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January 15, 2012

Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051
Attn: Ms. Linda Roberts, Executive Director

Re: 751 Higgins Road, Cheshire, CT



Dear Ms. Roberts,

On behalf of Sprint Nextel Corporation ("Sprint"), enclosed for filing are an original and two (2) copies of Sprint's Notice of Exempt Modification for Proposed Modifications to an Existing Telecommunications Facility located at the above-referenced site.

I also enclose herewith a check in the amount of \$625.00 representing the fee for the Notice of Exempt Modification.

If you have any questions, please feel free to contact me.

Thank you,

By: 

Name: David Weisman
Vertical Development LLC, an authorized representative of Sprint Nextel
Vertical Development LLC
7 Sycamore Way, Unit 1
Branford, CT 06405
Phone – 401-743-9011
Fax – 401-633-6202
DWeisman@verticaldevelopmentllc.com

CC: Mayor Tim Slocum
Town of Cheshire Town Hall
84 South Main Street
Cheshire, CT 06410

Notice of Exempt Modification

751 Higgins Road, Cheshire, CT

Sprint Nextel Corporation ("Sprint") submits this Notice of Exempt Modification to the Connecticut Siting Council ("Council") pursuant to Sections 16-50j-73 and 16-50j-72(b) of the Regulations of Connecticut State Agencies ("Regulations") in connection with Sprint's planned modification of antennas and associated equipment on an existing 269' (please note that 269' is what is listed on the CSC spreadsheet but the structural says 250') self support tower located at 751 Higgins Road in the Town of Cheshire. More particularly, Sprint plans to upgrade this site by adding 4G LTE technology to its facilities. The proposed modifications will not increase the tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six (6) decibels, or add radio frequency sending or receiving capability which increases the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to Connecticut General Statutes § 22a-162.

To better meet the growing voice and data demands of its wireless customers, Sprint is upgrading their network nationwide to include 4G technology, which will provide faster service and better overall performance. Pursuant to the 4G upgrade at this site, Sprint will replace antennas, install RRHs and notch filters, and install related equipment to its underground equipment area.

The 269' (250') self support tower located 751 Higgins Road in the Town of Cheshire (lat. 41° 29' 14.8", long. 72° 55' 45.7") is owned by AT&T. It is in an approximately 3,600+ square foot fenced compound. Sprint currently has six (6) antennas (two (2) per sector) with a centerline of 225.6' installed on the tower. Sprint's base station equipment is located in an underground equipment area. A site plan depicting this is attached.

Sprint plans to replace the existing six (6) antennas with three (3) dual pole antennas (one (1) per sector) and three (3) RFS APXVSP18-C-A20 antennas (one (1) per sector), all with a centerline of 225.6'. Connected to the three (3) RFS

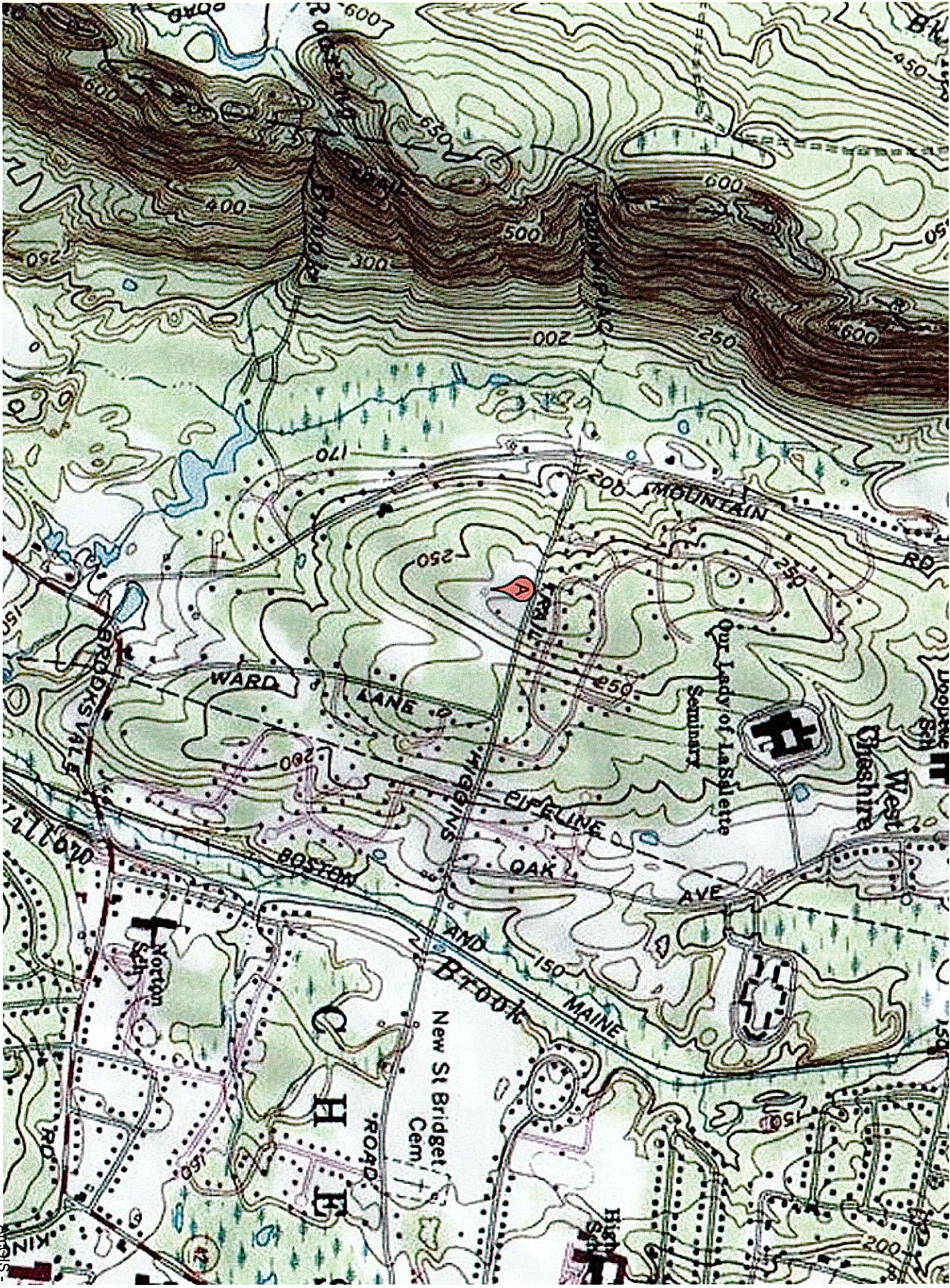
APXVSPP18-C-A20 antennas will be one (1) ALU 800 MHz RRH with one (1) ALU 800 MHz notch filter attached to it and one (1) ALU 1900 MHz RRH, which will be located behind or below the antenna. After the new antennas have been tested and are deployed on-air, the three (3) dual pole antennas will be removed. The height of the self support tower will not need to be increased. Sprint also plans to install a new fiber junction box and a new Ciena equipment enclosure into their underground equipment space, and to retrofit or replace the existing BTS cabinet. The compound's boundaries will not need to be extended. Other than brief, construction-related noise, these modifications will not increase noise levels at the tower site boundary by six (6) decibels.

AT&T commissioned GPD Group to perform a structural analysis of the tower to verify that it can support Sprint's proposed loading. The results of the analysis show that the tower passed at 84.4% (see the first page of Structural Analysis Report, November 6, 2012). Sprint commissioned EBI Consulting to perform a structural assessment of the existing mounting system. They concluded that the existing mounting system is "[C]apable of supporting the existing and proposed equipment without causing an overstress condition in the mounting system" (see the second page of Structural Assessment Letter, August 24, 2012).

The proposed modifications will not add radio frequency sending or receiving capability which increases the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to Connecticut General Statutes § 22a-162. A radio frequency emissions analysis prepared by EBI Consulting indicates that the proposed final configuration (including other carriers on the tower) will emit 19.241% of the allowable FCC established general public limit sampled at the ground level (see the 5th page of Radio Frequency Emissions Analysis Report - Evaluation of Human Exposure Potential to Non-Ionizing Emissions, September 2, 2012). Emission values for the Sprint antennas have been calculated from the sample point, which is the top of a six foot person standing at the base of the tower. Emissions values for additional carriers were based upon values listed in Connecticut Siting Council active database (see the 3rd and 4th page of Radio Frequency Emissions

Analysis Report - Evaluation of Human Exposure Potential to Non-Ionizing Emissions, September 2, 2012). The information used in the report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1 (see the second page of Radio Frequency Emissions Analysis Report - Evaluation of Human Exposure Potential to Non-Ionizing Emissions, September 2, 2012).

In conclusion, Sprint's proposed modifications do not constitute a modification subject to the Council's review because Sprint will not change the height of the tower, will not extend the boundaries of the compound, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards. Therefore, Sprint respectfully requests that the Council acknowledge that this Notice of Exempt Modification meets the Council's exemption criteria.



751 Higgins Road, Cheshire, CT



751 Higgins Road, Cheshire, CT

Imagery ©2013 DigitalGlobe, GeoEye, U.S. Geological Survey, USDA Farm Service Agency, map data ©2013 Google

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

Sprint Existing Facility

Site ID: CT03XC044

Cheshire
751 Higgins Avenue
Cheshire, CT 06410

August 21, 2012

August 21, 2012

Sprint
Attn: RF Engineering Manager
1 International Boulevard, Suite 800
Mahwah, NJ 07495

Re: Emissions Values for Site **CT03XC044–Cheshire**

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 751 Higgins Avenue, Cheshire, CT, for the purpose of determining whether the emissions from the proposed Sprint equipment upgrades on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is approximately $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at 751 Higgins Avenue, Cheshire, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario. Actual values seen from this site will be dramatically less than those shown in this report. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all emissions were calculated using the following assumptions:

- 1) 3 CDMA Carriers (1900 MHz) were considered for each sector of the proposed installation.
- 2) 1 CDMA Carrier (850 MHz) was considered for each sector of the proposed installation
- 3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 4) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 5) The antenna used in this modeling is the RFS APXVSP18-C-A20. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario.

- 6) The antenna mounting height centerline of the proposed antennas is **225.6 feet** above ground level (AGL)
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

Site IDCT03XC044 - Cheshire																	
Site Address751 Higgins Avenue, Cheshire, CT 06410																	
Site TypeSelf Support Tower																	
Sector 1																	
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	225.6	219.6	1/2 "	0.5	0	2080.4211	15.50931	1.55093%
1a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	225.6	219.6	1/2 "	0.5	0	389.96892	2.907176	0.51273%
Sector total Power Density Value:													2.064%				
Sector 2																	
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
2a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	225.6	219.6	1/2 "	0.5	0	2080.4211	15.50931	1.55093%
2a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	225.6	219.6	1/2 "	0.5	0	389.96892	2.907176	0.51273%
Sector total Power Density Value:													2.064%				
Sector 3																	
Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
3a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	225.6	219.6	1/2 "	0.5	0	2080.4211	15.50931	1.55093%
3a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	225.6	219.6	1/2 "	0.5	0	389.96892	2.907176	0.51273%
Sector total Power Density Value:													2.064%				

Site Composite MPE %	
Carrier	MPE %
Sprint	6.191%
AT&T	2.850%
T-Mobile	1.750%
Verizon Wireless	6.240%
Nextel	2.210%
Total Site MPE %	
19.241%	

Summary

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

The anticipated Maximum Composite contributions from the Sprint facility are **6.191% (2.064% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **19.241%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions

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



Scott Heffernan

RF Engineering Director

EBI Consulting

21 B Street

Burlington, MA 01803

STRUCTURAL ASSESSMENT LETTER

August 24, 2012

Sprint Site Number: CT03XC044
Sprint Site Name: Cheshire
AT&T Towers ID: TAG0053 - Cheshire
Site Address: 751 Higgins Road, Cheshire, CT 06410

Project Number: 81121599
Project Name: Sprint Network Vision – Southern Connecticut Market

This letter is to confirm EBI's structural assessment of the existing Sprint antenna mounting system on the above listed site located in the Sprint Network Vision – Region 1, Southern Connecticut market. The intent of this review is to determine if the proposed modification of antennas and equipment will exceed the structural capacity of the existing mounting system.

The existing antenna mounting system has been categorized as *Face-Mounted Pipe Assembly*. According to the collocation application, Sprint currently has (6) CDMA panel antennas serviced by (6) 1-5/8" coax, mounted at a centerline elevation of 225.6'± above ground level. Sprint is proposing the following two steps to complete the equipment upgrade:

- **Step 1 – Interim Configuration**

Sprint is proposing to install (3) RFS APXVSP18-C-A20 panel antennas, (3) 800 MHz ALU RRHs, (3) 1900 MHz ALU RRHs, (3) 800MHz Filters, and (3) Hybridflex cables. The (6) existing CDMA antennas are to be consolidated to (3) temporary dual-pole CDMA antennas. The proposed panel antenna in each sector is to be installed on the existing 2-7/8" minimum diameter mast pipe previously occupied by an existing CDMA antenna on the tower face. The RRHs and filters are to be mounted to the same pipe masts as the proposed panel antennas, mounted behind or below the proposed antennas.

- **Step 2 – Final Configuration**

- After interim configuration is completed, Sprint is proposing to remove the (3) temporary dual-pole Sprint CDMA panel antennas and (6) existing 1-5/8" Sprint coax.

The *Face-Mounted Pipe Assembly* antenna mounting system appears to be specifically constructed for this site, and has the following assumed characteristics:

- Antennas mounted on individual pipe masts, 2-7/8" outer diameter minimum, mounted directly to the tower face and spanning between at least (2) support points per antenna mast. Masts are not supported by stand-off arms.
- The maximum pipe mast span length is 14'-0" between supporting connections to the tower face.
- Pre-fabricated industry-standard mounting brackets support the pipe masts. Connection between the pipe mast and mounting brackets consist of 1/2" minimum diameter U-bolts.

This analysis of the existing mounting system is in compliance with ANSI/TIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, using a basic design wind speed of 85 mph with no ice and 73.6 mph with 1.25" of escalating ice.

By engineering analysis and/or comparison, the existing antenna mounting system is capable of supporting the existing and proposed equipment without causing an overstress condition in the mounting system.

This certification is based on the physical antenna mounting system characteristics as described above and as determined through site specific photos and/or other available site specific information. This certification also assumes that all structural members and connections have been properly designed and remain in good condition. Prior to installation of any new antennas and/or RRHs, contractor shall inspect the condition of all relevant members and connectors. The contractor shall be responsible for the means and methods of construction and reporting to EBI Consulting if mount members are found to be smaller than assumed above, prior to placement of proposed appurtenances.

Analysis, tower modification design, and/or certification of the existing tower structure may be performed by others and will be submitted separately.

Please contact us at 781-273-2500 if you have any questions.

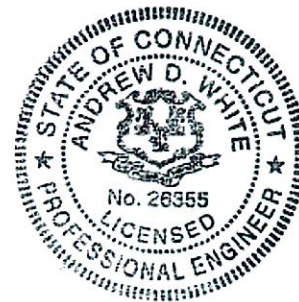
Sincerely yours,
EBI Consulting



Kelly Shanahan, E.I.T.
Project Engineer



Andrew White, P.E., SECB
Professional Engineer





AT&T Towers
5405 Windward Pkwy
Alpharetta, GA 30004
(770) 708-6100



Kevin Clements
1117 Perimeter Ctr W, Suite W303
Atlanta, GA 30338
(678) 781-5061
kclements@gpdgroup.com

GPD# 2012867.46
November 6, 2012

STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:	Site USID:	TAG0053
	Site FA:	10136365
	Site Name:	CHESHIRE
	AT&T Project:	Wireline Sprint Vision Modification 6-22-2012

ANALYSIS CRITERIA:	Codes:	TIA/EIA-222-F, 2003 IBC & ASCE 7-05
		85-mph fastest mile with 0" ice
		38-mph fastest mile with 3/4" ice

SITE DATA:	751 Higgins Road, Cheshire, CT 06410, New Haven County
	Latitude 41° 29' 14.999" N, Longitude 72° 55' 46.999" W
	Market: MA/RI/VT/NH/ME/CT
	250' Radio Relay Towers Self Support Tower

Ms. Charlotte Malone,

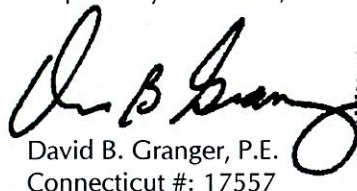
GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

Analysis Results

Tower Stress Level with Proposed Equipment:	84.4%	Pass
Building Pedestal Ratio with Proposed Equipment:	16.7%	Pass

We at GPD appreciate the opportunity of providing our continuing professional services to you and AT&T. If you have any questions or need further assistance on this or any other projects please do not hesitate to call.

Respectfully submitted,


David B. Granger, P.E.
Connecticut #: 17557



SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing modified structure is capable of carrying the proposed loading configuration as specified by Sprint to AT&T Mobility. This report was commissioned by Ms. Charlotte Malone of AT&T Mobility.

This analysis is limited to the above grade tower structure and supporting building pedestals. A detailed analysis of the below grade building structure is beyond the scope of this report; however, based on a comparison of the existing base reactions and the base reactions from the existing, proposed, and reserved loading case the below grade building structure will see a loading increase less than 5% in capacity. Therefore the below grade building structure will be sufficient to support the proposed loading per section 3403.2 of the 2003 IBC.

The proposed coax shall be installed on Face D next to the existing coax to 225.6' in order for the analysis results to be valid. See Appendix C for the proposed coax layout.

Modifications designed by GPD (Project #: 2012856.05, dated 7/25/12) have been considered in this analysis.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Legs	84.4%	Pass
Leg Bolts	35.2%	Pass
Diagonals	63.6%	Pass
Horizontals	65.1%	Pass
Redundant Members	84.0%	Pass
Member Bolts	46.9%	Pass
Anchor Rods	35.5%	Pass
Building Pedestals	16.7%	Pass

ANALYSIS METHOD

RISA 3D (Version 9.1.1) and TNX Tower (Version 6.0.4.0), commercially available software programs, were used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and is being completed without the benefit of a detailed site visit by GPD.

DOCUMENTS PROVIDED

Document	Remarks	Source
Notice of Collocation Form	Sprint Co-location document, uploaded 8/1/12	Siterra
Site Lease Application	Sprint Application, dated 9/8/12, uploaded 10/1/12	Siterra
Original Building Drawings	American Telephone & Telegraph Co. L-4 Junction Building, Cheshire, CT, dated 12/1/65	Siterra
Foundation Exploration	FDH Project #: 11-12049E-N1, dated 12/20/11	Siterra
Geotechnical Report	Not Provided	N/A
Previous Structural Analysis	GPD Project #: 2012867.11, dated 11/5/12	Siterra
Tower Mapping	Tower Engineering Professionals Project #: 111343, dated 4/8/11	Siterra
Modification Drawings	GPD Project #: 2012856.05, dated 7/25/12	Siterra

ASSUMPTIONS

This rigorous structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/available and to have been properly installed.
10. Loading interpreted from photos is accurate to $\pm 5'$ AGL, antenna size accurate to ± 3.3 sf, and coax equal to the number of existing antennas without reserve.
11. All existing loading was obtained from the previous analysis by GPD Project #: 2012867.11, dated 11/5/12, site photos and the provided preliminary tower summary and is assumed to be accurate.
12. This analysis is limited to the above grade tower structure and supporting building pedestals. A detailed analysis of the below grade building structure is beyond the scope of this report; however, based on a comparison of the existing base reactions and the base reactions from the existing, proposed, and reserved loading case the below grade building structure will see a loading increase less than 5% in capacity. Therefore the below grade building structure will be sufficient to support the proposed loading per section 3403.2 of the 2003 IBC.
13. The proposed coax shall be installed on Face D next to the existing coax to 225.6' in order for the analysis results to be valid. See Appendix C for the proposed coax layout.
14. The existing/reserved and future AT&T loading found in the Wireline Cingular Modification 6-18-2012 project was found to vary from the loading listed within the provided Preliminary Tower Summary and Notice of Collocation Forms. The existing/reserved loading has been modeled based on the loading reflected within the Wireline Cingular Modification 6-18-2012 project.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Group should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD GROUP has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD GROUP in connection with this Rigorous Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD GROUP does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD GROUP provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the specified code recommended amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD GROUP, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD GROUP makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD GROUP will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD GROUP pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

APPENDIX B

Software Output Files and Calculations

tnxTower GPD Group 520 South Main St Akron, OH 44311 Phone: (330) 572-2100 FAX: (330) 572-2102	Job	TAG0053 CHESHIRE	Page	1 of 8
	Project	2012867.46	Date	16:53:17 11/06/12
	Client	AT&T Mobility	Designed by	awestrump

Tower Input Data

The main tower is a 4x free standing tower with an overall height of 250.00 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 33.50 ft at the top and 37.00 ft at the base.

This tower is designed using the TIA/EIA-222-F standard.

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Basic wind speed of 85 mph.

Nominal ice thickness of 0.7500 in.

Ice density of 56 pcf.

A wind speed of 38 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 50 mph.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.333.

Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF7-50A (1-5/8 FOAM)	B	Yes	Ar (CfAe)	170.00 - 8.00	-4.0000	0.45	12	6	1.0000	1.9800		0.82
RET Cable	B	Yes	Ar (CfAe)	170.00 - 8.00	-4.0000	0.42	6	2	0.4400	0.4400		0.08
LDF7-50A (1-5/8 FOAM)	B	Yes	Ar (CfAe)	212.00 - 37.00	0.0000	0.45	4	4	1.0000	1.9800		0.82
1" Rigid Conduit	C	Yes	Ar (CfAe)	20.00 - 8.00	0.0000	-0.45	11	11	1.0000	1.0000		0.50
1" Rigid Conduit	C	Yes	Ar (CfAe)	30.00 - 20.00	0.0000	-0.45	7	7	1.0000	1.0000		0.50
1" Rigid Conduit	C	Yes	Ar (CfAe)	37.00 - 30.00	0.0000	-0.45	6	6	1.0000	1.0000		0.50
LDF7-50A (1-5/8 FOAM)	C	Yes	Ar (CfAe)	207.00 - 8.00	0.0000	-0.35	1	1	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	C	Yes	Ar (CfAe)	212.00 - 37.00	2.0000	-0.45	8	8	1.0000	1.9800		0.82
RET Cable	C	Yes	Ar (CfAe)	212.00 - 37.00	2.0000	-0.42	1	1	0.4400	0.4400		0.08
Power Cable (1/2")	C	Yes	Ar (CfAe)	250.00 - 8.00	0.0000	0.44	1	1	0.6300	0.6300		0.15
1-3/4" Rigid Conduit	C	Yes	Ar (CfAe)	250.00 - 8.00	0.0000	0.46	1	1	1.7500	1.7500		1.00
1/2" cable	D	Yes	Ar (CfAe)	36.50 - 8.00	0.0000	0.04	1	1	0.5000	0.5000		5.00
1/2" cable	D	Yes	Ar (CfAe)	44.50 - 8.00	0.0000	-0.04	1	1	0.5000	0.5000		5.00
LDF5-50A (7/8 FOAM)	D	Yes	Ar (CfAe)	169.00 - 8.00	8.0000	0.04	3	3	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM)	D	Yes	Ar (CfAe)	188.00 - 169.00	8.0000	0.04	2	2	1.0000	1.0900		0.33
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	200.00 - 8.00	0.0000	0.45	9	9	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	212.00 - 200.00	0.0000	0.45	6	6	1.0000	1.9800		0.82

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Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Hybriflex 1-1/4	D	Yes	Ar (CfAe)	225.00 - 8.00	0.0000	0.06	3	2	1.0000	1.5500		0.66
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	225.00 - 8.00	0.0000	0.05	3	1	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	225.00 - 8.00	0.0000	-0.05	3	1	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	240.00 - 8.00	0.0000	0	10	6	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	250.00 - 240.00	0.0000	0	2	2	1.0000	1.9800		0.82
LDF6-50A (1-1/4 FOAM)	D	Yes	Ar (CfAe)	250.00 - 8.00	0.0000	0.02	5	3	1.0000	1.5500		0.66
LDF7-50A (1-5/8 FOAM)	D	Yes	Ar (CfAe)	250.00 - 8.00	6.0000	0	13	6	1.0000	1.9800		0.82
1" Line	D	Yes	Ar (CfAe)	250.00 - 8.00	6.0000	0	1	1	1.0000	1.0000		2.00
LDF4.5-50 (5/8 FOAM)	D	Yes	Ar (CfAe)	85.00 - 8.00	3.0000	0	7	7	0.8700	0.8700		0.15
LDF4-50A (1/2 FOAM)	D	Yes	Ar (CfAe)	85.00 - 8.00	0.0000	0.055	2	1	0.6300	0.6300		0.15
Climbing Ladder	C	No	Af (Leg)	250.00 - 8.00	0.0000	0.1	1	1	0.2500	0.0000	0.0000	7.90
Feedline Ladder (Af)	B	Yes	Af (CfAe)	212.00 - 8.00	-4.0000	0.45	1	1	3.0000	3.0000	12.0000	8.40
Feedline Ladder (Af)	C	Yes	Af (CfAe)	212.00 - 8.00	2.0000	-0.42	1	1	3.0000	3.0000	12.0000	8.40
Feedline Ladder (Af)	D	Yes	Af (CfAe)	250.00 - 8.00	0.0000	0	1	1	3.0000	3.0000	12.0000	8.40
Feedline Ladder (Af)	D	Yes	Af (CfAe)	209.00 - 8.00	0.0000	0.43	1	1	3.0000	3.0000	12.0000	8.40

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight lb
Tower Top Platform	C	None		0.0000	250.00	No Ice	85.00	85.00	4425.00
						1/2" Ice	97.00	97.00	5752.50
						1" Ice	110.00	110.00	7080.00
DUO1417-8686 w/Mount Pipe	B	From Face	2.00 0.00 4.00	0.0000	250.00	No Ice	7.25	5.86	45.85
						1/2" Ice	7.96	6.96	103.71
						1" Ice	8.57	7.78	172.26
DUO1417-8686 w/Mount Pipe	D	From Face	2.00 0.00 4.00	0.0000	250.00	No Ice	7.25	5.86	45.85
						1/2" Ice	7.96	6.96	103.71
						1" Ice	8.57	7.78	172.26
1284315 TMA	B	From Face	2.00 0.00 4.00	0.0000	250.00	No Ice	0.23	0.12	1.20
						1/2" Ice	0.30	0.17	3.05
						1" Ice	0.38	0.24	5.87
1284315 TMA	D	From Face	2.00 0.00 4.00	0.0000	250.00	No Ice	0.23	0.12	1.20
						1/2" Ice	0.30	0.17	3.05
						1" Ice	0.38	0.24	5.87
SBNH-1D6565C w/ Mount Pipe	B	From Face	2.00 0.00 4.00	0.0000	250.00	No Ice	11.45	9.12	82.70
						1/2" Ice	12.06	10.21	162.03
						1" Ice	12.69	11.18	254.15
SBNH-1D6565C w/ Mount	C	From Face	2.00	0.0000	250.00	No Ice	11.45	9.12	82.70

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
Pipe			0.00			1/2" Ice 12.06	10.21	162.03
			4.00			1" Ice 12.69	11.18	254.15
(2) SBNH-1D6565C w/ Mount Pipe	D	From Face	2.00	0.0000	250.00	No Ice 11.45	9.12	82.70
			0.00			1/2" Ice 12.06	10.21	162.03
			4.00			1" Ice 12.69	11.18	254.15
(2) RRUS-11	B	From Face	2.00	0.0000	250.00	No Ice 4.42	1.19	55.00
			0.00			1/2" Ice 4.71	1.35	80.77
			4.00			1" Ice 5.00	1.53	109.98
(2) RRUS-11	C	From Face	2.00	0.0000	250.00	No Ice 4.42	1.19	55.00
			0.00			1/2" Ice 4.71	1.35	80.77
			4.00			1" Ice 5.00	1.53	109.98
(6) RRUS-11	D	From Face	2.00	0.0000	250.00	No Ice 4.42	1.19	55.00
			0.00			1/2" Ice 4.71	1.35	80.77
			4.00			1" Ice 5.00	1.53	109.98
GPS	A	From Face	2.00	0.0000	250.00	No Ice 0.17	0.17	0.87
			0.00			1/2" Ice 0.24	0.24	3.85
			2.00			1" Ice 0.32	0.32	7.85
LPA-80080-6CF-EDIN-X w/ Mount Pipe	A	From Face	2.00	0.0000	250.00	No Ice 4.35	10.82	80.74
			-15.00			1/2" Ice 4.79	11.74	145.80
			2.00			1" Ice 5.24	12.67	220.59
LPA-80080-6CF-EDIN-X w/ Mount Pipe	A	From Face	2.00	0.0000	250.00	No Ice 4.35	10.82	80.74
			15.00			1/2" Ice 4.79	11.74	145.80
			2.00			1" Ice 5.24	12.67	220.59
LPA-80063/6CFE-DIN w/ Mount Pipe	B	From Face	2.00	0.0000	250.00	No Ice 14.20	14.28	70.39
			-15.00			1/2" Ice 15.02	15.85	187.69
			2.00			1" Ice 15.85	17.48	320.49
LPA-80063/6CFE-DIN w/ Mount Pipe	B	From Face	2.00	0.0000	250.00	No Ice 14.20	14.28	70.39
			15.00			1/2" Ice 15.02	15.85	187.69
			2.00			1" Ice 15.85	17.48	320.49
LPA-80063/6CFE-DIN w/ Mount Pipe	C	From Face	4.00	0.0000	250.00	No Ice 14.20	14.28	70.39
			0.00			1/2" Ice 15.02	15.85	187.69
			2.00			1" Ice 15.85	17.48	320.49
4' Standoff	C	From Face	2.00	0.0000	250.00	No Ice 3.41	3.41	80.00
			0.00			1/2" Ice 4.47	4.47	104.00
			2.00			1" Ice 5.50	5.50	128.00
LPA-80063/6CFE-DIN w/ Mount Pipe	D	From Face	4.00	0.0000	250.00	No Ice 14.20	14.28	70.39
			10.00			1/2" Ice 15.02	15.85	187.69
			2.00			1" Ice 15.85	17.48	320.49
4' Standoff	D	From Face	2.00	0.0000	250.00	No Ice 3.41	3.41	80.00
			10.00			1/2" Ice 4.47	4.47	104.00
			2.00			1" Ice 5.50	5.50	128.00
BXA-70063-6CF	A	From Face	2.00	0.0000	250.00	No Ice 7.73	4.16	17.00
			-5.00			1/2" Ice 8.27	4.60	59.49
			2.00			1" Ice 8.81	5.04	107.83
BXA-171063/12BF w/ Mount Pipe	A	From Face	2.00	0.0000	250.00	No Ice 5.02	5.28	40.55
			0.00			1/2" Ice 5.57	6.45	83.67
			2.00			1" Ice 6.09	7.33	138.23
BXA-70063-6CF	B	From Face	2.00	0.0000	250.00	No Ice 7.73	4.16	17.00
			-5.00			1/2" Ice 8.27	4.60	59.49
			2.00			1" Ice 8.81	5.04	107.83
BXA-171063/12BF w/ Mount Pipe	B	From Face	2.00	0.0000	250.00	No Ice 5.02	5.28	40.55
			5.00			1/2" Ice 5.57	6.45	83.67
			2.00			1" Ice 6.09	7.33	138.23
BXA-70063-6CF	C	From Face	4.00	0.0000	250.00	No Ice 7.73	4.16	17.00
			15.00			1/2" Ice 8.27	4.60	59.49
			2.00			1" Ice 8.81	5.04	107.83
4' Standoff	C	From Face	2.00	0.0000	250.00	No Ice 3.41	3.41	80.00

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb	
			15.00			1/2" Ice	4.47	4.47	104.00
			2.00			1" Ice	5.50	5.50	128.00
BXA-171063/12BF w/ Mount Pipe	D	From Face	4.00	0.0000	250.00	No Ice	5.02	5.28	40.55
			-15.00			1/2" Ice	5.57	6.45	83.67
			2.00			1" Ice	6.09	7.33	138.23
4' Standoff	D	From Face	2.00	0.0000	250.00	No Ice	3.41	3.41	80.00
			-15.00			1/2" Ice	4.47	4.47	104.00
			2.00			1" Ice	5.50	5.50	128.00
RRH 9442	A	From Face	2.00	0.0000	250.00	No Ice	2.97	2.63	50.00
			-15.00			1/2" Ice	3.21	2.86	74.49
			2.00			1" Ice	3.46	3.11	102.29
RRH 9442	B	From Face	2.00	0.0000	250.00	No Ice	2.97	2.63	50.00
			-15.00			1/2" Ice	3.21	2.86	74.49
			2.00			1" Ice	3.46	3.11	102.29
RRH 9442	C	From Face	4.00	0.0000	250.00	No Ice	2.97	2.63	50.00
			0.00			1/2" Ice	3.21	2.86	74.49
			2.00			1" Ice	3.46	3.11	102.29
7770.00 w/ Mount Pipe	B	From Face	5.00	0.0000	240.00	No Ice	6.46	4.59	60.55
			10.00			1/2" Ice	7.14	5.66	108.85
			1.00			1" Ice	7.73	6.45	167.84
AM-X-CD-16-65-00T-RET w/ mountpipe	B	From Face	5.00	0.0000	240.00	No Ice	7.33	6.14	73.53
			10.00			1/2" Ice	7.98	7.13	134.57
			1.00			1" Ice	8.57	7.97	204.89
5' Side Arm	B	From Face	2.50	0.0000	240.00	No Ice	2.52	2.52	200.00
			10.00			1/2" Ice	3.15	3.15	250.00
			0.00			1" Ice	3.78	3.78	300.00
7770.00 w/ Mount Pipe	C	From Face	5.00	0.0000	240.00	No Ice	6.46	4.59	60.55
			-10.00			1/2" Ice	7.14	5.66	108.85
			1.00			1" Ice	7.73	6.45	167.84
AM-X-CD-16-65-00T-RET w/ mountpipe	C	From Face	5.00	0.0000	240.00	No Ice	7.33	6.14	73.53
			-10.00			1/2" Ice	7.98	7.13	134.57
			1.00			1" Ice	8.57	7.97	204.89
5' Side Arm	C	From Face	2.50	0.0000	240.00	No Ice	2.52	2.52	200.00
			-10.00			1/2" Ice	3.15	3.15	250.00
			0.00			1" Ice	3.78	3.78	300.00
7770.00 w/ Mount Pipe	C	From Face	5.00	0.0000	240.00	No Ice	6.46	4.59	60.55
			10.00			1/2" Ice	7.14	5.66	108.85
			1.00			1" Ice	7.73	6.45	167.84
SBNH-1D6565C w/ Mount Pipe	C	From Face	5.00	0.0000	240.00	No Ice	11.45	9.12	82.70
			10.00			1/2" Ice	12.06	10.21	162.03
			1.00			1" Ice	12.69	11.18	254.15
5' Side Arm	C	From Face	2.50	0.0000	240.00	No Ice	2.52	2.52	200.00
			10.00			1/2" Ice	3.15	3.15	250.00
			0.00			1" Ice	3.78	3.78	300.00
7770.00 w/ Mount Pipe	D	From Face	5.00	0.0000	240.00	No Ice	6.46	4.59	60.55
			10.00			1/2" Ice	7.14	5.66	108.85
			1.00			1" Ice	7.73	6.45	167.84
5' Side Arm	D	From Face	2.50	0.0000	240.00	No Ice	2.52	2.52	200.00
			10.00			1/2" Ice	3.15	3.15	250.00
			0.00			1" Ice	3.78	3.78	300.00
DB980H65E-M w/ 20' Mount Pipe	B	From Face	1.00	0.0000	225.60	No Ice	8.11	7.94	124.30
			-15.00			1/2" Ice	10.01	10.34	199.77
			0.00			1" Ice	11.94	12.76	291.06
DB980H65E-M w/ 20' Mount Pipe	B	From Face	1.00	0.0000	225.60	No Ice	8.11	7.94	124.30
			15.00			1/2" Ice	10.01	10.34	199.77
			0.00			1" Ice	11.94	12.76	291.06
(2) APXVSP18-C-A20	B	From Face	1.00	0.0000	225.60	No Ice	8.26	5.28	57.00

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
RRU 800 MHz	B	From Face	0.00	0.0000	225.60	1/2" Ice	8.81	106.52
			0.00			1" Ice	9.36	162.12
			1.00			No Ice	2.00	50.60
			0.00			1/2" Ice	2.19	67.88
RRU 1900 MHz	B	From Face	0.00	0.0000	225.60	1" Ice	2.39	87.87
			1.00			No Ice	2.71	60.00
			0.00			1/2" Ice	2.95	83.13
			0.00			1" Ice	3.20	109.50
Notch Filter 800 MHz	B	From Face	1.00	0.0000	225.60	No Ice	0.87	9.45
			0.00			1/2" Ice	0.99	15.77
			0.00			1" Ice	1.13	23.79
			1.00			No Ice	8.11	124.30
DB980H65E-M w/ 20' Mount Pipe	C	From Face	-15.00	0.0000	225.60	1/2" Ice	10.01	199.77
			0.00			1" Ice	11.94	291.06
			1.00			No Ice	8.11	124.30
			15.00			1/2" Ice	10.01	199.77
DB980H65E-M w/ 20' Mount Pipe	C	From Face	0.00	0.0000	225.60	1" Ice	11.94	291.06
			1.00			No Ice	8.26	57.00
			0.00			1/2" Ice	8.81	106.52
			0.00			1" Ice	9.36	162.12
RRU 800 MHz	C	From Face	1.00	0.0000	225.60	No Ice	2.00	50.60
			0.00			1/2" Ice	2.19	67.88
			0.00			1" Ice	2.39	87.87
			1.00			No Ice	2.71	60.00
RRU 1900 MHz	C	From Face	0.00	0.0000	225.60	1/2" Ice	2.95	83.13
			0.00			1" Ice	3.20	109.50
			1.00			No Ice	0.87	9.45
			0.00			1/2" Ice	0.99	15.77
Notch Filter 800 MHz	C	From Face	0.00	0.0000	225.60	1" Ice	1.13	23.79
			1.00			No Ice	5.24	66.40
			10.00			1/2" Ice	6.13	114.34
			0.00			1" Ice	7.04	172.79
DB980H65E-M w/ 10' Mount Pipe	D	From Face	1.00	0.0000	225.60	No Ice	8.11	124.30
			15.00			1/2" Ice	10.01	199.77
			0.00			1" Ice	11.94	291.06
			1.00			No Ice	8.26	57.00
(2) APXVSP18-C-A20	D	From Face	0.00	0.0000	225.60	1/2" Ice	8.81	106.52
			0.00			1" Ice	9.36	162.12
			1.00			No Ice	2.00	50.60
			0.00			1/2" Ice	2.19	67.88
RRU 800 MHz	D	From Face	0.00	0.0000	225.60	1" Ice	2.39	87.87
			1.00			No Ice	2.71	60.00
			0.00			1/2" Ice	2.95	83.13
			0.00			1" Ice	3.20	109.50
RRU 1900 MHz	D	From Face	1.00	0.0000	225.60	No Ice	0.87	9.45
			0.00			1/2" Ice	0.99	15.77
			0.00			1" Ice	1.13	23.79
			1.00			No Ice	2.50	50.00
Notch Filter 800 MHz	D	From Face	-10.00	0.0000	225.60	1/2" Ice	3.53	68.64
			0.00			1" Ice	4.58	93.79
			1.00			No Ice	2.50	50.00
			-15.00			1/2" Ice	3.53	68.64
10' x 2.5" Pipe	B	From Face	0.00	0.0000	225.60	1" Ice	4.58	93.79
			1.00			No Ice	3.58	35.55
			0.00			1/2" Ice	4.20	76.59
			3.00			1" Ice	4.73	127.74
(3) DB844H90E-XY w/Mount Pipe	A	From Leg	1.00	0.0000	209.00	No Ice	3.58	35.55
			0.00			1/2" Ice	4.20	76.59
			3.00			1" Ice	4.73	127.74
			1.00			No Ice	3.58	35.55
(3) DB844H90E-XY	D	From Leg	1.00	0.0000	209.00	No Ice	3.58	35.55
			0.00			1/2" Ice	4.20	76.59
			3.00			1" Ice	4.73	127.74
			1.00			No Ice	3.58	35.55

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	Client	AT&T Mobility	Designed by	awestrum

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
w/Mount Pipe			0.00			1/2" Ice 4.20	6.49	76.59
			3.00			1" Ice 4.73	7.30	127.74
14' T-Frame	A	From Leg	0.50	0.0000	209.00	No Ice 18.21	0.00	492.00
			0.00			1/2" Ice 23.76	0.00	690.25
			0.00			1" Ice 29.31	0.00	888.50
14' T-Frame	D	From Leg	0.50	0.0000	209.00	No Ice 18.21	0.00	492.00
			0.00			1/2" Ice 23.76	0.00	690.25
			0.00			1" Ice 29.31	0.00	888.50
(2) RR90-17-02DP w/Mount Pipe	B	From Leg	1.00	0.0000	209.00	No Ice 4.91	3.64	43.55
			0.00			1/2" Ice 5.57	4.70	81.64
			3.00			1" Ice 6.14	5.48	130.14
(2) RR90-17-02DP w/Mount Pipe	C	From Leg	1.00	0.0000	209.00	No Ice 4.91	3.64	43.55
			0.00			1/2" Ice 5.57	4.70	81.64
			3.00			1" Ice 6.14	5.48	130.14
APX16DWV-16DWVS-C w/Mount Pipe	B	From Leg	1.00	0.0000	209.00	No Ice 7.78	3.81	66.25
			0.00			1/2" Ice 8.48	4.88	115.45
			3.00			1" Ice 9.09	5.66	175.43
APX16DWV-16DWVS-C w/Mount Pipe	C	From Leg	1.00	0.0000	209.00	No Ice 7.78	3.81	66.25
			0.00			1/2" Ice 8.48	4.88	115.45
			3.00			1" Ice 9.09	5.66	175.43
(2) Dual Duplex 1900 TMA	B	From Leg	1.00	0.0000	209.00	No Ice 0.69	0.41	14.00
			0.00			1/2" Ice 0.81	0.51	19.05
			3.00			1" Ice 0.94	0.63	25.68
(2) Dual Duplex 1900 TMA	C	From Leg	1.00	0.0000	209.00	No Ice 0.69	0.41	14.00
			0.00			1/2" Ice 0.81	0.51	19.05
			3.00			1" Ice 0.94	0.63	25.68
ATMAA1412D-1A20	B	From Leg	1.00	0.0000	209.00	No Ice 1.17	0.47	13.00
			0.00			1/2" Ice 1.31	0.57	20.62
			3.00			1" Ice 1.47	0.69	30.11
ATMAA1412D-1A20	C	From Leg	1.00	0.0000	209.00	No Ice 1.17	0.47	13.00
			0.00			1/2" Ice 1.31	0.57	20.62
			3.00			1" Ice 1.47	0.69	30.11
14' T-Frame	B	From Leg	0.50	0.0000	209.00	No Ice 18.21	0.00	492.00
			0.00			1/2" Ice 23.76	0.00	690.25
			0.00			1" Ice 29.31	0.00	888.50
14' T-Frame	C	From Leg	0.50	0.0000	209.00	No Ice 18.21	0.00	492.00
			0.00			1/2" Ice 23.76	0.00	690.25
			0.00			1" Ice 29.31	0.00	888.50
26"x 26" Flat Panel	C	From Leg	1.00	0.0000	209.00	No Ice 5.60	0.52	15.00
			0.00			1/2" Ice 5.92	0.67	38.43
			-2.00			1" Ice 6.24	0.83	65.30
(3) DB844H90E-XY w/Mount Pipe	C	From Leg	1.00	0.0000	198.00	No Ice 3.58	5.40	35.55
			0.00			1/2" Ice 4.20	6.49	76.59
			2.00			1" Ice 4.73	7.30	127.74
14' T-Frame	C	From Leg	0.50	0.0000	198.00	No Ice 18.21	0.00	492.00
			0.00			1/2" Ice 23.76	0.00	690.25
			0.00			1" Ice 29.31	0.00	888.50
PG1N0F-0091-011	A	From Leg	3.50	-45.0000	188.00	No Ice 1.40	1.40	7.50
			-3.50			1/2" Ice 2.23	2.23	18.71
			5.00			1" Ice 3.07	3.07	35.15
5' Standoff	A	From Leg	1.75	-45.0000	188.00	No Ice 2.72	12.93	145.70
			-1.75			1/2" Ice 4.11	17.82	223.26
			0.00			1" Ice 5.50	22.71	300.83
PG1N0F-0091-011	B	From Leg	3.50	45.0000	188.00	No Ice 1.40	1.40	7.50
			3.50			1/2" Ice 2.23	2.23	18.71
			5.00			1" Ice 3.07	3.07	35.15
5' Standoff	B	From Leg	1.75	45.0000	188.00	No Ice 2.72	12.93	145.70

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	Client	AT&T Mobility	Designed by	awestrum

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
PG1N0F-0091-011	B	From Leg	1.75	45.0000	169.00	1/2" Ice	4.11	223.26
			0.00			1" Ice	5.50	300.83
			3.50			No Ice	1.40	7.50
			3.50			1/2" Ice	2.23	18.71
5' Standoff	B	From Leg	5.00	45.0000	169.00	1" Ice	3.07	35.15
			1.75			No Ice	2.72	145.70
			1.75			1/2" Ice	4.11	223.26
			0.00			1" Ice	5.50	300.83
(2) HBX-6516DS-VTM w/ mount pipe	B	From Leg	1.00	0.0000	170.00	No Ice	3.53	28.15
			0.00			1/2" Ice	3.91	58.62
			0.00			1" Ice	4.33	97.61
			1.00			No Ice	3.53	28.15
(2) HBX-6516DS-VTM w/ mount pipe	C	From Leg	0.00	0.0000	170.00	1/2" Ice	3.91	58.62
			0.00			1" Ice	4.33	97.61
			1.00			No Ice	3.53	28.15
			0.00			1/2" Ice	3.91	58.62
(2) HBX-6516DS-VTM w/ mount pipe	D	From Leg	0.00	0.0000	170.00	1" Ice	4.33	97.61
			1.00			No Ice	3.53	28.15
			0.00			1/2" Ice	3.91	58.62
			0.00			1" Ice	4.33	97.61
(2) ATM200-A20	B	From Leg	1.00	0.0000	170.00	No Ice	0.12	0.53
			0.00			1/2" Ice	0.19	2.23
			-2.00			1" Ice	0.27	4.77
			1.00			No Ice	0.12	0.53
(2) ATM200-A20	C	From Leg	0.00	0.0000	170.00	1/2" Ice	0.19	2.23
			-2.00			1" Ice	0.27	4.77
			1.00			No Ice	0.12	0.53
			0.00			1/2" Ice	0.19	2.23
(2) ATM200-A20	D	From Leg	-2.00	0.0000	170.00	1" Ice	0.27	4.77
			1.00			No Ice	0.12	0.53
			0.00			1/2" Ice	0.19	2.23
			0.00			1" Ice	0.27	4.77
4' T-Arm - Round (GPD)	B	From Leg	0.50	0.0000	170.00	No Ice	2.39	83.50
			0.00			1/2" Ice	2.99	108.55
			0.00			1" Ice	3.59	133.60
			0.50			No Ice	2.39	83.50
4' T-Arm - Round (GPD)	C	From Leg	0.00	0.0000	170.00	1/2" Ice	2.99	108.55
			0.00			1" Ice	3.59	133.60
			0.50			No Ice	2.39	83.50
			0.00			1/2" Ice	2.99	108.55
4' T-Arm - Round (GPD)	D	From Leg	0.00	0.0000	170.00	1" Ice	3.59	133.60
			0.50			No Ice	2.39	83.50
			0.00			1/2" Ice	2.99	108.55
			0.00			1" Ice	3.59	133.60
407517689 GPS	A	From Leg	1.00	0.0000	100.00	No Ice	0.17	0.87
			0.00			1/2" Ice	0.24	3.85
			0.00			1" Ice	0.32	7.85
			1.00			No Ice	0.17	0.87
GPS-TMG-HR-26NCM	A	From Leg	0.00	0.0000	100.00	1/2" Ice	0.24	3.85
			0.00			1" Ice	0.32	7.85
			1.00			No Ice	0.17	0.87
			0.00			1/2" Ice	0.24	3.85
WL14-69/S	A	From Leg	0.00	0.0000	85.00	1" Ice	0.32	7.85
			1.00			No Ice	2.88	5.00
			0.00			1/2" Ice	3.74	6.50
			0.00			1" Ice	4.61	8.45
WL14-69/S	B	From Leg	1.00	0.0000	85.00	No Ice	2.88	5.00
			0.00			1/2" Ice	3.74	6.50
			0.00			1" Ice	4.61	8.45
			1.00			No Ice	2.88	5.00
WL14-69/S	C	From Leg	0.00	0.0000	85.00	1/2" Ice	3.74	6.50
			0.00			1" Ice	4.61	8.45
			1.00			No Ice	2.88	5.00
			0.00			1/2" Ice	3.74	6.50
WL14-69/S	D	From Leg	0.00	0.0000	85.00	1" Ice	4.61	8.45
			1.00			No Ice	2.88	5.00
			0.00			1/2" Ice	3.74	6.50
			0.00			1" Ice	4.61	8.45
WL7-13	C	From Leg	1.00	0.0000	85.00	No Ice	2.88	25.00
			0.00			1/2" Ice	3.73	32.50
			0.00			1" Ice	4.59	40.00
2.25' Yagi	C	From Face	1.00	0.0000	44.50	No Ice	0.41	10.00

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	Client	AT&T Mobility	Designed by	awestrum

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight lb
s8000	C	None	0.00	0.0000	40.00	1/2" Ice	0.56	14.05
			0.00			1" Ice	0.73	19.98
						No Ice	13.22	1800.00
						1/2" Ice	13.73	2009.36
RBS 3106	C	None		0.0000	40.00	1" Ice	14.25	2228.09
						No Ice	17.85	1875.00
						1/2" Ice	18.42	2040.02
						1" Ice	19.00	2213.20
Purcell RAC35	C	None		0.0000	40.00	No Ice	8.17	120.00
						1/2" Ice	8.55	188.06
						1" Ice	8.95	261.43
						No Ice	1.57	35.00
(4) RRU 22 20W	C	None		0.0000	40.00	1/2" Ice	1.74	57.07
						1" Ice	1.92	82.20
						No Ice	1.45	45.00
						1/2" Ice	1.62	70.25
(2) PBC02 MU	C	None		0.0000	40.00	1" Ice	1.80	98.83
						No Ice	0.13	5.00
						1/2" Ice	0.22	6.76
						1" Ice	0.31	9.48
GPS	C	None		0.0000	42.00	No Ice	0.17	0.87
						1/2" Ice	0.24	3.85
						1" Ice	0.32	7.85
						No Ice	0.13	2.00
Camera	B	From Leg	1.50	0.0000	37.00	1/2" Ice	0.18	3.30
			0.00			1" Ice	0.25	5.42
			0.00			No Ice	1.36	20.00
			0.00			1/2" Ice	2.45	40.00
2.5' Box Mount	B	From Leg	1.50	0.0000	37.00	1" Ice	3.50	64.00
			0.00			No Ice	0.17	0.87
			0.00			1/2" Ice	0.24	3.85
			0.00			1" Ice	0.32	7.85
GPS	D	From Face	3.00	0.0000	36.50	No Ice	0.17	0.87
			0.00			1/2" Ice	0.24	3.85
			0.00			1" Ice	0.32	7.85
			0.00			No Ice	0.93	44.94
3' Side Arm	D	From Face	1.50	0.0000	36.50	1/2" Ice	1.13	54.87
			0.00			1" Ice	1.37	67.25
			0.00					
			0.00					

TAG0053 CHESHIRE

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E5 F)	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36	29000	11200	.295	.65	.49	36	1.5	58	1.2

Concrete Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E5 F)	Density[k/ft^3]	f'c[ksi]	Lambda	Flex Steel[ksi]	Shear Steel[ksi]
1	Conc3000NW	3156	1372	.15	.6	.145	3	1	60	60
2	Conc3500NW	3409	1482	.15	.6	.145	3.5	1	60	60
3	Conc4000NW	3644	1584	.15	.6	.145	4	1	60	60
4	Conc3000LW	2085	907	.15	.6	.11	3	1	60	60
5	Conc3500LW	2252	979	.15	.6	.11	3.5	1	60	60
6	Conc4000LW	2408	1047	.15	.6	.11	4	1	60	60

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR LEG T1	L6x6x1/2	Column	Single Angle	A36	Typical	5.75	19.9	19.9	.501
2	TWR HORZ IN T1	W12X26	Beam	Wide Flange	A36	Typical	7.65	17.3	204	.3
3	TWR DIAG IN T1	LL2.5x2.5x3x3	Column	Single Angle	A36	Typical	1.8	2.464	1.07	.023
4	TWR RED HORZ IN T1	L2.5X2.5X3	Column	Single Angle	A36	Typical	.9	.535	.535	.011
5	TWR RED SUB H IN T1	LL2.5x2.5x3x3	Column	Single Angle	A36	Typical	1.8	2.464	1.07	.023
6	TWR RED SUB D IN T1	L2.5X2.5X3	Column	Single Angle	A36	Typical	.9	.535	.535	.011
7	TWR HORZ OUT T1	W10X22	Column	Single Angle	A36	Typical	6.49	11.4	118	.239
8	TWR DIAG OUT T1	LL4x3.5x6x3	Column	Single Angle	A36	Typical	5.35	12.853	8.3	.264
9	TWR DIAG OUT KICK T1	LL2.5x2.5x3x3	Column	Single Angle	A36	Typical	1.8	2.464	1.07	.023
10	TWR RED HORZ OUT T1	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
11	TWR RED DIAG T1	L2 1/2x2 1/2x3/16	Column	Single Angle	A36	Typical	.902	.547	.547	.011
12	TWR LEG T2	W6X25	Column	Wide Flange	A36	Typical	7.34	17.1	53.4	.461
13	TWR DIAG T2	2L2 1/2x3x1/2x3/8	Column	Double Angle	A36	Typical	5	11.217	2.604	.417
14	TWR RED HORZ T2	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
15	TWR RED HORZ 2 T2	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
16	TWR RED DIAG T2	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
17	TWR RED HORZ 3 T2	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
18	TWR RED DIAG 2 T2	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
19	TWR RED DIAG 3 T2	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
20	TWR RED HIP HORZ 1 T2	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
21	TWR RED HIP HORZ 2 T2	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
22	TWR RED HIP DIAG 1 T2	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
23	TWR RED HIP DIAG 2 T2	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
24	TWR INNER SUPP T2	W10X22	Beam	Wide Flange	A36	Typical	6.49	11.4	118	.239

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
25	TWR INNER SQUARE T2	W8X13	HBrace	Wide Flange	A36	Typical	3.84	2.73	39.6	.087
26	TWR INNER CORNER T2	W10X22	Beam	Wide Flange	A36	Typical	6.49	11.4	118	.239
27	TWR LEG T3	W6X25	Column	Wide Flange	A36	Typical	7.34	17.1	53.4	.461
28	TWR HORZ T3	2L3x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.99	2.513	1.81	.023
29	TWR DIAG T3	2L2 1/2x3x3/8x3/8	Column	Double Angle	A36	Typical	3.84	8.341	2.08	.18
30	TWR RED HORZ T3	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
31	TWR RED HORZ 2 T3	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
32	TWR RED DIAG T3	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
33	TWR RED HORZ 3 T3	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
34	TWR RED DIAG 2 T3	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
35	TWR RED DIAG 3 T3	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
36	TWR RED HIP HORZ 1 T3	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
37	TWR RED HIP HORZ 2 T3	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
38	TWR RED HIP DIAG 1 T3	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
39	TWR RED HIP DIAG 2 T3	LL3x3x3x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
40	TWR INNER SUPP T3	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
41	TWR INNER SQUARE T3	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
42	TWR INNER GIRT T3	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
43	TWR INNER TRIANGLE T3	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
44	TWR INNER CORNER T3	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
45	TWR INNER LADDER T3	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
46	TWR LEG T4	W6X25	Column	Wide Flange	A36	Typical	7.34	17.1	53.4	.461
47	TWR HORZ T4	2L3x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.99	2.513	1.81	.023
48	TWR DIAG T4	2L2 1/2x3x3/16x3/8	Column	Double Angle	A36	Typical	5	11.217	2.604	.417
49	TWR RED HORZ T4	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
50	TWR RED HORZ 2 T4	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
51	TWR RED DIAG T4	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
52	TWR RED HORZ 3 T4	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
53	TWR RED DIAG 2 T4	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
54	TWR RED DIAG 3 T4	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
55	TWR RED HIP HORZ 1 T4	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
56	TWR RED HIP HORZ 2 T4	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
57	TWR RED HIP DIAG 1 T4	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
58	TWR RED HIP DIAG 2 T4	LL3x3x3x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
59	TWR INNER SUPP T4	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
60	TWR INNER SQUARE T4	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
61	TWR INNER GIRT T4	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
62	TWR INNER TRIANGLE T4	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
63	TWR INNER CORNER T4	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
64	TWR INNER LADDER T4	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
65	TWR LEG T5	W8X40	Column	Wide Flange	A36	Typical	11.7	49.1	146	1.12

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
66	TWR HORZ T5	2L3x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.99	2.513	1.81	.023
67	TWR DIAG T5	2L2 1/2x3x1/2x3/8	Column	Double Angle	A36	Typical	5	11.217	2.604	.417
68	TWR RED HORZ T5	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
69	TWR RED HORZ 2 T5	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
70	TWR RED DIAG T5	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
71	TWR RED HORZ 3 T5	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
72	TWR RED DIAG 2 T5	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
73	TWR RED DIAG 3 T5	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
74	TWR RED HIP HORZ 1 T5	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
75	TWR RED HIP HORZ 2 T5	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
76	TWR RED HIP DIAG 1 T5	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
77	TWR RED HIP DIAG 2 T5	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
78	TWR INNER SUPP T5	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
79	TWR INNER SQUARE T5	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
80	TWR INNER GIRT T5	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
81	TWR INNER TRIANGLE T5	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
82	TWR INNER CORNER T5	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
83	TWR INNER LADDER T5	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
84	TWR LEG T6	W8X40	Column	Wide Flange	A36	Typical	11.7	49.1	146	1.12
85	TWR HORZ T6	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
86	TWR DIAG T6	2L3x4x3/8x3/8	Column	Double Angle	A36	Typical	4.969	18.655	3.84	.233
87	TWR RED HORZ T6	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
88	TWR RED HORZ 2 T6	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
89	TWR RED DIAG T6	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
90	TWR RED HORZ 3 T6	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
91	TWR RED DIAG 2 T6	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
92	TWR RED DIAG 3 T6	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
93	TWR RED HIP HORZ 1 T6	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
94	TWR RED HIP HORZ 2 T6	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
95	TWR RED HIP DIAG 1 T6	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
96	TWR RED HIP DIAG 2 T6	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
97	TWR INNER SUPP T6	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
98	TWR INNER SQUARE T6	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
99	TWR INNER GIRT T6	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
100	TWR INNER TRIANGLE T6	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
101	TWR INNER CORNER T6	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
102	TWR INNER LADDER T6	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
103	TWR LEG T7	W10X54	Column	Wide Flange	A36	Typical	15.8	103	303	1.82
104	TWR HORZ T7	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
105	TWR DIAG T7	2L3x4x3/8x3/8	Column	Double Angle	A36	Typical	4.969	18.655	3.84	.233
106	TWR RED HORZ T7	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014

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Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
107 TWR RED HORZ 2 T7	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
108 TWR RED DIAG T7	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
109 TWR RED HORZ 3 T7	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
110 TWR RED DIAG 2 T7	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
111 TWR RED DIAG 3 T7	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
112 TWR RED HIP HORZ 1 T7	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
113 TWR RED HIP HORZ 2 T7	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
114 TWR RED HIP DIAG 1 T7	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
115 TWR RED HIP DIAG 2 T7	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
116 TWR INNER SUPP T7	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
117 TWR INNER SQUARE T7	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
118 TWR INNER GIRT T7	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
119 TWR INNER TRIANGLE T7	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
120 TWR INNER CORNER T7	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
121 TWR INNER LADDER T7	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
122 TWR LEG T8	W10X60	Column	Wide Flange	A36	Typical	17.6	116	341	2.48
123 TWR HORZ T8	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
124 TWR DIAG T8	2L3x4x1/2x3/8	Column	Double Angle	A36	Typical	6.5	25.005	4.85	.542
125 TWR RED HORZ T8	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
126 TWR RED HORZ 2 T8	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
127 TWR RED DIAG T8	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
128 TWR RED HORZ 3 T8	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
129 TWR RED DIAG 2 T8	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
130 TWR RED DIAG 3 T8	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
131 TWR RED HIP HORZ 1 T8	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
132 TWR RED HIP HORZ 2 T8	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
133 TWR RED HIP DIAG 1 T8	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
134 TWR RED HIP DIAG 2 T8	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
135 TWR INNER SUPP T8	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
136 TWR INNER SQUARE T8	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
137 TWR INNER GIRT T8	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
138 TWR INNER TRIANGLE T8	LL2.5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
139 TWR INNER CORNER T8	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
140 TWR INNER LADDER T8	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
141 TWR LEG T9	W10X68	Column	Wide Flange	A36	Typical	20	134	394	3.56
142 TWR HORZ T9	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
143 TWR DIAG T9	2L3x4x1/2x3/8	Column	Double Angle	A36	Typical	6.5	25.005	4.85	.542
144 TWR RED HORZ T9	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
145 TWR RED HORZ 2 T9	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
146 TWR RED DIAG T9	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
147 TWR RED HORZ 3 T9	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021

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Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
148 TWR RED DIAG 2 T9	2L2 1/2x2 1/2x3/16x3/8	Column	Double Angle	A36	Typical	1.8	2.499	1.09	.021
149 TWR RED DIAG 3 T9	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
150 TWR RED HIP HORZ 1 T9	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
151 TWR RED HIP HORZ 2 T9	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
152 TWR RED HIP DIAG 1 T9	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
153 TWR RED HIP DIAG 2 T9	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
154 TWR INNER SUPP T9	2L3x2 1/2x3/8x3/8	Beam	Double Angle	A36	Typical	3.84	5.153	3.31	.18
155 TWR INNER SQUARE T9	LL2 5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
156 TWR INNER GIRT T9	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
157 TWR INNER TRIANGLE T9	LL2 5x2.5x3x3	Beam	Double Angle	A36	Typical	1.8	2.464	1.07	.023
158 TWR INNER CORNER T9	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
159 TWR INNER LADDER T9	LL3x2.5x6x3	Beam	Double Angle	A36	Typical	3.86	5.105	3.3	.189
160 TWR LEG T10	W12X79	Column	Wide Flange	A36	Typical	23.2	216	662	3.84
161 TWR HORZ T10	2L3x3x1/2x3/8	Beam	Double Angle	A36	Typical	5.5	11.324	4.43	.458
162 TWR RED HORZ T10	2L4x4x1/2x3/8	Column	Double Angle	A36	Typical	7.5	25.217	11.1	.625
163 TWR RED HORZ T10	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
164 TWR RED HORZ 2 T10	2L2 1/2x2 1/2x3/16x3/8	Beam	Double Angle	A36	Typical	1.8	2.499	1.09	.021
165 TWR RED DIAG T10	L3X3X4	Column	Double Angle	A36	Typical	1.44	1.23	1.23	.031
166 TWR RED HORZ 3 T10	2L2 1/2x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.38	3.347	1.41	.049
167 TWR RED DIAG 2 T10	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
168 TWR RED HORZ 4 T10	2L3x3x1/4x3/8 HRA	Beam	Double Angle	A36	Typical	2.88	5.535	2.49	.06
169 TWR RED DIAG 3 T10	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
170 TWR RED DIAG 4 T10	2L2 1/2x2 1/2x1/4x3/8	Column	Double Angle	A36	Typical	2.38	3.347	1.41	.049
171 TWR RED HORZ 1A T10	L2 5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
172 TWR RED DIAG 1A T10	L2 5X2.5X8	Column	Double Angle	A36	Typical	2.25	1.22	1.22	.188
173 TWR RED HIP HORZ 1 T10	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
174 TWR RED HIP HORZ 2 T10	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
175 TWR RED HIP DIAG 1 T10	LL3x3x3x3	Column	Double Angle	A36	Typical	2.18	4.092	1.9	.027
176 TWR RED HIP DIAG 2 T10	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
177 TWR INNER PLATFORM T10	C4X7.25	Column	Double Angle	A36	Typical	2.13	.433	4.59	.08
178 TWR INNER LADDER T10	LL3x2.5x6x3	Column	Double Angle	A36	Typical	3.86	5.105	3.3	.189

General Section Sets

Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1 TWR INNER SUPP T1	2C12x20.7x0.375	Beam	A36 Gen	12.18	17.311	258	.74
2 TWR HORZ T2	2C10x20x0.375	Beam	A36 Gen	11.76	13.025	157.8	.74
3 TWR INNER SUPP T2	2C12x20.7x0.375	Beam	A36 Gen	12.18	17.311	258	.74
4 TWR INNER SUPP T10	2C4x7.25x0.375	Beam	A36 Gen	4.26	2.647	9.18	.16

Concrete Column Bending Reinforcement

	Column	Shape	Span	Perim Bars
1	M1252A	CRECT42X42	1	CUSTOM
2	M1253A	CRECT42X42	1	CUSTOM
3	M1254A	CRECT42X42	1	CUSTOM
4	M1255A	CRECT42X42	1	CUSTOM

Concrete Column Shear Reinforcement

	Column	Span	Region 1	Region 2	Region 3	Region 4
1	M1252A	1	CUSTOM	CUSTOM	CUSTOM	CUSTOM
2	M1253A	1	CUSTOM	CUSTOM	CUSTOM	CUSTOM
3	M1254A	1	CUSTOM	CUSTOM	CUSTOM	CUSTOM
4	M1255A	1	CUSTOM	CUSTOM	CUSTOM	CUSTOM

Concrete Column Design Parameters

Label	Shape	Length[ft]	Lu-vy[ft]	Lu-zz[ft]	Cm-vy	Cm-zz	Kyy	Kzz	y sway	z sway	lcr Factor	Flexural L...	Shear Lay...
1	M1252A	CRECT42X42	6.2									TAG0053	TAG0053
2	M1253A	CRECT42X42	6.2									TAG0053	TAG0053
3	M1254A	CRECT42X42	6.2									TAG0053	TAG0053
4	M1255A	CRECT42X42	6.2									TAG0053	TAG0053

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(Plate/...
1	Dead	None				40	444	40		
2	No Ice Wind 0 deg	None				40	1014	120		
3	No Ice Wind 45 deg	None				80	1034	160		
4	No Ice Wind 90 deg	None				40	1038	120		
5	No Ice Wind 135 deg	None				80	1042	160		
6	No Ice Wind 180 deg	None				40	1014	120		
7	No Ice Wind 225 deg	None				80	1034	160		
8	No Ice Wind 270 deg	None				40	1038	120		
9	No Ice Wind 315 deg	None				80	1042	160		
10	Ice	None				40	448	761		
11	Temperature Drop	None						1255		
12	Ice Wind 0 deg	None				40	448	120		
13	Ice Wind 45 deg	None				80	990	160		
14	Ice Wind 90 deg	None				40	1014	120		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(Plate/...
15	Ice Wind 135 deg	None				80	1008	136		
16	Ice Wind 180 deg	None				40	998	120		
17	Ice Wind 225 deg	None				80	990	160		
18	Ice Wind 270 deg	None				40	1014	120		
19	Ice Wind 315 deg	None				80	1008	136		
20	Service Wind 0 deg	None				40	998	120		
21	Service Wind 45 deg	None				80	988	160		
22	Service Wind 90 deg	None				40	1014	120		
23	Service Wind 135 deg	None				80	1000	136		
24	Service Wind 180 deg	None				40	998	120		
25	Service Wind 225 deg	None				80	988	160		
26	Service Wind 270 deg	None				40	1014	120		
27	Service Wind 315 deg	None				80	1000	136		

Load Combinations

	Description	Solve	PDeltaSRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Dead Only	Yes		1	1	28	1	29	1	0	0	0	0	0	0
2	Dead+Wind 0 deg - No Ice	Yes		1	1	2	1	28	1	29	1	0	0	0	0
3	Dead+Wind 45 deg - No Ice	Yes		1	1	3	1	28	1	29	1	0	0	0	0
4	Dead+Wind 90 deg - No Ice	Yes		1	1	4	1	28	1	29	1	0	0	0	0
5	Dead+Wind 135 deg - No Ice	Yes		1	1	5	1	28	1	29	1	0	0	0	0
6	Dead+Wind 180 deg - No Ice	Yes		1	1	6	1	28	1	29	1	0	0	0	0
7	Dead+Wind 225 deg - No Ice	Yes		1	1	7	1	28	1	29	1	0	0	0	0
8	Dead+Wind 270 deg - No Ice	Yes		1	1	8	1	28	1	29	1	0	0	0	0
9	Dead+Wind 315 deg - No Ice	Yes		1	1	9	1	28	1	29	1	0	0	0	0
10	Dead+Ice+Temp	Yes		1	1	10	1	11	1	28	1	29	1	0	0
11	Dead+Wind 0 deg+Ice+Temp	Yes		1	1	12	1	10	1	11	1	28	1	29	1
12	Dead+Wind 45 deg+Ice+Temp	Yes		1	1	13	1	10	1	11	1	28	1	29	1
13	Dead+Wind 90 deg+Ice+Temp	Yes		1	1	14	1	10	1	11	1	28	1	29	1
14	Dead+Wind 135 deg+Ice+Temp	Yes		1	1	15	1	10	1	11	1	28	1	29	1
15	Dead+Wind 180 deg+Ice+Temp	Yes		1	1	16	1	10	1	11	1	28	1	29	1
16	Dead+Wind 225 deg+Ice+Temp	Yes		1	1	17	1	10	1	11	1	28	1	29	1
17	Dead+Wind 270 deg+Ice+Temp	Yes		1	1	18	1	10	1	11	1	28	1	29	1
18	Dead+Wind 315 deg+Ice+Temp	Yes		1	1	19	1	10	1	11	1	28	1	29	1
19	Dead+Wind 0 deg - Service	Yes		1	1	20	1	28	1	29	1	0	0	0	0
20	Dead+Wind 45 deg - Service	Yes		1	1	21	1	28	1	29	1	0	0	0	0
21	Dead+Wind 90 deg - Service	Yes		1	1	22	1	28	1	29	1	0	0	0	0
22	Dead+Wind 135 deg - Service	Yes		1	1	23	1	28	1	29	1	0	0	0	0
23	Dead+Wind 180 deg - Service	Yes		1	1	24	1	28	1	29	1	0	0	0	0

Load Combinations (Continued)

Description		Solve	PDelta	SRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
24	Dead+Wind 225 deg - Service	Yes			1	1	25	1	28	1	29	1	0	0
25	Dead+Wind 270 deg - Service	Yes			1	1	26	1	28	1	29	1	0	0
26	Dead+Wind 315 deg - Service	Yes			1	1	27	1	28	1	29	1	0	0

Envelope Joint Reactions

Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N869A	max	7	531.89	7	34.137	2	217.293	2	1.374	5	224.556	3
2		min	3	-380.03	3	-38.645	6	-227.502	6	-1.574	9	-247.357	7
3	N870A	max	9	537.015	5	36.631	2	235.54	2	1.722	3	246.34	4
4		min	5	-378.397	9	-41.312	6	-245.685	6	-1.519	7	-225.262	8
5	N871	max	7	529.572	3	41.275	2	246.477	2	1.329	9	219.604	4
6		min	3	-380.487	7	-36.593	6	-234.643	6	-1.504	5	-198.946	8
7	N872	max	9	528.557	9	38.678	2	228.38	2	1.347	7	203.932	5
8		min	5	-386.596	5	-34.17	6	-216.422	6	-1.175	3	-226.394	9
9	Totals:	max	8	446.39	11	150.721	2						
10		min	4	300.762	3	-150.721	6						

Envelope AISC 13th(360-05): ASD Steel Code Checks

Member	Shape	Code Check	Loc [ft]	LC	Shear C...	Loc [ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Minzz/om [k-ft]	Cb	Egn
1	M15	LL2.5x2.5x3x3	.479	9.361	4	.004	0	z	17	12.748	38.802	1.06	1	H1-1a
2	M18	LL2.5x2.5x3x3	.440	9.361	8	.004	0	z	13	12.748	38.802	1.696	1	H1-1a
3	M22	LL2.5x2.5x3x3	.485	9.361	2	.004	18.721	z	15	12.748	38.802	1.06	1	H1-1a
4	M25	LL2.5x2.5x3x3	.431	9.361	6	.004	18.721	z	12	12.748	38.802	1.696	1	H1-1a
5	M29	LL2.5x2.5x3x3	.450	9.361	8	.004	0	z	13	12.748	38.802	1.06	1	H1-1a
6	M32	LL2.5x2.5x3x3	.397	9.361	4	.004	0	z	17	12.748	38.802	1.696	1	H1-1a
7	M36	LL2.5x2.5x3x3	.448	9.361	6	.004	18.721	z	18	12.748	38.802	1.06	1	H1-1a
8	M39	LL2.5x2.5x3x3	.411	9.361	2	.004	18.721	z	15	12.748	38.802	1.696	1	H1-1a
9	M1216	LL2.5x2.5x3x3	.089	7.142	7	.001	7.142	y	7	20.123	38.802	1.06	1...	H1-1b
10	M1217	LL2.5x2.5x3x3	.089	7.142	5	.001	7.142	y	5	20.123	38.802	1.06	1...	H1-1b
11	M1218	LL2.5x2.5x3x3	.089	7.142	3	.001	7.142	y	3	20.123	38.802	1.06	1...	H1-1b
12	M1219	LL2.5x2.5x3x3	.090	7.142	9	.001	7.142	y	9	20.123	38.802	1.06	1...	H1-1b
13	M1220	LL4x3.5x6x3	.049	9.217	4	.002	9.217	y	6	76.149	115.329	5.325	1...	H1-1b
14	M1221	LL4x3.5x6x3	.038	6.201	8	.001	0	y	4	84.065	115.329	8.52	1...	H1-1b
15	M1222	LL4x3.5x6x3	.038	9.888	4	.001	0	y	8	84.065	115.329	8.52	1...	H1-1b
16	M1223	LL4x3.5x6x3	.049	9.217	8	.002	9.217	y	6	76.149	115.329	5.325	1...	H1-1b
17	M1224	LL4x3.5x6x3	.050	9.217	2	.002	9.217	y	4	76.149	115.329	5.325	1...	H1-1b
18	M1225	LL4x3.5x6x3	.039	6.201	6	.001	16.089	y	2	84.065	115.329	8.52	1...	H1-1b
19	M1226	LL4x3.5x6x3	.039	9.888	2	.001	16.089	y	6	84.065	115.329	8.52	1...	H1-1b

Company : GPD Group
Designer : awestrum
Job Number : 2012867.46

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TAG0053 CHESHIRE

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnz/om [k-ft]	Cb	Edn
20	M1227	LL4x3.5x6x3	.050	9.217	6	.002	9.217	Y	4	76.149	115.329	5.325	1.... H1-1b
21	M1228	LL4x3.5x6x3	.049	9.217	8	.002	9.217	Y	2	76.149	115.329	5.325	1.... H1-1b
22	M1229	LL4x3.5x6x3	.038	6.201	4	.001	0	Y	8	84.065	115.329	8.52	1.... H1-1b
23	M1230	LL4x3.5x6x3	.038	9.888	8	.001	8.044	Y	8	84.065	115.329	8.52	1.... H1-1b
24	M1231	LL4x3.5x6x3	.049	9.217	4	.002	9.217	Y	2	76.149	115.329	5.325	1.... H1-1b
25	M1232	LL4x3.5x6x3	.050	9.217	6	.002	9.217	Y	8	76.149	115.329	5.325	1.... H1-1b
26	M1233	LL4x3.5x6x3	.039	6.201	2	.001	8.044	Y	2	84.065	115.329	8.52	1.... H1-1b
27	M1234	LL4x3.5x6x3	.039	9.888	6	.001	0	Y	2	84.065	115.329	8.52	1.... H1-1b
28	M1235	LL4x3.5x6x3	.050	9.217	2	.002	9.217	Y	8	76.149	115.329	5.325	1.... H1-1b
29	M51	2L2 1/2x3x1/2x3/8	.356	15.046	8	.004	22.569	Y	12	47.292	107.784	2.673	1 H1-1a
30	M59	2L2 1/2x3x1/2x3/8	.357	15.046	4	.004	22.569	Y	17	47.292	107.784	2.673	1 H1-1a
31	M67	2L2 1/2x3x1/2x3/8	.370	15.046	6	.004	22.569	Y	18	47.292	107.784	2.673	1 H1-1a
32	M75	2L2 1/2x3x1/2x3/8	.370	15.046	2	.004	22.569	Y	16	47.292	107.784	2.673	1 H1-1a
33	M83	2L2 1/2x3x1/2x3/8	.329	15.046	4	.004	22.569	Y	17	47.292	107.784	2.673	1 H1-1a
34	M91	2L2 1/2x3x1/2x3/8	.330	15.046	8	.004	22.569	Y	14	47.292	107.784	2.673	1 H1-1a
35	M99	2L2 1/2x3x1/2x3/8	.344	15.046	2	.004	22.569	Y	14	47.292	107.784	2.673	1 H1-1a
36	M107	2L2 1/2x3x1/2x3/8	.344	15.046	6	.004	22.569	Y	12	47.292	107.784	2.673	1 H1-1a
37	M124	2L2 1/2x3x3/8x3/8	.631	7.523	8	.005	22.569	Y	17	37.49	82.778	2.083	1 H1-1a
38	M132	2L2 1/2x3x3/8x3/8	.632	7.523	4	.005	22.569	Y	13	37.49	82.778	2.083	1 H1-1a
39	M141	2L2 1/2x3x3/8x3/8	.641	7.523	6	.005	22.569	Y	15	37.49	82.778	2.083	1 H1-1a
40	M149	2L2 1/2x3x3/8x3/8	.640	7.523	2	.005	22.569	Y	12	37.49	82.778	2.083	1 H1-1a
41	M158	2L2 1/2x3x3/8x3/8	.566	7.523	4	.005	22.569	Y	13	37.49	82.778	2.083	1 H1-1a
42	M166	2L2 1/2x3x3/8x3/8	.566	7.523	8	.005	22.569	Y	17	37.49	82.778	2.083	1 H1-1a
43	M175	2L2 1/2x3x3/8x3/8	.595	7.523	2	.005	22.569	Y	18	37.49	82.778	2.083	1 H1-1a
44	M183	2L2 1/2x3x3/8x3/8	.595	7.523	6	.005	22.569	Y	15	37.49	82.778	2.083	1 H1-1a
45	M205	2L2 1/2x3x1/2x3/8	.662	7.523	8	.004	22.569	Y	8	47.292	107.784	2.673	1 H1-1a
46	M213	2L2 1/2x3x1/2x3/8	.663	7.523	4	.004	22.569	Y	4	47.292	107.784	2.673	1 H1-1a
47	M222	2L2 1/2x3x1/2x3/8	.680	7.523	6	.004	22.569	Y	6	47.292	107.784	2.673	1 H1-1a
48	M230	2L2 1/2x3x1/2x3/8	.679	7.523	2	.004	22.569	Y	2	47.292	107.784	2.673	1 H1-1a
49	M239	2L2 1/2x3x1/2x3/8	.594	7.523	4	.004	22.569	Y	4	47.292	107.784	2.673	1 H1-1a
50	M247	2L2 1/2x3x1/2x3/8	.595	7.523	8	.004	22.569	Y	8	47.292	107.784	2.673	1 H1-1a
51	M256	2L2 1/2x3x1/2x3/8	.626	7.523	2	.004	22.569	Y	2	47.292	107.784	2.673	1 H1-1a
52	M264	2L2 1/2x3x1/2x3/8	.626	7.523	6	.004	22.569	Y	6	47.292	107.784	2.673	1 H1-1a
53	M286	2L2 1/2x3x1/2x3/8	.801	22.569	8	.004	22.569	Y	8	47.292	107.784	2.673	1 H1-1a
54	M294	2L2 1/2x3x1/2x3/8	.803	22.569	4	.004	22.569	Y	4	47.292	107.784	2.673	1 H1-1a
55	M303	2L2 1/2x3x1/2x3/8	.820	22.569	6	.004	22.569	Y	6	47.292	107.784	2.673	1 H1-1a
56	M311	2L2 1/2x3x1/2x3/8	.819	22.569	2	.004	22.569	Y	2	47.292	107.784	2.673	1 H1-1a
57	M320	2L2 1/2x3x1/2x3/8	.724	22.569	4	.004	22.569	Y	4	47.292	107.784	2.673	1 H1-1a
58	M328	2L2 1/2x3x1/2x3/8	.724	22.569	8	.004	22.569	Y	8	47.292	107.784	2.673	1 H1-1a
59	M337	2L2 1/2x3x1/2x3/8	.757	22.569	2	.004	22.569	Y	2	47.292	107.784	2.673	1 H1-1a
60	M345	2L2 1/2x3x1/2x3/8	.756	22.569	6	.004	22.569	Y	6	47.292	107.784	2.673	1 H1-1a

Company : GPD Group
Designer : awestrum
Job Number : 2012867.46

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TAG0053 CHESHIRE

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
61	2L3x4x3/8x3/8	.731	22.569	8	.005	22.569	Y	7	61.48	107.111	12.805	3.11	1 H1-1a
62	2L3x4x3/8x3/8	.732	22.569	4	.005	22.569	Y	5	61.48	107.111	12.805	3.11	1 H1-1a
63	2L3x4x3/8x3/8	.745	22.569	6	.005	22.569	Y	5	61.48	107.111	12.805	3.11	1 H1-1a
64	2L3x4x3/8x3/8	.744	22.569	2	.005	22.569	Y	3	61.48	107.111	12.805	3.11	1 H1-1a
65	2L3x4x3/8x3/8	.662	22.569	4	.005	22.569	Y	3	61.48	107.111	12.805	3.11	1 H1-1a
66	2L3x4x3/8x3/8	.663	22.569	8	.005	22.569	Y	9	61.48	107.111	12.805	3.11	1 H1-1a
67	2L3x4x3/8x3/8	.688	22.569	2	.005	22.569	Y	9	61.48	107.111	12.805	3.11	1 H1-1a
68	2L3x4x3/8x3/8	.688	22.569	6	.005	22.569	Y	7	61.48	107.111	12.805	3.11	1 H1-1a
69	2L3x4x3/8x3/8	.834	22.569	8	.005	22.569	Y	7	61.48	107.111	12.805	3.11	1 H1-1a
70	2L3x4x3/8x3/8	.835	22.569	4	.005	22.569	Y	4	61.48	107.111	12.805	3.11	1 H1-1a
71	2L3x4x3/8x3/8	.848	22.569	6	.005	22.569	Y	6	61.48	107.111	12.805	3.11	1 H1-1a
72	2L3x4x3/8x3/8	.847	22.569	2	.005	22.569	Y	3	61.48	107.111	12.805	3.11	1 H1-1a
73	2L3x4x3/8x3/8	.757	22.569	4	.005	22.569	Y	3	61.48	107.111	12.805	3.11	1 H1-1a
74	2L3x4x3/8x3/8	.757	22.569	8	.005	22.569	Y	9	61.48	107.111	12.805	3.11	1 H1-1a
75	2L3x4x3/8x3/8	.783	22.569	2	.005	22.569	Y	9	61.48	107.111	12.805	3.11	1 H1-1a
76	2L3x4x3/8x3/8	.783	22.569	6	.005	22.569	Y	6	61.48	107.111	12.805	3.11	1 H1-1a
77	2L3x4x1/2x3/8	.750	5.015	8	.005	22.569	Y	7	78.844	140.12	17.163	6.415	1 H1-1a
78	2L3x4x1/2x3/8	.752	5.329	4	.005	22.569	Y	5	78.844	140.12	17.163	6.415	1 H1-1a
79	2L3x4x1/2x3/8	.761	5.329	6	.005	22.569	Y	6	78.844	140.12	17.163	6.415	1 H1-1a
80	2L3x4x1/2x3/8	.759	5.329	2	.005	22.569	Y	3	78.844	140.12	17.163	6.415	1 H1-1a
81	2L3x4x1/2x3/8	.684	5.015	4	.005	22.569	Y	3	78.844	140.12	17.163	6.415	1 H1-1a
82	2L3x4x1/2x3/8	.683	5.015	8	.005	22.569	Y	9	78.844	140.12	17.163	6.415	1 H1-1a
83	2L3x4x1/2x3/8	.705	5.015	2	.005	22.569	Y	9	78.844	140.12	17.163	6.415	1 H1-1a
84	2L3x4x1/2x3/8	.706	5.329	6	.005	22.569	Y	6	78.844	140.12	17.163	6.415	1 H1-1a
85	2L3x4x1/2x3/8	.829	5.329	8	.005	22.569	Y	7	78.844	140.12	17.163	6.415	1 H1-1a
86	2L3x4x1/2x3/8	.830	5.329	4	.005	22.569	Y	14	78.844	140.12	17.163	6.415	1 H1-1a
87	2L3x4x1/2x3/8	.843	5.329	6	.005	22.569	Y	14	78.844	140.12	17.163	6.415	1 H1-1a
88	2L3x4x1/2x3/8	.840	5.329	2	.005	22.569	Y	3	78.844	140.12	17.163	6.415	1 H1-1a
89	2L3x4x1/2x3/8	.755	5.329	4	.005	22.569	Y	3	78.844	140.12	17.163	6.415	1 H1-1a
90	2L3x4x1/2x3/8	.754	5.329	8	.005	22.569	Y	9	78.844	140.12	17.163	6.415	1 H1-1a
91	2L3x4x1/2x3/8	.781	5.329	2	.005	22.569	Y	9	78.844	140.12	17.163	6.415	1 H1-1a
92	2L3x4x1/2x3/8	.783	5.329	6	.005	22.569	Y	7	78.844	140.12	17.163	6.415	1 H1-1a
93	2L4x4x1/2x3/8	.766	6.872	7	.002	6.872	Y	3	103.043	161.677	17.309	11.327	1 H1-1a
94	2L4x4x1/2x3/8	.731	6.872	5	.002	6.872	Y	9	103.043	161.677	17.309	11.327	1 H1-1a
95	2L4x4x1/2x3/8	.788	6.821	6	.002	0	Y	5	103.67	161.677	17.309	11.327	1 H1-1a
96	2L4x4x1/2x3/8	.809	6.821	3	.002	13.642	Y	3	103.67	161.677	17.309	11.327	1 H1-1a
97	2L4x4x1/2x3/8	.674	6.872	3	.002	6.872	Y	7	103.043	161.677	17.309	11.327	1 H1-1a
98	2L4x4x1/2x3/8	.714	6.872	9	.002	6.872	Y	5	103.043	161.677	17.309	11.327	1 H1-1a
99	2L4x4x1/2x3/8	.770	6.821	9	.002	0	Y	9	103.67	161.677	17.309	11.327	1 H1-1a
100	2L4x4x1/2x3/8	.736	6.821	6	.002	0	Y	7	103.67	161.677	17.309	11.327	1 H1-1a
101	M5 W12X26	.068	12.667	16	.009	0	Y	12	96.306	164.91	14.677	61.762	1... H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member		Shape	Code Check		Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzv/om [k-ft]	Cb	Ean
102	M6	W12X26	.068	12.667	13	.009	0	Y	17	96.306	164.91	14.677	61.776	1....	H1-1b	
103	M7	W12X26	.069	12.667	18	.009	0	Y	15	96.306	164.91	14.677	61.856	1....	H1-1b	
104	M8	W12X26	.069	12.667	17	.009	25.334	Y	13	96.306	164.91	14.677	61.858	1....	H1-1b	
105	M1212	W10X22	.154	41.334	7	.012	0	Y	9	27.859	139.904	10.958	46.707	2....	H1-1b	
106	M1213	W10X22	.152	0	3	.012	41.334	Y	9	27.859	139.904	10.958	46.707	2....	H1-1b	
107	M1214	W10X22	.154	0	9	.011	41.334	Y	7	27.859	139.904	10.958	46.707	2....	H1-1b	
108	M1215	W10X22	.152	41.334	9	.011	0	Y	3	27.859	139.904	10.958	46.707	2....	H1-1b	
109	M123	2L3x2 1/2x3/16x3/8	.494	8.375	4	.015	25.125	Y	14	22.95	42.898	2.687	1.54	1	H1-1a	
110	M140	2L3x2 1/2x3/16x3/8	.460	25.125	6	.015	25.125	Y	12	22.95	42.898	2.687	1.54	1	H1-1a	
111	M157	2L3x2 1/2x3/16x3/8	.408	8.375	8	.015	25.125	Y	18	22.95	42.898	2.687	1.54	1	H1-1a	
112	M174	2L3x2 1/2x3/16x3/8	.473	25.125	2	.019	25.125	Y	16	22.95	42.898	2.687	1.54	1	H1-1a	
113	M204	2L3x2 1/2x3/16x3/8	.708	8.375	4	.015	25.125	Y	14	22.95	42.898	2.687	1.54	1	H1-1a	
114	M221	2L3x2 1/2x3/16x3/8	.682	17.099	6	.015	25.125	Y	12	22.95	42.898	2.687	1.54	1	H1-1a	
115	M238	2L3x2 1/2x3/16x3/8	.602	8.375	8	.015	25.125	Y	18	22.95	42.898	2.687	1.54	1	H1-1a	
116	M255	2L3x2 1/2x3/16x3/8	.677	29.313	2	.019	25.125	Y	16	22.95	42.898	2.687	2.464	1	H1-1a	
117	M285	2L3x2 1/2x3/16x3/8	.868	4.188	4	.015	25.125	Y	14	22.95	42.898	2.687	2.464	1	H1-1a	
118	M302	2L3x2 1/2x3/16x3/8	.844	17.099	6	.015	25.125	Y	12	22.95	42.898	2.687	1.54	1	H1-1a	
119	M319	2L3x2 1/2x3/16x3/8	.744	8.375	8	.015	25.125	Y	18	22.95	42.898	2.687	1.54	1	H1-1a	
120	M336	2L3x2 1/2x3/16x3/8	.822	29.313	2	.019	25.125	Y	16	22.95	42.898	2.687	2.464	1	H1-1a	
121	M366	2L3x2 1/2x3/8x3/8	.546	4.188	4	.017	25.125	Y	15	44.67	82.778	5.511	4.656	1	H1-1a	
122	M383	2L3x2 1/2x3/8x3/8	.525	17.099	6	.016	25.125	Y	13	44.67	82.778	5.511	2.91	1	H1-1a	
123	M400	2L3x2 1/2x3/8x3/8	.465	16.401	8	.016	25.125	Y	18	44.67	82.778	5.511	2.91	1	H1-1a	
124	M417	2L3x2 1/2x3/8x3/8	.515	29.313	2	.019	25.125	Y	16	44.67	82.778	5.511	4.656	1	H1-1a	
125	M447	2L3x2 1/2x3/8x3/8	.622	4.188	4	.017	25.125	Y	14	44.67	82.778	5.511	4.656	1	H1-1a	
126	M464	2L3x2 1/2x3/8x3/8	.598	17.099	6	.017	25.125	Y	12	44.67	82.778	5.511	2.91	1	H1-1a	
127	M481	2L3x2 1/2x3/8x3/8	.532	16.401	8	.017	25.125	Y	18	44.67	82.778	5.511	2.91	1	H1-1a	
128	M498	2L3x2 1/2x3/8x3/8	.583	29.313	2	.019	25.125	Y	16	44.67	82.778	5.511	4.656	1	H1-1a	
129	M528	2L3x2 1/2x3/8x3/8	.699	4.188	4	.017	25.125	Y	15	44.67	82.778	5.511	4.656	1	H1-1a	
130	M545	2L3x2 1/2x3/8x3/8	.678	17.099	6	.017	25.125	Y	13	44.67	82.778	5.511	2.91	1	H1-1a	
131	M562	2L3x2 1/2x3/8x3/8	.606	4.536	8	.017	25.125	Y	18	44.67	82.778	5.511	4.656	1	H1-1a	
132	M579	2L3x2 1/2x3/8x3/8	.655	29.313	2	.019	25.125	Y	16	44.67	82.778	5.511	4.656	1	H1-1a	
133	M609	2L3x2 1/2x3/8x3/8	.766	4.188	4	.017	25.125	Y	14	44.67	82.778	5.511	4.656	1	H1-1a	
134	M626	2L3x2 1/2x3/8x3/8	.744	17.099	6	.017	25.125	Y	12	44.67	82.778	5.511	2.91	1	H1-1a	
135	M643	2L3x2 1/2x3/8x3/8	.662	16.401	8	.017	25.125	Y	18	44.67	82.778	5.511	2.91	1	H1-1a	
136	M660	2L3x2 1/2x3/8x3/8	.713	29.313	2	.019	25.125	Y	16	44.67	82.778	5.511	4.656	1	H1-1a	
137	M690	2L3x3x1/2x3/8	.576	16.75	7	.005	8.375	Y	17	61.27	118.563	10.211	3.848	1	H1-1a	
138	M711	2L3x3x1/2x3/8	.561	16.75	3	.004	25.125	Y	12	61.27	118.563	10.211	3.848	1	H1-1a	
139	M732	2L3x3x1/2x3/8	.536	16.75	9	.004	25.125	Y	16	61.27	118.563	10.211	3.848	1	H1-1a	
140	M753	2L3x3x1/2x3/8	.530	29.313	9	.005	25.125	Y	16	61.27	118.563	10.211	6.157	1	H1-1a	
141	M1180	LL3x2.5x6x3	.025	4.188	3	.002	8.375	Y	2	44.675	83.21	5.46	4.625	1	H1-1b	
142	M1181	LL3x2.5x6x3	.025	4.188	5	.002	8.375	Y	4	44.675	83.21	5.46	4.625	1	H1-1b	

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnl/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
143	M1183	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
144	M1184	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
145	M1186	LL3x2.5x6x3	.025	4.188	9	.002	0	Y	2	44.675		4.625	1	H1-1b
146	M1187	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
147	M1150	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	6	44.675		4.625	1	H1-1b
148	M1151	LL3x2.5x6x3	.025	4.188	9	.002	8.375	Y	4	44.675		4.625	1	H1-1b
149	M1153	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
150	M1154	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
151	M1156	LL3x2.5x6x3	.025	4.188	5	.002	0	Y	2	44.675		4.625	1	H1-1b
152	M1157	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
153	M1120A	LL3x2.5x6x3	.025	4.188	3	.002	8.375	Y	2	44.675		4.625	1	H1-1b
154	M1121A	LL3x2.5x6x3	.025	4.188	9	.002	8.375	Y	4	44.675		4.625	1	H1-1b
155	M1123A	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
156	M1124A	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
157	M1126	LL3x2.5x6x3	.025	4.188	5	.002	0	Y	2	44.675		4.625	1	H1-1b
158	M1127	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
159	M1104A	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	6	44.675		4.625	1	H1-1b
160	M1105	LL3x2.5x6x3	.025	4.188	9	.002	8.375	Y	4	44.675		4.625	1	H1-1b
161	M1108	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
162	M1109	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
163	M1112A	LL3x2.5x6x3	.025	4.188	5	.002	0	Y	2	44.675		4.625	1	H1-1b
164	M1113A	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
165	M1102	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	6	44.675		4.625	1	H1-1b
166	M1103	LL3x2.5x6x3	.025	4.188	9	.002	8.375	Y	4	44.675		4.625	1	H1-1b
167	M1106	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
168	M1107A	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
169	M1110A	LL3x2.5x6x3	.025	4.188	5	.002	0	Y	2	44.675		4.625	1	H1-1b
170	M1111A	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
171	M1046	LL3x2.5x6x3	.025	4.188	9	.002	8.375	Y	4	44.675		4.625	1	H1-1b
172	M1047	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	4	44.675		4.625	1	H1-1b
173	M1051	LL3x2.5x6x3	.025	4.188	7	.002	8.375	Y	2	44.675		4.625	1	H1-1b
174	M1052	LL3x2.5x6x3	.025	4.188	5	.002	8.375	Y	2	44.675		4.625	1	H1-1b
175	M1056	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	4	44.675		4.625	1	H1-1b
176	M1057	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	4	44.675		4.625	1	H1-1b
177	M1061	LL3x2.5x6x3	.025	4.188	7	.002	0	Y	2	44.675		4.625	1	H1-1b
178	M1062	LL3x2.5x6x3	.025	4.188	3	.002	0	Y	2	44.675		4.625	1	H1-1b
179	M1176	LL3x2.5x6x3	.032	4.682	3	.002	0	Y	1	38.241		4.625	1	H1-1b
180	M1177	LL3x2.5x6x3	.013	2.961	7	.001	0	Y	5	60.97		4.625	1	H1-1b
181	M1178	LL3x2.5x6x3	.032	4.682	3	.002	0	Y	1	38.241		4.625	1	H1-1b
182	M1146	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241		4.625	1	H1-1b
183	M1147	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	5	60.97		4.625	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eon	
184	M1148	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
185	M1116A	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
186	M1117A	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	5	60.97	83.21	5.46	4.625	1	H1-1b
187	M1118A	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
188	M1098	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
189	M1099	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	5	60.97	83.21	5.46	4.625	1	H1-1b
190	M1100	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
191	M1068	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
192	M1069	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	9	60.97	83.21	5.46	4.625	1	H1-1b
193	M1070	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
194	M1036	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
195	M1037	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	9	60.97	83.21	5.46	4.625	1	H1-1b
196	M1038	LL3x2.5x6x3	.033	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
197	M1008	LL3x2.5x6x3	.032	4.682	7	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
198	M1009	LL3x2.5x6x3	.014	2.961	7	.001	0	Y	9	60.97	83.21	5.46	4.625	1	H1-1b
199	M1010	LL3x2.5x6x3	.032	4.682	3	.002	0	Y	1	38.241	83.21	5.46	4.625	1	H1-1b
200	M971	LL3x2.5x6x3	.032	2.961	3	.001	0	Y	2	60.97	83.21	5.46	4.625	1	H1-1b
201	M972	LL3x2.5x6x3	.061	4.682	3	.002	0	Y	11	68.512	83.21	5.46	4.625	1...	H1-1b
202	M973	LL3x2.5x6x3	.061	4.682	3	.002	0	Y	7	68.512	83.21	5.46	4.625	1...	H1-1b
203	M974	LL3x2.5x6x3	.003	1.481	3	.001	0	Y	5	75.961	83.21	5.46	4.625	1	H1-1b
204	M1205	W8X13	.072	8.375	15	.004	0	Y	4	10.157	82.778	3.862	8.855	1...	H1-1b
205	M1207	W8X13	.072	8.375	13	.004	0	Y	2	10.157	82.778	3.862	8.855	1...	H1-1b
206	M1209	W8X13	.071	8.375	12	.004	16.75	Y	4	10.157	82.778	3.862	8.855	1...	H1-1b
207	M1211	W8X13	.071	8.375	17	.004	0	Y	2	10.157	82.778	3.862	8.863	1...	H1-1b
208	M1188	LL2.5x2.5x3x3	.224	8.375	15	.006	16.75	Y	8	15.832	38.802	2.635	1.696	1...	H1-1b
209	M1192	LL2.5x2.5x3x3	.224	8.375	17	.006	0	Y	6	15.832	38.802	2.635	1.696	1...	H1-1b
210	M1196	LL2.5x2.5x3x3	.225	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
211	M1200	LL2.5x2.5x3x3	.225	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
212	M1158	LL2.5x2.5x3x3	.224	8.375	7	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
213	M1162	LL2.5x2.5x3x3	.224	8.375	7	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
214	M1166	LL2.5x2.5x3x3	.227	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
215	M1170	LL2.5x2.5x3x3	.227	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
216	M1128	LL2.5x2.5x3x3	.225	8.375	7	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
217	M1132	LL2.5x2.5x3x3	.225	8.375	7	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
218	M1136	LL2.5x2.5x3x3	.228	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
219	M1140	LL2.5x2.5x3x3	.228	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
220	M1110	LL2.5x2.5x3x3	.220	8.375	15	.006	16.75	Y	9	15.832	38.802	2.635	1.696	1...	H1-1b
221	M1114	LL2.5x2.5x3x3	.220	8.375	17	.006	0	Y	5	15.832	38.802	2.635	1.696	1...	H1-1b
222	M1118	LL2.5x2.5x3x3	.223	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
223	M1122	LL2.5x2.5x3x3	.223	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1.696	1...	H1-1b
224	M1080	LL2.5x2.5x3x3	.221	8.375	6	.006	16.75	Y	9	15.832	38.802	2.635	1.696	1...	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
225	M1084	LL2.5x2.5x3x3	.221	8.375	8	.006	0	Y	5	15.832	38.802	2.635	1....	H1-1b
226	M1088	LL2.5x2.5x3x3	.223	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1....	H1-1b
227	M1092	LL2.5x2.5x3x3	.223	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1....	H1-1b
228	M1042	LL2.5x2.5x3x3	.224	8.375	3	.006	0	Y	7	15.832	38.802	2.635	1....	H1-1b
229	M1043	LL2.5x2.5x3x3	.221	8.375	7	.006	16.75	Y	5	15.832	38.802	2.635	1....	H1-1b
230	M1044	LL2.5x2.5x3x3	.221	8.375	7	.006	0	Y	9	15.832	38.802	2.635	1....	H1-1b
231	M1045	LL2.5x2.5x3x3	.224	8.375	3	.006	16.75	Y	7	15.832	38.802	2.635	1....	H1-1b
232	M1012	LL2.5x2.5x3x3	.220	8.375	4	.006	16.75	Y	9	15.832	38.802	2.635	1....	H1-1b
233	M1018	LL2.5x2.5x3x3	.220	8.375	2	.006	0	Y	5	15.832	38.802	2.635	1....	H1-1b
234	M1024	LL2.5x2.5x3x3	.220	8.375	2	.006	16.75	Y	7	15.832	38.802	2.635	1....	H1-1b
235	M1030	LL2.5x2.5x3x3	.221	8.375	13	.006	0	Y	7	15.832	38.802	2.635	1....	H1-1b
236	M191	2L3x2 1/2x3/8x3/8	.157	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
237	M192	2L3x2 1/2x3/8x3/8	.158	11.844	16	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
238	M193	2L3x2 1/2x3/8x3/8	.157	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
239	M194	2L3x2 1/2x3/8x3/8	.163	11.844	16	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
240	M272	2L3x2 1/2x3/8x3/8	.157	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
241	M273	2L3x2 1/2x3/8x3/8	.156	11.844	16	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
242	M274	2L3x2 1/2x3/8x3/8	.157	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
243	M275	2L3x2 1/2x3/8x3/8	.161	11.844	16	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
244	M353	2L3x2 1/2x3/8x3/8	.159	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
245	M354	2L3x2 1/2x3/8x3/8	.158	11.844	16	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
246	M355	2L3x2 1/2x3/8x3/8	.158	11.844	16	.008	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
247	M356	2L3x2 1/2x3/8x3/8	.171	11.844	7	.008	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
248	M434	2L3x2 1/2x3/8x3/8	.155	11.844	15	.015	11.844	Y	14	60.809	82.778	5.511	2....	H1-1b
249	M435	2L3x2 1/2x3/8x3/8	.157	11.844	12	.015	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
250	M436	2L3x2 1/2x3/8x3/8	.155	11.844	16	.015	11.844	Y	18	60.809	82.778	5.511	2....	H1-1b
251	M437	2L3x2 1/2x3/8x3/8	.160	11.844	16	.015	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
252	M515	2L3x2 1/2x3/8x3/8	.156	11.844	15	.015	11.844	Y	14	60.809	82.778	5.511	2....	H1-1b
253	M516	2L3x2 1/2x3/8x3/8	.158	11.844	12	.015	11.844	Y	18	60.809	82.778	5.511	2....	H1-1b
254	M517	2L3x2 1/2x3/8x3/8	.156	11.844	16	.015	11.844	Y	18	60.809	82.778	5.511	2....	H1-1b
255	M518	2L3x2 1/2x3/8x3/8	.162	11.844	16	.015	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
256	M596	2L3x2 1/2x3/8x3/8	.157	11.844	12	.015	11.844	Y	14	60.809	82.778	5.511	1....	H1-1b
257	M597	2L3x2 1/2x3/8x3/8	.158	11.844	12	.015	11.844	Y	14	60.809	82.778	5.511	2....	H1-1b
258	M598	2L3x2 1/2x3/8x3/8	.157	11.844	12	.015	11.844	Y	18	60.809	82.778	5.511	1....	H1-1b
259	M599	2L3x2 1/2x3/8x3/8	.165	11.844	7	.015	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
260	M677	2L3x2 1/2x3/8x3/8	.158	11.844	12	.015	11.844	Y	14	60.809	82.778	5.511	1....	H1-1b
261	M678	2L3x2 1/2x3/8x3/8	.160	11.844	12	.015	11.844	Y	12	60.809	82.778	5.511	2....	H1-1b
262	M679	2L3x2 1/2x3/8x3/8	.159	11.844	12	.015	11.844	Y	18	60.809	82.778	5.511	1....	H1-1b
263	M680	2L3x2 1/2x3/8x3/8	.170	11.844	7	.015	11.844	Y	16	60.809	82.778	5.511	1....	H1-1b
264	M1189	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	5	15.832	38.802	2.635	1	H1-1b
265	M1190	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	9	24.574	38.802	2.635	1	H1-1b

Envelope AISCS 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc(ft)	LC	Shear C...	Loc(ft)	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Edn
266	M1191	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	7	24.574	38.802	1.696	1 H1-1b
267	M1193	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	3	15.832	38.802	1.696	1 H1-1b
268	M1194	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	7	24.574	38.802	1.696	1 H1-1b
269	M1195	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	1.696	1 H1-1b
270	M1197	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	2	15.832	38.802	1.696	1 H1-1b
271	M1198	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	1.696	1 H1-1b
272	M1199	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
273	M1201	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	8	15.832	38.802	1.696	1 H1-1b
274	M1202	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
275	M1203	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
276	M1159	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	2	15.832	38.802	1.696	1 H1-1b
277	M1160	LL2.5x2.5x3x3	.017	2.961	3	.001	5.922	Y	7	24.574	38.802	1.696	1 H1-1b
278	M1161	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	9	24.574	38.802	1.696	1 H1-1b
279	M1163	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	8	15.832	38.802	1.696	1 H1-1b
280	M1164	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	5	24.574	38.802	1.696	1 H1-1b
281	M1165	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	3	24.574	38.802	1.696	1 H1-1b
282	M1167	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	6	15.832	38.802	1.696	1 H1-1b
283	M1168	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
284	M1169	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	5	24.574	38.802	1.696	1 H1-1b
285	M1171	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	4	15.832	38.802	1.696	1 H1-1b
286	M1172	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
287	M1173	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
288	M1129	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	6	15.832	38.802	1.696	1 H1-1b
289	M1130	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	9	24.574	38.802	1.696	1 H1-1b
290	M1131	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	7	24.574	38.802	1.696	1 H1-1b
291	M1133	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	4	15.832	38.802	1.696	1 H1-1b
292	M1134	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	7	24.574	38.802	1.696	1 H1-1b
293	M1135	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	1.696	1 H1-1b
294	M1137	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	2	15.832	38.802	1.696	1 H1-1b
295	M1138	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	1.696	1 H1-1b
296	M1139	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
297	M1141	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	7	15.832	38.802	1.696	1 H1-1b
298	M1142	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
299	M1143	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	1.696	1 H1-1b
300	M1111	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	5	15.832	38.802	1.696	1 H1-1b
301	M1112	LL2.5x2.5x3x3	.016	2.961	7	.001	5.922	Y	9	24.574	38.802	1.696	1 H1-1b
302	M1113	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	7	24.574	38.802	1.696	1 H1-1b
303	M1115	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	3	15.832	38.802	1.696	1 H1-1b
304	M1116	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	6	24.574	38.802	1.696	1 H1-1b
305	M1117	LL2.5x2.5x3x3	.016	2.961	7	.001	5.922	Y	5	24.574	38.802	1.696	1 H1-1b
306	M1119	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	2	15.832	38.802	1.696	1 H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
307	M1120	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
308	M1121	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
309	M1123	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	7	15.832	38.802	2.635	1.696	1	H1-1b
310	M1124	LL2.5x2.5x3x3	.016	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
311	M1125	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
312	M1081	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	9	24.574	38.802	2.635	1.696	1	H1-1b
313	M1082	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	7	24.574	38.802	2.635	1.696	1	H1-1b
314	M1083	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	5	15.832	38.802	2.635	1.696	1	H1-1b
315	M1085	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	7	24.574	38.802	2.635	1.696	1	H1-1b
316	M1086	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
317	M1087	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	3	15.832	38.802	2.635	1.696	1	H1-1b
318	M1089	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
319	M1090	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
320	M1091	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	2	15.832	38.802	2.635	1.696	1	H1-1b
321	M1093	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
322	M1094	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
323	M1095	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	7	15.832	38.802	2.635	1.696	1	H1-1b
324	M1048	LL2.5x2.5x3x3	.032	4.188	7	.002	8.375	Y	2	15.832	38.802	2.635	1.696	1	H1-1b
325	M1049	LL2.5x2.5x3x3	.017	2.961	3	.001	5.922	Y	7	24.574	38.802	2.635	1.696	1	H1-1b
326	M1050	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	9	24.574	38.802	2.635	1.696	1	H1-1b
327	M1053	LL2.5x2.5x3x3	.032	4.188	7	.002	8.375	Y	7	15.832	38.802	2.635	1.696	1	H1-1b
328	M1054	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
329	M1055	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	3	24.574	38.802	2.635	1.696	1	H1-1b
330	M1058	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	5	15.832	38.802	2.635	1.696	1	H1-1b
331	M1059	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
332	M1060	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
333	M1063	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	3	15.832	38.802	2.635	1.696	1	H1-1b
334	M1064	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
335	M1065	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
336	M1015	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	6	15.832	38.802	2.635	1.696	1	H1-1b
337	M1016	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	2	24.574	38.802	2.635	1.696	1	H1-1b
338	M1017	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	7	24.574	38.802	2.635	1.696	1	H1-1b
339	M1021	LL2.5x2.5x3x3	.032	4.188	16	.002	8.375	Y	3	15.832	38.802	2.635	1.696	1	H1-1b
340	M1022	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	6	24.574	38.802	2.635	1.696	1	H1-1b
341	M1023	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	5	24.574	38.802	2.635	1.696	1	H1-1b
342	M1027	LL2.5x2.5x3x3	.032	4.188	3	.002	8.375	Y	1	15.832	38.802	2.635	1.696	1	H1-1b
343	M1028	LL2.5x2.5x3x3	.017	2.961	7	.001	5.922	Y	4	24.574	38.802	2.635	1.696	1	H1-1b
344	M1029	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
345	M1033	LL2.5x2.5x3x3	.032	4.188	12	.002	8.375	Y	1	15.832	38.802	2.635	1.696	1	H1-1b
346	M1034	LL2.5x2.5x3x3	.017	2.961	3	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b
347	M1035	LL2.5x2.5x3x3	.017	2.961	7	.001	0	Y	1	24.574	38.802	2.635	1.696	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Locfltl	LC Shear C...	Locfltl	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnv/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
348	M1	L6x6x1/2	.093	2.546	7	.076	14.377	Y	3	93.555	123.952	20.182	1... H2-1
349	M2	L6x6x1/2	.092	1.198	6	.076	14.377	Z	9	93.555	123.952	20.193	1... H2-1
350	M3	L6x6x1/2	.086	1.198	2	.074	14.377	Y	7	93.555	123.952	20.193	1... H2-1
351	M4	L6x6x1/2	.090	2.546	9	.073	14.377	Z	5	93.555	123.952	20.173	1... H2-1
352	M47	W6X25	.096	0	5	.031	12.5	Y	7	139.341	158.228	33.952	1 H1-1b
353	M48	W6X25	.099	0	7	.031	12.5	Y	5	139.341	158.228	33.952	1 H1-1b
354	M49	W6X25	.089	0	9	.030	12.5	Y	3	139.341	158.228	33.952	1 H1-1b
355	M50	W6X25	.083	0	3	.031	12.5	Y	9	139.341	158.228	33.952	1 H1-1b
356	M119	W6X25	.276	0	7	.025	18.75	Y	7	139.341	158.228	33.952	1 H1-1a
357	M120	W6X25	.286	0	5	.026	18.75	Y	5	139.341	158.228	33.952	1 H1-1a
358	M121	W6X25	.280	0	3	.025	18.75	Y	3	139.341	158.228	33.952	1 H1-1a
359	M122	W6X25	.265	22.135	9	.026	18.75	Y	9	139.341	158.228	33.952	1 H1-1a
360	M200	W6X25	.550	0	7	.039	6.25	Y	7	139.341	158.228	33.952	1 H1-1a
361	M201	W6X25	.563	0	5	.040	6.25	Y	5	139.341	158.228	33.952	1 H1-1a
362	M202	W6X25	.550	0	3	.038	6.25	Y	3	139.341	158.228	33.952	1 H1-1a
363	M203	W6X25	.530	0	9	.037	6.25	Y	9	139.341	158.228	33.952	1 H1-1a
364	M281	W8X40	.481	0	7	.032	6.25	Y	7	235.032	252.216	71.497	1 H1-1a
365	M282	W8X40	.490	25	5	.033	6.25	Y	5	235.032	252.216	71.497	1 H1-1a
366	M283	W8X40	.482	0	3	.031	6.25	Y	3	235.032	252.216	71.497	1 H1-1a
367	M284	W8X40	.471	25	9	.030	6.25	Y	9	235.032	252.216	71.497	1 H1-1a
368	M362	W8X40	.727	0	7	.056	6.25	Y	7	235.032	252.216	71.497	1 H1-1a
369	M363	W8X40	.736	0	5	.057	6.25	Y	5	235.032	252.216	71.497	1 H1-1a
370	M364	W8X40	.728	0	3	.055	6.25	Y	3	235.032	252.216	71.497	1 H1-1a
371	M365	W8X40	.710	0	9	.054	6.25	Y	9	235.032	252.216	71.497	1 H1-1a
372	M443	W10X54	.693	25	7	.054	6.25	Y	7	325.473	340.599	119.641	1 H1-1a
373	M444	W10X54	.702	25	5	.055	6.25	Y	5	325.473	340.599	119.641	1 H1-1a
374	M445	W10X54	.693	25	3	.054	6.25	Y	3	325.473	340.599	119.641	1 H1-1a
375	M446	W10X54	.682	25	9	.053	6.25	Y	9	325.473	340.599	119.641	1 H1-1a
376	M524	W10X60	.842	0	7	.079	6.25	Y	7	362.732	379.401	134.012	1 H1-1a
377	M525	W10X60	.852	0	5	.081	6.25	Y	5	362.732	379.401	134.012	1 H1-1a
378	M526	W10X60	.844	0	3	.079	6.25	Y	3	362.732	379.401	134.012	1 H1-1a
379	M527	W10X60	.832	0	9	.078	6.25	Y	9	362.732	379.401	134.012	1 H1-1a
380	M605	W10X68	.936	25	7	.074	6.25	Y	7	412.497	431.138	153.234	1 H1-1a
381	M606	W10X68	.946	25	5	.075	6.25	Y	5	412.497	431.138	153.234	1 H1-1a
382	M607	W10X68	.936	25	3	.074	6.25	Y	3	412.497	431.138	153.234	1 H1-1a
383	M608	W10X68	.927	25	9	.073	6.25	Y	9	412.497	431.138	153.234	1 H1-1a
384	M686	W12X79	1.125	0	7	.171	6.148	Y	7	484.962	500.12	213.772	1 H1-1a
385	M687	W12X79	1.118	0	5	.176	6.148	Y	5	484.962	500.12	213.772	1 H1-1a
386	M688	W12X79	1.063	0	3	.174	6.148	Y	3	484.962	500.12	213.772	1 H1-1a
387	M689	W12X79	1.080	0	9	.171	6.148	Y	9	484.962	500.12	213.772	1 H1-1a
388	M739A	L2.5X2.5X8	1.120	3.108	3	.001	6.631	Y	12	14.939	48.503	2.904	1 H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnz/om [k-ft]	Cb	Eqn
389	M740A	L2.5X2.5X8	.889	3.55	4	.001	6.683	Y	12	14.213	48.503	1	H2-1
390	M743A	L2.5X2.5X8	.898	3.133	9	.001	6.683	Y	16	14.213	48.503	1	H2-1
391	M744A	L2.5X2.5X8	1.068	3.523	9	.001	0	Y	11	14.939	48.503	1	H2-1
392	M747A	L2.5X2.5X8	1.026	3.108	7	.001	0	Y	11	14.939	48.503	1	H2-1
393	M748A	L2.5X2.5X8	.964	3.55	7	.001	6.683	Y	18	14.213	48.503	1	H2-1
394	M751A	L2.5X2.5X8	.974	3.133	4	.001	0	Y	12	14.213	48.503	1	H2-1
395	M752A	L2.5X2.5X8	1.088	3.523	5	.001	0	Y	11	14.939	48.503	1	H2-1
396	M56	2L2 1/2x2 1/2x3/16x3/8	.083	5.225	13	.004	10.45	Y	14	11.109	38.802	1	H1-1b
397	M64	2L2 1/2x2 1/2x3/16x3/8	.083	5.225	17	.004	0	Y	17	11.109	38.802	1	H1-1b
398	M72	2L2 1/2x2 1/2x3/16x3/8	.082	5.225	12	.004	0	Y	11	11.109	38.802	1	H1-1b
399	M80	2L2 1/2x2 1/2x3/16x3/8	.083	5.225	15	.004	0	Y	14	11.109	38.802	1	H1-1b
400	M88	2L2 1/2x2 1/2x3/16x3/8	.082	5.225	17	.004	0	Y	18	11.109	38.802	1	H1-1b
401	M96	2L2 1/2x2 1/2x3/16x3/8	.082	5.225	13	.004	0	Y	14	11.109	38.802	1	H1-1b
402	M104	2L2 1/2x2 1/2x3/16x3/8	.082	5.225	15	.004	10.45	Y	12	11.109	38.802	1	H1-1b
403	M112	2L2 1/2x2 1/2x3/16x3/8	.082	5.225	18	.004	10.45	Y	12	11.109	38.802	1	H1-1b
404	M129	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	13	.004	0	Y	13	11.109	38.802	1	H1-1b
405	M137	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	17	.004	10.45	Y	18	11.109	38.802	1	H1-1b
406	M146	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	12	.004	10.45	Y	12	11.109	38.802	1	H1-1b
407	M154	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	15	.004	0	Y	16	11.109	38.802	1	H1-1b
408	M163	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	18	.004	10.45	Y	16	11.109	38.802	1	H1-1b
409	M171	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	14	.004	0	Y	12	11.109	38.802	1	H1-1b
410	M180	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	14	.004	0	Y	16	11.109	38.802	1	H1-1b
411	M188	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	18	.004	0	Y	11	11.109	38.802	1	H1-1b
412	M210	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	12	.004	0	Y	12	11.109	38.802	1	H1-1b
413	M218	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	17	.004	10.45	Y	18	11.109	38.802	1	H1-1b
414	M227	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	12	.004	0	Y	12	11.109	38.802	1	H1-1b
415	M235	2L2 1/2x2 1/2x3/16x3/8	.081	5.225	15	.004	10.45	Y	15	11.109	38.802	1	H1-1b
416	M244	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	17	.004	0	Y	18	11.109	38.802	1	H1-1b
417	M252	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	14	.004	0	Y	13	11.109	38.802	1	H1-1b
418	M261	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	14	.004	10.45	Y	15	11.109	38.802	1	H1-1b
419	M269	2L2 1/2x2 1/2x3/16x3/8	.080	5.225	18	.004	0	Y	18	11.109	38.802	1	H1-1b
420	M291	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	18	.004	0	Y	17	11.332	38.802	1	H1-1b
421	M299	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	14	.004	10.45	Y	16	11.332	38.802	1	H1-1b
422	M308	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	14	.004	10.45	Y	12	11.332	38.802	1	H1-1b
423	M316	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	18	.004	0	Y	10	11.332	38.802	1	H1-1b
424	M325	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	13	.004	0	Y	10	11.332	38.802	1	H1-1b
425	M333	2L2 1/2x2 1/2x3/16x3/8	.079	5.225	16	.004	10.45	Y	13	11.332	38.802	1	H1-1b
426	M342	2L2 1/2x2 1/2x3/16x3/8	.079	5.225	12	.004	0	Y	15	11.332	38.802	1	H1-1b
427	M350	2L2 1/2x2 1/2x3/16x3/8	.078	5.225	15	.004	0	Y	15	11.332	38.802	1	H1-1b
428	M372	2L2 1/2x2 1/2x3/16x3/8	.078	5.116	16	.004	0	Y	12	11.332	38.802	1	H1-1b
429	M380	2L2 1/2x2 1/2x3/16x3/8	.079	5.116	14	.004	0	Y	13	11.332	38.802	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Locfll	LC Shear C...	Locfll	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Ob	Egn
430	M389	2L2 1/2x2 1/2x3/16x3/8	.079	5.116 14 .004	0	Y	18	11.332	38.802	1.737	1	H1-1b
431	M397	2L2 1/2x2 1/2x3/16x3/8	.078	5.225 16 .004	10.45	Y	15	11.332	38.802	1.737	1	H1-1b
432	M406	2L2 1/2x2 1/2x3/16x3/8	.078	5.225 16 .004	10.45	Y	18	11.332	38.802	1.737	1	H1-1b
433	M414	2L2 1/2x2 1/2x3/16x3/8	.078	5.225 15 .004	0	Y	13	11.332	38.802	1.737	1	H1-1b
434	M423	2L2 1/2x2 1/2x3/16x3/8	.078	5.225 14 .004	10.45	Y	15	11.332	38.802	1.737	1	H1-1b
435	M431	2L2 1/2x2 1/2x3/16x3/8	.078	5.225 12 .004	0	Y	18	11.332	38.802	1.737	1	H1-1b
436	M453	2L2 1/2x2 1/2x3/16x3/8	.087	5.116 15 .004	0	Y	12	11.538	38.802	1.737	1	H1-1b
437	M461	2L2 1/2x2 1/2x3/16x3/8	.089	5.116 15 .004	10.45	Y	16	11.538	38.802	1.737	1	H1-1b
438	M470	2L2 1/2x2 1/2x3/16x3/8	.089	5.116 13 .004	10.45	Y	18	11.538	38.802	1.737	1	H1-1b
439	M478	2L2 1/2x2 1/2x3/16x3/8	.086	5.116 13 .004	0	Y	16	11.538	38.802	1.737	1	H1-1b
440	M487	2L2 1/2x2 1/2x3/16x3/8	.086	5.116 18 .004	0	Y	11	11.538	38.802	1.737	1	H1-1b
441	M495	2L2 1/2x2 1/2x3/16x3/8	.084	5.116 12 .004	10.45	Y	13	11.538	38.802	1.737	1	H1-1b
442	M504	2L2 1/2x2 1/2x3/16x3/8	.084	5.116 17 .004	10.45	Y	15	11.538	38.802	1.737	1	H1-1b
443	M512	2L2 1/2x2 1/2x3/16x3/8	.087	5.116 17 .004	10.45	Y	18	11.538	38.802	1.737	1	H1-1b
444	M534	2L2 1/2x2 1/2x3/16x3/8	.096	5.116 16 .004	0	Y	10	11.562	38.802	1.737	1	H1-1b
445	M542	2L2 1/2x2 1/2x3/16x3/8	.097	5.116 14 .004	0	Y	11	11.562	38.802	1.737	1	H1-1b
446	M551	2L2 1/2x2 1/2x3/16x3/8	.097	5.116 14 .004	0	Y	12	11.562	38.802	1.737	1	H1-1b
447	M559	2L2 1/2x2 1/2x3/16x3/8	.095	5.116 12 .004	10.45	Y	15	11.562	38.802	1.737	1	H1-1b
448	M568	2L2 1/2x2 1/2x3/16x3/8	.094	5.116 12 .004	10.45	Y	17	11.562	38.802	1.737	1	H1-1b
449	M576	2L2 1/2x2 1/2x3/16x3/8	.092	5.116 18 .004	0	Y	13	11.562	38.802	1.737	1	H1-1b
450	M585	2L2 1/2x2 1/2x3/16x3/8	.092	5.116 18 .004	0	Y	15	11.562	38.802	1.737	1	H1-1b
451	M593	2L2 1/2x2 1/2x3/16x3/8	.094	5.116 16 .004	10.45	Y	18	11.562	38.802	1.737	1	H1-1b
452	M615	2L2 1/2x2 1/2x3/16x3/8	.096	5.116 15 .004	0	Y	14	11.585	38.802	1.737	1	H1-1b
453	M623	2L2 1/2x2 1/2x3/16x3/8	.097	5.116 15 .004	10.45	Y	18	11.585	38.802	1.737	1	H1-1b
454	M632	2L2 1/2x2 1/2x3/16x3/8	.091	5.116 14 .004	10.45	Y	12	11.585	38.802	1.737	1	H1-1b
455	M640	2L2 1/2x2 1/2x3/16x3/8	.089	5.116 12 .004	10.45	Y	14	11.585	38.802	1.737	1	H1-1b
456	M649	2L2 1/2x2 1/2x3/16x3/8	.094	5.116 12 .004	0	Y	11	11.585	38.802	1.737	1	H1-1b
457	M657	2L2 1/2x2 1/2x3/16x3/8	.091	5.116 18 .004	0	Y	14	11.585	38.802	1.737	1	H1-1b
458	M666	2L2 1/2x2 1/2x3/16x3/8	.087	5.116 18 .004	0	Y	14	11.585	38.802	1.737	1	H1-1b
459	M674	2L2 1/2x2 1/2x3/16x3/8	.090	5.116 16 .004	0	Y	18	11.585	38.802	1.737	1	H1-1b
460	M696	2L2 1/2x2 1/2x1/4x3/8	.124	5.076 7 .004	0	Y	12	16.828	51.305	3.58	1	H1-1b
461	M706	2L2 1/2x2 1/2x1/4x3/8	.131	5.076 5 .004	10.152	Y	14	16.828	51.305	3.58	1	H1-1b
462	M717	2L2 1/2x2 1/2x1/4x3/8	.107	5.127 14 .004	0	Y	12	16.467	51.305	3.58	1	H1-1b
463	M727	2L2 1/2x2 1/2x1/4x3/8	.103	5.127 3 .004	0	Y	12	16.467	51.305	3.58	1	H1-1b
464	M738	2L2 1/2x2 1/2x1/4x3/8	.132	5.076 3 .004	10.152	Y	12	16.828	51.305	3.58	1	H1-1b
465	M748	2L2 1/2x2 1/2x1/4x3/8	.126	5.076 9 .004	0	Y	18	16.828	51.305	3.58	1	H1-1b
466	M759	2L2 1/2x2 1/2x1/4x3/8	.105	5.127 9 .004	10.254	Y	11	16.467	51.305	3.58	1	H1-1b
467	M769	2L2 1/2x2 1/2x1/4x3/8	.107	5.127 7 .004	10.254	Y	16	16.467	51.305	3.58	1	H1-1b
468	M57	2L2 1/2x2 1/2x1/4x3/8	.113	5.116 13 .004	0	Y	13	14.371	51.305	3.58	1	H1-1b
469	M58	2L2 1/2x2 1/2x1/4x3/8	.035	3.683 17 .002	0	Y	14	26.463	51.305	3.58	1	H1-1b
470	M65	2L2 1/2x2 1/2x1/4x3/8	.112	5.116 16 .004	0	Y	14	14.371	51.305	3.58	1	H1-1b

Company : GPD Group
Designer : awestrum
Job Number : 2012867.46

TAG0053 CHESHIRE

Nov 6, 2012
4:54 PM
Checked By:

Envelope AISI 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
471	M66	2L2 1/2x2 1/2x1/4x3/8	.035	3.683	13 .002	7.523	y	18	26.463	51.305	3.58	2.271	1	H1-1b
472	M73	2L2 1/2x2 1/2x1/4x3/8	.112	5.116	12 .004	10.45	y	15	14.371	51.305	3.58	2.271	1	H1-1b
473	M74	2L2 1/2x2 1/2x1/4x3/8	.035	3.683	15 .002	0	y	13	26.463	51.305	3.58	2.271	1	H1-1b
474	M81	2L2 1/2x2 1/2x1/4x3/8	.111	5.116	15 .004	0	y	12	14.371	51.305	3.58	2.271	1	H1-1b
475	M82	2L2 1/2x2 1/2x1/4x3/8	.035	3.683	12 .002	7.523	y	16	26.463	51.305	3.58	2.271	1	H1-1b
476	M89	2L2 1/2x2 1/2x1/4x3/8	.111	5.116	18 .004	10.45	y	17	14.371	51.305	3.58	2.271	1	H1-1b
477	M90	2L2 1/2x2 1/2x1/4x3/8	.034	3.683	13 .002	7.523	y	14	26.463	51.305	3.58	2.271	1	H1-1b
478	M97	2L2 1/2x2 1/2x1/4x3/8	.111	5.116	13 .004	10.45	y	16	14.371	51.305	3.58	2.271	1	H1-1b
479	M98	2L2 1/2x2 1/2x1/4x3/8	.034	3.683	17 .002	0	y	14	26.463	51.305	3.58	2.271	1	H1-1b
480	M105	2L2 1/2x2 1/2x1/4x3/8	.111	5.116	15 .004	10.45	y	15	14.371	51.305	3.58	2.271	1	H1-1b
481	M106	2L2 1/2x2 1/2x1/4x3/8	.034	3.683	18 .002	7.523	y	15	26.463	51.305	3.58	2.271	1	H1-1b
482	M113	2L2 1/2x2 1/2x1/4x3/8	.112	5.116	18 .004	0	y	14	14.371	51.305	3.58	2.271	1	H1-1b
483	M114	2L2 1/2x2 1/2x1/4x3/8	.034	3.683	15 .002	0	y	13	26.463	51.305	3.58	2.271	1	H1-1b
484	M130	2L2 1/2x2 1/2x1/4x3/8	.089	5.116	13 .004	0	y	16	14.371	51.305	3.58	2.271	1	H1-1b
485	M131	2L2 1/2x2 1/2x1/4x3/8	.028	3.683	17 .002	7.523	y	13	26.463	51.305	3.58	2.271	1	H1-1b
486	M138	2L2 1/2x2 1/2x1/4x3/8	.088	5.116	17 .004	10.45	y	14	14.371	51.305	3.58	2.271	1	H1-1b
487	M139	2L2 1/2x2 1/2x1/4x3/8	.028	3.683	13 .002	0	y	13	26.463	51.305	3.58	2.271	1	H1-1b
488	M147	2L2 1/2x2 1/2x1/4x3/8	.087	5.116	12 .004	0	y	18	14.371	51.305	3.58	2.271	1	H1-1b
489	M148	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	15 .002	7.523	y	12	26.463	51.305	3.58	2.271	1	H1-1b
490	M155	2L2 1/2x2 1/2x1/4x3/8	.088	5.116	15 .004	0	y	15	14.371	51.305	3.58	2.271	1	H1-1b
491	M156	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	12 .002	0	y	14	26.463	51.305	3.58	2.271	1	H1-1b
492	M164	2L2 1/2x2 1/2x1/4x3/8	.087	5.116	17 .004	0	y	17	14.371	51.305	3.58	2.271	1	H1-1b
493	M165	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	13 .002	0	y	18	26.463	51.305	3.58	2.271	1	H1-1b
494	M172	2L2 1/2x2 1/2x1/4x3/8	.087	5.116	13 .004	10.45	y	18	14.371	51.305	3.58	2.271	1	H1-1b
495	M173	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	17 .002	0	y	12	26.463	51.305	3.58	2.271	1	H1-1b
496	M181	2L2 1/2x2 1/2x1/4x3/8	.088	5.116	15 .004	10.45	y	12	14.371	51.305	3.58	2.271	1	H1-1b
497	M182	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	18 .002	7.523	y	16	26.463	51.305	3.58	2.271	1	H1-1b
498	M189	2L2 1/2x2 1/2x1/4x3/8	.087	5.116	18 .004	10.45	y	15	14.371	51.305	3.58	2.271	1	H1-1b
499	M190	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	15 .002	7.523	y	11	26.463	51.305	3.58	2.271	1	H1-1b
500	M211	2L2 1/2x2 1/2x1/4x3/8	.085	5.116	12 .004	0	y	17	14.371	51.305	3.58	2.271	1	H1-1b
501	M212	2L2 1/2x2 1/2x1/4x3/8	.028	3.683	16 .002	0	y	14	26.463	51.305	3.58	2.271	1	H1-1b
502	M219	2L2 1/2x2 1/2x1/4x3/8	.084	5.116	17 .004	10.45	y	13	14.371	51.305	3.58	2.271	1	H1-1b
503	M220	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	13 .002	7.523	y	18	26.463	51.305	3.58	2.271	1	H1-1b
504	M228	2L2 1/2x2 1/2x1/4x3/8	.083	5.116	18 .004	0	y	15	14.371	51.305	3.58	2.271	1	H1-1b
505	M229	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	15 .002	7.523	y	13	26.463	51.305	3.58	2.271	1	H1-1b
506	M236	2L2 1/2x2 1/2x1/4x3/8	.085	5.116	16 .004	0	y	18	14.371	51.305	3.58	2.271	1	H1-1b
507	M237	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	12 .002	7.523	y	13	26.463	51.305	3.58	2.271	1	H1-1b
508	M245	2L2 1/2x2 1/2x1/4x3/8	.083	5.116	17 .004	0	y	14	14.371	51.305	3.58	2.271	1	H1-1b
509	M246	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	13 .002	0	y	17	26.463	51.305	3.58	2.271	1	H1-1b
510	M253	2L2 1/2x2 1/2x1/4x3/8	.085	5.116	14 .004	0	y	17	14.371	51.305	3.58	2.271	1	H1-1b
511	M254	2L2 1/2x2 1/2x1/4x3/8	.027	3.683	18 .002	0	y	13	26.463	51.305	3.58	2.271	1	H1-1b

Company : GPD Group
Designer : awestrump
Job Number : 2012867.46

Nov 6, 2012
4:54 PM
Checked By:

TAG0053 CHESHIRE

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Locfitl	LC Shear C...	Locfitl	Dir	LC	Pnc/om [kl	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eon
512	M262	2L2 1/2x2 1/2x1/4x3/8	.085	5.116 14 .004	0	y	18	14.371	51.305	3.58	2.271	1 H1-1b
513	M263	2L2 1/2x2 1/2x1/4x3/8	.027	3.683 18 .002	0	y	14	26.463	51.305	3.58	2.271	1 H1-1b
514	M270	2L2 1/2x2 1/2x1/4x3/8	.084	5.116 12 .004	10.45	y	16	14.371	51.305	3.58	2.271	1 H1-1b
515	M271	2L2 1/2x2 1/2x1/4x3/8	.027	3.683 15 .002	0	y	18	26.463	51.305	3.58	2.271	1 H1-1b
516	M292	2L2 1/2x2 1/2x1/4x3/8	.083	5.116 12 .004	10.45	y	13	14.659	51.305	3.58	2.271	1 H1-1b
517	M293	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 16 .002	0	y	10	26.951	51.305	3.58	2.271	1 H1-1b
518	M300	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 18 .004	10.45	y	12	14.659	51.305	3.58	2.271	1 H1-1b
519	M301	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 14 .002	7.523	y	15	26.951	51.305	3.58	2.271	1 H1-1b
520	M309	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 18 .004	10.45	y	13	14.659	51.305	3.58	2.271	1 H1-1b
521	M310	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 14 .002	7.523	y	10	26.951	51.305	3.58	2.271	1 H1-1b
522	M317	2L2 1/2x2 1/2x1/4x3/8	.083	5.116 16 .004	0	y	16	14.659	51.305	3.58	2.271	1 H1-1b
523	M318	2L2 1/2x2 1/2x1/4x3/8	.029	3.683 12 .002	7.523	y	16	26.951	51.305	3.58	2.271	1 H1-1b
524	M326	2L2 1/2x2 1/2x1/4x3/8	.082	5.116 16 .004	0	y	12	14.659	51.305	3.58	2.271	1 H1-1b
525	M327	2L2 1/2x2 1/2x1/4x3/8	.029	3.683 12 .002	0	y	17	26.951	51.305	3.58	2.271	1 H1-1b
526	M334	2L2 1/2x2 1/2x1/4x3/8	.084	5.116 14 .004	10.45	y	18	14.659	51.305	3.58	2.271	1 H1-1b
527	M335	2L2 1/2x2 1/2x1/4x3/8	.029	3.683 18 .002	0	y	13	26.951	51.305	3.58	2.271	1 H1-1b
528	M343	2L2 1/2x2 1/2x1/4x3/8	.084	5.116 14 .004	0	y	18	14.659	51.305	3.58	2.271	1 H1-1b
529	M344	2L2 1/2x2 1/2x1/4x3/8	.029	3.683 18 .002	0	y	16	26.951	51.305	3.58	2.271	1 H1-1b
530	M351	2L2 1/2x2 1/2x1/4x3/8	.082	5.116 12 .004	0	y	12	14.659	51.305	3.58	2.271	1 H1-1b
531	M352	2L2 1/2x2 1/2x1/4x3/8	.029	3.683 16 .002	0	y	10	26.951	51.305	3.58	2.271	1 H1-1b
532	M373	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 12 .004	10.45	y	17	14.659	51.305	3.58	2.271	1 H1-1b
533	M374	2L2 1/2x2 1/2x1/4x3/8	.031	3.683 15 .002	0	y	15	26.951	51.305	3.58	2.271	1 H1-1b
534	M381	2L2 1/2x2 1/2x1/4x3/8	.078	5.116 18 .004	10.45	y	14	14.659	51.305	3.58	2.271	1 H1-1b
535	M382	2L2 1/2x2 1/2x1/4x3/8	.031	3.683 14 .002	7.523	y	18	26.951	51.305	3.58	2.271	1 H1-1b
536	M390	2L2 1/2x2 1/2x1/4x3/8	.078	5.116 17 .004	10.45	y	15	14.659	51.305	3.58	2.271	1 H1-1b
537	M391	2L2 1/2x2 1/2x1/4x3/8	.031	3.683 14 .002	0	y	12	26.951	51.305	3.58	2.271	1 H1-1b
538	M398	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 17 .004	0	y	17	14.659	51.305	3.58	2.271	1 H1-1b
539	M399	2L2 1/2x2 1/2x1/4x3/8	.031	3.683 12 .002	7.523	y	14	26.951	51.305	3.58	2.271	1 H1-1b
540	M407	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 15 .004	10.45	y	14	14.659	51.305	3.58	2.271	1 H1-1b
541	M408	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 12 .002	7.523	y	18	26.951	51.305	3.58	2.271	1 H1-1b
542	M415	2L2 1/2x2 1/2x1/4x3/8	.082	5.116 15 .004	10.45	y	16	14.659	51.305	3.58	2.271	1 H1-1b
543	M416	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 18 .002	0	y	13	26.951	51.305	3.58	2.271	1 H1-1b
544	M424	2L2 1/2x2 1/2x1/4x3/8	.082	5.116 13 .004	0	y	12	14.659	51.305	3.58	2.271	1 H1-1b
545	M425	2L2 1/2x2 1/2x1/4x3/8	.030	3.683 17 .002	0	y	16	26.951	51.305	3.58	2.271	1 H1-1b
546	M432	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 13 .004	0	y	14	14.659	51.305	3.58	2.271	1 H1-1b
547	M433	2L2 1/2x2 1/2x1/4x3/8	.031	3.683 17 .002	7.523	y	10	26.951	51.305	3.58	2.271	1 H1-1b
548	M454	2L2 1/2x2 1/2x1/4x3/8	.078	5.116 12 .004	0	y	14	14.926	51.305	3.58	2.271	1 H1-1b
549	M455	2L2 1/2x2 1/2x1/4x3/8	.034	3.683 16 .002	0	y	12	27.392	51.305	3.58	2.271	1 H1-1b
550	M462	2L2 1/2x2 1/2x1/4x3/8	.077	5.116 18 .004	0	y	10	14.926	51.305	3.58	2.271	1 H1-1b
551	M463	2L2 1/2x2 1/2x1/4x3/8	.034	3.683 14 .002	7.523	y	14	27.392	51.305	3.58	2.271	1 H1-1b
552	M471	2L2 1/2x2 1/2x1/4x3/8	.076	5.116 17 .004	10.45	y	13	14.926	51.305	3.58	2.271	1 H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
553	M472	2L2 1/2x2 1/2x1/4x3/8	.034	3.683 14 .002	7.523	Y	12	27.392	51.305	3.58	2.271	1	H1-1b
554	M479	2L2 1/2x2 1/2x1/4x3/8	.078	5.116 17 .004	0	Y	12	14.926	51.305	3.58	2.271	1	H1-1b
555	M480	2L2 1/2x2 1/2x1/4x3/8	.033	3.683 12 .002	7.523	Y	16	27.392	51.305	3.58	2.271	1	H1-1b
556	M488	2L2 1/2x2 1/2x1/4x3/8	.079	5.116 15 .004	0	Y	13	14.926	51.305	3.58	2.271	1	H1-1b
557	M489	2L2 1/2x2 1/2x1/4x3/8	.033	3.683 12 .002	0	Y	15	27.392	51.305	3.58	2.271	1	H1-1b
558	M496	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 15 .004	0	Y	16	14.926	51.305	3.58	2.271	1	H1-1b
559	M497	2L2 1/2x2 1/2x1/4x3/8	.032	3.683 18 .002	7.523	Y	14	27.392	51.305	3.58	2.271	1	H1-1b
560	M505	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 13 .004	0	Y	12	14.926	51.305	3.58	2.271	1	H1-1b
561	M506	2L2 1/2x2 1/2x1/4x3/8	.032	3.683 18 .002	0	Y	17	27.392	51.305	3.58	2.271	1	H1-1b
562	M513	2L2 1/2x2 1/2x1/4x3/8	.079	5.116 13 .004	0	Y	14	14.926	51.305	3.58	2.271	1	H1-1b
563	M514	2L2 1/2x2 1/2x1/4x3/8	.033	3.683 17 .002	7.523	Y	16	27.392	51.305	3.58	2.271	1	H1-1b
564	M535	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 12 .004	10.45	Y	16	14.956	51.305	3.58	2.271	1	H1-1b
565	M536	2L2 1/2x2 1/2x1/4x3/8	.036	3.683 15 .002	7.523	Y	12	27.441	51.305	3.58	2.271	1	H1-1b
566	M543	2L2 1/2x2 1/2x1/4x3/8	.076	5.116 2 .004	10.45	Y	12	14.956	51.305	3.58	2.271	1	H1-1b
567	M544	2L2 1/2x2 1/2x1/4x3/8	.036	3.683 15 .002	7.523	Y	18	27.441	51.305	3.58	2.271	1	H1-1b
568	M552	2L2 1/2x2 1/2x1/4x3/8	.076	5.116 17 .004	0	Y	14	14.956	51.305	3.58	2.271	1	H1-1b
569	M553	2L2 1/2x2 1/2x1/4x3/8	.036	3.683 13 .002	0	Y	17	27.441	51.305	3.58	2.271	1	H1-1b
570	M560	2L2 1/2x2 1/2x1/4x3/8	.079	5.116 17 .004	10.45	Y	11	14.956	51.305	3.58	2.271	1	H1-1b
571	M561	2L2 1/2x2 1/2x1/4x3/8	.035	3.683 13 .002	7.523	Y	13	27.441	51.305	3.58	2.271	1	H1-1b
572	M569	2L2 1/2x2 1/2x1/4x3/8	.080	5.116 15 .004	10.45	Y	14	14.956	51.305	3.58	2.271	1	H1-1b
573	M570	2L2 1/2x2 1/2x1/4x3/8	.035	3.683 12 .002	7.523	Y	18	27.441	51.305	3.58	2.271	1	H1-1b
574	M577	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 15 .004	0	Y	16	14.956	51.305	3.58	2.271	1	H1-1b
575	M578	2L2 1/2x2 1/2x1/4x3/8	.034	3.683 18 .002	0	Y	10	27.441	51.305	3.58	2.271	1	H1-1b
576	M586	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 13 .004	10.45	Y	18	14.956	51.305	3.58	2.271	1	H1-1b
577	M587	2L2 1/2x2 1/2x1/4x3/8	.035	3.683 17 .002	7.523	Y	10	27.441	51.305	3.58	2.271	1	H1-1b
578	M594	2L2 1/2x2 1/2x1/4x3/8	.081	5.116 13 .004	0	Y	15	14.956	51.305	3.58	2.271	1	H1-1b
579	M595	2L2 1/2x2 1/2x1/4x3/8	.036	3.683 17 .002	0	Y	15	27.441	51.305	3.58	2.271	1	H1-1b
580	M616	2L2 1/2x2 1/2x1/4x3/8	.090	5.116 3 .004	0	Y	11	14.986	51.305	3.58	2.271	1	H1-1b
581	M617	2L2 1/2x2 1/2x1/4x3/8	.041	3.683 7 .002	7.523	Y	14	27.49	51.305	3.58	2.271	1	H1-1b
582	M624	2L2 1/2x2 1/2x1/4x3/8	.087	5.116 9 .004	0	Y	13	14.986	51.305	3.58	2.271	1	H1-1b
583	M625	2L2 1/2x2 1/2x1/4x3/8	.040	3.683 5 .002	0	Y	11	27.49	51.305	3.58	2.271	1	H1-1b
584	M633	2L2 1/2x2 1/2x1/4x3/8	.086	5.116 9 .004	0	Y	16	14.986	51.305	3.58	2.271	1	H1-1b
585	M634	2L2 1/2x2 1/2x1/4x3/8	.038	3.683 5 .002	0	Y	11	27.49	51.305	3.58	2.271	1	H1-1b
586	M641	2L2 1/2x2 1/2x1/4x3/8	.087	5.116 7 .004	10.45	Y	11	14.986	51.305	3.58	2.271	1	H1-1b
587	M642	2L2 1/2x2 1/2x1/4x3/8	.038	3.683 3 .002	0	Y	14	27.49	51.305	3.58	2.271	1	H1-1b
588	M650	2L2 1/2x2 1/2x1/4x3/8	.088	5.116 7 .004	10.45	Y	11	14.986	51.305	3.58	2.271	1	H1-1b
589	M651	2L2 1/2x2 1/2x1/4x3/8	.039	3.683 3 .002	7.523	Y	18	27.49	51.305	3.58	2.271	1	H1-1b
590	M658	2L2 1/2x2 1/2x1/4x3/8	.089	5.116 5 .004	10.45	Y	16	14.986	51.305	3.58	2.271	1	H1-1b
591	M659	2L2 1/2x2 1/2x1/4x3/8	.039	3.683 9 .002	0	Y	13	27.49	51.305	3.58	2.271	1	H1-1b
592	M667	2L2 1/2x2 1/2x1/4x3/8	.088	5.116 5 .004	0	Y	17	14.986	51.305	3.58	2.271	1	H1-1b
593	M668	2L2 1/2x2 1/2x1/4x3/8	.038	3.683 9 .002	7.523	Y	16	27.49	51.305	3.58	2.271	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Mnw/om [k-ft]	Mnzz/om [k-ft]	Cb	Ean		
594	2L2 1/2x2 1/2x1/4x3/8	.088	5.116	3	.004	0	Y	18	14.986	51.305	3.58	2.271	1	H1-1b
595	2L2 1/2x2 1/2x1/4x3/8	.038	3.683	7	.002	0	Y	11	27.49	51.305	3.58	2.271	1	H1-1b
596	2L2 1/2x2 1/2x1/4x3/8	.261	6.114	7	.005	12.489	Y	10	10.5	51.305	3.58	2.271	1	H1-1a
597	2L2 1/2x2 1/2x1/4x3/8	.280	6.114	5	.005	12.489	Y	18	10.5	51.305	3.58	2.271	1	H1-1a
598	2L2 1/2x2 1/2x1/4x3/8	.145	6.3	14	.005	12.6	Y	18	10.306	51.305	3.58	2.271	1	H1-1b
599	2L2 1/2x2 1/2x1/4x3/8	.141	6.3	12	.005	0	Y	16	10.306	51.305	3.58	2.271	1	H1-1b
600	2L2 1/2x2 1/2x1/4x3/8	.279	6.114	3	.005	12.489	Y	18	10.5	51.305	3.58	2.271	1	H1-1a
601	2L2 1/2x2 1/2x1/4x3/8	.267	6.114	9	.005	12.489	Y	12	10.5	51.305	3.58	2.271	1	H1-1a
602	2L2 1/2x2 1/2x1/4x3/8	.138	6.3	18	.005	12.6	Y	16	10.306	51.305	3.58	2.271	1	H1-1b
603	2L2 1/2x2 1/2x1/4x3/8	.142	6.3	16	.005	12.6	Y	10	10.306	51.305	3.58	2.271	1	H1-1b
604	2L2 1/2x2 1/2x1/4x3/8	.111	5.2	3	.004	0	Y	13	12.726	51.305	3.58	2.271	1	H1-1b
605	2L2 1/2x2 1/2x1/4x3/8	.060	3.969	7	.002	0	Y	15	22.334	51.305	3.58	2.271	1	H1-1b
606	2L2 1/2x2 1/2x1/4x3/8	.111	5.2	2	.004	10.622	Y	12	12.726	51.305	3.58	2.271	1	H1-1b
607	2L2 1/2x2 1/2x1/4x3/8	.060	3.969	6	.002	0	Y	13	22.334	51.305	3.58	2.271	1	H1-1b
608	2L2 1/2x2 1/2x1/4x3/8	.095	5.152	9	.004	10.523	Y	18	12.726	51.305	3.58	2.271	1	H1-1b
609	2L2 1/2x2 1/2x1/4x3/8	.053	4.011	14	.002	0	Y	11	22.334	51.305	3.58	2.271	1	H1-1b
610	2L2 1/2x2 1/2x1/4x3/8	.098	5.152	7	.004	0	Y	17	12.726	51.305	3.58	2.271	1	H1-1b
611	2L2 1/2x2 1/2x1/4x3/8	.052	4.011	12	.002	0	Y	13	22.334	51.305	3.58	2.271	1	H1-1b
612	2L2 1/2x2 1/2x1/4x3/8	.112	5.2	6	.004	10.622	Y	12	12.726	51.305	3.58	2.271	1	H1-1b
613	2L2 1/2x2 1/2x1/4x3/8	.060	3.969	3	.002	0	Y	12	22.334	51.305	3.58	2.271	1	H1-1b
614	2L2 1/2x2 1/2x1/4x3/8	.109	5.2	5	.004	0	Y	18	12.726	51.305	3.58	2.271	1	H1-1b
615	2L2 1/2x2 1/2x1/4x3/8	.058	3.969	9	.002	0	Y	11	22.334	51.305	3.58	2.271	1	H1-1b
616	2L2 1/2x2 1/2x1/4x3/8	.101	5.152	5	.004	10.523	Y	16	12.726	51.305	3.58	2.271	1	H1-1b
617	2L2 1/2x2 1/2x1/4x3/8	.051	4.011	9	.002	8.192	Y	17	22.334	51.305	3.58	2.271	1	H1-1b
618	2L2 1/2x2 1/2x1/4x3/8	.100	5.152	3	.004	10.523	Y	16	12.726	51.305	3.58	2.271	1	H1-1b
619	2L2 1/2x2 1/2x1/4x3/8	.052	4.011	16	.002	0	Y	18	22.334	51.305	3.58	2.271	1	H1-1b
620	L3X3X3	.053	3.605	11	.003	0	Y	12	7.861	23.497	.878	1.389	1	H2-1
621	L3X3X3	.058	3.605	11	.003	0	Y	16	7.861	23.497	.878	1.389	1	H2-1
622	L3X3X3	.055	3.605	18	.003	7.523	Y	11	7.861	23.497	.878	1.389	1	H2-1
623	L3X3X3	.059	3.605	11	.003	7.523	Y	15	7.861	23.497	.878	1.389	1	H2-1
624	L3X3X3	.054	3.605	11	.003	0	Y	17	7.861	23.497	.878	1.389	1	H2-1
625	L3X3X3	.053	3.84	17	.003	7.523	Y	13	7.861	23.497	.878	1.389	1	H2-1
626	L3X3X3	.054	3.605	11	.003	7.523	Y	18	7.861	23.497	.878	1.389	1	H2-1
627	L3X3X3	.052	3.605	12	.003	7.523	Y	11	7.861	23.497	.878	1.389	1	H2-1
628	L3X3X3	.088	3.605	16	.003	7.523	Y	11	7.861	23.497	.878	1.389	1	H2-1
629	L3X3X3	.092	3.605	11	.003	7.523	Y	18	7.861	23.497	.878	1.389	1	H2-1
630	L3X3X3	.092	3.605	14	.003	7.523	Y	12	7.861	23.497	.878	1.389	1	H2-1
631	L3X3X3	.087	3.605	11	.003	7.523	Y	10	7.861	23.497	.878	1.389	1	H2-1
632	L3X3X3	.084	3.605	11	.003	7.523	Y	17	7.861	23.497	.878	1.389	1	H2-1
633	L3X3X3	.078	3.605	11	.003	7.523	Y	12	7.861	23.497	.878	1.389	1	H2-1
634	L3X3X3	.078	3.605	18	.003	7.523	Y	16	7.861	23.497	.878	1.389	1	H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
635	M186	L3X3X3	.084	3.605	15	.003	7.523	Y 10	7.861	23.497	1	H2-1
636	M208	L3X3X3	.161	3.605	7	.003	7.523	Y 13	7.861	23.497	1	H2-1
637	M216	L3X3X3	.147	3.605	5	.003	0	Y 17	7.861	23.497	1	H2-1
638	M225	L3X3X3	.161	3.605	5	.003	7.523	Y 12	7.861	23.497	1	H2-1
639	M233	L3X3X3	.166	3.605	3	.003	0	Y 14	7.861	23.497	1	H2-1
640	M242	L3X3X3	.134	3.605	3	.003	0	Y 13	7.861	23.497	1	H2-1
641	M250	L3X3X3	.147	3.605	9	.003	7.523	Y 14	7.861	23.497	1	H2-1
642	M259	L3X3X3	.143	3.605	9	.003	0	Y 14	7.861	23.497	1	H2-1
643	M267	L3X3X3	.139	3.605	7	.003	7.523	Y 17	7.861	23.497	1	H2-1
644	M289	L3X3X3	.171	3.605	6	.003	0	Y 12	8.182	23.497	1	H2-1
645	M297	L3X3X3	.175	3.605	6	.003	0	Y 18	8.182	23.497	1	H2-1
646	M306	L3X3X3	.172	3.605	4	.003	7.523	Y 17	8.182	23.497	1	H2-1
647	M314	L3X3X3	.165	3.605	4	.003	7.523	Y 12	8.182	23.497	1	H2-1
648	M323	L3X3X3	.169	3.605	2	.003	7.523	Y 15	8.182	23.497	1	H2-1
649	M331	L3X3X3	.165	3.605	2	.003	7.523	Y 13	8.182	23.497	1	H2-1
650	M340	L3X3X3	.160	3.605	8	.003	7.523	Y 18	8.182	23.497	1	H2-1
651	M348	L3X3X3	.166	3.605	8	.003	7.523	Y 11	8.182	23.497	1	H2-1
652	M370	L3X3X3	.272	3.605	7	.003	7.523	Y 18	8.182	23.497	1	H2-1
653	M378	L3X3X3	.281	3.605	5	.003	0	Y 14	8.182	23.497	1	H2-1
654	M387	L3X3X3	.280	3.605	5	.003	7.523	Y 18	8.182	23.497	1	H2-1
655	M395	L3X3X3	.268	3.605	3	.003	7.523	Y 18	8.182	23.497	1	H2-1
656	M404	L3X3X3	.275	3.605	3	.003	7.523	Y 15	8.182	23.497	1	H2-1
657	M412	L3X3X3	.269	3.605	9	.003	7.523	Y 12	8.182	23.497	1	H2-1
658	M421	L3X3X3	.264	3.605	9	.003	0	Y 17	8.182	23.497	1	H2-1
659	M429	L3X3X3	.273	3.605	7	.003	7.523	Y 17	8.182	23.497	1	H2-1
660	M451	L3X3X3	.343	3.605	6	.003	0	Y 14	8.516	23.497	1	H2-1
661	M459	L3X3X3	.360	3.605	6	.003	7.523	Y 16	8.516	23.497	1	H2-1
662	M468	L3X3X3	.352	3.605	4	.003	0	Y 17	8.516	23.497	1	H2-1
663	M476	L3X3X3	.331	3.605	4	.003	7.523	Y 16	8.516	23.497	1	H2-1
664	M485	L3X3X3	.351	3.605	2	.003	7.523	Y 15	8.516	23.497	1	H2-1
665	M493	L3X3X3	.335	3.605	2	.003	7.523	Y 13	8.516	23.497	1	H2-1
666	M502	L3X3X3	.324	3.605	8	.003	0	Y 16	8.516	23.497	1	H2-1
667	M510	L3X3X3	.344	3.605	8	.003	7.523	Y 14	8.516	23.497	1	H2-1
668	M532	L3X3X3	.487	3.605	7	.003	0	Y 16	8.539	23.497	1	H2-1
669	M540	L3X3X3	.503	3.605	5	.003	0	Y 17	8.539	23.497	1	H2-1
670	M549	L3X3X3	.499	3.605	5	.003	0	Y 11	8.539	23.497	1	H2-1
671	M557	L3X3X3	.481	3.605	3	.003	0	Y 18	8.539	23.497	1	H2-1
672	M566	L3X3X3	.499	3.605	3	.003	0	Y 12	8.539	23.497	1	H2-1
673	M574	L3X3X3	.489	3.605	9	.003	7.523	Y 12	8.539	23.497	1	H2-1
674	M583	L3X3X3	.482	3.605	9	.003	0	Y 15	8.539	23.497	1	H2-1
675	M591	L3X3X3	.495	3.605	7	.003	0	Y 16	8.539	23.497	1	H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member		Shape	Code Check		Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mmv/om [k-ft]	Mnz/om [k-ft]	Cb	Egn
676	M613	L3X3X3	.569		3.605	7	.003	0	Y	12	8.586	23.497		1	H2-1
677	M621	L3X3X3	.583		3.605	5	.003	0	Y	16	8.586	23.497		1	H2-1
678	M630	L3X3X3	.512		3.605	5	.003	7.523	Y	11	8.586	23.497		1	H2-1
679	M638	L3X3X3	.497		3.605	3	.003	0	Y	11	8.586	23.497		1	H2-1
680	M647	L3X3X3	.580		3.605	3	.003	0	Y	12	8.586	23.497		1	H2-1
681	M655	L3X3X3	.567		3.605	9	.003	7.523	Y	12	8.586	23.497		1	H2-1
682	M664	L3X3X3	.496		3.605	9	.003	7.523	Y	10	8.586	23.497		1	H2-1
683	M672	L3X3X3	.509		3.605	7	.003	7.523	Y	10	8.586	23.497		1	H2-1
684	M694	L3X3X4	.417		3.969	7	.003	0	Y	11	11.3	31.042		1	H2-1
685	M704	L3X3X4	.447		3.969	5	.003	8.107	Y	17	11.3	31.042		1	H2-1
686	M715	L3X3X4	.340		4.011	4	.003	0	Y	14	11.02	31.042		1	H2-1
687	M725	L3X3X4	.319		4.011	4	.003	0	Y	15	11.02	31.042		1	H2-1
688	M736	L3X3X4	.456		3.969	3	.003	0	Y	13	11.3	31.042		1	H2-1
689	M746	L3X3X4	.433		3.969	9	.003	8.107	Y	13	11.3	31.042		1	H2-1
690	M757	L3X3X4	.313		4.011	9	.003	8.192	Y	17	11.02	31.042		1	H2-1
691	M767	L3X3X4	.337		4.011	8	.003	0	Y	16	11.02	31.042		1	H2-1
692	M947	LL3x3x3x3	.023		4.911	6	.001	0	Y	5	19.291	46.994		1	H1-1b
693	M948	LL3x3x3x3	.023		5.12	3	.001	0	Y	5	19.291	46.994		1	H1-1b
694	M953	LL3x3x3x3	.023		4.911	5	.001	0	Y	4	19.291	46.994		1	H1-1b
695	M954	LL3x3x3x3	.023		5.12	9	.001	10.031	Y	18	19.291	46.994		1	H1-1b
696	M959	LL3x3x3x3	.023		4.911	3	.001	0	Y	7	19.291	46.994		1	H1-1b
697	M960	LL3x3x3x3	.023		5.12	7	.001	0	Y	3	19.291	46.994		1	H1-1b
698	M965	LL3x3x3x3	.023		4.911	9	.001	0	Y	9	19.291	46.994		1	H1-1b
699	M966	LL3x3x3x3	.023		5.12	6	.001	10.031	Y	3	19.291	46.994		1	H1-1b
700	M923	LL3x3x3x3	.023		4.911	7	.001	0	Y	6	19.291	46.994		1	H1-1b
701	M924	LL3x3x3x3	.023		5.12	3	.001	0	Y	3	19.291	46.994		1	H1-1b
702	M929	LL3x3x3x3	.023		4.911	5	.001	10.031	Y	8	19.291	46.994		1	H1-1b
703	M930	LL3x3x3x3	.023		5.12	9	.001	10.031	Y	3	19.291	46.994		1	H1-1b
704	M935	LL3x3x3x3	.023		4.911	3	.001	0	Y	18	19.291	46.994		1	H1-1b
705	M936	LL3x3x3x3	.023		5.12	7	.001	0	Y	5	19.291	46.994		1	H1-1b
706	M941	LL3x3x3x3	.023		4.911	9	.001	0	Y	8	19.291	46.994		1	H1-1b
707	M942	LL3x3x3x3	.023		5.12	5	.001	10.031	Y	23	19.291	46.994		1	H1-1b
708	M899	LL3x3x3x3	.024		4.911	7	.001	0	Y	5	19.291	46.994		1	H1-1b
709	M900	LL3x3x3x3	.024		5.12	3	.001	0	Y	4	19.291	46.994		1	H1-1b
710	M905	LL3x3x3x3	.024		4.911	5	.001	10.031	Y	9	19.291	46.994		1	H1-1b
711	M906	LL3x3x3x3	.024		5.12	9	.001	10.031	Y	2	19.291	46.994		1	H1-1b
712	M911	LL3x3x3x3	.024		4.911	3	.001	0	Y	6	19.291	46.994		1	H1-1b
713	M912	LL3x3x3x3	.024		5.12	7	.001	0	Y	7	19.291	46.994		1	H1-1b
714	M917	LL3x3x3x3	.024		4.911	9	.001	0	Y	8	19.291	46.994		1	H1-1b
715	M918	LL3x3x3x3	.024		5.12	5	.001	0	Y	9	19.291	46.994		1	H1-1b
716	M875	LL3x3x3x3	.024		4.911	7	.001	0	Y	6	19.291	46.994		1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code	Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	Pnc/om [k]	Pnc/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn	
717	M876	LL3x3x3x3	.024	5.12	3	.001	10.031	Y	5	19.291	46.994	3.69	2.496	1	H1-1b
718	M881	LL3x3x3x3	.024	4.911	5	.001	0	Y	8	19.291	46.994	3.69	2.496	1	H1-1b
719	M882	LL3x3x3x3	.024	5.12	9	.001	10.031	Y	6	19.291	46.994	3.69	2.496	1	H1-1b
720	M887	LL3x3x3x3	.024	4.911	3	.001	0	Y	2	19.291	46.994	3.69	2.496	1	H1-1b
721	M888	LL3x3x3x3	.024	5.12	7	.001	10.031	Y	4	19.291	46.994	3.69	2.496	1	H1-1b
722	M893	LL3x3x3x3	.024	4.911	9	.001	10.031	Y	3	19.291	46.994	3.69	2.496	1	H1-1b
723	M894	LL3x3x3x3	.024	5.12	5	.001	0	Y	3	19.291	46.994	3.69	2.496	1	H1-1b
724	M851	LL3x3x3x3	.025	4.911	7	.001	0	Y	5	19.291	46.994	3.69	2.496	1	H1-1b
725	M852	LL3x3x3x3	.025	5.12	3	.001	10.031	Y	3	19.291	46.994	3.69	2.496	1	H1-1b
726	M857	LL3x3x3x3	.025	4.911	5	.001	10.031	Y	8	19.291	46.994	3.69	2.496	1	H1-1b
727	M858	LL3x3x3x3	.025	5.12	9	.001	0	Y	6	19.291	46.994	3.69	2.496	1	H1-1b
728	M863	LL3x3x3x3	.025	4.911	3	.001	10.031	Y	18	19.291	46.994	3.69	2.496	1	H1-1b
729	M864	LL3x3x3x3	.025	5.12	7	.001	0	Y	9	19.291	46.994	3.69	2.496	1	H1-1b
730	M869	LL3x3x3x3	.025	4.911	9	.001	0	Y	4	19.291	46.994	3.69	2.496	1	H1-1b
731	M870	LL3x3x3x3	.025	5.12	5	.001	10.031	Y	2	19.291	46.994	3.69	2.496	1	H1-1b
732	M827	LL3x3x3x3	.025	4.911	7	.001	10.031	Y	5	19.291	46.994	3.69	2.496	1	H1-1b
733	M828	LL3x3x3x3	.025	5.12	3	.001	0	Y	11	19.291	46.994	3.69	2.496	1	H1-1b
734	M833	LL3x3x3x3	.025	4.911	5	.001	0	Y	7	19.291	46.994	3.69	2.496	1	H1-1b
735	M834	LL3x3x3x3	.025	5.12	9	.001	0	Y	2	19.291	46.994	3.69	2.496	1	H1-1b
736	M839	LL3x3x3x3	.025	4.911	3	.001	0	Y	2	19.291	46.994	3.69	2.496	1	H1-1b
737	M840	LL3x3x3x3	.025	5.12	7	.001	10.031	Y	8	19.291	46.994	3.69	2.496	1	H1-1b
738	M845	LL3x3x3x3	.025	4.911	9	.001	10.031	Y	4	19.291	46.994	3.69	2.496	1	H1-1b
739	M846	LL3x3x3x3	.025	5.12	5	.001	10.031	Y	6	19.291	46.994	3.69	2.496	1	H1-1b
740	M803	LL3x3x3x3	.026	4.911	7	.001	10.031	Y	6	19.291	46.994	3.69	2.496	1	H1-1b
741	M804	LL3x3x3x3	.026	5.12	3	.001	10.031	Y	8	19.291	46.994	3.69	2.496	1	H1-1b
742	M809	LL3x3x3x3	.026	4.911	5	.001	0	Y	13	19.291	46.994	3.69	2.496	1	H1-1b
743	M810	LL3x3x3x3	.026	5.12	9	.001	0	Y	18	19.291	46.994	3.69	2.496	1	H1-1b
744	M815	LL3x3x3x3	.025	4.911	3	.001	0	Y	5	19.291	46.994	3.69	2.496	1	H1-1b
745	M816	LL3x3x3x3	.025	5.12	7	.001	0	Y	4	19.291	46.994	3.69	2.496	1	H1-1b
746	M821	LL3x3x3x3	.026	4.911	9	.001	10.031	Y	4	19.291	46.994	3.69	2.496	1	H1-1b
747	M822	LL3x3x3x3	.026	5.12	5	.001	10.031	Y	14	19.291	46.994	3.69	2.496	1	H1-1b
748	M779	LL3x3x3x3	.042	4.911	16	.003	10.031	Y	13	19.291	46.994	3.69	2.496	1	H1-1b
749	M780	LL3x3x3x3	.042	5.12	12	.003	10.031	Y	11	19.291	46.994	3.69	2.496	1	H1-1b
750	M785	LL3x3x3x3	.026	4.911	5	.001	10.031	Y	13	19.291	46.994	3.69	2.496	1	H1-1b
751	M786	LL3x3x3x3	.026	5.12	9	.001	0	Y	12	19.291	46.994	3.69	2.496	1	H1-1b
752	M791	LL3x3x3x3	.026	4.911	3	.001	0	Y	2	19.291	46.994	3.69	2.496	1	H1-1b
753	M792	LL3x3x3x3	.026	5.12	7	.001	0	Y	14	19.291	46.994	3.69	2.496	1	H1-1b
754	M797	LL3x3x3x3	.026	4.911	9	.001	0	Y	9	19.291	46.994	3.69	2.496	1	H1-1b
755	M798	LL3x3x3x3	.026	5.12	5	.001	0	Y	6	19.291	46.994	3.69	2.496	1	H1-1b
756	M755A	LL3x3x3x3	.041	6.585	5	.002	0	Y	10	10.499	46.994	3.69	2.496	1	H1-1b
757	M756A	LL3x3x3x3	.038	7.105	9	.002	0	Y	10	10.657	46.994	3.69	2.496	1	H1-1b

Company : GPD Group
Designer : awestrum
Job Number : 2012867.46

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Nov 6, 2012
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Checked By:

Envelope AISI 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc(fit)	LC Shear C...	Loc(fit)	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Ean
758	M761A	.037	6.537	3	.002	13.642	Y	7	10.657	46.994	2.496	1 H1-1b
759	M762A	.040	7.158	7	.002	13.744	Y	11	10.499	46.994	2.496	1 H1-1b
760	M767A	.041	6.585	9	.002	0	Y	13	10.499	46.994	2.496	1 H1-1b
761	M768A	.038	7.105	5	.002	0	Y	3	10.657	46.994	2.496	1 H1-1b
762	M773A	.038	6.537	7	.002	0	Y	3	10.657	46.994	2.496	1 H1-1b
763	M774A	.041	7.158	3	.002	13.744	Y	13	10.499	46.994	2.496	1 H1-1b
764	M949	.058	5.944	14	.002	0	Y	3	24.789	90.97	4.754	1 H1-1b
765	M950	.058	6.196	14	.002	12.14	Y	3	24.789	90.97	4.754	1 H1-1b
766	M955	.058	5.944	12	.002	0	Y	4	24.789	90.97	4.754	1 H1-1b
767	M956	.058	6.196	12	.002	0	Y	6	24.789	90.97	4.754	1 H1-1b
768	M961	.058	5.944	18	.002	0	Y	9	24.789	90.97	4.754	1 H1-1b
769	M962	.058	6.196	18	.002	0	Y	7	24.789	90.97	4.754	1 H1-1b
770	M967	.058	5.944	16	.002	0	Y	9	24.789	90.97	4.754	1 H1-1b
771	M968	.058	6.196	16	.002	12.14	Y	6	24.789	90.97	4.754	1 H1-1b
772	M925	.052	5.944	13	.002	12.14	Y	6	24.789	90.97	4.754	1 H1-1b
773	M926	.052	6.196	14	.002	12.14	Y	4	24.789	90.97	4.754	1 H1-1b
774	M931	.052	5.944	18	.002	0	Y	8	24.789	90.97	4.754	1 H1-1b
775	M932	.052	6.196	14	.002	0	Y	6	24.789	90.97	4.754	1 H1-1b
776	M937	.052	5.944	18	.002	12.14	Y	2	24.789	90.97	4.754	1 H1-1b
777	M938	.052	6.196	12	.002	12.14	Y	7	24.789	90.97	4.754	1 H1-1b
778	M943	.052	5.944	16	.002	0	Y	5	24.789	90.97	4.754	1 H1-1b
779	M944	.052	6.196	16	.002	12.14	Y	5	24.789	90.97	4.754	1 H1-1b
780	M901	.052	5.944	12	.002	12.14	Y	14	24.789	90.97	4.754	1 H1-1b
781	M902	.052	6.196	15	.002	0	Y	7	24.789	90.97	4.754	1 H1-1b
782	M907	.052	5.944	18	.002	0	Y	8	24.789	90.97	4.754	1 H1-1b
783	M908	.052	6.196	14	.002	0	Y	2	24.789	90.97	4.754	1 H1-1b
784	M913	.052	5.944	17	.002	0	Y	7	24.789	90.97	4.754	1 H1-1b
785	M914	.052	6.196	12	.002	12.14	Y	3	24.789	90.97	4.754	1 H1-1b
786	M919	.052	5.944	15	.002	12.14	Y	9	24.789	90.97	4.754	1 H1-1b
787	M920	.052	6.196	17	.002	12.14	Y	3	24.789	90.97	4.754	1 H1-1b
788	M877	.052	5.944	12	.002	12.14	Y	7	24.789	90.97	4.754	1 H1-1b
789	M878	.052	6.196	15	.002	12.14	Y	9	24.789	90.97	4.754	1 H1-1b
790	M883	.052	5.944	18	.002	0	Y	5	24.789	90.97	4.754	1 H1-1b
791	M884	.052	6.196	14	.002	0	Y	22	24.789	90.97	4.754	1 H1-1b
792	M889	.052	5.944	17	.002	0	Y	7	24.789	90.97	4.754	1 H1-1b
793	M890	.052	6.196	12	.002	12.14	Y	4	24.789	90.97	4.754	1 H1-1b
794	M895	.052	5.944	15	.002	0	Y	9	24.789	90.97	4.754	1 H1-1b
795	M896	.052	6.196	17	.002	0	Y	9	24.789	90.97	4.754	1 H1-1b
796	M853	.052	5.944	13	.002	12.14	Y	7	24.789	90.97	4.754	1 H1-1b
797	M854	.052	6.196	14	.002	12.14	Y	8	24.789	90.97	4.754	1 H1-1b
798	M859	.052	5.944	12	.002	0	Y	4	24.789	90.97	4.754	1 H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Mny/om [k-ft]	Mnz/om [k-ft]	Cb	Eqn
799	M860	LL3x3x6x3	.052	6.196	12	.002	0	Y	6	24.789	90.97	4.754	1	H1-1b
800	M865	LL3x3x6x3	.052	5.944	18	.002	12.14	Y	2	24.789	90.97	4.754	1	H1-1b
801	M866	LL3x3x6x3	.052	6.196	18	.002	0	Y	7	24.789	90.97	4.754	1	H1-1b
802	M871	LL3x3x6x3	.052	5.944	16	.002	12.14	Y	9	24.789	90.97	4.754	1	H1-1b
803	M872	LL3x3x6x3	.052	6.196	16	.002	12.14	Y	6	24.789	90.97	4.754	1	H1-1b
804	M829	LL3x3x6x3	.052	5.944	13	.002	12.14	Y	7	24.789	90.97	4.754	1	H1-1b
805	M830	LL3x3x6x3	.052	6.196	14	.002	12.14	Y	4	24.789	90.97	4.754	1	H1-1b
806	M835	LL3x3x6x3	.052	5.944	18	.002	0	Y	5	24.789	90.97	4.754	1	H1-1b
807	M836	LL3x3x6x3	.052	6.196	13	.002	12.14	Y	3	24.789	90.97	4.754	1	H1-1b
808	M841	LL3x3x6x3	.052	5.944	18	.002	12.14	Y	18	24.789	90.97	4.754	1	H1-1b
809	M842	LL3x3x6x3	.052	6.196	12	.002	0	Y	5	24.789	90.97	4.754	1	H1-1b
810	M847	LL3x3x6x3	.052	5.944	16	.002	12.14	Y	8	24.789	90.97	4.754	1	H1-1b
811	M848	LL3x3x6x3	.052	6.196	16	.002	0	Y	2	24.789	90.97	4.754	1	H1-1b
812	M805	LL3x3x6x3	.052	5.944	12	.002	12.14	Y	6	24.789	90.97	4.754	1	H1-1b
813	M806	LL3x3x6x3	.052	6.196	16	.002	0	Y	3	24.789	90.97	4.754	1	H1-1b
814	M811	LL3x3x6x3	.052	5.944	18	.002	12.14	Y	9	24.789	90.97	4.754	1	H1-1b
815	M812	LL3x3x6x3	.052	6.196	14	.002	0	Y	9	24.789	90.97	4.754	1	H1-1b
816	M817	LL3x3x6x3	.052	5.944	17	.002	12.14	Y	2	24.789	90.97	4.754	1	H1-1b
817	M818	LL3x3x6x3	.052	6.196	12	.002	0	Y	24	24.789	90.97	4.754	1	H1-1b
818	M823	LL3x3x6x3	.054	5.944	15	.002	0	Y	7	24.789	90.97	4.754	1	H1-1b
819	M824	LL3x3x6x3	.054	6.196	17	.002	0	Y	14	24.789	90.97	4.754	1	H1-1b
820	M781	LL3x3x6x3	.068	5.944	12	.003	0	Y	15	24.789	90.97	4.754	1	H1-1b
821	M782	LL3x3x6x3	.068	6.196	15	.003	0	Y	12	24.789	90.97	4.754	1	H1-1b
822	M787	LL3x3x6x3	.050	5.944	18	.002	0	Y	9	24.789	90.97	4.754	1	H1-1b
823	M788	LL3x3x6x3	.050	6.196	14	.002	0	Y	5	24.789	90.97	4.754	1	H1-1b
824	M793	LL3x3x6x3	.050	5.944	17	.002	0	Y	2	24.789	90.97	4.754	1	H1-1b
825	M794	LL3x3x6x3	.050	6.196	12	.002	12.14	Y	3	24.789	90.97	4.754	1	H1-1b
826	M799	LL3x3x6x3	.052	5.944	15	.002	12.14	Y	5	24.789	90.97	4.754	1	H1-1b
827	M800	LL3x3x6x3	.052	6.196	17	.002	12.14	Y	6	24.789	90.97	4.754	1	H1-1b
828	M757A	LL3x3x6x3	.080	7.537	12	.002	15.396	Y	18	15.413	90.97	4.754	1	H1-1b
829	M758A	LL3x3x6x3	.074	7.765	12	.002	0	Y	6	15.785	90.97	4.754	1	H1-1b
830	M763A	LL3x3x6x3	.074	7.448	18	.002	15.213	Y	14	15.785	90.97	4.754	1	H1-1b
831	M764A	LL3x3x6x3	.080	7.858	18	.002	0	Y	5	15.413	90.97	4.754	1	H1-1b
832	M769A	LL3x3x6x3	.078	7.537	16	.002	15.396	Y	5	15.413	90.97	4.754	1	H1-1b
833	M770A	LL3x3x6x3	.073	7.765	16	.002	15.213	Y	6	15.785	90.97	4.754	1	H1-1b
834	M775A	LL3x3x6x3	.074	7.448	14	.002	15.213	Y	2	15.785	90.97	4.754	1	H1-1b
835	M776A	LL3x3x6x3	.080	7.858	14	.002	0	Y	12	15.413	90.97	4.754	1	H1-1b
836	M945	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	7	117.031	161.461	11.212	1	H1-1b
837	M951	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	5	117.031	161.461	11.212	1	H1-1b
838	M957	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	3	117.031	161.461	11.212	1	H1-1b
839	M963	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	9	117.031	161.461	11.212	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member		Shape	Code Check		Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
840	M921	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
841	M927	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
842	M933	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
843	M939	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
844	M897	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
845	M903	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
846	M909	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
847	M915	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
848	M873	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
849	M879	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
850	M885	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
851	M891	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
852	M849	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
853	M855	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
854	M861	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
855	M867	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
856	M825	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
857	M831	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
858	M837	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
859	M843	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
860	M801	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
861	M807	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
862	M813	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
863	M819	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
864	M777A	LL4x4x8x3	.018	3.948	5	.002	7.896	Y	7	117.031	161.461	17.217	11.212	1	H1-1b
865	M783	LL4x4x8x3	.018	3.948	3	.002	7.896	Y	5	117.031	161.461	17.217	11.212	1	H1-1b
866	M789	LL4x4x8x3	.018	3.948	9	.002	7.896	Y	3	117.031	161.461	17.217	11.212	1	H1-1b
867	M795	LL4x4x8x3	.018	3.948	7	.002	7.896	Y	9	117.031	161.461	17.217	11.212	1	H1-1b
868	M753A	LL4x4x8x3	.018	3.948	3	.002	0	Y	5	117.029	161.461	17.217	11.212	1	H1-1b
869	M759A	LL4x4x8x3	.018	3.948	9	.002	0	Y	3	117.029	161.461	17.217	11.212	1	H1-1b
870	M765A	LL4x4x8x3	.018	3.948	7	.002	0	Y	2	117.029	161.461	17.217	11.212	1	H1-1b
871	M771A	LL4x4x8x3	.018	3.948	5	.002	0	Y	7	117.029	161.461	17.217	11.212	1	H1-1b
872	M946	LL3x3x3x3	.091	7.896	5	.002	7.896	Z	5	26.13	46.994	3.69	1.56	1...	H1-1b
873	M952	LL3x3x3x3	.090	7.896	3	.002	7.896	Z	3	26.13	46.994	3.69	1.56	1...	H1-1b
874	M958	LL3x3x3x3	.090	7.896	9	.002	0	Z	9	26.13	46.994	3.69	1.56	1...	H1-1b
875	M964	LL3x3x3x3	.091	7.896	7	.002	7.896	Z	7	26.13	46.994	3.69	1.56	1...	H1-1b
876	M922	LL3x3x3x3	.097	7.896	5	.002	0	Z	5	26.13	46.994	3.69	1.56	1...	H1-1b
877	M928	LL3x3x3x3	.096	7.896	3	.002	7.896	Z	3	26.13	46.994	3.69	1.56	1...	H1-1b
878	M934	LL3x3x3x3	.097	7.896	9	.002	0	Z	9	26.13	46.994	3.69	1.56	1...	H1-1b
879	M940	LL3x3x3x3	.096	7.896	7	.002	7.896	Z	7	26.13	46.994	3.69	1.56	1...	H1-1b
880	M898	LL3x3x3x3	.097	7.896	5	.002	0	Z	5	26.13	46.994	3.69	1.56	1...	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
881	M904	LL3x3x3x3	.097	7.896	3	.002	0	26.13	46.994	3.69	1.56	1....	H1-1b
882	M910	LL3x3x3x3	.097	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
883	M916	LL3x3x3x3	.097	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
884	M874	LL3x3x3x3	.103	7.896	5	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
885	M880	LL3x3x3x3	.103	7.896	3	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
886	M886	LL3x3x3x3	.103	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
887	M892	LL3x3x3x3	.103	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
888	M850	LL3x3x3x3	.108	7.896	5	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
889	M856	LL3x3x3x3	.108	7.896	3	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
890	M862	LL3x3x3x3	.108	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
891	M868	LL3x3x3x3	.108	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
892	M826	LL3x3x3x3	.114	7.896	5	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
893	M832	LL3x3x3x3	.114	7.896	3	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
894	M838	LL3x3x3x3	.114	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
895	M844	LL3x3x3x3	.114	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
896	M802	LL3x3x3x3	.109	7.896	5	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
897	M808	LL3x3x3x3	.108	7.896	3	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
898	M814	LL3x3x3x3	.108	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
899	M820	LL3x3x3x3	.109	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
900	M778	LL3x3x3x3	.143	7.896	14	.004	0	26.13	46.994	3.69	1.56	1....	H1-1b
901	M784	LL3x3x3x3	.111	7.896	3	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
902	M790	LL3x3x3x3	.111	7.896	9	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
903	M796	LL3x3x3x3	.112	7.896	7	.002	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
904	M754A	LL3x3x3x3	.127	7.896	3	.003	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
905	M760A	LL3x3x3x3	.127	7.896	9	.003	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
906	M766A	LL3x3x3x3	.127	7.896	7	.003	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
907	M772A	LL3x3x3x3	.127	7.896	5	.003	7.896	26.13	46.994	3.69	1.56	1....	H1-1b
908	M737A	L2.5X2.5X3	.722	1.396	3	.001	0	16.161	19.401	.58	1.266	1	H2-1
909	M738A	L2.5X2.5X3	.541	1.396	4	.001	2.792	16.161	19.401	.58	1.266	1	H2-1
910	M741A	L2.5X2.5X3	.544	1.396	9	.001	0	16.161	19.401	.58	1.266	1	H2-1
911	M742A	L2.5X2.5X3	.688	1.396	9	.001	0	16.161	19.401	.58	1.266	1	H2-1
912	M745A	L2.5X2.5X3	.661	1.396	7	.001	0	16.161	19.401	.58	1.266	1	H2-1
913	M746A	L2.5X2.5X3	.584	1.396	8	.001	2.792	16.161	19.401	.58	1.266	1	H2-1
914	M749A	L2.5X2.5X3	.593	1.396	4	.001	0	16.161	19.401	.58	1.266	1	H2-1
915	M750A	L2.5X2.5X3	.702	1.396	5	.001	0	16.161	19.401	.58	1.266	1	H2-1
916	M53	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	13	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b
917	M61	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	17	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b
918	M69	2L2 1/2x2 1/2x3/16x3/8	.070	4.188	12	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b
919	M77	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	15	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b
920	M85	2L2 1/2x2 1/2x3/16x3/8	.069	4.188	17	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b
921	M93	2L2 1/2x2 1/2x3/16x3/8	.069	4.188	13	.004	8.375	16.978	38.802	2.672	1.737	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Locfll	LC Shear C...	Locfll	Dir	LC	Pnc/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Egn
922	M101	2L2 1/2x2 1/2x3/16x3/8	.070	4.188 15 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
923	M109	2L2 1/2x2 1/2x3/16x3/8	.068	4.188 18 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
924	M126	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 13 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
925	M134	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 17 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
926	M143	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 12 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
927	M151	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 15 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
928	M160	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 18 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
929	M168	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 14 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
930	M177	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 14 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
931	M185	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 18 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
932	M207	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 12 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
933	M215	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 17 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
934	M224	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 12 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
935	M232	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 15 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
936	M241	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 17 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
937	M249	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 14 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
938	M258	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 14 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
939	M266	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 18 .004	8.375	Y	10	16.978	2.672	1.737	1	H1-1b
940	M288	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 14 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
941	M296	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 11 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
942	M305	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 11 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
943	M313	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 14 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
944	M322	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 17 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
945	M330	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 12 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
946	M339	2L2 1/2x2 1/2x3/16x3/8	.063	4.188 16 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
947	M347	2L2 1/2x2 1/2x3/16x3/8	.064	4.188 11 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
948	M369	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 16 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
949	M377	2L2 1/2x2 1/2x3/16x3/8	.066	4.188 14 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
950	M386	2L2 1/2x2 1/2x3/16x3/8	.066	4.188 14 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
951	M394	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 12 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
952	M403	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 12 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
953	M411	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 18 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
954	M420	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 17 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
955	M428	2L2 1/2x2 1/2x3/16x3/8	.065	4.188 16 .004	8.375	Y	10	17.25	2.672	1.737	1	H1-1b
956	M450	2L2 1/2x2 1/2x3/16x3/8	.069	4.188 15 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
957	M458	2L2 1/2x2 1/2x3/16x3/8	.069	4.188 15 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
958	M467	2L2 1/2x2 1/2x3/16x3/8	.069	4.188 13 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
959	M475	2L2 1/2x2 1/2x3/16x3/8	.068	4.188 13 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
960	M484	2L2 1/2x2 1/2x3/16x3/8	.068	4.188 18 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
961	M492	2L2 1/2x2 1/2x3/16x3/8	.068	4.188 12 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b
962	M501	2L2 1/2x2 1/2x3/16x3/8	.068	4.188 17 .004	8.375	Y	10	17.524	2.672	1.737	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
963	M509	2L2 1/2x2 1/2x3/16x3/8	.069	4.188	17.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
964	M531	2L2 1/2x2 1/2x3/16x3/8	.072	4.188	16.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
965	M539	2L2 1/2x2 1/2x3/16x3/8	.073	4.188	14.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
966	M548	2L2 1/2x2 1/2x3/16x3/8	.072	4.188	14.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
967	M556	2L2 1/2x2 1/2x3/16x3/8	.072	4.188	12.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
968	M565	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	12.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
969	M573	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	18.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
970	M582	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	18.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
971	M590	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	16.004	8.375	y	10	17.524	38.802	2.672	1.737	1	H1-1b
972	M612	2L2 1/2x2 1/2x3/16x3/8	.072	4.188	15.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
973	M620	2L2 1/2x2 1/2x3/16x3/8	.073	4.188	15.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
974	M629	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	14.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
975	M637	2L2 1/2x2 1/2x3/16x3/8	.070	4.188	12.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
976	M646	2L2 1/2x2 1/2x3/16x3/8	.071	4.188	12.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
977	M654	2L2 1/2x2 1/2x3/16x3/8	.070	4.188	18.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
978	M663	2L2 1/2x2 1/2x3/16x3/8	.069	4.188	18.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
979	M671	2L2 1/2x2 1/2x3/16x3/8	.070	4.188	16.004	8.375	y	10	17.558	38.802	2.672	1.737	1	H1-1b
980	M693	2L2 1/2x2 1/2x3/16x3/8	.092	4.188	3.004	8.375	y	10	17.851	38.802	2.672	1.737	1	H1-1b
981	M703	2L2 1/2x2 1/2x3/16x3/8	.096	4.188	9.004	8.375	y	10	17.851	38.802	2.672	1.737	1	H1-1b
982	M714	2L2 1/2x2 1/2x3/16x3/8	.083	4.188	14.004	0	y	10	17.851	38.802	2.672	1.737	1	H1-1b
983	M724	2L2 1/2x2 1/2x3/16x3/8	.081	4.188	13.004	0	y	14	17.851	38.802	2.672	1.737	1	H1-1b
984	M735	2L2 1/2x2 1/2x3/16x3/8	.100	4.188	7.004	8.375	y	10	17.851	38.802	2.672	1.737	1	H1-1b
985	M745	2L2 1/2x2 1/2x3/16x3/8	.098	4.188	5.004	8.375	y	10	17.851	38.802	2.672	1.737	1	H1-1b
986	M756	2L2 1/2x2 1/2x3/16x3/8	.081	4.188	5.004	0	y	10	17.851	38.802	2.672	1.737	1	H1-1b
987	M766	2L2 1/2x2 1/2x3/16x3/8	.082	4.188	16.004	0	y	11	17.851	38.802	2.672	1.737	1	H1-1b
988	M55	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	17.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
989	M63	2L2 1/2x2 1/2x3/16x3/8	.150	6.281	13.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
990	M71	2L2 1/2x2 1/2x3/16x3/8	.150	6.281	15.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
991	M79	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	12.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
992	M87	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	13.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
993	M95	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	17.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
994	M103	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	18.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
995	M111	2L2 1/2x2 1/2x3/16x3/8	.149	6.281	15.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
996	M128	2L2 1/2x2 1/2x3/16x3/8	.144	6.281	17.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
997	M136	2L2 1/2x2 1/2x3/16x3/8	.144	6.281	13.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
998	M145	2L2 1/2x2 1/2x3/16x3/8	.144	6.281	15.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
999	M153	2L2 1/2x2 1/2x3/16x3/8	.144	6.281	12.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
1000	M162	2L2 1/2x2 1/2x3/16x3/8	.143	6.281	13.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
1001	M170	2L2 1/2x2 1/2x3/16x3/8	.143	6.281	17.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
1002	M179	2L2 1/2x2 1/2x3/16x3/8	.143	6.281	18.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b
1003	M187	2L2 1/2x2 1/2x3/16x3/8	.144	6.281	15.006	0	y	10	7.52	38.802	2.672	1.737	1	H1-1b

Envelope AISCS 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	En
1004	M209	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 16 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1005	M217	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 13 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1006	M226	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 15 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1007	M234	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 12 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1008	M243	2L2 1/2x2 1/2x3/16x3/8	.143	6.281 13 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1009	M251	2L2 1/2x2 1/2x3/16x3/8	.143	6.281 18 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1010	M260	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 18 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1011	M268	2L2 1/2x2 1/2x3/16x3/8	.144	6.281 15 .006	0	Y	10	7.52	38.802	2.672	1.737	1	H1-1b
1012	M290	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 16 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1013	M298	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 14 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1014	M307	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 14 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1015	M315	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 12 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1016	M324	2L2 1/2x2 1/2x3/16x3/8	.145	6.281 12 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1017	M332	2L2 1/2x2 1/2x3/16x3/8	.145	6.281 18 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1018	M341	2L2 1/2x2 1/2x3/16x3/8	.145	6.281 18 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1019	M349	2L2 1/2x2 1/2x3/16x3/8	.145	6.281 16 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1020	M371	2L2 1/2x2 1/2x3/16x3/8	.147	6.281 16 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1021	M379	2L2 1/2x2 1/2x3/16x3/8	.147	6.281 14 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1022	M388	2L2 1/2x2 1/2x3/16x3/8	.147	6.281 14 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1023	M396	2L2 1/2x2 1/2x3/16x3/8	.147	6.281 12 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1024	M405	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 12 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1025	M413	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 18 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1026	M422	2L2 1/2x2 1/2x3/16x3/8	.146	6.281 18 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1027	M430	2L2 1/2x2 1/2x3/16x3/8	.147	6.281 16 .006	0	Y	10	7.619	38.802	2.672	1.737	1	H1-1b
1028	M452	2L2 1/2x2 1/2x3/16x3/8	.149	6.281 16 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1029	M460	2L2 1/2x2 1/2x3/16x3/8	.150	6.281 14 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1030	M469	2L2 1/2x2 1/2x3/16x3/8	.149	6.281 14 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1031	M477	2L2 1/2x2 1/2x3/16x3/8	.149	6.281 12 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1032	M486	2L2 1/2x2 1/2x3/16x3/8	.149	6.281 12 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1033	M494	2L2 1/2x2 1/2x3/16x3/8	.148	6.281 18 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1034	M503	2L2 1/2x2 1/2x3/16x3/8	.148	6.281 18 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1035	M511	2L2 1/2x2 1/2x3/16x3/8	.149	6.281 16 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1036	M533	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 16 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1037	M541	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 14 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1038	M550	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 14 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1039	M558	2L2 1/2x2 1/2x3/16x3/8	.151	6.281 12 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1040	M567	2L2 1/2x2 1/2x3/16x3/8	.151	6.281 12 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1041	M575	2L2 1/2x2 1/2x3/16x3/8	.150	6.281 18 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1042	M584	2L2 1/2x2 1/2x3/16x3/8	.150	6.281 18 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1043	M592	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 16 .006	0	Y	10	7.72	38.802	2.672	1.737	1	H1-1b
1044	M614	2L2 1/2x2 1/2x3/16x3/8	.154	6.281 16 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1045	M622	2L2 1/2x2 1/2x3/16x3/8	.154	6.281 14 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1046	M631	2L2 1/2x2 1/2x3/16x3/8	.153	6.281 14 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1047	M639	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 12 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1048	M648	2L2 1/2x2 1/2x3/16x3/8	.153	6.281 12 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1049	M656	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 18 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1050	M665	2L2 1/2x2 1/2x3/16x3/8	.152	6.281 18 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1051	M673	2L2 1/2x2 1/2x3/16x3/8	.153	6.281 16 .006	0	Y	10	7.733	38.802	2.672	1.737	1	H1-1b
1052	M695	2L2 1/2x2 1/2x1/4x3/8	.128	5.583 3 .005	11.167	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1053	M705	2L2 1/2x2 1/2x1/4x3/8	.134	5.583 9 .005	11.167	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1054	M716	2L2 1/2x2 1/2x1/4x3/8	.110	5.583 14 .005	0	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1055	M726	2L2 1/2x2 1/2x1/4x3/8	.110	5.583 7 .005	0	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1056	M737	2L2 1/2x2 1/2x1/4x3/8	.137	5.583 7 .005	11.167	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1057	M747	2L2 1/2x2 1/2x1/4x3/8	.135	5.583 5 .005	11.167	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1058	M758	2L2 1/2x2 1/2x1/4x3/8	.115	5.583 5 .005	0	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1059	M768	2L2 1/2x2 1/2x1/4x3/8	.110	5.583 3 .005	0	Y	10	12.983	51.305	3.58	2.271	1	H1-1b
1060	M697	2L3x3x1/4x3/8 HRA	.137	6.979 16 .006	13.958	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1061	M707	2L3x3x1/4x3/8 HRA	.137	6.979 14 .006	13.958	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1062	M718	2L3x3x1/4x3/8 HRA	.135	6.979 14 .006	0	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1063	M728	2L3x3x1/4x3/8 HRA	.135	6.979 12 .006	0	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1064	M739	2L3x3x1/4x3/8 HRA	.137	6.979 12 .006	13.958	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1065	M749	2L3x3x1/4x3/8 HRA	.136	6.979 18 .006	13.958	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1066	M760	2L3x3x1/4x3/8 HRA	.134	6.979 18 .006	0	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1067	M770	2L3x3x1/4x3/8 HRA	.135	6.979 16 .006	0	Y	10	14.393	62.084	4.991	3.315	1	H1-1b
1068	M1192A	L2.5X2.5X3	.356	4.188 2 .002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1069	M1193A	L2.5X2.5X3	.344	4.188 6 .002	8.375	Y	1	3.112	19.401	.58	.935	1....	H2-1
1070	M1197A	L2.5X2.5X3	.425	4.188 9 .002	0	Y	3	3.112	19.401	.58	.935	1....	H2-1
1071	M1198A	L2.5X2.5X3	.345	4.188 3 .002	8.375	Y	8	3.112	19.401	.58	.935	1....	H2-1
1072	M1202A	L2.5X2.5X3	.256	4.188 6 .002	0	Y	2	3.112	19.401	.58	.935	1....	H2-1
1073	M1203A	L2.5X2.5X3	.272	4.188 9 .002	8.375	Y	6	3.112	19.401	.58	.935	1....	H2-1
1074	M1207A	L2.5X2.5X3	.397	4.188 5 .002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1075	M1208A	L2.5X2.5X3	.478	4.188 7 .002	8.375	Y	1	3.112	19.401	.58	.935	1....	H2-1
1076	M1236	L2.5X2.5X3	.013	2.094 6 .001	4.188	Y	4	10.867	19.401	.58	1.153	1....	H2-1
1077	M1237	L2.5X2.5X3	.096	5.167 6 .003	0	Y	1	2.044	19.401	.58	.853	1....	H2-1
1078	M1238	L2.5X2.5X3	.058	4.188 6 .002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1079	M1239	L2.5X2.5X3	.096	5.167 6 .003	0	Y	8	2.044	19.401	.58	.853	1....	H2-1
1080	M1240	L2.5X2.5X3	.013	2.094 6 .001	0	Y	8	10.867	19.401	.58	1.153	1....	H2-1
1081	M1241	L2.5X2.5X3	.013	2.094 4 .001	4.188	Y	9	10.867	19.401	.58	1.153	1....	H2-1
1082	M1242	L2.5X2.5X3	.096	5.167 4 .003	0	Y	1	2.044	19.401	.58	.853	1....	H2-1
1083	M1243	L2.5X2.5X3	.058	4.188 4 .002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1084	M1244	L2.5X2.5X3	.096	5.167 4 .003	0	Y	5	2.044	19.401	.58	.853	1....	H2-1
1085	M1245	L2.5X2.5X3	.013	2.094 4 .001	0	Y	6	10.867	19.401	.58	1.153	1....	H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	MN/om [k-ft]	MZ/om [k-ft]	Cb	Edn	
1086	M1246	L2.5X2.5X3	.013	2.094	2	.001	4.188	Y	8	10.867	19.401	.58	1.153	1....	H2-1
1087	M1247	L2.5X2.5X3	.096	5.167	2	.003	0	Y	1	2.044	19.401	.58	.853	1....	H2-1
1088	M1248	L2.5X2.5X3	.058	4.188	2	.002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1089	M1249	L2.5X2.5X3	.096	5.167	2	.003	0	Y	3	2.044	19.401	.58	.853	1....	H2-1
1090	M1250	L2.5X2.5X3	.013	2.094	2	.001	0	Y	4	10.867	19.401	.58	1.153	1....	H2-1
1091	M1251	L2.5X2.5X3	.013	2.094	8	.001	4.188	Y	6	10.867	19.401	.58	1.153	1....	H2-1
1092	M1252	L2.5X2.5X3	.096	5.167	8	.003	0	Y	1	2.044	19.401	.58	.853	1....	H2-1
1093	M1253	L2.5X2.5X3	.058	4.188	8	.002	0	Y	1	3.112	19.401	.58	.935	1....	H2-1
1094	M1254	L2.5X2.5X3	.096	5.167	8	.003	0	Y	2	2.044	19.401	.58	.853	1....	H2-1
1095	M1255	L2.5X2.5X3	.013	2.094	8	.001	0	Y	2	10.867	19.401	.58	1.153	1....	H2-1
1096	M52	L3X3X3	.037	2.094	16	.003	0	Y	13	15.722	23.497	.878	1.665	1	H2-1
1097	M60	L3X3X3	.038	2.094	11	.003	4.188	Y	17	15.722	23.497	.878	1.665	1	H2-1
1098	M68	L3X3X3	.037	2.094	18	.003	4.188	Y	14	15.722	23.497	.878	1.665	1	H2-1
1099	M76	L3X3X3	.039	2.094	11	.003	4.188	Y	15	15.722	23.497	.878	1.665	1	H2-1
1100	M84	L3X3X3	.037	2.094	11	.003	4.188	Y	13	15.722	23.497	.878	1.665	1	H2-1
1101	M92	L3X3X3	.036	2.094	13	.003	4.188	Y	13	15.722	23.497	.878	1.665	1	H2-1
1102	M100	L3X3X3	.037	2.094	11	.003	0	Y	15	15.722	23.497	.878	1.665	1	H2-1
1103	M108	L3X3X3	.036	2.094	12	.003	0	Y	15	15.722	23.497	.878	1.665	1	H2-1
1104	M125	L3X3X3	.048	2.094	16	.003	0	Y	13	15.722	23.497	.878	1.665	1	H2-1
1105	M133	L3X3X3	.050	2.094	11	.003	4.188	Y	17	15.722	23.497	.878	1.665	1	H2-1
1106	M142	L3X3X3	.050	2.094	14	.003	0	Y	18	15.722	23.497	.878	1.665	1	H2-1
1107	M150	L3X3X3	.048	2.094	11	.003	0	Y	12	15.722	23.497	.878	1.665	1	H2-1
1108	M159	L3X3X3	.047	2.094	11	.003	0	Y	17	15.722	23.497	.878	1.665	1	H2-1
1109	M167	L3X3X3	.045	2.094	11	.003	4.188	Y	13	15.722	23.497	.878	1.665	1	H2-1
1110	M176	L3X3X3	.045	2.094	18	.003	0	Y	15	15.722	23.497	.878	1.665	1	H2-1
1111	M184	L3X3X3	.047	2.094	15	.003	0	Y	15	15.722	23.497	.878	1.665	1	H2-1
1112	M206	L3X3X3	.069	2.094	7	.003	0	Y	12	15.722	23.497	.878	1.665	1	H2-1
1113	M214	L3X3X3	.067	2.094	14	.003	4.188	Y	18	15.722	23.497	.878	1.665	1	H2-1
1114	M223	L3X3X3	.069	2.094	14	.003	0	Y	18	15.722	23.497	.878	1.665	1	H2-1
1115	M231	L3X3X3	.070	2.094	3	.003	4.188	Y	16	15.722	23.497	.878	1.665	1	H2-1
1116	M240	L3X3X3	.061	2.094	12	.003	0	Y	17	15.722	23.497	.878	1.665	1	H2-1
1117	M248	L3X3X3	.063	2.094	9	.003	4.188	Y	14	15.722	23.497	.878	1.665	1	H2-1
1118	M257	L3X3X3	.062	2.094	9	.003	0	Y	15	15.722	23.497	.878	1.665	1	H2-1
1119	M265	L3X3X3	.063	2.094	16	.003	0	Y	16	15.722	23.497	.878	1.665	1	H2-1
1120	M287	L3X3X3	.076	2.094	15	.003	0	Y	13	15.919	23.497	.878	1.673	1	H2-1
1121	M295	L3X3X3	.079	2.094	15	.003	4.188	Y	18	15.919	23.497	.878	1.673	1	H2-1
1122	M304	L3X3X3	.079	2.094	13	.003	0	Y	18	15.919	23.497	.878	1.673	1	H2-1
1123	M312	L3X3X3	.074	2.094	13	.003	0	Y	12	15.919	23.497	.878	1.673	1	H2-1
1124	M321	L3X3X3	.074	2.094	2	.003	0	Y	17	15.919	23.497	.878	1.673	1	H2-1
1125	M329	L3X3X3	.073	2.094	2	.003	4.188	Y	14	15.919	23.497	.878	1.673	1	H2-1
1126	M338	L3X3X3	.071	2.094	8	.003	0	Y	15	15.919	23.497	.878	1.673	1	H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1127	M346	L3X3X3	.075	2.094	17	.003	0	Y	16	15.919	23.497	1.673	1 H2-1
1128	M368	L3X3X3	.112	2.094	6	.003	0	Y	13	15.919	23.497	1.673	1 H2-1
1129	M376	L3X3X3	.116	2.094	6	.003	4.188	Y	11	15.919	23.497	1.673	1 H2-1
1130	M385	L3X3X3	.114	2.094	5	.003	0	Y	11	15.919	23.497	1.673	1 H2-1
1131	M393	L3X3X3	.110	2.094	3	.003	0	Y	12	15.919	23.497	1.673	1 H2-1
1132	M402	L3X3X3	.113	2.094	3	.003	0	Y	17	15.919	23.497	1.673	1 H2-1
1133	M410	L3X3X3	.110	2.094	9	.003	4.188	Y	14	15.919	23.497	1.673	1 H2-1
1134	M419	L3X3X3	.108	2.094	9	.003	0	Y	15	15.919	23.497	1.673	1 H2-1
1135	M427	L3X3X3	.112	2.094	7	.003	0	Y	16	15.919	23.497	1.673	1 H2-1
1136	M449	L3X3X3	.146	2.094	6	.003	0	Y	12	16.091	23.497	1.681	1 H2-1
1137	M457	L3X3X3	.153	2.094	6	.003	4.188	Y	11	16.091	23.497	1.681	1 H2-1
1138	M466	L3X3X3	.150	2.094	4	.003	0	Y	12	16.091	23.497	1.681	1 H2-1
1139	M474	L3X3X3	.141	2.094	4	.003	0	Y	12	16.091	23.497	1.681	1 H2-1
1140	M483	L3X3X3	.150	2.094	2	.003	0	Y	17	16.091	23.497	1.681	1 H2-1
1141	M491	L3X3X3	.143	2.094	2	.003	4.188	Y	14	16.091	23.497	1.681	1 H2-1
1142	M500	L3X3X3	.139	2.094	8	.003	0	Y	15	16.091	23.497	1.681	1 H2-1
1143	M508	L3X3X3	.147	2.094	8	.003	0	Y	16	16.091	23.497	1.681	1 H2-1
1144	M530	L3X3X3	.203	2.094	7	.003	0	Y	13	16.115	23.497	1.682	1 H2-1
1145	M538	L3X3X3	.209	2.094	5	.003	4.188	Y	11	16.115	23.497	1.682	1 H2-1
1146	M547	L3X3X3	.207	2.094	5	.003	0	Y	12	16.115	23.497	1.682	1 H2-1
1147	M555	L3X3X3	.200	2.094	3	.003	0	Y	12	16.115	23.497	1.682	1 H2-1
1148	M564	L3X3X3	.208	2.094	3	.003	0	Y	18	16.115	23.497	1.682	1 H2-1
1149	M572	L3X3X3	.203	2.094	9	.003	4.188	Y	15	16.115	23.497	1.682	1 H2-1
1150	M581	L3X3X3	.201	2.094	9	.003	0	Y	15	16.115	23.497	1.682	1 H2-1
1151	M589	L3X3X3	.206	2.094	7	.003	0	Y	16	16.115	23.497	1.682	1 H2-1
1152	M611	L3X3X3	.236	2.094	7	.003	0	Y	12	16.14	23.497	1.683	1 H2-1
1153	M619	L3X3X3	.242	2.094	5	.003	4.188	Y	12	16.14	23.497	1.683	1 H2-1
1154	M628	L3X3X3	.213	2.094	5	.003	0	Y	11	16.14	23.497	1.683	1 H2-1
1155	M636	L3X3X3	.207	2.094	3	.003	0	Y	13	16.14	23.497	1.683	1 H2-1
1156	M645	L3X3X3	.241	2.094	3	.003	0	Y	16	16.14	23.497	1.683	1 H2-1
1157	M653	L3X3X3	.236	2.094	9	.003	4.188	Y	16	16.14	23.497	1.683	1 H2-1
1158	M662	L3X3X3	.206	2.094	9	.003	0	Y	15	16.14	23.497	1.683	1 H2-1
1159	M670	L3X3X3	.212	2.094	7	.003	0	Y	16	16.14	23.497	1.683	1 H2-1
1160	M692	L3X3X3	.233	2.792	3	.004	0	Y	10	12.787	23.497	1.555	1 H2-1
1161	M702	L3X3X3	.246	2.792	9	.004	0	Y	10	12.787	23.497	1.555	1 H2-1
1162	M713	L3X3X3	.180	2.792	8	.004	0	Y	11	12.787	23.497	1.555	1 H2-1
1163	M723	L3X3X3	.172	2.792	8	.004	0	Y	11	12.787	23.497	1.555	1 H2-1
1164	M734	L3X3X3	.270	2.792	7	.004	0	Y	17	12.787	23.497	1.555	1 H2-1
1165	M744	L3X3X3	.261	2.792	5	.004	0	Y	10	12.787	23.497	1.555	1 H2-1
1166	M755	L3X3X3	.177	2.792	4	.004	0	Y	15	12.787	23.497	1.555	1 H2-1
1167	M765	L3X3X3	.184	2.792	4	.004	0	Y	15	12.787	23.497	1.555	1 H2-1

Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member		Shape	Code Check		Loc[ft]	LC	Shear C...	Loc[ft]	Dir	LC	Pnc/om [k]	Mny/om [k]	Mnzz/om [k-ft]	Cb	Eon
1168	M1195A	L2.5X2.5X3	.343	4.485	2	.002	9.361	Y	6	2.491	19.401	.58	.893	1....	H2-1
1169	M1196A	L2.5X2.5X3	.333	4.875	6	.002	0	Y	3	2.491	19.401	.58	.893	1....	H2-1
1170	M1200A	L2.5X2.5X3	.357	4.485	8	.002	9.361	Y	3	2.491	19.401	.58	.893	1....	H2-1
1171	M1201A	L2.5X2.5X3	.338	4.875	4	.002	0	Y	9	2.491	19.401	.58	.893	1....	H2-1
1172	M1205A	L2.5X2.5X3	.271	4.485	6	.002	0	Y	22	2.491	19.401	.58	.893	1....	H2-1
1173	M1206A	L2.5X2.5X3	.281	4.875	2	.002	0	Y	3	2.491	19.401	.58	.893	1....	H2-1
1174	M1210A	L2.5X2.5X3	.385	4.485	4	.002	0	Y	7	2.491	19.401	.58	.893	1....	H2-1
1175	M1211A	L2.5X2.5X3	.404	4.875	8	.002	9.361	Y	4	2.491	19.401	.58	.893	1....	H2-1
1176	M1194A	LL2.5x2.5x3x3	.076	6.333	8	.003	0	Y	1	6.961	38.802	2.635	1.696	1	H1-1b
1177	M1199A	LL2.5x2.5x3x3	.093	6.333	2	.003	0	Y	1	6.961	38.802	2.635	1.696	1	H1-1b
1178	M1204A	LL2.5x2.5x3x3	.077	6.333	4	.003	0	Y	1	6.961	38.802	2.635	1.696	1	H1-1b
1179	M1209A	LL2.5x2.5x3x3	.095	6.333	6	.003	0	Y	1	6.961	38.802	2.635	1.696	1	H1-1b

Concrete Column Design Results

Column	Shape	UC Max	Loc[ft]	UC LC	Shear UC	Loc[ft]	Dir	Phi used	Pn[k]	Mny[k-ft]	Mnzz[k-ft]	Vny[k]	Vnz[k]
1	M1252A	CRECT42X42	.166	6.2	7	.184	.194	.65	4914.804	4434.198	4753.896	338.243	338.243
2	M1253A	CRECT42X42	.167	6.2	5	.176	.194	.65	4945.076	4439.831	4761.608	338.243	338.243
3	M1254A	CRECT42X42	.166	6.2	3	.163	.194	.65	4922.186	4432.355	4751.371	338.243	338.243
4	M1255A	CRECT42X42	.166	6.2	9	.172	.194	.65	4903.176	4431.548	4750.266	338.243	338.243

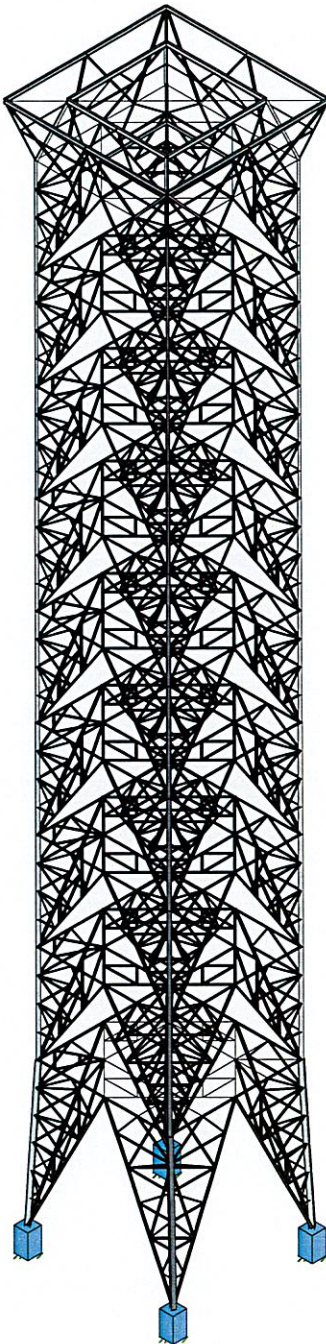
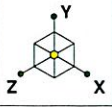
Bolt Checks

Section #	Elevation	Component Type	Bolt Grade	Bolt Size (in)	# of Bolts	Maximum Load (k)	Maximum Load per Bolt (k)	Allowable Load per Bolt (k)	Ratio	Allowable Ratio	% Capacity
T2	236.833	Leg	A490N	0.75	28	13.9	0.993	16.70	0.059	1.333	4.5%
		Diagonal	A490N	0.75	4	15.9	3.975	24.74	0.161	1.333	12.1%
		Horizontal	A490N	0.75	4	4.4	1.100	24.74	0.044	1.333	3.3%
T3	211.833	Leg	A490N	0.75	28	35.3	2.521	16.70	0.151	1.333	11.3%
		Diagonal	A490N	0.75	4	22.7	5.675	19.44	0.292	1.333	21.9%
		Horizontal	A490N	0.75	3	12.6	4.200	10.42	0.403	1.333	30.2%
T4	186.833	Leg	A490N	0.875 & 0.75	46	64.8	2.817	17.85	0.158	1.333	11.8%
		Diagonal	A490N	0.75	5	30.9	6.180	24.74	0.250	1.333	18.7%
		Horizontal	A490N	0.75	3	12.6	4.200	10.42	0.403	1.333	30.2%
T5	161.833	Leg	A490N	1	32	104.2	6.513	25.06	0.260	1.333	19.5%
		Diagonal	A490N	0.75	5	37.2	7.440	24.74	0.301	1.333	22.6%
		Horizontal	A490N	0.75	3	19.5	6.500	10.42	0.624	1.333	46.8%
T6	136.833	Leg	A490N	1	40	152.1	7.605	25.06	0.304	1.333	22.8%
		Diagonal	A490N	0.75	4	44.3	11.075	20.12	0.550	1.333	41.3%
		Horizontal	A490N	0.75	3	23.1	7.700	20.84	0.369	1.333	27.7%
T7	111.833	Leg	A490N	1	40	209.2	10.460	25.75	0.406	1.333	30.5%
		Diagonal	A490N	0.75	4	50.3	12.575	20.12	0.625	1.333	46.9%
		Horizontal	A490N	0.75	4	26.5	6.625	20.12	0.329	1.333	24.7%

T8	86.8333	Leg	A490N	1	40	274.6	13.730	29.23	0.470	1.333	35.2%
		Diagonal	A490N	0.75	5	58.2	11.640	24.74	0.470	1.333	35.3%
		Horizontal	A490N	0.75	4	30.0	7.500	20.12	0.373	1.333	28.0%
T9	61.8333	Leg	A490N	1	60	348.9	11.630	32.71	0.356	1.333	26.7%
		Diagonal	A490N	0.75	5	64.4	12.880	24.74	0.521	1.333	39.0%
		Horizontal	A490N	0.75	4	33.0	8.250	20.12	0.410	1.333	30.8%
T10	36.8333	Leg	A490N	1	68	431.7	12.697	32.71	0.388	1.333	29.1%
		Diagonal	A490N	0.75	8	78.9	9.863	24.74	0.399	1.333	29.9%
		Horizontal	A490N	0.75	4	32.9	8.225	24.74	0.332	1.333	24.9%
		Anchor Rod	C1015	2.25	12	431.7	35.975	76.10	0.473	1.333	35.5%
										Maximum % Capacity	46.9%

APPENDIX C

Tower Elevation Drawing

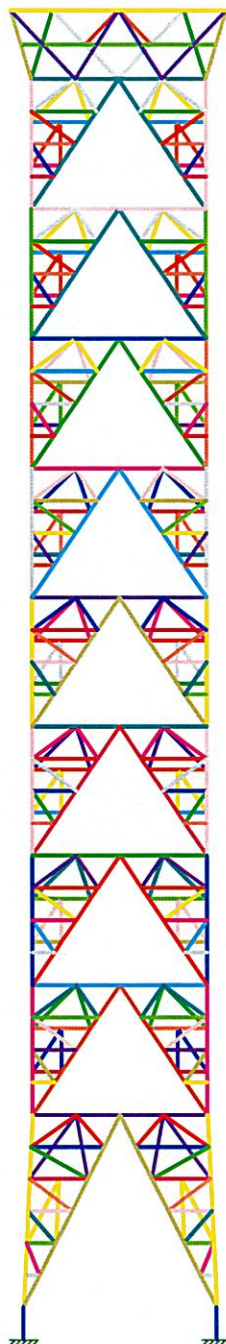


Solution: Envelope

GPD Group
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TAG0053 CHESHIRE

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Section Sets

- na
- TWR_LEG_T1
- TWR_HORZ_IN_T1
- TWR_DIAG_IN_T1
- TWR_RED_HORZ_IN_T1
- TWR_RED_SUB_H_IN_T1
- TWR_RED_SUB_D_IN_T1
- TWR_HORZ_OUT_T1
- TWR_DIAG_OUT_T1
- TWR_DIAG_OUT_KICK_T1
- TWR_RED_HORZ_OUT_T1
- TWR_LEG_T2
- TWR_DIAG_T2
- TWR_RED_HORZ_T2
- TWR_RED_HORZ_2_T2
- TWR_RED_DIAG_T2
- TWR_RED_HORZ_3_T2
- TWR_RED_DIAG_2_T2
- TWR_RED_DIAG_3_T2
- TWR_RED_HIP_HORZ_1_T2
- TWR_RED_HIP_HORZ_2_T2
- TWR_RED_HIP_DIAG_1_T2
- TWR_RED_HIP_DIAG_2_T2
- TWR_INNER_SQUARE_T2
- TWR_INNER_CORNER_T2
- TWR_LEG_T3
- TWR_HORZ_T3
- TWR_DIAG_T3
- TWR_RED_HORZ_T3
- TWR_RED_HORZ_2_T3
- TWR_RED_DIAG_T3
- TWR_RED_HORZ_3_T3
- TWR_RED_DIAG_2_T3
- TWR_RED_DIAG_3_T3
- TWR_RED_HIP_HORZ_1_T3
- TWR_RED_HIP_HORZ_2_T3
- TWR_RED_HIP_DIAG_1_T3
- TWR_RED_HIP_DIAG_2_T3
- TWR_INNER_SUPP_T3
- TWR_INNER_SQUARE_T3
- TWR_INNER_GIRT_T3
- TWR_INNER_TRIANGLE_T3
- TWR_INNER_CORNER_T3
- TWR_INNER_LADDER_T3
- TWR_LEG_T4
- TWR_HORZ_T4
- TWR_DIAG_T4
- TWR_RED_HORZ_T4
- TWR_RED_HORZ_2_T4
- TWR_RED_DIAG_T4
- TWR_RED_HORZ_3_T4
- TWR_RED_DIAG_2_T4
- TWR_RED_DIAG_3_T4
- TWR_RED_HIP_HORZ_1_T4
- TWR_RED_HIP_HORZ_2_T4
- TWR_RED_HIP_DIAG_1_T4
- TWR_RED_HIP_DIAG_2_T4
- TWR_INNER_SUPP_T4
- TWR_INNER_SQUARE_T4
- TWR_INNER_GIRT_T4
- TWR_INNER_TRIANGLE_T4
- TWR_INNER_CORNER_T4
- TWR_INNER_LADDER_T4
- TWR_LEG_T5
- TWR_HORZ_T5
- TWR_DIAG_T5
- TWR_RED_HORZ_T5
- TWR_RED_HORZ_2_T5
- TWR_RED_DIAG_T5
- TWR_RED_HORZ_3_T5
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- TWR_RED_HIP_DIAG_1_T6
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- TWR_INNER_SUPP_T6
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- TWR_INNER_TRIANGLE_T6

More...

Solution: Envelope

GPD Group

awestrum

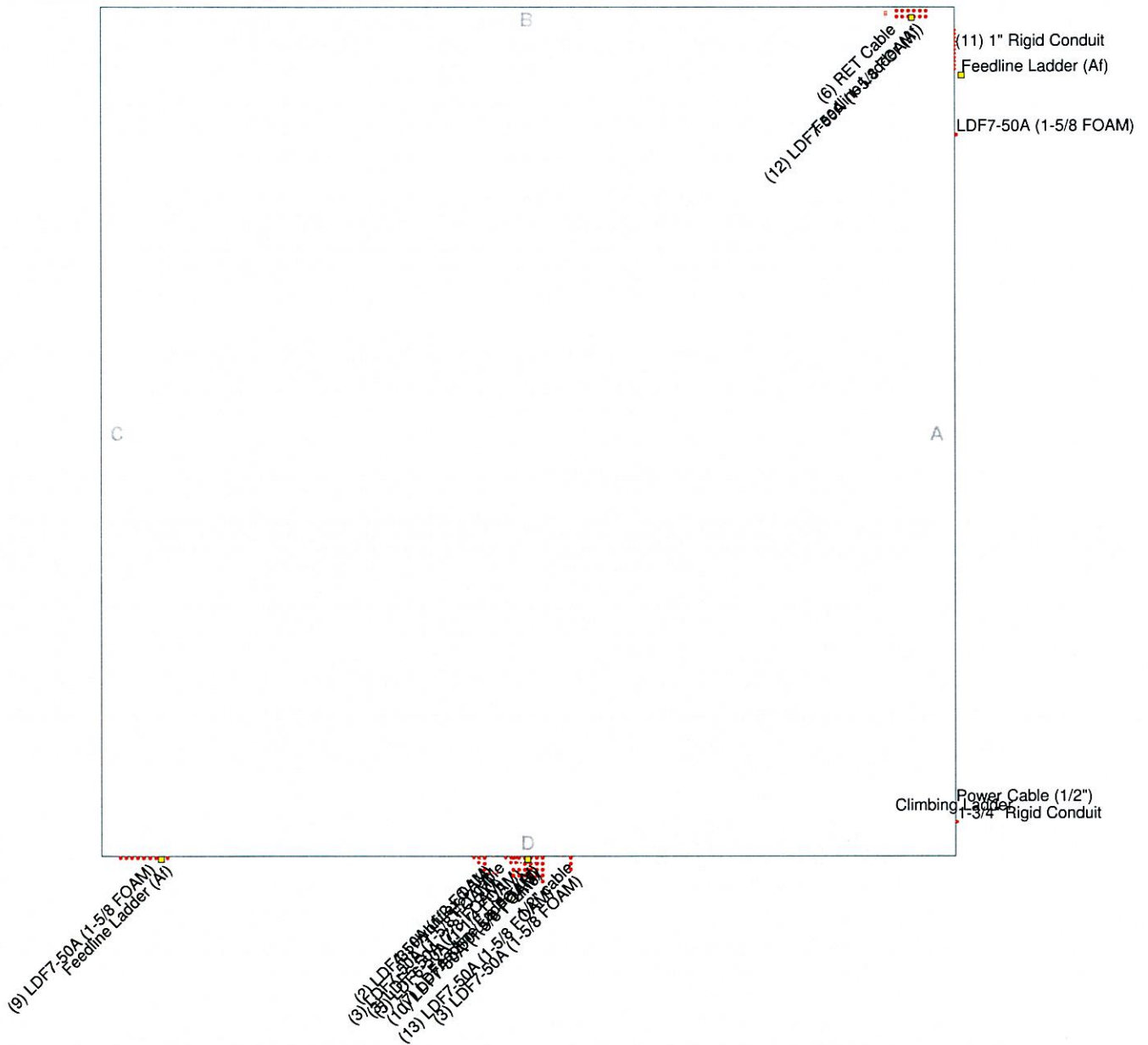
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TAG0053 CHESHIRE

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36'9-31/32"

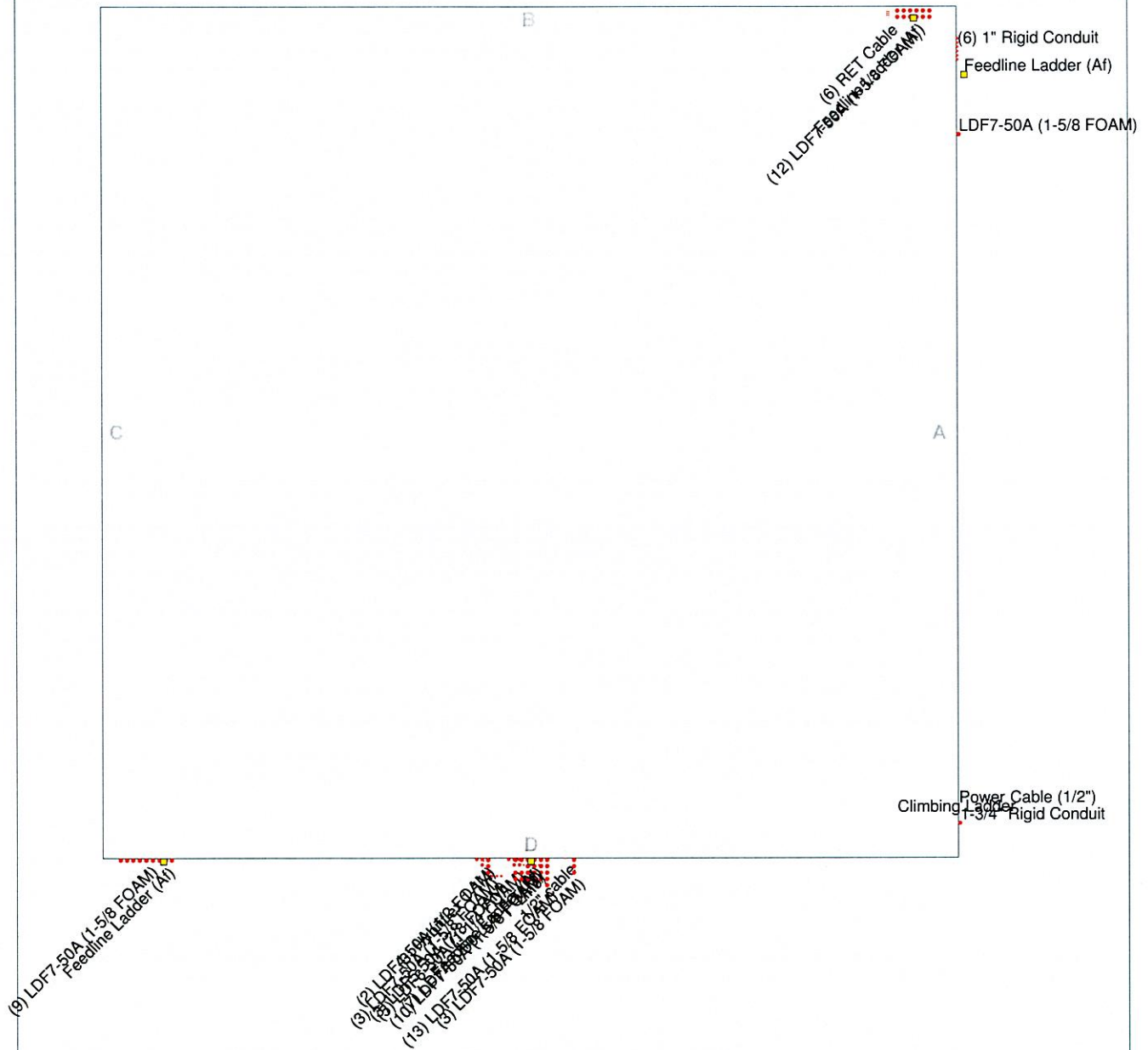
Round

Flat

App In Face

App Out Face

Section @ 36'9-31/32"



Consulting Engineers

GPD Group

520 South Main St

Akron, OH 44311

Phone: (330) 572-2100

FAX: (330) 572-2102

Job: **TAG0053 CHESHIRE**

Project: **2012867.46**

Client: **AT&T Mobility**

Code: **TIA/EIA-222-F**

Path:

Drawn by: **awestrump**

Date: **11/06/12**

App'd:

Scale: **N**

Dwg No.

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61'9-31/32"

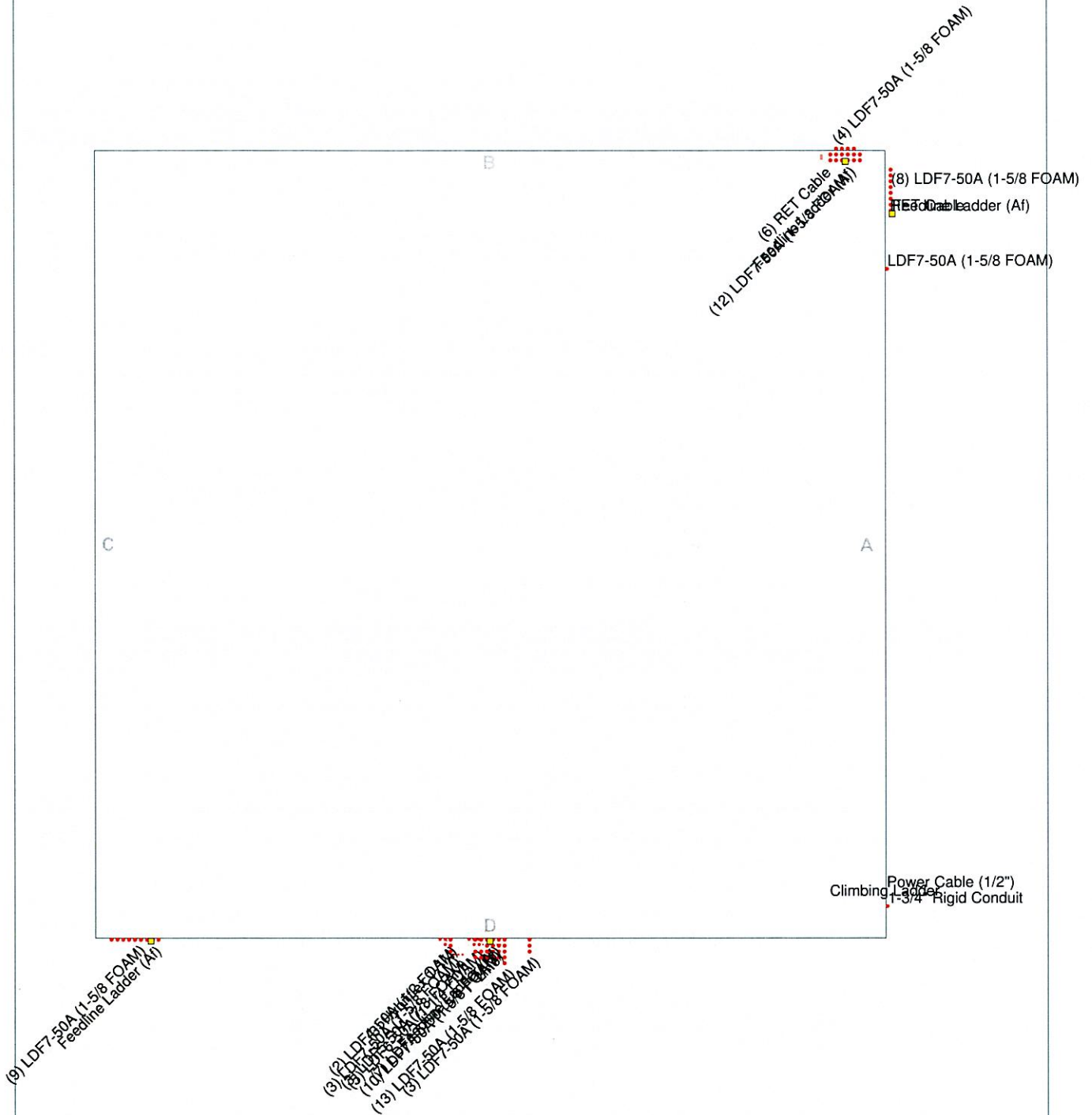
Round

Flat

App In Face

App Out Face

Section @ 61'9-31/32"



Consulting Engineers

GPD Group

520 South Main St
Akron, OH 44311
Phone: (330) 572-2100
FAX: (330) 572-2102

Job: **TAG0053 CHESHIRE**

Project: **2012867.46**

Client: **AT&T Mobility**

Code: **TIA/EIA-222-F**

Path:

Drawn by: **awestrump**

Date: **11/06/12**

App'd:

Scale: **N**

Dwg No.

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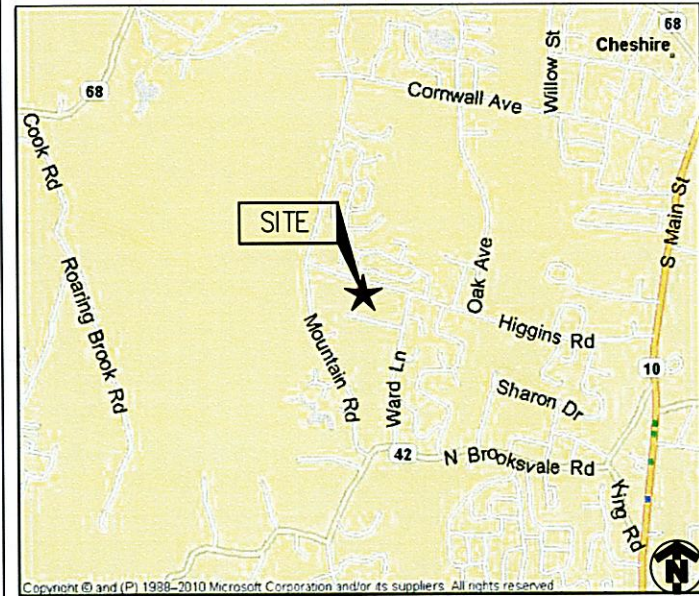
SHEET INDEX	
NO.	DESCRIPTION
T1	TITLE SHEET
AAV1	OVERALL AND ENLARGED SITE PLANS
AAV2	NOTES AND DETAILS
C1	GENERAL NOTES
C2	COMPOUND SITE PLAN
C3	EQUIPMENT SITE PLANS
C4	SITE ELEVATION AND ANTENNA/RRH DETAILS
C5	ANTENNA PLANS
C6	ANTENNA CABLE RISER AND H-FRAME DETAILS
C7	RF AND CABLE DETAILS
C8	JUNCTION BOX DETAILS
C9	CABINET DETAILS
E1	UTILITY SITE PLAN
E2	ONE-LINE DIAGRAMS AND DETAILS
E3	GROUNDING PLAN AND DETAILS

DRIVING DIRECTIONS

DEPART FROM SPRINT:
1 INTERNATIONAL BLVD. MAHWAH, NJ 07495

1. HEAD SOUTH ON INTERNATIONAL BLVD TOWARD AVE OF AMERICAS 0.1 MI 2. TURN RIGHT ONTO PARK LN 197 FT 3. CONTINUE STRAIGHT ONTO LEISURE LN 0.1 MI 4. SLIGHT RIGHT ONTO NJ-17 N 0.3 MI 5. MERGE ONTO I-287 N/NJ-17 N VIA THE RAMP ON THE LEFT TO I-87/N Y. THRUWAY ENTERING NEW YORK 0.6 MI 6. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-87 S/I-287/TAPPAN ZEE BR/NEW YORK CITY/NEW YORK THRUWAY AND MERGE ONTO I-287 E/I-87 N CONTINUE TO FOLLOW I-87 N PARTIAL TOLL ROAD 18.9 MI 7. TAKE EXIT 8A FOR NY-119/SAW MILL PKWY N TOWARD ELMSFORD 0.9 MI 8. KEEP LEFT AT THE FORK AND MERGE ONTO SAW MILL PKWY N 17.9 MI 9. TAKE THE EXIT TOWARD I-684 N 0.7 MI 10. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-684/BREWSTER AND MERGE ONTO I-684 N 10.4 MI 11. TAKE EXIT 9E FOR INTERSTATE 84 E TOWARD DANBURY 0.4 MI 12. MERGE ONTO I-84 E ENTERING CONNECTICUT 10.2 MI 13. SLIGHT RIGHT TO STAY ON I-84 E 30.4 MI 14. TAKE EXIT 26 FOR CT-70 TOWARD CHESHIRE 0.3 MI 15. TURN RIGHT ONTO CT-70 E/WATERBURY RD CONTINUE TO FOLLOW CT-70 E 2.4 MI 16. TURN RIGHT ONTO MOUNTAIN RD 1.8 MI 17. TURN LEFT ONTO HIGGINS RD 0.3 MI

VICINITY MAP



Sprint

NETWORK VISION MMBTS LAUNCH CONNECTICUT MARKET

SITE NAME

CHESHIRE

SITE NUMBER

CT03XC044

SITE ADDRESS

751 HIGGINS ROAD
CHESHIRE, CT 06410

STRUCTURE TYPE

SELF SUPPORT TOWER



UNDERGROUND
SERVICE ALERT
CALL TOLL FREE
1-800-922-4455

THREE WORKING DAYS BEFORE YOU DIG

PROJECT TEAM

 808 AVIATION PARKWAY SUITE 700 MORRISVILLE, NC 27650 PROJECT MANAGER	 11 Herbert Drive Latham, NY 12110 OFFICE #: (518) 690-0790 FAX #: (518) 690-0793 ENGINEER
---	--

SCOPE OF WORK:

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
- FACILITY HAS NO PLUMBING OR REFRIGERANTS
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. CABINETS, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR
- INSTALL NEW ANTENNAS/RRH'S ON EXISTING STRUCTURE
- INSTALL NEW BTS OR RETROFIT EXISTING BTS IN EXISTING EQUIPMENT AREA
- REMOVE EXISTING CDMA ANTENNAS AND COAX CABLES
- SPRINT TO REPLACE EXISTING POWER CABINET WITH NEW SECOND BATTERY CABINET OR INSTALL NEW SECOND BATTERY CABINET IF THERE IS AVAILABLE SPACE IN EXISTING SPRINT LEASE AREA.

PROJECT SUMMARY	
SITE NAME:	CHESHIRE
SITE NO.:	CT03XC044
SITE ADDRESS:	751 HIGGINS ROAD CHESHIRE, CT 06410
COUNTY:	NEW HAVEN
SITE COORDINATES:	
LATITUDE:	N 41° 29' 14.89" (NAD 83)
LONGITUDE:	W 72° 55' 45.62" (NAD 83)
GROUND ELEV.:	±284' (AMSL)
JURISDICTION:	CONNECTICUT SITING COUNCIL
APPLICANT:	SPRINT 1 INTERNATIONAL BLVD. MAHWAH, NJ 07495
PROPERTY OWNER:	AT&T 1950 CENTURY BLVD. ATLANTA, GA 30312
CONSTRUCTION MANAGER:	TODD AMANN 914-715-9363
BUILDING CODE:	2003 INTERNATIONAL BUILDING CODE 2005 CONNECTICUT BUILDING CODE W/ 2009 AMENDMENT
ELECTRICAL CODE:	2005 NATIONAL ELECTRIC CODE

ENGINEER'S LICENSE	
CERTIFICATION STATEMENT: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF CONNECTICUT. LICENSED ENGINEER - STATE OF CONNECTICUT	

APPROVALS	
SPRINT CONST.	DATE
ALU RF	DATE
ALU LEASING/SITE ACQ.	DATE
IN-MARKET CONSTRUCTION LEAD	DATE
SITE OWNER	NAME/COMPANY: TITLE: DATE

A/E Consultant:

infinigy
engineering
11 Herbert Drive
Latham, NY 12110
(518) 690-0790



JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
STATE OF CONNECTICUT

Project Number
286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client:

1 INTERNATIONAL BLVD.
MAHWAH, NJ 07495

Implementation Team:

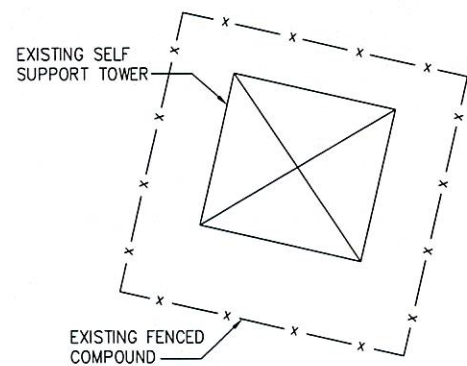
808 AVIATION PARKWAY
SUITE 700
MORRISVILLE, NC 27650

Drawing Scale:
AS NOTED

Date:
12/27/12

Drawing Title
TITLE SHEET

Drawing Number
T1

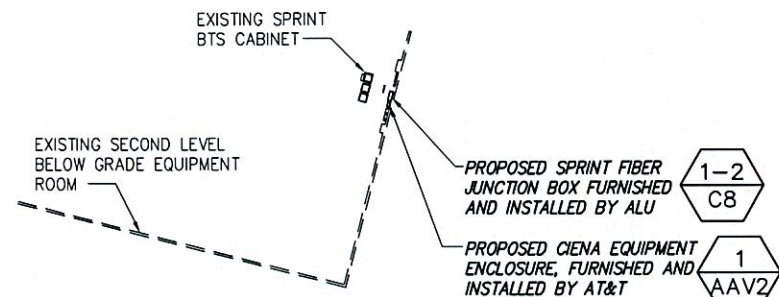


1 OVERALL SITE PLAN
SCALE:

15' 0 15' 30' 60'
(IN FEET)
SCALE: 24"X 36" SHEET 1"= 30'
SCALE: 11"X 17" SHEET 1"= 60'

CALLLED NORTH

BASEMAPPING PREPARED FROM A SITE VISIT PERFORMED BY INFINGY ENGINEERING, AND INFORMATION PROVIDED BY SPRINT, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.



PROPOSED 1-1/4" LIQUID TIGHT CONDUIT FOR TELCO WITH PULL-STRING FROM PROPOSED CIENA EQUIPMENT TO BTS LOCATION, 25'; FURNISHED AND INSTALLED BY SPRINT

PROPOSED 1-1/4" LIQUID TIGHT CONDUIT WITH PULL-STRING FROM PROPOSED JUNCTION BOX TO PROPOSED CIENA EQUIPMENT LOCATION FOR DC POWER, 5'; FURNISHED AND INSTALLED BY SPRINT

PROPOSED 2" ABOVE GROUND EMT CONDUIT ROUTED FROM CORNING BOX IN SBC POP ROOM TO PROPOSED CIENA ENCLOSURE, 75'; FURNISHED AND INSTALLED BY SPRINT, SPRINT TO PROVIDE PULL STRING

2 EQUIPMENT AREA
SCALE:

1' 0 1' 2' 4'
(IN FEET)
SCALE: 24"X 36" SHEET 1"= 2'
SCALE: 11"X 17" SHEET 1"= 4'

CALLLED NORTH



REGISTERED PROFESSIONAL ENGINEER
STATE OF CONNECTICUT
No. 24705
LICENSED

No.	Submission / Revision	App'd	Date
4	FINAL CD's	EXM	12/27/12
3	REVISED PER COMMENTS	EXM	12/11/12
2	REVISED PER COMMENTS	MJB	5/4/12
1	REVISED PER COMMENTS	MJB	4/16/12
0	ISSUED FOR REVIEW	MJB	3/20/12

Drawn: MJB Date: 3/20/12
Designed: EXM Date: 3/20/12
Checked: AAD Date: 3/20/12

Project Number
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CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Implementation Team:



Drawing Scale:
AS NOTED
Date:
12/27/12

Drawing Title

OVERALL & ENLARGED
SITE PLANS

Drawing Number

AAV1

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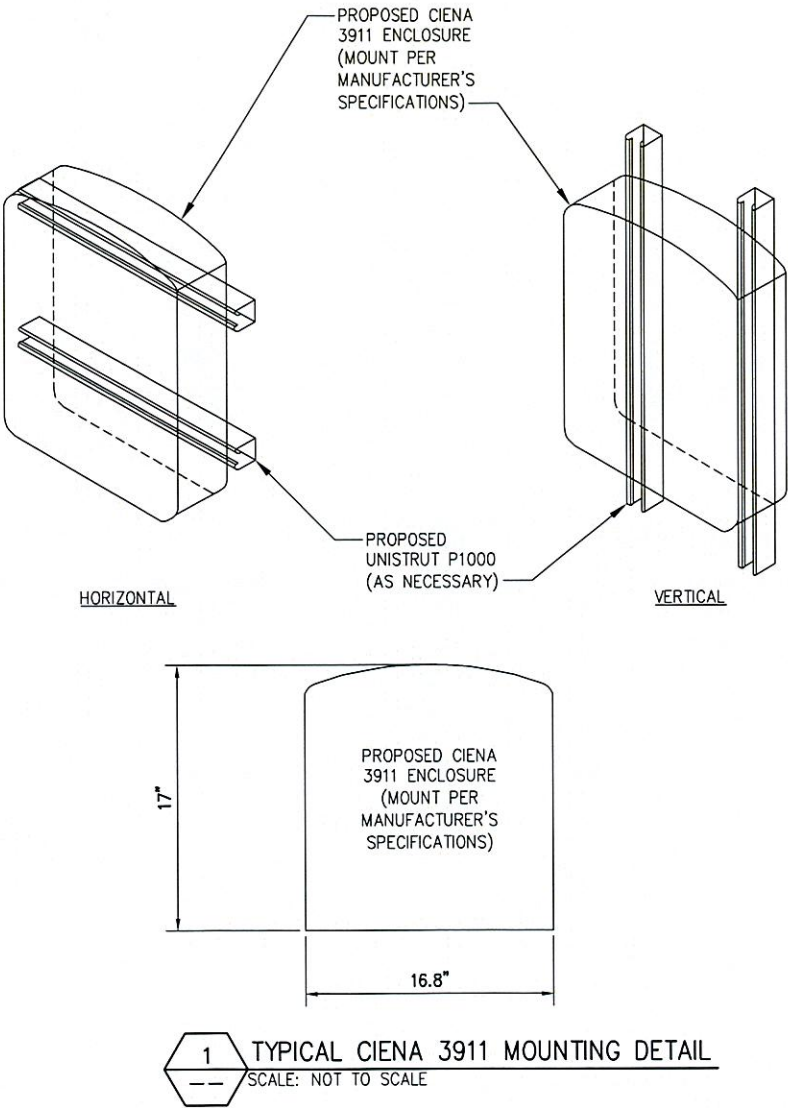
A/E Consultant:

GENERAL NOTES:

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
4. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OF PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDORS SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
7. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
8. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
11. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
13. THE CONTRACTOR SHALL NOTIFY THE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE REPRESENTATIVE.
14. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
15. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD OR VIA A REPRESENTATIVE. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. SEE UNDERGROUND UTILITY COMPANY SHEET T-1 (DIG SAFE, MISS UTILITY, ETC.)
16. IF ASSUMED EXISTING CONDITION DIFFERS, ENGINEER MUST BE INFORMED OF ACTUAL FIELD CONDITION.
17. REFER TO THE SITE PLAN FOR APPROXIMATE LENGTH OF ALL U/G WORK AND LOCATION. FINAL LOCATION TO BE DETERMINED BY CLIENT. ALL MATERIALS TO BE USED AS ACCORDING TO DETAIL INSTRUCTIONS. ALL MATERIALS NOT INCLUDED IN THE DETAILS SHALL BE USED ACCORDING TO CODE AND/OR LOCAL JURISDICTION REGULATIONS INCLUDING MATERIALS, PREPARATION, EXACERBATION, EQUIPMENT AND INSTALLATION FOR UNDERGROUND WORK.
18. CONTRACTOR TO COORDINATE WITH SPRINT & PROVIDE GROUND BOND PER NE-250 & SPRINT STANDARDS FOR CLIENT EQUIPMENT AS REQUIRED.
19. ALL ELECTRICAL SPECIFICATIONS SHALL BE IN STRICT ACCORDANCE TO SECTIONS 16010, 16075, 16110, 16120, 16410 AND 16450 OF THE N.E.C.

ELECTRICAL AND GROUNDING NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AN PROCURED PER SPECIFICATION REQUIREMENTS. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
3. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIREMENT IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS
4. PROVISION OF AC/DC POWER IS UNDER SEPARATE SCOPE OF WORK
5. GROUNDING SHALL COMPLY WITH NEC ART. 250. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION FITTINGS. TEST COMPLETED GROUND SYSTEM AND ENSURE ADEQUACY.
6. CONTRACTOR TO PROVIDE GALV. P1000 UNISTRUT FRAMING AND 3/8" GALV. U-BOLTS/BOLTS AS NECESSARY FOR EXISTING CONDITIONS AND TO VERIFY SPACE IS APPROVED BY ALL NECESSARY PARTIES.



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No.	Submittal / Revision	App'd	Date
4	FINAL CD's	EKM	12/27/12
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0	ISSUED FOR REVIEW	MJB	3/20/12

Drawn: MJB Date: 3/20/12

Designed: EKM Date: 3/20/12

Checked: A.D. Date: 3/20/12

Project Number
286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Sprint

Implementation Team:



Drawing Scale:
AS NOTED

Date:
12/27/12

Drawing Title
NOTES & DETAILS

Drawing Number
AAV2

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

- 1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
 - A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
 - B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
 - C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE - "NEC").
 - D. AND NFPA 101 (LIFE SAFETY CODE).
 - E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
 - F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).
- 1.2 DEFINITIONS:
 - A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
 - B. COMPANY: SPRINT NEXTEL CORPORATION
 - C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
 - D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
 - E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- 1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.
- 1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
 - A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
- 1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
- 1.7 NOTICE TO PROCEED:
 - A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
 - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT NEXTEL WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 - EXECUTION

- 2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST Agency.

- 2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY SPRINT NEXTEL TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.
- 2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.
- 2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT:
CONTRACTOR IS RESPONSIBLE FOR SPRINT NEXTEL PROVIDED MATERIAL AND EQUIPMENT
AND UPON RECEIPT SHALL:
- A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
 - B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
 - C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION
AS REQUIRED IN AGREEMENT.
 - D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER
RECEIPT, REPORT TO SPRINT NEXTEL OR ITS DESIGNATED PROJECT
REPRESENTATIVE OF SUCH.
 - E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
 - F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND
EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE
TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

- 4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- 4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- 4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
 - A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
 - B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- 4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION
- 4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

- 5.1 TESTS AND INSPECTIONS:
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
 - B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
 - C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
 - D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
 - E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
 - F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS. HYBRIFLEX TESTING NOT LIMITED TO COAX SWEEPS.
 - G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

- 6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.
- A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.
 - B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL HANDING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.
 - C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
 - D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.
 - E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.
 - F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOIL SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.
 - G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTling THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

PROJECT INFORMATION

THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT FACILITY AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC WIRELESS COMMUNICATIONS SERVICE.

NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.

NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.

NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.

SPRINT MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

LEGEND

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
	TRANSFORMER
	KILOWATT HOUR METER
	JUNCTION BOX
	PULL BOX TO NEC/TELCO STANDARDS
-----	UNDERGROUND UTILITIES
	DENOTES REFERENCE NOTE
●	EXOTHERMIC WELD CONNECTION
■	MECHANICAL CONNECTION
	GROUND ROD
	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	PIN AND SLEEVE RECEPTACLE
	120AC DUPLEX RECEPTACLE
	GROUND CONDUCTOR
	REPRESENTS DETAIL NUMBER REF. DRAWING NUMBER

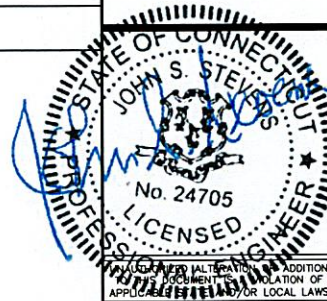
ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TLTNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL
PVC	POLYVINYL CHLORIDE

A/E Consultant:

infinity
engineering

Herbert Drive
ham, NY 12110
(518) 690-0790



4	FINAL CD's	EXM	12/27/11
3	REVISED PER COMMENTS	EXM	12/11/11
2	REVISED PER COMMENTS	MJB	5/4/12
1	REVISED PER COMMENTS	MJB	4/16/11
0	ISSUED FOR REVIEW	MJB	3/20/11
No.	Submission / Revision	App'd	Date

Drawn: WJB Date: 3/20/12
Designed: EKM Date: 3/20/12
Checked: AJD Date: 3/20/12

Project Number 286-024

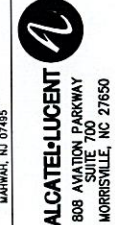
Project Title

CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client

Implementation Team:	
----------------------	--



Drawing Scale:
AS NOTED

Date:
12/27/12

Drawing Title

GENERAL NOTES

Drawing Number

C1

EXISTING SPRINT BTS TO BE
RETROFITTED OR REPLACED
(CONTRACTOR TO VERIFY)

EXISTING SPRINT
BTS CABINET

EXISTING SPRINT
BATTERY CABINET

EXISTING SPRINT
BATTERY CABINET

EXISTING
VERTICAL
CABLE TRAY

EXISTING
BUILDING
WALL FACE

EXISTING METER

PROPOSED SPRINT FIBER
JUNCTION BOX FURNISHED
AND INSTALLED BY ALU

PROPOSED CIENA EQUIPMENT
ENCLOSURE, FURNISHED AND
INSTALLED BY AT&T

EXISTING SPRINT
PPC FRAME

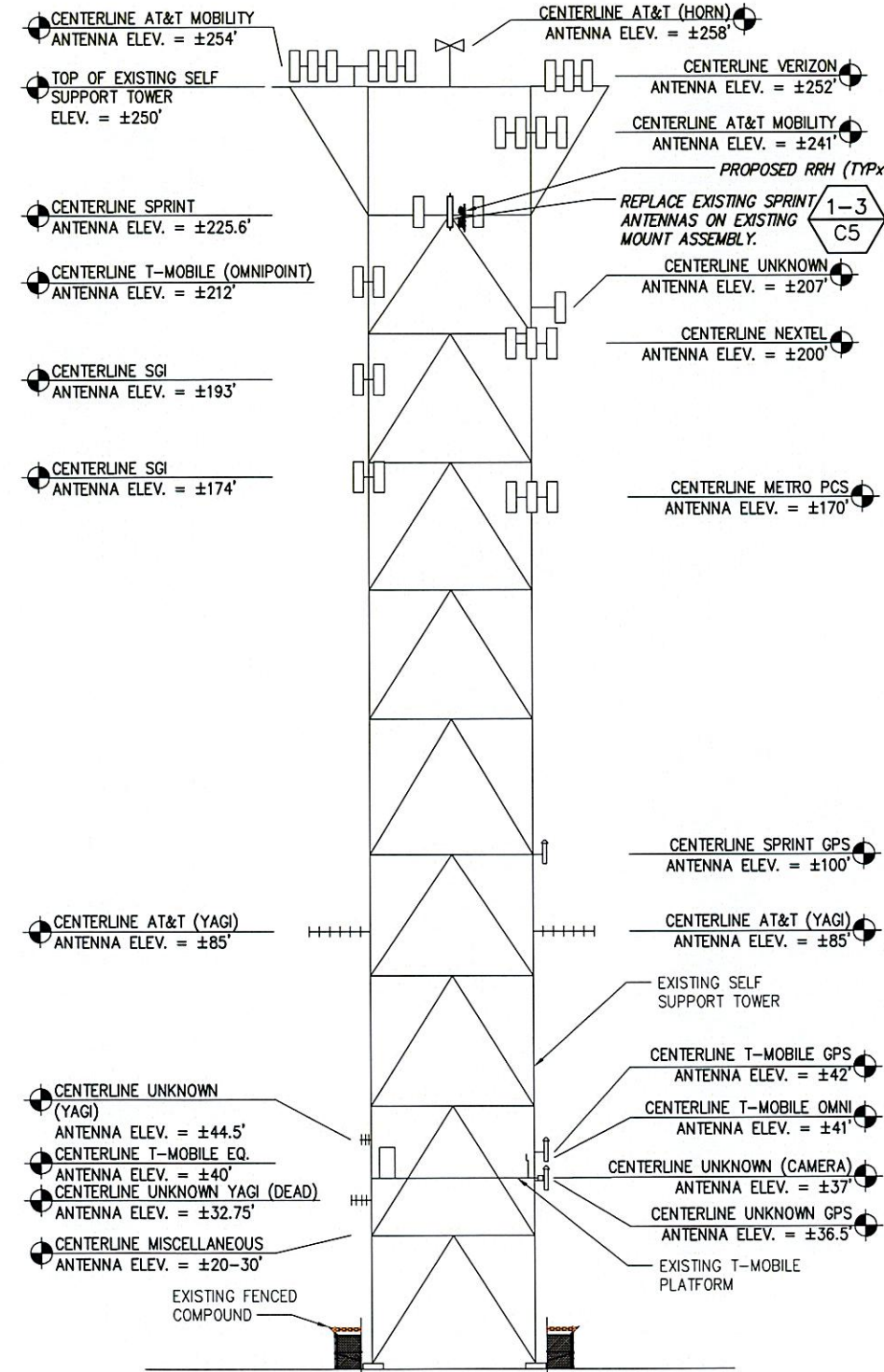


1 COMPOUND SITE PLAN
SCALE:

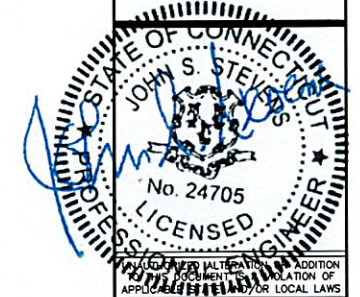
1' 0' 1' 2' 4'
(IN FEET)
SCALE: 24" X 36" SHEET 1" = 2'
SCALE: 11" X 17" SHEET 1" = 4'

STRUCTURAL ANALYSIS COMPLETED BY GPD GROUP
FOR ADDITIONAL INFORMATION, SEE REPORT TITLED:
CHESHIRE, SITE FA: 10136365, DATED: NOVEMBER 6,
2012.

INFORMATION CONTAINED WITHIN DRAWINGS
ARE BASED ON PROVIDED INFORMATION.



2 SITE ELEVATION
NOT TO SCALE



No.	Submit / Revision	App'd	Date
4	FINAL CD's	EXM	12/27/12
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0	ISSUED FOR REVIEW	MJB	3/20/12

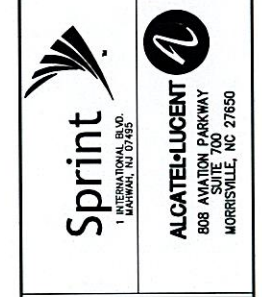
Drawn: MJB Date: 3/20/12
Designed: EXM Date: 3/20/12
Checked: A.D. Date: 3/20/12

Project Number
288-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Implementation Team:

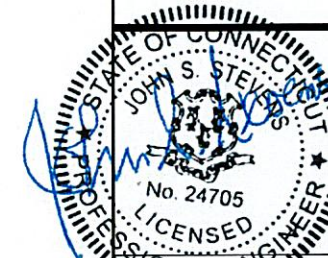
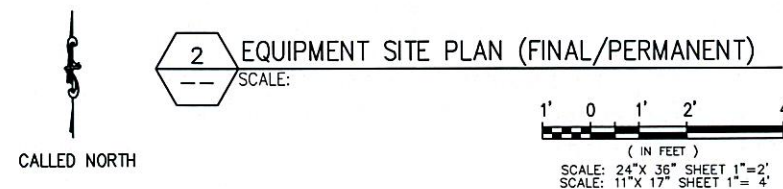
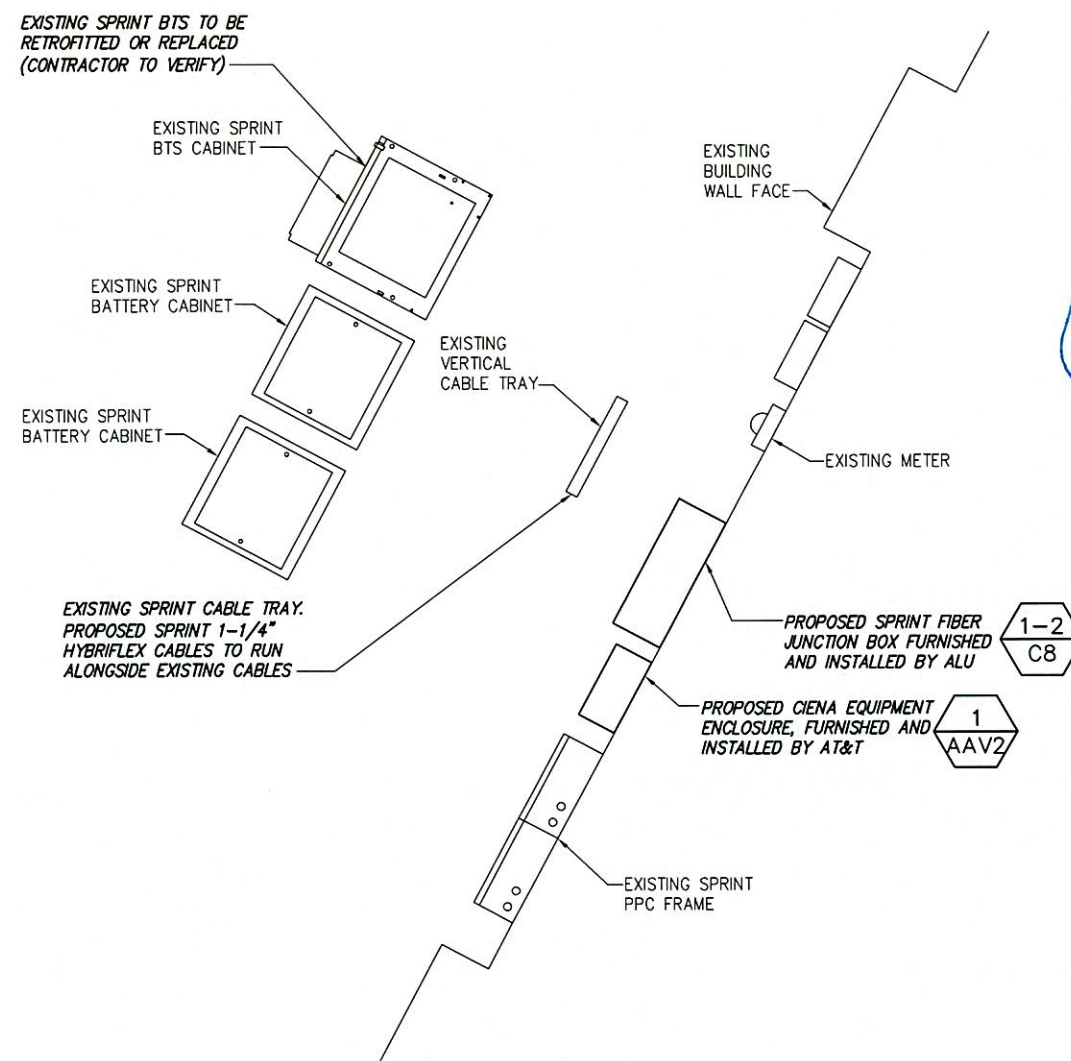
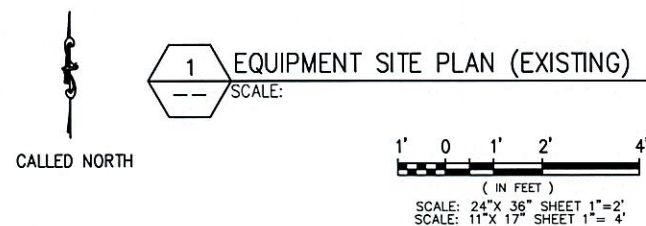
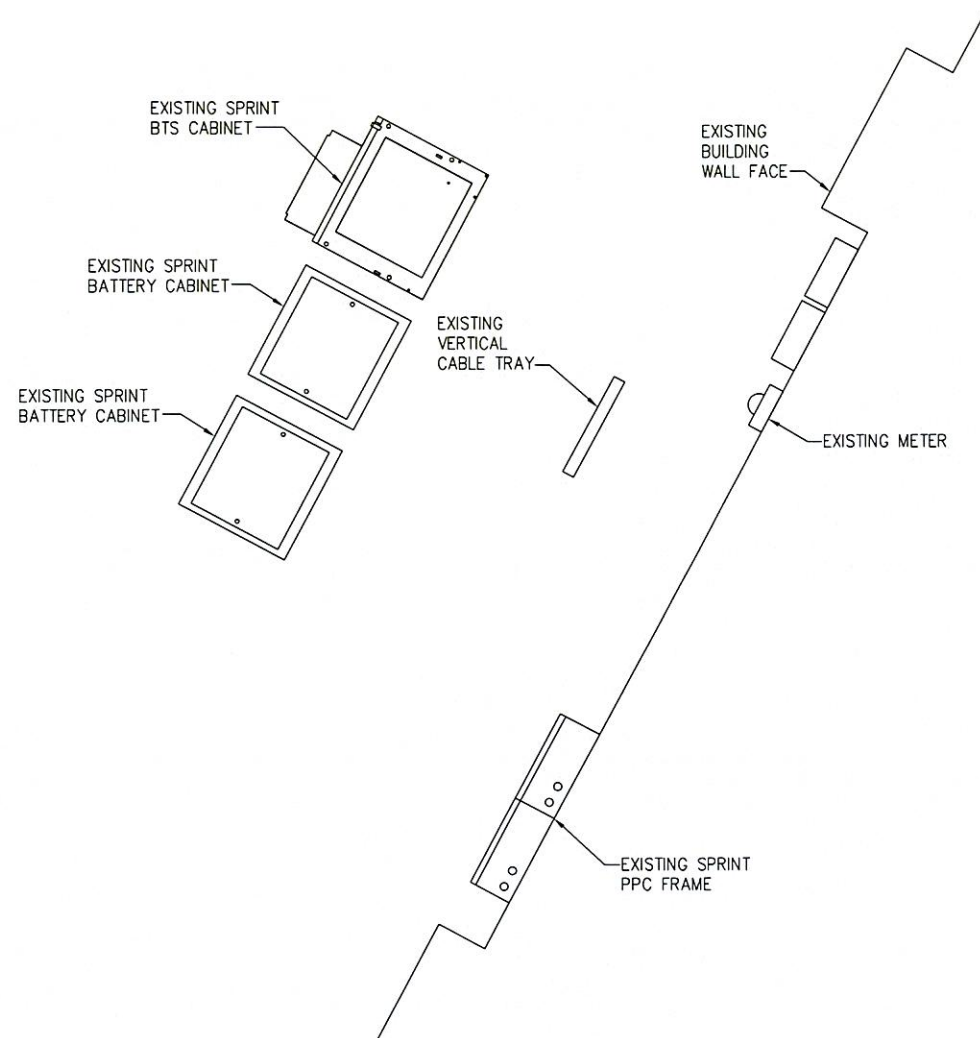


Drawing Scale:
AS NOTED
Date:
12/27/12

Drawing Title
COMPOUND
SITE PLAN

Drawing Number
C2

A/E Consultant:
infinity
engineering
11 Herbert Drive
Latham, NY 12110
(518) 680-0790



IN ADDITION TO ANY OTHER REQUIREMENTS, THE DESIGN SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL LAWS.

No.	Submittal / Revision	App'd	Date
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0	ISSUED FOR REVIEW	MJB	3/20/12

Drawn: MJB Date: 3/20/12
 Designed: EXM Date: 3/20/12
 Checked: AJD Date: 3/20/12

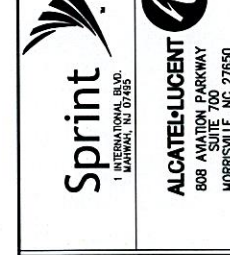
Project Number
 286-024

Project Title
 CT03XC044
 CHESHIRE

751 HIGGINS ROAD
 CHESHIRE, CT 06410

Client:

Implementation Team:



Drawing Scale:
 AS NOTED

Date:
 12/27/12

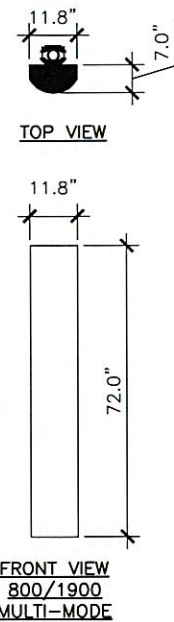
Drawing Title

**EQUIPMENT
 SITE PLANS**

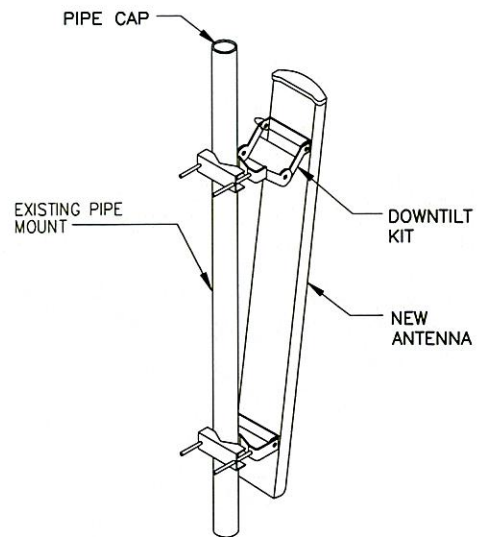
Drawing Number

C3

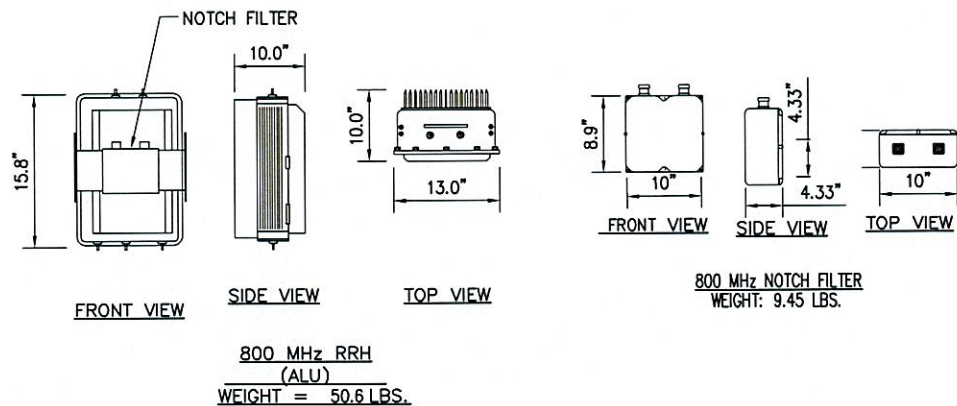
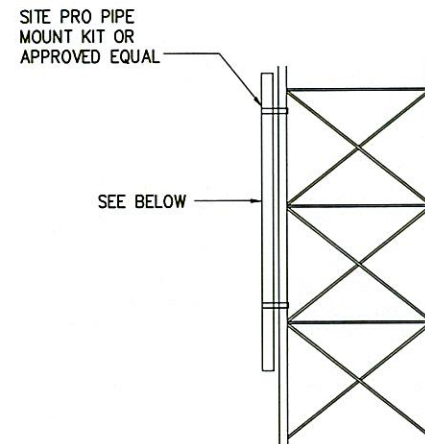
A/E Consultant:
infinity
 engineering
 11 Herbert Drive
 Latham, NY 12110
 (518) 690-0790



1 ANTENNA DETAILS
-- NOT TO SCALE

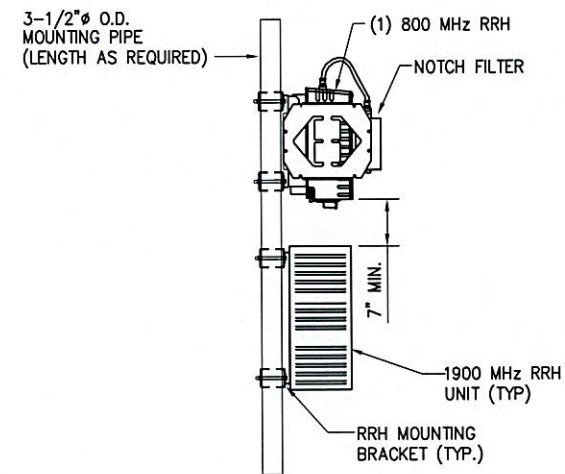


3 PANEL ANTENNA MOUNT DETAIL
-- NOT TO SCALE



2 RRH EQUIPMENT DETAILS
-- NOT TO SCALE

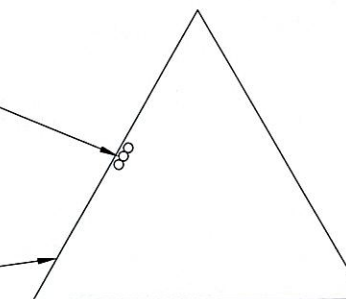
NOTE:
REFER TO R.F. SYSTEM SCHEDULE FOR EXACT RRH SPECIFICATIONS AND QUANTITIES.



4 RRH MOUNTING DETAIL (TYP.)
-- NOT TO SCALE

(3) PROPOSED HYBRIFLEX 1-1/4" COAX

EXISTING GUY TOWER



5 COAX ROUTING DETAIL
-- NOT TO SCALE

NOTE:
1. SUBCONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.



STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER

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Project Number
286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Sprint
Implementation Team: ALCATEL-LUCENT

1 INTERNATIONAL BLVD.
1 BAYVIEW, NJ 07495

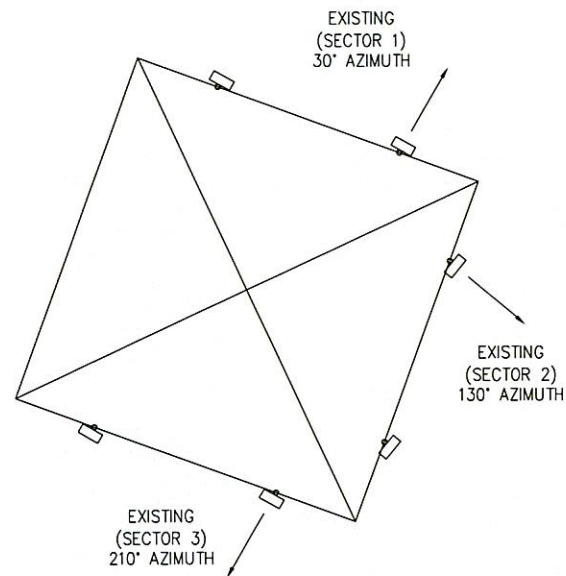
808 AVIATION PARKWAY
SUITE 700
MORRISVILLE, NC 27650

Drawing Scale:
AS NOTED

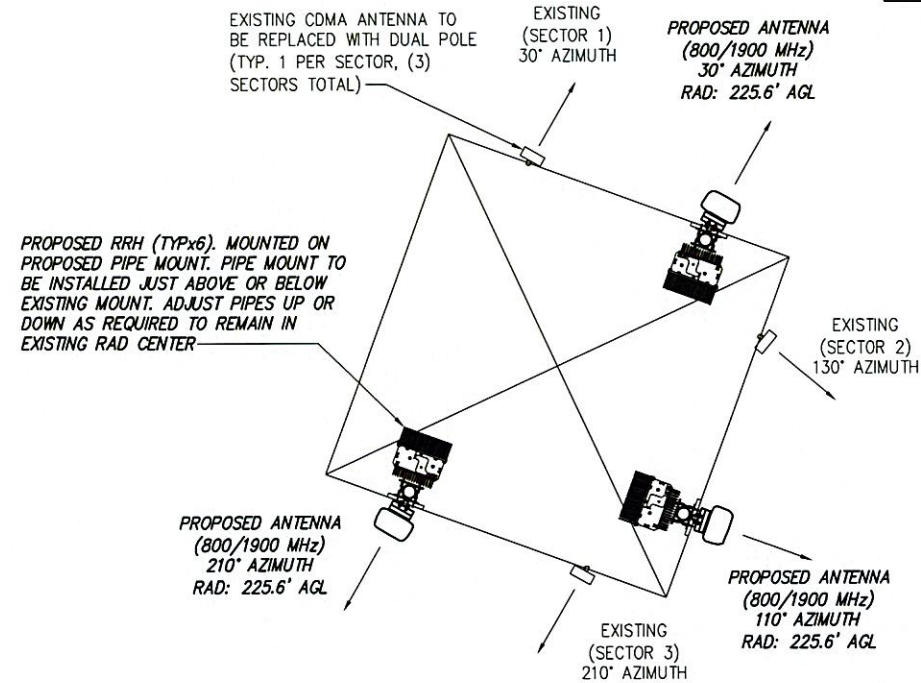
Date:
12/27/12

Drawing Title
SITE ELEVATION & ANTENNA/RRH DETAILS

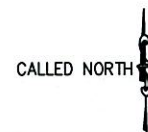
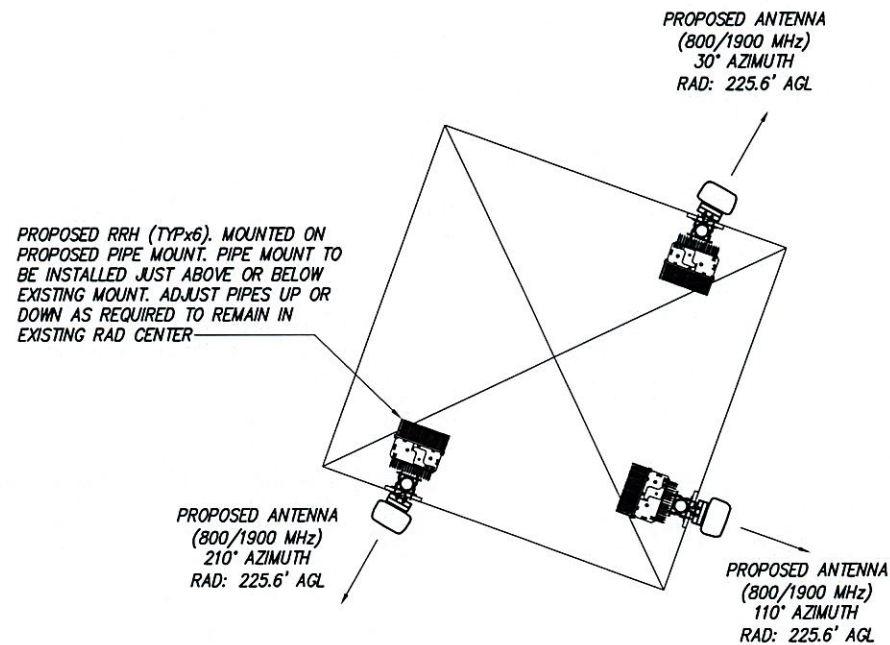
Drawing Number
C4



1 ANTENNA CONFIGURATION (EXISTING)
NOT TO SCALE



2 ANTENNA CONFIGURATION (INTERIM/TEMPORARY)
NOT TO SCALE



3 ANTENNA CONFIGURATION (FINAL/PERMANENT)
NOT TO SCALE

NOTE:
REQUIRED PIPE MOUNTS TO BE SUPPLIED BY
CONTRACTOR.

NOTES:
EXISTING RF DATA PROVIDED BY SPRINT SITERRA,
SPRINT SPECTRUM L.P. DRAWINGS, TITLED AT&T -
CHESHIRE, DATED MAY 1997.

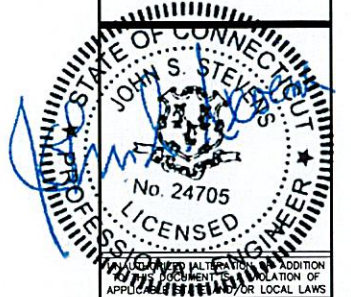
RRH NOTES:
- SEE PAGE C4 FOR RRH MOUNTING INFORMATION
(TYP. ALL SECTORS).
- REFER TO RF SCHEDULE ON SHEET C7 FOR RRH
UNIT SPECS AND QUANTITIES.

GENERAL NOTES:

1. NEW SPRINT PANEL ANTENNAS TO MEET RF DESIGN REQUIREMENTS PER EBTS, PER APPROVED STRUCTURAL ANALYSIS.
2. CONTRACTOR TO PROVIDE EXISTING ANTENNA VERIFICATION AND TO INCLUDE MOUNTING HEIGHT, RAD CENTER, TOP AND BOTTOM OF ANTENNA AND AZIMUTHS FOR ALL ANTENNAS.
3. CONTRACTOR SHALL VERIFY NEW PARTS BEFORE ORDERING.
4. REFER TO SHEET C7 FOR ANTENNAS SPECS.
5. CONTRACTOR TO USE PROPER TORQUE WHEN INSTALLING AND TIGHTENING CONNECTORS TO INSURE PROPER FIT.
6. ALL HYBRID CABLES SHALL BE MARKED WITHIN 24" OF THE END OF EACH CABLE WITH 2" WIDE VINYL TAPE. THIS INCLUDES ALL JUMPERS AND MAIN LINE HYBRID CABLE.
7. CDMA ANTENNAS SHALL NOT BE REMOVED UNTIL ALL NEW MULTI-MODE ANTENNAS ARE INSTALLED AND ON-AIR.

A/E Consultant:

infinigy
engineering
11 Herbert Drive
Latham, NY 12110
(518) 690-0790



PROFESSIONAL ENGINEER
STATE OF CONNECTICUT
No. 24705
LICENSED

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Project Number
286-024

Project Title

CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Implementation Team:



Drawing Scale:
AS NOTED

Date:
12/27/12

Drawing Title

**ANTENNA
PLANS**

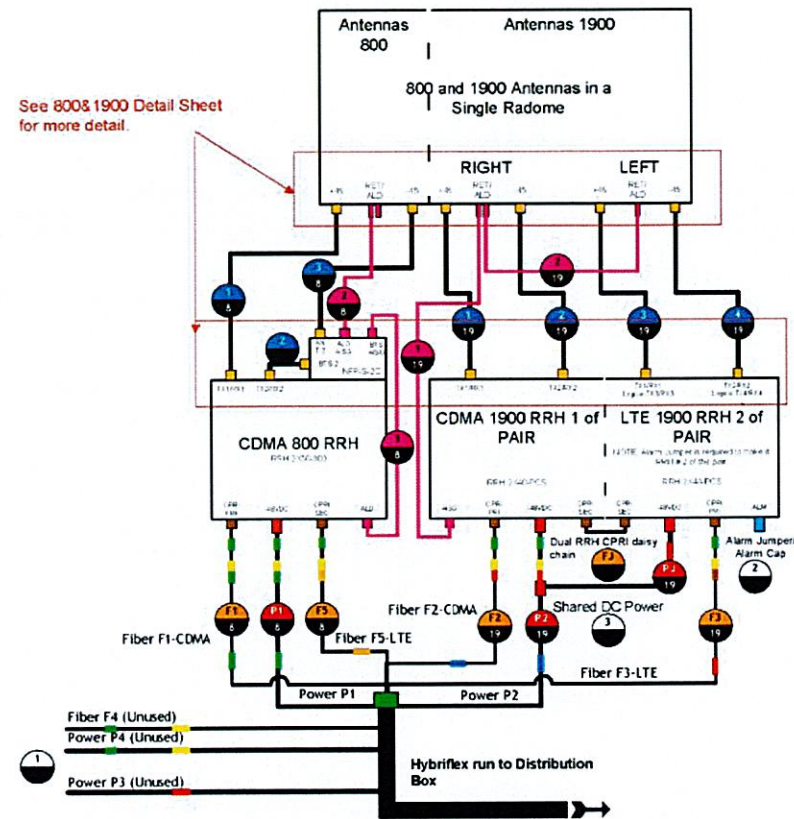
Drawing Number

C5

TOWER TOP SCENARIO 2

800 AND SINGLE 1900 RRH PAIR WITH SINGLE 800/1900 RADOME ANTENNA

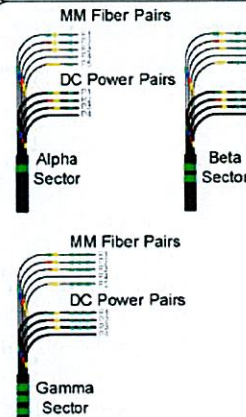
See 800/1900 Detail Sheet for more detail.



Power Feed Polarity Definition:
Black= -48VDC Feed (Battery)
Black/White Stripe= Return

NOTE: For power feed use the same Hybriflex OEM color designator as the fiber.
MM Pair 1= F1= Green= P1(Green)
MM Pair 2= F2= Blue= P2(Blue)
MM Pair 3= F3= Red= P3(Red)
MM Pair 4= F4= Yellow= P4(Yellow)
MM Pair 5= F5= Orange= P5(Orange) (No P5 power feed)

OEM COLOR CODE HYBRIFLEX



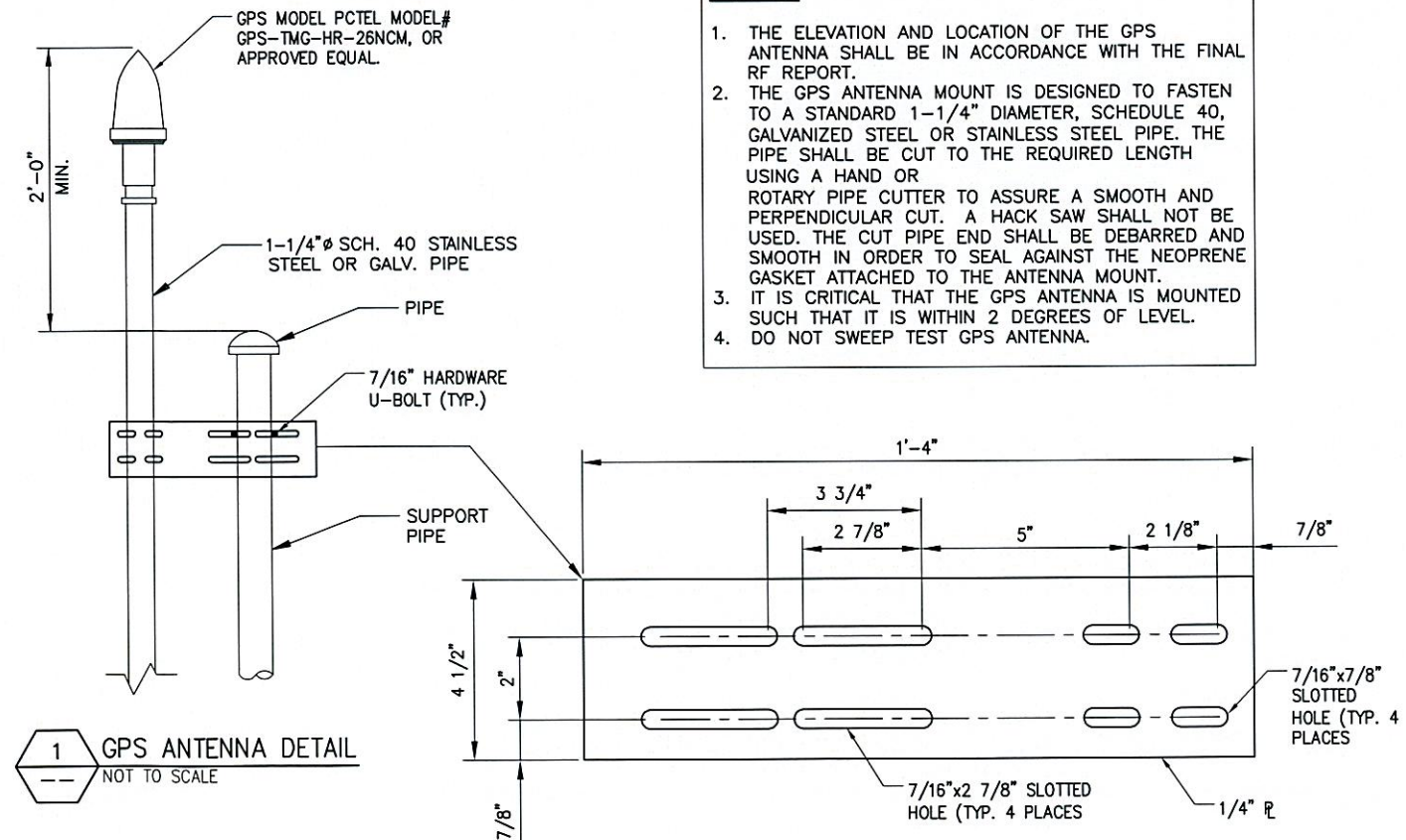
DRAWING LEGEND
AISC
COAX
FIBER
POWER
NOTES
FREQ
SEE CONNECTION LEGEND FOR MORE DETAILS

NOTES:
CONTRACTOR TO FIELD VERIFY GPS LOCATION.

GPS MINIMUM SKY VIEW REQUIREMENTS

NOTES:

1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBARRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
3. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF LEVEL.
4. DO NOT SWEEP TEST GPS ANTENNA.



INSTALLER VERIFY LATEST PLUMBING/WIRING DIAGRAMS, PRIOR TO INSTALLATION.

PLUMBING DIAGRAM VERSION 1.9

WEATHERPROOFING CONNECTORS AND GROUND KITS NOTE:

- A. ALL CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED USING BUTYL RUBBER WEATHERPROOFING AND TAPE, THIS INSTALLATION MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION OR PER THE FOLLOWING INSTRUCTIONS (WHICHEVER IS GREATER):
1. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE ENCOMPASSED INTO COLD SHRINK AND COMPLETELY WRAPPED WITH 2 IN. WIDE ELECTRICAL TAPE OVERLAPPING EACH ROW BY APPROXIMATELY 1/2" AND EXTENDING PAST THE CONNECTION BY TWO INCHES AS DISCUSSED BELOW; OR
 2. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE WRAPPED WITH LAYERS OF ELECTRICAL/BUTYL RUBBER/ELECTRICAL TAPE AS DISCUSSED BELOW; OR
 3. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE WRAPPED WITH TWO LAYERS OF 1.5 INCH WIDE SELF-AMALGAMATING TAPE COVERED WITH TWO LAYERS OF ELECTRICAL TAPE.

RRH JUMPERS NOTES:

1. FOR DISTANCES BETWEEN RRH'S AND ANTENNAS LESS THAN 10'-0" USE A 1/2" JUMPER.
2. FOR DISTANCES BETWEEN RRH'S AND ANTENNAS GREATER THAN 10'-0" USE A 7/8" JUMPER.

A/E Consultant:

infinity
engineering
11 Herbert Drive
Latham, NY 12110
(518) 880-0790



REGISTERED PROFESSIONAL ENGINEER
IN THE STATE OF CONNECTICUT
APPROVED FOR LOCAL LAWS

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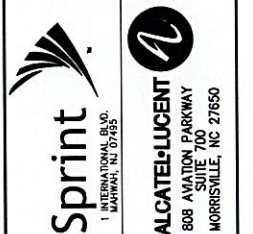
Drawn: MJB Date: 3/20/12
Designed: EXM Date: 3/20/12
Checked: AJD Date: 3/20/12

Project Number
286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Implementation Team:



Drawing Scale:
AS NOTED
Date:
12/27/12

Drawing Title
**ANTENNA
CABLE RISER
AND H-FRAME
DETAILS**

Drawing Number

C6

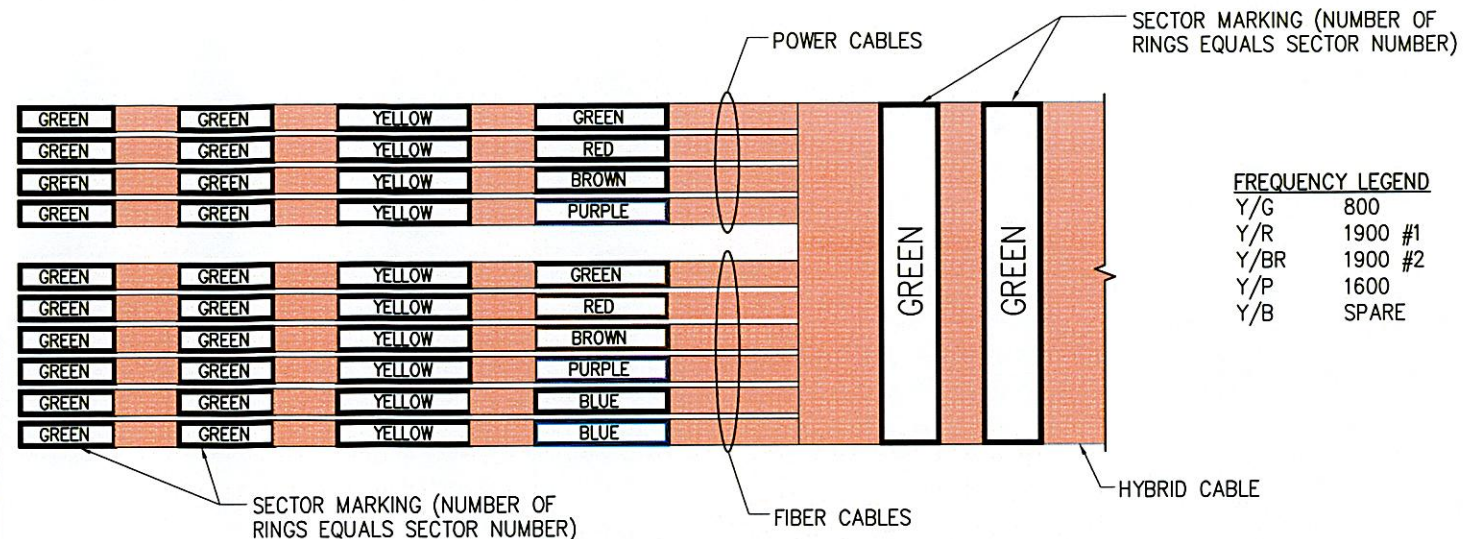
Market Southern Connecticut				
Cascade ID CT03XC044				
	SECTOR 1	SECTOR 2	SECTOR 3	
Split sector present	No	No	No	
1900MHz_Azimuth	30	110	210	
1900MHz_No_of_Antennas	1	1	1	
1900MHz_RADCenter(ft)	225.6	225.6	225.6	
1900MHz_Antenna_Make	RFS	RFS	RFS	
1900MHz_Antenna_Model	APXVSP18-C-A20	APXVSP18-C-A20	APXVSP18-C-A20	
1900MHz_Horizontal_Beamwidth	65	65	65	
1900MHz_Vertical_Beamwidth	5.5	5.5	5.5	
1900MHz_AntennaHeight(ft)	6	6	6	
1900MHz_AntennaGain(dBd)	15.9	15.9	15.9	
1900MHz_E_Tilt	-6	-2	-1	
1900MHz_M_Tilt	0	0	0	
1900MHz_Carrier_Forecast_Year_2013	3	3	3	
1900MHz_RRH_Manufacturer	ALU	ALU	ALU	
1900MHz_RRH_Model	RRH 1900 4X45 65MHz	RRH 1900 4X45 65MHz	RRH 1900 4X45 65MHz	
1900MHz_RRH_Count	1	1	1	
1900MHz_RRH_Location	Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower	
1900MHz_Combiner_Model	No Combiner Required	No Combiner Required	No Combiner Required	
1900MHz_Top_Jumper #1_Length (RRH or Combiner-to-Antenna for TT or Main Coax to	10	10	10	
1900MHz_Top_Jumper #1_Cable_Model (RRH or Combiner-to-Antenna for TT or Main Coax	LCF12-50J	LCF12-50J	LCF12-50J	
1900MHz_Top_Jumper #2_Length (RRH to Combiner for TT if applicable, ft)	N/A	N/A	N/A	
1900MHz_Top_Jumper #2_Cable_Model (RRH to Combiner for TT if applicable)	N/A	N/A	N/A	
1900MHz_Main_Coax_Cable_Length (ft)	N/A	N/A	N/A	
1900MHz_Main_Coax_Cable_Model	N/A	N/A	N/A	
1900MHz_Bottom_Jumper #1_Length (Ground based RRH to Combiner-OR-Main Coax, ft)	N/A	N/A	N/A	
1900MHz_Bottom_Jumper #1_Cable_Model (Ground based RRH to Combiner-OR-Main Coax)	N/A	N/A	N/A	
1900MHz_Bottom_Jumper #2_Length (Ground based-Combiner to Main Coax, ft)	N/A	N/A	N/A	
1900MHz_Bottom_Jumper #2_Cable_Model (Ground based-Combiner to Main Coax)	N/A	N/A	N/A	
800MHz_Azimuth	30	110	210	
800MHz_No_of_Antennas	0	0	0	
800MHz_RADCenter(ft)	225.6	225.6	225.6	
800MHz_AntennaMake	RFS	RFS	RFS	
800MHz_AntennaModel	APXVSP18-C-A20 (Shared w/1900)	APXVSP18-C-A20 (Shared w/1900)	APXVSP18-C-A20 (Shared w/1900)	
800MHz_Horizontal_Beamwidth	65	65	65	
800MHz_Vertical_Beamwidth	11.5	11.5	11.5	
800MHz_AntennaHeight (ft)	6	6	6	
800MHz_AntennaGain (dBd)	13.4	13.4	13.4	
800MHz_E_Tilt	-8	-4	-2	
800MHz_M_Tilt	0	0	0	
800MHz_RRH_Manufacturer	ALU	ALU	ALU	
800MHz_RRH_Model	RRH 800 MHz 2x50W	RRH 800 MHz 2x50W	RRH 800 MHz 2x50W	
800MHz_RRH_Count	1	1	1	
800MHz_RRH_Location	Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower	
800_Top_Jumper #1_Length (RRH to Antenna for TT or Main Coax to Antenna for GM)	10	10	10	
800_Top_Jumper_Cable_Model (RRH to Antenna for TT or Main Coax to Antenna for GM)	LCF12-50J	LCF12-50J	LCF12-50J	
800MHz_Main_Coax_Cable_Length (ft)	N/A	N/A	N/A	
800MHz_Main_Coax_Cable_Model	N/A	N/A	N/A	
800_Bottom_Jumper #1_Length (Ground based RRH to Main Coax)	N/A	N/A	N/A	
800_Bottom_Jumper #1_Cable_Model (Ground based RRH to Main Coax)	N/A	N/A	N/A	
Plumbing Scenario *	124	124	124	

Comments: * If plumbing scenario does not match the material received, please contact your Construction Manager
11/9/2012

1 SPRINT RFDS
NOT TO SCALE

NOTE:
COORDINATE RF ANTENNA INSTALLATION WITH FINAL SPRINT RFDS. COORDINATE RF MW DISH (IF APPLICABLE) INSTALLATION WITH FINAL SPRINT RFDS.

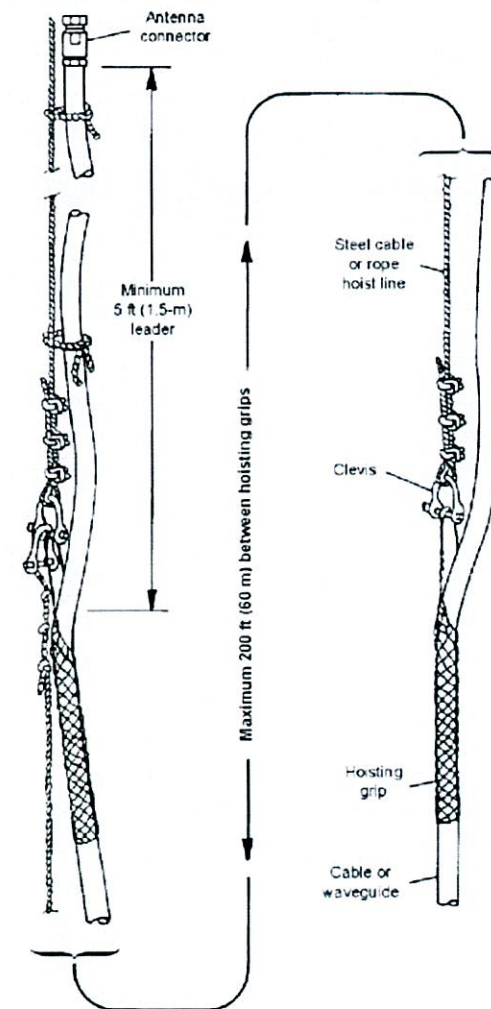
NOTE:
RFDS SHOWN PROVIDED BY SPRINT DATED 11/09/12.



HYBRID CABLE WILL BE MARKED IN A SIMILAR MANNER AS COAX CABLES. THE MAIN TRUNK OF THE HYBRID CABLE IS TO BE MARKED WITH THE SECTOR MARKINGS ONLY. THE INDIVIDUAL POWER PAIRS AND FIBER CABLES WILL BE LABELED WITH BOTH THE SECTOR CABLE MARKINGS AND FREQUENCY (EXAMPLE ABOVE IS FOR SECTOR 2)

2 COLOR CODING
NOT TO SCALE

- DO NOT USE ONE HOISTING GRIP FOR HOISTING TWO OR MORE CABLES OR WAVEGUIDES. THIS CAN CAUSE THE HOISTING GRIP TO BREAK OR THE CABLES OR WAVEGUIDES TO FALL.
- DO NOT USE THE HOISTING GRIP FOR LOWERING CABLE OR WAVEGUIDE. SNAGGING OF THE CABLE OR WAVEGUIDE MAY LOOSEN THE GRIP AND POSSIBLY CAUSE THE CABLE TO WAVEGUIDE TO SWAY OR FALL.
- DO NOT REUSE HOISTING GRIPS. USED GRIPS MAY HAVE LOST ELASTICITY, STRETCHED, OR BECOME WEAKENED. REUSING A GRIP CAN CAUSE THE CABLE OR WAVEGUIDE TO SLIP, BREAK, OR FALL.
- USE HOISTING GRIPS AT INTERVALS OF NO MORE THAN 200 FT (60 M).
- MAKE SURE THAT THE PROPER HOISTING GRIP IS USED FOR THE CABLE OR WAVEGUIDE BEING INSTALLED. SUPPAGE OR INSUFFICIENT GRIPPING STRENGTH WILL RESULT IF YOU ARE USING THE WRONG HOISTING GRIP.



3 HOIST GRIP DETAIL
NOT TO SCALE

FREQUENCY LEGEND
Y/G 800
Y/R 1900 #1
Y/BR 1900 #2
Y/P 1600
Y/B SPARE



APPROVED FOR ALTERNATE ADDITION
OF THIS DOCUMENT FOR APPLICATION OF
APPLICABLE STATE OR LOCAL LAWS

4	FINAL CO's	EXM	12/27/12
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Checked: AJO Date: 3/20/12

Project Number 286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Sprint

Implementation Team:
ALCATEL-LUCENT
808 AVIATION PARKWAY
SUITE 700
MORRISVILLE, NC 27650

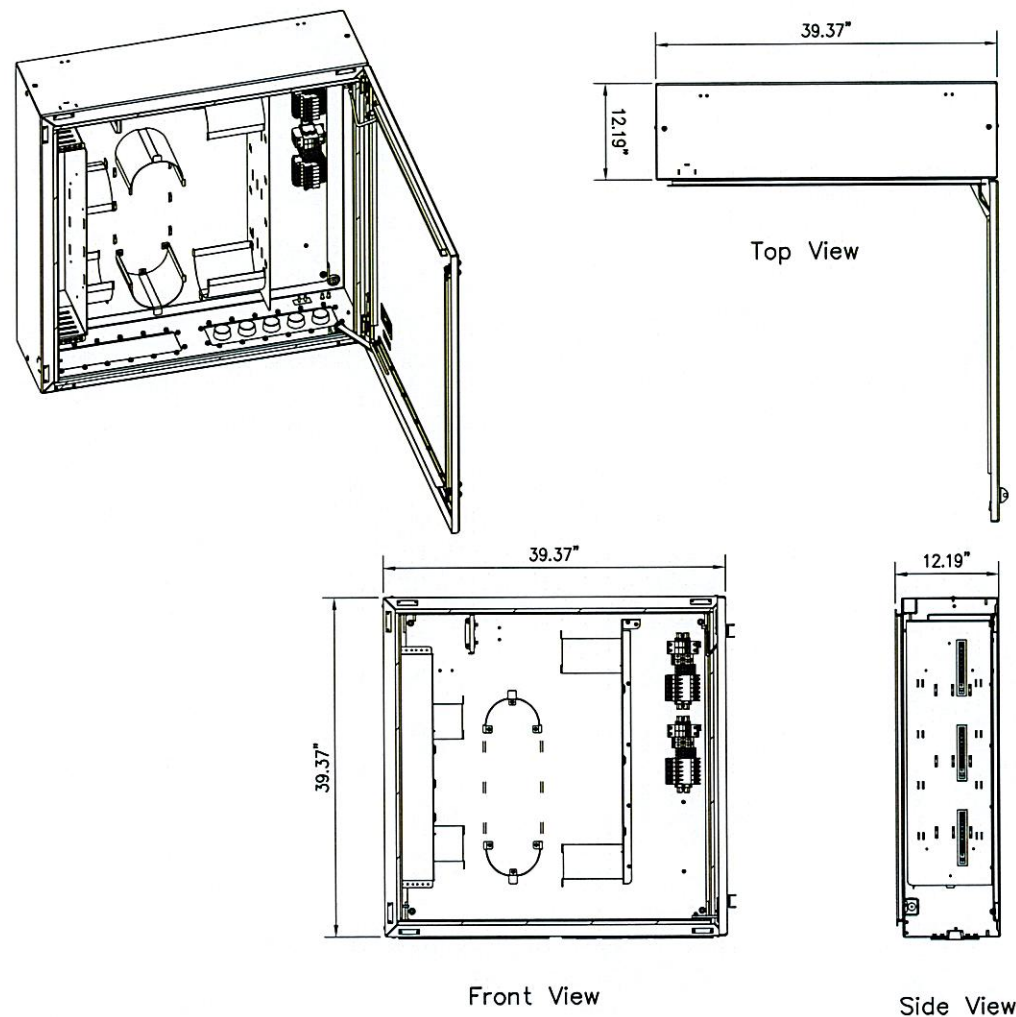
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Date:
12/27/12

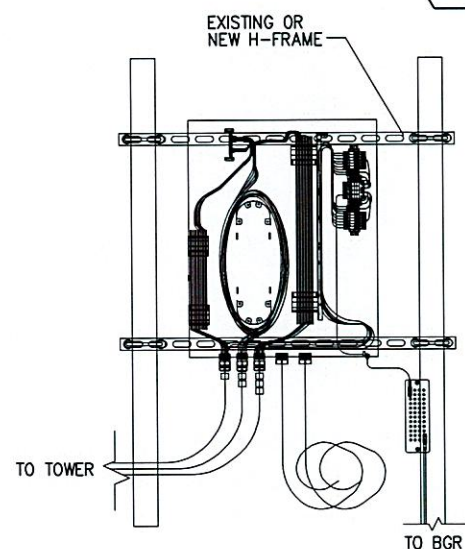
Drawing Title
RF AND
CABLE DETAILS

Drawing Number

C7



1 DISTRIBUTION BOX DETAIL
NOT TO SCALE



Front View with door removed to show detail

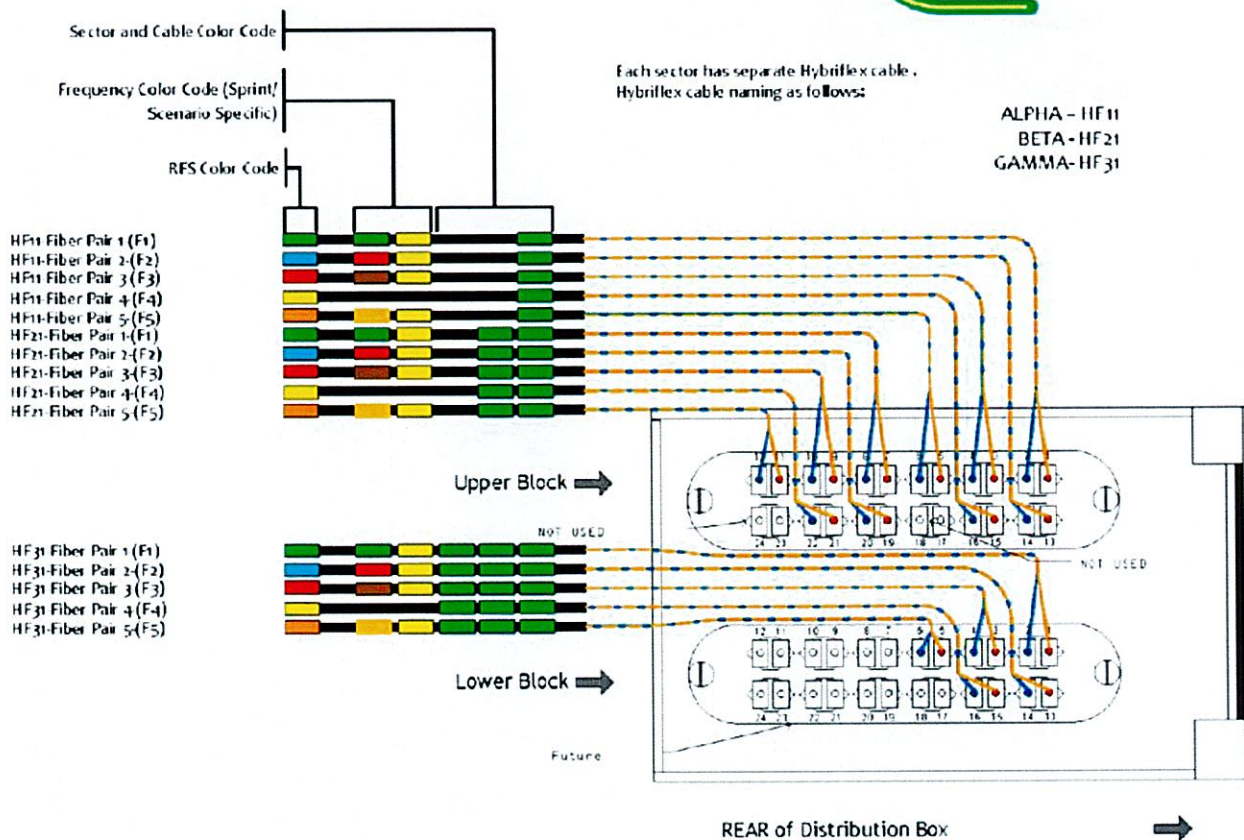
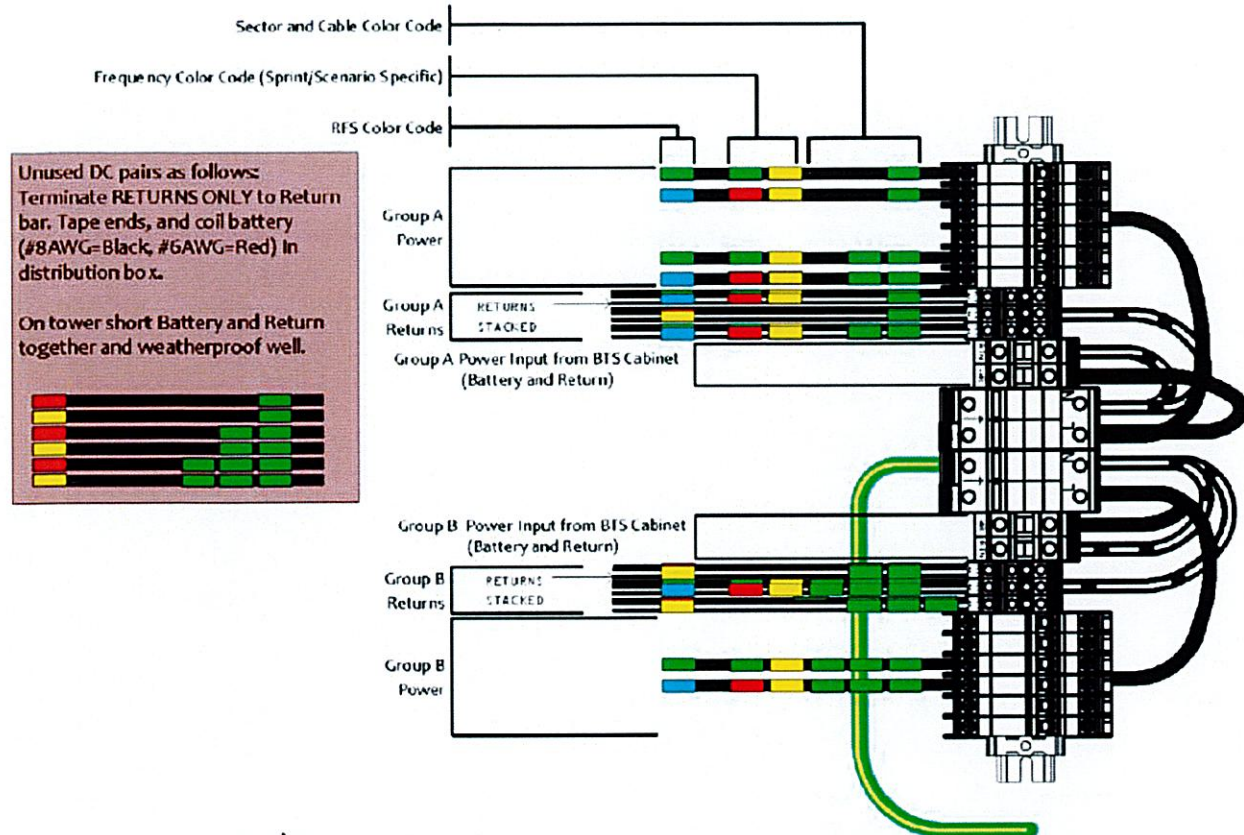
2 DISTRIBUTION BOX INSTALL COMPLETE VIEW
NOT TO SCALE

NOTES:

- DISTRIBUTION BOX IS KITTED WITH 1-1/2" LIQUID-TIGHT CONDUIT AND CONNECTORS. THIS SHOULD BE:
* SPLIT IN HALF,
* TERMINATED TO THE DISTRIBUTION BOX AS SHOWN,
* RAN TO AND COILED AS CLOSE TO WHERE THE CABINET IS GOING TO BE MOUNTED AS POSSIBLE.
- DISTRIBUTION BOX IS KITTED WITH 24AWG, POWER CABLE 27" x 2EA. RUNS RED AND 2EA. RUNS BLACK. THIS SHOULD BE COILED AND LEFT INSIDE DISTRIBUTION BOX.
- BTS INSTALLATION TEAM WILL TERMINATE LIQUID-TIGHT, RUN THE FIBER JUMPERS AND POWER CABLES FROM BTS CABINET TO DISTRIBUTION BOX.

Unused DC pairs as follows:
Terminate RETURNS ONLY to Return bar. Tape ends, and coil battery (#8AWG=Black, #6AWG=Red) in distribution box.

On tower short Battery and Return together and weatherproof well.



INSTALLER VERIFY LATEST PLUMBING/WIRING DIAGRAMS, PRIOR TO INSTALLATION.

3 FIBER & DC CONNECTION DETAILS
NOT TO SCALE

PLUMBING DIAGRAM VERSION 1.9



ADDENDUM NO. 1
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Project Number
286-024

Project Title
CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client:

Implementation Team:



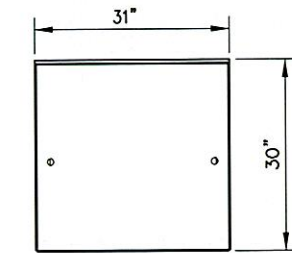
Drawing Scale:
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Date:
12/27/12

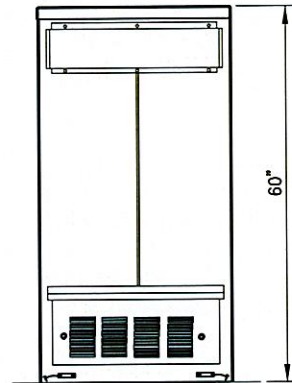
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JUNCTION BOX DETAILS

Drawing Number

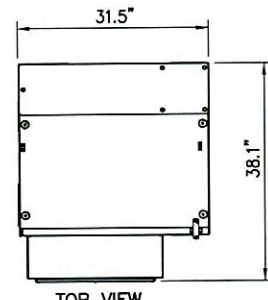
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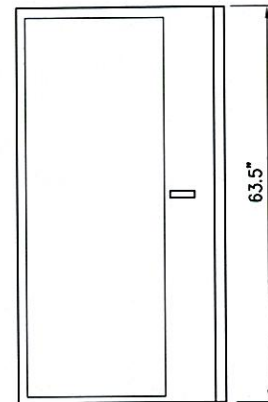
TOP VIEW



REAR VIEW



TOP VIEW



FRONT VIEW



<u>DESIGN CRITERIA:</u>		
2009 INTERNATIONAL BUILDING CODE W/ STATE MODIFICATION		
WIND SPEED (ASCE-7-05)		90 MPH
EXPOSURE B		
IMPORTANCE FACTOR		1.0
SEISMIC SITE CLASS		D
Ss=0.152	S ₁ = 0.050	
SEISMIC IMPORTANCE FACTOR		1.0
SEISMIC DESIGN CATEGORY		B
CABINET WEIGHT:		
9927 MM BTS CABINET		594 lbs.
60EC V2 BATTERY CABINET		2830 lbs.
<u>MATERIAL SPECIFICATIONS</u>		
C-, M-, AND ANGLE SHAPES:	ASTM A36	
HIGH-STRENGTH BOLTS:	ASTM A325SC OR (A325N	
STRUCTURAL WF SHAPES:	ASTM A572-GR50	
TUBE STEEL & PIPE COLUMNS:	ASTM A500, GRADE B	
WELDING ELECTRODES:	E70XX	
W - SHAPES:	ASTM A992, GRADE 50	
U-BOLTS:	ASTM A36	

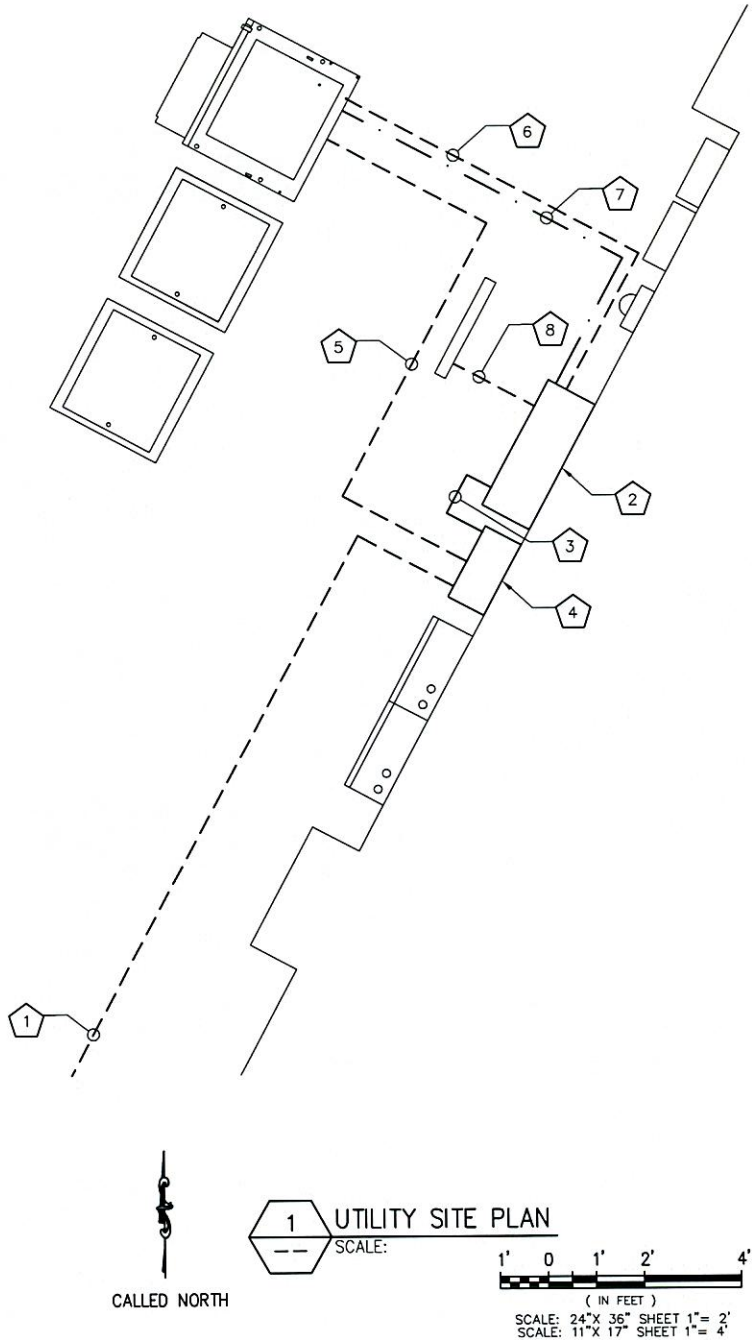
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infinity engineering
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Latham, NY 12110
(518) 690-0790

STATE OF CONNECTICUT
JOHN S. STEINHILBER
No. 24705
LICENSED PROFESSIONAL ENGINEER

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Project Title			
CT03XC044 CHESHIRE			
751 HIGGINS ROAD CHESHIRE, CT 06410			
Client:	Implementation Team:		
 sprint 1 INTERNATIONAL BLVD. MAHWAH, NJ 07485	 ALCATEL-LUCENT 808 AVIATION PARKWAY SUITE 700 MORRISVILLE, NC 27650		
Drawing Scale:		AS NOTED	
Date:		12/27/12	
Drawing Title			
CABINET DETAILS			
Drawing Number			
C9			

CODED NOTES:

- 1 PROPOSED 2" ABOVE GROUND EMT CONDUIT ROUTED FROM CORNING BOX IN SBC POP ROOM TO PROPOSED CIENA ENCLOSURE, 75', FURNISHED AND INSTALLED BY SPRINT, SPRINT TO PROVIDE PULL STRING
- 2 PROPOSED SPRINT FIBER JUNCTION BOX FURNISHED AND INSTALLED BY ALU
- 3 PROPOSED 1-1/4" LIQUID TIGHT CONDUIT WITH PULL-STRING FROM PROPOSED JUNCTION BOX TO PROPOSED CIENA EQUIPMENT LOCATION FOR DC POWER, 5'; FURNISHED AND INSTALLED BY SPRINT
- 4 PROPOSED CIENA EQUIPMENT ENCLOSURE, FURNISHED AND INSTALLED BY AT&T
- 5 PROPOSED 1-1/4" LIQUID TIGHT CONDUIT FOR FIBER WITH PULL-STRING FOR TELCO FROM PROPOSED CIENA EQUIPMENT TO BTS LOCATION, 15'; FURNISHED AND INSTALLED BY SPRINT
- 6 PROPOSED 1-1/2" LIQUID TIGHT FLEX CONDUIT WITH PULL-STRING FOR FIBER FROM TELCO JUNCTION BOX TO LUCENT EQUIPMENT CABINET
- 7 PROPOSED 1-1/2" LIQUID TIGHT FLEX CONDUIT WITH PULL-STRING FOR DC POWER FROM FIBER JUNCTION BOX TO LUCENT EQUIPMENT CABINET
- 8 PROPOSED 1-1/4" HYBRIFLEX CABLE ROUTED FROM PROPOSED JUNCTION BOX TO PROPOSED TOWER MOUNTED RRH, 670' (TYP. OF (1) PER SECTOR, (3) SECTORS TOTAL)



NOTES:

1. CONTRACTOR TO USE EXISTING SPARE CONDUITS, IF AVAILABLE. CONDUIT SIZES MUST BE EQUAL TO OR GREATER THAN THAT ALLOWED BY CODE.
2. EXISTING ALARMS NEED TO BE RE-ROUTED AND VERIFIED IN PROPER WORKING CONDITION WHEN NEW MMBTS EQUIPMENT IS INSTALLED.
3. REMAINING GROUND LEADS FROM REMOVED CABINETS TO BE COILED (NOT ON WALKING SURFACE).
4. REMAINING UNUSED CONDUITS FROM EXISTING CABINETS TO BE COVERED WITH WATERPROOF CAPS (NOT DUCT TAPE).

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.), AND APPLICABLE LOCAL CODES.
2. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED.
4. ALL WIRES SHALL BE AWG MIN #12 THIN COPPER UNLESS NOTED.
5. CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT UNLESS NOTED OTHERWISE.
6. LABEL SPRINT SERVICE DISCONNECT SWITCH AND PPC CABINET WITH ENGRAVED LAMACOID LABELS, LETTERS 1" IN HEIGHT.
7. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
8. ENGAGE AN INDEPENDENT TESTING FIRM TO TEST AND VERIFY THAT RESISTANCE DOES NOT EXCEED 5 OHMS TO GROUND. TEST GROUND RING RESISTANCE PRIOR TO MAKING FINAL GROUND CONNECTIONS TO INFRASTRUCTURE AND EQUIPMENT. GROUNDING AND OTHER OPERATIONAL TESTING SHALL BE WITNESSED BY SPRINTS REPRESENTATIVE.
9. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE REQUIRED SO THAT CONDUIT BENDS DO NOT EXCEED 360°.
10. OBTAIN PERMITS AND PAY FEES RELATED TO ELECTRICAL WORK PERFORMED ON THIS PROJECT. DELIVER COPIES OF ALL PERMITS TO SPRINT REPRESENTATIVE.
11. SCHEDULE AND ATTEND INSPECTIONS RELATED TO ELECTRICAL WORK REQUIRED BY JURISDICTION HAVING AUTHORITY. CORRECT AND PAY FOR ANY WORK REQUIRED TO PASS ANY FAILED INSPECTION.
12. REDLINED AS-BUILTS ARE TO BE DELIVERED TO SPRINT REPRESENTATIVE.
13. PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS IN THREE-RING BINDER.
14. FURNISH AND INSTALL THE COMPLETE ELECTRICAL SERVICE, TELCO CONDUIT, AND THE COMPLETE GROUNDING SYSTEM.
15. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER, AND SHALL BE SUBJECT TO APPROVAL BY SPRINT REPRESENTATIVE.
16. CONDUCT A PRE-CONSTRUCTION SITE VISIT AND VERIFY EXISTING SITE CONDITIONS AFFECTING THIS WORK. REPORT ANY OMISSIONS OR DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF CONSTRUCTION.
17. PROJECT ADJACENT STRUCTURES AND FINISHES FROM DAMAGE. REPAIR TO ORIGINAL CONDITION ANY DAMAGED AREA.
18. REMOVE DEBRIS ON A DAILY BASIS. DEBRIS NOT REMOVED IN A TIMELY FASHION WILL BE REMOVED BY OTHERS AND THE RESPONSIBLE SUBCONTRACTOR SHALL BE CHARGED ACCORDINGLY. REMOVAL OF DEBRIS SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. DEBRIS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF LEGALLY.
19. UPON COMPLETION OF WORK, THE SITE SHALL BE CLEAN AND FREE OF DUST AND FINGERPRINTS.
20. PRIOR TO ANY TRENCHING, CONTACT LOCAL UTILITY TO VERIFY LOCATION OF ANY EXISTING BURIED SERVICE CONDUITS.
21. DOCUMENT GROUND RING INSTALLATION AND CONNECTIONS TO IT WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PRESENT PHOTO ARCHIVE AT SITE "PUNCH LIST" WALK TO SPRINT'S REPRESENTATIVE.
22. ALL ABOVE GRADE CONDUIT TO BE RIGID METALLIC.

A/E Consultant:

infinigy
engineering
11 Herbert Drive
Latham, NY 12110
(518) 690-0790



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Project Number 286-024

Project Title

CT03XC044
CHESHIRE

751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Implementation Team:



Drawing Scale: AS NOTED
Date: 12/27/12

Drawing Title

UTILITY
SITE PLAN

Drawing Number

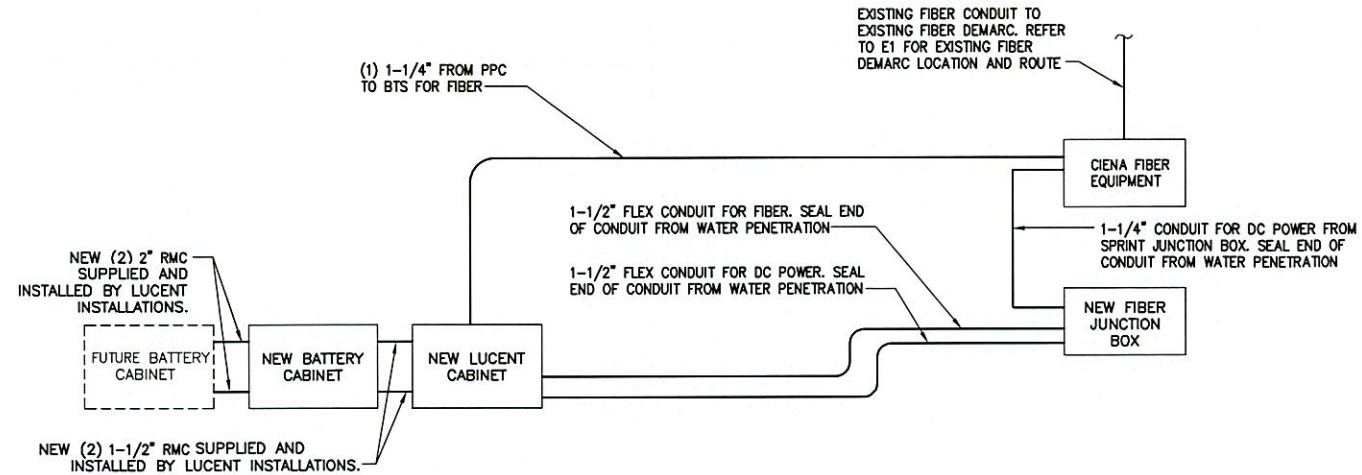
E1



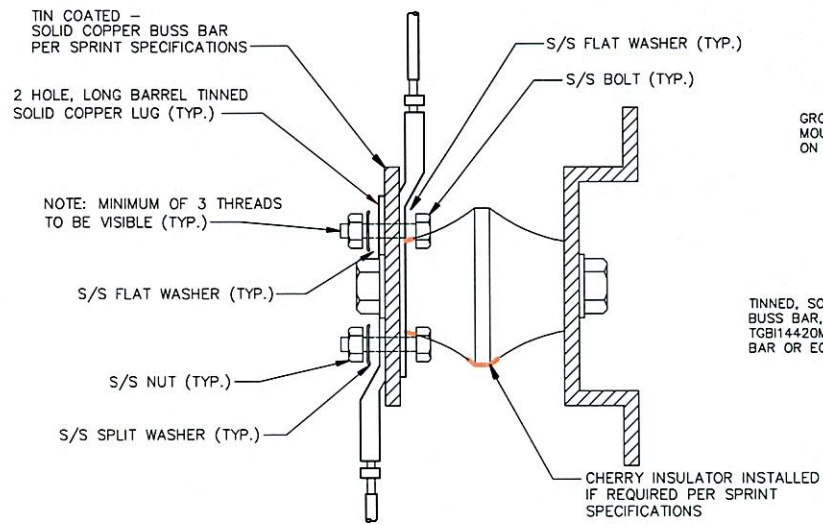
UNDERGROUND
SERVICE ALERT
CALL TOLL FREE
1-800-922-4455

THREE WORKING DAYS BEFORE YOU DIG

GROUNDING NOTE:
IN ADDITION TO POWER SERVICE GROUNDING AS REQUIRED BY NEC, CONTRACTOR SHALL BE RESPONSIBLE TO COORD AND INSTALL ALL SURGE AND LIGHTING PROTECTION GROUNDING AS REQUIRED AND SPECIFIED BY SPRINT

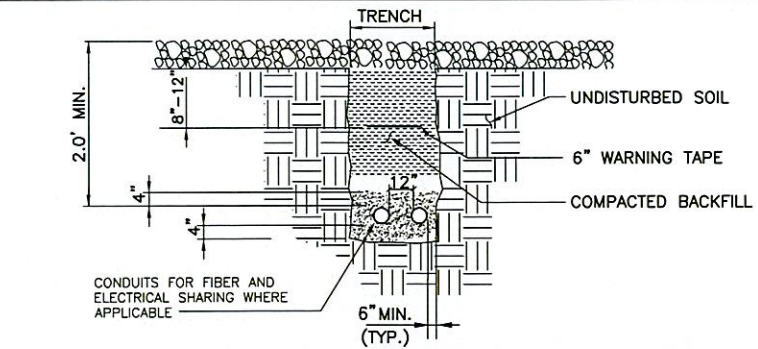


1 ONE-LINE DIAGRAM
NOT TO SCALE



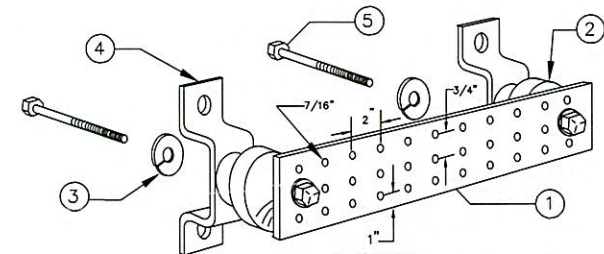
- NOTES:**
- 1) ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
 - 2) COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
 - 3) APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

GROUND LUG



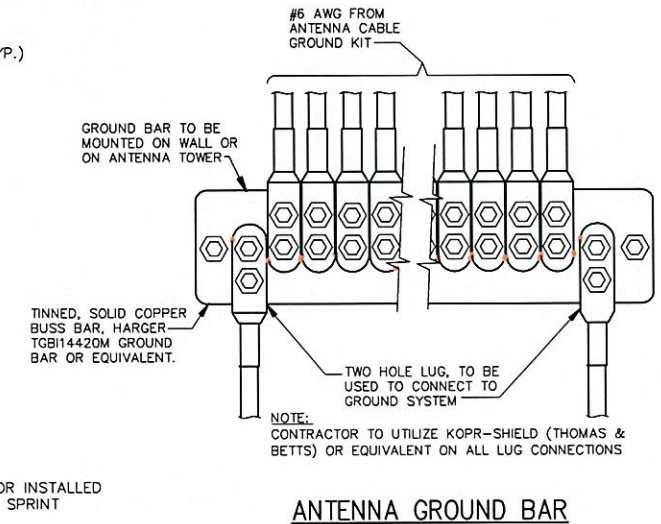
- SEPARATION DIMENSIONS MUST BE VERIFIED WITH LOCAL UTILITY CO. REQUIREMENTS.
*HAND DIG INSIDE COMPOUND

2 UTILITY TRENCH DETAIL
NOT TO SCALE



- LEGEND**
1. TINNED COPPER GROUND BAR, 1/2" x 4" x 20", NEWTON INSTRUMENT Co., HARGER TGBI14420M, OR EQUIVALENT. HOLE CENTERS TO MATCH.
 2. NEMA DOUBLE LUG CONFIGURATION.
 3. INSULATORS, NEWTON INSTRUMENT Co. CAT. NO. 3061-4 OR HARGER EQUIVALENT.
 4. 5/8" LOCKWASHERS, NEWTON INSTRUMENT Co. CAT. NO. 3015-8 OR EQUIVALENT.
 5. WALL MOUNTING BRACKET, NEWTON INSTRUMENT Co. CAT. NO. A-6056 OR HARGER EQUIVALENT.
- NOTE:**
- 1) ALL MOUNTING HARDWARE CAN ALSO BE USED ON 6", 12", 18", ETC. GROUND BARS.
 - 2) ENTIRE ASSEMBLY AVAILABLE FROM NEWTON INSTRUMENT Co. CAT. NO. 2106060010 OR AS HARGER TGBI14420M.

GROUND BAR



ANTENNA GROUND BAR

3 GROUND BAR DETAILS
NOT TO SCALE

A/E Consultant:

infinity engineering

11 Herbert Drive
Latham, NY 12110
(518) 680-0790

STATE OF CONNECTICUT

JOHN S. STEVENSON

No. 24705

REGISTERED PROFESSIONAL ENGINEER

EXPIRATION DATE: 12/31/2015

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751 HIGGINS ROAD
CHESHIRE, CT 06410

Client: Sprint
Implementation Team: ALCATEL-LUCENT

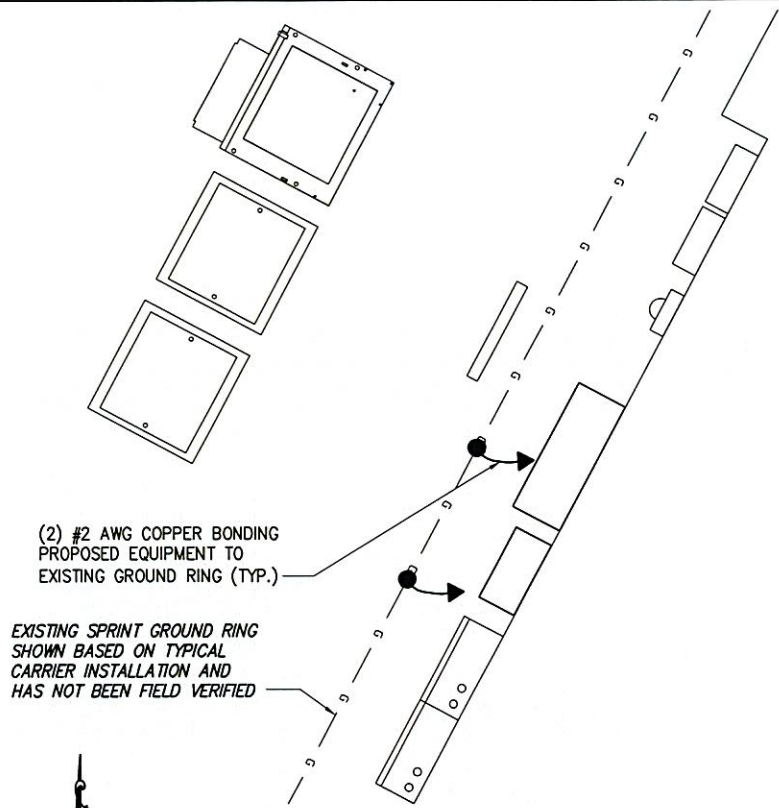
808 AVIATION PARKWAY
SUITE 100
MORRISTOWN, NJ 07960

Drawing Scale: AS NOTED
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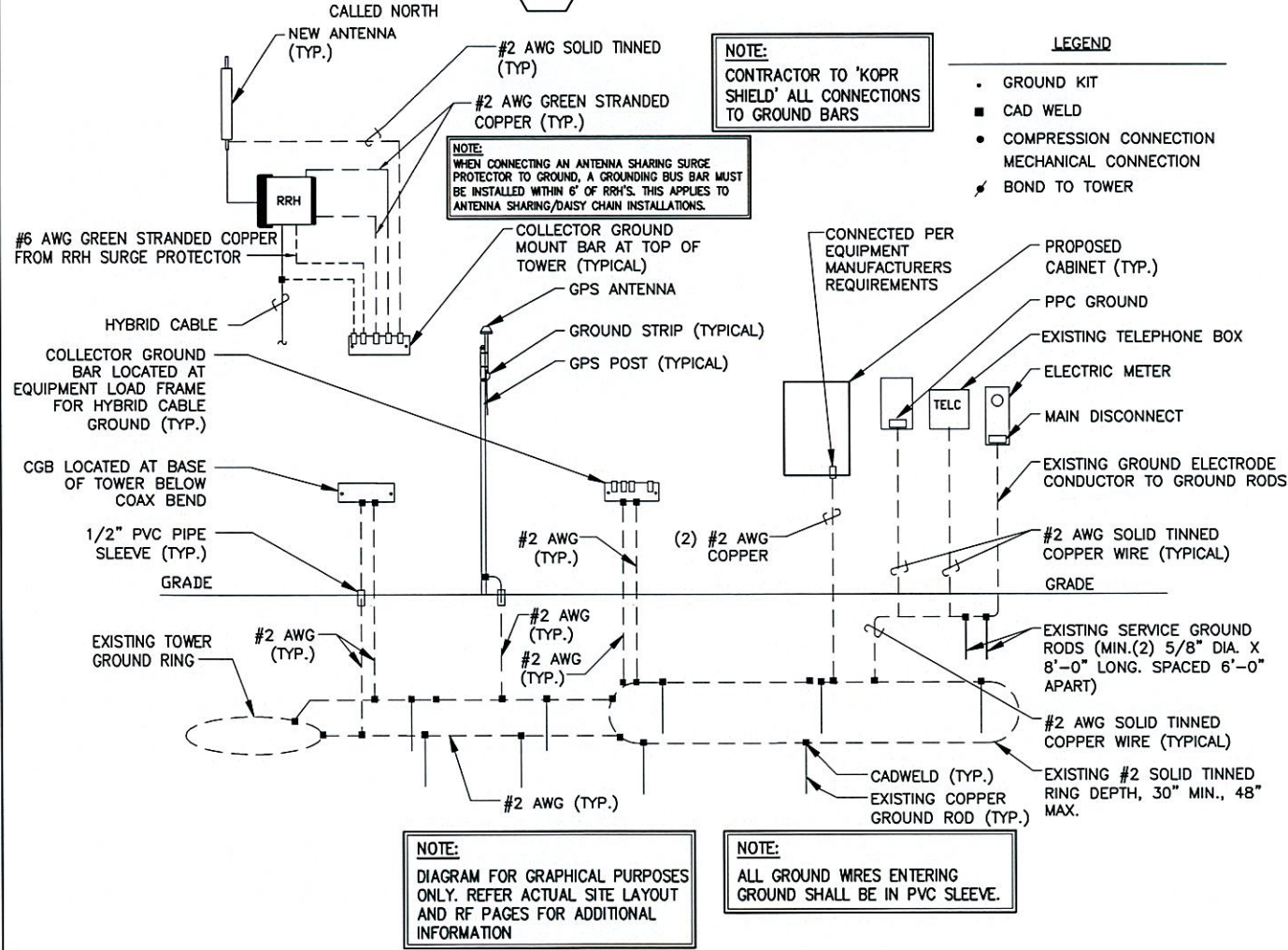
Drawing Title: ONE-LINE DIAGRAM AND DETAILS

Drawing Number: E2

SYMBOL	
	COPPER GROUND ROD
	CONNECT PER MANUFACTURER SPECS
	CADWELD CONNECTION
	GROUND BAR

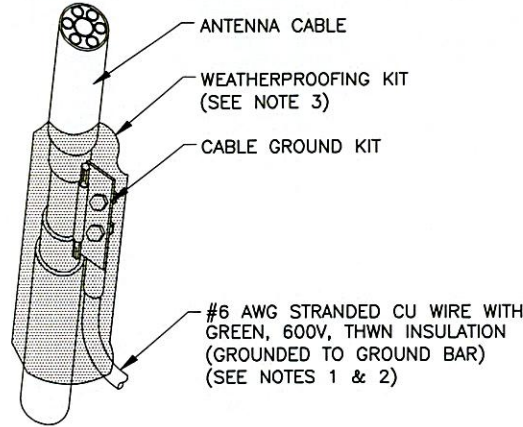


1 EQUIPMENT GROUNDING PLAN
NOT TO SCALE

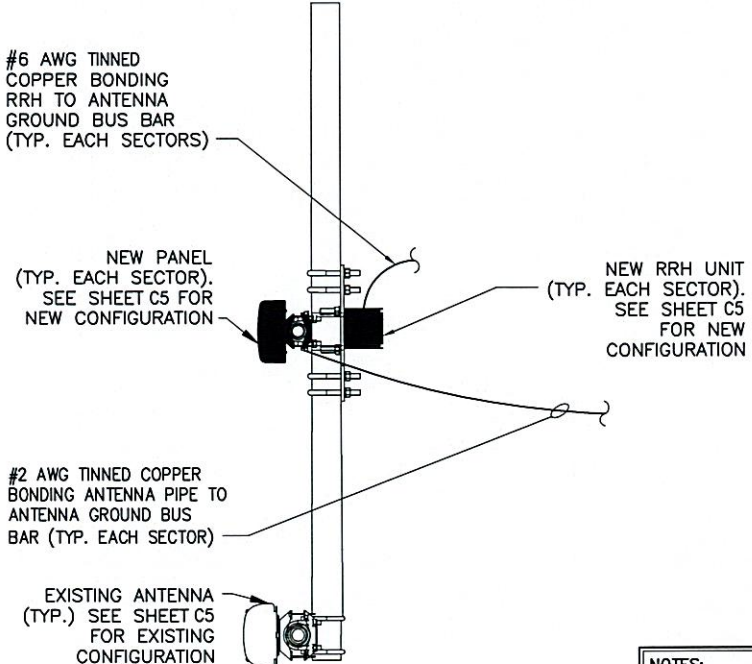


2 GROUNDING RISER DIAGRAM
NOT TO SCALE

- NOTES:
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 - WEATHERPROOFING SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.



3 CONNECTION OF GROUND KIT TO ANTENNA CABLE
NOT TO SCALE



4 TYPICAL ANTENNA GROUNDING PLAN
NOT TO SCALE

GROUNDING NOTES:

- ALL DOWN CONDUCTORS AND GROUND RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNO. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE A MINIMUM DEPTH BELOW GRADE OF 30 INCHES OR TO THE LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNO.
- WHERE MECHANICAL CONDUCTOR CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
- GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6 INCHES ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND.
- GROUND CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE ENCASED IN 3/4" PVC CONDUIT TO GRADE. MOUNT PVC WITH GALVANIZED "C" CLAMPS. SEAL TOP ENDS.
- FOLLOWING COMPLETION OF WORK, CONDUCT GROUND TEST. SUBMIT WRITTEN TEST TO CONSTRUCTION MANAGER AND PROJECT MANAGER.
- ALL GROUNDING WORK SHALL COMPLY WITH CARRIER(S) STANDARDS.
- GROUNDING REQUIREMENTS SHOWN ON THIS PLAN ARE FOR ITEMS THAT ARE LOCATED NEAR GRADE LEVEL AND THAT NEED TO BE TIED TO THE BELOW GRADE GROUND RING.
- UNLESS NOTED OTHERWISE, ALL GROUNDING SHALL BE IN ACCORDANCE WITH SPRINT'S SSEO DOCUMENTS 3.018.02.004 "BONDING, GROUNDING AND TRANSIENT PROTECTION FOR CELL SITES", AND 3.018.10.002 "SITE RESISTANCE TO EARTH TESTING". ALL GROUNDING SHALL ALSO COMPLY WITH ALL STATE AND LOCAL CODES, AND THE NATIONAL ELECTRICAL CODE (NEC).
- UNLESS NOTED OTHERWISE, ALL GROUNDING CONNECTIONS SHALL BE MADE BY AN EXOTHERMIC WELD.
- RESISTANCE TO EARTH TESTING IS REQUIRED PER SPRINT STANDARDS ON ALL NEW SITES.

- NOTES:
- CONTRACTOR TO VERIFY EXISTING LUG SPACES ARE AVAILABLE ON GROUND BAR. ADD ADDITIONAL BUS BAR IF NO LUG SPACES ARE AVAILABLE.
 - ANTENNA GROUNDING CONNECTIONS SHOWN ARE NOT EXACT TO THIS SITE. FOR EXACT ANTENNA LAYOUT REFER TO SHEET C5.



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CHESHIRE, CT 06410

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GROUNDING PLAN AND DETAILS

Drawing Number

E3

A/E Consultant:

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