Transcend Wireless

10 Industrial Avenue,
Suite 3
Mahwah, NJ 07430

Phone: 201.684.0055
Fax: 201.684.0066

July 31, 2019

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Notice of Exempt Modification
992 Northrop Road, Wallingford CT
Latitude: 41.48938889
Longitude: -72.76833333
T-Mobile site: CT11054A /L600

Dear Ms. Bachman:

T-Mobile currently maintains (6) antennas at the 141 foot level of the existing 150 -foot monopole located at 992 Northrop Road in Wallingford CT. The monopole is owned by American Tower and the underlying property is owned by AT&T Wireless PCS Inc. T-Mobile now intends to add (3) 600/700 MHz antennas at the 141foot level of the tower with proposed mount modifications as per the attached mount analysis.

Planned Modifications:

Remove
(2) 1-5/8" coax

Remove and Replace:
RRUs:
(3) Ericsson RRUS 11 B12 (REMOVE) – (3) Ericsson Radio 4449 B12, B71 (REPLACE)

Existing to Remain:
Antennas/TMAs/RRUs/coax:
(3) AIR 21 B4A B12P-B5P
(3) AIR 21 B4P B2A
(3) KRY 112 144/1
(10) 1-5/8" coax
(1) 1-1/4" Hybrid

Install New:
Antennas:
(3) RFS APXVAARR24_43-U-NA20 - 600 MHz / 700 MHz
Coax Cables:
(2) 1-5/8" hybrid

This facility was approved by the Wallingford Planning and Zoning Commission on June 13, 1994, with no known conditions that would restrict exempt modifications. A copy of the original facility approval is attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to The Honorable William W. Dickinson, Jr., Mayor, and Kacie Hand, Town Planner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S;A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Elizabeth Jamieson

Elizabeth Jamieson
Transcend Wireless
10 Industrial Ave., Suite 3
Mahwah, New Jersey 07430
860-605-7808
EJamieson@TranscendWireless.com

cc:
The Honorable William W. Dickinson, Jr., Mayor
Kacie Hand, Town Planner
American Tower Corp, Tower Owner
AT&T Wireless PCS Inc., Property Owner

Exhibit A

Original Facility Approval

Town of Wallingford, Connecticut

407-94

SPECIAL PERMIT

ISSUED TO:

NAME SMART SMR OF NEW YORK

ADDRESS 575 Corporate Drive, Suite 402, Mahwah, NJ 07430

ISSUED FOR: 1,650 sq. ft. mobile radio transmission facility
163 ft. radio tower

OWNER OF PROPERTY Anthony D. Autorino

LEGAL DESCRIPTION OF PROPERTY ~~990~~ 1000 Northrup Road

CONDITIONS OF PERMIT:

1. Mr. Costello's comments concerning the "T" driveway
2.
3.
4.

DATE APPROVED BY PZC June 13, 1994

WALLINGFORD PLANNING AND ZONING COMMISSION

BY _____

ASSISTANT TOWN PLANNER

/85

PUBLIC HEARINGS

1. Special Permit/SMART/SMR/Northrup - #407-94 (continued)

The applicant requested a special permit to install a telecommunications tower at 990 Northrup Road in Wallingford. The application is for a 150 ft. monopole with 13 ft. width antennas on top for an overall height of 163 ft.

Ms. Bogle presented the company's history. SMART SMR is building a telecommunications system throughout New York, New Jersey, and Connecticut. This system will provide digital communication by combining dispatch, interconnect, paging, and data transmission into one system. This is a dishless system which travels over the radio waves. In order for this system to operate it must have a line of sight from the transmitter to the receiver. This is why it is necessary to have a height of 150 ft. The system will cover Wallingford, Meriden, North Haven, and Rocky Hill.

This system is categorized as a public utility which requires a special permit. Towers are exempt under the regulations from having a variance.

The present site is near a parking lot occupied for Double A Transportation, Inc. This site is not suitable to build on because of the setback requirements. The site meets all the setbacks for this facility and enables the property to be developed without asking for any variances.

Ms. Bogle presented the criteria used by the applicant when looking for an appropriate site for the tower in order to provide sufficient coverage. They did investigate the possibility of putting the antenna on top of a hotel near the site. However, it would not allow adequate coverage for the area due to the rolling nature of the topography. Ms. Bogle presented the Commission with photographs to give them an idea of the structure, as well as the existing parcel.

Ms. Bogle stated in response to Ms. Bush's letter to Bristol-Myers Squibb (Attachment 1A), the applicant has to file a report with the FAA and notices are sent to surrounding airports. She did not foresee any special conditions that would be specified by the FAA for their request. The helicopters at Bristol-Myers are taking off straight up in the air and the applicant has not had a problem even being located adjacent to a helipad.

She stated it has been her experience that they would not have to light or stripe the pole because of its height. Additional photographs were distributed to the Commission showing other facilities the applicant has built in Connecticut (185 ft. in height).

Ms. Bogle stated the foundation for the tower will be 2,520 sq. ft. and the monopole will be on a 15' x 15' foundation. She spoke to the Water/Sewer Division because it is a watershed area. She was informed that this use did not contribute nor inhibit the watershed and therefore, was appropriate for the area.

Ms. Bogle addressed Mr. Costello's comments (Attachment 1B) stating the plans will reflect his request to configure the driveway off Northrop Road to improve sight distance to the north.

Exhibit B

Property card

Property Location: 1000 NORTHROP RD
Vision ID: 133242 **Account #** N20000089 **MAP ID:** 54/ / 10/ 4/ **Bldg Name:**
Bldg #: 1 of 2 **Sec #:** 1 of 1 **Card** 1 of 2 **State Use:** 4310
Print Date: 03/28/2018 11:05

CURRENT OWNER	TOPO.	UTILITIES	STRT./ROAD	LOCATION
AT&T WIRELESS PCS INC C/O AT&T MOBILITY 575 MOROSGO DR SUITE 13-F WEST TOWER ATLANTA, GA 30324 Additional Owners:	1 Level	2 Public Water	1 Paved	5 Industrial

SUPPLEMENTAL DATA

Other ID:	009001003004	P/Z MAP #	
Census:		ENG MAP #	
Old MBLU		Easement	
TC MAP #		Town Line?	
TC MAP #		IND PARKS II	
Record Lot			
GIS ID: 54/10/4		ASSOC PID#	

CURRENT ASSESSMENT

Description	Code	Appraised Value	Assessed Value
UTL BLDG	4-2	83,900	58,700
UTL OUTBL	4-3	2,800	2,000
		Total	86,700	60,700

6148
WALLINGFORD, CT

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
AT&T WIRELESS PCS INC	/					

PREVIOUS ASSESSMENTS (HISTORY)

Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
2017	4-2	58,700	2016	4-2	58,700	2015	4-2	58,700
2017	4-3	2,000	2016	4-3	2,000	2015	4-3	2,000
		Total: 60,700			Total: 60,700			Total: 60,700

EXEMPTIONS

Year	Type	Description	Amount
		Total:	

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
I1/A				

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	36,300
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	2,800
Appraised Land Value (Bldg)	0
Special Land Value	0
Total Appraised Parcel Value	86,700
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	86,700

NOTES

PREFAB EQUIPMENT BLDG
VALUED @ $36000
NO LAND - CELL TOWER ONLY
4 ANTENNA SITES

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments
30441	04/25/2016	CM	Commercial	25,000	08/26/2016	100		CHANGE 3 ANTENNA
30289	03/09/2016	CM	Commercial	15,000	08/26/2016	100		ATTACH ANTENNAE
27905	07/18/2013	CM	Commercial	15,000	09/27/2013	100		T-MOBILE- REPL EXI
27658	05/13/2013	CM	Commercial	15,000	07/11/2013	100		RENOVATE TEL CAB
12503	01/10/2000	CM	Commercial	73,000		100		CELL TOWER EQUIP

VISIT/ CHANGE HISTORY

Date	Type	IS	ID	Cd.	Purpose/Result
08/26/2016	02		KC	63	Permit Check - No Measu
09/27/2013	02		TH	63	Permit Check - No Measu
07/11/2013	02		TH	63	Permit Check - No Measu
06/07/2012			KC	46	Photo
05/17/2010	03		DT	29	Field Review

LAND LINE VALUATION SECTION

B #	Use Code	Use Description	Zone	D	Front	Depth	Units		Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing	S Adj Fact	Adj. Unit Price	Land Value
1	4310	TEL REL TW M96	IX				0	SF	0.00	1.0000	0	1.0000	1.00		0.00			.00	0.00	0

Total Card Land Units: 0.00 AC Parcel Total Land Area: 0 AC
Total Land Value: 0

Property Location: 1000 NORTHROP RD
Vision ID: 133242 **Account #** N20000089 **MAP ID:** 54/ / 10/ 4/ **Bldg Name:**
Bldg #: 2 of 2 **Sec #:** 1 of 1 **Card** 2 of 2 **State Use:** 4310
Print Date: 03/28/2018 11:05

CONSTRUCTION DETAIL

Element	Cd.	Ch.	Description
Style	406		Telephone Building
Model	96		Ind/Comm
Grade	C		
Stories	1		
Occupancy	1		
Exterior Wall 1	22		Precast Panel
Exterior Wall 2			
Roof Structure	01		Flat
Roof Cover	04		Tar & Gravel
Interior Wall 1	01		Minim/Masonry
Interior Wall 2			
Interior Floor 1	03		Concr-Finished
Interior Floor 2			
Heating Fuel	04		Electric
Heating Type	03		Hot Air-no Duc
AC Type	02		Heat Pump
Bldg Use	4310		TEL REL TW M96
Total Rooms			
Total Bedrms			
Total Baths			
Heat/AC	01		Heat/AC Pkgs
Frame Type	03		Masonry
Baths/Plumbing	00		None
Ceiling/Wall	00		None
Rooms/Prtns	01		Light
Wall Height	10		
% Comn Wall			

CONSTRUCTION DETAIL (CONTINUED)

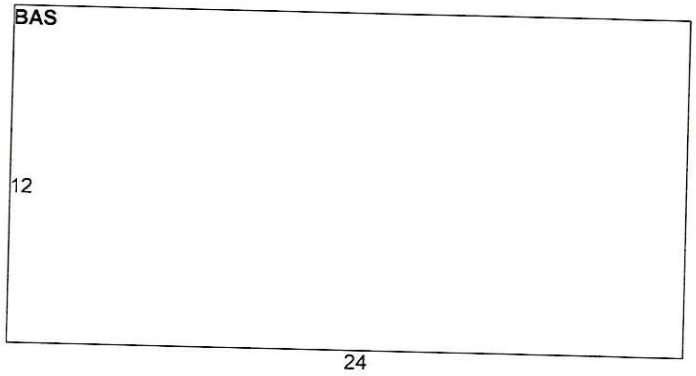
Element	Cd.	Ch.	Description

MIXED USE

Code	Description	Percentage
4310	TEL REL TW M96	100

COST/MARKET VALUATION

Adj. Base Rate:	175.70
	50,602
Net Other Adj:	0.00
Replace Cost	50,602
AYB	2009
Dep Code	A
Remodel Rating	
Year Remodeled	
Dep %	6
Functional Obslnc	
External Obslnc	
Cost Trend Factor	
Status	
% Complete	
Overall % Cond	94
Apprais Val	47,600
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	288	288	288	175.70	50,602
	Ttl. Gross Liv/Lease Area:	288	288	288		50,602

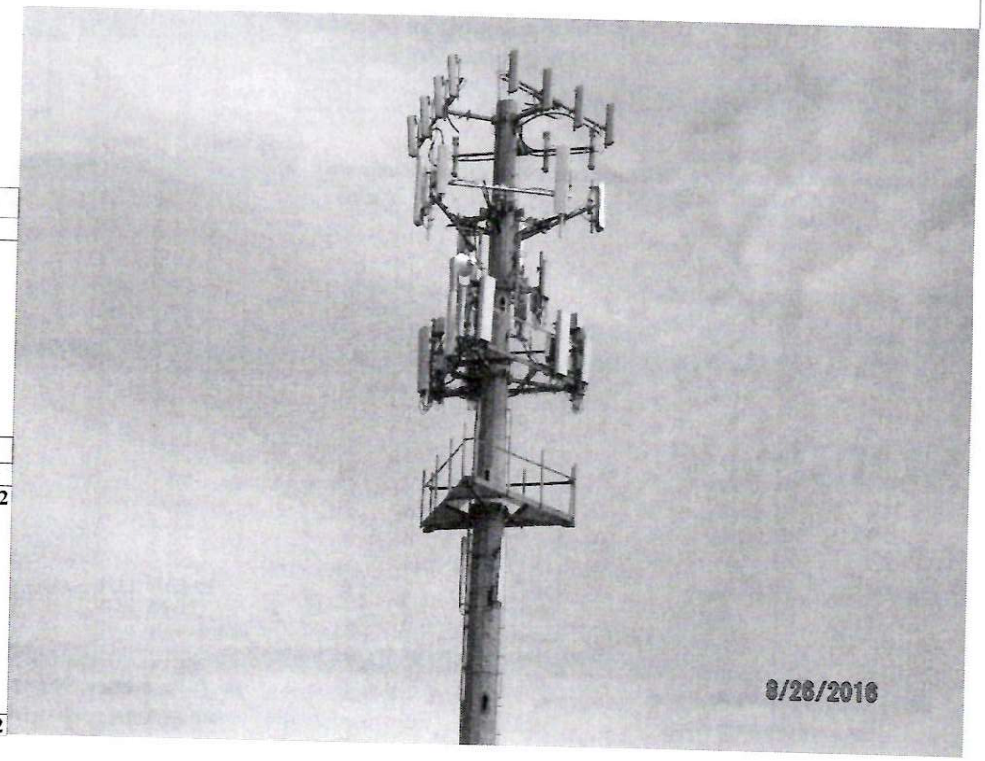


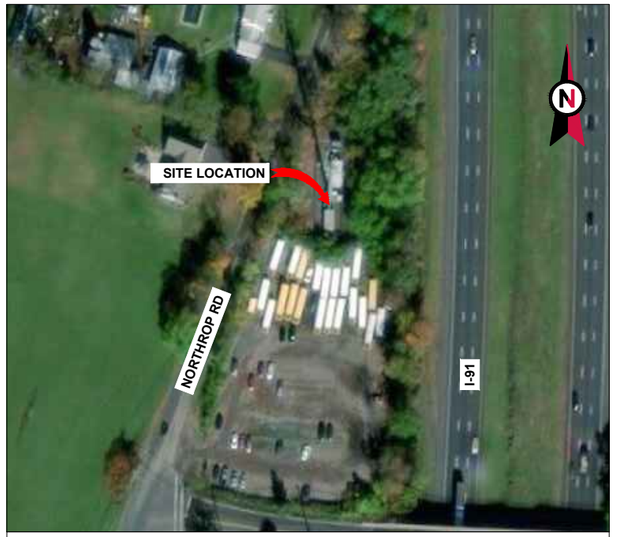
Exhibit C

Construction Drawings

VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: PARSONAGE HILL AKA WALLIN
ATC SITE NUMBER: 302538
T-MOBILE SITE ID: CT11054A
SITE ADDRESS: 922 NORTHROP ROAD WALLINGFORD, CT 06492



LOCATION MAP

T-MOBILE L600 ANTENNA AMENDMENT 67D02C CONFIGURATION

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: WALLING ELECTRIC 24HR EMEFRGENCIES
PHONE: (203) 2655-5055

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 376-6843

811 Know what's **below.** **Call** before you dig.

PROJECT SUMMARY

SITE ADDRESS:

922 NORTHROP ROAD
WALLINGFORD, CT 06492
COUNTY: NEW HAVEN

1A CERTIFICATE SUMMARY:

LATITUDE: 41° 29' 21.65" N

LONGITUDE: 72° 46' 05.7" W

GROUND ELEVATION: 383' AMSL

TOWER HEIGHT: 152' AGL

HIGHEST APPURTENANCE: 160' AGL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

SPECTRA SITE COMMUNICATION INC
2002 ANNAPOLIS MALL RD
ANNAPOLIS, MD 21401

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (3) RRUs AND (2) 1-5/8" COAX CABLES

INSTALL (3) NEW PANELS, (3) RRUs, AND (2) 1-5/8" HYBRID CABLES

EXISTING (6) PANELS, (3) TTAs, (1) 1-1/4" HYBRID CABLE AND (10) 1-5/8" COAX CABLES TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM HARTFORD I-91 SOUTH:

GO TO EXIT 15, RIGHT AT OFF RAMP AND THEN RIGHT AGAIN ONTO NORTHROP ROAD - FOLLOW TO SITE

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	07/24/19	LR
G-002	GENERAL NOTES	0	07/24/19	LR
C-101	DETAILED SITE PLAN & TOWER ELEVATION	0	07/24/19	LR
C-501	ANTENNA INFORMATION & SCHEDULE	0	07/24/19	LR
C-502	GROUNDING DETAILS	0	07/24/19	LR
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LR	07/24/19

ATC SITE NUMBER:
302538

ATC SITE NAME:
PARSONAGE HILL AKA WALLIN

SITE ADDRESS:
922 NORTHROP ROAD
WALLINGFORD, CT 06492

SEAL:

Authorized by "EOR"
Jul 24 2019 11:13 AM

T-Mobile design

DRAWN BY:	LR
APPROVED BY:	PPB
DATE DRAWN:	07/24/19
ATC JOB NO:	12927186

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH T-MOBILE WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY T-MOBILE WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

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SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LR	07/24/19

ATC SITE NUMBER:
302538

ATC SITE NAME:
PARSONAGE HILL AKA WALLIN

SITE ADDRESS:
922 NORTHROP ROAD
WALLINGFORD, CT 06492

SEAL:

Authorized by "EOR"
Jul 24 2019 11:13 AM

T-Mobile cosign

DRAWN BY:	LR
APPROVED BY:	PPB
DATE DRAWN:	07/24/19
ATC JOB NO:	12927186

GENERAL NOTES

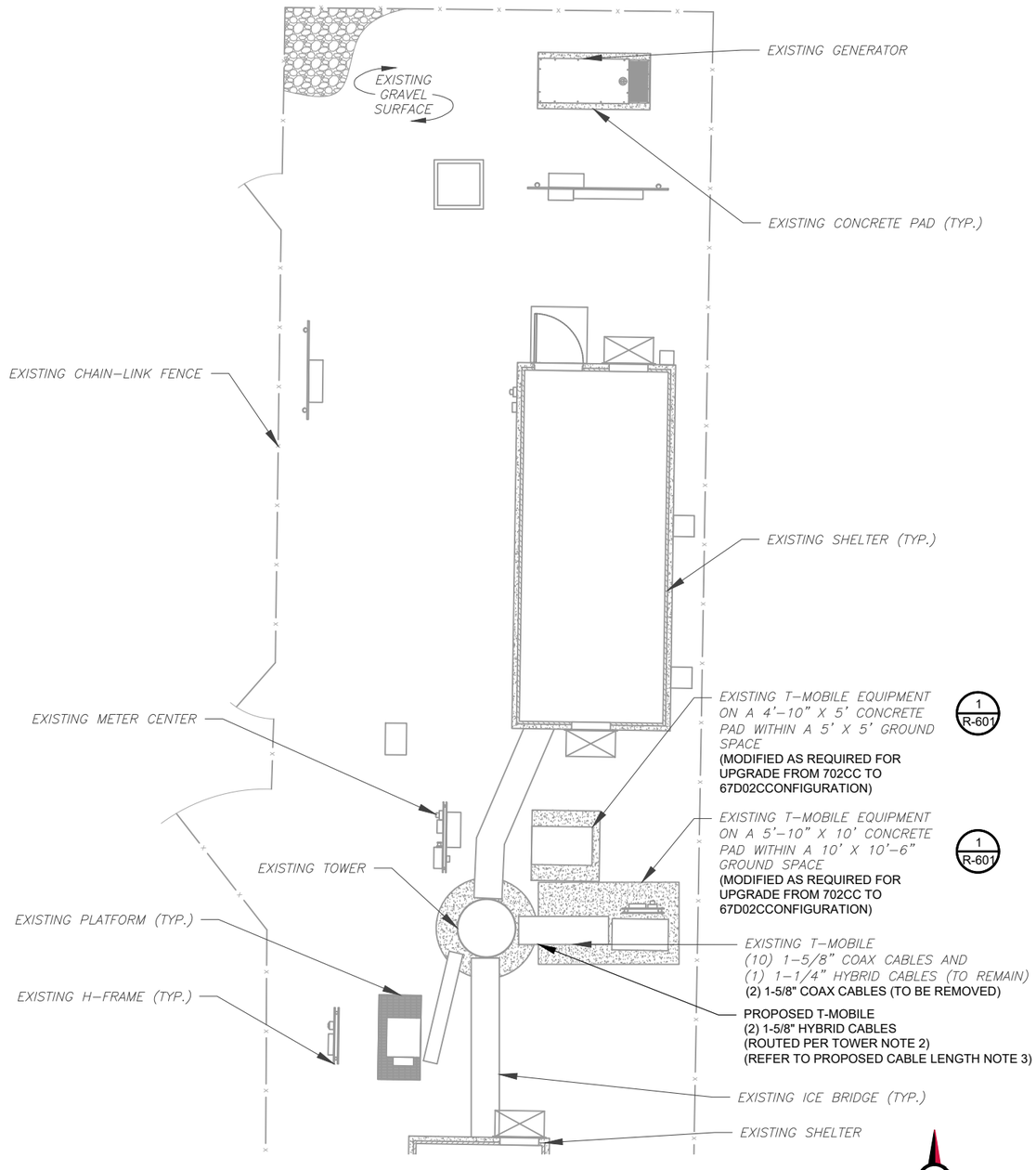
SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

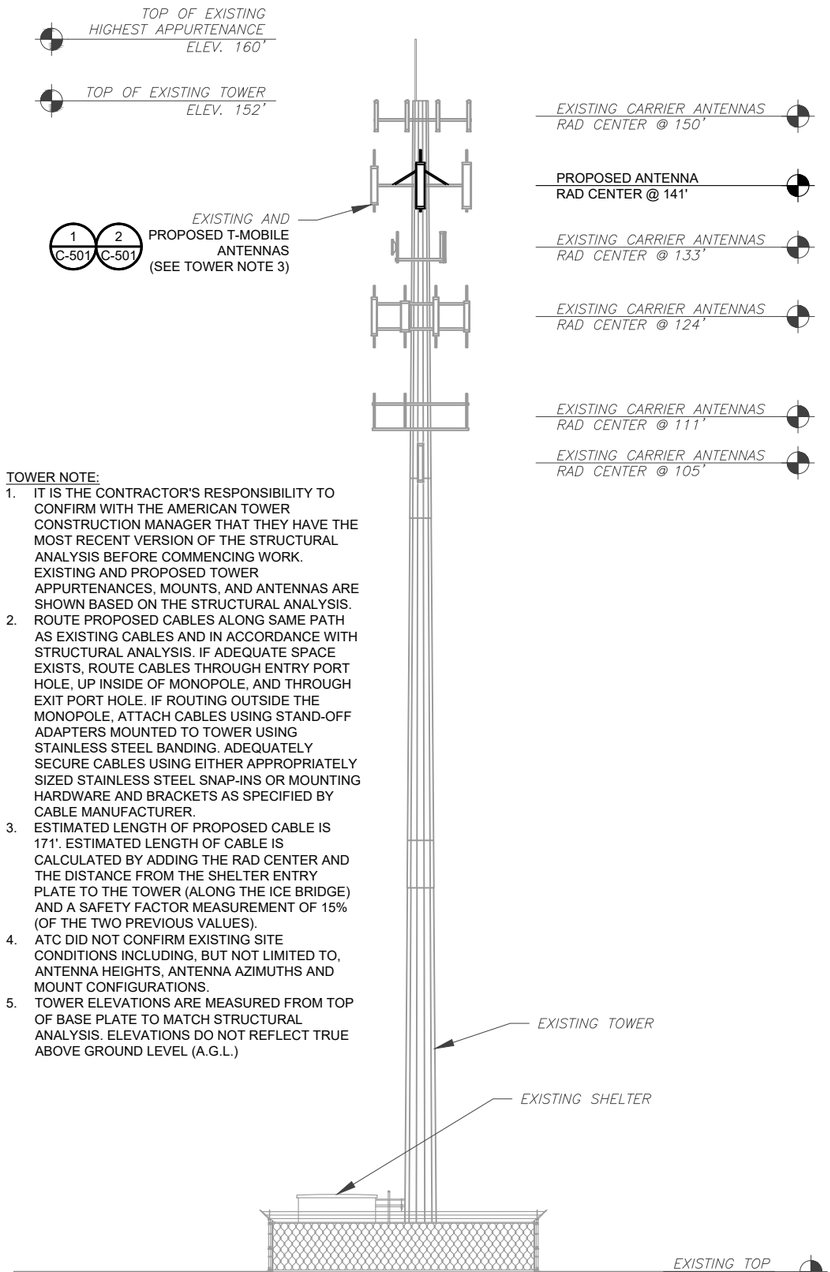


1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

PER MOUNT ANALYSIS COMPLETED BY CLS ENGINEERING, DATED 07/08/19, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
3. ESTIMATED LENGTH OF PROPOSED CABLE IS 171'. ESTIMATED LENGTH OF CABLE IS CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES).
4. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.
5. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

2 TOWER ELEVATION

SCALE: NOT TO SCALE

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CARY, NC 27518
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LR	07/24/19

ATC SITE NUMBER:
302538

ATC SITE NAME:
PARSONAGE HILL AKA WALLIN

SITE ADDRESS:
922 NORTHROP ROAD
WALLINGFORD, CT 06492

SEAL:

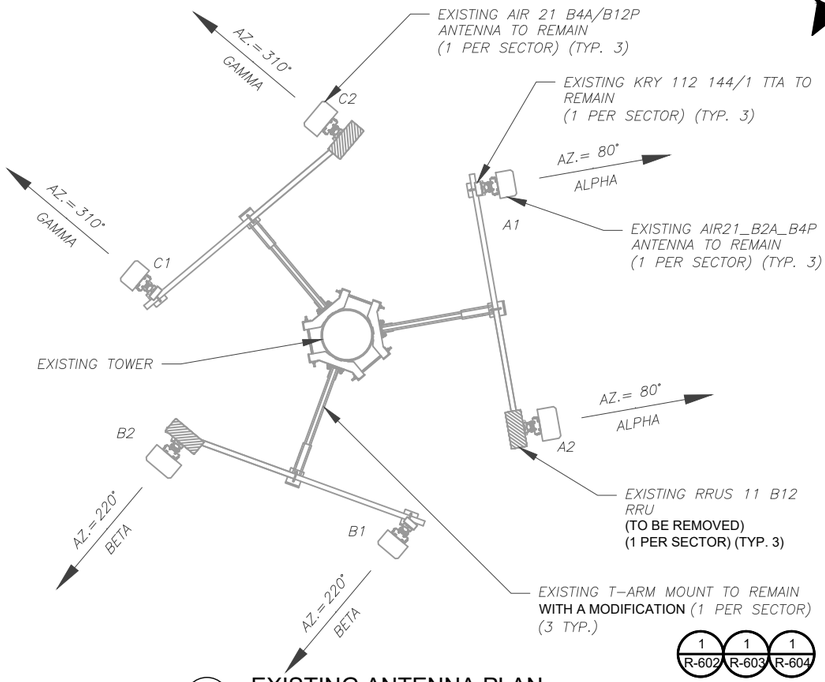
Authorized by "EOR"
Jul 24 2019 11:13 AM

T-Mobile cosign

DRAWN BY:	LR
APPROVED BY:	PPB
DATE DRAWN:	07/24/19
ATC JOB NO:	12927186

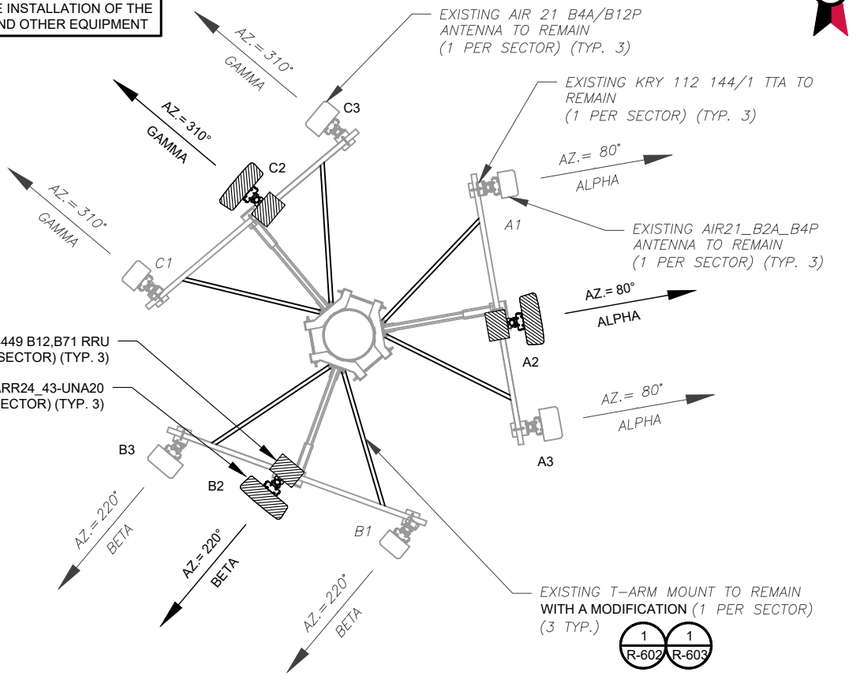
DETAILED SITE PLAN & TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 EXISTING ANTENNA PLAN

PER MOUNT ANALYSIS COMPLETED BY CLS ENGINEERING, DATED 07/08/19, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



2 FINAL ANTENNA PLAN

EXISTING ANTENNA / EQUIPMENT SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	A1	AIR21_B2A_B4P	141'-0"	80°	0°	2°	KRY 112 144/1
ALPHA	A2	AIR 21 B4A/B12P	141'-0"	80°	0°	7°	RRUS11 B12
BETA	B1	AIR21_B2A_B4P	141'-0"	220°	0°	2°	KRY 112 144/1
BETA	B2	AIR 21 B4A B12P	141'-0"	220°	0°	7°	RRUS11 B12
GAMMA	C1	AIR21_B2A_B4P	141'-0"	310°	0°	2°	KRY 112 144/1
GAMMA	C2	AIR 21 B4A B12P	141'-0"	310°	0°	7°	RRUS11 B12

NOTES

1. BASED ON APPROVED ATC APPLICATION 12927186, DATED 04/02/19. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIG OR MOUNT CONFIG. CONTRACTOR TO VERIFY MOUNT CONFIG HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (EQUIP) (I.E. CLEARANCES, MOUNT PIPE, SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIP INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH ATC'S CM.
4. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

FINAL ANTENNA / EQUIPMENT SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	A1	AIR21_B2A_B4P	141'-0"	80°	0°	2°	KRY 112 144/1
ALPHA	A2	APXVAARR24_43-U-NA20	141'-0"	80°	0°	-	RADIO 4449 B12-B71
ALPHA	A3	AIR 21 B4A/B12P	141'-0"	80°	0°	7°	-
BETA	B1	AIR21_B2A_B4P	141'-0"	220°	0°	2°	KRY 112 144/1
BETA	B2	APXVAARR24_43-U-NA20	141'-0"	220°	0°	-	RADIO 4449 B12-B71
BETA	B3	AIR 21 B4A/B12P	141'-0"	220°	0°	7°	-
GAMMA	C1	AIR21_B2A_B4P	141'-0"	310°	0°	2°	KRY 112 144/1
GAMMA	C2	APXVAARR24_43-U-NA20	141'-0"	310°	0°	-	RADIO 4449 B12-B71
GAMMA	C3	AIR 21 B4A/B12P	141'-0"	310°	0°	7°	-

CURRENT FIBER DISTRIBUTION/OVP BOX		CURRENT CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
–	–	(10) 1-5/8"	(1) 1-1/4"	RMN
–	–	(2) 1-5/8"	–	RMV

STATUS ABBREVIATIONS
RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED & REMAIN
ADD: TO BE ADDED

3 ANTENNA SCHEDULE

PROPOSED FIBER DISTRIBUTION/OVP BOX		PROPOSED CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	-	(2) 1-5/8"	ADD
-	-	(10) 1-5/8"	(1) 1-1/4"	RMN

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REV.	DESCRIPTION	BY	DATE
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ATC SITE NUMBER:
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ATC SITE NAME:
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SITE ADDRESS:
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WALLINGFORD, CT 06492

SEAL:

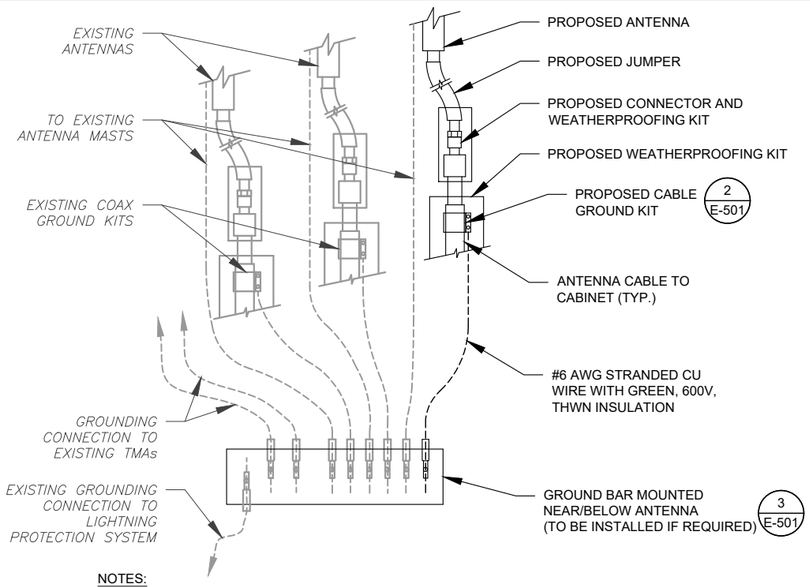
Authorized by "EOR"
Jul 24 2019 11:13 AM

T-Mobile

DRAWN BY:	LR
APPROVED BY:	PPB
DATE DRAWN:	07/24/19
ATC JOB NO:	12927186

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-501	0

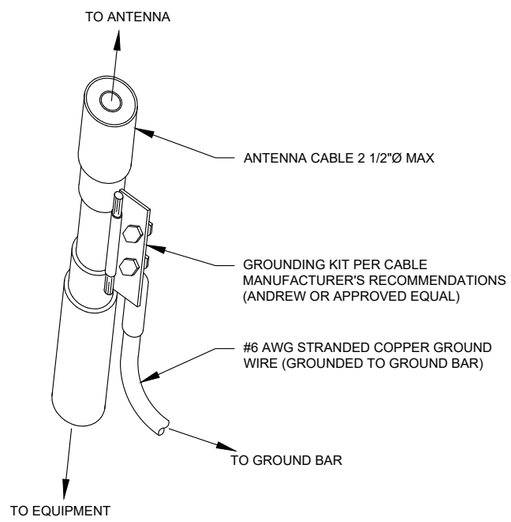


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: NOT TO SCALE

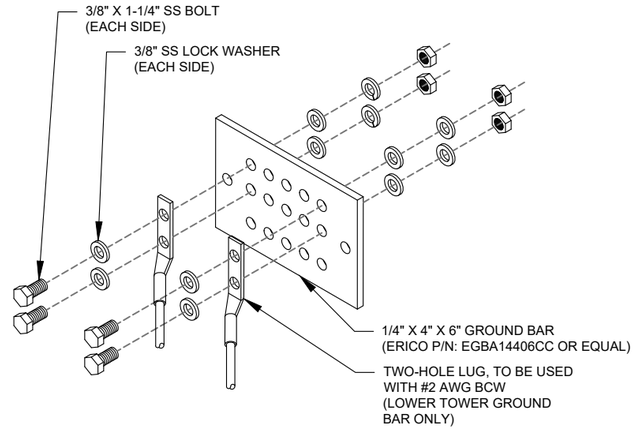


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: NOT TO SCALE

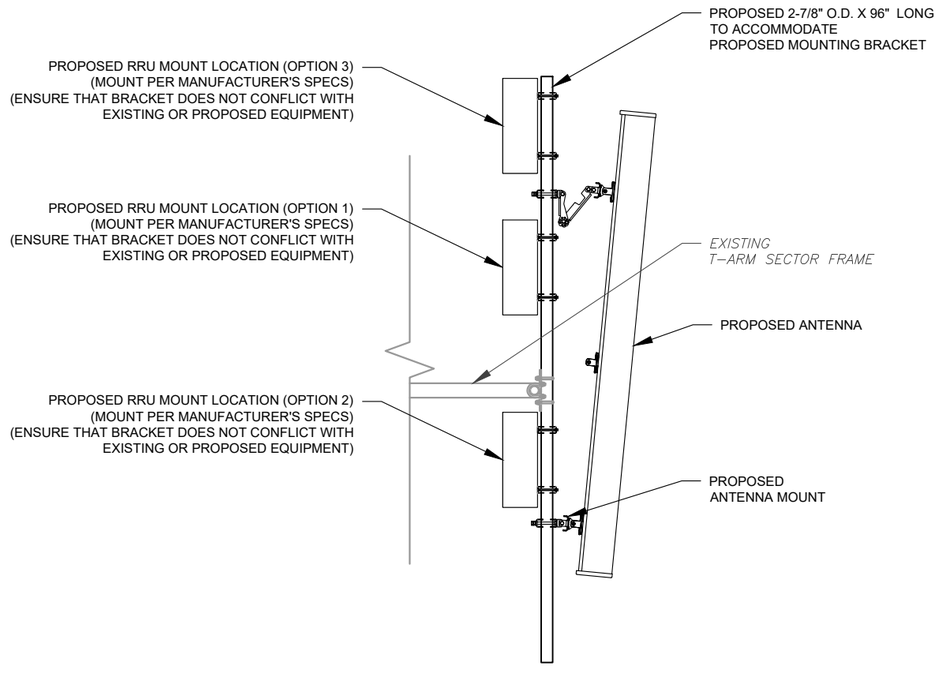


GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: NOT TO SCALE



4 PROPOSED ANTENNA & RRU MOUNTING DETAIL - TYPICAL

SCALE: NOT TO SCALE

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	LR	07/24/19

ATC SITE NUMBER:
302538

ATC SITE NAME:
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SITE ADDRESS:
922 NORTHROP ROAD
WALLINGFORD, CT 06492

SEAL:

Authorized by "EOR"
Jul 24 2019 11:13 AM

T-Mobile cosign

DRAWN BY:	LR
APPROVED BY:	PPB
DATE DRAWN:	07/24/19
ATC JOB NO:	12927186

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
C-502	0

RAN Template: 67D02C Outdoor	A&L Template: 67D02C_2xAIR+1OP	Power System Template: Custom

CT11054A_L600_2.1_draft

Section 5 - RAN Equipment

Existing RAN Equipment		
Template: 702Cc		
Enclosure	1	2
Enclosure Type	RBS 6102	RBS 3106
Baseband	DUW30 (x 2) DUG20 DUS41	
Hybrid Cable System	Ericsson 9x18 HCS *Select Length*	
Multiplexer	XMU L700	
Radio	RUS01 B4 (x 6)	

Proposed RAN Equipment		
Template: 67D02C Outdoor		
Enclosure	1	2
Enclosure Type	RBS 6102	RBS 3106
Baseband	DUW30 U2100 / DUW30 U1900 / DUG20 G1900 / BB 6630 L2100 L700 L600 / BB 6630 N600 (DARK)	
Hybrid Cable System	Ericsson 9x18 HCS *Select Length* / Ericsson 6x12 HCS *Select Length & AWG* (x 2)	
Radio	RUS01 B4 (x 6) U2100	

RAN Scope of Work:

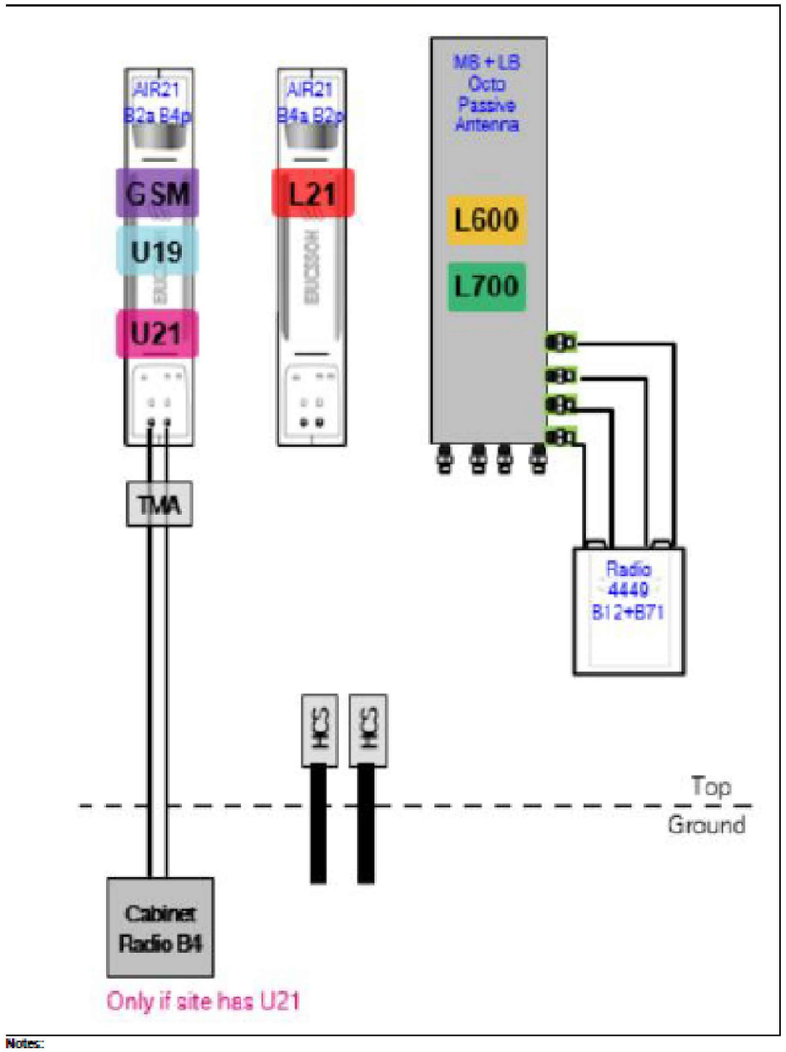
Replace DUS41 with (1) BB6630 for L2100, L700, and L600.
Add (1) BB6630 for future 5G N600.
Remove XMU.
Add (2) 6X12 HCS.

Metro at 105 feet. T-Mobile at 145 and 139
1 Existing 9X18 HCS Hybrid and 12 Coax Lines. Remove 2 Coaxial Lines in Total from Site.

1 CABINET CONFIGURATION
SCALE: NOT TO SCALE

Section 3 - Proposed Template Images

67D02C.JPG



Notes:

2 ANTENNA CONFIGURATION
SCALE: NOT TO SCALE

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

Mount Analysis of Existing T-Arms for American Tower on behalf of T-Mobile
302538 - Parsonage Hill Aka Wallin
Project #: 12927186
T-Mobile Site ID: CT11054A
Program: L600

CLS Engineering PLLC Project #41124-12927186-01-MA-R1
July 8, 2019

MOUNT DESCRIPTION	Existing T-Arms at 140 ft AGL
ANTENNA ELEVATION	Nominal Rad. Elevation of 141 ft AGL (Eccentricity of ~1 ft)
SITE DESCRIPTION	150 ft Monopole
SITE ADDRESS	922 Northrop Road Wallingford CT 06492-1910, New Haven County
GPS COORDINATES	41.48934722, -72.76825278
ANALYSIS STANDARD	2015 IBC / 2018 Connecticut State Building Code / TIA-222-G
LOADING CRITERIA	125 mph, V_{ult} / 96.8 mph, V_{asd} (3-Second Gust) w/o ice & 50 mph (3-Second Gust) w/ 0.75" Ice

■ **ANALYSIS RESULT:** **Pass (Conditional)**

MEMBER USAGE	67%	Pass
CONNECTION USAGE	*101%*	*Acceptable*
COLLAR USAGE	75%	Pass

Usages up to 105% are considered acceptable.

Modifications are proposed to bring mounts into compliance; see conclusion for details.
New mount pipes are required for final loading configuration; see conclusion for details.

Prepared by:
Sean Rock, E.I.

Reviewed and Approved by:
Tyler M. Barker, P.E.

STATE OF CONNECTICUT · TYLER M BARKER · No. 32402 · LICENSED PROFESSIONAL ENGINEER

Tyler M. Barker
CLS Engineering, PLLC
Director of Engineering
PE # 32402 Exp. 1/31/2020
COA # PEC.001833 Exp. 8/14/2019

IdenTrust part of HID Global

Digitally signed by Tyler Barker
DN: c=US, o=Telamon Corporation, ou=A01427E0000016A4525ADF800001D17, cn=Tyler Barker
Date: 2019.07.09 13:46:47 -04'00'

■ CONCLUSION AND RECOMMENDATIONS

According to our structural analysis, the mounts have been found to **CONDITIONALLY PASS**. The mounting configuration considered in this analysis will be capable of supporting the referenced loading pursuant to referenced standards once the following scope is executed:

- **Install (1) Site Pro 1 SP219-96H, 2-7/8" Pipe Mount Kit at each sector (3 total) as shown in following sketch.**
- **Install (1) Site Pro 1 PRK-SFS-L Support Rail Vertical Reinforcement Kit at existing face horizontal member as shown in the following sketches. Collar to be installed flush with existing monopole at a height of ±3.5 ft. above the centerline of existing platform mount collar. Field-cut proposed members as required. Maintain minimum bolt edge distance.**

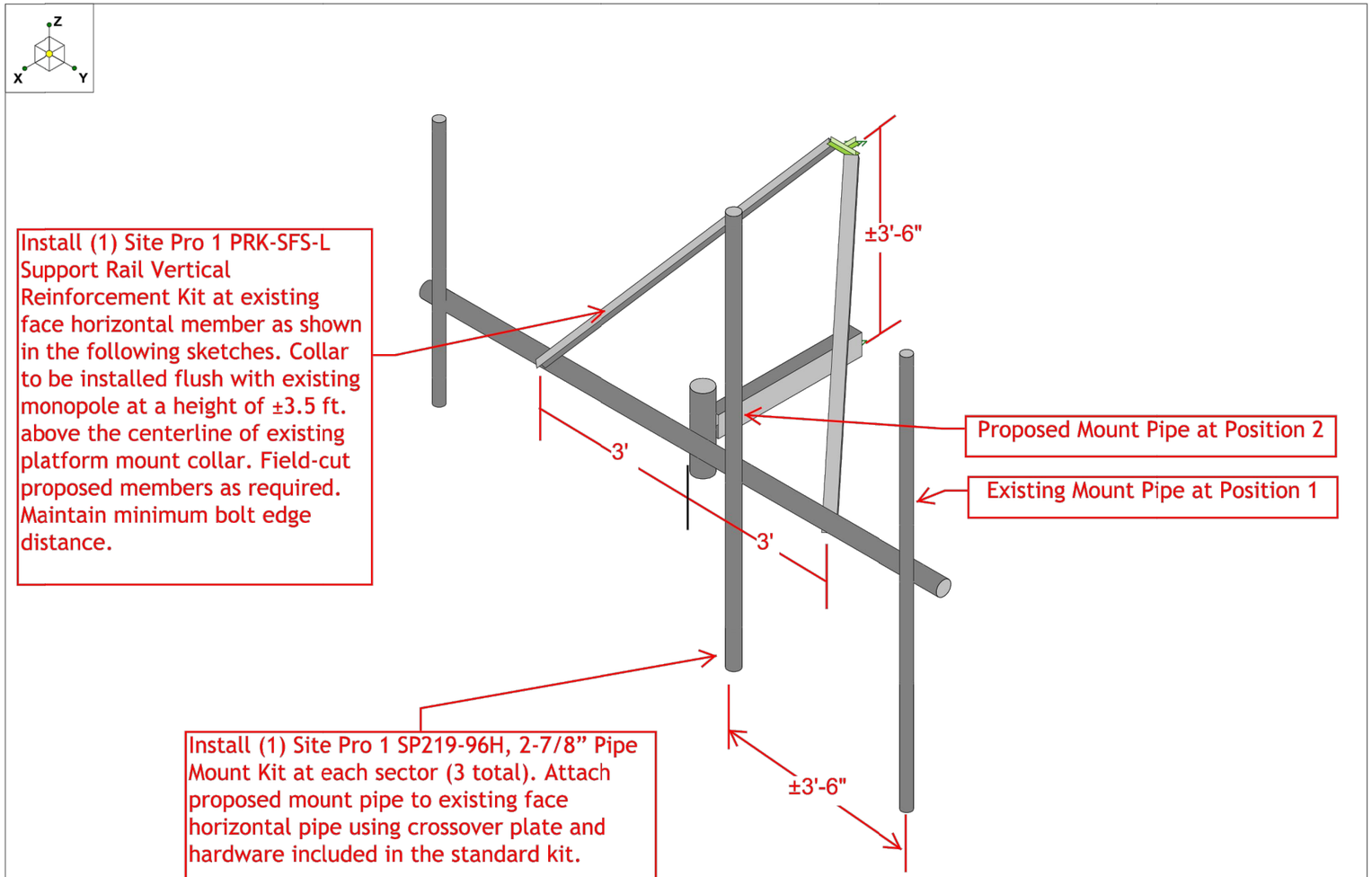
See following sketches and Site Pro 1 assembly drawings for additional details.

1 MOUNT ANALISIS CONCLUSION
SCALE: NOT TO SCALE

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER: R-602
REVISION: 0



Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 0
SMR		July 8, 2019 at 4:20 PM
41124-12927186-01-MA-R1	Installation Sketch - Isometric View	41124-12927186-01-MA-R1.r3d

1 MOUNT MODIFICATIONS
SCALE: NOT TO SCALE

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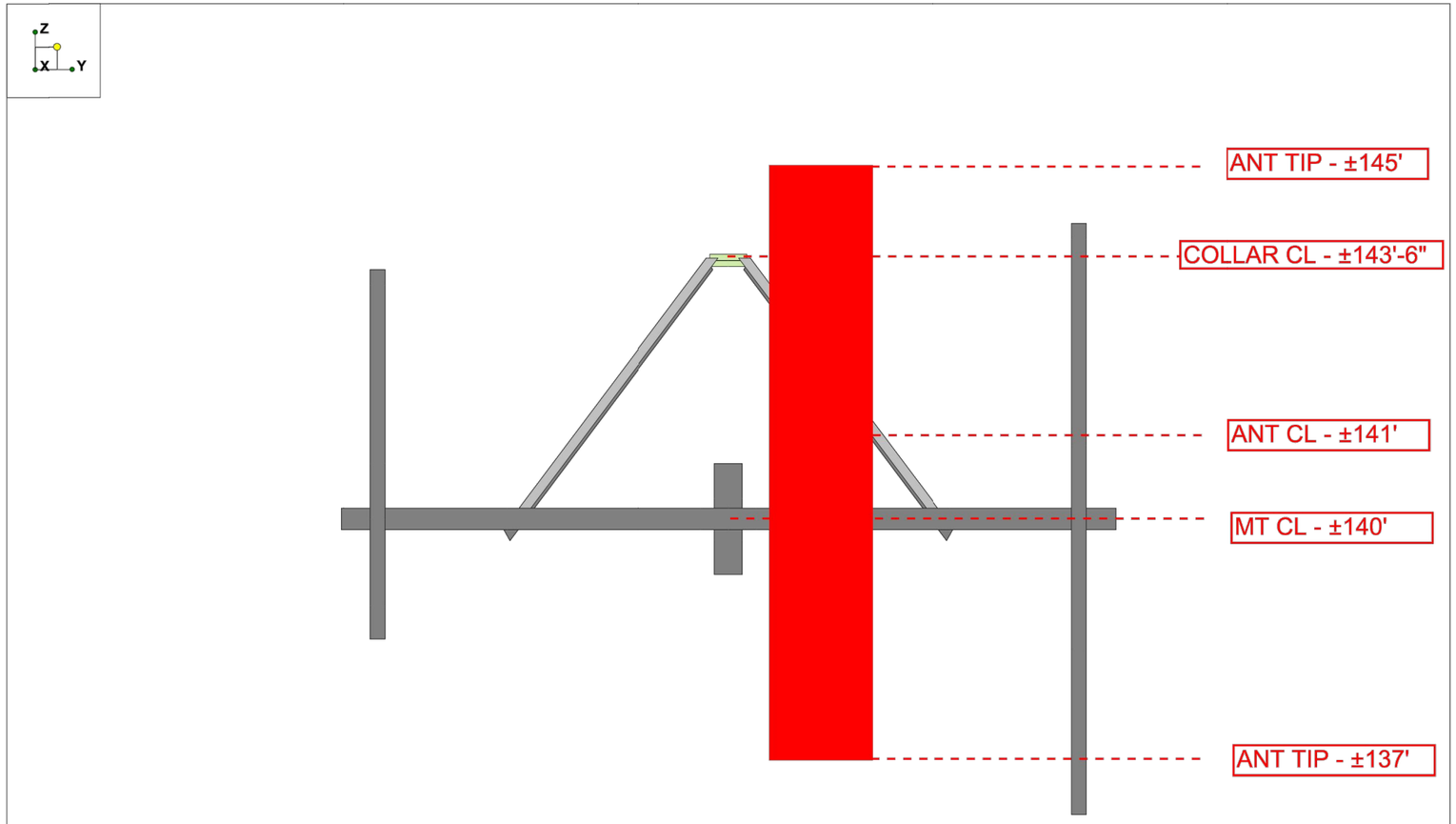
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0



Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 0
SMR		July 8, 2019 at 4:21 PM
41124-12927186-01-MA-R1	Installation Sketch - Elevation Sketch	41124-12927186-01-MA-R1.r3d

1 MOUNT MODIFICATIONS
SCALE: NOT TO SCALE

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SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0

Exhibit E

Mount Analysis

Mount Analysis of Existing T-Arms for American Tower on behalf of T-Mobile
302538 - Parsonage Hill Aka Wallin
Project #: 12927186

T-Mobile Site ID: CT11054A

Program: L600

CLS Engineering PLLC Project #41124-12927186-01-MA-R1

July 8, 2019

MOUNT DESCRIPTION	Existing T-Arms at 140 ft AGL
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CONNECTION USAGE	***101%***	***Acceptable***
COLLAR USAGE	**75%**	**Pass**

Usages up to 105% are considered acceptable.

Modifications are proposed to bring mounts into compliance; see conclusion for details.

New mount pipes are required for final loading configuration; see conclusion for details.

Prepared by:

Sean Rock, E.I.

Reviewed and Approved by:

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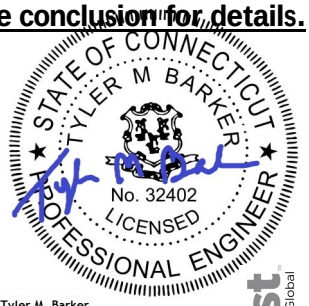

Tyler M. Barker
CLS Engineering, PLLC
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PE # 32402 Exp. 1/31/2020
COA # PEC.001833 Exp. 8/14/2019

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DN: c=US, o=Telamon Corporation, ou=A01427E0000016A4525ADF800001D17, cn=Tyler Barker
Date: 2019.07.09 13:46:47 -04'00'

■ INTRODUCTION

The proposed equipment is to be mounted to the existing T-Arms. This proposed mounting configuration was analyzed using RISA-3D, a commercially available finite element analysis software package. A selection of input and output from our analysis is attached to the end of this report.

■ STRUCTURAL DOCUMENTS PROVIDED

STRUCTURAL DATA	Site photos, dated September 27, 2018 Assembly Drawings by Site Pro 1, Part No. PRK-SFS-L, dated October 25, 2017 Assembly Drawings by Site Pro 1, Part No. SP219-xxxH, dated February 2, 2016
PREVIOUS ANALYSES	Structural Analysis by ATC, Engineering #OAA722111_C3_01, dated May 17, 2018
LOADING DATA	ATC Application, Project #12927186, dated April 2, 2019

■ ANALYSIS CRITERIA

STANDARD	2015 IBC / 2018 Connecticut State Building Code / TIA-222-G
BASIC WIND SPEED	125 mph, V_{ult} / 96.8 mph, V_{asd} (3-Second Gust)
BASIC WIND SPEED W/ ICE	50 mph (3-Second Gust) w/ 0.75" Radial Ice (Escalating)
EXPOSURE CATEGORY	C
MAX. TOPOGRAPHIC FACTOR, K_{zt}	1.00
RISK CATEGORY	II
MAINTENANCE LIVE LOAD	L_M: 500 lb

■ FINAL EQUIPMENT

ELEVATION (ft)		ANTENNAS	
MOUNT	**RAD.**	**#**	**NAME**
140.0	141.0	3	Ericsson AIR 21 B4A/B12P-B5F 6FT
		3	Ericsson AIR 21, 1.3 M, B2A B4P
		3	Ericsson RADIO 4449 B12/B71
		3	Ericsson KRY 112 144/1
		3	RFS Celwave APXVAARR24_43-U-NA20

■ RESULTS SUMMARY

COMPONENT	PEAK USAGE	RESULT
Connections	*101%*	*Acceptable*
Collar Reactions	75%	Pass
Face Horizontals	67%	Pass
Mount Pipes	57%	Pass
Stand-Off Horizontals	54%	Pass
Bracing Members	11%	Pass

Usages up to 105% are considered acceptable.

■ CONCLUSION AND RECOMMENDATIONS

According to our structural analysis, the mounts have been found to **CONDITIONALLY PASS**. The mounting configuration considered in this analysis will be capable of supporting the referenced loading pursuant to referenced standards once the following scope is executed:

- **Install (1) Site Pro 1 SP219-96H, 2-7/8" Pipe Mount Kit at each sector (3 total) as shown in following sketch.**
- **Install (1) Site Pro 1 PRK-SFS-L Support Rail Vertical Reinforcement Kit at existing face horizontal member as shown in the following sketches. Collar to be installed flush with existing monopole at a height of ±3.5 ft. above the centerline of existing platform mount collar. Field-cut proposed members as required. Maintain minimum bolt edge distance.**

See following sketches and Site Pro 1 assembly drawings for additional details.

■ ASSUMPTIONS AND CONDITIONS

This analysis is inclusive of the antenna supporting frames/mounts and all recorded connections that will support the equipment listed in this report. It considers only the theoretical capacity of structural components and it is not a condition assessment. The validity of the analysis may be dependent on the accuracy of structural information supplied by others. The client is responsible for verifying this information. If any provided information is revised after completion of this analysis, CLS Engineering PLLC should be notified immediately to revise results.

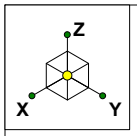
This analysis assumes the following:

1. The tower or other superstructure and mounts (if existing) were properly constructed as per the original design and have been properly maintained in accordance with applicable code standards.
2. Member sizes and strengths are accurate as supplied or are assumed as stated in the calculations.
3. In the absence of sufficient design information, all welds and connections are assumed to develop at least the capacity of the connected member, unless otherwise stated in this analysis.
4. All prior structural modifications, if any, are assumed to be correctly installed and fully effective.
5. The loading configuration is complete and accurate as supplied and/or as modeled in the previous analysis. All appurtenances are assumed to be properly installed and supported as per manufacturer requirements.
6. Some conservative assumptions may be used regarding appurtenances and their projected areas based on careful interpretation of data supplied, previous experience and standard industry practice.

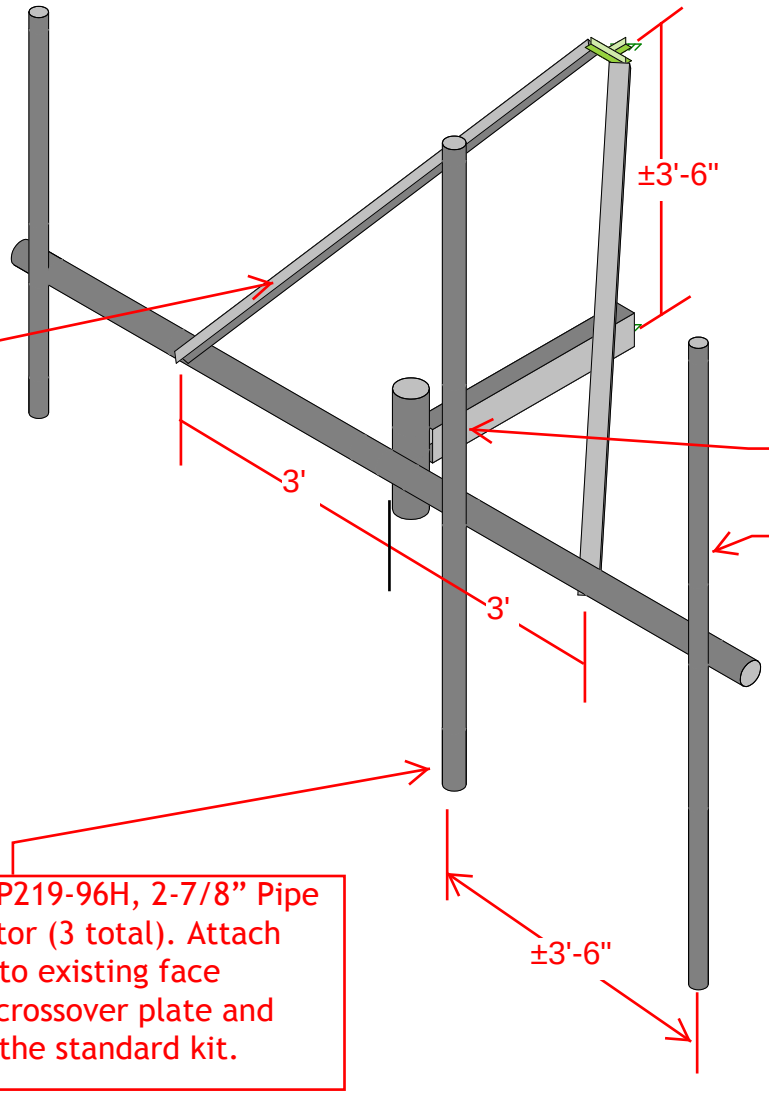
All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of the report. All opinions and conclusions contained herein are subject to revision based upon receipt of new or updated information. All services are provided exercising a level of care and diligence equivalent to the standard of our profession. No warranty or guarantee, either expressed or implied, is offered. All services are confidential in nature and this report will not be released to any other party without the client's consent. The use of this analysis is limited to the expressed purpose for which it was commissioned and it may not be reused, copied or disseminated for any other purpose without consent from CLS Engineering PLLC.

All services were performed, results obtained and recommendations made in accordance with generally accepted engineering principles and practices. CLS Engineering PLLC is not responsible for the conclusions, opinions or recommendations made by others based on the information supplied in this analysis.

It is not possible to have the fully detailed information necessary to perform a complete and thorough analysis of every structural sub-component of an existing structure. The structural analysis by CLS Engineering PLLC verifies the adequacy of the primary members of the structure. CLS Engineering PLLC provides a limited scope of service in that we cannot verify the adequacy of every weld, bolt, gusset, etc.



Install (1) Site Pro 1 PRK-SFS-L Support Rail Vertical Reinforcement Kit at existing face horizontal member as shown in the following sketches. Collar to be installed flush with existing monopole at a height of ±3.5 ft. above the centerline of existing platform mount collar. Field-cut proposed members as required. Maintain minimum bolt edge distance.



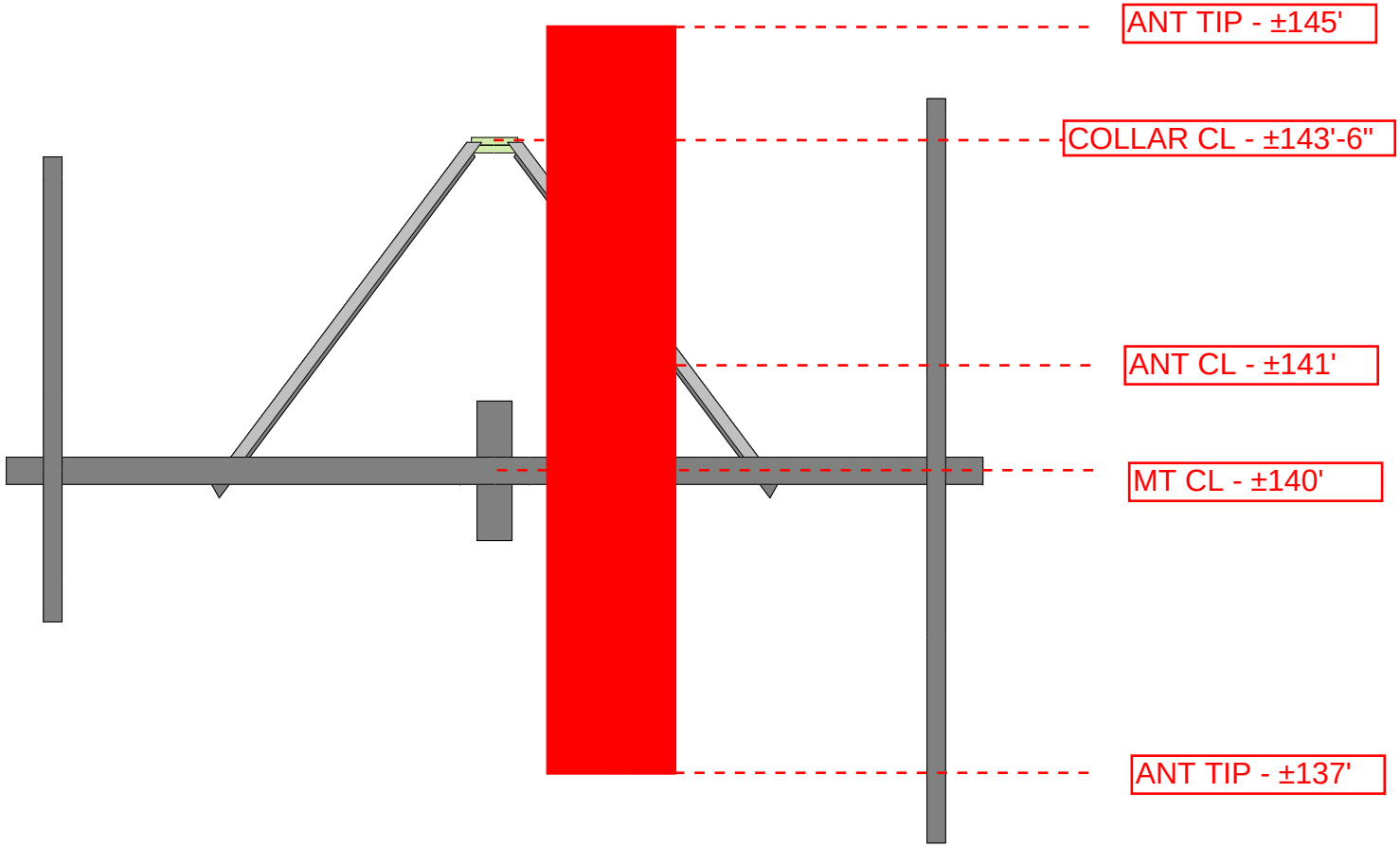
Proposed Mount Pipe at Position 2

Existing Mount Pipe at Position 1

Install (1) Site Pro 1 SP219-96H, 2-7/8" Pipe Mount Kit at each sector (3 total). Attach proposed mount pipe to existing face horizontal pipe using crossover plate and hardware included in the standard kit.

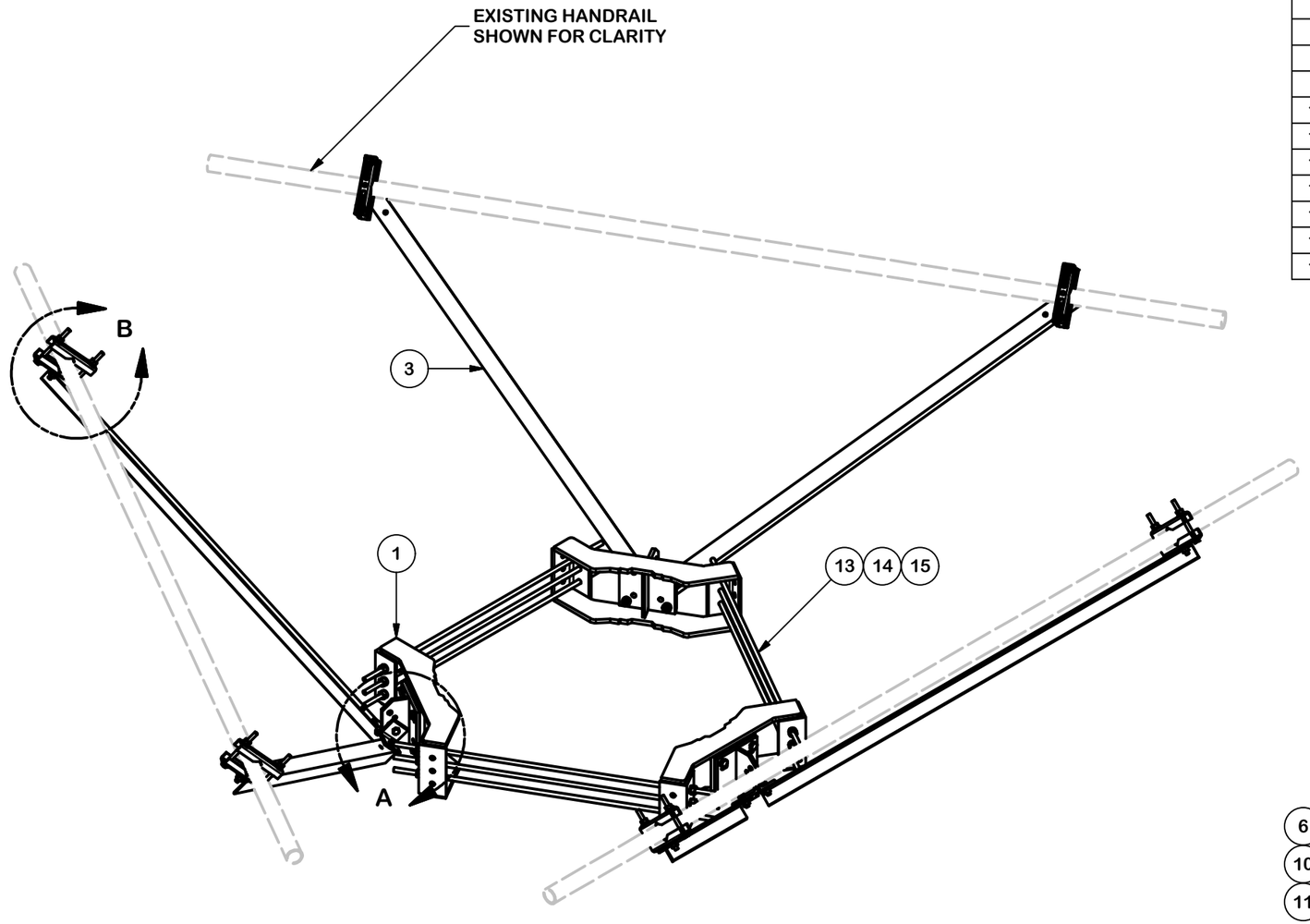
Envelope Only Solution

CLS		SK - 0
SMR	41124-12927186-Parsonage Hill Aka Wallin	July 8, 2019 at 4:20 PM
41124-12927186-01-MA-R1	Installation Sketch - Isometric View	41124-12927186-01-MA-R1.r3d



Envelope Only Solution

CLS		SK - 0
SMR	41124-12927186-Parsonage Hill Aka Wallin	July 8, 2019 at 4:21 PM
41124-12927186-01-MA-R1	Installation Sketch - Elevation Sketch	41124-12927186-01-MA-R1.r3d



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
3	6	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	118.24
4	12	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	16.46
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
7	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
8	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
9	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
10	27	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.38
11	27	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.93
12	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
13	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	3.59
13	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	3.59
14	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
15	30	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.90
					TOTAL WT. #	642.04

DETAIL A

DETAIL B

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017

REVISION HISTORY

TOLERANCE NOTES

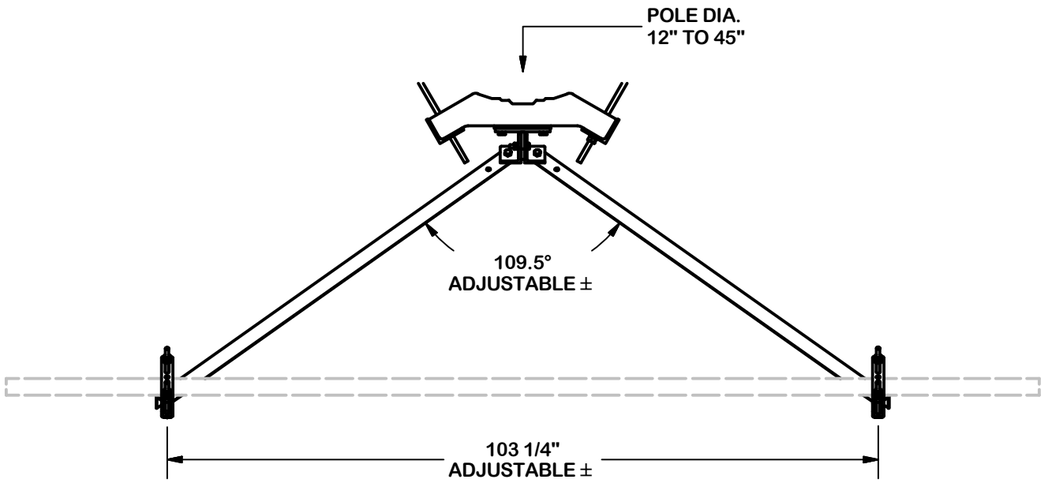
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION: HANDRAIL REINFORCEMENT KIT (LONG)

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL3 2/23/2017	3RD PARTY	PRK-SFS-L

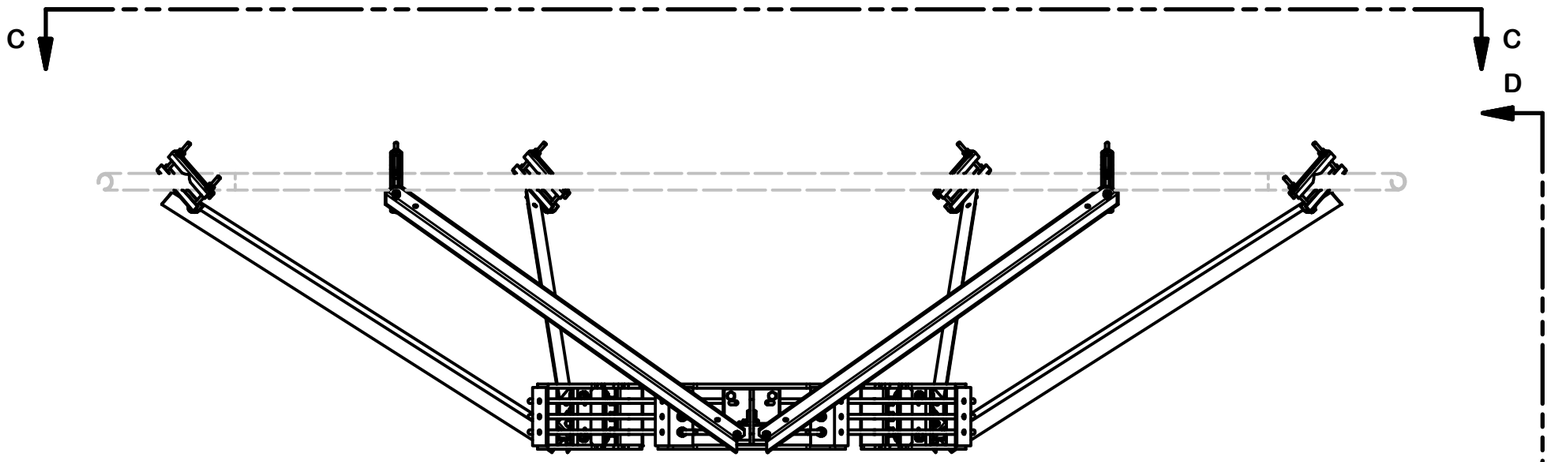
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	SHOP	BMC 9/8/2017	PRK-SFS-L

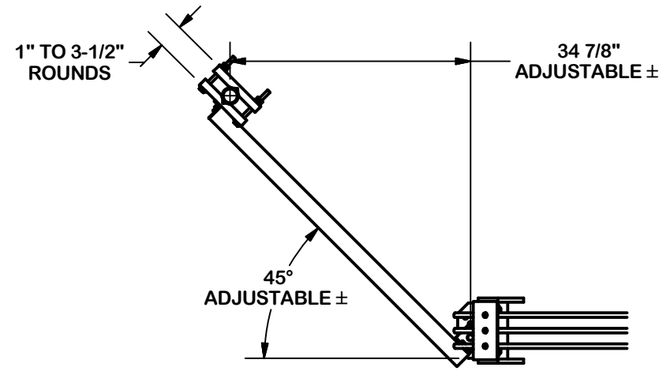
SITE PRO 1
A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX



PARTIAL VIEW C-C

VERTICAL POSITION





PARTIAL VIEW D-D

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017

REVISION HISTORY

TOLERANCE NOTES

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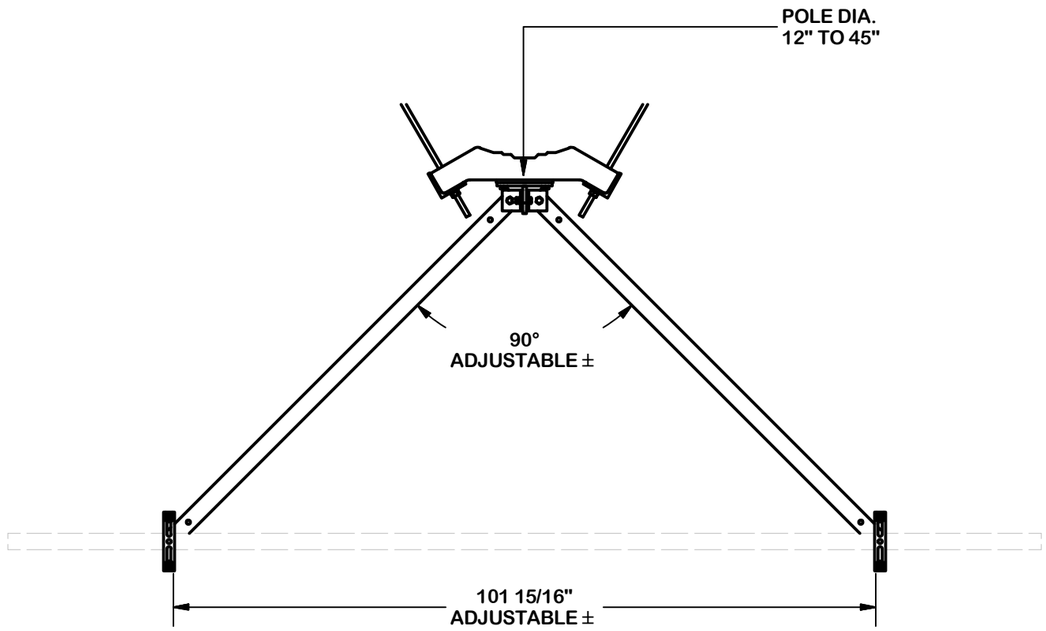
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION: HANDRAIL REINFORCEMENT KIT (LONG)

SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

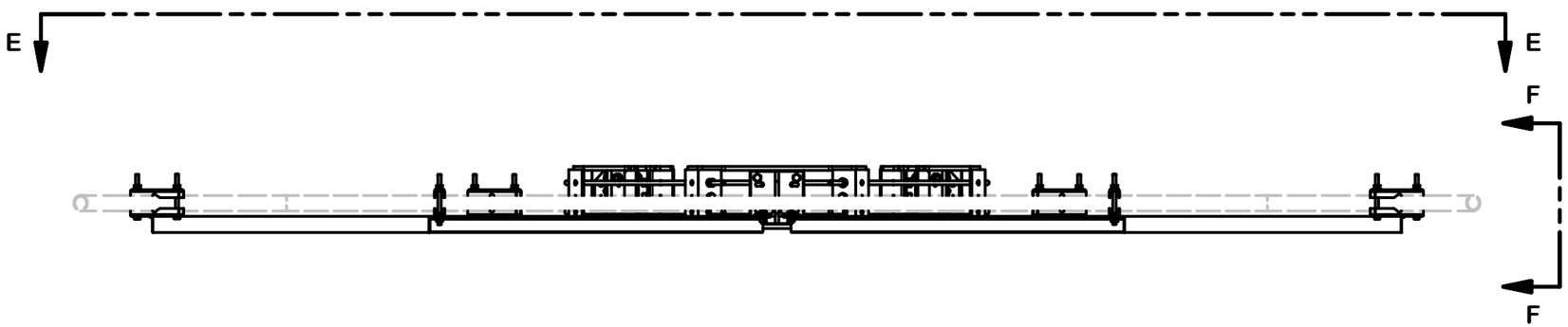
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL3 2/23/2017	3RD PARTY	PRK-SFS-L

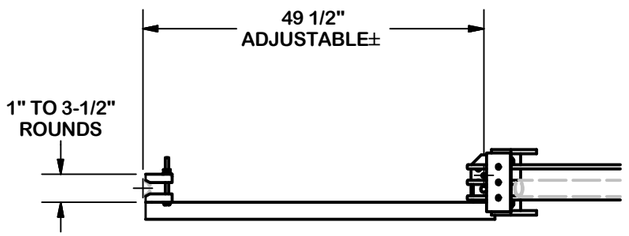
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	SHOP	BMC 9/8/2017	PRK-SFS-L



PARTIAL VIEW E-E

HORIZONTAL POSITION





PARTIAL VIEW F-F

TOLERANCE NOTES

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LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017

REVISION HISTORY

DESCRIPTION
HANDRAIL REINFORCEMENT KIT (LONG)

CPD NO.	DRAWN BY	ENG. APPROVAL
SP1	CSL3 2/23/2017	3RD PARTY

CLASS	SUB	DRAWING USAGE	CHECKED BY
81	02	SHOP	BMC 9/8/2017

SITE PRO 1
A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

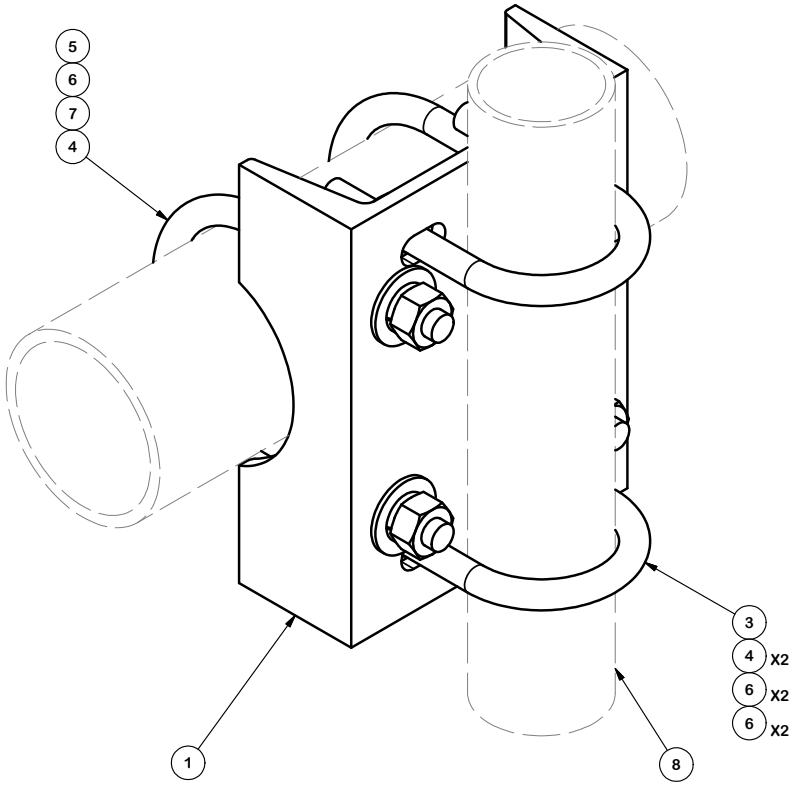
PART NO. PRK-SFS-L

DWG. NO. PRK-SFS-L

2-7/8" O.D. VERTICAL MOUNTING PIPES						
ASSEMBLY "A"	PART NO. "B"	PART DESCRIPTION	LENGTH "C"	UNIT WT. "D"	NET WT. "E"	TOTAL WEIGHT
SP219-96H	P3096	2-7/8" DIA X 63" SCH 40 GALVANIZED PIPE	96"	49.24	49.24	62.45
SP219-120H	P30126	2-7/8" DIA X 63" SCH 40 GALVANIZED PIPE	126"	76.94	76.94	89.15

PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	8.61	8.61
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.26	0.51
3	2	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	1.48
4	2	X-UB1306	1/2" X 3-5/8" X 6" X 3" GALV U-BOLT		0.83	1.66
5	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
6	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
7	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
8	1	"B"	2-7/8" O.D. VERTICAL MOUNTING PIPES	"C"	"D"	"E"



TOLERANCE NOTES

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SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: 2-7/8" PIPE MOUNT KITS

SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 1/26/2016		SP219-xxxH

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 2/2/2016	SP219-xxxH

Wind & Ice Loading

Nominal Mount Elevation (AGL), z_{mount}	140 ft	**K_a**	0.90
Nominal Rad Elevation (AGL), z_{rad}	141 ft	**K_d**	0.95
Elevation AMSL (ft)	-	**K_e**	-
TIA Standard	G	**K_z**	1.36
Basic Wind Speed, V_{ult} (bare)	125 mph	**K_{zt}**	1.00
Basic Wind Speed, V (ice)	50 mph	**K_s**	-
Design Ice Thickness, t_i	3/4 in	**t_{iz}**	1.73 in
Exposure Category	C	**G_h**	1.00
Risk Category	II	**q_z (bare)**	51.6 psf
Seismic Response Coeff., C_s	-	**q_z (ice)**	8.3 psf

Live Loading

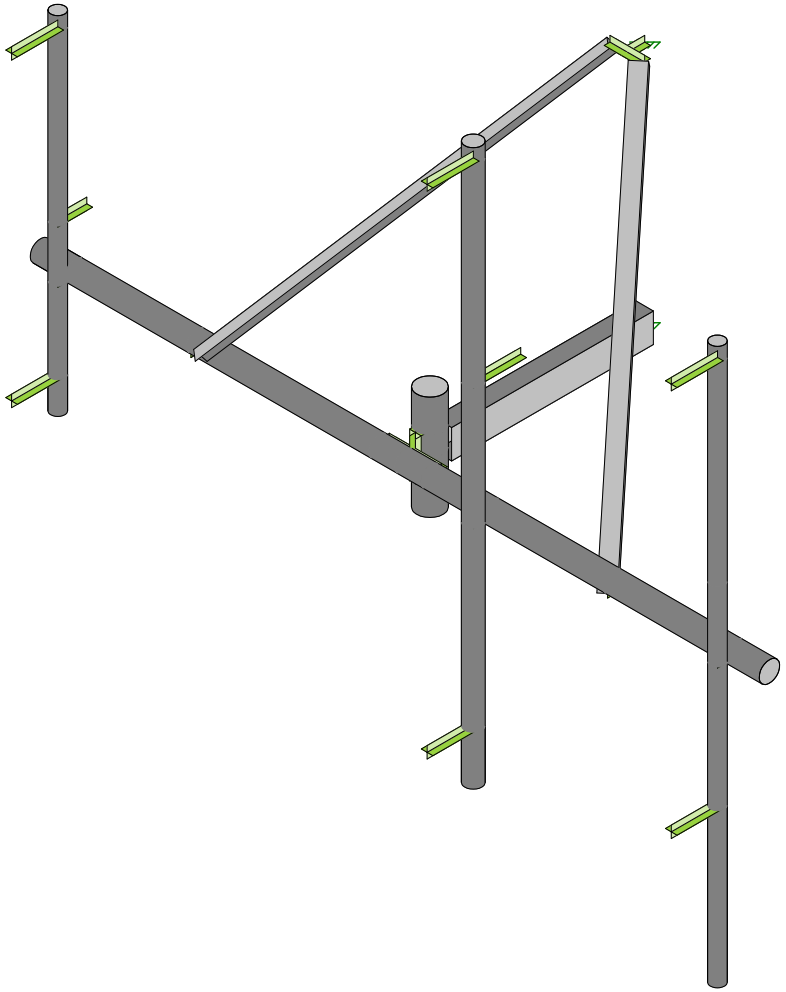
At Mount Pipes, L_M	500 lb
Joint Labels Considered	M1
	M2
	M3

Member Distributed Loading

Section Set Label	Shape Label	F_A (lb/ft)		Ice Wt. (lb/ft)
		Bare	Ice	
Face Horizontal Pipe	PIPE_3.0	16.26	5.18	11.08
MOD Mount Pipe	PIPE_2.5	13.36	4.71	9.76
Mount Pipe	PIPE_2.0	11.03	4.34	8.70
Standoff Tube	HSS5X3X6	38.72	3.04	14.45
Vertical Pipe	PIPE_4.0	20.91	5.92	13.20
MOD PRK	L2.5x2.5x3	19.36	2.81	10.16

Appurtenances

Appurtenance Model	Status	Azimuth Offset (°, ↻)	Rad Elev. Override (ft)	Swap Width & Depth	Area Factor		Qty.	Total Qty. Override	0° Joints		Height (in)	Width (in)	Depth (in)	Weight (Bare) (lb)	Shape	Weight of Ice (lb)	EPA_A (Bare) (ft^2)		EPA_A (Ice) (ft^2)		F_A (Bare) (lb)		F_A (Ice) (lb)	
					Front	Side	0°		1	2							N	T	N	T	N	T	N	T
AIR 21 B4A/B12P-B5F 6FT				☐			1	***3***	A1	A2	78	14.8	8.6	110	Flat	260.39	10.61	6.84	13.30	9.48	493.56	318.42	99.04	70.60
APXVAARR24_43-U-NA20				☐			1	***3***	A3	A4	0	0	0	153.3	Generic	390.56	14.67	5.32	17.31	7.64	682.61	247.55	128.85	56.91
AIR 21, 1.3 M, B2A B4P				☐			1	***3***	A5	A6	56	12	8	83	Flat	145.36	6.05	4.36	8.05	6.25	281.48	202.67	59.91	46.52
KRY 112 144/1				☐	0.25		1	***3***	T1		7	6	3	11	Flat	11.02	0.09	0.18	0.21	0.56	4.07	8.14	1.54	4.20
RADIO 4449 B12/B71				☐	0.5		1	***3***	R1		15	13.2	10.4	75	Flat	59.68	0.83	1.30	1.28	2.13	38.39	60.49	9.55	15.89



Envelope Only Solution

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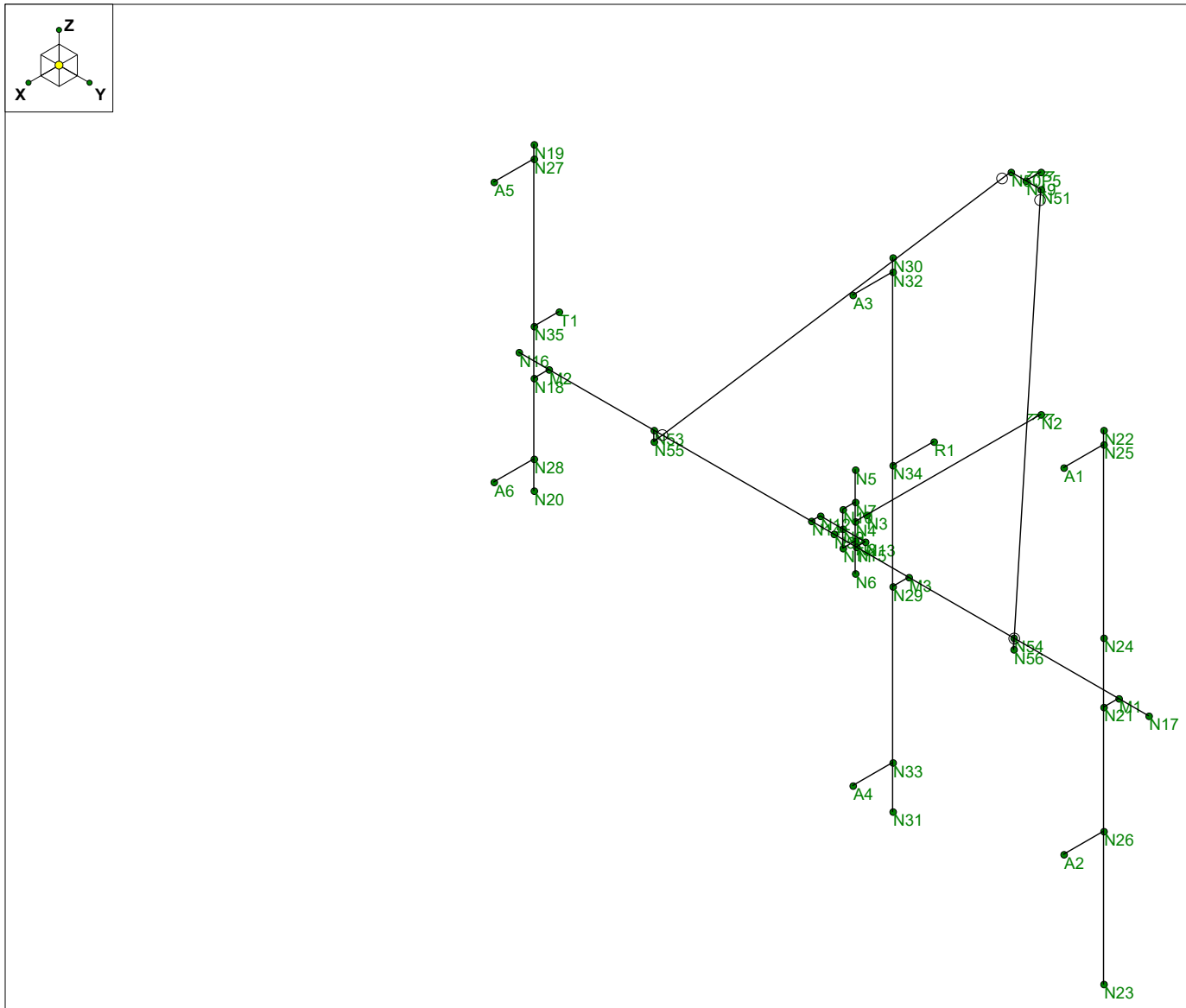
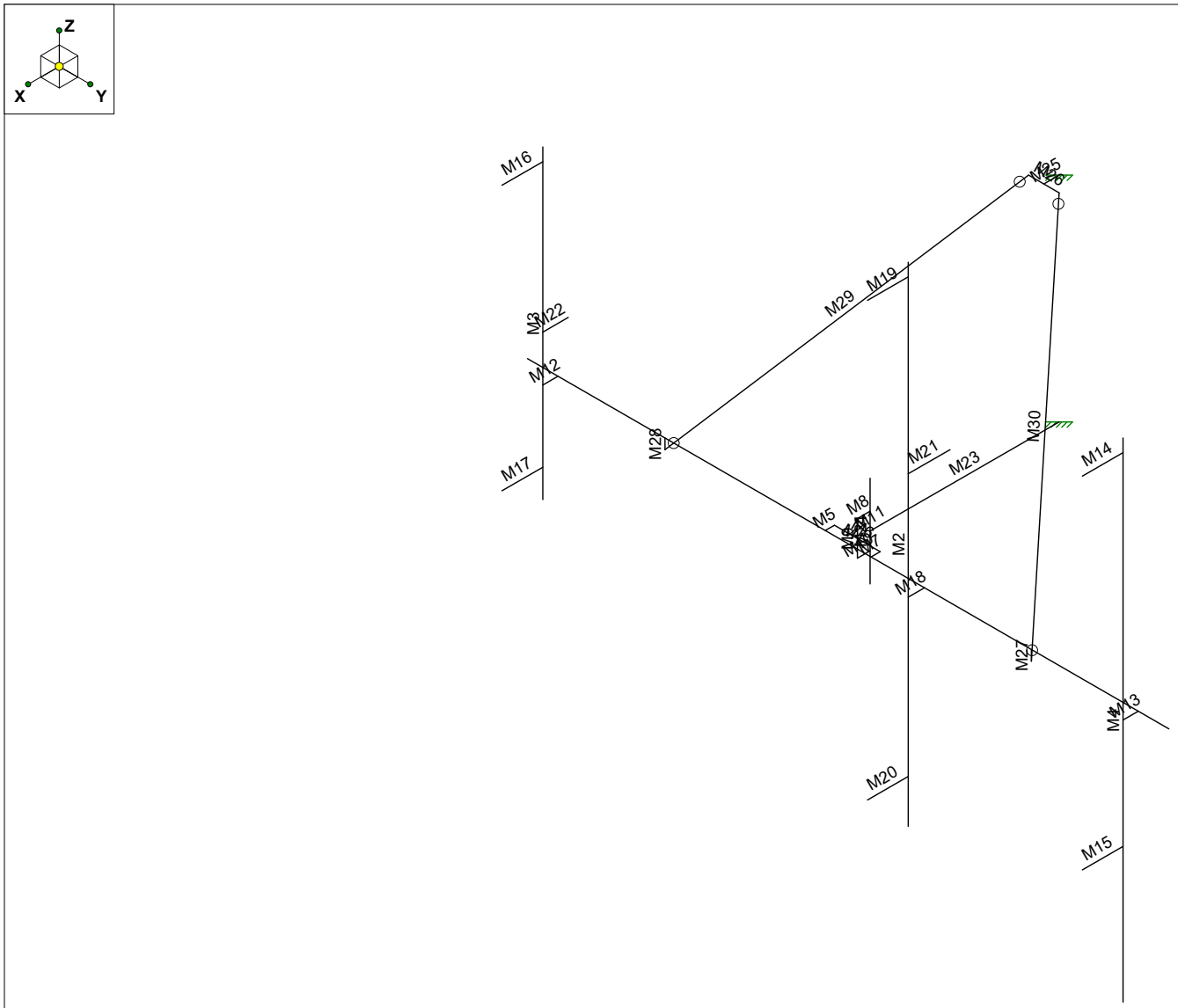
SMR		July 8, 2019 at 4:17 PM
41124-12927186-01-MA-R1	Rendered	41124-12927186-01-MA-R1.r3d



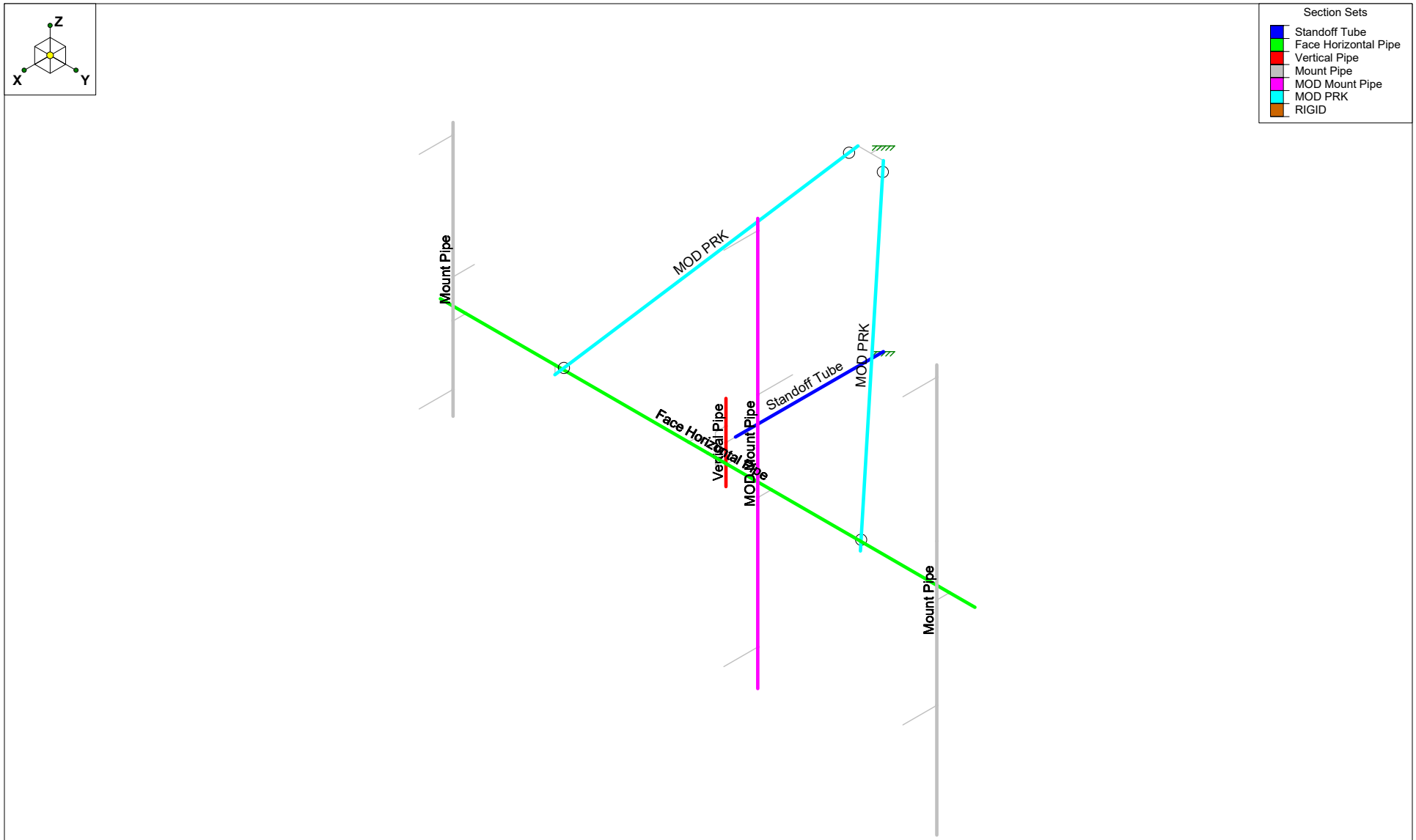
Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 2
SMR		July 8, 2019 at 4:18 PM
41124-12927186-01-MA-R1	Joint Labels	41124-12927186-01-MA-R1.r3d



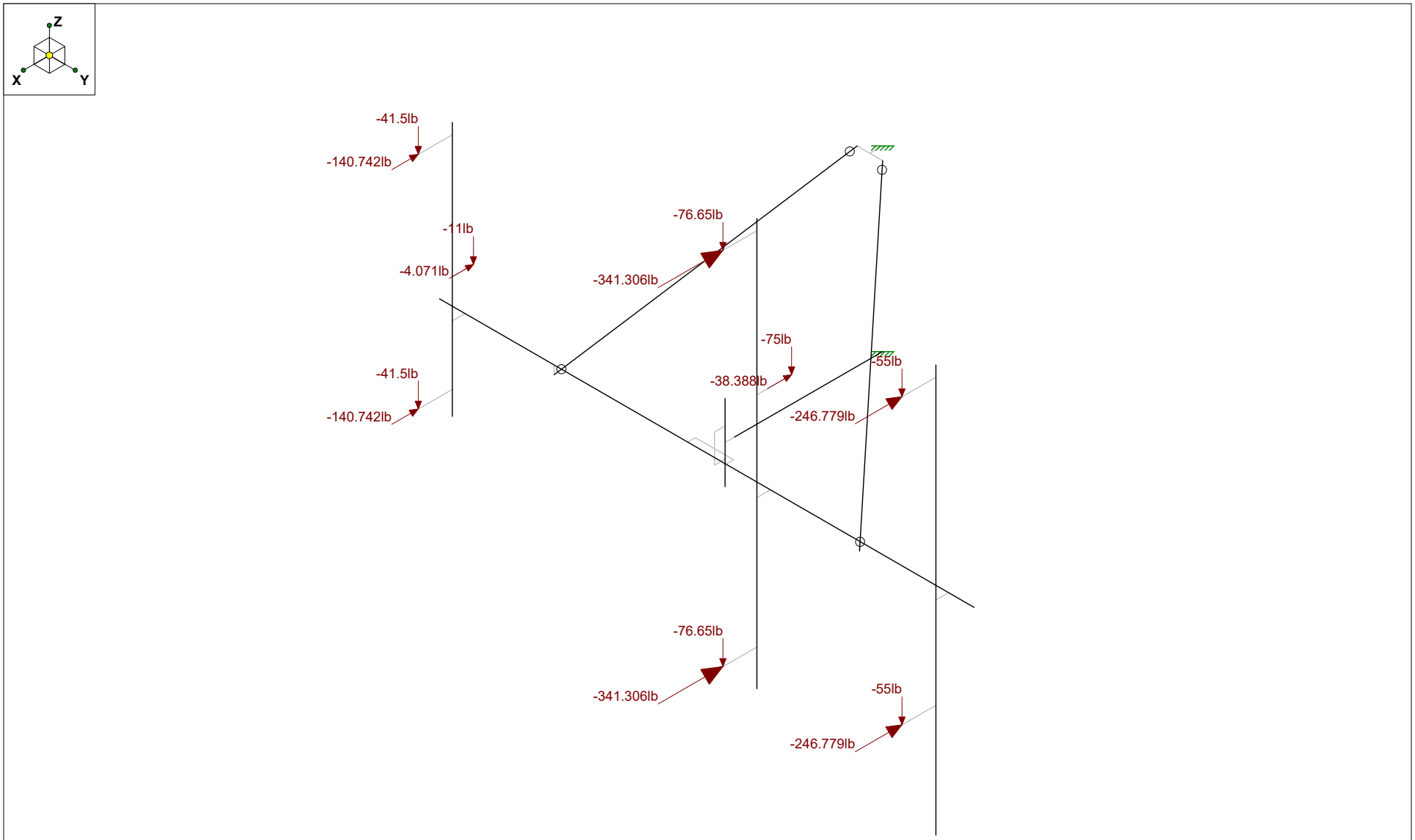
Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 3
SMR		July 8, 2019 at 4:18 PM
41124-12927186-01-MA-R1	Member Labels	41124-12927186-01-MA-R1.r3d



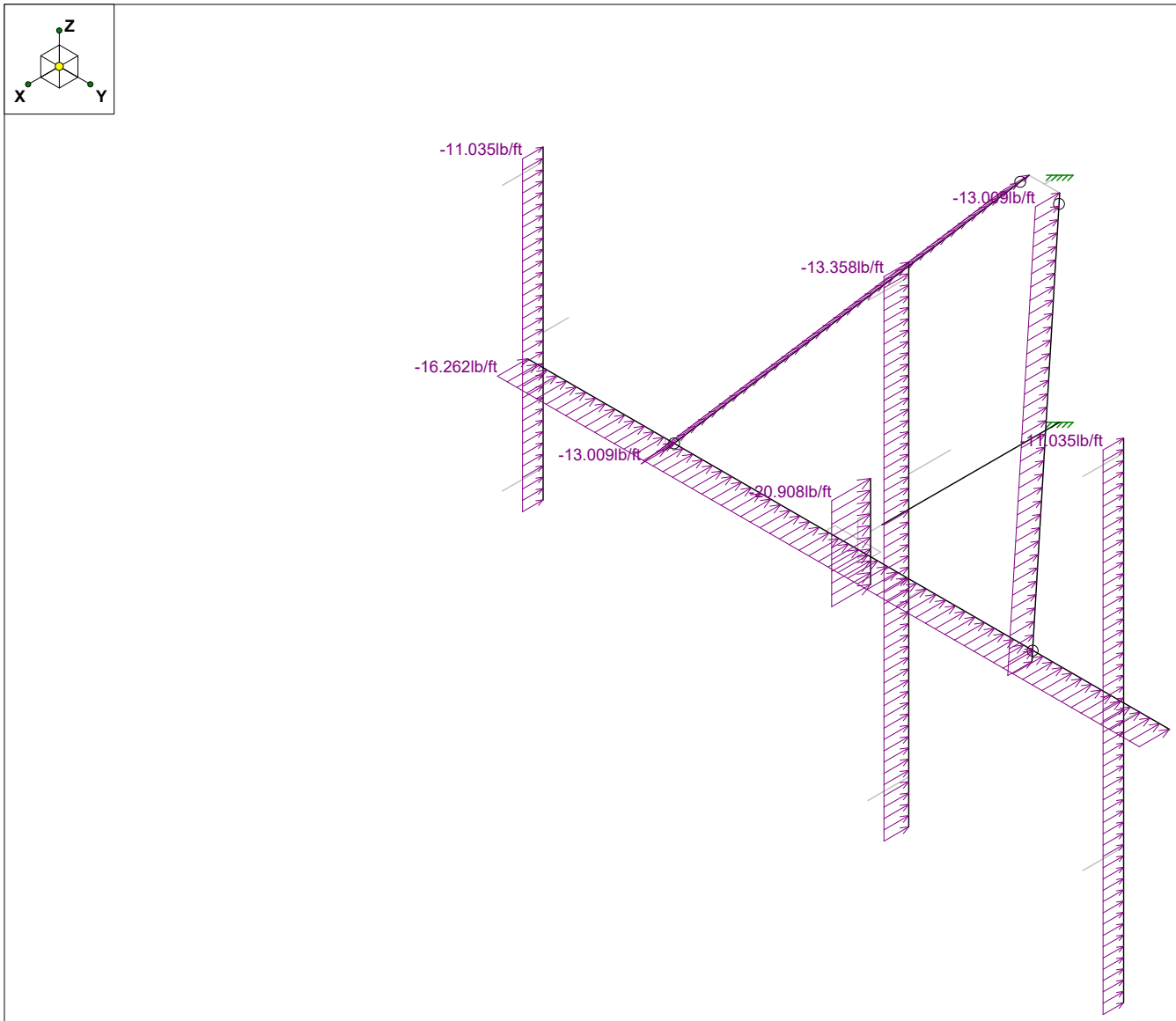
Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 4
SMR		July 8, 2019 at 4:18 PM
41124-12927186-01-MA-R1	Section Sets	41124-12927186-01-MA-R1.r3d



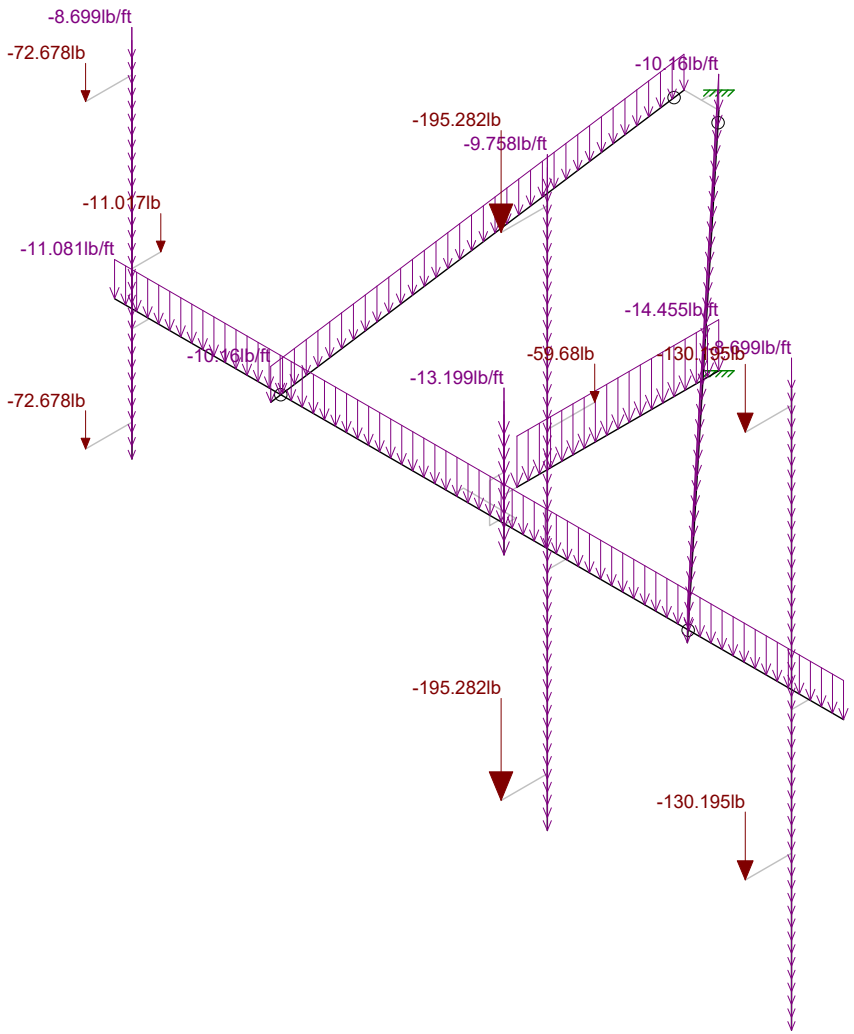
Loads: LC 1, DISPLAY (1.0D + 1.0W_0°)
Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 5
SMR		July 8, 2019 at 4:19 PM
41124-12927186-01-MA-R1	Joint Loads - Dead and Normal Wind	41124-12927186-01-MA-R1.r3d



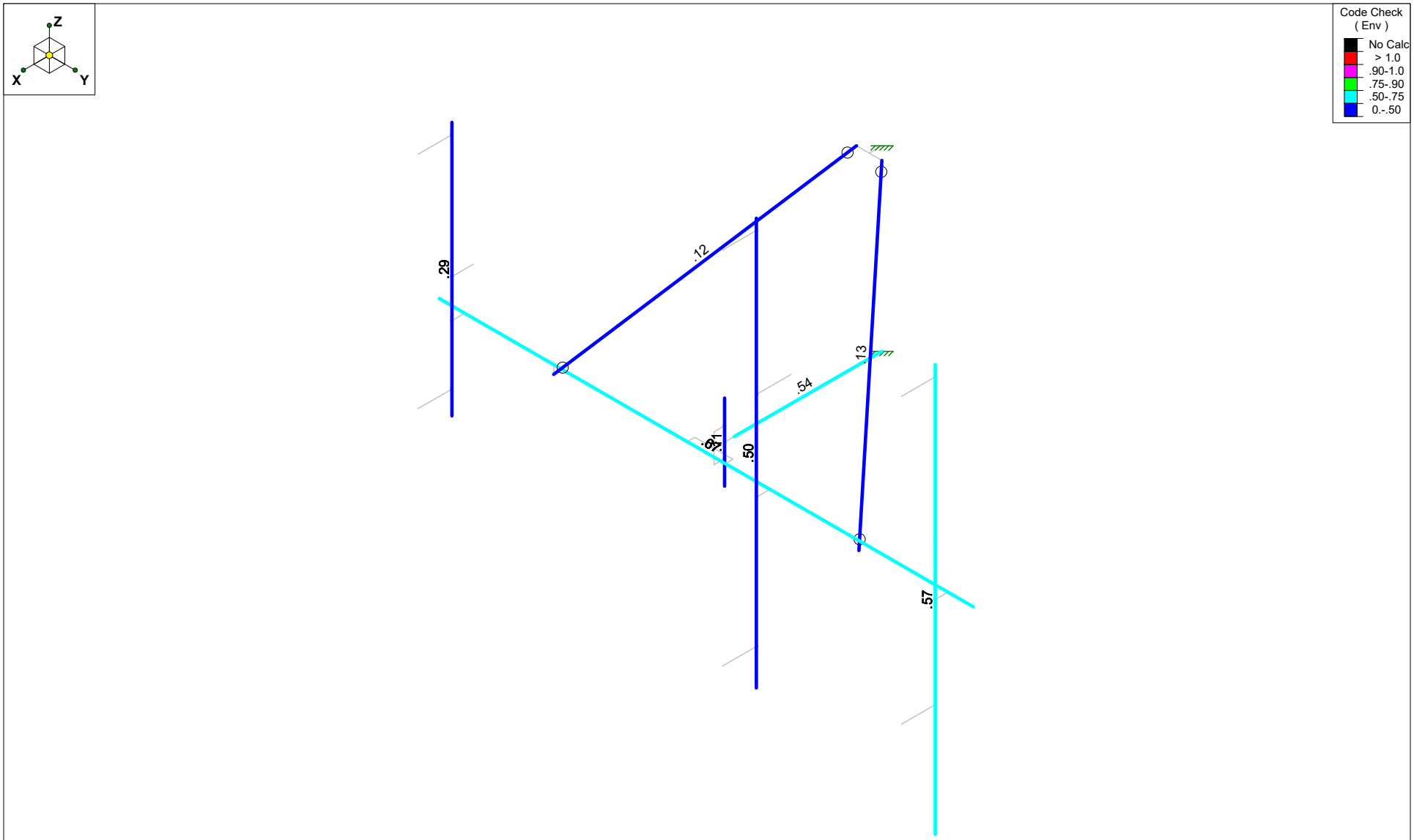
Loads: BLC 4, Structure Wind 0°
Envelope Only Solution

CLS		SK - 6
SMR	41124-12927186-Parsonage Hill Aka Wallin	July 8, 2019 at 4:19 PM
41124-12927186-01-MA-R1	Distributed Load - Normal Wind	41124-12927186-01-MA-R1.r3d



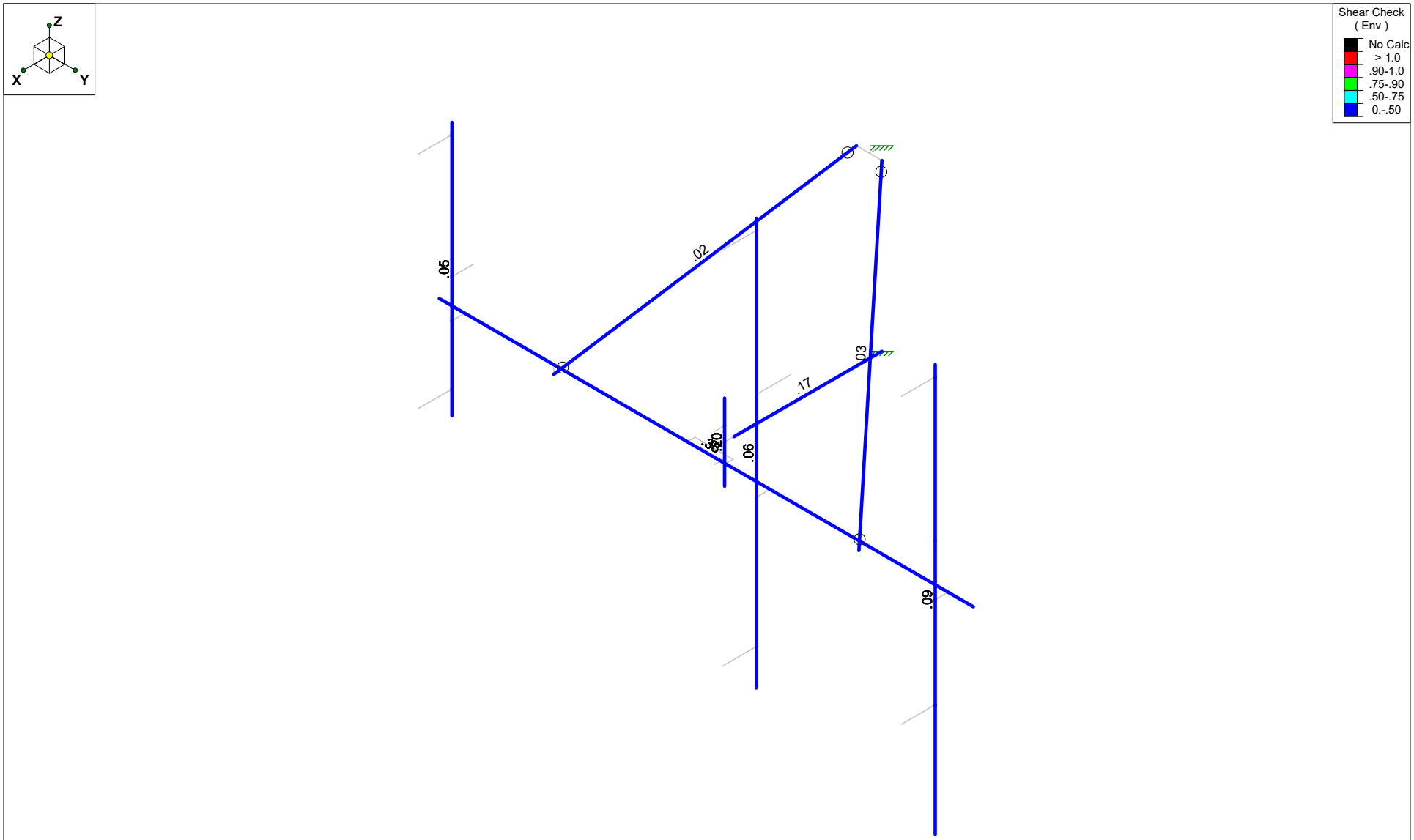
Loads: BLC 2, Ice Dead
Envelope Only Solution

CLS	41124-12927186-Parsonage Hill Aka Wallin	SK - 7
SMR		July 8, 2019 at 4:19 PM
41124-12927186-01-MA-R1	Ice Dead Loads	41124-12927186-01-MA-R1.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

CLS		SK - 8
SMR	41124-12927186-Parsonage Hill Aka Wallin	July 8, 2019 at 4:19 PM
41124-12927186-01-MA-R1	Envelope Member Unity Check Results - Bending	41124-12927186-01-MA-R1.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

CLS		SK - 9
SMR	41124-12927186-Parsonage Hill Aka Wallin	July 8, 2019 at 4:20 PM
41124-12927186-01-MA-R1	Envelope Member Check Results - Shear	41124-12927186-01-MA-R1.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
1	Dead	DL			-1	8				
2	Ice Dead	RL				8		8		
4	Structure Wind 0Á	None						7		
5	Structure Wind 30Á	None						16		
6	Structure Wind 45Á	None						16		
7	Structure Wind 60Á	None						16		
8	Structure Wind 90Á	None						7		
9	Structure Wind 120Á	None						16		
10	Structure Wind 135Á	None						16		
11	Structure Wind 150Á	None						16		
12	Structure Wind w/ Ice 0Á	None						7		
13	Structure Wind w/ Ice 30Á	None						16		
14	Structure Wind w/ Ice 45Á	None						16		
15	Structure Wind w/ Ice 60Á	None						16		
16	Structure Wind w/ Ice 90Á	None						7		
17	Structure Wind w/ Ice 120Á	None						16		
18	Structure Wind w/ Ice 135Á	None						16		
19	Structure Wind w/ Ice 150Á	None						16		
20	Antenna Wind 0Á	None				8				
21	Antenna Wind 30Á	None				16				
22	Antenna Wind 45Á	None				16				
23	Antenna Wind 60Á	None				16				
24	Antenna Wind 90Á	None				8				
25	Antenna Wind 120Á	None				16				
26	Antenna Wind 135Á	None				16				
27	Antenna Wind 150Á	None				16				
28	Antenna Wind w/ Ice 0Á	None				8				
29	Antenna Wind w/ Ice 30Á	None				16				
30	Antenna Wind w/ Ice 45Á	None				16				
31	Antenna Wind w/ Ice 60Á	None				16				
32	Antenna Wind w/ Ice 90Á	None				8				
33	Antenna Wind w/ Ice 120Á	None				16				
34	Antenna Wind w/ Ice 135Á	None				16				
35	Antenna Wind w/ Ice 150Á	None				16				
39	Maintenance Live 500 (1)	OL1				1				
40	Maintenance Live 500 (2)	OL2				1				
41	Maintenance Live 500 (3)	OL3				1				

Load Combinations

	Description	Solve	PDe..	SRSS	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
1	DISPLAY (1.0D + ..	Yes	Y		DL	1	20	1																		
2	1.4D	Yes	Y		DL	1.4																				
3	1.2D + 1.0W 0Á	Yes	Y		DL	1.2	4	1	20	1																
4	1.2D + 1.0W_30Á	Yes	Y		DL	1.2	5	1	21	1																
5	1.2D + 1.0W_45Á	Yes	Y		DL	1.2	6	1	22	1																
6	1.2D + 1.0W_60Á	Yes	Y		DL	1.2	7	1	23	1																
7	1.2D + 1.0W_90Á	Yes	Y		DL	1.2	8	1	24	1																
8	1.2D + 1.0W_120Á	Yes	Y		DL	1.2	9	1	25	1																
9	1.2D + 1.0W_135Á	Yes	Y		DL	1.2	10	1	26	1																

Load Combinations (Continued)

	Description	Solve	PDe..	SRSS	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
10	1.2D + 1.0W_150Á	Yes	Y		DL	1.2	11	1	27	1																
11	1.2D + 1.0W_180Á	Yes	Y		DL	1.2	4	-1	20	-1																
12	1.2D + 1.0W_210Á	Yes	Y		DL	1.2	5	-1	21	-1																
13	1.2D + 1.0W_225Á	Yes	Y		DL	1.2	6	-1	22	-1																
14	1.2D + 1.0W_240Á	Yes	Y		DL	1.2	7	-1	23	-1																
15	1.2D + 1.0W_270Á	Yes	Y		DL	1.2	8	-1	24	-1																
16	1.2D + 1.0W_300Á	Yes	Y		DL	1.2	9	-1	25	-1																
17	1.2D + 1.0W_315Á	Yes	Y		DL	1.2	10	-1	26	-1																
18	1.2D + 1.0W_330Á	Yes	Y		DL	1.2	11	-1	27	-1																
19	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	12	1	28	1	RL	1														
20	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	13	1	29	1	RL	1														
21	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	14	1	30	1	RL	1														
22	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	15	1	31	1	RL	1														
23	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	16	1	32	1	RL	1														
24	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	17	1	33	1	RL	1														
25	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	18	1	34	1	RL	1														
26	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	19	1	35	1	RL	1														
27	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	12	-1	28	-1	RL	1														
28	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	13	-1	29	-1	RL	1														
29	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	14	-1	30	-1	RL	1														
30	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	15	-1	31	-1	RL	1														
31	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	16	-1	32	-1	RL	1														
32	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	17	-1	33	-1	RL	1														
33	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	18	-1	34	-1	RL	1														
34	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	19	-1	35	-1	RL	1														
35	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	4	.061	20	.061	OL1	1.5														
36	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	5	.061	21	.061	OL1	1.5														
37	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	6	.061	22	.061	OL1	1.5														
38	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	7	.061	23	.061	OL1	1.5														
39	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	8	.061	24	.061	OL1	1.5														
40	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	9	.061	25	.061	OL1	1.5														
41	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	10	.061	26	.061	OL1	1.5														
42	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	11	.061	27	.061	OL1	1.5														
43	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	4	-.061	20	-.061	OL1	1.5														
44	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	5	-.061	21	-.061	OL1	1.5														
45	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	6	-.061	22	-.061	OL1	1.5														
46	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	7	-.061	23	-.061	OL1	1.5														
47	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	8	-.061	24	-.061	OL1	1.5														
48	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	9	-.061	25	-.061	OL1	1.5														
49	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	10	-.061	26	-.061	OL1	1.5														
50	1.2D + 1.5Lm_1 +...	Yes	Y		DL	1.2	11	-.061	27	-.061	OL1	1.5														
51	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	4	.061	20	.061	OL2	1.5														
52	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	5	.061	21	.061	OL2	1.5														
53	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	6	.061	22	.061	OL2	1.5														
54	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	7	.061	23	.061	OL2	1.5														
55	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	8	.061	24	.061	OL2	1.5														
56	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	9	.061	25	.061	OL2	1.5														
57	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	10	.061	26	.061	OL2	1.5														
58	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	11	.061	27	.061	OL2	1.5														
59	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	4	-.061	20	-.061	OL2	1.5														
60	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	5	-.061	21	-.061	OL2	1.5														
61	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	6	-.061	22	-.061	OL2	1.5														

Load Combinations (Continued)

	Description	Solve	PDe..	SRSS	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
62	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	7	-.061	23	-.061	OL2	1.5														
63	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	8	-.061	24	-.061	OL2	1.5														
64	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	9	-.061	25	-.061	OL2	1.5														
65	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	10	-.061	26	-.061	OL2	1.5														
66	1.2D + 1.5Lm_2 +...	Yes	Y		DL	1.2	11	-.061	27	-.061	OL2	1.5														
67	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	4	.061	20	.061	OL3	1.5														
68	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	5	.061	21	.061	OL3	1.5														
69	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	6	.061	22	.061	OL3	1.5														
70	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	7	.061	23	.061	OL3	1.5														
71	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	8	.061	24	.061	OL3	1.5														
72	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	9	.061	25	.061	OL3	1.5														
73	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	10	.061	26	.061	OL3	1.5														
74	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	11	.061	27	.061	OL3	1.5														
75	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	4	-.061	20	-.061	OL3	1.5														
76	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	5	-.061	21	-.061	OL3	1.5														
77	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	6	-.061	22	-.061	OL3	1.5														
78	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	7	-.061	23	-.061	OL3	1.5														
79	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	8	-.061	24	-.061	OL3	1.5														
80	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	9	-.061	25	-.061	OL3	1.5														
81	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	10	-.061	26	-.061	OL3	1.5														
82	1.2D + 1.5Lm_3 +...	Yes	Y		DL	1.2	11	-.061	27	-.061	OL3	1.5														

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Tube	HSS5X3X6	Beam	None	A36 Gr.36	Typical	4.78	6.25	14.1	14.9
2	Face Horizontal Pipe	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	Vertical Pipe	PIPE_4.0	Column	None	A53 Gr.B	Typical	2.96	6.82	6.82	13.6
4	Mount Pipe	PIPE_2.0	Column	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	MOD Mount Pipe	PIPE_2.5	Column	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
6	MOD PRK	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical	.901	.535	.535	.011

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[...	Lcomp...L-tor...	Kyy	Kzz	Cb	Functi...
1	M1	Face Horizontal Pipe	126			Lbyy					Lateral
2	M2	MOD Mount Pipe	96			Lbyy					Lateral
3	M3	Mount Pipe	60			Lbyy					Lateral
4	M4	Mount Pipe	96			Lbyy					Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[...	Lcomp...	L-tor...	Kyy	Kzz	Cb	Functi...
5	M23	Standoff Tube	34.875			Lbyy			2.1	2.1		Lateral
6	M24	Vertical Pipe	18			Lbyy						Lateral
7	M29	MOD PRK	67.093			Lbyy						Lateral
8	M30	MOD PRK	67.093			Lbyy						Lateral

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N2	max	1684.159	3	1465.669	14	1204.403	3	1659.368	5	442.47	11	5963.163	13
2		min	-663.128	11	-1282.762	6	-743.442	11	-1276.957	13	-3325.007	19	-6008.786	5
3	P5	max	413.802	3	619.04	51	1897.714	27	272.62	43	94.875	3	36.115	13
4		min	-1594.11	27	-809.575	43	-374.168	3	-208.549	51	-474.351	27	-24.032	6
5	Totals:	max	2097.961	3	1395.576	15	2180.17	29						
6		min	-2097.977	11	-1395.577	7	691.862	1						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Ch...	Loc[in]	LC	Shear ...	Loc[in]	...	LC	phi*Pnc ..	phi*Pnt [..	phi*Mn y-y [...	phi*Mn z...	Cb	Eqn
1	M1	PIPE 3.0	.667	68.25	3	.381	68.25		11	36138.4	65205	5748.75	5748.75	3.251	H3-6
2	M4	PIPE 2.0	.573	48	11	.087	48		6	14916.0...	32130	1871.625	1871.625	1.567	H1-1b
3	M23	HSS5X3X6	.543	0	5	.166	0	z	5	124791....	154872	13770	19818	1.79	H1-1b
4	M2	PIPE 2.5	.498	57	3	.058	57		5	30038.4...	50715	3596.25	3596.25	1.779	H1-1b
5	M3	PIPE 2.0	.286	40	11	.054	31.25		15	23808.54	32130	1871.625	1871.625	1.829	H1-1b
6	M30	L2.5x2.5x3	.134	33.547	13	.034	67.093	y	4	10505.1...	29192.4	872.574	1612.505	1.136	H2-1
7	M29	L2.5x2.5x3	.120	33.547	9	.019	0	y	16	10505.1...	29192.4	872.574	1612.505	1.136	H2-1
8	M24	PIPE 4.0	.106	9	12	.203	9		4	92571.3...	93240	10631.25	10631.25	1.921	H1-1b

BOLTED CONNECTION ROTATIONAL SLIP RESISTANCE

v. 2017.11.20

DESIGN LOADS	
Factored Moment, M_u (lb-ft)	3078

BOLT PROPERTIES	
Bolt Type	U-Bolt
# of U-Bolts	2
Hole Type	Standard
Bolt Grade	A36
Bolt Diameter, d (in)	0.5
Leg Width, W_{leg} (in)	4.5
Bolt Torque Override, T (lb-ft)	50
Bolt Pretension Stress Override (ksi)	
Bolt Ultimate Strength, F_u (ksi)	58
Specified Torque, T (lb-ft)	50.00
Clamping Force per Bolt, P_u (lb)	6000.00
Bolt Pretension Stress (ksi)	30.56
Tensile Strength per Bolt, ϕP_n (lb)	6405.90
Slip Resistance per Bolt, ϕM_n (lb-ft)	762.75
Total Slip Resistance, ϕM_n (lb-ft)	3051.00
Connection Slip Usage, M_u / ϕM_n	**1.01**

Using Torque Override

FACTORS		
Nut Factor, K	0.20	**Rule-of-thumb estimate**
$\Phi_{(BOLT\ TENSION)}$	0.75	**AISC 15th, J3.6**
$\Phi_{(SLIP\text{-}CRITICAL)}$	1.00	**AISC 15th, J3.8**
Mean Slip Coefficient, μ	0.30	**AISC 15th, J3.8**
Installed Pretension Ratio, D_u	1.13	**AISC 15th, J3.8**

Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11054A

Wallingford/I-91/X15/G
992 Northrop Road
Wallingford, Connecticut 06492

June 5, 2019

EBI Project Number: 6219001983

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**9.05%**

June 5, 2019

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CT11054A - Wallingford/I-91/X15/G

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **992 Northrop Road** in **Wallingford, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 992 Northrop Road in Wallingford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

3) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

6) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

8) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

9) The antennas used in this modeling are the Ericsson AIR21 B2A_B4P for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 700 MHz channel(s), the for the 2100 MHz channel(s) in Sector A, the Ericsson AIR21 B2A_B4P for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 700 MHz channel(s), the Ericsson AIR B4A/B12P for the 2100 MHz channel(s) in Sector B, the Ericsson AIR21 B2A_B4P for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 700 MHz channel(s), the Ericsson AIR B4A/B12P for the 2100 MHz channel(s) in Sector C.

10) This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

11) The antenna mounting height centerline of the proposed antennas is 141 feet above ground level (AGL).

12) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

13) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	Ericsson AIR21 B2A_B4P	Make / Model:	Ericsson AIR21 B2A_B4P	Make / Model:	Ericsson AIR21 B2A_B4P
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd
Height (AGL):	141 feet	Height (AGL):	141 feet	Height (AGL):	141 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	8,226.43	ERP (W):	8,226.43	ERP (W):	8,226.43
Antenna A1 MPE %:	**1.49%**	Antenna B1 MPE %:	**1.49%**	Antenna C1 MPE %:	**1.49%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20
Frequency Bands:	600 MHz / 700 MHz	Frequency Bands:	600 MHz / 700 MHz	Frequency Bands:	600 MHz / 700 MHz
Gain:	12.95 dBd / 13.35 dBd	Gain:	12.95 dBd / 13.35 dBd	Gain:	12.95 dBd / 13.35 dBd
Height (AGL):	141 feet	Height (AGL):	141 feet	Height (AGL):	141 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts
ERP (W):	2,481.08	ERP (W):	2,481.08	ERP (W):	2,481.08
Antenna A2 MPE %:	**1.04%**	Antenna B2 MPE %:	**1.04%**	Antenna C2 MPE %:	**1.04%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR B4A/B12P	Make / Model:	Ericsson AIR B4A/B12P	Make / Model:	Ericsson AIR B4A/B12P
Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz
Gain:	15.85 dBd	Gain:	15.85 dBd	Gain:	15.85 dBd
Height (AGL):	141 feet	Height (AGL):	141 feet	Height (AGL):	141 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts
ERP (W):	4,615.10	ERP (W):	4,615.10	ERP (W):	4,615.10
Antenna A3 MPE %:	**0.83%**	Antenna B3 MPE %:	**0.83%**	Antenna C3 MPE %:	**0.83%**

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	3.36%
AT&T	0.9%
Metro PCS	1.24%
Sprint	3.43%
Clearwire	0.12%
Site Total MPE % :	9.05%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	3.36%
T-Mobile Sector B Total:	3.36%
T-Mobile Sector C Total:	3.36%
Site Total MPE % :	9.05%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz UMTS	2	1028.30	141.0	3.72	1900 MHz UMTS	1000	0.37%
T-Mobile 1900 MHz GSM	4	1028.30	141.0	7.44	1900 MHz GSM	1000	0.74%
T-Mobile 2100 MHz UMTS	2	1028.30	141.0	3.72	2100 MHz UMTS	1000	0.37%
T-Mobile 600 MHz LTE	2	591.73	141.0	2.14	600 MHz LTE	400	0.54%
T-Mobile 700 MHz LTE	2	648.82	141.0	2.35	700 MHz LTE	467	0.50%
						Total:	**3.36%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	3.36%
Sector B:	3.36%
Sector C:	3.36%
T-Mobile Maximum MPE % (Sector A):	3.36%
Site Total:	9.05%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **9.05%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Exhibit G

Mailing Receipts/Proof of Notice

UPS Internet Shipping: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the 'Find Locations' Quick link at ups.com.
   Schedule a same day or future day Pickup to have a UPS driver pickup all of your Internet Shipping packages.
   Hand the package to any UPS driver in your area.

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THE UPS STORE
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RAMSEY ,NJ 07446

UPS Access Point™
POSTNET NY137
74 LAFAYETTE AVE
SUFFERN ,NY 10901

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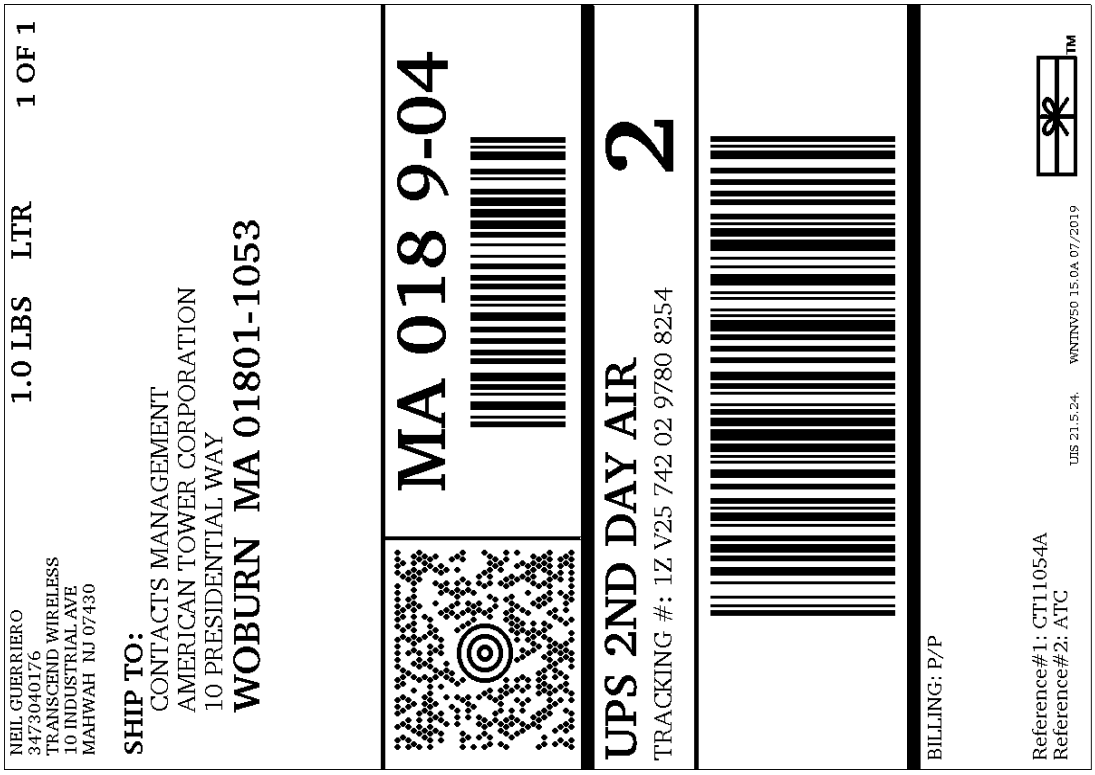

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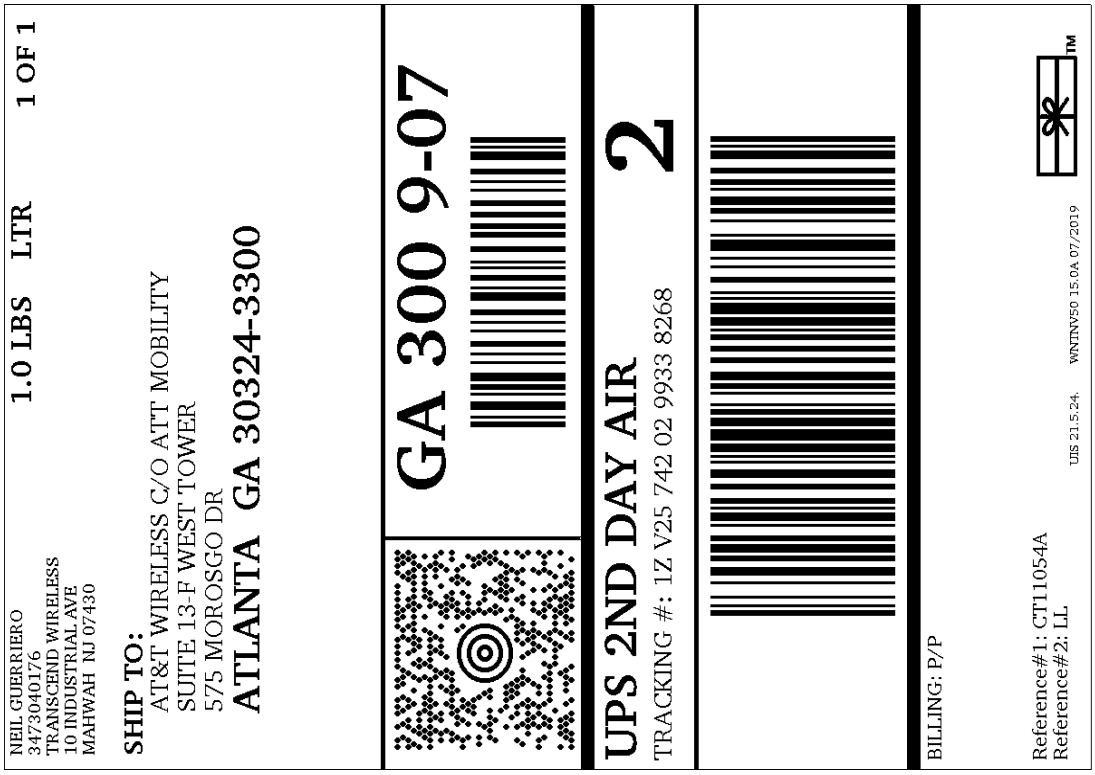

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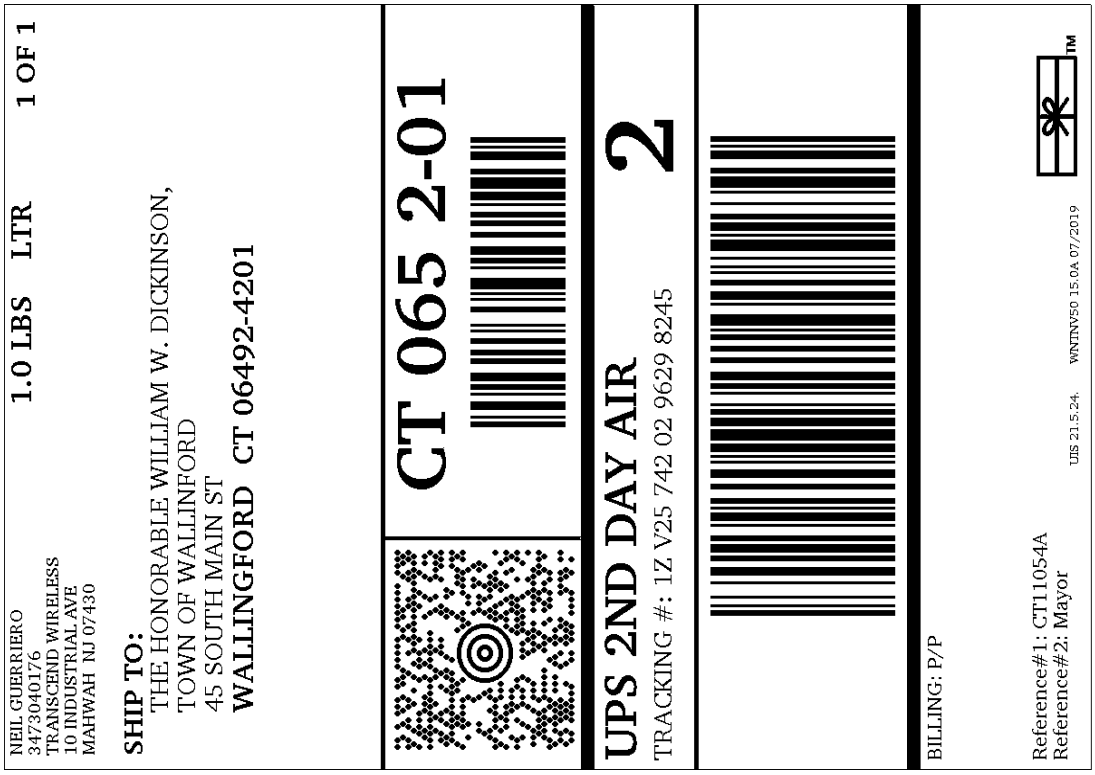

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