CITY COUNCIL WORKSHOP AGENDA
August 21, 2024, 4:00 p.m.

This is an in-person meeting at Saugatuck City Hall, 102 Butler St, Saugatuck, MI 49453.
The meeting will also be available live, virtually on Zoom.

NOTICE:
Join online by visiting:
https://us02web.zoom.us/j/2698572603

Join by phone by dialing:
(312) 626-6799 -or-
(646) 518-9805

Then enter "Meeting ID":
2698572603

Please send questions or comments regarding meeting agenda items prior to meeting to:
rcummins@saugatuckcity.com

Requests for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact Saugatuck City Clerk at 269-857-2603 or jwolters@saugatuckcity.com for further information.

1. **Call to Order**
2. **Roll Call**
3. **Agenda Changes** *(Additions/Deletions)*
4. **Guest Speaker**
5. **Public Comment on Agenda Items Only** *(Limit 3 minutes)*
6. **Discussion Items:**
   - **A.** Introduction of New Staff
   - **B.** Review of Updated AT&T Plans ***Pg.2***
   - **C.** 2024 Road Resurfacing – Recommendation of Award ***Pg.32***
   - **D.** TMF Water Service Material Verification Agreement ***Pg.36***
   - **E.** Review of Short – Term Rental Licensing Ordinance Amendment, Zoning Ordinance Amendment, and Policy for Available Short – Term Rental Licenses ***Pg.46***
7. **Public Comments** *(Limit 3 minutes)*
8. **Correspondence**
9. **Council Comments**
10. **Adjourn**

City Council Agenda Item Report

FROM: Ryan Cummins - City Manager

MEETING DATE: August 21, 2024

SUBJECT: Review of Updated AT&T Plans

DESCRIPTION:

AT&T continues to work on plans to reuse the Mt. Baldhead Radome for cellular communications antennae. In order to install cellular antennae, AT&T is required to obtain Federal Communication (FCC) approval and State Historic Preservation Office (SHPO) approval as this site is part of the Kalamazoo River Mouth Traditional Cultural Property and is eligible to be on the National Register of Historic Places.

SHPO and the consulting party Tribes have identified potential adverse impacts and asked a number of follow up questions. AT&Ts consultant has been working on preparing a response and potential solutions to mitigate the impacts. Boring and underground work has been identified as a concern. As a result, AT&T has explored attaching conduit under the Mt. Baldhead steps so they do not have to bore as much area. The City Engineer and DPW Superintendent have reviewed the plans. As long as the conduit is under the steps, they do not have concerns. AT&T is aware that the steps will eventually need to be replaced.

Attached are plans to run the conduit under the Mt. Baldhead stairs. I want to make sure Council is aware and get some feedback before AT&T submits the revised plans and responses back to SHPO.

LEGAL REVIEW:

N/A

SAMPLE MOTION:

N/A. Workshop review item for feedback to staff.

AT&T

AT&T SITE NUMBER: GRANMI5943
AT&T SITE NAME: SAUGATUCK
AT&T FA CODE: 15448500
AT&T PACE NUMBER: MRIND050522,MRIND054525,MRIND054513,MRIND054529,MRIND054545,MRIND054518,MRIND054532
SITE TYPE: SELF SUPPORT TOWER WITH RADOME

SITE ADDRESS: 750 PARK ST. SAUGATUCK, MI 49453
COUNTY: ALLEGAN
TOWER HEIGHT: 90'-0"

PROJECT: AT&T LTE

SITE INFORMATION

AT&T SITE NAME:	SAUGATUCK
SITE ADDRESS:	750 PARK ST. SAUGATUCK, MI 49453
COUNTY:	ALLEGAN
MAP/PARCEL #:	57-009-052-01 / 57-009-050-00
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	42° 39' 40.70" N
LONGITUDE:	86° 12' 32.90" W
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	+/- 805.1' AMSL (1A LETTER DATED 10/04/2022)
CURRENT ZONING:	CRC
JURISDICTION:	CITY OF SAUGATUCK
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	VB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CITY OF SAUGATUCK PO BOX 86 SAUGATUCK, MI 49453
CARRIER/APPLICANT:	AT&T MOBILITY 16025 NORTHLAND DRIVE SOUTHFIELD, MI 48075
ELECTRIC PROVIDER:	CONSUMERS ENERGY CO. 800-477-5050
TELCO PROVIDER:	TBD TBD

PROJECT TEAM

A&E FIRM:	GPD GROUP PROFESSIONAL CORPORATION 520 SOUTH MAIN ST, SUITE 2531 AKRON, OH 44311 CONTACT: TRACI PREBLE, 317-299-3164

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
T-3	GENERAL NOTES
T-4	GENERAL NOTES
C-1	OVERALL SITE LAYOUT
C-1.1	COMPOUND LAYOUT
C-2	GENERATOR SPECIFICATIONS
C-3	EQUIPMENT SPECIFICATIONS
C-4	TOWER ELEVATION
C-5	ANTENNA PLAN VIEW
C-6	ANTENNA AND COAXIAL CABLE SCHEDULE
C-7.1	ALPHA PLUMBING DIAGRAM
C-7.2	BETA PLUMBING DIAGRAM
C-7.3	GAMMA PLUMBING DIAGRAM
C-8	EQUIPMENT SPECIFICATIONS
S-1	PLATFORM SPECIFICATIONS
E-1	OVERALL SITE ELECTRICAL PLAN
E-1.1	DETAILED CONDUIT PLAN
E-2	DETAILED ELECTRICAL PLAN
E-3	ONE LINE DIAGRAM, H-FRAME,AND TRENCH SECTION
E-4	PANEL SCHEDULE
E-5	ELECTRICAL NOTES
G-1	GROUNDING PLAN AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
G-4	GROUNDING SCHEMATIC & NOTES
G-5	GROUNDING SCHEMATIC & NOTES
SUR.	SURVEY
A.O.D	AREA OF VEGETATIVE DISTURBANCE

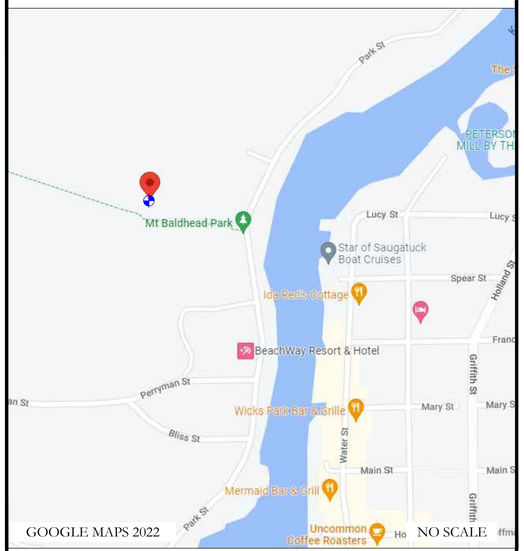
PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO PROPOSE AN ANTENNA MODIFICATION ON AN EXISTING WIRELESS SITE.

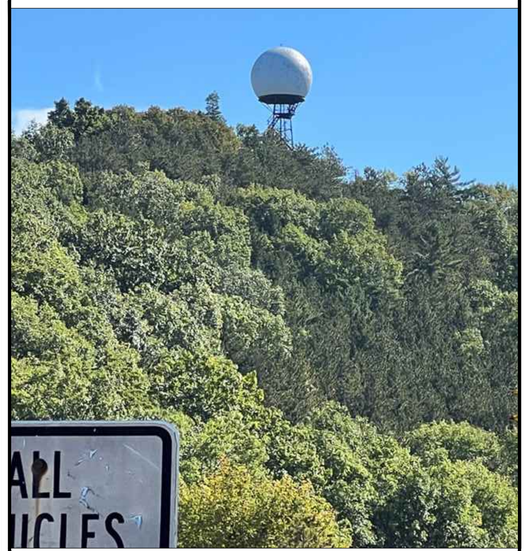
TOWER SCOPE OF WORK
- INSTALL (6) COMMSCOPE NNH4-65C-R6-V3 ANTENNAS
- INSTALL (3) NOKIA B12/14/29 AHLBBA RRUS
- INSTALL (3) NOKIA B25/66 AHFIB RRUS
- INSTALL (3) NOKIA B30 AHNA RRUS
- INSTALL (3) NOKIA B5 AHCA RRUS
- INSTALL (2) DC9-48-60-24-8C-EV DC/FIBER DEMARCATION BOXES
- INSTALL (3) FIBER TRUNKS
- INSTALL (9) DC TRUNKS

GROUND SCOPE OF WORK:
- INSTALLATION OF NEW GENERATOR & EQUIPMENT CABINETS
- INSTALLATION OF NEW PLATFORM
- INSTALLATION OF NEW FENCE AND GATE
- INSTALLATION OF NEW ELECTRICAL SERVICE

LOCATION MAP



SITE PHOTO



APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2015 MICHIGAN BUILDING CODE 2015 IBC W/ STATE AMENDMENTS
MECHANICAL	2015 MICHIGAN MECHANICAL CODE 2015 IMC W/ STATE AMENDMENTS
ELECTRICAL	NATIONAL ELECTRICAL CODE 2014 NEC W/ AMENDMENTS

DESIGN PACKAGE BASED ON THE RFDS
REVISION: V02
DATE: 09/23/2021

REFERENCE DOCUMENTS:

MOUNT ANALYSIS:

THE MOUNT ANALYSIS PERFORMED BY GPD GROUP PROFESSIONAL CORPORATION (PROJECT #2023723.16.307394.03 DATED 06/06/2023) FINDS THE MOUNT HAS SUFFICIENT CAPACITY TO CARRY THE PROPOSED LOADING CONFIGURATION ONCE THE RECOMMENDED MODIFICATIONS HAVE BEEN PERFORMED.

STRUCTURAL ANALYSIS:

THE TOWER STRUCTURAL ANALYSIS PERFORMED BY GPD GROUP PROFESSIONAL CORPORATION (PROJECT #2023723.16.307394.02 DATED 05/03/2023) FINDS THE TOWER HAS SUFFICIENT CAPACITY TO CARRY THE PROPOSED LOADING CONFIGURATION.

CALL MICHIGAN ONE CALL
(800) 482-7171
CALL 3 WORKING DAYS
BEFORE YOU DIG!

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/25/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

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.

SHEET NUMBER: T-1
REVISION: N

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. 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 CONTRACTOR. 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 AND EXCAVATION.
3. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON ERICSSON TOWER SITE" AND LATEST VERSION OF TIA 1019 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
4. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
5. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
6. 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 CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
7. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
9. 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.
10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
11. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
12. 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.
13. NOTICE TO PROCEED– NO WORK TO COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF A PURCHASE ORDER.
14. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA 1019 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA–1019 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR– ———————
   SUBCONTRACTOR– GENERAL CONTRACTOR (CONSTRUCTION)
   CARRIER– AT&T
   BUILDING OWNER– CITY OF SAUGATUCK
   OEM– ORIGINAL EQUIPMENT MANUFACTURER
2. 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 AND ERICSSON.
3. 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.
4. DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND ERICSSON PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
10. 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 OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

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.

SHEET NUMBER: T-2

REVISION: N

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
3. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"ø ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
4. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S 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 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.

MASONRY NOTES:

1. HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N. TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F'm) SHALL BE 1500 PSI.
2. MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT SHALL MEET A.S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
5. WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. 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 LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALLS.....3/4 IN.
   BEAMS AND COLUMNS.....1 1/2 IN.

5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

STRUCTURAL

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.

SHEET NUMBER: T-3

REVISION: N

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC. HILTI EPOXY ANCHORS ARE REQUIRED BY ERICSSON.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. 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).
8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V, 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.
12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 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.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-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° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. 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.
16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
21. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).
22. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHIN ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
23. 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.
24. 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.
25. 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.
26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
28. INSTALL PLASTIC LABEL ON THE METER CENTER TO SHOW "AT&T".
29. ALL CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. 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 AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

SYMBOLS:

- SOLID GROUND BUS BAR (+S/G+)
- SOLID NEUTRAL BUS BAR (+S/N+)
- SUPPLEMENTAL GROUND CONDUCTOR
- 2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
- SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
- CHEMICAL GROUND ROD
- TEST WELL
- DISCONNECT SWITCH
- METER (M)
- EXOTHERMIC WELD (CADWELD) (UNLESS OTHERWISE NOTED)
- MECHANICAL CONNECTION
- GROUNDING WIRE

NEC INSULATOR COLOR CODE

DESCRIPTION	PHASE/CODE LETTER	WIRE COLOR
240/120 1Ø	LEG 1	BLACK
	LEG 2	RED
AC NEUTRAL	N	WHITE
GROUND (EGC)	G	GREEN
VDC POS	+	*RED-POLARITY MARK AT TERMINATION
VDC NEG	-	*BLACK-POLARITY MARK AT TERMINATION
240V OR 208V, 3Ø	PHASE A	BLACK
	PHASE B	RED(ORG. IF HI LEG)
	PHASE C	BLUE
480V, 3Ø	PHASE A	BROWN
	PHASE B	ORANGE OR PURPLE
	PHASE C	YELLOW

* SEE NEC 210.5(C)(1) AND (2)

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

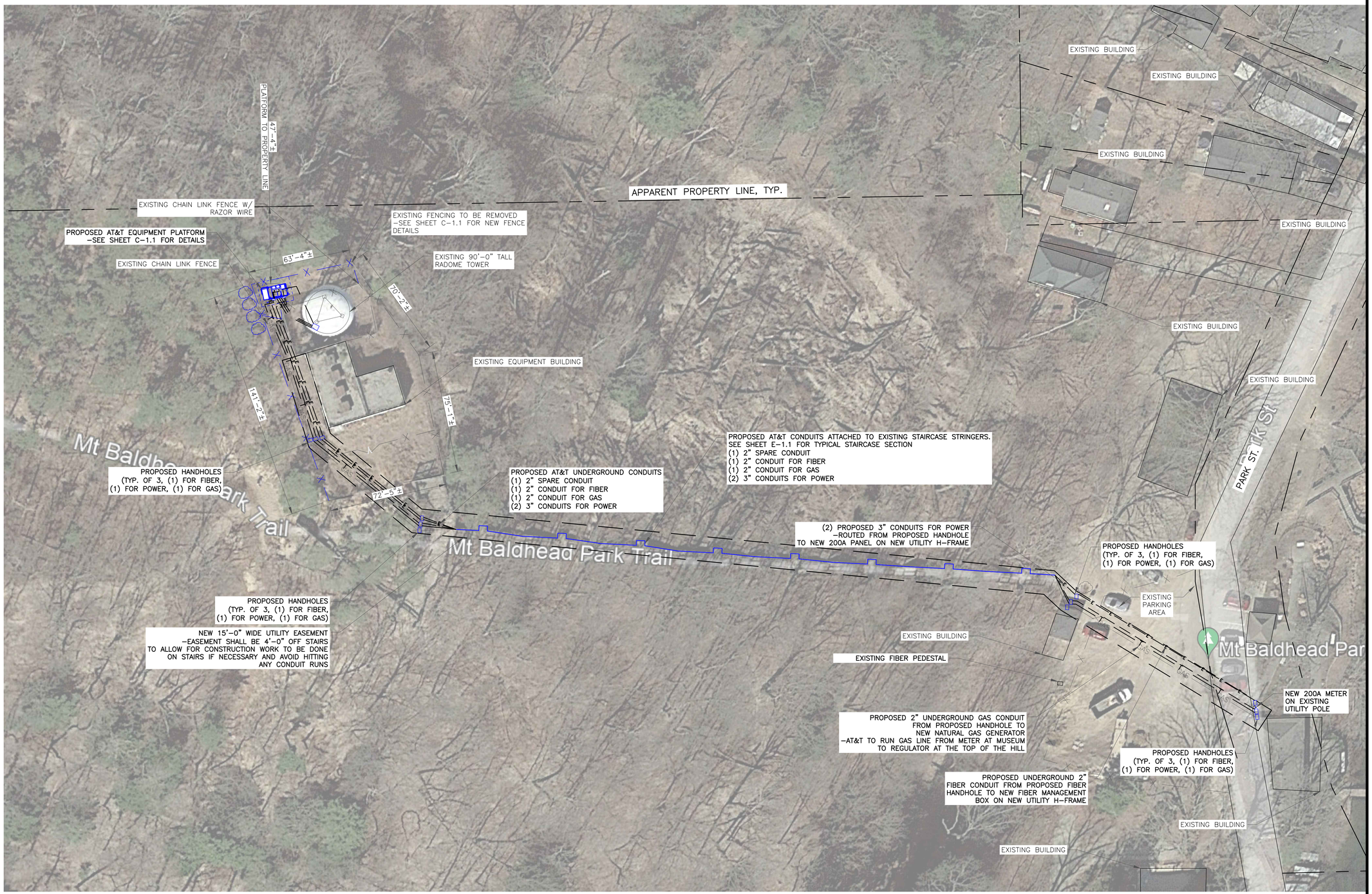
ELECTRICAL

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.

SHEET NUMBER: T-4

REVISION: N

*NOTE: THIS SITE HAS VERY LIMITED VEHICULAR ACCESS. HELICOPTER INSTALLATION MAY BE REQUIRED



1 SITE LAYOUT
SCALE: 30' 15' 0 30' 1"=30'–0" (FULL SIZE) 1"=60'–0" (11x17)

N

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

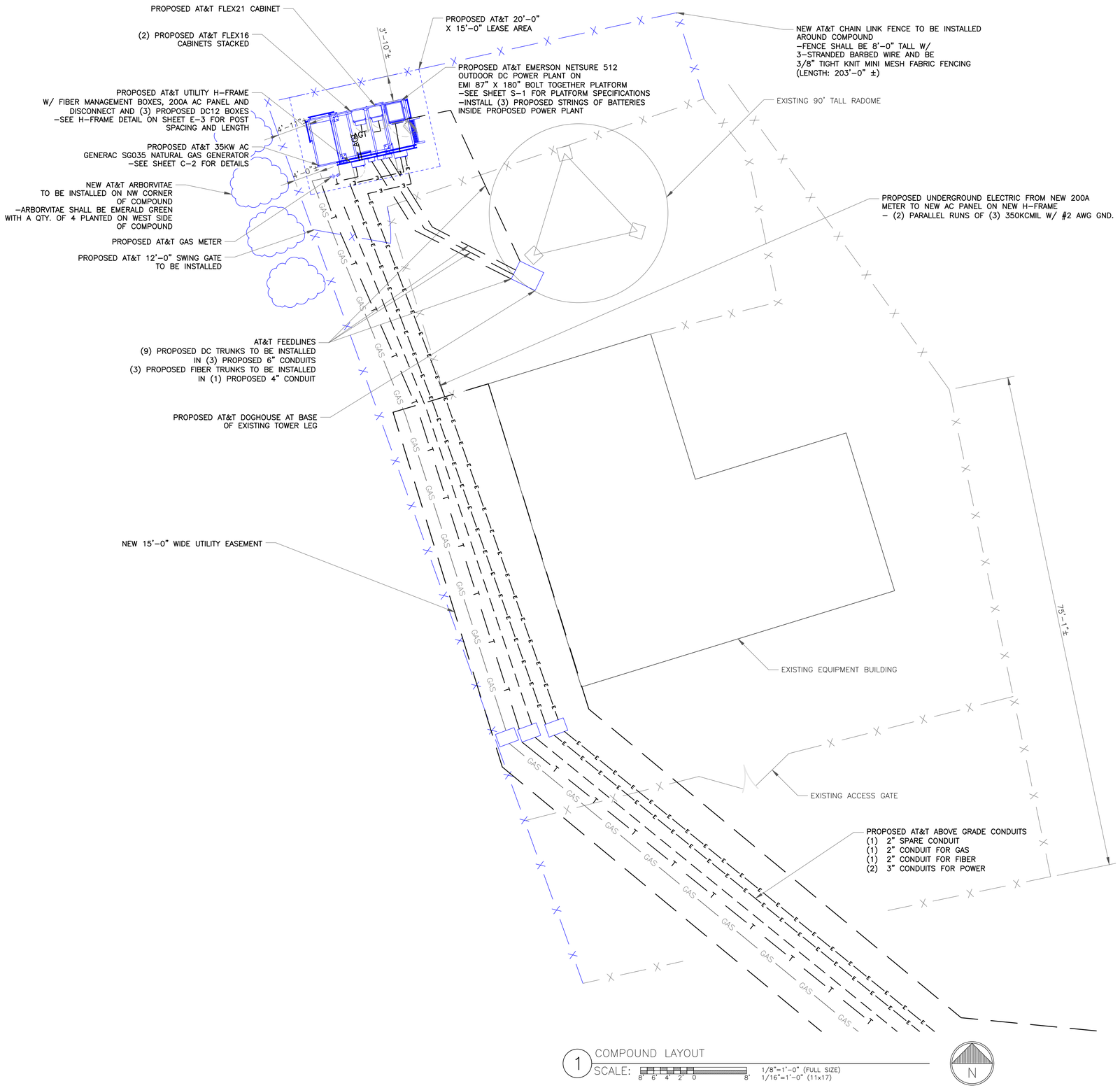
CIVIL

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.

SHEET NUMBER: C-1

REVISION: N

*NOTE: THIS SITE HAS VERY LIMITED VEHICULAR ACCESS. HELICOPTER INSTALLATION MAY BE REQUIRED



1 COMPOUND LAYOUT
SCALE: 8' 6' 4' 2' 0 8' 1/8"=1'-0" (FULL SIZE) 1/16"=1'-0" (11x17)

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

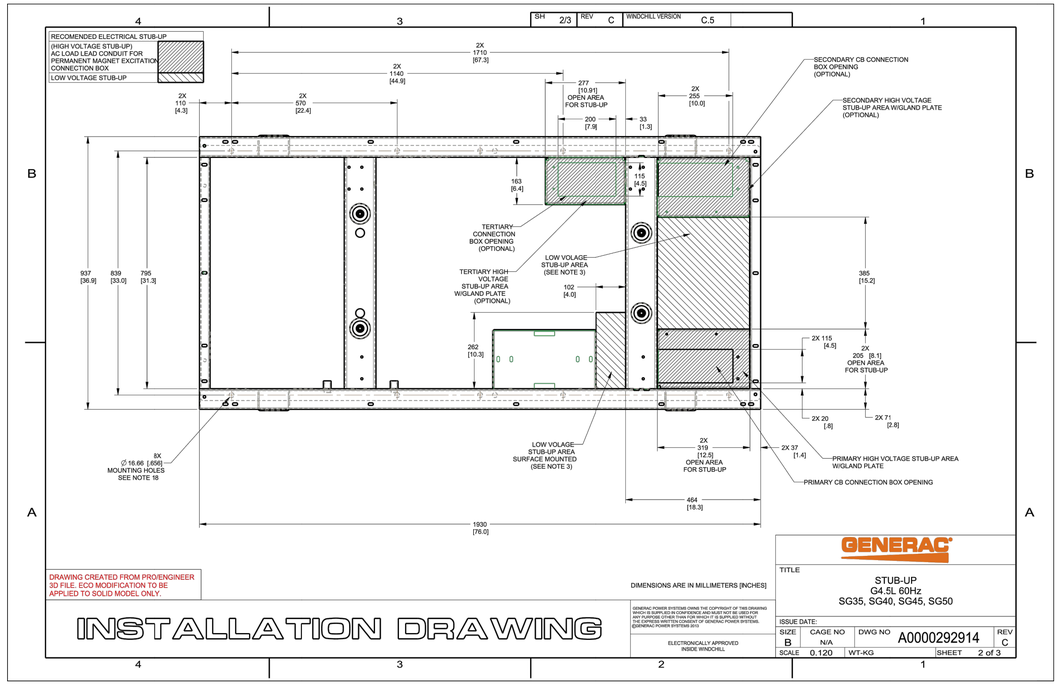
ISSUED FOR:

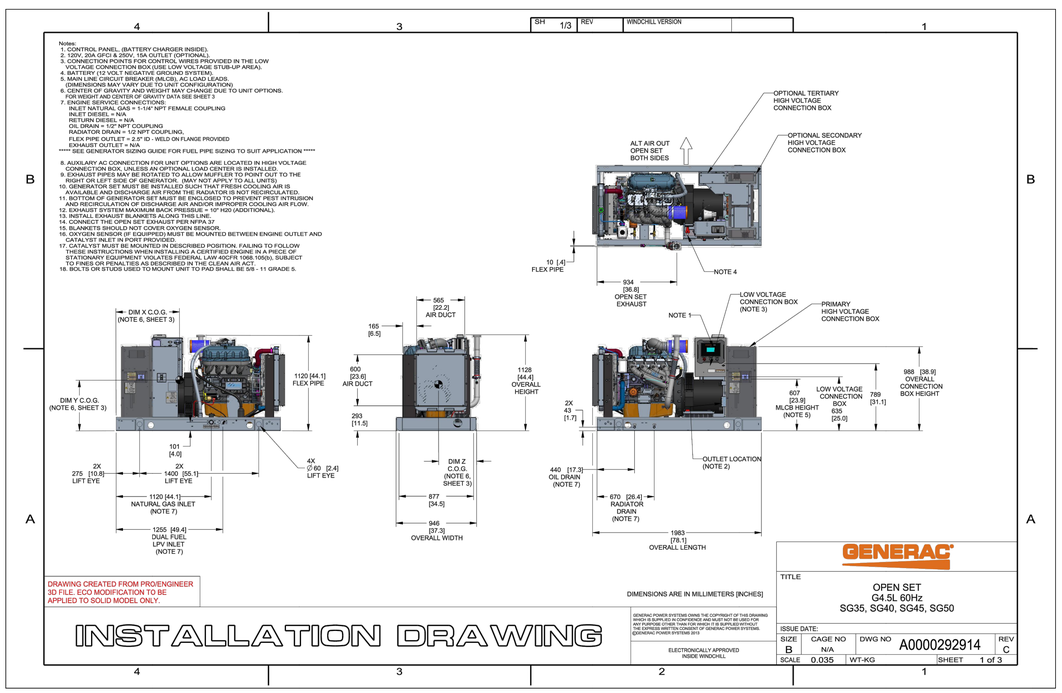
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

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.

SHEET NUMBER: C-1.1
REVISION: N





1 GENERAC SG035 4.5L SPECIFICATIONS
SCALE:

THESE DETAILS HAVE NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY MAKES NO REPRESENTATION(S) WITH RESPECT TO ITS CONTENTS, AND SHALL NOT BE LIABLE FOR SUCH. ANY RELIANCE ON THIS STAMP SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE

SG035 | 4.5L | 35 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary

GENERAC | INDUSTRIAL POWER

APPLICATION AND ENGINEERING DATA

DEMAND RESPONSE READY

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	4
Type	In-Line
Displacement - in^3 (L)	275.0 (4.5)
Bore - in (mm)	4.5 (114.3)
Stroke - in (mm)	4.25 (107.95)
Compression Ratio	9.94:1
Intake Air Method	Naturally Aspirated
Number of Main Bearings	5
Connecting Rods	Forged Steel, Fractured Split, Bushingless
Cylinder Head	Cast Iron
Cylinder Liners	Cast Iron
Ignition	Coil Near Plug Solid State Inductive
Piston Type	Cast Aluminum Flat Top
Crankshaft Type	Forged Steel
Lifter Type	Hydraulic
Intake Valve Material	Stainless Steel
Exhaust Valve Material	Stainless Steel
Hardened Valve Seats	High Steel Iron Alloy

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear Driving
Oil Filter Type	Full-Flow Spin-On Cartridge
Crankcase Capacity - qt (L)	21 (20)

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed - RPM	2,100
Fan Diameter - in (mm)	20 (508)

Fuel System

Fuel Type	Natural Gas, Propane
Fuel Injection	Electronic
Fuel Shut Off	Generac
NG Operating Fuel Pressure - in H_2O (kPa)	5 - 14 (1.2 - 3.5)
LP Operating Fuel Pressure - in H_2O (kPa)	7 - 14 (1.7 - 3.5)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	35 A
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0035124Y21
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase Only)
Telephone Interference Factor (TIF)	<50
Standard Excitation	Synchronous Brushless
Bearings	Sealed Ball
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

SPEC SHEET
4 of 6

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: 5 C-2
REVISION: N



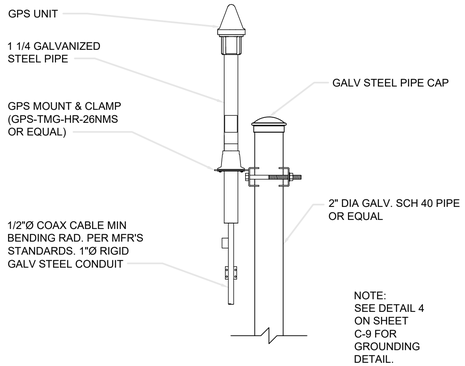
THIS DETAIL HAS NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY MAKES NO REPRESENTATION(S) WITH RESPECT TO ITS CONTENTS, AND SHALL NOT BE LIABLE FOR SUCH. ANY RELIANCE ON THIS STAMP SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE

Dimensions and Expansion Options			Thermal Management Systems			
Exterior Dimensions		Rack Units	Air Conditioner	Heat Exchanger		
No plinth	25"W x 20"D x 30"H 635mm x 508mm x 762mm	16RU	2K BTU/hr 585W with 500W heater	39 W/°C 741W	70 W/°C 1330W	130 W/°C 2470W
4" plinth	25"W x 20"D x 34"H 635mm x 508mm x 864mm					
14" plinth	25"W x 20"D x 44"H 635mm x 508mm x 1118mm					
13" Battery Base	25"W x 20"D x 43"H 635mm x 508mm x 1092mm					

1 PURCELL FLX16 CABINET
SCALE:

4 FENCE POST DETAIL
SCALE:

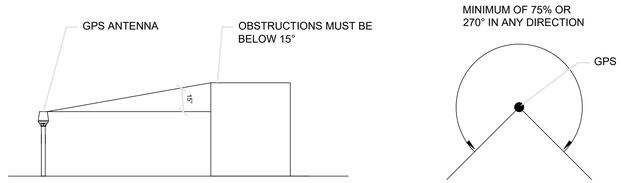
5 SWING GATE DETAIL
SCALE:



2 LTE GPS ANTENNA DETAIL
SCALE:

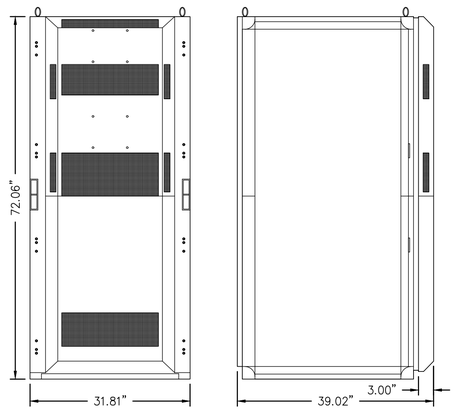
NOTES

1. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.
2. DO NOT SWEEP TEST GPS ANTENNA.
3. PLACE PROPOSED GPS ANTENNA A MIN. OF 10' (3 METER) HORIZONTALLY FROM ALL EXISTING TRANSMITTING ANTENNAS.
4. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 3/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18") USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH EDGES IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.



3 GPS SPECIFICATIONS
SCALE:

THIS DETAIL HAS NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY MAKES NO REPRESENTATION(S) WITH RESPECT TO ITS CONTENTS, AND SHALL NOT BE LIABLE FOR SUCH. ANY RELIANCE ON THIS STAMP SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE

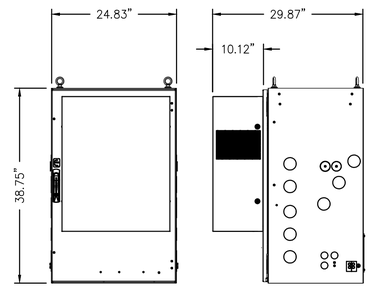


FRONT VIEW SIDE VIEW

WEIGHT
314KG (690LB) (NO BATTERIES OR RECTIFIERS)
1040KG (2300LB) WITH FULL COMPLEMENT OF GNB BATTERIES
820KG (1800LB) WITH FULL COMPLEMENT OF SAFT BATTERIES

6 EMERSON NETSURE 512 DC POWER PLANT
SCALE:

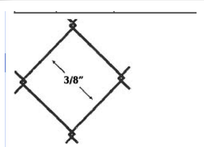
THIS DETAIL HAS NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY MAKES NO REPRESENTATION(S) WITH RESPECT TO ITS CONTENTS, AND SHALL NOT BE LIABLE FOR SUCH. ANY RELIANCE ON THIS STAMP SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE

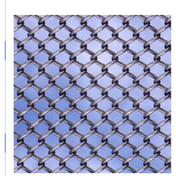


FRONT VIEW SIDE VIEW

WEIGHT
63.50KG (140LB) – EMPTY
136KG (300LB) – FULLY LOADED

6 PURCELL FLX21 CABINET
SCALE:





THIS DETAIL HAS NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY MAKES NO REPRESENTATION(S) WITH RESPECT TO ITS CONTENTS, AND SHALL NOT BE LIABLE FOR SUCH. ANY RELIANCE ON THIS STAMP SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE

Height	Mesh	Type	Roll Size	Weight/ Foot	Price
24"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
36"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
48"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
60"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
72"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
84"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
96"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
108"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829
120"	3/8" x 3/8"	Knuckle Knuckle	25'	-	**Call:** 800.878.7829

7 CHAIN LINK MINI MESH FABRIC FENCE
SCALE:

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

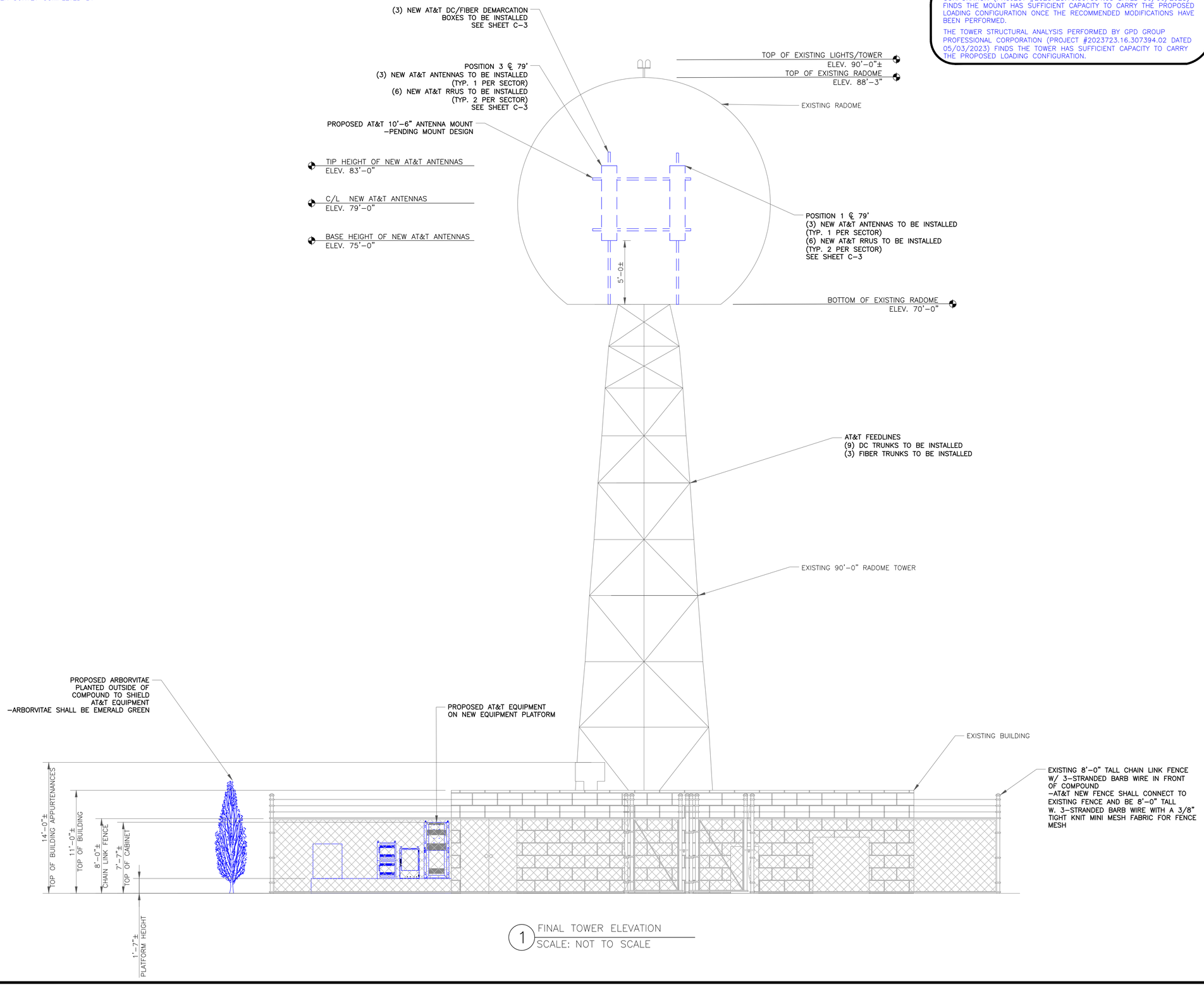
SHEET NUMBER: 5 C-3
REVISION: N

NOTE:

HEIGHT OF EXISTING RADOME PER SURVEY COMPLETED BY KEM-TEC DATED 03/02/2023

THE MOUNT ANALYSIS PERFORMED BY GPD GROUP PROFESSIONAL CORPORATION (PROJECT #2023723.16.307394.03 DATED 06/06/2023) FINDS THE MOUNT HAS SUFFICIENT CAPACITY TO CARRY THE PROPOSED LOADING CONFIGURATION ONCE THE RECOMMENDED MODIFICATIONS HAVE BEEN PERFORMED.

THE TOWER STRUCTURAL ANALYSIS PERFORMED BY GPD GROUP PROFESSIONAL CORPORATION (PROJECT #2023723.16.307394.02 DATED 05/03/2023) FINDS THE TOWER HAS SUFFICIENT CAPACITY TO CARRY THE PROPOSED LOADING CONFIGURATION.



1 FINAL TOWER ELEVATION
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

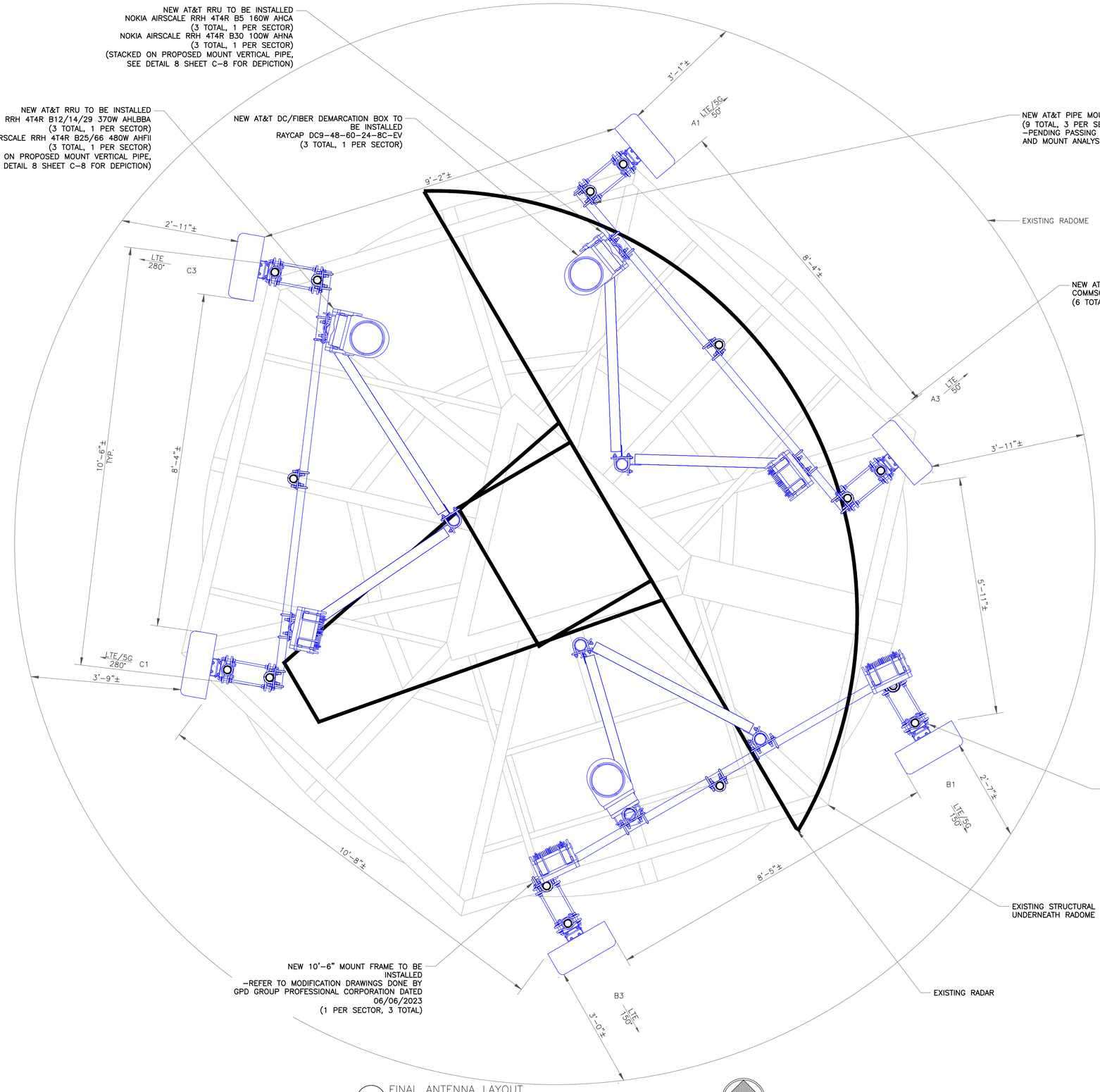
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

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.

SHEET NUMBER: C-4

REVISION: N



NOTES:

ALL EXISTING EQUIPMENT AND EMPTY PIPES TO BE REMOVED FROM RADOME TOWER APART FROM THE ACTIVE MW ANTENNA
-EXISTING EQUIPMENT WAS REMOVED IN THE DRAWINGS FOR CLARITY

EXISTING RADAR TO BE REMOVED

1 FINAL ANTENNA LAYOUT
SCALE: 1" 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

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.

SHEET NUMBER: C-5
REVISION: N

ANTENNA AND COAXIAL CABLE SCHEDULE

ALPHA

POSITION	TECH.	STATUS	AZIMUTH	ANTENNA TYPE	ANTENNA RAD CENTER	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT (LOW BAND/ HIGH BAND)	MAIN COAX SIZE	MAIN COAX LENGTH	COAX QTY	TMA QTY	DIPLEXER QTY ON TOWER	RAYCAP DEMARC SQUID	DC/ FIBER CABLES	RRUs QTY ON TOWER	DIPLEXERS QTY ON GROUND	RET HOMERUN
A1	5G 850, LTE WCS	NEW	50°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°	–	–	–	–	–	(1) DC9-48-60-24-8C-EV	(3) DC (PWRT-604-S) (1) FIBER (24 PAIR)	(1) B5 AHCA (1) B30 AHNA	–	–
A2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
A3	LTE 700, 1900, AWS	NEW	50°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°/0°	–	–	–	–	–	–	–	(1) B12/14/29 AHLBBA (1) B25/66 AHFII	–	–

BETA

B1	5G 850, LTE WCS	NEW	150°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°	–	–	–	–	–	(1) DC9-48-60-24-8C-EV	(3) DC (PWRT-604-S) (1) FIBER (24 PAIR)	(1) B5 AHCA (1) B30 AHNA	–	–
B2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B3	LTE 700, 1900, AWS	NEW	150°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°/0°	–	–	–	–	–	–	–	(1) B12/14/29 AHLBBA (1) B25/66 AHFII	–	–

GAMMA

C1	5G 850, LTE WCS	NEW	280°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°	–	–	–	–	–	(1) DC9-48-60-24-8C-EV	(3) DC (PWRT-606-S) (1) FIBER (24 PAIR)	(1) B5 AHCA (1) B30 AHNA	–	–
C2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C3	LTE 700, 1900, AWS	NEW	280°	COMMSCOPE NNH4-65C-R6-V3	79'	0°	0°/0°/0°	–	–	–	–	–	–	–	(1) B12/14/29 AHLBBA (1) B25/66 AHFII	–	–

NOTE: RFDS BEING USED
DATED 09/23/2021 V02

1 FINAL ANTENNA AND COAXIAL CABLE SCHEDULE
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

CIVIL

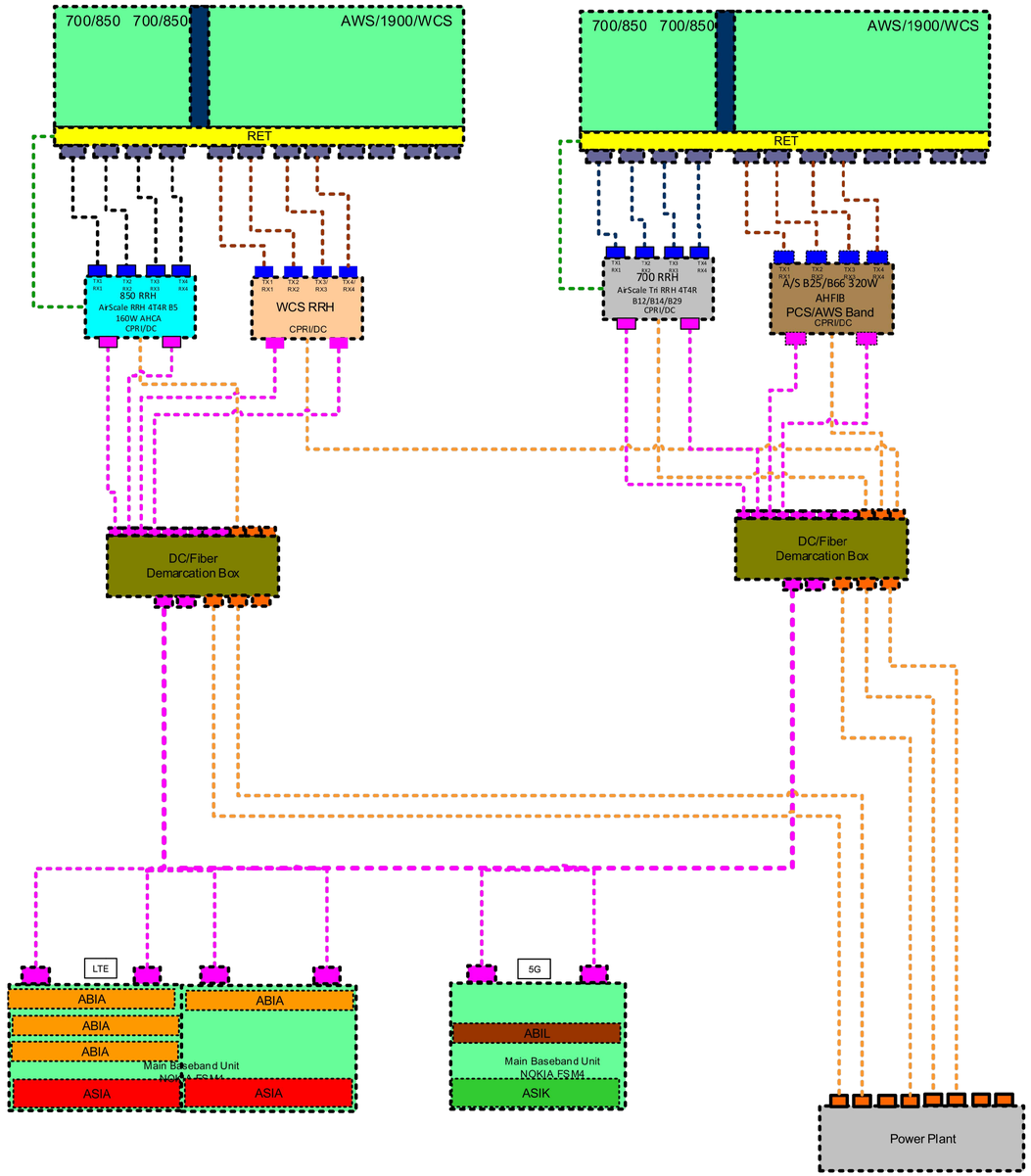
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-6

REVISION: N

Diagram - Sector	D	Diagram File Name - OML05943_SECTOR_A_AFTER.vsd					
Atoll Site Name -	GRANMI5943	Location Name -	GRANMI5943 SAUGATUCK	Market -	OUTSTATE MI	Market Cluster -	MICHIGAN/INDIANA
Comments:							

OML05943_SECTOR_A_AFTER



1 ALPHA SECTOR PLUMBING DIAGRAM
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

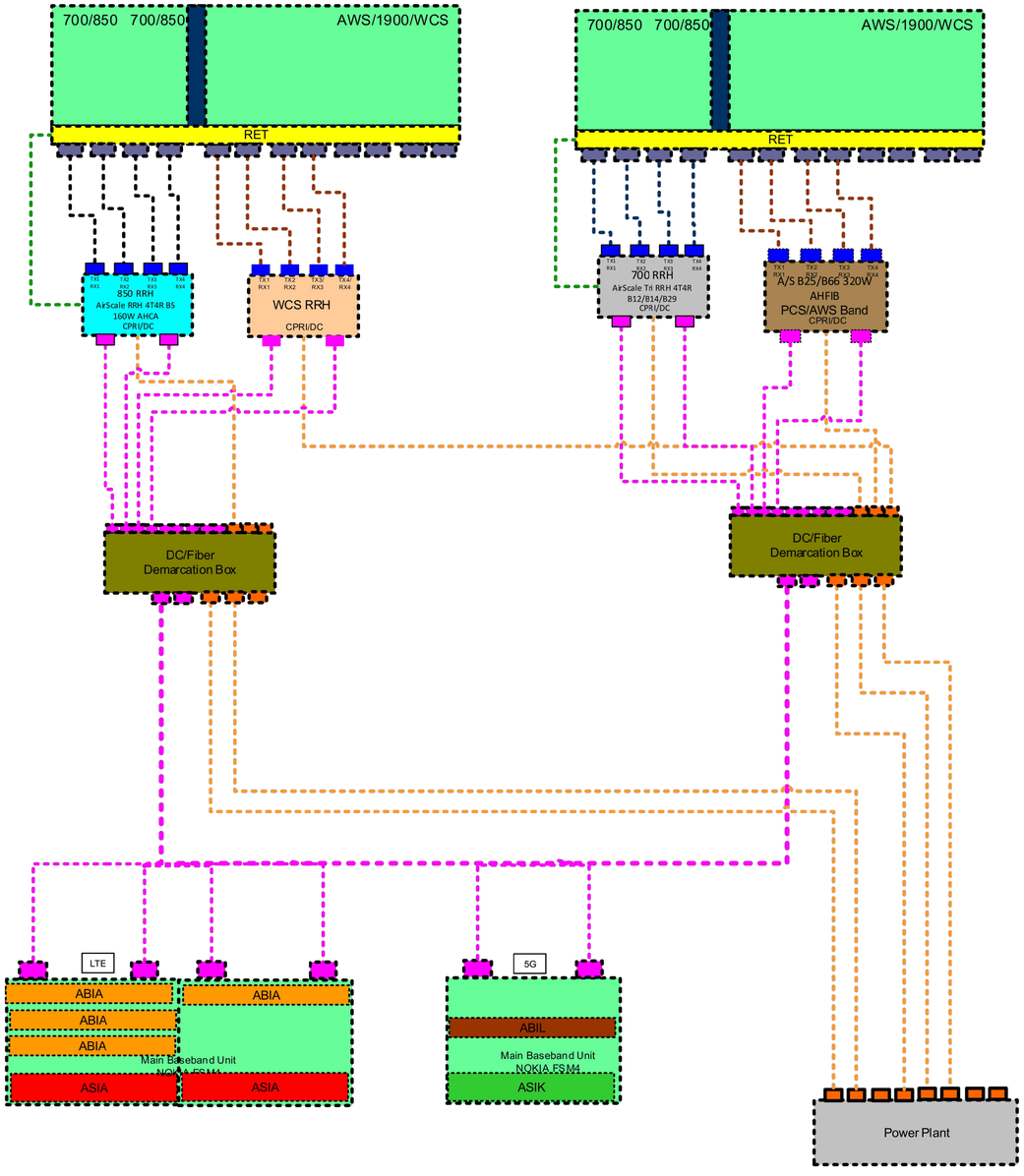
REFERENCE ONLY

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.

SHEET NUMBER: C-7.1
REVISION: N

Diagram - Sector	E	Diagram File Name - OML05943_SECTOR_B_AFTER.vsd					
Atoll Site Name -	GRANMI5943	Location Name -	GRANMI5943 SAUGATUCK	Market -	OUTSTATE MI	Market Cluster -	MICHIGAN/INDIANA
Comments:							

OML05943_SECTOR_B_AFTER



1 BETA SECTOR PLUMBING DIAGRAM
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

REFERENCE ONLY

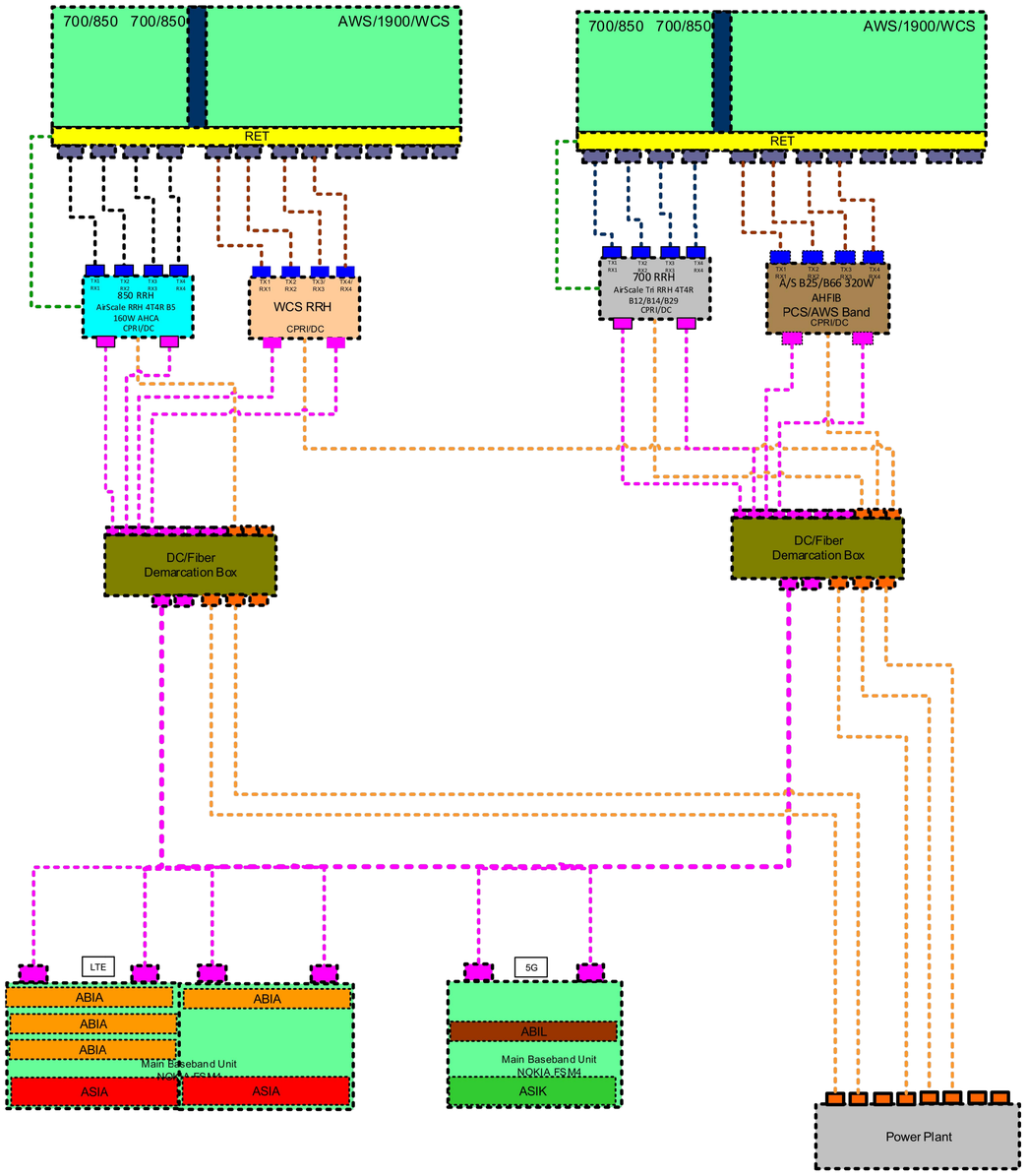
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-7.2

REVISION: N

Diagram - Sector	F	Diagram File Name - OML05943_SECTOR_C_AFTER.vsd					
Atoll Site Name -	GRANMI5943	Location Name -	GRANMI5943 SAUGATUCK	Market -	OUTSTATE MI	Market Cluster -	MICHIGAN/INDIANA
Comments:							

OML05943_SECTOR_C_AFTER



1 GAMMA SECTOR PLUMBING DIAGRAM
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

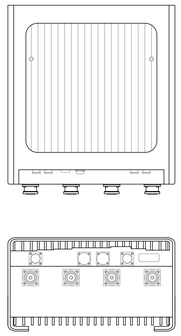
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/25/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

REFERENCE ONLY

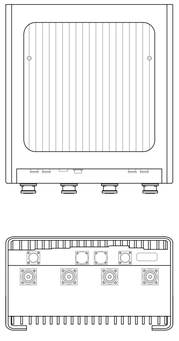
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-7.3
REVISION: N



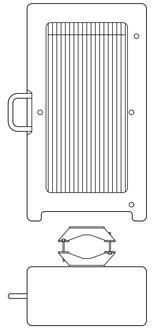
NOKIA – AIRSCALE RRH 4T4R B30 100W AHNA
WEIGHT (FULLY EQUIPPED): 39.02 LBS
SIZE (HxWxD): 13.3X12.1X5.5 IN.

1 NOKIA AHNA
SCALE: NOT TO SCALE



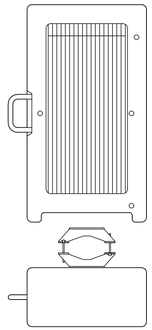
NOKIA – AIRSCALE RRH 4T4R B5 160W AHCA
WEIGHT (FULLY EQUIPPED): 35.27 LBS
SIZE (HxWxD): 13.3x11.6x6.5 IN.

2 NOKIA AHCA
SCALE: NOT TO SCALE



NOKIA AIRSCALE DUAL RRH 4T4R B25/66 480W AHFII
WEIGHT (FULLY EQUIPPED): 70.55 LBS
SIZE (HxWxD): 25.20x13.46x4.57 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

3 NOKIA AHFII
SCALE: NOT TO SCALE



NOKIA AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA
WEIGHT (FULLY EQUIPPED): 88.2 LBS
SIZE (HxWxD): 28.7x15.4x9.45 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

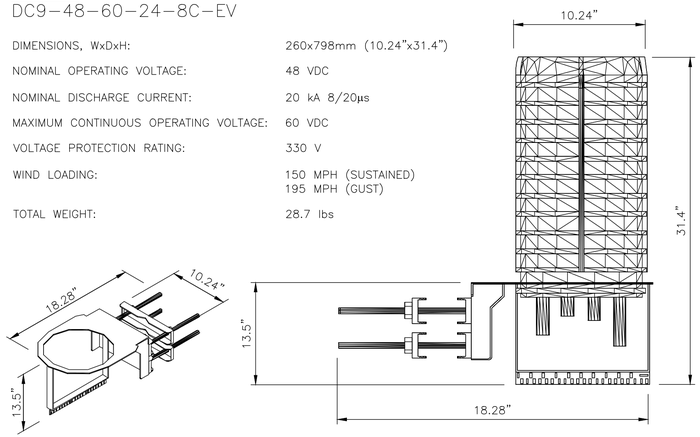
4 NOKIA AHLBBA
SCALE: NOT TO SCALE

5 DETAIL NOT USED
SCALE: NOT TO SCALE

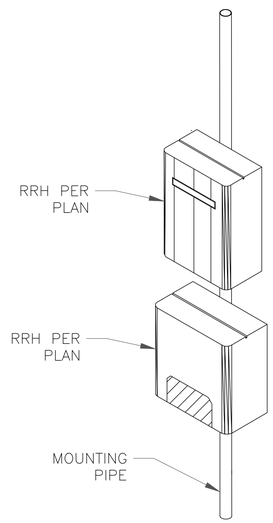
6 DETAIL NOT USED
SCALE: NOT TO SCALE

RAYCAP
DC9–48–60–24–8C–EV

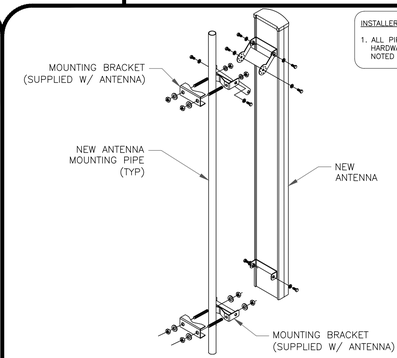
DIMENSIONS, WxDxH:	260x798mm (10.24"x31.4")
NOMINAL OPERATING VOLTAGE:	48 VDC
NOMINAL DISCHARGE CURRENT:	20 kA 8/20µs
MAXIMUM CONTINUOUS OPERATING VOLTAGE:	60 VDC
VOLTAGE PROTECTION RATING:	330 V
WIND LOADING:	150 MPH (SUSTAINED) 195 MPH (GUST)
TOTAL WEIGHT:	28.7 lbs



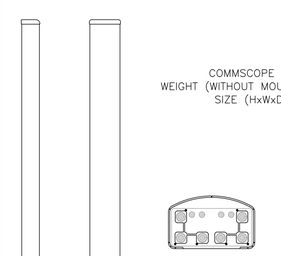
7 SQUID MOUNTING DETAIL
SCALE: NOT TO SCALE



8 STACKED RADIO DETAIL
SCALE:



9 MOUNTING DETAIL
SCALE: NOT TO SCALE



COMMSCOPE – NNH4–65C–R6–V3
WEIGHT (WITHOUT MOUNTING HARDWARE): 102.1 LBS
SIZE (HxWxD): 96.0x19.6x7.8 IN.

10 COMMSCOPE NNH4–65C–R6–V3
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

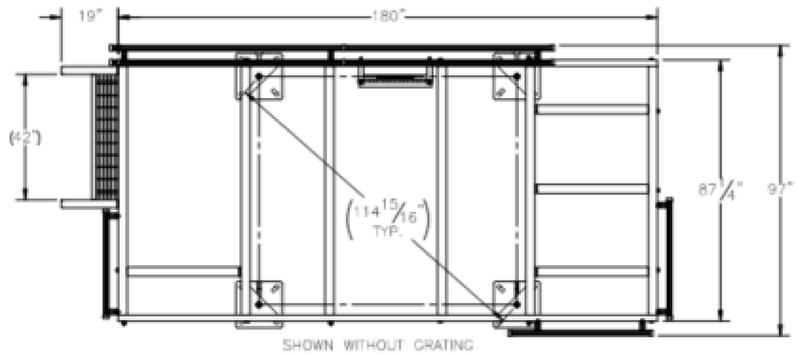
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

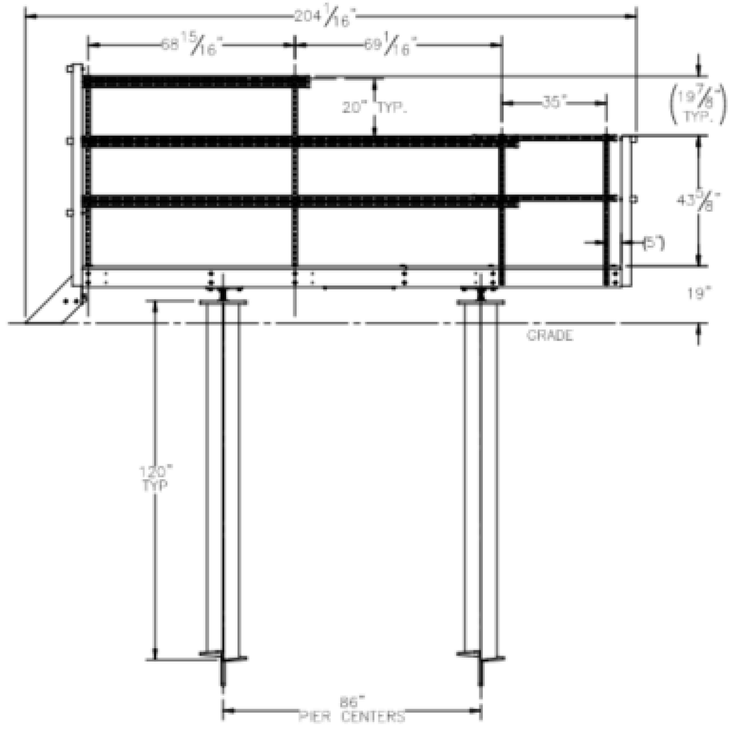
REFERENCE ONLY

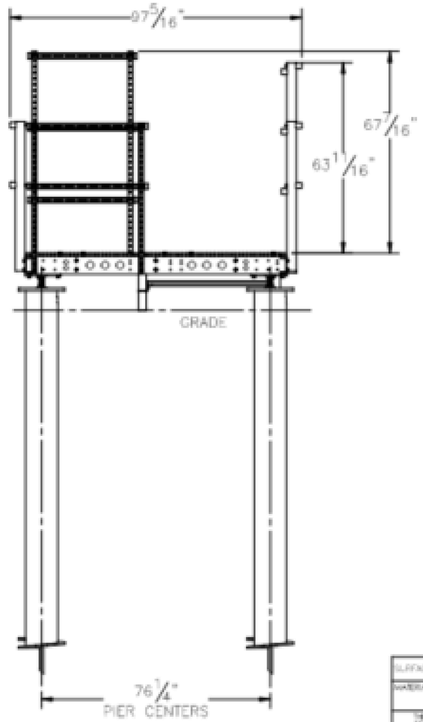
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

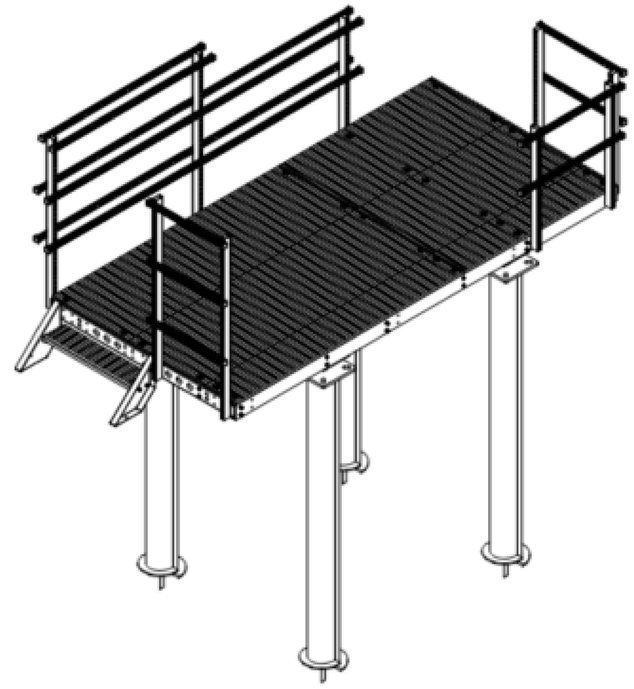
SHEET NUMBER: C-8
REVISION: N

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ELECTRO MECHANICAL INDUSTRIES, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF ELECTRO MECHANICAL IND., IS PROHIBITED.









SALES DRAWING

SURFACE FINISH: √ UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVALS	DATE
MATERIAL: SEE PARTS LIST	TOLERANCES: FRACTIONS ±1/16; ANGLES ± 30'; HOLES: DRILLED OR PUNCHED ±1/64; REAMED ±1/32	DRAWN: J. CRISSE	6/23/2023
THIRD ANGLE PROJECTION		CHECKER: J. BREEN	6/23/2023
		ENGINEER: J. BATEN	6/23/2023
		PRODUCTION: J. SUNDERLAND	6/23/2023
NEXT ASSY: USED ON			
APPLICATION:			

ELECTRO MECHANICAL INDUSTRIES, INC. 11321 HIGHWAY DRIVE HOUSTON, TEXAS 77065 1-800-453-0858

TITLE: 87" X 180" BOLT TOGETHER PLATFORM HELICAL MOUNTED

SIZE: B | DRAWING NO: 1000-0010-0465 | REV: 0

SCALE: 1:40 | WEIGHT: 3402.26 lbs. | SHEET 1 OF 1

1 PLATFORM SPECIFICATIONS
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

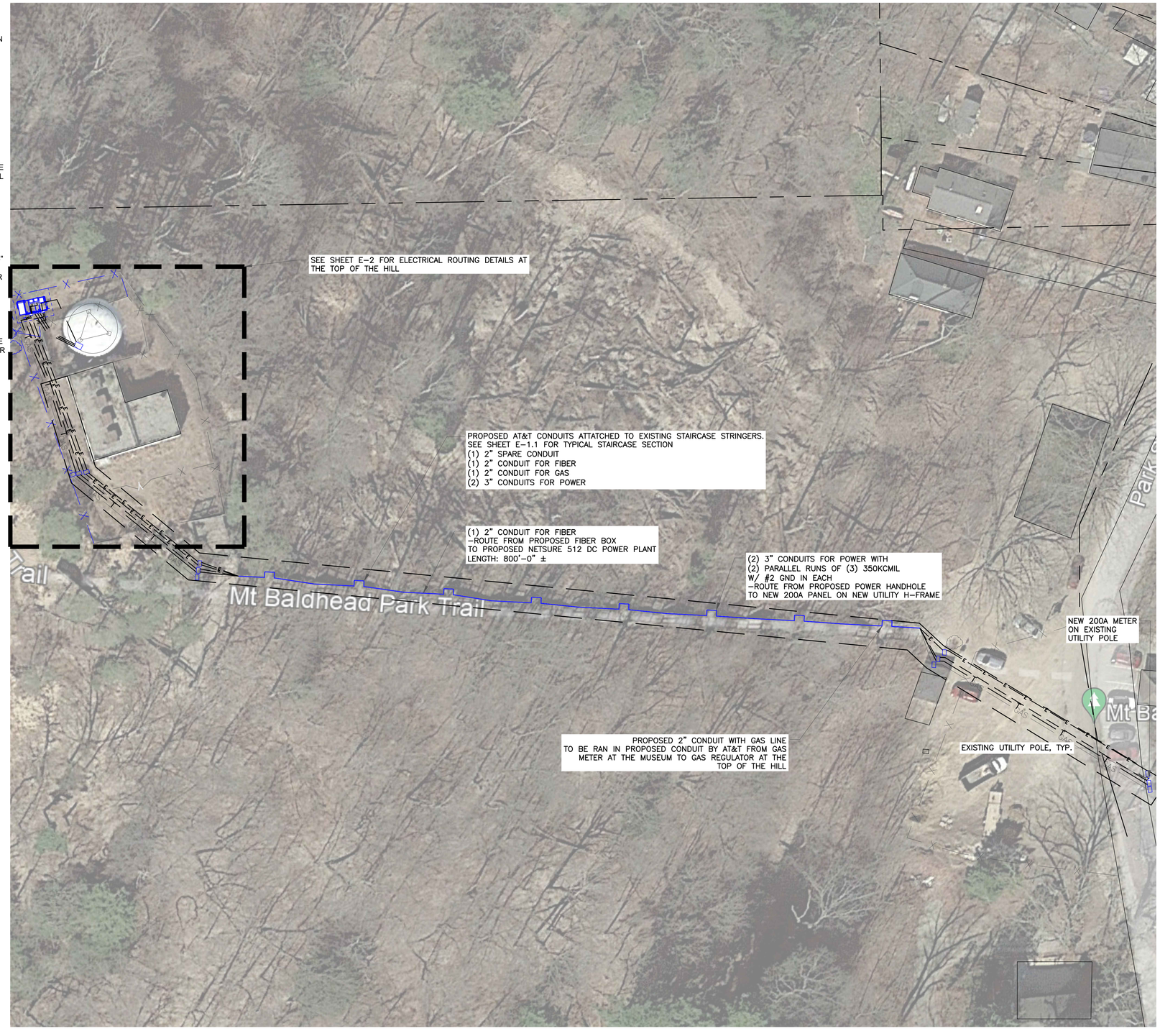
REFERENCE ONLY

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.

SHEET NUMBER: S-1

REVISION: N

1. THE CONDUIT ROUTING IS DIAGRAMMATICALLY SHOWN ON THE PLANS AND ARE ONLY APPROXIMATIONS. THE EXACT LOCATION AND ROUTING SHALL BE FIELD VERIFIED.
2. ALL ELECTRICAL EQUIPMENT AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES, INDICATING THE CIRCUITS ORIGINATION AND ALL EQUIPMENT TERMINATIONS.
3. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS, CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
4. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS, AND CIRCUIT CONDUCTORS, AS REQUIRED FOR A COMPLETED SYSTEM AND SHALL BE IN COMPLIANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
5. WHEN ADDITIONAL +24Vdc TO -48Vdc CONVERTERS ARE REQUIRED FOR LTE EQUIPMENT, ADDITIONAL +24Vdc RECTIFICATION & ADDITIONAL BATTERIES MAY BE REQUIRED TO BE ADDED TO THE EXISTING BATTERY STRING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BREAKERS, RECTIFIERS, BATTERIES, CONDUIT, CABLE TRAY, & CONDUCTORS WHICH ARE REQUIRED FOR A COMPLETED, FUNCTIONING ELECTRICAL SYSTEM.
6. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.
7. PROPOSED TELCO WITH 25 PAIR ICKY-PICK CAT 5 CONDUCTOR IN (2) PROPOSED 4" SCH 40 PVC CONDUIT. CONTRACTOR TO COORDINATE WITH LOCAL TELEPHONE COMPANY. EACH 4" TELCO CONDUIT TO HAVE (2) 1-1/4" INTERDUCT CONDUITS FOR FIBER.
8. PROPOSED POWER IN (1) PROPOSED 3" SCH 40 IMC CONDUIT. CONTRACTOR TO COORDINATE W/ LOCAL UTILITY COMPANY.
9. CONTRACTOR SHALL COORDINATE WITH POWER AND TELEPHONE COMPANIES, AND PROVIDE ALL MATERIALS REQUIRED, AND PROVIDE TRENCH, BACKFILL & SITE RESTORATION. DEPTH OF CONDUITS PER N.E.C., LOCAL JURISDICTION AND POWER & TELE COMPANY, WHICH EVER IS MORE STRINGENT.



CONTRACTOR NOTE:

CONTRACTOR SHALL COORDINATE CONTROL & ALARM CONDUITS, WIRES & TERMINATION REQUIREMENTS FOR DIESEL GENERATOR PER MANUFACTURERS DRAWINGS

1 OVERALL ELECTRICAL SITE PLAN
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

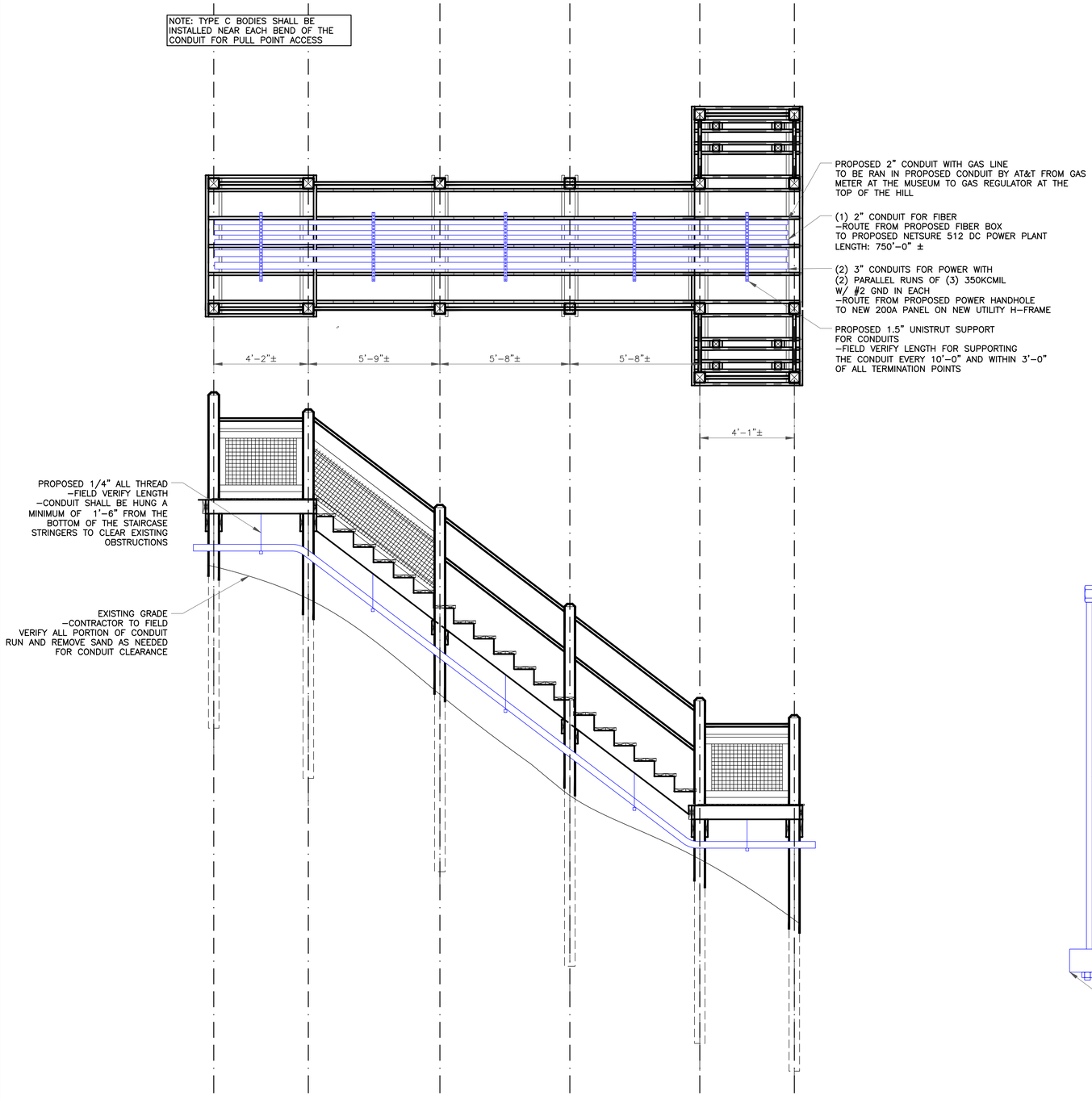
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

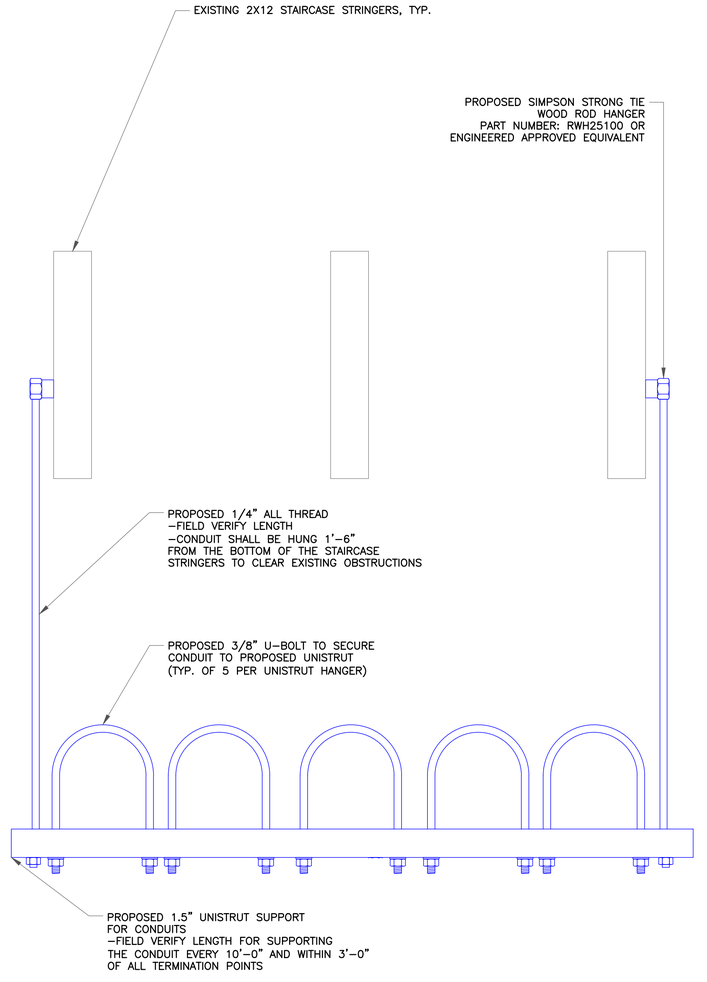
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: E-1

REVISION: N



1 TYPICAL STAIRCASE SECTION
SCALE: NO SCALE



2 CONDUIT HANGING DETAIL
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

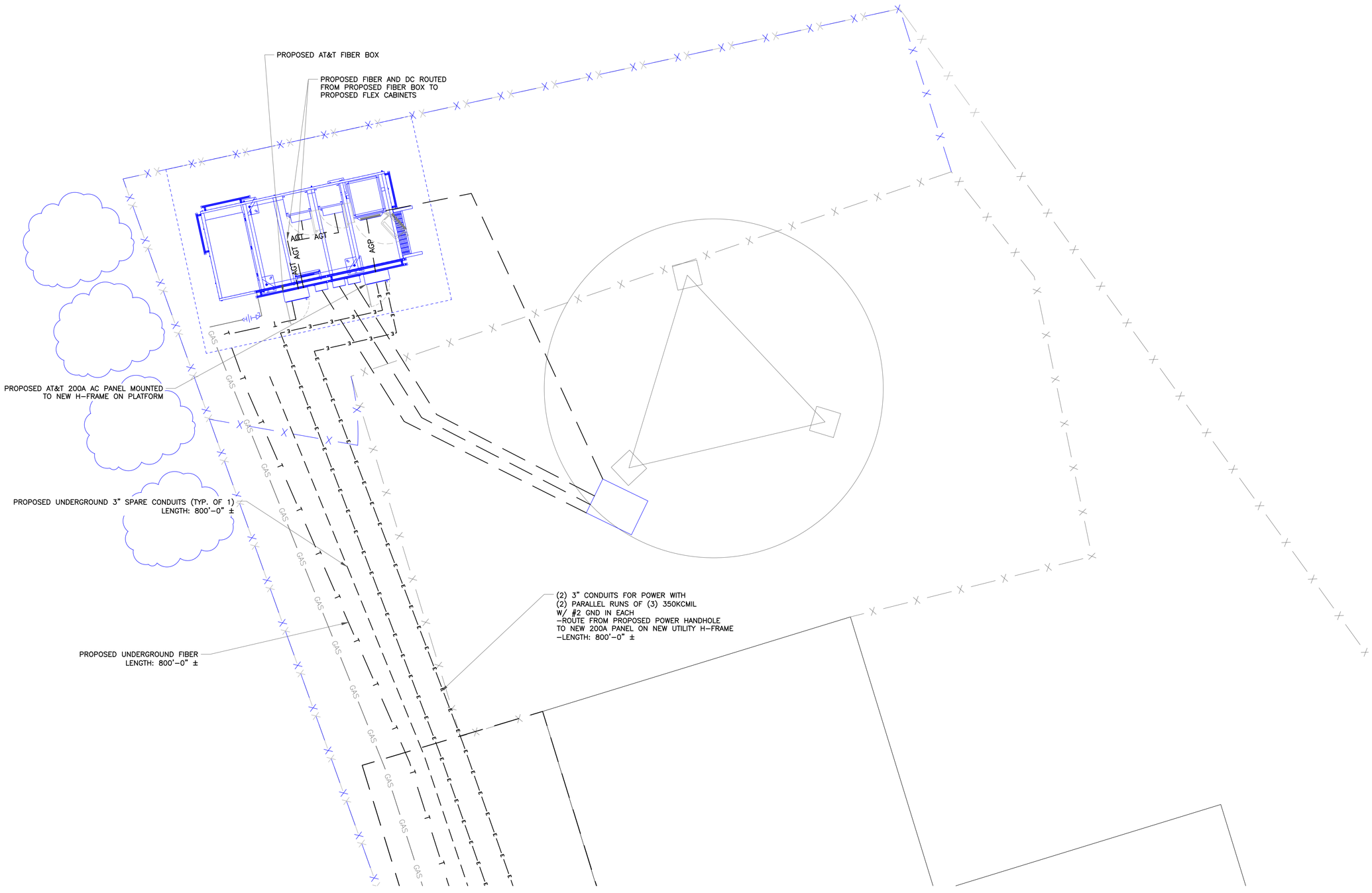
EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: E-1.1
REVISION: N



1 TOP OF HILL ELECTRIAL PLAN
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

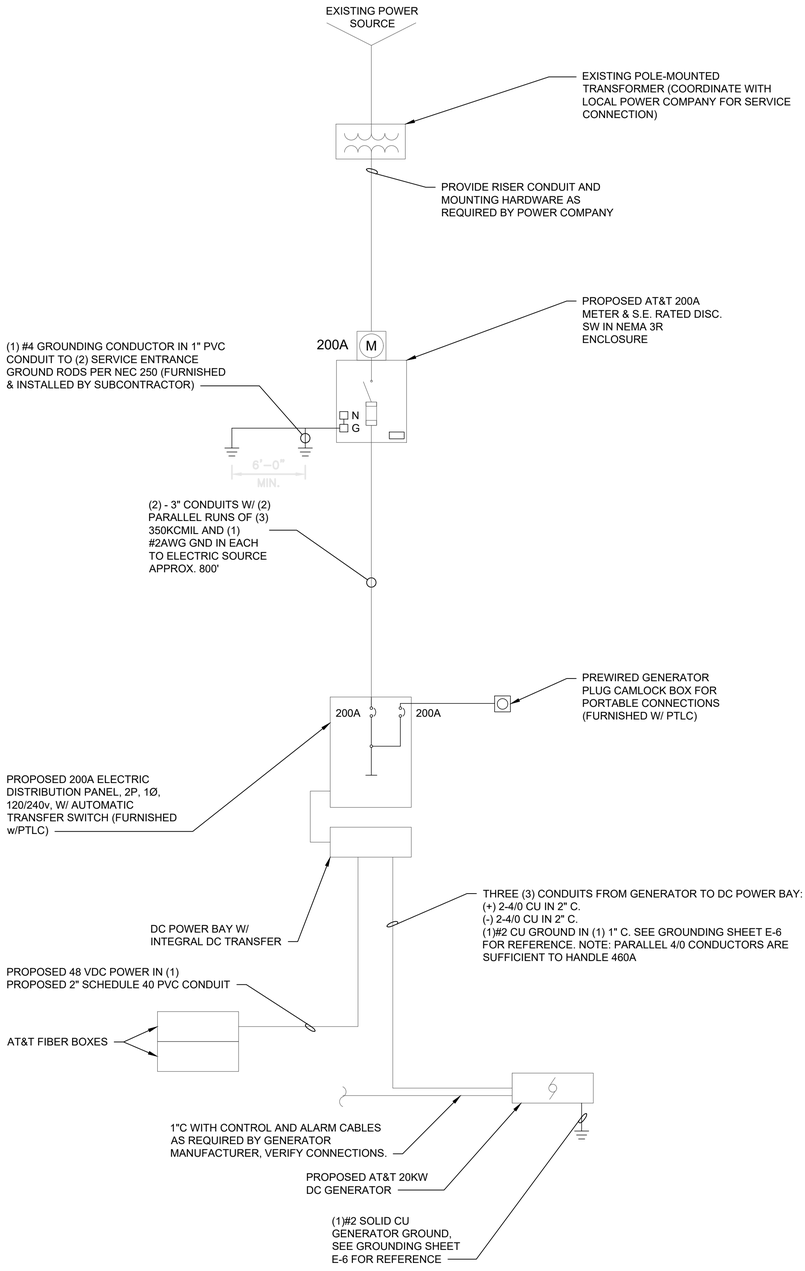
EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: E-2
REVISION: N

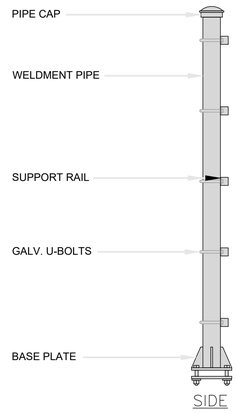


CONTRACTOR SHALL INSTALL PER LATEST EDITION OF THE NEC

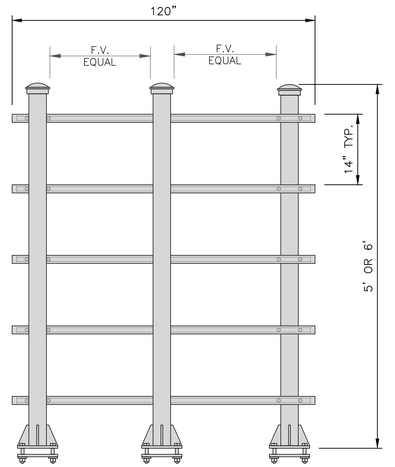
CONTRACTOR SHALL COORDINATE CONTROLS AND ALARMS, CONDUITS, WIRES AND TERMINATIONS FROM DC GENERATOR AS REQUIRED BY MANUFACTURER

1 ONE LINE DIAGRAM
SCALE: NO SCALE

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



SIDE

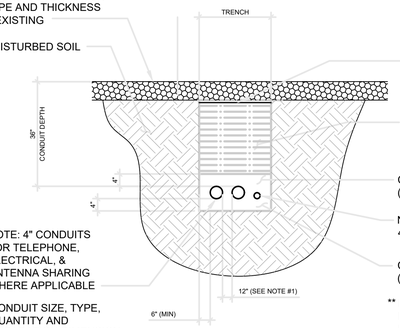


FRONT

2 H-FRAME DETAIL
SCALE: NO SCALE

FINISHED GRADE, OR GROUND COVER MATCH SLOPE AND THICKNESS OF EXISTING

UNDISTURBED SOIL



CAUTIONARY TAPE

COMPACTED BACKFILL W/ SATISFACTORY NATIVE OR IMPORTED SOIL

COMPACTED SAND (SEE NOTE **)

NOTE: 2" CONDUIT FOR 48 VDC POWER

COMPACTED SAND BED (SEE NOTE **)

NOTE: 4" CONDUITS FOR TELEPHONE, ELECTRICAL, & ANTENNA SHARING WHERE APPLICABLE

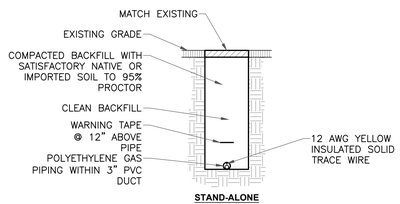
CONDUIT SIZE, TYPE, QUANTITY AND SEPARATION DIMENSION SHALL BE VERIFIED W/LOCAL UTILITY COMPANY REQUIREMENTS

** LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.

NOTE:
1. PROVIDE 12" MIN SEPARATION BETWEEN TELEPHONE & POWER CONDUITS

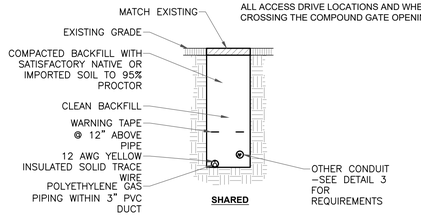
3 TRENCHING DETAIL
SCALE: NO SCALE

*TRENCH WIDTH SHALL NOT EXCEED 18" AT ALL ACCESS DRIVE LOCATIONS AND WHEN CROSSING THE COMPOUND GATE OPENING



STAND-ALONE

*TRENCH WIDTH SHALL NOT EXCEED 18" AT ALL ACCESS DRIVE LOCATIONS AND WHEN CROSSING THE COMPOUND GATE OPENING



SHARED

3 GAS TRENCHING DETAIL
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: E-3
REVISION: N

VOLTAGE:	120/240V				PHASE:	1		WIRE:	3							
MAIN BREAKER:	200 AMP				BUSS RATING:	200 AMPS		AIC:	22K (VERIFY IN FIELD. SEE NOTE 29 ON SHEET E-3)							
MOUNT:	SURFACE				NEUTRAL BAR:	YES		GROUND BAR:	YES							
ENCLOSURE TYPE:	NEMA 3R				N to GROUND BOND:	NO										
PANEL STATUS:	PROPOSED				INTERNAL TVSS:	YES										

CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	USAGE FACTOR	PHASE A VA	PHASE B VA	USAGE FACTOR	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	RECTIFIER 1 & 2	25	2	ON	2150	1.00	2330		1.00	180	ON	1	20	GFCI	2
3				ON	2150	1.00		4300	1.00	2150	ON	2	25	RECTIFIER 7 & 8	4
5	RECTIFIER 3 & 4	25	2	ON	2150	1.00	4300		1.00	2150	ON				6
7				ON	2150	1.00		4300	1.00	2150	ON	2	25	RECTIFIER 9 & 10	8
9	RECTIFIER 5 & 6	25	2	ON	2150	1.00	4300		1.00	2150	ON				10
11				ON	2150	1.00		2150	1.00	0	OFF	2	30	SPARE	12
13	SPARE	30	2	OFF	0	1.00	0		1.00	0	OFF				14
15				OFF	0	1.00		0	1.00	0	N/A	---	---	---	16
17	---	---	---	N/A	0	1.00	0		1.00	0	N/A	---	---	---	18
19	---	---	---	N/A	0	1.00		0	1.00	0	N/A	---	---	---	20
21	---	---	---	N/A	0	1.00	0		1.00	0	N/A	---	---	---	22
23	---	---	---	N/A	0	1.00		0	1.00	0	N/A	---	---	---	24
25	---	---	---	N/A	0	1.00	0		1.00	0	N/A	---	---	---	26
27	---	---	---	N/A	0	1.00		0	1.00	0	N/A	---	---	---	28
29	---	---	---	N/A	0	1.00	0		1.00	0	N/A	---	---	---	30
							10930	10750	VA			TOTAL KVA	21.68		
EQUIPMENT CABINET SCHEDULE												AMPS	90.33		

1 MAIN PANEL SCHEDULE
SCALE: NO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: 4 E-4
REVISION: N

A. WORK INCLUDED:

THIS SPECIFICATION AND ACCOMPANYING DRAWING CONTEMPLATE THE PROVISIONS AND INSTALLATION, BY THE ELECTRICAL CONTRACTOR OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS AT&T MOBILITY SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE PROVISIONS, INSTALLATION AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, TOWER GROUNDING AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.

2. THE PROVISIONS AND INSTALLATION OF AN ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.

3. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC. (UNLESS OTHERWISE NOTED).

4. ALL CONDUITS SHALL BE LEFT WITH 200# TEST PULL WIRE. (UNLESS NOTED OTHERWISE) STUB & PLUG BOTH ENDS OF ALL SPARE CONDUITS UP AT 12" ABOVE GRADE.

5. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS AND CONDUIT AND MAKE THE CONNECTION TO THE SERVICE EQUIPMENT WITHIN THE BUILDING.

6. SUBCONTRACTOR SHALL NOTIFY ELECTRIC AND TELEPHONE SERVICES CONTACT AT START OF CONSTRUCTION (2 WEEKS MIN.):

POWER CO.: CONSUMERS ENERGY
CONTACT:
PHONE #:

TELEPHONE CO.:
CONTACT:
PHONE #:

7. ABOVE GRADE RISER CONDUIT SHALL BE GALVANIZED STEEL WITH MATCHING FITTINGS.

8. THE SUBCONTRACTOR SHALL PERFORM ALL WORK SHOWN ON THE BUILDING DRAWINGS NOTED "FIELD WORK" OR OTHERWISE NOTED AS WIRING TO BE COMPLETED IN THE FIELD.

9. ALL WIRE SHALL BE (COPPER, 600V THHW, 90°C) UNLESS NOTED OTHERWISE.

B. CODES, PERMITS AND FEES:

1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY SUBCONTRACTOR.

2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES; STATE, LOCAL AND NATIONAL, AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT, SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING RECOGNIZED AUTHORITIES:

A.N.S.I. - AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E. - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
N.E.C. - NATIONAL ELECTRIC CODE
N.E.M.A. - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
N.F.P.A. - NATIONAL FIRE PROTECTION ASSOCIATION
U.L. - UNDERWRITERS LABORATORIES, INC.

3. THE SUBCONTRACTOR SHALL BE LICENSED TO PERFORM WORK IN THE STATE, CITY OR COUNTY OF THE PROJECT SITE AS REQUIRED.

4. UTILITY COMPANY COORDINATION
ELECTRICAL CONTRACTOR SHALL COMPLETE ALL WORK IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY. BEFORE SUBMITTING HIS BID, THE SUBCONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COST IN HIS BID WHENEVER POSSIBLE.

5. UTILITIES:

THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE EXCAVATION AND PROPER BACKFILLING OF TRENCHES AND SUPPLY CONDUIT REQUIRED FOR UNDERGROUND TELEPHONE & ELECTRICAL UTILITIES. ALL TRENCHING SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE W/ASTM D-1557 IN 6" LIFTS.

THE ELECTRICAL TRENCH SHALL START AT THE NEW PREFABRICATED RADIO EQUIPMENT BUILDING AND END AT THE NEW METER BOARD STRUCTURE. THE SUBCONTRACTOR SHALL THEN STUB THE CONDUIT 5' OUTSIDE THE FENCE. THE ELECTRIC PROVIDER SHALL PROVIDE SERVICE TO THE NEW METER BOARD STRUCTURE. THE SUBCONTRACTOR SHALL PROPERLY BACKFILL THE TRENCHES AFTER SETTLEMENT AND RESTORE GRAVEL COMPOUND. CONTACT ELECTRIC PROVIDER SIX WEEKS PRIOR TO CONSTRUCTION FOR SERVICE AND COORDINATION OF ACCESS TO SITE.

THE SUBCONTRACTOR SHALL RUN THE TELEPHONE TRENCH AND CONDUIT FROM THE NEW PREFABRICATED RADIO EQUIPMENT BUILDING TO THE NEW TELCO METER BOARD STRUCTURE. THE SUBCONTRACTOR SHALL THEN RUN CONDUIT W/PULL STRING OUTSIDE THE FENCE IN THE UTILITY EASEMENT TO THE R.O.W. THE SUBCONTRACTOR SHALL STAKE THE LOCATIONS OF THE PULL BOXES. THE TELCO PROVIDER SHALL PROVIDE SERVICE TO THE METER BOARD STRUCTURE. THE SUBCONTRACTOR SHALL PROPERLY BACKFILL THE TRENCHES AFTER SETTLEMENT AND RESTORE THE GRAVEL COMPOUND.

2. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

3. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

4. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

5. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

6. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.

7. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), 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.

8. 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 AMPICITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANEL BOARD AND CIRCUIT ID'S).

9. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.

10. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

11. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (14 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.

12. 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.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 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.

14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

16. 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.

17. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

18. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.

19. RIGID NONMETALLIC CONDUIT (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.

20. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

21. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

22. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

23. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

24. 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.

25. 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.

26. 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.

27. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

28. 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.

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

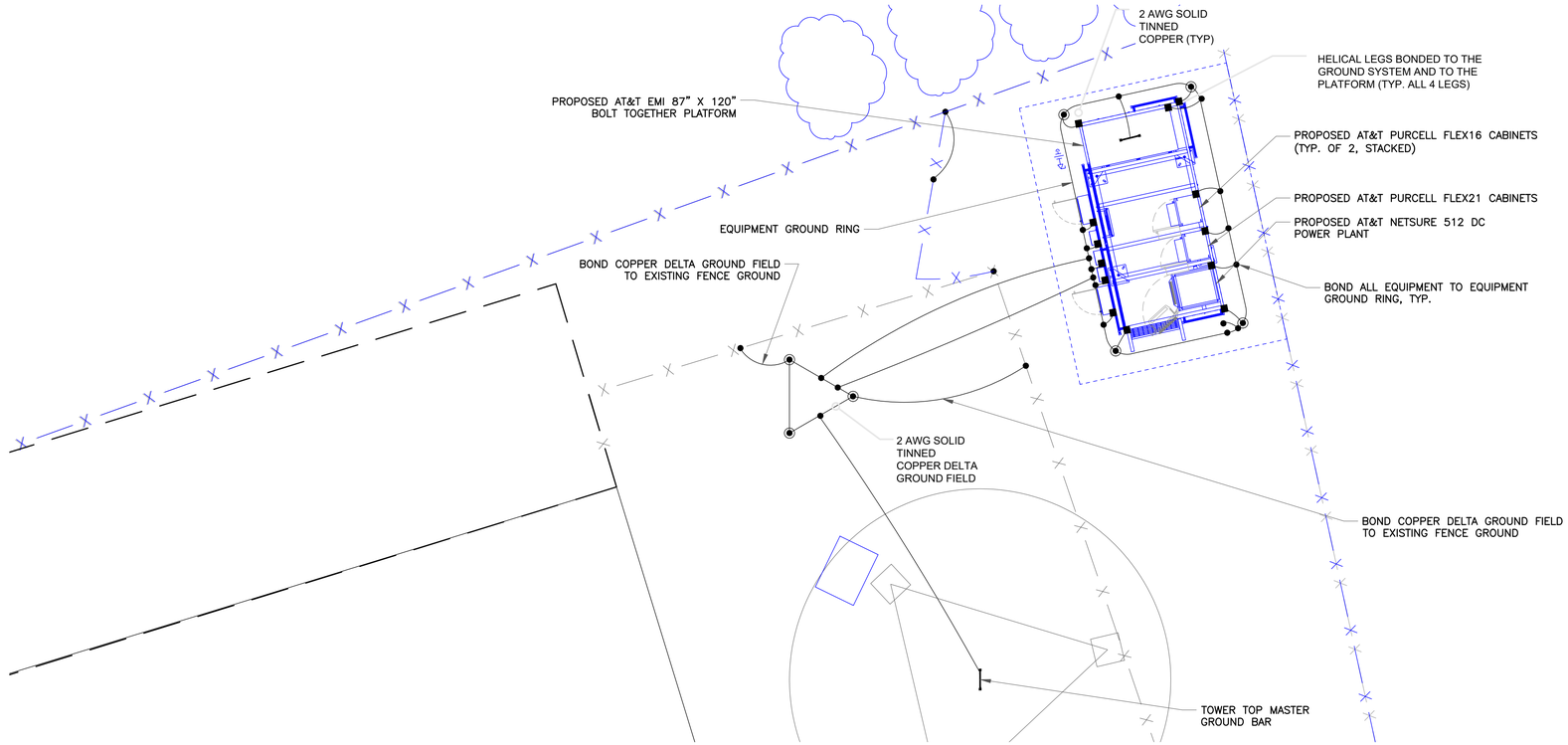
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

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.

SHEET NUMBER: 4 E-5

REVISION: N



1 TOP OF HILL GROUNDING PLAN

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

NOTE 1:

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING GROUNDING PRIOR TO TRENCHING.

2. CONTRACTOR SHALL MAINTAIN CONTINUITY OF EXISTING GROUND RING BY SPLICING (VIA CADWELD) ANY CUT OR BROKEN SECTIONS WITH 2 AWG SOLID TINNED COPPER TO EXISTING OR NEW GROUNDING.

NOTE 2:

1. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION.

2. CONTRACTOR SHALL HAND DIG IN THE VICINITY OF ALL EXISTING LINES.

LEGEND

- INSPECTION PORT
- GROUND ROD - 5/8"x10' W/ CADWELD GROUND CONNECTION
- MECHANICAL CONNECTION
- CADWELD CONNECTION

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY. FOR GROUNDING DETAILS SEE DRAWINGS G-2 THRU G-4
2. TESTING SHALL BE PERFORMED AT ALL SITES WHERE MODIFICATIONS OR ADDITIONS ARE MADE TO THE EXISTING GROUNDING SYSTEM AND SHALL BE IN ACCORDANCE WITH AT&T GROUNDING AND BONDING STANDARDS TP-76416. THE CONTRACTOR SHALL SUPPLY AT&T WITH RESULTS FROM PRE-CONSTRUCTION AND POST-CONSTRUCTION OHM TESTING (GROUNDING) RESULTS AND BE IN COMPLIANCE WITH AT&T GROUNDING AND BONDING STANDARDS TP-76416.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A "FALL OF POTENTIAL" TEST ON THE PROPOSED SUPPLEMENTAL GROUNDING FIELD PRIOR TO FINAL CONNECTION OF THE GROUNDING SYSTEM TO EQUIPMENT. THE TEST SHALL BE PERFORMED BY A QUALIFIED AND CERTIFIED TESTING AGENT. PROVIDE INDEPENDENT TEST RESULTS TO THE PROJECT MANAGER FOR REVIEW. THE GROUNDING SYSTEM RESISTANCE TO EARTH GROUNDING SHALL NOT EXCEED (5) OHMS. IF THE GROUNDING TEST EXCEEDS THE MAXIMUM OF (5) OHMS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL GROUNDING RODS AND CONNECTIONS AS REQUIRED TO MEET THE (5) OHMS' MAXIMUM.
4. THE INSPECTOR HAVING JURISDICTION SHALL INSPECT ALL GROUNDING CONNECTIONS FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BEFORE BEING PERMANENTLY CONCEALED.
5. FOR ALL CONNECTIONS TO THE GROUNDING RING, SEE THE EQUIPMENT MANUFACTURER'S DRAWINGS.
6. WHEN AN EXISTING METER RACK IS BEING UTILIZED AND A NEW METER IS INSTALLED IN THE EXISTING METER RACK, THE GROUNDING RODS, AND GROUNDING CONDUCTORS OF THE EXISTING GROUNDING RING, SHALL BE EXTENDED TO THE PROPOSED GROUNDING RING AND BECOME A COMPLETE GROUNDING SYSTEM.
7. CONTRACTOR SHALL GROUND ALL EQUIPMENT INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. WHEN A CANOPY IS INSTALLED, THE CANOPY SHALL BE EFFECTIVELY GROUNDED AS REQUIRED BY AT&T GROUNDING AND BONDING STANDARDS TP-76416.
9. WHEN A SUPPORT PLATFORM STRUCTURE IS EMPLOYED, ROUTE GROUNDING CONDUCTORS UNDERNEATH AND ON THE SUPPORTING MEMBERS, USING APPROVED STRAPS AS REQUIRED IN AT&T GROUNDING AND BONDING ARTICLE 6.4.1.7 STATED IN TP-76416.
10. MAIN GROUNDING CONDUCTORS SHALL BE ROUTED AND BONDED TO ALL EFFECTIVE GROUNDING PATHS IN ACCORDANCE WITH AT&T GROUNDING AND BONDING SPECIFICATION 6.8.2 STATED IN TP-76416. THE NEW GROUNDING SYSTEM SHALL BE BONDED (2 PLACES) TO ALL EXISTING GROUNDING SYSTEMS, INCLUDING BUT NOT LIMITED TO BUILDING STEEL STRUCTURE, LIGHTNING PROTECTION SYSTEMS, BUILDING MAIN GROUNDING SYSTEM AND/OR MAIN WATER SUPPLY IF APPLICABLE.
11. CONNECTIONS TO THE BURIED GROUND RING SHALL BE EXOTHERMICALLY WELDED BY A CERTIFIED TECHNICIAN. CONNECTIONS TO ABOVE GROUND UNITS SHALL BE MAKE WITH EXOTHERMIC WELD, WHERE PRACTICAL, OR WITH 2 HOLE CONNECTIONS.
12. GROUND WIRE SHALL HAVE A MINIMUM BEND RADIUS OF 8" AND >90°.
13. ALL MECHANICAL GROUND CONNECTION SHALL HAVE AN ANTIOXIDANT COMPOUND APPLIED PRIOR TO INSTALLATION.
14. THE CONTRACTOR SHALL PROVIDE TWO (2) GROUND RODS SPACED AT A MINIMUM OF 6' APART TO SATISFY EQUIPMENT GROUNDING CONDUCTOR (EGC) PER NEC REQUIREMENTS.

2 GENERAL GROUNDING NOTES

SCALE: NOT TO SCALE

3 DETAIL NOT USED

SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

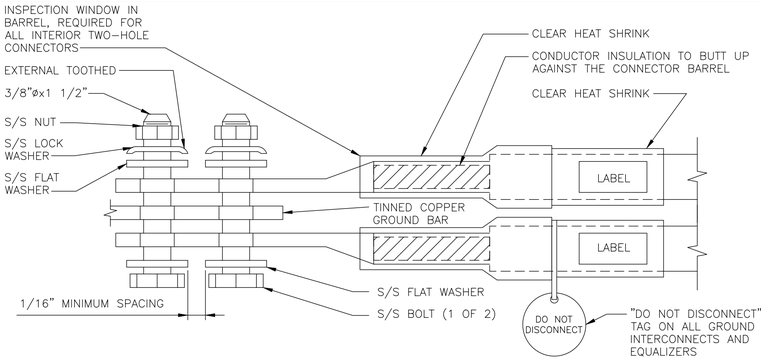
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

ELECTRICAL

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.

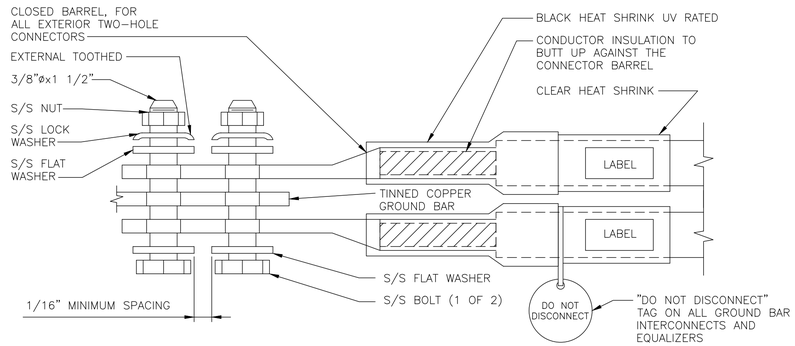
SHEET NUMBER: G-1 **REVISION:** N



NOTES:

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
5. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BUS.
6. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
7. SUPPLIED AND INSTALLED BY CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
10. BOLTS SHALL BE MADE "SNUG-TIGHT" PLUS 1/4 TURN.

1 INTERIOR TWO-HOLE LUG DETAIL
SCALE: NOT TO SCALE

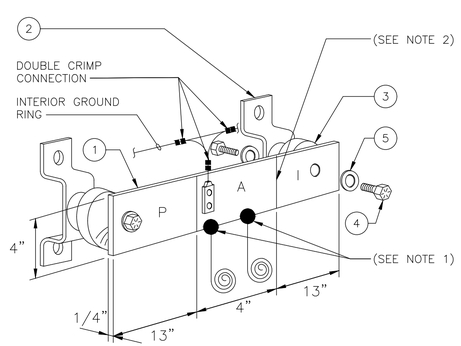


NOTES:

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
5. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BUS.
6. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
7. SUPPLIED AND INSTALLED BY CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
10. BOLTS SHALL BE MADE "SNUG-TIGHT" PLUS 1/4 TURN.

2 EXTERIOR TWO-HOLE LUG DETAIL
SCALE: NOT TO SCALE

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C.			
NO	REQUIRED	PART NUMBER	DESCRIPTION
1	1	1/4"x4"x30"	SOLID GROUND BAR
2	2	A-6056	WALL MOUNTING BRACKET
3	2	3061-4	INSULATORS
4	4	3012-1	5/8"-11x1" H.H.C.S.
5	4	3015-8	5/8" LOCKWASHER



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION

SECTION "P" – SURGE PROTECTORS

(EC) CELL REFERENCE GROUND BAR (IF COLLOCATED)
(EC) GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
(EC) TELCO GROUND BAR (#2 AWG)
(EC) COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (3/0)
(EC) FIBER GROUND BAR (#2 AWG)
(EC) POWER ROOM REFERENCE GROUND BAR (#2 AWG)
(AT&T) RECTIFIER FRAMES

SECTION "A" – SURGE ABSORBERS

(EC) INTERIOR GROUND RING (#2 AWG)
(EC) EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
(EC) METALLIC COLD WATER PIPE (IF AVAILABLE) (1/0 AWG)
(EC) BUILDING STEEL (IF AVAILABLE) (1/0 AWG)

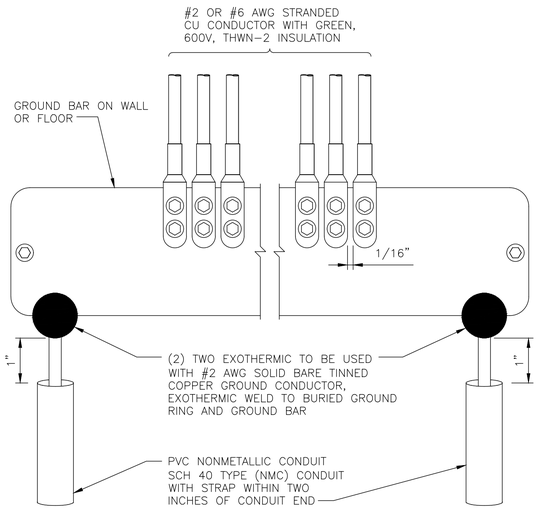
SECTION "I" – ISOLATED GROUND ZONE

(AT&T) ALL ISOLATED GROUND REFERENCE
(AT&T) GROUND WINDOW BAR

DETAIL NOTES:

1. EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. THE INSTALLER SHALL USE PERMAMENT MARKER TO DRAW THE LIKE BETWEEN SECTION AND LABEL EACH SECTION ("P", "A", "I" WITH 1" HIGH LETTERS

3 (MGB) REFERENCE GROUNDING BAR DETAIL
SCALE: NOT TO SCALE



4 GROUNDING BAR DETAIL
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

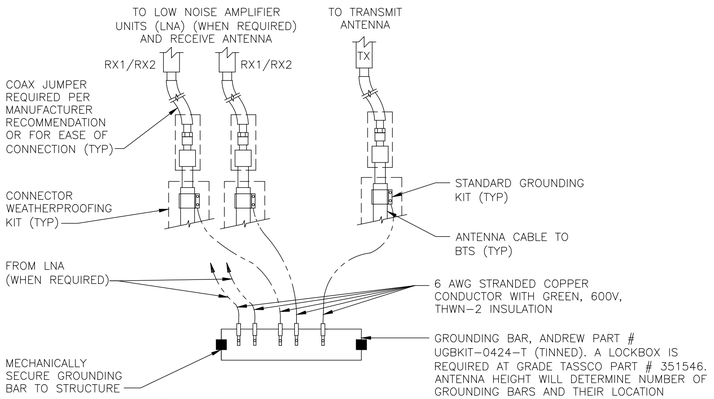
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

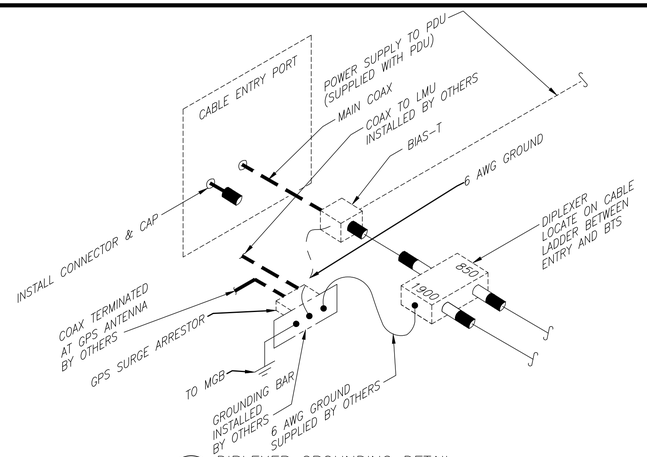
ELECTRICAL

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.

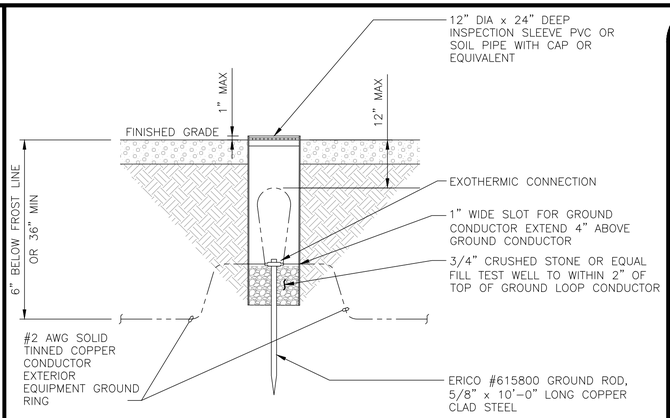
SHEET NUMBER: G-2
REVISION: N



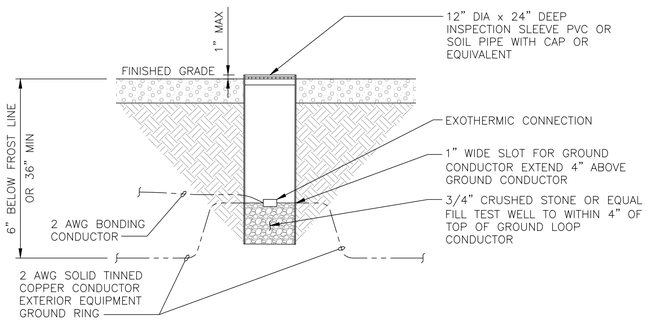
1 ANTENNA GROUNDING BAR DETAIL
SCALE: NOT TO SCALE



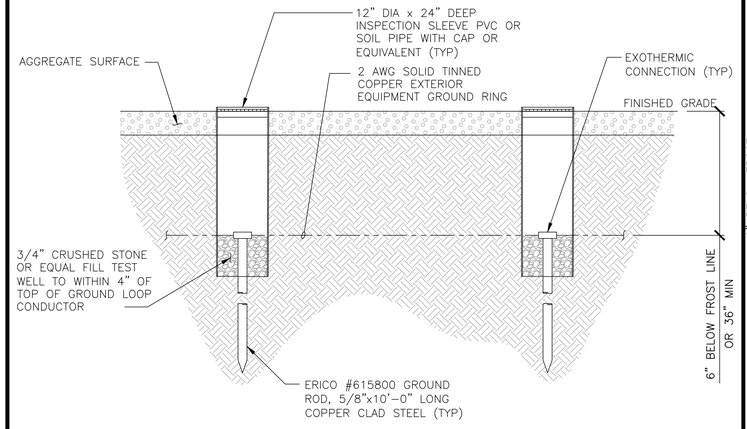
2 DIPLEXER GROUNDING DETAIL
SCALE: NOT TO SCALE



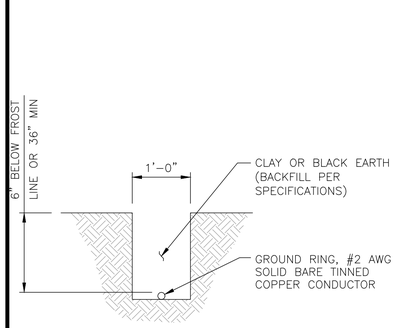
3 TEST GROUND ROD W/ INSPECTION SLEEVE
SCALE: NOT TO SCALE



4 EXOTHERMIC WITH INSPECTION SLEEVE
SCALE: NOT TO SCALE



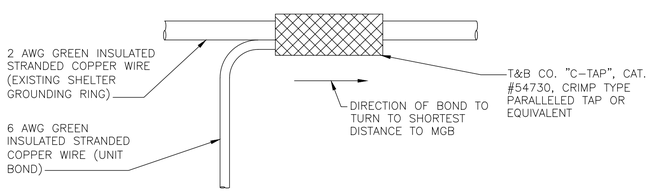
5 GROUNDING ROD WITH INSPECTION SLEEVE
SCALE: NOT TO SCALE



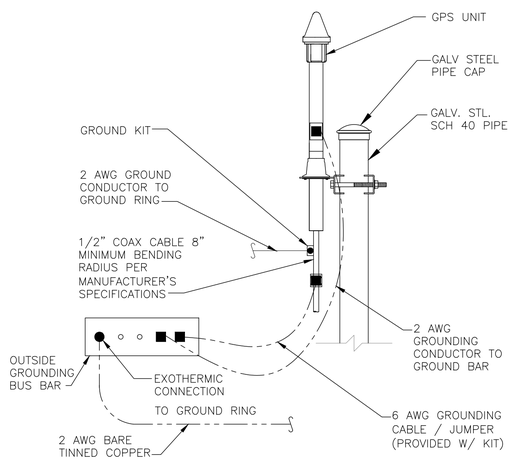
6 GROUNDING RING TRENCH DETAIL
SCALE: NOT TO SCALE

NOTE

1. A GEOTECHNICAL REPORT (LIST REPORT NAME OR NUMBER) WAS COMPLETED BY xxxx ON xx/xx/xx. THE CONTRACTOR SHALL REVIEW THE REPORT PRIOR TO BEGINING ANY WORK ON-SITE.



7 GROUNDING WIRE CONNECTION DETAIL
SCALE: NOT TO SCALE



8 LTE GPS ANTENNA GROUNDING DETAIL
SCALE: NOT TO SCALE

9 DETAIL NOT USED
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

3

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

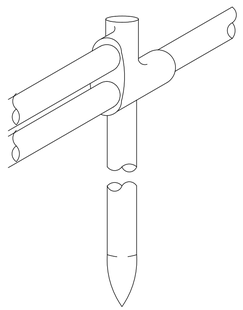
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

ELECTRICAL

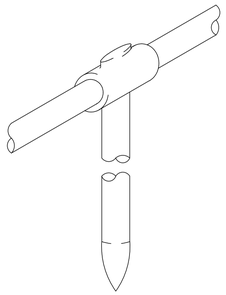
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: G-3
REVISION: N



CADWELL TYPE NC
THERMOWELD TYPE
CR-17

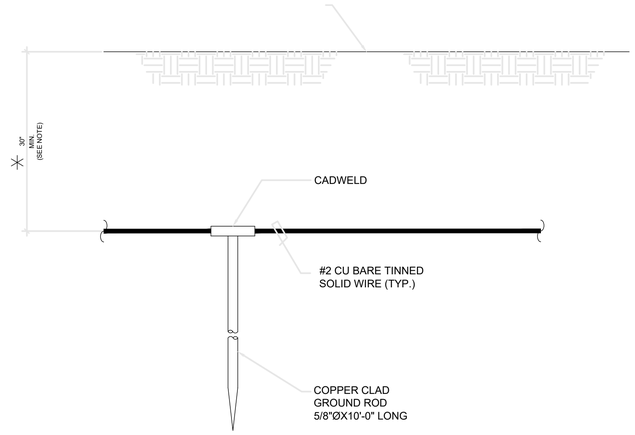
DOUBLE CABLE TO
GROUND ROD



CADWELL TYPE GT
THERMOWELD TYPE CR-2

HORIZONTAL TO GROUND
ROD

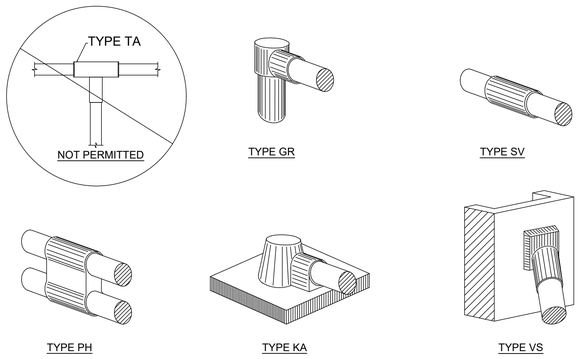
1 GROUND ROD
SCALE: NOT TO SCALE



* NOTE:
GROUND ROD SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

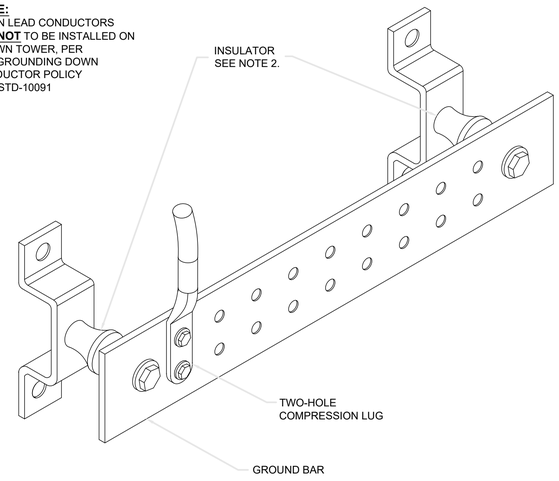
2 GROUND ROD DETAIL
SCALE: NOT TO SCALE

3 DETAIL NOT USED
SCALE: NOT TO SCALE



4 CADWELD (TYP.)
SCALE: NOT TO SCALE

NOTE:
DOWN LEAD CONDUCTORS ARE **NOT** TO BE INSTALLED ON CROWN TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091

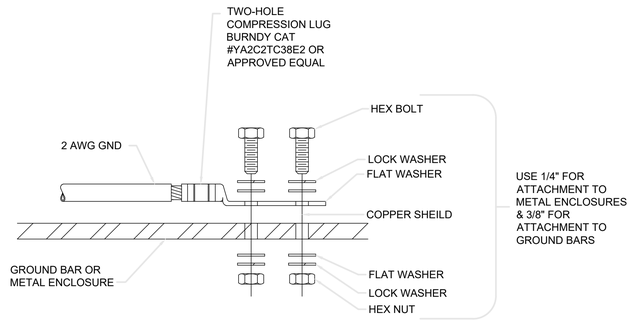


NOTES

1. SECURE TO INTERIOR OR EXTERIOR WALL w/ S.S. LAG HARGAR CAT # GBB-1442-G OR APPROVED EQUAL

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDINGS OR SHELTERS

5 GROUND BAR
SCALE: NOT TO SCALE



INSTALLATION NOTES:
1. BOLTS, WASHERS, AND NUTS SHALL BE STAINLESS STEEL.

2. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.

3. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT.

4. APPLY COPPER-SHIELD COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND.

5. ALL METAL ELECTRICAL EQUIPMENT SHALL BE EXTERNALLY GROUNDED TO THE TOWER EGR. (PAINTED METAL SURFACES MUST HAVE SMALL SECTION OF PAINT REMOVED BEFORE INSTALLATION, AND SHALL BE SPRAYED LIGHTLY WITH CLEAR COAT LACQUER FINISH).

6 GROUNDING TO FLAT SURFACE (TYP.)
SCALE: NOT TO SCALE

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

3
ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

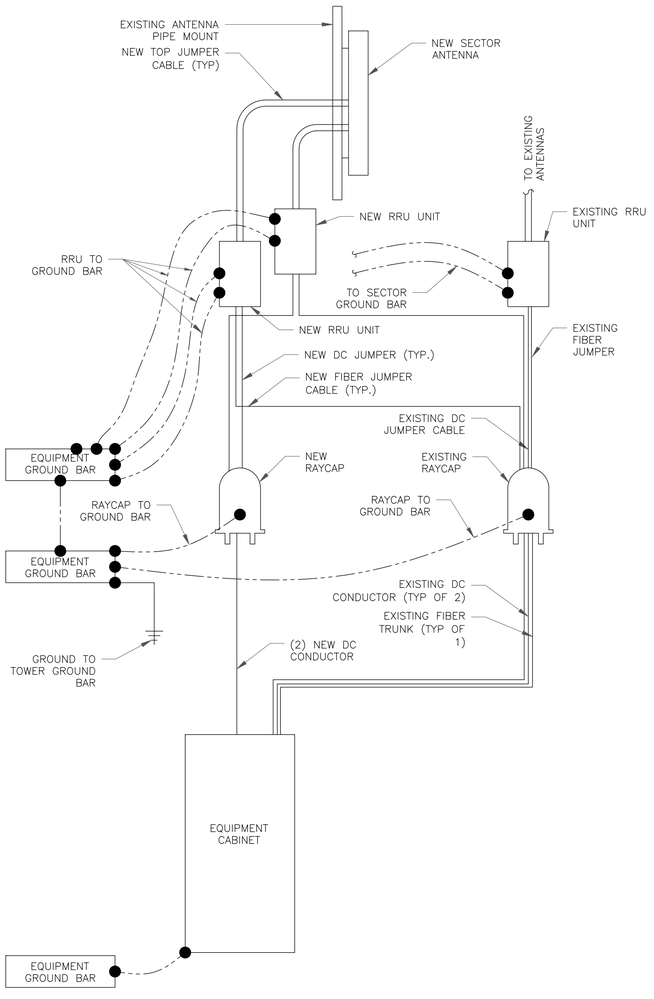
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

ELECTRICAL

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.

SHEET NUMBER: G-4
REVISION: N



1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

1. CONTRACTOR SHALL HAVE A COMPLETE UNDERSTANDING OF THE CONTENTS OF AT&T STANDARD TP-76416.
2. ALL INSTALLATIONS SHALL BE FIELD VERIFIED.
3. ALL GROUNDING CONDUCTORS FROM PROPOSED AT&T MOBILITY EQUIPMENT TO GROUND BARS SHALL BE 6 AWG COPPER TINNED UNLESS NOTED OTHERWISE.
4. ALL GROUNDING CONDUCTORS FROM PROPOSED AT&T MOBILITY EQUIPMENT SUPPORT AND MOUNTING STRUCTURES TO GROUND BARS SHALL BE 2 AWG COPPER TINNED UNLESS NOTED OTHERWISE.
5. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
6. KOPR-SHIELD ANTI-OXIDATION COMPOUND SHALL BE USED ON ALL COMPRESSION GROUNDING CONNECTIONS.
7. ALL EXOTHERMIC CONNECTIONS SHALL BE INSTALLED UTILIZING THE PROPER CONNECTION/MOLD AND MATERIALS FOR THE PARTICULAR APPLICATION.
8. ALL BOLTED GROUNDING CONNECTIONS SHALL BE INSTALLED WITH AN EXTERNAL TOOTHED LOCK WASHER. GROUNDING BUS BARS MAY HAVE PRE-PUNCHED HOLES OR TAPPED HOLES. ALL HARDWARE SHALL BE SECURITY TORQUE HARDWARE 3/8" STAINLESS STEEL.
9. EXTERNAL GROUNDING CONDUCTOR SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS, CONDUITS, OR SUPPORTS TO PRECLUDE ESTABLISHING A MAGNETIC CHOKE POINT.
10. PLASTIC CLIPS SHALL BE USED TO FASTEN AND SUPPORT GROUNDING CONDUCTORS. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED.
11. CONTRACTOR SHALL REPAIR/PLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
12. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
13. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
14. CONTRACTOR SHALL GROUND ALL EQUIPMENT, INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

2 GENERAL GROUNDING NOTES
SCALE: NOT TO SCALE

NOTE:

NO AC OR DC POWER WORK IS WITHIN THE SCOPE OF THESE DRAWINGS. HOWEVER, SOME AC OR DC POWER CONSTRUCTION MIGHT BE ENCOUNTERED. IF SO REQUIRED, PRIOR TO ANY CONSTRUCTION, IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO VERIFY THE MAXIMUM DEMAND LOAD AND THAT NO POSSIBLE OVERLOADS WOULD BE INCURRED WITH ANY AC OR DC ELECTRICAL WORK OF THE EXISTING PANELS OR CONDUCTORS. IF OVERLOADS ARE ANTICIPATED, CONTACT ERICSSON BEFORE PROCEEDING WITH ANY WORK. ALL AC OR DC WORK DEPICTED WITHIN THESE DRAWINGS IS DIAGRAMMATICAL AND FOR REFERENCE PURPOSES ONLY. AC AND DC ELECTRICAL SCOPE OF WORK IS BY ERICSSON.

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

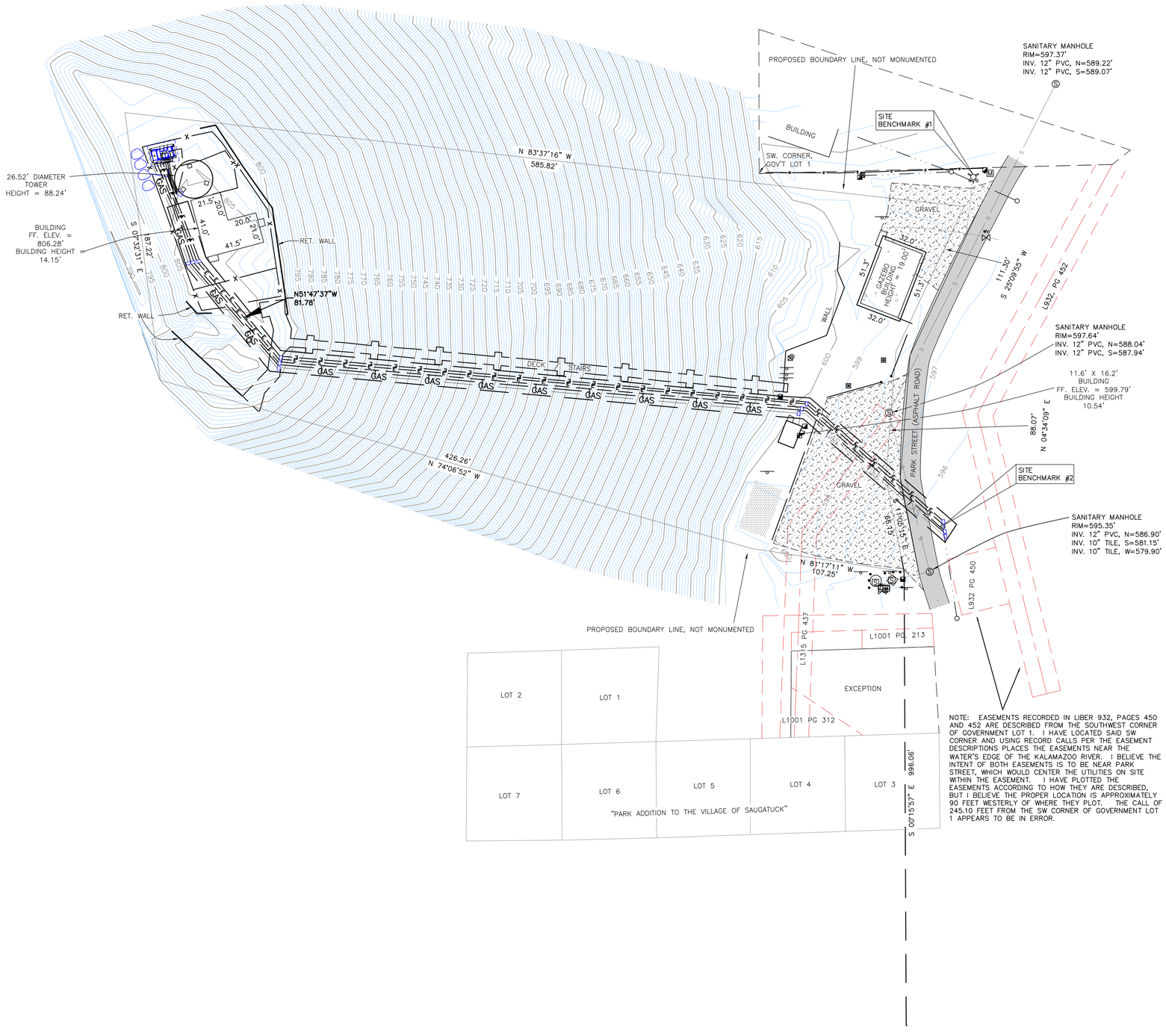
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

ELECTRICAL

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.

SHEET NUMBER: G-5
REVISION: N



NOTE: EASEMENTS RECORDED IN LIBER 932, PAGES 450 AND 452 ARE DESCRIBED FROM THE SOUTHWEST CORNER OF GOVERNMENT LOT 1. I HAVE LOCATED SAID SW CORNER AND USING RECORD CALLS PER THE EASEMENT DESCRIPTIONS PLACES THE EASEMENTS NEAR THE WATER'S EDGE OF THE KALAMAZOO RIVER. I BELIEVE THE INTENT OF BOTH EASEMENTS IS TO BE NEAR PARK STREET, WHICH WOULD CENTER THE UTILITIES ON SITE WITHIN THE EASEMENT. I HAVE PLOTTED THE EASEMENTS ACCORDING TO HOW THEY ARE DESCRIBED, BUT I BELIEVE THE PROPER LOCATION IS APPROXIMATELY 90 FEET WESTERLY OF WHERE THEY PLOT. THE CALL OF 245.10 FEET FROM THE SW CORNER OF GOVERNMENT LOT 1 APPEARS TO BE IN ERROR.

1 SURVEY

SCALE: 1' 6" 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

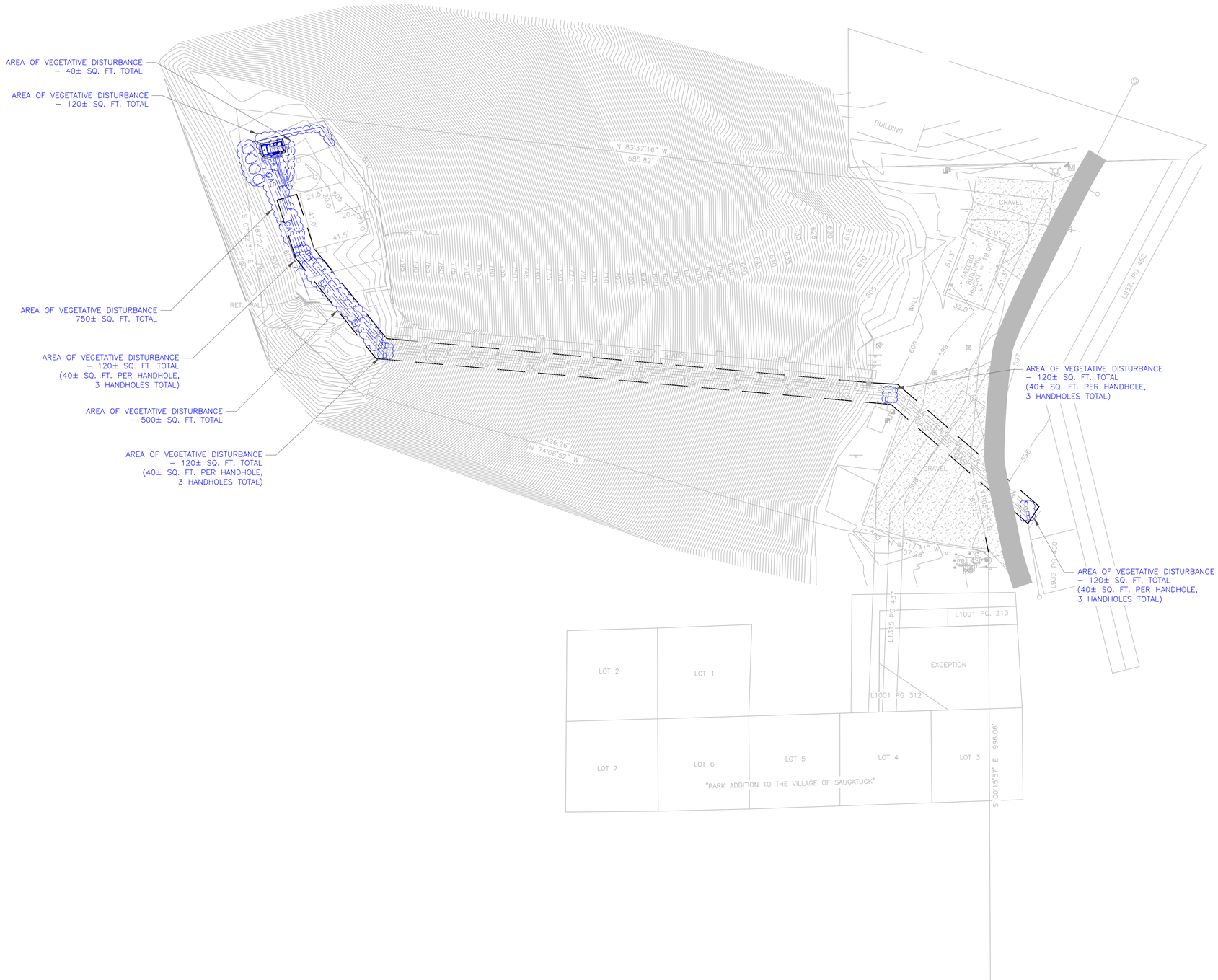
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

REFERENCE ONLY

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.

SHEET NUMBER: SUR.

REVISION: N



1 AREA OF VEGETATIVE DISTURBANCE

SCALE: 1" 6" 0 1' — 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

AT&T
16025 NORTHLAND DRIVE
SOUTHFIELD, MI 48075

GPD GROUP
Professional Corporation
520 South Main Street
Akron, OH 44311
330.572.2100 Fax 330.572.2102

ERICSSON

AT&T SITE NUMBER:
GRANMI5943

750 PARK ST.
SAUGATUCK, MI 49453

EXISTING 90'-0" SELF SUPPORT TOWER WITH RADOME

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/21/2022	CRM	90% CDs FOR REVIEW	ES
B	10/26/2022	CRM	REV. PER COMMENTS	ES
C	12/15/2022	CRM	REV. PER COMMENTS	ES
D	01/06/2023	CRM	REV. PER COMMENTS	ES
E	01/10/2023	CRM	REV. PER COMMENTS	ES
F	03/31/2023	CRM	REV. PER COMMENTS	ES
G	05/16/2023	CRM	REV. PER COMMENTS	ES
H	06/05/2023	CRM	REV. PER COMMENTS	ES
I	06/27/2023	CRM	REV. PER COMMENTS	ES
J	07/05/2023	CRM	REV. PER COMMENTS	ES
K	08/23/2023	CRM	REV. PER COMMENTS	ES
L	09/08/2023	CRM	FOR ZONING	ES
M	07/29/2024	ACM	REV. PER CONDUITS	ES
N	08/08/2024	CRM	REV. PER CONDUITS	ES

REFERENCE ONLY

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.

SHEET NUMBER: A.O.D **REVISION:** N

City Council Agenda Item Report

FROM: Scott Herbert – Department of Public Works Superintendent

MEETING DATE: August 26th, 2024

SUBJECT: Road Work – Resurfacing

DESCRIPTION:
As discussed during your annual Capital Improvement Plan (CIP) conversation, Public Works and engineering recommend resurfacing the following street locations:

- Lucy Street – Approaching Holland Street
- Francis Street – From Water Street to Butler Street
- Francis Street – From Holland Street to Elizabeth Street
- Griffith Street – From Culver Street to Mason Street
- Mason Street – From Grand Street to Elizabeth Street

Enclosed you will find a bid tabulation that was generated by Fleis & Vandenbrink along with their recommendation of award. If approved by the council, engineering and Public Works are prepared to work with Michigan Paving & Materials Co. on the final construction phase of the road resurfacing project for 2024.

BUDGET ACTION REQUIRED:
This is a budgeted item from Major and Local Street Funds in the amount of $169,000.

COMMITTEE/COMMISSION REVIEW:
N/A

LEGAL REVIEW:
N/A

SAMPLE MOTION:
Motion to approve award to Michigan Paving & Materials, Co. in the amount of $148,176.20 for asphalt repairs with a total project cost of $169,000 and to allow the Mayor and City Clerk to sign associated contracts.

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

RECOMMENDATION OF AWARD

July 24, 2024

Via Email: scott@saugatuckcity.com

Scott Herbert, Department of Public Works Superintendent
City of Saugatuck
102 Butler Street
PO Box 86
Saugatuck, MI 49453

RE: 2024 Asphalt Repairs

Dear Scott,

We received bids for the 2024 Asphalt Repairs project on July 22, 2024. Repairs have been identified in the following high priority areas, based on our walkthroughs:

- Francis Street from Water Street to Butler Street
- Francis Street from Holland Street to Elizabeth Street
- Griffith Street from Culver Street to Mason Street
- Mason Street from Grand Street to Elizabeth Street
- Lucy Street, two locations near Holland Street

Repairs include removal and replacement of the top course of asphalt, approximately 1.5", plus anticipated asphalt base repairs and related work. Three bids were received, and a tabulation is attached. The low bid is from Michigan Paving & Materials, Co. of Grand Rapids, Michigan in the amount of $148,176.20, which is in line with our Engineer's Estimate for the work. We have worked with Michigan Paving & Materials, Co. on a number of similar projects. They are prequalified by the Michigan Department of Transportation, and we feel they are capable of meeting the project requirements.

Based on the above, we recommend an award to Michigan Paving & Materials, Co. in the amount of $148,176.20.

For budgetary purposes, we recommend that the City plan on the following construction phase costs:

Item	Budget
Construction (as awarded):	$148,176.20
Contingencies (~10%)*:	$14,823.80
Construction Engineering & Administration**:	$6,000.00
Total Recommended Construction Budget:	**$169,000.00**

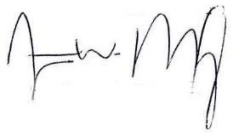
* Includes an allowance for replacing pavement markings.
** Authorized previously and shown here for reference only.

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

Please feel free to contact me with any questions.

Sincerely,

FLEIS & VANDENBRINK



Jonathan W. Moxey, P.E.
Project Manager

City of Saugatuck
2024 Asphalt Repairs
Bid Tabulation

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

Project No.: 3187-45
By: PMT
Date: 7/22/2024

				Engineer's Estimate		Michigan Paving & Materials Co.		A-1 Asphalt Inc.		Rieth-Riley Construction Co., Inc.	
ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QTY.	ESTIMATED UNIT PRICE	ESTIMATED AMOUNT	BID UNIT PRICE	BID PRICE	BID UNIT PRICE	BID PRICE	BID UNIT PRICE	BID PRICE
1	Mobilization, Max 10%	LSum	1	$ 12,000.00	$ 12,000.00	$ 12,500.00	$ 12,500.00	$ 7,000.00	$ 7,000.00	$ 18,800.00	$ 18,800.00
2	Temporary Traffic Control	LSum	1	$ 10,000.00	$ 10,000.00	$ 17,960.00	$ 17,960.00	$ 6,000.00	$ 6,000.00	$ 16,750.00	$ 16,750.00
3	Cold Milling HMA Surface	Syd	8360	$ 3.00	$ 25,080.00	$ 1.67	$ 13,961.20	$ 2.50	$ 20,900.00	$ 12.40	$ 103,664.00
4	HMA Surface, Rem	Syd	420	$ 4.00	$ 1,680.00	$ 24.00	$ 10,080.00	$ 6.00	$ 2,520.00	$ 8.00	$ 3,360.00
5	HMA, 4EL or 13A (Base)	Ton	40	$ 90.00	$ 3,600.00	$ 195.00	$ 7,800.00	$ 140.00	$ 5,600.00	$ 387.40	$ 15,496.00
6	HMA, 4EL or 13A (Surface)	Ton	760	$ 90.00	$ 68,400.00	$ 94.50	$ 71,820.00	$ 140.00	$ 106,400.00	$ 170.35	$ 129,466.00
7	HMA Valley Gutter	Ft	2230	$ 3.00	$ 6,690.00	$ 2.50	$ 5,575.00	$ 3.00	$ 6,690.00	$ 1.00	$ 2,230.00
8	Turf Restoration	Syd	40	$ 6.00	$ 240.00	$ 24.00	$ 960.00	$ 30.00	$ 1,200.00	$ 50.00	$ 2,000.00
9	Curb and Gutter, Rem	Ft	20	$ 20.00	$ 400.00	$ 34.00	$ 680.00	$ 100.00	$ 2,000.00	$ 55.00	$ 1,100.00
10	Curb and Gutter, Det F4	Ft	20	$ 30.00	$ 600.00	$ 120.00	$ 2,400.00	$ 70.00	$ 1,400.00	$ 120.00	$ 2,400.00
11	Underdrain, 6 inch	Ft	40	$ 10.00	$ 400.00	$ 72.00	$ 2,880.00	$ 165.00	$ 6,600.00	$ 30.00	$ 1,200.00
12	Dr Structure Tap, 6 inch	Ea	1	$ 200.00	$ 200.00	$ 700.00	$ 700.00	$ 1,500.00	$ 1,500.00	$ 800.00	$ 800.00
13	Shld, Cl II	Ton	5	$ 35.00	$ 175.00	$ 52.00	$ 260.00	$ 240.00	$ 1,200.00	$ 180.00	$ 900.00
14	Gate Box, Adj, Case 1	Ea	1	$ 750.00	$ 750.00	$ 600.00	$ 600.00	$ 550.00	$ 550.00	$ 600.00	$ 600.00
				Total:	**$ 130,215.00**		**$ 148,176.20**		**$ 169,560.00**		**$ 298,766.00**

City Council Agenda Item Report

FROM: Ryan Cummins - City Manager

MEETING DATE: August 21, 2024

SUBJECT: TMF Water Service Material Verification Agreement

DESCRIPTION:

The City was awarded a $221,600 EGLE Technical, Managerial, and Financial (TMF) grant to physically verify lead service lines for the required final Distribution System Materials Inventory (DSMI) that is due October 16, 2024.

The Council previously approved a proposal for engineering services in the amount of $55,500. Fleis & Vandenbrink (F&V) received four bids. The low bidder, Compton Inc. of South Haven, exceeded the budgeted amount. However, F&V structured the contract to provide the City with flexibility to align the scope of work with budgeted dollars. Staff is recommending an award to Compton Inc. in the amount of $166,140.00 which will be within budget and still meet the required number of service lines to be inventoried.

BUDGET ACTION REQUIRED:

None. Project was budgeted in this fiscal year, and grant dollars will reimburse the cost of the work.

LEGAL REVIEW:

The City Attorney will be at your meeting to answer any questions you may have.

SAMPLE MOTION:

Motion to approve the TMF Water Service Material Verification agreement with Compton Inc. in the amount of $166,140.00 and to authorize the Mayor and City Clerk to sign the necessary documents.

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

August 12, 2024

Via email: rcummins@saugatuckcity.com

Ryan Cummins, City Manager
City of Saugatuck
102 Butler Street, PO Box 86
Saugatuck, MI 49453

RE: TMF Water Service Material Verification – Recommendation of Award

Dear Ryan,

We have reviewed the bids received on August 6, 2024, for the above referenced project. Four bids were received, and the bid tabulation is attached.

The low bidder is Compton Inc. of South Haven with a bid amount of $265,255.00. We have worked with Compton Inc. on previous projects, and we believe they are capable to perform this work. Compton specializes in water service work and was a subcontractor to Southwest Transport on the Campbell Road project for directional drilling water services. While that project took significantly longer than was scheduled, Compton performed their portion of the project well.

The bid amount exceeds the budgeted amount of $166,100 in the EGLE grant for the project. This is not unexpected, as many communities across the State are in a similar position of completing water service material identification work to meet EGLE's October deadline. We structured the contract to provide the City with flexibility to align the scope of work with the grant dollars available. As such, we are recommending an award to Compton Inc. in the amount of $166,140.00.

Please feel free to contact us with any questions.

Sincerely,

FLEIS & VANDENBRINK

Peter Tierney, P.E.
Project Manager

Enclosures

Cc: Scott Herbert, Superintendent of Public Works

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

City of Saugatuck

TMF Water Service Material Verification
Bid Tabulations

Job: 865910
Date: 8/6/2024

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	Compton Inc.		Abonmarche Consultants Inc.		Duke's Root Control Inc.		Plummer's Environmental Services Inc.	
				BID UNIT PRICE	BID AMOUNT	BID UNIT PRICE	BID AMOUNT	BID UNIT PRICE	BID AMOUNT	BID UNIT PRICE	BID AMOUNT
1	Mobilization, Max 10%	LSum	1	$20,000.00	$20,000.00	$39,266.00	$39,266.00	$5,563.14	$5,563.14	$5,000.00	$5,000.00
2	Temporary Traffic Control	LSum	1	$5,150.00	$5,150.00	$5,000.00	$5,000.00	$8,546.08	$8,546.08	$16,000.00	$16,000.00
3	Pothole Corporation Stop	Ea	193	$300.00	$57,900.00	$560.00	$108,080.00	$657.38	$126,874.34	$740.00	$142,820.00
4	Pothole Public-Side Curb Stop Box	Ea	3	$250.00	$750.00	$560.00	$1,680.00	$478.70	$1,436.10	$384.00	$1,152.00
5	Pothole Both Public & Private-Side Curb Stop Box	Ea	190	$265.00	$50,350.00	$560.00	$106,400.00	$495.04	$94,057.60	$473.00	$89,870.00
6	Pothole Private-Side Curb Stop Box	Ea	63	$150.00	$9,450.00	$560.00	$35,280.00	$407.43	$25,668.09	$384.00	$24,192.00
7	Remove & Replace Concrete Driveway	Syd	30	$83.00	$2,490.00	$225.00	$6,750.00	$150.00	$4,500.00	$395.00	$11,850.00
8	Remove & Replace Concrete Sidewalk	Syd	30	$74.00	$2,220.00	$200.00	$6,000.00	$150.00	$4,500.00	$395.00	$11,850.00
9	Remove & Replace HMA Roadway	Syd	1,158	$75.00	$86,850.00	$125.00	$144,750.00	$150.00	$173,700.00	$195.00	$225,810.00
10	Remove & Replace HMA Driveway	Syd	30	$75.00	$2,250.00	$200.00	$6,000.00	$150.00	$4,500.00	$395.00	$11,850.00
11	Surface Restoration	Syd	768	$15.00	$11,520.00	$8.00	$6,144.00	$54.56	$41,902.08	$15.00	$11,520.00
12	In-Home Verification	Ea	653	$25.00	$16,325.00	$50.00	$32,650.00	$135.00	$88,155.00	$165.00	$107,745.00
				Total:	**$265,255.00**	**Total:**	**$498,000.00**	**Total:**	**$579,402.43**	**Total:**	**$659,659.00**

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

City of Saugatuck

TMF Water Service Material Verification
Summary of Award

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	Compton Inc. BID UNIT PRICE	Compton Inc. BID AMOUNT
1	Mobilization, Max 10%	LSum	1	$20,000.00	$20,000.00
2	Temporary Traffic Control	LSum	1	$5,150.00	$5,150.00
3	Pothole Corporation Stop	Ea	65	$300.00	$19,500.00
4	Pothole Public-Side Curb Stop Box	Ea	4	$250.00	$1,000.00
5	Pothole Both Public & Private-Side Curb Stop Box	Ea	179	$265.00	$47,435.00
6	Pothole Private-Side Curb Stop Box	Ea	63	$150.00	$9,450.00
7	Remove & Replace Concrete Driveway	Syd	30	$83.00	$2,490.00
8	Remove & Replace Concrete Sidewalk	Syd	30	$74.00	$2,220.00
9	Remove & Replace HMA Roadway	Syd	390	$75.00	$29,250.00
10	Remove & Replace HMA Driveway	Syd	30	$75.00	$2,250.00
11	Surface Restoration	Syd	738	$15.00	$11,070.00
12	In-Home Verification	Ea	653	$25.00	$16,325.00
				Total:	**$166,140.00**

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

SECTION 00 52 00

AGREEMENT

This Agreement is by and between **City of Saugatuck** ("Owner") and _____ ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: **TMF Water Service Material Verification**

ARTICLE 2 - THE PROJECT

2.01 Project, of which the Work under the Contract Documents is a part, is generally described as follows: **TMF Water Service Material Verification**

ARTICLE 3 - ENGINEER

3.01 The Owner has retained Fleis & VandenBrink Engineering, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by Engineer.

ARTICLE 4 - CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Contract Times: Dates

A. The Work will be substantially complete on or before **October 11, 2024**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **October 25, 2024**.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. *Substantial Completion*: Contractor shall pay Owner **$250** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
2. *Completion of Remaining Work*: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **$100** for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract.

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

Unit Price Work					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Unit Price**	**Extended Price**
				$	$
				$	$
				$	$
				$	$
				$	$
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on the basis of Contractor's Applications for Payment each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
   1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
      a. 90 percent of the value of the Work completed (with the balance being retainage).
         1) If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
         2) Zero percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 Final Payment

A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

A. All amounts not paid when due will bear interest at the percent per annum rate 2.0% higher than the Prime Rate on the date of bid opening.

ARTICLE 7 - CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:
   1. This Agreement.
   2. Bonds
      a. Performance bond (together with power of attorney).
      b. Payment bond (together with power of attorney).
   3. General Conditions.
   4. Supplementary Conditions.

5. Specifications as listed in the table of contents of the project manual.
6. Addenda (numbers _____ to _____, inclusive).
7. Exhibits to this Agreement (enumerated as follows):
   a. Contractor's Bid.
   b. Documentation submitted by Contractor prior to Notice of Award.
   c. _____.
8. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
   a. Notice to Proceed.
   b. Work Change Directives.
   c. Change Orders.

B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 7.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8 - REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 *Contractor's Representations*

A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
   1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
   2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
   3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
   4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, if any, with respect to the Technical Data in such reports and drawings.
   5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
   6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
   7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price,

within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
   1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution.
   2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
   3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
   4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 *Standard General Conditions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C 700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____, 20_____ (which is the Effective Date of the Contract).

Owner:	Contractor:
_____	_____
(typed or printed name of organization)	*(typed or printed name of organization)*

By: _____
(individual's signature)

Date: _____
(date signed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Attest: _____
(individual's signature)

Title: _____
(typed or printed)

Address for giving notices:

_____

_____

_____

Designated Representative:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address:

_____

_____

_____

Phone: _____

Email: _____

By: _____
(individual's signature)

Date: _____
(date signed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
(individual's signature)

Title: _____
(typed or printed)

Address for giving notices:

_____

_____

_____

Designated Representative:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address:

_____

_____

_____

Phone: _____

Email: _____

License No.: _____
(where applicable)

State: _____

END OF SECTION

City Council Agenda Item Report

FROM: Ryan Cummins, City Manager

MEETING DATE: August 21, 2024

SUBJECT: Review of Short-Term Rental Licensing Ordinance Amendment, Zoning Ordinance Amendment, and Policy for Available STR Licenses

DESCRIPTION:

On June 19, the Planning Commission made the following recommendation to the City Council:

> *Motion by Anderson, second by Clark, that the Planning Commission recommend to Saugatuck City Council, the adoption of a 20% cap on short-term rental licenses in reach R1 Residential District calculated based on the number of dwelling units currently in that district, with a provision to grandfather all existing short-term rental licenses until the property is sold or otherwise changes ownership, and a provision for full-time residents with a PRE to be allowed to short-term rent their home for up to three (3) weeks per year.*
>
> *Yes: Anderson, Broeker, Clark, Gaunt*
>
> *No: Bagierek, LaChey, Chair Manns*

Staff reviewed the Planning Commission recommendation with the City Council. The Council was advised that if they were inclined to accept the Planning Commission's recommendation, staff recommended that a cap be implemented through amendments to the STR police power ordinance as well as a portion of the Zoning Ordinance. Therefore, the Planning Commission would, at a minimum, be required to hold a public hearing on the zoning amendment and make a recommendation on the same to Council.

After several public comments, review and discussion, the City Council passed the following motion:

Motion by Baldwin, second by Anderson to direct City staff to prepare the necessary ordinance amendments, resolution language and policy necessary to implement a cap on the total number of STR licenses that may be issued within the City's R-1 Residential districts consistent with the following:

- *The cap will be established by resolution of the City Council in an amount approximately equal to 20% of the dwelling units in each R-1 district.*
- *The cap will not operate retroactively, and existing STR licenses will remain valid unless there is a transfer of property or the license is revoked or lapses.*
- *The commercial property located at 560 Campbell in the Peninsula West district will be exempt from the caps, and any licenses granted to dwelling units at that address will not count toward the caps.*
- *Once available, new STR licenses will be issued by a lottery system.*
- *The Planning Commission will hold a public hearing on the zoning amendment necessary to implement the cap and will <u>not</u> assist with the preparation of the amendment to the STR police powers ordinance.*

Yes: Anderson, Baldwin, Dean, Mayor Stanton

No: Gardner, Muncey

Drafted Ordinances and Policy

Based on the Council's direction, the attached police powers ordinance amendment, zoning text amendment, and policy have been drafted. As currently drafted, the zoning and police-powers ordinance amendments are substantially identical. Two notable changes to consider from the motion above:

- The draft ordinances would exempt all ADUs from the maximum limits. This would allow single family dwellings that are owner occupied to apply for special land use approval to separately rent the ADU and not have a license application subject to the cap.
    - The current language would also allow a single-family dwelling that already has a STR certificate or license to not have an existing or new ADU be subject to the limit as the entire property still has to be rented under a single contract.
- The exemption of 560 Campbell is not included as a review of a prior consent judgement shows it would already allow the property to be exempt from the maximum limits.

As currently drafted, the maximum STR limits could be adjusted by City Council via resolution. The other option would include a more formal ordinance amendment process to adjust the limits.

Planning Commission Recommendation

The Planning Commission held a public hearing on the zoning text amendment on August 15. The Planning Commission passed the following motion recommending adoption of the zoning ordinance amendment:

> Motion by LaChey, Second by Anderson, to recommend adoption of the amendments to the zoning ordinance to impose maximum limits on the number of short-term rental licenses in specific zoning districts, establish the effect of such limits on existing licenses, establish how available licenses will be issued, and provide a mechanism for the City Council to adjust such maximum limits, to protect the public health, safety, and welfare of our community.
>
> *Yes: Anderson, Broeker, Gaunt, LaChey*
>
> *No: Bagierek, Chair Manns*

LEGAL REVIEW:

The City Attorney prepared the draft ordinances and policy. The City Attorney will be at the meeting to answer any questions.

SAMPLE MOTION:

N/A. Workshop item only at this time.

CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN

SHORT-TERM RENTAL LICENSING ORDINANCE AMENDMENT

ORDINANCE NO._____

At a meeting of the City Council of the City of Saugatuck, Allegan County, Michigan, held at the City of Saugatuck Hall on _____, 2024 at _____ p.m., City Council Member _____moved to adopt the following ordinance, which motion was seconded by City Council Member _____.

> *An ordinance to amend the City of Saugatuck's Short-Term Rental Licensing Ordinance, Ordinance No. 240229-B, to impose maximum limits on the number of short-term rental licenses in specific zoning districts, establish the effect of such limits on existing licenses, establish how available licenses will be issued, and provide a mechanism for the City Council to adjust such maximum limits, to protect the public health, safety, and welfare.*

CITY OF SAUGATUCK, ALLEGAN COUNTY, ORDAINS:

SECTION 1. AMENDMENT TO ORDINANCE NO. 240299-B, SECTION 99.55: City of Saugatuck Ordinance No. 240229-B, Section 99.55 shall be amended to add the following new and additional subsection (F), titled "Maximum limits on short-term rental licenses," which shall read as follows:

(F) *Maximum limits on short-term rental licenses*.

(1) *Findings and purpose*. The City formed a task force, conducted studies, took surveys, and held public hearings to better understand the benefits and impacts of short-term rentals within the City. The City recognizes that while short-term rentals offer many benefits, short-term rentals are commercial in nature and that the over proliferation of short-term rentals may, among other things, be incompatible with, and may cause adverse impacts to, residential uses and the long-term residential character of certain zoning districts. The City also recognizes that its R-1 zoning districts are intended to promote and preserve single-family residential uses and are the most susceptible to the potential negative effects of the unchecked growth of short-term rentals. The City therefore finds that the public health, safety, and welfare will be best served by a maximum limit on the number of short-term rental licenses that may be approved in its R-1 zoning districts initially equal to approximately 20% of the total dwelling units in each R-1 district. It is the City's intent for this maximum limit to operate prospectively and to allow existing short-term rental licenses and certificates to continue to operate and renew, and to achieve such limits through attrition as licenses or certificates expire, are terminated, or are voided within

DRAFT

districts that exceed the established limit.

(2) *Initial maximum limits on licenses in R-1 zoning districts*. The initial maximum number of short-term rental licenses that may be issued in each R-1 Zoning District shall be established as follows:

i. Community Residential R-1: No more than 67 licenses.

ii. Peninsula West R-1: No more than 10 licenses.

iii. Maple Street R-1: No more than 7 licenses.

iv. Peninsula South R-1: No more than 11 licenses.

v. Peninsula North (Duneside) R-1: No more than 3 licenses.

vi. Peninsula North (Riverside) R-1: No more than 2 licenses.

(3) *Effect of maximum limit.* When the number of short-term rental licenses and short-term rental certificates in a zoning district meets or exceeds the maximum number of licenses established for that district, the City shall not accept any additional applications for short-term rental licenses in that district until the number of active (e.g., not expired, voided, or terminated) short-term rental licenses and/or short-term rental certificates in that district falls below the maximum number, creating an available license. This maximum limit shall not be the basis for the termination or nonrenewal of an issued and otherwise valid short-term rental license.

(4) *Accessory dwelling units.* Accessory dwelling units shall not be subject to the maximum number of licenses established herein, such that accessory dwelling units may be licensed as short-term rentals even if the current number of short-term rental licenses in the applicable zoning district exceeds the maximum limit. In addition, accessory dwelling units shall not be counted towards the total number of dwelling units in a district for the purposes of calculating the maximum limit of short-term rental licenses.

(5) *Issuing available licenses.* The City shall develop a policy for providing notice of available short-term rental licenses and for receiving and approving applications for the same once the number of active short-term rental licenses in a zoning district falls below the maximum limit. When short-term rental licenses become available, submitted applications shall be selected for processing and approval through a random lottery.

(6) *Amendment of maximum limit by resolution.* Given that the maximum limit of short-term rental licenses is based on the total number of dwelling units within a given zoning district which constantly fluctuates as dwellings are built, demolished, and converted to different uses, and to provide the City with the

DRAFT

flexibility to adjust the maximum limit of licenses to match changing neighborhood conditions, the City Council may, by resolution, review and amend the maximum limit on short-term rental licenses as it determines to be advisable.

SECTION 2. SEVERABILITY: Should a court of competent jurisdiction find any provision, clause, or portion of this ordinance amendment to be invalid or unconstitutional, the balance or remainder of this ordinance amendment shall remain valid and in full force and effect and shall be deemed "severable" from the portion, clause, or provision deemed to be invalid or unconstitutional by the court.

SECTION 3. REPEAL: All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

SECTION 4. EFFECTIVE DATE: This Ordinance shall become effective immediately at the later to occur of: 1) the effective date of Ordinance No. __; or 2) the date of this Ordinance's publication as required by law.

YEAS: _____

NAYS: _____

ABSENT/ABSTAIN: _____

ORDINANCE DECLARED ADOPTED.

_____
Lauren Stanton
City of Saugatuck, Mayor

DRAFT

CERTIFICATION

I hereby certify that:

1. The above is a true copy of an ordinance adopted by the City of Saugatuck at a duly scheduled and noticed meeting of the City Council held on _____, _____ 2024, pursuant to the required statutory procedures.

2. A summary of the above ordinance was duly published in the _____ newspaper, a newspaper that circulates within the City of Saugatuck, on _____, 2024.

3. Within 1 week after such publication, I recorded the above ordinance in a book of ordinances kept by me for that purpose, including the date of passage of the ordinance, the names of the members of the City Council voting, and how each member voted.

4. I filed an attested copy of the above ordinance with the Allegan County Clerk on _____, 2024.

ATTESTED:

_____
Jamie Wolters
City of Saugatuck, Clerk

DRAFT

CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN

NOTICE OF ADOPTION

SHORT-TERM RENTAL LICENSING ORDINANCE AMENDMENT

ORDINANCE NO. ___

Please take notice that on _____, 2024, the City Council of City of Saugatuck adopted Ordinance No. ___, which, among other things, amends the City of Saugatuck's Short-Term Rental Licensing Ordinance, Ordinance No. 240229-B, to impose maximum limits on the number of short-term rental licenses in specific zoning districts, establish the effect of such limits on existing licenses, establish how available licenses will be issued, and provide a mechanism for the City Council to adjust such maximum limits. Copies of the ordinance may be obtained from Jamie Wolters, City of Saugatuck Clerk, at 102 Butler Street, P.O. Box 86, Saugatuck, Michigan 49453 during regular business hours.

The Zoning Ordinance Amendment has the following sections, which are summarized below: Section 1: Amendment to Ordinance No. 240299-B, Section 99.55; Section 2: Severability; Section 3: Repeal; and Section 4: Effective Date.

Jamie Wolters
City of Saugatuck, Clerk
(269) 857-2603
JWolters@saugatuckcity.com

Publication Date: _____, 2024

DRAFT

CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN

ZONING ORDINANCE AMENDMENT

ORDINANCE NO._____

At a meeting of the City Council of the City of Saugatuck, Allegan County, Michigan, held at the City of Saugatuck Hall on _____, 2024 at _____ p.m., City Council Member _____moved to adopt the following ordinance, which motion was seconded by City Council Member _____.

An ordinance to amend the City of Saugatuck's Zoning Ordinance to impose maximum limits on the number of short-term rental licenses in specific zoning districts, establish the effect of such limits on existing licenses, establish how available licenses will be issued, and provide a mechanism for the City Council to adjust such maximum limits, to protect the public health, safety, and welfare.

CITY OF SAUGATUCK, ALLEGAN COUNTY, ORDAINS:

SECTION 1. AMENDMENT TO ZONING ORDINANCE, SECTION 154.022(V): The City of Saugatuck Zoning Ordinance, Section 154.022(V) is amended to read as follows:

(V) *Short-term rentals*. Short-term rentals shall require a license pursuant to the City of Saugatuck's Short-Term Rental Ordinance, Chapter 99.5 of the City Code, and shall comply with the following requirements:

(1) Short-term rentals shall only be permitted in dwelling units that satisfy all the applicable requirements of this Chapter.

(2) Signs shall be subject to the applicable provisions of § 154.141 of this Chapter.

(3) Maximum limits on short-term rental licenses.

a. *Findings and purpose*. The City formed a task force, conducted studies, took surveys, and held public hearings to better understand the benefits and impacts of short-term rentals within the City. The City recognizes that while short-term rentals offer many benefits, short-term rentals are commercial in nature and that the over proliferation of short-term rentals may, among other things, be incompatible with, and may cause adverse impacts to, residential uses and the long-term residential character of certain zoning districts. The City also recognizes that its R-1 zoning districts are intended to promote and preserve single-family residential uses and are the most susceptible to the potential negative effects of the unchecked growth of short-term rentals. The City therefore finds that the public health, safety, and welfare will be best served by

DRAFT

a maximum limit on the number of short-term rental licenses that may be approved in its R-1 zoning districts initially equal to approximately 20% of the total dwelling units in each R-1 district. It is the City's intent for this maximum limit to operate prospectively and to allow existing short-term rental licenses and certificates to continue to operate and renew, and to achieve such limits through attrition as licenses or certificates expire, are terminated, or are voided within districts that exceed the established limit.

b. *Initial maximum limit on licenses in R-1 zoning districts*. The initial maximum number of short-term rental licenses that may be issued in each R-1 Zoning District shall be established as follows:

   i. Community Residential R-1: No more than 67 licenses.

   ii. Peninsula West R-1: No more than 10 licenses.

   iii. Maple Street R-1: No more than 7 licenses.

   iv. Peninsula South R-1: No more than 11 licenses.

   v. Peninsula North (Duneside) R-1: No more than 3 licenses.

   vi. Peninsula North (Riverside) R-1: No more than 2 licenses.

c. *Effect of maximum limit.* When the number of short-term rental licenses and short-term rental certificates in a zoning district meets or exceeds the maximum number of licenses established for that district, the City shall not accept any additional applications for short-term rental licenses in that district until the number of active (e.g., not expired, voided, or terminated) short-term rental licenses and/or short-term rental certificates in that district falls below the maximum number, creating an available license. This maximum limit shall not be the basis for the termination or nonrenewal of an issued and otherwise valid short-term rental license.

d. *Accessory dwelling units.* Accessory dwelling units shall not be subject to the maximum number of licenses established herein, such that accessory dwelling units may be licensed as short-term rentals even if the current number of short-term rental licenses in the applicable zoning district exceeds the maximum limit. In addition, accessory dwelling units shall not be counted towards the total number of dwelling units in a district for the purposes of calculating the maximum limit of short-term rental licenses.

e. *Issuing available licenses.* The City shall develop a policy for providing notice of available short-term rental licenses and for receiving and approving applications for the same once the number of active short-term rental licenses in a zoning district falls below the maximum limit. When short-term rental licenses

DRAFT

become available, submitted applications shall be selected for processing and approval through a random lottery.

f. *Amendment of maximum limit by resolution.* Given that the maximum limit of short-term rental licenses is based on the total number of dwelling units within a given zoning district which constantly fluctuates as dwellings are built, demolished, and converted to different uses, and to provide the City with the flexibility to adjust the maximum limit of licenses to match changing neighborhood conditions, the City Council may, by resolution, review and amend the maximum limit on short-term rental licenses as it determines to be advisable.

SECTION 2. SEVERABILITY: Should a court of competent jurisdiction find any provision, clause, or portion of this ordinance amendment to be invalid or unconstitutional, the balance or remainder of this ordinance amendment shall remain valid and in full force and effect and shall be deemed "severable" from the portion, clause, or provision deemed to be invalid or unconstitutional by the court.

SECTION 3. REPEAL: All Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

SECTION 4. EFFECTIVE DATE: This Ordinance shall take effect seven (7) days after publication of a notice of adoption of this Ordinance, unless referendum procedures are initiated under MCL 125.3402. If referendum procedures are initiated, this Ordinance will take effect in accordance with MCL 125.3402.

YEAS: _____

NAYS: _____

ABSENT/ABSTAIN: _____

ORDINANCE DECLARED ADOPTED.

_____
Lauren Stanton
City of Saugatuck, Mayor

DRAFT

CERTIFICATION

I hereby certify that:

1. The above is a true copy of an ordinance adopted by the City of Saugatuck at a duly scheduled and noticed meeting of the City Council held on _____, _____ 2024, pursuant to the required statutory procedures.

2. A summary of the above ordinance was duly published in the _____ newspaper, a newspaper that circulates within the City of Saugatuck, on _____, 2024.

3. Within 1 week after such publication, I recorded the above ordinance in a book of ordinances kept by me for that purpose, including the date of passage of the ordinance, the names of the members of the City Council voting, and how each member voted.

4. I filed an attested copy of the above ordinance with the Allegan County Clerk on _____, 2024.

ATTESTED:

_____
Jamie Wolters
City of Saugatuck, Clerk

DRAFT

CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN

NOTICE OF ADOPTION

ZONING ORDINANCE AMENDMENT

ORDINANCE NO. ___

Please take notice that on _____, 2024, the City Council of City of Saugatuck adopted Ordinance No. ___, which amends the City of Saugatuck Zoning Ordinance ("Zoning Ordinance") to, among other things, to impose maximum limits on the number of short-term rental licenses in specific zoning districts, establish the effect of such limits on existing licenses, establish how available licenses will be issued, and provide a mechanism for the City Council to adjust such maximum limits. Copies of the ordinance may be obtained from Jamie Wolters, City of Saugatuck Clerk, at 102 Butler Street, P.O. Box 86, Saugatuck, Michigan 49453 during regular business hours.

The Zoning Ordinance Amendment has the following sections, which are summarized below: Section 1: Amendment to Zoning Ordinance, Section 154.022(V); Section 2: Severability; Section 3: Repeal; and Section 4: Effective Date, which is seven days after publication of this notice of adoption unless referendum procedures are initiated under MCL 125.3402

Jamie Wolters
City of Saugatuck, Clerk
(269) 857-2603
JWolters@saugatuckcity.com

Publication Date: _____, 2024

DRAFT

CITY OF SAUGATUCK

SHORT-TERM RENTAL LICENSE NOTIFICATION AND ISSUANCE POLICY

Section I: Intent and Purpose

The City of Saugatuck Code of Ordinances imposes maximum limits on the number of short-term rental licenses ("STR licenses") that may be issued in the City's R-1 zoning districts. Under the City Code, once the number of active STR licenses in a district falls below the maximum number of licenses, the City must provide notice of available STR licenses and for receiving applications for the same, which will be selected for approval by random lottery.

The following policy is intended to provide administrative guidance as to how applications for new STR licenses will be received, processed, and approved by the City, consistent with the City Code. This policy is intended to compliment and coincide with the City Code, which provides some flexibility as to how it is administered. However, to the extent this policy conflicts with or is contradicted by any provision of the City Code, the City Code will control.

Section II: Notice of Available Licenses; Publication

1. When the number of active STR licenses falls in a district subject to a maximum number of licenses falls below the established limit, the City shall prepare and circulate a notice to the public. The notice shall:
    a. Be published in a newspaper of general circulation and posted on the City's website.
    b. Indicate how many STR licenses are available and in which zoning district(s).
    c. Indicate the application window, including the exact date and time that applications for STR licenses will be received by City, and the time when applications will no longer be accepted.
    d. Indicate the manner in which applications must be submitted to the City.
    e. Indicate that copies of this policy are available on the City's website.
    f. Provide contact information for questions concerning the application process.
2. The City shall not be required to provide notice of available STR licenses more than once per year. Beyond this minimum requirement, the City may, but is not required to, provide notice of available STR licenses more than once per year.
3. If additional STR licenses become available between the time the City publishes notice of available licenses and the date selected for the application window, the City may, but is not required to, circulate an updated notice indicating the new number of available licenses and establishing a new application window. Otherwise, a separate notice must be circulated for such additional available licenses, along with a separate application window as set forth herein.

Section III: Application Window; Submission of Applications

1. Applications for available STR licenses shall only be accepted by the City during the application window. The application window shall open no sooner than 14 calendar days after and no later than 90 days after the publication date of the most recent notice provided for in Section II.
2. The application window shall last for 21 calendar days. Applications shall be accepted beginning at 8:30 a.m. on the first day until 5:00 p.m. of the last day of the established application window. Applications will be deemed received on the date and time they are actually received by the City. Applications received outside of the application window by any increment of time shall be rejected

3. Applications for STR licenses may be submitted via regular mail, electronic mail, or delivered in person to the City, shall contain all of the information required by the City Code, and shall be accompanied by the required application fee.

4. Applicants may submit only one application per proposed short-term rental location. If the City receives duplicate applications for a single location, all such applications shall be rejected. Any attempts to circumvent the limitations imposed by this policy may also result in the rejection of applications.

5. Applications shall clearly indicate the zoning district in which the proposed short-term rental is located. The City will only process applications pertaining to property located within the zoning district or districts described in the notice of available licenses. Applications pertaining to property in districts without available licenses will be rejected outright.

Section IV: Selection of Applications

1. If the number of applications submitted during the application window is less than or equal to the number of available STR licenses, the City will process such applications normally under the City Code.

2. If the number of applications submitted during the application window is greater than the number of available STR licenses, selection of applications for available STR licenses will be completed by a random lottery drawing open to the public.

3. After the application window closes, the City will publish notice of the time and place of the lottery drawing in a newspaper of general circulation and on its website. Such notice shall be published at least 7 days before the lottery drawing.

4. If there are available STR licenses in more than one zoning district, the City will separate the applications by district and conduct a lottery drawing for each zoning district having available licenses.

5. At the lottery drawing, the City will randomly select a number of applications equal to available licenses in each zoning district to be processed and approved (the “initial applications”). To avoid conducting subsequent lottery drawings, the City may, in its discretion, select alternate applications for each zoning district which will be processed in the event the initial applications

are withdrawn or rejected (the "alternate applications"). Such alternate applications will be assigned priority in the order they are drawn.

Section V: Processing of Selected Applications

1. Upon completion of the selection process set forth in Section V, the City shall begin its review by processing the initial applications. The initial applications will first be reviewed for completeness. If any required information is missing or the applicant failed to pay the required application fee, the City shall notify the applicant consistent with the City Code. If the applicant does not remedy any deficiencies within 14 calendar days after receiving such notice, the application shall be deemed incomplete and rejected.

2. After the City verifies the completeness of the initial applications, they will be reviewed for compliance with the standards and regulations of the City Code and subjected to the requisite inspections. If these requirements are met, the City shall approve the initial applications and issue the STR licenses consistent with the applicable provisions of the City Code. Initial applications that do not meet the requirements of the City Code shall be rejected.

3. If at any point in this process an initial application is withdrawn or rejected, the City shall process alternative applications, in the priority assigned at the lottery drawing, until City approves a number of STR applications equal to the number of available STR licenses, at which point it will cease its review and processing of applications, and all remaining applications will be deemed rejected.

4. Application fees shall be deemed nonrefundable for applicants whose applications are reviewed by the City, regardless of whether an STR license is issued. After the City issues all available STR licenses, application fees will be refunded to any applicants whose applications were not reviewed.

5. The City shall provide notice via email and regular mail to each applicant whose application is rejected.

6. If there are still available STR licenses after the initial applications and alternate applications are processed, the City will conduct a second lottery drawing following the procedures outlined in Section V above to select additional applications for review. If there are still available STR licenses after the City completes its review of all applications submitted during the application window, the City shall again publish notice and establish an application window as set forth in Section II.

Section VI: Amendment of Policy

7. The City Council may amend this policy from time to time as it sees fit to carry out the fair and efficient administration of the short-term rental regulations set forth in the City Code. Any such amendments must be approved by a majority vote of the City Council.

Approved by the Saugatuck City Council on _____, 2024.