRE conducted a cursory internet search for the Subject Name and Parent Parcel address using the Google search engine on May 15, 2020. Based on this search, no environmentally related information was identified on the first page of the Google search results.

5.0 REGULATORY REVIEW

5.1 Computerized Environmental Report

A copy of regulatory database information contained within a Computerized Environmental Report (CER) provided by Environmental Data Resources, Inc. (EDR) appears in Appendix D. The CER is a listing of sites identified on select federal and state standard source environmental databases within the approximate minimum search distance specified by ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13. CBRE reviewed each environmental database on a record-by-record basis to determine if certain sites identified in the CER are suspected to represent a material negative environmental impact to the Parent Parcel. The following table lists the number of sites by regulatory database within the prescribed minimum search distance appearing in the CER:

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD
Federal National Priorities List (NPL)	One-Mile	0
Federal Delisted NPL	One-Half Mile	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List	One-Half Mile	1
Federal CERCLIS No Further Remedial Action Planned (NFRAP) Site List	One-Half Mile	2
Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Tracking System (CORRACTS) Facilities List	One-Mile	2
Federal RCRA non-CORRACTS Treatment, Storage, and Disposal (TSD) Facilities List	One-Half Mile	0
Federal RCRA Generators List (RCRA LQG, RCRA SQG, RCRA CESQG, and RCRA Non-Generator)	On-Site and Adjoining Properties	1
Federal Institutional Control/Engineering Control Registries	On-Site	0
Federal Emergency Response Notification System (ERNS) List	On-Site	0
State and Tribal Lists of NPL Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation (SHWS)	One-Mile	2
State and Tribal Landfills or Solid Waste Facilities List (SWF/LF)	One-Half Mile	0
State and Tribal Registered Underground & Aboveground Storage Tank Lists (UST/AST)	On-Site and Adjoining Properties	0
State and Tribal Leaking Storage Tank	One-Half Mile	0

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD
State and Tribal Spills Database	On-Site and Adjoining Properties	0
State and Tribal Institutional/Engineering Control Registries	On-Site	0
State and Tribal Voluntary Cleanup Sites	One-Half Mile	0
State and Tribal Brownfields Sites	One-Half Mile	0

The CER identified 10 "Orphan Sites." "Orphan Sites" are those sites that could not be mapped or "geocoded" due to inadequate address information. Refer to the CER for a list of these "Orphan Sites." CBRE attempted to identify these sites via a review of street maps, vehicular reconnaissance and/or aerial photography. Four of these sites were determined to be on the Parent Parcel and are discussed below. Those sites that could be identified were either included in the above table or they were concluded to not represent a recognized environmental condition (REC) for the Subject or Parent Parcel due to their regulatory status (*e.g.*, the incident was closed by the agency) and/or their location relative to the Subject (*e.g.*, greater than the ASTM search distances from the Subject).

Based on our review of the CER, CBRE identified the Parent Parcel on the following regulatory databases: UST, LUST/Spills, CPCS, NPDES, CT Manifest, and RGA LUST

Underground Storage Tank (UST)

The Parent Parcel, under the name Branford Maintenance Facility at 69 Leetes Island Road, was identified on the UST database under Facility ID: 14-3504. According to the database, the Subject Property is currently served by two USTs and was formerly served by four tanks that have since been removed.

Historic USTs included the following:

- Tank ID: D1 was 1,000-gallon, asphalt-coated or bare steel, gasoline tank with steel piping that was installed on January 1, 1980 and last used on December 1, 1998.

- Tank ID: H1 was a 2,000-gallon, asphalt-coated or bare steel, heating oil UST with bare steel piping, which was installed on January 1, 1956. This UST was last used on December 1, 1989.

- Tank ID: H1R1 was a 2,000-gallon, single-walled FRP, heating oil UST with copper piping that was installed on December 1, 1989 and last used on May 6, 2019. The tank includes containment sumps at the tank, a spill bucket, and a ball float device for overfill protection.

    - According to the August 8, 2019 *Notification for Underground Storage Tanks* provided by the CT DEEP, a required site assessment was performed by TRC Companies Inc at the time of tank closure. Soil samples were collected and analyzed for one or more of; VOCs, SVOCs, Metals, and ETPH. According to the form, no RSR criteria were exceeded for GA Pollutant Mobility Criteria or Residential Direct Exposure Criteria.

- Tank ID: N1 was a 4,000-gallon, asphalt coated or bare steel, gasoline UST with bare steel piping that was installed on December 1, 1998. This tank was last used on December 1, 1998.

These historic USTs were identified on the LUST, Spill, and CPCS databases. Refer to the appropriate sections below for additional discussion.

Active USTs include the following:

- Tank ID: D1R1 is a double-walled, 4,000-gallon, fiberglass-reinforced plastic (FRP), diesel fuel UST that was installed on January 1, 1999. Piping is of rigid FRP. Containment sumps are present at the dispensers and tanks, metallic fittings are isolated from the soil and water, and the UST includes a spill bucket.

- Tank ID: N1R1 is a double-walled, 4,000-gallon, fiberglass-reinforced plastic (FRP), gasoline UST that was installed on January 1, 1999. Piping is of rigid FRP. Containment sumps are present at the dispensers and tanks, metallic fittings are isolated from the soil and water, and the UST includes a spill bucket.

Of note, the Subject Property also includes aboveground storage tanks and another UST used as an oil-water separator for the garage. Refer to the Site Reconnaissance section below for additional discussion.

Leaking Underground Storage Tank (LUST) / Spills

The Branford maintenance Facility at 69 Leetes Island Road was identified as the site of LUST Case ID: 35176 (aka LUST ID: 7101 and Spill Case No. 9808521). According to the database, on December 14, 1998, a release of diesel and motor fuel was detected originating from the Parent Parcel's USTs. The depth to the groundwater was measured at 9.5 feet below grade and flowing to the east, and the classification was set at GA, indicating that the groundwater is assumed to be suitable for drinking without

treatment. Based on the associated Spill Case number and CPCS listing, a sheen was discovered on the groundwater at the diesel fuel and gasoline fueling station, specifically around a 4,000-gallon, steel diesel fuel or gasoline tank. Approximately 80 gallons of diesel fuel and gasoline was recovered during remediation. A Phase II was requested and soil removal was performed. The response from the Oil and Chemical Spill Response Division (OCSRD) was complete as of March 10, 1999. In addition, the CT DEEP has granted this LUST incident a LUST Status 4, indicating that remediation is complete. Furthermore, based on the dates of the spill and the reference to a steel diesel or gasoline tank, the release must refer to the refueling station located approximately 170 feet to the southeast of the proposed Subject Property area. The tanks in this area were excavated and removed in 1999 to be replaced with the existing fiberglass-reinforced plastic USTs. No subsequent LUST/Spill listing was found associated with the newer USTs. Based on the removal and replacement of the source USTs, presence of groundwater monitoring wells and leak detection equipment on the replacement USTs, which have not reported any subsequent LUST/Spill incidents, the Complete regulatory status of the LUST incident, and eastward groundwater flow of the area of the USTs, which is crossgradient to the proposed area of the Subject Property, it is not suspected that this LUST listing represents an environmental concern to the Subject Property.

Spill Case No. 6519, occurred at the Parent Parcel on November 30, 1993. A subcontractor for the Department of Transportation knocked over a non-PCB electrical transformer and released approximately 20 gallons of dielectric fluid. Two gallons of the material entered a catch basin and some to the nearby marsh area. The material was contained with pads and sand, and impacted soils were excavated. Based This incident was granted a Closed status by the CT DEEP on November 30, 1993, the same day as the incident. Based on the remedial actions performed, type of material released, and regulatory status, it is not suspected that this incident represents an environmental concern to the Subject Property.

Spill Case No. 9706103 occurred on October 22, 1997 when a nozzle removed from the gasoline dispenser released approximately 125 gallons of gasoline to the ground surface and a catch basin. ETI was retained to remediate the release. The catch basin was pumped out and al impacted soils were removed. The CT DEEP granted this incident a Closed and Terminated status, indicating that it has been remediated to the satisfaction of the department. Based on the remedial actions performed, and the contained nature of the release, it is not suspected that this spill represents an environmental concern to the Subject Property.

Spill Case No. 9808521 occurred on December 14, 1998 when a sheen on the groundwater was encountered at the diesel fuel and gasoline fueling station. The source was an inground tank failure. Approximately 80 gallons of diesel fuel and gasoline was recovered during remediation. This listing has been granted a Closed and Terminated

status by the CT DEEP by January 1, 1999. Please refer to the LUST listing above for additional discussion.

Contaminated or Potentially Contaminated Sites (CPCS)

The DOT facility at 69 Leetes Island Road was identified on the CPCS database for a LUST incident with a Lust Status Code: 3, indicating that cleanup has been initiated. A sheen on the groundwater around a 4,000-gallon, steel diesel fuel or gasoline tank was discovered. A Phase II was requested and soil removal was performed. No additional information is provided by this database. Notably, this listing appears to be an outdated reference to LUST Case ID: 35176, which has since been granted a LUST Complete status.

RGA LUST

The DOT facility at 69 Leetes Island Road was identified on the RGA LUST database from 2002 to 2010. Additional RGA LUST listings were identified for CT DOT at Leetes Island Road in 1996, and the CT DOT Garage from 2002 to 2010. No additional information is provided by this database.

CT Manifest

The State of CT DOT Branford site at 69 Leetes Island Road was identified on the Manifest database in 1994 under EPA ID: CTP000016376. According to the database, approximately 68 pounds of solid hazardous wastes (EPA Waste Code D009 – Mercury) was removed from the facility. Based on the low volume of the substance removed, lack of any indications of a release of mercury, and because these wastes have been removed from the Parent Parcel, it is not suspected that this Manifest listing represents an environmental concern to the Subject Property.

State of CT Department of Transportation facility at Leetes Island Road was identified on the Manifest database in 2002 under EPA ID: CTP000026484. According to the database, on June 21, 2002, approximately 10 gallons of solid environmentally hazardous substances (EPA Waste Code D008 – Lead wastes) was removed from the Parent Parcel. Based on the low volume of the substances removed, lack of any indications of a release of lead wastes, and because these wastes have been removed from the Parent Parcel, it is not suspected that this Manifest listing represents an environmental concern to the Subject Property.

National Pollutant Discharge Elimination System NPDES

The Parent Parcel, under the name Branford Salt Storage at 69 Leetes Island Road, is identified on the NPDES database under three different permit numbers:

- Permit Number GSI000007 was issued on August 26, 1997 and after renewals is scheduled to expire on September 30, 2021. This active permit allows stormwater industrial activities at the Parent Parcel.

- Permit Number GVS000774 was issued on November 26, 1997 and expired on May 28, 2007. The type of discharge is not identified on this listing.

- Permit Number GVM000028 was issued on June 12, 2001 and is scheduled to expire on January 23, 2021. This permit allows the discharge of vehicle maintenance wastewater.

Of note, the Subject Property has a UST used for oil-water separation from the discharge of vehicle wastewater. Please refer to the Site Reconnaissance section for additional discussion.

The area surrounding the Parent Parcel included one SEMS listing, two SEMS-Archive sites, two CORRACTS sites, two CT SHWS listings, 10 SDADB listings, 7 CT LUST sites, and three VCP sites. Upon further review, CBRE did not identify the surrounding properties on regulatory databases which would be considered a REC for the Subject or Parent Parcel. Any surrounding sites identified above were determined to not be a REC due to their regulatory status, distance from Subject, downgradient/crossgradient location from the Subject or a combination of same. However, the following properties warrant mention due to taking place adjacent to the Parent Parcel:

<u>48 Leetes Island Road (Northwest-Adjacent)</u>

A gasoline filling station at 48 Leetes Island Road, located approximately 610 feet hydrogeologically crossgradient from the closest point on the Parent Parcel, was identified on the RCRA Generator, UST, LUST/Spills, CPCS, SDADB, and Historic Auto Stations regulatory databases:

- The northwest-adjacent, crossgradient, Opal Ventures, LLC gasoline filling station at 48 Leetes Island Road, located across Interstate 95, was identified as a RCRA-SQG on April 1, 1991 under EPA ID: CTD983877713. According to the CER, the waste stream for this property includes undefined wastes, ignitable waste, and lead. According to the EPA's Enforcement and Compliance History Online (ECHO) database, this facility has no history of inspections or violations.

- The northwest-adjacent Mobil gasoline filling station located on the opposite side of East Industrial Road is identified as a UST site. According to the CER, this site is served by four 10,000-gallon, fiberglass-reinforced plastic, gasoline USTs installed August 1, 1991. Former tanks that have been removed from the site include one tank of unreported construction or capacity removed from the

ground on December 19, 2012; one 8,000-gallon, FRP, gasoline UST installed January 1, 1981 and removed July 1, 1991; two 6,000-gallon, FRP, gasoline USTs installed January 1, 1981 and removed July 1, 1991; one 500-gallon, steel, gasoline UST installed January 1, 1950 and removed July 1, 1991; one 1,000-gallon, steel, gasoline UST installed January 1, 1950 and removed July 1, 1991; and one 1,000-gallon FRP, used oil UST installed August 1, 1991 and removed August 18, 2014.

- The northwest-adjacent gasoline filling station at 48 Leetes Island Road was identified under LUST Case ID: 28072. The LUST listing states that motor fuel and gasoline were released from a tank, and the tank has since been removed. On September 14, 1981, a tank failed a test and was emptied immediately. By October 1981, all steel USTs were removed and replaced by fiberglass or fiberglass-reinforced plastic tanks. Soil excavated during removal was stockpiled on-site and was noted to be present by January 23, 1989. Five monitoring wells were installed on April 10, 1991. Samples indicate contaminant ranges in BTEX of non-detect to 887 ppb and MTBE from ND to 4,800 ppb. By May 21, 1992, maximum concentrations dropped to 14.1 for BTEX and 67.2 ppb for MTBE. As of April 5, 1993, the contaminant maximums were 1.7 for BTEX and 66ppb for MTBE. The CER notes that groundwater flows to the southwest. Based on the remedial actions performed, the regulatory closure granted to the site, and its crossgradient hydrogeological position, it is not suspected that this release represents a significant negative environmental impact to the Subject.

- Spill Case No. 1708 occurred on May 8, 1991 at the northwest-adjacent gasoline filling station. An unreported quantity of petroleum was found contaminating the groundwater. Monitoring wells were installed during a site assessment by Mobil, which determined that the release does not represent an active discharge. Nevertheless, a contamination condition from this Spill listing would have been addressed by remedial actions performed regarding LUST Case No. 28072, which included sampling information up to April of 1993. Based on the above, it is not suspected that this incident represents an environmental concern to the Subject Property.

- Spill Case No. 200802167 occurred on April 11, 2008 when a garbage truck backed into a gas pump, causing a fire and releasing approximately 20 gallons of gasoline to the ground surface. The fire department responded to contain the fire and spill and the incident has since been granted a Closed status. Based on the above, it is not suspected that this incident represents an environmental concern to the Subject Property.

- Spill Case No. 201006527 occurred on October 29, 2010 when approximately one cup of gasoline was released to the ground by a pump failure at the

northwest-adjacent gasoline filling station. The material was sanded and cleaned and the incident has been granted a Closed status. Based on the de minimis nature of the release, is not suspected of representing an environmental concern to the Subject Property.

- Spill Case No. 201605079 occurred on September 19, 2016 at the northwest-adjacent gasoline filling station when approximately 6.5 gallons of gasoline was released from a dispenser to the ground surface. This incident has been granted a Closed status and, based on the de minimis nature of the release, is not suspected of representing an environmental concern to the Subject Property.

- The Mobil Station #06-GEY facility at 48 Leetes Island Road was identified at the site of two RGA LUST listings, which were identified from the years 2002 through 2012. These listings likely refer to the releases explained above and do not represent an additional environmental concern to the Subject Property.

- The Mobile Oil Corp Service Station GEY site at 48 Leetes Island Road was identified on the SDA databases due to its presence on the LUST/Spill database, explained above.

- The northwest-adjacent lot located across I-95 at 48 Leetes Island Road was identified as a gasoline filling station from 1977 to 2014. Specifically, the site was Ted's Mobile Service in 1977, 1978, 1979, 1980, 1982, 1983, 1985, 1986, 1987, 1988, 1989, 1990, and 1991. The property was Cobb's Mobile in 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, and 2006. The site was then listed as Opal Ventures X LLC in 2012, 2013, 2014. Of note, this facility was also identified on the RCRA, SDADB, LUST/Spills, UST, and CPCS databases. Please refer to the appropriate sections for additional discussion.

- The northwest-adjacent Mobil Station #06-GEY facility at 48 Leetes Island Road was identified on the CPCS database due to LUST Incident 91-1708. An oily sheen was discovered on the water and soil of a ditch between the property and the I-95 ramp. Remediation was initiated. Please refer to Spill Case No. 1708 above for additional discussion.

<u>3 East Industrial Road (North-Adjacent)</u>

The truck stop located across Interstate-95, approximately 225 feet downgradient from the closest point on the Parent Parcel, was identified on the UST, LUST/Spills, and historic auto stations regulatory databases.

- The north-adjacent truck stop located across the street at 3 East Industrial Road was identified as a UST site. The site is currently served by two 30,000-gallon,

Fiberglass-Reinforced Plastic, diesel USTs installed June 6, 2006; one 15,000-gallon, FRP, gasoline UST installed June 6, 2006; one 8,000-gallon, FRP, Other Petroleum UST installed August 1, 2014; one 4,000-gallon FRP used oil UST installed August 1, 2014; one 7,000-gallon, FRP, gasoline UST installed June 6, 2006; one 8,000-gallon, FRP, gasoline UST installed November 1, 2005. Former USTs that have since been removed from the site include one 1,000-gallon, steel, used oil UST installed December 1, 1972 and removed October 1, 1990; one 12,000-gallon, fiberglass-reinforced plastic, gasoline UST installed July 1, 1990 and removed June 6, 2006; one 30,000-gallon, FRP, diesel UST installed June 6, 2006 and abandoned-in-place July 6, 2010; two 20,000-gallon, steel, USTs installed December 1, 1972 and removed October 1, 1990; three 20,000-gallon, steel, diesel USTs installed December 1, 1972 and removed October 1, 1990; two 20,000-gallon, steel, gasoline USTs installed December 1, 1972 and removed October 1, 1990; two 20,000-gallon, FRP, diesel USTs installed July 1, 1990 and removed June 6, 2006; and on 1,000-gallon FRP, used oil UST installed July 1, 1990 and removed July 1, 2014. There were also several USTs listed as being permanently closed, but with no dates of closure or removal, including one 30,000-gallon, FRP, diesel UST; one 1,000-gallon, FRP, used oil UST installed June 6, 2006; one 15,000-gallon, FRP, gasoline UST installed June 6, 2006; one 7,000-gallon, FRP, gasoline UST installed June 6, 2006; one 8,000-gallon, FRP, gasoline UST installed November 1, 2005; two 5,000-gallon FRP, gasoline USTs installed June 6, 2006; and one 5,000-gallon, FRP, Other Petroleum UST installed November 1, 2008.

- The north-adjacent truck stop is identified as a LUST/Spills site under Case ID: 48726. The property has been assigned LUST Status: 3, indicating that cleanup activities have been initiated, but not yet completed. According to the CER, on 1972, a 5,000-gallon UST, which collects incidental surface releases from trucks via a storm drain, was removed, the grave was dewatered, and a release was encountered near the UST's lines. The cause of the release was noted as dribs and drabs of product released from trucks. By 1989, gasoline was detected in a storm drain catch basin adjacent to site. Testing showed tank and line failures with an estimated loss of 2,000 gallons of gasoline over an undetermined time period, of which 1,825 gallons were recovered. A NAPL recovery system was then installed. By July 1990, USTs were removed from the site and approximately 4,750 cubic yards of contaminated soil were removed. Two soil vapor extraction systems were installed in 1991, but were deemed insufficient by Aaron Environmental. Aaron Environmental completed a Phase II ESA in 1995. By 1997, recovery wells, air sparging, a high vacuum total fluids extraction system, and a horizontal vapor extraction well were utilized to remediate the site, which commenced until 2005. In 2007, during the removal of USTs, approximately 8,835 tons of impacted soil and approximately 379,940 gallons

of impacted groundwater were removed from the property. By 2009, Apex Environmental completed a Supplemental Phase II / Phase III Investigation. Remediation is ongoing. The groundwater, measured at 6 to 8 feet below grade, flows in different directions for different sides of site. However, the releases associated with the site are noted to take place near the dispenser islands, which are located along the eastern edge of the property. As such, these releases are assumed to flow to the southeast, which is away from the Subject. Based on the crossgradient geological position of this property's releases, in which groundwater contaminants originating from this site are not expected to migrate towards the Subject. Based on the above, it is not suspected that this facility represents a significant negative environmental impact to the Subject.

- Case No. 2176 occurred on May 2, 1992 when approximately 75 gallons of diesel fuel was encountered in a catch basin leaking from a tanker truck. The release was contained and remediated via a vac truck.

- Case No. 200605784 occurred on September 12, 2006 when approximately five gallons of diesel fuel was encountered as free product during site raising activities and the removal of diesel tanks. The source was likely an inground tank failure. This listing has a Closed status and remediation likely took place under the above LUST listing.

In addition, the CT Spills database identifies the truck stop as the site of several incidents involving surface releases of petroleum:

- Case 2176 occurred on May 2, 1992 when approximately 75 gallons of diesel fuel was encountered in a catch basin leaking from a tanker truck. The release was contained and remediated via a vac truck.

- Case No. 2022 took place on April 13, 1995 when approximately 25 gallons of diesel was released from a truck to the ground. The material was contained and removed.

- Case No. 4210 took place on August 2, 1995 due to a release of 15 gallons of diesel fuel from a truck saddle tank.

- Case No. 9606414 took occurred on December 5, 1996 when approximately 40 gallons of diesel fuel was released to the ground surface.

- Case No. 200100110 occurred on January 4, 2001 when approximately 200 gallons of diesel fuel was released from a tractor trailer due to a transfer line failure to the ground surface.

- Case No. 200308991 took place on December 19, 2003 when approximately three gallons of hydraulic oil was released from a transfer line failure.

- Case No. 200502566 occurred on April 28, 2005 when approximately 25 gallons of diesel fuel was released to the ground surface by an unknown cause.

- Case No. 200608157 occurred on December 29, 2006 due to a release of ten gallons of transmission oil.

- Case No. 200706298 occurred on September 28, 2007 when approximately 10 gallons of diesel fuel was released by a truck saddle tank failure to the ground surface.

- Case No. 200800088 occurred on January 5, 2008 when approximately 25 gallons of diesel fuel was released to the ground surface by either a pump failure or an overfill from a customer at the dispenser.

- Case No. 201203302 occurred on June 26, 2012 due to a release of 20 gallons of diesel fuel.

- Case No. 20120422 occurred on August 6, 2012due to a release of two gallons of gasoline.

- Case No. 201204745 occurred on August 30, 2012 due to a release of four gallons of diesel fuel.

- Case No. 201204822 occurred on September 4, 2012 due to a release of ten gallons of vegetable oil.

- Case No. 201400583 occurred on February 11, 2014 due to a release of 2.5 gallons of motor oil.

- Case No. 201503044 occurred on June 22, 2015 due to the release of one gallon of gasoline.

Each of the above Spill incidents were surficial releases that were cleaned and granted closure the same day as their releases. Based on the above, as well as the site's crossgradient hydrogeological position to the Parent Parcel, it is not suspected that any of these releases represent a significant negative environmental impact to the Subject.

- The north-adjacent lot located across Interstate 95 at 3 East Industrial Road was identified as the New Haven 95 East Truck Stop in 1983, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, and 1995, which was variously

listed as an eating establishment and a gasoline service station. From 2001 to 2007, the property was listed as gasoline fillings stations. Specifically, as Union 76 in 2001 and 2002; Branford 76 LLC in 2001, 2002, and 2003; Truck Stops of America in 2002; and Travel Centers of America in 2003, 2004, 2005, 2006, and 2007.

89 Leetes Island Road (Southwest-Adjacent)

The southwest-adjacent facility at 89 Leetes Island Road was identified on the Spills database:

The southwest-adjacent Fischer Excavating facility located across the street at 89 Leetes Island Road was identified as the site of Spill Case No. 3979. On October 1, 1991, approximately 50 gallons of oil was released from an abandoned fuel truck that was used on-site to store diesel fuel to fill fleet trucks. The truck was pumped clean by a vac truck and the contaminated soil was excavated and stockpiled on-site for later disposal. After remediation, the incident was granted a Terminated status. Based on the above, and because the impacted material was limited to the soil, which is unlikely to migrate off-site, it is not suspected that this incident represents an environmental concern to the Subject Property.

82 Leetes Island Road (West-Adjacent)

The west-adjacent hotel at 82 Leetes Island Road was identified on the Spills database:

The west-adjacent Rodeway Inn & Suites building, located across the street at 82 Leetes Island Road, was identified as the site of Spill Case No. 5128. On December 9, 1991, approximately five gallons of waste oil was spilled to a drainage ditch, which discharges to the outfall near a church property. The material was remediated with containment pads. The source waste oil tanks were removed and this incident was granted a Terminated status. Based on the above, and the de minimis nature of the release, it is not suspected that this incident represents an environmental concern to the Subject Property.

I-95 Exit Ramp 56 (West-Adjacent)

The Connecticut Turnpike exit ramp No. 56 was identified as the site of 10 Spill listings. These incidents were surface releases from motor vehicles, whose releases were contained to the pavement. The material was sanded and removed by the Fire Department. Based on the lack of an impact to groundwater from any of these listings, as well as the hydrogeologically crossgradient position of the exit ramp, it is not suspected that these releases represent an environmental concern to the Subject Property.

5.2 Vapor Encroachment Screening

CBRE conducted a "Tier I" (non-intrusive) Vapor Encroachment Screening (VES) on the Parent Parcel in accordance with the methodology set forth in ASTM E 2600-10 "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions". During the VES, the Area of Concern (AOC) was minimized using the methodology taught in the ASTM Screening for Vapor Encroachment onto Property Involved in Real Estate Transactions Training Course. The purpose of the Tier I VES is to conduct an initial screen to identify, to the extent feasible, the potential for a vapor encroachment condition (VEC) in connection with the Parent Parcel with respect to chemicals of concern that may migrate as vapors into the subsurface of the Parent Parcel as a result of contaminated soil and groundwater on or near the property.

This VES utilized readily available data sources previously discussed in this Phase I ESA to include the type of soils, geology and groundwater characteristics of the Parent Parcel area (refer to Section 3.0) as well as known or potentially contaminated sites as identified on Federal, State, tribal and local databases. CBRE also utilized previously discussed standard historical sources of information to identify potential historical sources of contamination on the Parent Parcel and surrounding properties which may be indicative of a VEC. This data collection and analysis was coupled with our site reconnaissance of the Parent Parcel and surrounding properties. Based upon the results of our data collection, reconnaissance and analysis, a summary of our Tier I VES findings is presented in the table below:

Potential for Vapor Encroachment to Impact the Subject	
Area of Concern	Conclusion
Parent Parcel Operations or Existing Conditions	None identified (Refer to Sections 3.0 Site Description and 6.0 Site Reconnaissance)
Historical Uses of the Parent Parcel	None identified (Refer to Section 4.0 Historical Use)
Adjoining Property Operations or Existing Conditions	None identified (Refer to Section 3.2 Surrounding Land Use)
Historical Uses of Adjoining Properties or Nearby Properties	None identified (Refer to Section 4.0 Historical Use)
Regulatory Review of sites identified on Federal, State, tribal and Local Environmental Databases which were located in Approximate Minimum Search Distance (AMSD)	Several Identified (Detailed within Section 5.1 Regulatory Review), but none of concern.

Analysis/Comment:

VEC can be ruled out, because it does not exist or is not likely to exist. All Spills and LUST listings at the Parent Parcel have been remediated. Based on the removal and replacement of the source USTs, presence of groundwater monitoring wells and leak detection equipment on the replacement USTs, which have not reported any subsequent

LUST/Spill incidents, the Complete regulatory status of the LUST incident, and eastward groundwater flow of the area of the USTs, which is crossgradient to the proposed area of the Subject Property, it is not suspected that this LUST listing represents an environmental concern to the Subject Property.

Furthermore, based on the scope of the installation as an unmanned facility, VEC is not a concern to the installation as proposed.

6.0 SITE RECONNAISSANCE

The site visit was conducted on May 11, 2020, by Mr. Robert Strother representing CBRE. The site was not represented at the time of the site visit.

Weather conditions were partly cloudy with a temperature of approximately 55° F at the time of our site survey. CBRE conducted the site reconnaissance in a systematic manner, surveying in a grid pattern.

Based on the scope of the proposed collocation as an outdoor installation, the interior of the two Department of Transportation buildings are not expected to be disturbed as a result of the proposed collocation nor are these structures expected to have adversely impacted the Subject. However, CBRE accessed the DOT building to obtain a copy of the daily inventory of the Parent Parcel's USTs from the Veder Root system located within the garage's office. Refer to the UST section below for additional discussion. In addition, CBRE accessed the western garage portion due to its proximity to the proposed Subject Property. No significant chemical storage or drums of hazardous substances were observed in the garage; however, a floor drain was present in the center of the truck garage, which discharges to a nearby oil-water separator.

The following is a summary of visual and/or physical observations of the areas accessed at the Parent Parcel on the day of the site visit. Photographs of pertinent property features are presented in Appendix A.

SITE CONDITIONS	
Condition	Identified
Chemical Storage and Usage	Yes ● No ❍
Aboveground or Underground Storage Tanks	Yes ● No ❍
Solid Waste Generation	Yes ● No ❍
Sanitary Sewage Generation	Yes ● No ❍
Hazardous Waste Generation	Yes ❍ No ●
Stains and/or Corrosion on Floors, Walls, or Ceilings	Yes ❍ No ●
Stained Soil or Pavement	Yes ❍ No ●
Stressed Vegetation	Yes ❍ No ●
Liquid Discharges	Yes ❍ No ●
Pools of Liquid or Standing Surface Water	Yes ❍ No ●
Pits, Cisterns, Cesspools, Ponds or Lagoons	Yes ❍ No ●
Wells	Yes ● No ❍
On-site Fill	Yes ❍ No ●
Drums and Containers for Storing Waste	Yes ❍ No ●
Trash or Other Evidence of Solid Waste Disposal	Yes ❍ No ●

SITE CONDITIONS	
Condition	Identified
Floor Drains and Sumps	Yes ● No ❍
Noxious Odors	Yes ❍ No ●
Polychlorinated Biphenyls (PCBs)	Yes ● No ❍

As summarized in the table above, CBRE did not observe any of the above conditions in the areas accessed at the Parent Parcel with the exception of the following.

Underground Storage Tanks

The Parent Parcel, under the name Branford Maintenance Facility at 69 Leetes Island Road, was identified on the UST database under Facility ID: 14-3504. Based on review of this database, site observations, and the March 13, 2020 *Notification for Underground Storage Tanks* forms provided by the CT DEEP, the Subject Property is currently served by three USTs and was formerly served by four tanks that have since been removed. Refer to the regulatory review for a discussion of historic tanks and the associated LUST listing identified in 1998.

A concrete apron over two USTs is situated approximately 165 feet to the southeast and crossgradient of the Subject Property, located south of a fuel dispenser and north of the Park&Ride lot. The fill ports were present on the concrete apron and associated vents were present at the adjacent dispensers. Of note, four groundwater monitoring wells were identified at each corner of the UST tank field. The two USTs are used to fuel DOT trucks and consist of:

- Tank ID: D1R1 is a double-walled, 4,000-gallon, fiberglass-reinforced plastic (FRP), diesel fuel UST that was installed on January 1, 1999 and is currently within its expected 30-year lifespan. This tank is provided with continuous electronic interstitial monitoring as its primary release detection. Piping is of single-walled rigid FRP and includes containment sumps at the tank and dispensers and metallic fittings that are isolated from the soil and water. Release detection for the piping is provided by annual precision line tightness testing with mechanical auto line leak detectors. Spill and overfill protection for the UST is provided y a flapper device and an unspecified spill prevention device installed.

- Tank ID: N1R1 is a double-walled, 4,000-gallon, fiberglass-reinforced plastic (FRP), gasoline UST that was installed on January 1, 1999 and is currently within its expected 30-year lifespan. This tank is provided with continuous electronic interstitial monitoring as its primary release detection. Piping is of single-walled rigid FRP and includes containment sumps at the tank and dispensers and metallic fittings that are isolated from the soil and water. Release detection for the piping is provided by annual precision line tightness testing with mechanical

auto line leak detectors. Spill and overfill protection for the UST is provided by a flapper device and an unspecified spill prevention device installed.

No spills or releases have been reported for either of the above UST systems. Based upon the presence of secondary containment, corrosion protection, leak detection, and overfill prevention systems and proper operation and monitoring of this UST system in accordance with CT DEEP requirements and the absence of reported releases, the presence of the existing fuel dispensing USTs is not considered a REC for the Subject or Parent Parcel.

A second concrete apron over a UST was identified approximately 25 feet to the south of the Subject, abutting the DOT garage's western exterior wall. This tank is hydrogeologically upgradient to the Subject. Notably, all active USTs identified by CT DEEP Facility ID: 14-3504 are accounted for, so the identification, capacity, and date of installation is not available from the CT DEEP. Based on aerial photographs, this tank was installed sometime between 1996 and 2004. According to a review of the Tank Management System (TMS-3000) present in the DOT office, this UST is identified as the Oil/Water Separator Tank. As of May 11, the tank contained 46.5 inches of water and 4.1 inches of product. The separator collects wastewater from the DOT garage's floor drains and ultimately discharges to the municipal system. Of note, two groundwater monitoring wells were identified on the concrete apron over the separator, presumably as leak detection. Given that this UST is not involved in the storage or use of petroleum products, and is periodically cleaned out as part of typical maintenance activities, this oil-water separator UST is not considered a REC for the Subject or Parent Parcel.

Aboveground Storage Tanks

CBRE observed a 2,000-gallon, concrete-encased, heating oil AST within a fenced-in enclosure to the north of the DOT garage and approximately 50 feet east and downgradient of the Subject. The AST was observed to be in good condition with no evidence of releases such as staining or distressed vegetation noted. Based a review of aerial photographs and CT DEEP records, the DOT garage was historically served by a 2,000-gallon, asphalt-coated or bare steel, heating oil UST (Tank ID: H1) which was installed on January 1, 1956 and replaced in 1989 by a 2,000-gallon, single-walled, fiberglass-reinforced plastic, heating oil UST (Tank ID: H1R1). In May of 2019, the UST was removed and replaced with the existing AST in approximately the same location. No indications of a release from this AST was observed on the daily printout from the Parent Parcel's TMS-3000 system. Based upon visual observations at the time of the site reconnaissance and distance/topographic relationship with respect to the Subject, the presence of this AST is not considered to be a REC for the Subject or Parent Parcel.

CBRE observed a diesel fuel-fired emergency generator located at the southwestern corner of the storage barn on the eastern portion of the Parent Parcel, approximately

315 feet to the east and crossgradient to the Subject. The emergency generator is served by an integral diesel fuel aboveground storage tank (AST). The AST was observed to be in good condition and constructed of double-wall steel. No evidence of spills or releases such as staining was observed in the vicinity of the AST. Furthermore, no spills or releases have been reported for this AST. Based upon the distance/hydrologic gradient relative to the Subject, visual observations at the time of the site reconnaissance, condition of the AST, and absence of reported releases, the presence of this AST is not considered a REC for the Subject or Parent Parcel.

CBRE observed two large plastic ASTs located approximately 250 feet to the southeast, crossgradient of the Subject. One AST contains magnesium chloride and a second AST contains liquid anti-icer. Both ASTs are used to fill trucks in the winter as an alternative to rock salt or sand to prevent ice from forming on roads. The ASTs were observed to be in good condition with no evidence of releases such as staining or distressed vegetation noted. Based upon visual observations at the time of the site reconnaissance, the distance/topographic relationship with respect to the Subject, and the type of substance contained within the ASTs, the presence of these tanks is not considered to be a REC for the Subject or Parent Parcel.

Solid Waste

Non-hazardous solid waste is disposed of in dumpsters and is removed from the Parent Parcel on a regular basis by the municipality. Potential sources of contamination, such as waste oil or automobile batteries, were not observed in the vicinity of the dumpsters.

Sanitary Sewage

Drains and bathrooms are present in the DOT building that reportedly discharge to the municipal sewer system. No evidence of improper disposals into the drains such as staining, odors, or corrosion were observed in connection with any of the observed drains.

Floor Drains

During the site reconnaissance, an oil-water separator was observed in the form of a UST abutting the western exterior wall of the DOT garage. This separator is serviced on an as-needed basis and at the time of site reconnaissance, according to a review of the TMS-3000 system, the tank contained 46.5 inches of water and 4.1 inches of product. The separator collects wastewater from the DOT garage's floor drains and ultimately discharges to the municipal system. The separator does not appear to pose an environmental concern to the Subject or Parent Parcel. It is recommended that it continue to be pumped out, inspected, and maintained on a regular basis.

Groundwater Monitoring Wells

CBRE observed a total of six groundwater monitoring wells at the Parent Parcel. Specifically, the four wells were present at each corner of the concrete apron covering the Parent Parcel's gasoline and diesel fuel USTs for leak detection purposes. In addition, two groundwater monitoring wells were present on the concrete apron of the oil-water separator tank, also for leak detection purposes. The wells are fitted with secured caps. Refer to the UST section above for additional discussion. CBRE did not identify any additional dry wells, injection wells, observation wells, monitoring wells, recovery wells, or abandoned wells in the areas accessed at the Parent Parcel.

Electrical Transformers

CBRE observed one utility-owned, pad-mounted electrical transformer located along Leetes Island Road, adjacent to the Park&Ride lot in the southwestern portion of the Parent Parcel, approximately 200 feet south and crossgradient of the Subject; one pad-mounted electrical transformer located at the eastern edge of the Parent Parcel, approximately 400 feet east and crossgradient to the Subject; and three pole-mounted transformers located along Leetes Island Road approximately 150 feet southwest and upgradient to the Subject. Of importance, the electrical transformers were observed to be in good condition. Based upon the distance/hydrologic gradient relative to the Subject, condition of the transformers, visual observations at the time of the site reconnaissance, and confirmed non-PCB dielectric fluid from a historic Spill incident involving a transformer on-site, the presence of the transformers is not considered to be a REC for the Subject or Parent Parcel.

Furthermore, in accordance with *Title 40—Protection of Environment, Chapter 1—Environmental Protection Agency, Subchapter R—Toxic Substance Control Act (TSCA), Part 761—Polychlorinated Biphenyls (PCBs), Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*, the owner of the transformer, the local utility provider is responsible for the transformer's maintenance and remediation in the event of a leak.

7.0 ADDITIONAL SITE CONDITIONS

7.1 Asbestos Containing Material (ACM)

The Subject currently consists of grass-covered land, with the exception of a metal utility pole within the pathway of the proposed access road. As such, no evidence of suspect ACM was observed.

7.2 Lead-Containing Paint (LCP)

The Subject currently consists of grass-covered land, with the exception of a metal utility pole within the pathway of the proposed access road. As such, no evidence of suspect LCP was observed.

7.3 Potential Mold Conditions

Although mold is ubiquitous and may occur in a very short time span, an effort was made to identify conspicuous mold growth in the common areas surveyed. Based upon visual observations at the time of the site reconnaissance, conspicuous mold growth was not identified in the accessible areas of the Parent Parcel.

8.0 INTERVIEWS AND RECORDS REVIEW

8.1 User Provided Information

User Details	
The User of the report is Pyramid Network Services, LLC. An All Appropriate Inquiry (AAI) User Questionnaire was submitted to the User. An AAI User Questionnaire is provided to the User of the Phase I Environmental Site Assessment in order to obtain information pertaining to the past site use and possible presence of recognized environmental conditions. A completed copy of the AAI User Questionnaire was not provided to CBRE by the User as of the date of issue of this report.	
AAI User Questionnaire Findings	
Title Records	CBRE was not provided with title records as of the date of issue of this report.
Environmental Clean Up Liens and Activity and Use Limitations (AULs)	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Specialized Knowledge	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Relationship of Purchase Price to Fair Market Value Due to Contamination in Connection with the Subject	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Common Knowledge or Reasonably Ascertainable Information	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Purpose for Conducting the Phase I Environmental Site Assessment	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Proceedings Involving the Property	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.
Questions About Other Helpful Environmental Documents	Although requested, CBRE was not provided with a completed copy of the AAI User Questionnaire provided to the User and, as such, makes no representations in regards to same.

8.2 Site Representatives

Interviews	
Owner	Although attempted, CBRE was unable to locate an owner representative of the Parent Parcel for interview.
Past Owner	Although attempted, CBRE was unable to locate a past owner representative of the Parent Parcel for interview.

Key Site Manager	CBRE interviewed Mr. David Hartley of the Connecticut Department of Transportation over the phone at the time of site reconnaissance. According to Mr. Hartley the Parent Parcel includes a heating oil AST, diesel-fired emergency generator, and a fuel dispenser with gasoline and diesel USTs. Mr. Hartley had no knowledge of any environmental concerns pertaining to the Parent Parcel. CBRE also asked Mr. Hartley if he knew whether any helpful environmental documents exist as described in the ASTM Standard, and if such documents exist whether they could be provided within reasonable time and cost constraints. According to Mr. Hartley, he was unaware of any environmental documents, including but not limited to environmental reports, permits, or notices of violations available for inclusion in this Phase I Environmental Assessment.
Occupants	Although attempted, no occupants were personally available for interview during our site reconnaissance.
Neighbors	Although attempted, no neighbors were personally available for interview during our site reconnaissance.

8.3 Local Regulatory Agency File Review

CBRE submitted Freedom of Information Act (FOIA) requests to the Connecticut Department of Energy and Environmental Protection (CT DEEP), the East Shore District Health Department, and the Town of Branford Clerk's Office for environmental information pertaining to the Parent Parcel. Except for a partial response from the CT DEEP and the Town of Branford Assessor's Office, these agencies have not responded as of this writing. Should receipt of a response from these agencies change the conclusions of this report, the Client will be notified in writing by CBRE.

Town of Branford Assessor's Office

According to the tax assessor records reviewed, the Parent Parcel consists of a 5-acre parcel identified as Parcel ID: H05/J05 007/0022A. The buildings consist of one 6,184 square-foot garage and office building with oil heating constructed in 1958, and one 8,288 square-foot, wood-framed storage barn with no heating systems constructed in 1995. Please refer to the UST section above for a discussion on the oil heating equipment. No additional records of any tanks, spills or other occurrences which could create a recognized environmental condition for the Parent Parcel were identified in the Assessor's Office files.

Planning & Zoning

CBRE reviewed the Town of Branford, CT Official Zoning Map, Revised January 2015. The Subject property is depicted on this map in a General Industrial 2 (IG-2) district.

9.0 FINDINGS AND CONCLUSIONS

CBRE has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the proposed Pyramid Network Services, LLC wireless telecommunications facility referred to as "Branford DOT", located at 69 Leetes Island Road, designated as Parcel ID: H05/J05 007/0022A in the Town of Branford, New Haven County, Connecticut, the Parent Parcel. Any exceptions to, or deletions from, this practice are described within Section 2.0 of this report.

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Parent Parcel. However, the following historical recognized environmental condition (HREC) was identified:

Leaking Underground Storage Tank (LUST) and SPILLS Listings

One LUST incident and two Spills listings were identified on the Parent Parcel, each of which have been granted regulatory closure by the CT DEEP.

- The Branford Maintenance Facility at 69 Leetes Island Road was identified as the site of LUST Case ID: 35176 (aka LUST ID: 7101 and Spill Case No. 9808521). According to the database, on December 14, 1998, a release of diesel and motor fuel was detected originating from the Parent Parcel's USTs. The depth to the groundwater was measured at 9.5 feet below grade and flowing to the east, and the classification was set at GA, indicating that the groundwater is assumed to be suitable for drinking without treatment. Based on the associated Spill Case number and CPCS listing, a sheen was discovered on the groundwater at the diesel fuel and gasoline fueling station, specifically around a 4,000-gallon, steel diesel fuel or gasoline tank. Approximately 80 gallons of diesel fuel and gasoline was recovered during remediation. A Phase II was requested and soil removal was performed. The response from the Oil and Chemical Spill Response Division (OCSRD) was complete as of March 10, 1999. In addition, the CT DEEP has granted this LUST incident a LUST Status 4, indicating that remediation is complete. Furthermore, based on the dates of the spill and the reference to a steel diesel or gasoline tank, the release must refer to the refueling station located approximately 170 feet to the southeast of the proposed Subject Property area. The tanks in this area were excavated and removed in 1999 to be replaced with the existing fiberglass-reinforced plastic USTs. No subsequent LUST/Spill listing was found associated with the newer USTs. Based on the removal and replacement of the source USTs, presence of groundwater monitoring wells and leak detection equipment on the replacement USTs, which have not reported any subsequent LUST/Spill incidents, the Complete regulatory status of the LUST incident, and eastward groundwater flow of the area of the USTs, which is crossgradient to the proposed area of the Subject Property, it is not

suspected that this LUST listing represents an environmental concern to the Subject Property.

- Spill Case No. 6519, occurred at the Parent Parcel on November 30, 1993. A subcontractor for the Department of Transportation knocked over a non-PCB electrical transformer and released approximately 20 gallons of dielectric fluid. Two gallons of the material entered a catch basin and some to the nearby marsh area. The material was contained with pads and sand, and impacted soils were excavated. Based This incident was granted a Closed status by the CT DEEP on November 30, 1993, the same day as the incident. Based on the remedial actions performed, type of material released, and regulatory status, it is not suspected that this incident represents an environmental concern to the Subject Property.

- Spill Case No. 9706103 occurred on October 22, 1997 when a nozzle removed from the gasoline dispenser released approximately 125 gallons of gasoline to the ground surface and a catch basin. ETI was retained to remediate the release. The catch basin was pumped out and al impacted soils were removed. The CT DEEP granted this incident a Closed and Terminated status, indicating that it has been remediated to the satisfaction of the department. Based on the remedial actions performed, and the contained nature of the release, it is not suspected that this spill represents an environmental concern to the Subject Property.

10.0 LIMITING CONDITIONS

10.1 This report has been prepared in compliance with the ASTM International's standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" E1527-13.

10.2 The observations described in this report were made under the conditions stated herein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services within the constraints imposed by the client. The work described in this report was carried out in accordance with the Terms and Conditions of the contract.

10.3 In preparing this report, CBRE has relied on certain information provided by federal, state, and local officials and other parties referenced therein, and on information contained in the files of governmental agencies, that were readily available to CBRE at the time of this assessment. Although there may have been some degree of overlap in the information provided by these various sources, CBRE did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment. Observations were made of the site and of the structures on the site as indicated in this report. Where access to portions of the site or to structures on the site was unavailable or limited, CBRE renders no opinion as to the presence of direct or indirect evidence relating to petroleum substances, hazardous substances, or both, in that portion of the site and structure. In addition, CBRE renders no opinion as to the presence of indirect evidence relating to hazardous material or oil, where direct observation of the ground surface, interior walls, floors, ceiling or a structure is obstructed by objects or materials, including snow, covering on or over these surfaces.

10.4 As part of this assessment, CBRE submitted requests for information via the Freedom of Information Act (FOIA) to various governmental agencies. As of the preparation of this report, these requests may not have been fulfilled. The conclusions of this report are subject to change upon receipt of a response from these FOIA requests.

10.5 CBRE does not represent that the site referred to herein contains no petroleum or hazardous or toxic substances or other conditions beyond those observed by CBRE during the site walkthrough.

10.6 CBRE has produced this document under an agreement between CBRE and Pyramid Network Services, LLC. All terms and conditions of that agreement are included within this document by reference. Any reliance upon this document, or upon CBRE's performance of services in preparing this document, is conditioned upon the relying party's acceptance and acknowledgement of the limitations, qualifications, terms, conditions and indemnities set forth in that agreement, and property ownership/management disclosure limitations, if any. It is not to be relied upon by any party other than Pyramid Network Services, LLC nor used for any purpose other than that specifically stated in our Agreement or within this Report's Introduction section without CBRE's advance and express written consent.

10.7 **TIME LIMITATION TO ENACT CLAIM AGAINST CBRE.** If in the opinion of the Client, or any third party claiming reliance on CBRE's report or services, that CBRE was negligent or in breach of contract, such aforementioned parties shall have one year from the date of CBRE's site visit to make a claim.

10.8 Unless specifically identified within Section 2, Chinese drywall, indoor air quality and any other non-ASTM scope issues as identified in ASTM E1527-13, Section 13.1.5, are excluded from the scope of this assessment.



1. Parent Parcel



2. Proposed Area of Subject Property



3. Area of Proposed Gravel Access Route



4. Typical DOT Operations



5. Typical Pad-Mounted Transformer



6. Park & Ride Lot



7. Storage Barn



8. Storage Barn Interior



9. Diesel-Fired Emergency Generator



10. Typical Soil Stockpiling



11. DOT Garage & Office



12. Garage Interior



13. Oil-Water Separator UST



14. De-Icing ASTs



15. 2,000-Gallon Heating Oil AST



16. AST Enclosure



17. Gasoline & Diesel USTs



18. Typical Groundwater Monitoring Well



19. Fuel Dispensers



20. Tank Management System in DOT Office



21. Surrounding Property to the North



22. Surrounding Property to the South



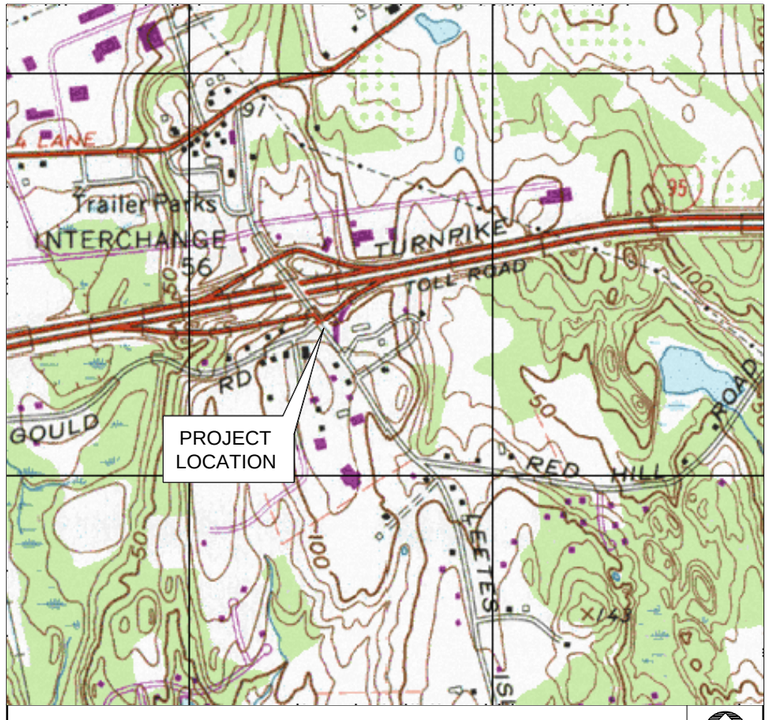
23. Surrounding Property to the East



24. Surrounding Property to the West

CONNECTICUT DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION (DESPP) COMMUNICATIONS UPGRADE PROJECT

BRANFORD DOT FACILITY
LEETES ISLAND RD
BRANFORD, CT 06405



VICINITY MAP

NORTH

PROJECT SUMMARY

SITE ADDRESS:	LEETES ISLAND RD BRANFORD, CT 06405
PROJECT COORDINATES:	LAT: 41°–17'–41.60"N LON: 72°–45'–42.40"W ELEV: ±106' AMSL
PROPERTY OWNER:	STATE OF CONNECTICUT LEETES ISLAND RD BRANFORD, CT 06405
CUSTOMER CONTACT:	CONNECTICUT DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION (DESPP) (860) 685–8090
PROJECT MANAGER:	MOTOROLA SOLUTIONS GARY FLEISCH (203) 231–1397 PYRAMID NETWORK SERVICES, LLC ROB MCCABE (315) 373–3040
PROJECT ENGINEER:	MOTOROLA SOLUTIONS ROB CADY (860) 456–4091
SITE NAME:	BRANFORD DOT FACILITY
ENGINEER OF RECORD:	CENTEK ENGINEERING, INC. 63–2 NORTH BRANFORD ROAD BRANFORD, CT 06405
CENTEK CONTACT:	CAMILO GAVIRIA (203) 433–7511 EXT 119

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T–1	TITLE SHEET	B
L–1	SITE PLAN	B
L–2	TOWER ELEVATION	B
L–3	COMPOUND PLAN	B

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
B	04/13/20	KAWJR	TJR	LE – REVISED
A	4/3/2020	LGL	TJR	LE – ISSUED FOR LEASING

PYRAMID Network Services, LLC

MOTOROLA SOLUTIONS

CENTEK engineering
Centered on Solutions℠
www.CentekEng.com
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road, Branford, CT 06405

PYRAMID NETWORK SERVICES

BRANFORD DOT FACILITY
LEETES ISLAND RD
BRANFORD, CT 06405

DATE: 02/24/2020
SCALE: AS SHOWN
JOB NO. 19160.04

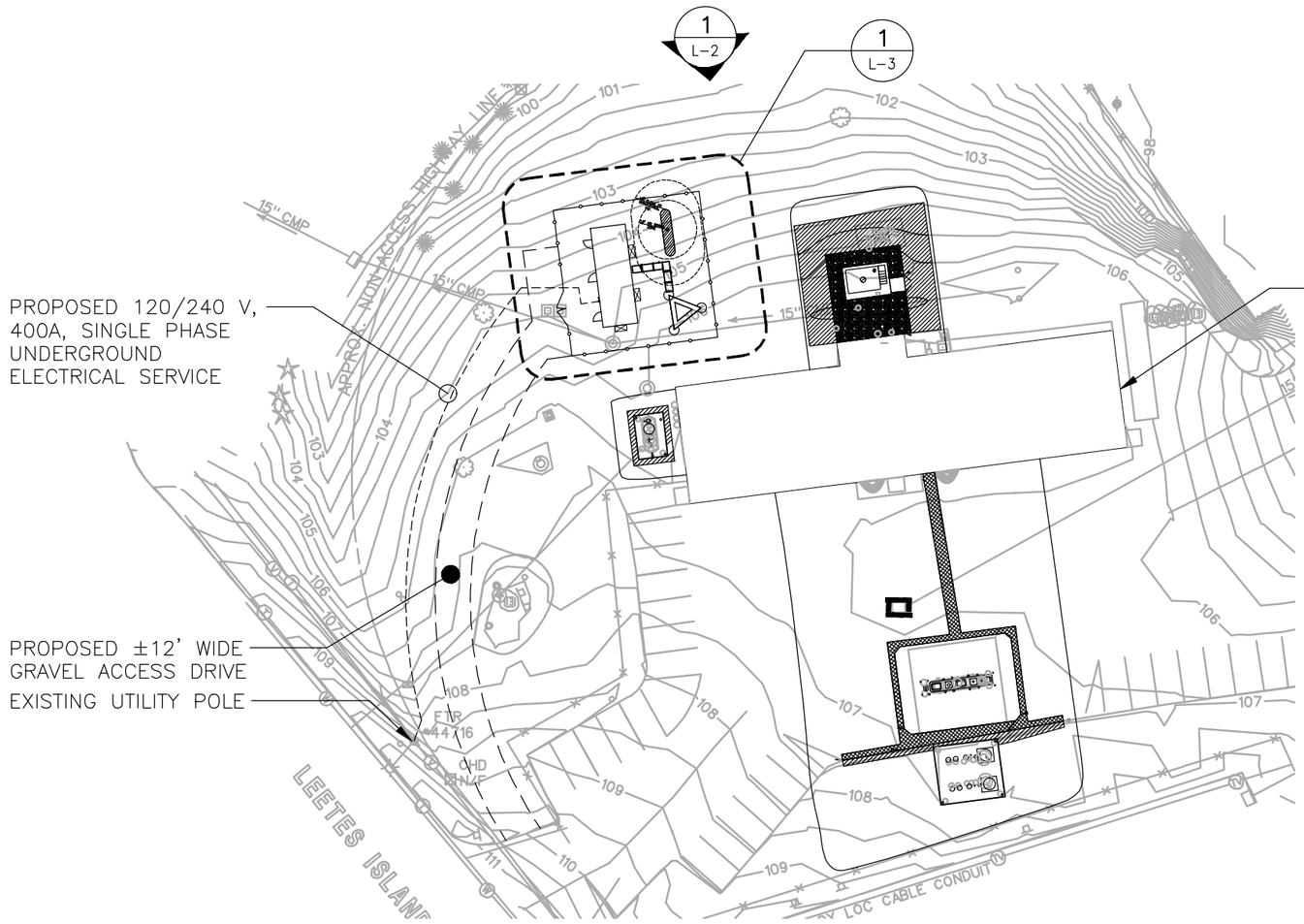
SHEET NO.
T–1

NOTES:

1. PROPOSED INSTALLATION WILL CONSIST OF A NEW ±50'x50' EQUIPMENT COMPOUND FENCED IN WITH ±8' TALL BARBED WIRE CHAINLINK FENCE, A PROPOSED ±12'x34' PREFABRICATED EQUIPMENT SHELTER WITH INDOOR GENERATOR ROOM, 1000 GALLON UNDERGROUND LP TANK, A PROPOSED ±100' TALL SELF-SUPPORTING LATTICE TOWER, AND A PROPOSED ±12' WIDE GRAVEL ACCESS DRIVE. ALONG WITH, THREE (3) PROPOSED ANTENNAS, ONE (1) TTA, TWO (2) GPS ANTENNAS MOUNTED ON A PROPOSED CABLE ICE BRIDGE, PROPOSED NEW 400 AMP UNDERGROUND ELECTRICAL SERVICE TO NEW ELECTRIC METER AND DISCONNECT MOUNTED ON THE PROPOSED EQUIPMENT SHELTER. ADDITIONALLY, A NEW SINGLE PHASE UNINTERRUPTIBLE POWER SUPPLY (10 TO 20 KVA), UPS CHARGER AND 100 AMP DISCONNECT SWITCH WILL BE INSTALLED WITHIN THE PROPOSED EQUIPMENT SHELTER.

LEASE EXHIBIT

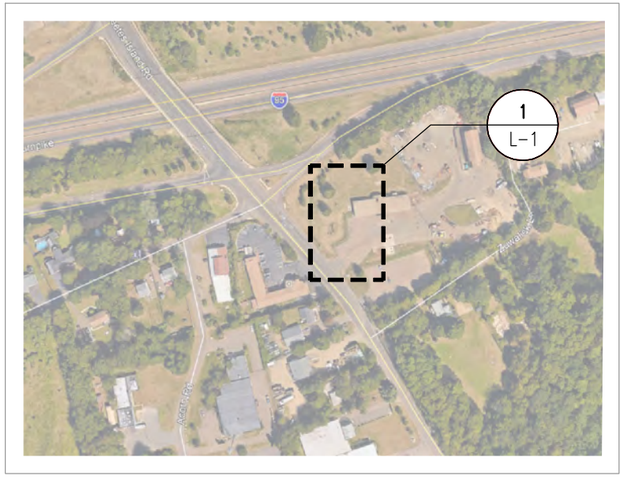
THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED EMERGENCY COMMUNICATION FACILITY.



1 / L-1 **SITE PLAN**
SCALE: 1" = 50'

APPROXIMATE NORTH

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.



SITE KEY PLAN
SCALE: 1" = 400'

APPROXIMATE NORTH

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
B	04/13/20	KAW/JR	TJR	LE - REVISED
A	4/3/2020	LGL	TJR	LE - ISSUED FOR LEASING

PYRAMID Network Services, LLC

MOTOROLA SOLUTIONS

CENTEK engineering
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(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road, Branford, CT 06405

PYRAMID NETWORK SERVICES

BRANFORD DOT FACILITY
LEETES ISLAND RD
BRANFORD, CT 06405

DATE:	02/24/2020
SCALE:	AS SHOWN
JOB NO.	19160.04

SHEET NO.
L-1

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED EMERGENCY COMMUNICATION FACILITY.

ANTENNA MODEL	BASE HEIGHT	ANTENNA SIZE	ANTENNA TYPE	QUANTITY	LINE TYPE	LINE SIZE
DBSPECTRA DS7C09P36U-D	100'	14.2'L x 3"ø	TX OMNI	1	AVA TRANSMISSION	(1) 1-5/8"
DBSPECTRA DS7C09P36U-D	100'	14.2'L x 3"ø	RX (1) OMNI	1	AVA TRANSMISSION	(1) 1-5/8"
DBSPECTRA DS7C09P36U-D	100'	14.2'L x 3"ø	RX (2) OMNI	1	AVA TRANSMISSION	(1) 1-5/8"
TX/RX 437-831-01-T	100'	15"LX12"WX7.5"D	TTA	1	LDF TRANSMISSION	(1) 1/2"

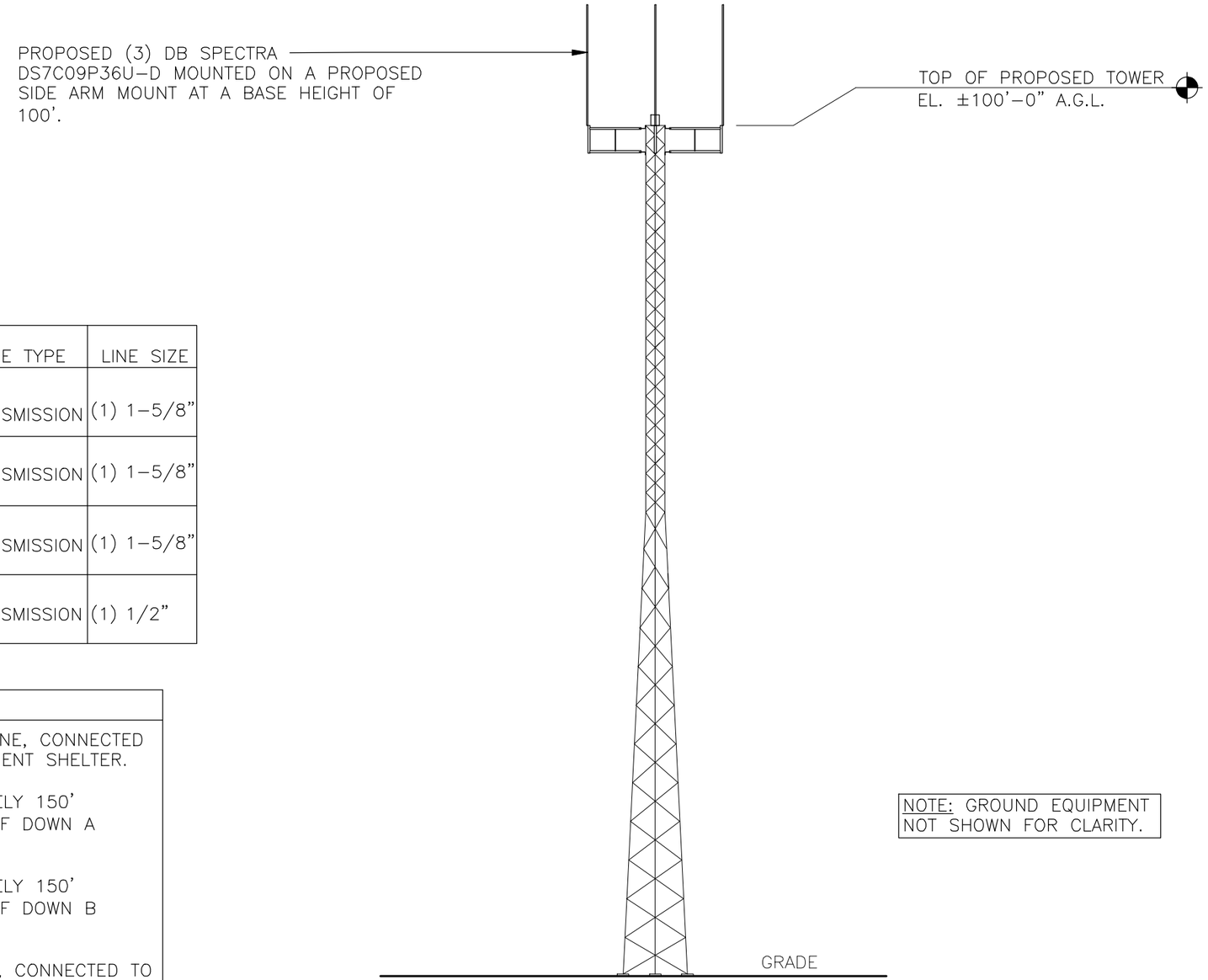
NOTES:

1) INSTALL APPROXIMATELY 150' OF 1-5/8" AVA TRANSMISSION LINE, CONNECTED TO THE TX ANTENNA AND A SURGE PROTECTOR IN THE EQUIPMENT SHELTER.

2) CONNECT RX (1) ANTENNA TO NEW TTA. INSTALL APPROXIMATELY 150' OF 1-5/8" AVA TRANSMISSION LINE CONNECTED TO THE TTA RF DOWN A CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.

3) CONNECT RX (2) ANTENNA TO NEW TTA. INSTALL APPROXIMATELY 150' OF 1-5/8" AVA TRANSMISSION LINE CONNECTED TO THE TTA RF DOWN B CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.

4) INSTALL APPROXIMATELY 150' OF 1/2" LDF TRANSMISSION LINE, CONNECTED TO THE TTA TEST CONNECTOR AND A SURGE PROTECTOR IN EQUIPMENT SHELTER.



NOTE: GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

1 / L-2 TOWER ELEVATION

SCALE: 1" = 15'-0"

GRAPHIC SCALE

15 0 7.5 15 30

(IN FEET)

1 inch = 30 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
B	04/13/20	KAWJR	TJR	LE - REVISED
A	4/3/2020	LGL	TJR	LE - ISSUED FOR LEASING

PYRAMID Network Services, LLC

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PYRAMID NETWORK SERVICES

BRANFORD DOT FACILITY

LEETES ISLAND RD
BRANFORD, CT 06405

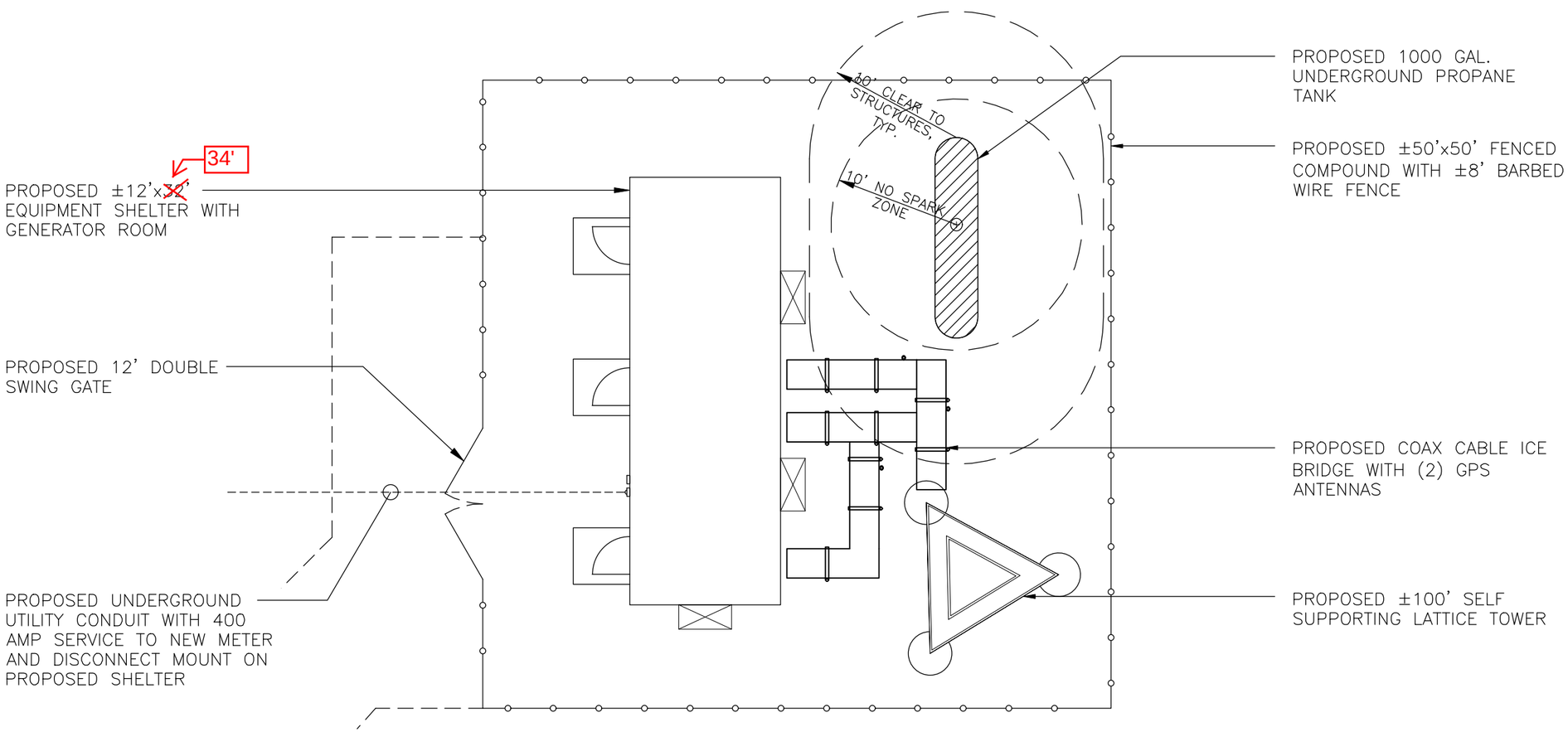
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JOB NO.	19160.04

SHEET NO.

L-2

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED EMERGENCY COMMUNICATION FACILITY.



1 / L-3 **COMPOUND PLAN**

SCALE: 1" = 10'-0"

APPROXIMATE NORTH

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

1 inch = 10 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
B	04/13/20	KAW/JR	TJR	LE - REVISED
A	4/3/2020	LGL	TJR	LE - ISSUED FOR LEASING

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BRANFORD DOT FACILITY

LEETES ISLAND RD
BRANFORD, CT 06405

DATE:	02/24/2020
SCALE:	AS SHOWN
JOB NO.	19160.04

SHEET NO.

L-3

Town of Branford

Geographic Information System (GIS)

Date Printed: 5/8/2020

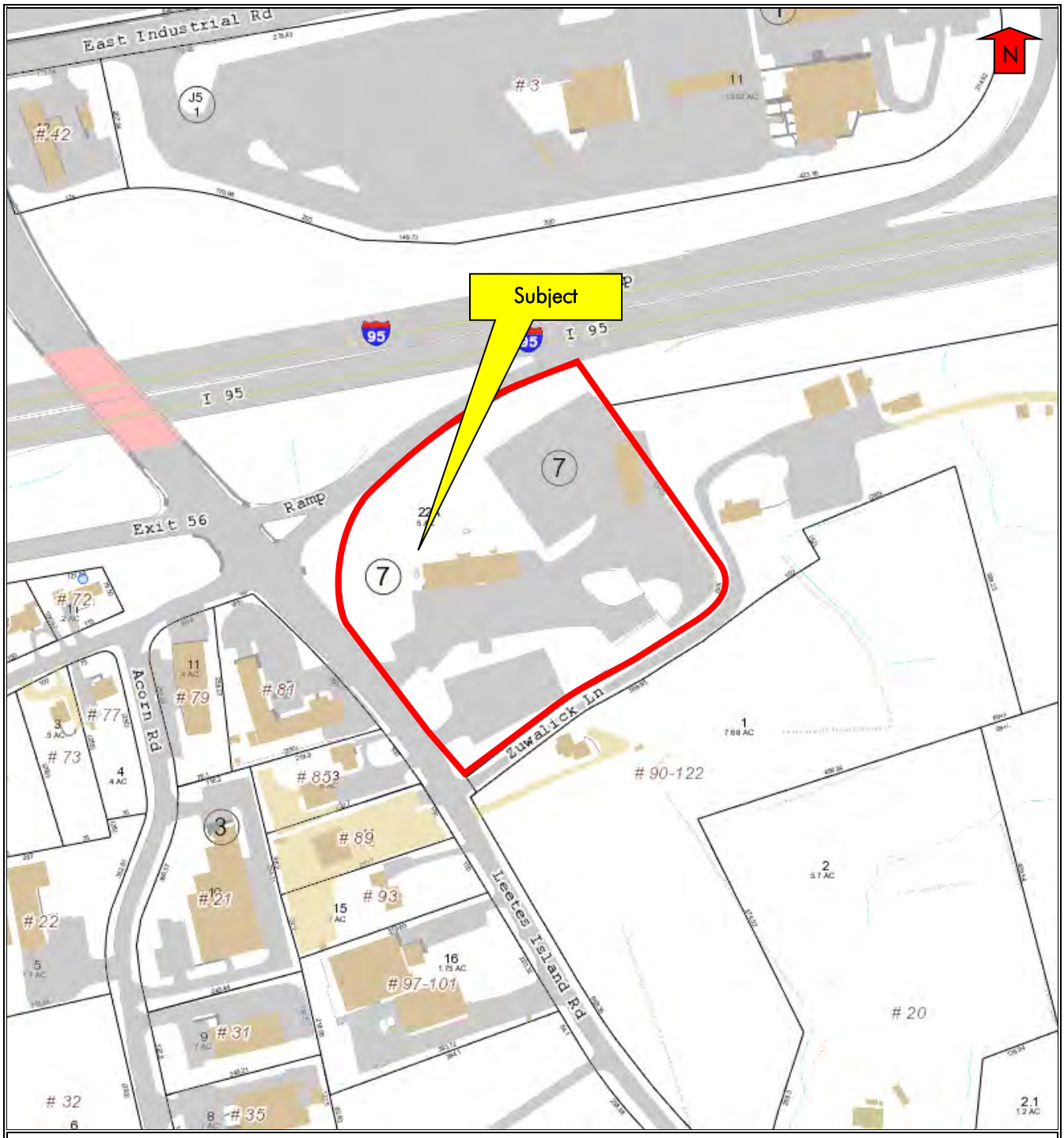


MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Branford and its mapping contractors assume no legal responsibility for the information contained herein.

0 200 Feet

N W E S



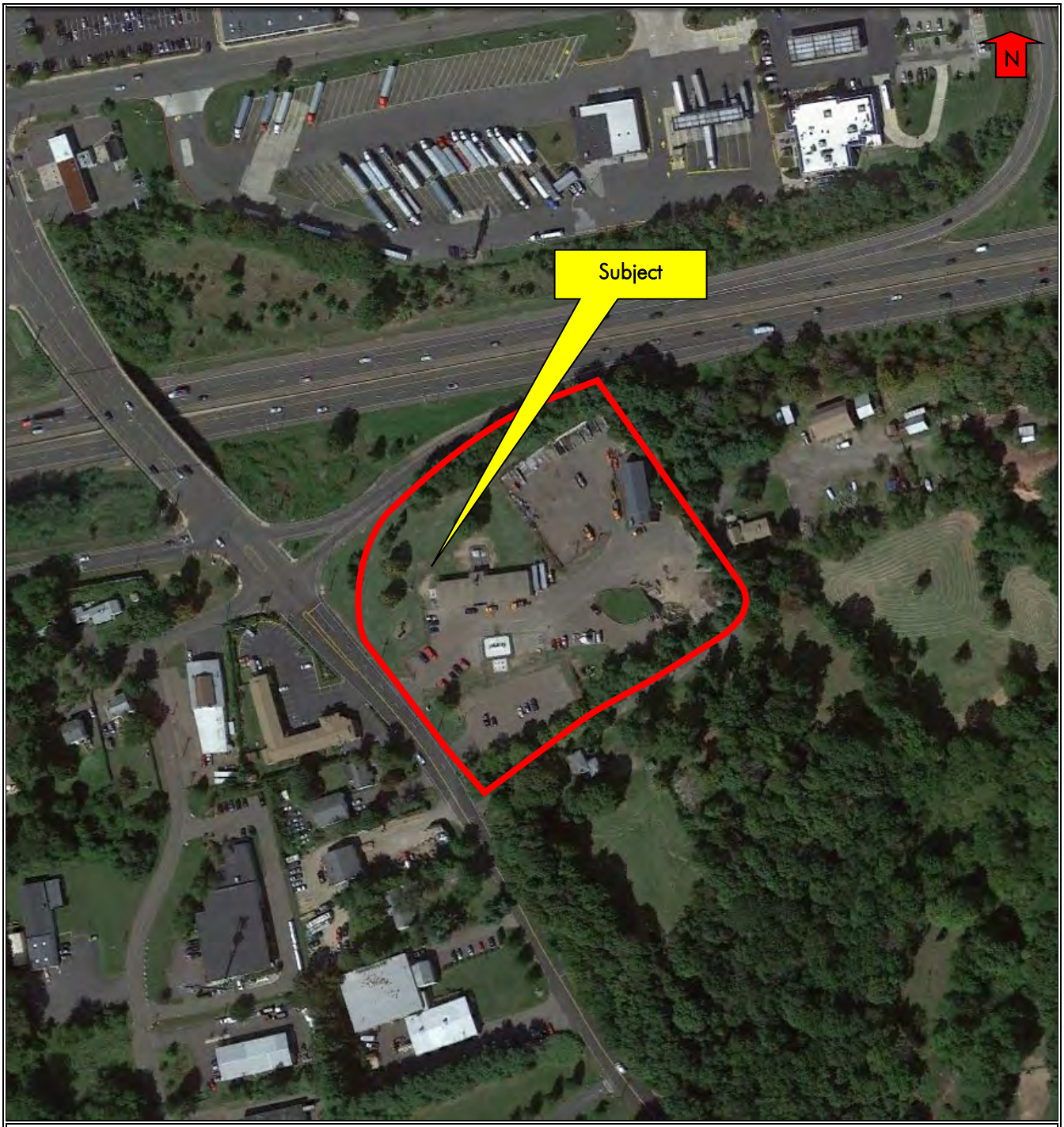
Tax Map

Source: Town of Branford, CT Geographic & Property Information Application

Parent Parcel Boundary:

Project: Branford DOT
Stratford, Connecticut

Project Number: TS00423786

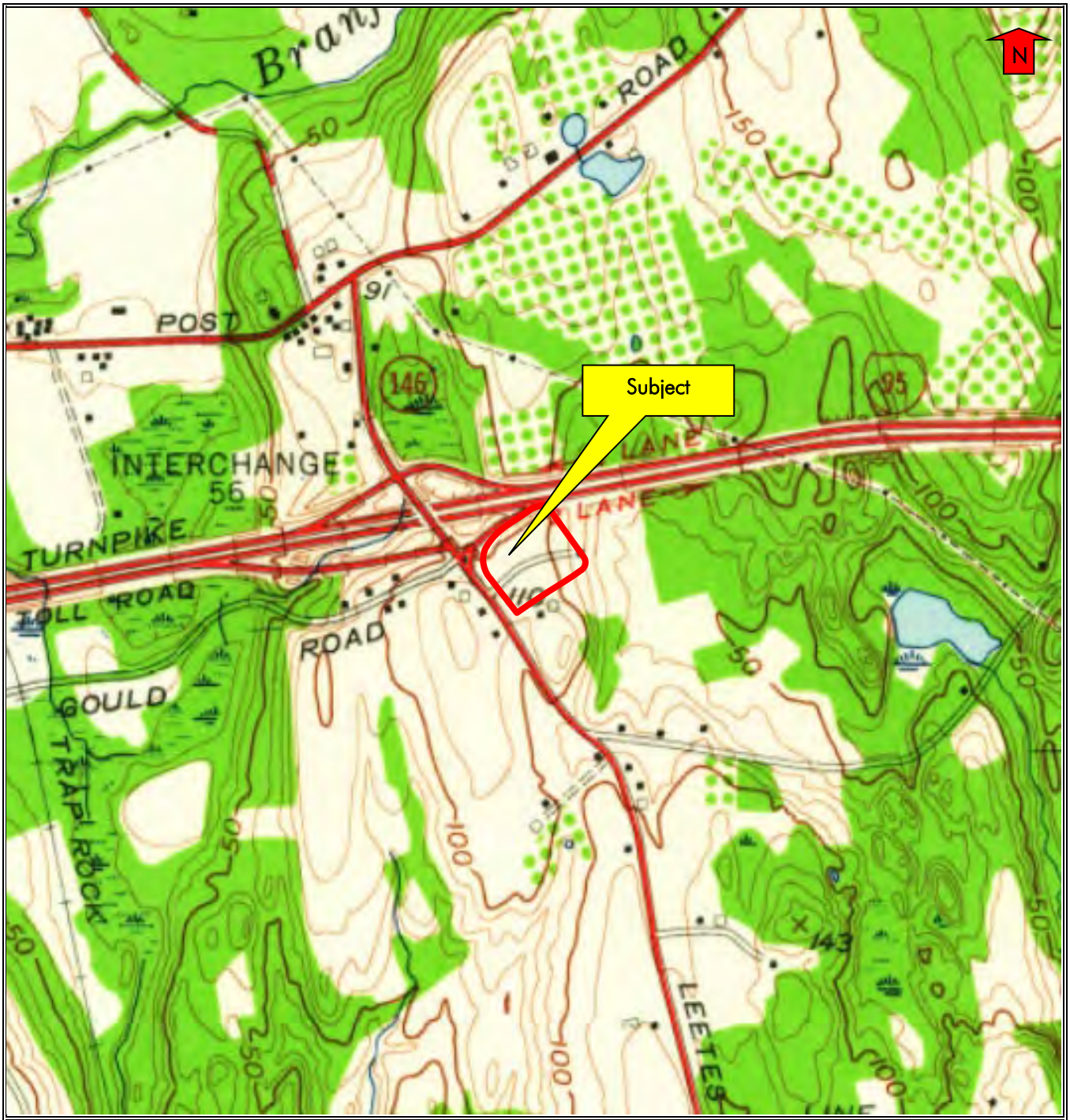


Google Earth Street Map

Source: Google Earth

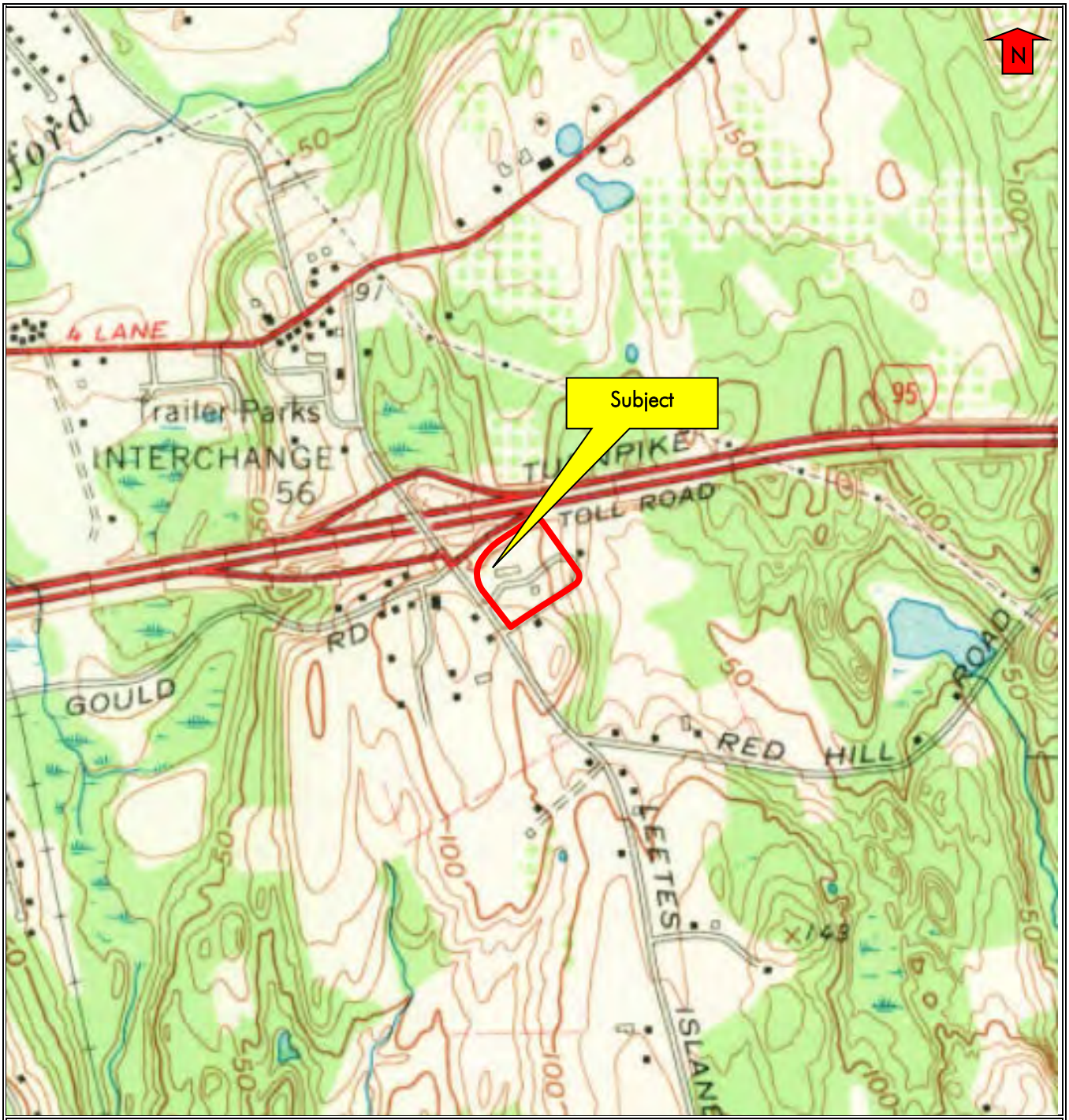
Project: Branford DOT
Stratford, Connecticut

Project Number: TS00423786



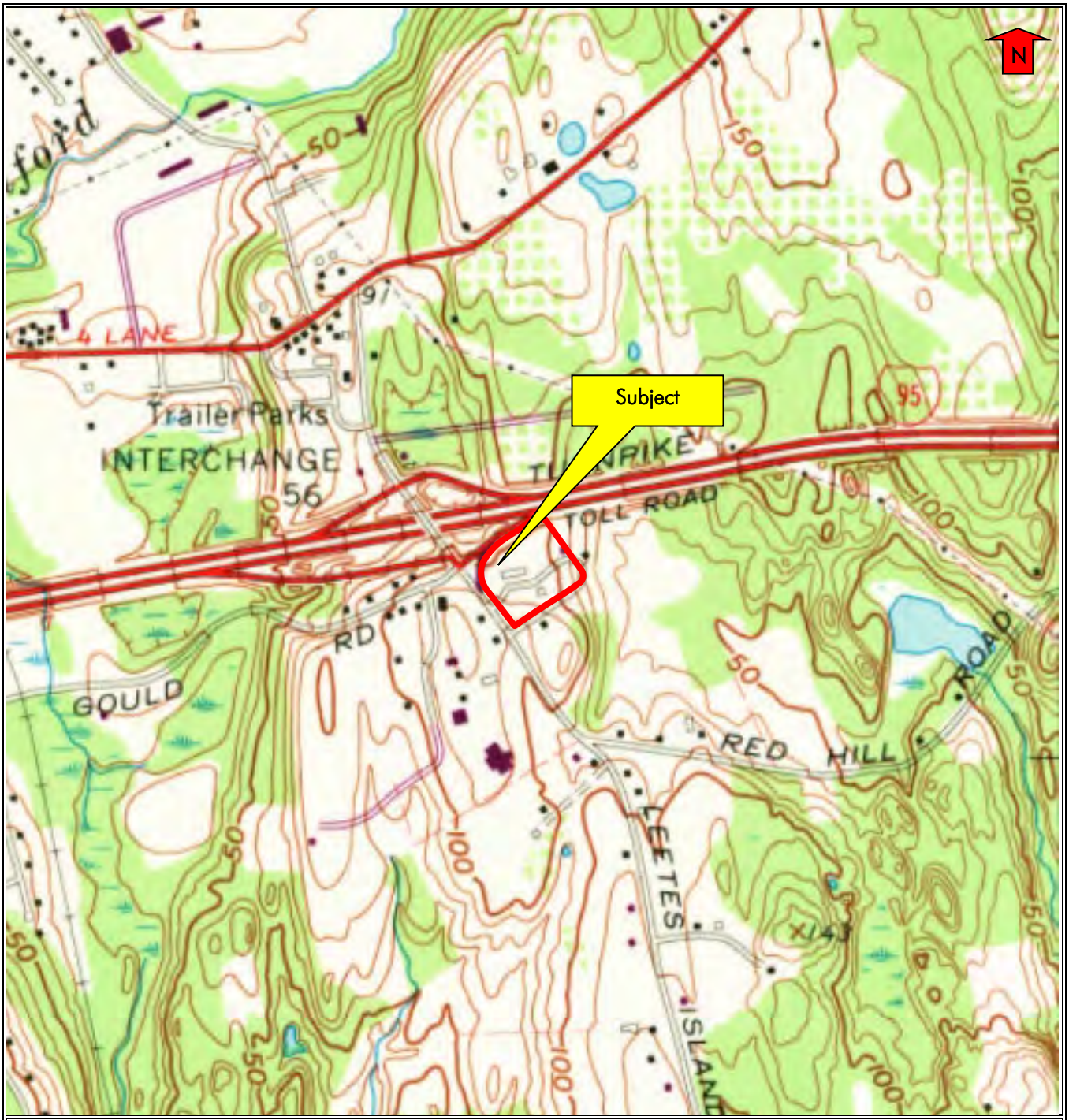
Historic USGS Topographic Map
1954

Source: USGS Quadrangle Target: *Branford, CT*	Project: Branford DOT Stratford, Connecticut Project Number: TS00423786



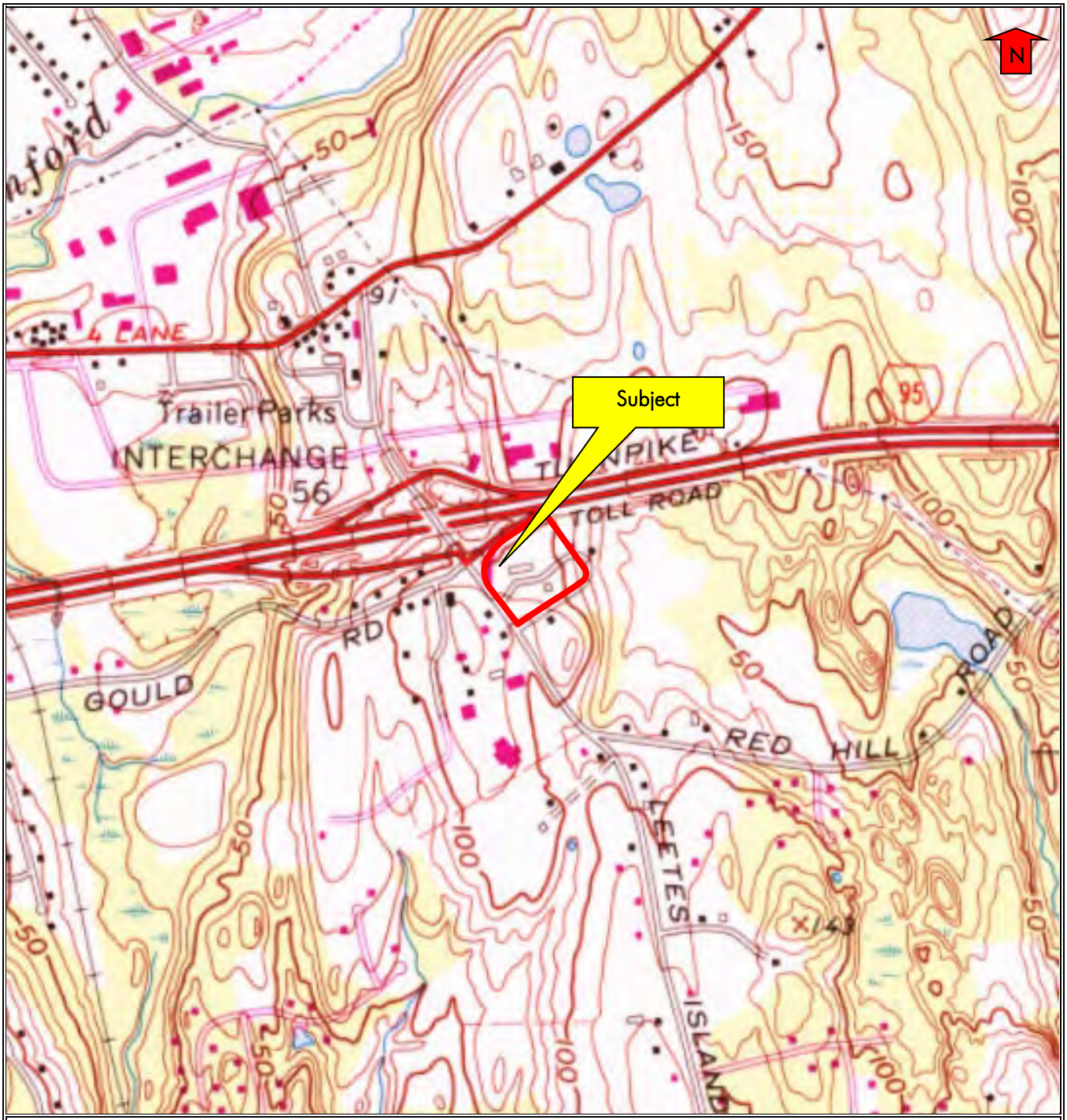
Historic USGS Topographic Map
1967

Source: USGS Quadrangle Target: *Branford, CT*	Project: Branford DOT Stratford, Connecticut Project Number: TS00423786



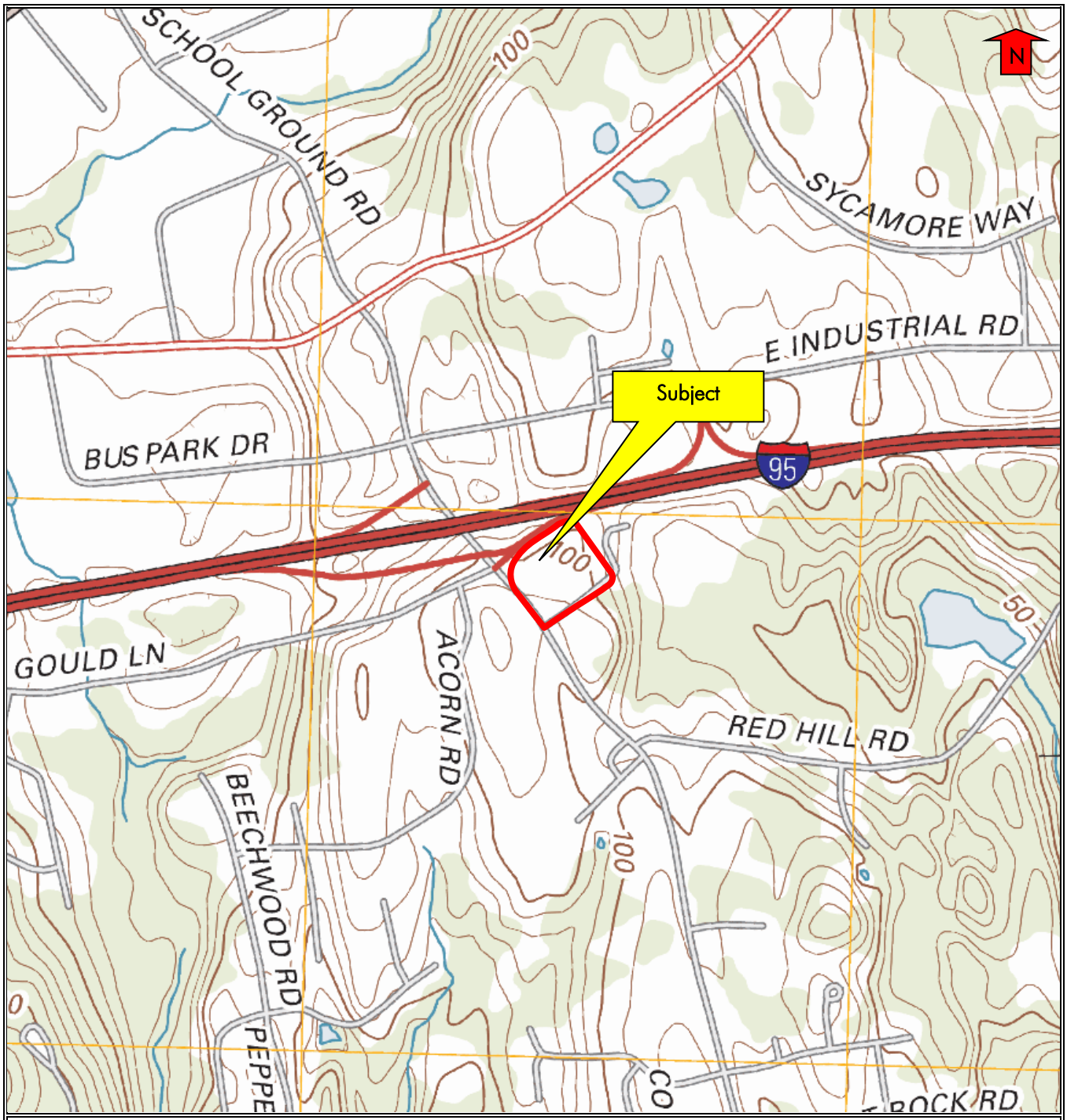
Historic USGS Topographic Map
1972

Source: USGS Quadrangle Target: *Branford, CT*	Project: Branford DOT Stratford, Connecticut Project Number: TS00423786



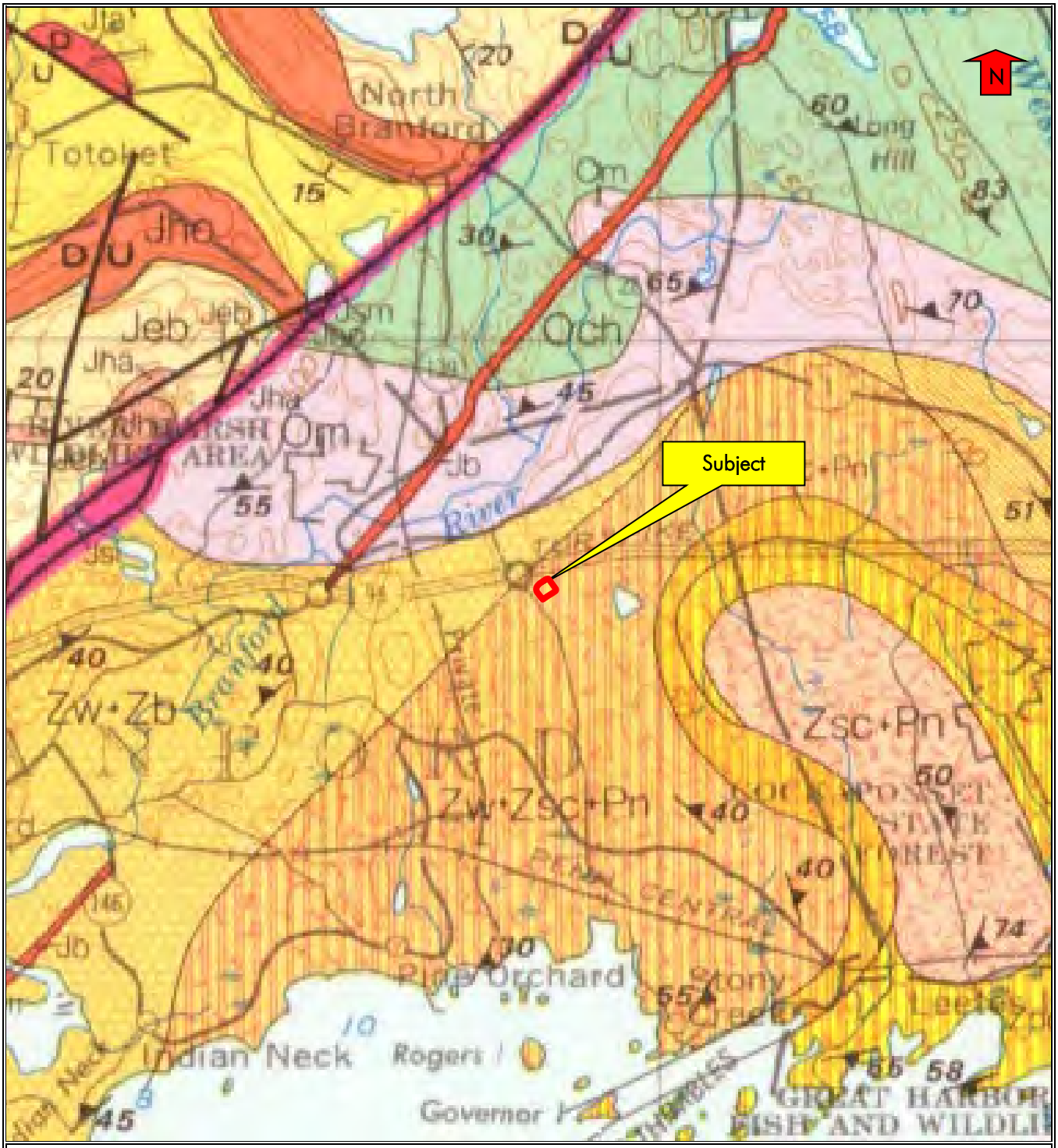
Historic USGS Topographic Map
1984

Source: USGS Quadrangle Target: *Branford, CT*	Project: Branford DOT Stratford, Connecticut Project Number: TS00423786



Historic USGS Topographic Map
2012

Source: USGS Quadrangle Target: *Branford, CT*	Project: Branford DOT Stratford, Connecticut Project Number: TS00423786



Bedrock Geology Map

Source: *Connecticut natural Resources Atlas Series: Bedrock Geological Map*, 1985

Parent Parcel Boundary:

Project: Branford DOT
Stratford, Connecticut

Project Number: TS00423786

Branford DOT

Leetes Island Road

Branford, CT 06405

Inquiry Number: 6064472.5

May 14, 2020

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/14/20

Site Name:

Branford DOT
Leetes Island Road
Branford, CT 06405
EDR Inquiry # 6064472.5

Client Name:

CBRE Telecom
70 West Red Oak Lane
West Harrison, NY 10604
Contact: Bob Strother

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1996	1"=500'	Flight Date: April 22, 1996	CTMAGIC
1992	1"=500'	Acquisition Date: March 16, 1992	USGS/DOQQ
1986	1"=500'	Flight Date: March 30, 1986	USDA
1980	1"=500'	Flight Date: July 06, 1980	USDA
1972	1"=500'	Flight Date: May 12, 1972	USGS
1970	1"=500'	Flight Date: March 01, 1970	CTMAGIC
1966	1"=500'	Flight Date: February 18, 1966	USGS
1963	1"=500'	Flight Date: July 06, 1963	USDA
1959	1"=500'	Flight Date: October 30, 1959	USGS
1951	1"=500'	Flight Date: August 02, 1951	CTMAGIC
1949	1"=500'	Flight Date: April 12, 1949	USGS
1934	1"=500'	Flight Date: April 26, 1934	FAIR

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Subject Property
INQUIRY #: 6064472.5
YEAR: 2016
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 2012
= 500'
N
EDR

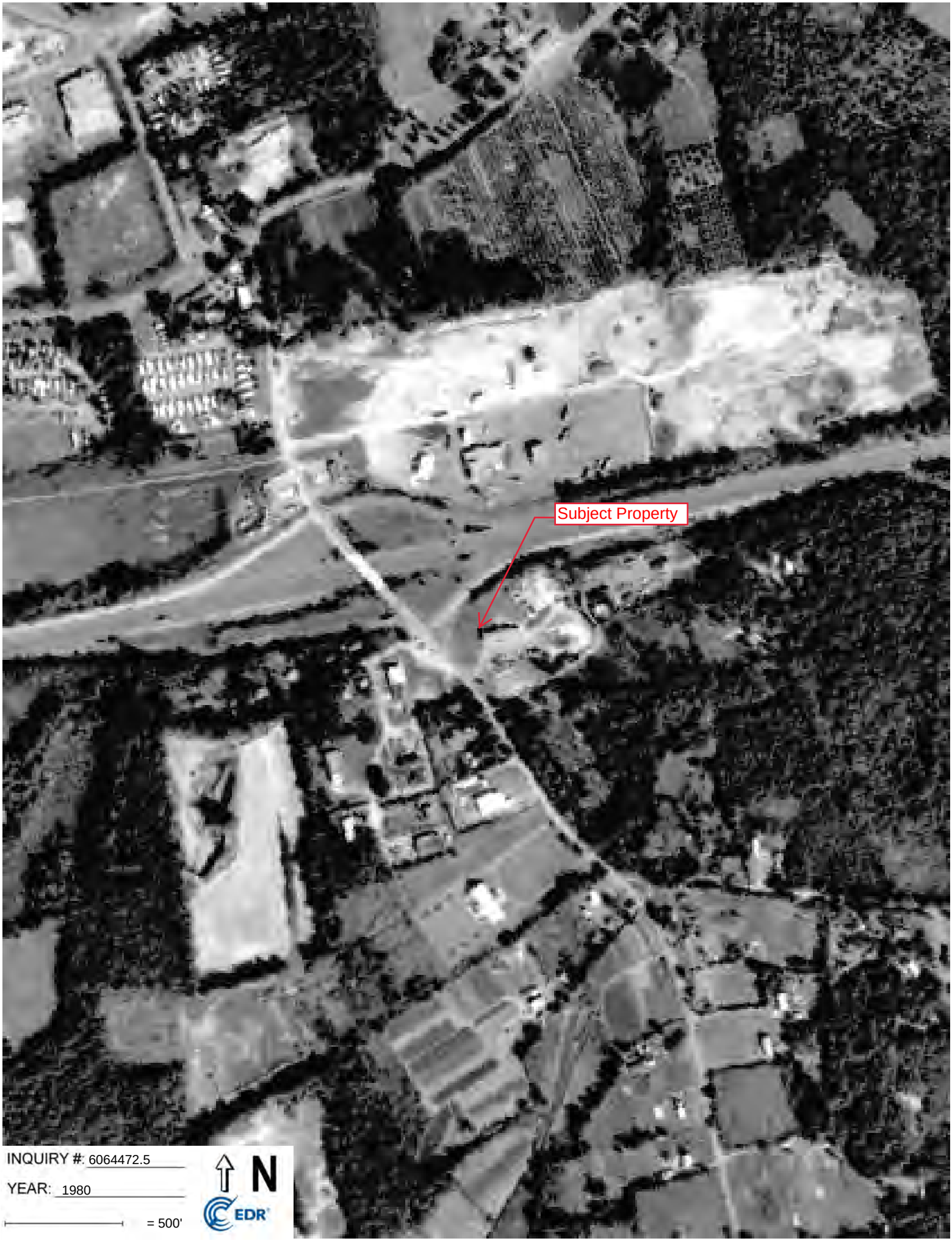

Subject Property
INQUIRY #: 6064472.5
YEAR: 2008
= 500'
N
EDR


INQUIRY #: 6064472.5
YEAR: 2005
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1996
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1992
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1986
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1980
= 500'
N
EDR



INQUIRY #: 6064472.5

YEAR: 1972

= 500'

N

EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1970
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1966
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1963
= 500'
N
EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1959
= 500'
N
EDR



INQUIRY #: 6064472.5

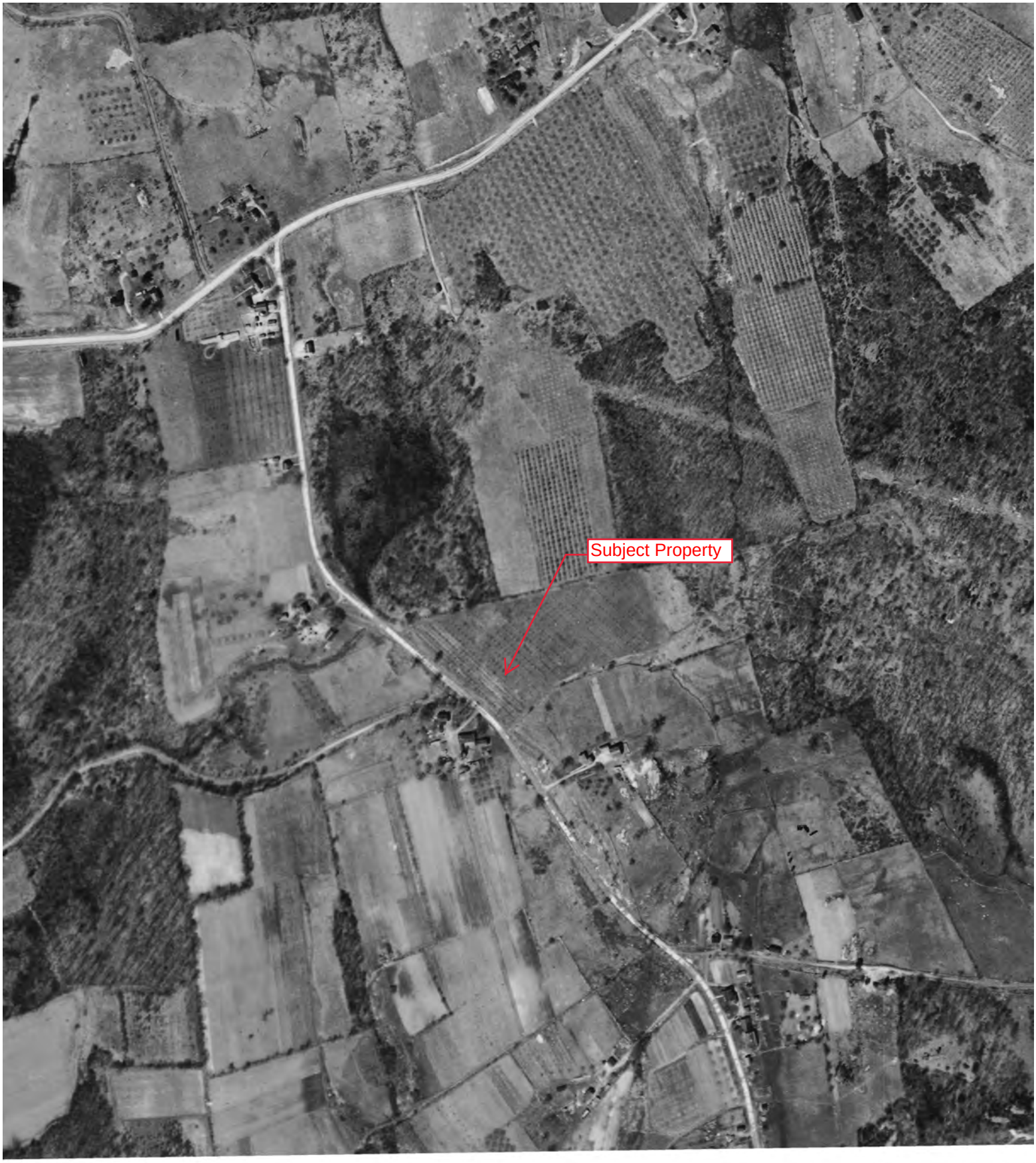
YEAR: 1951

= 500'

N

EDR


Subject Property
INQUIRY #: 6064472.5
YEAR: 1949
= 500'
N
EDR



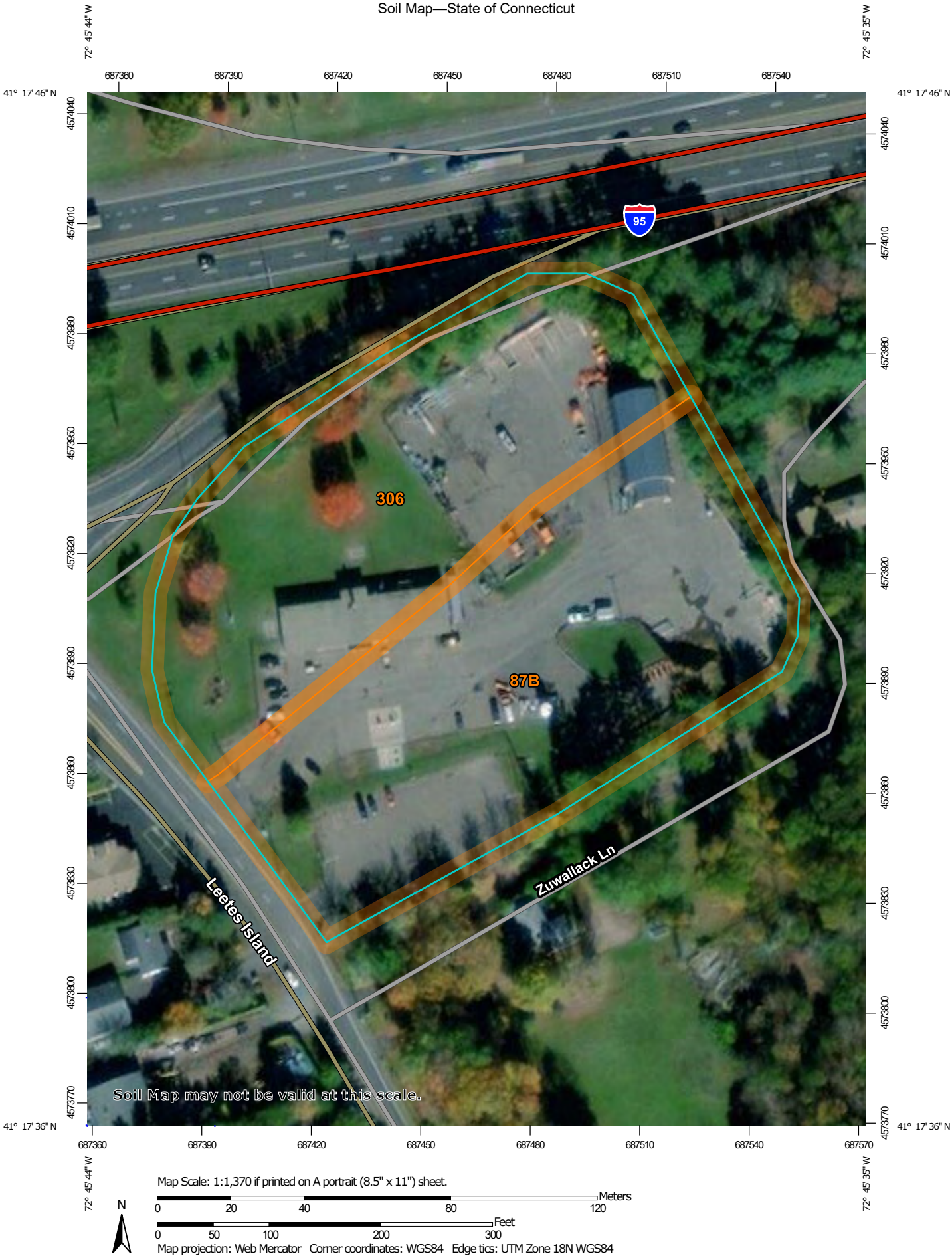
INQUIRY #: 6064472.5

YEAR: 1934

= 500'

N

EDR



Map Scale: 1:1,370 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 19, Sep 13, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 30, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
87B	Wethersfield loam, 3 to 8 percent slopes	2.7	53.8%
306	Udorthents-Urban land complex	2.3	46.2%
Totals for Area of Interest		**5.1**	**100.0%**

U.S. Fish and Wildlife Service
National Wetlands Inventory

Branford DOT



May 20, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Branford DOT

Leetes Island Road

Branford, CT 06405

Inquiry Number: 6064472.3

May 14, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/14/20

Site Name:

Branford DOT
Leetes Island Road
Branford, CT 06405
EDR Inquiry # 6064472.3

Client Name:

CBRE Telecom
70 West Red Oak Lane
West Harrison, NY 10604
Contact: Bob Strother

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by CBRE Telecom were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # A239-4998-B1D9

PO # TS00423786

Project TS00423786

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: A239-4998-B1D9

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Town of Branford, CT

❖ Official Zoning Map ❖

Branford Zoning

- Age Restricted Housing District (ARHD)
- Restricted Business (BR)
- Commerce Park (CP)
- Local Business (BL)
- Multi-Family Residential (MF)
- Mixed Use (MU)
- Residential 5 (R-5)
- Residential 4 (R-4)
- General Industrial 2(IG-2)
- Residential 3 (R-3)
- General Industrial 1(IG-1)
- Residential 2 (R-2)
- Business Center (BC)
- Residential 1 (R-1)
- Pine Orchard Zoning
- Town Center Village District
- Stony Creek Village District
- Short Beach Zoning
- Access Management Overlay
- Approved PDDs
- Coastal Boundary
- Railroads

N W E S

0 0.25 0.5 1 Miles

0 1,500 3,000 6,000 Feet

Revised January 2015

NEW ENGLAND GEOSYSTEMS
GEOGRAPHIC INFORMATION SYSTEM CONSULTANTS
282 Main Street Extension - C2
Middletown, CT 06457 • (203) 404 - 7129 • www.ne-geo.com

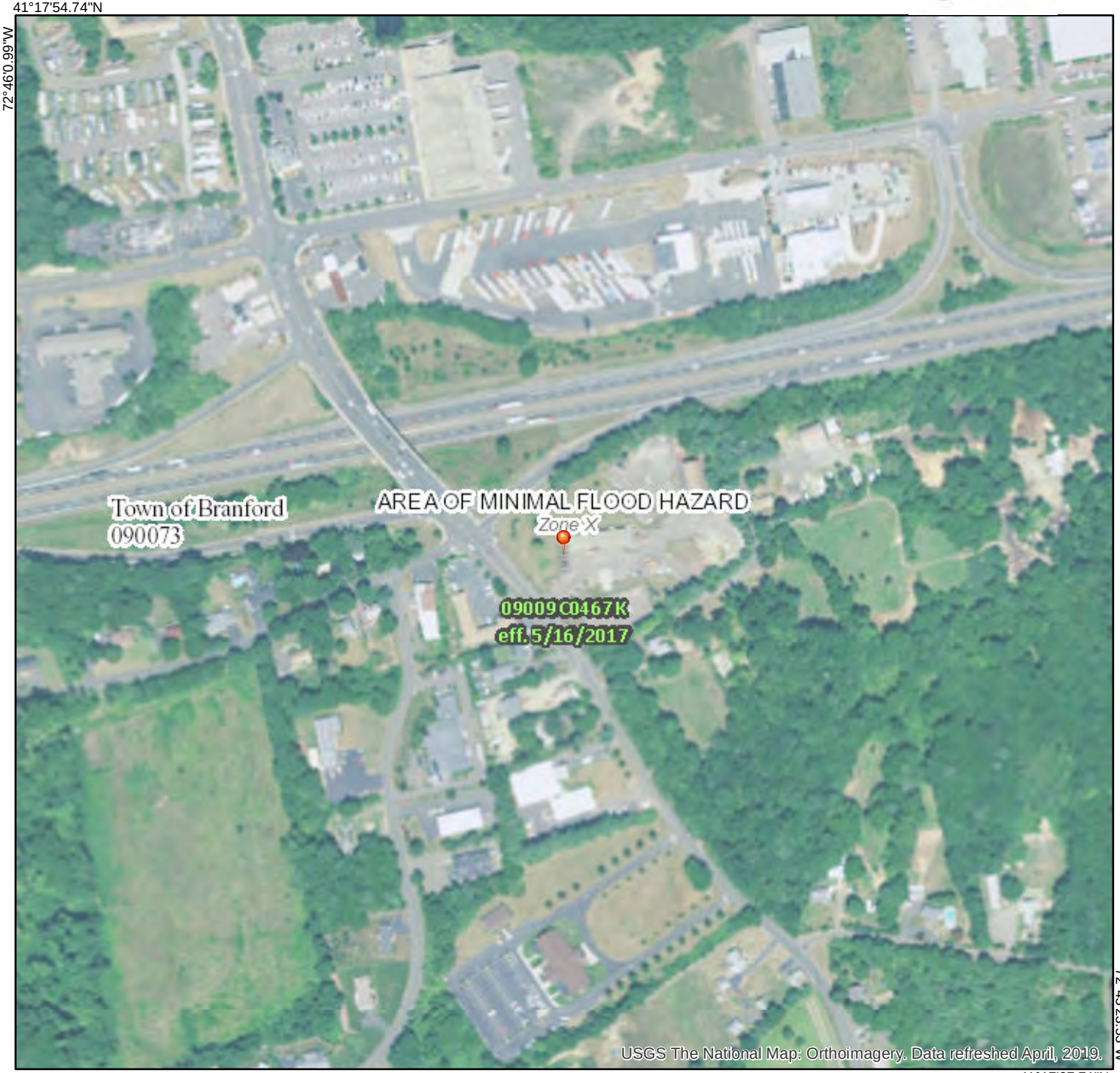
This map is for informational purposes only. All information is subject to verification by any user. The Town of Branford and its mapping consultant assume no legal responsibility for the information displayed on this map.

National Flood Hazard Layer FIRMette

FEMA

41°17'54.74"N

72°46'0.99"W



72°45'23.53"W

41°17'27.71"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/20/2020 at 7:51:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Property Location: LEETES ISLAND RD **MAP ID:** H05/J05 007/ 0022A/ / **Bldg Name:** **State Use:** 9018

Vision ID: 393 **Account #** 011142 **Bldg #:** 1 of 2 **Sec #:** 1 of 1 **Card** 1 **of** 2 **Print Date:** 04/18/2019 12:52

CURRENT OWNER	TOPO.	UTILITIES	STRT./ROAD	LOCATION
CONNECTICUT STATE OF	1 Level	2 Public Water	1 Paved	5 Industrial
LEETES ISLAND RD	4 Rolling	3 Public Sewer		
BRANFORD, CT 06405				
Additional Owners:				

SUPPLEMENTAL DATA

Other ID: H05/J05/007/0022A/	HLDG TK
CONDO BLDG	SEPTIC
CONDO UNIT	SEWER
CONDO FLOOI	DISTRICT
	CENSUS TR 1846
PARCEL DESC	
GIS ID: H05/J05/007/0022A	*ASSOC PID#*

CURRENT ASSESSMENT

Description	Code	Appraised Value	Assessed Value
EX COM LN	21	928,400	649,900
EX COM BL	22	486,800	340,700
EX CM OTB	25	93,700	65,700
	Total	1,508,900	1,056,300

6014
BRANFORD, CT

VISION

RECORD OF OWNERSHIP

	BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
CONNECTICUT STATE OF	0161/0294	08/19/1958				
CONNECTICUT STATE OF - HGWY DEPT	0161/0294					
CONNECTICUT STATE OF	/					

PREVIOUS ASSESSMENTS (HISTORY)

Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
2018	21	649,900	2017	21	649,900	2016	21	649,900
2018	22	340,700	2017	22	340,700	2016	22	340,700
2018	25	65,700	2017	25	65,700	2016	25	65,700
	Total:	1,056,300		*Total:*	1,056,300		*Total:*	1,056,300

EXEMPTIONS

Year	Type	Description	Amount
		Total:	

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	267,600
Appraised XF (B) Value (Bldg)	2,200
Appraised OB (L) Value (Bldg)	93,700
Appraised Land Value (Bldg)	928,400
Special Land Value	0
Total Appraised Parcel Value	1,508,900
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	**1,508,900**

ASSESSING NEIGHBORHOOD

NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
400/A				

NOTES

STATE OF CT DOT GARAGE
A/C=OFF/LOCKER RMS
HEATOIL HW IN OFC/LCKRMS
COMMUTER PKG LOT PART
OF PARCEL-FOLLOWING IN
TOTAL ELONG TO PKG LOT

PAV1-13000SF
LT1-2
STATE FUELING STATION
APPX LOCATION
80 LEETES ISLAND RD

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments

VISIT/ CHANGE HISTORY

Date	Type	IS	ID	Cd.	Purpose/Result
10/21/2009			JW	16	Reval Review
05/20/2009			GM	00	Measur+Listed
04/04/2002			TM	00	Measur+Listed

LAND LINE VALUATION SECTION

B #	Use Code	Use Description	Zone	D	Front	Depth	Units		Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing		S Adj Fact	Adj. Unit Price	Land Value
1	9018	STATE DOT	IG-2				1.38	AC	271,220.00	0.8062	I	1.0000	1.70	400	1.00	RT 95			1.00		513,000
1	9018	STATE DOT					3.62	AC	75,000.00	1.0000	0	1.0000	1.53	400	1.00	-10% TOPO			1.00		415,400

Total Card Land Units: 5.00 AC **Parcel Total Land Area:** 5 AC **Total Land Value:** 928,400

Property Location: LEETES ISLAND RD **MAP ID:** H05/J05 007/ 0022A/ / **Bldg Name:** **State Use:** 9018

Vision ID: 393 **Account #** 011142 **Bldg #:** 1 of 2 **Sec #:** 1 of 1 **Card** 1 of 2 **Print Date:** 04/18/2019 12:52

CONSTRUCTION DETAIL

Element	Cd.	Ch.	Description
Style	25		Service Shop
Model	96		Ind/Comm
Grade	06		B
Stories	1		
Occupancy	1		
Exterior Wall 1	20		Brick
Exterior Wall 2			
Roof Structure	01		Flat
Roof Cover	04		T&G/Rubber
Interior Wall 1	01		Minim/Masonry
Interior Wall 2			
Interior Floor 1	03		Concr-Finished
Interior Floor 2			
Heating Fuel	02		Oil
Heating Type	03		Hot Air-no Duc
AC Type	01		None
Bldg Use	9018		STATE DOT
Total Rooms			
Total Bedrms	00		
Total Baths	0		
Heat/AC	02		HEAT/AC SPLIT
Frame Type	03		MASONRY
Baths/Plumbing	02		AVERAGE
Ceiling/Wall	04		CEIL & MIN WL
Rooms/Prtns	02		AVERAGE
Wall Height	16		
% Comn Wall			

CONSTRUCTION DETAIL (CONTINUED)

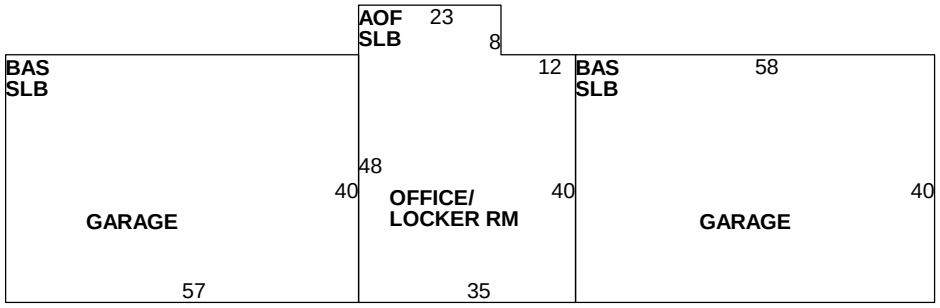
Element	Cd.	Ch.	Description

MIXED USE

Code	Description	Percentage
9018	STATE DOT	100

COST/MARKET VALUATION

Adj. Base Rate:	64.54
Replace Cost	424,706
AYB	1958
Dep Code	A
Remodel Rating	
Year Remodeled	
Dep %	37
Functional Obslnc	0
External Obslnc	0
Cost Trend Factor	
Condition	
% Complete	
Overall % Cond	63
Apprais Val	267,600
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
PAV1	PAVING-ASPH			L	92,200	1.65	2002		0		50	76,100
PAV2	PAVING-CON			L	1,450	3.30	2002		0		50	2,400
LT9	HGH PRE-SOI			L	5	1,500.00	2002		0		50	3,800
LT10	W/DOUBLE LI			L	3	2,300.00	2002		0		50	3,500
FN4	FENCE-8' CHA			L	1,320	12.00	2002		0		50	7,900
A/C	AIR CONDITI			B	1,584	2.20	1977		1		100	2,200

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
AOF	Office	1,584	1,584	1,980	80.68	127,799
BAS	First Floor	4,600	4,600	4,600	64.55	296,907
SLB	Slab	0	6,184	0	0.00	0
	Ttl. Gross Liv/Lease Area:	6,184	12,368	6,580		424,706



Property Location: LEETES ISLAND RD **MAP ID:** H05/J05 007/ 0022A/ / **Bldg Name:** **State Use:** 9018

Vision ID: 393 **Account #** 011142 **Bldg #:** 2 of 2 **Sec #:** 1 of 1 **Card** 2 **of** 2 **Print Date:** 04/18/2019 12:52

CURRENT OWNER	TOPO.	UTILITIES	STRT./ROAD	LOCATION
CONNECTICUT STATE OF	1 Level	2 Public Water	1 Paved	5 Industrial
LEETES ISLAND RD	4 Rolling	3 Public Sewer		
BRANFORD, CT 06405				
Additional Owners:				

SUPPLEMENTAL DATA

Other ID: H05/J05/007/0022A/	HLDG TK
CONDO BLDG	SEPTIC
CONDO UNIT	SEWER
CONDO FLOOI	DISTRICT
	CENSUS TR 1846
PARCEL DESC	
GIS ID: H05/J05/007/0022A	*ASSOC PID#*

CURRENT ASSESSMENT

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CONNECTICUT STATE OF - HGWY DEPT	0161/0294					
CONNECTICUT STATE OF	/					

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2018	22	340,700	2017	22	340,700	2016	22	340,700
2018	25	65,700	2017	25	65,700	2016	25	65,700
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EXEMPTIONS

Year	Type	Description	Amount
		Total:	

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

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APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	217,000
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	0
Appraised Land Value (Bldg)	0
Special Land Value	0
Total Appraised Parcel Value	1,508,900
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	1,508,900

ASSESSING NEIGHBORHOOD

NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
400/A				

NOTES

SAND SHED
OPEN ON FRONT
LAMINATED WOOD BEAM
FRAME
CONCRETE BUTTRESSES
FOR 8 FT FOOTING SUPPORT

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments

VISIT/ CHANGE HISTORY

Date	Type	IS	ID	Cd.	Purpose/Result
10/21/2009			JW	16	Reval Review
05/20/2009			GM	00	Measur+Listed
04/04/2002			TM	00	Measur+Listed

LAND LINE VALUATION SECTION

B #	Use Code	Use Description	Zone	D	Front	Depth	Units		Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing	S Adj Fact	Adj. Unit Price	Land Value
2	9018	STATE DOT	IG-2				0.00	AC	0.00	1.0000	0	1.0000	1.00		0.00			.00		0

Total Card Land Units: 0.00 AC **Parcel Total Land Area:** 5 AC **Total Land Value:** 0

Property Location: LEETES ISLAND RD **MAP ID:** H05/J05 007/ 0022A/ / **Bldg Name:** **State Use:** 9018

Vision ID: 393 **Account #** 011142 **Bldg #:** 2 of 2 **Sec #:** 1 of 1 **Card** 2 of 2 **Print Date:** 04/18/2019 12:52

CONSTRUCTION DETAIL

Element	Cd.	Ch.	Description
Style	48		Warehouse
Model	96		Ind/Comm
Grade	06		B
Stories	1		
Occupancy	1		
Exterior Wall 1	14		Wood Shingle
Exterior Wall 2			
Roof Structure	07		Gambrel
Roof Cover	03		Asphalt
Interior Wall 1	01		Minim/Masonry
Interior Wall 2			
Interior Floor 1	03		Concr-Finished
Interior Floor 2			
Heating Fuel	01		None/Coal/Wd
Heating Type	01		None
AC Type	01		None
Bldg Use	9018		STATE DOT
Total Rooms			
Total Bedrms	00		
Total Baths	0		
Heat/AC	00		NONE
Frame Type	02		WOOD FRAME
Baths/Plumbing	00		NONE
Ceiling/Wall	00		NONE
Rooms/Prtns	01		LIGHT
Wall Height	30		
% Comn Wall			

CONSTRUCTION DETAIL (CONTINUED)

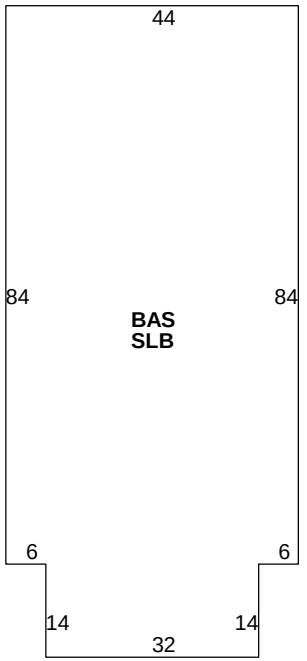
Element	Cd.	Ch.	Description

MIXED USE

Code	Description	Percentage
9018	STATE DOT	100

COST/MARKET VALUATION

Adj. Base Rate:	63.09
Replace Cost	261,441
AYB	1995
Dep Code	A
Remodel Rating	
Year Remodeled	
Dep %	17
Functional Obslnc	0
External Obslnc	0
Cost Trend Factor	
Condition	
% Complete	
Overall % Cond	83
Apprais Val	217,000
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	4,144	4,144	4,144	63.09	261,441
SLB	Slab	0	4,144	0	0.00	0
	Ttl. Gross Liv/Lease Area:	4,144	8,288	4,144		261,441



From:	Gorka, Mark
To:	Levine, Todd
Cc:	Wisniewski, Marena; Labadia, Catherine
Subject:	RE: Siting Council - Petition for Declaratory Ruling
Date:	Wednesday, August 12, 2020 2:24:23 PM
Attachments:	Branford DOT Tower SHPO Review Pkg.pdf image001.jpg image002.gif image004.gif image005.png image006.jpg image008.jpg

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Hello Todd and Marena,

I hope you are still well and adjusting to the new norm. I'm attaching a digital copy of a SHPO Review Form for a telecommunications tower replacement at the Branford DOT facility. Our office will mail out a hard copy to Catherine Labadia as well. Let me know if you have any questions or need additional documentation.

Sincerely,

Mark Gorka, Grants and Contracts Specialist
Department of Emergency Services and Public Protection
Office: (860) 685-8107
Fax: (860) 685-8362
Mobile: (860) 508-9684

From: Levine, Todd <Todd.Levine@ct.gov>
Sent: Tuesday, March 31, 2020 1:06 PM
To: Gorka, Mark <Mark.Gorka@ct.gov>
Cc: Wisniewski, Marena <Marena.Wisniewski@ct.gov>
Subject: RE: Siting Council - Petition for Declaratory Ruling

Hi Mark,

Great to hear from you and I hope you and yours are healthy. Yes, please send a hard copy of the project notification form to our office and a digital to Marena (cc'ed) and I; we'll review it as soon as we can.

Thanks,

~T~

Todd Levine
Historian
State Historic Preservation Office
Dept. of Economic & Community Development
State of Connecticut
450 Columbus Blvd., Suite 5
Hartford, CT 06103
O: 860-500-2337

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From: Gorka, Mark