



Brian V. Powers
Station Manager
Crystal River North Steam Plant & Fuel Operations

February 11, 2016

Ms. Cindy Mulkey
Florida Department of Environmental Protection
Program Administrator
Siting Coordination Office (SCO)
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

Dear Ms. Mulkey:

Re: Duke Energy Florida - No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility

Duke Energy Florida (DEF) is requesting an amendment to the existing site certification at the Crystal River Energy Complex (CREC) for the construction of a new telecommunications tower. The proposed new tower is located within the certified limits for CREC Units 4 and 5.

The project involves the construction of a 325-ft (345-ft Above Ground Level with appurtenances) lattice, self-support communications tower at the CREC. The existing site communications, Citrus County Sheriff Department (CCSD) and Verizon Wireless equipment are located on the old Units 4 and 5 stacks and Units 1 and 2 building. The existing Unit 4 and 5 stacks have been retired as part of the Clean Air projects and the Units 1 and 2 will be retired once the new Citrus Combined Cycle facility is in operation. These facilities will be demolished necessitating the need to construct a new communications tower at the site. DEF determined the best option was the construction of this new tower to consolidate the communications equipment and minimize the potential impacts to plant infrastructure.

The proposed tower will be constructed within a 100ft x 100ft fenced compound also containing the ground equipment. The ground equipment will include an elevated platform with a building for each carrier. In addition, each carrier will have a proposed propane tank and pad to provide backup power. Access to the compound area will be from a 15ft wide stabilized lime rock driveway. The approximate area of disturbance for the fenced compound and roadway is 0.34 acres. Fiber will be routed underground, through previously disturbed areas, from the proposed tower compound west from the site 845 and 1045 feet to reach existing fiber boxes. Overhead power will be provided to the tower compound from an existing utility pole located approximately 1,390-ft away. Approximately 320-linear feet of an existing water main will be relocated outside and east of the proposed tower compound, to a previously disturbed maintained grass lawn. Attachment 1 provides detailed drawings of the proposed project.



CREC Communications Tower
Page 2 of 2

The area is located within a previously disturbed maintained grass area. There are no wetlands or other surface waters within the area. No habitat exists within the limits of construction and no wildlife species are present. DEF will conduct an additional wildlife survey prior to the start of construction to ensure no species are present.

The Federal Aviation Administration (FAA) has determined that the proposed tower does not exceed obstruction standards and would not be a hazard to air navigation. In addition, the tower has been approved to be lighted with a dual-medium flashing system to reduce the risk of migratory bird collisions. The elimination of continuously burning security lights under the tower will also minimize bird attraction to the site.

Pursuant to Condition B.H.1 the site is located within Area 1B-iv drainage basin so no additional modeling for impervious surface is required. Sedimentation and erosion control will be implemented during construction. These plans are shown on drawing C-7 of Attachment 1.

Attachment 2 provides a detailed discussion of the project and illustrates how it meets the requirements within the Citrus County Land Development code for communications towers. Attachments 3 and 4 provide information on compliance with Federal Aeronautics Administration (FAA) requirements. Attachment 5 provides a photograph of a typical lattice tower and Attachment 6 provides an AM Interference Map.

If you have any questions or need more information, please contact Amy Dierolf at 727-820-5657 or amy.dierolf@duke-energy.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Powers", enclosed within a blue oval.

Brian V. Powers
Station Manager,
Crystal River Steam Plant & Fuel Operations

Attachments

**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 1 – Drawings

Cover Page - T-1
Project Notes – N-1
Foundation Notes – N-2
Sedimentation and Erosion Control Notes – N-3
Overall Site Plan – C-1
Site Access (Exhibit B) - C-1A
Site Plan – C-2
Compound Detail – C-3
Tower Elevation – C-4
Antenna & Coax Schedule – C-4A
Fence Details – C-5
Driveway Details – C-6
Sedimentation and Erosion Control Plan – C-7
Grading Plan – C-8
Utility Routing Plan – U-1

Tower Design Drawings (19 pages)
Signed and Sealed

GENERAL NOTES:

1. ALL REFERENCES TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED DUKE ENERGY OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF FLORIDA.
3. STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-G, 2005, AND CONFORMS TO THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, 2010 EDITION (2009 IBC).
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2010 EDITION (IBC 2009).
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. 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 PROCEDURES.
9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR. CONTRACTOR SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REWORKED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
17. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
18. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DESCREPACEIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 13TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

A. STRUCTURAL STEEL, ASTM DESIGNATION A36 OR A992.

B. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.

C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.

D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, LOAD AND, RESISTANCE FACTOR DESIGN, 13TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTE; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF ANY EXCESS.
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. ALL ASSEMBLY AND ANCHOR BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", DATED JUNE 30, 2004.
11. FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.
12. DO NOT OVER TORQUE ASSEMBLY BOLTS. GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.
13. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS ARE PROVIDED.
14. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
15. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-2010 STRUCTURAL WELDING CODE - STEEL.

PLANS PREPARED FOR:



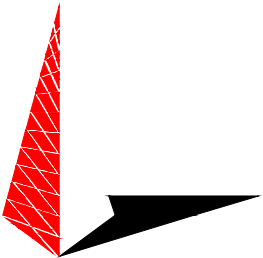
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

CRYSTAL RIVER
TELECOM TOWER

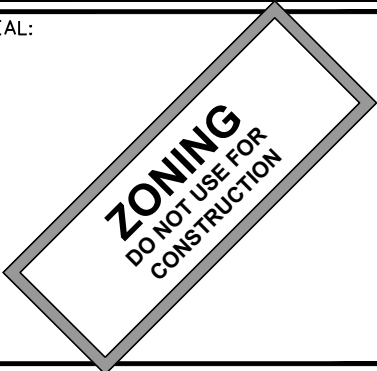
W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
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SHEET TITLE:

PROJECT NOTES

SHEET NUMBER:	REVISION:
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	TEP #: 59493-49848

FOUNDATION NOTES:

GENERAL NOTES:

1. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES AND IN A GOOD WORKMANLIKE MANNER.
2. CONTRACTOR SHALL VERIFY DIMENSIONS WITH ORIGINAL DRAWINGS.
3. FOR FOUNDATION AND ANCHOR TOLERANCES, SEE ORIGINAL DRAWINGS.
4. FOUNDATION DESIGN ASSUMES LEVEL GRADE AT THE SITE.
5. THE FOUNDATION DESIGN IS IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA PROVIDED.
6. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
7. THE FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS, AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS AT THE SITE.
8. THE FOUNDATION DESIGN ASSUMES NO CONSTRUCTION JOINTS. HOWEVER, CONSTRUCTION JOINTS SHALL BE PERMITTED UPON APPROVAL BY THE OWNER/ENGINEER.

EXCAVATION:

1. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION, AND UTILITIES SHALL BE ESTABLISHED PRIOR TO BEGINNING WORK.
2. INTIMATE CONTACT BETWEEN THE CONCRETE AND THE SOIL WALLS OF THE DRILLED SHAFT IS ESSENTIAL. THE CONCRETE SHALL BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.
3. THE SIDES OF THE EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
4. LOOSE MATERIAL TO BE REMOVED FROM THE BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT.
5. DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO THE CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL BE REMOVED AND REPLACED WITH FRESH CONCRETE.

REINFORCING STEEL:

1. THE REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60. IT SHALL BE DEFORMED AND SPLICES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED.
2. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
3. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CASING IS UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM FLOWING CONCRETE DURING CASING EXTRACTION.
4. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF TIEBACK REINFORCING TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
5. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3" UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3" MINIMUM COVER ON REINFORCEMENT.
6. THE CONCRETE COVER FROM THE TOP OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 2".
7. THE CONCRETE COVER FROM THE BOTTOM OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 3".

CONCRETE:

1. WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE REVISION OF THE ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. THE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28-DAYS.
3. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI-318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE.
4. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL, AND OTHER OCCURRENCES THAT MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.

CONCRETE (CONTINUED):

5. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING THE SIDES OF THE EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING, OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
6. THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT EXCEED A SIZE SUITABLE FOR THE INSTALLATION METHOD UTILIZED OR 1/3-CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. THE MAXIMUM SIZE MAY BE INCREASED TO 2/3-CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS AND VOIDS.
7. A TEMPORARY PROTECTIVE STEEL CASING WILL BE REQUIRED TO KEEP THE SHAFT OPEN DURING CONSTRUCTION AND INSPECTIONS PRIOR TO PLACING CONCRETE. THIS CASING SHOULD BE EXTRACTED AS THE CONCRETE IS PLACED.

FINISHING:

1. THE TOP OF THE FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH.
2. THE EXPOSED EDGES OF THE CONCRETE SHALL BE CHAMFERED 1" x 1".

PLANS PREPARED FOR:



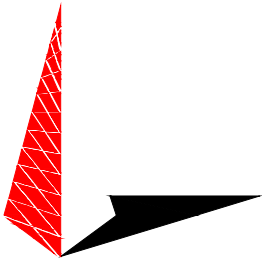
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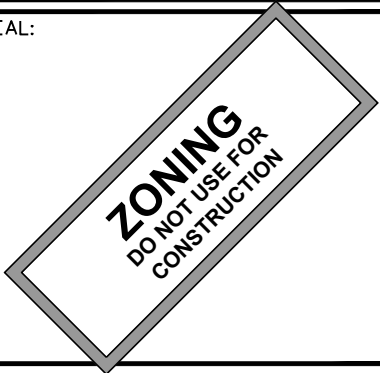
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FOUNDATION
NOTES

SHEET NUMBER:

N-2

REVISION:

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TEP #: 59493-49848

GENERAL SEDIMENT AND EROSION CONTROL NOTES:

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND TURBIDITY CONTROLS AND THE QUALITY AND QUANTITY OR WETLAND DISCHARGES. IF THE DESIGNED SWPPP IS NOT EFFECTIVE IN PREVENTING POLLUTION FROM STORMWATER RUNOFF DURING CONSTRUCTION, THE CONTRACTOR SHALL MODIFY THE SWPPP TO ENSURE EFFECTIVE POLLUTION CONTROL.
2.

THE APPROPRIATE TURBIDITY AND EROSION CONTROL METHODOLOGIES FOR THIS PROJECT SHOULD BE MADE BY THE CONTRACTOR FOLLOWING ASSESSMENT OF THE PLANS AND PROJECT SITE SPECIFIC FACTORS AND AFTER CONSULTATION AS NEEDED WITH DUKE ENERGY AND APPROPRIATE AGENCIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY AND ALL NECESSARY PERMITS FOR ACTIVITY NOT SHOWN ON THE CONSTRUCTION PLANS; SEVERAL FACTORS TO CONDISER ARE LISTED BELOW:

A.

CLAY CONTENT IN EXCAVATED MATERIALS AND/OR PERMEABILITY RATES.

B.

DEPTH OF CUT IN PONDS, TRENCHES, OR UTILITY LINES.

C.

AMBIENT GROUND WATER LEVELS.

D.

ACTUAL RAINFALL AMOUNTS AND TIME OF THE YEAR RELATIVE TO NORMAL RAINY SEASONS.

E.

PROXIMITY TO WETLANDS, WATER BODIES, OR OFFSITE PROPERTIES.

F.

"CLASS" DESIGNATION OF RECEIVING WATER BODIES (I.E., OUTSTANDING FLORIDA WATERS, SHELLFISH HARVEST AREAS, ETC.).

G.

DENSITY, TYPE, AND PROXIMITY OF UPLAND VEGETATION TO BE RETAINED DURING CONSTRUCTION (FOR USE AS POSSIBLE FILTRATION AREAS).

H.

FILL HEIGHT RELATIVE TO NATURAL GRADE AND LENGTH AND STEEPNESS OF THE PROPOSED SLOPES.

I.

EXISTING TOPOGRAPHY AND DIRECTIONS OF SURFACE FLOW.

J.

TYPE OF EQUIPMENT USED.

K.

PROJECT TYPE.

L.

DURATION OF CONSTRUCTION ACTIVITIES.

M.

SEPARATION DISTANCE OF ONSITE PONDS.

N.

AMBIENT QUALITY OF SURFACE AND GROUNDWATER.

O.

TEMPORARY STOCKPILE LOCATIONS AND HEIGHTS.
3.

AT THE ONSET OF CONSTRUCTION, THE CONTRACTOR, AS THE PARTY RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN, SHALL ASSESS THE ABOVE DESCRIBED CONDITIONS AND FACTORS AND SELECT REASONABLE AND APPROPRIATE METHODS OF PROTECTION. A FAIRLY EXTENSIVE LIST OF TECHNIQUES ARE PRESENTED BELOW BUT IT MUST BE STRESSES THAT ANY OR ALL OF THE FOLLOWING MAY BE NECESSARY TO MAINTAIN WATER QUALITY AND QUANTITY STANDARDS. THE CONSTRUCTION SEQUENCING SHOULD BE THOUGHT OUT IN ADVANCE OF INITIATION TO PROVIDE ADEQUATE PROTECTION OF WATER QUALITY.
4.

DISCHARGES WHICH EXCEED 29 NEPHELOMETRIC TURBIDITY UNITS (NTU) OVER THE BACKGROUND LEVELS ARE IN VIOLATION OF STATE WATER QUALITY STANDARDS. DISCHARGES OF WATER QUANTITIES WHICH AFFECT OFFSITE PROPERTIES OR MAY DAMAGE WETLANDS ARE ALSO PROHIBITED BY REGULATING AGENCIES.
5.

THE EROSION AND TURBIDITY CONTROL MEASURES SHOWN HEREIN ARE THE MINIMUM REQUIRED FOR AGENCY APPROVAL. ADDITIONAL CONTROL AND MEASURES MAY BE REQUIRED DUE TO THE CONTRACTORS CONSTRUCTION SEQUENCE, MEANS AND METHODS, AND WEATHER CONDITIONS.
6.

HAY BALES OR SILT SCREENS SHALL BE INSTALLED PRIOR TO LAND CLEARING TO PROTECT WATER QUALITY AND TO IDENTIFY AREAS TO BE PROTECTED FROM CLEARING ACTIVITIES AND MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL SOIL IS STABILIZED.
7.

FLOATING TURBIDITY BARRIERS SHALL BE IN PLACE IN FLOWING SYSTEMS OR IN OPEN WATER LAKE EDGES PRIOR TO INITIATION OF EARTHWORK AND MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL SOIL IS STABILIZED.
8.

NO CLAY MATERIAL SHALL BE LEFT EXPOSED IN ANY STORMWATER FACILITY. IF CLAY OR SANDY CLAYS ARE ENCOUNTERED DURING STORMWATER STORAGE EXCAVATION, THE CONTRACTOR SHALL NOTIFY DUKE ENERGY IMMEDIATELY BEFORE PROCEEDING WITH FURTHER EXCAVATION.IF DUKE ENERGY HAS DETERMINED THAT SUCH SOILS ARE NON- CONFINING AND MUST BE EXCAVATED TO MEET PERMIT AND DESIGN CONDITIONS, EXCAVATION MAY PROCEED AFTER APPROPRIATE OBTAINING WRITTEN AUTHORIZATIONS. IF SAID SOILS ARE LEFT EXPOSED AT THE PERMITTED AND DESIGNED DEPTH, THE CONTRACTOR SHALL OVER-EXCAVATE THE POND'S BOTTOM AND SIDE SLOPES BY A MINIMUM OF TWELVE (12") INCHES AND BACKFILL WITH CLEAN SAND TO HELP PREVENT SUSPENSION OF FINE PARTICLES IN WATER COLUMN.
9.

THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS USED SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
10.

THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL MAY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHOULD GENERALLY BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES, AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
11.

THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NO LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATION, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND PERFORMED SUCH THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER. GRADING OPERATIONS SHALL BE SO SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
12.

WHEN STORMWATER DISCHARGE IS NOT ALLOWABLE, THE WATER SHALL BE RETAINED IN PREVIOUSLY CONSTRUCTED PERMANENT STORMWATER PONDS OR ELSE RETAINED IN TEMPORARY SEDIMENTATION BASINS UNTIL CLARITY IS SUITABLE TO ALLOW FOR ITS DISCHARGE. PLUGGING THE OUTFALLS FROM COMPLETED STORMWATER PONDS MAY BE NEEDED TO AVOID DISCHARGE. HOWEVER, SUCH SITUATIONS SHOULD BE MONITORED CLOSELY TO PRELUDE BERM FAILURE IF WATER LEVELS RISE TO HIGH.

13.

WATER CAN BE TRANSPORTED AROUND THE SITE BY THE USE OF INTERNAL SWALES OR BY PUMPS AND PIPES.
14.

SHEET FLOW OF NEWLY FILLED OR SCRAPED AREAS MAY BE CONTROLLED OR CONTAINED BY THE USE OF BRUSH BARRIERS, DIVERSION SWALES, INTERCEPTOR DITCHES OR LOW BERMS. FLOW SHOULD BE DIRECTED TOWARD AREAS WHERE SEDIMENTS CAN SUFFICIENTLY SETTLE OUT.
15.

EXPOSED SOILS SHALL BE STABILIZED AS SOON AS POSSIBLE, ESPECIALLY SLOPES LEADING TO PONDS AND WETLANDS. STABILIZATION METHODS INCLUDE SOLID SOD, SEEDING AND MULCHING OR HYDROMULCHING. TO PROVIDE A TEMPORARY OR PERMANENT GRASS COVER MULCH BLANKETS, FILTER FABRICS, ETC. CAN BE EMPLOYED TO PROVIDE VEGETATIVE COVER.
16.

ENERGY DISSIPATERS (SUCH AS RIP RAP, A GRAVEL BED, HAY BALES, ETC.) SHALL BE INSTALLED AT THE DISCHARGE POINT OF PIPES OR WATTLES IF SCOURING IS OBSERVED.
17.

ATTEMPT TO INSTALL ROADWAY CURB AND GUTTERS AS SOON AS POSSIBLE TO REDUCE THE SURFACE AREA FOR EROSION TO OCCUR.
18.

IMPLEMENT STORM DRAIN INLET PROTECTION TO LIMIT SEDIMENTATION WITH IN THE STORMWATER SYSTEM. PERFORM INSPECTIONS AND PERIODIC CLEANING OF SEDIMENTS WHICH WASH OUT INTO THE STORMWATER SYSTEM UNTIL ALL SOIL IS STABILIZED.
19.

WATER DISCHARGE VELOCITIES FROM IMPOUNDED AREAS AND TEMPORARY SEDIMENTATION BASINS SHALL BE RESTRICTED TO AVOID SCOURING IN RECEIVING AREAS.
20.

IF WATER CLARITY DOES NOT REDUCE TO STATE STANDARDS RAPIDLY ENOUGH IN HOLDING PONDS, IT MAY BE POSSIBLE TO USE CHEMICAL AGENTS SUCH AS ALUM TO FLOCCULATE OR COAGULATE THE SEDIMENT PARTICLES.
21.

HAY BALES, SILT SCREENS, OR GRAVEL BEDS CAN BE ADDED AROUND THE PIPE OR SWALE DISCHARGE POINTS TO HELP CLARITY DISCHARGES. SPREADER SWALES MAY HELP DISSIPATE CLOUDY WATER PRIOR TO CONTACT WITH WETLANDS.
22.

ALL FUEL STORAGE AREAS OR OTHER HAZARDOUS STORAGE AREAS SHALL CONFORM TO ACCEPTED STATE OR FEDERAL CRITERIA FOR SUCH CONTAINMENT AREAS.
23.

VEHICLE OR EQUIPMENT WASHDOWN AREAS WILL BE SUFFICIENTLY REMOVED FROM WETLANDS OR OFFSITE AREAS.
24.

FUGITIVE DUST CONTROLS (PRIMARILY BY USING WATER SPRAY TRUCKS) SHALL BE EMPLOYED AS NEEDED TO CONTROL WINDBORN EMISSIONS.
25.

IF THE ABOVE CONTROLS REMAIN INEFFECTIVE IN PRECLUDING RELEASE OF TURBID WATER, THEN USE WELL POINTS OR SOCK DRAINS TO WITHDRAW GROUNDWATER WHICH MAY ALREADY BE CLEAR ENOUGH TO ALLOW FOR DIRECT DISCHARGE INTO WETLANDS.
26.

ONGOING INSPECTIONS AND PERIODIC MAINTENANCE SHALL OCCUR THROUGHOUT CONSTRUCTION AS NECESSARY TO ENSURE THE ABOVE METHODS ARE WORKING SUITABLY. THIS MAY BE NEEDED DAILY, IF CONDITIONS SO WARRANT. CONTRACTORS ARE ENCOURAGED TO OBTAIN AND THOROUGHLY REVIEW THE FLORIDA DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT, WHICH WAS DEVELOPED BY THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IN 1988. THIS PROVIDES FAIRLY IN-DEPTH DISCUSSIONS OF RECOMMENDED TECHNIQUES AND ALSO PROVIDES SPECIFIC DESIGN AND TECHNICAL STANDARDS.
27.

SPOIL DISPOSAL LOCATIONS ARE TO BE LOCATED OUTSIDE OF ALL WETLAND LINES AND BUFFER LINES SHOWN ON THE PLAN. SPOIL DISPOSAL LOCATIONS MUST BE SELF-CONTAINED, IN THAT EROSION CONTROL MEASURES SUCH AS SILT FENCE AND/OR HAY BALES MUST BE INSTALLED AND MAINTAINED AROUND EACH DISPOSAL AREA TO PREVENT SEDIMENT RUNOFF BEYOND THE LIMITS OF CONSTRUCTION.
28.

FILL STOCKPILES ARE TO BE LOCATED OUTSIDE OF ALL WETLAND LINES AND BUFFER LINES SHOWN ON THE PLAN. FILL STOCKPILES MUST BE SELF-CONTAINED IN THAT EROSION CONTROL MEASURES SUCH AS SILT FENCE AND/OR HAY BALES MUST BE INSTALLED AND MAINTAINED AROUND EACH STOCKPILE TO PREVENT SEDIMENT RUNOFF BEYOND THE LIMITS OF CONSTRUCTION.

PLANS PREPARED FOR:



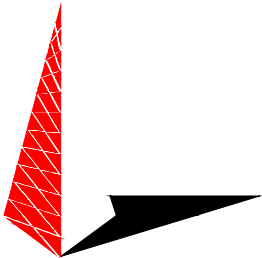
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

CRYSTAL RIVER
TELECOM TOWER

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

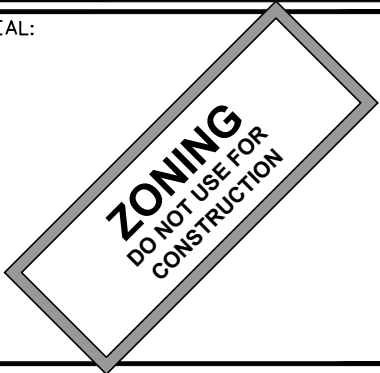
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



O	08-14-15	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: JHJ CHECKED BY: EBM

SHEET TITLE:

SEDIMENT AND
EROSION CONTROL
NOTES

SHEET NUMBER:

N-3

REVISION:

0

TEP #: 59493-49848

NOTES:

1. SITE PLAN SHOWN BELOW WAS REPRODUCED FROM INFORMATION PROVIDED BY CITRUS COUNTY GIS MAPS. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. EXISTING INFORMATION INDICATED ON THE SITE PLAN SHOWN WAS REPRODUCED FROM MAPS TAKEN FROM CITRUS COUNTY GIS MAPS. TEP DOES NOT GUARANTEE, OR ENSURE THE PRECISION, ACCURACY OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR.

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN: 1617330000110000000
ACRES: 2,293.05
LAND USE: TCU

N/F
UNITED STATES GYPSUM
COMPANY PROPERTY
PIN: 1617280000120000000
ACRES: 177.08
LAND USE: EXT

PROPOSED 325' SELF
SUPPORT TOWER. SEE
SHEET C-4 FOR TOWER
ELEVATION.

PROPOSED 100'x100'
FENCED COMPOUND. SEE
SHEET C-3 FOR DETAIL.

PROPOSED 20' ACCESS
EASEMENT. SEE SHEET C-1A
FOR DETAILS.

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN: 1617330000100000000
ACRES: 710.74
LAND USE: TCU

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN:1617270000200000000
ACRES: 398.58
LAND USE: TCU

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN:1617340000444000000
ACRES: 1.01
LAND USE: TCU

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN: 1617330000110000000
ACRES: 2,293.05
LAND USE: TCU

N/F
DUKE ENERGY FLORIDA
INC. TAX DEPARTMENT
PIN:1617340000110000000
ACRES: 772.19
LAND USE: TCU

EXISTING NORTH PLANT
ACCESS SECURITY GATE

EXISTING LIMESTONE
BUILDING.

PLANS PREPARED FOR:



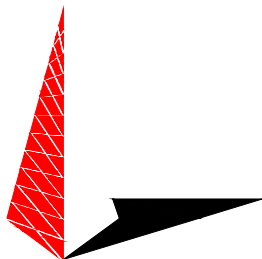
299 FIRST AVENUE NORTH
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Office: (727) 820-5396

PROJECT INFORMATION:

CRYSTAL RIVER
TELECOM TOWER

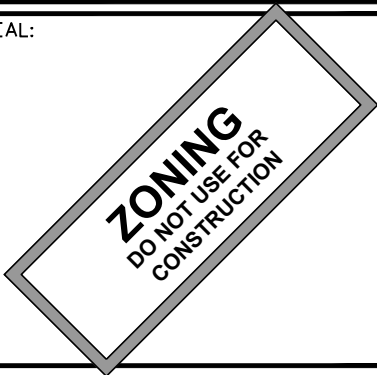
W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
1	11-09-15	ZONING
0	08-14-15	ZONING

DRAWN BY: JHJ CHECKED BY: EBM

SHEET TITLE:

OVERALL
SITE PLAN

SHEET NUMBER:

C-1

REVISION:

1

TEP #: 59493-49848

LEGEND

- EXIST. PROPERTY LINE
- EXIST. UTILITY POLE
- EXIST. LIGHT POLE
- EXIST. HYDRANT
- EXIST. TELCO PEDESTAL
- PROPERTY CORNER
- 200--- EXIST. CONTOUR LINE
- EDGE OF PAVEMENT
- OHW--- OVERHEAD WIRE
- R/W--- RIGHT-OF-WAY
- X — CHAIN LINK FENCE
- EXISTING TREE LINE

OVERALL SITE PLAN

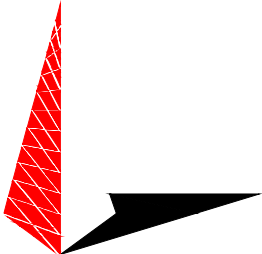
SCALE: 1" = 750'

0 750 1500
SCALE IN FEET



PLANS PREPARED FOR:
DUKE ENERGY.
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:
**CRYSTAL RIVER
TELECOM TOWER**
W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
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O	08-14-15	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: TLL CHECKED BY: EBM

SHEET TITLE:
**SITE ACCESS
(EXHIBIT B)**

SHEET NUMBER: **C-1A** REVISION: **1**
TEP #: 59493-49848

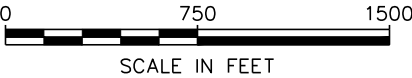
LESSEE ACCESS: LESSEE MUST COMPLY WITH THE FOLLOWING REQUIREMENTS IN ORDER TO ACCESS THE LEASED PREMISES. THE ENTRY ROAD TO BE UTILIZED BY LESSEE IN ORDER TO ACCESS THE LEASED PREMISES IS DEPICTED ON THE ATTACHED EXHIBIT "B" INCORPORATED BY REFERENCE HEREIN. THE SPECIFIC REQUIREMENTS FOR LESSEE' ACCESS DEPENDS ENTIRELY ON THE TYPE OF SITUATION AND WORK BEING PERFORMED BY LESSEE.

- A. FOR ROUTINE/REPETITIVE ACCESS (EQUIPMENT CHECKS, ROUTINE PREVENTIVE MAINTENANCE BY SUBCONTRACTORS (I.E. VERIZON) OR SHERIFF'S OFFICE PERSONNEL), ALL REPRESENTATIVES, AGENTS, EMPLOYEES, CONTRACTORS OR SUBCONTRACTORS OF LESSEE MUST:
1. BE MICCS REGISTERED WITH THEIR MICCS CARD CARRIED WITH ANY INDIVIDUAL WHEN ON SITE;
 2. HAVE ANNUAL SITE HAZCOM TRAINING;
 3. ALL INDIVIDUALS WILL BE PLACED ON THE SITE ACCESS LIST FOR ONE YEAR ONCE THE HAZCOM TRAINING HAS BEEN COMPLETED;
 4. CONTACT THE SITE SHIFT SUPERVISOR (352-464-7865) UPON SITE ARRIVAL FOR ACCOUNTABILITY PURPOSES;
 5. CONTACT THE SITE SHIFT SUPERVISOR UPON LEAVING SITE; AND
 6. ACCESS WILL NORMALLY BE THROUGH THE NORTH PLANT ACCESS ROAD GATE (THIS GATE IS NOW MANNED AT ALL TIMES).
- B. FOR NON-ROUTINE WORK THAT CAN BE SCHEDULED (SUBCONTRACTOR BEING CALLED IN TO REPAIR/REPLACE A PIECE OF EQUIPMENT), ALL REPRESENTATIVES, AGENTS, EMPLOYEES, CONTRACTORS OR SUBCONTRACTORS OF LESSEE MUST:

1. CONTACT THE SITE SHIFT SUPERVISOR (352-464-7865). A DESIGNATED REPRESENTATIVE WILL THEN BE ASSIGNED TO COORDINATE THE PROJECT;
 2. BE MICCS REGISTERED WITH THEIR MICCS CARD CARRIED WITH ANY INDIVIDUAL WHEN ON SITE;
 3. HAVE SITE HAZCOM TRAINING UPON ARRIVAL AT SITE; AND
 4. INITIAL SITE ACCESS WILL BE THROUGH THE MAIN ACCESS CONTROL POINT FOR SITE HAZCOM TRAINING IF NEEDED.
- C. FOR EMERGENT WORK THAT CAN'T BE SCHEDULED (SUBCONTRACTOR HAS TO BE CALLED IN DURING THE NIGHT FOR EMERGENCY REPAIR), ALL REPRESENTATIVES, AGENTS, EMPLOYEES, CONTRACTORS OR SUBCONTRACTORS OF LESSEE MUST:
1. CONTACT THE SITE SHIFT SUPERVISOR (352-464-7865) AND ADVISE WHEN THE SUBCONTRACTOR WILL ARRIVE, AND PROVIDE THE NAME OF THE COMPANY AND NAMES OF ALL OF THE INDIVIDUALS THAT WILL NEED TO COME ON SITE;
 2. THE SITE SHIFT SUPERVISOR MUST ADD THE NAMES TO THE SITE ACCESS LIST AND ADVISE SITE SECURITY PERSONNEL;
 3. ACCESS WILL BE THROUGH THE NORTH PLANT ACCESS ROAD GATE;
 4. CONTACT THE SITE SHIFT SUPERVISOR IMMEDIATELY UPON ARRIVAL AT THE SITE; AND
 5. THE SITE SHIFT SUPERVISOR WILL PROVIDE SITE HAZCOM TRAINING OR PROVIDE AN ESCORT WHO WILL REMAIN WITH THE SUBCONTRACTOR CREW WHILE THEY ARE ON SITE.

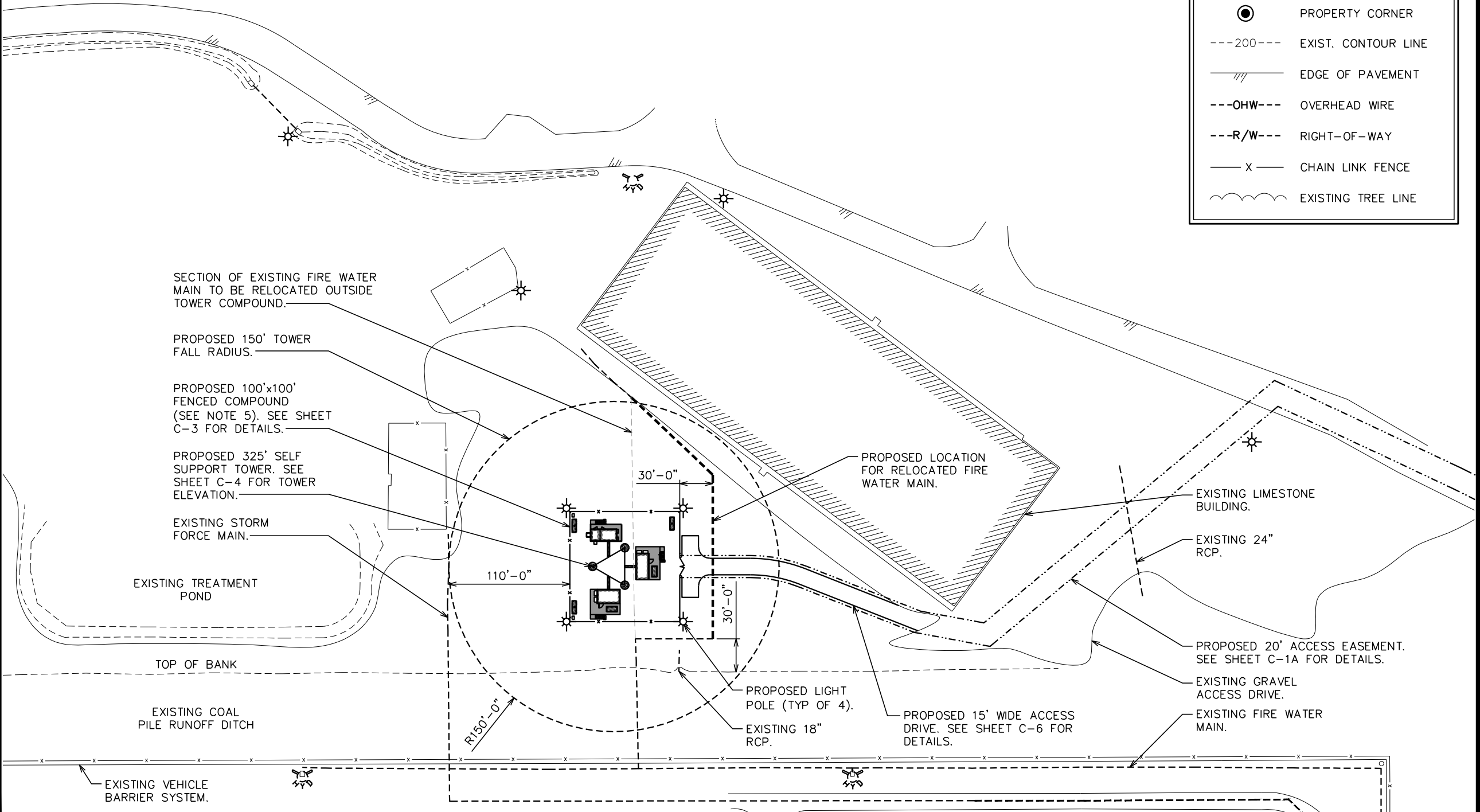
SITE ACCESS (EXHIBIT B)

SCALE: 1" = 750'



NOTES:

1. TOWER ENGINEERING PROFESSIONALS DID NOT PERFORM A SITE SURVEY. EXISTING PROPERTY FEATURES WERE TAKEN FROM A SURVEY PROVIDED BY GULFWEST SURVEYING, INC, DATED 03/24/2015.
2. VERTICAL INFORMATION SHOWN, BASED IN THE NORTH AMERICAN VERTICAL DATUM OF NAVD 1988 IN FEET.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THIS SITE IS LOCATED IN FLOOD ZONE 'VE' AREAS DETERMINED TO HAVE A BASE FLOOD ELEVATION OF 14 FEET, FEMA/FIRM COMMUNITY PANEL NUMBER 120230 0425E, DATED SEPTEMBER 30, 1992.
5. TOP OF EQUIPMENT PLATFORM STEEL IS TO BE 2 FEET MINIMUM ABOVE BASE FLOOD ELEVATION. REFER TO PLATFORM DESIGN DRAWINGS BY TOWER ENGINEERING PROFESSIONALS FOR PLATFORM DESIGN DETAILS.



LEGEND	
	EXIST. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. LIGHT POLE
	EXIST. HYDRANT
	EXIST. TELCO PEDESTAL
	PROPERTY CORNER
	EXIST. CONTOUR LINE
	EDGE OF PAVEMENT
	OVERHEAD WIRE
	RIGHT-OF-WAY
	CHAIN LINK FENCE
	EXISTING TREE LINE

PLANS PREPARED FOR:

DUKE ENERGY.

299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

**CRYSTAL RIVER
TELECOM TOWER**

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

I	11-09-15	ZONING
O	08-14-15	ZONING
REV	DATE	ISSUED FOR:

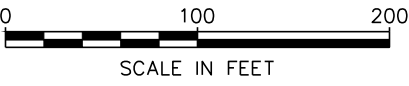
DRAWN BY: JHJ	CHECKED BY: EBM
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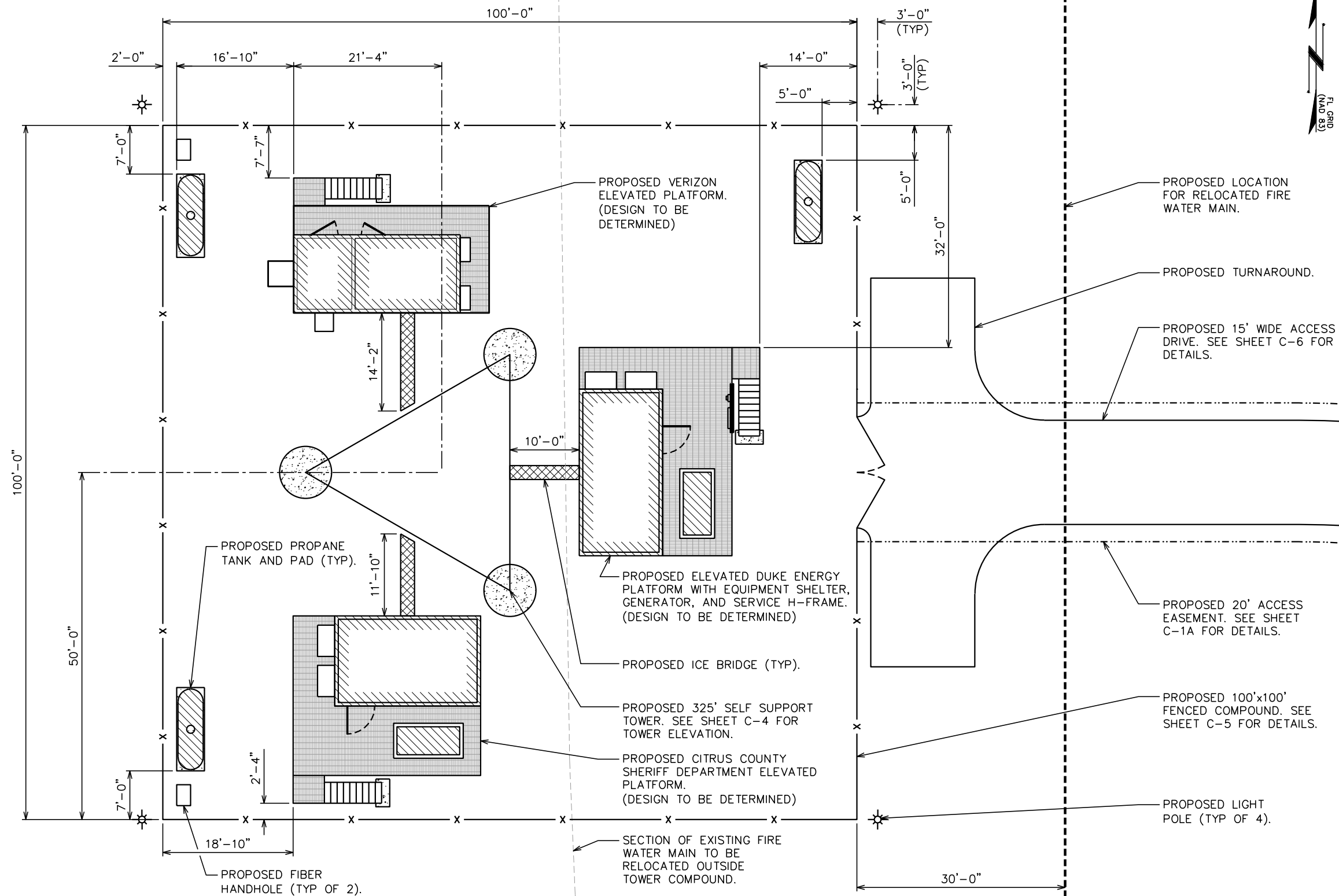
SHEET TITLE:

SITE PLAN

SHEET NUMBER: C-2	REVISION: 1 TEP #: 59493-49848
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SITE PLAN
SCALE: 1" = 100'





NOTES:

- THIS SITE IS LOCATED IN FLOOD ZONE 'VE' AREAS DETERMINED TO HAVE A BASE FLOOD ELEVATION OF 14 FEET, FEMA/FIRM COMMUNITY PANEL NUMBER 120230 0425E, DATED SEPTEMBER 30, 1992.
- TOP OF EQUIPMENT PLATFORM STEEL IS TO BE 2 FEET MINIMUM ABOVE BASE FLOOD ELEVATION. REFER TO PLATFORM DESIGN DRAWINGS BY TOWER ENGINEERING PROFESSIONALS FOR PLATFORM DESIGN DETAILS.

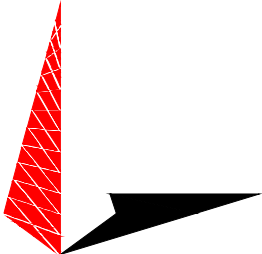
COMPOUND DETAIL

SCALE: $\frac{1}{16}$ " = 1'-0"



PLANS PREPARED FOR:
DUKE ENERGY.
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:
**CRYSTAL RIVER
TELECOM TOWER**
W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
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PLANS PREPARED BY:

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326 TRYON ROAD
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1	11-09-15	ZONING
0	08-14-15	ZONING

DRAWN BY: JHJ CHECKED BY: EBM

SHEET TITLE:
**COMPOUND
DETAIL**

SHEET NUMBER:
C-3

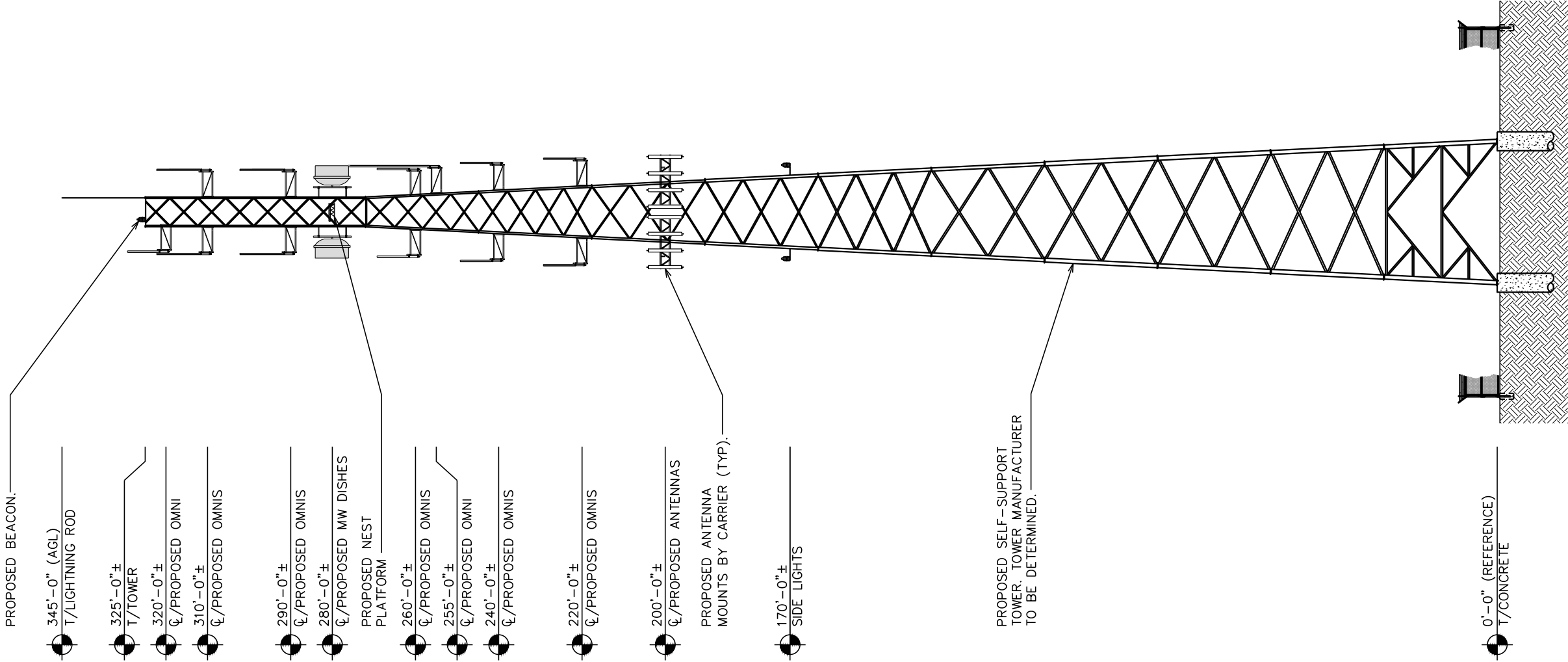
REVISION:
1
TEP #: 59493-49848

NOTES:

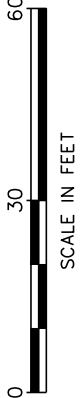
- 1. TOWER TO REMAIN A GALVANIZED COLOR.
- 2. TOWER SHALL BE LIT IN ACCORDANCE WITH THE FEDERAL AVIATION ADMINISTRATION. A SHIELDED WHITE STROBE LIGHT THAT OPERATES ON A 24 HOUR, SEVEN DAYS A WEEK CONTINUOUS SCHEDULE IS REQUIRED.
- 3. PROPOSED COAX MOUNTED TO WAVEGUIDE LADDER (PROVIDED BY TOWER MANUFACTURER). CONTRACTOR TO COORDINATE WAVEGUIDE LOCATION WITH SHELTER LOCATION SHOWN ON SHEET C-3.

TOWER LOADING NOTE:

- 1. ANTENNAS TO BE INSTALLED ARE SHOWN ON THE ELEVATION. REFER TO SHEETS C-4A FOR LOADING SCHEDULE.



TOWER ELEVATION
SCALE: 1' = 30"



PLANS PREPARED FOR:

DUKE ENERGY.

299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

**CRYSTAL RIVER
TELECOM TOWER**

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:

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0	08-14-15	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY:	TLL	CHECKED BY:	EBM
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SHEET TITLE:

**TOWER
ELEVATION**

SHEET NUMBER:	REVISION:
C-4	1
	TEP #: 59493-49848

CRYSTAL RIVER TOWER LOADING INFORMATION

Initial or Future Installatio	Owner	System Item Descriptio	Size (f	Type	Manufactur	Part #	Elevation (f	Antenna Mount Locato	Azimuth (North	Type Mou	Coax Locatio	Coax Siz	Dielectr	Manufactur	Part i
Initial	Duke Energy	Air Terminal / Lighning Rod 900 MHz	20		Valmont		325	Center of Tower Top	N/A	Pipe Mount	None	None	None		
Future	Duke Energy	Trunking (Rx)	2	TTA	TX-RX	TBD	320	B	N/A	Leg Mount	A-B	(2) 7/8"	Foam	Eupen	EC5-50A
Future	Duke Energy	900 MHz Trunking (Rx)	10	Omni	Amphenol	BCD87010E DIN	320	B	N/A	6' Side Arm	A-B	1/2" - 10' jumper to TTA	Foam	Eupen	EC7-50A
Initial	CCSD	800 MHz Trunking (Rx)	13	Omni	RFS	BMR10-A-B1	310	A	N/A	6' Side Arm	B-C	1-5/8"	Foam	Eupen	EC7-50A
Initial	CCSD	800 MHz Trunking (Rx)	13	Omni	RFS	BMR10-A-B1	310	C	N/A	6' Side Arm	B-C	1-5/8"	Foam	Eupen	EC7-50A
Initial	CCSD	800 MHz Trunking (Tx)	13	Omni	RFS	BMR10-A-B1	290	A	N/A	6' Side Arm	B-C	1-5/8"	Foam	Eupen	EC7-50A
Initial	CCSD	800 MHz Trunking (Tx)	13	Omni	RFS	BMR10-A-B1	290	B	N/A	6' Side Arm	B-C	1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Microwave to Levy	8	Parabolic with Radome	RFS	PAD8-59AC1S1R	280	A	33	Leg Mount	A-C	EU63 Waveguide		Eupen	EU63
Future	Duke Energy	Microwave to Venable Street Substation Maintenance	8	Parabolic with Radome	RFS	PAD8-59AC1S1R	280	B	132	Leg Mount	A-C	EU63 Waveguide		Eupen	EU63
Initial	Duke Energy	Nest Platform	6	Nest Platform	Alumaform	EXN-C	280	C	N/A	Pipe Mount	None	N/A	N/A	N/A	N/A
Future	Duke Energy	900 MHz Trunking (Tx)	10	Omni	Amphenol	BCD87010E DIN	260	A	N/A	6' Side Arm	A-B	1-5/8"	Foam	Eupen	EC7-50A
Future	Duke Energy	900 MHz Trunking (Tx)	10	Omni	Amphenol	BCD87010E DIN	260	B	N/A	6' Side Arm	A-B	1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	LMS	22	Omni	dB Spectra	DB264	255	A		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Rx)	10	Omni	Commscope	DB636	240	A		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Rx)	10	Omni	Commscope	DB636	240	B		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Rx)	10	Omni	Commscope	DB636	240	C		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Tx)	10	Omni	Commscope	DB636	220	A		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Tx)	10	Omni	Commscope	DB636	220	B		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	Duke Energy	Plant Radio - UHF (Tx)	10	Omni	Commscope	DB636	220	C		6' Standoff		1-5/8"	Foam	Eupen	EC7-50A
Initial	VZW	Cell LTE	8	4 panel sector	CSS	X7CQAP-86-865-VR0	200	A	20	TBD		1-5/8"	Foam	Eupen	EC7-50A
Initial	VZW	Cell LTE	8	4 panel sector	CSS	X7CQAP-86-865-VR0	200	B	140	TBD		1-5/8"	Foam	Eupen	EC7-50A
Initial	VZW	Cell LTE	8	4 panel sector	CSS	X7CQAP-86-865-VR0	200	C	260	TBD		1-5/8"	Foam	Eupen	EC7-50A
Initital	VzW	RRUS32	2	Equipment	Ericsson	RRUS32	200	A-C				1-5/8"	Hybrid		
Initial	Duke Energy	Waveguide Ladder		Center Waveguide Ladder on face			0 - 315	A-B							
Initial	CCSD	Waveguide Ladder		Center Waveguide Ladder on face			0 - 295	A-C							

NOTES:

Valmont self supporting tower = 325 to top
Add 20ft lightning mast for a total height of 345ft AGL.
FAA will determine type of lighting required (white only or dual red/white)

ANTENNA & COAX SCHEDULE

SCALE: N.T.S.

PLANS PREPARED FOR:



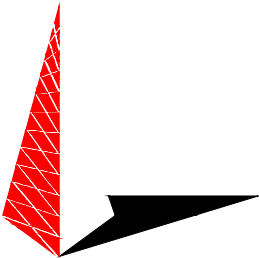
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

CRYSTAL RIVER
TELECOM TOWER

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

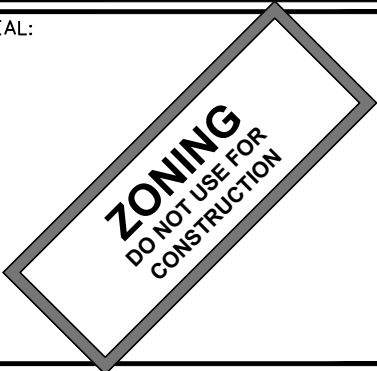
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



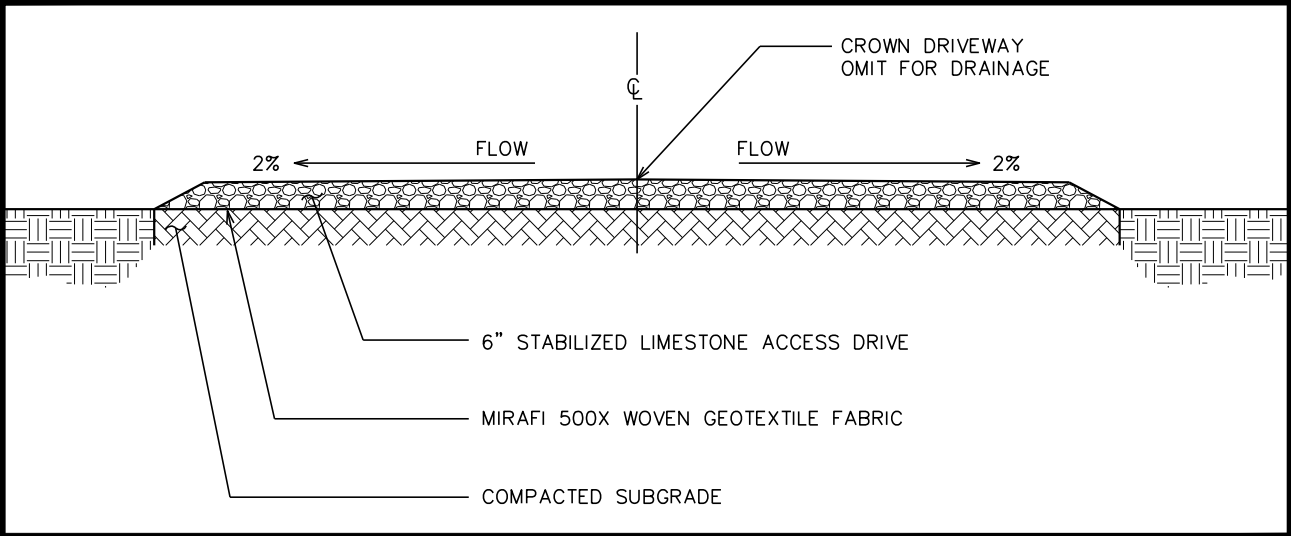
I	11-09-15	ZONING
O	08-14-15	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: TLL CHECKED BY: EBM

SHEET TITLE:

ANTENNA & COAX
SCHEDULE

SHEET NUMBER:	REVISION:
C-4A	1
	TEP #: 59493-49848



ACCESS ROAD SECTION

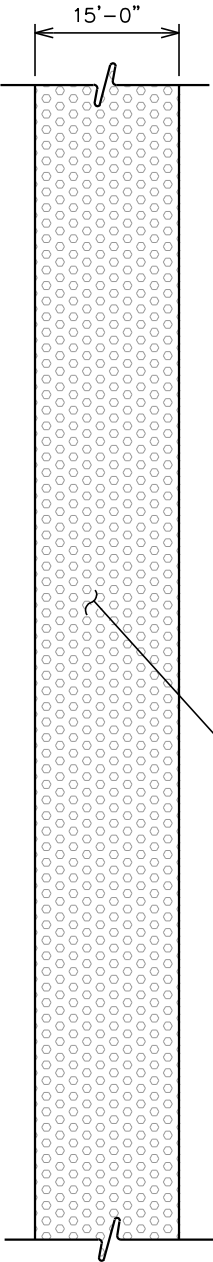
SCALE: 3/8" = 1'-0"

NOTES:

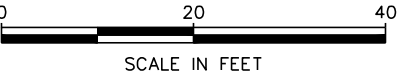
- 1. TURNING RADIUS THAT IS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
- 2. THE ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
- 3. ENTRANCE(S) MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
- 4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.

ACCESS DRIVE DETAILS

SCALE: 1" = 20'



PROPOSED 15' WIDE STABILIZED LIMEROCK ACCESS DRIVE (EXTEND FROM ATTACHMENT POINT AT EXISTING ROAD TO THE TOWER COMPOUND ENTRANCE)



PLANS PREPARED FOR:

DUKE ENERGY.

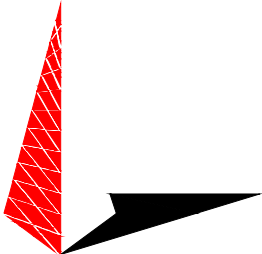
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

**CRYSTAL RIVER
TELECOM TOWER**

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
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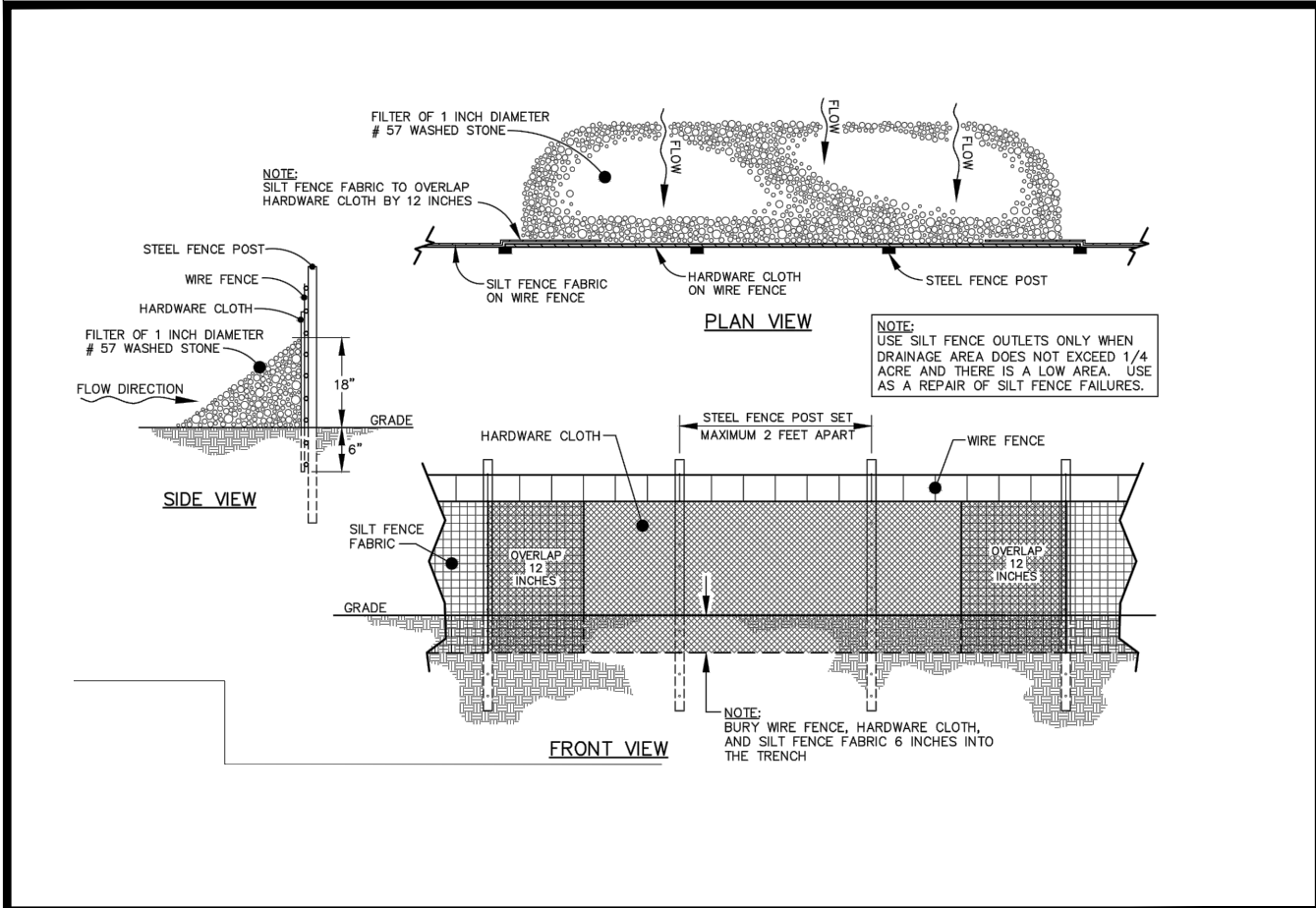
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0	08-14-15	ZONING

DRAWN BY: TLL CHECKED BY: EBM

SHEET TITLE:

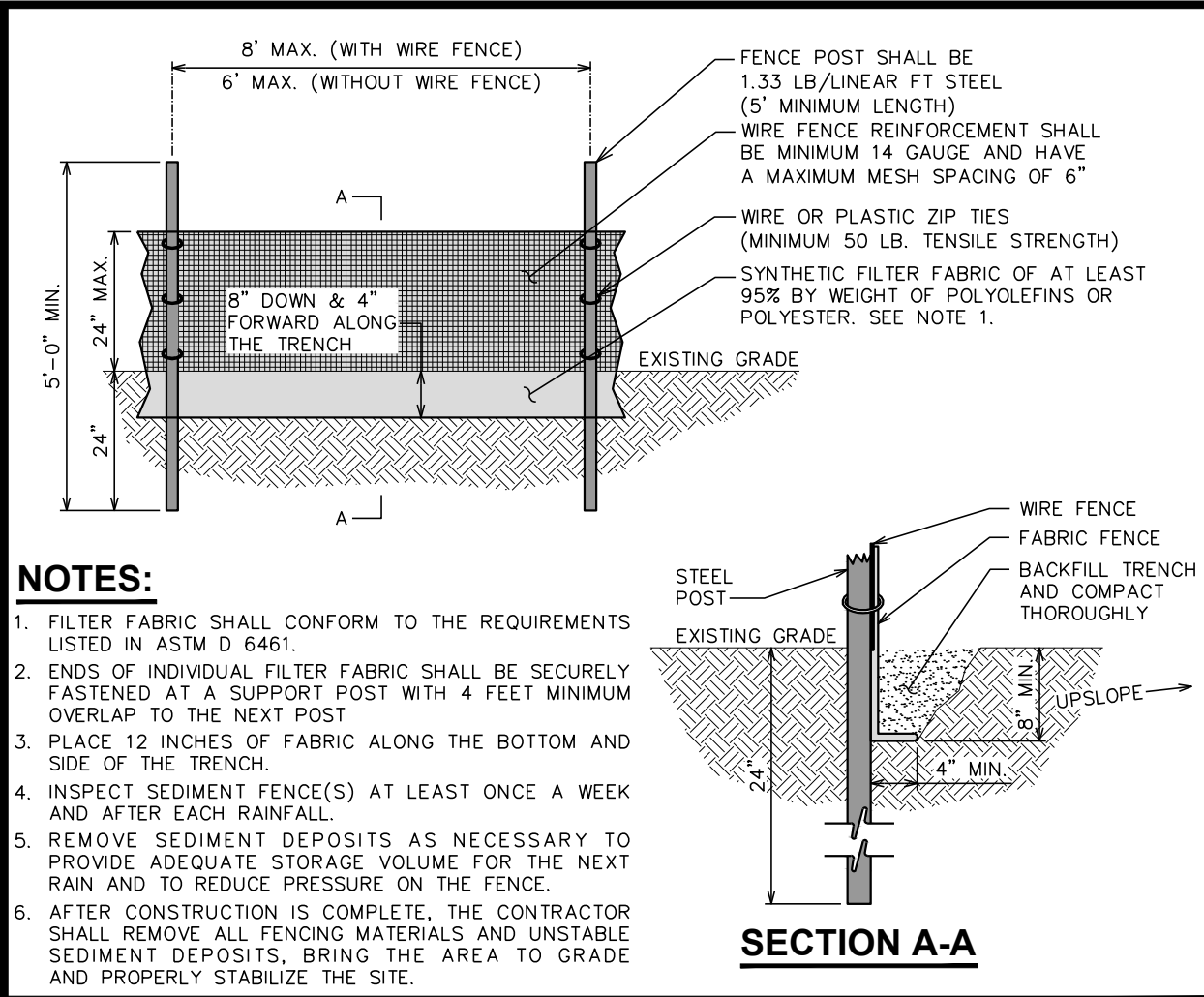
**DRIVEWAY
DETAILS**

SHEET NUMBER: C-6	REVISION: 1 TEP #: 59493-49848
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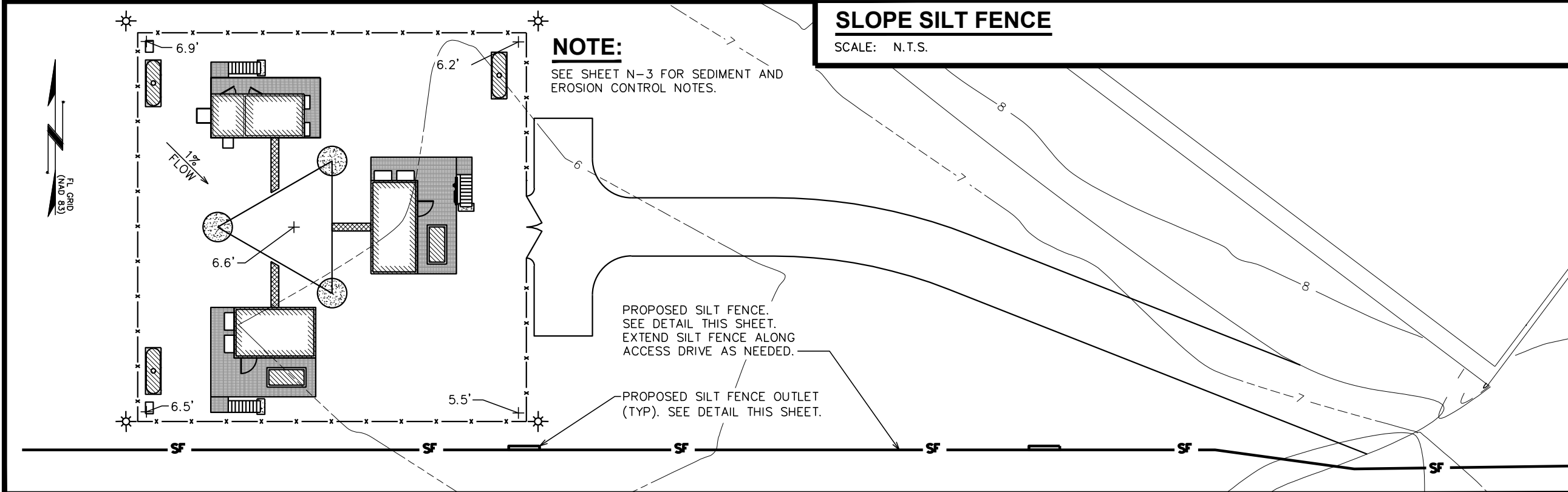
SILT FENCE OUTLET DETAIL

SCALE: N.T.S.



SLOPE SILT FENCE

SCALE: N.T.S.

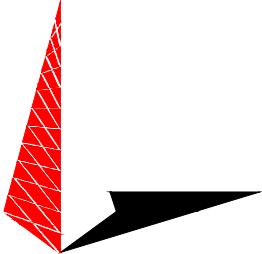


SEDIMENT AND EROSION CONTROL PLAN

SCALE: 1" = 30'

PLANS PREPARED FOR:
DUKE ENERGY.
299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:
**CRYSTAL RIVER
TELECOM TOWER**
W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
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PLANS PREPARED BY:

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1	11-09-15	ZONING
0	08-14-15	ZONING

DRAWN BY: JHJ CHECKED BY: EBM

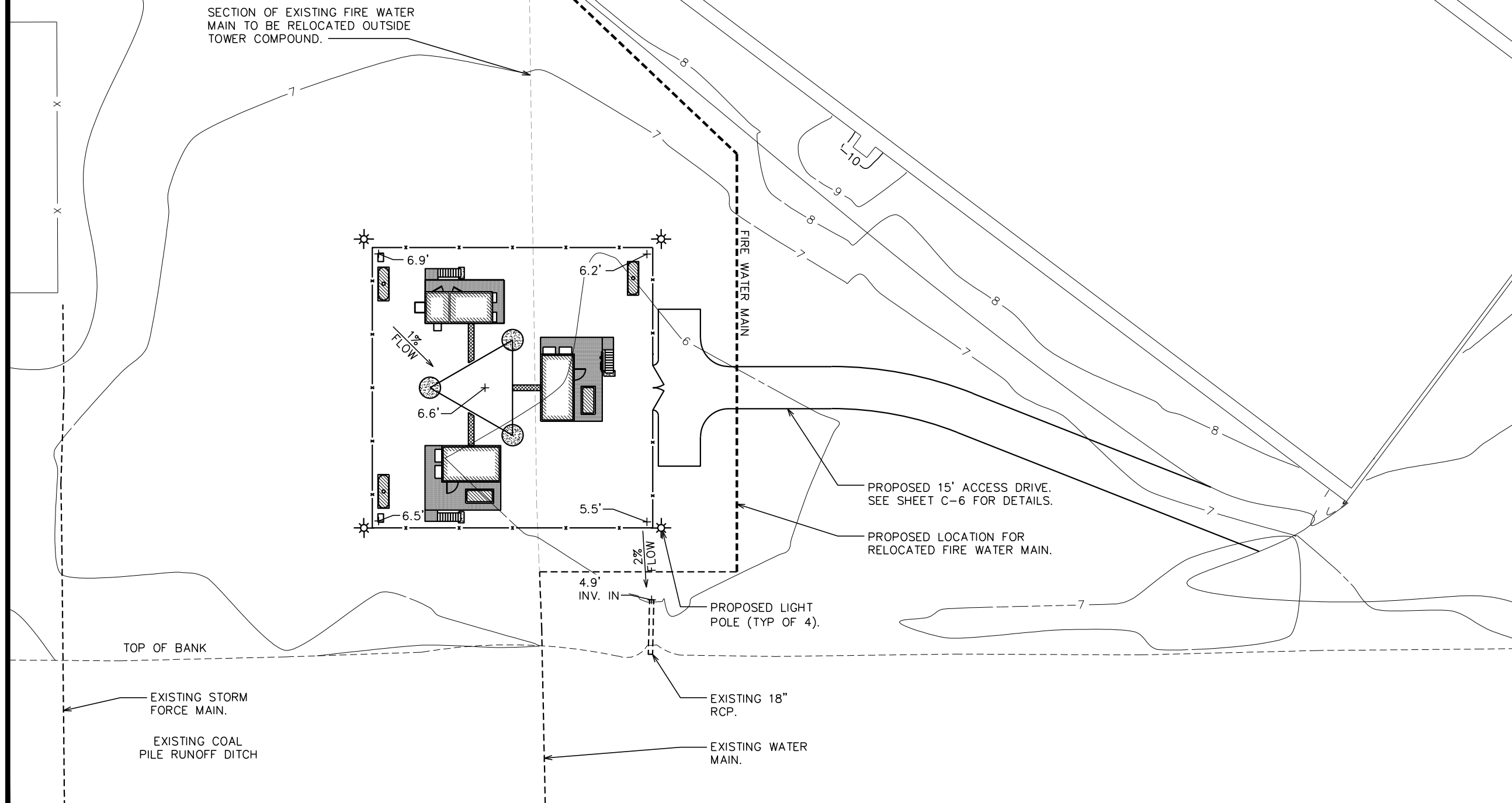
SHEET TITLE:
**SEDIMENT AND
EROSION CONTROL
PLAN**

SHEET NUMBER: **C-7** REVISION: **1**
TEP #: 59493-49848

PROPOSED IMPERIOUS AREA	
COMPOUND AREA	10,000 SQ. FT. (.230 ACRE)
ACCESS DRIVE	5,400 SQ. FT. (.124 ACRE)
TOTAL	15,400 SQ. FT (.354 ACRE)

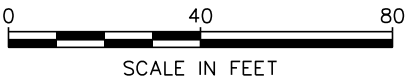
NOTES:

1. ALL GRADES SHOWN ARE FINISHED GRADES.
2. SEE SHEET N-3 FOR SEDIMENT AND EROSION CONTROL NOTES.



GRADING PLAN

SCALE: 1" = 40'



PLANS PREPARED FOR:

DUKE ENERGY.

299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
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W. POWER LINE STREET
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SEAL:

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CONSTRUCTION

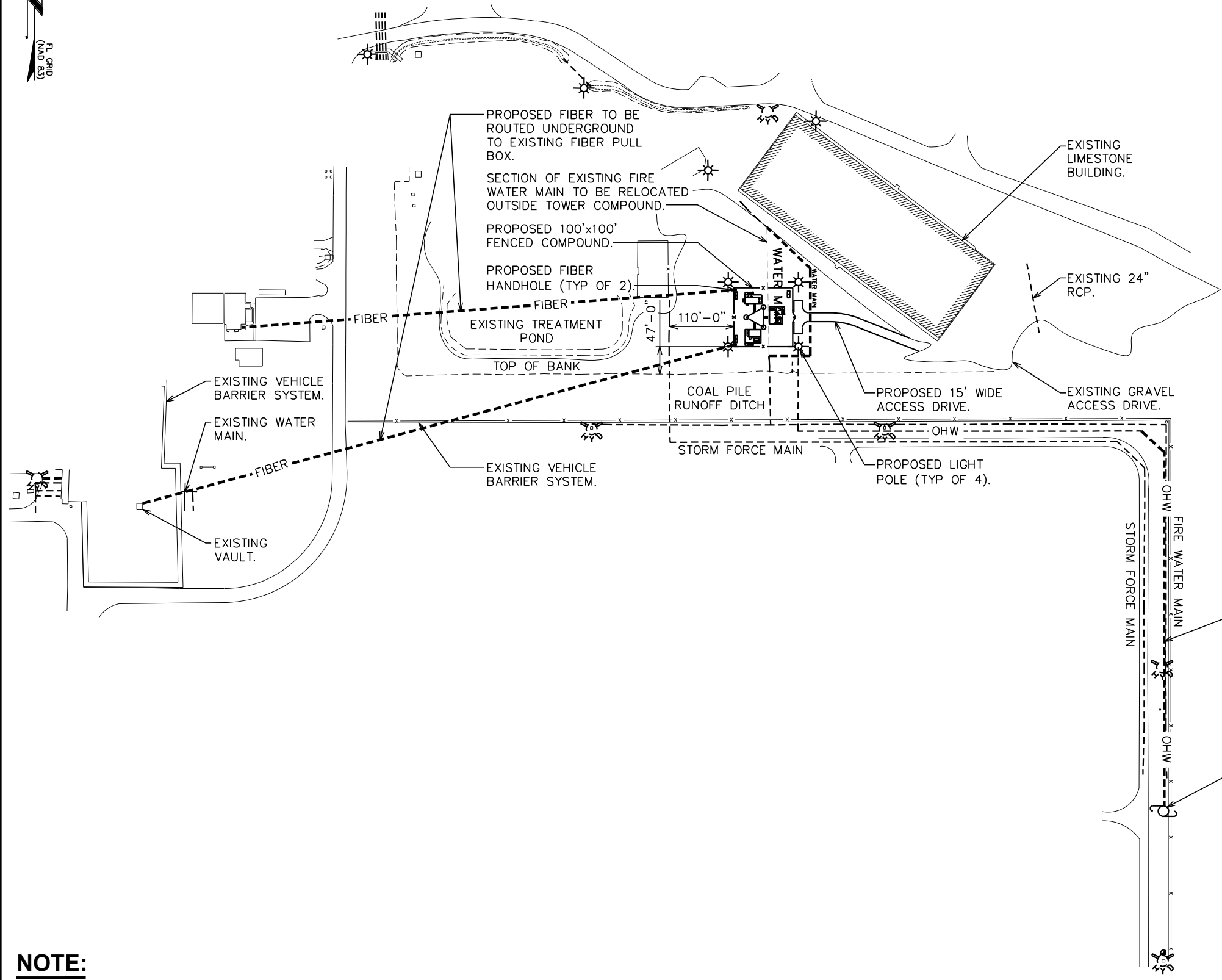
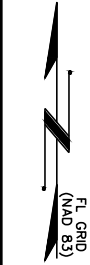
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1	11-09-15	ZONING
0	08-14-15	ZONING

DRAWN BY: JHJ CHECKED BY: EBM

SHEET TITLE:

**GRADING
PLAN**

SHEET NUMBER:	REVISION:
C-8	1
	TEP #: 59493-49848



LEGEND

EXIST. PROPERTY LINE

EXIST. UTILITY POLE

EXIST. LIGHT POLE

EXIST. HYDRANT

EXIST. TELCO PEDESTAL

PROPERTY CORNER

EXIST. CONTOUR LINE

EDGE OF PAVEMENT

OVERHEAD WIRE

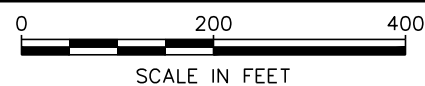
RIGHT-OF-WAY

CHAIN LINK FENCE

EXISTING TREE LINE

NOTE:
VERIFY UTILITY ROUTING WITH PLANT
MANAGER PRIOR TO CONSTRUCTION.

UTILITY ROUTING PLAN
SCALE: 1" = 200'



PLANS PREPARED FOR:

299 FIRST AVENUE NORTH
ST. PETERSBURG, FL 33701
Office: (727) 820-5396

PROJECT INFORMATION:

**CRYSTAL RIVER
TELECOM TOWER**

W. POWER LINE STREET
CRYSTAL RIVER, FL 34428
(CITRUS COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
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SEAL:

REV	DATE	ISSUED FOR:
1	11-09-15	ZONING
0	08-14-15	ZONING

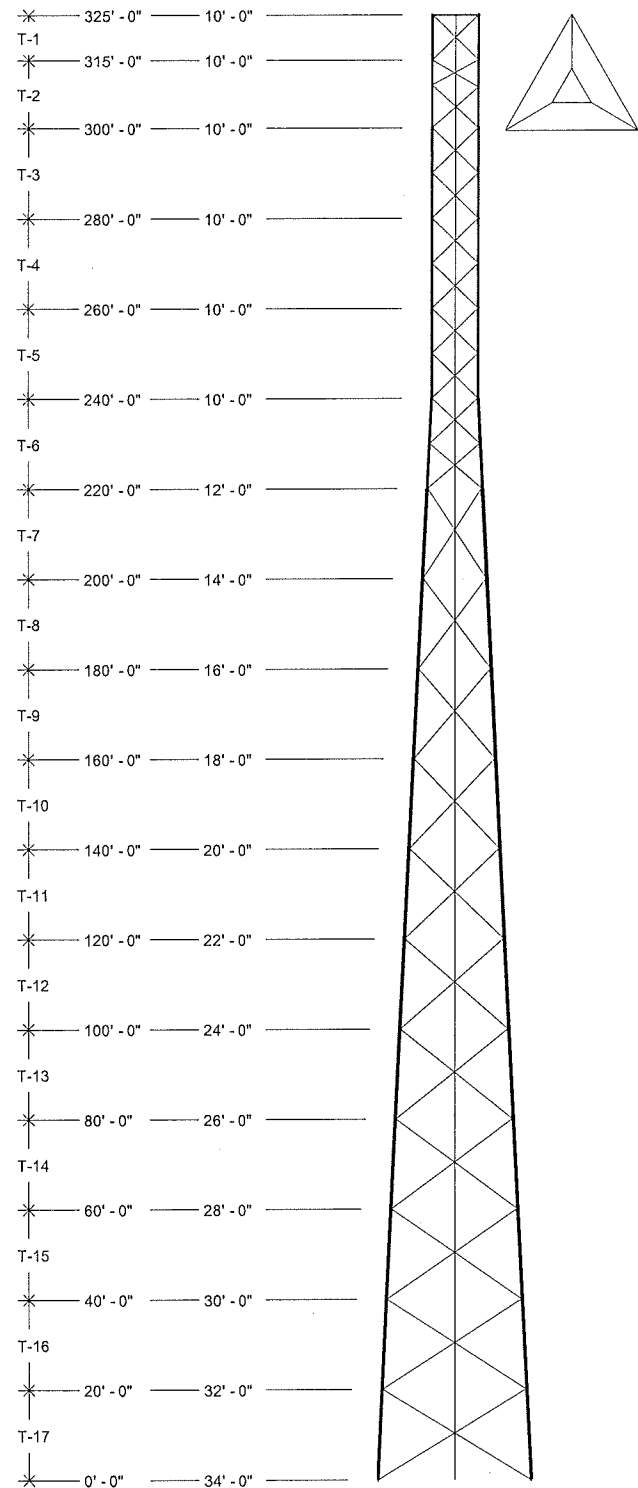
DRAWN BY: JHJ	CHECKED BY: EBM
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SHEET TITLE:

**UTILITY ROUTING
PLAN**

SHEET NUMBER:
U-1

REVISION:
1
TEP #: 59493-49848



SEE PAGE 2 FOR
APPURTENANCES

BUILDING CODE(S):2014 Florida Building Code

Design Standard: TIA-222-G

TOWER DESIGN CRITERIA

Basic Wind Speed: 115 mph (no ice)
30 mph
60 mph (deflection only)

Structure Class: III
Exposure: C
Topographic Category: 1
Crest Height: 0 ft.

MATERIAL STRENGTHS

Solid Rod A36 (rod dia. <3/4")
A572 Gr.50 (3/4" thru 1" dia.)
A572 Gr.58 (>1" dia.)

Pipe A500 Gr.B (antenna pipes)
A500 Gr.B/C (tower legs min. Fy 50 ksi)

Angle A36 Gr.36

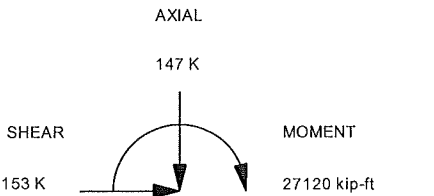
Plate A572 Gr.50

Bolts A-325/A-449 (leg & angle)

Anchor Bolt F1554 GRADE 105 OR A687

TOWER COLUMN										
SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONTAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	315' - 325'	10.0'	1	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"	3/16" x 3" x 3"	1" x 1	1189.80
T2	300' - 315'	10.0'	2	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1" x 1	1588.70
T3	280' - 300'	10.0'	2	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1" x 1	2001.93
T4	260' - 280'	10.0'	2	1.25"	12BDFH	6 x 1"	5/16" x 3" x 3"	3/16" x 3" x 3"	1" x 1	2706.48
T5	240' - 260'	10.0'	2	1.50"	12BDFH	6 x 1"	5/16" x 3-1/2" x 3-1/2"		1" x 1	3028.89
T6	220' - 240'	12.0'	2	1.75"	12BDFH	6 x 1 1/4"	5/16" x 3" x 3"		1" x 1	3491.91
T7	200' - 220'	14.0'	1	2.00"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		7/8" x 1	4479.90
T8	180' - 200'	16.0'	1	2.25"	12BDH2	12 x 1"	1/4" x 3-1/2" x 3-1/2"		7/8" x 1	5141.25
T9	160' - 180'	18.0'	1	2.50"	12BDH2	12 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		7/8" x 1	6005.82
T10	140' - 160'	20.0'	1	2.75"	12BDH2	12 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		7/8" x 1	6993.15
T11	120' - 140'	22.0'	1	2.75"	12BDH2	12 x 1 1/4"	1/4" x 3-1/2" x 3-1/2"		7/8" x 1	7095.87
T12	100' - 120'	24.0'	1	3.00"	12BDH2	12 x 1 1/4"	1/4" x 4" x 4"		7/8" x 1	8209.65
T13	80' - 100'	26.0'	1	3.00"	12BDH2	12 x 1 1/4"	1/4" x 4" x 4"		7/8" x 1	8336.25
T14	60' - 80'	28.0'	1	3.25"	12BDH2	18 x 1 1/4"	1/4" x 4" x 4"		7/8" x 1	9366.27
T15	40' - 60'	30.0'	1	3.25"	12BDH2	18 x 1 1/4"	3/8" x 4" x 4"		7/8" x 1	10875.54
T16	20' - 40'	32.0'	1	3.50"	12BDH2	18 x 1 1/4"	3/8" x 4" x 4"		7/8" x 1	11786.82
T17	0' - 20'	34.0'	1	3.50"	12BDH2	18 x 1 1/4"	3/8" x 4" x 4"		7/8" x 1	11800.92

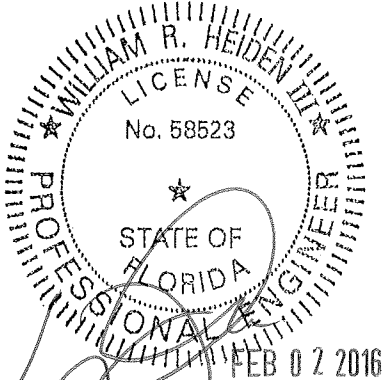
Reactions - No Ice



MAX. CORNER REACTIONS AT BASE:

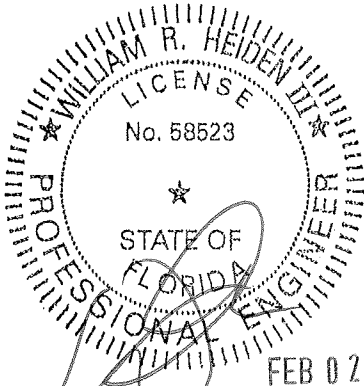
DOWN: 970 K
UPLIFT: -833 K
SHEAR: 98 K

TORQUE 36 kip-ft
REACTIONS 115.0 mph WIND (no ice)



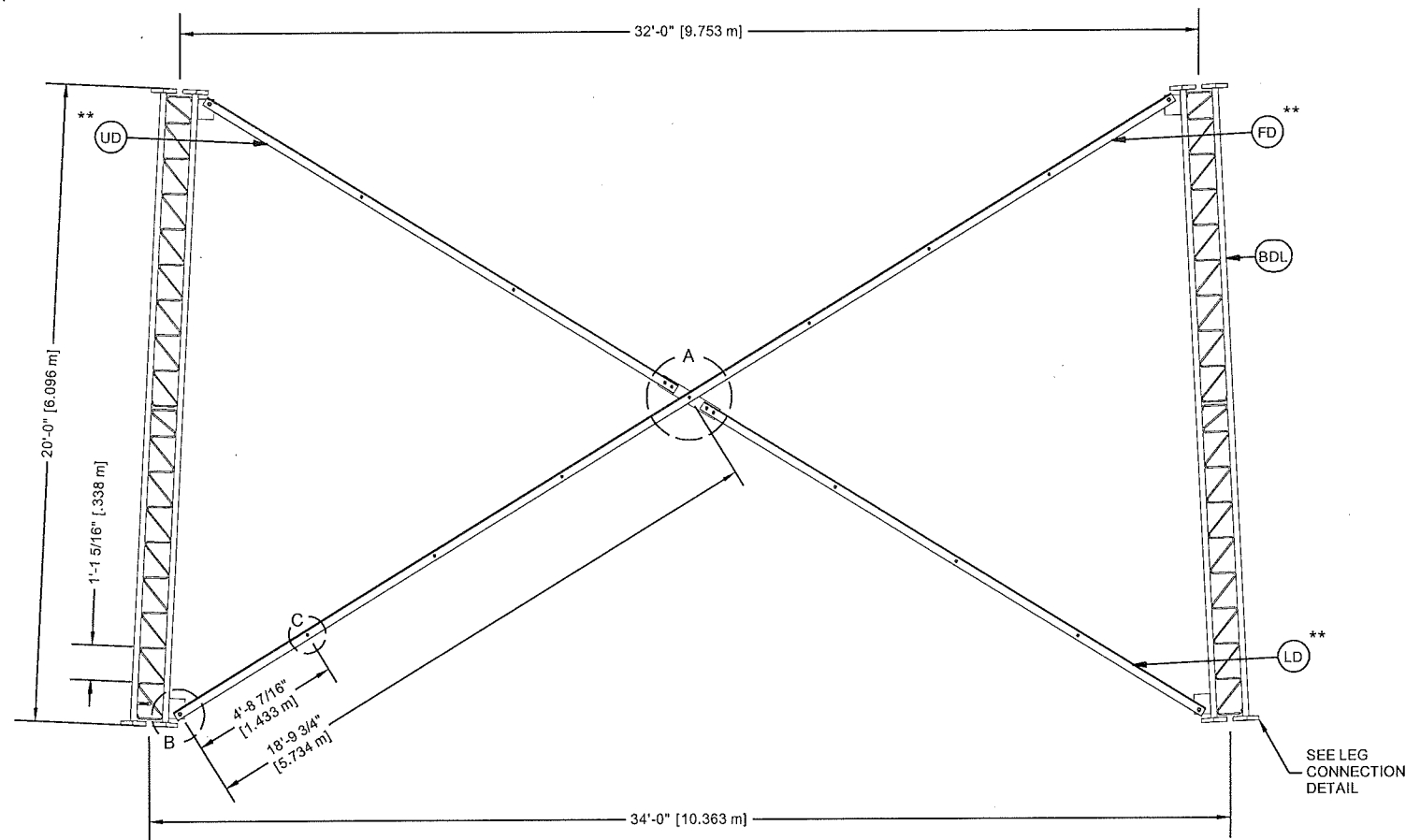
					SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		PAGE 1 OF 19					
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		Tower View Page 1									
					COPYRIGHT 2013											
REVISION HISTORY					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.					STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE						ENG. FILE NO. 285480			

DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	325'
(1) BEACON	325'
(1) BEACON EXTENDER (4') 803062	325'
(2) 2" X 84" SCH. 40	320'
(2) 6' RIGID ARM (#12 TAPER LM)	320'
(2) BCD-87010	320'
(1) TMA (12" X 12" X 8")	320'
(3) 6' BOGNER MOUNT STANDARD DUTY	300'
(3) BMR12	300'
(1) TMA (12" X 12" X 8")	300'
(1) PAD8-59AC W/RADOME(132 DEG AZIMUTH)	280'
(1) PAD8-59AC W/RADOME(33 DEG AZIMUTH)	280'
(2) PLATFORM	280'
(2) 2" X 84" SCH. 40	260'
(2) 6' RIGID ARM (#12 TAPER LM)	260'
(2) BCD-87010	260'
(1) 2" X 84" SCH. 40	255'
(1) 6' RIGID ARM (#12 TAPER LM)	255'
(1) DB264-A	255'
(3) 12' V FRAME	240'
(2) RRUS-32 (29.9" X 13.3" X 9.5")	240'
(3) X7C-865-V	240'
(9) X7CQAP-86-880-VR0	240'
(3) 2" X 84" SCH. 40	220'
(3) 6' RIGID ARM (#12 TAPER LM)	220'
(3) DB636	220'
(3) 2" X 84" SCH. 40	200'
(3) 6' RIGID ARM (#12 TAPER LM)	200'
(3) DB636	200'

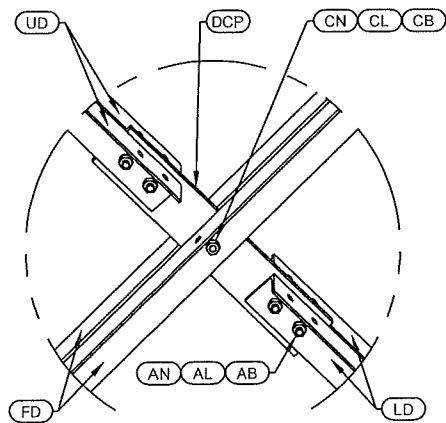


				SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		PAGE 2 OF 19	
				ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		Tower View Page 2					
				COPYRIGHT 2013				ENG. FILE NO. 285480			
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE	PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T
REVISION HISTORY											

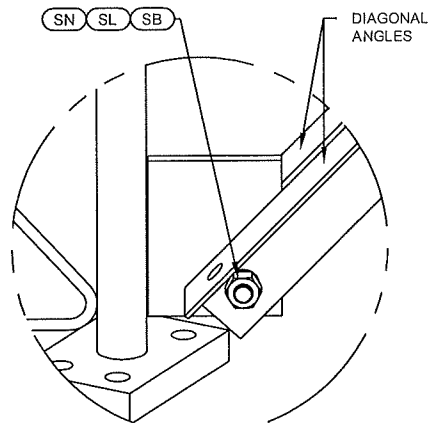
OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



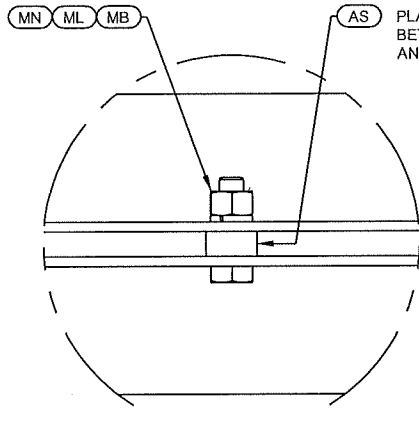
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196872	#12 LEG SECTION - 3-1/2" LEG - 1/2" BRACE - 7/8" B	2404.1	7212.2
UD	6	211914	ANGLE U-34 UP 17'-4 17/32"	178.1	1068.8
LD	6	211916	ANGLE U-34 LOW 18'-6 1/32"	189.6	1137.7
FD	6	211967	ANGLE U-34 LONG 36'-10 1/16"	377.8	2266.6
MN	33	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	4.0
MB	33	172263	5/8"-11 X 2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	7.3
ML	33	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.7
AS	33	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	16.5
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.8	61.8
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AB / CB	15	172263	5/8"-11 X 2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	3.3
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	228832	7/8"-9 X 3" A-325 BOLT WITH 1-1/2" THREAD	1.3	15.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
Total Wt				11801.0 lb [5357.8 kg]	



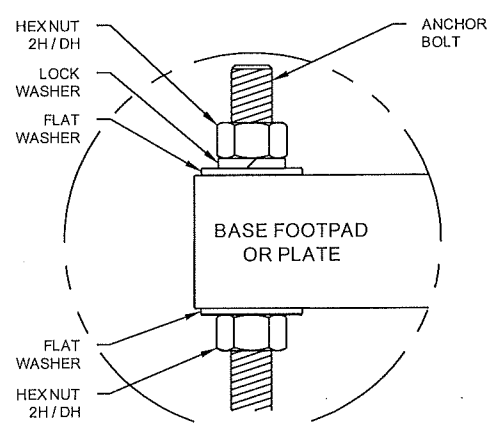
DETAIL A
ANGLE INTERSECTION CONNECTION



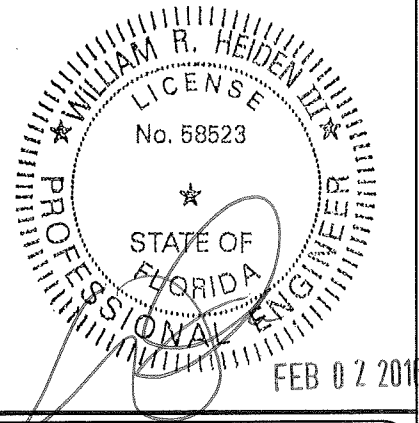
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION

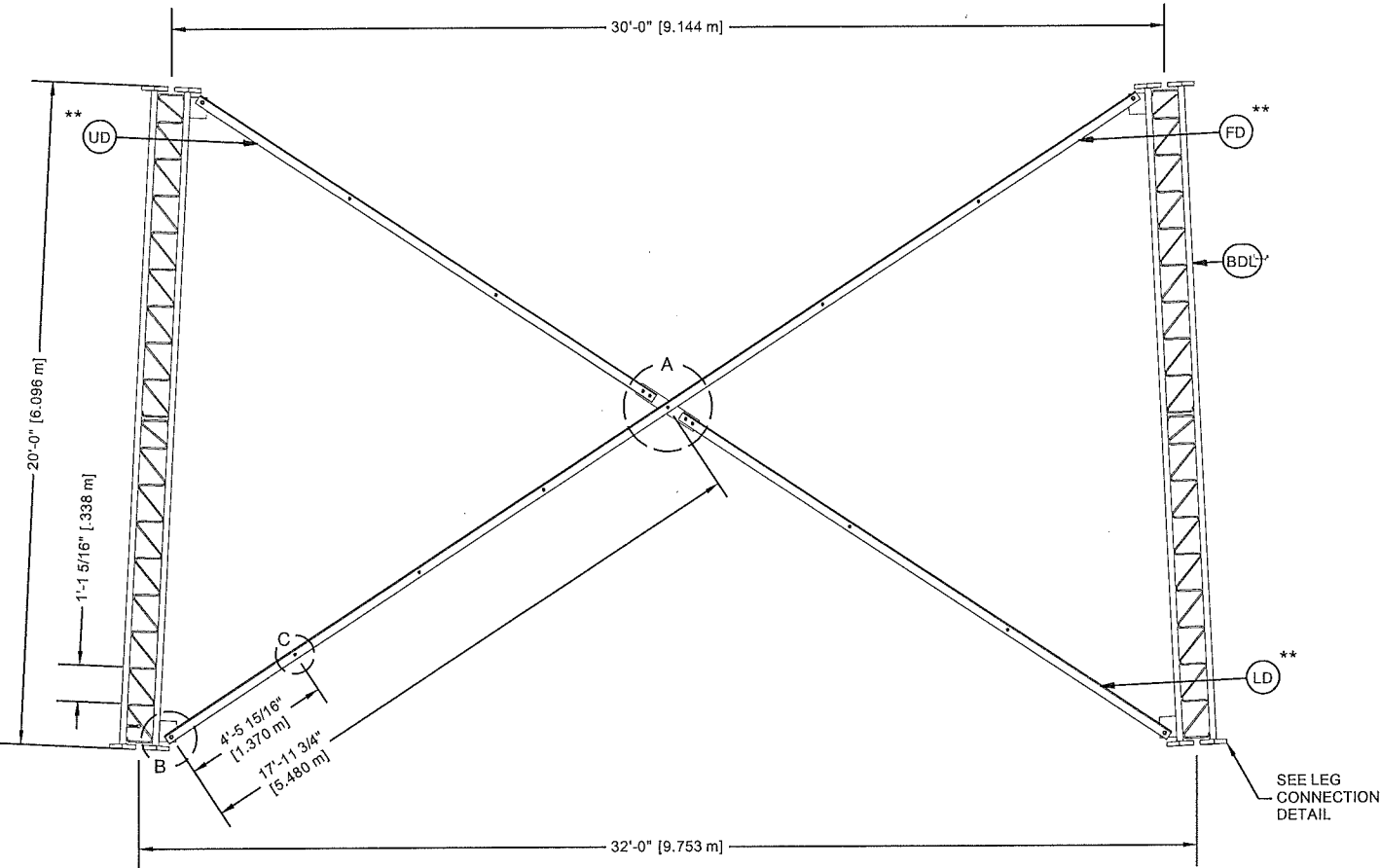


ANCHOR BOLT ASSY. (TYP)
SEE FOUNDATION DRAWING FOR DETAILS

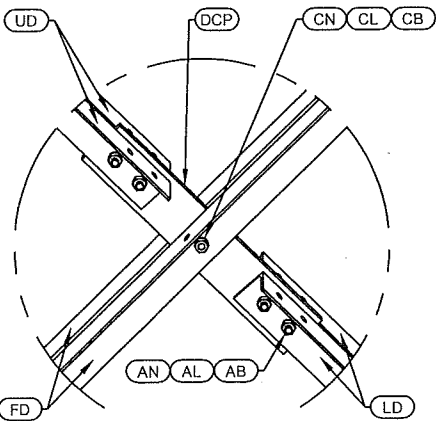


					SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		SECTION U-34.0 (0' - 20' ELEVATION)				
					COPYRIGHT 2013				ENG. FILE NO. 285480		
PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.					STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		PAGE 3 OF 19
REVISION HISTORY											

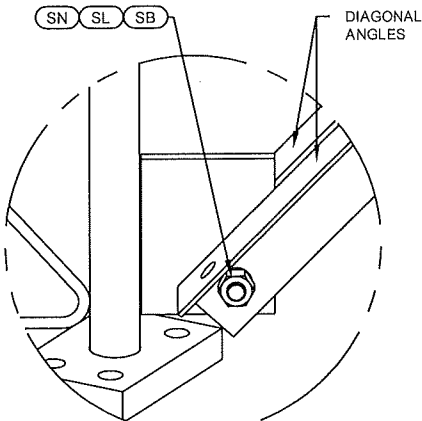
OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



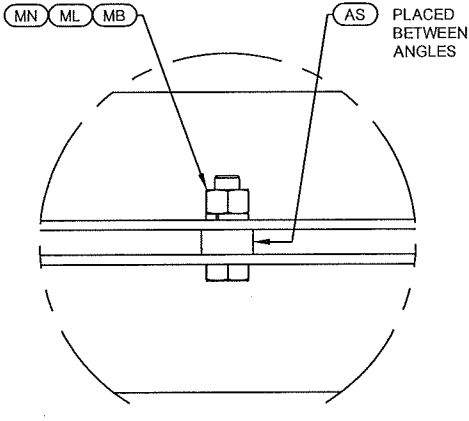
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196872	#12 LEG SECTION - 3-1/2" LEG - 1/2" BRACE - 7/8" B	2404.1	7212.2
UD	6	211910	ANGLE U-32 UP 16'-6 9/32"	169.4	1016.1
LD	6	211912	ANGLE U-32 LOW 17'-8 1/16"	181.2	1086.9
FD	6	211964	ANGLE U-32 LONG 35'-1 27/32"	360.5	2163.1
MN	27	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	3.2
MB	27	172263	5/8"-11 X 2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	5.9
ML	27	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
AS	27	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	13.5
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AB / CB	15	172263	5/8"-11 X 2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	3.3
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	228832	7/8"-9 X 3" A-325 BOLT WITH 1-1/2" THREAD	1.3	15.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
LCB	54	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	136.6
LCF	108	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	14.0
LCL	54	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	8.1
LCN	54	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	39.4
Total Wt				11786.7 lb [5351.3 kg]	



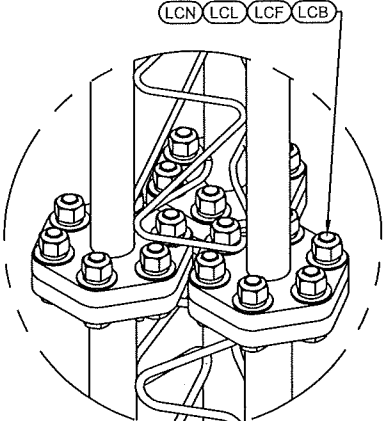
DETAIL A
ANGLE INTERSECTION CONNECTION



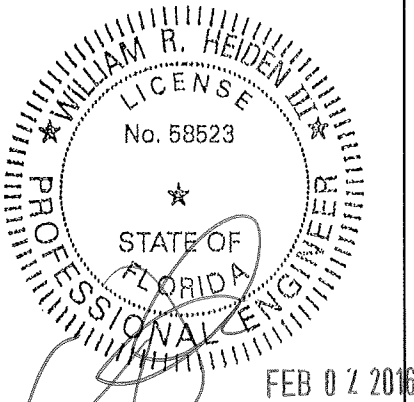
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



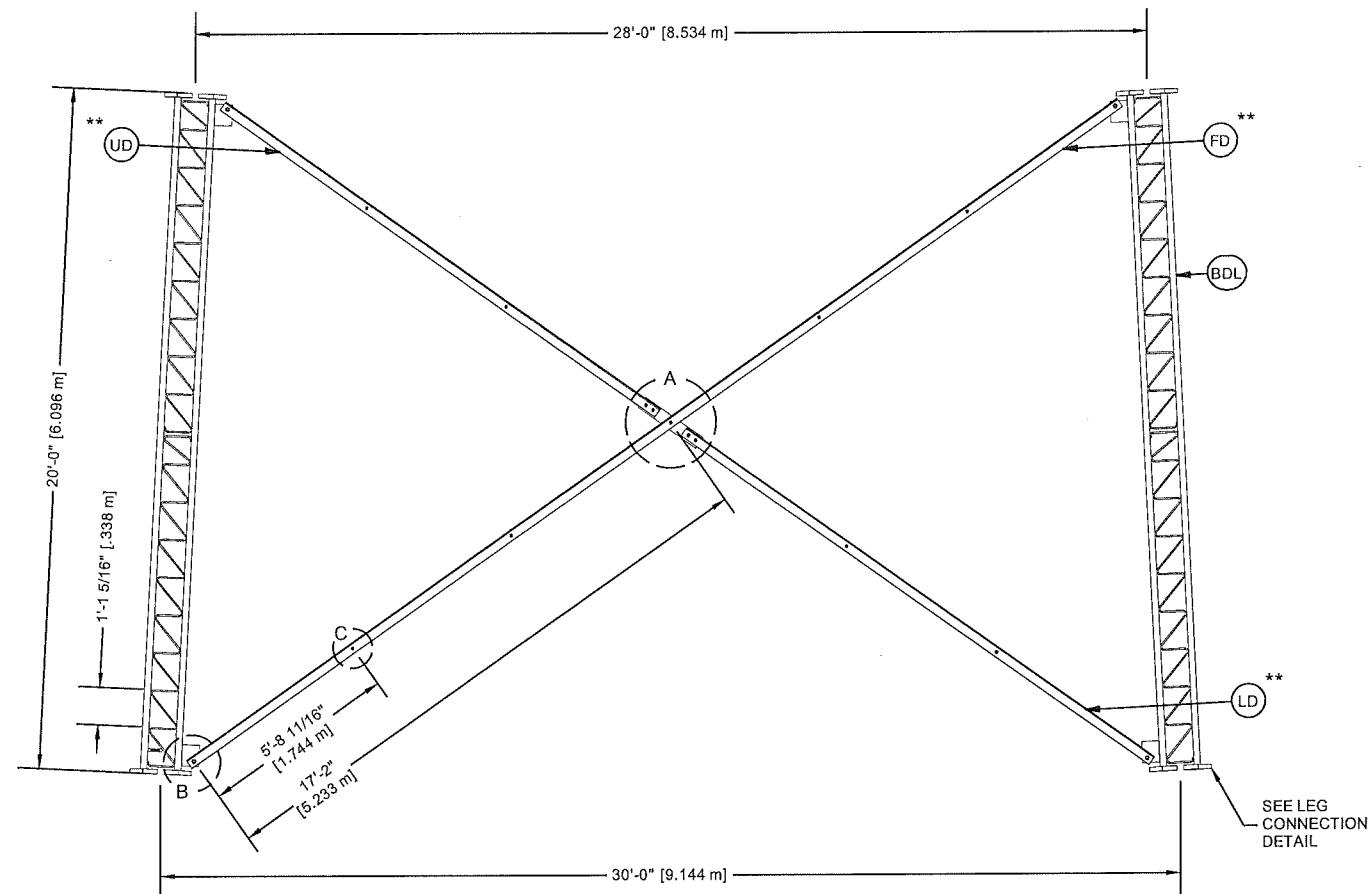
LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



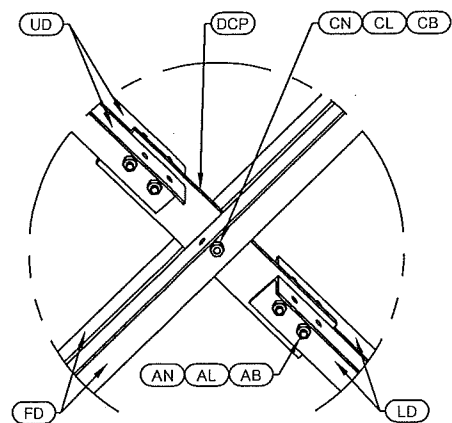
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-32.0 (20' - 40' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES							
							ENG. FILE NO. 285480		PAGE 4 OF 19							
							DWG. NO. 263629T									
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		
REVISION HISTORY																

ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
 ** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

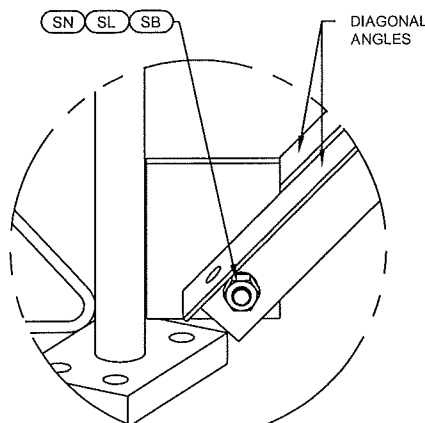
* STITCH BOLT SPACING SHOWN
 IS MAX. FOR ALL ANGLES



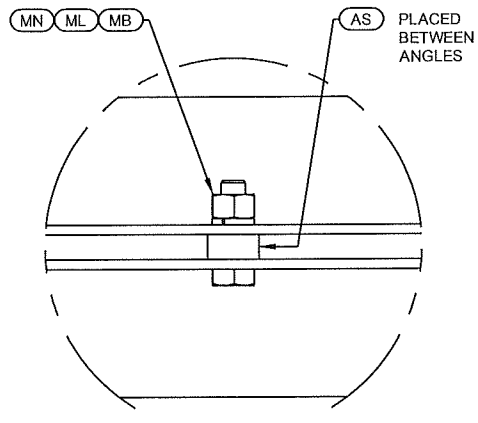
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196551	#12 LEG SECTION - 3-1/4" LEG - 5/8" BRACE - 7/8" B	2168.9	6506.7
UD	6	211791	ANGLE U-30 UP 15'-8 7/32"	160.7	964.4
LD	6	211793	ANGLE U-30 LOW 16'-10 9/32"	172.8	1036.7
FD	6	211826	ANGLE U-30 LONG 33'-6"	343.6	2061.7
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.9
MB	24	172263	5/8"-11 X2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	5.3
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
AS	24	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	12.0
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AB/CB	15	172263	5/8"-11 X2-1/2" A-325 BOLT WITH 1-1/4" THREAD	0.2	3.3
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	228832	7/8"-9 X3" A-325 BOLT WITH 1-1/2" THREAD	1.3	15.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
LCB	54	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	136.6
LCF	108	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	14.0
LCL	54	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	8.1
LCN	54	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	39.4
				Total Wt	10875.5 lb [4937.6 kg]



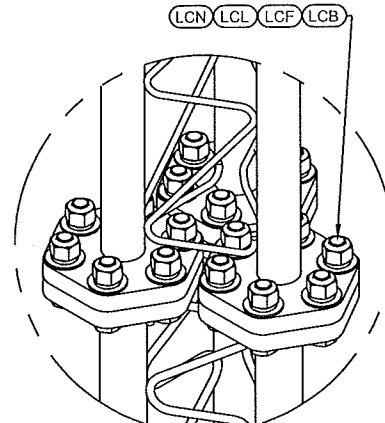
DETAIL A
ANGLE INTERSECTION CONNECTION



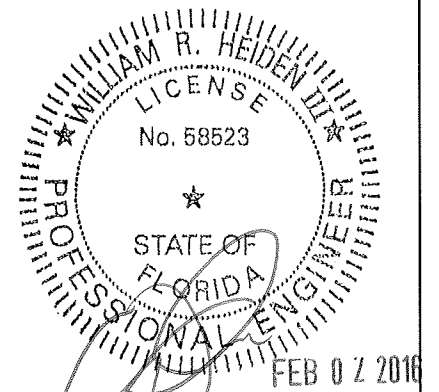
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



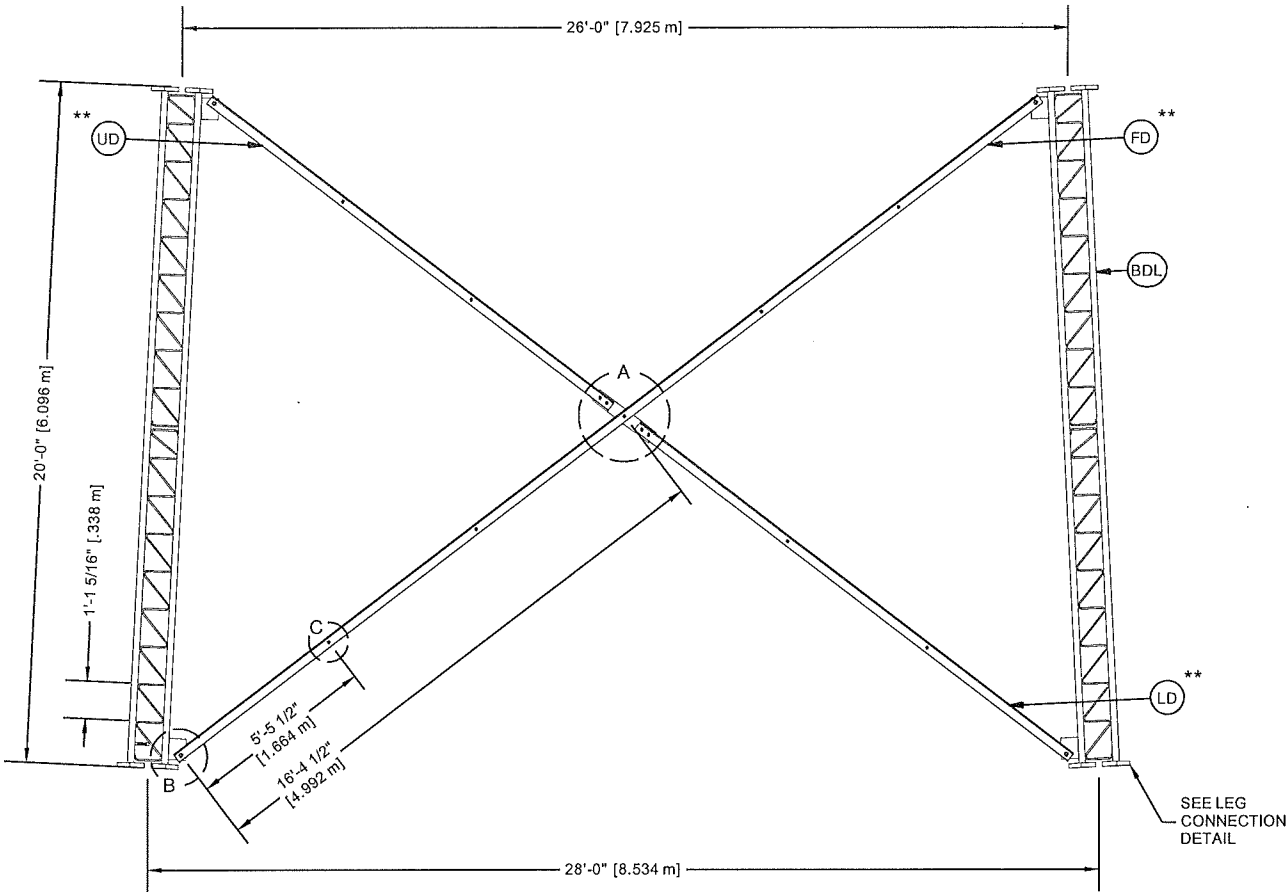
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-30.0 (40' - 60' ELEVATION)		valmont  1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		PAGE 5 OF 19
									ENG. FILE NO. 285480		
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	REVISION HISTORY			

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

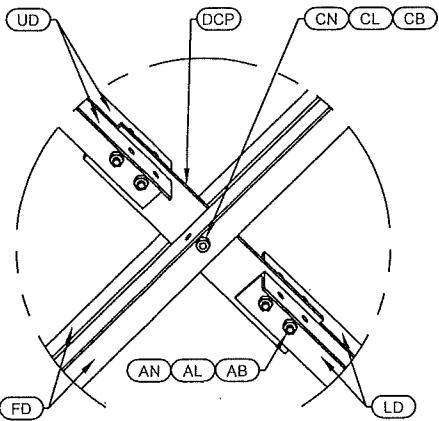
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

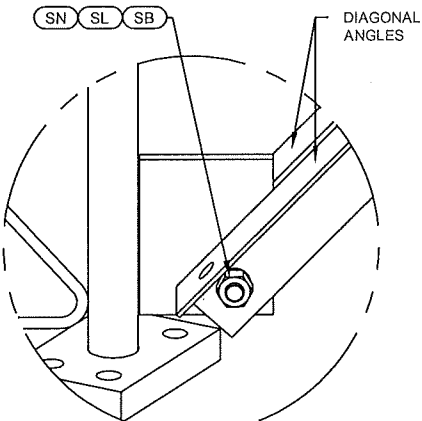
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



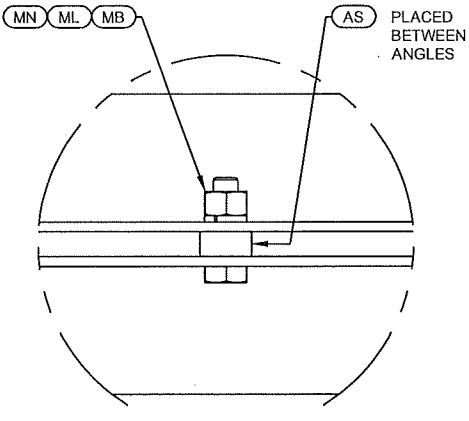
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196523	#12 LEG SECT - 3-1/4" TO 3" TRANS LEG - 5/8" BRACE	2144.7	6434.0
UD	6	211786	ANGLE U-28 UP 14'-10 11/32"	103.5	620.9
LD	6	211788	ANGLE U-28 LOW 16'-0 13/16"	111.9	671.4
FD	6	211823	ANGLE U-28 LONG 31'-10 21/32"	222.2	1333.4
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.9
AS	24	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	12.0
MB	24	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	6.2
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	54	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	136.6
LCF	108	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	14.0
LCL	54	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	8.1
LCN	54	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	39.4
Total Wt				9366.2 lb	(4252.3 kg)



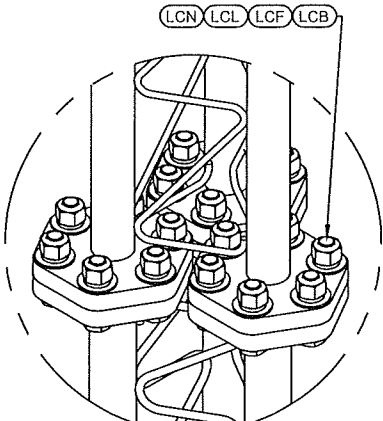
DETAIL A
ANGLE INTERSECTION CONNECTION



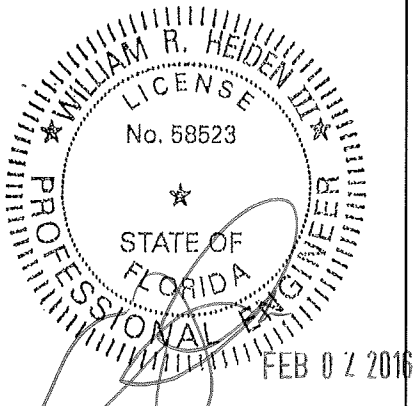
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



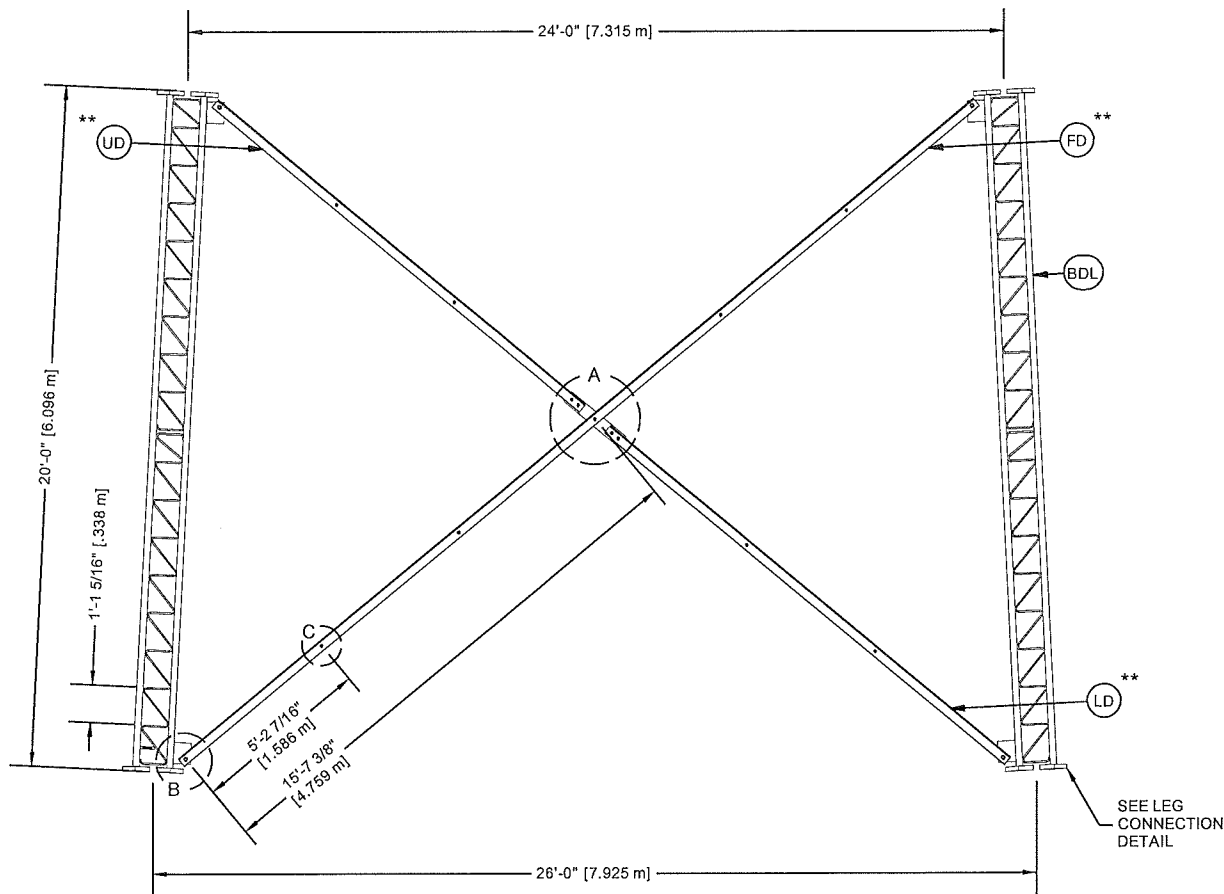
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-28.0 (60' - 80' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
									ENG. FILE NO. 285480		PAGE 6 OF 19
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		
REV	DESCRIPTION OF REVISIONS			CPD	BY	DATE	REVISION HISTORY				

OREINT LEGS WITH PIN STAMP
TOWARD BOTTOM OF SECTION

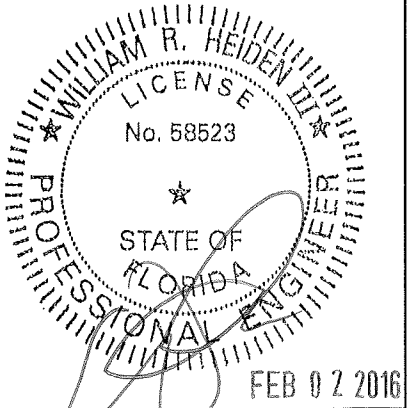
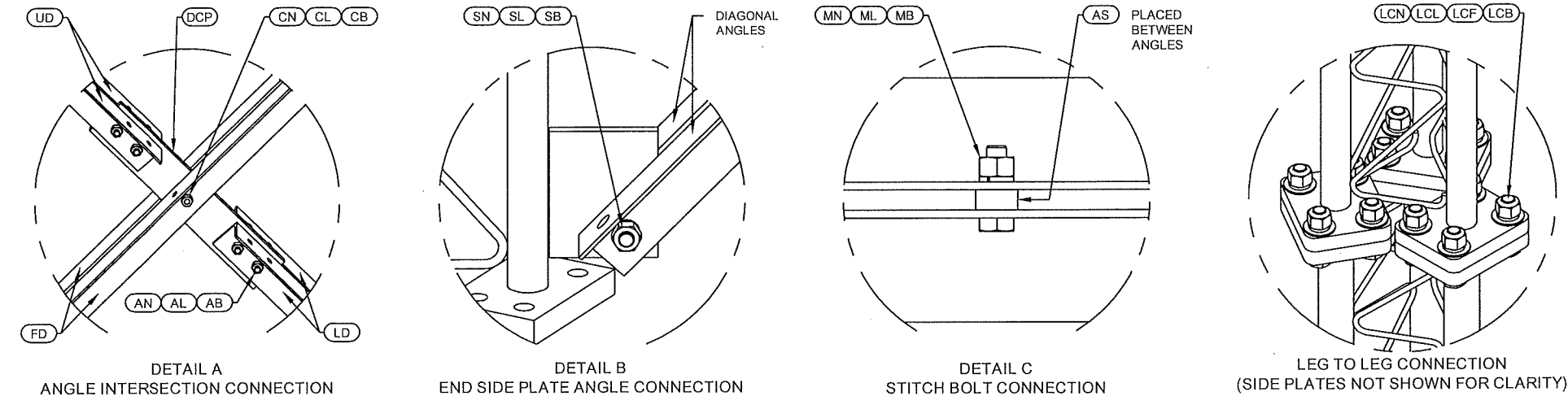
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196521	#12 LEG SECTION - 3" LEG - 5/8" BRACE - 7/8" BOLT	1867.1	5601.3
UD	6	211781	ANGLE U-26 UP 14'-0 23/32"	97.9	587.3
LD	6	211784	ANGLE U-26 LOW 15'-3 21/32"	106.6	639.4
FD	6	211821	ANGLE U-26 LONG 30'-3 7/8"	211.3	1267.8
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.9
AS	24	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	12.0
MB	24	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	6.2
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	91.1
LCF	72	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	9.4
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	5.4
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	26.3
Total Wt				8336.4 lb [3784.8 kg]	



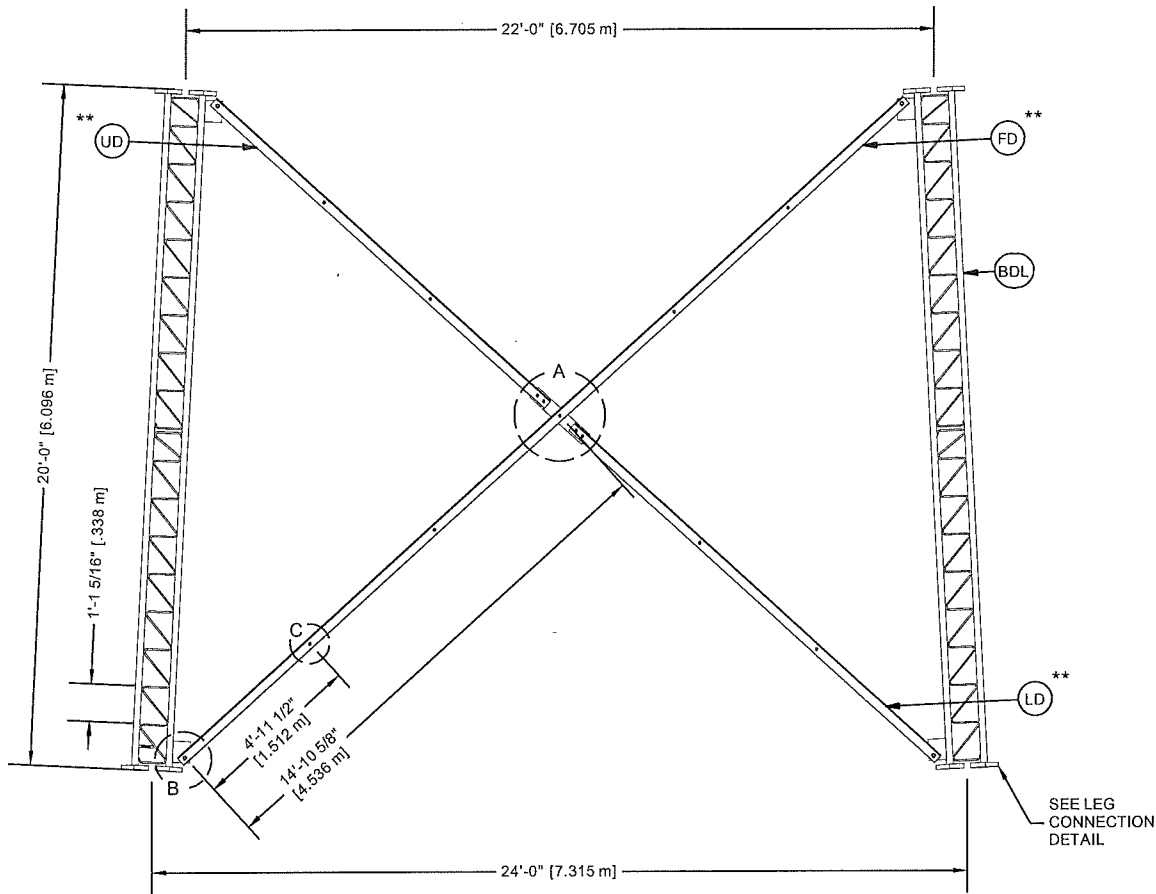
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-26.0 (80' - 100' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
							ENG. FILE NO. 285480		PAGE 7 OF 19		
					REV		DESCRIPTION OF REVISIONS			CPD	BY
REVISION HISTORY					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL	

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

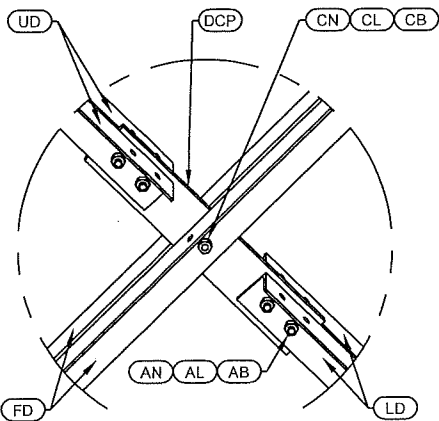
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

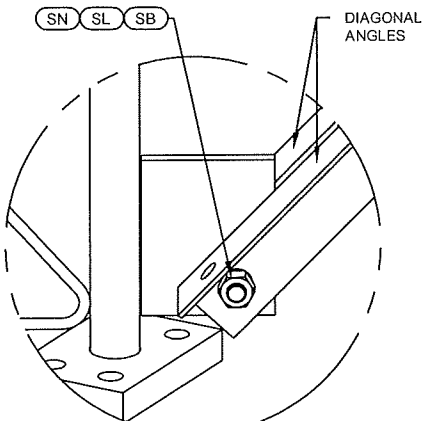
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



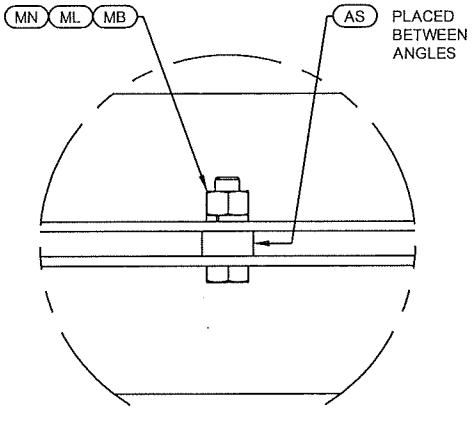
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196521	#12 LEG SECTION - 3" LEG - 5/8" BRACE - 7/8" BOLT	1867.1	5601.3
UD	6	211775	ANGLE U-24 UP 13'-3 11/32"	92.4	554.6
LD	6	211778	ANGLE U-24 LOW 14'-6 7/8"	101.5	608.8
FD	6	211818	ANGLE U-24 LONG 28'-9 3/4"	200.8	1204.5
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.9
AS	24	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	12.0
MB	24	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	6.2
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	91.1
LCF	72	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	9.4
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	5.4
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	26.3
Total Wt				8209.8 lb [3727.3 kg]	



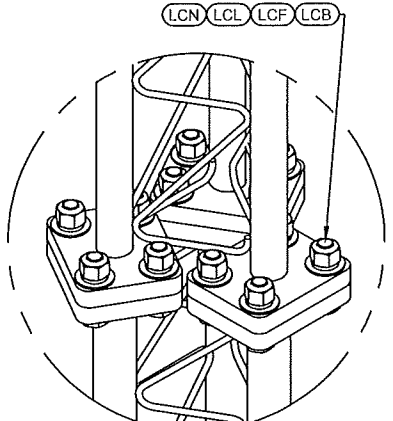
DETAIL A
ANGLE INTERSECTION CONNECTION



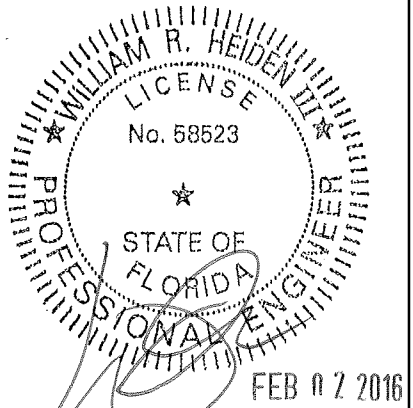
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION

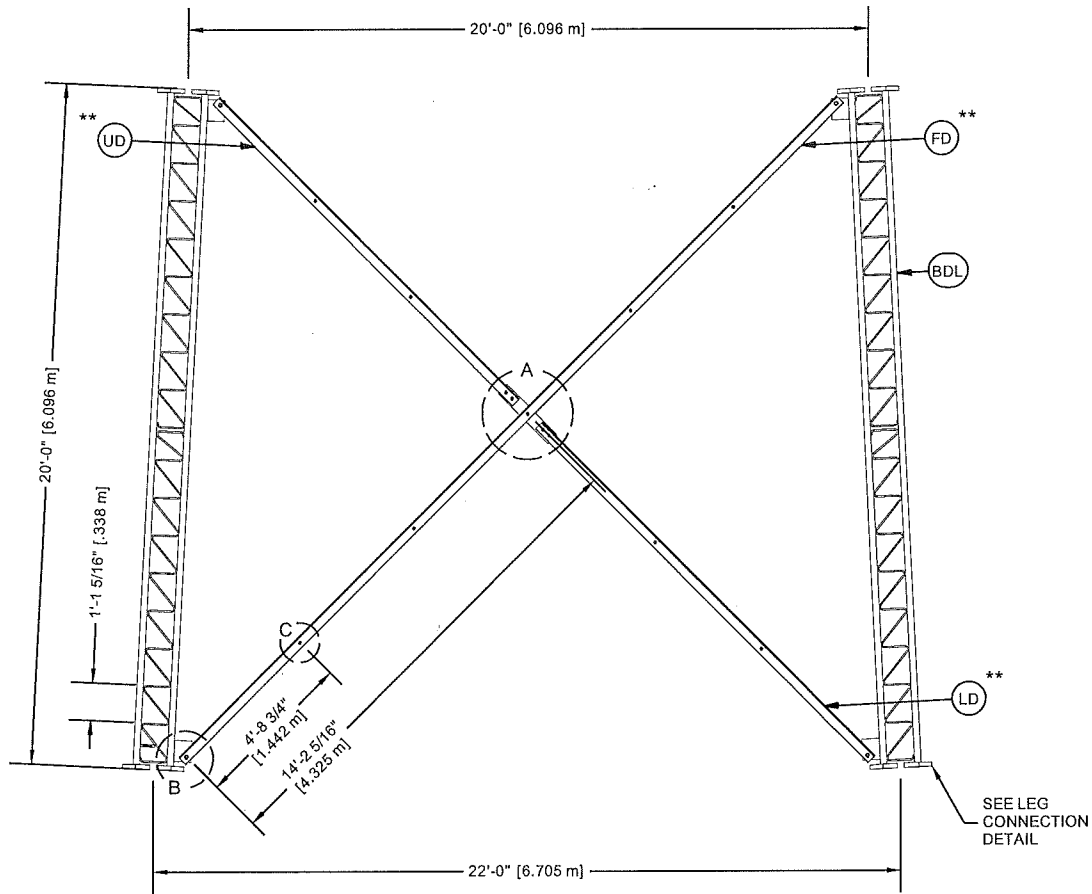


LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

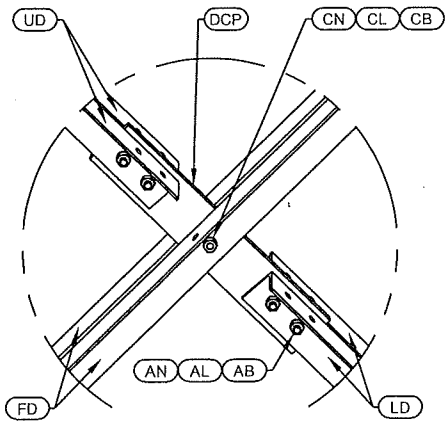


					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-24.0 (100' - 120' ELEVATION)		valmont STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR											
									ENG. FILE NO. 285480											
									DWG. NO. 263629T											
REV					DESCRIPTION OF REVISIONS					CPD	BY	DATE	PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		PAGE 8 OF 19	
REVISION HISTORY																				

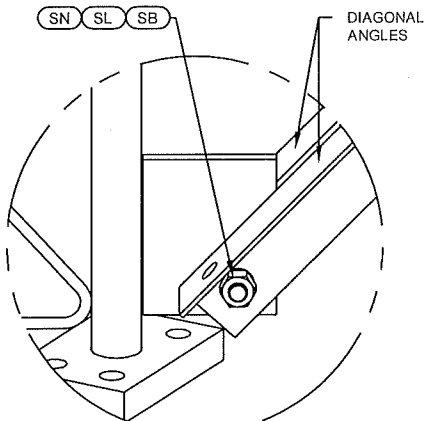
OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



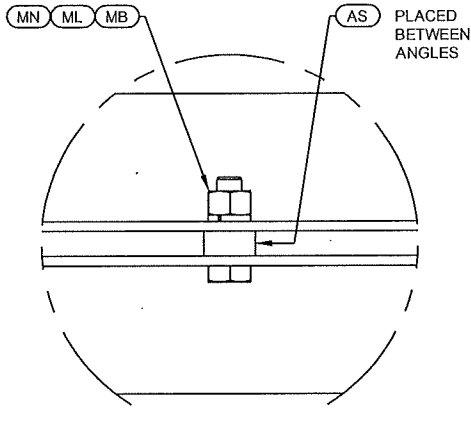
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196299	#12 LEG SECT - 2-3/4" LEG - 5/8" BRACE - 7/8" BOLT	1632.4	4897.1
UD	6	211931	ANGLE U-22 UP 12'-6 9/32"	76.0	455.8
LD	6	211932	ANGLE U-22 LOW 13'-10 19/32"	84.2	505.4
FD	6	211957	ANGLE U-22 LONG 27'-4 3/8"	166.2	997.2
ML	24	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.5
MN	24	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.9
AS	24	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	12.0
MB	24	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	6.2
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	91.1
LCF	72	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	9.4
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	5.4
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	26.3
Total Wt				7096.1 lb [3221.7 kg]	



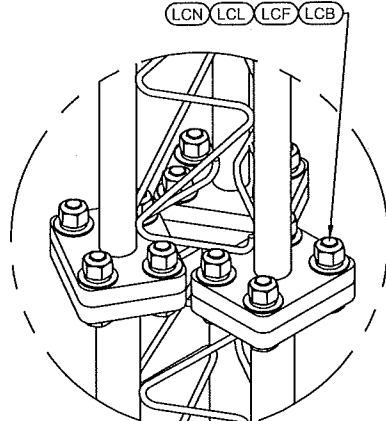
DETAIL A
ANGLE INTERSECTION CONNECTION



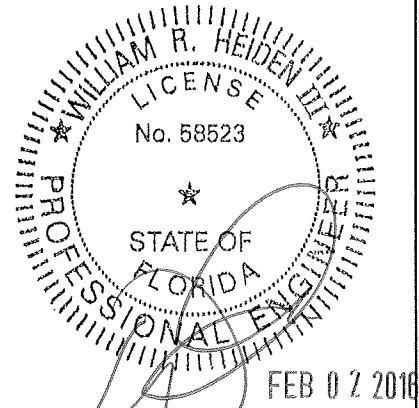
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION

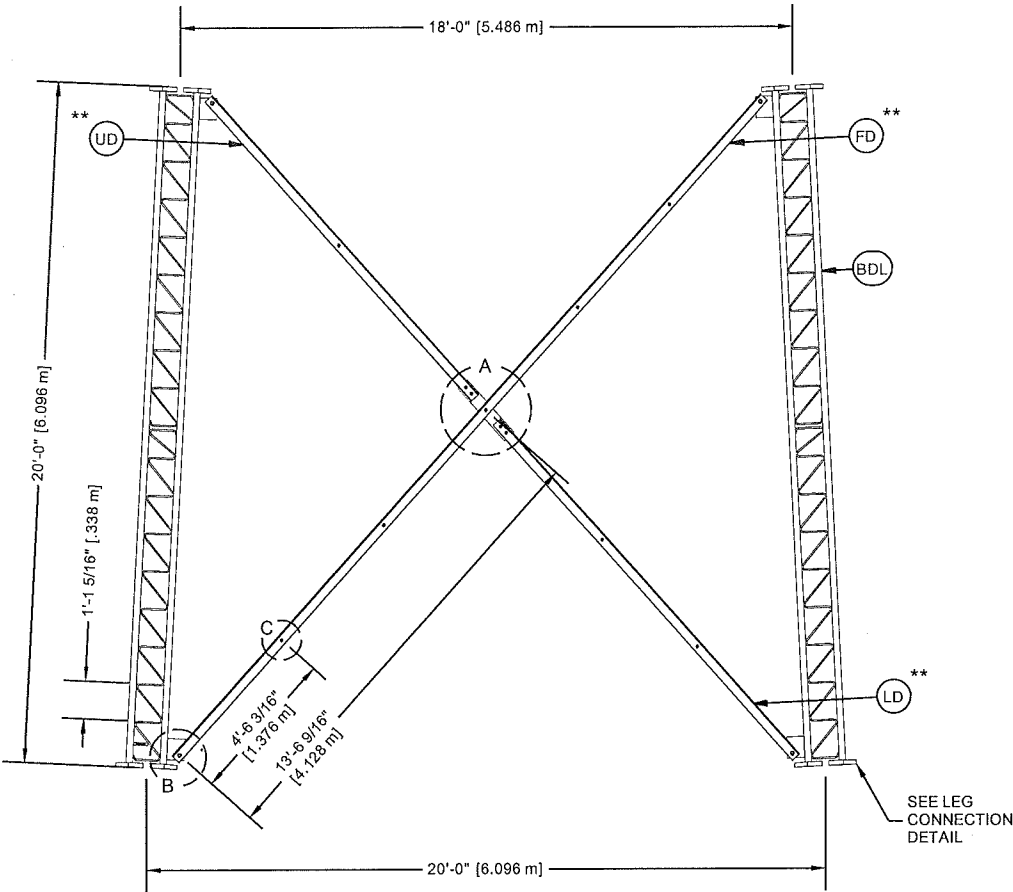


LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

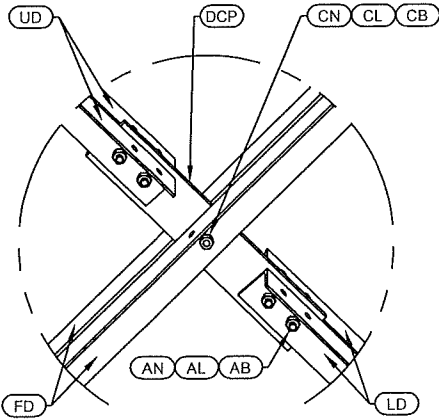


					SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		PAGE 9 OF 19	
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		SECTION U-22.0 (120' - 140' ELEVATION)					
					COPYRIGHT 2013				ENG. FILE NO.	285480		
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL			DWG. NO.
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	REVISION HISTORY				

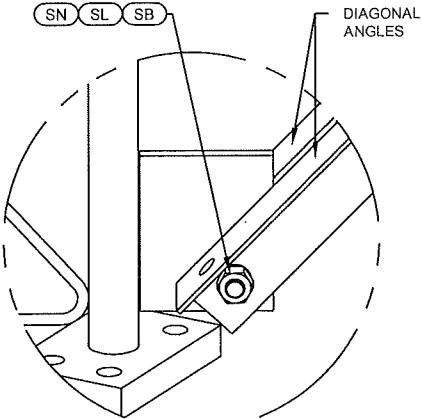
OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



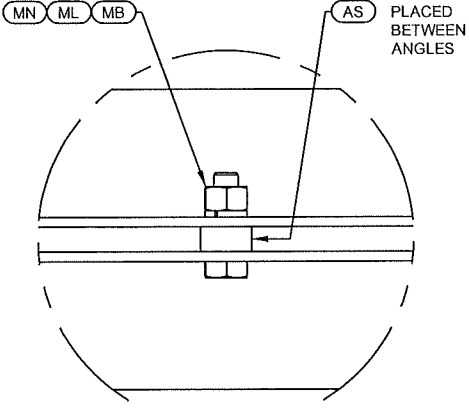
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196299	#12 LEG SECT - 2-3/4" LEG - 5/8" BRACE - 7/8" BOLT	1632.4	4897.1
UD	6	211929	ANGLE U-20 UP 11'-9 9/16"	71.6	429.5
LD	6	211930	ANGLE U-20 LOW 13'-2 27/32"	80.3	481.8
FD	6	211956	ANGLE U-20 LONG 25'-11 29/32"	157.8	947.0
ML	21	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.4
MN	21	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.5
AS	21	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	10.5
MB	21	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	5.5
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	91.1
LCF	72	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	9.4
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	5.4
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	26.3
Total Wt				6993.3 lb	[3175.0 kg]



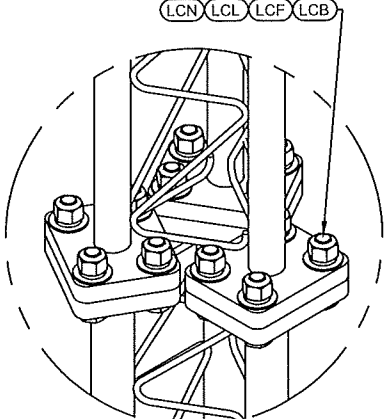
DETAIL A
ANGLE INTERSECTION CONNECTION



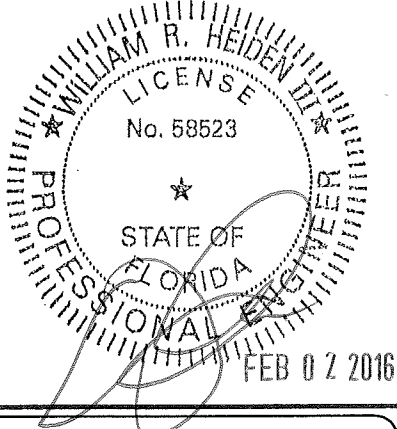
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION

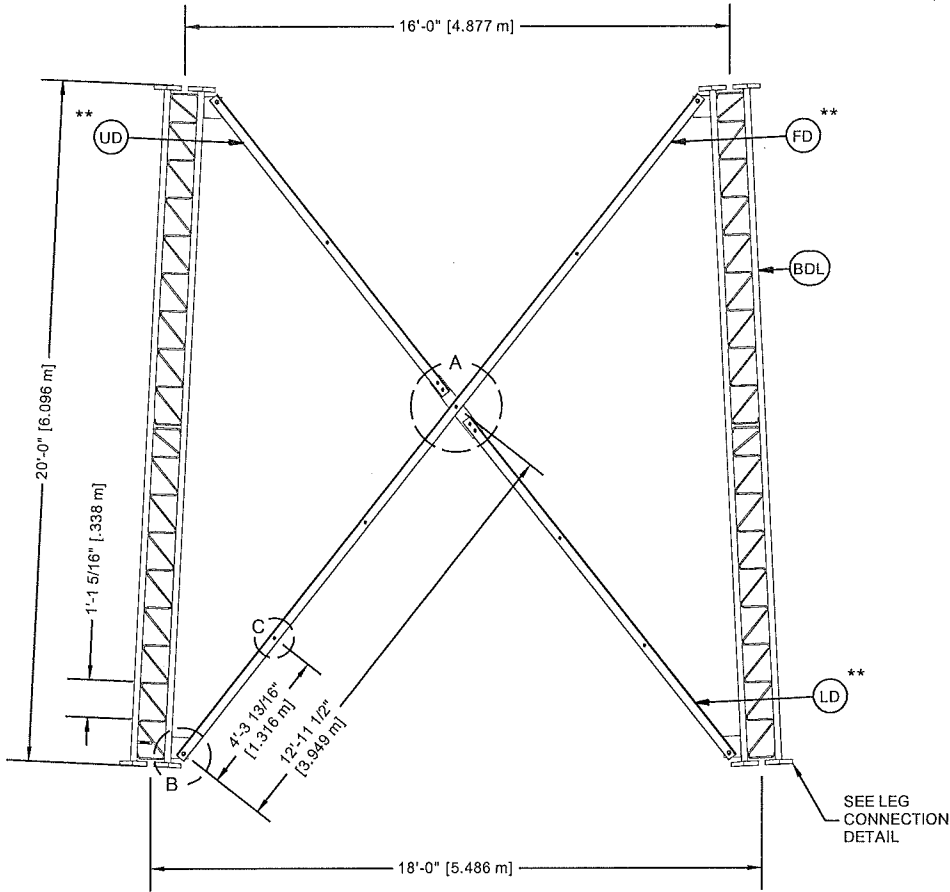


LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

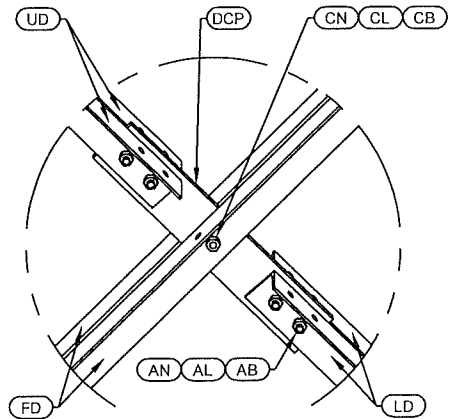


REV			DESCRIPTION OF REVISIONS			CPD		BY		DATE		REVISION HISTORY			
SITE			ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'			DESCRIPTION			SECTION U-20.0 (140' - 160' ELEVATION)			valmont  STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR			
COPYRIGHT 2013			PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			STRUCTURE APPROVAL SKK 2/2/2016			FOUNDATION APPROVAL						
ENG. FILE NO.			285480			DWG. NO.			263629T			PAGE 10 OF 19			

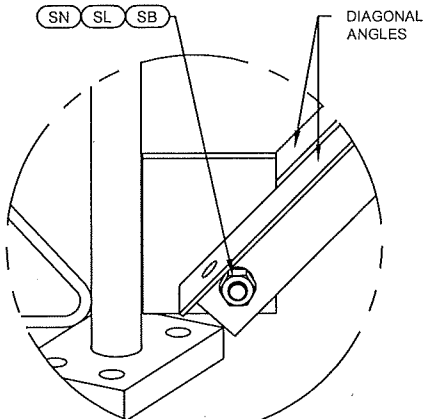
OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION
** DIAGONAL ANGLESMUST BE INSTALLED WITH THE NON-BOLTED FACE UP,
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



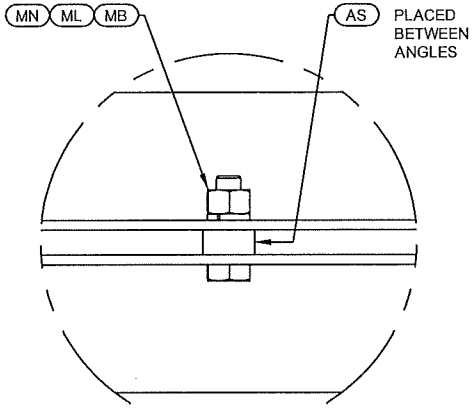
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195962	#12 LEG SECT - 2-1/2" TO 2" TRANS LEG - 1/2" BRACE	1335.4	4006.1
UD	6	211927	ANGLE U-18 UP 11'-1 3/16"	67.3	404.0
LD	6	211928	ANGLE U-18 LOW 12'-7 25/32"	76.7	460.3
FD	6	211955	ANGLE U-18 LONG 24'-8 15/32"	150.1	900.4
ML	18	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.4
MN	18	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.2
AS	18	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	9.0
MB	18	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	4.7
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	91.1
LCF	72	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	9.4
LCL	36	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	5.4
LCN	36	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	26.3
Total Wt				6006.1 lb [2726.8 kg]	



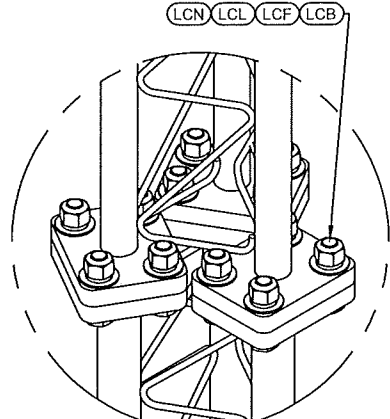
DETAIL A
ANGLE INTERSECTION CONNECTION



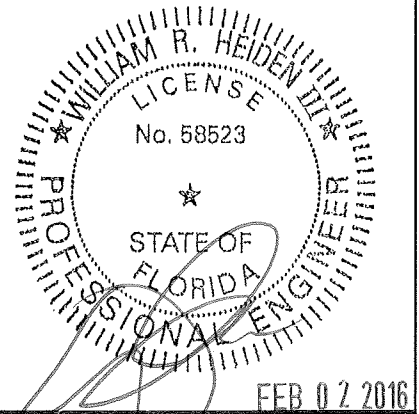
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



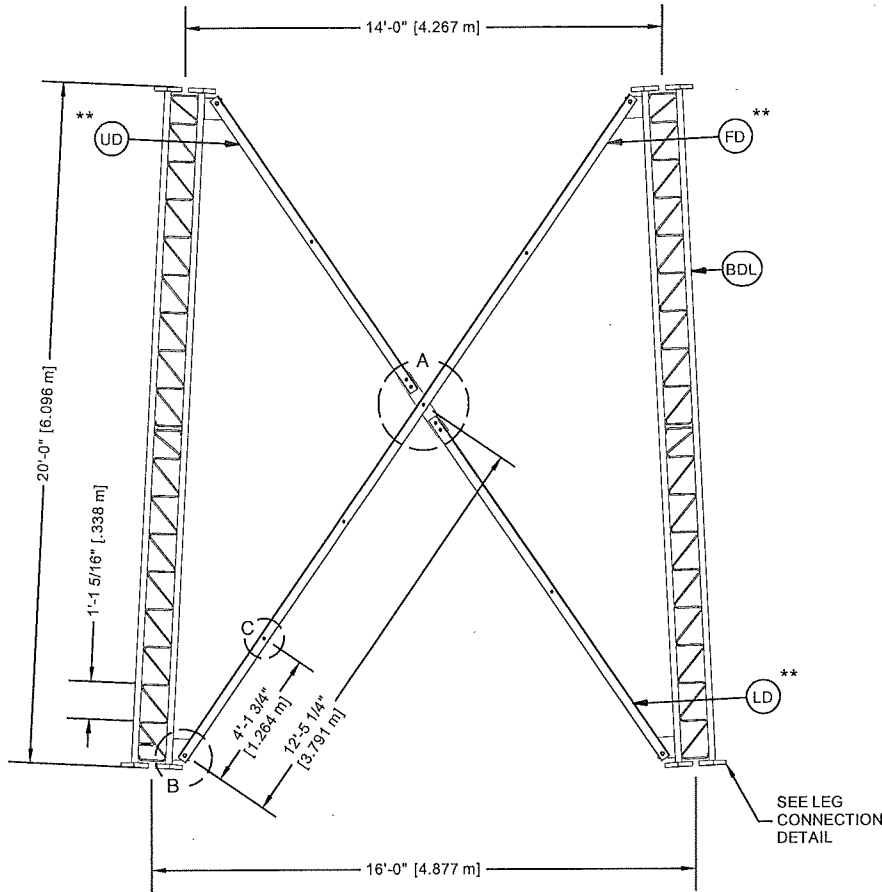
					SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		PAGE 11 OF 19
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		SECTION U-18.0 (160' - 180' ELEVATION)				
					COPYRIGHT 2013				ENG. FILE NO. 285480		
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL	DWG. NO. 263629T
REVISION HISTORY								PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

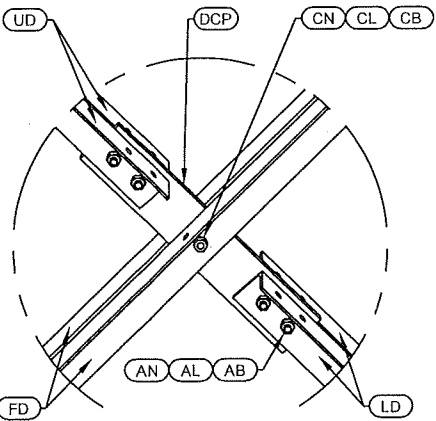
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP,

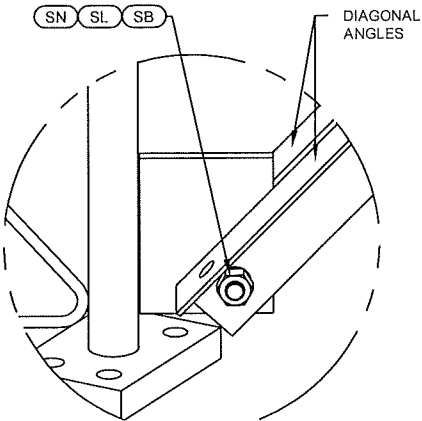
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



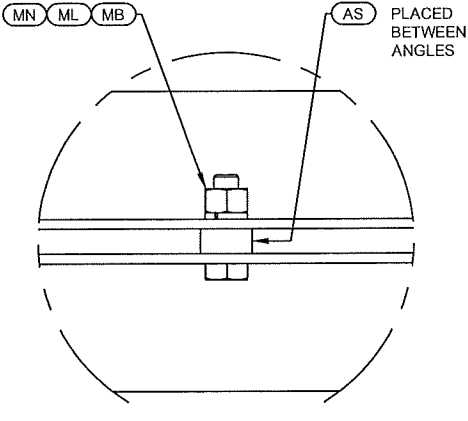
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195960	#12 LEG SECTION - 2-1/4" LEG - 1/2" BRACE - 7/8" B	1100.5	3301.6
UD	6	211925	ANGLE U-16 UP 10'-5 3/16"	63.3	379.7
LD	6	211926	ANGLE U-16 LOW 12'-1 9/16"	73.6	441.4
FD	6	211954	ANGLE U-16 LONG 23'-6 1/4"	142.8	857.0
ML	18	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.4
MN	18	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	2.2
AS	18	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	9.0
MB	18	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	4.7
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	30.2
LCF	72	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	10.1
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.1	2.9
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	15.5
Total Wt				5141.5 lb [2334.3 kg]	



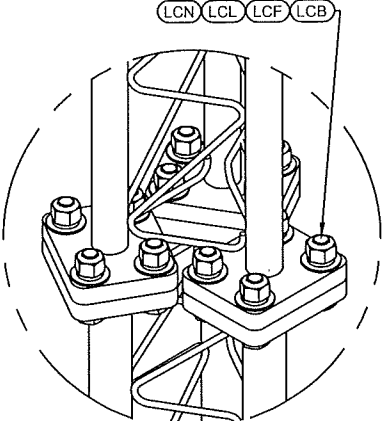
DETAIL A
ANGLE INTERSECTION CONNECTION



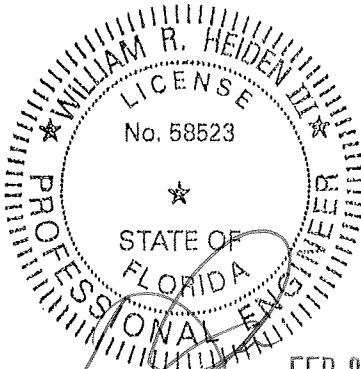
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



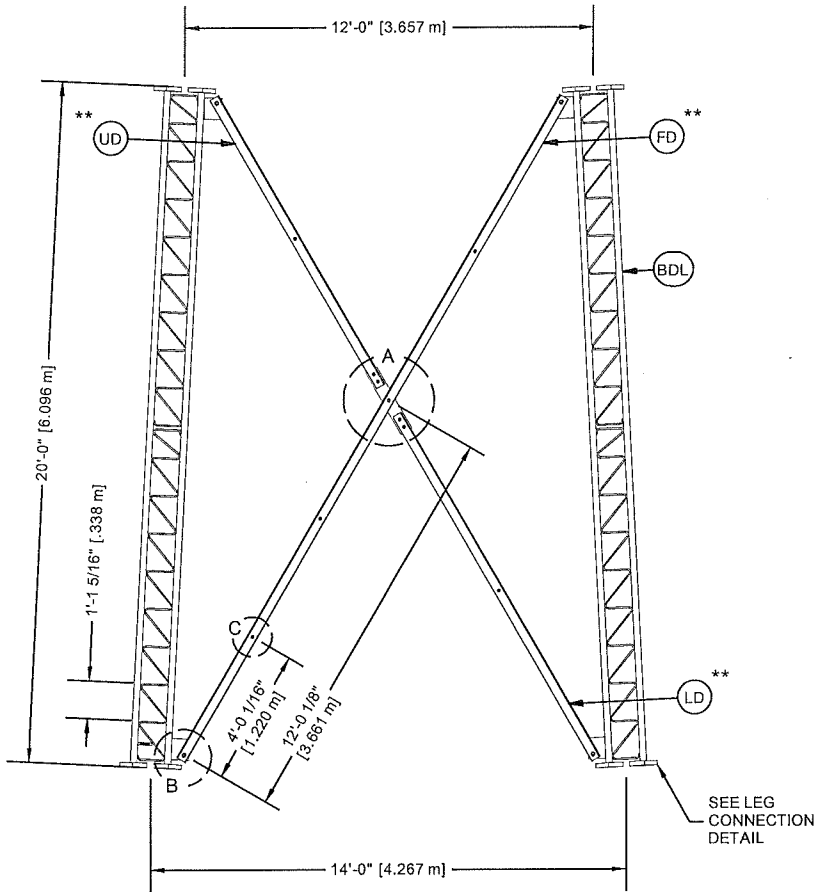
					SITE		DESCRIPTION		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		ENG. FILE NO.	285480	PAGE 12 OF 19
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'		SECTION U-16.0 (180' - 200' ELEVATION)						
					COPYRIGHT 2013								
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO.	263629T	
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	REVISION HISTORY					

OREINT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

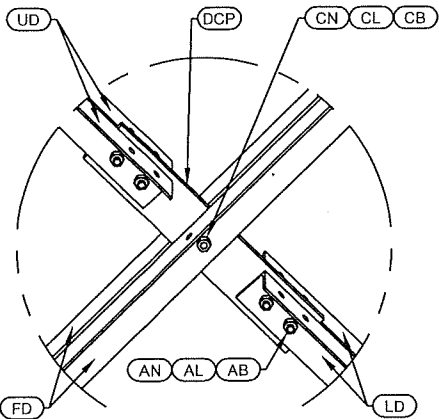
ORIENT ANGLES WITH STAMPED END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED WITH THE NON-BOLTED FACE UP, 

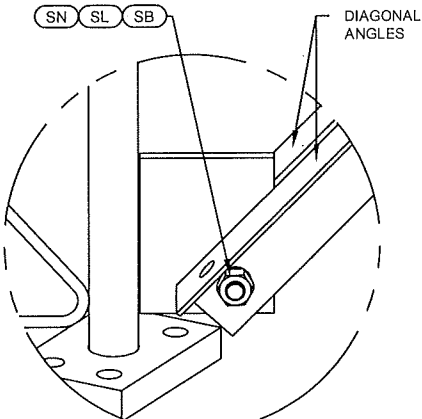
* STITCH BOLT SPACING SHOWN
IS MAX. FOR ALL ANGLES



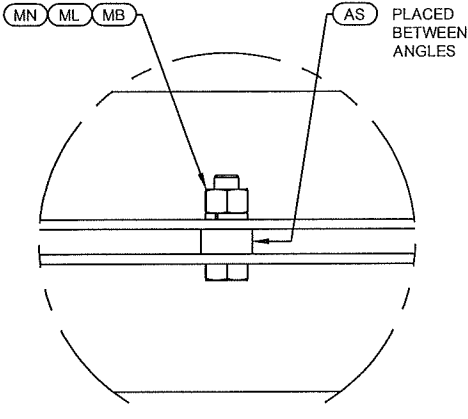
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	195637	#12 LEG SECT - 2" TO 1-3/4" TRANS LEG - 1/2" BRACE	908.9	2720.6
UD	6	211923	ANGLE U-14 UP 9'-9 1/2"	59.4	356.2
LD	6	211924	ANGLE U-14 LOW 11'-8 7/16"	71.0	426.1
FD	6	211953	ANGLE U-14 LONG 22'-5 7/16"	136.3	818.0
ML	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
MN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
AS	15	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	7.5
MB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AB/CB	15	161895	5/8"-11 X 2 1/4" A-325 BOLT 1 1/4" THREAD	0.3	3.9
AL / CL	15	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.0	0.3
AN / CN	15	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.1	1.8
DCP	3	211833	MID BRACE CONNECTION PLATE FOR #12 B/D LEG ANGLES	20.6	61.8
SL	12	312193	7/8" GALVANIZED LOCKWASHER	0.1	0.6
SN	12	312215	7/8"-9 HOT DIPPED GALVANIZED NUT	0.3	3.6
SB	12	172275	7/8"-9 X 2-1/2" A-325 BOLT WITH 1-1/2" THREAD	1.2	14.8
LCB	36	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	30.2
LCF	72	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	10.1
LCL	36	312223	1" GALVANIZED LOCKWASHER	0.1	2.9
LCN	36	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	15.5
Total Wt				4479.9 lb [2033.9 kg]	



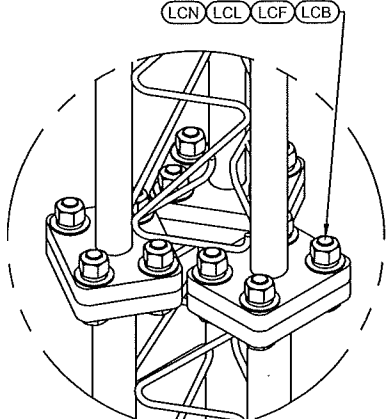
DETAIL A
ANGLE INTERSECTION CONNECTION



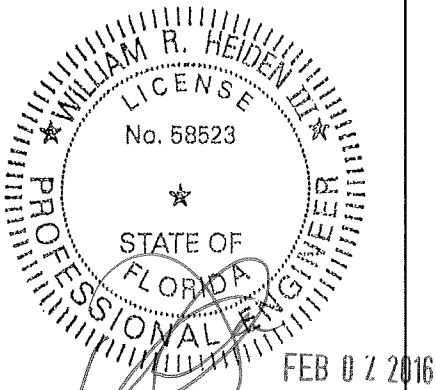
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
STITCH BOLT CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



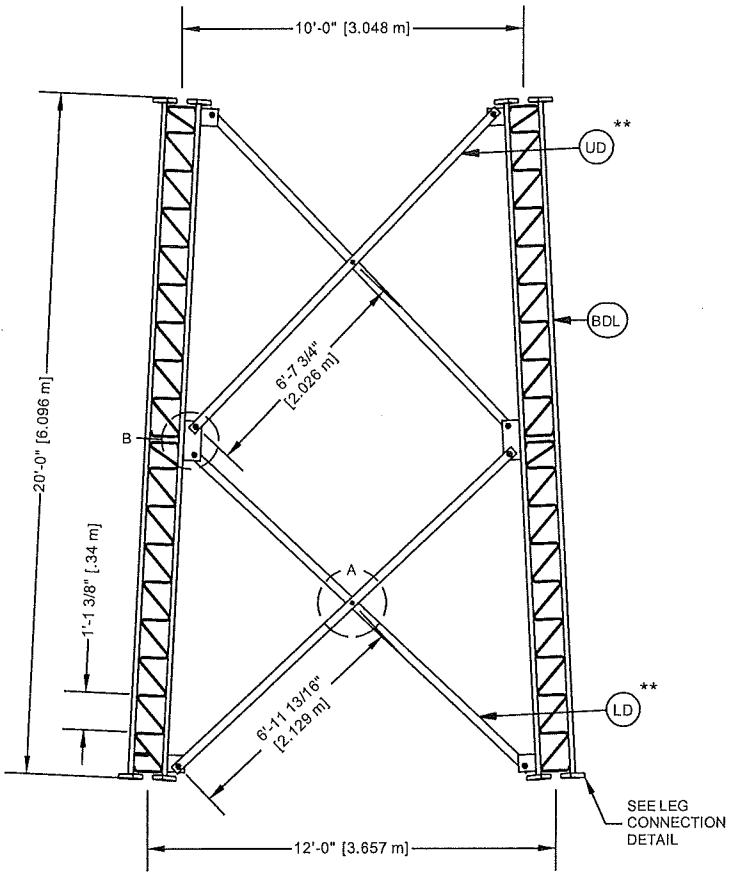
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013			DESCRIPTION SECTION U-14.0 (200' - 220' ELEVATION)			valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES						
											ENG. FILE NO.		285480		PAGE 13 OF 19		
											DWG. NO.		263629T				
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE		PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL			
REVISION HISTORY																	

valmont 
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR
STRUCTURES

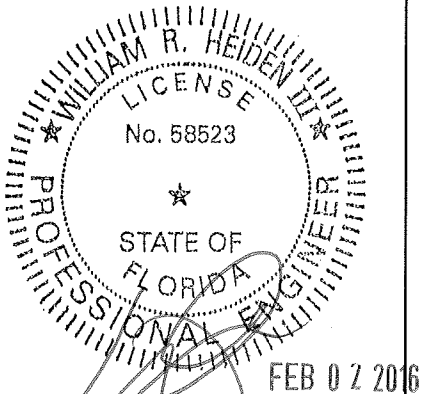
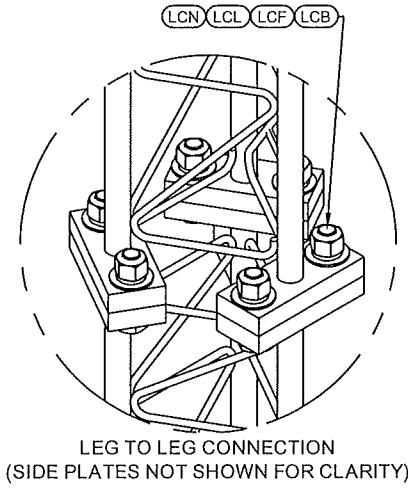
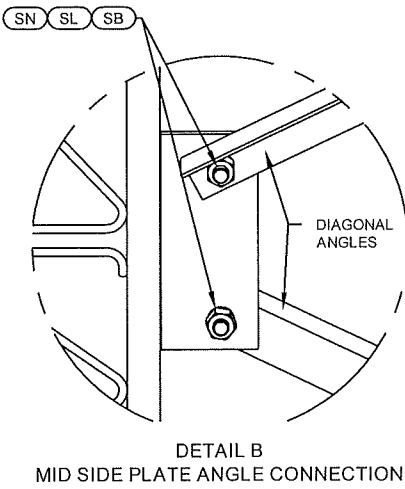
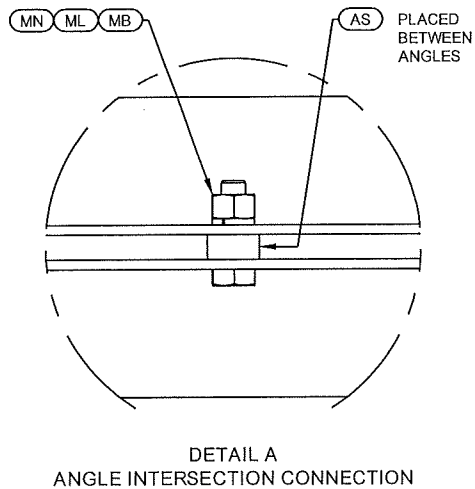
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP.
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	233038	#12 LEG SECT - 1-3/4" TO 1-1/2" TRANS - 1/2" BRACI	789.5	2368.4
LD	6	105575	DIAG BRACE 5/16" X 3" X 3" 13'-8 5/32" LONG (A-3	87.6	525.7
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	3.0
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	1.1
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.2
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	2.8
SL	24	312223	1" GALVANIZED LOCKWASHER	0.1	1.9
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	10.3
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	20.2
UD	6	105572	ANGLE U-12 UP 12'-11 21/32"	82.0	492.2
LCB	18	222022	1-1/4"-7 X 5-1/2" A-325 BOLT WITH 2" THREAD	2.5	45.5
LCF	36	312282	1-1/4" GALVANIZED FLAT WASHER (F436)	0.1	4.7
LCL	18	312283	1-1/4" GALVANIZED LOCKWASHER	0.2	2.7
LCN	18	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.7	13.1
Total Wt				3491.8 lb [1585.3 kg]	

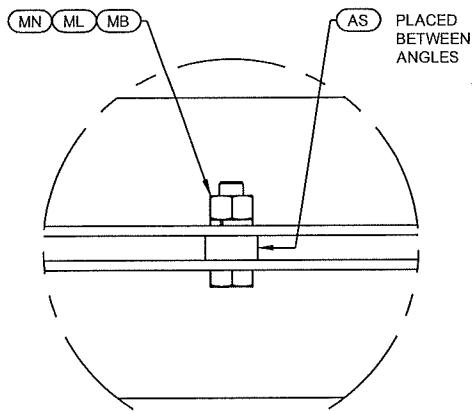
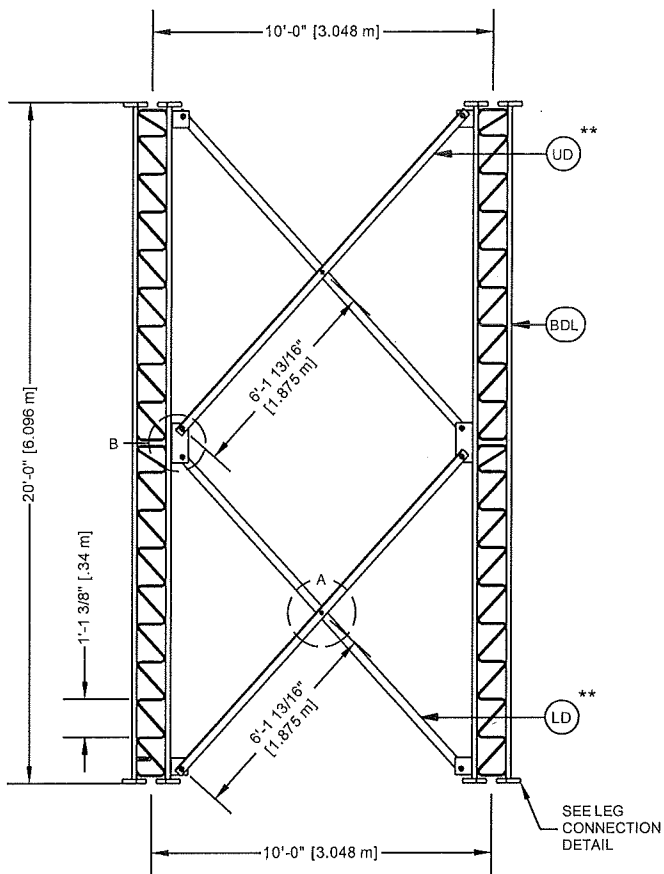


					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-12.0 (220' - 240' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		ENG. FILE NO. 285480		PAGE 14 OF 19
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	REVISION HISTORY					

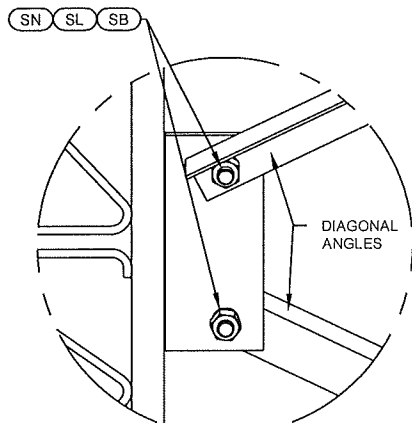
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

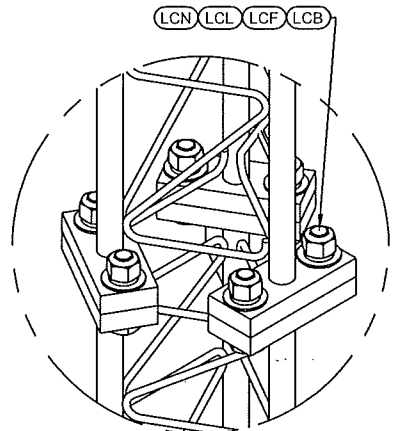
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



DETAIL A
ANGLE INTERSECTION CONNECTION

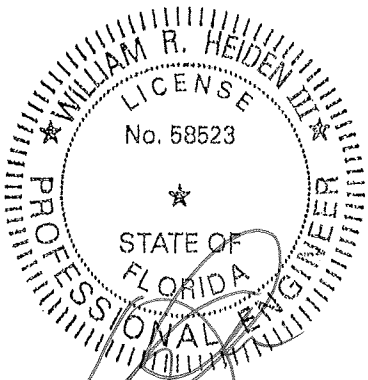


DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194651	#12 LEG SECTION - 1-1/2" LEG - 1/2" BRACE - 1" BOL	602.8	1808.5
UD & LD	12	175904	DIAG U-10 151 21/32" 3 1/2" X 3 1/2" X 5/16" FOR S	96.0	1151.5
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	3.0
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	1.1
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.2
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	2.8
SL	24	312223	1" GALVANIZED LOCKWASHER	0.1	1.9
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	10.3
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	20.2
LCB	18	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	15.1
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	5.0
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.1	1.4
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	7.7
Total Wt				3028.7 lb [1375.1 kg]	



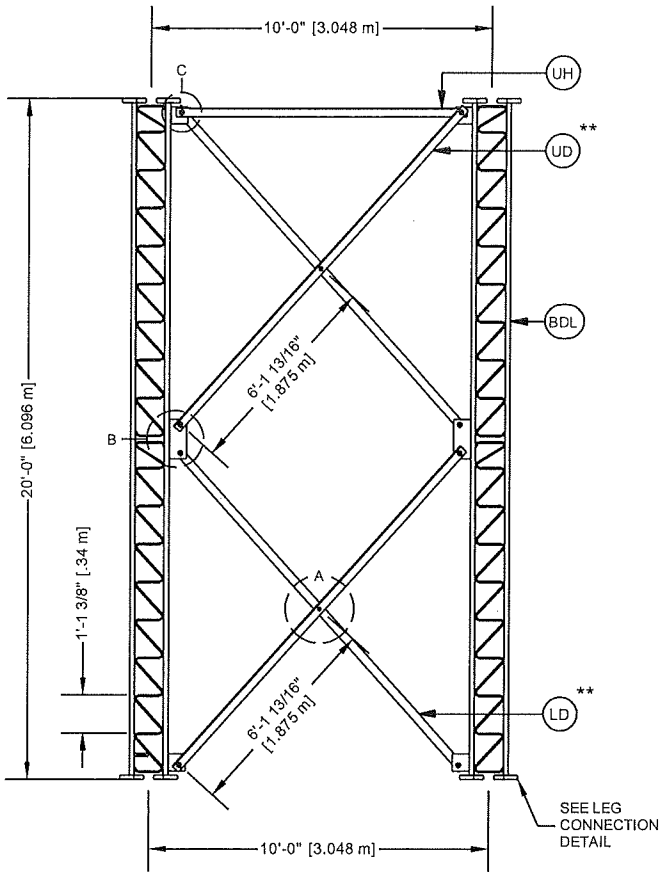
FEB 02 2016

					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-10.0 (240' - 260' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		ENG. FILE NO. 285480		PAGE 15 OF 19
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		
					REV		DESCRIPTION OF REVISIONS		CPD	BY	DATE	REVISION HISTORY	

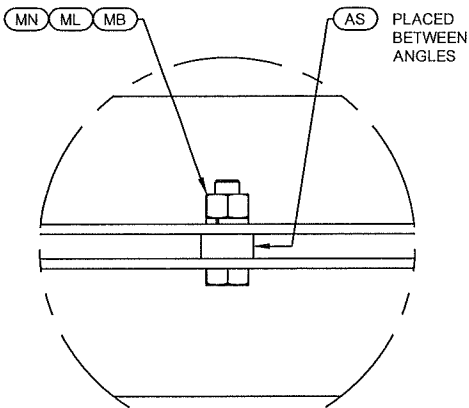
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

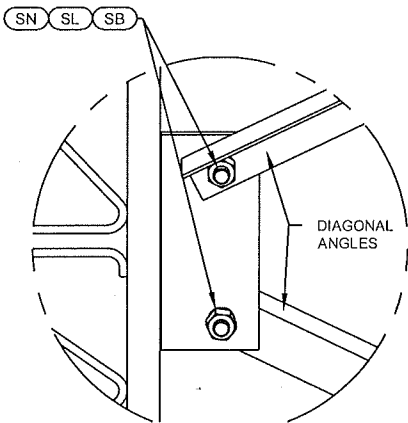
** DIAGONAL ANGLES MUST BE INSTALLED
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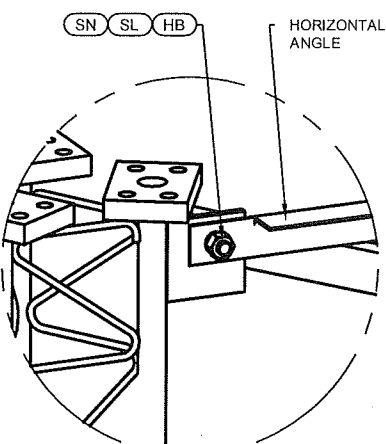
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194435	#12 LEG SECTION - 1-1/4" LEG - 5/8" BRACE - 1" BOL	538.8	1616.3
UD & LD	12	106087	DIAG BRACE 5/16" x 3" x 3" 12'-7-21/32" LONG	76.8	921.1
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	3.0
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	1.1
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.2
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	2.8
SL	24	312223	1" GALVANIZED LOCKWASHER	0.1	1.9
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	10.3
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	20.2
UH	3	105783	HORIZONTAL BRACE 8'-5- 1/2" LONG	31.2	93.7
HB	6	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.1	6.5
LCB	18	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	15.1
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	5.0
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.1	1.4
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	7.7
Total Wt				2706.3 lb [1228.7 kg]	



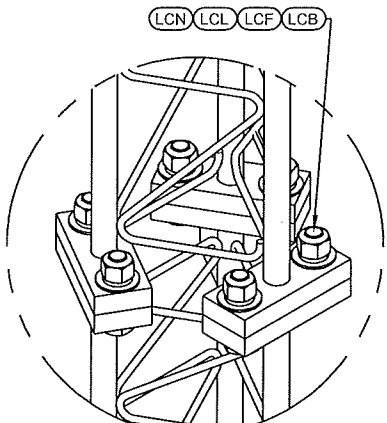
DETAIL A
ANGLE INTERSECTION CONNECTION



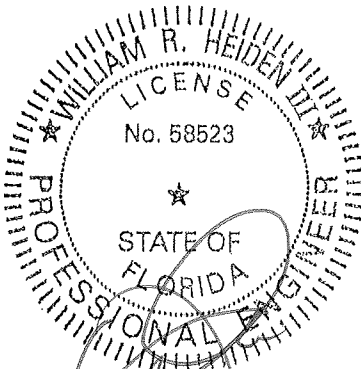
DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



FEB 07 2016

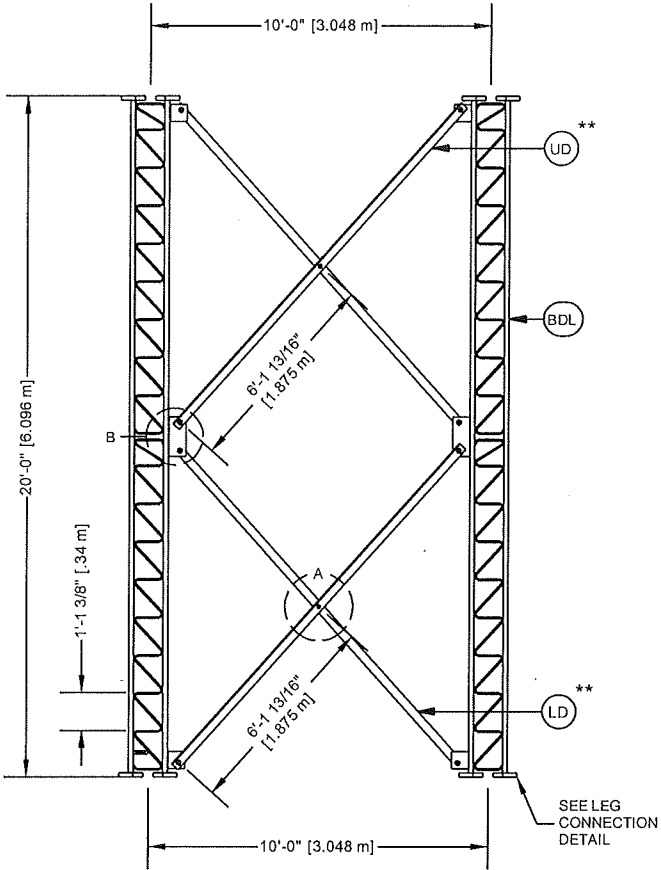
					SITE			DESCRIPTION			valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES													
					ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325'			SECTION U-10.0 (260' - 280' ELEVATION)																
					COPYRIGHT 2013						ENG. FILE NO.													
											285480													
REV					DESCRIPTION OF REVISIONS					CPD	BY	DATE	STRUCTURE APPROVAL			FOUNDATION APPROVAL			DWG. NO.			PAGE 16 OF 19		
					REVISION HISTORY					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.					SKK			2/2/2016			263629T			

valmont 
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR
STRUCTURES

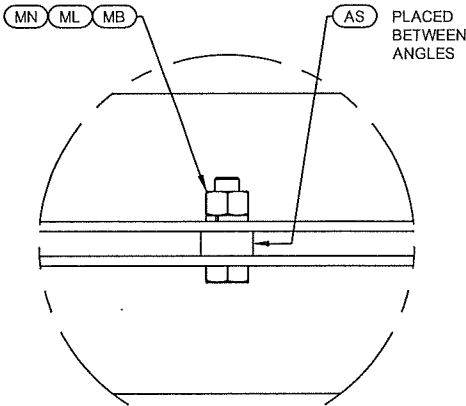
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

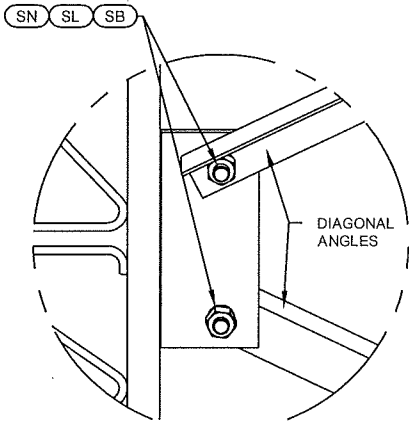
** DIAGONAL ANGLES MUST BE INSTALLED
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SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



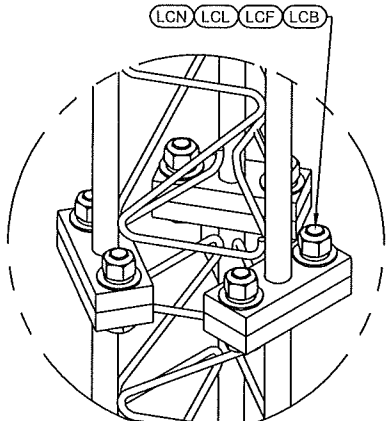
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194434	#12 LEG SECT - 1-1/4" LEG - 1/2" BRACE - 1" BOLT -	489.8	1469.5
UD & LD	12	106085	DIAG BRACE 3/16" X 2-1/2" X 2-1/2" 12'- 7-21/32"	38.6	463.6
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	3.0
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	1.1
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.2
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	2.8
SL	24	312223	1" GALVANIZED LOCKWASHER	0.1	1.9
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	10.3
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	20.2
LCB	18	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	15.1
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	5.0
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.1	1.4
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	7.7
Total Wt				2001.8 lb [908.8 kg]	



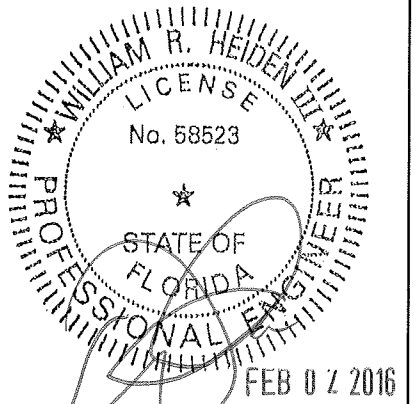
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

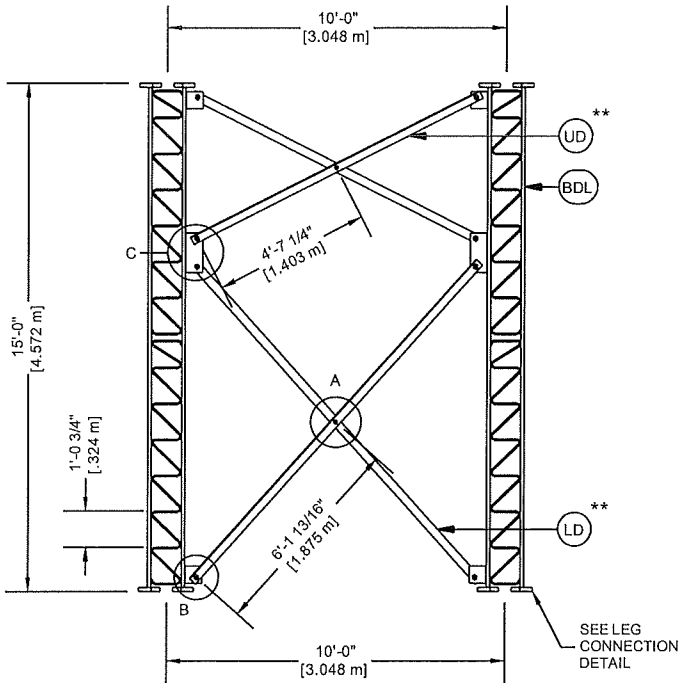


					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-10.0 (280' - 300' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
									ENG. FILE NO. 285480		
					STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL		DWG. NO. 263629T		
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.				PAGE 17 OF 19		
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE				
										REVISION HISTORY	

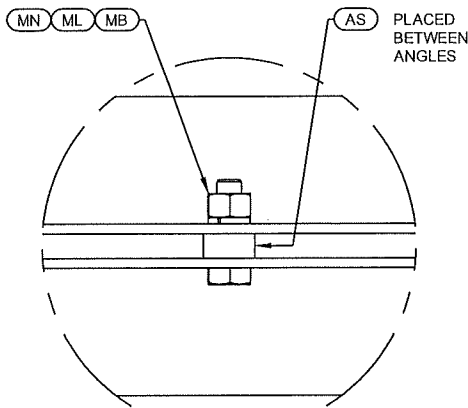
ORIENT LEGS WITH PIN STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

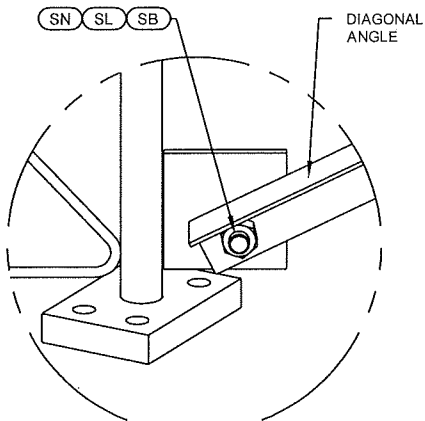
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP. ↑↑
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



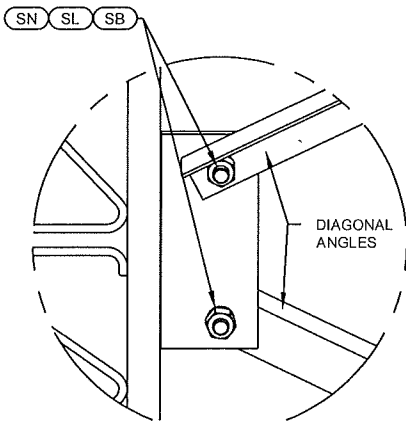
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	263628	#12 LEG SECT - 1-1/4" LEG - 1/2" BRACE - 1" BOLT -	367.4	1102.1
LD	6	106085	DIAG BRACE 3/16" X 2-1/2" X 2-1/2" 12'- 7-21/32"	38.6	231.8
UD	6	199221	DIAGONAL BRACE #12 B/D LEG 15'-0" NO TAPER 5' TOP	31.0	186.1
AS	6	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	3.0
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	1.1
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.2
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	2.8
SL	24	312223	1" GALVANIZED LOCKWASHER	0.1	1.9
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	10.3
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	20.2
LCB	18	172261	1"-8 X 5" A-325 BOLT WITH 1-3/4" THREAD	0.8	15.1
LCF	36	312222	1" GALVANIZED FLAT WASHER (F436)	0.1	5.0
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.1	1.4
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	7.7
Total Wt				1588.7 lb [721.3 kg]	



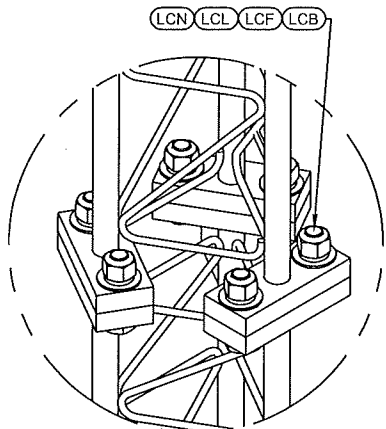
DETAIL A
ANGLE INTERSECTION CONNECTION



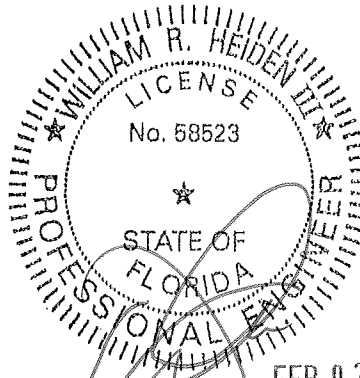
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



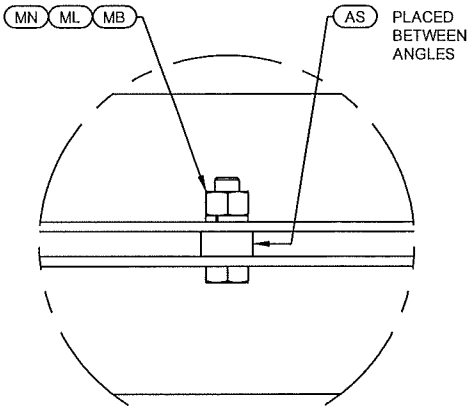
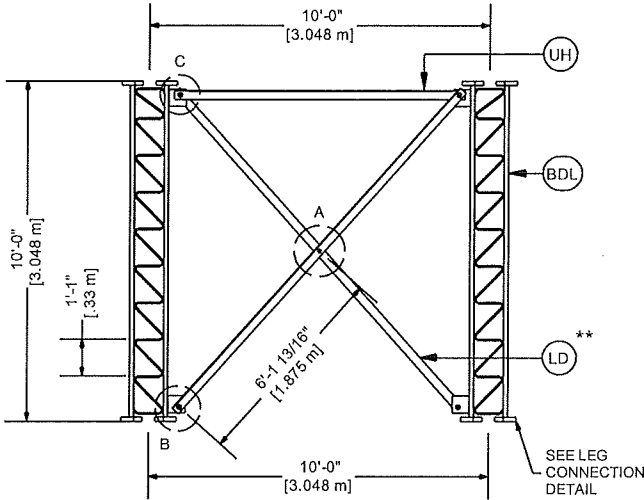
					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-10.0 (300' - 315' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		ENG. FILE NO. 285480		PAGE 18 OF 19
									DWG. NO. 263629T				
					REV		DESCRIPTION OF REVISIONS			CPD	BY	DATE	
REVISION HISTORY					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.								

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

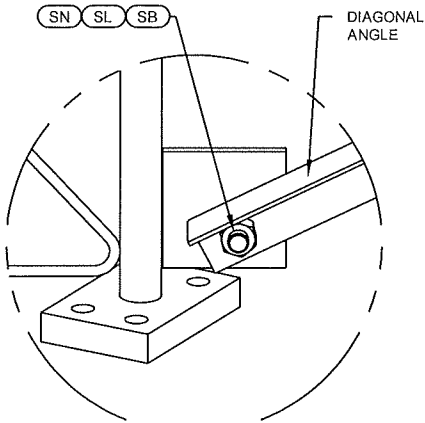
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP.
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

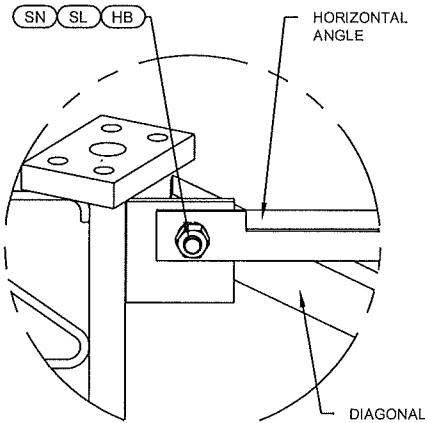
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	196994	#12 LEG SECTION - 1-1/4" LEG - 1/2" BRACE - 1" BOL	279.3	838.0
FD	6	106085	DIAG BRACE 3/16" X 2-1/2" X 2-1/2" 12'-7-21/32"	38.6	231.8
AS	3	104291	SPACER 1/2" THICK 13/16" HOLE	0.5	1.5
HN	3	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.2	0.6
HL	3	312153	3/4" GALVANIZED LOCKWASHER	0.0	0.1
HBI	3	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.5	1.4
SL	12	312223	1" GALVANIZED LOCKWASHER	0.1	1.0
SN	12	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.4	5.2
SB	12	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.8	10.1
UH	3	105783	HORIZONTAL BRACE 8'-5- 1/2" LONG	31.2	93.7
HB	6	225017	1"-8 X 3-1/2" A-325T BOLT WITH FULL THREAD	1.1	6.5
Total Wt				1189.9 lb [540.2 kg]	



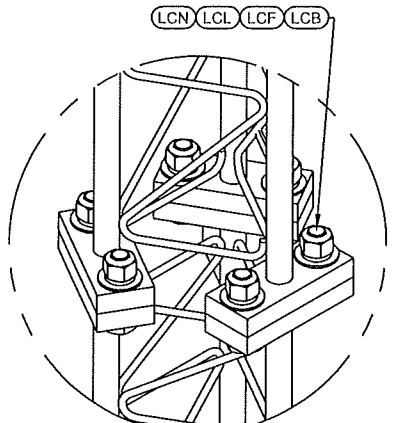
DETAIL A
ANGLE INTERSECTION CONNECTION



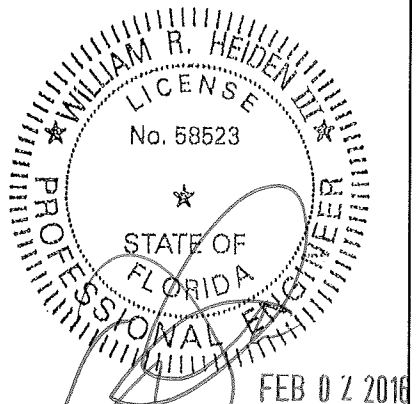
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
UPPER HORIZONTAL ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



					SITE ENERGY PLANT CRYSTAL RIVER, FL DUKE ENERGY U 34 X 325' COPYRIGHT 2013		DESCRIPTION SECTION U-10.0 (315' - 325' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES	
									ENG. FILE NO. 285480	
					PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		STRUCTURE APPROVAL SKK 2/2/2016		FOUNDATION APPROVAL	
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE	DWG. NO. 263629T		PAGE 19 OF 19
REVISION HISTORY										

**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 2

Citrus County Code Compliance
Additional Project Details

Duke Energy Florida Crystal River Energy Complex Communications Tower

February 2016

Proposed Project Description

The construction of a 325-ft (345-ft Above Ground Level with appurtenances) lattice, self-support communications tower at the Crystal River Energy Complex (CREC). The proposed communications tower facility will be located on the northern portion of an approximately 4,000 acre property, identified as Parcel ID: 16E17S33 10000. See enclosed Sheet T-1 for a vicinity and location map. Access to the site will be provided by a proposed 15-ft wide stabilized access drive from an existing roadway to the proposed 100-ft x 100-ft fenced compound which is located within a previously disturbed maintained grass area. The approximate area of disturbance for the fenced compound and roadway is 0.34 acres.

Fiber will be routed underground, through previously disturbed areas, from the proposed tower compound west from the site 845 and 1045 feet to reach existing fiber boxes. Power will be routed overhead to the tower compound for approximately 1,390-ft from an existing utility pole. Approximately 320-linear feet of an existing water main will be relocated outside and east of the proposed tower compound, to a previously disturbed maintained grass lawn.

The existing site communications, Citrus County Sheriff Department (CCSD) and Verizon Wireless equipment are located on the old Units 4 and 5 stacks and Units 1 and 2 building. The existing Unit 4 and 5 stacks have been retired as part of the Clean Air projects and the Units 1 and 2 will be retired once the new Citrus Combined Cycle facility is in operation. These facilities will be demolished necessitating the need to construct a new communications tower at the site. DEF determined the best option was the construction of a new communications tower at the site to consolidate the communications equipment and minimize the potential impacts to plant infrastructure.

Citrus County Requirements

Requirement	Reference	Project Information
3500. SURFACE WATER QUALITY PROTECTION 3501. SURFACE WATER PROTECTION STANDARDS A. All structures shall be a minimum of 50 feet from either the mean high water line or ordinary high water line, except as follows: 1. Structures on lots of record that meet stormwater management standards of this LDC shall be set back a minimum of 50 feet, or 35 feet from the mean high water line or ordinary high water line, if swales or berms are provided.	Citrus County – Section 3501	The ditch located immediately to the south of the proposed tower location is part of an NPDES-permitted industrial wastewater treatment system with its own internal NPDES outfall. This ditch receives treated coal pile runoff, truck wash water, and contact stormwater (stormwater associated with industrial activity) from the plant equipment. It has no direct connection to surface water and is not tidally influenced. Therefore, the proposed tower is not located within 50 feet of the mean high or ordinary high water line. See the Attachment 1 Drawings - Sheet C-1 for the location of the site on the parcel and Sheet C-2 for the detailed location.
B. Site preparation and/or land clearing shall not be permitted prior to the issuance of a final development order.	Citrus County – Section 3501.B	The Crystal River site is permitted under the Power Plant Siting Act (PPSA) PA77-09A3. Final approval of construction of the tower will be under a post-certification amendment under the PPSA. A final development order is not applicable.

Requirement	Reference	Project Information
C. All development proposals shall include adequate evidence and assurances that the following requirements will be met during construction: 1. A minimum 15-foot buffer measured from the mean high water line or ordinary high water line for tidal/non-tidal waters and/or jurisdictional wetland line shall be established adjacent to the water body or wetland in order to protect the water body from adverse impacts of construction activity including, but not limited to, erosion and siltation. The proposal shall confirm in writing that a 15-foot buffer is adequate for such protection, or shall indicate the size (wider) of the buffer deemed to be adequate that shall be provided to meet this requirement.	Citrus County – Section 3501.C.1	See response to Item A.1. Above.
3. No alteration of the buffer shall be permitted including destruction of existing vegetation or alteration of the natural topography except for maintenance such as trimming.	Citrus County – Section 3501.C.3	The coal pile runoff ditch is not surface waters and there is no buffer present. Sedimentation and erosion controls will be used around the construction area to prevent any runoff to the adjacent coal pile runoff ditch. See Attachment 1 Drawings for Sheet C-7 for the sedimentation and erosion control plan and Sheet N-3 for the sedimentation and erosion control notes.
4. For lots or parcels that are cleared, and where potential for erosion or siltation is evident, silt screens shall be placed between the construction site and an adjacent water body to prevent erosion and siltation. After construction, natural vegetation within the 15-foot buffer that does not lie within jurisdictional wetlands may be altered up to 50 percent.	Citrus County – Section 3501.C.4	There is no potential for stormwater runoff to jurisdictional waters but sedimentation and erosion controls will be used in the construction area to prevent any runoff to the adjacent coal pile runoff ditch. See Attachment 1 Drawings for Sheet C-7 of the enclosed plans for the sedimentation and erosion control plan and Sheet N-3 for the sedimentation and erosion control notes.
3520. FLOODPLAIN PROTECTION STANDARDS OF THE LDC Floodplain management regulations shall be administered and enforced as part of the provisions of Chapter 18 of the Citrus County Code, or its successor, except as otherwise outlined below: A. Setbacks in Velocity Zones and Coastal A Zones: Located within areas of special flood hazard so designated by Federal Emergency Management Agency in its Flood Insurance Rate Maps (FIRM) as having special flood hazards associated with wave action from storms, all buildings or structures shall be located not less than 50 feet landward of the reach of the Mean High Water Line as determined by a survey meeting the requirements of the FDEP. Mean high water line and mean high water as used herein shall have the same meaning given in Chapter 177, F.S.	Citrus County – Section 3520.A	The project is located in flood zone “VE”, areas determined to have a base flood elevation of 14 feet, FEMA FIRM Community Panel Number 120230 0425E, Dated September 30, 1992. This communications tower is needed to support an existing power generating complex and replace existing equipment. The equipment enclosures will be elevated outside of the base flood elevation. See note 2 on the Attachment 1 - Drawings for Sheet C-3 indicating the top of the equipment platform is to be a minimum of 2 feet above base flood elevation.

Requirement	Reference	Project Information
3540. COASTAL HIGH HAZARD AREA (CHHA) A. The CHHA boundary is mapped on the LDC Atlas. The CHHA is defined by the Category 1 Hurricane Evacuation Zone. Properties within the CHHA shall be required to adhere to the development standards of this section as well as all other requirements of the LDC. Where requirements may be in conflict, the more restrictive requirements shall prevail. The following uses are exempted from the restrictions of this section due to the unique location, nature, and importance of these uses • Power plant facilities, • Seven Rivers Community Hospital, • Mining operations and related uses, and • The City of Crystal River may expand or relocate its public water and wastewater treatment facilities as needed; however, new or expanded facilities should be flood-proofed and have backup power supplies and emergency plans to address major storm events.	Citrus County – Section 3540.A	Although the site is located in the CHHA, per Citrus County requirements it is exempted from the restrictions of this section due to the existing power plant facilities.
3560. ENDANGERED AND THREATENED SPECIES HABITAT PROTECTION This section provides standards for protection of all habitats utilized by species of endangered, threatened, or special concern status in Citrus County as listed by the United States Fish and Wildlife Conservation Commission (USFWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC). A. All nonresidential development in excess of five acres via the site development plan and new residential development via the platting process when planned on land possessing native vegetative communities and wildlife habitat are subject to the standards of this section.	Citrus County – Section 3560.A	The proposed site is located in a maintained and mowed grassy area within an existing, large power plant complex. No habitat exists on the site of the proposed development. Per the existing Conditions of Certification for the project, DEF will conduct an additional listed species survey prior to the start of construction to ensure that no listed species are present. If any species were present during this survey, construction would be delayed until these issues are addressed.
3570. HISTORICAL AND/OR ARCHAEOLOGICAL AREA PROTECTION 3571. PURPOSE AND INTENT The purpose of this section is to describe those requirements necessary to promote the educational, cultural, and economic welfare of the County’s citizens by preserving and protecting historical structures, sites, monuments, areas, neighborhoods, as well as areas of archeological significance. Furthermore, it is the intent of the BCC to strengthen the economy of the County by stabilizing and improving property values in historical areas, by	Citrus County – Section 3571	DEF’s consultants contacted the Florida Division of Historical Resources (DHR) to review the Florida Master Site File to make an assessment of the potential significant impacts to architectural or historic sites in the vicinity of the proposed tower site. A 0.75-mile radius Area of Potential Effect (APE) was established for the proposed tower to determine if it would have any visual effect on properties listed on or eligible for listing on the National Register of Historic Places (NRHP). The DHR revealed no (0) recorded architectural sites, listed on or eligible for listing on the NRHP, located within the visual APE and no (0) archaeological sites were identified within the direct effects APE. A Secretary of the Interior qualified archaeologist and

Requirement	Reference	Project Information
encouraging new development which is harmonious with existing historical and/or archaeological resources in the area, and preserving and enhancing areas that reflect the County's cultural, social, economic, political, and architectural history. 3572. APPLICABILITY The requirements of this section shall apply to all property within unincorporated Citrus County identified within the County's inventory of historical and archeological sites, as may be amended from time to time.		architectural historian conducted a Review of Archaeological Potential for the proposed tower site. The results of the assessment indicated that "the entire project area is located within an area previously disturbed by heavy grading and the development of the nuclear power plant facility. As the proposed tower compound will be located within a previously disturbed area and as subsurface disturbance exceeds the proposed construction depth by at least two feet (excluding footings and other anchoring mechanisms), the location has no potential to contain significant, intact archaeological sites. DEF's Conditions of Certification for the site under the PPSA have a condition (B.VII.B) that if any historical or archaeological artifacts or features are discovered within the certified site the FDEP District Office and the DHR will be notified.
3750. COMMERCIAL WIRELESS TELECOMMUNICATIONS TOWERS, STRUCTURES, AND ANTENNAS A. Purpose and Intent The purpose and intent of these regulations is to establish guidelines for the siting of commercial wireless telecommunications towers, structures and antennas and support facilities in Citrus County and to minimize adverse impacts to adjacent and nearby properties located within the search radius as defined herein. The goals of these regulations are to: 1. Protect residential areas and land uses from the potential adverse impacts of commercial wireless telecommunications towers, structures and antennas when placed at inappropriate locations or permitted without adequate controls and regulations consistent with the provisions of law;	Citrus County – Section 3750	The proposed tower is not located within a residential area or within a residential land use area. It is located at an existing electric power generating station.
2. Encourage the location of towers in nonresidential areas;	Citrus County – Section 3750	This tower is located at an existing power plant generating facility. The land use is TCU.
3. Minimize the adverse visual impacts resulting from commercial wireless telecommunications towers, structures and antennas through sound and practical design, siting, landscape screening, and innovative camouflaging techniques all in accordance with generally acceptable engineering and planning principles;	Citrus County – Section 3750	This tower is located at an existing power plant generating facility. The nearest property line is approximately 950 feet to the north. The surrounding power plant generating facilities negate the need for any additional camouflaging techniques or the need for landscaping the facility.
4. Avoid potential damage to adjacent and nearby properties located within the search radius as defined herein through sound engineering and planning and the prudent and careful siting of tower structures;	Citrus County – Section 3750	The tower is located at an existing power plant generating facility. The nearest property line is approximately 950 feet to the north. The property to the north of the site is mining (EXT). There should be no damage to adjacent and nearby properties by the construction of the proposed facility.

Requirement	Reference	Project Information
5. Enhance the ability of the providers of telecommunications services to provide such services to the community quickly, effectively, and efficiently;	Citrus County – Section 3750	This tower replaces the existing communications equipment at the CREC site which needs to be relocated due to the retirement of the facilities on which it is located. Also on the tower will be communications equipment from Verizon and the CCSD. These additional facilities on the site will enhance the ability for services to be provided to the community quickly, effectively and efficiently.
6. Consider the public health, safety and welfare of the citizens of Citrus County;	Citrus County – Section 3750	This tower replaces the existing communications at the CREC site which needs to be relocated due to the retirement of the facilities on which it is located. Also on the tower will be communications equipment from Verizon and the CCSD. The tower is located on already disturbed area and does not impact any new property.
7. Require shared use and collocation on existing and new telecommunications towers to avoid proliferation of unnecessary towers in Citrus County;	Citrus County – Section 3750	This tower collocates the existing CREC site communications equipment along with CCSD equipment and Verizon facilities.
8. Ensure that the location of telecommunications towers is consistent with the provisions of the Citrus County Comprehensive Plan, the Withlacoochee Strategic Regional Policy Plan, the State Comprehensive Plan, as well as the provisions of State and Federal Law and local regulations.	Citrus County – Section 3750	The location of the proposed tower at the existing power plant generating facility is consistent with the provisions of the Citrus County Comprehensive Plan, the State Comprehensive Plan, and the provisions of the applicable State and Federal laws and local regulations.
B. Applicability 1. New Telecommunications Towers, Alternative Tower Structures, and Antennas - All new telecommunications towers, new antennas, and new alternative tower structures in the County shall require County permits and be subject to these regulations and all other applicable regulations except those being constructed for public safety. For purposes of measurement, telecommunications tower and alternative tower structure setbacks and separation distances as listed in this LDC, shall be calculated and applied to those towers and tower structures located in the County irrespective of municipal and County jurisdictional boundaries.	Citrus County – Section 3750.B.1	The CREC site is certified under the State of Florida’s Power Plant Siting Act (PPSA) (PA77-09A3) and is not required to obtain separate site plan approval from Citrus County. This project will be approved as a post-certification amendment to the existing approval. DEF is required to comply with the substantive requirements of the Citrus County Code, which this project does.
C. Permitted Uses 1. General - The uses listed in this section are deemed to be permitted uses requiring approval as outlined in this LDC and shall not require a Conditional Use unless specifically required in Table 3-5. 2. Permitted Uses - Antennas on buildings, telecommunications towers, and alternative tower structures, are specifically permitted in the following: a. On property owned, leased, or otherwise controlled by Citrus	Citrus County – Section 3750.C.1. and 2	Table 3-5 indicates a lattice tower is a permitted use in TCU district.

Requirement	Reference	Project Information
County provided a license or lease authorizing such antenna or tower has been approved by Citrus County and minimum requirements of the LDC can be met. b. In districts as further defined in Table 3-5.		
E. Standards and Requirements for Telecommunications Towers and Alternative Tower Structures and Antennas Either as Permitted or Conditional Use. 1. Height and Aviation Regulations a. General. The height requirements of this section shall be met unless a specific height is approved by a Conditional Use as specified above.	Citrus County – Section 3750.	The application to the FAA was submitted on 7/29/15; please see Attachment 3 for this application. FAA approved tower construction on 9/8/2015. FAA ASN (Aeronautical Study Number): 2015-ASO-11502-OE See Attachment 4 – FAA No Hazard to Air Navigation Letter FCC ASR (Antenna Structure Record) application has not yet been submitted. Application will be submitted after environmental studies are completed. Study reports to be attached to FCC ASR application.
b. Compliance with Aviation Regulations. The applicant must demonstrate that the proposed tower complies with all state and federal laws and regulations concerning aviation safety, including Part 77 of the Federal Aviation Regulations and Part 17 of the FCC Regulations. In addition, the applicant must demonstrate compliance with this LDC, including obtaining a Construction/Use permit, if applicable.	Citrus County – Section 3750.E.1.b	FAA approved tower construction on 9/8/2015. FAA ASN (Aeronautical Study Number): 2015-ASO-11502-OE See Attachment 4 – FAA No Hazard to Air Navigation Letter FCC ASR (Antenna Structure Record) application has not yet been submitted. Application will be submitted after environmental studies are completed. Study reports to be attached to FCC ASR application.
c. Height Limitations. In addition to the above requirements, locating a new telecommunications tower or alternative tower structures in any district other than Industrial (IND), Transportation/ Communication/Utilities (TCU), and Extractive (EXT) shall require the following height limitations in order to minimize visual obtrusiveness:	Citrus County – Section 3750.E.1.c.	The tower is located in the TCU district.
2. Setbacks Except as otherwise specified within this section, telecommunications towers, alternative tower structures, guy wires, and all related structures must satisfy the minimum setback requirements for the specific district as set forth in the LDC as well as the requirements of this section.	Citrus County – Section 3750.E.2	The proposed communications tower is located approximately 950 feet from the proposed north property line and approximately 2,122 feet from the eastern property line. DEF has recently purchase the property to the east for the Citrus Combined Cycle Project so the distance from the east property line is greater than 2,122 feet. See enclosed Sheet C-1 for the location of the tower with respect to the property line and offsite users.
3. Separation a. Between Towers. Separation distances between telecommunications towers shall be applicable for and measured between the proposed tower and those towers that are existing and/or sites which have a land use or building permit approval before or on the effective date of this ordinance. The separation distances between towers (listed in linear feet) shall be shown in Table 3-6.	Citrus County – Section 3750.E.3.a	One other communications tower is located approximately 7,700 feet east of the proposed location. This separation meets the requirements in Table 3-6.

Requirement	Reference	Project Information
b. Separation from Off-Site Uses. Separation requirements for telecommunication towers shall comply with minimum standards established in Table 3-7.	Citrus County – Section 3750.E.3.b	The nearest off site user is to the north of the proposed tower which is approximately 950 feet away. This separation exceeds the requirements in Table 3-7. See Attachment 1 Drawings - Sheet C-1 for the location of the tower with respect to the property line and offsite users.
c. Separation from Historical Properties. In addition to the setback requirements, no telecommunications tower shall be allowed within the separation distances for historic or residential properties as shown in Table 3-7 unless it is an approved alternative tower structure design subject to a Conditional Use. Towers affecting historical locations and environmental sites and conditions are subject to FCC Rules 1.1301 through 1.1319. An applicant is required to submit to the County proof of submission of FCC required notification and application when causing impact to a historical or environmental site.	Citrus County – Section 3750.E.3.c	There are no historic properties within the area of potential effect. See enclosed See Attachment 1 Drawings - Sheet C-1 for the location of the tower with respect to the property line and offsite users. Also see response to 3751 above.
d. Measuring Separation. The separation distances between telecommunications towers shall be measured by drawing or following a straight line between the base of the existing tower and the base of the proposed tower, pursuant to a site plan. Separation distances from telecommunications towers to off-site uses shall be measured from the base of the proposed tower to the property lines of the off-site use.	Citrus County Section 3750.E.3.d	The proposed tower is located a minimum of 950 feet from any offsite use. See Attachment 1 Drawings - Sheet C-1 for the location of the tower with respect to the property line and offsite users.
4. Illumination All telecommunications towers 150 feet or taller shall be lighted with shielded white strobe lights which will operate on a 24-hour, seven days a week/continuous schedule. Additional lighting may be required as determined by the FAA.	Citrus County – Section 3750.E.4	The tower will be list in accordance with the FAA requirements of a shielded white strobe lite that operates on a 24 hour, 7 day a week continuous schedule. See Attachment 1 Drawings - Sheet C-4 with this requirement.
5. Finish Telecommunications towers or parts of telecommunications towers and structures not requiring FAA painting/marketing shall be of neutral color or material that will reduce visual obtrusiveness and blend with the surrounding environment, such as either a galvanized finish or non-contrasting blue or gray finish. The design of buildings and related structures shall, to the maximum extent possible, use materials, colors, textures, screening, landscaping, and alternative tower structure design that will blend structures with the natural setting and surrounding buildings.	Citrus County – Section 3750.E.5	The finish of the tower will be similar to other recent towers constructed by DEF. The tower will be a galvanized finish that will blend in with the surrounding environment at the existing power plant complex.
6. Structural Design a. Structural Standards. Telecommunications towers and alternative tower structures shall be constructed in accordance	Citrus County 3750.E.6.a	The detailed design drawings for the project are signed and sealed and included in Attachment 1.

Requirement	Reference	Project Information
with the TIA 222 Revision G Standards as published by the Telecommunications Industry Association, as may be amended or its successor in function, and all Citrus County construction and building codes as indicated in a statement signed, sealed, and dated by a professional engineer licensed to practice in the State of Florida.		
b. Loading Capacity. Such statement shall also describe the telecommunications towers or alternative tower structure's loading capacity, and number and type of antennas it can accommodate. No tower shall be permitted to exceed its loading capacity without proof of appropriate structural modifications as indicated in either plans or a statement signed, sealed, and dated by a professional engineer licensed to practice in the State of Florida.	Citrus County 3750.E.6.b	The detailed design drawings for the project are signed and sealed and included in Attachment 1. Any additional appurtenances will require a loading analysis and possible structural modifications to maintain compliance with then current revision of the TIA 222 standards.
c. Site Plans. Any structural modification to a telecommunications tower and alternative tower structure shall require submission of a site plan signed, sealed and dated by a professional engineer licensed in the State of Florida which provides substantial competent evidence of compliance with the TIA 222 Revision G Standards, as may be amended or its successor, in effect at the time of said improvement or addition, and compliance with any other standards and regulations of the FAA, FCC, Citrus County, and other agency with authority to regulate towers and antennas.	Citrus County 3750.E.6.c	DEF is proposing to construct a new tower. No structural modifications to an existing tower or alternative tower structure are proposed.
d. Required Certification. The applicant shall provide certification by a professional engineer that the proposed telecommunications tower or alternative tower structure is designed in accordance with the standards cited in this LDC and that in case of collapse the telecommunications tower or alternative tower structure will be contained on the parcel or site, and that no structure other than those in direct support to the operations of the telecommunications tower or alternative tower structure shall be located within the fall zone. If any part of the fall zone lies outside the owned/leased parcel, the applicant shall obtain an easement on the noncontrolled fall zone that restricts development. The easement shall be recorded within the Citrus County Public Records.	Citrus County 3750.E.6.d	As shown on See Attachment 1 Drawings - Sheet C-1 the proposed tower is located approximately 950 feet from the north property line and approximately 2122 feet from the east property line, although DEF has purchased the property to the east for the proposed Citrus Combined Cycle project so the actual distance to the east property line is greater. The fall zone of the tower is 150 feet and is shown on See Attachment 1 Drawings - Sheet C-2. The fall area is totally contained within DEF property. The fall radius will not impact any surrounding buildings other than those in direct support of the operations of the tower. Copies of the final design of the tower are signed and sealed and included in Attachment 1.

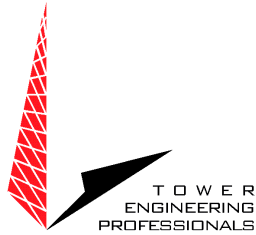
Requirement	Reference	Project Information
7. Signage No commercial signage or advertising shall be permitted on a telecommunications tower, alternative tower structure or antenna. For public safety reasons, a sign will be posted at the front door of the equipment building stating: “In case of emergency, Notify _____ at _____.” Name Telephone No other signage shall be permitted unless otherwise required by law or public notice or the signage pertains only to the posting of the property relative to trespassing. The use of any portion of a tower, equipment buildings, or perimeter fence for signs or advertising purposes, including company name, banners, streamers, etc., shall be prohibited. If a sign is required, it shall not exceed two square feet in size or as required by law.	Citrus County 3750.E.7	No commercial signage or advertising will be located on the tower complex. A copy of the typical DEF tower signage is attached. 
8. Fencing and Access Easement(s) a. A chain-link fence not less than six feet or greater than eight feet in height from finished grade shall be installed by the applicant around the base of each telecommunications tower and any guy wire anchors. An appropriate anti-climbing device may be used to prevent pedestrian access to the tower but shall not exceed two feet in height. An anti-climbing device shall not be included when calculating the height of the fence. b. Access to the tower through the fence shall be through a gate that shall be locked at all times. c. A minimum 15-foot wide stabilized limerock access easement is required from the right-of-way to the tower compound. Alternative designs may be accepted as approved as outlined in this LDC.	Citrus County 3750.E.8	A chain link fence completely enclosing the facility. The fence shall consist of, at a minimum, 9-gauge wire with a top rail to support the fabric. A top guard placed at a 45-degree angle outward and containing three strands of barbed wire shall be mounted atop the fence. The fence will have a minimum overall height of 8 feet (7 feet of chain link mesh and 1 foot of three-strand barbed wire). A tension wire shall be woven throughout various points of the fence fabric and secured at the fence posts to prevent lifting of the fabric. No spaces below the fence shall exceed 6 inches. All gates shall be similarly constructed. Bolts securing hinge pins should be spot-welded to prevent removal. See Attachment 1 Drawings - Sheet C-5 provides details of the proposed fence. Access to the tower will be via a gate that will remain locked at all times except when the site is being accessed. The site will be access via 15 foot wide stabilized limerock access drive. See Attachment 1 Drawings - Sheets C-2, C-3, C-6 and C-8 for the details of this driveway to the tower compound. This access drive will be located within a 20 foot access easement.
9. Landscaping and Buffering The visual impacts of a telecommunications tower and accessory structure(s) shall be mitigated for nearby viewers through landscaping or other screening materials in order to maintain	Citrus County 3750.E.9	The tower is to be constructed on an existing operating power plant site and will be surrounded by ongoing energy generation activities. There are no proximate residents and site access is restricted due to safety and security concerns, as a result no landscaping or other screening materials are

Requirement	Reference	Project Information
visual aesthetics for those who must view the site on a regular basis including, but not limited to, proximate residents and the traveling public. The following landscaping and buffering requirements shall be required around the perimeter of the tower site and accessory structures: a. A minimum of a Type "D" Buffer shall be required. b. All landscaping shall be Xeriscape tolerant and shall be properly maintained by the telecommunications tower owner/operator to ensure good health and viability. c. The use of existing vegetation shall be preserved to the maximum extent practicable and may be used to fulfill buffer requirements, or as a supplement towards meeting landscaping requirements and bonus standards for Conditional Use.		warranted. See Attachment 1 Drawings - Sheet C-1 and Sheet C-1A showing the location of the tower surrounded by existing power plant facilities.
11. Equipment Storage Mobile or immobile equipment not used in direct support of a telecommunications tower facility shall not be stored or parked on the site of the tower unless repairs to the tower are being made and are in progress.	Citrus County 3750.E.11	No mobile or immobile equipment is proposed to be stored or parked at the tower site unless work is being done on the tower.
12. Evidence of Pursuing Collocation - The applicant must provide evidence of pursuing collocation within a search radius as specified in below. Evidence shall include written correspondence between the petitioner and owner/operator of other structures in the search area and should include request for space, general rate structure for leasing, structural requirements, and any existing FCC limitations. a. The applicant will provide a map of the proposed coverage area and a propagation study for the proposed telecommunications tower or alternative tower structure and any relevant antenna information provided by an accredited professional RF Engineer for the proposed telecommunications tower or alternative tower structure. The study must be dated within 60 days of the date of permit approval, and shall include: 1) Coverage area reliability; 2) Minimum antenna height needed to achieve coverage; 3) Transmission power output; 4) Effective radiative power; and b. Collocation and Search Radius - Proposed telecommunications shall collocate onto existing telecommunications towers and alternative tower structures designed for collocation use. A proposal for a new telecommunications tower or alternative tower structure shall	Citrus County 3750.E.12	The need for the new tower is driven by the retirement of the existing stacks and Units 1 and 2 where the existing CREC site communications equipment is located. In addition, the equipment for the CCSD has to be located at 300 feet. Options of collocation with an existing tower and the ability to provide for CREC site communications and the height for the CCSD equipment is extremely limited. There is an existing tower located approximately 7,700 feet to the east of the proposed location. This tower is not tall enough to provide the needed height for the sheriff's equipment nor can it support the plant site communications equipment. Due to its location between the existing transmission line corridors exiting the CREC site, increasing the height of this tower cannot be accomplished. Due to the lack of any other existing towers in the area, the construction of a new tower on the already highly developed CREC site was the most prudent decision. DEF determined the best option was the construction of a new communications tower at the site to consolidate the communications equipment and minimize the potential impacts to plant infrastructure.

Requirement	Reference	Project Information
not be approved unless the applicant can demonstrate that the equipment and antenna(s) cannot be accommodated on an existing or approved telecommunications tower or building within a one-half mile search radius for towers greater than 150 feet in height (one-quarter mile search radius for towers under 150 feet in height) of the proposed tower. Findings shall be established demonstrating that collocation is not feasible as defined herein.		DEF has also attached a letter from Verizon, who will be collocated on the tower that a propagation study will not be done.
14.Communications Transmission/Reception Interference Each application to allow construction or modification of a telecommunications tower and antenna shall include a certified statement from a qualified, registered, RF engineer licensed in the State of Florida, attesting that the construction of the tower, including receiving and transmitting functions, shall not interfere with public safety communications and the usual and customary transmission or reception of radio and television.	Citrus County 3750.E.14	Radio transmissions from proposed tower were designed and adhere to Federal Communications Commission (FCC) licensing requirements. FCC Licensing requirements include Frequency Coordination process to eliminate known possibilities of harmful radio interference to third parties. In the unlikely event that third party radio interference does occur, DEF will work with FCC and third parties to resolve the interference.
F. Site Plan A scaled site plan(s) is required and shall be submitted for approval as defined in this LDC. Any telecommunications company or entity that intends to install a telecommunications tower or alternative tower structure in the County shall file a site plan with the Department of Planning and Development. The submitted site plan(s) shall be reviewed and shall include, but not be limited to, in addition to requirements specified in other sections of this LDC, the following: 1. Elevation drawings of the proposed telecommunications tower or alternative tower structure, other structures, type of construction, and whether construction will accommodate collocation of additional antennas for future users;		See Attachment 1 Drawings - site plan drawings C-1 and C-2 also see Sheets C-4 and C-4A.
2. Separation distances from nearest platted and unplatted residential properties, residential land use districts, and existing and/or proposed towers that are permitted by Citrus County, and all setbacks from adjacent properties and rights-of-way, and minimum separation distances as required;		See Attachment 1 Drawings - Drawing C-1 which shows the distance between the north property line as 950ft and the eastern property line as 2122ft.
3. Landscaping and buffering plan showing specific landscaping materials and method to maintain landscaping;	Citrus County 3750.F.3	The tower is to be constructed on an existing operating power plant site and will be surrounded by ongoing energy generation activities. There are no proximate residents and site access is restricted due to safety and security concerns, as a result no landscaping or other screening materials are warranted. See Attachment 1 Drawings - Sheet C-1 and C-1A showing the tower locations and being surrounded by existing power plant operations.

Requirement	Reference	Project Information
4. Location, type, and dimensions of proposed access driveways, equipment, structures, easements, and fencing.	Citrus County 3750.F.4	The site will be access via 15 foot wide stabilized limerock access drive. See Attachment 1 Drawings - Sheets C-2, C-3, C-6 and C-8 for the details of this driveway to the tower compound. This access drive will be located within a 20 foot access easement. This access drive will connect with the existing CREC road system.
5. Finished color, camouflaging, and illumination;	Citrus County 3750.F.5	The final building colors have not yet been selected. The typical building colors are tan/brown or gray to coordinate with existing facilities.
6. Description of compliance with all applicable federal, state, and local laws and requirements of the FCC and FAA;	Citrus County 3750.F.6	The project will comply with all applicable federal, state and local requirements during construction and operation.
7. On and offsite land uses and Atlas Designation(s);	Citrus County 3750.F.7	The existing onsite land use category is TCU or Transportation, Communications, Utilities. Offsite land use to the north is EXT or extractive. To the east and south is TCU. See Sheet C-1 for details.
8. Legal descriptions of property, leased areas, and easements.	Citrus County 3750.F.8	See Attachment 1 Drawings - Drawing C-1 which shows the legal description of the parcel where the tower is to be constructed.
9. Identification of the entities providing the backhaul network for the tower(s);	Citrus County 3750.F.9	DEF will be providing fiber backhaul facilities for CCSD and Verizon from the interface point on the complex to the new tower facility. Currently, CCSD is using Embark circuits and Verizon is using Level 3. Both circuits will be rerouted from the existing points on the campus to the new location.
H. Prohibition of Location Volatile or explosive materials such as LP gas, propane, gasoline, natural gas, and corrosive or dangerous chemicals are prohibited from being stored within the certified fall or collapse area of the tower. Fuel used for normal operation of telecommunications equipment shall be excluded from this requirement.		There will be no volatile material other than fuel used for normal operation of the telecommunications equipment located within the fall zone of the project.

Requirement	Reference	Project Information
2. The owner shall dismantle the tower at the owner's expense clearing the site of all appurtenances and returning it to its natural state. a. Prior to permit the owner/operator of a telecommunications tower or alternative tower structure shall submit one of the following financial assurances to the County: 1) a bond; or 2) an irrevocable letter of credit in favor of the county from a lending institution located in the state of Florida acceptable to the BCC; or 3) irrevocable cash deposit These financial assurances shall be used to cover 115 percent of an independent engineer's certified cost estimate for dismantling and removal of a telecommunications tower or alternative tower structure based upon standard engineering practices for removal of such structures. The County shall be entitled to use the funds deposited into such accounts for the necessary removal of any telecommunications tower or alternative tower structure within Citrus County. b. All bonds, irrevocable letters of credit, and irrevocable cash deposits shall be accepted by the County Attorney's Office after written confirmation by the County Engineer of the cost estimate. No construction permit for a telecommunications tower or alternative tower structure shall be issued until this action is completed. Evidence of financial responsibility by existing and future owners/operators shall be kept in force at all times during the period of operation of the tower and/or antennas.	Citrus County 3750.J.2.	Since this project is primarily for onsite plant communications and providing a location for the CCSD communications, DEF believes that is requirement should not apply to our tower. But we have included an independent certified cost estimate is included. DEF has been working to obtain a bond for the financial assurance. As soon as this is obtained, it will be provided to the County.

**Mr. Tony Marshall**

Duke Energy
299 First Avenue North
St. Petersburg, FL 33701
(727) 820-5396

Subject: **Site Name: Crystal River Telecom Tower Decom Bid**
 Site Address: W. Power Line Street
 Crystal River, FL 34428 (Citrus County)

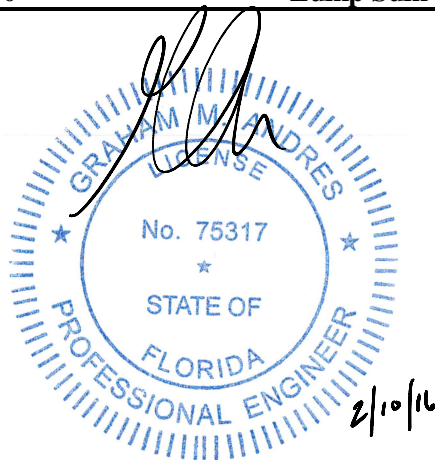
Mr. Marshall:

Thank you for giving Tower Engineering Professionals (TEP) the opportunity to work for you. TEP proposes the following construction services:

Item of Work	Fee (\$)	Notes
Tower Decom & Removal	\$125,000	Includes full site decommission and all site restoration to return site to previous condition.
TOTAL FEE	\$125,000	Lump Sum

Thank you for this opportunity,

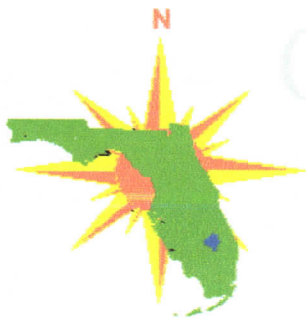
Tower Engineering Professionals, Inc.
Graham M. Andres, P.E.
Vice President
gandres@tepgroup.net



**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 3

2C Survey and FAA Application



GULFWEST SURVEYING, INC.

GULFWEST SURVEYING, INC.

9469 West Green Bay Lane, Crystal River, Florida, 34428

Ph: 352.563.1252 Fax: 352.563.1253

Email: gws@embarqmail.com

2-C CERTIFICATION OF LOCATION AND ELEVATION

Date of Survey: 24 March 2015

Revision: 2 July 2015

Prepared For: Virginia Ramirez, PMP
Telecom Project Manager
299 First Avenue North
St. Petersburg, FL. 33701

Site Name: Crystal River Tower
Project No.:
Structure Type: Proposed Self-Support Tower
Site Address: W. Power Line Street
Crystal River, FL. 34428
(Citrus County)

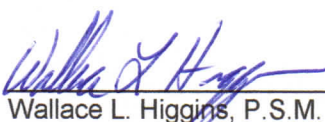
The elevations referenced hereon are based on N.A.V.D. 1988, and are accurate to within 20 feet, more or less as determined by our survey of the subject property. The values are as follows:

Elevation of Site Above Mean Sea Level: 6.1 Feet (AMSL)

The horizontal values of the above referenced point, and the geodetic coordinates thereof, were established by taking multiple readings with dual frequency Global Position Satellite Receivers and are hereby certified to be within 50 feet, more or less, based thereon. The values are as follows:

NAD '27 **Latitude: 28° 58' 08.470" North**
 Longitude: 082° 12' 11.672" West

NAD '83 **Latitude: 28° 58' 01.898" North**
 Longitude: 082° 41' 29.829" West

 7-10-15

Wallace L. Higgins, P.S.M.
Florida Certificate No. 5832 for
GulfWest Surveying, INC.
LICENSE BUSINESS NO.: 7314





Federal Aviation
Administration

The system will be going offline from 7 pm to 10 pm US/Eastern on Thursday July 30, 2015 for upgrades. We apologize for any inconvenience.

« OE/AAA

Notice of Proposed Construction or Alteration - Off Airport

[Add a new Case Off Airport - Desk Reference Guide V_2015.1.0](#)

[Add a New Case Off Airport for Wind Turbines - Met Towers - Desk Reference Guide V_2015.1.0](#)

Project Name: DUKE -000333875-15

Sponsor: Duke Energy Business Services, LLC

Details for Case : Crystal River Tower

[Show Project Summary](#)

Case Status				
ASN:	2015-ASO-11502-OE			
Status:	Work In Progress			
Public Comments:	None			
Date Accepted:	07/29/2015			
Date Determined:				
Letters:	None			
Documents:	07/15/2015 2015-0702 - 2C Su...			
Project Documents:	None			
Construction / Alteration Information				
Notice Of:	Construction			
Duration:	Permanent			
Work Schedule - Start:	08/26/2015			
Work Schedule - End:	12/26/2017			
<i>*For temporary cranes-Does the permanent structure require separate notice to the FAA? To find out, use the Notice Criteria Tool. If separate notice is required, please ensure it is filed. If it is not filed, please state the reason in the Description of Proposal.</i> State Filing: Filed with State				
Structure Details				
Latitude:	28° 58' 1.90" N			
Longitude:	82° 41' 29.83" W			
Horizontal Datum:	NAD83			
Site Elevation (SE):	6 (nearest foot)			
Structure Height (AGL):	345 (nearest foot)			
Current Height (AGL):	(nearest foot)			
<i>* For notice of alteration or existing provide the current AGL height of the existing structure. Include details in the Description of Proposal</i> Minimum Operating Height (AGL): (nearest foot) <i>* For aeronautical study of a crane or construction equipment the maximum height should be listed above as the Structure Height (AGL). Additionally, provide the minimum operating height to avoid delays if impacts are identified that require negotiation to a reduced height. If the Structure Height and minimum operating height are the same enter the same value in both fields.</i>				
Nacelle Height (AGL):	(nearest foot)			
<i>* For Wind Turbines 500ft AGL or greater</i>				
Requested Marking/Lighting:	Medium-dual system w/bird lighting dev-fig. C-2			
Recommended Marking/Lighting:	Other :			
Current Marking/Lighting:	N/A Proposed Structure			
Nearest City:	Crystal River			
Nearest State:	Florida			
Description of Location:	Electrical Power Plant campus.			
Description of Proposal:	Construct new self-supporting telecommunications structure. Highest point including lightning rod and antennas will be 345' AGL, nothing higher. Request for bird friendly tower obstruction lighting.			
Structure Summary				
Structure Type:	Antenna Tower			
Structure Name:	Crystal River Tower			
FDC NOTAM:				
NOTAM Number:				
FCC Number:				
Prior ASN:				
Common Frequency Bands				
Low Freq	High Freq	Freq Unit	ERP	ERP Unit
698	806	MHz	1000	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
Specific Frequencies				
Low Freq	High Freq	Freq Unit	ERP	ERP Unit
153	155	MHz	250	W
450	470	MHz	60	dBm
2400	2483.5	MHz	55	dBm
5725	5850	MHz	65	dBm
5925	6425	MHz	85	dBm
6525	6875	MHz	85	dBm

[← Previous](#)
[Back to Search Result](#)
[Next →](#)



**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 5

Photograph of Typical Lattice Tower

DEF Morgan Road Tower – CREC Tower will be similar



**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 4

FAA No Hazard to Air Navigation Letter



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-ASO-11502-OE

Issued Date: 09/08/2015

Stan D. Coleman, Jr.
Duke Energy Business Services, LLC
401 South College St.
Attn: Telecommunications Div., CS03A
Charlotte, NC 28201-1008

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower Crystal River Tower
Location:	Crystal River, FL
Latitude:	28-58-01.90N NAD 83
Longitude:	82-41-29.83W
Heights:	6 feet site elevation (SE) 345 feet above ground level (AGL) 351 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, a med-dual system - Chapters 4, 8(M-Dual), & 12 and DOT/FAA/TC-TN12/9 fig. C-2.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, we have no objection to the request to deviate from the standards outlined in the FAA Advisory Circular 70/7460-1 K Change 2 Obstruction Marking and Lighting, Chapter 5.

This deviation from the standard does not apply to any marking and/or paint conditions.

The FAA finds that for those towers 151-350 feet AGL that normally require only one top mounted Flashing Red Obstruction (L-864) light and one level of Steady-burning Red Obstruction (L-810) lights, it is necessary to either configure the existing L-810s to flash at the same rate as the L-864 or replace the L-810 with a L-864 configured to flash simultaneously. Flash rates must be 30 flashes per minute ($\pm$ 3 flashes).

The FAA finds that for structures 351 feet AGL and above, the absence of steady burning Red Obstruction (L-810) lights on this structure will not impair aviation safety. However, aeronautical study revealed that the structure should continue to be lighted with the appropriate Flashing Red Obstruction (L-864) lights. Flash rates must be 30 flashes per minute ($\pm$ 3 flashes).

This determination expires on 03/08/2017 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (404) 305-6462. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-ASO-11502-OE.

Signature Control No: 259013527-264415913

(DNE)

Michael Blaich
Specialist

Attachment(s)
Frequency Data

cc: FCC

Frequency Data for ASN 2015-ASO-11502-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
153	155	MHz	250	W
450	470	MHz	60	dBm
698	806	MHz	1000	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2400	2483.5	MHz	55	dBm
5725	5850	MHz	65	dBm
5925	6425	MHz	85	dBm
6525	6875	MHz	85	dBm

**Duke Energy Florida – No. PA77-09A3 Crystal River Energy Complex
Request for Amendment – Proposed Telecommunications Facility**

Attachment 6

AM Interference Map

And

Verizon Letter

Potential AM Interference Review

http://fcc.github.io/am-tower-locator/

File Edit View Favorites Tools Help

VPC The Portal - Duke Energy 0 Progress Energy 1 Wireless 2 Personal 3 Projects 4 MyTime z archive Total Rewards UPS Web Slice Gallery

FCC

AM Tower Locator

Enter the latitude and longitude (in NAD 83), in **decimal degrees**, and height, in **meters**, of your tower to determine if you need to notify any AM Stations prior to building.

Latitude

Longitude

Tower Height

SEARCH **RESET**

Need help converting to decimal degrees?
[Lat/Long Converter](#)

Need to convert NAD 27 to NAD 83?
[NADCON Computations](#)

THERE ARE NO STATIONS REQUIRING STUDY OR NOTIFICATION.



November 5, 2015

RE: VZW Site Name: FPC Nuke - VZW Site ID# 89126 – Location # 230845

Dear Sirs/Madam:

This letter is to inform you that Verizon Wireless is retiring its existing equipment located at 15760 West Power Line Street, Crystal River, Florida, as this tower is being demolished.

In order to keep providing service to this area the equipment will be consolidated & collocated on the new Duke tower located at latitude: N28 58' 1.898 Longitude: W82 41' 29.829.

The next closest tower in the area is over 7000 feet away which is not within range to provide adequate service to our current customer base.

There will not be a propagation study done as the tower will serve the power generation facility.

Please do not hesitate to contact me with any questions or comments.

Sincerely,

M. Blumenthal

Marshall Blumenthal
Eng III Specialist – RE/Regulatory
Verizon Wireless
777 Yamato Road, Suite 600
Boca Raton, Florida 33487
(561) 995-5764.