

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

April 16, 2012

Stephen Kelleher
Real Estate Consultant
New Cingular Wireless PCS, LLC
960 Turnpike Street, Suite 28
Canton, MA 02021

RE: **EM-CING-103-120329** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 10 Willard Road, Norwalk, Connecticut.

Dear Mr. Kelleher:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The modifications shown in Appendix E be completed in accordance with the recommendations made in the Rigorous Structural Analysis Report with Modification Design prepared by GPD Group dated March 15, 2012 and stamped David Granger; and
- Prior to antenna installation, a signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that the recommended modifications have been completed and the tower and foundation will not exceed 100 percent of the post-construction structural rating.
- The coax lines, TMAs, and RRHs be installed and the modifications be completed in accordance with the recommendations made in the Structural Analysis Report prepared by FDH Engineering dated March 16, 2012 and stamped by Christopher Murphy; and
- Prior to antenna installation, a signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that the recommended modifications have been completed and the tower and foundation will not exceed 100 percent of the post-construction structural rating.
- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;



The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated March 28, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies 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 General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

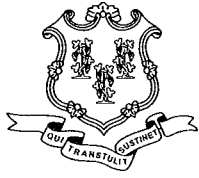
Very truly yours,



Linda Roberts
Executive Director

LR/CDM/laf

- c: The Honorable Richard Moccia, Mayor, City of Norwalk
Michael Greene, Director of Planning and Zoning, City of Norwalk
Christopher B. Fisher, Esq., Cuddy & Feder LLP



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

March 29, 2012

The Honorable Richard Moccia
Mayor
City of Norwalk
City Hall
125 East Avenue
P. O. Box 5125
Norwalk, CT 06856-5125

RE: **EM-CING-103-120329** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 10 Willard Road, Norwalk, Connecticut.

Dear Mayor Moccia:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by April 13, 2012.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts
Executive Director

LR/jbw

Enclosure: Notice of Intent

c: Michael Greene, Director of Planning and Zoning, City of Norwalk

EM-CING-103-120329



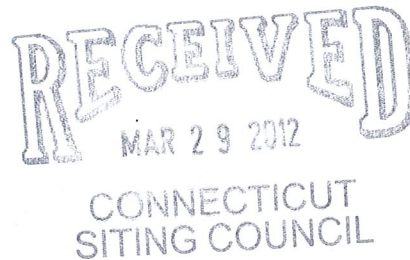
Wireless PCS, LLC
Street, Suite 28

Canton, MA 02021
Phone: (508) 404-8917
Fax: (617) 249-0819

Stephen Kelleher
Real Estate Consultant
skelleher@clinellc.com

March 28, 2012

Honorable Robert Stein, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051



Re: Request by New Cingular Wireless PCS, LLC for an Order Approving an Exempt Modification of an Existing tower at 10 Willard Road, Norwalk CT 06851.

Dear Chairman Stein and Members of the Council:

In order to accommodate technological changes, implement Long Term Evolution ("LTE") capabilities, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A Section 16-50j-72(b)(2). In compliance with R.C.S.A Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

Attached is a summary of the planned modifications, including power density calculations reflecting the changes in AT&T's operation of the site. Also, included is documentation of the structural sufficiency of the tower. The tower, with the proposed structural modifications depicted in the Structural Analysis, is structurally sufficient to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on

the site compound other than some enlarged equipment pads as may be noted in the attachments

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to contact me at 508-404-8917 with questions concerning this matter.
Thank you for your consideration.

Sincerely,



Stephen Kelleher
Real Estate Consultant

Attachments

PROJECT INFORMATION

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS
 SITE ADDRESS: 10 WILLARD ROAD
 NORWALK, CT 06851
 LATITUDE: 41° 07' 41.78" N
 LONGITUDE: -73° 23' 24.6" W
 JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES
 CURRENT USE: TELECOMMUNICATIONS FACILITY
 PROPOSED USE: TELECOMMUNICATIONS FACILITY
 NOC# 866-915-5600



SITE NUMBER: CT2132
SITE NAME: NORWALK - EAST

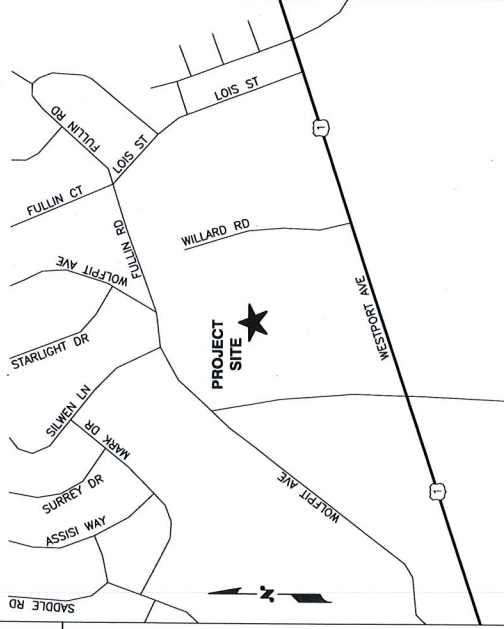
DRAWING INDEX

REV

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VICINITY MAP

FROM ROCKY HILL, CT:
 START OUT GOING NORTHEAST ON ENTERPRISE DR TOWARD CAPITOL BLVD. 0.4 MI. TURN
 LEFT ONTO CAPITOL BLVD. 0.3 MI. TURN LEFT ONTO WEST ST. 0.3 MI. MERGE ONTO
 S. 9A S. VIA THE RAMP ON THE LEFT TOWARD NEW HAVEN. 9.7 MI. WESTPORT / WESTON.
 TAKE THE WESTPORT / WESTON EXIT, EXIT 42, TOWARD WESTPORT / WESTON.
 0.1 MI. TURN RIGHT ONTO WESTPORT / WESTON. 0.2 MI. TURN RIGHT AT THE FORK TO
 GO ON CT-57. 0.9 MI. TURN SLIGHT RIGHT ONTO CANAL ST. CT-57 CONTINUES
 FOLLOW CANAL ST. 0.5 MI. CANAL ST BECOMES KINGS HWY N. 0.6 MI. TURN SLIGHT
 RIGHT ONTO POST RD W / US-1. CONTINUE TO FOLLOW US-1. 1.1 MI. TURN SLIGHT
 ONTO WILLARD RD. 0.0 MI. 10 WILLARD RD IS ON THE LEFT.



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT THE WRITTEN PERMISSION OF AT&T IS PROHIBITED. ANY DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSIBLE BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE ACCESS BY ANY OTHER PERSONS WITHOUT THE WRITTEN PERMISSION OF AT&T IS NOT ALLOWED. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL



BEFORE YOU DIG

CALL TOLL FREE 800-922-4455

UNDERGROUND SERVICE ALERT



22 KEEPMAN DRIVE
 SALEM, NH 03079

SITE NUMBER: CT2132
SITE NAME: NORWALK - EAST
 10 WILLARD ROAD
 NORWALK, CT 06851
 FAIRFIELD COUNTY



500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06867



AT&T
 TITLE SHEET
 (LITE)
 DRAWING NUMBER
 2132.01
 T-1
 REV
 2

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL STANDARDS. THE TELORDOM AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER (ECS)) SHALL BE BONDED TOGETHER AT OR BELOW GRADE BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM EEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BITS EQUIPMENT.
5. EACH BITS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL GROUND WIRE, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BITS 2 AWG STRANDED COPPER FOR OUTDOOR BITS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER C/JAO STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING SHALL BE BONDING TO THE GROUND RING. STEEL MUST HAVE IT ELECTRICALLY CONDUCTING REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR - SA
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL REQUIREMENTS OF THE LOCAL, STATE, AND FEDERAL AGENCIES. ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK SHALL BE CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, LABOR, EQUIPMENT, TOOLS, UTILITIES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES. GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND T1 CABLES. GROUNDING CABLES SHALL BE INSTALLED IN EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, UTILITIES, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE DESIGNATED LOCATION. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAIL, FABRICATED AND ERRECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (FY = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (FY = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERRECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH UNITS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ANY DISCREPANCY OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK. THAT WORKERS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
BUILDING CODE: 2003 IBC WITH 2005 CT SUPPLEMENT & 2009 CT ELECTRICAL
LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS
ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
AMERICAN CONCRETE INSTITUTE (ACI) 318: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARDS FOR STEEL
ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.
FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE CONTRACTOR SHALL CONSULT WITH THE OWNER, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

ACL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS	TBD	TO BE DETERMINED
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBR	TO BE REMOVED
BITS	BASE TRANSCIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TYP	TYPICAL
EG	EQUIPMENT GROUND	REF	REFERENCE		
		REQ	REQUIRED		



1000 S. MAIN STREET
DANVER, NH 03824
TEL: (603) 257-5533
FAX: (603) 257-5534



22 KEENEWAY DRIVE
SALEM, NH 03079

SITE NUMBER: CT21232
SITE NAME: NORWALK - EAST

10 WILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY



500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

AT&T

GENERAL NOTES
(LTE)

NO.	DATE	REVISIONS	DESIGNED BY:	DC	DRAWN BY:	RH	JOB NUMBER	2132.01	REV	2
1	02/19/11	ISSUED FOR REVIEW								
2	04/19/11	CONSTRUCTION REVISION								





Hudson
Design Group

STAT
communications

at&t

22 KEENAWON DRIVE
SALEM, NH 03079

10 WILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

SITE NUMBER: CT2132

SITE NAME: NORWALK - EAST

AT&T

ANTENNA LAYOUT AND ELEVATION (LIE)

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	04/18/11	CONSTRUCTION REVISED			
1	03/09/11	ISSUED FOR CONSTRUCTION			
0	02/18/11	ISSUED FOR REVIEW			

DESIGNED BY: DC

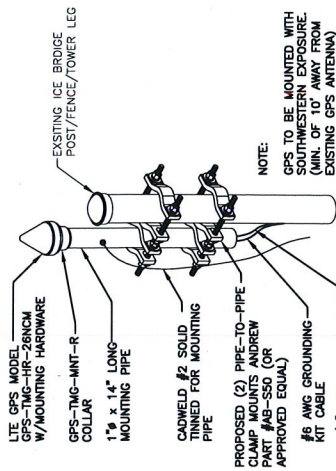
SCALE: AS SHOWN

DRAWN BY: BH

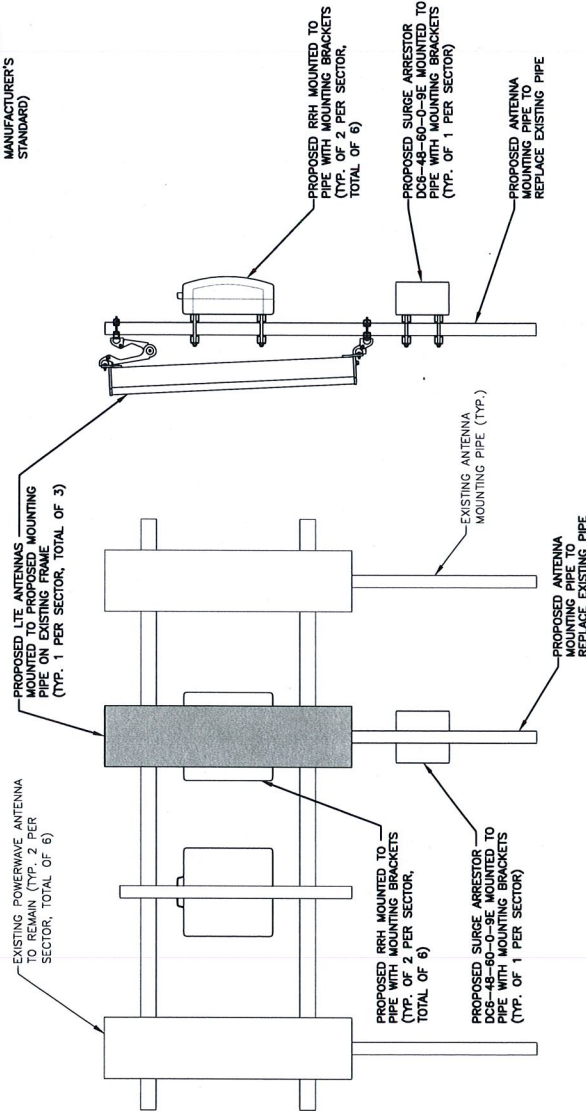
DATE: 04/18/11

NO.: 2132.01

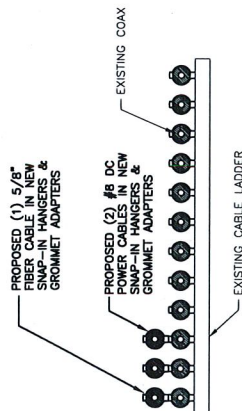
REV: A-2



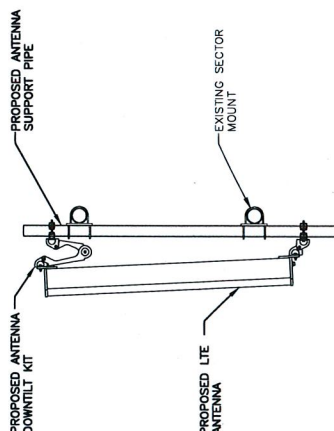
GPS MOUNTING DETAIL
SCALE: N.T.S.



PROPOSED RRH & SURGE ARRESTOR MOUNTING DETAIL
SCALE: N.T.S.

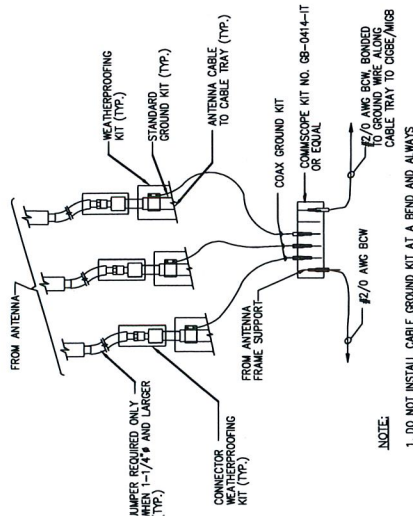


CABLE MOUNTING DETAIL
SCALE: N.T.S.



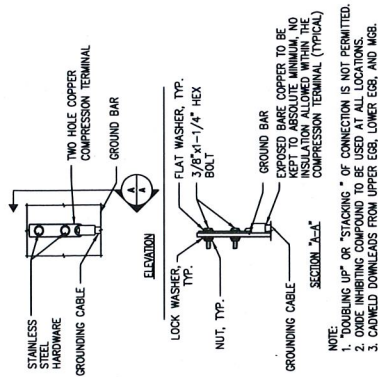
PROPOSED ANTENNA DETAIL
SCALE: N.T.S.

						AT&T
SITE NUMBER: CT2132 SITE NAME: NORWALK - EAST 10 WILLARD ROAD NORWALK, CT 06851 FAIRFIELD COUNTY		22 KEFWAYDIN DRIVE SALEM, NH 03079 NOVOIS, MA 01846 TEL: (978) 557-5533 FAX: (978) 334-6586		500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067		DETAILS (LIE)
NO. DATE 1 03/16/11 ISSUED FOR CONSTRUCTION 0 02/16/11 ISSUED FOR REVIEW		REVISIONS BY: CHK JEP DESIGNED BY: DC		DRAWN BY: BH SCALE: AS SHOWN		JAG NUMBER 2132.01
						DRAWING NUMBER A-3
						REV 2



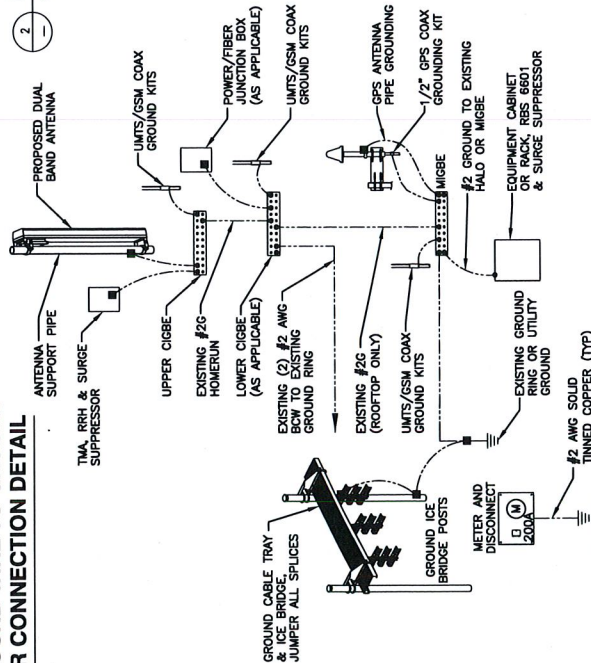
GROUND WIRE TO GROUND BAR CONNECTION DETAIL

1
N.T.S.



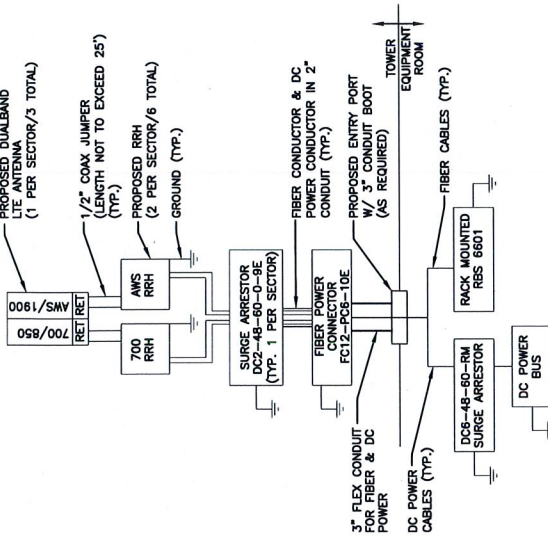
TYPICAL GROUND BAR CONNECTION DETAIL

2
N.T.S.



GROUNDING RISER DIAGRAM

5
N.T.S.

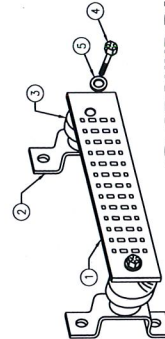


PLUMBING DIAGRAM

3
N.T.S.

1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS.

WIRELESS SOLUTIONS INC.		
NO.	REQ.	PART NO.
1	1	HLCB-0420-S
2	2	WALL MTG. BRKT.
3	2	INSULATORS
4	4	5/8\"-1/4\" H.H.C.S.
5	4	5/8\" LOCKWASHER



GROUND BAR - DETAIL

4
N.T.S.

8 GUSCOCK STREET
LONG BEACH, CA 90805
TEL: 562-594-1546 FAX: 562-594-1538

at&t

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

SAI communications

22 KEENAWATON DRIVE
SALEM, NH 03079

SITE NUMBER: CT2132
SITE NAME: NORWALK - EAST

10 HILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY

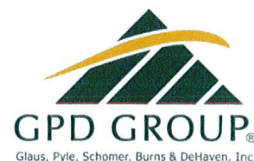
AT&T

PLUMBING DIAGRAM & DETAILS
(LITE)

DATE: 01/19/11
BY: CHM
CHECKED: 01/19/11
REVISIONS: 01/19/11
SCALE: AS SHOWN
DESIGNED BY: DC
DRAWN BY: RH



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



Kevin Clements
12600 Deerfield Pkwy; Suite 2039
Alpharetta, GA 30004
(678) 762-3305
kclements@gpdgroup.com

GPD# 2012762.03
March 15, 2012

RIGOROUS STRUCTURAL ANALYSIS REPORT WITH MODIFICATION DESIGN

AT&T DESIGNATION:	Site USID:	SNET021
	Site FA:	10137488
	Site Name:	NORWALK
	AT&T Project:	Wireline AT&T Mobility Modification 6-30-2011
ANALYSIS CRITERIA:	Codes:	TIA/EIA-222-F, 2003 IBC & 2005 CBC Supplement
		90-mph 3 second gust with 0" ice
		78-mph 3 second gust with 1/2" ice
SITE DATA:		10 Willard Rd, Norwalk, CT 06851, Fairfield County
		Latitude 41° 7' 41.987" N, Longitude 73° 23' 26.000" W
		Market: MA/RI/VT/NH/ME/CT
		350' Self Support Tower

Mr. Martin Jelleme,

GPD is pleased to submit this Rigorous Structural Analysis Report with Modification Design 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.

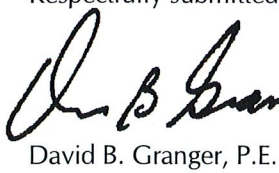
Analysis Results

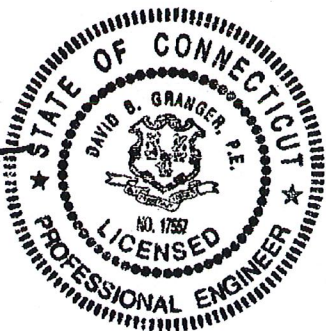
Tower Stress Level with Proposed Equipment:	99.6%	Pass
Foundation Ratio with Proposed Equipment:	70.4%	Pass

Note: In order for this analysis results to be valid for the proposed, existing, and reserved loading in Appendix A the modifications referenced in the design drawings by GPD Group (Project #: 2012762.03, dated 3/15/2012) must be installed.

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 AT&T Mobility. This report was commissioned by Mr. Martin Jelleme of AT&T Mobility.

The proposed fiber and DC cables shall be installed next to the existing coax on Face A to 337' in order for the analysis results to be valid. Please see Appendix C for the proposed coax layout.

The proposed modifications designed by GPD Group (Project #: 2012762.03, dated 3/15/2012) which consist of reinforcing the existing diagonals from 25' – 125' and 150' – 225', adding redundant verticals from 175' – 200' and redundant horizontal and diagonal "kickers" from 0' – 50', and replacing redundant diagonal #2 members from 0' – 175', redundant sub diagonals from 0' – 125', redundant sub horizontals at 117' and 138', and diagonal bolts from 0' – 50', 100' – 125', and 150' – 175' with stronger members have been considered in this analysis. See Appendix E for the proposed modification drawings.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Legs	94.9%	Pass
Diagonals	99.6%	Pass
Horizontals	99.1%	Pass
Redundant Members	98.1%	Pass
Internal Bracing	91.1%	Pass
Connection Bolts	97.6%	Pass
Anchor Rods	54.0%	Pass
Foundations	70.4%	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.

DOCUMENTS PROVIDED

Document	Remarks	Source
Preliminary Tower Summary	AT&T Co-location document, uploaded 7/26/2011	Siterra
Site Lease Application	AT&T Application, dated 4/7/2011, uploaded 3/2/2012	Siterra
Tower Design	Not Provided	N/A
Foundation Design	Not Provided	N/A
AT&T Tower Sketch	SNET021 NORWALK Issue #: 8, dated 10/21/2010	Siterra
Geotechnical Report	WEI Project No. 2010-1161, dated 7/21/2010	Siterra
Foundation Mapping	WEI Project No. 2010-1161, dated 7/21/2010	Siterra
Previous Structural Analysis	GPD Project #: 2010269.67 Rev 1, dated 8/13/2010	Siterra
Previous Structural Analysis	CSEI Site ID: Norwalk, CT, dated 7/7/2009	Siterra
Tower Mapping	GPD and MTSI Northeast, dated 6/30/2010	Siterra
Modification Drawings	GPD Group Project #: 2012762.03, dated 3/15/2012	GPD

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 tower mapping performed by GPD and MTSI Northeast, dated 6/30/2010, tower photos and the submitted PTS and is assumed to be accurate.
12. The proposed fiber and DC cables shall be installed next to the existing coax on Face A to 337' in order for the analysis results to be valid. Please see Appendix C for the proposed coax layout.
13. The existing tower orientation is assumed based on the AT&T Tower Sketch SNET021 NORWALK Issue #: 8, dated 10/21/2010 and is assumed to be accurate.

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 performed a recent 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

General Info

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Analysis Results (% Maximum Usage)

The proposed modifications designed by GPD Group (Project #: 2012762.03, dated 3/15/2012) which consist of reinforcing the existing diagonals from 25° - 125° and 150° - 225°, adding redundant verticals from 175° - 200° and redundant horizontal and diagonal "kickers" from 0° - 50°, and replacing redundant diagonal #2 members from 0° - 175°, redundant sub diagonals from 0° - 125°, redundant sub horizontals at 117° and 138°, and diagonal bolts from 0° - 50°, 100° - 125°, and 150° - 175° with stronger members have been considered in this analysis. See Appendix E for the proposed modification drawings.

Note: Material grades are assumed based on previous analysis & experience

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face
Unknown	355	360	2	Omni	Unknown	10' Omni		1	Unknown	10' Lattice Mount	1	Unknown	7/8"	Leg AB
Skytel	355	360	1	Omni	Unknown	15' Omni		1	Unknown	10' Pipe Mount	1	Aluminum	7/8"	Face A
Misc	355	360	1	Light	Unknown	Beacon		1	Unknown	10' Pipe Mount				
Unknown	350	354	1	Omni	Unknown	15' Omni		1	Unknown	25' Square Top Platform	1	Unknown	7/8"	Face B
City of Norwalk	350	354	1	Omni	Unknown	10' Omni				on the same mount	1	Unknown	7/8"	Face B
Skytel	350	354	1	Omni	Unknown	6' Omni				on the same mount	1	Unknown	7/8"	Face B
Velocita	350	354	1	Omni	Unknown	6' Omni				on the same mount	1	Unknown	7/8"	Leg AB
Skytel	350	354	1	Omni	Unknown	6' Omni				on the same mount	1	Unknown	1-1/4"	Leg AB
Unknown	350	354	1	Omni	Unknown	5' Omni				on the same mount	1	Unknown	1-1/4"	Leg AB
Unknown	350	354	3	Panel	Unknown	3' x 2' Panel				on the same mount	3	Unknown	7/8"	Face B
AT&T Mobility	335	337	6	Panel	Powerwave	7770-00 w RET	116/234/346	4	Unknown	10' T-Boom on 5' x 5' Corner Platform	12	Unknown	1-5/8"	Face A
AT&T Mobility	335	337	12	TMA	Powerwave	LGP 21401				on the same mounts	1	RET Cable	1/4"	Face A
Unknown	335	337	1	Yagi	Unknown	6' Yagi				on the same mounts	1	Unknown	7/8"	Leg AB
Misc	332	332						4	Unknown	Isolated W8 Member				
Misc	308	308						1	Unknown	LW Dish Mount	1	Unknown	1-1/4"	Face B
Media Flo	303	308	1	Omni	Unknown	10' Omni		1	Unknown	2' Sidearm	1	Unknown	1-1/4"	Face B
Media Flo	289	294	1	Omni	Unknown	10' tall x 6"Ø Omni		1	Unknown	2' Sidearm	1	Unknown	3-1/2"	Face D
OmniPoint	263	263	3	Panel	RFS	APX16PV-16PVL		3	Unknown	6' Sidearm	6	Unknown	1-5/8"	Face B
OmniPoint	263	263	6	TMA	Unknown	14" x 6" x 4" TMA				on the same mounts				
OmniPoint	263	263	6	RET	Unknown	4" x 2" x 2" RET				below the antennas				
OmniPoint	263	269	1	Panel	Unknown	A-24A24E-U (2' sq. panel)				on the same mounts	1	Unknown	1-5/8"	Face B
Unknown	257	257	1	Panel	Unknown	2' Sq. Panel				Leg Mounted	1	Unknown	7/8"	Face B
Misc	252	252						2	Unknown	36" platform w/ handrails				
Sprint	244	244	6	Panel	Decibel	DB980F90E-M		3	Unknown	12' T-Frame	6	Unknown	1-5/8"	Face B
Metro PCS	230	230	3	Panel	Kathrein	800 10504		3	Unknown	12' T-Frame	6	Unknown	1-5/8"	Face C
Metro PCS	230	230	3	RET	Kathrein	850 10025				below the antennas	1	RET Cable	1/4"	Face C
Unknown	206	209	1	Yagi	Unknown	6' Yagi				Leg Mounted	1	Unknown	1/2"	Leg AB
Unknown	183	183	2	Light	Unknown	Side Lights				Leg Mounted				
Misc	125	125						2	Unknown	36" platform w/ handrails				
Media Flo	55	55	1	Dish	Unknown	6' Dish w/ ice shield	220			Leg Mounted	2	Conduit	1"	Leg CD
Unknown	50	50	1	Dish	Unknown	2' Dish	200	1	Unknown	2' Sidearm	1	EW20	Waveguide	Face B
Unknown	36	36	1	GPS	Unknown	GPS				Leg Mounted	1	Unknown	1/2"	Leg AB
Unknown	32	32	1	Dish	Unknown	4' Dish				Leg Mounted	1	Unknown	1/2"	Leg AB
Unknown	27	27	1	Dish	Unknown	4' Dish	225			Leg Mounted	1	Conduit	1"	Leg CD
Unknown	26	26	1	GPS	Unknown	GPS	225			Leg Mounted	1	Conduit	1"	Leg CD

Note: The proposed loading shall be installed in addition to the existing/reserved loading at the same elevation.

Proposed Loading

Note: The proposed loading shall be installed in addition to the existing/reserved loading at the same elevation.

Future Loading

[illegible]

APPENDIX B

RISA Output Files and Calculations

tnxTower GPD Group 520 South Main St Akrón, OH 44311 Phone: (330) 572-2100 FAX: (330) 572-2102	Job	SNET021 NORWALK	Page	1 of 7
	Project	2012762.03	Date	15:09:00 03/15/12
	Client	AT&T Mobility	Designed by	awestrump

Tower Input Data

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

The following design criteria apply:

Tower is located in Fairfield County, Connecticut.

Basic wind speed of 90 mph.

Nominal ice thickness of 0.5000 in.

Ice density of 56 pcf.

A wind speed of 78 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.

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
LDF5-50A (7/8 FOAM)	C	Yes	Ar (CfAe)	350.00 - 8.00	0.0000	-0.02	1	1	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM)	B	Yes	Ar (CfAe)	350.00 - 257.00	0.0000	-0.18	3	2	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM)	B	Yes	Ar (CfAe)	350.00 - 8.00	0.0000	-0.02	3	3	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM)	B	No	Ar (Leg)	350.00 - 337.00	0.0000	0.06	2	2	1.0000	1.0900		0.33
LDF6-50A (1-1/4 FOAM)	B	No	Ar (Leg)	350.00 - 8.00	0.0000	0.06	2	2	1.0000	1.5500		0.66
LDF7-50A (1-5/8 FOAM)	C	Yes	Ar (CfAe)	337.00 - 8.00	0.0000	0	12	6	1.0000	1.9800		0.82
LDF1-50A (1/4 FOAM)	C	Yes	Ar (CfAe)	337.00 - 8.00	0.0000	0	1	1	0.3500	0.3500		0.06
3/8" Fiber Cable	C	Yes	Ar (CfAe)	337.00 - 8.00	0.0000	0	1	1	0.3750	0.3750		0.10
5/8" DC Power Line	C	Yes	Ar (CfAe)	337.00 - 8.00	0.0000	0	2	2	0.6250	0.6250		0.33
LDF5-50A (7/8 FOAM)	B	No	Ar (Leg)	337.00 - 8.00	0.0000	0.06	3	3	1.0000	1.0900		0.33
LDF6-50A (1-1/4 FOAM)	B	Yes	Ar (CfAe)	308.00 - 303.00	0.0000	-0.05	1	1	1.0000	1.5500		0.66
LDF6-50A (1-1/4 FOAM)	B	Yes	Ar (CfAe)	303.00 - 8.00	0.0000	-0.05	2	2	1.0000	1.5500		0.66
3.5" Coax	D	Yes	Ar (CfAe)	289.00 - 8.00	0.0000	-0.45	1	1	1.0000	3.5000		0.50
LDF7-50A (1-5/8 FOAM)	B	Yes	Ar (CfAe)	269.00 - 263.00	0.0000	-0.15	1	1	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	B	Yes	Ar (CfAe)	263.00 - 8.00	0.0000	-0.15	7	7	1.0000	1.9800		0.82
LDF5-50A (7/8 FOAM)	B	Yes	Ar (CfAe)	257.00 - 8.00	0.0000	-0.18	4	2	1.0000	1.0900		0.33
LDF7-50A (1-5/8 FOAM)	B	Yes	Ar (CfAe)	244.00 - 8.00	0.0000	0.1	6	6	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	A	Yes	Ar (CfAe)	230.00 - 8.00	0.0000	0.45	6	6	1.0000	1.9800		0.82

tnxTower GPD Group 520 South Main St Akron, OH 44311 Phone: (330) 572-2100 FAX: (330) 572-2102	Job	SNET021 NORWALK	Page	2 of 7
	Project	2012762.03	Date	15:09:00 03/15/12
	Client	AT&T Mobility	Designed by	awestrum

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
LDF1-50A (1/4 FOAM)	A	Yes	Ar (CfAe)	230.00 - 8.00	0.0000	0.45	1	1	0.3500	0.3500		0.06
LDF4-50A (1/2 FOAM)	B	No	Ar (Leg)	206.00 - 36.00	0.0000	0.06	1	1	0.6300	0.6300		0.15
1" conduit	D	No	Ar (Leg)	55.00 - 27.00	0.0000	0.01	2	2	1.0000	1.0000		10.00
EW20	B	Yes	Af (CfAe)	50.00 - 8.00	0.0000	-0.06	1	1	1.0000	3.9832	12.5655	1.85
LDF4-50A (1/2 FOAM)	B	No	Ar (Leg)	36.00 - 32.00	0.0000	0.06	2	2	0.6300	0.6300		0.15
LDF4-50A (1/2 FOAM)	B	No	Ar (Leg)	32.00 - 8.00	0.0000	0.06	3	3	0.6300	0.6300		0.15
1" conduit	D	No	Ar (Leg)	27.00 - 26.00	0.0000	0.01	3	2	1.0000	1.0000		10.00
1" conduit	D	No	Ar (Leg)	27.00 - 8.00	0.0000	0.01	4	2	1.0000	1.0000		10.00
Feedline	A	Yes	Af (CfAe)	230.00 - 8.00	0.0000	0.43	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Feedline	B	Yes	Af (CfAe)	350.00 - 8.00	0.0000	-0.15	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Feedline	B	Yes	Af (CfAe)	350.00 - 8.00	0.0000	-0.05	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Feedline	B	Yes	Af (CfAe)	244.00 - 8.00	0.0000	0.1	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Feedline	B	No	Af (Leg)	350.00 - 8.00	0.0000	0.03	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Feedline	C	Yes	Af (CfAe)	337.00 - 8.00	0.0000	0	1	1	3.0000	3.0000	12.0000	8.40
Ladder (Af)												
Climbing Ladder	C	No	Af (Leg)	350.00 - 8.00	0.0000	0.02	1	1	0.2500	0.0000	0.0000	7.90

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
(2) 10' Omni	C	From Leg	0.00 0.00 5.00	0.0000	355.00	No Ice 1/2" Ice 3.02	2.00 3.02	25.00 40.50
10' Lattice Mount	C	From Leg	0.00 0.00 5.00	0.0000	350.00	No Ice 1/2" Ice 9.50	7.50 9.50	90.00 130.00
15' Omni	D	From Leg	0.00 0.00 5.00	0.0000	355.00	No Ice 1/2" Ice 6.73	5.19 6.73	57.69 94.50
10' P4x.237 Mount Pipe	D	From Leg	0.00 0.00 5.00	0.0000	350.00	No Ice 1/2" Ice 5.24	4.50 5.24	129.60 160.91
Flash Beacon Lighting	B	From Face	0.00 0.00 5.00	0.0000	355.00	No Ice 1/2" Ice 3.10	2.70 3.10	50.00 70.00
10' P4x.237 Mount Pipe	B	From Face	0.00 0.00 5.00	0.0000	350.00	No Ice 1/2" Ice 5.24	4.50 5.24	129.60 160.91
15' Omni	A	From Face	6.00 0.00 4.00	0.0000	350.00	No Ice 1/2" Ice 6.73	5.19 6.73	57.69 94.50
10' Omni	B	From Face	6.00	0.0000	350.00	No Ice	2.00	25.00

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	Client	AT&T Mobility	Designed by	awestrump

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
			-9.00			1/2" Ice	3.02	3.02	40.50
			4.00						
8' Omni	B	From Face	6.00	0.0000	350.00	No Ice	1.60	1.60	20.00
			0.00			1/2" Ice	2.42	2.42	32.45
			4.00						
8' Omni	B	From Face	6.00	0.0000	350.00	No Ice	1.60	1.60	20.00
			-6.00			1/2" Ice	2.42	2.42	32.45
			4.00						
8' Omni	D	From Face	6.00	0.0000	350.00	No Ice	1.60	1.60	20.00
			-4.00			1/2" Ice	2.42	2.42	32.45
			4.00						
5' Omni	B	From Face	6.00	0.0000	350.00	No Ice	1.00	1.00	15.00
			-3.00			1/2" Ice	1.39	1.39	22.86
			4.00						
3' x 2' Panel	B	From Leg	6.00	0.0000	350.00	No Ice	8.40	2.10	15.00
			0.00			1/2" Ice	8.79	2.38	56.84
			4.00						
3' x 2' Panel	C	From Leg	6.00	0.0000	350.00	No Ice	8.40	2.10	15.00
			0.00			1/2" Ice	8.79	2.38	56.84
			4.00						
3' x 2' Panel	D	From Leg	6.00	0.0000	350.00	No Ice	8.40	2.10	15.00
			0.00			1/2" Ice	8.79	2.38	56.84
			4.00						
25' Square Platform	C	None		0.0000	350.00	No Ice	33.69	33.69	13782.00
						1/2" Ice	38.65	38.65	16041.00
(2) 7770.00	B	From Leg	5.00	0.0000	335.00	No Ice	5.88	2.93	39.00
			0.00			1/2" Ice	6.31	3.27	71.63
			2.00						
(2) 7770.00	C	From Leg	5.00	0.0000	335.00	No Ice	5.88	2.93	39.00
			0.00			1/2" Ice	6.31	3.27	71.63
			2.00						
(2) 7770.00	D	From Leg	5.00	0.0000	335.00	No Ice	5.88	2.93	39.00
			0.00			1/2" Ice	6.31	3.27	71.63
			2.00						
(4) LGP21401	B	From Leg	5.00	0.0000	335.00	No Ice	1.29	0.23	14.10
			0.00			1/2" Ice	1.45	0.31	21.26
			2.00						
(4) LGP21401	C	From Leg	5.00	0.0000	335.00	No Ice	1.29	0.23	14.10
			0.00			1/2" Ice	1.45	0.31	21.26
			2.00						
(4) LGP21401	D	From Leg	5.00	0.0000	335.00	No Ice	1.29	0.23	14.10
			0.00			1/2" Ice	1.45	0.31	21.26
			2.00						
AM-X-CD-14-65-00T-RET	B	From Leg	5.00	0.0000	335.00	No Ice	5.51	2.83	36.40
			0.00			1/2" Ice	5.90	3.14	68.35
			2.00						
AM-X-CD-14-65-00T-RET	C	From Leg	5.00	0.0000	335.00	No Ice	5.51	2.83	36.40
			0.00			1/2" Ice	5.90	3.14	68.35
			2.00						
AM-X-CD-14-65-00T-RET	D	From Leg	5.00	0.0000	335.00	No Ice	5.51	2.83	36.40
			0.00			1/2" Ice	5.90	3.14	68.35
			2.00						
(2) RBS 6000	B	From Leg	5.00	0.0000	335.00	No Ice	2.94	1.19	55.00
			0.00			1/2" Ice	3.17	1.35	74.32
			2.00						
(2) RBS 6000	C	From Leg	5.00	0.0000	335.00	No Ice	2.94	1.19	55.00
			0.00			1/2" Ice	3.17	1.35	74.32

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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
(2) RBS 6000	D	From Leg	2.00 5.00 0.00	0.0000	335.00	No Ice 1/2" Ice	2.94 3.17	1.19 1.35	55.00 74.32
DC6-48-60-18-8F	D	From Leg	2.00 5.00 0.00	0.0000	335.00	No Ice 1/2" Ice	2.22 2.44	2.22 2.44	20.00 39.25
6' Yagi	B	From Leg	2.00 5.00 0.00	0.0000	335.00	No Ice 1/2" Ice	1.20 1.80	1.20 1.80	30.00 39.39
5' x 5' Corner Service Platform	A	From Leg	2.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
5' x 5' Corner Service Platform	B	From Leg	0.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
5' x 5' Corner Service Platform	C	From Leg	0.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
5' x 5' Corner Service Platform	D	From Leg	0.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
10' T-boom (1)	A	From Leg	0.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	18.00 23.40	9.00 11.70	500.00 600.00
10' T-boom (1)	B	From Leg	2.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	18.00 23.40	9.00 11.70	500.00 600.00
10' T-boom (1)	C	From Leg	0.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	18.00 23.40	9.00 11.70	500.00 600.00
10' T-boom (1)	D	From Leg	2.00 2.50 0.00	0.0000	335.00	No Ice 1/2" Ice	18.00 23.40	9.00 11.70	500.00 600.00
W8 x 10'	A	From Face	0.00 4.00 0.00	0.0000	332.00	No Ice 1/2" Ice	9.33 10.17	0.47 0.56	200.00 260.38
W8 x 10'	B	From Face	0.00 4.00 0.00	0.0000	332.00	No Ice 1/2" Ice	9.33 10.17	0.47 0.56	200.00 260.38
W8 x 10'	C	From Face	0.00 4.00 0.00	0.0000	332.00	No Ice 1/2" Ice	9.33 10.17	0.47 0.56	200.00 260.38
W8 x 10'	D	From Face	0.00 4.00 0.00	0.0000	332.00	No Ice 1/2" Ice	9.33 10.17	0.47 0.56	200.00 260.38
3" x 64" mount pipe	B	From Leg	0.00 1.00 0.00	0.0000	308.00	No Ice 1/2" Ice	1.49 1.82	1.49 1.82	40.53 52.34
10' Omni	A	From Leg	0.00 2.00 0.00	0.0000	303.00	No Ice 1/2" Ice	2.00 3.02	2.00 3.02	25.00 40.50
2' Standoff	A	From Leg	5.00 1.00 0.00	0.0000	303.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	20.00 40.00
10' Omni	A	From Leg	0.00 2.00 0.00	0.0000	289.00	No Ice 1/2" Ice	2.00 3.02	2.00 3.02	25.00 40.50

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			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
2' Standoff	A	From Leg	5.00 1.00 0.00 0.00	0.0000	289.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	20.00 40.00
APX16PV-16PVL	A	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	6.65 7.08	1.98 2.30	39.60 70.65
APX16PV-16PVL	B	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	6.65 7.08	1.98 2.30	39.60 70.65
APX16PV-16PVL	C	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	6.65 7.08	1.98 2.30	39.60 70.65
(2) TMA (GENERIC)	A	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.68 0.80	0.45 0.56	10.00 20.00
(2) TMA (GENERIC)	B	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.68 0.80	0.45 0.56	10.00 20.00
(2) TMA (GENERIC)	C	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.68 0.80	0.45 0.56	10.00 20.00
(2) RET	A	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.24 0.31	0.15 0.20	2.20 4.44
(2) RET	B	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.24 0.31	0.15 0.20	2.20 4.44
(2) RET	C	From Leg	6.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	0.24 0.31	0.15 0.20	2.20 4.44
2' square panel	C	From Leg	6.00 0.00 6.00	0.0000	263.00	No Ice 1/2" Ice	5.60 5.92	0.52 0.67	30.00 53.43
Pirol 6' Side Mount Standoff (1)	A	From Leg	3.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	4.97 6.12	4.97 6.12	70.00 130.00
Pirol 6' Side Mount Standoff (1)	B	From Leg	3.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	4.97 6.12	4.97 6.12	70.00 130.00
Pirol 6' Side Mount Standoff (1)	C	From Leg	3.00 0.00 0.00	0.0000	263.00	No Ice 1/2" Ice	4.97 6.12	4.97 6.12	70.00 130.00
2' square panel	C	From Leg	1.00 0.00 0.00	0.0000	257.00	No Ice 1/2" Ice	5.60 5.92	0.52 0.67	30.00 53.43
36" Service Platform	A	From Face	0.00 0.00 0.00	0.0000	252.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
36" Service Platform	B	From Face	0.00 0.00 0.00	0.0000	252.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
(2) DB980F90E-M	B	From Leg	4.00 0.00 0.00	0.0000	244.00	No Ice 1/2" Ice	3.90 4.28	2.29 2.65	8.50 29.47
(2) DB980F90E-M	C	From Leg	4.00 0.00	0.0000	244.00	No Ice 1/2" Ice	3.90 4.28	2.29 2.65	8.50 29.47

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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
(2) DB980F90E-M	D	From Leg	0.00 4.00 0.00 0.00	0.0000	244.00	No Ice 1/2" Ice	3.90 4.28	2.29 2.65	8.50 29.47
12' T-Frame (GPD)	B	From Leg	0.00 2.00 0.00 0.00	0.0000	244.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
12' T-Frame (GPD)	C	From Leg	0.00 2.00 0.00 0.00	0.0000	244.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
12' T-Frame (GPD)	D	From Leg	0.00 2.00 0.00 0.00	0.0000	244.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
800 10504	A	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	3.35 3.70	1.87 2.20	17.64 35.71
800 10504	B	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	3.35 3.70	1.87 2.20	17.64 35.71
800 10504	D	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	3.35 3.70	1.87 2.20	17.64 35.71
860 10025	A	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	0.18 0.25	0.15 0.21	1.20 2.85
860 10025	B	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	0.18 0.25	0.15 0.21	1.20 2.85
860 10025	D	From Leg	0.00 4.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	0.18 0.25	0.15 0.21	1.20 2.85
12' T-Frame (GPD)	B	From Leg	0.00 2.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
12' T-Frame (GPD)	C	From Leg	0.00 2.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
12' T-Frame (GPD)	D	From Leg	0.00 2.00 0.00 0.00	0.0000	230.00	No Ice 1/2" Ice	12.20 17.60	3.51 5.38	360.00 490.00
6' Yagi	B	From Leg	0.00 1.00 0.00 3.00	0.0000	206.00	No Ice 1/2" Ice	1.20 1.80	1.20 1.80	30.00 39.39
Side Light	A	From Leg	0.00 1.00 0.00 0.00	0.0000	183.00	No Ice 1/2" Ice	0.33 0.47	0.33 0.47	7.00 7.05
Side Light	C	From Leg	0.00 1.00 0.00 0.00	0.0000	183.00	No Ice 1/2" Ice	0.33 0.47	0.33 0.47	7.00 7.05
36" Service Platform	B	From Face	0.00 0.00 0.00	0.0000	125.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
36" Service Platform	C	From Face	0.00 0.00 0.00	0.0000	125.00	No Ice 1/2" Ice	4.00 4.80	8.75 10.50	250.00 480.00
6' Ice Shield	D	From Leg	0.00 3.00 0.00	-5.0000	55.00	No Ice 1/2" Ice	2.10 2.59	1.40 1.73	400.00 527.69

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	AT&T Mobility		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
2' Standoff	A	From Leg	6.00 1.00 0.00 0.00	0.0000	50.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	20.00 40.00
GPS	C	From Leg	0.00 0.00 0.00	0.0000	36.00	No Ice 1/2" Ice	0.17 0.24	0.17 0.24	0.87 3.85
GPS	C	From Leg	0.00 0.00 0.00	0.0000	26.00	No Ice 1/2" Ice	0.17 0.24	0.17 0.24	0.87 3.85

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight lb
6' Dish	D	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	-5.0000		55.00	6.00	No Ice 1/2" Ice	28.27 29.07
2' MW	A	Paraboloid w/Radome	From Leg	2.00 0.00 0.00	-90.0000		50.00	2.00	No Ice 1/2" Ice	3.14 3.41
4' Dish w/o Radome	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	0.0000		32.00	4.00	No Ice 1/2" Ice	12.57 13.10
4' Dish w/o Radome	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	0.0000		27.00	4.00	No Ice 1/2" Ice	12.57 13.10

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	A572-50	29000	11200	.295	.65	.49	50	1.1	58	1.2
2	A500-46	29000	11200	.295	.65	.49	46	1.2	58	1.1
3	A36	29000	11200	.295	.65	.49	36	1.5	58	1.2

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	L6x6x5/8	Column	Single Angle	A36	Typical	7.11	24.2	24.2	.954
2	TWR HTOP GIRT T1	C7X9.8	Beam	Channel	A36	Typical	2.87	.957	21.2	.1
3	TWR DIAG T1	L3 1/2x3 1/2x5/16	Column	Single Angle	A36	Typical	2.09	2.45	2.45	.073
4	TWR HSTEP T1	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
5	TWR LEG T2	L6x6x5/8	Column	Single Angle	A36	Typical	7.11	24.2	24.2	.954
6	TWR HORZ T2	C7X9.8	Beam	Channel	A36	Typical	2.87	.957	21.2	.1
7	TWR DIAG T2	L3 1/2x3 1/2x5/16	Column	Single Angle	A36	Typical	2.09	2.45	2.45	.073
8	TWR HSTEP T2	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
9	TWR LEG T3	L6x6x7/8	Column	Single Angle	A36	Typical	9.73	31.9	31.9	2.51
10	TWR HORZ T3	2L2 1/2x2 1/2x1/4x1/2	Beam	Double Angle	A36	Typical	2.375	3.628	1.406	.049
11	TWR INNER SUPP T3	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
12	TWR INNER CORNER1 T3	L2.5X2.5X3	Beam	Single Angle	A36	Typical	.9	.535	.535	.011
13	TWR INNER DIAMOND T3	2L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	1.62	1.009	1.02	.019
14	TWR DIAG T3	L3 1/2x4x5/16	Column	Single Angle	A36	Typical	2.25	3.56	2.55	.078
15	TWR HSTEP T3	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
16	TWR LEG T4	L6x6x7/8	Column	Single Angle	A36	Typical	9.73	31.9	31.9	2.51
17	TWR HORZ T4	2L3x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.63	3.373	2.35	.055
18	TWR DIAG T4	2L2 1/2x2 1/2x1/4x1/2	Column	Double Angle	A36	Typical	2.375	3.628	1.406	.049
19	TWR RED HORZ T4	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
20	TWR RED DIAG T4	L2.5X2X3	Column	Double Angle	A36	Typical	.809	.292	.511	.01
21	TWR INNER SUPP T4	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
22	TWR INNER CORNER1 T4	L2.5X2.5X3	Beam	Single Angle	A36	Typical	.9	.535	.535	.011
23	TWR INNER DIAMOND T4	2L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	1.62	1.009	1.02	.019
24	TWR LEG T5	L6x6x7/8	Column	Single Angle	A36	Typical	9.73	31.9	31.9	2.51
25	TWR HORZ T5	2L2 1/2x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.38	3.347	1.41	.049
26	TWR DIAG T5	2L2 1/2x2 1/2x1/4x1/2	Column	Double Angle	A36	Typical	2.375	3.628	1.406	.049
27	TWR RED HORZ T5	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
28	TWR RED DIAG T5	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
29	TWR INNER SUPP T5	2L2 1/2x2x3/16	Beam	Double Angle	A36	Typical	1.62	1.009	1.02	.019
30	TWR INNER CORNER1 T5	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
31	TWR INNER DIAMOND T5	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
32	TWR LEG T6	L8x8x3/4	Column	Single Angle	A36	Typical	11.4	69.7	69.7	2.21

Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
33 TWR HORZ T6	2L2 1/2x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.38	3.347	1.41	.049
34 TWR DIAG T6	2L2 1/2x2 1/2x1/4x1/2	Column	Double Angle	A36	Typical	2.375	3.628	1.406	.049
35 TWR RED HORZ T6	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
36 TWR RED DIAG T6	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
37 TWR INNER SUPP T6	2L2 1/2x2x3/16	Beam	Double Angle	A36	Typical	1.62	1.009	1.02	.019
38 TWR INNER CORNER1 T6	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
39 TWR INNER DIAMOND T6	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
40 TWR LEG T7	L8x8x7/8	Column	Single Angle	A36	Typical	13.2	79.6	79.6	3.46
41 TWR HORZ T7	2L3x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.63	3.373	2.35	.055
42 TWR DIAG T7	2L2 1/2x3x5/16x1/2	Column	Double Angle	A36	Typical	3.242	7.385	1.796	.106
43 TWR RED HORZ T7	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
44 TWR RED HORZ 2 T7	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
45 TWR RED DIAG T7	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
46 TWR RED DIAG 2 T7	2L2 1/2x2x3/16	Column	Double Angle	A36	Typical	1.62	1.009	1.02	.019
47 TWR RED SUBHOR T7	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
48 TWR RED HIP 2 T7	L3.5X3.5X6	Beam	Double Angle	A36	Typical	2.48	2.86	2.86	.123
49 TWR RED HIPDIA T7	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
50 TWR INNER SUPP T7	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
51 TWR INNER CORNER1 T7	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
52 TWR INNER MIDGIRT T7	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
53 TWR INNER DIAMOND T7	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
54 TWR LEG T8	L8x8x1 1/8	Column	Single Angle	A36	Typical	16.7	98	98	7.13
55 TWR HORZ T8	2L3x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.63	3.373	2.35	.055
56 TWR DIAG T8	2L2 1/2x3x5/16x1/2	Column	Double Angle	A36	Typical	3.242	7.385	1.796	.106
57 TWR RED HORZ T8	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
58 TWR RED HORZ 2 T8	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
59 TWR RED DIAG T8	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
60 TWR RED DIAG 2 T8	2L2 1/2x2x3/16	Column	Double Angle	A36	Typical	1.62	1.009	1.02	.019
61 TWR RED SUBHOR T8	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
62 TWR RED HIP 2 T8	L4X4X6	Beam	Double Angle	A36	Typical	2.86	4.32	4.32	.141
63 TWR RED HIPDIA T8	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
64 TWR INNER SUPP T8	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
65 TWR INNER CORNER1 T8	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
66 TWR INNER MIDGIRT T8	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
67 TWR INNER DIAMOND T8	LL2.5x3x4x0	Beam	Double Angle	A36	Typical	2.64	4.462	1.47	.059
68 TWR LEG T9	L8x8x1 1/8	Column	Single Angle	A500-46	Typical	16.7	98	98	7.13
69 TWR HORZ T9	2L3 1/2x2 1/2x1/4x3/8	Beam	Double Angle	A36	Typical	2.88	3.4	3.6	.06
70 TWR DIAG T9	2L2 1/2x3 1/2x5/16x1/2	Column	Double Angle	A36	Typical	3.555	11.22	1.878	.116
71 TWR RED HORZ T9	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
72 TWR RED HORZ 2 T9	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
73 TWR RED DIAG T9	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014

Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Ivy [in4]	Izz [in4]	J [in4]
74 TWR RED DIAG 2 T9	2L3x2x1/4	Column	Double Angle	A36	Typical	2.38	1.361	2.17	.049
75 TWR RED SUBHOR T9	2L2 1/2x3x1/4	Beam	Double Angle	A36	Typical	2.63	4.519	1.49	.055
76 TWR RED VERT T9	L2.5X2.5X4	Beam	Double Angle	A36	Typical	1.19	.692	.692	.026
77 TWR RED HIP 2 T9	L4X4X6	Beam	Double Angle	A36	Typical	2.86	4.32	4.32	.141
78 TWR RED HIPDIA T9	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
79 TWR INNER SUPP T9	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
80 TWR INNER CORNER1 T9	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
81 TWR INNER MIDGIRT T9	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
82 TWR INNER DIAMOND T9	LL2.5x3x4x0	Beam	Double Angle	A36	Typical	2.64	4.462	1.47	.059
83 TWR LEG T10	L8x8x1 1/8	Column	Single Angle	A500-46	Typical	16.7	98	98	7.13
84 TWR HORZ T10	2L3-1/2x2-1/2x5/16x1/2	Beam	Double Angle	A36	Typical	3.555	4.674	4.381	.116
85 TWR DIAG T10	2L3x3-1/2x5/16x1/2	Column	Double Angle	A36	Typical	3.867	11.274	3.167	.126
86 TWR RED HORZ T10	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
87 TWR RED HORZ 2 T10	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
88 TWR RED DIAG T10	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
89 TWR RED DIAG 2 T10	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
90 TWR RED SUBHOR T10	2L3x3x1/4	Beam	Double Angle	A36	Typical	2.88	4.525	2.49	.06
91 TWR RED SUBDIA T10	2L3x2 1/2x1/4	Column	Double Angle	A36	Typical	2.63	2.631	2.35	.055
92 TWR RED SUBDIA2 T10	LL3x3x5x0	Column	Double Angle	A36	Typical	3.55	5.636	2.99	.119
93 TWR RED VERT T10	L3x3x1/4	Column	Single Angle	A36	Typical	1.44	1.24	1.24	.032
94 TWR RED HIPMOD T10	L2.5X2.5X4	Beam	Double Angle	A36	Typical	1.19	.692	.692	.026
95 TWR RED HIP 2 T10	2L3x4x1/4	Beam	Double Angle	A36	Typical	3.38	10.688	2.71	.07
96 TWR RED HIP 3 T10	L3X3X4	Beam	Double Angle	A36	Typical	1.44	1.23	1.23	.031
97 TWR RED HIPDIA T10	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
98 TWR INNER SUPP T10	2L3x4x1/4	Beam	Double Angle	A36	Typical	3.38	10.688	2.71	.07
99 TWR INNER CORNER1 T10	L3X2.5X4	Beam	Double Angle	A36	Typical	1.31	.734	1.16	.03
100 TWR INNER LACE T10	L3X3X4	Beam	Double Angle	A36	Typical	1.44	1.23	1.23	.031
101 TWR LEG T11	L8x8x1 1/8	Column	Single Angle	A500-46	Typical	16.7	98	98	7.13
102 TWR HORZ T11	2L3 1/2x3x5/16x1/2	Beam	Double Angle	A36	Typical	3.867	7.493	4.66	.126
103 TWR DIAG T11	2L3x3 1/2x3/8x1/2	Column	Double Angle	A36	Typical	4.594	13.58	3.693	.215
104 TWR RED HORZ T11	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
105 TWR RED HORZ 2 T11	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
106 TWR RED DIAG T11	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
107 TWR RED DIAG 2 T11	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
108 TWR RED SUBHOR T11	LL4x4x6x3	Beam	Double Angle	A36	Typical	5.71	18.5	8.64	.282
109 TWR RED SUBDIA T11	2L3x2 1/2x1/4	Column	Double Angle	A36	Typical	2.63	2.631	2.35	.055
110 TWR RED SUBDIA2 T11	LL3.5x3.5x5x0	Column	Double Angle	A36	Typical	4.21	8.974	4.89	.146
111 TWR RED HIP T11	L2.5X2.5X4	Beam	Double Angle	A36	Typical	1.19	.692	.692	.026
112 TWR RED HIP 2 T11	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
113 TWR RED HIP 3 T11	L3.5X3X4	Beam	Double Angle	A36	Typical	1.56	1.3	1.92	.036
114 TWR RED HIPDIA T11	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049

Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iy [in4]	Izz [in4]	J [in4]
115 TWR INNER SUPP T11	2L3x4x1/4	Beam	Double Angle	A36	Typical	3.38	10.688	2.71	.07
116 TWR INNER CORNER1 T11	L3X2.5X4	Beam	Double Angle	A36	Typical	1.31	.734	1.16	.03
117 TWR INNER MIDSTRUT T11	L3.5X3X4	Beam	Double Angle	A36	Typical	1.56	1.3	1.92	.036
118 TWR LEG T12	L8x8x1	Column	Single Angle	A572-50	Typical	15	89	89	5.08
119 TWR HORZ T12	2L4x3 1/2x5 1/16x1/2	Beam	Double Angle	A36	Typical	4.492	11.382	7.118	.146
120 TWR DIAG T12	2L3x3 1/2x3/8x1/2	Column	Double Angle	A36	Typical	4.594	13.58	3.693	.215
121 TWR RED HORZ T12	L2.5X2X3	Beam	Double Angle	A36	Typical	.809	.292	.511	.01
122 TWR RED HORZ 2 T12	2L2 1/2x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.38	2.625	1.41	.049
123 TWR RED DIAG T12	L3X3X3	Column	Double Angle	A36	Typical	1.09	.948	.948	.014
124 TWR RED DIAG 2 T12	LL3.5x3.5x6x3	Column	Double Angle	A36	Typical	5	12.8	5.72	.246
125 TWR RED SUBHOR T12	LL4x4x6x3	Beam	Double Angle	A36	Typical	5.71	18.5	8.64	.282
126 TWR RED SUBDIA T12	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
127 TWR RED SUBDIA2 T12	LL3.5x3.5x5x0	Column	Double Angle	A36	Typical	4.21	8.974	4.89	.146
128 TWR RED HIPMOD T12	L2.5X2.5X4	Beam	Double Angle	A36	Typical	1.19	.692	.692	.026
129 TWR RED HIP 2 T12	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
130 TWR RED HIP 3 T12	L3.5X3.5X4	Beam	Double Angle	A36	Typical	1.69	2	2	.039
131 TWR RED HIPDIA T12	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
132 TWR INNER SUPP T12	2L3 1/2x4 1/2x1/4	Beam	Double Angle	A36	Typical	3.875	15.221	4.332	.081
133 TWR INNER CORNER1 T12	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
134 TWR INNER MIDSTRUT T12	L3.5X3.5X4	Beam	Double Angle	A36	Typical	1.69	2	2	.039
135 TWR LEG T13	L8x8x1	Column	Single Angle	A572-50	Typical	15	89	89	5.08
136 TWR HORZ T13	2L3 1/2x3x5/16x1/2	Beam	Double Angle	A36	Typical	3.867	7.493	4.66	.126
137 TWR DIAG T13	2L3x3 1/2x3/8x1/2	Column	Double Angle	A36	Typical	4.594	13.58	3.693	.215
138 TWR RED HORZ T13	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
139 TWR RED HORZ 2 T13	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
140 TWR RED DIAG T13	2L2 1/2x2 1/2x3/16	Column	Double Angle	A36	Typical	1.8	1.966	1.09	.021
141 TWR RED DIAG 2 T13	LL3x3x6x3	Column	Double Angle	A36	Typical	4.22	8.39	3.5	.202
142 TWR RED SUBHOR T13	2L3x3 1/2x1/4	Beam	Double Angle	A36	Typical	3.13	7.169	2.61	.065
143 TWR RED SUBDIA T13	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
144 TWR RED VERT T13	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
145 TWR RED MIDVERT T13	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
146 TWR RED HIP T13	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
147 TWR RED HIP 2 T13	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
148 TWR RED HIP 3 T13	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
149 TWR RED HIPDIA T13	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
150 TWR RED HIPDIACKICK T13	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
151 TWR INNER SUPP T13	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
152 TWR INNER CORNER1 T13	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
153 TWR INNER CORNER2 T13	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
154 TWR INNER CORNER3 T13	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
155 TWR INNER MIDSTRUT T13	LL3x3x3x0	Beam	Double Angle	A36	Typical	2.18	3.352	1.9	.027

Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
156 TWR LEG T14	L8x8x1	Column	Single Angle	A572-50	Typical	15	89	89	5.08
157 TWR HORZ T14	2L4x3x5/16x1/2	Beam	Double Angle	A36	Typical	4.18	7.548	6.762	.136
158 TWR DIAG T14	2L3x4x3/8x1/2	Column	Double Angle	A36	Typical	4.969	19.587	3.84	.233
159 TWR RED HORZ T14	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
160 TWR RED HORZ 2 T14	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
161 TWR RED DIAG T14	2L2 1/2x2 1/2x3/16	Column	Double Angle	A36	Typical	1.8	1.966	1.09	.021
162 TWR RED DIAG 2 T14	LL3.5x3.5x6x3	Column	Double Angle	A36	Typical	5	12.8	5.72	.246
163 TWR RED SUBHOR T14	2L3x3 1/2x1/4	Beam	Double Angle	A36	Typical	3.13	7.169	2.61	.065
164 TWR RED SUBDIA T14	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
165 TWR RED VERT T14	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
166 TWR RED MIDVERT T14	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
167 TWR RED HIP T14	L3X3X3	Beam	Double Angle	A36	Typical	1.09	.948	.948	.014
168 TWR RED HIP 2 T14	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
169 TWR RED HIP 3 T14	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
170 TWR RED HIPDIA T14	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
171 TWR RED HIPDIACKICK T14	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
172 TWR INNER SUPP T14	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
173 TWR INNER CORNER1 T14	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
174 TWR INNER CORNER2 T14	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
175 TWR INNER CORNER3 T14	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
176 TWR INNER MIDSTRUT T14	LL3x3x3x0	Beam	Double Angle	A36	Typical	2.18	3.352	1.9	.027
177 TWR LEG T15	L8x8x1	Column	Single Angle	A572-50	Typical	15	89	89	5.08
178 TWR HORZ T15	2L4x3x5/16x1/2	Beam	Double Angle	A36	Typical	4.18	7.548	6.762	.136
179 TWR DIAG T15	2L3x4x3/8x1/2	Column	Double Angle	A36	Typical	4.969	19.587	3.84	.233
180 TWR RED KICK T15	L2.5X2.5X4	Column	Double Angle	A36	Typical	1.19	.692	.692	.026
181 TWR RED HORZ T15	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
182 TWR RED HORZ 2 T15	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
183 TWR RED DIAG T15	2L2 1/2x2 1/2x3/16	Column	Double Angle	A36	Typical	1.8	1.966	1.09	.021
184 TWR RED DIAG 2 T15	LL3.5x3.5x6x3	Column	Double Angle	A36	Typical	5	12.8	5.72	.246
185 TWR RED SUBHOR T15	2L3x4x1/4	Beam	Double Angle	A36	Typical	3.38	10.688	2.71	.07
186 TWR RED SUBDIA T15	LL4x4x8x3	Column	Double Angle	A36	Typical	7.49	25.083	11	.644
187 TWR RED VERT T15	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
188 TWR RED MIDVERT T15	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
189 TWR RED HIP T15	L4X4X6	Beam	Double Angle	A36	Typical	2.86	4.32	4.32	.141
190 TWR RED HIP 2 T15	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
191 TWR RED HIP 3 T15	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
192 TWR RED HIPDIA T15	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
193 TWR RED HIPDIACKICK T15	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
194 TWR INNER SUPP T15	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
195 TWR INNER CORNER1 T15	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
196 TWR INNER CORNER2 T15	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011

Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
197 TWR INNER CORNER3 T15	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
198 TWR INNER MIDSTRUT T15	2L2 1/2x2 1/2x3/16	Beam	Double Angle	A36	Typical	1.8	1.966	1.09	.021
199 TWR LEG T16	L8x8x1 1/8	Column	Single Angle	A572-50	Typical	16.7	98	98	7.13
200 TWR HORZ T16	2L5x3-1/2x3/8x1/2	Beam	Double Angle	A36	Typical	6.094	13.884	15.553	.286
201 TWR DIAG T16	2L4x6x3/8x1/2	Column	Double Angle	A36	Typical	7.219	61.583	9.809	.338
202 TWR RED KICK T16	L2.5X2.5X4	Column	Double Angle	A36	Typical	1.19	.692	.692	.026
203 TWR RED HORZ T16	L2.5X2.5X3	Beam	Double Angle	A36	Typical	.9	.535	.535	.011
204 TWR RED HORZ 2 T16	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
205 TWR RED DIAG T16	2L2 1/2x2 1/2x3/16	Column	Double Angle	A36	Typical	1.8	1.966	1.09	.021
206 TWR RED DIAG 2 T16	LL3.5x3.5x6x3	Column	Double Angle	A36	Typical	5	12.8	5.72	.246
207 TWR RED SUBHOR T16	2L3x4x1/4	Beam	Double Angle	A36	Typical	3.38	10.688	2.71	.07
208 TWR RED SUBDIA T16	LL5x5x6x3	Column	Double Angle	A36	Typical	7.3	35.332	17.5	.366
209 TWR RED SUBBRACE T16	L2.5X2.5X4	Column	Double Angle	A36	Typical	1.19	.692	.692	.026
210 TWR RED VERT T16	L2 1/2x2 1/2x1/4	Column	Single Angle	A36	Typical	1.19	.703	.703	.025
211 TWR RED MIDVERT T16	LL3x2.5x4x0	Column	Single Angle	A36	Typical	2.64	2.593	2.33	.059
212 TWR RED HIP T16	L4X4X6	Beam	Double Angle	A36	Typical	2.86	4.32	4.32	.141
213 TWR RED HIP 2 T16	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
214 TWR RED HIP 3 T16	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
215 TWR RED HIPDIA T16	L2.5X2.5X4	Column	Double Angle	A36	Typical	1.19	.692	.692	.026
216 TWR RED HIPDIA2 T16	2L2 1/2x2 1/2x1/4	Column	Double Angle	A36	Typical	2.38	2.625	1.41	.049
217 TWR RED HIPDIACKICK T16	L2.5X2.5X3	Column	Double Angle	A36	Typical	.9	.535	.535	.011
218 TWR INNER SUPP T16	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
219 TWR INNER CORNER1 T16	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
220 TWR INNER CORNER2 T16	L3X3X4	Beam	Double Angle	A36	Typical	1.44	1.23	1.23	.031
221 TWR INNER CORNER3 T16	2L3x2 1/2x1/4	Beam	Double Angle	A36	Typical	2.63	2.631	2.35	.055
222 TWR INNER MIDSTRUT T16	2L2 1/2x2 1/2x3/16	Beam	Double Angle	A36	Typical	1.8	1.966	1.09	.021
223 TWR INNER MIDGIRT T16	LL3x3x3x0	Beam	Double Angle	A36	Typical	2.18	3.352	1.9	.027
224 TWR INNER DIAMOND T16	2L2 1/2x3 1/2x5/16	Beam	Double Angle	A36	Typical	3.55	8.983	1.88	.116
225 TWR INNER TRUSS T16	L3X3X4	Beam	Double Angle	A36	Typical	1.44	1.23	1.23	.031

General Section Sets

Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1 TWR DIAGMOD T8	2L2-1/2x3x5/16 w 2L3x3x3/8	Column	gen Steel	7.47	14.81	9.839	10
2 TWR DIAGMOD T9	2L2-1/2x3-1/2x5/16 w 2L3x3-1/2x	Column	gen Steel	8.21	22.801	9.885	10
3 TWR DIAGMOD T10	2L3x3-1/2x5/16 w 2L3x3-1/2x3/8	Column	gen Steel	8.54	22.834	12.493	10
4 TWR DIAGMOD T12	2L3x3-1/2x3/8 w 2L3x3-1/2x3/8	Column	gen Steel	9.26	24.948	13.72	10
5 TWR DIAGMOD T13	2L3x3-1/2x3/8 w 2L3x3-1/2x3/8	Column	gen Steel	9.26	24.948	13.72	10
6 TWR DIAGMOD T14	2L3x4x3/8 w 2L3x4x3/8	Column	gen Steel	9.96	36.408	13.755	10
7 TWR DIAGMOD T15	2L3x4x3/8 w 2L3x4x3/8	Column	gen Steel	9.96	36.408	13.755	10

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Member)	Surface(Plate/...
1	Dead	None				84	351	64		
2	No Ice Wind 0 deg	None		-1		84	846	192		
3	No Ice Wind 45 deg	None				168	774	256		
4	No Ice Wind 90 deg	None				84	846	192		
5	No Ice Wind 135 deg	None				168	790	256		
6	No Ice Wind 180 deg	None				84	846	192		
7	No Ice Wind 225 deg	None				168	774	256		
8	No Ice Wind 270 deg	None				84	846	192		
9	No Ice Wind 315 deg	None				168	790	256		
10	Ice	None				84	343	920		
11	Temperature Drop	None						1648		
12	Ice Wind 0 deg	None				84	846	192		
13	Ice Wind 45 deg	None				168	774	256		
14	Ice Wind 90 deg	None				84	846	192		
15	Ice Wind 135 deg	None				168	790	256		
16	Ice Wind 180 deg	None				84	846	192		
17	Ice Wind 225 deg	None				168	774	256		
18	Ice Wind 270 deg	None				84	846	192		
19	Ice Wind 315 deg	None				168	790	256		
20	Service Wind 0 deg	None				84	840	192		
21	Service Wind 45 deg	None				168	760	256		
22	Service Wind 90 deg	None				84	840	192		
23	Service Wind 135 deg	None				168	778	256		
24	Service Wind 180 deg	None				84	840	192		
25	Service Wind 225 deg	None				168	760	256		
26	Service Wind 270 deg	None				84	840	192		
27	Service Wind 315 deg	None				168	778	256		

Load Combinations

	Description	Solve	PDelta	SRSS	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

Load Combinations (Continued)

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
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+Te...	Yes			1	1	12	1	10	1	11	1	28	1	29	1
12	Dead+Wind 45 deg+Ice+Te...	Yes			1	1	13	1	10	1	11	1	28	1	29	1
13	Dead+Wind 90 deg+Ice+Te...	Yes			1	1	14	1	10	1	11	1	28	1	29	1
14	Dead+Wind 135 deg+Ice+T...	Yes			1	1	15	1	10	1	11	1	28	1	29	1
15	Dead+Wind 180 deg+Ice+T...	Yes			1	1	16	1	10	1	11	1	28	1	29	1
16	Dead+Wind 225 deg+Ice+T...	Yes			1	1	17	1	10	1	11	1	28	1	29	1
17	Dead+Wind 270 deg+Ice+T...	Yes			1	1	18	1	10	1	11	1	28	1	29	1
18	Dead+Wind 315 deg+Ice+T...	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 - Servi...	Yes			1	1	23	1	28	1	29	1	0	0	0	0
23	Dead+Wind 180 deg - Servi...	Yes			1	1	24	1	28	1	29	1	0	0	0	0
24	Dead+Wind 225 deg - Servi...	Yes			1	1	25	1	28	1	29	1	0	0	0	0
25	Dead+Wind 270 deg - Servi...	Yes			1	1	26	1	28	1	29	1	0	0	0	0
26	Dead+Wind 315 deg - Servi...	Yes			1	1	27	1	28	1	29	1	0	0	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	N465	max	77.38	16	594.185	16	63.126	12	.003	1	0	1
2		min	-60.603	12	-405.771	3	-80.359	7	-.002	14	0	1
3	N466	max	58.756	18	594.805	14	63.706	18	.003	16	0	1
4		min	-75.531	14	-399.426	9	-81.851	14	-.003	12	0	1
5	N467	max	62.39	16	608.75	12	78.067	12	.006	14	0	1
6		min	-81.201	12	-399.712	7	-59.801	16	-.006	9	0	1
7	N468	max	82.014	18	600.33	18	75.923	18	.005	3	0	1
8		min	-63.261	14	-397.272	5	-58.589	14	-.005	7	0	1
9	Totals:	max	231.819	8	435.486	18	232.271	2				
10		min	-231.919	4	333.459	5	-231.603	6				

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

Member	Shape	Code Check	Loc [ft]	LC	Shear Che...	Loc [ft]	Dir	LC	Pnc/om [k]	Mnzz/om [k-ft]	Cb	Eqn
1	M9	L3 1/2x3 1/2x5/16	.170	6.943	8	.003	z	11	14.895	45.054	1	H2-1
2	M10	L3 1/2x3 1/2x5/16	.168	0	4	.003	z	11	14.895	45.054	1	H2-1
3	M11	L3 1/2x3 1/2x5/16	.168	6.943	6	.003	z	17	14.895	45.054	1	H2-1
4	M12	L3 1/2x3 1/2x5/16	.167	0	2	.003	z	17	14.895	45.054	1	H2-1

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

Mar 15, 2012
3:14 PM
Checked By:

SNET021 NORWALK

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
5	M13	L3 1/2x3 1/2x5/16	.174	6.943	4	.003	9.57	Z	15	14.895	45.054	.755	3.41	1	H2-1
6	M14	L3 1/2x3 1/2x5/16	.171	0	8	.003	9.57	Z	15	14.895	45.054	.755	2.533	1	H2-1
7	M15	L3 1/2x3 1/2x5/16	.174	6.943	2	.003	9.57	Z	13	14.895	45.054	.755	3.41	1	H2-1
8	M16	L3 1/2x3 1/2x5/16	.174	0	6	.003	9.57	Z	13	14.895	45.054	.755	2.533	1	H2-1
9	M29	L3 1/2x3 1/2x5/16	.497	7.277	8	.003	10.309	Z	18	13.107	45.054	.755	3.333	1	H2-1
10	M30	L3 1/2x3 1/2x5/16	.492	8.085	4	.004	10.309	Z	11	13.107	45.054	.755	3.318	2.02	H2-1
11	M31	L3 1/2x3 1/2x5/16	.506	7.277	6	.003	10.309	Z	16	13.107	45.054	.755	3.333	1	H2-1
12	M32	L3 1/2x3 1/2x5/16	.507	8.085	2	.004	10.309	Z	17	13.107	45.054	.755	3.32	2.0...	H2-1
13	M33	L3 1/2x3 1/2x5/16	.488	7.277	4	.003	10.309	Z	14	13.107	45.054	.755	3.333	1	H2-1
14	M34	L3 1/2x3 1/2x5/16	.490	8.085	8	.004	10.309	Z	15	13.107	45.054	.755	3.317	2.0...	H2-1
15	M35	L3 1/2x3 1/2x5/16	.476	7.277	2	.003	10.309	Z	12	13.107	45.054	.755	3.333	1	H2-1
16	M36	L3 1/2x3 1/2x5/16	.479	8.085	6	.004	10.309	Z	13	13.107	45.054	.755	3.313	2.01	H2-1
17	M54	L3 1/2x4x5/16	.526	6.087	8	.004	10.87	Z	13	13.936	48.503	1.429	4.213	1	H2-1
18	M55	L3 1/2x4x5/16	.527	10.87	4	.004	10.87	Z	11	13.936	48.503	1.429	4.069	1.53	H2-1
19	M56	L3 1/2x4x5/16	.548	6.087	6	.004	10.87	Z	18	13.936	48.503	1.429	4.213	1	H2-1
20	M57	L3 1/2x4x5/16	.558	10.87	2	.004	10.87	Z	16	13.936	48.503	1.429	4.078	1.5...	H2-1
21	M58	L3 1/2x4x5/16	.535	6.087	4	.004	10.87	Z	16	13.936	48.503	1.429	4.213	1	H2-1
22	M59	L3 1/2x4x5/16	.543	10.87	8	.004	10.87	Z	15	13.936	48.503	1.429	4.075	1.5...	H2-1
23	M60	L3 1/2x4x5/16	.507	6.087	2	.004	10.87	Z	14	13.936	48.503	1.429	4.213	1	H2-1
24	M61	L3 1/2x4x5/16	.518	10.87	6	.004	10.87	Z	13	13.936	48.503	1.429	4.066	1.5...	H2-1
25	M71	2L2 1/2x2 1/2x1/4x1/2	.599	7.94	8	.002	7.94	Y	18	16.501	51.198	3.792	1.417	1.1...	H1-1a
26	M74	2L2 1/2x2 1/2x1/4x1/2	.594	7.94	4	.002	7.94	Y	12	16.501	51.198	3.792	1.417	1.1...	H1-1a
27	M78	2L2 1/2x2 1/2x1/4x1/2	.640	7.94	6	.002	7.94	Y	16	16.501	51.198	3.792	1.417	1.1...	H1-1a
28	M81	2L2 1/2x2 1/2x1/4x1/2	.637	7.94	2	.002	7.94	Y	18	16.501	51.198	3.792	1.417	1.1...	H1-1a
29	M85	2L2 1/2x2 1/2x1/4x1/2	.622	7.94	4	.002	7.94	Y	14	16.501	51.198	3.792	1.417	1.1...	H1-1a
30	M88	2L2 1/2x2 1/2x1/4x1/2	.628	7.94	8	.002	7.94	Y	16	16.501	51.198	3.792	1.417	1.1...	H1-1a
31	M92	2L2 1/2x2 1/2x1/4x1/2	.583	7.94	2	.002	7.94	Y	12	16.501	51.198	3.792	1.417	1.1...	H1-1a
32	M95	2L2 1/2x2 1/2x1/4x1/2	.584	7.94	6	.002	7.94	Y	14	16.501	51.198	3.792	1.417	1.1...	H1-1a
33	M108	2L2 1/2x2 1/2x1/4x1/2	.814	8.548	17	.003	8.548	Y	18	14.105	51.198	3.792	1.417	1.1...	H1-1a
34	M111	2L2 1/2x2 1/2x1/4x1/2	.805	8.548	4	.003	8.548	Y	12	14.105	51.198	3.792	1.417	1.1...	H1-1a
35	M115	2L2 1/2x2 1/2x1/4x1/2	.888	8.548	6	.003	8.548	Y	16	14.105	51.198	3.792	1.417	1.1...	H1-1a
36	M118	2L2 1/2x2 1/2x1/4x1/2	.883	8.548	2	.003	8.548	Y	18	14.105	51.198	3.792	1.417	1.1...	H1-1a
37	M122	2L2 1/2x2 1/2x1/4x1/2	.872	8.548	4	.003	8.548	Y	14	14.105	51.198	3.792	1.417	1.1...	H1-1a
38	M125	2L2 1/2x2 1/2x1/4x1/2	.880	8.548	8	.003	8.548	Y	16	14.105	51.198	3.792	1.417	1.1...	H1-1a
39	M129	2L2 1/2x2 1/2x1/4x1/2	.797	8.548	2	.003	8.548	Y	12	14.105	51.198	3.792	1.417	1.1...	H1-1a
40	M132	2L2 1/2x2 1/2x1/4x1/2	.801	8.548	6	.003	8.548	Y	14	14.105	51.198	3.792	1.417	1.1...	H1-1a
41	M141	2L2 1/2x2 1/2x1/4x1/2	.701	8.236	8	.003	8.236	Y	18	15.281	51.198	3.792	1.417	1.1...	H1-1a
42	M144	2L2 1/2x2 1/2x1/4x1/2	.694	8.236	4	.003	8.236	Y	12	15.281	51.198	3.792	1.417	1.1...	H1-1a
43	M148	2L2 1/2x2 1/2x1/4x1/2	.759	8.236	6	.003	8.236	Y	16	15.281	51.198	3.792	1.417	1.1...	H1-1a
44	M151	2L2 1/2x2 1/2x1/4x1/2	.755	8.236	2	.003	8.236	Y	18	15.281	51.198	3.792	1.417	1.1...	H1-1a
45	M155	2L2 1/2x2 1/2x1/4x1/2	.743	8.236	4	.003	8.236	Y	14	15.281	51.198	3.792	1.417	1.1...	H1-1a

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

Member	Shape	Code Check	Locftl	LC	Shear Che...	Locftl	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Egn
46	M158	2L2 1/2x2 1/2x1/4x1/2	.749	8.236	8	.003	8.236	y	16	15.281	51.198	3.792	1.417	1.1... H1-1a
47	M162	2L2 1/2x2 1/2x1/4x1/2	.685	8.236	2	.003	8.236	y	12	15.281	51.198	3.792	1.417	1.1... H1-1a
48	M165	2L2 1/2x2 1/2x1/4x1/2	.688	8.236	6	.003	8.236	y	14	15.281	51.198	3.792	1.417	1.1... H1-1a
49	M178	2L2 1/2x2 1/2x1/4x1/2	1.131	9.211	17	.003	9.211	y	18	12.205	51.198	3.792	1.417	1.1... H1-1a
50	M181	2L2 1/2x2 1/2x1/4x1/2	1.108	9.211	13	.003	9.211	y	12	12.205	51.198	3.792	1.417	1.1... H1-1a
51	M185	2L2 1/2x2 1/2x1/4x1/2	1.243	9.211	6	.003	9.211	y	16	12.205	51.198	3.792	1.417	1.1... H1-1a
52	M188	2L2 1/2x2 1/2x1/4x1/2	1.236	9.211	2	.003	9.211	y	18	12.205	51.198	3.792	1.417	1.1... H1-1a
53	M192	2L2 1/2x2 1/2x1/4x1/2	1.227	9.211	4	.003	9.211	y	14	12.205	51.198	3.792	1.417	1.1... H1-1a
54	M195	2L2 1/2x2 1/2x1/4x1/2	1.238	9.211	8	.003	9.211	y	16	12.205	51.198	3.792	1.417	1.1... H1-1a
55	M199	2L2 1/2x2 1/2x1/4x1/2	1.102	9.211	2	.003	9.211	y	12	12.205	51.198	3.792	1.417	1.1... H1-1a
56	M202	2L2 1/2x2 1/2x1/4x1/2	1.112	9.211	15	.003	9.211	y	14	12.205	51.198	3.792	1.417	1.1... H1-1a
57	M211	2L2 1/2x2 1/2x1/4x1/2	.938	8.873	17	.003	8.873	y	18	13.211	51.198	3.792	1.417	1.1... H1-1a
58	M214	2L2 1/2x2 1/2x1/4x1/2	.920	8.873	13	.003	8.873	y	12	13.211	51.198	3.792	1.417	1.1... H1-1a
59	M218	2L2 1/2x2 1/2x1/4x1/2	1.020	8.873	6	.003	8.873	y	16	13.211	51.198	3.792	1.417	1.1... H1-1a
60	M221	2L2 1/2x2 1/2x1/4x1/2	1.015	8.873	2	.003	8.873	y	18	13.211	51.198	3.792	1.417	1.1... H1-1a
61	M225	2L2 1/2x2 1/2x1/4x1/2	1.003	8.873	4	.003	8.873	y	14	13.211	51.198	3.792	1.417	1.1... H1-1a
62	M228	2L2 1/2x2 1/2x1/4x1/2	1.012	8.873	8	.003	8.873	y	16	13.211	51.198	3.792	1.417	1.1... H1-1a
63	M232	2L2 1/2x2 1/2x1/4x1/2	.911	8.873	11	.003	8.873	y	12	13.211	51.198	3.792	1.417	1.1... H1-1a
64	M235	2L2 1/2x2 1/2x1/4x1/2	.921	8.873	15	.003	8.873	y	14	13.211	51.198	3.792	1.417	1.1... H1-1a
65	M248	2L2 1/2x3x5/16x1/2	1.199	19.606	16	.002	19.606	y	16	19.518	69.891	6.531	1.776	2.0... H1-1a
66	M253	2L2 1/2x3x5/16x1/2	1.164	19.606	13	.002	19.606	y	14	19.518	69.891	6.531	1.776	1.5... H1-1a
67	M260	2L2 1/2x3x5/16x1/2	1.322	19.606	6	.002	19.606	y	14	19.518	69.891	6.531	1.776	1.5... H1-1a
68	M265	2L2 1/2x3x5/16x1/2	1.319	19.606	2	.002	19.606	y	12	19.518	69.891	6.531	1.776	1.5... H1-1a
69	M273	2L2 1/2x3x5/16x1/2	1.320	19.606	4	.002	19.606	y	12	19.518	69.891	6.531	1.776	1.57 H1-1a
70	M278	2L2 1/2x3x5/16x1/2	1.328	19.606	8	.002	19.606	y	18	19.518	69.891	6.531	1.776	1.5... H1-1a
71	M286	2L2 1/2x3x5/16x1/2	1.165	19.606	2	.002	19.606	y	18	19.518	69.891	6.531	1.776	1.5... H1-1a
72	M291	2L2 1/2x3x5/16x1/2	1.183	19.606	15	.002	19.606	y	16	19.518	69.891	6.531	1.776	1.5... H1-1a
73	M516	2L3x3 1/2x3/8x1/2	1.119	9.81	13	.002	9.81	y	11	41.037	99.027	10.408	4.892	1 H1-1a
74	M521	2L3x3 1/2x3/8x1/2	1.301	9.81	13	.002	9.81	y	17	41.037	99.027	10.408	4.892	1 H1-1a
75	M530	2L3x3 1/2x3/8x1/2	1.308	4.7	14	.002	4.7	y	15	41.037	99.027	10.408	3.057	1.1... H1-1a
76	M535	2L3x3 1/2x3/8x1/2	1.249	9.81	11	.002	9.81	y	17	41.037	99.027	10.408	3.057	1.1... H1-1a
77	M547	2L3x3 1/2x3/8x1/2	1.301	9.81	13	.002	9.81	y	15	41.037	99.027	10.408	3.057	1.1... H1-1a
78	M552	2L3x3 1/2x3/8x1/2	1.163	9.81	11	.002	9.81	y	13	41.037	99.027	10.408	3.057	1.1... H1-1a
79	M564	2L3x3 1/2x3/8x1/2	1.247	4.7	16	.002	4.7	y	13	41.037	99.027	10.408	4.892	1 H1-1a
80	M569	2L4x6x3/8x1/2	.790	5.971	7	.006	11.942	y	16	73.08	155.614	28.321	9.216	1 H1-1a
81	M925	2L4x6x3/8x1/2	.761	5.971	4	.006	11.942	y	14	73.08	155.614	28.321	9.216	1 H1-1a
82	M930	2L4x6x3/8x1/2	.880	5.971	5	.005	11.942	y	14	73.08	155.614	28.321	9.216	1 H1-1a
83	M941	2L4x6x3/8x1/2	.837	5.971	2	.006	11.942	y	12	73.08	155.614	28.321	9.216	1 H1-1a
84	M946	2L4x6x3/8x1/2	.880	5.971	4	.006	11.942	y	12	73.08	155.614	28.321	9.216	1 H1-1a
85	M960	2L4x6x3/8x1/2	.878	5.971	9	.005	11.942	y	18	73.08	155.614	28.321	9.216	1 H1-1a
86	M965	2L4x6x3/8x1/2												

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
87	M979	2L4x6x3/8x1/2	.804	5.971	2	.006	11.942	Y	18	73.08	155.614	28.321	9.216	1	H1-1a
88	M984	2L4x6x3/8x1/2	.854	5.971	7	.005	11.942	Y	16	73.08	155.614	28.321	9.216	1	H1-1a
89	M25	C7X9.8	.080	6.938	15	.005	13.875	Y	13	5.584	61.868	1.776	6.191	1.1...	H1-1b
90	M26	C7X9.8	.081	6.938	13	.005	13.875	Y	11	5.584	61.868	1.776	6.191	1.1...	H1-1b
91	M27	C7X9.8	.081	6.938	11	.005	0	Y	13	5.584	61.868	1.776	6.191	1.1...	H1-1b
92	M28	C7X9.8	.080	6.938	17	.005	0	Y	11	5.584	61.868	1.776	6.191	1.1...	H1-1b
93	M45	2L2 1/2x2 1/2x1/4x1/2	.399	7.875	15	.009	15.75	Y	15	25.927	51.198	3.792	2.267	1	H1-1b
94	M46	2L2 1/2x2 1/2x1/4x1/2	.399	7.875	13	.009	15.75	Y	13	25.927	51.198	3.792	2.267	1	H1-1b
95	M47	2L2 1/2x2 1/2x1/4x1/2	.399	7.875	11	.009	15.75	Y	11	25.927	51.198	3.792	2.267	1	H1-1b
96	M48	2L2 1/2x2 1/2x1/4x1/2	.399	7.875	17	.009	15.75	Y	17	25.927	51.198	3.792	2.267	1	H1-1b
97	M70	2L3x2 1/2x1/4x3/8	.132	8.996	17	.004	8.813	Y	15	31.914	56.695	3.608	2.019	1.2...	H1-1b
98	M77	2L3x2 1/2x1/4x3/8	.137	8.996	15	.004	8.813	Y	13	31.914	56.695	3.608	2.019	1.3...	H1-1b
99	M84	2L3x2 1/2x1/4x3/8	.135	8.629	17	.004	8.813	Y	11	31.914	56.695	3.608	2.019	1.3...	H1-1b
100	M91	2L3x2 1/2x1/4x3/8	.129	8.629	15	.004	8.813	Y	17	31.914	56.695	3.608	2.019	1.2...	H1-1b
101	M107	2L2 1/2x2 1/2x1/4x3/8	.526	10.91	17	.005	10.688	Y	15	16.328	51.305	3.58	1.419	1.3...	H1-1a
102	M114	2L2 1/2x2 1/2x1/4x3/8	.563	10.91	15	.005	10.688	Y	13	16.328	51.305	3.58	1.419	1.37	H1-1a
103	M121	2L2 1/2x2 1/2x1/4x3/8	.559	10.465	17	.005	10.688	Y	11	16.328	51.305	3.58	1.419	1.3...	H1-1a
104	M128	2L2 1/2x2 1/2x1/4x3/8	.518	10.465	15	.005	10.688	Y	17	16.328	51.305	3.58	1.419	1.3...	H1-1a
105	M140	2L2 1/2x2 1/2x1/4x3/8	.398	9.953	17	.005	9.75	Y	15	19.467	51.305	3.58	1.419	1.34	H1-1a
106	M147	2L2 1/2x2 1/2x1/4x3/8	.433	9.75	15	.005	9.75	Y	13	19.467	51.305	3.58	1.419	1.3...	H1-1a
107	M154	2L2 1/2x2 1/2x1/4x3/8	.428	9.75	17	.005	9.75	Y	11	19.467	51.305	3.58	1.419	1.3...	H1-1a
108	M161	2L2 1/2x2 1/2x1/4x3/8	.390	9.547	15	.005	9.75	Y	17	19.467	51.305	3.58	1.419	1.3...	H1-1a
109	M177	2L2 1/2x2 1/2x1/4x3/8	.874	12.824	17	.006	12.563	Y	15	12.279	51.305	3.58	1.419	1.3...	H1-1a
110	M184	2L2 1/2x2 1/2x1/4x3/8	.952	12.824	15	.006	12.563	Y	13	12.279	51.305	3.58	1.419	1.3...	H1-1a
111	M191	2L2 1/2x2 1/2x1/4x3/8	.945	12.301	17	.006	12.563	Y	11	12.279	51.305	3.58	1.419	1.3...	H1-1a
112	M198	2L2 1/2x2 1/2x1/4x3/8	.860	12.301	15	.006	12.563	Y	17	12.279	51.305	3.58	1.419	1.31	H1-1a
113	M210	2L2 1/2x2 1/2x1/4x3/8	.661	11.867	17	.005	11.625	Y	15	14.371	51.305	3.58	1.419	1.3...	H1-1a
114	M217	2L2 1/2x2 1/2x1/4x3/8	.711	11.867	15	.005	11.625	Y	13	14.371	51.305	3.58	1.419	1.35	H1-1a
115	M224	2L2 1/2x2 1/2x1/4x3/8	.705	11.383	17	.005	11.625	Y	11	14.371	51.305	3.58	1.419	1.3...	H1-1a
116	M231	2L2 1/2x2 1/2x1/4x3/8	.649	11.383	15	.005	11.625	Y	17	14.371	51.305	3.58	1.419	1.31	H1-1a
117	M247	2L3x2 1/2x1/4x3/8	.747	13.5	12	.006	13.5	Y	14	16.865	56.695	3.608	2.019	1.38	H1-1a
118	M259	2L3x2 1/2x1/4x3/8	.793	13.5	18	.006	13.5	Y	13	16.865	56.695	3.608	2.019	1.2...	H1-1a
119	M272	2L3x2 1/2x1/4x3/8	.793	13.5	14	.006	13.5	Y	11	16.865	56.695	3.608	2.019	1.2...	H1-1a
120	M285	2L3x2 1/2x1/4x3/8	.744	13.5	12	.006	13.5	Y	18	16.865	56.695	3.608	2.019	1.3...	H1-1a
121	M308	2L3x2 1/2x1/4x3/8	1.159	15.375	12	.007	15.375	Y	14	13.549	56.695	3.608	2.019	1.2...	H1-1a
122	M320	2L3x2 1/2x1/4x3/8	1.245	15.375	18	.007	15.375	Y	12	13.549	56.695	3.608	2.019	1.2...	H1-1a
123	M333	2L3x2 1/2x1/4x3/8	1.244	15.375	14	.007	15.375	Y	12	13.549	56.695	3.608	2.019	1.2...	H1-1a
124	M346	2L3x2 1/2x1/4x3/8	1.180	15.375	12	.007	15.375	Y	18	13.549	56.695	3.608	2.019	1.2...	H1-1a
125	M369	2L3 1/2x2 1/2x1/4x3/8	.484	5.031	3	.004	8.625	Y	16	34.722	62.084	3.636	4.333	1	H1-1a
126	M381	2L3 1/2x2 1/2x1/4x3/8	.543	5.031	9	.004	8.625	Y	14	34.722	62.084	3.636	4.333	1	H1-1a
127	M394	2L3 1/2x2 1/2x1/4x3/8	.544	29.469	5	.004	25.875	Y	18	34.722	62.084	3.636	4.333	1	H1-1a

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mhvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
128	M407	2L3 1/2x2 1/2x1/4x3/8	.515	29.109	3	.004	25.875	Y	16	34.722	62.084	4.333	1	H1-1a
129	M430	2L3-1/2x2-1/2x5/16x1/2	.848	6.375	12	.005	12.75	Y	17	35.992	76.635	5.329	1	H1-1a
130	M446	2L3-1/2x2-1/2x5/16x1/2	.931	6.375	9	.005	12.75	Y	15	35.992	76.635	5.329	1	H1-1a
131	M465	2L3-1/2x2-1/2x5/16x1/2	.931	31.875	5	.005	25.5	Y	17	35.992	76.635	5.329	1	H1-1a
132	M484	2L3-1/2x2-1/2x5/16x1/2	.899	31.875	3	.005	25.5	Y	15	35.992	76.635	5.329	1	H1-1a
133	M515	2L3 1/2x3x5/16x1/2	1.082	28	17	.006	14	Y	16	31.331	83.365	6.627	2.3...	H1-1a
134	M529	2L3 1/2x3x5/16x1/2	1.206	28	15	.006	14	Y	14	31.331	83.365	6.627	2.3...	H1-1a
135	M546	2L3 1/2x3x5/16x1/2	1.253	28	14	.006	28	Y	18	31.331	83.365	6.627	2.19	H1-1a
136	M563	2L3 1/2x3x5/16x1/2	1.202	28	12	.006	28	Y	16	31.331	83.365	6.627	2.2...	H1-1a
137	M592	2L4x3 1/2x5/16x1/2	1.019	30.5	18	.006	15.25	Y	16	39.314	96.838	8.724	2.7...	H1-1a
138	M606	2L4x3 1/2x5/16x1/2	1.075	30.5	16	.007	15.25	Y	14	39.314	96.838	8.724	2.5...	H1-1a
139	M623	2L4x3 1/2x5/16x1/2	1.182	30.5	14	.007	30.5	Y	18	39.314	96.838	8.724	2.3...	H1-1a
140	M640	2L4x3 1/2x5/16x1/2	1.139	30.5	12	.006	30.5	Y	16	39.314	96.838	8.724	2.5...	H1-1a
141	M669	2L3 1/2x3x5/16x1/2	1.138	37.125	18	.007	37.125	Y	13	31.763	83.365	6.627	1.84	H1-1a
142	M685	2L3 1/2x3x5/16x1/2	1.221	24.75	18	.007	37.125	Y	11	31.763	83.365	6.627	2.2...	H1-1a
143	M704	2L3 1/2x3x5/16x1/2	1.321	37.125	14	.007	37.125	Y	17	31.763	83.365	6.627	2.2...	H1-1a
144	M723	2L3 1/2x3x5/16x1/2	1.273	37.125	12	.007	37.125	Y	15	31.763	83.365	6.627	2.1...	H1-1a
145	M754	2L4x3x5/16x1/2	.986	39.938	18	.006	13.313	Y	17	39.255	90.101	6.675	1.9...	H1-1a
146	M770	2L4x3x5/16x1/2	1.069	26.625	18	.006	13.313	Y	14	39.255	90.101	6.675	2.2...	H1-1a
147	M789	2L4x3x5/16x1/2	1.143	39.938	14	.006	39.938	Y	17	39.255	90.101	6.675	2.2...	H1-1a
148	M808	2L4x3x5/16x1/2	1.102	39.938	12	.006	39.938	Y	16	39.255	90.101	6.675	2.1...	H1-1a
149	M839	2L4x3x5/16x1/2	1.164	7.125	12	.006	14.25	Y	17	37.19	90.101	6.675	1.4...	H1-1a
150	M855	2L4x3x5/16x1/2	1.313	7.125	9	.006	14.25	Y	14	37.19	90.101	6.675	1.5...	H1-1a
151	M874	2L4x3x5/16x1/2	1.312	49.875	5	.006	42.75	Y	17	37.19	90.101	6.675	2.0...	H1-1a
152	M893	2L4x3x5/16x1/2	1.274	49.875	3	.006	42.75	Y	16	37.19	90.101	6.675	2.05	H1-1a
153	M924	2L5x3-1/2x3/8x1/2	.590	7.594	12	.006	15.188	Y	16	96.154	131.362	10.642	1.3...	H1-1a
154	M940	2L5x3-1/2x3/8x1/2	.641	7.594	18	.006	15.188	Y	14	96.154	131.362	10.642	1.3...	H1-1a
155	M959	2L5x3-1/2x3/8x1/2	.642	53.156	14	.006	45.563	Y	18	96.154	131.362	10.642	1.5...	H1-1a
156	M978	2L5x3-1/2x3/8x1/2	.627	53.156	12	.006	45.563	Y	16	96.154	131.362	10.642	1.5...	H1-1a
157	M17	L3x2 1/2x1/4	.017	8.312	16	.003	6.435	Z	11	9.206	28.24	.357	1.1...	H2-1
158	M18	L3x2 1/2x1/4	.023	8.312	14	.003	6.435	Z	16	9.206	28.24	.357	1.1...	H2-1
159	M19	L3x2 1/2x1/4	.024	4.558	18	.003	6.435	Z	14	9.206	28.24	.357	1.1...	H2-1
160	M20	L3x2 1/2x1/4	.021	4.558	16	.003	6.435	Z	13	9.206	28.24	.357	1.1...	H2-1
161	M37	L3x2 1/2x1/4	.165	14.753	8	.004	7.377	Z	18	7.006	28.24	.357	1.1...	H2-1
162	M38	L3x2 1/2x1/4	.175	9.682	6	.004	7.377	Z	16	7.006	28.24	.357	1.1...	H2-1
163	M39	L3x2 1/2x1/4	.160	0	8	.004	7.377	Z	14	7.006	28.24	.357	1.1...	H2-1
164	M40	L3x2 1/2x1/4	.149	9.528	11	.004	7.377	Z	12	7.006	28.24	.357	1.1...	H2-1
165	M62	L3x2 1/2x1/4	.035	0	3	.004	8.317	Y	15	5.51	28.24	.357	1.1...	H2-1
166	M63	L3x2 1/2x1/4	.046	10.743	6	.004	8.317	Y	13	5.51	28.24	.357	1.1...	H2-1
167	M64	L3x2 1/2x1/4	.050	10.743	5	.004	8.317	Y	15	5.51	28.24	.357	1.1...	H2-1
168	M65	L3x2 1/2x1/4	.038	10.743	3	.004	8.317	Y	13	5.51	28.24	.357	1.1...	H2-1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
169	M5	.057	6	11	.005	0	Y	13	6.937	61.868	1.776	7.252	1.1...	H1-1b
170	M6	.057	6	17	.005	0	Y	11	6.937	61.868	1.776	7.252	1.1...	H1-1b
171	M7	.057	6	15	.005	12	Y	13	6.937	61.868	1.776	7.252	1.1...	H1-1b
172	M8	.057	6	13	.005	12	Y	11	6.937	61.868	1.776	7.252	1.1...	H1-1b
173	M1537	.045	2.784	12	.001	0	Y	16	7.039	19.401	.58	1.073	1.1...	H2-1
174	M1538	.044	2.784	18	.001	0	Y	14	7.039	19.401	.58	1.073	1.1...	H2-1
175	M1539	.045	2.784	16	.001	0	Y	12	7.039	19.401	.58	1.073	1.1...	H2-1
176	M1540	.045	2.784	14	.001	0	Y	18	7.039	19.401	.58	1.073	1.1...	H2-1
177	M1530	.219	3.116	7	.002	0	Y	7	5.621	19.401	.58	1.037	1.1...	H2-1
178	M1531	.212	3.116	5	.002	0	Y	5	5.621	19.401	.58	1.037	1.1...	H2-1
179	M1532	.217	3.116	3	.002	0	Y	3	5.621	19.401	.58	1.037	1.1...	H2-1
180	M1533	.212	3.116	9	.002	0	Y	9	5.621	19.401	.58	1.037	1.1...	H2-1
181	M1482	.036	3.375	4	.002	0	Y	7	4.79	19.401	.58	1.011	1.1...	H2-1
182	M1483	.036	3.375	2	.002	0	Y	5	4.79	19.401	.58	1.011	1.1...	H2-1
183	M1483A	.037	3.375	2	.002	0	Y	14	4.79	19.401	.58	1.011	1.1...	H2-1
184	M1484	.036	3.375	8	.002	0	Y	4	4.79	19.401	.58	1.011	1.1...	H2-1
185	M1486	.037	3.375	8	.002	0	Y	4	4.79	19.401	.58	1.011	1.1...	H2-1
186	M1487	.037	3.375	6	.002	0	Y	2	4.79	19.401	.58	1.011	1.1...	H2-1
187	M1489	.036	3.375	6	.002	0	Y	2	4.79	19.401	.58	1.011	1.1...	H2-1
188	M1490	.037	3.375	4	.002	0	Y	7	4.79	19.401	.58	1.011	1.1...	H2-1
189	M1459	.048	3.844	3	.002	0	Y	7	3.693	19.401	.58	.966	1.1...	H2-1
190	M1460	.048	3.844	3	.002	0	Y	5	3.693	19.401	.58	.966	1.1...	H2-1
191	M1460A	.048	3.844	2	.002	0	Y	14	3.693	19.401	.58	.966	1.1...	H2-1
192	M1461	.048	3.844	8	.002	0	Y	4	3.693	19.401	.58	.966	1.1...	H2-1
193	M1463	.048	3.844	8	.002	0	Y	4	3.693	19.401	.58	.966	1.1...	H2-1
194	M1464	.048	3.844	6	.002	0	Y	3	3.693	19.401	.58	.966	1.1...	H2-1
195	M1466	.048	3.844	6	.002	0	Y	3	3.693	19.401	.58	.966	1.1...	H2-1
196	M1467	.048	3.844	4	.002	0	Y	16	3.693	19.401	.58	.966	1.1...	H2-1
197	M1439	.065	4.313	11	.002	8.625	Y	2	2.934	19.401	.58	.924	1.1...	H2-1
198	M1439A	.065	4.313	17	.002	0	Y	4	2.934	19.401	.58	.924	1.1...	H2-1
199	M1440	.065	4.313	13	.002	8.625	Y	4	2.934	19.401	.58	.924	1.1...	H2-1
200	M1440A	.066	4.313	11	.002	8.625	Y	2	2.934	19.401	.58	.924	1.1...	H2-1
201	M1441	.066	4.313	15	.002	0	Y	3	2.934	19.401	.58	.924	1.1...	H2-1
202	M1442	.066	4.313	17	.002	0	Y	4	2.934	19.401	.58	.924	1.1...	H2-1
203	M1443	.066	4.313	13	.002	8.625	Y	4	2.934	19.401	.58	.924	1.1...	H2-1
204	M1444	.065	4.313	15	.002	0	Y	3	2.934	19.401	.58	.924	1.1...	H2-1
205	M1388	.033	3.188	9	.001	0	Y	5	9.098	28.24	.825	1.607	1.1...	H2-1
206	M1388A	.032	3.188	7	.001	0	Y	4	9.098	28.24	.825	1.607	1.1...	H2-1
207	M1389	.032	3.188	9	.001	0	Y	13	9.098	28.24	.825	1.607	1.1...	H2-1
208	M1389A	.032	3.188	7	.001	0	Y	2	9.098	28.24	.825	1.607	1.1...	H2-1
209	M1390	.032	3.188	5	.001	0	Y	2	9.098	28.24	.825	1.607	1.1...	H2-1

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

Member	Shape	Code Check	Loc[ft]	LG	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
210	M1391	L3X2.5X4	.033	3.188	5	.001	0	Y	8	9.098	28.24	.825	1.607	1.1... H2-1
211	M1392	L3X2.5X4	.032	3.188	3	.001	0	Y	7	9.098	28.24	.825	1.607	1.1... H2-1
212	M1393	L3X2.5X4	.033	3.188	3	.001	0	Y	6	9.098	28.24	.825	1.607	1.1... H2-1
213	M1424	L3X2.5X4	.024	2.069	16	.001	4.137	Y	16	17.475	28.24	.825	1.765	1.1... H2-1
214	M1424A	L3X2.5X4	.024	2.069	14	.001	4.137	Y	13	17.475	28.24	.825	1.765	1.1... H2-1
215	M1425	L3X2.5X4	.024	2.069	16	.001	4.137	Y	18	17.475	28.24	.825	1.765	1.1... H2-1
216	M1425A	L3X2.5X4	.024	2.069	14	.001	4.137	Y	17	17.475	28.24	.825	1.765	1.1... H2-1
217	M1426	L3X2.5X4	.024	2.069	12	.001	4.137	Y	11	17.475	28.24	.825	1.765	1.1... H2-1
218	M1427	L3X2.5X4	.024	2.069	12	.001	4.137	Y	18	17.475	28.24	.825	1.765	1.1... H2-1
219	M1428	L3X2.5X4	.024	2.069	18	.001	4.137	Y	18	17.475	28.24	.825	1.765	1.1... H2-1
220	M1429	L3X2.5X4	.024	2.069	18	.001	4.137	Y	18	17.475	28.24	.825	1.765	1.1... H2-1
221	M1060	2L3x2 1/2x1/4	.062	3.953	5	.002	0	Y	5	32.948	56.695	3.024	3.23	1 H1-1b
222	M1061	2L3x2 1/2x1/4	.308	5.591	18	.003	0	Y	1	19.621	56.695	3.024	3.23	1 H1-1a
223	M1062	2L3x2 1/2x1/4	.062	3.953	5	.002	7.906	Y	4	32.948	56.695	3.024	3.23	1 H1-1b
224	M1063	2L3x2 1/2x1/4	.063	3.953	3	.002	0	Y	3	32.948	56.695	3.024	3.23	1 H1-1b
225	M1064	2L3x2 1/2x1/4	.306	5.591	16	.003	0	Y	9	19.621	56.695	3.024	3.23	1 H1-1a
226	M1065	2L3x2 1/2x1/4	.063	3.953	3	.002	7.906	Y	2	32.948	56.695	3.024	3.23	1 H1-1b
227	M1066	2L3x2 1/2x1/4	.062	3.953	9	.002	0	Y	2	32.948	56.695	3.024	3.23	1 H1-1b
228	M1067	2L3x2 1/2x1/4	.306	5.591	14	.003	0	Y	1	19.621	56.695	3.024	3.23	1 H1-1a
229	M1068	2L3x2 1/2x1/4	.062	3.953	9	.002	7.906	Y	8	32.948	56.695	3.024	3.23	1 H1-1b
230	M1069	2L3x2 1/2x1/4	.062	3.953	7	.002	0	Y	7	32.948	56.695	3.024	3.23	1 H1-1b
231	M1070	2L3x2 1/2x1/4	.310	5.591	12	.003	0	Y	1	19.621	56.695	3.024	3.23	1 H1-1a
232	M1071	2L3x2 1/2x1/4	.062	3.953	7	.002	7.906	Y	6	32.948	56.695	3.024	3.23	1 H1-1b
233	M1209	L2.5X2.5X3	.038	3.328	14	.002	6.656	Y	3	4.926	19.401	.58	1.016	1.1... H2-1
234	M1210	L2.5X2.5X3	.038	3.328	18	.002	0	Y	2	4.926	19.401	.58	1.016	1.1... H2-1
235	M1211	L2.5X2.5X3	.093	4.707	16	.002	0	Y	4	2.463	19.401	.58	.89	1.1... H2-1
236	M1219	L2.5X2.5X3	.038	3.328	12	.002	6.656	Y	2	4.926	19.401	.58	1.016	1.1... H2-1
237	M1220	L2.5X2.5X3	.039	3.328	16	.002	0	Y	8	4.926	19.401	.58	1.016	1.1... H2-1
238	M1221	L2.5X2.5X3	.093	4.707	14	.002	0	Y	2	2.463	19.401	.58	.89	1.1... H2-1
239	M1231	L2.5X2.5X3	.040	3.328	18	.002	6.656	Y	7	4.926	19.401	.58	1.016	1.1... H2-1
240	M1232	L2.5X2.5X3	.040	3.328	14	.002	0	Y	6	4.926	19.401	.58	1.016	1.1... H2-1
241	M1233	L2.5X2.5X3	.093	4.707	12	.002	0	Y	2	2.463	19.401	.58	.89	1.1... H2-1
242	M1243	L2.5X2.5X3	.040	3.328	16	.002	6.656	Y	5	4.926	19.401	.58	1.016	1.1... H2-1
243	M1244	L2.5X2.5X3	.039	3.328	12	.002	0	Y	4	4.926	19.401	.58	1.016	1.1... H2-1
244	M1245	L2.5X2.5X3	.093	4.707	18	.002	0	Y	6	2.463	19.401	.58	.89	1.1... H2-1
245	M1263	L2.5X2.5X3	.033	3.094	14	.002	0	Y	3	5.701	19.401	.58	1.04	1.1... H2-1
246	M1264	L2.5X2.5X3	.081	4.375	16	.002	0	Y	1	2.85	19.401	.58	.919	1.1... H2-1
247	M1265	L2.5X2.5X3	.033	3.094	18	.002	6.188	Y	2	5.701	19.401	.58	1.04	1.1... H2-1
248	M1276	L2.5X2.5X3	.033	3.094	12	.002	0	Y	2	5.701	19.401	.58	1.04	1.1... H2-1
249	M1277	L2.5X2.5X3	.081	4.375	14	.002	0	Y	1	2.85	19.401	.58	.919	1.1... H2-1
250	M1278	L2.5X2.5X3	.034	3.094	16	.002	6.188	Y	8	5.701	19.401	.58	1.04	1.1... H2-1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
251	M1291													
252	M1292													
253	M1293													
254	M1306													
255	M1307													
256	M1308													
257	M1128													
258	M1129													
259	M1130													
260	M1132													
261	M1133													
262	M1134													
263	M1138													
264	M1139													
265	M1140													
266	M1144													
267	M1145													
268	M1146													
269	M1106													
270	M1107													
271	M1107A													
272	M1108													
273	M1108A													
274	M1109													
275	M1110													
276	M1111													
277	M1112													
278	M1113													
279	M1114													
280	M1115													
281	M1200													
282	M1201													
283	M1202													
284	M1212													
285	M1213													
286	M1214													
287	M1224													
288	M1225													
289	M1226													
290	M1236													
291	M1237													

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

Member		Shape	Code Check		Loc[ft]	LC	Shear	Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnzz/om [k-ft]	Cb	Egn
292	M1238	2L3x2 1/2x1/4	.056	6.656	16	.002	6.656	y	16	37.371	56.695	3.024	2.019	1	H1-1b		
293	M1250A	2L3x2 1/2x1/4	.052	6.188	14	.002	6.188	y	14	38.942	56.695	3.024	2.019	1	H1-1b		
294	M1251A	2L3x2 1/2x1/4	.052	6.188	18	.002	6.188	y	18	38.942	56.695	3.024	2.019	1	H1-1b		
295	M1252A	2L3x2 1/2x1/4	.243	8.75	16	.005	0	y	16	29.608	56.695	3.024	3.23	1.6...	H1-1b		
296	M1265A	2L3x2 1/2x1/4	.053	6.188	12	.002	6.188	y	12	38.942	56.695	3.024	2.019	1	H1-1b		
297	M1266	2L3x2 1/2x1/4	.052	6.188	16	.002	6.188	y	16	38.942	56.695	3.024	2.019	1	H1-1b		
298	M1267	2L3x2 1/2x1/4	.243	8.75	14	.005	17.501	y	14	29.608	56.695	3.024	3.23	1.6...	H1-1b		
299	M1280	2L3x2 1/2x1/4	.052	6.188	18	.002	6.188	y	18	38.942	56.695	3.024	2.019	1	H1-1b		
300	M1281	2L3x2 1/2x1/4	.052	6.188	14	.002	6.188	y	14	38.942	56.695	3.024	2.019	1	H1-1b		
301	M1282	2L3x2 1/2x1/4	.243	8.75	12	.005	0	y	18	29.608	56.695	3.024	3.23	1.6...	H1-1b		
302	M1295	2L3x2 1/2x1/4	.052	6.188	16	.002	6.188	y	16	38.942	56.695	3.024	2.019	1	H1-1b		
303	M1296	2L3x2 1/2x1/4	.053	6.188	12	.002	6.188	y	12	38.942	56.695	3.024	2.019	1	H1-1b		
304	M1297	2L3x2 1/2x1/4	.243	8.75	18	.005	17.501	y	11	29.608	56.695	3.024	3.23	1.6...	H1-1b		
305	M1123A	2L3x2 1/2x1/4	.061	7.125	14	.002	7.125	y	14	35.746	56.695	3.024	2.019	1	H1-1b		
306	M1124	2L3x2 1/2x1/4	.061	7.125	18	.002	7.125	y	18	35.746	56.695	3.024	2.019	1	H1-1b		
307	M1125	2L3x2 1/2x1/4	.397	10.076	16	.005	0	y	5	23.958	56.695	3.024	3.23	1.6...	H1-1a		
308	M1129A	2L3x2 1/2x1/4	.061	7.125	12	.002	7.125	y	12	35.746	56.695	3.024	2.019	1	H1-1b		
309	M1130A	2L3x2 1/2x1/4	.061	7.125	16	.002	7.125	y	16	35.746	56.695	3.024	2.019	1	H1-1b		
310	M1131	2L3x2 1/2x1/4	.397	10.076	14	.005	0	y	12	23.958	56.695	3.024	3.23	1.6...	H1-1a		
311	M1135	2L3x2 1/2x1/4	.061	7.125	18	.002	7.125	y	18	35.746	56.695	3.024	2.019	1	H1-1b		
312	M1136	2L3x2 1/2x1/4	.060	7.125	14	.002	7.125	y	14	35.746	56.695	3.024	2.019	1	H1-1b		
313	M1137	2L3x2 1/2x1/4	.398	10.076	12	.005	0	y	9	23.958	56.695	3.024	3.23	1.6...	H1-1a		
314	M1141	2L3x2 1/2x1/4	.061	7.125	16	.002	7.125	y	16	35.746	56.695	3.024	2.019	1	H1-1b		
315	M1142	2L3x2 1/2x1/4	.061	7.125	12	.002	7.125	y	12	35.746	56.695	3.024	2.019	1	H1-1b		
316	M1143	2L3x2 1/2x1/4	.397	10.076	18	.005	0	y	1	23.958	56.695	3.024	3.23	1.6...	H1-1a		
317	M1076	2L3x2 1/2x1/4	.060	7.594	12	.002	7.594	y	12	34.078	56.695	3.024	2.019	1	H1-1b		
318	M1077	2L3x2 1/2x1/4	.060	7.594	16	.002	7.594	y	16	34.078	56.695	3.024	2.019	1	H1-1b		
319	M1078	2L3x2 1/2x1/4	.329	10.739	5	.006	0	y	12	21.269	56.695	3.024	3.23	1.6...	H1-1b		
320	M1079	2L3x2 1/2x1/4	.062	7.594	18	.002	7.594	y	18	34.078	56.695	3.024	2.019	1	H1-1b		
321	M1080	2L3x2 1/2x1/4	.062	7.594	14	.002	7.594	y	14	34.078	56.695	3.024	2.019	1	H1-1b		
322	M1081	2L3x2 1/2x1/4	.330	10.739	3	.006	0	y	9	21.269	56.695	3.024	3.23	1.6...	H1-1b		
323	M1082	2L3x2 1/2x1/4	.062	7.594	16	.002	7.594	y	16	34.078	56.695	3.024	2.019	1	H1-1b		
324	M1083	2L3x2 1/2x1/4	.061	7.594	12	.002	7.594	y	3	34.078	56.695	3.024	2.019	1	H1-1b		
325	M1084	2L3x2 1/2x1/4	.329	10.739	9	.006	0	y	6	21.269	56.695	3.024	3.23	1.6...	H1-1b		
326	M1085	2L3x2 1/2x1/4	.060	7.594	14	.002	7.594	y	14	34.078	56.695	3.024	2.019	1	H1-1b		
327	M1086	2L3x2 1/2x1/4	.060	7.594	18	.002	7.594	y	18	34.078	56.695	3.024	2.019	1	H1-1b		
328	M1087	2L3x2 1/2x1/4	.330	10.739	7	.006	0	y	11	21.269	56.695	3.024	3.23	1.6...	H1-1b		
329	M1529A	2L2 1/2x2x3/16	.125	5.568	2	.004	0	y	12	21.623	34.922	1.451	1.688	1.4...	H1-1b		
330	M1530A	2L2 1/2x2x3/16	.125	5.568	4	.004	0	y	12	21.623	34.922	1.451	1.688	1.4...	H1-1b		
331	M1531A	2L2 1/2x2x3/16	.125	5.568	4	.004	0	y	16	21.623	34.922	1.451	1.688	1.4...	H1-1b		
332	M1532A	2L2 1/2x2x3/16	.125	5.568	4	.004	0	y	11	21.623	34.922	1.451	1.688	1.4...	H1-1b		

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
333	M1522A	.174	6.231	2	.005	0	Y	12	19.873	34.922	1.451	1.688	1.4...	H1-1b
334	M1523A	.174	6.231	8	.005	0	Y	13	19.873	34.922	1.451	1.688	1.4...	H1-1b
335	M1524A	.174	6.231	8	.005	0	Y	11	19.873	34.922	1.451	1.688	1.4...	H1-1b
336	M1525A	.174	6.231	6	.005	0	Y	18	19.873	34.922	1.451	1.688	1.4...	H1-1b
337	M1503A	.201	7.557	12	.006	15.114	Y	12	24.705	51.305	3.018	2.271	1.6...	H1-1b
338	M1504A	.201	7.557	18	.006	15.114	Y	2	24.705	51.305	3.018	2.271	1.6...	H1-1b
339	M1505A	.201	7.557	16	.006	15.114	Y	8	24.705	51.305	3.018	2.271	1.6...	H1-1b
340	M1506A	.201	7.557	14	.006	15.114	Y	16	24.705	51.305	3.018	2.271	1.6...	H1-1b
341	M1507A	.167	6.894	12	.005	13.789	Y	13	27.927	51.305	3.018	2.271	1.6...	H1-1b
342	M1508A	.167	6.894	18	.005	13.789	Y	10	27.927	51.305	3.018	2.271	1.6...	H1-1b
343	M1509A	.167	6.894	16	.005	13.789	Y	10	27.927	51.305	3.018	2.271	1.6...	H1-1b
344	M1510A	.167	6.894	14	.005	13.789	Y	10	27.927	51.305	3.018	2.271	1.6...	H1-1b
345	M1489A	.277	8.883	14	.007	17.766	Y	2	18.652	51.305	3.018	2.271	1.6...	H1-1b
346	M1490A	.277	8.883	16	.007	17.766	Y	5	18.652	51.305	3.018	2.271	1.6...	H1-1b
347	M1491A	.277	8.883	18	.007	17.766	Y	7	18.652	51.305	3.018	2.271	1.6...	H1-1b
348	M1492A	.277	8.883	12	.007	17.766	Y	9	18.652	51.305	3.018	2.271	1.6...	H1-1b
349	M1493A	.237	8.22	12	.006	16.44	Y	5	21.61	51.305	3.018	2.271	1.6...	H1-1b
350	M1494A	.237	8.22	18	.006	16.44	Y	13	21.61	51.305	3.018	2.271	1.6...	H1-1b
351	M1495A	.237	8.22	16	.006	16.44	Y	3	21.61	51.305	3.018	2.271	1.6...	H1-1b
352	M1496A	.237	8.22	14	.006	16.44	Y	10	21.61	51.305	3.018	2.271	1.6...	H1-1b
353	M1471A	.080	9.546	16	.003	9.546	Y	16	16.151	51.305	3.018	1.419	1.3...	H1-1b
354	M1472A	.079	9.546	14	.003	9.546	Y	5	16.151	51.305	3.018	1.419	1.3...	H1-1b
355	M1473A	.079	9.546	12	.003	9.546	Y	3	16.151	51.305	3.018	1.419	1.3...	H1-1b
356	M1474A	.080	9.546	18	.003	9.546	Y	9	16.151	51.305	3.018	1.419	1.3...	H1-1b
357	M1448A	.100	10.872	16	.004	10.872	Y	16	12.982	56.91	4.275	1.43	1.3...	H1-1b
358	M1449A	.100	10.872	14	.004	10.872	Y	14	12.982	56.91	4.275	1.43	1.3...	H1-1b
359	M1450A	.100	10.872	12	.004	10.872	Y	12	12.982	56.91	4.275	1.43	1.3...	H1-1b
360	M1451A	.100	10.872	18	.004	10.872	Y	18	12.982	56.91	4.275	1.43	1.3...	H1-1b
361	M1425B	.123	12.198	16	.004	12.198	Y	16	10.313	56.91	4.275	1.43	1.3...	H1-1b
362	M1426A	.123	12.198	14	.004	12.198	Y	14	10.313	56.91	4.275	1.43	1.3...	H1-1b
363	M1427A	.123	12.198	12	.004	12.198	Y	12	10.313	56.91	4.275	1.43	1.3...	H1-1b
364	M1428A	.123	12.198	18	.004	12.198	Y	18	10.313	56.91	4.275	1.43	1.3...	H1-1b
365	M1378	.228	4.508	17	.002	0	Y	15	6.329	31.042	1.123	1.93	1.1...	H2-1
366	M1379	.212	4.508	13	.002	0	Y	12	6.329	31.042	1.123	1.93	1.1...	H2-1
367	M1380	.313	4.508	14	.002	9.016	Y	13	6.329	31.042	1.123	1.93	1.1...	H2-1
368	M1381	.293	4.508	18	.002	0	Y	13	6.329	31.042	1.123	1.93	1.1...	H2-1
369	M1382	.316	4.508	4	.002	9.016	Y	10	6.329	31.042	1.123	1.93	1.1...	H2-1
370	M1383	.329	4.508	17	.002	0	Y	15	6.329	31.042	1.123	1.93	1.1...	H2-1
371	M1384	.249	4.508	12	.002	0	Y	11	6.329	31.042	1.123	1.93	1.1...	H2-1
372	M1385	.270	4.508	16	.002	9.016	Y	10	6.329	31.042	1.123	1.93	1.1...	H2-1
373	M1406	.147	3.756	12	.002	7.513	Y	14	9.114	31.042	1.123	2.04	1.1...	H2-1

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SNET021 NORWALK

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Locftl	LC	Shear Che...	Locftl	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
374	M1407	L3X3X4	.124	3.324	16	.002	0	Y	16	11.637	31.042	1.123	2.109	1.1... H2-1
375	M1408	L3X3X4	.115	3.324	12	.002	6.648	Y	11	11.637	31.042	1.123	2.109	1.1... H2-1
376	M1409	L3X3X4	.161	3.756	16	.002	0	Y	18	9.114	31.042	1.123	2.04	1.1... H2-1
377	M1410	L3X3X4	.219	3.756	9	.002	7.513	Y	12	9.114	31.042	1.123	2.04	1.1... H2-1
378	M1411	L3X3X4	.176	3.324	14	.002	0	Y	11	11.637	31.042	1.123	2.109	1.1... H2-1
379	M1412	L3X3X4	.165	3.324	18	.002	6.648	Y	15	11.637	31.042	1.123	2.109	1.1... H2-1
380	M1413	L3X3X4	.235	3.756	14	.002	0	Y	14	9.114	31.042	1.123	2.04	1.1... H2-1
381	M1414	L3X3X4	.244	3.756	17	.002	7.513	Y	18	9.114	31.042	1.123	2.109	1.1... H2-1
382	M1415	L3X3X4	.178	3.324	4	.002	0	Y	16	11.637	31.042	1.123	2.109	1.1... H2-1
383	M1416	L3X3X4	.184	3.324	17	.002	0	Y	13	11.637	31.042	1.123	2.04	1.1... H2-1
384	M1417	L3X3X4	.236	3.756	4	.002	0	Y	15	9.114	31.042	1.123	2.04	1.1... H2-1
385	M1418	L3X3X4	.197	3.756	16	.002	7.513	Y	13	9.114	31.042	1.123	2.109	1.1... H2-1
386	M1419	L3X3X4	.138	3.324	3	.002	0	Y	14	11.637	31.042	1.123	2.109	1.1... H2-1
387	M1420	L3X3X4	.150	3.324	16	.002	6.648	Y	14	11.637	31.042	1.123	2.04	1.1... H2-1
388	M1421	L3X3X4	.181	3.756	3	.002	0	Y	16	9.114	31.042	1.123	1.011	1.1... H2-1
389	M1479	L2.5X2.5X3	.033	3.375	4	.002	0	Y	4	4.79	19.401	.58	1.011	1.1... H2-1
390	M1482A	L2.5X2.5X3	.033	3.375	2	.002	0	Y	2	4.79	19.401	.58	1.011	1.1... H2-1
391	M1485	L2.5X2.5X3	.033	3.375	8	.002	0	Y	1	4.79	19.401	.58	1.011	1.1... H2-1
392	M1488	L2.5X2.5X3	.033	3.375	6	.002	0	Y	5	4.79	19.401	.58	.966	1.1... H2-1
393	M1456	L2.5X2.5X3	.044	3.844	4	.002	0	Y	4	3.693	19.401	.58	.966	1.1... H2-1
394	M1459A	L2.5X2.5X3	.044	3.844	2	.002	0	Y	3	3.693	19.401	.58	.966	1.1... H2-1
395	M1462	L2.5X2.5X3	.044	3.844	8	.002	0	Y	6	3.693	19.401	.58	.966	1.1... H2-1
396	M1465	L2.5X2.5X3	.044	3.844	6	.002	0	Y	5	3.693	19.401	.58	.924	1.1... H2-1
397	M1433	L2.5X2.5X3	.057	4.313	2	.002	0	Y	3	2.934	19.401	.58	.924	1.1... H2-1
398	M1434	L2.5X2.5X3	.057	4.313	4	.002	0	Y	4	2.934	19.401	.58	.924	1.1... H2-1
399	M1435	L2.5X2.5X3	.057	4.313	8	.002	8.625	Y	8	2.934	19.401	.58	.924	1.1... H2-1
400	M1436	L2.5X2.5X3	.057	4.313	6	.002	8.625	Y	7	2.934	19.401	3.209	2.496	1 H1-1b
401	M1097	LL3x3x3x0	.021	3.797	4	.002	7.594	Y	9	28.428	46.994	3.209	2.496	1 H1-1b
402	M1099	LL3x3x3x0	.021	3.797	2	.002	7.594	Y	7	28.428	46.994	3.209	2.496	1 H1-1b
403	M1101	LL3x3x3x0	.021	3.797	8	.002	7.594	Y	14	28.428	46.994	3.209	2.496	1 H1-1b
404	M1103	LL3x3x3x0	.021	3.797	6	.002	7.594	Y	12	28.428	46.994	3.209	2.496	1 H1-1b
405	M1347	L3.5X3X4	.058	4.95	18	.002	0	Y	18	6.553	33.629	1.232	2.011	1.1... H2-1
406	M1348	L3.5X3X4	.059	4.95	12	.002	0	Y	13	6.553	33.629	1.232	2.011	1.1... H2-1
407	M1349	L3.5X3X4	.059	4.95	15	.002	9.899	Y	17	6.553	33.629	1.232	2.011	1.1... H2-1
408	M1350	L3.5X3X4	.060	4.95	9	.002	0	Y	17	6.553	33.629	1.232	2.011	1.1... H2-1
409	M1351	L3.5X3X4	.060	4.95	5	.002	9.899	Y	10	6.553	33.629	1.232	2.011	1.1... H2-1
410	M1352	L3.5X3X4	.059	4.95	8	.002	9.899	Y	16	6.553	33.629	1.232	2.011	1.1... H2-1
411	M1353	L3.5X3X4	.059	4.95	3	.002	9.899	Y	10	6.553	33.629	1.232	2.011	1.1... H2-1
412	M1354	L3.5X3X4	.059	4.95	15	.002	9.899	Y	13	6.553	33.629	1.232	2.011	1.1... H2-1
413	M1316	L3.5X3.5X4	.061	5.392	18	.003	10.783	Y	15	7.181	36.431	1.598	2.502	1.1... H2-1
414	M1317	L3.5X3.5X4	.061	5.392	2	.003	0	Y	9	7.181	36.431	1.598	2.502	1.1... H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
415	M1318	L3.5X3.5X4	.061	5.392	16	.003	0	Y	16	7.181	36.431	1.598	2.502	1.1...	H2-1
416	M1319	L3.5X3.5X4	.062	5.392	9	.003	0	Y	16	7.181	36.431	1.598	2.502	1.1...	H2-1
417	M1320	L3.5X3.5X4	.062	5.392	5	.003	10.783	Y	17	7.181	36.431	1.598	2.502	1.1...	H2-1
418	M1321	L3.5X3.5X4	.062	5.392	16	.003	0	Y	12	7.181	36.431	1.598	2.502	1.1...	H2-1
419	M1322	L3.5X3.5X4	.062	5.392	3	.003	10.783	Y	16	7.181	36.431	1.598	2.502	1.1...	H2-1
420	M1323	L3.5X3.5X4	.061	5.392	14	.003	0	Y	13	7.181	36.431	1.598	2.502	1.1...	H2-1
421	M1246	LL3x3x3x0	.120	4.707	2	.002	9.413	Y	2	21.732	46.994	3.209	2.496	1	H1-1b
422	M1247	LL3x3x3x0	.120	4.707	8	.002	9.413	Y	1	21.732	46.994	3.209	2.496	1	H1-1b
423	M1248	LL3x3x3x0	.119	4.707	8	.002	9.413	Y	7	21.732	46.994	3.209	2.496	1	H1-1b
424	M1249	LL3x3x3x0	.119	4.707	6	.002	9.413	Y	6	21.732	46.994	3.209	2.496	1	H1-1b
425	M1250	LL3x3x3x0	.119	4.707	6	.002	9.413	Y	1	21.732	46.994	3.209	2.496	1	H1-1b
426	M1251	LL3x3x3x0	.120	4.707	4	.002	9.413	Y	4	21.732	46.994	3.209	2.496	1	H1-1b
427	M1252	LL3x3x3x0	.120	4.707	4	.002	9.413	Y	1	21.732	46.994	3.209	2.496	1	H1-1b
428	M1253	LL3x3x3x0	.120	4.707	2	.002	9.413	Y	3	21.732	46.994	3.209	2.496	1	H1-1b
429	M1253A	LL3x3x3x0	.109	4.375	4	.002	0	Y	2	24.126	46.994	3.209	2.496	1	H1-1b
430	M1254A	LL3x3x3x0	.109	4.375	2	.002	0	Y	2	24.126	46.994	3.209	2.496	1	H1-1b
431	M1268	LL3x3x3x0	.109	4.375	2	.002	0	Y	2	24.126	46.994	3.209	2.496	1	H1-1b
432	M1269	LL3x3x3x0	.109	4.375	8	.002	0	Y	2	24.126	46.994	3.209	2.496	1	H1-1b
433	M1283	LL3x3x3x0	.109	4.375	8	.002	0	Y	6	24.126	46.994	3.209	2.496	1	H1-1b
434	M1284	LL3x3x3x0	.109	4.375	6	.002	0	Y	5	24.126	46.994	3.209	2.496	1	H1-1b
435	M1298	LL3x3x3x0	.109	4.375	6	.002	0	Y	5	24.126	46.994	3.209	2.496	1	H1-1b
436	M1299	LL3x3x3x0	.109	4.375	4	.002	0	Y	3	24.126	46.994	3.209	2.496	1	H1-1b
437	M1147	2L2 1/2x2 1/2x3/16	.385	5.038	2	.003	10.076	Y	2	11.206	38.802	2.251	1.737	1	H1-1a
438	M1148	2L2 1/2x2 1/2x3/16	.384	5.038	8	.003	10.076	Y	7	11.206	38.802	2.251	1.737	1	H1-1a
439	M1149	2L2 1/2x2 1/2x3/16	.383	5.038	8	.003	10.076	Y	8	11.206	38.802	2.251	1.737	1	H1-1a
440	M1150	2L2 1/2x2 1/2x3/16	.383	5.038	6	.003	10.076	Y	5	11.206	38.802	2.251	1.737	1	H1-1a
441	M1151	2L2 1/2x2 1/2x3/16	.384	5.038	6	.003	10.076	Y	6	11.206	38.802	2.251	1.737	1	H1-1a
442	M1152	2L2 1/2x2 1/2x3/16	.384	5.038	4	.003	10.076	Y	4	11.206	38.802	2.251	1.737	1	H1-1a
443	M1153	2L2 1/2x2 1/2x3/16	.385	5.038	4	.003	10.076	Y	3	11.206	38.802	2.251	1.737	1	H1-1a
444	M1154	2L2 1/2x2 1/2x3/16	.385	5.038	2	.003	10.076	Y	2	11.206	38.802	2.251	1.737	1	H1-1a
445	M1088	2L2 1/2x2 1/2x3/16	.437	5.37	11	.003	10.739	Y	2	9.865	38.802	2.251	1.737	1	H1-1a
446	M1089	2L2 1/2x2 1/2x3/16	.433	5.37	17	.003	10.739	Y	7	9.865	38.802	2.251	1.737	1	H1-1a
447	M1090	2L2 1/2x2 1/2x3/16	.433	5.37	17	.003	10.739	Y	8	9.865	38.802	2.251	1.737	1	H1-1a
448	M1091	2L2 1/2x2 1/2x3/16	.431	5.37	17	.003	10.739	Y	5	9.865	38.802	2.251	1.737	1	H1-1a
449	M1092	2L2 1/2x2 1/2x3/16	.431	5.37	15	.003	10.739	Y	5	9.865	38.802	2.251	1.737	1	H1-1a
450	M1093	2L2 1/2x2 1/2x3/16	.431	5.37	15	.003	10.739	Y	6	9.865	38.802	2.251	1.737	1	H1-1a
451	M1094	2L2 1/2x2 1/2x3/16	.435	5.37	13	.003	10.739	Y	3	9.865	38.802	2.251	1.737	1	H1-1a
452	M1095	2L2 1/2x2 1/2x3/16	.435	5.37	13	.003	10.739	Y	4	9.865	38.802	2.251	1.737	1	H1-1a
453	M1533A	L3x2 1/2x1/4	.012	0	17	.002	7.875	Y	2	9.865	38.802	2.251	1.737	1	H1-1a
454	M1534	L3x2 1/2x1/4	.012	0	15	.002	7.875	Y	2	6.147	28.24	.357	1.615	1.1...	H2-1
455	M1535	L3x2 1/2x1/4	.012	0	13	.002	0	Y	2	6.147	28.24	.357	1.615	1.1...	H2-1

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Company : GPD Group
Designer : awestrump
Job Number : 2012/62.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
456	M1536	L3x2 1/2x1/4	.012	0	11	.002	7.875	Y	3	6.147	28.24	.357	1.615	1.1... H2-1
457	M1526A	L3x2 1/2x1/4	.192	0	4	.002	0	Y	2	4.909	28.24	.357	1.555	1.1... H2-1
458	M1527	L3x2 1/2x1/4	.193	0	2	.002	8.813	Y	4	4.909	28.24	.357	1.555	1.1... H2-1
459	M1528	L3x2 1/2x1/4	.194	0	8	.002	8.813	Y	2	4.909	28.24	.357	1.555	1.1... H2-1
460	M1529	L3x2 1/2x1/4	.194	0	6	.002	0	Y	3	4.909	28.24	.357	1.555	1.1... H1-1b
461	M1511A	2L2 1/2x2x3/16	.047	5.344	16	.002	10.688	Y	2	8.907	34.922	1.451	1.688	1.1... H1-1b
462	M1512A	2L2 1/2x2x3/16	.047	5.344	12	.002	0	Y	3	8.907	34.922	1.451	1.688	1.1... H1-1b
463	M1513	2L2 1/2x2x3/16	.047	5.344	16	.002	0	Y	2	8.907	34.922	1.451	1.688	1.1... H1-1b
464	M1514	2L2 1/2x2x3/16	.047	5.344	14	.002	10.688	Y	3	8.907	34.922	1.451	1.688	1.1... H1-1b
465	M1515	2L2 1/2x2x3/16	.039	4.875	15	.002	0	Y	2	10.62	34.922	1.451	1.688	1.1... H1-1b
466	M1516	2L2 1/2x2x3/16	.039	4.875	11	.002	9.75	Y	3	10.62	34.922	1.451	1.688	1.1... H1-1b
467	M1517	2L2 1/2x2x3/16	.039	4.875	15	.002	9.75	Y	2	10.62	34.922	1.451	1.688	1.1... H1-1b
468	M1518	2L2 1/2x2x3/16	.039	4.875	11	.002	0	Y	3	10.62	34.922	1.451	1.688	1.1... H1-1b
469	M1497A	2L2 1/2x2x3/16	.055	5.813	15	.003	11.625	Y	2	7.572	34.922	1.451	1.688	1.1... H1-1b
470	M1498A	2L2 1/2x2x3/16	.055	5.813	12	.003	11.625	Y	4	7.572	34.922	1.451	1.688	1.1... H1-1b
471	M1499	2L2 1/2x2x3/16	.055	5.813	17	.003	0	Y	2	7.572	34.922	1.451	1.688	1.1... H1-1b
472	M1500	2L2 1/2x2x3/16	.055	5.813	12	.003	0	Y	4	7.572	34.922	1.451	1.688	1.1... H1-1b
473	M1501	2L2 1/2x2x3/16	.064	6.281	15	.003	0	Y	5	6.513	34.922	1.451	1.688	1.1... H1-1b
474	M1502	2L2 1/2x2x3/16	.064	6.281	12	.003	0	Y	3	6.513	34.922	1.451	1.688	1.1... H1-1b
475	M1503	2L2 1/2x2x3/16	.064	6.281	13	.003	0	Y	2	6.513	34.922	1.451	1.688	1.1... H1-1b
476	M1504	2L2 1/2x2x3/16	.064	6.281	15	.003	0	Y	7	6.513	34.922	1.451	1.688	1.1... H1-1b
477	M1475A	2L2 1/2x2 1/2x1/4	.099	6.75	4	.004	0	Y	11	28.639	51.305	3.018	2.271	1.6... H1-1b
478	M1476	2L2 1/2x2 1/2x1/4	.099	6.75	2	.004	13.5	Y	11	28.639	51.305	3.018	2.271	1.6... H1-1b
479	M1477	2L2 1/2x2 1/2x1/4	.099	6.75	8	.004	13.5	Y	12	28.639	51.305	3.018	2.271	1.6... H1-1b
480	M1478	2L2 1/2x2 1/2x1/4	.099	6.75	6	.004	13.5	Y	17	28.639	51.305	3.018	2.271	1.6... H1-1b
481	M1452A	2L2 1/2x2 1/2x1/4	.129	7.688	2	.004	15.375	Y	5	24.085	51.305	3.018	2.271	1.6... H1-1b
482	M1453	2L2 1/2x2 1/2x1/4	.129	7.688	8	.004	15.375	Y	12	24.085	51.305	3.018	2.271	1.6... H1-1b
483	M1454	2L2 1/2x2 1/2x1/4	.129	7.688	6	.004	15.375	Y	7	24.085	51.305	3.018	2.271	1.6... H1-1b
484	M1455	2L2 1/2x2 1/2x1/4	.129	7.688	4	.004	0	Y	18	24.085	51.305	3.018	2.271	1.6... H1-1b
485	M1429A	2L2 1/2x2 1/2x1/4	.163	8.625	17	.005	17.25	Y	14	19.784	51.305	3.018	2.271	1.6... H1-1b
486	M1430	2L2 1/2x2 1/2x1/4	.163	8.625	15	.005	0	Y	4	19.784	51.305	3.018	2.271	1.6... H1-1b
487	M1431	2L2 1/2x2 1/2x1/4	.163	8.625	13	.005	0	Y	12	19.784	51.305	3.018	2.271	1.6... H1-1b
488	M1432	2L2 1/2x2 1/2x1/4	.163	8.625	11	.005	0	Y	1	19.784	51.305	3.018	2.271	1.6... H1-1b
489	M1374A	2L3x4x1/4	.411	12.75	16	.009	0	Y	4	17.401	72.862	7.494	3.439	1.6... H1-1b
490	M1375	2L3x4x1/4	.420	12.75	14	.009	0	Y	2	17.401	72.862	7.494	3.439	1.6... H1-1b
491	M1376	2L3x4x1/4	.419	12.75	18	.009	0	Y	9	17.401	72.862	7.494	3.439	1.6... H1-1b
492	M1377	2L3x4x1/4	.416	12.75	16	.009	0	Y	1	17.401	72.862	7.494	3.439	1.0... H1-1b
493	M1402	2L3x4x1/4	.557	15.613	2	.011	0	Y	15	26.111	72.862	7.494	3.439	2.1... H1-1b
494	M1403	2L3x4x1/4	.573	20.817	18	.011	0	Y	16	26.111	72.862	7.494	3.439	2.1... H1-1b
495	M1404	2L3x4x1/4	.574	10.408	14	.011	0	Y	13	26.111	72.862	7.494	3.439	2.1... H1-1b
496	M1405	2L3x4x1/4	.558	10.408	12	.011	0	Y	16	26.111	72.862	7.494	3.439	2.1... H1-1b

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

	Member	Shape	Code Check			Loc[ft]	LC	Shear Che...	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
497	M1343A	2L3x4x1/4	.448	14	13	.010	28	Y	8	14.432	72.862	7.494	3.439	1.6...	H1-1b	
498	M1344	2L3x4x1/4	.448	14	11	.010	28	Y	1	14.432	72.862	7.494	3.439	1.6...	H1-1b	
499	M1345	2L3x4x1/4	.447	14	17	.010	28	Y	2	14.432	72.862	7.494	3.439	1.6...	H1-1b	
500	M1346	2L3x4x1/4	.447	14	15	.010	28	Y	2	14.432	72.862	7.494	3.439	1.6...	H1-1b	
501	M1312A	2L3 1/2x4 1/2x1/4	.440	15.25	13	.010	30.5	Y	6	19.442	83.533	9.459	4.714	1.6...	H1-1b	
502	M1313	2L3 1/2x4 1/2x1/4	.440	15.25	11	.010	30.5	Y	15	19.442	83.533	9.459	4.714	1.6...	H1-1b	
503	M1314	2L3 1/2x4 1/2x1/4	.440	15.25	17	.010	30.5	Y	1	19.442	83.533	9.459	4.714	1.6...	H1-1b	
504	M1315	2L3 1/2x4 1/2x1/4	.440	15.25	15	.010	30.5	Y	17	19.442	83.533	9.459	4.714	1.6...	H1-1b	
505	M1254	2L3x2 1/2x1/4	.439	6.656	8	.003	0	Y	1	13.841	56.695	3.024	3.23	1	H1-1a	
506	M1255	2L3x2 1/2x1/4	.439	6.656	6	.003	0	Y	1	13.841	56.695	3.024	3.23	1	H1-1a	
507	M1256	2L3x2 1/2x1/4	.440	6.656	4	.003	0	Y	1	13.841	56.695	3.024	3.23	1	H1-1a	
508	M1257	2L3x2 1/2x1/4	.440	6.656	2	.003	0	Y	1	13.841	56.695	3.024	3.23	1	H1-1a	
509	M1309	2L3x2 1/2x1/4	.389	6.188	8	.003	0	Y	1	16.018	56.695	3.024	3.23	1	H1-1a	
510	M1310	2L3x2 1/2x1/4	.389	6.188	6	.003	0	Y	1	16.018	56.695	3.024	3.23	1	H1-1a	
511	M1311	2L3x2 1/2x1/4	.390	6.188	4	.003	0	Y	1	16.018	56.695	3.024	3.23	1	H1-1a	
512	M1312	2L3x2 1/2x1/4	.390	6.188	2	.003	0	Y	1	16.018	56.695	3.024	3.23	1	H1-1a	
513	M1155	2L3x2 1/2x1/4	.514	7.125	8	.003	0	Y	1	12.08	56.695	3.024	3.23	1	H1-1a	
514	M1156	2L3x2 1/2x1/4	.514	7.125	6	.003	0	Y	1	12.08	56.695	3.024	3.23	1	H1-1a	
515	M1157	2L3x2 1/2x1/4	.516	7.125	4	.003	0	Y	1	12.08	56.695	3.024	3.23	1	H1-1a	
516	M1158	2L3x2 1/2x1/4	.516	7.125	2	.003	0	Y	1	12.08	56.695	3.024	3.23	1	H1-1a	
517	M1032	2L3x2 1/2x1/4	1.184	23.094	7	.014	0	Y	6	18.397	56.695	3.024	3.23	1.8...	H1-1b	
518	M1033	2L3x2 1/2x1/4	1.200	23.094	5	.014	0	Y	20	18.397	56.695	3.024	3.23	2.1...	H1-1b	
519	M1034	2L3x2 1/2x1/4	1.215	31.273	9	.014	0	Y	6	10.349	56.695	3.024	3.23	1.6...	H1-1b	
520	M1035	2L3x2 1/2x1/4	1.192	23.094	7	.014	0	Y	25	18.397	56.695	3.024	3.23	1.3...	H1-1b	
521	M1096	2L3x2 1/2x1/4	.197	7.594	17	.004	15.188	Y	11	34.078	56.695	3.024	3.23	1.6...	H1-1b	
522	M1098	2L3x2 1/2x1/4	.197	7.594	15	.004	15.188	Y	2	34.078	56.695	3.024	3.23	1.6...	H1-1b	
523	M1100	2L3x2 1/2x1/4	.198	7.594	13	.004	15.188	Y	13	34.078	56.695	3.024	3.23	1.6...	H1-1b	
524	M1102	2L3x2 1/2x1/4	.198	7.594	11	.004	15.188	Y	2	34.078	56.695	3.024	3.23	1.6...	H1-1b	
525	M1036	L3X3X4	.325	5.481	12	.003	0	Y	11	4.28	31.042	1.123	1.8	1.1...	H2-1	
526	M1037	L3X3X4	.322	5.481	16	.003	0	Y	10	4.28	31.042	1.123	1.8	1.1...	H2-1	
527	M1038	L3X3X4	.136	3.953	12	.002	7.907	Y	12	8.228	31.042	1.123	2.01	1.1...	H2-1	
528	M1039	L3X3X4	.313	5.445	16	.003	0	Y	16	4.337	31.042	1.123	1.804	1.1...	H2-1	
529	M1040	L3X3X4	.170	4.352	12	.002	8.704	Y	16	6.789	31.042	1.123	1.952	1.1...	H2-1	
530	M1041	L3X3X4	.182	4.42	17	.002	8.839	Y	16	6.583	31.042	1.123	1.942	1.1...	H2-1	
531	M1042	L3X3X4	.471	5.481	18	.003	0	Y	24	4.28	31.042	1.123	1.8	1.1...	H2-1	
532	M1043	L3X3X4	.487	5.481	14	.003	10.962	Y	18	4.28	31.042	1.123	1.8	1.1...	H2-1	
533	M1044	L3X3X4	.191	3.953	18	.002	7.907	Y	17	8.228	31.042	1.123	2.01	1.1...	H2-1	
534	M1045	L3X3X4	.476	5.445	14	.003	0	Y	13	4.337	31.042	1.123	1.804	1.1...	H2-1	
535	M1046	L3X3X4	.243	4.352	18	.002	8.704	Y	11	6.789	31.042	1.123	1.952	1.1...	H2-1	
536	M1047	L3X3X4	.268	4.42	14	.002	8.839	Y	23	6.583	31.042	1.123	1.942	1.1...	H2-1	
537	M1048	L3X3X4	.523	5.481	17	.003	0	Y	11	4.28	31.042	1.123	1.8	1.1...	H2-1	

SNET021 NORWALK

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

Member	Shape	Code Check	Locftl	LC	Shear Che...	Locftl	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Egn
538	M1049	L3X3X4	.514	5.481	4	.003	10.962	Y	11	4.28	31.042	1.123	1.8	1.1... H2-1
539	M1050	L3X3X4	.209	3.953	17	.002	7.907	Y	7	8.228	31.042	1.123	2.01	1.1... H2-1
540	M1051	L3X3X4	.504	5.445	4	.003	0	Y	10	4.337	31.042	1.123	1.804	1.1... H2-1
541	M1052	L3X3X4	.269	4.352	17	.002	8.704	Y	10	6.789	31.042	1.123	1.952	1.1... H2-1
542	M1053	L3X3X4	.281	4.42	4	.002	8.839	Y	4	6.583	31.042	1.123	1.942	1.1... H2-1
543	M1054	L3X3X4	.420	5.481	16	.003	0	Y	2	4.28	31.042	1.123	1.8	1.1... H2-1
544	M1055	L3X3X4	.384	5.481	3	.003	0	Y	16	4.28	31.042	1.123	1.8	1.1... H2-1
545	M1056	L3X3X4	.169	3.953	16	.002	7.907	Y	4	8.228	31.042	1.123	2.01	1.1... H2-1
546	M1057	L3X3X4	.374	5.445	3	.003	0	Y	18	4.337	31.042	1.123	1.804	1.1... H2-1
547	M1058	L3X3X4	.217	4.352	16	.002	8.704	Y	14	6.789	31.042	1.123	1.952	1.1... H2-1
548	M1059	L3X3X4	.213	4.42	3	.002	8.839	Y	10	6.583	31.042	1.123	1.942	1.1... H2-1
549	M1	L6x6x5/8	.055	5.63	16	.028	12.57	Z	2	119.682	153.269	4.412	24.452	2.44 H2-1
550	M2	L6x6x5/8	.056	5.63	14	.028	12.57	Z	8	119.682	153.269	4.412	24.452	2.48 H2-1
551	M3	L6x6x5/8	.056	5.499	12	.026	12.57	Y	8	119.682	153.269	4.412	24.452	1.5... H2-1
552	M4	L6x6x5/8	.056	5.63	18	.028	12.57	Y	6	119.682	153.269	4.412	24.196	1.8... H2-1
553	M21	L6x6x5/8	.130	2.095	16	.022	12.57	Y	4	120.187	153.269	4.412	24.452	2.0... H2-1
554	M22	L6x6x5/8	.134	2.226	14	.023	12.57	Y	2	120.187	153.269	4.412	24.452	2.1... H2-1
555	M23	L6x6x5/8	.137	2.095	12	.023	12.57	Z	6	120.187	153.269	4.412	24.452	2.2... H2-1
556	M24	L6x6x5/8	.127	2.095	18	.021	12.57	Z	4	120.187	153.269	4.412	24.452	2.3... H2-1
557	M41	L6x6x7/8	.170	4.452	16	.001	6.678	Y	7	164.331	209.749	6.07	32.062	2.2... H2-1
558	M42	L6x6x7/8	.171	4.452	14	.002	0	Y	2	164.331	209.749	6.07	32.062	2.2... H2-1
559	M43	L6x6x7/8	.177	4.321	12	.003	0	Y	9	164.331	209.749	6.07	32.062	2.1... H2-1
560	M44	L6x6x7/8	.168	4.452	18	.002	0	Z	4	164.331	209.749	6.07	32.062	2.6... H2-1
561	M66	L6x6x7/8	.215	4.19	7	.005	0	Z	9	168.536	209.749	6.07	32.041	1.3... H2-1
562	M67	L6x6x7/8	.216	9.166	14	.006	0	Z	7	168.536	209.749	6.07	32.062	1.3... H2-1
563	M68	L6x6x7/8	.224	3.928	12	.007	0	Y	9	168.536	209.749	6.07	32.062	1.5... H2-1
564	M69	L6x6x7/8	.211	9.035	18	.006	0	Y	7	168.536	209.749	6.07	32.062	2.1... H2-1
565	M103	L6x6x7/8	.374	9.428	7	.006	0	Z	9	168.536	209.749	6.07	32.062	1.3... H2-1
566	M104	L6x6x7/8	.369	9.428	5	.007	0	Z	7	168.536	209.749	6.07	32.062	2.1... H2-1
567	M105	L6x6x7/8	.378	9.428	3	.008	0	Y	9	168.536	209.749	6.07	31.007	2.1... H2-1
568	M106	L6x6x7/8	.368	9.428	9	.007	0	Y	7	168.536	209.749	6.07	28.971	1.5... H2-1
569	M173	L8x8x3/4	.420	9.166	7	.010	0	Z	9	217.969	245.749	9.491	52.846	2.2... H2-1
570	M174	L8x8x3/4	.421	9.428	14	.012	12.57	Y	2	217.969	245.749	9.491	52.846	1.9... H2-1
571	M175	L8x8x3/4	.438	9.428	12	.015	12.57	Y	9	217.969	245.749	9.491	46.844	1.7... H2-1
572	M176	L8x8x3/4	.419	9.166	9	.013	0	Y	7	217.969	245.749	9.491	44.991	1.4... H2-1
573	M243	L8x8x7/8	.452	2.095	7	.009	0	Z	18	229.278	284.551	10.904	60.335	1 H2-1
574	M244	L8x8x7/8	.470	1.309	14	.011	0	Z	16	229.278	284.551	10.904	58.578	2.3... H2-1
575	M245	L8x8x7/8	.476	.786	12	.013	0	Y	9	229.278	284.551	10.904	55.885	1.8... H2-1
576	M246	L8x8x7/8	.463	1.571	18	.012	0	Y	7	229.278	284.551	10.904	60.335	1 H2-1
577	M304	L8x8x1 1/8	.479	14.927	16	.005	25.14	Z	9	289.267	360	13.828	73.956	2.1... H2-1
578	M305	L8x8x1 1/8	.497	24.616	14	.006	25.14	Z	16	289.267	360	13.828	74.004	2.74 H2-1

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

Member		Shape	Code Check		Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
579	M306	L8x8x1 1/8	.503	3.928	12	.008	25.14	Y	9	289.267	360	13.828	74.004	1	H2-1	
580	M307	L8x8x1 1/8	.487	24.093	18	.007	25.14	Y	7	289.267	360	13.828	74.004	1	H2-1	
581	M365	L8x8x1 1/8	.507	17.022	7	.004	8.38	Y	7	347.828	460	17.669	94.561	1	H2-1	
582	M366	L8x8x1 1/8	.511	16.76	14	.004	8.38	Z	14	347.828	460	17.669	94.561	1	H2-1	
583	M367	L8x8x1 1/8	.537	4.714	12	.004	0	Y	18	347.828	460	17.669	94.561	1	H2-1	
584	M368	L8x8x1 1/8	.518	16.76	18	.004	0	Y	17	347.828	460	17.669	91.379	2.1...	H2-1	
585	M426	L8x8x1 1/8	.562	16.236	16	.007	0	Y	14	347.828	460	17.669	91.628	2.2...	H2-1	
586	M427	L8x8x1 1/8	.568	16.236	14	.008	0	Z	16	347.828	460	17.669	94.561	1	H2-1	
587	M428	L8x8x1 1/8	.589	16.236	12	.010	0	Z	14	347.828	460	17.669	94.561	1	H2-1	
588	M429	L8x8x1 1/8	.571	16.236	18	.009	0	Y	16	347.828	460	17.669	91.916	2.2...	H2-1	
589	M511	L8x8x1 1/8	.689	3.143	16	.009	0	Y	14	347.828	460	17.669	94.561	1	H2-1	
590	M512	L8x8x1 1/8	.696	14.665	14	.010	0	Z	16	347.828	460	17.669	94.561	1	H2-1	
591	M513	L8x8x1 1/8	.712	14.927	12	.013	0	Z	14	347.828	460	17.669	94.561	1	H2-1	
592	M514	L8x8x1 1/8	.704	14.665	18	.012	0	Y	16	347.828	460	17.669	91.457	2.1...	H2-1	
593	M588	L8x8x1	.844	3.928	16	.008	25.14	Y	14	331.433	449.102	17.15	91.799	1	H2-1	
594	M589	L8x8x1	.855	15.451	14	.010	25.14	Z	16	331.433	449.102	17.15	91.799	1	H2-1	
595	M590	L8x8x1	.881	3.928	12	.013	25.14	Z	14	331.433	449.102	17.15	90.275	2.6...	H2-1	
596	M591	L8x8x1	.862	15.451	18	.012	25.14	Y	16	331.433	449.102	17.15	90.761	2.79	H2-1	
597	M665	L8x8x1	1.058	16.498	16	.006	8.38	Z	17	331.433	449.102	17.15	88.302	2.3...	H2-1	
598	M666	L8x8x1	1.066	17.284	14	.006	0	Z	15	331.433	449.102	17.15	91.799	1	H2-1	
599	M667	L8x8x1	1.100	17.284	12	.008	25.14	Z	14	331.433	449.102	17.15	91.799	1	H2-1	
600	M668	L8x8x1	1.077	16.498	18	.007	25.14	Y	16	331.433	449.102	17.15	89.006	2.4...	H2-1	
601	M750	L8x8x1	1.223	4.976	16	.008	4.976	Y	15	331.433	449.102	17.15	87.46	2.25	H2-1	
602	M751	L8x8x1	1.229	16.498	14	.008	5.238	Z	15	331.433	449.102	17.15	91.799	1	H2-1	
603	M752	L8x8x1	1.265	17.022	12	.009	5.238	Z	13	331.433	449.102	17.15	91.799	1	H2-1	
604	M753	L8x8x1	1.240	16.498	18	.009	0	Y	17	331.433	449.102	17.15	88.225	2.36	H2-1	
605	M835	L8x8x1	1.100	22.521	16	.025	2.095	Y	6	416.253	449.102	17.15	93.612	1	H2-1	
606	M836	L8x8x1	1.107	22.521	14	.026	0	Z	6	416.253	449.102	17.15	91.799	3	H2-1	
607	M837	L8x8x1	1.129	22.521	12	.028	0	Z	13	416.253	449.102	17.15	91.799	3	H2-1	
608	M838	L8x8x1	1.117	22.521	18	.028	2.095	Y	8	416.253	449.102	17.15	93.612	1	H2-1	
609	M920	L8x8x1 1/8	1.133	0	16	.018	25.14	Y	6	463.429	500	19.206	101.923	2.8...	H2-1	
610	M921	L8x8x1 1/8	1.135	0	14	.019	25.14	Z	15	463.429	500	19.206	102.784	1	H2-1	
611	M922	L8x8x1 1/8	1.165	0	12	.020	25.14	Z	13	463.429	500	19.206	102.784	1	H2-1	
612	M923	L8x8x1 1/8	1.148	0	18	.020	25.14	Y	17	463.429	500	19.206	102.22	2.8...	H2-1	
613	M252	2L2 1/2x2x3/16	.655	5.669	15	.003	0	Y	17	7.917	34.922	1.451	1.688	1	H1-1a	
614	M257	2L2 1/2x2x3/16	.622	5.669	15	.003	11.831	Y	17	7.917	34.922	1.451	1.688	1	H1-1a	
615	M264	2L2 1/2x2x3/16	.666	5.669	13	.003	0	Y	18	7.917	34.922	1.451	1.688	1	H1-1a	
616	M269	2L2 1/2x2x3/16	.658	5.669	13	.003	0	Y	11	7.917	34.922	1.451	1.688	1	H1-1a	
617	M277	2L2 1/2x2x3/16	.654	5.669	11	.003	11.831	Y	12	7.917	34.922	1.451	1.688	1	H1-1a	
618	M282	2L2 1/2x2x3/16	.662	5.669	11	.003	11.831	Y	12	7.917	34.922	1.451	1.688	1	H1-1a	
619	M290	2L2 1/2x2x3/16	.618	5.669	17	.003	11.831	Y	14	7.917	34.922	1.451	1.688	1	H1-1a	

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Designer : awestrump
Job Number : 2012762.03

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

Envelope AISC 1311100-031: ASD Spec. 16															Eqn
Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvw/om [k-ft]	Mnzz/om [k-ft]	Cb	H1-1a	
620	2L2 1/2x2x3/16	.651	5.669	17	.003	11.831	Y	18	7.917	34.922	1.451	1.688	1	H1-1a	
621	2L2 1/2x2x3/16	.671	6.108	15	.003	12.747	Y	12	6.775	34.922	1.451	1.688	1	H1-1a	
622	2L2 1/2x2x3/16	.678	6.108	15	.003	12.747	Y	12	6.775	34.922	1.451	1.688	1	H1-1a	
623	2L2 1/2x2x3/16	.716	6.108	13	.003	12.747	Y	12	6.775	34.922	1.451	1.688	1	H1-1a	
624	2L2 1/2x2x3/16	.678	6.108	13	.003	12.747	Y	16	6.775	34.922	1.451	1.688	1	H1-1a	
625	2L2 1/2x2x3/16	.696	6.108	11	.003	0	Y	17	6.775	34.922	1.451	1.688	1	H1-1a	
626	2L2 1/2x2x3/16	.693	6.108	11	.003	0	Y	12	6.775	34.922	1.451	1.688	1	H1-1a	
627	2L2 1/2x2x3/16	.655	6.108	17	.003	12.747	Y	16	6.775	34.922	1.451	1.688	1	H1-1a	
628	2L2 1/2x2x3/16	.689	6.108	17	.003	12.747	Y	15	6.775	34.922	1.451	1.688	1	H1-1a	
629	2L3x2x1/4	.687	6.572	15	.003	13.715	Y	13	7.881	51.305	1.956	3.105	1	H1-1a	
630	2L3x2x1/4	.684	6.572	15	.003	13.715	Y	14	7.881	51.305	1.956	3.105	1	H1-1a	
631	2L3x2x1/4	.726	6.572	13	.003	13.715	Y	15	7.881	51.305	1.956	3.105	1	H1-1a	
632	2L3x2x1/4	.693	6.572	13	.003	13.715	Y	11	7.881	51.305	1.956	3.105	1	H1-1a	
633	2L3x2x1/4	.709	6.572	11	.003	13.715	Y	17	7.881	51.305	1.956	3.105	1	H1-1a	
634	2L3x2x1/4	.713	6.572	11	.003	0	Y	17	7.881	51.305	1.956	3.105	1	H1-1a	
635	2L3x2x1/4	.671	6.572	17	.003	13.715	Y	16	7.881	51.305	1.956	3.105	1	H1-1a	
636	2L3x2x1/4	.704	6.572	17	.003	0	Y	11	7.881	51.305	1.956	4.754	1	H1-1a	
637	LL3x3x6x3	.706	5.547	16	.002	11.329	Y	13	31.091	90.97	7.565	4.754	1	H1-1a	
638	LL3x3x6x3	.684	5.547	14	.002	11.329	Y	17	31.091	90.97	7.565	4.754	1	H1-1a	
639	LL3x3x6x3	.744	5.547	14	.002	11.329	Y	18	31.091	90.97	7.565	4.754	1	H1-1a	
640	LL3x3x6x3	.713	5.547	12	.002	11.329	Y	11	31.091	90.97	7.565	4.754	1	H1-1a	
641	LL3x3x6x3	.733	5.547	12	.002	11.329	Y	12	31.091	90.97	7.565	4.754	1	H1-1a	
642	LL3x3x6x3	.745	5.547	18	.002	0	Y	17	31.091	90.97	7.565	4.754	1	H1-1a	
643	LL3x3x6x3	.684	5.547	18	.002	0	Y	18	31.091	90.97	7.565	4.754	1	H1-1a	
644	LL3x3x6x3	.726	5.547	16	.002	0	Y	18	31.091	90.97	7.565	4.754	1	H1-1a	
645	LL3x3x6x3	.914	5.801	16	.003	0	Y	12	28.21	90.97	7.565	4.754	1	H1-1a	
646	LL3x3x6x3	.860	5.801	14	.003	0	Y	17	28.21	90.97	7.565	4.754	1	H1-1a	
647	LL3x3x6x3	1.012	5.801	14	.003	11.849	Y	12	28.21	90.97	7.565	4.754	1	H1-1a	
648	LL3x3x6x3	.914	5.801	12	.003	11.849	Y	15	28.21	90.97	7.565	4.754	1	H1-1a	
649	LL3x3x6x3	.970	5.801	12	.003	0	Y	16	28.21	90.97	7.565	4.754	1	H1-1a	
650	LL3x3x6x3	1.012	5.801	18	.003	0	Y	16	28.21	90.97	7.565	4.754	1	H1-1a	
651	LL3x3x6x3	.860	5.801	18	.003	0	Y	18	28.21	90.97	7.565	4.754	1	H1-1a	
652	LL3x3x6x3	.970	5.801	16	.003	11.849	Y	16	28.21	90.97	7.565	4.754	1	H1-1a	
653	LL3.5x3.5x6x3	.778	6.067	16	.003	0	Y	14	41.88	107.784	9.977	6.576	1	H1-1a	
654	LL3.5x3.5x6x3	.738	6.067	14	.003	12.392	Y	12	41.88	107.784	9.977	6.576	1	H1-1a	
655	LL3.5x3.5x6x3	.856	6.067	14	.003	12.392	Y	11	41.88	107.784	9.977	6.576	1	H1-1a	
656	LL3.5x3.5x6x3	.781	6.067	12	.003	0	Y	15	41.88	107.784	9.977	6.576	1	H1-1a	
657	LL3.5x3.5x6x3	.826	6.067	12	.003	0	Y	13	41.88	107.784	9.977	6.576	1	H1-1a	
658	LL3.5x3.5x6x3	.856	6.067	18	.003	12.392	Y	12	41.88	107.784	9.977	6.576	1	H1-1a	
659	LL3.5x3.5x6x3	.739	6.067	18	.003	0	Y	16	41.88	107.784	9.977	6.576	1	H1-1a	
660	LL3.5x3.5x6x3	.823	6.067	16	.003	12.392	Y	18	41.88	107.784	9.977	6.576	1	H1-1a	

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
661	M674	LL3x3x6x3	1.140	7.311	16	.004	14.932	Y	17	17.595	90.97	7.565	4.754	1	H1-1a
662	M679	LL3x3x6x3	1.088	7.311	14	.004	0	Y	13	17.595	90.97	7.565	4.754	1	H1-1a
663	M690	LL3x3x6x3	1.252	7.311	14	.004	0	Y	15	17.595	90.97	7.565	4.754	1	H1-1a
664	M695	LL3x3x6x3	1.143	7.311	12	.004	14.932	Y	14	17.595	90.97	7.565	4.754	1	H1-1a
665	M709	LL3x3x6x3	1.212	7.311	12	.004	14.932	Y	16	17.595	90.97	7.565	4.754	1	H1-1a
666	M714	LL3x3x6x3	1.253	7.311	18	.004	14.932	Y	18	17.595	90.97	7.565	4.754	1	H1-1a
667	M728	LL3x3x6x3	1.088	7.311	18	.004	0	Y	11	17.595	90.97	7.565	4.754	1	H1-1a
668	M733	LL3x3x6x3	1.210	7.311	16	.004	0	Y	18	17.595	90.97	7.565	4.754	1	H1-1a
669	M759	LL3.5x3.5x6x3	.858	7.695	16	.004	0	Y	14	25.952	107.784	9.977	6.576	1	H1-1a
670	M764	LL3.5x3.5x6x3	.822	7.695	14	.004	15.718	Y	18	25.952	107.784	9.977	6.576	1	H1-1a
671	M775	LL3.5x3.5x6x3	.938	7.695	14	.004	0	Y	11	25.952	107.784	9.977	6.576	1	H1-1a
672	M780	LL3.5x3.5x6x3	.860	7.695	12	.004	15.718	Y	18	25.952	107.784	9.977	6.576	1	H1-1a
673	M794	LL3.5x3.5x6x3	.912	7.695	12	.004	15.718	Y	18	25.952	107.784	9.977	6.576	1	H1-1a
674	M799	LL3.5x3.5x6x3	.938	7.695	18	.004	15.718	Y	12	25.952	107.784	9.977	6.576	1	H1-1a
675	M813	LL3.5x3.5x6x3	.823	7.695	18	.004	15.718	Y	11	25.952	107.784	9.977	6.576	1	H1-1a
676	M818	LL3.5x3.5x6x3	.910	7.695	16	.004	15.718	Y	16	25.952	107.784	9.977	6.576	1	H1-1a
677	M844	LL3.5x3.5x6x3	1.084	8.26	16	.003	8.26	Y	16	23.493	107.784	9.977	4.11	1.1...	H1-1a
678	M849	LL3.5x3.5x6x3	1.048	8.26	14	.003	8.26	Y	14	23.493	107.784	9.977	4.11	1.1...	H1-1a
679	M860	LL3.5x3.5x6x3	1.170	8.26	14	.003	8.26	Y	14	23.493	107.784	9.977	4.11	1.1...	H1-1a
680	M865	LL3.5x3.5x6x3	1.090	8.26	12	.003	8.26	Y	12	23.493	107.784	9.977	4.11	1.1...	H1-1a
681	M879	LL3.5x3.5x6x3	1.148	8.26	12	.003	8.26	Y	12	23.493	107.784	9.977	4.11	1.1...	H1-1a
682	M884	LL3.5x3.5x6x3	1.172	8.26	18	.003	8.26	Y	18	23.493	107.784	9.977	4.11	1.1...	H1-1a
683	M898	LL3.5x3.5x6x3	1.051	8.26	18	.003	8.26	Y	18	23.493	107.784	9.977	4.11	1.1...	H1-1a
684	M903	LL3.5x3.5x6x3	1.142	8.26	16	.003	8.26	Y	16	23.493	107.784	9.977	4.11	1.1...	H1-1a
685	M929	LL3.5x3.5x6x3	1.178	8.667	7	.004	8.667	Y	16	21.336	107.784	9.977	4.11	1.1...	H1-1a
686	M934	LL3.5x3.5x6x3	1.163	8.667	5	.004	8.667	Y	14	21.336	107.784	9.977	4.11	1.1...	H1-1a
687	M945	LL3.5x3.5x6x3	1.232	8.667	5	.004	8.667	Y	14	21.336	107.784	9.977	4.11	1.1...	H1-1a
688	M950	LL3.5x3.5x6x3	1.192	8.667	3	.004	8.667	Y	12	21.336	107.784	9.977	4.11	1.1...	H1-1a
689	M964	LL3.5x3.5x6x3	1.227	8.667	3	.004	8.667	Y	12	21.336	107.784	9.977	4.11	1.1...	H1-1a
690	M969	LL3.5x3.5x6x3	1.237	8.667	9	.004	8.667	Y	18	21.336	107.784	9.977	4.11	1.1...	H1-1a
691	M983	LL3.5x3.5x6x3	1.159	8.667	9	.004	8.667	Y	18	21.336	107.784	9.977	4.11	1.1...	H1-1a
692	M988	LL3.5x3.5x6x3	1.224	8.667	7	.004	8.667	Y	16	21.336	107.784	9.977	4.11	1.1...	H1-1a
693	M73	L2.5X2X3	.118	3.47	14	.002	7.402	Y	14	3.004	17.44	.411	.678	1	H2-1
694	M76	L2.5X2X3	.120	3.47	16	.002	7.402	Y	16	3.004	17.44	.411	.678	1	H2-1
695	M80	L2.5X2X3	.117	3.47	13	.002	7.402	Y	13	3.004	17.44	.411	.678	1	H2-1
696	M83	L2.5X2X3	.099	3.47	14	.002	7.402	Y	14	3.004	17.44	.411	.678	1	H2-1
697	M87	L2.5X2X3	.098	3.47	11	.002	7.402	Y	11	3.004	17.44	.411	.678	1	H2-1
698	M90	L2.5X2X3	.117	3.47	11	.002	7.402	Y	11	3.004	17.44	.411	.678	1	H2-1
699	M94	L2.5X2X3	.103	3.47	16	.002	7.402	Y	16	3.004	17.44	.411	.678	1	H2-1
700	M97	L2.5X2X3	.125	3.47	18	.002	7.402	Y	18	3.004	17.44	.411	.678	1	H2-1
701	M110	L2.5X2.5X3	.153	3.805	14	.002	7.94	Y	14	3.718	19.401	.58	.921	1	H2-1

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Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
702	M113	.157	3.805	16	.002	7.94	Y	16	3.718	19.401	.58	.921	1	H2-1
703	M117	.153	3.805	12	.002	7.94	Y	12	3.718	19.401	.58	.921	1	H2-1
704	M120	.154	3.805	14	.002	7.94	Y	14	3.718	19.401	.58	.921	1	H2-1
705	M124	.151	3.805	18	.002	7.94	Y	18	3.718	19.401	.58	.921	1	H2-1
706	M127	.159	3.805	12	.002	7.94	Y	12	3.718	19.401	.58	.921	1	H2-1
707	M131	.156	3.805	16	.002	7.94	Y	16	3.718	19.401	.58	.921	1	H2-1
708	M134	.157	3.805	18	.002	7.94	Y	18	3.718	19.401	.58	.921	1	H2-1
709	M143	.126	3.671	14	.002	7.661	Y	14	3.993	19.401	.58	.934	1	H2-1
710	M146	.128	3.671	16	.002	7.661	Y	16	3.993	19.401	.58	.934	1	H2-1
711	M150	.125	3.671	12	.002	7.661	Y	12	3.993	19.401	.58	.934	1	H2-1
712	M153	.122	3.671	14	.002	7.661	Y	14	3.993	19.401	.58	.934	1	H2-1
713	M157	.119	3.671	18	.002	7.661	Y	18	3.993	19.401	.58	.934	1	H2-1
714	M160	.128	3.671	12	.002	7.661	Y	12	3.993	19.401	.58	.934	1	H2-1
715	M164	.125	3.671	16	.002	7.661	Y	16	3.993	19.401	.58	.934	1	H2-1
716	M167	.130	3.671	18	.002	7.661	Y	18	3.993	19.401	.58	.934	1	H2-1
717	M180	.263	4.096	14	.003	8.548	Y	14	3.208	19.401	.58	.892	1	H2-1
718	M183	.298	4.096	12	.003	8.548	Y	12	3.208	19.401	.58	.892	1	H2-1
719	M187	.292	4.096	14	.003	8.548	Y	14	3.208	19.401	.58	.892	1	H2-1
720	M190	.294	4.096	18	.003	8.548	Y	18	3.208	19.401	.58	.892	1	H2-1
721	M194	.279	4.096	12	.003	8.548	Y	12	3.208	19.401	.58	.892	1	H2-1
722	M197	.278	4.096	16	.003	8.548	Y	16	3.208	19.401	.58	.892	1	H2-1
723	M201	.267	4.096	18	.003	8.548	Y	18	3.208	19.401	.58	.907	1	H2-1
724	M204	.209	3.947	14	.003	8.236	Y	14	3.455	19.401	.58	.907	1	H2-1
725	M213	.225	3.947	16	.003	8.236	Y	16	3.455	19.401	.58	.907	1	H2-1
726	M216	.220	3.947	12	.003	8.236	Y	12	3.455	19.401	.58	.907	1	H2-1
727	M220	.222	3.947	14	.003	8.236	Y	14	3.455	19.401	.58	.907	1	H2-1
728	M223	.219	3.947	18	.003	8.236	Y	18	3.455	19.401	.58	.907	1	H2-1
729	M227	.216	3.947	12	.003	8.236	Y	12	3.455	19.401	.58	.907	1	H2-1
730	M230	.215	3.947	16	.003	8.236	Y	16	3.455	19.401	.58	.907	1	H2-1
731	M234	.213	3.947	18	.003	8.236	Y	18	3.455	19.401	.58	.907	1	H2-1
732	M237	.163	4.318	14	.002	0	Y	14	4.945	23.497	.878	1.256	1	H2-1
733	M251	.165	4.318	16	.002	0	Y	16	4.945	23.497	.878	1.256	1	H2-1
734	M256	.158	4.318	12	.002	0	Y	12	4.945	23.497	.878	1.256	1	H2-1
735	M263	.162	4.318	13	.002	0	Y	13	4.945	23.497	.878	1.256	1	H2-1
736	M268	.167	4.318	11	.002	0	Y	11	4.945	23.497	.878	1.256	1	H2-1
737	M276	.154	4.318	11	.002	0	Y	11	4.945	23.497	.878	1.256	1	H2-1
738	M281	.153	4.318	17	.002	0	Y	17	4.945	23.497	.878	1.311	1.1...	H2-1
739	M289	.183	4.222	17	.002	0	Y	17	4.605	23.497	.878	1.238	1	H2-1
740	M294	.131	4.449	15	.002	0	Y	15	4.658	23.497	.878	1.238	1	H2-1
741	M312	.130	4.449	15	.002	0	Y	15	4.658	23.497	.878	1.238	1	H2-1
742	M317	.130	4.449	15	.002	0	Y	15	4.658	23.497	.878	1.238	1	H2-1

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Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
743	L3X3X3	.148	4.449	14	.002	0	Y	14	4.658	23.497	.878	1.238	1	H2-1
744	L3X3X3	.122	4.449	12	.002	0	Y	12	4.658	23.497	.878	1.238	1	H2-1
745	L3X3X3	.145	4.449	12	.002	0	Y	12	4.658	23.497	.878	1.238	1	H2-1
746	L3X3X3	.147	4.449	18	.002	0	Y	18	4.658	23.497	.878	1.238	1	H2-1
747	L3X3X3	.115	4.449	18	.002	0	Y	18	4.658	23.497	.878	1.238	1	H2-1
748	L3X3X3	.151	4.449	16	.002	0	Y	16	4.658	23.497	.878	1.238	1	H2-1
749	L3X3X3	.154	4.595	16	.003	0	Y	16	4.366	23.497	.878	1.218	1	H2-1
750	L3X3X3	.151	4.595	14	.003	0	Y	14	4.366	23.497	.878	1.218	1	H2-1
751	L3X3X3	.184	4.595	14	.003	0	Y	14	4.366	23.497	.878	1.218	1	H2-1
752	L3X3X3	.155	4.595	12	.003	0	Y	12	4.366	23.497	.878	1.218	1	H2-1
753	L3X3X3	.176	4.595	12	.003	0	Y	12	4.366	23.497	.878	1.218	1	H2-1
754	L3X3X3	.183	4.595	18	.003	0	Y	18	4.366	23.497	.878	1.218	1	H2-1
755	L3X3X3	.144	4.595	18	.003	0	Y	18	4.366	23.497	.878	1.218	1	H2-1
756	L3X3X3	.182	4.595	16	.003	0	Y	16	4.366	23.497	.878	1.266	1	H2-1
757	L3X3X3	.215	4.155	15	.002	0	Y	15	5.106	23.497	.878	1.266	1	H2-1
758	L3X3X3	.229	4.249	15	.002	0	Y	15	5.106	23.497	.878	1.266	1	H2-1
759	L3X3X3	.222	4.155	13	.002	0	Y	13	5.106	23.497	.878	1.266	1	H2-1
760	L3X3X3	.221	4.249	13	.002	0	Y	13	5.106	23.497	.878	1.266	1	H2-1
761	L3X3X3	.224	4.155	11	.002	0	Y	11	5.106	23.497	.878	1.266	1	H2-1
762	L3X3X3	.215	4.249	11	.002	0	Y	11	5.106	23.497	.878	1.266	1	H2-1
763	L3X3X3	.216	4.155	17	.002	0	Y	17	5.106	23.497	.878	1.266	1	H2-1
764	L3X3X3	.224	4.249	17	.002	0	Y	17	5.106	23.497	.878	1.256	1	H2-1
765	L3X3X3	.292	4.32	14	.002	0	Y	14	4.939	23.497	.878	1.256	1	H2-1
766	L3X3X3	.314	4.32	16	.002	0	Y	16	4.939	23.497	.878	1.256	1	H2-1
767	L3X3X3	.305	4.32	12	.002	0	Y	12	4.939	23.497	.878	1.256	1	H2-1
768	L3X3X3	.321	4.32	14	.002	0	Y	14	4.939	23.497	.878	1.256	1	H2-1
769	L3X3X3	.317	4.32	18	.002	0	Y	18	4.939	23.497	.878	1.256	1	H2-1
770	L3X3X3	.304	4.32	12	.002	0	Y	12	4.939	23.497	.878	1.256	1	H2-1
771	L3X3X3	.307	4.32	16	.002	0	Y	16	4.939	23.497	.878	1.256	1	H2-1
772	L3X3X3	.294	4.32	18	.002	0	Y	18	4.939	23.497	.878	1.245	1	H2-1
773	L3X3X3	.244	4.397	16	.002	0	Y	16	4.767	23.497	.878	1.245	1	H2-1
774	L3X3X3	.247	4.397	14	.002	0	Y	14	4.767	23.497	.878	1.245	1	H2-1
775	L3X3X3	.256	4.397	14	.002	0	Y	14	4.767	23.497	.878	1.245	1	H2-1
776	L3X3X3	.251	4.397	12	.002	0	Y	12	4.767	23.497	.878	1.245	1	H2-1
777	L3X3X3	.260	4.397	12	.002	0	Y	12	4.767	23.497	.878	1.245	1	H2-1
778	L3X3X3	.258	4.397	18	.002	0	Y	18	4.767	23.497	.878	1.245	1	H2-1
779	L3X3X3	.243	4.397	18	.002	0	Y	18	4.767	23.497	.878	1.245	1	H2-1
780	L3X3X3	.259	4.397	16	.002	0	Y	16	4.767	23.497	.878	1.245	1	H2-1
781	2L2 1/2x2 1/2x3/16	.072	5.001	16	.002	0	Y	17	11.709	38.802	2.251	1.737	1	H1-1b
782	2L2 1/2x2 1/2x3/16	.072	5.001	14	.002	0	Y	13	11.709	38.802	2.251	1.737	1	H1-1b
783	2L2 1/2x2 1/2x3/16	.074	5.001	14	.002	0	Y	11	11.709	38.802	2.251	1.737	1	H1-1b

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Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Egn	
784	M694	2L2 1/2x2 1/2x3/16	.072	5.001	12	.002	0	Y	14	11.709	38.802	2.251	1.737	1	H1-1b
785	M708	2L2 1/2x2 1/2x3/16	.075	5.001	12	.002	10.215	Y	16	11.709	38.802	2.251	1.737	1	H1-1b
786	M713	2L2 1/2x2 1/2x3/16	.074	5.001	18	.002	10.215	Y	16	11.709	38.802	2.251	1.737	1	H1-1b
787	M727	2L2 1/2x2 1/2x3/16	.071	5.001	18	.002	0	Y	15	11.709	38.802	2.251	1.737	1	H1-1b
788	M732	2L2 1/2x2 1/2x3/16	.074	5.001	16	.002	0	Y	18	11.709	38.802	2.251	1.737	1	H1-1b
789	M758	2L2 1/2x2 1/2x3/16	.092	5.137	16	.002	10.492	Y	14	11.099	38.802	2.251	1.737	1	H1-1b
790	M763	2L2 1/2x2 1/2x3/16	.093	5.137	14	.002	10.492	Y	18	11.099	38.802	2.251	1.737	1	H1-1b
791	M774	2L2 1/2x2 1/2x3/16	.093	5.137	14	.002	0	Y	13	11.099	38.802	2.251	1.737	1	H1-1b
792	M779	2L2 1/2x2 1/2x3/16	.096	5.137	12	.002	10.492	Y	15	11.099	38.802	2.251	1.737	1	H1-1b
793	M793	2L2 1/2x2 1/2x3/16	.098	5.137	12	.002	0	Y	18	11.099	38.802	2.251	1.737	1	H1-1b
794	M798	2L2 1/2x2 1/2x3/16	.092	5.137	18	.002	0	Y	13	11.099	38.802	2.251	1.737	1	H1-1b
795	M812	2L2 1/2x2 1/2x3/16	.094	5.137	18	.002	10.492	Y	17	11.099	38.802	2.251	1.737	1	H1-1b
796	M817	2L2 1/2x2 1/2x3/16	.094	5.137	16	.002	10.492	Y	16	11.099	38.802	2.251	1.086	1.1...	H1-1a
797	M843	2L2 1/2x2 1/2x3/16	.484	5.391	16	.003	5.391	Y	16	10.51	38.802	2.251	1.086	1.1...	H1-1a
798	M848	2L2 1/2x2 1/2x3/16	.483	5.391	14	.003	5.391	Y	14	10.51	38.802	2.251	1.086	1.1...	H1-1a
799	M859	2L2 1/2x2 1/2x3/16	.495	5.391	14	.003	5.391	Y	14	10.51	38.802	2.251	1.086	1.1...	H1-1a
800	M864	2L2 1/2x2 1/2x3/16	.497	5.391	12	.003	5.391	Y	12	10.51	38.802	2.251	1.086	1.1...	H1-1a
801	M878	2L2 1/2x2 1/2x3/16	.503	5.391	12	.003	5.391	Y	12	10.51	38.802	2.251	1.086	1.1...	H1-1a
802	M883	2L2 1/2x2 1/2x3/16	.501	5.391	18	.003	5.391	Y	18	10.51	38.802	2.251	1.086	1.1...	H1-1a
803	M897	2L2 1/2x2 1/2x3/16	.488	5.391	18	.003	5.391	Y	18	10.51	38.802	2.251	1.086	1.1...	H1-1a
804	M902	2L2 1/2x2 1/2x3/16	.490	5.391	16	.003	5.391	Y	16	10.51	38.802	2.251	1.086	1.1...	H1-1a
805	M928	2L2 1/2x2 1/2x3/16	.452	5.542	16	.003	5.542	Y	16	9.945	38.802	2.251	1.086	1.1...	H1-1a
806	M933	2L2 1/2x2 1/2x3/16	.448	5.542	14	.003	5.542	Y	14	9.945	38.802	2.251	1.086	1.1...	H1-1a
807	M944	2L2 1/2x2 1/2x3/16	.471	5.542	14	.003	5.542	Y	14	9.945	38.802	2.251	1.086	1.1...	H1-1a
808	M949	2L2 1/2x2 1/2x3/16	.463	5.542	12	.004	5.542	Y	12	9.945	38.802	2.251	1.086	1.1...	H1-1a
809	M963	2L2 1/2x2 1/2x3/16	.476	5.542	12	.003	5.542	Y	12	9.945	38.802	2.251	1.086	1.1...	H1-1a
810	M968	2L2 1/2x2 1/2x3/16	.473	5.542	18	.003	5.542	Y	18	9.945	38.802	2.251	1.086	1.1...	H1-1a
811	M982	2L2 1/2x2 1/2x3/16	.452	5.542	18	.003	5.542	Y	18	9.945	38.802	2.251	1.086	1.1...	H1-1a
812	M987	2L2 1/2x2 1/2x3/16	.465	5.542	16	.003	5.542	Y	16	9.945	38.802	2.251	1.086	1.1...	H1-1a
813	M1175A	2L2 1/2x2 1/2x1/4	.111	8.937	12	.003	8.937	Y	12	18.427	51.305	3.018	1.419	1	H1-1b
814	M1176A	2L2 1/2x2 1/2x1/4	.116	8.937	16	.003	8.937	Y	16	18.427	51.305	3.018	1.419	1	H1-1b
815	M1181A	2L2 1/2x2 1/2x1/4	.146	8.937	18	.003	8.937	Y	18	18.427	51.305	3.018	1.419	1	H1-1b
816	M1182A	2L2 1/2x2 1/2x1/4	.145	8.937	14	.003	8.937	Y	5	18.427	51.305	3.018	1.419	1	H1-1b
817	M1187	2L2 1/2x2 1/2x1/4	.140	8.937	16	.003	8.937	Y	16	18.427	51.305	3.018	1.419	1	H1-1b
818	M1188	2L2 1/2x2 1/2x1/4	.131	8.937	3	.003	8.937	Y	3	18.427	51.305	3.018	1.419	1	H1-1b
819	M1193	2L2 1/2x2 1/2x1/4	.107	8.937	14	.003	8.937	Y	14	18.427	51.305	3.018	1.419	1	H1-1b
820	M1194	2L2 1/2x2 1/2x1/4	.100	8.937	18	.003	8.937	Y	9	18.427	51.305	3.018	1.419	1	H1-1b
821	M1203	L2.5X2.5X3	.009	2.742	18	.000	4.178	Y	16	10.894	19.401	.58	1.154	1.1...	H2-1
822	M1204	L2.5X2.5X3	.045	3.795	18	.002	7.59	Y	11	3.789	19.401	.58	.971	1.1...	H2-1
823	M1205	L2.5X2.5X3	.009	1.436	14	.000	0	Y	7	10.894	19.401	.58	1.154	1.1...	H2-1
824	M1206	L2.5X2.5X3	.045	3.795	14	.002	7.59	Y	12	3.789	19.401	.58	.971	1.1...	H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
825	M1215	L2.5X2.5X3	.009	2.742	16	.000	4.178	Y	14	10.894	19.401	.58	1.154	1.1...	H2-1
826	M1216	L2.5X2.5X3	.045	3.795	16	.002	7.59	Y	18	3.789	19.401	.58	.971	1.1...	H2-1
827	M1217	L2.5X2.5X3	.009	1.436	12	.000	4.178	Y	14	10.894	19.401	.58	1.154	1.1...	H2-1
828	M1218	L2.5X2.5X3	.045	3.795	12	.002	7.59	Y	2	3.789	19.401	.58	.971	1.1...	H2-1
829	M1227	L2.5X2.5X3	.009	2.742	14	.000	4.178	Y	12	10.894	19.401	.58	1.154	1.1...	H2-1
830	M1228	L2.5X2.5X3	.045	3.795	14	.002	7.59	Y	6	3.789	19.401	.58	.971	1.1...	H2-1
831	M1229	L2.5X2.5X3	.009	1.436	18	.000	0	Y	12	10.894	19.401	.58	1.154	1.1...	H2-1
832	M1230	L2.5X2.5X3	.045	3.795	18	.002	7.59	Y	16	3.789	19.401	.58	.971	1.1...	H2-1
833	M1239	L2.5X2.5X3	.009	2.742	12	.000	4.178	Y	11	10.894	19.401	.58	1.154	1.1...	H2-1
834	M1240	L2.5X2.5X3	.045	3.795	12	.002	0	Y	13	3.789	19.401	.58	.971	1.1...	H2-1
835	M1241	L2.5X2.5X3	.009	1.436	16	.000	0	Y	11	10.894	19.401	.58	1.154	1.1...	H2-1
836	M1242	L2.5X2.5X3	.045	3.795	16	.002	0	Y	14	3.789	19.401	.58	.971	1.1...	H2-1
837	M1257A	L2.5X2.5X3	.008	2.742	18	.000	4.178	Y	17	10.894	19.401	.58	1.154	1.1...	H2-1
838	M1258	L2.5X2.5X3	.039	3.601	18	.001	7.203	Y	6	4.207	19.401	.58	.989	1.1...	H2-1
839	M1259	L2.5X2.5X3	.008	2.742	14	.000	4.178	Y	7	10.894	19.401	.58	1.154	1.1...	H2-1
840	M1260	L2.5X2.5X3	.039	3.601	14	.001	0	Y	3	4.207	19.401	.58	.989	1.1...	H2-1
841	M1272	L2.5X2.5X3	.008	2.742	16	.000	4.178	Y	14	10.894	19.401	.58	1.154	1.1...	H2-1
842	M1273	L2.5X2.5X3	.039	3.601	16	.001	0	Y	5	4.207	19.401	.58	.989	1.1...	H2-1
843	M1274	L2.5X2.5X3	.008	2.742	12	.000	0	Y	15	10.894	19.401	.58	1.154	1.1...	H2-1
844	M1275	L2.5X2.5X3	.039	3.601	12	.001	7.203	Y	7	4.207	19.401	.58	.989	1.1...	H2-1
845	M1287	L2.5X2.5X3	.008	2.742	14	.000	4.178	Y	12	10.894	19.401	.58	1.154	1.1...	H2-1
846	M1288	L2.5X2.5X3	.039	3.601	14	.001	0	Y	2	4.207	19.401	.58	.989	1.1...	H2-1
847	M1289	L2.5X2.5X3	.008	2.742	18	.000	4.178	Y	14	10.894	19.401	.58	1.154	1.1...	H2-1
848	M1290	L2.5X2.5X3	.039	3.601	18	.001	7.203	Y	3	4.207	19.401	.58	.989	1.1...	H2-1
849	M1302	L2.5X2.5X3	.008	2.742	12	.000	4.178	Y	16	10.894	19.401	.58	1.154	1.1...	H2-1
850	M1303	L2.5X2.5X3	.039	3.601	12	.001	7.203	Y	7	4.207	19.401	.58	.989	1.1...	H2-1
851	M1304	L2.5X2.5X3	.008	2.742	16	.000	0	Y	2	10.894	19.401	.58	1.154	1.1...	H2-1
852	M1305	L2.5X2.5X3	.039	3.601	16	.001	7.203	Y	16	4.207	19.401	.58	.989	1.1...	H2-1
853	M1167	L2.5X2.5X3	.009	1.436	18	.000	4.178	Y	11	10.894	19.401	.58	1.154	1.1...	H2-1
854	M1168	L2.5X2.5X3	.051	3.993	18	.002	0	Y	12	3.422	19.401	.58	.953	1.1...	H2-1
855	M1169	L2.5X2.5X3	.009	1.436	14	.000	0	Y	17	10.894	19.401	.58	1.154	1.1...	H2-1
856	M1170	L2.5X2.5X3	.051	3.993	14	.002	7.986	Y	13	3.422	19.401	.58	.953	1.1...	H2-1
857	M1171	L2.5X2.5X3	.009	1.436	16	.000	4.178	Y	10	10.894	19.401	.58	1.154	1.1...	H2-1
858	M1172	L2.5X2.5X3	.051	3.993	16	.002	7.986	Y	18	3.422	19.401	.58	.953	1.1...	H2-1
859	M1173	L2.5X2.5X3	.009	1.436	12	.000	0	Y	18	10.894	19.401	.58	1.154	1.1...	H2-1
860	M1174	L2.5X2.5X3	.051	3.993	12	.002	0	Y	9	3.422	19.401	.58	.953	1.1...	H2-1
861	M1175	L2.5X2.5X3	.009	1.436	14	.000	4.178	Y	12	10.894	19.401	.58	1.154	1.1...	H2-1
862	M1176	L2.5X2.5X3	.051	3.993	14	.002	7.986	Y	16	3.422	19.401	.58	.953	1.1...	H2-1
863	M1177	L2.5X2.5X3	.009	1.436	18	.000	4.178	Y	16	10.894	19.401	.58	1.154	1.1...	H2-1
864	M1178	L2.5X2.5X3	.051	3.993	18	.002	7.986	Y	17	3.422	19.401	.58	.953	1.1...	H2-1
865	M1179	L2.5X2.5X3	.009	1.436	12	.000	0	Y	14	10.894	19.401	.58	1.154	1.1...	H2-1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnv/om [k-ft]	Mnzz/om [k-ft]	Ob	Eqn
866	M1180	L2.5X2.5X3	.051	3.993	12	.002	0	Y	8	3.422	19.401	.58	.953	1.1... H2-1
867	M1181	L2.5X2.5X3	.009	1.436	16	.000	4.178	Y	18	10.894	19.401	.58	1.154	1.1... H2-1
868	M1182	L2.5X2.5X3	.051	3.993	16	.002	0	Y	16	3.422	19.401	.58	.953	1.1... H2-1
869	M1177A	L2.5X2.5X3	.010	1.436	16	.000	0	Y	11	10.894	19.401	.58	1.154	1.1... H2-1
870	M1178A	L2.5X2.5X3	.057	4.195	16	.002	0	Y	18	3.101	19.401	.58	.935	1.1... H2-1
871	M1179A	L2.5X2.5X3	.010	1.436	12	.000	0	Y	17	10.894	19.401	.58	1.154	1.1... H2-1
872	M1180A	L2.5X2.5X3	.057	4.195	12	.002	0	Y	11	3.101	19.401	.58	.935	1.1... H2-1
873	M1183	L2.5X2.5X3	.010	1.436	14	.000	0	Y	11	10.894	19.401	.58	1.154	1.1... H2-1
874	M1184	L2.5X2.5X3	.057	4.195	14	.002	0	Y	14	3.101	19.401	.58	.935	1.1... H2-1
875	M1185	L2.5X2.5X3	.010	1.436	18	.000	0	Y	16	10.894	19.401	.58	1.154	1.1... H2-1
876	M1186	L2.5X2.5X3	.057	4.195	18	.002	0	Y	16	3.101	19.401	.58	.935	1.1... H2-1
877	M1189	L2.5X2.5X3	.010	1.436	3	.000	4.178	Y	15	10.894	19.401	.58	1.154	1.1... H2-1
878	M1190	L2.5X2.5X3	.057	4.195	3	.002	8.389	Y	15	3.101	19.401	.58	.935	1.1... H2-1
879	M1191	L2.5X2.5X3	.010	1.436	16	.000	0	Y	15	10.894	19.401	.58	1.154	1.1... H2-1
880	M1192	L2.5X2.5X3	.057	4.195	16	.002	0	Y	16	3.101	19.401	.58	.935	1.1... H2-1
881	M1195	L2.5X2.5X3	.010	1.436	18	.000	4.178	Y	12	10.894	19.401	.58	1.154	1.1... H2-1
882	M1196	L2.5X2.5X3	.057	4.195	18	.002	0	Y	11	3.101	19.401	.58	.935	1.1... H2-1
883	M1197	L2.5X2.5X3	.010	1.436	14	.000	4.178	Y	12	10.894	19.401	.58	1.154	1.1... H2-1
884	M1198	L2.5X2.5X3	.057	4.195	14	.002	0	Y	13	3.101	19.401	.58	.935	1.1... H2-1
885	M1491	2L2 1/2x2 1/2x1/4	.048	5.506	9	.002	0	Y	13	11.637	51.305	3.018	2.271	1 H1-1b
886	M1492	2L2 1/2x2 1/2x1/4	.048	5.74	5	.002	11.246	Y	2	11.637	51.305	3.018	2.271	1 H1-1b
887	M1493	2L2 1/2x2 1/2x1/4	.048	5.506	7	.002	0	Y	15	11.637	51.305	3.018	2.271	1 H1-1b
888	M1494	2L2 1/2x2 1/2x1/4	.048	5.74	3	.002	11.246	Y	3	11.637	51.305	3.018	2.271	1 H1-1b
889	M1495	2L2 1/2x2 1/2x1/4	.048	5.506	5	.002	0	Y	12	11.637	51.305	3.018	2.271	1 H1-1b
890	M1496	2L2 1/2x2 1/2x1/4	.048	5.74	9	.002	0	Y	2	11.637	51.305	3.018	2.271	1 H1-1b
891	M1497	2L2 1/2x2 1/2x1/4	.048	5.506	3	.002	11.246	Y	18	11.637	51.305	3.018	2.271	1 H1-1b
892	M1498	2L2 1/2x2 1/2x1/4	.048	5.74	7	.002	0	Y	18	11.637	51.305	3.018	2.271	1 H1-1b
893	M1468	2L2 1/2x2 1/2x1/4	.059	5.84	9	.002	0	Y	17	10.343	51.305	3.018	2.271	1 H1-1b
894	M1469	2L2 1/2x2 1/2x1/4	.059	6.089	5	.002	11.929	Y	14	10.343	51.305	3.018	2.271	1 H1-1b
895	M1470	2L2 1/2x2 1/2x1/4	.059	5.84	7	.002	11.929	Y	9	10.343	51.305	3.018	2.271	1 H1-1b
896	M1471	2L2 1/2x2 1/2x1/4	.059	6.089	3	.002	11.929	Y	7	10.343	51.305	3.018	2.271	1 H1-1b
897	M1472	2L2 1/2x2 1/2x1/4	.059	5.84	5	.002	0	Y	8	10.343	51.305	3.018	2.271	1 H1-1b
898	M1473	2L2 1/2x2 1/2x1/4	.059	6.089	9	.002	0	Y	14	10.343	51.305	3.018	2.271	1 H1-1b
899	M1474	2L2 1/2x2 1/2x1/4	.059	5.84	3	.002	0	Y	15	10.343	51.305	3.018	2.271	1 H1-1b
900	M1475	2L2 1/2x2 1/2x1/4	.059	6.089	7	.002	0	Y	13	10.343	51.305	3.018	2.271	1 H1-1b
901	M1445	2L2 1/2x2 1/2x1/4	.071	6.194	9	.002	0	Y	9	9.195	51.305	3.018	2.271	1 H1-1b
902	M1446	2L2 1/2x2 1/2x1/4	.071	6.458	5	.002	0	Y	2	9.195	51.305	3.018	2.271	1 H1-1b
903	M1447	2L2 1/2x2 1/2x1/4	.071	6.194	7	.002	0	Y	12	9.195	51.305	3.018	2.271	1 H1-1b
904	M1448	2L2 1/2x2 1/2x1/4	.071	6.458	4	.002	12.652	Y	13	9.195	51.305	3.018	2.271	1 H1-1b
905	M1449	2L2 1/2x2 1/2x1/4	.071	6.194	18	.002	0	Y	8	9.195	51.305	3.018	2.271	1 H1-1b
906	M1450	2L2 1/2x2 1/2x1/4	.071	6.458	3	.002	12.652	Y	15	9.195	51.305	3.018	2.271	1 H1-1b

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

SNET021 NORWALK

Mar 15, 2012
3:14 PM
Checked By:

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

Member		Shape	Code Check		Loc[ft]	LC	Shear	Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
907	M1451	2L2 1/2x2 1/2x1/4	.071	6.194	18	.002			0	Y	3	9.195	51.305	3.018	2.271	1	H1-1b
908	M1452	2L2 1/2x2 1/2x1/4	.071	6.458	6	.002			12.652	Y	17	9.195	51.305	3.018	2.271	1	H1-1b
909	M1394	2L2 1/2x2 1/2x1/4	.371	5.251	12	.002			10.958	Y	14	12.258	51.305	3.018	2.271	1	H1-1a
910	M1395	2L2 1/2x2 1/2x1/4	.407	5.707	16	.002			10.958	Y	4	12.258	51.305	3.018	2.271	1	H1-1a
911	M1396	2L2 1/2x2 1/2x1/4	.510	5.251	18	.002			0	Y	14	12.258	51.305	3.018	2.271	1	H1-1a
912	M1397	2L2 1/2x2 1/2x1/4	.514	5.707	14	.002			10.958	Y	14	12.258	51.305	3.018	2.271	1	H1-1a
913	M1398	2L2 1/2x2 1/2x1/4	.467	5.251	16	.002			10.958	Y	3	12.258	51.305	3.018	2.271	1	H1-1a
914	M1399	2L2 1/2x2 1/2x1/4	.430	5.707	12	.002			0	Y	4	12.258	51.305	3.018	2.271	1	H1-1a
915	M1400	2L2 1/2x2 1/2x1/4	.329	5.251	14	.002			10.958	Y	3	12.258	51.305	3.018	2.271	1	H1-1a
916	M1401	2L2 1/2x2 1/2x1/4	.324	5.707	18	.002			0	Y	18	12.258	51.305	3.018	2.271	1	H1-1a
917	M1367	2L2 1/2x2 1/2x1/4	.056	5.572	14	.002			11.382	Y	4	11.361	51.305	3.018	2.271	1	H1-1b
918	M1368	2L2 1/2x2 1/2x1/4	.056	5.809	18	.002			11.382	Y	7	11.361	51.305	3.018	2.271	1	H1-1b
919	M1369	2L2 1/2x2 1/2x1/4	.057	5.572	12	.002			0	Y	11	11.361	51.305	3.018	2.271	1	H1-1b
920	M1370	2L2 1/2x2 1/2x1/4	.057	5.809	16	.002			11.382	Y	18	11.361	51.305	3.018	2.271	1	H1-1b
921	M1371	2L2 1/2x2 1/2x1/4	.057	5.572	18	.002			11.382	Y	16	11.361	51.305	3.018	2.271	1	H1-1b
922	M1372	2L2 1/2x2 1/2x1/4	.057	5.809	14	.002			11.382	Y	18	11.361	51.305	3.018	2.271	1	H1-1b
923	M1373	2L2 1/2x2 1/2x1/4	.057	5.572	16	.002			0	Y	2	11.361	51.305	3.018	2.271	1	H1-1b
924	M1374	2L2 1/2x2 1/2x1/4	.057	5.809	12	.002			0	Y	16	11.361	51.305	3.018	2.271	1	H1-1b
925	M1336	2L2 1/2x2 1/2x1/4	.066	5.789	14	.002			11.825	Y	8	10.525	51.305	3.018	2.271	1	H1-1b
926	M1337	2L2 1/2x2 1/2x1/4	.066	6.036	18	.002			11.825	Y	11	10.525	51.305	3.018	2.271	1	H1-1b
927	M1338	2L2 1/2x2 1/2x1/4	.066	5.789	12	.002			11.825	Y	7	10.525	51.305	3.018	2.271	1	H1-1b
928	M1339	2L2 1/2x2 1/2x1/4	.066	6.036	15	.002			11.825	Y	8	10.525	51.305	3.018	2.271	1	H1-1b
929	M1340	2L2 1/2x2 1/2x1/4	.067	5.789	18	.002			0	Y	17	10.525	51.305	3.018	2.271	1	H1-1b
930	M1341	2L2 1/2x2 1/2x1/4	.067	6.036	14	.002			0	Y	6	10.525	51.305	3.018	2.271	1	H1-1b
931	M1342	2L2 1/2x2 1/2x1/4	.067	5.789	16	.002			0	Y	11	10.525	51.305	3.018	2.271	1	H1-1b
932	M1343	2L2 1/2x2 1/2x1/4	.067	6.036	12	.002			11.825	Y	13	10.525	51.305	3.018	2.271	1	H1-1b
933	M1198A	2L2 1/2x2 1/2x1/4	.059	8.119	5	.002			8.119	Y	5	22.07	51.305	3.018	1.419	1	H1-1b
934	M1199	2L2 1/2x2 1/2x1/4	.059	8.119	9	.002			8.119	Y	9	22.07	51.305	3.018	1.419	1	H1-1b
935	M1210A	2L2 1/2x2 1/2x1/4	.059	8.119	3	.002			8.119	Y	3	22.07	51.305	3.018	1.419	1	H1-1b
936	M1211A	2L2 1/2x2 1/2x1/4	.059	8.119	7	.002			8.119	Y	7	22.07	51.305	3.018	1.419	1	H1-1b
937	M1222	2L2 1/2x2 1/2x1/4	.059	8.119	9	.002			8.119	Y	9	22.07	51.305	3.018	1.419	1	H1-1b
938	M1223	2L2 1/2x2 1/2x1/4	.059	8.119	5	.002			8.119	Y	5	22.07	51.305	3.018	1.419	1	H1-1b
939	M1234	2L2 1/2x2 1/2x1/4	.059	8.119	7	.002			8.119	Y	7	22.07	51.305	3.018	1.419	1	H1-1b
940	M1235	2L2 1/2x2 1/2x1/4	.059	8.119	3	.002			8.119	Y	3	22.07	51.305	3.018	1.419	1	H1-1b
941	M1255A	2L2 1/2x2 1/2x1/4	.051	7.721	9	.002			7.721	Y	9	23.927	51.305	3.018	1.419	1	H1-1b
942	M1256A	2L2 1/2x2 1/2x1/4	.051	7.721	5	.002			7.721	Y	5	23.927	51.305	3.018	1.419	1	H1-1b
943	M1270	2L2 1/2x2 1/2x1/4	.052	7.721	7	.002			7.721	Y	7	23.927	51.305	3.018	1.419	1	H1-1b
944	M1271	2L2 1/2x2 1/2x1/4	.052	7.721	3	.002			7.721	Y	3	23.927	51.305	3.018	1.419	1	H1-1b
945	M1285	2L2 1/2x2 1/2x1/4	.052	7.721	5	.002			7.721	Y	5	23.927	51.305	3.018	1.419	1	H1-1b
946	M1286	2L2 1/2x2 1/2x1/4	.052	7.721	9	.002			7.721	Y	9	23.927	51.305	3.018	1.419	1	H1-1b
947	M1300	2L2 1/2x2 1/2x1/4	.052	7.721	3	.002			7.721	Y	3	23.927	51.305	3.018	1.419	1	H1-1b

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

Member	Shape	Code Check			LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvw/om [k-ft]	Mnzz/om [k-ft]	Cb	Ean
948	M1301	2L2 1/2x2 1/2x1/4	.052	7.721	7	.002	7.721	Y	7	23.927	51.305	3.018	1.419	1	H1-1b
949	M1159	2L2 1/2x2 1/2x1/4	.067	8.525	14	.002	8.525	Y	5	20.243	51.305	3.018	1.419	1	H1-1b
950	M1160	2L2 1/2x2 1/2x1/4	.067	8.525	18	.002	8.525	Y	9	20.243	51.305	3.018	1.419	1	H1-1b
951	M1161	2L2 1/2x2 1/2x1/4	.067	8.525	12	.002	8.525	Y	3	20.243	51.305	3.018	1.419	1	H1-1b
952	M1162	2L2 1/2x2 1/2x1/4	.067	8.525	16	.002	8.525	Y	7	20.243	51.305	3.018	1.419	1	H1-1b
953	M1163	2L2 1/2x2 1/2x1/4	.067	8.525	18	.002	8.525	Y	9	20.243	51.305	3.018	1.419	1	H1-1b
954	M1164	2L2 1/2x2 1/2x1/4	.067	8.525	14	.002	8.525	Y	5	20.243	51.305	3.018	1.419	1	H1-1b
955	M1165	2L2 1/2x2 1/2x1/4	.067	8.525	16	.002	8.525	Y	7	20.243	51.305	3.018	1.419	1	H1-1b
956	M1166	2L2 1/2x2 1/2x1/4	.067	8.525	3	.002	8.525	Y	3	20.243	51.305	3.018	1.419	1	H1-1b
957	M1024	L2.5X2.5X4	.444	5.722	16	.002	0	Y	11	2.023	25.653	.741	1.188	1.1...	H2-1
958	M1025	L2.5X2.5X4	.442	6.22	12	.002	11.942	Y	17	2.023	25.653	.741	1.188	1.1...	H2-1
959	M1026	L2.5X2.5X4	.452	5.722	14	.002	11.942	Y	17	2.023	25.653	.741	1.188	1.1...	H2-1
960	M1027	L2.5X2.5X4	.452	6.22	18	.002	11.942	Y	11	2.023	25.653	.741	1.188	1.1...	H2-1
961	M1028	L2.5X2.5X4	.448	5.722	12	.002	0	Y	13	2.023	25.653	.741	1.188	1.1...	H2-1
962	M1029	L2.5X2.5X4	.450	6.22	16	.002	11.942	Y	13	2.023	25.653	.741	1.188	1.1...	H2-1
963	M1030	L2.5X2.5X4	.440	5.722	18	.002	0	Y	11	2.023	25.653	.741	1.188	1.1...	H2-1
964	M1031	L2.5X2.5X4	.441	6.22	14	.002	0	Y	6	2.023	25.653	.741	1.188	1.1...	H2-1
965	M271	L3.5X3.5X6	.140	6.364	18	.005	12.728	Y	15	8.005	53.461	2.204	3.83	1	H2-1
966	M284	L3.5X3.5X6	.140	6.364	16	.005	12.728	Y	13	8.005	53.461	2.204	3.83	1	H2-1
967	M297	L3.5X3.5X6	.140	6.364	14	.005	12.728	Y	11	8.005	53.461	2.204	3.83	1	H2-1
968	M298	L3.5X3.5X6	.140	6.364	12	.005	12.728	Y	13	8.005	53.461	2.204	3.83	1	H2-1
969	M332	L4X4X6	.153	7.248	18	.006	0	Y	10	9.258	61.653	2.926	4.822	1	H2-1
970	M345	L4X4X6	.153	7.248	16	.006	0	Y	10	9.258	61.653	2.926	4.822	1	H2-1
971	M358	L4X4X6	.153	7.248	14	.006	0	Y	10	9.258	61.653	2.926	4.822	1	H2-1
972	M359	L4X4X6	.153	7.248	12	.006	0	Y	10	9.258	61.653	2.926	4.822	1	H2-1
973	M393	L4X4X6	.195	8.132	18	.006	16.263	Y	12	7.355	61.653	2.926	4.609	1	H2-1
974	M406	L4X4X6	.195	8.132	16	.006	16.263	Y	18	7.355	61.653	2.926	4.609	1	H2-1
975	M419	L4X4X6	.195	8.132	14	.006	16.263	Y	15	7.355	61.653	2.926	4.609	1	H2-1
976	M420	L4X4X6	.195	8.132	12	.006	16.263	Y	18	7.355	61.653	2.926	4.609	1	H2-1
977	M459	2L3x4x1/4	.562	5.851	14	.016	0	Y	11	22.179	72.862	7.494	3.439	1	H1-1b
978	M478	2L3x4x1/4	.561	5.851	13	.016	0	Y	12	22.179	72.862	7.494	3.439	1	H1-1b
979	M497	2L3x4x1/4	.564	5.851	17	.016	0	Y	16	22.179	72.862	7.494	3.439	1	H1-1b
980	M500	2L3x4x1/4	.552	5.851	16	.016	11.703	Y	14	22.179	72.862	7.494	3.439	1	H1-1b
981	M542	2L3x2 1/2x1/4	.084	6.382	18	.004	12.763	Y	12	16.171	56.695	3.024	3.23	1	H1-1b
982	M559	2L3x2 1/2x1/4	.084	6.382	16	.004	12.763	Y	18	16.171	56.695	3.024	3.23	1	H1-1b
983	M576	2L3x2 1/2x1/4	.084	6.382	14	.004	12.763	Y	16	16.171	56.695	3.024	3.23	1	H1-1b
984	M579	2L3x2 1/2x1/4	.084	6.382	12	.004	12.763	Y	18	16.171	56.695	3.024	3.23	1	H1-1b
985	M619	2L3x2 1/2x1/4	.098	6.912	18	.005	13.824	Y	10	13.784	56.695	3.024	3.23	1	H1-1b
986	M636	2L3x2 1/2x1/4	.098	6.912	16	.005	13.824	Y	10	13.784	56.695	3.024	3.23	1	H1-1b
987	M653	2L3x2 1/2x1/4	.098	6.912	14	.005	13.824	Y	10	13.784	56.695	3.024	3.23	1	H1-1b
988	M656	2L3x2 1/2x1/4	.098	6.912	12	.005	13.824	Y	10	13.784	56.695	3.024	3.23	1	H1-1b

RISA-3D Version 9.1.1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
989	M698	2L2 1/2x3 1/2x5/16	.238	9.192	18	.007	0	Y	10	6.234	76.527	2.902	1	H1-1b
990	M717	2L2 1/2x3 1/2x5/16	.238	9.192	16	.007	0	Y	10	6.234	76.527	2.902	1	H1-1b
991	M736	2L2 1/2x3 1/2x5/16	.238	9.192	14	.007	0	Y	10	6.234	76.527	2.902	1	H1-1b
992	M739	2L2 1/2x3 1/2x5/16	.238	9.192	12	.007	0	Y	10	6.234	76.527	2.902	1	H1-1b
993	M783	2L2 1/2x3 1/2x5/16	.274	9.855	18	.008	0	Y	10	5.424	76.527	2.902	1	H1-1b
994	M802	2L2 1/2x3 1/2x5/16	.274	9.855	16	.008	0	Y	10	5.424	76.527	2.902	1	H1-1b
995	M821	2L2 1/2x3 1/2x5/16	.274	9.855	14	.008	0	Y	10	5.424	76.527	2.902	1	H1-1b
996	M824	2L2 1/2x3 1/2x5/16	.274	9.855	12	.008	0	Y	10	5.424	76.527	2.902	1	H1-1b
997	M868	2L2 1/2x3 1/2x5/16	.312	10.518	18	.008	0	Y	10	4.762	76.527	2.902	1	H1-1b
998	M887	2L2 1/2x3 1/2x5/16	.312	10.518	16	.008	0	Y	10	4.762	76.527	2.902	1	H1-1b
999	M906	2L2 1/2x3 1/2x5/16	.312	10.518	14	.008	0	Y	10	4.762	76.527	2.902	1	H1-1b
1000	M909	2L2 1/2x3 1/2x5/16	.312	10.518	12	.008	0	Y	10	4.762	76.527	2.902	1	H1-1b
1001	M953	2L2 1/2x3 1/2x5/16	.431	11.181	14	.006	11.181	Y	14	4.214	76.527	2.902	1	H1-1b
1002	M972	2L2 1/2x3 1/2x5/16	.348	11.181	12	.006	11.181	Y	12	4.214	76.527	1.814	1.3...	H1-1a
1003	M991	2L2 1/2x3 1/2x5/16	.399	11.181	18	.006	11.181	Y	18	4.214	76.527	1.814	1.3...	H1-1a
1004	M994	2L2 1/2x3 1/2x5/16	.348	11.181	16	.006	11.181	Y	16	4.214	76.527	1.814	1.3...	H1-1a
1005	M1370A	L3X3X4	.238	9.844	12	.003	9.016	Z	16	6.329	1.123	1.926	1.13	H2-1
1006	M1371A	L3X3X4	.282	14.087	18	.003	9.016	Z	14	6.329	1.123	1.926	1.13	H2-1
1007	M1372A	L3X3X4	.330	9.016	14	.003	9.016	Z	12	6.329	1.123	1.546	1.34	H2-1
1008	M1373A	L3X3X4	.305	9.016	4	.003	9.016	Z	18	6.329	1.123	1.476	1.2...	H2-1
1009	M1339A	L3.5X3X4	.096	9.899	16	.004	9.899	Z	16	6.553	1.232	1.964	1.9...	H2-1
1010	M1340A	L3.5X3X4	.096	9.899	14	.004	9.899	Z	14	6.553	1.232	1.967	1.91	H2-1
1011	M1341A	L3.5X3X4	.096	9.899	12	.004	9.899	Z	12	6.553	1.232	1.968	1.9...	H2-1
1012	M1342A	L3.5X3X4	.096	9.899	18	.004	9.899	Z	18	6.553	1.232	1.967	1.9...	H2-1
1013	M1308A	L3.5X3.5X4	.090	10.783	16	.004	10.783	Z	16	7.181	1.598	2.231	1.7...	H2-1
1014	M1309A	L3.5X3.5X4	.090	10.783	14	.004	10.783	Z	14	7.181	1.598	2.228	1.75	H2-1
1015	M1310A	L3.5X3.5X4	.090	10.783	12	.004	10.783	Z	12	7.181	1.598	2.228	1.7...	H2-1
1016	M1311A	L3.5X3.5X4	.090	10.783	18	.004	10.783	Z	18	7.181	1.598	2.228	1.7...	H2-1
1017	M1194A	2L2 1/2x3 1/2x5/16	.627	18.827	3	.010	18.827	Y	16	22.146	7.261	1.814	1.3...	H1-1a
1018	M1195A	2L2 1/2x3 1/2x5/16	.626	18.827	9	.010	18.827	Y	14	22.146	7.261	1.814	1.38	H1-1a
1019	M1196A	2L2 1/2x3 1/2x5/16	.627	18.827	7	.010	18.827	Y	12	22.146	7.261	1.814	1.3...	H1-1a
1020	M1197A	2L2 1/2x3 1/2x5/16	.625	18.827	5	.010	18.827	Y	18	22.146	7.261	1.814	1.3...	H1-1a
1021	M1249A	2L2 1/2x3 1/2x5/16	.496	17.501	3	.010	17.501	Y	16	25.628	7.261	1.814	1.3...	H1-1a
1022	M1264A	2L2 1/2x3 1/2x5/16	.495	17.501	9	.010	17.501	Y	14	25.628	7.261	1.814	1.3...	H1-1a
1023	M1279	2L2 1/2x3 1/2x5/16	.495	17.501	7	.010	17.501	Y	12	25.628	7.261	1.814	1.3...	H1-1a
1024	M1294	2L2 1/2x3 1/2x5/16	.495	17.501	5	.010	17.501	Y	18	25.628	7.261	1.814	1.3...	H1-1a
1025	M1119A	2L2 1/2x3 1/2x5/16	.713	20.153	3	.011	20.153	Y	16	19.328	7.261	1.814	1.3...	H1-1a
1026	M1120A	2L2 1/2x3 1/2x5/16	.710	20.153	9	.011	20.153	Y	14	19.328	7.261	1.814	1.3...	H1-1a
1027	M1121A	2L2 1/2x3 1/2x5/16	.712	20.153	7	.011	20.153	Y	12	19.328	7.261	1.814	1.4...	H1-1a
1028	M1122A	2L2 1/2x3 1/2x5/16	.710	20.153	5	.011	20.153	Y	18	19.328	7.261	1.814	1.35	H1-1a
1029	M1072	2L2 1/2x3 1/2x5/16	.917	21.478	18	.012	21.478	Y	14	17.015	7.261	1.814	1.4...	H1-1a

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

SNET021 NORWALK

Mar 15, 2012
3:14 PM
Checked By:

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1030	M1073	2L2 1/2x3 1/2x5/16	.911	21.478	16	.012	21.478	Y	12	17.015	76.527	7.261	1.814	1.3...
1031	M1074	2L2 1/2x3 1/2x5/16	.904	21.478	14	.012	21.478	Y	18	17.015	76.527	7.261	1.814	1.4...
1032	M1075	2L2 1/2x3 1/2x5/16	.891	21.478	12	.012	21.478	Y	16	17.015	76.527	7.261	1.814	1.3...
1033	M697	L3X3X3	.153	4.596	18	.005	0	Y	10	4.966	23.497	.878	1.257	1
1034	M716	L3X3X3	.152	4.596	16	.005	0	Y	10	4.966	23.497	.878	1.257	1
1035	M735	L3X3X3	.152	4.596	14	.005	0	Y	10	4.966	23.497	.878	1.257	1
1036	M738	L3X3X3	.154	4.596	12	.005	0	Y	10	4.966	23.497	.878	1.257	1
1037	M782	L3X3X3	.194	4.928	18	.005	0	Y	10	4.32	23.497	.878	1.214	1
1038	M801	L3X3X3	.193	4.928	16	.005	0	Y	10	4.32	23.497	.878	1.214	1
1039	M820	L3X3X3	.193	4.928	14	.005	0	Y	10	4.32	23.497	.878	1.214	1
1040	M823	L3X3X3	.196	4.928	12	.005	0	Y	10	4.32	23.497	.878	1.214	1
1041	M867	L4X4X6	.092	5.259	18	.004	0	Y	15	17.585	61.653	2.926	5.355	1
1042	M886	L4X4X6	.092	5.259	16	.004	0	Y	13	17.585	61.653	2.926	5.355	1
1043	M905	L4X4X6	.092	5.259	14	.004	0	Y	11	17.585	61.653	2.926	5.355	1
1044	M908	L4X4X6	.092	5.259	12	.004	0	Y	13	17.585	61.653	2.926	5.355	1
1045	M952	L4X4X6	.103	5.591	14	.004	0	Y	10	15.561	61.653	2.926	5.26	1
1046	M971	L4X4X6	.103	5.591	12	.004	0	Y	10	15.561	61.653	2.926	5.26	1
1047	M990	L4X4X6	.103	5.591	18	.004	0	Y	10	15.561	61.653	2.926	5.26	1
1048	M993	L4X4X6	.103	5.591	16	.004	0	Y	10	15.561	61.653	2.926	5.26	1
1049	M250	2L2 1/2x2 1/2x1/4	.068	4.5	12	.003	0	Y	12	19.512	51.305	3.018	2.271	1
1050	M255	2L2 1/2x2 1/2x1/4	.063	4.5	18	.003	0	Y	12	19.512	51.305	3.018	2.271	1
1051	M262	2L2 1/2x2 1/2x1/4	.071	4.5	18	.003	0	Y	11	19.512	51.305	3.018	2.271	1
1052	M267	2L2 1/2x2 1/2x1/4	.069	4.5	16	.003	0	Y	11	19.512	51.305	3.018	2.271	1
1053	M275	2L2 1/2x2 1/2x1/4	.070	4.5	16	.003	9	Y	12	19.512	51.305	3.018	2.271	1
1054	M280	2L2 1/2x2 1/2x1/4	.070	4.5	14	.003	9	Y	12	19.512	51.305	3.018	2.271	1
1055	M288	2L2 1/2x2 1/2x1/4	.062	4.5	14	.003	9	Y	11	19.512	51.305	3.018	2.271	1
1056	M293	2L2 1/2x2 1/2x1/4	.068	4.5	12	.003	9	Y	11	19.512	51.305	3.018	2.271	1
1057	M311	2L2 1/2x2 1/2x1/4	.091	5.125	18	.004	0	Y	13	15.043	51.305	3.018	2.271	1
1058	M316	2L2 1/2x2 1/2x1/4	.092	5.125	12	.004	0	Y	13	15.043	51.305	3.018	2.271	1
1059	M323	2L2 1/2x2 1/2x1/4	.093	5.125	16	.004	0	Y	11	15.043	51.305	3.018	2.271	1
1060	M328	2L2 1/2x2 1/2x1/4	.086	5.125	18	.004	0	Y	11	15.043	51.305	3.018	2.271	1
1061	M336	2L2 1/2x2 1/2x1/4	.089	5.125	15	.004	10.25	Y	13	15.043	51.305	3.018	2.271	1
1062	M341	2L2 1/2x2 1/2x1/4	.088	5.125	15	.004	10.25	Y	12	15.043	51.305	3.018	2.271	1
1063	M349	2L2 1/2x2 1/2x1/4	.085	5.125	12	.004	10.25	Y	11	15.043	51.305	3.018	2.271	1
1064	M354	2L2 1/2x2 1/2x1/4	.090	5.125	14	.004	10.25	Y	11	15.043	51.305	3.018	2.271	1
1065	M372	2L2 1/2x2 1/2x1/4	.107	5.75	11	.004	11.5	Y	16	11.951	51.305	3.018	2.271	1
1066	M377	2L2 1/2x2 1/2x1/4	.106	5.75	11	.004	11.5	Y	17	11.951	51.305	3.018	2.271	1
1067	M384	2L2 1/2x2 1/2x1/4	.117	5.75	18	.004	11.5	Y	14	11.951	51.305	3.018	2.271	1
1068	M389	2L2 1/2x2 1/2x1/4	.108	5.75	16	.004	11.5	Y	15	11.951	51.305	3.018	2.271	1
1069	M397	2L2 1/2x2 1/2x1/4	.117	5.75	16	.004	11.5	Y	12	11.951	51.305	3.018	2.271	1
1070	M402	2L2 1/2x2 1/2x1/4	.118	5.75	14	.004	11.5	Y	13	11.951	51.305	3.018	2.271	1

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

Member		Shape	Code Check		Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1071	M410	2L2 1/2x2 1/2x1/4	.106	5.75	14	.004	11.5	Y	11	11.951	51.305	3.018	2.271	1	H1-1b	
1072	M415	2L2 1/2x2 1/2x1/4	.115	5.75	12	.004	11.5	Y	11	11.951	51.305	3.018	2.271	1	H1-1b	
1073	M433	2L2 1/2x2 1/2x1/4	.178	0	16	.009	4.138	Z	16	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1074	M438	2L2 1/2x2 1/2x1/4	.182	8.275	14	.009	4.138	Z	14	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1075	M449	2L2 1/2x2 1/2x1/4	.174	0	14	.009	4.138	Z	14	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1076	M454	2L2 1/2x2 1/2x1/4	.183	8.275	12	.009	4.138	Z	12	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1077	M468	2L2 1/2x2 1/2x1/4	.181	0	12	.009	4.138	Z	12	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1078	M473	2L2 1/2x2 1/2x1/4	.175	8.275	18	.009	4.138	Z	18	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1079	M487	2L2 1/2x2 1/2x1/4	.182	0	18	.009	4.138	Z	18	22.688	51.305	3.018	1.419	1.7...	H1-1b	
1080	M492	2L2 1/2x2 1/2x1/4	.177	8.275	16	.009	4.138	Z	16	22.688	51.305	3.018	1.419	1.7	H1-1b	
1081	M518	2L2 1/2x2 1/2x1/4	.238	9.025	18	.005	9.025	Y	17	19.404	51.305	3.018	1.419	2.0...	H1-1b	
1082	M523	2L2 1/2x2 1/2x1/4	.248	0	12	.005	0	Y	13	19.404	51.305	3.018	1.419	2.0...	H1-1b	
1083	M532	2L2 1/2x2 1/2x1/4	.254	9.025	16	.005	9.025	Y	15	19.404	51.305	3.018	1.419	2.04	H1-1b	
1084	M537	2L2 1/2x2 1/2x1/4	.273	0	18	.005	0	Y	11	19.404	51.305	3.018	1.419	1.9...	H1-1b	
1085	M549	2L2 1/2x2 1/2x1/4	.274	9.025	14	.005	9.025	Y	13	19.404	51.305	3.018	1.419	1.9...	H1-1b	
1086	M554	2L2 1/2x2 1/2x1/4	.266	0	16	.005	0	Y	17	19.404	51.305	3.018	1.419	2.0...	H1-1b	
1087	M566	2L2 1/2x2 1/2x1/4	.260	9.025	12	.005	9.025	Y	12	19.404	51.305	3.018	1.419	2.0...	H1-1b	
1088	M571	2L2 1/2x2 1/2x1/4	.239	0	14	.005	0	Y	15	19.404	51.305	3.018	1.419	2.0...	H1-1b	
1089	M595	2L2 1/2x2 1/2x1/4	.247	9.775	18	.005	9.775	Y	17	16.541	51.305	3.018	1.419	2.1...	H1-1b	
1090	M600	2L2 1/2x2 1/2x1/4	.254	0	12	.005	0	Y	13	16.541	51.305	3.018	1.419	2.1...	H1-1b	
1091	M609	2L2 1/2x2 1/2x1/4	.261	9.775	16	.005	9.775	Y	15	16.541	51.305	3.018	1.419	2.0...	H1-1b	
1092	M614	2L2 1/2x2 1/2x1/4	.279	0	18	.005	0	Y	11	16.541	51.305	3.018	1.419	1.9...	H1-1b	
1093	M626	2L2 1/2x2 1/2x1/4	.281	9.775	14	.005	9.775	Y	13	16.541	51.305	3.018	1.419	1.9...	H1-1b	
1094	M631	2L2 1/2x2 1/2x1/4	.273	0	16	.006	0	Y	17	16.541	51.305	3.018	1.419	2.03	H1-1b	
1095	M643	2L2 1/2x2 1/2x1/4	.267	9.775	12	.005	9.775	Y	12	16.541	51.305	3.018	1.419	2.05	H1-1b	
1096	M648	2L2 1/2x2 1/2x1/4	.248	0	14	.005	0	Y	15	16.541	51.305	3.018	1.419	2.1...	H1-1b	
1097	M672	2L3x2 1/2x1/4	.188	13	18	.005	0	Y	13	15.586	56.695	3.024	2.019	2.3...	H1-1b	
1098	M677	2L3x2 1/2x1/4	.192	0	12	.005	13	Y	16	15.586	56.695	3.024	2.019	2.29	H1-1b	
1099	M688	2L3x2 1/2x1/4	.196	13	16	.005	0	Y	11	15.586	56.695	3.024	2.019	2.2...	H1-1b	
1100	M693	2L3x2 1/2x1/4	.204	0	18	.005	13	Y	14	15.586	56.695	3.024	2.019	2.12	H1-1b	
1101	M707	2L3x2 1/2x1/4	.205	13	14	.006	0	Y	17	15.586	56.695	3.024	2.019	2.1...	H1-1b	
1102	M712	2L3x2 1/2x1/4	.202	0	16	.005	13	Y	12	15.586	56.695	3.024	2.019	2.1...	H1-1b	
1103	M726	2L3x2 1/2x1/4	.198	13	12	.005	0	Y	15	15.586	56.695	3.024	2.019	2.1...	H1-1b	
1104	M731	2L3x2 1/2x1/4	.189	0	14	.005	13	Y	12	15.586	56.695	3.024	2.019	2.3...	H1-1b	
1105	M757	2L3x2 1/2x1/4	.207	13.938	18	.005	0	Y	14	13.559	56.695	3.024	2.019	2.4...	H1-1b	
1106	M762	2L3x2 1/2x1/4	.210	0	12	.005	13.938	Y	16	13.559	56.695	3.024	2.019	2.3...	H1-1b	
1107	M773	2L3x2 1/2x1/4	.213	13.938	16	.005	0	Y	12	13.559	56.695	3.024	2.019	2.3...	H1-1b	
1108	M778	2L3x2 1/2x1/4	.221	0	18	.006	13.938	Y	14	13.559	56.695	3.024	2.019	2.1...	H1-1b	
1109	M792	2L3x2 1/2x1/4	.222	13.938	14	.006	0	Y	18	13.559	56.695	3.024	2.019	2.1...	H1-1b	
1110	M797	2L3x2 1/2x1/4	.218	0	16	.006	13.938	Y	12	13.559	56.695	3.024	2.019	2.2...	H1-1b	
1111	M811	2L3x2 1/2x1/4	.214	13.938	12	.006	0	Y	16	13.559	56.695	3.024	2.019	2.2...	H1-1b	

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Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1112	M816	2L3x2 1/2x1/4	.207	14	.005	13.938	Y	18	13.559	56.695	3.024	2.019	2.4...	H1-1b
1113	M842	2L3x2 1/2x1/4	.249	14.875	18	.006	14.875	Y	17	11.905	3.024	2.019	2.4...	H1-1b
1114	M847	2L3x2 1/2x1/4	.255	0	.006	0	Y	13	11.905	56.695	3.024	2.019	2.4...	H1-1b
1115	M858	2L3x2 1/2x1/4	.258	14.875	16	.006	14.875	Y	15	11.905	3.024	2.019	2.4...	H1-1b
1116	M863	2L3x2 1/2x1/4	.267	0	.006	0	Y	11	11.905	56.695	3.024	2.019	2.4...	H1-1b
1117	M877	2L3x2 1/2x1/4	.268	14.875	14	.006	14.875	Y	13	11.905	3.024	2.019	2.2...	H1-1b
1118	M882	2L3x2 1/2x1/4	.266	0	.006	0	Y	17	11.905	56.695	3.024	2.019	2.3...	H1-1b
1119	M896	2L3x2 1/2x1/4	.264	14.875	12	.006	14.875	Y	11	11.905	3.024	2.019	2.3...	H1-1b
1120	M901	2L3x2 1/2x1/4	.251	0	.006	0	Y	15	11.905	56.695	3.024	2.019	2.4...	H1-1b
1121	M927	2L3x2 1/2x1/4	.542	15.813	12	.009	0	Y	16	10.534	3.024	2.019	1.6...	H1-1a
1122	M932	2L3x2 1/2x1/4	.536	0	.009	15.813	Y	14	10.534	56.695	3.024	2.019	1.65	H1-1a
1123	M943	2L3x2 1/2x1/4	.529	15.813	18	.009	0	Y	12	10.534	3.024	2.019	1.6...	H1-1a
1124	M948	2L3x2 1/2x1/4	.528	0	.009	15.813	Y	12	10.534	56.695	3.024	2.019	1.6...	H1-1a
1125	M962	2L3x2 1/2x1/4	.532	15.813	16	.009	0	Y	18	10.534	3.024	2.019	1.6...	H1-1a
1126	M967	2L3x2 1/2x1/4	.521	0	.009	15.813	Y	12	10.534	56.695	3.024	2.019	1.6...	H1-1a
1127	M981	2L3x2 1/2x1/4	.539	15.813	14	.009	0	Y	18	10.534	3.024	2.019	1.6...	H1-1a
1128	M986	2L3x2 1/2x1/4	.532	0	.009	15.813	Y	18	10.534	56.695	3.024	2.019	1.6...	H1-1a
1129	M72	L2.5X2X3	.065	2.203	18	.002	4.406	Y	13	8.16	.411	.802	1	H2-1
1130	M75	L2.5X2X3	.064	2.203	12	.002	4.406	Y	13	8.16	.411	.802	1	H2-1
1131	M79	L2.5X2X3	.066	2.203	17	.002	0	Y	15	8.16	.411	.802	1	H2-1
1132	M82	L2.5X2X3	.057	2.203	17	.002	4.406	Y	11	8.16	.411	.802	1	H2-1
1133	M86	L2.5X2X3	.060	2.203	15	.002	0	Y	12	8.16	.411	.802	1	H2-1
1134	M89	L2.5X2X3	.064	2.203	15	.002	0	Y	13	8.16	.411	.802	1	H2-1
1135	M93	L2.5X2X3	.061	2.203	12	.002	0	Y	11	8.16	.411	.802	1	H2-1
1136	M96	L2.5X2X3	.065	2.203	13	.002	4.406	Y	15	8.16	.411	.802	1	H2-1
1137	M109	L2.5X2.5X3	.101	2.672	18	.003	0	Y	12	8.127	.58	1.057	1	H2-1
1138	M112	L2.5X2.5X3	.101	2.672	12	.003	0	Y	13	8.127	.58	1.057	1	H2-1
1139	M116	L2.5X2.5X3	.102	2.672	16	.003	0	Y	11	8.127	.58	1.057	1	H2-1
1140	M119	L2.5X2.5X3	.101	2.672	18	.003	0	Y	11	8.127	.58	1.057	1	H2-1
1141	M123	L2.5X2.5X3	.101	2.672	14	.003	0	Y	16	8.127	.58	1.057	1	H2-1
1142	M126	L2.5X2.5X3	.103	2.672	16	.003	0	Y	16	8.127	.58	1.057	1	H2-1
1143	M130	L2.5X2.5X3	.103	2.672	12	.003	5.344	Y	11	8.127	.58	1.057	1	H2-1
1144	M133	L2.5X2.5X3	.101	2.672	14	.003	5.344	Y	11	8.127	.58	1.057	1	H2-1
1145	M142	L2.5X2.5X3	.076	2.438	18	.002	4.875	Y	17	9.377	.58	1.085	1	H2-1
1146	M145	L2.5X2.5X3	.076	2.438	12	.002	0	Y	13	9.377	.58	1.085	1	H2-1
1147	M149	L2.5X2.5X3	.076	2.438	16	.002	0	Y	11	9.377	.58	1.085	1	H2-1
1148	M152	L2.5X2.5X3	.074	2.438	18	.002	0	Y	12	9.377	.58	1.085	1	H2-1
1149	M156	L2.5X2.5X3	.074	2.438	14	.002	4.875	Y	12	9.377	.58	1.085	1	H2-1
1150	M159	L2.5X2.5X3	.076	2.438	16	.002	4.875	Y	13	9.377	.58	1.085	1	H2-1
1151	M163	L2.5X2.5X3	.076	2.438	12	.002	4.875	Y	11	9.377	.58	1.085	1	H2-1
1152	M166	L2.5X2.5X3	.076	2.438	14	.002	0	Y	15	9.377	.58	1.085	1	H2-1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1153	M179	L2.5X2.5X3	.209	3.141	18	.003	0	Y	13	5.941	19.401	1.004	1	H2-1
1154	M182	L2.5X2.5X3	.226	3.141	12	.003	0	Y	13	5.941	19.401	1.004	1	H2-1
1155	M186	L2.5X2.5X3	.228	3.141	16	.003	6.281	Y	15	5.941	19.401	1.004	1	H2-1
1156	M189	L2.5X2.5X3	.228	3.141	18	.003	0	Y	12	5.941	19.401	1.004	1	H2-1
1157	M193	L2.5X2.5X3	.228	3.141	14	.003	6.281	Y	12	5.941	19.401	1.004	1	H2-1
1158	M196	L2.5X2.5X3	.221	3.141	16	.003	0	Y	17	5.941	19.401	1.004	1	H2-1
1159	M200	L2.5X2.5X3	.219	3.141	12	.003	6.281	Y	11	5.941	19.401	1.004	1	H2-1
1160	M203	L2.5X2.5X3	.208	3.141	14	.003	6.281	Y	11	5.941	19.401	1.004	1	H2-1
1161	M212	L2.5X2.5X3	.147	2.906	18	.003	0	Y	18	6.936	19.401	1.03	1	H2-1
1162	M215	L2.5X2.5X3	.153	2.906	12	.003	5.813	Y	13	6.936	19.401	1.03	1	H2-1
1163	M219	L2.5X2.5X3	.154	2.906	16	.003	0	Y	11	6.936	19.401	1.03	1	H2-1
1164	M222	L2.5X2.5X3	.152	2.906	18	.003	5.813	Y	12	6.936	19.401	1.03	1	H2-1
1165	M226	L2.5X2.5X3	.152	2.906	14	.003	0	Y	18	6.936	19.401	1.03	1	H2-1
1166	M229	L2.5X2.5X3	.151	2.906	16	.003	5.813	Y	15	6.936	19.401	1.03	1	H2-1
1167	M233	L2.5X2.5X3	.150	2.906	12	.003	0	Y	11	6.936	19.401	1.03	1	H2-1
1168	M236	L2.5X2.5X3	.147	2.906	14	.003	5.813	Y	12	6.936	19.401	1.03	1	H2-1
1169	M249	L2.5X2X3	.110	2.25	18	.002	4.5	Y	13	7.903	17.44	.798	1	H2-1
1170	M254	L2.5X2X3	.109	2.25	12	.002	4.5	Y	13	7.903	17.44	.798	1	H2-1
1171	M261	L2.5X2X3	.111	2.25	16	.002	4.5	Y	11	7.903	17.44	.798	1	H2-1
1172	M266	L2.5X2X3	.110	2.25	17	.002	4.5	Y	13	7.903	17.44	.798	1	H2-1
1173	M274	L2.5X2X3	.114	2.25	15	.002	0	Y	13	7.903	17.44	.798	1	H2-1
1174	M279	L2.5X2X3	.105	2.25	15	.002	0	Y	13	7.903	17.44	.798	1	H2-1
1175	M287	L2.5X2X3	.102	2.25	13	.002	0	Y	11	7.903	17.44	.798	1	H2-1
1176	M292	L2.5X2X3	.114	2.25	13	.002	0	Y	11	7.903	17.44	.798	1	H2-1
1177	M310	L2.5X2X3	.116	2.563	11	.002	0	Y	12	6.265	17.44	.77	1	H2-1
1178	M315	L2.5X2X3	.113	2.563	11	.002	5.125	Y	16	6.265	17.44	.77	1	H2-1
1179	M322	L2.5X2X3	.127	2.563	17	.002	0	Y	11	6.265	17.44	.77	1	H2-1
1180	M327	L2.5X2X3	.109	2.563	16	.002	0	Y	11	6.265	17.44	.77	1	H2-1
1181	M335	L2.5X2X3	.130	2.563	16	.002	5.125	Y	13	6.265	17.44	.77	1	H2-1
1182	M340	L2.5X2X3	.130	2.563	14	.002	5.125	Y	13	6.265	17.44	.77	1	H2-1
1183	M348	L2.5X2X3	.107	2.563	14	.002	5.125	Y	11	6.265	17.44	.77	1	H2-1
1184	M353	L2.5X2X3	.127	2.563	13	.002	5.125	Y	11	6.265	17.44	.77	1	H2-1
1185	M371	L2.5X2X3	.160	2.875	12	.003	5.75	Y	13	4.977	17.44	.743	1	H2-1
1186	M376	L2.5X2X3	.153	2.875	18	.003	0	Y	17	4.977	17.44	.743	1	H2-1
1187	M383	L2.5X2X3	.188	2.875	18	.003	5.75	Y	11	4.977	17.44	.743	1	H2-1
1188	M388	L2.5X2X3	.163	2.875	16	.003	5.75	Y	11	4.977	17.44	.743	1	H2-1
1189	M396	L2.5X2X3	.188	2.875	16	.003	0	Y	13	4.977	17.44	.743	1	H2-1
1190	M401	L2.5X2X3	.192	2.875	14	.003	0	Y	12	4.977	17.44	.743	1	H2-1
1191	M409	L2.5X2X3	.157	2.875	14	.003	0	Y	11	4.977	17.44	.743	1	H2-1
1192	M414	L2.5X2X3	.185	2.875	12	.003	5.75	Y	14	4.977	17.44	.743	1	H2-1
1193	M432	L2.5X2X3	.105	2.069	11	.002	0	Y	17	8.91	17.44	.815	1	H2-1

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

Member	Shape	Code Check			LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1194	M437	L2.5X2X3	.106	2.069	11	.002	0	Y	16	8.91	17.44	.411	.815	1	H2-1
1195	M448	L2.5X2X3	.109	2.069	17	.002	0	Y	16	8.91	17.44	.411	.815	1	H2-1
1196	M453	L2.5X2X3	.103	2.069	17	.002	0	Y	15	8.91	17.44	.411	.815	1	H2-1
1197	M467	L2.5X2X3	.108	2.069	15	.002	0	Y	13	8.91	17.44	.411	.815	1	H2-1
1198	M472	L2.5X2X3	.106	2.069	15	.002	0	Y	12	8.91	17.44	.411	.815	1	H2-1
1199	M486	L2.5X2X3	.103	2.069	13	.002	0	Y	11	8.91	17.44	.411	.815	1	H2-1
1200	M491	L2.5X2X3	.109	2.069	13	.002	0	Y	11	8.91	17.44	.411	.815	1	H2-1
1201	M517	L2.5X2X3	.168	2.256	18	.002	0	Y	13	7.87	17.44	.411	.797	1	H2-1
1202	M522	L2.5X2X3	.173	2.256	12	.002	0	Y	14	7.87	17.44	.411	.797	1	H2-1
1203	M531	L2.5X2X3	.177	2.256	16	.002	0	Y	11	7.87	17.44	.411	.797	1	H2-1
1204	M536	L2.5X2X3	.180	2.256	18	.002	0	Y	12	7.87	17.44	.411	.797	1	H2-1
1205	M548	L2.5X2X3	.181	2.256	14	.002	0	Y	10	7.87	17.44	.411	.797	1	H2-1
1206	M553	L2.5X2X3	.177	2.256	16	.002	0	Y	10	7.87	17.44	.411	.797	1	H2-1
1207	M565	L2.5X2X3	.174	2.256	12	.002	0	Y	10	7.87	17.44	.411	.797	1	H2-1
1208	M570	L2.5X2X3	.169	2.256	14	.002	0	Y	14	7.87	17.44	.411	.797	1	H2-1
1209	M594	L2.5X2X3	.150	2.444	12	.002	0	Y	14	7.87	17.44	.411	.797	1	H2-1
1210	M599	L2.5X2X3	.146	2.444	18	.002	0	Y	18	6.878	17.44	.411	.78	1	H2-1
1211	M608	L2.5X2X3	.158	2.444	18	.002	0	Y	16	6.878	17.44	.411	.78	1	H2-1
1212	M613	L2.5X2X3	.148	2.444	16	.002	0	Y	16	6.878	17.44	.411	.78	1	H2-1
1213	M625	L2.5X2X3	.159	2.444	16	.002	0	Y	15	6.878	17.44	.411	.78	1	H2-1
1214	M630	L2.5X2X3	.159	2.444	14	.002	0	Y	13	6.878	17.44	.411	.78	1	H2-1
1215	M642	L2.5X2X3	.147	2.444	14	.002	0	Y	12	6.878	17.44	.411	.78	1	H2-1
1216	M647	L2.5X2X3	.160	2.444	14	.002	0	Y	11	6.878	17.44	.411	.78	1	H2-1
1217	M671	L2.5X2.5X3	.189	3.25	12	.002	0	Y	18	6.878	17.44	.411	.78	1	H2-1
1218	M676	L2.5X2.5X3	.185	3.25	18	.003	6.5	Y	12	5.547	19.401	.58	.993	1	H2-1
1219	M687	L2.5X2.5X3	.202	3.25	18	.003	6.5	Y	13	5.547	19.401	.58	.993	1	H2-1
1220	M692	L2.5X2.5X3	.189	3.25	16	.003	0	Y	11	5.547	19.401	.58	.993	1	H2-1
1221	M706	L2.5X2.5X3	.204	3.25	16	.003	0	Y	15	5.547	19.401	.58	.993	1	H2-1
1222	M711	L2.5X2.5X3	.204	3.25	14	.003	0	Y	13	5.547	19.401	.58	.993	1	H2-1
1223	M725	L2.5X2.5X3	.187	3.25	14	.003	0	Y	12	5.547	19.401	.58	.993	1	H2-1
1224	M730	L2.5X2.5X3	.203	3.25	14	.003	0	Y	11	5.547	19.401	.58	.993	1	H2-1
1225	M756	L2.5X2.5X3	.203	3.25	12	.003	0	Y	11	5.547	19.401	.58	.993	1	H2-1
1226	M761	L2.5X2.5X3	.294	3.484	12	.003	0	Y	11	5.547	19.401	.58	.993	1	H2-1
1227	M772	L2.5X2.5X3	.276	3.484	18	.003	6.969	Y	17	4.826	19.401	.58	.968	1	H2-1
1228	M777	L2.5X2.5X3	.282	3.484	18	.003	0	Y	11	4.826	19.401	.58	.968	1	H2-1
1229	M791	L2.5X2.5X3	.279	3.484	16	.003	0	Y	11	4.826	19.401	.58	.968	1	H2-1
1230	M796	L2.5X2.5X3	.291	3.484	16	.003	6.969	Y	12	4.826	19.401	.58	.968	1	H2-1
1231	M810	L2.5X2.5X3	.277	3.484	14	.003	6.969	Y	12	4.826	19.401	.58	.968	1	H2-1
1232	M815	L2.5X2.5X3	.283	3.484	14	.003	0	Y	15	4.826	19.401	.58	.968	1	H2-1
1233	M841	L2.5X2.5X3	.313	3.484	12	.003	0	Y	14	4.826	19.401	.58	.968	1	H2-1
1234	M846	L2.5X2.5X3	.310	3.719	12	.004	0	Y	16	4.236	19.401	.58	.945	1	H2-1
			.338	3.719	11	.004	0	Y	17	4.236	19.401	.58	.945	1	H2-1

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

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

Member		Shape	Code Check		Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1235	M857	L2.5X2.5X3	.337	3.719	17	.004	7.438	Y	11	4.236	19.401	.58	.945	1	H2-1	
1236	M862	L2.5X2.5X3	.307	3.719	17	.004	0	Y	14	4.236	19.401	.58	.945	1	H2-1	
1237	M876	L2.5X2.5X3	.319	3.719	15	.004	0	Y	14	4.236	19.401	.58	.945	1	H2-1	
1238	M881	L2.5X2.5X3	.324	3.719	15	.004	0	Y	12	4.236	19.401	.58	.945	1	H2-1	
1239	M895	L2.5X2.5X3	.325	3.719	13	.004	0	Y	18	4.236	19.401	.58	.945	1	H2-1	
1240	M900	L2.5X2.5X3	.320	3.719	13	.004	0	Y	11	4.236	19.401	.58	.945	1	H2-1	
1241	M926	L2.5X2.5X3	.170	3.953	12	.004	0	Y	10	3.75	19.401	.58	.922	1	H2-1	
1242	M931	L2.5X2.5X3	.166	3.953	18	.004	0	Y	11	3.75	19.401	.58	.922	1	H2-1	
1243	M942	L2.5X2.5X3	.189	3.953	18	.004	7.906	Y	11	3.75	19.401	.58	.922	1	H2-1	
1244	M947	L2.5X2.5X3	.173	3.953	16	.004	0	Y	10	3.75	19.401	.58	.922	1	H2-1	
1245	M961	L2.5X2.5X3	.190	3.953	16	.004	0	Y	10	3.75	19.401	.58	.922	1	H2-1	
1246	M966	L2.5X2.5X3	.193	3.953	14	.004	0	Y	15	3.75	19.401	.58	.922	1	H2-1	
1247	M980	L2.5X2.5X3	.170	3.953	14	.004	7.906	Y	12	3.75	19.401	.58	.922	1	H2-1	
1248	M985	L2.5X2.5X3	.188	3.953	12	.004	0	Y	10	3.75	19.401	.58	.922	1	H2-1	
1249	M1596	L2.5X2.5X4	.506	3.719	7	.002	7.438	Y	2	5.217	25.653	.741	1.393	1.1...	H2-1	
1250	M1597	L2.5X2.5X4	.490	3.719	7	.002	0	Y	3	5.217	25.653	.741	1.393	1.1...	H2-1	
1251	M1598	L2.5X2.5X4	.718	4.494	12	.002	8.805	Y	13	3.723	25.653	.741	1.325	1.1...	H2-1	
1252	M1599	L2.5X2.5X4	.731	4.311	12	.002	8.805	Y	14	3.723	25.653	.741	1.325	1.1...	H2-1	
1253	M1600	L2.5X2.5X4	.202	1.859	7	.001	0	Y	12	16.336	25.653	.741	1.618	1.1...	H2-1	
1254	M1601	L2.5X2.5X4	.209	1.859	7	.001	3.719	Y	12	16.336	25.653	.741	1.618	1.1...	H2-1	
1255	M1602	L2.5X2.5X4	.474	2.963	12	.001	0	Y	4	8.561	25.653	.741	1.482	1.1...	H2-1	
1256	M1603	L2.5X2.5X4	.464	2.843	12	.001	0	Y	2	8.561	25.653	.741	1.482	1.1...	H2-1	
1257	M1604	L2.5X2.5X4	.235	1.859	7	.001	3.719	Y	13	16.336	25.653	.741	1.618	1.1...	H2-1	
1258	M1605	L2.5X2.5X4	.223	1.859	12	.001	0	Y	18	16.336	25.653	.741	1.618	1.1...	H2-1	
1259	M1606	L2.5X2.5X4	.433	2.583	12	.001	0	Y	18	9.93	25.653	.741	1.507	1.1...	H2-1	
1260	M1607	L2.5X2.5X4	.450	2.808	12	.001	5.391	Y	13	9.93	25.653	.741	1.507	1.1...	H2-1	
1261	M1608	L2.5X2.5X4	.485	3.719	5	.002	0	Y	3	5.217	25.653	.741	1.393	1.1...	H2-1	
1262	M1609	L2.5X2.5X4	.512	3.719	5	.002	0	Y	2	5.217	25.653	.741	1.393	1.1...	H2-1	
1263	M1610	L2.5X2.5X4	.729	4.494	18	.002	0	Y	6	3.723	25.653	.741	1.325	1.1...	H2-1	
1264	M1611	L2.5X2.5X4	.704	4.311	18	.002	8.805	Y	5	3.723	25.653	.741	1.325	1.1...	H2-1	
1265	M1612	L2.5X2.5X4	.210	1.859	5	.001	0	Y	18	16.336	25.653	.741	1.618	1.1...	H2-1	
1266	M1613	L2.5X2.5X4	.198	1.859	5	.001	3.719	Y	9	16.336	25.653	.741	1.618	1.1...	H2-1	
1267	M1614	L2.5X2.5X4	.452	2.963	18	.001	5.806	Y	3	8.561	25.653	.741	1.482	1.1...	H2-1	
1268	M1615	L2.5X2.5X4	.471	2.843	18	.001	5.806	Y	17	8.561	25.653	.741	1.482	1.1...	H2-1	
1269	M1616	L2.5X2.5X4	.215	1.859	18	.001	3.719	Y	11	16.336	25.653	.741	1.618	1.1...	H2-1	
1270	M1617	L2.5X2.5X4	.241	1.859	5	.001	0	Y	7	16.336	25.653	.741	1.618	1.1...	H2-1	
1271	M1618	L2.5X2.5X4	.452	2.583	18	.001	0	Y	16	9.93	25.653	.741	1.507	1.1...	H2-1	
1272	M1619	L2.5X2.5X4	.418	2.808	18	.001	0	Y	12	9.93	25.653	.741	1.507	1.1...	H2-1	
1273	M1620	L2.5X2.5X4	.496	3.719	3	.002	0	Y	2	5.217	25.653	.741	1.393	1.1...	H2-1	
1274	M1621	L2.5X2.5X4	.514	3.719	3	.002	7.438	Y	3	5.217	25.653	.741	1.393	1.1...	H2-1	
1275	M1622	L2.5X2.5X4	.713	4.494	16	.002	8.805	Y	17	3.723	25.653	.741	1.325	1.1...	H2-1	

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

Member	Shape	Code Check	Locftl	LC	Shear Che...	Locftl	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Ob	Egn
1276	M1623	L2.5X2.5X4	.700	4.311	16	.002	0	Y	18	3.723	25.653	.741	1.325	1.1... H2-1
1277	M1624	L2.5X2.5X4	.213	1.859	3	.001	0	Y	15	16.336	25.653	.741	1.618	1.1... H2-1
1278	M1625	L2.5X2.5X4	.205	1.859	3	.001	3.719	Y	16	16.336	25.653	.741	1.618	1.1... H2-1
1279	M1626	L2.5X2.5X4	.453	2.963	16	.001	0	Y	8	8.561	25.653	.741	1.482	1.1... H2-1
1280	M1627	L2.5X2.5X4	.463	2.843	16	.001	0	Y	6	8.561	25.653	.741	1.482	1.1... H2-1
1281	M1628	L2.5X2.5X4	.225	1.859	12	.001	3.719	Y	18	16.336	25.653	.741	1.618	1.1... H2-1
1282	M1629	L2.5X2.5X4	.241	1.859	3	.001	0	Y	5	16.336	25.653	.741	1.618	1.1... H2-1
1283	M1630	L2.5X2.5X4	.435	2.583	7	.001	0	Y	8	9.93	25.653	.741	1.507	1.1... H2-1
1284	M1631	L2.5X2.5X4	.416	2.808	16	.001	0	Y	16	9.93	25.653	.741	1.507	1.1... H2-1
1285	M1632	L2.5X2.5X4	.517	3.719	9	.002	7.438	Y	4	5.217	25.653	.741	1.393	1.1... H2-1
1286	M1633	L2.5X2.5X4	.485	3.719	9	.002	7.438	Y	2	5.217	25.653	.741	1.393	1.1... H2-1
1287	M1634	L2.5X2.5X4	.697	4.494	14	.002	0	Y	6	3.723	25.653	.741	1.325	1.1... H2-1
1288	M1635	L2.5X2.5X4	.724	4.311	14	.002	0	Y	17	3.723	25.653	.741	1.325	1.1... H2-1
1289	M1636	L2.5X2.5X4	.199	1.859	9	.001	0	Y	14	16.336	25.653	.741	1.618	1.1... H2-1
1290	M1637	L2.5X2.5X4	.211	1.859	9	.001	3.719	Y	15	16.336	25.653	.741	1.618	1.1... H2-1
1291	M1638	L2.5X2.5X4	.468	2.963	14	.001	0	Y	9	8.561	25.653	.741	1.482	1.1... H2-1
1292	M1639	L2.5X2.5X4	.449	2.843	14	.001	5.806	Y	16	8.561	25.653	.741	1.482	1.1... H2-1
1293	M1640	L2.5X2.5X4	.244	1.859	9	.001	3.719	Y	7	16.336	25.653	.741	1.618	1.1... H2-1
1294	M1641	L2.5X2.5X4	.217	1.859	9	.001	0	Y	12	16.336	25.653	.741	1.618	1.1... H2-1
1295	M1642	L2.5X2.5X4	.410	2.583	14	.001	0	Y	6	9.93	25.653	.741	1.507	1.1... H2-1
1296	M1643	L2.5X2.5X4	.445	2.808	14	.001	5.391	Y	3	9.93	25.653	.741	1.507	1.1... H2-1
1297	M1548	L2.5X2.5X4	.730	3.953	9	.002	0	Y	4	4.617	25.653	.741	1.369	1.1... H2-1
1298	M1549	L2.5X2.5X4	.952	4.706	14	.002	0	Y	16	3.395	25.653	.741	1.306	1.1... H2-1
1299	M1550	L2.5X2.5X4	.908	4.514	14	.002	9.22	Y	12	3.395	25.653	.741	1.306	1.1... H2-1
1300	M1551	L2.5X2.5X4	.679	3.953	9	.002	0	Y	2	4.617	25.653	.741	1.369	1.1... H2-1
1301	M1552	L2.5X2.5X4	.219	1.977	9	.001	3.953	Y	18	15.406	25.653	.741	1.601	1.1... H2-1
1302	M1553	L2.5X2.5X4	.482	3.048	14	.001	0	Y	18	8.094	25.653	.741	1.473	1.1... H2-1
1303	M1554	L2.5X2.5X4	.503	2.923	14	.001	5.971	Y	12	8.094	25.653	.741	1.473	1.1... H2-1
1304	M1555	L2.5X2.5X4	.232	1.977	9	.001	0	Y	18	15.406	25.653	.741	1.601	1.1... H2-1
1305	M1556	L2.5X2.5X4	.242	2.829	14	.001	5.542	Y	14	9.396	25.653	.741	1.498	1.1... H2-1
1306	M1557	L2.5X2.5X4	.132	1.977	9	.001	0	Y	12	15.406	25.653	.741	1.601	1.1... H2-1
1307	M1558	L2.5X2.5X4	.142	1.977	9	.001	3.953	Y	16	15.406	25.653	.741	1.601	1.1... H2-1
1308	M1559	L2.5X2.5X4	.257	2.713	14	.001	5.542	Y	6	9.396	25.653	.741	1.498	1.1... H2-1
1309	M1560	L2.5X2.5X4	.718	3.953	7	.002	0	Y	2	4.617	25.653	.741	1.369	1.1... H2-1
1310	M1561	L2.5X2.5X4	.967	4.706	12	.002	9.22	Y	14	3.395	25.653	.741	1.306	1.1... H2-1
1311	M1562	L2.5X2.5X4	.947	4.514	12	.002	9.22	Y	13	3.395	25.653	.741	1.306	1.1... H2-1
1312	M1563	L2.5X2.5X4	.692	3.953	7	.002	7.906	Y	3	4.617	25.653	.741	1.369	1.1... H2-1
1313	M1564	L2.5X2.5X4	.222	1.977	7	.001	3.953	Y	15	15.406	25.653	.741	1.601	1.1... H2-1
1314	M1565	L2.5X2.5X4	.498	3.048	12	.001	5.971	Y	14	8.094	25.653	.741	1.473	1.1... H2-1
1315	M1566	L2.5X2.5X4	.508	2.923	12	.001	0	Y	18	8.094	25.653	.741	1.473	1.1... H2-1
1316	M1567	L2.5X2.5X4	.229	1.977	7	.001	0	Y	16	15.406	25.653	.741	1.601	1.1... H2-1

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Designer : awestrum
Job Number : 2012762.03

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1317														
M1568	L2.5X2.5X4	.253	2.829	12	.001	5.542	Y	11	9.396	25.653	.741	1.498	1.1...	H2-1
M1569	L2.5X2.5X4	.134	1.977	7	.001	0	Y	18	15.406	25.653	.741	1.601	1.1...	H2-1
M1570	L2.5X2.5X4	.139	1.977	7	.001	3.953	Y	14	15.406	25.653	.741	1.601	1.1...	H2-1
M1571	L2.5X2.5X4	.260	2.713	12	.001	5.542	Y	13	9.396	25.653	.741	1.498	1.1...	H2-1
M1572	L2.5X2.5X4	.677	3.953	5	.002	7.906	Y	4	4.617	25.653	.741	1.369	1.1...	H2-1
M1573	L2.5X2.5X4	.918	4.706	18	.002	9.22	Y	8	3.395	25.653	.741	1.306	1.1...	H2-1
M1574	L2.5X2.5X4	.961	4.514	18	.002	0	Y	14	3.395	25.653	.741	1.306	1.1...	H2-1
M1575	L2.5X2.5X4	.726	3.953	5	.002	7.906	Y	2	4.617	25.653	.741	1.369	1.1...	H2-1
M1576	L2.5X2.5X4	.231	1.977	5	.001	3.953	Y	14	15.406	25.653	.741	1.601	1.1...	H2-1
M1577	L2.5X2.5X4	.506	3.048	18	.001	0	Y	14	8.094	25.653	.741	1.473	1.1...	H2-1
M1578	L2.5X2.5X4	.486	2.923	18	.001	5.971	Y	16	8.094	25.653	.741	1.473	1.1...	H2-1
M1579	L2.5X2.5X4	.218	1.977	5	.001	0	Y	14	15.406	25.653	.741	1.601	1.1...	H2-1
M1580	L2.5X2.5X4	.259	2.829	18	.001	0	Y	7	9.396	25.653	.741	1.498	1.1...	H2-1
M1581	L2.5X2.5X4	.141	1.977	5	.001	0	Y	16	15.406	25.653	.741	1.601	1.1...	H2-1
M1582	L2.5X2.5X4	.132	1.977	5	.001	3.953	Y	12	15.406	25.653	.741	1.601	1.1...	H2-1
M1583	L2.5X2.5X4	.245	2.713	18	.001	0	Y	12	9.396	25.653	.741	1.498	1.1...	H2-1
M1584	L2.5X2.5X4	.707	3.953	3	.002	7.906	Y	2	4.617	25.653	.741	1.369	1.1...	H2-1
M1585	L2.5X2.5X4	.917	4.706	16	.002	9.22	Y	12	3.395	25.653	.741	1.306	1.1...	H2-1
M1586	L2.5X2.5X4	.937	4.514	16	.002	0	Y	12	3.395	25.653	.741	1.306	1.1...	H2-1
M1587	L2.5X2.5X4	.735	3.953	3	.002	0	Y	3	4.617	25.653	.741	1.369	1.1...	H2-1
M1588	L2.5X2.5X4	.233	1.977	3	.001	3.953	Y	12	15.406	25.653	.741	1.601	1.1...	H2-1
M1589	L2.5X2.5X4	.497	3.048	16	.001	5.971	Y	16	8.094	25.653	.741	1.473	1.1...	H2-1
M1590	L2.5X2.5X4	.487	2.923	16	.001	5.971	Y	15	8.094	25.653	.741	1.473	1.1...	H2-1
M1591	L2.5X2.5X4	.225	1.977	3	.001	0	Y	12	15.406	25.653	.741	1.601	1.1...	H2-1
M1592	L2.5X2.5X4	.252	2.829	16	.001	5.542	Y	6	9.396	25.653	.741	1.498	1.1...	H2-1
M1593	L2.5X2.5X4	.142	1.977	3	.001	0	Y	14	15.406	25.653	.741	1.601	1.1...	H2-1
M1594	L2.5X2.5X4	.137	1.977	3	.001	3.953	Y	18	15.406	25.653	.741	1.601	1.1...	H2-1
M1595	L2.5X2.5X4	.245	2.713	16	.001	0	Y	16	9.396	25.653	.741	1.498	1.1...	H2-1
M1541	L2 1/2x2 1/2x1/4	.010	2.176	15	.001	0	Z	13	4.288	25.653	.306	1.385	1.2...	H2-1
M1542	L2 1/2x2 1/2x1/4	.010	2.96	13	.002	0	Z	15	4.288	25.653	.306	1.486	1.5...	H2-1
M1543	L2 1/2x2 1/2x1/4	.010	4.178	13	.002	0	Z	17	4.288	25.653	.306	1.586	2.1...	H2-1
M1544	L2 1/2x2 1/2x1/4	.010	2.699	13	.001	0	Z	15	4.288	25.653	.306	1.414	1.3...	H2-1
M1190A	L2 1/2x2 1/2x1/4	.009	0	17	.000	8.357	Y	11	4.288	25.653	.306	1.357	1.1...	H2-1
M1191A	L2 1/2x2 1/2x1/4	.009	0	15	.000	0	Y	15	4.288	25.653	.306	1.357	1.1...	H2-1
M1192A	L2 1/2x2 1/2x1/4	.009	0	13	.000	8.357	Y	14	4.288	25.653	.306	1.357	1.1...	H2-1
M1193A	L2 1/2x2 1/2x1/4	.009	0	11	.000	8.357	Y	11	4.288	25.653	.306	1.357	1.1...	H2-1
M1115A	L2 1/2x2 1/2x1/4	.011	0	17	.000	0	Y	18	4.288	25.653	.306	1.357	1.1...	H2-1
M1116A	L2 1/2x2 1/2x1/4	.011	0	15	.000	8.357	Y	14	4.288	25.653	.306	1.357	1.1...	H2-1
M1117A	L2 1/2x2 1/2x1/4	.011	0	13	.000	0	Y	12	4.288	25.653	.306	1.357	1.1...	H2-1
M1118A	L2 1/2x2 1/2x1/4	.011	0	11	.000	0	Y	12	4.288	25.653	.306	1.357	1.1...	H2-1
M996A	LL3x2.5x4x0	.004	3.83	15	.000	8.357	Y	17	31.238	56.91	2.981	3.189	1	H1-1b

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

SNET021 NORWALK

Mar 15, 2012
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Envelope AISC 13th(360-05): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnw/om [k-ft]	Mnz/om [k-ft]	Cb	Eqn
1358	M997A	.004	3.83	13	.000	0	Y	15	31.238	56.91	2.981	3.189	1	H1-1b
1359	M998A	.004	3.83	11	.000	0	Y	15	31.238	56.91	2.981	3.189	1	H1-1b
1360	M999A	.004	3.83	17	.000	8.357	Y	10	31.238	56.91	2.981	3.189	1	H1-1b
1361	M1000	.142	4.334	17	.004	0	Y	12	3.841	25.653	.741	1.332	1.1...	H2-1
1362	M1001	.009	1.697	17	.000	4.178	Y	12	14.512	25.653	.741	1.585	1.1...	H2-1
1363	M1003	.021	2.742	17	.000	0	Y	11	14.512	25.653	.741	1.585	1.1...	H2-1
1364	M1003A	.092	4.334	13	.002	8.667	Y	4	3.841	25.653	.741	1.332	1.1...	H2-1
1365	M1004	.009	1.697	13	.000	0	Y	18	14.512	25.653	.741	1.585	1.1...	H2-1
1366	M1006	.020	2.742	13	.000	4.178	Y	17	14.512	25.653	.741	1.585	1.1...	H2-1
1367	M1006A	.093	4.334	15	.002	0	Y	6	3.841	25.653	.741	1.332	1.1...	H2-1
1368	M1007	.008	1.697	15	.000	0	Y	17	14.512	25.653	.741	1.585	1.1...	H2-1
1369	M1008	.021	2.742	15	.000	0	Y	11	14.512	25.653	.741	1.585	1.1...	H2-1
1370	M1009	.093	4.334	11	.002	0	Y	14	3.841	25.653	.741	1.332	1.1...	H2-1
1371	M1010	.008	1.697	11	.000	0	Y	14	14.512	25.653	.741	1.585	1.1...	H2-1
1372	M1011	.021	2.742	11	.000	4.178	Y	15	14.512	25.653	.741	1.585	1.1...	H2-1
1373	M1012	.094	4.334	13	.002	0	Y	16	3.841	25.653	.741	1.332	1.1...	H2-1
1374	M1013	.008	1.697	13	.000	0	Y	17	14.512	25.653	.741	1.585	1.1...	H2-1
1375	M1014	.022	2.742	13	.000	4.178	Y	4	14.512	25.653	.741	1.585	1.1...	H2-1
1376	M1015	.094	4.334	17	.002	8.667	Y	14	3.841	25.653	.741	1.332	1.1...	H2-1
1377	M1016	.008	1.697	17	.000	4.178	Y	14	14.512	25.653	.741	1.585	1.1...	H2-1
1378	M1017	.022	2.742	17	.000	0	Y	15	14.512	25.653	.741	1.585	1.1...	H2-1
1379	M1018	.092	4.334	11	.002	0	Y	16	3.841	25.653	.741	1.332	1.1...	H2-1
1380	M1019	.008	1.697	11	.000	0	Y	16	14.512	25.653	.741	1.585	1.1...	H2-1
1381	M1020	.020	2.742	11	.000	0	Y	16	14.512	25.653	.741	1.585	1.1...	H2-1
1382	M1021	.092	4.334	15	.002	8.667	Y	11	3.841	25.653	.741	1.332	1.1...	H2-1
1383	M1022	.008	1.697	15	.000	4.178	Y	11	14.512	25.653	.741	1.585	1.1...	H2-1
1384	M1023	.021	2.742	15	.000	4.178	Y	17	14.512	25.653	.741	1.585	1.1...	H2-1
1385	M1348A	.991	5.474	13	.002	10.511	Y	14	28.25	76.527	5.4	4.016	1	H1-1a
1386	M1349A	1.008	5.036	17	.002	10.511	Y	16	28.25	76.527	5.4	4.016	1	H1-1a
1387	M1354A	1.108	5.474	2	.002	0	Y	16	28.25	76.527	5.4	4.016	1	H1-1a
1388	M1355	1.122	5.036	15	.002	0	Y	14	28.25	76.527	5.4	4.016	1	H1-1a
1389	M1360A	1.163	5.474	8	.002	0	Y	9	28.25	76.527	5.4	4.016	1	H1-1a
1390	M1361A	1.155	5.036	4	.002	0	Y	12	28.25	76.527	5.4	4.016	1	H1-1a
1391	M1366A	1.044	5.474	15	.002	0	Y	9	28.25	76.527	5.4	4.016	1	H1-1a
1392	M1367A	1.031	5.036	2	.002	0	Y	9	28.25	76.527	5.4	4.016	1	H1-1a
1393	M1325	.723	5.678	13	.002	0	Y	8	41.786	90.754	7.37	5.575	1	H1-1a
1394	M1326A	.734	5.223	17	.002	10.901	Y	12	41.786	90.754	7.37	5.575	1	H1-1a
1395	M1329A	.809	5.678	2	.002	10.901	Y	6	41.786	90.754	7.37	5.575	1	H1-1a
1396	M1330A	.823	5.223	15	.002	10.901	Y	7	41.786	90.754	7.37	5.575	1	H1-1a
1397	M1333A	.857	5.678	8	.002	10.901	Y	18	41.786	90.754	7.37	5.575	1	H1-1a
1398	M1334A	.851	5.223	4	.002	10.901	Y	12	41.786	90.754	7.37	5.575	1	H1-1a

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

	Member	Shape	Code Check		Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyv/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1399	M1337A	LL3.5x3.5x5x0	.768	5.678	15	.002	10.901	Y	18	41.786	90.754	7.37	5.575	1	H1-1a	
1400	M1338A	LL3.5x3.5x5x0	.756	5.223	2	.002	0	Y	5	41.786	90.754	7.37	5.575	1	H1-1a	
1401	M1294A	LL3.5x3.5x5x0	.836	5.774	17	.002	0	Y	7	39.366	90.754	7.37	5.575	1	H1-1a	
1402	M1295A	LL3.5x3.5x5x0	.823	5.538	13	.002	0	Y	14	39.366	90.754	7.37	5.575	1	H1-1a	
1403	M1298A	LL3.5x3.5x5x0	.940	5.774	15	.002	0	Y	18	39.366	90.754	7.37	5.575	1	H1-1a	
1404	M1299A	LL3.5x3.5x5x0	.920	5.538	11	.002	11.313	Y	2	39.366	90.754	7.37	5.575	1	H1-1a	
1405	M1302A	LL3.5x3.5x5x0	.969	5.774	4	.002	11.313	Y	4	39.366	90.754	7.37	5.575	1	H1-1a	
1406	M1303A	LL3.5x3.5x5x0	.976	5.538	17	.002	11.313	Y	18	39.366	90.754	7.37	5.575	1	H1-1a	
1407	M1306A	LL3.5x3.5x5x0	.859	5.774	11	.002	11.313	Y	11	39.366	90.754	7.37	5.575	1	H1-1a	
1408	M1307A	LL3.5x3.5x5x0	.879	5.538	15	.002	0	Y	15	39.366	90.754	7.37	5.575	1	H1-1a	
1409	M1346A	2L3x2 1/2x1/4	1.081	4.691	17	.001	9.79	Y	13	25.142	56.695	3.024	3.23	1	H1-1a	
1410	M1347A	2L3x2 1/2x1/4	1.064	4.691	13	.001	9.79	Y	12	25.142	56.695	3.024	3.23	1	H1-1a	
1411	M1352A	2L3x2 1/2x1/4	1.202	4.691	15	.001	9.79	Y	5	25.142	56.695	3.024	3.23	1	H1-1a	
1412	M1353A	2L3x2 1/2x1/4	1.182	4.691	2	.001	9.79	Y	11	25.142	56.695	3.024	3.23	1	H1-1a	
1413	M1358B	2L3x2 1/2x1/4	1.231	4.691	4	.001	0	Y	13	25.142	56.695	3.024	3.23	1	H1-1a	
1414	M1359B	2L3x2 1/2x1/4	1.240	4.691	8	.001	0	Y	17	25.142	56.695	3.024	3.23	1	H1-1a	
1415	M1364A	2L3x2 1/2x1/4	1.101	4.691	2	.001	9.79	Y	15	25.142	56.695	3.024	3.23	1	H1-1a	
1416	M1365A	2L3x2 1/2x1/4	1.120	4.691	15	.001	9.79	Y	3	25.142	56.695	3.024	3.23	1	H1-1a	
1417	M1323A	2L3x2 1/2x1/4	1.032	4.82	17	.001	10.06	Y	3	28.255	56.695	3.024	3.23	1	H1-1a	
1418	M1324	2L3x2 1/2x1/4	1.017	4.82	13	.001	0	Y	5	28.255	56.695	3.024	3.23	1	H1-1a	
1419	M1327B	2L3x2 1/2x1/4	1.154	4.82	15	.001	0	Y	14	28.255	56.695	3.024	3.23	1	H1-1a	
1420	M1328B	2L3x2 1/2x1/4	1.131	4.82	11	.001	10.06	Y	11	28.255	56.695	3.024	3.23	1	H1-1a	
1421	M1331A	2L3x2 1/2x1/4	1.185	4.82	4	.001	0	Y	13	28.255	56.695	3.024	3.23	1	H1-1a	
1422	M1332A	2L3x2 1/2x1/4	1.193	4.82	17	.001	10.06	Y	4	28.255	56.695	3.024	3.23	1	H1-1a	
1423	M1335A	2L3x2 1/2x1/4	1.056	4.82	11	.001	0	Y	9	28.255	56.695	3.024	3.23	1	H1-1a	
1424	M1336A	2L3x2 1/2x1/4	1.078	4.82	15	.001	10.06	Y	14	28.255	56.695	3.024	3.23	1	H1-1a	
1425	M1292A	LL3x3x6x3	.770	4.958	17	.002	10.346	Y	8	40.942	90.97	7.565	4.754	1	H1-1a	
1426	M1293A	LL3x3x6x3	.759	4.958	13	.002	10.346	Y	13	40.942	90.97	7.565	4.754	1	H1-1a	
1427	M1296A	LL3x3x6x3	.862	4.958	15	.002	0	Y	18	40.942	90.97	7.565	4.754	1	H1-1a	
1428	M1297A	LL3x3x6x3	.844	4.958	11	.002	10.346	Y	12	40.942	90.97	7.565	4.754	1	H1-1a	
1429	M1300A	LL3x3x6x3	.882	4.958	13	.002	0	Y	13	40.942	90.97	7.565	4.754	1	H1-1a	
1430	M1301A	LL3x3x6x3	.893	4.958	17	.002	0	Y	5	40.942	90.97	7.565	4.754	1	H1-1a	
1431	M1304A	LL3x3x6x3	.791	4.958	11	.002	0	Y	9	40.942	90.97	7.565	4.754	1	H1-1a	
1432	M1305A	LL3x3x6x3	.808	4.958	15	.002	0	Y	14	40.942	90.97	7.565	4.754	1	H1-1a	
1433	M681	LL4x4x8x3	.811	7.311	17	.004	14.932	Y	14	59.154	161.461	17.217	11.212	1	H1-1a	
1434	M682	LL4x4x8x3	.801	7.311	13	.004	14.932	Y	17	59.154	161.461	17.217	11.212	1	H1-1a	
1435	M700	LL4x4x8x3	.903	7.311	15	.004	0	Y	18	59.154	161.461	17.217	11.212	1	H1-1a	
1436	M701	LL4x4x8x3	.884	7.311	11	.004	14.932	Y	16	59.154	161.461	17.217	11.212	1	H1-1a	
1437	M719	LL4x4x8x3	.926	7.311	13	.004	0	Y	17	59.154	161.461	17.217	11.212	1	H1-1a	
1438	M720	LL4x4x8x3	.937	7.311	17	.004	0	Y	13	59.154	161.461	17.217	11.212	1	H1-1a	
1439	M741	LL4x4x8x3	.834	7.311	11	.004	0	Y	15	59.154	161.461	17.217	11.212	1	H1-1a	

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

Member		Shape	Code Check		Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [kl]	Pnt/om [kl]	Mnvy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1440	M742	LL4x4x8x3	.853	7.311	15	.004	14.932	y	12	59.154	161.461	17.217	11.217	11.212	1	H1-1a
1441	M766		.967	7.695	17	.004	0	y	13	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1442	M767		.955	7.695	13	.004	0	y	12	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1443	M785		1.073	7.695	15	.004	0	y	11	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1444	M786		1.052	7.695	11	.004	15.718	y	11	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1445	M804		1.103	7.695	13	.004	15.718	y	13	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1446	M805		1.114	7.695	17	.004	0	y	12	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1447	M826		1.114	7.695	17	.004	0	y	12	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1448	M827		1.018	7.695	15	.004	0	y	11	53.005	161.461	17.217	17.217	11.212	1	H1-1a
1449	M851		1.140	8.088	17	.004	0	y	13	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1450	M852		1.128	8.088	13	.004	16.52	y	13	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1451	M870		1.259	8.088	15	.004	0	y	16	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1452	M871		1.237	8.088	11	.004	0	y	18	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1453	M889		1.299	8.088	13	.004	0	y	16	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1454	M890		1.308	8.088	17	.004	16.52	y	13	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1455	M911		1.179	8.088	11	.004	16.52	y	11	47.668	161.461	17.217	17.217	11.212	1	H1-1a
1456	M912	1.202	8.088	15	.004	0	y	15	47.668	161.461	17.217	17.217	11.212	1	H1-1a	
1457	M936	LL5x5x6x3	.908	8.667	17	.005	8.667	y	17	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1458	M937	LL5x5x6x3	.898	8.667	13	.005	8.667	y	13	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1459	M955	LL5x5x6x3	.999	8.667	15	.005	8.667	y	15	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1460	M956	LL5x5x6x3	.981	8.667	11	.005	8.667	y	11	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1461	M974	LL5x5x6x3	1.031	8.667	4	.005	8.667	y	13	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1462	M975	LL5x5x6x3	1.038	8.667	17	.005	8.667	y	17	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1463	M996	LL5x5x6x3	.938	8.667	11	.005	8.667	y	11	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1464	M997	LL5x5x6x3	.954	8.667	15	.005	8.667	y	15	67.489	157.365	19.576	19.576	8.66	1.1...	H1-1a
1465	M258	2L2 1/2x2 1/2x1/4	.440	5.125	15	.004	0	y	12	14.008	51.305	3.018	3.018	2.271	1.1...	H1-1a
1466	M270	2L2 1/2x2 1/2x1/4	.458	5.125	13	.004	0	y	11	14.008	51.305	3.018	3.018	2.271	1.1...	H1-1a
1467	M283	2L2 1/2x2 1/2x1/4	.455	5.125	11	.004	10.25	y	13	14.008	51.305	3.018	3.018	2.271	1.1...	H1-1a
1468	M296	2L2 1/2x2 1/2x1/4	.436	5.125	17	.004	10.25	y	11	14.008	51.305	3.018	3.018	2.271	1.1...	H1-1a
1469	M319	2L2 1/2x2 1/2x1/4	.541	5.75	15	.004	11.5	y	17	11.129	51.305	3.018	3.018	2.271	1.1...	H1-1a
1470	M331	2L2 1/2x2 1/2x1/4	.561	5.75	13	.004	11.5	y	15	11.129	51.305	3.018	3.018	2.271	1.1...	H1-1a
1471	M344	2L2 1/2x2 1/2x1/4	.561	5.75	11	.004	11.5	y	13	11.129	51.305	3.018	3.018	2.271	1.1...	H1-1a
1472	M357	2L2 1/2x2 1/2x1/4	.540	5.75	17	.004	11.5	y	11	11.129	51.305	3.018	3.018	2.271	1.1...	H1-1a
1473	M380	2L2 1/2x3x1/4	.820	6.375	15	.005	0	y	12	9.567	56.695	4.295	4.295	2.327	1.1...	H1-1a
1474	M392	2L2 1/2x3x1/4	.849	6.375	13	.005	0	y	11	9.567	56.695	4.295	4.295	2.327	1.1...	H1-1a
1475	M405	2L2 1/2x3x1/4	.852	6.375	11	.005	0	y	17	9.567	56.695	4.295	4.295	2.327	1.1...	H1-1a
1476	M418	2L2 1/2x3x1/4	.823	6.375	17	.005	0	y	15	9.567	56.695	4.295	4.295	2.327	1.1...	H1-1a
1477	M441	2L3x3x1/4	.579	0	16	.003	0	y	17	46.518	62.084	4.335	4.335	2.072	1.9...	H1-1a
1478	M457	2L3x3x1/4	.623	0	14	.003	0	y	15	46.518	62.084	4.335	4.335	2.072	1.7...	H1-1a
1479	M476	2L3x3x1/4	.623	22.95	18	.004	22.95	y	17	46.518	62.084	4.335	4.335	2.072	1.7...	H1-1a
1480	M495	2L3x3x1/4	.600	22.95	16	.003	22.95	y	15	46.518	62.084	4.335	4.335	2.072	1.8...	H1-1a

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1481	M526	LL4x4x6x3	.579	12.6	16	.005	12.6	Y	16	55.564	123.09	5.408	1.2...	H1-1a
1482	M540	LL4x4x6x3	.633	12.6	14	.005	12.6	Y	12	55.564	123.09	5.408	1.2...	H1-1a
1483	M557	LL4x4x6x3	.634	12.6	18	.005	12.6	Y	12	55.564	123.09	5.408	1.2...	H1-1a
1484	M574	LL4x4x6x3	.608	12.6	16	.005	12.6	Y	16	55.564	123.09	5.408	1.2...	H1-1a
1485	M603	LL4x4x6x3	.845	13.725	16	.006	13.725	Y	16	47.875	123.09	5.408	1.2...	H1-1a
1486	M617	LL4x4x6x3	.922	13.725	14	.006	13.725	Y	14	47.875	123.09	5.408	1.2...	H1-1a
1487	M634	LL4x4x6x3	.923	13.725	18	.006	13.725	Y	12	47.875	123.09	5.408	1.2...	H1-1a
1488	M651	LL4x4x6x3	.888	13.725	16	.006	13.725	Y	16	47.875	123.09	5.408	1.2...	H1-1a
1489	M680	2L3x3 1/2x1/4	.848	12.375	15	.006	12.375	Y	16	17.79	67.473	5.81	2.116	H1-1a
1490	M696	2L3x3 1/2x1/4	.871	12.375	13	.006	12.375	Y	14	17.79	67.473	5.81	2.116	H1-1a
1491	M715	2L3x3 1/2x1/4	.877	12.375	11	.006	12.375	Y	12	17.79	67.473	5.81	2.116	H1-1a
1492	M734	2L3x3 1/2x1/4	.855	12.375	17	.006	12.375	Y	18	17.79	67.473	5.81	2.116	H1-1a
1493	M765	2L3x3 1/2x1/4	1.069	13.313	15	.006	13.313	Y	16	15.372	67.473	5.81	2.116	H1-1a
1494	M781	2L3x3 1/2x1/4	1.096	13.313	13	.006	13.313	Y	14	15.372	67.473	5.81	2.116	H1-1a
1495	M800	2L3x3 1/2x1/4	1.105	13.313	11	.006	13.313	Y	12	15.372	67.473	5.81	2.116	H1-1a
1496	M819	2L3x3 1/2x1/4	1.078	13.313	17	.006	13.313	Y	16	15.372	67.473	5.81	2.116	H1-1a
1497	M850	2L3x4x1/4	1.251	14.25	15	.007	14.25	Y	16	14.962	72.862	7.494	2.149	H1-1a
1498	M866	2L3x4x1/4	1.276	14.25	13	.007	14.25	Y	12	14.962	72.862	7.494	2.149	H1-1a
1499	M885	2L3x4x1/4	1.286	14.25	11	.007	14.25	Y	12	14.962	72.862	7.494	2.149	H1-1a
1500	M904	2L3x4x1/4	1.261	14.25	17	.007	14.25	Y	16	14.962	72.862	7.494	2.149	H1-1a
1501	M935	2L3x4x1/4	.489	30.375	6	.006	0	Y	13	42.198	72.862	7.494	2.149	H1-1a
1502	M951	2L3x4x1/4	.496	30.375	4	.007	0	Y	11	42.198	72.862	7.494	2.149	H1-1a
1503	M970	2L3x4x1/4	.491	30.375	2	.007	30.375	Y	13	42.198	72.862	7.494	2.149	H1-1a
1504	M989	2L3x4x1/4	.491	0	8	.006	30.375	Y	11	42.198	72.862	7.494	2.149	H1-1a
1505	M1641A	L2.5X2.5X4	.067	3.696	14	.001	8.654	Y	11	3.853	25.653	.741	1.333	H2-1
1506	M1642A	L2.5X2.5X4	.066	3.696	12	.001	0	Y	6	3.853	25.653	.741	1.333	H2-1
1507	M1643A	L2.5X2.5X4	.066	3.696	12	.001	8.654	Y	13	3.853	25.653	.741	1.333	H2-1
1508	M1644	L2.5X2.5X4	.067	3.696	18	.001	8.654	Y	11	3.853	25.653	.741	1.333	H2-1
1509	M1645	L2.5X2.5X4	.065	3.696	18	.001	0	Y	7	3.853	25.653	.741	1.333	H2-1
1510	M1646	L2.5X2.5X4	.066	3.696	16	.001	0	Y	9	3.853	25.653	.741	1.333	H2-1
1511	M1647	L2.5X2.5X4	.066	3.696	16	.001	0	Y	13	3.853	25.653	.741	1.333	H2-1
1512	M1648	L2.5X2.5X4	.065	3.696	14	.001	0	Y	7	3.853	25.653	.741	1.333	H2-1
1513	M1350A	L3x3x1/4	.004	0	14	.000	8.381	Y	13	7.499	31.042	.447	1.981	H2-1
1514	M1351A	L3x3x1/4	.004	0	16	.000	0	Y	14	7.499	31.042	.447	1.981	H2-1
1515	M1356	L3x3x1/4	.004	0	12	.000	8.381	Y	13	7.499	31.042	.447	1.981	H2-1
1516	M1357A	L3x3x1/4	.004	0	14	.000	0	Y	12	7.499	31.042	.447	1.981	H2-1
1517	M1362A	L3x3x1/4	.004	0	18	.000	8.381	Y	18	7.499	31.042	.447	1.981	H2-1
1518	M1363A	L3x3x1/4	.004	0	12	.000	0	Y	18	7.499	31.042	.447	1.981	H2-1
1519	M1368A	L3x3x1/4	.004	0	16	.000	0	Y	18	7.499	31.042	.447	1.981	H2-1
1520	M1369A	L3x3x1/4	.004	0	18	.000	8.381	Y	18	7.499	31.042	.447	1.981	H2-1
1521	M683	L2 1/2x2 1/2x1/4	.130	0	17	.000	8.357	Y	10	4.604	25.653	.306	1.302	H2-1

Company : GPD Group
Designer : awestrum
Job Number : 2012762.03

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Mar 15, 2012
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Checked By:

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mny/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn	
1522	M684	L2 1/2x2 1/2x1/4	.130	0	13	.000	8.357	Y	16	4.604	25.653	.306	1.302	1	H2-1
1523	M702	L2 1/2x2 1/2x1/4	.131	0	15	.000	0	Y	13	4.604	25.653	.306	1.302	1	H2-1
1524	M703	L2 1/2x2 1/2x1/4	.131	0	11	.000	0	Y	11	4.604	25.653	.306	1.302	1	H2-1
1525	M721	L2 1/2x2 1/2x1/4	.131	0	13	.000	0	Y	11	4.604	25.653	.306	1.302	1	H2-1
1526	M722	L2 1/2x2 1/2x1/4	.132	0	17	.000	0	Y	12	4.604	25.653	.306	1.302	1	H2-1
1527	M743	L2 1/2x2 1/2x1/4	.130	0	11	.000	0	Y	16	4.604	25.653	.306	1.302	1	H2-1
1528	M744	L2 1/2x2 1/2x1/4	.131	0	15	.000	8.357	Y	15	4.604	25.653	.306	1.302	1	H2-1
1529	M768	L2 1/2x2 1/2x1/4	.143	0	17	.000	8.357	Y	16	4.604	25.653	.306	1.302	1	H2-1
1530	M769	L2 1/2x2 1/2x1/4	.143	0	13	.000	8.357	Y	15	4.604	25.653	.306	1.302	1	H2-1
1531	M787	L2 1/2x2 1/2x1/4	.144	0	15	.000	8.357	Y	11	4.604	25.653	.306	1.302	1	H2-1
1532	M788	L2 1/2x2 1/2x1/4	.144	0	11	.000	0	Y	13	4.604	25.653	.306	1.302	1	H2-1
1533	M806	L2 1/2x2 1/2x1/4	.145	0	13	.000	8.357	Y	18	4.604	25.653	.306	1.302	1	H2-1
1534	M807	L2 1/2x2 1/2x1/4	.145	0	17	.000	0	Y	18	4.604	25.653	.306	1.302	1	H2-1
1535	M828	L2 1/2x2 1/2x1/4	.144	0	11	.000	0	Y	16	4.604	25.653	.306	1.302	1	H2-1
1536	M829	L2 1/2x2 1/2x1/4	.144	0	15	.000	0	Y	18	4.604	25.653	.306	1.302	1	H2-1
1537	M853	L2 1/2x2 1/2x1/4	.150	0	17	.000	0	Y	15	4.604	25.653	.306	1.302	1	H2-1
1538	M854	L2 1/2x2 1/2x1/4	.150	0	13	.000	0	Y	15	4.604	25.653	.306	1.302	1	H2-1
1539	M872	L2 1/2x2 1/2x1/4	.151	0	15	.000	0	Y	12	4.604	25.653	.306	1.302	1	H2-1
1540	M873	L2 1/2x2 1/2x1/4	.151	0	11	.000	8.357	Y	13	4.604	25.653	.306	1.302	1	H2-1
1541	M891	L2 1/2x2 1/2x1/4	.152	0	13	.000	8.357	Y	17	4.604	25.653	.306	1.302	1	H2-1
1542	M892	L2 1/2x2 1/2x1/4	.152	0	17	.000	0	Y	13	4.604	25.653	.306	1.302	1	H2-1
1543	M913	L2 1/2x2 1/2x1/4	.151	0	11	.000	8.357	Y	16	4.604	25.653	.306	1.302	1	H2-1
1544	M914	L2 1/2x2 1/2x1/4	.151	0	15	.000	0	Y	16	4.604	25.653	.306	1.302	1	H2-1
1545	M938	L2 1/2x2 1/2x1/4	.287	0	17	.000	8.357	Y	13	4.604	25.653	.306	1.302	1	H2-1
1546	M939	L2 1/2x2 1/2x1/4	.279	0	13	.000	8.357	Y	18	4.604	25.653	.306	1.302	1	H2-1
1547	M957	L2 1/2x2 1/2x1/4	.282	0	15	.000	0	Y	17	4.604	25.653	.306	1.302	1	H2-1
1548	M958	L2 1/2x2 1/2x1/4	.281	0	11	.000	0	Y	10	4.604	25.653	.306	1.302	1	H2-1
1549	M976	L2 1/2x2 1/2x1/4	.283	0	13	.000	8.357	Y	17	4.604	25.653	.306	1.302	1	H2-1
1550	M977	L2 1/2x2 1/2x1/4	.283	0	17	.000	8.357	Y	11	4.604	25.653	.306	1.302	1	H2-1
1551	M998	L2 1/2x2 1/2x1/4	.279	0	11	.000	8.357	Y	16	4.604	25.653	.306	1.302	1	H2-1
1552	M999	L2 1/2x2 1/2x1/4	.280	0	15	.000	8.357	Y	11	4.604	25.653	.306	1.302	1	H2-1

BUILT-UP MEMBERS

E6.1 (AISC 13th Edition pg 16.1-37)

Steel $F_y = 36$

X-X Axis

[illegible]

Y-Y Axis

Existing Member		Modification Angles				Built-Up Member				Member Analysis				Design Compressive Strength				Rating								
Log Type	Area (in ²)	t_e (in)	a/r_f	Width (in)	Area (in ²)	t_e (in)	a/r_f	Connection Type	I_{xx} (in ⁴)	K	L_u (in)	L_b (in)	h (in)	Area (in ²)	t_e (in)	a/r_f	ϕ	$(K/L)_u$	$(a/L)_b$	$75(\phi/L)_u > (a/L)_b$	F_u (ksi)	P_u/ϕ (kip)	P_u/ϕ (kip)	P_u (kip)	%	
212-1/2x3-1/2x5/16	3.250	1.450	20.93	21.3x3x3/8	4.220	1.410	25.53	Bolt	18.810	1.0	20.28	243.36	36	0.00	7.670	1.068	1.410	1.000	174.71	13.668	9.38	8.22	36.78	29.603	60.4%	
178_Diagonals 200-225																										
212-1/2x3-1/2x5/16	3.250	1.450	20.93	21.3x3x3/8	4.220	1.410	25.53	Bolt	22.801	1.0	21.02	252.24	36	0.00	8.210	1.066	1.650	1.000	152.36	13.668	12.24	10.74	52.78	33.926	48.2%	
178_Diagonals 175-200																										
213-3/4x3-1/2x5/16	3.910	1.650	21.92	21.3x3-1/2x3/8	4.630	1.660	21.69	Bolt	22.834	1.0	19.38	252.24	36	0.00	8.340	1.035	1.650	1.000	143.84	13.668	13.82	12.12	62.00	50.18	60.7%	
112_Diagonals 150-175																										
213-3/4x3-1/2x3/8	4.630	1.660	21.92	21.3x3-1/2x3/8	4.630	1.660	21.69	Bolt	22.948	1.0	19.38	227.76	36	0.00	9.360	1.041	1.650	1.000	140.44	13.668	14.51	12.73	70.36	60.527	64.3%	
112_Diagonals 100-125																										
213-3/4x3-1/2x3/8	4.630	1.660	21.92	21.3x3-1/2x3/8	4.630	1.660	21.69	Bolt	22.948	1.0	10.46	125.52	36	0.00	9.360	1.041	1.650	1.000	79.13	13.668	45.30	25.81	143.53	79.49	27.8%	
113_Diagonals 75-100																										
213-3/4x3-1/2x3/8	4.980	1.930	18.65	21.3x4x3/8	4.980	1.930	18.65	Bolt	36.408	1.0	10.77	129.24	36	0.00	9.960	1.312	1.930	1.000	70.12	13.668	58.21	27.79	165.74	55.864	25.3%	
114_Diagonals 50-75																										
213-3/4x3-1/2x3/8	4.980	1.930	18.65	21.3x4x3/8	4.980	1.930	18.65	Bolt	36.408	1.0	11.09	133.08	36	0.00	9.960	1.312	1.930	1.000	72.06	13.668	58.21	27.79	163.35	55.864	28.0%	
115_Diagonals 25-50																										

ASD Bolt Checks

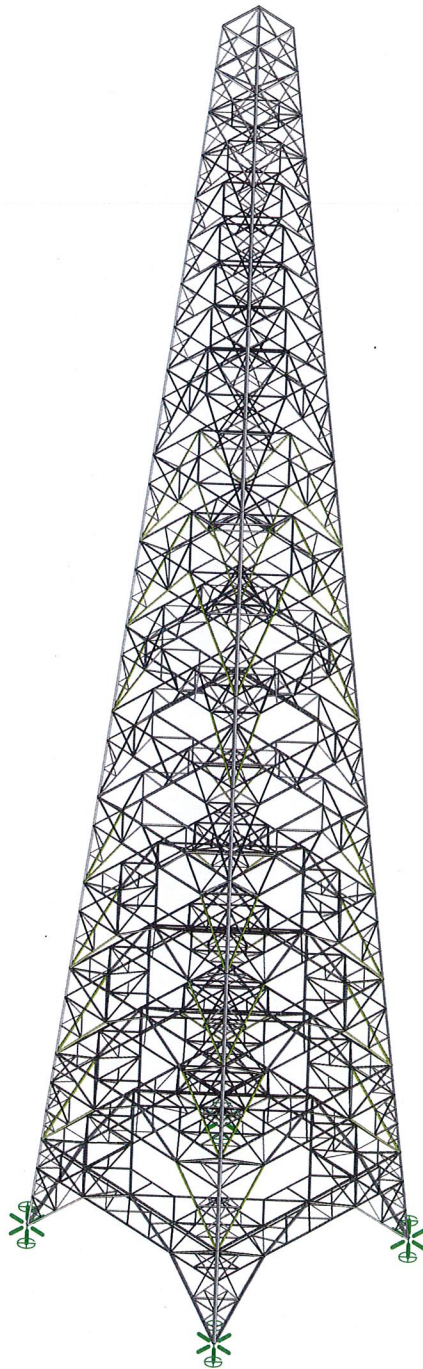
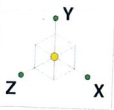
V_u/Ω (3/4" A307 - Assumed) 4.42 kips/bolt
 V_u/Ω (3/4" A325 - Modifications) 9.28 kips/bolt
 V_u/Ω (7/8" A307 - Assumed) 6.01 kips/bolt
 # Anchor Rods = 6 2.5" C1015
 Max Load = 405.8 kips
 Anchor Rods T_u/Ω = 93.95 kips/rod
 % Capacity = 54.0%

awestrump
 Pg. 1 of 1
 3/15/2012

Section	Leg Bolts	Shear Planes	T_u/Ω	T_{max}	% Capacity	Diagonal Bolts	A325?	Shear Planes	T_u/Ω	T_{max}	% Capacity	Horizontal Bolts	Shear Planes	T_u/Ω	T_{max}	% Capacity
T16	(40) .875in	(2)	480.8	540.1	84.3%	(5) .75in	Yes	(2)	92.8	60.2	48.7%	(5) .75in	(2)	44.2	56.8	96.4%
T15	(36) .875in	(2)	432.72	473.1	82.0%	(5) .75in	Yes	(2)	92.8	61.0	49.3%	(5) .75in	(2)	44.2	57.5	97.6%
T14	(36) .875in	(2)	432.72	420.8	72.9%	(5) .75in	-	(2)	44.2	55.9	94.9%	(5) .75in	(2)	44.2	52.9	89.8%
T13	(32) .875in	(2)	384.64	367.9	71.7%	(5) .75in	-	(2)	44.2	53.0	89.9%	(5) .75in	(2)	44.2	49.9	84.7%
T12	(28) .875in	(2)	336.56	293.3	65.4%	(5) .75in	Yes	(2)	92.8	60.5	48.9%	(5) .75in	(2)	44.2	54.3	92.1%
T11	(28) .875in	(2)	336.56	251.1	56.0%	(5) .75in	-	(2)	44.2	52.7	89.4%	(5) .75in	(2)	35.36	44.7	94.8%
T10	(32) .75in	(2)	282.88	206.5	54.7%	(4) .75in	Yes	(2)	74.24	50.2	50.7%	(4) .75in	(2)	35.36	44.7	94.8%
T9	(32) .75in	(2)	282.88	187.6	49.7%	(3) .75in	-	(2)	26.52	33.9	95.9%	(3) .75in	(2)	26.52	21.2	78.1%
T8	(28) .75in	(2)	247.52	146.6	44.4%	(3) .75in	-	(2)	26.52	29.6	83.7%	(3) .75in	(2)	26.52	21.2	60.0%
T7	(24) .75in	(2)	212.16	109.2	38.6%	(3) .75in	-	(2)	26.52	25.1	71.0%	(3) .75in	(2)	26.52	17.4	49.2%
T6	(24) .75in	(2)	212.16	96.5	34.1%	(2) .75in	-	(2)	17.68	14.5	61.5%	(3) .75in	(2)	26.52	10.4	29.4%
T5	(20) .75in	(2)	176.8	65.1	27.6%	(2) .75in	-	(2)	17.68	11.9	50.5%	(3) .75in	(2)	26.52	8.0	22.6%
T4	(16) .75in	(2)	141.44	38.1	20.2%	(2) .75in	-	(2)	17.68	10.0	42.4%	(3) .75in	(2)	26.52	5.7	16.1%
T3						(5) .75in	-	(1)	22.1	7.3	24.8%	(3) .75in	(2)	26.52	1.4	4.0%
T2						(5) .75in	-	(1)	22.1	6.6	22.4%	(4) .75in	(1)	17.68	1.0	4.2%
T1			106.08	16.9	11.9%	(5) .75in	-	(1)	22.1	2.6	8.8%	(4) .75in	(1)	17.68	0.1	0.4%

APPENDIX C

Tower Elevation Drawing



Solution: Envelope

GPD Group

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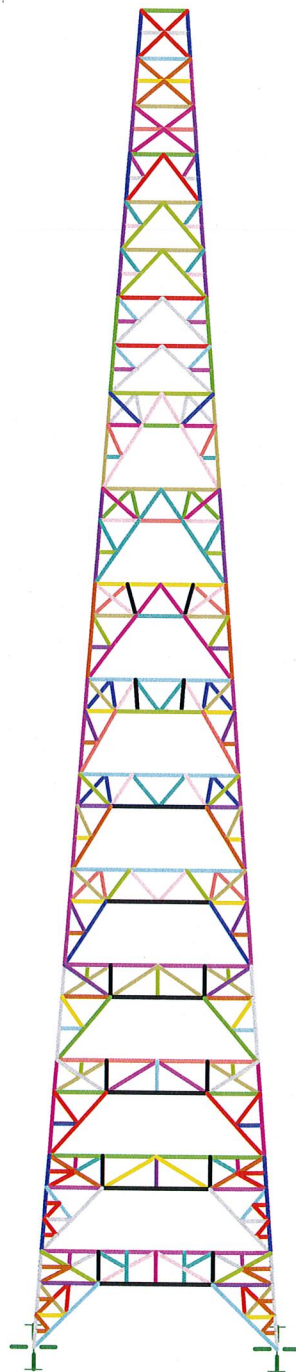
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Section Sets

- TWR_LEG_T1
- TWR_HTOP_GIRT_T1
- TWR_DIAG_T1
- TWR_HSTEP_T1
- TWR_LEG_T2
- TWR_HORZ_T2
- TWR_DIAG_T2
- TWR_HSTEP_T2
- TWR_LEG_T3
- TWR_HORZ_T3
- TWR_INNER_SUPP_T3
- TWR_INNER_CORNER1_T3
- TWR_INNER_DIAMOND_T3
- TWR_DIAG_T3
- TWR_HSTEP_T3
- TWR_LEG_T4
- TWR_HORZ_T4
- TWR_DIAG_T4
- TWR_RED_HORZ_T4
- TWR_RED_DIAG_T4
- TWR_INNER_SUPP_T4
- TWR_INNER_CORNER1_T4
- TWR_INNER_DIAMOND_T4
- TWR_LEG_T5
- TWR_HORZ_T5
- TWR_DIAG_T5
- TWR_RED_HORZ_T5
- TWR_RED_DIAG_T5
- TWR_INNER_SUPP_T5
- TWR_INNER_CORNER1_T5
- TWR_INNER_DIAMOND_T5
- TWR_LEG_T6
- TWR_HORZ_T6
- TWR_DIAG_T6
- TWR_RED_HORZ_T6
- TWR_RED_DIAG_T6
- TWR_INNER_SUPP_T6
- TWR_INNER_CORNER1_T6
- TWR_INNER_DIAMOND_T6
- TWR_LEG_T7
- TWR_HORZ_T7
- TWR_DIAG_T7
- TWR_RED_HORZ_T7
- TWR_RED_HORZ_2_T7
- TWR_RED_DIAG_T7
- TWR_RED_DIAG_2_T7
- TWR_RED_SUBHOR_T7
- TWR_RED_HIP_2_T7
- TWR_RED_HIPDIA_T7
- TWR_INNER_SUPP_T7
- TWR_INNER_CORNER1_T7
- TWR_INNER_MIDGIRT_T7
- TWR_INNER_DIAMOND_T7
- TWR_LEG_T8
- TWR_HORZ_T8
- TWR_RED_HORZ_T8
- TWR_RED_HORZ_2_T8
- TWR_RED_DIAG_T8
- TWR_RED_DIAG_2_T8
- TWR_RED_SUBHOR_T8
- TWR_RED_HIP_2_T8
- TWR_RED_HIPDIA_T8
- TWR_INNER_SUPP_T8
- TWR_INNER_CORNER1_T8
- TWR_INNER_MIDGIRT_T8
- TWR_INNER_DIAMOND_T8
- TWR_LEG_T9
- TWR_HORZ_T9
- TWR_RED_HORZ_T9
- TWR_RED_HORZ_2_T9
- TWR_RED_DIAG_T9
- TWR_RED_DIAG_2_T9
- TWR_RED_SUBHOR_T9
- TWR_RED_HIP_2_T9
- TWR_RED_HIPDIA_T9
- TWR_INNER_SUPP_T9
- TWR_INNER_CORNER1_T9
- TWR_INNER_MIDGIRT_T9
- TWR_INNER_DIAMOND_T9
- TWR_LEG_T10
- TWR_HORZ_T10
- TWR_RED_HORZ_T10
- TWR_RED_HORZ_2_T10
- TWR_RED_DIAG_T10
- TWR_RED_DIAG_2_T10
- TWR_RED_SUBHOR_T10
- TWR_RED_HIP_2_T10
- TWR_RED_HIP_3_T10
- TWR_RED_HIPDIA_T10
- TWR_INNER_SUPP_T10
- TWR_INNER_CORNER1_T10

More...

Solution: Envelope

GPD Group

awestrup

2012762.03

SNET021 NORWALK

SNET021 - 2

Mar 15, 2012 at 3:20 PM

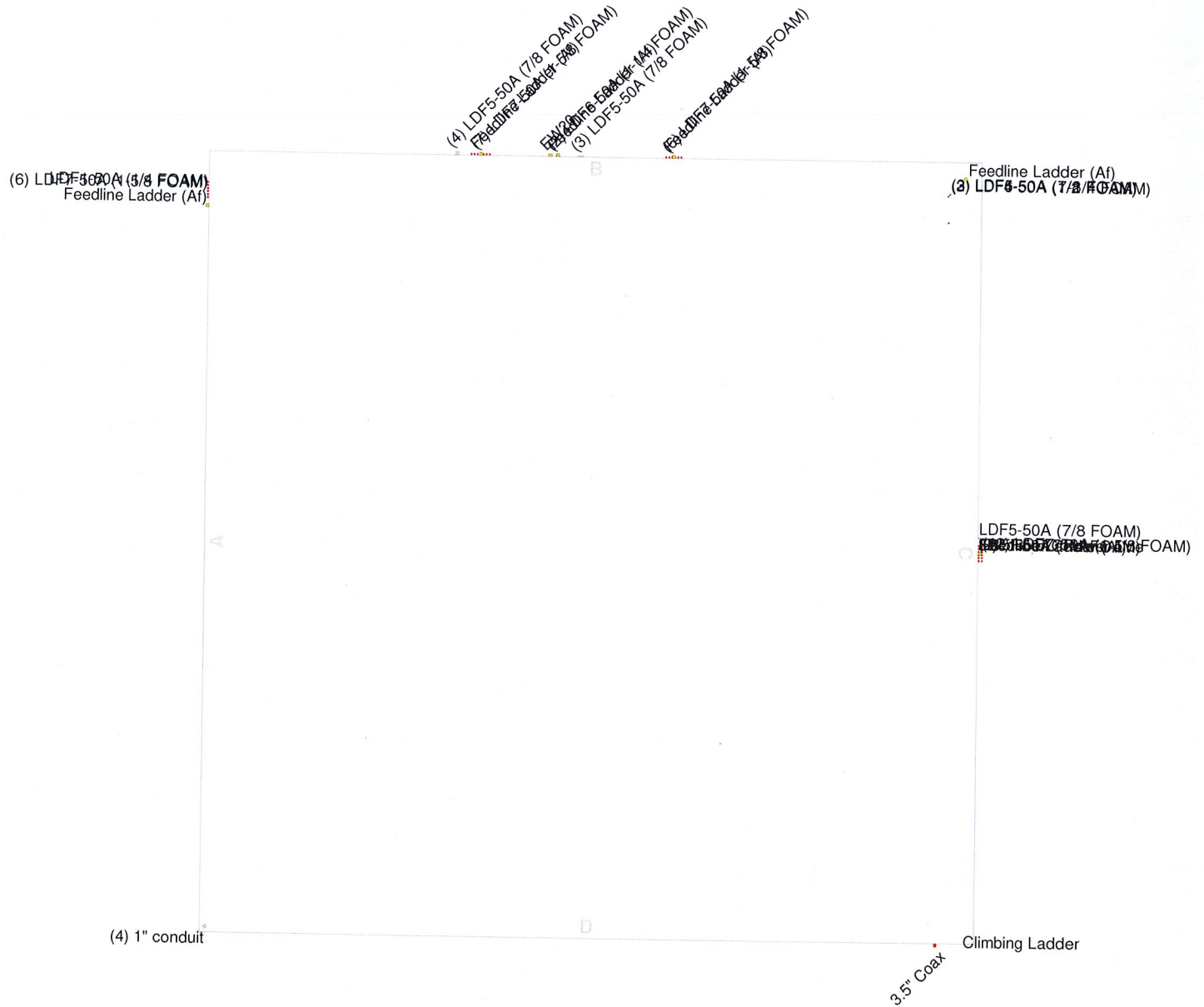
SNET021.r3d

Round

Flat

App In Face

App Out Face


GPD Group

 520 South Main St
 Akron, OH 44311

Consulting Engineers

Phone: (330) 572-2100

FAX: (330) 572-2102

 Job: **SNET021 NORWALK**

 Project: **2012762.03**

Client: AT&T Mobility

Code: TIA/EIA-222-F

Path:

Drawn by: awestrum

Date: 03/15/12

App'd:

Scale: N

Dwg No.

C:\Users\awestrum\Desktop\AW-Work\TNX Project Towers\2012-2012762.03\TNX\FINAL\SNET021.dwg

APPENDIX D

Foundation Analysis



Mat Foundation Analysis SNET021 NORWALK 2012762.03

General Info	
Code	TIA/EIA-222-F (ASD)
Bearing On	Soil
Foundation Type	Mono Pad
Pier Type	Square
Reinforcing Known	No
Max Capacity	1

Tower Reactions	
Moment, M	0 k-ft
Axial, P	608.75 k
Shear, V	112.64 k

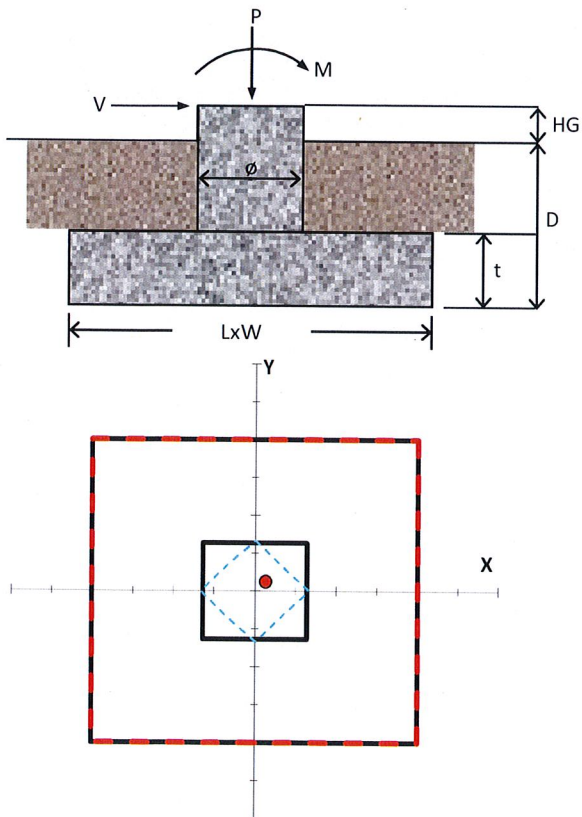
Pad & Pier Geometry		
Pier Width, ϕ	6.375	ft
Pad Length, L	20	ft
Pad Width, W	20	ft
Pad Thickness, t	3	ft
Depth, D	14	ft
Height Above Grade, HG	1	ft

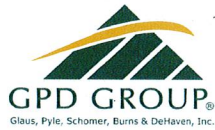
Pad & Pier Reinforcing		
Rebar Fy		ksi
Concrete Fc'		ksi
Clear Cover		in
Reinforced Top & Bottom?		
Pad Reinforcing Size		
Pad Quantity Per Layer		
Pier Rebar Size		
Pier Quantity of Rebar		

Soil Properties	
Soil Type	Granular
Soil Unit Weight	123 pcf
Angle of Friction, ϕ	34 °
Bearing Type	Net
Ultimate Bearing	12 ksf
Water Table Depth	999 ft
Frost Depth	3.33 ft

Bearing Summary			Load Case
Qxmax	3.37	ksf	1D+1W
Qymax	3.37	ksf	1D+1W
Qmax @ 45°	4.64	ksf	1D+1W
Q _{(all) Gross}	6.86	ksf	
Controlling Capacity	67.6%	Pass	

Overturning Summary (Required FS=1.5)			Load Case
FS(ot)x	134811.64	≥1.5	1D+1W
FS(ot)y	134811.64	≥1.5	1D+1W
Controlling Capacity	0.0%	Pass	





GPD GROUP

Engineers • Architects • Planners

Job 2012762.03
Sheet No 1 Of 1

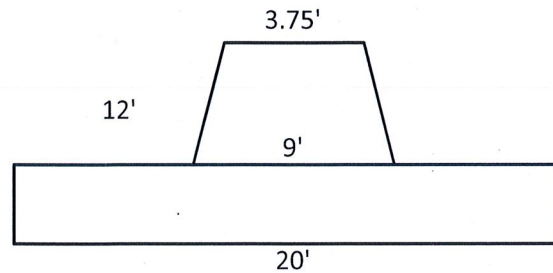
Calculated By AW Date 3/15/12
Checked By _____ Date _____

Pad and Pier Uplift

Wc
221.9 kips

Ws
798.4 kips

3'



Wc/1.25 + Ws/2.0 = 576.7 kips
Wc/1.5 + Ws/1.5 = 680.2 kips
Max Uplift = 405.8 kips

Rating = 70.4% OK

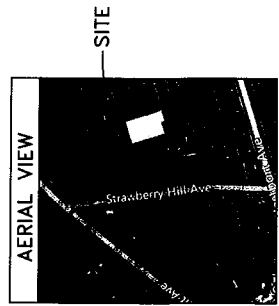
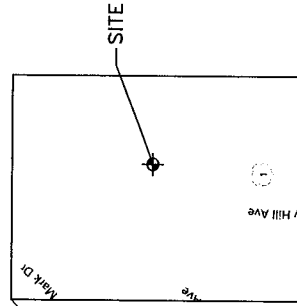
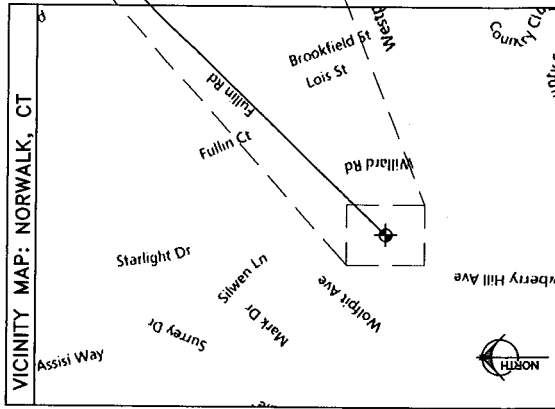
APPENDIX E

Modification Drawings

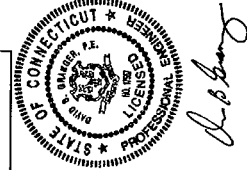
NORWALK

USID #: SNET021

350' SELF SUPPORT TOWER



PROJECT SUMMARY		DRAWING INDEX	
TOWER OWNER:	AT&T MOBILITY	T-01	TITLE SHEET
TOWER TYPE:	SELF SUPPORT	N-01	PROJECT NOTES
GOVERNING CODE:	TIA/EIA-222-F, 2003 IBC & 2005 CBC SUPPLEMENT	S-01	TOWER ELEVATION & MODIFICATION SCHEDULE
LATITUDE:	41° 7' 41.987" N	S-02	ADDITIONAL SECTIONS & DETAILS
LONGITUDE:	73° 23' 25.000" W	S-03	ADDITIONAL SECTIONS & DETAILS
OWNER CONTACT:	MR. MARTIN JELLEME 5405 WINDWARD PARKWAY ALPHARETTA, GA 30004 (770) 735-8638 OFFICE (770) 735-8638 CELL	S-04	ADDITIONAL SECTIONS & DETAILS
ENGINEER CONTACT:	MR. KEVIN CLEMENTS 12600 DEERFIELD PKWY, SUITE 2039 ALPHARETTA, GA 30004 (678) 702-3305	S-05	ADDITIONAL SECTIONS & DETAILS
PROJECT OVERVIEW:		S-06	ADDITIONAL SECTIONS & DETAILS
THE LISTED DRAWINGS REPRESENT MODIFICATIONS TO THE EXISTING TOWER BY REPLACING EXISTING DIAGONAL BOLTS, REINFORCING EXISTING DIAGONALS, ADDING NEW REDUNDANT MEMBERS AND REPLACING EXISTING REDUNDANT MEMBERS TO THE TOWER.		S-07	ADDITIONAL SECTIONS & DETAILS
		S-08	ADDITIONAL SECTIONS & DETAILS
		S-09	ADDITIONAL SECTIONS & DETAILS
		M-01	MODIFICATION INSPECTION CHECKLIST



NORWALK
10 WILLARD ROAD
NORWALK, CT 06851

TITLE SHEET

REV	DATE	DESCRIPTION





(PROPOSED)
(1) FIBER CABLE TO 335 FT LEVEL
(2) DC CABLE TO 335 FT LEVEL

NOTE: ALL DOUBLE ANGLE MEMBER SIZES ARE LISTED VERTICAL LEG X HORIZONTAL LEG.

FACE A

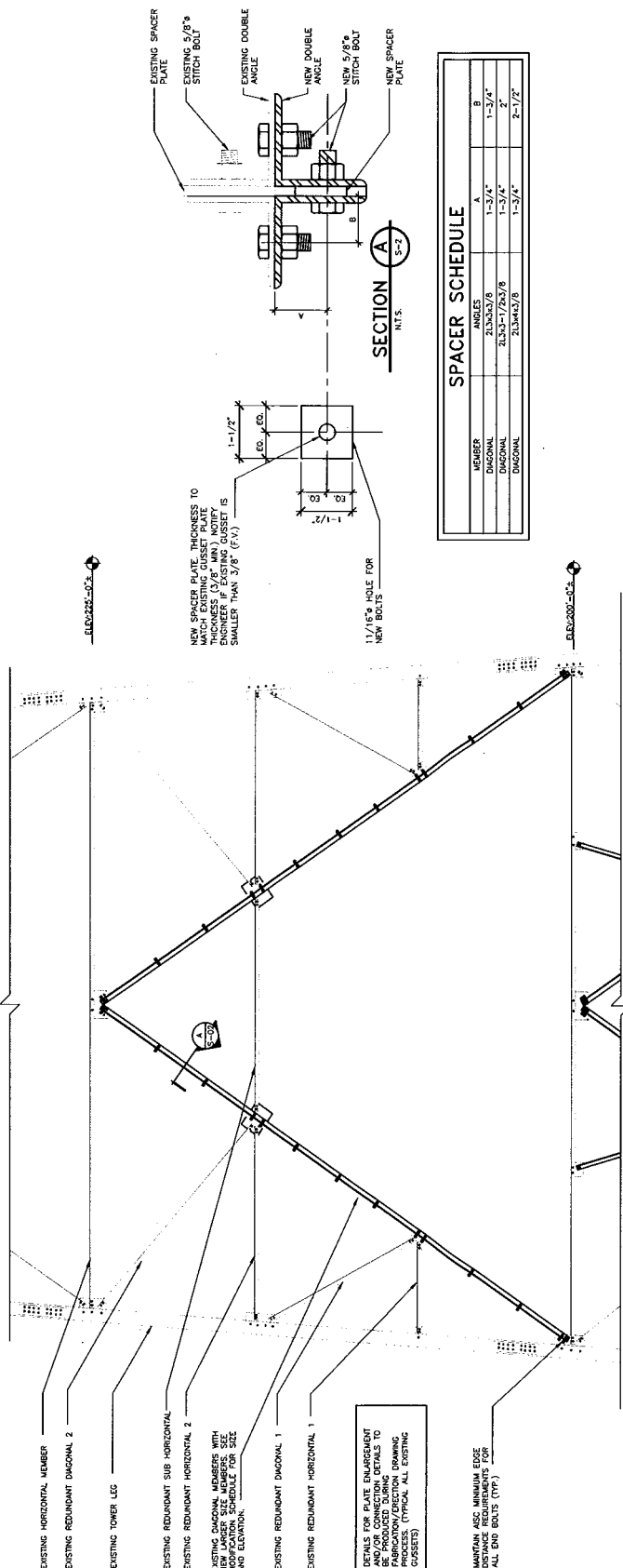
COAX LANT
N.T.S.

REV	DATE	DESCRIPTION

NORWALK
 10 WILLARD ROAD
 NORWALK, CT 06851

DESIGNED FOR	DATE
BY	
CONSTRUCTION	
RECORD	
PROJECT NUMBER	
DATE	

JOB NO.
 2012762.03



SPACER SCHEDULE

MEMBER	ANGLES	A	B
DIAGONAL	2L3x3x3/8	1-3/4"	1-3/4"
DIAGONAL	2L3x3-1/2x3/8	1-3/4"	2"
DIAGONAL	2L3x4x3/8	1-3/4"	2-1/2"

SECTION A
 9-2
 N.T.S.

DETAIL 1
 3/8"-11-0"
 9-02

NOTE:
 ALL EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE DISPOSED OFF BY CONTRACTOR OFF SITE.
 EXISTING HWP BRACING MEMBERS NOT SHOWN FOR CLARITY.
 EXISTING BOLT QUANTITIES AND LOCATIONS SHOWN ARE FOR CLARITY.
 EXISTING SPACER SCHEDULES AND QUANTITY AND LOCATION OF EXISTING BOLTS SHALL BE FIELD VERIFIED.

DETAILS FOR PLATE ENGAGEMENT
 ALL EXISTING MEMBERS SHALL BE FIELD VERIFIED TO BE PRODUCED DURING FABRICATION PROCESS. (TYPICAL ALL EXISTING GUSSETS)

MAINTAIN ASCE MINIMUM EDGE DISTANCE FOR ALL END BOLTS (TYP.)

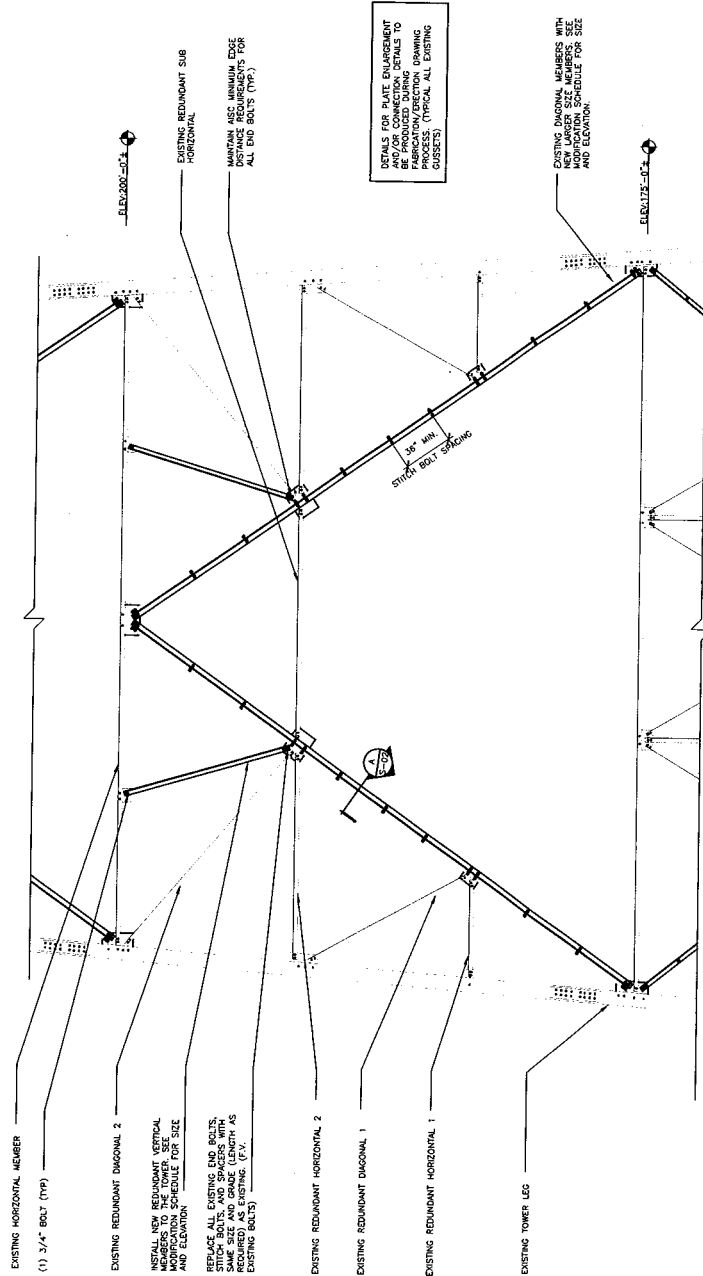
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ISSUED FOR:	
PERMIT	03/15/12
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DENNER
DH	AW



Ch. B. Gandy



DETAILS FOR PLATE ENLARGEMENT
AND/OR CONNECTION DETAILS TO
BE PRODUCED DURING
FABRICATION/ERECTION DRAWING
PROCESS. (TYPICAL ALL EXISTING
GUSSETS.)

EXISTING DIAGONAL MEMBERS WITH
NEW LARGER SIZE MEMBERS. SEE
MODIFICATION SCHEDULE FOR SIZE
AND ELEVATION

DETAIL $\frac{3}{8}" = 1'-0"$ 2 S-03

NOTE:
ALL EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE
DISPOSED OFF BY CONTRACTOR OFF SITE

EXISTING HIP BRACING MEMBERS NOT SHOWN FOR CLARITY.

EXISTING BOLT QUANTITIES AND LOCATIONS SHOWN ARE FOR
ILLUSTRATIVE PURPOSES. ACTUAL QUANTITY AND LOCATION OF
EXISTING BOLTS SHALL BE FIELD VERIFIED.

REV	DATE	DESCRIPTION

ADDITIONAL SECTIONS & DETAILS

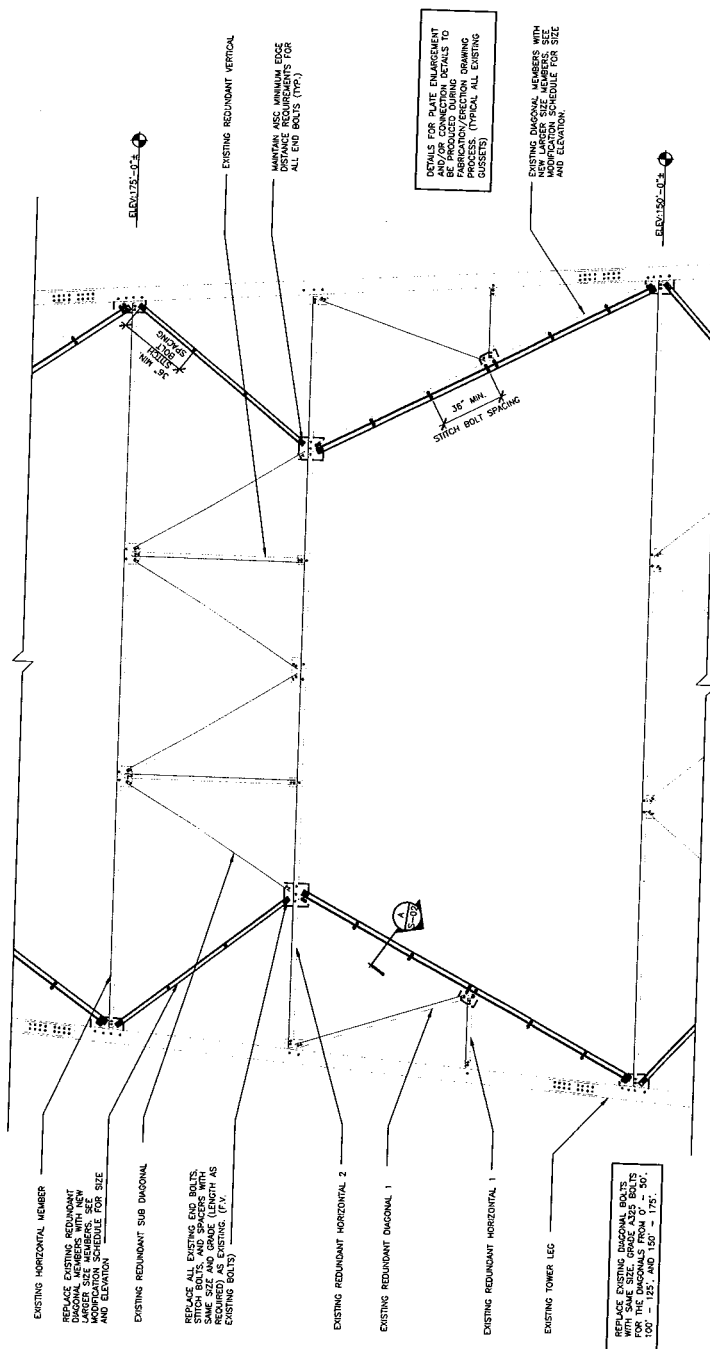
NORWALK
 10 WILLARD ROAD
 NORWALK, CT 06851

ISSUED FOR:	CONTRACT NO.
PERMIT:	03/10/12
DESIGN:	
CONSTRUCTION:	
RECORD:	
PROJECT MANAGER:	
DATE:	
BY:	

JOHN
 2012/62.03



John



DETAIL 3
 3/8" x 1/2"

NOTE:
 EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE DISPOSED OFF BY CONTRACTOR OFF SITE.
 EXISTING HIP BRACING MEMBERS NOT SHOWN FOR CLARITY.
 EXISTING BOLT GUSSETS AND LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES. ACTUAL LOCATION AND LOCATION OF EXISTING BOLTS SHALL BE FIELD VERIFIED.

REPLACE EXISTING DIAGONAL BOLTS WITH NEW BOLTS AND SPACERS WITH SAME SIZE AND GRADE (ASTM A307 AS REQUIRED) AS EXISTING (P.A. EXISTING BOLTS).

ISSUED FOR	
PERMIT	03/15/12
BID	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
DH	AW

JOB NO.
2012762.03



Sh. B. B. B.

SPACER SCHEDULE	
A	B
3"	1-3/4"
3-1/2"	2"
4"	2-1/2"
5"	3"

NOTE:
ALL EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE DISPOSED OFF BY CONTRACTOR OFF SITE

DETAIL
3/8"=1'-0"

Technical drawing of a new angle bracket. The top view shows a square bracket with a central hole. Dimensions include a total width of $1-1/2"$ and a total height of $1-1/2"$. The hole is labeled $11/16"$ HOLE FOR NEW BOLTS. The side view shows the bracket's profile with a height of 8 and a width of Y . Labels include: NEW ANGLE, NEW ANGLE, NEW 5/8" STITCH BOLT, and NEW SPACER.

NEW SPACER PLATE. THICKNESS TO MATCH EXISTING GUSSET PLATE. THICKNESS (3/8" MIN.) NOTIFY ENGINEER IF EXISTING GUSSET IS SMALLER THAN 3/8" (F.V.)

SECTION B
N.T.S.
S-05

EXISTING HORIZONTAL MEMBER

REPLACE EXISTING REDUNDANT
DIAGONAL 2 MEMBERS WITH NEW
LARGER SIZE MEMBERS. SEE
MODIFICATION SCHEDULE FOR SIZE
AND ELEVATION

EXISTING REDUNDANT SUB DIAGONAL

REPLACE ALL EXISTING END BOLTS,
STITCH BOLTS, AND SPACERS WITH
SAME SIZE AND GRADE (LENGTH AS
REQUIRED) AS EXISTING. (F.V.
EXISTING BOLTS)

EXISTING REDUNDANT HORIZONTAL 2 -

EXISTING REDUNDANT DIAGONAL : —

EXISTING REDUNDANT HORIZONTAL 1

EXISTING TOWER LEG -

— EXISTING DIAGONAL MEMBERS

ELEV: 125'-0" ± ELEV: 150' - 0" ± 

ITCH BOLT SPACING

DETAILS FOR PLATE ENLARGEMENT AND/OR CONNECTION DETAILS TO BE PRODUCED DURING FABRICATION/ERECTION DRAWING PROCESS. (TYPICAL ALL EXISTING GUSSETS)

[illegible]

REV	DATE	DESCRIPTION

ADDITIONAL SECTIONS & DETAILS

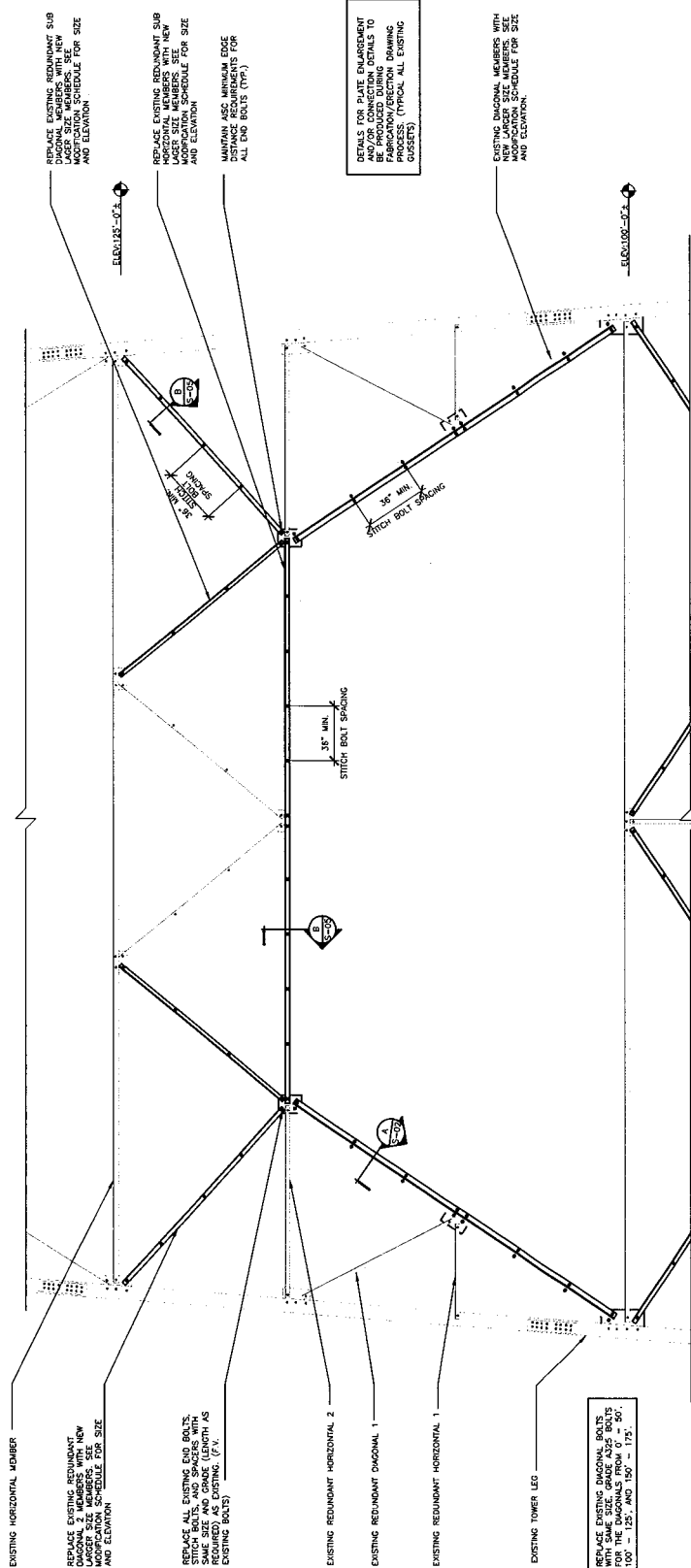
NORWALK
 10 WILLARD ROAD
 NORWALK, CT 06851

DESIGNED FOR	3/24/03
DATE	3/24/03
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DRINKER
DATE	AW

JOB NO.
 2012762.03



[Signature]



DETAIL 5
 3/8" = 1'-0"

NOTE:
 ALL EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE
 DEPOSED OFF BY CONTRACTOR OFF SITE.
 EXISTING HP BRACING MEMBERS NOT SHOWN FOR CLARITY.
 EXISTING BOLT QUANTITIES AND LOCATIONS SHOWN ARE FOR
 CLARITY. EXISTING BOLT QUANTITIES AND LOCATIONS OF
 EXISTING BOLTS SHALL BE FIELD VERIFIED.

REPLACE EXISTING DIAGONAL BOLTS
 WITH NEW LARGER SIZE BOLTS
 FOR THE DIAGONALS FROM 0° - 50°
 100° - 125° AND 150° - 175°

EXISTING HORIZONTAL MEMBER
 REPLACE EXISTING REDUNDANT
 SUB-HORIZONTAL MEMBERS WITH NEW
 LARGER SIZE MEMBERS, SIZE
 AND ELEVATION
 MAINTAIN EXISTING END BOLTS

REPLACE ALL EXISTING END BOLTS
 WITH STITCH BOLTS AND SPACERS WITH
 NEW LARGER SIZE BOLTS WITH AS
 REQUIRED AS EXISTING (IF
 EXISTING BOLTS)

EXISTING REDUNDANT HORIZONTAL 2

EXISTING REDUNDANT DIAGONAL 1

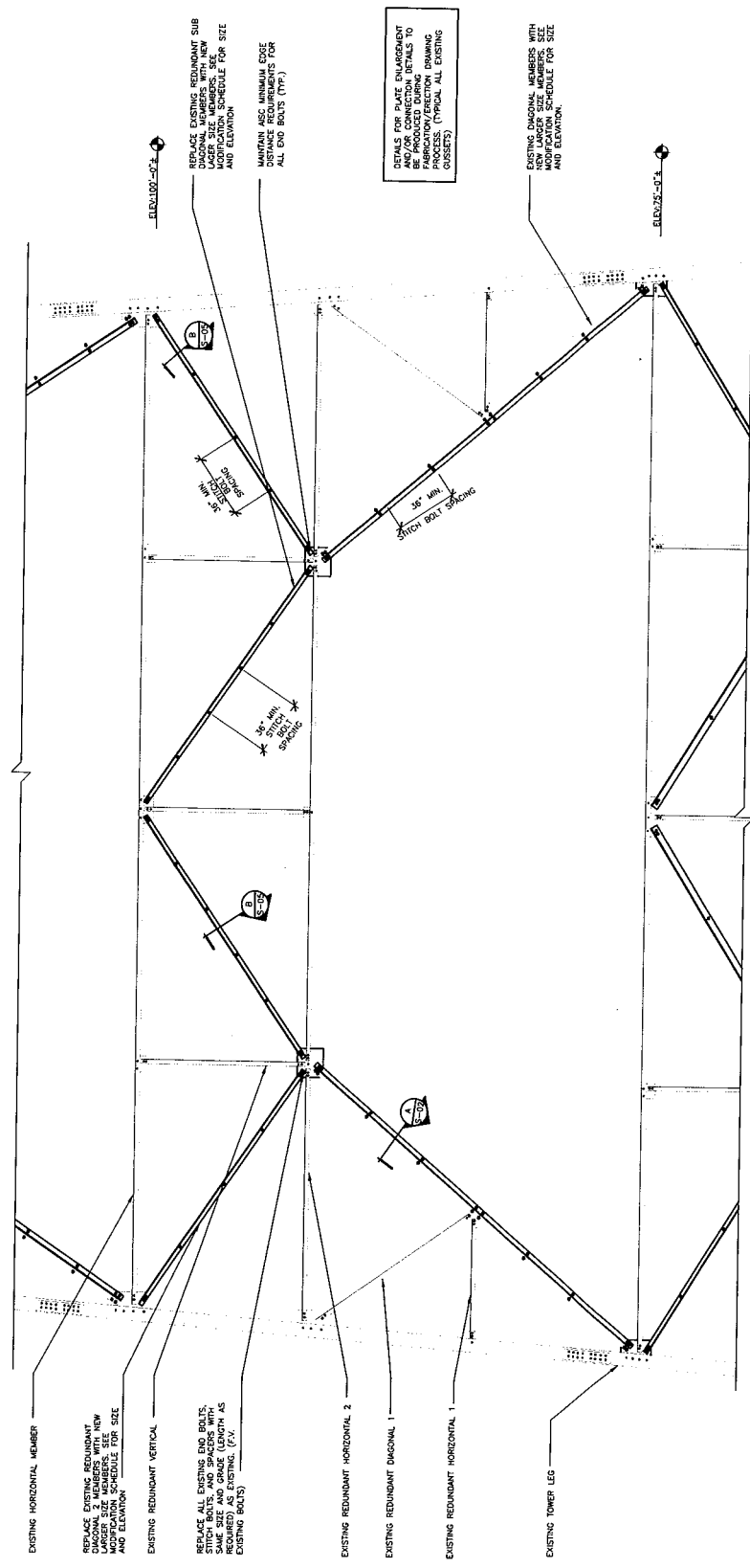
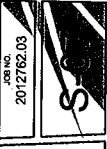
EXISTING REDUNDANT HORIZONTAL 1

EXISTING TOWER LEG

REV	DATE	DESCRIPTION

NORWALK
 10 WILLARD ROAD
 NORWALK, CT 06851
ADDITIONAL SECTIONS & DETAILS

DESIGNED FOR	DATE
DRAWN BY	2012/02/03
CHECKED BY	
CONSTRUCTION	
RECORD	
PROJECT NUMBER	
DATE	
BY	



DETAIL 6
 3/8"=1'-0"
 S-07

NOTE:
 ALL EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE DISPOSED OFF BY CONTRACTOR OFF SITE.
 EXISTING HIP BRACING MEMBERS NOT SHOWN FOR CLARITY.
 EXISTING BOLT QUANTITIES AND LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES. ACTUAL QUANTITY AND LOCATION OF EXISTING BOLTS SHALL BE FIELD VERIFIED.

DETAILS FOR PLATE ENGAGEMENT AND/OR CONNECTION DETAILS TO BE PROVIDED BY CONTRACTOR. FABRICATION/ELEVATION DRAWING PROCESS. (TYPICAL ALL EXISTING COSSSETS)

EXISTING DIAGONAL MEMBERS WITH NEW BRACING TO BE PROVIDED. SEE MODIFICATION SCHEDULE FOR SIZE AND ELEVATION.

REPLACE EXISTING REDUNDANT SUB DIAGONAL MEMBER WITH NEW LARGER SIZE MEMBER. SEE MODIFICATION SCHEDULE FOR SIZE AND ELEVATION.

MAINTAIN MINIMUM GIRT DISTANCE REQUIREMENTS FOR ALL END BOLTS (TYP.)

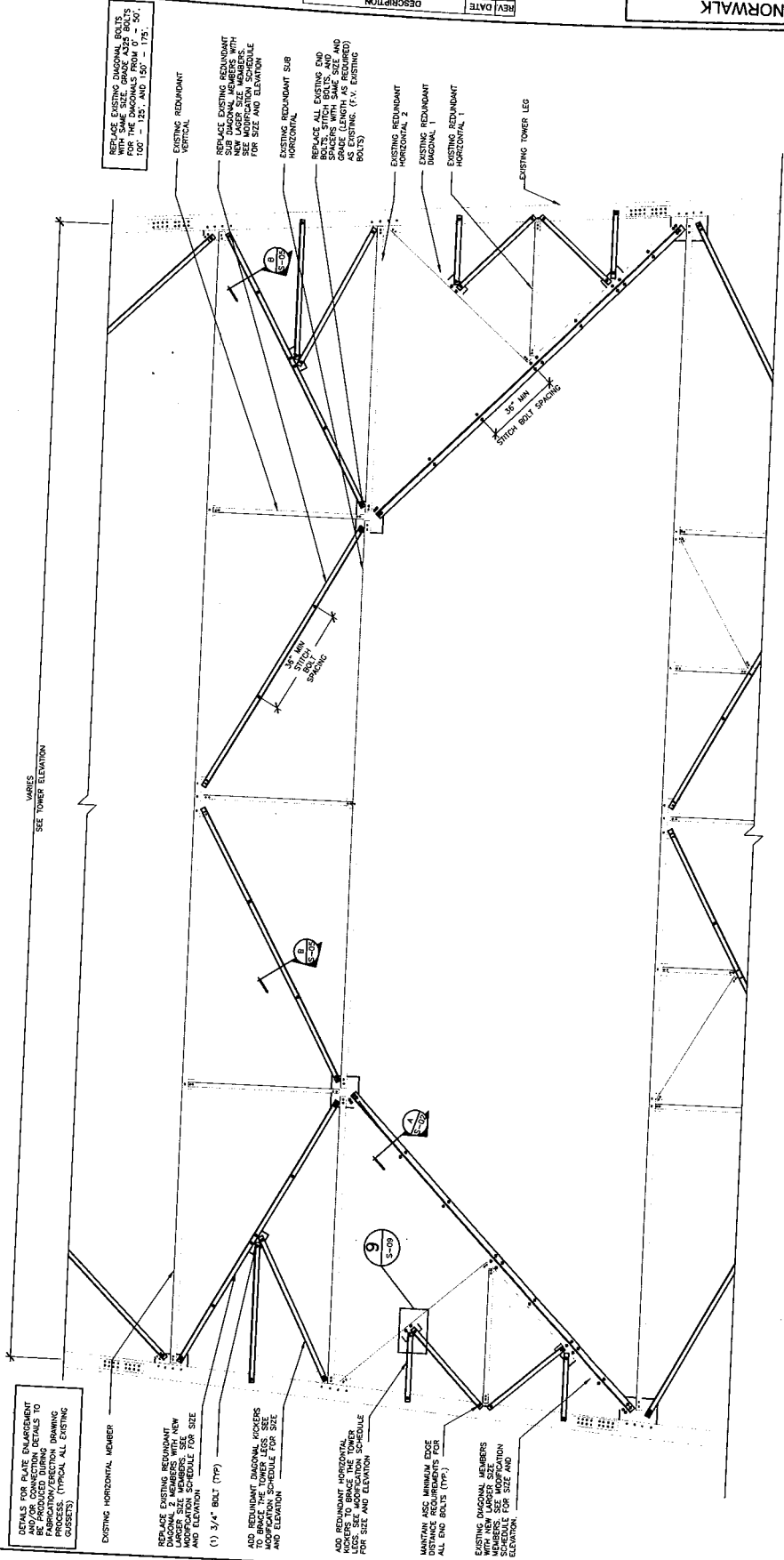
REV	DATE	DESCRIPTION

NORWALK
 10 WILLARD ROAD
 NORWALK, CT 06851

ADDITIONAL SECTIONS & DETAILS

DESIGNED FOR	03/19/12
PROJECT	
CONSTRUCTION	
RECORD	
PROJECT NUMBER	
DATE	
BY	
CHK	
APP	

2012762.03



DETAIL 7
 1/4"=1'-0"
 S-08

NOTE: EXISTING MEMBERS AND ANY BOLTS REMOVED ARE TO BE DISPOSED OF BY CONTRACTOR OFF SITE.
 EXISTING HP BRACING MEMBERS NOT SHOWN FOR CLARITY.
 EXISTING PLATE QUANTITIES AND LOCATIONS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. QUANTITY AND LOCATION OF EXISTING BOLTS SHALL BE FIELD VERIFIED.

[illegible]

ADDITIONAL SECTIONS
& DETAILS

NORWALK
10 WILLARD ROAD
NORWALK, CT 06851

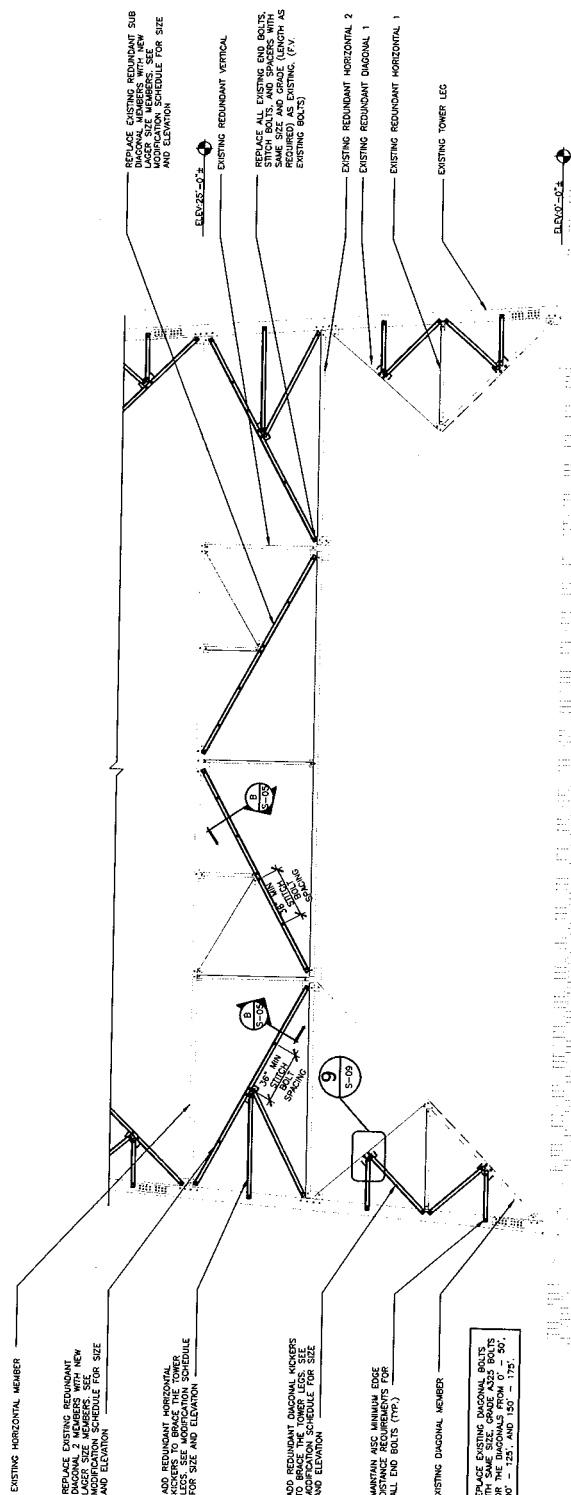
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PERMIT	031512	PROJECT MANAGER	DH
FILED	-		AW
CONSTRUCTION	-		
RECORD	-		

JOB NO. 2012762.0

JOB NO.
2012762.03

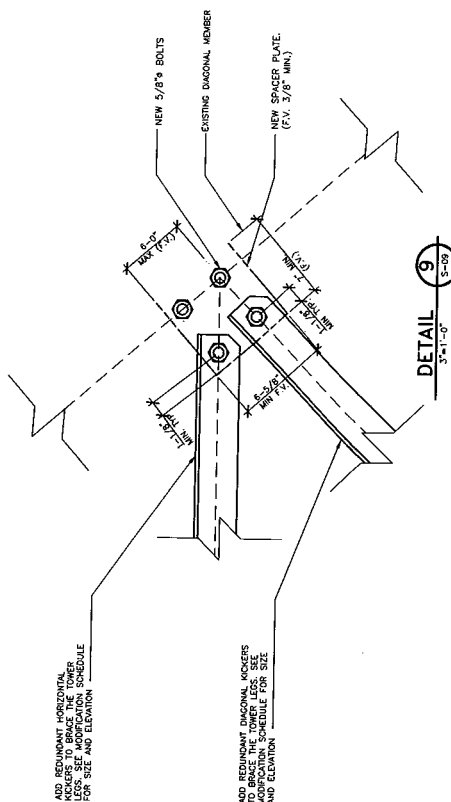


Ch. B. B. B.



NOTE: EXISTING BOLT QUANTITIES AND ANY BOLTS REMOVED ARE TO BE DISPOSED OFF BY CONTRACTOR OFF SITE.

DETAIL
1/4"=1'-0"



DETAIL 9
3"=1'-0" S-09



C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions



at&t

CT2132

10 Willard Road, Norwalk, CT 06851

November 4, 2011

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3. RF Exposure Prediction Methods.....	2
4. Calculation Results.....	3
5. Conclusion.....	4
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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modifications to the existing AT&T antenna arrays mounted on the existing lattice tower located at 10 Willard Road, Norwalk, CT. Sprint, Clearwire, T-Mobile, WSHU-AM, MetroPCS and multiple other private/government operators also have antennas on the tower. The coordinates of the tower are 41-07-41.79 N, 73-23-24.72 W.

AT&T is proposing the following modifications:

- 1) Add 700 MHz LTE frequencies;
- 2) Install three 700 MHz LTE antennas (one per sector).

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{1.6^2 \times EIRP}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

$$R = \text{Radial Distance} = \sqrt{H^2 + V^2}$$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the finished modifications.

4. Calculation Results

Table 1 below outlines the power density information for the site. All information for PageNet, SNET TMRS, SkyTel, RAM Mobile Data, PageNet 900 MHz, Sprint, Clearwire, T-Mobile GSM, MediaFLO, XM Sat Radio, American Mobile Com, GNARC, WSHU-AM and MetroPCS comes directly from the current CSC database. Because the proposed AT&T antennas are directional in nature, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm ²)	Limit	%MPE
AT&T UMTS	347	880	2	565	0.0034	0.5867	0.06%
AT&T UMTS	347	1900	2	875	0.0052	1.0000	0.05%
AT&T LTE	347	734	1	1117	0.0033	0.4893	0.07%
AT&T GSM	347	880	1	296	0.0009	0.5867	0.02%
AT&T GSM	347	1900	4	525	0.0063	1.0000	0.06%
PageNet	350	931			0.0033	0.6207	0.53%
SNET TMRS	350	469			0.0020	0.3127	0.64%
SkyTel	355	931			0.0070	0.6207	1.13%
RAM Mobile Data	355	940			0.0006	0.6267	0.10%
PageNet 900 MHz	306	931			0.0294	0.6207	4.74%
PageNet 900 MHz	300	931			0.0306	0.6207	4.93%
Sprint	240	1900			0.0084	1.0000	0.84%
Clearwire	150	2496	2	153	0.0049	1.0000	0.49%
Clearwire	355	23 GHz	1	211	0.0006	1.0000	0.06%
T-Mobile GSM	262.5	1945	8	113	0.0047	1.0000	0.47%
T-Mobile GSM	262.5	2100	2	473	0.0049	1.0000	0.49%
MediaFLO	300	719					3.87%
XM Sat Radio	350	2337.49	2	351	0.0021	1.0000	0.21%
American Mobile Com.	350	856			0.0005	0.5707	0.09%
GNARC	360				0.0005	0.2000	0.26%
WSHU-AM							1.00%
MetroPCS	230	2130	7	881	0.0419	1.0000	4.19%
						Total	24.29%

Table 1: Carrier Information^{1 2}

¹The nominal 10 dB off-beam loss factor for AT&T is derived from the specific AT&T antennas for this site and their associated antenna patterns which are presented in Attachment C.

² Blank spaces indicate where information was unavailable from the CSC database.

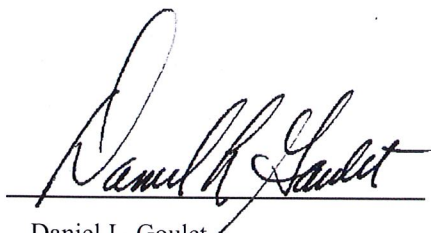
5. Conclusion

The above analysis verifies that emissions from the existing site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed and existing transmit antennas at the existing facility is below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at the base of the tower is 24.29% of the FCC limit.

As noted previously, obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Daniel L. Goulet
C Squared Systems, LLC

November 4, 2011

Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure³

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure⁴

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 2: FCC Limits for Maximum Permissible Exposure (MPE)

³ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

⁴ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

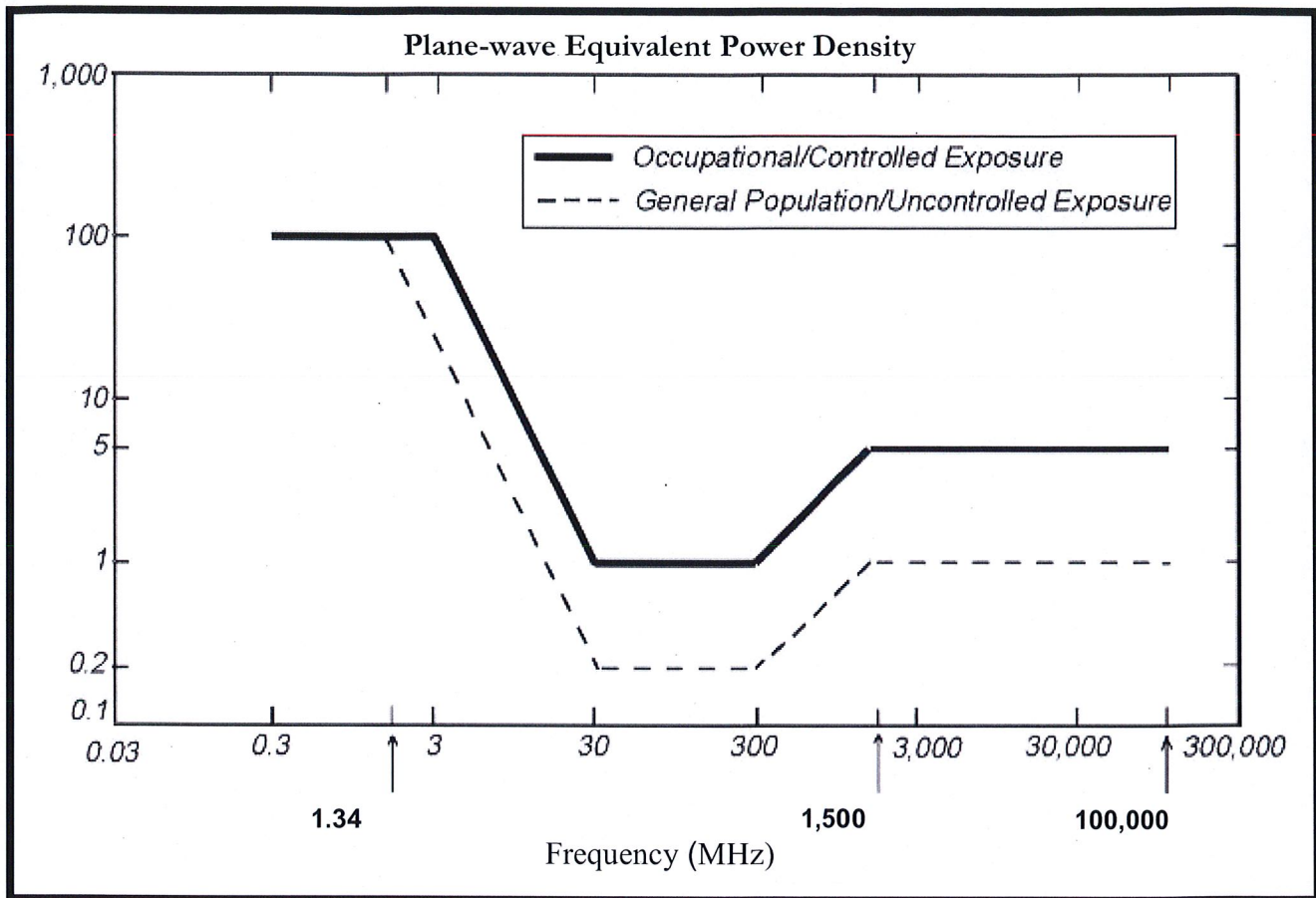
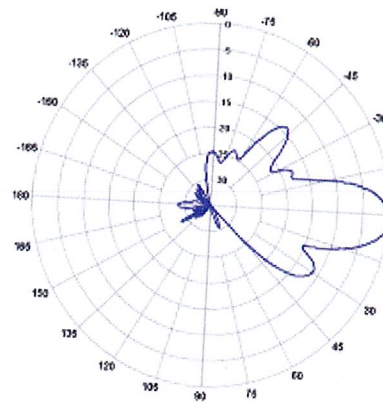


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T's Antenna Model Data Sheets and Electrical Patterns

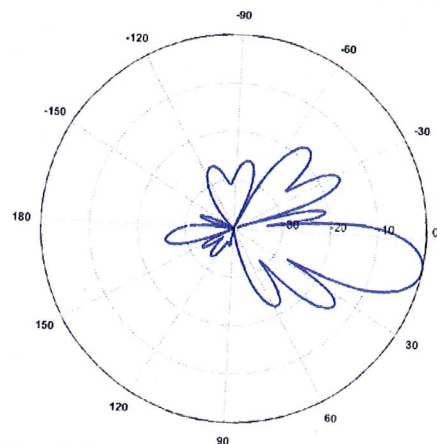
700 MHz

Manufacturer: KMW
 Model #: AM-X-CW-14-65-00T
 Frequency Band: 698-806 MHz
 Gain: 11.9 dBd
 Vertical Beamwidth: 17.8°
 Horizontal Beamwidth: 67°
 Polarization: Dual Slant $\pm 45^\circ$
 Size L x W x D: 48.0" x 11.8" x 5.9"



850 MHz

Manufacturer: Powerwave
 Model #: 7770.00
 Frequency Band: 824-896 MHz
 Gain: 11.5 dBd
 Vertical Beamwidth: 15°
 Horizontal Beamwidth: 82°
 Polarization: Dual Linear $\pm 45^\circ$
 Size L x W x D: 55.0" x 11.0" x 5.0"



1900 MHz

Manufacturer: Powerwave
 Model #: 7770.00
 Frequency Band: 1850-1990 MHz
 Gain: 13.4 dBd
 Vertical Beamwidth: 7°
 Horizontal Beamwidth: 86°
 Polarization: Dual Linear $\pm 45^\circ$
 Size L x W x D: 55.0" x 11.0" x 5.0"

