Adonted:

RESOLUTION NO. 2015-2

A RESOLUTION AUTHORIZING THE EXECUTION OF AMENDMENT NUMBER ONE TO SITE AGREEMENT BY AND BETWEEN SPRINT SPECTRUM REALTY COMPANY, L.P., FOR COMMUNICATIONS ANTENNA LOCATED AT THE EAST OAK ROAD WATER TOWER.

WHEREAS, the City Council of the City of Vineland adopted Resolution No. 99-114 authorizing the execution of a Site Agreement with Sprint Spectrum, L.P., now Sprint Spectrum Realty Company, L.P., (Sprint) for communications antenna located at East Oak Road Water Tower (Site); and

WHEREAS, Sprint requests the City of Vineland (City) approve certain modifications to their use of the Site for the installation of RRH and one antenna per sector on the site more particularly described in drawings of McGowan Engineering, Riverside, New Jersey, Project PL13XC380, attached to the proposed Amendment Number One, attached hereto and made a part hereof; and

WHEREAS, as consideration for the aforementioned modification, Sprint shall pay monthly rental increase of Two Hundred (\$200.00) Dollars; and

WHEREAS, the Superintendent of the Water Utility has recommended the execution of this Amendment; and

WHEREAS, the City Council finds it to be in the best interest of the City to authorize the amendment.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Vineland that the Mayor and Clerk are authorized to execute Amendment Number One to Site Agreement with Spectrum Realty Company, L.P., for Communication Antenna located at East Oak Road Water Tower in the form and substance attached hereto and made a part hereof.

. Adopted.	
ATTEST:	President of Council
City Clerk	

Site Name: 1690 E. Oak Road Site ID #: PL13XC370

AMENDMENT NO. 1 TO SITE AGREEMENT

This Amendment No. 1 to the Communications Antenna Site Lease Agreement (this "Amendment"), effective as of the date last signed below ("Effective Date"), amends a certain Communications Antenna Site Lease Agreement between Sprint Spectrum Realty Company, L.P., successor in interest to Sprint Spectrum L.P. ("Carrier"), and the City of Vineland (the "City"), dated September 1, 2004 (the "Agreement").

BACKGROUND

WHEREAS, Carrier desires to modify its installation on the E. Oak Road water tower facility located on Block 1909, Lot 57 (the "Site") the Site by adding or swapping out antennas and other equipment to the Facilities, as more particularly described in Exhibit A-1 annexed hereto, and Carrier and City desire to modify the provisions of the Agreement as provided below.

AGREEMENT

For good and valuable consideration the receipt and sufficiency of which are acknowledged, City and Carrier agree as follows:

- 1. Modification to the Facilities. Exhibit A to the Agreement is hereby amended to include the modifications identified on Exhibit A-1, a copy of which is attached and made a part hereof. Exhibit A-1 supplements Exhibit A to the Agreement, and shall not be deemed to supersede or otherwise modify Exhibit A or any part thereof except to the extent specifically set forth in Exhibit A-1. Upon full execution of this Amendment, Carrier is permitted to do all work necessary to prepare, maintain and alter the Site to install or otherwise modify the Facilities, all as more fully described and contemplated in Exhibit A-1.
- 2. <u>Limitations of Work; Inspection of Work.</u> No changes other than those set forth on the Designs shall be permitted. The City shall be permitted to inspect all work to assure compliance with Designs and all costs incurred by the City to assure compliance, including engineering and construction inspections shall be borne by the Carrier.
- 3. Modification to Rent. As additional consideration for the modification and other rights set forth in this Amendment, starting on the date that is 30 days after the start of construction of the modifications to the Facilities, the monthly rent will be increased by \$200.00.

4. General Terms and Conditions.

- a. All capitalized terms used in this Amendment, unless otherwise defined herein, will have the same meaning as the terms contained in the Agreement.
- b. In case of any inconsistencies between the terms and conditions contained in the Agreement and the terms and conditions contained in this Amendment, the terms and conditions herein will control. Except as set forth below, all provisions of the Agreement are ratified and remain unchanged and in full force and effect.
 - This Amendment may be executed in duplicate counterparts, each of which will be deemed an original.
- d. Each of the parties represents and warrants that it has the right, power, legal capacity and authority to enter into and perform its respective obligations under this Amendment.

The parties have executed this Amendment as of the Effective Date.

City:	Carrier:	
City of Vineland	Sprint Spectrum Realty	Company, L.P.
Ву:	By:	Ma
Printed Name:	Printed Name:	Rob Coballe
Title:	Title:	SDM
Date:	Date:	11/2/14

PL13XC370

(Dates must be completed)

Exhibit A-1

[see attached



6100 SPRINT PARKWAY OVERLAND PARK, KS 66251

PL13XC370

1690 EAST OAK ROAD VINELAND, NJ 08362 **CUMBERLAND COUNTY**

PROJECT INFORMATION

APPLICANT:

SPRINT 6100 SPRINT PARKWAY OVERLAND PARK, KS 66251

SITE ADDRESS:

1690 EAST DAK ROAD VINELAND, NJ 08362

PROPERTY OWNER:

GTY OF VINELAND SEVENTH & WOOD STREET

BLOCK & LOT:

ZONING JURISDICTION:

ENGINEER:

SPRINT CONSTR. MANAGER:

CONTACT: DARIUS GARNETT PHONE: 973-914-7772

SPRINT SITE ACQ. MANAGER:

CONTACT: JENNIFER GALLO PHONE: 201-864-4023

SPRINT RF ENGINEER:

CONTACT: ROSARIO CONE PHONE: 908-660-0447

LATITIUDE:

LONGITUDE:



AERIAL PHOTOGRAPH

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF EXCHANGING OR INSTALLING ADDITIONAL EQUIPMENT AND /OK ANTENNAS TO AN EXISTING WIRLLESS TELECOMMUNICATIONS FACILITY



LOCATION MAP

GENERAL NOTES

- THIS SPRINT MRELESS FACILITY IS AN UNMANNED AND SECURED EQUIPMENT INSTALLATION. THE FACILITY IS MONITORED FROM A REMOTE FACILITY AND IN CASE OF EMERGENCY, THE LOCAL FIRE AND POLICE DEPARTMENTS SHALL BE NOTIFIED.
- THE FACELTY IN NOT INTENDED FOR HAMAN OCCUPANCY AND SHALL VISITED BY A TRANED SPRINT TECHNICAL EVERY YOUR TO SKY MEDIS, THEREFORE THE FACELTY DOES NOT REQUIRE ANY WATER AND MEL NOT COMPARE, MAY SERVICE, STELLOY, OR OTHER BASE.
- 1 EXISTING ACCESS AND ON-SITE PARKING SHALL BE UTILIZED.
- A CONNECTIONS FOR ELECTRICAL AND TELEPHONE UTILITIES ARE TO BE DETERMINED BY THE JURISDICTIONAL UTILITY COMPANIES.
- 5. THE PROPOSED FACILITY SHALL INCLUDE A SIGN IN ACCORDANCE WITH FCC RULES ON RADIO FREQUENCY DISSIONS 47 CFR 1.1307(b).

- THE CONTRACTOR SHALL PROVIDE A FULL (LATEST REVISION) SET OF CONSTRUCTION DRAWINGS ON-SITE DURING CONSTRUCTION, AND MARK ANY REVISIONS DURING THE COURSE OF CONSTRUCTION.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSPECTIONS, (LOCAL, COUNTY, AND STATE) REQUIRED TO OBTAIN CERTIFICATE OF DECUPANCY FROM THE LOCAL BUILDING DEPARTMENT.

- 14. ALL CONTRACTORS SHALL COMPLY WITH ALL OSHA REQUIREMENTS APPLICABLE TO THIS PROJECT.
- THE CONTRACTOR SHALL NOT SCHEDULE OR PERFORM ANY WORK WITHOUT APPROVAL FROM TOWER DWNER, LANCLORD, AND MEMOPALITY.
- 17. ALL UNDERGROUND UTILITIES SHOWN, EXISTING AND PROPOSED, HAVE BEEN DETERMINED BY SURFACE INVESTIGATIONS AND EXISTING PLANS OBTAINED FROM THE BLIGHOUS DEPARTMENT. CONTRACTOR SHALL LANGUE TO PHYLICAGE UNDERGROUND UTILITIES BY CALLING THE LOCAL DIG SAFE NAMED, PROF.
- 19. THE PROPOSED FACELTY WILL NOT GENERATE ANY NOISE, DUST, FUMES, COORS OR VIDRATIONS.

Sprint 🎾



OTHER ENGLES NEEDS



MICHAEL McGOWAN PROFESSIONAL ENGINEER LICENSE NO. 40997

McGOWAN **ENGINEERING** 645 WESTWOOD AVE.

RIVERVALE, NJ 07675

			L
Δ	5/50/14	FINAL	A
\wedge	4/10/14	FOR REVIEW	A
REV.	DATE	REVISION DESCRIPTION	B.

PL13XC370

OFFICE LOCATION 1690 EAST OAK ROAD

VINELAND, NJ 08362 CUMBERLAND COUNTY

INDEX OF DRAWINGS

5/30/14

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SP-1 SPECIFICATIONS

A-1 COMPOUND PLAN, ENLARGED PLATFORM PLAN

A-2 ELEVATION, ENLARGED ANTENNA PLAN & MOUNTING DETAILS

GROUNDING AND WATERPROOFING DETAILS

E-1 ELECTRICAL DETAILS

ANTENNA, RRH AND CABLE SPECS., ANTENNA CABLE CHART, BOM

FIBER CONNECTIVITY DETAILS

TITLE SHEET

DRAFTER:	PKO	SHEET 4
REVIEWER:	мм	T-1
DATE.	*****	

GENERAL_REQUIREMENTS:

- THESE SPECIFICATIONS AND CONSTRUCTION DRAWNES ADCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATURIALS REASONABLY RECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STPULATED IN THE CONTRACT.
- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK NO CHANGES THAT ALTER THE CHARACTER OF THE WORK MILE DE MADE OR PERMITTED BY THE OWNER WINDOWS ISSUING A CHANGE ORDER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERTICATION OF ALL MASSIFICIATION AT THE SET BEFORE CHOCKING ANY MAIRWAYS OR DOME ANY MORE. HO ETTER CHARGE OR COMPUTATION SHALL BE ALLOWED DUE TO SHYDOWN STATEMON AND ASSESSMENT SHOCKET MAY NO ASSESSMENT SHOCKET MAY NOT ASSESSMENT SHOCKET MAY NOT BE TO ASSESSMENT ASSESSMENT AS A SECOND ASSESSMENT SHOCKET MAY NOT BE TO ASSESSMENT AS
- NO PIEA OF SCHORANCE OF CONCITONS THAT EGST, OR DEFICIATIES OR CONDITIONS THAT MAY BE ENCOUNTRIZED OR OF ANY OTHER RELEVANT MATEUR CONCIRRING THE WORK TO BE PRIFOGRAD OR HE LECUTION OF THE WORK MALE RECOVERED AS MA MADINE, FOR ANY FALLIER OR DISSON OR THE PART OF THE CONTRACTOR TO TRUTH EVERY DETAIL OF ALL THE RECORDINATIOS OF THE CONTRACT DOCUMENTS OWNERING THE WORK OF THE CONTRACTOR.
- CONTRACTOR SHALL AT THEM DIN LEPPLISE CARRY AND MANYAM FOR THE CHARTON OF THE PROJECT ALL RECEMBER AS RECURED AND LISTED AND STRAIL BOT COMMENT WITH THE WORN UNIT. THEY HAVE PRESCRITED AN ORGANI CERTIFICATE OF INSURANCE STATING ALL COVERAGE'S TO THE OWNER, RESERT ON THE MASTER ACCREDIANT FOR PROJECT DISTURDANCE UNITS.
- 9. THE DWHER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICES.
- 10. CONTRACTOR MUST PROVOE PROOF OF INSURANCE
- CENERAL CARPENTRY, ELECTRICAL, AND ANTIDHIA DRAWNICS ARE INTERRELATED. BY PERFORMANCE OF THE WORK, THE CONTRACTOR MUST RETUR TO ALL DRAWNICS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 12. CONTRACTOR SHALL SUBJECT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OMNER FOR APPROVAL.
- 13. ALL SHOP DRAWINGS SHALL BE REVENED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.
- 14. REQUIRED STATE AND FEDERAL APPROVAL HAVE BEEN OBTAINED INCLUDING, BUT NOT LIMITED TO: -FINAL INSPECTION
- -CERTIFICATE OF DCCLPANCY
- 15. ANY DEPICIENCES THAT COME EVIDENT DURING THIS ONE (1) YEAR PERIOD SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 18. THE CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIALS USED IN THIS PROJECT FOR A MINISTAN PERSON ONE (1) YEAR COMMENCING FROM THE DATE OF FINAL ACCEPTANCE BY THE CHEMICAL PROJECT OF THE CHEMICA
- 17. FINAL DATE OF ACCEPTANCE IS DEEMED AS THE DATE THAT ALL

CONSTRUCTION SAFETY:

- 1. ATTRIVEN 6 DESCRIPT DE CESSAL, STATE, AND LOCAL MAIS RAISE AND RECIAL POOR CONCERNACIONESTERMONE
- 2. THE CENERAL CONTRACTOR MUST CONCOUNT ALL ROOF RELATE WITH THE LANGUISTS FRE APPROVED ROOTER. THE COMENAL CONTRACTOR MUST COMEND THE COMPATIBLET OF VILL PROPOSED AND EXISTING MATERIALS AND EXCIPCT SHAT ALL EXISTING ROOF WARRANCES, IF MAY, REMAIN IN DIFFLET.
- 1 ALL PRECAUTIONS AND MEASURES MILL BE TAKEN TO ASSURE THE SAFETY OF THE OCCUPANTS OF THE BUILDING AS WELL AS THE SAFETY OF THE PEDESTRIANS DELON
- 4. BARRICADES WILL BE ERECTED SEPARATING WORK AREAS FROM ALL PUBLIC SPACES AS NEEDED
- 5. ALL FIRE AND OTHER REQUIRED EXES, WAY OF APPROACH THERE TO AND MAY OF TRAVEL FROM THE EXIT TO THE STREET SHALL BE CONTRACUELY MAINTAINED FREE FOR UNCOSTRUCTED ECHES
- 8. PROMEE A PORTABLE FIRE EXTINGUISHER(S) WITH A RATING HOT LESS THAN 2-A OR 2-A10BC WITHOUT OF ALL PORTIONS OF THE WORK AREA.

SPRINT METHOD OF PROCEDURE:

- CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN:
- A. COAX COLOR CODING SHEEPS AND FEER TESTING TS-0200 AND EL-0568, LATEST REVAINING.
- B CARLE LADELING EN-2012-00
- C. ALL APPLICABLE HISTALLATION METHOD OF PROCEDURES IDENTIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- COMPANY FUNNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE SPRINT OF DATE SHEET. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE FINAL MIDS FROM SPRINT.
- CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO DISCRE IT IS PROTICED AND HANGLED PROMISELY THROUGHOUT THE CONSTRUCTION DURATION.
- CONTRACTOR IS RESPONSIBLE FOR RECEPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SUPPRICE AND RECEPT DOCUMENTATION IS ACCORDANCE WITH COMPANY PRACTICE.

SUBMITTALS & TESTS:

- AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFED SHALL BE SUBMITTED TO SPERIFY CONSTRUCTION MANAGEM FOR APPROVAL. SPERIFY WILL REVEW ACCOUNTS ONLY THOSE REDUCTS MADE IN METHOD. NO VERDIL APPROVALS THAT DESCRIPTION OF THE PROPERTY OF THE PR
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND
- 3 CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
- A. COAN SWEEPS AND PIBER TESTS PER CURRENT VERSION TS-0200 ANTENNA LINE ACCEPTANCE STANDARDS
- C CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK DENTIFIED AS LINACCEPTABLE IN BITE INSPECTION ACTIVATES ARE/OR AS A RESULT OF
- D. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS
- REQUIRED GLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWIN
- A. AZMUTH, DOWNTLT, AGL FROM SUNSIGHT INSTRUMENTS ANTENNALION ALICAMENT TOOL
- C. SCALABLE BARCODE PHOTOGRAPHS OF TONER TOP AND MACCESSIBLE SERIALIZED FOLLOWING
- D. ALL AVAILABLE JURISDICTIONAL PERIOT AND OCCUPANCY INFORMATION.
- E. POF SCAN OF REDUNES PRODUCED IN FIELD.
- F. A POF SCAN OF REDLAK MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PROPULITION
- H. FINAL PAYMENT APPLICATION
- I REQUIRED FINAL CONSTRUCTION PHOTOS.
- 4 CONSTRUCTION AND COMMISSIONING OFFICIALST COMPLETE WITH HIS DEFICIENT LITERS.
- K. APPLICABLE POST NTP TASKS INCLIDING DOCUMENT UPLOADS COMPLETED IN SITERRA
- L. CLOSEDUT PHOTOGRAPHS AND CLOSEOUT CHECKLIST: SPIENT WILL PROVIDE SEPARATE

ANTENNA. RRU. HYBRID/"FIBER ONLY" CABLE:

- CONTRACTOR IS RESPONSIBLE TO BISLINE THEY HAVE THE LATEST VERSION OF THE SPRINT RADIO PROCUSING DATA SHEET. IF THESE ARE ANY DESCRIPANCES FRIEND THE RODS AND THE CONSTRUCTION DAMAGES, CONTRACTOR WASTS MACRIATED, MOTFY SPRINT CONSTRUCTION
- 2. ANTENNAS AND RRU'S SHALL BE INSTALLED AS PER CONSTRUCTION DRAWINGS.
- CONTRACTOR SHALL ASSENBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURE?. ANTENNA IRRORIT, AMERICAN AND FILED ORDITATION INFORMATION SHALL BE AS EXCENAINED ON THE CONSTRUCTION DEVANORS. "SPRINT RIPOS SHALL
- CONTRACTOR SHALL PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE

SPECIAL CONSTRUCTION REQUIREMENTS:

- COPPER, CONSIGNATION REMOTERATIONS OF STREET AND AND CONTRACTOR OF STREET AND AND CONTRACTOR OF STREET AND AND CONTRACTOR OF STREET AND CONTRACTOR
- B. ASG TESTS TO VERFY OPERATION IS TO BE PERFORMED AFTER FHAL INSTALLATION OF AITEDIANS AND ASG CARLES HAVE BEDI CONSECUED, VERFY OPERATION OF ALL COSTING SPAIN ASS EQUIPMENT MOLUDION RETHORN WHOM AND 250°C. TESTS SACLOSE COMPLETE COMMITE, ADMILITY (F. APPLICABLE) AND BEAMBORT SHAGES (F. APPLICABLE). DOCALMENT ASG TEST RESIDES WE GOLD ASSET ITST SPERADORET.
- CHERAL CONTRACTOR MUST INSURE THAT NO DOLECT IS LOCATED IN FRONT OF ANTENNAMES OF GALECT IS TO BE LOCATED AS DECREES MUST AND ROOT OF HON! OF
- COMERAL CONTRACT IS REQUERED TO USE A DIGITAL AUGMENT TOOL TO SET ADMITH. ROLL, AND DOWNITE. A SHAUTH ACCURACY IS TO BE WITHEN I DEGREE. DOWNITE IN MORLL (LEFT TO ROCH TRE) IS TO BE WITHOUT OF LOCKREES. FOR SOME REACON RES ACCURACY CLAMOST BE ACCURACY, DUPORTE AS—BERT DRINNINGS AND DIANS SPRING TO ROWNING AND THAN SPRING TO THE ACCURACY AND A SHAUTH AS THE ACCURACY AS THE ACCURACY AS THE ACCURACY AND A SHAUTH AS THE ACCURACY AS

HYBRID / "FIBER ONLY" CABLES:

- 1. CONTRACTOR SHALL PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE CONSTRUCTION DRAWMARS.
- CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWNOS AND IN ACCORDANCE WITH THE MANUFACTURITY'S RECOMMODIFICATIONS.
- 3. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURERE'S SPECIFICATIONS FOR REDGING RADIA.
- 4. EXTREME CARE SMALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND
- 5. FASTENING MAIN CARLES: ALL CARLES SHALL BE INSTALLED WITH CARLE SUPPORT GRIPS AS REQUIRED BY THE MANUFACTURER. FEER BURDLES ABOVE GREAKOUT SHALL BE SUPPORTED USING %" VELORO STRAPS OF THE REQUERDS LIDIGID AT 18" OC. STRAPS SHALL BE UV, OL, AND WATER REDSTANT AND SIJITABLE FOR HOUSERAL ASSIGNATIONS.
- DC BUNGLES ABOVE BREAKOUT SHALL BE SUPPORTED WITH 2P THES OF THE ADEQUATE LENGTH. 2P TES TO BE UV STABILIZED, BLACK NYLON, WITH TENSIE STRENGTH OF 12,000 PSI.
- B. CARLE JAMPERS SHALL BE SUPPORTED TO SDE ARMS OR HEAD FRAMES USING STAINLESS STEEL THE MEANS OR STAINLESS SITTLE BUTTLESTLY CLIPS.
- MAN CARE F ASSEMBLATION
 - A. CONTRACTOR SHALL INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, AND NOTFY SPRINT CONSTRUCTION MANAGER IF ANY DAMAGE IS OBSERVED.
 - B. CABLE ROUTING/INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE DIVELOPE AS INDICATED ON THE CRAININGS, AND SHALL
- C. HOIST CABLE USING PROPER HOISTING CRIPS. DO NOT EXCEED MANUFACTURER'S
- D. TRANSMISSION LINES SHALL BE CROUNCED AS NOICATED ON THE DRAWINGS
- E. ALL MAIN CARLE, DC BLACKES, FISER BLACKES, AND JUMPER CARLES SHALL BE COLOR CODED AS REQUIRED BY TS 0200 LATEST REVENUE. WEATHERPROOFING AND GROUND KITS:
- A. ALL HYBRO, FIBER CABLES, CONNECTORS, AND GROUND KITS SHALL BE NEATHER PROOFEE

- SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-MALGAMATING TAPE ON OPPOSITE DISCISION. APPLY DOUBLE WARP OF 2" WDE ELECTRICAL LAPE EXTENDED 2" BEYOND THE SELF-MALGAMATING TAPE.
- E. OPDI FLAM ON JOB SITE IS NOT ACCEPTABLE.

GROUNDING:

- WHEN DESIGNING A CROUNDING SYSTEM FOR A WOORLE RADIO FACULTY THERE ARE FOUR INTERMELATED AREAS OF COMENS. THE BASIC OBJECTIVE FOR FACH IS.
- A LIGHTHING PROTECTION-TO MAINTAIN ALL EQUIPMENT AT THE SAME POTENTIAL DURING A
- B. RFI FOR NOISE MOUCTON CONTROL-TO ESTABLISH THE LONEST POSSIBLE IMPEDANCE
- C. ELECTROSTATIC CONTROL-TO REDUCE ELECTROSTATIC DISCHARGE PROBLEMS
- D. PERSONNEL SAFETY-TO MAINTAIN A MINIMAIN VOLTAGE DIFFERENCE BETWEEN ANY THO METALLIC OBJECTS WHICH PERSONNEL MICHT CONTACT SAMUTANEOUSLY.
- IT IS IMPORTANT THAT THE CROUNDING COMOUCTORS RE AS STRAIGHT AS POSSIBLE, WITH NO TURN OR BEID SHORTER THAN ONE FOOT RADUS WITH A THREE FOOT RADUS PREFERRED NO RIGHT ANGLE ON SHAMP BEINGS SHALL BE ALLOWED.
- THE THREE IN SHAPE BROSS SHALL BE, ALLOHD

 14. SHAPE SENDER PREPARATION PROOF 10 SENDED OF DIVER CLD WELD OF FASTIFIERS
 LALINARIED CHIM ACLS HALL BE GROUND OF BROKED TO THE PROOF OF SENDERS
 LALINARIED CHIM ACLS HALL BE GROUND OF BROKED THE PROOF OF SENDERS SHAPE SHALL BE GROUND COVERY BROSS BASE ALL PROOF, THE GROUND FOR THE COVERY BROSS BASE ALL PROOF, THE GROUND FOR THE PREPARATION OF CODE SHAPE SHALL BE REPORTED BROKED FOR THE PROOF OF THE
- 4. GROUNDING SHALL COMPLY WITH NEC
- 5 CONNECTIONS TO GROUND BARS EXCEPT WHERE MOTED ON THE DRAWNES SHALL DE TWO HOLE LUG.
- B. IF NOT EXISTING, HOME RUM CROUND SHALL BE #2 SOLID THRED BARE COPPER WIRE, AND CADWELD CONNECTION TO ALL CROUND BLRS.
- SZ AND, INSULATED STRANDED COPPER CAME IS ACCEPTABLE FOR INTERIOR CHOUND BAR CONDUCTORS ON TENANT INPROVEMENT SITES
- B. ALL CROUNDING CONDUCTORS SHALL BE ALONG THE EMORTEST AND MEATEST PATH POSSIBLE AS NOT TO SHERFERE WITH ANY COSTING EQUIPMENT.
- 8 DO NOT ALLOW BARE COPPER WIRE IN CONTACT WITH GALVANIZED STEEL.
- 10. DIXIDE INHIBITING COMPOUND SHALL BE APPLIED TO ALL COMPRESSION TYPE AND TWO HOLE LUG CROUND CONNECTIONS.
- 11. ALL CROUND WIRES FROM ECOMPMENT ECCATED AT THE SPRINT CONCRETE PAD SHALL BE ENCASED WITH \$" PVC CONCUST BEFORE DITERRING GRADE LEVEL, AND SEALED WITH SUCCOL
- 12. ALL CABLE BROOK SECTIONS SHALL BE GROUNDED WA TWO HOLE LIIG TYPE CONNECTION WITH AS COPPER STRANGED WARE WITH OREEN BASILATION. 13. ALL COMMECTIONS AT GROUNG BARS SHALL BE IN A MEAT AND CONSECUTIVE GROER.
- 14. GROUNDING CONNECTIONS SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL DIRECTS UNITED PROPERTY SIZENCE WITH PMC CONDUCT.
- 15. WETAL THRE CLIPS ARE PROJECTED. USE PLASTIC HIRE CLIPS ONLY.
- IO. GROUNDING CONNECTION TO THE EQUIPMENT CABINETS SMALL BE MADE BY CONNECTING THE CHURCO MIRE FROM THE BUSS BAR IN THE CABINETS TO THE GROUND TONG.
- 17. F APPLICABLE, CONTRACTOR SHALL PHOTOGRAPH ORGANO RING AND ALL CADMILES PRIOR TO BACKFEL AND PROVIDE PHOTOS TO SPENT PROJECT MANAGER.
- 18. MAY CHANGES TO GROUNDING EPECIFICATIONS MUST BE RELAYED TO AND APPROVED BY ENGINEER.
- 19. GROUNDING SYSTEM SHALL HAVE A RESISTANCE RATING OF 5 CHAIS OF LESS. CONTRACTOR SHALL SUBMET FRAIL TESTING RESERTS TO SPRINT PROJECT MANAGER.
- . THE CHOUNDING SYSTEM HAS BEEN DESCRIPT TO CENTERAL MINELESS TELECOM SPECIFICATIONS. ANY ADDITIONAL CLICH'S SYCOPIC REQUIREMENTS SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND SPERMY FROLEST MANAGER.

ELECTRICAL:

1. ALL ELECTRICAL BOOK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS INTO, AND ALL APPLICABLE CODES.

- 2 CONQUET ROUTINGS ARE SCHEMARC, CONTRACTOR SHALL INSTALL CONQUETS SO THAT ACCESS TO EXISTING AND PROPOSED EQUIPMENT IS NOT BLOCKED.
- 3 FACE IND OF THEIR GROADING MO TE COMMITTEE AND CARE SHALL BE LABELED WITH COOK COOKE HANDON OF ILLEGEOUS THE (ME JAMA). THAT ELECTRON OF ECUAL) THE DEMORACTION METHOD DALL CONFORM WITH THE REC. AND COLAR ECUALISTICS.
- POWER PHASE CONDUCTORS SHALL BE LABELLED WITH COLOR CODED INSTALATION ON ELECTRICAL TAPE. PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND COMA.
- 5 ALL EQUIPMENT SHALL BE LABELED WITH THOM VOLTAGE RATING, PHALE CONFIGURATION, MIRE CONFIGURATION, POWER OR AMPAGETY RATING, AND BRANCH CIRCUIT IS MUNICIPAL. 6. PANEL BOARDS AND INTERNAL CIRCUST DREAKERS SHALL BE CLEARLY LABELED.
- PERCENCIAL METALLIC TUBING (EMT) OF RIGID NONMETALLIC CONDUIT SHALL BE USED FOR EXPOSED INDICOR LOCATIONS.
- & ELECTRICAL METALLIC TRIMING (EMT), ELECTRICAL HON METALLIC TRIBING (EMT), OR ROO HON METALLIC CONCUST SHALL BE USED FOR CONCENTO MICHORIST COARDING
- GALVANIZED SITES, INTERMEDIATE METALLIC CONDUST (INC) SMALL BE USED FOR OUTDOOR LOCATIONS ABOVE CRASE.
- TO OCCASIONAL LIGHT VEHICLE TRAFFIC OR DICASED IN REMFORCED CONCRETE IN AREAS OF HEAVY SHOULD TRAFFIC TRAFFIC OR DICASED IN REMFORCED CONCRETE IN AREAS OF HEAVY SHOULD TRAFFIC TRAFFIC.
- 11. LIQUO-TITE FLEXBLE METALLIC CONDUST SHALL BE USED ADDORS AND DUTDOORS WHERE VERKATION OCCURS AND FLEXBLITY IS NEEDED. 12 CONDUST AND TUBBLE STITLINGS SHALL BE THREADED OR COMPRESSION TYPE AND APPROVED FOR THE LOCATION USED.
- 13. WREWAYS SHALL BE EPCKY COATED AND HIGLDE A HONGED COVER, DESCRIED TO SHING OPEN DOWNRAND, SHALL BE PANGAT THE'E (OR EQUAL), AND RATED MEMA 1 (OR SETTER) ACCORD. OR MILLA SH (OR METLER) OLDGOODES.
- EQUIPMENT CABRETS, TENINAL BOXES, JANCTON BOXES, AND PILL BOXES SAMEL BE CALVANIZED OR FORTY COATED SHEET STEEL, DALL BOXED OR EXCELD US DO MAD MATE DAMES AND COMMENT OF THE SHEET OF THE
- MFIAN RECEPTACE, SMICH, AND DEVICE BOXES WHALL BE CALVANATED, EPOXY COATED, NON-CORRODING, BHALL MEET OR EXCEED US SHA AND NEMA OS 1; AND RATED NEMA BETTER) BROOKS, OR WEATHER PROTICETO (MF OR DETHER) CULDOOMS
- 16. NON METALLIC RECEPTACES, SWIDN, AND DEVICE BOXES SHALL MEET ON EXCEED MEMA OS 2.
 AND RATED NEMA 1 OR BETTER (INDOORS) OR MEATHER PROTECTED (MP OR BETTER) OUTDOORS.
- 17. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY AUTHORIZATIONS AND PERMITS BEFORE COMENCING ELECTRICAL WORK. 18. CONTRACTOR SHALL PROVIDE NECESSARY TAGOING OF THE BREAKERS, CABLES, DISTRIBUTION PARLES IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LET AND PROPERTY.





THESE DRAWINGS ARRESONATED TO BE FULL EZE AT 22"434" IF DRAWINGS ARE IT 11" THEY ARE TO BE CONSIDERED HAS ICALE AS INDICATED ON THE BAR SCALE BELOW LACH DRAWING CUANYARMT.



MICHAEL McGOWAN

McGOWAN **ENGINEERING** 645 WESTWOOD AVE RIVERVALE, NJ 07675

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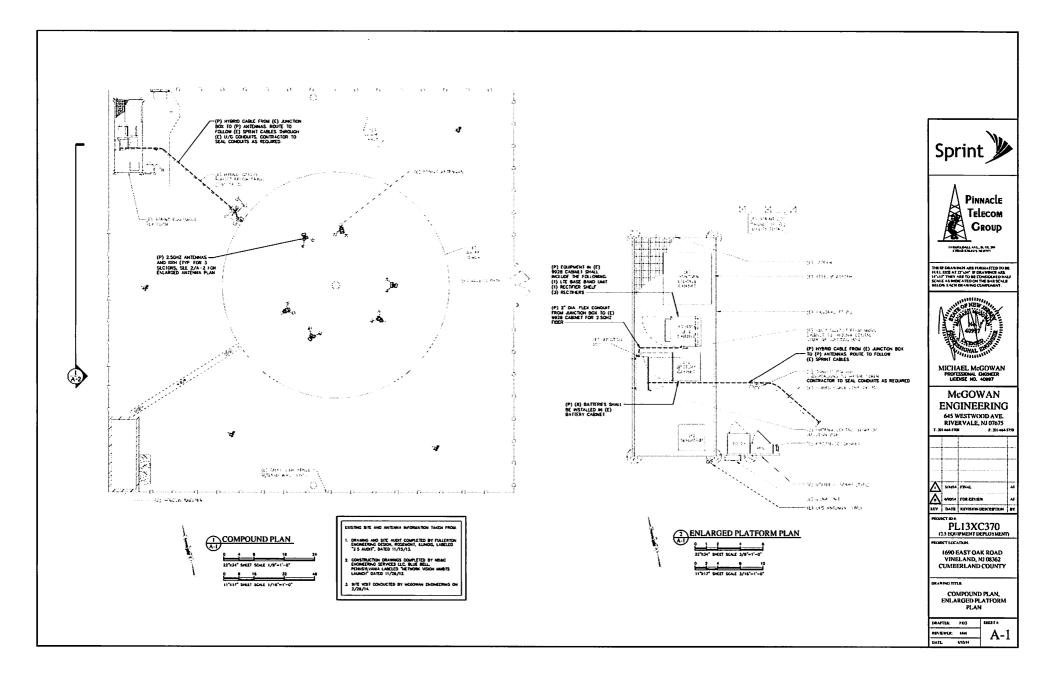
PL13XC370 CLS BOURMENT DEPLOYMENT

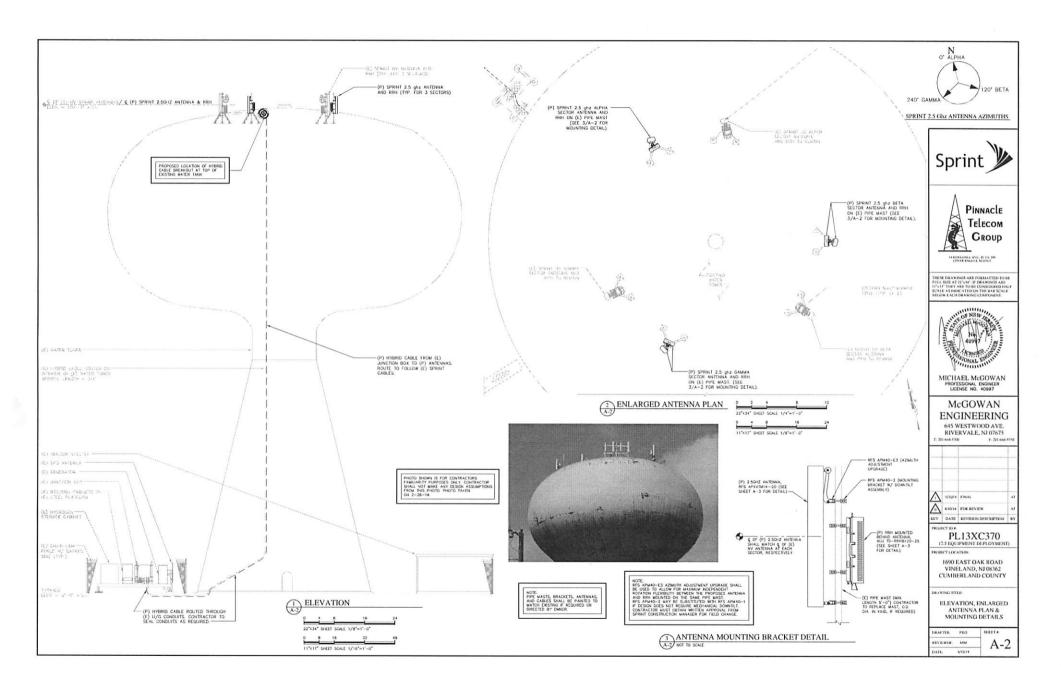
1690 EAST OAK ROAD VINELAND, NJ 08362 CUMBERLAND COUNTY

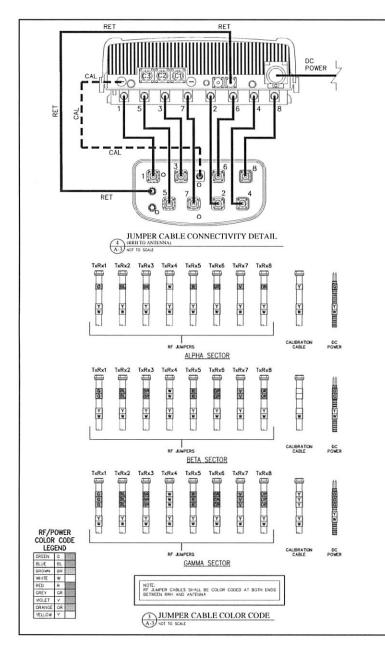
SEASON TITLE

SPECIFICATIONS

DRAFTER:	PKO	DEFL.
KB\ILWER:	им	SP-1
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SECTORS	AZIMUTH	RRH	ANTENNA	MECHANICAL DT	ELECTRICAL DT	CABLE	COLOR	CABLE LENGTH
ADHA DATACEK VOKA)	σ	EXSTRO RIGHEQ & ITIDIAN RPH TO PERMAN	DEBE BOSHC/1903HC AMERIC HO HUAS	PACING AS FOR SPORE OR (MANGE RO (MITTER)	PRETECT AS PER SPENI (NO DEPART TO EXCENSE)	PRICING PYRESP PRICE TO HIGH-M	1 DELIN	
ALPHA (2.5GHZ)	σ	PROPOSED 2.5GHZ RRH, TD-RRHBX20-25	PROPOSED 2.5GHZ ANTENNA RFS APXVTM14-C-I20	o'	-r	PROPOSED HYBRID CABLE FEEDS ALPHA, BEIA, & CAMMA SECTORS (SEE DETAIL 5/A-3) (SEE NOTE 1)	тво	
TETA INCTMICK VOICH)	14[**	EXISTING ROSEGY & CONSEQ SHEET IN PERSON	CACTRO DESPREY TASKING ANTERNA TO HEAVE	DESIGNATION OF THE SHOWS TO SHOW SHOWS TO SHOW SHOWS TO SHOW SHOW SHOW SHOW SHOW SHOW SHOW SHO	DIGITAL AS PORTUGAL ON THE TO EXCEPT	ORIE DRIVE	2 vie.£4	
BETA (2.5GHZ)	120	PROPOSED 2.5CHZ PRH, TD-RRHBX20-25	PROPOSED 2.5CHZ ANTENNA, RFS APXVTM14-C-120	o-	-7	PROPOSED HYBRID CABLE FEEDS ALPHA, BETA, & GAMMA SECTORS (SEE DETAIL 5/A-3) (SEE NOTE 1)	TBD	315FT3
GRASIA (NETWORK VISION)	560.	EXSTRU ESSEC & HOSEG SELL HEVER	Editivo Bitually two tunit Analyse Id Hidde	TATTRET AS MIX 42-ME (NA GROSS TO EXCEPTING)	EXCLUSION AND POST OF POST OF PARTY OF POST OF	Series reserve	3 (3668)	
GAMMA (2.5GHZ)	240*	PROPOSED 2.5GHZ RRH, TD-RRH8X20-25	PROPOSED 2.5GHZ ANTENNA, RFS APXVTM14-C-120	D'	- <i>T</i>	PROPOSED HYBRID CABLE FEEDS ALPHA, BETA, & CAMMA SECTORS (SEE DETAIL 5/A-3) (SEE NOTE 1)	TBD	

REAR VIEW





14 RECEIDALL AVE., St. FR. 200 CFDAR ENGLAS, NJ (CV2)

THESE DRAWINGS ARE FORMATTED TO BE FULL SUZE AT 22"-34". IF DRAWINGS ARE 11"-17" THEY ARE TO BE CONSIDERED HALF SCALE AS INDICATED ON THE BAR SCALE



MICHAEL McGOWAN
PROFESSIONAL ENGINEER
LICENSE NO. 40997

McGOWAN ENGINEERING

645 WESTWOOD AVE. RIVERVALE, NJ 07675

T. 20	1-664-570	F: 201-664	F: 201-664-5750	
Λ	5/30/14	FINAL	AJ	
$\overline{\mathbb{A}}$	4/10/14	FOR REVIEW	AJ	
REV	DATE	REVISION DESCRIPTION	BY	

PL13XC370 (2.5 EQUIPMENT DEPLOYMENT)

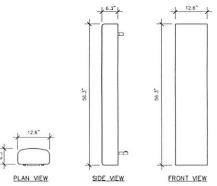
1690 EAST OAK ROAD

1690 EAST OAK ROAD VINELAND, NJ 08362 CUMBERLAND COUNTY

AWING TITLE:

ANTENNA, CABLE & RRH SPECS, ANTENNA CABLE CHART, DETAILS

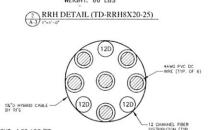
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DATE	4/10/14	71



FREQUENCY RANGE: 2490GHZ-2600GHZ WEIGHT: 56.2 LBS

ANTENNA DETAIL (RFS APXVTM14-C-120)

ANTENNA	A/CABLE BILL OF	MATERIALS
ITEM	DESCRIPTION/ MODEL #	QUANTITY/LENGTH
ANTENNA	RFS APXVTM14-C-I20	3
RRH	ALCATEL LUCENT TD-RRHBX20-25	3
HYBRID CABLE	RFS HB114-21U3M12-325F	1 / 325FT
JUMPER CABLE	RFS LCF12-5QJ (CONNECTORS PRE-INSTALLED BY MANUFACTURER)	27 / 8FT
RET CABLE	COMMSCOPE ATC8-B01-006 (CONNECTORS PRE-INSTALLED BY MANUFACTURER)	3 / 8FT



SIDE VIEW

WEIGHT: 66 LBS

WEIGHT: 1.22 LBS/FT MIN. BENDING RADIUS: 10" CLAMP SPACING: 4FT OC

PLAN VIEW

ASSEMBLY LENGTH	MODEL NUMBER	DESCRIPTION
X2 57	H5114-2107M12-300F	374 4420 bil 1824 UBB Widde FBER, 1025 3 WYD GRANGINGS, BOTTOM, 15 LC CRASECTORS
325 FT	HB114-21U3M12-325F	3PR 4AWG DC, 18PR MULTI-MODE FIBER, TOP: 3 MPG CONNECTORS; BOTTOM: 18 LC CONNECTORS
350 77	HB: 14-2103W12-3SW	594 4450 DE 1889 BULD-MODE /HBS4 HD9: 3 MPC CEMORECTORS, BOTTOM 18 LC CTRAFFCIONS
334 1,1	H9114-1118215-175F	THE ADD OF THE WITH HOSE PART. THE I ARE CONNECTONS BOTTOMS IN IC CONNECTONS
4co 87	HS11+-2102812-4664	SPP 44WO DO 18PH WHITE-WOLE PIECE. TOP 3 WPD CONNECTORS, SCITCH, 18 LC CONNECTORS

S HYBRID CABLE DETAIL

