



ORIGINAL

30 Cold Spring Road
Rocky Hill, CT 06067
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860-796-3988

EM-T-MOBILE-097-061127

November 27, 2006

RECEIVED
NOV 27 2006

CONNECTICUT
SITING COUNCIL

BY HAND

Daniel F. Caruso, Chairman and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: **Notice of Exempt Modification**
 8 Ferris Road Newtown, CT
 Latitude: 41 23 23.1 / Longitude: 73 20 17.4

Dear Chairman Caruso and Members of the Siting Council:

Omnipoint Communications, Inc. a.k.a. T-Mobile (formerly Voicestream Wireless Corp.) hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed ("Nextel-Ferris Road"), in Newtown, CT owned by Sprint Spectrum.

Please accept this letter as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b) (2).

Nextel-Ferris Road

Nextel-Ferris Road facility consists of a one hundred eighteen (118') foot monopole ("Tower") owned and operated by Sprint. T-Mobile proposes to locate antennas at a centerline mounting height of eighty one (81') feet. The equipment will be located within the compound at the base of the tower.

Nextel-Ferris Road

As shown on the enclosed plans prepared by including a site plan and tower elevation of the November 20, 2006, annexed hereto as Exhibit 1, T-Mobile proposes a shared use of the Facility by placing antennas on the tower and equipment needed to provide personal communications services ("PCS") within the existing site plan. T-Mobile will install six (6) antennas at the eight one (81) foot level of the Tower. Three (3) associated unmanned equipment cabinets will be located at the base of the tower.

The proposed modification is structurally feasible. A structural analysis of the tower is attached as Exhibit 2. The structural analysis shows that the tower can safely accommodate the proposed T-Mobile installation.

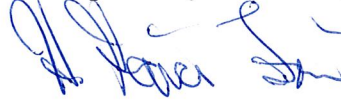
The planned modifications to this facility fall within the activities explicitly provided for in R.C.S.A. §16-50j-72(b)(2).

1. The proposed modification will not result in any increase in the overall height of the existing structure.
2. The proposed modification will not affect ground-mounted equipment and will not require the extension of the site boundaries.
3. The proposed modification will not increase noise levels at the facility by six decibels or more.
4. Operation of T-Mobile's antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. The "worst case" exposure calculated for the operation of this facility for T-Mobile would be approximately 29.604% of the standard. See Radio Frequency Memo annexed hereto as Exhibit 3.

Conclusion

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

Respectfully submitted,



Karina Fournier
Zoning Dept.
T-Mobile
30 Cold Spring Road
Rocky Hill, CT 06067
(860) 796-3988

cc: First Selectman, Herbert Rosenthal
Zoning Enforcement Officer, Gary Frenette

Exhibit 1

NEXTEL - FERRIS ROAD

8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470

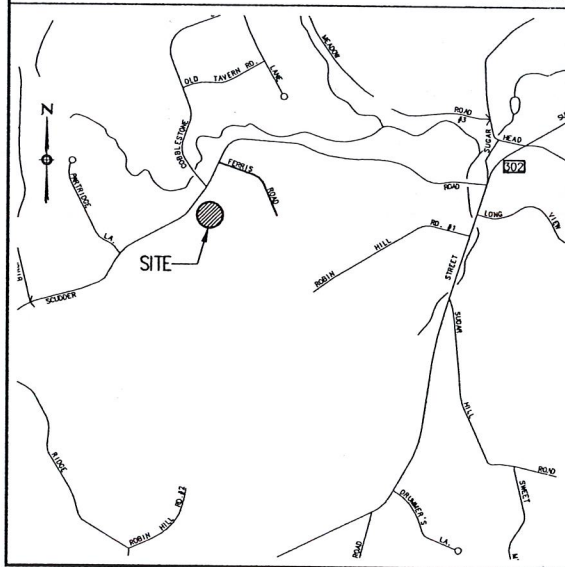
SITE NUMBER: CT11805A

SITE TYPE: COLO MONOPOLE

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 CONTRACT 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 DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE PROJECT OWNER'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE WORK COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING 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 FROM THE PROJECT OWNER'S REPRESENTATIVE 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.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 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 THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- 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 PROPERTY.
- THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBER AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S 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 LESSEE/LICENSEE REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY:
 DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233
 CALL BEFORE YOU DIG (CT): 1-800-922-4455
- COORDINATE NEW ANTENNAS, ANTENNA SUPPORT FRAME AND COAXIAL CABLE INSTALLATION WITH ENGINEERS STRUCTURAL ANALYSIS AND EVALUATION REPORT PRIOR TO INSTALLATION.

VICINITY MAP NO SCALE



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

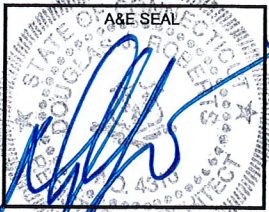
SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
A-1	SITE PLAN, DETAIL, ABBREVIATIONS AND SYMBOLS	1
A-2	PLANS, MONOPOLE ELEVATION, DETAILS AND NOTES	1
S-1	STRUCTURAL NOTES, PLAN, SECTIONS AND DETAILS	1
E-1	ELECTRICAL AND GROUNDING NOTES, RISERS AND DETAILS	1

PROJECT SUMMARY

SITE NUMBER: CT11805A
 SITE NAME: NEXTEL - FERRIS ROAD
 SITE ADDRESS: 8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470
 ASSESSOR'S PARCEL NO.: MAP 7, BLOCK: 7 LOT: 11
 SITE TYPE: COLO MONOPOLE
 STRUCTURE OWNER: NEXTEL COMMUNICATIONS
 2001 EDMUND HALLEY DR.
 RESTON, VA 20191
 PROPERTY OWNER: ERICH A. & PATRICIA A. GERTSCH
 8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470
 APPLICANT, LESSEE/LICENSEE, PROJECT OWNER: OMNIPPOINT COMMUNICATIONS, INC.
 100 FILLEY STREET
 BLOOMFIELD, CT 06002

OMNIPPOINT COMMUNICATIONS, INC.
 A WHOLLY-OWNED SUBSIDIARY
 OF T-MOBILE USA, INC.
 100 FILLEY STREET
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 OFFICE: (860)-692-7100
 FAX: (860)-692-7159

A&E FIRM
URS CORPORATION AES
 500 ENTERPRISE DRIVE
 ROCKY HILL, CT. 06067
 1-(860)-529-8882



APPROVALS:

LANDLORD _____
 LEASING _____
 R.F. _____
 ZONING _____
 CONSTRUCTION _____
 A/E _____

PROJECT NO: 36922206/VS1058

DRAWN BY: PS/RH

CHECKED BY:

SUBMITTALS

DATE	DESCRIPTION
11-20-06	CONSTRUCTION FINAL
11-13-06	CONSTRUCTION

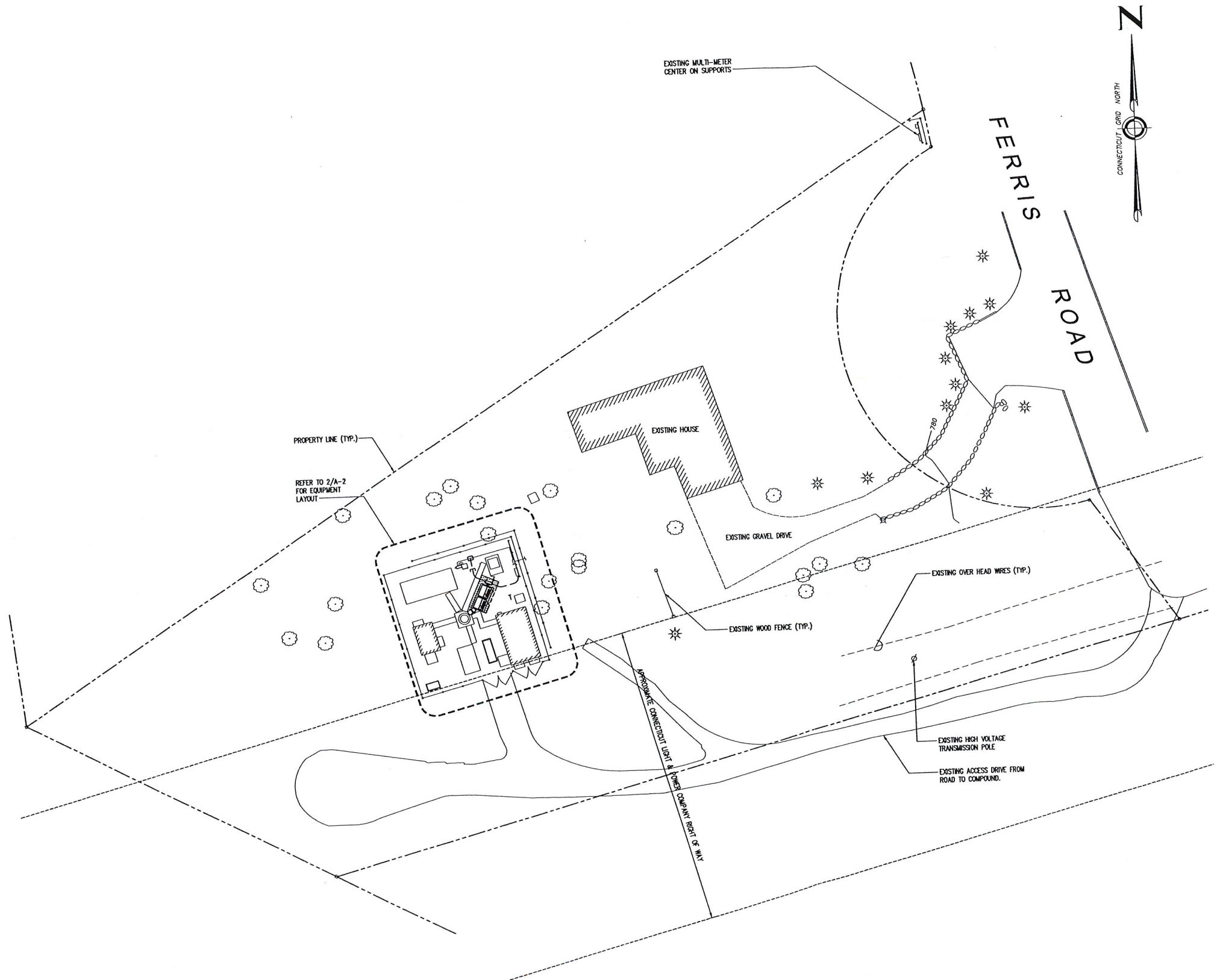
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CT11805A
 NEXTEL - FERRIS ROAD
 8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470

TITLE SHEET

T-1

SITE PLAN INFORMATION
 THIS SITE PLAN DRAWING WAS COMPILED FROM DATA COLLECTED IN THE FIELD AND COLLATED FROM AVAILABLE EXISTING DRAWINGS OF THE SUBJECT AREA.

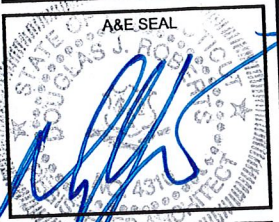


ABBREVIATIONS

ADJ	ADJUSTABLE	OC	ON CENTER
AGL	ABOVE GRADE LEVEL	OPP	OPPOSITE
APPROX	APPROXIMATE	SF	SQUARE FOOT
C	CONDUIT	SHT	SHEET
CONC	CONCRETE	SM	SIMILAR
CONT	CONTINUOUS	STL	STEEL
CJ	CONSTRUCTION JOINT	TOC	TOP OF CONCRETE
DIA	DIAMETER	TOM	TOP OF MASONRY
DWG	DRAWING	TYP	TYPICAL
EGB	EQUIPMENT GROUND BAR	VF	VERIFY IN FIELD
EA	EACH	UG	UNDERGROUND
ELEC	ELECTRICAL	UON	UNLESS OTHERWISE NOTED
EL	ELEVATION	WWF	WELDED WIRE FABRIC
EQ	EQUAL	W/	WITH
EQUIP	EQUIPMENT	BTS	BASE TRANSMISSION STATION
(E)	EXISTING	LNA	LOW NOISE AMPLIFIER
EXT	EXTERIOR	PCS	PERSONAL COMMUNICATIONS SERVICES
FCM	FIELD CONSTRUCTION MANAGER	PCS	PERSONAL COMMUNICATIONS SERVICES
FF	FINISHED FLOOR		
FG	FINISHED GRADE		
GA	GAUGE	A-1	ANTENNA MARK NO.
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR	PL	PLATE
LG	LONG	&	AND
MAX	MAXIMUM	@	AT
MECH	MECHANICAL		
MFR	MANUFACTURER		
MGB	MASTER GROUND BAR		
MIN	MINIMUM		
MTL	METAL		
NIC	NOT IN CONTRACT		
NTS	NOT TO SCALE		

OMNIPPOINT COMMUNICATIONS, INC.
 A WHOLLY-OWNED SUBSIDIARY OF T-MOBILE USA, INC.
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APPROVALS

LANDLORD _____
 LEASING _____
 R.F. _____
 ZONING _____
 CONSTRUCTION _____
 A/E _____

SYMBOLS AND MATERIALS

[Symbol]	NEW ANTENNA	[Symbol]	GROUT OR PLASTER
[Symbol]	EXISTING ANTENNAS	[Symbol]	(C)BRICK
[Symbol]	ASPHALT	[Symbol]	(E)MASONRY
[Symbol]	NEW ACCESS EASEMENT	[Symbol]	CONCRETE
[Symbol]	CONCRETE	[Symbol]	EARTH
[Symbol]	ELECTRIC BOX	[Symbol]	GRAVEL
[Symbol]	LIGHT POLE	[Symbol]	PLYWOOD
[Symbol]	FND. MONUMENT	[Symbol]	SAND
[Symbol]	SPOT ELEVATION	[Symbol]	WOOD CONT.
[Symbol]	SET POINT	[Symbol]	WOOD BLOCKING
[Symbol]	REVISION	[Symbol]	STEEL
[Symbol]	GRID REFERENCE	[Symbol]	CENTER LINE
[Symbol]	DETAIL REFERENCE	[Symbol]	PROPERTY LINE
[Symbol]	ELEVATION	[Symbol]	STEPPED FOOTING
[Symbol]	SECTIONS & DETAILS	[Symbol]	WATCH LINE
[Symbol]		[Symbol]	WORK POINT
[Symbol]		[Symbol]	GROUND WIRE
[Symbol]		[Symbol]	COAXIAL CABLE
[Symbol]		[Symbol]	CHAIN LINK FENCE
[Symbol]		[Symbol]	WOOD FENCE

PROJECT NO: 36922206/VS1058

DRAWN BY: PS/RH

CHECKED BY:

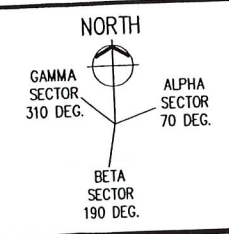
SUBMITTALS

[Symbol]	11-20-06	CONSTRUCTION FINAL
[Symbol]	11-13-06	CONSTRUCTION

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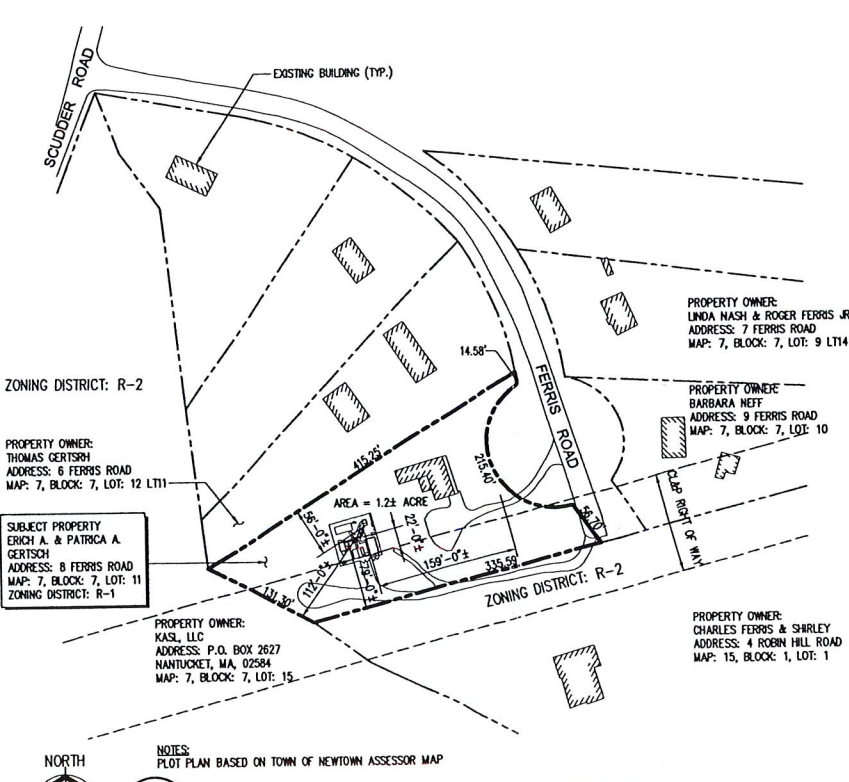
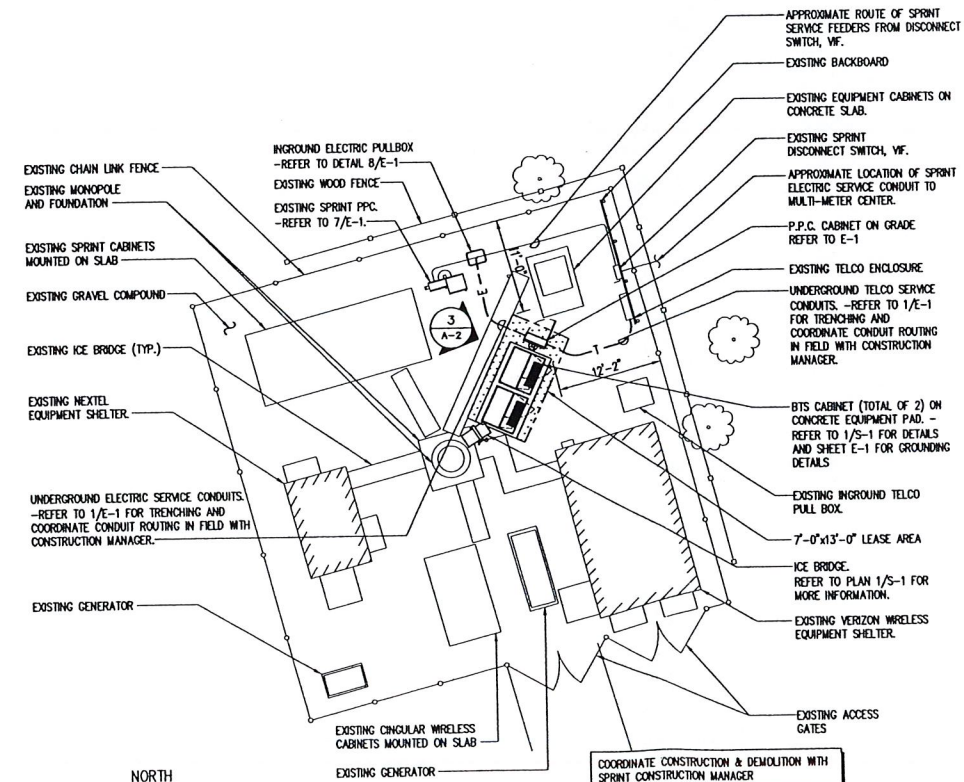
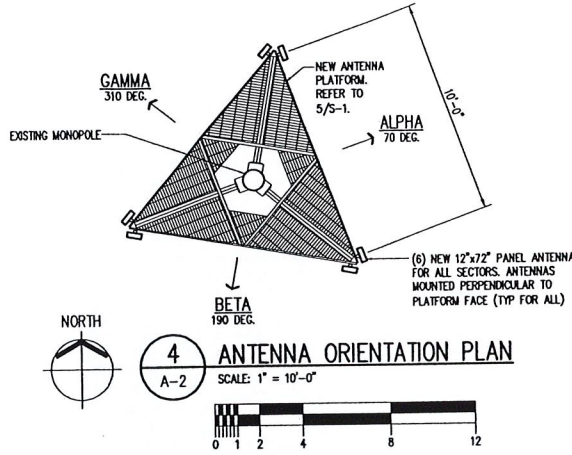
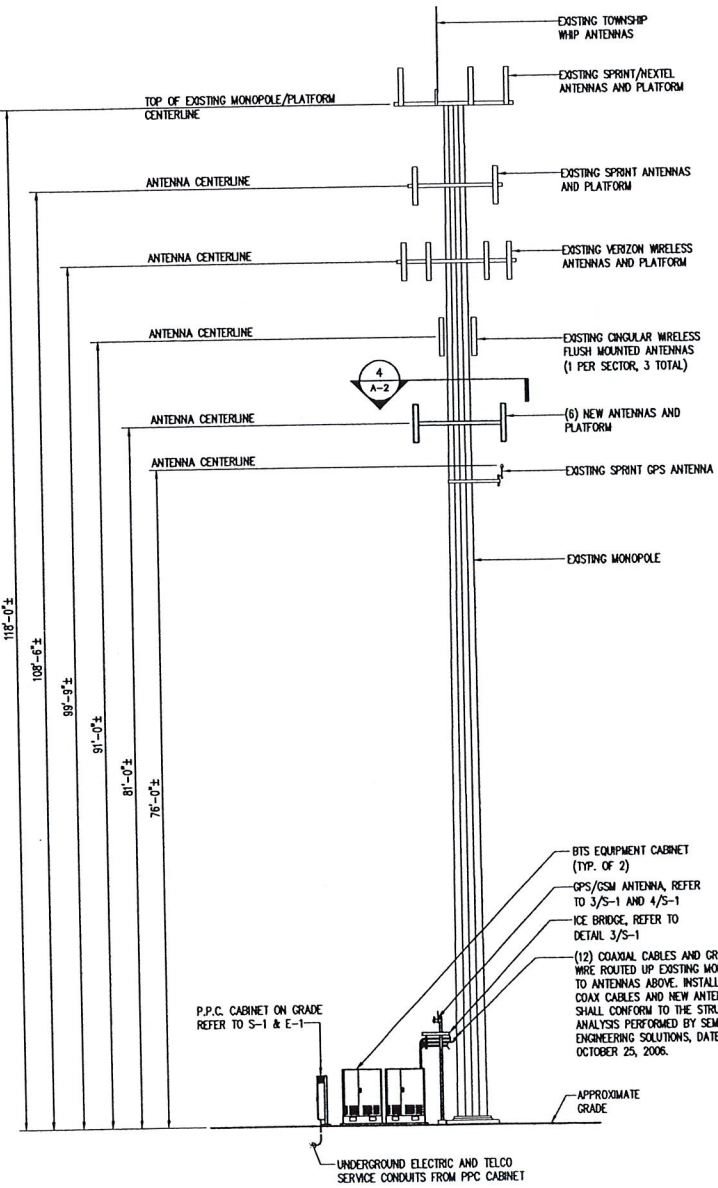
CT11805A
 NEXTEL - FERRIS ROAD
 8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470

ANTENNA ORIENTATION KEY



SITE PLAN, DETAIL, ABBREVIATIONS AND SYMBOLS

A-1

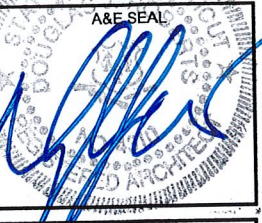


- NOTES:
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS SHOWN HEREIN.
 - ALL DIMENSIONS SHOWN THUS ± ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH EFFECT THE CONTRACTORS WORK. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH PROJECT OWNER PRIOR TO CONSTRUCTION.
 - NORTH ARROW SHOWN ON PLANS REFERS TO APPROXIMATE TRUE NORTH. CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL SURVEYOR TO VERIFY TRUE NORTH AND PROVIDE AS-BUILT ANTENNA AZIMUTH. ANTENNA MECHANICAL DOWN-TILT AND ANTENNA RADIATION CENTER HEIGHT (AGL) CERTIFICATIONS FOR ANTENNA AZIMUTHS MUST BE WITHIN 3 DEGREES OF THE SPECIFIED SECTOR ORIENTATION ON THE RF BUILD SHEET.
 - THE CONTRACTOR AND OR HIS SUB CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
 - ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES AND SUPPORT STRUCTURES.
 - COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE PROVIDED BY THE PROJECT OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. A SCHEDULE OF PROJECT OWNER SUPPLIED MATERIALS IS ATTACHED TO THE BID DOCUMENTS (SEE EXHIBIT 3). ALL OTHER HARDWARE TO BE PROVIDED BY THE CONTRACTOR. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
 - WHEN "PAINT TO MATCH" IS SPECIFIED FOR ANTENNA CONCEALMENT, PAINT PRODUCT FOR ANTENNA RADOME SHALL BE SHERWIN WILLIAMS COROTHANE II. SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND PROJECT OWNER'S GUIDELINES.
 - COORDINATION, LAYOUT, AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
 - ALL (E)ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.
 - ALL (E)ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF UTILITY COMPANY ENGINEERING.
 - THE AREAS OF THE PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT, DRIVEWAY OR GRAVEL, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED AND COVERED WITH MULCH UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROLS AT ALL TIMES DURING CONSTRUCTION.
 - PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER'S IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BITIS RADIO CABINETS. PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

TOWER NOTES
 1. COORDINATE ANTENNA, ANTENNA SUPPORT FRAME AND COAXIAL CABLE INSTALLATION WITH STRUCTURAL ANALYSIS REPORT PERFORMED.

OMNIPONT COMMUNICATIONS, INC.
 A WHOLLY-OWNED SUBSIDIARY OF T-MOBILE USA, INC.
 100 FILLEY STREET
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 FAX: (860)-892-7159

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APPROVALS

LANDLORD _____
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 ZONING _____
 CONSTRUCTION _____
 A/E _____

PROJECT NO: 36922206/V51058

DRAWN BY: PS/RH

CHECKED BY:

SUBMITTALS

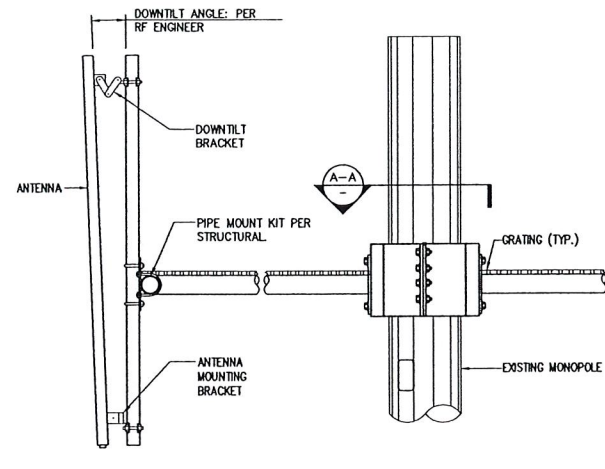
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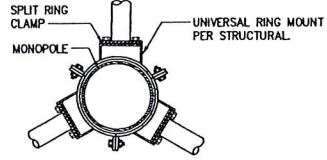
CT11805A
 NEXTEL - FERRIS ROAD
 8 FERRIS ROAD
 NEWTOWN, CONNECTICUT 06470

PLANS,
 MONOPOLE ELEVATION,
 DETAILS AND NOTES

A-2

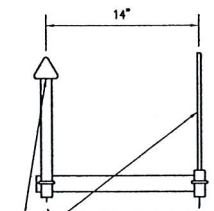


INSTALLATION OF COAX CABLES AND NEW ANTENNAS SHALL CONFORM TO THE STRUCTURAL ANALYSIS PERFORMED BY SEMAN ENGINEERING SOLUTIONS, DATED OCTOBER 25, 2008.



SECTION A-A

5 ANTENNA MOUNTING DETAIL
S-1 SCALE: 3/4" = 1'-0"



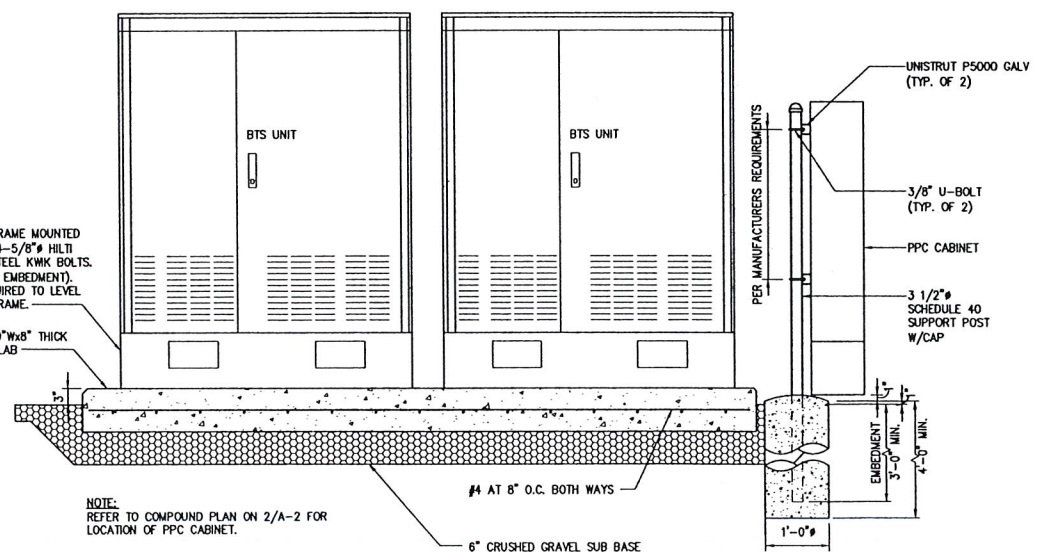
3 SECTION AT ICE BRIDGE
S-1 SCALE: 3/4" = 1'-0"

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

GPS/GSM ANTENNA MOUNTED TO TOWER, WITH MOUNTING BRACKET TP P/N: FD-061342-00 AND U-BOLT P/N: 3066133 TO TOWER SEE ELEVATION ON SHEET 3/S-1 FOR MOUNTING HEIGHT.
1/2" COAX AND GROUND ATTACHED TO TOWER LEG WITH STANDOFF KIT, MICROFLECT #B2126 OR EQUAL.

SUB-BASE FRAME MOUNTED TO SLAB W/ 4-5/8" HILTI STAINLESS STEEL KWIK BOLTS (MIN. 3 1/2" EMBEDMENT). SHIM IF REQUIRED TO LEVEL SUB-BASE FRAME.
10'-0" x 5'-0" x 8" THICK CONCRETE SLAB

NOTE: REFER TO COMPOUND PLAN ON 2/A-2 FOR LOCATION OF PPC CABINET.



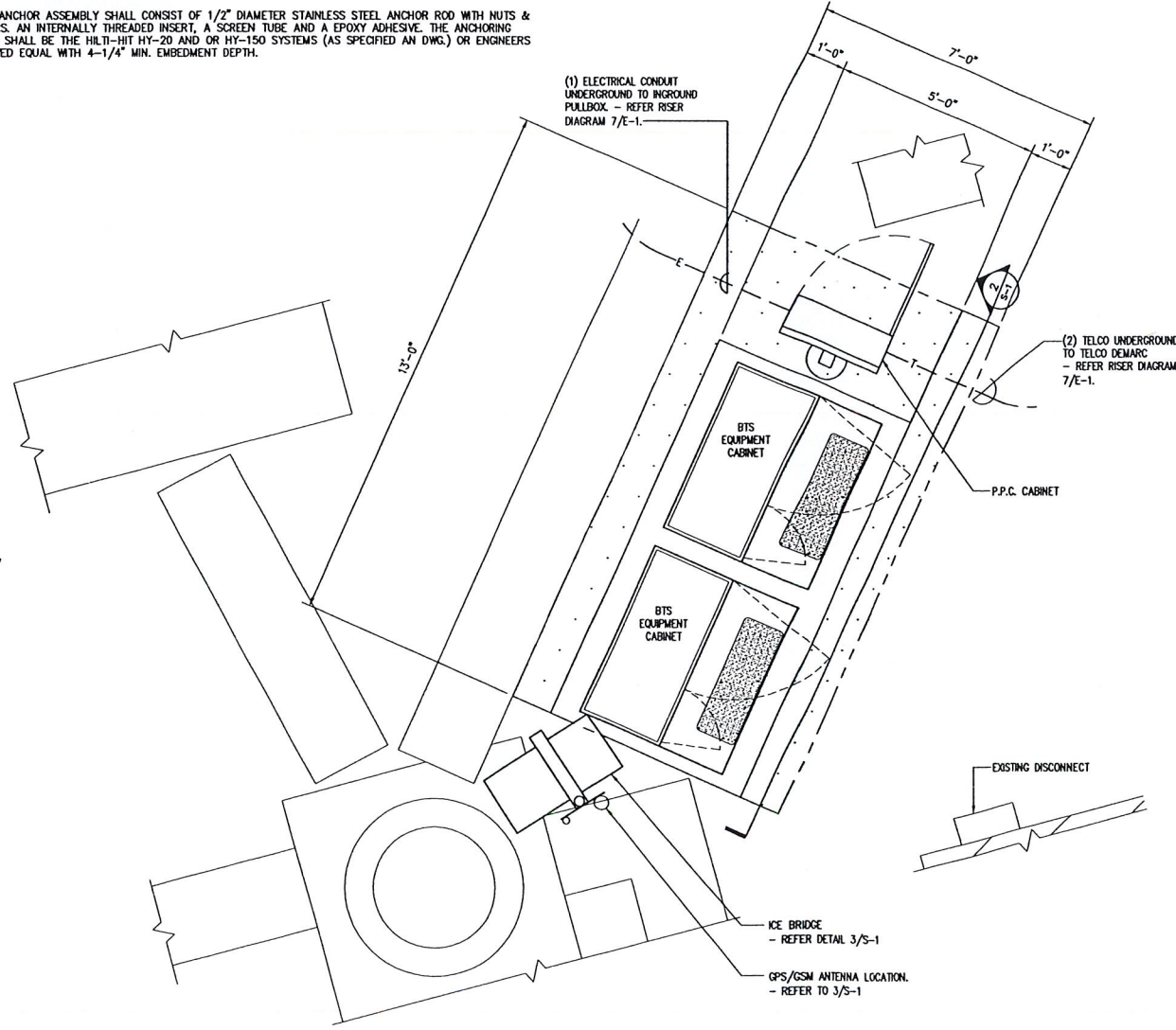
2 SECTION AT EQUIPMENT PAD
S-1 SCALE: 3/4" = 1'-0"

STRUCTURAL NOTES

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, ANSI/ASCE, EIA/TIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A572 GRADE 50 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE A OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 5/8" DIA UNON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION. IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS 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 D.I.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUTS SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP, WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8" x 1 5/8" x 12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF 1/2" DIAMETER STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS, AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-20 AND OR HY-150 SYSTEMS (AS SPECIFIED ON DWG.) OR ENGINEERS APPROVED EQUAL WITH 4-1/4" MIN. EMBEDMENT DEPTH.

- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT II OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE THREE AND ONE HALF (3 1/2) INCHES.
- GRAVEL SUB BASE AND CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL.
- ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND ACI 301.
- THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
CONCRETE CAST AGAINST EARTH ... 3 INCHES.
CONCRETE EXPOSED TO EARTH OR WATER
#6 AND LARGER 2 INCHES
#5 AND SMALLER 1 1/2 INCHES

ALL EXPOSED EDGES SHALL BE PROVIDED WITH A 3/4"x3/4" CHAMFER UNLESS NOTED OTHERWISE.



1 PLAN AT EQUIPMENT PAD
S-1 SCALE: 1/2" = 1'-0"

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URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

A&E SEAL

APPROVALS
LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 36922206/VS1058

DRAWN BY: PS/RH

CHECKED BY:

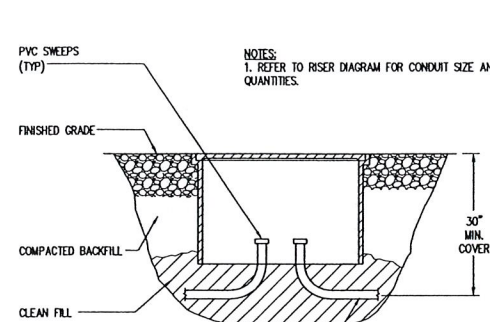
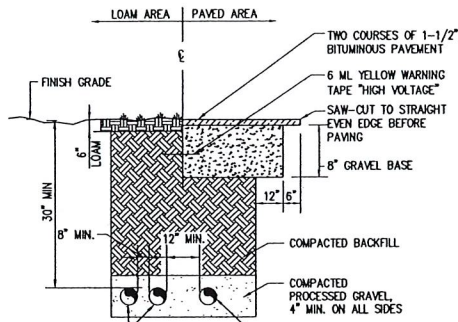
SUBMITTALS	
11-20-06	CONSTRUCTION FINAL
11-13-06	CONSTRUCTION

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CT11805A
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8 FERRIS ROAD
NEWTOWN, CONNECTICUT 06470

STRUCTURAL NOTES,
PLAN, SECTIONS
AND DETAILS

S-1



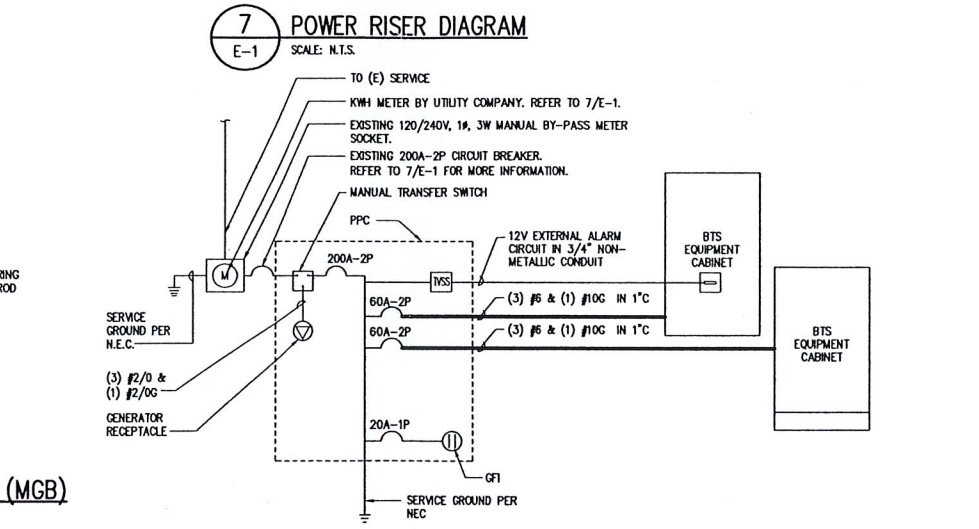
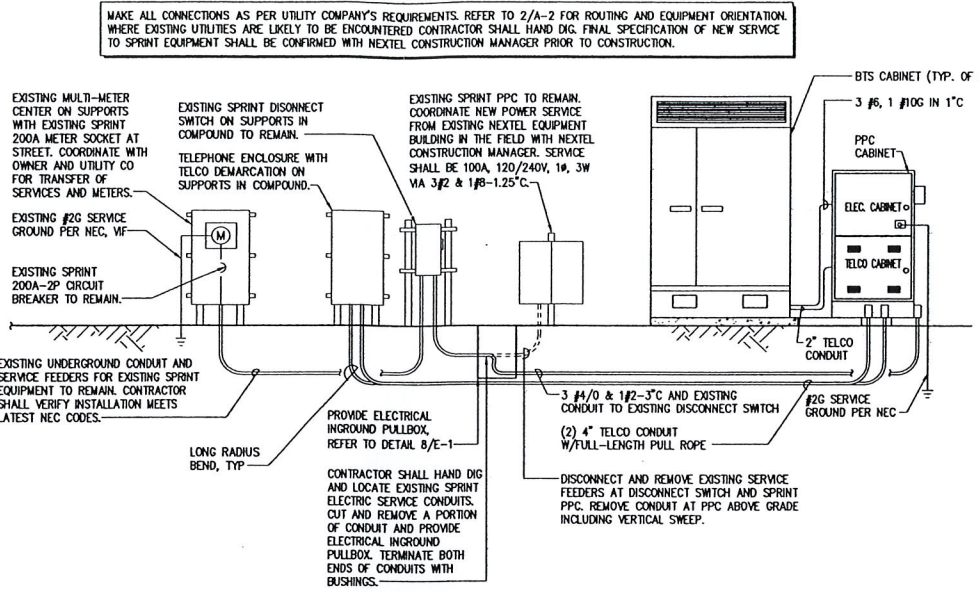
SCHEDULE 40 CONDUITS FOR NEW ELECTRICAL AND TELEPHONE SERVICES SEE UTILITY AND SITE PLANS. PROVIDE APPROVED PULL BOXES AS REQUIRED, AND COORDINATE INSTALLATION W/ ALL UTILITY COMPANIES FOR INTERFACING AT TERMINATION POINTS. PROVIDE FULL LENGTH PULL ROPES (TYP.).

NOTES:
1. DETAIL AS SHOWN IS FOR SECONDARY ELECTRIC SERVICE. PRIMARY HIGH VOLTAGE SERVICE REQUIRES 4\"/>

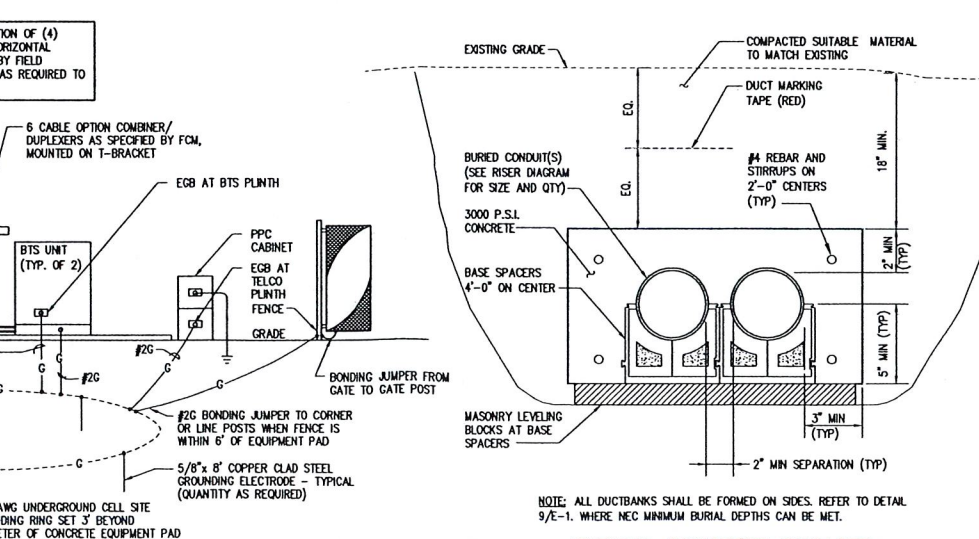
NOTES:
1. REFER TO RISER DIAGRAM FOR CONDUIT SIZE AND QUANTITIES.
2. REFER TO 4/E-1 AND 7/E-1 FOR TYPE, SIZE AND QUANTITY OF CONDUITS.

8 TELCO PULL BOX DETAIL
E-1 SCALE: N.T.S.

9 BURIED CONDUIT DETAIL
E-1 SCALE: N.T.S.

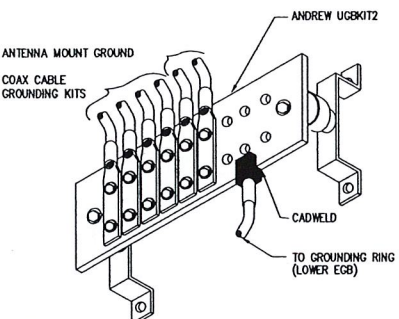


7 POWER RISER DIAGRAM
E-1 SCALE: N.T.S.

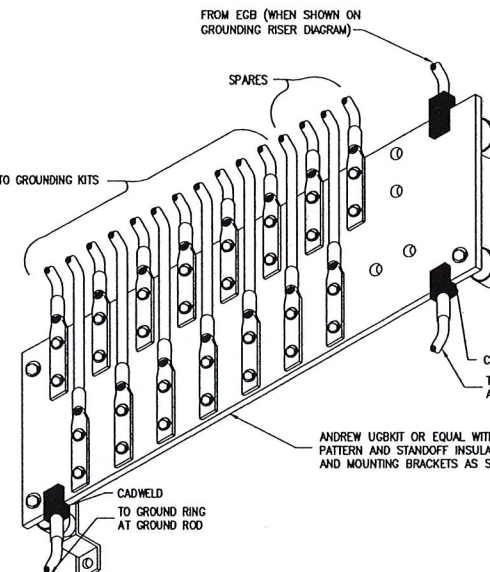


5 MASTER GROUND BAR (MGB)
E-1 SCALE: N.T.S.

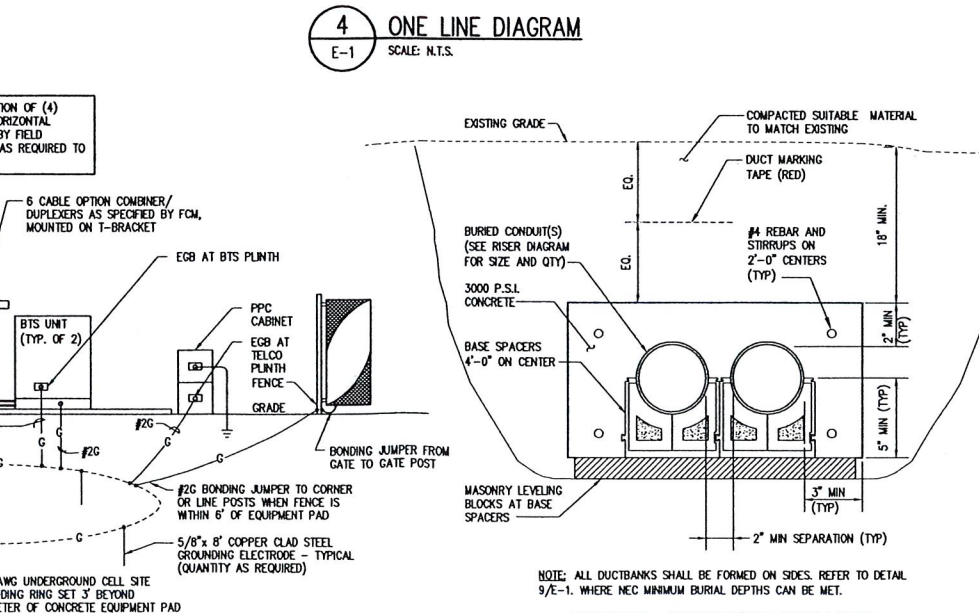
4 ONE LINE DIAGRAM
E-1 SCALE: N.T.S.



6 EQUIPMENT GROUND BAR (EGB)
E-1 SCALE: N.T.S.



3 TYPICAL GROUND BAR CONNECTIONS DETAIL
E-1 SCALE: N.T.S.



2 GROUNDING RISER DIAGRAM
E-1 SCALE: N.T.S.

ELECTRICAL LEGEND

	NEW PANEL BOARD, SURFACE MOUNTED
	EXISTING PANEL BOARD, SURFACE MOUNTED
	DRY TYPE TRANSFORMER
	METER
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH, MOUNTED 54\"/>
	FUSIBLE DISCONNECT SWITCH, MOUNTED 54\"/>
	TRANSIENT VOLTAGE SURGE SUPPRESSOR WITH BUILT-IN FUSES, SURFACE MOUNTED
	DUPLEX OUTLET, SURFACE MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
	JUNCTION BOX, SURFACE MOUNTED 18\"/>
	EXPOSED WIRING
	HOME RUNS, MINIMUM 2#10 + 1#10G IN 3/4\"/>
	ABOVE FINISHED FLOOR
	UNLESS OTHERWISE NOTED
	WEATHERPROOF
	GROUND FAULT INTERRUPTER
	AMPERE
	VOLT
	KILOWATT - HOUR
	CONDUIT
	GALVANIZED RIGID CONDUIT
	GROUND
	GROUND
	MASTER GROUND BAR
	EQUIPMENT GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	EXPOSED WIRING
	COAXIAL CABLE
	5/8\"/>
	EXOTHERMIC (CADWELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION
	POWER PROTECTION CABINET

ELECTRICAL AND GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE 20HM, THIN, OR THININSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- WHERE CONDUIT BETWEEN BITS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BITS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURIED HYDRON COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12\"/>

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1-(860)-529-8882

A&E SEAL

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 36922206/VS1058

DRAWN BY: PS/RH

CHECKED BY:

SUBMITTALS

11-20-06	CONSTRUCTION FINAL
11-13-06	CONSTRUCTION

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ELECTRICAL & GROUNDING NOTES, RISERS AND DETAILS

E-1

Exhibit 2

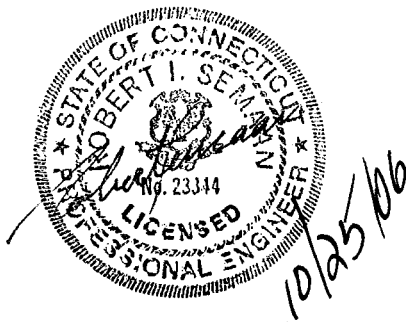
1079 N. 204th Avenue
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

118 ft EEI Monopole Structural Analysis

Prepared for:
Sprint Sites USA
1 International Blvd.
Mahwah, NJ 07645

Site: CT0915
For T-Mobile
Newtown, CT



October 25, 2006

Ms. Naomi Rudd
Sprint Sites USA
1 International Blvd.
Mahwah, NJ 07645

Re: Site Number CT0915 – Newtown, CT.

Dear Ms. Rudd:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the TIA/EIA-222 Rev F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 118 ft EEI Monopole.

Refer to EEI job No 5189 dated June 29, 1999 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **TIA/EIA-222 Rev F and local building codes for a basic wind speed of 90 mph and 1/2" radial ice with reduced wind speed**. This wind speed is equivalent to a 110 mph 3-second gust per the IBC 2003. This is in conformance with the IBC 2003: Section 1609.1.1, Exception (5) and Section 3108.4. Wind is applied to the structure, accessories and antennas.

Structure loading:

The following loads were used in the tower analysis:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
118.0	3	DR65-19	Low Profile Platform	(15) 1 5/8"	Sprint-Nextel
	3	TMA's			
	9	DB848H90E			
118.0	2	DB222	Low Profile Platform	(2) 7/8"	Township
108.5	6	DB980H90	Low Profile platform	(12) 1 5/8"	Sprint
99.75	12	DB844H90	Low Profile platform	(12) 1 5/8"	Verizon
91.0	6	DR65-19-00DPQ	Low Profile platform	(28) 7/8"	Cingular

Proposed Loads:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
81.0	6	APX16DWV-16DWV	Low Profile platform	(24) 7/8"	T-Mobile
	6	S20057A1 TMA			

**All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.
All transmission lines are assumed running inside of pole shaft.**

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 93.4%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	2,005.95	2,080.86	103.7
Shear (kips)	22.03	22.87	103.8

The reactions calculated from the analysis slightly exceed the ones indicated on the original structural design. However, the excess amount is within acceptable engineering tolerances and therefore the foundation will not require modification.

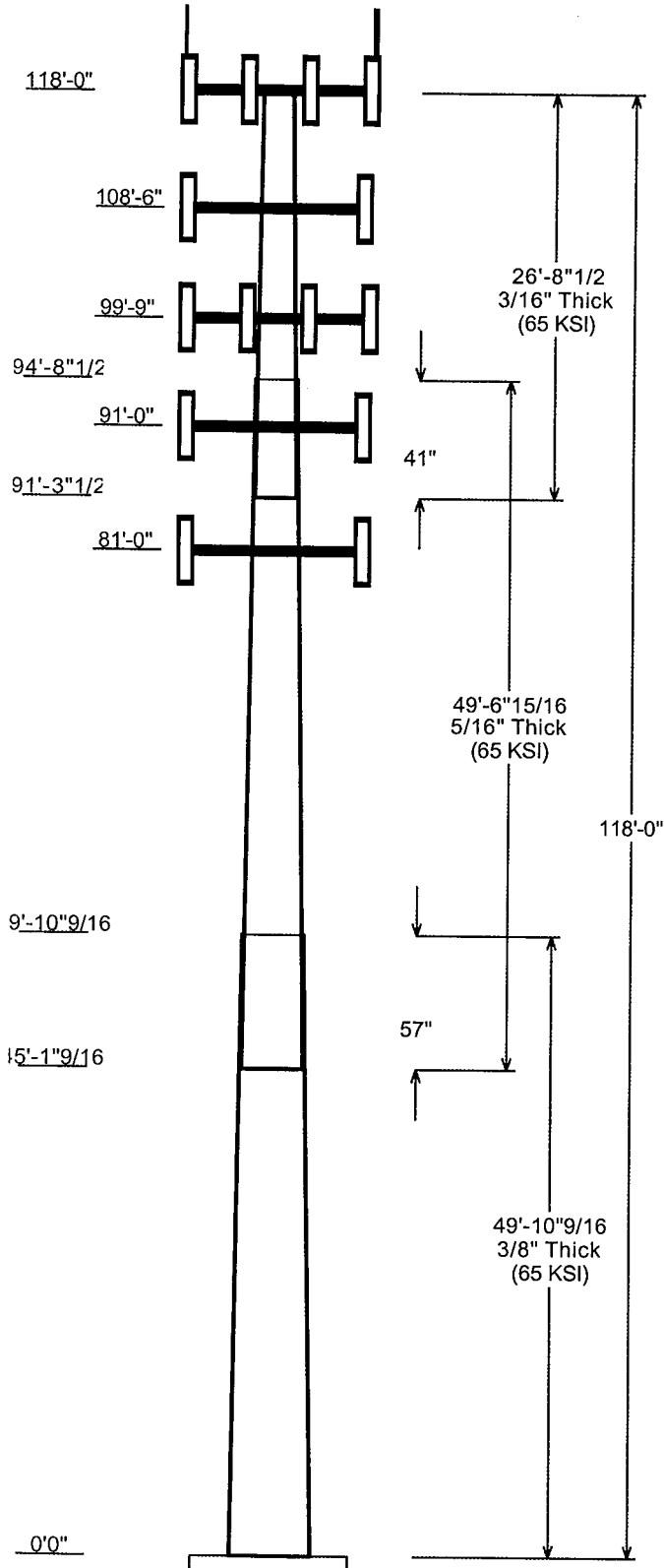
Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the TIA/EIA-222 Rev F standards for a basic wind speed of 90 mph and 1/2" radial ice with reduced wind speed. This wind speed is equivalent to a 110 mph 3-second gust.

SEMAAN ENGINEERING SOLUTIONS

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 Phone: 402-289-1888
 Fax: 402-289-1861

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Job Information			
Pole :	CT0915	Code :	TIA/EIA-222 Rev F
Description :	Client : Sprint Sites USA - NJ		
Location :	Newtown, CT		
Shape :	18 Sides	Base Elev (ft):	0.00
Height :	118.00 (ft)	Taper:	0.230926(in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap		Steel Grade (ksi)
		Across Top	Flats Bottom			Length (in)	Taper (in/ft)	
1	49.880	31.73	43.25	0.375		0.000	0.230926	65
2	49.580	22.00	33.45	0.313	Slip Joint	57.000	0.230926	65
3	26.707	17.00	23.16	0.188	Slip Joint	41.000	0.230926	65

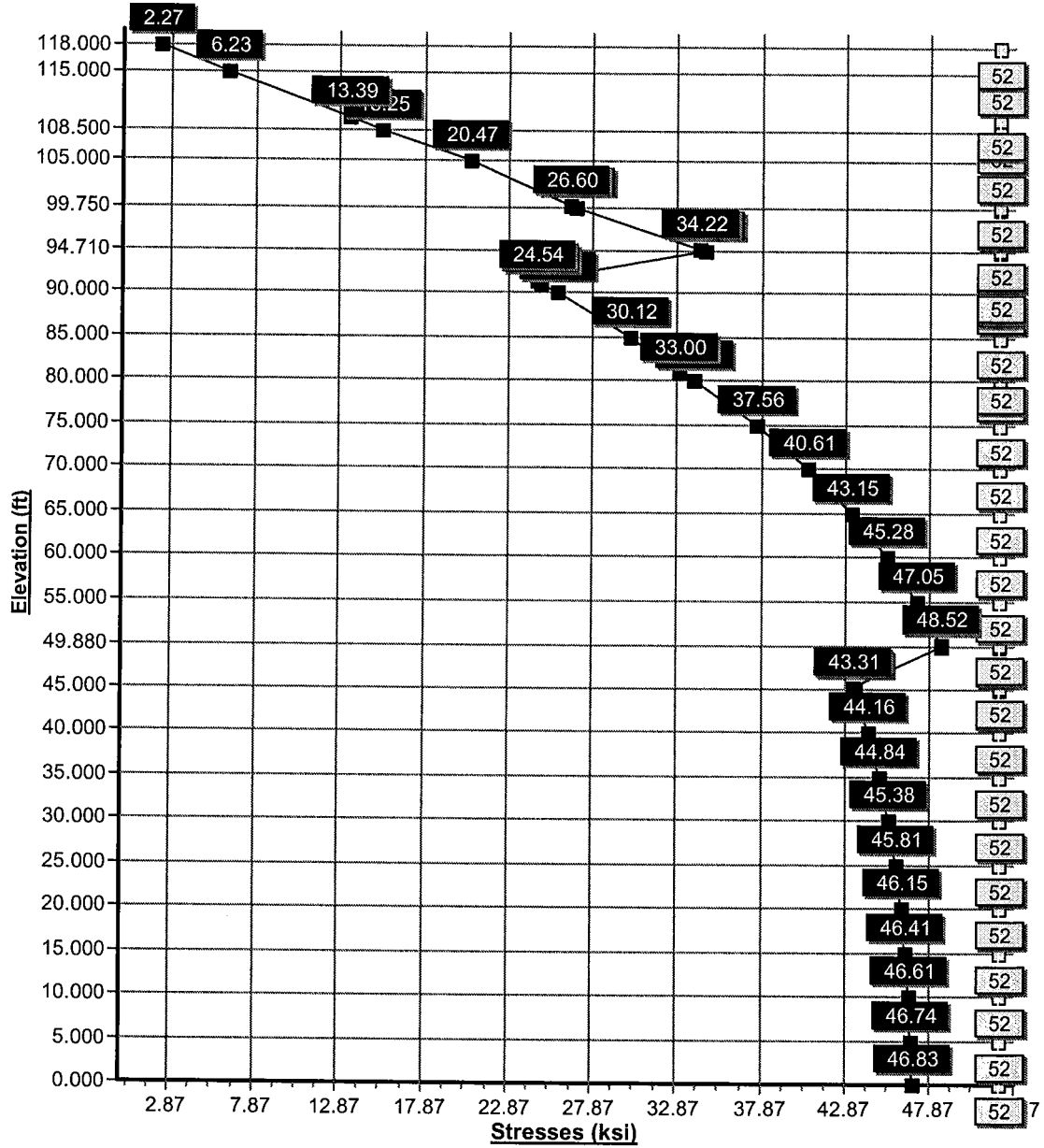
Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
118.000	123.290	2	DB222	
118.000	118.000	1	Low Profile Platform	
118.000	118.000	9	DB848H90E	
118.000	118.000	3	TMAs	
118.000	118.000	3	DR65-19	
108.500	108.500	1	Low Profile platform	
108.500	108.500	6	DB980H90	
99.750	99.750	1	Low Profile platform	
99.750	99.750	12	DB844H90	
91.000	91.000	1	Low Profile platform	
91.000	91.000	6	DR65-19-00DPQ	
81.000	81.000	1	Low Profile platform	
81.000	81.000	6	S20057A1 TMA	
81.000	81.000	6	APX16DWV-16DWV	

Linear Appurtenance				
Elev (ft)		Description	Exposed To Wind	
From	To			
0.000	81.000	7/8" Coax	No	
0.000	91.000	7/8" Coax	No	
0.000	99.750	1 5/8" Coax	No	
0.000	108.5	1 5/8" Coax	No	
0.000	118.0	1 5/8" Coax	No	
0.000	118.0	7/8" Coax	No	

Load Cases	
No Ice	90.00 mph Wind with No Ice
Ice	77.94 mph Wind with Ice

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2080.86	22.87	27.71
Ice	1818.14	19.44	34.34

Load Case : No Ice
Max Stress 93.4% at 49.9ft



Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

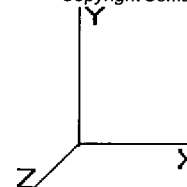
Code: TIA/EIA-222 Rev F

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Page: 1

Base Elev : 0.000 (ft)



Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fv (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom					Top					Taper (in/ft)		
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)		W/t Ratio	D/t Ratio
1	49.880	0.3750	65		0.00	7,498	43.25	0.000	51.03	11851.9	18.93	115.3	31.73	49.88	37.32	4636.1	13.51	84.62	0.23093
2	49.580	0.3125	65	Slip Joint	57.00	4,588	33.45	45.13	32.87	4561.2	17.47	107.0	22.00	94.71	21.51	1279.0	11.01	70.41	0.23093
3	26.707	0.1875	65	Slip Joint	41.00	1,076	23.16	91.29	13.68	912.5	20.38	123.5	17.00	118.0	10.01	357.4	14.58	90.67	0.23093
Shaft Weight						13,162													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
118.0	DB222	2	16.00	2.880	1.00	40.00	5.160	1.00	0.000	5.290
118.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
118.0	DB848H90E	9	28.00	8.360	0.91	78.00	9.250	0.91	0.000	0.000
118.0	TMA's	3	13.20	2.500	0.93	18.25	2.800	0.93	0.000	0.000
118.0	DR65-19	3	32.00	8.400	0.67	74.00	9.230	0.67	0.000	0.000
108.5	Low Profile platform	1	1200.00	15.000	1.00	1650.00	18.400	1.00	0.000	0.000
108.5	DB980H90	6	9.00	3.280	0.67	28.00	3.850	0.67	0.000	0.000
99.75	Low Profile platform	1	1500.00	20.000	1.00	2250.00	28.200	1.00	0.000	0.000
99.75	DB844H90	12	10.00	3.733	0.91	35.00	4.520	0.91	0.000	0.000
91.00	Low Profile platform	1	1500.00	20.000	1.00	2250.00	28.200	1.00	0.000	0.000
91.00	DR65-19-00DPQ	6	32.00	8.400	0.67	74.00	9.230	0.67	0.000	0.000
81.00	Low Profile platform	1	1200.00	15.000	1.00	1650.00	18.400	1.00	0.000	0.000
81.00	S20057A1 TMA	6	11.00	0.820	0.74	16.41	1.020	0.74	0.000	0.000
81.00	APX16DWV-16DWV	6	18.00	6.760	0.62	49.62	7.420	0.62	0.000	0.000
Totals		58	7959.60			12386.93			Number of Loadings :	14

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	CaAa (sf/ft)	Ice Weight (lb/ft)	CaAa (sf/ft)	Exposed To Wind
0.00	118.00	(15) 1 5/8" Coax	15.00	0.00	15.00	0.00	N
0.00	118.00	(2) 7/8" Coax	1.04	0.00	1.04	0.00	N
0.00	108.50	(12) 1 5/8" Coax	12.00	0.00	12.00	0.00	N
0.00	99.75	(12) 1 5/8" Coax	12.00	0.00	12.00	0.00	N
0.00	91.00	(28) 7/8" Coax	14.00	0.00	14.00	0.00	N
0.00	81.00	(24) 7/8" Coax	12.00	0.00	12.00	0.00	N
Total Weight			6,637.72 (lb)		6,637.72 (lb)		

* Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

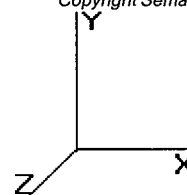
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Base Elev : 0.000 (ft)



Load Case: No Ice

90.00 mph Wind with No Ice

23 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 20.736	35.04 324.37	0.650	0.00	0.00	0.000	0.00	0.00	0.0	0.0	0.0
5.00		0.00	1.00 20.736	35.04 315.71	0.650	0.00	5.00	17.780	11.56	405.0	405.0	0.0	856.5
10.00		0.00	1.00 20.736	35.04 307.05	0.650	0.00	5.00	17.299	11.24	394.0	394.0	0.0	833.1
15.00		0.00	1.00 20.736	35.04 298.39	0.650	0.00	5.00	16.818	10.93	383.1	383.1	0.0	809.8
20.00		0.00	1.00 20.736	35.04 289.73	0.650	0.00	5.00	16.337	10.62	372.1	372.1	0.0	786.4
25.00		0.00	1.00 20.736	35.04 281.07	0.650	0.00	5.00	15.856	10.31	361.2	361.2	0.0	763.0
30.00		0.00	1.00 20.736	35.04 272.41	0.650	0.00	5.00	15.375	9.99	350.2	350.2	0.0	739.6
35.00		0.00	1.01 21.088	35.63 265.98	0.650	0.00	5.00	14.894	9.68	345.0	345.0	0.0	716.2
40.00		0.00	1.05 21.908	37.02 262.20	0.650	0.00	5.00	14.413	9.37	346.8	346.8	0.0	692.9
45.00		0.00	1.09 22.657	38.29 257.60	0.650	0.00	5.00	13.932	9.06	346.7	346.7	0.0	669.5
45.13	Bot - Section 2	0.00	1.09 22.676	38.32 257.47	0.650	0.00	0.13	0.356	0.23	8.9	8.9	0.0	17.1
49.88	Top - Section 1	0.00	1.12 23.334	39.43 252.45	0.650	0.00	4.75	13.025	8.47	333.9	333.9	0.0	1,136.3
50.00		0.00	1.12 23.350	39.46 257.29	0.650	0.00	0.12	0.323	0.21	8.3	8.3	0.0	13.0
55.00		0.00	1.15 23.994	40.55 251.50	0.650	0.00	5.00	13.230	8.60	348.7	348.7	0.0	530.5
60.00		0.00	1.18 24.598	41.57 245.21	0.650	0.00	5.00	12.749	8.29	344.5	344.5	0.0	511.0
65.00		0.00	1.21 25.167	42.53 238.49	0.650	0.00	5.00	12.268	7.97	339.2	339.2	0.0	491.6
70.00		0.00	1.24 25.706	43.44 231.39	0.650	0.00	5.00	11.786	7.66	332.8	332.8	0.0	472.1
75.00		0.00	1.26 26.218	44.30 223.95	0.650	0.00	5.00	11.305	7.35	325.6	325.6	0.0	452.6
80.00		0.00	1.28 26.706	45.13 216.19	0.650	0.00	5.00	10.824	7.04	317.5	317.5	0.0	433.1
81.00	Appertunance(s)	0.00	1.29 26.801	45.29 214.61	0.650	0.00	1.00	2.107	1.37	62.0	62.0	0.0	84.3
85.00		0.00	1.31 27.172	45.92 208.16	0.650	0.00	4.00	8.236	5.35	245.8	245.8	0.0	329.3
90.00		0.00	1.33 27.620	46.67 199.87	0.650	0.00	5.00	9.862	6.41	299.2	299.2	0.0	394.1
91.00	Appertunance(s)	0.00	1.33 27.707	46.82 198.19	0.650	0.00	1.00	1.915	1.24	58.3	58.3	0.0	76.5
91.29	Bot - Section 3	0.00	1.33 27.733	46.86 197.69	0.650	0.00	0.29	0.558	0.36	17.0	17.0	0.0	22.3
94.71	Top - Section 2	0.00	1.35 28.025	47.36 191.85	0.650	0.00	3.42	6.484	4.21	199.6	199.6	0.0	410.9
95.00		0.00	1.35 28.050	47.40 194.62	0.650	0.00	0.29	0.540	0.35	16.6	16.6	0.0	13.0
99.75	Appertunance(s)	0.00	1.37 28.443	48.06 186.35	0.650	0.00	4.75	8.615	5.60	269.2	269.2	0.0	207.5
100.0		0.00	1.37 28.464	48.10 185.91	0.650	0.00	0.25	0.441	0.29	13.8	13.8	0.0	10.6
105.0		0.00	1.39 28.863	48.77 176.99	0.650	0.00	5.00	8.575	5.57	271.9	271.9	0.0	206.5
108.5	Appertunance(s)	0.00	1.40 29.135	49.23 170.64	0.650	0.00	3.50	5.716	3.72	182.9	182.9	0.0	137.6
110.0		0.00	1.41 29.250	49.43 167.89	0.650	0.00	1.50	2.378	1.55	76.4	76.4	0.0	57.2
115.0		0.00	1.42 29.623	50.06 158.60	0.650	0.00	5.00	7.613	4.95	247.7	247.7	0.0	183.1
118.0	Appertunance(s)	0.00	1.43 29.842	50.43 152.96	0.650	0.00	3.00	4.337	2.82	142.2	142.2	0.0	104.2
Totals:								118.00			7,766.3	0.0	13,161.6

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

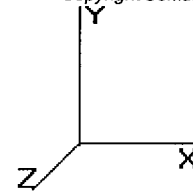
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Base Elev : 0.000 (ft)



Load Case: No Ice

90.00 mph Wind with No Ice

23 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
81.00	Low Profile platform	1	26.801	45.293	1.000	15.00	0.000	0.000	679.40	0.00	0.00	1,200.00
81.00	S20057A1 TMA	6	26.801	45.293	0.740	3.64	0.000	0.000	164.90	0.00	0.00	66.00
81.00	APX16DWV-16DWV	6	26.801	45.293	0.620	25.15	0.000	0.000	1,138.99	0.00	0.00	108.00
91.00	Low Profile platform	1	27.707	46.825	1.000	20.00	0.000	0.000	936.50	0.00	0.00	1,500.00
91.00	DR65-19-00DPQ	6	27.707	46.825	0.670	33.77	0.000	0.000	1,581.18	0.00	0.00	192.00
99.75	Low Profile platform	1	28.443	48.069	1.000	20.00	0.000	0.000	961.39	0.00	0.00	1,500.00
99.75	DB844H90	12	28.443	48.069	0.910	40.76	0.000	0.000	1,959.52	0.00	0.00	120.00
108.5	Low Profile platform	1	29.135	49.238	1.000	15.00	0.000	0.000	738.57	0.00	0.00	1,200.00
108.5	DB980H90	6	29.135	49.238	0.670	13.19	0.000	0.000	649.23	0.00	0.00	54.00
118.0	DB222	2	30.218	51.069	1.000	5.76	0.000	5.290	294.16	0.00	1,556.10	32.00
118.0	Low Profile Platform	1	29.842	50.433	1.000	25.55	0.000	0.000	1,288.57	0.00	0.00	1,600.00
118.0	DB848H90E	9	29.842	50.433	0.910	68.47	0.000	0.000	3,453.04	0.00	0.00	252.00
118.0	TMA's	3	29.842	50.433	0.930	6.97	0.000	0.000	351.77	0.00	0.00	39.60
118.0	DR65-19	3	29.842	50.433	0.670	16.88	0.000	0.000	851.51	0.00	0.00	96.00
									15,048.74			7,959.60

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
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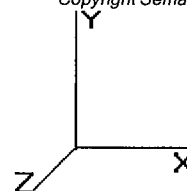
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Base Elev : 0.000 (ft)



Load Case: No Ice

90.00 mph Wind with No Ice

23 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	405.01	1,186.73	0.00	0.00
10.00	394.05	1,163.35	0.00	0.00
15.00	383.09	1,139.97	0.00	0.00
20.00	372.13	1,116.59	0.00	0.00
25.00	361.17	1,093.20	0.00	0.00
30.00	350.21	1,069.82	0.00	0.00
35.00	345.01	1,046.44	0.00	0.00
40.00	346.85	1,023.06	0.00	0.00
45.00	346.74	999.68	0.00	0.00
45.13	8.86	25.68	0.00	0.00
49.88	333.86	1,449.96	0.00	0.00
50.00	8.30	20.90	0.00	0.00
55.00	348.71	860.73	0.00	0.00
60.00	344.49	841.25	0.00	0.00
65.00	339.15	821.76	0.00	0.00
70.00	332.83	802.28	0.00	0.00
75.00	325.60	782.79	0.00	0.00
80.00	317.54	763.31	0.00	0.00
81.00	2,045.33	1,524.32	0.00	0.00
85.00	245.84	545.50	0.00	0.00
90.00	299.22	664.34	0.00	0.00
91.00	2,575.96	1,822.53	0.00	0.00
91.29	16.99	34.02	0.00	0.00
94.71	199.62	547.75	0.00	0.00
95.00	16.65	24.63	0.00	0.00
99.75	3,190.07	2,017.72	0.00	0.00
100.0	13.80	17.64	0.00	0.00
105.0	271.88	346.68	0.00	0.00
108.5	1,570.76	1,489.72	0.00	0.00
110.0	76.40	81.27	0.00	0.00
115.0	247.73	263.29	0.00	0.00
118.0	6,381.22	2,171.96	0.00	1,556.10
Totals:	22,815.05	27,758.89	0.00	1,556.10

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

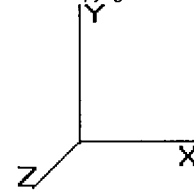
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Base Elev : 0.000 (ft)



Load Case: No Ice

90.00 mph Wind with No Ice

23 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-22.874	-27.709	0.000	0.000	0.000	-2,080.859	0.000	0.000	0.000	0.000
5.00	-22.580	-26.427	0.000	0.000	0.000	-1,966.490	-0.130	0.000	0.130	-0.243
10.00	-22.290	-25.168	0.000	0.000	0.000	-1,853.590	-0.518	0.000	0.518	-0.492
15.00	-22.002	-23.934	0.000	0.000	0.000	-1,742.144	-1.170	0.000	1.170	-0.746
20.00	-21.718	-22.723	0.000	0.000	0.000	-1,632.136	-2.091	0.000	2.091	-1.007
25.00	-21.436	-21.537	0.000	0.000	0.000	-1,523.549	-3.289	0.000	3.289	-1.274
30.00	-21.158	-20.375	0.000	0.000	0.000	-1,416.369	-4.769	0.000	4.769	-1.546
35.00	-20.877	-19.237	0.000	0.000	0.000	-1,310.581	-6.537	0.000	6.537	-1.824
40.00	-20.585	-18.124	0.000	0.000	0.000	-1,206.199	-8.599	0.000	8.599	-2.106
45.00	-20.243	-17.088	0.000	0.000	0.000	-1,103.274	-10.958	0.000	10.958	-2.393
45.13	-20.276	-17.011	0.000	0.000	0.000	-1,100.643	-11.024	0.000	11.024	-2.401
49.88	-19.916	-15.529	0.000	0.000	0.000	-1,004.333	-13.553	0.000	13.553	-2.678
50.00	-19.953	-15.449	0.000	0.000	0.000	-1,001.944	-13.621	0.000	13.621	-2.685
55.00	-19.646	-14.494	0.000	0.000	0.000	-902.179	-16.610	0.000	16.610	-3.015
60.00	-19.333	-13.562	0.000	0.000	0.000	-803.952	-19.943	0.000	19.943	-3.344
65.00	-19.016	-12.655	0.000	0.000	0.000	-707.288	-23.621	0.000	23.621	-3.671
70.00	-18.696	-11.773	0.000	0.000	0.000	-612.207	-27.638	0.000	27.638	-3.993
75.00	-18.373	-10.919	0.000	0.000	0.000	-518.727	-31.986	0.000	31.986	-4.305
80.00	-18.028	-10.128	0.000	0.000	0.000	-426.863	-36.653	0.000	36.653	-4.602
81.00	-15.888	-8.734	0.000	0.000	0.000	-408.835	-37.623	0.000	37.623	-4.662
85.00	-15.632	-8.145	0.000	0.000	0.000	-345.283	-41.622	0.000	41.622	-4.885
90.00	-15.295	-7.470	0.000	0.000	0.000	-267.123	-46.872	0.000	46.872	-5.139
91.00	-12.569	-5.880	0.000	0.000	0.000	-251.827	-47.953	0.000	47.953	-5.189
91.29	-12.558	-5.829	0.000	0.000	0.000	-248.142	-48.272	0.000	48.272	-5.203
94.71	-12.316	-5.284	0.000	0.000	0.000	-205.236	-52.048	0.000	52.048	-5.358
95.00	-12.312	-5.227	0.000	0.000	0.000	-201.664	-52.374	0.000	52.374	-5.371
99.75	-8.951	-3.504	0.000	0.000	0.000	-143.183	-57.863	0.000	57.863	-5.657
100.0	-8.944	-3.466	0.000	0.000	0.000	-140.945	-58.159	0.000	58.159	-5.672
105.0	-8.649	-3.121	0.000	0.000	0.000	-96.225	-64.226	0.000	64.226	-5.915
108.5	-6.934	-1.792	0.000	0.000	0.000	-65.955	-68.610	0.000	68.610	-6.053
110.0	-6.852	-1.709	0.000	0.000	0.000	-55.554	-70.517	0.000	70.517	-6.103
115.0	-6.579	-1.466	0.000	0.000	0.000	-21.294	-76.965	0.000	76.965	-6.215
118.0	-6.381	0.000	0.000	0.000	0.000	-1.556	-80.874	0.000	80.874	-6.239

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
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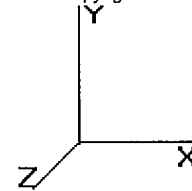
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Base Elev : 0.000 (ft)



Load Case: No Ice	90.00 mph Wind with No Ice	23 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.54	0.90	0.00	0.00	0.00	46.26	46.83	52.0	0.0	0.901
5.00	0.53	0.92	0.00	0.00	0.00	46.19	46.74	52.0	0.0	0.899
10.00	0.52	0.93	0.00	0.00	0.00	46.06	46.61	52.0	0.0	0.897
15.00	0.51	0.95	0.00	0.00	0.00	45.88	46.41	52.0	0.0	0.893
20.00	0.50	0.96	0.00	0.00	0.00	45.63	46.15	52.0	0.0	0.888
25.00	0.49	0.98	0.00	0.00	0.00	45.30	45.81	52.0	0.0	0.881
30.00	0.48	1.00	0.00	0.00	0.00	44.87	45.38	52.0	0.0	0.873
35.00	0.46	1.02	0.00	0.00	0.00	44.34	44.84	52.0	0.0	0.863
40.00	0.45	1.04	0.00	0.00	0.00	43.67	44.16	52.0	0.0	0.850
45.00	0.44	1.06	0.00	0.00	0.00	42.85	43.33	52.0	0.0	0.834
45.13	0.44	1.06	0.00	0.00	0.00	42.83	43.31	52.0	0.0	0.833
49.88	0.49	1.26	0.00	0.00	0.00	48.02	48.56	52.0	0.0	0.934
50.00	0.49	1.27	0.00	0.00	0.00	47.99	48.52	52.0	0.0	0.934
55.00	0.47	1.29	0.00	0.00	0.00	46.52	47.05	52.0	0.0	0.905
60.00	0.46	1.32	0.00	0.00	0.00	44.76	45.28	52.0	0.0	0.871
65.00	0.45	1.35	0.00	0.00	0.00	42.64	43.15	52.0	0.0	0.830
70.00	0.43	1.39	0.00	0.00	0.00	40.11	40.61	52.0	0.0	0.781
75.00	0.42	1.42	0.00	0.00	0.00	37.06	37.56	52.0	0.0	0.723
80.00	0.41	1.46	0.00	0.00	0.00	33.38	33.88	52.0	0.0	0.652
81.00	0.35	1.30	0.00	0.00	0.00	32.57	33.00	52.0	0.0	0.635
85.00	0.34	1.33	0.00	0.00	0.00	29.69	30.12	52.0	0.0	0.579
90.00	0.33	1.36	0.00	0.00	0.00	25.37	25.81	52.0	0.0	0.497
91.00	0.26	1.13	0.00	0.00	0.00	24.42	24.76	52.0	0.0	0.476
91.29	0.26	1.14	0.00	0.00	0.00	24.20	24.54	52.0	0.0	0.472
94.71	0.40	1.88	0.00	0.00	0.00	34.06	34.61	52.0	0.0	0.666
95.00	0.40	1.88	0.00	0.00	0.00	33.67	34.22	52.0	0.0	0.658
99.75	0.28	1.44	0.00	0.00	0.00	26.47	26.87	52.0	0.0	0.517
100.00	0.28	1.44	0.00	0.00	0.00	26.20	26.60	52.0	0.0	0.512
105.00	0.26	1.48	0.00	0.00	0.00	20.05	20.47	52.0	0.0	0.394
108.50	0.16	1.24	0.00	0.00	0.00	14.94	15.25	52.0	0.0	0.293
110.00	0.15	1.24	0.00	0.00	0.00	13.06	13.39	52.0	0.0	0.258
115.00	0.14	1.27	0.00	0.00	0.00	5.69	6.23	52.0	0.0	0.120
118.00	0.00	1.29	0.00	0.00	0.00	0.45	2.27	52.0	0.0	0.044

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

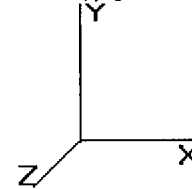
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Base Elev : 0.000 (ft)



Load Case: Ice

77.94 mph Wind with Ice

23 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 15.551	26.28 280.90	0.650	0.50	0.00	0.000	0.00	0.00	0.0	0.0	0.0
5.00		0.00	1.00 15.551	26.28 273.40	0.650	0.50	5.00	18.197	11.83	310.9	131.4	988.0	
10.00		0.00	1.00 15.551	26.28 265.91	0.650	0.50	5.00	17.716	11.52	302.6	127.9	961.0	
15.00		0.00	1.00 15.551	26.28 258.41	0.650	0.50	5.00	17.235	11.20	294.4	124.3	934.1	
20.00		0.00	1.00 15.551	26.28 250.91	0.650	0.50	5.00	16.754	10.89	286.2	120.7	907.1	
25.00		0.00	1.00 15.551	26.28 243.41	0.650	0.50	5.00	16.273	10.58	278.0	117.2	880.2	
30.00		0.00	1.00 15.551	26.28 235.91	0.650	0.50	5.00	15.791	10.26	269.8	113.6	853.2	
35.00		0.00	1.01 15.815	26.72 230.34	0.650	0.50	5.00	15.310	9.95	266.0	110.1	826.3	
40.00		0.00	1.05 16.430	27.76 227.06	0.650	0.50	5.00	14.829	9.64	267.6	106.5	799.4	
45.00		0.00	1.09 16.992	28.71 223.08	0.650	0.50	5.00	14.348	9.33	267.8	102.9	772.4	
45.13	Bot - Section 2	0.00	1.09 17.006	28.74 222.97	0.650	0.50	0.13	0.367	0.24	6.8	2.7	19.8	
49.88	Top - Section 1	0.00	1.12 17.499	29.57 218.62	0.650	0.50	4.75	13.421	8.72	258.0	96.3	1,232.6	
50.00		0.00	1.12 17.511	29.59 222.81	0.650	0.50	0.12	0.333	0.22	6.4	2.4	15.4	
55.00		0.00	1.15 17.995	30.41 217.80	0.650	0.50	5.00	13.646	8.87	269.8	97.7	628.3	
60.00		0.00	1.18 18.448	31.17 212.36	0.650	0.50	5.00	13.165	8.56	266.8	94.2	605.2	
65.00		0.00	1.21 18.874	31.89 206.54	0.650	0.50	5.00	12.684	8.24	263.0	90.6	582.2	
70.00		0.00	1.24 19.278	32.58 200.38	0.650	0.50	5.00	12.203	7.93	258.4	87.0	559.1	
75.00		0.00	1.26 19.662	33.22 193.94	0.650	0.50	5.00	11.722	7.62	253.2	83.5	536.1	
80.00		0.00	1.28 20.028	33.84 187.22	0.650	0.50	5.00	11.241	7.31	247.3	79.9	513.0	
81.00	Appertunance(s)	0.00	1.29 20.099	33.96 185.85	0.650	0.50	1.00	2.190	1.42	48.4	15.8	100.1	
85.00		0.00	1.31 20.378	34.43 180.27	0.650	0.50	4.00	8.569	5.57	191.8	61.1	390.4	
90.00		0.00	1.33 20.714	35.00 173.09	0.650	0.50	5.00	10.279	6.68	233.9	72.8	466.9	
91.00	Appertunance(s)	0.00	1.33 20.779	35.11 171.63	0.650	0.50	1.00	1.998	1.30	45.6	14.4	90.9	
91.29	Bot - Section 3	0.00	1.33 20.798	35.14 171.20	0.650	0.50	0.29	0.582	0.38	13.3	4.2	26.5	
94.71	Top - Section 2	0.00	1.35 21.018	35.52 166.14	0.650	0.50	3.42	6.769	4.40	156.3	48.2	459.2	
95.00		0.00	1.35 21.036	35.55 168.54	0.650	0.50	0.29	0.564	0.37	13.0	4.1	17.1	
99.75	Appertunance(s)	0.00	1.37 21.331	36.05 161.38	0.650	0.50	4.75	9.011	5.86	211.1	63.7	271.2	
100.0		0.00	1.37 21.347	36.07 160.99	0.650	0.50	0.25	0.462	0.30	10.8	3.3	14.0	
105.0		0.00	1.39 21.646	36.58 153.27	0.650	0.50	5.00	8.992	5.84	213.8	63.3	269.7	
108.5	Appertunance(s)	0.00	1.40 21.850	36.92 147.77	0.650	0.50	3.50	6.008	3.91	144.2	42.5	180.1	
110.0		0.00	1.41 21.936	37.07 145.39	0.650	0.50	1.50	2.503	1.63	60.3	17.9	75.1	
115.0		0.00	1.42 22.216	37.54 137.35	0.650	0.50	5.00	8.029	5.22	196.0	56.1	239.2	
118.0	Appertunance(s)	0.00	1.43 22.380	37.82 132.46	0.650	0.50	3.00	4.587	2.98	112.8	32.4	136.6	
Totals:								118.00			6,024.3	2,189.0	15,350.6

Pole: CT0915
 Location: Newtown, CT
 Height: 118.0 (ft)
 Shape: 18 Sides
 Base Dia: 43.25 (in)
 Top Dia: 17.00 (in)
 Taper: 0.230926 (in/ft)

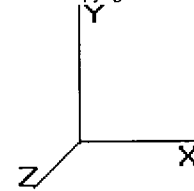
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Base Elev: 0.000 (ft)



Load Case: Ice

77.94 mph Wind with Ice

23 Iterations

Gust Response Factor: 1.69
 Dead Load Factor: 1.00
 Wind Load Factor: 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
81.00	Low Profile platform	1	20.099	33.968	1.000	18.40	0.000	0.000	625.00	0.00	0.00	1,650.00
81.00	S20057A1 TMA	6	20.099	33.968	0.740	4.53	0.000	0.000	153.83	0.00	0.00	98.46
81.00	APX16DWV-16DWV	6	20.099	33.968	0.620	27.60	0.000	0.000	937.59	0.00	0.00	297.72
91.00	Low Profile platform	1	20.779	35.117	1.000	28.20	0.000	0.000	990.28	0.00	0.00	2,250.00
91.00	DR65-19-00DPQ	6	20.779	35.117	0.670	37.10	0.000	0.000	1,302.98	0.00	0.00	444.00
99.75	Low Profile platform	1	21.331	36.050	1.000	28.20	0.000	0.000	1,016.60	0.00	0.00	2,250.00
99.75	DB844H90	12	21.331	36.050	0.910	49.36	0.000	0.000	1,779.36	0.00	0.00	420.00
108.5	Low Profile platform	1	21.850	36.926	1.000	18.40	0.000	0.000	679.44	0.00	0.00	1,650.00
108.5	DB980H90	6	21.850	36.926	0.670	15.48	0.000	0.000	571.51	0.00	0.00	168.00
118.0	DB222	2	22.662	38.300	1.000	10.32	0.000	5.290	395.25	0.00	2,090.88	80.00
118.0	Low Profile Platform	1	22.380	37.823	1.000	27.32	0.000	0.000	1,033.31	0.00	0.00	2,100.00
118.0	DB848H90E	9	22.380	37.823	0.910	75.76	0.000	0.000	2,865.35	0.00	0.00	702.00
118.0	TMA's	3	22.380	37.823	0.930	7.81	0.000	0.000	295.47	0.00	0.00	54.75
118.0	DR65-19	3	22.380	37.823	0.670	18.55	0.000	0.000	701.70	0.00	0.00	222.00
									13,347.68			12,386.93

*Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

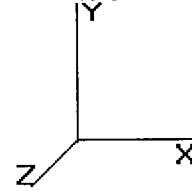
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Base Elev : 0.000 (ft)



Load Case: Ice

77.94 mph Wind with Ice

23 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Applied Segment Forces Summary

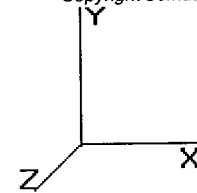
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	310.86	1,318.17	0.00	0.00
10.00	302.64	1,291.22	0.00	0.00
15.00	294.42	1,264.28	0.00	0.00
20.00	286.20	1,237.34	0.00	0.00
25.00	277.98	1,210.39	0.00	0.00
30.00	269.76	1,183.45	0.00	0.00
35.00	265.98	1,156.50	0.00	0.00
40.00	267.64	1,129.56	0.00	0.00
45.00	267.82	1,102.61	0.00	0.00
45.13	6.85	28.35	0.00	0.00
49.88	257.99	1,546.27	0.00	0.00
50.00	6.41	23.33	0.00	0.00
55.00	269.75	958.47	0.00	0.00
60.00	266.79	935.42	0.00	0.00
65.00	262.99	912.37	0.00	0.00
70.00	258.43	889.33	0.00	0.00
75.00	253.18	866.28	0.00	0.00
80.00	247.31	843.23	0.00	0.00
81.00	1,764.79	2,212.35	0.00	0.00
85.00	191.83	606.59	0.00	0.00
90.00	233.88	737.14	0.00	0.00
91.00	2,338.87	2,838.95	0.00	0.00
91.29	13.30	38.24	0.00	0.00
94.71	156.28	595.99	0.00	0.00
95.00	13.04	28.72	0.00	0.00
99.75	3,007.10	3,131.38	0.00	0.00
100.0	10.84	20.98	0.00	0.00
105.0	213.81	409.94	0.00	0.00
108.5	1,395.15	2,096.26	0.00	0.00
110.0	60.31	99.18	0.00	0.00
115.0	195.96	319.43	0.00	0.00
118.0	5,403.84	3,343.52	0.00	2,090.88
Totals:	19,371.98	34,375.24	0.00	2,090.88

* Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Ice	77.94 mph Wind with Ice	23 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-19.436	-34.338	0.000	0.000	0.000	-1,818.143	0.000	0.000	0.000	0.000
5.00	-19.247	-32.949	0.000	0.000	0.000	-1,720.965	-0.114	0.000	0.114	-0.212
10.00	-19.059	-31.586	0.000	0.000	0.000	-1,624.734	-0.453	0.000	0.453	-0.430
15.00	-18.872	-30.250	0.000	0.000	0.000	-1,529.442	-1.023	0.000	1.023	-0.654
20.00	-18.686	-28.942	0.000	0.000	0.000	-1,435.085	-1.831	0.000	1.831	-0.883
25.00	-18.502	-27.660	0.000	0.000	0.000	-1,341.655	-2.881	0.000	2.881	-1.117
30.00	-18.319	-26.405	0.000	0.000	0.000	-1,249.147	-4.180	0.000	4.180	-1.357
35.00	-18.132	-25.178	0.000	0.000	0.000	-1,157.555	-5.733	0.000	5.733	-1.602
40.00	-17.936	-23.978	0.000	0.000	0.000	-1,066.898	-7.545	0.000	7.545	-1.852
45.00	-17.682	-22.846	0.000	0.000	0.000	-977.220	-9.621	0.000	9.621	-2.106
45.13	-17.725	-22.778	0.000	0.000	0.000	-974.921	-9.679	0.000	9.679	-2.113
49.88	-17.452	-21.205	0.000	0.000	0.000	-890.731	-11.906	0.000	11.906	-2.359
50.00	-17.501	-21.136	0.000	0.000	0.000	-888.637	-11.966	0.000	11.966	-2.365
55.00	-17.293	-20.102	0.000	0.000	0.000	-801.133	-14.599	0.000	14.599	-2.657
60.00	-17.078	-19.094	0.000	0.000	0.000	-714.672	-17.539	0.000	17.539	-2.950
65.00	-16.858	-18.112	0.000	0.000	0.000	-629.284	-20.785	0.000	20.785	-3.241
70.00	-16.632	-17.158	0.000	0.000	0.000	-544.999	-24.333	0.000	24.333	-3.527
75.00	-16.401	-16.232	0.000	0.000	0.000	-461.841	-28.176	0.000	28.176	-3.805
80.00	-16.138	-15.365	0.000	0.000	0.000	-379.839	-32.303	0.000	32.303	-4.070
81.00	-14.249	-13.252	0.000	0.000	0.000	-363.701	-33.160	0.000	33.160	-4.123
85.00	-14.060	-12.609	0.000	0.000	0.000	-306.706	-36.699	0.000	36.699	-4.321
90.00	-13.797	-11.861	0.000	0.000	0.000	-236.406	-41.344	0.000	41.344	-4.546
91.00	-11.244	-9.212	0.000	0.000	0.000	-222.610	-42.300	0.000	42.300	-4.590
91.29	-11.240	-9.160	0.000	0.000	0.000	-219.313	-42.583	0.000	42.583	-4.603
94.71	-11.046	-8.565	0.000	0.000	0.000	-180.911	-45.925	0.000	45.925	-4.740
95.00	-11.052	-8.510	0.000	0.000	0.000	-177.706	-46.213	0.000	46.213	-4.751
99.75	-7.801	-5.629	0.000	0.000	0.000	-125.211	-51.069	0.000	51.069	-5.003
100.0	-7.800	-5.593	0.000	0.000	0.000	-123.261	-51.331	0.000	51.331	-5.015
105.0	-7.565	-5.182	0.000	0.000	0.000	-84.261	-56.696	0.000	56.696	-5.228
108.5	-5.987	-3.216	0.000	0.000	0.000	-57.782	-60.572	0.000	60.572	-5.349
110.0	-5.922	-3.114	0.000	0.000	0.000	-48.801	-62.258	0.000	62.258	-5.393
115.0	-5.700	-2.809	0.000	0.000	0.000	-19.190	-67.958	0.000	67.958	-5.492
118.0	-5.404	0.000	0.000	0.000	0.000	-2.091	-71.414	0.000	71.414	-5.514

Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

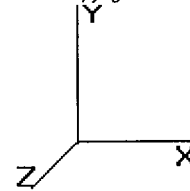
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Base Elev : 0.000 (ft)



Load Case: Ice

77.94 mph Wind with Ice

23 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Combined (ksi)	Allowable Stress (Fb) (ksi)	Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)				
0.00	0.67	0.77	0.00	0.00	0.00	40.42	41.12	52.0	0.0	0.791
5.00	0.66	0.78	0.00	0.00	0.00	40.42	41.10	52.0	0.0	0.791
10.00	0.65	0.80	0.00	0.00	0.00	40.37	41.05	52.0	0.0	0.790
15.00	0.64	0.81	0.00	0.00	0.00	40.27	40.94	52.0	0.0	0.788
20.00	0.64	0.83	0.00	0.00	0.00	40.12	40.78	52.0	0.0	0.785
25.00	0.63	0.84	0.00	0.00	0.00	39.89	40.54	52.0	0.0	0.780
30.00	0.62	0.86	0.00	0.00	0.00	39.57	40.22	52.0	0.0	0.774
35.00	0.61	0.88	0.00	0.00	0.00	39.16	39.80	52.0	0.0	0.766
40.00	0.60	0.90	0.00	0.00	0.00	38.63	39.26	52.0	0.0	0.755
45.00	0.59	0.92	0.00	0.00	0.00	37.96	38.58	52.0	0.0	0.742
45.13	0.59	0.92	0.00	0.00	0.00	37.94	38.56	52.0	0.0	0.742
49.88	0.67	1.11	0.00	0.00	0.00	42.59	43.30	52.0	0.0	0.833
50.00	0.67	1.11	0.00	0.00	0.00	42.56	43.27	52.0	0.0	0.832
55.00	0.66	1.14	0.00	0.00	0.00	41.31	42.01	52.0	0.0	0.808
60.00	0.65	1.17	0.00	0.00	0.00	39.79	40.49	52.0	0.0	0.779
65.00	0.64	1.20	0.00	0.00	0.00	37.94	38.64	52.0	0.0	0.743
70.00	0.63	1.23	0.00	0.00	0.00	35.70	36.40	52.0	0.0	0.700
75.00	0.62	1.27	0.00	0.00	0.00	32.99	33.69	52.0	0.0	0.648
80.00	0.62	1.31	0.00	0.00	0.00	29.71	30.41	52.0	0.0	0.585
81.00	0.54	1.16	0.00	0.00	0.00	28.98	29.58	52.0	0.0	0.569
85.00	0.53	1.19	0.00	0.00	0.00	26.37	26.98	52.0	0.0	0.519
90.00	0.52	1.23	0.00	0.00	0.00	22.45	23.08	52.0	0.0	0.444
91.00	0.41	1.01	0.00	0.00	0.00	21.58	22.06	52.0	0.0	0.425
91.29	0.41	1.02	0.00	0.00	0.00	21.39	21.87	52.0	0.0	0.421
94.71	0.65	1.69	0.00	0.00	0.00	30.02	30.81	52.0	0.0	0.593
95.00	0.65	1.69	0.00	0.00	0.00	29.67	30.45	52.0	0.0	0.586
99.75	0.45	1.26	0.00	0.00	0.00	23.15	23.70	52.0	0.0	0.456
100.00	0.45	1.26	0.00	0.00	0.00	22.92	23.47	52.0	0.0	0.451
105.00	0.44	1.29	0.00	0.00	0.00	17.55	18.13	52.0	0.0	0.349
108.50	0.28	1.07	0.00	0.00	0.00	13.09	13.50	52.0	0.0	0.260
110.00	0.28	1.07	0.00	0.00	0.00	11.47	11.90	52.0	0.0	0.229
115.00	0.27	1.10	0.00	0.00	0.00	5.13	5.73	52.0	0.0	0.110
118.00	0.00	1.09	0.00	0.00	0.00	0.61	1.98	52.0	0.0	0.038

* Pole : CT0915
 Location : Newtown, CT
 Height : 118.0 (ft)
 Shape : 18 Sides
 Base Dia : 43.25 (in)
 Top Dia : 17.00 (in)
 Taper : 0.230926 (in/ft)

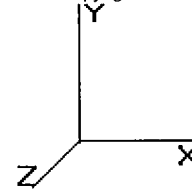
Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)



Analysis Summary

Load Case	Reactions						Max Stresses			
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	22.9	0.00	27.71	0.00	0.00	2080.86	48.56	52.0	49.88	0.934
Ice	19.4	0.00	34.34	0.00	0.00	1818.14	43.30	52.0	49.88	0.833

Technical Memo

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at 8 Ferris Rd, Newtown, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

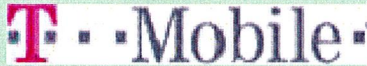
- 1) The emissions from T-Mobile transmitters are in the 1940-1950 MHz frequency band.
- 2) The antenna array consists of three sectors, with 2 antenna per sector.
- 3) The model number for each antenna is APX16DWV-16DWV-S-E-AW.
- 4) The antenna center line height is 81 ft.
- 5) The maximum transmit power from any sector is 2334.1 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
- 6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
- 7) Power levels emitting from the antennas 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.
- 8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a Monopole at 8 Ferris Rd, Newtown, CT, is 0.09104 mW/cm². This value represents 9.104% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm²) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or The combined Power Density from other carriers is 20.5%. The combined Power Density for the site is 29.604% of the M.P.E. standard.

New England Market



Connecticut

Worst Case Power Density

Site:	CT11805A
Site Address:	8 Ferris Rd
Town:	Newtown
Tower Height:	120 ft.
Tower Style:	Monopole
Base Station TX output	20 W
Number of channels	8
Antenna Model	APX16DWV-16DWV-S-E-AW
Cable Size	7/8 in.
Cable Length	100 ft.
Antenna Height	81.0 ft.
Ground Reflection	1.6
Frequency	1940.0 MHz
Jumper & Connector loss	4.50 dB
Antenna Gain	18.0 dBi
Cable Loss per foot	0.0186 dB
Total Cable Loss	1.8600 dB
Total Attenuation	6.3600 dB
Total EIRP per Channel (In Watts)	54.65 dBm 291.76 W
Total EIRP per Sector (In Watts)	63.68 dBm 2334.10 W
nsg	11.6400
Power Density (S) =	0.091037 mW/cm^2
T-Mobile Worst Case % MPE =	9.1037%
Equation Used :	$S = \frac{(1000 \text{ (grf)})^2 (\text{Power}) \cdot 10^{(\text{m} \text{ (g10)})}}{4 \pi (R)^2}$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total	
Carrier	% of Standard
Verizon	12.2500 %
Sprint PCS	4.1300 %
Nextel	4.0000 %
Cingular	0.1200 %
Total Excluding T-Mobile	20.5000 %
T-Mobile	9.1037
Total % MPE for Site	29.6037%