



**SITE NAME**  
**OP SCHNABEL**  
 (107149)

**SITE ADDRESS**  
 10100 BELGA DRIVE  
 SAN ANTONIO, BEXAR COUNTY, TEXAS 78207



**OP SCHNABEL**  
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10100 BELGA DRIVE  
 SAN ANTONIO, BEXAR COUNTY, TEXAS 78207  
 (107149)

APPROVAL SIGNATURES  
**LANDLORD**

**LEASING**

**CONSTRUCTION**

05.30.14



**PROPRIETARY INFORMATION**  
 NOT FOR USE OR DISCLOSURE OUTSIDE VERIZON WIRELESS EXCEPT UNDER WRITTEN AGREEMENT



SHEET TITLE  
**TITLE SHEET**

SHEET HISTORY  
 05.30.14 PERMIT SET

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**T1**

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONLY. ANY RE-USE OF THESE PLANS (DRAWINGS) WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS IS PROHIBITED.

PROJECT DATA	
<b>PROJECT INFORMATION:</b>	<b>APPLICANT:</b>
JURISDICTION: CITY OF SAN ANTONIO	VERIZON WIRELESS
CONSTRUCTION TYPE: UNMANNED TELECOMMUNICATIONS	5804 TRI COUNTY PARKWAY
LATITUDE: 29° 32' 14.42" N	SCHERTZ, TEXAS 78154
LONGITUDE: 98° 38' 12.71" W	CONTACT: TIM CALETKA
	PHONE: (210) 834-1664

PROJECT PARTICIPANTS	
<b>ARCHITECTS / ENGINEERS</b>	<b>RF ENGINEER</b>
ARCHCOMM LLC. 1006 BECKETT SAN ANTONIO, TEXAS 78213 PHONE: (210) 308-9905 FIRM NUMBER: F-15659	CARLOS ARREDONDO
<b>CONSTRUCTION MANAGER</b>	
TRACY REEVES (210) 834-1664	
<b>CONSTRUCTION ENGINEER</b>	
TIM CALETKA (210) 834-1664	

**DRIVING INSTRUCTIONS**

FROM SCHERTZ, TEXAS: TAKE I-35 SOUTH TO LOOP 410. TRAVEL WEST AND EXIT BANDERA ROAD. TURN RIGHT ON BANDERA ROAD AND TRAVEL NORTH TO SCHNABEL PARK. TURN RIGHT ON NORTH VERDE DRIVE. TURN RIGHT ON SOUTH VERDE DRIVE. TURN RIGHT ON BELGA DRIVE. THE SITE WILL BE ON YOUR LEFT.

UTILITIES	
<b>ELECTRIC COMPANY</b>	<b>TELEPHONE COMPANY</b>
AT SITE	AT SITE

**SCOPE OF WORK**

THIS IS AN APPLICATION TO MODIFY AN EXISTING UNMANNED WIRELESS FACILITY CONSISTING OF COMMUNICATION EQUIPMENT, CONNECTING CABLES, DIRECTIONAL ANTENNAS AND GPS. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS MAY BE MODIFIED OR CHANGED TO MEET NEW SYSTEM REQUIREMENTS. THE WIRELESS ANTENNAS WILL CONTINUE TO PROVIDE CLEAR AND RELIABLE WIRELESS COMMUNICATIONS WITHIN THE EFFECTIVE OPERATIONAL AREA. THESE MODIFICATIONS WILL NOT EFFECT THIS SITE'S ABILITY TO CONTINUE TO FUNCTION IF THE TELEPHONE (WIRE) SERVICE IS DISCONNECTED DURING AN EMERGENCY OR NATURAL DISASTER. THESE FACILITIES WILL ENHANCE THE GENERAL HEALTH, SAFETY, AND WELFARE OF THE COMMUNITY AND SURROUNDING AREAS BY PROVIDING RELIABLE WIRELESS COMMUNICATIONS AT THIS LOCATION.

**GENERAL:** REMOVE (6) PCSA ANTENNAS AND ADD (3) HTXCW ANTENNAS & (3) CWWX ANTENNAS WITH RET ACCESSORIES. ADD (3) RRHs & (1) OVP BOX.

**SECTORS:**

**ALPHA:** REPLACE (2) EXISTING PCSA ANTENNA WITH (1) HTXCW ANTENNA & (1) CWWX ANTENNA.

**BETA:** REPLACE (2) EXISTING PCSA ANTENNA WITH (1) HTXCW ANTENNA & (1) CWWX ANTENNA.

**GAMMA:** REPLACE (2) EXISTING PCSA ANTENNA WITH (1) HTXCW ANTENNA & (1) CWWX ANTENNA.



TEAM SIGNOFF	
Site Acquisition	_____
Const Supervisor	_____
RF Engineering	_____
Equipment	_____
Telco	_____
Const Manager	_____

SHEET INDEX	
T1	TITLE SHEET
N1	GENERAL NOTES
A1	SITE PLAN
A2	SITE ELEVATION
A3	SITE MODIFICATION CHANGE ORDER

H:\ARCHCOMM LLC\VERIZON\SOUTH TEXAS\OP Schnabel - 107149\2012781885-Antenna Mod\OP SCHNABEL-N1 GENERAL NOTES.dwg, 5/30/2014 1:10:23 PM, mvicana

**GENERAL NOTES:**

- FOR THE PURPOSE OF THESE CONSTRUCTION DOCUMENTS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR – GENERAL CONTRACTOR  
OWNER – OWNER OF THE SITE  
PROJECT MANAGER – NEW CARRIER’S PROJECT MANAGER
- CARE SHALL BE TAKEN TO PROTECT THE SITE AND THE SURROUNDING AREA FROM FIRE HAZARD DURING ‘HOT’ OPERATIONS. ADEQUATE EQUIPMENT, PERSONNEL AND EMERGENCY COMMUNICATIONS SHALL BE PROVIDED TO PROTECT LIFE AND PROPERTY IN AND SURROUNDING THE CONSTRUCTION SITE.
- ALL EXCAVATIONS SHALL BE BARRICADED FOR PERSONNEL PROTECTION AND IF CONCRETE PIERS ARE DRILLED, THEY SHALL BE FILLED BY END OF DAY.
- VERIFY REQUIREMENTS OF OTHER TRADES PRIOR TO PROCEEDING WITH FABRICATION OR INSTALLATION OF MATERIALS.
- COMPLETE SHOP DRAWINGS SHALL BE PROVIDED FOR ALL FABRICATED ITEMS FOR REVIEW PRIOR TO FABRICATION. DRAWINGS CONTAINED IN THESE CONSTRUCTION DOCUMENTS SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS.
- THE BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE WITH NO ADDITIONAL COSTS TO THE OWNER/LESSOR/PROJECT MANAGEMENT TEAM FOR ALL FEES, PERMITS, INSPECTION FEES RELATED TO THIS PROJECT, OR SEE THAT ANY AND ALL SUCH CHARGES ARE PAID BY THE RESPECTIVE SUBCONTRACTORS ASSOCIATED WITH THIS PROJECT.
- DIMENSIONS NOTED AS ‘+/-’ OR ‘VERIFY’ ARE BASED ON MATCHING EXISTING CONDITIONS AND MAY VARY SLIGHTLY FROM THE DIMENSIONS AS SHOWN. NOTIFY THE CARRIER’S PROJECT MANAGER IF SIGNIFICANT VARIATIONS ARE ENCOUNTERED AT THE SITE.
- THE NATURE OF THE SITE RELATED ACTIVITIES REQUIRES THAT ACCESS TO THE SITE MUST BE MANAGED AT ALL TIMES DURING HOURS OF OPERATION AND WHEN THE SITE IS UNATTENDED. WORK WITH THE OWNERS REPRESENTATIVE FOR SAFETY AND SECURITY AT ALL TIMES.
- CONTRACTORS SHALL BE REQUIRED TO PICK UP ALL OWNER SUPPLIED EQUIPMENT AS DIRECTED BY THE PROJECT MANAGER WITH NO ADDITIONAL COST TO THE JOB.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- CONTRACTOR SHALL HAVE A PRECONSTRUCTION MEETING WITH THE CARRIER’S PROJECT MANAGER TO DISCUSS ALL ASPECTS OF THE SCOPE OF THESE DRAWINGS TO ENSURE HE IS FAMILIAR WITH AND UNDERSTANDS ALL REQUIREMENTS AND INTENT OF EACH ACTIVITY.
- THE CONTRACTOR SHALL REVIEW, BE THOROUGHLY FAMILIAR WITH AND UNDERSTAND ALL DOCUMENTS CONCERNING THIS PROJECT INCLUDING, BUT NOT LIMITED TO, THIS SET OF DOCUMENTS; TOWER AND TOWER FOUNDATION DRAWINGS; SHELTER AND/OR PLATFORM DRAWINGS; STEALTH DRAWINGS (IF APPLICABLE) AND ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES & ORDINANCES.
- NO WORK OF ANY KIND SHALL BE ACCOMPLISHED BY ANY TRADE IN FRONT OF ANY OPERATING ANTENNA.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL FABRICATED STEEL ITEMS SHALL BE HOT DIPPED GALVANIZED PRIOR TO SHIPPING TO THE SITE.

**EXISTING TOWERS:**

- CONTRACTOR SHALL ATTAIN AND VERIFY STRUCTURAL EVALUATION REPORT OF EXISTING TOWER FOR STRUCTURAL ADEQUACIES AND EXACT PLACEMENT OF ANTENNAS AND COAX CABLES. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL EVALUATION REPORT AND NOTIFY ARCHCOMM LLC IN THE CASE OF A DISCREPANCY. ANY STRUCTURAL MODIFICATIONS, IF REQUIRED, SHALL BE DONE PRIOR TO INSTALLATION OF ANTENNAS.
- THE EXISTING TOWERS CAPACITY TO SUPPORT NEW EQUIPMENT IS IN PART BASED ON THE ASSUMPTION THAT IT WAS BUILT AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATION (REFER TO STRUCTURAL ENGINEERS ANALYSIS & REPORT). THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING TOWER PRIOR TO THE START OF ANY NEW CONSTRUCTION AND REPORT TO THE PROJECT MANAGER ANY CONDITION THAT HE BELIEVES IS NOT IN KEEPING WITH TIA-222-G ANNEX J: MAINTENANCE AND CONDITION ASSESSMENT.

**EXISTING CONDITIONS:**

- DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT NO DISRUPTION OF EXISTING FACILITY OPERATIONS WILL OCCUR.
- THIS BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING FACILITIES AND SHALL REPLACE OR REPAIR TO THE ORIGINAL CONDITION AS DETERMINED BY THE PROJECT MANAGER.
- CUT AND PATCH ANY AREAS WHERE REQUIRED BY THE SCOPE OF THIS PROJECT. MATCH EXISTING WORK AND MATERIALS EVEN IF SUCH WORK FALLS OUTSIDE OF THE LIMITS OF THIS CONTRACT.
- THE OWNER OF THE SITE RETAINS SALVAGE RIGHTS TO ALL MATERIALS AND EQUIPMENT REMOVED FROM THE EXISTING WORK. MATERIALS AND EQUIPMENT NOT CLAIMED BY THE OWNER SHALL BECOME THE PROPERTY OF THE BUILDER/SUBCONTRACTOR WHO SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE REMOVAL AND APPROPRIATE DISPOSAL THEREOF.
- VERIFY ALL EXISTING SITE CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK.
- ALL BIDDERS SHALL VISIT THE SITE BEFORE BIDDING TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS.
- CARE SHALL BE TAKEN TO LOCATE ALL EXISTING UNDERGROUND OBSTRUCTIONS, UTILITIES AND/OR EASEMENTS BEFORE DIGGING OR DRILLING ON THE SITE.
- UTILITY CHECK – BEFORE COMMENCING ANY WORK AT THE SITE, CONTACT THE **ONE CALL SYSTEM** IN THE STATE IN WHICH UNDERGROUND WORK IS BEING DONE. REFER TO ONE CALL NOTE ON SITE PLAN.

**CONSTRUCTION CODES:**

- ALL WORK SHALL BE ACCOMPLISHED AS PER ALL APPLICABLE CURRENT STATE, LOCAL AND NATIONAL CODES. THESE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:  
**INTERNATIONAL BUILDING CODE (OR LOCAL ACCEPTED CODE)**  
**NATIONAL FIRE PROTECTION ASSOCIATION-**  
NFPA 70, NATIONAL ELECTRIC CODE  
**THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION-**  
SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.  
**THE AMERICAN CONCRETE INSTITUTE-**  
BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE.  
**AMERICAN WELDING SOCIETY-**  
STRUCTURAL WELDING CODE- STEEL.  
**TOWER DESIGN – STANDARD PER FIA/TIA-**  
TIA 222 G SPECIFICATIONS.  
TIA 607 GROUNDING & BONDING REQUIREMENTS FOR TELECOMMUNICATIONS.  
TIA 568 COMMERCIAL BUILDING TELECOMMUNICATION WIRING STANDARD.  
TIA 569 COMMERCIAL BUILDING STANDARDS FOR TELECOMMUNICATION PATHWAYS AND SPACES.  
**INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)-**  
IEEE 81 – GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE & EARTH SURFACE POTENTIALS OF A GROUND SYSTEM.  
IEEE 1100 – RECOMMENDED PRACTICE FOR POWERING & GROUNDING OF ELECTRONIC EQUIPMENT.  
IEEE C62.41 – RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS.  
**ANSI T1.311-**  
FOR TELECOM – DC POWER SYSTEMS – TELECOM, ENVIRONMENTAL PROTECTION.  
  
HANDICAP REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ADA ACCESS REQUIREMENTS DO NOT APPLY.  
  
OTHER REQUIREMENTS: THIS FACILITY HAS NO PLUMBING OR PARKING.
- FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

**FLOOD HAZARD ZONES:**

- ALL SITES LOCATED WITHIN A FLOOD HAZARD ZONE SHALL HAVE TOP OF SLAB AND/OR TOP OF GRATING RAISED TO BE AT LEAST 12” ABOVE THE BASE FLOOD ELEVATION. THIS INCLUDES SHELTERS, RAISED EQUIPMENT PLATFORMS, GENERATORS, FUEL TANKS AND ALL ELECTRICAL EQUIPMENT.

**SITE DEVELOPMENT & FINISHING NOTES:**

- DIGGING AND EXCAVATION** – HAND DIG ALL EXCAVATIONS AND TRENCHES IN AREAS SUSPECTED TO CONTAIN EXISTING GROUNDING CONDUCTORS, GROUND RODS, POWER/TELCO CABLES OR OTHER BURIED UTILITIES.
- COLLOCATION SITE FINISHING** – UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER’S PROJECT MANAGER, AREAS OF COMPOUND EXPANSION OR SPACE LOCATED WITHIN THE LEASED AREA SHALL BE FINISHED TO THE SAME STANDARD AS THE BALANCE OF THE EXISTING COMPOUND OR AT THE SOLE DISCRETION OF THE NEW CARRIER’S PROJECT MANAGER, THE FINISH STANDARD OF THE NEW CARRIER SHALL BE PROVIDED. REFER TO ITEM #3 BELOW.
- NEW CARRIER’S SITE FINISH STANDARD** – PROVIDE A MINIMUM 4” THICK LAYER OF CRUSHED STONE (APPROX. 1” DIAMETER W/O FINES) OVER 6 MIL. WEED BARRIER, OVER 6” COMPACTED BASE. FILL MATERIAL SHALL BE EQUAL TO CRUSHED LIMESTONE CONFORMING TO STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS FOR TYPE ‘A’, GRADE 2 MATERIAL COMPACTED TO 95% PROCTOR DENSITY OVER A COMPACTED SUB-GRADE THAT WAS SCARIFIED AND RECOMPACTED TO 95% PROCTOR DENSITY.
- REPAIR/REPLACE** – AT NO ADDITIONAL EXPENSE TO THIS CONTRACT, ANY CONSTRUCTION RELATED DAMAGE TO ANY EXISTING SITE ELEMENTS OR FINISHES WITHIN THE COMPOUND, IN ADJACENT AND/OR ALONG ROUTES TO THE WORK AREA, HOWEVER INCIDENTAL TO THE PROSECUTION OF THE WORK, SHALL BE PUT IN A PRECONSTRUCTION CONDITION TO THE SATISFACTION OF THE NEW CARRIER’S PROJECT MANAGER.
- BACKFILL** – ALL BORROWED FILL MATERIAL SHALL BE EQUAL TO STATE SPECIFICATION FOR TYPE A, GRADE 1 OR 2, COMPACTED TO 95% PROCTOR DENSITY. WHERE TRENCHING IS REQUIRED BACKFILLING WITH MATERIALS EXCAVATED FROM THE TRENCH WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER’S PROJECT MANAGER. ALL TRENCH BACK FILLING SHOULD BE COMPACTED IN LIFTS NOT TO EXCEED 6” COMPACTED DEPTH AND TO 95% PROCTOR DENSITY FLUSH TO THE SURFACE OF THE FINISHED COMPACTED SUB-GRADE.
- UNLESS INDICATED OTHERWISE, SITES SHALL NOT HAVE SLOPES GREATER THAN 1/4” PER FOOT AND THE AREA IMMEDIATELY AROUND NEW EQUIPMENT SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT.



**OP SCHNABEL**  
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(107149)

APPROVAL SIGNATURES  
**LANDLORD**

**LEASING**

**CONSTRUCTION**

05.30.14



**ARCHCOMM, LLC.**  
1006 Beckett  
San Antonio, Texas 78213  
(210) 308-9905  
TBPE NO. F-15659

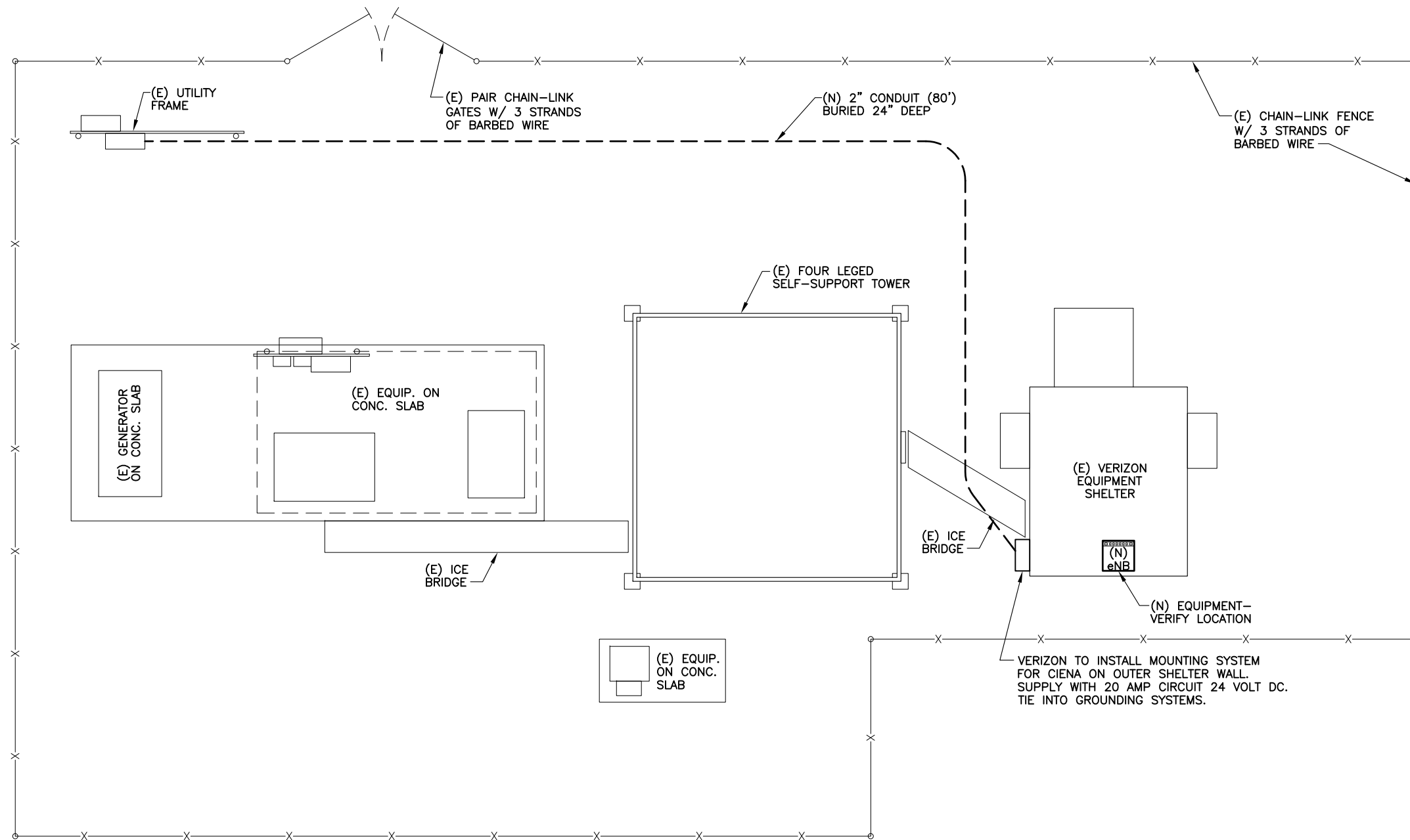
SHEET TITLE  
**GENERAL NOTES**

SHEET HISTORY  
05.30.14 PERMIT SET

**N1**

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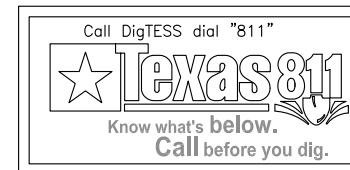
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(N) = NEW LESSEE  
 (E) = EXISTING  
 (F) = FUTURE

THIS SITE PLAN WAS DRAWN WITHOUT THE BENEFIT OF A CIVIL SURVEY; THEREFORE, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING ANY WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK.

**1 SITE PLAN**  
 SCALE: 1/8" = 1'-0"



**OP SCHNABEL**  
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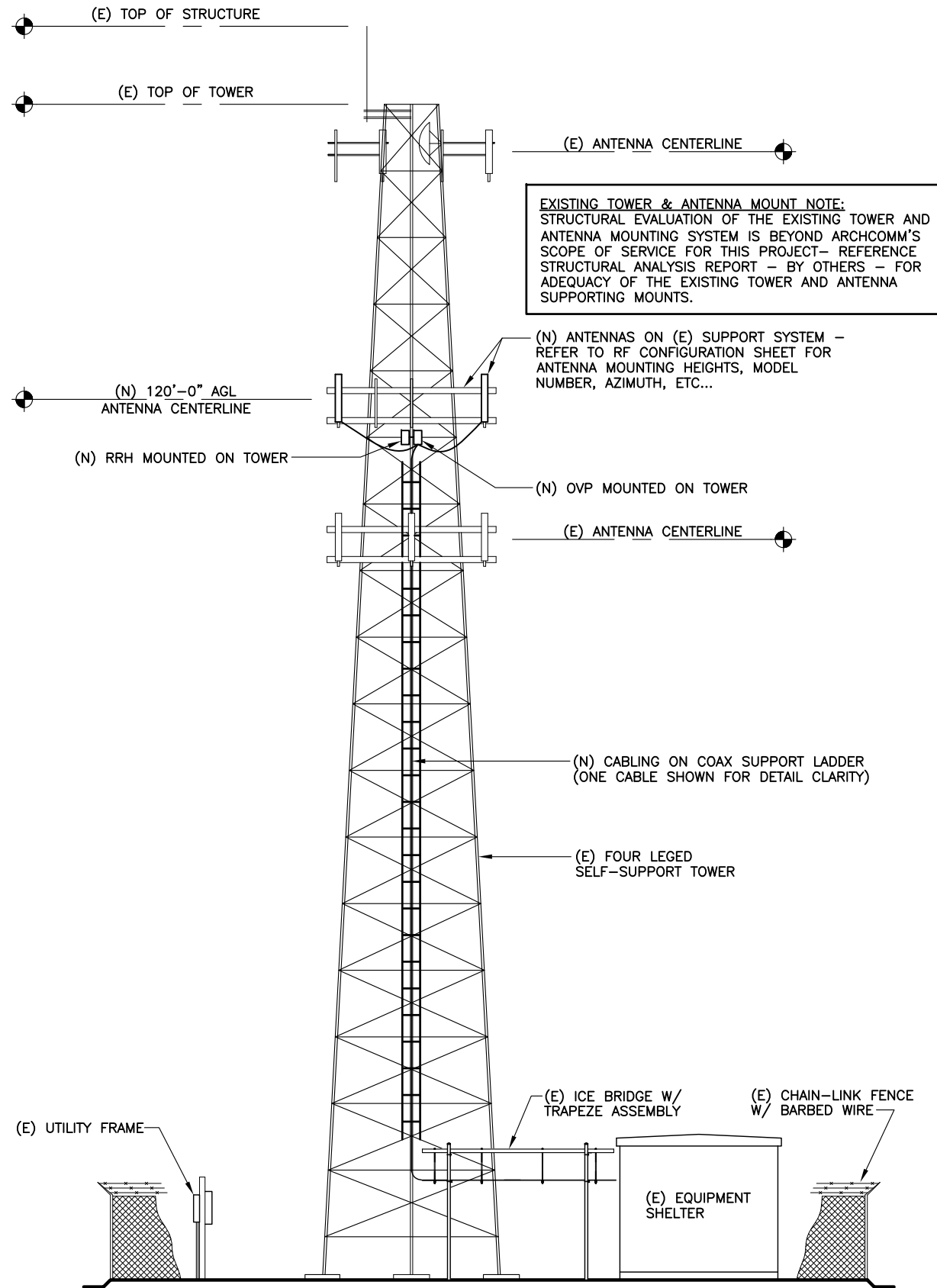
SHEET TITLE  
**SITE PLAN**

SHEET HISTORY  
 05.30.14 PERMIT SET

**A1**

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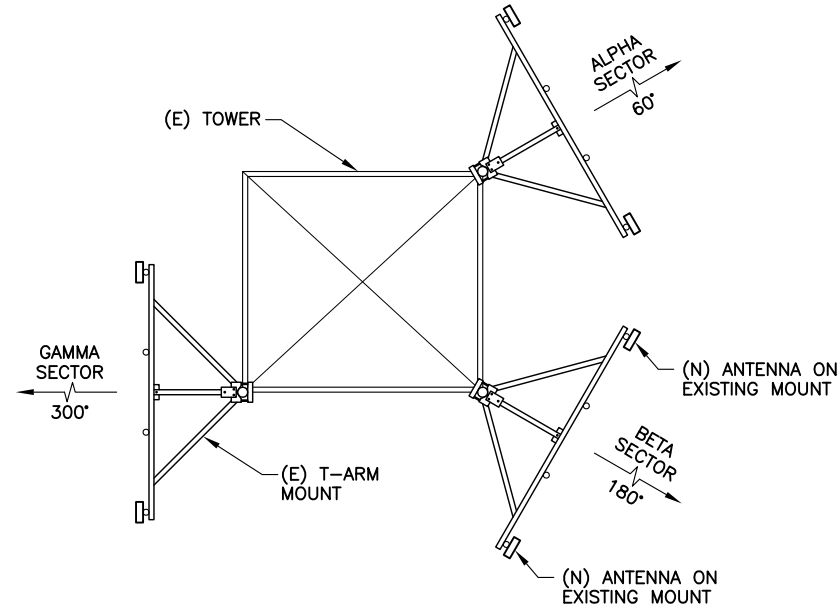


**EXISTING TOWER & ANTENNA MOUNT NOTE:**  
 STRUCTURAL EVALUATION OF THE EXISTING TOWER AND ANTENNA MOUNTING SYSTEM IS BEYOND ARCHCOMM'S SCOPE OF SERVICE FOR THIS PROJECT- REFERENCE STRUCTURAL ANALYSIS REPORT - BY OTHERS - FOR ADEQUACY OF THE EXISTING TOWER AND ANTENNA SUPPORTING MOUNTS.

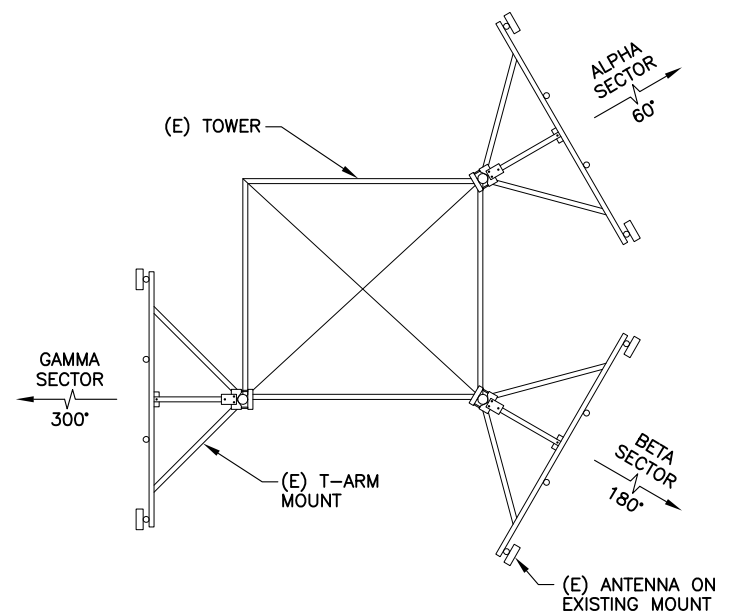
**1 SITE ELEVATION**  
 SCALE: N.T.S.

(N) = NEW  
 (E) = EXISTING

IF THERE ARE CONFLICTS BETWEEN SITE MODIFICATION CHANGE ORDER AND SITE ELEVATION, REFER TO STRUCTURAL ANALYSIS REPORT ON FILE W/ PROJECT MANAGER.



**3 ANTENNA LAYOUT-AFTER**  
 SCALE: N.T.S.



**2 ANTENNA LAYOUT-BEFORE**  
 SCALE: N.T.S.



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SHEET TITLE  
**SITE ELEVATION**

SHEET HISTORY  
 05.30.14 PERMIT SET

**A2**

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Project Name : OP SCHNABLE - AWS Carrier Add 05/14/2014	Task Submitted On : 05/15/2014
Task Submitted By : Carlos Arredondo	

## Site Modification Change Order

Mod Type : LTE Modification

Project Title : OP SCHNABLE - AWS Carrier Add 05/14/2014  
 Requestor Name : Carlos Arredondo  
 Requestor Phone : 210-871-6354  
 RF Engineer : Carlos Arredondo  
 Expected Completed Date : 11/28/2014  
 BTA Name : San Antonio, TX  
 BTA Number : 401

GeoPlan Market : Austin  
 Current Configuration : 5-0003-LTE3 OP SCHNABLE  
 Proposed Configuration : 5-0003-AWS3 OP SCHNABLE  
 Switch Identifier : 4182-5 Schertz  
 Cluster # :

### Site Information

Coordinates (NAD83) :  
 Latitude : 29-32-14.42 N  
 Longitude : 98-38-12.71 W  
 Ground Elevation (ft AMSL): 926.0

Address :  
 Street : 10100 Belga Drive  
 City, State, Zip : San Antonio TX 78207  
 County : Bexar

### LTE Phase Type :

Site Type :  Colocation  VZW Owned Tower  Rooftop

### Antennas :

Service Type: 700 Upper CURRENT			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	1	1	1
Manufacturer	AMPHENOL	AMPHENOL	AMPHENOL
Model Number	HTXCW631818R0-00-T00-750	HTXCW631818R0-00-T00-750	HTXCW631818R0-00-T00-750
Antenna gain (dBd)	15.4	15.4	15.4
Antenna Beamwidth (deg)	68	68	68
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	124.59	124.59	124.59
Mechanical Downtilt (deg)	0	0	0
Adjustable Electrical Downtilt (deg)			
Feedline Length (ft)			
Number of Lines per Antenna			
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

Service Type: 700 Upper PROPOSED			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	1	1	1
Manufacturer	AMPHENOL	AMPHENOL	AMPHENOL
Model Number	HTXCW631818R0-00-T00-750	HTXCW631818R0-00-T00-750	HTXCW631818R0-00-T00-750
Antenna gain (dBd)	15.4	15.4	15.4
Antenna Beamwidth (deg)	68	68	68
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	124.59	124.59	124.59
Mechanical Downtilt (deg)	0	0	0
Adjustable Electrical Downtilt (deg)	0	0	0
Feedline Length (ft)			
Number of Lines per Antenna			
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

Service Type: PCS B CURRENT			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	2	2	2
Manufacturer	CSA WIRELESS	CSA WIRELESS	CSA WIRELESS
Model Number	PCSA-090-19-3	PCSA-090-19-3	PCSA-090-19-3

Service Type: PCS B PROPOSED			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	1	1	1
Manufacturer	AMPHENOL	AMPHENOL	AMPHENOL
Model Number	CWWX063X25X00-T03-1900-(-45)-LEFT	CWWX063X25X00-T03-1900-(-45)-LEFT	CWWX063X25X00-T03-1900-(-45)-LEFT

Antenna gain (dBi)	18.0	18.0	18.0
Antenna Beamwidth (deg)	90	90	90
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	128.00	82.00	82.00
Mechanical Downtilt (deg)	0	1	0
Adjustable Electrical Downtilt (deg)			
Feedline Length (ft)			
Number of Lines per Antenna			
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

Service Type: AWS B CURRENT			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	1	1	1
Manufacturer	AMPHENOL	AMPHENOL	AMPHENOL
Model Number	CWWX063X25X00-T00-2100-(-45)-LEFT	CWWX063X25X00-T00-2100-(-45)-LEFT	CWWX063X25X00-T00-2100-(-45)-LEFT
Antenna gain (dBd)	15.2	15.2	15.2
Antenna Beamwidth (deg)	64	64	64
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	124.11	124.11	124.11
Mechanical Downtilt (deg)	0	0	0
Adjustable Electrical Downtilt (deg)	0	0	0
Feedline Length (ft)			
Number of Lines per Antenna			
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

Antenna gain (dBi)	17.0	17.0	17.0
Antenna Beamwidth (deg)	70	70	70
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	124.11	124.11	124.11
Mechanical Downtilt (deg)	0	0	0
Adjustable Electrical Downtilt (deg)	3	3	3
Feedline Length (ft)			
Number of Lines per Antenna			
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

Service Type: AWS B PROPOSED			
Sector	0003-Alpha	0003-Beta	0003-Gamma
Antenna Quantity (Tx + Rx)	1	1	1
Manufacturer	AMPHENOL	AMPHENOL	AMPHENOL
Model Number	CWWX063X25X00-T00-2100-(-45)-LEFT	CWWX063X25X00-T00-2100-(-45)-LEFT	CWWX063X25X00-T00-2100-(-45)-LEFT
Antenna gain (dBd)	15.2	15.2	15.2
Antenna Beamwidth (deg)	64	64	64
Sector Azimuth (deg TN)	60	180	300
Antenna Tip Height (for EME) (ft AGL)	124.11	124.11	124.11
Mechanical Downtilt (deg)	0	0	0
Adjustable Electrical Downtilt (deg)	0	0	0
Feedline Length (ft)			
Number of Lines per Antenna	0	0	0
Feedline Model Number			
RAD Center (ft AGL)	120.00	120.00	120.00

### Comments :

The objective of this project is to add AWS service to a site with active PCS service. This project assumes the completion of the LTE add project. The LTE antennas will remain as they are. There are currently PCS antennas on the site; they will be removed and replaced.

On the tower:  
 Add 3 Amphenol Antennas Model: CWWX063X25G00, these antennas will transmit PCS and AWS. Antennas are RET capable please order all RET system components. Add One RRH per sector RRH2X60-AWS.

Inside the shelter:  
 Add one AWS eNB.

**OP SCHNABEL**  
 \*\*\*  
 10100 BELGA DRIVE  
 SAN ANTONIO, BEXAR COUNTY, TEXAS 78207  
 (107149)

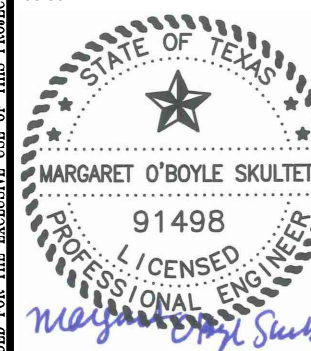
APPROVAL SIGNATURES

LANDLORD

LEASING

CONSTRUCTION

05.30.14



**ARCHCOMM, LLC.**  
 1006 Beckett  
 San Antonio, Texas 78213  
 (210) 308-9905  
 TBPE NO. F-15659

SHEET TITLE  
**SITE MODIFICATION CHANGE ORDER**

SHEET HISTORY

05.30.14 PERMIT SET

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