

Jon Ritter

16 Chestnut Street, Suite 420 Foxboro, MA 02035 Tel (774) 264-0016 jritter@trmcom.com

1/13/2015

Melanie Bachman Acting Executive Director Connecticut Siting Counsel 10 Franklin Square New Britain, CT 06051

Re: Notice of Exempt Modification 99 Meadow St, Hartford, CT 06114 41.7439096 /-72.6705259

Dear Ms. Bachman:

T-Mobile Northeast, LLC (T-Mobile) currently maintains six (6) antennas at the One Hundred and Twenty Three foot (123') level of the existing One-Hundred Fifty foot (150') Monopole at 99 Meadow Street, Hartford, CT. The monopole tower is owned by American Tower Corporation. The property is owned by Meadow Street Realty LLC. T-Mobile now intends to add Three (3) new 700MHz antennas. These antennas would be installed at the one hundred and twenty three (123') foot level of the tower. T-Mobile will remove three (3) antennas at the one hundred and twenty three (123') foot level to complete the project.

This facility was not originally approved by the Connecticut Siting Council. The City of Hartford was contacted for a date of approval and provided a letter stating they were unable to locate the original zoning decision or any conditions thereof. That letter is included as part of this submission, signed by Lynda Crespo from the planning department.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73 a copy of this letter is being sent to the Chief Elected Official, Mayor, Luke Bronin for the City of Hartford, as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities provided for in R.C.S.A. § 50j-72(b)(2).

- 1) The proposed modification will not result in an increase in the height of the existing structure.
- 2) The modifications will not require an extension of the site boundary.
- 3) The proposed modification will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4) The operation and replacement of antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
- 5) The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6) The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile Northeast LLC respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitute an exempt modification under R.C.S.A § 16-50j-72(b)(2)

Sincerely, Jonathan H Ritter

Jon Ritter

On behalf of American Tower Corporation

c/o Tower Resource Management, Inc. 16 Chestnut Street, Suite 420 Foxboro, MA 02035 774-264-0016 jritter@trmcom.com

cc: Chief Elected Official, Mayor, Luke Bronin, City of Hartford American Tower Corporation Meadow Street Realty LLC Exhibit 1

Site Plan

Exhibit 2

Power Density Report

Exhibit 3

Structural Analysis



Structural Evaluation							
ATC Site Number & Name 302468, Petro Lock, CT							
Carrier Site Number & Name	CT11661A, N/A						
Site Location	99 Meadow Street						
	Hartford, CT 06114-1598, Hartford County						
	41.743197 N / -72.667500 W						
Tower Description	147.9 ft Monopole						
Basic Wind Speed	80 mph (Fastest Mile)						
Basic Wind Speed w/ Ice	69 mph (Fastest Mile) w/ ½" ice						
Code	TIA/EIA-222-F / 2003 IBC, Sec. 1609.1.1, Exception (5) & Sec. 3108.4 / 2005						
	Connecticut Supplement / 2009 Connecticut Amendment						

Existing and Reserved Equipment

Elevation			Advisor	Mar at Trans	Para	C aracteria
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier
147.0	47.0 440.0		Decibel DB844H90E-XY	DI-#f/11	(42) 4 5 (0) 6	Control Name of
147.0	149.0	8	Andrew 844G65VTZASX	Platform w/ Handrails	(12) 1 5/8" Coax	Sprint Nextel
	137.0	6	Ericsson RRUS 11 (Band 12) (55 lb)		(2) 0 7011 0 41440 6	
136.0	135.0	6	LGP LGP21903	Low Profile Platform	(2) 0.78" 8 AWG 6 (1) 0.39" Cable	
130.0	135.0	6	Powerwave LGP21401	LOW Proffie Platform	(1) 0.39 Cable (1) 3" conduit	
	134.0	1	Raycap DC6-48-60-18-8F		(1) 5 Conduit	AT&T Mobility
		6	Powerwave 7750.00			
135.0	137.0	2	KMW AM-X-CD-16-65-00T-RET	Low Profile Platform	(12) 1 5/8" Coax	
		1	Andrew SBNH-1D6565C			
123.0	123.0	3	RFS APX16DWV-16DWVS-E-A20	T-Arm	(12) 1 5/8" Coax	T-Mobile
113.0	113.0	3	RFS APXV18-206517	Flush	(6) 1 5/8" Coax	Metro PCS
		3	RFS IBC1900HG-2A			
		3	RFS IBC1900BB-1			
		3	Alcatel-Lucent 800MHz 2X50W RRH w/			
		3	Filter			
98.0	98.0	3	Alcatel-Lucent 4x40W RRH	Low Profile Platform	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar			
			Shield			
		3	RFS APXVTM14-C-I20			
		3	RFS APXVSPP18-C-A20			
		3	Horizon Compact			
		3	NextNet BTS-2500		(6) 5/16" (0.31") Coax	
89.0	89.0	2	DragonWave A-ANT-18G-2-C	Side Arms	(3) 1/2" Coax	Clearwire
		3	Argus LLPX310R		(1) 2" conduit	
		1	DragonWave A-ANT-11G-2.5-C			
		3	Alcatel-Lucent RRH2X60-AWS			
		3	Alcatel-Lucent RRH2x60 700			
79.0	79.0	3	Alcatel-Lucent RRH2x60	Low Profile Platform	(2) 1 5/8" Hybriflex	Verizon
		2	RFS DB-T1-6Z-8AB-0Z			
		12	Commscope SBNHH-1D65B			
20.0	20.0	1	Lucent KS-24019	Flsuh	(1) 1/2" Coax	Sprint Nextel



Equipment to be Removed

Elevation	on¹ (ft)	Ot (Antonno	Mount Tune	Lines	Corrior	
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier	
		6	RFS APXV18-206516L-C				
123.0	123.0 123.0	3	RFS ATMAA1412D-1A20	-	(6) 1 5/8" Coax	T-Mobile	
		3	RFS ATMPP1412D-1CWA				

Proposed Equipment

Elevation	on¹ (ft)	Ot (Antonno	Mount Tune	Lines	Corrior		
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier		
			Kathrein Smart Bias Tee					
123.0	123.0	3 Andrew LNX-6515DS-VTM	T-Arm		T Mobile			
125.0	3		3 Ericsson KRY 112 144/1		I-AIIII	-	T-Mobile	
		3 Ericsson KRY 112 489/1						

¹ Mount elevation is defined as height above bottom of steel structure to bottom of mount, RAD elevation is defined as center of antenna above grade level (AGL).

The existing and proposed loads listed in the tables above are compared to the tower's current design capacity or previous structural analysis. The tower should be re-evaluated as future loads are added or if actual loads are found different from those listed in the tables. The subject tower and foundation *are adequate* to support the above stated loads in conformance with specified requirements.

Reviewed by: William Garrett, PE Chief Engineer



Nov 13 2015 3:10 PM

RDB/NEK

T-MOBILE NORTHEAST LLC

CT11661A HARTFORD SOUTH2/FRNKLN AV

99 MEADOW STREET HARTFORD, CT 06114

(704Bu CONFIGURATION)

VICINITY MAP Burnside Mayberry Village Wa.St_ Hertford Ga Glastonb Griswoldville (287)

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



'CALL BEFORE YOU DIG'

WWW.CRYD.COM CALL 811, OR 1-800-922-4455

CALL THREE WORKING DAYS PRIOR TO DIGGING safety precautions shall be implemented by contractor(s) at all trending in accordance with current osha standards.

COLOR CODE FOR UTILITY LOCATIONS

GAS/OIL - YELLOW TEL/CATV - ORANGE RECLAIMED WATER

SURVEY

GRFFN PINK PROPOSED EXCAVATION - WHITE

GENERAL NOTES

THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES. RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK, THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.

THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONSTRUCT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE

- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE T-MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

- 8 THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND INSPECTIONS WHICH ARE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
- 11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION, UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE
- 12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT DEBRIS RUBBISH AND REMOVE FOUIPMENT NOT SPECIFIED AS REMAINING ON PROPERTY, PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- 13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS, AS WELL AS THE LATEST EDITIONS OF ANY PERTINENT STATE SAFETY REGULATIONS.
- 14. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE T-MOBILE REPRESENTATIVE.
- 15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC., ON THE JOB.
- 16. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF WORK.

PROJECT SUMMARY

SITE NUMBER: CT11661A SITE NAME. HARTFORD SOUTH2/FRNKLN AV SITE ADDRESS: 99 MEADOW STREET

HARTFORD, CT 06114

AMERICAN TOWER CORPORATION PROPERTY OWNER:

275-690-115

CURRENT ZONING:

JURISDICTION: ATC SITE NUMBER:

PARCEL .

N 41.74320' / W -72.66756'

CONSTRUCTION TYPE: -

CONTACT:

☐ INDOOR

EXISTING

PANELBOARD

STEEL PLATFOR

CITY OF HARTFORD

LAT./LONG.:

T-MOBILE NORTHEAST LLC 35 GRIFFIN RD SOUTH BLOOMFIELD, CT 06002

AMERICAN TOWER CORPORATION PROJECT MANAGER:

319 QUARRY ROAD SPRING CITY, PA 19475

BRUCE HOFFMASTER 484-942-6339

ARCHITECT/ENGINEER: INFINIGY ENGINEERING
1033 WATERVLIET SHAKER ROAD

ALBANY, NY 12205

ALEX WELLER 518-690-0790 CONTACT:

PROJECT DESCRIPTION

EXISTING MONOPOLE EXISTING LATTICE TOWER ☐ EXISTING TRANSMISSION TOWER ☑ EXISTING GSM S12000 ☑ EXISTING EXISTING WATER TANK TEXISTING BUILDING

EXISTING CABINET(S) EXISTING RBS 6102 EXISTING RBS 3106 SITE SUPPORT KIT

EXISTING FLAGPOLE ☐ SITE SUPPORT CABINET ☑ EXISTING PPC TEXISTING FORT WORTH

T-MOBILE NORTHEAST LLC PROPOSES THE MODIFICATION OF AN UNMANNED WIRELESS BROADBAND FACILITY. ADDITION OF PROPOSED RBS 6201-ODE TO EXISTING GROUND LEASE AREA. ADDITION OF PROPOSED LTE 700 PANEL ANTENNAS. REUSE, GPS ANTENNA AND EXISTING EQUIPMENT CABINETS.

2005 CONNECTICUT BUILDING CODE WITH 2013 AMENDMENT 2011 NATIONAL ELECTRIC CODE 2009 INTERNATIONAL RESIDENTIAL CODE

SHEET INDEX

SHEET	DESCRIPTION	REVISION
T-1	TITLE SHEET	1
C-1	SITE PLAN	1
C-2	COMPOUND PLAN & ELEVATION	1
C-3	ANTENNA DETAIL & RF SCHEDULE	1 1
C-4	EQUIPMENT SPECIFICATIONS	1
E-1	GROUNDING AND POWER DIAGRAMS	1
E-2	COAX/FIBER PLUMBING DIAGRAM	1
N-1	GENERAL AND ELECTRICAL NOTES	1
(1		

NFINIG

DEPT. DATE APP'D

PROJECT NO:

OF CONNEC

No. 24705

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GRAPHICAL SCALE AND/OR 1/2 TIMES

OF THE NOTED SCALE.

SITE NUMBER:

CT11661A

SITE NAME: HARTFORD SOUTH2/FRNKLN AV

99 MEADOW STREET

SHFET TITLE

317-000

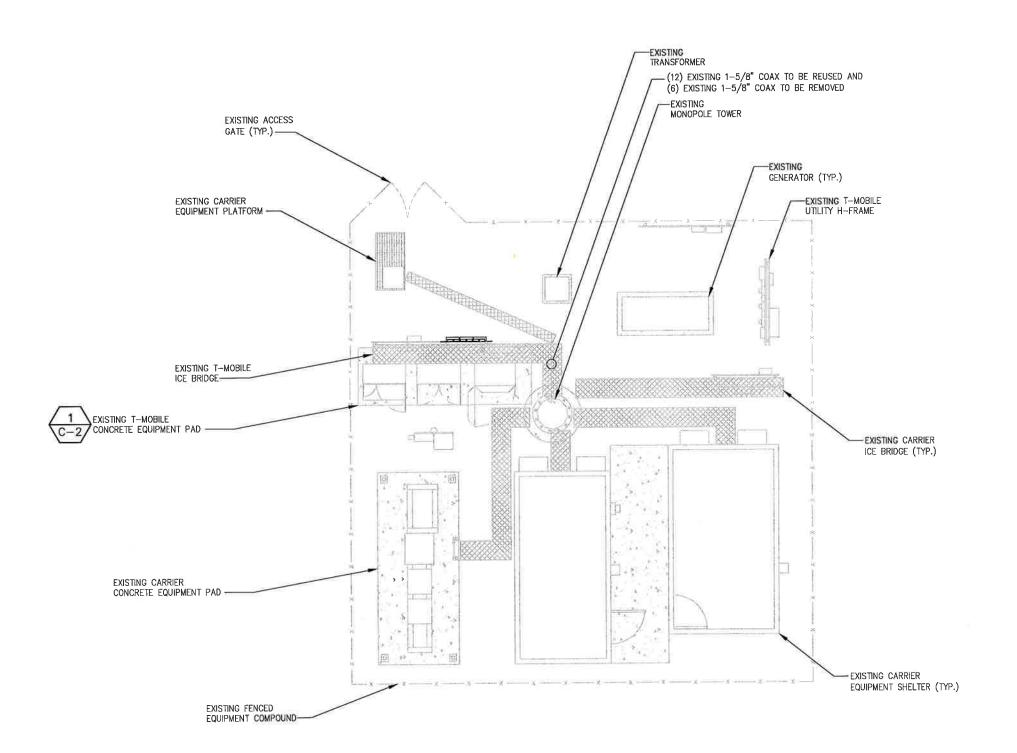
SUBMITTALS DESCRIPTION FOR PERMIT

TITLE SHEET

SHEET NUMBER

T-1

SHEET 1 OF 8 SHEETS





GENERAL SITE NOTES:

- A COMPLETE BOUNDARY SURVEY OF THE HOST PARCEL HAS NOT BEEN PERFORMED BY INFINIGY. BOUNDARY INFORMATION IF SHOWN WAS OBTAINED FROM INFORMATION PROVIDED BY OTHERS. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
- BASEMAPPING INFORMATION BASED ON PROVIDED INFORMATION.
- CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE
- THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF
- THE PROPOSED DEVELOPMENT IS UNMANNED AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL.
- NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.
- THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.
- UTILITIES SHOWN ON PLAN ARE TAKEN FROM OWNERS RECORDS AND FIELD LOCATION OF VISIBLE SURFACE FEATURES. THE EXISTENCE, EXTENT AND EXACT HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERIFIED. ANY CONTRACTOR PERFORMING WORK ON THIS SITE MUST CONTACT MISS UTILITY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK.
- ALL OBSOLETE OR UNUSED FACILITIES SHALL BE REMOVED WITHIN 12 MONTHS OF CESSATION OF OPERATIONS.

SITE LEGEND

10/23/15

STREET OR ROAD - x -- x -- CHAIN LINK FENCE

---- SITE PROPERTY LINE

OPAQUE WOODEN FENCE

TREES/SHRUBS TREE LINE

UTILITY POLE EXISTING

(N) NEW

(E)

(F)

(P) PROPOSED

FUTURE

317-000 PROJECT NO: DRAWN BY: MAP CHECKED BY ASW

DEPT. DATE APP'D

ZONING OPS

SITE AC.

T - Mobile

 \bigcirc

FINIG

SUBMITTALS DESCRIPTION

FON PERMIT REVISED FOR PERMIT



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> SITE NUMBER: CT11661A

SITE NAME: HARTFORD SOUTH2/FRNKLN AV

99 MEADOW STREET HARTFORD, CT 06114

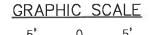
SHEET TITLE

SITE PLAN

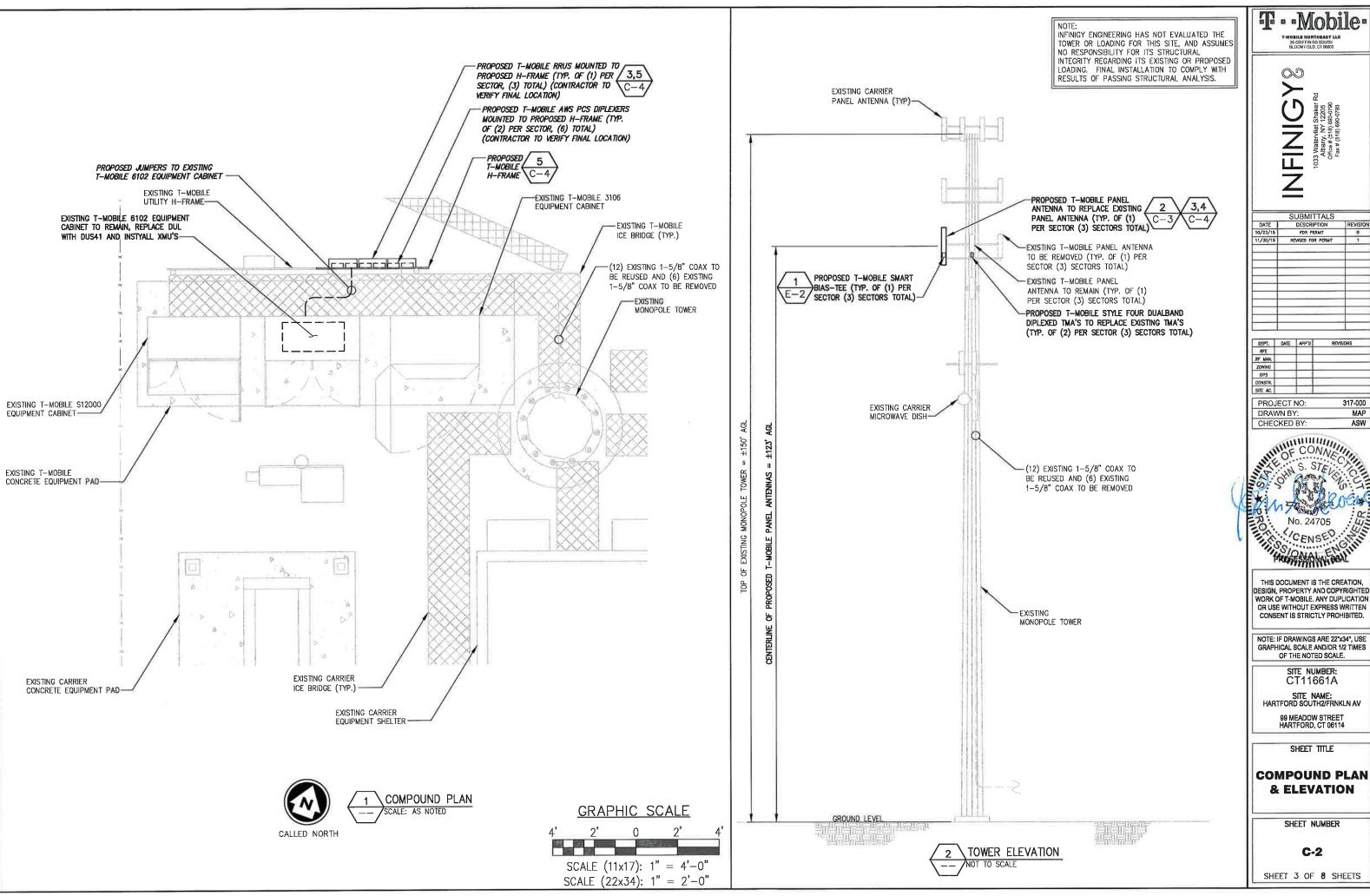
SHEET NUMBER

C-1

SHEET 2 OF 8 SHEETS



SCALE (11x17): 1" = 10'-0"SCALE (22x34): 1" = 5'-0"



T - Mobile

	SUBMITTALS	
DATE	DESCRIPTION	REVISION
10/23/15	FOR PERMIT	0
11/30/15	REVISED FOR PERMIT	,
	_	

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

- 1	PROJECT NO:	317-000
- 1	DRAWN BY:	MAP
١	CHECKED BY:	ASW
	-	



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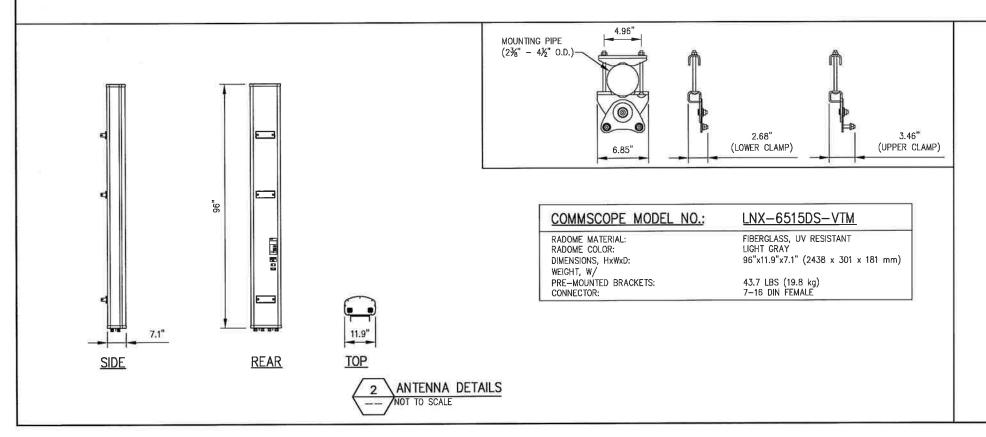
NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.

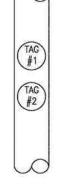
& ELEVATION

SHEET 3 OF 8 SHEETS

	RF SYSTEM SCHEDULE (704Bu CONFIGURATION)																								
SECTOR	TECHNOLOGY	ANTENNA PORT	BAND	ANTENNA MODEL #	VENDOR	QTY (REMOVED)	QTY (NEW)	AZIMUTH	M-TILT	E-TILT	ANTENNA CENTERLINE	TMA MODEL #	VENDOR	RRU MODEL #	VENDOR	CABLE LENGTH	CABLE DIAMETER	CABLE TYPE	CABLE MODEL #	VENDOR	CABLE TAGGING	COLOR CODING	JUMPER TYPE	JUMPER TAGGING	COLOR CODING
	GSM/UMTS	TBD	B2P	ADVACDUAL ACDUAG	DEC		0	٥٠	0.	7	123'-0"	STYLE 4 DUALBAND	TBD	-	*	(1) EXISTING	1-5/8"	COAX	EXISTING	N/A	:=-	-	COAX	in the control of the	32
Α	UMTS/LTE	TBD	В4Р	APX16DWV_16DWVS	RFS	U	U	U	U		123 -0	STYLE 4 DUALBAND	TBD		-	(1) EXISTING	1-5/8"	COAX	EXISTING	N/A	7	::=	COAX	[46.66]	2=
	LTE 700	TBO	B12P	LNX-6515DS-VTM	COMMSCOPE	1	1	σ	o	2	123'-0"		19	RRUS11-B12	ERICSSON	(2) EXISTING	1-5/8"	COAX	EXISTING	N/A	:544		COAX		122
	GSM/UMTS	TBD	82P	APX16DWV_16DWVS	RFS		0	160	O,	5'	123'-0"	STYLE 4 DUALBAND	TBD	72	-	(1) EXISTING	1-5/8"	COAX	EXISTING	N/A	242	84	COAX		Æ
В	UMTS/LTE	TBD	B4P	APX IODWV_IODWVS	KFS	U	U	160	ľ	,	125 -0	STYLE 4 DUALBAND	TBD	14	*	(1) EXISTING	1-5/8"	COAX	EXISTING	N/A		0.2	COAX	22	-
	LTE 700	TBD	B12P	LNX-6515DS-VTM	COMMSCOPE	1	1	160°	o	2"	123'-0"	#J	7	RRUS11-B12	ERICSSON	(2) EXISTING	1-5/8"	COAX	EXISTING	N/A		30.	COAX	22	
	GSM/UMTS	TBD	B2P	APX16DWV_16DWVS	RFS	0	0	270*	0.	7.	123'-0"	STYLE 4 DUALBAND	TBD	\ <u></u>	1.07	(1) EXISTING	1-5/8"	COAX	EXISTING	N/A	34	Ŧ	COAX		.
С	UMTS/LTE	TBD	B4P	TAPA TOUWY_TOUWYS	KrS	U	U	270	J	'	125 -0	STYLE 4 DUALBAND	TBD	16		(1) EXISTING	1-5/8"	COAX	EXISTING	N/A	1975	100	COAX	##:	
	LTE 700	TB0	B12P	LNX-6515DS-VTM	COMMSCOPE	1	1	270°	O.	2"	123'-0"	*	-	RRUS11-B12	ERICSSON	(2) EXISTING	1-5/8"	COAX	EXISTING	N/A	500		COAX	55	-

RF SYSTEM SCHEDULE





METALLIC TAG NOTES:

EXISTING

PROPOSED FIBER CONNECTION

- 1. TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
- 2. CABLES LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE. 3. TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES
- APPROPRIATE FOR CABLE DIAMETER. 4. STANDARDIZED METALLIC TAG KITS WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMODATE ALL CONFIGURATIONS.

NOT TO SCALE

T - Mobile-

INFINIG

	SUBMITTALS	REVISION					
DATE	DATE DESCRIPTION						
10/23/15	FOR PERMIT	0					
11/30/15	REVISED FOR PERMIT	10					
-		1					
		+					
		-					
		1					
		1					

DEPT.	DATE	APP'0	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

	PROJECT NO:	317-000
H	DRAWN BY:	MAP
I	CHECKED BY:	ASW



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SITE NUMBER: CT11661A

SITE NAME: HARTFORD SOUTH2/FRNKLN AV

99 MEADOW STREET HARTFORD, CT 06114

SHEET TITLE

ANTENNA DETAIL & RF SCHEDULE

SHEET NUMBER

SHEET 4 OF 8 SHEETS

METALLIC TAG DETAIL

KEY

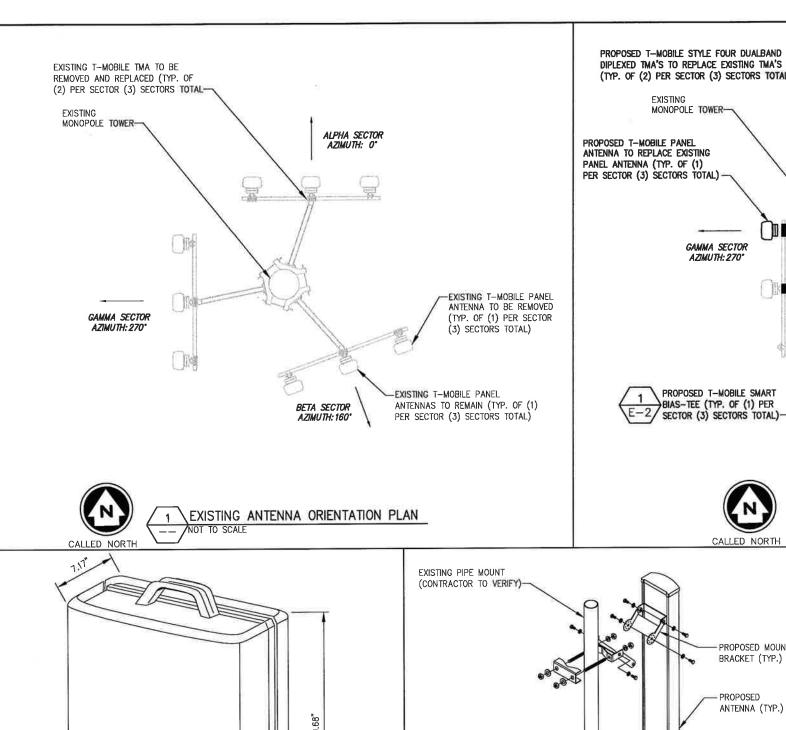
B - BLUE - UMTS AWS O - ORANGE - FIBER CABLE

R - RED - GSM

G - GREEN - UMTS 1900 Y - YELLOW - LTE

TAG #2

TAG #1



16.97"

RRUS11-B12

50.71 LBS (23 kg)

RRUS 11 DETAIL

OT TO SCALE

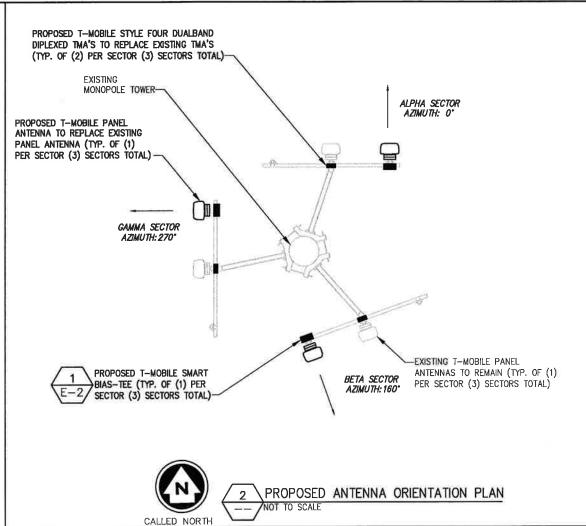
19.68"x16.97"x7.17" (500 x 431 x 182 mm)

ERICSSON MODEL NO .:

COLOR:

WEIGHT:

DIMENSIONS, HxWxD:



STRUCTURAL NOTES:

1. SPECIFICATIONS / CODES:

-CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE. -STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, 9tH EDITION.

-WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING" CODE-STEEL.

-REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), "MANUAL OF STANDARD PRACTICE."

2. MATERIALS:

-CONCRETE: fc' - 3000psi. (MIN. U.N.O.) -REINFORCING STEEL: ASTM A615, GRADE 60.

-WIRE MESH: ASTM A185.

-STRUCTURAL STEEL: ASTM A36. -ELECTRODES FOR WELDING: E 70xx.

-GALVANIZING: ASTM A153 (BOLTS) OR ASTM A123 (SHAPES, PLATES).

-EXPANSION BOLTS: HILTI KWIK BOLT II, STAINLESS STEEL, 3/4" Øx43/4" EMBEDMENT OR AN APPROVED T - Mobile

 \bigcirc NEINIC

SUBMITTALS DESCRIPTION FOR PERMIT

DEPT,	DATE	APP'0	REVISIONS
RFE			
RF MAN.			
ZONING			
0PS			
CONSTR.			
SITE AC.			

	PROJECT NO:	317-000
ı	DRAWN BY:	MAP
ı	CHECKED BY:	ASW



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NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.

> SITE NUMBER: CT11661A

SITE NAME: HARTFORD SOUTH2/FRNKLN AV

99 MEADOW STREET HARTFORD, CT 06114

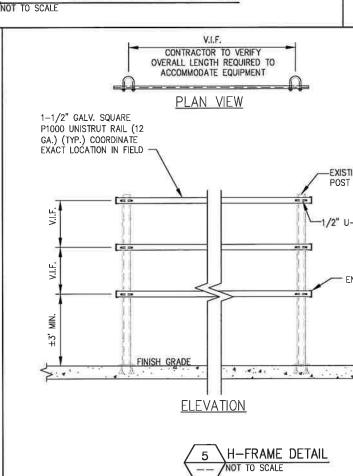
SHEET TITLE

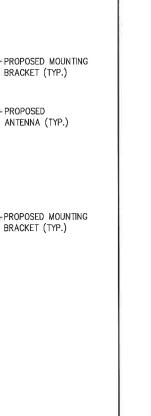
EQUIPMENT SPECIFICATIONS

SHEET NUMBER

END VIEW

SHEET 5 OF 8 SHEETS

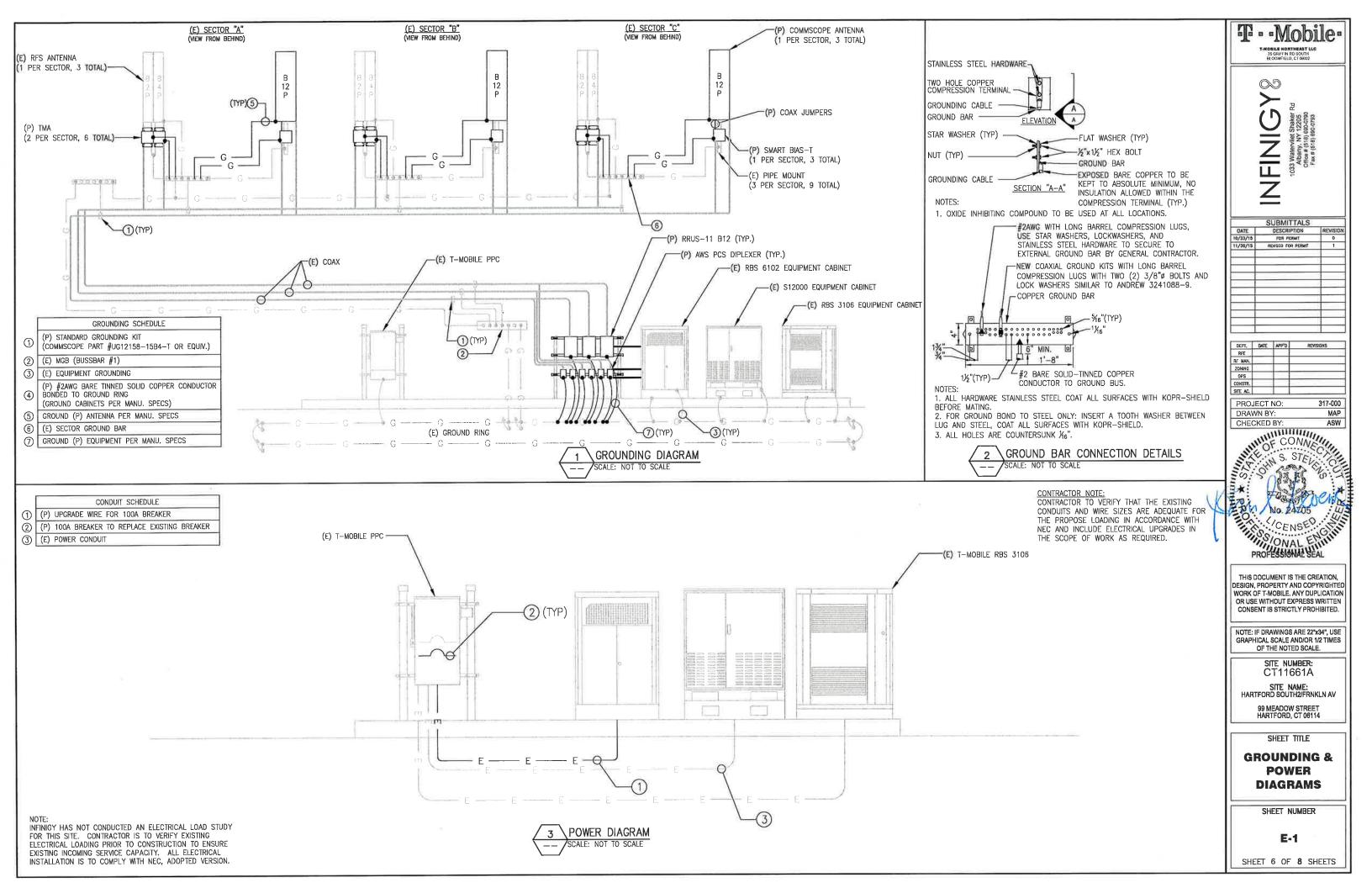


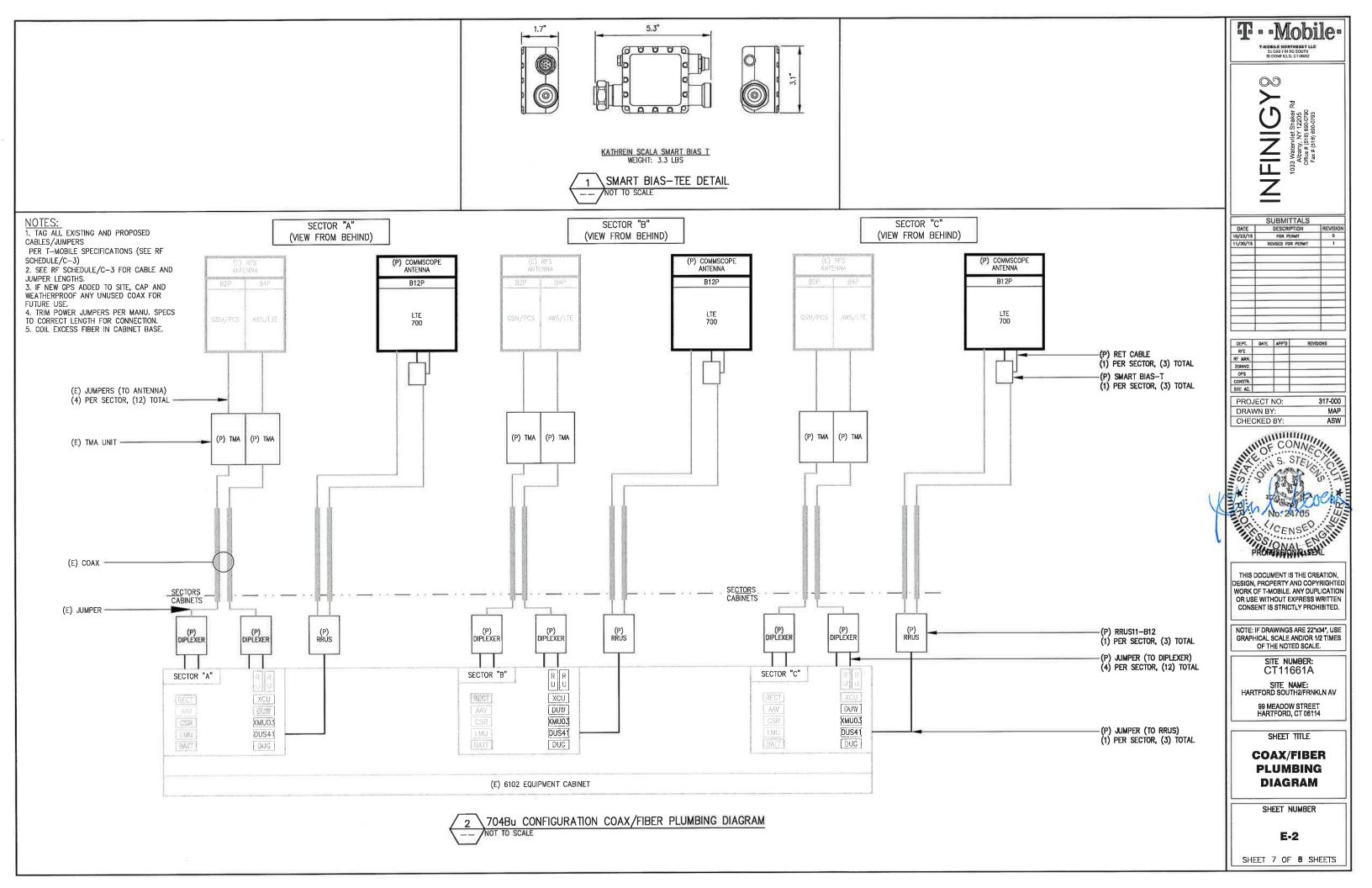


MOUNTING DETAIL

NOT TO SCALE

-EXISTING ICE BRIDGE -1/2" U-BOLT (TYP.) END CAP (TYP)





ELECTRICAL NOTES:

- 1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING
- A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
- B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
- C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE
- INSTRUCTIONS AND MANUALS.
 D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLARS X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
- E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT, PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
- F. MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION
- 2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THI DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS. IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

- 1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL
- 2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF
- 3. LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING.
 CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
- EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
- A AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
- B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
- 6 OLIALITY WORKMANSHIP MATERIALS AND SAFETY A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT, WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE
- PROPER FUNCTIONING OF THE WORK.
 B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK, INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE
- CONTRACT DOCUMENT OR NOT.
 D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF
- E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE, THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER, CONTRACT DOCUMENT OR NOT

GUARANTEE

1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

- 1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE
- 2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER. COORDINATION AND SUPERVISION
- 1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

1. AS-BUILT DRAWINGS:

- A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-RUILT" DRAWINGS
- 2. SERVICE MANUALS:
- A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE THE OPERATION AND MAINTENANCE OF ALL MATERIAL, FOLIPMENT AND SYSTEMS.
- PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

- 1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
 2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS
- OR WALLS FOR PIPING OR CONDUIT.

- TESTS, INSPECTION AND APPROVAL

 1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE—TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
- 2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY LINDER FULL LOAD CONDITIONS WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

- 1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS, DO NOT NTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
- 2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES. CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF NTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN, ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

- 1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
 2. ROUTE 500 KCMIL CU. THHN CONDUCTOR FROM THE MGB
- LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS FFFFCTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).

 3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL
- EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
- USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS
- 5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS
 TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

- 1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
 A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO
- RE IN SCH 40 PVC B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE
- GALVANIZED RIGID STEEL (RGS).
 C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO RE EMT.
- D. INSTALL PULL ROPES IN ALL NEW EMPTY CONDUITS INSTALLED ON THIS PROJECT E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "T-MOBILE". OWNER WILL
- PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
- F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
 G. MINIMUM SIZE CONDUIT TO BE 1/4" TRADE SIZE
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
 H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT
- TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT I. CONDUIT TO BE RUN CONCEALED IN CEILINGS, FINISHED
- AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.

 J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC REFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND
- K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL, COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

- L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
- M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
- N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
- O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
 P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT
- SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

- 1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER—CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE,
- 2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.

 3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/
- THIN INSULATION, EXCEPT AS NOTED.

 4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO.
- 12AWG, ALL WIRE NO. 8 AND LARGER TO BE STRANDED. 5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CARLES WHEREVER POSSIBLE, CARLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE, ALL CONTROL WIRE TO BE 600VOLT RATED.
- 6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
- 7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:
 - LENGTH (FT.) HOME RUN WIRE SIZE 0 TO 50 NO. 12 51 TO 100 101 TO 150
- 8. VOLTAGE DROP IS NOT TO EXCEED 3%.
 9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS,
- PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL. WIRING DEVICES
- 1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION. DISCONNECT SWITCHES AND FUSES
- 1. DISCONNECT SWITCHES TO BE VOLTAGE—RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE
- 2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.

 3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR
- INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
 4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
- A GENERAL FLECTRIC COMPANY B. SQUARE-D
- 5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.
- 1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON 2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES
- MUST MATCH IN TYPE AND RATING.

 3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR
- RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
 4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS
- FOLLOWS: A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF
- 60A, USED FOR INITIAL FUSING.
 B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

GENERAL NOTES:

INTENT

- 1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
- 2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
- 4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- 5, MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK, NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

CONFLICTS

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
- 2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
- 3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS

CONTRACTS AND WARRANTIES

- 1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.

 2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR
- ADDITIONAL DETAILS.

1, ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

- 1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
- EXTERIOR
- A VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER
- B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
- A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
- B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES. C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM

FINISHED SURFACES.

CHANGE ORDER PROCEDURE:
1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

- 1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS, ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR
- SHOP DRAWINGS
- 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR
- 2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE

- PRODUCTS AND SUBSTITUTIONS

 1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION, IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING
- COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
 2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT

ARCHITECTURAL SYMBOLS

ROOM

###

DETAIL REFERENCE KEY

- DRAWING DETAIL NUMBER-

LSHEET NUMBER OF DETAIL-

(x)-

REFER TO

RE: 2/A-3

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL,
STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY, SEE "CODE COMPLIANCE" T-1

ADMINISTRATION

- BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED. FOR SUBSTANTIAL COMPLETION OF THE WORK.
- . PRIOR TO COMMENCING CONSTRUCTION. THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (I
- SUBCONTRACTED).
 4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
- DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
- . PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER. 7 COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND
- EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION. 8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

INSURANCE AND BONDS

- 1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER, REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS
- 2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES. J. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

APPROX

BTS CAB

CLG

CONC

DWG

ELEC

ELEV

EQUIP

EXISTING

EXTERIOR

GAUGE

GROUND

MAXIMUM

MECHANICAL

MICROWAVE DISH MANUFACTURER

NOT IN CONTRACT

NOT TO SCALE

SQUARE FOOT

STAINLESS STEEL

TOP OF CONCRETE

TOP OF MASONRY

VERIFY IN FIFI D

UNLESS OTHERWISE NOTED WELDED WIRE FABRIC

ON CENTER

OPPOSITE

PROPOSED

SHEET

STEEL

TYPICAL

SIMILAR

MASTER GROUND BAR

PERSONAL COMMUNICATION SYSTEM

POWER PROTECTION CABINET

LONG

METAL

NFW

FINISHED FLOOR

GENERAL CONTRACTOR

GALVANIZED

EQ

FGB

(E)

GA GALV

GC GRND

LG

MAX

MECH

MW MFR

MGB

MTL

(N)

NTS

OC OPP

(P) PCS

PPC SF

SHT

SIM

SS

TOC TOM

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ASW CHECKED BY S. STEV ABBREVIATIONS ADJUSTABLE 2 STEVENT ABOVE GROUND LINE AND APPROXIMATE BASE TRANSMISSION STATION No. 24705 CENSE ONAL E PROFESSIONAL SEAL CABINET CEILING CONCRETE CONTINUOUS DIA OR Ø DIAMETER DRAWING EACH ELECTRICAL ELEVATION FQUAL EQUIPMENT FOLIPMENT GROUND BAR

CONSENT IS STRICTLY PROHIBITED.

OF THE NOTED SCALE. SITE NUMBERS

99 MEADOW STREET HARTFORD, CT 06114

GENERAL AND ELECTRICAL

SHEFT NUMBER

N-1

317-000

REVISIONS

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SUBMITTALS

DESCRIPTION FOR PERMIT

REVISED FOR PERM

10/23/15

11/30/15

DEPT. DATE APP'D

PROJECT NO:

DRAWN BY:

RF MAN.

OPS

SITE AC.

NOTE: IF DRAWINGS ARE 22"x34", USE GRAPHICAL SCALE AND/OR 1/2 TIMES

CT11661A SITE NAME: HARTFORD SOUTH2/FRNKLN AV

NOTES

SHEET TITLE

SHEET 8 OF 8 SHEETS



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

T-Mobile Existing Facility

Site ID: CT11661A

Hartford South 2/ Frnkln Av 99 Meadow Street Hartford, CT 06114

December 31, 2015

EBI Project Number: 6215006690

Site Compliance Summary				
Compliance Status:	COMPLIANT			
Site total MPE% of				
FCC general public	7.66 %			
allowable limit:				



December 31, 2015

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

Emissions Analysis for Site: CT11661A – Hartford South 2/ Frnkln Av

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **99 Meadow Street**, **Hartford**, **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 97-01and 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 PCS and 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 **99 Meadow Street, Hartford, 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 GSM / UMTS channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel
- 2) 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.
- 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) Since the radios are ground mounted there are additional cabling losses accounted for. For each RF path the following losses were calculated. 0.90 dB of additional cable loss for all 700 MHz Channels, 1.66 dB of additional cable loss for all 1900 MHz channels and 1.46 dB of additional cable loss for all 2100 MHz channels. This is based on manufacturers Specifications for 161 feet of 1-5/8" coax cable on each path.



- 6) 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.
- 7) For the following calculations the sample point was the top of a six 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.
- 8) The antennas used in this modeling are the for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the Commscope LNX-6515DS-VTM for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APX16DWV-16DWVS-E-A20 have a maximum gain of 16.3 dBd at their main lobe. The Commscope LNX-6515DS-VTM has a maximum gain of 14.6 dBd at its main lobe. 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.
- 9) The antenna mounting height centerline of the proposed antennas is **123 feet** above ground level (AGL).
- 10) 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.

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:	RFS APX16DWV- 16DWVS-E-A20	Make / Model:	RFS APX16DWV- 16DWVS-E-A20	Make / Model:	RFS APX16DWV- 16DWVS-E-A20
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd
Height (AGL):	123	Height (AGL):	123	Height (AGL):	123
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	6	Channel Count	6	Channel Count	6
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	6,925.75	ERP (W):	6,925.75	ERP (W):	6,925.75
Antenna A1 MPE%	1.82	Antenna B1 MPE%	1.82	Antenna C1 MPE%	1.82
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope LNX- 6515DS-VTM	Make / Model:	Commscope LNX- 6515DS-VTM	Make / Model:	Commscope LNX- 6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	123	Height (AGL):	123	Height (AGL):	123
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):	703.27	ERP (W):	703.27	ERP (W):	703.27
Antenna A2 MPE%	0.40	Antenna B2 MPE%	0.40	Antenna C2 MPE%	0.40

Site Composite MPE%				
Carrier	MPE%			
T-Mobile (Per Sector Max)	2.21 %			
MetroPCS	0.95 %			
AT&T	2.18 %			
Nextel	0.24 %			
Clearwire	0.23 %			
Sprint	1.85 %			
Site Total MPE %:	7.66 %			

T-Mobile Sector 1 Total:	2.21 %
T-Mobile Sector 2 Total:	2.21 %
T-Mobile Sector 3 Total:	2.21 %
Site Total:	7.66 %

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 2100 MHz (AWS) LTE	2	1726.44	123	9.07	2100	1000	0.91 %
T-Mobile 1900 MHz (PCS) GSM/UMTS	2	873.22	123	4.59	1900	1000	0.46 %
T-Mobile 2100 MHz (AWS) UMTS	2	863.22	123	4.53	2100	1000	0.45 %
T-Mobile 700 MHz LTE	1	703.27	123	1.85	700	467	0.40 %
						Total:	2.21%

21 B Street Burlington, MA 01803 Tel: (781) 273.2500 Fax: (781) 273.3311



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 1:	2.21 %
Sector 2:	2.21 %
Sector 3:	2.21 %
T-Mobile Per Sector	2.21 %
Maximum:	
Site Total:	7.66 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **7.66%** 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.

Scott Heffernan

RF Engineering Director

EBI Consulting

21 B Street

Burlington, MA 01803



T-Mobile Northeast, LLC, a subsidiary of T-MOBILE USA, Inc. 15 Commerce Way – Suite B Norton, MA 02766

Sent VIA USPS Certified Mail

January 11, 2016

City of Hartford Attn: Planning Department 250 Constitution Plz, 4th Floor Hartford, CT 06103

Re:

Confirmation of Telecom Facility Tower Documentation

Site Number:

CT11661A

Site Address:

99 Meadow Street, Hartford, CT

Dear Sir or Madam,

This letter is to confirm that The City of Hartford has no record of the original zoning decision for the telecom facility (monopole) located at 99 Meadow Street, Hartford. Please sign and date below to indicate this is in fact true.

City of Hartford Planning/Department

DA+0

Sincerely,

Jon Ritter

Jon Ritter
Site Acquisition Agent for T-Mobile Northeast, LLC
T-Mobile MW Project

Convergent Network Solutions

Tower Resource Management 16 Chestnut Street, Suite 420 Foxborough, MA 02035

Mobile:

774-264-0016

Fax:

774-215-5423

Email:

jritter@trmcom.com

Site Number: CT11661A Market: Connecticut