





# GENERAL NOTES

1. THIS PROJECT CONCERNS THE INSTALLATION, MAINTENANCE, AND OPERATION OF A PUBLIC UTILITY/PERSONAL WIRELESS SERVICE.
2. THE PROPOSED UPGRADE IS UNMANNED AND DOES NOT REQUIRE A MEANS OF WATER SUPPLY, SEWAGE DISPOSAL, OR HANDICAPPED ACCESS.
3. THE PROPOSED UPGRADE IS MINIMAL, WILL CREATE NEGLIGIBLE ADDITIONAL STORMWATER RUNOFF, AND WILL, THEREFORE, NOT IMPACT THE EXISTING STORMWATER DRAINAGE SYSTEM.
4. THE PROPOSED UPGRADE DOES NOT INCLUDE OUTDOOR STORAGE, SOLID WASTE RECEPTACLES, OR PLUMBING.
5. ADEQUATE PARKING EXISTS FOR ONE VEHICLE FOR MAINTENANCE OR EMERGENCY SERVICE OVER A MONTH.
6. THERE ARE NO NEW STREETS, CURBS, SIDEWALKS, OR WALKWAYS PROPOSED.
7. THERE ARE NO COMMERCIAL SIGNS PROPOSED FOR THIS UPGRADE.

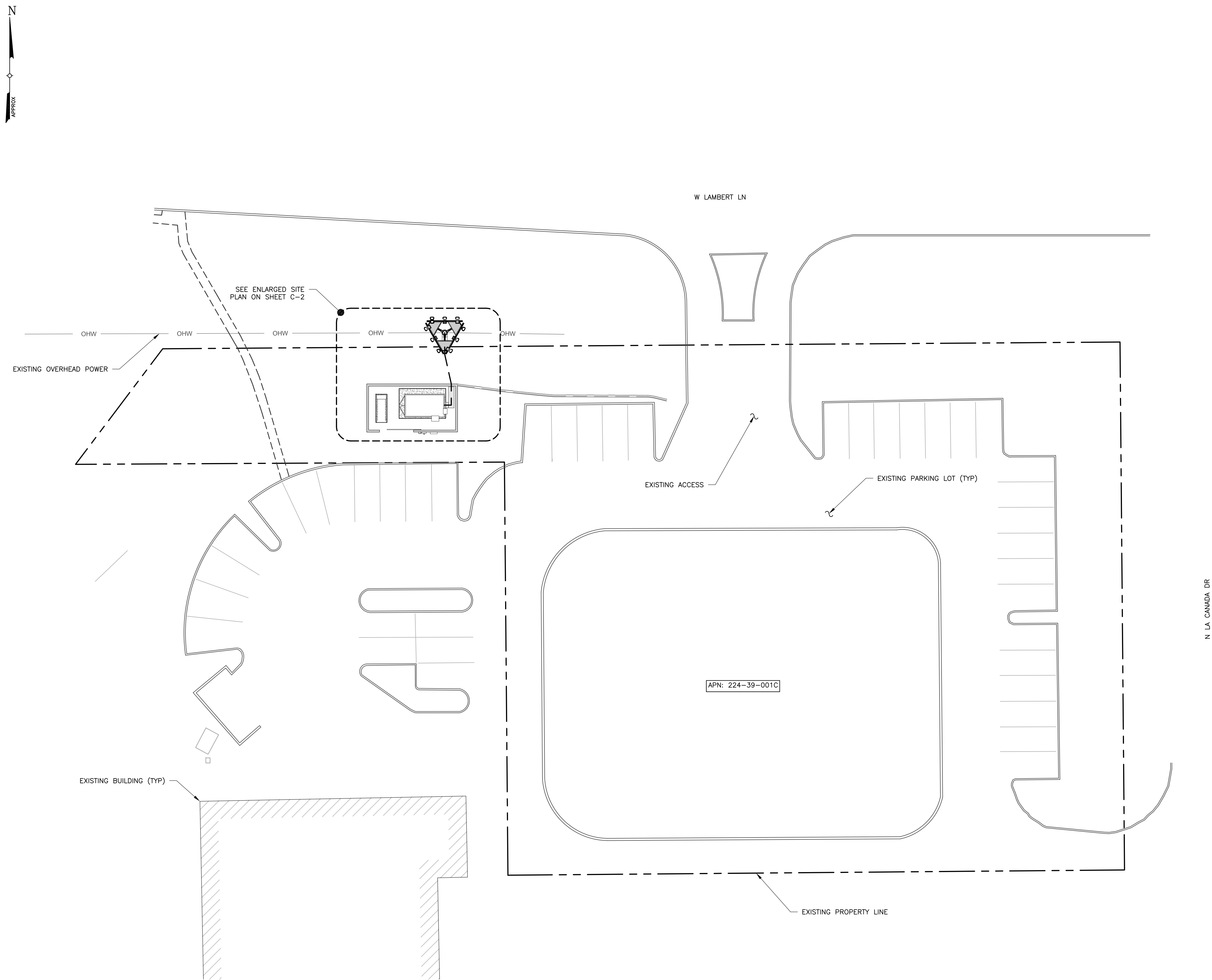
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4. THE PROPOSED UPGRADE DOES NOT INCLUDE OUTDOOR STORAGE, SOLID WASTE RECEPTACLES, OR PLUMBING.
5. ADEQUATE PARKING EXISTS FOR ONE VEHICLE FOR MAINTENANCE OR EMERGENCY SERVICE ONCE A MONTH.
6. THERE ARE NO NEW STREETS, CURBS, SIDEWALKS, OR WALKWAYS PROPOSED.
7. THERE ARE NO COMMERCIAL SIGNS PROPOSED FOR THIS UPGRADE.

<p><b>SITE NOTES:</b></p> <p>1. ALL WORK SHALL BE AS INDICATED ON THE DRAWINGS.</p> <p>2. DEBRIS AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.</p>
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1. ALL WORK SHALL BE AS INDICATED ON THE DRAWINGS.
2. DEBRIS AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

- CONTRACTOR SHALL NOTIFY ARIZONA 811 BY DIALING 811 PRIOR TO EXCAVATION AT SITE
- CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATION
- ALL EXCAVATION WORK WITHIN 36" OF EITHER SIDE OF UNDERGROUND UTILITIES MUST BE DONE BY HAND EXCAVATION METHODS

SITE INFORMATION BASED ON A SITE VISIT PERFORMED BY TECTONIC  
ENGINEERING CONSULTANTS ON 9/4/18, AND DRAWINGS BY BK DESIGNS  
DATED 1/4/14.



**1** OVERALL SITE PLAN  
C-1  
SCALE: 1" = 20' (22x34 SIZE)  
1" = 40' (11x17 SIZE)



126 W GEMINI DR  
TEMPE, AZ 85283

# Tectonic

**PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.**

**Tectonic Engineering Consultants P.C.**  
3923 South McClintock Dr.  
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Tempe, AZ 85282 (800) 829-6531

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WORK ORDER NUMBER                      DRAWN BY

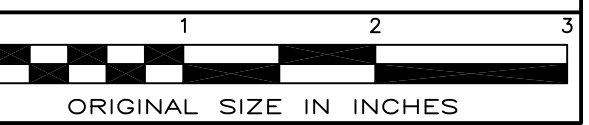
664.TUC EL CONQUISTADOR	JMR
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## SITE INFORMATION

TUC EL CONQUISTADOR  
10375 N LA CANADA DR  
ORO VALLEY, AZ 85737  
PIMA COUNTY

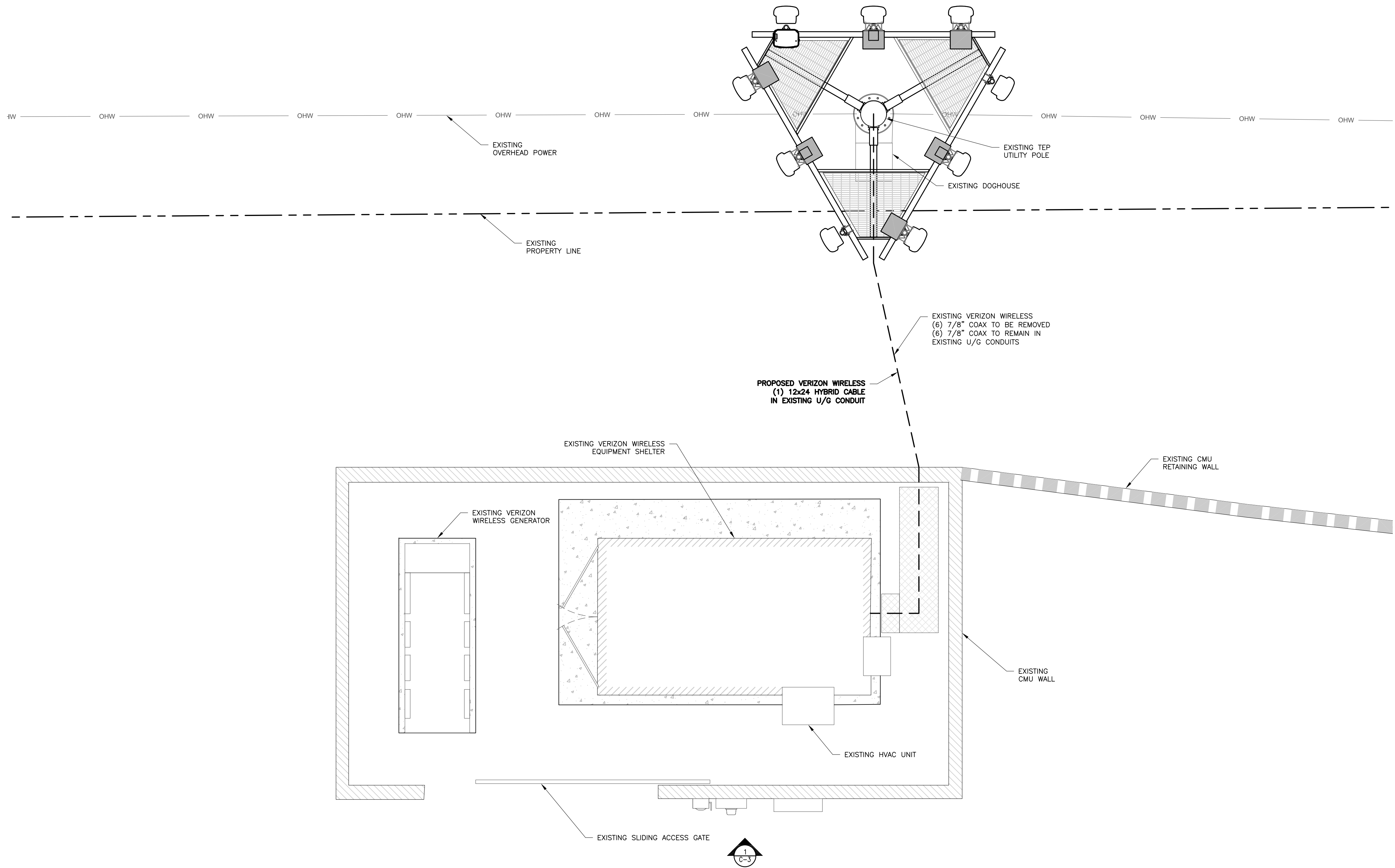
VZW LC: 157557  
VZW PN: 20181799413

SHEET TITLE

## OVERALL SITE PLAN

SHEET NUMBER

**C-1**



**1**  
**C-2** DETAILED SITE PLAN  
SCALE: 1" = 3' (22x34 SIZE)  
1" = 6' (11x17 SIZE)

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**SITE INFORMATION**

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PIMA COUNTY

VZW LC: 157557  
VZW PN: 20181799413

**SHEET TITLE**

DETAILED SITE PLAN

**SHEET NUMBER**

C-2

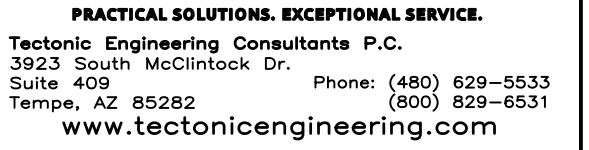
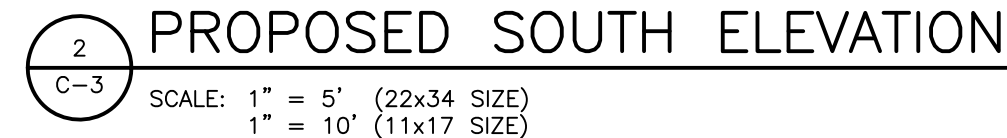
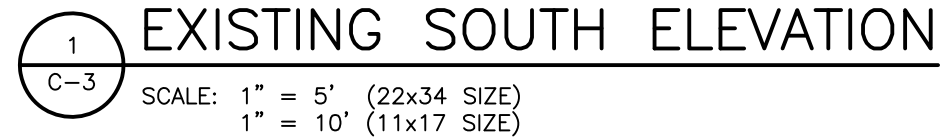
THIS VIEW DEPICTS THE PROPOSED VERIZON WIRELESS UPGRADES TO THE EXISTING MONOPOLE. IT DOES NOT INFER THAT TECTONIC HAS EVALUATED ITS STRUCTURAL ADEQUACY FOR THE NEW LOADS IMPOSED. THIS MONOPOLE WILL NEED TO BE EVALUATED BY A PROFESSIONAL ENGINEER TO CONFIRM MONOPOLE HAS CAPACITY TO SUPPORT NEW LOADS PRIOR TO CONSTRUCTION.

EXISTING ANTENNAS PRIOR TO UPGRADE:	3
PROPOSED ANTENNAS AFTER UPGRADE:	9

UPGRADES INCLUDE:

- (3) REPLACEMENT PANEL ANTENNAS (TYPE 1)
  - (6) NEW PANEL ANTENNAS (TYPE 1) (2 PER SECTOR)
  - (6) NEW DUAL BAND RRUS (2 PER SECTOR)
  - (6) NEW DUAL DIPLEXERS
  - (1) NEW OVP-12
  - (1) NEW 12x24 HYBRID CABLE
- SEE SHEET C-4 FOR MECHANICAL DOWNTILT ADJUSTMENTS

1. ALL PROPOSED TOWER TOP EQUIPMENT TO BE PAINTED TO MATCH EXISTING.



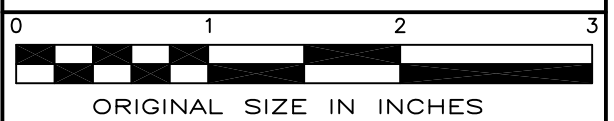
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10375 N LA CANADA DR  
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PIMA COUNTY

VZW LC: 157557  
VZW PN: 20181799413

SHEET TITLE

TOWER ELEVATION

SHEET NUMBER

**C-3**



STRUCTURAL NOTE

THIS VIEW DEPICTS THE PROPOSED VERIZON WIRELESS UPGRADES TO THE EXISTING MONOPOLE. IT DOES NOT INFER THAT TECTONIC HAS EVALUATED ITS STRUCTURAL ADEQUACY FOR THE NEW LOADS IMPOSED. THIS MONOPOLE WILL NEED TO BE EVALUATED BY A PROFESSIONAL ENGINEER TO CONFIRM MONOPOLE HAS CAPACITY TO SUPPORT NEW LOADS PRIOR TO CONSTRUCTION.

ANTENNA CONFIGURATION

- UPGRADES INCLUDE:
- (3) REPLACEMENT PANEL ANTENNAS (TYPE 1)
  - (6) NEW PANEL ANTENNAS (TYPE 1) (2 PER SECTOR)
  - (6) NEW DUAL BAND RRUS (2 PER SECTOR)
  - (6) NEW DUAL DIPLEXERS
  - (1) NEW OVP-12
  - (1) NEW 6x12 HYBRID CABLE
- SEE SHEET C-4 FOR MECHANICAL DOWNTILT ADJUSTMENTS

NOTES

1. ALL PROPOSED TOWER TOP EQUIPMENT TO BE PAINTED TO MATCH EXISTING.

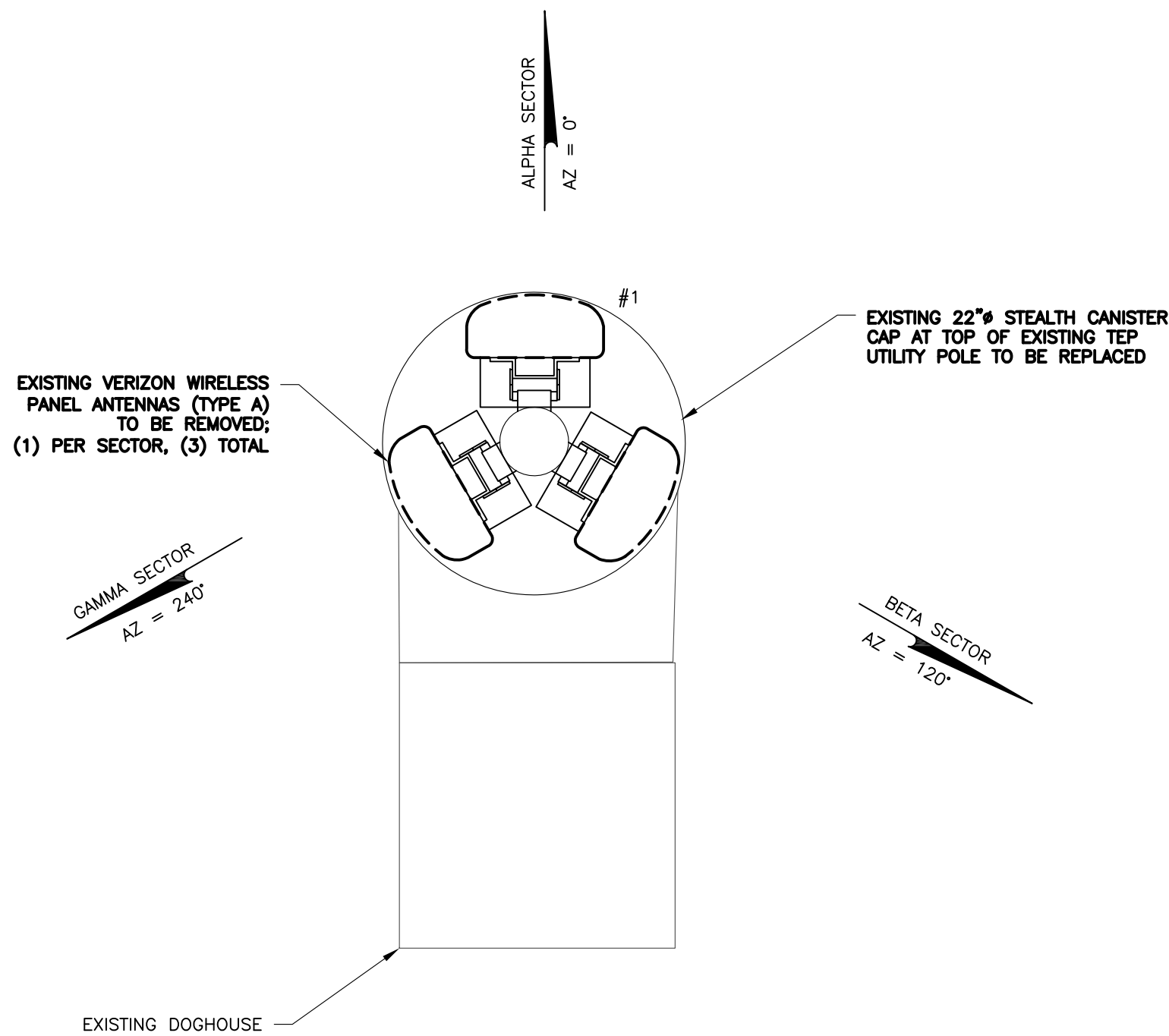
ANTENNA MODIFICATIONS

EXISTING ANTENNAS PRIOR TO UPGRADE: 3

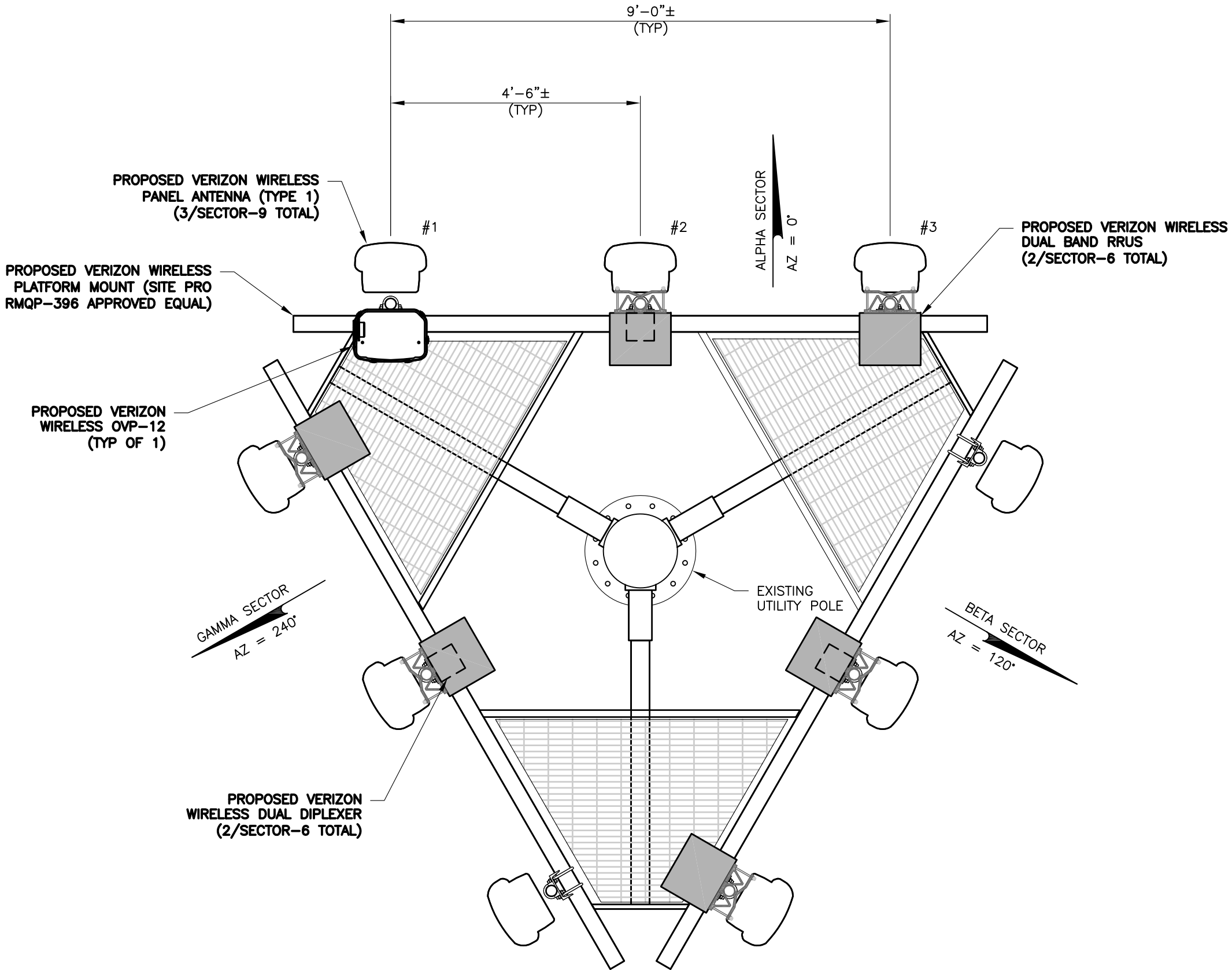
PROPOSED ANTENNAS AFTER UPGRADE: 9



EXISTING ANTENNA VIEW



1 EXISTING CONFIGURATION (ELEV = 73'-8")  
C-4 SCALE: 1" = 1'-0" (22x34 SIZE)  
1/2" = 1'-0" (11x17 SIZE)



2 PROPOSED CONFIGURATION (ELEV = 71'-9")  
C-4 SCALE: 1/2" = 1'-0" (22x34 SIZE)  
1/4" = 1'-0" (11x17 SIZE)



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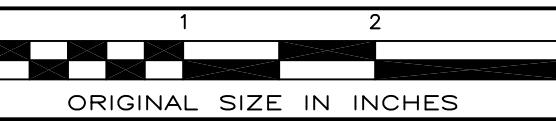
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SITE INFORMATION  
TUC EL CONQUISTADOR  
10375 N LA CANADA DR  
ORO VALLEY, AZ 85737  
PIMA COUNTY

VZW LC: 157557  
VZW PN: 20181799413

SHEET TITLE  
ANTENNA CONFIGURATION

SHEET NUMBER

C-4

ANTENNA & CABLE SCHEDULE

SECTOR	ANTENNA POSITION	STATUS	FREQUENCY	ANTENNA RAD Ɔ	ANTENNA AZIMUTH	MECH DOWN TILT	ELECTRICAL DOWN TILT	DIPLEXER	RRH	OVP	TMA	COAX QUANTITY	COAXIAL CABLE DIAMETER	HYBRID CABLES
ALPHA	1	PROPOSED	850B CDMA	71°-9°	0°	0°	2°	-	-	(1) OVP-12	-	2	7/8"	(1) 12x24 HYBRIFLEX
ALPHA	2	PROPOSED	700/850A LTE/PCS	71°-9°	0°	0°	2°/8°/2°	(2) DUAL	1		-	-	-	
ALPHA	3	PROPOSED	700/850A LTE/AWS	71°-9°	0°	0°	2°/8°/4°	-	1		-	-	-	
ALPHA	4	-	-	-	-	-	-	-	-		-	-	-	
BETA	1	PROPOSED	850B CDMA	71°-9°	120°	0°	2°	-	-		-	2	7/8"	
BETA	2	PROPOSED	700/850A LTE/PCS	71°-9°	120°	0°	5°/6°/2°	(2) DUAL	1		-	-	-	
BETA	3	PROPOSED	700/850A LTE/AWS	71°-9°	120°	0°	5°/6°/4°	-	1		-	-	-	
BETA	4	-	-	-	-	-	-	-	-		-	-	-	
GAMMA	1	PROPOSED	850B CDMA	71°-9°	240°	0°	2°	-	-		-	2	7/8"	
GAMMA	2	PROPOSED	700/850A LTE/PCS	71°-9°	240°	0°	2°/2°/2°	(2) DUAL	1		-	-	-	
GAMMA	3	PROPOSED	700/850A LTE/AWS	71°-9°	240°	0°	2°/2°/4°	-	1		-	-	-	
GAMMA	4	-	-	-	-	-	-	-	-		-	-	-	

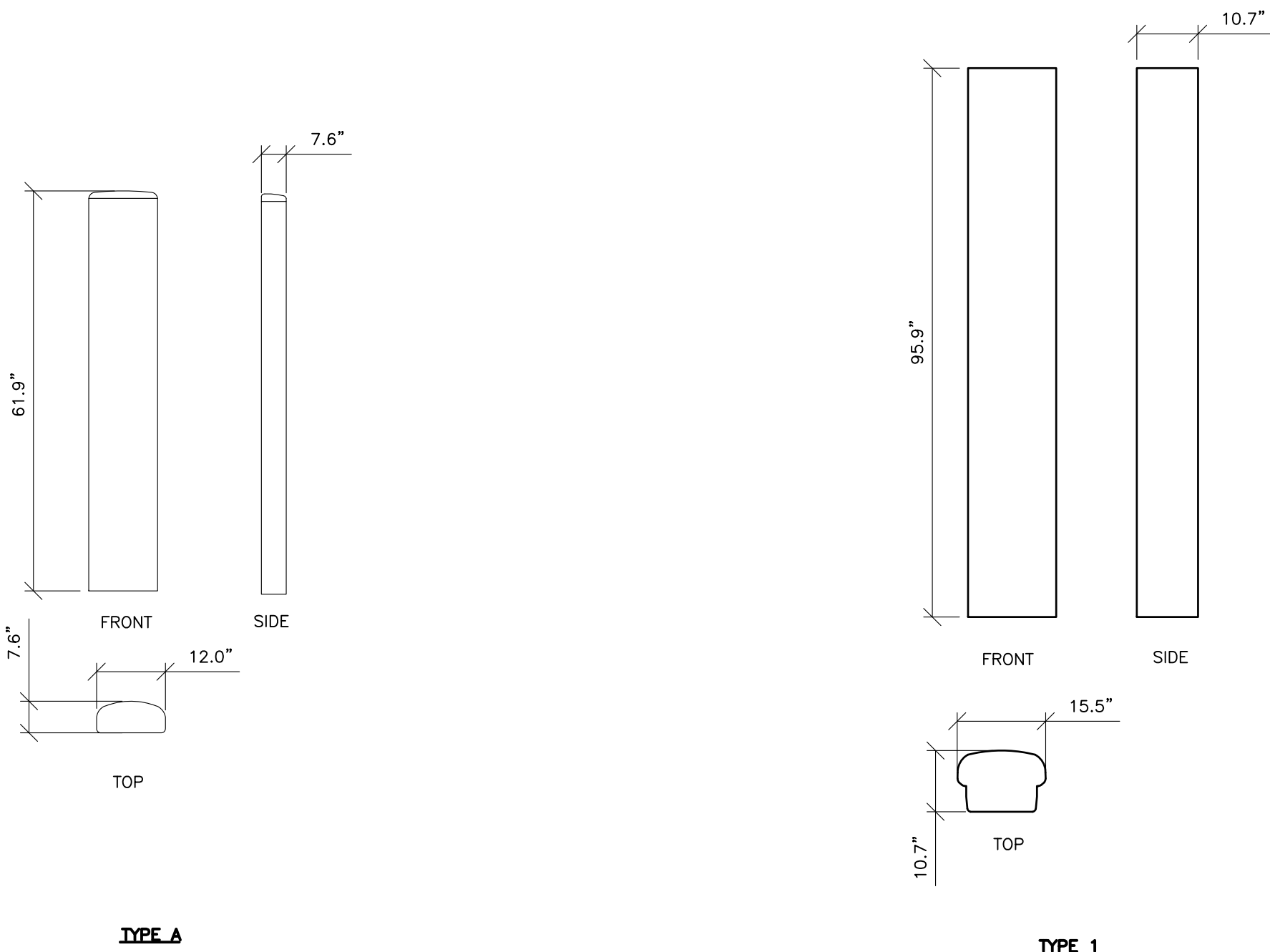
CABLE SCHEDULE NOTE: (6) 7/8" COAX TO BE REMOVED, (6) 7/8" COAX TO REMAIN

GENERAL NOTES

- 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 DESCRIBE HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
- 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.
- 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.
- ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.

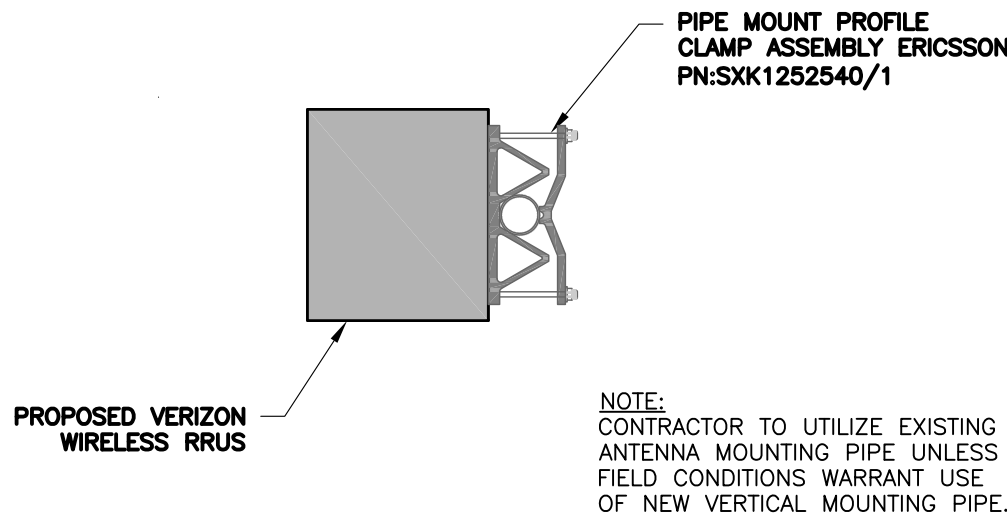
SCHEDULE NOTES

- MARKING TAPE MUST BE APPLIED AT TOP OF FEED LINES AND AT BASE OF TOWER.
- CHECK ALL ANTENNA INFO WITH VERIZON WIRELESS PRIOR TO CONSTRUCTION.
- DESIGN REQUIREMENTS FOR ANTENNA, SUPPORTING STRUCTURES, EQUIPMENT CABINETS, AND PPC CABINETS PER BUILDING CODE (LATEST EDITION) WIND SPEED REQUIREMENTS AS LISTED ON SHEET T-1.
- HYBRIFLEX CABLE IS 1.54", RET CABLE IS 0.315"
- CAP AND WEATHERPROOF UNUSED PORTS AND LINES.



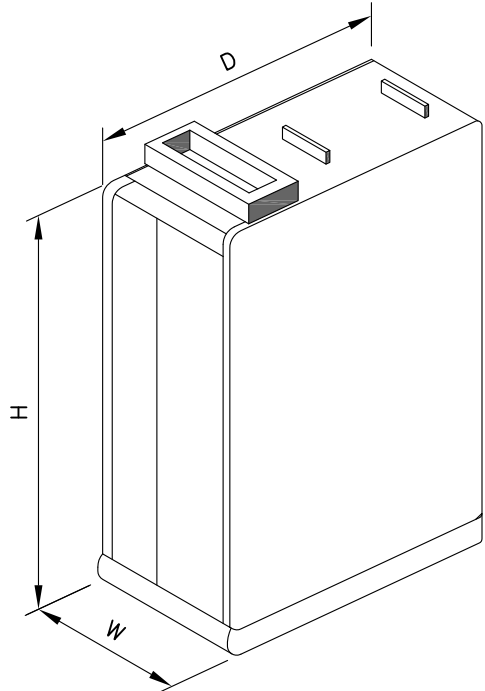
3 EXISTING ANTENNA DETAIL  
SCALE: 1/2" = 1'-0" (22x34 SIZE)  
1/4" = 1'-0" (11x17 SIZE)

4 PROPOSED ANTENNA DETAIL  
SCALE: 1/2" = 1'-0" (22x34 SIZE)  
1/4" = 1'-0" (11x17 SIZE)

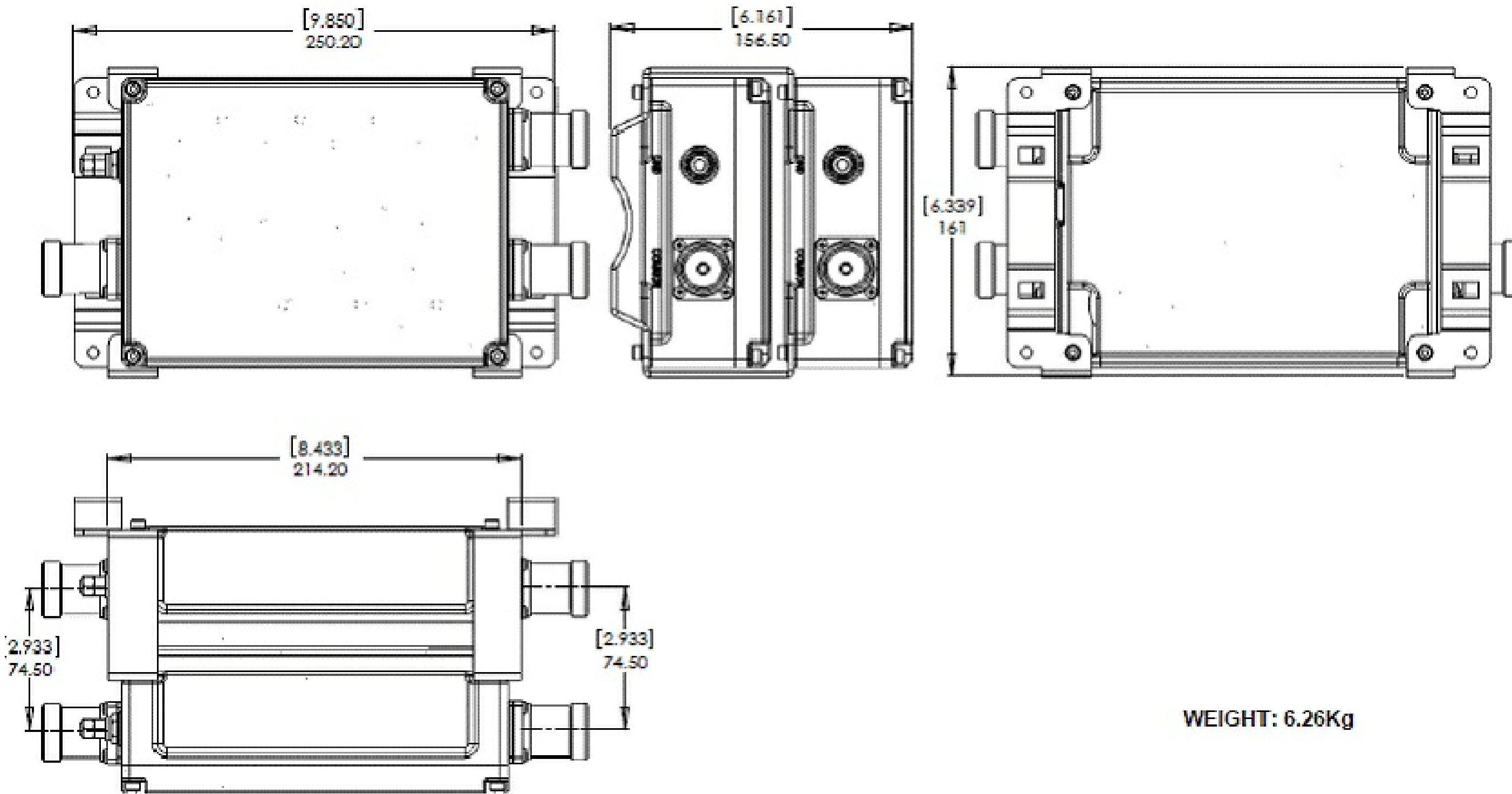


1 RRUS RAIL MOUNT DETAIL  
SCALE: NTS

RRUS OVERVIEW				
TYPE	LTE/700	AWS/2100	PCS/1900	AWS/2100
BAND	B13	B5	B2/B25	B4/B66
MODEL	DUAL LOW BAND RRUS		DUAL HIGH BAND RRUS	
OUTPUT	4x40/2x60		4x40	
HEIGHT (H) – IN	18.0		18.0	
WIDTH (W) – IN	13.2		13.2	
DEPTH (D) – IN	9.4		11.3	
WEIGHT* – LBS	70		75	
*WITH MOUNT				



2 DUAL BAND RRUS DETAIL  
SCALE: NTS



5 PROPOSED DIPLEXER DETAIL  
SCALE: NTS

verizon

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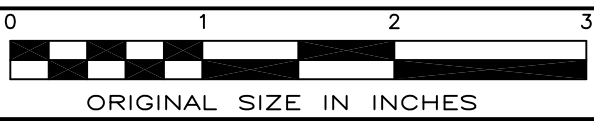
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PIMA COUNTY

VZW LC: 157557  
VZW PN: 20181799413

SHEET TITLE  
EQUIPMENT SCHEDULE  
& EQUIPMENT DETAILS

SHEET NUMBER

C-5



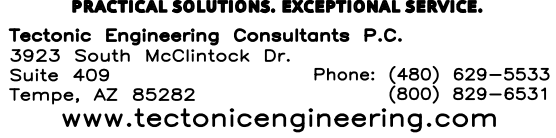
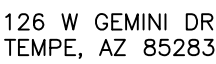


SCALE: NTS

SCALE: NTS



C-6 SCALE: NTS



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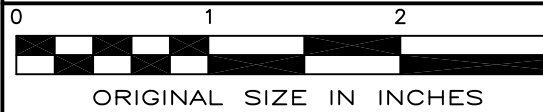
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## SITE INFORMATION

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PIMA COUNTY

VZW LC: 157557  
VZW PN: 2018179941

SHEET TITLE

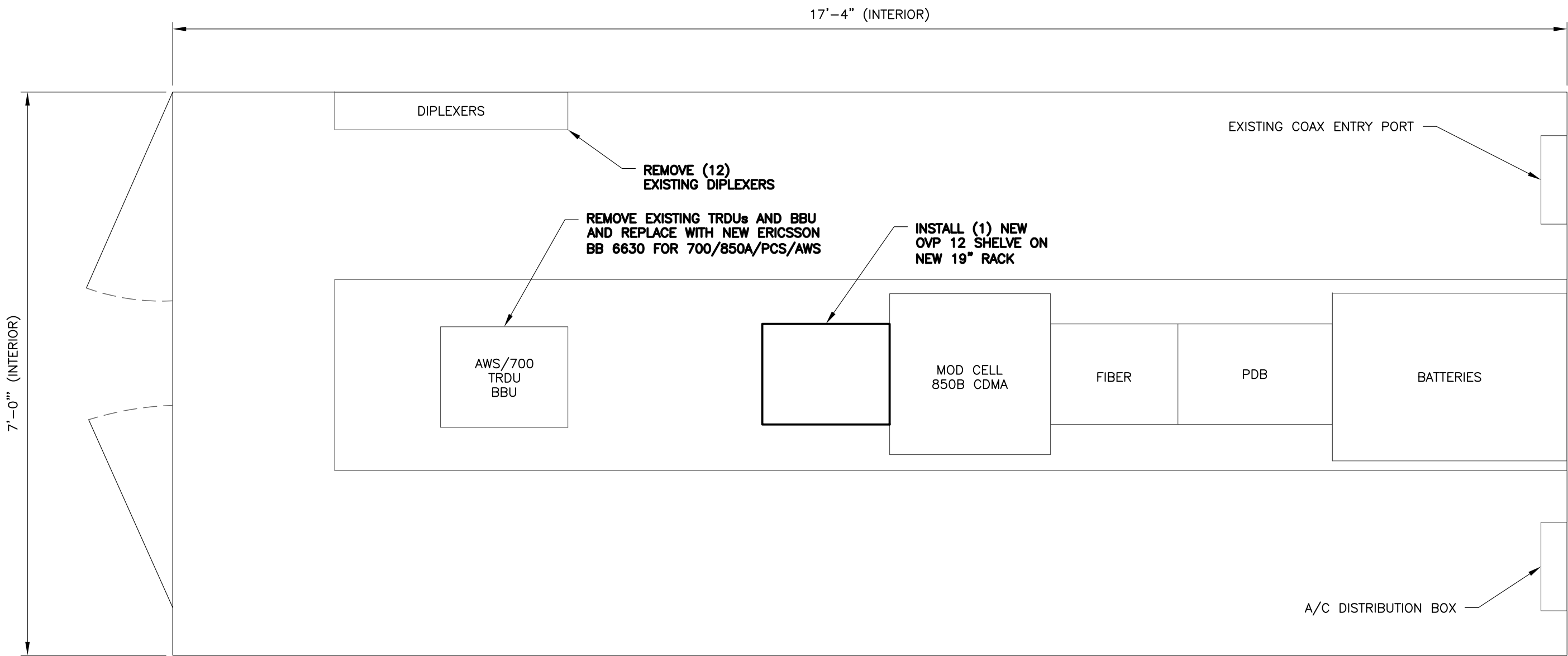
## PLATFORM MOUNT DETAILS & EQUIPMENT DETAILS

SHEET NUMBER

**C-6**



THIS PAGE NOT TO BE SUBMITTED  
FOR BP — FOR REFERENCE ONLY



**1** **SHLTR** **SHELTER INTERIOR PLAN**  
SCALE: 3/4" = 1'-0" (22x34 SIZE)  
3/8" = 1'-0" (11x17 SIZE)

COMMENT

MODIFICATION TO AN EXISTING VERIZON WIRELESS UNMANNED TELECOMMUNICATIONS FACILITY TO CONSIST OF THE FOLLOWING:

1. REMOVE (1) EXISTING BBU
2. REMOVE (3) EXISTING PANEL ANTENNAS
3. REMOVE (1) EXISTING AWS TRDU
4. REMOVE (1) EXISTING 700 TRDU
5. REMOVE (3) EXISTING TMAS FROM TOWER
6. REMOVE (3) EXISTING ATEL DPX-22 DIPLEXERS FROM SHELTER
7. REMOVE (3) EXISTING ATEL DPX-076 DIPLEXERS FROM SHELTER
8. REMOVE (6) EXISTING RFS FDL85002 DIPLEXERS FROM SHELTER
9. INSTALL (9) NEW PANEL ANTENNAS (REQUIRES NEW PLATFORM)
10. INSTALL (3) NEW ERICSSON RRUS-4449 B13/B5 ON TOWER BEHIND ANTENNA 2
11. INSTALL (3) NEW ERICSSON RRUS-8843 B2/B66A ON TOWER BEHIND ANTENNA 3
12. INSTALL (6) NEW COMMSCOPE CBC76 DUAL DIPLEXERS ON TOWER
13. INSTALL (1) NEW ERICSSON BB-6630
14. INSTALL (1) NEW 6x12 HYBRIFLEX HYBRID CABLE
15. INSTALL (2) NEW OVP-SHELF IN SHELTER



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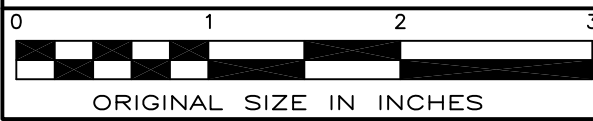
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ORIGINAL SIZE IN INCHES

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**SHEET TITLE**  
SHELTER PLAN

**SHEET NUMBER**  
SHLTR