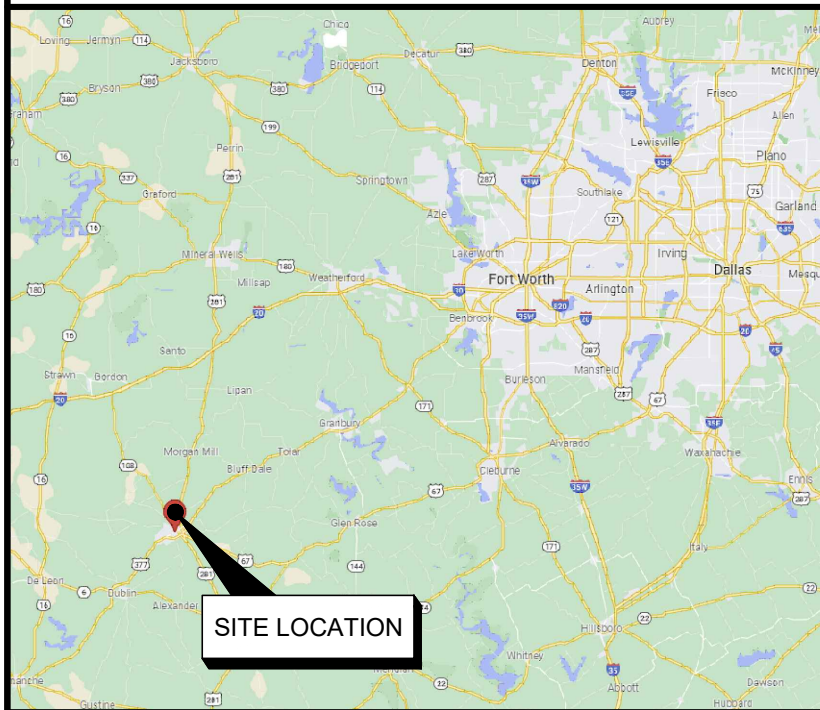


GENERAL NOTES

1. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTORS SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
2. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
3. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
5. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
6. THE SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
7. THE SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
8. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWING MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. ALL SAFETY PRECAUTIONS MUCH BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

LOCATION MAP



HANDICAP REQUIREMENTS

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED.

PLUMBING REQUIREMENTS

FACILITY HAS NO SANITARY OR POTABLE WATER



COVERAGE STRATEGY NSD

T-MOBILE SITE NUMBER

DA01789B

80' MONOPOLE TOWER

SBA SITE NUMBER

TX09257-A

SITE ADDRESS

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

SITE SUMMARY

SITE TYPE: PROPOSED EQUIPMENT INSTALLATION
TECHNOLOGY TYPE: COVERAGE STRATEGY
CABINET TYPE: DELTA SSC & DELTA BATTERY CABINET
BACKHAUL TYPE: NOT REQUIRED

SITE ADDRESS: 580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

SITE LATITUDE: N 32.222124'
SITE LONGITUDE: W -98.208694'

JURISDICTION: ----

POWER COMPANY: ONCOR

TELEPHONE COMPANY: ----

TOWER OWNER/MANAGER: SBA COMMUNICATION CORPORATION
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487
PHONE: (800) 827-5722

WIRELESS CARRIER: T-MOBILE
CONTACT: NOT PROVIDED
PHONE: NOT PROVIDED

PERMITTING AGENT: SBA COMMUNICATION CORPORATION
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487
PHONE: (800) 827-5722

ENGINEER: SMW ENGINEERING
730 E. PARK BLVD SUITE 204
PLANO, TX 75074
CONTACT: JUDSON C SOMMERVILLE, PE
PHONE: (205) 283-5720

BUILDING CODES

ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE (AS ADOPTED BY LOCAL JURISDICTION):

- INDUSTRIAL CODE (ANSI)
- OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA)
- NATIONAL ELECTRICAL CODE
- INTERNATIONAL BUILDING CODE
- UNIFORM MECHANICAL CODE
- INTERNATIONAL ENERGY CONSERVATION CODE

APPROVALS

DEPARTMENT	NAME/SIGNATURE	DATE
DEVELOPMENT MANAGER		
PROPERTY/TOWER OWNER		
SITE ACQUISITION MANAGER		
CONSTRUCTION MANAGER		
RF ENGINEER		
OPERATIONS MANAGER		

PROJECT SCOPE

THE PROPOSED PROJECT SCOPE WILL CONSIST OF CONSTRUCTING A NEW TELECOMMUNICATIONS BASE STATION INSTALLATION ON AN EXISTING TOWER SITE. THE PROPOSED CONSTRUCTION WILL INCLUDE THE INSTALLATION OF ANTENNA, RADIOS, CABLES AND RELATED EQUIPMENT ON THE TOWER AS WELL AS THE RADIOS, CABINETS, UTILITIES AND ANCILLARY EQUIPMENT ON THE GROUND.

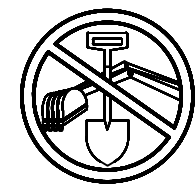
SHEET INDEX

T-1	TITLE SHEET
C-1	OVERALL SITE PLAN
C-1.1	PROPOSED ENLARGED EQUIPMENT PLAN
C-2	TOWER ELEVATION & ANTENNA PLAN
C-2.1	MOUNT DETAIL
C-3	RFDS
C-4	RFDS
C-5	RFDS PLUMBING DIAGRAM
C-6	ICE BRIDGE DETAILS
C-7	CONCRETE FOUNDATION DETAILS & NOTES
C-8	EQUIPMENT DETAILS
C-9	PPC DETAILS
C-10	EROSION CONTROL DETAILS
C-11	EROSION CONTROL SPECIFICATIONS
E-1	ONE-LINE DIAGRAM
E-2	ELECTRICAL UTILITY PLAN
E-3	GROUNDING PLAN
E-4	EQUIPMENT CONDUIT DETAIL
E-5	EQUIPMENT SCHEMATIC
E-6	ELECTRICAL & GROUNDING DETAILS



By ABaxley at 7:45:26 AM, 2/15/2022

ONE CALL



TEXAS ONE-CALL
STATE WIDE CALL: 811
CALL BEFORE YOU DIG



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

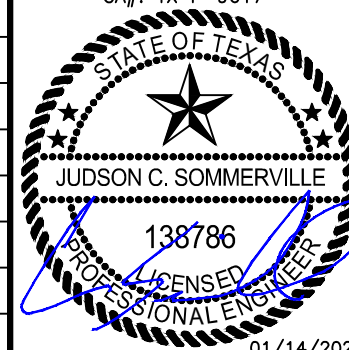


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
TITLE SHEET

SMW #: 19-10142	DESIGNER: --	SHEET NUMBER: T-1
CHECKED BY: JE	ENGINEER: JCS	

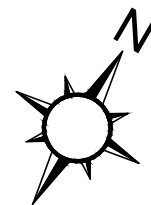
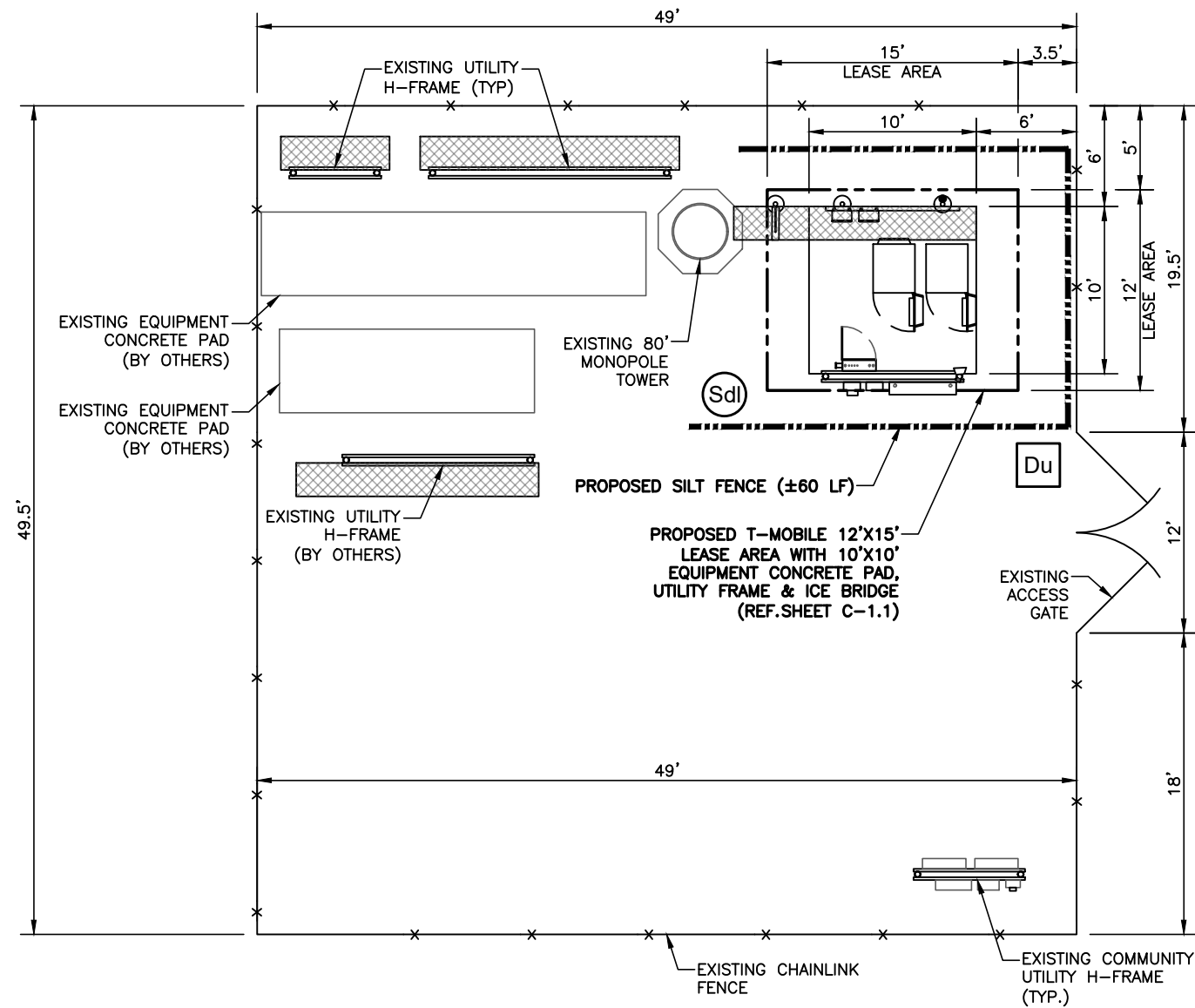
SUBJECT PROPERTY IS LOCATED IN PANEL #48237C0308A, DATED 02/12/2021 WHICH IS IN BASE FLOOD ZONE "X" AND IS NOT A SPECIAL FLOOD HAZARD AREA PER FEMA.

UTILITY NOTE:
THERE ARE NOT ANY EXISTING STORM OR SANITARY SEWER LINES OR BURIED UTILITIES ON THE PARENT TRACK WITHIN THE VICINITY OF THE PROPOSED CONSTRUCTION.

TRENCHING NOTE:
DIGGING AND/OR TRENCHING INSIDE COMPOUND, MUST BE DONE BY HAND.

(Sdl) TYPE C SEDIMENT BARRIER – TO PREVENT ANY SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE & ENTERING NATURAL DRAINAGE AREAS OR STORM DRAINAGE SYSTEMS.

[Du] DISTURBED AREA DUST CONTROL – TO CONTROL THE SURFACE AND AIR MOMENT OF DUST ON CONSTRUCTION SITES, ROADWAYS, AND SIMILAR SITES.



1 OVERALL SITE PLAN
SCALE: 1" = 10'
10' 0' 5' 10'

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

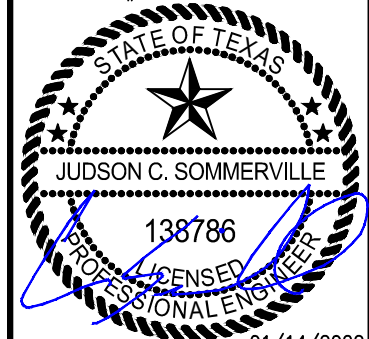


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
OVERALL SITE PLAN

SMW #: 19-10142
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

SHEET NUMBER:
C-1

CONCRETE PAD NOTES:
 1. ALL CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF $f_c' = 3000$ PSI WITH COMMERCIAL GRADE FIBER MESH REINFORCEMENT 1.5# PER CU. YARD

TRENCHING NOTE:
 DIGGING AND/OR TRENCHING INSIDE COMPOUND, MUST BE DONE BY HAND.

PROPOSED T-MOBILE 12'X15' LEASE AREA WITH 10'X10' EQUIPMENT PAD AND UTILITY FRAME

PROPOSED T-MOBILE UTILITY H-FRAME (REF. SHEET C-6)

PROPOSED T-MOBILE METER W/ 200A DISCONNECT (TYP)

PROPOSED T-MOBILE TELCO CIENA (TYP)

PROPOSED T-MOBILE TELCO CABINET (TYP)

PROPOSED T-MOBILE ICE BRIDGE (15± LF) (REF. SHEET C-1 FOR FULL ROUTE) (REF. SHEET C-6 FOR DETAIL)

12.0' LEASE AREA

PROPOSED (2) HCS 2.0 HYBRID CABLE TRUNKS

PROPOSED (2) HCS 2.0 JUNCTION BOX ON UNISTRUT FRAME (TYP)

PROPOSED T-MOBILE 200A PPC (REF. SHEET C-9)

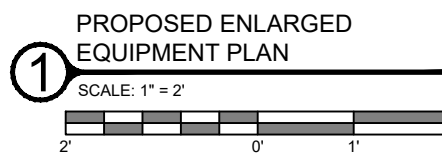
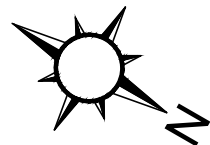
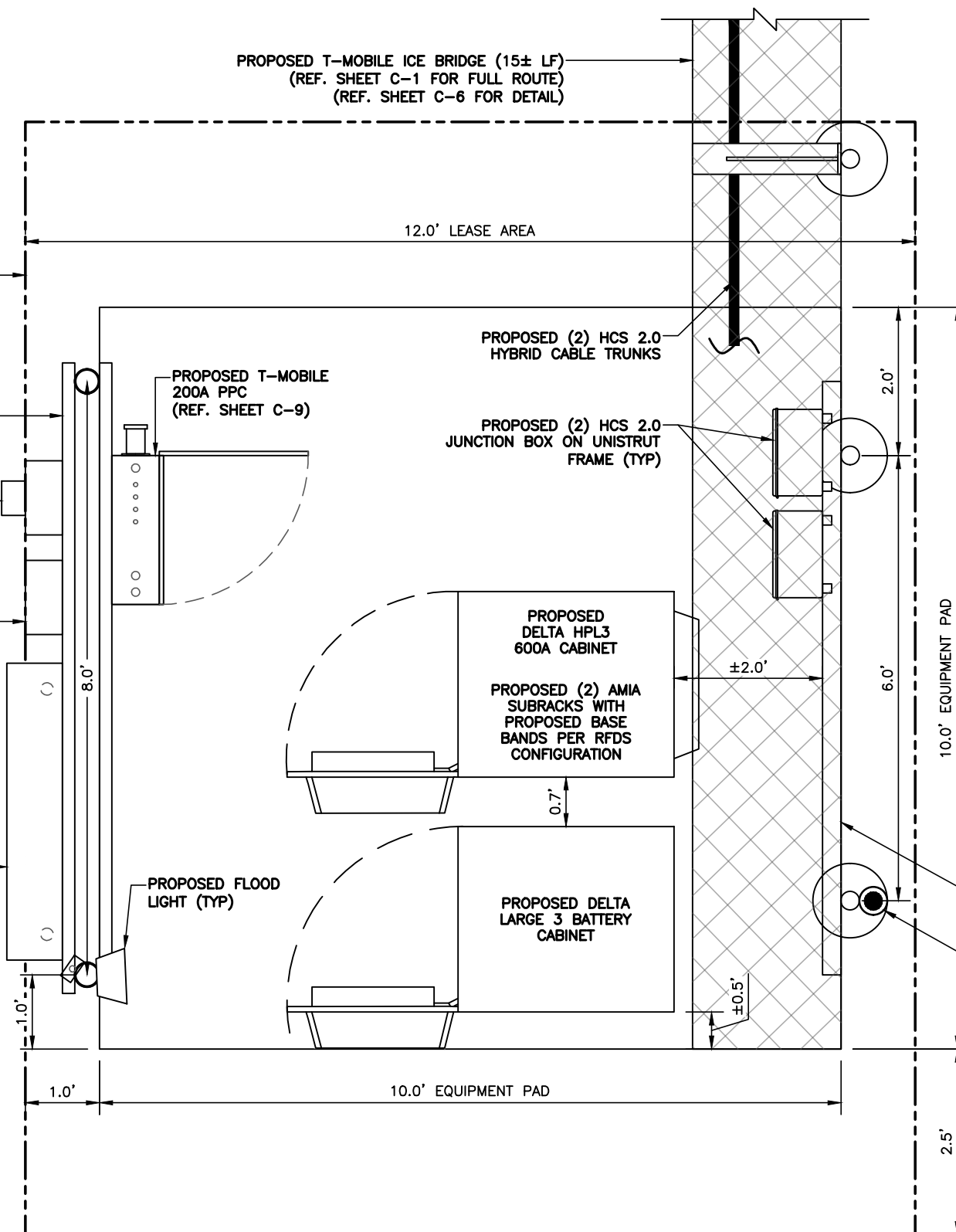
PROPOSED DELTA HPL3 600A CABINET
 PROPOSED (2) AMIA SUBRACKS WITH PROPOSED BASE BANDS PER RFDS CONFIGURATION

PROPOSED DELTA LARGE 3 BATTERY CABINET

PROPOSED FLOOD LIGHT (TYP)

PROPOSED UNISTRUT FRAME ON PROPOSED ICE BRIDGE POSTS (TYP)

PROPOSED GPS ANTENNA TO BE MOUNTED ON PROPOSED ICE BRIDGE POST



T-Mobile

7668 WARREN PARKWAY
 FRISCO BRIDGES TECH CAMPUS
 FRISCO, TX 75034

PLANS PREPARED FOR:

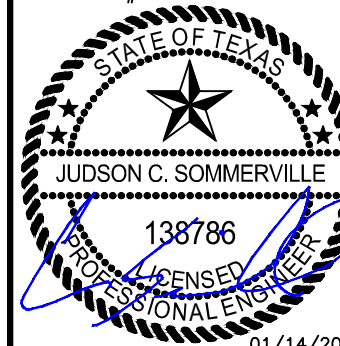


8051 CONGRESS AVE
 BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
 STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID:
 DA01789B

SBA SITE ID:
 TX09257-A

SHEET NAME:

PROPOSED ENLARGED EQUIPMENT PLAN

SMW #:
 19-10142

SHEET NUMBER:

C-1.1

DESIGNER: --
 CHECKED BY: JE
 ENGINEER: JCS

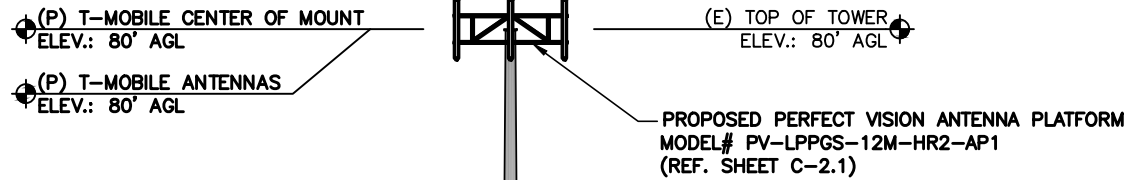
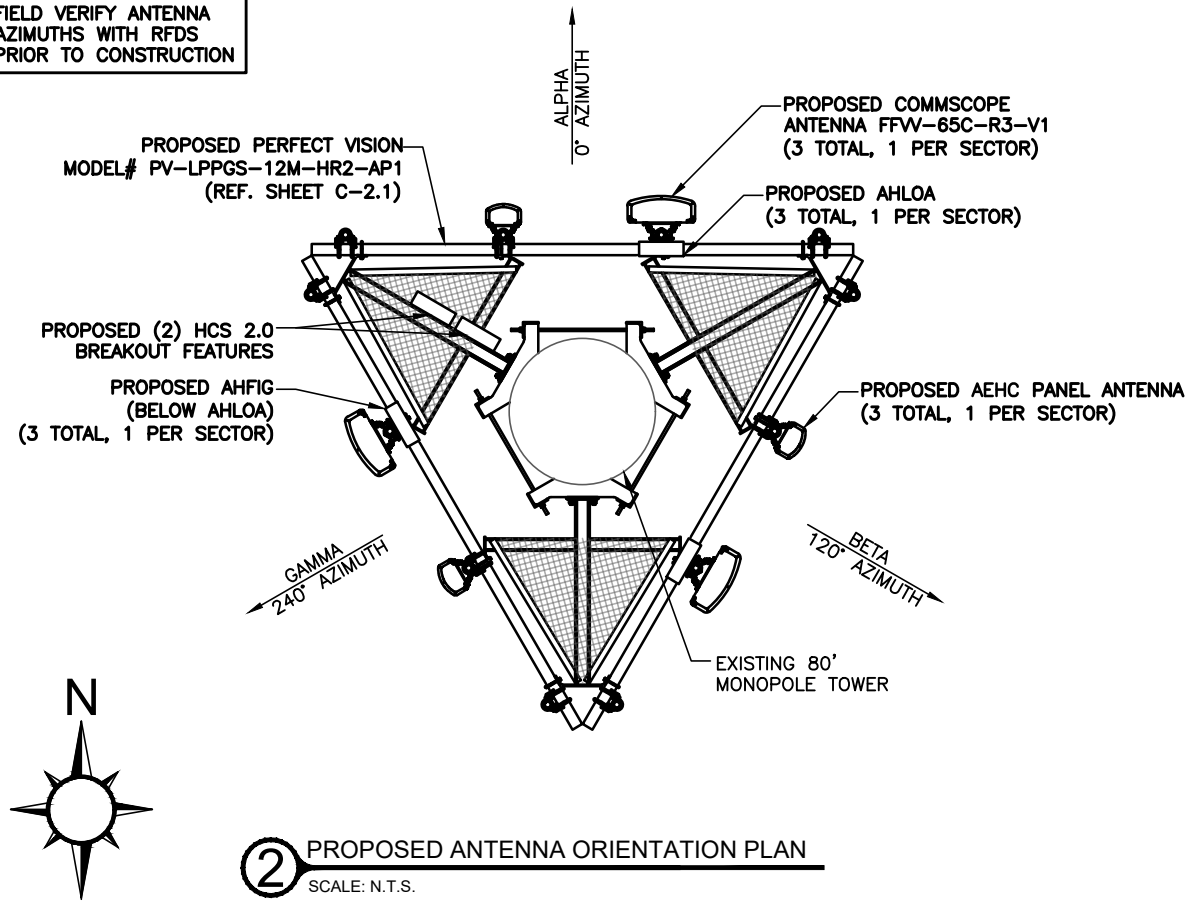
STRUCTURAL NOTES:

- SMW HAS NOT PERFORMED A STRUCTURAL ANALYSIS OF THE EXISTING TOWER OR ANTENNA MOUNT. REFER TO STRUCTURAL ANALYSIS OR STRUCTURAL LETTER BY OTHERS FOR ADDITIONAL INFORMATION.
- IF THE TOWER STRUCTURAL ANALYSIS SHOWS THE NEED FOR TOWER REINFORCEMENT REFER TO TOWER REINFORCEMENT DESIGN PRIOR TO THE INSTALLATION OF ANY PROPOSED EQUIPMENT.
- REFER TO TOWER STRUCTURAL ANALYSIS FOR PROPOSED CABLE ROUTING AND ATTACHMENT DETAILS.
- TOWER ELEVATION SHOWN IS NOT DRAWN TO SCALE AND IS INTENDED ONLY FOR REFERENCE PURPOSES. REFER TO ORIGINAL TOWER DESIGN FOR ADDITIONAL INFORMATION.

ANTENNA NOTES:

- THE PRE-APPLICATION & LEASE DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
- CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH T-MOBILE PCS PM.
- CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF MICROWAVE DISHES WITH T-MOBILE PROJECT MANAGER (WHEN APPLICABLE).
- ALL ANTENNA AZIMUTHS TO BE FROM MAGNETIC NORTH.
- CONTRACTOR TO USE EXISTING ANTENNA TOP HAT.

AZIMUTH NOTE:
FIELD VERIFY ANTENNA AZIMUTHS WITH RFDS PRIOR TO CONSTRUCTION



PROPOSED (2) HCS 2.0 TRUNK W/ BREAKOUT FEATURE

EXISTING 80' MONOPOLE TOWER

TOWER MODIFICATION NOTE: MODIFICATION AND DESIGN DRAWINGS FOR EXISTING MONOPOLE TOWER PERFORMED BY TOWER ENGINEERING SOLUTIONS, DATED 12/21/2021. CONTRACTOR SHALL VERIFY TOWER MODIFICATION COMPLETE PRIOR TO INSTALLATION OF ANY NEW EQUIPMENT. NO NEW EQUIPMENT SHALL BE INSTALLED PRIOR TO TOWER MODIFICATION.

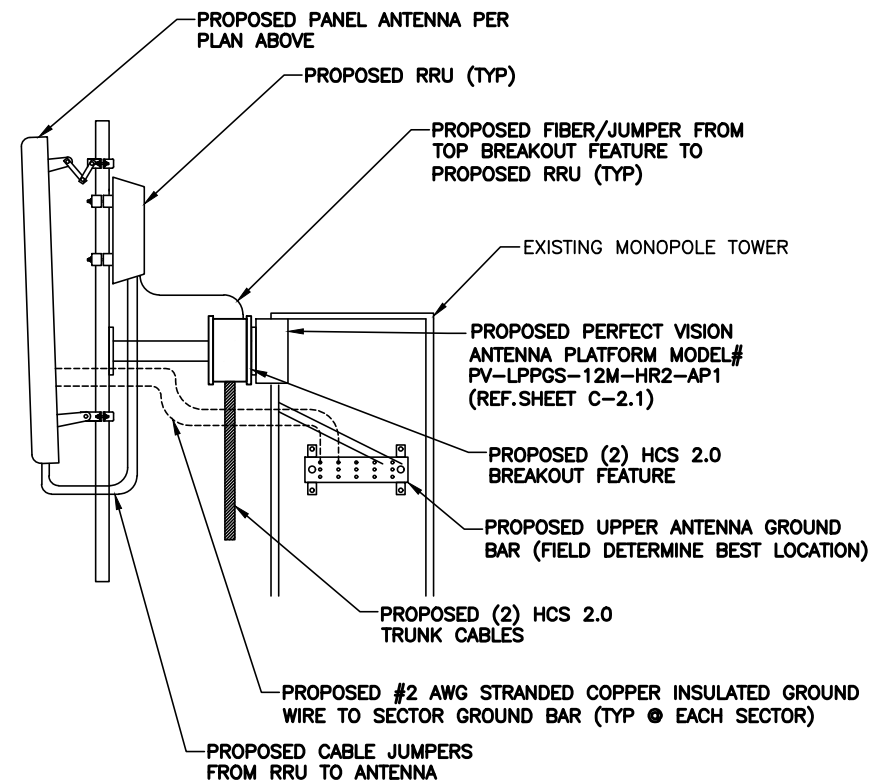
POST-MOD SA NOTE: POST-MOD STRUCTURAL ANALYSIS PERFORMED BY TOWER ENGINEERING SOLUTIONS, DATED 12/17/2021. REFER TO POST-MOD STRUCTURAL ANALYSIS FOR COAX ROUTING REQUIREMENTS.

PASSING MOUNT ANALYSIS NOTE: PASSING MOUNT ANALYSIS PERFORMED BY TOWER ENGINEERING SOLUTIONS, DATED 11/15/2021. REFER TO MOUNT ANALYSIS FOR STRUCTURAL INTEGRITY OF MOUNTS UNDER NEW LOADING.

EXISTING ANTENNAS NOTE: EXISTING ANTENNAS OTHER THAN T-MOBILE OMITTED FOR CLARITY

1 TOWER ELEVATION
SCALE: N.T.S.

(E) GROUND ELEVATION
ELEV.: 0'-0" AGL



3 UMTS AND LTE ANTENNA MOUNT DETAIL
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

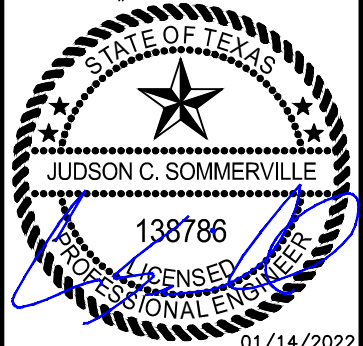


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID:
DA01789B

SBA SITE ID:
TX09257-A

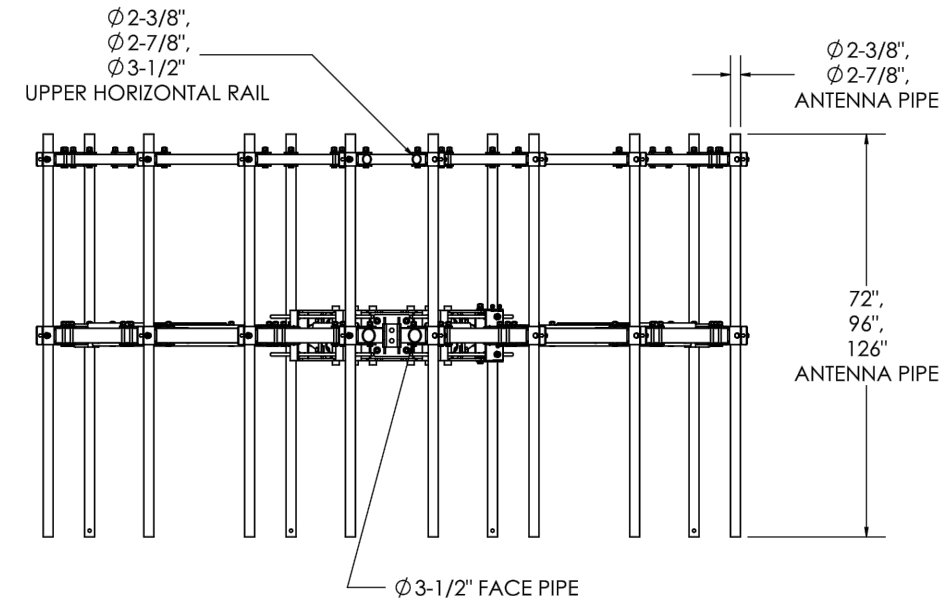
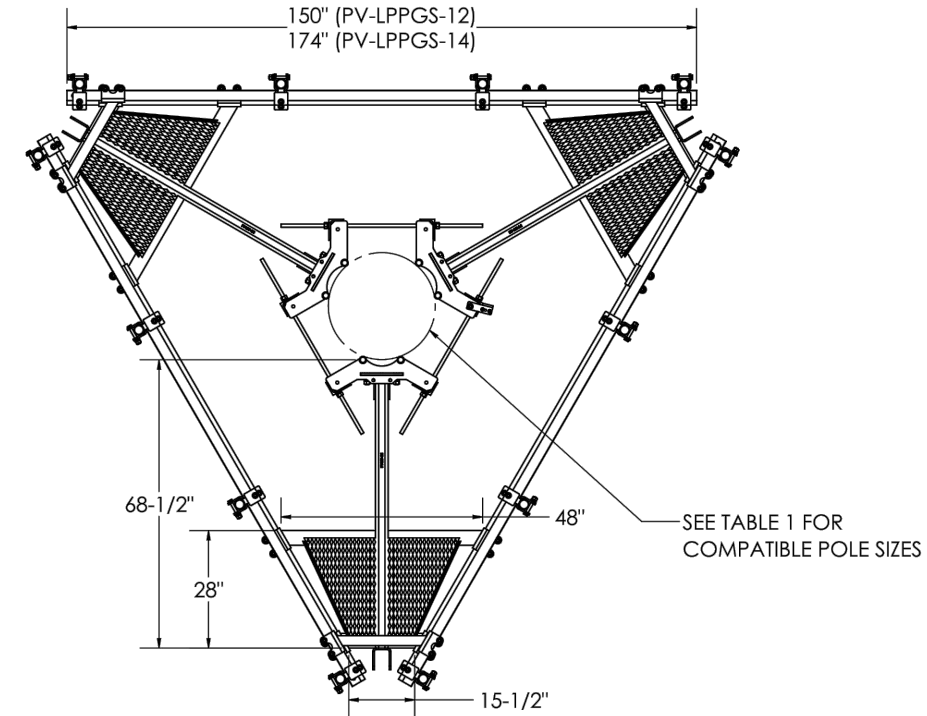
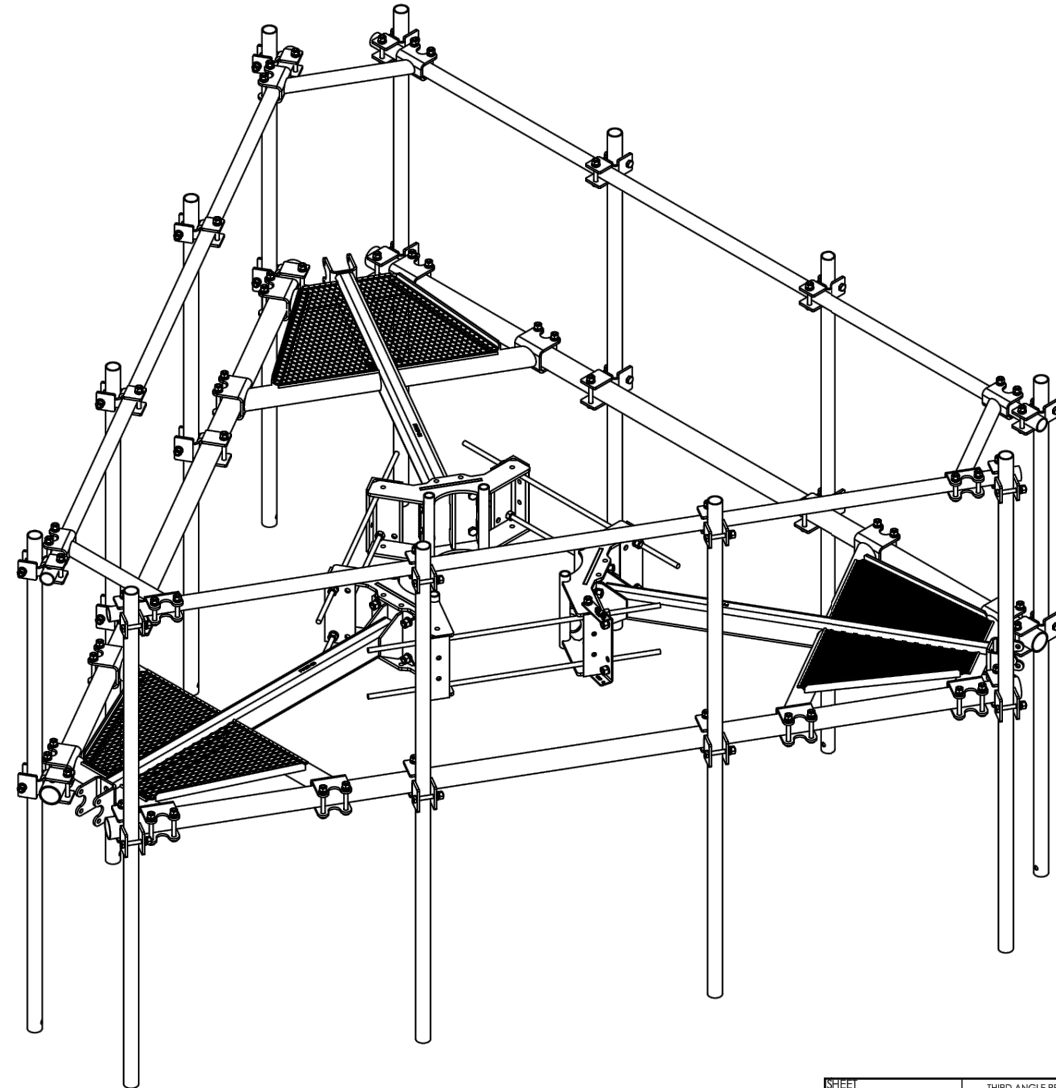
SHEET NAME:
TOWER ELEVATION & ANTENNA PLAN

SMW #:
19-10142
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

SHEET NUMBER:
C-2

PV-LPPGS MONOPOLE GUARDIAN MOUNT

SEE SHEET 2 - TABLE 1 FOR FULL CONFIGURATION DETAILS



SHEET 1 OF 13	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4	ADDED PKBK VIEWS, ORGANIZED ACC	11/11/19	PERFECT VISION
11/8/2019	SCALE 1:36	SERIES 01_Triangular	3	ACC UPDATE	8/27/19	
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN MOUNT	2	MASTER PART # UPDATE	8/22/19	MONOPOLE GUARDIAN MOUNT
		BY DJN	1	FULL RELEASE	8/14/19	DOCUMENT NUMBER LPPGS-ENG-01-R4
		CHECKED SJS	0	INITIAL RELEASE	1/16/19	REV 4
		STATUS APPROVED	REV	DESCRIPTION	DATE	

C:\PMS\Steel\Catalog\SMW Working Files\Engineering Details

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PERFECTVISION MFG. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PERFECTVISION MFG IS PROHIBITED.

1 MOUNT DETAIL
SCALE: N.T.S.

DETAILS BY OTHERS NOTE:
DETAILS SHOWN ON THIS PAGE WERE PROVIDED BY OTHERS AND ARE NOT CARRIED UNDER THE SIGNATURE AND SEAL OF SMW AND/OR IT'S ENGINEERS.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

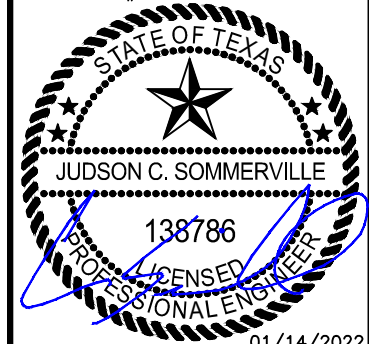


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID:
DA01789B

SBA SITE ID:
TX09257-A

SHEET NAME:
MOUNT DETAIL

SMW #: 19-10142	SHEET NUMBER: C-2.1
DESIGNER: --	
CHECKED BY: JE	
ENGINEER: JCS	

1/25/22, 2:29 PM

DA01789B_Coverage Strategy_1_2022-01-25

RAN Template: 56790EZ_SR_T
A&L Template: 56790EZ_SR_T

DA01789B_Coverage Strategy_1

Print Name: Standard (2)
PORs: Coverage Strategy_Small-Scale Coverage Enhancement

Section 1 - Site Information

Site ID: DA01789B
Status: Final
Version: 1
Project Type: Coverage Strategy
Approved: 1/7/2022 7:28:02 AM
Approved By: Bahadur.Merawat1@T-Mobile.com
Last Modified: 1/7/2022 7:28:02 AM
Last Modified By: Bahadur.Merawat1@T-Mobile.com

Site Name: SBA Stephenville
Site Class: Monopole
Site Type: Structure Non Building
Plan Year: 2020
Market: DALLAS TX
Vendor: Nokia
Landlord: SBA

Latitude: 32.22211600
Longitude: -98.20870300
Address: 580 W Vanderbilt St
City, State: Stephenville, TX
Region: SOUTH

RAN Template: 56790EZ_SR_T	AL Template: 56790EZ_SR_T
Sector Count: 3	Antenna Count: 6
Coax Line Count: 0	TMA Count: 0
	RRU Count: 6

1/25/22, 2:29 PM

DA01789B_Coverage Strategy_1_2022-01-25

Proposed RAN Equipment				
Template: 56790EZ_SR_T				
Enclosure	1	2	3	4
Enclosure Type	Generic 600A Site Support Cabinet	Tower Top Mount (Nokia)	Ancillary Equipment (Nokia)	Generic Battery Cabinet for 600A SSC
Baseband	ASIB (L1900, L700, L600, L2100) ASIL (N2500) ASIB (L2500) FSMF (G1900) N1900 (DARK) N2100 (DARK)			
Baseband Submodule	ABIA (x 2) (L1900, L2100) ABIA (L700, L600) ABIC (x 3) (L2500) ABIO (N600, N1900 (DARK), N2100 (DARK)) ABIO (N2500)			
Baseband Subrack	AMIA (x 2)			
Hybrid Cable System	Extra Amplifier for PowerPlus Voltage Booster Voltage Booster PowerPlus w/ 2 Amplifier Raycap	Nokia HCS 2.0 Jumper Cable Airscale *Select Length* (x 9)	Nokia HCS 2.0 Trunk *Select Length* (x 2)	
Junction Box			Nokia HCS 2.0 Tower Junction Box (x 2)	
Power subsystem	Rectifier Shelf *Select size* Breakers *Select size*			Batteries *Select size*
Radio		AHLOA (x 3) (L700, L600, N600) AHFIG (x 3) (L1900, L2100, G1900, N1900 (DARK), N2100 (DARK))		
Transport System	CSR IXRe V2 (Gen2)			

RAN Scope of Work:

01/03/2021: RFDS revised with updated 5G baseband cards,
7/7/2021
RFDS redesigned with Anchor config.

Equipment on top:
(3) FFVV-65C- R3-V1+ (3) AEHC
(3) AHFIG + (3) AHLOA
(2) HCS 2.0 trunk
(9) HCS 2.0 jumpers

Note
(3) AHFIG + (3) AHLOA will connect to 1st HCS 2.0, which will need a Voltage booster.
(3) AEHC will connect to 2nd HCS 2.0

TX/RX frequencies:
Block - 600 Downlink (MHz) Uplink (MHz)
B. C. D. E 622-642 668-688
Block - 700 Downlink (MHz) Uplink (MHz)
A 729-734 699-704
Block - PCS Downlink (MHz) Uplink (MHz)
B3_B4 1950-1960 1870-1880
Block - AWS Downlink (MHz) Uplink (MHz)
D.F 2135-2140, 2145-2155 1735-1740, 1745-1755
Anchor Downlink (MHz) Uplink (MHz)
2496 - 2690 2496 - 2690

DETAILS BY OTHERS NOTE:
DETAILS SHOWN ON THIS PAGE WERE PROVIDED BY OTHERS AND ARE NOT CARRIED UNDER THE SIGNATURE AND SEAL OF SMW AND/OR IT'S ENGINEERS.



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

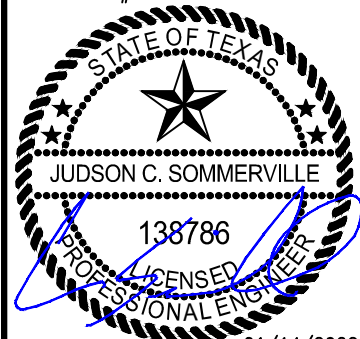


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B
SBA SITE ID: TX09257-A

SHEET NAME:
RFDS

SMW #: 19-10142
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

SHEET NUMBER:
C-3



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

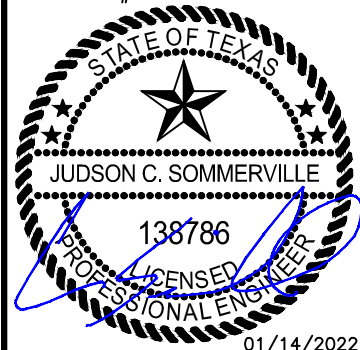


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B
580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: **DA01789B** SBA SITE ID: **TX09257-A**

SHEET NAME:
RFDS

SMW #: **19-10142** SHEET NUMBER: **C-4**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

1/25/22, 2:29 PM DA01789B_Coverage Strategy_1_2022-01-25
RAN Template: 56790EZ_SR_T A&L Template: 56790EZ_SR_T
DA01789B_Coverage Strategy_1
Print Name: Standard (2)
PORs: Coverage Strategy_Small-Scale Coverage Enhancement

Section 6 - A&L Equipment

Existing Template: Custom
Proposed Template: 56790EZ_SR_T

Sector 1 (Proposed) view from front (Note: the images show view from behind)					
Coverage Type	A - Outdoor Macro				
Antenna	1		2		
Antenna Model	Commscope - FFVV-65C-R3-V1 (Octo)		AEHC (Active Antenna - Massive MIMO)		
Azimuth	0		0		
M. Tilt	0		0		
Height	80		80		
Ports	P1	P2	P3	P4	P5
Active Tech.	L700 L600 N600	L700 L600 N600	L1900 L2100 G1900	L1900 L2100 G1900	L2500 N2500
Dark Tech.			N1900 N2100	N1900 N2100	
Restricted Tech.					
Decomm. Tech.					
E. Tilt					
Cables					
TMA's					
Diplexers / Combiners					
Radio					
Sector Equipment					
Unconnected Equipment:					
Scope of Work:					

1/25/22, 2:29 PM DA01789B_Coverage Strategy_1_2022-01-25
RAN Template: 56790EZ_SR_T A&L Template: 56790EZ_SR_T
DA01789B_Coverage Strategy_1
Print Name: Standard (2)
PORs: Coverage Strategy_Small-Scale Coverage Enhancement

Sector 2 (Proposed) view from front (Note: the images show view from behind)

Coverage Type	A - Outdoor Macro				
Antenna	1		2		
Antenna Model	Commscope - FFVV-65C-R3-V1 (Octo)		AEHC (Active Antenna - Massive MIMO)		
Azimuth	120		120		
M. Tilt	0		0		
Height	80		80		
Ports	P1	P2	P3	P4	P5
Active Tech.	L700 L600 N600	L700 L600 N600	L1900 L2100 G1900	L1900 L2100 G1900	L2500 N2500
Dark Tech.			N1900 N2100	N1900 N2100	
Restricted Tech.					
Decomm. Tech.					
E. Tilt					
Cables					
TMA's					
Diplexers / Combiners					
Radio					
Sector Equipment					
Unconnected Equipment:					
Scope of Work:					

1/25/22, 2:29 PM DA01789B_Coverage Strategy_1_2022-01-25
RAN Template: 56790EZ_SR_T A&L Template: 56790EZ_SR_T
DA01789B_Coverage Strategy_1
Print Name: Standard (2)
PORs: Coverage Strategy_Small-Scale Coverage Enhancement

Sector 3 (Proposed) view from front (Note: the images show view from behind)

Coverage Type	A - Outdoor Macro				
Antenna	1		2		
Antenna Model	Commscope - FFVV-65C-R3-V1 (Octo)		AEHC (Active Antenna - Massive MIMO)		
Azimuth	240		240		
M. Tilt	0		0		
Height	80		80		
Ports	P1	P2	P3	P4	P5
Active Tech.	L700 L600 N600	L700 L600 N600	L1900 L2100 G1900	L1900 L2100 G1900	L2500 N2500
Dark Tech.			N1900 N2100	N1900 N2100	
Restricted Tech.					
Decomm. Tech.					
E. Tilt					
Cables					
TMA's					
Diplexers / Combiners					
Radio					
Sector Equipment					
Unconnected Equipment:					
Scope of Work:					

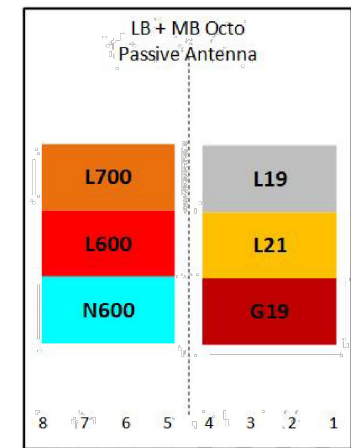
DETAILS BY OTHERS NOTE:
DETAILS SHOWN ON THIS PAGE WERE
PROVIDED BY OTHERS AND ARE NOT
CARRIED UNDER THE SIGNATURE AND
SEAL OF SMW AND/OR IT'S ENGINEERS.

1/25/22, 2:29 PM

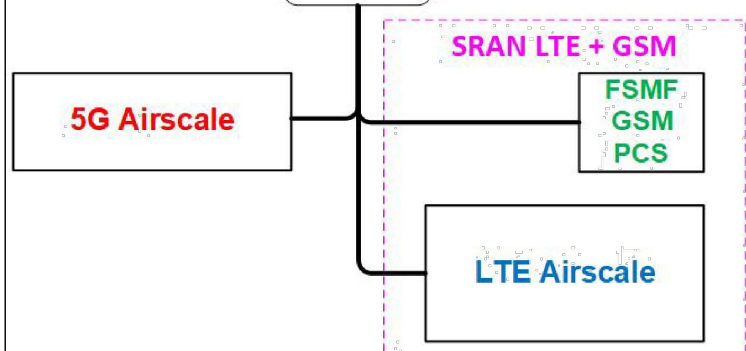
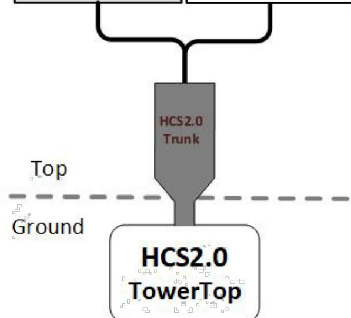
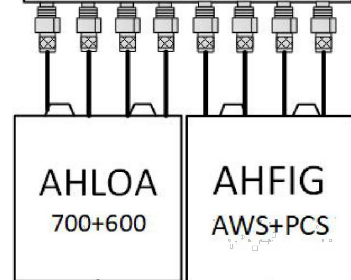
DA01789B_Coverage Strategy_1_2022-01-25

Configuration 6790S_SR (Alpha, Beta & Gamma)

*for 5G and LTE Airscale BB dimensioning refer to fiber port matrices



- Lowband**
 L700 – 5 MHz
 L600 – 10 MHz
 N600 – 10 MHz
- Midband**
 L2100 – 20 MHz
 L1900 – 20 MHz
- SRAN – GSM



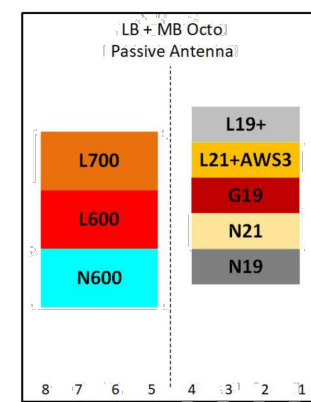
Notes:

1/25/22, 2:29 PM

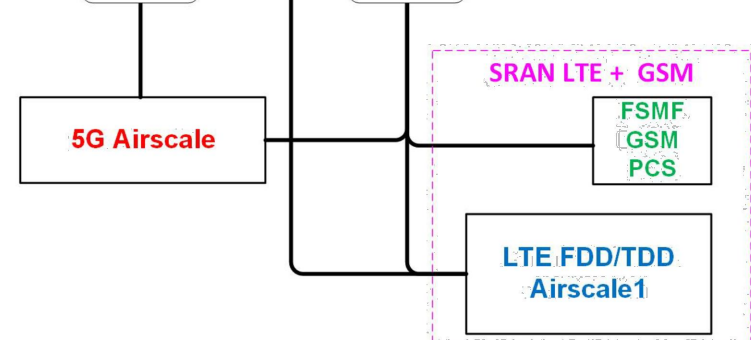
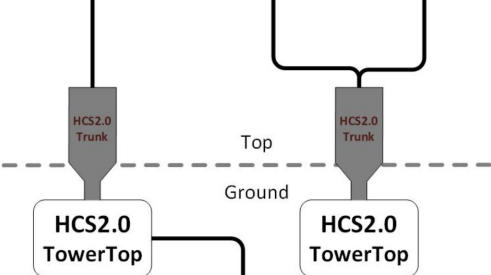
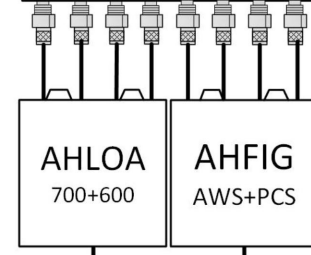
DA01789B_Coverage Strategy_1_2022-01-25

Configuration 56790EZ_SR_T

* For 5G and LTE Airscale BB dimensioning refer to Fiber Port matrices.



- FDD - Lowband**
 B12 (L700) – 5 MHz
 B71 (L600) – 10 MHz
 B71 (N600) – 15 MHz
- FDD - Midband**
 B4/B66 (L2100) – 20 MHz
 B66 (N2100) – 20MHz
 B66 (AWS3) – 5MHz
 B2 (L1900) – 20 MHz
 B25 (L1900) – 20 MHz
 B25 (N1900) – 20MHz
 SRAN – GSM PCS
- TDD - Band 41**
 L2.5(2.5GHz)– 60 MHz
 N41(2.5GHz) – 100MHz
 +2nd carrier (<=80MHz)



Notes:

DETAILS BY OTHERS NOTE:
 DETAILS SHOWN ON THIS PAGE WERE PROVIDED BY OTHERS AND ARE NOT CARRIED UNDER THE SIGNATURE AND SEAL OF SMW AND/OR IT'S ENGINEERS.



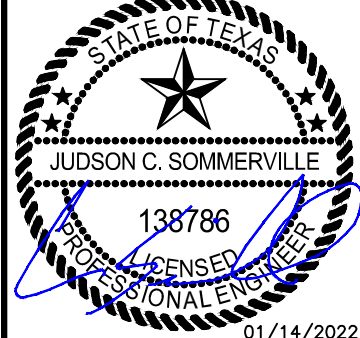
7668 WARREN PARKWAY
 FRISCO BRIDGES TECH CAMPUS
 FRISCO, TX 75034



8051 CONGRESS AVE
 BOCA RATON, FL 33487



CA#: TX F-9617



SITE INFORMATION:
 DA01789B
 580 W VANDERBILT
 STEPHENVILLE, TEXAS 76401

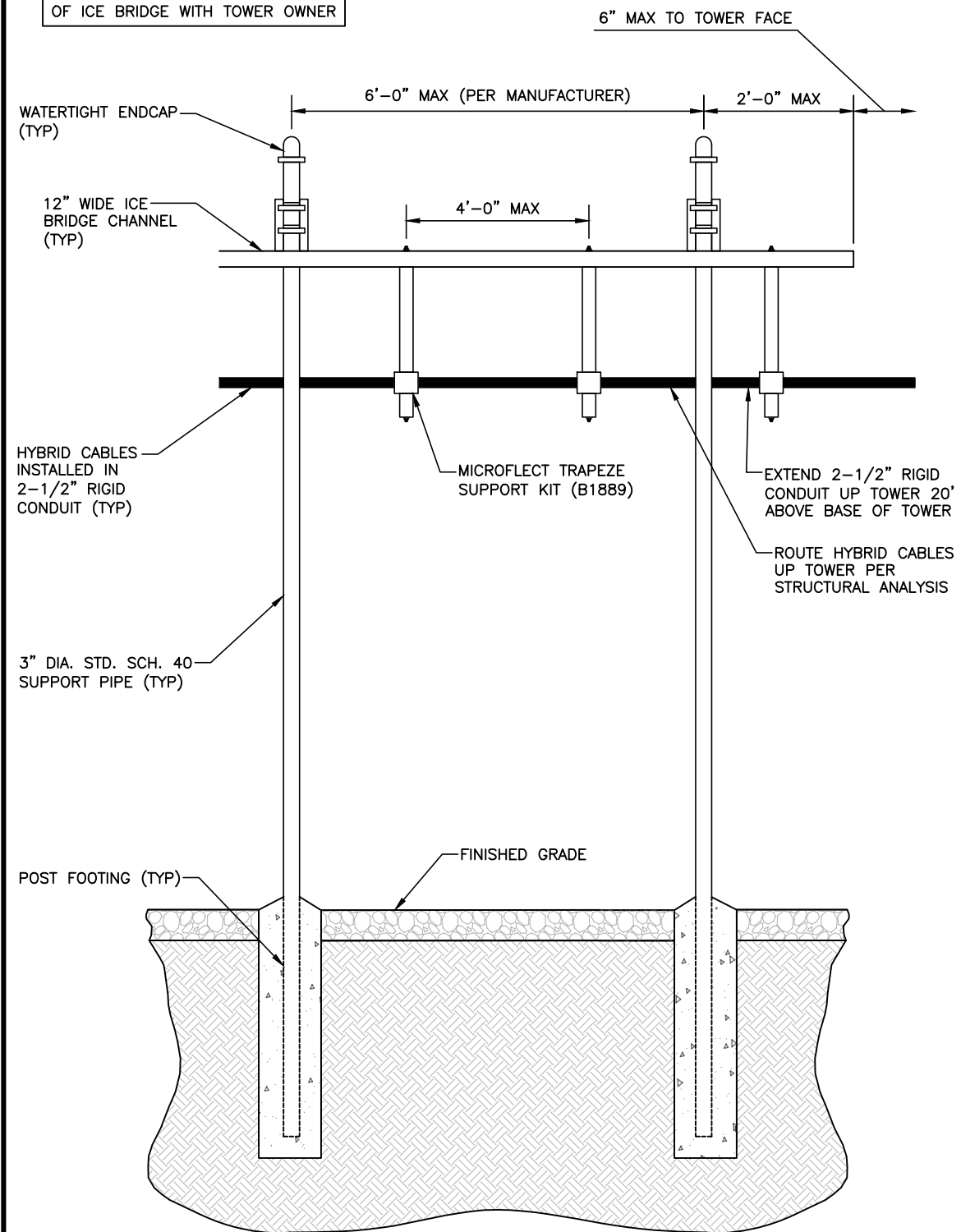
#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

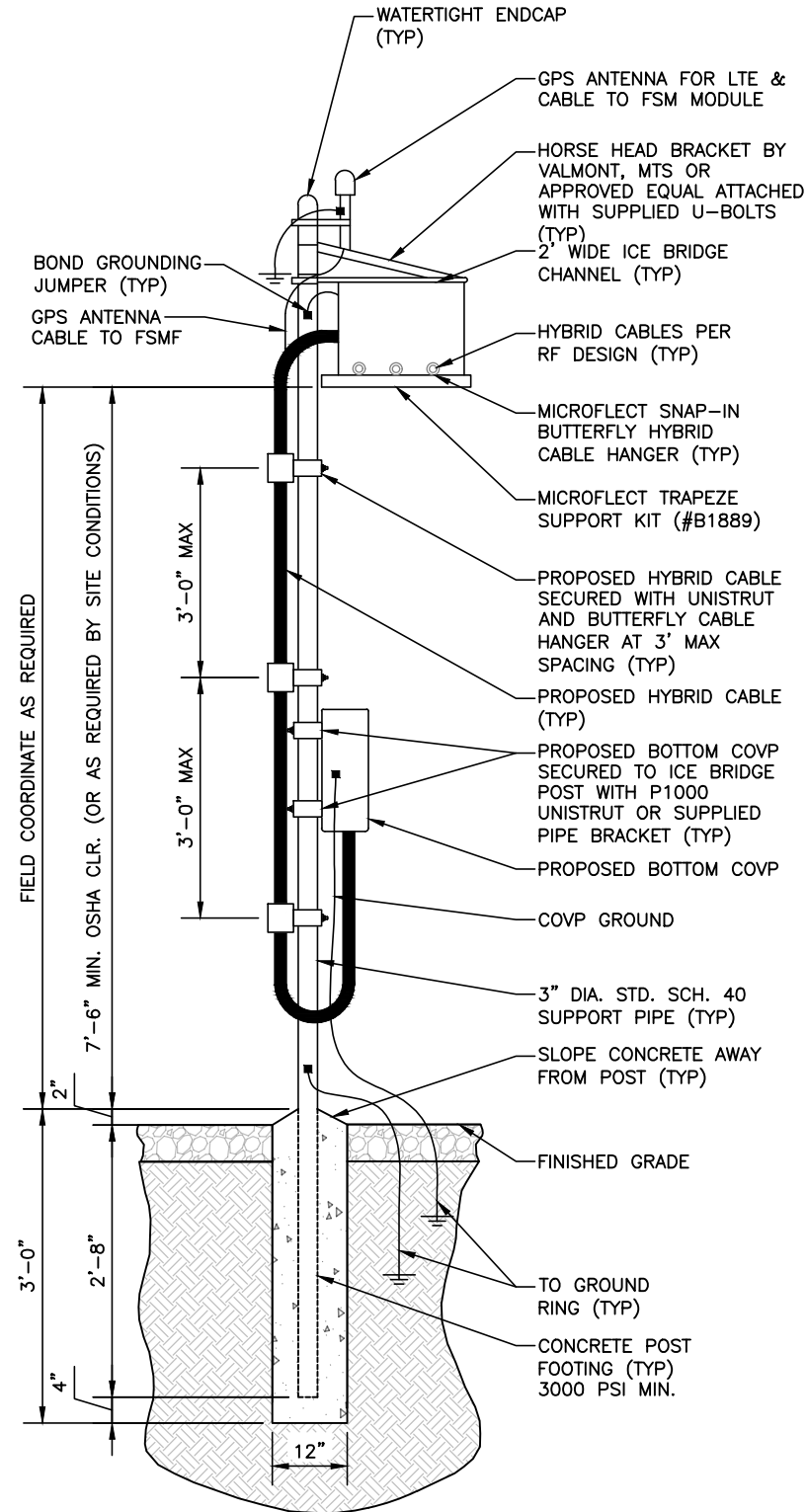
SHEET NAME: RFDS

SMW #: 19-10142 SHEET NUMBER: C-5
 DESIGNER: --
 CHECKED BY: JE
 ENGINEER: JCS

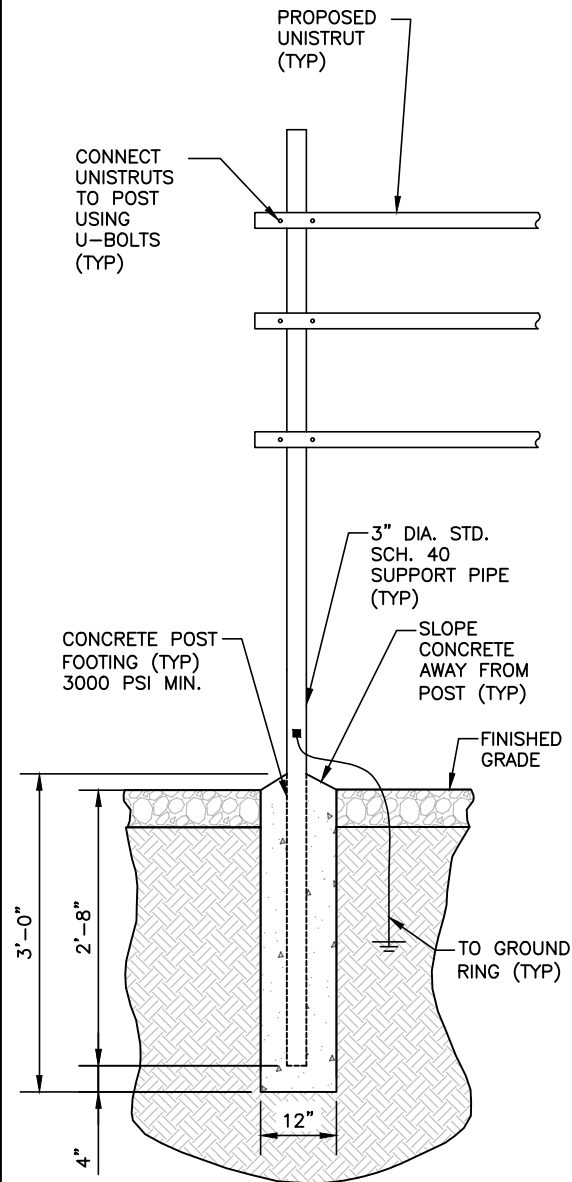
ICE BRIDGE NOTE:
PRIOR TO CONSTRUCTION FIELD
COORDINATE HEIGHT AND ROUTE
OF ICE BRIDGE WITH TOWER OWNER



1 ICE BRIDGE ELEVATION
SCALE: N.T.S.



2 ICE BRIDGE SECTION
(WITH 1 SUPPORT POST)
SCALE: N.T.S.



3 H-FRAME MOUNTING
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

8051 CONGRESS AVE
BOCA RATON, FL 33487

SMW
ENGINEERING GROUP, INC.
TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617

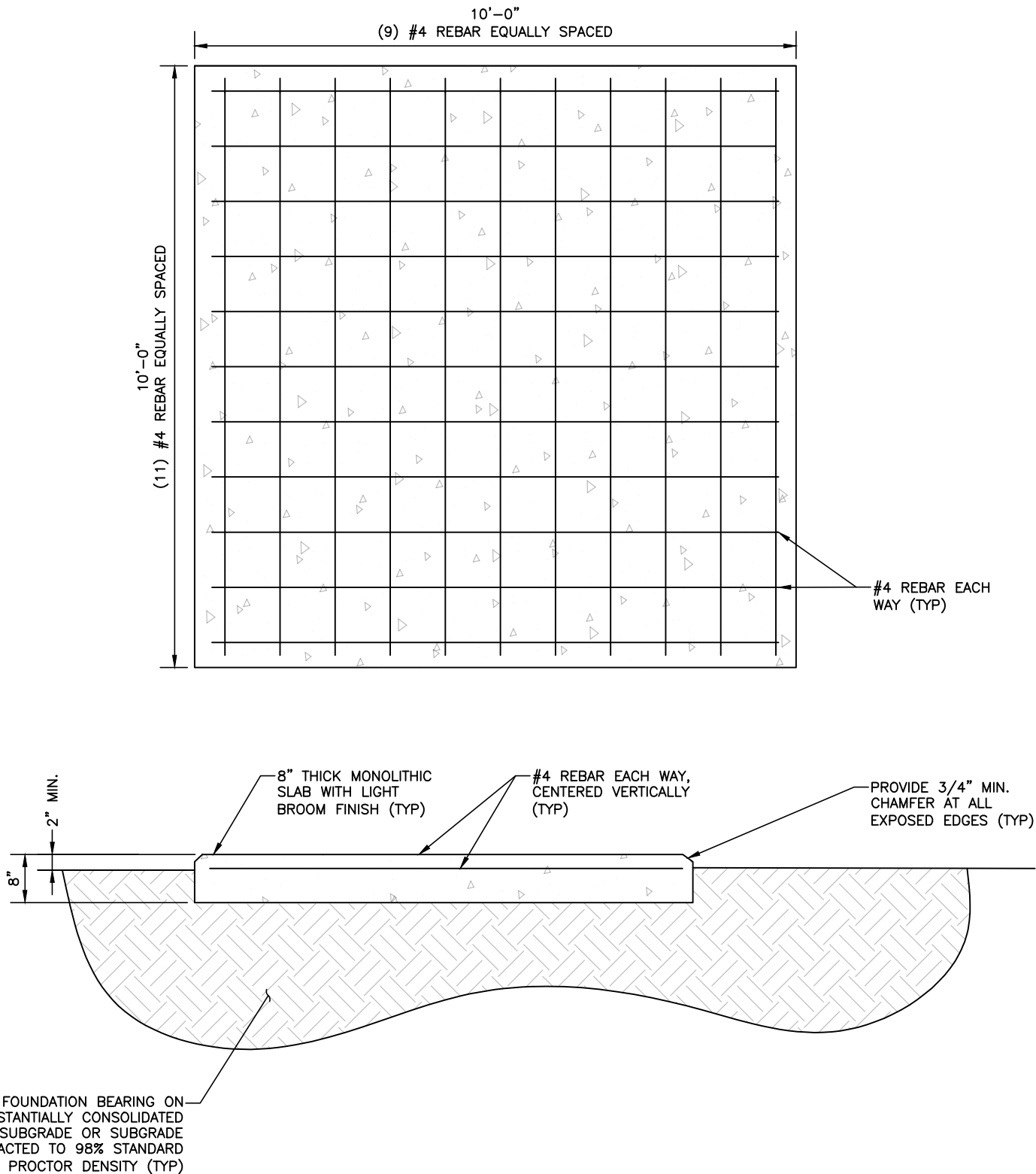
SITE INFORMATION:
DA01789B
580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: **DA01789B** SBA SITE ID: **TX09257-A**

SHEET NAME:
ICE BRIDGE DETAILS

SMW #: **19-10142** SHEET NUMBER: **C-6**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS



1 MONOLITHIC EQUIPMENT SLAB DETAIL
SCALE: N.T.S.

REINFORCED CONCRETE NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI SPECIFICATIONS FOR THE DESIGN & CONSTRUCTION OF CAST-IN-PLACE CONCRETE, AND WHERE CODES CONFLICT THE MORE STRINGENT NATIONAL OR LOCAL CODE SHALL GOVERN.
- SITECAST CONCRETE FOR SLABS AND POST FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE TESTING IS NOT REQUIRED FOR SLABS AND POST FOOTINGS UNLESS NOTED OTHERWISE.

SLUMP - 4" MIN. / 6" MAX.
AIR ENTRAINMENT - 2% TO 3% BY VOLUME

CLASSES OF CONCRETE				
CLASS	28 DAY STRENGTH (PSI)	MAX WATER/CEMENT RATIO	PLACEMENT LOCATION	NOTES
TYPE I	3000	0.55	SLABS & POST FOOTINGS	NORMAL WEIGHT
TYPE II*	5000	0.45	SLABS & POST FOOTINGS	HIGH EARLY STRENGTH

*IF REQUIRED BY THE CONSTRUCTION SCHEDULE THE CONTRACTOR MAY SUBSTITUTE TYPE III HIGH EARLY STRENGTH CONCRETE WITH THE APPROVAL OF THE CONSTRUCTION MANAGER.

- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES FOR REBAR SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO. LAPS FOR WELDED WIRE FABRIC SHALL BE AT LEAST 8", UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 CONCRETE CAST AGAINST EARTH.....3"
 CONCRETE EXPOSED TO EARTH OR WEATHER
 #6 AND LARGER.....2"
 #5 AND SMALLER & W.W.F.....1-1/2"
- MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4"
- INSTALLATION OF CONCRETE ANCHORS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO THE ANCHOR MANUFACTURER'S SPECIFICATIONS FOR MATERIAL STRENGTH, EMBEDMENT DEPTH, SPACING, AND EDGE DISTANCE OR AS DETAILED ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD, HILTI, OR APPROVED EQUAL. IF THE MANUFACTURER'S SPECIFICATIONS AND DETAILS ARE FOUND TO CONFLICT WITH THAT SHOWN HEREIN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- THE CONTRACTOR SHALL VERIFY FROST LINE AND FOOTING DEPTH REQUIREMENTS WITH THE JURISDICTION HAVING AUTHORITY PRIOR TO CONSTRUCTION AND CONSULT THE ENGINEER ACCORDINGLY.
- THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL CONDUIT SIZES AND PENETRATION LOCATIONS PRIOR TO POURING THE SLAB.

1 REINFORCED CONCRETE NOTES
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

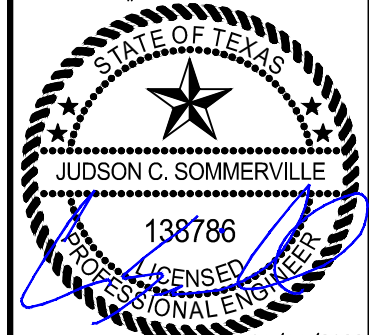


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
**CONCRETE PAD
DETAILS & NOTES**

SMW #: 19-10142 SHEET NUMBER: C-7
 DESIGNER: --
 CHECKED BY: JE
 ENGINEER: JCS



Specifications

Model	HP-Large 3 Power Cabinet
1. General	
Construction	Aluminum enclosure
Dimensions (W x H x D)	30 x 72 x 35 in. (762 x 1829 x 889mm), Depth with Door: 41 in. (1041mm)
Weight	~551 lbs (~270kg) (without customer equipment or batteries)
Internal rack dimension	Total Equipment space, 30RU: Horizontal rack: 19" x 27RU Vertical rack: 19" x 3RU
	Power System space: 23" x 12RU

Mounting options	Pad-mount, plinth option
Finish	Polyester Powder Paint (Tan)
Safety	UL Listed, IEC / EN 60950

2. Environment	
Operating temperature	-40°C to +50°C (-40°F to +122°F) with solar load. IP55
Protection class	designed to GR-487
Acoustics	5°C delta T: 70 dBA @6000W, 65dBA @5000W heat load
Humidity (relative)	95%, non-condensing (Max.)

3. Thermal management	
Cooling Equipment:	Direct Air Cooling 6000V, 5°C delta T (6) centrifugal redundant fans (3) Merv-13 or optional GORE filters front door (3) Merv-13 filters rear hatch
Heating Equipment:	Forced air heating (2) 1000W AC heaters

4. Equipment

Cable Entry	Knock-out plate on each upper side wall Additional knockouts each side (1) 3" conduit hole with hole plug
Door latch	3 point latching, 5/16 nut driver tool, pad-locking capability
Primary ground	10 double-hole 1/4"-20 threaded holes on 5/8" center ground bar
Lifting Ears	4 Lifting Tabs
Standard equipment	AC Load Center: 240V dual feed / (1) 200A + (1) 100A 208V single feed / (1) 200A AC Surge Protection for each breaker feed GFCI Receptacle 120V (6 form-C) Alarm Termination block (1) Thermal Probe 605A/ 54V (336kW) redundant Power System with DIN rail distribution: 12 rectifier positions (qty 3x55A DPR3000 rectifiers included) 52 poles for load (qty 1x150A, 3x10A load circuit breakers included) 16 poles for battery (qty 2x200A battery circuit breakers included) (2) SB350 generator connector LVD over-ride switch (2) SB175 Battery connections (2) SB350 Battery connections Front Door: (6) DC powered centrifugal fans with (3) MERV-13 filters, (GORE option) Clogged Filter alarm pressure switch Door intrusion alarm (2) 1000W AC powered heaters LED interior cabinet light Rear Hatch: Exhaust vent with (3) MERV-13 filters

5. Ordering information

Cabinet	ESOA600-HCU01	HP-Large 3 600A Power Equipment Cabinet
Rectifier	ESR-48/60A D-A	48V / 56A 3000W, 96.4%, CAN communication
Controller (Spare)	TPS1020028AU17	Orion TOUCH Controller
Plinth, 6"	37993318816900-S	Plinth for V1/V2, HPL2, HPL3, LB2 cabinets only

Delta Group Website:
www.deltaww.com

Product Website:
www.deltapowersolutions.com

United States of America & Canada:
Delta Electronics U.S. Inc.
2925 E. Plano Parkway
Plano, TX (Texas) 75074

Sales and Support:
Sales: DEUSTPS.Sales@deltaww.com
Orders: DEUSTPS.Orders@deltaww.com

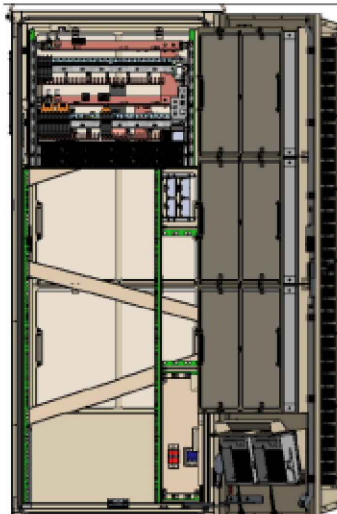
Field Support:
1-877-DELTA-08 option 3
(877-335-8208 option 3)

DEUSTPS.Support@deltaww.com

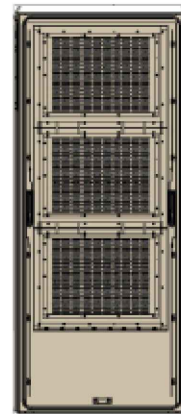
Installation Services:
DEUSTPS.Services@deltaww.com

RMA:
DEUSTPS.RMA@deltaww.com

en v0.2 022819



Front Door Open



Rear Hatch View

*All specifications are subject to change without prior notice.



Specifications

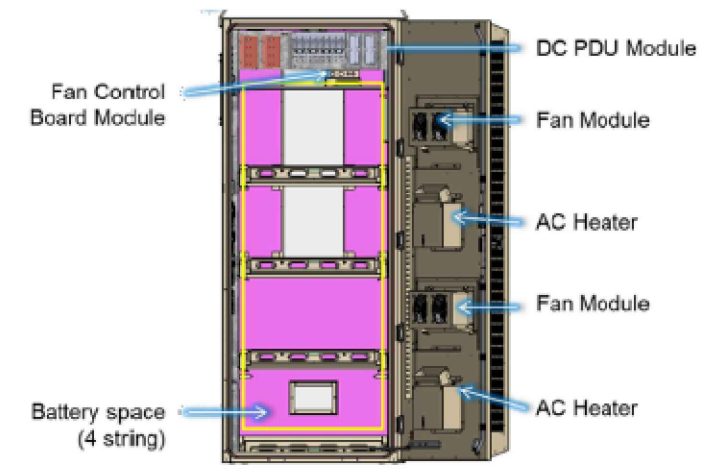
Model	Large 3 Battery (LB3) Cabinet
1. General	
Construction	Aluminum enclosure
Dimensions (W x H x D)	30 x 72 x 35 in. (762 x 1829 x 889mm), Depth with door: 41 in. (1041mm)
Weight	~540lbs (245kg) (without batteries)
Internal rack dimension	4 battery trays to support up to 210Ah batteries
Mounting options	Pad-mount, plinth option
Finish	Polyester Powder Paint (Tan)
Safety	UL Listed, IEC / EN 60950
2. Environment	
Operating temperature	-40C to +50C (-4CF to +122F) with solar load.
Protection class	IP55 designed to GR-487
Acoustics	65 dBA
Humidity (relative)	95%, non-condensing (Max.)
3. Thermal management	
Cooling	Direct Air Cooling (4) Axial Fans. Filters: F6 front and rear
Heating	Forced air heating (2) 1000W AC heaters
4. Equipment	
Cable Entry	Knock-out plate on each upper side wall Additional knockouts each side
Door latch	3 point latching, 5/16 Nut driver tool, pad-locking capability
Lifting Ears	4 eye bolts

Standard equipment	AC Load Center with AC Surge protection and GFCI outlet Left or Right side AC entry options (2) 1000W AC powered heater DC Load Center 100A bulk feed bus bar (4) 20050A DIN rail battery breakers (4) 2-hole lug landings (2) Anderson SB350 input connectors to daisy chain 2nd battery cabinet 2AWG battery cables from breakers to trays Configurable trays for (4) strings of up to 210Ah batteries Door intrusion switch LED interior cabinet light Fan Control Board, factory wired alarms via RJ45 output (fan & breaker alarms) Cabinet Connection kit (2) 4/0 cables with SB350 disconnects to connect to power cabinet
--------------------	---

5. Ordering information

Cabinet	ESOF015-ECV04	Large Battery 3 Cabinet
Plinth, 6"	37993318816900-S	Plinth for V1/V2, HPL2, LB2 cabinets only

*All specifications are subject to change without prior notice.



Delta Group Website:
www.deltaww.com

Product Website:
www.deltapowersolutions.com

United States of America & Canada:
Delta Electronics U.S. Inc.
2925 E. Plano Parkway
Plano, TX (Texas) 75074

Sales and Support:
Sales: DEUSTPS.Sales@deltaww.com
Orders: DEUSTPS.Orders@deltaww.com

Field Support:
1-877-DELTA-08 option 3
(877-335-8208 option 3)

DEUSTPS.Support@deltaww.com

Installation Services:
DEUSTPS.Services@deltaww.com

RMA:
DEUSTPS.RMA@deltaww.com

en v0.2 022819



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

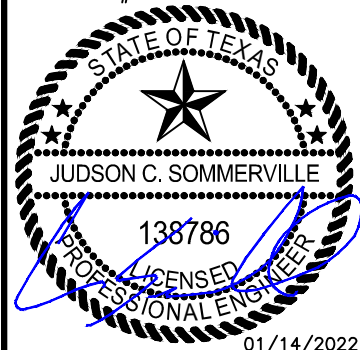


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:

EQUIPMENT DETAILS

SMW #: 19-10142	SHEET NUMBER: C-8
DESIGNER: --	
CHECKED BY: JE	
ENGINEER: JCS	

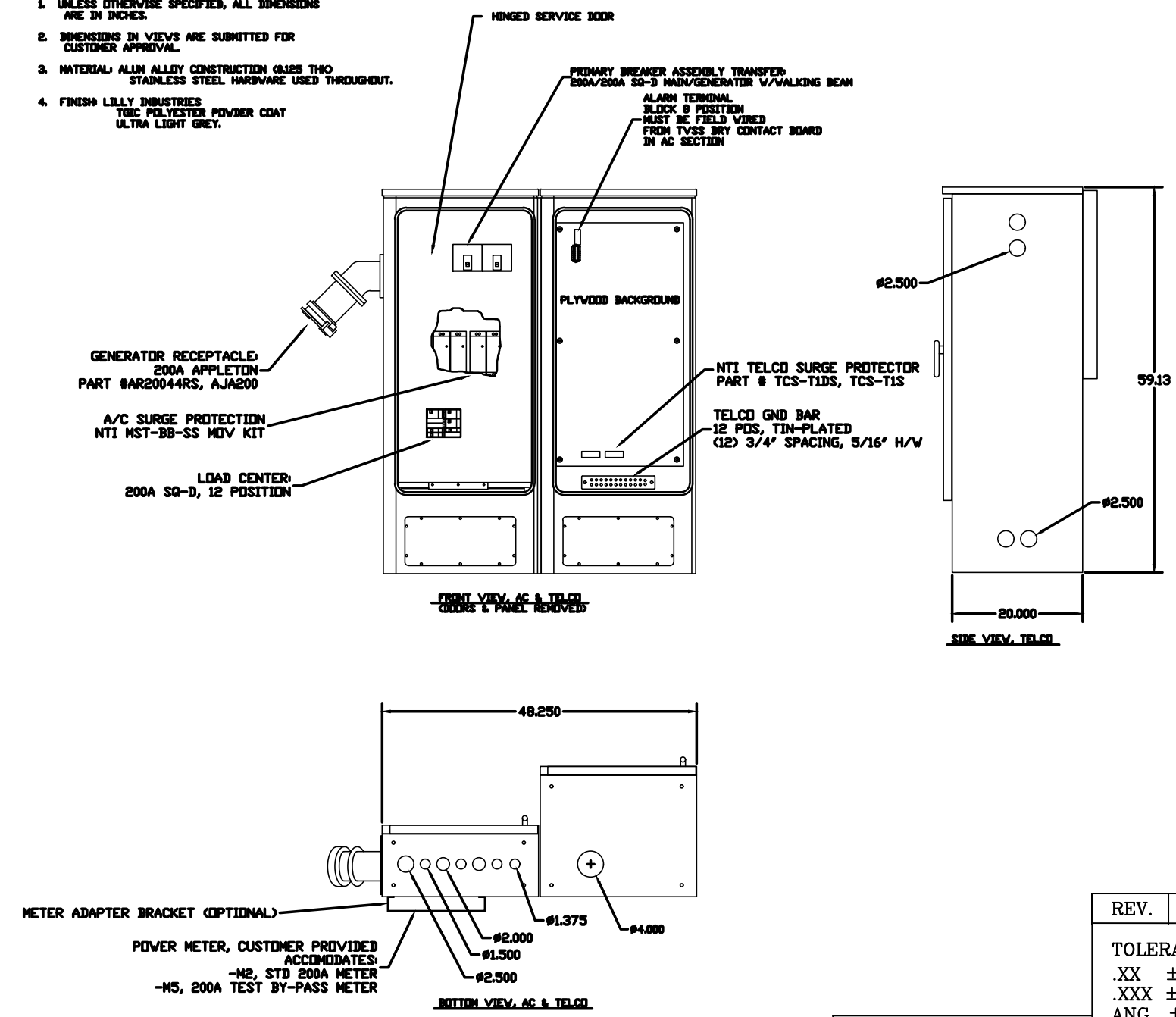
1 DELTA HPLA 3 POWER CABINET
SCALE: N.T.S.

DETAILS BY OTHERS NOTE:
DETAILS SHOWN ON THIS PAGE WERE
PROVIDED BY OTHERS AND ARE NOT
CARRIED UNDER THE SIGNATURE AND
SEAL OF SMW AND/OR IT'S ENGINEERS.

2 DELTA HPLA 3 BATTERY CABINET
SCALE: N.T.S.

DETAILS BY OTHERS NOTE:
 DETAILS SHOWN ON THIS PAGE WERE
 PROVIDED BY OTHERS AND ARE NOT
 CARRIED UNDER THE SIGNATURE AND
 SEAL OF SMW AND/OR IT'S ENGINEERS.

- NOTES
 1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS
 ARE IN INCHES.
 2. DIMENSIONS IN VIEWS ARE SUBMITTED FOR
 CUSTOMER APPROVAL.
 3. MATERIAL: ALUM ALLOY CONSTRUCTION (1/8" THK)
 STAINLESS STEEL HARDWARE USED THROUGHOUT.
 4. FINISH: LILLY INDUSTRIES
 TGIC POLYESTER POWDER COAT
 ULTRA LIGHT GREY.



THIRD ANGLE
 PROJECTION

THIS DRAWING IS CONFIDENTIAL
 AND PROPRIETARY TO NORTHERN
 TECHNOLOGIES INC.

REV.	BY	DESCRIPTION	APP.	DATE
TOLERANCE:		NORTHERN TECHNOLOGIES, INC. 23123 E. MISSION AVE. LIBERTY LAKE, WA. 99019 TITLE: ASSY., PPC CABINET, N2116-W02		
.XX ±.01				
.XXX ±.005				
ANG. ± 1/2°				
SCALE: N/A		DO NOT SCALE DRAWING	NTI PART NO: N2116-W02	
DRAWN BY: C. DAINIO		DATE: 12-27-00	DRAWING NO:	
APP. BY: JM S.		DATE: 12-28-00	020510 1of3	

DETAILS BY OTHERS NOTE:
 DETAILS SHOWN ON THIS PAGE WERE
 PROVIDED BY OTHERS AND ARE NOT
 CARRIED UNDER THE SIGNATURE AND
 SEAL OF SMW AND/OR IT'S ENGINEERS.

T-Mobile

7668 WARREN PARKWAY
 FRISCO BRIDGES TECH CAMPUS
 FRISCO, TX 75034

PLANS PREPARED FOR:

8051 CONGRESS AVE
 BOCA RATON, FL 33487

ENGINEERING GROUP, INC.
 TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617

JUDSON C. SOMMERVILLE
 138786
 LICENSED PROFESSIONAL ENGINEER
 01/14/2022

SITE INFORMATION:
 DA01789B
 580 W VANDERBILT
 STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

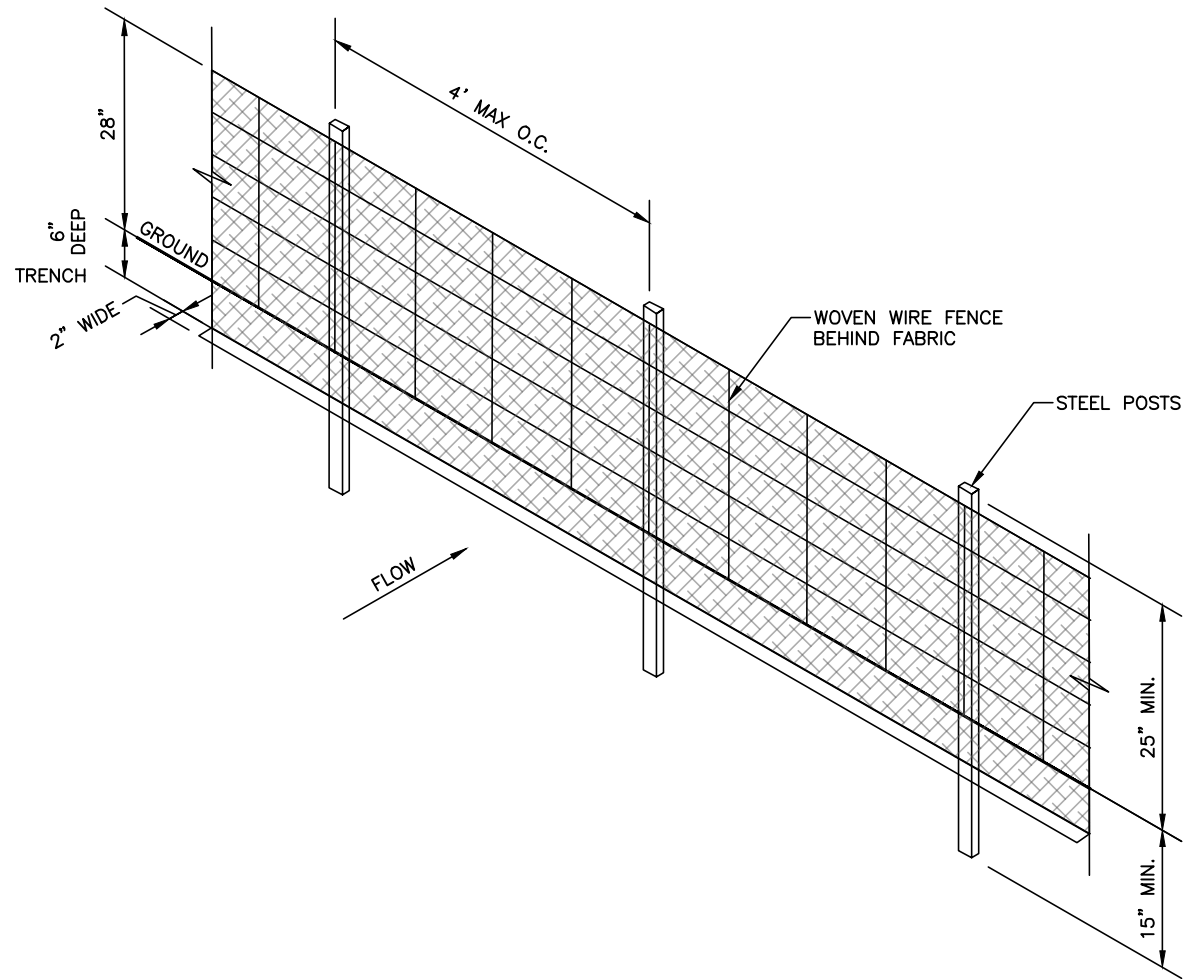
T-MOBILE SITE ID: DA01789B
 SBA SITE ID: TX09257-A

SHEET NAME:
 PPC SPECIFICATIONS

SMW #: 19-10142
 SHEET NUMBER: C-9
 DESIGNER: --
 CHECKED BY: JE
 ENGINEER: JCS

MAINTENANCE:

1. INSPECT BARRIERS AT THE END OF EACH WORKING DAY, OR AFTER EACH RAIN, AND REPAIR OR CLEAN AS NECESSARY.
2. REMOVE SEDIMENT FROM BARRIER WHEN TWO-THIRDS FULL.
3. DISPOSE OF SEDIMENT SO THAT IT WILL NOT ENTER THE BARRIER AGAIN AND STABILIZE IT WITH VEGETATION.
4. REPLACE FILTER FABRIC WHEN DETERIORATED.
5. DESIGN LIFE OF A SYNTHETIC SILT FENCE IS APPROXIMATELY 6 MONTHS.
6. MAINTAIN UNTIL THE PROJECT IS VEGETATED OR OTHERWISE STABILIZED.
7. REMOVE BARRIERS AND ACCUMULATED SEDIMENT AND STABILIZE THE EXPOSED AREA WHEN THE PROJECT IS STABILIZED.



1 SdI TYPE C SEDIMENTATION BARRIER DETAIL
SCALE: N.T.S.

THIS SECTION WAS INTENTIONALLY LEFT BLANK

2 NOT USED
SCALE: N/A

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

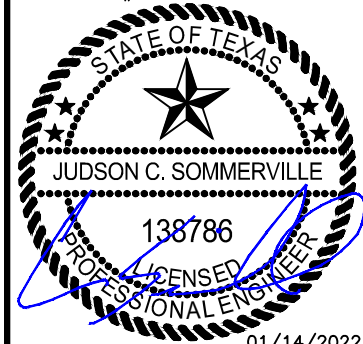


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
EROSION CONTROL DETAILS

SMW #: 19-10142 SHEET NUMBER: **C-10**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

PIEDMONT VEGETATIVE COVERS

CALENDAR MONTH	TEMPORARY SEED	APPLICATION RATE/ACRE	PERMANENT SEED	APPLICATION RATE/ACRE
1. JANUARY	RYE GRASS	20-40 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA	8-10 LB. 30-40 LB.
2. FEBRUARY			UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
3. MARCH	RYE ANNUAL LESPEDZA WEEPING LOVE GRASS	2-3 BU. 20-25 LB. 4-6 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
4. APRIL	RYE BROWN TOP MULLET ANNUAL LESPEDZA SUDAN ANNUAL	2-3 BU. 30-40 LB. 20-25 LB. 35 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAJA	4-6 LB. 5-6 LB. 40-60 LB.
5. MAY	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MULLET	4-6 BU. 35 LB. 30-40 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAJA	4-6 LB. 5-6 LB. 40-60 LB.
6. JUNE	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MULLET	4-6 LB. 35 LB. 30-40 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAJA	4-6 LB. 5-6 LB. 40-60 LB.
7. JULY	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MULLET	4-6 LB. 35 LB. 30-40 LB.		
8. AUGUST	RYE GRASS WEEPING LOVE GRASS	40-50 LB. 4-6 LB.		
9. SEPTEMBER			TALL FESCUE	30-50 LB.
10. OCTOBER	WHEAT	2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
11. NOVEMBER	WHEAT	2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
12. DECEMBER	RYE RYE GRASS WHEAT	2-3 BU. 40-50 LB. 2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.

- USE A MINIMUM OF 40 LBS. SCARIFIED SEED. THE REMAINING MAY BE UNSCARIFIED, CLEAN HULLED SEED.
- USE EITHER COMMON SERIAL OR INTERSTATE SERICEA LESPEDEZA

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

GENERAL

THIS VEGETATIVE PLAN WILL BE CARRIED OUT IN ROAD CUT AND FILL SLOPES, SHOULDERS, AND OTHER CRITICAL AREAS CREATED BY CONSTRUCTION. SEEDING WILL BE DONE AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. PLANTINGS WILL BE MADE TO CONTROL EROSION, TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM ARE, AND TO IMPROVE THE SAFETY AND BEAUTY OF THE DEVELOPMENT AREA.

SOIL CONDITIONS

DUE TO GRADING AND CONSTRUCTIONS, THE AREAS TO BE TREATED ARE MAINLY SUBSOIL AND SUBSTRATES. FERTILITY IS LOW AND THE PHYSICAL CHARACTERISTICS OF THE EXPOSED MATERIAL ARE UNFAVORABLE TO ALL BUT THE MOST HARDY PLANTS.

TREATMENT SPECIFICATIONS

HYDRAULIC SEEDING EQUIPMENT: WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OF SEEDED PREPARATIONS WILL BE REQUIRED. THE FERTILIZER, SEED, AND WOOD CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND SUPPLIED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENEOUS MIXTURE, AND SPREAD UNIFORMLY OVER THE AREA WITH ONE HOUR AFTER MIXTURE IS MADE. STRAW OR HAW MULCH AND ASPHALT EMULSION WILL BE APPLIED WITH BLOWER-TYPE MULCH SPREADING EQUIPMENT WITHIN 24 HOURS AFTER SEEDING. THE MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. THE PER ACRE APPLICATION RATES ARE AS FOLLOWS:

- A. SEEDING WITH MULCH: (HYDRAULIC SEEDING EQUIPMENT ON SLOPES 3:1 AND STEEPER)
- | | |
|------------------------------|---------------|
| AGRICULTURAL LIMESTONE #75 | 400 LBS/ACRE |
| FERTILIZER, 05-10-15 | 500 LBS/ACRE |
| MULCH (STRAW OR HAY) | 5000 LBS/ACRE |
| MULCH (WOOD CELLULOSE FIBER) | 1000 LBS/ACRE |

SEED SPECIES	APPLICATION RATE/ACRE	PLANTING DATES
SERICIA LESPEDEZA, SCARIFIED WEEPING LOVE GRASS, OR COMMON BERMUDA, HULLED	60 LBS. 4 LBS. 6 LBS.	3/1-6/15
FESCUE SERICEA LESPEDEZA, UNCERTIFIED	40 LBS. 60 LBS.	4/1-10/31
FESCUE SERICEA LESPEDEZA, UNCERTIFIED RYE	40 LBS. 75 LBS. 50 LBS.	11/1-12/28
HAY MULCH FOR TEMPORARY COVER	5000 LBS.	6/15-8/31

- B. TOP DRESSING: APPLY WHEN PLANTS ARE 2 TO 4 INCHES TALL
FERTILIZER (AMMONIUM NITRATE 33.5%) 300 LBS/ACRE
- C. SECOND YEAR TREATMENT:
FERTILIZER (0-20-20 OR EQUIVALENT) 500 LBS/ACRE

GENERAL

THIS VEGETATIVE PLAN WILL BE CARRIED OUT IN ROAD CUT AND FILL SLOPES, SHOULDERS, AND OTHER CRITICAL AREAS CREATED BY CONSTRUCTION. SEEDING WILL BE DONE AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. PLANTINGS WILL BE MADE TO CONTROL EROSION, TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM ARE, AND TO IMPROVE THE SAFETY AND BEAUTY OF THE DEVELOPMENT AREA.

SOIL CONDITIONS

DUE TO GRADING AND CONSTRUCTIONS, THE AREAS TO BE TREATED ARE MAINLY SUBSOIL AND SUBSTRATES. FERTILITY IS LOW AND THE PHYSICAL CHARACTERISTICS OF THE EXPOSED MATERIAL ARE UNFAVORABLE TO ALL BUT THE MOST HARDY PLANTS.

TREATMENT SPECIFICATIONS

CONVENTIONAL SEEDING EQUIPMENT: GRADE, SHAPE, AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED, AND FIRMED. SEEDING WILL BE DONE WITH A CULTIPACKER-SEEDER, ROTARY SEEDER, OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESH PREPARED SEEDBED AND COVERED LIGHTLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD EITHER BY BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT WAS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL. THE PER ACRE APPLICATION ARE AS FOLLOWS:

- A. SEEDING WITH MULCH: (CONVENTIONAL SEEDING EQUIPMENT ON SLOPES LESS THAN 3:1)

AGRICULTURAL LIMESTONE #15	400 LBS/ACRE
FERTILIZER, 5-10-15	1500 LBS/ACRE
MULCH (STRAW OR HAY)	5000 LBS/ACRE

SEED SPECIES	APPLICATION RATE/ACRE
COMMON BERMUDA, HULLED	10 LBS.
FESCUE	50 LBS.
FESCUE RYE GRASS	50 LBS. 50 LBS.
HAY MULCH FOR TEMPORARY COVER	5000 LBS.

- B. TOP DRESSING: APPLY WHEN PLANTS ARE 2 TO 4 INCHES TALL
FERTILIZER (AMMONIUM NITRATE 33.5%) 300 LBS/ACRE
- C. SECOND YEAR TREATMENT:
FERTILIZER (0-20-20 OR EQUIVALENT) 800 LBS/ACRE

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

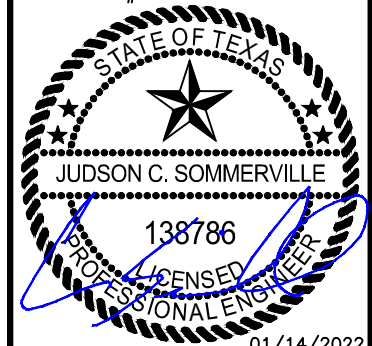


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

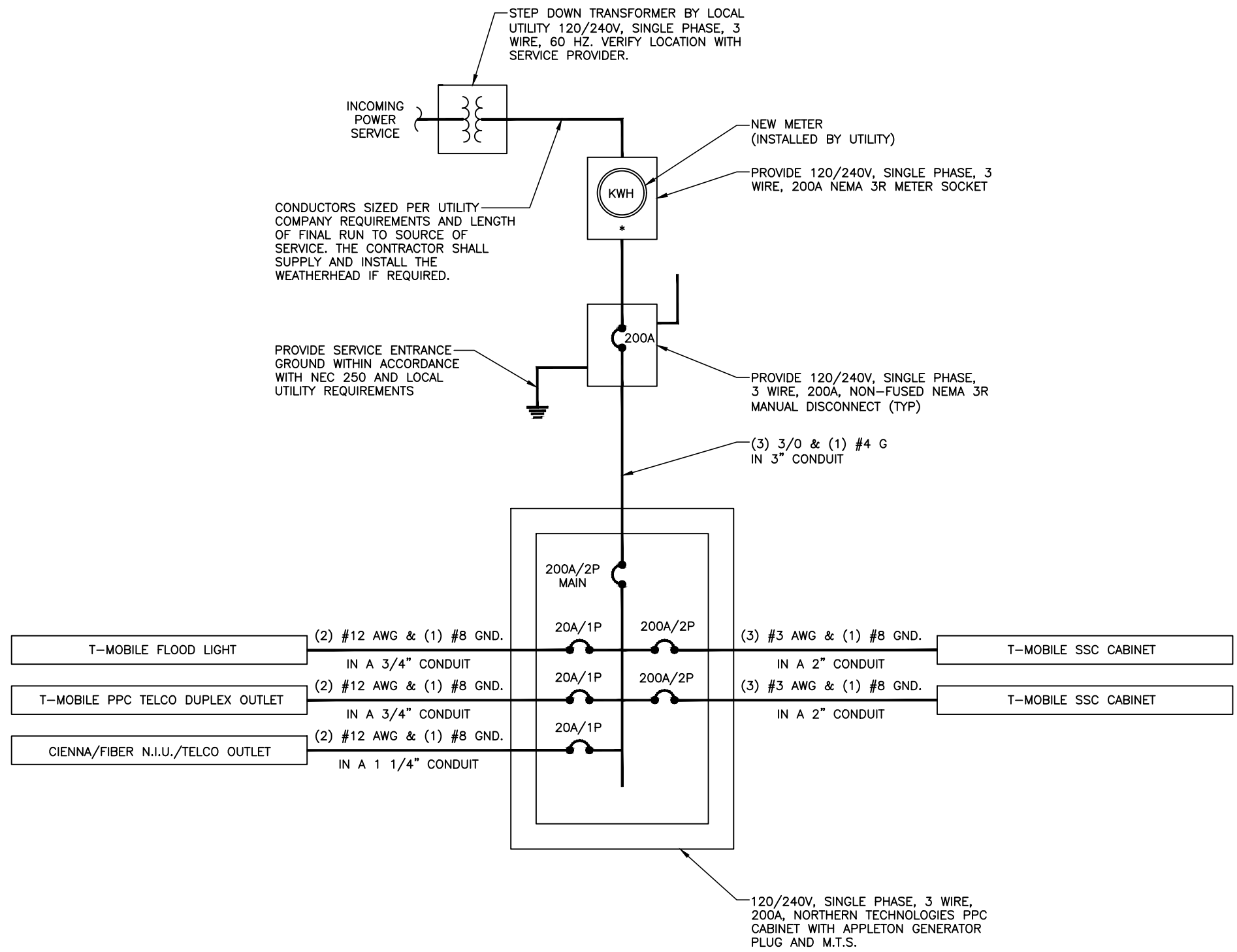
580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
EROSION CONTROL SPECIFICATIONS

SMW #: 19-10142 SHEET NUMBER: C-11
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS



1 ONE-LINE DIAGRAM
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

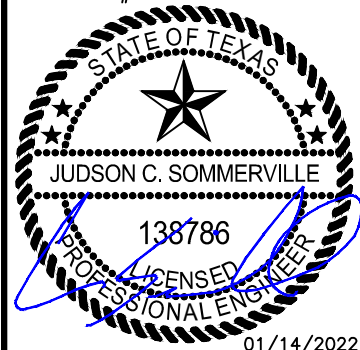


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
ONE-LINE DIAGRAM

SMW #: 19-10142 SHEET NUMBER: **E-1**

DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

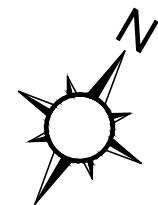
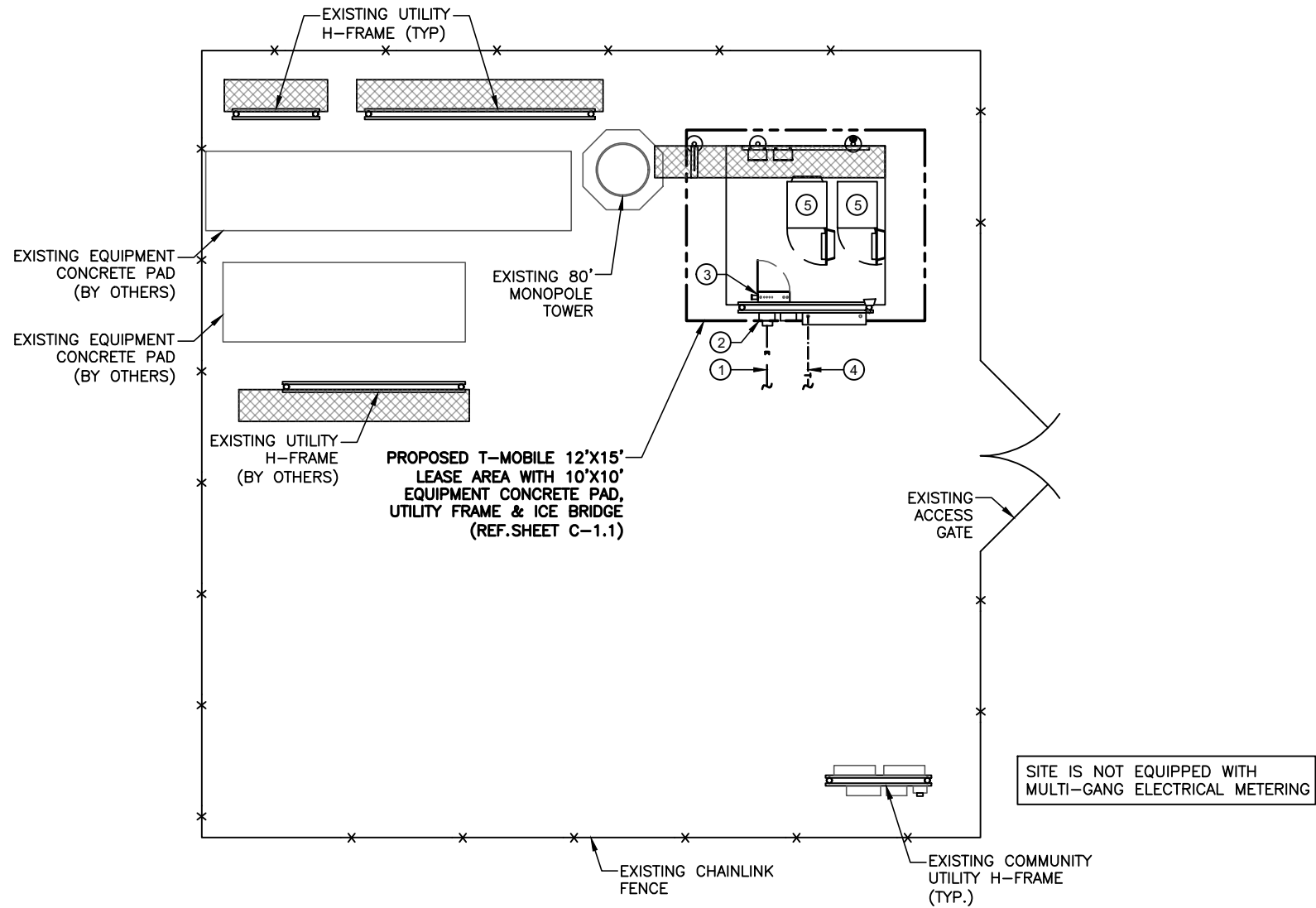
ELECTRICAL KEY NOTES:

- ① PROPOSED 3" PVC CONDUIT WITH (3) 3/0 + #4G FROM POWER SOURCE (FIELD DETERMINE) TO PROPOSED METER/DISCONNECT ON UTILITY H-FRAME. COORDINATE WITH THE LOCAL UTILITY COMPANY REGARDING FINAL SERVICE CONNECTION.
- ② PROPOSED METER WITH 200A MANUAL DISCONNECT. COORDINATE WITH LOCAL UTILITY COMPANY REGARDING FINAL SERVICE CONNECTION.
- ③ PROPOSED 200A NORTHERN TECHNOLOGIES PPC CABINET WITH INTEGRATED 200A APPLETON GENERATOR BACKUP PLUG.
- ④ PROPOSED 2" PVC CONDUIT WITH PULL STRING FOR TELCO FROM TELCO SOURCE (FIELD DETERMINE) TO PROPOSED TELCO BOX ON UTILITY H-FRAME.
- ⑤ PROPOSED T-MOBILE EQUIPMENT (REF. SHEET E-4 FOR ENLARGED UTILITY PLAN)

SCH 80 PVC NOTE:
CONTRACTOR SHALL USE SCH 80 PVC UNDER ANY DRIVEWAY OR VEHICLE ACCESS POINTS.

UTILITY NOTE:
THERE ARE NOT ANY EXISTING STORM OR SANITARY SEWER LINES OR BURIED UTILITIES ON THE PARENT TRACK WITHIN THE VICINITY OF THE PROPOSED CONSTRUCTION.

TRENCHING NOTE:
DIGGING AND/OR TRENCHING INSIDE COMPOUND, MUST BE DONE BY HAND.



① ELECTRICAL UTILITY PLAN
SCALE: 1" = 10'
10' 0' 5' 10'

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

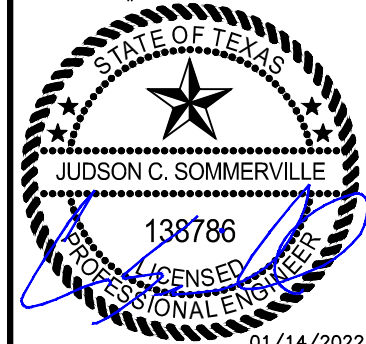


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

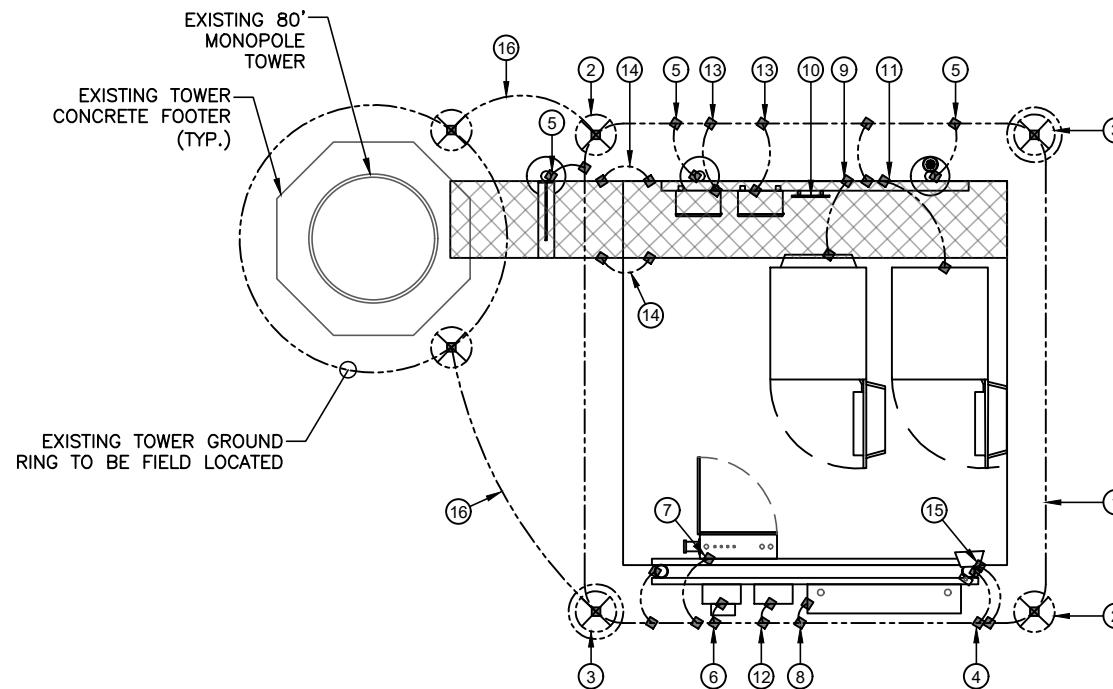
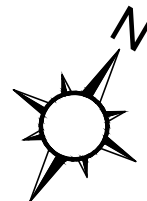
SHEET NAME:
ELECTRICAL UTILITY PLAN

SMW #: 19-10142 SHEET NUMBER: **E-2**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

GROUNDING KEY NOTES:

- ① PROPOSED #2 BARE TINNED SOLID COPPER GROUND RING (TYP)
- ② PROPOSED 5/8" DIA. X 8' LONG STEEL SHAFT COPPER CLAD GROUND ROD (TYP)
- ③ PROPOSED GROUND ROD WITH COVERED PVC TEST WELL (TYP)
- ④ GROUND PROPOSED UTILITY FRAME POST WITH CADWELD CONNECTION TO BASE PLATE (TYP)
- ⑤ GROUND PROPOSED ICE BRIDGE POST WITH CADWELD CONNECTION TO BASE (TYP)
- ⑥ GROUND PROPOSED METER/DISCONNECT PER NEC 250 AND LOCAL UTILITY REQUIREMENTS (TYP)
- ⑦ GROUND PROPOSED PPC POWER PANEL PER NEC 250 AND LOCAL UTILITY REQUIREMENTS (TYP)
- ⑧ GROUND PROPOSED TELCO CABINET GROUND BAR WHERE REQUIRED BY TELCO BACKHAUL (TYP)
- ⑨ GROUND PROPOSED HPL3 CABINET MAIN GROUND BAR WITH 2-HOLE LUG CONNECTION (TYP)
- ⑩ PROVIDE 12 POSITION MAIN EQUIPMENT COLLECTOR GROUND BAR ATTACHED TO UNISTRUT FRAME WITH STANDOFF INSULATORS, GROUND WITH (2) CADWELDED CONNECTIONS, 1 PER SITE (TYP)
- ⑪ GROUND PROPOSED L3B CABINET MAIN GROUND BAR WITH 2-HOLE LUG CONNECTION (TYP)
- ⑫ GROUND PROPOSED TELCO CIENA (TYP)
- ⑬ GROUND 2.0 JUNCTION BOX TO COLLECTOR GROUND BAR WITH #2 OR #6 GROUND CONDUCTOR PER MANUFACTURER'S SPECIFICATIONS (TYP)
- ⑭ GROUND ICE BRIDGE CHANNEL SECTIONS WITH 2-HOLE LUG CONNECTION. BOND ADJOINING CHANNEL SECTIONS TOGETHER WITH 2-HOLE LUG JUMPERS (TYP)
- ⑮ GROUND ALL METALLIC OBJECTS WITHIN 6' OF THE PROPOSED EQUIPMENT TO BURIED GROUND RING (TYP)
- ⑯ GROUND PROPOSED T-MOBILE BURIED EQUIPMENT GROUND RING TO EXISTING SITE GROUND RING. CONDUCT GROUNDING SYSTEM TEST AND INCLUDE IN THE CLOSEOUT PACKAGE TO T-MOBILE. ADDITIONAL GROUNDING MAY BE REQUIRED PENDING THE RESULTS OF THE GROUNDING SYSTEM TEST (TYP x2)
- ⑰ GROUNDING CONNECTION DETAILS (SEE SHEET E-6)

TRENCHING NOTE:
DIGGING AND/OR TRENCHING INSIDE
COMPOUND, MUST BE DONE BY HAND.



1 GROUNDING PLAN
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

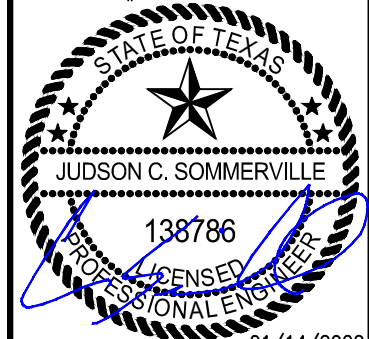


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

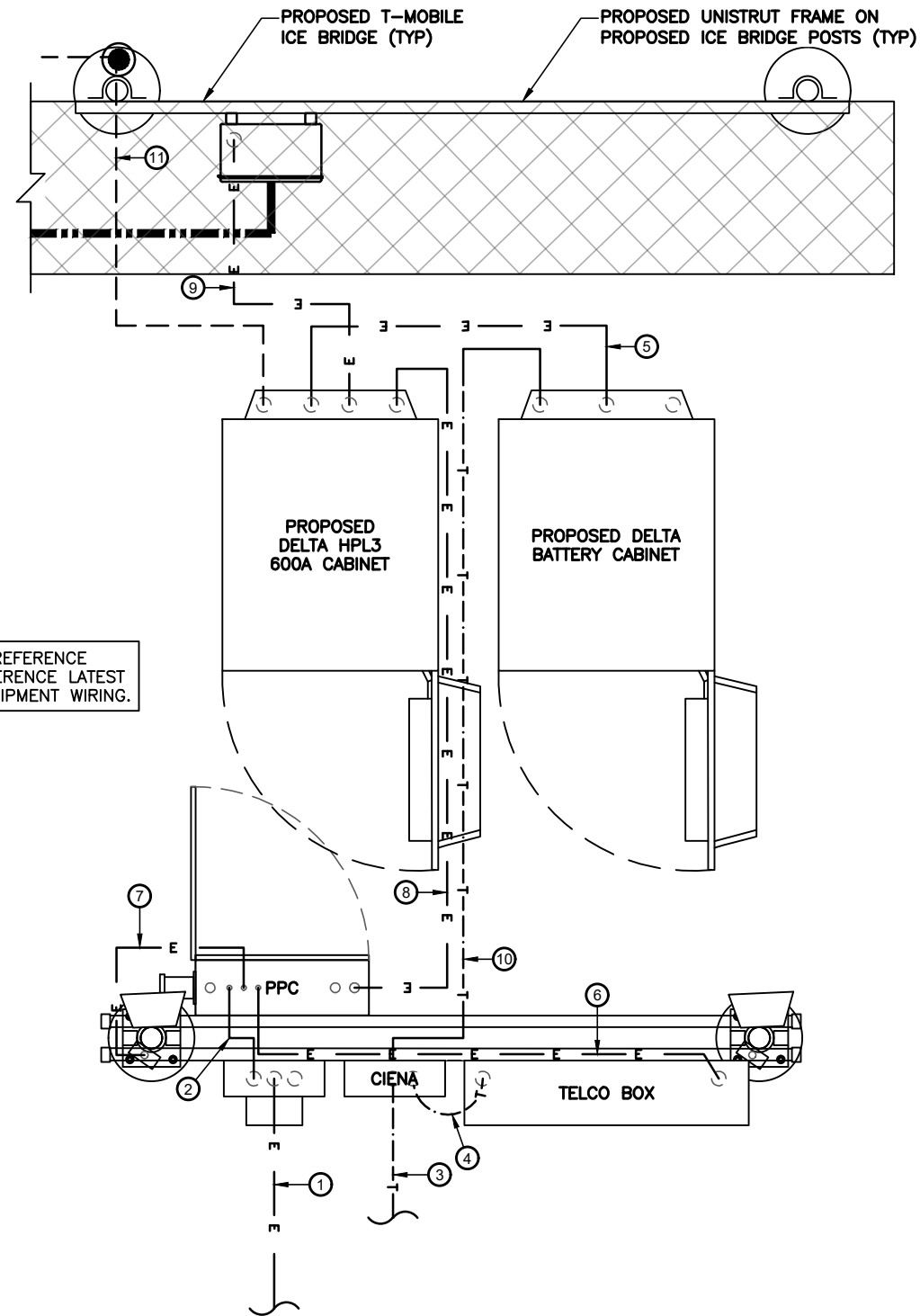
SHEET NAME:
GROUNDING PLAN

SMW #: 19-10142 SHEET NUMBER: **E-3**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

CONDUIT KEY NOTES:

- ① PROPOSED 3" PVC CONDUIT FROM POWER SOURCE TO METER / MAIN DISCONNECT AT UTILITY H-FRAME (TYP)
- ② PROPOSED 2" PVC CONDUIT FOR POWER FROM MAIN SERVICE DISCONNECT TO PROPOSED PPC ON UTILITY H-FRAME (TYP)
- ③ PROPOSED 2" PVC CONDUIT FROM MAIN TELCO BOX TO T-MOBILE CIENA ON UTILITY H-FRAME. PROVIDE PULLSTRINGS IN ACCORDANCE WITH UTILITY REQUIREMENTS (TYP)
- ④ PROPOSED 2" PVC CONDUIT FOR TELCO FROM PROPOSED CIENA TO TELCO CABINET (TYP)
- ⑤ PROPOSED FLEX CONDUITS FROM DELTA SSC CABINET TO DELTA BATTERY CABINET AS NEEDED (TYP)
- ⑥ PROPOSED 3/4" PVC FLEX CONDUIT FROM T-MOBILE PPC TO TELCO POWER SUPPLY (TYP)
- ⑦ PROPOSED 3/4" PVC FLEX CONDUIT FROM PPC POWER PANEL TO HALOGEN FLOOD LIGHT SWITCH (TYPx2)
- ⑧ PROPOSED 2" PVC FLEX CONDUIT FOR POWER FROM T-MOBILE PPC TO DELTA SSC CABINET MAIN BREAKER (TYP)
- ⑨ PROPOSED 1" PVC FLEX CONDUIT FROM SSC CABINET TO 2.0 JUNCTION BOX (TYP)
- ⑩ PROPOSED 1" PVC FLEX COINDUIT FOR ALARM CABLES FROM DELTA CABINET TO CIENA (TYP)
- ⑪ ROUTE PROPOSED GPS CABLE TO TRUEPOSITION UNIT MOUNTED IN SSC RADIO BAY (TYP)

SCHEMATICS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REFERENCE LATEST T-MOBILE STANDARDS FOR EQUIPMENT WIRING.



① EQUIPMENT CONDUIT DETAIL
SCALE: N.T.S.

VERIFICATION NOTE:
CONTRACTOR TO VERIFY WITH T-MOBILE THE LOCATION OF CONDUIT WITHIN CONCRETE PAD PRIOR TO INSTALLATION.

TRENCHING NOTE:
DIGGING AND/OR TRENCHING INSIDE COMPOUND, MUST BE DONE BY HAND.

CONDUIT NOTE:
ALL CONDUITS SHALL BE SECURED TO THE TOP OF THE CONCRETE SLAB WITH RIGID CLIPS SIZED PER NEED (TYP)

ALL PROPOSED CONDUITS SCHEDULES SHALL BE FOLLOWING T-MOBILE'S LATEST STANDARDS.

CONDUIT NOTE:
ALL CONDUITS SHALL BE SECURED TO THE TOP OF THE CONCRETE SLAB WITH RIGID CLIPS SIZED PER NEED (TYP)



7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

PLANS PREPARED FOR:

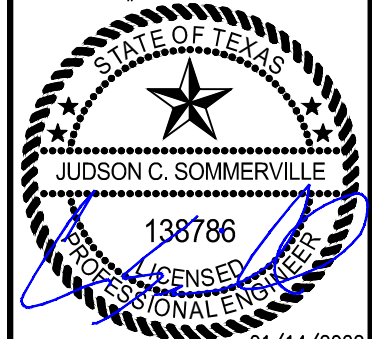


8051 CONGRESS AVE
BOCA RATON, FL 33487



TOGETHER PLANNING A BETTER TOMORROW

CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

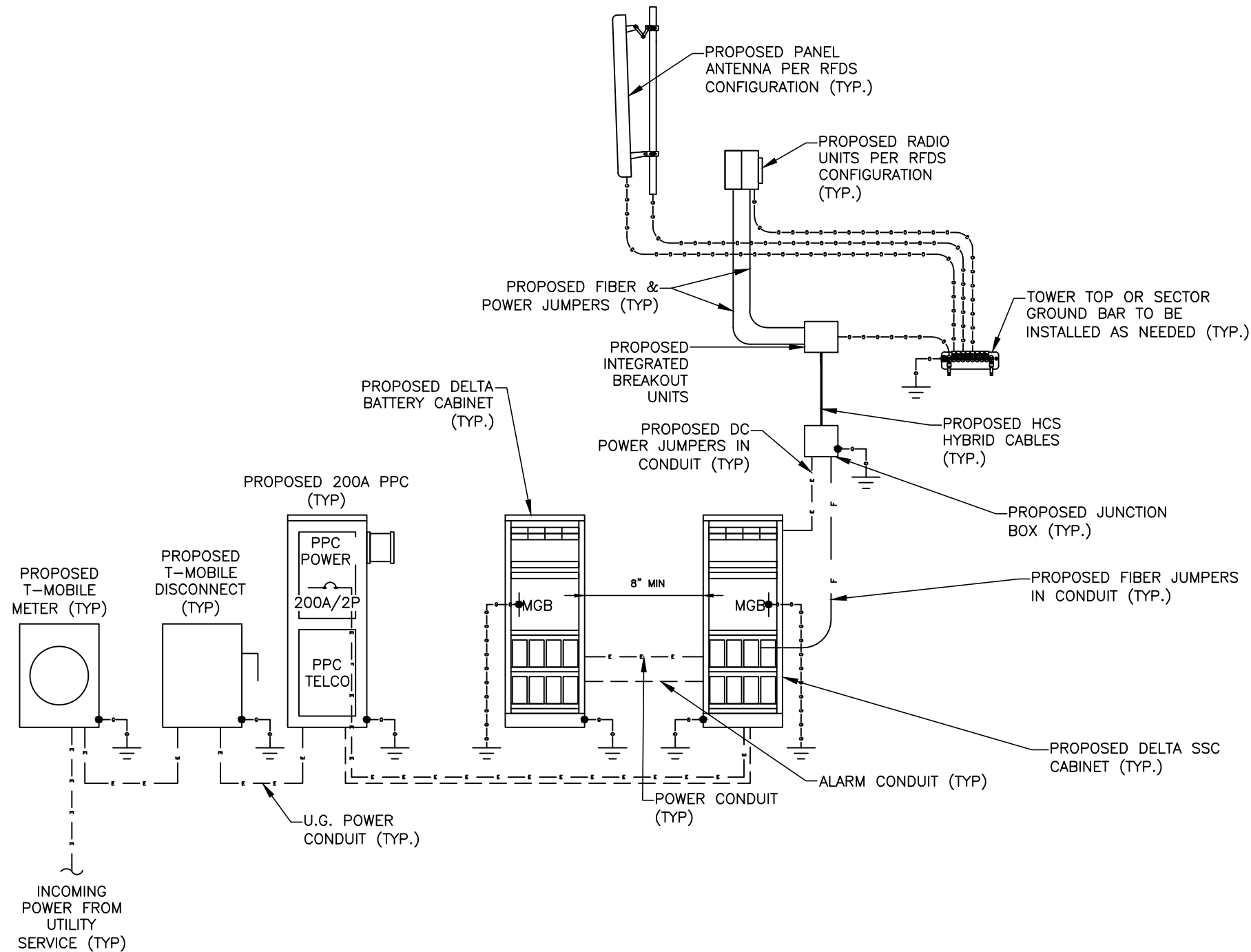
T-MOBILE SITE ID: DA01789B SBA SITE ID: TX09257-A

SHEET NAME:
EQUIPMENT CONDUIT DETAIL

SMW #: 19-10142 SHEET NUMBER: **E-4**

DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

T-MOBILE ANTENNA CABLE COLOR CODES SHALL BE PROVIDED BY THE LOCAL T-MOBILE MARKET PRIOR TO CONSTRUCTION.



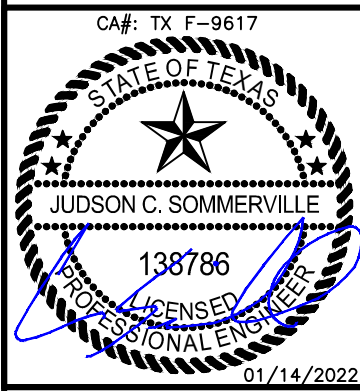
1 EQUIPMENT POWER, TELCO & GROUNDS SCHEMATIC
SCALE: N.T.S.

T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034



8051 CONGRESS AVE
BOCA RATON, FL 33487



SITE INFORMATION:
DA01789B
580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

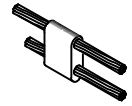
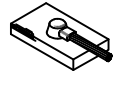

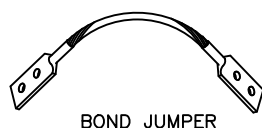
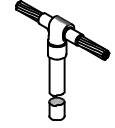

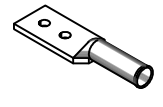
T-MOBILE SITE ID: **DA01789B** SBA SITE ID: **TX09257-A**

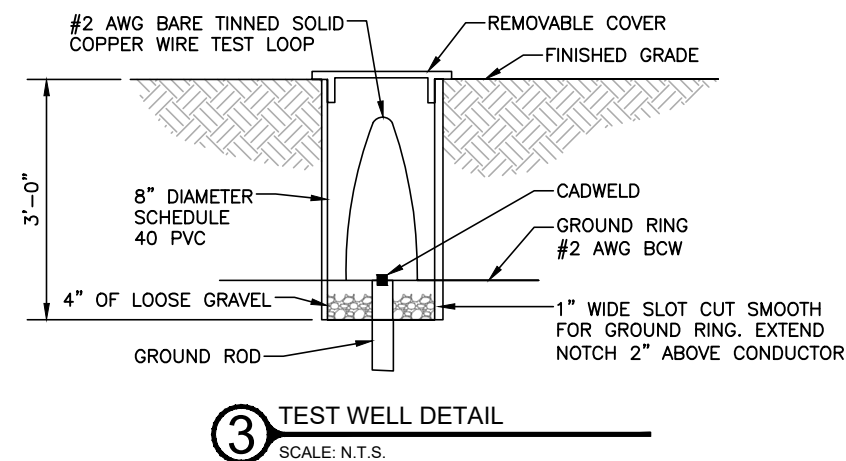
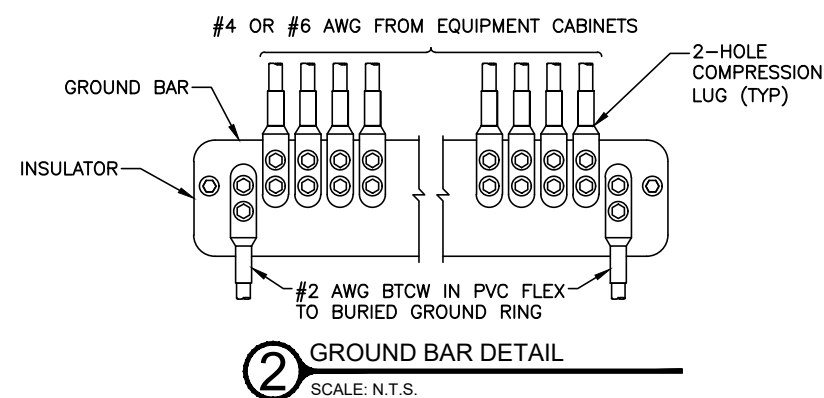
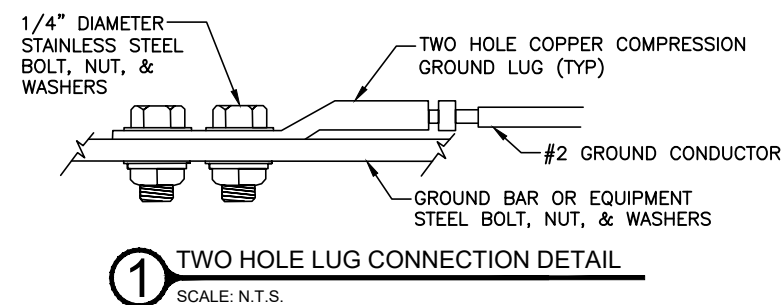
SHEET NAME:
EQUIPMENT SCHEMATIC

SMW #: **19-10142** SHEET NUMBER: **E-5**
DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS

- ALL WORK IS TO COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND ANY LOCAL ORDINANCES, CODES, AND ALL OTHER ADMINISTRATIVE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL FURNISH AND PAY FOR ALL PERMITS AND RELATED FEES.
- ALL EQUIPMENT AND MATERIAL FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE UNDERWRITERS LABORATORIES (U.L.) LISTED, NEW, FREE FROM DEFECTS, AND SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER OR HIS REPRESENTATIVE. SHOULD ANY TROUBLE DEVELOP DURING THIS PERIOD DUE TO FAULTY WORKMANSHIP, MATERIAL, OR EQUIPMENT, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS AND LABOR TO CORRECT THE TROUBLE WITHOUT COST TO THE OWNER.
- ALL WORK SHALL BE EXECUTED IN A WORKMAN LIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED. CONTRACTOR SHOULD AVOID DAMAGE TO EXISTING UTILITIES WHEREVER POSSIBLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK, AND SHALL RESTORE ALL EXISTING LANDSCAPING, SPRINKLER SYSTEMS, CONDUITS, WIRING, PIPING, ETC. DAMAGED BY THE ELECTRICAL WORK TO MATCH EXISTING CONDITIONS.
- ELECTRICAL WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE ELECTRICAL POWER AND LIGHTING SYSTEMS, TELEPHONE AND COMMUNICATION SYSTEMS, PANELBOARDS, CONDUIT, CONTROL WIRING, GROUNDING, ETC. AS INDICATED ON ELECTRICAL DRAWINGS AND/OR AS REQUIRED BY GOVERNING CODES.
- PRIOR TO INSTALLING ANY ELECTRICAL WORK, THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY EXISTING SITE LOCATIONS AND CONDITIONS AND UTILITY SERVICE REQUIREMENTS OF THE JOB, AND BY REFERENCE TO ENGINEERING AND EQUIPMENT SUPPLIERS' DRAWINGS. SHOULD THERE BE ANY QUESTION OR PROBLEM CONCERNING THE NECESSARY PROVISIONS TO BE MADE. PROPER DIRECTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH ANY WORK.
- PROVIDE POWER AND TELEPHONE TO SERVICE POINTS PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL CONTACT UTILITY SERVICE PLANNERS AND OBTAIN ALL SERVICE REQUIREMENTS AND INCLUDE COSTS FOR SUCH IN THEIR BID.
- SERVICE EQUIPMENT SHALL HAVE A SHORT CIRCUIT WITHSTAND RATING EXCEEDING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SUPPLY TERMINAL ON THE UTILITY TRANSFORMER SECONDARY, THE INSULATION SHALL BE FREE FROM ANY SHORT CIRCUITS AND GROUNDS. CONTRACTOR TO OBTAIN THE AVAILABLE SHORT CIRCUIT CURRENT FROM THE ELECTRICAL SERVICE PROVIDER.
- ALL WIRES SHALL BE STRANDED COPPER WITH THHN/THWN AND 600 VOLTS INSULATION. ALL GROUND CONDUCTORS TO BE PROPERLY SIZED COPPER. (STRANDED OR SOLID)
- IN THE EVENT OF ANY CONFLICT OR INCONSISTENCY BETWEEN ITEMS SHOWN ON THE PLANS AND/OR SPECIFICATIONS, THE NOTE, SPECIFICATION OR CODE WHICH PRESCRIBES AND ESTABLISHES THE HIGHEST STANDARD OF PERFORMANCE SHALL PREVAIL.
- SERVICE CONDUITS SHALL HAVE NO MORE THAN (4) -50' BENDS IN ANY SINGLE RUN. THE CONTRACTOR SHALL PROVIDE PULL BOXES AS NEEDED WHERE CONDUIT REQUIREMENTS EXCEED THESE CONDITIONS. PULL WIRES AND CAPS SHALL BE PROVIDED AT ALL SPARE CONDUITS FOR FUTURE USE.
- ALL ELECTRICAL EQUIPMENT SHALL BE ANCHORED TO WITHSTAND LOCAL WIND SPEED REQUIREMENTS AND DESIGNED FOR OUTDOOR EXPOSURE.
- ALL COAX, POWER AND TELEPHONE SYSTEM CONDUITS SHALL HAVE A MINIMUM 24" SCH. 80 PVC RADIUS SWEEPS TO EQUIPMENT, PULLBOXES, GUY, ETC., UNLESS OTHERWISE NOTED, OR AS REQUIRED BY UTILITY COMPANIES.
- FUSE TYPE SHALL BE BUSSMAN RKI LOW PEAK FUSE (LPN-RK-140).
- UPON COMPLETION OF THE JOB, THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS TO THE OWNER.
- GENERAL GROUNDING CRITERIA
1ST STEP: GROUND TO EXISTING BUILDING STRUCTURAL STEEL AND TO THE EXISTING COLD WATER METAL PIPE LINE. (WHERE APPLICABLE) THEN TEST GROUNDING RESISTANCE FOR 5 OHMS OR LESS OVERALL GROUND RESISTANCE. WHERE THE EFFECTIVE RESISTANCE DOES NOT MEET THIS CRITERIA, PROVIDE SUPPLEMENTAL GROUNDING AND RE-TEST UNTIL GROUND RESISTANCE FALLS BELOW THIS LEVEL.
- SUPPLEMENTAL GROUND MAY CONSIST OF ONE OR MORE OF THE FOLLOWING:
COUNTERPOISE, USER GROUND, GROUND ROD AND/OR GROUND WELL IN EXTREMELY ADVERSE SOIL CONDITIONS. WHERE THE EXISTING BUILDING STEEL DOES NOT PROVIDE AN EFFECTIVE GROUND RESISTANCE, THEN THE CONTRACTOR SHALL PROVIDE A SEPARATE GROUND CONDUCTOR FROM ROOF MOUNTED BTS EQUIPMENT LOCATIONS EITHER DOWN THROUGH THE INSIDE OF THE BUILDING OR DOWN THE OUTSIDE OF THE BUILDING, DEPENDING UPON OWNER PREFERENCE. WHERE THE GROUND CONDUCTOR FROM THE ROOF MOUNTED EQUIPMENT IS ROUTED IN CONDUIT, THE CONDUIT SHALL BE EFFECTIVELY GROUND TO THE GROUND CONDUCTOR AT BOTH ENDS OF THE CONDUIT. (GUY INSTALLATIONS):

FOR INSTALLATIONS WHERE WOODEN STRUCTURES, TOWERS, CONCRETE SILOS ETC. ARE ENCOUNTERED A PARATE DOWNLEAD SHALL BE PROVIDED FROM THE 3 ANTENNAS SEPARATED BY A MINIMUM OF 12 INCHES FROM THE COAXIAL CABLES. THE GROUND CONDUCTOR SHALL BE SECURELY FASTENED TO THE EXTERIOR OF OUTSIDE STRUCTURES WITH NONMETALLIC GROUND STRAPS EVERY 10 FEET. AGAIN, AS FOR TENANT IMPROVEMENT PROJECTS, TEST THE GROUND RESISTANCE FOR GUY INSTALLATIONS AND PROCEED PER THE ABOVE STEPS.
- CONTRACTOR TO COLOR PHASE CONDUCTORS BLACK (B PHASE), RED (A PHASE), WHITE (NEUTRAL), AND GREEN (GROUND).
- CONTRACTOR TO PROVIDE GUTTER TAP.
- THERE SHALL BE A MINIMUM CLEARANCE OF 48" BETWEEN FRONT OF ELECTRICAL EQUIPMENT AND ANY WALL OR OBSTRUCTION.

CADWELD CONNECTIONS OR APPROVED EQUAL		BURNDY CONNECTIONS OR APPROVED EQUAL	
 PARALLEL HORIZONTAL CONDUCTORS PARALLEL THROUGH CONNECTION OF HORIZONTAL CABLES TYPE PT	 HORIZONTAL STEEL SURFACE TO FLAT STEEL SURFACE OR HORIZONTAL PIPE TYPE HS	 VERTICAL PIPE CABLE DOWN AT 45° TO RANGE OF VERTICAL PIPES TYPE VS	 BOND JUMPER FIELD FABRICATED GREEN STRANDED INSULATED TYPE 2-YA-2
 THROUGH CABLE TO GROUND ROD THROUGH CABLE TO TOP OF GROUND ROD TYPE GT	 VERTICAL STEEL SURFACE CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE INCLUDING PIPE TYPE VS		 COPPER LUGS TWO HOLE - LONG BARREL LENGTH TYPE YA-2



T-Mobile

7668 WARREN PARKWAY
FRISCO BRIDGES TECH CAMPUS
FRISCO, TX 75034

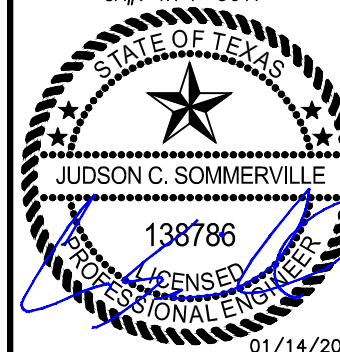
PLANS PREPARED FOR:



8051 CONGRESS AVE
BOCA RATON, FL 33487



CA#: TX F-9617



SITE INFORMATION:

DA01789B

580 W VANDERBILT
STEPHENVILLE, TEXAS 76401

#	DATE	DESCRIPTION:
0	11/30/21	ISSUED FOR CLIENT REV.
1	01/14/22	REVISED PER CLIENT COMMENTS
2	02/14/22	ISSUED FOR CONSTRUCTION

T-MOBILE SITE ID:
DA01789B

SBA SITE ID:
TX09257-A

SHEET NAME:

**ELECTRICAL &
GROUNDING DETAILS**

SMW #:
19-10142

SHEET NUMBER:

E-6

DESIGNER: --
CHECKED BY: JE
ENGINEER: JCS