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February 14, 2014

VIA EMAIL & OVERNIGHT DELIVERY
Hon. Robert Stein, Chairman
and Members of the Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 439
Message Center Management, Inc. (MCM)
and New Cingular Wireless PCS, LLC (AT&T)
Application for Certificate of Environmental Compatibility
and Public Need for a Telecommunications Tower Facility at
Bates Woods Park, New London, Connecticut

Dear Chairman Stein and Members of the Siting Council:

On behalf of Message Center Management, Inc. ("MCM"), please accept for review and Council approval this Development Management Plan ("D&M Plan") filing for the captioned Facility as approved in Docket No. 439.

Tower, Compound & Other Equipment
Enclosed are an original and fifteen (15) sets of 11"x 17" sized construction drawings being filed in accordance with the Siting Council's ("Council") Decision and Order dated October 31, 2013 ("Decision and Order"). Two full sized sets are being filed under separate cover. As per order number 1, the D&M Plan incorporates a 115' monopole tower as well as the details of the associated compound and AT&T's equipment. The D&M Plan also includes site clearing, drainage, and erosion and sedimentation control measures consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as amended. Also enclosed is geotechnical information and tower and foundation drawings including information pertinent to the tower's design. In keeping with Siting Council Order 2(a) MCM consulted with the City of New London, its landlord, regarding the final tower finish. The City of New London indicated to MCM that the galvanized finish is acceptable.

Required Notifications
In accordance with RCSA Section 16-50j-61(d) copies of this filing are being provided to the Service list and City of New London. In accordance with the provisions of RCSA Section 16-50j-77, MCM hereby notifies the Council of its intention to begin site work immediately after Council approval of the D&M Plan. Construction of the tower and other site improvements will commence upon issuance of a local building permit. The supervisor for all construction related matters on this project is Mr. Jim Maher. Mr. Maher is located at MCM's office in Hartford, Connecticut and can be reached by telephone at (203) 223-4665.

CUDDY& FEDER LLP

We respectfully request that this matter be included on the Council's next available agenda for review and approval.

Thank you for your consideration of the enclosed.

Very truly yours,

Daniel M. Laub

Enclosures

cc: Mayor Daryl Justin Finizio, City of New London
William Camosci, City of New London
Maria Scotti, MCM
Virginia King, MCM
Scott Chasse, P.E., APT
Christopher B. Fisher, Esq.

CUDDY& FEDER LLP

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and fifteen copies of the foregoing was sent electronically and by overnight delivery to the Connecticut Siting Council with copy to:

Mayor Daryl Justin Finizio
Office of the Mayor
181 State Street
New London, CT 06320

Dated: February 14, 2014

Daniel M. Laub

ATTACHMENT 1

GEOTECHNICAL ENGINEERING REPORT
PROPOSED TELECOMMUNICATIONS TOWER
BATES WOODS PARK
NEW LONDON, CONNECTICUT

Terracon Project No. J2135212
November 26, 2013

1.0 INTRODUCTION

A geotechnical engineering report has been completed for the proposed 115-foot high steel monopole telecommunications tower to be located south of the existing baseball fields within Bates Woods Park in New London, Connecticut. A single test boring (B-1) was advanced to a depth of about 18 feet below existing ground surface close to the proposed tower center location. In addition, two test probes (P-1 and P-2) were advanced to the east and west of the proposed tower center to auger refusal on probable bedrock at depths of 6 and 7 feet. Logs of the test boring and probes, along with a Site Location Map (Exhibit A-1) and an Exploration Location Diagram (Exhibit A-2), are included in Appendix A of this report.

The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- subsurface soil conditions
- groundwater conditions
- earthwork
- foundation design and construction
- slab design and construction
- seismic considerations

2.0 PROJECT INFORMATION

The project consists of the removal of an existing 90-foot high sport lighting stanchion associated with adjacent ball fields and construction of an approximately 115-foot high steel monopole telecommunications tower with antennas, stadium lights, and associated equipment cabinets within a 3,190-square foot irregularly shaped compound area.

2.1 Project Description

Our knowledge of the project is based on review of the drawing titled "*Partial Site Plan"*, dated November of 2013, by All-Points Technology Corporation of Killingworth, Connecticut. A summary description of the project is presented below:

Item	Description
Site layout	Exploration Location Diagram on Exhibit A-2, Appendix A
Tower	A 115-foot high steel monopole telecommunications tower with

Item	Description
	stadium lights at a height of about 90 feet
Estimated maximum loads	Tower dead load: 20 kips Equipment pad: 150 pounds per square foot (psf)
Grading	Site will remain close to current grades; only minor site grading expected
Fill slope	1.5 Horizontal (H) to 1 vertical (V) fill slope with rip rap located south of the proposed compound

2.2 Site Location and Description

Item	Description
Location	Bates Woods Park, southeast of the intersection of Chester Street and Clark Lane in New London, Connecticut
Existing improvements	90-foot high sport lighting stanchion adjacent to the baseball field
Current ground cover	Bare ground/trees/grass
Existing topography	Relatively level within the proposed compound area, then sloping downwards towards the south

3.0 SUBSURFACE EXPLORATIONS AND CONDITIONS

3.1 Typical Profile

Based on the results of the explorations and observations at the time of drilling, subsurface conditions on the project site can be generalized as follows:

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency / Relative Density
Fill	6	Silty sand, with gravel, occasional cobbles and boulders, brown	Medium dense to very dense
Glacial Till	8	Silty sand (SM), with gravel, occasional cobbles, brown to gray	Medium dense to very dense
Bedrock	>18	Gneiss, gray, hard	N/A

The *Surficial Materials Map of Connecticut (1992)*, identifies the native soils in the vicinity of the site as glacial till. The *Bedrock Geological Map of Connecticut (1985)*, indicates that bedrock in the vicinity of the site consists of New London Gneiss.

B-1 terminated with auger refusal upon bedrock at a depth of 8 feet below the existing ground surface. Bedrock was then cored from about 8 to 18 feet using an NQ2-sized core barrel. A Rock Quality Designation (RQD) value of 20 percent was obtained from 8 to 13 feet, indicating poor bedrock quality. An RQD value of 57 percent was obtained from 13 to 18 feet, indicating fair bedrock quality. P-1 and P-2 terminated with auger refusal on bedrock at depths of approximately 6 and 7 feet, respectively.

Conditions encountered at the exploration locations are indicated on the exploration logs in Appendix A of this report. Stratification boundaries on the exploration logs represent the approximate location of changes in soil/rock types; *in situ*, the transition between materials may be gradual. Further details of the exploration can be found on the exploration logs.

3.2 In-situ Resistivity

On November 18, 2013, *in-situ* soil resistivity testing was completed by a Terracon field engineer. Resistivity testing was performed in general accordance with ASTM G57 by the Wenner Four Probe Method using a Megger DET5/4R Digital Earth Tester. Two resistivity lines were completed with electrodes spaced at 5, 10, 20, 30, and 40 feet. The location and orientation of the resistivity lines are shown on Exhibit A-2. The resistivity test results are tabulated below:

	Resistivity (ohm-cm)	
Electrode Spacing (ft)	**Line 1**	**Line 2**
5	71,140	65,300
10	51,900	72,005
20	54,005	58,215
30	61,930	43,660
40	41,365	31,405

3.3 Groundwater

Groundwater was not encountered at the time of the explorations. However, fluctuations in groundwater level may occur because of seasonal variations in the amount of rainfall, runoff, and other factors. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

4.1 Geotechnical Considerations

Based on the subsurface conditions, the site is underlain by up to about 6 feet of fill, which is underlain by a thin glacial till stratum, which in turn is over shallow bedrock.

We therefore recommend the proposed steel monopole telecommunications tower be supported on a monolithic mat or a pier-and-pad, bearing directly on the bedrock or minus ¾-inch crushed placed on the bedrock. As an alternative, the proposed telecommunications tower may be supported on a drilled shaft foundation extending through the fill and the glacial till into the bedrock. The proposed equipment platform and other ancillary structures may derive support from the existing fill. Design recommendations are presented in the following sections.

Support of slabs on or above existing fill soils is discussed in this report. Even with the recommended construction testing services, there is an inherent risk for the owner that compressible fill or unsuitable material within or buried by the fill will not be discovered. This risk of unforeseen conditions cannot be eliminated without completely removing the existing fill, but can be reduced by performing additional testing and evaluation.

We recommend that the exposed subgrades be thoroughly evaluated after excavation to proposed grade. We recommend that the geotechnical engineer be retained to evaluate the bearing material for the foundation subgrade. We recommend that the geotechnical engineer review the construction of the drilled shaft, if selected.

4.2 Earthwork

Preparation of the site should include removal of topsoil or otherwise unsuitable materials. Organic soils are typically found deeper around trees, bushes, and their associated root structure. The contractor should take this into account in estimating stripping quantities. The soil subgrade should be proofrolled with a walk-behind vibratory roller or heavy plate compactor. Unstable subgrades should be removed and replaced with compacted structural fill. Minus ¾-inch crushed stone wrapped in geotextile separation fabric may be used in place of structural fill. If required, structural fill may then be placed within the compound area to attain the required grade.

Fill and backfill materials should meet the following material requirements:

Fill Type [1]	USCS Classification	Acceptable Location for Placement
Structural Fill [2,3]	GW	All locations and elevations. Based on observations, the existing fill may be selectively re-used as structural fill, provided it is free of organic and closely meets the gradation requirements in Note 2, below.
Common Fill [4]	Varies	Common fill may be used for general site grading to within 12 inches of finished grade. Common fill should not be used below sensitive structures. The existing fill may be re-used as common fill, provided it is free of organics and can be adequately compacted.

1. Compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used. Fill should not be placed on a frozen subgrade.
2. Imported structural fill should meet the following gradation:

Percent Passing by Weight	
Sieve Size	**Structural Fill**
6″	100
3″	70 – 100
2″	(100)*
¾″	45 – 95
No. 4	30 – 90
No. 10	25 – 80
No. 40	10 – 50
No. 200	0 – 12

* Maximum 2-inch particle size within 12 inches of the underside of concrete elements

3. Recommendation for re-use of site soils as Structural Fill applies only to re-use on this site and only if Terracon is monitoring construction.
4. Imported common fill should have a maximum particle size of 6 inches and no more than 25 percent by weight passing the US No. 200 sieve.

4.2.1 Compaction Requirements

Item	Description
Fill Lift Thickness	8 inches or less in loose thickness
Compaction Requirements [1]	95 percent maximum modified Proctor dry density (ASTM D1557, Method C)
Moisture Content – Granular Material	Workable moisture levels

1. We recommend that fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested, as required, until the specified moisture and compaction requirements are achieved.

4.2.2 Grading and Drainage

We understand that a permanent fill slope, up to approximately 18 feet in height and covered with a 1.5-foot thick rip rap, will be constructed to the south of the proposed compound area with a slope of 1.5 Horizontal : 1 Vertical (1.5H:1V). We recommend that the stability be reviewed when the final slope configuration is known. A fill slope at this grade will primarily depend on the rip rap for stability. The construction of the rip rap should therefore be monitored, so that the required thickness is placed. Soil placed to create the fill slope should be compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557, Method C.

Adequate drainage should be provided at the site to reduce the likelihood of an increase in moisture content of the foundation soils. Final site grading should be away from the tower to reduce the likelihood of water ponding near the structure.

4.2.3 Earthwork Construction Considerations

Although the exposed subgrade is anticipated to be relatively stable upon initial exposure, unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. Should unstable subgrade conditions develop, stabilization measures will need to be employed.

Construction traffic over the completed soil subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared soil subgrades or in excavations. If the soil subgrade should become frozen, wet, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted.

As a minimum, temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations may be required during grading operations. The contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations, as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, State, and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proofrolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of foundations.

4.3 Foundation Recommendations

4.3.1 Tower Foundations

We recommend that the proposed monopole telecommunications tower be supported on either a monolithic mat or a pier-and-pad foundation placed directly on the bedrock or minus ¾-inch crushed stone placed on the bedrock. As an alternatively, the proposed telecommunications tower may be supported on a drilled shaft foundation extending through the fill and glacial till into the bedrock. Design recommendations and construction considerations for the recommended foundation systems are presented in the following tables and paragraphs.

4.3.1.1 Mat/Pad Foundation Design Recommendations

Description	Value
Net allowable bearing pressure [1]	10,000 psf
Minimum embedment below finished grade for frost protection	42 inches
Approximate total settlement [2]	Negligible
Estimated differential settlement [2]	Negligible
Total soil unit weight (γ)	125 pcf
Passive pressure coefficient, K_p [3]	3.0 (ultimate)
Coefficient of sliding friction [4]	0.5 (ultimate)

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the mat/pad base elevation.
2. Foundation settlement should be negligible if founded directly on bedrock or on a few inches of ¾-inch minus crushed stone over bedrock.
3. Passive pressure calculated with this parameter should be reduced by at least a factor of safety of 3, to reflect the amount of movement required to mobilize the passive resistance.
4. A factor of safety of at least 1.5 should be applied to the sliding resistance.

Uplift resistance for tower foundation may be computed as the sum of the weight of the foundation element and the weight of the soil overlying the foundation. For this computation, we recommend using a soil unit weight of 100 pounds per cubic foot (pcf) for engineered fill overlying the footing placed as described in this section of this report. A unit weight of 150 pcf may be used for reinforced foundation concrete. A factor of safety of 1.0 may be applied to calculations of dead load; a higher factor of safety may be appropriate for loadings resisted by dead load.

4.3.1.2 Mat/Pad Foundation Construction Considerations

Bedrock subgrades should be no steeper than 4H:1V and free of loose rock or soil. Bedrock subgrades steeper than 4H:1V should be benched to provide a relatively level bearing surface. Minor irregularities in the level of the rock surface may be filled with lean concrete or minus ¾-

inch crushed stone to provide a level working surface. The joints in competent bedrock should be tight; care should be taken not to displace the joints in the bedrock during excavation.

The base of foundation excavations should be free of water and loose soil/bedrock prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing disturbance. Should the material at bearing level become wet, disturbed or frozen, the affected material should be removed prior to placing concrete. The geotechnical engineer should be retained to observe and test the foundation bearing materials.

4.3.1.3 Drilled Shaft Design Recommendations

Description	Value
Net Allowable Bearing Capacity [1]	
Bedrock (>15 feet)	20 ksf
Ultimate Side Friction [2]	
Fill (3.5 to 6 feet)	1 ksf
Glacial till (6 to 8 feet)	2 ksf
Ultimate Rock Bond	
Bedrock (>8 feet)	200 psi
Coefficient Lateral Subgrade Reaction [3]	
Fill (0 to 6 feet)	25 (z/D) kcf
Glacial till (6 to 8feet)	80 (z/D) kcf
Bedrock (>8 feet)	100 (z/D) kcf
Angle of Internal Friction	
Fill (0 to 6 feet)	30 degrees
Glacial till 6 to 8 feet)	34 degrees
Bedrock (>8 feet)	45 degrees
Estimated In-situ Soil Unit Weight	
Fill (0 to 6 feet)	120 pcf
Glacial till (6 to 8 feet)	125 pcf
Bedrock (8 to >18 feet)	165 pcf
Approximate Groundwater Depth	Not Encountered
Concrete minimum 28-day unconfined compressive strength [4]	4,000 psi
Minimum drilled shaft diameter	Diameter of monopole base
Allowable deflection at top of shaft	0.5 inch

1. The allowable end bearing pressure assumes that loose soil/rock at the base of the shaft has been removed.
2. Contribution to shaft capacity from soil above a depth of 3.5 feet should be ignored. The uplift capacity of the shaft will be based on side friction and the dead weight of the shaft.
3. z is depth below the ground surface and D is diameter of shaft, both in feet.

Description	Value
4. Use air entrained concrete.	

We anticipate that the design length of the shaft will be primarily dependent on the embedment/lateral capacity required to resist live loading, such as the combination of wind and ice loads. We recommend the base of the drilled shaft be at least 15 feet below ground surface. The drilled shaft will be designed to resist tension loads and therefore should have reinforcing steel installed throughout the entire length of the shaft. Technical specifications should be prepared that require material and installation detail submittals, proof of experience in drilled shaft installation, concrete placement methods, and hole stabilization methods.

4.3.1.4 Drilled Shaft Construction Recommendations

The drilled shaft should be aligned vertically. The drilling method or combination of methods selected by the contractor should be submitted for review by the geotechnical engineer, prior to mobilization of drilling equipment. A rock socket will be required to construct the shaft.

A section of temporary casing may be required to reduce the likelihood of caving of the upper portions of the shaft. Concrete should be placed by tremie methods. The contractor should take these aspects into account in his proposed drilling method(s).

4.3.2 Equipment Foundations

Equipment cabinets and ancillary structures may be supported on a slabs-on-grade underlain by at least a 12-inch thickness of compacted structural fill placed directly on the existing fill, the surface of which should be thoroughly compacted. Minus ¾-inch crushed stone wrapped in geotextile separation fabric may be used in place of structural fill placed over the existing fill. Design recommendations for the proposed structure are presented in the following table:

4.3.2.1 Slab-on-Grade Design Recommendations

Description	Value
Slab support (compacted structural fill or minus ¾-inch crushed stone, wrapped in geotextile separation fabric)	12-inch thick layer
Net allowable bearing pressure [1]	1,500 psf
Modulus of subgrade reaction	100 pounds per square inch per in (psi/in) for point loading
Minimum embedment below finished grade for frost protection [2,3]	42 inches
Approximate total settlement [4]	~1 inch
Estimated differential settlement [4]	½ to ¾ of total settlement
Coefficient of sliding friction [5,6]	0.5 (ultimate)

Description	Value
1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the slab base elevation. 2. Consideration should be given to using dense insulation boards (Dow Styrofoam Highload, or similar) under and adjacent to lightly loaded slabs-on-grade, to provide the equivalent of 42 inches of earth cover, thus reducing frost penetration. 3. Air entraining admixtures should be used for concrete exposed to freezing. 4. Settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the thickness of compacted fill, and the quality of the earthwork operations. 5. A factor of safety of at least 1.5 should be applied to the sliding resistance. 6. If rigid insulation is used beneath the slab for frost protection, the coefficient of sliding friction between the concrete and the insulation should be based on the manufacturer's recommendation.	

4.3.2.2 Slab-on-Grade Construction Considerations

On most tower sites, the site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed by foundation excavations, construction traffic, rainfall, etc. As a result, the slab subgrade may not be suitable for placement of structural fill and corrective action will be required.

We recommend the area underlying the slabs be rough graded and then thoroughly compacted with a heavy plate compactor or roller prior to final grading and placement of structural fill. Minus ¾-inch crushed stone wrapped in geotextile separation fabric may be used in place of structural fill. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas previously filled or backfilled. Areas where unsuitable or unstable conditions are located should be repaired by removing and replacing the affected material with properly compacted structural fill or minus ¾-inch crushed stone, as necessary.

4.4 Seismic Considerations

Description	Value
Code Used [1]	Connecticut State Building Code (CBC)
Site Class [2]	B
Maximum considered earthquake ground motions (5 percent damping)	0.057g (1.0 second spectral response acceleration)
	0.210g (0.2 second spectral response acceleration)
Liquefaction potential in event of an earthquake	Not susceptible

1. The CBC incorporates the Seismic Design Category approach of the 2003 International Building Code (IBC).
2. The CBC uses a site soil profile determination extending a depth of 100 feet for seismic site classification. The current scope requested does not include a 100-foot soil profile determination; the boring performed for this report extended to a maximum depth of 18 feet. However, the encountered bedrock will extend to a depth of at least 100 feet.

5.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications, so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction, and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the explorations performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between the explorations, across the site, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified, so that further evaluation and supplemental recommendations can be provided.

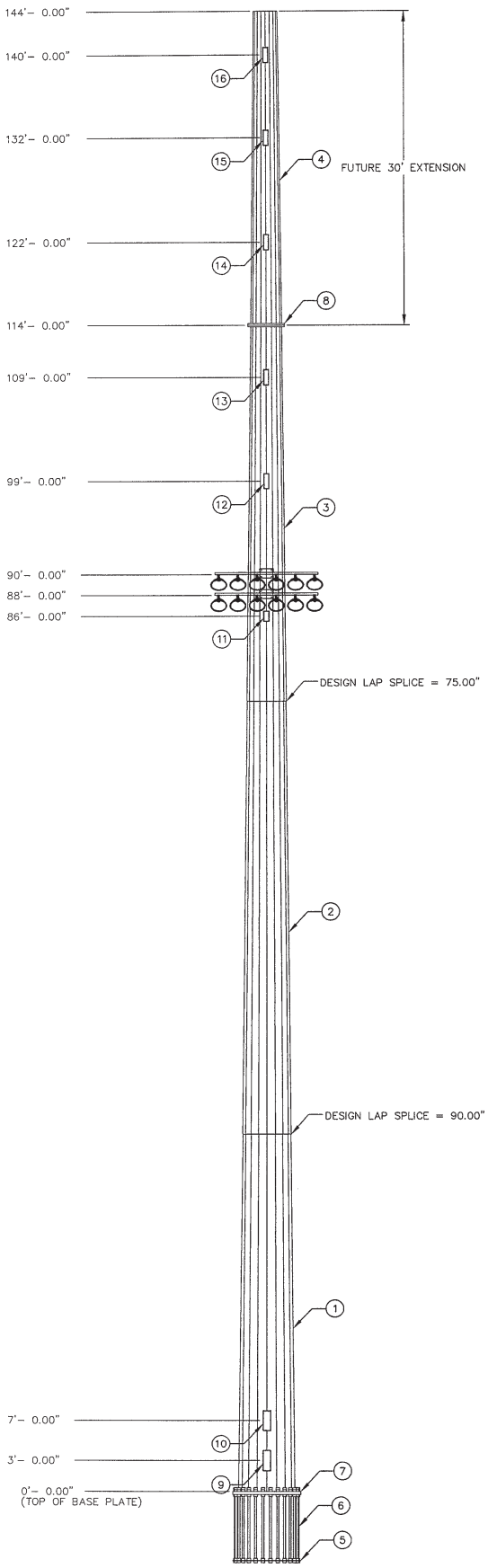
Resistivity testing may be influenced by the presence of boulders, chain-link fences, existing utilities, or other anomalies within the test area. Resistivity results will also fluctuate depending on the degree of compaction, moisture content, soil constituent solubility, and temperature. Field resistivity values may vary depending upon season, precipitation, and other conditions, which may be different from those at the time of testing.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or

prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

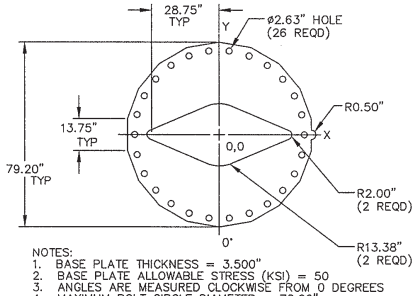
This report has been prepared for the exclusive use of our client for specific application to the project discussed and prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

ATTACHMENT 2



ITEM ID	NO. REQD	FEATURES	UNIT WEIGHT(LBS)	WEIGHT (LBS)
1	1	SECTION A VALMONT S–22 0.500" THK (A572 GR65)	13,513	13,513
2	1	SECTION B VALMONT S–22 0.438" THK (A572 GR65)	11,184	11,184
3	1	SECTION C VALMONT S–22 0.313" THK (A572 GR65)	4,869	4,869
4	1	SECTION D VALMONT S–22 0.250" THK (A572 GR65)	2,505	2,505
5	1	BOTTOM CAGE PLATE	139	139
6	26	2.25" ANCHOR BOLT, LENGTH=7.00' A615 GR75	121	3,133
7	1	BASE PLATE VALMONT S–56 3.500" THK (A572 GR50)	3,693	3,693
8	2	FLANGE PLATE	769	1,538
	1	TOP CAGE PLATE (REMOVE BEFORE SETTING POLE)	184	184
	14	BOLT 1.00" DIA		
	1	SAFETY CLIMBING CABLE (LENGTH = 134.00')	101	101
	3	GROUNDING LUG	2	6
		GALVANIZING	558	558
	106	STEP AND CLIP (VALMONT STANDARD)	1	53
	7	BRACKET	10	70
9	3	HAND HOLE HVY (9" x 24") @ 0°, 120°, 240°	66	198
10	3	HAND HOLE HVY (9" x 24") @ 0°, 120°, 240°	66	198
11	2	HAND HOLE STD (6" x 12") @ 0°, 180°	22	44
12	3	HAND HOLE STD (6" x 18") @ 0°, 120°, 240°	18	54
13	3	HAND HOLE STD (6" x 18") @ 0°, 120°, 240°	18	54
14	3	HAND HOLE STD (6" x 18") @ 0°, 120°, 240°	18	54
15	3	HAND HOLE STD (6" x 18") @ 0°, 120°, 240°	18	54
16	3	HAND HOLE STD (6" x 18") @ 0°, 120°, 240°	18	54
	1	POLE CAP	37	37

HOLE COORDS (INCHES)	
X–COORD	Y–COORD
36.00	0.00
34.95	8.62
31.87	16.73
26.95	23.87
20.45	29.63
12.77	33.66
4.34	35.74



NOTES:
1. BASE PLATE THICKNESS = 3.500"
2. BASE PLATE ALLOWABLE STRESS (KSI) = 50
3. ANGLES ARE MEASURED CLOCKWISE FROM 0 DEGREES
4. MAXIMUM BOLT CIRCLE DIAMETER = 72.00"
5. MAXIMUM CAGE TEMPLATE DIAMETER = 78.00"

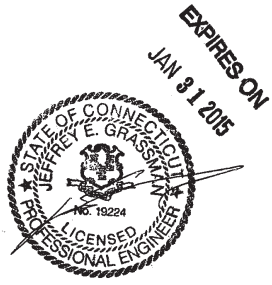
BASE PLATE / ANCHORAGE CHARACTERISTICS

NOTES:

1. REACTIONS FOR FOUNDATION DESIGN.
   MOMENT = 60,011 IN–KIPS
   SHEAR = 47,087 #
   VERTICAL = 55,322 #
2. GALVANIZED PER ASTM A–123.
3. DESIGN CRITERIA: EIA/TIA 222–F
4. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADING:
   A. CASE 1: WIND = 85 MPH
   B. CASE 2: WIND = 74 MPH, ICE = 0.50 INCH
   C. EQUIPMENT

DESCRIPTION	MTG HT. (FT)	CENTROID HT. (FT)	WITHOUT ICE EPA (FT**2)	WITHOUT ICE WT (LBS)	WITH ICE EPA (FT**2)	WITH ICE WT (LBS)
1–ICE SHIELD	94.00	94.00	40.00	500	50.00	1000
1–LIGHT SUPPORT	89.00	89.00	28.00	1200	33.00	1600
6–SPORTS LIGHTS	90.00	90.00	24.00	480	30.00	720
6–SPORTS LIGHTS	88.00	88.00	24.00	480	30.00	720
6–RRUS–12	111.00	111.00	9.96	348	14.76	822
3–RRUS–32	111.00	111.00	4.80	180	7.32	408
6–RRUS A2	111.00	111.00	5.82	132	9.54	432
1–4FT LIGHTNING ROD	144.00	146.00	0.25	10	1.64	22
12–PANEL (8' X 1' X 4")	144.00	144.00	83.76	1188	106.68	2472
6–RRU (22" X 14" X 4")	144.00	144.00	7.62	414	10.14	702
1–12' SP1 LP PLATFORM W/HR	144.00	145.50	27.02	1415	41.24	1928
12–PANEL (8' X 1' X 4")	134.00	134.00	83.76	1188	106.56	2472
6–RRU (22" X 14" X 4")	134.00	134.00	7.62	414	10.14	702
1–12' SP1 LP PLATFORM W/HR	134.00	135.50	27.02	1415	41.15	1928
12–PANEL (8' X 1' X 4")	124.00	124.00	83.76	1188	106.32	2472
6–RRU (22" X 14" X 4")	124.00	124.00	7.62	414	10.08	702
1–12' SP1 LP PLATFORM W/HR	124.00	125.50	27.02	1415	41.06	1928
9–RRUS11 (700 MHZ)	111.00	111.00	12.15	702	15.84	1179
6–RAYCAP DC6–48–60–18–F	111.00	111.00	5.76	324	7.56	600
1–13' PIROD LP PLATFORM W/HR	111.00	112.50	26.08	1717	55.07	2321
12–PANEL (8' X 1' X 4")	101.00	101.00	89.28	1188	113.04	2472
6–RRU (22" X 14" X 4")	101.00	101.00	8.10	414	10.74	702
1–12' SP1 LP PLATFORM	101.00	101.00	15.71	1172	25.22	1543
12–HPA–65R–BUU–H8	111.00	111.00	100.92	1188	123.96	2820

5 FEEDLINES ARE PLACED INTERIOR TO POLE SHAFT (UNLESS NOTED OTHERWISE).
6. POLE HEIGHT IS 115 FT AGL EXTENDABLE TO 145 FT AGL
7. ELEVATIONS ARE MEASURED FROM THE TOP OF BASE PLATE (APPROX. 1 FT AGL)
8. DESIGN MEETS TIA–222–REV. 2 FOR 120 MPH 3–SEC WIND GUST
9. STADIUM LIGHT ICE SHIELD DIMENSIONS TO BE VERIFIED



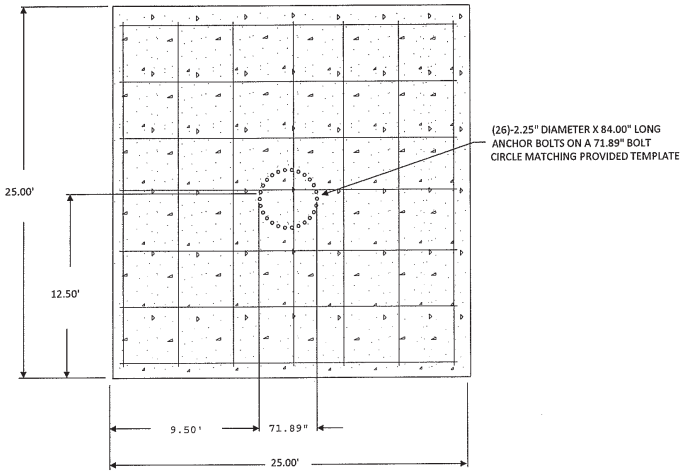
JAN 24 2014

SECTION INFORMATION					
ITEM ID	LENGTH	BASE OD	TOP OD	THK	MATL
1	43'– 0.00"	64.50"	52.89"	0.500"	A572 65 KSI
2	48'– 6.00"	55.79"	42.70"	0.438"	A572 65 KSI
3	36'– 3.00"	45.01"	35.22"	0.313"	A572 65 KSI
4	30'– 0.00"	35.22"	27.12"	0.250"	A572 65 KSI

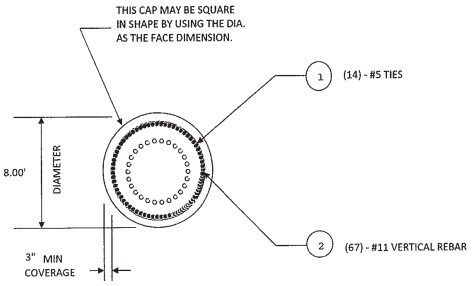
ORDER	PROJECT	FILE ID	SCALE	DATE	ENGR
228909		EXTENDF4	NONE	01/13/14	MJ12

DESCRIPTION
MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT)

valmont



SECTION A-A
No Scale



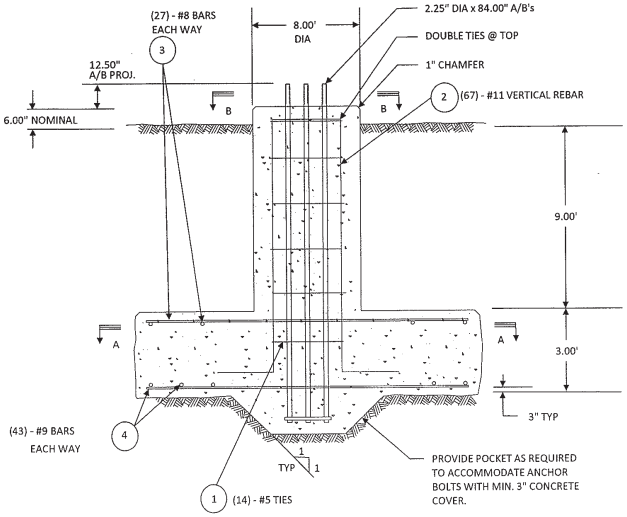
SECTION B-B
No Scale

GENERAL NOTES: SLAB FOUNDATION

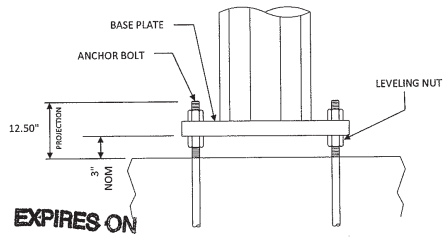
1. Prior to excavation, check the area for underground facilities.
2. All reinforcing shall be deformed bars conforming to ASTM A615 Grade 60 (60,000 psi min. yield) and shall be provided by the foundation contractor.
3. All concrete shall have a minimum compressive strength of 4000psi @ 28 days. The requirement for the concrete shall be as given in the ACI "Building Code Requirements for Reinforced Concrete", ACI 318, the latest edition.
4. Trowel top of foundation smooth.
5. Concrete shall be placed against undisturbed soil to the depth indicated on the foundation drawing. The portion above grade shall be formed. If an area is excavated beyond the limits shown, this volume shall be filled with concrete or formed. After the forms are removed, the excess excavation shall be replaced and compacted.
6. Ground water was not encountered below grade during boring.
7. Foundation design based on allowable vert. bearing pressure of 10000 psf.
8. Concrete is assumed to weigh 150 pcf.
9. Estimated concrete volume = **91.96 cubic yards total.**
10. Design Based on the following loads from installation drawing for order No: 228909-2-1.

EIA-F BASE REACTIONS @ 85 MPH FASTEST MILE	TIA-G BASE REACTIONS @ 120 MPH 3-SEC GUST
Moment = 5051 FT-KIPS	**Moment = 9107 FT-KIPS**
Download = 55.3 KIPS	**Download = 50.0 KIPS**
Shear = 47.2 KIPS	**Shear = 85.1 KIPS**

11. Backfill should be compacted to a density of 100 pcf.
12. Anchor bolts to be ASTM A615, Gr. 75 ksi.
13. Reference: Terracon Project No. J2135212 Dated November 26, 2013
14. Ref Soils Report for installation recommendations.
14. Ref Soils Report for installation recommendations.



ELEVATION
No Scale



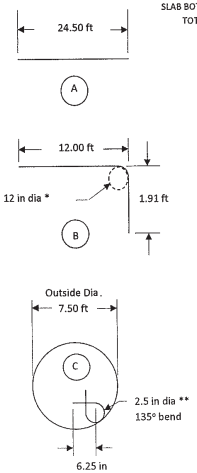
ANCHOR BOLT INSTALLATION
N.T.S.
EXTREME CARE SHOULD BE TAKEN TO ASSURE THAT ALL LEVELING NUTS ARE LEVEL WITH RESPECT TO EACH OTHER PRIOR TO ERECTION OF THE STRUCTURE

EXPIRES ON
JAN 31 2015

STATE OF CONNECTICUT
JEFFREY E. GRASSMAN
No. 19224
LICENSED
PROFESSIONAL ENGINEER

JAN 24 2014

REINFORCEMENT STEEL SCHEDULE						
	Sym	Type	Rebar Size	Rebar Spacing	Weight (lbs)	Qty
CAP TIES	1	C	#5	EQUAL	344	14
CAP VERTICAL REBAR	2	B	#11	———	4952	67
SLAB TOP STEEL	3	A	#8	11.31 in	3532	54
SLAB BOTTOM STEEL	4	A	#9	7.00 in	7164	86
TOTAL STEEL WEIGHT FOR COMPLETE FOUNDATION INSTALLATION =					15992	



Grade 60 Rebar					
Size	Ask #	Wt/ft	10db (in)	d* (in)	d** (in)
#3	11-97203	0.38	3.75	2.25	1.50
#4	11-97204	0.67	5.00	3.00	2.00
#5	11-97205	1.04	6.25	3.75	2.50
#6	11-97200	1.50	7.50	4.50	4.50
#7	11-97207	2.04	8.75	5.25	4.25
#8	11-97208	2.67	10.00	6.00	6.00
#9	11-97209	3.40	11.28	9.50	-
#10	11-97210	4.30	12.70	10.75	-
#11	11-97211	5.31	14.10	12.00	-

* Refers to ACI standard hook detail chart
** Refers to ACI stirrup hook detail chart

Rebar Lap Splice					
Rebar Size	Rebar Grade	Specified Concrete Strength	Overlap (inches) Vert	Bottom Horiz	Top Horiz
#3	60	4000 psi	15	15	21
#4	60	4000 psi	20	20	29
#5	60	4000 psi	26	26	36
#6	60	4000 psi	33	33	46
#7	60	4000 psi	45	45	62
#8	60	4000 psi	59	59	82
#9	60	4000 psi	74	74	104
#10	60	4000 psi	95	95	132
#11	60	4000 psi	116	116	163

Splicing is an alternative to specified material listed in rebar schedule.

Rev	Description	Date	By/Ck

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
X.X = ± 1/8"
X.XX = ± 1/16"
X.XXX = ± 1/16"

valmont MICROFLECT
3575 25TH STREET SE SALEM, OR 97302
MAIN (503) 363-9267
FAX (503) 316-2040

By: MJ
Check: JDN JDL
Date: 01/14/14

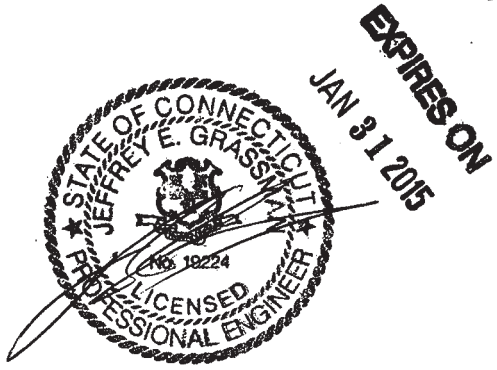
SLAB FOUNDATION LAYOUT
Customer Message Center Mgmt.
Site Bates Woods Park (CT)

S.O. 228909-2-1 | SIZE - B | Dwg No. B-138201 | Sheet 1 of 1

valmont STRUCTURES

VALMONT MICROFLECT
3575 25th St. SE
Salem, OR 97302
PHONE: 1-800-547-2151
ENGINEER: Michael Jacobson 6703
Reviewed by: JDN

COMMUNICATION POLE DESIGN CALCULATIONS



JAN 2 4 2014

MESSAGE CENTER MGMT.
VALMONT ORDER #228909
SITE NAME: BATES WOODS PARK (CT)
POLE HEIGHT: 144 FT (115 FT AGL EXT. TO 145 FT AGL)

valmont STRUCTURES

1/24/14

ENGINEERING DATA

for

MESSAGE CENTER MGMT.
BATES WOODS PARK (CT)
VALMONT QUOTATION 228909

1) STRUCTURE DESIGN CONFORMS TO EIA/TIA-222-F INCLUDING:
85.0 MPH FASTEST MILE BASIC WIND SPEED WITH NO ICE
74.0 MPH FASTEST MILE BASIC WIND SPEED WITH ICE
DESIGN ICE THICKNESS = 0.50 INCHES
TWIST AND SWAY EVALUATION NOT REQUIRED
2) FEEDLINES ARE ASSUMED TO BE PLACED INTERIOR TO THE POLE.
3) ALL MICROWAVE ASSUMED TO BE 6 GHz UNLESS OTHERWISE NOTED.
4) POLE HEIGHT IS 115 FT AGL EXTENDABLE TO 145 FT AGL
5) ELEVATIONS ARE MEASURED FROM THE TOP OF BASE PLATE (APPROX. 1 FT AGL)
6) DESIGN MEETS TIA-222-REV. 2 FOR 120 MPH 3-SEC WIND GUST
7) STADIUM LIGHT ICE SHIELD DIMENSIONS TO BE VERIFIED
8) LOADING AS FOLLOWS:
144.0' POLE
1 - ICE SHIELD @ 94.0
1 - LIGHT SUPPORT @ 89.0
6 - SPORTS LIGHTS @ 90.0
6 - SPORTS LIGHTS @ 88.0
6 - RRUS-12 @ 111.0
3 - RRUS-32 @ 111.0
6 - RRUS A2 @ 111.0
1 - 4ft lightning rod @ 144.0
12 - PANEL (8' X 1' X 4") @ 144.0
6 - RRU (22" x 14" x 4") @ 144.0
1 - 12' SP1 LP Platform w/HR @ 144.0
12 - PANEL (8' X 1' X 4") @ 134.0
6 - RRU (22" x 14" x 4") @ 134.0
1 - 12' SP1 LP Platform w/HR @ 134.0
12 - PANEL (8' X 1' X 4") @ 124.0
6 - RRU (22" x 14" x 4") @ 124.0
1 - 12' SP1 LP Platform w/HR @ 124.0
9 - RRUS11 (700 MHz) @ 111.0
6 - Raycap DC6-48-60-18-F (24"x11") @ 111.0
1 - 13' Pirod LP Platform w/HR @ 111.0
12 - PANEL (8' X 1' X 4") @ 101.0
6 - RRU (22" x 14" x 4") @ 101.0
1 - 12' SP1 LP Platform @ 101.0
12 - HPA-65R-BUU-H8 @ 111.0

STRUCTURE ANCHORAGE INFORMATION

POLE HEIGHT(FT):	144	NUMBER OF A.B.'s:	26
BOLT CIRCLE(IN):	72.00	DIA. OF A.B.'s(IN):	2.25
BASE VERTICAL(K):	55.32	LENGTH OF A.B.'s(IN):	84.00
BASE SHEAR(K):	47.09	PROJECTION LENGTH(IN):	12.50
BASE MOMENT(FT-K):	5001	TEMPLATE OD(IN):	75.50

6

valmont STRUCTURES

BY_____ DATE _____
CHKD. BY _____ DATE _____

SHEET NO. _____

1/24/14
ENGINEERING DATA
for
MESSAGE CENTER MGMT.
BATES WOODS PARK (CT)
VALMONT QUOTATION 228909

EIA/TIA-222-F		
BASIC WIND:	85.0	MPH
WIND & ICE:	74.0	MPH AND 0.5 IN. ICE
TWIST & SWAY:	NOT REQUIRED	

QTY	DESCRIPTION	HEIGHT	DATA W.O. ICE EPA	DATA W.O. ICE WT	DATA W/ ICE EPA	DATA W/ ICE WT
1	ICE SHIELD	@ 94.0 '	40.00	500	50.00	1000
1	LIGHT SUPPORT	@ 89.0 '	28.00	1200	33.00	1600
6	SPORTS LIGHTS	@ 90.0 '	24.00	480	30.00	720
6	SPORTS LIGHTS	@ 88.0 '	24.00	480	30.00	720
6	RRUS-12	@ 111.0 '	9.96	348	14.76	822
3	RRUS-32	@ 111.0 '	4.80	180	7.32	408
6	RRUS A2	@ 111.0 '	5.82	132	9.54	432
1	4ft lightning rod	@ 144.0 '	0.25	10	1.64	22
12	PANEL (8' X 1' X 4")	@ 144.0 '	83.76	1188	106.68	2472
6	RRU (22" x 14" x 4")	@ 144.0 '	7.62	414	10.14	702
1	12' SP1 LP Platform w/HR	@ 144.0 '	27.02	1415	41.24	1928
12	PANEL (8' X 1' X 4")	@ 134.0 '	83.76	1188	106.56	2472
6	RRU (22" x 14" x 4")	@ 134.0 '	7.62	414	10.14	702
1	12' SP1 LP Platform w/HR	@ 134.0 '	27.02	1415	41.15	1928
12	PANEL (8' X 1' X 4")	@ 124.0 '	83.76	1188	106.32	2472
6	RRU (22" x 14" x 4")	@ 124.0 '	7.62	414	10.08	702
1	12' SP1 LP Platform w/HR	@ 124.0 '	27.02	1415	41.06	1928
9	RRUS11 (700 MHz)	@ 111.0 '	12.15	702	15.84	1179
6	Raycap DC6-48-60-18-F (24"x11")	@ 111.0 '	5.76	324	7.56	600
12	PANEL (8' X 1' X 4")	@ 101.0 '	89.28	1188	113.04	2472
12						

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14

Fuse 1.10.0.528

32-bit

*** SUMMARY ***

Design Code: EIA-222-F

DESIGN SUMMARY

Height Above Base Plate (ft)	144.00	Ground Line Diameter (in)	64.500	Pole Shaft Weight (lbs)	32071
		Top Diameter (in)	27.120		
		Pole Taper (in/ft)	0.2700	Shape:	18 Sides

Connections Between Sections	/First/	/Second/	/Third/
Height Above Ground (ft)	43.00	84.00	114.00
Type	Slip Joint	Slip Joint	Flange Joint
Overlap Length (in)	90	75	0
Maximum Axial Force (lbs)	51351	38860	17341

Section Characteristics	/First/	/Second/	/Third/	/Fourth/
Base Diameter (in)	64.500	55.790	45.008	35.220
Top Diameter (in)	52.890	42.695	35.220	27.120
Thickness (in)	0.50000	0.43750	0.31250	0.25000
Length (ft)	43.000	48.500	36.250	30.000
Weight (lbs)	13513	11184	4869	2505

ANALYSIS SUMMARY

	Pt. of Fixity	Governing Level Sec.1	Governing Level Sec.2	Governing Level Sec.3	Governing Level Sec.4	Pole Top
Governing Load Case	WIND	WIND	ICE + WIND	ICE + WIND	ICE + WIND	ICE + WIND
Height (ft)	0.00	0.00	43.00	84.00	114.00	144.00
Resultant Moment (in-kips)	60010	60010	36584	16366	4743	31
Shear Force (lbs)	47137	47137	42283	39857	19749	6110
Axial Force (lbs)	51584	51584	51351	38860	17341	4725
Combined Stress (ksi)	37.91	37.91	38.24	37.03	20.42	1.02
Allowable Stress (ksi)	51.99	51.99	51.99	51.99	51.99	51.99
Allowable/Combined Stress	1.37	1.37	1.36	1.40	2.55	50.86
Total Deflection (in)	0.00	0.00	5.41	21.67	40.81	64.20

Note: Diameters are outside, measured across the flats
Forces and moments are reported in the local element coordinate system

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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SUMMARY OF SECTION DIMENSIONS AS DETAILED

Height Above Base Plate (ft) 144.00 Ground Line Diameter (in) 64.500 Pole Shaft Weight (lbs) 32071

Top Diameter (in) 27.120

Pole Taper (in/ft) 0.2700 Shape: 18 Sides

Connections Between Sections	/First/	/Second/	/Third/
Height Above Ground (ft)	43.00	84.00	114.00
Type	Slip Joint	Slip Joint	Flange Joint
Flange Thickness (in)			2.000
Weld Root Gap (in)			0.250

Theoretical Design Section Dimension	/First/	/Second/	/Third/	/Fourth/
Base Diameter (in)	64.500	55.790	45.008	35.220
Top Diameter (in)	52.890	42.695	35.220	27.120
Thickness (in)	0.50000	0.43750	0.31250	0.25000
Length (ft)	43.000	48.500	36.250	30.000

As Detailed Section Characteristic	/First/	/Second/	/Third/	/Fourth/
Base Diameter (in)	64.500	55.790	45.008	35.169
Top Diameter (in)	52.890	42.695	35.271	27.120
Thickness (in)	0.50000	0.43750	0.31250	0.25000
Length (ft)	43.000	48.500	36.063	29.813

Note: Diameter are outside, measured across the flats

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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*** POLE SHAFT POINT OF FIXITY REACTIONS ***

Loading Case Identifier	Moments About X-Axis (in-kips)	Moments About Y-Axis (in-kips)	Moments Resultant (X & Y) (in-kips)	Moments Torsional (in-kips)	Vertical Force (lbs)	Shear In X-Direction (lbs)	Shear In Y-Direction (lbs)	Shear Resultant (X & Y) (lbs)	Notes
WIND	45971	-38574	60010	0	51629	30267	36071	47087	
ICE + WIND	45182	-37912	58981	0	69493	28601	34086	44496	

Note: Positive vertical force is downward.
Reactions are considered in the global coordinate system.

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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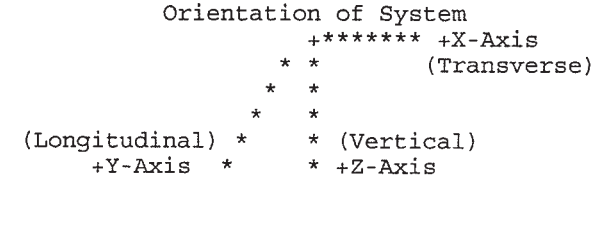
*** INPUT LOADS ***

Design Code EIA-222-F
Loading Case WIND

Basic Wind Velocity is 85.00 mph Ice Thickness 0.00
Wind Orientation is 50.0 Degrees Clockwise From -X- Axis
Structure Weight Overload Factor is 1.000
Exposure C, Gust Factor 1.69
Orientations are Measured Clockwise From -X- Axis
Positive -Y- Axis is 90 Degrees Clockwise From -X- Axis
Foundation Rotation of 0.00 Degrees
Elevation of structure base above surrounding terrain = 1.00 ft

Orientation of System



Load Number	Mounting Height (ft)	Load Height (ft)	Load Eccentricity (ft)	Orientation in XY Plane (Degrees)	Force-X (lbs)	Force-Y (lbs)	Force-Z (lbs)	EPA (ft^2)	
1	94.00	94.00	0.00	50.00	1087	1296	500	40.00	1-ICE SHIELD
2	89.00	89.00	0.00	50.00	749	893	1200	28.00	1-LIGHT SUPPO
3	90.00	90.00	0.00	50.00	644	768	480	24.00	6-SPORTS LIGH
4	88.00	88.00	0.00	50.00	640	763	480	24.00	6-SPORTS LIGH
5	111.00	111.00	0.00	50.00	284	338	348	9.96	6-RRUS-12
6	111.00	111.00	0.00	50.00	137	163	180	4.80	3-RRUS-32
7	111.00	111.00	0.00	50.00	166	198	132	5.82	6-RRUS A2
8	144.00	146.00	0.00	50.00	8	9	10	0.25	1-4ft lightni
9	144.00	144.00	0.00	50.00	2569	3061	1188	83.76	12-PANEL (8'
10	144.00	144.00	0.00	50.00	234	279	414	7.62	6-RRU (22" x
11	144.00	145.50	0.00	50.00	831	990	1415	27.02	1-12' SP1 LP
12	134.00	134.00	0.00	50.00	2517	3000	1188	83.76	12-PANEL (8'
13	134.00	134.00	0.00	50.00	229	273	414	7.62	6-RRU (22" x
14	134.00	135.50	0.00	50.00	815	971	1415	27.02	1-12' SP1 LP
15	124.00	124.00	0.00	50.00	2462	2934	1188	83.76	12-PANEL (8'
16	124.00	124.00	0.00	50.00	224	267	414	7.62	6-RRU (22" x
17	124.00	125.50	0.00	50.00	797	950	1415	27.02	1-12' SP1 LP
18	111.00	111.00	0.00	50.00	346	413	702	12.15	9-RRUS11 (700

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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*** INPUT LOADS ***

Loading Case WIND - Continued

Load Number	Mounting Height (ft)	Load Height (ft)	Load Eccentricity (ft)	Orientation in XY Plane (Degrees)	Force-X (lbs)	Force-Y (lbs)	Force-Z (lbs)	EPA (ft^2)	Orientation of System
									9-RRUS11 (700
									9-RRUS11 (700
									9-RRUS11 (700
19	111.00	111.00	0.00	50.00	164	196	324	5.76	6-Raycap DC6-
20	111.00	112.50	0.00	50.00	746	889	1717	26.08	1-13' Pirod L
21	101.00	101.00	0.00	50.00	2476	2951	1188	89.28	12-PANEL (8'
22	101.00	101.00	0.00	50.00	225	268	414	8.10	6-RRU (22" x
23	101.00	101.00	0.00	50.00	436	519	1172	15.71	1-12' SP1 LP
24	111.00	111.00	0.00	50.00	2875	3426	1188	100.92	12-HPA-65R-BUU

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

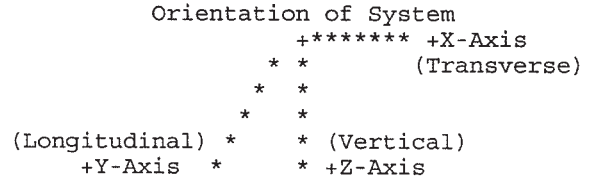
32-bit

*** INPUT LOADS ***

Design Code EIA-222-F
Loading Case ICE + WIND

Basic Wind Velocity is 74.00 mph Ice Thickness 0.50
Wind Orientation is 50.0 Degrees Clockwise From -X- Axis
Structure Weight Overload Factor is 1.000
Exposure C, Gust Factor 1.69
Orientations are Measured Clockwise From -X- Axis
Positive -Y- Axis is 90 Degrees Clockwise From -X- Axis
Foundation Rotation of 0.00 Degrees
Elevation of structure base above surrounding terrain = 1.00 ft

Orientation of System



Load Number	Mounting Height (ft)	Load Height (ft)	Load Eccentricity (ft)	Orientation in XY Plane (Degrees)	Force-X (lbs)	Force-Y (lbs)	Force-Z (lbs)	EPA (ft^2)	
1	94.00	94.00	0.00	50.00	1030	1227	1000	50.00	1-ICE SHIELD
2	89.00	89.00	0.00	50.00	669	798	1600	33.00	1-LIGHT SUPPO
3	90.00	90.00	0.00	50.00	610	727	720	30.00	6-SPORTS LIGH
4	88.00	88.00	0.00	50.00	607	723	720	30.00	6-SPORTS LIGH
5	111.00	111.00	0.00	50.00	319	380	822	14.76	6-RRUS-12
6	111.00	111.00	0.00	50.00	158	188	408	7.32	3-RRUS-32
7	111.00	111.00	0.00	50.00	206	245	432	9.54	6-RRUS A2
8	144.00	146.00	0.00	50.00	38	46	22	1.64	1-4ft lightni
9	144.00	144.00	0.00	50.00	2480	2955	2472	106.68	12-PANEL (8'
10	144.00	144.00	0.00	50.00	236	281	702	10.14	6-RRU (22" x
11	144.00	145.50	0.00	50.00	961	1146	1928	41.24	1-12' SP1 LP
12	134.00	134.00	0.00	50.00	2427	2892	2472	106.56	12-PANEL (8'
13	134.00	134.00	0.00	50.00	231	275	702	10.14	6-RRU (22" x
14	134.00	135.50	0.00	50.00	940	1120	1928	41.15	1-12' SP1 LP
15	124.00	124.00	0.00	50.00	2369	2823	2472	106.32	12-PANEL (8'
16	124.00	124.00	0.00	50.00	225	268	702	10.08	6-RRU (22" x
17	124.00	125.50	0.00	50.00	918	1094	1928	41.06	1-12' SP1 LP
18	111.00	111.00	0.00	50.00	342	408	1179	15.84	9-RRUS11 (700

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

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*** INPUT LOADS ***

Loading Case ICE + WIND - Continued

Load Number	Mounting Height (ft)	Load Height (ft)	Load Eccentricity (ft)	Orientation in XY Plane (Degrees)	Force-X (lbs)	Force-Y (lbs)	Force-Z (lbs)	EPA (ft^2)	Orientation of System 9-RRUS11 (700 9-RRUS11 (700 9-RRUS11 (700
19	111.00	111.00	0.00	50.00	163	195	600	7.56	6-Raycap DC6-
20	111.00	112.50	0.00	50.00	1194	1422	2321	55.07	1-13' Pirod L
21	101.00	101.00	0.00	50.00	2376	2832	2472	113.04	12-PANEL (8'
22	101.00	101.00	0.00	50.00	226	269	702	10.74	6-RRU (22" x
23	101.00	101.00	0.00	50.00	530	632	1543	25.22	1-12' SP1 LP
24	111.00	111.00	0.00	50.00	2677	3190	2820	123.96	12-HPA-65R-BUU

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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*** Properties ***

Connection Locations	Distance From Base (ft)	Diameter Across Flats (in)	Wall Thickness (in)	D/t Across Flats	w/t Across Flats	Moments of Inertia (in^4)	Area (in^2)
Top of Sect 4	144.00	27.120	0.2500	108.48	17.36	1944	21.32
	139.00	28.470	0.2500	113.88	18.32	2252	22.39
EPA 12	134.00	29.820	0.2500	119.28	19.27	2591	23.46
	129.00	31.170	0.2500	124.68	20.22	2962	24.53
EPA 15	124.00	32.520	0.2500	130.08	21.17	3368	25.61
	119.00	33.870	0.2500	135.48	22.13	3808	26.68
	114.00	35.220	0.2500	140.88	23.08	4286	27.75
Top of Sect 3	114.00	35.220	0.3125	112.70	18.11	5328	34.62
EPA 5	111.00	36.030	0.3125	115.30	18.57	5708	35.43
	109.00	36.570	0.3125	117.02	18.87	5971	35.96
	104.00	37.920	0.3125	121.34	19.63	6663	37.30
EPA 21	101.00	38.730	0.3125	123.94	20.09	7103	38.10
	99.00	39.270	0.3125	125.66	20.39	7406	38.64
EPA 1	94.00	40.620	0.3125	129.98	21.16	8203	39.98
EPA 3	90.00	41.700	0.3125	133.44	21.77	8881	41.05
EPA 2	89.00	41.970	0.3125	134.30	21.92	9056	41.32
EPA 4	88.00	42.240	0.3125	135.17	22.07	9233	41.59
	84.00	43.320	0.3125	138.62	22.68	9965	42.66
Top of Sect 2	84.00	42.695	0.4375	97.59	15.44	13234	58.68
	79.00	44.045	0.4375	100.67	15.99	14543	60.55
Base of Sect 3	77.75	44.383	0.4375	101.45	16.12	14883	61.02
	74.00	45.395	0.4375	103.76	16.53	15936	62.43
	69.00	46.745	0.4375	106.85	17.08	17415	64.30
	64.00	48.095	0.4375	109.93	17.62	18983	66.18
	59.00	49.445	0.4375	113.02	18.16	20642	68.05
	54.00	50.795	0.4375	116.10	18.71	22395	69.93
	49.00	52.145	0.4375	119.19	19.25	24245	71.80
	44.00	53.495	0.4375	122.27	19.80	26194	73.67
	43.00	53.765	0.4375	122.89	19.91	26596	74.05
Top of Sect 1	43.00	52.890	0.5000	105.78	16.89	28821	83.14
	39.00	53.970	0.5000	107.94	17.27	30640	84.85
Base of Sect 2	35.50	54.915	0.5000	109.83	17.60	32294	86.35
	34.00	55.320	0.5000	110.64	17.75	33020	87.00
	29.00	56.670	0.5000	113.34	18.22	35520	89.14
	24.00	58.020	0.5000	116.04	18.70	38143	91.28
	19.00	59.370	0.5000	118.74	19.17	40892	93.42
	14.00	60.720	0.5000	121.44	19.65	43770	95.57

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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*** Properties ***

Connection Locations	Distance From Base (ft)	Diameter Across Flats (in)	Wall Thickness (in)	D/t Across Flats	w/t Across Flats	Moments of Inertia (in^4)	Area (in^2)
	9.00	62.070	0.5000	124.14	20.13	46781	97.71
	4.00	63.420	0.5000	126.84	20.60	49926	99.85
Pt of Fixity	0.00	64.500	0.5000	129.00	20.98	52541	101.56

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

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Forces and Moments for Pole in the Local Element Coordinate System

Loading Case WIND

Dist. From Base (ft)	Mx (in-kips)	My (in-kips)	Resultant Mx & My (in-kips)	Torsion (in-kips)	Shear X-Dir. (lbs)	Shear Y-Dir. (lbs)	Resultant Shear (lbs)	Axial (lbs)
144.00	19	-16	25	0	3763	4484	5854	2643
139.00	297	-249	388	0	4003	4771	6228	3016
134.00	592	-497	773	0	4255	5071	6619	3405
134.00	611	-513	798	0	7933	9454	12342	6057
129.00	1188	-996	1550	0	8190	9760	12741	6478
124.00	1783	-1496	2327	0	8460	10082	13161	6904
124.00	1801	-1511	2351	0	12052	14363	18750	9593
119.00	2673	-2243	3489	0	12319	14681	19165	10073
114.00	3564	-2991	4653	0	12606	15024	19612	10535
114.00	3564	-2991	4653	0	12596	15011	19595	10566
111.00	4108	-3447	5363	0	12774	15224	19873	10923
111.00	4126	-3462	5386	0	17650	21034	27458	15096
109.00	4632	-3887	6047	0	17755	21160	27622	15380
104.00	5913	-4961	7719	0	18042	21502	28069	16055
101.00	6691	-5614	8734	0	18229	21725	28360	16439
101.00	6691	-5614	8734	0	21444	25556	33361	18982
99.00	7306	-6130	9537	0	21546	25678	33520	19307
94.00	8858	-7433	11563	0	21864	26057	34015	19975
94.00	8858	-7433	11563	0	22933	27330	35677	20479
90.00	10177	-8540	13285	0	23191	27638	36078	21030
90.00	10177	-8540	13285	0	23829	28398	37071	21516
89.00	10518	-8826	13731	0	23894	28475	37172	21656
89.00	10518	-8826	13731	0	24670	29400	38379	22823
88.00	10872	-9122	14192	0	24735	29478	38481	22964
88.00	10872	-9122	14192	0	25365	30228	39460	23460
84.00	12330	-10346	16096	0	25627	30541	39868	24033
84.00	12330	-10346	16096	0	25587	30493	39806	24136
79.00	14173	-11892	18501	0	25919	30889	40323	25951
77.75	14637	-12282	19107	0	25987	30970	40428	26451
74.00	16037	-13457	20935	0	26198	31222	40757	27336
69.00	17923	-15039	23396	0	26487	31566	41207	28527
64.00	19829	-16638	25885	0	26775	31909	41654	29754
59.00	21756	-18255	28400	0	27060	32249	42098	31015
54.00	23703	-19889	30942	0	27342	32586	42537	32310
49.00	25670	-21540	33510	0	27621	32917	42971	33638
44.00	27657	-23207	36104	0	27920	33274	43436	34950
43.00	28057	-23543	36626	0	27987	33354	43541	35201
43.00	28057	-23543	36626	0	27957	33318	43494	35259
39.00	29664	-24891	38724	0	28192	33597	43858	37506
35.50	31081	-26080	40574	0	28401	33847	44185	39491

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

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Forces and Moments for Pole in the Local Element Coordinate System

Loading Case WIND

Dist. From Base (ft)	Mx (in-kips)	My (in-kips)	Resultant Mx & My (in-kips)	Torsion (in-kips)	Shear X-Dir. (lbs)	Shear Y-Dir. (lbs)	Resultant Shear (lbs)	Axial (lbs)
34.00	31692	-26593	41371	0	28455	33912	44268	40007
29.00	33738	-28309	44042	0	28706	34211	44659	41620
24.00	35802	-30042	46736	0	28961	34514	45055	43269
19.00	37885	-31789	49455	0	29219	34822	45456	44954
14.00	39986	-33552	52198	0	29480	35133	45863	46675
9.00	42106	-35331	54966	0	29744	35448	46274	48432
4.00	44245	-37126	57758	0	30019	35776	46702	50213
0.00	45971	-38574	60010	0	30299	36109	47137	51584

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

32-bit
Deflections and Stresses for Pole

Loading Case WIND

*** Deflections and Stresses ***

Distance From Base (ft)	Defl. X-Dir (in)	Defl. Y-Dir (in)	Defl. Resultant X & Y (in)	Defl. Z-Dir (in)	Rotation (deg.)	Applied Bending Stress (ksi)	Applied Axial Stress (ksi)	Applied Torsion Stress (ksi)	Applied Shear Stress (ksi)	Applied Combined Stress (ksi)	Allowable Stress (ksi)	Allowable Divided by Combined
144.00	41.2	49.1	64.1	1.6	3.82	0.18	0.12	0.00	0.55	0.96	51.99	53.93
139.00	38.7	46.1	60.1	1.5	3.81	2.49	0.13	0.00	0.56	2.62	51.99	19.82
134.00	36.1	43.0	56.2	1.3	3.78	4.52	0.15	0.00	0.57	4.66	51.99	11.15
134.00	36.1	43.0	56.2	1.3	3.78	4.66	0.26	0.00	1.06	4.92	51.99	10.57
129.00	33.6	40.0	52.2	1.2	3.73	8.28	0.26	0.00	1.04	8.55	51.99	6.08
124.00	31.1	37.0	48.4	1.1	3.66	11.41	0.27	0.00	1.03	11.68	51.99	4.45
124.00	31.1	37.0	48.4	1.1	3.66	11.53	0.37	0.00	1.47	11.90	51.99	4.37
119.00	28.7	34.1	44.6	1.0	3.57	15.76	0.38	0.00	1.44	16.13	51.99	3.22
114.00	26.3	31.3	40.9	0.9	3.45	19.41	0.38	0.00	1.42	19.79	51.99	2.63
114.00	26.3	31.3	40.9	0.9	3.45	15.61	0.31	0.00	1.14	15.92	51.99	3.27
111.00	24.9	29.7	38.8	0.8	3.38	17.19	0.31	0.00	1.13	17.50	51.99	2.97
111.00	24.9	29.7	38.8	0.8	3.38	17.26	0.43	0.00	1.56	17.69	51.99	2.94
109.00	24.0	28.6	37.3	0.7	3.34	18.80	0.43	0.00	1.54	19.23	51.99	2.70
104.00	21.8	26.0	33.9	0.6	3.21	22.30	0.43	0.00	1.51	22.73	51.99	2.29
101.00	20.5	24.5	31.9	0.6	3.12	24.18	0.43	0.00	1.50	24.61	51.99	2.11
101.00	20.5	24.5	31.9	0.6	3.12	24.18	0.50	0.00	1.76	24.68	51.99	2.11
99.00	19.7	23.5	30.6	0.6	3.06	25.67	0.50	0.00	1.74	26.17	51.99	1.99
94.00	17.7	21.1	27.5	0.5	2.90	29.07	0.50	0.00	1.71	29.57	51.99	1.76
94.00	17.7	21.1	27.5	0.5	2.90	29.07	0.51	0.00	1.79	29.58	51.99	1.76
90.00	16.2	19.3	25.1	0.4	2.76	31.67	0.51	0.00	1.77	32.19	51.99	1.62
90.00	16.2	19.3	25.1	0.4	2.76	31.67	0.52	0.00	1.82	32.20	51.99	1.61
89.00	15.8	18.8	24.6	0.4	2.73	32.31	0.52	0.00	1.81	32.83	51.99	1.58
89.00	15.8	18.8	24.6	0.4	2.73	32.31	0.55	0.00	1.87	32.86	51.99	1.58
88.00	15.4	18.4	24.0	0.4	2.69	32.97	0.55	0.00	1.86	33.52	51.99	1.55
88.00	15.4	18.4	24.0	0.4	2.69	32.97	0.56	0.00	1.91	33.53	51.99	1.55
84.00	14.0	16.7	21.8	0.3	2.54	35.53	0.56	0.00	1.88	36.09	51.99	1.44
84.00	14.0	16.7	21.8	0.3	2.54	26.37	0.41	0.00	1.36	26.78	51.99	1.94
79.00	12.4	14.7	19.2	0.3	2.39	28.45	0.43	0.00	1.34	28.88	51.99	1.80
77.75	12.0	14.2	18.6	0.3	2.36	28.93	0.43	0.00	1.33	29.36	51.99	1.77
74.00	10.8	12.9	16.8	0.2	2.24	30.28	0.44	0.00	1.31	30.72	51.99	1.69
69.00	9.3	11.1	14.5	0.2	2.08	31.88	0.44	0.00	1.29	32.33	51.99	1.61
64.00	8.0	9.5	12.4	0.1	1.92	33.30	0.45	0.00	1.27	33.75	51.99	1.54
59.00	6.8	8.0	10.5	0.1	1.76	34.54	0.46	0.00	1.24	34.99	51.99	1.49
54.00	5.6	6.7	8.7	0.1	1.60	35.63	0.46	0.00	1.22	36.09	51.99	1.44
49.00	4.6	5.5	7.2	0.1	1.43	36.59	0.47	0.00	1.20	37.06	51.99	1.40
44.00	3.7	4.4	5.7	0.1	1.27	37.44	0.47	0.00	1.19	37.91	51.99	1.37
43.00	3.5	4.2	5.5	0.0	1.24	37.59	0.48	0.00	1.18	38.07	51.99	1.37
43.00	3.5	4.2	5.5	0.0	1.24	34.12	0.42	0.00	1.05	34.55	51.99	1.50
39.00	2.9	3.4	4.5	0.0	1.12	34.63	0.44	0.00	1.04	35.07	51.99	1.48

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

32-bit
Deflections and Stresses for Pole

Loading Case WIND

*** Deflections and Stresses ***

Distance From Base (ft)	Defl. X-Dir (in)	Defl. Y-Dir (in)	Defl. Resultant X & Y (in)	Defl. Z-Dir (in)	Rotation (deg.)	Applied Bending Stress (ksi)	Applied Axial Stress (ksi)	Applied Torsion Stress (ksi)	Applied Shear Stress (ksi)	Applied Combined Stress (ksi)	Allowable Stress (ksi)	Allowable Divided by Combined
35.50	2.4	2.8	3.7	0.0	1.01	35.03	0.46	0.00	1.03	35.49	51.99	1.46
34.00	2.2	2.6	3.4	0.0	0.97	35.19	0.46	0.00	1.02	35.65	51.99	1.46
29.00	1.6	1.9	2.5	0.0	0.82	35.67	0.47	0.00	1.01	36.14	51.99	1.44
24.00	1.1	1.3	1.7	0.0	0.67	36.09	0.47	0.00	0.99	36.57	51.99	1.42
19.00	0.7	0.8	1.0	0.0	0.53	36.45	0.48	0.00	0.98	36.94	51.99	1.41
14.00	0.4	0.4	0.6	0.0	0.39	36.76	0.49	0.00	0.96	37.25	51.99	1.40
9.00	0.1	0.2	0.2	0.0	0.25	37.03	0.50	0.00	0.95	37.52	51.99	1.39
4.00	0.0	0.0	0.0	0.0	0.11	37.25	0.50	0.00	0.94	37.75	51.99	1.38
0.00	0.0	0.0	0.0	0.0	0.00	37.40	0.51	0.00	0.93	37.91	51.99	1.37

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
Fuse 1.10.0.528

32-bit
Forces and Moments for Pole in the Local Element Coordinate System

Loading Case ICE + WIND

Dist. From Base (ft)	Mx (in-kips)	My (in-kips)	Resultant Mx & My (in-kips)	Torsion (in-kips)	Shear X-Dir. (lbs)	Shear Y-Dir. (lbs)	Resultant Shear (lbs)	Axial (lbs)
144.00	23	-20	31	0	3928	4681	6110	4725
139.00	311	-261	406	0	4123	4914	6414	5183
134.00	614	-515	801	0	4328	5157	6733	5661
134.00	635	-533	829	0	8132	9691	12651	10387
129.00	1224	-1027	1598	0	8336	9935	12969	10902
124.00	1828	-1534	2387	0	8555	10196	13310	11425
124.00	1850	-1552	2415	0	12256	14607	19068	16191
119.00	2734	-2294	3569	0	12462	14851	19387	16773
114.00	3634	-3049	4743	0	12694	15128	19749	17341
114.00	3634	-3049	4743	0	12676	15107	19720	17373
111.00	4181	-3508	5457	0	12821	15279	19946	17796
111.00	4208	-3531	5493	0	18184	21670	28289	25919
109.00	4729	-3969	6174	0	18255	21755	28400	26251
104.00	6044	-5071	7889	0	18470	22011	28734	27042
101.00	6839	-5739	8928	0	18621	22191	28968	27496
101.00	6839	-5739	8928	0	21889	26087	34054	31980
99.00	7467	-6265	9747	0	21950	26159	34148	32355
94.00	9046	-7590	11808	0	22206	26465	34547	33145
94.00	9046	-7590	11808	0	23210	27661	36109	34157
90.00	10379	-8709	13549	0	23418	27908	36432	34808
90.00	10379	-8709	13549	0	24015	28620	37361	35538
89.00	10723	-8998	13998	0	24067	28682	37442	35704
89.00	10723	-8998	13998	0	24770	29520	38535	37276
88.00	11078	-9295	14461	0	24822	29582	38617	37443
88.00	11078	-9295	14461	0	25410	30282	39530	38183
84.00	12537	-10520	16366	0	25620	30533	39857	38860
84.00	12537	-10520	16366	0	25554	30454	39755	38965
79.00	14375	-12062	18765	0	25806	30755	40147	41010
77.75	14837	-12450	19368	0	25844	30800	40206	41569
74.00	16228	-13617	21185	0	25982	30964	40420	42556
69.00	18096	-15184	23623	0	26175	31194	40721	43888
64.00	19977	-16763	26079	0	26366	31421	41018	45259
59.00	21872	-18353	28552	0	26553	31644	41309	46668
54.00	23781	-19954	31044	0	26736	31863	41594	48114
49.00	25702	-21567	33552	0	26915	32076	41872	49596
44.00	27636	-23190	36077	0	27126	32328	42201	51067
43.00	28025	-23516	36584	0	27179	32391	42283	51351
43.00	28025	-23516	36584	0	27135	32338	42215	51408
39.00	29583	-24823	38618	0	27294	32528	42463	53899
35.50	30954	-25974	40408	0	27443	32705	42693	56101

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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Forces and Moments for Pole in the Local Element Coordinate System

Loading Case ICE + WIND

Dist. From Base (ft)	Mx (in-kips)	My (in-kips)	Resultant Mx & My (in-kips)	Torsion (in-kips)	Shear X-Dir. (lbs)	Shear Y-Dir. (lbs)	Resultant Shear (lbs)	Axial (lbs)
34.00	31544	-26469	41178	0	27458	32724	42718	56665
29.00	33516	-28124	43753	0	27614	32909	42960	58444
24.00	35500	-29788	46342	0	27772	33097	43205	60263
19.00	37495	-31462	48946	0	27931	33287	43453	62122
14.00	39502	-33146	51566	0	28092	33478	43703	64020
9.00	41520	-34839	54200	0	28254	33672	43955	65957
4.00	43550	-36542	56850	0	28428	33879	44226	67924
0.00	45182	-37912	58981	0	28643	34136	44561	69452

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT)

DATE 01/24/14
Fuse 1.10.0.528

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Deflections and Stresses for Pole

Loading Case ICE + WIND

*** Deflections and Stresses ***

Distance From Base (ft)	Defl. X-Dir (in)	Defl. Y-Dir (in)	Defl. Resultant X & Y (in)	Defl. Z-Dir (in)	Rotation (deg.)	Applied Bending Stress (ksi)	Applied Axial Stress (ksi)	Applied Torsion Stress (ksi)	Applied Shear Stress (ksi)	Applied Combined Stress (ksi)	Allowable Stress (ksi)	Allowable Divided by Combined
144.00	41.3	49.2	64.2	1.6	3.85	0.22	0.22	0.00	0.58	1.02	51.99	50.86
139.00	38.7	46.1	60.2	1.5	3.84	2.61	0.23	0.00	0.58	2.84	51.99	18.30
134.00	36.1	43.0	56.2	1.4	3.81	4.68	0.24	0.00	0.58	4.92	51.99	10.56
134.00	36.1	43.0	56.2	1.4	3.81	4.85	0.44	0.00	1.08	5.29	51.99	9.83
129.00	33.6	40.0	52.2	1.2	3.76	8.54	0.44	0.00	1.06	8.98	51.99	5.79
124.00	31.1	37.0	48.3	1.1	3.68	11.70	0.45	0.00	1.04	12.15	51.99	4.28
124.00	31.1	37.0	48.3	1.1	3.68	11.84	0.63	0.00	1.50	12.47	51.99	4.17
119.00	28.6	34.1	44.5	1.0	3.58	16.12	0.63	0.00	1.46	16.75	51.99	3.10
114.00	26.2	31.3	40.8	0.9	3.46	19.79	0.62	0.00	1.43	20.42	51.99	2.55
114.00	26.2	31.3	40.8	0.9	3.46	15.92	0.50	0.00	1.14	16.42	51.99	3.17
111.00	24.8	29.6	38.7	0.8	3.40	17.49	0.50	0.00	1.13	17.99	51.99	2.89
111.00	24.8	29.6	38.7	0.8	3.40	17.60	0.73	0.00	1.61	18.34	51.99	2.84
109.00	23.9	28.5	37.2	0.8	3.35	19.20	0.73	0.00	1.59	19.93	51.99	2.61
104.00	21.7	25.9	33.8	0.7	3.22	22.80	0.72	0.00	1.55	23.52	51.99	2.21
101.00	20.4	24.4	31.8	0.6	3.13	24.72	0.72	0.00	1.53	25.44	51.99	2.04
101.00	20.4	24.4	31.8	0.6	3.13	24.72	0.84	0.00	1.80	25.56	51.99	2.03
99.00	19.6	23.4	30.5	0.6	3.07	26.24	0.84	0.00	1.78	27.08	51.99	1.92
94.00	17.6	21.0	27.4	0.5	2.91	29.69	0.83	0.00	1.74	30.51	51.99	1.70
94.00	17.6	21.0	27.4	0.5	2.91	29.69	0.85	0.00	1.82	30.54	51.99	1.70
90.00	16.1	19.2	25.0	0.4	2.77	32.30	0.85	0.00	1.78	33.15	51.99	1.57
90.00	16.1	19.2	25.0	0.4	2.77	32.30	0.87	0.00	1.83	33.17	51.99	1.57
89.00	15.7	18.7	24.4	0.4	2.73	32.94	0.86	0.00	1.82	33.80	51.99	1.54
89.00	15.7	18.7	24.4	0.4	2.73	32.94	0.90	0.00	1.87	33.84	51.99	1.54
88.00	15.3	18.3	23.9	0.4	2.69	33.59	0.90	0.00	1.87	34.49	51.99	1.51
88.00	15.3	18.3	23.9	0.4	2.69	33.59	0.92	0.00	1.91	34.51	51.99	1.51
84.00	13.9	16.6	21.7	0.3	2.54	36.12	0.91	0.00	1.88	37.03	51.99	1.40
84.00	13.9	16.6	21.7	0.3	2.54	26.81	0.66	0.00	1.36	27.47	51.99	1.89
79.00	12.3	14.6	19.1	0.3	2.39	28.85	0.68	0.00	1.33	29.53	51.99	1.76
77.75	11.9	14.1	18.5	0.3	2.35	29.32	0.68	0.00	1.32	30.01	51.99	1.73
74.00	10.7	12.8	16.7	0.2	2.23	30.64	0.68	0.00	1.30	31.32	51.99	1.66
69.00	9.3	11.0	14.4	0.2	2.08	32.19	0.68	0.00	1.27	32.88	51.99	1.58
64.00	7.9	9.4	12.3	0.2	1.91	33.55	0.68	0.00	1.25	34.23	51.99	1.52
59.00	6.7	8.0	10.4	0.1	1.75	34.72	0.69	0.00	1.22	35.41	51.99	1.47
54.00	5.6	6.6	8.7	0.1	1.59	35.75	0.69	0.00	1.20	36.44	51.99	1.43
49.00	4.5	5.4	7.1	0.1	1.42	36.64	0.69	0.00	1.17	37.33	51.99	1.39
44.00	3.6	4.3	5.7	0.1	1.26	37.41	0.69	0.00	1.15	38.10	51.99	1.36
43.00	3.5	4.1	5.4	0.0	1.23	37.55	0.69	0.00	1.15	38.24	51.99	1.36
43.00	3.5	4.1	5.4	0.0	1.23	34.09	0.62	0.00	1.02	34.70	51.99	1.50
39.00	2.9	3.4	4.4	0.0	1.11	34.54	0.64	0.00	1.01	35.17	51.99	1.48

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14
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Deflections and Stresses for Pole

Loading Case ICE + WIND *** Deflections and Stresses ***

Distance From Base (ft)	Defl. X-Dir (in)	Defl. Y-Dir (in)	Defl. Resultant X & Y (in)	Defl. Z-Dir (in)	Rotation (deg.)	Applied Bending Stress (ksi)	Applied Axial Stress (ksi)	Applied Torsion Stress (ksi)	Applied Shear Stress (ksi)	Applied Combined Stress (ksi)	Allowable Stress (ksi)	Allowable Divided by Combined
35.50	2.4	2.8	3.7	0.0	1.00	34.89	0.65	0.00	0.99	35.54	51.99	1.46
34.00	2.2	2.6	3.4	0.0	0.96	35.03	0.65	0.00	0.99	35.68	51.99	1.46
29.00	1.6	1.9	2.4	0.0	0.81	35.44	0.66	0.00	0.97	36.10	51.99	1.44
24.00	1.1	1.3	1.7	0.0	0.67	35.79	0.66	0.00	0.95	36.45	51.99	1.43
19.00	0.7	0.8	1.0	0.0	0.52	36.08	0.66	0.00	0.93	36.74	51.99	1.41
14.00	0.4	0.4	0.6	0.0	0.38	36.32	0.67	0.00	0.92	36.99	51.99	1.41
9.00	0.1	0.2	0.2	0.0	0.24	36.51	0.68	0.00	0.90	37.19	51.99	1.40
4.00	0.0	0.0	0.0	0.0	0.11	36.66	0.68	0.00	0.89	37.35	51.99	1.39
0.00	0.0	0.0	0.0	0.0	0.00	36.76	0.68	0.00	0.88	37.45	51.99	1.39

MINIMUM DEFLECTION RATIO // DEFLECTION LIMIT / DEFLECTION // IS

F L A N G E A N A L Y S I S Version IMPAX-15.2.15

FLANGE FOR THE C - D JOINT : CONTROLLING LOAD CASE ICE + WIND

Input Data

Applied Reactions

Resultant Moment	=	4,743	in-kips
Torsion	=	0	in-kips
Resultant Shear	=	19,749	lbs
Axial	=	-17,341	lbs

Bolts

Number of Bolts	=	14	
Bolt Diameter	=	1.00	in
Bolt Material	=	A325	
Bolt Circle	=	39.26	in

Flange

Outside Diameter	=	41.76	in
Thickness	=	2.000	in
Yield Strength	=	50	ksi
Tensile Strength	=	65	ksi
Valmont Material Spec.	=	S-56	

Tube

No. of sides	=	18	
Design Diameter	=	35.220	in
Detailed "C" Sect. Dia	=	35.271	in
Detailed "D" Sect. Dia	=	35.169	in
Thickness	=	0.3125	in
Yield	=	65	ksi

Results

Bolts

Maximum Bolt Axial Force	=	35,755	lbs
Maximum Bolt Shear	=	1,411	lbs
Allowable Axial Stress	=	85	ksi
Combined Safety Factor	=	1.15	

Flange

Weight	=	777	lbs
Controlling Stress	=	Shear	
Minimum Safety Factor	=	2.86	
Bending Safety Factor	=	5.61	
Shear Safety Factor	=	2.86	
Bearing Safety Factor	=	85.05	

*** BOLT COORDINATES ***

BOLT NO.	X-COORD	Y-COORD		BOLT NO.	X-COORD	Y-COORD
1	19.63	0.00	*	2	17.69	8.52
3	12.24	15.35	*	4	4.37	19.14

BY VALMONT INDUSTRIES FOR: MESSAGE CENTER MGMT. 144' POLE, SITE: BATES WOODS PARK (CT) DATE 01/24/14

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*** ANCHOR BOLT CHARACTERISTICS GOVERNED BY LOADING CASE WIND ***

NUMBER OF BOLTS	DIAMETER (IN.)	LENGTH (IN.)	WEIGHT (LB.)	SHIPPED AS	PROJECTION LENGTH (IN.)	GALVANIZED LENGTH (IN.)	THREAD SIZE
26	2.250	84	3525	BOLTS, TEMPLATES	12.50	84.00	4.5-UNC-2A

STEEL SPECIF.	MAXIMUM BOLT FORCE (LB.)	MAXIMUM STRESS (PSI)	ALLOWABLE STRESS (PSI)	STRESS AREA (SQ. IN.)	SAFETY FACTOR	CONFIGURATION OF BOTTOM END OF ANCHOR BOLT
A615	130226	40080	59985	3.250	1.50	THREADED WITH HEAVY HEX HEAD NUT

*** BOLT COORDINATES AND FORCES ***

BOLT NO.	X-COORD	Y-COORD	MAX TENSION-LB	MAX FORCE-LB	*	BOLT NO.	X-COORD	Y-COORD	MAX TENSION-LB	MAX FORCE-LB
1	36.000	0.00	9191	13162	*	2	34.951	8.615	39438	43410
3	31.874	16.729	67278	71250	*	4	26.945	23.871	91093	95064
5	20.449	29.625	109502	113473	*	6	12.765	33.658	121428	125399
7	4.339	35.735	126182	130153	*					

MAX. BOLT CIRCLE = 72.00 IN. TEMPLATE DIAMETER = 78.00 IN.

*** BASE PLATE CHARACTERISTICS GOVERNED BY LOADING CASE WIND ***

DRAWING NUMBER	OVERALL LENGTH (IN.)	OVERALL WIDTH (IN.)	THICKNESS (IN.)	ACTUAL WEIGHT (LB.)	RAW MATERIAL WEIGHT (LB.)	SIDE LENGTH (IN.)
SD18-99	78.00	79.20	3.5000	3693	6125	13.75

TOP WIDTH (IN.)	POLE DIAM. (MAJOR DIAM.) (IN.)	CRITICAL FAILURE MODE	TOTAL LENGTH OF FAIL MODE LINE (IN.)	EFFECTIVE LENGTH (IN.)	TOTAL MOMENT ALONG FAIL LINE (IN.-LB.)
13.75	64.50	2	90.00	75.75	3423926

STEEL SPECIF. VALMONT	STEEL SPECIF. OTHER	BENDING STRESS (PSI)	ALLOWABLE STRESS (PSI)	MAX. VERTICAL SHEAR STRESS (PSI)
S56	A572	22138	50010	7014

** LOADS AT POLE BASE IN THE GLOBAL COORDINATE SYSTEM ********** LOADING CASES **********

LOADING CASE IDENTIFICATION	WIND	ICE
MOMENT ABT. X-AXIS (IN-KIP)	45971	45182
MOMENT ABT. Y-AXIS (IN-KIP)	- 38574	- 37912
SHEAR FORCE (LB.)	47087	44496
VERTICAL FORCE (LB.)	51629	69493

]MAX CRITERION-	LOAD CASE
]MOMENT ABT. X	WIND
]MOMENT ABT. Y	WIND
]RES. MOMENT	WIND
]SHEAR FORCE	WIND
]BOLT FORCE	WIND
]BOLT TENSION	WIND

ATTACHMENT 3

HexPort Multi-Band Antenna

Model HPA-65R-BUU-H8

Hexport Multi-Band Antenna Array

The CCI Hexport Multi-Band Antenna Array is an industry first 6-port antenna with full WCS Band Coverage. With four high band ports and two low band ports, our hexport antenna is ready for 4X4 high band MIMO.

Modern networks demand high performance, consequently CCI has incorporated several new and innovative design techniques to provide an antenna with excellent side-lobe performance, sharp elevation beams, and high front to back ratio.

Multiple networks can now be connected to a single antenna, reducing tower loading and leasing expense, while decreasing deployment time and installation cost.

Full band capability for 700 MHz , Cellular 850 MHz, PCS 1900 MHz, AWS 1710/2170 MHz and WCS 2300 MHz coverage in a single enclosure.

Benefits

- **Includes WCS Band**
- **Reduces tower loading**
- **Frees up space for tower mounted E-nodes**
- **Single radome with six ports**
- **All Band design simplifies radio assignments**
- **Sharp elevation beam eases network planning**

Features

- High Band Ports include WCS Band
- Four High Band ports with two Low Band ports in one antenna
- Sharp elevation beam
- Excellent elevation side-lobe performance
- Excellent MIMO performance due to array spacing
- Excellent PIM Performance
- A multi-network solution in one radome

Applications

- 4x4 MIMO on High Band and 2x2 MIMO on Low Band
- Adding additional capacity without adding additional antennas
- Adding WCS Band without increasing antenna count

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Quality Management Systems
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HexPort Multi-Band Antenna

Model HPA-65R-BUU-H8

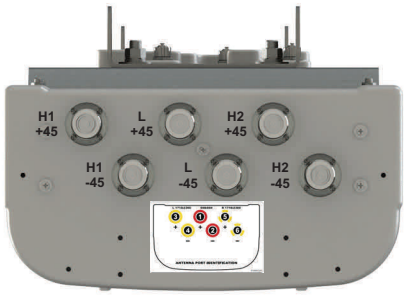
HPA-65R Multi-Band Antenna

Electrical Specifications

Frequency Range	2 X Low Band Ports which cover the full range from 698-894 MHz		4 X High Band Ports which cover the full range from 1710-2360 MHz			
	698-806 MHz	824-894 MHz	1850-1990 MHz	1710-1755/2110-2170 MHz	2305-2360 MHz	
Gain	15.3 dBi	16.2 dBi	17.1 dBi	16.3 dBi	17.4 dBi	17.7 dBi
Azimuth Beamwidth (-3dB)	65°	61°	62°	68°	64°	60°
Elevation Beamwidth (-3dB)	10.1°	8.4°	5.6°	6.2°	5.0°	4.5°
Electrical Downtilt	2° to 10°	2° to 10°	0° to 8°	0° to 8°	0° to 8°	0° to 8°
Elevation Sidelobes (1st Upper)	< -17 dB	< -17 dB	< -19 dB	< -18 dB	< -18 dB	< -17 dB
Front-to-Back Ratio @180°	> 29 dB	> 28 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio over ± 20°	> 28 dB	> 27 dB	> 28 dB	> 27 dB	> 28 dB	> 28 dB
Cross-Polar Discrimination (at Peak)	> 24 dB	> 20 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Cross-Polar Discrimination (at ± 60°)	> 16 dB	> 14 dB	> 18 dB	> 18 dB	> 18 dB	> 18 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
VSWR	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc
Input Power	500 Watts CW	500 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground

Mechanical Specifications

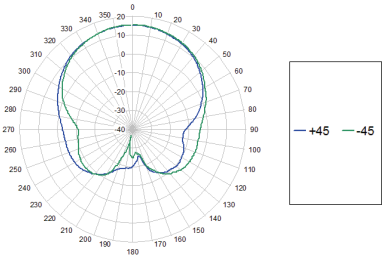
Dimensions (LxWxD)	92.4 x 14.8 x 7.4 inches (2348 x 376 x 189 mm)
Survival Wind Speed	> 150 mph
Front Wind Load	332 lbs (1479 N) @ 100 mph (161 kph)
Side Wind Load	193 lbs (860 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	13.0 ft^2 (1.2 m^2)
Weight (without Mounting)	68 lbs (31 kg)
RET System Weight	5.0 lbs (2.25 kg)
Connector	6; 7-16 DIN female long neck
Mounting Pole	2-5 inches (5-12 cm)



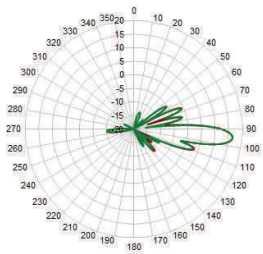
Bottom View

Rear View

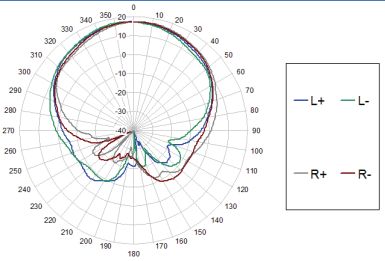
Antenna Patterns*



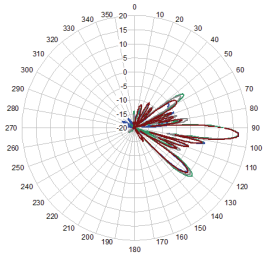
894 MHz Azimuth



Elevation 5°



1920 MHz Azimuth



Elevation 4°

*Typical antenna patterns. For detail information on antenna pattern, please contact us at info@cciproducts.com. All specifications are subject to change without notice.

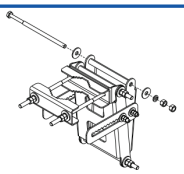
HexPort Multi-Band Antenna

Model HPA-65R-BUU-H8

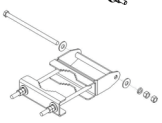
Ordering Information:

HPA-65R-BUU-H8	8 Foot Hexport Antenna with 65° Azimuth Beamwidth with Factory Installed Actuators (\3)
HPA-65R-BUU-H8-K	Complete Kit with Antenna, Factory Installed Actuators (3) and M03 Mounting Bracket
BSA-RET200	RET Actuator
BSA-M03	Mounting Bracket (Top & Bottom) with 0° through 10° Mechanical tilt Adjustment

M03 Top Mounting Bracket



M03 Bottom Mounting Bracket



RET [Remote Electrical Tilt] System

General Specification

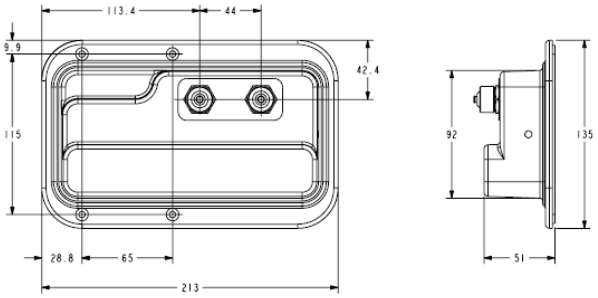
Part Number	BSA-RET200
Protocols	AISG 2.0
Adjustment Cycles	>10,000 cycles
Tilt Accuracy	±0.1°
Temperature Range	-40°C to +70°C

Electrical Specification

Interface Signal	Data | dc
Input Voltage Range	10-30 Vdc, Specifications at +24 VDC
Current consumption during tilting	120mA at Vin = 24V
Current consumption idle	55mA at Vin=24V
Hardware Interface	AISG - RS 485 A/B
Input Connector	1x8-pin Daisy Chain In Male
Output Connector	1x8-pin Daisy Chain Out Female

Mechanical Specification and Dimensions

Housing Material	ASA / ABS / Aluminum
Dimensions (H x W x D)	8 x 5 x 2 inches (213 x 135 x 51 mm)
Weight	1.5 lbs (0.68 kg)



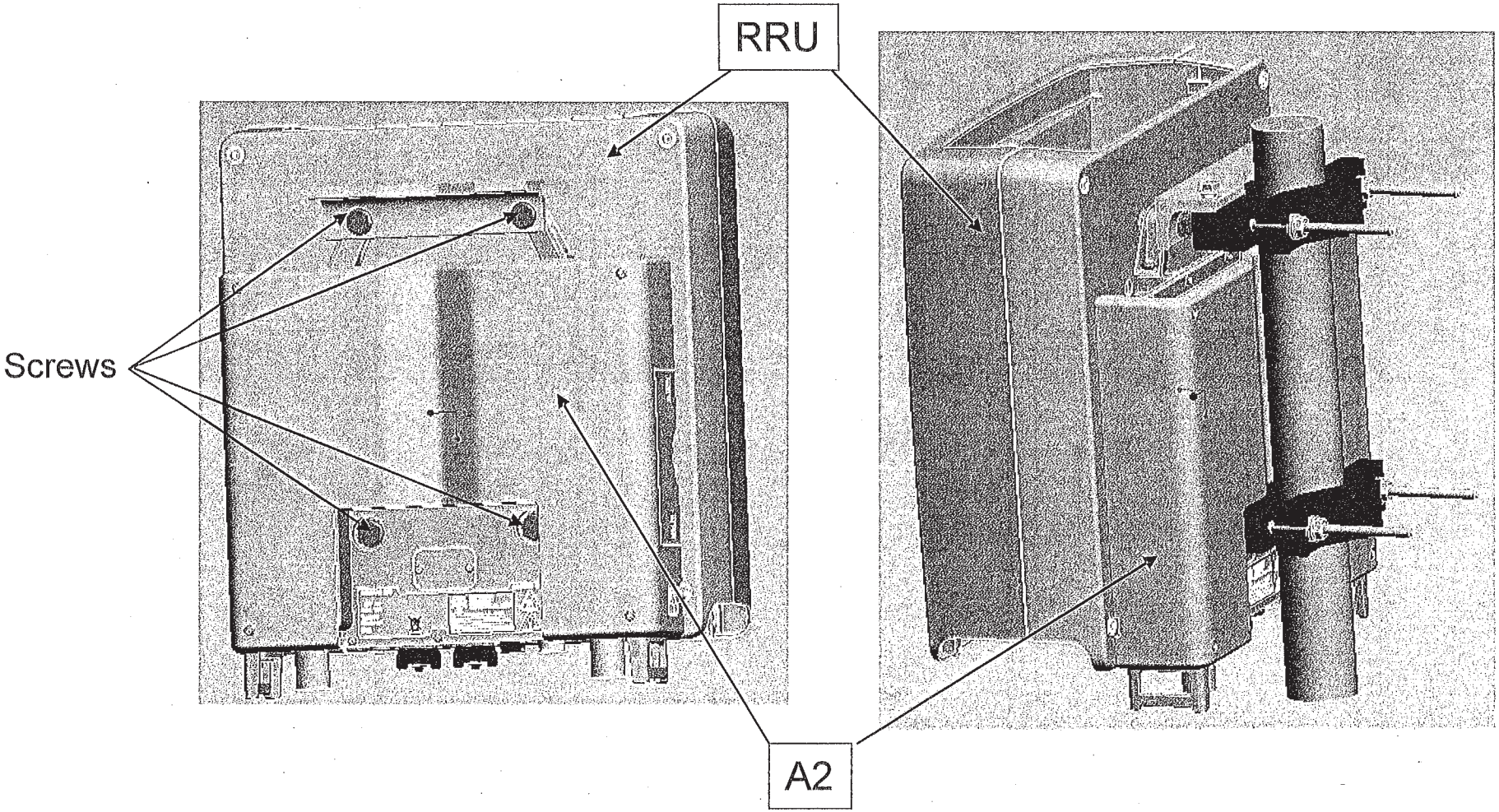
Standards Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022
Immunity	EN 55024
Environmental	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5, IEC 60068-2-6, IEC 60068-2-11, IEC 60068-2-14, IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-2-30, IEC 60068-2-52, IEC 60068-2-64, GR-63-CORE 4.3.1, EN60529 IP24

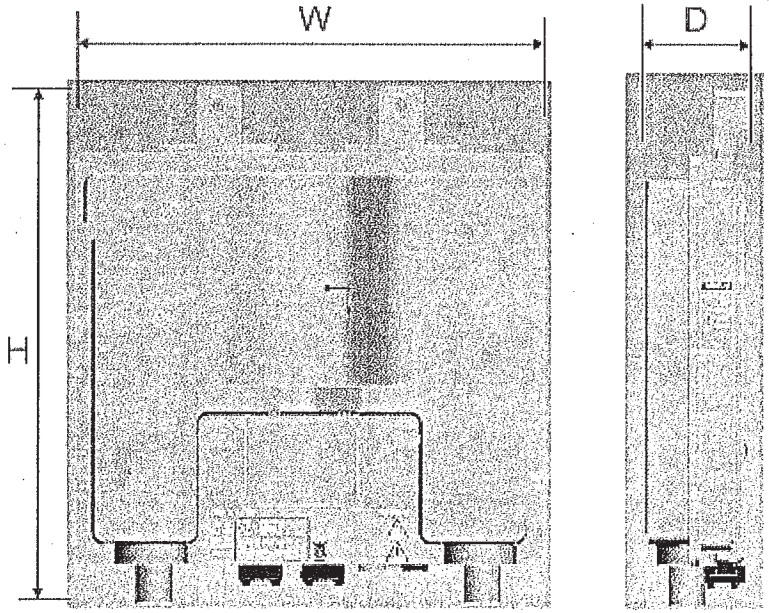
Regulatory Certification

AISG, FCC Part 15 Class B, CE, CSA US

Installation concept
Back to back with RRU



RRUS A2 A2 Building practice

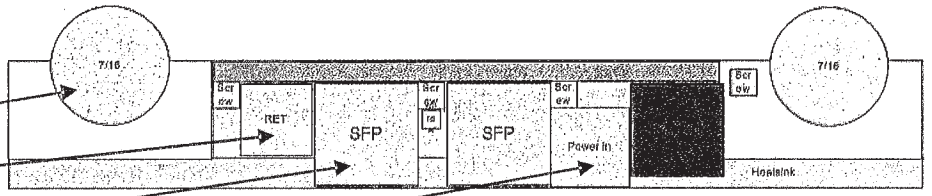


PRELIMINARY DATA

	No solar shield	With solar shield
Height (H)	12.8" (325.5mm)	12.8" (325.5mm)
Width (W)	14.7" (374mm)	15.0" (380mm)
Depth (D)	3.2" (81mm)	3.5" (88mm)
Weight		15 lbs

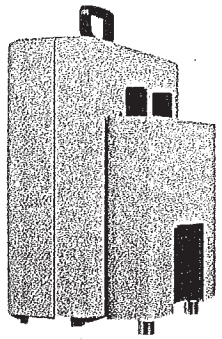
External Connections

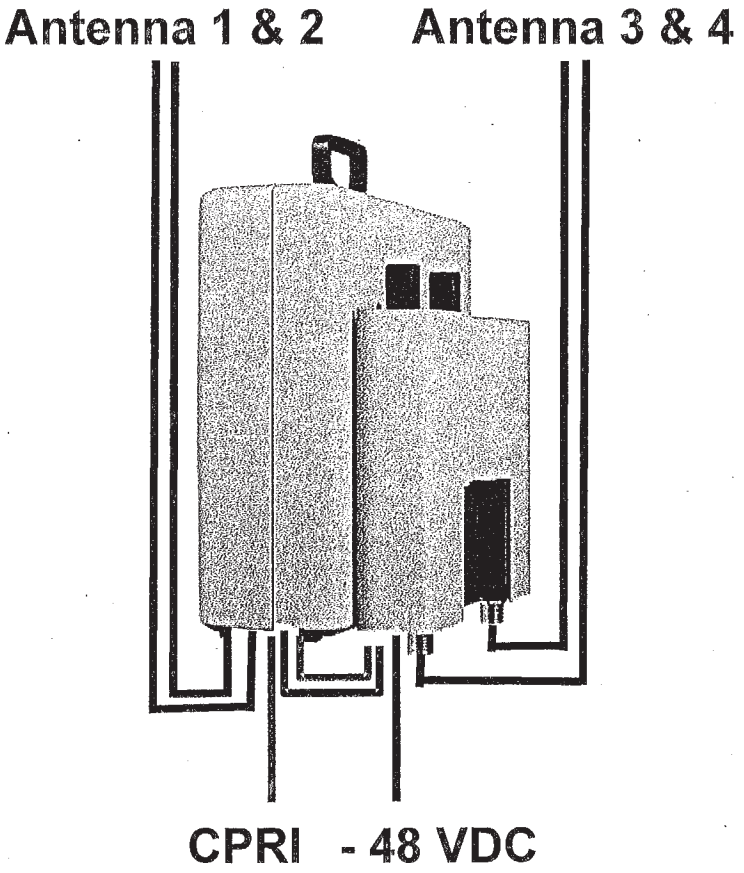
- 2 x 7-16 Ant Connections
- RET Interface
- 2 CPRI Interfaces
- Power In / Out, to RRU



RRUS A2 Module

- **RRUS A2 Module**
  - 2 Rx expansion module for RRUS
- Works with RRUS 01, 11 and 12
  - Eases deployment for 4Rx diversity





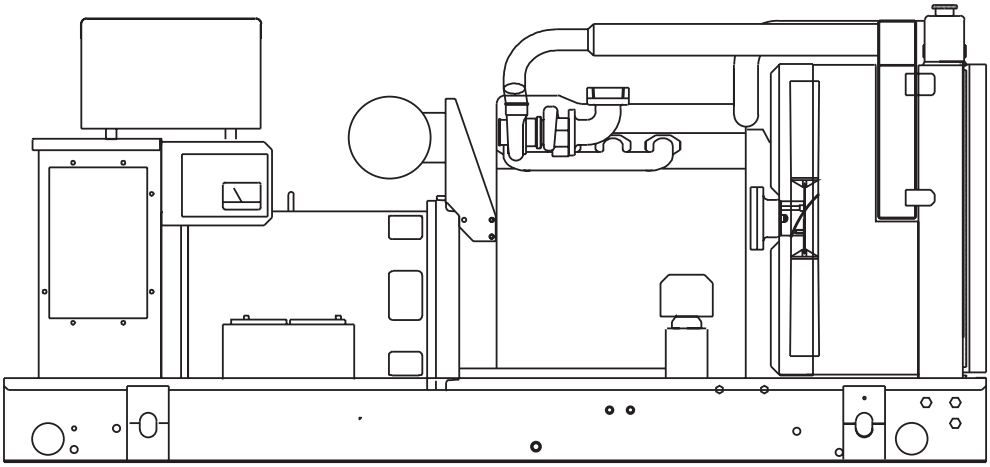
ATTACHMENT 4

SD050

Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating
50KW 60 Hz / 50KVA 50 Hz

Prime Power Rating
44KW 60 Hz / 44KVA 50 Hz



Power Matched
GENERAC 2.4DTA ENGINE
Turbocharged/Aftercooled
Tier III Compliant

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING
  - ✓ UL COMPLIANCE AVAILABLE

- **SOLID-STATE, FREQUENCY COMPENSATED DIGITAL VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.

GENERAC®
POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

SD050

GENERATOR SPECIFICATIONS

TYPE	Four-pole, revolving field
ROTOR INSULATION	Class H
STATOR INSULATION	Class H
TOTAL HARMONIC DISTORTION	<3%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR	Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED)	1
COUPLING	Direct, Flexible Disc
LOAD CAPACITY (STANDBY)	100%
LOAD CAPACITY (PRIME)	110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Full Digital
SENSING	3 Phase
REGULATION	± 1/4%
FEATURES	Built into H-100 Control Panel, V/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Quiet drive coupling
- Operating temperature rise 120°C above a 40°C ambient
- Insulation is Class H rated at 150°C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
  - Voltage (all phases)
  - Power factor
  - kVAR
  - Engine speed
  - Run hours
  - Fault history
  - Coolant temperature
  - Low oil pressure shutdown
  - Overvoltage
  - Low coolant level
  - Exercise speed
  - Current (all phases)
  - kW
  - Transfer switch status
  - Low fuel pressure
  - Service reminders
  - Oil pressure
  - Time and date
  - High coolant temp shutdown
  - Overspeed
  - Low coolant level
  - ATS selection
  - Not in auto position (flashing light)
- INTERNAL FUNCTIONS:
  - I^2T function for alternator protection from line to neutral and line to line short circuits
  - Emergency stop
  - Programmable auto crank function
  - 2 wire start for any transfer switch
  - Communicates with the Generac HTS transfer switch
  - Built-in 7 day exerciser
  - Adjustable engine speed at exerciser
  - RS232 port for GenLink® control
  - RS485 port remote communication
  - Canbus addressable
  - Governor controller and voltage regulator are built into the master control board
  - Temperature range -40°C to 70°C

ENGINE SPECIFICATIONS

MAKE	GENERAC/DEERE
MODEL	4024HF285B
ENGINE FAMILY	8JDXL03.0113
CYLINDERS	4
DISPLACEMENT	2.4 Liter (149 cu.in.)
BORE	86 mm (3.4 in.)
STROKE	105 mm (4.1 in.)
COMPRESSION RATIO	18:1
INTAKE AIR	Turbocharged/Aftercooled
NUMBER OF MAIN BEARINGS	5
CONNECTING RODS	4-Drop Forged Steel
CYLINDER HEAD	Cast Iron
PISTONS	4-Aluminum Alloy
CRANKSHAFT	Die Forged, Induction Hardened Steel

VALVE TRAIN

LIFTER TYPE	Solid
INTAKE VALVE MATERIAL	Heat Resistant Steel
EXHAUST VALVE MATERIAL	Heat Resistant Steel
HARDENED VALVE SEATS	Replaceable

ENGINE GOVERNOR

❒ ELECTRONIC	Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD	Isochronous
STEADY STATE REGULATION	±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP	Gear
OIL FILTER	Full flow, Cartridge
CRANKCASE CAPACITY	7.5 qts.

COOLING SYSTEM

TYPE OF SYSTEM	Pressurized, Closed Recovery
WATER PUMP	Pre-Lubed, Self-Sealing
TYPE OF FAN	Pusher
NUMBER OF FAN BLADES	6
DIAMETER OF FAN	560 mm (22 in.)
COOLANT HEATER	120V, 1000 W

FUEL SYSTEM

FUEL	#2D Fuel (Min Cetane #40) (Fuel should conform to ASTM Spec.)
FUEL FILTER	5 Micron
FUEL INJECTION PUMP	Bosch
FUEL PUMP	Mechanical
INJECTORS	Unit Type Multi-Hole, Nozzle
ENGINE TYPE	Pre-combustion
FUEL LINE (Supply)	6.35 mm (0.25 in.)
FUEL RETURN LINE	6.35 mm (0.25 in.)

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	20 Amps at 12 V
STARTER MOTOR	12 V
RECOMMENDED BATTERY	12 Volt, 90 A.H., 27F
GROUND POLARITY	Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

GENERAC®
POWER SYSTEMS, INC.

SD050

OPERATING DATA

	STANDBY	PRIME
	SD050	**SD050**
GENERATOR OUTPUT VOLTAGE/KW-60Hz	**Rated AMP**	**Rated AMP**
120/240V, 1-phase, 1.0 pf	50 — 208	44 — 183
120/208V, 3-phase, 0.8 pf	50 — 173	44 — 153
120/240V, 3-phase, 0.8 pf	50 — 150	44 — 133
277/480V, 3-phase, 0.8 pf	50 — 75	44 — 66
600V, 3-phase, 0.8 pf	50 — 60	44 — 53
NOTE: Consult your Generac dealer for additional voltages.		
GENERATOR OUTPUT VOLTAGE/KVA-50Hz	**Rated AMP**	**Rated AMP**
110/220V, 1-phase, 1.0 pf	40 — 182	35 — 159
115/200V, 3-phase, 0.8 pf	50 — 144	44 — 127
100/200V, 3-phase, 0.8 pf	50 — 144	44 — 127
231/400V, 3-phase, 0.8 pf	50 — 72	44 — 63
NOTE: Consult your Generac dealer for additional voltage		
MOTOR STARTING KVA		
Maximum at 35% instantaneous voltage dip with standard alternator; 50/60 Hz	**208/240/416V** 82/100 — **480V** 93/113	**208/240/416V** 82/100 — **480V** 93/113

FUEL									
Fuel consumption—60 Hz	Load	**25%**	**50%**	**75%**	**100%**	**25%**	**50%**	**75%**	**100%**
	gal./hr.	1.12	2.19	3.21	4.16	0.99	1.93	2.82	3.66
	liters/hr.	4.25	8.3	12.13	15.76	3.74	7.3	10.68	13.87
	gal./hr.	0.9	1.75	2.56	3.33	0.79	1.54	2.26	2.93
Fuel consumption—50 Hz	liters/hr.	3.4	6.64	9.71	12.61	2.99	5.84	8.54	11.1
Fuel pump lift		40"				40"			

COOLING			
Coolant capacity	System - US gal. (lit.)	4.5 (17.0)	4.5 (17.0)
	Engine - US gal. (lit.)	2.75 (10.4)	2.75 (10.4)
Coolant flow/min.	60 Hz - US gal. (lit.)	28 (106)	28 (106)
	50 Hz - US gal. (lit.)	23 (87)	23 (87)
Heat rejection to coolant 60 Hz full load	BTU/hr.	135,900	109,000
Heat rejection to coolant 50 Hz full load	BTU/hr.	115,500	92,600
Inlet air	60 Hz - cfm (m^3/min.)	7500 (212.4)	7500 (212.4)
	50 Hz - cfm (m^3/min.)	6225 (176.3)	6225 (176.3)
Max. air temperature to radiator	°C (°F)	60 (140)	60 (140)
Max. ambient temperature	°C (°F)	50 (122)	50 (122)

COMBUSTION AIR REQUIREMENTS			
Flow at rated power	60 Hz - cfm (m^3/min.)	166 (4.7)	140 (4.0)
	50 Hz - cfm (m^3/min.)	140 (4.0)	120 (3.4)

EXHAUST			
Exhaust flow at rated output	60 Hz - cfm (m^3/min.)	448 (12.7)	380 (10.8)
	50 Hz - cfm (m^3/min.)	380 (10.8)	320 (9.1)
Max recommended back pressure	Inches Hg	2.2	2.2
Exhaust temperature 60 Hz (full load)	°F (°C)	1044 (562)	925 (496)
Exhaust outlet size		2.5" O.D. Turbo	2.5" O.D. Muffler

ENGINE			
Rated RPM	60 Hz / 50 Hz	1800 / 1500	1800
HP at rated KW	60 Hz / 50 Hz	79 / 64	64 / 52
Piston speed	60 Hz - ft./min. (m/min.)	1536 (1230)	1536 (1230)
	50 Hz - ft./min. (m/min.)	1279 (1025)	1279 (1025)
BMEP	60 Hz / 50 Hz - psi	189 / 181	151 / 147

DERATION FACTORS			
Temperature			
	6.7% for every 10°C above - °C	25	25
	4.0% for every 10°F above - °F	77	77
Altitude			
	0.8% for every 100 m above - m	1067	1067
	2.6% for every 1000 ft. above - ft.	3500	3500

STANDARD ENGINE & SAFETY FEATURES

SD050

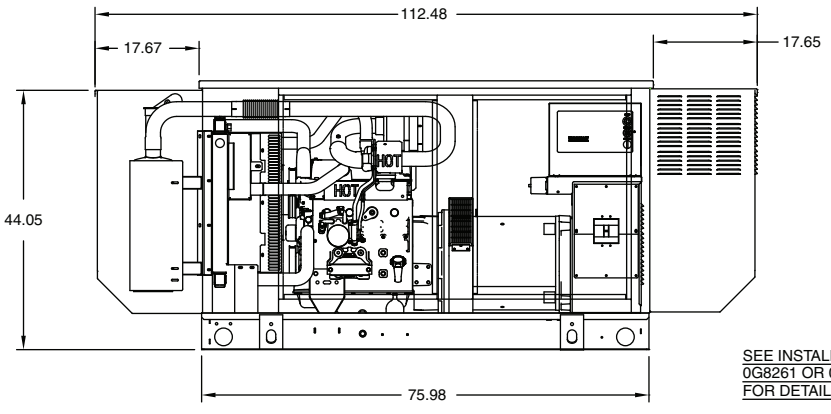
- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Coolant Heater
- Secondary Fuel Filter
- Fuel Lockoff Solenoid
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation of Unit to Mounting Base
- 12 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Radiator Duct Adaptor
- Ischronous Governor

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - ❍ 208/240V Coolant Heater
- **OPTIONAL FUEL ACCESSORIES**
  - ❍ Flexible Fuel Lines
  - ❍ UL Listed Fuel Tanks
  - ❍ Base Tank Low Fuel Alarm
  - ❍ Primary Fuel Filters
- **OPTIONAL EXHAUST ACCESSORIES**
  - ❍ Critical Exhaust Silencer
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - ❍ 2A Battery Charger
  - ❍ 10A Dual Rate Battery Charger
  - ❍ Battery, 12 Volt, 135 A.H.
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - ❍ Alternator Upsizing
  - ❍ Alternator Strip Heater
  - ❍ Alternator Tropicalization
  - ❍ Voltage Changeover Switch
  - ❍ Main Line Circuit Breaker
- **CONTROL CONSOLE OPTIONS**
  - ❍ Digital Controller H100 (Bulletin 0172110SBY)
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - ❍ Automatic Transfer Switch
  - ❍ Remote Relay Panels
  - ❍ Unit Vibration Isolators
  - ❍ Oil Make-Up System
  - ❍ Oil Heater
  - ❍ 5 Year Warranties
  - ❍ Export Boxing
  - ❍ GenLink® Communications Software
- **OPTIONAL ENCLOSURE**
  - ❍ Weather Protective
  - ❍ Sound Attenuated
  - ❍ Aluminum and Stainless Steel
  - ❍ Enclosed Muffler

Distributed by:

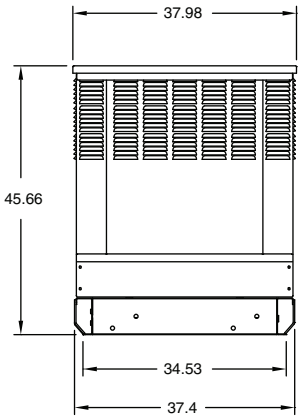
Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



APPLICABLE TO 2.4L G4 35 KW, 40 kW, 50 kW

LEFT SIDE VIEW, SOUND ATTENUATED ENCLOSURE.

SEE INSTALL DWG 0G8261 OR 0G8262 FOR DETAILS



REAR VIEW

mm [in]

WEIGHT: 2900 lbs.

GENERAC® POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

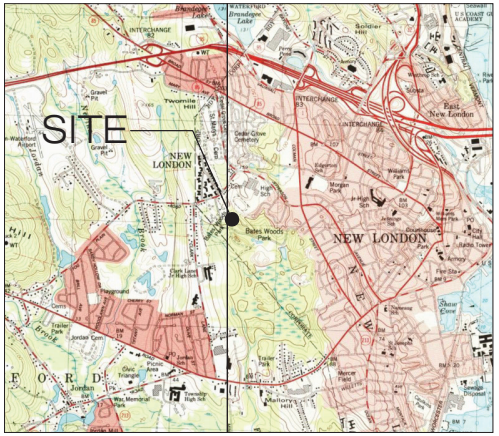
262/544-4811 • FAX 262/544-4851

Bulletin 0176480SBY / Printed in USA 03.08

LOCATION MAP

SCALE : 1" = 800' SOURCE: GOOGLE MAPS

USGS TOPOGRAPHIC MAP



SCALE : 1" = 2000'± SOURCE: USGS 7.5 QUADRANGLE FOR NIANTIC AND NEW LONDON

SPRINGWICH CELLULAR LIMITED PARTNERSHIP

d/b/a at&t MOBILITY

500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

MCM

MESSAGE CENTER MANAGEMENT

40 WOODLAND STREET
HARTFORD, CT 06105
OFFICE: (888) 973-7483

DEVELOPMENT & MANAGEMENT PLAN DRAWING INDEX

*SITE INFORMATION:

-SITE NAME:..... BATES WOODS PARK
-SITE ID NUMBER:..... CT-502

-SITE ADDRESS:..... BATES WOODS PARK
NEW LONDON, CT 06320

-MAP:..... B11 AND C13
-LOTS:..... 220-1 AND 118-19

-ZONE:..... OS
-LATITUDE - ..... 41° 21' 21.96" N
-LONGITUDE - ..... 72° 07' 27.12" W
-ELEVATION - ..... 126'± AMSL

-FEMA/FIRM
DESIGNATION:..... PANEL #09011C0501G - ZONE X UNSHADED
-ACREAGE:..... 124.75± Ac (VOL. 2011, PAGE 13)

ALL-POINTS TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419
WWW.ALLPOINTSTECH.COM

PHONE: (860)-663-1697
FAX: (860)-663-0935

CONTACT PERSONNEL

APPLICANTS:
MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
HARTFORD, CT 06105

CO-APPLICANTS
AT&T MOBILITY
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

LANDLORD
CITY OF NEW LONDON
181 STATE STREET
NEW LONDON, CT 06320

MCM PROJECT MANAGER:

VIRGINIA KING (860) 727-5790

MCM PROJECT ATTORNEY:

CUDDY & FEDER, LLP
445 HAMILTON AVE., 14TH FLOOR
WHITE PLAINS, NY 10601
914-761-1300

POWER PROVIDER:

CL&P (860) 705-9128
TECH PAUL - CASE 2120708

TELCO PROVIDER:
AT&T: (800)-727-8368

CALL BEFORE YOU DIG:
(800) 922-4455

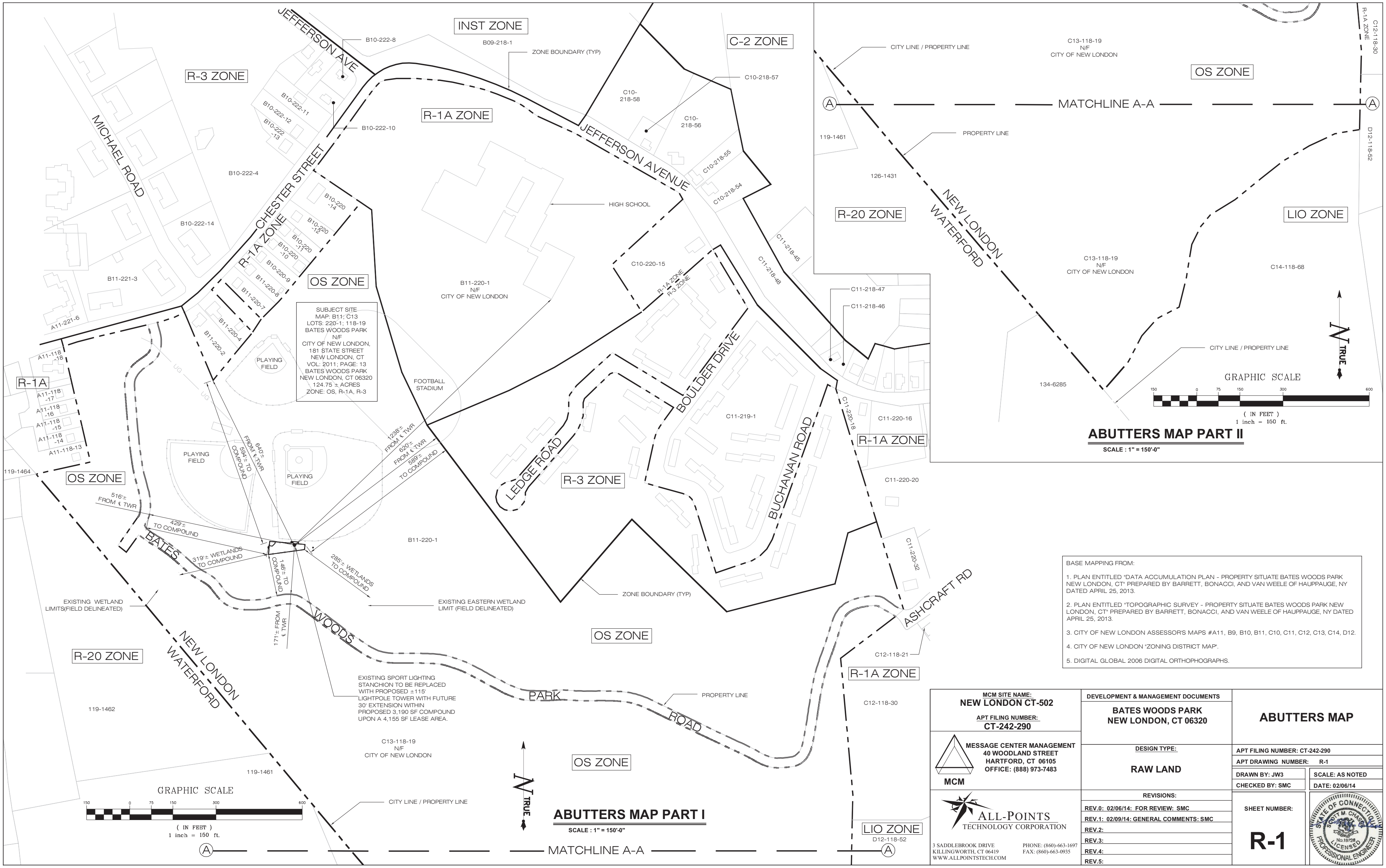
GOVERNING CODES:
2009 CONNECTICUT BUILDING CODE (2003 IBC BASIS)
NATIONAL ELECTRIC CODE
EIA/TIA 222F

SITE INFORMATION

BATES WOODS PARK
NEW LONDON, CT 06320

DEVELOPMENT & MANAGEMENT DOCUMENTS	TITLE SHEET AND INDEX
BATES WOODS PARK NEW LONDON, CT 06320	
DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-242-290
	APT DRAWING NUMBER: T-1
	DRAWN BY: JW3 / SCALE: AS NOTED
	CHECKED BY: SMC / DATE: 02/06/14
REVISIONS:	SHEET NUMBER: T-1
REV.0: 02/06/14: FOR REVIEW: SMC	
REV.1: 02/09/14: GENERAL COMMENTS: SMC	
REV.2:	
REV.3:	
REV.4:	
REV.5:	

STATE OF CONNECTICUT — SCOTT M. CHOATE — No. 18726 — LICENSED PROFESSIONAL ENGINEER



BASE MAPPING FROM:

1. PLAN ENTITLED "DATA ACCUMULATION PLAN - PROPERTY SITUATE BATES WOODS PARK NEW LONDON, CT" PREPARED BY BARRETT, BONACCI, AND VAN WEELE OF HAUPPAUGE, NY DATED APRIL 25, 2013.

2. PLAN ENTITLED "TOPOGRAPHIC SURVEY - PROPERTY SITUATE BATES WOODS PARK NEW LONDON, CT" PREPARED BY BARRETT, BONACCI, AND VAN WEELE OF HAUPPAUGE, NY DATED APRIL 25, 2013.

3. CITY OF NEW LONDON ASSESSOR'S MAPS #A11, B9, B10, B11, C10, C11, C12, C13, C14, D12.

4. CITY OF NEW LONDON "ZONING DISTRICT MAP".

5. DIGITAL GLOBAL 2006 DIGITAL ORTHOPHOGRAPHS.

MCM SITE NAME:
NEW LONDON CT-502

APT FILING NUMBER:
CT-242-290

MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
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ALL-POINTS TECHNOLOGY CORPORATION
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PHONE: (860)-663-1697
FAX: (860)-663-0935

DEVELOPMENT & MANAGEMENT DOCUMENTS

BATES WOODS PARK
NEW LONDON, CT 06320

DESIGN TYPE:
RAW LAND

REVISIONS:
REV.0: 02/06/14: FOR REVIEW: SMC
REV.1: 02/09/14: GENERAL COMMENTS: SMC
REV.2:
REV.3:
REV.4:
REV.5:

ABUTTERS MAP

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: R-1
DRAWN BY: JW3
SCALE: AS NOTED
CHECKED BY: SMC
DATE: 02/06/14

SHEET NUMBER:
R-1

STATE OF CONNECTICUT
LICENSED
PROFESSIONAL ENGINEER

WATERFORD ABUTTERS LIST (as of June 2013)

PARNO (MBL)	OWNER	LOCATION	MAILING ADDRESS
119-1461	ARCHAMBAULT LEO MARY P	109-R CLARK LANE, WATERFORD CT 06385	141 NOBLE HILL ROAD, OAKDALE, CT 06370
119-1462	NEW LONDON CITY OF WATER DEPARTMENT	131-R CLARK LANE, WATERFORD CT 06385	120 BROAD STREET, NEW LONDON, CT 06320
119-1464	WATERFORD TOWN OF	169-R CLARK LANE, WATERFORD CT 06385	15 ROPE FERRY ROAD, WATERFORD, CT 06385
126-1431	WATERFORD TOWN OF CLARK LANE SCHOOL	105 CLARK LANE, WATERFORD, CT 06385	15 ROPE FERRY ROAD, WATERFORD, CT 06385
134-6285	WATERFORD TOWN OF, FIRST SELECTMAN	50 PINE STREET, WATERFORD, CT 06385	15 ROPE FERRY ROAD, WATERFORD, CT 06385

CONSTRUCTION SEQUENCING

CONTRACTOR TO FOLLOW THE FOLLOWING CONSTRUCTION PHASING AS CLOSELY AS POSSIBLE:

1. INSTALL NEW GATES.

2. MOBILIZATION: BRING MATERIAL AND EQUIPMENT TO SITE. ALL CONSTRUCTION TRAFFIC AND ACTIVITIES MUST RESIDE INSIDE ACCESS PATH DELINEATED, WITHIN STAGING AND STOCKPILE AREA, OR WITHIN AREA WHERE PROPOSED WORK IS BEING COMPLETED. THE CONTRACTOR IS TO PROTECT WETLANDS FROM DISTURBANCE AT ALL TIMES AND NO CONSTRUCTION ACTIVITIES OR DUMPING SHALL OCCUR IN THE WETLANDS.

3. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROL BARRIERS/MEASURES.

4. REMOVE TREES.

5. CLEAR AND ROUGH GRADE ACCESS DRIVE/AREA AT THE PROPOSED EQUIPMENT COMPOUND.

6. DECOMMISSION EXISTING LIGHT STANTION, RETAIN EXISTING LIGHT SYSTEM - DEMOLISH/REMOVE EXISTING POLE FOUNDATION.

7. CONSTRUCT NEW UTILITY TRENCH & SET CONDUITS & BACKFILL.

8. CLEAR, GRUB & ROUGH GRADE COMPOUND AND EMBANKMENT AREA.

9. STABILIZE EMBANKMENT & INSTALL MODIFIED RIPRAP ARMOUR.

10. EXCAVATE FOR TOWER FOUNDATION AND EQUIPMENT SHELTER FOUNDATION.

11. FINALIZE ACCESS DRIVE/AREA GRADES AND INSTALL WEARING COURSE.

12. PREPARE SUBGRADE AND INSTALL FORMS, STEEL REINFORCING, AND CONCRETE FOR TOWER FOUNDATION AND EQUIPMENT SHELTER FOUNDATION.

13. INSTALL BURIED GROUND RINGS, GROUND RODS, GROUND LEADS, UTILITY CONDUITS, AND UTILITY EQUIPMENT.

14. BACKFILL TOWER FOUNDATION AND EQUIPMENT SHELTER FOUNDATION.

15. ERECT LIGHT POLE TOWER.

16. INSTALL TELECOMMUNICATIONS EQUIPMENT ON TOWER AND IN COMPOUND.

17. REINSTALL LIGHTING RACK LIGHTS & ICE SHIELD AND RECONNECT TO EXISTING ELECTRICAL SERVICE.

18. INSTALL COMPOUND GRAVEL SURFACES.

19. INSTALL FENCING.

20. CONNECT GROUNDING LEADS AND LIGHTENING PROTECTION.

21. FINAL GRADE AROUND COMPOUND.

22. INSTALL PROPOSED LANDSCAPING.

23. LOAM AND SEED DISTURBED AREAS OUTSIDE COMPOUND, AS REQUIRED.

24. REMOVE SILT FENCING AFTER SEEDED AREAS HAVE ESTABLISHED VEGETATION.

25. FINAL CLEANUP AND EQUIPMENT TESTING.

THE ESTIMATED TIME FOR COMPLETION OF THE WORK IS APPROXIMATELY SIX (6) WEEKS. THE EXACT PROCESS MAY VARY DEPENDING ON THE CONTRACTORS' AND SUBCONTRACTORS AVAILABILITY TO COMPLETE WORK AND WEATHER DELAYS.

NEW LONDON ABUTTERS LIST (as of June 2013)

MAP LOT	OWNER	LOCATION	MAILING ADDRESS
A11 118-13	RIVARD STACEY	14 DAVIS FARM WAY, NEW LONDON, CT 06320	14 DAVIS FARM WAY, NEW LONDON, CT 06320
A11 118-14	BRYAN DOUGLAS + MICHELLE	12 DAVIS FARM WAY, NEW LONDON, CT 06320	12 DAVIS FARM WAY, NEW LONDON, CT 06320
A11 118-15	ROSARIO ZENAIDA	10 DAVIS FARM WAY, NEW LONDON, CT 06320	10 DAVIS FARM WAY, NEW LONDON, CT 06320
A11 118-16	CAMPBELL TALIA	8 DAVIS FARM WAY, NEW LONDON, CT 06320	8 DAVIS FARM WAY, NEW LONDON, CT 06320
A11 118-17	BONDY SALLY	6 DAVIS FARM WAY, NEW LONDON, CT 06320	6 DAVIS FARM WAY, NEW LONDON, CT 06320
A11 118-18	SEQUIST DIANE	118 CHESTER STREET, NEW LONDON, CT 06320	118 CHESTER STREET, NEW LONDON, CT 06320
A11 221-6	FAIRE HARBOUR LANDINGS, LLC	11 ANTHONY ROAD, NEW LONDON, CT 06320	ONE MILL STREET, SUITE 200, NEWPORT, RI 02840
B09 218-1	NEW LONDON CEMETERY ASSOC.	BROAD STREET, NEW LONDON, CT 06320	638 BROAD STREET, NEW LONDON, CT 06320
B10 220-9	BAHAMUNDI DIANA	58 CHESTER STREET, NEW LONDON, CT 06320	58 CHESTER STREET, NEW LONDON, CT 06320
B10 220-10	WILLOUGHBY THERESA SWIFT	52 CHESTER STREET, NEW LONDON, CT 06320	52 CHESTER STREET, NEW LONDON, CT 06320
B10 220-11	ALVARADO PAULINE & ISAIAS	48 CHESTER STREET, NEW LONDON, CT 06320	48 CHESTER STREET, NEW LONDON, CT 06320
B10 220-12	AQUINO EVELYN	44 CHESTER STREET, NEW LONDON, CT 06320	44 CHESTER STREET, NEW LONDON, CT 06320
B10 220-14	MARIANI BRENDA	36 CHESTER STREET, NEW LONDON, CT 06320	36 CHESTER STREET, NEW LONDON, CT 06320
B10 222-4	ST MARY NEW LONDON CEMETERY	JEFFERSON AVENUE, NEW LONDON, CT 06320	JEFFERSON AVENUE, NEW LONDON, CT 06320
B10 222-8	SANTANA KERRI L	7 CHESTER STREET, NEW LONDON, CT 06320	7 CHESTER STREET, NEW LONDON, CT 06320
B10 222-10	DAMATO LYNN L	11 CHESTER STREET, NEW LONDON, CT 06320	11 CHESTER STREET, NEW LONDON, CT 06320
B10 222-11	15 CHESTER LLC	15 CHESTER STREET, NEW LONDON, CT 06320	7 BUCK HILL ROAD, OLD SAYBROOK, CT 06475
B10 222-12	SISK SHERRI ET AL	17 CHESTER STREET, NEW LONDON, CT 06320	PO BOX 129 QUAKER HILL, CT 06375
B10 222-13	PETERS DANIEL E JR	19 CHESTER STREET, NEW LONDON, CT 06320	3 CAMBRIDGE COURT E, OLD SAYBROOK, CT 06475
B10 222-14	EAGLE POINTE LLC	MICHAEL ROAD, NEW LONDON, CT 06320	342 NO MAIN ST, STE 200, WEST HARFORD, CT 06117
B11 220-2	GRAVELL JAMES R	80 CHESTER STREET, NEW LONDON, CT 06320	80 CHESTER STREET, NEW LONDON, CT 06320
B11 220-4	SFERRAZZA PAULETTE A + DALEY ANTONELLE N+MATTHEW	76 CHESTER STREET, NEW LONDON, CT 06320	76 CHESTER STREET, NEW LONDON, CT 06320
B11 220-7	KYDD TIMOTHEA	68 CHESTER STREET, NEW LONDON, CT 06320	24 ALELAIDE STREET, NEW LONDON, CT 06320
B11 220-8	LINSKENS DONALD	62 CHESTER STREET, NEW LONDON, CT 06320	62 CHESTER STREET, NEW LONDON, CT 06320
B11 221-3	EAGLE POINTE LLC	8 MICHAEL ROAD, NEW LONDON, CT 06320	342 NO MAIN ST, STE 200, WEST HARFORD, CT 06117
C10 218-54	MARTELL KARRI L	447 JEFFERSON AVENUE, NEW LONDON, CT 06320	447 JEFFERSON AVENUE, NEW LONDON, CT 06320
C10 218-55	MERCADO JEANNE	449 JEFFERSON AVENUE, NEW LONDON, CT 06320	449 JEFFERSON AVENUE, NEW LONDON, CT 06320
C10 218-56	SAGLAM LORRAINE + BILGEHAN	451 JEFFERSON AVENUE, NEW LONDON, CT 06320	451 JEFFERSON AVENUE, NEW LONDON, CT 06320
C10 218-57	NYE DAWN M	463 JEFFERSON AVENUE, NEW LONDON, CT 06320	115 FRANKLIN TPKE, #364, MAHWAH, NJ 07430-1325
C10 218-58	NYE DAWN M	JEFFERSON AVENUE, NEW LONDON, CT 06320	115 FRANKLIN TPKE, #364, MAHWAH, NJ 07430-1325
C10 220-15	THE CONNECTION FUND INC	432 JEFFERSON AVENUE, NEW LONDON, CT 06320	100 ROSCOMMON DRIVE STE 203, MIDDLETOWN, CT 06457
C11 218-45	ROGOVIN SAMUEL EST + BERMAN STANLEY TTE	354 COLMAN STREET, NEW LONDON, CT 06320	354 COLMAN STREET, NEW LONDON, CT 06320
C11 218-46	ROGOVIN SAMUEL EST + BERMAN STANLEY TTE	377 JEFFERSON AVENUE, NEW LONDON, CT 06320	354 COLMAN STREET, NEW LONDON, CT 06320
C11 218-47	ROGOVIN SAMUEL EST + BERMAN STANLEY TTE	387 JEFFERSON AVENUE, NEW LONDON, CT 06320	354 COLMAN STREET, NEW LONDON, CT 06320
C11 218-48	ROGOVIN SAMUEL EST + BERMAN STANLEY TTE	JEFFERSON AVENUE, NEW LONDON, CT 06320	354 COLMAN STREET, NEW LONDON, CT 06320
C11 219-1	NEW LONDON CITY OF- HSNG AUTHORITY	5-114 BOULDER DRIVE, NEW LONDON, CT 06320	C/O NEW LONDON COMMUNITIES I LP, 200 PRATT STREET MERIDEN, CT 06450
C11 220-16	SPEER SHERI A	372 JEFFERSON AVENUE, NEW LONDON, CT 06320	151 TALMAN STREET, NORWICH, CT 06360
C11 220-18	BANKS ROBERT L & LORRIE E	366 JEFFERSON AVENUE, NEW LONDON, CT 06320	366 JEFFERSON AVENUE, NEW LONDON, CT 06320
C11 220-20	SCARPA GARY J + ANN L	356 JEFFERSON AVENUE REAR, NEW LONDON, CT 06320	340 COLMAN STREET, NEW LONDON, CT 06320
C11 220-32	MORALES NANCY	187 ASHCRAFT ROAD, NEW LONDON, CT 06320	187 ASHCRAFT ROAD, NEW LONDON, CT 06320
C12 118-21	MORTON MARY	190 ASHCRAFT ROAD, NEW LONDON, CT 06320	190 ASHCRAFT ROAD, NEW LONDON, CT 06320
C12 118-30	KUNAJUKR SUTIP	70 FULLER STREET, NEW LONDON, CT 06320	496 OCEAN AVENUE, NEW LONDON, CT 06320
C14 118-68	TRADING COVE PARTNERS LLC	ROSEWAY STREET, NEW LONDON, CT 06320	120 TOLLAND ST STE 2, EAST HARTFORD, CT 06108
D12 118-52	NEW LONDON CITY OF HOUSING AUTHORITY	202 COLMAN STREET, NEW LONDON, CT 06320	78 WALDEN AVENUE, NEW LONDON, CT 06320

MCM SITE NAME:
NEW LONDON CT-502

APT FILING NUMBER:
CT-242-290

MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
HARTFORD, CT 06105
OFFICE: (888) 973-7483
MCM

ALL-POINTS TECHNOLOGY CORPORATION
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KILLINGWORTH, CT 06419
WWW.ALLPOINTSTECH.COM
PHONE: (860)-663-1697
FAX: (860)-663-0935

DEVELOPMENT & MANAGEMENT DOCUMENTS

BATES WOODS PARK
NEW LONDON, CT 06320

DESIGN TYPE:
RAW LAND

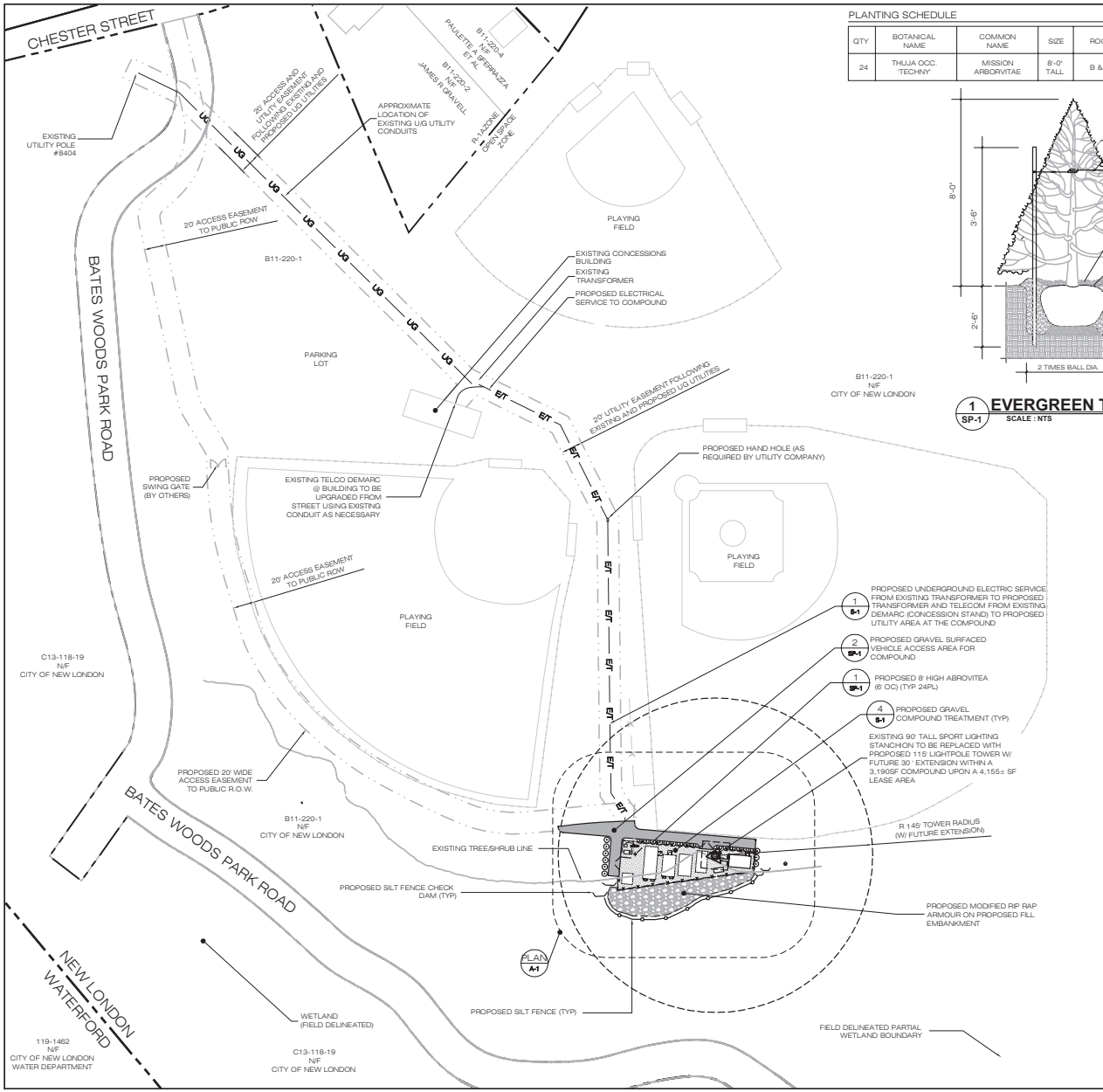
REVISIONS:
REV.0: 02/06/14: FOR REVIEW: SMC
REV.1: 02/09/14: GENERAL COMMENTS: SMC
REV.2:
REV.3:
REV.4:
REV.5:

ABUTTERS LISTING & CONSTRUCTION SEQUENCE

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: R-2
DRAWN BY: JW3
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 02/06/14

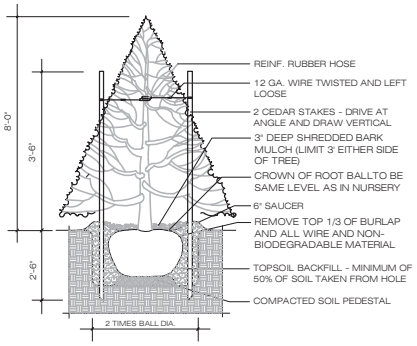
SHEET NUMBER:
R-2

STATE OF CONNECTICUT
SCOTT M. CHASE
No. 19795
LICENSED PROFESSIONAL ENGINEER



PLANTING SCHEDULE

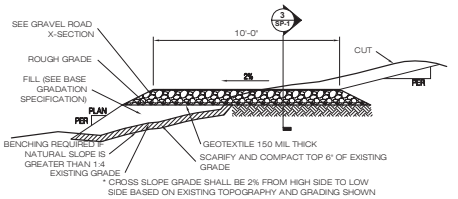
QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	SYMBOL	REMARKS
24	THUJA OCC. 'TECHNY'	MISSION ARBORVITAE	8'-0" TALL	B & B	6'-0" O.C.	+	FULL TO BASE



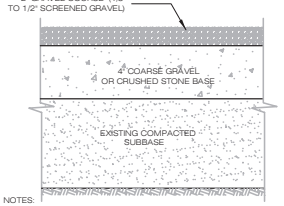
1 SP-1 EVERGREEN TREE PLANTING DETAIL
SCALE : NTS

BASE MAPPING FROM:

1. PLAN ENTITLED "DATA ACCUMULATION PLAN - PROPERTY SITUATE BATES WOODS PARK NEW LONDON, CT" PREPARED BY BARRETT, BONACCI, AND VAN WEELE OF HAUPPAUGE, NY DATED APRIL 25, 2013.
2. PLAN ENTITLED "TOPOGRAPHIC SURVEY - PROPERTY SITUATE BATES WOODS PARK NEW LONDON, CT" PREPARED BY BARRETT, BONACCI, AND VAN WEELE OF HAUPPAUGE, NY DATED APRIL 25, 2013.
3. CITY OF NEW LONDON ASSESSORS MAPS #A11, B9, B10, B11, C10, C11, C12, C13, C14, D12.
4. CITY OF NEW LONDON "ZONING DISTRICT MAP".
5. DIGITAL GLOBAL 2006 DIGITAL ORTHOPHOGRAPHS.



2 SP-1 TYPICAL GRAVEL ROAD SECTION
SCALE : NTS



NOTES:
1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX DRY DENSITY.
2. SUBBASE IS TO CLEAN GRANULAR MATERIAL (SEE NOTES, SHEET N-1). FREE FROM DEBRIS AND UNSUITABLE MATERIALS.
3. RECYCLED CONCRETE MAY BE SUBSTITUTED FOR GRAVEL OR CRUSHED STONE BASE IN NON-WETLANDS AREAS.

3 SP-1 GRAVEL ROAD X-SECTION
SCALE : NTS

NOTE: 2 TREES WILL BE REMOVED IN CONSTRUCTING THE FACILITY

HANDICAPPED REQUIREMENTS
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS NOT REQUIRED.

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NEW LONDON, CT 06320

DESIGN TYPE:
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REV.2:
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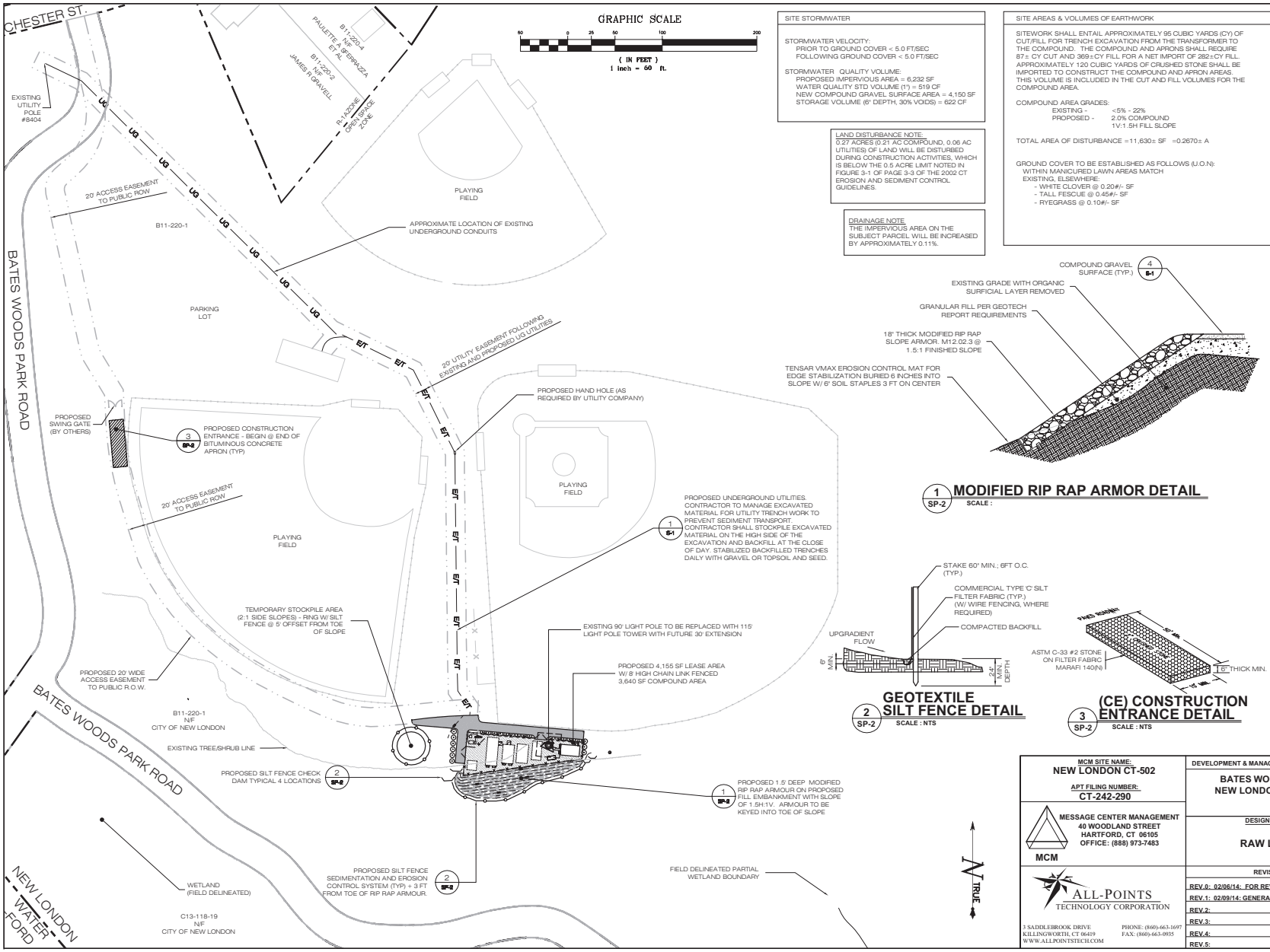
REV.5:

PARTIAL SITE PLAN

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: SP-1
DRAWN BY: JW3
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 02/06/14

SHEET NUMBER:
SP-1

STATE OF CONNECTICUT SCOTT M. CHASE No. 19795 LICENSED PROFESSIONAL ENGINEER



SITE STORMWATER

STORMWATER VELOCITY:
PRIOR TO GROUND COVER < 5.0 FT/SEC
FOLLOWING GROUND COVER < 5.0 FT/SEC

STORMWATER QUALITY VOLUME:
PROPOSED IMPERVIOUS AREA = 6,232 SF
WATER QUALITY STD VOLUME (1") = 519 CF
NEW COMPOUND GRAVEL SURFACE AREA = 4,150 SF
STORAGE VOLUME (6" DEPTH, 30% VOIDS) = 622 CF

LAND DISTURBANCE NOTE:
0.27 ACRES (0.21 AC COMPOUND, 0.06 AC UTILITIES) OF LAND WILL BE DISTURBED DURING CONSTRUCTION ACTIVITIES, WHICH IS BELOW THE 0.5 ACRE LIMIT NOTED IN FIGURE 3-1 OF PAGE 3-9 OF THE 2002 CT EROSION AND SEDIMENT CONTROL GUIDELINES.

DRAINAGE NOTE:
THE IMPERVIOUS AREA ON THE SUBJECT PARCEL WILL BE INCREASED BY APPROXIMATELY 0.11%.

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK SHALL ENTAIL APPROXIMATELY 95 CUBIC YARDS (CY) OF CUT/FILL FOR TRENCH EXCAVATION FROM THE TRANSFORMER TO THE COMPOUND. THE COMPOUND AND APRONS SHALL REQUIRE 87± CY CUT AND 369±CY FILL FOR A NET IMPORT OF 282±CY FILL. APPROXIMATELY 120 CUBIC YARDS OF CRUSHED STONE SHALL BE IMPORTED TO CONSTRUCT THE COMPOUND AND APRON AREAS. THIS VOLUME IS INCLUDED IN THE CUT AND FILL VOLUMES FOR THE COMPOUND AREA.

COMPOUND AREA GRADES:
EXISTING - <5% - 22%
PROPOSED - 2.0% COMPOUND
1V:1.5H FILL SLOPE

TOTAL AREA OF DISTURBANCE =11,630± SF =0.2670± A

GROUND COVER TO BE ESTABLISHED AS FOLLOWS (U.O.N):
WITHIN MANICURED LAWN AREAS MATCH EXISTING, ELSEWHERE:
- WHITE CLOVER @ 0.20#/- SF
- TALL FESCUE @ 0.45#/- SF
- RYEGRASS @ 0.10#/- SF

1 SP-2 MODIFIED RIP RAP ARMOR DETAIL
SCALE :

2 SP-2 GEOTEXTILE SILT FENCE DETAIL
SCALE : NTS

3 SP-2 (CE) CONSTRUCTION ENTRANCE DETAIL
SCALE : NTS

SEDIMENT & EROSION CONTROL NARRATIVE

THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING SITE AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND THE WETLAND AREAS FROM SURFACE RUNOFF AND EROSION. A CONSTRUCTION SEQUENCE IS PROVIDED TO PROVIDE SURFACE RUNOFF CONTROLS PRIOR TO THE PROJECT CONSTRUCTION BEGINNING.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SPRING 2014 WITH COMPLETION ANTICIPATED SUMMER 2014. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL CONSTRUCTION ACTIVITY.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE AGENTS OF THE DIRECTOR OF PUBLIC WORKS, INLAND WETLANDS AGENCY AND/OR SITE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

CONSTRUCTION SEQUENCE
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

1. CONTACT CITY OF NEW LONDON INLAND WETLANDS ENFORCEMENT OFFICER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.
2. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD BY A LICENSED PROFESSIONAL SURVEYOR AND APPROVED BY THE CITY OF NEW LONDON INLAND WETLAND ENFORCEMENT OFFICER PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND PERIMETER SILT FENCE.
3. CONSTRUCT TRACKING PAD AT ENTRANCE AND WRAP FILTER FABRIC AROUND GRATES OF CATCH BASINS OR INSTALL SILT SACKS ON CATCH BASIN INLETS. INSTALL HAY BALE CHECK DAMS AND SILT FENCE AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS. INSTALL SEDIMENT BASINS IF REQUIRED AT LOW AREAS OF SITE OR AS ORDERED BY THE ENGINEER.
4. CLEAR AND GRUB SITE. REMOVE CHIPS. STOCKPILE TOPSOIL. STORE EXCESS TOPSOIL FOR CITY USE.
5. CONTINUE EARTHWORK. CONSTRUCT FILL SLOPE. INSTALL ADDITIONAL EROSION CONTROLS TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING. DURING FILL OPERATION SLOPES EXCEEDING 20 FEET SHALL BE TOPSOILED OR ARMORED OR COVERED WITH STRAW MESH AS DETAILED.
6. CONSTRUCTION STAKING OF COMPOUND, TOWER , UTILITIES, ACCESS DRIVE, AND PARKING AREA.
7. ROUGH GRADING
8. CONSTRUCT TOWER FOUNDATION
9. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND HAY BALES, AND FROM SEDIMENTATION BASINS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS. CONTRACTOR SHALL KEEP A LOG OF EACH INSPECTION ONSITE. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
10. INSTALL UTILITIES.
11. ERECT TOWER
12. FINISH GRADING AND CONSTRUCT PARKING AREA AND COMPOUND.
13. PLACE 4" TOPSOIL ON DISTURBED AREAS AFTER FINAL GRADING IS COMPLETED. FERTILIZE AND SEED. SEED MIXTURE TO BE INSTALLED APRIL 11-JUNE 1 OR AUGUST 15-OCTOBER 1. USE EROSION CONTROL BLANKETS OR ARMOR FOR SLOPES GREATER THAN 3:1. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 4.0 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
14. INSTALL FENCING LANDSCAPE ISLANDS AND PERIMETER AREAS.
15. INSTALL SIGNING AND PAVEMENT MARKINGS
16. UPON DIRECTION OF THE CITY OF NEW LONDON INLAND WETLAND ENFORCEMENT OFFICER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

MCM SITE NAME:
NEW LONDON CT-502
APT FILING NUMBER:
CT-242-290

MCM
MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
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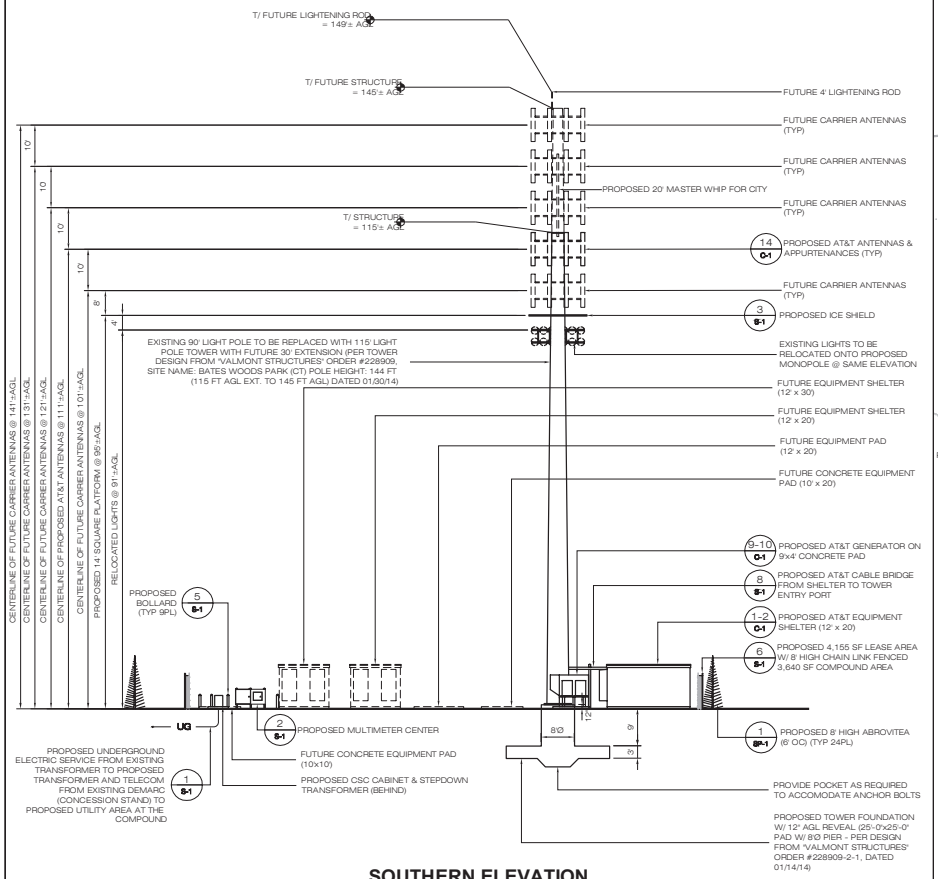
REV.2:
REV.3:
REV.4:
REV.5:

SEDIMENTATION AND EROSION CONTROL PLAN

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: SP-2
DRAWN BY: JW3
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 02/06/14

SHEET NUMBER:
SP-2

STATE OF CONNECTICUT — SCOTT M. CHASE — 16019 — LICENSED PROFESSIONAL ENGINEER



SOUTHERN ELEVATION

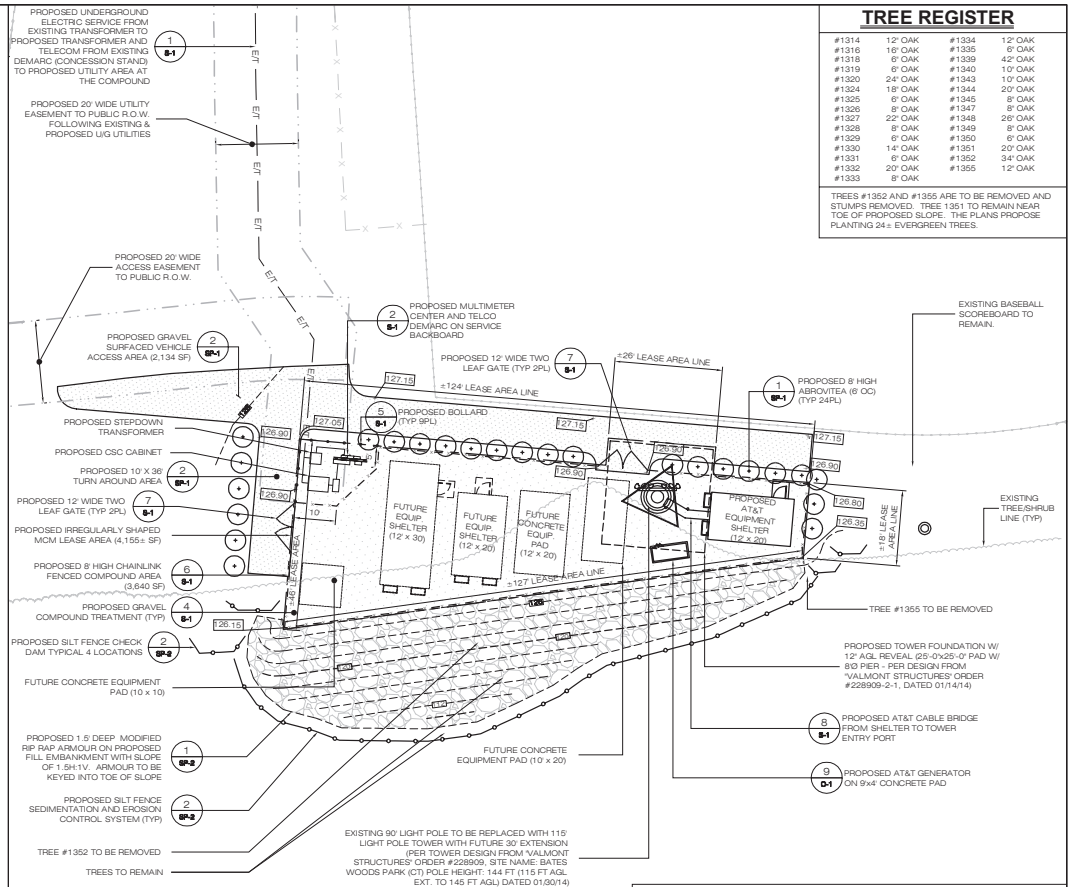
SCALE : 1" = 15'-0"

GRAPHIC SCALE

15 0 7.5 15 30 60

(IN FEET)

1 inch = 15 ft.



COMPOUND PLAN

SCALE :1" = 15'-0"

GRAPHIC SCALE

15 0 7.5 15 30 60

(IN FEET)

1 inch = 15 ft.

TREE REGISTER

#1314	12" OAK	#1334	12" OAK
#1316	16" OAK	#1335	6" OAK
#1318	6" OAK	#1339	42" OAK
#1319	6" OAK	#1340	10" OAK
#1320	24" OAK	#1343	10" OAK
#1324	18" OAK	#1344	20" OAK
#1325	6" OAK	#1345	8" OAK
#1326	8" OAK	#1347	8" OAK
#1327	22" OAK	#1348	26" OAK
#1328	8" OAK	#1349	8" OAK
#1329	6" OAK	#1350	6" OAK
#1330	14" OAK	#1351	20" OAK
#1331	6" OAK	#1352	34" OAK
#1332	20" OAK	#1355	12" OAK
#1333	8" OAK		

TREES #1352 AND #1355 ARE TO BE REMOVED AND STUMPS REMOVED. TREE 1351 TO REMAIN NEAR TOE OF PROPOSED SLOPE. THE PLANS PROPOSE PLANTING 24± EVERGREEN TREES.

ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2009 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA/TIA-222-F "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES" FOR NEW LONDON COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 85 MPH FASTEST MILE WIND SPEED. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

MCM SITE NAME:
NEW LONDON CT-502

APT FILING NUMBER:
CT-242-290

DEVELOPMENT & MANAGEMENT DOCUMENTS
BATES WOODS PARK
NEW LONDON, CT 06320

COMPOUND PLAN & TOWER ELEVATION

MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
HARTFORD, CT 06105
OFFICE: (888) 973-7483
MCM

ALL-POINTS TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419
PHONE: (860)-663-1697
FAX: (860)-663-0935
WWW.ALLPOINTSTECH.COM

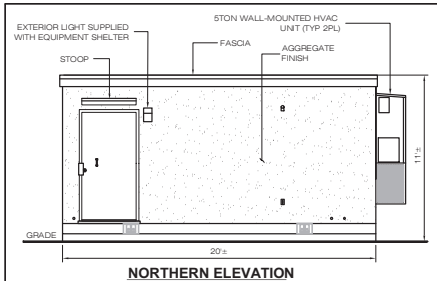
DESIGN TYPE:
RAW LAND

REVISIONS:
REV.0: 02/06/14: FOR REVIEW: SMC
REV.1: 02/09/14: GENERAL COMMENTS: SMC
REV.2:
REV.3:
REV.4:
REV.5:

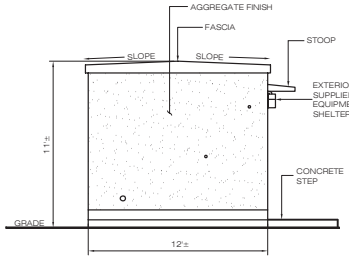
APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: A-1
DRAWN BY: JW3
SCALE: AS NOTED
CHECKED BY: SMC
DATE: 02/06/14

SHEET NUMBER:
A-1

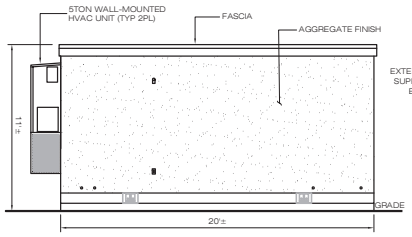
SCOTT M. CHASE — No. 19795 — LICENSED PROFESSIONAL ENGINEER — STATE OF CONNECTICUT



NORTHERN ELEVATION



EASTERN ELEVATION



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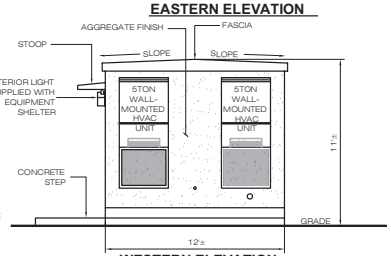
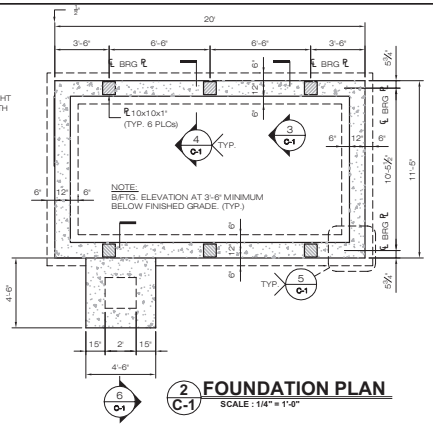
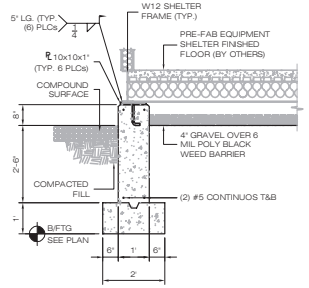


WESTERN ELEVATION

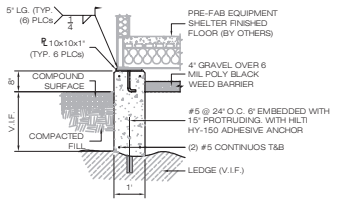
1 C-1 **12' X 20' EQUIPMENT SHELTER**
SCALE : 1/4" = 1'-0"



2 C-1 **FOUNDATION PLAN**
SCALE : 1/4" = 1'-0"



3 C-1 **FOUNDATION SECTION**
SCALE : 1/2" = 1'-0"

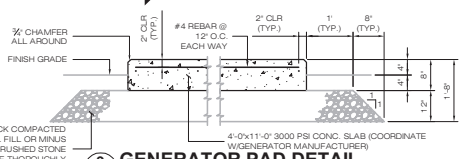


4 C-1 **FOUNDATION OVER LEDGE OR TOWER FOUNDATION**
SCALE : 1/2" = 1'-0"

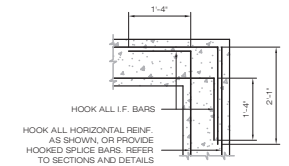
DESIGN LOAD CRITERIA

EQUIPMENT SHELTER SHALL BE DESIGNED AND MANUFACTURED TO MEET ALL STATE AND LOCAL CODES. ITS LAYOUT SHALL BE COORDINATED WITH CARRIERS.

DESIGN BASIS	CONNECTICUT STATE BUILDING CODE
GOVERNING CODE	40 PSF (ASCE 7-02)
DESIGN LIVE LOADS	IV
IMPORTANCE CATEGORY	
SNOW LOAD:	
GROUND SNOW LOAD (Pg)	30 PSF
IMPORTANCE FACTOR	1.2
EXPOSURE FACTOR (Ce)	0.9
THERMAL FACTOR (Ct)	1.0
WIND LOAD:	
BASIC WIND LOAD	120 MPH (3 SEC. GUST)
EXPOSURE GROUP	B
IMPORTANCE FACTOR	1.15
SHELTER LOAD:	
FLOOR LIVE LOAD INCLUDING EQUIPMENT	250 PSF
EQUIPMENT SHELTER DL	24,500 LBS
SEISMIC DESIGN PARAMETERS:	
SEISMIC USE GROUP	II
MCE SPECTRAL ACCELERATION SHORT (Ss)	0.210
MCE SPECTRAL ACCELERATION SHORT (S1)	0.057
SITE CLASS	D FOR UNKNOWN SOIL PROPERTIES
IMPORTANCE FACTOR	1.5

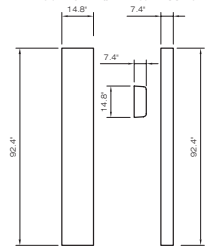


9 C-1 **GENERATOR PAD DETAIL**
SCALE : NTS

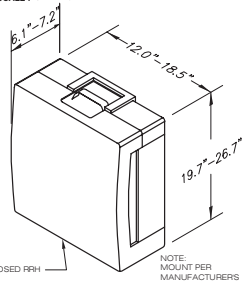


5 C-1 **DETAIL CORNER RIEFORCEMENT**
SCALE : 3/4" = 1'-0"

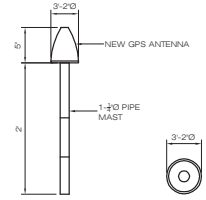
CCI MODEL # HPA-65R-BUU-H8



11 C-1 **TYPICAL PANEL ANTENNA**
SCALE : NTS

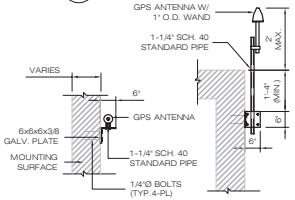


13 C-1 **TYPICAL RRU**
SCALE : NTS

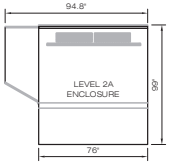


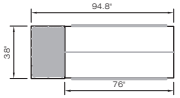
FOR MOUNT - SEE 8/C-1

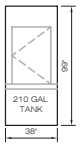
7 C-1 **TYPICAL GPS DETAILS**
SCALE : NTS



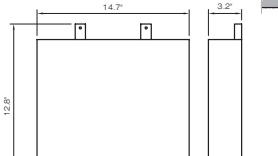
8 C-1 **TYPICAL GPS MOUNTING DETAIL**
SCALE : NTS



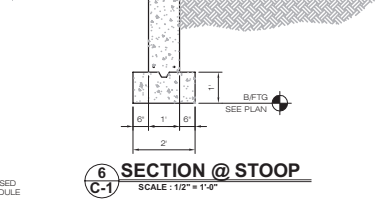




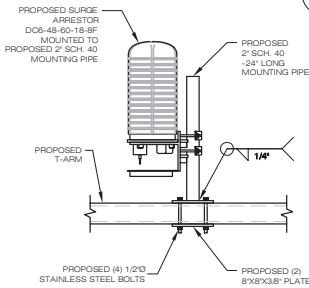
10 C-1 **GENERAC 50kW DIESEL GENERATOR**
SCALE : 1/4" = 1'-0"

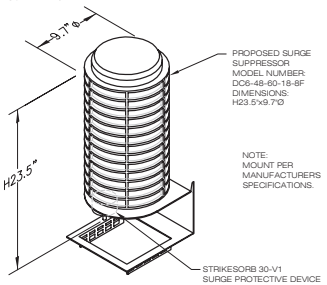


15 C-1 **TYPICAL A2 MODULE**
SCALE : NTS

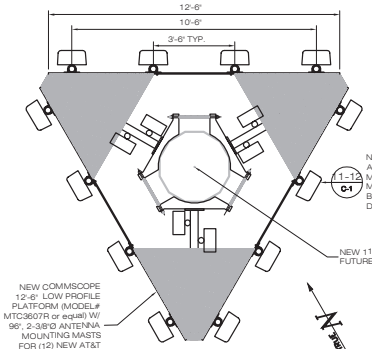


6 C-1 **SECTION @ STOOP**
SCALE : 1/2" = 1'-0"





12 C-1 **TYPICAL SURGE SUPPRESSOR**
SCALE : NTS



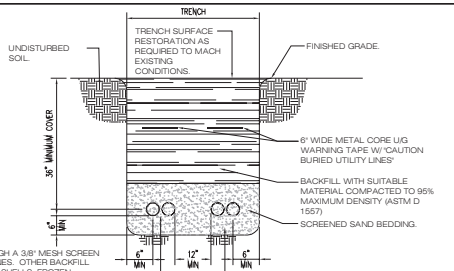
14 C-1 **ANTENNA PLAN**
SCALE : NTS

MCM SITE NAME: NEW LONDON CT-502	DEVELOPMENT & MANAGEMENT DOCUMENTS
APT FILING NUMBER: CT-242-290	BATES WOODS PARK NEW LONDON, CT 06320
MESSAGE CENTER MANAGEMENT 40 WOODLAND STREET HARTFORD, CT 06105 OFFICE: (888) 973-7483 MCM	DESIGN TYPE: RAW LAND
ALL-POINTS TECHNOLOGY CORPORATION 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM PHONE: (860)-663-1697 FAX: (860)-663-0935	REVISIONS: REV.0: 02/06/14: FOR REVIEW: SMC; REV.1: 02/09/14: GENERAL COMMENTS: SMC; REV.2:; REV.3:; REV.4:; REV.5:

AT&T EQUIPMENT PLAN & DETAILS

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: C-1
DRAWN BY: RCB
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 02/06/14
SHEET NUMBER: **C-1**

STATE OF CONNECTICUT SCOTT M. CHASE No.18978 LICENSED PROFESSIONAL ENGINEER



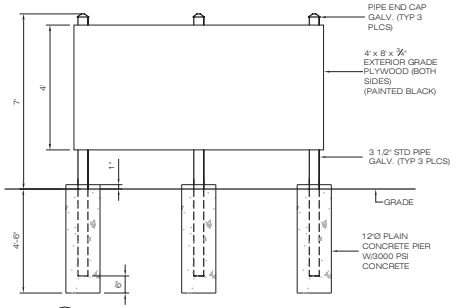
NOTES:

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIES OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED.

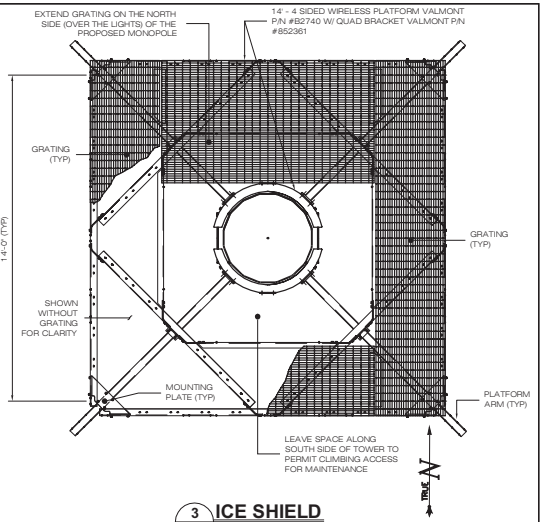
2. CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

3. EXISTING PAVEMENT SHALL BE SAW-CUT PRIOR TO TRENCH EXCAVATION

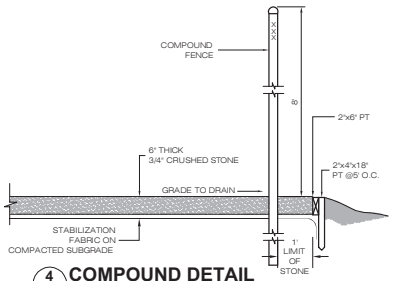
1 S-1 PRIMARY UTILITY TRENCH
SCALE : NTS



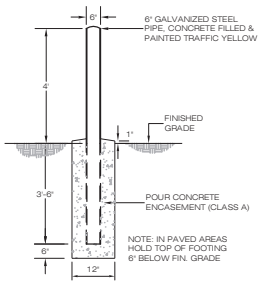
2 S-1 UTILITY BACKBOARD DETAIL
SCALE : NTS



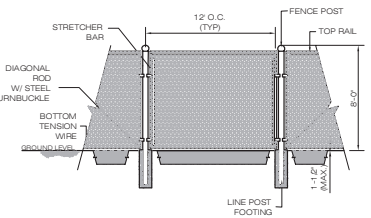
3 S-1 ICE SHIELD
SCALE : NTS



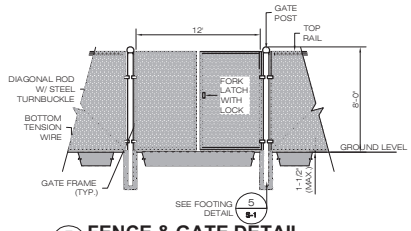
4 S-1 COMPOUND DETAIL
SCALE : NTS



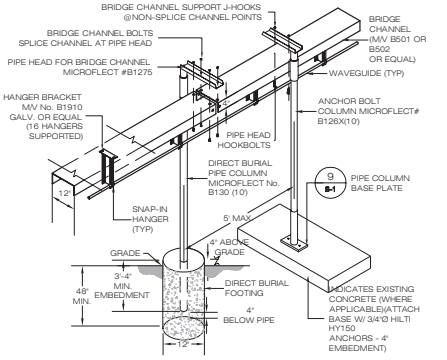
5 S-1 BOLLARD DETAIL
SCALE : NTS



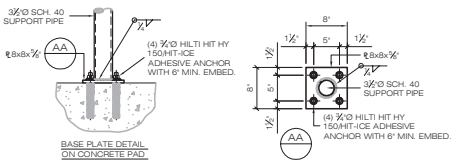
6 S-1 CHAIN-LINK FENCING DETAIL
SCALE : NTS



7 S-1 FENCE & GATE DETAIL
SCALE : N.T.S.



8 S-1 CABLE BRIDGE & COAX HANGER DETAIL
SCALE : NTS



9 S-1 HAUNCHED SLAB PLAN
SCALE : N.T.S.

MCM SITE NAME:
NEW LONDON CT-502

APT FILING NUMBER:
CT-242-290

MESSAGE CENTER MANAGEMENT
40 WOODLAND STREET
HARTFORD, CT 06105
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MCM

ALL-POINTS TECHNOLOGY CORPORATION
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FAX: (860)-663-0935

DEVELOPMENT & MANAGEMENT DOCUMENTS
BATES WOODS PARK
NEW LONDON, CT 06320

DESIGN TYPE:
RAW LAND

REVISIONS:
REV.0: 02/06/14: FOR REVIEW: SMC
REV.1: 02/09/14: GENERAL COMMENTS: SMC
REV.2:
REV.3:
REV.4:
REV.5:

COMPOUND DETAILS

APT FILING NUMBER: CT-242-290
APT DRAWING NUMBER: S-1
DRAWN BY: RCB
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 02/06/14

SHEET NUMBER:
S-1

STATE OF CONNECTICUT SCOTT M. CHASE No. 19795 LICENSED PROFESSIONAL ENGINEER

GENERAL NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF NEW LONDON, AND OTHER GOVERNMENTAL AGENCIES, AS APPLICABLE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL FOLLOW CONDITIONS OF ALL APPLICABLE PERMITS AND WORK IN ACCORD WITH OSHA REGULATIONS.

3. UTILITY INFORMATION SHOWN ON THE PLAN IS BASED ON VISIBLE FIELD EVIDENCE AND AVAILABLE RECORDS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR IS ADVISED THAT THESE DRAWINGS MAY NOT ACCURATELY DEPICT AS-BUILT LOCATIONS AND OTHER UNKNOWN STRUCTURES. THE CONTRACTOR SHALL THEREFORE DETERMINE THE EXACT LOCATION OF EXISTING UNDERGROUND ELEMENTS AND EXCAVATE WITH CARE AFTER CALLING MARKOUT SERVICE AT 1-800-922-4455 (72) HOURS BEFORE DIGGING, DRILLING OR BLASTING. CARE SHALL BE TAKEN NOT TO DISTURB EXISTING UTILITIES AND SERVICE CONNECTIONS (OR PORTIONS THERE OF) TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING STRUCTURES OR UTILITIES DAMAGED BY HIS OPERATIONS.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF NEW SERVICE CONNECTIONS AND SHALL COORDINATE WORK WITH THE APPROPRIATE UTILITY COMPANY.

5. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER.

6. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE, BUT NOT BE LIMITED TO:
   A) FALL PROTECTION,
   B) CONFINED SPACE ENTRY,
   C) ELECTRICAL SAFETY, AND
   D) TRENCHING & EXCAVATION.

7. ELECTRIC SERVICE SHALL BE COORDINATED WITH CONNECTICUT LIGHT & POWER (CL & P).

8. ALL ELEVATIONS SHOWN ARE IN N.G.V. DATUM 1929.

9. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

10. CONTRACTOR SHALL PROTECT EXISTING PAVED AND GRAVEL SURFACES, CURBS, LANDSCAPE AND STRUCTURES AND RESTORE SITE TO PRECONSTRUCTION CONDITION WITH AS GOOD, OR BETTER, MATERIALS. NEW MATERIALS SHALL MATCH EXISTING THICKNESS AND TYPE.

11. THE CONTRACTOR SHALL SHORE ALL TRENCH EXCAVATION GREATER THAN 5 FEET IN DEPTH OR LESS WHERE SOIL CONDITIONS ARE DEEMED UNSTABLE. ALL SHEETING AND/OR SHORING METHODS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.

12. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING GROUNDWATER LEVELS IN THE VICINITY OF EXCAVATIONS TO PROTECT ADJACENT PROPERTIES AND NEW WORK. GROUNDWATER SHALL BE DRAINED IN ACCORDANCE WITH LOCAL SEDIMENTATION & EROSION CONTROL GUIDELINES.

13. EXCAVATION
CONTRACTOR SHALL GRADE ONLY AREAS SHOWN TO BE MODIFIED HEREIN AND ONLY TO THE EXTENT REQUIRED TO SHED OVERLAND WATER FLOW AWAY FROM SITE. ALL SLOPES SHALL NOT BE STEEPER THAN 3:1 (HORIZ:VERT).

BEDROCK SUBGRADE SHOULD NOT BE STEEPER THAN 4H:1V. HIGH SPOTS IN BEDROCK SUBGRADES MAY NEED TO BE REMOVED AND LOW SPOTS MAY BE FILLED WITH LEAN CONCRETE OR MINUS ¾" CRUSHED STONE TO PROVIDE A LEVEL SURFACE. BEDROCK SUBGRADES DO NOT REQUIRE PROOFROLLING.

SEDIMENTATION AND EROSION CONTROLS SHOWN AND SPECIFIED SHALL BE ESTABLISHED BEFORE STRIPPING EXISTING VEGETATION.

ORGANIC MATERIAL AND DEBRIS SHALL BE STRIPPED AND STOCKPILED BEFORE ADDING FILL MATERIAL.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

ALL FILL SHALL BE PLACED IN EIGHT INCH LIFTS AND COMPACTED IN PLACE. STRUCTURAL FILL SHALL BE COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DRY DENSITY TESTED IN ACCORDANCE WITH ASTM D1557, METHOD C.

EXCAVATIONS FOR FOOTINGS SHALL BE CUT LEVEL
TO THE REQUIRED DEPTH AND TO UNDISTURBED SOIL. REPORT UNSUITABLE SOIL CONDITIONS TO THE ENGINEER.

STRUCTURAL FILL BE TESTED FOR MOISTURE CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED, AS REQUIRED, UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED.

EQUIPMENT CABINETS MAY BE SUPPORTED ON SLABS-ON-GRADE UNDERLAIN BY AT LEAST A 12-INCH THICKNESS OF COMPACTED STRUCTURAL FILL OR MINUS ¾-INCH CRUSHED STONE PLACED ON THE EXISTING FILL, THE SURFACE OF WHICH SHOULD BE THOROUGHLY COMPACTED AND CLEAR OF ORGANIC MATTER.

THE AREA UNDERLYING THE SLABS SHOULD BE ROUGH GRADED AND THEN THOROUGHLY PROOFROLLED WITH A VIBRATORY ROLLER OR HEAVY PLATE COMPACTOR PRIOR TO FINAL GRADING AND PLACEMENT OF STRUCTURAL FILL OR MINUS ¾-INCH CRUSHED STONE.

A SOIL UNIT WEIGHT OF 100 LBS PER CUBIC FOOT (PCF) SHOULD BE USED FOR ENGINEERED FILL OVERLYING THE FOOTINGS.

TRENCH EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH DAY.

SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE.

TOWER FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORD WITH TOWER MANUFACTURERS DESIGNS AND SPECIFICATIONS

14. MATERIALS
NATIVE GRAVEL MATERIAL MAY BE USED FOR TRENCH BACKFILL WHERE SELECT MATERIAL IS NOT SPECIFIED. GRAVEL MATERIAL FOR CONDUIT TRENCH BACKFILL SHALL NOT CONTAIN ROCK GREATER THAN 2 INCHES IN DIAMETER.

BANK OR CRUSHED GRAVEL SHALL CONSIST OF TOUGH, DURABLE PARTICLES OF CRUSHED OR UNCRUSHED GRAVEL FREE OF SOFT, THIN, ELONGATED OR LAMINATED PIECES AND MEET THE GRADATION.

FILL SHOULD MEET THE FOLLOWING MATERIAL
PROPERTY REQUIREMENTS:

FILL TYPE (1)	USCS CLASSIFICATION	ACCEPTABLE LOCATION FOR PLACEMENT
STRUCTURAL FILL	GW (2)	ALL LOCATIONS AND ELEVATIONS. THE NATIVE SOILS ARE SUITABLE FOR SELECTIVE RE-USE AS STRUCTURAL FILL PROVIDED THE PORTIONS USED CLOSELY MEET THE GRADATION REQUIREMENTS IN NOTE 2, BELOW. TOPSOIL SHOULD NOT BE RE-USED AS STRUCTURAL FILL.
COMMON FILL	VARIES (3)	COMMON FILL MAY BE USED FOR SITE GRADING TO WITHIN 12 INCHES OF FINISHED GRADE. COMMON FILL SHOULD NOT BE USED UNDER SETTLEMENT SENSITIVE STRUCTURES. THE NATIVE SOIL MAY BE RE-USED AS COMMON FILL, PROVIDED IT IS FREE OF ORGANICS AND CAN BE ADEQUATELY COMPACTED.

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

2. IMPORTED STRUCTURAL FILL SHOULD MEET THE FOLLOWING GRADATION:
PERCENT PASSING BY WEIGHT

SIEVE SIZE	STRUCTURAL FILL
6"	100
3"	70-100
2"	(100)*
¾	45-95
NO. 4	30-90
NO. 10	25-80
NO. 40	10-50
NO. 200	0-12

* MAXIMUM 2-INCH PARTICLE SIZE WITHIN 12 INCHES OF THE UNDERSIDE OF CONCRETE ELEMENTS

3. COMMON FILL SHOULD HAVE A MAXIMUM PARTICLE SIZE OF 6 INCHES AND NO MORE THAN 25 PERCENT BY WEIGHT PASSING THE US NO. 200 SIEVE.

SEDIMENTATION/EROSION

1. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDLINES FOR SOIL EROSION AND SEDIMENT CONTROL.

2. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED:

A. LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARLY MARKED BEFORE COMMENCING WITH SUCH WORK.

B. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.

C. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.

D. TOPSOIL SHALL BE SPREAD TO FINISH GRADES AND SEEDED AS SOON AS FINISHED GRADES ARE ESTABLISHED. STRAW MULCH, JUTE NETTING OR MATS SHALL BE USED WHERE THE NEW SEED IS PLACED.

E. THE LENGTH AND STEEPNESS OF CLEARED SLOPES
SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.

F. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.

G. ALL SEDIMENT SHALL BE TRAPPED ON THE SITE.

3. SEDIMENTATION AND EROSION CONTROL (SEC) MEASURES SHOWN SHALL BE INSTALLED PRIOR TO LAND CLEARING, EXCAVATION OR GRADING OPERATIONS. REQUIREMENTS SPECIFIED SHALL BE MET PRIOR TO COMMENCING EARTHWORK OPERATIONS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SEC MEASURES THROUGHOUT DURATION OF PROJECT UNTIL DISTURBED LAND IS THOROUGHLY VEGETATED.

5. FAILURE OF THE SEC SYSTEMS SHALL BE CORRECTED IMMEDIATELY AND SUPPLEMENTED WITH ADDITIONAL MEASURES AS NEEDED.

6. VEGETATIVE SEEDING: UON, AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF 3". TOPSOIL SHALL BE LOOSENED BY RAKING OR DISKING BEFORE SEEDING. APPLY 50 Lbs. OF DOLOMITIC LIMESTONE AND 25 Lbs. OF 10-10-10 FERTILIZER PER 1000 SF. HARROW LIME AND FERTILIZER INTO LOOSE SOIL. APPLY COMMON BERMUDA AND RYE GRASS AT 50 Lbs/ACRE. USE CYCLONE SEED DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SEED & FERTILIZER SLURRY) FOR STEEP SLOPES. IRRIGATE UNTIL VEGETATION IS COMPLETELY ESTABLISHED.

7. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.

9. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.

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

11. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.

12. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FORM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

13. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE STATE OF CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL , AS AMENDED.

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

15. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE EQUIPMENT LEASE AREA SHALL BE PERMANENTLY ESTABLISHED WITH A VEGETATIVE GROUND COVER.

16. STILLING BASIN SHALL BE UTILIZED FOR ANY DE-WATERING DISCHARGE WHICH MAY OCCUR DURING CONSTRUCTION OPERATIONS.

17. PROPOSED CONSTRUCTION IMPACTS AND PERMANENT IMPROVEMENTS SHALL NOT SIGNIFICANTLY IMPACT STORM WATER RUNOFF PATTERNS, VOLUME OR PEAK FLOW RATES. THE FLAT GRADE OF THE EQUIPMENT COMPOUND AND STONE SURFACE WILL PROMOTE STORM WATER INFILTRATION.

18. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY GRADING ACTIVITIES IN LOCATIONS SHOWN ON THESE DRAWINGS.

19. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

20. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

21. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

22. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATION.

23. NO GREATER THAN 80,000 SQUARE FEET OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 10 DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

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

STRUCTURAL NOTES & SPECIFICATIONS

STEEL

1. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

2. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION 'SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS'.

3. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A992 (FY-50 KSI), UNLESS OTHERWISE NOTED.

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

5. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE MINIMUM OF TWO BOLTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.

6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.

7. ALL STEEL MATERIAL EXPOSED TO WEATHER SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 'ZINC (HOT-DIPPED GALVANIZED) COATINGS' ON IRON AND STEEL PRODUCTS.

8. ALL BOLTS ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 'ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.'

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

10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES." ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC 'MANUAL OF STEEL CONSTRUCTION' 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE 9.

11. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.

12. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL TO EXPOSED CONCRETE IN ACCORDANCE WITH MANUFACTURERS APPLICATIONS DIRECTIONS.

SITE NOTES

1. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIAL ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.

2. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.

3. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REWORKING, REMAINS UNSUITABLE THEN THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACED WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUBGRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED AND REPLACED.

4. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTABLE BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.

5. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

6. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES (NOT SUPPLIED BY OWNER).

7. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTORS RESPONSIBILTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS (NOT SUPPLIED BY OWNER).

8. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE LATEST APPLICABLE CODES AND STANDARDS.

9. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.

10. CONTRACTOR RESPONSIBLE FOR CLOSING AND FILING ALL PERMITS ASSOCIATED WITH THE SITE.

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

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

13. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.

MCM SITE NAME:
NEW LONDON CT-502

APT FILING NUMBER:
CT-242-290

MESSAGE CENTER MANAGEMENT
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MCM

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NEW LONDON, CT 06320

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REV.3:
REV.4:
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NOTES & SPECIFICATIONS

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