

1 COMPOUND PLAN
 SCALE: 3/32"=1'-0" (3/16"=1'-0" IF 24X36 SHEET SIZE)

APPLICANT
T-Mobile
 5209 LINBAR DRIVE
 SUITE 625
 NASHVILLE, TN 37211

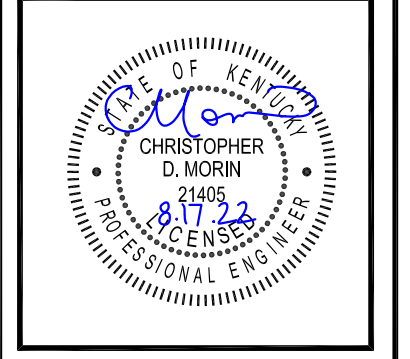
SBA
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487-1307

ENGINEER
BC
 architects
 engineers
 5661 COLUMBIA PIKE, SUITE 200
 FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT CHECKED BY: SS
 APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS

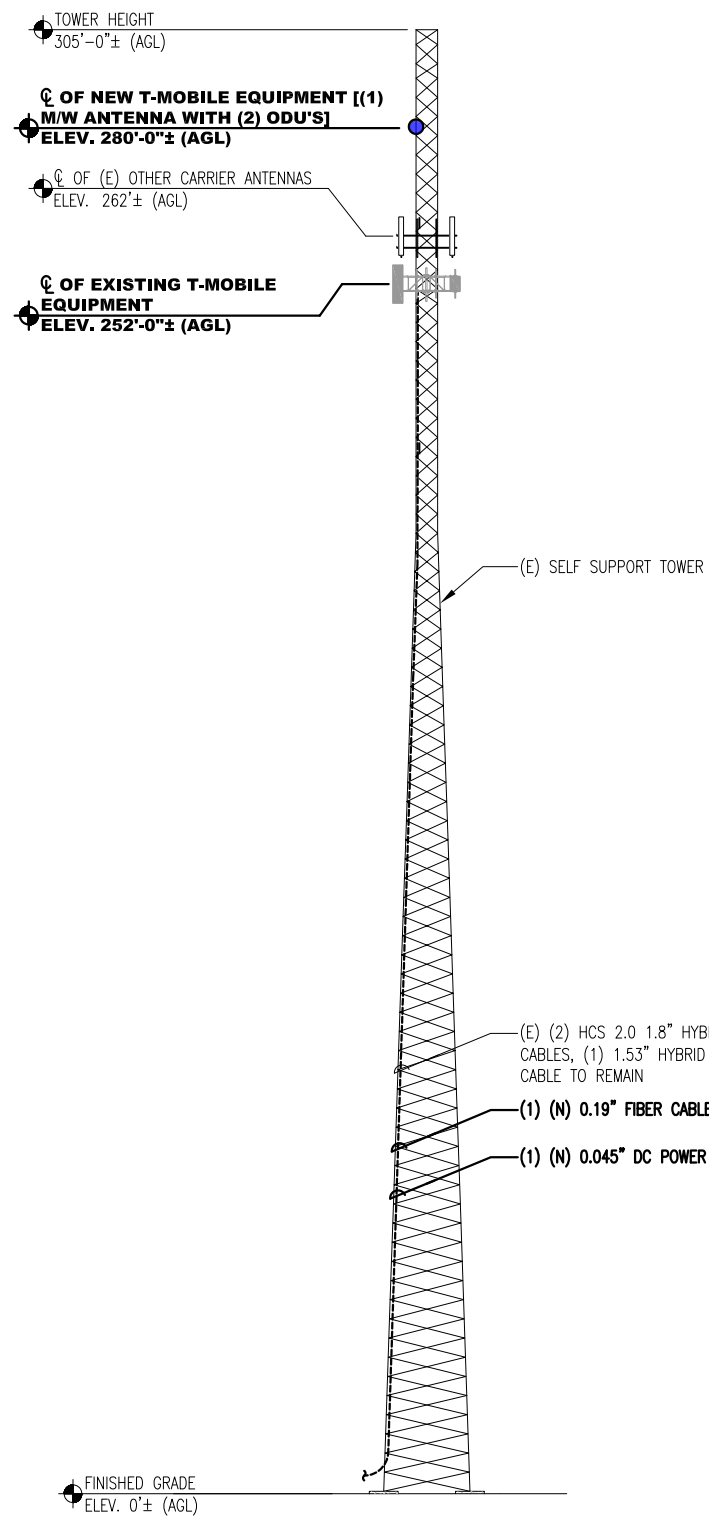
SPECIAL PRE-CONSTRUCTION WORK NOTE:
 ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
 ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.



9LV0607A / LV25XC702
HANSFORD RELO
 HIGHWAY 80 & WHITSON ROAD
 SOMERSET, KY 42503

COMPOUND PLAN

A-1



1 TOWER ELEVATION
SCALE: 1"=40' (1"=20' IF 24X36 SHEET SIZE)

SPECIAL NOTES

- GC TO VERIFY ALL HEIGHTS AND AZIMUTHS IN FIELD PRIOR TO CONSTRUCTION. GC SHALL NOTIFY T-MOBILE AND ENGINEER OF DISCREPANCIES IMMEDIATELY.
- STRUCTURAL/ DESIGN & ANALYSIS SHALL BE PERFORMED & APPROVED BY TOWER OWNER AND MANUFACTURER
- STRUCTURAL ANALYSIS PERFORMED BY SBA COMMUNICATIONS CORPORATION DATED 08/05/22.
- CONTRACTOR TO THOROUGHLY REVIEW THE TOWER STRUCTURAL ANALYSIS FOR INFORMATION PERTAINING TO TOWER UPGRADES, MOUNTING TYPES, ANTENNA HEIGHTS, AND CABLE ROUTING, ANY OTHER DISCREPANCIES BETWEEN THE DRAWINGS, STRUCTURAL ANALYSIS, AND TOWER PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO BIDDING AND INSTALLATION.

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-R6-BPW	R6 BENT PLATE WELDMENT		14.26	28.52
2	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
3	2	X-LCBP4	BENT BACKING PLATE	13 in	20.04	40.09
4	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
5	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
6	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)		1.57	12.54
7	2	G5807	5/8" x 7" HDG HEX BOLT GRS FULL THREAD	7 in	0.70	1.41
8	13	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	0.92
9	26	G58LW	5/8" HDG LOCKWASHER		0.03	0.68
10	27	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.51
11	1	G5806	5/8" x 6" HDG HEX BOLT GRS FULL THREAD	6 in	0.82	0.82
12	4	A34214	3/4" x 3/4" x 2-1/4" A325 BOLT	2 1/4 in	0.47	1.89
13	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
14	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
15	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
16	4	X-UB5458	5/8" X 4-5/8" X 7" X 3" U-BOLT (HDG.)		1.54	6.14
17	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
18	1	P472	4-1/2" X 72" SCH. 40 GALVANIZED PIPE	72 in	64.91	64.91
					TOTAL WT. #	294.76

FINISH: HOT DIP GALVANIZED.

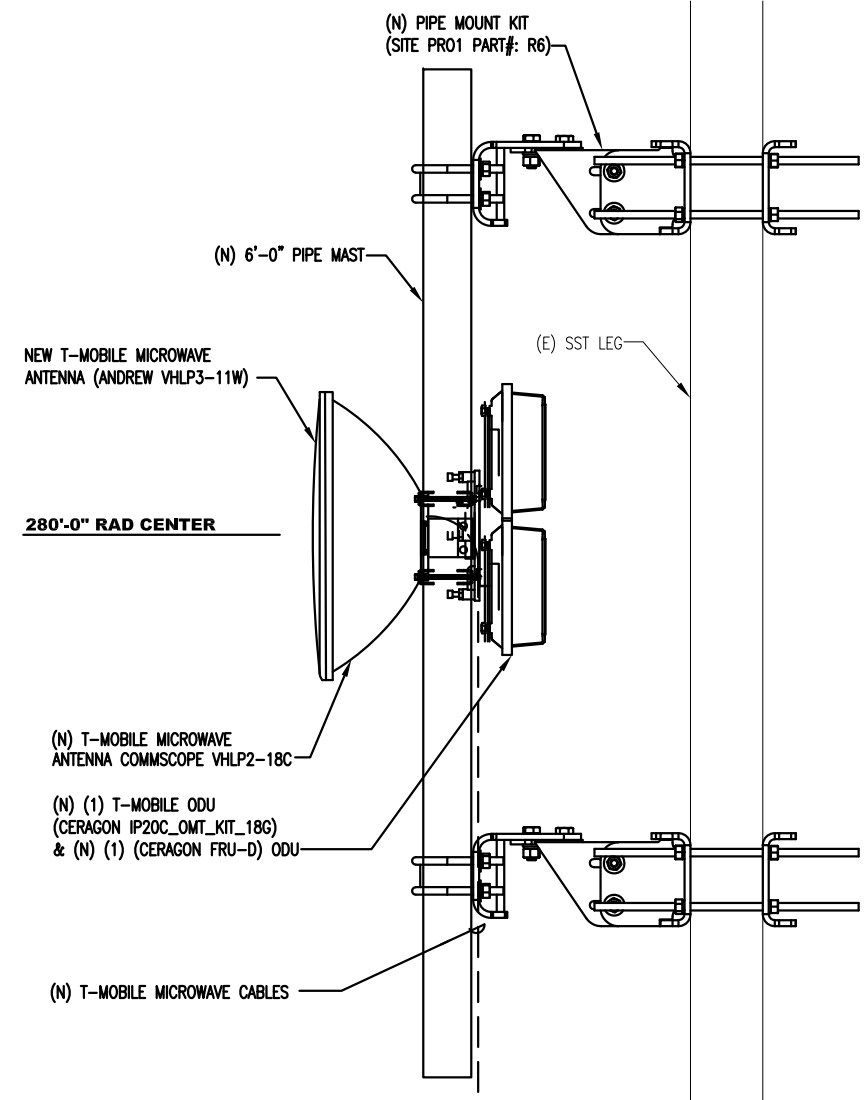
TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.007")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS AND ANGLES ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.000")

DESCRIPTION
R6 HEAVY-DUTY UNIVERSAL PIPE MOUNT KIT WITH 4-1/2" PIPE

PROFIT AND LOSS
THE DATA AND DIMENSIONS CONTAINED IN THIS DRAWING ARE INCORPORATED INTO THE CONTRACT AND SHALL BE CONSIDERED TO BE THE BASIS FOR THE CONTRACTOR'S OBLIGATION TO CONSTRUCT THE PROJECT.

CD NO. SP1	DRAWN BY KCB	ENG. APPROVAL	PART NO. R6
CLASS SUB 87 02	DRAWING USAGE SHOP	CHECKED BY	ENG. NO. R6

DATE: 11/16/2020



2 TYPICAL MICROWAVE MOUNTING DETAIL
N.T.S.

APPLICANT
T-Mobile
5209 LINBAR DRIVE
SUITE 625
NASHVILLE, TN 37211

SBA
8051 CONGRESS AVENUE
BOCA RATON, FL 33487-1307

ENGINEER
BC
architects
engineers
5661 COLUMBIA PIKE, SUITE 200
FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT CHECKED BY: SS
APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS



SPECIAL PRE-CONSTRUCTION WORK NOTE:
ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.

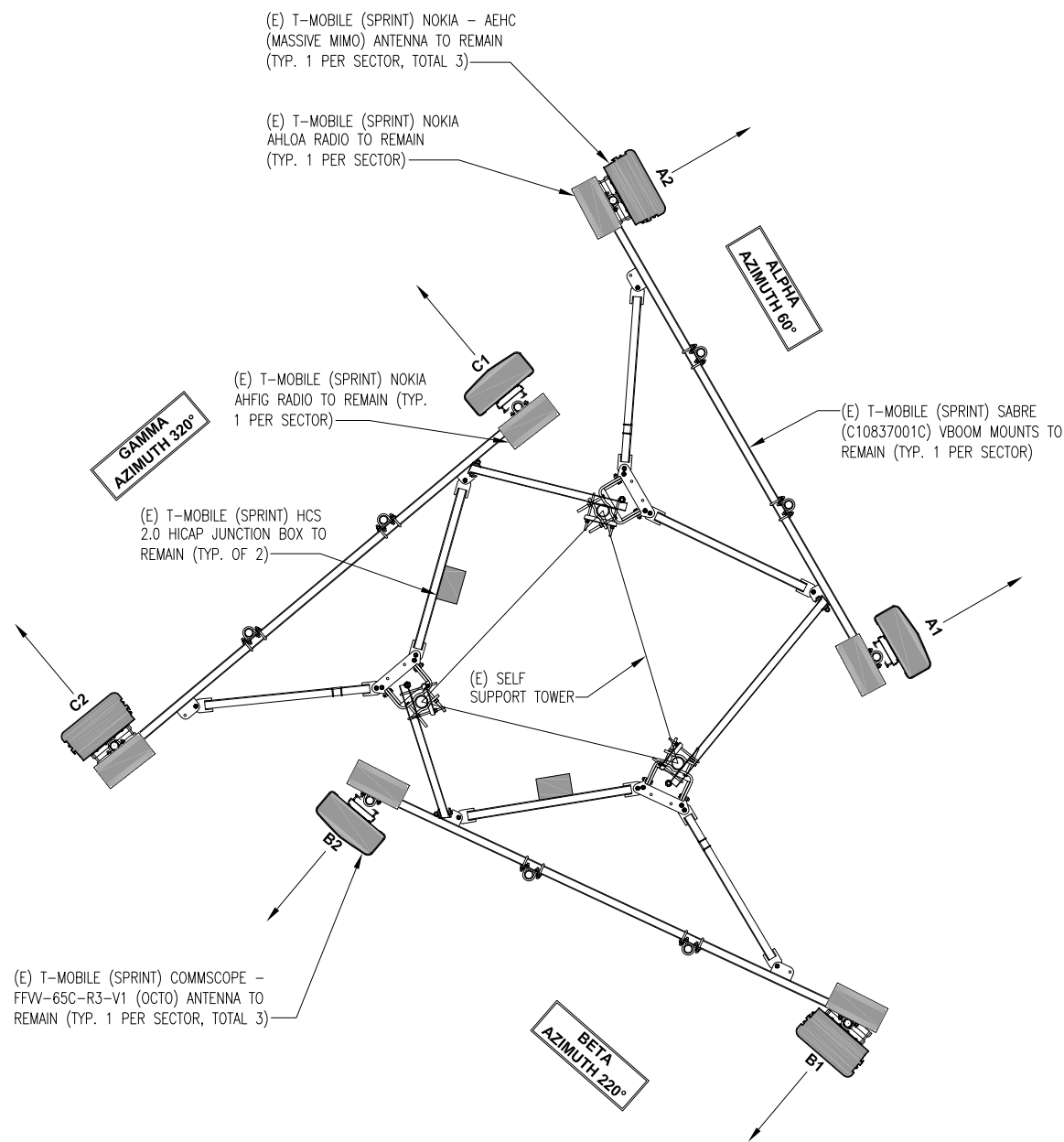
STATE OF KENTUCKY
CHRISTOPHER D. MORIN
21405
8.17.22
LICENSE
PROFESSIONAL ENGINEER

9LV0607A / LV25XC702
HANSFORD RELO
HIGHWAY 80 & WHITSON ROAD
SOMERSET, KY 42503



ELEVATION & DETAILS

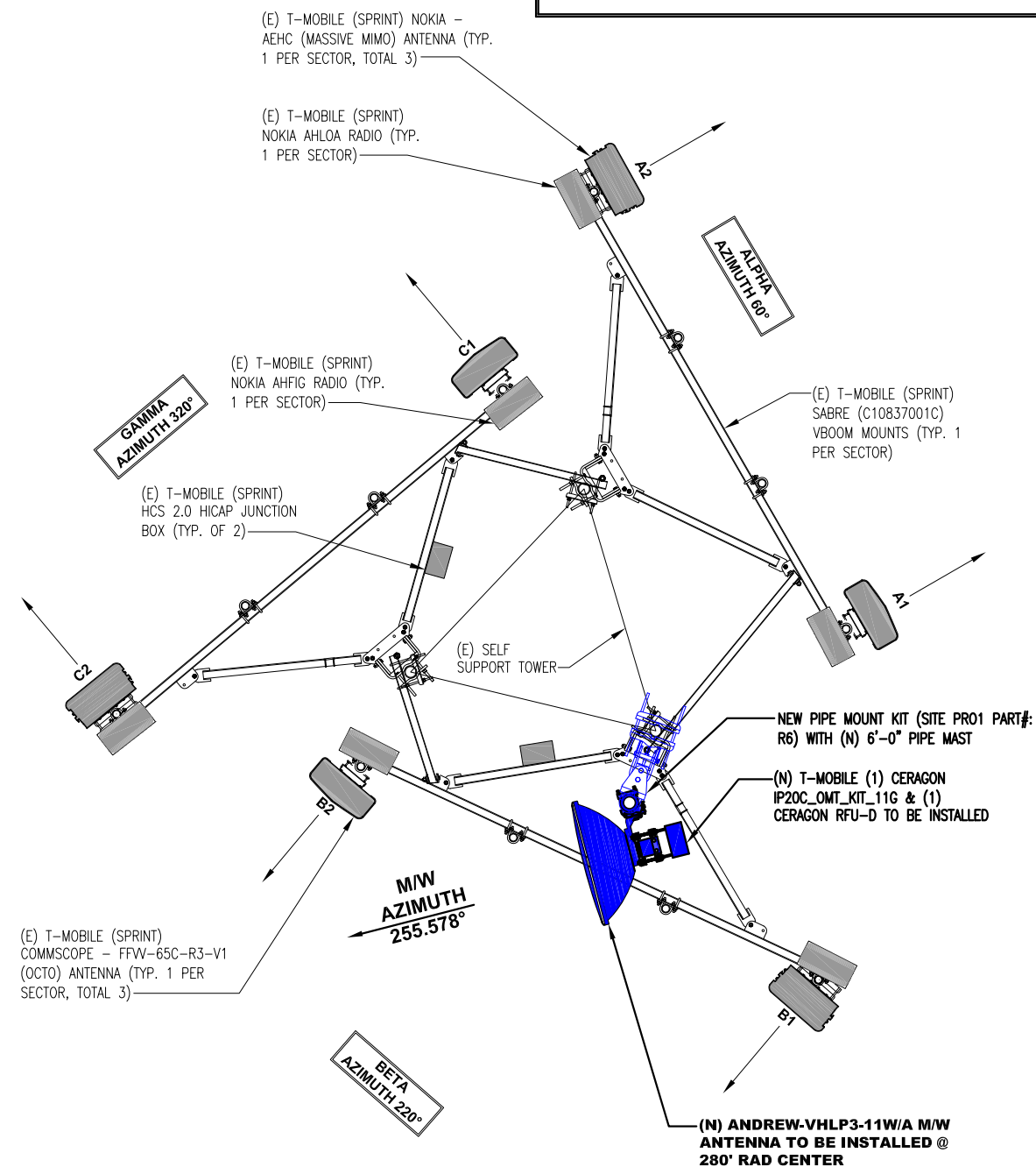
A-2

LEGEND	
	EXISTING EQUIPMENT TO BE REMOVED
	EXISTING EQUIPMENT TO REMAIN



1 EXISTING T-MOBILE ANTENNA CONFIGURATION
SCALE: 1/4"=1'-0" (1/2"=1'-0" IF 24X36 SHEET SIZE)

LEGEND	
	NEW EQUIPMENT INSTALLED
	EXISTING EQUIPMENT TO REMAIN




2 NEW T-MOBILE ANTENNA CONFIGURATION
SCALE: 1/4"=1'-0" (1/2"=1'-0" IF 24X36 SHEET SIZE)

SPECIAL NOTES:
STRUCTURAL ANALYSIS PERFORMED BY SBA COMMUNICATIONS CORPORATION DATED 08/05/22.
 MOUNT ANALYSIS PERFORMED BY OTHERS.
 CONTRACTOR TO THOROUGHLY REVIEW THE TOWER & MOUNT STRUCTURAL ANALYSIS FOR INFORMATION PERTAINING TO MOUNT UPGRADES, MOUNTING TYPES, ANTENNA HEIGHTS, AND CABLE ROUTING. ANY OTHER DISCREPANCIES BETWEEN THE DRAWINGS, STRUCTURAL ANALYSIS, AND TOWER PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO BIDDING AND INSTALLATION.

APPLICANT

 5209 LINBAR DRIVE
 SUITE 625
 NASHVILLE, TN 37211

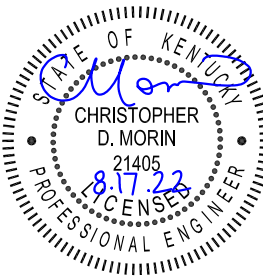

 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487-1307

ENGINEER

 architects
 engineers
 5661 COLUMBIA PIKE, SUITE 200
 FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT	CHECKED BY: SS
APPROVED BY: BMQ	

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS

SPECIAL PRE-CONSTRUCTION WORK NOTE:
 ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
 ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.

STATE OF KENTUCKY

 CHRISTOPHER D. MORIN
 21405
 8.17.22
 LICENSE
 PROFESSIONAL ENGINEER

9LV0607A / LV25XC702
HANSFORD RELO
 HIGHWAY 80 & WHITSON ROAD
 SOMERSET, KY 42503

EXISTING & PROPOSED
 ANTENNA PLANS

A-2A

APPLICANT
T-Mobile
 5209 LINBAR DRIVE
 SUITE 625
 NASHVILLE, TN 37211

SBA 
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487-1307

ENGINEER
BC
 architects
 engineers
 5661 COLUMBIA PIKE, SUITE 200
 FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT CHECKED BY: SS
 APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS

SPECIAL PRE-CONSTRUCTION WORK NOTE:
 ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
 ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.



9LV0607A / LV25XC702
HANSFORD RELO
 HIGHWAY 80 & WHITSON ROAD
 SOMERSET, KY 42503

ANTENNA & CABLE
 SCHEDULE

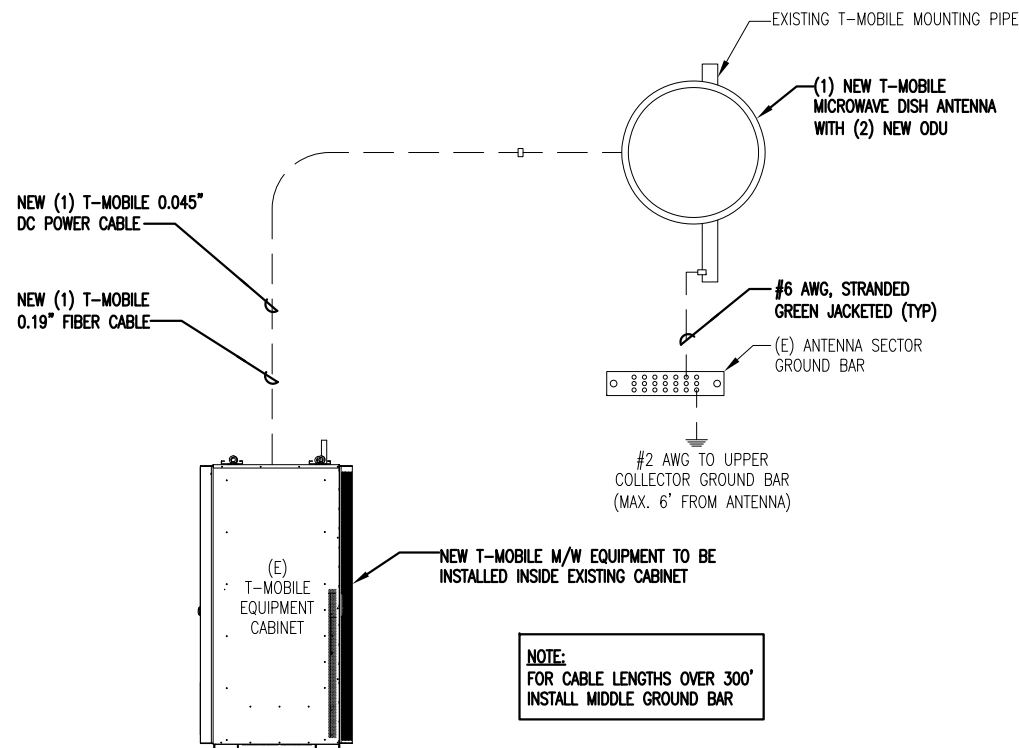
A-3

NEW AND EXISTING ANTENNA AND CABLE SCHEDULE

SECTOR	POS.	AZIMUTH	RAD CENTER	TECHNOLOGY	ANTENNA	STATUS	RRU TYPE	TMA/ DIPLEXER/ODU	CABLE STATUS	CABLE SIZE	CABLE LENGTH	JUMPER LENGTH
ALPHA	A1	60°	252'	—	(1) (N) COMMSCOPE - FFVV-65C-R3-V1 (OCTO)	EXISTING	(1) EXISTING AHLOA (1) EXISTING AHFIG	—	(1) (N) 0.045" DC POWER CABLE FOR M/W	VARIES	±330' ±100M	≤ 15'-0"
	A2	60°	252'	—	(1) EXISTING NOKIA AEHC MASSIVE MIMO	EXISTING	—	—				≤ 15'-0"
BETA	B1	220°	252'	—	(1) (N) COMMSCOPE - FFVV-65C-R3-V1 (OCTO)	EXISTING	(1) EXISTING AHLOA (1) EXISTING AHFIG	—	(1) (N) 0.19" FIBER CABLE FOR M/W	VARIES	±330' ±100M	≤ 15'-0"
	-	255.578°	280'-0"	M/W	(1) ANDREW VHLP3-11W/A M/W ANTENNA	NEW	—	(1) NEW CERAGON IP20C_OMT_KIT_11G (1) NEW CERAGON RFU-D				≤ 15'-0"
	B2	220°	252'	—	(1) EXISTING NOKIA AEHC MASSIVE MIMO	EXISTING	—	—				(E) (2) HCS 2.0 1.8" HYBRID CABLES, (1) 1.53" HYBRID CABLE TO REMAIN
GAMMA	C1	320°	252'	—	(1) (N) COMMSCOPE - FFVV-65C-R3-V1 (OCTO)	EXISTING	(1) EXISTING AHLOA (1) EXISTING AHFIG	—	(E) (2) HCS 2.0 1.8" HYBRID CABLES, (1) 1.53" HYBRID CABLE TO REMAIN	VARIES	±330' ±100M	≤ 15'-0"
	C2	320°	252'	—	(1) EXISTING NOKIA AEHC MASSIVE MIMO	EXISTING	—	—				≤ 15'-0"

(*) SHARED WITH ALL SECTORS

IMPORTANT NOTE: PLEASE REFER TO LATEST RFDS SHEET FOR NSN CONFIGURATION. GC TO CAP ALL UNUSED PORTS.



NOTE:
FOR CABLE LENGTHS OVER 300'
INSTALL MIDDLE GROUND BAR

1 MICROWAVE SINGLE LINE DIAGRAM
SCALE: NTS

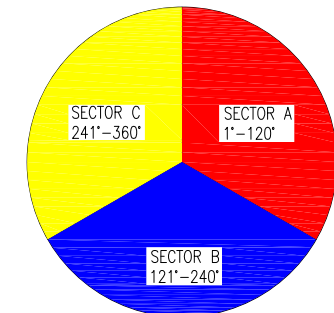
MWSB-PERM SOLUTION COLOR CODING

MARKING METHOD COLORED BANDS	MARKING METHOD NUMBER OF BANDS
RED	SMALLEST NUMBER IN THIS RANGE = R-1 NEXT LARGER # = R-2
BLUE	SMALLEST NUMBER IN THIS RANGE = B-1 NEXT LARGER # = B-2
YELLOW	SMALLEST NUMBER IN THIS RANGE = Y-1 NEXT LARGER # = Y-2

NOTES:
LABEL EACH ANTENNA ABOVE THE DOWN-TILT KNOB AND ON THE DOWN-TILT OUTER CAP WITH COLORED TAPE, LABEL AS FOLLOWS:
RED: RFU_1 BLUE: RFU_2 YELLOW: RFU_3

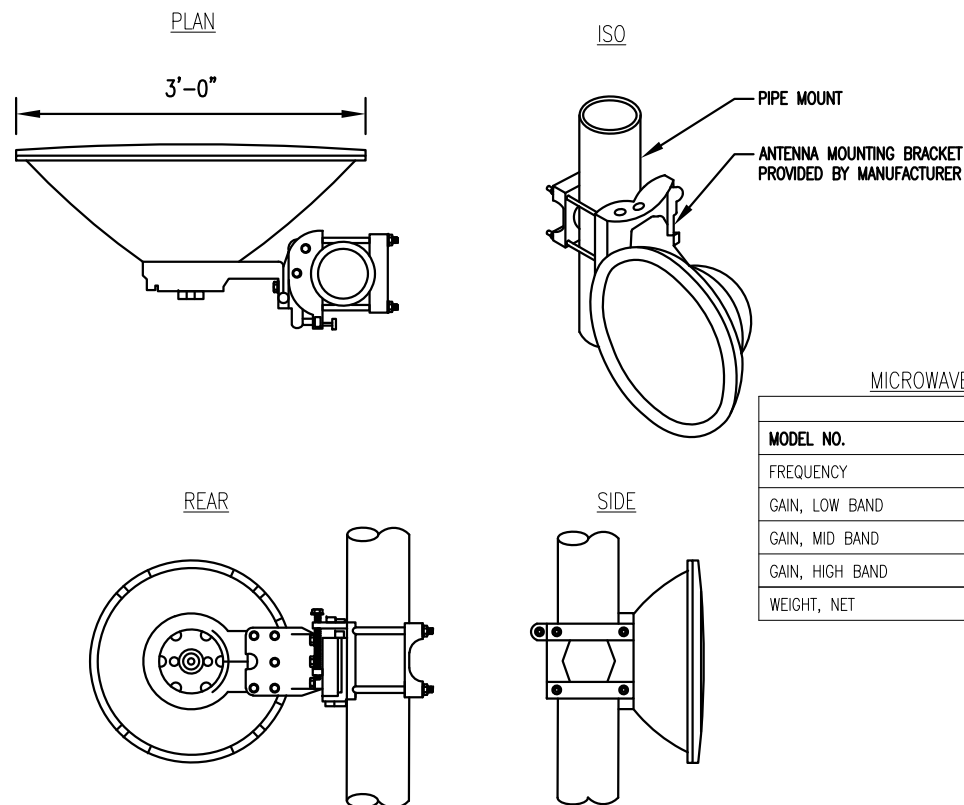
CABLES SHALL BE ROUTED OUTSIDE AND ATTACHED TO TOWER

SPRINT SECTOR DIAGRAM AND AZIMUTHS



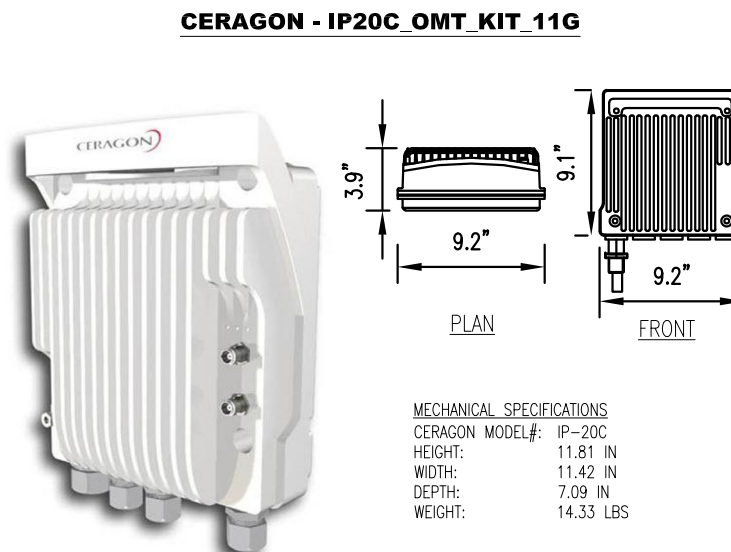
SECTOR A: [Red] SECTOR B: [Blue] SECTOR C: [Yellow]

2 COLOR CODE CHART
SCALE: NTS



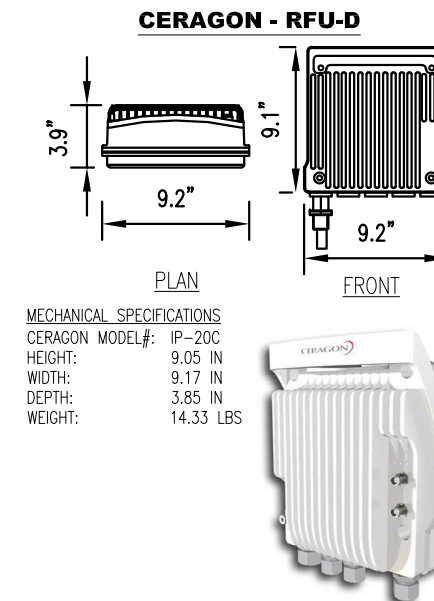
MICROWAVE DISH	
MODEL NO.	SPECIFICATIONS
COMMSCOPE VHL P3-11W/A	
FREQUENCY	10.125-11.700 GHz
GAIN, LOW BAND	37.8 dBi
GAIN, MID BAND	38.4 dBi
GAIN, HIGH BAND	39 dBi
WEIGHT, NET	37.479 LBS./17 KG.

3 MICROWAVE ANTENNA - COMMSCOPE VHL P3-11WA DETAIL
SCALE: NTS



MECHANICAL SPECIFICATIONS
CERAGON MODEL#: IP-20C
HEIGHT: 11.81 IN
WIDTH: 11.42 IN
DEPTH: 7.09 IN
WEIGHT: 14.33 LBS

4 MICROWAVE ODU - CERAGON
FIBEAIR IP20C DETAIL
SCALE: NTS



MECHANICAL SPECIFICATIONS
CERAGON MODEL#: IP-20C
HEIGHT: 9.05 IN
WIDTH: 9.17 IN
DEPTH: 3.85 IN
WEIGHT: 14.33 LBS

5 MICROWAVE ODU - CERAGON
RFU-D DETAIL
SCALE: NTS

APPLICANT
T-Mobile
5209 LINBAR DRIVE
SUITE 625
NASHVILLE, TN 37211

SBA
8051 CONGRESS AVENUE
BOCA RATON, FL 33487-1307

ENGINEER
BC
architects
engineers
5661 COLUMBIA PIKE, SUITE 200
FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT CHECKED BY: SS
APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS

SPECIAL PRE-CONSTRUCTION WORK NOTE:
ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.

STATE OF KENTUCKY
CHRISTOPHER D. MORIN
21405
8.17.22
LICENSE
PROFESSIONAL ENGINEER

9LV0607A / LV25XC702
HANSFORD RELO
HIGHWAY 80 & WHITSON ROAD
SOMERSET, KY 42503

DETAILS

A-4

GENERAL NOTES:

1. OWNER FURNISHED MATERIALS, T-MOBILE "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL:
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX(PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLE
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES, AND PIPES FOR MOUNTING.
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT

2. CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING:

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUNDS STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.

IT IS THE RESPONSIBILITY OF T-MOBILE TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.

3. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED, INSURED, STORED, UNCRATED, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL THE APPURTENCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING UP.
4. ALL EQUIPMENT FURNISHED AND WORK PERFORMED UNDER THE CONTRACT DOCUMENTS SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.
5. ALL WORK, MATERIAL, AND EQUIPMENT SHALL COMPLY WITH ALL REQUIREMENTS OF THE LATEST EDITIONS AND INTERIM AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL SAFETY CODE, OSHA, AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW (EXCEPT WHERE OTHERWISE NOTED) AND SHALL COMPLY WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES (U.L.) AND BEAR THE U.L. LABEL.
6. T-MOBILE OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO THE OWNER OR HIS ARCHITECT/ENGINEER.
7. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION.
8. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THE WORK TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITIES. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE; AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.
9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER (T-MOBILE) ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL SAID UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING AFFECTED UTILITIES
10. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE

GENERAL NOTES (CONT'D):

PROJECT MANAGER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.

11. CONTRACTORS SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, DEBRIS, WEEDS, BRUSH, OR ANY OTHER DEPOSITS REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
12. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE CONTRACTOR WITH LOCAL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.
13. DURING CONSTRUCTION, THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN THE UTILITIES OF THE BUILDING/SITE WITHOUT INTERRUPTION. SHOULD IT BE NECESSARY TO INTERRUPT ANY SERVICE OR UTILITY, THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM THE BUILDING/PROPERTY OWNER FOR SUCH INTERRUPTION, AT LEAST 72 HOURS IN ADVANCE. ANY INTERRUPTION SHALL BE MADE WITH A MINIMUM AMOUNT OF INCONVENIENCE TO THE BUILDING/PROPERTY OWNER AND ANY SUCH SHUTDOWN TIME SHALL BE COORDINATED WITH THE BUILDING/PROPERTY OWNER.
14. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION.
15. CONTRACTOR SHALL SUBMIT AT THE END OF THE PROJECT A COMPLETE SET OF AS BUILT DRAWINGS TO T-MOBILE'S PROJECT ENGINEER.
16. GC WILL NOT START THE CONSTRUCTION UNTIL AFTER THEY RECEIVE THE PRE-CONSTRUCTION PACKAGE AND HAVE A PRE-CONSTRUCTION WALK WITH THE PROJECT MANAGER.

DIVISION 2 – SITE WORK:

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE PROJECT MANAGER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT LIMITED TO:

- A. FALL PROTECTION
- B. CONFINED SPACE
- C. ELECTRICAL SAFETY
- D. TRENCHING AND EXCAVATION

2. REMOVE FROM SITE/OWNER'S PROPERTY ALL WASTE MATERIALS, UNUSED EXCAVATED MATERIAL INCLUDING MATERIAL CLASSIFIED UNSATISFACTORY, CONTAMINATED OR DANGEROUS TRASH AND DEBRIS, AND DISPOSE OF IN A LEGAL MANNER.
3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING.
4. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH .
5. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, AS REQUIRED DURING CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND CONSTRUCTION STAKING. CONTRACTOR SHALL ESTABLISH GRADE AND LINE STAKES PRIOR TO CONSTRUCTION.

BC ARCHITECTS ENGINEERS DOES NOT GUARANTEE OR WARRANT THAT THE FOREMENTIONED EASEMENTS ARE SUFFICIENT FOR CONSTRUCTION TRAFFIC. GC SHALL CONSULT WITH A T-MOBILE REPRESENTATIVE AND LANDLORD WITH EXACT LOGISTICS TO FACILITATE CONTRACTABILITY OF THE SITE AND DELIVERY OF CRITICAL MATERIALS SUCH AS THE TOWER, STEEL, CONCRETE AND CRANES TO THE PROPOSED LEASE AREA. GC SHALL RESTORE SITE TO ORIGINAL CONDITIONS AND REPLACE ANY AND ALL DISTURBED TREES OR LANDSCAPING.

BC ARCHITECTS ENGINEERS IS NOT RESPONSIBLE FOR THE MAINTENANCE AND/OR OPERATIONAL FEASIBILITY.

SCOPE OF WORK FOR THESE PLANS DOES NOT INVOLVE VALUE ENGINEERING AS WELL AS MAINTAINABILITY OPERATIONS OF THE SITE, ACCESS OR UTILITIES.

DIVISION 3 – CONCRETE:

1. MINIMUM ALLOWABLE CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR TESTING AND MATERIALS METHODS STANDARDS ASTM C172, ASTM C31 AND ASTM C39 UNLESS OTHERWISE NOTED.
2. CONCRETE FOR ALL FOUNDATIONS: 540 LBS PER CUBIC YARD OF CONCRETE. MINIMUM CEMENT CONTENT FOR 1-INCH MAXIMUM SIZE AGGREGATE, SLUMP RANGE 3 INCHES TO 5 INCHES, TOTAL AIR CONTENT 4 PERCENT TO 7 PERCENT BY VOLUME. AIR ENTRAINING ADMIXTURE REQUIRED TO CONTROL TOTAL AIR CONTENT, WATER REDUCING ADMIXTURE PERMITTED TO OBTAIN SLUMP OVER 3-INCHES.
3. ALL CONCRETE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI 318) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND (ACI 301) STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE.
4. REBAR SHALL BE ASTM A-615 DEFORMED TYPE WITH MINIMUM YIELD STRENGTH OF 60,000 PSI (40,000 PSI GRADE MAY BE USED FOR TIES & STIRRUPS).
WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185
5. DETAILING SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES (ACI STD-315 LATEST EDITION).
6. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4". UNLESS OTHERWISE NOTED.
7. REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN POSITION. LOCATION OF REINFORCEMENT SHALL BE INDICATED ON THE DRAWINGS. THE FOLLOWING MINIMUM COVER (INCHES) FOR REINFORCEMENT SHALL BE PROVIDED, EXCEPT AS NOTED ON DRAWINGS.
MINIMUM COVER (INCHES)
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.... 3"
EXPOSED TO EARTH OR WEATHER:
#6 THROUGH #18....2"
#5 BAR AND SMALLER....1-1/2"
8. TESTS
CONCRETE MATERIALS AND OPERATIONS SHALL BE TESTED AND INSPECTED BY THE ENGINEER AS THE WORK PROGRESSES. FAILURE TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS DISCOVERED NOR SHALL IT OBLIGATE THE ENGINEER FOR FINAL ACCEPTANCE.
A. FIVE CONCRETE TEST CYLINDERS SHALL BE TAKEN OF THE TOWER PIER FOUNDATION. TWO SHALL BE TESTED @ THREE DAYS, TWO @ TWENTY-EIGHT DAYS. THE FIFTH CYLINDER SHALL BE KEPT SEPARATELY, IF REQUIRED TO BE USED IN THE FUTURE.
B. ONE ADDITIONAL TEST CYLINDER SHALL BE TAKEN DURING COLD WEATHER AND CURED ON SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
C. ONE SLUMP TEST SHALL BE TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.
9. PLACING CONCRETE
A. THE ENGINEER SHALL BE NOTIFIED NOT LESS THAN 24 HOURS IN ADVANCE OF CONCRETE PLACEMENT, UNLESS INSPECTION IS WAIVED IN EACH CASE, PLACING OF CONCRETE SHALL BE PERFORMED ONLY IN THE PRESENCE OF THE ENGINEER. CONCRETE SHALL NOT BE PLACED UNTIL ALL FORMWORK, EMBEDDED PARTS, STEEL REINFORCEMENT, FOUNDATION SURFACES AND JOINTS INVOLVED IN THE PLACING HAVE BEEN APPROVED, AND UNTIL FACILITIES ACCEPTABLE TO THE T-MOBILE REPRESENTATIVE HAVE BEEN PROVIDED AND MADE READY FOR ACCOMPLISHMENT OF THE WORK AS SPECIFIED. CONCRETE MAY NOT BE ORDERED FOR PLACEMENT UNTIL ALL ITEMS HAVE BEEN APPROVED AND T-MOBILE HAS PERFORMED A FINAL INSPECTION AND GIVEN APPROVAL TO START PLACEMENT IN WRITING.
B. PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301.
10. PROTECTION
A. IMMEDIATELY AFTER PLACEMENT, THE CONTRACTOR SHALL PROTECT THE CONCRETE FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY. FINISHED WORK SHALL BE PROTECTED.
B. CONCRETE SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
C. ALL CONCRETE SHALL BE WATER CURED BY CONTINUOUS (NOT PERIODIC) FINE MIST SPRAYING OR SPRINKLING ALL EXPOSED SURFACES. WATER SHALL BE CLEAN AND FREE FROM ACID, ALKALI, SALTS, OIL SEDIMENT, AND ORGANIC MATTER. SUCCESSFUL CURING SHALL BE OBTAINED BY USE OF AN AMPLE WATER SUPPLY UNDER PRESSURE IN PIPES, WITH ALL NECESSARY APPLIANCES OF SPRINKLERS, AND SPRAYING DEVICES.

ELECTRICAL NOTES:

1. ELECTRICAL DESIGN SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR. STRUCTURAL DESIGN SHALL BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL ELECTRICAL CODE.
2. ALL SUGGESTED ELECTRICAL ELEMENTS (SUCH AS BREAKER SIZES, WIRE SIZES, CONDUITS SIZES ARE FOR ZONING PURPOSES ONLY. IT IS THE RESPONSIBILITY TO OF THE ELECTRICAL CONTRACTOR TO CONFIRM COMPLIANCE WITH LOCAL ELECTRICAL CODES AND PASS ALL APPLICABLE AND NECESSARY INSPECTIONS. IN SOME EVENTS,

ELECTRICAL NOTES (CONT'D):

IT MAY BE NECESSARY TO PERFORM AN ELECTRICAL LOAD STUDY TO VERIFY THE CAPACITY OF THE EXISTING SERVICE. THIS IS NOT THE RESPONSIBILITY OF BC ARCHITECTS ENGINEERS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

3. CONTRACTOR SHALL FIELD LOCATE ALL BELOW GRADE GROUND LINES AND UTILITY LINES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF ALL UTILITIES AND GROUND LINES THAT MAY BECOME DISTURBED OR CONFLICTING IN THE COURSE OF CONSTRUCTION.

DIVISION 5 – STRUCTURAL STEEL:

1. DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE LATEST AISC MANUAL OF STEEL CONSTRUCTION (ASD), AWS D1.1, AND THE BASIC BUILDING CODE. STRUCTURAL STEEL SHALL BE AS FOLLOWS:
 - A. ASTM A36, GRADE 36; ROLLED STEEL, RODS, PLATES, U-BOLTS AND ANCHOR BOLTS.
 - B. ASTM A325 BOLTS, BEARING TYPE
 - C. ALL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
3. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND T-MOBILE PROJECT MANAGER IN WRITING
4. TIGHTEN HIGH STRENGTH BOLTS TO A SNUG TIGHT CONDITION WHERE ALL PLIES IN A JOINT ARE IN FIRM CONTACT BY EITHER
 - A. A FEW IMPACTS OF A IMPACT WRENCH
 - B. THE FULL EFFORT OF A PERSON USING A SPUD WRENCH
5. WELDING
 - A. ALL WELDING SHALL BE DONE BY A CERTIFIED WELDERS. CERTIFICATION DOCUMENTS SHALL BE MADE AVAILABLE FOR ENGINEER'S AND/OR OWNER'S REVIEW IF REQUESTED.
 - B. WELDING ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING SHALL CONFORM TO ASTM A-233, E70 SERIES. BARE ELECTRODES AND GRANULAR FLUX USED IN THE SUBMERGED ARC PROCESS SHALL CONFORM TO AISC SPECIFICATIONS.
 - C. FIELD WELDING SHALL BE DONE AS PER AWS D1.1 REQUIREMENTS VISUAL INSPECTION IS ACCEPTABLE.
6. PROTECTION
 - A. UPON COMPLETION OF ERECTION INSPECT ALL GALVANIZED STEEL AND PAINT ANY FIELD CUTS, WELDS, OR GALVANIZED BREAKS WITH ZINC BASED PAINT. COLOR TO MATCH THE GALVANIZING PROCESS.

DIVISION 13 – SPECIAL CONSTRUCTION ANTENNA INSTALLATION

1. WORK INCLUDED:
 - A. ANTENNAS AND COAXIAL CABLES ARE FURNISHED BY T-MOBILE UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR INTERMS OF COORDINATION AND SITE ACCESS. ERECTION SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
 - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND T-MOBILE SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINIUM WAVEGUIDE.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYSER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER (FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED. FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
 1. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTOR/SPLICE WEATHER PROOFING KIT #221213 OR EQUAL.
 2. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

APPLICANT

 5209 LINBAR DRIVE
 SUITE 625
 NASHVILLE, TN 37211


 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487-1307

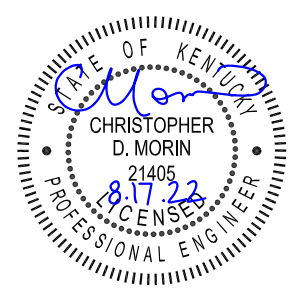
ENGINEER

 architects
 engineers
 5661 COLUMBIA PIKE, SUITE 200
 FALLS CHURCH, VA 22041-2868

DRAWN BY: AGT CHECKED BY: SS
 APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
A	90% REVIEW	08/15/22	AGT
0	FINALS	08/17/22	SS

SPECIAL PRE-CONSTRUCTION WORK NOTE:
 ANY EQUIPMENT NOT INCLUDED IN THE SBA PROVIDED STRUCTURAL ANALYSIS CANNOT BE INSTALLED DURING THIS PROJECT.
 ANY EQUIPMENT CURRENTLY INSTALLED ON THE TOWER THAT IS NOT INCLUDED IN THE STRUCTURAL ANALYSIS MUST BE REMOVED AT THE TIME OF CONSTRUCTION.



9LV0607A / LV25XC702
HANSFORD RELO
 HIGHWAY 80 & WHITSON ROAD
 SOMERSET, KY 42503

GENERAL NOTES & SPECIFICATIONS

SP-1