



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

June 29, 2022

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103
kbaldwin@rc.com

RE: TS-VER-054-220526 – Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 63 Woodland Street, Glastonbury, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) is in receipt of your correspondence of June 27, 2022 submitted in response to the Council's June 24, 2022 notification of an incomplete request for tower sharing with regard to the above-referenced matter.

The submission renders the request for tower sharing complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Melanie A. Bachman".

Melanie A. Bachman
Executive Director

MAB/IN/laf

From: Mayo, Rachel <rmayo@RC.com>

Sent: Monday, June 27, 2022 11:48 AM

To: Bachman, Melanie <Melanie.Bachman@ct.gov>; CSC-DL Siting Council <Siting.Council@ct.gov>

Cc: Baldwin, Kenneth <KBALDWIN@RC.com>; Mayo, Rachel <rmayo@RC.com>

Subject: TS-VER-054-220526- Response to incomplete letter

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Good morning, please see the attached revised Mount Analysis as requested in the Council's June 24, 2022 letter (also attached)

Please let us know if you have any questions or need additional information.

Thank you

Rachel A. Mayo
Land Use Analyst

Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103
Direct 860.275.8213 | Fax 860.275.8299
rmayo@rc.com | [Bio](#) | [V-Card](#)

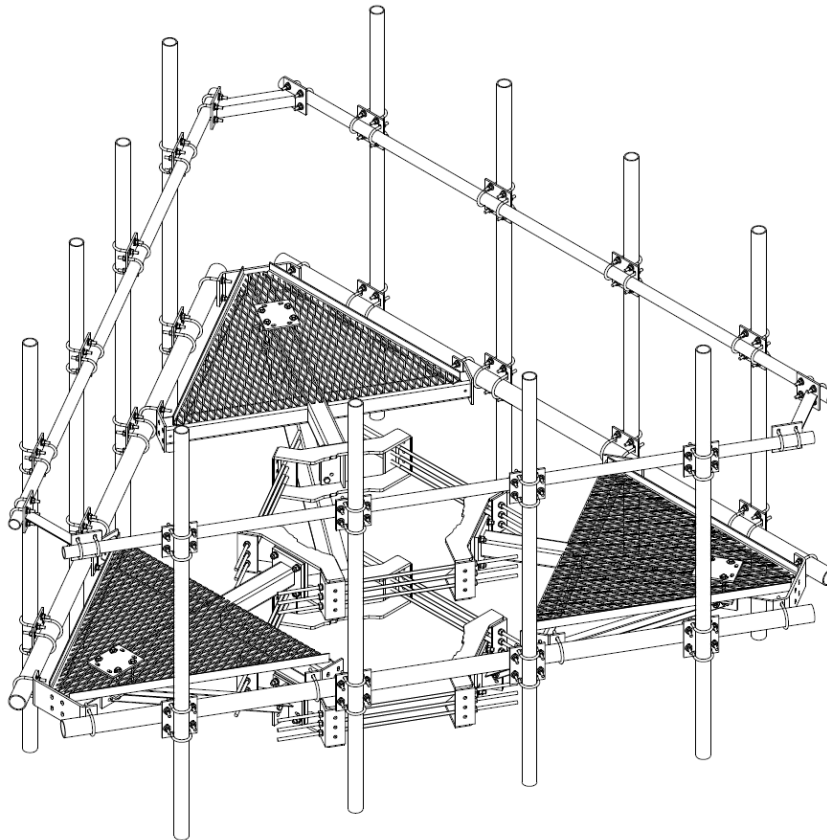
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20 Alexander Drive
Wallingford, CT 06492

MOUNT ANALYSIS
SOUTH GLASTONBURY 3 CT



Address:

63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

LOCATION CODE: 708312

Date:

APRIL 20, 2022 (REV. 2)



April 20, 2022



20 Alexander Drive, 2nd Floor
Wallingford, CT 06492

RE:

Applicant Site Name: South Glastonbury 3 CT
Applicant Location Code: 708312
Site Address: 63 Woodland Street, South Glastonbury, CT 06073

To whom it may concern:

Chappell Engineering Associates, LLC has performed a structural analysis of the proposed Verizon braced low-profile antenna mounting platform being proposed at the existing 150'+/- monopole located at the above-referenced address at approximately 115 ft AGL to analyze the effect of the proposed Verizon antenna installation on the subject platform.

The proposed antenna support structure will consist of one (1) low-profile antenna frame supporting twelve (12) individual antenna pipe mounts. Our analysis has considered the following total major equipment loads indicated on the antenna design summary (included in this report) to be installed on the proposed low-profile antenna frame:

<u>Appurtenance</u>	<u>Size (HxWxD) (in)</u>	<u>Weight</u>	<u>Location</u>	<u>Status</u>
(3) NHH-65B-R2B Panel Antennas	72.0x11.9x7.1	43.7lbs	Face of Mount	Proposed
(3) NHHSS-65B-R2B R2BT4 Panel Antennas	72.0x11.9x7.1	48.1lbs	Face of Mount	Proposed
(3) MT6407-77A Panel Antennas	35.2x16.1x5.6	87lbs	Face of Mount	Proposed
(3) 700/850 mHz RRH	15.0x15.0x9.0	70.3lbs	Face of Mount	Proposed
(3) 1900/2100 mHz RRH	15.0x15.0x10.0	84.4lbs	Face of Mount	Proposed
(3) RT4401-48A RRH	13.9x8.6x4.2	18.6lbs	Face of Mount	Proposed
(1) Fiber Junction Box	29.6x16.5x12.6	32.0lbs	Face of Mount	Proposed

The proposed antennas and ancillary hardware are shown on the enclosed Lease Exhibits and RF Data Sheets.

We have modeled the entire low-profile antenna frame under both wind and wind/ice loads. Our analysis and results are included in this report.

Based upon our analysis of the antenna mounts being proposed, **we consider the proposed RMQP-496-HK low-profile mounting frame assembly has adequate capacity** to support the proposed antenna configuration as shown on the construction drawings. **The maximum percentage stress capacity as determined by our analysis are the antenna mounting pipes supporting the combined dual-mount antennas with a capacity of 51%.** Our analysis assumes the mount will be installed and maintained according to the manufacturers' recommendations.

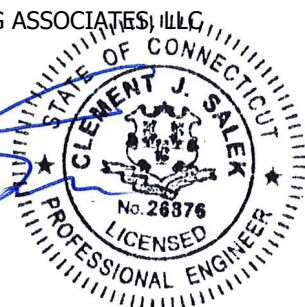
If you have any questions regarding this matter, please do not hesitate to call.

Sincerely,

CHAPPELL ENGINEERING ASSOCIATES, LLC



Clement J Salek, P.E.
CJS/cjs



Appendix A – Construction Drawings

SUPPORTING DOCUMENTS

RADIO FREQUENCY (RF) DESIGN DATE: 12/27/21
 ANTENNA MOUNT STRUCTURAL ANALYSIS DATE: 4/15/22
 ANTENNA SUPPORT STRUCTURE (150± MONOPOLE) STRUCTURAL ANALYSIS DATE: 4/12/22
 (BY BENNETT & PLESS, INC.)



20 ALEXANDER DRIVE, 2nd FLOOR, WALLINGFORD, CT 06492

SOUTH GLASTONBURY 3 CT

63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

**PROJECT TYPE: WIRELESS TELECOMMUNICATIONS
 COLLOCATION ON EXISTING 150'± MONOPOLE**

SITE INFORMATION:

PARENT PARCEL OWNER: PAUL J. CAVANNA
 80 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

TOWER OWNER: VERTICAL BRIDGE REIT, LLC
 750 PARK OF COMMERCE DRIVE, SUITE 200
 BOCA RATON, FL 33487
 (801) 948-6267

TOWER OWNER ID: CT-5018 (HOPEWELL)

APPLICANT: CELCOO PARTNERSHIP
 (dba VERIZON WIRELESS)
 20 ALEXANDER DRIVE
 WALLINGFORD, CT 06492

SITE ADDRESS: 63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

COUNTY: HARTFORD COUNTY, CT

SITE CONTROL POINT:
 CENTER OF EXISTING MONOPOLE
 N 41°-39'-38.85" (41.660792°) (NAD '83)
 W 72°-34'-26.75" (72.574097°) (NAD '83)

JURISDICTION: CONNECTICUT SITING COUNCIL

TAX ID PARCEL NUMBER: MAP G11 STREET 7800 LOT W0002

ARCHITECT / ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752

POWER COMPANY: EVERSOURCE ENERGY
 247 STATION DRIVE, SE 210
 WESTWOOD, MA 02090
 (781) 441-3610

TELEPHONE COMPANY: VERIZON
 185 FRANKLIN STREET
 BOSTON, MA 02107
 (800) 941-9900

VICINITY MAP

SCALE: 1"=1000'



DRIVING DIRECTIONS

FROM WALLINGFORD, TAKE I-91 NORTH. TAKE THE EXIT ONTO CT-3 NORTH TOWARD GLASTONBURY. TAKE THE EXIT ONTO CT-2 EAST TOWARD NORWICH. TAKE EXIT 7 ON THE LEFT FOR CT-17 SOUTH TOWARD PORTLAND. CONTINUE ONTO CT-17 S/GLASTONBURY EXPRESSWAY. TURN LEFT ONTO CHESTNUT HILL ROAD. TURN RIGHT ONTO SUNSET DRIVE. TURN LEFT ONTO HOPEWELL ROAD. TURN RIGHT ONTO WOODLAND STREET. THE SITE WILL BE ON THE RIGHT HAND SIDE.

SHEET INDEX

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DO NOT SCALE DRAWINGS

ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS AT THE PROPOSED PROJECT SITE SHALL BE VERIFIED IN THE FIELD DURING THE CONSTRUCTION PHASE. THE PROJECT OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO PROCEEDING WITH THE PROPOSED WORK AFFECTED BY SUCH DISCREPANCIES. IN THE EVENT OF LACK OF SUCH NOTIFICATION, SUCH DISCREPANCIES SHALL BECOME THE RESPONSIBILITY OF THE PREVAILING CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.

PROJECT DESCRIPTION

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT INSTALLATION AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS TELECOMMUNICATIONS SERVICE.
2. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
2. NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
 - BUILDING CODE: 2019 CONNECTICUT STATE BUILDING CODE
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811



R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com



ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
 THESE DRAWINGS HAVE BEEN PREPARED IN ACH D (A3) (24"X36") FORMAT. NO SCALE THE METRIC SCALES SHOWN ON ANY REPRODUCTION OF A CONTRACTORY SIZE SHALL BE IGNORED. ALL METRIC SCALES MAY BE USED. REGARDLESS OF REPRODUCTION SIZE, WHERE IN CONFLICT, THE SCALES SHALL SUPERSEDE WRITTEN SCALES.
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
 SOUTH
 GLASTONBURY 3 CT
 63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
 TITLE SHEET

DRAWING NO.:
 T01

SCALE:	DESIGNED BY: NMC	VZM PROJECT CODE:
AS SHOWN	CREATED BY: NMC	0621200233
CEA PROJECT NO.:	ORIGINAL ISSUE DATE:	VZM PROJECT NO.:
96210-404	1/20/22	6085720
		VZM LOCATION CODE:
		703812

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – VERIZON WIRELESS
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – VERIZON WIRELESS
OEM – ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS, ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, AFFIXANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TIE/D PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC. 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACK FILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- CONSTRUCTION SHALL COMPLY WITH VERIZON WIRELESS NETWORK STANDARD (NST)D23 TO THE MAXIMUM EXTENT FEASIBLE UNLESS PRECLUDED OR LIMITED BY DESIGN SHOWN ON THESE DRAWINGS.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERTING OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE (BUT NOT BE LIMITED TO) A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- 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.
- THE SUB GRADE SHALL BE COMPACTED AND BLENDED TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRAINAGE, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE VERIZON WIRELESS SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A164, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPACES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND SMALLER & W/F2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL1/2 IN.
BEAMS AND COLUMNS1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSEY/REDHEAD OR APPROVED EQUAL.
- CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (BC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
(B) CERTIFICATE OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- AS AN ALTERNATIVE TO ITEM 7, TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND VERIZON WIRELESS SPECIFICATION 25250-200-3P5-021-0001 UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 3/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSEY/REDHEAD OR APPROVED EQUAL.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
- COMPACTED SUBGRADE SHALL BE UNIFORM AND LEVELED. PROVIDE #6 MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
- AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOLS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E), AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

- HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.


CONSTRUCTION NOTES:

- FIELD VERIFICATION: SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, VERIZON WIRELESS ANTENNA PLATFORM LOCATION AND ANTENNAS TO BE REPLACED.
- COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- CABLE LADDER RACK: SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.


ELECTRICAL INSTALLATION NOTES:

- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TOLERANCE.
- SUBCONTRACTOR SHALL MOODY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TOLERANCE.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (0 NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #3 AWG SOLID THINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE T CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRAMP STYLE. COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL), LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75% (90% IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE, AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL, INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE
- RIGID NONMETALLIC TUBING (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND, DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE, AND NEC.
- CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PAINDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON- CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

CLIENT:




ARCHITECT/ENGINEER:



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MARLBOROUGH, MA 01752
(508) 481-7400
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SEAL:



ENGINEER/LAND SURVEYOR _____ DATE _____

DRAWING SCALE NOTE:
THIS DRAWING HAS BEEN PREPARED IN ACHD (A) (2) (3) (4) FORM. AS SUCH, THE METRIC SCALES SHOWN ON ANY REPRODUCTION OF A CONDUCTOR SIZE SHALL BE REPRODUCED AS SHOWN. ALL BIR SCALES WILL BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BIR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:

SOUTH GLASTONBURY 3 CT

63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

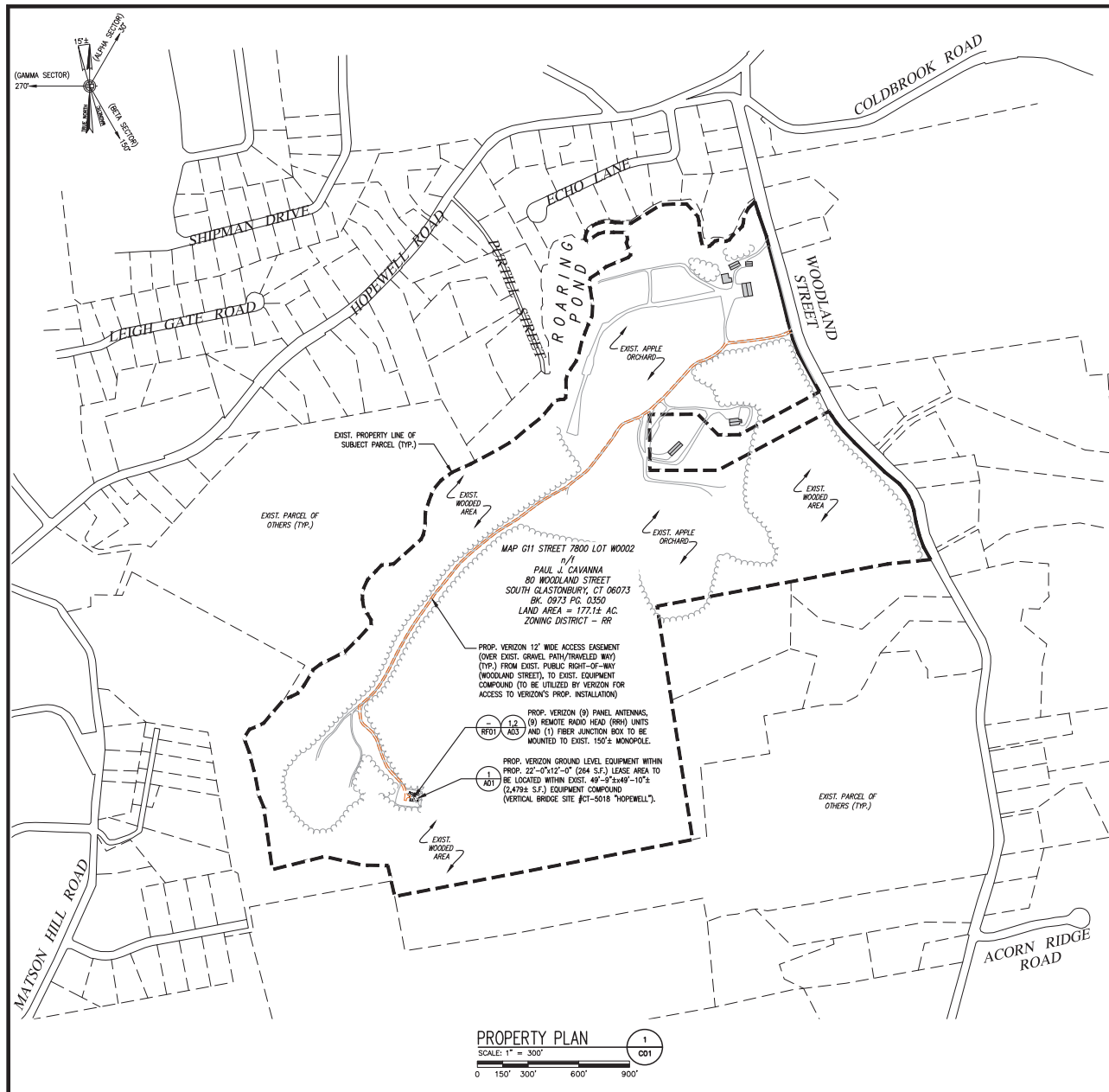
DRAWING TITLE:

GENERAL NOTES

DRAWING NO:

GN01

SCALE:	DESIGNED BY: HW	VZW PROJECT CODE:
N/A	DRAWN BY: HW	2021230233
	CHECKED BY: GPS	VZW PROJECT NO.:
06A PROJECT NO.:	ORIGINAL ISSUE DATE:	16085720
96210.404	1/20/22	VZW LOCATION CODE:
		708312



GENERAL NOTES:

- INITIAL DESIGN VISIT DATE: 1/4/22
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAD '88)
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD '83)
- SITE CONTROL POINT: CENTER OF EXISTING MONOPOLE
LATITUDE: N. 41°-39'-38.85" (41.660792) (NAD '83)
LONGITUDE: W. 72°-34'-26.75" (72.574007) (NAD '83)
- PARENT PARCEL OWNER: PAUL J. CAVANNA
80 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073
- TOWER OWNER: VERTICAL BRIDGE REIT, LLC
750 PARK OF COMMERCE DRIVE, SUITE 200
BOCA RATON, FL 33487
(561) 948-6367
- TOWER OWNER ID: CT-5018 (HOPEWELL)
- SITE ADDRESS: 63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073
- APPLICANT: CELLO PARTNERSHIP
(dba VERIZON WIRELESS)
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492
- JURISDICTION: CONNECTICUT SITING COUNCIL
- TAX ID: MAP G11 STREET 7800 LOT W0002
- DEED REFERENCE: BK. 0973 PG. 0350
- PLAN REFERENCES: TOWN OF GLASTONBURY ASSESSOR/GIS MAPS
- ZONING CLASSIFICATION: RR (RURAL RESIDENCE)
- ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. CALL DISSAFE 1-888-344-7233 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- THE PROPERTY LINES SHOWN WERE COMPILED UTILIZING TOWN OF GLASTONBURY ASSESSOR'S PLANS, GIS, RECORDED DEEDS AND PLANS OF REFERENCE AS INDICATED. A COMPLETE BOUNDARY SURVEY WAS NOT UTILIZED IN THE PREPARATION OF THESE PLANS.
- THE SITE IS LOCATED IN FLOOD HAZARD ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS SHOWN ON FLOOD INSURANCE RATE MAP FOR THE TOWN OF GLASTONBURY, (MAP NUMBER 0902030317) EFFECTIVE 9/26/2008.
- BEARING SYSTEM OF THIS PLAN IS BASED ON GRID NORTH. TRUE NORTH WAS ESTABLISHED FROM GPS OBSERVATIONS. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

LEGEND

- STREET
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- PROPERTY OFFSET/RADIUS
- EXIST. EASEMENT
- EXIST. CHAIN LINK FENCE
- EXIST. STOCKADE FENCE
- EXIST. EDGE OF PAVEMENT
- EXIST. OVERHEAD UTILITIES
- CHW CHW
- APPROXIMATE ZONING BOUNDARY
- APPROXIMATE TOWN LINE

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Civil-Structural-Land Surveying
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SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
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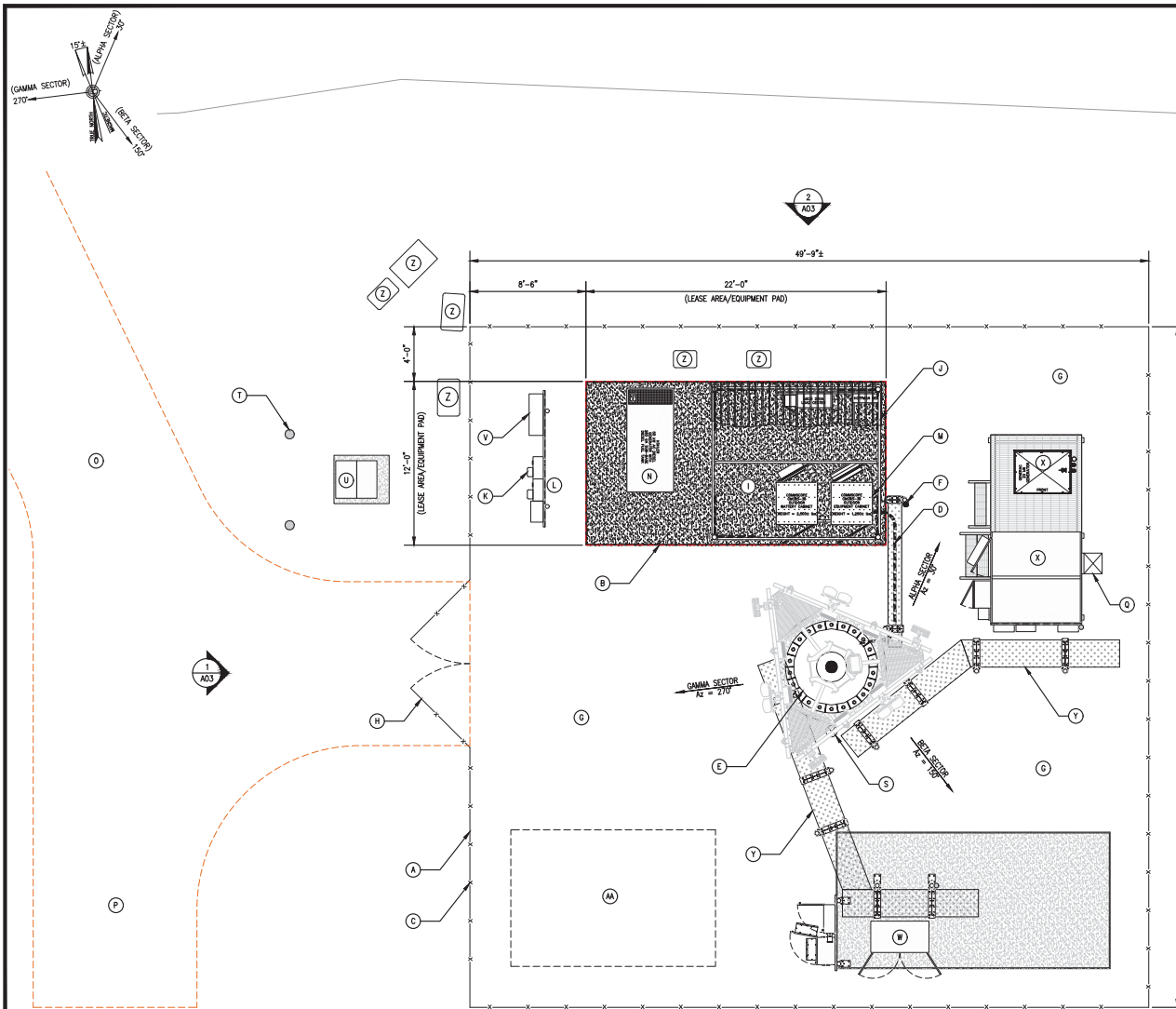
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
PROPERTY PLAN

DRAWING NO.:
C01

SCALE: 1" = 300'	DESIGNED BY: NWC	VZW PROJECT CODE: 2021200233
DRAWN BY: NWC	CHECKED BY: GRS	VZW PROJECT NO.: 1686720
CEA PROJECT NO.: 96210.404	ORIGINAL ISSUE DATE: 1/20/22	VZW LOCATION CODE: 708312



LEGEND	
ITEM	DESCRIPTION
(A)	EXIST. 49'-9" x 49'-10" (2,479± S.F.) EQUIPMENT COMPOUND (NEPICAL BRIDGE SITE #CT-5018 "HOFENWELL")
(B)	LIMITS OF VERIZON'S PROP. 22'-0" x 12'-0" (264 S.F.) LEASE AREA/EQUIPMENT PAD (TYP.)
(C)	EXIST. 7½ CHAIN-LINK FENCE WITH BARBED WIRE RIM SURROUNDING EXIST. 49'-9" x 49'-10" (2,479± S.F.) EQUIPMENT COMPOUND (TYP.)
(D)	PROP. VERIZON (1)-LOW INDUCTANCE 12x24 HYBRID SIGNAL CABLE ROUTED ALONG PROP. OVERHEAD CABLE ICE BRIDGE (TYP.) FROM VERIZON'S PROP. EQUIPMENT PAD TO EXIST. MONOPOLE AS SHOWN.
(E)	EXIST. 150± MONOPOLE
(F)	PROP. VERIZON GPS ANTENNA MOUNTED TO PROP. OVERHEAD CABLE ICE BRIDGE. TOP OF GPS ANTENNA SHALL BE MOUNTED 2'-0" ABOVE TOP OF ICE BRIDGE.
(G)	EXIST. GRAVEL COVER WITHIN EXIST. COMPOUND
(H)	EXIST. 12" DOUBLE LEAF GATE
(I)	PROP. VERIZON 22'-0" x 12'-0" (264 S.F.) REINFORCED CONCRETE EQUIPMENT PAD
(J)	PROP. VERIZON 12'-0" x 11'-10" (148± S.F.) METAL BECK ICE SHIELD (SHOWN TRANSPARENT FOR CLARITY) ABOVE PROP. EQUIPMENT
(K)	EXIST. VACANT METER SOCKET AND DISCONNECT BREAKER KNOCKOUT TO BE UTILIZED FOR VERIZON'S PROP. 200A ELECTRIC SERVICE TO PROP. EQUIPMENT INSTALLATION.
(L)	EXIST. 800A 1P-3W 120/240 VAC ELECTRIC METER BANK
(M)	PROP. VERIZON EQUIPMENT CABINET MOUNTED TO PROP. 22'-0" x 12'-0" (264 S.F.) REINFORCED CONCRETE EQUIPMENT PAD (TYP.)
(N)	PROP. VERIZON 50 KW BACK-UP DIESEL GENERATOR MOUNTED TO PROP. 22'-0" x 12'-0" (264 S.F.) REINFORCED CONCRETE PAD
(O)	PROP. VERIZON 12" WIDE ACCESS EASEMENT (OVER EXIST. GRAVEL PATH/TRAVELED HWY) (TYP.) FROM EXIST. PUBLIC RIGHT-OF-WAY WOODLAND STREET, TO EXIST. EQUIPMENT COMPOUND (TO BE UTILIZED BY VERIZON FOR ACCESS TO VERIZON'S PROP. INSTALLATION). SEE SHEET C01 FOR CONTINUATION TO WOODLAND STREET.
(P)	PROP. VERIZON 12' x 20' PARKING SPACE OR TURN-AROUND AREA
(Q)	EXIST. AT&T WALL-MOUNTED AC UNIT
(R)	THIS SPACE INTENTIONALLY LEFT BLANK
(S)	EXIST. GROUND TEST WELL
(T)	EXIST. BOLLARD (TYP.)
(U)	EXIST. ELECTRIC TRANSFORMER ON EXIST. CONCRETE PAD/VAULT
(V)	EXIST. TELEPHONE SERVICE CABINET/HANDOFF MOUNTED TO EXIST. FREE-STANDING UTILITY RACK
(W)	EXIST. T-MOBILE EQUIPMENT ON EXIST. 20'-0" x 10'-0" (200± S.F.) CONCRETE PAD
(X)	EXIST. AT&T EQUIPMENT CABINET AND BACK-UP DIESEL GENERATOR ON EXIST. 6'-8" x 13'-9" (92± S.F.) STEEL EQUIPMENT PLATFORM
(Y)	EXIST. OVERHEAD CABLE ICE BRIDGE OF OTHERS (TYP.)
(Z)	EXIST. UTILITY PULLBOX (6 TOTAL)
(MA)	EXIST. 15'-0" x 10'-0" (150 S.F.) DISH WIRELESS LEASE AREA

● SITE CONTROL POINT:
 CENTER OF EXISTING MONOPOLE
 N 41°-39'-38.85" (41.660792°) (NAD '83)
 W 72°-34'-26.75" (72.574097°) (NAD '83)
 ELEV. - 317.7' AMSL (NAVD '88)

PER 1A SURVEY OF OTHERS

EQUIPMENT COMPOUND PLAN 1
 A01
 SCALE: 1/4" = 1'-0"
 0 4'-0" 8'-0" 12'-0"

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ARCHITECT/ENGINEER:
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 (508) 481-7400
 www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
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IF IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

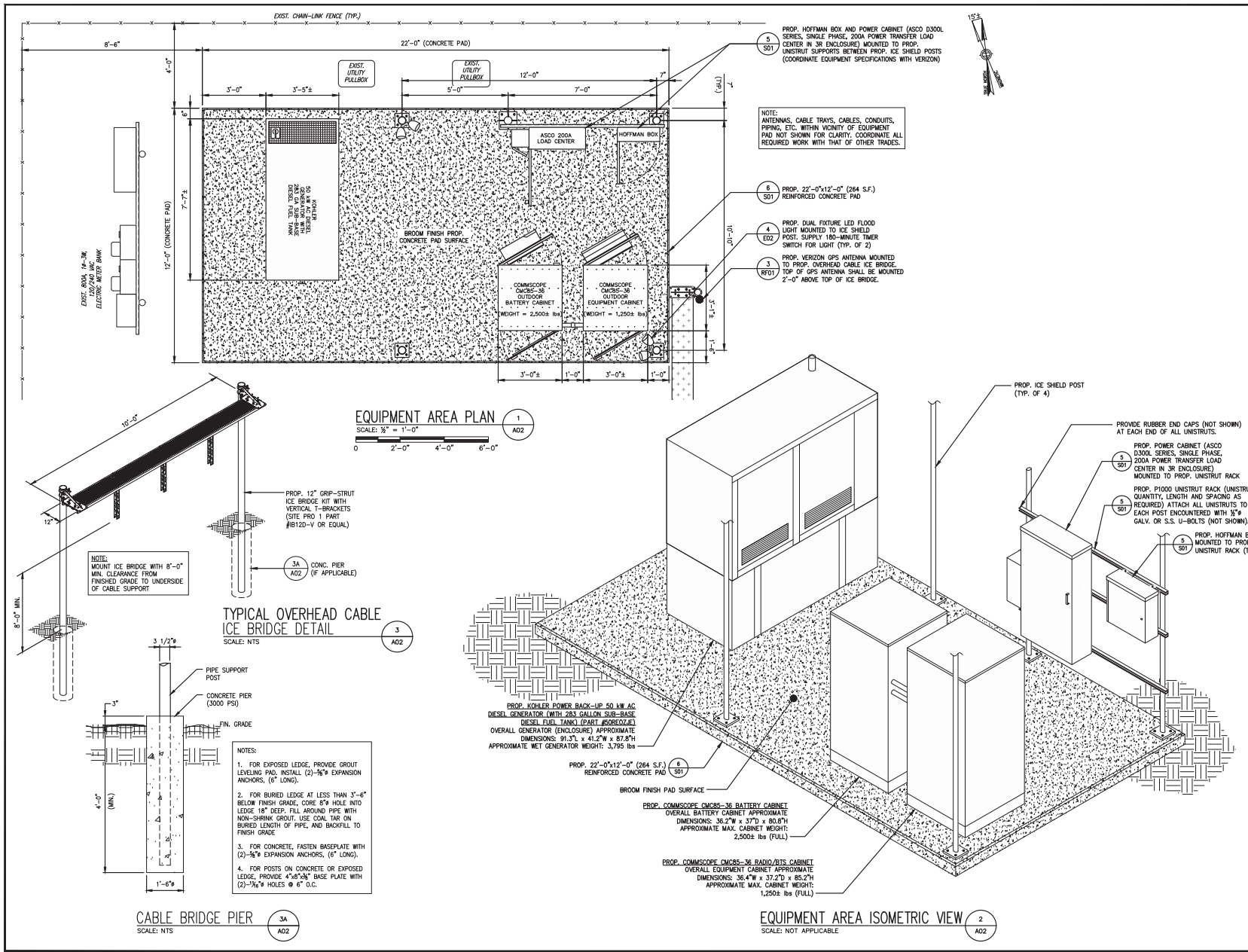
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED WSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
 63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
EQUIPMENT COMPOUND PLAN

DRAWING NO.:
A01

SCALE: 1" = 1'-0"	DESIGNED BY: HWC	VZW PROJECT CODE: 2021200215
DRAWN BY: HWC	CHECKED BY: GRS	VZW PROJECT NO.: 16085720
CEA PROJECT NO.: 96210.404	ORIGINAL ISSUE DATE: 1/20/22	VZW LOCATION CODE: 708312



CLIENT:

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ARCHITECT/ENGINEER:

CHAPPELL ENGINEERING ASSOCIATES, LLC
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3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:

SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

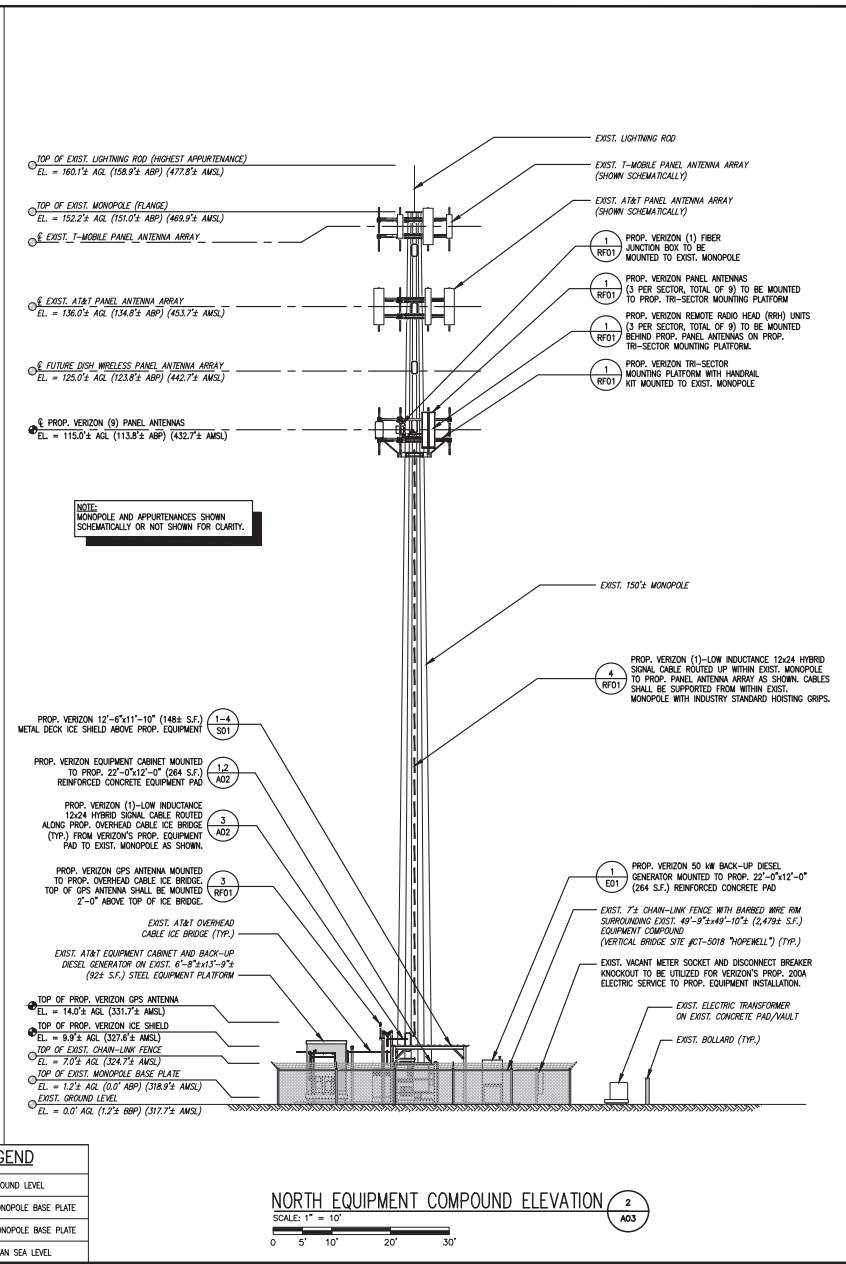
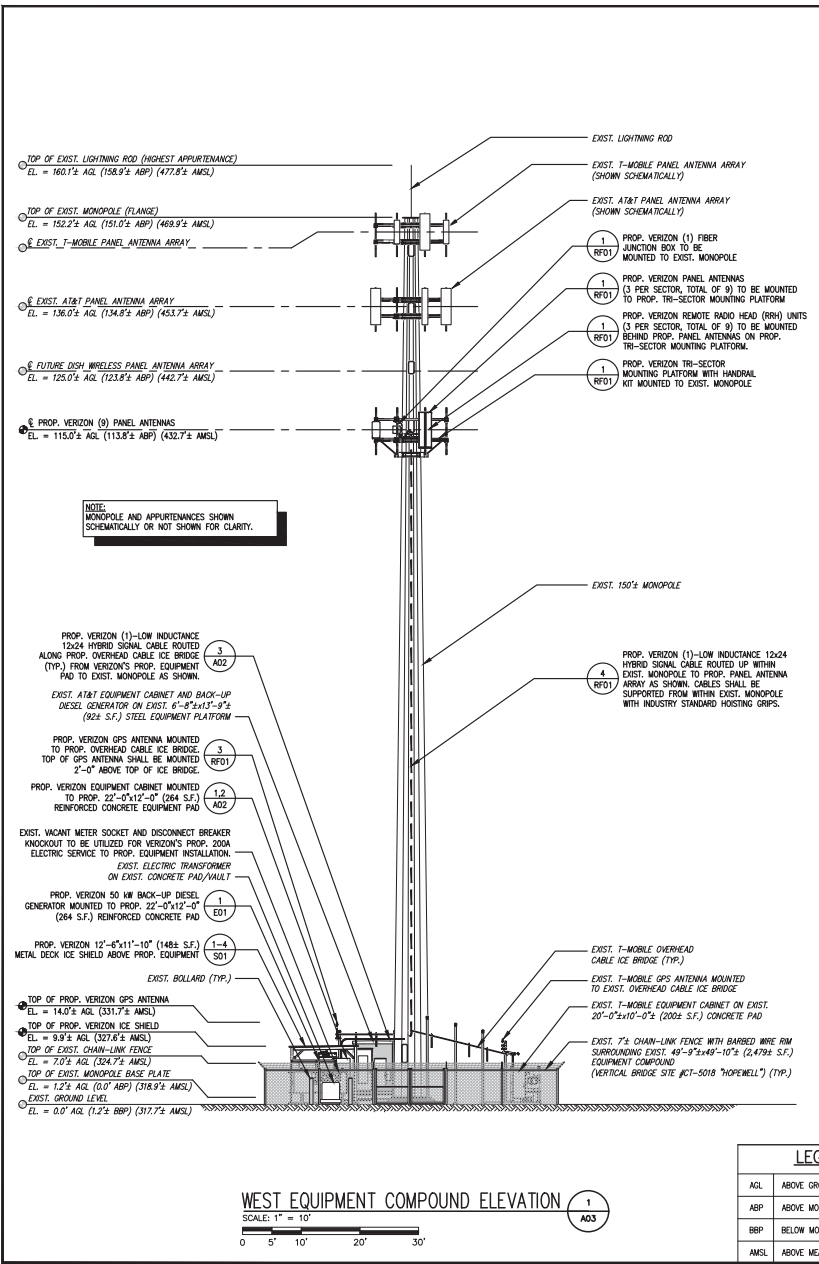
DRAWING TITLE:

EQUIPMENT AREA PLAN & DETAILS

DRAWING NO:

A02

SCALE:	DESIGNED BY: NMC	VZW PROJECT CODE:
AS SHOWN	DRAWN BY: NMC	2021230233
CEA PROJECT NO.:	CHECKED BY: GSS	VZW PROJECT NO.:
96210-404	ORIGINAL ISSUE DATE:	6085720
	1/20/22	VZW TOWER CODE:
		708312



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ARCHITECT/ENGINEER:

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3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:

SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:

WEST AND NORTH EQUIPMENT COMPOUND ELEVATIONS

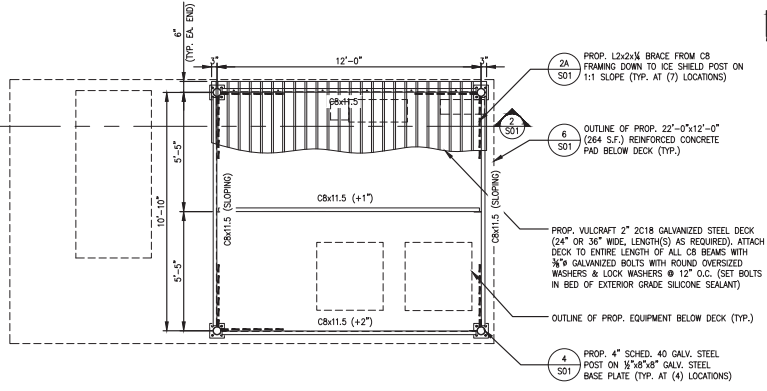
DRAWING NO:

A03

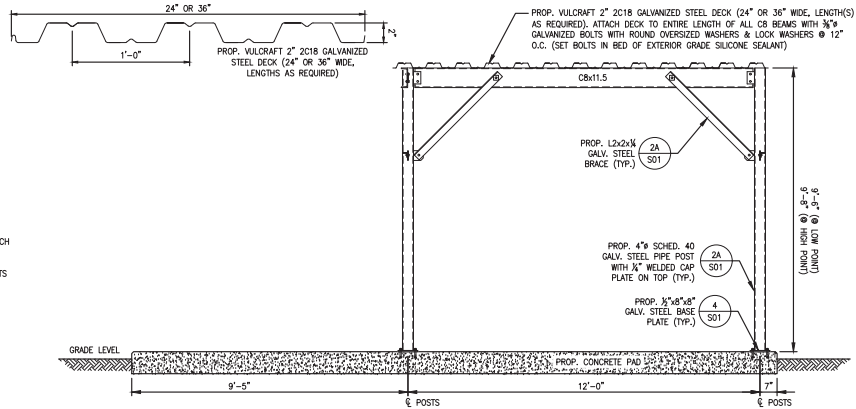
SCALE: 1" = 10'

DESIGNED BY: NMC	VZW PROJECT CODE: 2021200233
CHECKED BY: GSS	VZW PROJECT NO.: 6085720
ORIGINAL ISSUE DATE: 1/20/22	VZW TOWER CODE: 708312

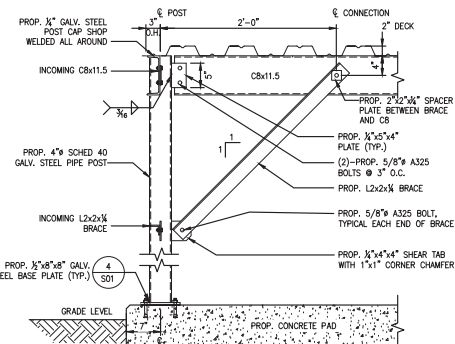
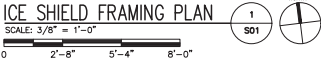
CEA PROJECT NO.: 96210-404



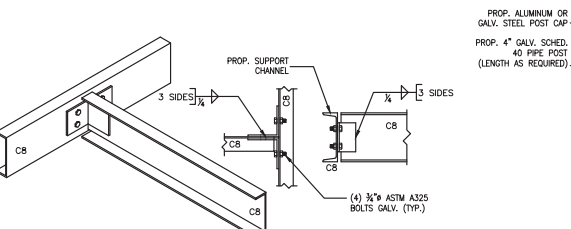
FRAMING PLAN NOTES:
 1.) ALL STEEL SHALL BE INSTALLED LEVEL UNLESS OTHERWISE NOTED.
 2.) TOP OF NEW STEEL ELEVATION SHALL BE HELD 9'-6" ABOVE EQUIPMENT PAD SURFACE UNLESS OTHERWISE NOTED THIS (+x") INDICATING DISTANCE ABOVE OR BELOW TOP OF STEEL REFERENCE ELEVATION.



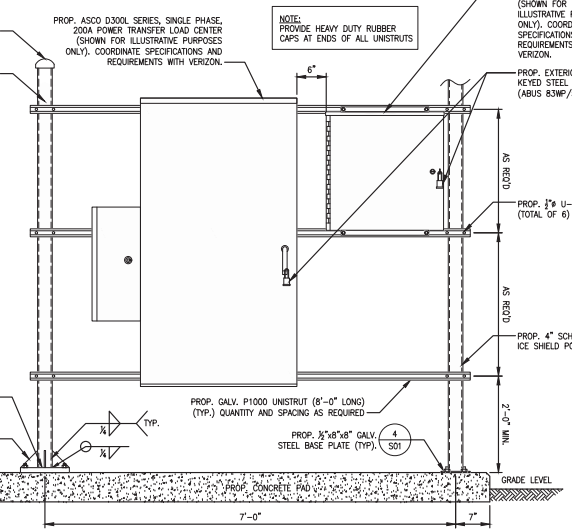
ICE SHIELD SECTION (2)
SCALE: 1/2" = 1'-0"



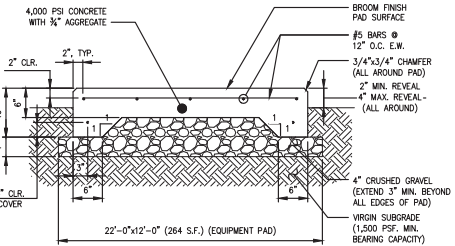
TYPICAL ICE SHIELD POST DETAIL (2A)
SCALE: 1" = 1'-0"



TYPICAL ICE SHIELD POST BASE PLATE (4)
SCALE: NONE



UNISTRUT RACK DETAIL (5)
SCALE: N.T.S.



REINFORCED CONCRETE PAD DETAIL (6)
SCALE: NONE

CLIENT:

"Because Better Matters"

ARCHITECT/ENGINEER:

R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR _____ DATE _____

DRAWING SCALE NOTE:
 THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF A CONTRACTOR'S SIZE SHALL BE REQUIRED. ALL DIMENSIONS SHALL BE GIVEN UNLESS OTHERWISE NOTED. IN CASE OF CONFLICT, THE DIMENSIONS SHOWN ON THESE DRAWINGS SHALL SUPERSEDE WRITTEN SIZES.
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

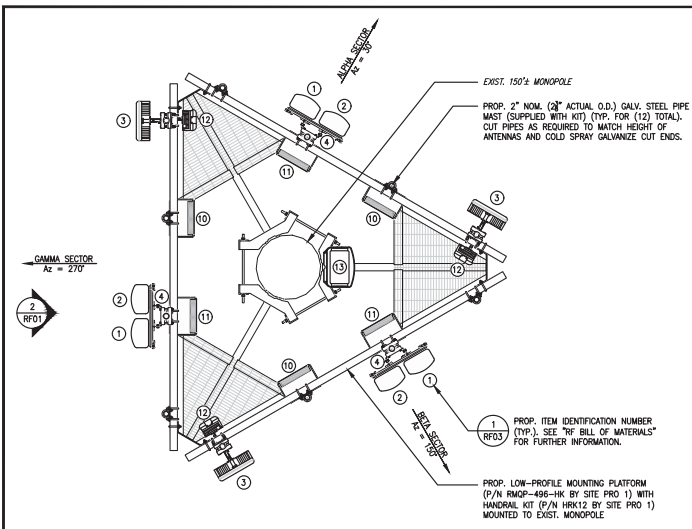
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
 63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
ICE SHIELD FRAMING PLAN & STRUCTURAL DETAILS

DRAWING NO.:
S01

SCALE: AS SHOWN	DESIGNED BY: NWC	VZW PROJECT CODE: 2021200215
DRAWN BY: NWC	CHECKED BY: GRS	VZW PROJECT NO.: 16065720
DATE PROJECT NO.: 96210.404	ORIGINAL ISSUE DATE: 1/20/22	VZW LOCATION CODE: 708312

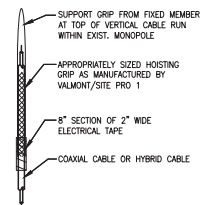


(MONOPOLE PLAN VIEW AT ELEVATION 115.0'± AGL)

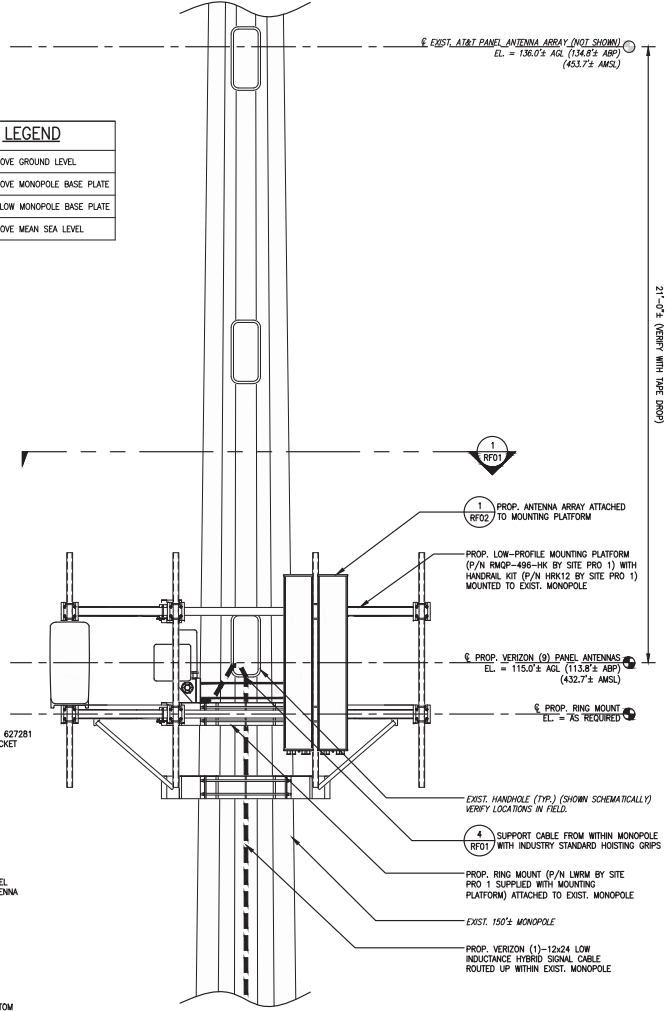


LEGEND

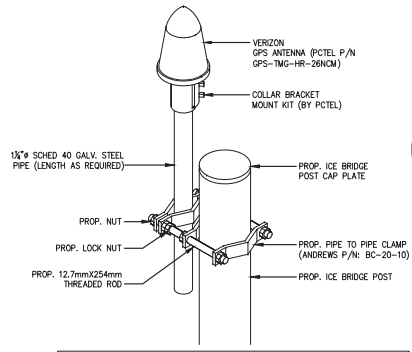
AGL	ABOVE GROUND LEVEL
ABP	ABOVE MONOPOLE BASE PLATE
BBP	BELOW MONOPOLE BASE PLATE
AMSL	ABOVE MEAN SEA LEVEL



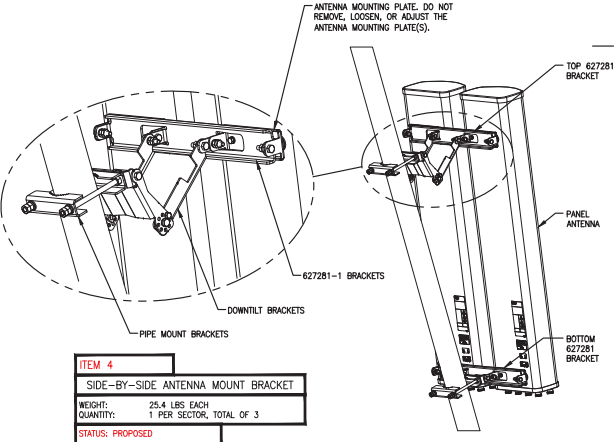
TYPICAL HOISTING GRIP DETAIL
SCALE: NONE



ANTENNA MOUNTING PLATFORM MOUNTING DETAIL
SCALE: 1/2" = 1'-0"



GPS ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



ITEM 4

SIDE-BY-SIDE ANTENNA MOUNT BRACKET	
WEIGHT:	25.4 LBS EACH
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

TYPICAL SIDE-BY-SIDE ANTENNA MOUNT KIT
(COMMSCOPE PART #BSAMNT-SBS-1-2)
SCALE: NOT TO SCALE

MOUNT ANTENNA IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURE

CLIENT:

ARCHITECT/ENGINEER:

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ACH D (A3) (1/8\"/>

REVISONS

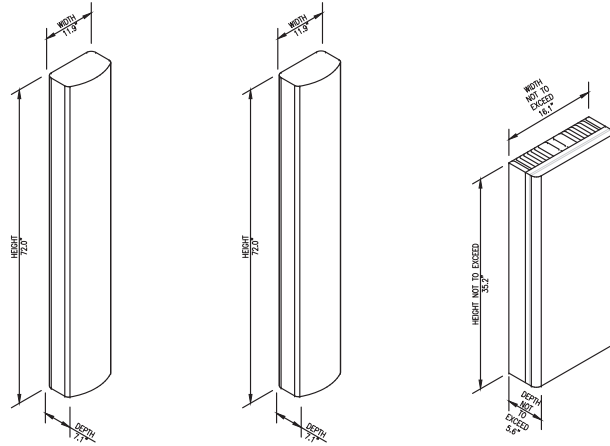
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
ANTENNA MOUNTING PLAN AND DETAILS

DRAWING NO:
RF01

SCALE:	DESIGNED BY: NMC	VZM PROJECT CODE:
AS SHOWN	DRAWN BY: NMC	2021200233
CEA PROJECT NO.:	CHECKED BY: GSS	VZM PROJECT NO.:
96210-404	ORIGINAL ISSUE DATE:	6085720
	1/20/22	VZM LOCATION CODE:
		709312

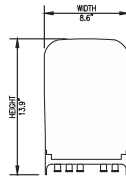


ITEM 1
LTE (700/850/1900 MHz) PANEL ANTENNA
DIMENSIONS: 72.0\"/>
WEIGHT: 43.7 LBS EACH
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

ITEM 2
LTE (700/850/2100/CBRS MHz) PANEL ANTENNA
DIMENSIONS: 72.0\"/>
WEIGHT: 48.1 LBS EACH
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

ITEM 3
MT6407-77A ANTENNA
MAX. DIMENSIONS: 35.2\"/>
MAX. WEIGHT: 87.1 LBS EACH
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

TYPICAL PROP. PANEL ANTENNA SPECIFICATIONS 1
SCALE: N.T.S. RF02



ITEM 10
LTE/NR (700/850 MHz) REMOTE RADIO HEAD UNIT
DIMENSIONS: 15.0\"/>
WEIGHT: 70.3 LBS
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

ITEM 11
LTE/NR (1900/2100 MHz) REMOTE RADIO HEAD UNIT
DIMENSIONS: 15.0\"/>
WEIGHT: 74.3 LBS
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

ITEM 12
(BAND 48 (3.5 GHz)) NR AU RRH
DIMENSIONS: 13.9\"/>
WEIGHT: 18.6 LBS EACH
QUANTITY: 1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED

TYPICAL REMOTE RADIO HEAD (RRH) UNIT DIMENSIONS 2
SCALE: N.T.S. RF02

Procedure
Mounting Procedures

4.1 A mounting base is delivered with the unit. The base allows either wall/ceiling or pole mounted installation. See picture to identify the holes for each installation method.

4.2 **Option 1: Pole Mount**
Using supplied hardware, mount bracket to 2" to 4" diameter pole.

4.3 **Option 2: Unistrut**

4.4 **Option 3: Monopole**
Use 1" stainless steel bands (not supplied) through slots on bracket to mount to Monopole.

Gland/Insert Definitions

5.1 See picture to identify Base Gland Assembly Definitions.

Assembled in unit as shipped:

Qty	Connector Size	Pos	Insert P/N	Insert Hole	Cable Type
2	M75	A	190-0760	43mm	6x12 RL
4	M75	B	190-0738	2x	16.5mm

Included in kit shipped with unit:

Qty	Connector Size	Insert P/N	Insert Hole	Cable Type	Purpose	Pos
2	M75	190-0760	43mm	6x12 RL	2 glands fit 1 each 6x12 hrb.	B
2	M75	190-0747	2x 10.5mm	2x12 DC	2 glands fit 2 each #12 coad DC	B
1	M75	190-0905	2x 10.5mm	2x12 Fiber	1 gland fits 2 x 12 fiber trunk	B
1	M75	190-0912	2x 9.5mm	2 ETH	1 gland fits 2 ethernet cable	B

ITEM 13
FIBER JUNCTION BOX
DIMENSIONS: 29.58\"/>
WEIGHT: 32.0 LBS
QUANTITY: TOTAL OF 1
STATUS: PROPOSED

TYPICAL FIBER JUNCTION BOX DIMENSIONS, SCHEMATIC AND MOUNTING PROCEDURE 3
SCALE: N.T.S. RF02



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www.chappellengineering.com



ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
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REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH
GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
ANTENNA DETAILS AND
ANCILLARY EQUIPMENT
SPECIFICATIONS

DRAWING NO.:
RF02

SCALE:	DESIGNED BY: NWC	VZM PROJECT CODE:
AS SHOWN	CHWEN BY: NWC	0212200233
CEA PROJECT NO.:	CHECKED BY: GSS	VZM PROJECT NO.:
96210-404	ORIGINAL ISSUE DATE:	6085720
	1/20/22	VZM LOCATION CODE:
		709312



ARCHITECT/ENGINEER:
CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil-Structural-Land Surveying

R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com



ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
 THESE DRAWINGS HAVE BEEN PREPARED IN ACH D (24x36) FORMAT. AS SUCH, THE METRIC SIZES SHOWN ON ANY REPRODUCTION OF A CONTRACTOR'S SIZE SHALL BE ROUNDED UPWARD.
 ALL BRG SIZES MAY BE SIZED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BRG SIZES SHALL SUPERSEDE WRITTEN SIZES.

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REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED WSA REFERENCE DATE	4/15/22

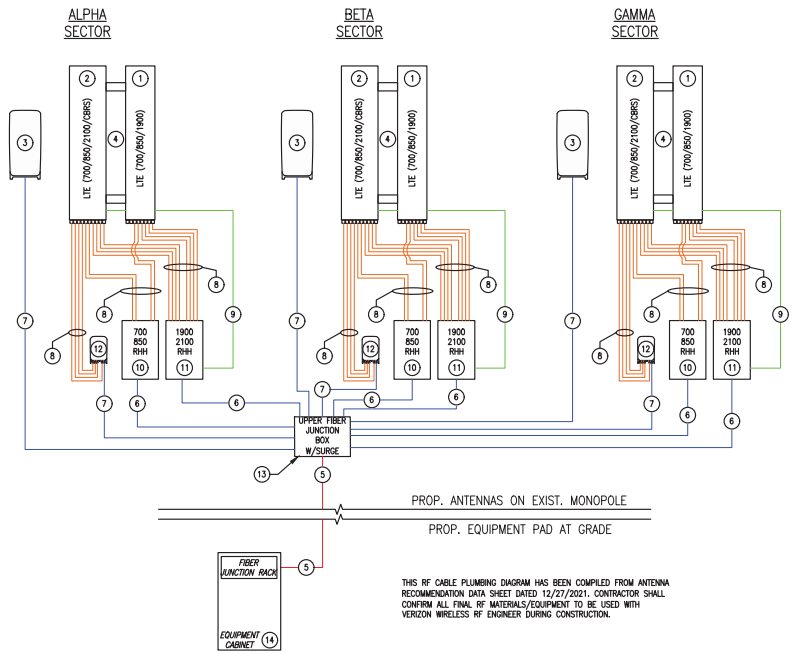
PROJECT NAME:
SOUTH GLASTONBURY 3 CT
 63 WOODLAND STREET
 SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
 RF BILL OF MATERIALS
 AND RF CABLE
 PLUMBING DIAGRAM

DRAWING NO.:
RF03

SCALE:	DESIGNED BY: NWC	VZW PROJECT CODE:
AS SHOWN	DRAWN BY: NWC	2021200213
CEA PROJECT NO.:	CHECKED BY: GRS	VZW PROJECT NO.:
96210.404	1/20/22	16085720
		VZW LOCATION CODE:
		708312

NOTE:
 ARRANGEMENT OF ANTENNAS, REMOTE RADIO HEAD (RRH) UNITS, FIBER JUNCTION BOXES AND ALL ASSOCIATED WIRING AND ANGLARITY EQUIPMENT SHOWN SCHEMATICALLY ON THIS PLUMBING DIAGRAM. SEE PROP. ANTENNA ORIENTATION PLAN(S) AND CROSS REFERENCE WITH RF BILL OF MATERIALS FOR PROP. ANTENNA/EQUIPMENT PLACEMENT DETAIL.



RF CABLE PLUMBING DIAGRAM (FINAL CONFIGURATION) 2
 SCALE:

LEGEND		
RED	Ⓜ	= HYBRID CABLE (MAIN LINE)
PURPLE	Ⓜ	= COAXIAL CABLE (MAIN LINE)
BLUE	Ⓜ	= 1x1 HYBRID CABLE (JUMPER)
ORANGE	Ⓜ	= 1/2" COAXIAL CABLE (JUMPER)
GREEN	Ⓜ	= RET CONTROL CABLE(S) (JUMPER)

RF BILL OF MATERIALS (PROP. (FINAL) CONFIGURATION)						
SITE NAME: SOUTH GLASTONBURY 3 CT						
A = ALPHA SECTOR B = BETA SECTOR G = GAMMA SECTOR						
ITEM (SEE PLAN)	DESCRIPTION	BAND	QTY	STATUS	CABLE LENGTH/UNIT SIZE	COMMENTS
1	PANEL ANTENNA	700/850/1900	3 TOTAL (A,B,G)	PROP.	72.0'H x 11.9'W x 7.1'D (43.7 lbs, each)	MOUNT TO PROP. SIDE-BY-SIDE MOUNT
2	PANEL ANTENNA	700/850/2100/CBRS	3 TOTAL (A,B,G)	PROP.	72.0'H x 11.9'W x 7.1'D (48.1 lbs, each)	MOUNT TO PROP. SIDE-BY-SIDE MOUNT
3	PANEL ANTENNA	3700-3980	3 TOTAL (A,B,G)	PROP.	35.2'H x 16.1'W x 5.6'D (87.1 lbs, each)	MOUNT TO PROP. PIPE MAST
4	SIDE-BY-SIDE ANTENNA MOUNT KIT	-	3 TOTAL (A,B,G)	PROP.	25.4 lbs, each	MOUNT TO PROP. PIPE MAST
5	12x24 LOW INDUCTANCE HYBRID SIGNAL CABLE (MAIN LINE)	-	1 TOTAL	PROP.	135 FT.±	ROUTE FROM PROP. EQUIPMENT, ALONG PROP. OVERHEAD CABLE ICE BRIDGE TO EXIST. MONOPOLE AND UP WITH MONOPOLE TO PROP. FIBER JUNCTION BOX
6	1x1 HYBRID SIGNAL CABLE (JUMPER)	-	6 TOTAL (2 PER SECTOR)	PROP.	20 FT. MAX. EACH	ROUTE FROM PROP. UPPER FIBER JUNCTION BOX TO PROP. RRH UNITS
7	1x2 HYBRID SIGNAL CABLE (JUMPER)	-	5 TOTAL (2 PER SECTOR)	PROP.	20 FT. MAX. EACH	ROUTE FROM PROP. UPPER FIBER JUNCTION BOX TO PROP. ANTENNAS/CBRS RRH UNITS
8	3/8" COAXIAL CABLE (JUMPER)	-	48 TOTAL (16 PER SECTOR)	PROP.	20 FT. MAX. EACH	ROUTE FROM PROP. REMOTE RADIO HEAD (RRH) UNITS TO PROP. PANEL ANTENNAS
9	RET CONTROL CABLE(S) (JUMPER)	-	PER RF REQ.	PROP.	20 FT. MAX. EACH	ROUTE FROM PROP. REMOTE RADIO HEAD (RRH) UNITS TO PROP. PANEL ANTENNAS
10	REMOTE RADIO HEAD (RRH) UNIT	700/850	3 TOTAL (A,B,G)	PROP.	15.0'H x 15.0'W x 9.0'D (70.3 lbs, each)	MOUNT TO PROP. PIPE MAST
11	REMOTE RADIO HEAD (RRH) UNIT	1900/2100	3 TOTAL (A,B,G)	PROP.	15.0'H x 15.0'W x 10.0'D (74.7 lbs, each)	MOUNT TO PROP. PIPE MAST
12	REMOTE RADIO HEAD (RRH) UNIT	BAND 48	3 TOTAL (A,B,G)	PROP.	13.9'H x 8.6'W x 4.2'D (18.6 lbs, each)	MOUNT TO PROP. PIPE MAST
13	UPPER FIBER JUNCTION BOX W/SURGE	-	1 TOTAL	PROP.	29.58'H x 16.5'W x 12.6'D (32.0 lbs, each)	MOUNT TO EXIST. MONOPOLE
14	LOWER CABINET/FIBER JUNCTION RACK	-	1 TOTAL	PROP.	29.58'H x 16.5'W x 12.6'D (32.0 lbs, each)	MOUNT TO PROP. METAL DECK ICE SHEED POST

THIS RF BILL OF MATERIALS (BOM) HAS BEEN COMPILED FROM ANTENNA RECOMMENDATION DATA SHEET DATED 12/27/2021. CONTRACTOR SHALL CONFIRM ALL FINAL RF MATERIALS/EQUIPMENT TO BE USED WITH VERIZON WIRELESS RF ENGINEER DURING CONSTRUCTION.

RF BILL OF MATERIALS (FINAL CONFIGURATION) 1
 SCALE: NONE

RADIO FREQUENCY (RF) DESIGN NOTES:
 1) ALL RADIO FREQUENCY (RF) DESIGN INFORMATION CONTAINED ON THIS SHEET IS SHOWN SCHEMATICALLY.
 2) THE GENERAL CONTRACTOR SHALL CONFIRM ALL RF DESIGN ELEMENTS SHOWN (INCLUDING BUT NOT LIMITED TO PANEL ANTENNA MODELS & ARRANGEMENT, AZIMUTHS, REMOTE RADIO HEAD (RRH) UNIT MODELS & ARRANGEMENT AND CABLING DIAGRAMS/SCHEMATICS) WITH THE VERIZON WIRELESS RF ENGINEER AT THE TIME OF CONSTRUCTION.

Sector	Band	Color Coding	Sector	Band	Color Coding	Sector	Band	Color Coding
Alpha Sector Az = 30°	8000A	R R	Beta Sector Az = 150°	8000A	B B	Gamma Sector Az = 270°	8000A	G G
	8000B	R R		8000B	B B		8000B	G G
	8000C	R R		8000C	B B		8000C	G G
	8000D	R R		8000D	B B		8000D	G G
	8000E	R R		8000E	B B		8000E	G G
	8000F	R R		8000F	B B		8000F	G G
	8000G	R R		8000G	B B		8000G	G G
	8000H	R R		8000H	B B		8000H	G G
	8000I	R R		8000I	B B		8000I	G G
	8000J	R R		8000J	B B		8000J	G G
	8000K	R R		8000K	B B		8000K	G G
	8000L	R R		8000L	B B		8000L	G G
	8000M	R R		8000M	B B		8000M	G G
	8000N	R R		8000N	B B		8000N	G G
	8000O	R R		8000O	B B		8000O	G G
	8000P	R R		8000P	B B		8000P	G G
	8000Q	R R		8000Q	B B		8000Q	G G
	8000R	R R		8000R	B B		8000R	G G
	8000S	R R		8000S	B B		8000S	G G
	8000T	R R		8000T	B B		8000T	G G
8000U	R R	8000U	B B	8000U	G G			
8000V	R R	8000V	B B	8000V	G G			
8000W	R R	8000W	B B	8000W	G G			
8000X	R R	8000X	B B	8000X	G G			
8000Y	R R	8000Y	B B	8000Y	G G			
8000Z	R R	8000Z	B B	8000Z	G G			
8000A	R R	8000A	B B	8000A	G G			
8000B	R R	8000B	B B	8000B	G G			
8000C	R R	8000C	B B	8000C	G G			
8000D	R R	8000D	B B	8000D	G G			
8000E	R R	8000E	B B	8000E	G G			
8000F	R R	8000F	B B	8000F	G G			
8000G	R R	8000G	B B	8000G	G G			
8000H	R R	8000H	B B	8000H	G G			
8000I	R R	8000I	B B	8000I	G G			
8000J	R R	8000J	B B	8000J	G G			
8000K	R R	8000K	B B	8000K	G G			
8000L	R R	8000L	B B	8000L	G G			
8000M	R R	8000M	B B	8000M	G G			
8000N	R R	8000N	B B	8000N	G G			
8000O	R R	8000O	B B	8000O	G G			
8000P	R R	8000P	B B	8000P	G G			
8000Q	R R	8000Q	B B	8000Q	G G			
8000R	R R	8000R	B B	8000R	G G			
8000S	R R	8000S	B B	8000S	G G			
8000T	R R	8000T	B B	8000T	G G			
8000U	R R	8000U	B B	8000U	G G			
8000V	R R	8000V	B B	8000V	G G			
8000W	R R	8000W	B B	8000W	G G			
8000X	R R	8000X	B B	8000X	G G			
8000Y	R R	8000Y	B B	8000Y	G G			
8000Z	R R	8000Z	B B	8000Z	G G			

Main Line Cable Length/Information

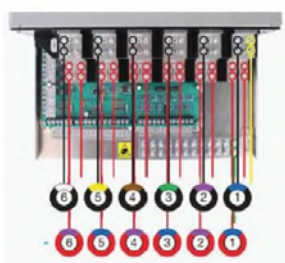
CABLE LENGTH PROVIDED BELOW IS APPROXIMATE IN NATURE AND REFLECTED AS AN ADJUSTED VALUE TO PROVIDE ADEQUATE LENGTH. ANY FIELD MEASUREMENTS OF ANTICIPATED CABLE LENGTH IS ENCOURAGED IN AN EFFORT TO REDUCE SLACK AND TO OPTIMIZE DESIGN. SUCH FIELD MEASUREMENTS MAY SUPERSEDE THE LENGTH PROVIDED BELOW AT THE DISCRETION OF THE GENERAL CONTRACTOR.


135' ±
ONE (1) PROPOSED 12x24 LOW INDUCTANCE HYBRID SIGNAL CABLE

LINE COLOR CODE SPECIFICATIONS 1 RF04

Hybrid Cable on Towers

Hybrid Cable 1			
Sector	Identification Color	-48V	RTN
700 Alpha	Blue		
AWS Alpha	Violet		
PCS Alpha	Green		
850 Alpha	Brown		
Spare	Yellow		
Spare	White		






HYBRID CABLE COLOR CODE SPECIFICATIONS 2 RF04

CLIENT:
verizon
"Because Better Matters"

ARCHITECT/ENGINEER:
CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil-Structural-Land Surveying

R.K. EXECUTIVE CENTRE
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SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:


ENGINEER/LAND SURVEYOR _____ DATE _____

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE METRIC SCALE SYSTEM AS SHOWN ON ANY REPRODUCTION OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BRG SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BRG SCALES SHALL SUPERSEDE WRITTEN SCALES.

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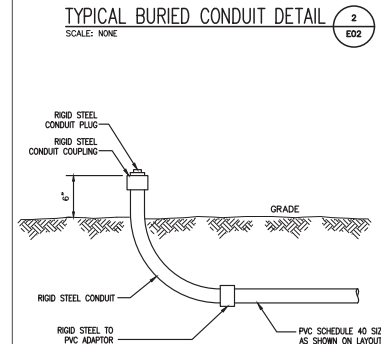
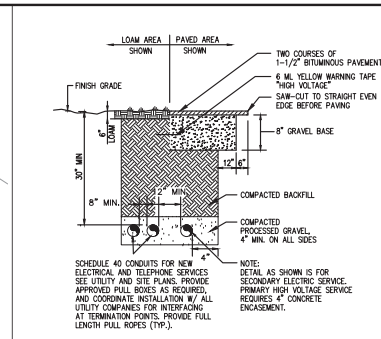
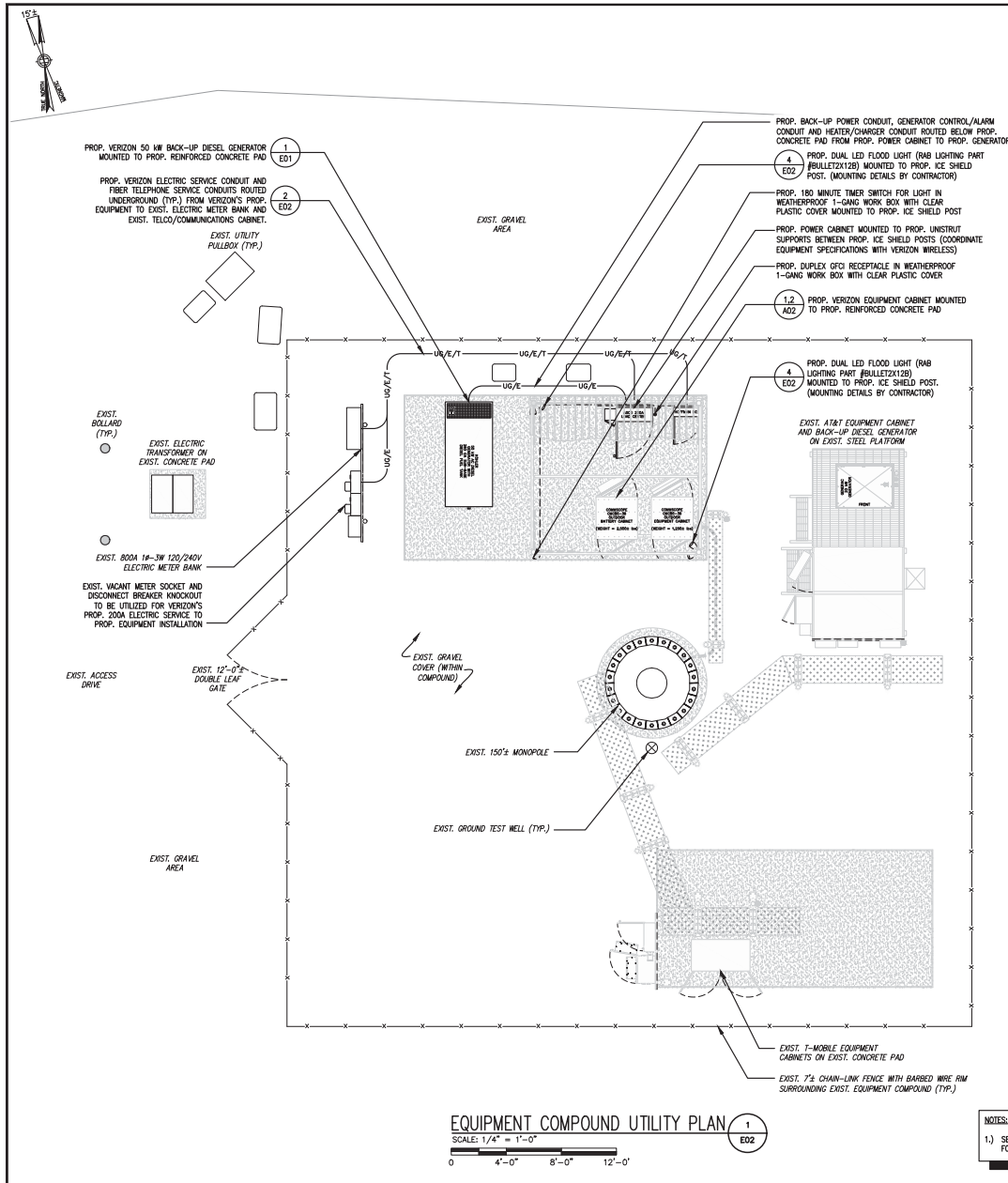
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
RF COLOR CODE SPECIFICATIONS

DRAWING NO.:
RF04

SCALE: N/A	DESIGNED BY: NWC	VZW PROJECT CODE: 2021200213
	DRAWN BY: NWC	
	CHECKED BY: GRS	VZW PROJECT NO.: 16085720
CEA PROJECT NO.: 96210.404	ORIGINAL ISSUE DATE: 1/20/22	VZW LOCATION CODE: 708312



CLIENT:
verizon
"Because Better Matters"

ARCHITECT/ENGINEER:
CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil • Structural • Land Surveying

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MARLBOROUGH, MA 01752
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SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ACH 0 (A1) (A2) (A3) (A4) (A5) (A6) (A7) (A8) (A9) (A10) (A11) (A12) (A13) (A14) (A15) (A16) (A17) (A18) (A19) (A20) (A21) (A22) (A23) (A24) (A25) (A26) (A27) (A28) (A29) (A30) (A31) (A32) (A33) (A34) (A35) (A36) (A37) (A38) (A39) (A40) (A41) (A42) (A43) (A44) (A45) (A46) (A47) (A48) (A49) (A50) (A51) (A52) (A53) (A54) (A55) (A56) (A57) (A58) (A59) (A60) (A61) (A62) (A63) (A64) (A65) (A66) (A67) (A68) (A69) (A70) (A71) (A72) (A73) (A74) (A75) (A76) (A77) (A78) (A79) (A80) (A81) (A82) (A83) (A84) (A85) (A86) (A87) (A88) (A89) (A90) (A91) (A92) (A93) (A94) (A95) (A96) (A97) (A98) (A99) (A100) (A101) (A102) (A103) (A104) (A105) (A106) (A107) (A108) (A109) (A110) (A111) (A112) (A113) (A114) (A115) (A116) (A117) (A118) (A119) (A120) (A121) (A122) (A123) (A124) (A125) (A126) (A127) (A128) (A129) (A130) (A131) (A132) (A133) (A134) (A135) (A136) (A137) (A138) (A139) (A140) (A141) (A142) (A143) (A144) (A145) (A146) (A147) (A148) (A149) (A150) (A151) (A152) 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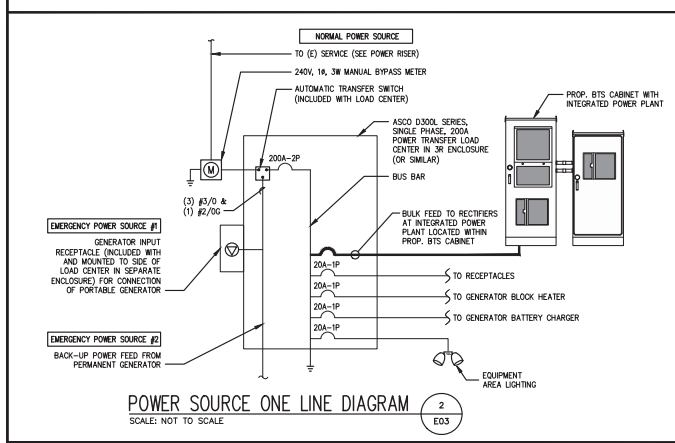
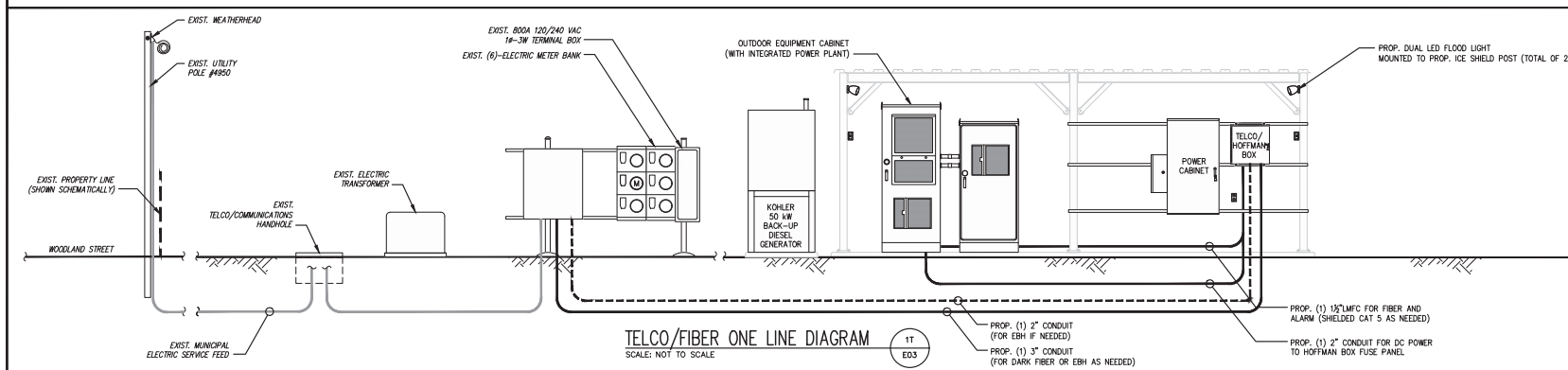
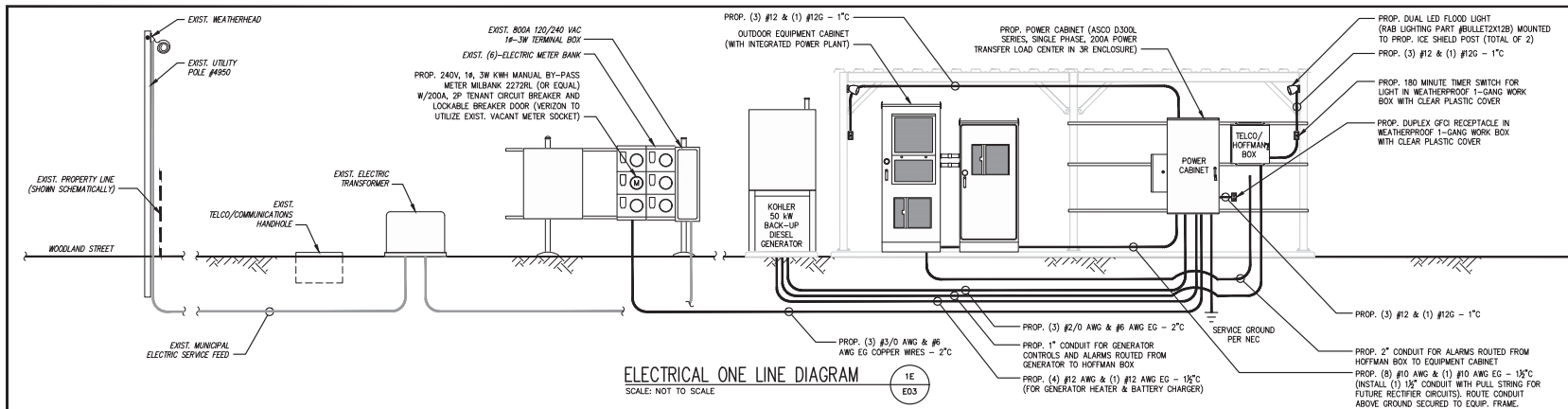
PROJECT NAME:
SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
EQUIPMENT COMPOUND UTILITY PLAN & DETAILS

DRAWING NO.:
E02

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

SCALE:	DESIGNED BY:	DATE:
AS SHOWN	NBC	2022/02/23
CEA PROJECT NO.:	CHECKED BY:	DATE:
96210-404	GSS	1/20/22



ASCO D300L SERIES, SINGLE PHASE, 200A POWER TRANSFER LOAD CENTER IN 3R ENCLOSURE

ELECTRICAL PANEL SCHEDULE 65,000 A.I.C. NEMA 3R

CKT #	DESCRIPTION	AMP	AMP	DESCRIPTION	CKT #
1	RECTIFIER #1	30	30	FUTURE RECTIFIER	2
3					4
5					6
7	RECTIFIER #2	30	30	FUTURE RECTIFIER	8
9					10
11	RECTIFIER #3	30	30	PAD LIGHTING	12
13					14
15	RECTIFIER #4	30	30	- BLANK	16
17	GFCI RECEPTACLE/LIGHT	20		- BLANK	18
19	GENERATOR BLOCK HEATER	20		- BLANK	20
21	GENERATOR BATTERY CHARGER	20		- BLANK	22
23	BLANK			- BLANK	24
25	BLANK			- BLANK	26
27	BLANK			- BLANK	28
29	BLANK			- BLANK	30

- ONE-LINE DIAGRAM NOTES:**
- 1) PROVIDE WEATHER TIGHT SEAL CONNECTORS ON ALL CONNECTIONS INSIDE AND OUT.
 - 2) COORDINATE ANY FURTHER MISCELLANEOUS WIRING AND CONDUIT REQUIREMENTS WITH VERIZON WIRELESS AND ELECTRIC COMPANY.
 - 3) ALL CONDUIT ROUTING SHOWN ON THESE DIAGRAMS IS SCHEMATIC IN NATURE AND INTENDED TO CONVEY GENERAL INTENT ONLY.
 - 4) ALL PROPOSED UTILITY DESIGN ELEMENTS SHOWN ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN TO BE PROVIDED BY UTILITY PROVIDERS AND VERIZON WIRELESS. CONTRACTOR SHALL OBTAIN A COPY OF THE FINAL UTILITY DESIGN BY UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK.

UTILITY CONTACTS

ELECTRICAL: EVERSOURCE ENERGY
247 STATION DRIVE, SE 210
WESTWOOD, MA 02090
(781) 441-3610

TELEPHONE: VERIZON
185 FRANKLIN STREET
BOSTON, MA 02107
(800) 941-9900

MAKE ALL CONNECTIONS AS PER UTILITY COMPANY'S REQUIREMENTS.

ELECTRICAL PANEL SCHEDULE 3
SCALE: NTS
E03

CLIENT:

ARCHITECT/ENGINEER:

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE BEST PRACTICES OF A CONTRACTOR. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH THE DRAWING. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH THE DRAWING. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH THE DRAWING.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:

SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

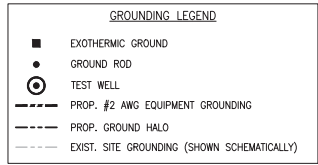
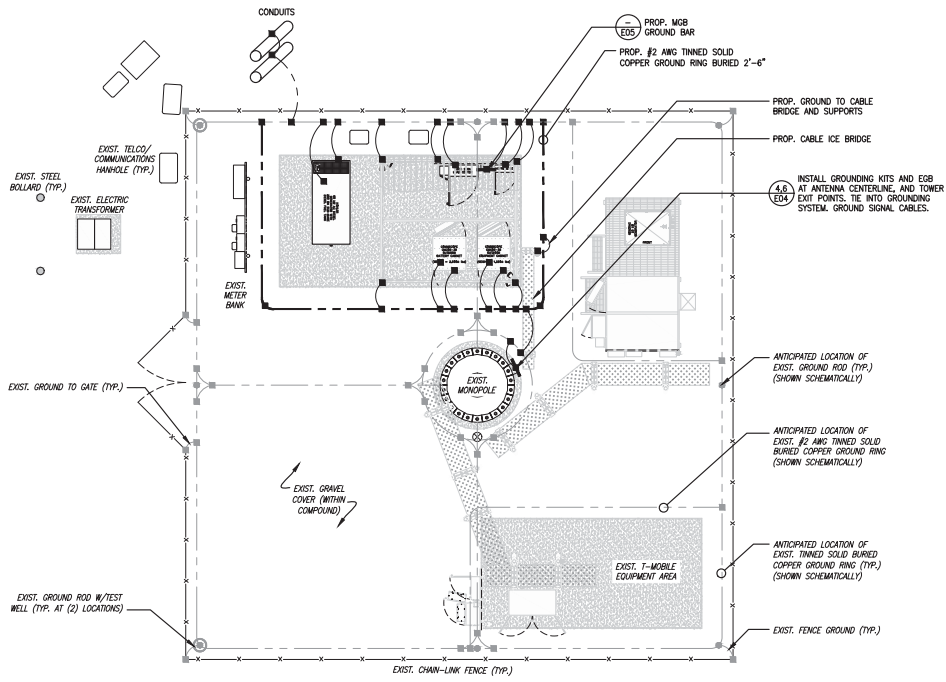
DRAWING TITLE:

ELECTRICAL DIAGRAMS & DETAILS

DRAWING NO.:

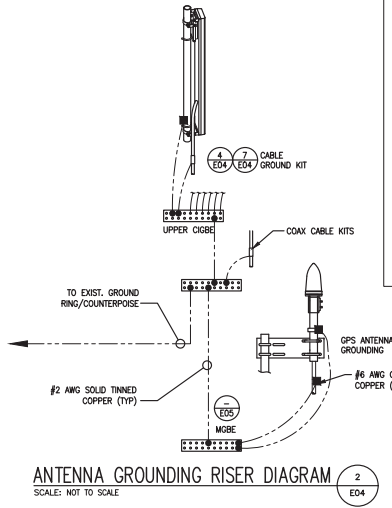
E03

SCALE:	DESIGNED BY:	VIEW PROJECT CODE:
AS SHOWN	NBC	000120023
CEA PROJECT NO.:	CHECKED BY:	VIEW PROJECT NO.:
96210-404	GSS	6085720
	ORIGINAL ISSUE DATE:	VIEW LOCATION CODE:
	1/20/22	708312



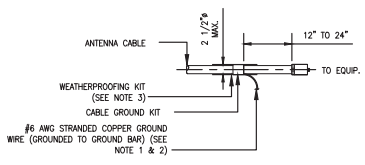
ELECTRICAL AND GROUNDING NOTES:

- ELECTRICAL**
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND ALL APPLICABLE LOCAL CODES.
 - CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
 - SERVICE TO EQUIP. SHALL BE 120/240 VAC, 200 AMP, 14, 60 Hz.
 - THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- GROUNDING**
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC (CADWELD) CONNECTIONS.
 - ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
 - ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
 - ALL EXOTHERMIC CONNECTIONS TO THE GROUND RODS SHALL START AT THE TOP & HAVE A VERTICAL SEPARATION OF 6" FOR EVERY ADDITIONAL CONNECTION.
 - ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
 - ALL EXTERIOR GROUND CONDUCTORS SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
 - GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" 10-FT. LONG AND SHALL BE DRIVEN VERTICALLY WITH THEIR TOPS 48" BELOW FINAL GRADE.
 - CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
 - USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
 - MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATION FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.
 - ANTENNA GROUND KITS SHALL BE FURNISHED BY VERIZON AND INSTALLED BY CONTRACTOR.



SCHEMATIC GROUNDING PLAN
SCALE: 3/16" = 1'-0"
1 E04

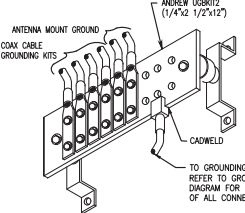
ANTENNA GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE
2 E04



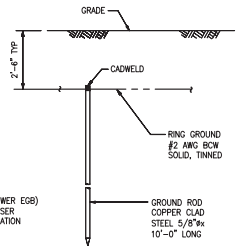
CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE

- NOTES:**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 - WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

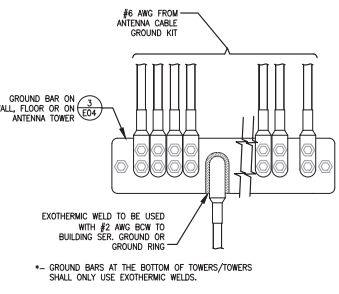
DETAIL
SCALE: NOT TO SCALE
3 E04



GROUND BAR (EGB)
SCALE: NOT TO SCALE
4 E04

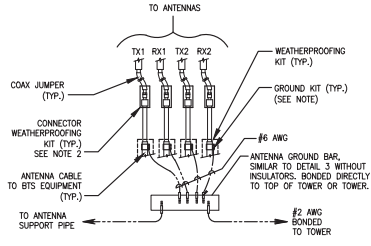


GROUND ROD
SCALE: NOT TO SCALE
5 E04



INSTALLATION OF GROUND WIRE TO GROUND BAR

DETAIL
SCALE: NOT TO SCALE
6 E04



CONNECTION OF GROUND WIRE TO GROUNDING BAR, TOWER

DETAIL
SCALE: NOT TO SCALE
7 E04

CLIENT:
verizon
"Because Better Matters"

ARCHITECT/ENGINEER:
CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil • Structural • Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ACH D (A3) (A4) FORMS. AS SUCH, THE METRIC SCALES SHOWN ON ANY REPRESENTATION OF A CONDUCTIVITY SIZE SHALL BE HONORED. ALL METRIC SCALES MAY BE USED, REGARDLESS OF REPRESENTATION SIZE. WHERE IN CONFLICT, THE SCALES SHALL SUPERSEDE WRITTEN SCALES.
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS

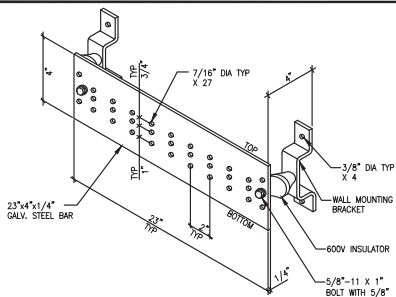
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:
SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:
SCHEMATIC GROUNDING PLAN & DETAILS

DRAWING NO.:
E04

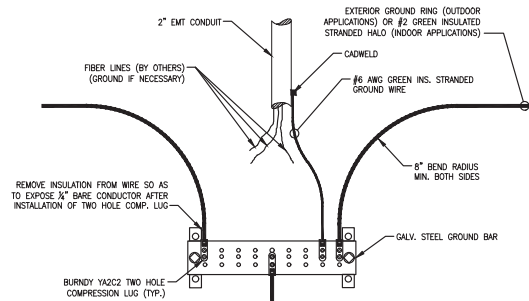
SCALE: AS SHOWN	DESIGNED BY: NMC	VZM PROJECT CODE: 2021030233
CREATED BY: NMC	CHECKED BY: GSS	VZM PROJECT NO.: 16085720
CEA PROJECT NO.: 96210-404	ORIGINAL ISSUE DATE: 1/20/22	VZM LOCATION CODE: 708312



- 1. SURFACE PREPARATION:** ALL CONNECTIONS MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE MADE BARE TO ENSURE PROPER CONTACT. NO WASHERS SHALL BE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS SHALL HAVE AN ANTI-OXIDANT AGENT APPLIED PRIOR TO INSTALLATION.
- 2. BUSS PREPARATION:** ALL GALV. STEEL BUSSES SHALL BE CLEANED, POLISHED AND AN ANTI-OXIDANT APPLIED. NO FINGERPRINTS OR DISCOLOURED STEEL WILL BE PERMITTED.
- 3. TERMINATIONS:** ALL EQUIPMENT TERMINATIONS SHALL BE MADE WITH A BURNDY TWO HOLE COMPRESSION LUG WITH 10-24x3/4 LONG S.S. SCREWS, NUTS AND LOCK WASHERS. ALL BUSS TERMINATIONS SHALL BE MADE WITH A CAD-WELD OR BURNDY YC2C2 2 HOLE COMPRESSION LUG OR EQUAL. ALL INTERIOR HALO ATTACHMENTS SHALL BE MADE USING A BURNDY YC2C2 2 HOLE COMPRESSION LUG OR EQUAL.

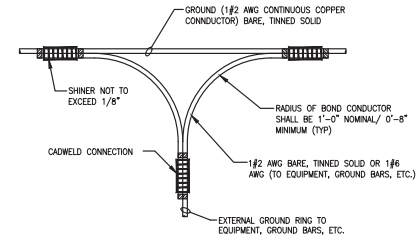
TYP. INTERIOR & EXTERIOR GROUND BAR

SCALE: N.T.S.



INTERIOR GROUNDING AT TELCO ENTRY

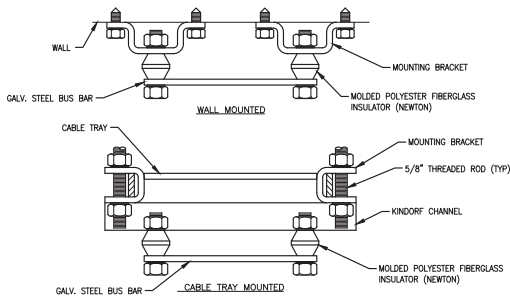
SCALE: N.T.S.



NOTE: ALL CONNECTION TO GROUND SHALL BE NON-DIRECTIONAL

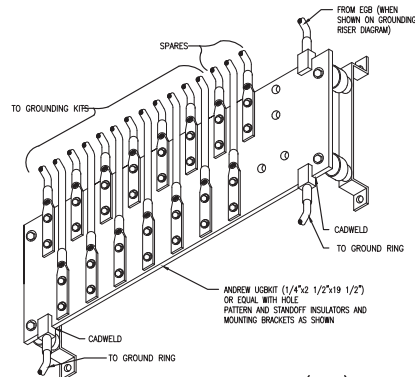
NON-DIRECTIONAL SPLICE

SCALE: N.T.S.



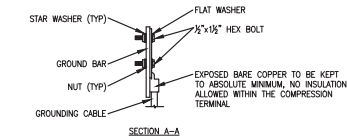
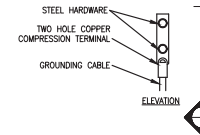
BUS BAR MOUNTING

SCALE: N.T.S.



MASTER GROUND BAR (MGB)

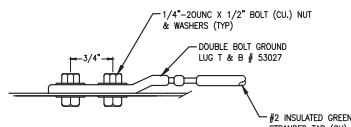
SCALE: NOT TO SCALE



- NOTE:
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

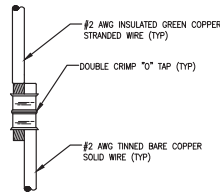
TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.



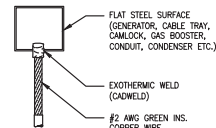
TYPICAL EQUIPMENT GROUND CONNECTION

SCALE: N.T.S.



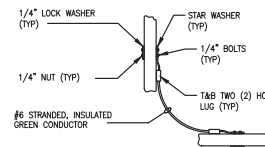
TYPICAL GROUND CONNECTION SPLICE DETAIL

SCALE: N.T.S.



TYP. CADWELD #2 GREEN TO FLAT STEEL SURFACE

SCALE: NOT TO SCALE



CABLE TRAY GROUNDING

SCALE: N.T.S.

CLIENT:



ARCHITECT/ENGINEER:



R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:



ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE BUREAU OF STANDARDS (B.S.) DRAWING STANDARDS. ALL DIMENSIONS SHALL BE IN UNITS OF INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	1/20/22
1	ISSUED FOR CONSTRUCTION (FINAL)	2/10/22
2	REVISED TSA REFERENCE DATE	4/13/22
3	REVISED MSA REFERENCE DATE	4/15/22

PROJECT NAME:

SOUTH GLASTONBURY 3 CT
63 WOODLAND STREET
SOUTH GLASTONBURY, CT 06073

DRAWING TITLE:

GROUNDING DETAILS

DRAWING NO.:

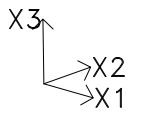
E05

SCALE:	DESIGNED BY:	DATE:
AS SHOWN	NBC	1/20/22
CEA PROJECT NO.:	CHECKED BY:	DATE:
96210-404	GSS	1/20/22

Appendix B – Mount Analysis

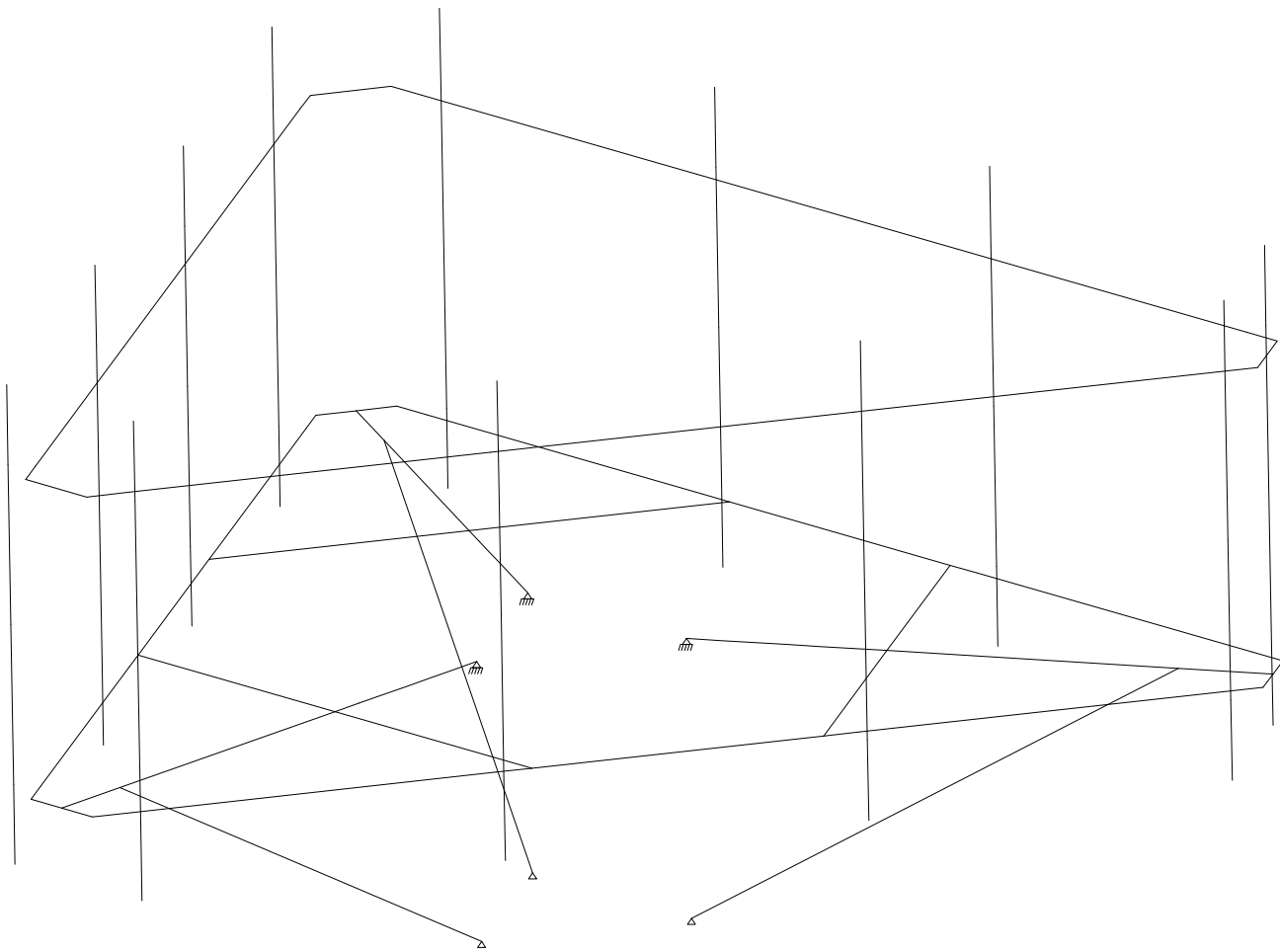
South Glastonbury 3 CT Mount Analysis

View: Steel Beam Design



SCALE = 1:27

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

Page: 1
Date: 2/ 9/22**Prepared by:****Load no. 1: Front No Ice (units - kips ft.)**/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS/ BEAM LOADS
/ JOINT LOADS
/ JOINT LOADS
/ JOINT LOADS
/ JOINT LOADSFX2 0.073 FX3 -0.045 N 70 26
FX2 0.025 FX3 -0.045 N 84 54 76 38
FX2 0.047 FX3 -0.023 N 132
FX2 0.047 FX3 -0.023 N 133 135
FX2 0.22 FX3 -0.045 N 28 27FX2 0.143 FX3 -0.045 N 48 47 64 63
FX2 0.57 FX3 -0.084 N 126 131 127 136 125 134
/ END**FORCE SUMMATION**FX1=0. kip
FX2=4.819 kip
FX3=-1.113 kip**Load no. 2: Side No Ice (units - kips ft.)**/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS/ BEAM LOADS
/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ JOINT LOADS/ JOINT LOADS
FX1 0.025 FX3 -0.044 N 70 26 76 38 84 54
FX1 0.047 FX3 -0.023 N 132 135 133
FX1 0.143 FX3 -0.045 N 28 27 48 47 64 63
FX1 0.057 FX3 -0.084 N 126 127 125FX1 0.057 FX3 -0.084 N 131 136 134
/ END**FORCE SUMMATION**FX1=1.491 kip
FX2=0. kip
FX3=-1.107 kip

South Glastonbury 3 CT Mount Analysis

Page: 2
Date: 2/ 9/22

Prepared by:

Load no. 3: Front Ice (units - kips ft.)/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ JOINT LOADS
/ JOINT LOADSFX2 0.021 FX3 -0.075 N 70 26
FX2 0.01 FX3 -0.075 N 76 38 84 54
FX2 0.016 FX3 -0.049 N 132 135 133
FX2 0.065 FX3 -0.156 N 28 27 48 47 64 63
FX2 0.02 FX3 -0.123 N 126 127 125 134 131 136

/ END

FORCE SUMMATIONFX1=0. kip
FX2=0.64 kip
FX3=-2.271 kip**Load no. 4: Side Ice (units - kips ft.)**/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS
/ BEAM LOADS
/ JOINT LOADS/ BEAM LOADS
/ JOINT LOADS
/ JOINT LOADS
/ JOINT LOADSFX1 0.01 FX3 -0.075 N 70 26 38 76 84 54
FX1 0.01 FX3 -0.049 N 132 135 133
FX1 0.048 FX3 -0.156 N 28 27 48 47 64 63
FX1 0.014 FX3 -0.123 N 126 127 125 134 131 136

/ END

FORCE SUMMATIONFX1=0.462 kip
FX2=0. kip
FX3=-2.271 kip

South Glastonbury 3 CT Mount Analysis

Page: 3
Date: 2/ 9/22**Prepared by:****Load no. 5: Selfweight (units - kips ft.)**

/ BEAM LOADS

SELF X3 -1. B 1 TO 138 142 TO 150

/ GLOBAL LOADS

/ GLOBAL LOADS

/ GLOBAL LOADS

DIST FX3 -0.003 PLANE -7.25 4.763 0. -1.805 4.763 0. -5.028 -0.818

0. PT -0.5 0.866 BEAMS

DIST FX3 -0.003 PLANE 1.805 4.763 0. 7.25 4.763 0. 7.75 3.897 0. PT

3.223 5.581 BEAMS

DIST FX3 -0.003 PLANE -3.222 -3.945 0. 3.222 -3.945 0. 0.5 -8.66

0. PT 2.722 4.715 BEAMS

/ END

FORCE SUMMATION

FX1=0. kip

FX2=0. kip

FX3=-1.4597 kip

Load no. 6: Front Frame Ice (units - kips ft.)

/ BEAM LOADS

DIST GL FX2 -0.002 B 1 4 5 13 TO 35 BY 2 49 TO 51 55 56 63 64 66 71 TO 74

76 TO 81 83 TO 88 90 TO 115 117 133 TO 135 142 TO 150

/ END

FORCE SUMMATION

FX1=0. kip

FX2=-0.3127 kip

FX3=0. kip

Load no. 7: Side Frame Ice (units - kips ft.)

/ BEAM LOADS

/ BEAM LOADS

DIST GL FX1 -0.002 B 4 5 13 TO 35 BY 2 50 51 63 64 66 71 72 TO 78 BY 2

79 TO 81 83 TO 88 90 91 93 94 TO 100 BY 2 101 TO 115 117 133 TO 135

142 TO 150

/ END

FORCE SUMMATION

FX1=-0.2564 kip

FX2=0. kip

FX3=0. kip

South Glastonbury 3 CT Mount Analysis

Page: 4
Date: 2/ 9/22**Prepared by:****Load no. 8: Front Frame No Ice (units - kips ft)**

/ BEAM LOADS
/ BEAM LOADS
DIST GL FX2 -0.005 B 1 4 5 13 TO 35 BY 2 49 TO 51 55 56 63 64 66 71 TO 74
76 TO 81 83 TO 88 90 TO 115 117 133 TO 135 142 TO 150
/ END

FORCE SUMMATION

FX1=0. kip
FX2=-0.7817 kip
FX3=0. kip

Load no. 9: Side Frame No Ice (units - kips ft)

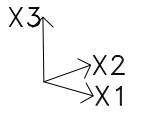
/ BEAM LOADS
/ BEAM LOADS
/ BEAM LOADS
DIST GL FX1 -0.005 B 4 5 13 TO 35 BY 2 50 51 63 64 66 71 72 TO 78 BY 2
79 TO 81 83 TO 88 90 91 93 94 TO 100 BY 2 101 TO 115 117 133 TO 135
142 TO 150
/ END STATIC

FORCE SUMMATION

FX1=-0.6411 kip
FX2=0. kip
FX3=0. kip

South Glastonbury 3 CT Mount Analysis

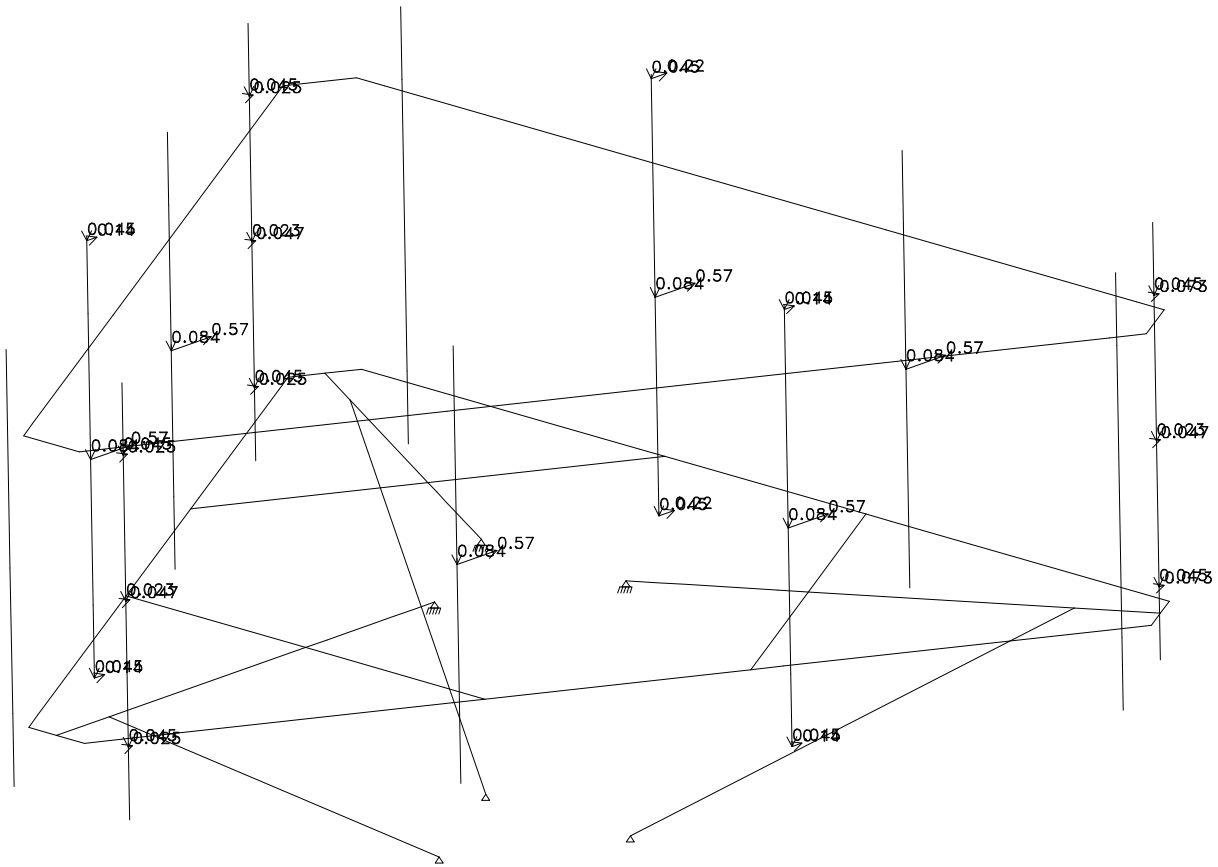
Load 1: Front No Ice



SCALE = 1:30

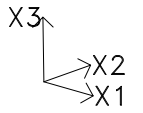
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

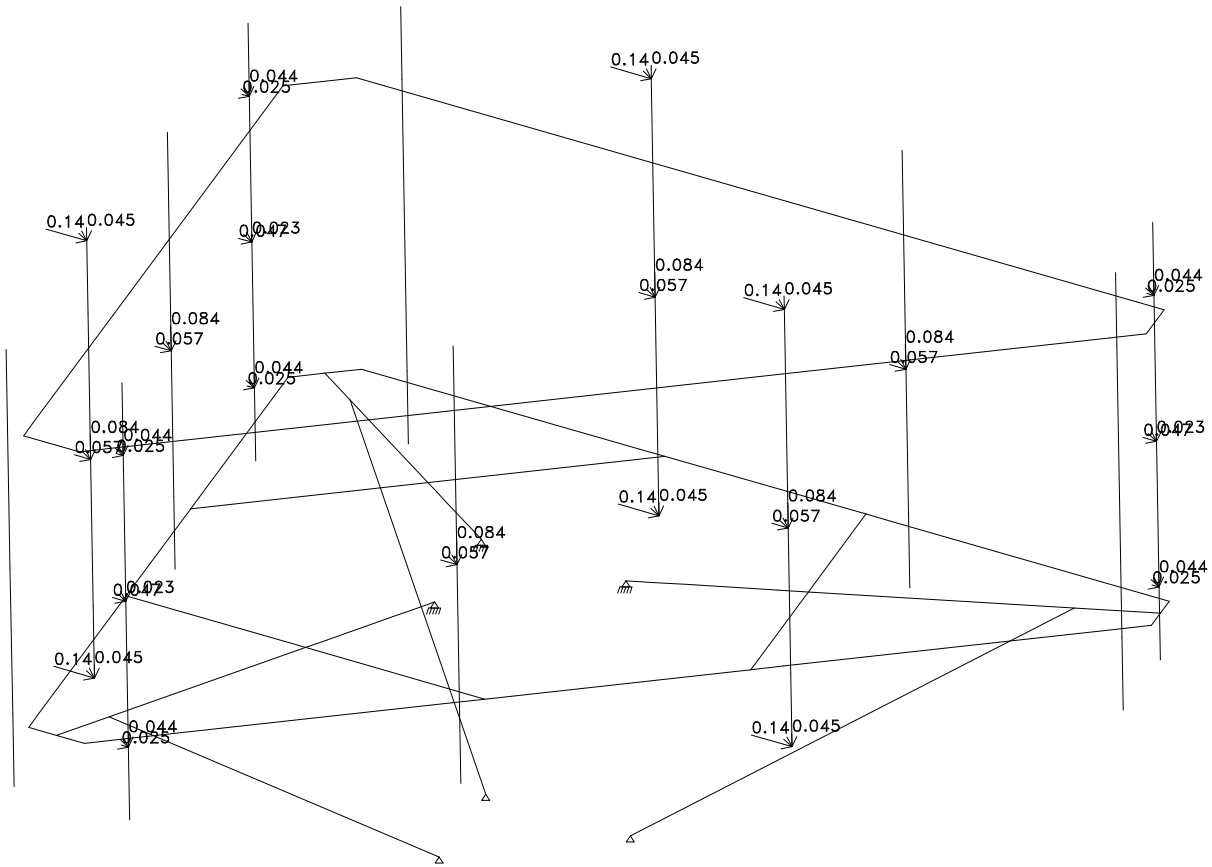
Load 2: Side No Ice



SCALE = 1:30

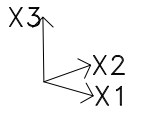
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

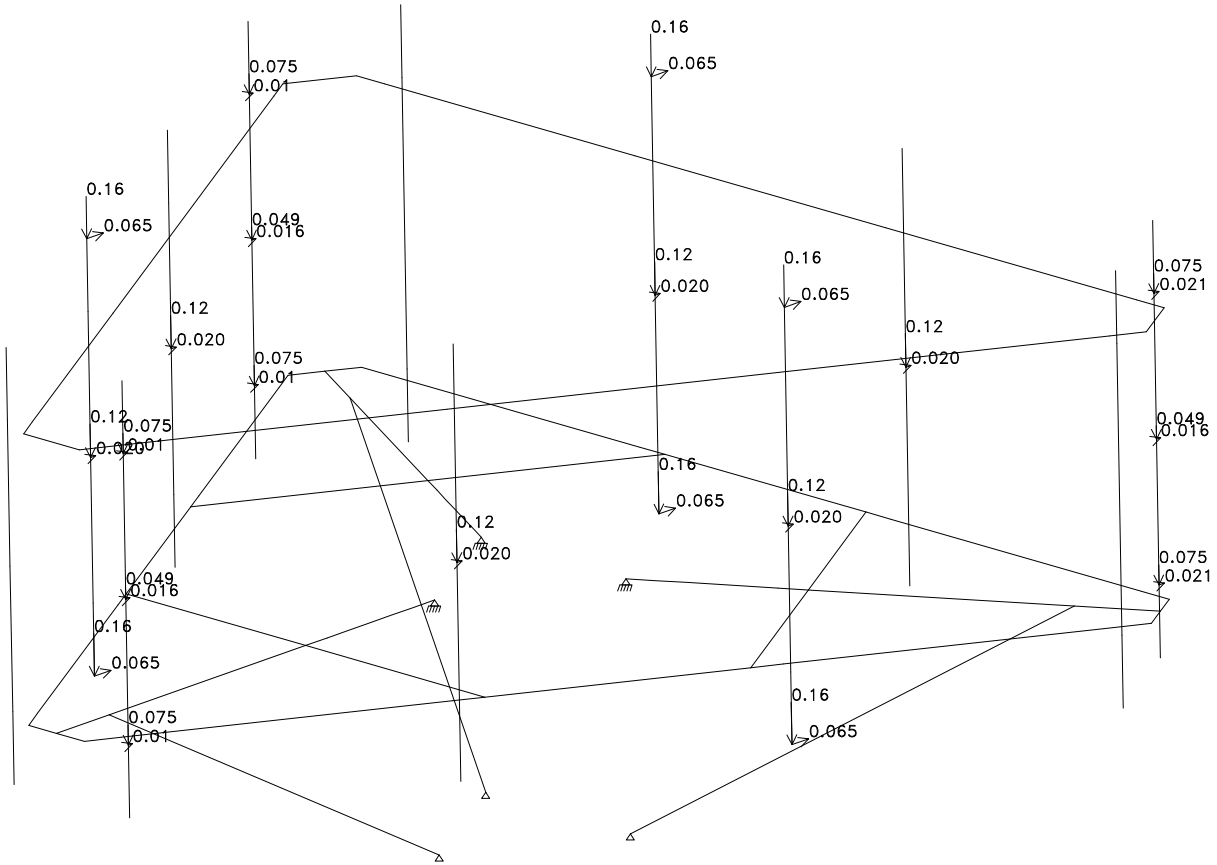
Load 3: Front Ice



SCALE = 1:30

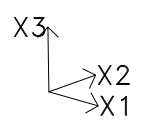
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

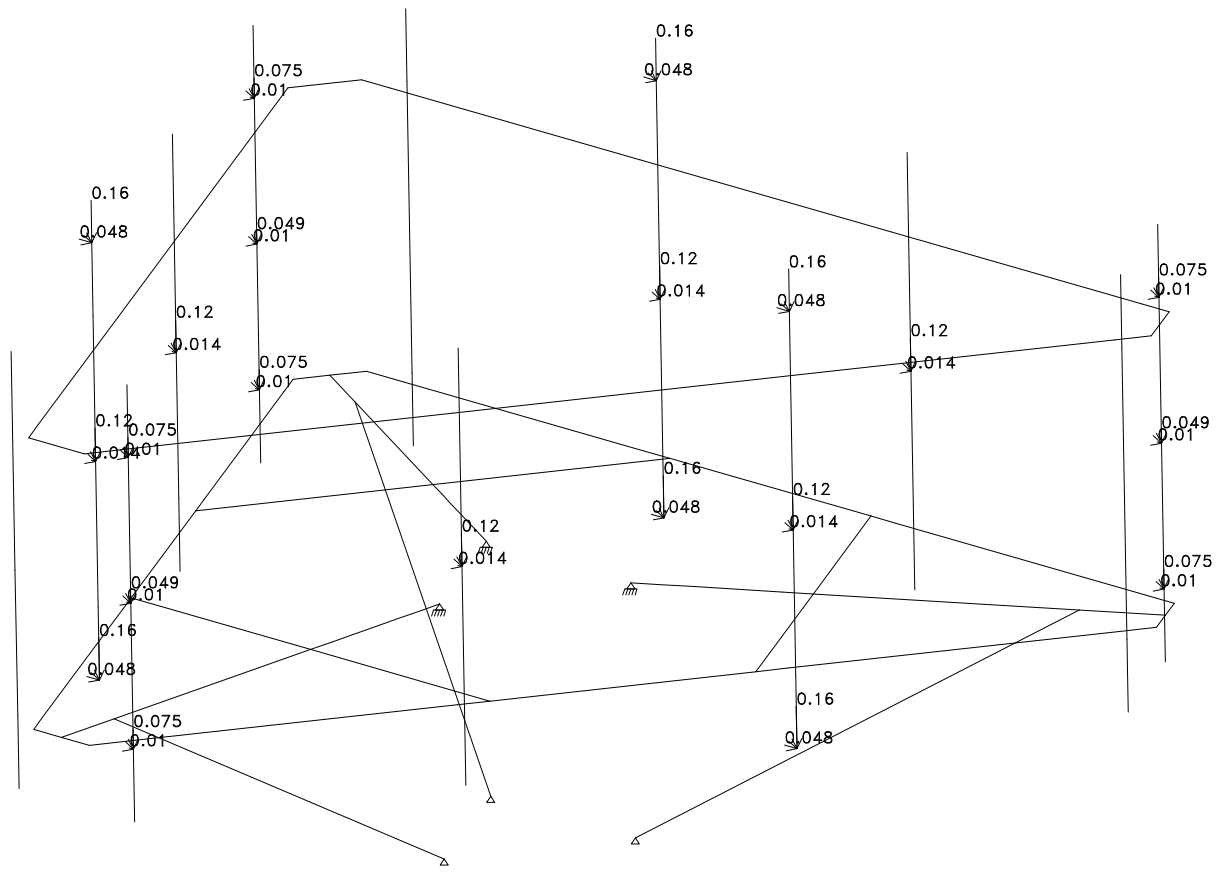
Load 4: Side Ice



SCALE = 1:30

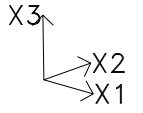
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

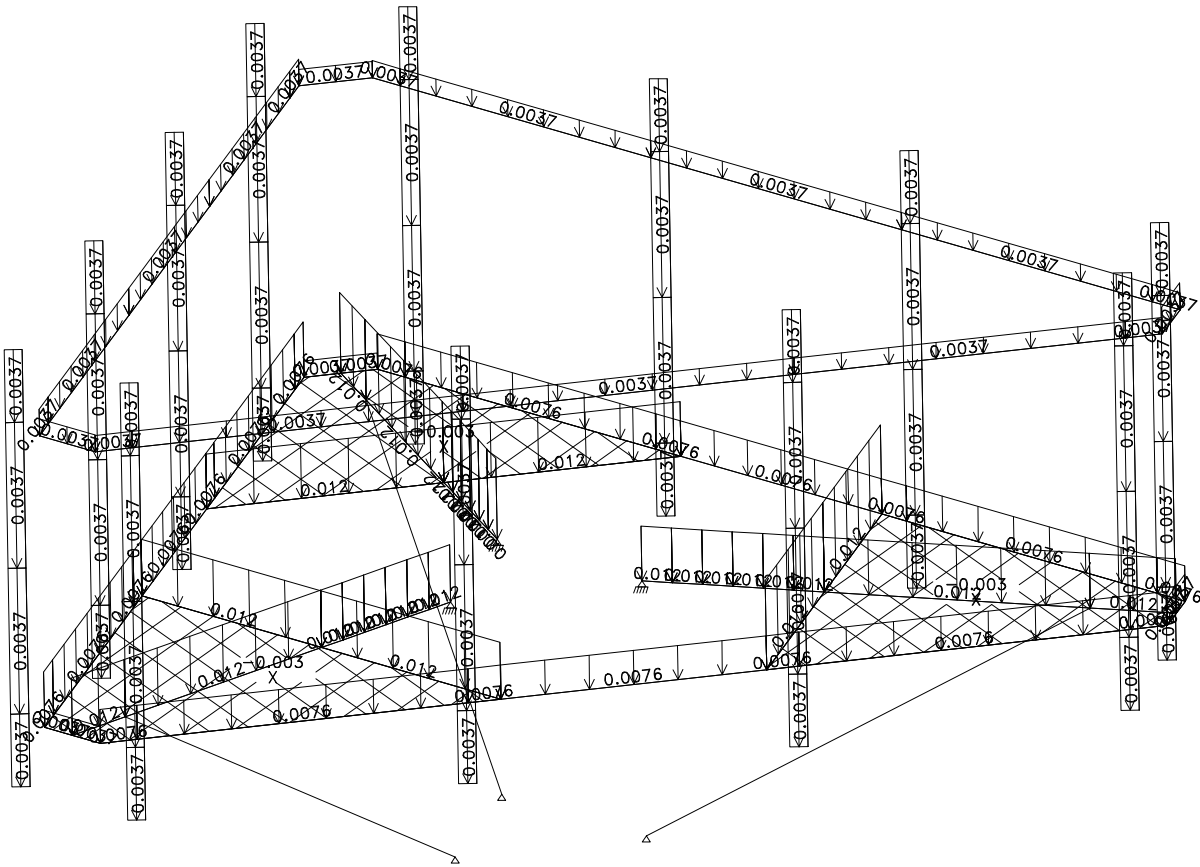
Load 5: Selfweight



SCALE = 1:30

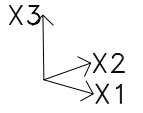
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

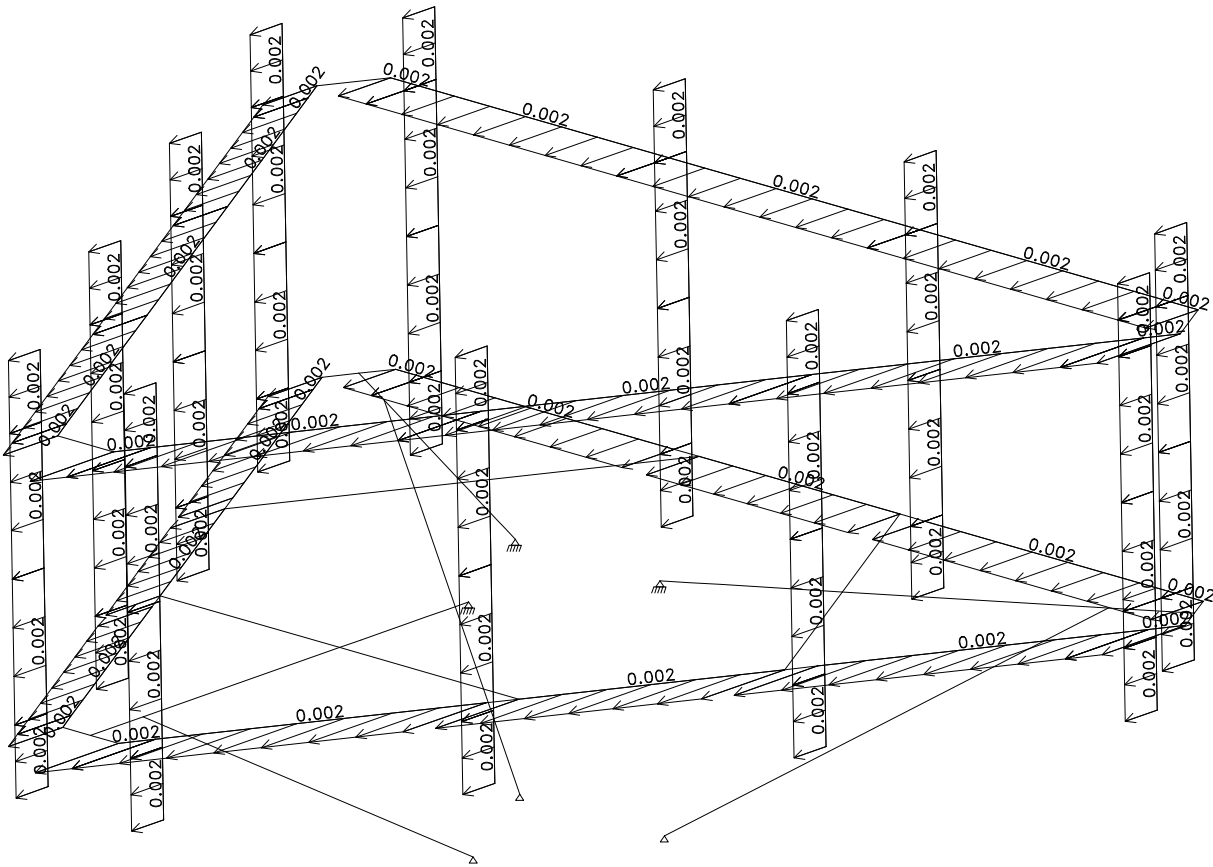
Load 6: Front Frame Ice



SCALE = 1:30

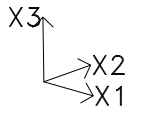
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

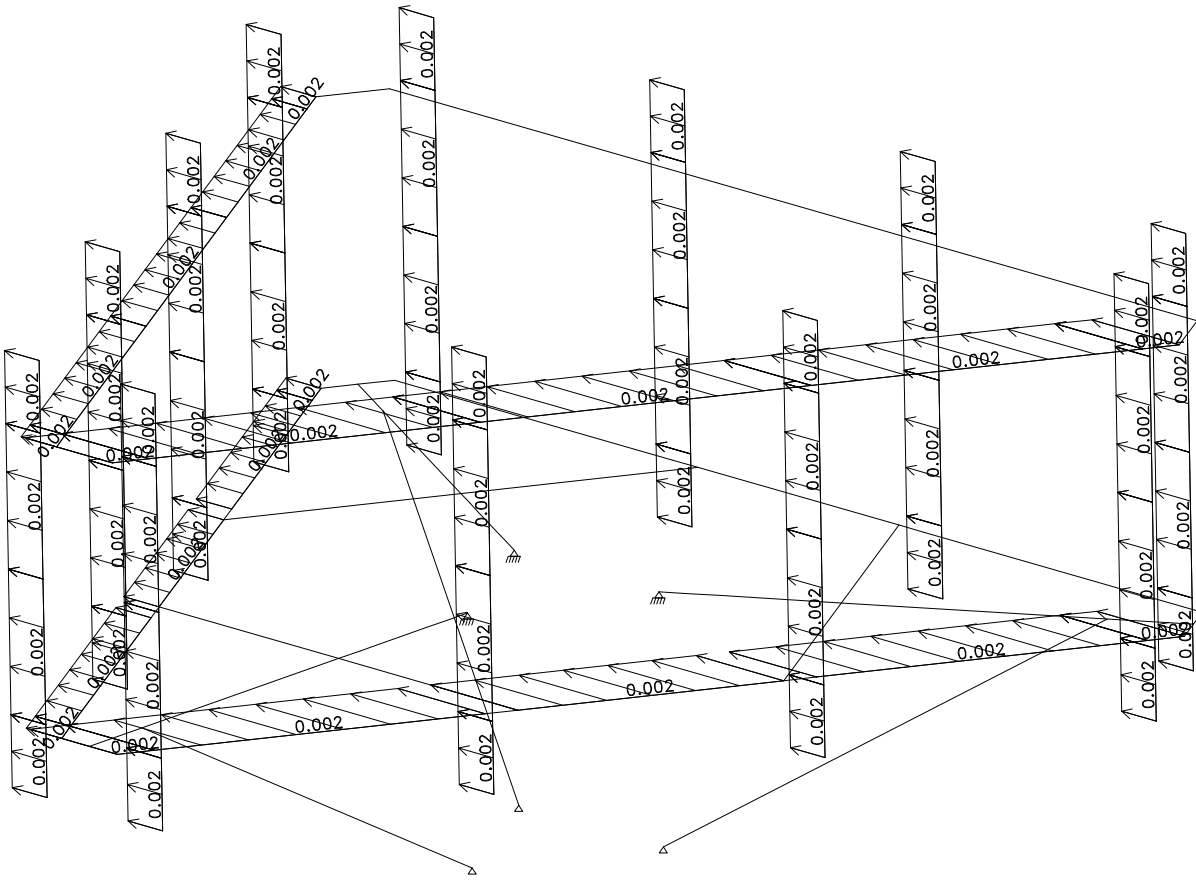
Load 7: Side Frame Ice



SCALE = 1:30

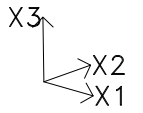
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

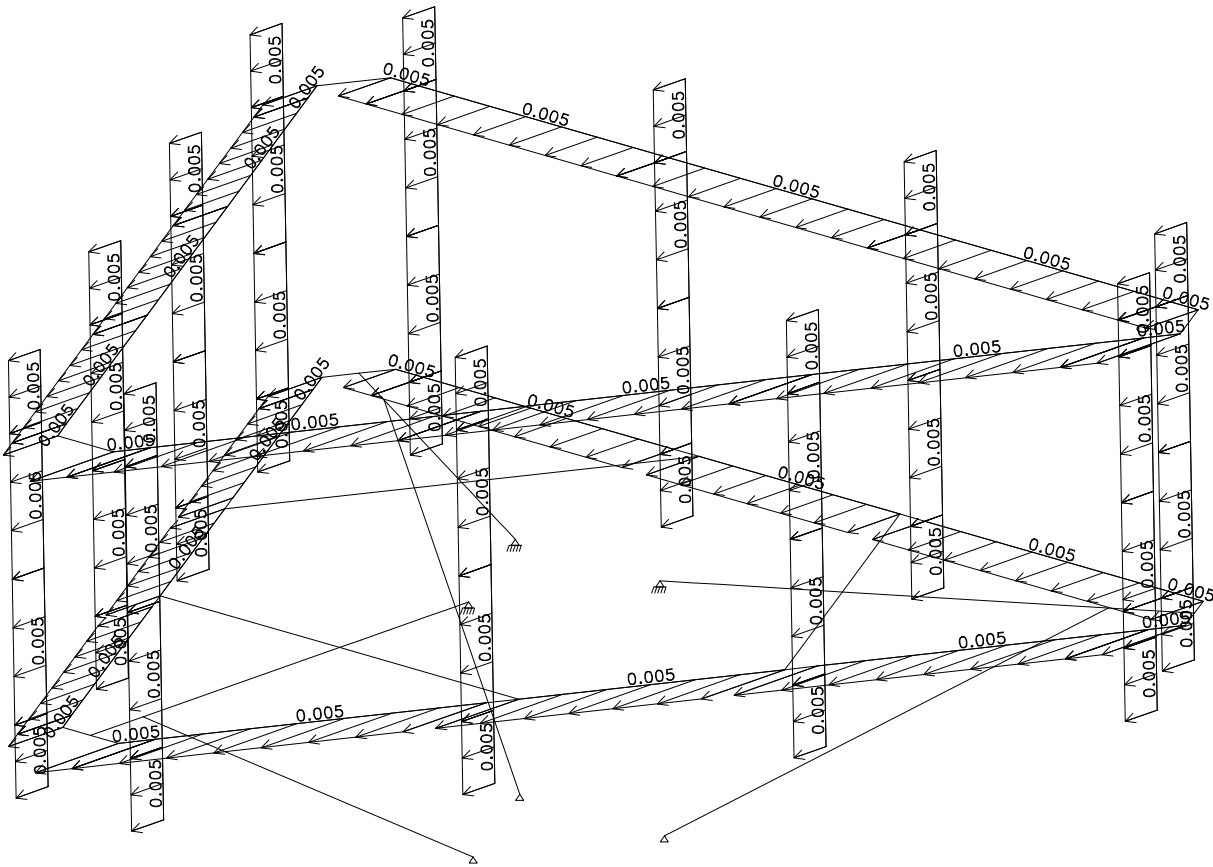
Load 8: Front Frame No Ice



SCALE = 1:30

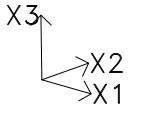
UNITS: kip ft

DATE: 2/ 9/22



South Glastonbury 3 CT Mount Analysis

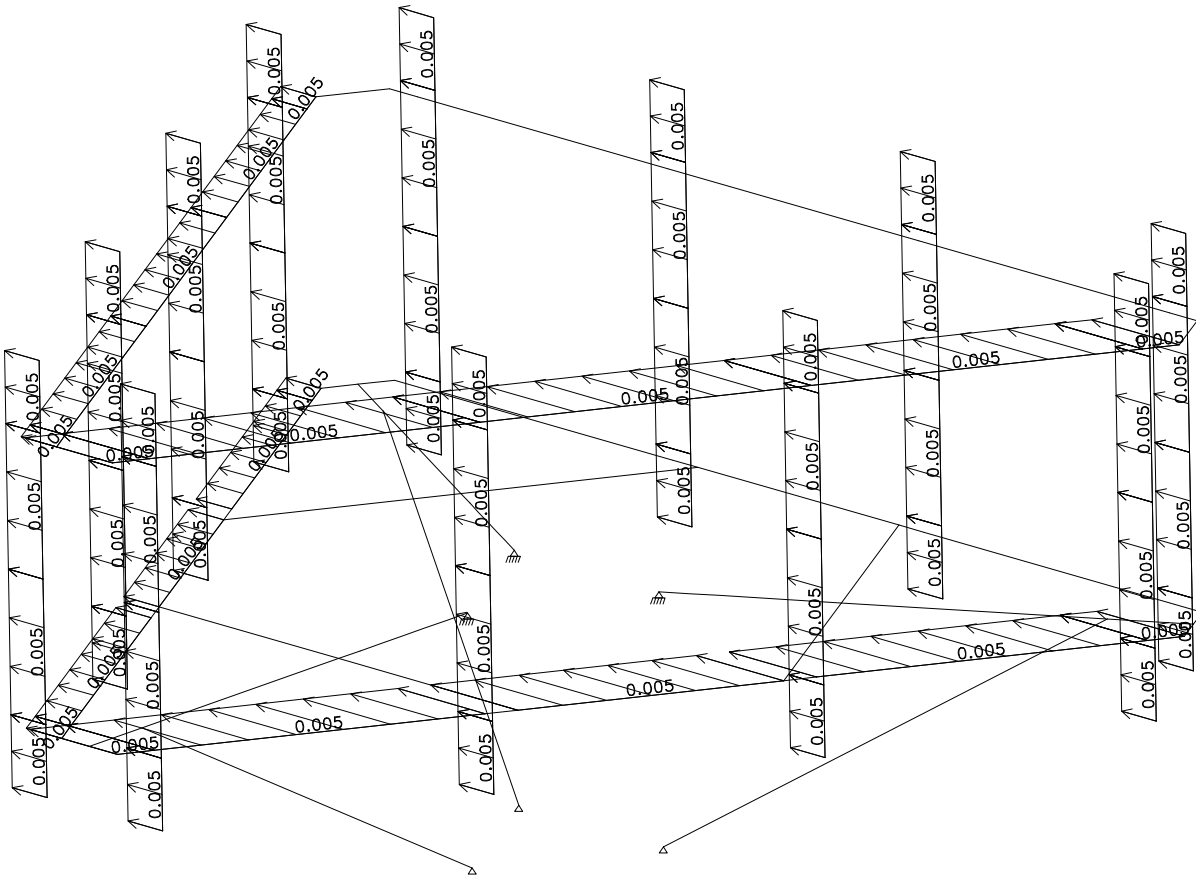
Load 9: Side Frame No Ice



SCALE = 1:30

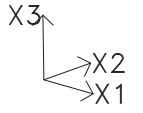
UNITS: kip ft

DATE: 2/ 9/22

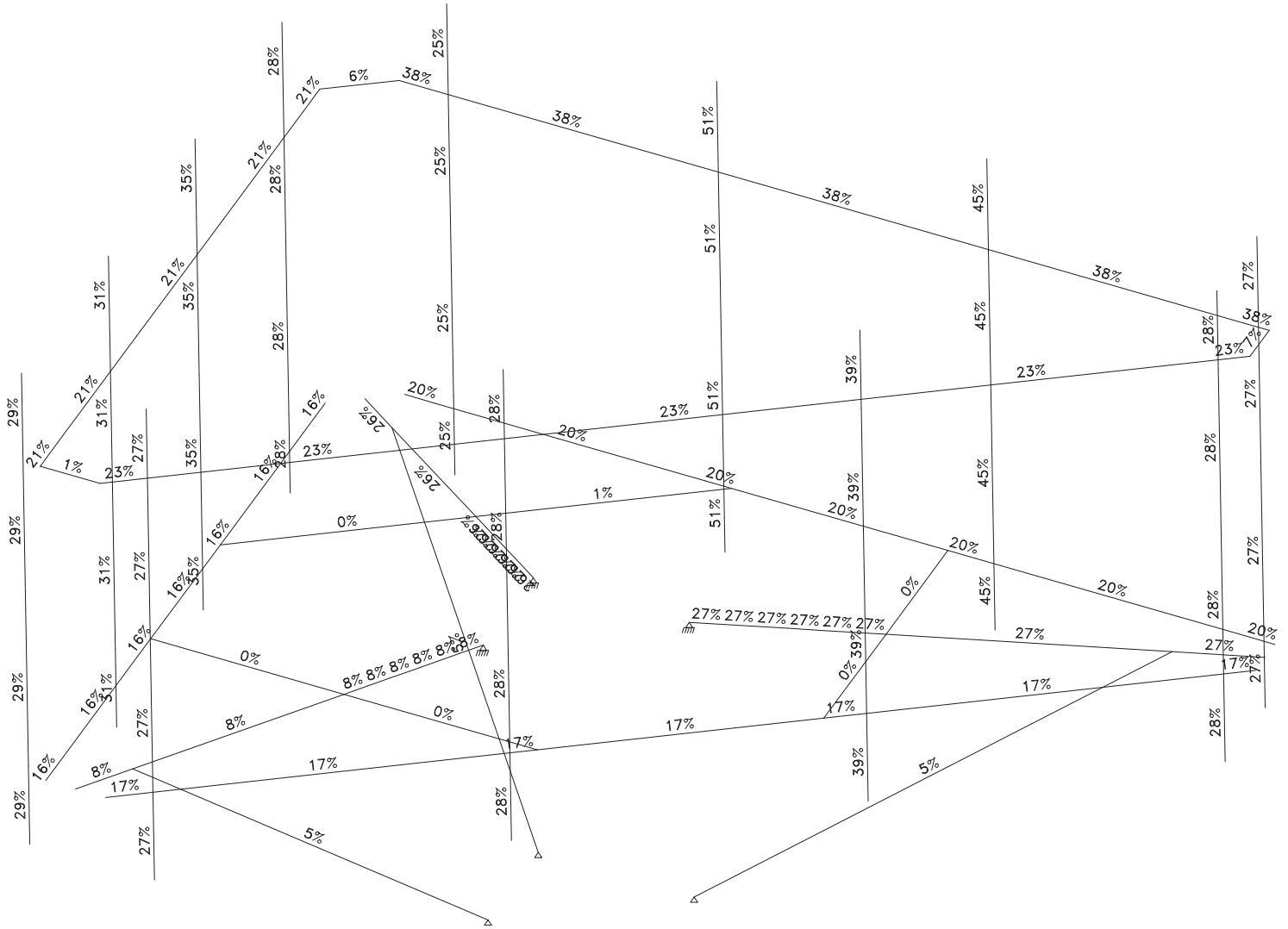


South Glastonbury 3 CT Mount Analysis

View: Steel Beam Design



SCALE = 1:24



Actual/allowable Moment+Axial

South Glastonbury 3 CT Mount Analysis

Code: AISC-LRFD

Prepared by:

Date: 2/ 9/22

Results Summary Table

Beam	Section	Com	Defl L/	Slen	CAPACITY					Combined Axial+Mom	
					Axial	Dir Shear	Mom	LTB			
1	PIPE 3	1	518	150	0.01	MJ	0.02	0.13	0.13	0.20	
						MI	0.03	0.07	0.00		
2	TS 4x4x1/4	1	2962	57	0.02	MJ	0.03	0.08	0.08	0.27	
						MI	0.03	0.20	0.00		
3	TS 4x4x1/4	1	3294	57	0.02	MJ	0.03	0.08	0.08	0.26	
						MI	0.03	0.19	0.00		
6	PIPE 2	1	7444	8	-0.01	MJ	0.04	0.14	0.14	0.18	
						MI	0.01	0.04	0.00		
7	PIPE 2	1	9999	8	0.00	MJ	0.05	0.14	0.14	0.17	
						MI	0.01	0.03	0.00		
8	PIPE 2	1	9999	8	0.01	MJ	0.04	0.12	0.12	0.18	
						MI	0.04	0.13	0.00		
9	TS 4x4x1/4	4	3861	45	-0.01	MJ	0.03	0.07	0.07	0.08	
						MI	0.00	0.03	0.00		
10	TS 4x4x1/4	3	9999	26	0.01	MI	0.00	0.00	0.00	0.01	
11	TS 4x4x1/4	4	9999	26	0.00	MI	0.00	0.00	0.00	0.00	
12	TS 4x4x1/4	1	9999	26	0.00	MI	0.00	0.00	0.00	0.00	
49	PIPE 2	1	403	201	-0.06	MJ	0.02	0.16	0.16	0.38	***
						MI	0.01	0.18	0.00		
52	PIPE 2	1	9999	15	0.00	MJ	0.02	0.06	0.06	0.06	
53	PIPE 2	1	9999	15	0.00	MJ	0.02	0.07	0.07	0.07	
54	PIPE 2	2	9999	15	0.00	MJ	0.00	0.01	0.01	0.01	
57	PIPE 2	1	6219	8	-0.01	MJ	0.03	0.15	0.15	0.17	
						MI	0.01	0.03	0.00		
59	TS 4x4x1/4	1	9999	26	0.00	MI	0.00	0.00	0.00	0.00	
60	PIPE 2	1	4173	8	-0.01	MJ	0.04	0.26	0.26	0.30	
						MI	0.01	0.04	0.00		
62	TS 4x4x1/4	1	9999	26	0.00	MI	0.00	0.00	0.00	0.00	
67	PIPE 2	1	9999	8	0.01	MJ	0.03	0.10	0.10	0.16	
						MI	0.04	0.13	0.00		
69	TS 4x4x1/4	1	9999	26	0.00	MI	0.00	0.00	0.00	0.00	
80	PIPE 3	4	643	150	0.01	MJ	0.02	0.13	0.13	0.17	
						MI	0.01	0.06	0.00		
87	PIPE 3	4	645	150	0.01	MJ	0.02	0.13	0.13	0.16	
						MI	0.01	0.04	0.00		
93	PIPE 2	1	177	88	-0.02	MJ	0.01	0.20	0.20	0.25	***
						MI	0.00	0.04	0.00		
94	PIPE 2	1	157	88	-0.03	MJ	0.01	0.19	0.19	0.27	***
						MI	0.00	0.07	0.00		
96	PIPE 2	1	87	69	-0.01	MJ	0.01	0.13	0.13	0.51	***
						MI	0.03	0.37	0.00		
98	PIPE 2	1	92	91	0.00	MJ	0.01	0.14	0.14	0.45	***
						MI	0.03	0.31	0.00		
101	PIPE 2	1	427	86	-0.01	MJ	0.01	0.13	0.13	0.27	
						MI	0.01	0.14	0.00		
102	PIPE 2	1	193	91	-0.01	MJ	0.01	0.08	0.08	0.28	***
						MI	0.02	0.26	0.00		
103	PIPE 2	4	680	205	-0.05	MJ	0.02	0.16	0.16	0.23	***
						MI	0.01	0.06	0.00		
104	PIPE 2	1	225	68	0.00	MJ	0.01	0.08	0.08	0.28	***
						MI	0.03	0.24	0.00		
106	PIPE 2	1	175	68	-0.01	MJ	0.01	0.09	0.09	0.39	***
						MI	0.03	0.33	0.00		
109	PIPE 2	1	227	91	-0.01	MJ	0.01	0.07	0.07	0.28	***
						MI	0.02	0.25	0.00		
110	PIPE 2	1	411	87	-0.01	MJ	0.01	0.14	0.14	0.29	
						MI	0.01	0.15	0.00		
111	PIPE 2	3	686	209	-0.06	MJ	0.02	0.15	0.15	0.21	***
						MI	0.01	0.05	0.00		
112	PIPE 2	1	195	66	0.00	MJ	0.00	0.05	0.05	0.35	***
						MI	0.03	0.30	0.00		
114	PIPE 2	1	214	74	-0.01	MJ	0.01	0.12	0.12	0.31	***
						MI	0.03	0.26	0.00		

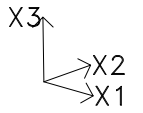
South Glastonbury 3 CT Mount Analysis	Code: AISC-LRFD
Prepared by:	Date: 2/ 9/22

Results Summary Table

Beam	Section	Com	Defl L/	Slen	CAPACITY					Combined Axial+Mom
					Axial	Dir Shear	Mom	LTB		
139	2L 3x3x1/4	4	9999	91	-0.05	MI	0.00	0.00	0.00	0.05
140	2L 3x3x1/4	4	9999	90	-0.05	MI	0.00	0.00	0.00	0.05
141	2L 3x3x1/4	3	9999	90	-0.05	MI	0.00	0.00	0.00	0.05

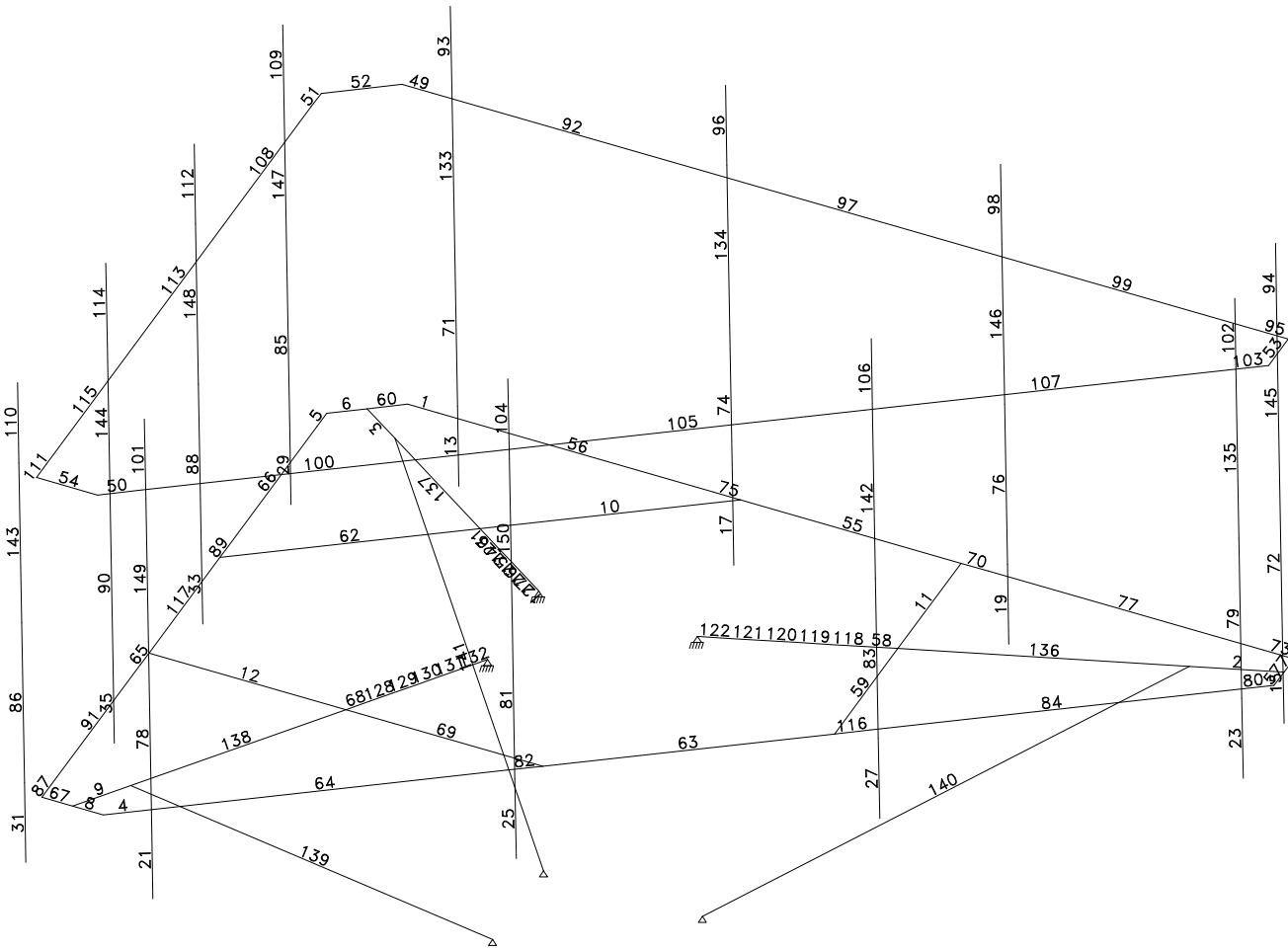
South Glastonbury 3 CT Mount Analysis

View: Steel Beam Design



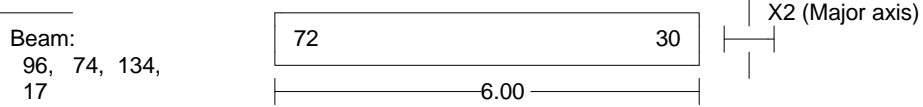
SCALE = 1:27

DATE: 2/ 9/22



Detailed Results Table for Beam 96 - 17

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
- Steel Grade: A500C

DESIGN DATA

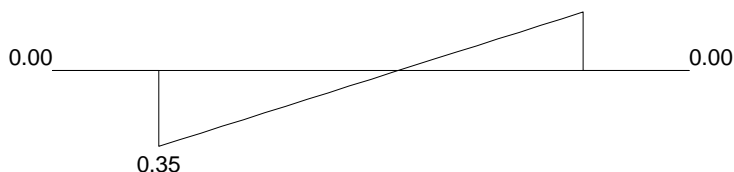
- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: PIPE 2

Ix = 0.67 Iy = 0.67in4 Zx = 0.76 Zy = 0.76in3 Area = 1.07
D = 2.37 t = 0.15in
J = 1.33 Cw = 0.00in6

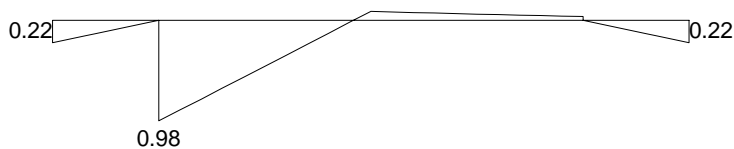
DESIGN COMBINATION = 1

M2 Moment Diagram



Max. AXIAL Force = 0.09 (tens.), -0.05 (compr.) Max. SHEAR Force = 0.15

M3 Moment Diagram



Max. AXIAL Force = 0.09 (tens.), -0.05 (compr.) Max. SHEAR Force = 0.54

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 15.46 < 45.0 71.7 (Fy= 46.0 R = -0.002)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6*Fy*Av$	Av = 0.64	Vu = 0.54 Vn = 17.81	0.03
M3 Moment (A-F1-1) without LTB	$M / 0.9Mn < 1.00$	Z = 0.76	M = 0.98 Mn = 2.92	0.37
V3 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6*Fy*Av$	Av = 0.64	Vu = 0.15 Vn = 17.81	0.01

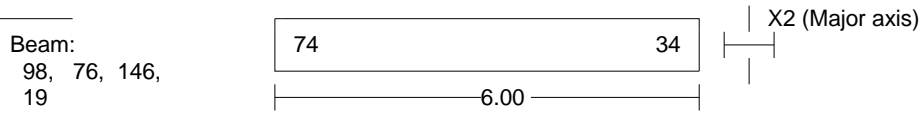
Detailed Results Table for Beam 96 - 17

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 0.76	M = 0.35 M _n = 2.92	0.13
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.82553	2.75
Axial Force (D1-1)	$\frac{P_u}{0.90A_g F_y} < 1.00$	(kL/r) _x = 31 (kL/r) _y = 31	P _u = 0.09 A _g = 1.07 F _y = 46.00	0.00
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	C _{mx} = 1.00 C _{my} = 1.00 P _{ex} = 321.36 P _{ey} = 321.36	M _{ux} = 0.35 M _{uy} = 0.98 B _{1x} = 1.00 B _{1y} = 1.00	0.51

Detailed Results Table for Beam 98 - 19

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
- Steel Grade: A500C

DESIGN DATA

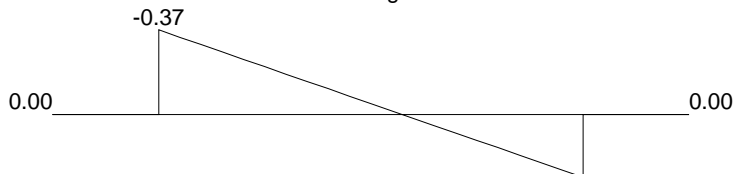
- K_x = 1.00 - K_y = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: PIPE 2

I_x = 0.67 I_y = 0.67in⁴ Z_x = 0.76 Z_y = 0.76in³ Area = 1.07
 D = 2.37 t = 0.15in
 J = 1.33 C_w = 0.00in⁶

DESIGN COMBINATION = 1

M2 Moment Diagram

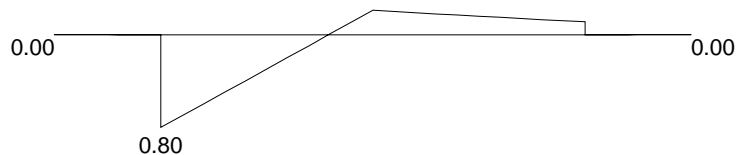


Max. AXIAL Force = 0.16 (tens.), 0.00 (compr.) Max. SHEAR Force = 0.16

Detailed Results Table for Beam 98 - 19

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

M3 Moment Diagram



Max. AXIAL Force = 0.16 (tens.), 0.00 (compr.) Max. SHEAR Force = 0.51

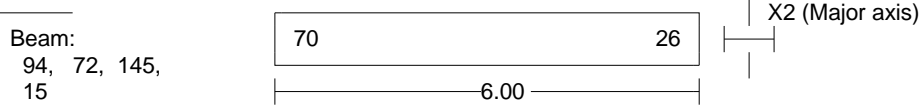
SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
 d/t= 15.46 < 45.0 71.7 (Fy= 46.0 R = -0.003)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6 * Fy * Av$	Av = 0.64	Vu = 0.51 Vn = 17.81	0.03
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.76	M = 0.80 Mn = 2.92	0.31
V3 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6 * Fy * Av$	Av = 0.64	Vu = 0.16 Vn = 17.81	0.01
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.76	M = 0.37 Mn = 2.92	0.14
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.78578	2.62
Axial Force (D1-1)	$\frac{Pu}{0.90AgFy} < 1.00$	(kL/r)x = 91 (kL/r)y = 91	Pu = 0.16 Ag = 1.07 Fy = 46.00	0.00
Combined Forces (compress.) (H1-1b)	$\frac{Pu}{2\phi Pn} + \frac{Mux}{\phi Mn_x} + \frac{Muy}{\phi Mn_y} < 1.00$	Cmx = 1.00 Cmy = 1.00 Pex = 37.29 Pey = 37.29	Mux = 0.37 Muy = 0.80 B1x = 1.00 B1y = 1.00	0.45

Detailed Results Table for Beam 94 - 15

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
- Steel Grade: A500C

DESIGN DATA

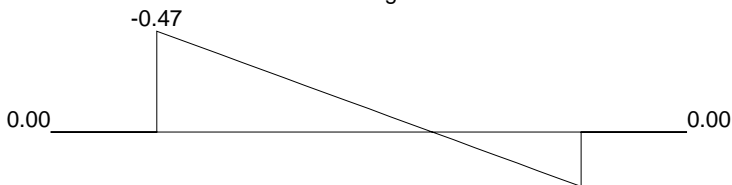
- Kx = 1.00 - Ky = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: PIPE 2

Ix = 0.67 Iy = 0.67in4 Zx = 0.76 Zy = 0.76in3 Area = 1.07
 D = 2.37 t = 0.15in
 J = 1.33 Cw = 0.00in6

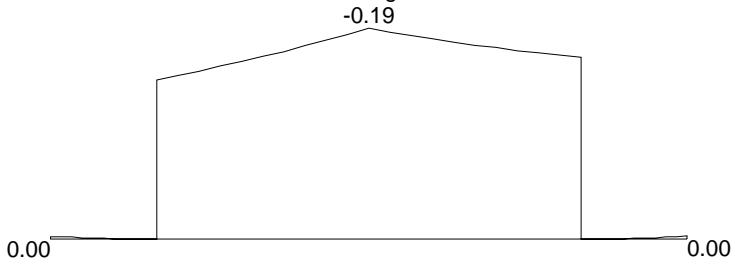
DESIGN COMBINATION = 1

M2 Moment Diagram



Max. AXIAL Force = 0.00 (tens.), -0.63 (compr.) Max. SHEAR Force = 0.18

M3 Moment Diagram



Max. AXIAL Force = 0.00 (tens.), -0.63 (compr.) Max. SHEAR Force = 0.03

SECTION CLASSIFICATION: * COMPACT *****

Limiting Ratios: Compact Non-Compact
 d/t= 15.46 < 45.0 71.7 (Fy= 46.0 R = 0.013)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.76	M = 0.19 Mn = 2.92	0.07
V3 Shear (F2-1)	$\frac{Vu}{.9*Vn} < 1.00$ Vn=0.6*Fy*Av	Av = 0.64	Vu = 0.18 Vn = 17.81	0.01
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	Z = 0.76	M = 0.47 Mn = 2.92	0.18

South Glastonbury 3 CT Mount Analysis

Code: AISC-LRFD

Prepared by:

Date: 2/ 9/22

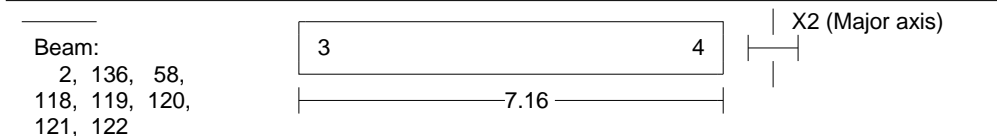
Detailed Results Table for Beam 94 - 15

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.45714	1.52
Axial Force (E2-1)	$\frac{P_u}{0.85A_gF_{cr}} < 1.00$	(kL/r) _x =88 (kL/r) _y =88 $\lambda_c = 1.11$	P _u = 0.63 A _g = 1.07 F _{cr} = 27.37	0.03
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	C _{mx} = 1.00 C _{my} = 1.00 P _{ex} = 39.88 P _{ey} = 39.88	M _{ux} = 0.48 M _{uy} = 0.20 B _{1x} = 1.02 B _{1y} = 1.02	0.27

Detailed Results Table for Beam 2 - 122

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
- Steel Grade: A500B

DESIGN DATA

- K_x = 1.00 - K_y = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

INTERMEDIATE SUPPORTS

L =	1.17	4.71	5.12	5.50	5.92	6.29	6.71
Lat.-Tors.							
Compress.	X	X	X	X	X	X	X

Section: TS 4x4x1/4

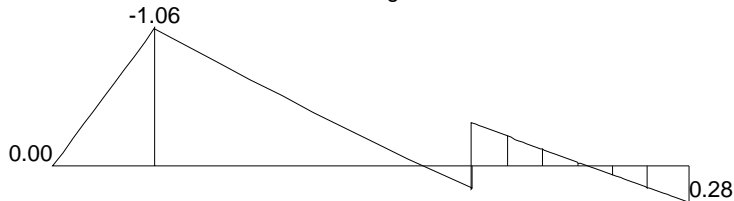
I_x = 8.22 I_y = 8.22in⁴ Z_x = 4.97 Z_y = 4.97in³ Area = 3.59
 h = 4.00 b = 4.00in t = 0.25in
 J = 13.50 C_w = 0.00in⁶

Detailed Results Table for Beam 2 - 122

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN COMBINATION = 1

M2 Moment Diagram

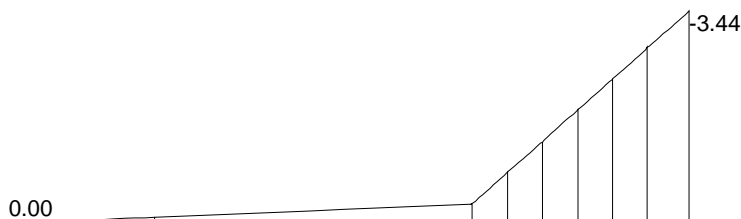


Moments at Intermediate Supports:

-1.05 0.17 -0.13 0.07
 -0.23 -0.02 0.17

Max. AXIAL Force = 2.51 (tens.) Max. SHEAR Force = 0.92

M3 Moment Diagram



Moments at Inters:

-0.07 -0.28 -1.29 -2.32
 -0.81 -1.83 -2.85

Max. AXIAL Force = 2.51 (tens.) Max. SHEAR Force = 1.29

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
 d/t= 13.13 < 35.2 35.2 (Fy= 46.0 R= -0.015)
 b/t= 13.13 < 28.1 35.2

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn=0.6*Fy*Av$	$Av = 1.79$	$Vu = 1.29$ $Vn = 49.60$	0.03
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	$Z = 4.97$	$M = 3.44$ $Mn = 19.07$	0.20
V3 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn=0.6*Fy*Av$	$Av = 1.79$	$Vu = 0.92$ $Vn = 49.60$	0.02
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	$Z = 4.97$	$M = 1.06$ $Mn = 19.07$	0.06
Deflection	$\frac{defl.}{L / 240} < 1.00$		$defl = 0.02900$	0.08
Axial Force (D1-1)	$\frac{Pu}{0.90AgFy} < 1.00$	$(kL/r)x = 28$ $(kL/r)y = 57$	$Pu = 2.51$ $Ag = 3.59$ $Fy = 46.00$	0.02

South Glastonbury 3 CT Mount Analysis

Code: AISC-LRFD

Prepared by:

Date: 2/ 9/22

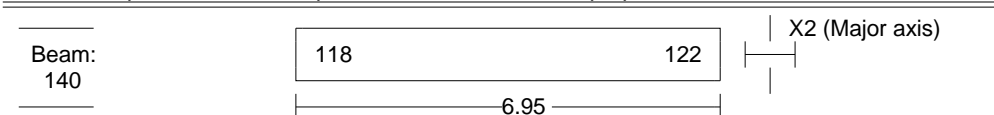
Detailed Results Table for Beam 2 - 122

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
Lateral Torsional Buckling	$\frac{M}{0.9M_n} < 1.00$ Critical Segment from 0.00 to 7.16 on -z flange Segment End Moments: 0.00 and 0.28	$L_b = 7.16$ $L_p = 14.40$	$M = 1.06$ $M_n = 19.07$	0.06
Combined Forces (tension) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$		$M_{ux} = 1.06$ $M_{uy} = 3.44$	0.27

Detailed Results Table for Beam 140

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
 - Steel Grade: A36

DESIGN DATA

- $K_x = 1.00$ - $K_y = 1.00$
 - Allow. Slend. : 200 (compr.) 300 (tens.)
 - Allowable Deflection : 1/240
 - Tension Area Reduction Factor : 1.00
 - Building type : Unbraced

Connectors spacing = default (= 3.32)(welded)

Section: 2L 3x3x1/4

$I_x = 2.49$ $I_y = 5.56$ $I_x I_y = 1.15$ $S_x = 1.75$ $S_y = 1.75$ $I_x I_y = 2.88$
 $h = 3.00$ $b = 6.37$ $t = 0.25$ $e_y = 2.16$
 $J = 0.06$ $C_w = 0.00$

DESIGN COMBINATION = 4

Max. AXIAL Force = -3.12 (compr.) Max. SHEAR Force = 0.00

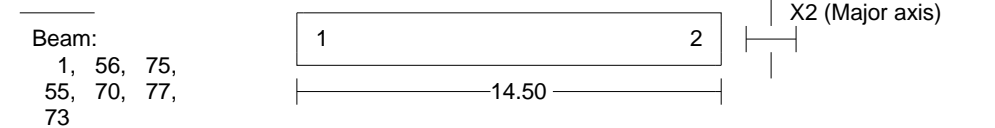
SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
 $d/t = 12.10$ < 12.8 12.8 ($F_y = 36.0$ $R = 0.030$)
 $b/t = 12.10$ < 15.3 12.8

DESIGN	EQUATION	FACTORS	VALUES	RESULT
Axial Force (E2-1)	$\frac{P_u}{0.85A_g F_{cr}} < 1.00$	$(kL/r)_x = 90$ $(kL/r)_y = 66$ $\lambda_c = 1.01$	$P_u = 3.12$ $A_g = 2.88$ $F_{cr} = 23.54$	0.05

Detailed Results Table for Beam 1 - 73

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
 - Steel Grade: A500C

DESIGN DATA

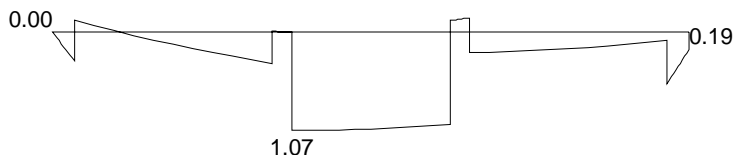
- Kx = 1.00 - Ky = 1.00
 - Allow. Slend. : 200 (compr.) 300 (tens.)
 - Allowable Deflection : 1/240
 - Tension Area Reduction Factor : 1.00
 - Building type : Unbraced

Section: PIPE 3

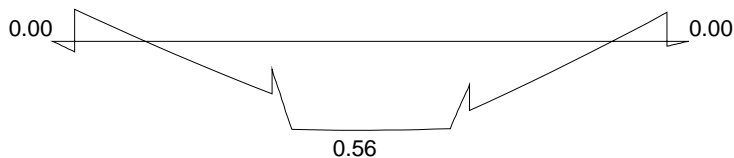
Ix = 3.02 Iy = 3.02in4 Zx = 2.33 Zy = 2.33in3 Area = 2.23
 D = 3.50 t = 0.22in
 J = 6.03 Cw = 0.00in6

DESIGN COMBINATION = 1

M2 Moment Diagram



Max. AXIAL Force = 0.50 (tens.), -0.31 (compr.) Max. SHEAR Force = 0.73
 M3 Moment Diagram



Max. AXIAL Force = 0.50 (tens.), -0.31 (compr.) Max. SHEAR Force = 0.85

SECTION CLASSIFICATION: * COMPACT *****

Limiting Ratios: Compact Non-Compact
 d/t= 16.16 < 45.0 71.7 (Fy= 46.0 R = -0.005)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6*Fy*Av$	Av = 1.34	Vu = 0.85 Vn = 36.95	0.03
M3 Moment (A-F1-1) without LTB	$M / 0.9Mn < 1.00$	Z = 2.33	M = 0.56 Mn = 8.95	0.07
V3 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6*Fy*Av$	Av = 1.34	Vu = 0.73 Vn = 36.95	0.02

South Glastonbury 3 CT Mount Analysis

Code: AISC-LRFD

Prepared by:

Date: 2/ 9/22

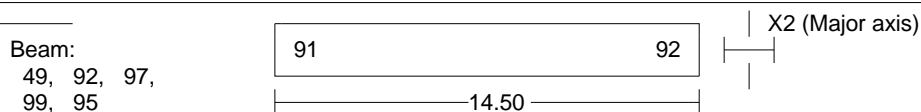
Detailed Results Table for Beam 1 - 73

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch

DESIGN	EQUATION	FACTORS	VALUES	RESULT
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9M_n} < 1.00$	Z = 2.33	M = 1.07 M _n = 8.95	0.13
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		defl = 0.33567	0.46
Axial Force (D1-1)	$\frac{P_u}{0.90A_g F_y} < 1.00$	(kL/r) _x = 60 (kL/r) _y = 60	P _u = 0.50 A _g = 2.23 F _y = 46.00	0.01
Combined Forces (compress.) (H1-1b)	$\frac{P_u}{2\phi P_n} + \frac{M_{ux}}{\phi M_{nx}} + \frac{M_{uy}}{\phi M_{ny}} < 1.00$	C _{mx} = 1.00 C _{my} = 1.00 P _{ex} = 178.01 P _{ey} = 178.01	M _{ux} = 1.07 M _{uy} = 0.56 B _{1x} = 1.00 B _{1y} = 1.00	0.20

Detailed Results Table for Beam 49 - 95

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



CONSTRAINTS

- Sections : Check
- Steel Grade: A500C

DESIGN DATA

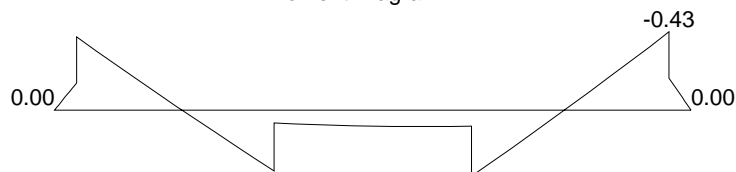
- K_x = 1.00 - K_y = 1.00
- Allow. Slend. : 200 (compr.) 300 (tens.)
- Allowable Deflection : 1/240
- Tension Area Reduction Factor : 1.00
- Building type : Unbraced

Section: PIPE 2

I_x = 0.67 I_y = 0.67in⁴ Z_x = 0.76 Z_y = 0.76in³ Area = 1.07
D = 2.37 t = 0.15in
J = 1.33 C_w = 0.00in⁶

DESIGN COMBINATION = 1

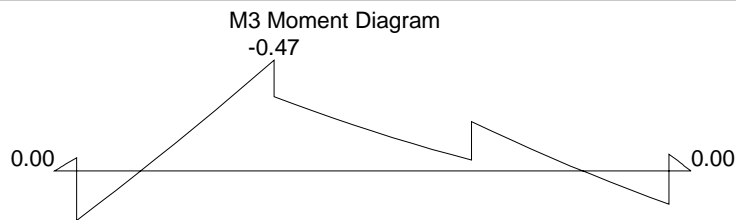
M2 Moment Diagram



Max. AXIAL Force = 0.08 (tens.), -0.26 (compr.) Max. SHEAR Force = 0.35

Detailed Results Table for Beam 49 - 95

Moments: kips*foot , Forces: kips , Stresses: ksi , Section prop.: inch



Max. AXIAL Force = 0.08 (tens.), -0.26 (compr.) Max. SHEAR Force = 0.16

SECTION CLASSIFICATION: *** COMPACT ***

Limiting Ratios: Compact Non-Compact
d/t= 15.46 < 45.0 71.7 (Fy= 46.0 R = 0.005)

DESIGN	EQUATION	FACTORS	VALUES	RESULT
V2 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6 * Fy * Av$	$Av = 0.64$	$Vu = 0.16$ $Vn = 17.81$	0.01
M3 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	$Z = 0.76$	$M = 0.47$ $Mn = 2.92$	0.18
V3 Shear (F2-1)	$Vu/(.9*Vn) < 1.00$ $Vn = 0.6 * Fy * Av$	$Av = 0.64$	$Vu = 0.35$ $Vn = 17.81$	0.02
M2 Moment (A-F1-1) without LTB	$\frac{M}{0.9Mn} < 1.00$	$Z = 0.76$	$M = 0.43$ $Mn = 2.92$	0.16
Deflection	$\frac{\text{defl.}}{L / 240} < 1.00$		$\text{defl} = 0.43143$	0.60
Axial Force (E2-1)	$\frac{Pu}{0.85AgFcr} < 1.00$	$(kL/r)_x = 192$ $(kL/r)_y = 192$ $\lambda_c = 2.43$	$Pu = 0.26$ $Ag = 1.07$ $Fcr = 6.83$	0.04
Combined Forces (compress.) (H1-1b)	$\frac{Pu}{2\phi Pn} + \frac{Mux}{\phi Mn_x} + \frac{Muy}{\phi Mn_y} < 1.00$	$Cmx = 1.00$ $Cmy = 1.00$ $Pex = 8.38$ $Pey = 8.38$	$Mux = 0.45$ $Muy = 0.49$ $B1x = 1.03$ $B1y = 1.03$	0.38