

Northeast Site Solutions
Denise Sabo
199 Brickyard Rd Farmington, CT 06032
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May 1, 2017

Members of the Siting Council Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

RE: Tower Share Application

87 MONCE ROAD, BURLINGTON, CT 06013

Latitude: 41.73308000 Longitude: -72.90730000

T-Mobile Site#: CTHA560B-NSD-ROB

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of T-Mobile Northeast LLC ("T-Mobile"). T-Mobile plans to install antennas and related equipment at the tower site located at 87 Monce Road in Burlington, Connecticut.

T-Mobile will install three (3) 700MHz antenna, three (3) 1900/2100 MHz antennas, three (3) 2100 MHz antennas and six (6) RRUs at the 100-foot level of the existing 120 foot support tower Two (2) hybrid cables will also be installed. T-Mobile's equipment cabinets will be placed within T-Mobile's 200 sq ft lease area. Included are plans by ForeSite LLC, dated March 7, 2017. **Exhibit C**. Also included is a structural letter prepared by Sabre Industries, dated April 18, 2017, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as **Exhibit D**.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of T-Mobile's intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Theodore Shafer, First Selectman and Abby Conroy, Zoning Enforcement Officer of the Town of Burlington, as well as the tower owner (Homeland Tower) and property owner (Town of Burlington).

The planned modifications of the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

- 1. The proposed modification will not result in an increase in the height of the existing structure. The top of the support tower is 120-feet; T-Mobile's proposed antennas will be located at a center line height of 100-feet.
- 2. The proposed modifications will not result in the increase of the site boundary as depicted on the attached site plan.
- 3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed local and state criteria. The incremental effect of the proposed changes will be negligent.
- 4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. As indicated in the attached power density calculations, the combined site operations will result in a total power density of 8.88% as evidenced by **Exhibit E.**



Connecticut General Statutes 16-50aa indicates that the Council must approve the shared use of a telecommunications facility provided it finds the shared use is technically, legally, environmentally, and economically feasible and meets public safety concerns. As demonstrated in this letter, T-Mobile respectfully indicates that the shared use of this facility satisfies these criteria.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting T-Mobile's proposed loading. The structural analysis is included as **Exhibit D**.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this support tower in Sharon. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit T-Mobile to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as **Exhibit F**, authorizing T-Mobile to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of T-Mobile equipment at the 100-foot level of the existing 120-foot tower would have an insignificant visual impact on the area around the tower. T-Mobile's ground equipment would be installed within the existing facility compound. T-Mobile's shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by **Exhibit E**, the proposed antennas would not increase radio frequency emissions to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. T-Mobile will be entering into an agreement with the owner of this facility to mutually agreeable terms. As previously mentioned, the Letter of Authorization has been provided by the owner to assist T-Mobile with this tower sharing application.

E. Public Safety Concerns. As discussed above, the guyed tower is structurally capable of supporting T-Mobile's proposed loading. T-Mobile is not aware of any public safety concerns relative to the proposed sharing of the existing guyed tower. T-Mobile's intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of local residents and individuals traveling through Burlington.

Sincerely,

Denise Sabo

Mobile: 860-209-4690 Fax: 413-521-0558

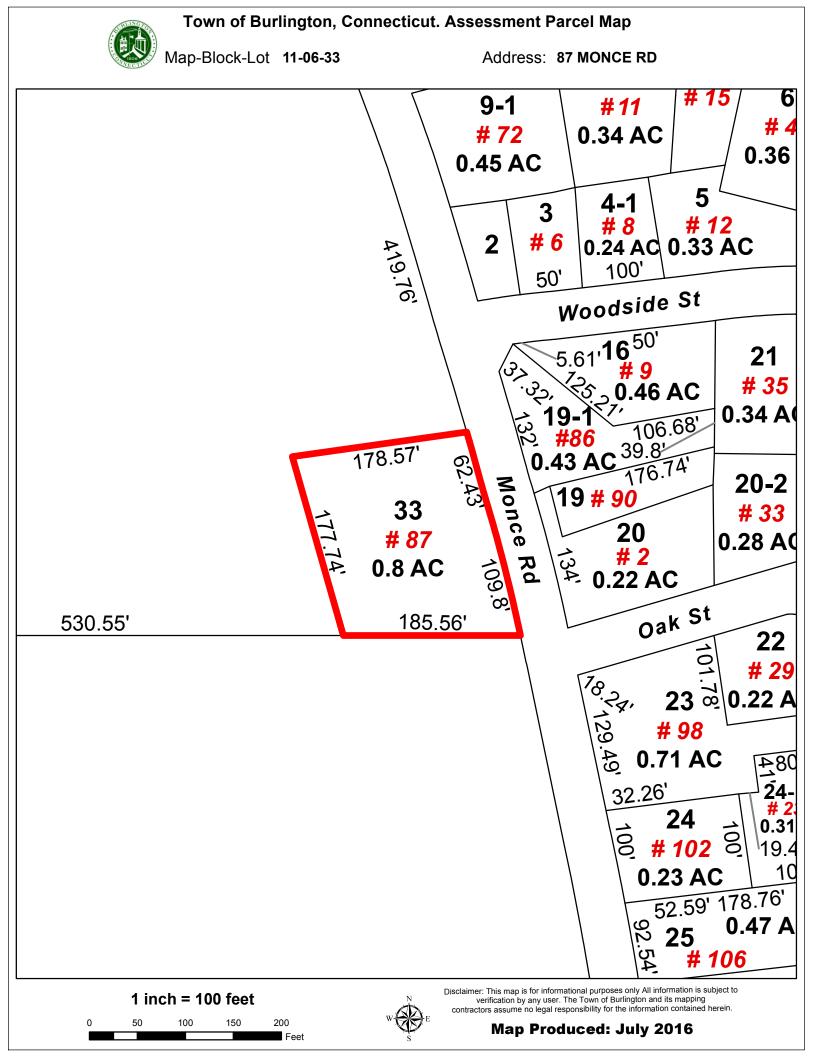
Office: 199 Brickyard Rd, Farmington, CT 06032 Email: denise@northeastsitesolutions.com

Attachments

cc: Theodore Shafer, First Selectman, as elected official Abby Conroy, Zoning Enforcement Officer Homeland Tower - as tower owner Town of Burlington - property owner

Exhibit A

Exhibit B



Map Block Lot

11-06-33

Account

00039400

Property Information

	T			
Property Location	87 MONCE	RD		
Owner	BURLINGTON TOWN OF			
Co-Owner				
Mailing Address	87 MONCE	RD		
Trianing Address	BURLINGT	NC	СТ	06013
Land Use	9030	Municip	al MdI-0	0
Land Class	E			
Zoning Code	R44			
Census Tract	4101			

Neighborhood	4000	
Acreage	0.8	
Utilities	Well,Septic	
Lot Setting/Desc	Rural	Level
Additional Info		

Photo



Sketch

Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Floors	
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	,
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	

Property Listing Report

Map Block Lot

11-06-33

Account

00039400

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Improvements	5500	3850
Outbuildings	5500	3850
Land	127000	88900
Total	132500	92750

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Calledge and proceedings of the control of the cont		
tal Area		0

Outbuilding and Extra Items

Туре	Description
Paving-Asphalt	3600.00 S.F.
Light w/Pole	1.00 UNITS
Paving-Asphalt	3600.00 S.F.
Light w/Pole	1.00 UNITS

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price	
BURLINGTON TOWN OF	335/ 780	4/6/2015		
BURLINGTON VOLUNTEER FIRE DEPT	00151/0044	2/1/1995	5000	
BURLINGTON VOLUNTEER FIRE	00047/0037		0	

Exhibit C

NEW WIRELESS TELECOMMUNICATION FACILITY CO-LOCATION

T--Mobile-T-MOBILE NORTHEAST LLC

SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd, Burlington, CT 06013 (797DB2 CONFIGURATION)

PROJECT SCOPE:

T-MOBILE, A WIRELESS TELECOMMUNICATIONS PROVIDER PROPOSES TO INSTALL ANTENNAS AND EQUIPMENT COLLOCATED ON FUTURE HOMELAND TOWERS AND FACILITY.

PROJECT NOTES:

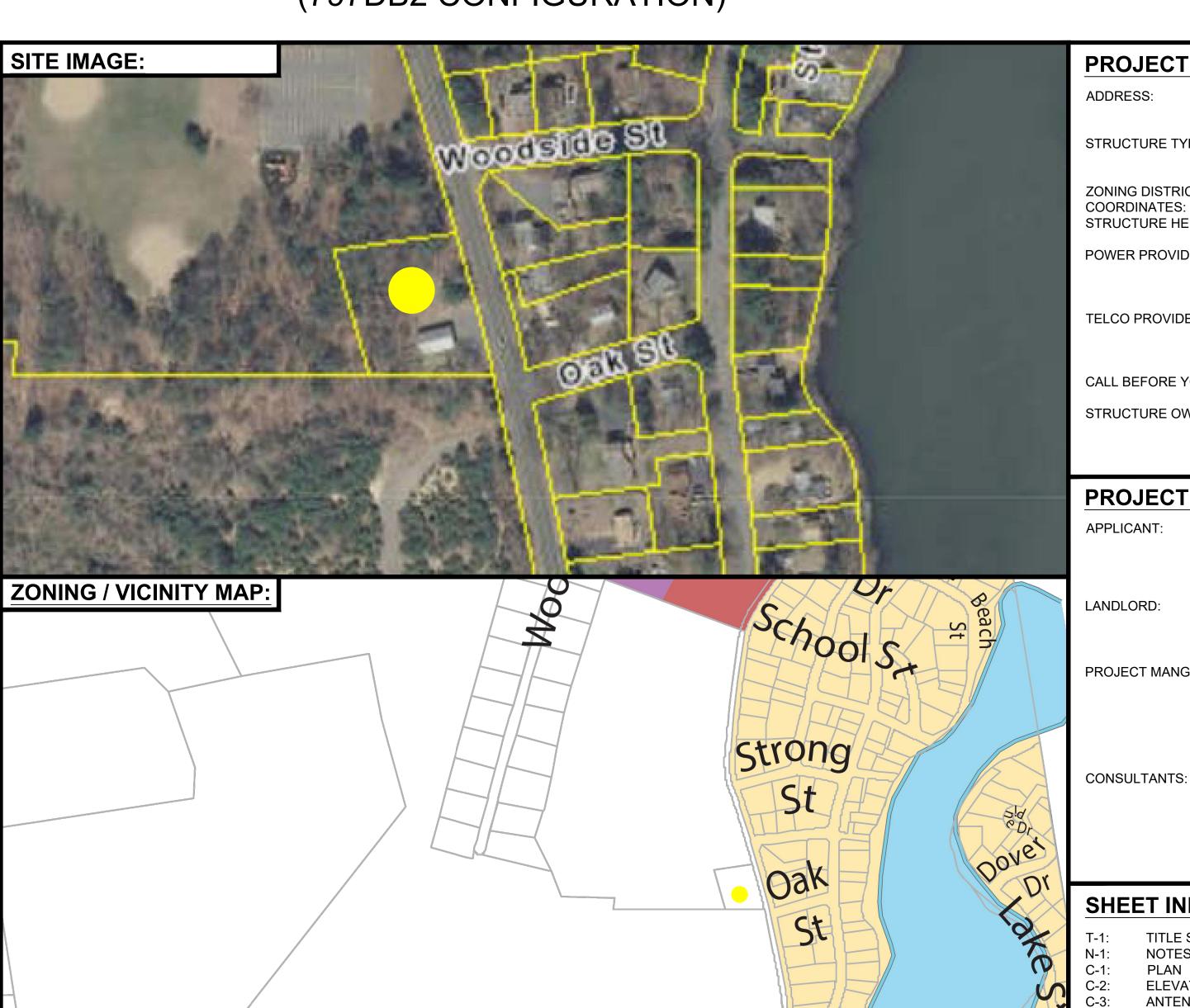
- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION: HANDICAPPED ACCESS IS NOT REQUIRED. POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS. AND CONDITIONS ON THE JOB SITE. NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.

APPLICABLE STATE ADOPTION CODES:

2016 CONNECTICUT STATE BUILDING CODE (CSBC).

ANSI/TIA-222-G-2005 STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

2014 NATIONAL ELECTRICAL CODE (NFPA 70) FOR POWER AND GROUNDING REQUIREMENTS.



PROJECT INFORMATION:

ADDRESS 87 Monce Rd Burlington, CT 06013

STRUCTURE TYPE: **FUTURE MONOPOLE BY**

HOMELAND TOWERS LLC

ZONING DISTRICT

COORDINATES: STRUCTURE HEIGHT:

N 41°44'20.89" & W 72°54'28.06" 140' AGL

Berlin, CT 06037

TELCO PROVIDER

260 Franklin Street Boston, MA 02110

CALL BEFORE YOU DIG: 800-922-4455

HOMELAND TOWERS, LLC (CT011) STRUCTURE OWNER: 9 HARMONY ST 2ND FLOOR

DANBURY, CT 06810 203-297-6345

PROJECT TEAM:

APPLICANT: T-MOBILE NORTHEAST, LLC.

35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 860-692-7100

LANDLORD: TOWN OF BURLINGTON

200 SPIELMAN ROAD **BURLINGTON, CT 06013**

PROJECT MANGER: NORTHEAST SITE SOLUTIONS

> 420 MAIN STREET, BLDG 4 STURBRIDGE, MA 01566 MATTHEW BANDLE

MATT@NORTHEASTSITESOLUTIONS.COM 201-776-8521

FORESITE LLC

462 WALNUT ST NEWTON, MA 02460 SAEED MOSSAVAT

SMOSSAVAT@FORESITELLC.COM

617-212-3123

SHEET INDEX:

TITLE SHEET

NOTES AND DISCLAIMERS

C-1: PLAN

ELEVATION AND PLAN C-2:

ANTENNAS AND EQUIPMENTS DETAILS

CONSTRUCTION DETAILS

POWER RISER & ONE LINE DIAGRAM

E-2: **GROUNDING DETAILS**

GROUNDING DETAILS E-3:

APPLICANT:

T··Mobile· T-MOBILE NORTHEAST LLC

> 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002

PROJECT MANGER



420 Main Street, Bldg 4 Sturbridge, MA 01566 203-275-6669

CONSULTANT:



462 Walnut street Newton, MA 02460 617-212-3123

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"NOT TO SCALE".

REV	DESCRIPTION	DATE
Α	PRELIMINARY	03/03/17
0	ISSUED FOR PERMITTING	03/07/17

SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

SHEET TITLE:

T-1: TITLE SHEET

GENERAL NOTES:

EXACT

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF OLD LYME, AND OTHER GOVERNMENTAL AGENCIES, AS APPLICABLE.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL FOLLOW CONDITIONS OF ALL APPLICABLE PERMITS AND WORK IN ACCORD WITH OSHA REGULATIONS.
- 3. UTILITY INFORMATION SHOWN ON THE PLAN IS BASED ON VISIBLE FIELD EVIDENCE AND AVAILABLE RECORDS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR IS ADVISED THAT THESE DRAWINGS MAY NOT ACCURATELY DEPICT AS-BUILT LOCATIONS AND OTHER UNKNOWN STRUCTURES. THE CONTRACTOR SHALL THEREFORE DETERMINE THE
- LOCATION OF EXISTING UNDERGROUND ELEMENTS AND EXCAVATE WITH CARE AFTER CALLING MARKOUT SERVICE AT 1-800-922-4455 (72) HOURS BEFORE DIGGING, DRILLING OR BLASTING. CARE SHALL BE TAKEN NOT TO DISTURB EXISTING UTILITIES AND SERVICE CONNECTIONS
- PORTIONS THERE OF) TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING STRUCTURES OR UTILITIES DAMAGED BY HIS OPERATIONS.
- OPERATIONS.
 4. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF NEW SERVICE CONNECTIONS AND SHALL COORDINATE WORK WITH THE
- APPROPRIATE UTILITY COMPANY.
 5. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL
- PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE
- ENGINEER.
 6. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES.
- CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE, BUT NOT BE LIMITED TO: A) FALL PROTECTION.
- B) CONFINED SPACE ENTRY,
- C) ELECTRICAL SAFETY, AND
- D) TRENCHING & EXCAVATION.
- 7. ELECTRIC SERVICE SHALL BE COORDINATED WITH CONNECTICUT LIGHT & POWER (CL & P).
- 8. ALL ELEVATIONS SHOWN ARE IN N.G.V. DATUM 1929.
- 9. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 10. CONTRACTOR SHALL PROTECT EXISTING PAVED AND GRAVEL SURFACES, CURBS, LANDSCAPE AND STRUCTURES AND RESTORE SITE TO
- PRECONSTRUCTION CONDITION WITH AS GOOD, OR BETTER, MATERIALS. NEW MATERIALS SHALL MATCH EXISTING THICKNESS AND TYPE.

 11. THE CONTRACTOR SHALL SHORE ALL TRENCH EXCAVATION GREATER THAN 5 FEET IN DEPTH OR LESS WHERE SOIL CONDITIONS ARE DEEMED UNSTABLE. ALL SHEETING AND/OR SHORING METHODS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING GROUNDWATER LEVELS IN THE VICINITY OF EXCAVATIONS TO PROTECT ADJACENT PROPERTIES AND NEW WORK. GROUNDWATER SHALL BE DRAINED IN ACCORDANCE WITH LOCAL SEDIMENTATION & EROSION CONTROL GUIDELINES.
- 13. EXCAVATION
- CONTRACTOR SHALL GRADE ONLY AREAS SHOWN TO BE MODIFIED HEREIN AND ONLY TO THE EXTENT REQUIRED TO SHED OVERLAND WATER FLOW AWAY FROM SITE. ALL SLOPES SHALL NOT BE STEEPER THAN 3:1 (HORIZ:VERT).
- SEDIMENTATION AND EROSION CONTROLS SHOWN AND SPECIFIED SHALL BE ESTABLISHED BEFORE STRIPPING EXISTING VEGETATION. ORGANIC MATERIAL AND DEBRIS SHALL BE STRIPPED AND STOCKPILED BEFORE ADDING FILL MATERIAL.
- 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.
- ALL FILL SHALL BE PLACED IN EIGHT INCH LIFTS AND COMPACTED IN PLACE. STRUCTURAL FILL SHALL BE COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DRY DENSITY TESTED IN ACCORDANCE WITH ASTM D1557, METHOD C.
- EXCAVATIONS FOR FOOTINGS SHALL BE CUT LEVEL
- TO THE REQUIRED DEPTH AND TO UNDISTURBED SOIL. REPORT UNSUITABLE SOIL CONDITIONS TO THE ENGINEER.
- STRUCTURAL FILL BE TESTED FOR MOISTURE CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED, AS REQUIRED, UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED. EQUIPMENT CABINETS MAY BE SUPPORTED ON SLABS-ON-GRADE UNDERLAIN BY AT LEAST A 12-INCH THICKNESS OF COMPACTED STRUCTURAL FILL OR MINUS 3
- 4"-INCH CRUSHED STONE PLACED ON THE EXISTING FILL, THE SURFACE OF WHICH SHOULD BE THOROUGHLY
- COMPACTED AND CLEAR OF ORGANIC MATTER.
- THE AREA UNDERLYING THE SLABS SHOULD BE ROUGH GRADED AND THEN THOROUGHLY PROOFROLLED WITH A VIBRATORY ROLLER OR
- PLATE COMPACTOR PRIOR TO FINAL GRADING AND PLACEMENT OF STRUCTURAL FILL OR MINUS 34
- "-INCH CRUSHED STONE.
- A SOIL UNIT WEIGHT OF 100 LBS PER CUBIC FOOT (PCF) SHOULD BE USED FOR ENGINEERED FILL OVERLYING THE FOOTINGS.
- TRENCH EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH DAY.
 SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE.
- TOWER FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORD WITH TOWER MANUFACTURER'S DESIGNS AND SPECIFICATIONS
- 14. MATERIALS
 NATIVE GRAVEL MATERIAL MAY BE USED FOR TRENCH BACKFILL WHERE SELECT MATERIAL IS NOT SPECIFIED. GRAVEL
- MATERIAL FOR CONDUIT TRENCH BACKFILL SHALL NOT CONTAIN ROCK GREATER THAN 2 INCHES IN DIAMETER.
- BANK OR CRUSHED GRAVEL SHALL CONSIST OF TOUGH, DURABLE PARTICLES OF CRUSHED OR UNCRUSHED GRAVEL FREE OF SOFT, THIN, ELONGATED OR LAMINATED PIECES AND MEET THE GRADATION:
- FILL SHOULD MEET THE FOLLOWING MATERIAL

PROPERTY REQUIREMENTS:

FILL TYPE (1)	USCS CLASSIFICATION	ACCEPTABLE LOCATION FOR PLACEMENT
	20042	
STRUCTURAL FILL	GW (2)	ALL LOCATIONS AND ELEVATIONS. THE EXISTING GLACIAL TILL
		MAY BE SELECTIVELY RE-USED AS STRUCTURAL FILL, PROVIDED
		THEY MEET THE GRADATION REQUIREMENTS IN NOTE 2, BELOW.
COMMON FILL	VARIES (3)	COMMON FILL MAY BE USED FOR SITE GRADING TO WITHIN 12
	,	INCHES OF FINISHED GRADE. COMMON FILL SHOULD NOT BE
		USED UNDER SETTLEMENT SENSITIVE STRUCTURES. THE EXISTING
		GLACIAL TILL MAY BE RE-USED AS COMMEN FILL PROVIDED THEY
		ARE FREE OF ORGANICS AND CAN BE ADEQUATELY COMPACTED.

1.COMPACTED STRUCTURAL FILL SHOULD CONSIST OF APPROVED MATERIALS THAT ARE FREE OF ORGANIC MATTER AND DEBRIS. FROZEN MATERIAL SHOULD NOT BE USED. FILL SHOULD NOT BE PLACED ON A FROZEN SUBGRADE.

2.IMPORTED STRUCTURAL FILL SHOULD MEET THE FOLLOWING GRADATION:

DEBROENT DASSING BY WEIGHT.

PERCENT PASSING BY WEIGHT
SIEVE SIZE STRUCTURAL FILL

0-12

6" 100 3" 70-100 2" (100)*

3/4" 45-95 NO.4 30-90 NO.10 25-80 NO.40 10-50

NO.200

* MAXIMUM 2-INCH PARTICLE SIZE WITHIN 12 INCHES OF THE UNDERSIDE OF FOOTINGS OR SLABS
3. COMMON FILL SHOULD HAVE A MAXIMUM PARTICLE SIZE OF 6 INCHES AND NO MORE THAN 25 PERCENT BY WEIGHT PASSING

STRUCTURAL NOTES & SPECIFICATIONS

STEEL

- 1. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR
- TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED OF
- ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO LATEST
- EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- 3. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO
- ASTM A992 (FY-50 KSI), UNLESS OTHERWISE NOTED.

 4. STEEL PIPE SHALL CONFORM TO ASTM A500, GRADE B, STEEL
- PIPE DIAMETERS NOTED ON THE DRAWINGS ARE NOMINAL.

 5. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM
- A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE MINIMUM OF TWO BOLTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
- 6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS
- OTHERWISE NOTED.

 7. ALL STEEL MATERIAL EXPOSED TO WEATHER SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS.
- 8. ALL BOLTS ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM
- A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE."

 9. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, "GALVANOX", "DRY GALV", "ZINC IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON
- GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

 10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES." ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN,
- AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION" 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE 9.
- 11. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.
- 12. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL TO EXPOSED CONCRETE IN ACCORDANCE

SITE NOTES

- 1. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIAL ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.
- 2. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.
- 3. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REWORKING, REMAINS UNSUITABLE THEN THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACED WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUBGRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING.
- 4. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTABLE BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.

ANY SOFT MATERIAL SHALL BE REWORKED AND REPLACED

APPLICABLE CODES AND STANDARDS.

- 5. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
- 6. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM
 ALL APPLICABLE GOVERNMENTAL AGENCIES (NOT SUPPLIED BY OWNER).
 7. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTORS
- RESPONSIBILTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS (NOT SUPPLIED BY OWNER).

 8. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE LATEST
- THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
 CONTRACTOR RESPONSIBLE FOR CLOSING AND FILING ALL PERMITS ASSOCIATED
- WITH THE SITE.

 11. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE
- EQUIPMENT AND TOWER AREAS.

 12. ALL EXISTING AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE
- RESTORED TO MATCH PRECONSTRUCTION CONDITIONS.

 13. THE CONTRACTOR SHALL CONTACT "CALL BEFORE

SEDIMENTATION/ERSON

- 1. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDLINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- 2. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION. THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED:
- A. LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARLY MARKED BEFORE COMMENCING WITH SUCH WORK.
- B. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
- C. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE
 OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
 D. TOPSOIL SHALL BE SPREAD TO FINISH GRADES AND SEEDED AS SOON AS

FINISHED GRADES ARE ESTABLISHED. STRAW MULCH, JUTE NETTING OR MATS SHALL

- BE USED WHERE THE NEW SEED IS PLACED.

 E. THE LENGTH AND STEEPNESS OF CLEARED SLOPES
- SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.
- F. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
- G. ALL SEDIMENT SHALL BE TRAPPED ON THE SITE
- 3. SEDIMENTATION AND EROSION CONTROL (SEC) MEASURES SHOWN SHALL BE INSTALLED PRIOR TO LAND CLEARING, EXCAVATION OR GRADING OPERATIONS. REQUIREMENTS SPECIFIED SHALL BE MET PRIOR TO COMMENCING EARTHWORK OPERATIONS.
- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SEC MEASURES THROUGHOUT DURATION OF PROJECT UNTIL DISTURBED LAND IS THOROUGHLY VEGETATED.
- VEGETATED.

 5. FAILURE OF THE SEC SYSTEMS SHALL BE CORRECTED IMMEDIATELY AND SUPPLEMENTED WITH ADDITIONAL MEASURES AS NEEDED.
- 6. VEGETATIVE SEEDING: UON, AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF 3". TOPSOIL SHALL BE LOOSENED BY RAKING OR DISKING BEFORE SEEDING. APPLY 50 Lbs. OF DOLOMITIC LIMESTONE AND 25 Lbs. OF 10-10-10 FERTILIZER PER 1000 SF. HARROW LIME AND FERTILIZER INTO LOOSE SOIL. APPLY COMMON BERMUDA AND RYE GRASS AT 50 Lbs/ACRE. USE CYCLONE SEED DRILL CULTIPACKER SEEDER OR HYDROSEEDER (SEED & FERTILIZER SLURRY) FOR STEEP SLOPES. IRRIGATE UNTIL VEGETATION IS COMPLETELY ESTABLISHED.
- 7. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- 8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS
- 9. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOS IT.

 10. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE SYSTEMS
- LOCATED ON SITE

 11. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FORM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
 CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMACE WITH THE

STATE OF CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AS

- AMENDED.

 14. TEMPORARY SILT FENCE EROSION CONTROL BARRIER SHALL BE MAINTAINED THROUGHOUT SITE CONSTRUCTION. STOCKPILE ON SITE 100 FT. OF SILT FENCE FOR EMERGENCY USE. TEMPORARY EROSION BARRIERS SHALL REMAIN IN PLACE UNTIL
- PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED.

 15. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE EQUIPMENT LEASE AREA SHALL BE PERMANENTLY ESTABLISHED WITH A VEGETATIVE GROUND COVER.
- 16. STILLING BASIN SHALL BE UTILIZED FOR ANY DE-WATERING DISCHARGE WHICH MAY
 OCCUR DURING CONSTRUCTION OPERATIONS.
 17. PROPOSED CONSTRUCTION IMPACTS AND PERMANENT IMPROVEMENTS SHALL NOT
- SIGNIFICANTLY IMPACT STORM WATER RUNOFF PATTERNS, VOLUME OR PEAK FLOW RATES. THE FLAT GRADE OF THE EQUIPMENT COMPOUND AND STONE SURFACE WILL PROMOTE STORM WATER INFILTRATION.

 18. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL
- MEASURES PRIOR TO ANY GRADING ACTIVITIES IN LOCATIONS SHOWN ON THESE DRAWINGS.
- 19. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

20. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE

- DURING
 THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
 21. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE
- DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE
- BARRIER.

 22. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND
- VEGETATION.
 23. NO GREATER THAN 80,000 SQUARE FEET OF LAND SHALL BE EXPOSED AT ANY ONE TIME
- DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 10
- DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

 24. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND
- WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT A RATE OF 2 TONS PER ACRES. BALES SHALL BE UNSPOILED,

APPLICANT:

T • • Mobile • T-MOBILE NORTHEAST LLC

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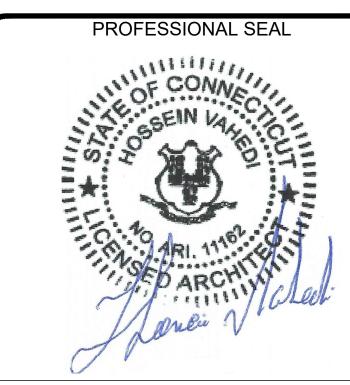


420 Main Street, Bldg 4 Sturbridge, MA 01566 203-275-6669

CONSULTANT:



462 Walnut street Newton, MA 02460 617-212-3123



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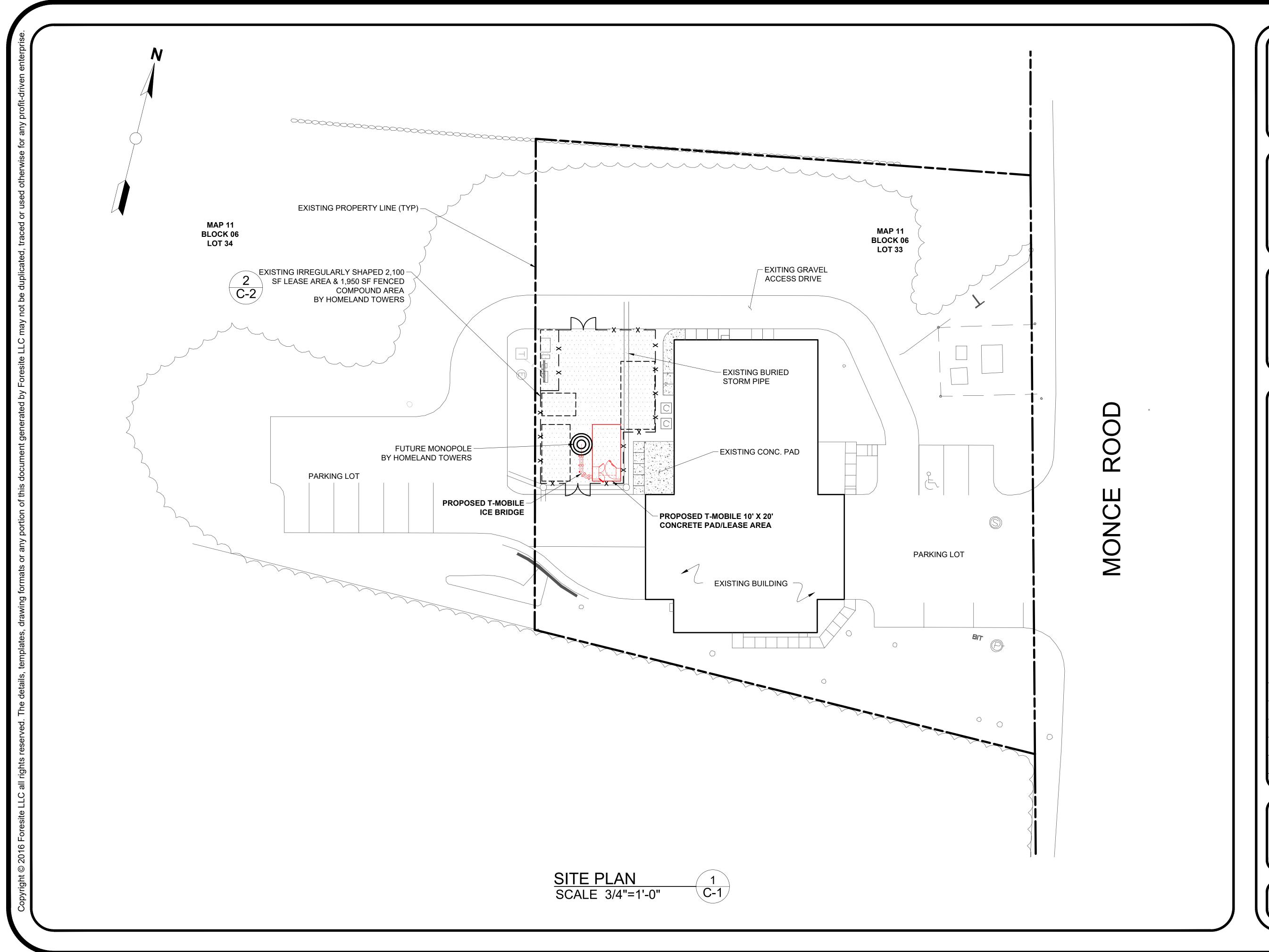
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REV	DESCRIPTION	DATE
Α	PRELIMINARY	03/03/17
0	ISSUED FOR PERMITTING	03/07/17

SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

SHEET TITLE:

N-1: NOTES AND DISCLAIMERS



APPLICANT:

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T-MOBILE NORTHEAST LLC

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PROJECT MANGER



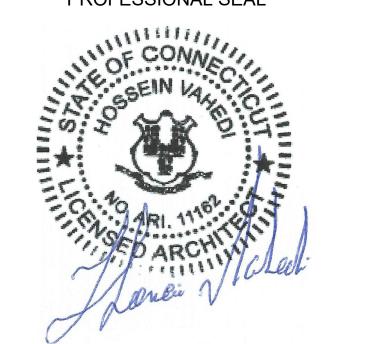
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CONSULTANT:



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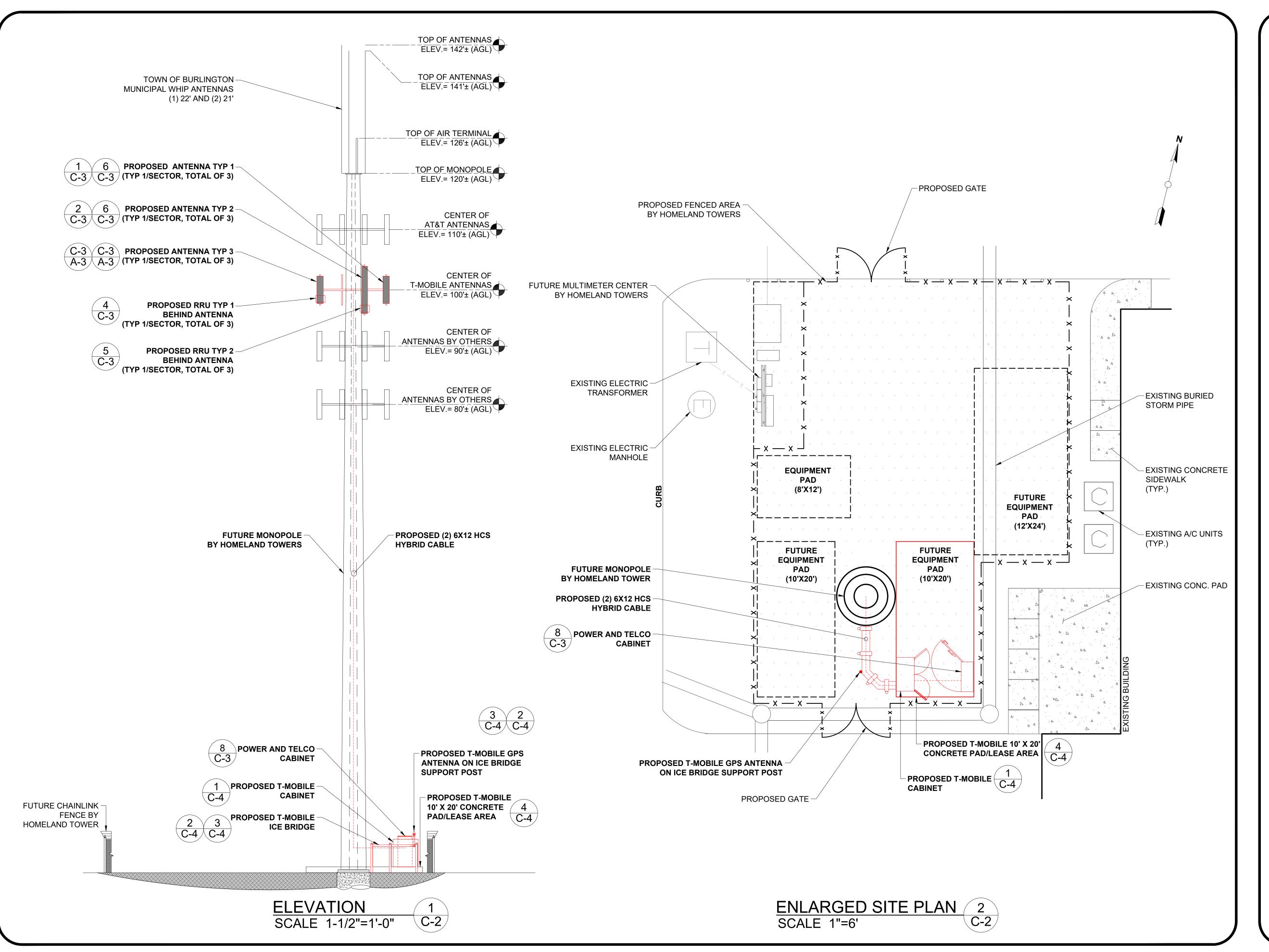
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SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

> SHEET TITLE: C-1: PLAN



APPLICANT:

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SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

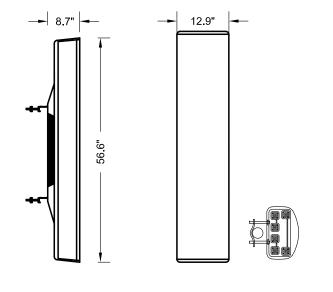
SHEET TITLE:

C-2: ELEVATION AND PLAN

(3) ANTENNAS TYPE 1

Manufacturer: Ericsson
Model: AIR-32 B66A/B2A
Footprint: 56.6"Hx12.9"Wx8.7"D
weight: 132.2 lbs
Frequency band: 698-896 MHZ

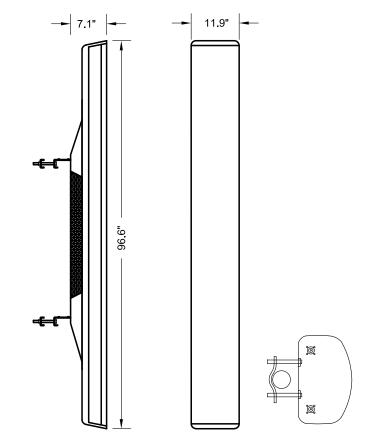
Antenna type: Dual Sector Wind loading lateral: 150 km/h Wind loading rear: 150 km/h Wind loading maximum: 241 km/h



(3) ANTENNAS TYPE 2

Manufacturer: COMMSCOPE
Model LNX-6515DS-A1M
Footprint: 96.6"Hx11.9"Wx7.1"D
weight: 43.7 lbs
Frequency band: 698-896 MHZ
Antenna type: Single Sector

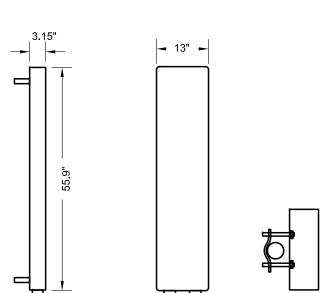
Frequency band: 698-896 M
Antenna type: Single Se
Wind loading lateral: 150 km/h
Wind loading rear: 150 km/h
Wind loading maximum: 241 km/h



(3) ANTENNAS TYPE 3

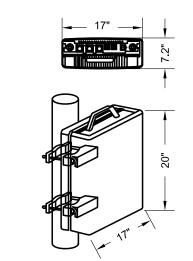
Manufacturer: RFS
Model APX16DWV-16DWVS-E-A20
Footprint: 55.9"Hx13"Wx3.15"D

weight: 43.7 lbs
Frequency band: 698-896 MHZ
Antenna type: Single Sector
Wind loading lateral: 170 km/h
Wind loading rear: 92 km/h
Wind loading maximum: 170 km/h



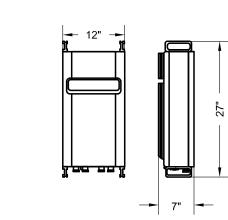
(3) RRU TYPE 1

Manufacturer: Ericsson Model: RRUS 11 B12 Footprint: 19.7"Hx17.0"Wx7.2"D Weight: 50.7 lbs



(3) RRU TYPE 2

Manufacturer: Ericsson Model: RRUS 11 B4 Footprint: 27.1"Hx12.0"Wx7.0"D Weight: 52.9 lbs



ANTENNA DETAILS 1 N.T.S C-3

3 PROPOSED ANTENNA TYPE 3

PROPOSED RRU TYPE 2 -

PROPOSED RRU TYPE 1-BEHIND ANTENNA

ANTENNA LAYOUT

(TYP 1/SECTOR, TOTAL OF 3)

PROPOSED ANTENNA TYPE 1

C-3 (TYP 1/SECTOR, TOTAL OF 3)

(TYP 1/SECTOR, TOTAL OF 3)

 $\frac{2}{C-3}$ PROPOSED ANTENNA TYPE 2 - $\frac{2}{C-3}$ (TYP 1/SECTOR, TOTAL OF 3)

BEHIND ANTENNA

C-3 (TYP 1/SECTOR, TOTAL OF 3)



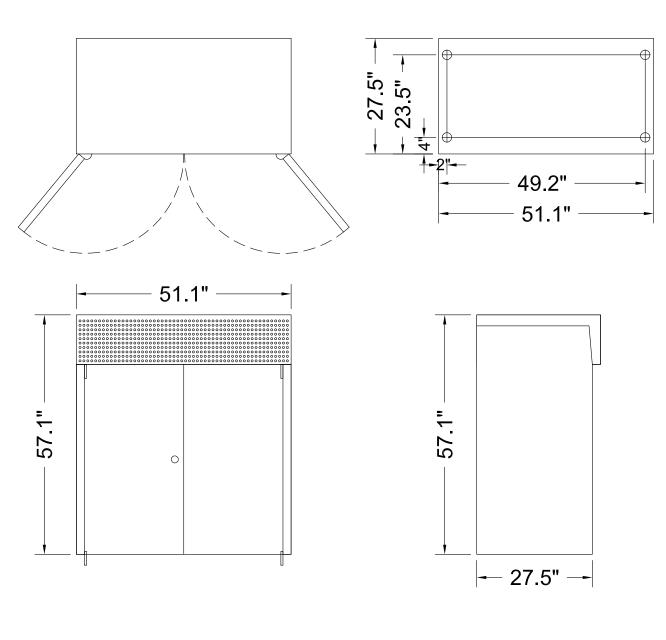






(1) 6102 CABINET

Manufacturer: Model Footprint: ERICSSON 6102 57.1"Hx51.1"Wx27.5"D



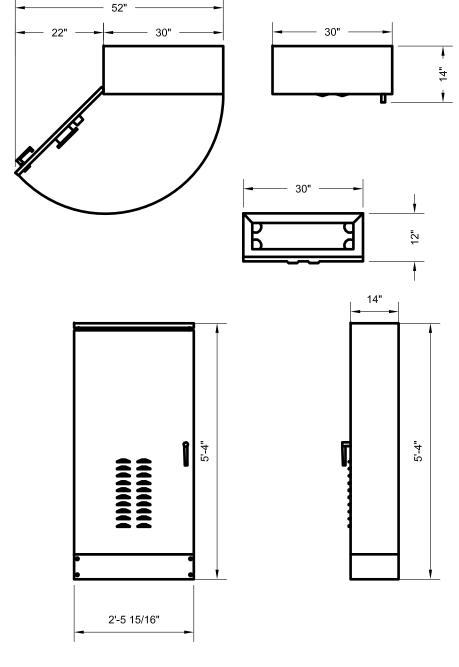
6102 CABINET DETAILS 7 N.T.S C-3

(1) PTC CABINET

Manufacturer:

Footprint:

EMERSON F1009123 57.1"Hx51.1"Wx27.5"D



TRANSTECTOR PTC CABINET 8 N.T.S C-3

APPLICANT:

T - Mobile T-MOBILE NORTHEAST LLC

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PROJECT MANGER

NSS N

NORTHE ST SITE SOLUTIONS Turnkey Wireless Development

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CONSULTANT:



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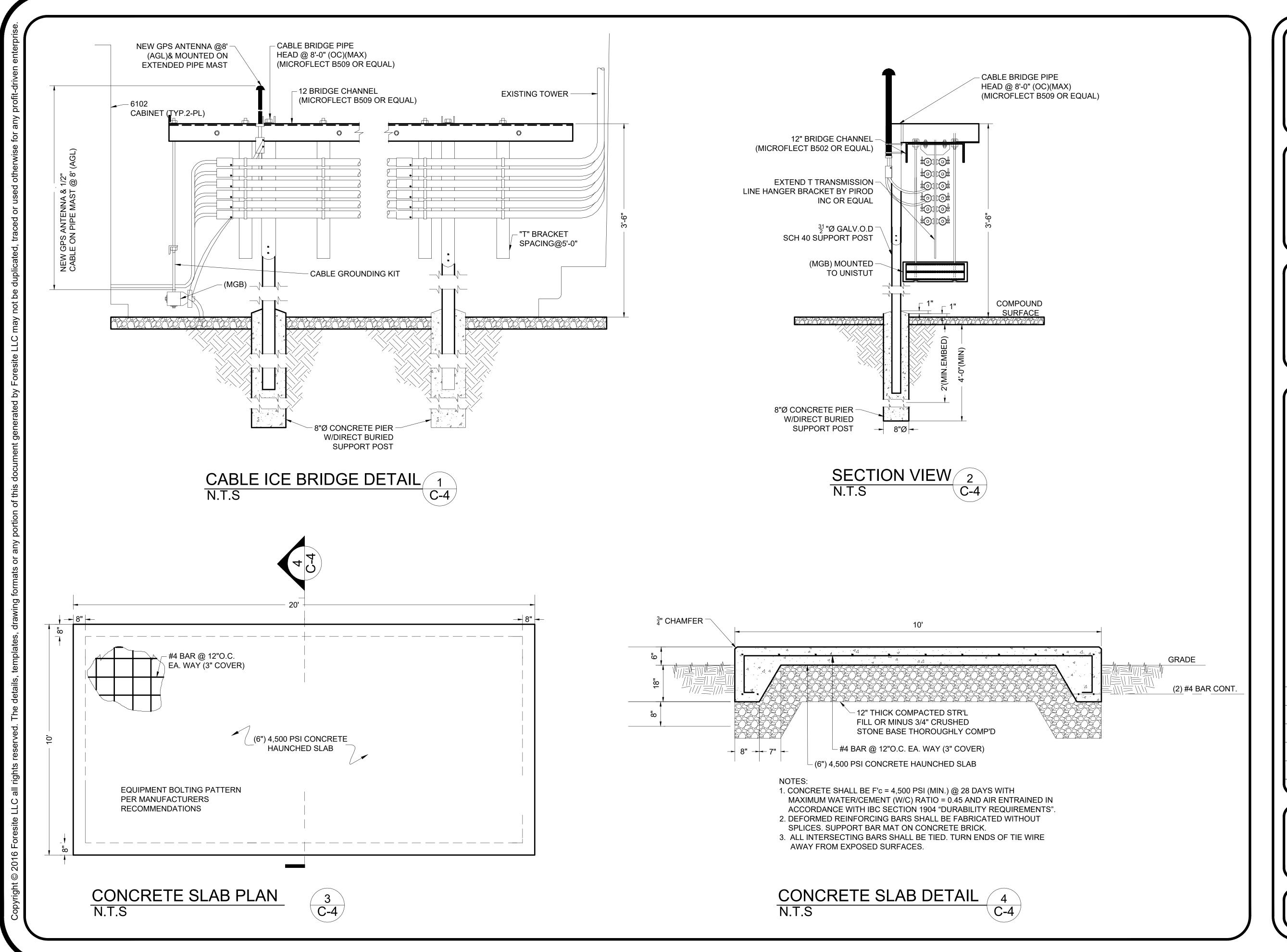
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SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

SHEET TITLE: C-3: ANTENNAS AND EQUIPMENTS DETAILS



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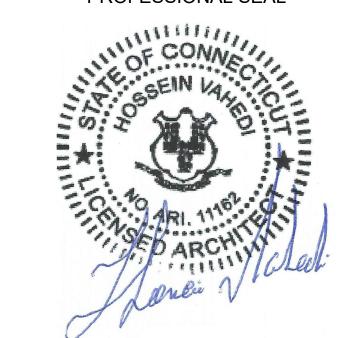
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SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

SHEET TITLE: C-4: CONSTRUCTION DETAILS

2) ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED & PROCURED PER SPECIFICATION REQUIREMENTS.

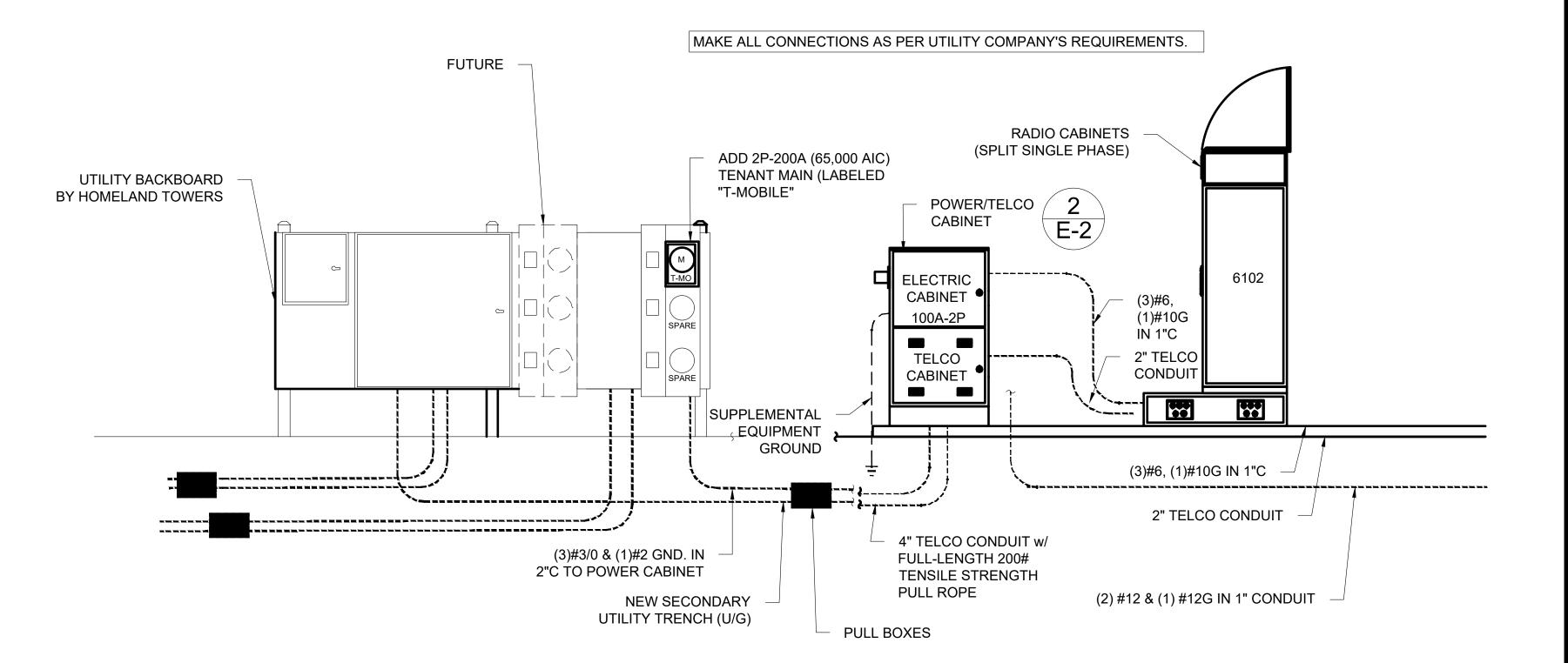
ELECTRICAL AND GROUNDING NOTES

- 1) ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS of THE NATIONAL ELECTRICAL CODE (NEC) as WELL as APPLICABLE STATE & LOCAL CODES
- 3) THE ELECTRICAL WORK INCLUDES ALL LABOR & MATERIAL DESCRIBED BY DRAWINGS & SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING & APPROVED ELECTRICAL SYSTEM.
- 4) GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, & IS RESPONSIBLE FOR **OBTAINING SAID PERMITS & COORDINATION OF INSPECTIONS.**
- 5) ELECTRICAL & TELCO WIRING OUTSIDE A BUILDING & EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS or SCHEDULE 80 PVC (as PERMITTED BY CODE) & WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL or NONMETALLIC CONDUITS.
- 6) BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- 7) ELECTRICAL WIRING SHALL BE COPPER w/ TYPE XHHW, THWN, or THININSULATION.
- 8) RUN ELECTRICAL CONDUIT or CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT & LESSEE/LICENSEE CELL SITE POWER PEDESTAL as INDICATED ON THIS DRAWING, PROVIDE FULL LENGTH PULL ROPE, COORDINATE INSTALLATION w/ UTILITY COMPANY.
- 9) RUN TELCO CONDUIT or CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT & LESSEE/LICENSEE CELL SITE TELCO CABINET & BTS CABINET as INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE @ EACH END.
- 10) WHERE CONDUIT BETWEEN BTS & LESSEE/LICENSEE CELL SITE POWER PEDESTAL & BÉTWEEN BTS & LESSEE/LICENSEE CELL SITE TELCO SERVICE CABINET ARE U/G USE PVC, SCH.40 CONDUIT. ABOVE THE GROUND PORTION of THESE CONDUITS SHALL BE PVC CONDUIT.
- 11) ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- 12) POWER PEDESTAL SUPPLIED BY LESSE/LICENSEE.
- 13) GROUNDING SHALL COMPLY w/ NEC ART. 250.
- 14) GROUND COAXIAL CABLE SHIELDS MINIMUM @ BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY LESSEE/LICENSEE.
- 15) USE #6 COPPER STRANDED WIRE w/ GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) & #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING as INDICATED ON THE DRAWING.
- 16) ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS or CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT w/ GALVANIZED STEEL.
- 17) ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST & STRAIGHTEST PATH POSSIBLE, EXCEPT as OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT @ RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT @ 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS w/IN 7 FEET of LESSEE/LICENSEE EQUIPMENT or CABINET TO MASTER GROUND BAR.
- 18) CONNECTIONS TO GROUND BARS SHALL BE MADE w/ TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- 19) APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- 20) BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, & ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- 21) BOND ANTENNA EGB'S & MGB TO GROUND RING.
- 22) TEST COMPLETED GROUND SYSTEM & RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.

NOTE: DO NOT BOND NEUTRAL AT PTC **GROUPED METERING** MANUAL TRANSFER SWITCH POWER/TELCO CABINET (PTC) 200A-2P 6102 TVSS 2P-200A 100A-2P (1) 10G IN 1"C (3)#2/O & (1)#2/OG **GENERATOR** RECEPTACLE 1/2 SUPPLEMENTAL **EQUIPMENT GROUND** CONDUCTOR 15A-1P - — — SERVICE LIGHT 20A-1P COPPER CLAD STEEL

GROUND ROD

ONE LINE DIAGRAM



POWER RISER DIAGRAM (1)

N.T.S.

E-1

APPLICANT:

T··Mobile· T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 860-692-7100

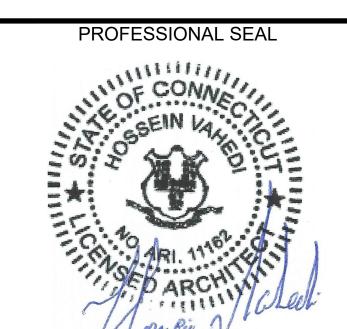


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CONSULTANT:



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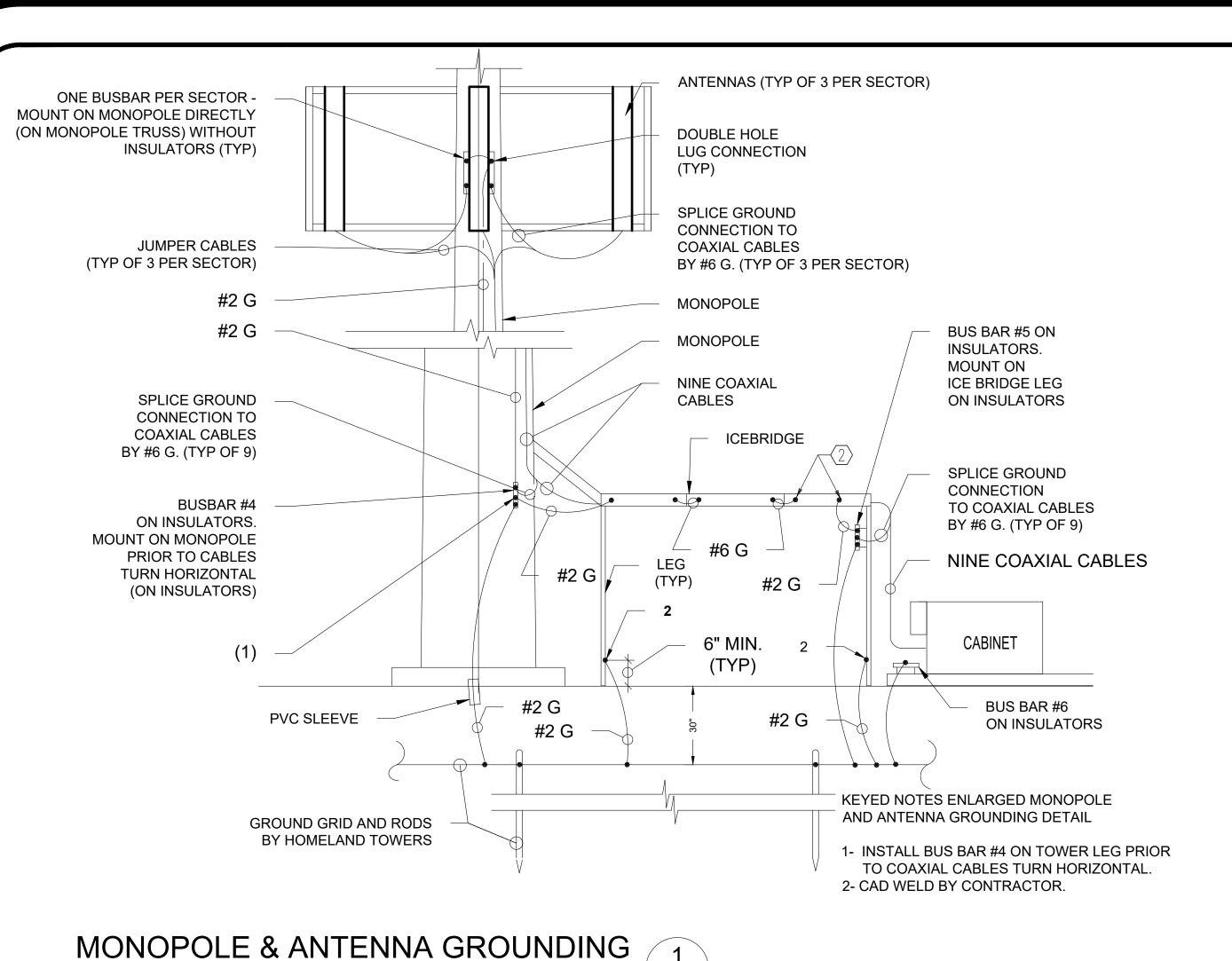
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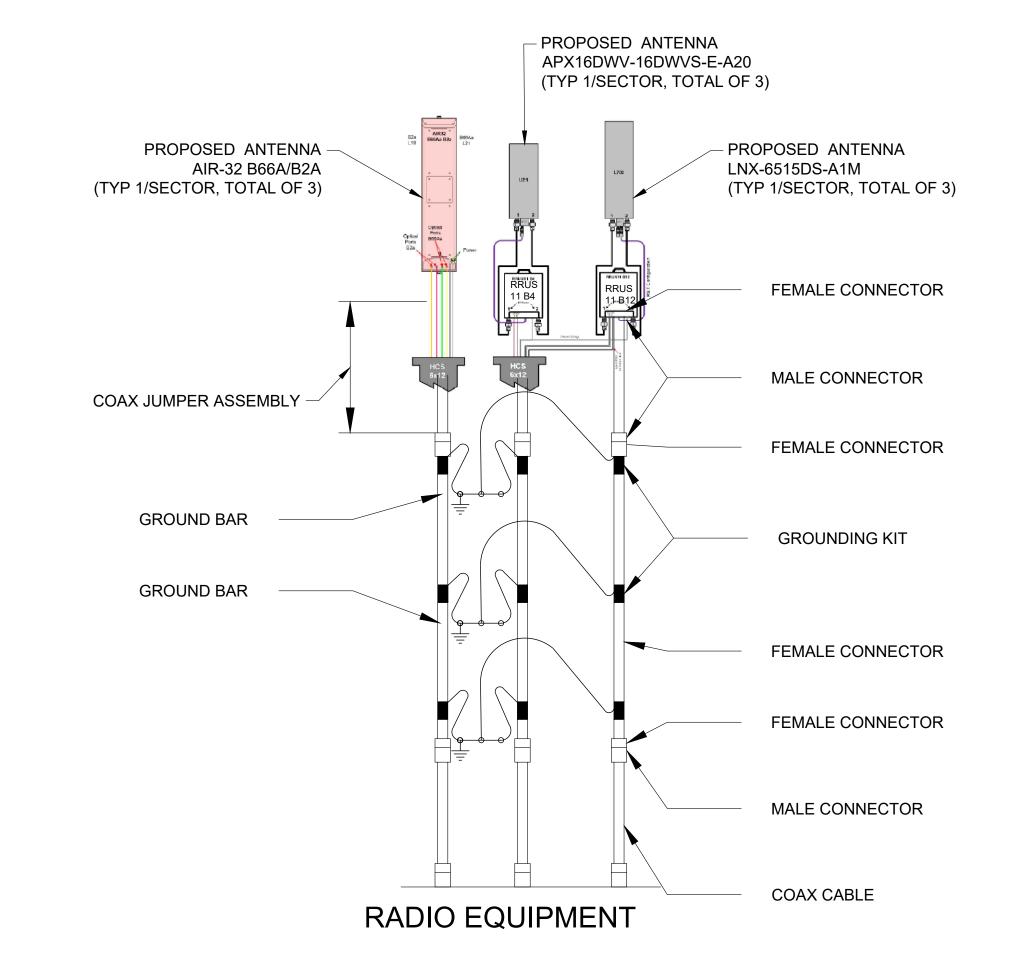
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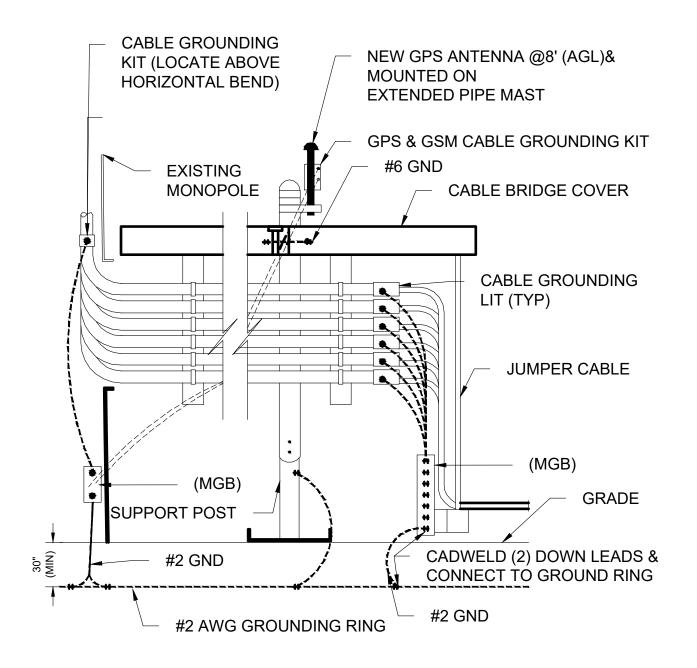
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> SHEET TITLE: E-1: POWER RISER & ONE LINE DIAGRAM





TYPICAL ANTENNA CABLE CONFIGURATION ENTRY N.T.S



CABLE BRIDGE
GROUNDING DETAIL 7
N.T.S. E-2

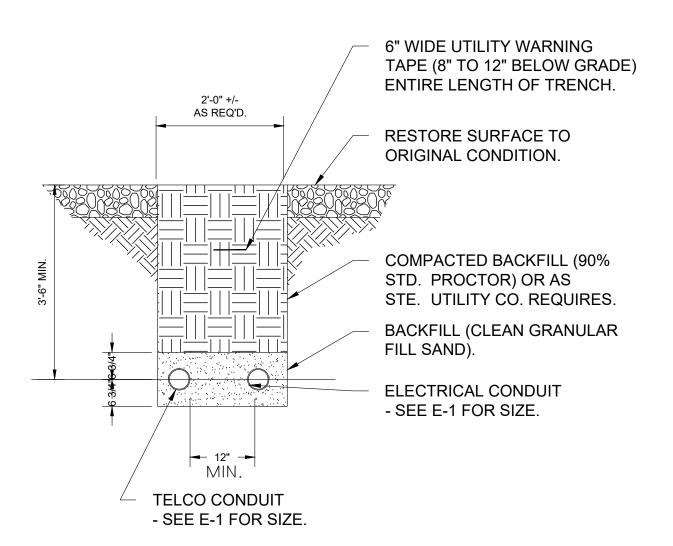
INTERCONNECT GROUND BARS W/ #2
AWG GREEN, INSULATED STRANDED CU.
WIRE.ATTACT W/ 2 HOLE LONG BARREL
COMPRESSION LUGS.

SECTOR GROUND BAR (4"x12" TINNED C.U.)
TYPICAL OF 3. ATTACH TO
PLATFORM W/ CHERRY INSULATORS

PROVIDE #2 AWG GREEN, INSUL.
STRANDED CU. DOWN LEAD. LUG
TO GROUND BAR, SUPPORT W/
KELLUMS GRIP.

N.T.S

ANTENNA PLATFORM GROUNDING DETAIL 3
N.T.S. E-2



JOINT UTILITY TRENCH DETAIL 1
N.T.S.

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APPLICANT:

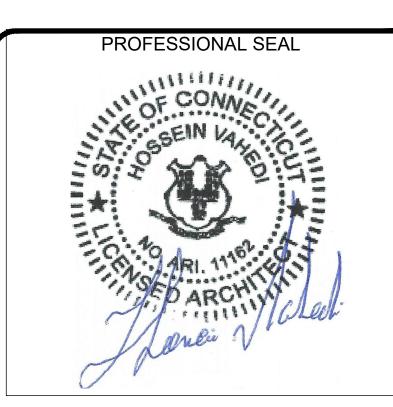


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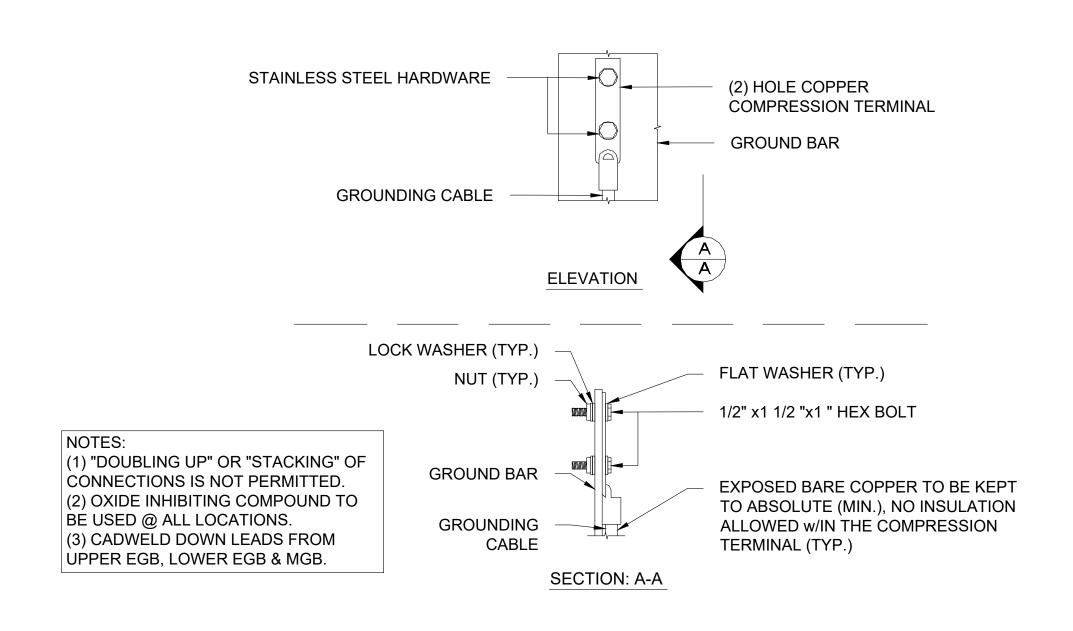
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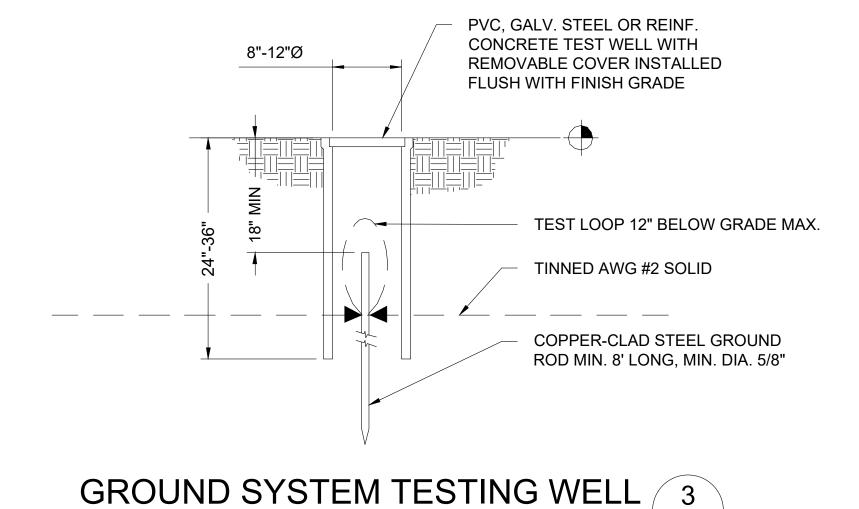
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SHEET TITLE:

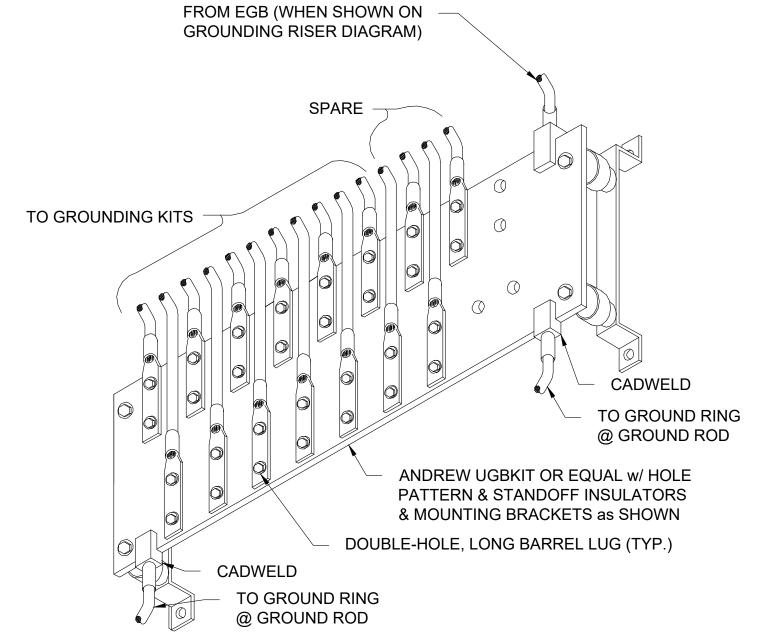
E-2: GROUNDING DETAILS



GROUND BAR CONNECTION DETAIL 2



N.T.S.



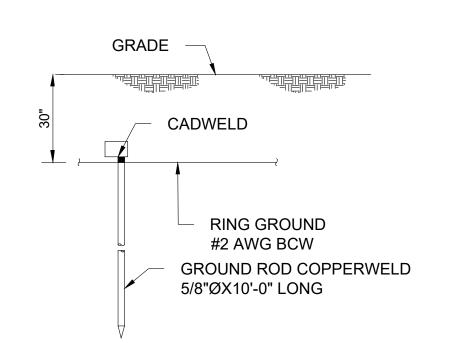
NOTES:

(1) VERTICAL POST SHALL BE BONDED TO THE RING @ EACH CORNER & @ EACH GATE POST. AS A MINIMUM ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100'-0" STRAIGHT RUN OF FENCE.

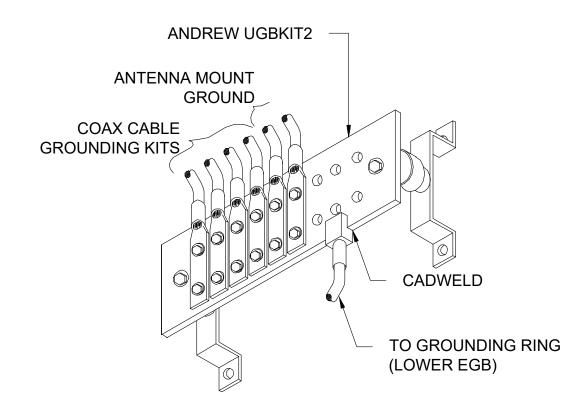
(2) HORIZONTAL POLES SHALL BE BONDED TO EACH OTHER.

(3) BOND EACH HORIZONTAL POLE / BRACE TO EACH OTHER & TO EACH VERTICAL POST THAT IS BONDED TO THE EXTERIOR GROUND RING.

(MGB) MASTER GROUND BAR 5 N.T.S.



N.T.S.



GROUND ROD DETAIL 3 N.T.S. E-3 (EGB) EQUIPMENT

GROUND BAR

4

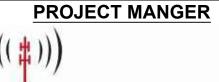
N.T.S.

E-3

APPLICANT:

T · · Mobile · T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 860-692-7100



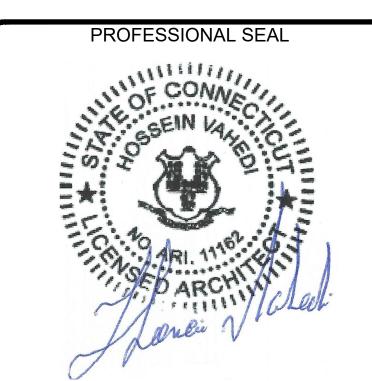
SS NORTHE ST

Turnkey Wireless Development 420 Main Street, Bldg 4 Sturbridge, MA 01566 203-275-6669

CONSULTANT:



462 Walnut street Newton, MA 02460 617-212-3123



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DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE
PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES
ARE DEEMED
"NOT TO SCALE".

REV	DESCRIPTION	DATE
Α	PRELIMINARY	03/03/17
0	ISSUED FOR PERMITTING	03/07/17

SITE NUMBER: CTHA560B SITE NAME: CTHA560B SITE ADDRESS: 87 Monce Rd Burlington, CT 06013

SHEET TITLE:

E-3: GROUNDING DETAILS

Exhibit D



April 18, 2017

Mr. Rob Mitchell Insite Towers, LLC 1199 North Fairfax Street, Suite 700 Alexandria, VA 22314

RE: Proposed 120' (extendible to 140') Sabre Monopole for 87 Monce Road, Burlington, CT (Sabre Job No. 160579)

Dear Mr. Mitchell,

As shown in the above referenced structural design report, the above referenced Sabre monopole for a Basic Wind Speed of 93 mph with no ice and 50 mph with 1" radial ice, Structure Class II, Exposure Category C and Topographic Category 1, in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas" and an Ultimate Wind Speed of 120 mph (Risk Category II), in accordance with the 2012 International Building Code while supporting T-Mobile's (9) panel antennas and (9) Remote Radio Heads on a 12' triangular platform with a centerline elevation of 100' above ground level.

When designed according to this standard, the wind pressures and steel strength capacities include several safety factors, resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the monopole will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within the upper portion of the monopole shaft. Assuming that the wind pressure profile is similar to that used to design the monopole, the monopole will buckle at the location of the highest combined stress ratio within the upper portion of the monopole shaft. This is likely to result in the portion of the monopole above "folding over" onto the portion below, essentially collapsing on itself. *Please note that this letter only applies to the above referenced monopole designed and manufactured by Sabre Towers & Poles*. In the unlikely event of total separation, this will result in collapse within a radius of 60 feet.

Sincerely,

Robert E. Beacom, P.E., S.E. Senior Design Engineer

Exhibit E



RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTHA560B

CTHA560B - Burlington CT 87 Monce Road Burlington, CT 06013

April 12, 2017

EBI Project Number: 6217001280

Site Compliance Summary			
Compliance Status:	COMPLIANT		
Site total MPE% of FCC general public allowable limit:	8.88 %		



April 12, 2017

T-Mobile USA Attn: Jason Overbey, RF Manager 35 Griffin Road South Bloomfield, CT 06002

Emissions Analysis for Site: CTHA560B - CTHA560B - Burlington CT

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **87 Monce Road**, **Burlington**, **CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μ W/cm2). The number of μ W/cm² calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) - (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μ W/cm²). The general population exposure limit for the 700 MHz Band is approximately 467 μ W/cm², and the general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) bands is 1000 μ W/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **87 Monce Road**, **Burlington**, **CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 UMTS channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 LTE channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 3) 2 LTE channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.



- 6) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antennas used in this modeling are the Ericsson AIR32 B66A/B2A & RFS APX16DWV-16DWV-S-C-A20 for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the Commscope LNX-6515DS-A1M for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The Ericsson AIR32 B66A/B2A has a maximum gain of 15.9 dBd at its main lobe at 1900 MHz and 2100 MHz. The RFS APX16DWV-16DWV-S-C-A20 has a maximum gain of 16.3 dBd at its main lobe at 1900 MHz and 2100 MHz. The Commscope LNX-6515DS-A1M has a maximum gain of 14.6 dBd at its main lobe at 700 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antenna mounting height centerline of the proposed antennas is **100 feet** above ground level (AGL).
- 9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 10) All calculations were done with respect to uncontrolled / general public threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	В	Sector:	С	
Antenna #:	1	Antenna #:	1	Antenna #:	1	
Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Aodel: Make / Model: L		Ericsson AIR32 B66A/B2A	
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	Gain: 15.9 dBd	
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100	
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	
Channel Count	4	Channel Count	4	Channel Count	4	
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240	
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08	
Antenna A1 MPE%	3.80	Antenna B1 MPE%	3.80	Antenna C1 MPE%	3.80	
Antenna #:	2	Antenna #:	2	Antenna #:	2	
Make / Model:	RFS APX16DWV- 16DWV-S-C-A20	Make / Model:	RFS APX16DWV- 16DWV-S-C-A20	Make / Model:	RFS APX16DWV- 16DWV-S-C-A20	
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd	
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100	
Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)	
Channel Count	2	Channel Count	2	Channel Count	2	
Total TX Power(W):	60	Total TX Power(W):	60	Total TX Power(W):	60	
ERP (W):	2,559.48	ERP (W):	2,559.48	ERP (W):	2,559.48	
Antenna A2 MPE%	1.04	Antenna B2 MPE%	1.04	Antenna C2 MPE%	1.04	
Antenna #:	3	Antenna #:	3	Antenna #:	3	
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd	
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100	
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz	
Channel Count	1	Channel Count	1	Channel Count	1	
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30	
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21	
Antenna A3 MPE%	0.75	Antenna B3 MPE%	0.75	Antenna C3 MPE%	0.75	

Site Composite MPE%				
Carrier	MPE%			
T-Mobile (Per Sector Max)	5.59 %			
AT&T	2.42 %			
Public Safety	0.87 %			
Site Total MPE %:	8.88 %			

T-Mobile Sector A Total:	5.59 %
T-Mobile Sector B Total:	5.59 %
T-Mobile Sector C Total:	5.59 %
Site Total:	8.88 %

T-Mobile _per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm²)	Frequency (MHz)	Allowable MPE (µW/cm²)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	100	18.99	AWS - 2100 MHz	1000	1.90%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	100	18.99	PCS - 1900 MHz	1000	1.90%
T-Mobile AWS - 2100 MHz UMTS	2	1,279.74	100	10.41	AWS - 2100 MHz	1000	1.04%
T-Mobile 700 MHz LTE	1	865.21	100	3.52	700 MHz	467	0.75%
						Total:	5.59%



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	5.59 %
Sector B:	5.59 %
Sector C:	5.59 %
T-Mobile Per Sector	5.59 %
Maximum:	
Site Total:	8.88 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **8.88%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Per T-Mobile's signage policy, **no signage is required** since all antennas are over 30 feet above the ground level and there are no areas at ground level that exceed either the FCC's general public or occupational limits with regard exposure to radio frequency emissions.

Exhibit F



Matthew Bandle Project Manager Northeast Site Solutions 199 Brickyard Road Farmington, CT 06032

RE:

Homeland Towers LLC Site ID: CT011 Burlington

T-Mobile Northeast LLC d/b/a T-Mobile Site ID: CTHA560B Burlington

Proposed Telecommunication Facility at 87 Monce Road, Burlington, CT 06013

Dear Mr. Bandle:

Homeland Towers, LLC, as owner of the proposed wireless facility referenced above, hereby authorizes T-Mobile Northeast LLC d/b/a T-Mobile ("T-Mobile") and/or its agent to apply for and obtain all necessary permits and approvals from all applicable Town of Burlington or State of Connecticut boards, agencies and commissions for the proposed installation of T-Mobile's equipment consisting of antennas and related equipment at the above-referenced site.

Please contact us should you have any questions.

Sincerely,	1
HOMELAND TOWERS, LLC	1
By: Kay n M.	
Printed Name: Kaymond Vergati	
Title: Regional Manager	
Date: 4-20-17	