

CONSTRUCTION DRAWING

- LTE 1C LTE 5C FN
- LTE 2C LTE 6C FN
- LTE 3C 4TXRX
- LTE 4C



at&t

DRIVING DIRECTIONS

- FROM:**
188 INVERNESS DRIVE WEST
ENGLEWOOD, CO 80122
- DEPART SOUTHEAST ON INVERNESS DR W
 - TURN LEFT ONTO INVERNESS PKWY
 - TURN LEFT ONTO S JAMAICA ST
 - TAKE RAMP LEFT AND FOLLOW SIGNS FOR E-470TOLLWAYNORTH
 - ROAD RESTRICTED AT YOUR PLANNED TRAVEL TIME
 - AT EXIT 5, TAKE RAMP RIGHT AND FOLLOW SIGNS FOR CO-83 SOUTH
 - PASS CONOCO/7-ELEVEN
 - ROAD RESTRICTED AT YOUR PLANNED TRAVEL TIME
 - TURN LEFT ONTO CO-86 / E HIGHWAY 86
 - PASS SHELL ON THE LEFT IN 8.4 MI
 - TURN RIGHT ONTO COUNTY ROAD 17
 - KEEP STRAIGHT ONTO COUNTY ROAD 17-21
 - ROAD NAME CHANGES TO COUNTY ROAD 21
 - TURN LEFT ONTO COUNTY ROAD 106
 - TURN RIGHT ONTO N ELBERT RD
 - ROAD NAME CHANGES TO CO-217 / ELBERT RD
 - TURN RIGHT ONTO US-24 / E US HIGHWAY 24
 - TURN LEFT ONTO STAPLETON DR
 - TURN LEFT ONTO CO-94
 - ARRIVE AT 15640 HIGHWAY 94

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE AND SHALL NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

VICINITY MAP

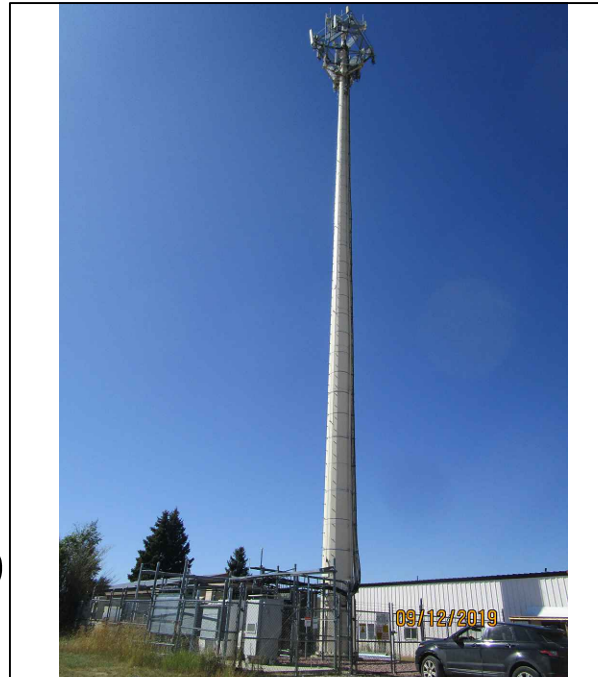


AT&T SITE NAME
SCHREIVER AFB
AT&T SITE NUMBER
COLO2065
AT&T PACE ID
MRUTH035610
MRUTH035586
AT&T FA NUMBER
10099187
SITE ADDRESS
15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930
STRUCTURE TYPE
MONOPOLE

PROJECT DESCRIPTION

- AT&T PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATION FACILITY BASED ON RFDS 3130541 REV 2.00:
- REMOVE & REPLACE (6) PANEL ANTENNAS
 - REMOVE AND REPLACE (3) RRHS
 - INSTALL (3) NEW RRHS
 - INSTALL (1) NEW RRH COLLAR MOUNT
 - INSTALL (1) NEW NOKIA 5GNR (ASIK C-1) FSM4 BBU [CEQ.20975]
 - INSTALL (4) EA. NEW RECTIFIERS [NEQ.15930] FOR REVISED TOTAL OF (13) TO SATISFY N+1.
 - REMOVE (1) 9412 eNodeB CABINET
 - INSTALL (1) EA. NEW -48VDC PURCELL FLX21-2520 CABINET [CEQ.18306] & TRANSFER ALL COMPONENTS FROM 9412 CABINET.
 - REMOVE (24) EXISTING GNB M12V155FT BATTERIES FROM SITE
 - INSTALL (24) NEW GNB S12V170 BATTERIES FOR 6 STRINGS OF 170AH FOR A TOTAL OF 4.13 HOURS
 - INSTALL (2) 50A BREAKERS FOR FSM4, (3) 50A BREAKERS FOR THE ALHBA & (3) 25A BREAKERS FOR THE AHCA
 - INSTALL (1) VERITIV POWER REGULATOR
 - REMOVE EXISTING COMPOUND CHAIN LINK FENCE AND GATES
 - INSTALL NEW COMPOUND WOODEN FENCE WITH GATES

SITE PHOTO



PROJECT TEAM

 10590 W. OCEAN AIR DRIVE, SUITE 300 SAN DIEGO, CA 92130 PROJECT MANAGER	 2500 W. HIGGINS RD, SUITE 500 HOFFMAN ESTATES, IL 60169 OFFICE # (847) 648-4068 ENGINEER
--	--

PROJECT NOTES

- NOTES:**
- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
 - FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
 - FACILITY HAS NO PLUMBING OR REFRIGERANTS.
 - THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- MOUNT ANALYSIS BY:**
VENDOR: INFINIGY
DATE: 11-06-2019
- STRUCTURAL ANALYSIS BY:**
VENDOR: SBA
DATE: 02-27-2020
- Know what's below.**
Call before you dig.
www.call811.com

PROJECT SUMMARY

AT&T SITE NAME: SCHREIVER AFB
AT&T SITE #: COLO2065
AT&T FA SITE #: 10099187
RFDS ID: 3130541, REV 2.00
SITE ADDRESS: 15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930
COUNTY: EL PASO
LATITUDE: 38° 50' 23.4" N (NAD 83)
 38.839833
LONGITUDE: 104° 32' 13.6" W (NAD 83)
 -104.537111
PROJECT MANAGER: MD7
 10590 W OCEAN AIR DR., STE. 300
 SAN DIEGO, CA 92130
CONTACT: HAILEE PERUCCI
 (858) 799-7886
APPLICANT: AT&T MOBILITY
 188 INVERNESS DRIVE WEST
 ENGLEWOOD, CO 80112
ENGINEER: INFINIGY ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
CONTACT: NANCY HERNANDEZ
 (847) 648-4068
SITE ACQUISITION CONTACT: RAYMOND TAYLOR
 (720) 220-8954
CONSTRUCTION MANAGER: DEREK BONK
 (775) 750-5818
BUILDING CODE: 1. INTERNATIONAL BUILDING CODE (2018 IBC)
 2. TIA-EIA-222-G OR LATEST EDITION
 3. 2017 NFPA 780 - LIGHTNING PROTECTION CODE
 4. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
 5. CO BUILDING CODE
 6. LOCAL BUILDING CODE
 7. CITY/COUNTY ORDINANCES
ELECTRIC CODE: 2017 NATIONAL ELECTRIC CODE OR LATEST EDITION

SHEET INDEX

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C-2.2	EQUIPMENT PHOTOS
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C-4	SOUTH ELEVATION
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E-1	DC SCHEMATIC DIAGRAM
G-1	GROUNDING SCHEMATIC DIAGRAM
G-2	GROUNDING DETAILS
RF-1	PLUMBING DIAGRAM

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:

md7
 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

ENGINEERING LICENSE:

DRAWING NOTICE:

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REVISIONS:

NO.	DESCRIPTION	DATE	BY	REV
REVISED PER JX		06/12/20	CAP	1
ISSUED FOR CONSTRUCTION		04/03/20	CAP	0
REVISED/ISSUED FOR REVIEW		02/27/20	CAP	D
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ISSUED FOR REVIEW		10/18/19	CAP	A

AT&T SITE NAME:

SCHREIVER AFB

AT&T SITE NUMBER:

COLO2065

AT&T FA NUMBER:

10099187

SITE ADDRESS:

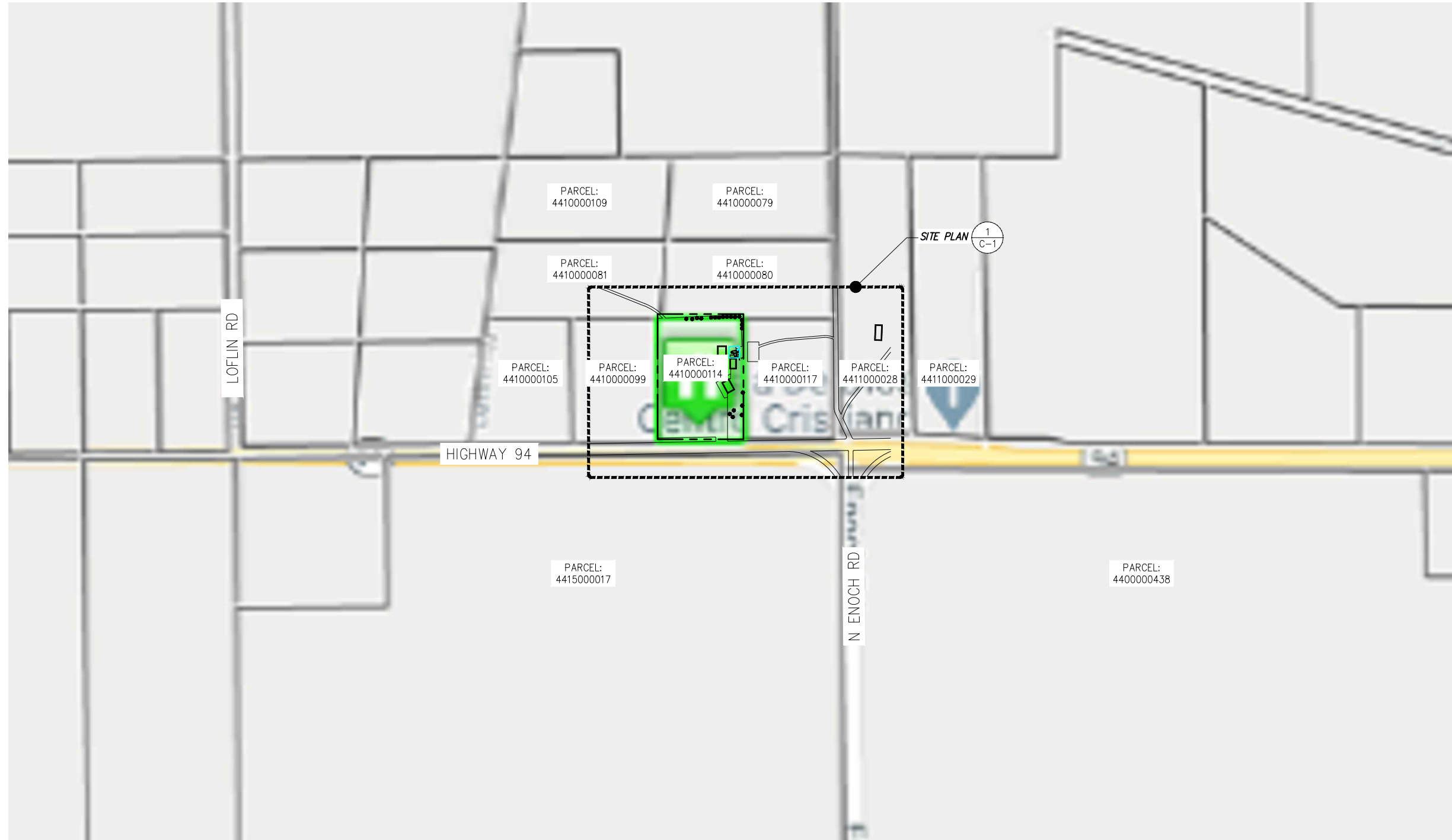
15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930

SHEET DESCRIPTION:

TITLE SHEET
PCD #PPR2019

SHEET NUMBER:

T-1



PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY
 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

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 SAN DIEGO, CA 92130



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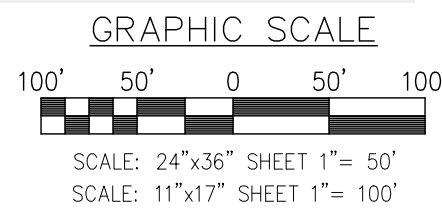
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COL02065

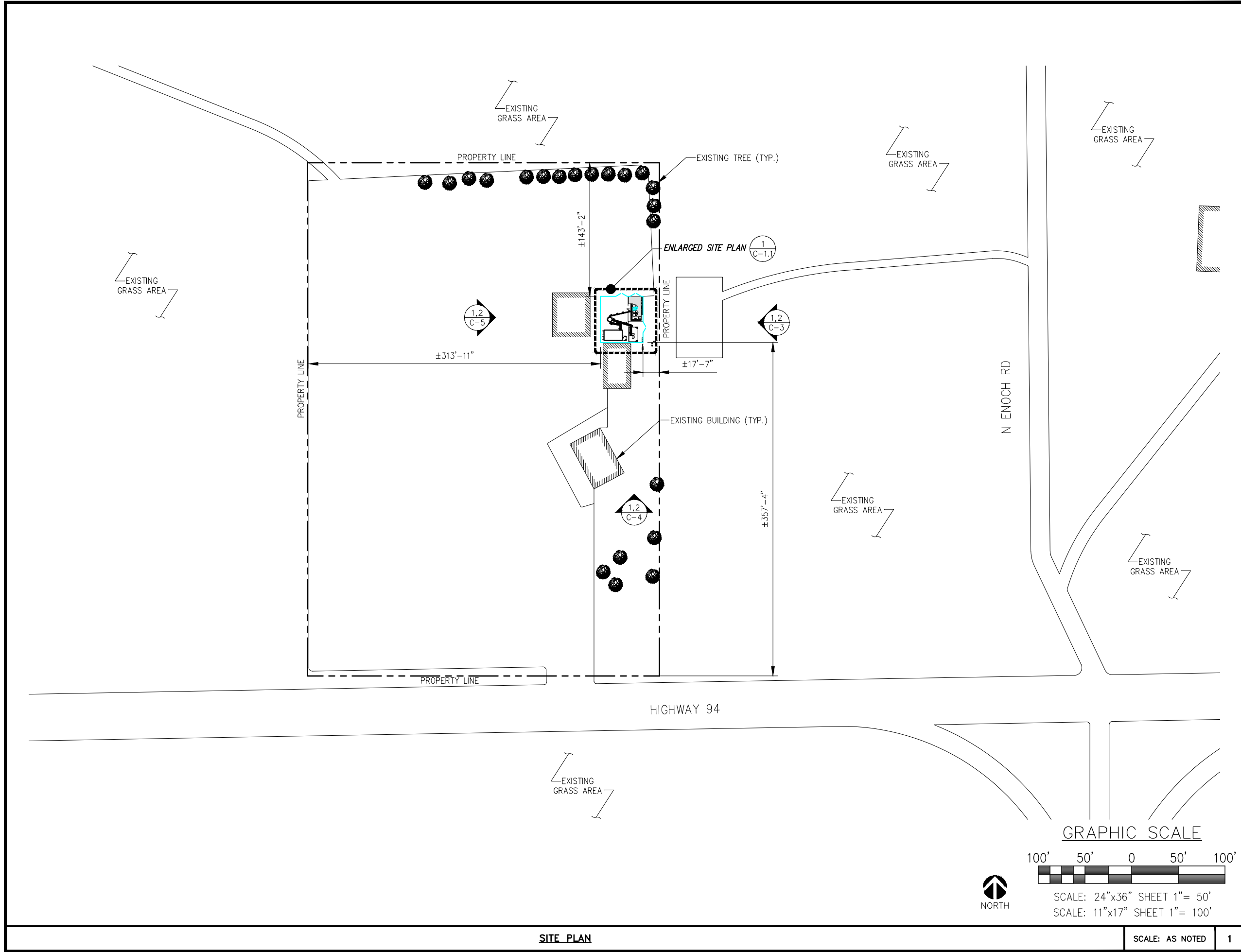
AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**PARCEL PLAN
 PCD #PPR2019**

SHEET NUMBER:
P-1





PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY
 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:
mdh
 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130



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AT&T SITE NAME:
SCHREIVER AFB

AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

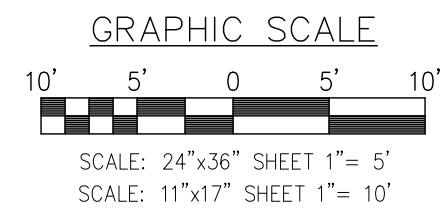
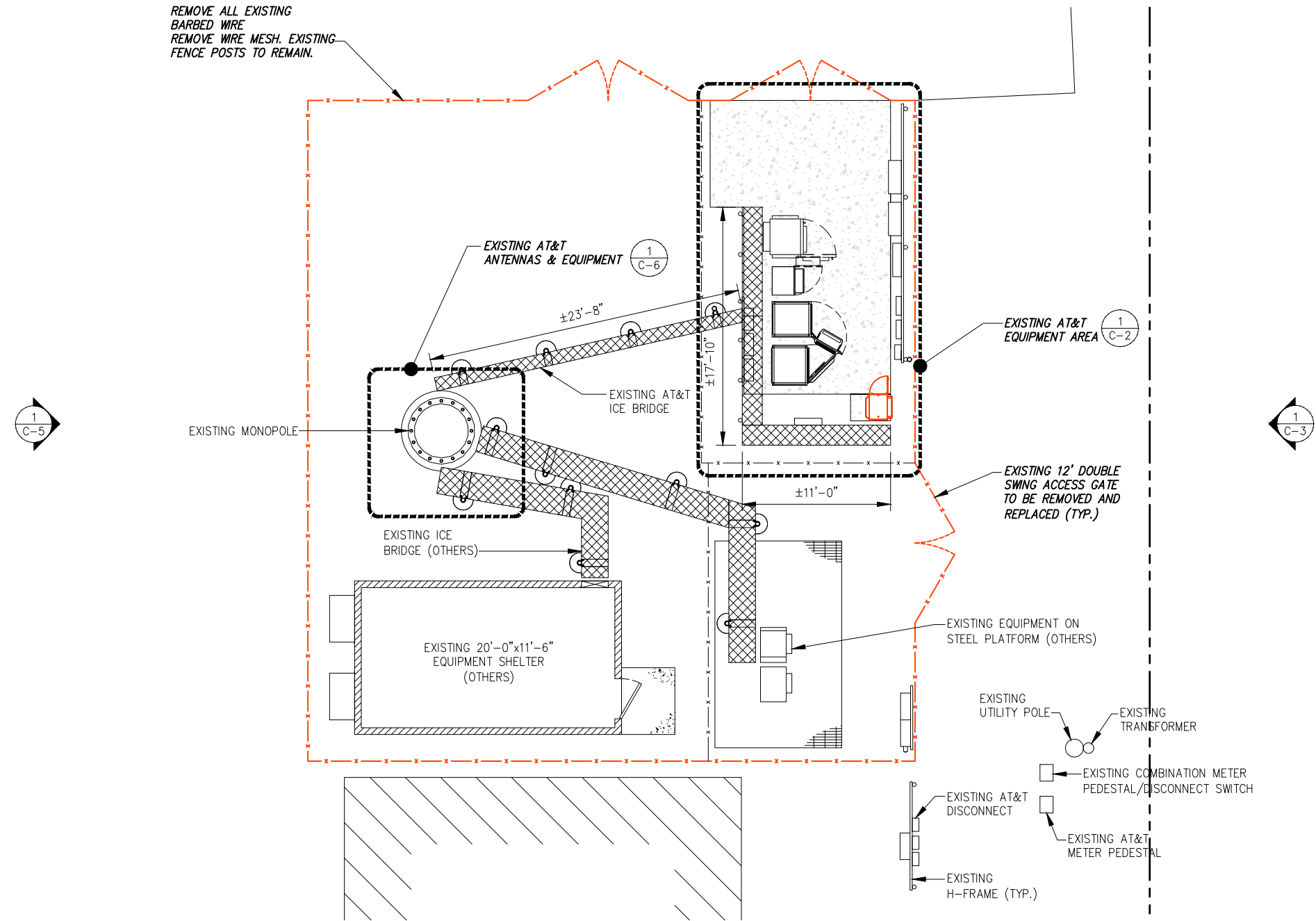
SHEET DESCRIPTION:
**SITE PLAN
 PCD #PPR2019**

SHEET NUMBER:
C-1

SITE PLAN

SCALE: AS NOTED 1

REMOVE ALL EXISTING
BARBED WIRE
REMOVE WIRE MESH. EXISTING
FENCE POSTS TO REMAIN.



EXISTING ENLARGED SITE PLAN

SCALE: AS NOTED 1

PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY & ENGINEERING, PLLC
2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068
JOB NUMBER: 674-003

PROJECT MANAGER:
mdh
10590 W. OCEAN AIR DRIVE, SUITE 300
SAN DIEGO, CA 92130



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AT&T SITE NAME:
SCHREIVER AFB

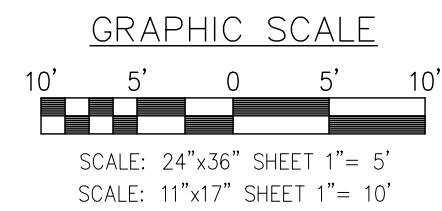
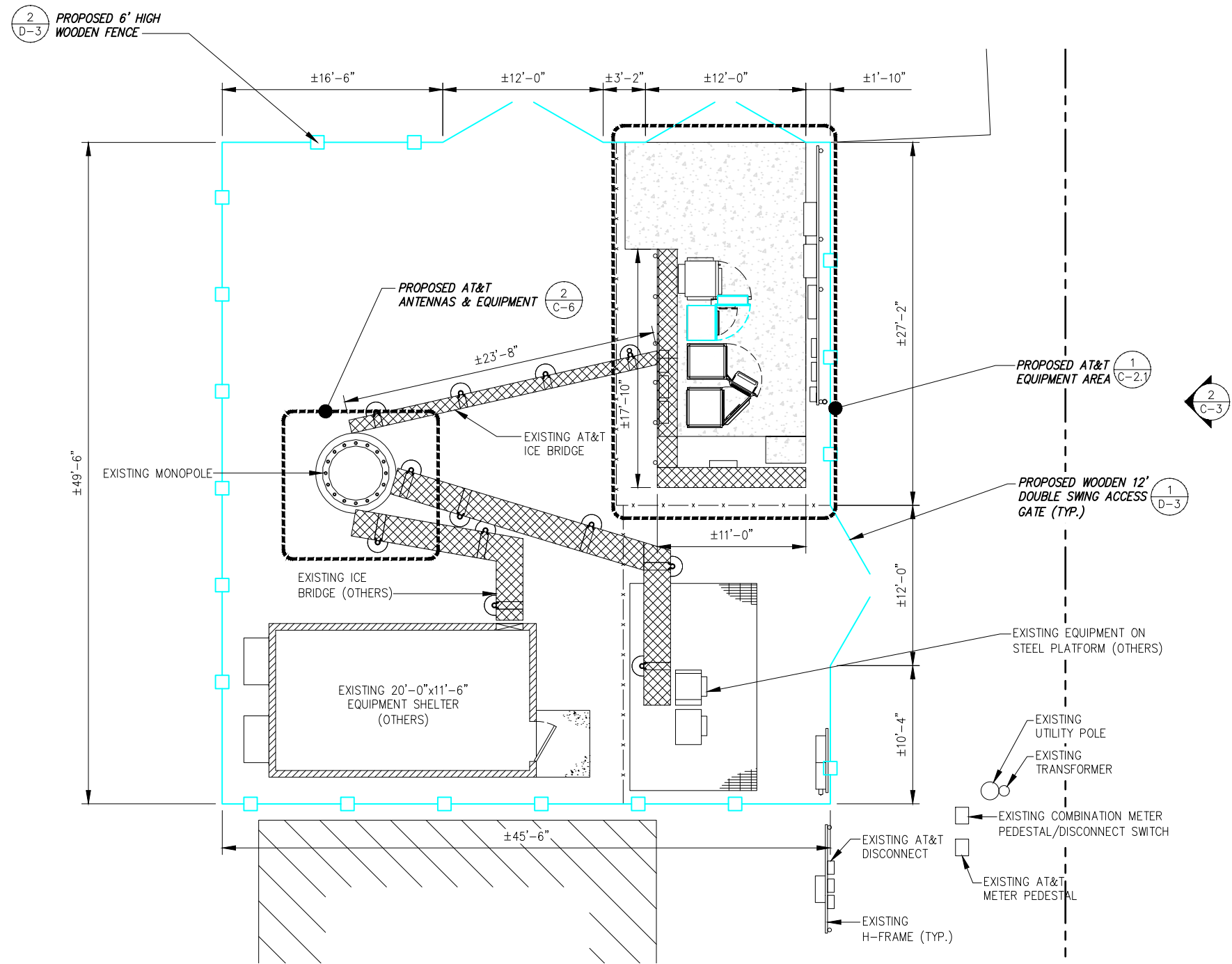
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SITE ADDRESS:
**15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**EXISTING ENLARGED
SITE PLAN**

SHEET NUMBER:
C-1.1



PROPOSED ENLARGED SITE PLAN

SCALE: AS NOTED 1

PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY ENGINEERING, PLLC
2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068
JOB NUMBER: 674-003

PROJECT MANAGER:
mdh
10590 W. OCEAN AIR DRIVE, SUITE 300
SAN DIEGO, CA 92130



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ISSUED FOR REVIEW	10/18/19	CAP	A

AT&T SITE NAME:
SCHREIVER AFB

AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

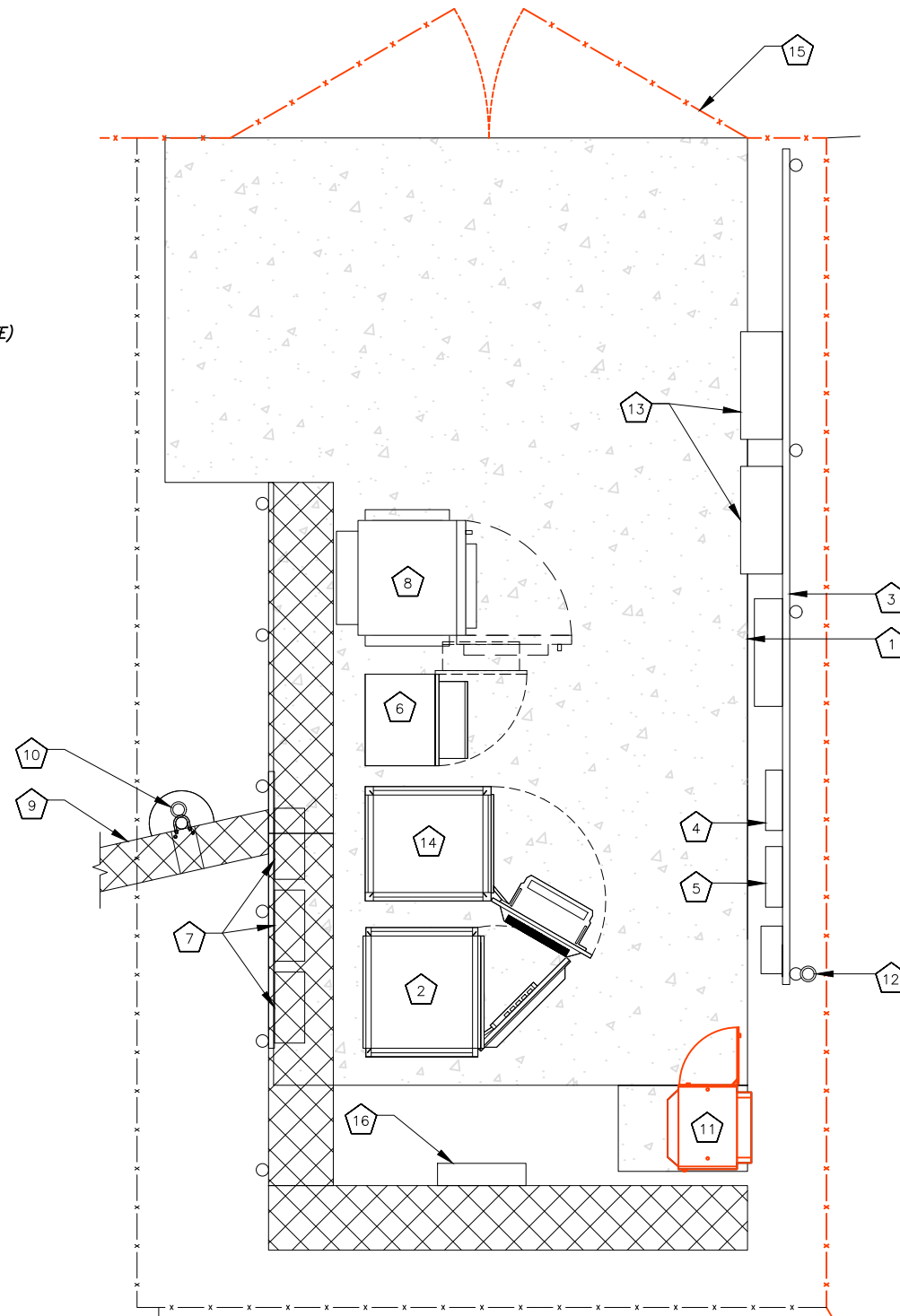
SITE ADDRESS:
**15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**PROPOSED ENLARGED
SITE PLAN**

SHEET NUMBER:
C-1.2

CODED DRAWING NOTES:

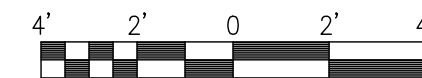
- 1 EXISTING CONCRETE PAD
- 2 EXISTING EMERSON OUTDOOR POWER PLANT
(REMOVE (4) EXISTING M12V155FT BATTERIES FROM SITE)
- 3 EXISTING H-FRAME
- 4 EXISTING AC LOAD CENTER
- 5 EXISTING GENERATOR RECEPTACLE
- 6 EXISTING PURCELL EQUIPMENT CABINET
- 7 EXISTING DC12 SURGE SUPPRESSORS ON EXISTING H-FRAME
- 8 EXISTING OUTDOOR UMTS NODE B
- 9 EXISTING ICE BRIDGE
- 10 EXISTING GPS ANTENNA
- 11 EXISTING 9412 BBU CABINET TO BE REMOVED
- 12 EXISTING LTE GPS ANTENNA
- 13 EXISTING HOFFMAN BOX
- 14 EXISTING EMERSON BATTERY CABINET
(REMOVE (20) EXISTING GNB M12V155FT BATTERIES FROM SITE)
- 15 EXISTING DOUBLE SWING ACCESS GATE
- 16 EXISTING FIBER SLACK BOX



EXISTING EQUIPMENT LAYOUT



GRAPHIC SCALE



SCALE: 24"x36" SHEET 1" = 2'
SCALE: 12"x18" SHEET 1" = 4'

SCALE: AS NOTED 1

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC
2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068

JOB NUMBER: 674-003

PROJECT MANAGER:



10590 W. OCEAN AIR DRIVE, SUITE 300
SAN DIEGO, CA 92130

ENGINEERING LICENSE:



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REVISED /ISSUED FOR REVIEW	11/26/19	CAP	B
ISSUED FOR REVIEW	10/18/19	CAP	A

AT&T SITE NAME:

SCHREIVER AFB

AT&T SITE NUMBER:

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10099187

SITE ADDRESS:

**15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:

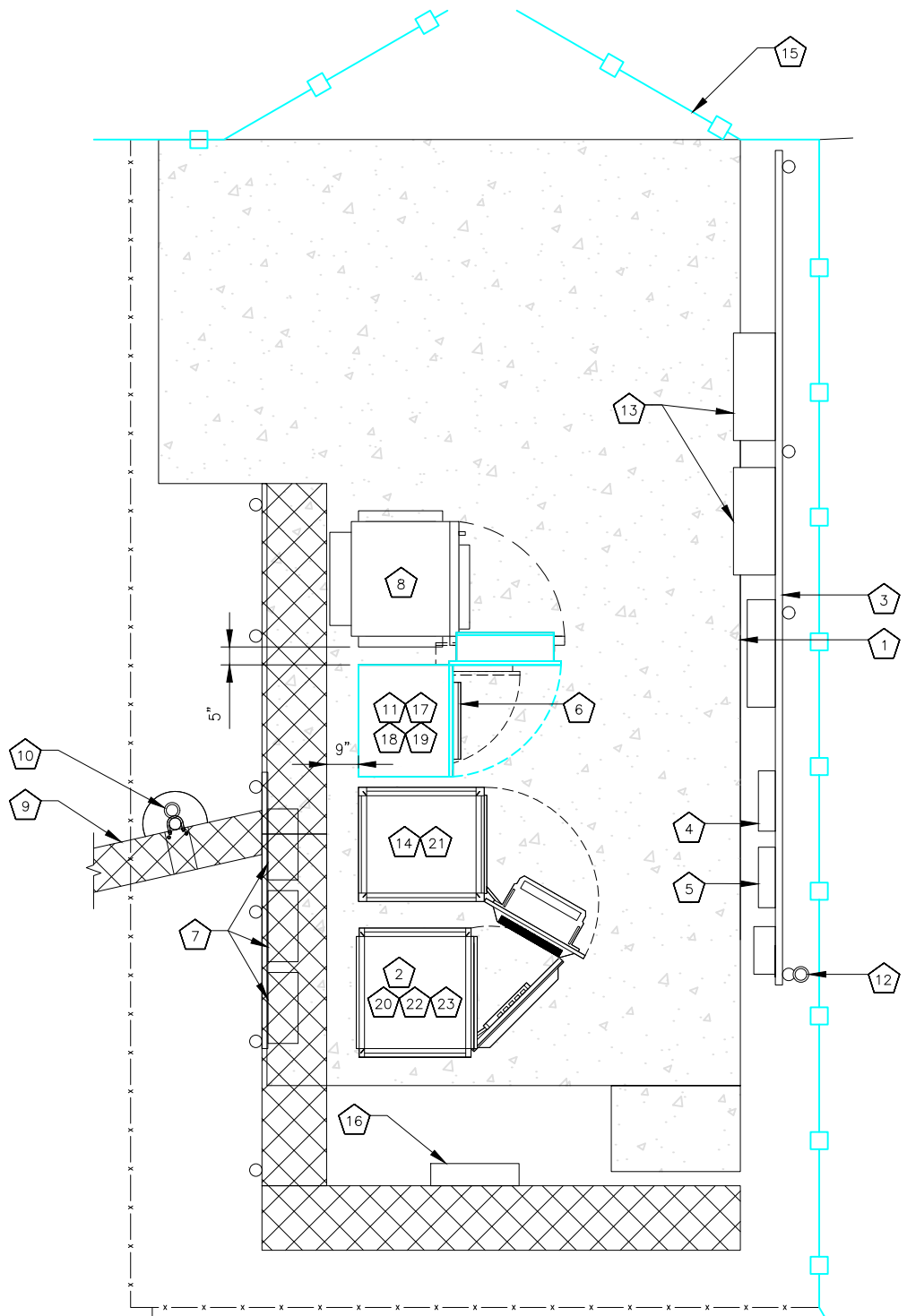
**EXISTING EQUIPMENT
LAYOUT**

SHEET NUMBER:

C-2

CODED DRAWING NOTES:

- 1 EXISTING CONCRETE PAD
- 2 EXISTING EMERSON OUTDOOR POWER PLANT
- 3 EXISTING H-FRAME
- 4 EXISTING AC LOAD CENTER
- 5 EXISTING GENERATOR RECEPTACLE
- 6 EXISTING PURCELL EQUIPMENT CABINET (BELOW)
- 7 EXISTING DC12 SURGE SUPPRESSORS ON EXISTING H-FRAME
- 8 EXISTING OUTDOOR UMTS NODE B
- 9 EXISTING ICE BRIDGE
- 10 EXISTING GPS ANTENNA
- 11 PROPOSED PURCELL FLX21-2520 CABINET MOUNTED ON TOP OF EXISTING PURCELL CABINET 1
D-2
- 12 EXISTING LTE GPS ANTENNA
- 13 EXISTING HOFFMAN BOX
- 14 EXISTING EMERSON BATTERY CABINET
- 15 EXISTING DOUBLE SWING ACCESS GATE
- 16 EXISTING FIBER SLACK BOX
- 17 INSTALL (1) NEW NOKIA 5G NR (ASIK C-1) FSM4 BBU [CEQ.20975] 4.5
D-1
- 18 INSTALL (4) EA. NEW RECTIFIERS [NEQ.15930] FOR REVISED TOTAL OF (13) TO SATISFY N+1. 2
D-2
- 19 TRANSFER EXISTING COMPONENTS FROM EXISTING 9412 CABINET TO NEW PURCELL CABINET
- 20 INSTALL (2) 50A BREAKERS FOR FSM4, (3) 50A BREAKERS FOR AHLBA & (3) 25A BREAKERS FOR AHCA
- 21 INSTALL (20) NEW GNB S12V170 BATTERIES
- 22 INSTALL (4) NEW GNB S12V170 BATTERIES
- 23 INSTALL (1) NEW VERTIV POWER REGULATOR



Summary:

DC POWER PLANT, RECTIFIERS & CONVERTERS:

1. **FAILS RECTIFIER CAPACITY;** EXISTING EMERSON O.D. NETSURE 512 -48V DCP [NEQ.19341] IS EQUIPPED WITH (9) EA. 2 KW HE -48VDC RECTIFIERS. **INSTALL (4) EA. NEW RECTIFIERS [NEQ.15930] FOR A REVISED TOTAL OF (13) TO SATISFY N+1.**

2. **PASSES CONVERTER CAPACITY;** EXISTING EMERSON 512 -48V DCP IS EQUIPPED WITH (5) EA. HE 1.5 KW -48VDC/+24VDC CONVERTER MODULES [NEQ.15929]. **ONLY (4) REQUIRED FOR N+1.**

GENERATOR:

1. **NO PERMANENT STANDBY GENERATOR**

BATTERIES:

1. **FAILS BATTERY RESERVE CAPACITY @ 3.49 HRS;** EXISTING EMERSON 512 -48V DCP [NEQ.19341] AND -48VDC NETEXTEND FLEX BATTERY CABINET [NEQ.15918]. **Remove the 155ah Batteries. INSTALL (6) NEW 170ah BATTERIES TO HAVE A COLLECTIVE TOTAL OF (24) GNB GNB MARATHON S12V170 BATTERIES i.e. (6) 170 Ahr STRINGS EACH CONFIGURED @ -48VDC NOMINAL for 4.13 hrs of backup**

HVAC:

1. **HVAC TONNAGE CAPACITY N/A;** OUTDOOR CABINETS.

ELECTRICAL SERVICE:

1. **PASSES 120/240VAC 200A (48KW) ELECTRICAL SERVICE;** MAXIMUM TOTAL CONNECTED LOAD ESTIMATED @ **29.92 KVA** [125A per phase].

REQUIRED ADDITIONAL EQUIPMENT:

- Flex 21 Purcell required. (1) Vertiv Power Regulator
1. NOKIA 5G NR (ASIK C-1) FSM4 BBU [CEQ.20975].
 2. Breakers needed for:
 - o 5G NR Asik C1 - (2) 50 Amp Breakers
 - o AHLBA RRH - (3) 50 Amp Breakers
 - o AHCA RRH - (3) 25 Amp Breakers

PLANS PREPARED FOR:

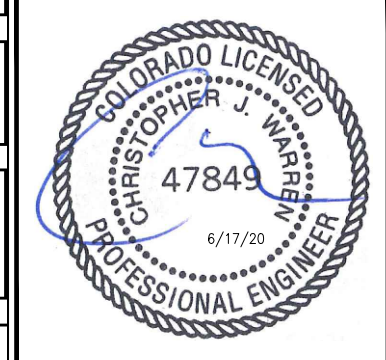
PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC
2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068
JOB NUMBER: 674-003

PROJECT MANAGER:

mdh
10590 W. OCEAN AIR DRIVE, SUITE 300
SAN DIEGO, CA 92130

ENGINEERING LICENSE:



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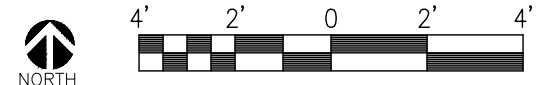
SHEET DESCRIPTION:

PROPOSED EQUIPMENT LAYOUT

SHEET NUMBER:

C-2.1

GRAPHIC SCALE



SCALE: 24"x36" SHEET 1" = 2'
SCALE: 12"x18" SHEET 1" = 4'



PROPOSED EQUIPMENT LAYOUT

SCALE: AS NOTED



DIPLEXER

NO SCALE

1



BATTERY CABINET

NO SCALE

2



HOFFMAN BOX

NO SCALE

3



UMTS CABINET

NO SCALE

5



DC POWER PLANT

NO SCALE

6

9412 BBU CABINET

NO SCALE

4

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC

2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068

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REVISED/ISSUED FOR REVIEW	11/27/19	CAP	C
REVISED/ISSUED FOR REVIEW	11/26/19	CAP	B
ISSUED FOR REVIEW	10/18/19	CAP	A

AT&T SITE NAME:

SCHREIVER AFB

AT&T SITE NUMBER:

COL02065

AT&T FA NUMBER:

10099187

SITE ADDRESS:

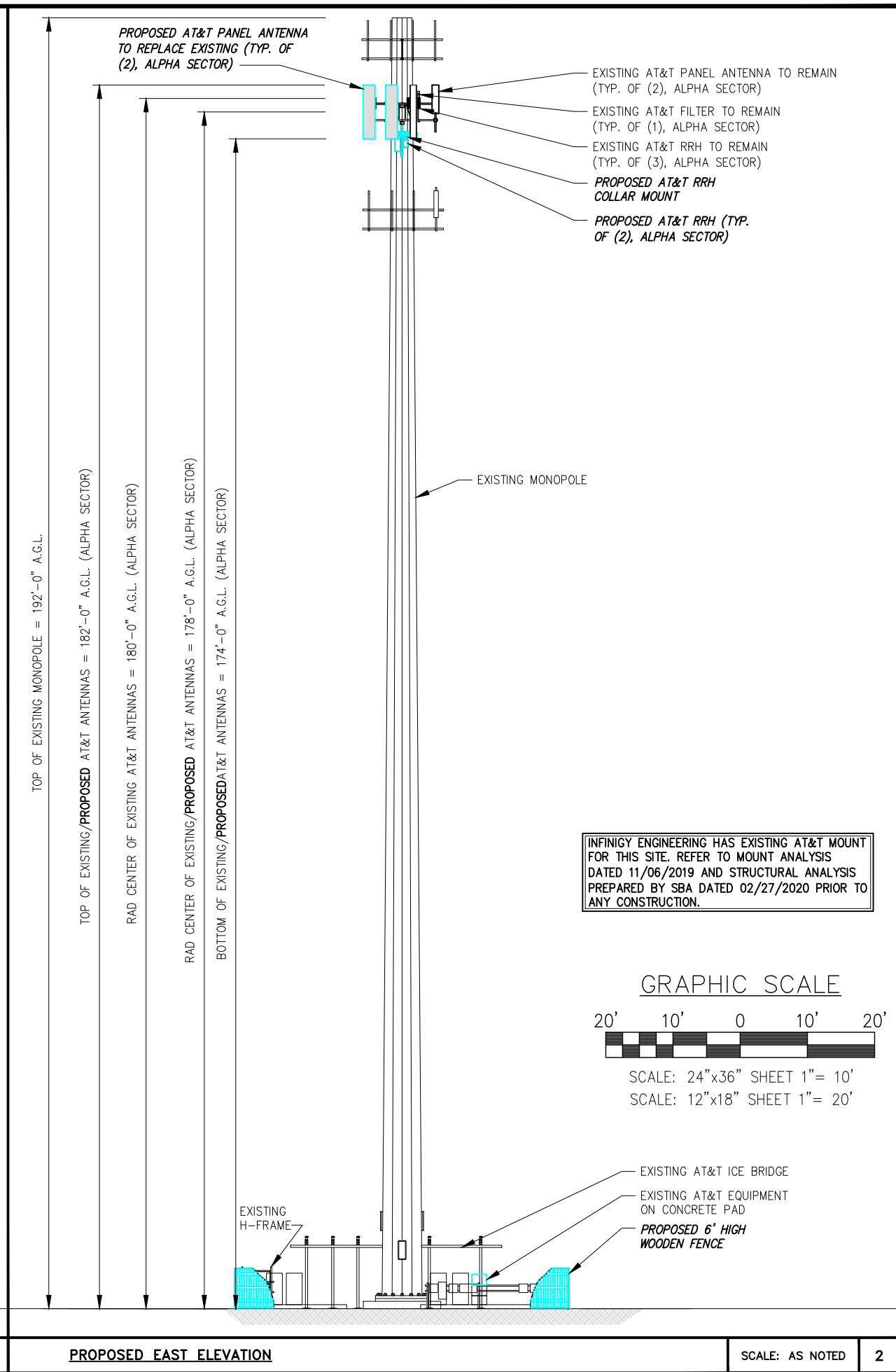
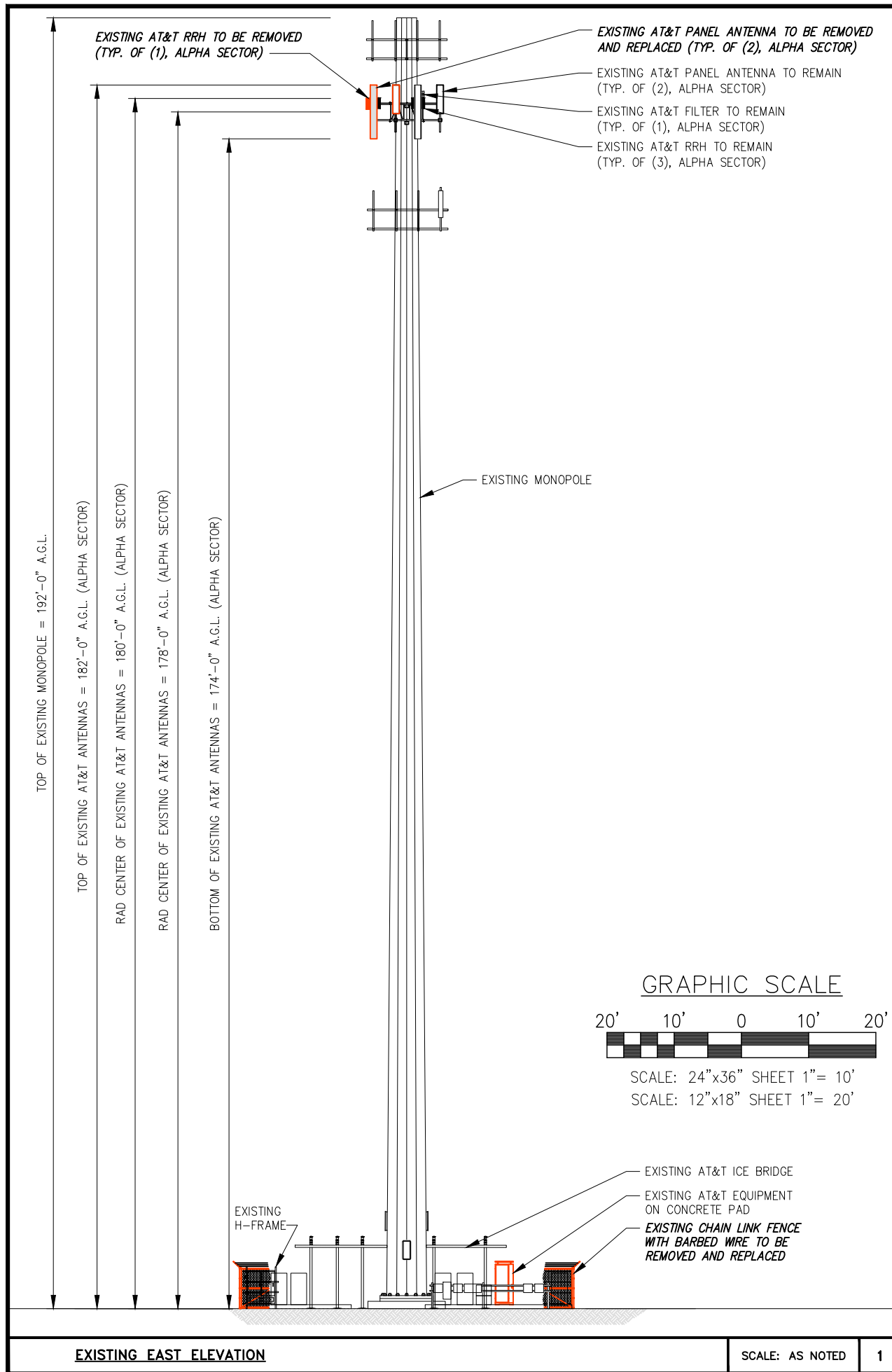
**15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:

EQUIPMENT PHOTOS

SHEET NUMBER:

C-2.2



INFINIGY ENGINEERING HAS EXISTING AT&T MOUNT FOR THIS SITE. REFER TO MOUNT ANALYSIS DATED 11/06/2019 AND STRUCTURAL ANALYSIS PREPARED BY SBA DATED 02/27/2020 PRIOR TO ANY CONSTRUCTION.

PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY
 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:

 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

ENGINEERING LICENSE:

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AT&T SITE NAME:
SCHREIVER AFB

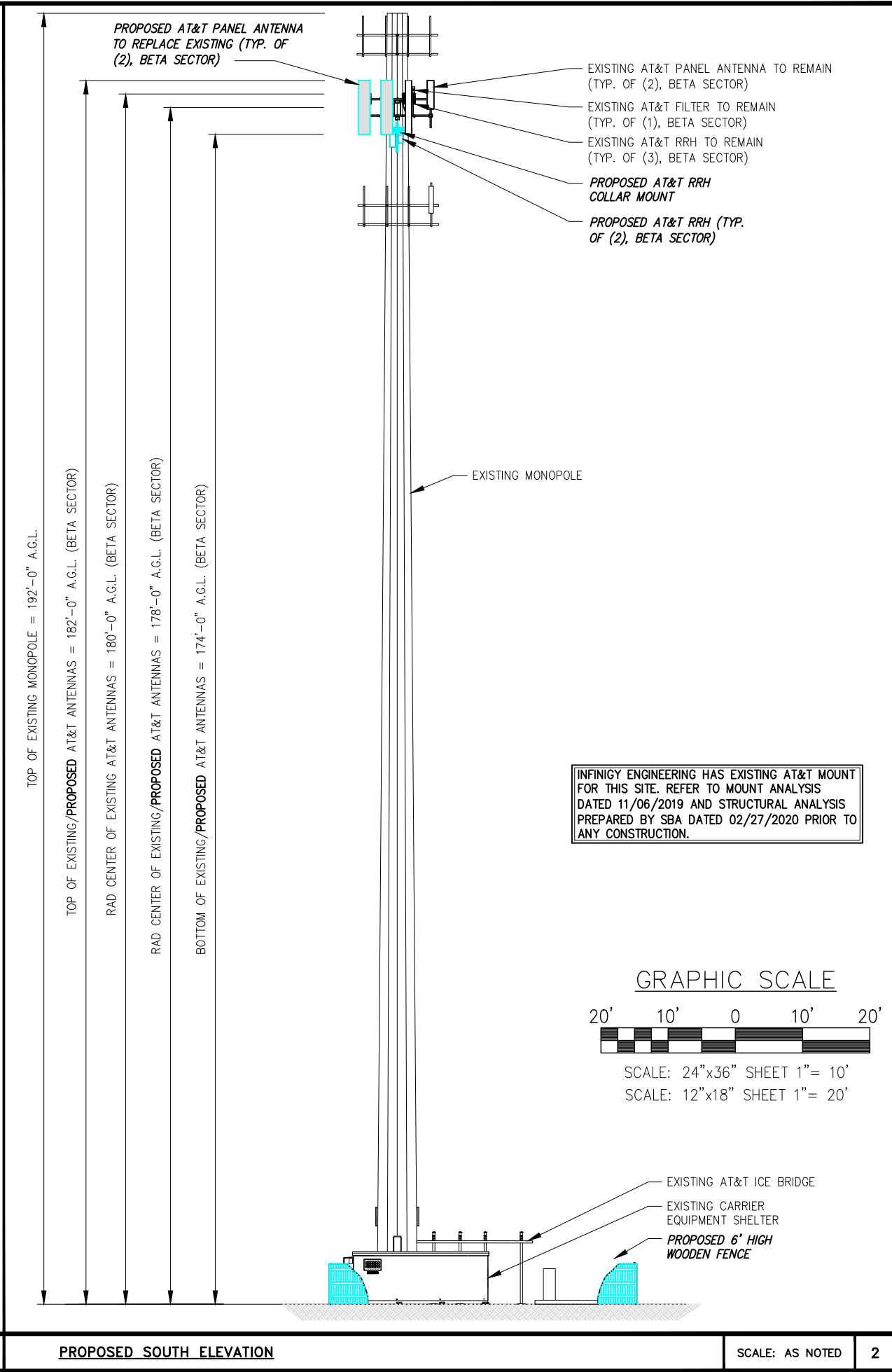
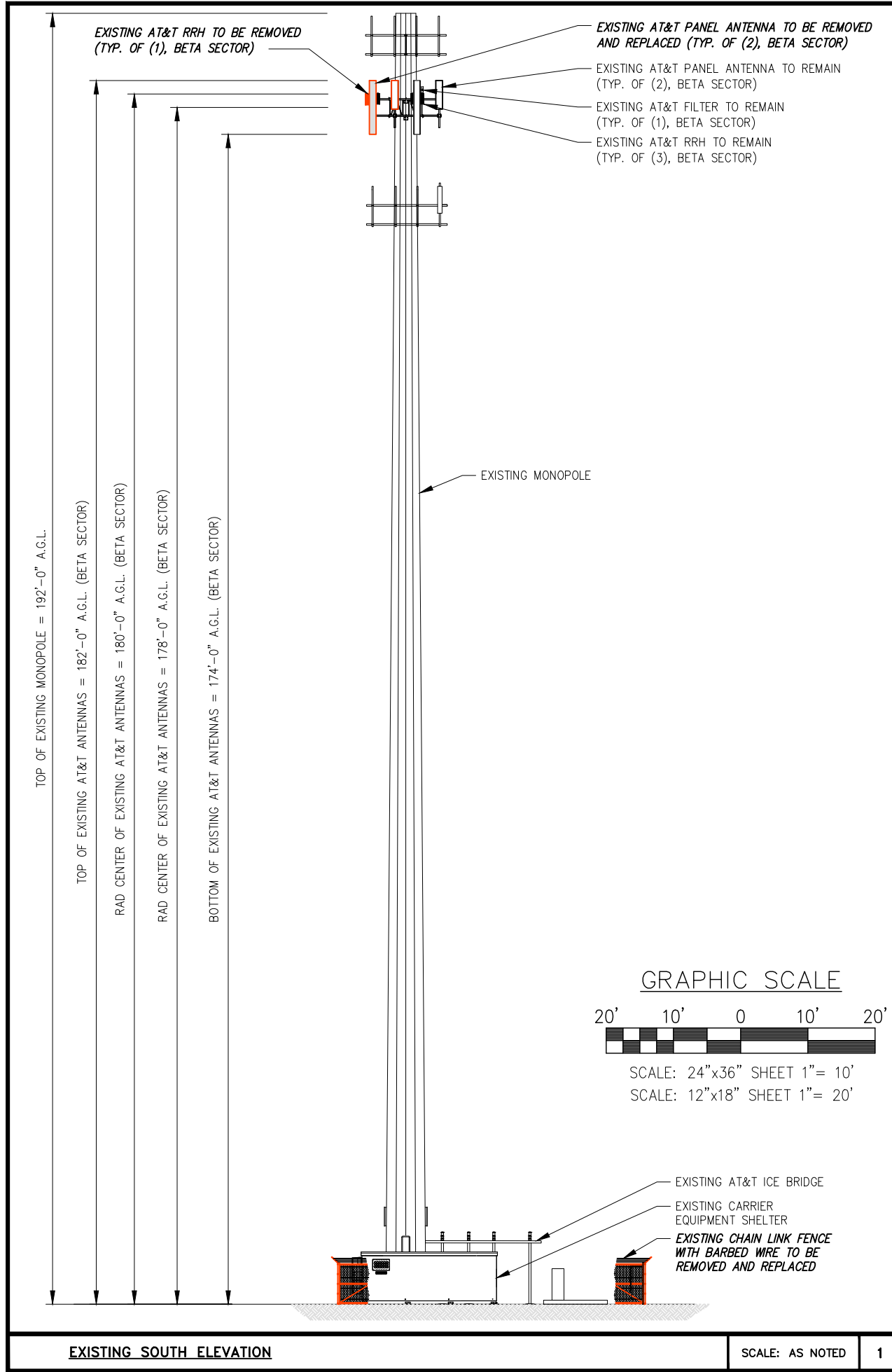
AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**EAST
 ELEVATION
 PCD #PPR2019**

SHEET NUMBER:
C-3



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 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:

 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

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AT&T SITE NAME:
SCHREIVER AFB

AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**SOUTH ELEVATION
 PCD #PPR2019**

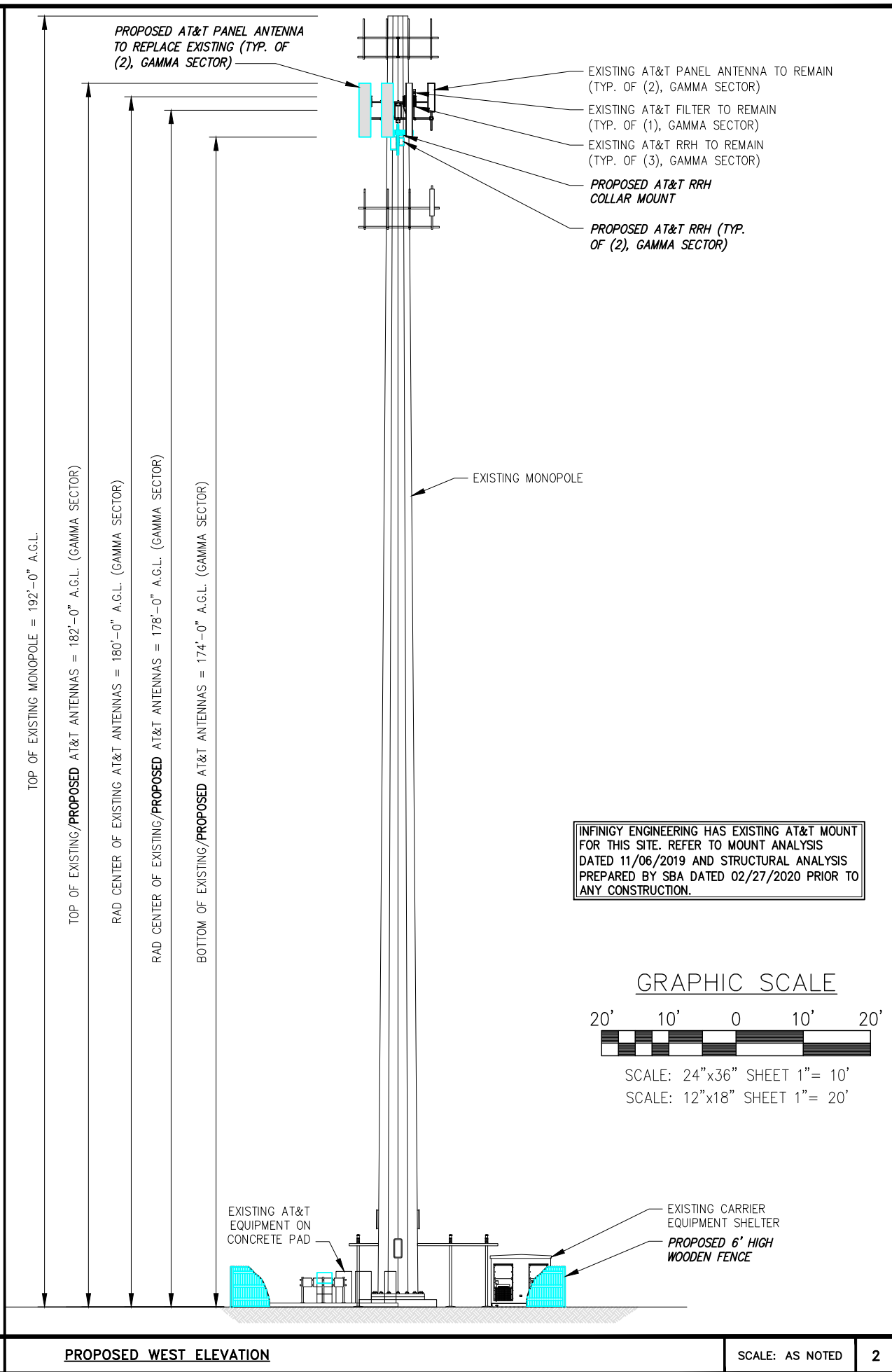
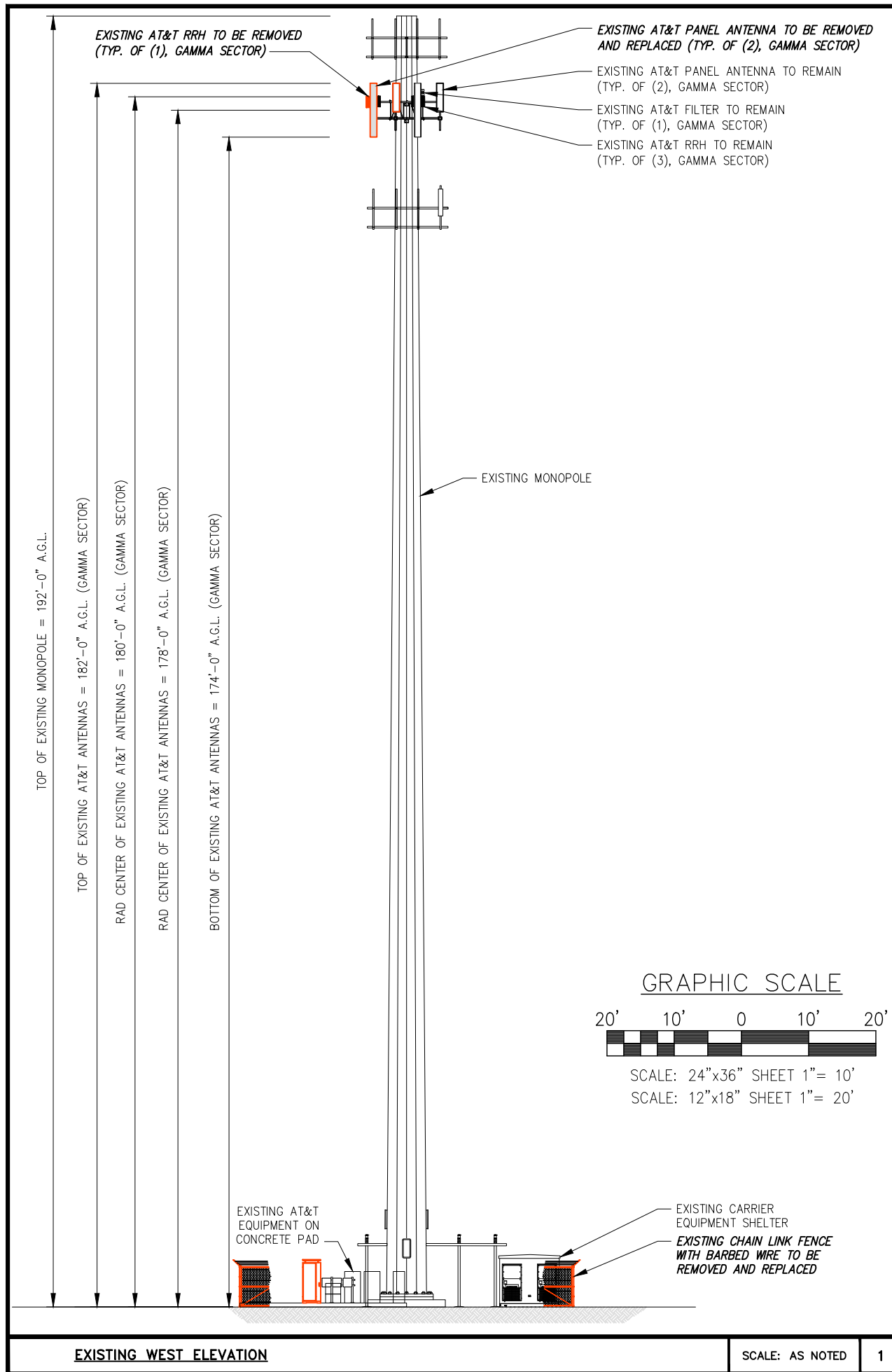
SHEET NUMBER:
C-4

EXISTING SOUTH ELEVATION

SCALE: AS NOTED 1

PROPOSED SOUTH ELEVATION

SCALE: AS NOTED 2



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PLANS PREPARED FOR:

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INFINIGY
 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
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PROJECT MANAGER:

 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

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COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**WEST
 ELEVATION
 PCD #PPR2019**

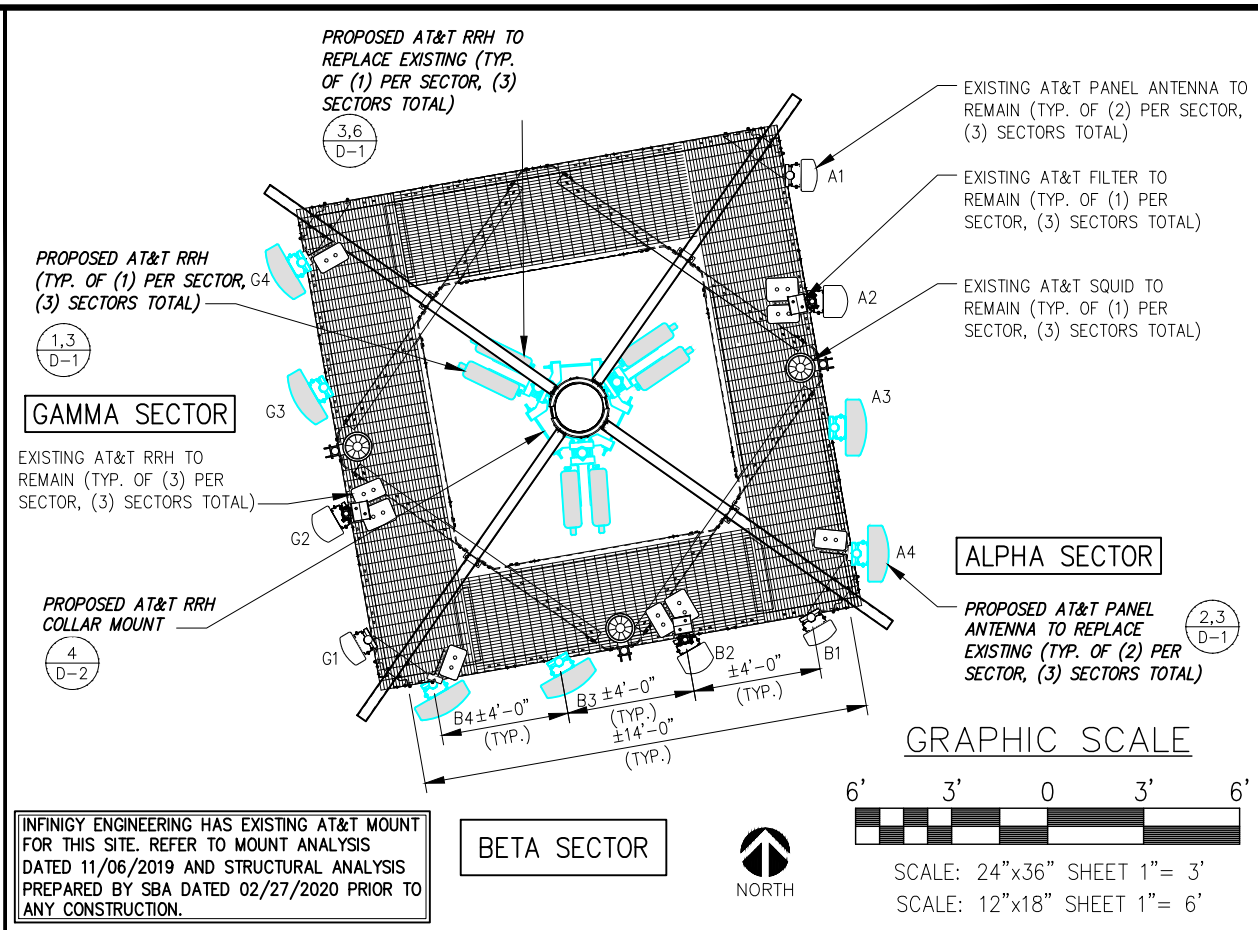
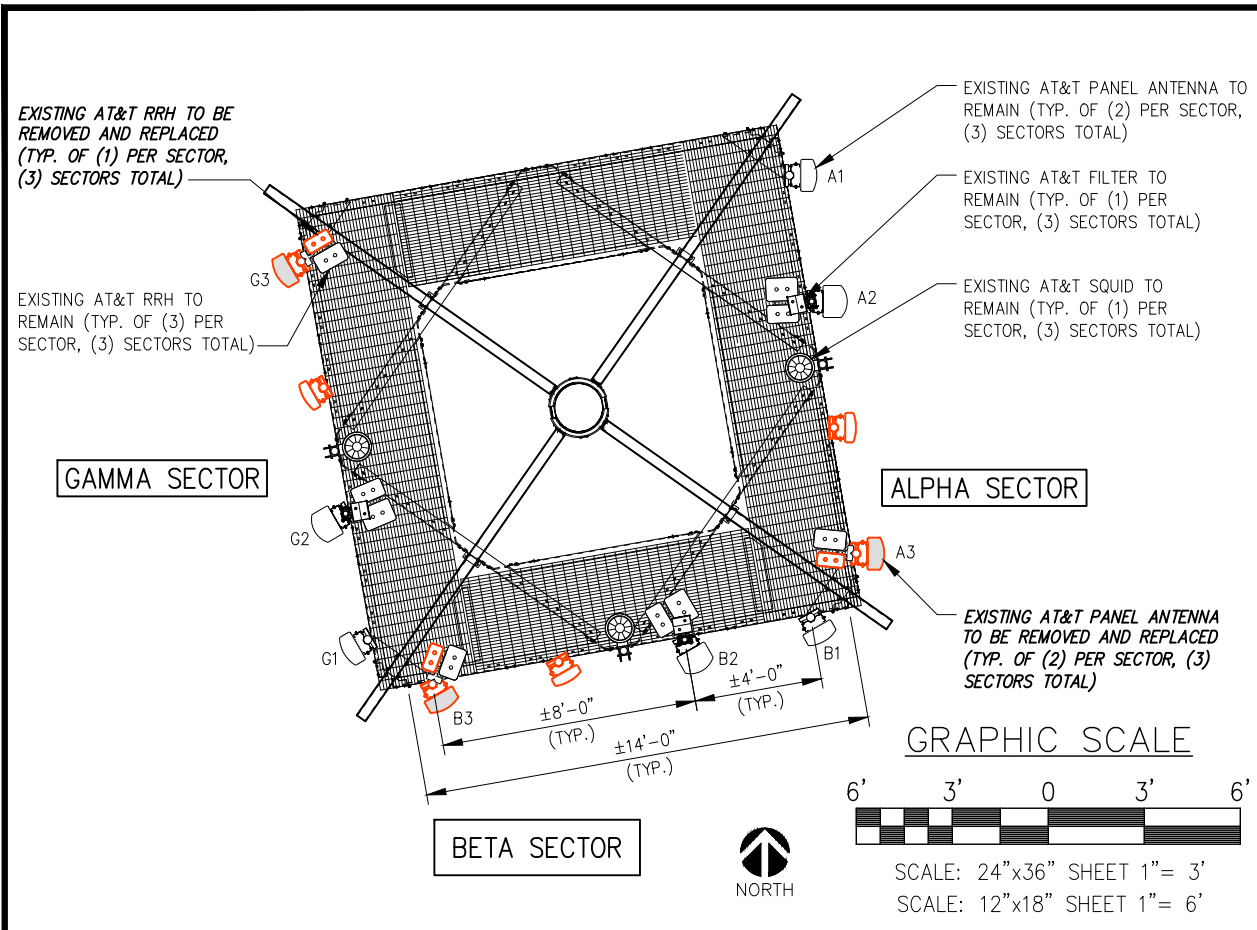
SHEET NUMBER:
C-5

EXISTING WEST ELEVATION

SCALE: AS NOTED 1

PROPOSED WEST ELEVATION

SCALE: AS NOTED 2



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 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:
md7
 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130



EXISTING ANTENNA LAYOUT (GAMMA)

SCALE: AS NOTED 1

PROPOSED ANTENNA LAYOUT (GAMMA)

SCALE: AS NOTED 2

ANTENNA SCHEDULE						
SECTOR	POSITION	ANTENNA	TECHNOLOGY	RAD CENTER	RRH (QTY/TYPER)	TMA/SQUID/DIPLEXER/FILTER (QTY/TYPER)
ALPHA	1	(E) POWERWAVE P65-15-XLH-RR	UMTS 850/1900	180'-0"	--	--
ALPHA	2	(E) KMW EPBQ-654L8H8	LTE AWS/WCS	178'-0"	(E) 1/RRH4x25-WCS-4R (E) 1/B66A RRH4X45-4R	(E) (1) WCS-IMFQ-AMT
ALPHA	3	(N) CCI TPA65R-BU8DA-K	LTE 850, 5G 850	178'-0"	(N) 1/AHCA	--
ALPHA	4	(N) CCI TPA65R-BU8DA-K	LTE 700/1900	178'-0"	1/AHLBA (AT ANTENNA) (E) 1/B25 RRH4X30-4R	(E) (1) DC6-48-60-18-8F
BETA	1	(E) POWERWAVE P65-15-XLH-RR	UMTS 850/1900	180'-0"	--	--
BETA	2	(E) KMW EPBQ-654L8H8	LTE AWS/WCS	178'-0"	(E) 1/RRH4x25-WCS-4R (E) 1/B66A RRH4X45-4R	(E) (1) WCS-IMFQ-AMT
BETA	3	(N) CCI TPA65R-BU8DA-K	LTE 850, 5G 850	178'-0"	(N) 1/AHCA	(E) (1) DC6-48-60-18-8F
BETA	4	(N) CCI TPA65R-BU8DA-K	LTE 700/1900	178'-0"	1/AHLBA (AT ANTENNA) (E) 1/B25 RRH4X30-4R	--
GAMMA	1	(E) POWERWAVE P65-15-XLH-RR	UMTS 850/1900	180'-0"	--	--
GAMMA	2	(E) KMW EPBQ-654L8H8	LTE AWS/WCS	178'-0"	(E) 1/RRH4x25-WCS-4R (E) 1/B66A RRH4X45-4R	(E) (1) WCS-IMFQ-AMT
GAMMA	3	(N) CCI TPA65R-BU8DA-K	LTE 850, 5G 850	178'-0"	(N) 1/AHCA	(E) (1) DC6-48-60-18-8F
GAMMA	4	(N) CCI TPA65R-BU8DA-K	LTE 700/1900	178'-0"	1/AHLBA (AT ANTENNA) (E) 1/B25 RRH4X30-4R	--

CABLE INVENTORY		
CABLE TYPE	CABLE AMOUNT	CABLE LENGTH
3	FIBER	±230'
3	2" INNERDUCT	±230'
6	DC LINES	±230'
6	LDF5-50A_850	±300'

- NOTES:**
- INFORMATION BASED ON PROVIDED RFDS CURRENT AT THE TIME DRAWINGS WERE ISSUED. CONTRACTOR SHALL BASE CONSTRUCTION ON FINAL APPROVED RFDS. IN CASE OF CONFLICT, FINAL APPROVED RFDS SUPERSEDES THIS INFORMATION.
 - SEE RFDS FOR EXISTING AND PROPOSED ANTENNA MODEL/DIMENSIONS/AZIMUTHS/RAD CENTERS/TILTS.
 - CONTRACTOR TO VERIFY REQUIRED CABLE LENGTHS PRIOR TO CONSTRUCTION.
 - CONTRACTOR TO REMOVE UNUSED GSM COAX CABLES AS NECESSARY TO ACCOMMODATE PROPOSED DC & FIBER TRUNKS

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AT&T SITE NAME:
SCHREIVER AFB

AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**ANTENNA LAYOUTS
 & LOADING CHART**

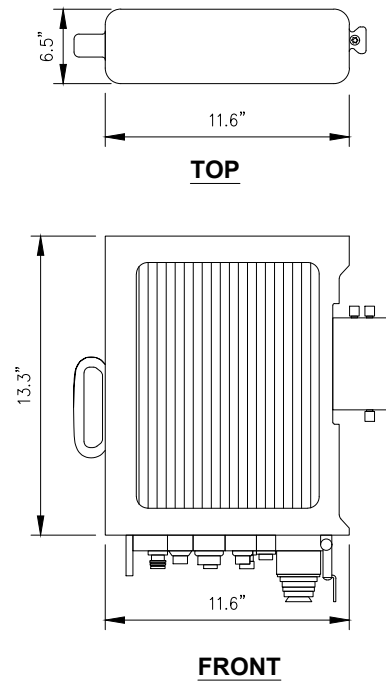
SHEET NUMBER:
C-6

LOADING CHART

NO SCALE 3

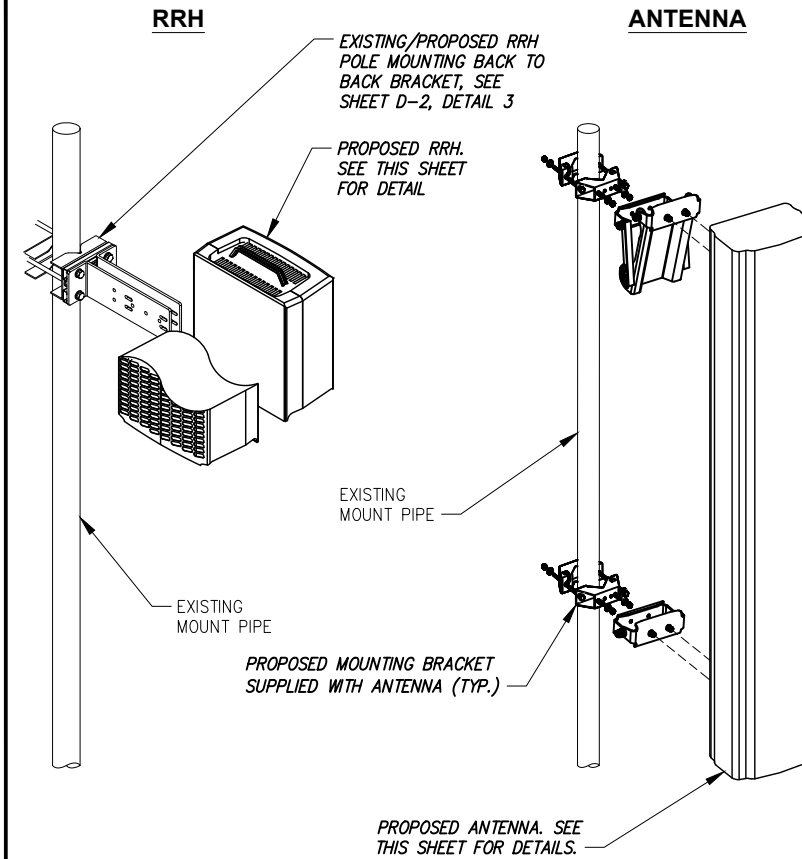
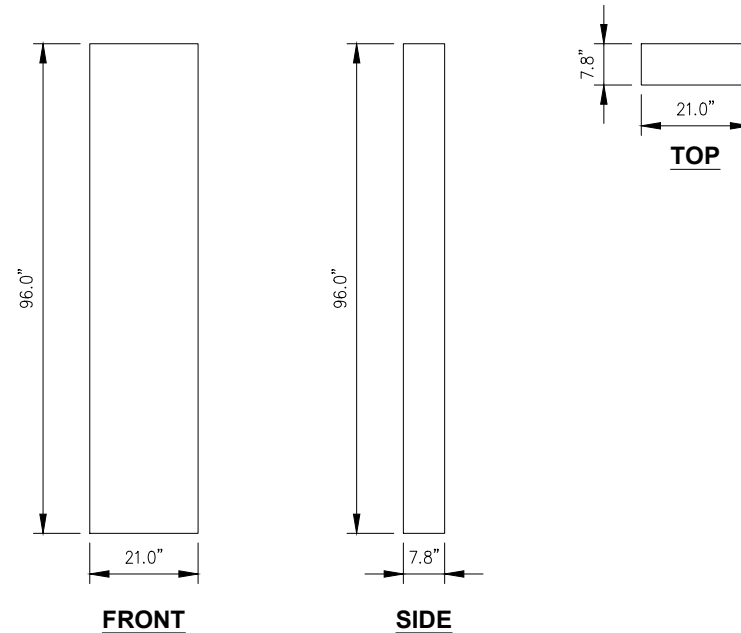
AIRSCALE RADIO MODULE (AHCA)

DIMENSIONS (WxDxH): 11.6"x6.5"x13.3"
 WEIGHT, WITHOUT BRACKETS: 36.8 lbs.



CCI PANEL ANTENNA (TPA65R-BU8DA-K)

DIMENSIONS, HxWxD: 96.0"x21.0"x7.8"
 WEIGHT, W/O BRACKETS: 82.5 lbs



REMOTE RADIO HEAD SPECIFICATIONS (OR SIMILAR)

NO SCALE

1

PANEL ANTENNA SPECIFICATIONS (OR SIMILAR)

NO SCALE

2

EQUIPMENT MOUNTING DETAIL

NO SCALE

3

NOKIA ASIK UNIT

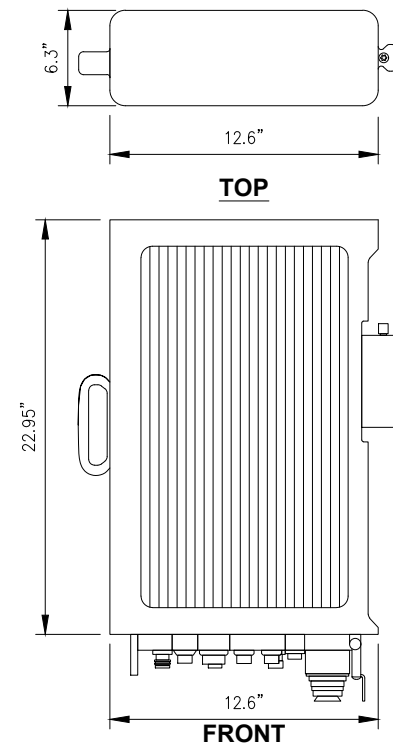
DIMENSIONS, HxWxD: 1.9"x8.6"x14.8" (UNIT ONLY)
 WEIGHT: 7.1 LBS. (UNIT ONLY)

NOKIA FSM4 BBU

DIMENSIONS (WxDxH): 17.6"x15.7"x5.1"

AIRSCALE RADIO MODULE (AHLBA)

DIMENSIONS (WxDxH): 12.6"x6.3"x23.0"
 WEIGHT, WITHOUT BRACKETS: 53.0 lbs.



ASIK SPECIFICATIONS

NO SCALE

4

FSM4 BBU SPECIFICATIONS

NO SCALE

5

REMOTE RADIO HEAD SPECIFICATIONS (OR SIMILAR)

NO SCALE

6

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
 ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068

JOB NUMBER: 674-003

PROJECT MANAGER:

mdh

10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

ENGINEERING LICENSE:



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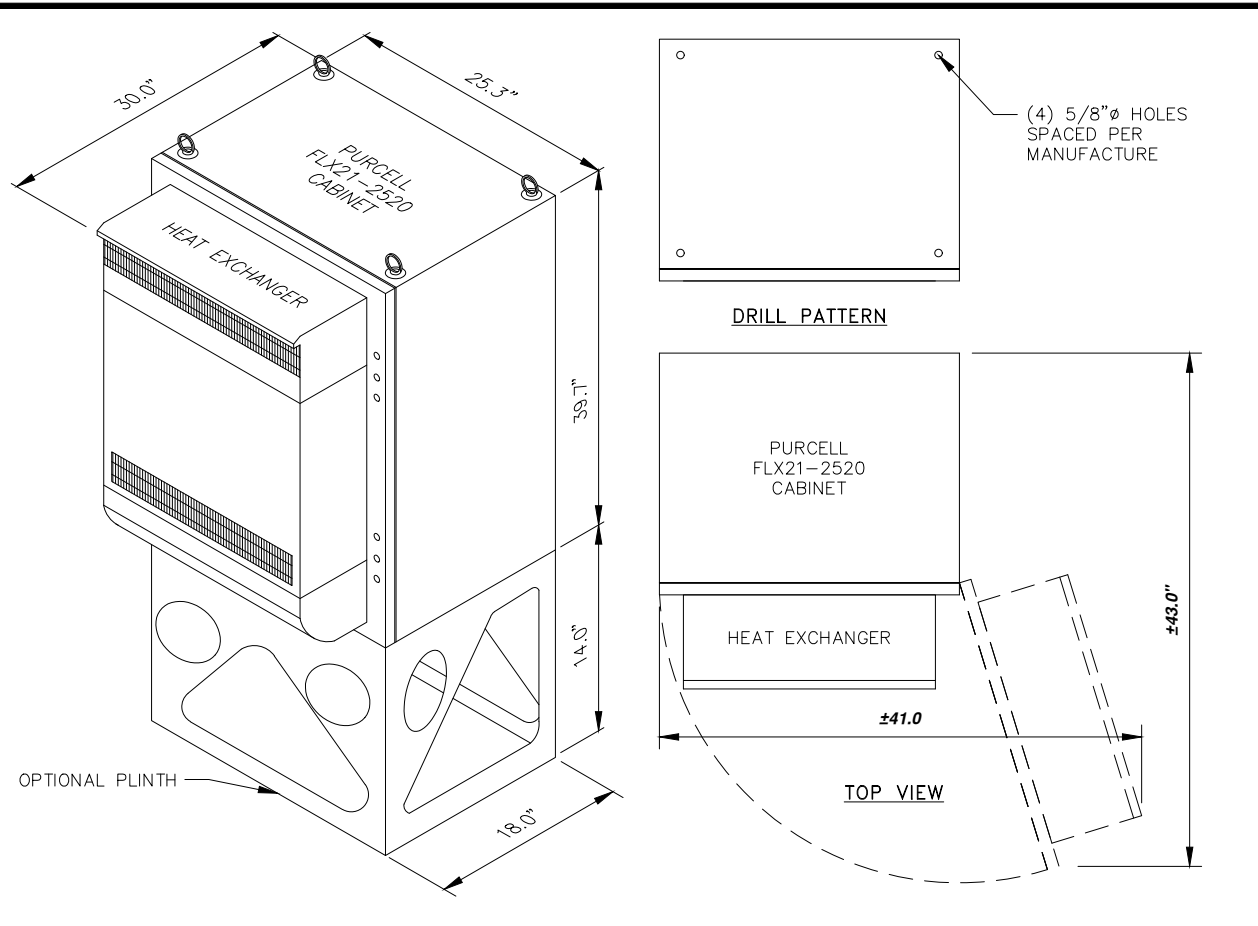
15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930

SHEET DESCRIPTION:

EQUIPMENT DETAILS

SHEET NUMBER:

D-1



RECTIFIER SPECIFICATIONS NOT AVAILABLE
UPON ISSUANCE OF THESE PLANS

PURCELL CABINET DETAIL

NO SCALE

1

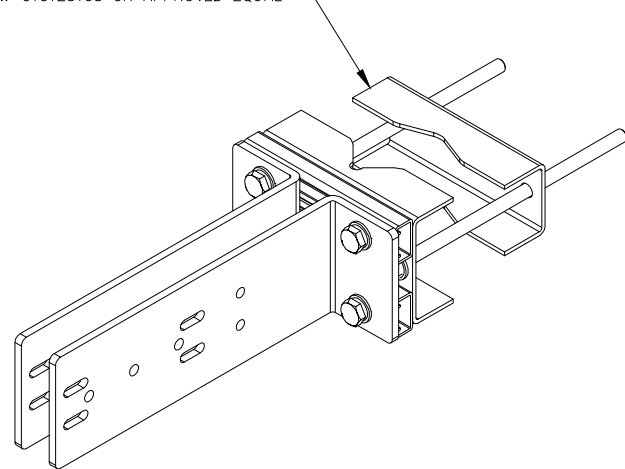
RECTIFIER SPECIFICATIONS

NO SCALE

2

UNIVERSAL PIPE MOUNT BRACKET FOR 2" TO 5" OD PIPE. FITS UP TO 20 DEGREE TAPERS. FITS 2"-6" ROUND TOWER LEGS AND 2-1/2" - 6" ANGLE TOWER LEGS

SABRE P/N: C10123105 OR APPROVED EQUAL



BACK TO BACK MOUNT DETAIL

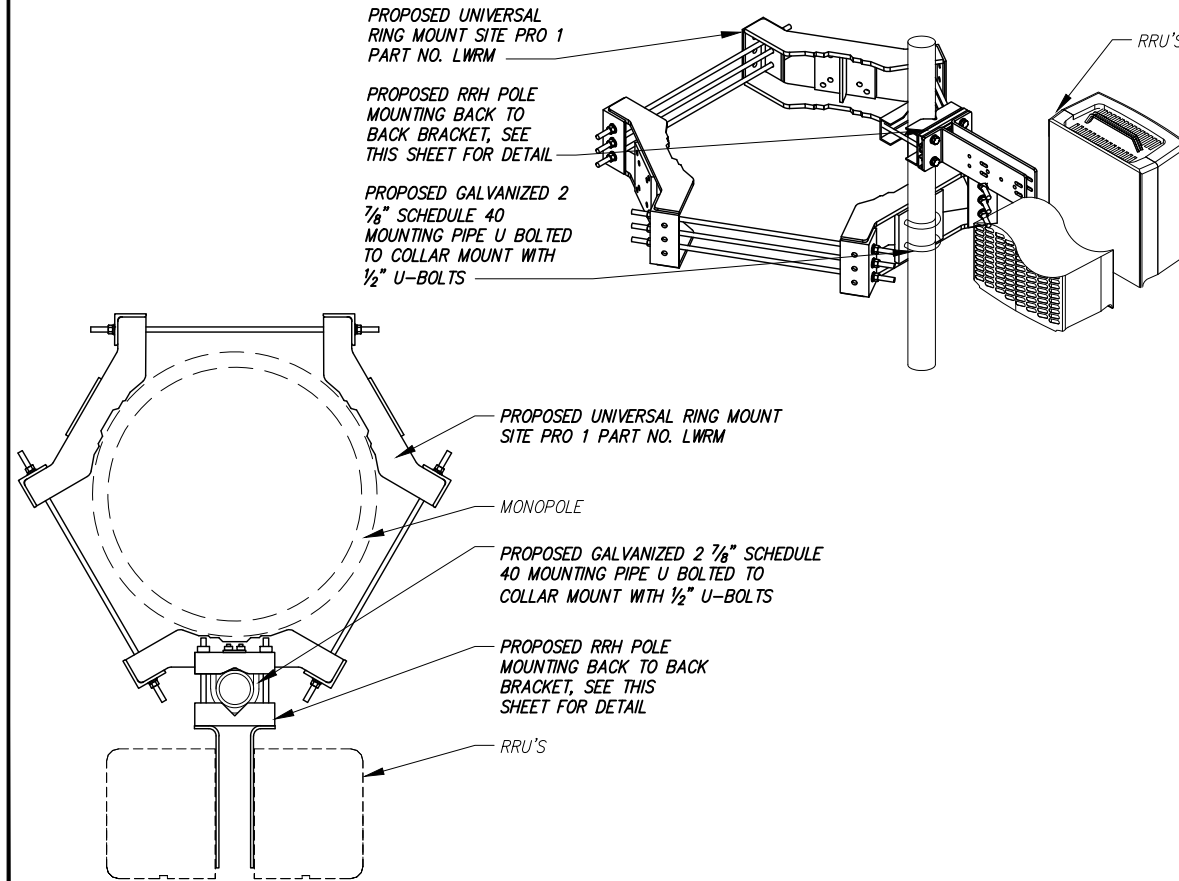
NO SCALE

3

PROPOSED UNIVERSAL RING MOUNT SITE PRO 1 PART NO. LWRM

PROPOSED RRH POLE MOUNTING BACK TO BACK BRACKET, SEE THIS SHEET FOR DETAIL

PROPOSED GALVANIZED 2 7/8" SCHEDULE 40 MOUNTING PIPE U BOLTED TO COLLAR MOUNT WITH 1/2" U-BOLTS



PROPOSED UNIVERSAL RING MOUNT SITE PRO 1 PART NO. LWRM

MONOPOLE

PROPOSED GALVANIZED 2 7/8" SCHEDULE 40 MOUNTING PIPE U BOLTED TO COLLAR MOUNT WITH 1/2" U-BOLTS

PROPOSED RRH POLE MOUNTING BACK TO BACK BRACKET, SEE THIS SHEET FOR DETAIL

RRU'S

RRH MOUNT DETAIL

NO SCALE

4

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC

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HOFFMAN ESTATES, IL 60169
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md7

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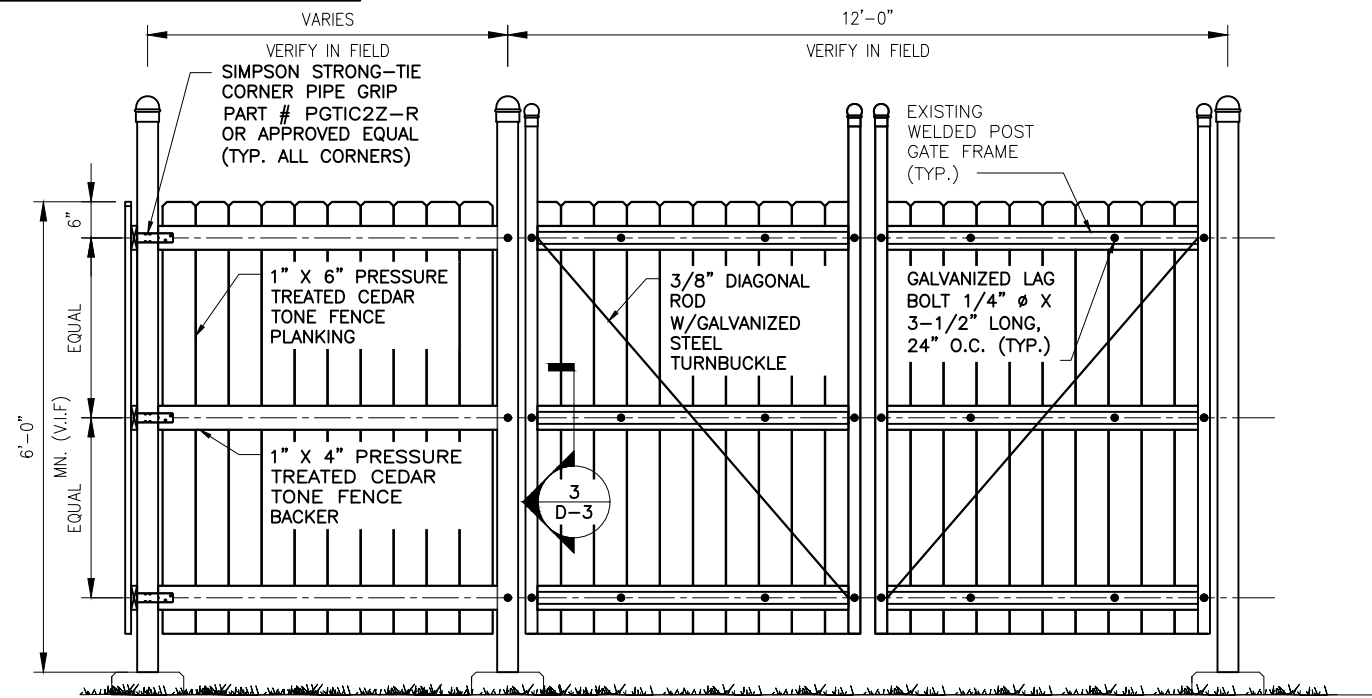
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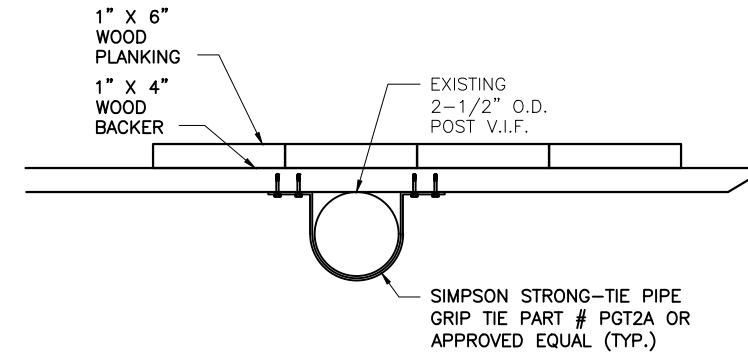
D-2

NOTE:
FENCE DETAIL ARE FOR ATTACHMENT OF
WOOD FRAMING TO EXISTING STEEL POSTS.
VERIFY POST STRUCTURAL INTEGRITY IN
FIELD PRIOR TO CONSTRUCTION. NOTIFY
ENGINEER IMMEDIATELY IF FIELD CONDITIONS
DIFFER FROM PLAN



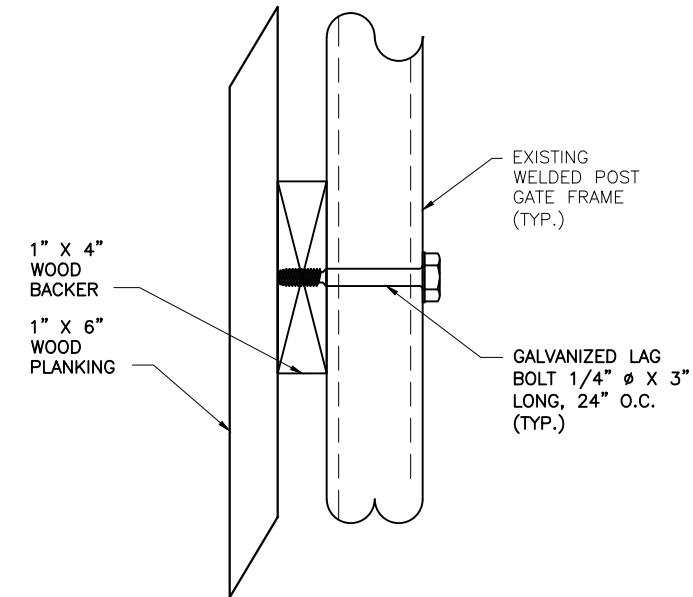
WOOD GATE DETAIL

NO SCALE 1



WOOD FENCE SECTION

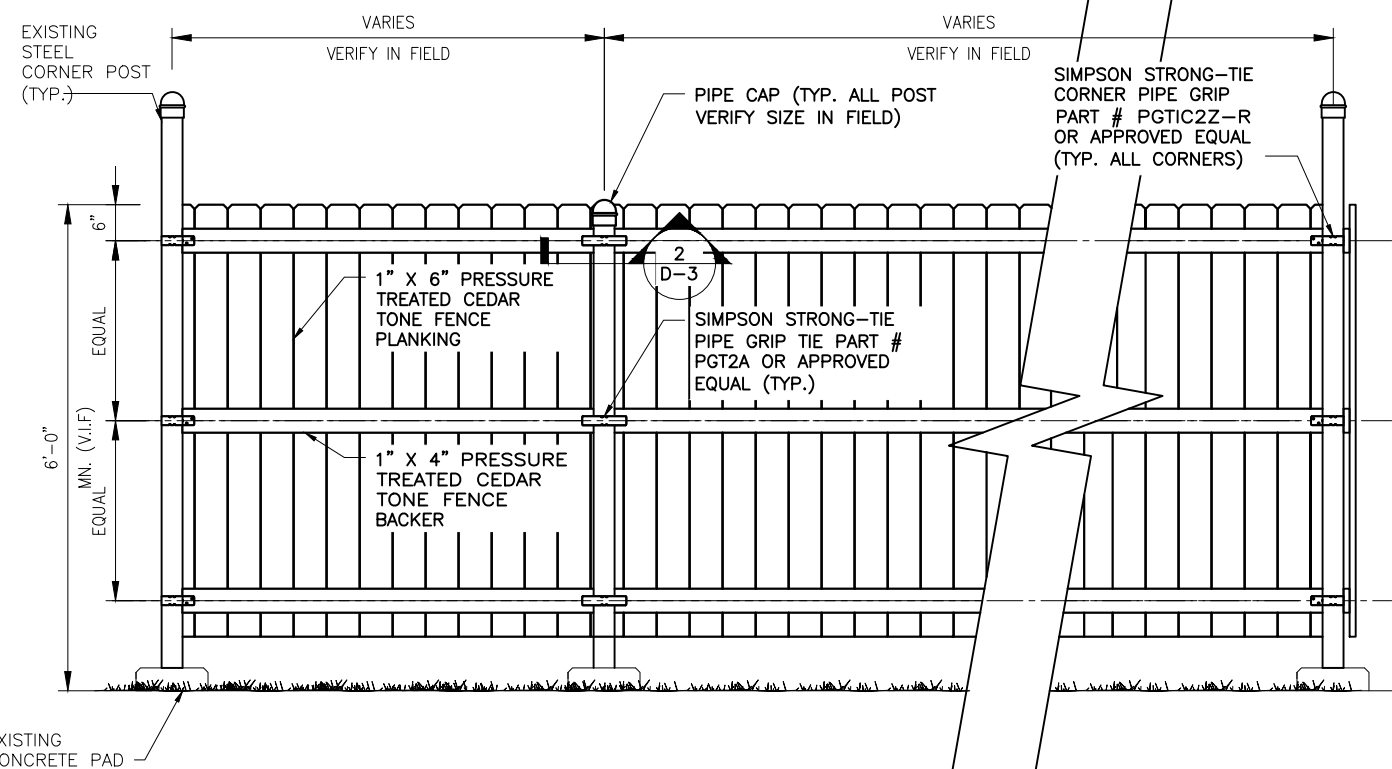
NO SCALE 2



WOOD GATE SECTION

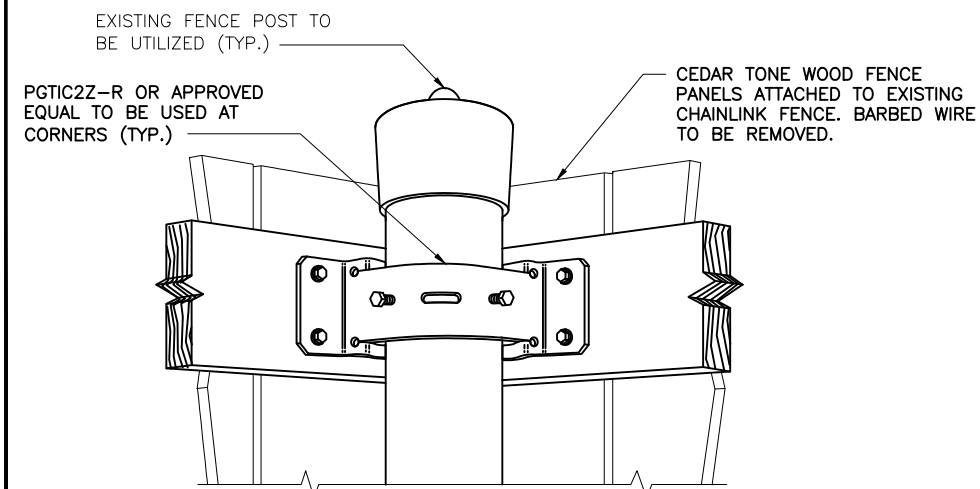
NO SCALE 3

NOTE:
FIELD LOCATE AND THRU DRILL
EXISTING POST 5/16\"/>



WOOD FENCE DETAIL

NO SCALE 4



CORNER PIPE GRIP TIE

NO SCALE 5

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC

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JOB NUMBER: 674-003

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mdh

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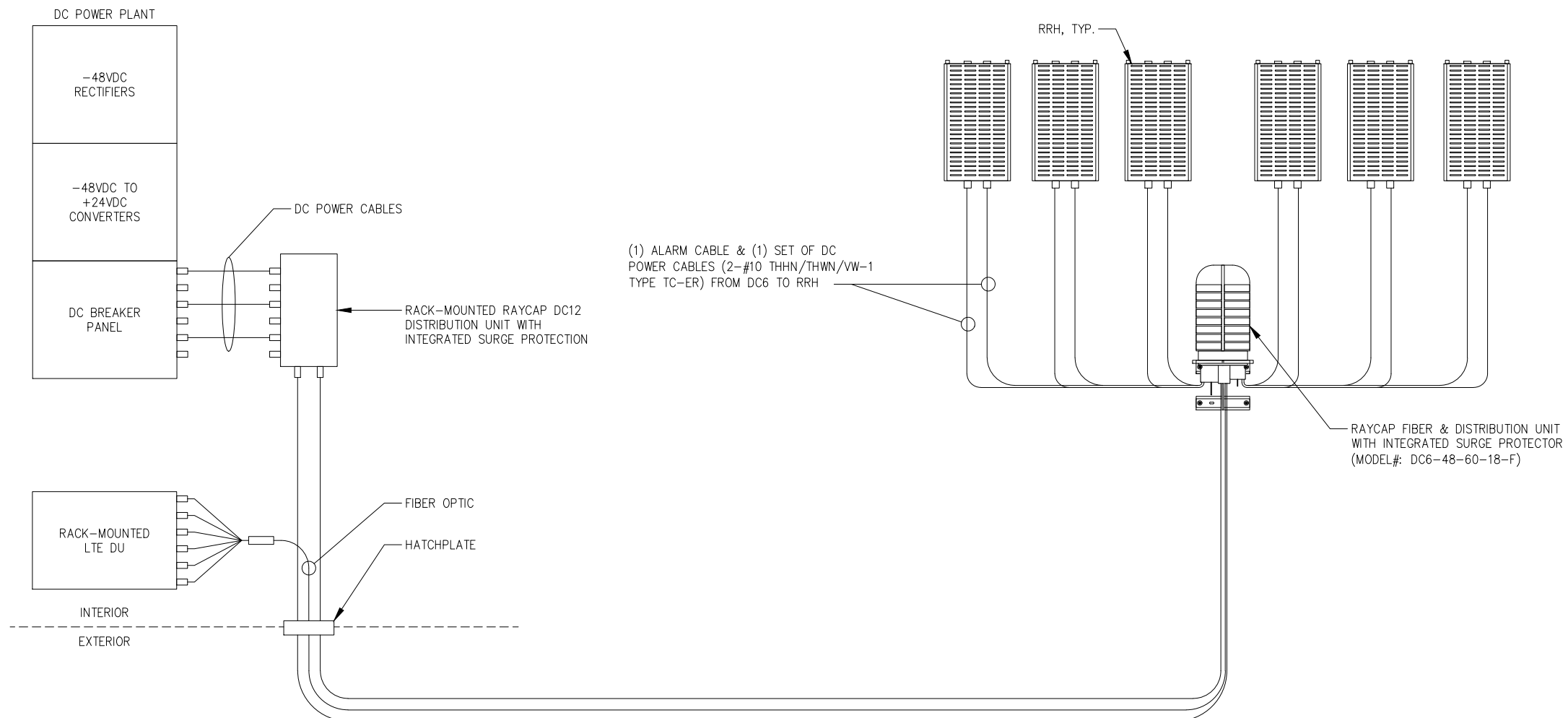
SHEET DESCRIPTION:

EQUIPMENT DETAILS

SHEET NUMBER:

D-3

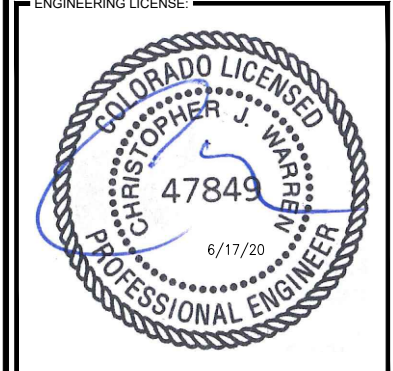
- NOTE:**
- DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V. REFER TO ATT-002-290-701.
 - NON-LTE DC POWER WIRING SIZE 14AWG TO 10AWG SHALL BE TELCOFLEX L2. DC POWER WIRING 8AWG AND LARGER SHALL BE TELCOFLEX L2. ALL TELCOFLEX MUST BE L2 IF REPLACED.
 - LTE POWER WIRING SHALL BE IN ACCORDANCE WITH ATT-002-290-531.
 - DC ELECTRICAL LOAD DEMAND FOR PROPOSED ADDITIONS WERE INCLUDED IN PRIOR AC LOAD CALCULATIONS.
 - ALL UPGRADES TO EXISTING SERVICE IS RESPONSIBILITY OF THE OWNER.



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REVISED/ISSUED FOR REVIEW	11/26/19	CAP	B
ISSUED FOR REVIEW	10/18/19	CAP	A

AT&T SITE NAME:
SCHREIVER AFB

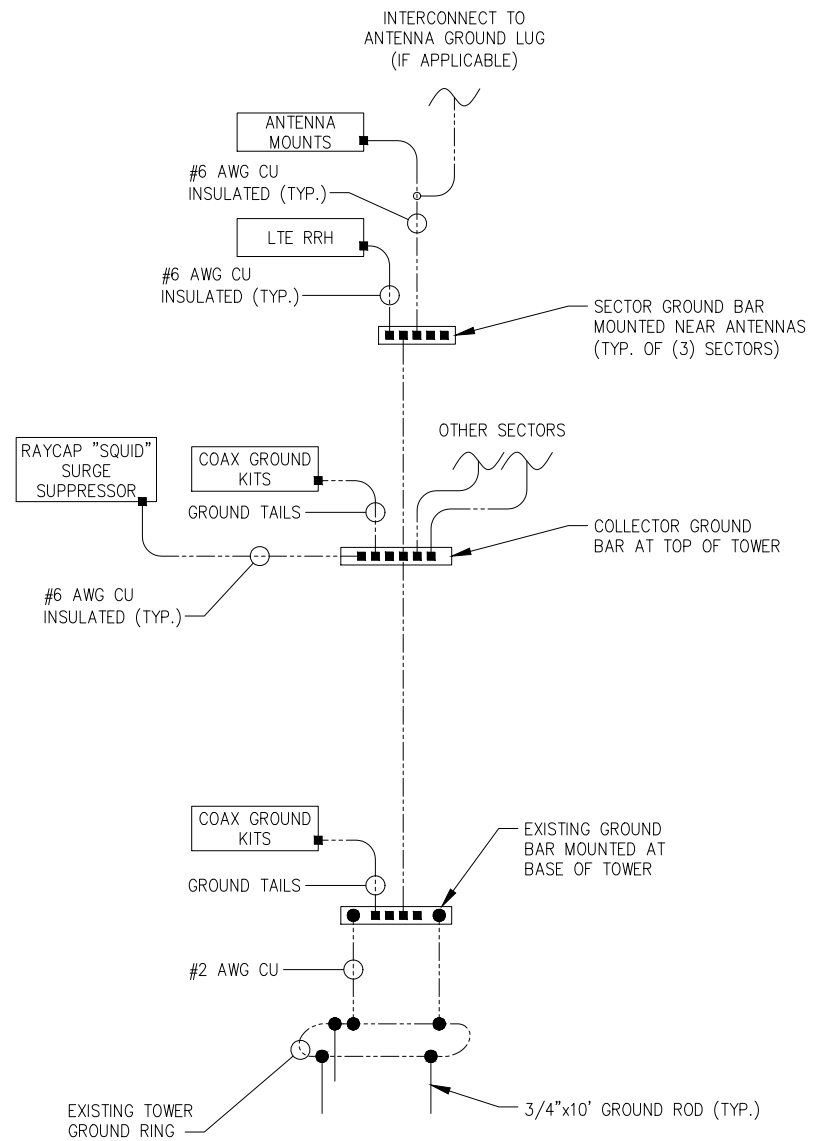
AT&T SITE NUMBER:
COL02065

AT&T FA NUMBER:
10099187

SITE ADDRESS:
**15640 HIGHWAY 94
 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
**DC SCHEMATIC
 DIAGRAM**

SHEET NUMBER:
E-1



LEGEND:

- EXOTHERMIC
- COMPRESSION TYPE CONNECTIONS
- GROUNDING CONDUCTOR

LTE BUILDING GROUNDING SCHEMATIC (TYPICAL)

NO SCALE

1

NOT USED

NO SCALE

2

PLANS PREPARED FOR:

PLANS PREPARED BY:

INFINIGY
ENGINEERING, PLLC

2500 W. HIGGINS RD, SUITE 500
HOFFMAN ESTATES, IL 60169
Office # (847) 648-4068

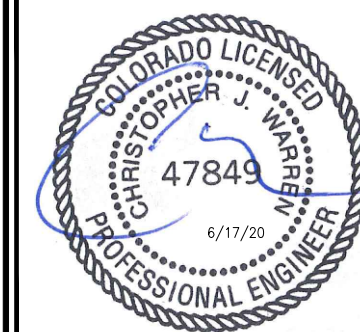
JOB NUMBER: 674-003

PROJECT MANAGER:

md7

10590 W. OCEAN AIR DRIVE, SUITE 300
SAN DIEGO, CA 92130

ENGINEERING LICENSE:



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DESCRIPTION	DATE	BY	REV
REVISED PER JX	06/12/20	CAP	1
ISSUED FOR CONSTRUCTION	04/03/20	CAP	0
REVISED/ISSUED FOR REVIEW	02/27/20	CAP	D
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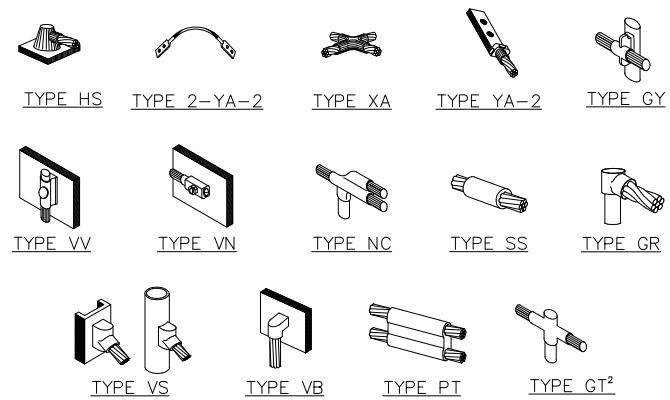
15640 HIGHWAY 94
COLORADO SPRINGS, CO 80930

SHEET DESCRIPTION:

GROUNDING SCHEMATIC
DIAGRAM

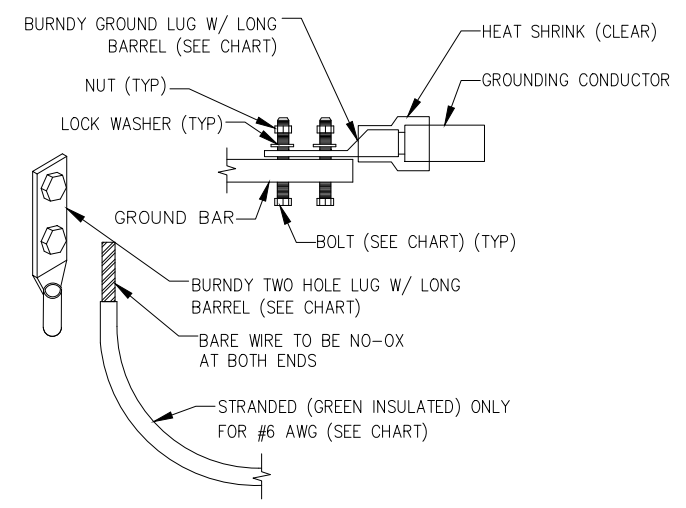
SHEET NUMBER:

G-1



NOTE:
 1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
 2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

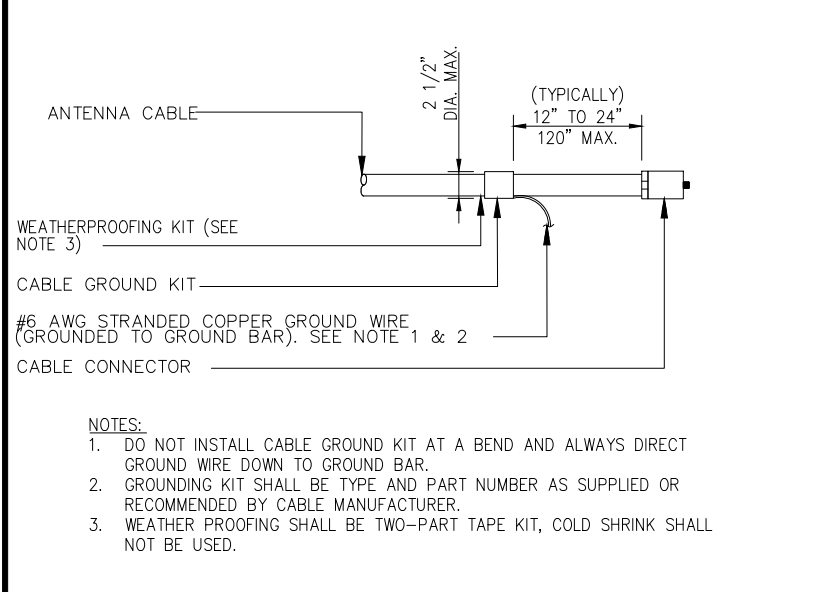
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



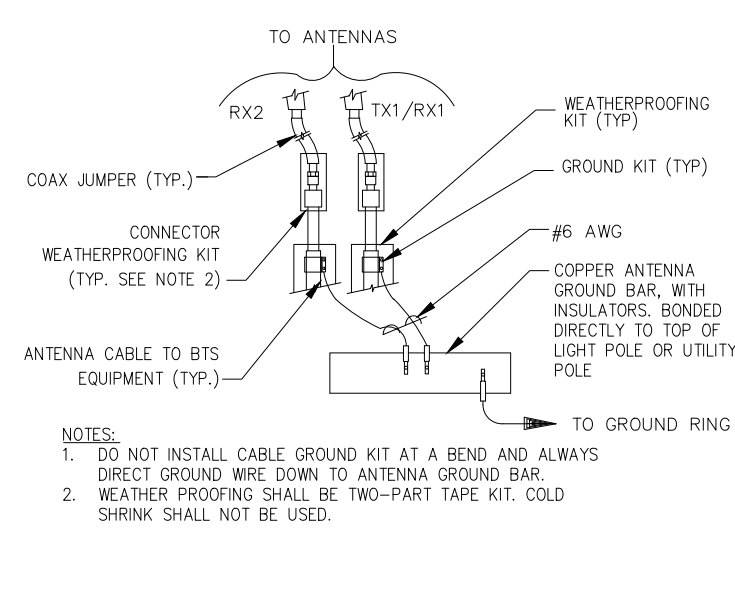
NOTES :
 1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

EXOTHERMIC WELD GROUNDING CONNECTIONS

NO SCALE 1



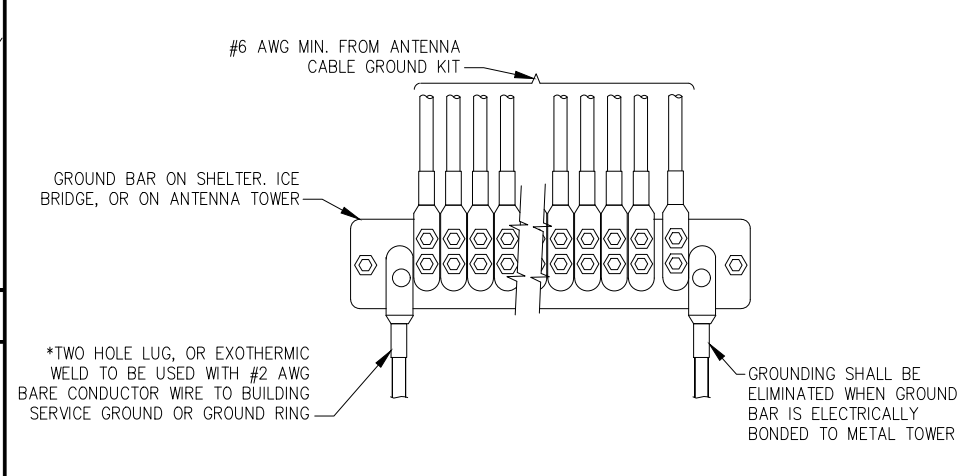
NOTES:
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.



NOTES:
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

MECHANICAL LUG CONNECTION

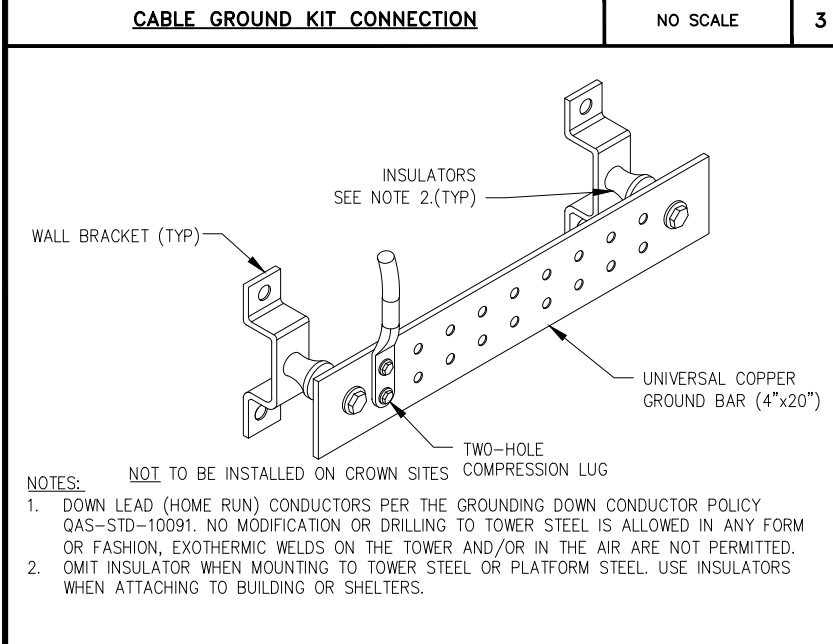
NO SCALE 2



*TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 AWG BARE CONDUCTOR WIRE TO BUILDING SERVICE GROUND OR GROUND RING

GROUND WIRE INSTALLATION

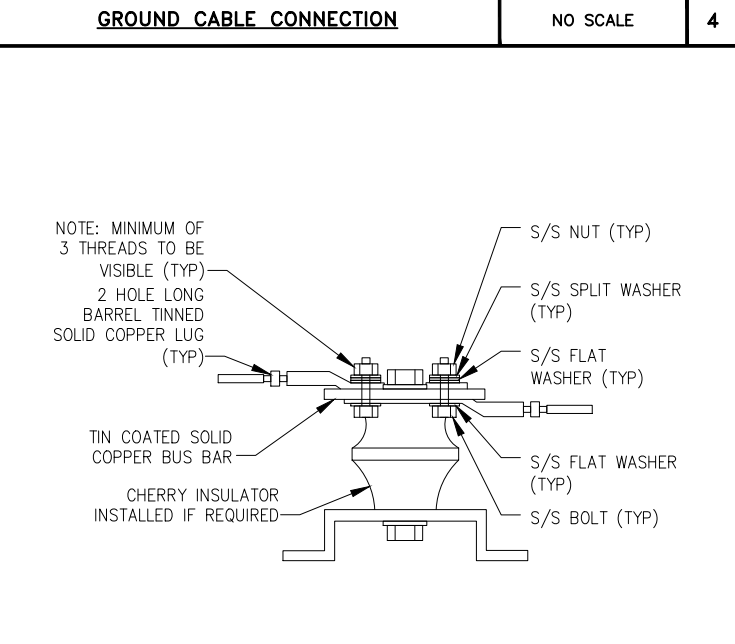
NO SCALE 5



NOTES:
 1. DOWN LEAD (HOME RUN) CONDUCTORS PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, EXOTHERMIC WELDS ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

GROUND BAR DETAIL

NO SCALE 6



LUG DETAIL

NO SCALE 7

NOT USED

NO SCALE 8

PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY ENGINEERING, PLLC
 2500 W. HIGGINS RD, SUITE 500
 HOFFMAN ESTATES, IL 60169
 Office # (847) 648-4068
 JOB NUMBER: 674-003

PROJECT MANAGER:

 10590 W. OCEAN AIR DRIVE, SUITE 300
 SAN DIEGO, CA 92130

ENGINEERING LICENSE:

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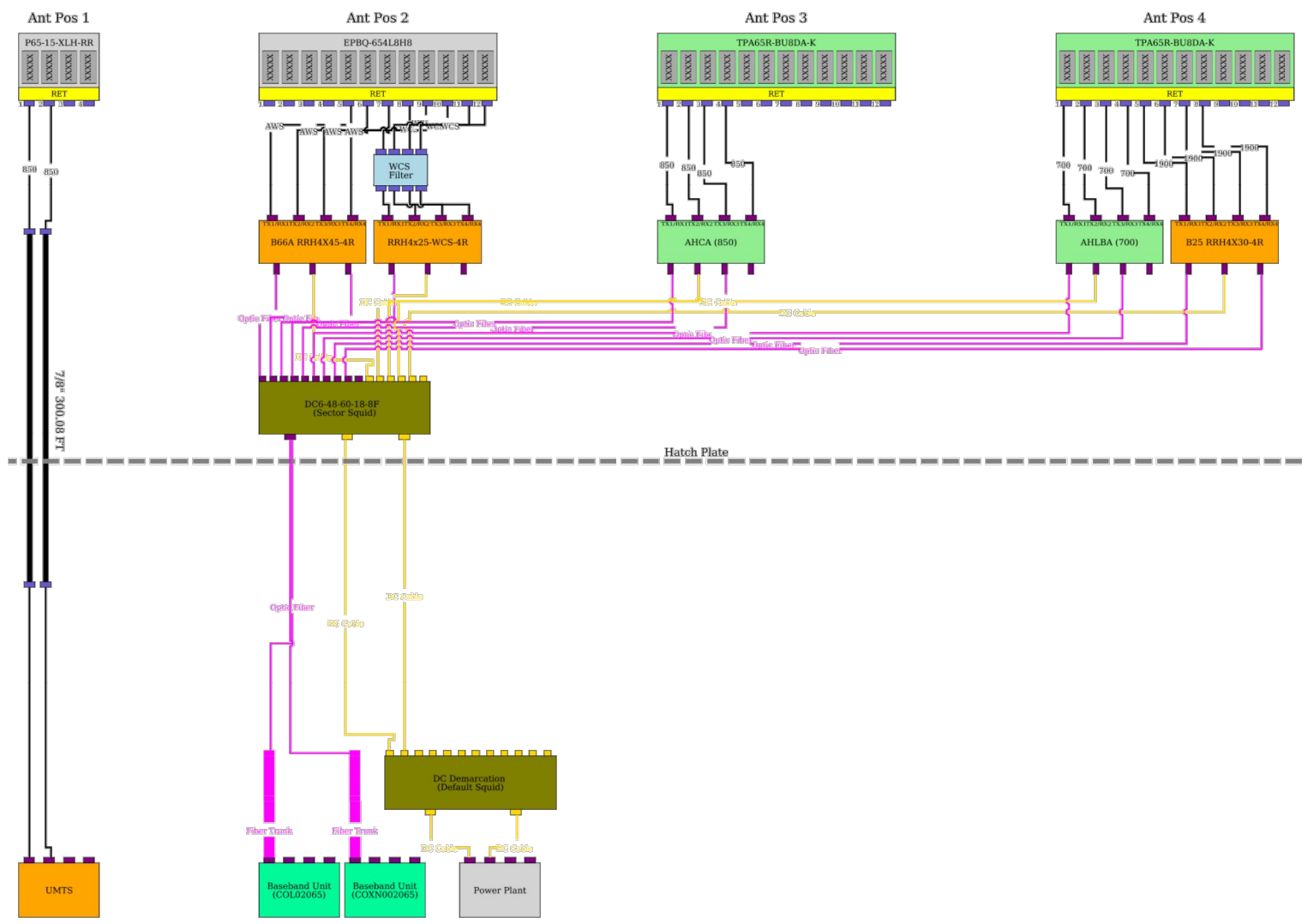
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SHEET DESCRIPTION:
GROUNDING DETAILS

SHEET NUMBER:
G-2



PLANS PREPARED FOR:

PLANS PREPARED BY:
INFINIGY
 ENGINEERING, PLLC
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SITE ADDRESS:
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 COLORADO SPRINGS, CO 80930**

SHEET DESCRIPTION:
PLUMBING DIAGRAM

SHEET NUMBER:
RF-1