



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

October 28, 2019

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

RE: **Notice of Exempt Modification for Crown Site BU: 841293
136 Bulls Bridge Road, Kent, Litchfield County, CT 06785
Latitude: 41° 40' 53.85"/ Longitude: -73° 29' 11.8"**

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 180-foot level of the existing 179.813-foot monopole at 136 Bulls Bridge Road, South Kent, Connecticut 06785. The tower is owned by Crown Castle. The property is owned by South Kent School. AT&T proposes to replace six (6) antennas with six (6) new antennas and modify the mount pursuant to the enclosed Mount Analysis.

The facility was approved by the Connecticut Siting Council on February 24, 1994, Docket Number 162. This approval included the following conditions:

1. The self-supporting monopole tower shall be no taller than necessary to provide the proposed cellular communications service and in no event shall the tower structure exceed a total height of 197 feet above ground level with antennas and appurtenances.
2. Prior to the commencement of construction, the Certificate holder shall prepare a Development and Management (D&M) Plan for this site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M Plan shall include detailed plans for the tower and tower foundation; the locations of all antennas to be attached to this tower to ensure maximum sharing of the tower; detailed plans for an access way from a public roadway, including all improvements and gates installed in the access way; utility line installation; equipment building plans including elevations; detailed plans for site clearing and tree trimming; detailed plans for erosion and sedimentation control; and plans for the installation of the security fence. The D&M Plan shall be submitted to the Council for approval prior to the commencement of tower construction.
3. The Certificate holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted herein shall be brought into compliance with such standards.
4. The Certificate holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when the circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.

The Foundation for a Wireless World.

CrownCastle.com

5. The Certificate holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. Should any agreement, including sharing of this tower, be reached prior to construction of the tower, detailed plans for the third party's equipment shall be included in the D&M Plan.
6. If the facility does not initially provide, or permanently ceases to provide, cellular or other services following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or reapplication for any continued or new use shall be made to the Council before any such use is made.
7. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order has been resolved.

This modification complies with the aforementioned conditions.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.S.C.A. § 16-50j-73, a copy of this letter is being sent to the Honorable Bruce K. Adams, First Selectman of the Town of Kent, to Donna Hayses, Land Use Administrator, and to the land owner South Kent School. Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification 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 Communication 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, AT&T respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba
Network Real Estate Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
annemarie.zsamba@crowncastle.com

Attachments:

cc: Mr. Bruce K. Adams, First Selectman
Kent Town Hall
41 Kent Green Blvd.
Kent, CT 06757
860-927-4627

Donna Hayes, Land Use Administrator
Land Use Department
Kent Town Hall
41 Kent Green Blvd.
Kent, CT 06757
860-927-4625

South Kent School
40 Bulls Bridge Road
Kent, CT 06785

ORIGIN ID:ONHA (585) 445-5896
RICHARD ZAJAC ACTWGT: 4.00 LB
CROWN CASTLE CAD: 104824194/INET4160
300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

SHIP DATE: 28OCT19
ACTWGT: 4.00 LB
CAD: 104824194/INET4160

BILL SENDER

TO **MELANIE BACHMAN**
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE

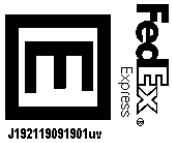
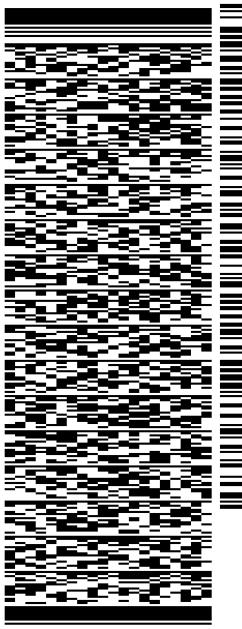
NEW BRITAIN CT 06051

(860) 827-2951

REF: 17656680

PO:

DEPT:



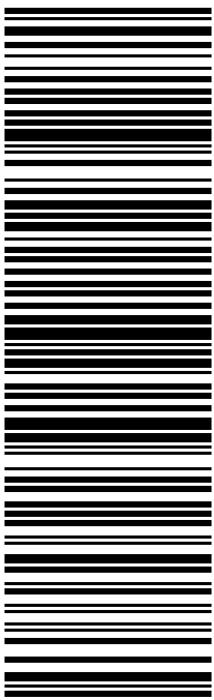
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TUE - 29 OCT 10:30A

PRIORITY OVERNIGHT

TRK# 7768 3240 5840
0201

XE BDLA
06051
CT-US
BDL



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567J3/2A3C/05A2

ORIGIN ID:ONHA (585) 445-5896
RICHARD ZAJAC ACTWG:
CROWN CASTLE 150 LB
300 MERIDIAN CENTRE CAD: 104824194/NET4160
ROCHESTER, NY 14618 UNITED STATES US

SHIP DATE: 28OCT19
ACTWG:
150 LB
CAD: 104824194/NET4160
BILL SENDER

TO **BRUCE K. ADAMS, FIRST SELECTMAN**

TOWN OF KENT

KENT TOWN HALL

41 KENT GREEN BLVD.

KENT CT 06757

(860) 927-4627

REF: 17347680

PO:

DEPT:

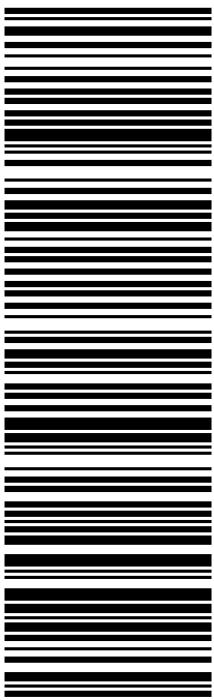


TUE - 29 OCT 12:00P

PRIORITY OVERNIGHT

TRK# 7768 3242 9777
0201

XE HFDA
06757
CT-US
BDL



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ORIGIN ID:ONHA (585) 445-5896
RICHARD ZAJAC ACTWGT: 1.50 LB
CROWN CASTLE CAD: 104824194/NET4160
300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

TO DONNA HAYES, LAND USE ADMIN

TOWN OF KENT
KENT TOWN HALL

41 KENT GREEN BLVD.
KENT CT 06757

(860) 927-4625

PO:

INV:

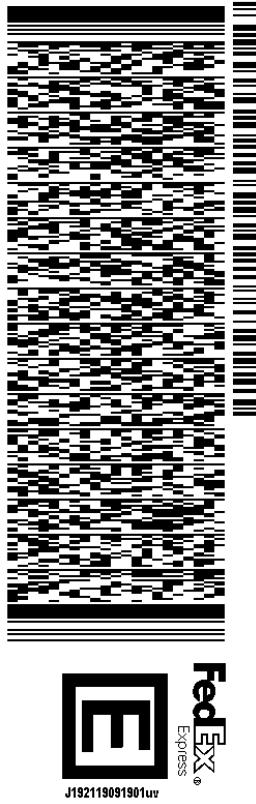
REF: 17656680

DEPT:

TO

BILL SENDER

SHIP DATE: 28OCT19
ACTWGT: 1.50 LB
CAD: 104824194/NET4160

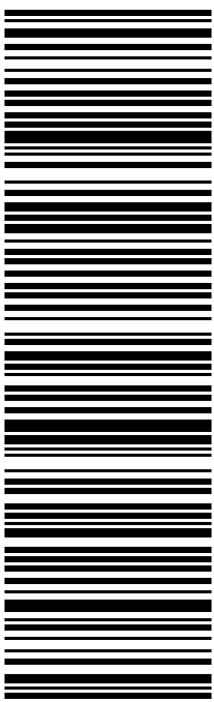


TUE - 29 OCT 12:00P

PRIORITY OVERNIGHT

TRK# 7768 3246 0085
0201

XE HFDA
06757
CT-US
BDL



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567J3/2A3C/05A2

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RICHARD ZAJAC ACTWGT: 1.50 LB
CROWN CASTLE CAD: 104824194/NET4160
300 MERIDIAN CENTRE
ROCHESTER, NY 14618
UNITED STATES US

TO **SOUTH KENT SCHOOL**

BILL SENDER

SHIP DATE: 28OCT19
ACTWGT: 1.50 LB
CAD: 104824194/NET4160

40 BULLS BRIDGE ROAD

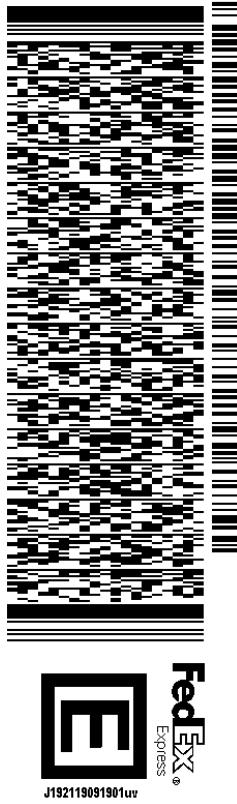
SOUTH KENT CT 06785

(201) 236-9224

REF: 17347680

NY
PO

DEPT:



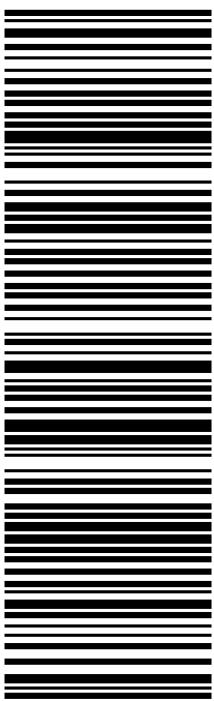
567J3/2A3C/05A2

TUE - 29 OCT 12:00P

PRIORITY OVERNIGHT

TRK# 7768 3248 0216
0201

XE HFDA
06785
CT-US
BDL



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Exhibit A

Original Facility Approval

DOCKET NO. 162 - An application of Springwich Cellular Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility located on the grounds of South Kent School off Bulls Bridge Road in Kent, Connecticut.

: Connecticut
: Siting
: Council
: February 24, 1994

ORIGINAL

DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications tower at the proposed site in Kent, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need as provided by section 16-50k of the Connecticut General Statutes (CGS), be issued to Springwich Cellular Limited Partnership (Springwich), for the construction, operation, and maintenance of a cellular telecommunications tower at the proposed site on property owned by the South Kent School, off Bulls Bridge Road, Kent, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The self-supporting monopole tower shall be no taller than necessary to provide the proposed cellular communications service and in no event shall the tower structure exceed a total height of 197 feet above ground level with antennas and appurtenances.
2. Prior to the commencement of construction, the Certificate holder shall prepare a Development and Management (D&M) Plan for this site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M Plan shall include detailed plans for the tower and tower foundation; the locations of all antennas to be attached to this tower to ensure maximum sharing of the tower; detailed plans for an accessway from a public roadway, including all improvements and gates installed in the accessway; utility line installation; equipment building plans including elevations; detailed plans for site clearing and tree trimming; detailed plans for erosion and sedimentation control; and plans for the installation of the security fence. The D&M Plan shall be submitted to the Council for approval prior to the commencement of tower construction.

3. The Certificate holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted herein shall be brought into compliance with such standards.
4. The Certificate holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.
5. The Certificate holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. Should any agreement, including sharing of this tower, be reached prior to construction of the tower, detailed plans for the third party's equipment shall be included in the D&M Plan.
6. If the facility does not initially provide, or permanently ceases to provide, cellular or other services following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or re-application for any continued or new use shall be made to the Council before any such use is made.
7. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Litchfield County Times, the Kent Good Times Dispatch, and the Waterbury Republican-American.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The parties and intervenors to this proceeding are:

APPLICANT	ITS REPRESENTATIVE
Springwich Cellular Limited Partnership	Peter J. Tyrrell, Esq. Senior Attorney Springwich Cellular Limited Partnership 227 Church Street-Room 1021 New Haven, CT 06506 (203) 771-7381

PARTY

Litchfield County Cellular Inc.

ITS REPRESENTATIVE

Andrew N. Davis, Esq.
John J. Russotto, Esq.
Brown, Rudnick, Freed &
Gesmer, P.C.
90 State House Square
Hartford, CT 06103
(203) 525-8008

INTERVENOR

Bell Atlantic Metro Mobile

ITS REPRESENTATIVE

Steven R. Humphrey, Esq.
Brian C.S. Freeman, Esq.
Robinson & Cole
One Commercial Plaza
Hartford, CT 06103-3597
(203) 275-8200

7652E

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in Docket No. 162, and voted as follows to approve the facility located on the grounds of South Kent School off Bulls Bridge Road in Kent, Connecticut:

Council Members

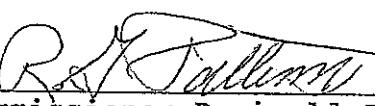
Vote Cast



Mortimer A. Gelston

Chairman

Yes

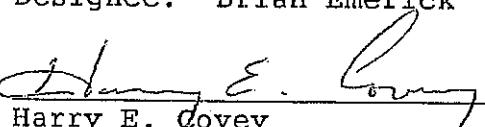


Commissioner Reginald J. Smith
Designee: Richard G. Patterson

Abstain

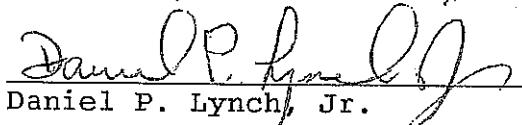
Commissioner Timothy R.E. Keeney
Designee: Brian Emerick

Absent



Harry E. Covey

Yes



Daniel P. Lynch, Jr.

Yes

Gloria Dibble Pond

Absent

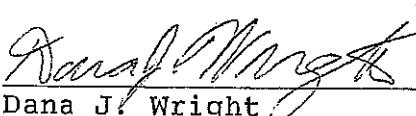
William H. Smith

Absent



Colin C. Tait

Yes



Dana J. Wright

Yes

Dated at New Britain, Connecticut, February 24, 1994.

Exhibit B

Property Card



40 BULLS BRIDGE RD

Location 40 BULLS BRIDGE RD

Mblu 6/ 39/ 9/ /

Acct# 00019000

Owner SOUTH KENT SCHOOL CORP

Assessment \$11,138,500

Appraisal \$15,911,400

PID 580

Building Count 34

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$13,859,300	\$2,052,100	\$15,911,400
Assessment			
Valuation Year	Improvements	Land	Total
2018	\$9,702,000	\$1,436,500	\$11,138,500

Owner of Record

Owner SOUTH KENT SCHOOL CORP

Co-Owner

Sale Price \$0

Certificate

Book & Page /0

Sale Date

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
SOUTH KENT SCHOOL CORP	\$0		/0	

Building Information

Building 1 : Section 1

Year Built: 1941

Living Area: 689

Replacement Cost: \$97,474

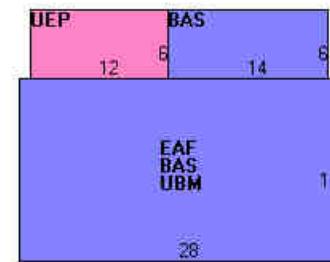
Replacement Cost

Less Depreciation: \$70,200

Building Attributes	
Field	Description
Style	Cape Cod
Model	Residential

Grade:	
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Wood Shingle
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	00
Total Bthrms:	0
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	1 Room
Bath Style:	
Kitchen Style:	
Num Kitchens	01
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_58)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	532	532
EAF	Attic, Expansion, Finished	448	157
UBM	Basement, Unfinished	448	0
UEP	Porch, Enclosed, Unfinished	72	0
		1,500	689

Building 2 : Section 1

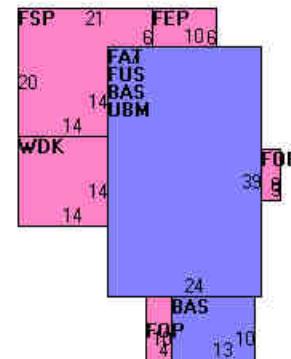
Year Built:	1945
Living Area:	2,189
Replacement Cost:	\$212,765

Replacement Cost**Less Depreciation:**

\$153,200

Building Attributes : Bldg 2 of 34

Field	Description
Style	Old Style
Model	Residential
Grade:	
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	Central
Total Bedrooms:	6 Bedrooms
Total Bthrms:	4
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	10 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Usrflid 103	
Usrflid 104	
Usrflid 105	
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	
Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	

Building Layout

(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,066	1,066
FUS	Upper Story, Finished	936	936
FAT	Attic, Finished	936	187
FEP	Porch, Enclosed, Finished	60	0
FOP	Porch, Open, Finished	64	0
FSP	Porch, Screen, Finished	322	0
UBM	Basement, Unfinished	936	0
WDK	Deck, Wood	196	0
		4,516	2,189

Usrfd 301

Building 3 : Section 1

Year Built: 1950
Living Area: 1,820
Replacement Cost: \$54,909
Replacement Cost Less Depreciation: \$34,000

Building Attributes : Bldg 3 of 34	
Field	Description
STYLE	Quonset Bldg
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Board & Batten
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Wall Brd/Wood
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
Usrfd 218	
Usrfd 219	
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	10.00
% Comm Wall	

Building Layout

(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,820	1,820
		1,820	1,820

Building 4 : Section 1

Year Built:

Living Area: 0

Replacement Cost: \$0

Replacement Cost

Less Depreciation: \$0

Building Attributes : Bldg 4 of 34	
Field	Description
Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	

Building Layout Building Layout

(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C

Building Sub-Areas (sq ft)	<u>Legend</u>
No Data for Building Sub-Areas	

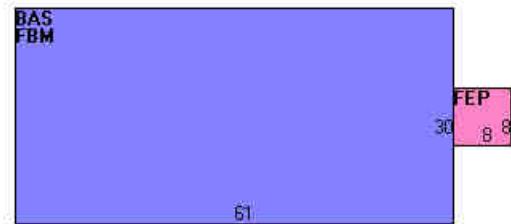
Usrfd 102	
Usrfd 100	
Usrfd 300	
Usrfd 301	

Building 5 : Section 1

Year Built: 1950
Living Area: 3,660
Replacement Cost: \$297,950
Replacement Cost
Less Depreciation: \$244,300

Building Attributes : Bldg 5 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	2
Usrfd 218	
Usrfd 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		<u>Legend</u>	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,830	1,830
FBM	Basement, Finished	1,830	1,830
FEP	Porch, Enclosed, Finished	64	0
		3,724	3,660

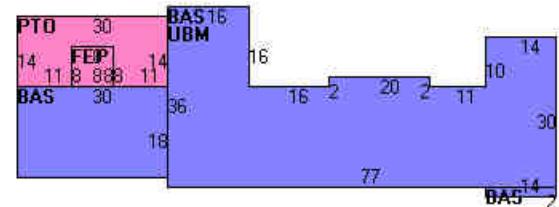
Wall Height	9.00
% Comm Wall	

Building 6 : Section 1

Year Built: 1935
Living Area: 2,544
Replacement Cost: \$298,261
Replacement Cost Less Depreciation: \$214,700

Building Attributes : Bldg 6 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	04
Total Baths	2
Usrflid 218	
Usrflid 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

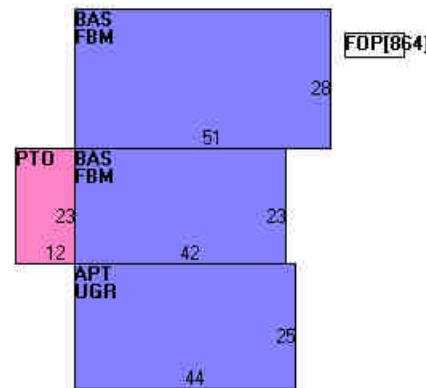
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,544	2,544
FEP	Porch, Enclosed, Finished	64	0
PTO	Patio	356	0
UBM	Basement, Unfinished	1,976	0
		4,940	2,544

Building 7 : Section 1

Year Built: 1966
Living Area: 5,888
Replacement Cost: \$205,747
Replacement Cost Less Depreciation: \$156,400

Building Attributes : Bldg 7 of 34	
Field	Description
STYLE	Auditorium
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	2.00
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	4
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

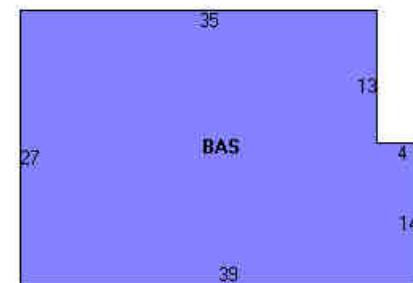
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,394	2,394
FBM	Basement, Finished	2,394	2,394
APT	Apartment	1,100	1,100
FOP	Porch, Open, Finished	864	0
PTO	Patio	276	0
UGR	Bsmt Garage	1,100	0
		8,128	5,888

Building 8 : Section 1

Year Built: 1966
Living Area: 1,001
Replacement Cost: \$165,946
Replacement Cost
Less Depreciation: \$126,100

Building Layout

Building Attributes : Bldg 8 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	6.00
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	Minim/Masonry
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,001	1,001
		1,001	1,001

Building 9 : Section 1

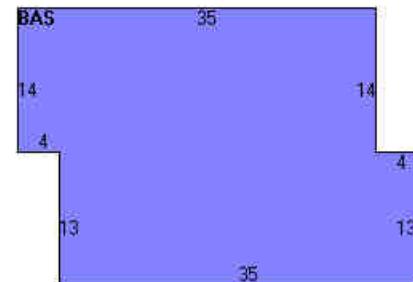
Year Built: 1966
Living Area: 945
Replacement Cost: \$160,603

Replacement Cost**Less Depreciation:**

\$122,100

Building Layout

Building Attributes : Bldg 9 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	6.00
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	Minim/Masonry
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

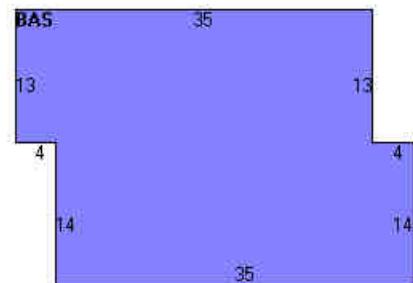
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	945	945
		945	945

Building 10 : Section 1**Year Built:** 1966**Living Area:** 945**Replacement Cost:** \$160,603**Replacement Cost****Less Depreciation:** \$122,100

Building Attributes : Bldg 10 of 34

Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	6.00
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	Minim/Masonry
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	945	945
		945	945

Building 11 : Section 1

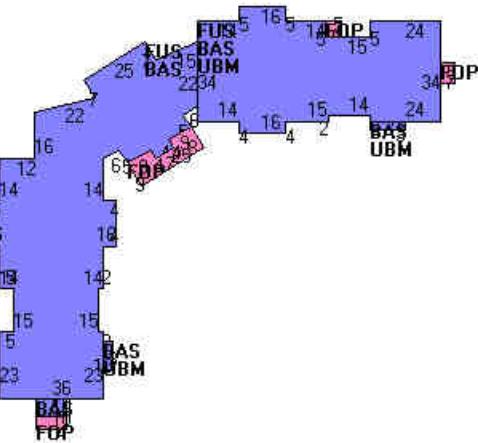
Year Built: 2006
Living Area: 14,882
Replacement Cost: \$1,054,215
Replacement Cost Less Depreciation: \$938,300

Building Attributes : Bldg 11 of 34

Field	Description
STYLE	Dormitory

MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Glz/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	K PINE/A WD
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Gas
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	3
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	7,504	7,504
FUS	Upper Story, Finished	7,378	7,378
FOP	Porch, Open, Finished	292	0
UBM	Basement, Unfinished	2,929	0
		18,103	14,882

Building 12 : Section 1

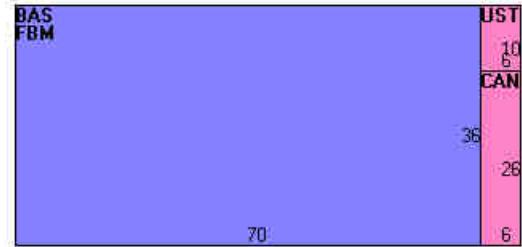
Year Built: 1959
Living Area: 5,040
Replacement Cost: \$343,171
Replacement Cost Less Depreciation: \$253,900

Building Attributes : Bldg 12 of 34

Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average

Stories:	1
Occupancy	
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	3
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,520	2,520
FBM	Basement, Finished	2,520	2,520
CAN	Canopy	156	0
UST	Utility, Storage, Unfinished	60	0
		5,256	5,040

Building 13 : Section 1

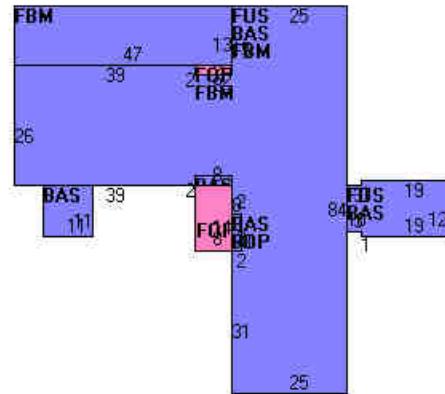
Year Built:	1930
Living Area:	11,118
Replacement Cost:	\$667,272
Replacement Cost	
Less Depreciation:	\$573,900

Building Attributes : Bldg 13 of 34

Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	

Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	6
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10.00
% Comm Wall	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1c)

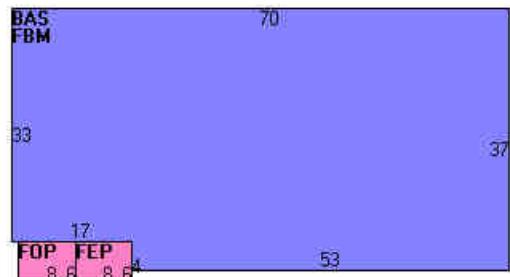
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
FBM	Basement, Finished	3,901	3,901
BAS	First Floor	3,685	3,685
FUS	Upper Story, Finished	3,532	3,532
FOP	Porch, Open, Finished	160	0
		11,278	11,118

Building 14 : Section 1

Year Built: 1964
Living Area: 5,044
Replacement Cost: \$405,114
Replacement Cost
Less Depreciation: \$344,300

Building Attributes : Bldg 14 of 34	
Field	Description
STYLE	Library
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1c)

Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	2
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10.00
% Comm Wall	

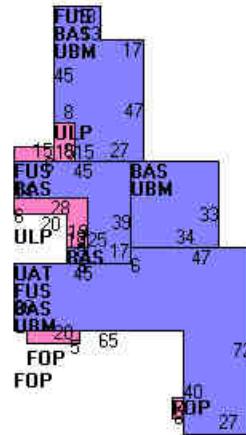
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,522	2,522
FBM	Basement, Finished	2,522	2,522
FEP	Porch, Enclosed, Finished	48	0
FOP	Porch, Open, Finished	48	0
		5,140	5,044

Building 15 : Section 1

Year Built: 1920
Living Area: 14,306
Replacement Cost: \$1,517,518
Replacement Cost
Less Depreciation: \$1,062,300

Building Attributes : Bldg 15 of 34	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,522	2,522
FBM	Basement, Finished	2,522	2,522
FEP	Porch, Enclosed, Finished	48	0
FOP	Porch, Open, Finished	48	0
		5,140	5,044

Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	7
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

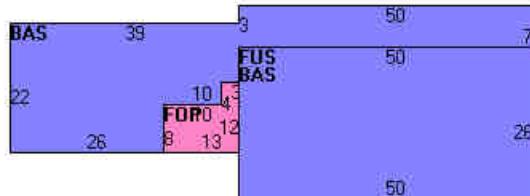
BAS	First Floor	7,738	7,738
FUS	Upper Story, Finished	6,568	6,568
FOP	Porch, Open, Finished	404	0
UAT	Attic, Unfinished	3,754	0
UBM	Basement, Unfinished	7,690	0
ULP	Loading Platform, Unfinished	210	0
		26,364	14,306

Building 16 : Section 1

Year Built: 1968
Living Area: 3,692
Replacement Cost: \$345,681
Replacement Cost Less Depreciation: \$293,800

Building Attributes : Bldg 16 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	Clapboard
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	Minim/Masonry

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1c)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,392	2,392
FUS	Upper Story, Finished	1,300	1,300

Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	4
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

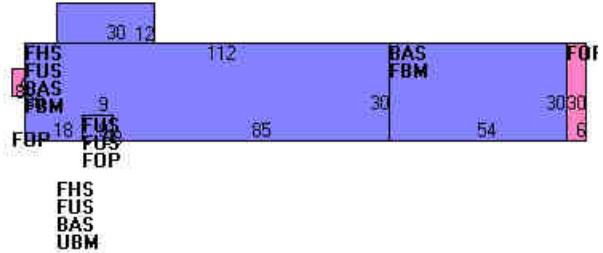
FOP	Porch, Open, Finished	116	0
		3,808	3,692

Building 17 : Section 1

Year Built: 1945
Living Area: 15,792
Replacement Cost: \$1,372,170
Replacement Cost
Less Depreciation: \$1,125,200

Building Attributes : Bldg 17 of 34	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2.5
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Concr-Finished

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	5,268	5,268
FBM	Basement, Finished	4,908	4,908
FUS	Upper Story, Finished	3,792	3,792
FHS	Half Story, Finished	3,648	1,824

Heating Fuel	Oil
Heating Type	Hot Water
AC Type	Central
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	7
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

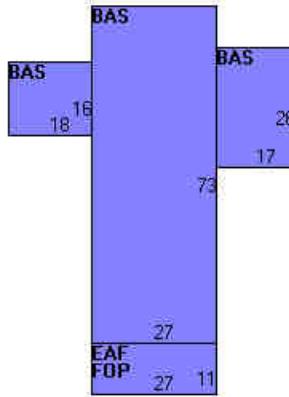
FOP	Porch, Open, Finished	284	0
UBM	Basement, Unfinished	360	0
		18,260	15,792

Building 18 : Section 1

Year Built: 1939
Living Area: 2,805
Replacement Cost: \$488,140
Replacement Cost
Less Depreciation: \$424,700

Building Attributes : Bldg 18 of 34	
Field	Description
STYLE	Churches
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Code	Description	Legend	
		Gross Area	Living Area
BAS	First Floor	2,701	2,701
EAF	Attic, Expansion, Finished	297	104
FOP	Porch, Open, Finished	297	0
		3,295	2,805

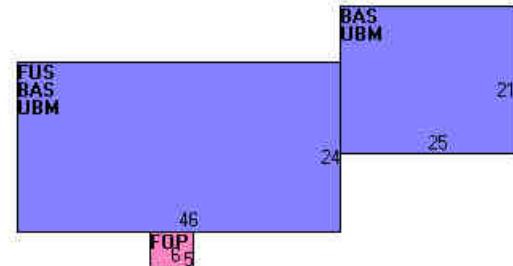
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	16.00
% Comm Wall	

Building 19 : Section 1

Year Built: 1940
Living Area: 2,733
Replacement Cost: \$544,068
Replacement Cost
Less Depreciation: \$391,700

Building Attributes : Bldg 19 of 34	
Field	Description
STYLE	Hospital
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Struct Class	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,629	1,629
FUS	Upper Story, Finished	1,104	1,104
FOP	Porch, Open, Finished	30	0
UBM	Basement, Unfinished	1,629	0
		4,392	2,733

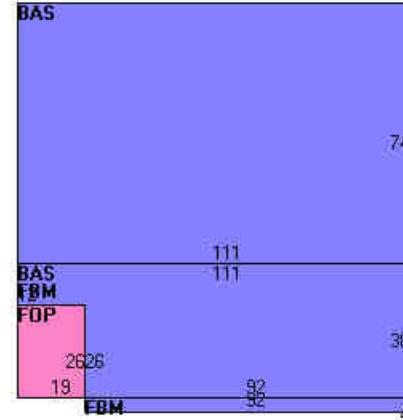
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	02
Total Baths	6
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9.00
% Comm Wall	

Building 20 : Section 1

Year Built: 1975
Living Area: 16,030
Replacement Cost: \$706,050
Replacement Cost
Less Depreciation: \$550,700

Building Attributes : Bldg 20 of 34	
Field	Description
STYLE	Commercial
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Stucco on Wood
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	11,938	11,938
FBM	Basement, Finished	4,092	4,092
FOP	Porch, Open, Finished	494	0
		16,524	16,030

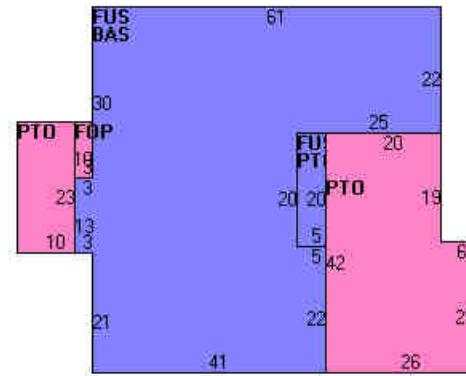
Total Bedrms	00
Total Baths	4
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEILING ONLY
Rooms/Prtns	AVERAGE
Wall Height	28.00
% Comm Wall	

Building 21 : Section 1

Year Built: 1965
Living Area: 6,106
Replacement Cost: \$678,926
Replacement Cost
Less Depreciation: \$516,000

Building Attributes : Bldg 21 of 34	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Glz/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	1

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
FUS	Upper Story, Finished	3,103	3,103
BAS	First Floor	3,003	3,003
FOP	Porch, Open, Finished	30	0
PTO	Patio	1,308	0
		7,444	6,106

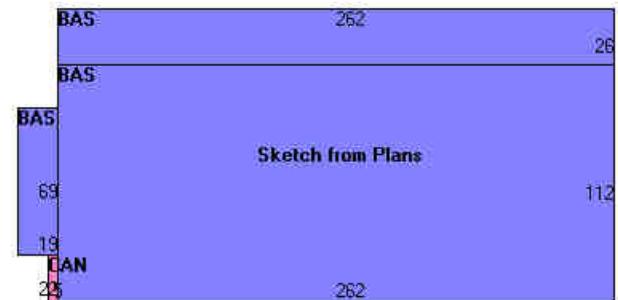
Usrfd 218	
Usrfd 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	REINF. CONCR
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10.00
% Comm Wall	

Building 22 : Section 1

Year Built: 1963
Living Area: 37,467
Replacement Cost: \$3,481,229
Replacement Cost
Less Depreciation: \$3,098,300

Building Attributes : Bldg 22 of 34	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	Carpet
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
Usrfd 218	
Usrfd 219	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	37,467	37,467
CAN	Canopy	110	0
		37,577	37,467

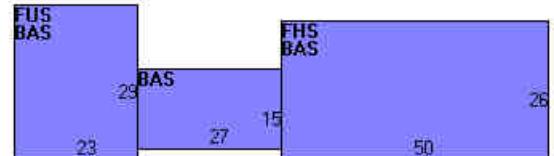
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	REINF. CONCR
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	16.00
% Comm Wall	

Building 23 : Section 1

Year Built: 1940
Living Area: 3,689
Replacement Cost: \$337,544
Replacement Cost
Less Depreciation: \$243,000

Building Attributes : Bldg 23 of 34	
Field	Description
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	4
Usrfld 218	
Usrfld 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,372	2,372
FUS	Upper Story, Finished	667	667
FHS	Half Story, Finished	1,300	650
		4,339	3,689

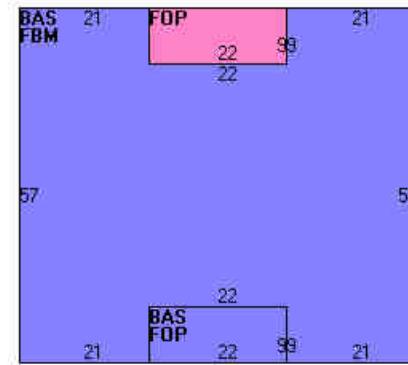
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comn Wall	

Building 24 : Section 1

Year Built: 1970
Living Area: 6,702
Replacement Cost: \$480,377
Replacement Cost Less Depreciation: \$365,100

Building Attributes : Bldg 24 of 34	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	1.00
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Irregular
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	5
Usrflid 218	
Usrflid 219	
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	3,450	3,450
FBM	Basement, Finished	3,252	3,252
FOP	Porch, Open, Finished	396	0
		7,098	6,702

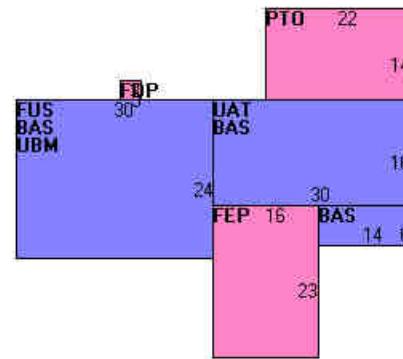
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	0.00
% Comn Wall	

Building 25 : Section 1

Year Built: 1820
Living Area: 2,004
Replacement Cost: \$261,087
Replacement Cost Less Depreciation: \$221,900

Building Attributes : Bldg 25 of 34	
Field	Description
Style	Colonial
Model	Residential
Grade:	
Stories:	2
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,284	1,284
FUS	Upper Story, Finished	720	720
FEP	Porch, Enclosed, Finished	368	0
FOP	Porch, Open, Finished	9	0
PTO	Patio	308	0
UAT	Attic, Unfinished	480	0
UBM	Basement, Unfinished	720	0
		3,889	2,004

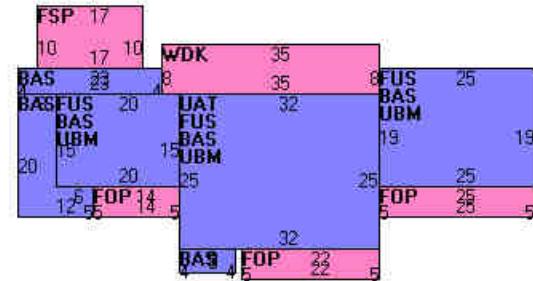
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

Building 26 : Section 1

Year Built: 1920
Living Area: 3,428
Replacement Cost: \$353,822
Replacement Cost Less Depreciation: \$283,100

Building Attributes : Bldg 26 of 34	
Field	Description
Style	Colonial
Model	Residential
Grade:	
Stories:	2
Occupancy	2
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	5 Bedrooms
Total Bthrms:	3
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,853	1,853
FUS	Upper Story, Finished	1,575	1,575
FOP	Porch, Open, Finished	305	0
FSP	Porch, Screen, Finished	170	0
UAT	Attic, Unfinished	800	0
UBM	Basement, Unfinished	1,575	0
WDK	Deck, Wood	280	0
		6,558	3,428

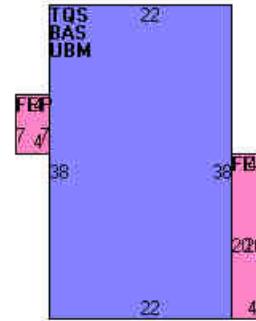
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

Building 27 : Section 1

Year Built: 1940
Living Area: 1,463
Replacement Cost: \$156,175
Replacement Cost
Less Depreciation: \$128,100

Building Attributes : Bldg 27 of 34	
Field	Description
Style	Conventional
Model	Residential
Grade:	
Stories:	1.75
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	1
Total Half Baths:	1

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	836	836
TQS	Three Quarter Story	836	627
FEP	Porch, Enclosed, Finished	108	0
UBM	Basement, Unfinished	836	0
		2,616	1,463

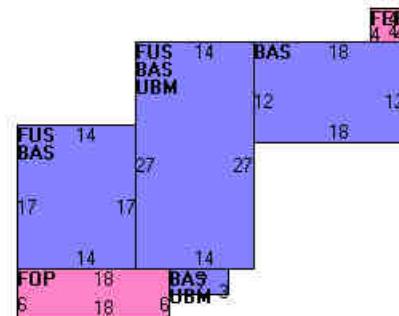
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

Building 28 : Section 1

Year Built: 1930
Living Area: 1,469
Replacement Cost: \$195,949
Replacement Cost
Less Depreciation: \$137,200

Building Attributes : Bldg 28 of 34	
Field	Description
Style	Colonial
Model	Residential
Grade:	
Stories:	2
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	853	853
FUS	Upper Story, Finished	616	616
FEP	Porch, Enclosed, Finished	16	0
FOP	Porch, Open, Finished	108	0
UBM	Basement, Unfinished	399	0

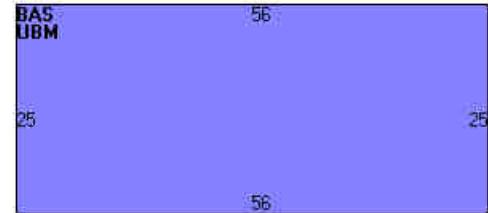
Heat Type:	Forced Air-Duc
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	8
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

		1,992	1,469
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Building 29 : Section 1

Year Built: 1945
Living Area: 1,400
Replacement Cost: \$153,059
Replacement Cost
Less Depreciation: \$125,500

Building Layout



Building Attributes : Bldg 29 of 34	
Field	Description
Style	Ranch
Model	Residential
Grade:	
Stories:	1
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp

(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area

Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	6
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

BAS	First Floor	1,400	1,400
UBM	Basement, Unfinished	1,400	0
		2,800	1,400

Building 30 : Section 1

Year Built: 1950
Living Area: 1,686
Replacement Cost: \$174,790
Replacement Cost
Less Depreciation: \$143,300

Building Attributes : Bldg 30 of 34	
Field	Description
Style	Conventional
Model	Residential
Grade:	
Stories:	1.5

Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	6
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfd 103	
Usrfd 104	
Usrfd 105	
Usrfd 106	
Usrfd 107	
Num Park	
Fireplaces	
Usrfd 108	
Usrfd 101	
Usrfd 102	
Usrfd 100	
Usrfd 300	
Usrfd 301	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

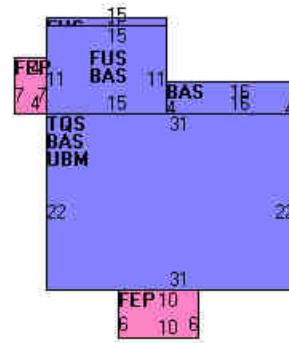
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,169	1,169
FHS	Half Story, Finished	720	360
EAF	Attic, Expansion, Finished	449	157
FOP	Porch, Open, Finished	53	0
UBM	Basement, Unfinished	720	0
		3,111	1,686

Building 31 : Section 1

Year Built:	1750
Living Area:	1,603
Replacement Cost:	\$212,155
Replacement Cost Less Depreciation:	\$148,500

Field	Description
Style	Colonial
Model	Residential
Grade:	
Stories:	1.75
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	8
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrflid 103	
Usrflid 104	
Usrflid 105	
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	
Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	
Usrflid 301	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

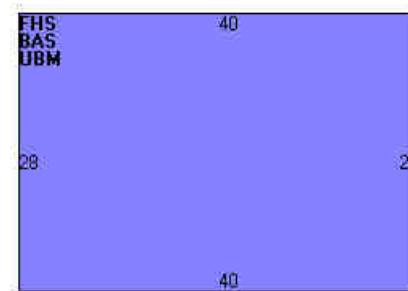
Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	911	911
TQS	Three Quarter Story	682	512
FUS	Upper Story, Finished	180	180
FEP	Porch, Enclosed, Finished	88	0
UBM	Basement, Unfinished	682	0
		2,543	1,603

Building 32 : Section 1

Year Built: 1935
Living Area: 1,680
Replacement Cost: \$184,814
Replacement Cost Less Depreciation: \$133,100

Building Attributes : Bldg 32 of 34	
Field	Description
Style	Cape Cod
Model	Residential
Grade:	
Stories:	1.5
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,120	1,120
FHS	Half Story, Finished	1,120	560
UBM	Basement, Unfinished	1,120	0
		3,360	1,680

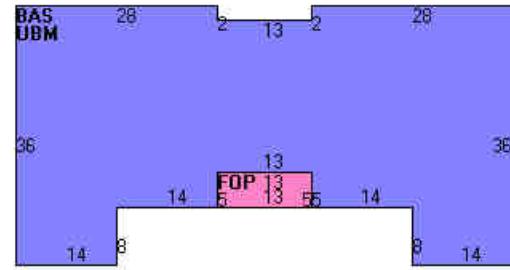
Usrfd 101	
Usrfd 102	
Usrfd 100	
Usrfd 300	
Usrfd 301	

Building 33 : Section 1

Year Built: 2013
Living Area: 2,065
Replacement Cost: \$258,220
Replacement Cost Less Depreciation: \$245,300

Building Attributes : Bldg 33 of 34	
Field	Description
Style	Family Duplex
Model	Residential
Grade:	
Stories:	1
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Cndtn	
Usrfd 103	
Usrfd 104	
Usrfd 105	

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_10)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	2,065	2,065
FOP	Porch, Open, Finished	65	0
UBM	Basement, Unfinished	2,065	0
		4,195	2,065

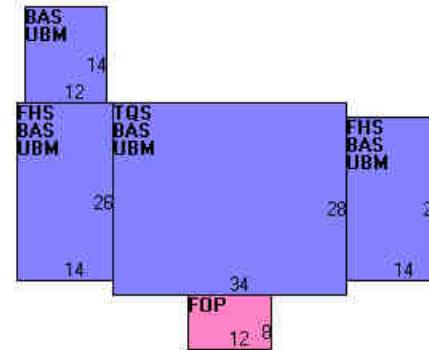
Usrfd 106	
Usrfd 107	
Num Park	
Fireplaces	
Usrfd 108	
Usrfd 101	
Usrfd 102	
Usrfd 100	
Usrfd 300	
Usrfd 301	

Building 34 : Section 1

Year Built: 2013
Living Area: 2,884
Replacement Cost: \$313,677
Replacement Cost
Less Depreciation: \$298,000

Building Attributes : Bldg 34 of 34	
Field	Description
Style	Family Duplex
Model	Residential
Grade:	
Stories:	1.75
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	4 Bedrooms
Total Bthrms:	3
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/580_1C)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,820	1,820
TQS	Three Quarter Story	952	714
FHS	Half Story, Finished	700	350
FOP	Porch, Open, Finished	96	0
UBM	Basement, Unfinished	1,820	0
		5,388	2,884

Num Kitchens	
Cndtn	
Usrfld 103	
Usrfld 104	
Usrfld 105	
Usrfld 106	
Usrfld 107	
Num Park	
Fireplaces	
Usrfld 108	
Usrfld 101	
Usrfld 102	
Usrfld 100	
Usrfld 300	
Usrfld 301	

Extra Features

Extra Features				<u>Legend</u>
Code	Description	Size	Value	Bldg #
BGAR	BASEMENT GARAG	1.00 UNITS	\$2,500	29
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$3,600	1
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$3,600	6
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$3,800	7
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$3,800	8
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$4,100	5
FPL1	FIREPLACE 1 ST	2.00 UNITS	\$8,500	25
FPL2	1.5 STORY CHIM	1.00 UNITS	\$3,600	32
FPL2	1.5 STORY CHIM	1.00 UNITS	\$4,100	27
FPL2	1.5 STORY CHIM	1.00 UNITS	\$4,100	30
FPL3	2 STORY CHIM	1.00 UNITS	\$3,500	15
FPL3	2 STORY CHIM	1.00 UNITS	\$3,600	2
FPL3	2 STORY CHIM	1.00 UNITS	\$4,100	17
FPL3	2 STORY CHIM	2.00 UNITS	\$7,200	23
FPL3	2 STORY CHIM	3.00 UNITS	\$13,400	11
SOLR	Solar Panel	25.00 UNITS	\$0	10
SOLR	Solar Panel	55.00 UNITS	\$0	24
FPL1	FIREPLACE 1 ST	1.00 UNITS	\$3,700	12
FPL3	2 STORY CHIM	1.00 UNITS	\$3,500	31
FPL3	2 STORY CHIM	1.00 UNITS	\$4,300	13
FPL3	2 STORY CHIM	2.00 UNITS	\$8,000	26

SOLR	Solar Panel	64.00 UNITS	\$0	11
SPR1	SPRINKLERS-WET	11996.00 S.F.	\$33,600	15
FPO	EXTRA FPL OPEN	1.00 UNITS	\$1,800	31

Land

Land Use

Use Code 930R
Description Exempt MDL01
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 117
Frontage 0
Depth 0
Assessed Value \$1,436,500
Appraised Value \$2,052,100

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
BRN4	BARN 1ST W L/B			480.00 S.F.	\$5,000	26
FCP	CARPORT			880.00 S.F.	\$7,900	13
FGR1	GARAGE-AVE			560.00 S.F.	\$4,900	28
PAV1	PAVING-ASPHALT			10000.00 S.F.	\$15,700	22
PMP1	PUMP-SING HSE			180.00 UNITS	\$0	4
SHD1	SHED FRAME			120.00 S.F.	\$800	31
TEN	TENNIS COURT			4.00 UNITS	\$90,000	12
TEN	TENNIS COURT			4.00 UNITS	\$90,000	18
BRN1	BARN - 1 STORY			264.00 S.F.	\$3,600	4
FCP	CARPORT			360.00 S.F.	\$3,200	30
LT1	Light w/Pole			10.00 UNITS	\$30,900	22
PAV1	PAVING-ASPHALT			25000.00 S.F.	\$30,900	1
BRN1	BARN - 1 STORY			5616.00 S.F.	\$75,800	1
SHD1	SHED FRAME			140.00 S.F.	\$1,900	4
SPL1	POOL-INGR CONC			1250.00 S.F.	\$37,500	7
GEN	GENERATOR			2.00 UNITS	\$14,300	1
SHD1	SHED FRAME			200.00 S.F.	\$2,700	4
GEN	GENERATOR			1.00 UNITS	\$6,400	1
IMP	IMPLEMENT SHED			1440.00 S.F.	\$6,500	4
IMP	IMPLEMENT SHED			1000.00 S.F.	\$4,500	4
IMP	IMPLEMENT SHED			920.00 S.F.	\$4,100	4
SLO1	SILO-WD OR CNC			576.00 DIAxHT	\$6,000	4

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total

2018	\$13,859,300	\$2,052,100	\$15,911,400
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Assessment			
Valuation Year	Improvements	Land	Total
2018	\$9,702,000	\$1,436,500	\$11,138,500

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Exhibit C

Construction Drawings



AT&T

AT&T SITE NUMBER: CT1008 
AT&T SITE NAME: KENT-BULLS BRIDGE RD
AT&T FA CODE: 10035067
AT&T PACE NUMBER: MRCTB041425 / MRCTB021243 /
MRCTB041529 / MRCTB041833
SITE TYPE: MONOPOLE

PROJECT: AT&T LTE 2C,3C,4C,5C

SITE INFORMATION

CROWN CASTLE USA INC.	KENT-BULLS BRIDGE RD
SITE NAME:	
SITE ADDRESS:	136 BULLS BRIDGE RD SOUTH KENT, CT 06785
COUNTY:	LICHFIELD
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.6816311
LONGITUDE:	-73.4866381
LAT/LONG TYPE:	NAD83
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T MOBILITY ONE AT&T WAY BEDMINSTER, NJ 07921
CROWN CASTLE USA INC.	
APPLICATION ID:	492772

CRANE NEEDED AT 199'

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO PROPOSE AN ANTENNA MODIFICATION ON AN EXISTING WIRELESS SITE.

PROJECT TEAM

A&E FIRM:	B+T GROUP 1717 SOUTH BOULDER, SUITE 300 TULSA, OK 74119 MIKE OAKES (918) 217-8574
CROWN CASTLE USA INC. DISTRICT	3200 HORIZON DRIVE, SUITE 150 KING OF PRUSSIA, PA 19406

TOWER SCOPE OF WORK

- REMOVE (2) KMW AM-X-CD-16-65-00T-RET ANTENNAS
- REMOVE (1) KMW AM-X-CD-14-65-00T-RET ANTENNA
- REMOVE (3) POWERWAVE 7770 ANTENNAS
- REMOVE (3) POWERWAVE LGP13519 DIPLEXERS
- REMOVE (3) ERICSSON RRUS11 B12 RRHS
- INSTALL (1) SITEPRO HRK12 HANDRAIL KIT PER MOUNT MODIFICATION BY TOWER ENGINEERING PROFESSIONALS DATED 9/3/19
- INSTALL (4) CCI DMP65R-BU6DA ANTENNAS
- INSTALL (2) CCI DMP65R-BU4DA ANTENNAS
- INSTALL (3) ERICSSON 4449 B5/B12 RRH
- INSTALL (3) ERICSSCON 8843 B2/B66A RRHS
- INSTALL (3) ERICSSON 4478 B14 RRH
- INSTALL (4) DC CABLES
- INSTALL (1) FIBER CABLE
- INSTALL (1) 6630 5G LTE BBU & (1) DC12-48-60-RM

DESIGN PACKAGE BASED
ON THE RFDS
REVISION: 2.00
DATE: 8/20/19

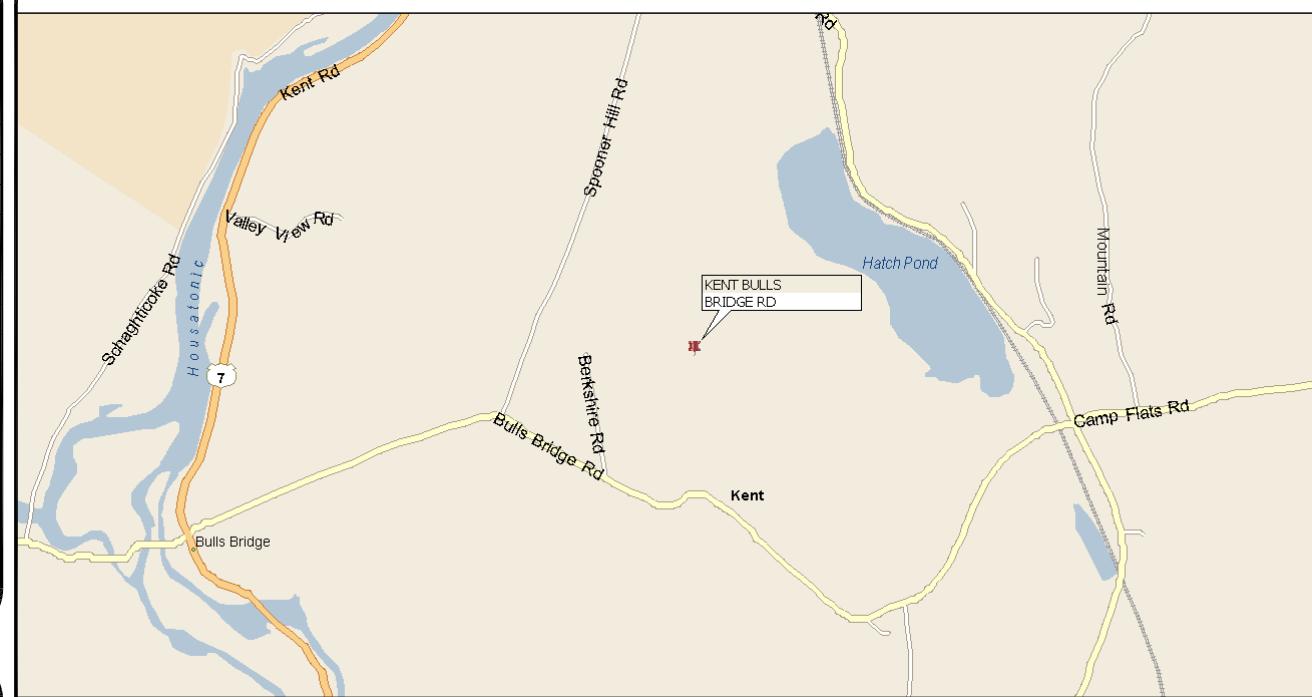
DESIGN PACKAGE BASED
ON THE APPLICATION
ID: 492772
REVISION: 0

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	EQUIPMENT PLAN
C-3	TOWER ELEVATIONS
C-4	ANTENNA ORIENTATION
C-5	ANTENNA SCHEDULE
C-6	ANTENNA AND RRH SPECS.
C-7	ANTENNA AND RRH DETAIL
C-8	PLUMBING DIAGRAM
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
S1	MOUNT MODIFICATION

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS
AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY
THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE
PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAP



NO SCALE

APPLICABLE CODES/REFERENCE DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2015 IBC
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:
STRUCTURAL ANALYSIS: BLACK AND VEASEY
SEPTEMBER 9, 2010

MOUNT ANALYSIS: TOWER ENGINEERING
PROFESSIONALS
SEPTEMBER 3, 2010

10/28/19

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT
THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION
MANAGER



L CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!



SHEET NUMBER: REVISION: T-1 1

SITE WORK GENERAL NOTES:

- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES 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 CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES, SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" AND LATEST VERSION OF TIA 1019 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 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 CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUB GRADE SHALL BE COMPAKTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- NOTICE TO PROCEED- NO WORK TO COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF A PURCHASE ORDER.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS, SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN STANDARD CED-STD-10253 INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH THE ANSI/TIA-322 (LATEST EDITION).

STRUCTURAL STEEL NOTES:

- ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
- BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"Ø ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH.....	3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 AND LARGER.....	2 IN.
#5 AND SMALLER & WWF.....	1 1/2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:	
SLAB AND WALLS.....	3/4 IN.
BEAMS AND COLUMNS.....	1 1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

MASONRY NOTES:

- HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N, TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY ("f'm") SHALL BE 1500 PSI.
- MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- GROUT SHALL MEET A.S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
- CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
- WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR—
SUBCONTRACTOR— GENERAL CONTRACTOR (CONSTRUCTION)
CARRIER— AT&T
TOWER OWNER— CROWN CASTLE USA INC.
OEM— ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR AND CROWN CASTLE USA INC.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

ABBREVIATIONS AND SYMBOLS:

ABBREVIATIONS:

AGL ABOVE GRADE LEVEL
BTS BASE TRANSCEIVER STATION
EXISTING EXISTING
MIN. MINIMUM
REF REFERENCE
RF RADIO FREQUENCY
T.D. TO BE DETERMINED
T.B.R. TO BE RESOLVED
TYP TYPICAL
REQ REQUIRED
EGR EQUIPMENT GROUND RING
AWG AMERICAN WIRE GAUGE
MGB MASTER GROUND BAR
EG EQUIPMENT GROUND
BCW BARE COPPER WIRE
SIAD SMART INTEGRATED ACCESS DEVICE
GEN GENERATOR
IGR INTERIOR GROUND RING (HALO)
RBS RADIO BASE STATION

SYMBOLS:

	SOLID GROUND BUS BAR
	SOLID NEUTRAL BUS BAR
	SUPPLEMENTAL GROUND CONDUCTOR
	2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	CHEMICAL GROUND ROD
	TEST WELL
	DISCONNECT SWITCH
	METER
	EXOTHERMIC WELD (CALDWELL) (UNLESS OTHERWISE NOTED)
	MECHANICAL CONNECTION
	GROUNDING WIRE

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC. HILTI EPOXY ANCHORS ARE REQUIRED BY CROWN CASTLE USA INC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOT), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.
- POWER AND GROUND CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90's AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS, SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).
- CONDUTS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL, AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIDIGLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHIN ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL; SHALL MEET OR EXCEED UL 514A AND NEMA OS-1; AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS-1; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS-2; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL PLASTIC LABEL ON THE METER CENTER TO SHOW "AT&T".
- ALL CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTI-OXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).



ONE AT&T WAY
BEDMINSTER, NJ 07921



3200 HORIZON DRIVE, SUITE 150
KING OF PRUSSIA, PA 19406



1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER:
CT1008
BU #: 841293
KENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

REV	DATE	DRWN	DESCRIPTION	DES./OA
0</td				



ONE AT&T WAY
BEDMINSTER, NJ 07921



3200 HORIZON DRIVE, SUITE 150
KING OF PRUSSIA, PA 19406



AT&T SITE NUMBER:
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ENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

ISSUED FOR:

DATE	DRWN	DESCRIPTION	DES./QA
10/2/19	MTJ	CONSTRUCTION	MDW
10/28/19	GEH	CONSTRUCTION	FWP

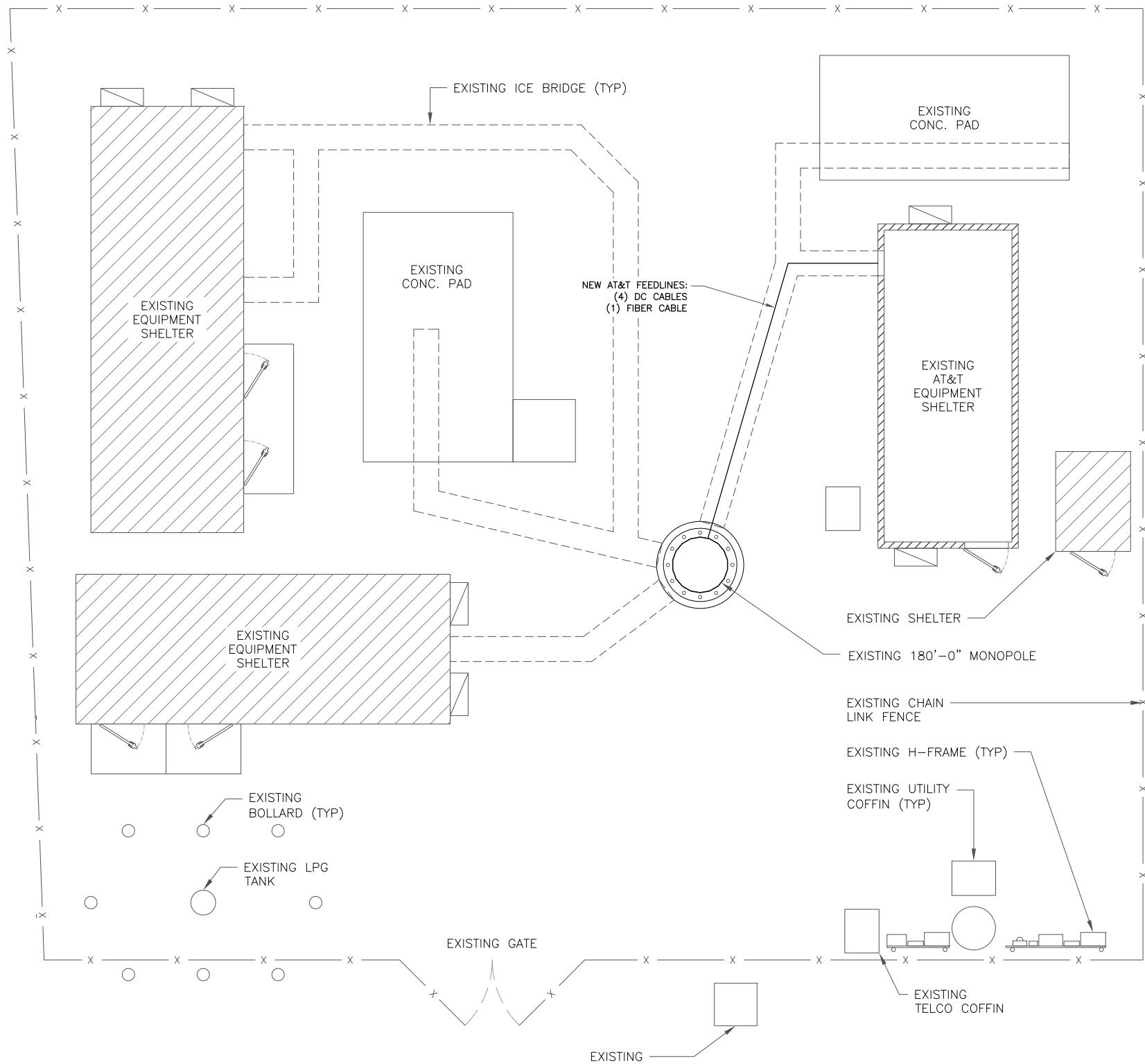


10/28/19

B&T ENGINEERING, INC.
PEC.0001564
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SHEET NUMBER: C-1 REVISION: 1



1 SITE PLAN

1 SCALE:  3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (11x17)





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KENT-BULLS BRIDGE RD

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EXISTING 180'-0"
MONOPOLE

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1	10/28/19	GEH	CONSTRUCTION	FWP

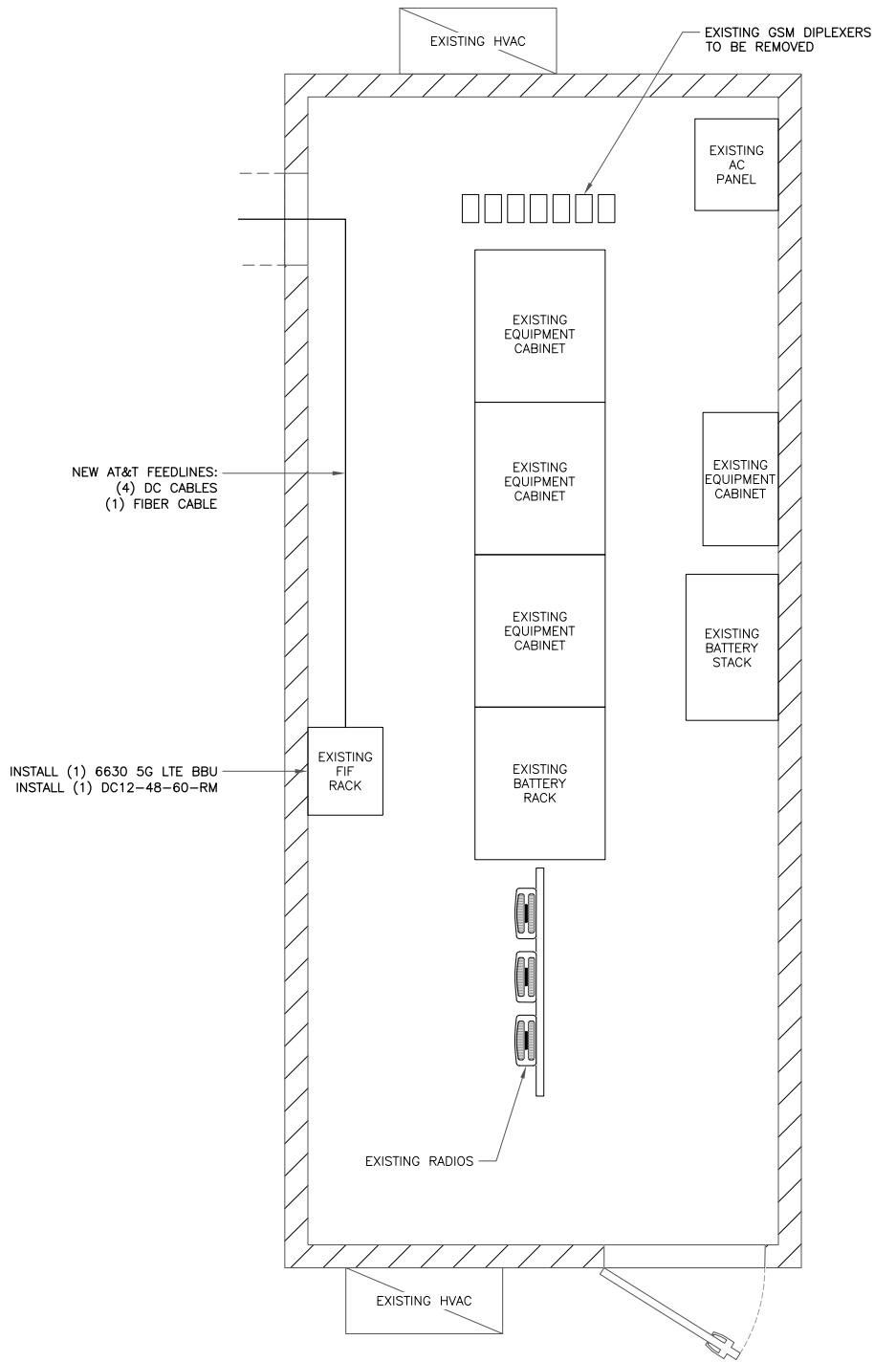


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SHEET NUMBER: **C-2** REVISION: **1**



1 EXISTING EQUIPMENT PLAN

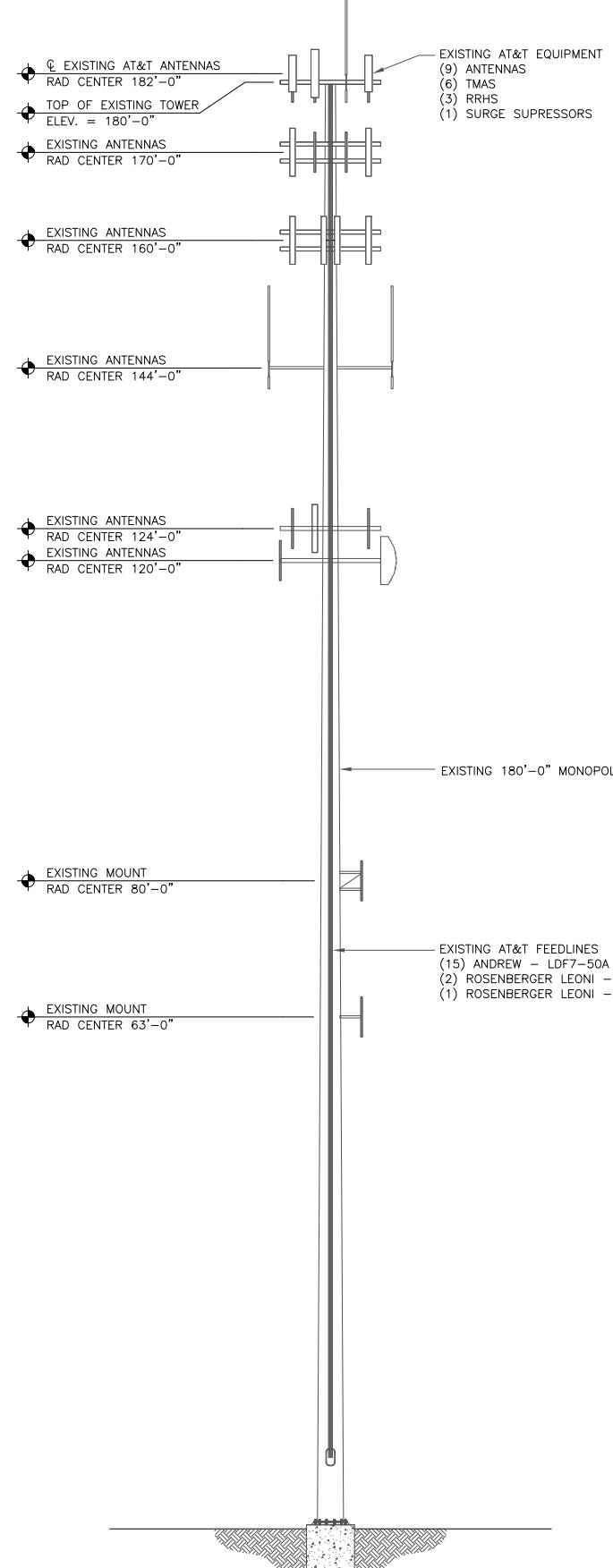
SCALE: 1'-0" 6"-0" 1' 1"=1'-0" (FULL SIZE)
1/2'=1'-0" (11x17)



AT&T EQUIPMENT

ANTENNA CL: 182'-0"

MOUNT CL: 180'-0"

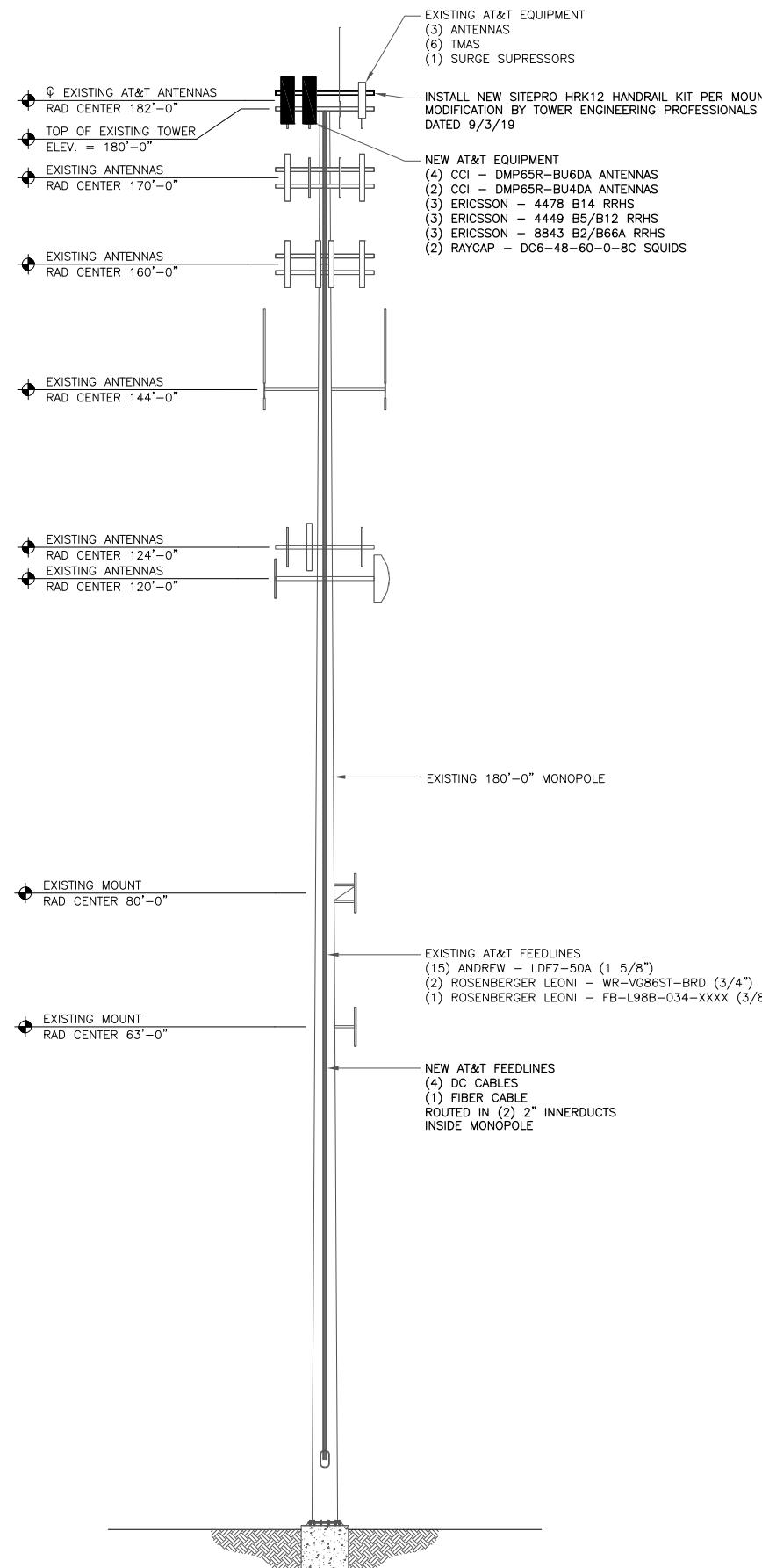


(1) EXISTING ELEVATION
SCALE: NOT TO SCALE

AT&T EQUIPMENT

ANTENNA CL: 182'-0"

MOUNT CL: 180'-0"



(2) FINAL ELEVATION
SCALE: NOT TO SCALE

ONE AT&T WAY
BEDMINSTER, NJ 079213200 HORIZON DRIVE, SUITE 150
KING OF PRUSSIA, PA 194061717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.comAT&T SITE NUMBER:
CT1008BU #: 841293
KENT-BULLS BRIDGE RD136 BULLS BRIDGE RD
SOUTH KENT, CT 06785EXISTING 180'-0"
MONPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./OA
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1	10/28/19	GEH	CONSTRUCTION	FWP



10/28/19

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REVISION: 1



AT&T SITE NUMBER:
CT1008

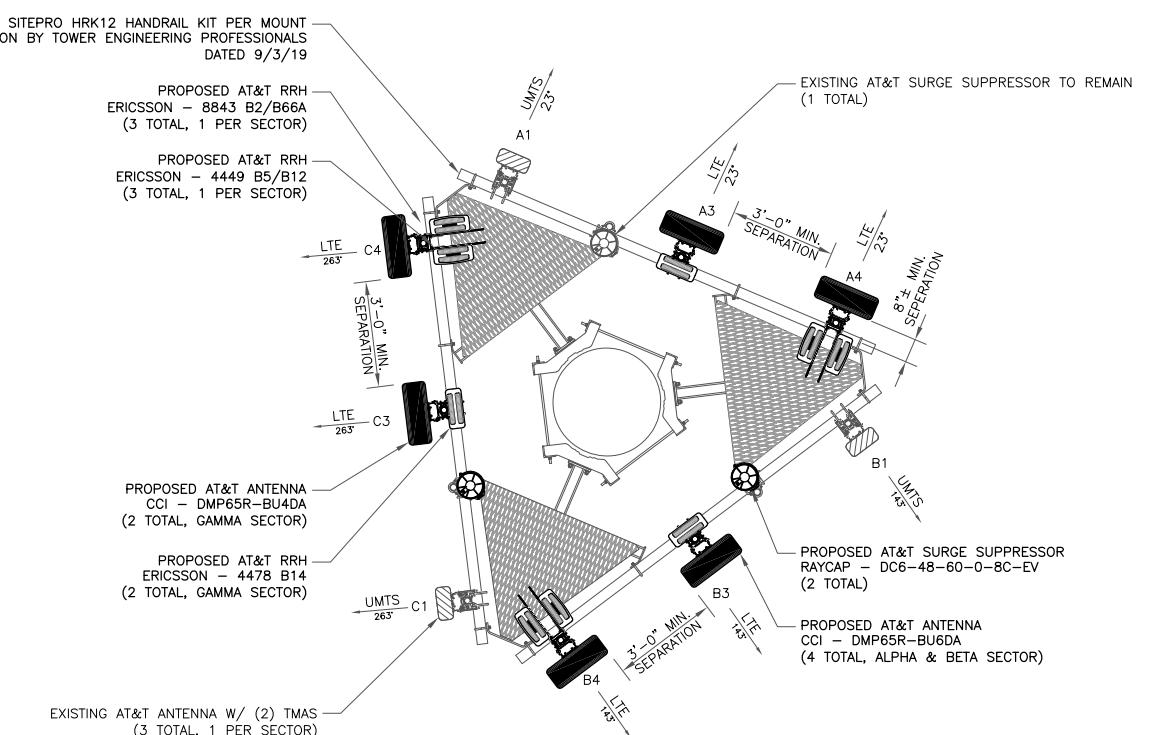
BU #: 841293
KENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

1 EXISTING ANTENNA LAYOUT

SCALE: NOT TO SCALE



2 FINAL ANTENNA LAYOUT

SCALE: NOT TO SCALE



ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./OA
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10/28/19

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SHEET NUMBER: **C-4** REVISION: **1**



AT&T SITE NUMBER:
CT1008
BU #: 841293
KENT-BULLS BRIDGE RD
136 BULLS BRIDGE RD
SOUTH KENT, CT 06785
EXISTING 180'-0"
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ISSUED FOR:					
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SHEET NUMBER: **C-5** REVISION: **1**

FINAL ANTENNA AND COAXIAL CABLE SCHEDULE																		
POS.	TECH	STATUS	AZIMUTH	ANTENNA TYPE	ANTENNA RAD CENTER	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	MAIN COAX SIZE	MAIN COAX LENGTH	COAX QTY	TMA QTY AND MODEL	RAYCAP	DC (WR-VG86ST-BRD) FIBER CABLES (FB-L98B-034-XXXXXX)	RRHs QTY ON TOWER	RRHs ON GROUND	DIPLEXER ON TOWER	DIPLEXER ON GROUND	RET CABLE
ALPHA SECTOR																		
A1	UMTS	EXISTING	23°	POWERWAVE 7770	182'-0"	0°	4°	1 5/8	230'-0"	5	LGP21401	(1) DC6-48-60-18-8F (2) DC6-48-60-0-8C-EV	(2) FIBER (6) DC LINES	-	-	-	Y	Y
A2	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-
A3	LTE	NEW	23°	CCI DMP65R-BU6DA	182'-0"	0°	2°/2°	-	-	-	-			(1) 4478 B14	-	-	-	Y
A4	LTE	NEW	23°	CCI DMP65R-BU6DA	182'-0"	0°	2°/2'/2°/2'	-	-	-	-			(1) 4449 B5/B12 (1) 8843 B2/B66A	-	-	-	Y
BETA SECTOR																		
B1	UMTS	EXISTING	143°	POWERWAVE 7770	182'-0"	0°	7°	1 5/8	230'-0"	5	LGP21401	-	SHARED FIBER/DC	-	-	-	Y	Y
B2	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-
B3	LTE	NEW	143°	CCI DMP65R-BU6DA	182'-0"	0°	7°/6°	-	-	-	-			(1) 4478 B14	-	-	-	Y
B4	LTE	NEW	143°	CCI DMP65R-BU6DA	182'-0"	0°	7°/6°/7°/7°	-	-	-	-			(1) 4449 B5/B12 (1) 8843 B2/B66A	-	-	-	Y
GAMMA SECTOR																		
C1	UMTS	EXISTING	263°	POWERWAVE 7770	182'-0"	0°	4°	1 5/8	150'-0"	5	LGP21401	-	SHARED FIBER/DC	-	-	-	Y	Y
C2	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-
C3	LTE	NEW	263°	CCI DMP65R-BU4DA	182'-0"	0°	9°/3°	-	-	-	-			(1) 4478 B14	-	-	-	Y
C4	LTE	NEW	263°	CCI DMP65R-BU4DA	182'-0"	0°	9°/3°/9°/9°	-	-	-	-			(1) 4449 B5/B12 (1) 8843 B2/B66A	-	-	-	Y

NOTE: BOLD DENOTES NEW EQUIPMENT

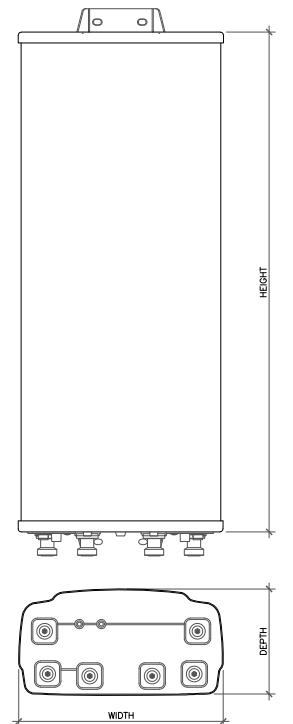


AT&T SITE NUMBER:
CT1008

BU #: **841293**
KENT-BULLS BRIDGE RD

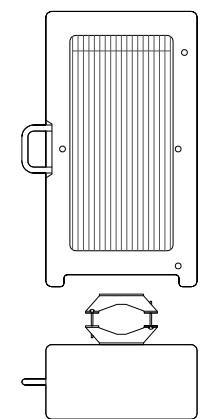
136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

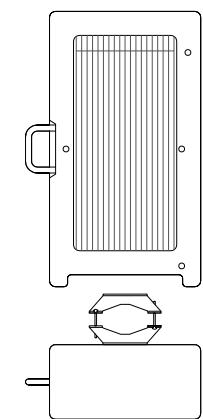


ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
DMP65R-BU6D	72"	20.7"	7.7"	79.4 lbs
DMP65R-BU4D	48"	20.7"	7.7"	67.9 lbs

1 ANTENNA DETAIL
SCALE: NOT TO SCALE



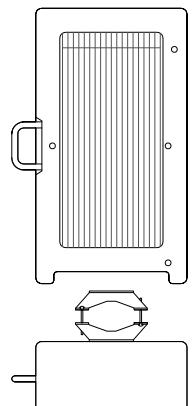
ERICSSON - 4449 B5/B12
WEIGHT (FULLY EQUIPPED): 71.0 LBS
SIZE (HxWxD): 17.9x13.19x9.44 IN.



ERICSSON - 8843 B2/B66A
WEIGHT (FULLY EQUIPPED): 72.0 LBS
SIZE (HxWxD): 14.9x13.2x10.9 IN.

2 RRH DETAIL
SCALE: NOT TO SCALE

3 RRH DETAIL
SCALE: NOT TO SCALE



ERICSSON - 4478 B14
WEIGHT (FULLY EQUIPPED): 59.4 LBS
SIZE (HxWxD): 18.1x13.4x8.26 IN.

3 RRH DETAIL
SCALE: NOT TO SCALE

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1	10/28/19	GEH	CONSTRUCTION	FWP



10/28/19

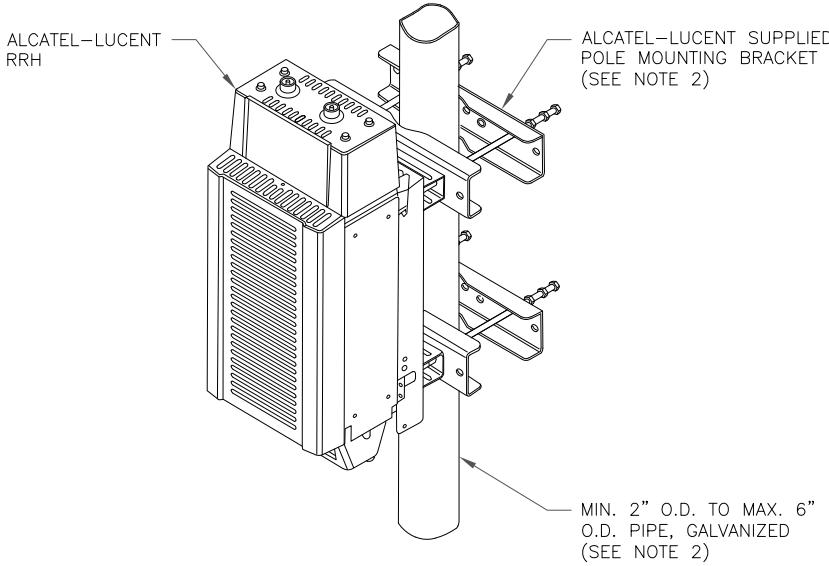
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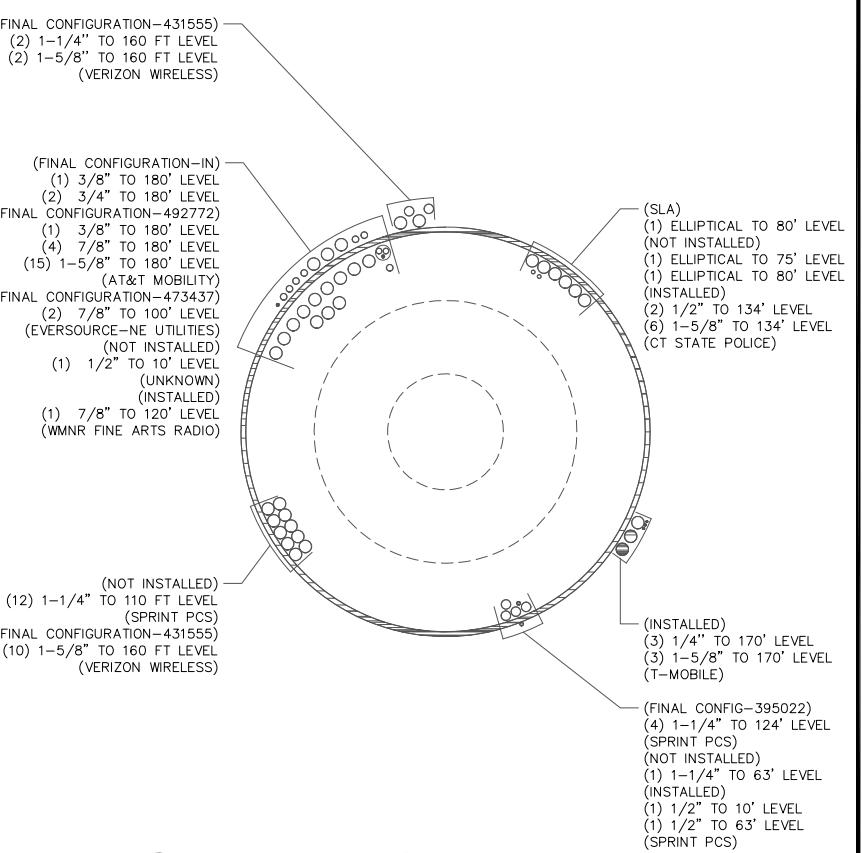
SHEET NUMBER: **C-6** REVISION: **1**

NOTES:

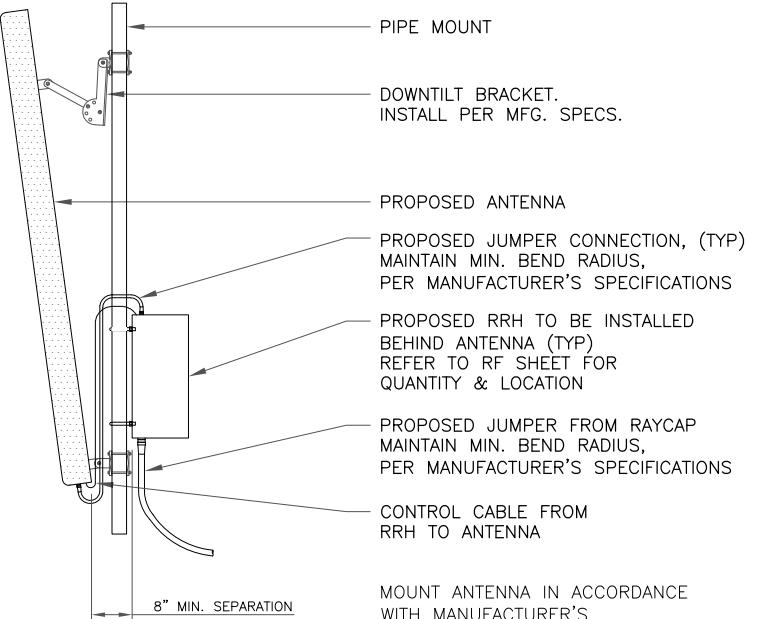
1. ALCATEL-LUCENT (ALU) VIA AT&T SUPPLIES RRH, RRH POLE-MOUNTING BRACKET. SUBCONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING ALU RRH POLE-MOUNTING BRACKET. ALU INSTALLS RRH AND MAKES CABLE TERMINATIONS.
2. FOR POLE DIAMETERS FROM 6" TO 15", ALCATEL-LUCENT CAN SUPPLY A PAIR OF POLE MOUNTING METAL BANDS WITH BOLTING WELDMENT.
3. NO PAINTING OF THE RRH OR SOLAR SHIELD IS ALLOWED



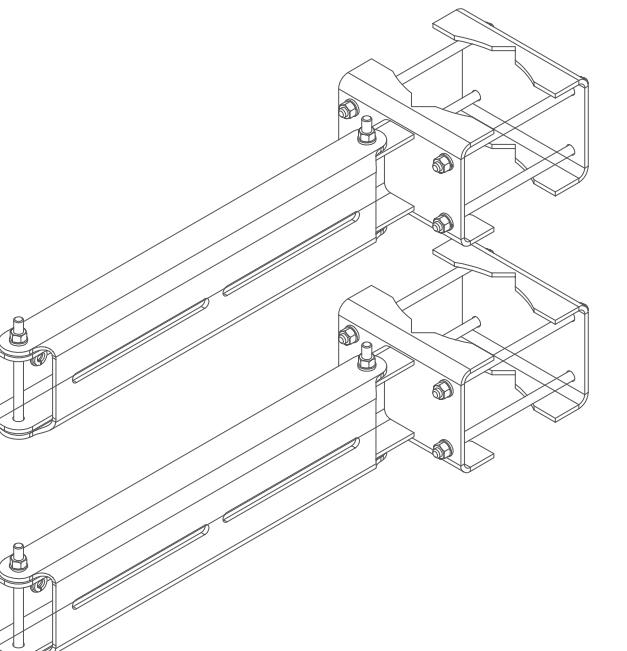
1 RRH MOUNTING DETAIL
SCALE: NOT TO SCALE



2 BASE LEVEL DRAWING
SCALE: NOT TO SCALE



3 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



4 VALMONT - RRUDSM
SCALE: NOT TO SCALE



AT&T SITE NUMBER:
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BU #: 841293
KENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

ISSUED FOR:				
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SHEET NUMBER: **C-7** REVISION: **1**



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KENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

ISSUED FOR:

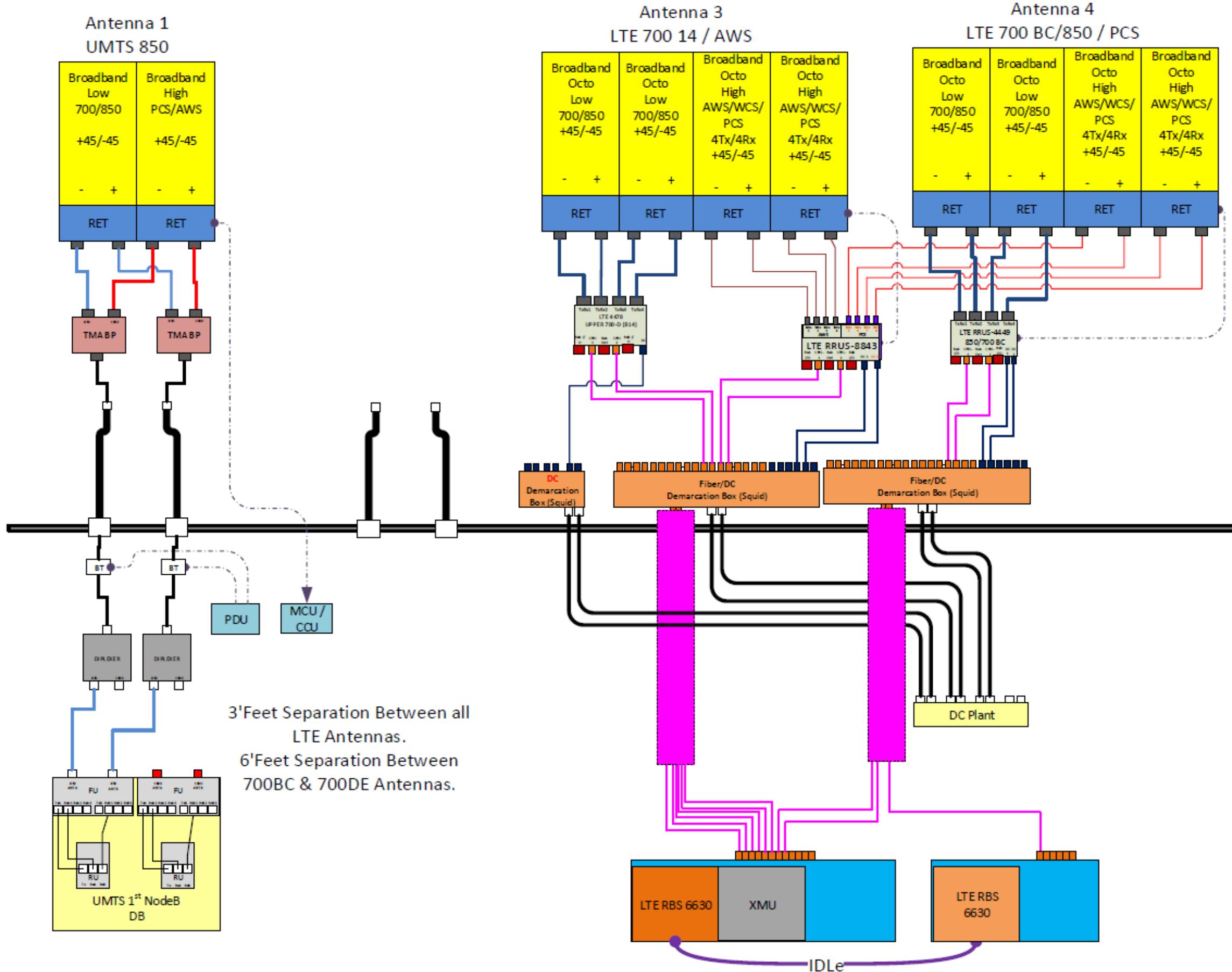
REV	DATE	DRWN	DESCRIPTION	DES./OA
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SHEET NUMBER: C-8 REVISION: 1





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MONPOLE

ISSUED FOR:

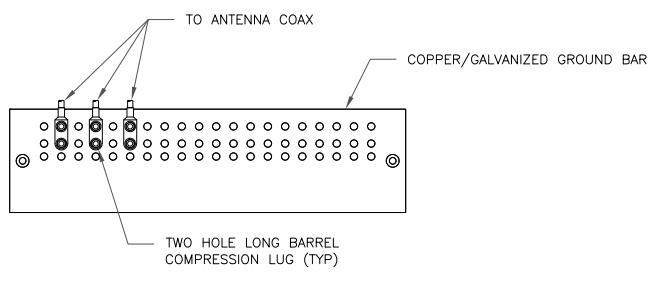
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0	10/2/19	MJ1	CONSTRUCTION	MDW
1	10/28/19	GEH	CONSTRUCTION	FWP



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PEC.0001564
Expires 2/10/20

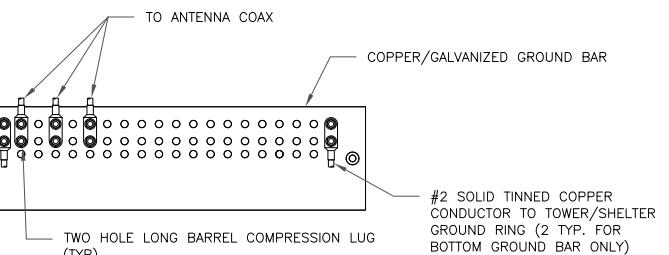
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SHEET NUMBER: **G-1** REVISION: **1**



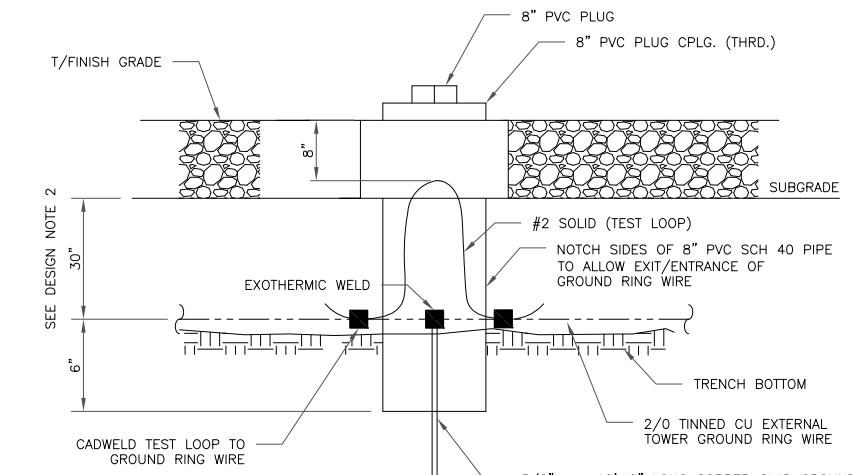
- NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
 2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

1 ANTENNA GROUND BAR DETAIL
SCALE: NOT TO SCALE



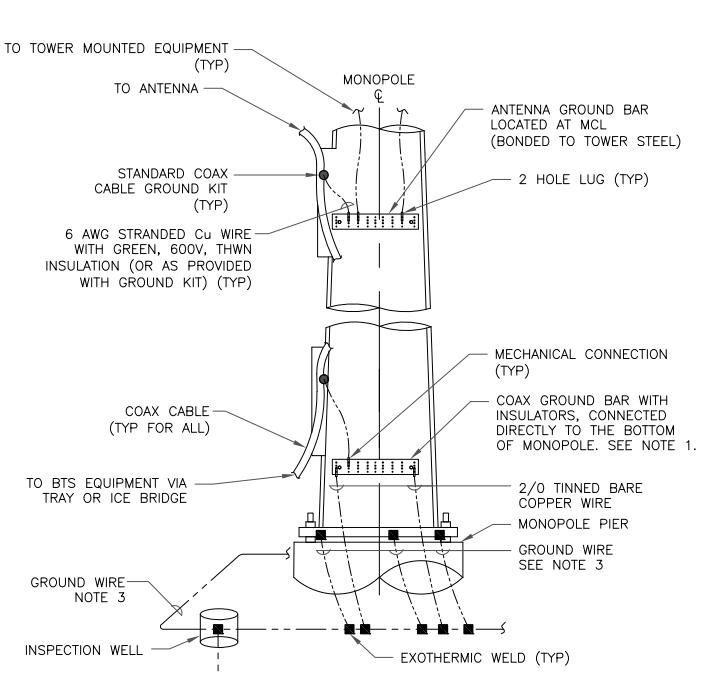
- NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



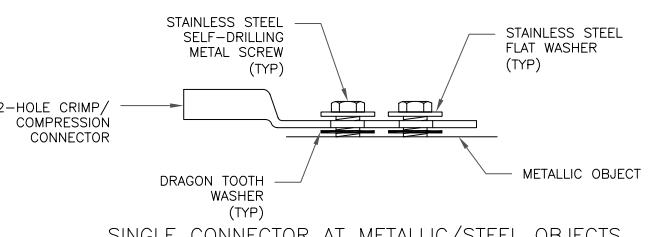
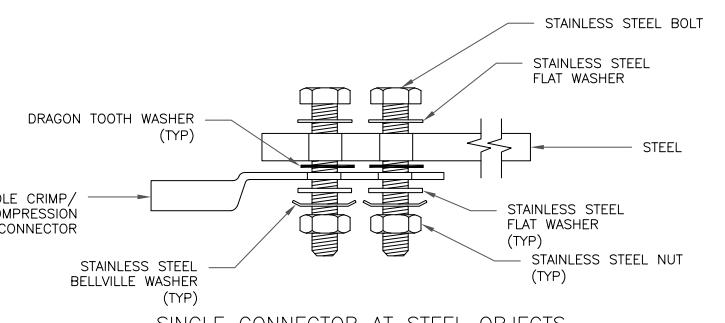
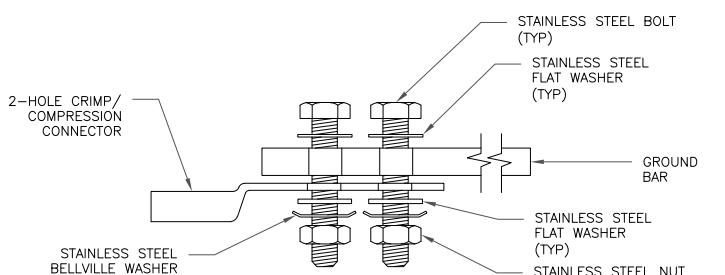
- NOTES:
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE

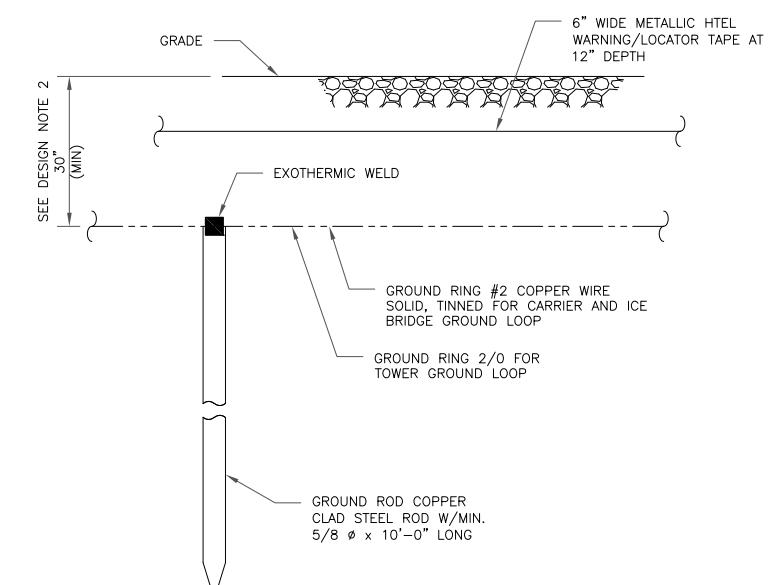


- NOTES:
1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
 2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
 3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE

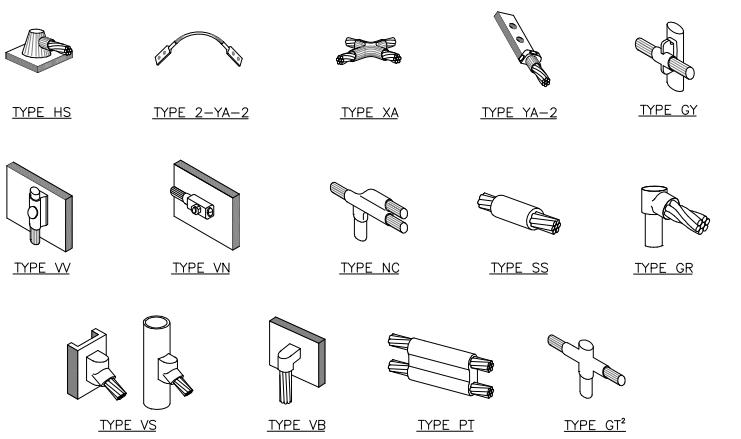


5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



- NOTES:
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

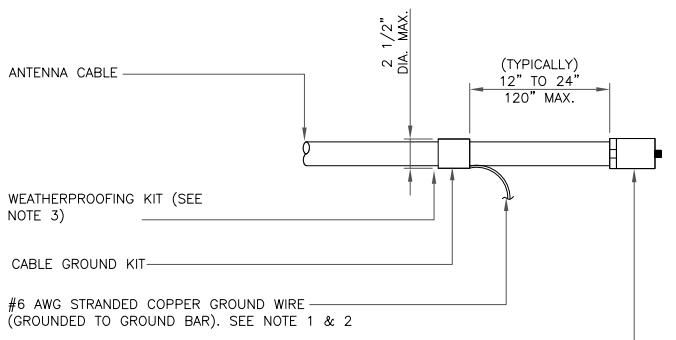
6 GROUND ROD DETAIL
SCALE: NOT TO SCALE



NOTE:

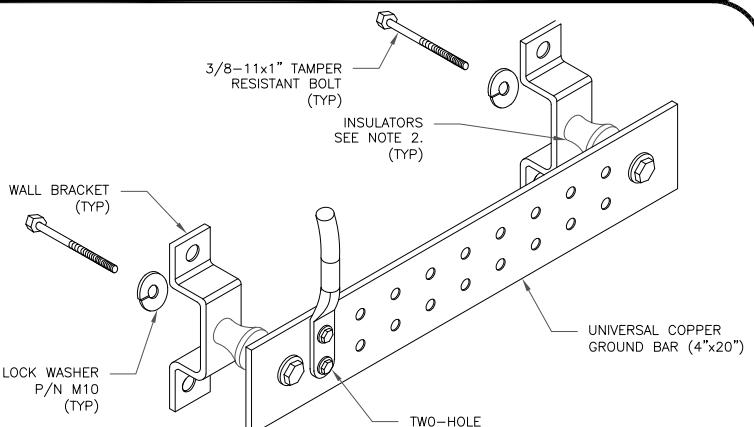
- ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
- MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



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

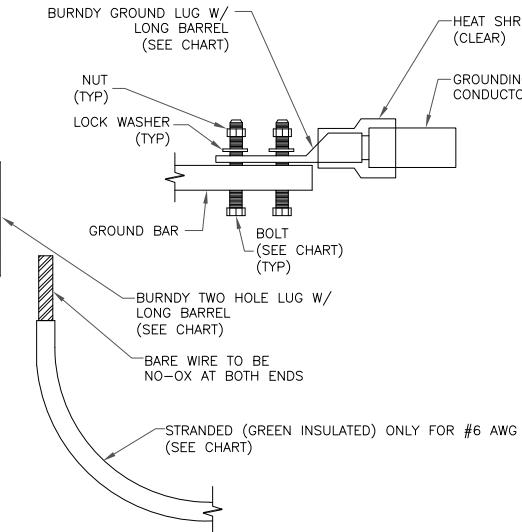
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



- NOTES:**
- DOWNTIME (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 - OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE

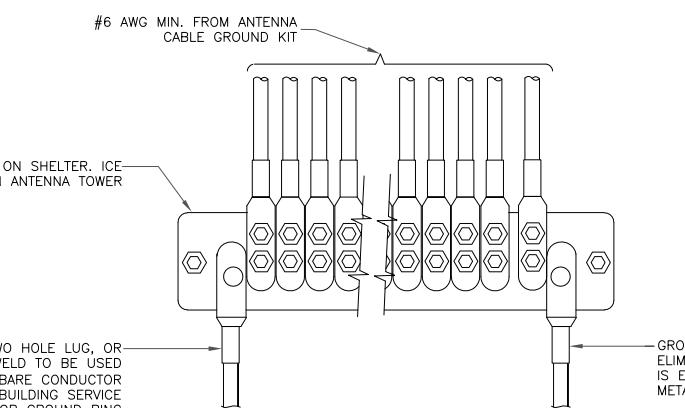
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



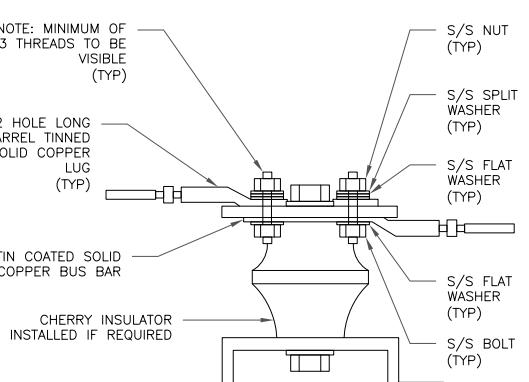
NOTES:

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

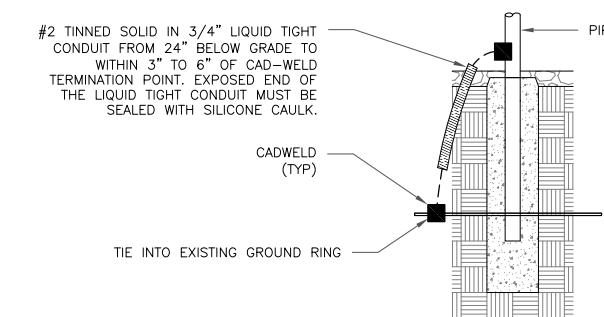
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE



AT&T SITE NUMBER:
CT1008

BU #: **841293**
KENT-BULLS BRIDGE RD

136 BULLS BRIDGE RD
SOUTH KENT, CT 06785

EXISTING 180'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/OA
0	10/2/19	MTJ	CONSTRUCTION	MDW
1	10/28/19	GEH	CONSTRUCTION	FWP



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Exhibit D

Structural Analysis Report



Date: September 09, 2019

Darcy Tarr
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277

Black & Veatch Corp.
6800 W. 115th St., Suite 2292
Overland Park, KS 66211
(913) 458-6909

Subject: Structural Analysis Report

Carrier Designation:	AT&T Mobility Co-Locate	
	Carrier Site Number:	10035067
	Carrier Site Name:	KENT-BULLS BRIDGE ROAD
Crown Castle Designation:	Crown Castle BU Number:	841293
	Crown Castle Site Name:	KENT-BULLS BRIDGE ROAD
	Crown Castle JDE Job Number:	574642
	Crown Castle Work Order Number:	1784342
	Crown Castle Order Number:	492772 Rev. 0
Engineering Firm Designation:	Black & Veatch Corp. Project Number:	400087
Site Data:	136 Bulls Bridge Road, South Kent, Litchfield County, CT Latitude 41° 40' 53.85", Longitude -73° 29' 11.8" 179.813 Foot - Monopole Tower	

Dear Darcy Tarr,

Black & Veatch Corp. is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient Capacity – 98.0%

This analysis has been performed in accordance with the 2018 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 115 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Thanyaporn Yakhensem / Chariya Wannakluit

Respectfully submitted by:

Joshua J. Riley, P.E.
Professional Engineer



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Table 1 - Proposed Equipment Configuration
Table 2 - Other Considered Equipment

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3.2) Assumptions

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4.1) Recommendations

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tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 179.813 ft Monopole tower designed by Engineered Endeavors, Inc.

The tower has been modified per reinforcement drawings prepared by GPD Group, in December of 2012. Reinforcement consists of installing of additional anchor rods. Refer to Post Modification Observation Report by GPD Group in August of 2013. This modification has been considered effective in this analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	115 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.500 in
Wind Speed with Ice:	40 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
180.0	185.0	3	decibel	ASP-952	15	1-5/8
		1	site pro1	HRK12 Kit [NA 507-1]		
		2	cci antennas	DMP65R-BU4D w/ Mount Pipe		
		4	cci antennas	DMP65R-BU6D w/ Mount Pipe		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14		
		3	ericsson	RRUS 8843 B2/B66A		
		3	powerwave technologies	7770.00 w/ Mount Pipe		
		6	powerwave technologies	LGP21401		
		2	raycap	DC6-48-60-0-8C-EV		
		1	raycap	DC6-48-60-18-8F		
	180.0	1	cci tower mounts (v2.0)	Platform Mount [10' LP 601-1]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
170.0	170.0	1	cci tower mounts (v2.0)	Platform Mount [LP 303-1_HR-1]	3	1-5/8
		4	commscope	LNX-6515DS-A1M w/ Mount Pipe		
		2	ericsson	RADIO 2217		
		2	ericsson	RADIO 2217 B2		
		4	ericsson	RRUS 11 B12		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		2	ericsson	RRUS 11 B2		
		2	ericsson	RRUS 11 B4		
		4	rfs celwave	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe		
160.0	163.5	1	site pro1	HRK12-HD [NA 507-1]	12 2	1-5/8 1-1/4
		1	cci tower mounts (v2.0)	Platform Mount [10' LP 601-1]		
	160.0	6	antel	LPA-80080-6CF-EDIN w/ Mount Pipe		
		6	commscope	NHH-65B-R2B w/ Mount Pipe		
		1	raycap	RVZDC-6627-PF-48		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
	144.0	2	sinclair	SC442D-HF2LDF		
134.0	141.0	1	bird technologies group	432E-83I-01-T	2 6	1/2 1-5/8
		1	sinclair	SC479-HF1LDF		
	134.0	2	decibel	DB809DK-Y		
		1	amphenol	WPA-700102-4CF-EDIN-9 w/ Mount Pipe		
		1	cci tower mounts (v2.0)	T-Arm Mount [TA 702-3]		
		1	tx rx systems	422-86A-99575-18BW		
		3	alcatel lucent	800MHZ RRH		
124.0	124.0	3	alcatel lucent	TD-RRH8x20-25	4	1-1/4
		1	cci tower mounts (v2.0)	Platform Mount [LP 601-1]		
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		
		3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe		
		1	cci tower mounts (v2.0)	Platform Mount [LP 601-1]		
120.0	120.0	1	eri	100-1	1	7/8
		1	cci tower mounts (v2.0)	Side Arm Mount [SO 201-1]		
100.0	100.0	1	dbspectra	DS4C06F36D-D	2	7/8
		1	cci tower mounts (v2.0)	Side Arm Mount [SO 701-1]		
63.0	63.0	1	gps	GPS_A	1	1/2

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	GPD Group, Inc.	4456627	CCISITES
4-POST-MODIFICATION INSPECTION	GPD Group, Inc.	4456621	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	FDH Engineering, Inc. (Mapped)	4797649	CCISITES
4-TOWER MANUFACTURER DRAWINGS	SpectraSite Communications, Inc.	4456613	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD Group, Inc.	4456597	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

- 1) Tower and structures were built and maintained in accordance with the manufacturer's specifications.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) The wind loading EPA of the panel antennas has been analyzed and determined by the tower owner. Verification of its accuracy is outside the scope of this structural analysis/design. Black & Veatch does not assume any responsibility for its accuracy.
- 4) This analysis was performed under the assumption that all information provided to Black & Veatch is current and correct. This is to include site data, appurtenance loading, tower/foundation details, and geotechnical data. The loading on the structure is based on CAD level drawings and carrier orders provided by the owner. If any of this information is not current and correct, this report should be considered obsolete and further analysis will be required.

This analysis may be affected if any assumptions are not valid or have been made in error. Black & Veatch Corp. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary) (Monopole Tower)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	179.813 - 132.966	Pole	TP25.5375x15x0.25	1	-10.19	1192.04	94.9	Pass
L2	132.966 - 87.3645	Pole	TP35.1887x24.2069x0.375	2	-25.00	2465.48	95.6	Pass
L3	87.3645 - 42.7915	Pole	TP44.3577x33.3474x0.4375	3	-39.24	3631.49	91.1	Pass
L4	42.7915 - 0	Pole	TP53x42.1375x0.5	4	-42.91	4189.94	82.8	Pass
							Summary	
						Pole (L2)	95.6	Pass
						Rating =	95.6	Pass

Table 5 - Tower Component Stresses vs. Capacity (Monopole Tower) - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods (Original)	0	73.3	Pass
	Anchor Rods (Existing Modification)		58.9	Pass
	Base Plate		82.6	Pass
1	Base Foundation	0	53.4	Pass
	Base Foundation Soil Interaction		98.0	Pass

Structure Rating (max from all components) =	98.0%
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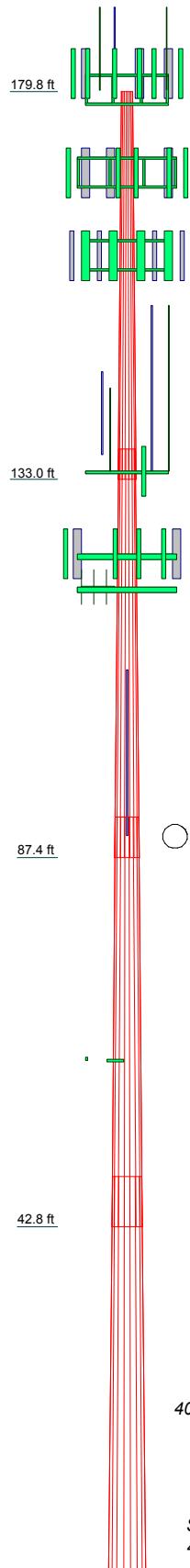
Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity.
Rating per TIA-222-H Section 15.5.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

**APPENDIX A
TNXTOWER OUTPUT**



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 115 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 40 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 95.6%

ALL REACTIONS
ARE FACORED

AXIAL 104 K
SHEAR 7 K
MOMENT 1096 kip-ft

TORQUE 0 kip-ft
40 mph WIND - 1.5000 in ICE

AXIAL 60 K
SHEAR 40 K
MOMENT 5498 kip-ft

TORQUE 2 kip-ft
REACTIONS - 115 mph WIND

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
4	48.84	18	0.5000	0.4376	42.1375	52.0000	A572-65	29.8
3	49.47	18	0.4376	0.4376	33.3474	44.3577		9.0
2	49.29	18	0.3750	0.3750	24.2069	35.1887		5.9
1	46.85	18	0.2500	0.2500	25.5375			2.5



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Building a **world** of difference.[®]

Black & Veatch Corp.
6800 W 115th St. Suite 2292
Overland Park, KS 66211
Phone: (913) 458-6909
FAX: (913) 458-8136

KENT-BULLS BRIDGE ROAD (BU# 841293)					
Project:	400087 (841293.1784342)	Drawn by:	Thanayaporn Yakhensem	App'd:	
Client:	Crown Castle	Date:	09/09/19	Scale:	NTS
Code:	TIA-222-H	Path:			
				Dwg No.	E-1

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- 1) Tower is located in Litchfield County, Connecticut.
- 2) Tower base elevation above sea level: 781.00 ft.
- 3) Basic wind speed of 115 mph.
- 4) Risk Category II.
- 5) Exposure Category C.
- 6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- 7) Topographic Category: 1.
- 8) Crest Height: 0.00 ft.
- 9) Nominal ice thickness of 1.5000 in.
- 10) Ice thickness is considered to increase with height.
- 11) Ice density of 56 pcf.
- 12) A wind speed of 40 mph is used in combination with ice.
- 13) Temperature drop of 50 °F.
- 14) Deflections calculated using a wind speed of 60 mph.
- 15) A non-linear (P-delta) analysis was used.
- 16) Pressures are calculated at each section.
- 17) Stress ratio used in pole design is 1.05.
- 18) Tower analysis based on target reliabilities in accordance with Annex S.
- 19) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- 20) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	✓ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	✓ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
Use Code Safety Factors - Guys	Retention Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	✓ Bypass Mast Stability Checks	✓ Consider Feed Line Torque
Always Use Max Kz	✓ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	✓ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist.
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Use TIA-222-H Tension Splice
Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	Exemption
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Poles
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	✓ Include Shear-Torsion Interaction
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Always Use Sub-Critical Flow
		Use Top Mounted Sockets
		Pole Without Linear Attachments
		Pole With Shroud Or No
		Appurtenances
		Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

Section	Elevation	Section Length	Splice Length	Number of Sides	Top Diameter	Bottom Diameter	Wall Thickness	Bend Radius	Pole Grade
	ft	ft	ft		in	in	in	in	
L1	179.81-132.97	46.85	3.69	18	15.0000	25.5375	0.2500	1.0000	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L2	132.97-87.36	49.29	4.90	18	24.2069	35.1887	0.3750	1.5000	A572-65 (65 ksi)
L3	87.36-42.79	49.47	6.04	18	33.3474	44.3577	0.4375	1.7500	A572-65 (65 ksi)
L4	42.79-0.00	48.84		18	42.1375	53.0000	0.5000	2.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	15.1928	11.7041	321.7069	5.2363	7.6200	42.2188	643.8372	5.8532	2.2000	8.8
	25.8929	20.0656	1621.0711	8.9771	12.9731	124.9568	3244.2753	10.0347	4.0546	16.218
	25.3578	28.3659	2035.4022	8.4603	12.2971	165.5190	4073.4826	14.1856	3.6004	9.601
L2	35.6737	41.4370	6344.9205	12.3589	17.8759	354.9435	12698.189	20.7224	5.5332	14.755
					9					
L3	34.9014	45.6996	6253.2144	11.6830	16.9405	369.1282	12514.656	22.8541	5.0991	11.655
	44.9745	60.9887	14863.303	15.5917	22.5337	659.6030	29746.165	30.5001	7.0370	16.084
L4	44.0756	66.0787	14473.315	14.7813	21.4058	676.1385	28965.675	33.0456	6.5362	13.072
	53.7405	83.3175	29012.976	18.6375	26.9240	1077.5879	58064.129	41.6667	8.4480	16.896
	6				1					

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 179.81- 132.97				1	1	1			
L2 132.97- 87.36				1	1	1			
L3 87.36- 42.79				1	1	1			
L4 42.79-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	C	No	Surface Ar (CaAa)	179.81 - 10.00	1	1	-0.090 -0.080	0.3750		0.22
(3) LDF7-50A(1-5/8) + (4) WR-VG66ST- BRD(7/8) + (1) FB- L98B-034-XXX(3/8) ***	A	No	Surface Ar (CaAa)	179.81 - 5.00	7	7	-0.400 0.000	1.9800		0.82
(3) MLE Hybrid 9Power/18Fiber RL 2(1-5/8) + (2) OSP6U(1/4) + (1) 024E8F-31131-29(1/4)	B	No	Surface Ar (CaAa)	170.00 - 5.00	4	3	0.000 0.130	1.6250		1.07
(2) LDF7-50A(1-5/8) + (2) HFT1208-24S26(1- 1/4) ***	A	No	Surface Ar (CaAa)	160.00 - 5.00	4	2	0.300 0.410	1.9800		0.82

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diametr in	Perimeter in	Weight plf
EC5-50A(7/8)	A	No	Surface Ar (CaAa)	100.00 - 5.00	2	2	0.000 0.050	1.1000		0.33
*** LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	63.00 - 0.00	1	1	0.400 0.410	0.6250		0.15

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A	Weight
							ft ² /ft	plf

LDF7-50A(1-5/8)	C	No	No	Inside Pole	179.81 - 0.00	12	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	179.81 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	179.81 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
2" innerduct conduit	C	No	No	Inside Pole	179.81 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
*** LDF7-50A(1-5/8)	C	No	No	Inside Pole	160.00 - 0.00	10	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
AVA7-50(1-5/8)	C	No	No	Inside Pole	134.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
LDF4-50A(1/2)	C	No	No	Inside Pole	134.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
LDF7-50A(1-5/8)	C	No	No	Inside Pole	134.00 - 0.00	4	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
*** HB114-1-08U4-M5J(1-1/4)	C	No	No	Inside Pole	124.00 - 0.00	3	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
HB114-21U3M12-XXXF(1-1/4)	C	No	No	Inside Pole	124.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
*** LDF5-50A(7/8)	C	No	No	Inside Pole	120.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight
							K
L1	179.81-132.97	A	0.000	0.000	75.635	0.000	0.36
		B	0.000	0.000	18.054	0.000	0.16
		C	0.000	0.000	1.757	0.000	0.76
L2	132.97-87.36	A	0.000	0.000	84.042	0.000	0.42
		B	0.000	0.000	22.231	0.000	0.20
		C	0.000	0.000	1.710	0.000	1.30
L3	87.36-42.79	A	0.000	0.000	89.235	0.000	0.43
		B	0.000	0.000	22.992	0.000	0.19
		C	0.000	0.000	1.671	0.000	1.31
L4	42.79-0.00	A	0.000	0.000	75.659	0.000	0.37
		B	0.000	0.000	21.098	0.000	0.17
		C	0.000	0.000	1.230	0.000	1.26

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight
								K
L1	179.81-132.97	A	1.488	0.000	0.000	122.024	0.000	1.71
		B		0.000	0.000	36.343	0.000	0.59
		C		0.000	0.000	15.697	0.000	0.92
L2	132.97-87.36	A	1.437	0.000	0.000	143.677	0.000	2.04
		B		0.000	0.000	44.751	0.000	0.72
		C		0.000	0.000	15.280	0.000	1.45
L3	87.36-42.79	A	1.363	0.000	0.000	159.582	0.000	2.14
		B		0.000	0.000	50.245	0.000	0.76
		C		0.000	0.000	14.482	0.000	1.45
L4	42.79-0.00	A	1.222	0.000	0.000	133.219	0.000	1.74
		B		0.000	0.000	50.255	0.000	0.70
		C		0.000	0.000	10.172	0.000	1.35

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
L1	179.81-132.97	-3.2282	-1.6195	-2.1078	-1.1958
L2	132.97-87.36	-3.8635	-2.6320	-2.5134	-2.0962
L3	87.36-42.79	-4.8104	-3.2638	-3.0957	-2.5508
L4	42.79-0.00	-4.7834	-3.2972	-2.8801	-2.5858

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	1	Safety Line 3/8	132.97 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	7	(3) LDF7-50A(1-5/8) + (4) WR-VG66ST-BRD(7/8) + (1) FB-L98B-034-XXX(3/8)	179.81 132.97 - 179.81	1.0000	1.0000
L1	10	(3) MLE Hybrid 9Power/18Fiber RL 2(1-5/8) + (2) OSP6U(1/4) + (1) 024E8F-31131-29(1/4)	132.97 - 170.00	1.0000	1.0000
L1	15	(2) LDF7-50A(1-5/8) + (2) HFT1208-24S26(1-1/4)	132.97 - 160.00	1.0000	1.0000
L1	26	EC5-50A(7/8)	132.97 - 100.00	1.0000	1.0000
L2	1	Safety Line 3/8	87.36 - 132.97	1.0000	1.0000
L2	7	(3) LDF7-50A(1-5/8) + (4) WR-VG66ST-BRD(7/8) + (1) FB-L98B-034-XXX(3/8)	87.36 - 132.97	1.0000	1.0000
L2	10	(3) MLE Hybrid 9Power/18Fiber RL 2(1-5/8) + (2) OSP6U(1/4) + (1) 024E8F-31131-29(1/4)	87.36 - 132.97	1.0000	1.0000
L2	15	(2) LDF7-50A(1-5/8) + (2) HFT1208-24S26(1-1/4)	87.36 - 132.97	1.0000	1.0000
L2	26	EC5-50A(7/8)	87.36 - 100.00	1.0000	1.0000
L2	28	LDF4-50A(1/2)	87.36 - 63.00	1.0000	1.0000
L3	1	Safety Line 3/8	42.79 - 87.36	1.0000	1.0000
L3	7	(3) LDF7-50A(1-5/8) + (4) WR-VG66ST-BRD(7/8) + (1) FB-L98B-034-XXX(3/8)	42.79 - 87.36	1.0000	1.0000
L3	10	(3) MLE Hybrid 9Power/18Fiber RL 2(1-5/8) + (2) OSP6U(1/4) + (1) 024E8F-31131-29(1/4)	42.79 - 87.36	1.0000	1.0000
L3	15	(2) LDF7-50A(1-5/8) + (2) HFT1208-24S26(1-1/4)	42.79 - 87.36	1.0000	1.0000
L3	26	EC5-50A(7/8)	42.79 - 87.36	1.0000	1.0000
L3	28	LDF4-50A(1/2)	42.79 - 63.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K

Platform Mount [10' LP 601-1]	C	None		0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	23.75 26.41 29.07 34.38 34.38	23.75 26.41 29.07 34.38 2.78
Site pro HRK12 Kit [NA 507-1]	C	From Leg	0.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	4.56 6.39 8.18 11.66	0.25 0.31 0.40 0.66

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K	
Transition Ladder	A	From Leg	2.00 0.00 -4.00	0.0000	180.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	6.00 8.00 10.00 14.00 2.44 3.32 4.20 5.97	6.00 8.00 10.00 14.00 2.44 3.32 4.20 5.97	0.16 0.24 0.32 0.48 0.05 0.07 0.09 0.13
8'6"x2.5" Mount Pipe	A	From Leg	4.00 -1.50 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.44 3.32 4.20 5.97	2.44 3.32 4.20 5.97	0.05 0.07 0.09 0.13
8'6"x2.5" Mount Pipe	B	From Leg	4.00 -1.50 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.44 3.32 4.20 5.97	2.44 3.32 4.20 5.97	0.05 0.07 0.09 0.13
8'6"x2.5" Mount Pipe	C	From Leg	4.00 -1.50 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.44 3.32 4.20 5.97	2.44 3.32 4.20 5.97	0.05 0.07 0.09 0.13
2'x2" Mount Pipe	A	From Leg	3.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.34 0.47 0.61 0.92	0.34 0.47 0.61 0.92	0.01 0.01 0.02 0.03
2'x2" Mount Pipe	B	From Leg	3.00 -1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.34 0.47 0.61 0.92	0.34 0.47 0.61 0.92	0.01 0.01 0.02 0.03
2'x2" Mount Pipe	B	From Leg	3.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.34 0.47 0.61 0.92	0.34 0.47 0.61 0.92	0.01 0.01 0.02 0.03
2'x2" Mount Pipe	C	From Leg	4.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.34 0.47 0.61 0.92	0.34 0.47 0.61 0.92	0.01 0.01 0.02 0.03
DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.95 13.55 14.11 15.26	7.26 8.43 9.31 11.13	0.10 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.00 5.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.95 13.55 14.11 15.26	7.26 8.43 9.31 11.13	0.10 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.95 13.55 14.11 15.26	7.26 8.43 9.31 11.13	0.10 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.00 5.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.95 13.55 14.11 15.26	7.26 8.43 9.31 11.13	0.10 0.20 0.30 0.53
DMP65R-BU4D w/ Mount Pipe	C	From Leg	4.00 1.50 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.52 8.96 9.42 10.36	4.69 5.31 5.93 7.22	0.09 0.15 0.22 0.39

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _A A _A Front	C _A A _A Side	Weight K
DMP65R-BU4D w/ Mount Pipe	C	From Leg	4.00 5.00 2.00	0.0000	180.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	8.52 8.96 9.42 10.36 7.22	4.69 5.31 5.93 7.22 0.09 0.15 0.22 0.39
7770.00 w/ Mount Pipe	A	From Leg	4.00 -5.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16 0.06 0.10 0.16 0.29
7770.00 w/ Mount Pipe	B	From Leg	4.00 -5.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16 0.06 0.10 0.16 0.29
7770.00 w/ Mount Pipe	C	From Leg	4.00 -5.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16 0.06 0.10 0.16 0.29
ASP-952	A	From Leg	4.00 -1.50 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.16 5.30 6.96	3.02 4.16 5.30 6.96 0.02 0.04 0.07 0.15
ASP-952	B	From Leg	4.00 -1.50 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.16 5.30 6.96	3.02 4.16 5.30 6.96 0.02 0.04 0.07 0.15
ASP-952	C	From Leg	4.00 -1.50 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.16 5.30 6.96	3.02 4.16 5.30 6.96 0.02 0.04 0.07 0.15
RRUS 4478 B14	A	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66 0.06 0.08 0.09 0.14
RRUS 4478 B14	B	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66 0.06 0.08 0.09 0.14
RRUS 4478 B14	C	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66 0.06 0.08 0.09 0.14
RRUS 8843 B2/B66A	A	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99 0.07 0.09 0.11 0.16
RRUS 8843 B2/B66A	B	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99 0.07 0.09 0.11 0.16
RRUS 8843 B2/B66A	C	From Leg	4.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99 0.07 0.09 0.11 0.16

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	$C_A A_A$ Front ft ²	$C_A A_A$ Side ft ²	Weight K	
			Horz ft	Lateral ft						
RRUS 4449 B5/B12	A	From Leg	4.00	0.0000	180.00	2" Ice	No Ice	1.97	1.41	0.07
			0.00			1/2"	2.14	1.56	0.09	
			2.00			Ice	2.33	1.73	0.11	
						1" Ice	2.72	2.07	0.16	
						2" Ice	No Ice	1.97	1.41	0.07
RRUS 4449 B5/B12	B	From Leg	4.00	0.0000	180.00	1/2"	2.14	1.56	0.09	
			0.00			Ice	2.33	1.73	0.11	
			2.00			1" Ice	2.72	2.07	0.16	
						2" Ice	No Ice	1.97	1.41	0.07
						1/2"	2.14	1.56	0.09	
RRUS 4449 B5/B12	C	From Leg	4.00	0.0000	180.00	Ice	2.33	1.73	0.11	
			0.00			1" Ice	2.72	2.07	0.16	
			2.00			2" Ice	No Ice	1.97	1.41	0.07
						1/2"	2.14	1.56	0.09	
						Ice	2.33	1.73	0.11	
(2) LGP21401	A	From Leg	4.00	0.0000	180.00	1" Ice	2.72	2.07	0.16	
			0.00			2" Ice	No Ice	1.10	0.35	0.01
			2.00			1/2"	1.24	0.44	0.02	
						Ice	1.38	0.54	0.03	
						1" Ice	1.69	0.77	0.05	
(2) LGP21401	B	From Leg	4.00	0.0000	180.00	2" Ice	No Ice	1.10	0.35	0.01
			0.00			1/2"	1.24	0.44	0.02	
			2.00			Ice	1.38	0.54	0.03	
						1" Ice	1.69	0.77	0.05	
						2" Ice	No Ice	1.10	0.35	0.01
(2) LGP21401	C	From Leg	4.00	0.0000	180.00	1/2"	1.24	0.44	0.02	
			0.00			Ice	1.38	0.54	0.03	
			2.00			1" Ice	1.69	0.77	0.05	
						2" Ice	No Ice	1.10	0.35	0.01
						1/2"	1.24	0.44	0.02	
DC6-48-60-18-8F	A	From Leg	1.00	0.0000	180.00	Ice	1.38	0.54	0.03	
			0.00			1" Ice	2.04	2.04	0.11	
			2.00			2" Ice	No Ice	0.92	0.92	0.02
						1/2"	1.46	1.46	0.04	
						Ice	1.64	1.64	0.06	
DC6-48-60-0-8C-EV	B	From Leg	1.00	0.0000	180.00	1" Ice	2.04	2.04	0.11	
			0.00			2" Ice	No Ice	2.74	4.78	0.03
			2.00			1/2"	2.96	5.06	0.06	
						Ice	3.20	5.35	0.10	
						1" Ice	3.68	5.95	0.20	
DC6-48-60-0-8C-EV	C	From Leg	1.00	0.0000	180.00	2" Ice	No Ice	2.74	4.78	0.03
			0.00			1/2"	2.96	5.06	0.06	
			2.00			Ice	3.20	5.35	0.10	
						1" Ice	3.68	5.95	0.20	
						2" Ice	No Ice	2.74	4.78	0.03
Platform Mount [LP 303-1_HR-1]	C	None			0.0000	170.00	No Ice	17.09	17.09	1.50
							1/2"	21.47	21.47	1.88
							Ice	25.72	25.72	2.35
							1" Ice	33.96	33.96	3.52
							2" Ice			
8'x2" Mount Pipe	A	From Leg	3.00	0.0000	170.00	No Ice	1.90	1.90	0.03	
			2.00			1/2"	2.73	2.73	0.04	
			0.00			Ice	3.40	3.40	0.06	
						1" Ice	4.40	4.40	0.12	
						2" Ice	No Ice	1.90	1.90	0.03
8'x2" Mount Pipe	B	From Leg	3.00	0.0000	170.00	1/2"	2.73	2.73	0.04	
			2.00			Ice	3.40	3.40	0.06	
			0.00			1" Ice	4.40	4.40	0.12	
						2" Ice	No Ice	1.90	1.90	0.03
						1/2"	2.73	2.73	0.04	
8'x2" Mount Pipe	C	From Leg	3.00	0.0000	170.00	Ice	3.40	3.40	0.06	
			-2.00			1" Ice	4.40	4.40	0.12	
			0.00			2" Ice	No Ice	1.90	1.90	0.03
						1/2"	2.73	2.73	0.04	
						Ice	3.40	3.40	0.06	

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K
8'x2" Mount Pipe	C	From Leg	3.00 2.00 0.00	0.0000	170.00	1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.40 1.90 2.73 3.40 4.40 4.40	4.40 1.90 2.73 3.40 4.40 0.12
(2) APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	2.76 3.27 3.79 4.90
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	B	From Leg	4.00 6.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	2.76 3.27 3.79 4.90
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	C	From Leg	4.00 -6.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.29 6.86 7.45 8.68	0.06 0.11 0.16 0.29
LNX-6515DS-A1M w/ Mount Pipe	A	From Leg	4.00 -2.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.31 5.80 6.30 7.33	4.27 4.75 5.24 6.24
LNX-6515DS-A1M w/ Mount Pipe	B	From Leg	4.00 -6.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.31 5.80 6.30 7.33	4.27 4.75 5.24 6.24
LNX-6515DS-A1M w/ Mount Pipe	B	From Leg	4.00 -2.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.31 5.80 6.30 7.33	0.08 0.17 0.26 0.49
LNX-6515DS-A1M w/ Mount Pipe	C	From Leg	4.00 6.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.31 5.80 6.30 7.33	4.27 4.75 5.24 6.24
(2) RRUS 11 B4	A	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.83 3.04 3.26 3.71	1.18 1.33 1.48 1.83
(2) RRUS 11 B2	B	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.83 3.04 3.26 3.71	1.18 1.33 1.48 1.83
(2) RRUS 11 B12	C	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.83 3.04 3.26 3.71	0.05 0.07 0.10 0.15
RRUS 11 B12	A	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.83 3.04 3.26 3.71	1.18 1.33 1.48 1.83
RRUS 11 B12	B	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.83 3.04 3.26	0.05 0.07 0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K
RADIO 2217 B2	A	From Leg	4.00 0.00 0.00	0.0000	170.00	1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	3.71 0.59 1.35 1.50 1.65 1.98 1.06	1.83 0.03 0.69 0.80 0.05 0.08
RADIO 2217 B2	B	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	1.35 1.50 1.65 1.98 1.35 1.50 1.65 1.98 1.06	0.59 0.04 0.80 1.06 0.03 0.04 0.05 0.08
RADIO 2217	A	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	1.35 1.49 1.65 1.98 1.35 1.49 1.65 1.98 1.11	0.62 0.04 0.85 1.11 0.03 0.04 0.05 0.09
RADIO 2217	B	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	1.35 1.49 1.65 1.98 1.35 1.49 1.65 1.98 1.11	0.62 0.04 0.85 1.11 0.03 0.04 0.05 0.09

Platform Mount [10' LP 601-1]	C	None		0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	23.75 26.41 29.07 34.38 23.75 26.41 29.07 34.38	0.94 1.40 1.86 2.78
site pro1 HRK12-HD [NA 507-1]	C	From Leg	0.00 0.00 3.50	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.56 6.39 8.18 11.66 4.56 6.39 8.18 11.66	0.25 0.31 0.40 0.66
Transition Ladder	A	From Leg	2.00 0.00 -4.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	6.00 8.00 10.00 14.00 6.00 8.00 10.00 14.00	0.16 0.24 0.32 0.48
NHH-65B-R2B w/ Mount Pipe	A	From Face	4.00 1.67 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.48 4.88 5.70 4.09 4.48 4.88 5.70	0.07 0.13 0.21 0.39
NHH-65B-R2B w/ Mount Pipe	A	From Face	4.00 5.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.48 4.88 5.70 4.09 4.48 4.88 5.70	0.07 0.13 0.21 0.39
NHH-65B-R2B w/ Mount Pipe	B	From Face	4.00 1.67 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.48 4.88 5.70 4.09 4.48 4.88 5.70	0.07 0.13 0.21 0.39
NHH-65B-R2B w/ Mount Pipe	B	From Face	4.00 5.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.48 4.88 5.70 4.09 4.48 4.88 5.70	0.07 0.13 0.21 0.39
NHH-65B-R2B w/ Mount Pipe	C	From Face	4.00 1.67 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.48 4.88 5.70 4.09 4.48 4.88 5.70	0.07 0.13 0.21 0.39
NHH-65B-R2B w/ Mount Pipe	C	From Face	4.00 5.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2"	4.09 4.48 4.88 5.70 4.09 4.48	0.07 0.13 0.21 0.39

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K	
			0.00			Ice	4.88	4.06	0.21
						1" Ice	5.70	4.86	0.39
						2" Ice			
LPA-80080-6CF-EDIN w/ Mount Pipe	A	From Face	4.00 -5.00 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
						2" Ice			
LPA-80080-6CF-EDIN w/ Mount Pipe	A	From Face	4.00 -1.67 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
LPA-80080-6CF-EDIN w/ Mount Pipe	B	From Face	4.00 -5.00 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
						2" Ice			
LPA-80080-6CF-EDIN w/ Mount Pipe	B	From Face	4.00 -1.67 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
LPA-80080-6CF-EDIN w/ Mount Pipe	C	From Face	4.00 -5.00 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
						2" Ice			
LPA-80080-6CF-EDIN w/ Mount Pipe	C	From Face	4.00 -1.67 0.00	0.0000	160.00	No Ice	4.56	10.64	0.05
						1/2"	5.11	11.81	0.11
						Ice	5.61	12.70	0.19
						1" Ice	6.65	14.52	0.37
RFV01U-D1A	A	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	1.88	1.25	0.08
						1/2"	2.05	1.39	0.10
						Ice	2.22	1.54	0.12
						1" Ice	2.60	1.86	0.18
						2" Ice			
RFV01U-D1A	B	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	1.88	1.25	0.08
						1/2"	2.05	1.39	0.10
						Ice	2.22	1.54	0.12
						1" Ice	2.60	1.86	0.18
						2" Ice			
RFV01U-D1A	C	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	1.88	1.25	0.08
						1/2"	2.05	1.39	0.10
						Ice	2.22	1.54	0.12
						1" Ice	2.60	1.86	0.18
						2" Ice			
RVZDC-6627-PF-48	B	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	3.79	2.51	0.03
						1/2"	4.04	2.73	0.06
						Ice	4.30	2.95	0.10
						1" Ice	4.84	3.42	0.18
						2" Ice			
RFV01U-D2A	A	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	1.88	1.01	0.07
						1/2"	2.05	1.14	0.09
						Ice	2.22	1.28	0.11
						1" Ice	2.60	1.59	0.15
						2" Ice			
RFV01U-D2A	B	From Face	4.00 0.00 0.00	0.0000	160.00	No Ice	1.88	1.01	0.07
						1/2"	2.05	1.14	0.09
						Ice	2.22	1.28	0.11
						1" Ice	2.60	1.59	0.15
						2" Ice			
RFV01U-D2A	C	From Face	4.00 0.00	0.0000	160.00	No Ice	1.88	1.01	0.07
						1/2"	2.05	1.14	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K
			0.00			Ice 1" Ice 2" Ice	2.22 2.60 1.59	1.28 0.11 0.15

T-Arm Mount [TA 702-3]	C	None		0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.75 5.82 6.98 9.72	4.75 5.82 6.98 0.34 0.43 0.55 0.87
3.5' Hor 2.5x2.5 Angle	A	From Leg	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.88 1.13 1.38 1.92	0.05 0.08 0.12 0.10
3.5' Hor 2.5x2.5 Angle	B	From Leg	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.88 1.13 1.38 1.92	0.05 0.08 0.12 0.10
3.5' Hor 2.5x2.5 Angle	C	From Leg	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.88 1.13 1.38 1.92	0.05 0.08 0.12 0.10
(2) 6'x2" Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 0.02 0.03 0.05 0.09
(2) 6'x2" Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 0.02 0.03 0.05 0.09
(2) 6'x2" Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 0.02 0.03 0.05 0.09
SC479-HF1LDF	A	From Leg	3.00 -3.00 7.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.06 6.54 8.04 10.81	5.06 6.54 8.04 10.81 0.03 0.07 0.11 0.23
SC442D-HF2LDF	A	From Leg	3.00 3.00 10.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	7.20 12.20 14.29 18.52	7.20 12.20 14.29 18.52 0.08 0.15 0.23 0.43
SC442D-HF2LDF	B	From Leg	3.00 -3.00 10.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	7.20 12.20 14.29 18.52	7.20 12.20 14.29 18.52 0.08 0.15 0.23 0.43
WPA-700102-4CF-EDIN-9 w/ Mount Pipe	B	From Leg	3.00 3.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.81 4.17 4.54 5.31	3.97 4.58 5.19 6.46 0.03 0.07 0.11 0.22
DB809DK-Y	C	From Leg	3.00 -3.00 5.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.39 4.55 5.73 7.38	3.39 4.55 5.73 7.38 0.03 0.06 0.09 0.18
DB809DK-Y	C	From Leg	3.00	0.0000	134.00	No Ice	3.39	3.39 0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K	
			-3.00		1/2"	4.55	4.55	0.06	
			5.00		Ice	5.73	5.73	0.09	
					1" Ice	7.38	7.38	0.18	
					2" Ice				
432E-83I-01-T	A	From Leg	3.00	0.0000	134.00	No Ice	1.20	0.75	0.03
			0.00		1/2"	1.34	0.86	0.04	
			7.00		Ice	1.48	0.98	0.05	
					1" Ice	1.79	1.24	0.09	
					2" Ice				
422-86A-99575-18BW	B	From Leg	3.00	0.0000	134.00	No Ice	2.96	1.20	0.05
			0.00		1/2"	3.17	1.35	0.07	
			0.00		Ice	3.39	1.51	0.09	
					1" Ice	3.86	1.86	0.15	
					2" Ice				

Platform Mount [LP 601-1]	C	None		0.0000	124.00	No Ice	28.50	28.50	1.12
					1/2"	31.69	31.69	1.68	
					Ice	34.87	34.87	2.28	
					1" Ice	41.23	41.23	3.65	
					2" Ice				
Transition Ladder	C	From Leg	2.00	0.0000	124.00	No Ice	6.00	6.00	0.16
			0.00		1/2"	8.00	8.00	0.24	
			-4.00		Ice	10.00	10.00	0.32	
					1" Ice	14.00	14.00	0.48	
					2" Ice				
6'x2" Mount Pipe	A	From Leg	4.00	0.0000	124.00	No Ice	1.43	1.43	0.02
			0.00		1/2"	1.92	1.92	0.03	
			0.00		Ice	2.29	2.29	0.05	
					1" Ice	3.06	3.06	0.09	
					2" Ice				
6'x2" Mount Pipe	B	From Leg	4.00	0.0000	124.00	No Ice	1.43	1.43	0.02
			-6.00		1/2"	1.92	1.92	0.03	
			0.00		Ice	2.29	2.29	0.05	
					1" Ice	3.06	3.06	0.09	
					2" Ice				
6'x2" Mount Pipe	C	From Leg	4.00	0.0000	124.00	No Ice	1.43	1.43	0.02
			-6.00		1/2"	1.92	1.92	0.03	
			0.00		Ice	2.29	2.29	0.05	
					1" Ice	3.06	3.06	0.09	
					2" Ice				
6'x2" Mount Pipe	C	From Leg	4.00	0.0000	124.00	No Ice	1.43	1.43	0.02
			0.00		1/2"	1.92	1.92	0.03	
			0.00		Ice	2.29	2.29	0.05	
					1" Ice	3.06	3.06	0.09	
					2" Ice				
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.00	0.0000	124.00	No Ice	4.09	2.86	0.08
			-6.00		1/2"	4.48	3.23	0.13	
			0.00		Ice	4.88	3.61	0.19	
					1" Ice	5.71	4.40	0.33	
					2" Ice				
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.00	0.0000	124.00	No Ice	4.09	2.86	0.08
			0.00		1/2"	4.48	3.23	0.13	
			0.00		Ice	4.88	3.61	0.19	
					1" Ice	5.71	4.40	0.33	
					2" Ice				
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.00	0.0000	124.00	No Ice	4.09	2.86	0.08
			-6.00		1/2"	4.48	3.23	0.13	
			0.00		Ice	4.88	3.61	0.19	
					1" Ice	5.71	4.40	0.33	
					2" Ice				
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.00	0.0000	124.00	No Ice	4.60	4.01	0.10
			6.00		1/2"	5.05	4.45	0.16	
			0.00		Ice	5.50	4.89	0.23	
					1" Ice	6.44	5.82	0.42	
					2" Ice				

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	$C_A A_A$ Front	$C_A A_A$ Side	Weight K
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.60 5.05 5.50 6.44 5.82	4.01 4.45 4.89 5.82 0.10 0.16 0.23 0.42
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.60 5.05 5.50 6.44 5.82	4.01 4.45 4.89 5.82 0.10 0.16 0.23 0.42
TD-RRH8x20-25	A	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.05 4.30 4.56 5.10 2.30	1.53 1.71 1.90 2.30 0.07 0.10 0.13 0.20
TD-RRH8x20-25	B	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.05 4.30 4.56 5.10 2.30	1.53 1.71 1.90 2.30 0.07 0.10 0.13 0.20
TD-RRH8x20-25	C	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.05 4.30 4.56 5.10 2.30	1.53 1.71 1.90 2.30 0.07 0.10 0.13 0.20
800MHZ RRH	A	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92 2.51	1.77 1.95 2.13 2.51 0.05 0.07 0.10 0.16
800MHZ RRH	B	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92 2.51	1.77 1.95 2.13 2.51 0.05 0.07 0.10 0.16
800MHZ RRH	C	From Leg	4.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.13 2.32 2.51 2.92 2.51	1.77 1.95 2.13 2.51 0.05 0.07 0.10 0.16

Platform Mount [LP 601-1]	B	None		0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	28.50 31.69 34.87 41.23 28.50 31.69 34.87 41.23	1.12 1.68 2.28 3.65
Transition Ladder	C	From Leg	2.00 0.00 -4.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.00 8.00 10.00 14.00 6.00 8.00 10.00 14.00	0.16 0.24 0.32 0.48
(2) 8'x2" Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40 1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 8'x2" Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40 1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 8'x2" Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40 1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _A A _{Front}	C _A A _{Side}	Weight K
(2) Side Arm Mount [SO 301-1]	C	From Leg	3.00 -6.00 0.00	0.0000	120.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	0.46 0.65 1.30 0.87 1.71 2.62 4.80 5.07 6.30 5.35 6.61 7.26	0.91 0.03 0.05 0.09 0.02 0.08 0.16 0.32
100-1	C	From Leg	4.00 -6.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.80 5.07 5.35 5.93	6.00 6.30 6.61 7.26

Side Arm Mount [SO 201-1]	A	From Leg	1.00 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.78 2.24 2.75 3.89	2.61 3.15 3.73 4.99
DS4C06F36D-D	A	From Leg	1.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.82 7.79 9.78 13.81	5.82 7.79 9.78 13.81

Side Arm Mount [SO 701-1]	C	From Leg	0.00 0.00 0.00	0.0000	63.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.85 1.14 1.43 2.01	1.67 2.34 3.01 4.35
GPS_A	C	From Leg	4.00 0.00 0.00	0.0000	63.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.26 0.32 0.39 0.56	0.00 0.00 0.01 0.02

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice

Comb. No.	Description
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	179.813 - 132.966	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.74	-2.84	6.85
			Max. Mx	8	-11.12	-635.61	-3.97
			Max. My	2	-10.80	5.52	665.43
			Max. Vy	20	-19.00	634.55	7.55
			Max. Vx	2	-20.04	5.52	665.43
L2	132.966 - 87.3645	Pole	Max. Torque	15			2.37
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.69	-0.32	4.85
			Max. Mx	20	-25.76	1813.90	15.47
			Max. My	2	-25.49	14.49	1899.54
			Max. Vy	20	-30.34	1813.90	15.47
L3	87.3645 - 42.7915	Pole	Max. Vx	2	-31.75	14.49	1899.54
			Max. Torque	15			3.78
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-78.79	2.09	7.45
			Max. Mx	20	-39.62	3202.14	24.82
			Max. My	2	-39.48	23.79	3353.28
L4	42.7915 - 0	Pole	Max. Vy	20	-33.45	3202.14	24.82
			Max. Vx	2	-35.04	23.79	3353.28
			Max. Torque	19			2.13
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-104.02	4.31	10.24
			Max. Mx	20	-59.90	4907.81	35.45

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	38	104.02	3.61	6.27
	Max. H _x	20	59.93	36.04	0.19
	Max. H _z	2	59.93	0.19	37.57
	Max. M _x	2	5136.17	0.19	37.57
	Max. M _z	8	4905.04	-36.04	-0.19
	Max. Torsion	19	2.11	31.16	-18.05
	Min. Vert	25	44.95	19.88	34.53
	Min. H _x	8	59.93	-36.04	-0.19
	Min. H _z	14	59.93	-0.19	-37.57
	Min. M _x	14	-5130.87	-0.19	-37.57
	Min. M _z	20	-4907.81	36.04	0.19
	Min. Torsion	7	-2.09	-31.16	18.05

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overspinning Moment, M _x kip-ft	Overspinning Moment, M _z kip-ft	Torque kip-ft
Dead Only	49.94	0.00	-0.00	-2.14	1.08	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	59.93	-0.19	-37.57	-5136.17	34.15	1.16
0.9 Dead+1.0 Wind 0 deg - No Ice	44.95	-0.19	-37.57	-5032.67	33.04	1.21
1.2 Dead+1.0 Wind 30 deg - No Ice	59.93	17.71	-31.16	-4260.35	-2405.43	1.87
0.9 Dead+1.0 Wind 30 deg - No Ice	44.95	17.71	-31.16	-4173.94	-2357.56	1.90
1.2 Dead+1.0 Wind 60 deg - No Ice	59.93	31.16	-18.05	-2463.30	-4236.96	2.09
0.9 Dead+1.0 Wind 60 deg - No Ice	44.95	31.16	-18.05	-2413.14	-4152.40	2.09
1.2 Dead+1.0 Wind 90 deg - No Ice	59.93	36.04	0.19	29.91	-4905.04	1.75
0.9 Dead+1.0 Wind 90 deg - No Ice	44.95	36.04	0.19	29.94	-4807.02	1.73
1.2 Dead+1.0 Wind 120 deg - No Ice	59.93	31.06	18.21	2493.04	-4232.72	0.93
0.9 Dead+1.0 Wind 120 deg - No Ice	44.95	31.06	18.21	2443.49	-4148.03	0.89
1.2 Dead+1.0 Wind 150 deg - No Ice	59.93	19.88	34.53	4761.89	-2735.97	0.18
0.9 Dead+1.0 Wind 150 deg - No Ice	44.95	19.88	34.53	4667.29	-2681.65	0.13
1.2 Dead+1.0 Wind 180 deg - No Ice	59.93	0.19	37.57	5130.87	-31.18	-1.20
0.9 Dead+1.0 Wind 180 deg - No Ice	44.95	0.19	37.57	5028.81	-30.84	-1.25
1.2 Dead+1.0 Wind 210 deg - No Ice	59.93	-17.71	31.16	4254.90	2408.45	-1.93
0.9 Dead+1.0 Wind 210 deg - No Ice	44.95	-17.71	31.16	4169.97	2359.78	-1.96
1.2 Dead+1.0 Wind 240 deg - No Ice	59.93	-31.16	18.05	2457.74	4239.88	-2.11
0.9 Dead+1.0 Wind 240 deg - No Ice	44.95	-31.16	18.05	2409.09	4154.56	-2.11

Load Combination	Vertical	Shear _x	Shear _z	Overswinging Moment, M _x kip-ft	Overswinging Moment, M _z kip-ft	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 270 deg - No Ice	59.93	-36.04	-0.19	-35.46	4907.81	-1.72
0.9 Dead+1.0 Wind 270 deg - No Ice	44.95	-36.04	-0.19	-33.98	4809.08	-1.70
1.2 Dead+1.0 Wind 300 deg - No Ice	59.93	-31.06	-18.21	-2498.45	4235.44	-0.88
0.9 Dead+1.0 Wind 300 deg - No Ice	44.95	-31.06	-18.21	-2447.42	4150.06	-0.84
1.2 Dead+1.0 Wind 330 deg - No Ice	59.93	-19.88	-34.53	-4767.15	2738.76	-0.16
0.9 Dead+1.0 Wind 330 deg - No Ice	44.95	-19.88	-34.53	-4671.12	2683.73	-0.10
1.2 Dead+1.0 Ice+1.0 Temp	104.02	0.00	-0.00	-10.24	4.31	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	104.02	-0.02	-7.01	-1052.93	8.57	0.21
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	104.02	3.46	-6.06	-911.20	-508.58	0.24
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	104.02	6.02	-3.48	-528.11	-888.28	0.21
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	104.02	6.96	0.02	-6.31	-1028.80	0.13
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	104.02	6.04	3.53	514.37	-892.46	0.00
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	104.02	3.61	6.27	929.72	-536.20	-0.08
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	104.02	0.02	7.01	1031.99	0.23	-0.21
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	104.02	-3.46	6.06	890.24	517.39	-0.24
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	104.02	-6.02	3.48	507.14	897.09	-0.21
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	104.02	-6.96	-0.02	-14.66	1037.58	-0.12
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	104.02	-6.04	-3.53	-535.33	901.24	-0.00
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	104.02	-3.61	-6.27	-950.66	544.98	0.08
Dead+Wind 0 deg - Service	49.94	-0.05	-9.63	-1307.97	9.44	0.34
Dead+Wind 30 deg - Service	49.94	4.54	-7.99	-1084.66	-610.78	0.52
Dead+Wind 60 deg - Service	49.94	7.99	-4.63	-627.78	-1076.38	0.56
Dead+Wind 90 deg - Service	49.94	9.24	0.05	6.04	-1246.18	0.45
Dead+Wind 120 deg - Service	49.94	7.96	4.67	632.26	-1075.35	0.22
Dead+Wind 150 deg - Service	49.94	5.10	8.85	1210.69	-695.75	0.02
Dead+Wind 180 deg - Service	49.94	0.05	9.63	1303.46	-7.17	-0.34
Dead+Wind 210 deg - Service	49.94	-4.54	7.99	1080.15	613.06	-0.52
Dead+Wind 240 deg - Service	49.94	-7.99	4.63	623.26	1078.64	-0.56
Dead+Wind 270 deg - Service	49.94	-9.24	-0.05	-10.57	1248.44	-0.45
Dead+Wind 300 deg - Service	49.94	-7.96	-4.67	-636.77	1077.61	-0.22
Dead+Wind 330 deg - Service	49.94	-5.10	-8.85	-1215.20	698.01	-0.02

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-49.94	0.00	0.00	49.94	0.00	0.000%
2	-0.19	-59.93	-37.57	0.19	59.93	37.57	0.000%
3	-0.19	-44.95	-37.57	0.19	44.95	37.57	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
4	17.71	-59.93	-31.16	-17.71	59.93	31.16	0.000%
5	17.71	-44.95	-31.16	-17.71	44.95	31.16	0.000%
6	31.16	-59.93	-18.05	-31.16	59.93	18.05	0.000%
7	31.16	-44.95	-18.05	-31.16	44.95	18.05	0.000%
8	36.04	-59.93	0.19	-36.04	59.93	-0.19	0.000%
9	36.04	-44.95	0.19	-36.04	44.95	-0.19	0.000%
10	31.06	-59.93	18.21	-31.06	59.93	-18.21	0.000%
11	31.06	-44.95	18.21	-31.06	44.95	-18.21	0.000%
12	19.88	-59.93	34.53	-19.88	59.93	-34.53	0.000%
13	19.88	-44.95	34.53	-19.88	44.95	-34.53	0.000%
14	0.19	-59.93	37.57	-0.19	59.93	-37.57	0.000%
15	0.19	-44.95	37.57	-0.19	44.95	-37.57	0.000%
16	-17.71	-59.93	31.16	17.71	59.93	-31.16	0.000%
17	-17.71	-44.95	31.16	17.71	44.95	-31.16	0.000%
18	-31.16	-59.93	18.05	31.16	59.93	-18.05	0.000%
19	-31.16	-44.95	18.05	31.16	44.95	-18.05	0.000%
20	-36.04	-59.93	-0.19	36.04	59.93	0.19	0.000%
21	-36.04	-44.95	-0.19	36.04	44.95	0.19	0.000%
22	-31.06	-59.93	-18.21	31.06	59.93	18.21	0.000%
23	-31.06	-44.95	-18.21	31.06	44.95	18.21	0.000%
24	-19.88	-59.93	-34.53	19.88	59.93	34.53	0.000%
25	-19.88	-44.95	-34.53	19.88	44.95	34.53	0.000%
26	0.00	-104.02	0.00	-0.00	104.02	0.00	0.000%
27	-0.02	-104.02	-7.01	0.02	104.02	7.01	0.000%
28	3.46	-104.02	-6.06	-3.46	104.02	6.06	0.000%
29	6.02	-104.02	-3.48	-6.02	104.02	3.48	0.000%
30	6.96	-104.02	0.02	-6.96	104.02	-0.02	0.000%
31	6.04	-104.02	3.53	-6.04	104.02	-3.53	0.000%
32	3.61	-104.02	6.27	-3.61	104.02	-6.27	0.000%
33	0.02	-104.02	7.01	-0.02	104.02	-7.01	0.000%
34	-3.46	-104.02	6.06	3.46	104.02	-6.06	0.000%
35	-6.02	-104.02	3.48	6.02	104.02	-3.48	0.000%
36	-6.96	-104.02	-0.02	6.96	104.02	0.02	0.000%
37	-6.04	-104.02	-3.53	6.04	104.02	3.53	0.000%
38	-3.61	-104.02	-6.27	3.61	104.02	-6.27	0.000%
39	-0.05	-49.94	-9.63	0.05	49.94	9.63	0.000%
40	4.54	-49.94	-7.99	-4.54	49.94	7.99	0.000%
41	7.99	-49.94	-4.63	-7.99	49.94	4.63	0.000%
42	9.24	-49.94	0.05	-9.24	49.94	-0.05	0.000%
43	7.96	-49.94	4.67	-7.96	49.94	-4.67	0.000%
44	5.10	-49.94	8.85	-5.10	49.94	-8.85	0.000%
45	0.05	-49.94	9.63	-0.05	49.94	-9.63	0.000%
46	-4.54	-49.94	7.99	4.54	49.94	-7.99	0.000%
47	-7.99	-49.94	4.63	7.99	49.94	-4.63	0.000%
48	-9.24	-49.94	-0.05	9.24	49.94	0.05	0.000%
49	-7.96	-49.94	-4.67	7.96	49.94	4.67	0.000%
50	-5.10	-49.94	-8.85	5.10	49.94	8.85	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00013608
3	Yes	5	0.00000001	0.00005628
4	Yes	7	0.00000001	0.00008798
5	Yes	6	0.00000001	0.00029829
6	Yes	7	0.00000001	0.00008357
7	Yes	6	0.00000001	0.00028139
8	Yes	5	0.00000001	0.00047838
9	Yes	5	0.00000001	0.00020518
10	Yes	7	0.00000001	0.00008560
11	Yes	6	0.00000001	0.00028839
12	Yes	7	0.00000001	0.00008648
13	Yes	6	0.00000001	0.00028644

14	Yes	5	0.00000001	0.00059266
15	Yes	5	0.00000001	0.00024861
16	Yes	7	0.00000001	0.00008355
17	Yes	6	0.00000001	0.00028120
18	Yes	7	0.00000001	0.00008810
19	Yes	6	0.00000001	0.00029791
20	Yes	5	0.00000001	0.00015172
21	Yes	5	0.00000001	0.00005663
22	Yes	7	0.00000001	0.00008536
23	Yes	6	0.00000001	0.00028781
24	Yes	7	0.00000001	0.00008496
25	Yes	6	0.00000001	0.00028028
26	Yes	4	0.00000001	0.00012236
27	Yes	6	0.00014070	0.00044119
28	Yes	6	0.00013981	0.00071819
29	Yes	6	0.00013979	0.00070810
30	Yes	6	0.00014076	0.00043029
31	Yes	6	0.00013960	0.00068755
32	Yes	6	0.00013903	0.00075412
33	Yes	6	0.00014017	0.00042715
34	Yes	6	0.00013910	0.00067303
35	Yes	6	0.00013912	0.00067755
36	Yes	6	0.00014013	0.00042806
37	Yes	6	0.00013923	0.00072048
38	Yes	6	0.00013916	0.00077106
39	Yes	4	0.00005148	0.00089564
40	Yes	5	0.00000001	0.00036941
41	Yes	5	0.00000001	0.00033909
42	Yes	4	0.000005172	0.00081762
43	Yes	5	0.00000001	0.00035897
44	Yes	5	0.00000001	0.00049089
45	Yes	4	0.00005148	0.00094165
46	Yes	5	0.00000001	0.00032880
47	Yes	5	0.00000001	0.00036481
48	Yes	4	0.00005171	0.00078610
49	Yes	5	0.00000001	0.00036241
50	Yes	5	0.00000001	0.00048459

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	179.813 - 132.966	64.843	50	3.7418	0.0159
L2	136.659 - 87.3645	34.597	50	2.7226	0.0044
L3	92.2629 - 42.7915	14.338	50	1.5980	0.0014
L4	48.8358 - 0	3.729	50	0.7184	0.0005

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.00	Platform Mount [10' LP 601-1]	50	64.843	3.7418	0.0159	14293
170.00	Platform Mount [LP 303-1_HR-1]	50	57.478	3.5167	0.0126	7282
160.00	Platform Mount [10' LP 601-1]	50	50.137	3.2851	0.0095	3605
134.00	T-Arm Mount [TA 702-3]	50	33.038	2.6556	0.0040	1698
131.00	3.5' Hor 2.5x2.5 Angle	50	31.339	2.5794	0.0036	1743
124.00	Platform Mount [LP 601-1]	50	27.613	2.3993	0.0028	1869
120.00	Platform Mount [LP 601-1]	50	25.628	2.2958	0.0025	1950
100.00	Side Arm Mount [SO 201-1]	50	17.092	1.7854	0.0016	2492

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
63.00	Side Arm Mount [SO 701-1]	50	6.281	0.9739	0.0007	2729

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	179.813 - 132.966	251.737	24	14.6064	0.0618
L2	136.659 - 87.3645	135.156	24	10.6696	0.0172
L3	92.2629 - 42.7915	56.198	24	6.2726	0.0052
L4	48.8358 - 0	14.634	24	2.8204	0.0017

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.00	Platform Mount [10' LP 601-1]	24	251.737	14.6064	0.0618	4119
170.00	Platform Mount [LP 303-1_HR-1]	24	223.397	13.7400	0.0489	2096
160.00	Platform Mount [10' LP 601-1]	24	195.136	12.8472	0.0376	1033
134.00	T-Arm Mount [TA 702-3]	24	129.116	10.4092	0.0156	474
131.00	3.5' Hor 2.5x2.5 Angle	24	122.527	10.1122	0.0140	484
124.00	Platform Mount [LP 601-1]	24	108.052	9.4102	0.0109	513
120.00	Platform Mount [LP 601-1]	24	100.322	9.0058	0.0098	532
100.00	Side Arm Mount [SO 201-1]	24	66.987	7.0076	0.0062	657
63.00	Side Arm Mount [SO 701-1]	24	24.634	3.8235	0.0026	702

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	ϕP _n K	Ratio P _u ϕP _n
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	46.85	0.00	0.0	19.406 5	-10.19	1135.28	0.009
L2	132.966 - 87.3645 (2)	TP35.1887x24.2069x0.37	49.29	0.00	0.0	40.138 1	-25.00	2348.08	0.011
L3	87.3645 - 42.7915 (3)	TP44.3577x33.3474x0.43	49.47	0.00	0.0	59.120 7	-39.24	3458.56	0.011
L4	42.7915 - 0 (4)	TP53x42.1375x0.5	48.84	0.00	0.0	68.212 3	-42.91	3990.42	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux}	ϕM_{nx}	$\frac{\text{Ratio}}{\phi M_{nx}}$	M_{uy}	ϕM_{ny}	$\frac{\text{Ratio}}{\phi M_{ny}}$
			kip-ft	kip-ft		kip-ft	kip-ft	
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	706.13	718.39	0.983	0.00	718.39	0.000
L2	132.966 - 87.3645 (2)	TP35.1887x24.2069x0.37	2042.11	2061.22	0.991	0.00	2061.22	0.000
L3	87.3645 - 42.7915 (3)	TP44.3577x33.3474x0.43	3599.86	3814.57	0.944	0.00	3814.57	0.000
L4	42.7915 - 0 (4)	TP53x42.1375x0.5	3827.81	4462.49	0.858	0.00	4462.49	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	$\text{Actual } V_u$	ϕV_n	$\frac{\text{Ratio}}{\phi V_n}$	$\text{Actual } T_u$	ϕT_n	$\frac{\text{Ratio}}{\phi T_n}$
			K	K		kip-ft	kip-ft	
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	22.01	340.58	0.065	2.07	729.47	0.003
L2	132.966 - 87.3645 (2)	TP35.1887x24.2069x0.37	34.12	704.42	0.048	0.01	2080.33	0.000
L3	87.3645 - 42.7915 (3)	TP44.3577x33.3474x0.43	37.43	1037.57	0.036	0.16	3868.57	0.000
L4	42.7915 - 0 (4)	TP53x42.1375x0.5	38.19	1211.08	0.032	0.16	4506.15	0.000

Pole Interaction Design Data

Section No.	Elevation ft	$\text{Ratio } P_u$	$\text{Ratio } M_{ux}$	$\text{Ratio } M_{uy}$	$\text{Ratio } V_u$	$\text{Ratio } T_u$	$\text{Comb. Stress Ratio}$	$\text{Allow. Stress Ratio}$	Criteria
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L1	179.813 - 132.966 (1)	0.009	0.983	0.000	0.065	0.003	0.996	1.050	4.8.2
L2	132.966 - 87.3645 (2)	0.011	0.991	0.000	0.048	0.000	1.004	1.050	4.8.2
L3	87.3645 - 42.7915 (3)	0.011	0.944	0.000	0.036	0.000	0.956	1.050	4.8.2
L4	42.7915 - 0 (4)	0.011	0.858	0.000	0.032	0.000	0.870	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P	ϕP_{allow}	% Capacity	Pass Fail
					K	K		
L1	179.813 - 132.966	Pole	TP25.5375x15x0.25	1	-10.19	1192.04	94.9	Pass
L2	132.966 - 87.3645	Pole	TP35.1887x24.2069x0.375	2	-25.00	2465.48	95.6	Pass
L3	87.3645 - 42.7915	Pole	TP44.3577x33.3474x0.4375	3	-39.24	3631.49	91.1	Pass
L4	42.7915 - 0	Pole	TP53x42.1375x0.5	4	-42.91	4189.94	82.8	Pass
							Pole (L2) Summary	Pass
							95.6	Pass
							RATING = 95.6	Pass

APPENDIX B

BASE LEVEL DRAWING

(OTHER CONSIDERED EQUIPMENT)
(2) 1-1/4" TO 160 FT LEVEL
(2) 1-5/8" TO 160 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION - IN CONDUIT)
(1) 3/8" TO 180 FT LEVEL
(2) 3/4" TO 180 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(1) 3/8" TO 180 FT LEVEL
(4) 7/8" TO 180 FT LEVEL
(15) 1-5/8" TO 180 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 7/8" TO 120 FT LEVEL
(2) 7/8" TO 100 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(2) 1/2" TO 134 FT LEVEL
(6) 1-5/8" TO 134 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(10) 1-5/8" TO 160 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(3) 1/4" TO 170 FT LEVEL
(3) 1-5/8" TO 170 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 10 FT LEVEL
(1) 1/2" TO 63 FT LEVEL
(4) 1-1/4" TO 124 FT LEVEL

**APPENDIX C
ADDITIONAL CALCULATIONS**

Monopole Base Plate Connection

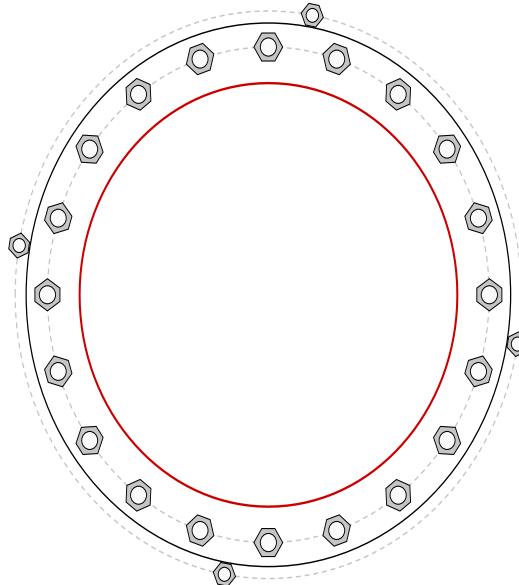


Site Info	
BU #	841293
Site Name	NT-BULLS BRIDGE RO
Order #	492772 Rev.0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	0.8215

Applied Loads	
Moment (kip-ft)	5497.87
Axial Force (kips)	59.89
Shear Force (kips)	39.91

*TIA-222-H Section 15.5 Applied



Connection Properties

Anchor Rod Data

GROUP 1: (20) 2-1/4" ϕ bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 62" BC
 GROUP 2: (4) 1-3/4" ϕ bolts (F1554-105 N; Fy=105 ksi, Fu=125 ksi) on 71" BC

Base Plate Data

68" OD x 2.25" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

53" x 0.5" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary

(units of kips, kip-in)		
GROUP 1:		
$P_u_c = 187.43$	$\phi P_n_c = 243.75$	Stress Rating
$V_u = 2$	$\phi V_n = 73.13$	73.3%
$M_u = n/a$	$\phi M_n = n/a$	Pass
GROUP 2:		
$P_u_c = 123.48$	$\phi P_n_c = 199.5$	Stress Rating
$V_u = 0$	$\phi V_n = 59.85$	58.9%
$M_u = 0$	$\phi M_n = 59.26$	Pass

Base Plate Summary

Max Stress (ksi):	46.85	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	82.6%	Pass

Anchor Rod Bracket Calculations:

Additional Anchor Rod Group:

$$N_{\text{new}} := 4$$

$$D_{\text{new}} := 1.75 \cdot \text{in}$$

$$F_{\text{u,rod}} := 125 \cdot \text{ksi}$$

$$BC_{\text{new}} := 71 \cdot \text{in}$$

$$A_{\text{net,new}} := 1.9 \cdot \text{in}^2$$

$$F_{\text{y,rod}} := 105 \cdot \text{ksi}$$

$$A_{n,\text{new}} := N_{\text{new}} \cdot A_{\text{net,new}} = 7.6 \cdot \text{in}^2$$



Anchor Rod Bracket Calculations

Analysis
 Design

Comment = "Analyze the anchor rod brackets to resist the controlling anchor rod demand force"

Anchor Rod Demand Force:

$$P_{\text{umax}} := 123.48 \cdot \text{kip}$$

Bracket Loading:

$$P_u := \begin{cases} \phi P_n & \text{if AorD = "Design"} \\ P_{\text{umax}} & \text{if AorD = "Analysis"} \end{cases} = 123.48 \cdot \text{kip}$$

Tube Design (Square HSS)

Member Size:

4" XX-STRONG PIPE

Apply TIA-222-H Section 15.5?

No
 Yes

Member Properties
(AISC 15th Ed., Table 1-12):

Outside Diameter:

$$OD_{\text{HSS}} := 4.5 \cdot \text{in}$$

Area:

$$A_{\text{HSS}} := 7.66 \cdot \text{in}^2$$

$$A_{e,\text{HSS}} := 0.75 \cdot A_{\text{HSS}} = 5.75 \cdot \text{in}^2$$

Thickness:

$$t_{\text{HSS}} := 0.628 \cdot \text{in}$$

Yield Strength:

$$F_y_{\text{HSS}} := 42 \cdot \text{ksi}$$

$$F_{\text{u,HSS}} := 58 \cdot \text{ksi}$$

Length:

$$L_{\text{HSS}} := 22 \cdot \text{in}$$

Moment of Inertia:

$$I_{\text{HSS}} := 14.7 \cdot \text{in}^4$$

Radius of Gyration:

$$r_{\text{HSS}} := 1.39 \cdot \text{in}$$

Inside Dimension:

$$ID_{\text{HSS}} := OD_{\text{HSS}} - 2 \cdot t_{\text{HSS}} = 3.24 \cdot \text{in}$$

Bearing Check

(AISC 15th Ed., Equation J7-1):

$$\phi_b := 0.75$$

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WO: 1784342
Existing AR Brackets

Done By: TYM
Checked By: CWT
Date: 9/9/2019



$$P_{u_c} = \phi_b \cdot R_n = \phi_b \cdot 1.8 \cdot F_{y_HSS} \cdot A_{pb}$$

$$A_{pb} := \frac{P_u}{\phi_b \cdot 1.8 \cdot F_{y_HSS}} = 2.18 \cdot \text{in}^2$$

$$\text{Check}_{\text{bear}} := \begin{cases} \text{"OK"} & \text{if } A_{HSS} \geq A_{pb} \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

$$\boxed{\text{Check}_{\text{bear}} = \text{"OK"}}$$

Compression Check
(AISC 15th Ed., Eqs. E3-1 to E3-4):

$$\phi_c := 0.9$$

$$K := 1$$

$$\phi P_{u_comp} = \phi_c \cdot F_{cr} \cdot A_g$$

$$L_c := K \cdot L_{HSS} = 22 \cdot \text{in}$$

$$F_e := \frac{\pi^2 \cdot 29000 \text{ksi}}{\left(\frac{L_c}{r_{HSS}} \right)^2} = 1142.57 \cdot \text{ksi}$$

$$\frac{L_c}{r_{HSS}} = 15.83 < 4.71 \cdot \sqrt{\frac{29000 \cdot \text{ksi}}{F_{y_HSS}}} = 123.76$$

$$\frac{F_y_{HSS}}{F_e} \cdot F_{cr} := 0.658 \cdot F_{y\text{-HSS}} = 41.36 \cdot \text{ksi}$$

(AISC 15th Ed., Equation J4-6):

$$\phi P_{u_comp} := \begin{cases} \phi_c \cdot F_{y\text{-HSS}} \cdot A_{HSS} & \text{if } \frac{L_c}{r_{HSS}} \leq 25 \\ \phi_c \cdot F_{cr} \cdot A_{HSS} & \text{otherwise} \end{cases}$$

$$\phi P_{u_comp} = 289.55 \cdot \text{kip}$$

$$\text{Check}_{comp} := \begin{cases} \text{"OK"} & \text{if Rating}_{comp} < 100\% \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

Check_{comp} = "OK"

Gusset Plate Design

Gusset Plate width:

$$w_{plate} := 6.75 \cdot \text{in}$$

Gusset Plate thickness:

$$t_{plate} := 1.5 \text{ in}$$

$$L_{plate1} := 22 \text{ in}$$

$$L_{plate2} := 22 \text{ in}$$

Gusset Plate Strength:

$$F_{y\text{plate}} := 50 \text{ ksi}$$

$$F_{u\text{plate}} := 65 \text{ ksi}$$

Pole thickness:

$$t_{pole} := 0.5 \text{ in}$$

Shear Check

(AISC 15th Ed., Eqs. J4-3 and J4-4):

$$A_g := t_{plate} \cdot L_{plate2} = 33 \cdot \text{in}^2$$

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WO: 1784342
Existing AR Brackets

Done By: TYM
Checked By: CWT
Date: 9/9/2019



$$A_{nv} := A_g = 33 \cdot \text{in}^2$$

Shear Yielding

$$\phi_v := 1$$

$$\phi V_{plate} := \phi_v \cdot 0.6 \cdot A_g \cdot F_y \text{ plate} = 990 \cdot \text{kip}$$

$$\text{Check}_{\text{shear}} := \begin{cases} \text{"OK"} & \text{if Rating}_{\text{shear}} < 100\% \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

Check_{shear} = "OK"

Shear Rupture

$$\phi_w := 0.75$$

$$\phi V_{plate} := \phi_v \cdot 0.6 \cdot A_{nv} \cdot F_u \text{ plate} = 965.25 \cdot \text{kip}$$

$$\text{Check}_{\text{shear}} := \begin{cases} \text{"OK"} & \text{if Rating}_{\text{shear}} < 100\% \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

Check_{shear} = "OK"

Gusset Plate to Tower and Base Plate Weld Design (Horizontal and Vertical)

Weld:
(AISC 15th Ed., Part 8)

Gusset plate thickness:

$$t_{plate} = 1.5 \cdot \text{in}$$

Tower Grade:

$$Fy_{pole} := 65 \text{ ksi}$$

$$F_{u,pole} := 80 \text{ ksi}$$

Base Plate Grade:

$$Fy_{base} := 60 \text{ ksi}$$

$$F_{u,base} := 75 \text{ ksi}$$

Gusset Plate Grade:

$$Fy_{plate} = 50 \cdot \text{ksi}$$

$$F_{u,plate} = 65 \cdot \text{ksi}$$

Height of vertical weld from base plate:

$$H_{\text{v}} := L_{plate1} = 22 \cdot \text{in}$$

$$\text{Notch}_{\text{horiz}} := 0.5 \cdot \text{in}$$

$$\text{Notch}_{\text{vert}} := 0.5 \cdot \text{in}$$

$$\text{Gap} := 0 \cdot \text{in}$$

$$D_{vpole} := 5$$

$$\text{weldsize}_{pole} := \frac{D_{vpole}}{16} = \frac{5}{16}$$

Electrode Strength:

70ksi
80ksi



Case 1: Vertical Fillet Weld Controls

$$\phi_{wg} := .75$$

Fillet weld (gusset plate to pole) 2 weld groups, so multiply by 2

$$\text{effective throat } et_{vf} := 2 \frac{D_{vpole}}{16} \cdot \text{in} \cdot \frac{\sqrt{2}}{2} = 0.442 \cdot \text{in}$$

PJP weld (gusset plate to base plate)

$$\text{effective throat } et_{cjp} := 1.25 \cdot \text{in}$$

Length of Vertical Weld to pole

$$L_v := H - \text{Notch}_{\text{vert}} = 21.5 \cdot \text{in}$$

Area of Vertical Weld to pole

$$A_v := et_{vf} \cdot L_v = 9.5 \cdot \text{in}^2$$

Length of Horizontal Weld to BP

$$L_h := w_{plate} - \text{Notch}_{\text{horiz}} - \text{Gap} = 6.25 \cdot \text{in}$$

Area of Horizontal Weld

$$A_h := et_{cjp} \cdot L_h = 7.81 \cdot \text{in}^2$$

Group Centroid

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WO: 1784342
Existing AR Brackets

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Checked By: CWT
Date: 9/9/2019



Vertical Weld $x_V := 0$
 $y_V := \frac{L_V}{2} + \text{Notch}_{\text{vert}} = 11.25 \cdot \text{in}$

$$\begin{aligned}A_{\text{wv}} &:= A_V = 9.5 \cdot \text{in}^2 \\x_A_V &:= x_V \cdot A_V = 0 \cdot \text{in}^3 \\y_A_V &:= y_V \cdot A_V = 106.89 \cdot \text{in}^3\end{aligned}$$

Horizontal Weld $x_h := \frac{L_h}{2} + \text{Notch}_{\text{horiz}} = 3.63 \cdot \text{in}$
 $y_h := 0 \cdot \text{in}$
 $A_{\text{wh}} := A_h = 7.81 \cdot \text{in}^2$
 $x_A_h := x_h \cdot A_h = 28.32 \cdot \text{in}^3$
 $y_A_h := y_h \cdot A_h = 0$

Sum $A_{\text{sum}} := A_V + A_h = 17.31 \cdot \text{in}^2$
 $x_A_{\text{sum}} := x_A_V + x_A_h = 28.32 \cdot \text{in}^3$
 $y_A_{\text{sum}} := y_A_V + y_A_h = 106.89 \cdot \text{in}^3$

$$\begin{aligned}x_{\text{prime}} &:= \frac{x_A_{\text{sum}}}{A_{\text{sum}}} = 1.64 \cdot \text{in} \\y_{\text{prime}} &:= \frac{y_A_{\text{sum}}}{A_{\text{sum}}} = 6.17 \cdot \text{in}\end{aligned}$$

$$\begin{aligned}I_V &:= \frac{L_V^3 \cdot e t_{vf}}{12} + (L_V \cdot e t_{vf}) \cdot (y_V - y_{\text{prime}})^2 + A_h \cdot y_{\text{prime}}^2 = 908.63 \cdot \text{in}^4 \\I_h &:= \frac{L_h^3 \cdot e t_{cjp}}{12} + A_h \cdot (x_h - x_{\text{prime}})^2 + A_v \cdot x_{\text{prime}}^2 = 81.77 \cdot \text{in}^4 \\I_p &:= I_V + I_h = 990.4 \cdot \text{in}^4\end{aligned}$$

Total Area of Weld $A_{\text{wtotal}} := A_{\text{sum}} = 17.31 \cdot \text{in}^2$

Total I_p $I_{p\text{total}} := I_p = 990.4 \cdot \text{in}^4$

eccentricity $e := w_{\text{plate}} + \frac{\text{OD}_{\text{HSS}}}{2} - x_{\text{prime}} = 7.36 \cdot \text{in}$

Design Moment $M_d := P_u \cdot e = 909.35 \cdot \text{kip} \cdot \text{in}$

Check extreme fiber 1 $c_{x1} := -1 \cdot x_{\text{prime}} = -1.64 \cdot \text{in}$

$$c_{y1} := H - y_{\text{prime}} = 15.83 \cdot \text{in}$$

$$rpx_1 := 0 \cdot \text{ksi}$$

$$rpy_1 := \frac{P_u}{A_w \text{total}} = 7.132 \cdot \text{ksi}$$

$$rmx_1 := M_d \cdot \frac{c_{y1}}{I_{p\text{total}}} = 14.531 \cdot \text{ksi}$$

$$rmy_1 := M_d \cdot \frac{c_{x1}}{I_{p\text{total}}} = -1.502 \cdot \text{ksi}$$

$$ra_1 := \sqrt{(rpx_1 + rmx_1)^2 + (rpy_1 + rmy_1)^2} = 15.58 \cdot \text{ksi}$$

$$R_{\text{nweld}} := \phi_{wg} \cdot 0.6 F_{EXX} = 31.5 \cdot \text{ksi}$$

$$\text{Cap}_1 := \frac{ra_1}{R_{\text{nweld}}} = 49.47\%$$

Check extreme fiber 2 $c_{x2} := w_{\text{plate}} - \text{Gap} - x_{\text{prime}} = 5.11 \cdot \text{in}$

$$c_{y2} := -1 \cdot y_{\text{prime}} = -6.17 \cdot \text{in}$$

$$rpx_2 := 0 \cdot \text{ksi}$$

$$rpy_2 := \frac{P_u}{A_w \text{total}} = 7.132 \cdot \text{ksi}$$

$$rmx_2 := M_d \cdot \frac{c_{y2}}{I_{p\text{total}}} = -5.669 \cdot \text{ksi}$$

$$rmy_2 := M_d \cdot \frac{c_{x2}}{I_{p\text{total}}} = 4.696 \cdot \text{ksi}$$

$$ra_2 := \sqrt{(rpx_2 + rmx_2)^2 + (rpy_2 + rmy_2)^2} = 13.12 \cdot \text{ksi}$$

$$Fu := \min(Fu_{\text{plate}}, Fu_{\text{base}}) = 65 \cdot \text{ksi}$$

$$R_{n\text{plate}} := \phi_{wg} \cdot 0.6 \cdot Fu = 29.25 \cdot \text{ksi}$$

$$Cap_2 := \frac{ra_2}{R_{n\text{plate}}} = 44.84\%$$

Case 2: Vertical Fillet Base Material Controls

$$\phi_{wg} := .75$$

Fillet weld (gusset plate to pole) 2 weld groups, so multiply by 2

$$\text{effective throat } et_{v\text{wf}} := 2 \frac{D_{vpole}}{16} \cdot \text{in} = 0.625 \cdot \text{in}$$

PJP weld (gusset plate to base plate)

$$\text{effective throat } et_{cjp} := 1.25 \cdot \text{in}$$

$$\text{Length of Vertical Weld to pole} \quad L_v := H - \text{Notch}_{\text{vert}} = 21.5 \cdot \text{in}$$

$$\text{Area of Vertical Weld to pole} \quad A_v := et_{vf} \cdot L_v = 13.44 \cdot \text{in}^2$$

$$\text{Length of Horizontal Weld to BP} \quad L_h := w_{\text{plate}} - \text{Notch}_{\text{horiz}} - \text{Gap} = 6.25 \cdot \text{in}$$

$$\text{Area of Horizontal Weld} \quad A_h := et_{cjp} \cdot L_h = 7.81 \cdot \text{in}^2$$

Group Centroid

$$\text{Vertical Weld} \quad x_v := 0$$

$$y_v := \frac{L_v}{2} + \text{Notch}_{\text{vert}} = 11.25 \cdot \text{in}$$

$$A_v := A_v = 13.44 \cdot \text{in}^2$$

$$xA_v := x_v \cdot A_v = 0 \cdot \text{in}^3$$

$$yA_v := y_v \cdot A_v = 151.17 \cdot \text{in}^3$$

Horizontal Weld $x_{hv} := \frac{L_h}{2} + \text{Notch}_{\text{horiz}} = 3.63 \cdot \text{in}$

$x_{hv} := 0 \cdot \text{in}$

$A_{hv} := A_h = 7.81 \cdot \text{in}^2$

$xA_{hv} := x_h \cdot A_h = 28.32 \cdot \text{in}^3$

$yA_{hv} := y_h \cdot A_h = 0$

Sum $A_{\text{sum}} := A_v + A_h = 21.25 \cdot \text{in}^2$

$xA_{\text{sum}} := xA_v + xA_h = 28.32 \cdot \text{in}^3$

$yA_{\text{sum}} := yA_v + yA_h = 151.17 \cdot \text{in}^3$

$x_{\text{prime}} := \frac{xA_{\text{sum}}}{A_{\text{sum}}} = 1.33 \cdot \text{in}$

$y_{\text{prime}} := \frac{yA_{\text{sum}}}{A_{\text{sum}}} = 7.11 \cdot \text{in}$

$I_{hv} := \frac{L_v^3 \cdot et_{vf}}{12} + (L_v \cdot et_{vf}) \cdot (y_v - y_{\text{prime}})^2 + A_h \cdot y_{\text{prime}}^2 = 1142.88 \cdot \text{in}^4$

$I_h := \frac{L_h^3 \cdot et_{cjp}}{12} + A_h \cdot (x_h - x_{\text{prime}})^2 + A_v \cdot x_{\text{prime}}^2 = 90.35 \cdot \text{in}^4$

$I_p := I_v + I_h = 1233.22 \cdot \text{in}^4$

Total Area of Weld $A_{w\text{total}} := A_{\text{sum}} = 21.25 \cdot \text{in}^2$

Total I_p $I_{p\text{total}} := I_p = 1233.22 \cdot \text{in}^4$

eccentricity $e := w_{\text{plate}} + \frac{\text{OD}_{\text{HSS}}}{2} - x_{\text{prime}} = 7.67 \cdot \text{in}$

Design Moment $M_d := P_u \cdot e = 946.76 \cdot \text{kip} \cdot \text{in}$

Check extreme fiber 1 $c_{\text{ext}} := -1 \cdot x_{\text{prime}} = -1.33 \cdot \text{in}$

$$c_{y1} := H - y_{\text{prime}} = 14.89 \cdot \text{in}$$

$$rpx_1 := 0 \cdot \text{ksi}$$

$$rpy_1 := \frac{P_u}{A_w \cdot \text{total}} = 5.811 \cdot \text{ksi}$$

$$rmx_1 := M_d \cdot \frac{c_{y1}}{I_p \cdot \text{total}} = 11.428 \cdot \text{ksi}$$

$$rmy_1 := M_d \cdot \frac{c_{x1}}{I_p \cdot \text{total}} = -1.023 \cdot \text{ksi}$$

$$ra_1 := \sqrt{(rpx_1 + rmx_1)^2 + (rpy_1 + rmy_1)^2} = 12.39 \cdot \text{ksi}$$

$$R_{nweld} := \phi_{wg} \cdot 0.6 \cdot F_u \cdot \text{pole} = 36 \cdot \text{ksi}$$

$$\text{Cap}_3 := \frac{ra_1}{R_{nweld}} = 34.42 \cdot \%$$

Check extreme fiber 2

$$c_{x2} := w_{\text{plate}} - \text{Gap} - x_{\text{prime}} = 5.42 \cdot \text{in}$$

$$c_{y2} := -1 \cdot y_{\text{prime}} = -7.11 \cdot \text{in}$$

$$rpx_2 := 0 \cdot \text{ksi}$$

$$rpy_2 := \frac{P_u}{A_w \cdot \text{total}} = 5.811 \cdot \text{ksi}$$

$$rmx_2 := M_d \cdot \frac{c_{y2}}{I_p \cdot \text{total}} = -5.461 \cdot \text{ksi}$$

$$rmy_2 := M_d \cdot \frac{c_{x2}}{I_p \cdot \text{total}} = 4.159 \cdot \text{ksi}$$

$$ra_2 := \sqrt{(rpx_2 + rmx_2)^2 + (rpy_2 + rmy_2)^2} = 11.37 \cdot \text{ksi}$$

$$F_u := \min(F_{u\text{plate}}, F_{u\text{base}}) = 65 \cdot \text{ksi}$$

$$R_{nplate} := \phi_{wg} \cdot 0.6 \cdot F_u = 29.25 \cdot \text{ksi}$$

BU: 841293
WO: 1784342
Existing AR Brackets

Done By: TYM
Checked By: CWT
Date: 9/9/2019



$$\text{Cap}_4 := \frac{\text{ra}_2}{R_{nplate}} = 38.86\%$$

▲

Check := | "OK" if Rating < 100%
 | "INSUFFICIENT" otherwise
Check = "OK"

**Gusset Plate to HSS Weld Design
(AISC 15th Ed., Table 8-4)**

Interpolation per AISC SCM Table 8-4:

Electrode Strength:

BU: 841293
WO: 1784342
Existing AR Brackets

Done By: TYM
Checked By: CWT
Date: 9/9/2019



Fillet Weld Size (in sixteenths of an inch):

D := 5

Groove Weld:

Groove Depth:

GD := 0in

Assume the worst-case installation scenario where the rod is positioned directly against the far side of the HSS.

$$ecc_2 := OD_{HSS} - t_{HSS} - \frac{D_{new}}{2} = 3 \cdot \text{in}$$

Load not in plane with weld group:

k := 0

$$a := \frac{ecc_2}{L_{plate2}} = 0.14$$

C₁ = 1

Coeff₁ = 3.68

ϕ_w := 0.75

$$D_{min1} := \text{ceil}\left(\frac{P_u \cdot \text{in}}{\phi_w \cdot \text{Coeff}_1 \cdot C_1 \cdot L_{plate2} \cdot \text{kip}}\right) = 3$$

$$\text{minweldsize} := \frac{D_{min1}}{16} = \frac{3}{16}$$

$$\text{Check}_{weld} := \begin{cases} "OK" & \text{if } D_1 \geq D_{min1} \wedge D_1 \geq \text{Minweldsize} \\ "N/G" & \text{otherwise} \end{cases}$$

Check_{weld} = "OK"

$$\phi R_{n,weld1} := \phi_w \cdot \text{Coeff}_1 \cdot \text{ksi} \cdot \text{in} \cdot C_1 \cdot D_1 \cdot L_{plate2} = 303.91 \cdot \text{kip}$$

$$\text{Check}_{weld1} := \begin{cases} "OK" & \text{if } \text{Rating}_{weld1} < 100\% \\ "N/G" & \text{otherwise} \end{cases}$$

Check_{weld1} = "OK"

Gusset Plate to Pole Punching Shear Check

(max per unit length):
(AISC 15th Ed., Section J4.2)

What is the bracket welded to?

Reinforcement Thickness:

$$t_{ref} := 0 \text{ in}$$

Reinforcement Grade:

$$F_y_{ref} := 0 \text{ ksi}$$

$$F_u_{ref} := 0 \text{ ksi}$$

Assume the worst-case installation scenario where the rod is positioned directly against the far side of the HSS.

$$\phi_{sy} := 1.0$$

$$\phi_{sr} := 0.75$$

$$ecc_1 := w_{plate} + OD_{HSS} - t_{HSS} - \frac{D_{new}}{2} = 9.75 \text{ in}$$

$$M_1 := P_u \cdot ecc_1 = 1203.56 \cdot \text{kip} \cdot \text{in}$$

$$S_1 := \frac{t_{plate} \cdot L_{plate1}^2}{6} = 121 \cdot \text{in}^3$$

$$f_v := \frac{M_1}{S_1} \cdot t_{plate} \cdot 1 \text{ in} = 14.92 \cdot \text{kip}$$

AISC 15th Ed., Equation J4-3:

$$\phi F_{sy} := \phi_{sy} \cdot 0.6 \cdot F_y \cdot pole \cdot 2 \cdot t_{pole} \cdot 1 \text{ in}$$

$$\phi F_{sy_ref} := \phi_{sy} \cdot 0.6 \cdot F_{y_ref} \cdot 2 \cdot t_{ref} \cdot 1 \text{ in}$$

AISC 15th Ed., Equation J4-4:

$$\phi F_{sr} := \phi_{sr} \cdot 0.6 \cdot F_u \text{pole} \cdot 2 \cdot t_{\text{pole}} \cdot 1 \text{in}$$

$$\phi F_v := \min(\phi F_{sy}, \phi F_{sr}) = 36 \cdot \text{kip}$$

$$\text{Check}_{PS1} := \begin{cases} \text{"OK"} & \text{if Rating}_{PS1} < 100\% \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

Check_{PS1} = "OK"

Gusset Plate to HSS Punching Shear Check (max per unit length): (AISC 15th Ed., Section J4.2)

Assume the worst-case installation scenario where the rod is positioned directly against the far side of the HSS.

$$ecc_2 := OD_{HSS} - t_{HSS} - \frac{D_{new}}{2} = 3 \cdot \text{in}$$

$$M_2 := P_u \cdot ecc_2 = 370.07 \cdot \text{kip} \cdot \text{in}$$

$$S_2 := \frac{t_{plate} \cdot L_{plate2}^2}{6} = 121 \cdot \text{in}^3$$

$$f_w := \frac{M_2}{S_2} \cdot t_{plate} \cdot 1 \text{in} = 4.59 \cdot \text{kip}$$

AISC 15th Ed., Equation J4-3:

$$\phi F_{sy} := \phi_{sy} \cdot 0.6 \cdot F_y \text{HSS} \cdot 2 \cdot t_{HSS} \cdot 1 \text{in} = 31.65 \cdot \text{kip}$$

AISC 15th Ed., Equation J4-4:

$$\phi F_{sv} := \phi_{sr} \cdot 0.6 \cdot F_u \text{HSS} \cdot 2 \cdot t_{HSS} \cdot 1 \text{in} = 32.78 \cdot \text{kip}$$

$$\phi F_v := \min(\phi F_{sy}, \phi F_{sr}) = 31.65 \cdot \text{kip}$$

$$\text{Check}_{PS2} := \begin{cases} \text{"OK"} & \text{if Rating}_{PS2} < 100\% \\ \text{"N/G"} & \text{otherwise} \end{cases}$$

Check_{PS2} = "OK"

Embedment Depth Calculations

Projected Embedment Depth:

L_{em} := 6 ft

Concrete Strength:

f_c := 3000 psi

Are anchor rods installed in piers?:



Yield Strength of Rebar:	$f_y := 60\text{ksi}$
Transverse Reinforcement Index:	$k_{tr} := 0$
Epoxy Factor:	$\psi_e := 1$
Rebar Size Factor:	$\psi_s := 1$
Casting Position Factor:	$\psi_t := 1$
Concrete Weight Factor:	$\lambda := 1 \cdot \sqrt{\text{psi}}$
Pier Diameter:	$D_{pier} := 7.5\text{ft}$
Cover:	$c_c := 5.75\text{in}$
Rebar Size:	$d_s := 10$
Tie Size:	$\text{Tie} := 5$
Number of Vertical Rebar:	$n := 42$

$$d_b := \left| \text{vlookup}(d_s, d_{btable}, 2) \right| \cdot \text{in} = 1.27 \cdot \text{in}$$

The embedment depth shall be analyzed based on the design tension capacity of the anchor rods.

Design Load:

$$\phi P_{nt} := 0.75 \cdot F_{u,rod} \cdot A_{net_new} = 178.13 \cdot \text{kip}$$

Development Length (ACI 318-14 Chapter 25):

$$BC_{rebar} := D_{pier} - 2 \cdot c_c - \frac{\text{Tie} \cdot \text{in}}{4} - d_b = 75.98 \cdot \text{in}$$

$$S_{rebar} := \frac{\pi \cdot BC_{rebar}}{n} = 5.683 \cdot \text{in}$$

$$c_b := \min \left(c_c + \frac{\text{Tie}}{8} \cdot \text{in} + \frac{d_b}{2}, S_{rebar} \cdot 0.5 \right) = 2.84 \cdot \text{in}$$

ACI 318-14, Equation 25.4.2.3a:

$$l_d := \left[\frac{3}{40} \cdot \frac{f_y}{\lambda \cdot \sqrt{f_c}} \cdot \frac{\psi_t \cdot \psi_e \cdot \psi_s}{\min \left[\left(\frac{c_b + k_{tr}}{d_b} \right), 2.5 \right]} \right] \cdot d_b = 46.63 \cdot \text{in}$$

Calculate Max Distance Between Rebar and New Anchor Rods:

$$A := \frac{1}{2} \cdot S_{rebar} = 2.842 \cdot \text{in}$$

$$B := \frac{BC_{rebar}}{2} - \frac{BC_{new}}{2} = 2.49 \cdot \text{in}$$

$$G := \sqrt{A^2 + B^2} = 3.778 \cdot \text{in}$$

$$l'_d := l_d + \frac{G}{1.5} + 3 \cdot \text{in} = 4.35 \cdot \text{ft}$$



Epoxy Development Length: Bond Strength:

Epoxy :=

$$S_b := \begin{cases} S_{bh} & \text{if Epoxy = 0} \\ S_{bA} & \text{if Epoxy = 1 \wedge (f_c = 4000\text{psi} \vee f_c > 4000\cdot\text{psi})} \\ 0.94S_{bA} & \text{if Epoxy = 1 \wedge (f_c = 3000\text{psi} \vee f_c < 3000\cdot\text{psi})} \\ E_{bond} & \text{if Epoxy = 1 \wedge f_c > 3000\text{psi} \wedge f_c < 4000\text{psi}} \end{cases} = 1130\text{psi}$$

$$\phi_{bond} := 0.65$$

$$L_{be} := \frac{\phi P_{nt}}{\pi \cdot D_{new} \cdot S_b \cdot \phi_{bond}} = 44.11 \cdot \text{in}$$

Required Embedment Length: Length of Breaker Tape: L_BT := 0.in

$$L_{min} := \begin{cases} \max(L_{be} + L_{BT}, l_d + 0.25 \cdot L_{be}) & \text{if Piers = "Yes"} \\ (L_{be} + L_{BT}) & \text{if Piers = "No"} \end{cases} = 5.26 \text{ ft}$$

$$\text{Check} := \begin{cases} "OK" & \text{if } L_{min} \leq L_{em} \\ "N/G" & \text{otherwise} \end{cases}$$

Check = "OK"

Anchor Rod Pullout Test: $\phi_p := 0.75$ Is this a CA DSA site?

$$\text{Pullout} := \begin{cases} \frac{\phi_p \cdot F_{u_{rod}} \cdot A_{net_new}}{1.6} & \text{if CA = 0} \\ (0.8 \cdot F_{y_{rod}} \cdot A_{net_new}) & \text{otherwise} \end{cases} = 111 \cdot \text{kip}$$





Drilled Pier Foundation

BU # :	841293
Site Name:	KENT-BULLS BRIDGE
Order Number:	492772 Rev.0

TIA-222 Revision:	H
Tower Type:	Monopole

Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	5498	
Axial Force (kips)	60	
Shear Force (kips)	40	

Material Properties	
Concrete Strength, f'c:	3 ksi
Rebar Strength, Fy:	60 ksi

Pier Design Data	
Depth	19 ft
Ext. Above Grade	1 ft
Pier Section 1	
From 1' above grade to 19' below grade	
Pier Diameter	7.5 ft
Rebar Quantity	42
Rebar Size	11
Clear Cover to Ties	5.75 in
Tie Size	5

Analysis Results		
Soil Lateral Capacity	Compression	Uplift
D _{v=0} (ft from TOC)	5.67	-
Soil Safety Factor	1.29	-
Max Moment (kip-ft)	5710.82	-
Rating*	98.0%	-
Soil Vertical Capacity	Compression	Uplift
Skin Friction (kips)	0.00	-
End Bearing (kips)	1062.06	-
Weight of Concrete (kips)	129.27	-
Total Capacity (kips)	1062.06	-
Axial (kips)	189.27	-
Rating*	17.0%	-
Reinforced Concrete Capacity	Compression	Uplift
Critical Depth (ft from TOC)	5.53	-
Critical Moment (kip-ft)	5710.34	-
Critical Moment Capacity	10188.55	-
Rating*	53.4%	-
Soil Interaction Rating*		98.0%
Structural Foundation Rating*		53.4%

*Rating per TIA-222-H Section 15.5

Check Limitation		
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>	
N/A	<input type="checkbox"/>	

Soil Profile	
Groundwater Depth	10 ft

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	130	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	3	3.75	0.75	135	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
3	3.75	10	6.25	135	150	0	40	0.000	0.000	0.00	0.00			Cohesionless
4	10	14	4	72.6	87.6	0	40	0.000	0.000	0.00	0.00			Cohesionless
5	14	18	4	82.6	87.6	0	42	0.000	0.000	0.00	0.00			Cohesionless
6	18	19	1	97.6	87.6	0	44	0.000	0.000	0.00	0.00	32.0534		Cohesionless

Exhibit E

Mount Analysis

September 3, 2019



Tower Engineering Professionals
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Raleigh, NC 27603
(919) 661-6351
Structures@tepgroup.net

Kevin Morrow
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6619

Subject: Mount Modification Analysis

Carrier Designation: AT&T Mobility Reconfiguration

Client Site Number: 10035067
Client Site Name: Kent-Bulls Bridge Road

Crown Castle Designation:

Crown Castle BU Number: 841293
Crown Castle Site Name: Kent-Bulls Bridge Road
Crown Castle JDE Job Number: 574642
Crown Castle Order Number: 492772 Rev. 0

Engineering Firm Designation:

TEP Project Number: 25665.295751

Site Data:

136 Bulls Bridge Road, South Kent, Litchfield County, CT 06785
Latitude 41° 40' 53.85", Longitude -73° 29' 11.80"

Structure Information:

Tower Height & Type: 179.7± ft Monopole
Mount Elevation: 180.0 ft
Mount Width & Type: 10.7 ft Low Profile Platform

Dear Kevin Morrow,

Tower Engineering Professionals is pleased to submit this “**Mount Modification Analysis**” to determine the structural integrity of AT&T Mobility’s antenna mounting system with proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis, we have determined the mount stress level to be:

Low Profile Platform Mount

Sufficient Capacity

The analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 115 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Lauren Gibson, E.I. / HBC

Respectfully submitted by:

Aaron T. Rucker, P.E.
Structural Division Manager



09/04/2019

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Mount Modification Design Drawings (MDD)

1) INTRODUCTION

The mount is an existing 10.7-ft Low Profile Platform mount, mapped by Tower Engineering Professionals.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	115 mph
Exposure Category:	C
Topographic Category at Base:	1.0
Topographic Category at Mount:	1.0
Ice Thickness:	1.00 in
Wind Speed with Ice:	40 mph
Seismic Design Category:	B
Seismic S_s:	0.189
Seismic S₁:	0.054
Live Loading Wind Speed:	30 mph
Live Loading at Mid/End-Points:	250 lb
Man Live Loading at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
180.0	182.0	185.0	3	Decibel	Low Profile Platform Mount
		185.0	2	CCI Antennas	
		185.0	4	CCI Antennas	
		185.0	3	Powerwave Technologies	
		185.0	3	Ericsson	
		185.0	3	Ericsson	
		185.0	3	Ericsson	
		185.0	6	Powerwave Technologies	
		185.0	2	Raycap	
		185.0	1	Raycap	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Mount Mapping	Tower Engineering Professionals	8500475	CCIsites
Previous Mount Analysis	Tower Engineering Professionals	25665.293878	TEP
Loading Application	AT&T Mobility	Order 492772 Rev. 0	CCIsites

3.1) Analysis Method

RISA-3D (Version 17.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A and Appendix C.

TEP Mount Analysis Tool, a tool internally developed by TEP using Microsoft Excel, was used to calculate member loading for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Tower Mount Analysis (Revision C)*. In addition, this analysis is in accordance with AT&T's *Mount Technical Directive – R14.1*.

3.2) Assumptions

- 1) The mount was built in accordance with the manufacturer's specifications.
- 2) The mount has been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1. All mount components have been assumed to be in sufficient condition to carry their full design capacity for this analysis. Refer to the issued mapping for any structural and/or maintenance issues found during our site visit if applicable.
- 4) All mount components are in sufficient condition to carry their full design capacity.
- 5) TEP did not analyze the collar mount connection to the pole and assumes it to have sufficient structural capacity to transfer the applied forces from the mount to the tower.
- 6) All material grades used for this analysis, unless verified by mount manufacturer design, were assumed per AISC Table 2-4, 15th Edition. See RISA-3D output for confirmation on grades used in this analysis.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Low Profile Platform Mount)

Notes	Component	Critical Member	Mount Centerline (ft)	% Capacity	Pass / Fail
1	Face Horizontals	SF2-H2	180.0	44.2	Pass
1	Handrails	HR-3	180.0	53.2	Pass
1	Support Horizontals	SA1	180.0	21.7	Pass
1	Mount Pipes	MP-7	180.0	43.6	Pass
2	Connection Bolts	-	180.0	26.3	Pass

Structure Rating (max from all components) =	53.2%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C - Analysis Output" for calculations supporting the % capacity listed.
- 2) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity listed.

Table 4 - Tieback Connection Data Table

Tower Connection Node No.	Existing/Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb) ³	Notes
-	-	-	-	-	-	-

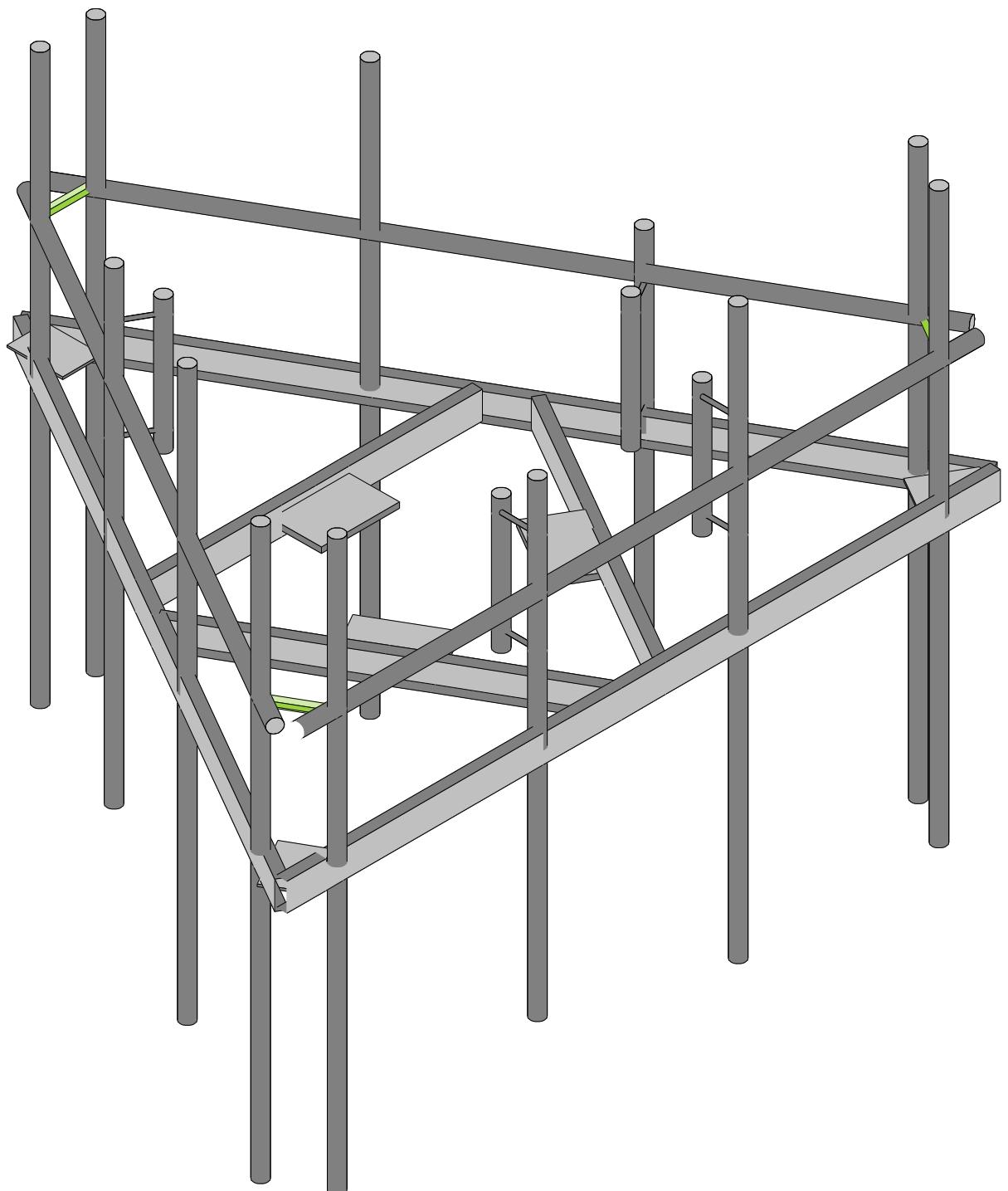
Notes:

- 1) Tieback connection point is within 25% of either end of the connected tower member.
- 2) Tower connection point is NOT within 25% of either end of the connected tower member.
- 3) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*.

4.1) Recommendations

- 1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
- 2) The modifications depicted in "Appendix E – Mount Modification Design Drawings" shall be installed and, upon completion, inspected. The mount has sufficient capacity to support the proposed loading configuration once the proposed modifications listed below are completed.
 - a) Handrail, SitePro Part No. HRK12

APPENDIX A
WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

Tower Engineering Profes...

LEG

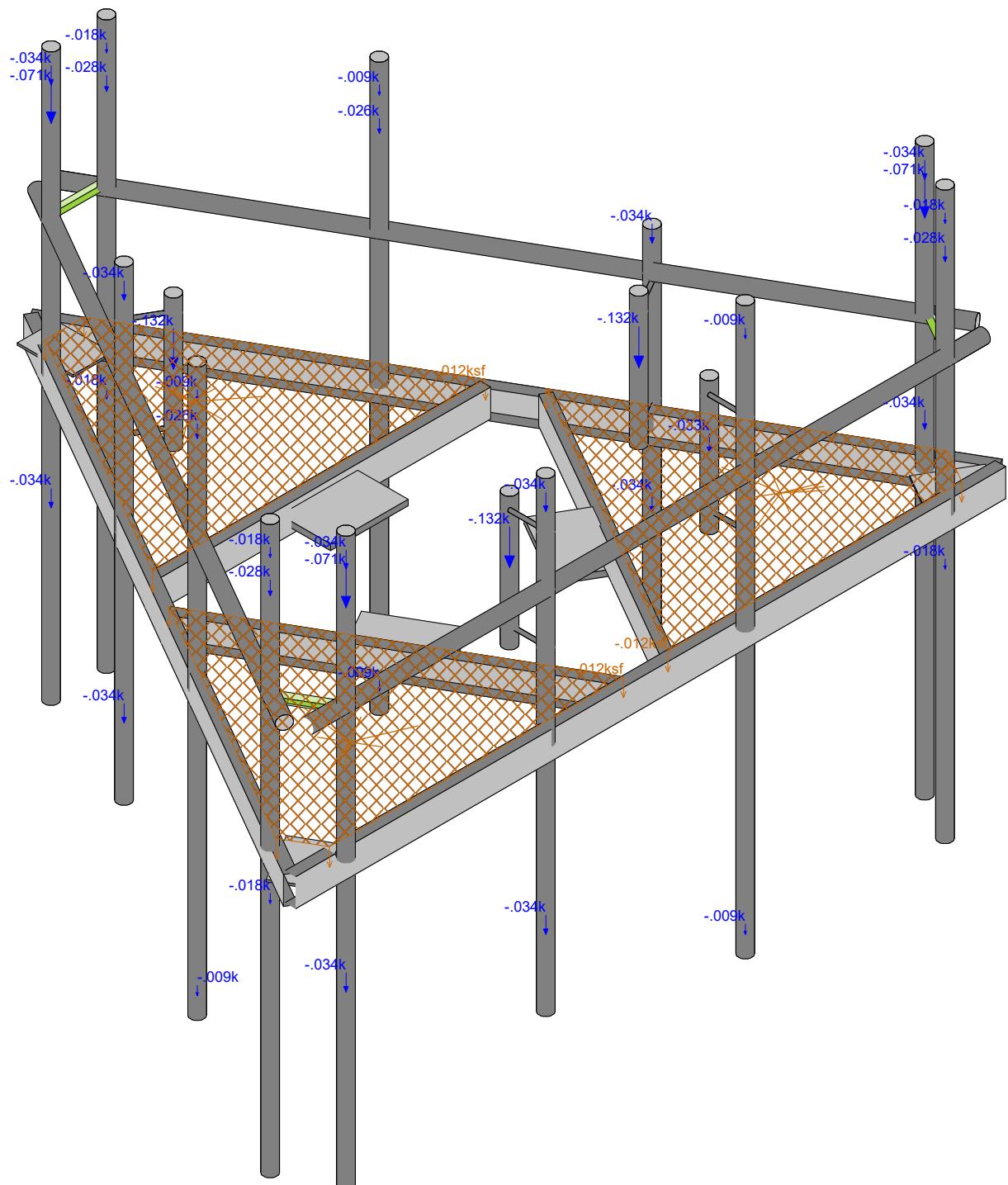
TEP No. 25665.295751

CCI BU No. 841293

SK - 1

Sept 3, 2019 at 3:46 PM

CCI BU No. 841293.r3d



Loads: BLC 1, Dead
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LEG

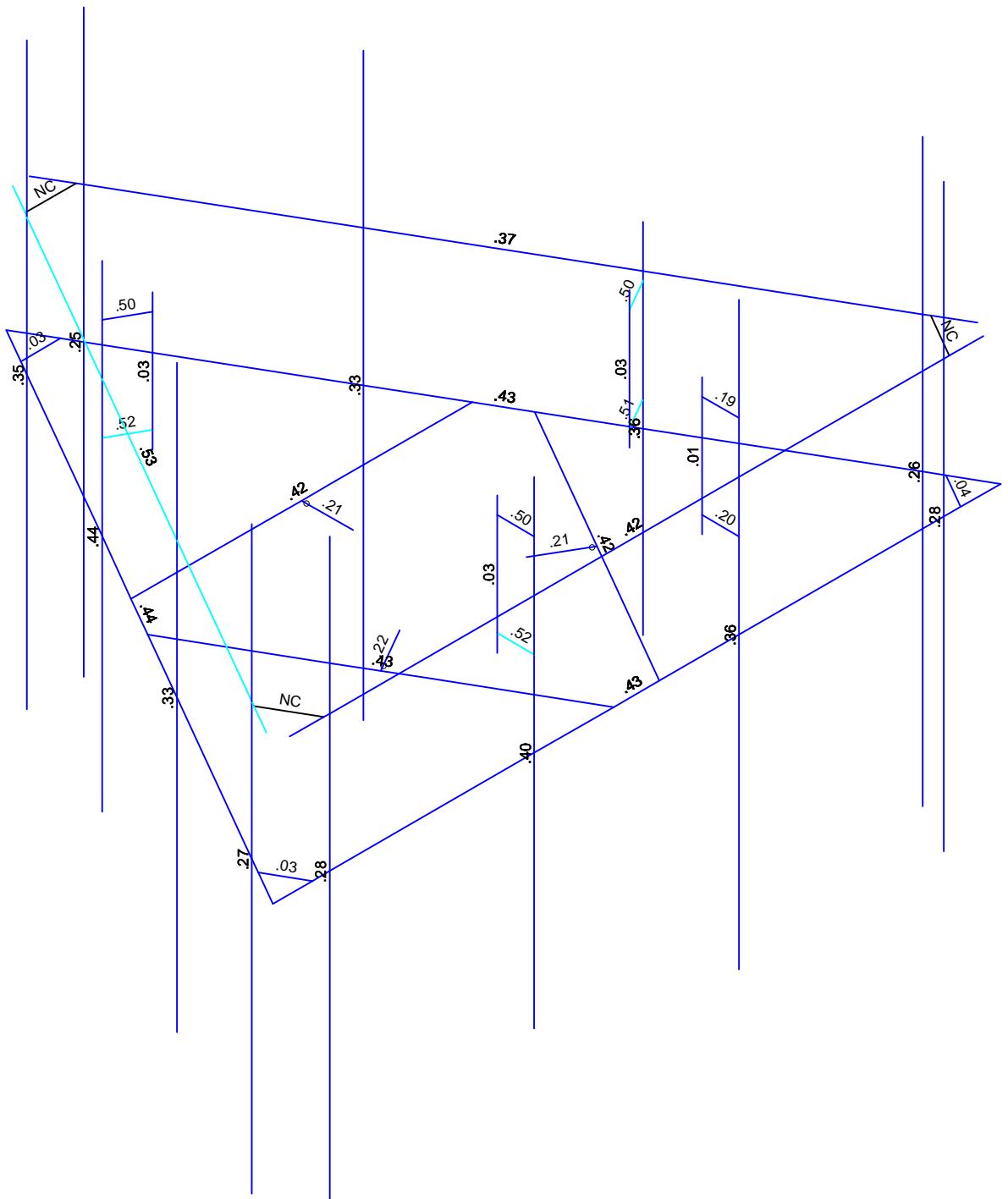
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Member Code Checks Displayed (Enveloped)
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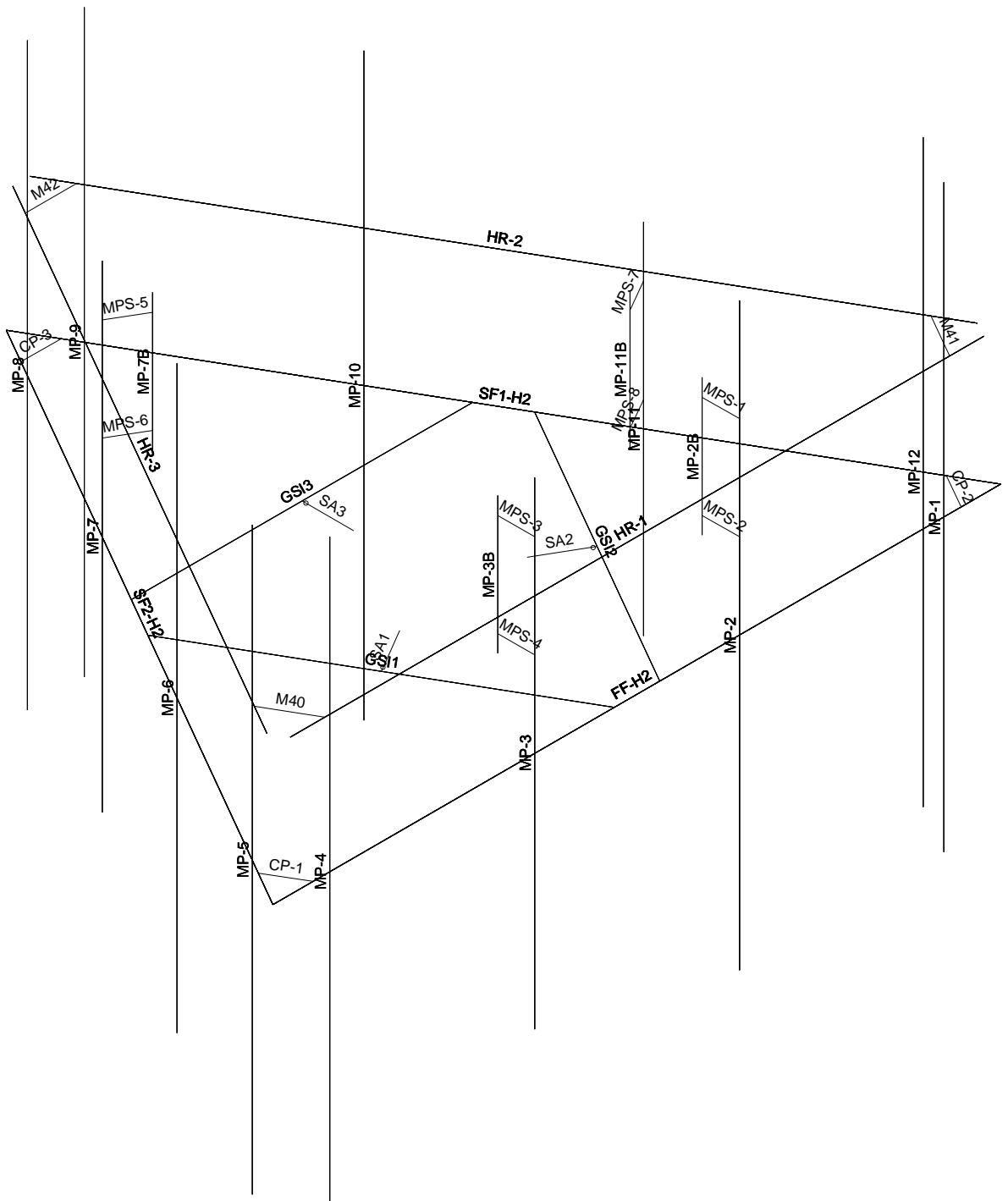
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CCI BU No. 841293

SK - 3

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CCI BU No. 841293.r3d



Envelope Only Solution

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LEG

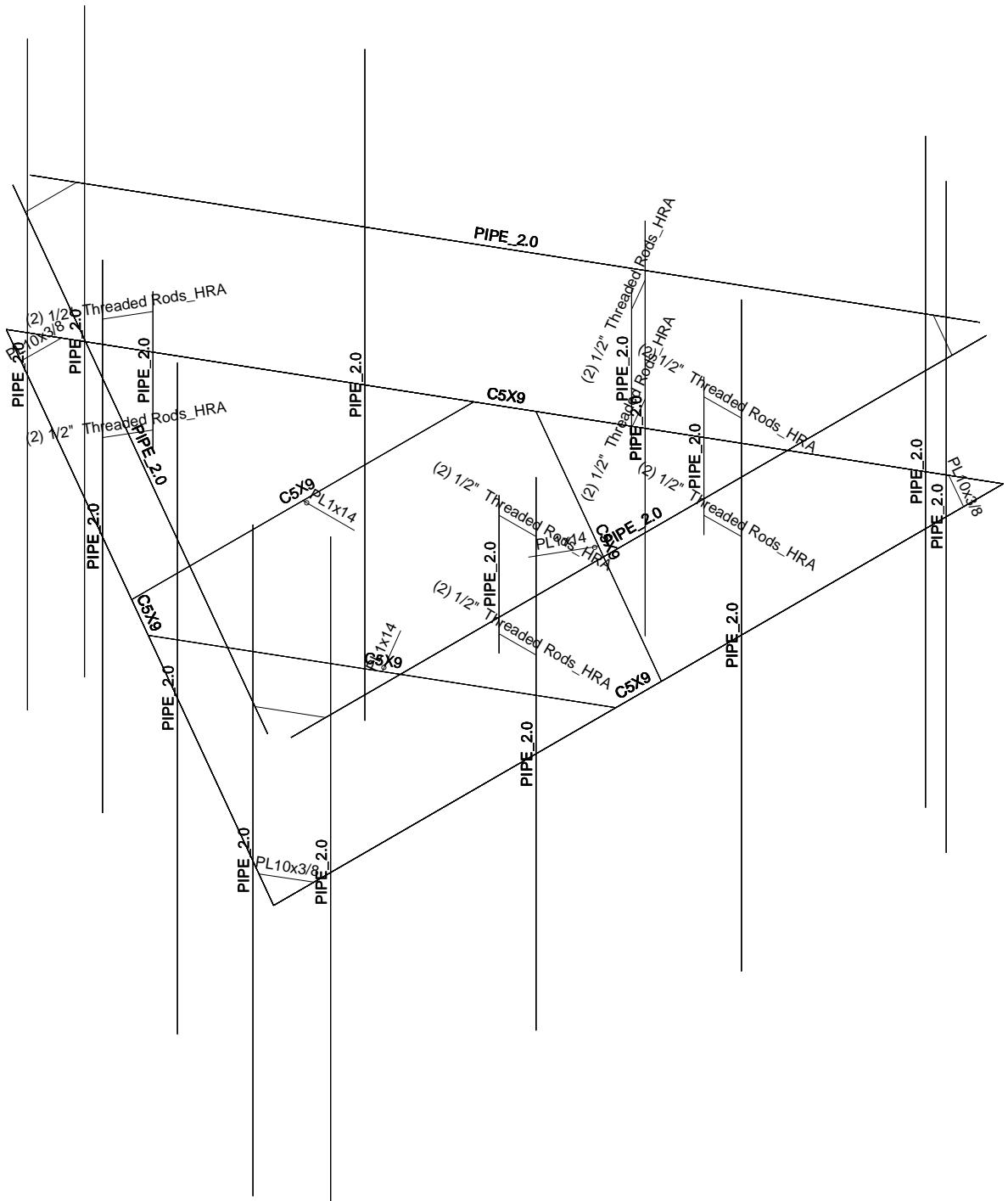
TEP No. 25665.295751

CCI BU No. 841293

SK - 4

Sept 3, 2019 at 3:47 PM

CCI BU No. 841293.r3d



Envelope Only Solution

Tower Engineering Profes...

LEG

TEP No. 25665.295751

CCI BU No. 841293

SK - 5

Sept 3, 2019 at 3:47 PM

CCI BU No. 841293.r3d

APPENDIX B
SOFTWARE INPUT CALCULATIONS



CCI BU No. 841293

TEP No. 25665.295751

Analysis By: LEG 9/3/2019

Checked By: HBC 9/3/2019

Code Revisions:	TIA-222-H	IBC 2018
Tower Type:	Monopole	

Wind Inputs:			Wind Calculations:								
Ult. Wind Velocity:	115.0	mph	K_{zt} :	1.000	Section 2.6.6						
Live Load Velocity:	30.0	mph	K_d :	0.950							
Ice Wind Velocity:	40.0	mph	$K_{z-Mount}$:	1.432	Section 2.6.5.2						
Base Ice Thickness:	1.00	inches	$K_{z-Antenna}$:	1.441	Section 2.6.5.2						
Mount Centerline:	180.0	ft	K_{iz} :	1.187	Section 2.6.10						
Antenna Centerline:	185.0	ft	Ice Thickness:	1.009	inches - Section 2.6.10						
Exposure Category:	C		$K_{es-wind}$:	0.95	Annex S (Table S-1)						
Topo Category:	1		K_{es-ice} :	0.85	Annex S (Table S-1)						
Risk Category:	II										
Ground Elevation:	780.6	ft	<table border="1"><thead><tr><th>Without Ice - (psf)</th><th>With Ice - (psf)</th></tr></thead><tbody><tr><td>$(q_z G_h)_{Mount}$:</td><td>42.55</td></tr><tr><td>$(q_z G_h)_{Antenna}$:</td><td>42.79</td></tr></tbody></table>			Without Ice - (psf)	With Ice - (psf)	$(q_z G_h)_{Mount}$:	42.55	$(q_z G_h)_{Antenna}$:	42.79
Without Ice - (psf)	With Ice - (psf)										
$(q_z G_h)_{Mount}$:	42.55										
$(q_z G_h)_{Antenna}$:	42.79										



CCI BU No. 841293

25665.295751

TEP No.

Analysis By:

LEG

9/3/2019

Checked By:

HBC

9/3/2019

Antenna Loads are Calculated in Accordance with TIA-222-H

Azimuth is the absolute angle measured clockwise from RISA-3D global X-axis.

MFR	Model	Height (in)	Width (in)	Depth (in)	Wt. (lbs)	Azimuth°	Qty	Shape	Member Label	Location #1 (ft,%)	Location #2 (ft,%)	Location #3 (ft,%)
Powerwave	7770.00	55.00	11.00	5.00	35.00	0.00	1	Flat	MP-1	0.50	5.00	
Powerwave	LGP21401	14.40	9.20	2.60	14.10	0.00	2	Flat	MP-1	1.00		
Decibel	ASP-952	132.00	2.75	2.75	17.00	0.00	1	Round	MP-2	0.50	8.25	
Raycap	DC6-48-60-18-8F	31.25	11.00	11.00	32.80	0.00	1	Round	MP-2B	1.00		
CCI Antennas	DMP65R-BU6D	71.20	20.70	7.70	67.90	0.00	1	Flat	MP-3	0.50	6.00	
Ericsson	RRUS 4478 B14	16.50	13.40	7.70	59.90	90.00	1	Flat	MP-3B	1.00		
Ericsson	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	90.00	1	Flat	MP-3B	1.00		
CCI Antennas	DMP65R-BU6D	71.20	20.70	7.70	67.90	0.00	1	Round	MP-4	0.50	6.00	
Ericsson	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	0.00	1	Flat	MP-4	1.00		
Powerwave	7770.00	55.00	11.00	5.00	35.00	120.00	1	Flat	MP-5	0.50	5.00	
Powerwave	LGP21401	14.40	9.20	2.60	14.10	120.00	2	Flat	MP-5	1.00		
Decibel	ASP-952	132.00	2.75	2.75	17.00	120.00	1	Round	MP-6	0.50	8.25	
Raycap	DC6-48-60-0-8C-EV	31.40	10.24	18.28	26.20	120.00	1	Flat	MP-6	1.00		
CCI Antennas	DMP65R-BU6D	71.20	20.70	7.70	67.90	120.00	1	Flat	MP-7	0.50	6.00	
Ericsson	RRUS 4478 B14	16.50	13.40	7.70	59.90	210.00	1	Flat	MP-7B	1.00		
Ericsson	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	210.00	1	Flat	MP-7B	1.00		
CCI Antennas	DMP65R-BU6D	71.20	20.70	7.70	67.90	120.00	1	Flat	MP-8	0.50	6.00	
Ericsson	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	120.00	1	Flat	MP-8	1.00		
Powerwave	7770.00	55.00	11.00	5.00	35.00	240.00	1	Flat	MP-9	0.50	5.00	
Powerwave	LGP21401	14.40	9.20	2.60	14.10	240.00	2	Flat	MP-9	1.00		
Decibel	ASP-952	132.00	2.75	2.75	17.00	240.00	1	Round	MP-10	0.50	8.25	
Raycap	DC6-48-60-0-8C-EV	31.40	10.24	18.28	26.20	240.00	1	Flat	MP-10	1.00		
CCI Antennas	DMP65R-BU4D	48.00	20.70	7.70	67.90	240.00	1	Flat	MP-11	0.25	3.75	
Ericsson	RRUS 4478 B14	16.50	13.40	7.70	59.90	330.00	1	Flat	MP-11B	1.00		
Ericsson	RRUS 8843 B2/B66A	14.90	13.20	10.90	72.00	330.00	1	Flat	MP-11B	1.00		
CCI Antennas	DMP65R-BU4D	48.00	20.70	7.70	67.90	240.00	1	Flat	MP-12	0.50	3.75	
Ericsson	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	240.00	1	Flat	MP-12	1.00		



CCI BU No. 841293

TEP No.	25665.295751
Analysis By:	LEG
Checked By:	HBC

Member Forces are Calculated in Accordance with TIA-222-H

Member Name	Wind Proj. (in)	Length (in)	Shape	θ (°)	Perimeter (in)
SA1	1.000	9.07	Flat	-60.00	30.00
SA2	1.000	9.07	Flat	60.00	30.00
SA3	1.000	9.07	Flat	0.00	30.00
GSI1	5.000	60.00	Flat	30.00	16.91
GSI2	5.000	60.00	Flat	-30.00	16.91
GSI3	5.000	60.00	Flat	90.00	16.91
FF-H2	5.000	128.00	Flat	90.00	16.91
SF1-H2	5.000	128.00	Flat	30.00	16.91
SF2-H2	5.000	128.00	Flat	-30.00	16.91
CP-3	0.375	7.00	Flat	90.00	20.75
CP-1	0.375	7.00	Flat	30.00	20.75
CP-2	0.375	7.00	Flat	-30.00	20.75
MP-1	2.375	102.00	Round		7.46
MP-2	2.375	102.00	Round		7.46
MP-3	2.375	84.00	Round		7.46
MP-4	2.375	102.00	Round		7.46
MP-3B	2.375	24.00	Round		7.46
MP-2B	2.375	24.00	Round		7.46
MP-9	2.375	102.00	Round		7.46
MP-10	2.375	102.00	Round		7.46
MP-11	2.375	63.00	Round		7.46
MP-12	2.375	102.00	Round		7.46
MP-11B	2.375	24.00	Round		7.46
MP-5	2.375	102.00	Round		7.46
MP-6	2.375	102.00	Round		7.46
MP-7	2.375	84.00	Round		7.46
MP-8	2.375	102.00	Round		7.46
MP-7B	2.375	24.00	Round		7.46
HR-1	2.375	122.00	Round		7.46
HR-2	2.375	122.00	Round		7.46
HR-3	2.375	122.00	Round		7.46

APPENDIX C
SOFTWARE ANALYSIS OUTPUT

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver
Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	No
RISAConnection Code	AISC 13th(360-05): ASD
Cold Formed Steel Code	AISI S100-07: ASD
Wood Code	AF&PA NDS-05/08: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-08
Masonry Code	ACI 530-05: ASD
Aluminum Code	AA ADM1-05: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)
Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parmer Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-05
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Occupancy Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Hot Rolled Steel Properties

Label	E [ksi]	G [ksi]	Nu	Therm (\(1E\))	Density[k/ft...]	Yield[ksi]	Ry	Fu[ksi]	Rt
1 A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2 A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3 A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4 A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5 A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6 A53-B-35	29000	11154	.3	.65	.49	35	1.5	63	1.2

Hot Rolled Steel Section Sets

Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1 Face Horizontal	C5X9	Beam	Channel	A36 Gr.36	Typical	2.64	624	8.89	109
2 Connection Plate	PL1x14	Beam	None	A36 Gr.36	Typical	14	1.167	228.667	4.457
3 Mount Pipe	PIPE 2.0	Column	Pipe	A53-B-35	Typical	1.02	.627	.627	1.25
4 Corner Plate	PL10x3/8	Beam	None	A36 Gr.36	Typical	3.75	.044	31.25	.172
5 Threaded Rods	(2) 1/2" Threaded ...	Beam	None	A36 Gr.36	Typical	.284	.006	.006	.013
6 Handrail	PIPE 2.0	Beam	None	A53-B-35	Typical	1.02	.627	.627	1.25

Material Takeoff

Material	Size	Pieces	Length[ft]	Weight[K]
1 General		3	2.3	0
2 RIGID		3	2.3	0
3 Total General				
4				
5 Hot Rolled Steel				
6 A36 Gr.36	(2) 1/2" Threaded Rods_HRA	8	4.3	0
7 A36 Gr.36	C5X9	6	47	.4
8 A36 Gr.36	PL10x3/8	3	1.8	0
9 A36 Gr.36	PL1x14	3	2.3	.1
10 A53-B-35	PIPE 2.0	19	134.3	.5
11 Total HR Steel		39	189.6	1

Joint Boundary Conditions

Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1 SA1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2 SA2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3 SA3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

Label	I Joint	J Joint	K Joint	Rotate(de...)	Section/Shape	Type	Design List	Material	Design Rules
1 SA1	SA1	N40		90	Connection Plate	Beam	None	A36 Gr.36	Typical
2 SA2	SA2	N41		90	Connection Plate	Beam	None	A36 Gr.36	Typical
3 SA3	SA3	N42		90	Connection Plate	Beam	None	A36 Gr.36	Typical
4 GSI1	GSI1	GSI4		180	Face Horizontal	Beam	Channel	A36 Gr.36	Typical
5 GSI2	GSI2	GSI5			Face Horizontal	Beam	Channel	A36 Gr.36	Typical
6 GSI3	GSI3	GSI6		180	Face Horizontal	Beam	Channel	A36 Gr.36	Typical
7 FF-H2	FF2	FF4			Face Horizontal	Beam	Channel	A36 Gr.36	Typical
8 SF1-H2	SF1-2	FF2			Face Horizontal	Beam	Channel	A36 Gr.36	Typical
9 SF2-H2	FF4	SF1-2			Face Horizontal	Beam	Channel	A36 Gr.36	Typical
10 CP-3	SF1-4	SF2-2		90	Corner Plate	Beam	None	A36 Gr.36	Typical
11 CP-1	SF2-8	FF12		90	Corner Plate	Beam	None	A36 Gr.36	Typical
12 CP-2	FF6	SF1-10		90	Corner Plate	Beam	None	A36 Gr.36	Typical
13 MP-1	N74	N78			Mount Pipe	Column	Pipe	A53-B-35	Typical
14 MP-2	N72	N76			Mount Pipe	Column	Pipe	A53-B-35	Typical
15 MP-3	N73	N77			Mount Pipe	Column	Pipe	A53-B-35	Typical
16 MP-4	N75	N79			Mount Pipe	Column	Pipe	A53-B-35	Typical
17 MP-3B	N69A	N70			Mount Pipe	Column	Pipe	A53-B-35	Typical
18 MPS-3	N67A	N68			Threaded Rods	Beam	None	A36 Gr.36	Typical
19 MPS-4	N71A	N72A			Threaded Rods	Beam	None	A36 Gr.36	Typical
20 MP-2B	N87A	N88A			Mount Pipe	Column	Pipe	A53-B-35	Typical
21 MPS-1	N85A	N86A			Threaded Rods	Beam	None	A36 Gr.36	Typical
22 MPS-2	N89A	N90A			Threaded Rods	Beam	None	A36 Gr.36	Typical
23 MP-9	N61	N65A			Mount Pipe	Column	Pipe	A53-B-35	Typical
24 MP-10	N59	N63			Mount Pipe	Column	Pipe	A53-B-35	Typical
25 MP-11	N60	N64			Mount Pipe	Column	Pipe	A53-B-35	Typical
26 MP-12	N62	N66			Mount Pipe	Column	Pipe	A53-B-35	Typical
27 MP-11B	N69B	N70A			Mount Pipe	Column	Pipe	A53-B-35	Typical
28 MPS-7	N67B	N68A			Threaded Rods	Beam	None	A36 Gr.36	Typical
29 MPS-8	N71B	N72B			Threaded Rods	Beam	None	A36 Gr.36	Typical
30 MP-5	N79A	N83			Mount Pipe	Column	Pipe	A53-B-35	Typical
31 MP-6	N77A	N81			Mount Pipe	Column	Pipe	A53-B-35	Typical
32 MP-7	N78A	N82			Mount Pipe	Column	Pipe	A53-B-35	Typical
33 MP-8	N80	N84			Mount Pipe	Column	Pipe	A53-B-35	Typical
34 MP-7B	N87	N88			Mount Pipe	Column	Pipe	A53-B-35	Typical
35 MPS-5	N85	N86			Threaded Rods	Beam	None	A36 Gr.36	Typical
36 MPS-6	N89	N90			Threaded Rods	Beam	None	A36 Gr.36	Typical
37 HR-1	N91	N89B			Handrail	Beam	None	A53-B-35	Typical
38 HR-2	N90B	N91A			Handrail	Beam	None	A53-B-35	Typical
39 HR-3	N92	N93			Handrail	Beam	None	A53-B-35	Typical
40 M40	N94	N99			RIGID	None	None	RIGID	Typical
41 M41	N96	N95			RIGID	None	None	RIGID	Typical
42 M42	N98	N97			RIGID	None	None	RIGID	Typical

Member Advanced Data

Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...	Analysis Off...	Inactive	Seismi...
1 SA1	000000				Yes					None
2 SA2	000000				Yes					None
3 SA3	000000				Yes					None
4 GSI1					Yes	Default				None
5 GSI2					Yes					None
6 GSI3					Yes					None
7 FF-H2					Yes					None
8 SF1-H2					Yes					None

Member Advanced Data (Continued)

Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...	Analysis Off...	Inactive	Seismi...
9 SF2-H2							Yes			None
10 CP-3							Yes			None
11 CP-1							Yes			None
12 CP-2							Yes			None
13 MP-1							Yes	** NA **		None
14 MP-2							Yes	** NA **		None
15 MP-3							Yes	** NA **		None
16 MP-4							Yes	** NA **		None
17 MP-3B							Yes	** NA **		None
18 MPS-3							Yes			None
19 MPS-4							Yes			None
20 MP-2B							Yes	** NA **		None
21 MPS-1							Yes	Default		None
22 MPS-2							Yes			None
23 MP-9							Yes	** NA **		None
24 MP-10							Yes	** NA **		None
25 MP-11							Yes	** NA **		None
26 MP-12							Yes	** NA **		None
27 MP-11B							Yes	** NA **		None
28 MPS-7							Yes			None
29 MPS-8							Yes			None
30 MP-5							Yes	** NA **		None
31 MP-6							Yes	** NA **		None
32 MP-7							Yes	** NA **		None
33 MP-8							Yes	** NA **		None
34 MP-7B							Yes	** NA **		None
35 MPS-5							Yes	** NA **		None
36 MPS-6							Yes	** NA **		None
37 HR-1							Yes			None
38 HR-2							Yes			None
39 HR-3							Yes			None
40 M40							Yes	** NA **		None
41 M41							Yes	** NA **		None
42 M42							Yes	** NA **		None

Hot Rolled Steel Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top...	Lcomp bot...	L-torg...	Kyy	Kzz	Cb	Functi...
1 SA1	Connection Plate	.755						.8	.65		Lateral
2 SA2	Connection Plate	.755						.8	.65		Lateral
3 SA3	Connection Plate	.755						.8	.65		Lateral
4 GSI1	Face Horizontal	5	2.5	2.5				.65	.65		Lateral
5 GSI2	Face Horizontal	5	2.5	2.5				.65	.65		Lateral
6 GSI3	Face Horizontal	5	2.5	2.5				.65	.65		Lateral
7 FF-H2	Face Horizontal	10.667	5					.65	.65		Lateral
8 SF1-H2	Face Horizontal	10.667	5					.65	.65		Lateral
9 SF2-H2	Face Horizontal	10.667	5					.65	.65		Lateral
10 CP-3	Corner Plate	.584						.65	.65		Lateral
11 CP-1	Corner Plate	.584						.65	.65		Lateral
12 CP-2	Corner Plate	.584						.65	.65		Lateral
13 MP-1	Mount Pipe	8.5	Segment	Segment				2.1	2.1		Lateral
14 MP-2	Mount Pipe	8.5	Segment	Segment				2.1	2.1		Lateral
15 MP-3	Mount Pipe	7	Segment	Segment				2.1	2.1		Lateral
16 MP-4	Mount Pipe	8.5	Segment	Segment				2.1	2.1		Lateral
17 MP-3B	Mount Pipe	2	Segment	Segment				2.1	2.1		Lateral
18 MPS-3	Threaded Rods	.542						1	1		Lateral
19 MPS-4	Threaded Rods	.542						1	1		Lateral
20 MP-2B	Mount Pipe	2	Segment	Segment				2.1	2.1		Lateral
21 MPS-1	Threaded Rods	.542						1	1		Lateral
22 MPS-2	Threaded Rods	.542						1	1		Lateral
23 MP-9	Mount Pipe	8.5	Segment	Segment				2.1	2.1		Lateral
24 MP-10	Mount Pipe	8.5	Segment	Segment				2.1	2.1		Lateral

Hot Rolled Steel Design Parameters (Continued)

Label	Shape	Length(ft)	Lbby(ft)	Lbzz(ft)	Lcomp top...	Lcomp bot...	L-torq...	Kyy	Kzz	Cb	Functi...
25	MP-11	Mount Pipe	5.25	Segment	Segment			2.1	2.1		Lateral
26	MP-12	Mount Pipe	8.5	Segment	Segment			2.1	2.1		Lateral
27	MP-11B	Mount Pipe	2	Segment	Segment			2.1	2.1		Lateral
28	MPS-7	Threaded Rods	.542					1	1		Lateral
29	MPS-8	Threaded Rods	.542					1	1		Lateral
30	MP-5	Mount Pipe	8.5	Segment	Segment			2.1	2.1		Lateral
31	MP-6	Mount Pipe	8.5	Segment	Segment			2.1	2.1		Lateral
32	MP-7	Mount Pipe	7	Segment	Segment			2.1	2.1		Lateral
33	MP-8	Mount Pipe	8.5	Segment	Segment			2.1	2.1		Lateral
34	MP-7B	Mount Pipe	2	Segment	Segment			2.1	2.1		Lateral
35	MPS-5	Threaded Rods	.542					1	1		Lateral
36	MPS-6	Threaded Rods	.542					1	1		Lateral
37	HR-1	Handrail	10.167					2.1	2.1		Lateral
38	HR-2	Handrail	10.167					2.1	2.1		Lateral
39	HR-3	Handrail	10.167					2.1	2.1		Lateral

Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Dead	None	-1			39		3
2	0 Wind - No Ice	None				39	31	
3	30 Wind - No Ice	None				78	62	
4	45 Wind - No Ice	None				78	62	
5	60 Wind - No Ice	None				78	62	
6	90 Wind - No Ice	None				39	31	
7	120 Wind - No Ice	None				78	62	
8	135 Wind - No Ice	None				78	62	
9	150 Wind - No Ice	None				78	62	
10	180 Wind - No Ice	None				39	31	
11	210 Wind - No Ice	None				78	62	
12	225 Wind - No Ice	None				78	62	
13	240 Wind - No Ice	None				78	62	
14	270 Wind - No Ice	None				39	31	
15	300 Wind - No Ice	None				78	62	
16	315 Wind - No Ice	None				78	62	
17	330 Wind - No Ice	None				78	62	
18	Ice Weight	None				39	31	3
19	0 Wind - Ice	None				39	31	
20	30 Wind - Ice	None				78	62	
21	45 Wind - Ice	None				78	62	
22	60 Wind - Ice	None				78	62	
23	90 Wind - Ice	None				39	31	
24	120 Wind - Ice	None				78	62	
25	135 Wind - Ice	None				78	62	
26	150 Wind - Ice	None				78	62	
27	180 Wind - Ice	None				39	31	
28	210 Wind - Ice	None				78	62	
29	225 Wind - Ice	None				78	62	
30	240 Wind - Ice	None				78	62	
31	270 Wind - Ice	None				39	31	
32	300 Wind - Ice	None				78	62	
33	315 Wind - Ice	None				78	62	
34	330 Wind - Ice	None				78	62	
35	Lm	None			1			
36	Lv	None			1			
37	Seismic Load X	ELX	-1			39		
38	Seismic Load Z	ELZ		-1		39		
39	BLC 1 Transient Area..	None					39	
40	BLC 18 Transient Are..	None					39	

Load Combinations

Description	So...P...	S...	BLC Fac...								
1	1.4D	Yes	Y	1	1.4						
2	0.9D+1.0 0-Wind	Yes	Y	1	.9	2	1				
3	0.9D+1.0 30-Wind	Yes	Y	1	.9	3	1				
4	0.9D+1.0 45-Wind	Yes	Y	1	.9	4	1				
5	0.9D+1.0 60-Wind	Yes	Y	1	.9	5	1				
6	0.9D+1.0 90-Wind	Yes	Y	1	.9	6	1				
7	0.9D+1.0 120-Wind	Yes	Y	1	.9	7	1				
8	0.9D+1.0 135-Wind	Yes	Y	1	.9	8	1				
9	0.9D+1.0 150-Wind	Yes	Y	1	.9	9	1				
10	0.9D+1.0 180-Wind	Yes	Y	1	.9	10	1				
11	0.9D+1.0 210-Wind	Yes	Y	1	.9	11	1				
12	0.9D+1.0 225-Wind	Yes	Y	1	.9	12	1				
13	0.9D+1.0 240-Wind	Yes	Y	1	.9	13	1				
14	0.9D+1.0 270-Wind	Yes	Y	1	.9	14	1				
15	0.9D+1.0 300-Wind	Yes	Y	1	.9	15	1				
16	0.9D+1.0 315-Wind	Yes	Y	1	.9	16	1				
17	0.9D+1.0 330-Wind	Yes	Y	1	.9	17	1				
18	1.2D+1.0 0-Wind	Yes	Y	1	1.2	2	1				
19	1.2D+1.0 30-Wind	Yes	Y	1	1.2	3	1				
20	1.2D+1.0 45-Wind	Yes	Y	1	1.2	4	1				
21	1.2D+1.0 60-Wind	Yes	Y	1	1.2	5	1				
22	1.2D+1.0 90-Wind	Yes	Y	1	1.2	6	1				
23	1.2D+1.0 120-Wind	Yes	Y	1	1.2	7	1				
24	1.2D+1.0 135-Wind	Yes	Y	1	1.2	8	1				
25	1.2D+1.0 150-Wind	Yes	Y	1	1.2	9	1				
26	1.2D+1.0 180-Wind	Yes	Y	1	1.2	10	1				
27	1.2D+1.0 210-Wind	Yes	Y	1	1.2	11	1				
28	1.2D+1.0 225-Wind	Yes	Y	1	1.2	12	1				
29	1.2D+1.0 240-Wind	Yes	Y	1	1.2	13	1				
30	1.2D+1.0 270-Wind	Yes	Y	1	1.2	14	1				
31	1.2D+1.0 300-Wind	Yes	Y	1	1.2	15	1				
32	1.2D+1.0 315-Wind	Yes	Y	1	1.2	16	1				
33	1.2D+1.0 330-Wind	Yes	Y	1	1.2	17	1				
34	1.2D+1.0Di+1.0 0...	Yes	Y	1	1.2	18	1	19	1		
35	1.2D+1.0Di+1.0 30...	Yes	Y	1	1.2	18	1	20	1		
36	1.2D+1.0Di+1.0 45...	Yes	Y	1	1.2	18	1	21	1		
37	1.2D+1.0Di+1.0 60...	Yes	Y	1	1.2	18	1	22	1		
38	1.2D+1.0Di+1.0 90...	Yes	Y	1	1.2	18	1	23	1		
39	1.2D+1.0Di+1.0 12...	Yes	Y	1	1.2	18	1	24	1		
40	1.2D+1.0Di+1.0 13...	Yes	Y	1	1.2	18	1	25	1		
41	1.2D+1.0Di+1.0 15...	Yes	Y	1	1.2	18	1	26	1		
42	1.2D+1.0Di+1.0 18...	Yes	Y	1	1.2	18	1	27	1		
43	1.2D+1.0Di+1.0 21...	Yes	Y	1	1.2	18	1	28	1		
44	1.2D+1.0Di+1.0 22...	Yes	Y	1	1.2	18	1	29	1		
45	1.2D+1.0Di+1.0 24...	Yes	Y	1	1.2	18	1	30	1		
46	1.2D+1.0Di+1.0 27...	Yes	Y	1	1.2	18	1	31	1		
47	1.2D+1.0Di+1.0 30...	Yes	Y	1	1.2	18	1	32	1		
48	1.2D+1.0Di+1.0 31...	Yes	Y	1	1.2	18	1	33	1		
49	1.2D+1.0Di+1.0 33...	Yes	Y	1	1.2	18	1	34	1		
50	1.2D+1.5Lv	Yes	Y	36	1.5	1	1.2				
51	1.2D+1.5Lm+1.0 0...	Yes	Y	1	1.2	2	.068	35	1.5		
52	1.2D+1.5Lm+1.0 3...	Yes	Y	1	1.2	3	.068	35	1.5		
53	1.2D+1.5Lm+1.0 4...	Yes	Y	1	1.2	4	.068	35	1.5		
54	1.2D+1.5Lm+1.0 6...	Yes	Y	1	1.2	5	.068	35	1.5		
55	1.2D+1.5Lm+1.0 9...	Yes	Y	1	1.2	6	.068	35	1.5		
56	1.2D+1.5Lm+1.0 1...	Yes	Y	1	1.2	7	.068	35	1.5		
57	1.2D+1.5Lm+1.0 1...	Yes	Y	1	1.2	8	.068	35	1.5		
58	1.2D+1.5Lm+1.0 1...	Yes	Y	1	1.2	9	.068	35	1.5		
59	1.2D+1.5Lm+1.0 1...	Yes	Y	1	1.2	10	.068	35	1.5		
60	1.2D+1.5Lm+1.0 2...	Yes	Y	1	1.2	11	.068	35	1.5		
61	1.2D+1.5Lm+1.0 2...	Yes	Y	1	1.2	12	.068	35	1.5		
62	1.2D+1.5Lm+1.0 2...	Yes	Y	1	1.2	13	.068	35	1.5		

Load Combinations (Continued)

Description	So...P...	S...	BLC Fac..									
63	1.2D+1.5Lm+1.0 ...	Yes	Y	1	1.2	14	.068	35	1.5			
64	1.2D+1.5Lm+1.0 ...	Yes	Y	1	1.2	15	.068	35	1.5			
65	1.2D+1.5Lm+1.0 ...	Yes	Y	1	1.2	16	.068	35	1.5			
66	1.2D+1.5Lm+1.0 ...	Yes	Y	1	1.2	17	.068	35	1.5			
67	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.5	0				
68	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.433	ELZ	.25			
69	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.354	ELZ	.354			
70	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.25	ELZ	.433			
71	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	0		ELZ	.5			
72	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.25	ELZ	.433			
73	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.354	ELZ	.354			
74	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.433	ELZ	.25			
75	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.5	0				
76	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.433	ELZ	-.25			
77	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.354	ELZ	-.354			
78	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	-.25	ELZ	.433			
79	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	0		ELZ	-.5			
80	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.25	ELZ	.433			
81	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.354	ELZ	.354			
82	(1.2+0.25ds)D+1.0 ...	Yes	Y	1	1.4	ELX	.433	ELZ	-.25			
83	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.5	0				
84	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.433	ELZ	.25			
85	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.354	ELZ	.354			
86	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.25	ELZ	.433			
87	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	0		ELZ	.5			
88	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.25	ELZ	.433			
89	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.354	ELZ	.354			
90	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.433	ELZ	.25			
91	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.5	0				
92	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.433	ELZ	-.25			
93	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.354	ELZ	-.354			
94	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	-.25	ELZ	.433			
95	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	0		ELZ	-.5			
96	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.25	ELZ	.433			
97	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.354	ELZ	.354			
98	(0.9-0.25ds)*DL+1...	Yes	Y	1	.7	ELX	.433	ELZ	-.25			

Joint Coordinates and Temperatures

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	SA1	0.5365	-1.5	0.929245	0
2	SA2	0.5365	-1.5	-0.929245	0
3	SA3	-1.073	-1.5	0	0
4	GSI1	3.079298	-1.5	0.3335	0
5	GSI2	3.079298	-1.5	-0.3335	0
6	GSI3	-1.828468	-1.5	2.5	0
7	GSI4	-1.250829	-1.5	2.8335	0
8	GSI5	-1.250829	-1.5	-2.8335	0
9	GSI6	-1.828468	-1.5	-2.5	0
10	FF2	3.079298	-1.5	-5.3335	0
11	FF4	3.079298	-1.5	5.3335	0
12	FF6	3.079298	-1.5	-4.75	0
13	FF12	3.079298	-1.5	4.75	0
14	SF1-2	-6.158595	-1.5	0	0
15	SF1-4	-5.653269	-1.5	-0.29175	0
16	SF1-10	2.573972	-1.5	-5.04175	0
17	SF2-2	-5.653269	-1.5	0.29175	0
18	SF2-8	2.573972	-1.5	5.04175	0
19	N40	0.914234	-1.5	1.5835	0
20	N41	0.914234	-1.5	-1.5835	0
21	N42	-1.828468	-1.5	0	0
22	N49	1.347247	-1.5	1.3335	0

Joint Coordinates and Temperatures (Continued)

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
23	N50	1.347247	-1.5	-1.3335	0
24	N51	-1.828468	-1.5	0.5	0
25	N52	0.481222	-1.5	1.8335	0
26	N53	0.481222	-1.5	-1.8335	0
27	N54	-1.828468	-1.5	-0.5	0
28	N65	3.079298	-1.5	-1.500167	0
29	N67	3.079298	-1.5	1.499833	0
30	N69	3.079298	-1.5	-4.500167	0
31	N71	3.079298	-1.5	4.500167	0
32	N72	3.079298	2.75	-1.500167	0
33	N73	3.079298	2	1.499833	0
34	N74	3.079298	2.75	-4.500167	0
35	N75	3.079298	2.75	4.500167	0
36	N76	3.079298	-5.75	-1.500167	0
37	N77	3.079298	-5	1.499833	0
38	N78	3.079298	-5.75	-4.500167	0
39	N79	3.079298	-5.75	4.500167	0
40	N67A	3.079298	1.25	1.499833	0
41	N68	2.537631	1.25	1.499833	0
42	N69A	2.537631	1.5	1.499833	0
43	N70	2.537631	-.5	1.499833	0
44	N71A	2.537631	-.25	1.499833	0
45	N72A	3.079298	-.25	1.499833	0
46	N85A	3.079298	1.25	-1.500167	0
47	N86A	2.537631	1.25	-1.500167	0
48	N87A	2.537631	1.5	-1.500167	0
49	N88A	2.537631	-.5	-1.500167	0
50	N89A	2.537631	-.25	-1.500167	0
51	N90A	3.079298	-.25	-1.500167	0
52	N55	-2.838831	-1.5	-1.916667	0
53	N56	-0.240755	-1.5	-3.416667	0
54	N57	-5.436908	-1.5	-0.416667	0
55	N58	2.35761	-1.5	-4.916834	0
56	N59	-2.838831	2.75	-1.916667	0
57	N60	-0.240755	1.125	-3.416667	0
58	N61	-5.436908	2.75	-0.416667	0
59	N62	2.35761	2.75	-4.916834	0
60	N63	-2.838831	-.5	-1.916667	0
61	N64	-0.240755	-4.125	-3.416667	0
62	N65A	-5.436908	-.5	-0.416667	0
63	N66	2.35761	-.5	-4.916834	0
64	N67B	-0.240755	.375	-3.416667	0
65	N68A	0.030078	.375	-2.94757	0
66	N69B	0.030078	.625	-2.94757	0
67	N70A	0.030078	-1.375	-2.94757	0
68	N71B	0.030078	-1.125	-2.94757	0
69	N72B	-0.240755	-1.125	-3.416667	0
70	N73A	-0.240467	-1.5	3.416834	0
71	N74A	-2.838543	-1.5	1.916834	0
72	N75A	2.35761	-1.5	4.916834	0
73	N76A	-5.436908	-1.5	0.416667	0
74	N77A	-0.240467	2.75	3.416834	0
75	N78A	-2.838543	2	1.916834	0
76	N79A	2.35761	2.75	4.916834	0
77	N80	-5.436908	2.75	0.416667	0
78	N81	-0.240467	-.5	3.416834	0
79	N82	-2.838543	-.5	1.916834	0
80	N83	2.35761	-.5	4.916834	0
81	N84	-5.436908	-.5	0.416667	0
82	N85	-2.838543	1.25	1.916834	0
83	N86	-2.567709	1.25	1.447737	0
84	N87	-2.567709	1.5	1.447737	0
85	N88	-2.567709	-.5	1.447737	0

Joint Coordinates and Temperatures (Continued)

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
86	N89	-2.567709	.25	1.447737	0
87	N90	-2.838543	.25	1.916834	0
88	N91	3.079298	.5	5.0835	0
89	N89B	3.079298	.5	-5.0835	0
90	N90B	2.862791	.5	-5.2085	0
91	N91A	-5.942089	.5	-0.125	0
92	N92	-5.942089	.5	0.125	0
93	N93	2.862791	.5	5.2085	0
94	N94	3.079298	.5	4.5835	0
95	N95	3.079298	.5	-4.5835	0
96	N96	2.429778	.5	-4.9585	0
97	N97	-5.509076	.5	-0.375	0
98	N98	-5.509076	.5	0.375	0
99	N99	2.429778	.5	4.9585	0
100	N100	3.079298	.5	-4.500167	0
101	N101	3.079298	.5	-1.500167	0
102	N102	3.079298	.5	1.499833	0
103	N103	3.079298	.5	4.500167	0
104	N104	-5.436908	.5	-0.416667	0
105	N105	-2.838831	.5	-1.916667	0
106	N106	-0.240755	.5	-3.416667	0
107	N107	2.35761	.5	-4.916834	0
108	N108	2.35761	.5	4.916834	0
109	N109	-0.240467	.5	3.416834	0
110	N110	-2.838543	.5	1.916834	0
111	N111	-5.436908	.5	0.416667	0

Joint Loads and Enforced Displacements (BLC 35 : Lm)

Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...]
1	N69	L	Y -.5

Joint Loads and Enforced Displacements (BLC 36 : Lv)

Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/f...]
1	FF2	L	Y -.25

Member Point Loads (BLC 1 : Dead)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	Y -.018	.5
2	MP-1	Y -.028	1
3	MP-2	Y -.009	.5
4	MP-2B	Y -.033	1
5	MP-3	Y -.034	.5
6	MP-3B	Y -.06	1
7	MP-3B	Y -.072	1
8	MP-4	Y -.034	.5
9	MP-4	Y -.071	1
10	MP-5	Y -.018	.5
11	MP-5	Y -.028	1
12	MP-6	Y -.009	.5
13	MP-6	Y -.026	1
14	MP-7	Y -.034	.5
15	MP-7B	Y -.06	1
16	MP-7B	Y -.072	1
17	MP-8	Y -.034	.5
18	MP-8	Y -.071	1
19	MP-9	Y -.018	.5
20	MP-9	Y -.028	1
21	MP-10	Y -.009	.5
22	MP-10	Y -.026	1

Member Point Loads (BLC 1 : Dead) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
23	MP-11	Y -.034	.25
24	MP-11B	Y -.06	1
25	MP-11B	Y -.072	1
26	MP-12	Y -.034	.5
27	MP-12	Y -.071	1
28	MP-1	Y -.018	.5
29	MP-2	Y -.009	8.25
30	MP-3	Y -.034	6
31	MP-4	Y -.034	6
32	MP-5	Y -.018	.5
33	MP-6	Y -.009	8.25
34	MP-7	Y -.034	6
35	MP-8	Y -.034	6
36	MP-9	Y -.018	.5
37	MP-10	Y -.009	8.25
38	MP-11	Y -.034	3.75
39	MP-12	Y -.034	3.75

Member Point Loads (BLC 2 : 0 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X -.106	.5
2	MP-1	X -.085	1
3	MP-2	X -.058	.5
4	MP-2B	X -.047	1
5	MP-3	X -.245	.5
6	MP-3B	X -.041	1
7	MP-3B	X -.052	1
8	MP-4	X -.103	.5
9	MP-4	X -.076	1
10	MP-5	X -.069	.5
11	MP-5	X -.041	1
12	MP-6	X -.058	.5
13	MP-6	X -.165	1
14	MP-7	X -.142	.5
15	MP-7B	X -.063	1
16	MP-7B	X -.06	1
17	MP-8	X -.142	.5
18	MP-8	X -.06	1
19	MP-9	X -.069	.5
20	MP-9	X -.041	1
21	MP-10	X -.058	.5
22	MP-10	X -.165	1
23	MP-11	X -.09	.25
24	MP-11B	X -.063	1
25	MP-11B	X -.06	1
26	MP-12	X -.09	.5
27	MP-12	X -.06	1
28	MP-1	X -.106	.5
29	MP-2	X -.058	8.25
30	MP-3	X -.245	6
31	MP-4	X -.103	6
32	MP-5	X -.069	5
33	MP-6	X -.058	8.25
34	MP-7	X -.142	6
35	MP-8	X -.142	6
36	MP-9	X -.069	5
37	MP-10	X -.058	8.25
38	MP-11	X -.09	3.75
39	MP-12	X -.09	3.75

Member Point Loads (BLC 3 : 30 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
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Member Point Loads (BLC 3 : 30 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.081
2	MP-1	X	-.061
3	MP-2	X	.05
4	MP-2B	X	-.04
5	MP-3	X	.182
6	MP-3B	X	-.042
7	MP-3B	X	-.048
8	MP-4	X	-.076
9	MP-4	X	-.061
10	MP-5	X	-.049
11	MP-5	X	-.023
12	MP-6	X	-.05
13	MP-6	X	-.16
14	MP-7	X	-.094
15	MP-7B	X	-.061
16	MP-7B	X	-.055
17	MP-8	X	-.094
18	MP-8	X	-.047
19	MP-9	X	-.081
20	MP-9	X	-.061
21	MP-10	X	-.05
22	MP-10	X	-.108
23	MP-11	X	-.118
24	MP-11B	X	-.042
25	MP-11B	X	-.048
26	MP-12	X	-.118
27	MP-12	X	-.061
28	MP-1	X	-.081
29	MP-2	X	-.05
30	MP-3	X	-.182
31	MP-4	X	-.076
32	MP-5	X	-.049
33	MP-6	X	-.05
34	MP-7	X	-.094
35	MP-8	X	-.094
36	MP-9	X	-.081
37	MP-10	X	-.05
38	MP-11	X	-.118
39	MP-12	X	-.118
40	MP-1	Z	-.047
41	MP-1	Z	-.035
42	MP-2	Z	-.029
43	MP-2B	Z	-.023
44	MP-3	Z	-.105
45	MP-3B	Z	-.024
46	MP-3B	Z	-.027
47	MP-4	Z	-.044
48	MP-4	Z	-.035
49	MP-5	Z	-.028
50	MP-5	Z	-.013
51	MP-6	Z	-.029
52	MP-6	Z	-.092
53	MP-7	Z	-.054
54	MP-7B	Z	-.035
55	MP-7B	Z	-.032
56	MP-8	Z	-.054
57	MP-8	Z	-.027
58	MP-9	Z	-.047
59	MP-9	Z	-.035
60	MP-10	Z	-.029
61	MP-10	Z	-.063
62	MP-11	Z	-.068
63	MP-11B	Z	-.024

Member Point Loads (BLC 3 : 30 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
64	MP-11B	Z	-.027
65	MP-12	Z	-.068
66	MP-12	Z	-.035
67	MP-1	Z	-.047
68	MP-2	Z	-.029
69	MP-3	Z	-.105
70	MP-4	Z	-.044
71	MP-5	Z	-.028
72	MP-6	Z	-.029
73	MP-7	Z	-.054
74	MP-8	Z	-.054
75	MP-9	Z	-.047
76	MP-10	Z	-.029
77	MP-11	Z	-.068
78	MP-12	Z	-.068

Member Point Loads (BLC 4 : 45 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.057
2	MP-1	X	-.04
3	MP-2	X	-.041
4	MP-2B	X	-.033
5	MP-3	X	-.125
6	MP-3B	X	-.04
7	MP-3B	X	-.041
8	MP-4	X	-.052
9	MP-4	X	-.046
10	MP-5	X	-.042
11	MP-5	X	-.022
12	MP-6	X	-.041
13	MP-6	X	-.127
14	MP-7	X	-.083
15	MP-7B	X	-.049
16	MP-7B	X	-.044
17	MP-8	X	-.083
18	MP-8	X	-.039
19	MP-9	X	-.073
20	MP-9	X	-.057
21	MP-10	X	-.041
22	MP-10	X	-.078
23	MP-11	X	-.108
24	MP-11B	X	-.03
25	MP-11B	X	-.037
26	MP-12	X	-.108
27	MP-12	X	-.053
28	MP-1	X	-.057
29	MP-2	X	-.041
30	MP-3	X	-.125
31	MP-4	X	-.052
32	MP-5	X	-.042
33	MP-6	X	-.041
34	MP-7	X	-.083
35	MP-8	X	-.083
36	MP-9	X	-.073
37	MP-10	X	-.041
38	MP-11	X	-.108
39	MP-12	X	-.108
40	MP-1	Z	-.057
41	MP-1	Z	-.04
42	MP-2	Z	-.041
43	MP-2B	Z	-.033
44	MP-3	Z	-.125

Member Point Loads (BLC 4 : 45 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
45	MP-3B	Z	-.04
46	MP-3B	Z	-.041
47	MP-4	Z	-.052
48	MP-4	Z	-.046
49	MP-5	Z	-.042
50	MP-5	Z	-.022
51	MP-6	Z	-.041
52	MP-6	Z	-.127
53	MP-7	Z	-.083
54	MP-7B	Z	-.049
55	MP-7B	Z	-.044
56	MP-8	Z	-.083
57	MP-8	Z	-.039
58	MP-9	Z	-.073
59	MP-9	Z	-.057
60	MP-10	Z	-.041
61	MP-10	Z	-.078
62	MP-11	Z	-.108
63	MP-11B	Z	-.03
64	MP-11B	Z	-.037
65	MP-12	Z	-.108
66	MP-12	Z	-.053
67	MP-1	Z	-.057
68	MP-2	Z	-.041
69	MP-3	Z	-.125
70	MP-4	Z	-.052
71	MP-5	Z	-.042
72	MP-6	Z	-.041
73	MP-7	Z	-.083
74	MP-8	Z	-.083
75	MP-9	Z	-.073
76	MP-10	Z	-.041
77	MP-11	Z	-.108
78	MP-12	Z	-.108

Member Point Loads (BLC 5 : 60 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.034
2	MP-1	X	-.021
3	MP-2	X	-.029
4	MP-2B	X	-.023
5	MP-3	X	-.071
6	MP-3B	X	-.032
7	MP-3B	X	-.03
8	MP-4	X	-.029
9	MP-4	X	-.03
10	MP-5	X	-.034
11	MP-5	X	-.021
12	MP-6	X	-.029
13	MP-6	X	-.082
14	MP-7	X	-.071
15	MP-7B	X	-.032
16	MP-7B	X	-.03
17	MP-8	X	-.071
18	MP-8	X	-.03
19	MP-9	X	-.053
20	MP-9	X	-.043
21	MP-10	X	-.029
22	MP-10	X	-.053
23	MP-11	X	-.08
24	MP-11B	X	-.02
25	MP-11B	X	-.026

Member Point Loads (BLC 5 : 60 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
26	MP-12	X	-.08
27	MP-12	X	-.038
28	MP-1	X	-.034
29	MP-2	X	-.029
30	MP-3	X	-.071
31	MP-4	X	-.029
32	MP-5	X	-.034
33	MP-6	X	-.029
34	MP-7	X	-.071
35	MP-8	X	-.071
36	MP-9	X	-.053
37	MP-10	X	-.029
38	MP-11	X	-.08
39	MP-12	X	-.08
40	MP-1	Z	-.06
41	MP-1	Z	-.036
42	MP-2	Z	-.05
43	MP-2B	Z	-.04
44	MP-3	Z	-.123
45	MP-3B	Z	-.055
46	MP-3B	Z	-.052
47	MP-4	Z	-.051
48	MP-4	Z	-.052
49	MP-5	Z	-.06
50	MP-5	Z	-.036
51	MP-6	Z	-.05
52	MP-6	Z	-.142
53	MP-7	Z	-.123
54	MP-7B	Z	-.055
55	MP-7B	Z	-.052
56	MP-8	Z	-.123
57	MP-8	Z	-.052
58	MP-9	Z	-.092
59	MP-9	Z	-.074
60	MP-10	Z	-.05
61	MP-10	Z	-.091
62	MP-11	Z	-.138
63	MP-11B	Z	-.035
64	MP-11B	Z	-.045
65	MP-12	Z	-.138
66	MP-12	Z	-.066
67	MP-1	Z	-.06
68	MP-2	Z	-.05
69	MP-3	Z	-.123
70	MP-4	Z	-.051
71	MP-5	Z	-.06
72	MP-6	Z	-.05
73	MP-7	Z	-.123
74	MP-8	Z	-.123
75	MP-9	Z	-.092
76	MP-10	Z	-.05
77	MP-11	Z	-.138
78	MP-12	Z	-.138

Member Point Loads (BLC 6 : 90 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	Z	-.056
2	MP-1	Z	-.027
3	MP-2	Z	-.058
4	MP-2B	Z	-.047
5	MP-3	Z	-.108
6	MP-3B	Z	-.071

Member Point Loads (BLC 6 : 90 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]	
7	MP-3B	Z	-.063	1
8	MP-4	Z	-.044	.5
9	MP-4	Z	-.054	1
10	MP-5	Z	-.094	.5
11	MP-5	Z	-.07	1
12	MP-6	Z	-.058	.5
13	MP-6	Z	-.125	1
14	MP-7	Z	-.211	.5
15	MP-7B	Z	-.048	1
16	MP-7B	Z	-.055	1
17	MP-8	Z	-.211	.5
18	MP-8	Z	-.07	1
19	MP-9	Z	-.094	.5
20	MP-9	Z	-.07	1
21	MP-10	Z	-.058	.5
22	MP-10	Z	-.125	1
23	MP-11	Z	-.136	.25
24	MP-11B	Z	-.048	1
25	MP-11B	Z	-.055	1
26	MP-12	Z	-.136	.5
27	MP-12	Z	-.07	1
28	MP-1	Z	-.056	.5
29	MP-2	Z	-.058	8.25
30	MP-3	Z	-.108	6
31	MP-4	Z	-.044	6
32	MP-5	Z	-.094	.5
33	MP-6	Z	-.058	8.25
34	MP-7	Z	-.211	6
35	MP-8	Z	-.211	6
36	MP-9	Z	-.094	5
37	MP-10	Z	-.058	8.25
38	MP-11	Z	-.136	3.75
39	MP-12	Z	-.136	3.75

Member Point Loads (BLC 7 : 120 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]	
1	MP-1	X	.034	.5
2	MP-1	X	.021	1
3	MP-2	X	.029	.5
4	MP-2B	X	.023	1
5	MP-3	X	.071	.5
6	MP-3B	X	.032	1
7	MP-3B	X	.03	1
8	MP-4	X	.029	.5
9	MP-4	X	.03	1
10	MP-5	X	.053	.5
11	MP-5	X	.043	1
12	MP-6	X	.029	.5
13	MP-6	X	.053	1
14	MP-7	X	.122	.5
15	MP-7B	X	.02	1
16	MP-7B	X	.026	1
17	MP-8	X	.122	.5
18	MP-8	X	.038	1
19	MP-9	X	.034	.5
20	MP-9	X	.021	1
21	MP-10	X	.029	.5
22	MP-10	X	.082	1
23	MP-11	X	.045	.25
24	MP-11B	X	.032	1
25	MP-11B	X	.03	1
26	MP-12	X	.045	.5

Member Point Loads (BLC 7 : 120 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]	
27	MP-12	X	.03	1
28	MP-1	X	.034	.5
29	MP-2	X	.029	8.25
30	MP-3	X	.071	6
31	MP-4	X	.029	6
32	MP-5	X	.053	.5
33	MP-6	X	.029	8.25
34	MP-7	X	.122	6
35	MP-8	X	.122	6
36	MP-9	X	.034	.5
37	MP-10	X	.029	8.25
38	MP-11	X	.045	3.75
39	MP-12	X	.045	3.75
40	MP-1	Z	-.06	.5
41	MP-1	Z	-.036	1
42	MP-2	Z	-.05	.5
43	MP-2B	Z	-.04	1
44	MP-3	Z	-.123	.5
45	MP-3B	Z	-.055	1
46	MP-3B	Z	-.052	1
47	MP-4	Z	-.051	.5
48	MP-4	Z	-.052	1
49	MP-5	Z	-.092	.5
50	MP-5	Z	-.074	1
51	MP-6	Z	-.05	.5
52	MP-6	Z	-.091	1
53	MP-7	Z	-.212	.5
54	MP-7B	Z	-.035	1
55	MP-7B	Z	-.045	1
56	MP-8	Z	-.212	.5
57	MP-8	Z	-.066	1
58	MP-9	Z	-.06	.5
59	MP-9	Z	-.036	1
60	MP-10	Z	-.05	.5
61	MP-10	Z	-.142	1
62	MP-11	Z	-.078	.25
63	MP-11B	Z	-.055	1
64	MP-11B	Z	-.052	1
65	MP-12	Z	-.078	.5
66	MP-12	Z	-.052	1
67	MP-1	Z	-.06	.5
68	MP-2	Z	-.05	8.25
69	MP-3	Z	-.123	6
70	MP-4	Z	-.051	6
71	MP-5	Z	-.092	.5
72	MP-6	Z	-.05	8.25
73	MP-7	Z	-.212	6
74	MP-8	Z	-.212	6
75	MP-9	Z	-.06	.5
76	MP-10	Z	-.05	8.25
77	MP-11	Z	-.078	3.75
78	MP-12	Z	-.078	3.75

Member Point Loads (BLC 8 : 135 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]	
1	MP-1	X	.057	.5
2	MP-1	X	.04	1
3	MP-2	X	.041	.5
4	MP-2B	X	.033	1
5	MP-3	X	.125	.5
6	MP-3B	X	.04	1
7	MP-3B	X	.041	1

Member Point Loads (BLC 8 : 135 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
8	MP-4	X .052	.5
9	MP-4	X .046	1
10	MP-5	X .073	.5
11	MP-5	X .057	1
12	MP-6	X .041	.5
13	MP-6	X .078	1
14	MP-7	X .167	.5
15	MP-7B	X .03	1
16	MP-7B	X .037	1
17	MP-8	X .167	.5
18	MP-8	X .053	1
19	MP-9	X .042	.5
20	MP-9	X .022	1
21	MP-10	X .041	.5
22	MP-10	X .127	1
23	MP-11	X .052	.25
24	MP-11B	X .049	1
25	MP-11B	X .044	1
26	MP-12	X .052	.5
27	MP-12	X .039	1
28	MP-1	X .057	5
29	MP-2	X .041	8.25
30	MP-3	X .125	6
31	MP-4	X .052	6
32	MP-5	X .073	5
33	MP-6	X .041	8.25
34	MP-7	X .167	6
35	MP-8	X .167	6
36	MP-9	X .042	5
37	MP-10	X .041	8.25
38	MP-11	X .052	3.75
39	MP-12	X .052	3.75
40	MP-1	Z -.057	.5
41	MP-1	Z -.04	1
42	MP-2	Z -.041	.5
43	MP-2B	Z -.033	1
44	MP-3	Z -.125	.5
45	MP-3B	Z -.04	1
46	MP-3B	Z -.041	1
47	MP-4	Z -.052	.5
48	MP-4	Z -.046	1
49	MP-5	Z -.073	.5
50	MP-5	Z -.057	1
51	MP-6	Z -.041	.5
52	MP-6	Z -.078	1
53	MP-7	Z -.167	.5
54	MP-7B	Z -.03	1
55	MP-7B	Z -.037	1
56	MP-8	Z -.167	.5
57	MP-8	Z -.053	1
58	MP-9	Z -.042	.5
59	MP-9	Z -.022	1
60	MP-10	Z -.041	.5
61	MP-10	Z -.127	1
62	MP-11	Z -.052	.25
63	MP-11B	Z -.049	1
64	MP-11B	Z -.044	1
65	MP-12	Z -.052	.5
66	MP-12	Z -.039	1
67	MP-1	Z -.057	5
68	MP-2	Z -.041	8.25
69	MP-3	Z -.125	6
70	MP-4	Z -.052	6

Member Point Loads (BLC 8 : 135 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
71	MP-5	Z -.073	5
72	MP-6	Z -.041	8.25
73	MP-7	Z -.167	6
74	MP-8	Z -.167	6
75	MP-9	Z -.042	5
76	MP-10	Z -.041	8.25
77	MP-11	Z -.052	3.75
78	MP-12	Z -.052	3.75

Member Point Loads (BLC 9 : 150 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X .081	.5
2	MP-1	X .061	1
3	MP-2	X .05	.5
4	MP-2B	X .04	1
5	MP-3	X .182	.5
6	MP-3B	X .042	1
7	MP-3B	X .048	1
8	MP-4	X .076	.5
9	MP-4	X .061	1
10	MP-5	X .081	.5
11	MP-5	X .061	1
12	MP-6	X .05	.5
13	MP-6	X .108	1
14	MP-7	X .182	.5
15	MP-7B	X .042	1
16	MP-7B	X .048	1
17	MP-8	X .182	.5
18	MP-8	X .061	1
19	MP-9	X .049	.5
20	MP-9	X .023	1
21	MP-10	X .05	.5
22	MP-10	X .16	1
23	MP-11	X .058	.25
24	MP-11B	X .061	1
25	MP-11B	X .055	1
26	MP-12	X .058	.5
27	MP-12	X .047	1
28	MP-1	X .081	.5
29	MP-2	X .05	8.25
30	MP-3	X .182	6
31	MP-4	X .076	6
32	MP-5	X .081	.5
33	MP-6	X .05	8.25
34	MP-7	X .182	6
35	MP-8	X .182	6
36	MP-9	X .049	5
37	MP-10	X .05	8.25
38	MP-11	X .058	3.75
39	MP-12	X .058	3.75
40	MP-1	Z -.047	.5
41	MP-1	Z -.035	1
42	MP-2	Z -.029	.5
43	MP-2B	Z -.023	1
44	MP-3	Z -.105	.5
45	MP-3B	Z -.024	1
46	MP-3B	Z -.027	1
47	MP-4	Z -.044	.5
48	MP-4	Z -.035	1
49	MP-5	Z -.047	.5
50	MP-5	Z -.035	1
51	MP-6	Z -.029	.5

Member Point Loads (BLC 9 : 150 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
52	MP-6	Z	-.063
53	MP-7	Z	-.105
54	MP-7B	Z	-.024
55	MP-7B	Z	-.027
56	MP-8	Z	-.105
57	MP-8	Z	-.035
58	MP-9	Z	-.028
59	MP-9	Z	-.013
60	MP-10	Z	-.029
61	MP-10	Z	-.092
62	MP-11	Z	-.034
63	MP-11B	Z	-.035
64	MP-11B	Z	-.032
65	MP-12	Z	-.034
66	MP-12	Z	-.027
67	MP-1	Z	-.047
68	MP-2	Z	-.029
69	MP-3	Z	-.105
70	MP-4	Z	-.044
71	MP-5	Z	-.047
72	MP-6	Z	-.029
73	MP-7	Z	-.105
74	MP-8	Z	-.105
75	MP-9	Z	-.028
76	MP-10	Z	-.029
77	MP-11	Z	-.034
78	MP-12	Z	-.034

Member Point Loads (BLC 10 : 180 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.106
2	MP-1	X	.085
3	MP-2	X	.058
4	MP-2B	X	.047
5	MP-3	X	.245
6	MP-3B	X	.041
7	MP-3B	X	.052
8	MP-4	X	.103
9	MP-4	X	.076
10	MP-5	X	.069
11	MP-5	X	.041
12	MP-6	X	.058
13	MP-6	X	.165
14	MP-7	X	.142
15	MP-7B	X	.063
16	MP-7B	X	.06
17	MP-8	X	.142
18	MP-8	X	.06
19	MP-9	X	.069
20	MP-9	X	.041
21	MP-10	X	.058
22	MP-10	X	.165
23	MP-11	X	.09
24	MP-11B	X	.063
25	MP-11B	X	.06
26	MP-12	X	.09
27	MP-12	X	.06
28	MP-1	X	.106
29	MP-2	X	.058
30	MP-3	X	.245
31	MP-4	X	.103
32	MP-5	X	.069
33	MP-6	X	.041
34	MP-7	X	.142
35	MP-8	X	.063
36	MP-9	X	.06
37	MP-10	X	.142
38	MP-11	X	.06
39	MP-12	X	.165
40	MP-1	Z	.09
41	MP-1	Z	.165
42	MP-2	Z	.063
43	MP-2B	Z	.06
44	MP-3	Z	.105
45	MP-3B	Z	.041
46	MP-4	Z	.142
47	MP-5	Z	.063
48	MP-6	Z	.06
49	MP-7	Z	.106
50	MP-8	Z	.06
51	MP-9	Z	.165
52	MP-10	Z	.09

Member Point Loads (BLC 10 : 180 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
33	MP-6	X	.058
34	MP-7	X	.142
35	MP-8	X	.142
36	MP-9	X	.069
37	MP-10	X	.058
38	MP-11	X	.09
39	MP-12	X	.09

Member Point Loads (BLC 11 : 210 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.081
2	MP-1	X	.061
3	MP-2	X	.05
4	MP-2B	X	.04
5	MP-3	X	.182
6	MP-3B	X	.042
7	MP-3B	X	.048
8	MP-4	X	.076
9	MP-4	X	.061
10	MP-5	X	.049
11	MP-5	X	.023
12	MP-6	X	.05
13	MP-6	X	.16
14	MP-7	X	.094
15	MP-7B	X	.061
16	MP-7B	X	.055
17	MP-8	X	.094
18	MP-8	X	.047
19	MP-9	X	.081
20	MP-9	X	.061
21	MP-10	X	.05
22	MP-10	X	.108
23	MP-11	X	.118
24	MP-11B	X	.042
25	MP-11B	X	.048
26	MP-12	X	.118
27	MP-12	X	.061
28	MP-1	X	.081
29	MP-2	X	.05
30	MP-3	X	.182
31	MP-4	X	.076
32	MP-5	X	.049
33	MP-6	X	.05
34	MP-7	X	.094
35	MP-8	X	.094
36	MP-9	X	.081
37	MP-10	X	.05
38	MP-11	X	.118
39	MP-12	X	.118
40	MP-1	Z	.047
41	MP-1	Z	.035
42	MP-2	Z	.029
43	MP-2B	Z	.023
44	MP-3	Z	.105
45	MP-3B	Z	.024
46	MP-4	Z	.027
47	MP-5	Z	.044
48	MP-6	Z	.035
49	MP-7	Z	.028
50	MP-8	Z	.013
51	MP-9	Z	.029
52	MP-10	Z	.092

Member Point Loads (BLC 11 : 210 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
53	MP-7	Z .054	.5
54	MP-7B	Z .035	1
55	MP-7B	Z .032	1
56	MP-8	Z .054	.5
57	MP-8	Z .027	1
58	MP-9	Z .047	.5
59	MP-9	Z .035	1
60	MP-10	Z .029	.5
61	MP-10	Z .063	1
62	MP-11	Z .068	.25
63	MP-11B	Z .024	1
64	MP-11B	Z .027	1
65	MP-12	Z .068	.5
66	MP-12	Z .035	1
67	MP-1	Z .047	5
68	MP-2	Z .029	8.25
69	MP-3	Z .105	6
70	MP-4	Z .044	6
71	MP-5	Z .028	5
72	MP-6	Z .029	8.25
73	MP-7	Z .054	6
74	MP-8	Z .054	6
75	MP-9	Z .047	5
76	MP-10	Z .029	8.25
77	MP-11	Z .068	3.75
78	MP-12	Z .068	3.75

Member Point Loads (BLC 12 : 225 Wind - No Ice)

Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
1	MP-1	X .057	.5
2	MP-1	X .04	1
3	MP-2	X .041	.5
4	MP-2B	X .033	1
5	MP-3	X .125	.5
6	MP-3B	X .04	1
7	MP-3B	X .041	1
8	MP-4	X .052	.5
9	MP-4	X .046	1
10	MP-5	X .042	.5
11	MP-5	X .022	1
12	MP-6	X .041	.5
13	MP-6	X .127	1
14	MP-7	X .083	.5
15	MP-7B	X .049	1
16	MP-7B	X .044	1
17	MP-8	X .083	.5
18	MP-8	X .039	1
19	MP-9	X .073	.5
20	MP-9	X .057	1
21	MP-10	X .041	.5
22	MP-10	X .078	1
23	MP-11	X .108	.25
24	MP-11B	X .03	1
25	MP-11B	X .037	1
26	MP-12	X .108	.5
27	MP-12	X .053	1
28	MP-1	X .057	5
29	MP-2	X .041	8.25
30	MP-3	X .125	6
31	MP-4	X .052	6
32	MP-5	X .042	5
33	MP-6	X .041	8.25

Member Point Loads (BLC 12 : 225 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
34	MP-7	X .083	6
35	MP-8	X .083	6
36	MP-9	X .073	5
37	MP-10	X .041	8.25
38	MP-11	X .108	3.75
39	MP-12	X .108	3.75
40	MP-1	Z .057	5
41	MP-1	Z .04	1
42	MP-2	Z .041	.5
43	MP-2B	Z .033	1
44	MP-3	Z .125	.5
45	MP-3B	Z .04	1
46	MP-3B	Z .041	1
47	MP-4	Z .052	.5
48	MP-4	Z .046	1
49	MP-5	Z .042	.5
50	MP-5	Z .022	1
51	MP-6	Z .041	.5
52	MP-6	Z .127	1
53	MP-7	Z .083	.5
54	MP-7B	Z .049	1
55	MP-7B	Z .044	1
56	MP-8	Z .083	.5
57	MP-8	Z .039	1
58	MP-9	Z .073	.5
59	MP-9	Z .057	1
60	MP-10	Z .041	.5
61	MP-10	Z .078	1
62	MP-11	Z .108	.25
63	MP-11B	Z .03	1
64	MP-11B	Z .037	1
65	MP-12	Z .108	.5
66	MP-12	Z .053	1
67	MP-1	Z .057	5
68	MP-2	Z .041	8.25
69	MP-3	Z .125	6
70	MP-4	Z .052	6
71	MP-5	Z .042	5
72	MP-6	Z .041	8.25
73	MP-7	Z .083	6
74	MP-8	Z .083	6
75	MP-9	Z .073	5
76	MP-10	Z .041	8.25
77	MP-11	Z .108	3.75
78	MP-12	Z .108	3.75

Member Point Loads (BLC 13 : 240 Wind - No Ice)

Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
1	MP-1	X .034	.5
2	MP-1	X .021	1
3	MP-2	X .029	.5
4	MP-2B	X .023	1
5	MP-3	X .071	.5
6	MP-3B	X .032	1
7	MP-3B	X .03	1
8	MP-4	X .029	.5
9	MP-4	X .03	1
10	MP-5	X .034	.5
11	MP-5	X .021	1
12	MP-6	X .029	.5
13	MP-6	X .082	1
14	MP-7	X .071	.5

Member Point Loads (BLC 13 : 240 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
15 MP-7B	X	.032	1
16 MP-7B	X	.03	1
17 MP-8	X	.071	.5
18 MP-8	X	.03	1
19 MP-9	X	.053	.5
20 MP-9	X	.043	1
21 MP-10	X	.029	.5
22 MP-10	X	.053	1
23 MP-11	X	.08	.25
24 MP-11B	X	.02	1
25 MP-11B	X	.026	1
26 MP-12	X	.08	.5
27 MP-12	X	.038	1
28 MP-1	X	.034	5
29 MP-2	X	.029	8.25
30 MP-3	X	.071	6
31 MP-4	X	.029	6
32 MP-5	X	.034	5
33 MP-6	X	.029	8.25
34 MP-7	X	.071	6
35 MP-8	X	.071	6
36 MP-9	X	.053	5
37 MP-10	X	.029	8.25
38 MP-11	X	.08	3.75
39 MP-12	X	.08	3.75
40 MP-1	Z	.06	.5
41 MP-1	Z	.036	1
42 MP-2	Z	.05	.5
43 MP-2B	Z	.04	1
44 MP-3	Z	.123	.5
45 MP-3B	Z	.055	1
46 MP-3B	Z	.052	1
47 MP-4	Z	.051	.5
48 MP-4	Z	.052	1
49 MP-5	Z	.06	.5
50 MP-5	Z	.036	1
51 MP-6	Z	.05	.5
52 MP-6	Z	.142	1
53 MP-7	Z	.123	.5
54 MP-7B	Z	.055	1
55 MP-7B	Z	.052	1
56 MP-8	Z	.123	.5
57 MP-8	Z	.052	1
58 MP-9	Z	.092	.5
59 MP-9	Z	.074	1
60 MP-10	Z	.05	.5
61 MP-10	Z	.091	1
62 MP-11	Z	.138	.25
63 MP-11B	Z	.035	1
64 MP-11B	Z	.045	1
65 MP-12	Z	.138	.5
66 MP-12	Z	.066	1
67 MP-1	Z	.06	5
68 MP-2	Z	.05	8.25
69 MP-3	Z	.123	6
70 MP-4	Z	.051	6
71 MP-5	Z	.06	5
72 MP-6	Z	.05	8.25
73 MP-7	Z	.123	6
74 MP-8	Z	.123	6
75 MP-9	Z	.092	5
76 MP-10	Z	.05	8.25
77 MP-11	Z	.138	3.75

Member Point Loads (BLC 13 : 240 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
78 MP-12	Z	.138	3.75

Member Point Loads (BLC 14 : 270 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1 MP-1	Z	.056	.5
2 MP-1	Z	.027	1
3 MP-2	Z	.058	.5
4 MP-2B	Z	.047	1
5 MP-3	Z	.108	.5
6 MP-3B	Z	.071	1
7 MP-3B	Z	.063	1
8 MP-4	Z	.044	.5
9 MP-4	Z	.054	1
10 MP-5	Z	.094	.5
11 MP-5	Z	.07	1
12 MP-6	Z	.058	.5
13 MP-6	Z	.125	1
14 MP-7	Z	.211	.5
15 MP-7B	Z	.048	1
16 MP-7B	Z	.055	1
17 MP-8	Z	.211	.5
18 MP-8	Z	.07	1
19 MP-9	Z	.094	.5
20 MP-9	Z	.07	1
21 MP-10	Z	.058	.5
22 MP-10	Z	.125	1
23 MP-11	Z	.136	.25
24 MP-11B	Z	.048	1
25 MP-11B	Z	.055	1
26 MP-12	Z	.136	.5
27 MP-12	Z	.07	1
28 MP-1	Z	.056	5
29 MP-2	Z	.058	8.25
30 MP-3	Z	.108	6
31 MP-4	Z	.044	6
32 MP-5	Z	.094	5
33 MP-6	Z	.058	8.25
34 MP-7	Z	.211	6
35 MP-8	Z	.211	6
36 MP-9	Z	.094	5
37 MP-10	Z	.058	8.25
38 MP-11	Z	.136	3.75
39 MP-12	Z	.136	3.75

Member Point Loads (BLC 15 : 300 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1 MP-1	X	-.034	.5
2 MP-1	X	-.021	1
3 MP-2	X	-.029	.5
4 MP-2B	X	-.023	1
5 MP-3	X	-.071	.5
6 MP-3B	X	-.032	1
7 MP-3B	X	-.03	1
8 MP-4	X	-.029	.5
9 MP-4	X	-.03	1
10 MP-5	X	-.053	.5
11 MP-5	X	-.043	1
12 MP-6	X	-.029	.5
13 MP-6	X	-.053	1
14 MP-7	X	-.122	.5
15 MP-7B	X	-.02	1
16 MP-7B	X	-.026	1

Member Point Loads (BLC 15 : 300 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
17	MP-8	X	.122
18	MP-8	X	-.038
19	MP-9	X	-.034
20	MP-9	X	-.021
21	MP-10	X	.029
22	MP-10	X	-.082
23	MP-11	X	-.045
24	MP-11B	X	-.032
25	MP-11B	X	-.03
26	MP-12	X	-.045
27	MP-12	X	-.03
28	MP-1	X	-.034
29	MP-2	X	-.029
30	MP-3	X	-.071
31	MP-4	X	-.029
32	MP-5	X	-.053
33	MP-6	X	-.029
34	MP-7	X	-.122
35	MP-8	X	-.122
36	MP-9	X	-.034
37	MP-10	X	-.029
38	MP-11	X	-.045
39	MP-12	X	-.045
40	MP-1	Z	.06
41	MP-1	Z	.036
42	MP-2	Z	.05
43	MP-2B	Z	.04
44	MP-3	Z	.123
45	MP-3B	Z	.055
46	MP-3B	Z	.052
47	MP-4	Z	.051
48	MP-4	Z	.052
49	MP-5	Z	.092
50	MP-5	Z	.074
51	MP-6	Z	.05
52	MP-6	Z	.091
53	MP-7	Z	.212
54	MP-7B	Z	.035
55	MP-7B	Z	.045
56	MP-8	Z	.212
57	MP-8	Z	.066
58	MP-9	Z	.06
59	MP-9	Z	.036
60	MP-10	Z	.05
61	MP-10	Z	.142
62	MP-11	Z	.078
63	MP-11B	Z	.055
64	MP-11B	Z	.052
65	MP-12	Z	.078
66	MP-12	Z	.052
67	MP-1	Z	.06
68	MP-2	Z	.05
69	MP-3	Z	.123
70	MP-4	Z	.051
71	MP-5	Z	.092
72	MP-6	Z	.05
73	MP-7	Z	.212
74	MP-8	Z	.212
75	MP-9	Z	.06
76	MP-10	Z	.05
77	MP-11	Z	.078
78	MP-12	Z	.078

Member Point Loads (BLC 16 : 315 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.057
2	MP-1	X	-.04
3	MP-2	X	-.041
4	MP-2B	X	-.033
5	MP-3	X	.125
6	MP-3B	X	-.04
7	MP-3B	X	-.041
8	MP-4	X	-.052
9	MP-4	X	-.046
10	MP-5	X	-.073
11	MP-5	X	-.057
12	MP-6	X	-.041
13	MP-6	X	-.078
14	MP-7	X	-.167
15	MP-7B	X	-.03
16	MP-7B	X	-.037
17	MP-8	X	-.167
18	MP-8	X	-.053
19	MP-9	X	-.042
20	MP-9	X	-.022
21	MP-10	X	-.041
22	MP-10	X	-.127
23	MP-11	X	-.052
24	MP-11B	X	-.049
25	MP-11B	X	-.044
26	MP-12	X	-.052
27	MP-12	X	-.039
28	MP-1	X	-.057
29	MP-2	X	-.041
30	MP-3	X	-.125
31	MP-4	X	-.052
32	MP-5	X	-.073
33	MP-6	X	-.041
34	MP-7	X	-.167
35	MP-8	X	-.167
36	MP-9	X	-.042
37	MP-10	X	-.041
38	MP-11	X	-.052
39	MP-12	X	-.052
40	MP-1	Z	.057
41	MP-1	Z	.04
42	MP-2	Z	.041
43	MP-2B	Z	.033
44	MP-3	Z	.125
45	MP-3B	Z	.04
46	MP-3B	Z	.041
47	MP-4	Z	.052
48	MP-4	Z	.046
49	MP-5	Z	.073
50	MP-5	Z	.057
51	MP-6	Z	.041
52	MP-6	Z	.078
53	MP-7	Z	.167
54	MP-7B	Z	.03
55	MP-7B	Z	.037
56	MP-8	Z	.167
57	MP-8	Z	-.053
58	MP-9	Z	.042
59	MP-9	Z	.022
60	MP-10	Z	.041
61	MP-10	Z	.127
62	MP-11	Z	.052
63	MP-11B	Z	.049

Member Point Loads (BLC 16 : 315 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
64	MP-11B	Z .044	1
65	MP-12	Z .052	.5
66	MP-12	Z .039	1
67	MP-1	Z .057	5
68	MP-2	Z .041	8.25
69	MP-3	Z .125	6
70	MP-4	Z .052	6
71	MP-5	Z .073	5
72	MP-6	Z .041	8.25
73	MP-7	Z .167	6
74	MP-8	Z .167	6
75	MP-9	Z .042	5
76	MP-10	Z .041	8.25
77	MP-11	Z .052	3.75
78	MP-12	Z .052	3.75

Member Point Loads (BLC 17 : 330 Wind - No Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X -.081	.5
2	MP-1	X -.061	1
3	MP-2	X -.05	.5
4	MP-2B	X -.04	1
5	MP-3	X -.182	.5
6	MP-3B	X -.042	1
7	MP-3B	X -.048	1
8	MP-4	X -.076	.5
9	MP-4	X -.061	1
10	MP-5	X -.081	.5
11	MP-5	X -.061	1
12	MP-6	X -.05	.5
13	MP-6	X -.108	1
14	MP-7	X -.182	.5
15	MP-7B	X -.042	1
16	MP-7B	X -.048	1
17	MP-8	X -.182	.5
18	MP-8	X -.061	1
19	MP-9	X -.049	.5
20	MP-9	X -.023	1
21	MP-10	X -.05	.5
22	MP-10	X -.16	1
23	MP-11	X -.058	.25
24	MP-11B	X -.061	1
25	MP-11B	X -.055	1
26	MP-12	X -.058	.5
27	MP-12	X -.047	1
28	MP-1	X -.081	5
29	MP-2	X -.05	8.25
30	MP-3	X -.182	6
31	MP-4	X -.076	6
32	MP-5	X -.081	5
33	MP-6	X -.05	8.25
34	MP-7	X -.182	6
35	MP-8	X -.182	6
36	MP-9	X -.049	5
37	MP-10	X -.05	8.25
38	MP-11	X -.058	3.75
39	MP-12	X -.058	3.75
40	MP-1	Z .047	.5
41	MP-1	Z .035	1
42	MP-2	Z .029	.5
43	MP-2B	Z .023	1
44	MP-3	Z .105	.5

Member Point Loads (BLC 17 : 330 Wind - No Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
45	MP-3B	Z .024	1
46	MP-3B	Z .027	1
47	MP-4	Z .044	.5
48	MP-4	Z .035	1
49	MP-5	Z .047	.5
50	MP-5	Z .035	1
51	MP-6	Z .029	.5
52	MP-6	Z .063	1
53	MP-7	Z .105	.5
54	MP-7B	Z .024	1
55	MP-7B	Z .027	1
56	MP-8	Z .105	.5
57	MP-8	Z .035	1
58	MP-9	Z .028	.5
59	MP-9	Z .013	1
60	MP-10	Z .029	.5
61	MP-10	Z .092	1
62	MP-11	Z .034	.25
63	MP-11B	Z .035	1
64	MP-11B	Z .032	1
65	MP-12	Z .034	.5
66	MP-12	Z .027	1
67	MP-1	Z .047	5
68	MP-2	Z .029	8.25
69	MP-3	Z .105	6
70	MP-4	Z .044	6
71	MP-5	Z .047	5
72	MP-6	Z .029	8.25
73	MP-7	Z .105	6
74	MP-8	Z .105	6
75	MP-9	Z .028	5
76	MP-10	Z .029	8.25
77	MP-11	Z .034	3.75
78	MP-12	Z .034	3.75

Member Point Loads (BLC 18 : Ice Weight)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	Y -.035	.5
2	MP-1	Y -.033	1
3	MP-2	Y -.026	.5
4	MP-2B	Y -.041	1
5	MP-3	Y -.078	.5
6	MP-3B	Y -.035	1
7	MP-3B	Y -.038	1
8	MP-4	Y -.082	.5
9	MP-4	Y -.04	1
10	MP-5	Y -.035	.5
11	MP-5	Y -.033	1
12	MP-6	Y -.026	.5
13	MP-6	Y -.079	1
14	MP-7	Y -.078	.5
15	MP-7B	Y -.035	1
16	MP-7B	Y -.038	1
17	MP-8	Y -.078	.5
18	MP-8	Y -.04	1
19	MP-9	Y -.035	.5
20	MP-9	Y -.033	1
21	MP-10	Y -.026	.5
22	MP-10	Y -.079	1
23	MP-11	Y -.055	.25
24	MP-11B	Y -.035	1
25	MP-11B	Y -.038	1

Member Point Loads (BLC 18 : Ice Weight) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
26	MP-12	Y	-.055
27	MP-12	Y	-.04
28	MP-1	Y	-.035
29	MP-2	Y	-.026
30	MP-3	Y	-.078
31	MP-4	Y	-.082
32	MP-5	Y	-.035
33	MP-6	Y	-.026
34	MP-7	Y	-.078
35	MP-8	Y	-.078
36	MP-9	Y	-.035
37	MP-10	Y	-.026
38	MP-11	Y	-.055
39	MP-12	Y	-.055

Member Point Loads (BLC 19 : 0 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.016
2	MP-1	X	-.015
3	MP-2	X	-.008
4	MP-2B	X	-.007
5	MP-3	X	-.035
6	MP-3B	X	-.012
7	MP-3B	X	-.011
8	MP-4	X	-.015
9	MP-4	X	-.012
10	MP-5	X	-.016
11	MP-5	X	-.015
12	MP-6	X	-.008
13	MP-6	X	-.017
14	MP-7	X	-.035
15	MP-7B	X	-.012
16	MP-7B	X	-.011
17	MP-8	X	-.035
18	MP-8	X	-.012
19	MP-9	X	-.016
20	MP-9	X	-.015
21	MP-10	X	-.008
22	MP-10	X	-.017
23	MP-11	X	-.023
24	MP-11B	X	-.012
25	MP-11B	X	-.011
26	MP-12	X	-.023
27	MP-12	X	-.012
28	MP-1	X	-.016
29	MP-2	X	-.008
30	MP-3	X	-.035
31	MP-4	X	-.015
32	MP-5	X	-.016
33	MP-6	X	-.008
34	MP-7	X	-.035
35	MP-8	X	-.035
36	MP-9	X	-.016
37	MP-10	X	-.008
38	MP-11	X	-.023
39	MP-12	X	-.023

Member Point Loads (BLC 20 : 30 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.013
2	MP-1	X	-.011
3	MP-2	X	-.007

Member Point Loads (BLC 20 : 30 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
4	MP-2B	X	-.006
5	MP-3	X	-.026
6	MP-3B	X	-.007
7	MP-3B	X	-.008
8	MP-4	X	-.011
9	MP-4	X	-.01
10	MP-5	X	-.008
11	MP-5	X	-.006
12	MP-6	X	-.007
13	MP-6	X	-.024
14	MP-7	X	-.015
15	MP-7B	X	-.01
16	MP-7B	X	-.009
17	MP-8	X	-.015
18	MP-8	X	-.008
19	MP-9	X	-.013
20	MP-9	X	-.011
21	MP-10	X	-.007
22	MP-10	X	-.017
23	MP-11	X	-.017
24	MP-11B	X	-.007
25	MP-11B	X	-.008
26	MP-12	X	-.017
27	MP-12	X	-.01
28	MP-1	X	-.013
29	MP-2	X	-.007
30	MP-3	X	-.026
31	MP-4	X	-.011
32	MP-5	X	-.008
33	MP-6	X	-.007
34	MP-7	X	-.015
35	MP-8	X	-.015
36	MP-9	X	-.013
37	MP-10	X	-.007
38	MP-11	X	-.017
39	MP-12	X	-.017
40	MP-1	Z	-.007
41	MP-1	Z	-.006
42	MP-2	Z	-.004
43	MP-2B	Z	-.004
44	MP-3	Z	-.015
45	MP-3B	Z	-.004
46	MP-3B	Z	-.005
47	MP-4	Z	-.006
48	MP-4	Z	-.006
49	MP-5	Z	-.005
50	MP-5	Z	-.003
51	MP-6	Z	-.004
52	MP-6	Z	-.014
53	MP-7	Z	-.009
54	MP-7B	Z	-.006
55	MP-7B	Z	-.005
56	MP-8	Z	-.009
57	MP-8	Z	-.005
58	MP-9	Z	-.007
59	MP-9	Z	-.006
60	MP-10	Z	-.004
61	MP-10	Z	-.01
62	MP-11	Z	-.01
63	MP-11B	Z	-.004
64	MP-11B	Z	-.005
65	MP-12	Z	-.01
66	MP-12	Z	-.006

Member Point Loads (BLC 20 : 30 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
67	MP-1	Z	.007
68	MP-2	Z	-.004
69	MP-3	Z	-.015
70	MP-4	Z	-.006
71	MP-5	Z	-.005
72	MP-6	Z	-.004
73	MP-7	Z	-.009
74	MP-8	Z	-.009
75	MP-9	Z	-.007
76	MP-10	Z	-.004
77	MP-11	Z	-.01
78	MP-12	Z	-.01

Member Point Loads (BLC 21 : 45 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.009
2	MP-1	X	-.008
3	MP-2	X	-.005
4	MP-2B	X	-.005
5	MP-3	X	-.018
6	MP-3B	X	-.007
7	MP-3B	X	-.007
8	MP-4	X	-.008
9	MP-4	X	-.008
10	MP-5	X	-.007
11	MP-5	X	-.005
12	MP-6	X	-.005
13	MP-6	X	-.019
14	MP-7	X	-.013
15	MP-7B	X	-.008
16	MP-7B	X	-.007
17	MP-8	X	-.013
18	MP-8	X	-.007
19	MP-9	X	-.011
20	MP-9	X	-.01
21	MP-10	X	-.005
22	MP-10	X	-.012
23	MP-11	X	-.016
24	MP-11B	X	-.005
25	MP-11B	X	-.006
26	MP-12	X	-.016
27	MP-12	X	-.009
28	MP-1	X	-.009
29	MP-2	X	-.005
30	MP-3	X	-.018
31	MP-4	X	-.008
32	MP-5	X	-.007
33	MP-6	X	-.005
34	MP-7	X	-.013
35	MP-8	X	-.013
36	MP-9	X	-.011
37	MP-10	X	-.005
38	MP-11	X	-.016
39	MP-12	X	-.016
40	MP-1	Z	-.009
41	MP-1	Z	-.008
42	MP-2	Z	-.005
43	MP-2B	Z	-.005
44	MP-3	Z	-.018
45	MP-3B	Z	-.007
46	MP-3B	Z	-.007
47	MP-4	Z	-.008

Member Point Loads (BLC 21 : 45 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
48	MP-4	Z	-.008
49	MP-5	Z	-.007
50	MP-5	Z	-.005
51	MP-6	Z	-.005
52	MP-6	Z	-.019
53	MP-7	Z	-.013
54	MP-7B	Z	-.008
55	MP-7B	Z	-.007
56	MP-8	Z	-.013
57	MP-8	Z	-.007
58	MP-9	Z	-.011
59	MP-9	Z	-.01
60	MP-10	Z	-.005
61	MP-10	Z	-.012
62	MP-11	Z	-.016
63	MP-11B	Z	-.005
64	MP-11B	Z	-.006
65	MP-12	Z	-.016
66	MP-12	Z	-.009
67	MP-1	Z	-.009
68	MP-2	Z	-.005
69	MP-3	Z	-.018
70	MP-4	Z	-.008
71	MP-5	Z	-.007
72	MP-6	Z	-.005
73	MP-7	Z	-.013
74	MP-8	Z	-.013
75	MP-9	Z	-.011
76	MP-10	Z	-.005
77	MP-11	Z	-.016
78	MP-12	Z	-.016

Member Point Loads (BLC 22 : 60 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.006
2	MP-1	X	-.004
3	MP-2	X	-.004
4	MP-2B	X	-.004
5	MP-3	X	-.011
6	MP-3B	X	-.005
7	MP-3B	X	-.005
8	MP-4	X	-.005
9	MP-4	X	-.005
10	MP-5	X	-.006
11	MP-5	X	-.004
12	MP-6	X	-.004
13	MP-6	X	-.013
14	MP-7	X	-.011
15	MP-7B	X	-.005
16	MP-7B	X	-.005
17	MP-8	X	-.011
18	MP-8	X	-.005
19	MP-9	X	-.008
20	MP-9	X	-.008
21	MP-10	X	-.004
22	MP-10	X	-.008
23	MP-11	X	-.012
24	MP-11B	X	-.004
25	MP-11B	X	-.004
26	MP-12	X	-.012
27	MP-12	X	-.006
28	MP-1	X	-.006

Member Point Loads (BLC 22 : 60 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
29	MP-2	X	.004
30	MP-3	X	-.011
31	MP-4	X	-.005
32	MP-5	X	-.006
33	MP-6	X	.004
34	MP-7	X	-.011
35	MP-8	X	-.011
36	MP-9	X	-.008
37	MP-10	X	-.004
38	MP-11	X	-.012
39	MP-12	X	-.012
40	MP-1	Z	-.01
41	MP-1	Z	-.007
42	MP-2	Z	-.007
43	MP-2B	Z	-.006
44	MP-3	Z	-.019
45	MP-3B	Z	-.009
46	MP-3B	Z	-.009
47	MP-4	Z	-.008
48	MP-4	Z	-.009
49	MP-5	Z	-.01
50	MP-5	Z	-.007
51	MP-6	Z	-.007
52	MP-6	Z	-.022
53	MP-7	Z	-.019
54	MP-7B	Z	-.009
55	MP-7B	Z	-.009
56	MP-8	Z	-.019
57	MP-8	Z	-.009
58	MP-9	Z	-.014
59	MP-9	Z	-.013
60	MP-10	Z	-.007
61	MP-10	Z	-.015
62	MP-11	Z	-.02
63	MP-11B	Z	-.006
64	MP-11B	Z	-.008
65	MP-12	Z	-.02
66	MP-12	Z	-.011
67	MP-1	Z	-.01
68	MP-2	Z	-.007
69	MP-3	Z	-.019
70	MP-4	Z	-.008
71	MP-5	Z	-.01
72	MP-6	Z	-.007
73	MP-7	Z	-.019
74	MP-8	Z	-.019
75	MP-9	Z	-.014
76	MP-10	Z	-.007
77	MP-11	Z	-.02
78	MP-12	Z	-.02

Member Point Loads (BLC 23 : 90 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	Z	-.01
2	MP-1	Z	-.006
3	MP-2	Z	-.008
4	MP-2B	Z	-.007
5	MP-3	Z	-.017
6	MP-3B	Z	-.009
7	MP-3B	Z	-.007
8	MP-4	Z	-.007
9	MP-4	Z	-.009

Member Point Loads (BLC 23 : 90 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP-5	Z	-.01
11	MP-5	Z	-.006
12	MP-6	Z	-.008
13	MP-6	Z	-.028
14	MP-7	Z	-.017
15	MP-7B	Z	-.007
16	MP-7B	Z	-.009
17	MP-8	Z	-.017
18	MP-8	Z	-.009
19	MP-9	Z	-.01
20	MP-9	Z	-.006
21	MP-10	Z	-.008
22	MP-10	Z	-.028
23	MP-11	Z	-.011
24	MP-11B	Z	-.007
25	MP-11B	Z	-.009
26	MP-12	Z	-.011
27	MP-12	Z	-.009
28	MP-1	Z	-.01
29	MP-2	Z	-.008
30	MP-3	Z	-.017
31	MP-4	Z	-.007
32	MP-5	Z	-.01
33	MP-6	Z	-.008
34	MP-7	Z	-.017
35	MP-8	Z	-.017
36	MP-9	Z	-.01
37	MP-10	Z	-.008
38	MP-11	Z	-.011
39	MP-12	Z	-.011

Member Point Loads (BLC 24 : 120 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.006
2	MP-1	X	.004
3	MP-2	X	.004
4	MP-2B	X	.004
5	MP-3	X	.011
6	MP-3B	X	.005
7	MP-3B	X	.005
8	MP-4	X	.005
9	MP-4	X	.005
10	MP-5	X	.008
11	MP-5	X	.008
12	MP-6	X	.004
13	MP-6	X	.008
14	MP-7	X	.017
15	MP-7B	X	.004
16	MP-7B	X	.004
17	MP-8	X	.017
18	MP-8	X	.006
19	MP-9	X	.006
20	MP-9	X	.004
21	MP-10	X	.004
22	MP-10	X	.013
23	MP-11	X	.007
24	MP-11B	X	.005
25	MP-11B	X	.005
26	MP-12	X	.007
27	MP-12	X	.005
28	MP-1	X	.006
29	MP-2	X	.004

Member Point Loads (BLC 24 : 120 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
30	MP-3	X .011	6
31	MP-4	X .005	6
32	MP-5	X .008	5
33	MP-6	X .004	8.25
34	MP-7	X .017	6
35	MP-8	X .017	6
36	MP-9	X .006	5
37	MP-10	X .004	8.25
38	MP-11	X .007	3.75
39	MP-12	X .007	3.75
40	MP-1	Z -.01	.5
41	MP-1	Z -.007	1
42	MP-2	Z -.007	.5
43	MP-2B	Z -.006	1
44	MP-3	Z -.019	.5
45	MP-3B	Z -.009	1
46	MP-3B	Z -.009	1
47	MP-4	Z -.008	.5
48	MP-4	Z -.009	1
49	MP-5	Z -.014	.5
50	MP-5	Z -.013	1
51	MP-6	Z -.007	.5
52	MP-6	Z -.015	1
53	MP-7	Z -.03	.5
54	MP-7B	Z -.006	1
55	MP-7B	Z -.008	1
56	MP-8	Z -.03	.5
57	MP-8	Z -.011	1
58	MP-9	Z -.01	.5
59	MP-9	Z -.007	1
60	MP-10	Z -.007	.5
61	MP-10	Z -.022	1
62	MP-11	Z -.012	.25
63	MP-11B	Z -.009	1
64	MP-11B	Z -.009	1
65	MP-12	Z -.012	.5
66	MP-12	Z -.009	1
67	MP-1	Z -.01	5
68	MP-2	Z -.007	8.25
69	MP-3	Z -.019	6
70	MP-4	Z -.008	6
71	MP-5	Z -.014	5
72	MP-6	Z -.007	8.25
73	MP-7	Z -.03	6
74	MP-8	Z -.03	6
75	MP-9	Z -.01	5
76	MP-10	Z -.007	8.25
77	MP-11	Z -.012	3.75
78	MP-12	Z -.012	3.75

Member Point Loads (BLC 25 : 135 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X .009	.5
2	MP-1	X .008	1
3	MP-2	X .005	.5
4	MP-2B	X .005	1
5	MP-3	X .018	.5
6	MP-3B	X .007	1
7	MP-3B	X .007	1
8	MP-4	X .008	.5
9	MP-4	X .008	1
10	MP-5	X .011	.5

Member Point Loads (BLC 25 : 135 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
11	MP-5	X .01	1
12	MP-6	X .005	.5
13	MP-6	X .012	1
14	MP-7	X .024	.5
15	MP-7B	X .005	1
16	MP-7B	X .006	1
17	MP-8	X .024	.5
18	MP-8	X .009	1
19	MP-9	X .007	.5
20	MP-9	X .005	1
21	MP-10	X .005	.5
22	MP-10	X .019	1
23	MP-11	X .008	25
24	MP-11B	X .008	1
25	MP-11B	X .007	1
26	MP-12	X .008	.5
27	MP-12	X .007	1
28	MP-1	X .009	5
29	MP-2	X .005	8.25
30	MP-3	X .018	6
31	MP-4	X .008	6
32	MP-5	X .011	.5
33	MP-6	X .005	8.25
34	MP-7	X .024	6
35	MP-8	X .024	6
36	MP-9	X .007	.5
37	MP-10	X .005	8.25
38	MP-11	X .008	3.75
39	MP-12	X .008	3.75
40	MP-1	Z -.009	.5
41	MP-1	Z -.008	1
42	MP-2	Z -.005	.5
43	MP-2B	Z -.005	1
44	MP-3	Z -.018	.5
45	MP-3B	Z -.007	1
46	MP-3B	Z -.007	1
47	MP-4	Z -.008	.5
48	MP-4	Z -.008	1
49	MP-5	Z -.011	.5
50	MP-5	Z -.01	1
51	MP-6	Z -.005	.5
52	MP-6	Z -.012	1
53	MP-7	Z -.024	.5
54	MP-7B	Z -.005	1
55	MP-7B	Z -.006	1
56	MP-8	Z -.024	.5
57	MP-8	Z -.009	1
58	MP-9	Z -.007	.5
59	MP-9	Z -.005	1
60	MP-10	Z -.005	.5
61	MP-10	Z -.019	1
62	MP-11	Z -.008	.25
63	MP-11B	Z -.008	1
64	MP-11B	Z -.007	1
65	MP-12	Z -.008	.5
66	MP-12	Z -.007	1
67	MP-1	Z -.009	5
68	MP-2	Z -.005	8.25
69	MP-3	Z -.018	6
70	MP-4	Z -.008	6
71	MP-5	Z -.011	5
72	MP-6	Z -.005	8.25
73	MP-7	Z -.024	6

Member Point Loads (BLC 25 : 135 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
74	MP-8	Z	.024
75	MP-9	Z	-.007
76	MP-10	Z	-.005
77	MP-11	Z	-.008
78	MP-12	Z	-.008

Member Point Loads (BLC 26 : 150 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.013
2	MP-1	X	.011
3	MP-2	X	.007
4	MP-2B	X	.006
5	MP-3	X	.026
6	MP-3B	X	.007
7	MP-3B	X	.008
8	MP-4	X	.011
9	MP-4	X	.01
10	MP-5	X	.013
11	MP-5	X	.011
12	MP-6	X	.007
13	MP-6	X	.017
14	MP-7	X	.026
15	MP-7B	X	.007
16	MP-7B	X	.008
17	MP-8	X	.026
18	MP-8	X	.01
19	MP-9	X	.008
20	MP-9	X	.006
21	MP-10	X	.007
22	MP-10	X	.024
23	MP-11	X	.009
24	MP-11B	X	.01
25	MP-11B	X	.009
26	MP-12	X	.009
27	MP-12	X	.008
28	MP-1	X	.013
29	MP-2	X	.007
30	MP-3	X	.026
31	MP-4	X	.011
32	MP-5	X	.013
33	MP-6	X	.007
34	MP-7	X	.026
35	MP-8	X	.026
36	MP-9	X	.008
37	MP-10	X	.007
38	MP-11	X	.009
39	MP-12	X	.009
40	MP-1	Z	-.007
41	MP-1	Z	-.006
42	MP-2	Z	-.004
43	MP-2B	Z	-.004
44	MP-3	Z	-.015
45	MP-3B	Z	-.004
46	MP-3B	Z	-.005
47	MP-4	Z	-.006
48	MP-4	Z	-.006
49	MP-5	Z	-.007
50	MP-5	Z	-.006
51	MP-6	Z	-.004
52	MP-6	Z	-.01
53	MP-7	Z	-.015
54	MP-7B	Z	-.004

Member Point Loads (BLC 26 : 150 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
55	MP-7B	Z	-.005
56	MP-8	Z	-.015
57	MP-8	Z	-.006
58	MP-9	Z	-.005
59	MP-9	Z	-.003
60	MP-10	Z	-.004
61	MP-10	Z	-.014
62	MP-11	Z	-.005
63	MP-11B	Z	-.006
64	MP-11B	Z	-.005
65	MP-12	Z	-.005
66	MP-12	Z	-.005
67	MP-1	Z	-.007
68	MP-2	Z	-.004
69	MP-3	Z	-.015
70	MP-4	Z	-.006
71	MP-5	Z	-.007
72	MP-6	Z	-.004
73	MP-7	Z	-.015
74	MP-8	Z	-.015
75	MP-9	Z	-.005
76	MP-10	Z	-.004
77	MP-11	Z	-.005
78	MP-12	Z	-.005

Member Point Loads (BLC 27 : 180 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.016
2	MP-1	X	.015
3	MP-2	X	.008
4	MP-2B	X	.007
5	MP-3	X	.035
6	MP-3B	X	.012
7	MP-3B	X	.011
8	MP-4	X	.015
9	MP-4	X	.012
10	MP-5	X	.016
11	MP-5	X	.015
12	MP-6	X	.008
13	MP-6	X	.017
14	MP-7	X	.035
15	MP-7B	X	.012
16	MP-7B	X	.011
17	MP-8	X	.035
18	MP-8	X	.012
19	MP-9	X	.016
20	MP-9	X	.015
21	MP-10	X	.008
22	MP-10	X	.017
23	MP-11	X	.023
24	MP-11B	X	.012
25	MP-11B	X	.011
26	MP-12	X	.023
27	MP-12	X	.012
28	MP-1	X	.016
29	MP-2	X	.008
30	MP-3	X	.035
31	MP-4	X	.015
32	MP-5	X	.016
33	MP-6	X	.008
34	MP-7	X	.035
35	MP-8	X	.035

Member Point Loads (BLC 27 : 180 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
36	MP-9	X .016	5
37	MP-10	X .008	8.25
38	MP-11	X .023	3.75
39	MP-12	X .023	3.75

Member Point Loads (BLC 28 : 210 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X .013	.5
2	MP-1	X .011	1
3	MP-2	X .007	.5
4	MP-2B	X .006	1
5	MP-3	X .026	.5
6	MP-3B	X .007	1
7	MP-3B	X .008	1
8	MP-4	X .011	.5
9	MP-4	X .01	1
10	MP-5	X .008	.5
11	MP-5	X .006	1
12	MP-6	X .007	.5
13	MP-6	X .024	1
14	MP-7	X .015	.5
15	MP-7B	X .01	1
16	MP-7B	X .009	1
17	MP-8	X .015	.5
18	MP-8	X .008	1
19	MP-9	X .013	.5
20	MP-9	X .011	1
21	MP-10	X .007	.5
22	MP-10	X .017	1
23	MP-11	X .017	.25
24	MP-11B	X .007	1
25	MP-11B	X .008	1
26	MP-12	X .017	.5
27	MP-12	X .01	1
28	MP-1	X .013	5
29	MP-2	X .007	8.25
30	MP-3	X .026	6
31	MP-4	X .011	6
32	MP-5	X .008	5
33	MP-6	X .007	8.25
34	MP-7	X .015	6
35	MP-8	X .015	6
36	MP-9	X .013	5
37	MP-10	X .007	8.25
38	MP-11	X .017	3.75
39	MP-12	X .017	3.75
40	MP-1	Z .007	.5
41	MP-1	Z .006	1
42	MP-2	Z .004	.5
43	MP-2B	Z .004	1
44	MP-3	Z .015	.5
45	MP-3B	Z .004	1
46	MP-3B	Z .005	1
47	MP-4	Z .006	.5
48	MP-4	Z .006	1
49	MP-5	Z .005	.5
50	MP-5	Z .003	1
51	MP-6	Z .004	.5
52	MP-6	Z .014	1
53	MP-7	Z .009	.5
54	MP-7B	Z .006	1
55	MP-7B	Z .005	1

Member Point Loads (BLC 28 : 210 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
56	MP-8	Z .009	.5
57	MP-8	Z .005	1
58	MP-9	Z .007	.5
59	MP-9	Z .006	1
60	MP-10	Z .004	.5
61	MP-10	Z .01	1
62	MP-11	Z .01	.25
63	MP-11B	Z .004	1
64	MP-11B	Z .005	1
65	MP-12	Z .01	.5
66	MP-12	Z .006	1
67	MP-1	Z .007	5
68	MP-2	Z .004	8.25
69	MP-3	Z .015	6
70	MP-4	Z .006	6
71	MP-5	Z .005	5
72	MP-6	Z .004	8.25
73	MP-7	Z .009	6
74	MP-8	Z .009	6
75	MP-9	Z .007	5
76	MP-10	Z .004	8.25
77	MP-11	Z .01	3.75
78	MP-12	Z .01	3.75

Member Point Loads (BLC 29 : 225 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X .009	.5
2	MP-1	X .008	1
3	MP-2	X .005	.5
4	MP-2B	X .005	1
5	MP-3	X .018	.5
6	MP-3B	X .007	1
7	MP-3B	X .007	1
8	MP-4	X .008	.5
9	MP-4	X .008	1
10	MP-5	X .007	.5
11	MP-5	X .005	1
12	MP-6	X .005	.5
13	MP-6	X .019	1
14	MP-7	X .013	.5
15	MP-7B	X .008	1
16	MP-7B	X .007	1
17	MP-8	X .013	.5
18	MP-8	X .007	1
19	MP-9	X .011	.5
20	MP-9	X .01	1
21	MP-10	X .005	.5
22	MP-10	X .012	1
23	MP-11	X .016	.25
24	MP-11B	X .005	1
25	MP-11B	X .006	1
26	MP-12	X .016	.5
27	MP-12	X .009	1
28	MP-1	X .009	5
29	MP-2	X .005	8.25
30	MP-3	X .018	6
31	MP-4	X .008	6
32	MP-5	X .007	5
33	MP-6	X .005	8.25
34	MP-7	X .013	6
35	MP-8	X .013	6
36	MP-9	X .011	5

Member Point Loads (BLC 29 : 225 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
37	MP-10	X .005	8.25
38	MP-11	X .016	3.75
39	MP-12	X .016	3.75
40	MP-1	Z .009	.5
41	MP-1	Z .008	1
42	MP-2	Z .005	.5
43	MP-2B	Z .005	1
44	MP-3	Z .018	.5
45	MP-3B	Z .007	1
46	MP-3B	Z .007	1
47	MP-4	Z .008	.5
48	MP-4	Z .008	1
49	MP-5	Z .007	.5
50	MP-5	Z .005	1
51	MP-6	Z .005	.5
52	MP-6	Z .019	1
53	MP-7	Z .013	.5
54	MP-7B	Z .008	1
55	MP-7B	Z .007	1
56	MP-8	Z .013	.5
57	MP-8	Z .007	1
58	MP-9	Z .011	.5
59	MP-9	Z .01	1
60	MP-10	Z .005	.5
61	MP-10	Z .012	1
62	MP-11	Z .016	.25
63	MP-11B	Z .005	1
64	MP-11B	Z .006	1
65	MP-12	Z .016	.5
66	MP-12	Z .009	1
67	MP-1	Z .009	5
68	MP-2	Z .005	8.25
69	MP-3	Z .018	6
70	MP-4	Z .008	6
71	MP-5	Z .007	5
72	MP-6	Z .005	8.25
73	MP-7	Z .013	6
74	MP-8	Z .013	6
75	MP-9	Z .011	5
76	MP-10	Z .005	8.25
77	MP-11	Z .016	3.75
78	MP-12	Z .016	3.75

Member Point Loads (BLC 30 : 240 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X .006	.5
2	MP-1	X .004	1
3	MP-2	X .004	.5
4	MP-2B	X .004	1
5	MP-3	X .011	.5
6	MP-3B	X .005	1
7	MP-3B	X .005	1
8	MP-4	X .005	.5
9	MP-4	X .005	1
10	MP-5	X .006	.5
11	MP-5	X .004	1
12	MP-6	X .004	.5
13	MP-6	X .013	1
14	MP-7	X .011	.5
15	MP-7B	X .005	1
16	MP-7B	X .005	1
17	MP-8	X .011	.5

Member Point Loads (BLC 30 : 240 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
18	MP-8	X .005	1
19	MP-9	X .008	.5
20	MP-9	X .008	1
21	MP-10	X .004	.5
22	MP-10	X .008	1
23	MP-11	X .012	.25
24	MP-11B	X .004	1
25	MP-11B	X .004	1
26	MP-12	X .012	.5
27	MP-12	X .006	1
28	MP-1	X .006	.5
29	MP-2	X .004	8.25
30	MP-3	X .011	6
31	MP-4	X .005	6
32	MP-5	X .006	.5
33	MP-6	X .004	8.25
34	MP-7	X .011	6
35	MP-8	X .011	6
36	MP-9	X .008	.5
37	MP-10	X .004	8.25
38	MP-11	X .012	.375
39	MP-12	X .012	3.75
40	MP-1	Z .01	.5
41	MP-1	Z .007	1
42	MP-2	Z .007	.5
43	MP-2B	Z .006	1
44	MP-3	Z .019	.5
45	MP-3B	Z .009	1
46	MP-3B	Z .009	1
47	MP-4	Z .008	.5
48	MP-4	Z .009	1
49	MP-5	Z .01	.5
50	MP-5	Z .007	1
51	MP-6	Z .007	.5
52	MP-6	Z .022	1
53	MP-7	Z .019	.5
54	MP-7B	Z .009	1
55	MP-7B	Z .009	1
56	MP-8	Z .019	.5
57	MP-8	Z .009	1
58	MP-9	Z .014	.5
59	MP-9	Z .013	1
60	MP-10	Z .007	.5
61	MP-10	Z .015	1
62	MP-11	Z .02	.25
63	MP-11B	Z .006	1
64	MP-11B	Z .008	1
65	MP-12	Z .02	.5
66	MP-12	Z .011	1
67	MP-1	Z .01	.5
68	MP-2	Z .007	8.25
69	MP-3	Z .019	6
70	MP-4	Z .008	6
71	MP-5	Z .01	.5
72	MP-6	Z .007	8.25
73	MP-7	Z .019	6
74	MP-8	Z .019	6
75	MP-9	Z .014	.5
76	MP-10	Z .007	8.25
77	MP-11	Z .02	.375
78	MP-12	Z .02	3.75

Member Point Loads (BLC 31 : 270 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	Z	.01	.5
2	Z	.006	1
3	Z	.008	.5
4	Z	.007	1
5	Z	.017	.5
6	Z	.007	1
7	Z	.009	1
8	Z	.007	.5
9	Z	.009	1
10	Z	.01	.5
11	Z	.006	1
12	Z	.008	.5
13	Z	.028	1
14	Z	.017	.5
15	Z	.007	1
16	Z	.009	1
17	Z	.017	.5
18	Z	.009	1
19	Z	.01	.5
20	Z	.006	1
21	Z	.008	.5
22	Z	.028	1
23	Z	.011	.25
24	Z	.007	1
25	Z	.009	1
26	Z	.011	.5
27	Z	.009	1
28	Z	.01	5
29	Z	.008	8.25
30	Z	.017	6
31	Z	.007	6
32	Z	.01	5
33	Z	.008	8.25
34	Z	.017	6
35	Z	.017	6
36	Z	.01	5
37	Z	.008	8.25
38	Z	.011	3.75
39	Z	.011	3.75

Member Point Loads (BLC 32 : 300 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	X	-.006	.5
2	X	-.004	1
3	X	-.004	.5
4	X	-.004	1
5	X	-.011	.5
6	X	-.005	1
7	X	-.005	1
8	X	-.005	.5
9	X	-.005	1
10	X	-.008	.5
11	X	-.008	1
12	X	-.004	.5
13	X	-.008	1
14	X	-.017	.5
15	X	-.004	1
16	X	-.004	1
17	X	-.017	.5
18	X	-.006	1
19	X	-.006	.5
20	X	-.004	1

Member Point Loads (BLC 32 : 300 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
21	X	-.004	.5
22	X	-.013	1
23	X	-.007	.25
24	X	-.005	1
25	X	.005	1
26	X	-.007	.5
27	X	-.005	1
28	X	-.006	5
29	X	-.004	8.25
30	X	-.011	6
31	X	-.005	6
32	X	-.008	5
33	X	-.004	8.25
34	X	-.017	6
35	X	-.017	6
36	X	-.006	5
37	X	-.004	8.25
38	X	-.007	3.75
39	X	-.007	3.75
40	Z	.01	.5
41	Z	.007	1
42	Z	.007	.5
43	Z	.006	1
44	Z	.019	.5
45	Z	.009	1
46	Z	.009	1
47	Z	.008	.5
48	Z	.009	1
49	Z	.014	.5
50	Z	.013	1
51	Z	.007	.5
52	Z	.015	1
53	Z	.03	.5
54	Z	.006	1
55	Z	.008	1
56	Z	.03	.5
57	Z	.011	1
58	Z	.01	.5
59	Z	.007	1
60	Z	.007	.5
61	Z	.022	1
62	Z	.012	.25
63	Z	.009	1
64	Z	.009	1
65	Z	.012	.5
66	Z	.009	1
67	Z	.01	5
68	Z	.007	8.25
69	Z	.019	6
70	Z	.008	6
71	Z	.014	5
72	Z	.007	8.25
73	Z	.03	6
74	Z	.03	6
75	Z	.01	5
76	Z	.007	8.25
77	Z	.012	3.75
78	Z	.012	3.75

Member Point Loads (BLC 33 : 315 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	X	-.009	.5

Member Point Loads (BLC 33 : 315 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
2	MP-1	X	.008
3	MP-2	X	.005
4	MP-2B	X	.005
5	MP-3	X	.018
6	MP-3B	X	.007
7	MP-3B	X	.007
8	MP-4	X	.008
9	MP-4	X	.008
10	MP-5	X	.011
11	MP-5	X	.01
12	MP-6	X	.005
13	MP-6	X	.012
14	MP-7	X	.024
15	MP-7B	X	.005
16	MP-7B	X	.006
17	MP-8	X	.024
18	MP-8	X	.009
19	MP-9	X	.007
20	MP-9	X	.005
21	MP-10	X	.005
22	MP-10	X	.019
23	MP-11	X	.008
24	MP-11B	X	.008
25	MP-11B	X	.007
26	MP-12	X	.008
27	MP-12	X	.007
28	MP-1	X	.009
29	MP-2	X	.005
30	MP-3	X	.018
31	MP-4	X	.008
32	MP-5	X	.011
33	MP-6	X	.005
34	MP-7	X	.024
35	MP-8	X	.024
36	MP-9	X	.007
37	MP-10	X	.005
38	MP-11	X	.008
39	MP-12	X	.008
40	MP-1	Z	.009
41	MP-1	Z	.008
42	MP-2	Z	.005
43	MP-2B	Z	.005
44	MP-3	Z	.018
45	MP-3B	Z	.007
46	MP-3B	Z	.007
47	MP-4	Z	.008
48	MP-4	Z	.008
49	MP-5	Z	.011
50	MP-5	Z	.01
51	MP-6	Z	.005
52	MP-6	Z	.012
53	MP-7	Z	.024
54	MP-7B	Z	.005
55	MP-7B	Z	.006
56	MP-8	Z	.024
57	MP-8	Z	.009
58	MP-9	Z	.007
59	MP-9	Z	.005
60	MP-10	Z	.005
61	MP-10	Z	.019
62	MP-11	Z	.008
63	MP-11B	Z	.008
64	MP-11B	Z	.007

Member Point Loads (BLC 33 : 315 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
65	MP-12	Z	.008
66	MP-12	Z	.007
67	MP-1	Z	.009
68	MP-2	Z	.005
69	MP-3	Z	.018
70	MP-4	Z	.008
71	MP-5	Z	.011
72	MP-6	Z	.005
73	MP-7	Z	.024
74	MP-8	Z	.024
75	MP-9	Z	.007
76	MP-10	Z	.005
77	MP-11	Z	.008
78	MP-12	Z	.008

Member Point Loads (BLC 34 : 330 Wind - Ice)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.013
2	MP-1	X	.011
3	MP-2	X	.007
4	MP-2B	X	.006
5	MP-3	X	.026
6	MP-3B	X	.007
7	MP-3B	X	.008
8	MP-4	X	.011
9	MP-4	X	.01
10	MP-5	X	.013
11	MP-5	X	.011
12	MP-6	X	.007
13	MP-6	X	.017
14	MP-7	X	.026
15	MP-7B	X	.007
16	MP-7B	X	.008
17	MP-8	X	.026
18	MP-8	X	.01
19	MP-9	X	.008
20	MP-9	X	.006
21	MP-10	X	.007
22	MP-10	X	.024
23	MP-11	X	.009
24	MP-11B	X	.01
25	MP-11B	X	.009
26	MP-12	X	.009
27	MP-12	X	.008
28	MP-1	X	.013
29	MP-2	X	.007
30	MP-3	X	.026
31	MP-4	X	.011
32	MP-5	X	.013
33	MP-6	X	.007
34	MP-7	X	.026
35	MP-8	X	.026
36	MP-9	X	.008
37	MP-10	X	.007
38	MP-11	X	.009
39	MP-12	X	.009
40	MP-1	Z	.007
41	MP-1	Z	.006
42	MP-2	Z	.004
43	MP-2B	Z	.004
44	MP-3	Z	.015
45	MP-3B	Z	.004

Member Point Loads (BLC 34 : 330 Wind - Ice) (Continued)

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
46	MP-3B	Z .005	1
47	MP-4	Z .006	.5
48	MP-4	Z .006	1
49	MP-5	Z .007	.5
50	MP-5	Z .006	1
51	MP-6	Z .004	.5
52	MP-6	Z .01	1
53	MP-7	Z .015	.5
54	MP-7B	Z .004	1
55	MP-7B	Z .005	1
56	MP-8	Z .015	.5
57	MP-8	Z .006	1
58	MP-9	Z .005	.5
59	MP-9	Z .003	1
60	MP-10	Z .004	.5
61	MP-10	Z .014	1
62	MP-11	Z .005	.25
63	MP-11B	Z .006	1
64	MP-11B	Z .005	1
65	MP-12	Z .005	.5
66	MP-12	Z .005	1
67	MP-1	Z .007	5
68	MP-2	Z .004	8.25
69	MP-3	Z .015	6
70	MP-4	Z .006	6
71	MP-5	Z .007	5
72	MP-6	Z .004	8.25
73	MP-7	Z .015	6
74	MP-8	Z .015	6
75	MP-9	Z .005	5
76	MP-10	Z .004	8.25
77	MP-11	Z .005	3.75
78	MP-12	Z .005	3.75

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SA1	X -.004	-.004	0	%100
2	SA2	X -.004	-.004	0	%100
3	SA3	X 0	0	0	%100
4	GS11	X -.011	-.011	0	%100
5	GS12	X -.011	-.011	0	%100
6	GS13	X -.025	-.025	0	%100
7	FF-H2	X -.032	-.032	0	%100
8	SF1-H2	X -.013	-.013	0	%100
9	SF2-H2	X -.013	-.013	0	%100
10	CP-3	X -.002	-.002	0	%100
11	CP-1	X -.000884	-.000884	0	%100
12	CP-2	X -.000884	-.000884	0	%100
13	MP-1	X -.009	-.009	0	%100
14	MP-2	X -.009	-.009	0	%100
15	MP-3	X -.009	-.009	0	%100
16	MP-4	X -.009	-.009	0	%100
17	MP-3B	X -.007	-.007	0	%100
18	MP-2B	X -.007	-.007	0	%100
19	MP-9	X -.009	-.009	0	%100
20	MP-10	X -.009	-.009	0	%100
21	MP-11	X -.009	-.009	0	%100
22	MP-12	X -.009	-.009	0	%100
23	MP-11B	X -.007	-.007	0	%100
24	MP-5	X -.009	-.009	0	%100
25	MP-6	X -.009	-.009	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
26	MP-7	X -.009	-.009	0	%100
27	MP-8	X -.009	-.009	0	%100
28	MP-7B	X -.007	-.007	0	%100
29	HR-1	X -.009	-.009	0	%100
30	HR-2	X -.009	-.009	0	%100
31	HR-3	X -.009	-.009	0	%100

Member Distributed Loads (BLC 3 : 30 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SA1	X -.002	-.002	0	%100
2	SA2	X -.004	-.004	0	%100
3	SA3	X -.002	-.002	0	%100
4	GS11	X -.016	-.016	0	%100
5	GS12	X 0	0	0	%100
6	GS13	X -.019	-.019	0	%100
7	FF-H2	X -.024	-.024	0	%100
8	SF1-H2	X -.019	-.019	0	%100
9	SF2-H2	X 0	0	0	%100
10	CP-3	X -.002	-.002	0	%100
11	CP-1	X -.001	-.001	0	%100
12	CP-2	X 0	0	0	%100
13	MP-1	X -.008	-.008	0	%100
14	MP-2	X -.008	-.008	0	%100
15	MP-3	X -.008	-.008	0	%100
16	MP-4	X -.008	-.008	0	%100
17	MP-3B	X -.006	-.006	0	%100
18	MP-2B	X -.006	-.006	0	%100
19	MP-9	X -.008	-.008	0	%100
20	MP-10	X -.008	-.008	0	%100
21	MP-11	X -.008	-.008	0	%100
22	MP-12	X -.008	-.008	0	%100
23	MP-11B	X -.006	-.006	0	%100
24	MP-5	X -.008	-.008	0	%100
25	MP-6	X -.008	-.008	0	%100
26	MP-7	X -.008	-.008	0	%100
27	MP-8	X -.008	-.008	0	%100
28	MP-7B	X -.006	-.006	0	%100
29	HR-1	X -.008	-.008	0	%100
30	HR-2	X -.008	-.008	0	%100
31	HR-3	X -.008	-.008	0	%100
32	SA1	Z -.001	-.001	0	%100
33	SA2	Z -.002	-.002	0	%100
34	SA3	Z -.001	-.001	0	%100
35	GS11	Z -.01	-.01	0	%100
36	GS12	Z 0	0	0	%100
37	GS13	Z -.011	-.011	0	%100
38	FF-H2	Z -.014	-.014	0	%100
39	SF1-H2	Z -.013	-.013	0	%100
40	SF2-H2	Z 0	0	0	%100
41	CP-3	Z -.000927	-.000927	0	%100
42	CP-1	Z -.000884	-.000884	0	%100
43	CP-2	Z 0	0	0	%100
44	MP-1	Z -.005	-.005	0	%100
45	MP-2	Z -.005	-.005	0	%100
46	MP-3	Z -.005	-.005	0	%100
47	MP-4	Z -.005	-.005	0	%100
48	MP-3B	Z -.003	-.003	0	%100
49	MP-2B	Z -.003	-.003	0	%100
50	MP-9	Z -.005	-.005	0	%100
51	MP-10	Z -.005	-.005	0	%100
52	MP-11	Z -.005	-.005	0	%100
53	MP-12	Z -.005	-.005	0	%100

Member Distributed Loads (BLC 3 : 30 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
54	MP-11B	Z	-.003	-.003	0 %100
55	MP-5	Z	-.005	-.005	0 %100
56	MP-6	Z	-.005	-.005	0 %100
57	MP-7	Z	-.005	-.005	0 %100
58	MP-8	Z	-.005	-.005	0 %100
59	MP-7B	Z	-.003	-.003	0 %100
60	HR-1	Z	-.005	-.005	0 %100
61	HR-2	Z	-.005	-.005	0 %100
62	HR-3	Z	-.005	-.005	0 %100

Member Distributed Loads (BLC 4 : 45 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.000834	-.000834	0 %100
2	SA2	X	-.003	-.003	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	-.015	-.015	0 %100
5	GSI2	X	-.004	-.004	0 %100
6	GSI3	X	-.012	-.012	0 %100
7	FF-H2	X	-.016	-.016	0 %100
8	SF1-H2	X	-.017	-.017	0 %100
9	SF2-H2	X	-.005	-.005	0 %100
10	CP-3	X	-.001	-.001	0 %100
11	CP-1	X	-.001	-.001	0 %100
12	CP-2	X	-.000324	-.000324	0 %100
13	MP-1	X	-.006	-.006	0 %100
14	MP-2	X	-.006	-.006	0 %100
15	MP-3	X	-.006	-.006	0 %100
16	MP-4	X	-.006	-.006	0 %100
17	MP-3B	X	-.005	-.005	0 %100
18	MP-2B	X	-.005	-.005	0 %100
19	MP-9	X	-.006	-.006	0 %100
20	MP-10	X	-.006	-.006	0 %100
21	MP-11	X	-.006	-.006	0 %100
22	MP-12	X	-.006	-.006	0 %100
23	MP-11B	X	-.005	-.005	0 %100
24	MP-5	X	-.006	-.006	0 %100
25	MP-6	X	-.006	-.006	0 %100
26	MP-7	X	-.006	-.006	0 %100
27	MP-8	X	-.006	-.006	0 %100
28	MP-7B	X	-.005	-.005	0 %100
29	HR-1	X	-.006	-.006	0 %100
30	HR-2	X	-.006	-.006	0 %100
31	HR-3	X	-.006	-.006	0 %100
32	SA1	Z	-.000754	-.000754	0 %100
33	SA2	Z	-.003	-.003	0 %100
34	SA3	Z	-.002	-.002	0 %100
35	GSI1	Z	-.016	-.016	0 %100
36	GSI2	Z	-.004	-.004	0 %100
37	GSI3	Z	-.012	-.012	0 %100
38	FF-H2	Z	-.016	-.016	0 %100
39	SF1-H2	Z	-.021	-.021	0 %100
40	SF2-H2	Z	-.006	-.006	0 %100
41	CP-3	Z	-.001	-.001	0 %100
42	CP-1	Z	-.001	-.001	0 %100
43	CP-2	Z	-.000374	-.000374	0 %100
44	MP-1	Z	-.006	-.006	0 %100
45	MP-2	Z	-.006	-.006	0 %100
46	MP-3	Z	-.006	-.006	0 %100
47	MP-4	Z	-.006	-.006	0 %100
48	MP-3B	Z	-.005	-.005	0 %100
49	MP-2B	Z	-.005	-.005	0 %100
50	MP-9	Z	-.006	-.006	0 %100

Member Distributed Loads (BLC 4 : 45 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
51	MP-10	Z	-.006	-.006	0 %100
52	MP-11	Z	-.006	-.006	0 %100
53	MP-12	Z	-.006	-.006	0 %100
54	MP-11B	Z	-.005	-.005	0 %100
55	MP-5	Z	-.006	-.006	0 %100
56	MP-6	Z	-.006	-.006	0 %100
57	MP-7	Z	-.006	-.006	0 %100
58	MP-8	Z	-.006	-.006	0 %100
59	MP-7B	Z	-.005	-.005	0 %100
60	HR-1	Z	-.006	-.006	0 %100
61	HR-2	Z	-.006	-.006	0 %100
62	HR-3	Z	-.006	-.006	0 %100

Member Distributed Loads (BLC 5 : 60 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	0	0	0 %100
2	SA2	X	-.002	-.002	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	-.011	-.011	0 %100
5	GSI2	X	-.005	-.005	0 %100
6	GSI3	X	-.006	-.006	0 %100
7	FF-H2	X	-.008	-.008	0 %100
8	SF1-H2	X	-.013	-.013	0 %100
9	SF2-H2	X	-.006	-.006	0 %100
10	CP-3	X	-.000535	-.000535	0 %100
11	CP-1	X	-.000884	-.000884	0 %100
12	CP-2	X	-.000442	-.000442	0 %100
13	MP-1	X	-.005	-.005	0 %100
14	MP-2	X	-.005	-.005	0 %100
15	MP-3	X	-.005	-.005	0 %100
16	MP-4	X	-.005	-.005	0 %100
17	MP-3B	X	-.003	-.003	0 %100
18	MP-2B	X	-.003	-.003	0 %100
19	MP-9	X	-.005	-.005	0 %100
20	MP-10	X	-.005	-.005	0 %100
21	MP-11	X	-.005	-.005	0 %100
22	MP-12	X	-.005	-.005	0 %100
23	MP-11B	X	-.003	-.003	0 %100
24	MP-5	X	-.005	-.005	0 %100
25	MP-6	X	-.005	-.005	0 %100
26	MP-7	X	-.005	-.005	0 %100
27	MP-8	X	-.005	-.005	0 %100
28	MP-7B	X	-.003	-.003	0 %100
29	HR-1	X	-.005	-.005	0 %100
30	HR-2	X	-.005	-.005	0 %100
31	HR-3	X	-.005	-.005	0 %100
32	SA1	Z	0	0	0 %100
33	SA2	Z	-.003	-.003	0 %100
34	SA3	Z	-.004	-.004	0 %100
35	GSI1	Z	-.021	-.021	0 %100
36	GSI2	Z	-.01	-.01	0 %100
37	GSI3	Z	-.011	-.011	0 %100
38	FF-H2	Z	-.014	-.014	0 %100
39	SF1-H2	Z	-.026	-.026	0 %100
40	SF2-H2	Z	-.013	-.013	0 %100
41	CP-3	Z	-.000927	-.000927	0 %100
42	CP-1	Z	-.002	-.002	0 %100
43	CP-2	Z	-.000884	-.000884	0 %100
44	MP-1	Z	-.008	-.008	0 %100
45	MP-2	Z	-.008	-.008	0 %100
46	MP-3	Z	-.008	-.008	0 %100
47	MP-4	Z	-.008	-.008	0 %100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

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Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
48	MP-3B	Z	-.006	-.006	0 %100
49	MP-2B	Z	-.006	-.006	0 %100
50	MP-9	Z	-.008	-.008	0 %100
51	MP-10	Z	-.008	-.008	0 %100
52	MP-11	Z	-.008	-.008	0 %100
53	MP-12	Z	-.008	-.008	0 %100
54	MP-11B	Z	-.006	-.006	0 %100
55	MP-5	Z	-.008	-.008	0 %100
56	MP-6	Z	-.008	-.008	0 %100
57	MP-7	Z	-.008	-.008	0 %100
58	MP-8	Z	-.008	-.008	0 %100
59	MP-7B	Z	-.006	-.006	0 %100
60	HR-1	Z	-.008	-.008	0 %100
61	HR-2	Z	-.008	-.008	0 %100
62	HR-3	Z	-.008	-.008	0 %100

Member Distributed Loads (BLC 6 : 90 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	Z	-.002	-.002	0 %100
2	SA2	Z	-.002	-.002	0 %100
3	SA3	Z	-.005	-.005	0 %100
4	GSI1	Z	-.021	-.021	0 %100
5	GSI2	Z	-.021	-.021	0 %100
6	GSI3	Z	0	0	0 %100
7	FF-H2	Z	0	0	0 %100
8	SF1-H2	Z	-.026	-.026	0 %100
9	SF2-H2	Z	-.026	-.026	0 %100
10	CP-3	Z	0	0	0 %100
11	CP-1	Z	-.002	-.002	0 %100
12	CP-2	Z	-.002	-.002	0 %100
13	MP-1	Z	-.009	-.009	0 %100
14	MP-2	Z	-.009	-.009	0 %100
15	MP-3	Z	-.009	-.009	0 %100
16	MP-4	Z	-.009	-.009	0 %100
17	MP-3B	Z	-.007	-.007	0 %100
18	MP-2B	Z	-.007	-.007	0 %100
19	MP-9	Z	-.009	-.009	0 %100
20	MP-10	Z	-.009	-.009	0 %100
21	MP-11	Z	-.009	-.009	0 %100
22	MP-12	Z	-.009	-.009	0 %100
23	MP-11B	Z	-.007	-.007	0 %100
24	MP-5	Z	-.009	-.009	0 %100
25	MP-6	Z	-.009	-.009	0 %100
26	MP-7	Z	-.009	-.009	0 %100
27	MP-8	Z	-.009	-.009	0 %100
28	MP-7B	Z	-.007	-.007	0 %100
29	HR-1	Z	-.009	-.009	0 %100
30	HR-2	Z	-.009	-.009	0 %100
31	HR-3	Z	-.009	-.009	0 %100

Member Distributed Loads (BLC 7 : 120 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.002	.002	0 %100
2	SA2	X	0	0	0 %100
3	SA3	X	.002	.002	0 %100
4	GSI1	X	.005	.005	0 %100
5	GSI2	X	.011	.011	0 %100
6	GSI3	X	.006	.006	0 %100
7	FF-H2	X	.008	.008	0 %100
8	SF1-H2	X	.006	.006	0 %100
9	SF2-H2	X	.013	.013	0 %100
10	CP-3	X	.000535	.000535	0 %100



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Member Distributed Loads (BLC 7 : 120 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
11	CP-1	X	.000442	.000442	0 %100
12	CP-2	X	.000884	.000884	0 %100
13	MP-1	X	.005	.005	0 %100
14	MP-2	X	.005	.005	0 %100
15	MP-3	X	.005	.005	0 %100
16	MP-4	X	.005	.005	0 %100
17	MP-3B	X	.003	.003	0 %100
18	MP-2B	X	.003	.003	0 %100
19	MP-9	X	.005	.005	0 %100
20	MP-10	X	.005	.005	0 %100
21	MP-11	X	.005	.005	0 %100
22	MP-12	X	.005	.005	0 %100
23	MP-11B	X	.003	.003	0 %100
24	MP-5	X	.005	.005	0 %100
25	MP-6	X	.005	.005	0 %100
26	MP-7	X	.005	.005	0 %100
27	MP-8	X	.005	.005	0 %100
28	MP-7B	X	.003	.003	0 %100
29	HR-1	X	.005	.005	0 %100
30	HR-2	X	.005	.005	0 %100
31	HR-3	X	.005	.005	0 %100
32	SA1	Z	-.003	-.003	0 %100
33	SA2	Z	0	0	0 %100
34	SA3	Z	-.004	-.004	0 %100
35	GSI1	Z	-.01	-.01	0 %100
36	GSI2	Z	-.021	-.021	0 %100
37	GSI3	Z	-.011	-.011	0 %100
38	FF-H2	Z	-.014	-.014	0 %100
39	SF1-H2	Z	-.013	-.013	0 %100
40	SF2-H2	Z	-.026	-.026	0 %100
41	CP-3	Z	-.000927	-.000927	0 %100
42	CP-1	Z	-.000884	-.000884	0 %100
43	CP-2	Z	-.002	-.002	0 %100
44	MP-1	Z	-.008	-.008	0 %100
45	MP-2	Z	-.008	-.008	0 %100
46	MP-3	Z	-.008	-.008	0 %100
47	MP-4	Z	-.008	-.008	0 %100
48	MP-3B	Z	-.006	-.006	0 %100
49	MP-2B	Z	-.006	-.006	0 %100
50	MP-9	Z	-.008	-.008	0 %100
51	MP-10	Z	-.008	-.008	0 %100
52	MP-11	Z	-.008	-.008	0 %100
53	MP-12	Z	-.008	-.008	0 %100
54	MP-11B	Z	-.006	-.006	0 %100
55	MP-5	Z	-.008	-.008	0 %100
56	MP-6	Z	-.008	-.008	0 %100
57	MP-7	Z	-.008	-.008	0 %100
58	MP-8	Z	-.008	-.008	0 %100
59	MP-7B	Z	-.006	-.006	0 %100
60	HR-1	Z	-.008	-.008	0 %100
61	HR-2	Z	-.008	-.008	0 %100
62	HR-3	Z	-.008	-.008	0 %100

Member Distributed Loads (BLC 8 : 135 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.003	.003	0 %100
2	SA2	X	.000834	.000834	0 %100
3	SA3	X	.002	.002	0 %100
4	GSI1	X	.004	.004	0 %100
5	GSI2	X	.015	.015	0 %100
6	GSI3	X	.012	.012	0 %100
7	FF-H2	X	.016	.016	0 %100

Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
8 SF1-H2	X	.005	.005	0	%100
9 SF2-H2	X	.017	.017	0	%100
10 CP-3	X	.001	.001	0	%100
11 CP-1	X	.000324	.000324	0	%100
12 CP-2	X	.001	.001	0	%100
13 MP-1	X	.006	.006	0	%100
14 MP-2	X	.006	.006	0	%100
15 MP-3	X	.006	.006	0	%100
16 MP-4	X	.006	.006	0	%100
17 MP-3B	X	.005	.005	0	%100
18 MP-2B	X	.005	.005	0	%100
19 MP-9	X	.006	.006	0	%100
20 MP-10	X	.006	.006	0	%100
21 MP-11	X	.006	.006	0	%100
22 MP-12	X	.006	.006	0	%100
23 MP-11B	X	.005	.005	0	%100
24 MP-5	X	.006	.006	0	%100
25 MP-6	X	.006	.006	0	%100
26 MP-7	X	.006	.006	0	%100
27 MP-8	X	.006	.006	0	%100
28 MP-7B	X	.005	.005	0	%100
29 HR-1	X	.006	.006	0	%100
30 HR-2	X	.006	.006	0	%100
31 HR-3	X	.006	.006	0	%100
32 SA1	Z	-.003	-.003	0	%100
33 SA2	Z	-.000754	-.000754	0	%100
34 SA3	Z	-.002	-.002	0	%100
35 GS1	Z	-.004	-.004	0	%100
36 GS12	Z	-.016	-.016	0	%100
37 GS13	Z	-.012	-.012	0	%100
38 FF-H2	Z	-.016	-.016	0	%100
39 SF1-H2	Z	-.006	-.006	0	%100
40 SF2-H2	Z	-.021	-.021	0	%100
41 CP-3	Z	-.001	-.001	0	%100
42 CP-1	Z	-.000374	-.000374	0	%100
43 CP-2	Z	-.001	-.001	0	%100
44 MP-1	Z	-.006	-.006	0	%100
45 MP-2	Z	-.006	-.006	0	%100
46 MP-3	Z	-.006	-.006	0	%100
47 MP-4	Z	-.006	-.006	0	%100
48 MP-3B	Z	-.005	-.005	0	%100
49 MP-2B	Z	-.005	-.005	0	%100
50 MP-9	Z	-.006	-.006	0	%100
51 MP-10	Z	-.006	-.006	0	%100
52 MP-11	Z	-.006	-.006	0	%100
53 MP-12	Z	-.006	-.006	0	%100
54 MP-11B	Z	-.005	-.005	0	%100
55 MP-5	Z	-.006	-.006	0	%100
56 MP-6	Z	-.006	-.006	0	%100
57 MP-7	Z	-.006	-.006	0	%100
58 MP-8	Z	-.006	-.006	0	%100
59 MP-7B	Z	-.005	-.005	0	%100
60 HR-1	Z	-.006	-.006	0	%100
61 HR-2	Z	-.006	-.006	0	%100
62 HR-3	Z	-.006	-.006	0	%100

Member Distributed Loads (BLC 9 : 150 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	X	.004	.004	0	%100
2 SA2	X	.002	.002	0	%100
3 SA3	X	.002	.002	0	%100
4 GS1	X	0	0	0	%100

Member Distributed Loads (BLC 9 : 150 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
5 GS12	X	.016	.016	0	%100
6 GS13	X	.019	.019	0	%100
7 FF-H2	X	.024	.024	0	%100
8 SF1-H2	X	0	0	0	%100
9 SF2-H2	X	.019	.019	0	%100
10 CP-3	X	.002	.002	0	%100
11 CP-1	X	0	0	0	%100
12 CP-2	X	.001	.001	0	%100
13 MP-1	X	.008	.008	0	%100
14 MP-2	X	.008	.008	0	%100
15 MP-3	X	.008	.008	0	%100
16 MP-4	X	.008	.008	0	%100
17 MP-3B	X	.006	.006	0	%100
18 MP-2B	X	.006	.006	0	%100
19 MP-9	X	.008	.008	0	%100
20 MP-10	X	.008	.008	0	%100
21 MP-11	X	.008	.008	0	%100
22 MP-12	X	.008	.008	0	%100
23 MP-11B	X	.006	.006	0	%100
24 MP-5	X	.008	.008	0	%100
25 MP-6	X	.008	.008	0	%100
26 MP-7	X	.008	.008	0	%100
27 MP-8	X	.008	.008	0	%100
28 MP-7B	X	.006	.006	0	%100
29 HR-1	X	.008	.008	0	%100
30 HR-2	X	.008	.008	0	%100
31 HR-3	X	.008	.008	0	%100
32 SA1	Z	-.002	-.002	0	%100
33 SA2	Z	-.001	-.001	0	%100
34 SA3	Z	-.001	-.001	0	%100
35 GS1	Z	0	0	0	%100
36 GS12	Z	-.01	-.01	0	%100
37 GS13	Z	-.011	-.011	0	%100
38 FF-H2	Z	-.014	-.014	0	%100
39 SF1-H2	Z	0	0	0	%100
40 SF2-H2	Z	-.013	-.013	0	%100
41 CP-3	Z	-.000927	-.000927	0	%100
42 CP-1	Z	0	0	0	%100
43 CP-2	Z	-.000884	-.000884	0	%100
44 MP-1	Z	-.005	-.005	0	%100
45 MP-2	Z	-.005	-.005	0	%100
46 MP-3	Z	-.005	-.005	0	%100
47 MP-4	Z	-.005	-.005	0	%100
48 MP-3B	Z	-.003	-.003	0	%100
49 MP-2B	Z	-.003	-.003	0	%100
50 MP-9	Z	-.005	-.005	0	%100
51 MP-10	Z	-.005	-.005	0	%100
52 MP-11	Z	-.005	-.005	0	%100
53 MP-12	Z	-.005	-.005	0	%100
54 MP-11B	Z	-.003	-.003	0	%100
55 MP-5	Z	-.005	-.005	0	%100
56 MP-6	Z	-.005	-.005	0	%100
57 MP-7	Z	-.005	-.005	0	%100
58 MP-8	Z	-.005	-.005	0	%100
59 MP-7B	Z	-.003	-.003	0	%100
60 HR-1	Z	-.005	-.005	0	%100
61 HR-2	Z	-.005	-.005	0	%100
62 HR-3	Z	-.005	-.005	0	%100

Member Distributed Loads (BLC 10 : 180 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	X	.004	.004	0	%100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

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Member Distributed Loads (BLC 10 : 180 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
2	SA2	X	.004	.004	0 %100
3	SA3	X	0	0	%100
4	GS1	X	.011	.011	0 %100
5	GS12	X	.011	.011	0 %100
6	GS13	X	.025	.025	0 %100
7	FF-H2	X	.032	.032	0 %100
8	SE1-H2	X	.013	.013	0 %100
9	SF2-H2	X	.013	.013	0 %100
10	CP-3	X	.002	.002	0 %100
11	CP-1	X	.000884	.000884	0 %100
12	CP-2	X	.000884	.000884	0 %100
13	MP-1	X	.009	.009	0 %100
14	MP-2	X	.009	.009	0 %100
15	MP-3	X	.009	.009	0 %100
16	MP-4	X	.009	.009	0 %100
17	MP-3B	X	.007	.007	0 %100
18	MP-2B	X	.007	.007	0 %100
19	MP-9	X	.009	.009	0 %100
20	MP-10	X	.009	.009	0 %100
21	MP-11	X	.009	.009	0 %100
22	MP-12	X	.009	.009	0 %100
23	MP-11B	X	.007	.007	0 %100
24	MP-5	X	.009	.009	0 %100
25	MP-6	X	.009	.009	0 %100
26	MP-7	X	.009	.009	0 %100
27	MP-8	X	.009	.009	0 %100
28	MP-7B	X	.007	.007	0 %100
29	HR-1	X	.009	.009	0 %100
30	HR-2	X	.009	.009	0 %100
31	HR-3	X	.009	.009	0 %100

Member Distributed Loads (BLC 11 : 210 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.002	.002	0 %100
2	SA2	X	.004	.004	0 %100
3	SA3	X	.002	.002	0 %100
4	GS1	X	.016	.016	0 %100
5	GS12	X	0	0	0 %100
6	GS13	X	.019	.019	0 %100
7	FF-H2	X	.024	.024	0 %100
8	SE1-H2	X	.019	.019	0 %100
9	SF2-H2	X	0	0	0 %100
10	CP-3	X	.002	.002	0 %100
11	CP-1	X	.001	.001	0 %100
12	CP-2	X	0	0	0 %100
13	MP-1	X	.008	.008	0 %100
14	MP-2	X	.008	.008	0 %100
15	MP-3	X	.008	.008	0 %100
16	MP-4	X	.008	.008	0 %100
17	MP-3B	X	.006	.006	0 %100
18	MP-2B	X	.006	.006	0 %100
19	MP-9	X	.008	.008	0 %100
20	MP-10	X	.008	.008	0 %100
21	MP-11	X	.008	.008	0 %100
22	MP-12	X	.008	.008	0 %100
23	MP-11B	X	.006	.006	0 %100
24	MP-5	X	.008	.008	0 %100
25	MP-6	X	.008	.008	0 %100
26	MP-7	X	.008	.008	0 %100
27	MP-8	X	.008	.008	0 %100
28	MP-7B	X	.006	.006	0 %100
29	HR-1	X	.008	.008	0 %100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

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Member Distributed Loads (BLC 11 : 210 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
30	HR-2	X	.008	.008	0 %100
31	HR-3	X	.008	.008	0 %100
32	SA1	Z	.001	.001	0 %100
33	SA2	Z	.002	.002	0 %100
34	SA3	Z	.001	.001	0 %100
35	GS1	Z	.01	.01	0 %100
36	GS12	Z	0	0	0 %100
37	GS13	Z	.011	.011	0 %100
38	FF-H2	Z	.014	.014	0 %100
39	SF1-H2	Z	.013	.013	0 %100
40	SF2-H2	Z	0	0	0 %100
41	CP-3	Z	.000927	.000927	0 %100
42	CP-1	Z	.000884	.000884	0 %100
43	CP-2	Z	0	0	0 %100
44	MP-1	Z	.005	.005	0 %100
45	MP-2	Z	.005	.005	0 %100
46	MP-3	Z	.005	.005	0 %100
47	MP-4	Z	.005	.005	0 %100
48	MP-3B	Z	.003	.003	0 %100
49	MP-2B	Z	.003	.003	0 %100
50	MP-9	Z	.005	.005	0 %100
51	MP-10	Z	.005	.005	0 %100
52	MP-11	Z	.005	.005	0 %100
53	MP-12	Z	.005	.005	0 %100
54	MP-11B	Z	.003	.003	0 %100
55	MP-5	Z	.005	.005	0 %100
56	MP-6	Z	.005	.005	0 %100
57	MP-7	Z	.005	.005	0 %100
58	MP-8	Z	.005	.005	0 %100
59	MP-7B	Z	.003	.003	0 %100
60	HR-1	Z	.005	.005	0 %100
61	HR-2	Z	.005	.005	0 %100
62	HR-3	Z	.005	.005	0 %100

Member Distributed Loads (BLC 12 : 225 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.000834	.000834	0 %100
2	SA2	X	.003	.003	0 %100
3	SA3	X	.002	.002	0 %100
4	GS1	X	.015	.015	0 %100
5	GS12	X	.004	.004	0 %100
6	GS13	X	.012	.012	0 %100
7	FF-H2	X	.016	.016	0 %100
8	SE1-H2	X	.017	.017	0 %100
9	SF2-H2	X	.005	.005	0 %100
10	CP-3	X	.001	.001	0 %100
11	CP-1	X	.001	.001	0 %100
12	CP-2	X	.000324	.000324	0 %100
13	MP-1	X	.006	.006	0 %100
14	MP-2	X	.006	.006	0 %100
15	MP-3	X	.006	.006	0 %100
16	MP-4	X	.006	.006	0 %100
17	MP-3B	X	.005	.005	0 %100
18	MP-2B	X	.005	.005	0 %100
19	MP-9	X	.006	.006	0 %100
20	MP-10	X	.006	.006	0 %100
21	MP-11	X	.006	.006	0 %100
22	MP-12	X	.006	.006	0 %100
23	MP-11B	X	.005	.005	0 %100
24	MP-5	X	.006	.006	0 %100
25	MP-6	X	.006	.006	0 %100
26	MP-7	X	.006	.006	0 %100



Company : Tower Engineering Professionals
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Member Distributed Loads (BLC 12 : 225 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
27	MP-8	X	.006	.006	0 %100
28	MP-7B	X	.005	.005	0 %100
29	HR-1	X	.006	.006	0 %100
30	HR-2	X	.006	.006	0 %100
31	HR-3	X	.006	.006	0 %100
32	SA1	Z	.000754	.000754	0 %100
33	SA2	Z	.003	.003	0 %100
34	SA3	Z	.002	.002	0 %100
35	GS1	Z	.016	.016	0 %100
36	GS2	Z	.004	.004	0 %100
37	GS3	Z	.012	.012	0 %100
38	FF-H2	Z	.016	.016	0 %100
39	SF1-H2	Z	.021	.021	0 %100
40	SF2-H2	Z	.006	.006	0 %100
41	CP-3	Z	.001	.001	0 %100
42	CP-1	Z	.001	.001	0 %100
43	CP-2	Z	.000374	.000374	0 %100
44	MP-1	Z	.006	.006	0 %100
45	MP-2	Z	.006	.006	0 %100
46	MP-3	Z	.006	.006	0 %100
47	MP-4	Z	.006	.006	0 %100
48	MP-3B	Z	.005	.005	0 %100
49	MP-2B	Z	.005	.005	0 %100
50	MP-9	Z	.006	.006	0 %100
51	MP-10	Z	.006	.006	0 %100
52	MP-11	Z	.006	.006	0 %100
53	MP-12	Z	.006	.006	0 %100
54	MP-11B	Z	.005	.005	0 %100
55	MP-5	Z	.006	.006	0 %100
56	MP-6	Z	.006	.006	0 %100
57	MP-7	Z	.006	.006	0 %100
58	MP-8	Z	.006	.006	0 %100
59	MP-7B	Z	.005	.005	0 %100
60	HR-1	Z	.006	.006	0 %100
61	HR-2	Z	.006	.006	0 %100
62	HR-3	Z	.006	.006	0 %100

Member Distributed Loads (BLC 13 : 240 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	0	0	0 %100
2	SA2	X	.002	.002	0 %100
3	SA3	X	.002	.002	0 %100
4	GS1	X	.011	.011	0 %100
5	GS2	X	.005	.005	0 %100
6	GS3	X	.006	.006	0 %100
7	FF-H2	X	.008	.008	0 %100
8	SF1-H2	X	.013	.013	0 %100
9	SF2-H2	X	.006	.006	0 %100
10	CP-3	X	.000535	.000535	0 %100
11	CP-1	X	.000884	.000884	0 %100
12	CP-2	X	.000442	.000442	0 %100
13	MP-1	X	.005	.005	0 %100
14	MP-2	X	.005	.005	0 %100
15	MP-3	X	.005	.005	0 %100
16	MP-4	X	.005	.005	0 %100
17	MP-3B	X	.003	.003	0 %100
18	MP-2B	X	.003	.003	0 %100
19	MP-9	X	.005	.005	0 %100
20	MP-10	X	.005	.005	0 %100
21	MP-11	X	.005	.005	0 %100
22	MP-12	X	.005	.005	0 %100
23	MP-11B	X	.003	.003	0 %100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

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Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
24	MP-5	X	.005	.005	0 %100
25	MP-6	X	.005	.005	0 %100
26	MP-7	X	.005	.005	0 %100
27	MP-8	X	.005	.005	0 %100
28	MP-7B	X	.003	.003	0 %100
29	HR-1	X	.005	.005	0 %100
30	HR-2	X	.005	.005	0 %100
31	HR-3	X	.005	.005	0 %100
32	SA1	Z	0	0	0 %100
33	SA2	Z	.003	.003	0 %100
34	SA3	Z	.004	.004	0 %100
35	GS1	Z	.021	.021	0 %100
36	GS2	Z	.01	.01	0 %100
37	GS3	Z	.011	.011	0 %100
38	FF-H2	Z	.014	.014	0 %100
39	SF1-H2	Z	.026	.026	0 %100
40	SF2-H2	Z	.013	.013	0 %100
41	CP-3	Z	.000927	.000927	0 %100
42	CP-1	Z	.002	.002	0 %100
43	CP-2	Z	.000884	.000884	0 %100
44	MP-1	Z	.008	.008	0 %100
45	MP-2	Z	.008	.008	0 %100
46	MP-3	Z	.008	.008	0 %100
47	MP-4	Z	.008	.008	0 %100
48	MP-3B	Z	.006	.006	0 %100
49	MP-2B	Z	.006	.006	0 %100
50	MP-9	Z	.008	.008	0 %100
51	MP-10	Z	.008	.008	0 %100
52	MP-11	Z	.008	.008	0 %100
53	MP-12	Z	.008	.008	0 %100
54	MP-11B	Z	.006	.006	0 %100
55	MP-5	Z	.008	.008	0 %100
56	MP-6	Z	.008	.008	0 %100
57	MP-7	Z	.008	.008	0 %100
58	MP-8	Z	.008	.008	0 %100
59	MP-7B	Z	.006	.006	0 %100
60	HR-1	Z	.008	.008	0 %100
61	HR-2	Z	.008	.008	0 %100
62	HR-3	Z	.008	.008	0 %100

Member Distributed Loads (BLC 14 : 270 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	Z	.002	.002	0 %100
2	SA2	Z	.002	.002	0 %100
3	SA3	Z	.005	.005	0 %100
4	GS1	Z	.021	.021	0 %100
5	GS2	Z	.021	.021	0 %100
6	GS3	Z	0	0	0 %100
7	FF-H2	Z	0	0	0 %100
8	SF1-H2	Z	.026	.026	0 %100
9	SF2-H2	Z	.026	.026	0 %100
10	CP-3	Z	0	0	0 %100
11	CP-1	Z	.002	.002	0 %100
12	CP-2	Z	.002	.002	0 %100
13	MP-1	Z	.009	.009	0 %100
14	MP-2	Z	.009	.009	0 %100
15	MP-3	Z	.009	.009	0 %100
16	MP-4	Z	.009	.009	0 %100
17	MP-3B	Z	.007	.007	0 %100
18	MP-2B	Z	.007	.007	0 %100
19	MP-9	Z	.009	.009	0 %100
20	MP-10	Z	.009	.009	0 %100

Member Distributed Loads (BLC 14 : 270 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
21	MP-11	Z	.009	.009	0 %100
22	MP-12	Z	.009	.009	0 %100
23	MP-11B	Z	.007	.007	0 %100
24	MP-5	Z	.009	.009	0 %100
25	MP-6	Z	.009	.009	0 %100
26	MP-7	Z	.009	.009	0 %100
27	MP-8	Z	.009	.009	0 %100
28	MP-7B	Z	.007	.007	0 %100
29	HR-1	Z	.009	.009	0 %100
30	HR-2	Z	.009	.009	0 %100
31	HR-3	Z	.009	.009	0 %100

Member Distributed Loads (BLC 15 : 300 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.002	-.002	0 %100
2	SA2	X	0	0	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	-.005	-.005	0 %100
5	GSI2	X	-.011	-.011	0 %100
6	GSI3	X	-.006	-.006	0 %100
7	FF-H2	X	-.008	-.008	0 %100
8	SF1-H2	X	-.006	-.006	0 %100
9	SF2-H2	X	-.013	-.013	0 %100
10	CP-3	X	-.000535	-.000535	0 %100
11	CP-1	X	-.000442	-.000442	0 %100
12	CP-2	X	-.000884	-.000884	0 %100
13	MP-1	X	-.005	-.005	0 %100
14	MP-2	X	-.005	-.005	0 %100
15	MP-3	X	-.005	-.005	0 %100
16	MP-4	X	-.005	-.005	0 %100
17	MP-3B	X	-.003	-.003	0 %100
18	MP-2B	X	-.003	-.003	0 %100
19	MP-9	X	-.005	-.005	0 %100
20	MP-10	X	-.005	-.005	0 %100
21	MP-11	X	-.005	-.005	0 %100
22	MP-12	X	-.005	-.005	0 %100
23	MP-11B	X	-.003	-.003	0 %100
24	MP-5	X	-.005	-.005	0 %100
25	MP-6	X	-.005	-.005	0 %100
26	MP-7	X	-.005	-.005	0 %100
27	MP-8	X	-.005	-.005	0 %100
28	MP-7B	X	-.003	-.003	0 %100
29	HR-1	X	-.005	-.005	0 %100
30	HR-2	X	-.005	-.005	0 %100
31	HR-3	X	-.005	-.005	0 %100
32	SA1	Z	.003	.003	0 %100
33	SA2	Z	0	0	0 %100
34	SA3	Z	.004	.004	0 %100
35	GSI1	Z	.01	.01	0 %100
36	GSI2	Z	.021	.021	0 %100
37	GSI3	Z	.011	.011	0 %100
38	FF-H2	Z	.014	.014	0 %100
39	SF1-H2	Z	.013	.013	0 %100
40	SF2-H2	Z	.026	.026	0 %100
41	CP-3	Z	.000927	.000927	0 %100
42	CP-1	Z	.000884	.000884	0 %100
43	CP-2	Z	.002	.002	0 %100
44	MP-1	Z	.008	.008	0 %100
45	MP-2	Z	.008	.008	0 %100
46	MP-3	Z	.008	.008	0 %100
47	MP-4	Z	.008	.008	0 %100
48	MP-3B	Z	.006	.006	0 %100

Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
49	MP-2B	Z	.006	.006	0 %100
50	MP-9	Z	.008	.008	0 %100
51	MP-10	Z	.008	.008	0 %100
52	MP-11	Z	.008	.008	0 %100
53	MP-12	Z	.008	.008	0 %100
54	MP-11B	Z	.006	.006	0 %100
55	MP-5	Z	.008	.008	0 %100
56	MP-6	Z	.008	.008	0 %100
57	MP-7	Z	.008	.008	0 %100
58	MP-8	Z	.008	.008	0 %100
59	MP-7B	Z	.006	.006	0 %100
60	HR-1	Z	.008	.008	0 %100
61	HR-2	Z	.008	.008	0 %100
62	HR-3	Z	.008	.008	0 %100

Member Distributed Loads (BLC 16 : 315 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.003	-.003	0 %100
2	SA2	X	-.000834	-.000834	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	-.004	-.004	0 %100
5	GSI2	X	-.015	-.015	0 %100
6	GSI3	X	-.012	-.012	0 %100
7	FF-H2	X	-.016	-.016	0 %100
8	SF1-H2	X	-.005	-.005	0 %100
9	SF2-H2	X	-.017	-.017	0 %100
10	CP-3	X	-.001	-.001	0 %100
11	CP-1	X	-.000324	-.000324	0 %100
12	CP-2	X	-.001	-.001	0 %100
13	MP-1	X	-.006	-.006	0 %100
14	MP-2	X	-.006	-.006	0 %100
15	MP-3	X	-.006	-.006	0 %100
16	MP-4	X	-.006	-.006	0 %100
17	MP-3B	X	-.005	-.005	0 %100
18	MP-2B	X	-.005	-.005	0 %100
19	MP-9	X	-.006	-.006	0 %100
20	MP-10	X	-.006	-.006	0 %100
21	MP-11	X	-.006	-.006	0 %100
22	MP-12	X	-.006	-.006	0 %100
23	MP-11B	X	-.005	-.005	0 %100
24	MP-5	X	-.006	-.006	0 %100
25	MP-6	X	-.006	-.006	0 %100
26	MP-7	X	-.006	-.006	0 %100
27	MP-8	X	-.006	-.006	0 %100
28	MP-7B	X	-.005	-.005	0 %100
29	HR-1	X	-.006	-.006	0 %100
30	HR-2	X	-.006	-.006	0 %100
31	HR-3	X	-.006	-.006	0 %100
32	SA1	Z	.003	.003	0 %100
33	SA2	Z	.000754	.000754	0 %100
34	SA3	Z	.002	.002	0 %100
35	GSI1	Z	.004	.004	0 %100
36	GSI2	Z	.016	.016	0 %100
37	GSI3	Z	.012	.012	0 %100
38	FF-H2	Z	.016	.016	0 %100
39	SF1-H2	Z	.006	.006	0 %100
40	SF2-H2	Z	.021	.021	0 %100
41	CP-3	Z	.001	.001	0 %100
42	CP-1	Z	.000374	.000374	0 %100
43	CP-2	Z	.001	.001	0 %100
44	MP-1	Z	.006	.006	0 %100
45	MP-2	Z	.006	.006	0 %100

Member Distributed Loads (BLC 16 : 315 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
46	MP-3	Z	.006	.006	0 %100
47	MP-4	Z	.006	.006	0 %100
48	MP-3B	Z	.005	.005	0 %100
49	MP-2B	Z	.005	.005	0 %100
50	MP-9	Z	.006	.006	0 %100
51	MP-10	Z	.006	.006	0 %100
52	MP-11	Z	.006	.006	0 %100
53	MP-12	Z	.006	.006	0 %100
54	MP-11B	Z	.005	.005	0 %100
55	MP-5	Z	.006	.006	0 %100
56	MP-6	Z	.006	.006	0 %100
57	MP-7	Z	.006	.006	0 %100
58	MP-8	Z	.006	.006	0 %100
59	MP-7B	Z	.005	.005	0 %100
60	HR-1	Z	.006	.006	0 %100
61	HR-2	Z	.006	.006	0 %100
62	HR-3	Z	.006	.006	0 %100

Member Distributed Loads (BLC 17 : 330 Wind - No Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.004	-.004	0 %100
2	SA2	X	-.002	-.002	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	0	0	0 %100
5	GSI2	X	-.016	-.016	0 %100
6	GSI3	X	-.019	-.019	0 %100
7	FF-H2	X	-.024	-.024	0 %100
8	SF1-H2	X	0	0	0 %100
9	SF2-H2	X	-.019	-.019	0 %100
10	CP-3	X	-.002	-.002	0 %100
11	CP-1	X	0	0	0 %100
12	CP-2	X	-.001	-.001	0 %100
13	MP-1	X	-.008	-.008	0 %100
14	MP-2	X	-.008	-.008	0 %100
15	MP-3	X	-.008	-.008	0 %100
16	MP-4	X	-.008	-.008	0 %100
17	MP-3B	X	-.006	-.006	0 %100
18	MP-2B	X	-.006	-.006	0 %100
19	MP-9	X	-.008	-.008	0 %100
20	MP-10	X	-.008	-.008	0 %100
21	MP-11	X	-.008	-.008	0 %100
22	MP-12	X	-.008	-.008	0 %100
23	MP-11B	X	-.006	-.006	0 %100
24	MP-5	X	-.008	-.008	0 %100
25	MP-6	X	-.008	-.008	0 %100
26	MP-7	X	-.008	-.008	0 %100
27	MP-8	X	-.008	-.008	0 %100
28	MP-7B	X	-.006	-.006	0 %100
29	HR-1	X	-.008	-.008	0 %100
30	HR-2	X	-.008	-.008	0 %100
31	HR-3	X	-.008	-.008	0 %100
32	SA1	Z	.002	.002	0 %100
33	SA2	Z	.001	.001	0 %100
34	SA3	Z	.001	.001	0 %100
35	GSI1	Z	0	0	0 %100
36	GSI2	Z	.01	.01	0 %100
37	GSI3	Z	.011	.011	0 %100
38	FF-H2	Z	.014	.014	0 %100
39	SF1-H2	Z	0	0	0 %100
40	SF2-H2	Z	.013	.013	0 %100
41	CP-3	Z	.000927	.000927	0 %100
42	CP-1	Z	0	0	0 %100

Member Distributed Loads (BLC 17 : 330 Wind - No Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
43	CP-2	Z	.000884	.000884	0 %100
44	MP-1	Z	.005	.005	0 %100
45	MP-2	Z	.005	.005	0 %100
46	MP-3	Z	.005	.005	0 %100
47	MP-4	Z	.005	.005	0 %100
48	MP-3B	Z	.003	.003	0 %100
49	MP-2B	Z	.003	.003	0 %100
50	MP-9	Z	.005	.005	0 %100
51	MP-10	Z	.005	.005	0 %100
52	MP-11	Z	.005	.005	0 %100
53	MP-12	Z	.005	.005	0 %100
54	MP-11B	Z	.003	.003	0 %100
55	MP-5	Z	.005	.005	0 %100
56	MP-6	Z	.005	.005	0 %100
57	MP-7	Z	.005	.005	0 %100
58	MP-8	Z	.005	.005	0 %100
59	MP-7B	Z	.003	.003	0 %100
60	HR-1	Z	.005	.005	0 %100
61	HR-2	Z	.005	.005	0 %100
62	HR-3	Z	.005	.005	0 %100

Member Distributed Loads (BLC 18 : Ice Weight)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	Y	-.014	-.014	0 %100
2	SA2	Y	-.014	-.014	0 %100
3	SA3	Y	-.014	-.014	0 %100
4	GSI1	Y	-.007	-.007	0 %100
5	GSI2	Y	-.007	-.007	0 %100
6	GSI3	Y	-.007	-.007	0 %100
7	FF-H2	Y	-.007	-.007	0 %100
8	SF1-H2	Y	-.007	-.007	0 %100
9	SF2-H2	Y	-.007	-.007	0 %100
10	CP-3	Y	-.01	-.01	0 %100
11	CP-1	Y	-.01	-.01	0 %100
12	CP-2	Y	-.01	-.01	0 %100
13	MP-1	Y	-.004	-.004	0 %100
14	MP-2	Y	-.004	-.004	0 %100
15	MP-3	Y	-.004	-.004	0 %100
16	MP-4	Y	-.004	-.004	0 %100
17	MP-3B	Y	-.005	-.005	0 %100
18	MP-2B	Y	-.005	-.005	0 %100
19	MP-9	Y	-.004	-.004	0 %100
20	MP-10	Y	-.004	-.004	0 %100
21	MP-11	Y	-.004	-.004	0 %100
22	MP-12	Y	-.004	-.004	0 %100
23	MP-11B	Y	-.005	-.005	0 %100
24	MP-5	Y	-.004	-.004	0 %100
25	MP-6	Y	-.004	-.004	0 %100
26	MP-7	Y	-.004	-.004	0 %100
27	MP-8	Y	-.004	-.004	0 %100
28	MP-7B	Y	-.005	-.005	0 %100
29	HR-1	Y	-.004	-.004	0 %100
30	HR-2	Y	-.004	-.004	0 %100
31	HR-3	Y	-.004	-.004	0 %100

Member Distributed Loads (BLC 19 : 0 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.002	-.002	0 %100
2	SA2	X	-.002	-.002	0 %100
3	SA3	X	-.002	-.002	0 %100
4	GSI1	X	-.004	-.004	0 %100
5	GSI2	X	-.004	-.004	0 %100



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 Designer : LEG
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Member Distributed Loads (BLC 19 : 0 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
6	GS1	X	-.004	-.004	0 %100
7	FF-H2	X	-.005	-.005	0 %100
8	SF1-H2	X	-.004	-.004	0 %100
9	SF2-H2	X	-.004	-.004	0 %100
10	CP-3	X	-.002	-.002	0 %100
11	CP-1	X	-.002	-.002	0 %100
12	CP-2	X	-.002	-.002	0 %100
13	MP-1	X	-.002	-.002	0 %100
14	MP-2	X	-.002	-.002	0 %100
15	MP-3	X	-.002	-.002	0 %100
16	MP-4	X	-.002	-.002	0 %100
17	MP-3B	X	-.001	-.001	0 %100
18	MP-2B	X	-.001	-.001	0 %100
19	MP-9	X	-.002	-.002	0 %100
20	MP-10	X	-.002	-.002	0 %100
21	MP-11	X	-.002	-.002	0 %100
22	MP-12	X	-.002	-.002	0 %100
23	MP-11B	X	-.001	-.001	0 %100
24	MP-5	X	-.002	-.002	0 %100
25	MP-6	X	-.002	-.002	0 %100
26	MP-7	X	-.002	-.002	0 %100
27	MP-8	X	-.002	-.002	0 %100
28	MP-7B	X	-.001	-.001	0 %100
29	HR-1	X	-.002	-.002	0 %100
30	HR-2	X	-.002	-.002	0 %100
31	HR-3	X	-.002	-.002	0 %100

Member Distributed Loads (BLC 20 : 30 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.000801	-.000801	0 %100
2	SA2	X	-.002	-.002	0 %100
3	SA3	X	-.000779	-.000779	0 %100
4	GS1	X	-.003	-.003	0 %100
5	GS1	X	0	0	0 %100
6	GS1	X	-.003	-.003	0 %100
7	FF-H2	X	-.004	-.004	0 %100
8	SF1-H2	X	-.003	-.003	0 %100
9	SF2-H2	X	0	0	0 %100
10	CP-3	X	-.001	-.001	0 %100
11	CP-1	X	-.001	-.001	0 %100
12	CP-2	X	0	0	0 %100
13	MP-1	X	-.002	-.002	0 %100
14	MP-2	X	-.002	-.002	0 %100
15	MP-3	X	-.002	-.002	0 %100
16	MP-4	X	-.002	-.002	0 %100
17	MP-3B	X	-.001	-.001	0 %100
18	MP-2B	X	-.001	-.001	0 %100
19	MP-9	X	-.002	-.002	0 %100
20	MP-10	X	-.002	-.002	0 %100
21	MP-11	X	-.001	-.001	0 %100
22	MP-12	X	-.002	-.002	0 %100
23	MP-11B	X	-.001	-.001	0 %100
24	MP-5	X	-.002	-.002	0 %100
25	MP-6	X	-.002	-.002	0 %100
26	MP-7	X	-.002	-.002	0 %100
27	MP-8	X	-.002	-.002	0 %100
28	MP-7B	X	-.001	-.001	0 %100
29	HR-1	X	-.002	-.002	0 %100
30	HR-2	X	-.002	-.002	0 %100
31	HR-3	X	-.002	-.002	0 %100
32	SA1	Z	-.00045	-.00045	0 %100
33	SA2	Z	-.000899	-.000899	0 %100



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Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
34	SA3	Z	-.000469	-.000469	0 %100
35	GS1	Z	-.002	-.002	0 %100
36	GS1	Z	0	0	0 %100
37	GS1	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	-.002	-.002	0 %100
40	SF2-H2	Z	0	0	0 %100
41	CP-3	Z	-.000613	-.000613	0 %100
42	CP-1	Z	-.000672	-.000672	0 %100
43	CP-2	Z	0	0	0 %100
44	MP-1	Z	-.001	-.001	0 %100
45	MP-2	Z	-.001	-.001	0 %100
46	MP-3	Z	-.000987	-.000987	0 %100
47	MP-4	Z	-.001	-.001	0 %100
48	MP-3B	Z	-.000751	-.000751	0 %100
49	MP-2B	Z	-.000751	-.000751	0 %100
50	MP-9	Z	-.001	-.001	0 %100
51	MP-10	Z	-.001	-.001	0 %100
52	MP-11	Z	-.000896	-.000896	0 %100
53	MP-12	Z	-.001	-.001	0 %100
54	MP-11B	Z	-.000751	-.000751	0 %100
55	MP-5	Z	-.001	-.001	0 %100
56	MP-6	Z	-.001	-.001	0 %100
57	MP-7	Z	-.000987	-.000987	0 %100
58	MP-8	Z	-.001	-.001	0 %100
59	MP-7B	Z	-.000751	-.000751	0 %100
60	HR-1	Z	-.001	-.001	0 %100
61	HR-2	Z	-.001	-.001	0 %100
62	HR-3	Z	-.001	-.001	0 %100

Member Distributed Loads (BLC 21 : 45 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.000339	-.000339	0 %100
2	SA2	X	-.001	-.001	0 %100
3	SA3	X	-.000899	-.000899	0 %100
4	GS1	X	-.003	-.003	0 %100
5	GS1	X	-.000697	-.000697	0 %100
6	GS1	X	-.002	-.002	0 %100
7	FF-H2	X	-.003	-.003	0 %100
8	SF1-H2	X	-.003	-.003	0 %100
9	SF2-H2	X	-.000785	-.000785	0 %100
10	CP-3	X	-.000787	-.000787	0 %100
11	CP-1	X	-.001	-.001	0 %100
12	CP-2	X	-.000275	-.000275	0 %100
13	MP-1	X	-.001	-.001	0 %100
14	MP-2	X	-.001	-.001	0 %100
15	MP-3	X	-.001	-.001	0 %100
16	MP-4	X	-.001	-.001	0 %100
17	MP-3B	X	-.000956	-.000956	0 %100
18	MP-2B	X	-.000956	-.000956	0 %100
19	MP-9	X	-.001	-.001	0 %100
20	MP-10	X	-.001	-.001	0 %100
21	MP-11	X	-.001	-.001	0 %100
22	MP-12	X	-.001	-.001	0 %100
23	MP-11B	X	-.000956	-.000956	0 %100
24	MP-5	X	-.001	-.001	0 %100
25	MP-6	X	-.001	-.001	0 %100
26	MP-7	X	-.001	-.001	0 %100
27	MP-8	X	-.001	-.001	0 %100
28	MP-7B	X	-.000956	-.000956	0 %100
29	HR-1	X	-.001	-.001	0 %100
30	HR-2	X	-.001	-.001	0 %100



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Member Distributed Loads (BLC 21 : 45 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
31	HR-3	X	-.001	-.001	0 %100
32	SA1	Z	-.000329	-.000329	0 %100
33	SA2	Z	-.001	-.001	0 %100
34	SA3	Z	-.000938	-.000938	0 %100
35	GS1	Z	-.003	-.003	0 %100
36	GS12	Z	-.000768	-.000768	0 %100
37	GS13	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	-.003	-.003	0 %100
40	SF2-H2	Z	-.000903	-.000903	0 %100
41	CP-3	Z	-.000708	-.000708	0 %100
42	CP-1	Z	-.001	-.001	0 %100
43	CP-2	Z	-.000284	-.000284	0 %100
44	MP-1	Z	-.002	-.002	0 %100
45	MP-2	Z	-.002	-.002	0 %100
46	MP-3	Z	-.001	-.001	0 %100
47	MP-4	Z	-.002	-.002	0 %100
48	MP-3B	Z	-.001	-.001	0 %100
49	MP-2B	Z	-.001	-.001	0 %100
50	MP-9	Z	-.002	-.002	0 %100
51	MP-10	Z	-.002	-.002	0 %100
52	MP-11	Z	-.001	-.001	0 %100
53	MP-12	Z	-.002	-.002	0 %100
54	MP-11B	Z	-.001	-.001	0 %100
55	MP-5	Z	-.002	-.002	0 %100
56	MP-6	Z	-.002	-.002	0 %100
57	MP-7	Z	-.001	-.001	0 %100
58	MP-8	Z	-.002	-.002	0 %100
59	MP-7B	Z	-.001	-.001	0 %100
60	HR-1	Z	-.002	-.002	0 %100
61	HR-2	Z	-.002	-.002	0 %100
62	HR-3	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 22 : 60 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	0	0	0 %100
2	SA2	X	-.000801	-.000801	0 %100
3	SA3	X	-.000779	-.000779	0 %100
4	GS1	X	-.002	-.002	0 %100
5	GS12	X	-.000952	-.000952	0 %100
6	GS13	X	-.001	-.001	0 %100
7	FF-H2	X	-.001	-.001	0 %100
8	SF1-H2	X	-.002	-.002	0 %100
9	SF2-H2	X	-.001	-.001	0 %100
10	CP-3	X	-.000393	-.000393	0 %100
11	CP-1	X	-.000751	-.000751	0 %100
12	CP-2	X	-.000376	-.000376	0 %100
13	MP-1	X	-.000959	-.000959	0 %100
14	MP-2	X	-.000959	-.000959	0 %100
15	MP-3	X	-.000888	-.000888	0 %100
16	MP-4	X	-.000959	-.000959	0 %100
17	MP-3B	X	-.000676	-.000676	0 %100
18	MP-2B	X	-.000676	-.000676	0 %100
19	MP-9	X	-.000959	-.000959	0 %100
20	MP-10	X	-.000959	-.000959	0 %100
21	MP-11	X	-.000807	-.000807	0 %100
22	MP-12	X	-.000959	-.000959	0 %100
23	MP-11B	X	-.000676	-.000676	0 %100
24	MP-5	X	-.000959	-.000959	0 %100
25	MP-6	X	-.000959	-.000959	0 %100
26	MP-7	X	-.000888	-.000888	0 %100
27	MP-8	X	-.000959	-.000959	0 %100



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Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
28	MP-7B	X	-.000676	-.000676	0 %100
29	HR-1	X	-.00098	-.00098	0 %100
30	HR-2	X	-.00098	-.00098	0 %100
31	HR-3	X	-.00098	-.00098	0 %100
32	SA1	Z	0	0	0 %100
33	SA2	Z	-.001	-.001	0 %100
34	SA3	Z	-.001	-.001	0 %100
35	GS1	Z	-.004	-.004	0 %100
36	GS12	Z	-.002	-.002	0 %100
37	GS13	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	-.004	-.004	0 %100
40	SF2-H2	Z	-.002	-.002	0 %100
41	CP-3	Z	-.000613	-.000613	0 %100
42	CP-1	Z	-.001	-.001	0 %100
43	CP-2	Z	-.000672	-.000672	0 %100
44	MP-1	Z	-.002	-.002	0 %100
45	MP-2	Z	-.002	-.002	0 %100
46	MP-3	Z	-.002	-.002	0 %100
47	MP-4	Z	-.002	-.002	0 %100
48	MP-3B	Z	-.001	-.001	0 %100
49	MP-2B	Z	-.001	-.001	0 %100
50	MP-9	Z	-.002	-.002	0 %100
51	MP-10	Z	-.002	-.002	0 %100
52	MP-11	Z	-.002	-.002	0 %100
53	MP-12	Z	-.002	-.002	0 %100
54	MP-11B	Z	-.001	-.001	0 %100
55	MP-5	Z	-.002	-.002	0 %100
56	MP-6	Z	-.002	-.002	0 %100
57	MP-7	Z	-.002	-.002	0 %100
58	MP-8	Z	-.002	-.002	0 %100
59	MP-7B	Z	-.001	-.001	0 %100
60	HR-1	Z	-.002	-.002	0 %100
61	HR-2	Z	-.002	-.002	0 %100
62	HR-3	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 23 : 90 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	Z	-.000899	-.000899	0 %100
2	SA2	Z	-.000899	-.000899	0 %100
3	SA3	Z	-.002	-.002	0 %100
4	GS1	Z	-.004	-.004	0 %100
5	GS12	Z	-.004	-.004	0 %100
6	GS13	Z	0	0	0 %100
7	FF-H2	Z	0	0	0 %100
8	SF1-H2	Z	-.004	-.004	0 %100
9	SF2-H2	Z	-.004	-.004	0 %100
10	CP-3	Z	0	0	0 %100
11	CP-1	Z	-.001	-.001	0 %100
12	CP-2	Z	-.001	-.001	0 %100
13	MP-1	Z	-.002	-.002	0 %100
14	MP-2	Z	-.002	-.002	0 %100
15	MP-3	Z	-.002	-.002	0 %100
16	MP-4	Z	-.002	-.002	0 %100
17	MP-3B	Z	-.002	-.002	0 %100
18	MP-2B	Z	-.002	-.002	0 %100
19	MP-9	Z	-.002	-.002	0 %100
20	MP-10	Z	-.002	-.002	0 %100
21	MP-11	Z	-.002	-.002	0 %100
22	MP-12	Z	-.002	-.002	0 %100
23	MP-11B	Z	-.002	-.002	0 %100
24	MP-5	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 23 : 90 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
25	MP-6	Z	-.002	-.002	0 %100
26	MP-7	Z	-.002	-.002	0 %100
27	MP-8	Z	-.002	-.002	0 %100
28	MP-7B	Z	-.002	-.002	0 %100
29	HR-1	Z	-.002	-.002	0 %100
30	HR-2	Z	-.002	-.002	0 %100
31	HR-3	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 24 : 120 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.000801	.000801	0 %100
2	SA2	X	0	0	0 %100
3	SA3	X	.000779	.000779	0 %100
4	GSI1	X	.000952	.000952	0 %100
5	GSI2	X	.002	.002	0 %100
6	GSI3	X	.001	.001	0 %100
7	FF-H2	X	.001	.001	0 %100
8	SF1-H2	X	.001	.001	0 %100
9	SF2-H2	X	.002	.002	0 %100
10	CP-3	X	.000393	.000393	0 %100
11	CP-1	X	.000376	.000376	0 %100
12	CP-2	X	.000751	.000751	0 %100
13	MP-1	X	.000959	.000959	0 %100
14	MP-2	X	.000959	.000959	0 %100
15	MP-3	X	.000888	.000888	0 %100
16	MP-4	X	.000959	.000959	0 %100
17	MP-3B	X	.000676	.000676	0 %100
18	MP-2B	X	.000676	.000676	0 %100
19	MP-9	X	.000959	.000959	0 %100
20	MP-10	X	.000959	.000959	0 %100
21	MP-11	X	.000807	.000807	0 %100
22	MP-12	X	.000959	.000959	0 %100
23	MP-11B	X	.000676	.000676	0 %100
24	MP-5	X	.000959	.000959	0 %100
25	MP-6	X	.000959	.000959	0 %100
26	MP-7	X	.000888	.000888	0 %100
27	MP-8	X	.000959	.000959	0 %100
28	MP-7B	X	.000676	.000676	0 %100
29	HR-1	X	.00098	.00098	0 %100
30	HR-2	X	.00098	.00098	0 %100
31	HR-3	X	.00098	.00098	0 %100
32	SA1	Z	-.001	-.001	0 %100
33	SA2	Z	0	0	0 %100
34	SA3	Z	-.001	-.001	0 %100
35	GSI1	Z	-.002	-.002	0 %100
36	GSI2	Z	-.004	-.004	0 %100
37	GSI3	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	-.002	-.002	0 %100
40	SF2-H2	Z	-.004	-.004	0 %100
41	CP-3	Z	-.000613	-.000613	0 %100
42	CP-1	Z	-.000672	-.000672	0 %100
43	CP-2	Z	-.001	-.001	0 %100
44	MP-1	Z	-.002	-.002	0 %100
45	MP-2	Z	-.002	-.002	0 %100
46	MP-3	Z	-.002	-.002	0 %100
47	MP-4	Z	-.002	-.002	0 %100
48	MP-3B	Z	-.001	-.001	0 %100
49	MP-2B	Z	-.001	-.001	0 %100
50	MP-9	Z	-.002	-.002	0 %100
51	MP-10	Z	-.002	-.002	0 %100
52	MP-11	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 24 : 120 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
53	MP-12	Z	-.002	-.002	0 %100
54	MP-11B	Z	-.001	-.001	0 %100
55	MP-5	Z	-.002	-.002	0 %100
56	MP-6	Z	-.002	-.002	0 %100
57	MP-7	Z	-.002	-.002	0 %100
58	MP-8	Z	-.002	-.002	0 %100
59	MP-7B	Z	-.001	-.001	0 %100
60	HR-1	Z	-.002	-.002	0 %100
61	HR-2	Z	-.002	-.002	0 %100
62	HR-3	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 25 : 135 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft.F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.001	.001	0 %100
2	SA2	X	.000339	.000339	0 %100
3	SA3	X	.000899	.000899	0 %100
4	GSI1	X	.000697	.000697	0 %100
5	GSI2	X	.003	.003	0 %100
6	GSI3	X	.002	.002	0 %100
7	FF-H2	X	.003	.003	0 %100
8	SF1-H2	X	.000785	.000785	0 %100
9	SF2-H2	X	.003	.003	0 %100
10	CP-3	X	.000787	.000787	0 %100
11	CP-1	X	.000275	.000275	0 %100
12	CP-2	X	.001	.001	0 %100
13	MP-1	X	.001	.001	0 %100
14	MP-2	X	.001	.001	0 %100
15	MP-3	X	.001	.001	0 %100
16	MP-4	X	.001	.001	0 %100
17	MP-3B	X	.000956	.000956	0 %100
18	MP-2B	X	.000956	.000956	0 %100
19	MP-9	X	.001	.001	0 %100
20	MP-10	X	.001	.001	0 %100
21	MP-11	X	.001	.001	0 %100
22	MP-12	X	.001	.001	0 %100
23	MP-11B	X	.000956	.000956	0 %100
24	MP-5	X	.001	.001	0 %100
25	MP-6	X	.001	.001	0 %100
26	MP-7	X	.001	.001	0 %100
27	MP-8	X	.001	.001	0 %100
28	MP-7B	X	.000956	.000956	0 %100
29	HR-1	X	.001	.001	0 %100
30	HR-2	X	.001	.001	0 %100
31	HR-3	X	.001	.001	0 %100
32	SA1	Z	-.001	-.001	0 %100
33	SA2	Z	-.000329	-.000329	0 %100
34	SA3	Z	-.000938	-.000938	0 %100
35	GSI1	Z	-.000768	-.000768	0 %100
36	GSI2	Z	-.003	-.003	0 %100
37	GSI3	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	-.000903	-.000903	0 %100
40	SF2-H2	Z	-.003	-.003	0 %100
41	CP-3	Z	-.000708	-.000708	0 %100
42	CP-1	Z	-.000284	-.000284	0 %100
43	CP-2	Z	-.001	-.001	0 %100
44	MP-1	Z	-.002	-.002	0 %100
45	MP-2	Z	-.002	-.002	0 %100
46	MP-3	Z	-.001	-.001	0 %100
47	MP-4	Z	-.002	-.002	0 %100
48	MP-3B	Z	-.001	-.001	0 %100
49	MP-2B	Z	-.001	-.001	0 %100

Member Distributed Loads (BLC 25 : 135 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
50	MP-9	Z	-.002	-.002	0 %100
51	MP-10	Z	-.002	-.002	0 %100
52	MP-11	Z	-.001	-.001	0 %100
53	MP-12	Z	-.002	-.002	0 %100
54	MP-11B	Z	-.001	-.001	0 %100
55	MP-5	Z	-.002	-.002	0 %100
56	MP-6	Z	-.002	-.002	0 %100
57	MP-7	Z	-.001	-.001	0 %100
58	MP-8	Z	-.002	-.002	0 %100
59	MP-7B	Z	-.001	-.001	0 %100
60	HR-1	Z	-.002	-.002	0 %100
61	HR-2	Z	-.002	-.002	0 %100
62	HR-3	Z	-.002	-.002	0 %100

Member Distributed Loads (BLC 26 : 150 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.002	.002	0 %100
2	SA2	X	.000801	.000801	0 %100
3	SA3	X	.000779	.000779	0 %100
4	GSI1	X	0	0	0 %100
5	GSI2	X	.003	.003	0 %100
6	GSI3	X	.003	.003	0 %100
7	FF-H2	X	.004	.004	0 %100
8	SF1-H2	X	0	0	0 %100
9	SF2-H2	X	.003	.003	0 %100
10	CP-3	X	.001	.001	0 %100
11	CP-1	X	0	0	0 %100
12	CP-2	X	.001	.001	0 %100
13	MP-1	X	.002	.002	0 %100
14	MP-2	X	.002	.002	0 %100
15	MP-3	X	.002	.002	0 %100
16	MP-4	X	.002	.002	0 %100
17	MP-3B	X	.001	.001	0 %100
18	MP-2B	X	.001	.001	0 %100
19	MP-9	X	.002	.002	0 %100
20	MP-10	X	.002	.002	0 %100
21	MP-11	X	.001	.001	0 %100
22	MP-12	X	.002	.002	0 %100
23	MP-11B	X	.001	.001	0 %100
24	MP-5	X	.002	.002	0 %100
25	MP-6	X	.002	.002	0 %100
26	MP-7	X	.002	.002	0 %100
27	MP-8	X	.002	.002	0 %100
28	MP-7B	X	.001	.001	0 %100
29	HR-1	X	.002	.002	0 %100
30	HR-2	X	.002	.002	0 %100
31	HR-3	X	.002	.002	0 %100
32	SA1	Z	-.000899	-.000899	0 %100
33	SA2	Z	-.00045	-.00045	0 %100
34	SA3	Z	-.000469	-.000469	0 %100
35	GSI1	Z	0	0	0 %100
36	GSI2	Z	-.002	-.002	0 %100
37	GSI3	Z	-.002	-.002	0 %100
38	FF-H2	Z	-.002	-.002	0 %100
39	SF1-H2	Z	0	0	0 %100
40	SF2-H2	Z	-.002	-.002	0 %100
41	CP-3	Z	-.000613	-.000613	0 %100
42	CP-1	Z	0	0	0 %100
43	CP-2	Z	-.000672	-.000672	0 %100
44	MP-1	Z	-.001	-.001	0 %100
45	MP-2	Z	-.001	-.001	0 %100
46	MP-3	Z	-.000987	-.000987	0 %100

Member Distributed Loads (BLC 26 : 150 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
47	MP-4	Z	-.001	-.001	0 %100
48	MP-3B	Z	-.000751	-.000751	0 %100
49	MP-2B	Z	-.000751	-.000751	0 %100
50	MP-9	Z	-.001	-.001	0 %100
51	MP-10	Z	-.001	-.001	0 %100
52	MP-11	Z	-.000896	-.000896	0 %100
53	MP-12	Z	-.001	-.001	0 %100
54	MP-11B	Z	-.000751	-.000751	0 %100
55	MP-5	Z	-.001	-.001	0 %100
56	MP-6	Z	-.001	-.001	0 %100
57	MP-7	Z	-.000987	-.000987	0 %100
58	MP-8	Z	-.001	-.001	0 %100
59	MP-7B	Z	-.000751	-.000751	0 %100
60	HR-1	Z	-.001	-.001	0 %100
61	HR-2	Z	-.001	-.001	0 %100
62	HR-3	Z	-.001	-.001	0 %100

Member Distributed Loads (BLC 27 : 180 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.002	.002	0 %100
2	SA2	X	.002	.002	0 %100
3	SA3	X	.002	.002	0 %100
4	GSI1	X	.004	.004	0 %100
5	GSI2	X	.004	.004	0 %100
6	GSI3	X	.004	.004	0 %100
7	FF-H2	X	.005	.005	0 %100
8	SF1-H2	X	.004	.004	0 %100
9	SF2-H2	X	.004	.004	0 %100
10	CP-3	X	.002	.002	0 %100
11	CP-1	X	.002	.002	0 %100
12	CP-2	X	.002	.002	0 %100
13	MP-1	X	.002	.002	0 %100
14	MP-2	X	.002	.002	0 %100
15	MP-3	X	.002	.002	0 %100
16	MP-4	X	.002	.002	0 %100
17	MP-3B	X	.001	.001	0 %100
18	MP-2B	X	.001	.001	0 %100
19	MP-9	X	.002	.002	0 %100
20	MP-10	X	.002	.002	0 %100
21	MP-11	X	.002	.002	0 %100
22	MP-12	X	.002	.002	0 %100
23	MP-11B	X	.001	.001	0 %100
24	MP-5	X	.002	.002	0 %100
25	MP-6	X	.002	.002	0 %100
26	MP-7	X	.002	.002	0 %100
27	MP-8	X	.002	.002	0 %100
28	MP-7B	X	.001	.001	0 %100
29	HR-1	X	.002	.002	0 %100
30	HR-2	X	.002	.002	0 %100
31	HR-3	X	.002	.002	0 %100

Member Distributed Loads (BLC 28 : 210 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	.000801	.000801	0 %100
2	SA2	X	.002	.002	0 %100
3	SA3	X	.000779	.000779	0 %100
4	GSI1	X	.003	.003	0 %100
5	GSI2	X	0	0	0 %100
6	GSI3	X	.003	.003	0 %100
7	FF-H2	X	.004	.004	0 %100
8	SF1-H2	X	.003	.003	0 %100
9	SF2-H2	X	0	0	0 %100

Member Distributed Loads (BLC 28 : 210 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
10 CP-3	X	.001	.001	0	%100
11 CP-1	X	.001	.001	0	%100
12 CP-2	X	0	0	0	%100
13 MP-1	X	.002	.002	0	%100
14 MP-2	X	.002	.002	0	%100
15 MP-3	X	.002	.002	0	%100
16 MP-4	X	.002	.002	0	%100
17 MP-3B	X	.001	.001	0	%100
18 MP-2B	X	.001	.001	0	%100
19 MP-9	X	.002	.002	0	%100
20 MP-10	X	.002	.002	0	%100
21 MP-11	X	.001	.001	0	%100
22 MP-12	X	.002	.002	0	%100
23 MP-11B	X	.001	.001	0	%100
24 MP-5	X	.002	.002	0	%100
25 MP-6	X	.002	.002	0	%100
26 MP-7	X	.002	.002	0	%100
27 MP-8	X	.002	.002	0	%100
28 MP-7B	X	.001	.001	0	%100
29 HR-1	X	.002	.002	0	%100
30 HR-2	X	.002	.002	0	%100
31 HR-3	X	.002	.002	0	%100
32 SA1	Z	.00045	.00045	0	%100
33 SA2	Z	.000899	.000899	0	%100
34 SA3	Z	.000469	.000469	0	%100
35 GS11	Z	.002	.002	0	%100
36 GS12	Z	0	0	0	%100
37 GS13	Z	.002	.002	0	%100
38 FF-H2	Z	.002	.002	0	%100
39 SF1-H2	Z	.002	.002	0	%100
40 SF2-H2	Z	0	0	0	%100
41 CP-3	Z	.000613	.000613	0	%100
42 CP-1	Z	.000672	.000672	0	%100
43 CP-2	Z	0	0	0	%100
44 MP-1	Z	.001	.001	0	%100
45 MP-2	Z	.001	.001	0	%100
46 MP-3	Z	.000987	.000987	0	%100
47 MP-4	Z	.001	.001	0	%100
48 MP-3B	Z	.000751	.000751	0	%100
49 MP-2B	Z	.000751	.000751	0	%100
50 MP-9	Z	.001	.001	0	%100
51 MP-10	Z	.001	.001	0	%100
52 MP-11	Z	.000896	.000896	0	%100
53 MP-12	Z	.001	.001	0	%100
54 MP-11B	Z	.000751	.000751	0	%100
55 MP-5	Z	.001	.001	0	%100
56 MP-6	Z	.001	.001	0	%100
57 MP-7	Z	.000987	.000987	0	%100
58 MP-8	Z	.001	.001	0	%100
59 MP-7B	Z	.000751	.000751	0	%100
60 HR-1	Z	.001	.001	0	%100
61 HR-2	Z	.001	.001	0	%100
62 HR-3	Z	.001	.001	0	%100

Member Distributed Loads (BLC 29 : 225 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	X	.000339	.000339	0	%100
2 SA2	X	.001	.001	0	%100
3 SA3	X	.000899	.000899	0	%100
4 GS11	X	.003	.003	0	%100
5 GS12	X	.000697	.000697	0	%100
6 GS13	X	.002	.002	0	%100

Member Distributed Loads (BLC 29 : 225 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
7 FF-H2	X	.003	.003	0	%100
8 SF1-H2	X	.003	.003	0	%100
9 SF2-H2	X	.000785	.000785	0	%100
10 CP-3	X	.000787	.000787	0	%100
11 CP-1	X	.001	.001	0	%100
12 CP-2	X	.000275	.000275	0	%100
13 MP-1	X	.001	.001	0	%100
14 MP-2	X	.001	.001	0	%100
15 MP-3	X	.001	.001	0	%100
16 MP-4	X	.001	.001	0	%100
17 MP-3B	X	.000956	.000956	0	%100
18 MP-2B	X	.000956	.000956	0	%100
19 MP-9	X	.001	.001	0	%100
20 MP-10	X	.001	.001	0	%100
21 MP-11	X	.001	.001	0	%100
22 MP-12	X	.001	.001	0	%100
23 MP-11B	X	.000956	.000956	0	%100
24 MP-5	X	.001	.001	0	%100
25 MP-6	X	.001	.001	0	%100
26 MP-7	X	.001	.001	0	%100
27 MP-8	X	.001	.001	0	%100
28 MP-7B	X	.000956	.000956	0	%100
29 HR-1	X	.001	.001	0	%100
30 HR-2	X	.001	.001	0	%100
31 HR-3	X	.001	.001	0	%100
32 SA1	Z	.000329	.000329	0	%100
33 SA2	Z	.001	.001	0	%100
34 SA3	Z	.000938	.000938	0	%100
35 GS11	Z	.003	.003	0	%100
36 GS12	Z	.000768	.000768	0	%100
37 GS13	Z	.002	.002	0	%100
38 FF-H2	Z	.002	.002	0	%100
39 SF1-H2	Z	.003	.003	0	%100
40 SF2-H2	Z	.000903	.000903	0	%100
41 CP-3	Z	.000708	.000708	0	%100
42 CP-1	Z	.001	.001	0	%100
43 CP-2	Z	.000284	.000284	0	%100
44 MP-1	Z	.002	.002	0	%100
45 MP-2	Z	.002	.002	0	%100
46 MP-3	Z	.001	.001	0	%100
47 MP-4	Z	.002	.002	0	%100
48 MP-3B	Z	.001	.001	0	%100
49 MP-2B	Z	.001	.001	0	%100
50 MP-9	Z	.002	.002	0	%100
51 MP-10	Z	.002	.002	0	%100
52 MP-11	Z	.001	.001	0	%100
53 MP-12	Z	.002	.002	0	%100
54 MP-11B	Z	.001	.001	0	%100
55 MP-5	Z	.002	.002	0	%100
56 MP-6	Z	.002	.002	0	%100
57 MP-7	Z	.001	.001	0	%100
58 MP-8	Z	.002	.002	0	%100
59 MP-7B	Z	.001	.001	0	%100
60 HR-1	Z	.002	.002	0	%100
61 HR-2	Z	.002	.002	0	%100
62 HR-3	Z	.002	.002	0	%100

Member Distributed Loads (BLC 30 : 240 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	X	0	0	0	%100
2 SA2	X	.000801	.000801	0	%100
3 SA3	X	.000779	.000779	0	%100

Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
4 GS1	X	.002	.002	0	%100
5 GS12	X	.000952	.000952	0	%100
6 GS13	X	.001	.001	0	%100
7 FF-H2	X	.001	.001	0	%100
8 SF1-H2	X	.002	.002	0	%100
9 SF2-H2	X	.001	.001	0	%100
10 CP-3	X	.000393	.000393	0	%100
11 CP-1	X	.000751	.000751	0	%100
12 CP-2	X	.000376	.000376	0	%100
13 MP-1	X	.000959	.000959	0	%100
14 MP-2	X	.000959	.000959	0	%100
15 MP-3	X	.000888	.000888	0	%100
16 MP-4	X	.000959	.000959	0	%100
17 MP-3B	X	.000676	.000676	0	%100
18 MP-2B	X	.000676	.000676	0	%100
19 MP-9	X	.000959	.000959	0	%100
20 MP-10	X	.000959	.000959	0	%100
21 MP-11	X	.000807	.000807	0	%100
22 MP-12	X	.000959	.000959	0	%100
23 MP-11B	X	.000676	.000676	0	%100
24 MP-5	X	.000959	.000959	0	%100
25 MP-6	X	.000959	.000959	0	%100
26 MP-7	X	.000888	.000888	0	%100
27 MP-8	X	.000959	.000959	0	%100
28 MP-7B	X	.000676	.000676	0	%100
29 HR-1	X	.00098	.00098	0	%100
30 HR-2	X	.00098	.00098	0	%100
31 HR-3	X	.00098	.00098	0	%100
32 SA1	Z	0	0	0	%100
33 SA2	Z	.001	.001	0	%100
34 SA3	Z	.001	.001	0	%100
35 GS1	Z	.004	.004	0	%100
36 GS12	Z	.002	.002	0	%100
37 GS13	Z	.002	.002	0	%100
38 FF-H2	Z	.002	.002	0	%100
39 SF1-H2	Z	.004	.004	0	%100
40 SF2-H2	Z	.002	.002	0	%100
41 CP-3	Z	.000613	.000613	0	%100
42 CP-1	Z	.001	.001	0	%100
43 CP-2	Z	.000672	.000672	0	%100
44 MP-1	Z	.002	.002	0	%100
45 MP-2	Z	.002	.002	0	%100
46 MP-3	Z	.002	.002	0	%100
47 MP-4	Z	.002	.002	0	%100
48 MP-3B	Z	.001	.001	0	%100
49 MP-2B	Z	.001	.001	0	%100
50 MP-9	Z	.002	.002	0	%100
51 MP-10	Z	.002	.002	0	%100
52 MP-11	Z	.002	.002	0	%100
53 MP-12	Z	.002	.002	0	%100
54 MP-11B	Z	.001	.001	0	%100
55 MP-5	Z	.002	.002	0	%100
56 MP-6	Z	.002	.002	0	%100
57 MP-7	Z	.002	.002	0	%100
58 MP-8	Z	.002	.002	0	%100
59 MP-7B	Z	.001	.001	0	%100
60 HR-1	Z	.002	.002	0	%100
61 HR-2	Z	.002	.002	0	%100
62 HR-3	Z	.002	.002	0	%100

Member Distributed Loads (BLC 31 : 270 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]

Member Distributed Loads (BLC 31 : 270 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	Z	.000899	.000899	0	%100
2 SA2	Z	.000899	.000899	0	%100
3 SA3	Z	.002	.002	0	%100
4 GS11	Z	.004	.004	0	%100
5 GS12	Z	.004	.004	0	%100
6 GS13	Z	0	0	0	%100
7 FF-H2	Z	0	0	0	%100
8 SF1-H2	Z	.004	.004	0	%100
9 SF2-H2	Z	.004	.004	0	%100
10 CP-3	Z	0	0	0	%100
11 CP-1	Z	.001	.001	0	%100
12 CP-2	Z	.001	.001	0	%100
13 MP-1	Z	.002	.002	0	%100
14 MP-2	Z	.002	.002	0	%100
15 MP-3	Z	.002	.002	0	%100
16 MP-4	Z	.002	.002	0	%100
17 MP-3B	Z	.002	.002	0	%100
18 MP-2B	Z	.002	.002	0	%100
19 MP-9	Z	.002	.002	0	%100
20 MP-10	Z	.002	.002	0	%100
21 MP-11	Z	.002	.002	0	%100
22 MP-12	Z	.002	.002	0	%100
23 MP-11B	Z	.002	.002	0	%100
24 MP-5	Z	.002	.002	0	%100
25 MP-6	Z	.002	.002	0	%100
26 MP-7	Z	.002	.002	0	%100
27 MP-8	Z	.002	.002	0	%100
28 MP-7B	Z	.002	.002	0	%100

Member Distributed Loads (BLC 32 : 300 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1 SA1	X	-.000801	-.000801	0	%100
2 SA2	X	0	0	0	%100
3 SA3	X	-.000779	-.000779	0	%100
4 GS11	X	-.000952	-.000952	0	%100
5 GS12	X	-.002	-.002	0	%100
6 GS13	X	-.001	-.001	0	%100
7 FF-H2	X	-.001	-.001	0	%100
8 SF1-H2	X	-.001	-.001	0	%100
9 SF2-H2	X	-.002	-.002	0	%100
10 CP-3	X	-.000393	-.000393	0	%100
11 CP-1	X	-.000376	-.000376	0	%100
12 CP-2	X	-.000751	-.000751	0	%100
13 MP-1	X	-.000959	-.000959	0	%100
14 MP-2	X	-.000959	-.000959	0	%100
15 MP-3	X	-.000888	-.000888	0	%100
16 MP-4	X	-.000959	-.000959	0	%100
17 MP-3B	X	-.000676	-.000676	0	%100
18 MP-2B	X	-.000676	-.000676	0	%100
19 MP-9	X	-.000959	-.000959	0	%100
20 MP-10	X	-.000959	-.000959	0	%100
21 MP-11	X	-.000807	-.000807	0	%100
22 MP-12	X	-.000959	-.000959	0	%100
23 MP-11B	X	-.000676	-.000676	0	%100
24 MP-5	X	-.000959	-.000959	0	%100
25 MP-6	X	-.000959	-.000959	0	%100
26 MP-7	X	-.000888	-.000888	0	%100
27 MP-8	X	-.000959	-.000959	0	%100
28 MP-7B	X	-.000676	-.000676	0	%100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

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Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
29	HR-1	X	-.00098	-.00098	0 %100
30	HR-2	X	-.00098	-.00098	0 %100
31	HR-3	X	-.00098	-.00098	0 %100
32	SA1	Z	.001	.001	0 %100
33	SA2	Z	0	0	0 %100
34	SA3	Z	.001	.001	0 %100
35	GS1	Z	.002	.002	0 %100
36	GS2	Z	.004	.004	0 %100
37	GS3	Z	.002	.002	0 %100
38	FF-H2	Z	.002	.002	0 %100
39	SF1-H2	Z	.002	.002	0 %100
40	SF2-H2	Z	.004	.004	0 %100
41	CP-3	Z	.000613	.000613	0 %100
42	CP-1	Z	.000672	.000672	0 %100
43	CP-2	Z	.001	.001	0 %100
44	MP-1	Z	.002	.002	0 %100
45	MP-2	Z	.002	.002	0 %100
46	MP-3	Z	.002	.002	0 %100
47	MP-4	Z	.002	.002	0 %100
48	MP-3B	Z	.001	.001	0 %100
49	MP-2B	Z	.001	.001	0 %100
50	MP-9	Z	.002	.002	0 %100
51	MP-10	Z	.002	.002	0 %100
52	MP-11	Z	.002	.002	0 %100
53	MP-12	Z	.002	.002	0 %100
54	MP-11B	Z	.001	.001	0 %100
55	MP-5	Z	.002	.002	0 %100
56	MP-6	Z	.002	.002	0 %100
57	MP-7	Z	.002	.002	0 %100
58	MP-8	Z	.002	.002	0 %100
59	MP-7B	Z	.001	.001	0 %100
60	HR-1	Z	.002	.002	0 %100
61	HR-2	Z	.002	.002	0 %100
62	HR-3	Z	.002	.002	0 %100

Member Distributed Loads (BLC 33 : 315 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.001	-.001	0 %100
2	SA2	X	-.000339	-.000339	0 %100
3	SA3	X	-.000899	-.000899	0 %100
4	GS1	X	-.000697	-.000697	0 %100
5	GS2	X	-.003	-.003	0 %100
6	GS3	X	-.002	-.002	0 %100
7	FF-H2	X	-.003	-.003	0 %100
8	SF1-H2	X	-.000785	-.000785	0 %100
9	SF2-H2	X	-.003	-.003	0 %100
10	CP-3	X	-.000787	-.000787	0 %100
11	CP-1	X	-.000275	-.000275	0 %100
12	CP-2	X	-.001	-.001	0 %100
13	MP-1	X	-.001	-.001	0 %100
14	MP-2	X	-.001	-.001	0 %100
15	MP-3	X	-.001	-.001	0 %100
16	MP-4	X	-.001	-.001	0 %100
17	MP-3B	X	-.000956	-.000956	0 %100
18	MP-2B	X	-.000956	-.000956	0 %100
19	MP-9	X	-.001	-.001	0 %100
20	MP-10	X	-.001	-.001	0 %100
21	MP-11	X	-.001	-.001	0 %100
22	MP-12	X	-.001	-.001	0 %100
23	MP-11B	X	-.000956	-.000956	0 %100
24	MP-5	X	-.001	-.001	0 %100
25	MP-6	X	-.001	-.001	0 %100



Company : Tower Engineering Professionals
 Designer : LEG
 Job Number : TEP No. 25665.295751
 Model Name : CCI BU No. 841293

Sept 3, 2019
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Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
26	MP-7	X	-.001	-.001	0 %100
27	MP-8	X	-.001	-.001	0 %100
28	MP-7B	X	-.000956	-.000956	0 %100
29	HR-1	X	-.001	-.001	0 %100
30	HR-2	X	-.001	-.001	0 %100
31	HR-3	X	-.001	-.001	0 %100
32	SA1	Z	.001	.001	0 %100
33	SA2	Z	.000329	.000329	0 %100
34	SA3	Z	.000938	.000938	0 %100
35	GS1	Z	.000768	.000768	0 %100
36	GS2	Z	.003	.003	0 %100
37	GS3	Z	.002	.002	0 %100
38	FF-H2	Z	.002	.002	0 %100
39	SF1-H2	Z	.000903	.000903	0 %100
40	SF2-H2	Z	.003	.003	0 %100
41	CP-3	Z	.000708	.000708	0 %100
42	CP-1	Z	.000284	.000284	0 %100
43	CP-2	Z	.001	.001	0 %100
44	MP-1	Z	.002	.002	0 %100
45	MP-2	Z	.002	.002	0 %100
46	MP-3	Z	.001	.001	0 %100
47	MP-4	Z	.002	.002	0 %100
48	MP-3B	Z	.001	.001	0 %100
49	MP-2B	Z	.001	.001	0 %100
50	MP-9	Z	.002	.002	0 %100
51	MP-10	Z	.002	.002	0 %100
52	MP-11	Z	.001	.001	0 %100
53	MP-12	Z	.002	.002	0 %100
54	MP-11B	Z	.001	.001	0 %100
55	MP-5	Z	.002	.002	0 %100
56	MP-6	Z	.002	.002	0 %100
57	MP-7	Z	.001	.001	0 %100
58	MP-8	Z	.002	.002	0 %100
59	MP-7B	Z	.001	.001	0 %100
60	HR-1	Z	.002	.002	0 %100
61	HR-2	Z	.002	.002	0 %100
62	HR-3	Z	.002	.002	0 %100

Member Distributed Loads (BLC 34 : 330 Wind - Ice)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	SA1	X	-.002	-.002	0 %100
2	SA2	X	-.000801	-.000801	0 %100
3	SA3	X	-.000779	-.000779	0 %100
4	GS1	X	0	0	0 %100
5	GS2	X	-.003	-.003	0 %100
6	GS3	X	-.003	-.003	0 %100
7	FF-H2	X	-.004	-.004	0 %100
8	SF1-H2	X	0	0	0 %100
9	SF2-H2	X	-.003	-.003	0 %100
10	CP-3	X	-.001	-.001	0 %100
11	CP-1	X	0	0	0 %100
12	CP-2	X	-.001	-.001	0 %100
13	MP-1	X	-.002	-.002	0 %100
14	MP-2	X	-.002	-.002	0 %100
15	MP-3	X	-.002	-.002	0 %100
16	MP-4	X	-.002	-.002	0 %100
17	MP-3B	X	-.001	-.001	0 %100
18	MP-2B	X	-.001	-.001	0 %100
19	MP-9	X	-.002	-.002	0 %100
20	MP-10	X	-.002	-.002	0 %100
21	MP-11	X	-.001	-.001	0 %100
22	MP-12	X	-.002	-.002	0 %100

Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
23	MP-11B	X	-.001	-.001	0 %100
24	MP-5	X	-.002	-.002	0 %100
25	MP-6	X	-.002	-.002	0 %100
26	MP-7	X	-.002	-.002	0 %100
27	MP-8	X	-.002	-.002	0 %100
28	MP-7B	X	-.001	-.001	0 %100
29	HR-1	X	-.002	-.002	0 %100
30	HR-2	X	-.002	-.002	0 %100
31	HR-3	X	-.002	-.002	0 %100
32	SA1	Z	.000899	.000899	0 %100
33	SA2	Z	.00045	.00045	0 %100
34	SA3	Z	.000469	.000469	0 %100
35	GS1	Z	0	0	0 %100
36	GS1	Z	.002	.002	0 %100
37	GS1	Z	.002	.002	0 %100
38	FF-H2	Z	.002	.002	0 %100
39	SF1-H2	Z	0	0	0 %100
40	SF2-H2	Z	.002	.002	0 %100
41	CP-3	Z	.000613	.000613	0 %100
42	CP-1	Z	0	0	0 %100
43	CP-2	Z	.000672	.000672	0 %100
44	MP-1	Z	.001	.001	0 %100
45	MP-2	Z	.001	.001	0 %100
46	MP-3	Z	.000987	.000987	0 %100
47	MP-4	Z	.001	.001	0 %100
48	MP-3B	Z	.000751	.000751	0 %100
49	MP-2B	Z	.000751	.000751	0 %100
50	MP-9	Z	.001	.001	0 %100
51	MP-10	Z	.001	.001	0 %100
52	MP-11	Z	.000896	.000896	0 %100
53	MP-12	Z	.001	.001	0 %100
54	MP-11B	Z	.000751	.000751	0 %100
55	MP-5	Z	.001	.001	0 %100
56	MP-6	Z	.001	.001	0 %100
57	MP-7	Z	.000987	.000987	0 %100
58	MP-8	Z	.001	.001	0 %100
59	MP-7B	Z	.000751	.000751	0 %100
60	HR-1	Z	.001	.001	0 %100
61	HR-2	Z	.001	.001	0 %100
62	HR-3	Z	.001	.001	0 %100

Member Distributed Loads (BLC 39 : BLC 1 Transient Area Loads)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	GS1	Y	-.008	-.009	0 2.5
2	GS1	Y	-.009	-.01	2.5 5
3	FF-H2	Y	-.0004292	-.005	0 .853
4	FF-H2	Y	-.005	-.017	.853 1.707
5	FF-H2	Y	-.017	-.018	1.707 2.56
6	FF-H2	Y	-.018	-.009	2.56 3.413
7	FF-H2	Y	-.009	-.003	3.413 4.267
8	SF1-H2	Y	-.004	-.012	4.267 6.4
9	SF1-H2	Y	-.012	-.015	6.4 7.254
10	SF1-H2	Y	-.015	-.01	7.254 8.107
11	SF1-H2	Y	-.01	-.004	8.107 8.96
12	SF1-H2	Y	-.004	-.004817	8.96 9.814
13	CP-2	Y	-.002	-.002	9.814 10.667
14	GS1	Y	-.002	-.015	10.667 1.667
15	GS1	Y	-.015	-.015	1.667 3.333
16	GS1	Y	-.015	-.002	3.333 5
17	SF1-H2	Y	-.0001693	-.005	5 .853
18	SF1-H2	Y	-.005	-.011	.853 1.707
19	SF1-H2	Y	-.011	-.012	1.707 2.56

Member Distributed Loads (BLC 39 : BLC 1 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
20	SF1-H2	Y	-.012	-.011	2.56 3.413
21	SF1-H2	Y	-.011	-.007	3.413 4.267
22	SF2-H2	Y	-.004	-.011	4.267 7.467
23	SF2-H2	Y	-.011	-.013	7.467 8.534
24	SF2-H2	Y	-.013	-.007	8.534 9.6
25	SF2-H2	Y	-.007	-.0006439	9.6 10.667
26	CP-3	Y	-.004	-.004	10.667 .584
27	GS1	Y	-.008	-.009	.584 2.5
28	GS1	Y	-.009	-.01	2.5 5
29	FF-H2	Y	-.003	-.009	5 7.254
30	FF-H2	Y	-.009	-.018	7.254 8.107
31	FF-H2	Y	-.018	-.017	8.107 8.96
32	FF-H2	Y	-.017	-.005	8.96 9.814
33	FF-H2	Y	-.005	-.004287	9.814 10.667
34	SF2-H2	Y	-.0004821	-.004	10.667 .853
35	SF2-H2	Y	-.004	-.01	.853 1.707
36	SF2-H2	Y	-.01	-.015	1.707 2.56
37	SF2-H2	Y	-.015	-.012	2.56 3.413
38	SF2-H2	Y	-.012	-.004	3.413 4.267
39	CP-1	Y	-.002	-.002	4.267 .584

Member Distributed Loads (BLC 40 : BLC 18 Transient Area Loads)

Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	GS1	Y	-.006	-.006	0 2.5
2	GS1	Y	-.006	-.007	2.5 5
3	FF-H2	Y	-.000286	-.004	5 .853
4	FF-H2	Y	-.004	-.011	.853 1.707
5	FF-H2	Y	-.011	-.012	1.707 2.56
6	FF-H2	Y	-.012	-.006	2.56 3.413
7	FF-H2	Y	-.006	-.002	3.413 4.267
8	SF1-H2	Y	-.003	-.008	4.267 6.4
9	SF1-H2	Y	-.008	-.01	6.4 7.254
10	SF1-H2	Y	-.01	-.007	7.254 8.107
11	SF1-H2	Y	-.007	-.003	8.107 8.96
12	SF1-H2	Y	-.003	-.003214	8.96 9.814
13	CP-2	Y	-.001	-.001	9.814 10.667
14	GS1	Y	-.001	-.01	10.667 1.667
15	GS1	Y	-.01	-.01	1.667 3.333
16	GS1	Y	-.01	-.001	3.333 5
17	SF1-H2	Y	-.0001129	-.003	5 .853
18	SF1-H2	Y	-.003	-.007	.853 1.707
19	SF1-H2	Y	-.007	-.008	1.707 2.56
20	SF1-H2	Y	-.008	-.007	2.56 3.413
21	SF1-H2	Y	-.007	-.005	3.413 4.267
22	SF2-H2	Y	-.003	-.007	4.267 7.467
23	SF2-H2	Y	-.007	-.009	7.467 8.534
24	SF2-H2	Y	-.009	-.005	8.534 9.6
25	SF2-H2	Y	-.005	-.0004293	9.6 10.667
26	CP-3	Y	-.003	-.003	10.667 .584
27	GS1	Y	-.006	-.006	.584 2.5
28	GS1	Y	-.006	-.007	2.5 5
29	FF-H2	Y	-.002	-.006	5 7.254
30	FF-H2	Y	-.006	-.012	7.254 8.107
31	FF-H2	Y	-.012	-.011	8.107 8.96
32	FF-H2	Y	-.011	-.004	8.96 9.814
33	FF-H2	Y	-.004	-.0002861	9.814 10.667
34	SF2-H2	Y	-.0003211	-.003	10.667 .853
35	SF2-H2	Y	-.003	-.007	.853 1.707
36	SF2-H2	Y	-.007	-.01	1.707 2.56
37	SF2-H2	Y	-.01	-.008	2.56 3.413
38	SF2-H2	Y	-.008	-.003	3.413 4.267
39	CP-1	Y	-.001	-.001	4.267 .584

Member Area Loads (BLC 1 : Dead)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	GS12	FF6	SF1-10	GS15	Y	Two Way	.012
2	GS16	GS13	SF2-2	SF1-4	Y	Two Way	.012
3	GS1	GS14	SF2-8	FF12	Y	Two Way	.012

Member Area Loads (BLC 18 : Ice Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	SF1-10	FF6	GS12	GS15	Y	Two Way	.008
2	GS16	GS13	SF2-2	SF1-4	Y	Two Way	.008
3	GS14	GS1	FF12	SF2-8	Y	Two Way	.008

Envelope AISC 15th(360-16): LRFD Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc.....	phi*Pn..	phi*Pn..	phi*M..	phi*M..	Eqn
1	HR-3	PIPE 2.0	.532	.53	.23	.702	.53	23 2.158	32.13	1.872	1.872 ... H3-6
2	MPS-6	(2) 1/2" Threa..	.517	.542	.27	.046	.542	27 8.329	9.191	.092	.092 ... H1-1b
3	MPS-4	(2) 1/2" Threa..	.516	.542	.22	.045	.542	37 8.329	9.191	.092	.092 ... H1-1b
4	MPS-8	(2) 1/2" Threa..	.512	.542	.33	.056	.542	18 8.329	9.191	.092	.092 ... H1-1b
5	MPS-7	(2) 1/2" Threa..	.504	0	.25	.050	0	18 8.329	9.191	.092	.092 ... H1-1b
6	MPS-5	(2) 1/2" Threa..	.498	0	.19	.038	0	33 8.329	9.191	.092	.092 ... H1-1b
7	MPS-3	(2) 1/2" Threa..	.498	0	.30	.038	0	27 8.329	9.191	.092	.092 ... H1-1b
8	SF2-H2	C5X9	.442	5.667	.30	.154	5.3... z	19 60.957	85.536	1.909	11.853 ... H1-1b
9	MP-7	PIPE 2.0	.436	3.5	.31	.139	3.5	30 29.582	32.13	1.872	1.872 ... H1-1b
10	SF1-H2	C5X9	.434	5	.23	.154	5.3... z	25 60.957	85.536	1.909	11.853 ... H1-1b
11	FF-H2	C5X9	.427	5	.28	.149	5.3... z	30 60.957	85.536	1.909	11.853 ... H1-1b
12	GSI1	C5X9	.427	2.5	.28	.043	2.5 y	29 75.694	85.536	1.909	11.853 ... H1-1b
13	HR-1	PIPE 2.0	.423	9.637	.28	.539	.53	33 2.158	32.13	1.872	1.872 ... H3-6
14	GSI3	C5X9	.422	2.5	.18	.043	2.5 y	18 75.694	85.536	1.909	11.853 ... H1-1b
15	GSI2	C5X9	.420	2.5	.23	.043	2.5 y	24 75.694	85.536	1.909	11.853 ... H1-1b
16	MP-3	PIPE 2.0	.402	3.5	.25	.114	3.5	25 29.582	32.13	1.872	1.872 ... H1-1b
17	HR-2	PIPE 2.0	.366	.53	.28	.559	.53	28 2.158	32.13	1.872	1.872 ... H3-6
18	MP-11	PIPE 2.0	.363	2.625	.18	.128	2.6...	19 31.892	32.13	1.872	1.872 ... H1-1b
19	MP-2	PIPE 2.0	.359	4.25	.29	.099	4.25	27 29.582	32.13	1.872	1.872 ... H1-1b
20	MP-8	PIPE 2.0	.354	4.25	.31	.067	4.25	30 26.005	32.13	1.872	1.872 ... H1-1b
21	MP-6	PIPE 2.0	.333	4.25	.18	.104	4.25	33 26.005	32.13	1.872	1.872 ... H1-1b
22	MP-10	PIPE 2.0	.326	4.25	.23	.106	4.25	22 26.005	32.13	1.872	1.872 ... H1-1b
23	MP-1	PIPE 2.0	.282	4.25	.28	.071	4.25	28 26.005	32.13	1.872	1.872 ... H1-1b
24	MP-4	PIPE 2.0	.277	4.25	.25	.059	4.25	24 26.005	32.13	1.872	1.872 ... H1-1b
25	MP-5	PIPE 2.0	.267	4.25	.18	.066	4.25	33 26.005	32.13	1.872	1.872 ... H1-1b
26	MP-12	PIPE 2.0	.257	4.25	.18	.072	4.25	19 26.005	32.13	1.872	1.872 ... H1-1b
27	MP-9	PIPE 2.0	.246	4.25	.22	.064	4.25	22 26.005	32.13	1.872	1.872 ... H1-1b
28	SA1	PL1x14	.217	0	.29	.117	0 y	25438.779	453.6	9.45	132.3 ... H1-1b
29	SA2	PL1x14	.215	0	.23	.118	0 y	27438.779	453.6	9.45	132.3 ... H1-1b
30	SA3	PL1x14	.214	0	.18	.120	0 y	30438.779	453.6	9.45	132.3 ... H1-1b
31	MPS-2	(2) 1/2" Threa..	.197	.542	.30	.028	.542	30 8.329	9.191	.092	.092 ... H1-1b
32	MPS-1	(2) 1/2" Threa..	.194	0	.22	.018	0	24 8.329	9.191	.092	.092 ... H1-1b
33	CP-2	PL10x3/8	.041	.584	.27	.029	0 y	27110.717	121.5	.95	25.313 ... H1-1b
34	CP-3	PL10x3/8	.030	.584	.31	.025	0 y	22110.717	121.5	.95	25.313 ... H1-1b
35	MP-7B	PIPE 2.0	.030	1	.27	.009	.25	21 28.526	32.13	1.872	1.872 ... H1-1b
36	MP-3B	PIPE 2.0	.030	1	.22	.009	.25	32 28.526	32.13	1.872	1.872 ... H1-1b
37	MP-11B	PIPE 2.0	.029	1	.33	.010	.25	30 28.526	32.13	1.872	1.872 ... H1-1b
38	CP-1	PL10x3/8	.029	.584	.31	.026	0 y	33110.717	121.5	.95	25.313 ... H1-1b
39	MP-2B	PIPE 2.0	.012	1	.18	.004	.25	18 28.526	32.13	1.872	1.872 ... H1-1b

APPENDIX D
ADDITIONAL CALCULATIONS

Moment Bolt Group - Connection Angle

RISA 3D Results

$F_x =$	2.325 kip
$F_y =$	1.351 kip
$F_z =$	0.292 kip
$M_x =$	0.002 kip*ft
$M_y =$	0.275 kip*ft
$M_z =$	3.255 kip*ft

Code Checks Per ANSI/TIA-222-H		
Tension Capacity=	2.7%	PASS
Shear Capacity=	26.3%	PASS

Tension

$$T_{Total} = \frac{F_z}{3 \text{ bolts}} + \frac{M_y / 0.375 \text{ ft}}{1 \text{ bolt}}$$

$$T_{Total} = 0.83 \text{ kip}$$

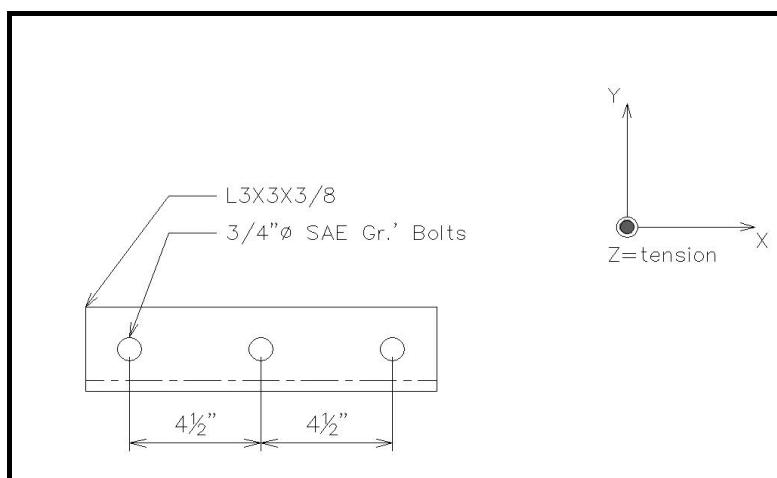
$$\begin{aligned}\phi T &= \phi F_{ub} A_{nt} \\ \phi T &= (0.75)(120 \text{ ksi})(0.344 \text{ in}^2) \\ \phi T &= 30.96 \text{ kip}\end{aligned}$$

Shear

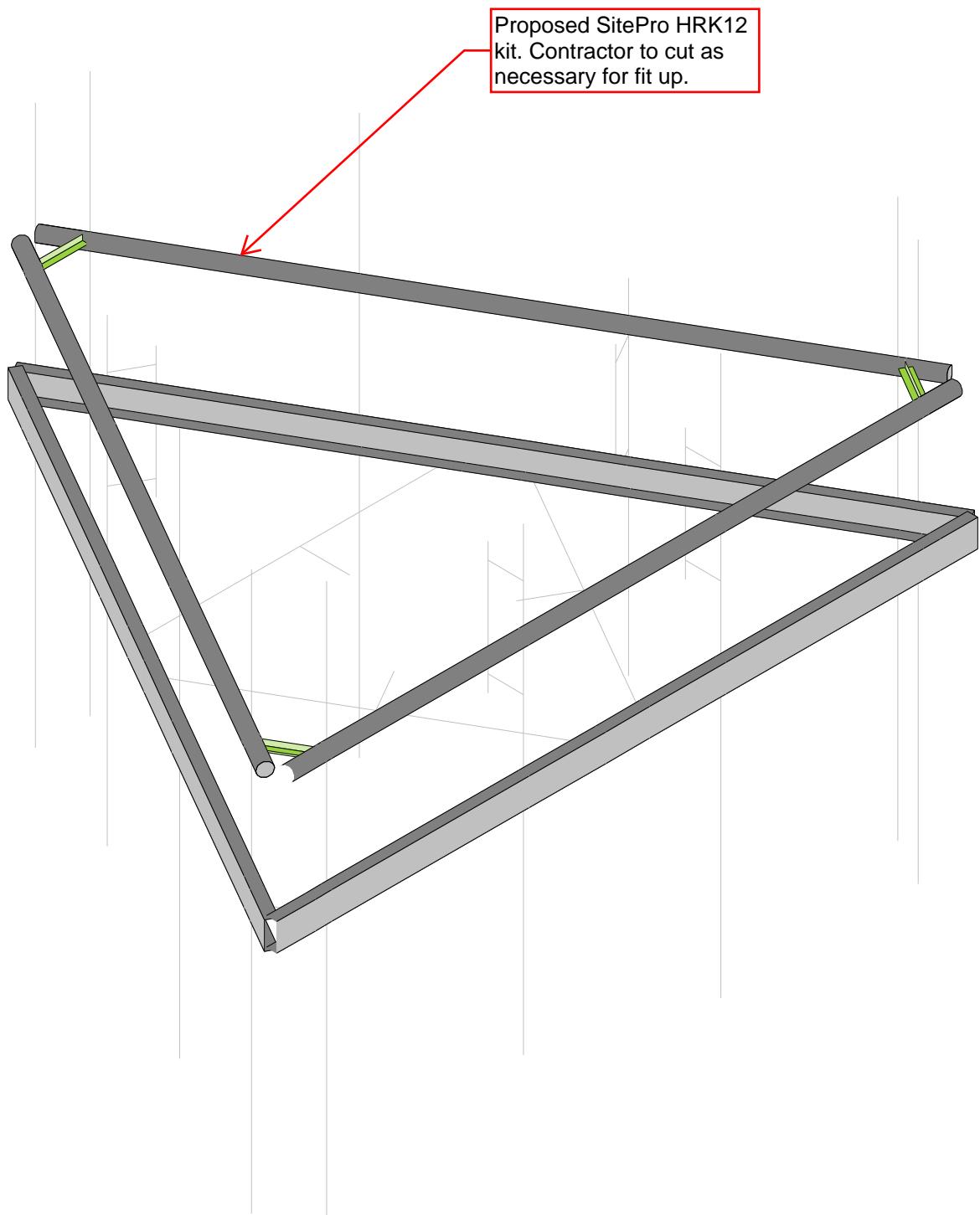
$$V_{Total} = \frac{\sqrt{F_x^2 + F_y^2}}{3 \text{ bolts}} + \frac{M_z / 0.375 \text{ ft}}{2 \text{ bolts}}$$

$$V_{Total} = 5.24 \text{ kip}$$

$$\begin{aligned}\phi V &= \phi(0.625)RbF_{ub}(0.8)A_b \\ \phi V &= (0.75)(0.625)(1.0)(120 \text{ ksi})(0.8)\left(\frac{\pi}{4} \cdot 0.75 \text{ in}^2\right) \\ \phi V &= 19.88 \text{ kip}\end{aligned}$$



APPENDIX E
MOUNT MODIFICATION DESIGN DRAWINGS

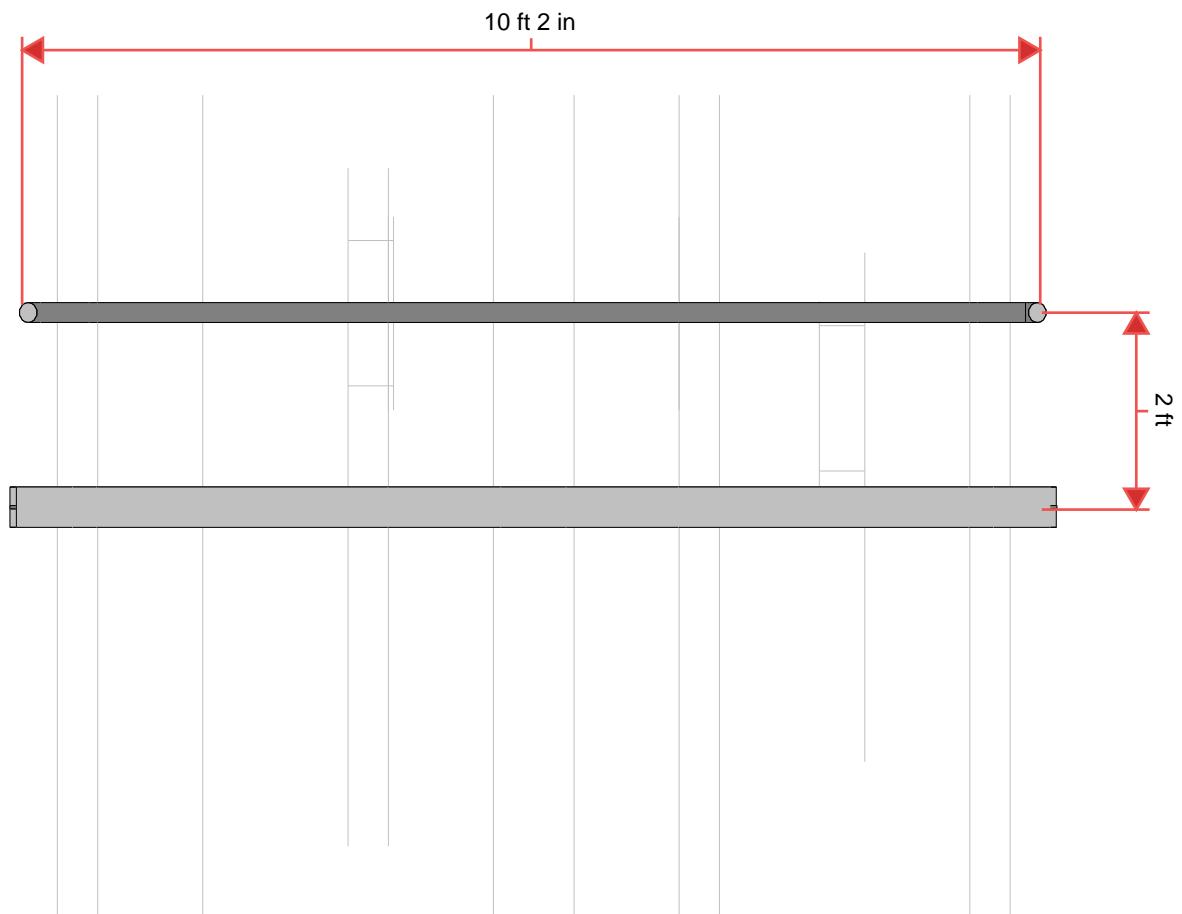


Envelope Only Solution

Tower Engineering Profes...
LEG
TEP No. 25665.295751

CCI BU No. 841293

SK - 6
Sept 3, 2019 at 3:49 PM
CCI BU No. 841293.r3d



Envelope Only Solution

Tower Engineering Profes...

LEG

TEP No. 25665.295751

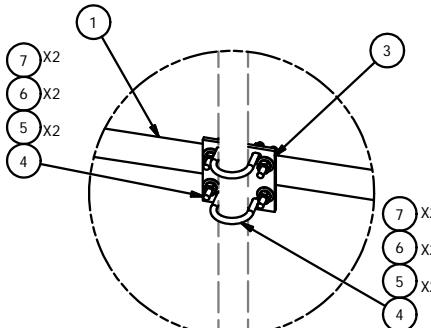
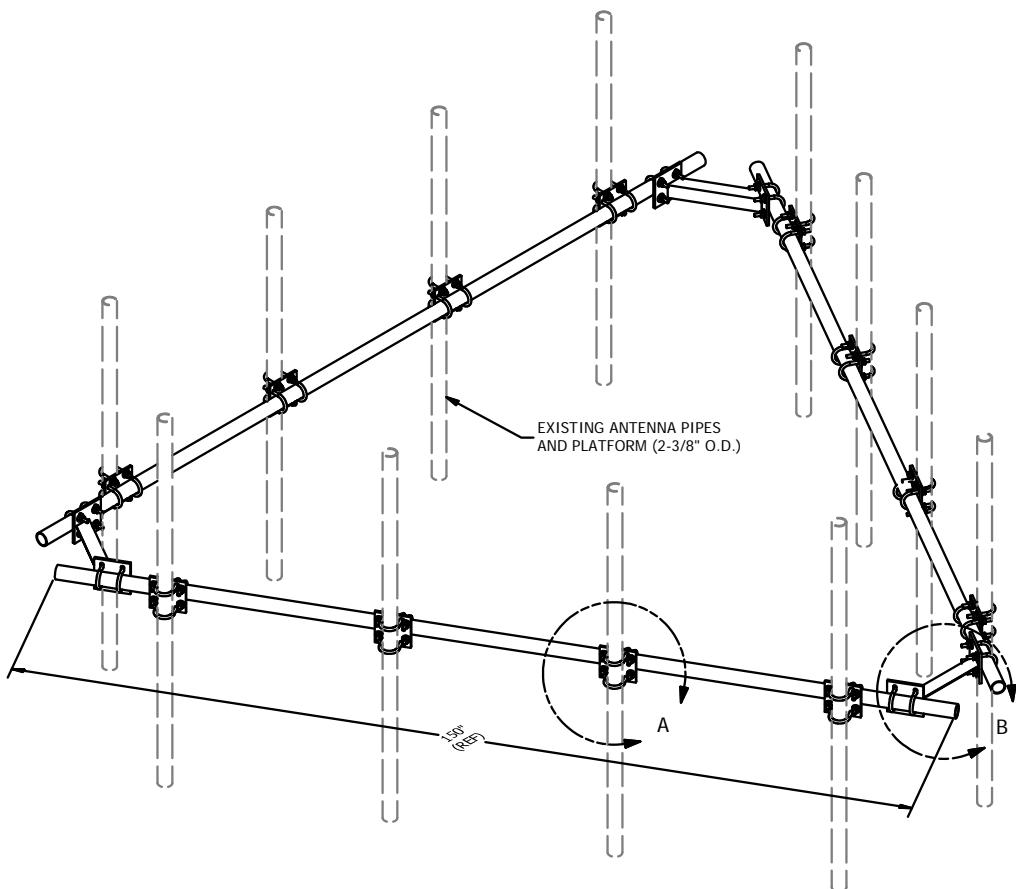
CCI BU No. 841293

SK - 7

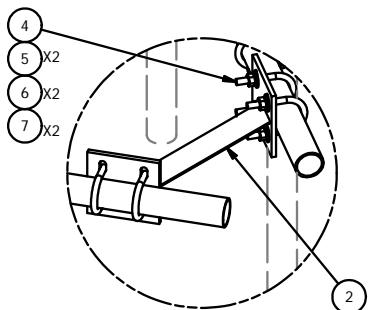
Sept 3, 2019 at 3:52 PM

CCI BU No. 841293.r3d

PARTS LIST							
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.	
1	3	P2150	2-3/8" OD X 150" SCH 40 GALVANIZED PIPE	150 in	48.06	144.17	
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76	
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"		3.71	44.50	
4	120	G12FW	1/2" HDG USS FLATWASHER		0.03	4.08	
5	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.73	43.90	
6	120	G12LW	1/2" HDG LOCKWASHER		0.01	1.67	
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.58	
TOTAL WT. #							261.72



DETAIL A



DETAIL B

TOLERANCE NOTES

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

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION

HANDRAIL KIT
FOR 12'-6" FACE

CPD NO. DRAWN BY
KC8 5/30/2012

ENG. APPROVAL



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

HRK12

PART NO.

HRK12

DWG. NO.

CLASS SUB DRAWING USAGE
81 01 CUSTOMER

CHECKED BY
BMC 7/14/2014

A	REPLACED HCP WITH X-AHCP	CEK	7/10/2014
REV	DESCRIPTION OF REVISIONS	CPD	BY DATE
REVISION HISTORY			

Exhibit F

Power Density/RF Emissions Report



RF EMISSIONS COMPLIANCE REPORT

Crown Castle on behalf of AT&T Mobility, LLC

Crown Castle Site Name: KENT-BULLS BRIDGE ROAD

Crown Castle Site BU: 841293

AT&T Mobility, LLC Site FA #: 10035067

136 BULLS BRIDGE ROAD

SOUTH KENT, CT

10/9/2019

Report Status:

AT&T Mobility, LLC Is Compliant



Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2020

Signed 09 October 2019

Prepared By:

Site Safe, LLC

Engineering Statement in Re:
Electromagnetic Energy Analysis
Crown Castle
SOUTH KENT, CT

My signature on the cover of this document indicates:

That I am registered as a Professional Engineer in the jurisdiction indicated; and

That I have extensive professional experience in the wireless communications engineering industry; and

That I am an employee of Site Safe, LLC in Vienna, Virginia; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission ("the FCC" and "the FCC Rules") both in general and specifically as they apply to the FCC's Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That the technical information serving as the basis for this report was supplied by Crown Castle (see attached Site Summary and Carrier documents) and that AT&T Mobility, LLC's installation involves communications equipment, antennas and associated technical equipment at a location referred to as "KENT-BULLS BRIDGE ROAD" ("the site"); and

That AT&T Mobility, LLC proposes to operate at the site with transmit antennas listed in the carrier summary and with a maximum effective radiated power as specified by AT&T Mobility, LLC and shown on the worksheet and that worst-case 100% duty cycle has been assumed; and

That this analysis has been performed with the assumption that the ground immediately surrounding the tower is primarily flat or falling; and

That at this time, the FCC requires that certain licensees address specific levels of radio frequency energy to which workers or members of the public might possibly be exposed (at §1.1307(b) of the FCC Rules); and

That such consideration of possible exposure of humans to radio frequency energy must utilize the standards set by the FCC, which is the federal agency having jurisdiction over communications facilities; and

That the FCC rules define two tiers of permissible exposure guidelines: 1) "uncontrolled environments," which defines situations in which persons may not be aware of (the "general public"), or may not be able to control their exposure to a transmission facility; and 2) "controlled environments," which defines situations in which persons are aware of their potential for exposure (industry personnel); and

That this statement specifically addresses the uncontrolled environment (which is more conservative than the controlled environment) and the limit set forth in the FCC rules for licensees of AT&T Mobility, LLC's operating frequencies as shown on the attached antenna worksheet; and

That when applying the uncontrolled environment standards, the predicted Maximum Power Density at two meters above ground level from the proposed AT&T Mobility, LLC operation is

no more than 1.542% of the maximum permissible exposure limits in any accessible area on the ground; and

That it is understood per FCC Guidelines and OET 65 Appendix A, that regardless of the existent radio frequency environment, only those licensees whose contributions exceed 5% of the exposure limit pertinent to their operation(s) bear any responsibility for bringing any non-compliant area(s) into compliance; and

That when applying the uncontrolled environment standards, the cumulative predicted energy density from the proposed operation is no more than 18.682% of the maximum in any accessible area up to two meters above the ground per OET 65; and

That the calculations provided in this report are based on data provided by the client and antenna pattern data supplied by the antenna manufacturer, in accordance with FCC guidelines listed in OET 65. Horizontal and vertical antenna patterns are combined for modeling purposes to accurately reflect the energy two meters above ground level where on-axis energy refers to maximum energy two meters above the ground along the azimuth of the antenna and where area energy refers to the maximum energy anywhere two meters above the ground regardless of the antenna azimuth, accounting for cumulative energy from multiple antennas for the carrier(s) and frequency range(s) indicated; and

That the Occupational Safety and Health Administration has policies in place which address worker safety in and around communications sites, thus individual companies will be responsible for their employees' training regarding radio frequency safety; and

In summary, it is stated here that the proposed operation at the site will not result in exposure of the public to excessive levels of radio frequency energy as defined in the FCC Rules and Regulations, specifically 47 CFR 1.1307(b), and that AT&T Mobility, LLC's proposed operation is completely compliant.

Finally, it is stated that access to the tower should be restricted to communication industry professionals and approved contractor personnel trained in radio frequency safety and that this instant analysis addresses exposure levels at two meters above ground level and does not address exposure levels on the tower or in the immediate proximity of the antennas.

Crown Castle
KENT-BULLS BRIDGE ROAD
Site Summary

Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC	0.009 %
AT&T Mobility, LLC (Decommissioned)	0 %
AT&T Mobility, LLC (Proposed)	0.326 %
AT&T Mobility, LLC (Proposed)	0.172 %
AT&T Mobility, LLC (Proposed)	0.157 %
AT&T Mobility, LLC (Proposed)	0.368 %
AT&T Mobility, LLC (Proposed)	0.347 %
AT&T Mobility, LLC (Proposed)	0.163 %
Connecticut State Police	0.048 %
Connecticut State Police	0.041 %
Eversource Northeast-Utilities	0.126 %
Sprint	0.245 %
Sprint	0.245 %
Sprint	0.092 %
Sprint	0.092 %
Sprint	0.363 %
T-Mobile	0.377 %
T-Mobile	0.562 %
T-Mobile	0.233 %
Verizon Wireless	0.493 %
Verizon Wireless	0.51 %
Verizon Wireless	0.318 %
Verizon Wireless	0.342 %
WMNR	13.053 %
Composite Site MPE:	18.682 %

AT&T Mobility, LLC
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.05145 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.00908 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave	7770	182	23	100	0.028546	0.005037	0.044126	0.007787
Powerwave	7770	182	143	100	0.028546	0.005037	0.044126	0.007787
Powerwave	7770	182	263	100	0.028546	0.005037	0.044126	0.007787

AT&T Mobility, LLC (Decommissioned)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	850	MHz
Maximum Permissible Exposure (MPE):	566.67	µW/cm ²
Maximum power density at ground level:	0	µW/cm ²
Highest percentage of Maximum Permissible Exposure:	0	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density (µW/cm ²)	Percent of MPE	Max Power Density (µW/cm ²)	Percent of MPE
ANDREW	ASP952	185	0	0	0	0	0	0
ANDREW	ASP952	185	0	0	0	0	0	0
ANDREW	ASP952	185	0	0	0	0	0	0

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.25626 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32563 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	4788	2.524343	0.252434	3.230474	0.323047
CCI Antennas	DMP65R-BU6D	182	143	4788	2.524343	0.252434	3.230474	0.323047
CCI Antennas	DMP65R-BU4D	182	263	4066	1.846158	0.184616	2.476845	0.247684

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.97217 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.17156 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	2239	0.519356	0.091651	0.94463	0.166699
CCI Antennas	DMP65R-BU6D	182	143	2239	0.519356	0.091651	0.94463	0.166699
CCI Antennas	DMP65R-BU4D	182	263	1695	0.605407	0.106837	0.638945	0.112755

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 763 MHz
Maximum Permissible Exposure (MPE): 508.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.79941 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.15716 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	2400	0.552607	0.108638	0.718643	0.14128
CCI Antennas	DMP65R-BU6D	182	143	2400	0.552607	0.108638	0.718643	0.14128
CCI Antennas	DMP65R-BU4D	182	263	1582	0.601435	0.118238	0.629349	0.123725

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 2300 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.68199 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.3682 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	2606	3.596483	0.359648	3.672825	0.367283
CCI Antennas	DMP65R-BU6D	182	143	2606	3.596483	0.359648	3.672825	0.367283
CCI Antennas	DMP65R-BU4D	182	263	2917	1.325382	0.132538	1.653356	0.165336

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.47319 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.34732 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	4075	2.865201	0.28652	3.416945	0.341695
CCI Antennas	DMP65R-BU6D	182	143	4075	2.865201	0.28652	3.416945	0.341695
CCI Antennas	DMP65R-BU4D	182	263	3541	2.187139	0.218714	2.773657	0.277366

AT&T Mobility, LLC (Proposed)
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 737 MHz
Maximum Permissible Exposure (MPE): 491.33 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.79941 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.1627 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	182	23	2400	0.552607	0.112471	0.718643	0.146264
CCI Antennas	DMP65R-BU6D	182	143	2400	0.552607	0.112471	0.718643	0.146264
CCI Antennas	DMP65R-BU4D	182	263	1582	0.601435	0.122409	0.629349	0.12809

Connecticut State Police
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.27062 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.04776 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	DB809DK-Y	130	0	100	0.098604	0.017401	0.098604	0.017401
ANDREW	DB809DK-Y	139	0	100	0.085278	0.015049	0.085278	0.015049
SINCLAIR	SC479-HF1LDF	141	0	100	0.05029	0.008875	0.05029	0.008875
SINCLAIR	SC442D-HF2LDF	144	0	100	0.042715	0.007538	0.042715	0.007538
SINCLAIR	SC442D-HF2LDF	144	0	100	0.042715	0.007538	0.042715	0.007538

Connecticut State Police
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 769 MHz
Maximum Permissible Exposure (MPE): 512.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.20878 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.04073 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis	Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)
Amphenol	WPA-700102-4CF-EDIN-9	134	170	100	0.204867	0.039961	0.208784 0.040725

Eversource Northeast-Utilities
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	450	MHz
Maximum Permissible Exposure (MPE):	300	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.37893	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.12631	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
dBSpectra	DS4C06F36D-D	100	0	100	0.378927	0.126309	0.378927	0.126309

Sprint
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 1990 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.44812 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.24481 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	124	0	3804	1.130683	0.113068	2.266279	0.226628
RFS	APXVSPP18-C-A20	124	120	3804	1.130683	0.113068	2.266279	0.226628
RFS	APXVSPP18-C-A20	124	240	3804	1.130683	0.113068	2.266279	0.226628

Sprint
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 2.44812 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.24481 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	124	0	3804	1.130683	0.113068	2.266279	0.226628
RFS	APXVSPP18-C-A20	124	120	3804	1.130683	0.113068	2.266279	0.226628
RFS	APXVSPP18-C-A20	124	240	3804	1.130683	0.113068	2.266279	0.226628

Sprint
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 866 MHz
Maximum Permissible Exposure (MPE): 577.33 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.53035 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.09186 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	124	0	1084	0.511676	0.088627	0.521531	0.090335
RFS	APXVSPP18-C-A20	124	120	1084	0.511676	0.088627	0.521531	0.090335
RFS	APXVSPP18-C-A20	124	240	1084	0.511676	0.088627	0.521531	0.090335

Sprint
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 862 MHz
Maximum Permissible Exposure (MPE): 574.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.53035 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.09229 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	124	0	1084	0.511676	0.089039	0.521531	0.090754
RFS	APXVSPP18-C-A20	124	120	1084	0.511676	0.089039	0.521531	0.090754
RFS	APXVSPP18-C-A20	124	240	1084	0.511676	0.089039	0.521531	0.090754

Sprint
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 2500 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.62884 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.36288 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVTM14-C-I20	124	0	6168	1.484406	0.148441	2.801928	0.280193
RFS	APXVTM14-C-I20	124	120	6168	1.484406	0.148441	2.801928	0.280193
RFS	APXVTM14-C-I20	124	240	6168	1.484406	0.148441	2.801928	0.280193

T-Mobile
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 700 MHz
Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.76123 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.37741 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	LNX-6515DS-VTM	170	20	4572	0.905737	0.194086	0.918452	0.196811
ANDREW	LNX-6515DS-VTM	170	80	4572	0.905737	0.194086	0.918452	0.196811
ANDREW	LNX-6515DS-VTM	170	180	4572	0.905737	0.194086	0.918452	0.196811
ANDREW	LNX-6515DS-VTM	170	270	4572	0.905737	0.194086	0.918452	0.196811

T-Mobile
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 5.61897 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.5619 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APX16DWV-16DWVS-C-A20	170	20	6763	3.807226	0.380723	3.807226	0.380723
RFS	APX16DWV-16DWVS-C-A20	170	80	6763	3.807226	0.380723	3.807226	0.380723
RFS	APX16DWV-16DWVS-C-A20	170	180	6763	3.807226	0.380723	3.807226	0.380723
RFS	APX16DWV-16DWVS-C-A20	170	270	6763	3.807226	0.380723	3.807226	0.380723

T-Mobile
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	1900	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	2.32925	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.23292	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APX16DWV-16DWVS-C-A20	170	20	6763	1.060817	0.106082	1.256271	0.125627
RFS	APX16DWV-16DWVS-C-A20	170	80	6763	1.060817	0.106082	1.256271	0.125627
RFS	APX16DWV-16DWVS-C-A20	170	180	6763	1.060817	0.106082	1.256271	0.125627
RFS	APX16DWV-16DWVS-C-A20	170	270	6763	1.060817	0.106082	1.256271	0.125627

Verizon Wireless
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	2100	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	4.93035	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.49303	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	160	90	6763	2.888717	0.288872	4.913999	0.4914
Commscope	NHH-65B-R2B	160	210	6763	2.888717	0.288872	4.913999	0.4914
Commscope	NHH-65B-R2B	160	330	6763	2.888717	0.288872	4.913999	0.4914

Verizon Wireless
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	1900	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	5.09777	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.50978	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	160	90	6027	3.707248	0.370725	4.94256	0.494256
Commscope	NHH-65B-R2B	160	210	6027	3.707248	0.370725	4.94256	0.494256
Commscope	NHH-65B-R2B	160	330	6027	3.707248	0.370725	4.94256	0.494256

Verizon Wireless
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 751 MHz
Maximum Permissible Exposure (MPE): 500.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.59005 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.31759 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	160	90	3021	1.070864	0.213888	1.553353	0.310257
Commscope	NHH-65B-R2B	160	210	3021	1.070864	0.213888	1.553353	0.310257
Commscope	NHH-65B-R2B	160	330	3021	1.070864	0.213888	1.553353	0.310257

Verizon Wireless
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency:	850	MHz
Maximum Permissible Exposure (MPE):	566.67	µW/cm^2
Maximum power density at ground level:	1.9392	µW/cm^2
Highest percentage of Maximum Permissible Exposure:	0.34221	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density (µW/cm^2)	Percent of MPE	Max Power Density (µW/cm^2)	Percent of MPE
Antel	LPA-80080-6CF	160	90	4019	1.031449	0.18202	1.599496	0.282264
Antel	LPA-80080-6CF	160	210	4019	1.031449	0.18202	1.599496	0.282264
Antel	LPA-80080-6CF	160	330	4019	1.031449	0.18202	1.599496	0.282264

WMNR
KENT-BULLS BRIDGE ROAD
Carrier Summary

Frequency: 88.1 MHz
Maximum Permissible Exposure (MPE): 200 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 26.10529 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 13.05265 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ERI	100-1	120	240	5000	26.105288	13.052644	26.105293	13.052647