TRM
Convergent Network Solutions

February 27, 2015

Via Hand Delivery

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Request of Light Squared for an Order to Approve the Shared Use of the Existing Tower located at 14 Oxford Drive, Shelton, CT**

Dear Ms. Bachman:

Light Squared, Inc. ("Light Squared") intends to install antennas on the existing 200-foot self-supporting tower owned by American Tower Corporation at 14 Oxford Drive, Shelton, CT. Light Squared hereby requests an order from the Connecticut Siting Council ("Council") to approve the shared use by Light Squared of an existing telecommunications facility pursuant to Conn. Gen. Stat. § 16-50aa. Light Squared requests that the council find the proposed shared use of the tower satisfies the criteria of Conn. Gen. Stat. § 16-50aa and issue an order approving the proposed shared use. A copy of this letter is also being sent to Mark Lauretti, City Manager, City of Shelton and to American Tower who is the owner of the property on which the tower is located.

Background

The facility consists of a 200-foot self-supporting tower capable of supporting multiple carriers within a fenced compound at 14 Oxford Drive, Shelton, CT (Latitude 41 16' 48.59" N and Longitude 73 11' 7.68'). This existing tower has other approved carriers installed that were previously approved by the Connecticut Siting Council. Light Squared intends to install one (1) antenna on the existing tower at the 90-foot level. An associated equipment rack will be placed inside an existing shelter within the existing compound on the ground near the base of the tower, within the fenced compound. Attached behind Exhibit A are Project Plans for the proposed Light Squared facility.

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

1. The proposal is technically, legally, environmentally and economically feasible and meets public safety concerns per Conn. Gen. Stat. § 16-50aa.

A. **Technical Feasibility.** The existing tower is structurally capable of supporting Light Square's proposed improvements. The proposed shared use is therefore technically feasible. Please see the structural analysis attached in Exhibit B.

B. **Legal Feasibility.** Per Conn. Gen. Stat. § 16-50aa, the Council has been authorized to issue orders approving the shared use of the existing tower. The tower share request fulfills the intent of Conn. Gen. Stat. § 16-50aa to avoid unnecessary towers to be built.

C. **Environmental Feasibility.** The proposed shared use would have a minimal effect for the following reasons:

1. The proposed installation will not increase the height of the Tower and will be consistent with other installations at the site. The Light Squared facility will not create any significant change or alteration to the physical or environmental characteristics of the existing facility.
2. The equipment rack that is being installed at the site is being placed inside an existing shelter so it will not create any additional noise at the facility.
3. The operation of the additional equipment would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. Please see report attached in Exhibit D.

D. **Economic Feasibility.** Light Squared has entered into a mutual agreement with American Tower to share use of the facility on agreeable terms to both parties. Therefore the tower share is economically feasible.

E. **Public Safety:** As noted above the tower is structurally capable of supporting the new equipment proposed by Light Squared and a structural report has been provided in the following exhibit. The additional service that the Light Squared installation will provide will enhance the safety and welfare of local residents and those traveling the roads in the area.

2. Engineering drawings are attached in Exhibit A that depict the existing facility and appurtenances and show modifications to be made.

3. An engineering structural analysis is attached in Exhibit B describing the existing tower's structural capability to accommodate the proposed modifications. The analysis is also stamped by a Professional Engineer licensed in the State of Connecticut.

4. Exhibit C is a letter from the owner of the facility American Tower which shows that the owner agrees to the proposed shared use of the facility.

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5. There is no potential environmental impact associated with the proposed shared use, including, but not limited to, on visibility, wetlands and water resources, air quality and noise. The rack that is being installed will be placed inside an existing shelter so no additional noise will be generated.

6. Exhibit D shows the calculation, based on an approved methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), of the power density of the radio frequency emissions to be generated by the existing antennas and the antennas to be installed. The proposed modification is within the allowed limits.

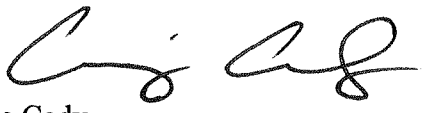
Conclusion

For the foregoing reasons, the proposed shared use of the existing tower at 14 Oxford Drive, Shelton, CT satisfies the criteria of Conn. Gen. Stat. § 16-50aa and advances the Councils goal of preventing unnecessary proliferation of additional towers in the State of Connecticut. Light Squared respectfully requests that the Connecticut Siting Council issue an order approving the proposed shared use of the existing facility.

Attached to the application is one original and 15 copies of the tower share application with a $625 filing fee. (Conn. Gen. Stat. §4-189j; Regs., Conn. State Agencies §16-50v-1a).

Please contact me with any questions or concerns 978-852-7520.

Sincerely,



Craig Cody

Agent for Light Squared

Tower Resource Management

16 Chestnut Street, Suite 220

Foxborough, MA 02035

781-831-1281

ccody@trmcom.com

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Exhibit A

Drawings

Exhibit B

Structural Analysis

Exhibit C

Owner Letter

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Exhibit D

Noise Study

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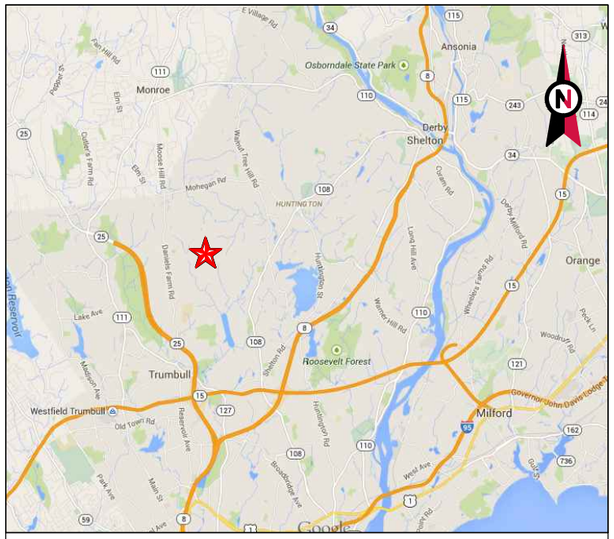
Exhibit E

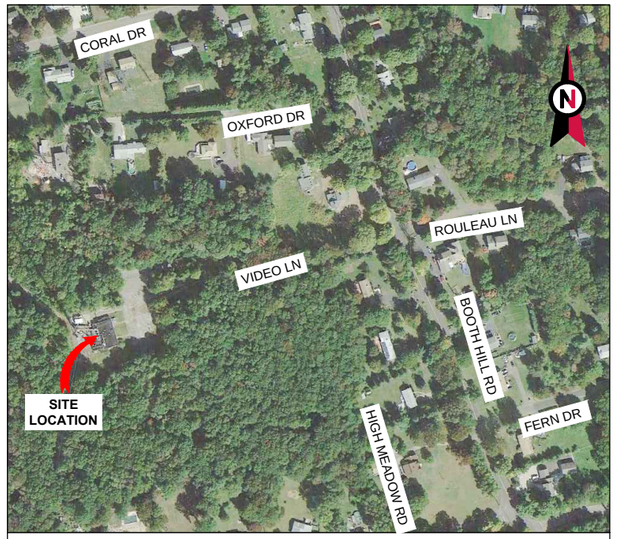
Power Density Calculations



VICINITY MAP

AMERICAN TOWER®

SITE NAME: CONN 2
SITE NUMBER: 88017
SITE ADDRESS: 14 OXFORD DR
SHELTON, CT 06611



LOCATION MAP

LIGHTSQUARED EXPANSION PROJECT

COMPLIANCE CODE

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

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: CONNECTICUT LIGHT AND POWER
PHONE: (888) 783-6617

TELEPHONE COMPANY: AT&T
PHONE: (800) 331-0500

PROJECT SUMMARY

SITE ADDRESS:

14 OXFORD DR
SHELTON, CT 06611
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41° 16' 48.59" N
LONGITUDE: 73° 11' 7.68" W
GROUND ELEVATION: 517'

ZONING DISTRICT:

R1 - RESIDENTIAL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER CORPORATION
116 HUNTINGTON AVE
BOSTON, MA 02116

PROPERTY OWNER:

AMERICAN TOWER CORPORATION
116 HUNTINGTON AVE
BOSTON, MA 02116

ENGINEER:

ATC TOWER SERVICES
3500 REGENCY PARKWAY SUITE 100
CARY, NC 27518

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES PLACING A NEW EQUIPMENT RACK INSIDE AN EXISTING SHELTER WITHIN THE EXISTING COMPOUND, AND INSTALLING A NEW ANTENNA MOUNTED ON THE EXISTING TOWER.

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM SHELTON:

FROM RT 8 TAKE EXIT 14 TO 110 SOUTH TO 108 S.W. INTO HUNINGTON, CT. IN CENTER OF TOWN TAKE RIGHT ONTO WAVERLY ROAD. GO 2.5 MILES TO TO BOOTH HILL RD. TURN LEFT AND PROCEED TO NEXT STOP SIGN. PROCEED STRAIGHT 0.1 MILES. TAKE ACCESS ROAD TO SITE.

811 Know what's below. Call before you dig.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
T-1	TITLE SHEET	0	01/21/15	ZDR
GN-1	GENERAL NOTES	0	01/21/15	ZDR
C-1	DETAILED SITE PLAN & TOWER ELEVATION	0	01/21/15	ZDR
C-2	ANTENNA INFORMATION	0	01/21/15	ZDR
C-3	CONSTRUCTION DETAILS	0	01/21/15	BRL
E-1	ELECTRICAL RISER DIAGRAM AND NOTES	0	01/21/15	ZDR
E-2	GROUNDING LAYOUT	0	01/21/15	ZDR
E-3	STANDARD GROUNDING DETAILS	0	01/21/15	ZDR

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	01/21/15

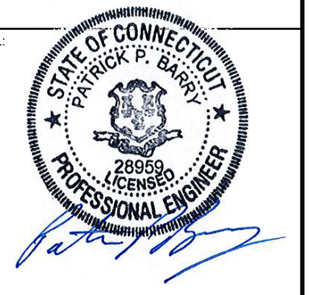
ATC SITE NUMBER:
88017

ATC SITE NAME:
SHELTON/TRUMBULL

SITE ADDRESS:
14 OXFORD DR
SHELTON, CT 06611

LightSquared

SEAL:



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DRAWN BY:	ZDR
APPROVED BY:	KRF
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:	REVISION NUMBER:
T-1	0

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE ATC CM PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE ATC CM PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE ATC CM, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ATC CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE ATC CONSTRUCTION MANAGER IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH ATC WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CM TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CONSTRUCTION MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY ATC. ALL REQUIRED PERMITS NOT OBTAINED BY ATC MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH ATC SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ATC FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO ATC SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY ATC CM A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE ATC CM. ANY WORK FOUND BY THE ATC CM TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

CONCRETE AND REINFORCING STEEL NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. MIX DESIGN SHALL BE APPROVED BY ATC CM PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (+/- 1.5%) WITH A SLUMP RANGE OF 3-6" AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:

PORTLAND CEMENT:	ASTM C150, TYPE 2
REINFORCEMENT:	ASTM A185, PLAIN STEEL WELDED WIRE FABRIC
REINFORCEMENT BARS:	ASTM A615, GRADE 60, DEFORMED
NORMAL WEIGHT AGGREGATE:	ASTM C33
WATER:	ASTM C 94/C 94M
ADMIXTURES:	
-WATER-REDUCING AGENT:	ASTM C 494/C 494M, TYPE A
-AIR-ENTERING AGENT:	ASTM C 260/C 260M
-SUPERPLASTICIZER:	ASTM C494, TYPE F OR TYPE G
-RETARDING:	ASTM C 494/C 494M, TYPE B

5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE NO LESS THAN 3".
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ATC CM APPROVAL WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN "METHOD 1" OF ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. DO NOT ALLOW REINFORCEMENT, CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
14. FOR COLD-WEATHER(ACI 306) AND HOT-WEATHER(ACI 301M) CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
15. ALL CONCRETE SHALL HAVE A "SMOOTH FORM FINISH."
16. UNLESS OTHERWISE NOTED:
    A. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615/A 615M/A-996, GRADE 60.
    B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
17. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
18. REINFORCING BAR DEVELOPMENT LENGTHS, AS COMPUTED IN ACCORDANCE WITH ACI 318, FORM THE BASIS FOR BAR EMBEDMENT LENGTHS AND BAR SPLICED LENGTHS SHOWN IN THE DRAWINGS. APPLY APPROPRIATE MODIFICATION FACTORS FOR TOP STEEL, BAR SPACING, COVER AND THE LIKE.
19. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
20. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
21. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS.
22. SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 6".
23. BAR SUPPORTS SHALL BE ALL-GALVINIZED METAL WITH PLASTIC TIPS.
24. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. TIE WIRE SHALL BE OF SUFFICIENT STRENGTH FOR INTENDED PURPOSE, BUT NOT LESS THAN NO. 18 GAUGE.
25. SLAB ON GROUND:
    A. COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" GRAVEL BENEATH SLAB.
    B. PROVIDE VAPOR BARRIER BENEATH SLAB ON GROUND.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
    A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
    B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
    C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
    D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
    E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
    A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
    B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
    C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
    D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
    E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
    F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
    G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	01/21/15

ATC SITE NUMBER:
88017
ATC SITE NAME:
SHELTON/TRUMBULL
SITE ADDRESS:
14 OXFORD DR
SHELTON, CT 06611

LIGHTSQUARED

SEAL:

Jan 21 2015 1:44 PM

DRAWN BY:	ZDR
APPROVED BY:	KRF
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:	REVISION NUMBER:
GN-1	0

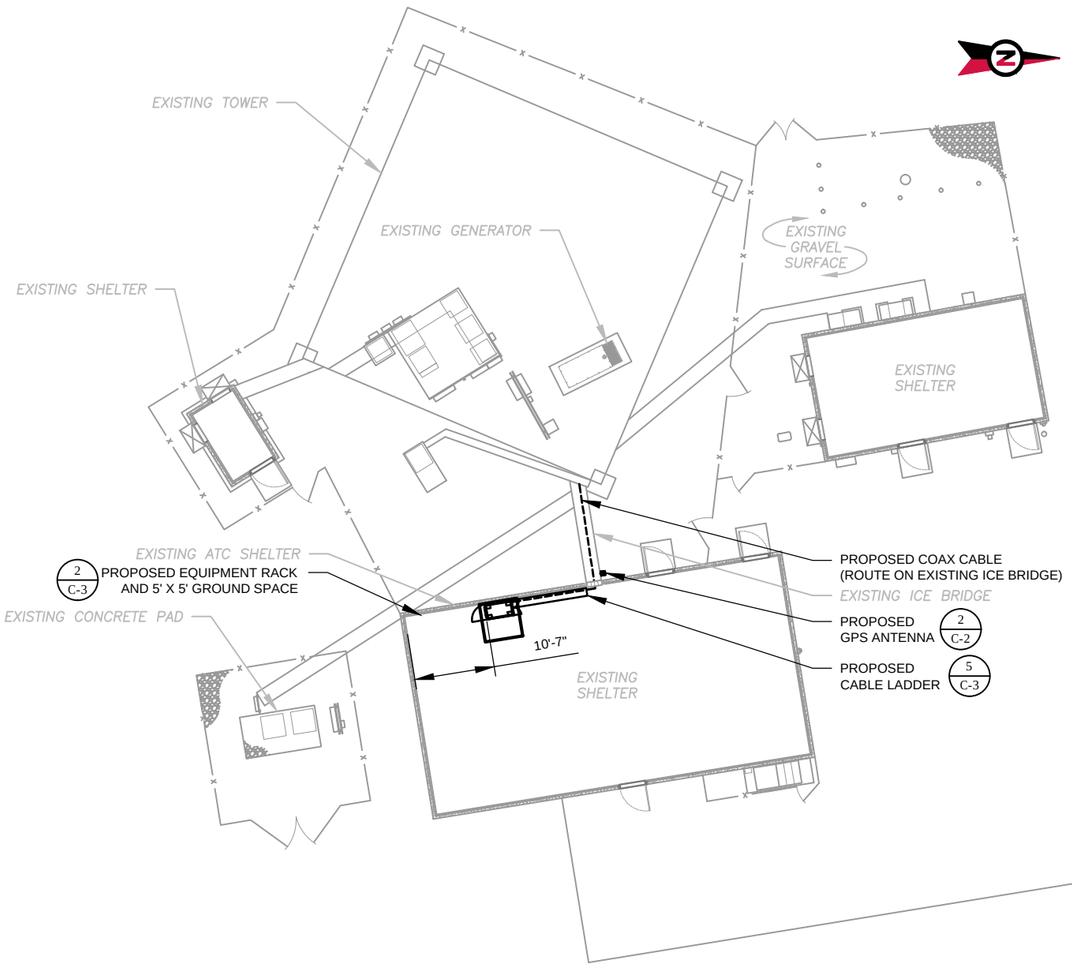
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ATC CONSTRUCTION MANAGER AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.

4. USE EXISTING WAVEGUIDE LADDER/MOUNT FOR VERTICAL CABLE RUN WHERE FEASIBLE.



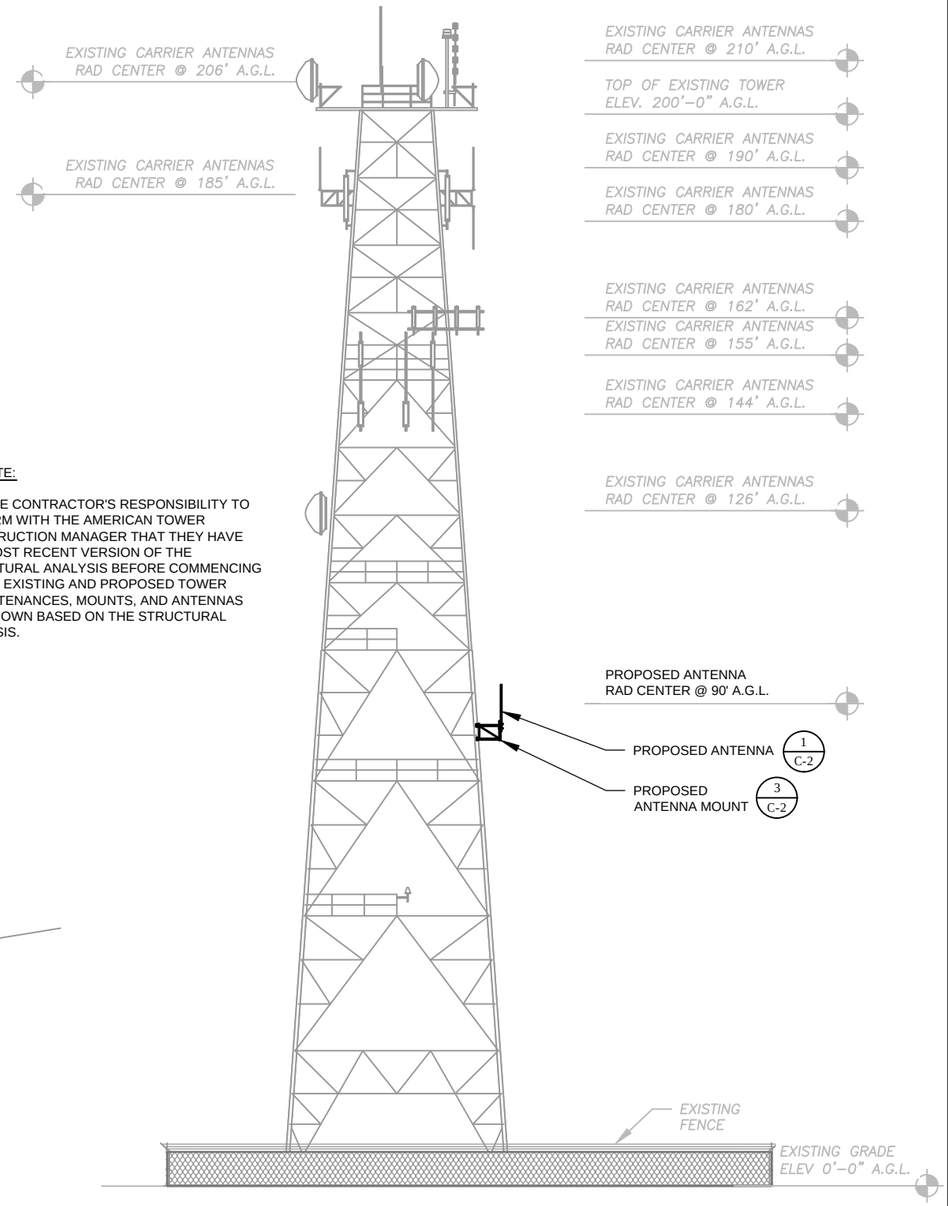
1 DETAILED SITE PLAN

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.



2 TOWER ELEVATION

SCALE: NOT TO SCALE

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ATC TOWER SERVICES
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CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	01/21/15

ATC SITE NUMBER:

88017

ATC SITE NAME:

SHELTON/TRUMBULL

SITE ADDRESS:
14 OXFORD DR
SHELTON, CT 06611

LIGHTSQUARED

SEAL:

STATE OF CONNECTICUT
PATRICK P. BARRY
28959
LICENSED
PROFESSIONAL ENGINEER

Jan 21 2015 1:44 PM

DRAWN BY:	ZDR
APPROVED BY:	KRF
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:

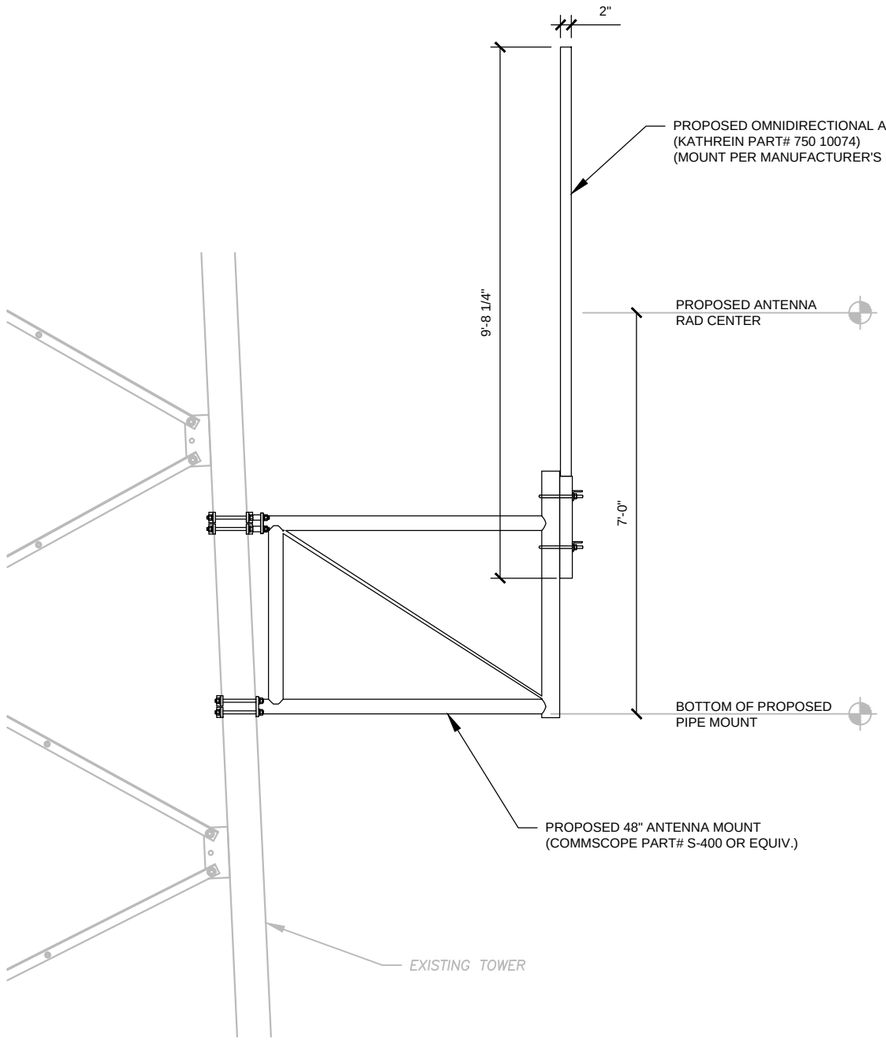
DETAILED SITE PLAN & TOWER ELEVATION

SHEET NUMBER:	REVISION NUMBER:
C-1	0

RF SHEDULE & B.O.M.							
ITEM	MANUFACTURER	PART NUMBER	SUPPLIER	QUANTITY	LENGTH	RAD CENTER	AZIMUTH (TRUE NORTH)
OMNI ANTENNA	KATHREIN	750-10074	LIGHTSQUARED	1	N/A	90'-0"	0°
GPS ANTENNA	PCTEL	GPS-TMG-HR-26N	LIGHTSQUARED	1	N/A	12'±	180°
COAX	COMMSCOPE	FXL-1873 1-5/8"Ø	CONTRACTOR	1	140'±	N/A	N/A
COAX JUMPER	COMMSCOPE	LDF4-50A 1/2"Ø	CONTRACTOR	2	6' EA.	N/A	N/A
GPS COAX	COMMSCOPE	LDF4-50A 1/2"Ø	CONTRACTOR	1	35'±	N/A	N/A
1. BASED ON BUILD PLAN GUIDANCE THRU 11/2014. CONFIRM WITH ATC CM FOR APPLICABLE UPDATES/REVISIONS.							
2. CONTRACTOR SHALL SUPPLY ALL CONNECTORS WHICH ARE 7/16 DIN - MALE EXCEPT FOR GPS AND THEY ARE N-MALE.							

1 RF SCHEDULE

SCALE: NOT TO SCALE

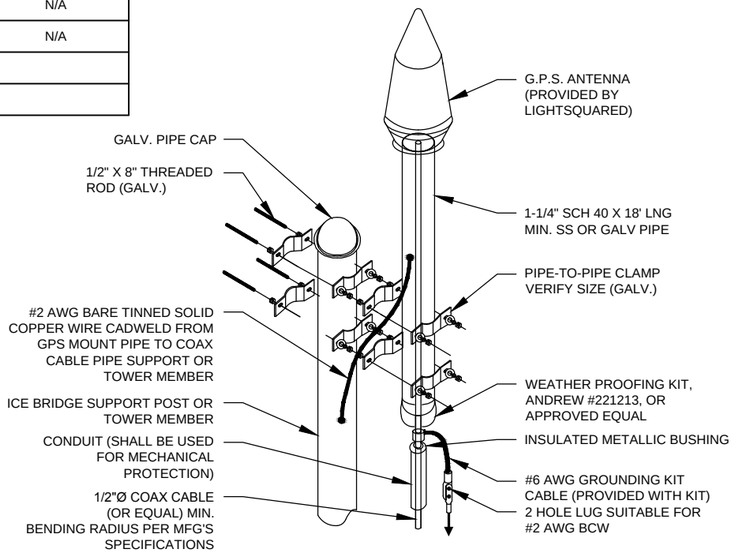


3 PROPOSED ANTENNA MOUNTING DETAIL (ELEVATION)

SCALE: NOT TO SCALE

NOTES:

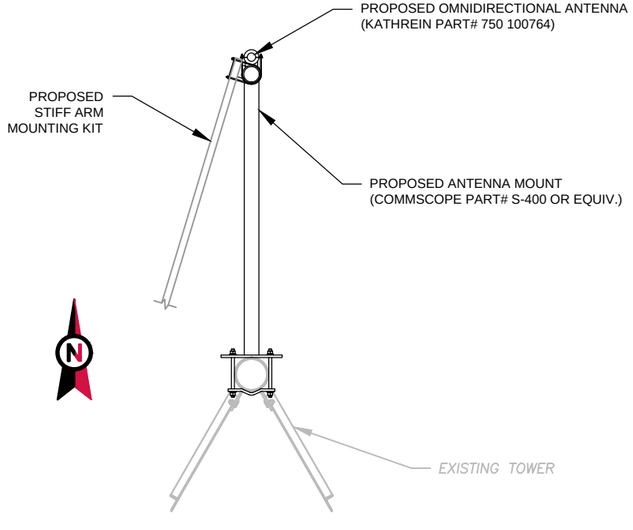
1. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
2. SPACING OF PROPOSED EQUIPMENT SHALL BE CONFIRMED FOR TOWER CONFLICTS AND PROPOSED MOUNTS SHALL NOT IMPEDE TOWER CLIMBING PEGS.
3. PROPOSED ANTENNA MOUNT SHALL BE INSTALLED ACCORDING TO COMMSCOPE SPECIFICATIONS.



NOTE: GPS SHALL BE PLACED WITH CLEAR SIGHT LINE TO THE SOUTHERN SKY

2 GPS ANTENNA ATTACHMENT

SCALE: NOT TO SCALE



NOTE: MOUNT ON TOWER LEG CLOSEST TO 0° AZIMUTH UNLESS NOTED OTHERWISE.

4 PROPOSED ANTENNA MOUNTING DETAIL (PLAN VIEW)

SCALE: NOT TO SCALE

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CARY, NC 27518
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COA: 6260F

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0	FOR CONSTRUCTION	ZDR	01/21/15

ATC SITE NUMBER:

88017

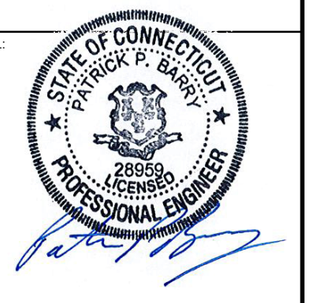
ATC SITE NAME:

SHELTON/TRUMBULL

SITE ADDRESS:
14 OXFORD DR
SHELTON, CT 06611

LIGHTSQUARED

SEAL:



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DRAWN BY:	ZDR
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DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

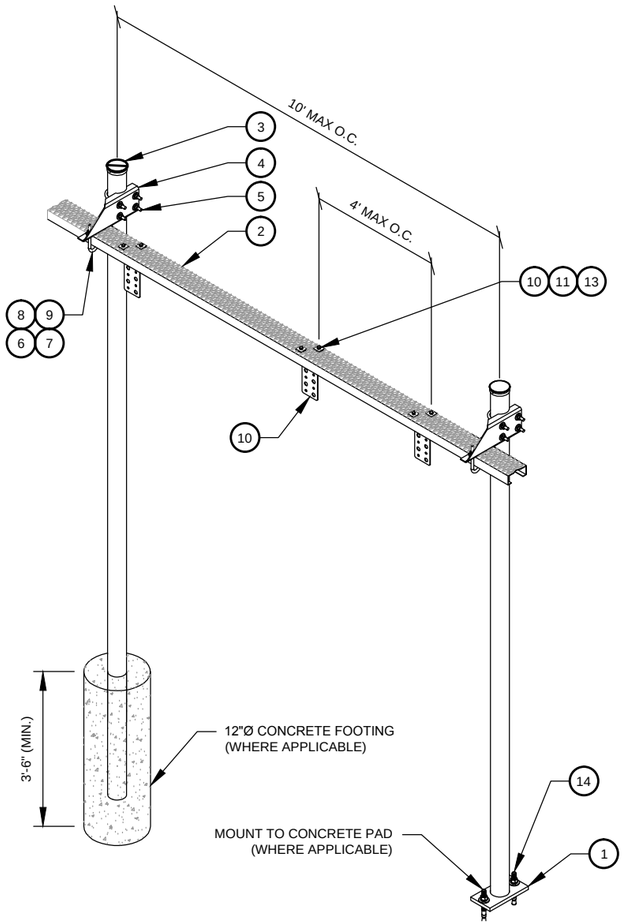
SHEET TITLE:

ANTENNA INFORMATION

SHEET NUMBER:	REVISION NUMBER:
C-2	0

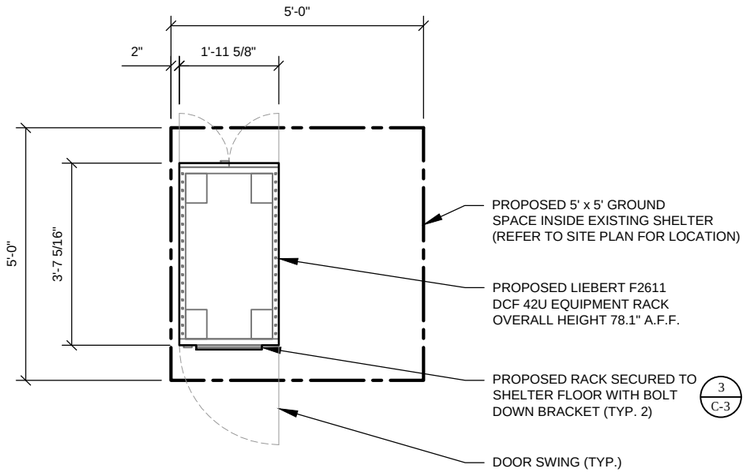
CONSTRUCTION NOTE:

1. WHERE POSSIBLE AND AS APPLICABLE, THE CONTRACTOR SHALL UTILIZE EXISTING ICE BRIDGE, CABLE LADDER, COAX SUPPORTS, AND COAX PORTS. BEFORE UTILIZING, CONTRACTOR SHALL VERIFY THAT ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW ICE BRIDGE, CABLE LADDER, COAX SUPPORT, AND COAX PORT, AS REQUIRED, WITH THE ATC CONSTRUCTION MANAGER.

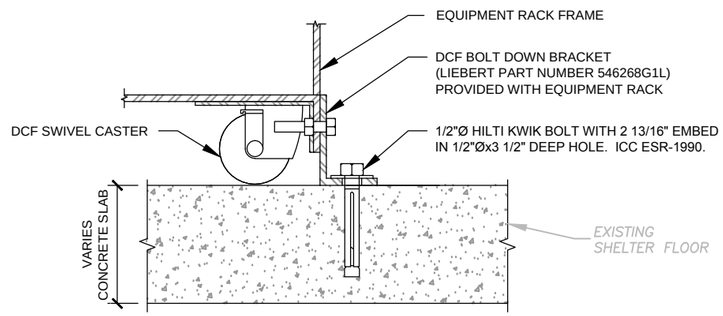


CABLE LADDER - BILL OF MATERIALS					
ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	MF126.01	BASE SHOE	8	GWL-04	1/2" GALV LOCK WASHER
2	WB-CY0510	SAFETY GRATING 5" X 10'	9	GN-04	1/2" GALV HEX NUT
3	PC-034	PIPE CAP 3-1/2"	10	ZBV601	SINGLE 6 CABLE BRACKET
4	WBLB0501	5" WAVEGUIDE BRIDGE SUPPORT BRACKET	11	MT-387	SQUARE WASHER, 1-1/2" X 1-1/2" W/ 7/16" HOLE
5	GUB-4356	1/2" X 3-5/8" X 6" GALV U-BOLT	12	GWF-03	3/8" GALV FLAT WASHER
6	WB-JB-6	1/2" J-BOLT	13	GB-03205	3/8" X 2" GALV BOLT KIT
7	GWF-04	1/2" GALV FLAT WASHER	14	MT-287	3/4" x 7" WEDGE ANCHOR
NOTE: CONTRACTOR SHALL USE PARTS MANUFACTURED BY COMMSCOPE AS SHOWN OR APPROVED EQUIVALENT.					

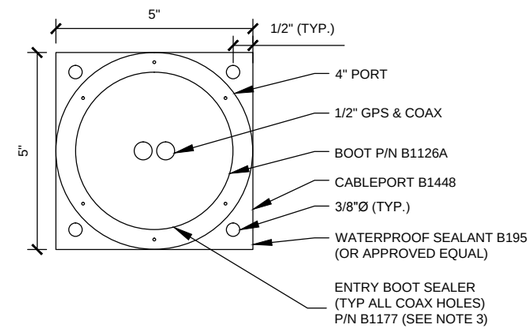
1 WAVEGUIDE BRIDGE KIT
SCALE: NOT TO SCALE



2 DETAILED EQUIPMENT LAYOUT
SCALE: NOT TO SCALE



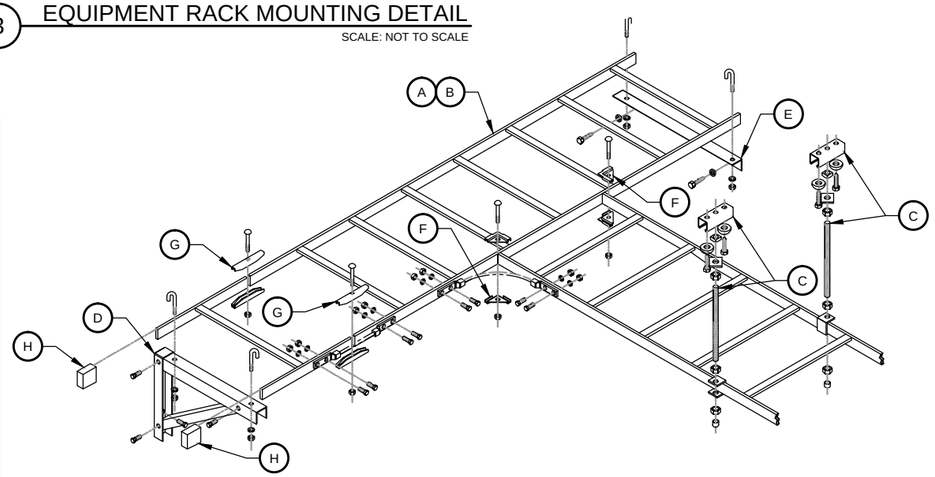
3 EQUIPMENT RACK MOUNTING DETAIL
SCALE: NOT TO SCALE



COAX PORT NOTES:

1. CONTRACTOR TO THOROUGHLY DRY AREA BEFORE CORING, INSTALLING AND SEALING CABLEPORT & BOOTS.
2. ALL PART NUMBERS ARE MICROFLECT
3. CONTRACTOR TO FILL THE BOOT CAVITY W/ BOOT SEALER TO FORM A CONICAL SHAPE TO ALLOW WATER RUN OFF.
4. 2 TUBES OF B1177 ARE REQUIRED FOR EACH BOOT.
5. WATERPROOF ALL EDGES AND HOLES.

4 SINGLE COAX PORT DETAIL
SCALE: NOT TO SCALE



5 CABLE LADDER DETAIL
SCALE: NOT TO SCALE

CABLE LADDER - BILL OF MATERIALS		
KEY	ITEM	PART NUMBER
A	10' LADDER RACK RUNWAY	ICCMSLST10
B	5' LADDER RACK RUNWAY	ICCMSLST05
C	CEILING MOUNT KIT WITH 6' ROD	ICCMSLCMRK
D	WALL SUPPORT TRIANGLE & HARDWARE	ICCMSLTWSK
E	WALL SUPPORT BRACKET & HARDWARE	ICCMSLAWSK
F	TEE JUNCTION SPLICE KIT	ICCMSLTJSK
G	RUNWAY BUTT SPLICE KIT	ICCMSLEBSK
H	PROTECTIVE END CAP	ICCMSLPECK
I	LADDER RACK, RUNWAY, 90° FLAT TURN	ICCMSLFT90
NOTE: CONTRACTOR SHALL USE PARTS MANUFACTURED BY ICC AS SHOWN OR APPROVED EQUIVALENT.		

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LightSquared

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DRAWN BY:	ZDR
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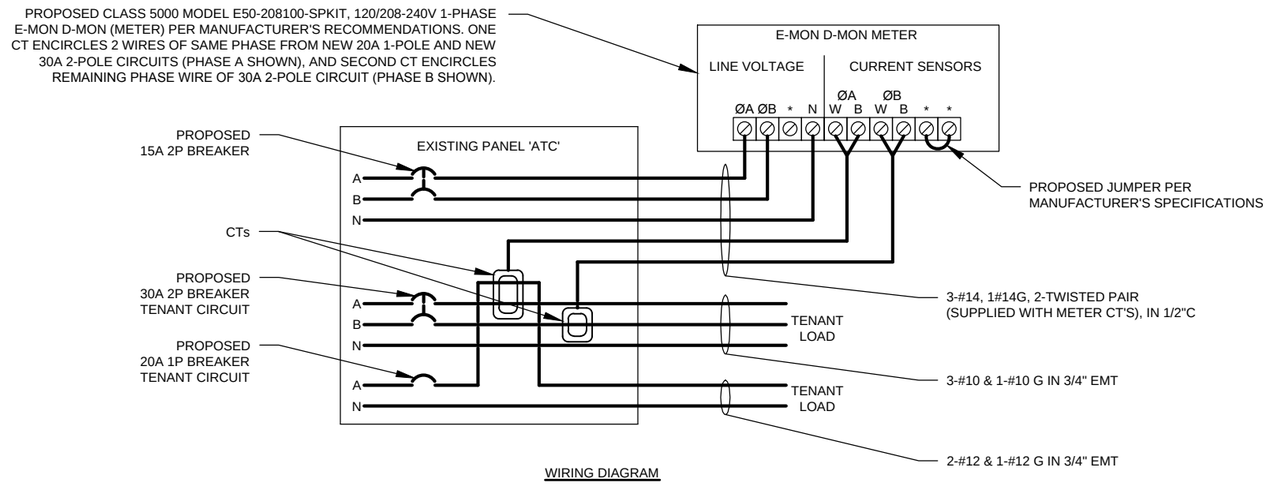
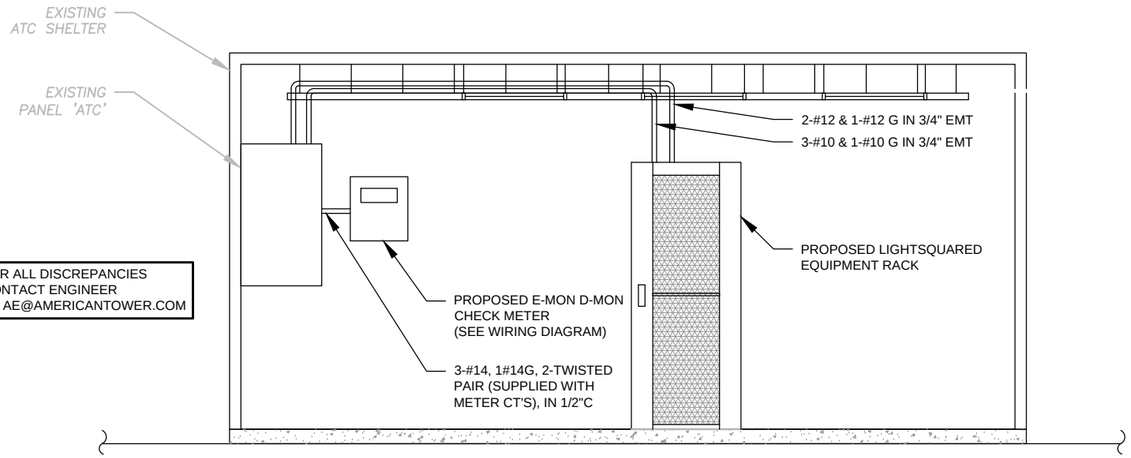
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION NUMBER:
C-3	0



WIRING DIAGRAM



FOR ALL DISCREPANCIES CONTACT ENGINEER AT AE@AMERICANTOWER.COM

1 ELECTRICAL RISER DIAGRAM

SCALE: NOT TO SCALE

ATC PANEL NOTES:

1. IN EXISTING PANEL 'ATC', INSTALL 3 CIRCUIT BREAKERS SUITABLE AND LISTED FOR THE APPLICATION:
   a. 1, 2-POLE 30A BREAKER SUPPLYING NEW 2.34KVA DEMAND LOAD.
   b. 1, 1-POLE 20A BREAKER SUPPLYING NEW 0.18KVA DEMAND LOAD.
   c. 1, 2-POLE 15A BREAKER PROVIDING VOLTAGE REFERENCE FOR E-MON D-MON METER, 6KVA DEMAND LOAD.
2. ADDITIONAL DEMAND LOAD OF 2.53KVA TO EXISTING PANEL ATC HAS BEEN DETERMINED TO BE WITHIN THE AVAILABLE DEMAND LOAD CAPACITY OF PANEL ATC.
3. INSTALLER SHALL PROPERLY UPDATE THE PANEL SCHEDULE PER NEC TO SHOW EVERY CIRCUIT (NEW AND EXISTING) TO BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE IDENTIFICATION SHALL INCLUDE AN APPROVED DEGREE OF DETAIL THAT ALLOWS EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS.

IDENTIFICATION:

1. ALL PANELS, CIRCUIT BREAKERS, JUNCTION BOXES, ETC, AND SIMILAR ITEMS INSTALLED UNDER THIS PROJECT SHALL BE IDENTIFIED BY NAME, FUNCTION AND/OR CONTROL. INCLUDED ON NAME PLATES SHALL BE THE VOLTAGE OF THE INVOLVED CIRCUITS. CHARACTERS ON NAME PLATES SHALL BE NOT LESS THAN ¼" HIGH. THEY SHALL BE MADE UP OF 2 LAMINATED BLACK PLASTIC SHEETS BONDED WITH A MIDDLE SHEET OF WHITE PLASTIC AND CHARACTERS ENGRAVED IN 1 BLACK SHEET TO THE DEPTH OF THE WHITE PLASTIC.
2. POWER OUTLET/JUNCTION BOXES SHALL BE IDENTIFIED WITH A PERMANENT, WATERPROOF MARKER IDENTIFYING THE SPECIFIC PANEL AND CIRCUIT NUMBER OR EQUIVALENT. OUTLET BOXES WITH FACE PLATES SHALL BE LABELED WITHIN THE BOX AND JUNCTION BOXES SHALL BE LABELED ON THE EXPOSED COVER OF THE BOX.
3. COLOR CODING OF NEW WIRE SHALL MATCH EXISTING. IF A NEW INSTALLATION, OR IF THE EXISTING SYSTEM IS NOT COLOR CODED AND THE OWNER DOES NOT HAVE A PREFERENCE, COLOR CODING SHALL FOLLOW INDUSTRY STANDARD PRACTICES AND ALL APPLICABLE CODES.
4. PROVIDE A TYPED INDEX DIRECTORY IN EACH NEW PANELBOARD INDICATING THE ITEM OR ITEMS CONTROLLED BY EACH BREAKER. UPDATE EACH EXISTING PANELBOARD AFFECTED BY THIS PROJECT WITH A NEW TYPED INDEX DIRECTORY WITH THE CHANGES.

CONDUCTORS AND CABLES:

1. ALL CONDUCTORS FOR LIGHTING AND POWER FEEDERS AND BRANCH CIRCUIT WIRING SHALL BE RATED 600 VOLTS AND 98 PERCENT CONDUCTIVITY COPPER TYPE THHN/THWN. ALUMINUM CONDUCTORS WILL NOT BE ACCEPTABLE.
2. CONDUCTORS FOR NO. 10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS LARGER THAN NO. 10 AWG SHALL BE STRANDED. CONDUCTORS SMALLER THAN NO. 12 AWG SHALL NOT BE USED.
3. ALL CONDUCTORS SHALL BE RUN IN CONDUIT AS HEREIN SPECIFIED. WIRING SHALL BE CODE SIZE EXCEPT WHERE DRAWINGS INDICATE LARGER SIZE.

DISCONNECT (SAFETY) SWITCHES:

1. SAFETY SWITCHES SHALL BE OF THE RATING INDICATED ON DRAWINGS. SAFETY SWITCHES SHALL BE "HEAVY DUTY" TYPE FUSED OR NON-FUSED, AS INDICATED, WITH POSITIVE QUICK-MAKE AND QUICK-BREAK OPERATING MECHANISM WITH EXTERNAL OPERATING HANDLE, AND BE CONTAINED WITHIN A GENERAL PURPOSE, NEMA 1 TYPE, ENCLOSURE, UNLESS OTHERWISE INDICATED. MECHANISM SHALL BE ENCLOSED IN A CODE GAUGE SHEET METAL CABINET WITH HINGED FRONT COVER. STEEL CABINET SHALL BE PAINTED GRAY INSIDE AND OUTSIDE. EACH SWITCH SHALL BE EQUIPPED WITH SOLDERLESS LUGS TO ACCOMMODATE SIZE WIRE AS INDICATED ON THE DRAWINGS.

EQUIPMENT CONNECTIONS:

1. PROVIDE ALL POWER WIRING FOR ALL NEW AND OWNER FURNISHED EQUIPMENT UNDER THIS PROJECT. POWER WIRING SHALL BE EXTENDED TO AND THROUGH DISCONNECTING DEVICES, LOCAL CONTROL DEVICES, CONTROL PANELS, ETC. AND TO THE EQUIPMENT AS REQUIRED AND/OR AS HEREINAFTER SPECIFIED. NEW EQUIPMENT SHALL BE INSTALLED WITH THE PROPER ROTATION AND SHALL BE COMPLETE WITH CONTROL EQUIPMENT, CONTROL WIRING, CONDUIT, AND ALL OTHER ITEMS NECESSARY FOR SATISFACTORY OPERATION.

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0	FOR CONSTRUCTION	ZDR	01/21/15

ATC SITE NUMBER:

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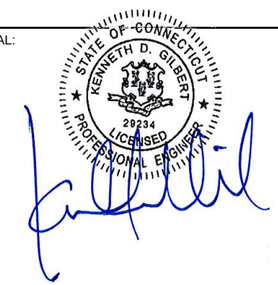

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DRAWN BY:	ZDR
APPROVED BY:	KRF
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:

ELECTRICAL RISER DIAGRAM AND NOTES

SHEET NUMBER:	REVISION NUMBER:
E-1	0

GROUNDING NOTES:

1. ALL EQUIPMENT ENCLOSURES, DEVICES AND CONDUITS SHALL BE GROUNDED TO CONFORM WITH THE LATEST REQUIREMENTS OF THE NEC BY THE INSTALLATION OF A SEPARATE, GREEN, INSULATED GROUND CONDUCTOR FOR ALL FEEDER AND BRANCH CIRCUITS. GROUND CONDUCTORS SHALL BE OF THE SIZE INDICATED ON THE DRAWINGS. GROUND CONDUCTORS SHALL BE CONTINUOUS IN LENGTH AND SHALL BE BONDED TO EACH ENCLOSURE THEY PASS THROUGH. CONDUIT SHALL NOT BE USED AS A GROUNDING CIRCUIT.

LIGHTNING AND SURGE PROTECTION:

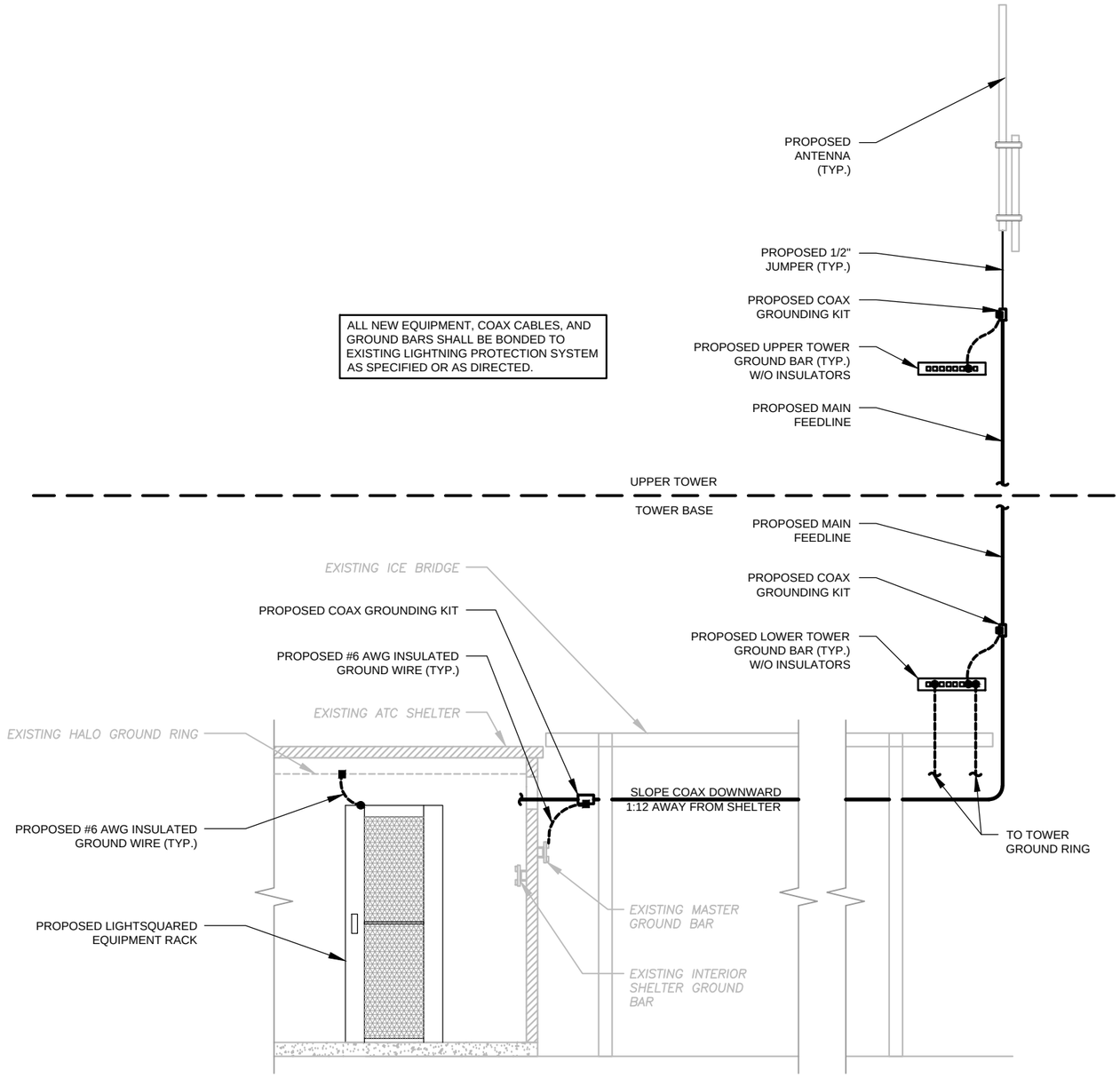
1. GROUNDING CONDUCTORS SHALL:
   - A. BE #2 AWG SOLID BARE TINNED COPPER (SBTC) FOR ALL GROUNDING SYSTEM WIRE UNLESS OTHERWISE NOTED, OR OTHERWISE REQUIRED BY CODE.
   - B. BE MINIMUM 8" BEND RADIUS. KEEP NUMBER OF BENDS TO A MINIMUM.
   - C. AVOID LONG BONDING CONNECTION RUNS. MAKE DIRECT AS POSSIBLE.
   - D. NOT HAVE ANY U-SHAPED RUNS.
   - E. BE IN NON-METALLIC CONDUIT ONLY, IF IN CONDUIT.
   - F. BE PLACED THROUGH NON-METALLIC SLEEVES IN FLOORS, WALLS, CEILINGS, ETC.
   - G. PROTECTED IN NON-METALLIC CONDUIT WHERE EXPOSED ABOVE GRADE.

2. INSTALL ALL GROUNDING RINGS AND RADIALS WITH CONDUCTIVE CEMENT, SANKOSHA AS DISTRIBUTED BY ELECTRIC MOTION COMPANY, INC., WINSTED, CT 06098, OR AS SPECIFICALLY INDICATED. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

3. GROUND RINGS SHALL BE:
   - A. MINIMUM 30" BELOW GRADE, OR BELOW FROST LINE WHICHEVER IS DEEPER.
   - B. MINIMUM 2' FROM FOUNDATIONS, FOOTINGS, OTHER GROUNDING SYSTEMS AND ALL CONDUCTIVE OBJECTS.
   - C. WITH MINIMUM 8" BEND RADII.
   - D. WITH ALL CONNECTIONS IN CONTACT WITH EARTH, BONDED BY EXOTHERMIC WELDING.
   - E. BONDED TO A SINGLE POINT GROUND (SPG) WITH A SINGLE WIRE AS INDICATED ON DRAWINGS.

4. GROUND RODS SHALL BE:
   - A. MINIMUM 5/8" DIAMETER.
   - B. MINIMUM 10' LONG.
   - C. COPPER-CLAD GALVANIZED STEEL OR STAINLESS STEEL.
   - D. PLACED IN UNDISTURBED SOIL AND BELOW THE FROST LINE.
   - E. INSTALLED WITH MINIMUM SEPARATION DISTANCE OF TWICE THE DEPTH OF THE ROD(S), OR AS INDICATED ON DRAWINGS.
   - F. MINIMUM TWO (2) RODS ON THE TOWER RING OR ONE (1) PER LEG WHICHEVER IS LARGER, MINIMUM FOUR (4) RODS ON EVERY EQUIPMENT BUILDING RING WITH ONE AT EACH CORNER OR AS INDICATED, MINIMUM ONE (1) ROD FOR POWER SERVICE GROUNDING ELECTRODE, AND MINIMUM ONE (1) ROD AT END OF EACH RADIAL.

5. CONDUCTIVE OBJECTS, SUCH AS FENCES, SHALL BE BONDED TO THE GROUNDING SYSTEM IF WITHIN 20' OF THE TOWER GROUNDING SYSTEM, OR 5' OF ANY OTHER GROUNDED COMPONENT.



1 TYPICAL GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

- GROUND WIRE
- GROUND BAR
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- COPPER GROUND ROD
- TEST WELL

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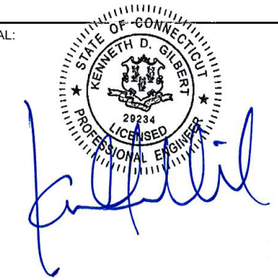

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DRAWN BY:	ZDR
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DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

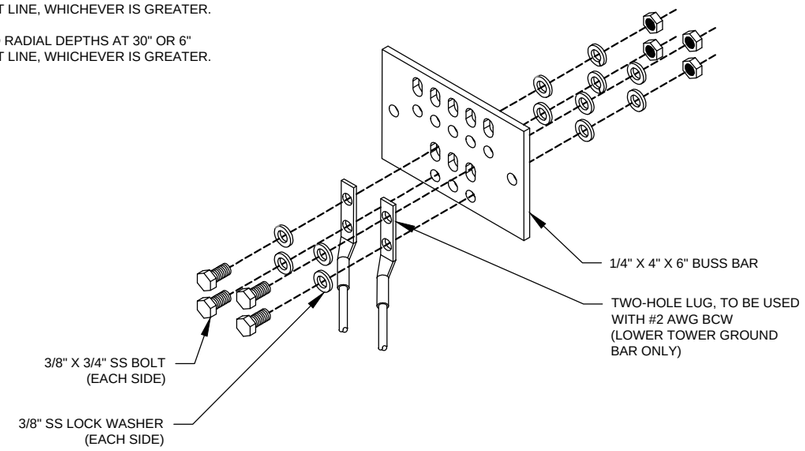
SHEET TITLE:

GROUNDING LAYOUT

SHEET NUMBER:	REVISION NUMBER:
E-2	0

NOTES:

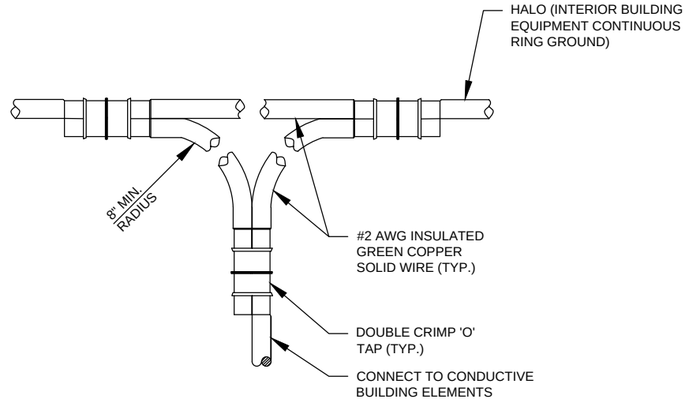
1. SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS.
2. COORDINATE UTILITY, LOCATE BEFORE DIGGING.
3. CONDUIT TRENCHING DEPTHS AT 36" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.
4. ALL RING AND RADIAL DEPTHS AT 30" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.



1 TOWER GROUND BAR DETAIL
SCALE: NOT TO SCALE

GROUND BAR NOTES:

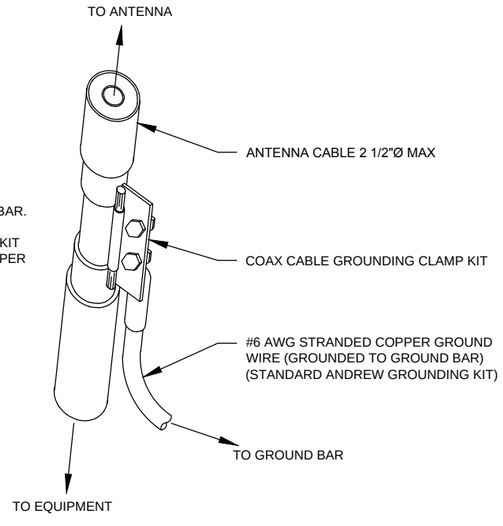
1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.



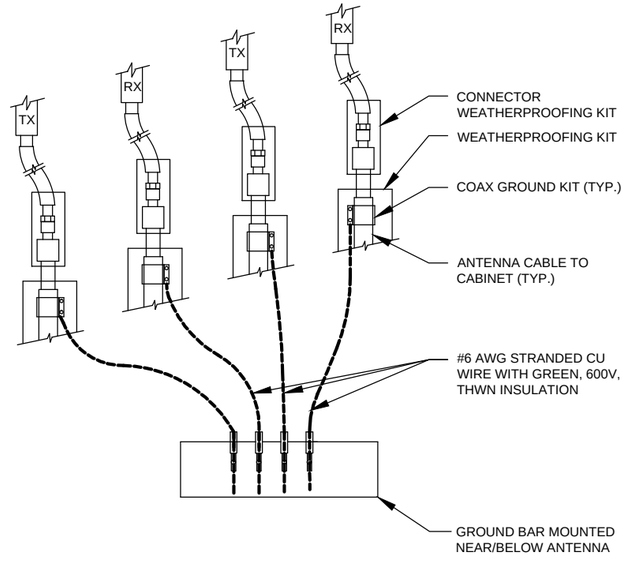
2 HALO CONNECTION DETAIL
SCALE: NOT TO SCALE

GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.



3 CABLE GROUND KIT CONNECTION DETAIL
SCALE: NOT TO SCALE



4 TYPICAL GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

NOTES:

1. DO NOT INSTALL COAX CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
2. THE LOWER TOWER GROUND BAR SHALL BE BONDED TO TOWER GROUND RING USING TWO (2) #2 AWG SBTC CONDUCTORS WHICH SHALL CURVE IN OPPOSITE DIRECTIONS. BONDS TO TOWER GROUND RING SHALL BE MADE ON OPPOSITE SIDES OF GROUND ROD AS SHOWN.

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	01/21/15

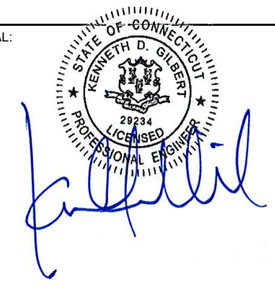
ATC SITE NUMBER:
88017

ATC SITE NAME:
SHELTON/TRUMBULL

SITE ADDRESS:
14 OXFORD DR
SHELTON, CT 06611

LightSquared

SEAL:



Jan 21 2015 1:44 PM

DRAWN BY:	ZDR
APPROVED BY:	KRF
DATE DRAWN:	01/21/15
ATC JOB NO:	607861A3

SHEET TITLE:
STANDARD GROUNDING DETAILS

SHEET NUMBER:	REVISION NUMBER:
E-3	0

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**200 ft Self Supported Tower**
ATC Site Name	:	**Shelton-Trumbull, CT**
ATC Site Number	:	**88017**
Engineering Number	:	**60786124**
Proposed Carrier	:	**Lightsquared LP**
Carrier Site Name	:	**Conn 2**
Carrier Site Number	:	**TMUSCTCONN0002**
Site Location	:	**14 Oxford Drive/Booth Hill Rd** **Shelton, CT 06611-2627** **41.280164,-73.185467**
County	:	**Fairfield**
Date	:	**January 6, 2015**
Max Usage	:	**99%**
Result	:	**Pass - Pending Modifications**

Prepared By:
Andrew D. Vargo, E.I.

Andrew Vargo

STATE OF CONNECTICUT
SCOTT A. WIRGAU
30575
LICENSED PROFESSIONAL ENGINEER

Jan 9 2015 4:50 PM

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 200 ft self supported tower to reflect the change in loading by Lightsquared LP.

Supporting Documents

Tower Drawings	TEP Job #070851, dated May 30, 2007
Foundation Drawing	Radio Relay Drawing #MS 10478, dated January 27, 1965
Geotechnical Report	Radio Relay Drawing #MS 10478, dated January 27, 1965
Modifications	ATC Project #40480232, dated July 13, 2007 ATC Project #59039936, dated October 22, 2014 [Pending]

Analysis

The tower was analyzed using Power Line Systems, Inc. analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

Basic Wind Speed:	85 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	74 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (4) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report once the pending modifications have been installed. Failure to install the modifications listed will void the results of this analysis.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
200.0	-	-	-	Mounting Frames	-	-
200.0	210.0	1	Telewave ANT900D6-9	Platform w/ Handrails	(2) 1 5/8" Coax (2) EW65	State Of CT
	206.0	2	RFS PA6-65AC w/ Radome			
	205.5	1	Andrew DB809K			
187.5	-	-	-	Platform w/ Handrails	-	-
185.0	190.0	2	TX RX Systems 101-83B-09-0-03	Side Arm	(2) 1 5/8" Coax (1) 0.63" LDF4-50A	State Of CT
	185.0	1	TTA			
180.0	189.0	2	Sinclair SC479-HF1LDF	Side Arm	(7) 1 5/8" Coax (4) 0.63" LDF4-50A	
	187.0	2	TX RX Systems 101-83B-09-0-03			
	185.0	2	Kathrein AP14-850/105			
	182.0	4	TTA			
	180.0	1	5' Dipole			
168.0	168.0	12	Decibel DB844H90E-A	Sector Frame	(12) 1 5/8" Coax	Sprint Nextel
162.0	162.0	4	DragonWave Horizon Compact	Leg	(6) 5/16" (0.31") Coax (4) 1/2" Coax (2) 2" conduit	Clearwire
		3	NextNet BTS-2500			
		1	DragonWave A-ANT-11G-2-C			
		3	Argus LLPX310R			
		1	Andrew PX2F·52			
		2	DragonWave A-ANT-11G-3-C			
155.0	155.0	3	Alcatel-Lucent 1900MHz 4X45 RRH	Sector Frame	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 800MHz RRH w/ Notch Filter			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	RFS RFS APXV9TM14-ALU-I20			
		3	RFS APXVSPP18-C-A20			
144.0	144.0	1	Raycap DC6-48-60-18-8F	Sector Frame	(12) 1 5/8" Coax (2) 0.74" 8 AWG 7 (1) 0.28" RG-6 (1) 3" conduit	AT&T Mobility
		12	Powerwave LGP21401			
		6	Ericsson RRUS 11 (Band 12) (55 lb)			
		6	Powerwave 7770.00			
		3	Powerwave P65-16-XLH-RR			
124.0	124.0	1	RFS PA6-65AC w/ Radome	Leg	(1) EW65	State Of CT
112.5	-	-	-	Platform w/ Handrails	-	-
100.0	110.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	US Treasury
75.0	-	-	-	Platform w/ Handrails	-	-
55.0	55.0	1	PCTEL GPS-TMG-HR-26N	Leg	(1) ½" Coax	Sprint Nextel
50.0	-	-	-	Rest Platform	-	-

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
84.0	90.0	1	Kathrein 750 10074	Stand-Off	(1) 1 5/8" Coax	Lightsquared LP

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

Install proposed coax anywhere on tower.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	68%	Pass
Diagonals	99%	Pass
Truss Diagonals	80%	Pass
Horizontals	80%	Pass
Truss Horizontals	56%	Pass
Anchor Bolts	66%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	200.0	83%
Axial (Kips)	280.4	14%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

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Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

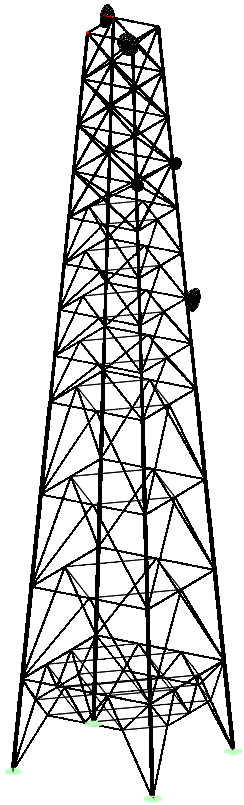
-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

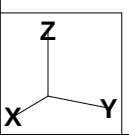
It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

American Tower Corp., Project: "Untitled"
Tower Version 13.01, 2:21:25 PM Tuesday, January 06, 2015
Undeformed geometry displayed





Project Name : 88017 - Shelton/Trumbull
Project Notes:
Project File : S:\L2 - ATC\88017\2015.01.06 - Lightsquared LP - 60786124\2015.01.06 - lightsquared lp - 60786124.tow
Date run   : 8:48:57 AM Friday, January 09, 2015
by   : Tower Version 13.01
Licensed to : American Tower Corp.

Successfully performed nonlinear analysis

Member check option: TIA/EIA 222-F
Connection rupture check: Not Checked
Crossing diagonal check: Fixed
Included angle check: None
Climbing load check: None
Redundant members checked with: Actual Force
Loads from file: s:\l2 - atc\88017\2015.01.06 - lightsquared lp - 60786124\2015.01.06 - lightsquared lp - 60786124.eia

*** Analysis Results:

Maximum element usage is 99.36% for Angle "D 4Y" in load case "W 180"

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. Force (kips)	Tran. Force (kips)	Vert. Force (kips)	Shear Force (kips)	Tran. Moment (ft-k)	Long. Moment (ft-k)	Bending Moment (ft-k)	Vert. Moment (ft-k)	Found. Usage %
W 0	0P	-27.52	-15.10	-199.49	31.39	-1.18	-5.74	5.86	-1.85	0.00
W 0	0X	-26.01	14.73	-189.55	29.90	-0.31	-5.33	5.33	1.79	0.00
W 0	0XY	-30.07	-9.40	116.86	31.51	0.37	-6.79	6.80	1.91	0.00
W 0	0Y	-32.01	9.55	120.43	33.41	-0.33	-7.32	7.33	-1.84	0.00
W 180	0P	32.08	9.43	120.20	33.44	-0.30	7.35	7.36	1.84	0.00
W 180	0X	30.20	-9.24	114.17	31.58	0.40	6.91	6.92	-1.92	0.00
W 180	0XY	26.12	14.79	-188.74	30.01	-0.37	5.43	5.44	-1.80	0.00
W 180	0Y	27.42	-14.73	-197.38	31.13	-1.24	5.78	5.91	1.86	0.00
W 45	0P	-29.99	-29.99	-280.44	42.41	4.48	-4.48	6.34	-0.00	0.00
W 45	0X	-12.84	-14.31	-34.95	19.23	6.03	-3.85	7.16	2.85	0.00
W 45	0XY	-31.27	-31.29	199.22	44.24	4.97	-4.96	7.02	-0.00	0.00
W 45	0Y	-14.25	-12.89	-35.58	19.22	3.85	-6.03	7.16	-2.84	0.00
W -45	0P	-13.78	14.37	-40.79	19.91	-6.23	-4.12	7.47	-2.85	0.00
W -45	0X	-28.98	29.76	-273.65	41.55	-4.66	-4.20	6.28	-0.00	0.00
W -45	0XY	-13.05	12.96	-37.26	18.39	-3.83	-5.69	6.86	2.86	0.00
W -45	0Y	-32.38	31.24	199.96	45.00	-4.94	-5.29	7.24	0.01	0.00
W 90	0P	-15.10	-27.54	-199.80	31.41	5.73	1.19	5.85	1.86	0.00
W 90	0X	9.65	-32.11	121.89	33.53	7.31	0.33	7.31	1.84	0.00
W 90	0XY	-9.44	-30.21	117.05	31.65	6.83	-0.38	6.84	-1.91	0.00
W 90	0Y	14.84	-26.17	-190.88	30.08	5.36	0.32	5.37	-1.79	0.00
W -90	0P	9.50	32.10	120.96	33.48	-7.33	0.30	7.34	-1.85	0.00
W -90	0X	-14.75	27.39	-197.23	31.11	-5.76	1.23	5.89	-1.87	0.00
W -90	0XY	14.81	26.25	-189.31	30.14	-5.48	0.35	5.49	1.80	0.00
W -90	0Y	-9.20	30.35	113.83	31.72	-6.97	-0.40	6.99	1.92	0.00
W 0 Ice	0P	-25.71	-14.71	-192.03	29.62	-1.74	-3.97	4.33	-1.59	0.00
W 0 Ice	0X	-24.27	14.44	-182.46	28.24	0.77	-3.57	3.65	1.55	0.00
W 0 Ice	0XY	-25.17	-8.13	90.90	26.45	1.26	-6.58	6.70	1.63	0.00
W 0 Ice	0Y	-26.91	8.22	93.16	28.14	-1.24	-7.09	7.19	-1.58	0.00
W 180 Ice	0P	26.93	7.98	91.91	28.09	-1.20	7.13	7.23	1.59	0.00
W 180 Ice	0X	25.36	-7.93	87.61	26.57	1.30	6.75	6.87	-1.64	0.00
W 180 Ice	0XY	24.35	14.43	-180.68	28.31	0.71	3.71	3.78	-1.56	0.00
W 180 Ice	0Y	25.57	-14.27	-189.27	29.29	-1.80	4.01	4.40	1.60	0.00
W 45 Ice	0P	-28.21	-28.22	-266.27	39.90	2.90	-2.89	4.10	-0.00	0.00
W 45 Ice	0X	-12.61	-11.47	-44.69	17.05	6.02	-2.33	6.46	2.48	0.00
W 45 Ice	0XY	-26.64	-26.62	165.73	37.67	5.02	-5.03	7.10	-0.00	0.00
W 45 Ice	0Y	-11.40	-12.64	-45.20	17.02	2.32	-6.01	6.45	-2.48	0.00
W -45 Ice	0P	-13.58	11.51	-51.00	17.81	-6.23	-2.61	6.76	-2.49	0.00
W -45 Ice	0X	-27.18	27.98	-259.21	39.01	-3.09	-2.61	4.04	-0.00	0.00
W -45 Ice	0XY	-10.27	12.70	-45.95	16.33	-2.34	-5.66	6.13	2.50	0.00
W -45 Ice	0Y	-27.71	26.65	165.74	38.44	-5.04	-5.37	7.36	0.01	0.00
W 90 Ice	0P	-14.70	-25.74	-192.47	29.64	3.96	1.75	4.33	1.59	0.00
W 90 Ice	0X	8.30	-27.02	94.51	28.26	7.08	1.23	7.18	1.59	0.00
W 90 Ice	0XY	-8.16	-25.25	90.84	26.54	6.61	-1.27	6.73	-1.63	0.00
W 90 Ice	0Y	14.52	-24.37	-183.32	28.36	3.59	-0.76	3.67	-1.56	0.00
W -90 Ice	0P	8.03	26.98	92.69	28.15	-7.12	1.19	7.22	-1.60	0.00
W -90 Ice	0X	-14.28	25.57	-189.33	29.29	-4.01	1.80	4.39	-1.60	0.00
W -90 Ice	0XY	14.45	24.43	-180.92	28.38	-3.75	-0.71	3.81	1.56	0.00
W -90 Ice	0Y	-7.91	25.45	87.12	26.65	-6.79	-1.31	6.92	1.65	0.00

Summary of Joint Support Reactions For All Load Cases in Direction of Leg:

Load Case	Support Origin Joint	Joint	Leg Member	Force In Leg Dir. (kips)	Residual Shear Perpendicular To Leg (kips)	Residual Shear Horizontal To Leg - Res. (kips)	Residual Shear Horizontal To Leg - Long. (kips)	Residual Shear Horizontal To Leg - Tran. (kips)	Total Long. Force (kips)	Total Tran. Force (kips)	Total Vert. Force (kips)
W 0	0P	1P	L 1P	201.492	13.478	13.517	13.476	1.052	-27.52	-15.10	-199.49
W 0	0X	1X	L 1X	191.469	12.703	12.741	12.666	-1.386	-26.01	14.73	-189.55
W 0	0XY	1XY	L 1XY	-119.049	21.814	21.874	21.842	1.174	-30.07	-9.40	116.86
W 0	0Y	1Y	L 1Y	-122.750	23.493	23.556	23.532	-1.065	-32.01	9.55	120.43
W 180	0P	1P	L 1P	-122.522	23.576	23.639	-23.619	-0.967	32.08	9.43	120.20
W 180	0X	1X	L 1X	-116.376	22.132	22.192	-22.160	1.195	30.20	-9.24	114.17
W 180	0XY	1XY	L 1XY	190.678	12.874	12.913	-12.826	-1.498	26.12	14.79	-188.74
W 180	0Y	1Y	L 1Y	199.366	13.511	13.549	-13.523	0.830	27.42	-14.73	-197.38
W 45	0P	1P	L 1P	283.259	14.409	14.481	10.237	10.242	-29.99	-29.99	-280.44
W 45	0X	1X	L 1X	34.676	19.717	19.722	10.381	16.769	-12.84	-14.31	-34.95
W 45	0XY	1XY	L 1XY	-202.622	24.275	24.395	17.244	17.256	-31.27	-31.29	199.22
W 45	0Y	1Y	L 1Y	35.306	19.711	19.716	16.758	10.387	-14.25	-12.89	-35.58
W -45	0P	1P	L 1P	40.551	20.400	20.405	10.905	-17.246	-13.78	14.37	-40.79
W -45	0X	1X	L 1X	276.422	14.227	14.297	9.712	-10.492	-28.98	29.76	-273.65
W -45	0XY	1XY	L 1XY	37.073	18.772	18.776	15.677	-10.333	-13.05	12.96	-37.26
W -45	0Y	1Y	L 1Y	-203.438	24.964	25.087	18.301	-17.159	-32.38	31.24	199.96
W 90	0P	1P	L 1P	201.808	13.470	13.508	1.030	13.469	-15.10	-27.54	-199.80
W 90	0X	1X	L 1X	-124.212	23.484	23.547	-1.069	23.522	9.65	-32.11	121.89
W 90	0XY	1XY	L 1XY	-119.252	21.942	22.002	1.200	21.969	-9.44	-30.21	117.05
W 90	0Y	1Y	L 1Y	192.811	12.764	12.803	-1.397	12.726	14.84	-26.17	-190.88
W -90	0P	1P	L 1P	-123.279	23.540	23.603	-0.984	-23.582	9.50	32.10	120.96
W -90	0X	1X	L 1X	199.210	13.494	13.532	0.860	-13.504	-14.75	27.39	-197.23
W -90	0XY	1XY	L 1XY	191.252	12.959	12.998	-1.483	-12.913	14.81	26.25	-189.31
W -90	0Y	1Y	L 1Y	-116.041	22.309	22.370	1.182	-22.338	-9.20	30.35	113.83
W 0 Ice	0P	1P	L 1P	193.919	12.207	12.243	12.186	1.182	-25.71	-14.71	-192.03
W 0 Ice	0X	1X	L 1X	184.274	11.492	11.528	11.418	-1.586	-24.27	14.44	-182.46
W 0 Ice	0XY	1XY	L 1XY	-92.786	18.797	18.852	18.773	1.726	-25.17	-8.13	90.90
W 0 Ice	0Y	1Y	L 1Y	-95.165	20.363	20.421	20.353	-1.659	-26.91	8.22	93.16
W 180 Ice	0P	1P	L 1P	-93.902	20.460	20.517	-20.462	-1.506	26.93	7.98	91.91
W 180 Ice	0X	1X	L 1X	-89.512	19.217	19.273	-19.192	1.762	25.36	-7.93	87.61
W 180 Ice	0XY	1XY	L 1XY	182.506	11.717	11.755	-11.630	-1.706	24.35	14.43	-180.68
W 180 Ice	0Y	1Y	L 1Y	191.132	12.246	12.281	-12.245	0.942	25.57	-14.27	-189.27
W 45 Ice	0P	1P	L 1P	268.918	13.315	13.381	9.453	9.470	-28.21	-28.22	-266.27
W 45 Ice	0X	1X	L 1X	44.548	17.410	17.414	9.463	14.618	-12.61	-11.47	-44.69
W 45 Ice	0XY	1XY	L 1XY	-168.645	21.057	21.161	14.973	14.953	-26.64	-26.62	165.73
W 45 Ice	0Y	1Y	L 1Y	45.060	17.375	17.378	14.583	9.453	-11.40	-12.64	-45.20
W -45 Ice	0P	1P	L 1P	50.897	18.108	18.112	9.991	-15.106	-13.58	11.51	-51.00
W -45 Ice	0X	1X	L 1X	261.804	13.134	13.199	8.925	-9.725	-27.18	27.98	-259.21
W -45 Ice	0XY	1XY	L 1XY	45.894	16.485	16.487	13.502	-9.462	-10.27	12.70	-45.95
W -45 Ice	0Y	1Y	L 1Y	-168.731	21.832	21.940	16.033	-14.977	-27.71	26.65	165.74
W 90 Ice	0P	1P	L 1P	194.360	12.206	12.241	1.144	12.188	-14.70	-25.74	-192.47
W 90 Ice	0X	1X	L 1X	-96.524	20.369	20.427	-1.644	20.361	8.30	-27.02	94.51
W 90 Ice	0XY	1XY	L 1XY	-92.739	18.881	18.936	1.765	18.854	-8.16	-25.25	90.84
W 90 Ice	0Y	1Y	L 1Y	185.138	11.533	11.570	-1.606	11.458	14.52	-24.37	-183.32
W -90 Ice	0P	1P	L 1P	-94.690	20.447	20.505	-1.501	-20.450	8.03	26.98	92.69
W -90 Ice	0X	1X	L 1X	191.187	12.240	12.274	0.944	-12.238	-14.28	25.57	-189.33
W -90 Ice	0XY	1XY	L 1XY	182.752	11.778	11.815	-1.706	-11.691	14.45	24.43	-180.92
W -90 Ice	0Y	1Y	L 1Y	-89.029	19.340	19.396	1.770	-19.315	-7.91	25.45	87.12

Overturning Moment Summary For All Load Cases:

Load Case	Transverse Moment (ft-k)	Longitudinal Moment (ft-k)	Resultant Moment (ft-k)
W 0	132.119	12996.192	12996.864
W 180	54.240	-12875.434	12875.548
W 45	9965.825	9939.860	14075.457
W -45	-9754.275	9900.796	13898.620
W 90	13064.515	84.852	13064.791
W -90	-12892.446	16.427	12892.456
W 0 Ice	151.680	11589.970	11590.962
W 180 Ice	89.151	-11401.441	11401.790
W 45 Ice	8974.583	8953.516	12677.089
W -45 Ice	-8712.899	8922.625	12471.080
W 90 Ice	11643.824	113.894	11644.381
W -90 Ice	-11413.695	58.848	11413.847

EIA Sections Information:

Section Label	Top Z (ft)	Bottom Z (ft)	Joint Count	Member Count	Top Width (ft)	Bottom Width (ft)	Gross Area (ft^2)	Face Af Adjust Factor	Face Ar Adjust Factor	Dead Load Factor
187.5-200.0	200.000	187.500	8	20	13.33	15.09	177.63	1.1270	1.1270	1.352
175.0-187.5	187.500	175.000	8	16	15.09	16.85	199.64	1.1800	1.1800	1.416
162.5-175.0	175.000	162.500	8	16	16.85	18.61	221.64	1.2080	1.2080	1.449
150.0-162.5	162.500	150.000	12	24	18.61	20.37	243.65	1.2150	1.2150	1.458

137.5-150.0	150.000	137.500	16	24	20.37	22.13	265.66	1.2180	1.2180	1.462
125.0-137.5	137.500	125.000	16	24	22.13	23.89	287.67	1.2240	1.2240	1.469
112.5-125.0	125.000	112.500	16	24	23.89	25.65	309.68	1.2390	1.2390	1.487
100.0-112.5	112.500	100.000	16	24	25.65	27.42	331.68	1.2450	1.2450	1.494
75.00-100.0	100.000	75.000	16	24	27.42	30.94	729.39	1.2770	1.2770	1.532
50.00-75.00	75.000	50.000	16	24	30.94	34.46	817.42	1.2930	1.2930	1.551
25.00-50.00	50.000	25.000	20	32	34.46	37.98	905.45	1.3350	1.3350	1.602
0.000-25.00	25.000	0.000	28	56	37.98	41.50	993.48	1.2120	1.2120	1.455

*** Overall summary for all load cases - Usage = Maximum Stress / Allowable Stress
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each load case.
The Group Summary reports on the member and load case that resulted in maximum usage which may not necessarily be the same as that which produces maximum force.

Group Summary (Compression Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (ksi)	Max Usage %	Cont-rol	Max Use In Comp. %	Comp. Member	Comp. Force (kips)	Comp. Control Load Case	L/R Capacity (kips)	Comp. Connect. Shear Capacity (kips)	Comp. Connect. Bearing Capacity (kips)	RLX	RLY	RLZ	L/R	KL/R Comp. Member (ft)	Length	Curve No.	No. Of Bolts Comp.
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	33.0	68.28	Comp	68.28	L 1P	-241.070	W 45	264.820	0.000	0.000	0.333	0.333	0.333	64.41	64.41	25.124	1	0
Leg S2	L 8" x 8" x 1"	SAE	8X8X1	33.0	64.22	Comp	64.22	L 2P	-203.316	W 45	237.436	0.000	0.000	0.333	0.333	0.333	64.41	64.41	25.124	1	0
Leg S3	L 8" x 8" x 0.875"	SAE	8X8X0.88	33.0	58.49	Comp	58.49	L 3P	-163.677	W 45	209.882	0.000	0.000	0.333	0.333	0.333	64.00	64.00	25.124	1	0
Leg S4	L 8" x 8" x 0.75"	SAE	8X8X0.75	33.0	51.08	Comp	51.08	L 4P	-123.875	W 45	181.879	0.000	0.000	0.333	0.333	0.333	63.60	63.60	25.124	1	0
Leg S5	L 6" x 6" x 0.875"	SAE	6X6X0.88	33.0	50.91	Comp	50.91	L 5P	-104.536	W 45	154.011	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S6	L 6" x 6" x 0.875"	SAE	6X6X0.88	33.0	41.26	Comp	41.26	L 6P	-84.722	W 45	154.011	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S7	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	37.73	Comp	37.73	L 7P	-67.210	W 45	133.593	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S8	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	28.27	Comp	28.27	L 8P	-50.347W	45 Ice	133.593	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S9	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	22.96	Comp	22.96	L 9P	-40.899W	45 Ice	133.593	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S10	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	14.57	Comp	14.57	L 10P	-25.954W	45 Ice	133.593	0.000	0.000	0.500	0.500	0.500	64.42	64.42	12.562	1	0
Leg S11	L 6" x 6" x 0.5"	SAE	6X6X0.5	33.0	12.05	Comp	12.05	L 11P	-14.664W	45 Ice	91.282	0.000	0.000	0.500	0.500	0.500	63.87	63.87	12.562	1	0
Leg S12	L 6" x 6" x 0.5"	SAE	6X6X0.5	33.0	4.44	Comp	4.44	L 12P	-5.401W	45 Ice	91.282	0.000	0.000	0.500	0.500	0.500	63.87	63.87	12.562	1	0
Diag S1	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	84.93	Comp	84.93	D 1Y	-30.031	W 180	26.521	0.000	0.000	0.310	0.790	0.310	131.47	127.05	19.276	6	0
Diag S2	B/B L2.5"x3"x0.3125"	DAS	3X2.5X0.31	33.0	99.36	Comp	99.36	D 4Y	-30.595	W 180	23.094	0.000	0.000	0.310	0.620	0.310	160.23	144.74	31.444	6	0
Diag S3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	33.0	58.79	Comp	58.79	D 6Y	-30.051	W 180	19.431	0.000	0.000	0.310	0.620	0.310	156.05	142.17	30.413	6	0
Diag S4	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	33.0	92.46	Comp	92.46	D 8Y	-27.931	W 180	20.288	0.000	0.000	0.310	0.620	0.310	151.11	139.14	29.451	6	0
Diag S5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	96.77	Comp	96.77	D 10Y	-17.609	W 180	13.647	0.000	0.000	0.500	1.000	0.500	187.28	161.38	18.572	6	0
Diag S6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	83.93	Comp	83.93	D 12Y	-16.052	W 180	14.344	0.000	0.000	0.500	1.000	0.500	180.83	157.41	17.932	6	0
Diag S7	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	76.52	Comp	76.52	D 13P	-15.374	W 90	15.070	0.000	0.000	0.500	1.000	0.500	174.59	153.57	17.313	6	0
Diag S8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	70.74	Comp	70.74	D 15P	-14.922	W 90	15.821	0.000	0.000	0.500	1.000	0.500	168.59	149.88	16.718	6	0
Diag S9	L 3" x 4" x 0.25"	SAU	4X3X0.25	33.0	97.31	Comp	97.31	D 18X	-9.133	W -90	7.039	0.000	0.000	0.520	0.750	0.520	232.76	189.35	23.173	6	0
Diag S10	L 3" x 4" x 0.25"	SAU	4X3X0.25	33.0	66.31	Comp	66.31	D 20X	-6.861	W -90	7.761	0.000	0.000	0.520	0.750	0.520	218.09	180.33	21.713	6	0
Diag S11	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	33.0	40.72	Comp	40.72	D 22P	-5.457	W 90	10.052	0.000	0.000	0.520	0.750	0.520	182.53	158.45	20.300	6	0
Diag S12	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	33.0	20.80	Comp	20.80	D 23Y	-3.071	W 180	11.073	0.000	0.000	0.520	0.750	0.520	170.35	150.97	18.946	6	0
Horiz 1	B/B L3"x3"x0.3125"	DAE	3X3X0.31	33.0	66.99	Comp	66.99	H 2P	-40.212	W 180	26.119	0.000	0.000	0.950	0.950	0.950	156.53	142.47	12.660	6	0
Horiz 2	B/B L3.5"x2.5"x0.3125"	DAL	3.5X2.5X0.31	33.0	60.55	Comp	60.55	H 4P	-16.350	W 180	20.253	0.000	0.000	1.000	1.000	1.000	187.95	161.79	17.229	6	0
Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	79.80	Comp	79.80	H 6P	-14.983	W 180	14.083	0.000	0.000	1.000	1.000	1.000	196.42	167.00	15.468	6	0
Horiz 4	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	58.37	Comp	58.37	H 8P	-13.014	W 180	16.723	0.000	0.000	1.000	1.000	1.000	174.06	153.25	13.708	6	0
Horiz 5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	70.31	Comp	70.31	H 10Y	-11.624	W 0	12.400	0.000	0.000	1.000	1.000	1.000	200.16	169.30	12.827	6	0
Horiz 6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	56.26	Comp	56.26	H 12Y	-10.304	W 0	13.736	0.000	0.000	1.000	1.000	1.000	186.43	160.85	11.947	6	0
Horiz 7	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	31.33	Comp	31.33	H 13X	-9.329	W 90	22.328	0.000	0.000	1.000	1.000	1.000	140.53	132.62	11.067	6	0
Horiz 8	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	26.17	Comp	26.17	H 15X	-8.603	W 90	24.652	0.000	0.000	1.000	1.000	1.000	129.35	125.75	10.186	6	0
Horiz 9	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	3.88	Comp	3.88	H 17P	-0.722	W 180	13.956	0.000	0.000	0.500	1.000	0.500	197.65	167.75	18.612	6	0
Horiz 10	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	1.70	Tens	0.77	H 19Y	-0.314	W 0	30.538	0.000	0.000	0.500	0.500	0.500	106.99	106.99	16.851	1	0
Horiz 11	L 4" x 3" x 0.3125"	SAU	4X3X0.31	33.0	1.68	Tens	0.55	H 21P	-0.130	W 180	17.840	0.000	0.000	0.500	0.600	0.500	139.94	132.27	15.091	6	0
Horiz 12	L 4" x 3" x 0.3125"	SAU	4X3X0.31	33.0	3.59	Comp	3.59	H 24P	-0.381	W 180	7.941	0.000	0.000	1.000	0.500	1.000	247.23	198.25	13.330	6	0
LD 1	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	33.0	58.42	Tens	2.56	LD 1X	-0.477	W -90	13.971	0.000	0.000	0.970	0.970	0.970	170.23	150.89	11.465	6	0
LD 2	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	77.12	Comp	77.12	LD 4Y	-28.894	W 180	28.099	0.000	0.000	1.000	1.000	1.000	124.36	122.68	9.638	6	0
LD 3	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	79.91	Comp	79.91	LD 6P	-28.325	W 180	26.584	0.000	0.000	0.970	0.970	0.970	131.18	126.88	10.481	6	0
LH 1	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	56.39	Tens	0.00	LH 2Y	0.000		0.001	0.000	0.000	100.000	200.000	100.000	22460.19	22460.19	11.137	4	0
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	36.0	0.00		0.00	BR 5XY	-1.255	W 45	0.215	0.000	0.000	1.000	1.000	1.000	2.63	2.63	21.875	1	0

Group Summary (Tension Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (ksi)	Max Usage %	Cont-rol	Max Use In Tens. %	Tension Member	Tension Force (kips)	Tension Control Load Case	Net Section Capacity (kips)	Tension Connect. Shear Capacity (kips)	Tension Connect. Bearing Capacity (kips)	Tension Connect. Rupture Capacity (kips)	Length Tens. Member (ft)	No. Of Bolts Tens.	No. Of Holes	Hole Diameter (in)
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	33.0	68.28	Comp	30.89	L 1XY	136.419	W 45	331.253	0.000	0.000	0.000	25.124	0	0.000	0
Leg S2	L 8" x 8" x 1"	SAE	8X8X1	33.0	64.22	Comp	35.82	L 2XY	141.841	W 45	297.000	0.000	0.000	0.000	25.124	0	0.000	0
Leg S3	L 8" x 8" x 0.875"	SAE	8X8X0.88	33.0	58.49	Comp	31.92	L 3XY	111.469	W 45	261.954	0.000	0.000	0.000	25.124	0	0.000	0
Leg S4	L 8" x 8" x 0.75"	SAE	8X8X0.75	33.0	51.08	Comp	26.81	L 4XY	80.966	W 45	226.512	0.000	0.000	0.000	25.124	0	0.000	0
Leg S5	L 6" x 6" x 0.875"	SAE	6X6X0.88	33.0	50.91	Comp	25.94	L 5XY	66.626	W 45	192.654	0.000	0.000	0.000	12.562	0	0.000	0
Leg S6	L 6" x 6" x 0.875"	SAE	6X6X0.88	33.0	41.26	Comp	20.42	L 6XY	52.461	W 45	192.654	0.000	0.000	0.000	12.562	0	0.000	0
Leg S7	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	37.73	Comp	17.42	L 7XY	38.820	W 45	167.112	0.000	0.000	0.000	12.562	0	0.000	0
Leg S8	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	28.27	Comp	11.62	L 8XY	25.900	W 45	167.112	0.000	0.000	0.000	12.562	0	0.000	0
Leg S9	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	22.96	Comp	9.13	L 9XY	20.335	W 45	167.112	0.000	0.000	0.000	12.562	0	0.000	0
Leg S10	L 6" x 6" x 0.75"	SAE	6X6X0.75	33.0	14.57	Comp	5.35	L 10XY	11.922	W 45	167.112	0.000	0.000	0.000	12.562	0	0.000	0
Leg S11	L 6" x 6" x 0.5"	SAE	6X6X0.5	33.0	12.05	Comp	2.75	L 11XY	4.173	W 45	113.850	0.000	0.000	0.000	12.562	0	0.000	0
Leg S12	L 6" x 6" x 0.5"	SAE	6X6X0.5	33.0	4.44	Comp	0.88	L 12XY	1.116	W 45	113.850	0.000	0.000	0.000	12.562	0	0.000	0
Diag S1	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	84.93	Comp	67.40	D 1P	51.243	W 180	57.024	0.000	0.000	0.000	19.276	0	0.000	0
Diag S2	B/B L2.5"x3"x0.3125"	DAS	3X2.5X0.31	33.0	99.36	Comp	32.83	D 4P	28.077	W 180	64.152	0.000	0.000	0.000	31.444	0	0.000	0
Diag S3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	33.0	58.79	Comp	39.95	D 6P	27.737	W 180	52.074	0.000	0.000	0.000	30.413	0	0.000	0
Diag S4	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	33.0	92.46	Comp	37.96	D 8P	26.354	W 180	52.074	0.000	0.000	0.000	29.451	0	0.000	0
Diag S5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	96.77	Comp	25.90	D 10P	16.270	W 180	47.124	0.000	0.000	0.000	18.572	0	0.000	0
Diag S6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	83.93	Comp	23.62	D 12P	14.843	W 180	47.124	0.000	0.000	0.000	17.932	0	0.000	0
Diag S7	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	76.52	Comp	22.72	D 13X	14.276	W 90	47.124	0.000	0.000	0.000	17.313	0	0.000	0
Diag S8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	70.74	Comp	21.89	D 15X	13.754	W 90	47.124	0.000	0.000	0.000	16.718	0	0.000	0
Diag S9	L 3" x 4" x 0.25"	SAU	4X3X0.25	33.0	97.31	Comp	18.59	D 18X	8.293	W 90	33.462	0.000	0.000	0.000	23.173	0	0.000	0
Diag S10	L 3" x 4" x 0.25"	SAU	4X3X0.25	33.0	66.31	Comp	14.23	D 20X	6.350	W 90	33.462	0.000	0.000	0.000	21.713	0	0.000	0
Diag S11	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	33.0	40.72	Comp	10.56	D 22X	4.710	W 90	33.462	0.000	0.000	0.000	20.300	0	0.000	0
Diag S12	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	33.0	20.80	Comp	5.56	D 23Y	2.481	W 0	33.462	0.000	0.000	0.000	18.946	0	0.000	0
Horiz 1	B/B L3"x3"x0.3125"	DAE	3X3X0.31	33.0	66.99	Comp	19.03	H 2Y	17.836	W 180	70.290	0.000	0.000	0.000	12.660	0	0.000	0
Horiz 2	B/B L3.5"x2.5"x0.3125"	DAL	3.5X2.5X0.31	33.0	60.55	Comp	18.13	H 4P	16.989	W 0	70.290	0.000	0.000	0.000	17.229	0	0.000	0
Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	79.80	Comp	21.74	H 6P	15.096	W 0	52.074	0.000	0.000	0.000	15.468	0	0.000	0
Horiz 4	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	58.37	Comp	19.73	H 8P	13.696	W 0	52.074	0.000	0.000	0.000	13.708	0	0.000	0
Horiz 5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	70.31	Comp	19.12	H 10Y	12.016	W 180	47.124	0.000	0.000	0.000	12.827	0	0.000	0
Horiz 6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	56.26	Comp	17.28	H 12Y	10.859	W 180	47.124	0.000	0.000	0.000	11.947	0	0.000	0
Horiz 7	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	31.33	Comp	14.27	H 13P	9.910	W 90	52.074	0.000	0.000	0.000	11.067	0	0.000	0
Horiz 8	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	26.17	Comp	13.04	H 15X	9.053	W -90	52.074	0.000	0.000	0.000	10.186	0	0.000	0
Horiz 9	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	3.88	Comp	2.13	H 17P	1.476	W 0 Ice	52.074	0.000	0.000	0.000	18.612	0	0.000	0
Horiz 10	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	33.0	1.70	Tens	1.70	H 19P	1.180	W 0 Ice	52.074	0.000	0.000	0.000	16.851	0	0.000	0
Horiz 11	L 4" x 3" x 0.3125"	SAU	4X3X0.31	33.0	1.68	Tens	1.68	H 22P	0.928W	45 Ice	41.382	0.000	0.000	0.000	15.091	0	0.000	0
Horiz 12	L 4" x 3" x 0.3125"	SAU	4X3X0.31	33.0	3.59	Comp	0.57	H 24P	0.312	W 0	41.382	0.000	0.000	0.000	13.330	0	0.000	0
LD 1	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	33.0	58.42	Tens	58.42	LD 2P	32.851	W 180	42.174	0.000	0.000	0.000	11.465	0	0.000	0
LD 2	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	77.12	Comp	31.82	LD 4P	24.195	W 180	57.024	0.000	0.000	0.000	9.638	0	0.000	0
LD 3	B/B L3"x3"x0.25"	DAE	3X3X0.25	33.0	79.91	Comp	38.34	LD 6Y	29.147	W 180	57.024	0.000	0.000	0.000	10.481	0	0.000	0
LH 1	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	33.0	56.39	Tens	56.39	LH 2P	35.433	W 180	47.124	0.000	0.000	0.000	11.137	0	0.000	0
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	36.0	0.00		0.00	BR 5X	1.011	W -45	0.216	0.000	0.000	0.000	21.875	0	0.000	0

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case	Maximum Usage %	Element Label	Element Type
W 0	99.04	D 4P	Angle
W 180	99.36	D 4Y	Angle
W 45	79.58	D 18P	Angle
W -45	80.40	D 18X	Angle
W 90	98.94	D 3P	Angle
W -90	99.14	D 3X	Angle
W 0 Ice	88.71	D 4P	Angle
W 180 Ice	89.13	D 4Y	Angle
W 45 Ice	74.26	D 18P	Angle
W -45 Ice	75.11	D 18X	Angle
W 90 Ice	89.65	D 18P	Angle
W -90 Ice	90.07	D 18X	Angle

*** Weight of structure (lbs):
Weight of Angles*Section DLF: 92034.6
Weight of Equipment: 1163.0
Total: 93197.6

*** End of Report

Site #:	88017
Name:	Shelton/Trumbull, CT

Engineer:	ADV
Date:	01/06/15

Windspeed:	No Ice:	85 mph	Ice:	74 mph
Carrier	Lightsquared LP			

Taper:	-0.14085	
FW @ Base:	41.5	ft

Taper Change:	200	ft
FW @ Top:	13.33	ft

Spreadsheet Version Last Updated: 5/30/2014

Joint Label	Symmetry Code	X Coord. (ft)	Y Coord. (ft)	Z Coord. (ft)	X Disp. Rest.	Y Disp. Rest.	Z Disp. Rest.	X Rot. Rest.	Y Rot. Rest.	Z Rot. Rest.	Drop Sub-Brace (Y or Blank)	# Vert	Drop (ft)	Height (ft)	Type	Count	Z-Elev. (ft)	FW (ft)	# Sub-Brace
0	XY-Symmetry	20.75	20.75	0	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed			8.3333	25	2	1	0	41.5	3
1	XY-Symmetry	18.989375	18.989375	25	Free	Free	Free	Free	Free	Free				25	A	2	25	37.97875	2
2	XY-Symmetry	17.22875	17.22875	50	Free	Free	Free	Free	Free	Free				25	A	3	50	34.4575	2
3	XY-Symmetry	15.468125	15.468125	75	Free	Free	Free	Free	Free	Free				25	A	4	75	30.93625	2
4	XY-Symmetry	13.7075	13.7075	100	Free	Free	Free	Free	Free	Free				12.5	A	5	100	27.415	1
5	XY-Symmetry	12.8271875	12.8271875	112.5	Free	Free	Free	Free	Free	Free				12.5	A	6	112.5	25.654375	1
6	XY-Symmetry	11.946875	11.946875	125	Free	Free	Free	Free	Free	Free				12.5	A	7	125	23.89375	1
7	XY-Symmetry	11.0665625	11.0665625	137.5	Free	Free	Free	Free	Free	Free				12.5	A	8	137.5	22.133125	1
8	XY-Symmetry	10.18625	10.18625	150	Free	Free	Free	Free	Free	Free		1		12.5	X	9	150	20.3725	1
9	XY-Symmetry	9.3059375	9.3059375	162.5	Free	Free	Free	Free	Free	Free		1		12.5	X	10	162.5	18.611875	1
10	XY-Symmetry	8.425625	8.425625	175	Free	Free	Free	Free	Free	Free		1		12.5	X	11	175	16.85125	1
11	XY-Symmetry	7.5453125	7.5453125	187.5	Free	Free	Free	Free	Free	Free				12.5	X	12	187.5	15.090625	1
12	XY-Symmetry	6.665	6.665	200	Free	Free	Free	Free	Free	Free						13	200	13.33	
A1	XY-Symmetry	18.989375	6.329791667	25	Free	Free	Free	Free	Free	Free									
A2	XY-Symmetry	6.329791667	18.989375	25	Free	Free	Free	Free	Free	Free									
A3	Y-Symmetry	17.22875	0	50	Free	Free	Free	Free	Free	Free									
A4	X-Symmetry	0	17.22875	50	Free	Free	Free	Free	Free	Free									
A5	Y-Symmetry	15.468125	0	75	Free	Free	Free	Free	Free	Free									
A6	X-Symmetry	0	15.468125	75	Free	Free	Free	Free	Free	Free									
A7	Y-Symmetry	13.7075	0	100	Free	Free	Free	Free	Free	Free									
A8	X-Symmetry	0	13.7075	100	Free	Free	Free	Free	Free	Free									
A9	Y-Symmetry	12.8271875	0	112.5	Free	Free	Free	Free	Free	Free									
A10	X-Symmetry	0	12.8271875	112.5	Free	Free	Free	Free	Free	Free									
A11	Y-Symmetry	11.946875	0	125	Free	Free	Free	Free	Free	Free									
A12	X-Symmetry	0	11.946875	125	Free	Free	Free	Free	Free	Free									
A13	Y-Symmetry	11.0665625	0	137.5	Free	Free	Free	Free	Free	Free									
A14	X-Symmetry	0	11.0665625	137.5	Free	Free	Free	Free	Free	Free									
A15	Y-Symmetry	10.18625	0	150	Free	Free	Free	Free	Free	Free									
A16	X-Symmetry	0	10.18625	150	Free	Free	Free	Free	Free	Free									
H1	XY-Symmetry	19.57624765	11.13650855	16.6667	Free	Free	Free	Free	Free	Free									
H2	XY-Symmetry	11.13650855	19.57624765	16.6667	Free	Free	Free	Free	Free	Free									
H3	Y-Symmetry	19.57624765	0	16.6667	Free	Free	Free	Free	Free	Free									
H4	X-Symmetry	0	19.57624765	16.6667	Free	Free	Free	Free	Free	Free									

NOTES	
Types:	
1:	Built up Horizs. w/ A
2:	Built up Horizs. w/ M
A:	Typical A brace
X:	Typical X brace
Drop:	Use only for types 1 & 2

# Sections:	12

Legs

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations *(ft)*	Type of Shape [1]	Diameter or Length *(in)*	Thickness [2] *(in)*	F_Y *(ksi)*
1	0.000-25.00	L	8	1.125	33
2	25.00-50.00	L	8	1	33
3	50.00-75.00	L	8	0.875	33
4	75.00-100.0	L	8	0.75	33
5	100.0-112.5	L	6	0.875	33
6	112.5-125.0	L	6	0.875	33
7	125.0-137.5	L	6	0.75	33
8	137.5-150.0	L	6	0.75	33
9	150.0-162.5	L	6	0.75	33
10	162.5-175.0	L	6	0.75	33
11	175.0-187.5	L	6	0.5	33
12	187.5-200.0	L	6	0.5	33

Notes:

[1] Type of Leg Shape: **R** = Round or **P** = Bent Plate or **S** = Schifflerized Angle. **L** = Even Leg

[2] For Solid Round Leg Shapes Thickness Equals Zero.

[3] Adjust for Bent Plate Leg Shapes.

Diagonals

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations (ft)	Type of Shape [1]	Diameter [2] (in)	Web Length [3] (in)	Flange Length [3] (in)	Thickness (in)	F_y (ksi)	Is Diag. Tension Only? (Y/N)
1	0.000-25.00	2L		3	3	0.25	33	
2	25.00-50.00	2L		2.5	3	0.3125	33	
3	50.00-75.00	2L		2.5	3	0.25	33	
4	75.00-100.0	2L		2.5	3	0.25	33	
5	100.0-112.5	2L		2.5	2.5	0.25	33	
6	112.5-125.0	2L		2.5	2.5	0.25	33	
7	125.0-137.5	2L		2.5	2.5	0.25	33	
8	137.5-150.0	2L		2.5	2.5	0.25	33	
9	150.0-162.5	L		3	4	0.25	33	
10	162.5-175.0	L		3	4	0.25	33	
11	175.0-187.5	L		3.5	3.5	0.25	33	
12	187.5-200.0	L		3.5	3.5	0.25	33	

Notes:

[1] Type of Diagonal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

[3] Applies to Single-Angle and Double-Angle Shapes only.

[4] Applies to Double-Angle Shapes only.

[5] Applies to Single-Angle Shapes only.

Horizontals

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations *(ft)*	Type of Shape [1]	Diameter [2] *(in)*	Web Length [3] *(in)*	Flange Length [3] *(in)*	Thickness *(in)*	F_y *(ksi)*	
1	0.000-25.00	2L		3	3	0.3125	33	
2	25.00-50.00	2L		3.5	2.5	0.3125	33	
3	50.00-75.00	2L		3	2.5	0.25	33	
4	75.00-100.0	2L		3	2.5	0.25	33	
5	100.0-112.5	2L		2.5	2.5	0.25	33	
6	112.5-125.0	2L		2.5	2.5	0.25	33	
7	125.0-137.5	2L		3	2.5	0.25	33	
8	137.5-150.0	2L		3	2.5	0.25	33	
9	150.0-162.5	2L		3	2.5	0.25	33	
10	162.5-175.0	2L		3	2.5	0.25	33	
11	175.0-187.5	L		4	3	0.3125	33	
12	187.5-200.0	L		4	3	0.3125	33	

Notes:

[1] Type of Horizontal Shape: **R** = Round, **L** = Single-Angle, **2L** = Double-Angle, **C** = Channel, **W** = W Shape

[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

[3] Applies to Single-Angle and Double-Angle Shapes only.

[4] Applies to Double-Angle Shapes only.

[5] Applies to Single-Angle Shapes only.

Built-up Diagonals

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.
Input diags. from left to center & from base section upward.

Tower Built-up Diag. #	Section Elevations *(ft)*	Type of Shape [1]	Diameter [2] *(in)*	Web Length [3] *(in)*	Flange Length [3] *(in)*	Thickness *(in)*	F_y *(ksi)*
1	0.000-25.00	2L		2.5	2	0.25	33
2	0.000-25.00	2L		3	3	0.25	33
3	0.000-25.00	2L		3	3	0.25	33

Notes:

[1] Type of Diagonal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

[3] Applies to Single-Angle and Double-Angle Shapes only.

[4] Applies to Double-Angle Shapes only.

[5] Applies to Single-Angle Shapes only.

Built-up Horizontals

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

When inputting thickness values, include all decimal places.

Tower Section #	Section Elevations *(ft)*	Type of Shape [1]	Diameter [2] *(in)*	Web Length [3] *(in)*	Flange Length [3] *(in)*	Thickness *(in)*	F_y *(ksi)*	Is Horiz. Tension Only? *(Y/N)*
1	0.000-25.00	2L		2.5	2.5	0.25	33	Y

Notes:

[1] Type of Horizontal Shape: **R** = Round, **L** = Single-Angle or **2L** = Double-Angle.

[2] Applies to Pipes and Solid Round Shapes only. For Solid Round Shapes Thickness Equals Zero.

[3] Applies to Single-Angle and Double-Angle Shapes only.

[4] Applies to Double-Angle Shapes only.

[5] Applies to Single-Angle Shapes only.

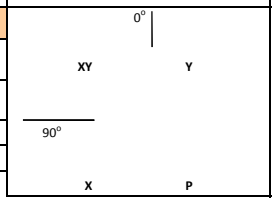
Coax and Dishes (p. 1 of 2)

Orig by MED, Improved by ABL. Last update 6/25/13 MED

Site No.:	88017
Engineer:	ADV
Date:	01/06/15
Carrier:	Lightsquared LP

Dish Types	
S	Standard
R	Standard w/ Radome
H	High Performance
G	Grid

Joint Orientation



Dish Elevation (ft)	Dish Dia. (ft)	Dish Angle (deg)	Dish Type	Joint Orientation

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle

Description	From (ft)	To (ft)	Quantity	Shape	Width or Diameter (in)	Perimeter (in)	Unit Weight (lb/ft)	Part of Face Solidity Ratio (Yes/No)	Include in Wind Load (Yes/No)
State of CT 1	0	200	2	Round	2.01	6.3	0.57	No	Yes
State of CT 2	0	200	2	Round	1.98	6.2	0.82	No	Yes
State of CT 3	0	185	1	Flat	2.97	11.9	1.64	No	Yes
State of CT4	0	185	1	Round	0.63	2.0	0.15	No	Yes
State of CT 5	0	180	1	Flat	5.94	23.8	5.74	No	Yes
State of CT 6	0	180	1	Flat	1.26	5.0	0.6	No	Yes
Clearwire 1	0	162	4	Round	0.63	2.0	0.15	Yes	No
Clearwire 2	0	162	6	Round	0.32	1.0	0.05	Yes	No
Clearwire 3	0	162	2	Round	2.375	7.5	0.57	Yes	No
Sprint Nextel 1	0	155	4	Round	1.55	4.9	1	Yes	Yes
AT&T 1	0	144	1	Round	0.28	0.9	0.03	No	Yes
AT&T 2	0	144	1	Flat	7.92	31.7	9.84	No	Yes
State of CT 7	0	124	1	Round	2.01	6.3	0.57	No	Yes
US ICE	0	100	1	Round	1.09	3.4	0.33	Yes	No
WG 1	1	155.5	1	Flat	1.5	6.0	6	Yes	No
WG 2	8	165.5	1	Flat	1.5	6.0	6	Yes	No
WG 3	8	143	1	Flat	1.5	6.0	6	No	No
WG 4	25	176	1	Flat	1.5	6.0	6	No	No
Ladder	0	200	1	Round	1.5	4.7	6	No	No
Sprint Nextel 2	0	55	1	Round	0.63	2.0	0.15	Yes	Yes
Sprint Nextel 3	0	168	1	Flat	11.88	31.7	9.84	Yes	Yes
AT&T 3	0	144	1	Round	1.11	3.8	0.3	No	Yes
AT&T 4	0	144	1	Round	3.5	11.0	7.58	No	Yes
Lightsquared	0	84	1	Round	1.98	6.2	0.82	No	Yes

Coax and Dishes (p. 2 of 2)

Tia Code: TIA-222-F

α	7	$k_{z\ max}$	2.58
z_g	33	$k_{z\ min}$	1
e		t	

Description	From (ft)	To (ft)	Quantity	Face # (1-4, A-D)	Coax Width (in)	Considered Coax Shape (Block / Flat / Ind)	% Exposed	Spacing (in)	Shape (Round/Flat)	Block Width (# coax)	Block Depth (# coax)	Perimeter (in)	Unit Weight (lb/ft)	In Face Zone (Yes/No)	Include in Wind Load (Yes/No)
State of CT 1	0	200	2	B	2.01	**Ind**	100		**Round**	**2**	**1**	**6.3**	**0.57**	No	Yes
State of CT 2	0	200	2	B	1.98	**Ind**	100	0	**Round**	**2**	**1**	**6.2**	**0.82**	No	Yes
State of CT 3	0	185	2	B	1.98	**Block**	50	0	**Flat**	**1**	**2**	**11.9**	**1.64**	No	Yes
State of CT4	0	185	1	B	0.63	**Ind**	100	0	**Round**	**1**	**1**	**2.0**	**0.15**	No	Yes
State of CT 5	0	180	7	B	1.98	**Block**	50	0	**Flat**	**4**	**2**	**23.8**	**5.74**	No	Yes
State of CT 6	0	180	4	B	0.63	**Block**	50	0	**Flat**	**2**	**2**	**5.0**	**0.6**	No	Yes
Clearwire 1	0	162	4	2	0.63	**Ind**	100		**Round**	**4**	**1**	**2.0**	**0.15**	Yes	No
Clearwire 2	0	162	6	2	0.32	**Ind**	100	0	**Round**	**6**	**1**	**1.0**	**0.05**	Yes	No
Clearwire 3	0	162	2	2	2.38	**Ind**	100		**Round**	**2**	**1**	**7.5**	**0.57**	Yes	No
Sprint Nextel 1	0	155	4	3	1.55	**Ind**	100	0	**Round**	**4**	**1**	**4.9**	**1**	Yes	Yes
AT&T 1	0	144	1	C	0.28	**Ind**	0		**Round**	**1**	**1**	**0.9**	**0.03**	No	Yes
AT&T 2	0	144	12	C	1.98	**Block**	50	0	**Flat**	**6**	**2**	**31.7**	**9.84**	No	Yes
State of CT 7	0	124	1	B	2.01	**Ind**	100		**Round**	**1**	**1**	**6.3**	**0.57**	No	Yes
US ICE	0	100	1	4	1.09	**Ind**	100	0	**Round**	**1**	**1**	**3.4**	**0.33**	Yes	No
WG 1	1	155.5	1	2	1.50	**Flat**	100		**Flat**	**1**	**1**	**6.0**	**6**	Yes	No
WG 2	8	165.5	1	2	1.50	**Flat**	100	0	**Flat**	**1**	**1**	**6.0**	**6**	Yes	No
WG 3	8	143	1	D	1.50	**Flat**	100		**Flat**	**1**	**1**	**6.0**	**6**	No	No
WG 4	25	176	1	A	1.50	**Flat**	100	0	**Flat**	**1**	**1**	**6.0**	**6**	No	No
Ladder	0	200	1	A	1.50	**Ind**	100		**Round**	**1**	**1**	**4.7**	**6**	No	No
Sprint Nextel 2	0	55	1	3	0.63	**Ind**	100	0	**Round**	**1**	**1**	**2.0**	**0.15**	Yes	Yes
Sprint Nextel 3	0	168	12	3	1.98	**Block**	50	0	**Flat**	**6**	**2**	**31.7**	**9.84**	Yes	Yes
AT&T 3	0	144	2	C	0.74	**Ind**	0	0	**Round**	**1**	**2**	**3.8**	**0.3**	No	Yes
AT&T 4	0	144	1	C	3.50	**Ind**	100		**Round**	**1**	**1**	**11.0**	**7.58**	No	Yes
Lightsquared	0	84	1	B	1.98	**Ind**	100	0	**Round**	**1**	**1**	**6.2**	**0.82**	No	Yes
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No
							100							No	No
							100	0						No	No

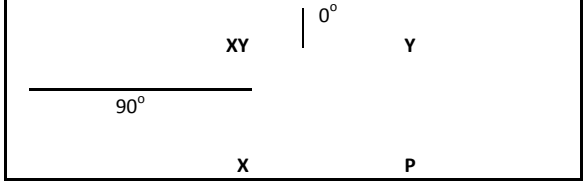
Coax & Dishes

Dish Types	
S	Standard
R	Standard w/ Radome
H	High Performance
G	Grid

Dish Elevation (ft)	Dish Dia. (ft)	Dish Angle (deg)	Dish Type	Joint Orientation
200	6	180	R	P
200	6	90	R	XY
124	6	270	R	Y
162	2	161.6	R	XY
162	3	247.6	H	Y
162	2	18.6	H	XY
162	3	226.1	H	P

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle *(deg)*
6' RAD 1 @ 200'	12P	6 ft RAD Dish	180
6' RAD 2 @ 200'	12XY	6 ft RAD Dish	90
6' RAD 3 @ 124'	6Y	6 ft RAD Dish	270
2' RAD 4 @ 162'	9XY	2 ft RAD Dish	161.6
3' HP 5 @ 162'	9Y	3 ft HP Dish	247.6
2' HP 6 @ 162'	9XY	2 ft HP Dish	18.6
3' HP 7 @ 162'	9P	3 ft HP Dish	226.1

Joint Orientation



Site #:	88017
Name:	Lightsquared LP

Engineer:	ADV
Date:	01/06/15

Section Label	Section Color	Joint Defining Bottom Section	Dead Load Adj. Factor					Adj. Factor Flat	Adj. Factor Round	Area Multiplier	Weight Multiplier
0.000-25.00		0P	1.454835256					1.212362714	1.212362714	1	1.2
25.00-50.00		1P	1.601894572					1.334912143	1.334912143	1	1.2
50.00-75.00		2P	1.551102587					1.292585489	1.292585489	1	1.2
75.00-100.0		3P	1.5321069					1.27675575	1.27675575	1	1.2
100.0-112.5		4P	1.494062132					1.245051776	1.245051776	1	1.2
112.5-125.0		5P	1.486743903					1.238953253	1.238953253	1	1.2
125.0-137.5		6P	1.46902112					1.224184266	1.224184266	1	1.2
137.5-150.0		7P	1.462099418					1.218416182	1.218416182	1	1.2
150.0-162.5		8P	1.457638151					1.214698459	1.214698459	1	1.2
162.5-175.0		9P	1.449427102					1.207855918	1.207855918	1	1.2
175.0-187.5		10P	1.416175461					1.180146218	1.180146218	1	1.2
187.5-200.0		11P	1.352175641					1.126813034	1.126813034	1	1.2

Site #:	88017
Name:	Lightsquared LP

Engineer:	ADV
Date:	01/06/15

Group Label	Group Description	Angle Type	Angle Size	Material Type	Element Type	Group Type	Optimize Group
Leg S1	L 8" x 8" x 1.125"	SAE	8X8X1.13	A7	Beam	Leg	None
Leg S2	L 8" x 8" x 1"	SAE	8X8X1	A7	Beam	Leg	None
Leg S3	L 8" x 8" x 0.875"	SAE	8X8X0.88	A7	Beam	Leg	None
Leg S4	L 8" x 8" x 0.75"	SAE	8X8X0.75	A7	Beam	Leg	None
Leg S5	L 6" x 6" x 0.875"	SAE	6X6X0.88	A7	Beam	Leg	None
Leg S6	L 6" x 6" x 0.875"	SAE	6X6X0.88	A7	Beam	Leg	None
Leg S7	L 6" x 6" x 0.75"	SAE	6X6X0.75	A7	Beam	Leg	None
Leg S8	L 6" x 6" x 0.75"	SAE	6X6X0.75	A7	Beam	Leg	None
Leg S9	L 6" x 6" x 0.75"	SAE	6X6X0.75	A7	Beam	Leg	None
Leg S10	L 6" x 6" x 0.75"	SAE	6X6X0.75	A7	Beam	Leg	None
Leg S11	L 6" x 6" x 0.5"	SAE	6X6X0.5	A7	Beam	Leg	None
Leg S12	L 6" x 6" x 0.5"	SAE	6X6X0.5	A7	Beam	Leg	None
Diag S1	B/B L3"x3"x0.25"	DAE	3X3X0.25	A7	Beam	Other	None
Diag S2	B/B L2.5"x3"x0.3125"	DAS	3X2.5X0.31	A7	Beam	Other	None
Diag S3	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A7	Beam	Other	None
Diag S4	B/B L2.5"x3"x0.25"	DAS	3X2.5X0.25	A7	Beam	Other	None
Diag S5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Diag S6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Diag S7	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Diag S8	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Diag S9	L 3" x 4" x 0.25"	SAU	4X3X0.25	A7	Beam	Other	None
Diag S10	L 3" x 4" x 0.25"	SAU	4X3X0.25	A7	Beam	Other	None
Diag S11	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A7	Beam	Other	None
Diag S12	L 3.5" x 3.5" x 0.25"	SAE	3.5X3.5X0.25	A7	Beam	Other	None
Horiz 1	B/B L3"x3"x0.3125"	DAE	3X3X0.31	A7	Beam	Other	None
Horiz 2	B/B L3.5"x2.5"x0.3125"	DAL	3.5X2.5X0.31	A7	Beam	Other	None
Horiz 3	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 4	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 5	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Horiz 6	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	Beam	Other	None
Horiz 7	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 8	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 9	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 10	B/B L3"x2.5"x0.25"	DAL	3X2.5X0.25	A7	Beam	Other	None
Horiz 11	L 4" x 3" x 0.3125"	SAU	4X3X0.31	A7	Beam	Other	None
Horiz 12	L 4" x 3" x 0.3125"	SAU	4X3X0.31	A7	Beam	Other	None
LD 1	B/B L2.5"x2"x0.25"	DAL	2.5X2X0.25	A7	Beam	Other	None
LD 2	B/B L3"x3"x0.25"	DAE	3X3X0.25	A7	Beam	Other	None
LD 3	B/B L3"x3"x0.25"	DAE	3X3X0.25	A7	Beam	Other	None
LH 1	B/B L2.5"x2.5"x0.25"	DAE	2.5X2.5X0.25	A7	T-Only	Other	None
DUM 1	Dummy Bracing Member	DUM	0.1X0.1X1	A 36	Beam	Fictitious	None

Site #:	88017
Name:	Lightsquared LP

Engineer:	ADV
Date:	01/06/15

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
L 1	Leg S1		XY-Symmetry	0P	1P	1	4	0.333332	0.333332	0.333332
L 2	Leg S2		XY-Symmetry	1P	2P	1	4	0.333333333	0.333333333	0.333333333
L 3	Leg S3		XY-Symmetry	2P	3P	1	4	0.333333333	0.333333333	0.333333333
L 4	Leg S4		XY-Symmetry	3P	4P	1	4	0.333333333	0.333333333	0.333333333
L 5	Leg S5		XY-Symmetry	4P	5P	1	4	0.5	0.5	0.5
L 6	Leg S6		XY-Symmetry	5P	6P	1	4	0.5	0.5	0.5
L 7	Leg S7		XY-Symmetry	6P	7P	1	4	0.5	0.5	0.5
L 8	Leg S8		XY-Symmetry	7P	8P	1	4	0.5	0.5	0.5
L 9	Leg S9		XY-Symmetry	8P	9P	1	4	0.5	0.5	0.5
L 10	Leg S10		XY-Symmetry	9P	10P	1	4	0.5	0.5	0.5
L 11	Leg S11		XY-Symmetry	10P	11P	1	4	0.5	0.5	0.5
L 12	Leg S12		XY-Symmetry	11P	12P	1	4	0.5	0.5	0.5
D 1	Diag S1		XY-Symmetry	0P	H2P	1	6	0.31	0.79	0.31
D 2	Diag S1		XY-Symmetry	0P	H1P	1	6	0.31	0.79	0.31
D 3	Diag S2		XY-Symmetry	1P	A3P	1	6	0.31	0.62	0.31
D 4	Diag S2		XY-Symmetry	1P	A4P	1	6	0.31	0.62	0.31
D 5	Diag S3		XY-Symmetry	2P	A5P	1	6	0.31	0.62	0.31
D 6	Diag S3		XY-Symmetry	2P	A6P	1	6	0.31	0.62	0.31
D 7	Diag S4		XY-Symmetry	3P	A7P	1	6	0.31	0.62	0.31
D 8	Diag S4		XY-Symmetry	3P	A8P	1	6	0.31	0.62	0.31
D 9	Diag S5		XY-Symmetry	4P	A9P	1	6	0.5	1	0.5
D 10	Diag S5		XY-Symmetry	4P	A10P	1	6	0.5	1	0.5
D 11	Diag S6		XY-Symmetry	5P	A11P	1	6	0.5	1	0.5
D 12	Diag S6		XY-Symmetry	5P	A12P	1	6	0.5	1	0.5
D 13	Diag S7		XY-Symmetry	6P	A13P	1	6	0.5	1	0.5
D 14	Diag S7		XY-Symmetry	6P	A14P	1	6	0.5	1	0.5
D 15	Diag S8		XY-Symmetry	7P	A15P	1	6	0.5	1	0.5
D 16	Diag S8		XY-Symmetry	7P	A16P	1	6	0.5	1	0.5
D 17	Diag S9		XY-Symmetry	8P	9Y	1	6	0.52	0.75	0.52
D 18	Diag S9		XY-Symmetry	8P	9X	1	6	0.52	0.75	0.52
D 19	Diag S10		XY-Symmetry	9P	10Y	1	6	0.52	0.75	0.52
D 20	Diag S10		XY-Symmetry	9P	10X	1	6	0.52	0.75	0.52
D 21	Diag S11		XY-Symmetry	10P	11Y	1	6	0.52	0.75	0.52
D 22	Diag S11		XY-Symmetry	10P	11X	1	6	0.52	0.75	0.52
D 23	Diag S12		XY-Symmetry	11P	12Y	1	6	0.52	0.75	0.52
D 24	Diag S12		XY-Symmetry	11P	12X	1	6	0.52	0.75	0.52
H 1	Horiz 1		XY-Symmetry	1P	A1P	1	6	0.95	0.95	0.95
H 2	Horiz 1		XY-Symmetry	1P	A2P	1	6	0.95	0.95	0.95
H 3	Horiz 2		XY-Symmetry	2P	A3P	1	6	1	1	1
H 4	Horiz 2		XY-Symmetry	2P	A4P	1	6	1	1	1
H 5	Horiz 3		XY-Symmetry	3P	A5P	1	6	1	1	1
H 6	Horiz 3		XY-Symmetry	3P	A6P	1	6	1	1	1
H 7	Horiz 4		XY-Symmetry	4P	A7P	1	6	1	1	1
H 8	Horiz 4		XY-Symmetry	4P	A8P	1	6	1	1	1
H 9	Horiz 5		XY-Symmetry	5P	A9P	1	6	1	1	1
H 10	Horiz 5		XY-Symmetry	5P	A10P	1	6	1	1	1
H 11	Horiz 6		XY-Symmetry	6P	A11P	1	6	1	1	1
H 12	Horiz 6		XY-Symmetry	6P	A12P	1	6	1	1	1
H 13	Horiz 7		XY-Symmetry	7P	A13P	1	6	1	1	1
H 14	Horiz 7		XY-Symmetry	7P	A14P	1	6	1	1	1
H 15	Horiz 8		XY-Symmetry	8P	A15P	1	6	1	1	1
H 16	Horiz 8		XY-Symmetry	8P	A16P	1	6	1	1	1
H 17	Horiz 9		Y-Symmetry	9P	9X	1	6	0.5	1	0.5
H 18	Horiz 9		X-Symmetry	9P	9Y	1	6	0.5	1	0.5
H 19	Horiz 10		Y-Symmetry	10P	10X	1	6	0.5	0.5	0.5
H 20	Horiz 10		X-Symmetry	10P	10Y	1	6	0.5	0.5	0.5
H 21	Horiz 11		Y-Symmetry	11P	11X	1	6	0.5	0.6	0.5
H 22	Horiz 11		X-Symmetry	11P	11Y	1	6	0.5	0.6	0.5
H 23	Horiz 12		Y-Symmetry	12P	12X	1	6	1	0.5	1
H 24	Horiz 12		X-Symmetry	12P	12Y	1	6	1	0.5	1
H 25	Horiz 1		Y-Symmetry	A1P	A1X	1	6	1	1	1

Member Label	Group Label	Section Label	Symmetry Code	Origin Joint	End Joint	Ecc. Code	Rest. Code	Ratio RLX	Ratio RLY	Ratio RLZ
H 26	Horiz 1		X-Symmetry	A2P	A2Y	1	6	1	1	1
LH 1	LH 1		XY-Symmetry	H1P	H3P	1	4	100	200	100
LH 2	LH 1		XY-Symmetry	H2P	H4P	1	4	100	200	100
LD 1	LD 1		XY-Symmetry	H1P	1P	1	6	0.97	0.97	0.97
LD 2	LD 1		XY-Symmetry	H2P	1P	1	6	0.97	0.97	0.97
LD 3	LD 2		XY-Symmetry	H1P	A1P	1	6	1	1	1
LD 4	LD 2		XY-Symmetry	H2P	A2P	1	6	1	1	1
LD 5	LD 3		XY-Symmetry	A1P	H3P	1	6	0.97	0.97	0.97
LD 6	LD 3		XY-Symmetry	A2P	H4P	1	6	0.97	0.97	0.97
BR 1	DUM 1		XY-Symmetry	A1P	A2P	1	4	1	1	1
BR 2	DUM 1		XY-Symmetry	A1P	A2XY	1	4	1	1	1
BR 3	DUM 1		XY-Symmetry	A3P	A4P	1	4	1	1	1
BR 5	DUM 1		XY-Symmetry	A5P	A6P	1	4	1	1	1
BR 7	DUM 1		XY-Symmetry	A7P	A8P	1	4	1	1	1
BR 9	DUM 1		XY-Symmetry	A9P	A10P	1	4	1	1	1
BR 11	DUM 1		XY-Symmetry	A11P	A12P	1	4	1	1	1
BR 13	DUM 1		XY-Symmetry	A13P	A14P	1	4	1	1	1
BR 15	DUM 1		XY-Symmetry	A15P	A16P	1	4	1	1	1
BR 61	DUM 1		XY-Symmetry	H1P	H2P	1	4	1	1	1
BR 62	DUM 1		XY-Symmetry	H1P	H2XY	1	4	1	1	1
BR 63	DUM 1		XY-Symmetry	H3P	H4P	1	4	1	1	1

Point Loads

Tower Height:	200	ft
Gh:	1.11	
Wind Speed:	85.00	mph
Wind Speed (Ice):	74.00	mph
Radial Ice Diameter:	0.5	in

Site No.:	88017
Engineer:	ADV
Date:	01/06/2015
Carrier:	Lightsquared LP

KS-15676 Horn Antennas: ~128 ft^2

No.	Carrier	Elevation (ft)	Quantity	Number of Azimuths	Model	Height (in)	Width (in)	Depth (in)	Weight (lbs/ea)	Flat/Round (F|R)	Reduction Factor	C_AA_C (ft^2/ea)	Weight (k/ea)	H/W	C_A	q_z (psf)	q_z (Ice) (psf)
1	State of CT	200	1	1	Andrew DB809K	135.6	3	3	30	R	1.000			45.20	1.20	30.95	23.46
	State of CT		1	1	Telewave ANT900D6-9						1.000	0.98	0.01	-	-		
2	State of CT	200	1	1	-	1	1	1	1	R	0.000			1.00	0.80	30.95	23.46
			1	4	Platform w/ Handrails						1.000	75.00	7.00	-	-		
3		200	1	1	-	1	1	1	1	F	1.000			1.00	1.40	30.95	23.46
			4	4	Mounting Frames						0.750	20.00	0.20	-	-		
4		187.5	1	1	-	1	1	1	1	F	1.000			1.00	1.40	30.38	23.03
			1	4	Platform w/ Handrails						1.000	45.00	5.00	-	-		
5																	
6	State of CT	185	2	2	TX RX 101-83B-09-0-03	120	3.6	3.6	45	R	1.000			33.33	1.20	30.27	22.94
	State of CT		2	2	Side Arms						1.000	5.20	0.05	-	-		
7	State of CT	185	1	1	TTA	12	12	6	10	F	1.000			1.00	1.40	30.27	22.94
	State of CT		1	1	-						1.000	0.00	0.00	-	-		
8	Clearwire	162	3	3	Argus LLPX310R	42	11.8	4.5	28.6	F	0.700			3.56	1.40	29.14	22.09
	Clearwire		1	3	Side Arms						1.000	8.50	0.56	-	-		
9	Clearwire	162	3	3	NextNet BTS-2500	19.3	11.3	5.1	35	F	0.333			1.71	1.40	29.14	22.09
	Clearwire		4	3	DragonWave Horizon Compact						0.333	0.43	0.01	-	-		
10	Sprint Nextel	155	3	3	RFS APXV9TM14-ALU-I20	56.3	12.6	6.3	55.1	F	0.760			4.47	1.40	28.78	21.81
	Sprint Nextel		1	4	Platform w/ Handrails						1.000	55.00	5.00	-	-		
11	Sprint Nextel	155	3	3	RFS APXVSPP18-C-A20	72	11.8	7	57	F	0.820			6.10	1.40	28.78	21.81
	Sprint Nextel		3	3	Alcatel 1900 MHz 4X45 RRH						0.500	2.71	0.06	-	-		
12	Sprint Nextel	155	3	3	Alcatel 800 MHz RRH	19.7	15.2	13	61.8	F	0.500			1.30	1.40	28.78	21.81
	Sprint Nextel		3	3	Alcatel TD-RRH8x20-25 w/ SS						0.670	4.72	0.07	-	-		
13	US Treasury	100	1	1	Andrew DB616E-BC	231	3.5	3.5	51	R	1.000			66.00	1.20	25.39	19.24
	US Treasury		1	1	Side Arm						1.000	5.00	0.10	-	-		
14		112.5	1	1	-	1	1	1	1	F	0.000			1.00	1.40	26.26	19.90
			1	3	Platform w/ Handrails						1.000	65.00	6.00	-	-		
15		75	1	1	-	1	1	1	1	F	1.000			1.00	1.40	23.39	17.72
			1	3	Platform w/ Handrails						1.000	65.00	6.00	-	-		
16																	
17		50	1	1	-	1	1	1	1	F	0.000			1.00	1.40	20.83	15.79
			1	1	Rest Platform						1.000	15.00	0.30	-	-		
18	AT&T Mobility	144	12	3	Powerwave LGP21401	14.4	9.2	2.6	14.1	F	0.333			1.57	1.40	28.18	21.36
	AT&T Mobility		3	3	Sector Frame						0.667	15.00	0.30	-	-		
19	AT&T Mobility	144	6	3	Ericsson RRUS 11 (Band 12)	17.8	17	7.2	55	F	0.333			1.05	1.40	28.18	21.36
	AT&T Mobility		1	3	-						1.000	0.00	0.00	-	-		
20	AT&T Mobility	144	1	1	Raycap DC6-48-60-18-8F	24	11	11	31.8	R	0.333			2.18	0.80	28.18	21.36
	AT&T Mobility		1	1	-						1.000	0.00	0.00	-	-		
21	AT&T Mobility	144	6	3	Powerwave 7770.00	55	11	5	35	F	0.640			5.00	1.40	28.18	21.36
	AT&T Mobility		1	3	-						1.000	0.00	0.00	-	-		
22	AT&T Mobility	144	3	3	Powerwave P65-16-XLH-RR	72	12	6	53	F	0.660			6.00	1.40	28.18	21.36
	AT&T Mobility		1	3	-						1.000	0.00	0.00	-	-		
23	State of CT	180	2	2	TX RX 101-83B-09-0-03	120	3.6	3.6	45	R	1.000			33.33	1.20	30.03	22.76
	State of CT		4	4	Side Arms						0.670	5.20	0.10	-	-		
24	State of CT	180	2	2	Kathrein AP14-850/105	101.5	10	4	26.8	F	0.900			10.15	1.51	30.03	22.76
	State of CT		4	2	TTA						0.670	1.40	0.01	-	-		
25	State of CT	180	1	1	5' Dipole	60	4	4	15	R	1.000			15.00	0.98	30.03	22.76
	State of CT		2	2	Sinclair SC479-HF1LDF						1.000	5.03	0.03	-	-		
26	Sprint Nextel	168	12	3	Decibel DB844H90E-A	48	6	8.5	10	F	0.860			8.00	1.43	29.45	22.32
	Sprint Nextel		3	3	Sector Frame						0.750	15.00	0.30	-	-		
27	Sprint Nextel	55	1	1	PCTEL GPS-TMG-HR-26N	5	3.2	3.2	0.6	R	1.000			1.56	0.80	21.40	16.22
	Sprint Nextel		1	1	-						1.000	0.00	0.00	-	-		
28	Lightsquared	84	1	1	Kathrein 750 10074	104.3	2	2	17.6	R	1.000			52.15	1.20	24.16	18.31
	Lightsquared		1	1	Side Arm						1.000	5.20	0.15	-	-		
29																	
30																	

No.	Elevation (ft)	C_AA_C (ft^2)	C_AA_C (Ice) (ft^2)	Force (k)	Force (Ice) (k)	Weight (k)	Weight (Ice) (k)	Σ Force (k)	Σ Force (Ice) (k)	Σ Weight (k)	Σ Weight (Ice) (k)
1	200	3.39	4.55	0.117	0.119	0.030	0.061	0.15	0.15	0.04	0.08
		0.98	1.32	0.034	0.035	0.011	0.014				
2	200	0.00	0.00	0.000	0.000	0.001	0.001	2.59	2.65	7.00	9.10
		75.00	101.25	2.585	2.645	7.000	9.100				
3	200	0.01	0.04	0.000	0.001	0.001	0.001	2.07	2.12	0.80	1.04
		60.00	81.00	2.068	2.116	0.800	1.040				
4	187.5	0.01	0.04	0.000	0.001	0.001	0.001	1.52	1.56	5.00	6.50
		45.00	60.75	1.523	1.558	5.000	6.500				
5											
6	185	7.20	9.28	0.243	0.237	0.090	0.155	0.59	0.60	0.19	0.29
		10.40	14.04	0.351	0.359	0.100	0.130				
7	185	1.40	1.64	0.047	0.042	0.010	0.020	0.05	0.04	0.01	0.02
		0.00	0.00	0.000	0.000	0.000	0.000				
8	162	10.12	11.24	0.328	0.276	0.086	0.163	0.60	0.56	0.65	0.89
		8.50	11.48	0.276	0.282	0.560	0.728				
9	162	2.12	2.43	0.069	0.060	0.105	0.145	0.09	0.08	0.15	0.20
		0.57	0.77	0.019	0.019	0.040	0.052				
10	155	15.72	17.27	0.504	0.420	0.165	0.284	2.27	2.22	5.17	6.78
		55.00	74.25	1.763	1.804	5.000	6.500				
11	155	20.32	22.35	0.651	0.543	0.171	0.320	0.78	0.68	0.35	0.55
		4.07	5.49	0.130	0.133	0.180	0.234				
12	155	4.37	4.89	0.140	0.119	0.185	0.263	0.44	0.43	0.40	0.54
		9.49	12.81	0.304	0.311	0.210	0.273				
13	100	6.74	8.70	0.191	0.186	0.051	0.112	0.33	0.33	0.15	0.24
		5.00	6.75	0.141	0.145	0.100	0.130				
14	112.5	0.00	0.00	0.000	0.000	0.001	0.001	1.90	1.95	6.00	7.80
		65.00	87.75	1.901	1.945	6.000	7.800				
15	75	0.01	0.04	0.000	0.001	0.001	0.001	1.69	1.73	6.00	7.80
		65.00	87.75	1.693	1.732	6.000	7.800				
16											
17	50	0.00	0.00	0.000	0.000	0.001	0.001	0.35	0.36	0.30	0.39
		15.00	20.25	0.348	0.356	0.300	0.390				
18	144	5.15	6.10	0.162	0.145	0.169	0.255	1.10	1.11	1.07	1.43
		30.02	40.52	0.942	0.964	0.900	1.170				
19	144	5.88	6.57	0.184	0.156	0.330	0.446	0.18	0.16	0.33	0.45
		0.00	0.00	0.000	0.000	0.000	0.000				
20	144	0.49	0.56	0.015	0.013	0.032	0.054	0.02	0.01	0.03	0.05
		0.00	0.00	0.000	0.000	0.000	0.000				
21	144	22.59	25.09	0.709	0.597	0.210	0.406	0.71	0.60	0.21	0.41
		0.00	0.00	0.000	0.000	0.000	0.000				
22	144	16.63	18.27	0.522	0.435	0.159	0.301	0.52	0.43	0.16	0.30
		0.00	0.00	0.000	0.000	0.000	0.000				
23	180	7.20	9.28	0.241	0.235	0.090	0.155	0.71	0.71	0.49	0.68
		13.94	18.81	0.466	0.477	0.400	0.520				
24	180	19.09	21.21	0.639	0.538	0.054	0.156	0.76	0.67	0.09	0.21
		3.75	5.07	0.126	0.128	0.040	0.052				
25	180	1.63	2.07	0.055	0.053	0.015	0.033	0.39	0.40	0.08	0.12
		10.06	13.58	0.337	0.344	0.068	0.088				
26	168	29.58	35.23	0.970	0.876	0.120	0.435	2.08	2.01	1.02	1.61
		33.75	45.56	1.107	1.133	0.900	1.170				
27	55	0.09	0.14	0.002	0.003	0.001	0.002	0.00	0.00	0.00	0.00
		0.00	0.00	0.000	0.000	0.000	0.000				
28	84	1.74	2.63	0.047	0.054	0.018	0.035	0.19	0.20	0.17	0.23
		5.20	7.02	0.140	0.143	0.150	0.195				
29											
30											

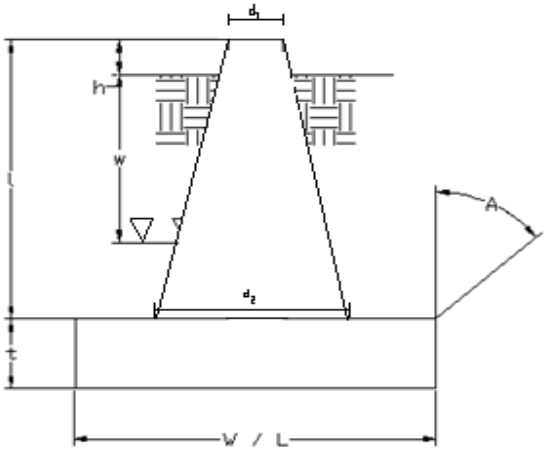
Foundation

Site No.:	88017
Engineer:	ADV
Date:	01/06/15
Carrier:	Lightsquared LP

Design Loads (Unfactored)

Compression/Leg:	280.40	k
Uplift/Leg:	200.00	k

Face Width @ Top of Pier (d_1):	3.50	ft
Face Width @ Bottom of Pier (d_2):	7.00	ft
Total Length of Pier (l):	7.00	ft
Height of Pedestal Above Ground (h):	0.50	ft
Width of Pad (W):	16.00	ft
Length of Pad (L):	16.00	ft
Thickness of Pad (t):	2.50	ft
Water Table Depth (w):	99	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	120.0	pcf
Unit Weight of Soil (Below Water Table):	55.0	pcf
Friction Angle of Uplift (A):	30	°
Allowable Compressive Bearing Pressure:	8000	psf



Volume Pier (Total):	200.08	ft³
Volume Pad (Total):	640.00	ft³
Volume Soil (Total):	2346.93	ft³
Volume Pier (Buoyant):	0.00	ft³
Volume Pad (Buoyant):	0.00	ft³
Volume Soil (Buoyant):	0.00	ft³
Weight Pier:	30.01	k
Weight Pad:	96.00	k
Weight Soil:	281.63	k

Uplift Check

TIA Case 1: $\frac{\text{Wt. Soil + Wt. Concrete}}{1.5}$

TIA Case 2: $\frac{\text{Wt. Soil}}{2.0} + \frac{\text{Wt. Concrete}}{1.25}$

	Allowable Uplift (k)	Ratio	Result
TIA Case 1:	271.76	0.74	**OK**
TIA Case 2:	241.63	0.83	**OK**

Axial Check

Allowable Axial: $\text{Allowable Bearing Pressure} * W * L$

	Allowable Axial (k)	Ratio	Result
	2048.00	0.14	**OK**

Anchor Bolt Check

Bolt Description	Allowable Uplift (k)	Ratio	Result
(4) 2 1/4" A36	304.41	0.66	**OK**

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

ATC SITE # / NAME: 88017/Shelton/Trumball
SITE ADDRESS: 14 Oxford Dr/Booth Hill Rd, Shelton, CT 06611
LICENSEE: ONE DOT SIX CORPORATION dba LIGHTSQUARED LP

I, **Margaret Robinson, Senior Counsel for American Tower***, owner of the tower facility and property located at the address identified above (the "Tower Facility"), do hereby authorize ONE DOT SIX CORPORATION dba LIGHTSQUARED LP, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by **Margaret Robinson, Senior Counsel for American Tower***, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 24th day of February, 2015.

NOTARY SEAL

BONNIE L. BELAIR
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 27, 2015

Notary Public
My Commission Expires: 8/27/2015

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

ADVANCED ENGINEERING GROUP, P.C.

500 North Broadway
East Providence, RI 02914
Ph: 401-354-2403
Fax: 401-354-2397

To: Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

From: Marc R. Chretien, P.E., Advanced Engineering Group, P.C.

Date: February 27, 2015

Subject: American Tower Corporation (ATC) Communication Facility (ATC Site No. 88017)
14 Oxford Drive, Shelton, CT 06611

A F F I D A V I T

The purpose of this affidavit is to demonstrate that the project as proposed by ATC, and depicted on plans entitled "Conn 2, 88017, LightSquared Expansion Project", dated 1/21/15, Rev 0, by ATC, is in compliance with Connecticut Noise Regulations section 22a-69-3.

I, Marc R. Chretien under oath do depose and say:

1. My name is Marc R. Chretien. I am a licensed professional civil engineer in the state of Connecticut with registration number 28307.

2. I am an independent engineering consultant for the wireless industry located at 500 North Broadway, East Providence, RI. My professional services include providing engineering services for the design and construction of wireless facilities.

3. I have been involved with the design and construction of wireless facilities throughout New England for over fifteen (15) years and have previously prepared acoustical noise impact assessments for wireless sites.

4. I am familiar with the technical specifications, acoustical noise levels, and actual operating conditions of the telecommunications equipment utilized by LightSquared and ATC. The proposed ground-based equipment rack will be contained in an existing concrete block equipment shelter that is located in the east quadrant of the subject parcel as shown on the above-referenced plans. The rack will support various rectifiers and radios neither of which possess any HVAC components or heat exchangers. The estimated noise output of the equipment rack is comparable to that of desktop computer (approximately 20 dB(A)).

5. The nearest property line is located approximately 45' to the east of the existing equipment shelter that will contain the proposed equipment rack. Since the proposed equipment rack will be located inside the existing shelter, it is our opinion that the nominal noise level produced by the proposed rack will be completely attenuated by the existing concrete block equipment shelter and will be imperceptible at the closest property line.

6. CT Noise Regulations section 22a-69-3.1 states that DEP Noise Control Regulation 310 CMR 7.10 states that the allowable day and night noise levels for a Class A (residential area) are 55 dB(A) and 45 dB(A), respectively. Therefore, based on the above information, it is my professional opinion that the predicted maximum acoustical noise levels from the proposed LightSquared/ATC equipment, as depicted on the above-referenced plans, will be in accordance with the requirements of the CT Noise Regulations section 22a-69-3.

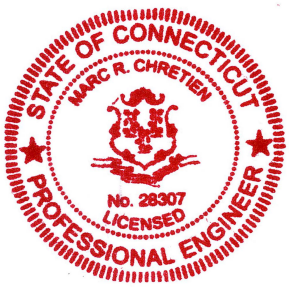
ADVANCED
ENGINEERING GROUP, P.C.

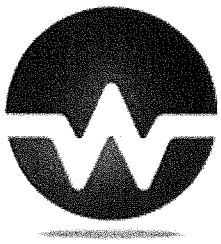
500 North Broadway
East Providence, RI 02914
Ph: 401-354-2403
Fax: 401-354-2397

Advanced Engineering Group, P.C.

Marc R. Chretien, P.E.

Signed under the pains and penalties of perjury this, 27th day of February, 2015.





WATERFORD
COMPLIANCE...FROM START TO SIGNAL

RF EMISSIONS COMPLIANCE REPORT

LightSquared LP

Site: LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
14 Oxford Drive/BoothHill Road
Shelton, CT 06611-2627

Latitude/Longitude:
41.28016/-73.18546

February 25, 2015

Report Status:

LightSquared LP Is under 5% Threshold

Prepared By:

Waterford Consultants, LLC

201 Loudoun Street SE, Suite 300
Leesburg, VA 20175

Voice (703) 596-1022
www.waterfordconsultants.com

ENGINEERING STATEMENT CONFIRMING COMPLIANCE

With Radiofrequency Radiation Exposure Limits

Compliance Statement

Subject site COMPLIES with Radiofrequency Radiation Exposure Limits of 47 C.F.R. § § 1.1307(b)(3) and 1.1310

Technical Framework: Basis for Compliance Statement

Criteria for evaluation are listed in Table 1 of 47 C.F.R. § 1.1310. Calculations using input data provided to Waterford by client or client's representative numerically confirm the subject site can operate at a 100% duty cycle without creating situations that exceed MPE limits in areas of uncontrolled access. Because the subject facility is commercial infrastructure, general public access to the immediate vicinity of the equipment is likely to diminish the quality of wireless service available to the community. For that reason, whether signage is, or is not required as a safety precaution, Waterford recommends placement of signage at the subject site for the purpose of improving network reliability by discouraging public access.

Power density decreases significantly over a short distance from any antenna. Specifically with respect to directional panel antennas, the design, oriented in azimuth and elevation as documented, reasonably precludes potential to exceed MPE limits at any location other than directly in front of the antenna. Areas in front of the antenna that are restricted by barriers, would require climbing or are otherwise beyond the reach of a standing individual of average height are not considered accessible. Analysis or measurement of instantaneous energy levels is performed for use as proof of compliance with FCC rules and regulations applicable to non-occupational persons, those individuals who are not authorized to access portions of the antenna support structure above ground level. To assess time-weighted exposure to occupational personal working within secured areas of the site, on the supporting structure, or in the immediate proximity of the antenna equipment is a separate study requiring detailed ergonomic information.

Regulatory Framework

The FCC requires licensees to assure that persons are not exposed to radiofrequency electromagnetic energy power densities in excess of the applicable MPE (Maximum Permissible Exposure) limit. These rules apply to both Occupational Personnel and the General Population. Applicable FCC rules are found at 47 C.F.R. § § 1.1307(b)(3) and 1.1310. The FCC rules define two tiers of permissible exposure that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure.

> ***General Population / uncontrolled*** exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure.
>
> ***Occupational / controlled*** exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure.

Maximum Permissible Exposure ("MPE") is defined in OET 65 as being 100% of the exposure limit for the situation or tier of permissible exposure. The time averaged maximum permissible exposure to radiofrequency electromagnetic energy (RF), shown in Table 1 of Appendix A, expressed in milliwatt-minutes per square centimeter, is the same value for both tiers. FCC intention regarding time averaged exposure is expressed in this quote from page 10 of OET 65:

"Another feature of the exposure guidelines is that exposures, in terms of power density, E2 or H2, may be averaged over certain periods of time with the average not to exceed the limit for continuous exposure.11 As shown in Table 1 of Appendix A, the averaging time for occupational/controlled exposures is 6 minutes, while the averaging time for general population/uncontrolled exposures is 30 minutes. It is important to note that for general population/uncontrolled exposures it is often not possible to control exposures to the extent that averaging times can be applied. In those situations, it is often necessary to assume continuous exposure.

As an illustration of the application of time-averaging to occupational/controlled exposure consider the following. The relevant interval for time-averaging for occupational/controlled exposures is six minutes. This means, for example, that during any given six-minute period a worker could be exposed to two times the applicable power density limit for three minutes as long as he or she were not exposed at all for the preceding or following three minutes. Similarly, a worker could be exposed at three times the limit for two minutes as long as no exposure occurs during the preceding or subsequent four minutes, and so forth.

[11] Note that although the FCC did not explicitly adopt limits for peak power density, guidance on these types of exposures can be found in Section 4.4 of the ANSI/IEEE C95.1-1992 standard."

At the entry to any area in excess of 100% General Population MPE, access controls must be put in place and maintained to restrict access, preventing occupancy by the general population. For persons who have been properly trained and meet the definition of being Occupational Personnel, access to areas at the Occupational MPE limit may be granted for six minutes, so long as the preceding six minute period and the following six minute period are free from exposure; the worker is not exposed to any RF energy. Subject to other site security requirements, Occupational Personnel trained in RF safety and equipped with personal protective equipment designed for safe work in the vicinity of RF may be granted access. Controls such as physical barriers to entry imposed by locked doors, locked passageways, or other access control mechanisms may be supplemented by alarms that notify site management of a breach in access control. Controls may include administrative policies and procedures requiring proof of personal protective equipment (e.g. RF attenuating eyewear, wearable RF shielding), RF training requirements to obtain site access cards, presentation of appropriate RF awareness training certifications to security personnel, requirement to wear a personal RF monitor, or other measures that control access.

FCC regulations regarding Radiofrequency radiation exposure, expressed in 47 CFR § 1.1310 are further clarified with respect to the value of 5% of exposure limits for the subject transmitters in the following section of 47 CFR § 1.1307 (b):

(3) In general, when the guidelines specified in § 1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter or field strength levels that, when squared, exceed 5% of the square of the electric or magnetic field strength limit applicable to their particular transmitter. Owners of transmitter sites are expected to allow applicants and licensees to take reasonable steps to comply with the requirements contained In §1.1307(b) and, where feasible, should encourage co-location of transmitters and common solutions for controlling access to areas where the RF exposure limits contained in § 1.1310 might be exceeded.

Following these FCC requirements, predictive modeling was performed. That modeling indicates power density levels from client transmitters do not exceed 5% of the power density MPE limit applicable to their transmitters.

Qualifications of Waterford

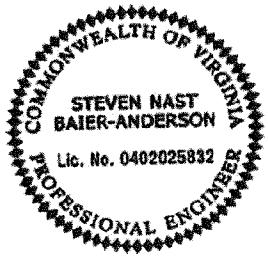
With more than 40 team-years of experience, Waterford Consultants, LLC [Waterford] provides technical consulting services to clients in the Radio Communications and antenna siting industry. Waterford retains professional engineers who are placed in responsible charge of the processes for analysis.

Waterford is familiar with 47 C.F.R. § § 1.1307(b)(3) and 1.1310 along with the general Rules, Regulations and policies of the FCC. Waterford processes incorporate all specifications of FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), from the website: Uwww.fcc.gov/oet/rfsafety,U and follow criteria detailed in 47 CFR § 1.1310 "Radiofrequency radiation exposure Limits".

Within the technical and regulatory framework detailed above, Waterford created sophisticated computer modeling tools that operate on data provided by Waterford clients through the Waterford web portal. In developing these tools, Waterford chose each program step encoded into computer modeling tools according to recognized and generally accepted good engineering practices. Permissible exposure limits are band specific, and the Waterford computerized modeling tools correctly calculate permissible exposure based on the band(s) specified in the input data. Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives warrant the accuracy of all input data.
Waterford Consultants, LLC attests to the accuracy of the engineering calculations. Waterford also attests that the results of those engineering calculations are correctly summarized in this report.

Certification

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the law.



Steven Nast Baier-Anderson
Registered Professional Engineer
Commonwealth of Virginia Reg. No. 0402-025832
February 25, 2015

2015.02.25 07:41:07 -05'00'

WATERFORD

2/24/2015 1:03:38 PM

LightSquared LP
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Site Summary

Source	Predicted Power Density, % of MPE
AT&T Mobility	< 1 %
AT&T Mobility	< 1 %
AT&T Mobility	< 1 %
Clearwire Corporation	< 1 %
Clearwire Corporation	< 1 %
LightSqared LP	< 1 %
Sprint	< 1 %
Sprint	< 1 %
State of Connecticut	< 1 %
State of Connecticut	< 1 %
US Treasury	< 1 %
Sum of Listed Sources	**0.1%**

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	880 (MHz)
MPE	586 µW/cm^2
Maximum power density at ground level:	0.1 µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Powerwave 7770.00	144	0	0	500	0.1	0
Powerwave 7770.00	144	120	0	500	0.1	0
Powerwave 7770.00	144	240	0	500	0.1	0

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	1930	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0.1	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Powerwave P65-15-XLH-RR	144	30	0	500	0.1	0
Powerwave P65-15-XLH-RR	144	150	0	500	0.1	0
Powerwave P65-15-XLH-RR	144	270	0	500	0.1	0

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	734 (MHz)
MPE	489 µW/cm^2
Maximum power density at ground level:	0.1 µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Powerwave P65-16-XLH	144	30	0	500	0.1	0
Powerwave P65-16-XLH	144	150	0	500	0.1	0
Powerwave P65-16-XLH	144	270	0	500	0.1	0

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	10700	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Generic Microwave Dish	162	343	0	1000	0	0
Generic Microwave Dish	164	343	0	1000	0	0
Generic Microwave Dish	165	212	0	2000	0	0

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	5250	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Generic Microwave Dish	162	126	0	1000	0	0

LightSqared LP
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	1670	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0.1	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Kathrein 750 10074	90	0	0	500	0.1	0

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	862 (MHz)
MPE	574 µW/cm^2
Maximum power density at ground level:	0.1 µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density (µW/cm^2)	Percent of MPE
ANDREW DB844H90-XY	168	0	0	630	0.1	0
ANDREW DB844H90-XY	168	140	0	630	0.1	0
ANDREW DB844H90-XY	168	220	0	630	0.1	0

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	1950	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0.1	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Decibel DB980H90T2EM	155	0	0	630	0.1	0
Decibel DB980H90T2EM	155	140	0	630	0.1	0
Decibel DB980H90T2EM	155	220	0	630	0.1	0

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	6425	(MHz)
MPE	1000	µW/cm^2
Maximum power density at ground level:	0	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	EiRP(W)	Max Power Density (µW/cm^2)	Percent of MPE
Generic Microwave Dish	124	182	0	1000	0	0
Generic Microwave Dish	126	182	0	1000	0	0
Generic Microwave Dish	206	68	0	1000	0	0
Generic Microwave Dish	206	240	0	1000	0	0

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	800 (MHz)
MPE	533 µW/cm^2
Maximum power density at ground level:	0.1 µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0 %

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density (µW/cm^2)	Percent of MPE
GENERIC OMNI	207	0	0	500	0.1	0
GENERIC OMNI	210	90	0	500	0.1	0
SINCLAIR SC479-HF1LDF	175	240	0	500	0.1	0
SINCLAIR SC479-HF1LDF	175	240	0	500	0.1	0
SINCLAIR SC479-HF1LDF	187	240	0	500	0.1	0
SINCLAIR SC479-HF1LDF	189	240	0	500	0.1	0
SINCLAIR SC479-HF1LDF	189	240	0	500	0.1	0
ANDREW DB809KE-SY	177	90	0	500	0.1	0
ANDREW DB809KE-SY	180	90	0	500	0.1	0
Kathrein-Scala AP14-880	180	0	0	500	0	0
Kathrein-Scala AP14-880	185	105	0	500	0	0
Kathrein-Scala AP14-880	185	240	0	500	0	0
ANDREW DB809KE-SY	205	0	0	500	0.1	0
ANDREW DB809KE-SY	207	0	0	500	0.1	0
ANDREW DB809KE-SY	177	90	0	500	0.1	0
ANDREW DB809KE-SY	187	90	0	500	0.1	0
ANDREW DB809KE-SY	187	90	0	500	0.1	0

US Treasury
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Summary

Frequency:	160	(MHz)
MPE	200	μW/cm^2
Maximum power density at ground level:	0.1	μW/cm^2
Highest percentage of Maximum Permissible Exposure:	0	%

Make / Model	Height(ft)	Orient°	DT°	ERP(W)	Max Power Density (μW/cm^2)	Percent of MPE
ANDREW DB616	110	0	0	125	0.1	0

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - 7770.00 0° Sector

Maximum Permissible Exposure
(MPE): 586 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.10	0.977	488.62	2512.1	2512.5	0.003	0.0004
5	1.30	0.741	370.66	501.2	503.1	0.05	0.008
10	5.70	0.269	134.58	248.7	252.5	0.07	0.01
20	16.70	0.021	10.69	120.5	128.2	0.02	0.004
30	17.20	0.019	9.53	76.0	87.7	0.04	0.007
35	39.10	0.000	0.06	62.6	76.4	0.0004	0.00006
40	19.00	0.013	6.29	52.3	68.2	0.05	0.008
45	16.00	0.025	12.56	43.8	62.0	0.11	0.02
50	16.60	0.022	10.94	36.8	57.2	0.11	0.02
55	19.50	0.011	5.61	30.7	53.5	0.07	0.01
60	24.20	0.004	1.90	25.3	50.6	0.02	0.004
65	29.80	0.001	0.52	20.4	48.4	0.007	0.001
70	33.00	0.001	0.25	16.0	46.7	0.004	0.0007
71	33.00	0.001	0.25	15.1	46.4	0.004	0.0007
72	33.20	0.000	0.24	14.2	46.1	0.004	0.0006
73	33.10	0.000	0.24	13.4	45.8	0.004	0.0007
74	33.10	0.000	0.24	12.6	45.6	0.004	0.0007
75	33.10	0.000	0.24	11.8	45.4	0.004	0.0007
76	33.30	0.000	0.23	10.9	45.2	0.004	0.0007
77	33.30	0.000	0.23	10.1	45.0	0.004	0.0007
78	33.50	0.000	0.22	9.3	44.8	0.004	0.0006
79	33.60	0.000	0.22	8.5	44.7	0.004	0.0006
80	33.70	0.000	0.21	7.7	44.5	0.004	0.0006
81	34.00	0.000	0.20	6.9	44.4	0.003	0.0006
82	34.00	0.000	0.20	6.2	44.3	0.003	0.0006
83	34.30	0.000	0.19	5.4	44.2	0.003	0.0005
84	34.50	0.000	0.18	4.6	44.1	0.003	0.0005
85	34.90	0.000	0.16	3.8	44.0	0.003	0.0005
86	35.10	0.000	0.15	3.1	44.0	0.003	0.0005
87	35.20	0.000	0.15	2.3	43.9	0.003	0.0004
88	35.40	0.000	0.14	1.5	43.9	0.002	0.0004
89	35.70	0.000	0.13	0.8	43.9	0.002	0.0004
90	36.00	0.000	0.13	0.0	43.8	0.002	0.0004

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - 7770.00 120° Sector

Maximum Permissible Exposure
(MPE): 586 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.10	0.977	488.62	2512.1	2512.5	0.003	0.0004
5	1.30	0.741	370.66	501.2	503.1	0.05	0.008
10	5.70	0.269	134.58	248.7	252.5	0.07	0.01
20	16.70	0.021	10.69	120.5	128.2	0.02	0.004
30	17.20	0.019	9.53	76.0	87.7	0.04	0.007
35	39.10	0.000	0.06	62.6	76.4	0.0004	0.00006
40	19.00	0.013	6.29	52.3	68.2	0.05	0.008
45	16.00	0.025	12.56	43.8	62.0	0.11	0.02
50	16.60	0.022	10.94	36.8	57.2	0.11	0.02
55	19.50	0.011	5.61	30.7	53.5	0.07	0.01
60	24.20	0.004	1.90	25.3	50.6	0.02	0.004
65	29.80	0.001	0.52	20.4	48.4	0.007	0.001
70	33.00	0.001	0.25	16.0	46.7	0.004	0.0007
71	33.00	0.001	0.25	15.1	46.4	0.004	0.0007
72	33.20	0.000	0.24	14.2	46.1	0.004	0.0006
73	33.10	0.000	0.24	13.4	45.8	0.004	0.0007
74	33.10	0.000	0.24	12.6	45.6	0.004	0.0007
75	33.10	0.000	0.24	11.8	45.4	0.004	0.0007
76	33.30	0.000	0.23	10.9	45.2	0.004	0.0007
77	33.30	0.000	0.23	10.1	45.0	0.004	0.0007
78	33.50	0.000	0.22	9.3	44.8	0.004	0.0006
79	33.60	0.000	0.22	8.5	44.7	0.004	0.0006
80	33.70	0.000	0.21	7.7	44.5	0.004	0.0006
81	34.00	0.000	0.20	6.9	44.4	0.003	0.0006
82	34.00	0.000	0.20	6.2	44.3	0.003	0.0006
83	34.30	0.000	0.19	5.4	44.2	0.003	0.0005
84	34.50	0.000	0.18	4.6	44.1	0.003	0.0005
85	34.90	0.000	0.16	3.8	44.0	0.003	0.0005
86	35.10	0.000	0.15	3.1	44.0	0.003	0.0005
87	35.20	0.000	0.15	2.3	43.9	0.003	0.0004
88	35.40	0.000	0.14	1.5	43.9	0.002	0.0004
89	35.70	0.000	0.13	0.8	43.9	0.002	0.0004
90	36.00	0.000	0.13	0.0	43.8	0.002	0.0004

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - 7770.00 240° Sector

Maximum Permissible Exposure
(MPE): 586 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.10	0.977	488.62	2512.1	2512.5	0.003	0.0004
5	1.30	0.741	370.66	501.2	503.1	0.05	0.008
10	5.70	0.269	134.58	248.7	252.5	0.07	0.01
20	16.70	0.021	10.69	120.5	128.2	0.02	0.004
30	17.20	0.019	9.53	76.0	87.7	0.04	0.007
35	39.10	0.000	0.06	62.6	76.4	0.0004	0.00006
40	19.00	0.013	6.29	52.3	68.2	0.05	0.008
45	16.00	0.025	12.56	43.8	62.0	0.11	0.02
50	16.60	0.022	10.94	36.8	57.2	0.11	0.02
55	19.50	0.011	5.61	30.7	53.5	0.07	0.01
60	24.20	0.004	1.90	25.3	50.6	0.02	0.004
65	29.80	0.001	0.52	20.4	48.4	0.007	0.001
70	33.00	0.001	0.25	16.0	46.7	0.004	0.0007
71	33.00	0.001	0.25	15.1	46.4	0.004	0.0007
72	33.20	0.000	0.24	14.2	46.1	0.004	0.0006
73	33.10	0.000	0.24	13.4	45.8	0.004	0.0007
74	33.10	0.000	0.24	12.6	45.6	0.004	0.0007
75	33.10	0.000	0.24	11.8	45.4	0.004	0.0007
76	33.30	0.000	0.23	10.9	45.2	0.004	0.0007
77	33.30	0.000	0.23	10.1	45.0	0.004	0.0007
78	33.50	0.000	0.22	9.3	44.8	0.004	0.0006
79	33.60	0.000	0.22	8.5	44.7	0.004	0.0006
80	33.70	0.000	0.21	7.7	44.5	0.004	0.0006
81	34.00	0.000	0.20	6.9	44.4	0.003	0.0006
82	34.00	0.000	0.20	6.2	44.3	0.003	0.0006
83	34.30	0.000	0.19	5.4	44.2	0.003	0.0005
84	34.50	0.000	0.18	4.6	44.1	0.003	0.0005
85	34.90	0.000	0.16	3.8	44.0	0.003	0.0005
86	35.10	0.000	0.15	3.1	44.0	0.003	0.0005
87	35.20	0.000	0.15	2.3	43.9	0.003	0.0004
88	35.40	0.000	0.14	1.5	43.9	0.002	0.0004
89	35.70	0.000	0.13	0.8	43.9	0.002	0.0004
90	36.00	0.000	0.13	0.0	43.8	0.002	0.0004

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-15-XLH-RR 30° Sector

Maximum Permissible Exposure (MPE): 1000 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	305.47	2512.1	2512.5	0.002	0.0002
5	3.40	0.457	139.63	501.2	503.1	0.02	0.002
10	17.80	0.017	5.07	248.7	252.5	0.003	0.0003
20	16.70	0.021	6.53	120.5	128.2	0.01	0.001
30	27.10	0.002	0.60	76.0	87.7	0.003	0.0003
35	15.40	0.029	8.81	62.6	76.4	0.05	0.005
40	19.80	0.010	3.20	52.3	68.2	0.02	0.002
45	19.40	0.011	3.51	43.8	62.0	0.03	0.003
50	15.80	0.026	8.03	36.8	57.2	0.08	0.008
55	15.40	0.029	8.81	30.7	53.5	0.1	0.01
60	18.30	0.015	4.52	25.3	50.6	0.06	0.006
65	22.60	0.005	1.68	20.4	48.4	0.02	0.002
70	26.60	0.002	0.67	16.0	46.7	0.01	0.001
71	27.20	0.002	0.58	15.1	46.4	0.01	0.001
72	27.80	0.002	0.51	14.2	46.1	0.008	0.0008
73	28.20	0.002	0.46	13.4	45.8	0.007	0.0007
74	28.60	0.001	0.42	12.6	45.6	0.007	0.0007
75	29.00	0.001	0.38	11.8	45.4	0.006	0.0006
76	29.40	0.001	0.35	10.9	45.2	0.006	0.0006
77	30.00	0.001	0.31	10.1	45.0	0.005	0.0005
78	30.60	0.001	0.27	9.3	44.8	0.004	0.0004
79	31.30	0.001	0.23	8.5	44.7	0.004	0.0004
80	31.80	0.001	0.20	7.7	44.5	0.003	0.0003
81	32.30	0.001	0.18	6.9	44.4	0.003	0.0003
82	32.60	0.001	0.17	6.2	44.3	0.003	0.0003
83	32.80	0.001	0.16	5.4	44.2	0.003	0.0003
84	33.10	0.000	0.15	4.6	44.1	0.003	0.0003
85	33.50	0.000	0.14	3.8	44.0	0.002	0.0002
86	34.00	0.000	0.12	3.1	44.0	0.002	0.0002
87	34.60	0.000	0.11	2.3	43.9	0.002	0.0002
88	35.40	0.000	0.09	1.5	43.9	0.002	0.0002
89	36.50	0.000	0.07	0.8	43.9	0.001	0.0001
90	38.00	0.000	0.05	0.0	43.8	0.0008	0.00008

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-15-XLH-RR 150° Sector

Maximum Permissible Exposure (MPE): 1000 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	305.47	2512.1	2512.5	0.002	0.0002
5	3.40	0.457	139.63	501.2	503.1	0.02	0.002
10	17.80	0.017	5.07	248.7	252.5	0.003	0.0003
20	16.70	0.021	6.53	120.5	128.2	0.01	0.001
30	27.10	0.002	0.60	76.0	87.7	0.003	0.0003
35	15.40	0.029	8.81	62.6	76.4	0.05	0.005
40	19.80	0.010	3.20	52.3	68.2	0.02	0.002
45	19.40	0.011	3.51	43.8	62.0	0.03	0.003
50	15.80	0.026	8.03	36.8	57.2	0.08	0.008
55	15.40	0.029	8.81	30.7	53.5	0.1	0.01
60	18.30	0.015	4.52	25.3	50.6	0.06	0.006
65	22.60	0.005	1.68	20.4	48.4	0.02	0.002
70	26.60	0.002	0.67	16.0	46.7	0.01	0.001
71	27.20	0.002	0.58	15.1	46.4	0.01	0.001
72	27.80	0.002	0.51	14.2	46.1	0.008	0.0008
73	28.20	0.002	0.46	13.4	45.8	0.007	0.0007
74	28.60	0.001	0.42	12.6	45.6	0.007	0.0007
75	29.00	0.001	0.38	11.8	45.4	0.006	0.0006
76	29.40	0.001	0.35	10.9	45.2	0.006	0.0006
77	30.00	0.001	0.31	10.1	45.0	0.005	0.0005
78	30.60	0.001	0.27	9.3	44.8	0.004	0.0004
79	31.30	0.001	0.23	8.5	44.7	0.004	0.0004
80	31.80	0.001	0.20	7.7	44.5	0.003	0.0003
81	32.30	0.001	0.18	6.9	44.4	0.003	0.0003
82	32.60	0.001	0.17	6.2	44.3	0.003	0.0003
83	32.80	0.001	0.16	5.4	44.2	0.003	0.0003
84	33.10	0.000	0.15	4.6	44.1	0.003	0.0003
85	33.50	0.000	0.14	3.8	44.0	0.002	0.0002
86	34.00	0.000	0.12	3.1	44.0	0.002	0.0002
87	34.60	0.000	0.11	2.3	43.9	0.002	0.0002
88	35.40	0.000	0.09	1.5	43.9	0.002	0.0002
89	36.50	0.000	0.07	0.8	43.9	0.001	0.0001
90	38.00	0.000	0.05	0.0	43.8	0.0008	0.00008

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-15-XLH-RR 270° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	305.47	2512.1	2512.5	0.002	0.0002
5	3.40	0.457	139.63	501.2	503.1	0.02	0.002
10	17.80	0.017	5.07	248.7	252.5	0.003	0.0003
20	16.70	0.021	6.53	120.5	128.2	0.01	0.001
30	27.10	0.002	0.60	76.0	87.7	0.003	0.0003
35	15.40	0.029	8.81	62.6	76.4	0.05	0.005
40	19.80	0.010	3.20	52.3	68.2	0.02	0.002
45	19.40	0.011	3.51	43.8	62.0	0.03	0.003
50	15.80	0.026	8.03	36.8	57.2	0.08	0.008
55	15.40	0.029	8.81	30.7	53.5	0.1	0.01
60	18.30	0.015	4.52	25.3	50.6	0.06	0.006
65	22.60	0.005	1.68	20.4	48.4	0.02	0.002
70	26.60	0.002	0.67	16.0	46.7	0.01	0.001
71	27.20	0.002	0.58	15.1	46.4	0.01	0.001
72	27.80	0.002	0.51	14.2	46.1	0.008	0.0008
73	28.20	0.002	0.46	13.4	45.8	0.007	0.0007
74	28.60	0.001	0.42	12.6	45.6	0.007	0.0007
75	29.00	0.001	0.38	11.8	45.4	0.006	0.0006
76	29.40	0.001	0.35	10.9	45.2	0.006	0.0006
77	30.00	0.001	0.31	10.1	45.0	0.005	0.0005
78	30.60	0.001	0.27	9.3	44.8	0.004	0.0004
79	31.30	0.001	0.23	8.5	44.7	0.004	0.0004
80	31.80	0.001	0.20	7.7	44.5	0.003	0.0003
81	32.30	0.001	0.18	6.9	44.4	0.003	0.0003
82	32.60	0.001	0.17	6.2	44.3	0.003	0.0003
83	32.80	0.001	0.16	5.4	44.2	0.003	0.0003
84	33.10	0.000	0.15	4.6	44.1	0.003	0.0003
85	33.50	0.000	0.14	3.8	44.0	0.002	0.0002
86	34.00	0.000	0.12	3.1	44.0	0.002	0.0002
87	34.60	0.000	0.11	2.3	43.9	0.002	0.0002
88	35.40	0.000	0.09	1.5	43.9	0.002	0.0002
89	36.50	0.000	0.07	0.8	43.9	0.001	0.0001
90	38.00	0.000	0.05	0.0	43.8	0.0008	0.00008

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-16-XLH 30° Sector

Maximum Permissible Exposure
(MPE): 489 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.70	0.851	425.57	2512.1	2512.5	0.002	0.0005
5	0.10	0.977	488.62	501.2	503.1	0.06	0.01
10	2.50	0.562	281.17	248.7	252.5	0.15	0.03
20	9.50	0.112	56.10	120.5	128.2	0.11	0.02
30	18.10	0.015	7.74	76.0	87.7	0.03	0.007
35	22.80	0.005	2.62	62.6	76.4	0.01	0.003
40	18.90	0.013	6.44	52.3	68.2	0.05	0.01
45	24.00	0.004	1.99	43.8	62.0	0.02	0.004
50	30.20	0.001	0.48	36.8	57.2	0.005	0.001
55	24.30	0.004	1.86	30.7	53.5	0.02	0.004
60	25.80	0.003	1.32	25.3	50.6	0.02	0.004
65	31.60	0.001	0.35	20.4	48.4	0.005	0.001
70	36.60	0.000	0.11	16.0	46.7	0.002	0.0003
71	37.00	0.000	0.10	15.1	46.4	0.002	0.0003
72	37.30	0.000	0.09	14.2	46.1	0.001	0.0003
73	37.40	0.000	0.09	13.4	45.8	0.001	0.0003
74	37.50	0.000	0.09	12.6	45.6	0.001	0.0003
75	37.40	0.000	0.09	11.8	45.4	0.001	0.0003
76	37.20	0.000	0.10	10.9	45.2	0.002	0.0003
77	36.90	0.000	0.10	10.1	45.0	0.002	0.0003
78	36.60	0.000	0.11	9.3	44.8	0.002	0.0004
79	36.30	0.000	0.12	8.5	44.7	0.002	0.0004
80	36.00	0.000	0.13	7.7	44.5	0.002	0.0004
81	35.80	0.000	0.13	6.9	44.4	0.002	0.0005
82	35.70	0.000	0.13	6.2	44.3	0.002	0.0005
83	35.70	0.000	0.13	5.4	44.2	0.002	0.0005
84	35.90	0.000	0.13	4.6	44.1	0.002	0.0005
85	36.20	0.000	0.12	3.8	44.0	0.002	0.0004
86	36.70	0.000	0.11	3.1	44.0	0.002	0.0004
87	37.30	0.000	0.09	2.3	43.9	0.002	0.0003
88	37.90	0.000	0.08	1.5	43.9	0.001	0.0003
89	38.60	0.000	0.07	0.8	43.9	0.001	0.0002
90	39.30	0.000	0.06	0.0	43.8	0.001	0.0002

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-16-XLH 150° Sector

Maximum Permissible Exposure
(MPE): 489 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.70	0.851	425.57	2512.1	2512.5	0.002	0.0005
5	0.10	0.977	488.62	501.2	503.1	0.06	0.01
10	2.50	0.562	281.17	248.7	252.5	0.15	0.03
20	9.50	0.112	56.10	120.5	128.2	0.11	0.02
30	18.10	0.015	7.74	76.0	87.7	0.03	0.007
35	22.80	0.005	2.62	62.6	76.4	0.01	0.003
40	18.90	0.013	6.44	52.3	68.2	0.05	0.01
45	24.00	0.004	1.99	43.8	62.0	0.02	0.004
50	30.20	0.001	0.48	36.8	57.2	0.005	0.001
55	24.30	0.004	1.86	30.7	53.5	0.02	0.004
60	25.80	0.003	1.32	25.3	50.6	0.02	0.004
65	31.60	0.001	0.35	20.4	48.4	0.005	0.001
70	36.60	0.000	0.11	16.0	46.7	0.002	0.0003
71	37.00	0.000	0.10	15.1	46.4	0.002	0.0003
72	37.30	0.000	0.09	14.2	46.1	0.001	0.0003
73	37.40	0.000	0.09	13.4	45.8	0.001	0.0003
74	37.50	0.000	0.09	12.6	45.6	0.001	0.0003
75	37.40	0.000	0.09	11.8	45.4	0.001	0.0003
76	37.20	0.000	0.10	10.9	45.2	0.002	0.0003
77	36.90	0.000	0.10	10.1	45.0	0.002	0.0003
78	36.60	0.000	0.11	9.3	44.8	0.002	0.0004
79	36.30	0.000	0.12	8.5	44.7	0.002	0.0004
80	36.00	0.000	0.13	7.7	44.5	0.002	0.0004
81	35.80	0.000	0.13	6.9	44.4	0.002	0.0005
82	35.70	0.000	0.13	6.2	44.3	0.002	0.0005
83	35.70	0.000	0.13	5.4	44.2	0.002	0.0005
84	35.90	0.000	0.13	4.6	44.1	0.002	0.0005
85	36.20	0.000	0.12	3.8	44.0	0.002	0.0004
86	36.70	0.000	0.11	3.1	44.0	0.002	0.0004
87	37.30	0.000	0.09	2.3	43.9	0.002	0.0003
88	37.90	0.000	0.08	1.5	43.9	0.001	0.0003
89	38.60	0.000	0.07	0.8	43.9	0.001	0.0002
90	39.30	0.000	0.06	0.0	43.8	0.001	0.0002

AT&T Mobility
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Powerwave - P65-16-XLH 270° Sector

Maximum Permissible Exposure
(MPE): 489 µW/cm^2

ERP (Watts)	500	**Height** (feet)	144	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.70	0.851	425.57	2512.1	2512.5	0.002	0.0005
5	0.10	0.977	488.62	501.2	503.1	0.06	0.01
10	2.50	0.562	281.17	248.7	252.5	0.15	0.03
20	9.50	0.112	56.10	120.5	128.2	0.11	0.02
30	18.10	0.015	7.74	76.0	87.7	0.03	0.007
35	22.80	0.005	2.62	62.6	76.4	0.01	0.003
40	18.90	0.013	6.44	52.3	68.2	0.05	0.01
45	24.00	0.004	1.99	43.8	62.0	0.02	0.004
50	30.20	0.001	0.48	36.8	57.2	0.005	0.001
55	24.30	0.004	1.86	30.7	53.5	0.02	0.004
60	25.80	0.003	1.32	25.3	50.6	0.02	0.004
65	31.60	0.001	0.35	20.4	48.4	0.005	0.001
70	36.60	0.000	0.11	16.0	46.7	0.002	0.0003
71	37.00	0.000	0.10	15.1	46.4	0.002	0.0003
72	37.30	0.000	0.09	14.2	46.1	0.001	0.0003
73	37.40	0.000	0.09	13.4	45.8	0.001	0.0003
74	37.50	0.000	0.09	12.6	45.6	0.001	0.0003
75	37.40	0.000	0.09	11.8	45.4	0.001	0.0003
76	37.20	0.000	0.10	10.9	45.2	0.002	0.0003
77	36.90	0.000	0.10	10.1	45.0	0.002	0.0003
78	36.60	0.000	0.11	9.3	44.8	0.002	0.0004
79	36.30	0.000	0.12	8.5	44.7	0.002	0.0004
80	36.00	0.000	0.13	7.7	44.5	0.002	0.0004
81	35.80	0.000	0.13	6.9	44.4	0.002	0.0005
82	35.70	0.000	0.13	6.2	44.3	0.002	0.0005
83	35.70	0.000	0.13	5.4	44.2	0.002	0.0005
84	35.90	0.000	0.13	4.6	44.1	0.002	0.0005
85	36.20	0.000	0.12	3.8	44.0	0.002	0.0004
86	36.70	0.000	0.11	3.1	44.0	0.002	0.0004
87	37.30	0.000	0.09	2.3	43.9	0.002	0.0003
88	37.90	0.000	0.08	1.5	43.9	0.001	0.0003
89	38.60	0.000	0.07	0.8	43.9	0.001	0.0002
90	39.30	0.000	0.06	0.0	43.8	0.001	0.0002

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 343° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	162	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	2826.1	2826.6	0.002	0.0002
5	12.00	0.063	38.55	563.8	566.0	0.004	0.0004
10	18.00	0.016	9.68	279.8	284.1	0.004	0.0004
20	25.00	0.003	1.93	135.5	144.2	0.003	0.0003
30	29.00	0.001	0.77	85.4	98.7	0.003	0.0003
35	29.00	0.001	0.77	70.4	86.0	0.003	0.0003
40	29.00	0.001	0.77	58.8	76.7	0.004	0.0004
45	29.00	0.001	0.77	49.3	69.8	0.005	0.0005
50	29.00	0.001	0.77	41.4	64.4	0.006	0.0006
55	29.00	0.001	0.77	34.5	60.2	0.007	0.0007
60	29.00	0.001	0.77	28.5	57.0	0.008	0.0008
65	29.00	0.001	0.77	23.0	54.4	0.009	0.0009
70	29.00	0.001	0.77	18.0	52.5	0.01	0.001
71	29.00	0.001	0.77	17.0	52.2	0.01	0.001
72	29.00	0.001	0.77	16.0	51.9	0.01	0.001
73	29.00	0.001	0.77	15.1	51.6	0.01	0.001
74	29.00	0.001	0.77	14.2	51.3	0.01	0.001
75	29.00	0.001	0.77	13.2	51.1	0.01	0.001
76	29.00	0.001	0.77	12.3	50.8	0.01	0.001
77	29.00	0.001	0.77	11.4	50.6	0.01	0.001
78	29.00	0.001	0.77	10.5	50.4	0.01	0.001
79	29.00	0.001	0.77	9.6	50.2	0.01	0.001
80	29.00	0.001	0.77	8.7	50.1	0.01	0.001
81	29.00	0.001	0.77	7.8	49.9	0.01	0.001
82	29.00	0.001	0.77	6.9	49.8	0.01	0.001
83	29.00	0.001	0.77	6.1	49.7	0.01	0.001
84	29.00	0.001	0.77	5.2	49.6	0.01	0.001
85	29.00	0.001	0.77	4.3	49.5	0.01	0.001
86	29.00	0.001	0.77	3.4	49.4	0.01	0.001
87	29.00	0.001	0.77	2.6	49.4	0.01	0.001
88	29.00	0.001	0.77	1.7	49.4	0.01	0.001
89	29.00	0.001	0.77	0.9	49.3	0.01	0.001
90	29.00	0.001	0.77	0.0	49.3	0.01	0.001

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 343° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	164	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	2861.0	2861.4	0.002	0.0002
5	12.00	0.063	38.55	570.8	573.0	0.004	0.0004
10	18.00	0.016	9.68	283.2	287.6	0.004	0.0004
20	25.00	0.003	1.93	137.2	146.0	0.003	0.0003
30	29.00	0.001	0.77	86.5	99.9	0.003	0.0003
35	29.00	0.001	0.77	71.3	87.1	0.003	0.0003
40	29.00	0.001	0.77	59.5	77.7	0.004	0.0004
45	29.00	0.001	0.77	49.9	70.6	0.005	0.0005
50	29.00	0.001	0.77	41.9	65.2	0.006	0.0006
55	29.00	0.001	0.77	35.0	61.0	0.007	0.0007
60	29.00	0.001	0.77	28.8	57.7	0.008	0.0008
65	29.00	0.001	0.77	23.3	55.1	0.008	0.0008
70	29.00	0.001	0.77	18.2	53.2	0.01	0.001
71	29.00	0.001	0.77	17.2	52.8	0.01	0.001
72	29.00	0.001	0.77	16.2	52.5	0.01	0.001
73	29.00	0.001	0.77	15.3	52.2	0.01	0.001
74	29.00	0.001	0.77	14.3	52.0	0.01	0.001
75	29.00	0.001	0.77	13.4	51.7	0.01	0.001
76	29.00	0.001	0.77	12.4	51.5	0.01	0.001
77	29.00	0.001	0.77	11.5	51.2	0.01	0.001
78	29.00	0.001	0.77	10.6	51.0	0.01	0.001
79	29.00	0.001	0.77	9.7	50.9	0.01	0.001
80	29.00	0.001	0.77	8.8	50.7	0.01	0.001
81	29.00	0.001	0.77	7.9	50.6	0.01	0.001
82	29.00	0.001	0.77	7.0	50.4	0.01	0.001
83	29.00	0.001	0.77	6.1	50.3	0.01	0.001
84	29.00	0.001	0.77	5.2	50.2	0.01	0.001
85	29.00	0.001	0.77	4.4	50.1	0.01	0.001
86	29.00	0.001	0.77	3.5	50.1	0.01	0.001
87	29.00	0.001	0.77	2.6	50.0	0.01	0.001
88	29.00	0.001	0.77	1.7	50.0	0.01	0.001
89	29.00	0.001	0.77	0.9	50.0	0.01	0.001
90	29.00	0.001	0.77	0.0	49.9	0.01	0.001

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 212° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	2000	**Height** (feet)	165	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	970.58	2878.4	2878.9	0.004	0.0004
5	12.00	0.063	77.10	574.3	576.5	0.008	0.0008
10	18.00	0.016	19.37	285.0	289.4	0.008	0.0008
20	25.00	0.003	3.86	138.0	146.9	0.006	0.0006
30	29.00	0.001	1.54	87.0	100.5	0.005	0.0005
35	29.00	0.001	1.54	71.8	87.6	0.007	0.0007
40	29.00	0.001	1.54	59.9	78.2	0.008	0.0008
45	29.00	0.001	1.54	50.2	71.0	0.01	0.001
50	29.00	0.001	1.54	42.2	65.6	0.01	0.001
55	29.00	0.001	1.54	35.2	61.3	0.01	0.001
60	29.00	0.001	1.54	29.0	58.0	0.02	0.002
65	29.00	0.001	1.54	23.4	55.4	0.02	0.002
70	29.00	0.001	1.54	18.3	53.5	0.02	0.002
71	29.00	0.001	1.54	17.3	53.1	0.02	0.002
72	29.00	0.001	1.54	16.3	52.8	0.02	0.002
73	29.00	0.001	1.54	15.4	52.5	0.02	0.002
74	29.00	0.001	1.54	14.4	52.3	0.02	0.002
75	29.00	0.001	1.54	13.5	52.0	0.02	0.002
76	29.00	0.001	1.54	12.5	51.8	0.02	0.002
77	29.00	0.001	1.54	11.6	51.6	0.02	0.002
78	29.00	0.001	1.54	10.7	51.4	0.02	0.002
79	29.00	0.001	1.54	9.8	51.2	0.02	0.002
80	29.00	0.001	1.54	8.9	51.0	0.02	0.002
81	29.00	0.001	1.54	8.0	50.9	0.02	0.002
82	29.00	0.001	1.54	7.1	50.7	0.02	0.002
83	29.00	0.001	1.54	6.2	50.6	0.02	0.002
84	29.00	0.001	1.54	5.3	50.5	0.02	0.002
85	29.00	0.001	1.54	4.4	50.4	0.02	0.002
86	29.00	0.001	1.54	3.5	50.4	0.02	0.002
87	29.00	0.001	1.54	2.6	50.3	0.02	0.002
88	29.00	0.001	1.54	1.8	50.3	0.02	0.002
89	29.00	0.001	1.54	0.9	50.2	0.02	0.002
90	29.00	0.001	1.54	0.0	50.2	0.02	0.002

Clearwire Corporation
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 126° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	162	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	2826.1	2826.6	0.002	0.0002
5	12.00	0.063	38.55	563.8	566.0	0.004	0.0004
10	18.00	0.016	9.68	279.8	284.1	0.004	0.0004
20	25.00	0.003	1.93	135.5	144.2	0.003	0.0003
30	29.00	0.001	0.77	85.4	98.7	0.003	0.0003
35	29.00	0.001	0.77	70.4	86.0	0.003	0.0003
40	29.00	0.001	0.77	58.8	76.7	0.004	0.0004
45	29.00	0.001	0.77	49.3	69.8	0.005	0.0005
50	29.00	0.001	0.77	41.4	64.4	0.006	0.0006
55	29.00	0.001	0.77	34.5	60.2	0.007	0.0007
60	29.00	0.001	0.77	28.5	57.0	0.008	0.0008
65	29.00	0.001	0.77	23.0	54.4	0.009	0.0009
70	29.00	0.001	0.77	18.0	52.5	0.01	0.001
71	29.00	0.001	0.77	17.0	52.2	0.01	0.001
72	29.00	0.001	0.77	16.0	51.9	0.01	0.001
73	29.00	0.001	0.77	15.1	51.6	0.01	0.001
74	29.00	0.001	0.77	14.2	51.3	0.01	0.001
75	29.00	0.001	0.77	13.2	51.1	0.01	0.001
76	29.00	0.001	0.77	12.3	50.8	0.01	0.001
77	29.00	0.001	0.77	11.4	50.6	0.01	0.001
78	29.00	0.001	0.77	10.5	50.4	0.01	0.001
79	29.00	0.001	0.77	9.6	50.2	0.01	0.001
80	29.00	0.001	0.77	8.7	50.1	0.01	0.001
81	29.00	0.001	0.77	7.8	49.9	0.01	0.001
82	29.00	0.001	0.77	6.9	49.8	0.01	0.001
83	29.00	0.001	0.77	6.1	49.7	0.01	0.001
84	29.00	0.001	0.77	5.2	49.6	0.01	0.001
85	29.00	0.001	0.77	4.3	49.5	0.01	0.001
86	29.00	0.001	0.77	3.4	49.4	0.01	0.001
87	29.00	0.001	0.77	2.6	49.4	0.01	0.001
88	29.00	0.001	0.77	1.7	49.4	0.01	0.001
89	29.00	0.001	0.77	0.9	49.3	0.01	0.001
90	29.00	0.001	0.77	0.0	49.3	0.01	0.001

LightSqared LP
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Kathrein - 750 10074 0° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	500	**Height** (feet)	90	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.36	0.920	281.17	1570.1	1570.3	0.004	0.0004
5	7.88	0.163	49.77	313.2	314.4	0.02	0.002
10	11.64	0.069	20.94	155.4	157.8	0.03	0.003
20	31.28	0.001	0.23	75.3	80.1	0.001	0.0001
30	25.95	0.003	0.78	47.5	54.8	0.009	0.0009
35	28.57	0.001	0.42	39.1	47.8	0.006	0.0006
40	31.23	0.001	0.23	32.7	42.6	0.004	0.0004
45	34.40	0.000	0.11	27.4	38.8	0.002	0.0002
50	25.14	0.003	0.94	23.0	35.8	0.02	0.002
55	29.73	0.001	0.33	19.2	33.5	0.01	0.001
60	25.67	0.003	0.83	15.8	31.6	0.03	0.003
65	21.96	0.006	1.95	12.8	30.2	0.07	0.007
70	30.86	0.001	0.25	10.0	29.2	0.01	0.001
71	36.61	0.000	0.07	9.4	29.0	0.003	0.0003
72	46.58	0.000	0.01	8.9	28.8	0.0003	0.00003
73	42.83	0.000	0.02	8.4	28.7	0.0006	0.00006
74	36.71	0.000	0.07	7.9	28.5	0.003	0.0003
75	34.03	0.000	0.12	7.3	28.4	0.005	0.0005
76	33.54	0.000	0.14	6.8	28.2	0.006	0.0006
77	33.27	0.000	0.14	6.3	28.1	0.006	0.0006
78	33.67	0.000	0.13	5.8	28.0	0.006	0.0006
79	33.77	0.000	0.13	5.3	27.9	0.005	0.0005
80	33.92	0.000	0.12	4.8	27.8	0.005	0.0005
81	34.47	0.000	0.11	4.3	27.8	0.005	0.0005
82	34.22	0.000	0.12	3.8	27.7	0.005	0.0005
83	35.23	0.000	0.09	3.4	27.6	0.004	0.0004
84	36.58	0.000	0.07	2.9	27.6	0.003	0.0003
85	38.05	0.000	0.05	2.4	27.5	0.002	0.0002
86	41.42	0.000	0.02	1.9	27.5	0.001	0.0001
87	45.86	0.000	0.01	1.4	27.4	0.0004	0.00004
88	52.49	0.000	0.00	1.0	27.4	0.00008	0.00001
89	54.42	0.000	0.00	0.5	27.4	0.00005	0.00001
90	44.31	0.000	0.01	0.0	27.4	0.0005	0.00005

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB844H90-XY 0° Sector

Maximum Permissible Exposure
(MPE): 574 µW/cm^2

ERP (Watts)	630	**Height** (feet)	168	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.01	0.998	628.55	2930.8	2931.2	0.002	0.0004
5	1.00	0.794	500.43	584.7	587.0	0.05	0.008
10	4.83	0.329	207.18	290.1	294.6	0.08	0.01
20	18.58	0.014	8.74	140.6	149.6	0.01	0.002
30	13.22	0.048	30.02	88.6	102.3	0.1	0.02
35	18.96	0.013	8.00	73.1	89.2	0.03	0.006
40	29.97	0.001	0.63	61.0	79.6	0.003	0.0006
45	22.32	0.006	3.69	51.2	72.4	0.02	0.004
50	20.99	0.008	5.02	42.9	66.8	0.04	0.007
55	23.39	0.005	2.89	35.8	62.4	0.02	0.004
60	27.47	0.002	1.13	29.5	59.1	0.01	0.002
65	25.95	0.003	1.60	23.8	56.4	0.02	0.003
70	23.40	0.005	2.88	18.6	54.4	0.03	0.006
71	23.06	0.005	3.11	17.6	54.1	0.04	0.006
72	22.82	0.005	3.29	16.6	53.8	0.04	0.007
73	22.70	0.005	3.38	15.6	53.5	0.04	0.007
74	22.66	0.005	3.41	14.7	53.2	0.04	0.007
75	22.67	0.005	3.41	13.7	53.0	0.04	0.007
76	22.65	0.005	3.42	12.8	52.7	0.04	0.007
77	22.71	0.005	3.38	11.8	52.5	0.04	0.007
78	22.94	0.005	3.20	10.9	52.3	0.04	0.007
79	23.13	0.005	3.06	9.9	52.1	0.04	0.007
80	23.41	0.005	2.87	9.0	52.0	0.04	0.006
81	23.71	0.004	2.68	8.1	51.8	0.03	0.006
82	24.13	0.004	2.43	7.2	51.7	0.03	0.005
83	24.54	0.004	2.22	6.3	51.5	0.03	0.005
84	24.86	0.003	2.06	5.4	51.4	0.03	0.005
85	25.37	0.003	1.83	4.5	51.4	0.02	0.004
86	26.02	0.002	1.58	3.6	51.3	0.02	0.003
87	26.67	0.002	1.36	2.7	51.2	0.02	0.003
88	27.51	0.002	1.12	1.8	51.2	0.01	0.002
89	28.29	0.001	0.93	0.9	51.2	0.01	0.002
90	29.00	0.001	0.79	0.0	51.2	0.01	0.002

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB844H90-XY 140° Sector

Maximum Permissible Exposure
(MPE): 574 µW/cm^2

ERP (Watts)	630	**Height** (feet)	168	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.01	0.998	628.55	2930.8	2931.2	0.002	0.0004
5	1.00	0.794	500.43	584.7	587.0	0.05	0.008
10	4.83	0.329	207.18	290.1	294.6	0.08	0.01
20	18.58	0.014	8.74	140.6	149.6	0.01	0.002
30	13.22	0.048	30.02	88.6	102.3	0.1	0.02
35	18.96	0.013	8.00	73.1	89.2	0.03	0.006
40	29.97	0.001	0.63	61.0	79.6	0.003	0.0006
45	22.32	0.006	3.69	51.2	72.4	0.02	0.004
50	20.99	0.008	5.02	42.9	66.8	0.04	0.007
55	23.39	0.005	2.89	35.8	62.4	0.02	0.004
60	27.47	0.002	1.13	29.5	59.1	0.01	0.002
65	25.95	0.003	1.60	23.8	56.4	0.02	0.003
70	23.40	0.005	2.88	18.6	54.4	0.03	0.006
71	23.06	0.005	3.11	17.6	54.1	0.04	0.006
72	22.82	0.005	3.29	16.6	53.8	0.04	0.007
73	22.70	0.005	3.38	15.6	53.5	0.04	0.007
74	22.66	0.005	3.41	14.7	53.2	0.04	0.007
75	22.67	0.005	3.41	13.7	53.0	0.04	0.007
76	22.65	0.005	3.42	12.8	52.7	0.04	0.007
77	22.71	0.005	3.38	11.8	52.5	0.04	0.007
78	22.94	0.005	3.20	10.9	52.3	0.04	0.007
79	23.13	0.005	3.06	9.9	52.1	0.04	0.007
80	23.41	0.005	2.87	9.0	52.0	0.04	0.006
81	23.71	0.004	2.68	8.1	51.8	0.03	0.006
82	24.13	0.004	2.43	7.2	51.7	0.03	0.005
83	24.54	0.004	2.22	6.3	51.5	0.03	0.005
84	24.86	0.003	2.06	5.4	51.4	0.03	0.005
85	25.37	0.003	1.83	4.5	51.4	0.02	0.004
86	26.02	0.002	1.58	3.6	51.3	0.02	0.003
87	26.67	0.002	1.36	2.7	51.2	0.02	0.003
88	27.51	0.002	1.12	1.8	51.2	0.01	0.002
89	28.29	0.001	0.93	0.9	51.2	0.01	0.002
90	29.00	0.001	0.79	0.0	51.2	0.01	0.002

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB844H90-XY 220° Sector

Maximum Permissible Exposure
(MPE): 574 µW/cm^2

ERP (Watts)	630	**Height** (feet)	168	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.01	0.998	628.55	2930.8	2931.2	0.002	0.0004
5	1.00	0.794	500.43	584.7	587.0	0.05	0.008
10	4.83	0.329	207.18	290.1	294.6	0.08	0.01
20	18.58	0.014	8.74	140.6	149.6	0.01	0.002
30	13.22	0.048	30.02	88.6	102.3	0.1	0.02
35	18.96	0.013	8.00	73.1	89.2	0.03	0.006
40	29.97	0.001	0.63	61.0	79.6	0.003	0.0006
45	22.32	0.006	3.69	51.2	72.4	0.02	0.004
50	20.99	0.008	5.02	42.9	66.8	0.04	0.007
55	23.39	0.005	2.89	35.8	62.4	0.02	0.004
60	27.47	0.002	1.13	29.5	59.1	0.01	0.002
65	25.95	0.003	1.60	23.8	56.4	0.02	0.003
70	23.40	0.005	2.88	18.6	54.4	0.03	0.006
71	23.06	0.005	3.11	17.6	54.1	0.04	0.006
72	22.82	0.005	3.29	16.6	53.8	0.04	0.007
73	22.70	0.005	3.38	15.6	53.5	0.04	0.007
74	22.66	0.005	3.41	14.7	53.2	0.04	0.007
75	22.67	0.005	3.41	13.7	53.0	0.04	0.007
76	22.65	0.005	3.42	12.8	52.7	0.04	0.007
77	22.71	0.005	3.38	11.8	52.5	0.04	0.007
78	22.94	0.005	3.20	10.9	52.3	0.04	0.007
79	23.13	0.005	3.06	9.9	52.1	0.04	0.007
80	23.41	0.005	2.87	9.0	52.0	0.04	0.006
81	23.71	0.004	2.68	8.1	51.8	0.03	0.006
82	24.13	0.004	2.43	7.2	51.7	0.03	0.005
83	24.54	0.004	2.22	6.3	51.5	0.03	0.005
84	24.86	0.003	2.06	5.4	51.4	0.03	0.005
85	25.37	0.003	1.83	4.5	51.4	0.02	0.004
86	26.02	0.002	1.58	3.6	51.3	0.02	0.003
87	26.67	0.002	1.36	2.7	51.2	0.02	0.003
88	27.51	0.002	1.12	1.8	51.2	0.01	0.002
89	28.29	0.001	0.93	0.9	51.2	0.01	0.002
90	29.00	0.001	0.79	0.0	51.2	0.01	0.002

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Decibel - DB980H90T2EM 0° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	630	**Height** (feet)	155	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.30	0.933	359.20	2704.0	2704.4	0.002	0.0002
5	3.80	0.417	160.45	539.5	541.5	0.02	0.002
10	12.60	0.055	21.15	267.7	271.8	0.01	0.001
20	16.90	0.020	7.86	129.7	138.0	0.01	0.001
30	14.30	0.037	14.30	81.8	94.4	0.05	0.005
35	13.60	0.044	16.80	67.4	82.3	0.08	0.008
40	33.10	0.000	0.19	56.2	73.4	0.001	0.0001
45	24.10	0.004	1.50	47.2	66.8	0.01	0.001
50	28.00	0.002	0.61	39.6	61.6	0.005	0.0005
55	40.10	0.000	0.04	33.0	57.6	0.0004	0.00004
60	34.20	0.000	0.15	27.2	54.5	0.002	0.0002
65	31.20	0.001	0.29	22.0	52.1	0.004	0.0004
70	30.00	0.001	0.38	17.2	50.2	0.005	0.0005
71	29.40	0.001	0.44	16.2	49.9	0.006	0.0006
72	29.10	0.001	0.47	15.3	49.6	0.006	0.0006
73	28.80	0.001	0.51	14.4	49.4	0.007	0.0007
74	29.00	0.001	0.48	13.5	49.1	0.007	0.0007
75	29.20	0.001	0.46	12.6	48.9	0.006	0.0006
76	28.80	0.001	0.51	11.8	48.6	0.007	0.0007
77	29.10	0.001	0.47	10.9	48.4	0.007	0.0007
78	29.90	0.001	0.39	10.0	48.2	0.006	0.0006
79	29.90	0.001	0.39	9.2	48.1	0.006	0.0006
80	30.70	0.001	0.33	8.3	47.9	0.005	0.0005
81	31.20	0.001	0.29	7.5	47.8	0.004	0.0004
82	31.70	0.001	0.26	6.6	47.7	0.004	0.0004
83	31.70	0.001	0.26	5.8	47.6	0.004	0.0004
84	32.00	0.001	0.24	5.0	47.5	0.004	0.0004
85	31.90	0.001	0.25	4.1	47.4	0.004	0.0004
86	32.50	0.001	0.22	3.3	47.3	0.003	0.0003
87	33.00	0.001	0.19	2.5	47.3	0.003	0.0003
88	33.80	0.000	0.16	1.6	47.2	0.002	0.0002
89	33.80	0.000	0.16	0.8	47.2	0.002	0.0002
90	34.30	0.000	0.14	0.0	47.2	0.002	0.0002

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Decibel - DB980H90T2EM 140° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	630	**Height** (feet)	155	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.30	0.933	359.20	2704.0	2704.4	0.002	0.0002
5	3.80	0.417	160.45	539.5	541.5	0.02	0.002
10	12.60	0.055	21.15	267.7	271.8	0.01	0.001
20	16.90	0.020	7.86	129.7	138.0	0.01	0.001
30	14.30	0.037	14.30	81.8	94.4	0.05	0.005
35	13.60	0.044	16.80	67.4	82.3	0.08	0.008
40	33.10	0.000	0.19	56.2	73.4	0.001	0.0001
45	24.10	0.004	1.50	47.2	66.8	0.01	0.001
50	28.00	0.002	0.61	39.6	61.6	0.005	0.0005
55	40.10	0.000	0.04	33.0	57.6	0.0004	0.00004
60	34.20	0.000	0.15	27.2	54.5	0.002	0.0002
65	31.20	0.001	0.29	22.0	52.1	0.004	0.0004
70	30.00	0.001	0.38	17.2	50.2	0.005	0.0005
71	29.40	0.001	0.44	16.2	49.9	0.006	0.0006
72	29.10	0.001	0.47	15.3	49.6	0.006	0.0006
73	28.80	0.001	0.51	14.4	49.4	0.007	0.0007
74	29.00	0.001	0.48	13.5	49.1	0.007	0.0007
75	29.20	0.001	0.46	12.6	48.9	0.006	0.0006
76	28.80	0.001	0.51	11.8	48.6	0.007	0.0007
77	29.10	0.001	0.47	10.9	48.4	0.007	0.0007
78	29.90	0.001	0.39	10.0	48.2	0.006	0.0006
79	29.90	0.001	0.39	9.2	48.1	0.006	0.0006
80	30.70	0.001	0.33	8.3	47.9	0.005	0.0005
81	31.20	0.001	0.29	7.5	47.8	0.004	0.0004
82	31.70	0.001	0.26	6.6	47.7	0.004	0.0004
83	31.70	0.001	0.26	5.8	47.6	0.004	0.0004
84	32.00	0.001	0.24	5.0	47.5	0.004	0.0004
85	31.90	0.001	0.25	4.1	47.4	0.004	0.0004
86	32.50	0.001	0.22	3.3	47.3	0.003	0.0003
87	33.00	0.001	0.19	2.5	47.3	0.003	0.0003
88	33.80	0.000	0.16	1.6	47.2	0.002	0.0002
89	33.80	0.000	0.16	0.8	47.2	0.002	0.0002
90	34.30	0.000	0.14	0.0	47.2	0.002	0.0002

Sprint
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Decibel - DB980H90T2EM 220° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	630	**Height** (feet)	155	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.30	0.933	359.20	2704.0	2704.4	0.002	0.0002
5	3.80	0.417	160.45	539.5	541.5	0.02	0.002
10	12.60	0.055	21.15	267.7	271.8	0.01	0.001
20	16.90	0.020	7.86	129.7	138.0	0.01	0.001
30	14.30	0.037	14.30	81.8	94.4	0.05	0.005
35	13.60	0.044	16.80	67.4	82.3	0.08	0.008
40	33.10	0.000	0.19	56.2	73.4	0.001	0.0001
45	24.10	0.004	1.50	47.2	66.8	0.01	0.001
50	28.00	0.002	0.61	39.6	61.6	0.005	0.0005
55	40.10	0.000	0.04	33.0	57.6	0.0004	0.00004
60	34.20	0.000	0.15	27.2	54.5	0.002	0.0002
65	31.20	0.001	0.29	22.0	52.1	0.004	0.0004
70	30.00	0.001	0.38	17.2	50.2	0.005	0.0005
71	29.40	0.001	0.44	16.2	49.9	0.006	0.0006
72	29.10	0.001	0.47	15.3	49.6	0.006	0.0006
73	28.80	0.001	0.51	14.4	49.4	0.007	0.0007
74	29.00	0.001	0.48	13.5	49.1	0.007	0.0007
75	29.20	0.001	0.46	12.6	48.9	0.006	0.0006
76	28.80	0.001	0.51	11.8	48.6	0.007	0.0007
77	29.10	0.001	0.47	10.9	48.4	0.007	0.0007
78	29.90	0.001	0.39	10.0	48.2	0.006	0.0006
79	29.90	0.001	0.39	9.2	48.1	0.006	0.0006
80	30.70	0.001	0.33	8.3	47.9	0.005	0.0005
81	31.20	0.001	0.29	7.5	47.8	0.004	0.0004
82	31.70	0.001	0.26	6.6	47.7	0.004	0.0004
83	31.70	0.001	0.26	5.8	47.6	0.004	0.0004
84	32.00	0.001	0.24	5.0	47.5	0.004	0.0004
85	31.90	0.001	0.25	4.1	47.4	0.004	0.0004
86	32.50	0.001	0.22	3.3	47.3	0.003	0.0003
87	33.00	0.001	0.19	2.5	47.3	0.003	0.0003
88	33.80	0.000	0.16	1.6	47.2	0.002	0.0002
89	33.80	0.000	0.16	0.8	47.2	0.002	0.0002
90	34.30	0.000	0.14	0.0	47.2	0.002	0.0002

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 182° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	124	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	2163.2	2163.5	0.003	0.0003
5	12.00	0.063	38.55	431.6	433.2	0.007	0.0007
10	18.00	0.016	9.68	214.1	217.4	0.007	0.0007
20	25.00	0.003	1.93	103.7	110.4	0.005	0.0005
30	29.00	0.001	0.77	65.4	75.5	0.005	0.0005
35	29.00	0.001	0.77	53.9	65.8	0.006	0.0006
40	29.00	0.001	0.77	45.0	58.7	0.007	0.0007
45	29.00	0.001	0.77	37.8	53.4	0.01	0.001
50	29.00	0.001	0.77	31.7	49.3	0.01	0.001
55	29.00	0.001	0.77	26.4	46.1	0.01	0.001
60	29.00	0.001	0.77	21.8	43.6	0.01	0.001
65	29.00	0.001	0.77	17.6	41.7	0.01	0.001
70	29.00	0.001	0.77	13.7	40.2	0.02	0.002
71	29.00	0.001	0.77	13.0	39.9	0.02	0.002
72	29.00	0.001	0.77	12.3	39.7	0.02	0.002
73	29.00	0.001	0.77	11.5	39.5	0.02	0.002
74	29.00	0.001	0.77	10.8	39.3	0.02	0.002
75	29.00	0.001	0.77	10.1	39.1	0.02	0.002
76	29.00	0.001	0.77	9.4	38.9	0.02	0.002
77	29.00	0.001	0.77	8.7	38.8	0.02	0.002
78	29.00	0.001	0.77	8.0	38.6	0.02	0.002
79	29.00	0.001	0.77	7.3	38.5	0.02	0.002
80	29.00	0.001	0.77	6.7	38.3	0.02	0.002
81	29.00	0.001	0.77	6.0	38.2	0.02	0.002
82	29.00	0.001	0.77	5.3	38.1	0.02	0.002
83	29.00	0.001	0.77	4.6	38.0	0.02	0.002
84	29.00	0.001	0.77	4.0	38.0	0.02	0.002
85	29.00	0.001	0.77	3.3	37.9	0.02	0.002
86	29.00	0.001	0.77	2.6	37.8	0.02	0.002
87	29.00	0.001	0.77	2.0	37.8	0.02	0.002
88	29.00	0.001	0.77	1.3	37.8	0.02	0.002
89	29.00	0.001	0.77	0.7	37.8	0.02	0.002
90	29.00	0.001	0.77	0.0	37.8	0.02	0.002

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 182° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	126	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	2198.1	2198.4	0.003	0.0003
5	12.00	0.063	38.55	438.6	440.2	0.007	0.0007
10	18.00	0.016	9.68	217.6	221.0	0.007	0.0007
20	25.00	0.003	1.93	105.4	112.2	0.005	0.0005
30	29.00	0.001	0.77	66.5	76.7	0.004	0.0004
35	29.00	0.001	0.77	54.8	66.9	0.006	0.0006
40	29.00	0.001	0.77	45.7	59.7	0.007	0.0007
45	29.00	0.001	0.77	38.4	54.3	0.009	0.0009
50	29.00	0.001	0.77	32.2	50.1	0.01	0.001
55	29.00	0.001	0.77	26.9	46.8	0.01	0.001
60	29.00	0.001	0.77	22.2	44.3	0.01	0.001
65	29.00	0.001	0.77	17.9	42.3	0.01	0.001
70	29.00	0.001	0.77	14.0	40.8	0.02	0.002
71	29.00	0.001	0.77	13.2	40.6	0.02	0.002
72	29.00	0.001	0.77	12.5	40.3	0.02	0.002
73	29.00	0.001	0.77	11.7	40.1	0.02	0.002
74	29.00	0.001	0.77	11.0	39.9	0.02	0.002
75	29.00	0.001	0.77	10.3	39.7	0.02	0.002
76	29.00	0.001	0.77	9.6	39.5	0.02	0.002
77	29.00	0.001	0.77	8.9	39.4	0.02	0.002
78	29.00	0.001	0.77	8.2	39.2	0.02	0.002
79	29.00	0.001	0.77	7.5	39.1	0.02	0.002
80	29.00	0.001	0.77	6.8	39.0	0.02	0.002
81	29.00	0.001	0.77	6.1	38.8	0.02	0.002
82	29.00	0.001	0.77	5.4	38.7	0.02	0.002
83	29.00	0.001	0.77	4.7	38.7	0.02	0.002
84	29.00	0.001	0.77	4.0	38.6	0.02	0.002
85	29.00	0.001	0.77	3.4	38.5	0.02	0.002
86	29.00	0.001	0.77	2.7	38.5	0.02	0.002
87	29.00	0.001	0.77	2.0	38.4	0.02	0.002
88	29.00	0.001	0.77	1.3	38.4	0.02	0.002
89	29.00	0.001	0.77	0.7	38.4	0.02	0.002
90	29.00	0.001	0.77	0.0	38.4	0.02	0.002

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 68° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	206	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	3593.7	3594.3	0.001	0.0001
5	12.00	0.063	38.55	717.0	719.7	0.002	0.0002
10	18.00	0.016	9.68	355.8	361.2	0.002	0.0002
20	25.00	0.003	1.93	172.3	183.4	0.002	0.0002
30	29.00	0.001	0.77	108.6	125.5	0.002	0.0002
35	29.00	0.001	0.77	89.6	109.4	0.002	0.0002
40	29.00	0.001	0.77	74.8	97.6	0.003	0.0003
45	29.00	0.001	0.77	62.7	88.7	0.003	0.0003
50	29.00	0.001	0.77	52.6	81.9	0.004	0.0004
55	29.00	0.001	0.77	43.9	76.6	0.004	0.0004
60	29.00	0.001	0.77	36.2	72.4	0.005	0.0005
65	29.00	0.001	0.77	29.2	69.2	0.005	0.0005
70	29.00	0.001	0.77	22.8	66.8	0.006	0.0006
71	29.00	0.001	0.77	21.6	66.3	0.006	0.0006
72	29.00	0.001	0.77	20.4	66.0	0.006	0.0006
73	29.00	0.001	0.77	19.2	65.6	0.006	0.0006
74	29.00	0.001	0.77	18.0	65.3	0.006	0.0006
75	29.00	0.001	0.77	16.8	64.9	0.006	0.0006
76	29.00	0.001	0.77	15.6	64.6	0.006	0.0006
77	29.00	0.001	0.77	14.5	64.4	0.006	0.0006
78	29.00	0.001	0.77	13.3	64.1	0.006	0.0006
79	29.00	0.001	0.77	12.2	63.9	0.006	0.0006
80	29.00	0.001	0.77	11.1	63.7	0.006	0.0006
81	29.00	0.001	0.77	9.9	63.5	0.006	0.0006
82	29.00	0.001	0.77	8.8	63.4	0.006	0.0006
83	29.00	0.001	0.77	7.7	63.2	0.006	0.0006
84	29.00	0.001	0.77	6.6	63.1	0.006	0.0006
85	29.00	0.001	0.77	5.5	63.0	0.006	0.0006
86	29.00	0.001	0.77	4.4	62.9	0.006	0.0006
87	29.00	0.001	0.77	3.3	62.8	0.007	0.0007
88	29.00	0.001	0.77	2.2	62.8	0.007	0.0007
89	29.00	0.001	0.77	1.1	62.7	0.007	0.0007
90	29.00	0.001	0.77	0.0	62.7	0.007	0.0007

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Generic - Microwave Dish 240° Sector

Maximum Permissible Exposure
(MPE): 1000 µW/cm^2

ERP (Watts)	1000	**Height** (feet)	206	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	1.00	0.794	485.29	3593.7	3594.3	0.001	0.0001
5	12.00	0.063	38.55	717.0	719.7	0.002	0.0002
10	18.00	0.016	9.68	355.8	361.2	0.002	0.0002
20	25.00	0.003	1.93	172.3	183.4	0.002	0.0002
30	29.00	0.001	0.77	108.6	125.5	0.002	0.0002
35	29.00	0.001	0.77	89.6	109.4	0.002	0.0002
40	29.00	0.001	0.77	74.8	97.6	0.003	0.0003
45	29.00	0.001	0.77	62.7	88.7	0.003	0.0003
50	29.00	0.001	0.77	52.6	81.9	0.004	0.0004
55	29.00	0.001	0.77	43.9	76.6	0.004	0.0004
60	29.00	0.001	0.77	36.2	72.4	0.005	0.0005
65	29.00	0.001	0.77	29.2	69.2	0.005	0.0005
70	29.00	0.001	0.77	22.8	66.8	0.006	0.0006
71	29.00	0.001	0.77	21.6	66.3	0.006	0.0006
72	29.00	0.001	0.77	20.4	66.0	0.006	0.0006
73	29.00	0.001	0.77	19.2	65.6	0.006	0.0006
74	29.00	0.001	0.77	18.0	65.3	0.006	0.0006
75	29.00	0.001	0.77	16.8	64.9	0.006	0.0006
76	29.00	0.001	0.77	15.6	64.6	0.006	0.0006
77	29.00	0.001	0.77	14.5	64.4	0.006	0.0006
78	29.00	0.001	0.77	13.3	64.1	0.006	0.0006
79	29.00	0.001	0.77	12.2	63.9	0.006	0.0006
80	29.00	0.001	0.77	11.1	63.7	0.006	0.0006
81	29.00	0.001	0.77	9.9	63.5	0.006	0.0006
82	29.00	0.001	0.77	8.8	63.4	0.006	0.0006
83	29.00	0.001	0.77	7.7	63.2	0.006	0.0006
84	29.00	0.001	0.77	6.6	63.1	0.006	0.0006
85	29.00	0.001	0.77	5.5	63.0	0.006	0.0006
86	29.00	0.001	0.77	4.4	62.9	0.006	0.0006
87	29.00	0.001	0.77	3.3	62.8	0.007	0.0007
88	29.00	0.001	0.77	2.2	62.8	0.007	0.0007
89	29.00	0.001	0.77	1.1	62.7	0.007	0.0007
90	29.00	0.001	0.77	0.0	62.7	0.007	0.0007

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
GENERIC - OMNI 0° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	207	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.70	0.851	425.57	3611.2	3611.7	0.001	0.0002
5	8.50	0.141	70.63	720.5	723.2	0.005	0.0008
10	13.90	0.041	20.37	357.5	363.0	0.005	0.001
20	23.00	0.005	2.51	173.2	184.3	0.002	0.0005
30	17.00	0.020	9.98	109.2	126.1	0.02	0.004
35	21.30	0.007	3.71	90.0	109.9	0.01	0.002
40	22.90	0.005	2.56	75.1	98.1	0.009	0.002
45	27.40	0.002	0.91	63.0	89.1	0.004	0.0007
50	16.50	0.022	11.19	52.9	82.3	0.06	0.01
55	19.90	0.010	5.12	44.1	77.0	0.03	0.005
60	17.60	0.017	8.69	36.4	72.8	0.05	0.01
65	15.50	0.028	14.09	29.4	69.6	0.1	0.02
70	19.80	0.010	5.24	22.9	67.1	0.04	0.007
71	20.40	0.009	4.56	21.7	66.7	0.03	0.006
72	20.50	0.009	4.46	20.5	66.3	0.03	0.006
73	20.10	0.010	4.89	19.3	65.9	0.04	0.007
74	19.70	0.011	5.36	18.1	65.6	0.04	0.008
75	19.10	0.012	6.15	16.9	65.3	0.05	0.01
76	18.90	0.013	6.44	15.7	65.0	0.05	0.01
77	18.70	0.013	6.74	14.6	64.7	0.05	0.01
78	18.70	0.013	6.74	13.4	64.4	0.05	0.01
79	18.90	0.013	6.44	12.2	64.2	0.05	0.01
80	19.30	0.012	5.87	11.1	64.0	0.05	0.009
81	19.60	0.011	5.48	10.0	63.8	0.04	0.008
82	20.20	0.010	4.77	8.9	63.6	0.04	0.007
83	20.90	0.008	4.06	7.7	63.5	0.03	0.006
84	21.60	0.007	3.46	6.6	63.4	0.03	0.005
85	22.50	0.006	2.81	5.5	63.3	0.02	0.004
86	23.40	0.005	2.29	4.4	63.2	0.02	0.004
87	24.10	0.004	1.94	3.3	63.1	0.02	0.003
88	25.10	0.003	1.54	2.2	63.1	0.01	0.002
89	25.70	0.003	1.35	1.1	63.0	0.01	0.002
90	26.20	0.002	1.20	0.0	63.0	0.01	0.002

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
GENERIC - OMNI 90° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	210	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.70	0.851	425.57	3663.5	3664.0	0.001	0.0002
5	8.50	0.141	70.63	730.9	733.7	0.004	0.0008
10	13.90	0.041	20.37	362.7	368.2	0.005	0.001
20	23.00	0.005	2.51	175.7	187.0	0.002	0.0004
30	17.00	0.020	9.98	110.8	127.9	0.02	0.004
35	21.30	0.007	3.71	91.3	111.5	0.01	0.002
40	22.90	0.005	2.56	76.2	99.5	0.009	0.002
45	27.40	0.002	0.91	64.0	90.4	0.004	0.0007
50	16.50	0.022	11.19	53.7	83.5	0.05	0.01
55	19.90	0.010	5.12	44.8	78.1	0.03	0.005
60	17.60	0.017	8.69	36.9	73.8	0.05	0.01
65	15.50	0.028	14.09	29.8	70.6	0.09	0.02
70	19.80	0.010	5.24	23.3	68.0	0.04	0.007
71	20.40	0.009	4.56	22.0	67.6	0.03	0.006
72	20.50	0.009	4.46	20.8	67.2	0.03	0.006
73	20.10	0.010	4.89	19.6	66.9	0.04	0.007
74	19.70	0.011	5.36	18.3	66.5	0.04	0.008
75	19.10	0.012	6.15	17.1	66.2	0.05	0.009
76	18.90	0.013	6.44	15.9	65.9	0.05	0.01
77	18.70	0.013	6.74	14.8	65.6	0.05	0.01
78	18.70	0.013	6.74	13.6	65.4	0.05	0.01
79	18.90	0.013	6.44	12.4	65.1	0.05	0.01
80	19.30	0.012	5.87	11.3	64.9	0.05	0.009
81	19.60	0.011	5.48	10.1	64.7	0.04	0.008
82	20.20	0.010	4.77	9.0	64.6	0.04	0.007
83	20.90	0.008	4.06	7.8	64.4	0.03	0.006
84	21.60	0.007	3.46	6.7	64.3	0.03	0.005
85	22.50	0.006	2.81	5.6	64.2	0.02	0.004
86	23.40	0.005	2.29	4.5	64.1	0.02	0.003
87	24.10	0.004	1.94	3.4	64.0	0.02	0.003
88	25.10	0.003	1.54	2.2	64.0	0.01	0.002
89	25.70	0.003	1.35	1.1	64.0	0.01	0.002
90	26.20	0.002	1.20	0.0	64.0	0.01	0.002

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
SINCLAIR - SC479-HF1LDF 240° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	175	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3052.9	3053.4	0.002	0.0003
5	6.00	0.251	125.59	609.1	611.4	0.01	0.002
10	8.50	0.141	70.63	302.2	306.9	0.03	0.005
20	19.90	0.010	5.12	146.4	155.8	0.007	0.001
30	18.90	0.013	6.44	92.3	106.6	0.02	0.004
35	25.00	0.003	1.58	76.1	92.9	0.006	0.001
40	22.40	0.006	2.88	63.5	82.9	0.01	0.003
45	30.90	0.001	0.41	53.3	75.4	0.002	0.0004
50	20.90	0.008	4.06	44.7	69.6	0.03	0.005
55	27.60	0.002	0.87	37.3	65.0	0.007	0.001
60	20.10	0.010	4.89	30.8	61.5	0.04	0.008
65	17.50	0.018	8.89	24.8	58.8	0.09	0.02
70	24.40	0.004	1.82	19.4	56.7	0.02	0.004
71	26.20	0.002	1.20	18.4	56.4	0.01	0.002
72	28.60	0.001	0.69	17.3	56.0	0.007	0.001
73	30.00	0.001	0.50	16.3	55.7	0.005	0.001
74	28.60	0.001	0.69	15.3	55.4	0.007	0.001
75	26.40	0.002	1.15	14.3	55.2	0.01	0.002
76	25.30	0.003	1.48	13.3	54.9	0.02	0.003
77	24.60	0.003	1.73	12.3	54.7	0.02	0.004
78	24.20	0.004	1.90	11.3	54.5	0.02	0.004
79	24.20	0.004	1.90	10.4	54.3	0.02	0.004
80	24.60	0.003	1.73	9.4	54.1	0.02	0.004
81	25.30	0.003	1.48	8.4	54.0	0.02	0.003
82	26.00	0.003	1.26	7.5	53.8	0.01	0.003
83	27.20	0.002	0.95	6.5	53.7	0.01	0.002
84	28.00	0.002	0.79	5.6	53.6	0.01	0.002
85	28.00	0.002	0.79	4.7	53.5	0.01	0.002
86	28.10	0.002	0.77	3.7	53.4	0.01	0.002
87	28.50	0.001	0.71	2.8	53.4	0.008	0.002
88	28.80	0.001	0.66	1.9	53.3	0.008	0.001
89	28.80	0.001	0.66	0.9	53.3	0.008	0.001
90	28.70	0.001	0.67	0.0	53.3	0.008	0.001

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
SINCLAIR - SC479-HF1LDF 240° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	175	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3052.9	3053.4	0.002	0.0003
5	6.00	0.251	125.59	609.1	611.4	0.01	0.002
10	8.50	0.141	70.63	302.2	306.9	0.03	0.005
20	19.90	0.010	5.12	146.4	155.8	0.007	0.001
30	18.90	0.013	6.44	92.3	106.6	0.02	0.004
35	25.00	0.003	1.58	76.1	92.9	0.006	0.001
40	22.40	0.006	2.88	63.5	82.9	0.01	0.003
45	30.90	0.001	0.41	53.3	75.4	0.002	0.0004
50	20.90	0.008	4.06	44.7	69.6	0.03	0.005
55	27.60	0.002	0.87	37.3	65.0	0.007	0.001
60	20.10	0.010	4.89	30.8	61.5	0.04	0.008
65	17.50	0.018	8.89	24.8	58.8	0.09	0.02
70	24.40	0.004	1.82	19.4	56.7	0.02	0.004
71	26.20	0.002	1.20	18.4	56.4	0.01	0.002
72	28.60	0.001	0.69	17.3	56.0	0.007	0.001
73	30.00	0.001	0.50	16.3	55.7	0.005	0.001
74	28.60	0.001	0.69	15.3	55.4	0.007	0.001
75	26.40	0.002	1.15	14.3	55.2	0.01	0.002
76	25.30	0.003	1.48	13.3	54.9	0.02	0.003
77	24.60	0.003	1.73	12.3	54.7	0.02	0.004
78	24.20	0.004	1.90	11.3	54.5	0.02	0.004
79	24.20	0.004	1.90	10.4	54.3	0.02	0.004
80	24.60	0.003	1.73	9.4	54.1	0.02	0.004
81	25.30	0.003	1.48	8.4	54.0	0.02	0.003
82	26.00	0.003	1.26	7.5	53.8	0.01	0.003
83	27.20	0.002	0.95	6.5	53.7	0.01	0.002
84	28.00	0.002	0.79	5.6	53.6	0.01	0.002
85	28.00	0.002	0.79	4.7	53.5	0.01	0.002
86	28.10	0.002	0.77	3.7	53.4	0.01	0.002
87	28.50	0.001	0.71	2.8	53.4	0.008	0.002
88	28.80	0.001	0.66	1.9	53.3	0.008	0.001
89	28.80	0.001	0.66	0.9	53.3	0.008	0.001
90	28.70	0.001	0.67	0.0	53.3	0.008	0.001

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
SINCLAIR - SC479-HF1LDF 240° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	187	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3262.2	3262.8	0.002	0.0003
5	6.00	0.251	125.59	650.9	653.4	0.01	0.002
10	8.50	0.141	70.63	322.9	327.9	0.02	0.004
20	19.90	0.010	5.12	156.4	166.5	0.006	0.001
30	18.90	0.013	6.44	98.6	113.9	0.02	0.003
35	25.00	0.003	1.58	81.3	99.3	0.005	0.001
40	22.40	0.006	2.88	67.9	88.6	0.01	0.002
45	30.90	0.001	0.41	56.9	80.5	0.002	0.0004
50	20.90	0.008	4.06	47.8	74.3	0.02	0.005
55	27.60	0.002	0.87	39.9	69.5	0.006	0.001
60	20.10	0.010	4.89	32.9	65.8	0.04	0.007
65	17.50	0.018	8.89	26.6	62.8	0.08	0.01
70	24.40	0.004	1.82	20.7	60.6	0.02	0.003
71	26.20	0.002	1.20	19.6	60.2	0.01	0.002
72	28.60	0.001	0.69	18.5	59.9	0.006	0.001
73	30.00	0.001	0.50	17.4	59.5	0.005	0.0009
74	28.60	0.001	0.69	16.3	59.2	0.007	0.001
75	26.40	0.002	1.15	15.3	59.0	0.01	0.002
76	25.30	0.003	1.48	14.2	58.7	0.01	0.003
77	24.60	0.003	1.73	13.2	58.4	0.02	0.003
78	24.20	0.004	1.90	12.1	58.2	0.02	0.004
79	24.20	0.004	1.90	11.1	58.0	0.02	0.004
80	24.60	0.003	1.73	10.0	57.8	0.02	0.003
81	25.30	0.003	1.48	9.0	57.6	0.01	0.003
82	26.00	0.003	1.26	8.0	57.5	0.01	0.002
83	27.20	0.002	0.95	7.0	57.4	0.01	0.002
84	28.00	0.002	0.79	6.0	57.3	0.008	0.002
85	28.00	0.002	0.79	5.0	57.2	0.008	0.002
86	28.10	0.002	0.77	4.0	57.1	0.008	0.001
87	28.50	0.001	0.71	3.0	57.0	0.007	0.001
88	28.80	0.001	0.66	2.0	57.0	0.007	0.001
89	28.80	0.001	0.66	1.0	57.0	0.007	0.001
90	28.70	0.001	0.67	0.0	56.9	0.007	0.001

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
SINCLAIR - SC479-HF1LDF 240° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	189	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3297.1	3297.6	0.002	0.0003
5	6.00	0.251	125.59	657.8	660.3	0.01	0.002
10	8.50	0.141	70.63	326.4	331.4	0.02	0.004
20	19.90	0.010	5.12	158.1	168.3	0.006	0.001
30	18.90	0.013	6.44	99.7	115.1	0.02	0.003
35	25.00	0.003	1.58	82.2	100.3	0.005	0.001
40	22.40	0.006	2.88	68.6	89.5	0.01	0.002
45	30.90	0.001	0.41	57.6	81.4	0.002	0.0004
50	20.90	0.008	4.06	48.3	75.1	0.02	0.005
55	27.60	0.002	0.87	40.3	70.3	0.006	0.001
60	20.10	0.010	4.89	33.2	66.5	0.04	0.007
65	17.50	0.018	8.89	26.8	63.5	0.07	0.01
70	24.40	0.004	1.82	21.0	61.2	0.02	0.003
71	26.20	0.002	1.20	19.8	60.9	0.01	0.002
72	28.60	0.001	0.69	18.7	60.5	0.006	0.001
73	30.00	0.001	0.50	17.6	60.2	0.005	0.0009
74	28.60	0.001	0.69	16.5	59.9	0.006	0.001
75	26.40	0.002	1.15	15.4	59.6	0.01	0.002
76	25.30	0.003	1.48	14.4	59.3	0.01	0.003
77	24.60	0.003	1.73	13.3	59.1	0.02	0.003
78	24.20	0.004	1.90	12.2	58.8	0.02	0.003
79	24.20	0.004	1.90	11.2	58.6	0.02	0.003
80	24.60	0.003	1.73	10.2	58.4	0.02	0.003
81	25.30	0.003	1.48	9.1	58.3	0.01	0.003
82	26.00	0.003	1.26	8.1	58.1	0.01	0.002
83	27.20	0.002	0.95	7.1	58.0	0.01	0.002
84	28.00	0.002	0.79	6.0	57.9	0.008	0.001
85	28.00	0.002	0.79	5.0	57.8	0.008	0.001
86	28.10	0.002	0.77	4.0	57.7	0.008	0.001
87	28.50	0.001	0.71	3.0	57.6	0.007	0.001
88	28.80	0.001	0.66	2.0	57.6	0.007	0.001
89	28.80	0.001	0.66	1.0	57.6	0.007	0.001
90	28.70	0.001	0.67	0.0	57.6	0.007	0.001

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
SINCLAIR - SC479-HF1LDF 240° Sector

Maximum Permissible Exposure
(MPE): 533 μW/cm^2

ERP (Watts)	500	**Height** (feet)	189	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (μW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3297.1	3297.6	0.002	0.0003
5	6.00	0.251	125.59	657.8	660.3	0.01	0.002
10	8.50	0.141	70.63	326.4	331.4	0.02	0.004
20	19.90	0.010	5.12	158.1	168.3	0.006	0.001
30	18.90	0.013	6.44	99.7	115.1	0.02	0.003
35	25.00	0.003	1.58	82.2	100.3	0.005	0.001
40	22.40	0.006	2.88	68.6	89.5	0.01	0.002
45	30.90	0.001	0.41	57.6	81.4	0.002	0.0004
50	20.90	0.008	4.06	48.3	75.1	0.02	0.005
55	27.60	0.002	0.87	40.3	70.3	0.006	0.001
60	20.10	0.010	4.89	33.2	66.5	0.04	0.007
65	17.50	0.018	8.89	26.8	63.5	0.07	0.01
70	24.40	0.004	1.82	21.0	61.2	0.02	0.003
71	26.20	0.002	1.20	19.8	60.9	0.01	0.002
72	28.60	0.001	0.69	18.7	60.5	0.006	0.001
73	30.00	0.001	0.50	17.6	60.2	0.005	0.0009
74	28.60	0.001	0.69	16.5	59.9	0.006	0.001
75	26.40	0.002	1.15	15.4	59.6	0.01	0.002
76	25.30	0.003	1.48	14.4	59.3	0.01	0.003
77	24.60	0.003	1.73	13.3	59.1	0.02	0.003
78	24.20	0.004	1.90	12.2	58.8	0.02	0.003
79	24.20	0.004	1.90	11.2	58.6	0.02	0.003
80	24.60	0.003	1.73	10.2	58.4	0.02	0.003
81	25.30	0.003	1.48	9.1	58.3	0.01	0.003
82	26.00	0.003	1.26	8.1	58.1	0.01	0.002
83	27.20	0.002	0.95	7.1	58.0	0.01	0.002
84	28.00	0.002	0.79	6.0	57.9	0.008	0.001
85	28.00	0.002	0.79	5.0	57.8	0.008	0.001
86	28.10	0.002	0.77	4.0	57.7	0.008	0.001
87	28.50	0.001	0.71	3.0	57.6	0.007	0.001
88	28.80	0.001	0.66	2.0	57.6	0.007	0.001
89	28.80	0.001	0.66	1.0	57.6	0.007	0.001
90	28.70	0.001	0.67	0.0	57.6	0.007	0.001

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 90° Sector

Maximum Permissible Exposure
(MPE): 533 μW/cm^2

ERP (Watts)	500	**Height** (feet)	177	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (μW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3087.8	3088.3	0.002	0.0003
5	4.60	0.347	173.37	616.0	618.4	0.02	0.003
10	20.00	0.010	5.00	305.7	310.4	0.002	0.0003
20	13.90	0.041	20.37	148.1	157.6	0.03	0.005
30	23.90	0.004	2.04	93.4	107.8	0.006	0.001
35	19.90	0.010	5.12	77.0	94.0	0.02	0.004
40	19.10	0.012	6.15	64.2	83.8	0.03	0.005
45	22.70	0.005	2.68	53.9	76.2	0.02	0.003
50	20.90	0.008	4.06	45.2	70.4	0.03	0.005
55	28.00	0.002	0.79	37.7	65.8	0.006	0.001
60	18.30	0.015	7.40	31.1	62.2	0.06	0.01
65	16.70	0.021	10.69	25.1	59.5	0.1	0.02
70	20.60	0.009	4.36	19.6	57.4	0.04	0.008
71	21.50	0.007	3.54	18.6	57.0	0.04	0.007
72	21.80	0.007	3.30	17.5	56.7	0.03	0.006
73	22.50	0.006	2.81	16.5	56.4	0.03	0.006
74	22.60	0.005	2.75	15.4	56.1	0.03	0.005
75	22.80	0.005	2.62	14.4	55.8	0.03	0.005
76	23.20	0.005	2.39	13.4	55.6	0.03	0.005
77	23.70	0.004	2.13	12.4	55.3	0.02	0.004
78	24.40	0.004	1.82	11.5	55.1	0.02	0.004
79	25.50	0.003	1.41	10.5	54.9	0.02	0.003
80	26.40	0.002	1.15	9.5	54.7	0.01	0.002
81	27.70	0.002	0.85	8.5	54.6	0.01	0.002
82	27.70	0.002	0.85	7.6	54.4	0.01	0.002
83	27.60	0.002	0.87	6.6	54.3	0.01	0.002
84	27.20	0.002	0.95	5.7	54.2	0.01	0.002
85	26.00	0.003	1.26	4.7	54.1	0.01	0.003
86	24.70	0.003	1.69	3.8	54.0	0.02	0.004
87	23.70	0.004	2.13	2.8	54.0	0.02	0.005
88	22.60	0.005	2.75	1.9	53.9	0.03	0.006
89	21.80	0.007	3.30	0.9	53.9	0.04	0.007
90	21.30	0.007	3.71	0.0	53.9	0.04	0.008

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 90° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	180	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3140.1	3140.6	0.002	0.0003
5	4.60	0.347	173.37	626.5	628.9	0.01	0.003
10	20.00	0.010	5.00	310.8	315.6	0.002	0.0003
20	13.90	0.041	20.37	150.6	160.2	0.03	0.005
30	23.90	0.004	2.04	94.9	109.6	0.006	0.001
35	19.90	0.010	5.12	78.3	95.6	0.02	0.004
40	19.10	0.012	6.15	65.3	85.3	0.03	0.005
45	22.70	0.005	2.68	54.8	77.5	0.01	0.003
50	20.90	0.008	4.06	46.0	71.6	0.03	0.005
55	28.00	0.002	0.79	38.4	66.9	0.006	0.001
60	18.30	0.015	7.40	31.6	63.3	0.06	0.01
65	16.70	0.021	10.69	25.6	60.5	0.1	0.02
70	20.60	0.009	4.36	20.0	58.3	0.04	0.008
71	21.50	0.007	3.54	18.9	58.0	0.04	0.007
72	21.80	0.007	3.30	17.8	57.6	0.03	0.006
73	22.50	0.006	2.81	16.8	57.3	0.03	0.005
74	22.60	0.005	2.75	15.7	57.0	0.03	0.005
75	22.80	0.005	2.62	14.7	56.8	0.03	0.005
76	23.20	0.005	2.39	13.7	56.5	0.03	0.005
77	23.70	0.004	2.13	12.6	56.2	0.02	0.004
78	24.40	0.004	1.82	11.6	56.0	0.02	0.004
79	25.50	0.003	1.41	10.6	55.8	0.02	0.003
80	26.40	0.002	1.15	9.7	55.7	0.01	0.002
81	27.70	0.002	0.85	8.7	55.5	0.01	0.002
82	27.70	0.002	0.85	7.7	55.4	0.01	0.002
83	27.60	0.002	0.87	6.7	55.2	0.01	0.002
84	27.20	0.002	0.95	5.8	55.1	0.01	0.002
85	26.00	0.003	1.26	4.8	55.0	0.01	0.003
86	24.70	0.003	1.69	3.8	54.9	0.02	0.004
87	23.70	0.004	2.13	2.9	54.9	0.02	0.004
88	22.60	0.005	2.75	1.9	54.8	0.03	0.006
89	21.80	0.007	3.30	1.0	54.8	0.04	0.007
90	21.30	0.007	3.71	0.0	54.8	0.04	0.008

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Kathrein-Scala - AP14-880 0° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	180	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3140.1	3140.6	0.002	0.0003
5	2.00	0.631	315.48	626.5	628.9	0.03	0.005
10	10.60	0.087	43.55	310.8	315.6	0.01	0.003
20	14.30	0.037	18.58	150.6	160.2	0.02	0.005
30	22.60	0.005	2.75	94.9	109.6	0.008	0.001
35	26.60	0.002	1.09	78.3	95.6	0.004	0.0008
40	25.00	0.003	1.58	65.3	85.3	0.007	0.001
45	19.00	0.013	6.29	54.8	77.5	0.03	0.007
50	18.50	0.014	7.06	46.0	71.6	0.05	0.009
55	21.90	0.006	3.23	38.4	66.9	0.02	0.005
60	30.20	0.001	0.48	31.6	63.3	0.004	0.0007
65	38.30	0.000	0.07	25.6	60.5	0.0007	0.0001
70	33.50	0.000	0.22	20.0	58.3	0.002	0.0004
71	32.90	0.001	0.26	18.9	58.0	0.003	0.0005
72	32.30	0.001	0.29	17.8	57.6	0.003	0.0006
73	31.90	0.001	0.32	16.8	57.3	0.003	0.0006
74	31.70	0.001	0.34	15.7	57.0	0.003	0.0007
75	31.60	0.001	0.35	14.7	56.8	0.004	0.0007
76	31.70	0.001	0.34	13.7	56.5	0.004	0.0007
77	31.90	0.001	0.32	12.6	56.2	0.003	0.0006
78	32.30	0.001	0.29	11.6	56.0	0.003	0.0006
79	32.80	0.001	0.26	10.6	55.8	0.003	0.0005
80	33.30	0.000	0.23	9.7	55.7	0.003	0.0005
81	33.70	0.000	0.21	8.7	55.5	0.002	0.0004
82	34.00	0.000	0.20	7.7	55.4	0.002	0.0004
83	34.00	0.000	0.20	6.7	55.2	0.002	0.0004
84	33.80	0.000	0.21	5.8	55.1	0.002	0.0004
85	33.40	0.000	0.23	4.8	55.0	0.003	0.0005
86	33.00	0.001	0.25	3.8	54.9	0.003	0.0005
87	32.60	0.001	0.28	2.9	54.9	0.003	0.0006
88	32.40	0.001	0.29	1.9	54.8	0.003	0.0006
89	32.30	0.001	0.29	1.0	54.8	0.003	0.0006
90	32.50	0.001	0.28	0.0	54.8	0.003	0.0006

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Kathrein-Scala - AP14-880 105° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	185	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3227.4	3227.8	0.002	0.0003
5	2.00	0.631	315.48	643.9	646.4	0.03	0.005
10	10.60	0.087	43.55	319.5	324.4	0.01	0.003
20	14.30	0.037	18.58	154.8	164.7	0.02	0.004
30	22.60	0.005	2.75	97.6	112.7	0.007	0.001
35	26.60	0.002	1.09	80.4	98.2	0.004	0.0007
40	25.00	0.003	1.58	67.1	87.6	0.007	0.001
45	19.00	0.013	6.29	56.3	79.7	0.03	0.006
50	18.50	0.014	7.06	47.3	73.5	0.04	0.008
55	21.90	0.006	3.23	39.4	68.8	0.02	0.004
60	30.20	0.001	0.48	32.5	65.0	0.004	0.0007
65	38.30	0.000	0.07	26.3	62.2	0.0006	0.0001
70	33.50	0.000	0.22	20.5	60.0	0.002	0.0004
71	32.90	0.001	0.26	19.4	59.6	0.002	0.0005
72	32.30	0.001	0.29	18.3	59.2	0.003	0.0005
73	31.90	0.001	0.32	17.2	58.9	0.003	0.0006
74	31.70	0.001	0.34	16.2	58.6	0.003	0.0006
75	31.60	0.001	0.35	15.1	58.3	0.003	0.0006
76	31.70	0.001	0.34	14.0	58.1	0.003	0.0006
77	31.90	0.001	0.32	13.0	57.8	0.003	0.0006
78	32.30	0.001	0.29	12.0	57.6	0.003	0.0006
79	32.80	0.001	0.26	11.0	57.4	0.003	0.0005
80	33.30	0.000	0.23	9.9	57.2	0.002	0.0004
81	33.70	0.000	0.21	8.9	57.0	0.002	0.0004
82	34.00	0.000	0.20	7.9	56.9	0.002	0.0004
83	34.00	0.000	0.20	6.9	56.8	0.002	0.0004
84	33.80	0.000	0.21	5.9	56.6	0.002	0.0004
85	33.40	0.000	0.23	4.9	56.6	0.002	0.0004
86	33.00	0.001	0.25	3.9	56.5	0.003	0.0005
87	32.60	0.001	0.28	3.0	56.4	0.003	0.0005
88	32.40	0.001	0.29	2.0	56.4	0.003	0.0006
89	32.30	0.001	0.29	1.0	56.3	0.003	0.0006
90	32.50	0.001	0.28	0.0	56.3	0.003	0.0006

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
Kathrein-Scala - AP14-880 240° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	185	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3227.4	3227.8	0.002	0.0003
5	2.00	0.631	315.48	643.9	646.4	0.03	0.005
10	10.60	0.087	43.55	319.5	324.4	0.01	0.003
20	14.30	0.037	18.58	154.8	164.7	0.02	0.004
30	22.60	0.005	2.75	97.6	112.7	0.007	0.001
35	26.60	0.002	1.09	80.4	98.2	0.004	0.0007
40	25.00	0.003	1.58	67.1	87.6	0.007	0.001
45	19.00	0.013	6.29	56.3	79.7	0.03	0.006
50	18.50	0.014	7.06	47.3	73.5	0.04	0.008
55	21.90	0.006	3.23	39.4	68.8	0.02	0.004
60	30.20	0.001	0.48	32.5	65.0	0.004	0.0007
65	38.30	0.000	0.07	26.3	62.2	0.0006	0.0001
70	33.50	0.000	0.22	20.5	60.0	0.002	0.0004
71	32.90	0.001	0.26	19.4	59.6	0.002	0.0005
72	32.30	0.001	0.29	18.3	59.2	0.003	0.0005
73	31.90	0.001	0.32	17.2	58.9	0.003	0.0006
74	31.70	0.001	0.34	16.2	58.6	0.003	0.0006
75	31.60	0.001	0.35	15.1	58.3	0.003	0.0006
76	31.70	0.001	0.34	14.0	58.1	0.003	0.0006
77	31.90	0.001	0.32	13.0	57.8	0.003	0.0006
78	32.30	0.001	0.29	12.0	57.6	0.003	0.0006
79	32.80	0.001	0.26	11.0	57.4	0.003	0.0005
80	33.30	0.000	0.23	9.9	57.2	0.002	0.0004
81	33.70	0.000	0.21	8.9	57.0	0.002	0.0004
82	34.00	0.000	0.20	7.9	56.9	0.002	0.0004
83	34.00	0.000	0.20	6.9	56.8	0.002	0.0004
84	33.80	0.000	0.21	5.9	56.6	0.002	0.0004
85	33.40	0.000	0.23	4.9	56.6	0.002	0.0004
86	33.00	0.001	0.25	3.9	56.5	0.003	0.0005
87	32.60	0.001	0.28	3.0	56.4	0.003	0.0005
88	32.40	0.001	0.29	2.0	56.4	0.003	0.0006
89	32.30	0.001	0.29	1.0	56.3	0.003	0.0006
90	32.50	0.001	0.28	0.0	56.3	0.003	0.0006

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 0° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	205	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3576.3	3576.8	0.001	0.0002
5	4.60	0.347	173.37	713.5	716.2	0.01	0.002
10	20.00	0.010	5.00	354.0	359.5	0.001	0.0002
20	13.90	0.041	20.37	171.5	182.5	0.02	0.004
30	23.90	0.004	2.04	108.1	124.8	0.004	0.0008
35	19.90	0.010	5.12	89.2	108.8	0.01	0.003
40	19.10	0.012	6.15	74.4	97.1	0.02	0.004
45	22.70	0.005	2.68	62.4	88.3	0.01	0.002
50	20.90	0.008	4.06	52.4	81.5	0.02	0.004
55	28.00	0.002	0.79	43.7	76.2	0.005	0.0009
60	18.30	0.015	7.40	36.0	72.1	0.05	0.009
65	16.70	0.021	10.69	29.1	68.9	0.08	0.01
70	20.60	0.009	4.36	22.7	66.4	0.03	0.006
71	21.50	0.007	3.54	21.5	66.0	0.03	0.005
72	21.80	0.007	3.30	20.3	65.6	0.03	0.005
73	22.50	0.006	2.81	19.1	65.3	0.02	0.004
74	22.60	0.005	2.75	17.9	64.9	0.02	0.004
75	22.80	0.005	2.62	16.7	64.6	0.02	0.004
76	23.20	0.005	2.39	15.6	64.3	0.02	0.004
77	23.70	0.004	2.13	14.4	64.1	0.02	0.003
78	24.40	0.004	1.82	13.3	63.8	0.01	0.003
79	25.50	0.003	1.41	12.1	63.6	0.01	0.002
80	26.40	0.002	1.15	11.0	63.4	0.01	0.002
81	27.70	0.002	0.85	9.9	63.2	0.007	0.001
82	27.70	0.002	0.85	8.8	63.0	0.007	0.001
83	27.60	0.002	0.87	7.7	62.9	0.007	0.001
84	27.20	0.002	0.95	6.6	62.8	0.008	0.002
85	26.00	0.003	1.26	5.5	62.7	0.01	0.002
86	24.70	0.003	1.69	4.4	62.6	0.01	0.003
87	23.70	0.004	2.13	3.3	62.5	0.02	0.003
88	22.60	0.005	2.75	2.2	62.5	0.02	0.004
89	21.80	0.007	3.30	1.1	62.4	0.03	0.005
90	21.30	0.007	3.71	0.0	62.4	0.03	0.006

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 0° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	207	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3611.2	3611.7	0.001	0.0002
5	4.60	0.347	173.37	720.5	723.2	0.01	0.002
10	20.00	0.010	5.00	357.5	363.0	0.001	0.0002
20	13.90	0.041	20.37	173.2	184.3	0.02	0.004
30	23.90	0.004	2.04	109.2	126.1	0.004	0.0008
35	19.90	0.010	5.12	90.0	109.9	0.01	0.003
40	19.10	0.012	6.15	75.1	98.1	0.02	0.004
45	22.70	0.005	2.68	63.0	89.1	0.01	0.002
50	20.90	0.008	4.06	52.9	82.3	0.02	0.004
55	28.00	0.002	0.79	44.1	77.0	0.004	0.0008
60	18.30	0.015	7.40	36.4	72.8	0.05	0.009
65	16.70	0.021	10.69	29.4	69.6	0.07	0.01
70	20.60	0.009	4.36	22.9	67.1	0.03	0.006
71	21.50	0.007	3.54	21.7	66.7	0.03	0.005
72	21.80	0.007	3.30	20.5	66.3	0.03	0.005
73	22.50	0.006	2.81	19.3	65.9	0.02	0.004
74	22.60	0.005	2.75	18.1	65.6	0.02	0.004
75	22.80	0.005	2.62	16.9	65.3	0.02	0.004
76	23.20	0.005	2.39	15.7	65.0	0.02	0.004
77	23.70	0.004	2.13	14.6	64.7	0.02	0.003
78	24.40	0.004	1.82	13.4	64.4	0.01	0.003
79	25.50	0.003	1.41	12.2	64.2	0.01	0.002
80	26.40	0.002	1.15	11.1	64.0	0.01	0.002
81	27.70	0.002	0.85	10.0	63.8	0.007	0.001
82	27.70	0.002	0.85	8.9	63.6	0.007	0.001
83	27.60	0.002	0.87	7.7	63.5	0.007	0.001
84	27.20	0.002	0.95	6.6	63.4	0.008	0.001
85	26.00	0.003	1.26	5.5	63.3	0.01	0.002
86	24.70	0.003	1.69	4.4	63.2	0.01	0.003
87	23.70	0.004	2.13	3.3	63.1	0.02	0.003
88	22.60	0.005	2.75	2.2	63.1	0.02	0.004
89	21.80	0.007	3.30	1.1	63.0	0.03	0.005
90	21.30	0.007	3.71	0.0	63.0	0.03	0.006

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 90° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	177	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3087.8	3088.3	0.002	0.0003
5	4.60	0.347	173.37	616.0	618.4	0.02	0.003
10	20.00	0.010	5.00	305.7	310.4	0.002	0.0003
20	13.90	0.041	20.37	148.1	157.6	0.03	0.005
30	23.90	0.004	2.04	93.4	107.8	0.006	0.001
35	19.90	0.010	5.12	77.0	94.0	0.02	0.004
40	19.10	0.012	6.15	64.2	83.8	0.03	0.005
45	22.70	0.005	2.68	53.9	76.2	0.02	0.003
50	20.90	0.008	4.06	45.2	70.4	0.03	0.005
55	28.00	0.002	0.79	37.7	65.8	0.006	0.001
60	18.30	0.015	7.40	31.1	62.2	0.06	0.01
65	16.70	0.021	10.69	25.1	59.5	0.1	0.02
70	20.60	0.009	4.36	19.6	57.4	0.04	0.008
71	21.50	0.007	3.54	18.6	57.0	0.04	0.007
72	21.80	0.007	3.30	17.5	56.7	0.03	0.006
73	22.50	0.006	2.81	16.5	56.4	0.03	0.006
74	22.60	0.005	2.75	15.4	56.1	0.03	0.005
75	22.80	0.005	2.62	14.4	55.8	0.03	0.005
76	23.20	0.005	2.39	13.4	55.6	0.03	0.005
77	23.70	0.004	2.13	12.4	55.3	0.02	0.004
78	24.40	0.004	1.82	11.5	55.1	0.02	0.004
79	25.50	0.003	1.41	10.5	54.9	0.02	0.003
80	26.40	0.002	1.15	9.5	54.7	0.01	0.002
81	27.70	0.002	0.85	8.5	54.6	0.01	0.002
82	27.70	0.002	0.85	7.6	54.4	0.01	0.002
83	27.60	0.002	0.87	6.6	54.3	0.01	0.002
84	27.20	0.002	0.95	5.7	54.2	0.01	0.002
85	26.00	0.003	1.26	4.7	54.1	0.01	0.003
86	24.70	0.003	1.69	3.8	54.0	0.02	0.004
87	23.70	0.004	2.13	2.8	54.0	0.02	0.005
88	22.60	0.005	2.75	1.9	53.9	0.03	0.006
89	21.80	0.007	3.30	0.9	53.9	0.04	0.007
90	21.30	0.007	3.71	0.0	53.9	0.04	0.008

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 90° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	187	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3262.2	3262.8	0.002	0.0003
5	4.60	0.347	173.37	650.9	653.4	0.01	0.003
10	20.00	0.010	5.00	322.9	327.9	0.002	0.0003
20	13.90	0.041	20.37	156.4	166.5	0.02	0.005
30	23.90	0.004	2.04	98.6	113.9	0.005	0.001
35	19.90	0.010	5.12	81.3	99.3	0.02	0.003
40	19.10	0.012	6.15	67.9	88.6	0.03	0.005
45	22.70	0.005	2.68	56.9	80.5	0.01	0.003
50	20.90	0.008	4.06	47.8	74.3	0.02	0.005
55	28.00	0.002	0.79	39.9	69.5	0.005	0.001
60	18.30	0.015	7.40	32.9	65.8	0.06	0.01
65	16.70	0.021	10.69	26.6	62.8	0.09	0.02
70	20.60	0.009	4.36	20.7	60.6	0.04	0.007
71	21.50	0.007	3.54	19.6	60.2	0.03	0.006
72	21.80	0.007	3.30	18.5	59.9	0.03	0.006
73	22.50	0.006	2.81	17.4	59.5	0.03	0.005
74	22.60	0.005	2.75	16.3	59.2	0.03	0.005
75	22.80	0.005	2.62	15.3	59.0	0.03	0.005
76	23.20	0.005	2.39	14.2	58.7	0.02	0.004
77	23.70	0.004	2.13	13.2	58.4	0.02	0.004
78	24.40	0.004	1.82	12.1	58.2	0.02	0.003
79	25.50	0.003	1.41	11.1	58.0	0.01	0.003
80	26.40	0.002	1.15	10.0	57.8	0.01	0.002
81	27.70	0.002	0.85	9.0	57.6	0.009	0.002
82	27.70	0.002	0.85	8.0	57.5	0.009	0.002
83	27.60	0.002	0.87	7.0	57.4	0.009	0.002
84	27.20	0.002	0.95	6.0	57.3	0.01	0.002
85	26.00	0.003	1.26	5.0	57.2	0.01	0.002
86	24.70	0.003	1.69	4.0	57.1	0.02	0.003
87	23.70	0.004	2.13	3.0	57.0	0.02	0.004
88	22.60	0.005	2.75	2.0	57.0	0.03	0.005
89	21.80	0.007	3.30	1.0	57.0	0.03	0.006
90	21.30	0.007	3.71	0.0	56.9	0.04	0.007

State of Connecticut
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB809KE-SY 90° Sector

Maximum Permissible Exposure
(MPE): 533 µW/cm^2

ERP (Watts)	500	**Height** (feet)	187	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.00	1.000	500.00	3262.2	3262.8	0.002	0.0003
5	4.60	0.347	173.37	650.9	653.4	0.01	0.003
10	20.00	0.010	5.00	322.9	327.9	0.002	0.0003
20	13.90	0.041	20.37	156.4	166.5	0.02	0.005
30	23.90	0.004	2.04	98.6	113.9	0.005	0.001
35	19.90	0.010	5.12	81.3	99.3	0.02	0.003
40	19.10	0.012	6.15	67.9	88.6	0.03	0.005
45	22.70	0.005	2.68	56.9	80.5	0.01	0.003
50	20.90	0.008	4.06	47.8	74.3	0.02	0.005
55	28.00	0.002	0.79	39.9	69.5	0.005	0.001
60	18.30	0.015	7.40	32.9	65.8	0.06	0.01
65	16.70	0.021	10.69	26.6	62.8	0.09	0.02
70	20.60	0.009	4.36	20.7	60.6	0.04	0.007
71	21.50	0.007	3.54	19.6	60.2	0.03	0.006
72	21.80	0.007	3.30	18.5	59.9	0.03	0.006
73	22.50	0.006	2.81	17.4	59.5	0.03	0.005
74	22.60	0.005	2.75	16.3	59.2	0.03	0.005
75	22.80	0.005	2.62	15.3	59.0	0.03	0.005
76	23.20	0.005	2.39	14.2	58.7	0.02	0.004
77	23.70	0.004	2.13	13.2	58.4	0.02	0.004
78	24.40	0.004	1.82	12.1	58.2	0.02	0.003
79	25.50	0.003	1.41	11.1	58.0	0.01	0.003
80	26.40	0.002	1.15	10.0	57.8	0.01	0.002
81	27.70	0.002	0.85	9.0	57.6	0.009	0.002
82	27.70	0.002	0.85	8.0	57.5	0.009	0.002
83	27.60	0.002	0.87	7.0	57.4	0.009	0.002
84	27.20	0.002	0.95	6.0	57.3	0.01	0.002
85	26.00	0.003	1.26	5.0	57.2	0.01	0.002
86	24.70	0.003	1.69	4.0	57.1	0.02	0.003
87	23.70	0.004	2.13	3.0	57.0	0.02	0.004
88	22.60	0.005	2.75	2.0	57.0	0.03	0.005
89	21.80	0.007	3.30	1.0	57.0	0.03	0.006
90	21.30	0.007	3.71	0.0	56.9	0.04	0.007

US Treasury
LightSquared at ATC_88017 Shelton-Trumbull, CT (607861S5)
ANDREW - DB616 0° Sector

Maximum Permissible Exposure
(MPE): 200 µW/cm^2

ERP (Watts)	125	**Height** (feet)	110	**Downtilt** (Degrees)	0

Depression Angle	Relative dB	Relative Gain	ERP (Watts) in direction	Dist From Structure(m)	Dist From Antenna(m)	Power Density (µW/cm^2)	Percent of MPE
1	0.20	0.955	119.37	1919.0	1919.3	0.001	0.0005
5	1.10	0.776	97.03	382.9	384.3	0.02	0.01
10	3.70	0.427	53.32	190.0	192.9	0.05	0.02
20	9.50	0.112	14.03	92.0	97.9	0.05	0.02
30	12.10	0.062	7.71	58.0	67.0	0.06	0.03
35	17.20	0.019	2.38	47.8	58.4	0.02	0.01
40	28.20	0.002	0.19	39.9	52.1	0.002	0.001
45	21.80	0.007	0.83	33.5	47.4	0.01	0.006
50	18.00	0.016	1.98	28.1	43.7	0.03	0.02
55	17.20	0.019	2.38	23.4	40.9	0.05	0.02
60	18.00	0.016	1.98	19.3	38.7	0.04	0.02
65	19.60	0.011	1.37	15.6	37.0	0.03	0.02
70	21.50	0.007	0.88	12.2	35.6	0.02	0.01
71	22.10	0.006	0.77	11.5	35.4	0.02	0.01
72	22.50	0.006	0.70	10.9	35.2	0.02	0.01
73	23.20	0.005	0.60	10.2	35.0	0.02	0.008
74	23.90	0.004	0.51	9.6	34.8	0.01	0.007
75	24.80	0.003	0.41	9.0	34.7	0.01	0.006
76	25.40	0.003	0.36	8.4	34.5	0.01	0.005
77	26.50	0.002	0.28	7.7	34.4	0.008	0.004
78	27.60	0.002	0.22	7.1	34.2	0.006	0.003
79	28.90	0.001	0.16	6.5	34.1	0.005	0.002
80	30.20	0.001	0.12	5.9	34.0	0.003	0.002
81	31.90	0.001	0.08	5.3	33.9	0.002	0.001
82	33.30	0.000	0.06	4.7	33.8	0.002	0.0009
83	34.90	0.000	0.04	4.1	33.8	0.001	0.0006
84	35.10	0.000	0.04	3.5	33.7	0.001	0.0006
85	34.90	0.000	0.04	2.9	33.6	0.001	0.0006
86	33.90	0.000	0.05	2.3	33.6	0.002	0.0008
87	32.40	0.001	0.07	1.8	33.5	0.002	0.001
88	31.10	0.001	0.10	1.2	33.5	0.003	0.001
89	30.00	0.001	0.12	0.6	33.5	0.004	0.002
90	29.20	0.001	0.15	0.0	33.5	0.004	0.002

TOWER RESOURCE MANAGEMENT INC 03/13
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979 S. HIGH ST.
COLUMBUS, OH 43206

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