EXHIBIT 1

Non-Refundable
Fee: $1903.00

CITY OF GLENDALE
PUBLIC WORKS ENGINEERING
APPLICATION AND PERMIT FOR ENCROACHMENT

Encroachment Permit No. EP-823

Date: 01/31/2023 Receipt No. of Non-Refundable Permit Fee: ________

Applicant: Extenet Systems, LLC.

Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502

Phone: 682-351-3335

Location of Encroachment FRONT OF 1544 W KENNETH RD. (APN: 5622-027-018)

Name and Address of owner of adjacent real property benefited by the encroachment:

Public Right of Way

34° 10' 26.48" N 118° 16' 57.06" W

Legal Description of adjacent real property:

TRACT NO 4203 SE 55 FT OF NE 130 FT OF LOT 42

Applicant shall provide **1 electronic copy** of plan of the proposed encroachment.

Specific description and justification for encroachment:
Please see attached sheet for detailed scope of work.

This site will be a part of Verizon's 5G network.

Applicant agrees to satisfy all conditions attached hereto and to remove said structure upon revocation of this permit at no cost to the City of Glendale.

Approved:

Yazdan T. Emrani, P. E. Date
Director of Public Works

City of Glendale, CA

Public Works Department
633 E. Broadway
Room 209
Glendale, CA 91206
818-548-3945

Receipt

Receipt Number	**278944**
Receipt Date	**03/06/2023**
Receipt Time	**03:21:43**
Clerk	**Patino, Adrian**

Paid By: Extenet, Inc.
Comment: (951)453-4194

Charge Code			Description	Amount
ENC	Encroachment		EP 821-825	$9,515.00
	Reference 1:	Reference 2:		
CCFR10	Credit Card Fee Recovery			$237.87
	Reference 1:	Reference 2:		

Payment Method	Quantity	Reference	Amount
Credit Card	1	Extenet, Inc.	$9,515.00
Cc Fee	1	Extenet, Inc.	$237.87

Amount Tendered	**$9,752.87**
Amount Applied	**$9,752.87**
Change	**$0.00**

PERMIT NO.: EP-823

IDEMNIFICATION AGREEMENT

(ENCROACHMENT PERMIT)

Permittee shall indemnify, defend and hold harmless the City of Glendale, its officers, agents and employees, from and against any and all liability, suits, actions, proceedings, judgments, claims, liens, losses, damages (whether in contract or in tort, including personal injury, accidental death or property damage, and regardless of whether the allegations are false, fraudulent or groundless), costs and expenses (including attorney's fees, litigation, arbitration, mediation and appeal expenses) which in whole or in part arise from or are caused by, or which are alleged to have arisen from or to have been caused by, any and all acts or omissions, under the encroachment permit, of Permittee, its officers, agents, employees, contractors, subcontractors or by anyone it directly or indirectly employed, whether the losses, injuries or damages accrue, or may be discovered, during or after Permittee's use of, or Permittee's encroachment, construction, installation and/or operations in or upon, the City's properties, premises or facilities.

Dated: 01/25/2023

Joe Milone
Permittee's Name (Printed)

Joe Milone
Permittee's Signature

Executive Director - Government Relations
Permittee's Title

APPROVED AS TO FORM:

City Attorney

4/27/23
Date

CITY OF GLENDALE, CALIFORNIA
Public Works Department
Administration Division

633 E. Broadway, Suite 201
Glendale, CA 91206-4310
Tel (818) 548-3945 Fax (818) 242-7087
www.glendaleca.gov

WIRELESS TELECOMMUNICATIONS FACILITY ENCROACHMENT APPLICATION FORM

An applicant for placement of a wireless facility (WF) in the rights-of-way must obtain an encroachment permit from the City by submitting simultaneously, an application for an encroachment permit (as Item 17 to this form) and providing the other information as requested in this form.

You must use this form (latest version) and follow the Director's Policy found at:

1. https://www.glendaleca.gov/government/departments/public-works/public-meetings-and-notices
2. Public Counter (633 E. Broadway Room 205, Glendale, CA 91206)

Questions about WFs should be directed to the City Public Works Department Engineering Division by calling (818) 548-3945, however, any effective variance to the policy, requirements, and application guidelines can only be given by the Public Works Director in writing.

INITIAL SUBMISSION

WF applications may only be submitted at in-person appointments, which may be scheduled with the City's Public Works Engineering department by calling (818) 548-3945. Submission appointments may be scheduled Monday-Tuesday 8 a.m. – 2 p.m. and Wed. – Thursday 8 a.m. – 12 p.m.

RESUBMITTAL PROCEDURES

If the City issues a notice of incompleteness, an applicant must timely resubmit a complete application. The City may exercise any rights available to it if a resubmittal is not timely or is itself incomplete, including rejecting the application. Resubmittals shall be made in reply to the original assigned city staff member and to TLF (glendale@tlf.law).

FORM OF SUBMISSIONS

Each WF site requires its own application.

Initial submissions shall be named in the following convention:

- [applicant name]-[numerical number]-[calendar year]
- Sample: XYZCompany-01-2022

Resubmissions shall be named in the following convention:

- [applicant name]-[numerical number]-[calendar year]-RESUB[#]
- Sample: XYZCompany-01-2022-RESUB1

Initial applications and resubmissions must be submitted in an electronic format. The electronic form and all supporting documents must be in searchable PDF format and as individual documents (not a single PDF document/file). Each individual PDF document must be named to indicate the content of the file document. For example: ‘Attachment 1 - Photo Simulations’; ‘Attachment 14 - RF Report’; ‘Attachment 19 - Acoustic Analysis’, etc. are acceptable file name formats.

Encroachment Permit No. EP-823 **[From Item 17 on Checklist]**

Date: 01/31/2023

Receipt No. ________
Non-Refundable Wireless Processing Fee:

Applicant: Extenet Systems, LLC.

Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502

Phone: 682-351-3335

Submission Name[1]: Extenet SCL Glendale 237-01-2023

Applicant's Identifier for Wireless Facility

Wireless Provider: Verizon Wireless

Coordinates for Wireless Facility: 34° 10' 26.48" N 118° 16' 57.06" W

Location of Encroachment: Public Right of Way

Adjacent Zone # and Description: R1 I - LOW DENSITY RESIDENTIAL FAR DIST I

Location Type: ☐ **Preferred** **X Non-Preferred**

[1] Please see page 1 "Form of Submissions".

APPLICATION CHECKLIST – REQUIRED MATERIALS

The applicant shall submit all of the applicable materials listed in this checklist, and in addition, to the extent not included in the list below, the information required by Glendale Municipal Code Sec. 12.08.037, esp. sections D and G.

- ☑ **APPLICATION FEE**
- ☑ 1. SWF SUPPLEMENTAL INFORMATION
- ☑ 2. PROJECT DESCRIPTION
- ☑ 3. PROJECT PLANS
  - ☑ A. COVER SHEET
  - ☑ B. SITE SURVEY/DEVELOPMENT PLAN
  - ☑ C. EQUIPMENT/INFRASTRUCTURE INVENTORY AND DETAILS
  - ☑ D. TRAFFIC CONTROL PLAN
  - ☑ E. FIBER NETWORK PLAN
  - ☑ F. POWER NETWORK PLAN
- ☑ 4. LETTER OF AUTHORIZATION
  - ☑ A. CITY-OWNED PROPERTY
  - ☑ B. NON-CITY OWNED PROPERTY
- ☑ 5. SITE PHOTOS AND PHOTO SIMULATIONS
- ☑ 6. ALTERNATIVE SITE ANALYSIS
- ☑ 7. RF COMPLIANCE REPORT
- ☑ 8. FCC LICENSE
- ☑ 9. LATEST KMZ FILES
- ☑ 10. PLANNED NODE AND FIBER OPTIC INFRASTRUCTURE LIST
- ☑ 11. ACOUSTIC ANALYSIS
- ☑ 12. STRUCTURAL ANALYSIS
- ☐ 13. PUBLIC NOTICE
- ☑ 14. CERTIFICATES OF INSURANCE
- ☐ 15. CITY BUSINESS LICENSE
- ☑ 16. CITY INDEMNIFICATION FORM
- ☑ 17. ENCROACHMENT PERMIT FORM
- ☑ 18. CERTIFICATION OF ACCURACY AND RELIABILITY
- ☑ 19. CERTIFICATION OF PUBLIC CONVENIENCE AND NECESSITY (CPCN)

STAFF USE ONLY:

Application No. ___________________________ City Receipt Date: _______________

Pole Number (if applicable): ____

APPLICATION CHECKLIST DETAILS

APPLICATION FEE

Each Wireless Telecommunications Facility (WF) Application Form must be accompanied by the applicable application fees per the adopted City-Wide Fee Schedule. The application will not be deemed submitted unless the applicable fees, in full, have been received by the City.

01/31/2023

As of May 2022, the required applicable fees are the construction - encroachment permit fee, and the wireless communication facility application processing fee; the City may require an additional fee for expert review. On July 1st of every year, the application fees may be updated to reflect the most recent adopted City-Wide Fee Schedule.

Additional fees will be required to be paid should the application be deemed incomplete after the first submission.

Additional permits and fees may be required. For example, most WF will require an excavation permit.

1. SMALL WIRELESS FACILITY SUPPLEMENTAL INFORMATION

Label this as “Attachment 1 – SWF Supplemental Information”.

If applicant claims the facility is a small wireless facility, the applicant must complete and submit the information to support evaluation of whether the proposed facility qualifies as a Small Wireless Facility under 47 C.F.R. § 1.6002(l). If the facility is not a Small Wireless Facility, applicant should so state.

2. PROJECT DESCRIPTION

Label this as “Attachment 2 – Project Description.”

This section should demonstrate the intended technical service objectives and the nature of the existing service capabilities of the applicant’s network in the area that would be served by the proposed WF.

3. PROJECT PLANS

Label this as “Attachment 3 – Project Plans”.

Provide full-sized and 11”x17” digital project plans in portable document format (PDF) that contain all the following. Dimensions must be shown in decimal feet and volumes must be shown in decimal cubic feet. The Project Plans must be prepared, signed and stamped by a California Registered Civil Engineer.

A. Cover Sheet

1. Contain detailed project description that specifies the proposed installation and/or modifications;

2. Contain site information that includes the site address, assessor's parcel number, site latitude and longitude, project team contact information, location map, and pole number (as applicable);

B. Site Survey

1. Be prepared, signed and wet stamped by a California Registered Civil Engineer or Licensed Surveyor;
2. Include the North Arrow, date, scale and legend on each plan page;
3. Show all areas in the public right of way to be occupied by the WF, including all power and fiber vaults and other equipment;
4. Show the actual property lines of all adjacent properties within 15 feet of any portion of the proposed project;
5. Include sidewalk measurements (in feet) to demonstrate full compliance of Americans with Disability Act ("ADA") regulations (when making measurements, you must measure from the outside of the pole rather than from the centerline;
6. Depict all surrounding (within 15 feet) existing pedestrian ramps, posts, pedestals, traffic signals, sidewalk widths, fire hydrants, transit shelters, kiosks, ramps, driveways, curbs, and all other existing features in the PROW;
7. Show all traffic lanes;
8. Depict planters, vegetation, trees, and any other landscaped areas and features;
9. Depict all above and below-grade utilities, related structures, and encroachments;
10. Demonstrate how and why the proposed WF project will be in full compliance with all building codes, electrical codes and all other required codes in the PROW;

C. Site Development Plans

1. Be prepared, signed and wet stamped by a California Registered Civil Engineer or Licensed Surveyor;
2. Include the North Arrow, date, scale and legend on each plan page;
3. Include all elevations of the proposed WF;
4. Show the actual property lines of all adjacent properties within 15 feet of any portion of the proposed project;
5. Include all existing and proposed improvements, structures, equipment, fixtures, concealment elements, and/or facilities with all dimensions, labels and ownership identifications clearly called out;

6. Depict all electrical, fiber and data backhaul connections (conduits, vaults, handholes, cables, wires, junctions, meters, meter-less power, etc.);

7. Depict all proposed antennas, associated equipment, pedestals, flush-to-grade vaults, concealment elements, conduits, risers and all conditions related to the proposed SWF;

8. Include all azimuth orientation of all proposed antennas.

D. Equipment/Infrastructure Inventory & Details

1. Contain cut sheets with all the technical specifications (manufacturer, model number, physical dimensions [height, width, length and weight]) of all the proposed antennas and associated equipment;

2. Include all dimensions shown in decimal feet (ft), and all volumes must be shown decimal cubic feet (ft^3);

3. Provide details and specifications of the proposed equipment to be installed.

4. Plans shall also include all infrastructure improvement details, including pole types, foundations, pull boxes, and conduits servicing the proposed infrastructure and any applicable details/cut sheets showing size and dimensioning as applicable.

E. Traffic Control Plans

Provide engineered traffic control plans that show the traffic control for the project. The plans must be drawn in accordance with the latest version of the California Manual on Uniform Traffic Control Devices by a Registered California Civil Engineer or Traffic Engineer. The preparer's stamp and signature must be shown on the plans.

F. Fiber & Power Network Plan

To the extent that the project requires running new fiber optic cables to the proposed node, the plans must include a street map view that shows all the proposed nodes in the deployment, clearly labeled with pole number and/or site ID, the hub or base station that serves the nodes in the deployment, all fiber optic cable routes that connect the nodes to the hub, and a legend that identifies any symbols, colors or other items on the map. The fiber plans should clearly identify all meet-me points and points of connection. Even if the fiber deployment will be performed by a third-party vendor, the applicant for wireless nodes must disclose all known or reasonably foreseeable fiber network elements.

The plans should include all underground utilities, all power conduit routes that connect the nodes and a legend that identifies any symbols, colors or other items on the map. The plans should clearly identify the location of the pedestal in addition to all points of connection, as well as the feed point/service spot for the power source. Applicant must show that it has met the requirements of Glendale Water and Power for electric service to the WF. Where new power will be run to a proposed node, this requirement can be satisfied by showing that the plans for electric service have been approved by Glendale Water and Power.

4. LETTER OF AUTHORIZATION

A. City-Owned Property

Label this as "Attachment 4 – City Owned Property LOA".

If the applicant proposes to install a WF on any structure owned or controlled by the City and located within the public right-of-way, the applicant must contact Glendale Water and Power Electrical Engineering at (818) 548-3921. Furthermore, the applicant must submit the following documents for review before receiving a City Owned Property LOA:

- Construction plans, including scope of work, vicinity map, site coordinates, site plan showing underground facilities, existing and proposed elevation, load calculations;
- Equipment specification sheets, including, but not limited to poles, foundations, pull boxes, meter sockets, load centers, radios, and antennas;
- Structural calculations, stamped and signed by a registered engineer in the State of California; and,
- Photo of the existing pole, as applicable, and a rendering/simulation of the

existing/proposed pole with the new equipment.

B. Non-City Owned Property

Label this as “Attachment 4 – Non-City Owned Property LOA”.

If the applicant proposes to install a WF on a non-city owned structure, the applicant must submit a letter of authorization from the structure owner.

5. SITE PHOTOS AND PHOTO SIMULATIONS

Label this as “Attachment 5 – Site Photos and Photo Simulations”.

A. Site Photos

1. Provide original base color photos of proposed site, from three vantage points (Google street view or similar online photos are not acceptable);
2. Provide a key map detail showing each location where each photograph was taken, the proposed site and the direction to the site from each photo location;
3. The photos must be in a high-resolution format.

B. Photo Simulations

Provide photo simulations that would allow the City to visualize the proposed project as constructed. The photo simulations must be in a high-resolution format and show the proposed facility from reasonable line-of-sight locations that would accurately and reliably reflect the appearance of the proposed facility and/or modifications as-built.

1. Provide photo simulations using the base photos from the three vantage points. Each base photo and matching photo simulation must be the same size;
2. Depict the proposed facility accurately and reliably by visually representing all elements (cables, conduits, brackets, and electronic equipment such as antennas, radio units and powering equipment etc.) of the proposed facility and/or modifications as-built.

6. ALTERNATIVE SITE ANALYSIS

Label this as “Attachment 6 – Alternatives Site Analysis”.

Provide a detailed written analysis that describes how the proposed WF complies with all the requirements in the Wireless Municipal Code, which includes without limitation the location requirements, and all the alternative locations and designs considered before the applicant submitted this application.

The analysis must include all the following required information and/or materials:

A. an aerial map that shows the general geographic area of the proposed location annotated to show:

B. the search ring used for this particular project;

C. all locations for each alternative considered for this particular project (or if none, so state);

D. for each alternative site considered, a detailed written description that includes, without limitation all the following:

1. the physical address;
2. zoning district designation;
3. support structure type considered;
4. general design concept and concealment elements/techniques considered;
5. overall height and achievable antenna centerline height;
6. the factual reasons why the applicant considered the potential alternative site location and/or design to be unacceptable, infeasible, unavailable or not in accordance with the standards in the Wireless Municipal Code.

Note: This explanation must include a meaningful comparative analysis and such technical information and other factual justification as are necessary to document the reasons why each alternative is unacceptable, infeasible, unavailable or not as consistent with the standards in the Wireless Municipal Code. Conclusory statements that a particular alternative is unacceptable, infeasible, unavailable or not in accordance with the standards in the Wireless Municipal Code will be deemed incomplete;

Note: If a less preferred WF location is proposed, the applicant must present fact-based, reliable evidence to support its selection of the less preferred WF location.

Also, for each alternative site within the search ring, signal propagation maps in scale with the street level map that show current and predicted service coverage in the area for all active frequencies in RSSI, RSRP or other relevant signal level or quality indicator with and without the alternative site and with a legend that describes the objective signal levels in dBm that correspond to any colors used to depict signal levels on such propagation maps. The signal propagation maps required must be directly comparable with the signal propagation maps submitted to show before-and-after service from the applicant's proposed site. If the applicant did not locate any alternatives within the search ring, the analysis must expressly state that no such alternatives were considered.

7. RF COMPLIANCE REPORT

Label this as "**Attachment 7 – RF Compliance Report**".

Provide an RF exposure compliance report prepared and certified by an RF engineer from a 3rd party, and not an employee of the service provider, that certifies that the WF, as well as any collocated facilities, will comply with applicable federal RF exposure standards and exposure limits.

The RF compliance report must include the actual frequency and power levels [in watts effective radiated power ("ERP"), not EIRP] for all existing and proposed antennas at the site; Also, the RF Compliance Report must depict:

- the location and orientation (degree azimuths from true north) of all transmitting antennas;
- the boundaries of areas with RF exposures in excess of the uncontrolled/general population limit (as that term is defined by the FCC);
- the boundaries of areas with RF exposures in excess of the controlled/occupational limit (as that term is defined by the FCC).
- the outline of all structures on public or private land that are within 20 feet of the proposed WF site antennas

8. FCC LICENSE

Label this as "Attachment 8 – FCC License".

Provide a copy of the FCC License of the operator of the facility.

9. LATEST KMZ FILES

Label this as "Attachment 9 – Latest KMZ Files".

A map showing the location of the streetlight pole where a WF is desired to be located. This map should be in the form of a Google KMZ file.

10. PLANNED NODE AND FIBER OPTIC INFRASTRUCTURE LIST

Label this as "**Attachment 10 – Planned Node and Fiber Optic Infrastructure List**".

A master list showing the location of all upcoming node and fiber optic infrastructure planned for the City of Glendale.

11. ACOUSTIC ANALYSIS

Label this as "Attachment 11 – Acoustic Analysis".

Provide a report prepared and certified by an engineer (or other qualified personnel acceptable to the City) that measures all noise-emitting equipment related to the WF and would operate at the site. Such equipment includes without limitation all environmental control units, sump pumps, temporary backup power generators, and permanent backup power generators. The acoustic analysis must include an analysis of the manufacturers' specifications for all noise-emitting equipment and a depiction of the proposed equipment relative to all adjacent property lines.

In lieu of a certified report, the applicant may submit evidence from the equipment manufacturer that the ambient noise emitted from all the proposed equipment will not, both individually and cumulatively, exceed the applicable ambient noise limits. In addition, describe whether the equipment will be passively or actively cooled if any equipment will be enclosed in a shroud, cabinet, pedestal or other enclosure. If the equipment will be actively cooled, the applicant must include the manufacturer's specifications for all active cooling mechanisms.

12. STRUCTURAL ANALYSIS

Label this as "**Attachment 12 – Structural Analysis**".

Provide a report prepared and certified by a structural engineer (or other qualified personnel acceptable to the City) that evaluates whether the underlying pole or support structure has the structural integrity to support all the proposed equipment and attachments. At a minimum, the analysis must be consistent with all applicable requirements in CPUC General Order 95 (including, but not limited to, load and pole overturning calculations), the National Electric Safety Code, and any safety and construction standards required by the utility.

13. PUBLIC NOTICE

Label this as "Attachment 13 – Public Notice".

Per the City's Wireless Facility Wireless Municipal Code, the applicant needs to carry out all necessary public noticing requirements including submitting mailing list and mailing labels for all properties and record owners of properties within 500 feet of the proposed WF location.

14. CERTIFICATES OF INSURANCE

Label this as "**Attachment 14 – Certificates of Insurance**".

Provide proof of certificates of insurance.

15. CITY BUSINESS LICENSE

Label this as "**Attachment 15 – City Business License**".

Provide proof of City Business License.

16. CITY INDEMNIFICATION FORM

Label this as "**Attachment 16 – City Indemnification Form**".

17. ENCROACHMENT PERMIT FORM

Label this as **"Attachment 17 – Encroachment Permit Form"**.

18. CERTIFICATION OF ACCURACY AND RELIABILITY

The undersigned certifies on behalf of itself, the applicant, and the owner of the property that the information provided in this form and its contents are true and complete to the best of the undersigned's ability and knowledge, and the information provided here should be relied upon by the City as being accurate and complete when the City evaluates the WF proposal.

Signature

Site Acquisition
Title

Alexander Novak
Individual Name

Teleworld Solutions
Company Name

01/31/2023
Date Signed

19. CERTIFICATION OF PUBLIC CONVENIENCE AND NECESSITY (CPCN)

The undersigned certifies on behalf of itself, the applicant, and the owner of the property that the information provided in this form and its contents are true and complete to the best of the undersigned's ability and knowledge, and the information provided here should be relied upon by the City as being accurate and complete when the City evaluates the SWF proposal.

Signature

Executive Director Government Relations
Title

Joe Milone
Individual Name

ExteNet Systems, LLC.
Company Name

01/31/2023
Date Signed

CITY OF GLENDALE, CALIFORNIA
SUPPLEMENTAL APPLICATION FORM FOR WIRELESS PROJECTS AND DISTRIBUTED ANTENNA SYSTEM ("DAS") PROJECTS

The City of Glendale, California recognizes that the provision of wireless and DAS services are highly technical enterprises subject to various federal, state, and local regulations. This supplemental application form is designed to elicit necessary and required technical information in support of a planned Conditional Use Permit ("CUP") or Special Use Permit ("SUP") or Variance/Waver application for a new or modified wireless telecommunications site project or a Distributed Antenna System ("DAS") project within the City of Glendale.

Completion of this supplemental application is a mandatory document for a wireless and DAS projects. This form assists the City of Glendale to comply with its duties under Title 30 of the Glendale Municipal Code; Sections 253 and 332 of the Communications Act of 1934 as amended; the FCC Shot Clock Order (FCC 09-99); California Public Utilities Code Sections 7901 and 7901.1; the California Environmental Quality Act (CEQA); the provisions of California Government Code Sections 65850.6 and 65964; and other local, state, and federal laws, regulations, and court rulings. The City of Glendale requires that the applicant provide this information to assist it in creating a written administrative record containing substantial evidence sufficient to permit the City of Glendale's informed consideration of your request, and to determine the duties, rights and obligations of the City of Glendale and the applicant/owner of the proposed project.

No application for a new wireless site or for a modification of an existing wireless site shall be considered for determination of completeness until all required responses to this supplemental application form and required Exhibits are completed and tendered to the City of Glendale.

Every page of this form <u>including this page and the last page</u> must be tendered to the City of Glendale, California, and each question must be answered. If you do not believe that a specific item of information is necessary or applies to your application, mark the item on this form with the words, "Not Applicable" and attach a detailed written explanation as to the basis for your belief (e.g., "Question 94.7 does not apply to this application because the proposed Project has no microwave transmission element.") An unsupported statement such as "Question 94.7 does not apply" is insufficient as it is not informative as to your reasoning, and the determination of completeness of your application will be delayed while you provide a meaningful and detailed explanation.

Each page <u>including this page and the last page</u> must be initialed where indicated. The last page must also be completed, signed, and dated. Please note that item numbers are intentionally non-sequential. Questions about this form or the information required by this form should be directed to the City of Glendale's Director of Community Development for public or private property projects, or to the Director of Public Works for projects in the public right-of-way.

1.00: **Project Location and Applicant Information**

1.01: Project Physical Address (if any): FRONT OF 1544 W KENNETH RD, Glendale, CA 91201

1.02 Project Site Number (if any) SCL Glendale 237

1.03: Assessor's Parcel Number: 5622-027-018

1.04: Legal Name of Applicant (Wireless Carrier or DAS Firm, referred to in this form as the "Project Owner"): ExteNet Systems, LLC

1.08 Project Owner is: N/A as project is located in the Public Right-of-Way

1.10: Applicant's Representative is:
Name: Alexander Novak
Title: Site Acquisition Agent
Firm Name: Teleworld Solutions
Address 1: 1054 Texan Tr, Ste. 300
Address 2:
City: Grapevine State: TX Zip: 76051
Main Tel: Ext:
Direct Tel:
Work Fax:
Mobile Tel: 682-351-3335
Email Address: alexander.novak@partner.teleworldso
Website:

1.14 Provide the City of Glendale Business License number for the Applicant or Applicant's firm listed in 1.10: N/A - Not required for Extenet

2.00: **Project Owner Information and CPCN Information**

2.03: Attach a letter of agency appointing the Applicant's Representative as the agent for the Project Owner in connection with this application. Designate the letter of agency as "Exhibit 2.03."

Initial here AN to indicate that Exhibit 2.03 is attached hereto.

2.05: Attach a letter of agency appointing the Applicant's Representative as the agent for the underlying Property Owner in connection with this application. Designate the letter of agency as "Exhibit 2.05."

Initial here _______ to indicate that Exhibit 2.05 is attached hereto.

2.07: Does the Project Owner hold a California Public Utilities Commission 'Certificate of

Public Convenience and Necessity' (CPCN) for any service to be provided by this project? ✔ Yes ___ No

2.08: If the answer to 2.07 is Yes, provide a true and complete copy of the Project Owner's CPCN and mark it as "Exhibit 2.07."

Initial here AN_____ to indicate that the Exhibit 2.07 is attached hereto.

3.00: **FCC License / FAA Compliance / RF Safety Disclosure Information**

3.01: For each person/legal entity that will be using the project site, provide the information in Sections 3 and 4. If more than one person/legal entity, provide separate information for each person/legal entity using the project site.

Note to DAS provider applicants named in 1.04: Unless the DAS provider is the FCC licensee for the proposed project, or the non-licensee to be transmitted from the site for its own purposes, the information provided in response to Sections 3 and 4 must be provided by every individual wireless licensee or non-licensee to be transmitted via the project identified in Section 1 of this form. That information must be provided on the letterhead of each entity. Each such response must also be signed by an authorized person, and that person's printed name and title, address and telephone number must be shown on the letter. DAS provider-provided responses to Section 4 are unacceptable, and will result in your application being determined to be incomplete.

3.02: For questions 3.03 through 3.09 inclusive, disclose all information for each proposed Radio Frequency signal emitter ("RF Emitter") at the project site.

3.03: Name of RF Emitter: Verizon Wireless

3.04: RF Emitter's Address Line 1: 15505 Sand Canyon Ave. Irvine, CA 92618

3.05: RF Emitter's Address Line 2:

3.06: RF Emitter's Phone number: 949-677-5953

3.07: RF Emitter's Fax number:

3.08: RF Emitter's Contact Email address: regina.delgiorgio2@verizonwireless.com

3.09: Use of facility: (Check all that apply)

Notice: Applicants not operating under their own FCC license(s)

__ Amateur Radio
__ Broadcast Radio
__ Broadcast TV
__ Cellular telephone
__ Enhanced Specialized Mobile Radio

must mark “Other” and disclose of all information required here for all entities that use the project.

__ Microwave
__ PCS telephone
__ Paging
__ SMR/ESMR
__ WiMax/WIFI
☑ Other(s) (specify): Verizon Wireless

3.10: Project latitude and longitude: N 34.174022° W -118.282517°

3.11: Specify DATUM used above: __ WGS84 ☐ NAD23 ☑ NAD83
__Other DATUM (specify): ______________

3.12: Project maximum height (ft AGL): 28’-4” AGL

3.13: Bottom of lowest transmitting antenna (ft AGL): 25'-9" AGL

3.14: RF Emissions (“Rad”) center of the lowest transmitting antenna (ft AGL): 26-5” AGL

3.15: For each licensee (i.e., “ABC Wireless” or “XYZ Wireless”), ***and*** for each radio service (i.e., “PCS” or “Cellular”), complete and attach a separate two page “Appendix A” form from "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance” available by download directly from the FCC at http://www.fcc.gov/oet/rfsafety/ (the “Appendix A Form”). Ensure that all proposed emissions from this project are accounted for on the Appendix A Forms you submit.

Distributed Antenna System (DAS) providers and all other who are not licensed by the FCC for the radio services proposed for this project and identified in 3.09: Unless the DAS provider is the FCC licensee for the proposed project or the emissions from the site are solely for the DAS provider’s own transmissions, the DAS provider must provide an Appendix A form completed by each wireless carrier or wireless service provider to be transmitted through the Project at each wireless site. Appendix A Forms completed by a DAS provider are unacceptable if they are not the FCC licensee for the particular wireless service(s) to be transmitted through the project.

Designate all completed Appendix A Forms as “Exhibit 3.15.”

For collocation projects: In addition to the Appendix A Form(s) which you must submit in connection with the project identified in this application, you must also submit an Appendix A Form for each collocated RF emitter. Designate any additional RF safety compliance information as “Exhibit 3.15-A.”

For consistency, all Appendix A forms submitted must use effective radiated power (ERP) units of measure. Do not use effective isotropic radiated power (EIRP). To verify your understanding of this requirement, you must append the letters "ERP" following each wattage listing in each Appendix A form you submit.

Initial here AN______ to indicate that all required Exhibit 3.15 and 3.15-A forms are attached hereto.

3.16 Considering your response in Exhibit 3.15, above, and any other identifiable RF emitters that FCC OET Bulletin 65 requires be evaluated in connection with this Project, are all portions of this Project cumulatively "categorically excluded" under FCC OET 65 requirements? ☐ Yes ☑ No

3.17: Does the project design or location require the Applicant to file an FAA Form 7460 or other documentation under Federal Aviation Regulation Part 77.13 et seq, or under the FCC rules? ☐ Yes ☑ No

3.18: If the answer to 3.17 is NO proceed to 4.00.

3.19: Attach complete copies of all required FAA/FCC forms including all Exhibits and exhibits thereto, including without limitation FAA Form 7460. Designate this Exhibit, "Exhibit 3.17."

Initial here _______ to indicate that Exhibit 3.17 is attached hereto.

4.00: **Project Purpose**

4.05: Indicate the dominant purpose of the Project (check one or more, then proceed as directed):

☑ Add network capacity without adding significant new RF coverage area; Proceed to 4.10.

__ Provide significant new radio frequency coverage in an area not already served by radio frequency coverage; Proceed to 4.10.

__ Increase the existing RF signal level in an area with existing radio frequency coverage; Proceed to 4.10.

__ Other; Proceed to 4.07.

4.07 Attach a written statement fully and expansively describing all portions or elements of the "Other" dominant purpose of this Project. Designate this Exhibit, "Exhibit 4.07."

Initial here _______ to indicate that Exhibit 4.07 is attached hereto.

4.10 Is this project intended to close or reduce what the applicant asserts to be a "significant gap" in its network? ___ Yes ✔ No

4.11 If the answer to 4.10 is NO proceed to 4.20.

4.12 Attach a written statement fully and expansively describing the following:

a. A clear description of the geographic boundary of the claimed significant gap area, and
b. Attach a street-level map showing the geographic boundary of the claimed significant gap stated in 4.12(a) using the same standards as in 6.02; and
c. Identify the size of the area, in units of square miles, of the claimed significant gap; and
d. Explain exactly the definition of the term "significant gap" as it applies to this project;
e. Explain exactly how the definition of significant gap term defined in 4.12(d) was developed, and identify who developed that definition, and when the definition was developed;
f. Discuss whether the significant gap term defined in 4.12(d) is identical to that term as used by some or all wireless carriers in the City of Glendale and/or the wireless industry as a whole, or whether that information is unknown;
g. Specify whether the definition of "significant gap" provided in 4.12(d) is the same definition used in by this applicant and owner in all of its prior projects submitted to the City of Glendale, and if not, explain all differences and the reasons for the differences.
h. Discuss in detail all of the following in relation to the claimed significant gap area only. Where you have relied on external data sources, indentify those sources in detail your response.
    1. Whether claimed significant gap affects significant commuter highway or railway, and if so, name each highway or railway, and how affected;
    2. Describe in detail the nature and character of that area or the number of potential users in that area who may be affected by the claimed significant gap;
    3. Describe whether the proposed facilities are needed to improve weak signals or to fill a complete void in coverage, and provide proof of either;
    4. If the claimed significant gap covers well traveled roads on which customers lack roaming capabilities, identify all such well traveled roads by name within the claimed significant gap area and provide road use information about each such road;
    5. If any "drive test" has been conducted within the claimed significant gap area, discuss in detail the methodology of how the test(s) was conducted, including details about the test equipment model numbers and location of the test equipment and antennas in or on the test vehicle, and provide all of the objective data collected during the drive test in .XLS or .CSV or

similar portable spreadsheet format;
6. If the claimed significant gap affects a commercial district, show the boundaries of the district on the map
7. If the claimed significant gap poses a public safety risk, describe in detail the claimed risk, and the expansively discuss the basis for this claim.

i. If the claimed significant gap is based in whole or in part on factors regarding any factor related to switching center capacity; dropped calls; failed hand-offs; interference from or to other cell sites; pilot channels; site hopping; degraded RXQUAL; degraded Ec/Io; and/or any failure to meet any carrier transmission goal or percentage goal, attach at least the most recent twelve months of historical data by month documenting at least (1) the results or numerical data of each claimed parameter; (2) the wireless carrier's numerical and percentage requirements for each such claimed perimeter; (3) the total number of calls attempted for each month both successfully and unsuccessfully completed; (4) the total number of calls that were not completed including failed originations; failed hand-offs; and non-normal call terminations; and (5) for every such claimed parameter that is not categorized by way of number or percentage, provide the data in the way kept by the carrier.

j. Provide all other relevant information you want the City of Glendale to consider when evaluating your claim of a significant gap.

Designate this Exhibit, "Exhibit 4.12." Initial here _______ to indicate that Exhibit 4.12 is attached hereto.

4.13 Is the proposed project the least intrusive means to close the significant gap claimed and described in 4.12? ___ Yes ___ No

4.14 If the answer to 4.13 is NO proceed to 4.20.

4.15 Attach a written statement fully and expansively describing at a minimum:

a. Why this project is the least intrusive means to close the significant gap claimed and described in 4.12.

b. Identify and discuss all alternative sites and means considered to close the significant gap claimed and described in 4.12.

c. Whether two or more sites in lieu of the site proposed in Section 1 could close the significant gap claimed and described in 4.12, or to reduce the significant gap to be less than significant, with less impact on the community as compared with a single site? If the answer is no, please explain in narrative format the basis for that answer.

d. Whether the City of Glendale requiring two or more sites in place of the site proposed in Section 1 would prohibit or have the effect of prohibiting the applicant from providing any interstate or intrastate telecommunications service.

If the response asserts that a prohibition or effective prohibition would occur, explain in detail in narrative form all of the reasons why it would

e. Include and attach all information whatsoever you relied on in reaching your affirmative determination in 4.13.

f. Include any other information you believe would assist the City of Glendale make findings regarding whether the proposed project is the least intrusive means of closing the significant gap claimed and described in 4.12, or to reduce the significant gap to be less than significant.

Designate this Exhibit, "Exhibit 4.15."

Initial here _______ to indicate that Exhibit 4.15 is attached hereto. Proceed to 4.20

4.20 If any portion of the project is to utilize radio spectrum that does not require an FCC license, identify in detail the portions of the project that used unlicensed spectrum.

Designate this Exhibit, "Exhibit 4.20."

Initial here _______ to indicate that Exhibit 4.20 is attached hereto.

4.25 Is this project designed to use any form of direct site-to-site radio interconnection (i.e., microwave or donor/donee configuration, for example) with another existing or currently planned site? ☐ Yes ☑ No

4.26: If the answer to 4.25 is NO proceed to 5.00.

4.27: Attach a detailed written statement fully and expansively describing the radio interconnection proposed, and identify all other existing or planned sites that will be interconnected with this project. Designate this Exhibit, "Exhibit 4.25."

Initial here _______ to indicate that Exhibit 4.25 is attached hereto.

5.00: **Build-Out Requirements**

5.01: Do any of radio services identified in 3.09 above require the licensee to provide specific radio frequency/population build-out coverage pursuant to the underlying FCC license? ☑ Yes ☐ No

5.02: If the answer to 5.01 is NO proceed to 6.00.

5.03: Have all of the FCC build-out requirements as required by all licenses covering all radio services proposed at this Project been met? ☐ Yes ☑ No

5.04: If the answer to 5.03 is YES proceed to 6.00.

5.05: Disclose by licensee call sign identified in Section 3.02 all build-out requirements/obligations which have yet to be met, and the known or estimated date when the remaining build-out requirements will be met. Designate this Exhibit "Exhibit 5.05."

Initial here AN______ to indicate that Exhibit 5.05 is attached hereto.

5.10 Will this proposed site be interconnected via radio frequency transmissions to any other site or sites now constructed, proposed, or anticipated? For the purpose of this question, interconnection includes one or more radio frequency links to provide for 'back-haul' from this site to a switching center or centralized node location.
___ Yes X__ No

5.11: If the answer to 5.10 is NO proceed to 6.00.

5.15 Identify by physical address (or if none, by geographic description) all other sites, regardless of whether now constructed, proposed, or anticipated, that are to be interconnected with this project site. Disclose in technical detail the proposed method of interconnection. Designate this Exhibit "Exhibit 5.15."

Initial here _______ to indicate that Exhibit 5.15 is attached hereto.

6.00: **Radio Frequency Coverage Maps**

6.01: Where a licensee intends to provide radio frequency coverage from the project to an identified geographic coverage, the coverage maps and information requested in Section 6 are required Exhibits.

Distributed Antenna System (DAS) providers and all others who are <u>not</u> the RF emitters for the radio services proposed for this project and identified in 3.09: You <u>must</u> provide radio frequency coverage maps prepared by the FCC licensee(s) that will control the RF emissions from this project. Radio frequency coverage maps required here that are completed by a DAS provider are <u>unacceptable</u> if they are <u>not</u> the FCC licensee or in full control of the RF emitter for the particular wireless service transmitted through the project.

If no geographic coverage area is identified, initial here _______ and proceed to 7.00.

6.02 For the coverage maps required here, the following mandatory requirements apply. Failure to adhere to these requirements may delay your application's determination of completeness.

a. The size of each submitted map must be no smaller than 11" by 8.5." Each map must be of the same physical size and map area scale. Each map must use the same base map (i.e., same streets and legends shown on all).

b. If the FCC rules for any proposed radio service defines a minimum radio frequency signal level that level must be shown on the map in a color easily distinguishable from the base paper or transparency layer, and adequately identified by RF level and map color or gradient in the map legend. If no minimum signal level is defined by the FCC rules you must indicate that in the legend of each RF coverage map. You may show other RF signal level(s) on the map so long as they are adequately identified by objective RF level and map color or gradient in the map legend.

6.03: Provide a map consistent with the requirements of 6.02 showing the existing RF coverage within the City of Glendale on the Applicant's same network, if any (if no existing coverage, so state). This map should not depict any RF coverage to be provided by the Project. Designate this Exhibit "Exhibit 6.03."

Initial here AN______ to indicate that Exhibit 6.03 is attached hereto.

6.04: Provide a map consistent with the requirements of 6.02 showing the RF coverage to be provided only by the Project. This map should not depict any RF coverage provided any other existing or proposed wireless sites. Designate this Exhibit "Exhibit 6.04."

Initial here AN______ to indicate that Exhibit 6.04 is attached hereto.

6.05: Provide a map consistent with the requirements of 6.02 showing the RF coverage to be provided by the Project and by all other existing wireless sites on the same network should the Project site be activated. Designate this Exhibit "Exhibit 6.05."

Initial here AN______ to indicate that Exhibit 6.05 is attached hereto.

7.00: **Project Photographs and Photo Simulations**

7.01: The Applicant shall submit photo simulations consistent with the following standards:

1. Minimum size of each base photo and each photo simulation must be 10 inches by 8 inches (landscape orientation). Each base photo and matching photo simulation must be the same size. Single sheets of 11 x 8 ½ inches showing base photos and photo simulations on the same page are unacceptable.

2. All elements of the Project as proposed by the Applicant which can be seen from any point at ground level, or from any level within or on buildings within 500 feet of the Project must be shown in one or more close-in photo simulations (i.e., panel antennas, omni-directional antennas, GPS antennas, antenna camouflage devices, cable trays; equipment cabinets; working lights; etc.).

3. The overall Project as proposed by the Applicant must be shown in three or more area

photo simulations. Base photographs must, at a minimum, be taken from widely scattered positions of 120 degrees. A map detail showing each location where a photograph was taken, the proposed site, and the direction to the site from each photo location must be included. Base photographs taken from locations that have some physical feature obscuring the Project site, and the photo simulations associated with those same base photographs, are not acceptable.

Attach all base photographs and photo simulations to this application marked as Exhibit 7.01.

The purpose of the photo simulations is to allow the City of Glendale to visualize the Project as completed, therefore the number of site photos, and photo simulations, and the actual or simulated camera location of these photos and photo simulations are subject to City of Glendale determination. The Applicant should submit photos and photo simulations consistent with these instructions, and be prepared to provide additional photos and photo simulations should they be requested by the City of Glendale.

The Applicant certifies by initialing in the space at the end of this paragraph that that all of the photos and photo simulations provided for Exhibit 7.01 are accurate and reliable photographic representations of the current project site and the proposed project to be constructed or modified, and that the Applicant is fully aware that the City of Glendale will rely on all of the photos and photo simulations provided in Exhibit 7.01 when it considers approval of this Project, and later when determining project completion.

Applicant's initials: AN__________ (If not initialed, this application may be deemed incomplete by the City of Glendale.)

8.00: **Alternative Candidate Sites**

8.01: Amateur radio applicants proceed to 9.00.

8.02: Has the Applicant or Owner or anyone working on behalf of the Applicant or Owner secured or attempted to secure any leases or lease-options or similar formal or informal agreements in connection with this Project for any sites other than the proposed project site? X__ Yes ___ No

8.03: If the answer to 8.02 is NO proceed to 8.05.

8.04: Provide the physical address of each such other location, and provide an expansive technical explanation as to why each such other site was disfavored over the Project Site. Designate this Exhibit "Exhibit 8.04."

Initial here AN______ to indicate that Exhibit 8.04 is attached hereto.

8.05: Considering this proposed site, is it the one and only one location within or outside of the

City of Glendale that can possibly meet the objectives of the Project?
___ Yes _x_ No

8.04: If the answer to 8.05 is NO, proceed to 9.00.

8.05: Provide a technically expansive and detailed explanation supported as required by comprehensive radio frequency data and all other necessary information fully describing why the proposed site is the one is it the one and only one location within or outside of the City of Glendale that can possibly meet the radio frequency objectives of the Project. Explain, in exact and expansive technical detail all of the objectives of this Project that can be achieved only at this project site, and why.

Designate this Exhibit "Exhibit 8.05."

Initial here _______ to indicate that Exhibit 8.05 is attached hereto.

9.00: **Identification of Key Persons**

9.01: Identify by name, title, company affiliation, work address, telephone number and extension, and email address the key person or persons most knowledgeable regarding this Project so that the City of Glendale may contact them with questions regarding the Project:

9.10 Person responsible for the final site selection for the Project;

Name: Joe Milone
Title: Executive Director
Company Affiliation: ExteNet Systems
Work Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502
Telephone / Ext.: (281) 203-6100
Email Address: jmilone@extenetsystems.com

9.20 Person responsible for the radio frequency engineering of the Project;

Name: Dimitri Gogas
Title: RF
Company Affiliation: ExteNet Systems
Work Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502
Telephone / Ext.: 415-617-5190
Email Address: dgogas@extenetsystems.com

9.30 Person responsible for rejection of other candidate sites evaluated, if any;

Name: Joe Milone
Title: Executive Director
Company Affiliation: ExteNet Systems
Work Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502
Telephone / Ext.: (281) 203-6100
Email Address: jmilone@extenetsystems.com

9.40 If more than one key person is now or was involved in any of the functions identified in this section at or before the time of the submission of this form, attach a separate sheet providing the same information for each additional person, and identifying which function or functions are/were performed by each additional person.

Designate this Exhibit "Exhibit 9.40."

Initial here AN______ to indicate that the information above is complete and there is no Exhibit 9.4, *or* initial here _______ to indicate that Exhibit 9.40 is attached.

10.00 **Additional Information Provided by Applicant**

10.01 You are invited and encouraged to provide any additional written information that you wish the City of Glendale to consider in connection with your proposed project.

If you wish to attach information, designate this Exhibit "Exhibit 10."

Initial here _______ to indicate that Exhibit 10 is attached hereto,
or initial here AN______ to indicate that there is no Exhibit 10 attached.

11.00: **Certification of Accuracy and Reliability**

11.01: The undersigned certifies on behalf of itself, the Applicant, and the Owner that the information provided in this form and its contents are true and complete to the best of the undersigned's ability and knowledge, and that information provided here should be relied upon by the City of Glendale as being accurate and complete when the City of Glendale evaluates this project.

______________________	ExteNet Systems, LLC Authorized Agent
Signature	Title
Alexander Novak	alexander.novak@partner.teleworldsolution
Print Name	Provide Email Address
Teleworld Solutions	682-351-3335
Print Company Name	Provide Telephone Number
2/21/2023	
Date Signed	

<Last Page: Remember to sign above and initial below>

ATTACHMENT 4 TO THE SUPPLEMENT
NETWORK MONITORING AND/OR MAINTENANCE SERVICES ADDENDUM

Licensee Network Name/ID: **Glendale 145 / 121454**

Licensor Network Name/ID: **Glendale 5G / SW-CA-GLN5GG02-VZW:1**

Licensor will perform Network monitoring and/or maintenance services in accordance with this Attachment 4 and, to the extent applicable, in conformance with the General Services Provisions attached to the Agreement as **Exhibit H**.

1. GENERAL

1.1 Licensor Personnel. Licensor personnel performing Maintenance Services under this Addendum may be Licensor's employees or outside contractors and subcontractors. Any outside contractors and subcontractors used by Licensor shall comply with all of Licensor's requirements prior to and while performing such work.

1.2 Licensee Personnel. If and when Licensee is permitted or obligated to perform maintenance work affecting equipment connected to the Fiber System at any Node Site or at any Hub Site that is owned or operated by Licensor, whether such maintenance work is to be performed on Licensee Equipment for Licensee's own account or to be performed on Licensor Equipment as a contractor on behalf of Licensor, then subject to compliance with the requirements of **Section 29** of the Agreement, the personnel performing such work may be Licensee employees or outside contractors or subcontractors. Any outside contractors and subcontractors used by Licensee shall comply with all of Licensee's requirements prior to and while performing such work.

1.3 Performance Reviews and Reporting.

(a) Licensor and Licensee Network Operations personnel will meet quarterly (in person or by conference call) to review Licensor's service performance within a Licensee Market (all supported Networks within a given Licensee Market). Licensor and Licensee will agree on a format, agenda, and content for these reviews in advance, and may also change the frequency of these reviews as mutually agreed.

(b) On a monthly basis, Licensor shall provide Network operations reports, including monthly and year-to-date statistics on Network availability, Service Outages (as defined in **Exhibit G** to the Agreement), mean times to respond/restore (MTTR), and ticket level detail and metrics. On a quarterly basis, Licensor shall provide quarterly and year-to-date summary financial accounting information related to time and materials charges and credits issued. Licensor and Licensee will work jointly to develop the mutually agreed content and format for these reports, which may change the same from time to time by mutual agreement. Except as otherwise expressly agreed, the content and format of these reports shall be uniform for all supported Networks of each general type, subject to Supplements executed in accordance with the Agreement. The foregoing reports may be delivered to Licensee via a secure internet portal when and as the same is developed and implemented to the reasonable satisfaction of the respective Parties.

1.4 Trouble Reporting Processes and Escalation Contacts. Licensor and Licensee will follow the documented process for trouble reporting, including standards and guidelines for escalation, that is mutually agreed upon by the Parties from time to time with respect to the Networks within the applicable Licensee Market. Documented trouble reporting, the content and format of which will be as mutually agreed by the Parties from time to time, shall be provided to Licensee on a monthly basis.

Issues affecting the subject Network shall be escalated to the Network Operations Centers, and to the positions or persons designated by the respective Parties from time to time by notices given in accordance with this Supplement and the Agreement. The initial escalation contacts designated by the Parties shall be as set forth in the table below.

LICENSOR SINGLE POINT OF CONTACT
Call Center (24 Hour)
Telephone: +1-866-892-5327
LICENSEE SINGLE POINT OF CONTACT
Call Center (24 HOUR)
General Line: +1-800-852-2671
Disaster Recovery: +1-800-264-6620

ESCALATION PATH	
LICENSOR	**LICENSEE**
First Level	**First Level**
ExteNet NOC	Verizon Wireless NOC
Phone: (866) 892-5327	Phone: (800) 264-6620
noc@extenetsystems.com	NOC-EASTECHNICIANS@VERIZONWIRELESS.COM
Second Level	**Second Level**
Oscar DeJesus, Mgr. Network Operations Lea Parker, Mgr. Network Operations	Joseph Schultz / Miguel Almodovar
Phones: (224) 478-9344; (708) 870-0105	Title: Sr. Manager, Network Assurance
odejesus@extenetsystems.com lparker@extenetsystems.com	Mobile: (951) 202-8236 / (610) 715-5442
Third Level	**Third Level**
Vice President, Network Operations	Director, Southern California Network Assurance
Phone: (847) 878-4320	Phone: (951) 897-0207
msimpson@extenetsystems.com	Email: michaeil.d.elliott@verizon.com

2. MAINTENANCE SERVICES DESCRIPTIONS AND RESPONSIBILITIES

2.1 Network Monitoring and Trouble Reporting. (a) Licensor will monitor the Node Equipment, if any, specified in **Section 2.7** below 24 hours a day, 7 days a week, 365 days a year and Licensee shall have the right but not the obligation, to utilize read-only access to Licensor's monitoring system. Licensor will maintain a 24 hours a day, 7 days a week point-of-contact for Licensee to report system troubles. The telephone number for Licensor's 24x7x365 Network Operations Center (NOC) is (866) 892-5327. Licensee will maintain a 24 hours a day, 7 days a week point-of-contact for Licensor to report Network troubles. The telephone numbers for Licensee's 24x7x365 Network Operations Centers are 1-800-264-6620 (Western Sites) and 1-800-852-2671 (Eastern Sites). In the event of a failure or fault affecting any monitored Node or Network, an alert shall be sent to both Licensee and Licensor contacts and real time alarm information shall be sent to Licensee's applicable NOC.

(b) Licensee acknowledges and agrees that Licensor cannot and does not monitor Small Cell Node equipment. Accordingly, Licensee must contact Licensor's NOC or provide alarms to report any problems with any Small Cell Node equipment or the associated Fiber Systems.

2.2 Planned Maintenance. (a) To the extent Maintenance Services are to be provided by Licensor under this Supplement, on at least an annual basis, or as frequently as the Parties mutually agree, Licensor will perform the following periodic maintenance tasks as applicable to the Network components for which Licensor is responsible as provided in Section 2.7 below (collectively "**Planned Maintenance**"), which may include but are not limited to: (i) inspect equipment status lights, air filters, AC & DC power cables, fiber connector, RF cables, splitter, antenna, where such components are part of the equipment covered under this Supplement, and perform battery inspection and maintenance, ensure all mounting brackets are secure and inspect for external hazards to the Node Site - loose structures near antennas, leaning pole, bare cables, etc., report problems to appropriate parties, and track resolution; (ii) inspect hub optical equipment: host unit, optical jumpers, RF cables, attenuators, splitters, DC & AC plant, fiber distribution panel, etc.; and (iii) inspect all filters and remove and replace filters as required. Planned Maintenance shall be completed in accordance with all pertinent manufacturers' specifications. Whenever practical Planned Maintenance that has the potential of causing a service disruption will be completed during the approved Maintenance Window (as defined in Attachment 5 to this Supplement). Also, to the extent practical Licensor shall provide a documented Method of Procedure ("**MOP**") for Planned Maintenance activities that have the potential of causing a service disruption. Licensor's MOP must be provided to Licensee at least ten (10) Business Days in advance of the Planned Maintenance activity and be approved by Licensee prior to the commencement of such Planned Maintenance activities.

(b) Attending to external hazards identified during Planned Maintenance (e.g., trimming tree branches, fixing pole or other infrastructure problems, etc.) are Section 2.3 Unplanned Maintenance tasks. Replacement filters are to be included in Spares provided by the Party which owns the applicable Node equipment or can be provided by Licensor on a cost-plus 15% basis. Planned Maintenance is included in monthly Recurring Charges (except as otherwise provided in Section 2.1(b) above as to Small Cell Networks).

2.3 Unplanned Maintenance. On a 24x7 coverage basis, Licensor shall provide the following unplanned maintenance tasks as applicable to the Network components for which Licensor is responsible as provided in Section 2.7 below ("**Unplanned Maintenance**"): (i) remote system diagnostics, and (ii) on-site Equipment diagnostics and service on an "as needed" basis as may be reasonably required to keep each piece of equipment operating and in good working order. Unplanned Maintenance is not included in monthly Recurring Charges (except (a) as otherwise expressly provided in Section 2.7 below, and (b) to the extent the need for the Unplanned Maintenance was caused by the acts or omissions of Licensor or its contractors).

2.4 Emergency Response. Licensor shall use best efforts to respond to a "**Critical Equipment Fault**" (as defined in Table 2.1 of **Exhibit G** to the Agreement), and notify Licensee, within two (2) hours after becoming aware thereof.

2.5 Fiber Maintenance. **N. A.**

2.6 PIM. The Parties shall collaborate in good faith and each exert its best efforts, at its own cost and expense, to diagnose any PIM issues that arise during the Acceptance Testing or operation of a Network. Once said diagnosis is completed and the source of the PIM issues is identified, the PIM issues shall be resolved by the Party having the legal or equitable ownership of the equipment, including the relevant Fiber, coaxial cabling, connectors, etc., causing the same.

2.7 Allocation of Maintenance Responsibilities.

(a) Subject to the exceptions, if any, expressly set forth below, the Recurring Charges payable with respect to the Network will cover the Maintenance Services for which

Licensor is responsible (including the remote performance, management, supervision and direction of the Unplanned Maintenance Services for which Licensor is Responsible). Subject to the exceptions, if any, expressly set forth below, Unplanned Maintenance Services for which Licensor is responsible and which are performed in the field will be performed on a time and materials basis.

Components	Monitoring & Reporting	Planned Maintenance	Unplanned Maintenance		Spares Inventory Maintenance
			Party Responsible	Included in Recurring Charges (Y/ N)	
Node Equipment:					
Active Node Components (List)	Licensee	Not Included	Licensor – T&M*	N	Licensee
Antenna	Licensee	Not Included	Licensor – T&M*	N	Licensee
Combiners and Splitters	Licensee	Included	Licensor – T&M*	N	Licensee
Power Leads and Connectors	Licensee	Included	Licensor – T&M*	N	Licensee
Transport Leads and Connectors	Licensee	Included	Licensor – T&M*	N	Licensee
Node Site & Pole	Licensee	Included	Licensor – T&M*	N	Licensee
Head-End Components:					
Distributed Network Common Components	Not Included	Not Included	Licensee	N	Not Included
Licensee owned Base Station or RF Source Components	Not Included	Not Included	Licensee	N	Not Included
Licensor owned Battery Backup/ UPS and Power Systems	Not Included	Not Included	Licensee	N	Not Included
Licensee owned Battery Backup/ UPS or DC Power Systems	Not Included	Not Included	Licensee	N	Not Included
Fiber System Components					
Fiber System Components on Licensor's side of the demark (if applicable, i.e., for DRAN Networks):	Not Included	Not Included	Licensor – T&M*	N	Not Included
Fiber Optic Cabling on Licensor's side of the demark	Not Included	Not Included	Licensor – T&M*	N	Not Included
Sheath/Conduit/Innerduct on Licensor's side of the demark	Not Included	Not Included	Licensor – T&M*	N	Not Included
Splice Boxes on Licensor's side of the demark	Not Included	Not Included	Licensor – T&M*	N	Not Included

* "T&M" indicates Licensor will perform the indicated service at Licensee's expenses on a "time and materials" basis.

(b) Exceptions to maintenance categories, or allocations of responsibilities or costs: NONE

3. MAINTENANCE PROCESS

3.1 When a Service Outage or other Fiber or equipment fault affecting the Network (collectively, a "**Fault**"), is discovered, whether through fault indicators, alarms, or otherwise, if by Licensor, Licensor shall promptly contact Licensee's NOC and any contact person specified in Attachment 3 ("**Contact Information**") of this Supplement, or if by Licensee, Licensee shall promptly call Licensor's NOC or contact person specified in Attachment 3. The date and time of the call shall be logged for purposes of calculation of the restore time (the "**Fault Log Time**"). Licensor shall thereupon gather as much detailed information as possible about the nature and conditions surrounding the Fault in order to: (i) correct simple Faults without undue delay or on-site maintenance action; and (ii) identify specific component failures as soon as possible so that arrangements can be made for delivery of replacement components and necessary equipment and tools can be coordinated in coordination with the on-site arrival of Licensor's field personnel, contractors or subcontractors. Licensor shall utilize its best efforts to correct the Fault within the time permitted under the Restore Time Objectives as set forth in **Exhibit G** to the Agreement. Licensor shall also provide a documented Root Cause Analysis ("**RCA**") for any "Critical Fault". A preliminary RCA will be provided to Licensee within 24 hours of the outage restoration. A final written RCA will be delivered to Licensee within 15 Business Days of the Fault.

3.2 Licensee's NOC shall provide Licensor with any and all information and assistance at their disposal to help in the initial Fault identification process and planning of maintenance actions. If on-site troubleshooting indicates an electronics component Fault, Licensor shall promptly install a Spare and return the equipment to service. When a Fault occurs, a Spare unit shall be substituted for the defective piece of equipment so that the System can be returned to operation as quickly as possible. The defective equipment will then be returned to the Party which provided the Spare (if the Spare was provided by Licensee, the defective equipment shall be returned to Licensee within 2 Business Days), or sent to a third party identified by Licensee, at Licensee's sole cost and expense. Risk of loss and all freight and transportation charges in shipping defective equipment for repair or replacement will be the responsibility of the Party which owns the same.

3.3 Licensor shall be responsible for obtaining Node Site access and any required escort for Licensor's or, in appropriate cases, Licensee's maintenance personnel; provided, however, in those cases where Licensor has notified Licensee that escorted access for Licensee's personnel is required by the applicable Licensor Authorizations and Licensor has been unable, using best efforts, to have Licensee's personnel approved for unescorted access to the applicable Node Site, Licensee shall first request access by opening a ticket with Licensor's NOC at least 48 hours in advance of the requested site access, except in the case of an emergency in which event Licensee shall request access as far in advance as is reasonably practicable. Licensor may charge Licensee standard time and materials service fees to dispatch and provide personnel to support site access by Licensee personnel unless such site access is for the account and benefit of Licensor. Delays in obtaining Node Site access or required escort which are beyond Licensor's control shall be subtracted from the time elapsed following the Fault Log Time when determining whether Licensor has complied with the applicable Restore Time Objective.

4. SPARE SYSTEM COMPONENTS

Except as otherwise provided in Section 2.7 above, the Party that owns the respective items of Node Equipment or Head-End Equipment, as applicable, in order to ensure that Licensor can meet the Restore Time Objective, will, at such Party's sole risk, cost, and expense, purchase, ship, store, and maintain a sufficient operational supply of spare units of such items ("**Spares**") in reasonably close proximity to where such items of equipment as may need to be replaced are situated in the Network, in each case as specified in the Parties' approved sparing plan (e.g., Spares that are required for maintaining the integrity of the Network will be staged so as to facilitate a 2 hour delivery to any Node Site). If agreed upon by the Parties in writing, Licensor and Licensor's representatives will have 24/7 access to the Spares for Licensee's Equipment. If Licensee fails to keep a sufficient operational Spares supply in close proximity to where Licensee's Equipment is situated in the Network, then Licensor will make commercially reasonable efforts to expedite replacement delivery at Licensee's sole cost and expense, but any delay caused by Licensee's failure in such respect shall be deemed a Licensee Delay. In addition, if Licensor's or its representative's access to Licensee's Spares is delayed or denied, then the period of the delay or denial shall be subtracted from the time elapsed following the Fault Log Time when determining whether Licensor has complied with the applicable Restore Time Objective.

5. REMEDY FOR FAILURE TO MEET RESTORE TIME OBJECTIVES

5.1 Licensor shall use commercially reasonable efforts to provide the Maintenance Services under this Addendum in a timely, professional and workmanlike manner. If Licensor fails to meet a Restore Time Objective with respect to a Fault, Licensee shall be entitled to credits as set forth in **Exhibit G** based upon the severity of the Fault ("**Maintenance Credits**").

6. TIME AND MATERIALS SERVICE FEES. **

The rates set forth below apply to all Maintenance Services performed by Licensor on a time and materials basis and all Out of Scope Work (as defined in Attachment 8) except as otherwise provided in the Agreement or in a written proposal, if any, for Out of Scope Work to be performed by Licensor that is accepted or approved by Licensee. Licensor reserves the right to revise these rates from time to time, but no more often than once during any rolling twelve (12) month period, effective thirty (30) calendar days following Licensee's receipt of written notice of new rates from Licensor. Licensee shall not incur additional time and materials charges if Licensor needs to revisit a Node Site because the repair was not effective (e.g., Licensor performs repairs at the Node Site but has to make return trips because the Network issues are not resolved).

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Optional Checklist for Local Government
To Determine Whether a Facility is Categorically Excluded

Purpose: The FCC has determined that many wireless facilities are unlikely to cause human exposures in excess of RF exposure guidelines. Operators of those facilities are exempt from routinely having to determine their compliance. These facilities are termed "categorically excluded." Section 1.1307(b)(1) of the Commission's rules defines those categorically excluded facilities. This checklist will assist state and local government agencies in identifying those wireless facilities that are categorically excluded, and thus are highly unlikely to cause exposure in excess of the FCC's guidelines. Provision of the information identified on this checklist may also assist FCC staff in evaluating any inquiry regarding a facility's compliance with the RF exposure guidelines.

BACKGROUND INFORMATION

1. Facility Operator's Legal Name: ExteNet Systems, Inc.
2. Facility Operator's Mailing Address: 300 E Magnolia Blvd, Ste. 400, Burbank, CA 91502
3. Facility Operator's Contact Name/Title: Drew Yoon
4. Facility Operator's Office Telephone: 949-232-2359
5. Facility Operator's Fax:
6. Facility Name: SCL Glendale 237
7. Facility Address: FRONT OF 1544 W KENNETH RD
8. Facility City/Community: Glendale
9. Facility State and Zip Code: CA 91201
10. Latitude: 34° 10' 26.48" N
11. Longitude: 118° 16' 57.06" W

continue →

Optional Local Government Checklist (page 2)

EVALUATION OF CATEGORICAL EXCLUSION

12. Licensed Radio Service (see attached Table 1): Personal Communications Service
13. Structure Type (free-standing orbuilding/roof-mounted): Free Standing
14. Antenna Type [omnidirectional or directional (includes sectored)]: Directional
15. Height above ground of the lowest point of the antenna (in meters): 7.85 m
16. ☐ Check if all of the following are true:
    (a) This facility will be operated in the Multipoint Distribution Service, Paging and Radiotelephone Service, Cellular Radiotelephone Service, Narrowband or Broadband Personal Communications Service, Private Land Mobile Radio Services Paging Operations, Private Land Mobile Radio Service Specialized Mobile Radio, Local Multipoint Distribution Service, or service regulated under Part 74, Subpart I (see question 12).
    (b) This facility will not be mounted on a building (see question 13).
    (c) The lowest point of the antenna will be at least 10 meters above the ground (see question 15).

If box 16 is checked, this facility is categorically excluded and is unlikely to cause exposure in excess of the FCC's guidelines. The remainder of the checklist need not be completed. If box 16 is not checked, continue to question 17.

17. Enter the power threshold for categorical exclusion for this service from the attached Table 1 in watts ERP or EIRP* (note: EIRP = (1.64) X ERP): **Please see attached calculations**
18. Enter the total number of channels if this will be an omnidirectional antenna, or the maximum number of channels in any sector if this will be a sectored antenna:
19. Enter the ERP or EIRP per channel (using the same units as in question 17):
20. Multiply answer 18 by answer 19:

21. Is the answer to question 20 less than or equal to the value from question 17 **(yes)**

If the answer to question 21 is YES, this facility is categorically excluded. It is unlikely to cause exposure in excess of the FCC's guidelines.

If the answer to question 21 is NO, this facility is not categorically excluded. Further investigation may be appropriate to verify whether the facility may cause exposure in excess of the FCC's guidelines.

*"ERP" means "effective radiated power" and "EIRP" means "effective isotropic radiated power

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MPE Compliance Checklist

This form shall be filled out by the RF Engineer after construction drawings are finalized and prior to completion of the NEPA report. A new checklist must be prepared for any new or modified facility including height, power/ERP, antenna changes, channel adds, or frequency additions.

Site Name: SCL GLENDALE 237

Site Number: SW-CA-GLENDA-00237

RFEngineer: Prasad Kuppurangan

Date: 2/21/2023

RF Engineer Signature: K. Prasad

1. Are the following statements TRUE?

a. This facility will be operated between 300 kHz and 100 GHz [including 600 MHz, 700 MHz, 800 MHz, 1900 MHz, 2100 MHz, CBRS (3 GHz), LAA (5 GHz), mmWave (24 GHz, 28 GHz, 39 GHz) frequency bands]. [X] **YES** [ ] **NO**

b. This facility will **not** be mounted on a building. [X] **YES** [ ] **NO**

c. This facility employs frequency bands between 300 kHz and 100 GHz [including 600 MHz, 700 MHz, 800 MHz, 1900 MHz, 2100 MHz, CBRS (3 GHz), LAA (5 GHz), mmWave (24 GHz, 28 GHz, 39 GHz) frequency bands], is the total power of all RF sources ≤1 as per the following formula.

$$\sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,\,j}} \leq 1$$

***Figure 1**: Multiple RF Source Summation Equation* [X] **YES** [ ] **NO**

ERPj = the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source *j*.

ERPth,j = exemption threshold ERP for fixed, mobile, or portable RF source *j*, at a distance of at least λ/2π, according to the applicable MPE-based Single RF Source formula at the location in question.

Note: EIRP = (1.64 X ERP)

*** If Steps 1.a, b and c are “Yes”, then the tower is deemed ‘exempt’ from the requirement to perform routine environmental processing for RF exposure. Therefore, Conduct Step 5, provide a copy of the following Compliance Statement to the Project Manager or vendor completing the NEPA report.**

***If you checked NO to any of the three statements, this facility is not 'exempt'. Further investigation is appropriate to verify whether the facility may cause exposure in excess of the FCC's guidelines. Continue to question 2.**

2. **NOTE on Building-Mounts:** GSS recommends full MPE evaluation assessment on all rooftops, water tanks and other building mounted antennas - no exemptions apply. (**Conduct the full MPE evaluation study then proceed to Step 3 regardless of response)**

3. Are the RF Exposure limits in excess of FCC regulations (47 CFR 1.1310 and 2.1093)? ☐ **YES** ☐ **NO**
(If "No", skip question 4)

4. Will the RF power densities exceed occupational or public exposure limits under the RF Exposure Study if all recommended RF mitigation procedures are implemented? ☐ **YES** ☐ **NO**

   (If "Yes", contact RF Planning and Regulatory Affairs for additional mitigation measures before proceeding)

5. **Final Action:** Attach the MPE Analysis and forward this form along with any additional MPE documentation to the Project Manager.

Statement of Compliance with FCC Rules 47 CFR Sec. 1.1307 & Sec. 1.1310
The Federal Communications Commission ("FCC") regulates the maximum permissible exposure ("MPE") of persons to RF radiation and wireless carriers must comply with the requirements of the FCC. The relevant requirements which deal with wireless antenna towers and other structures are found in Sections 1.1307 and 1.1310 of the FCC's RF Exposure Rules.

Appendix

Table 2. Single RF Sources Subject to Routine Environmental Evaluation under MPE-Based Exemptions, $R \geq \lambda/2\pi$

Transmitter Frequency	Threshold ERP
0.3 – 1.34	1,920 R^2
1.34 – 30	3,450 R^2/f^2
30 – 300	3.83 R^2
300 – 1,500	0.0128 R^2f
1,500 – 100,000	19.2 R^2

Note: Transmitter Frequency is in MHz, Threshold ERP is in watts, R is in meters, f is in MHz.

Decision 19-09-045 September 26, 2019

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of ExteNet Systems, Inc., for a Certificate of Public Convenience and Necessity to Provide Full Facilities-Based and Resold Competitive Local Exchange and Interexchange Services.	Application 18-11-002

DECISION GRANTING EXTENET SYSTEMS, INC. A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY IN ORDER TO PROVIDE FULL FACILITIES-BASED AND RESOLD COMPETITIVE LOCAL EXCHANGE AND INTEREXCHANGE SERVICE

Summary

Pursuant to Public Utilities Code § 1001, we grant ExteNet Services, Inc., a certificate of public convenience and necessity to provide full facilities-based and resold competitive local exchange and interexchange service in California subject to the terms and conditions set forth in the Ordering Paragraphs.

This proceeding is closed.

1. Background

On November 1, 2018, ExteNet Services, Inc. (ESI), a corporation authorized to do business in California, filed an application for a certificate of public convenience and necessity (CPCN) to provide full facilities-based and resold Local Exchange and Interexchange competitive services in the service territories of Pacific Bell Telephone Company d/b/a AT&T California (AT&T

California), Frontier California Inc. (Frontier California),[1] Citizens Telecommunications Company of California, Inc. d/b/a Frontier Communications of California (Frontier Communications), and Consolidated Communications of California Company (Consolidated Communications, formerly SureWest Telephone)[2] and interexchange service in California.

ESI is a privately held Delaware corporation which has operating permits in most states throughout the United States.[3] ESI's principal place of business is in Lisle, Illinois. The ultimate parent of ESI is Mount Royal Holdings, LLC, a Delaware limited liability company which is owned by multiple private equity firms and individuals in the management of ESI, none of which own a majority share.[4]

ESI itself is the sole owner of six subsidiaries, each one authorized to provide intrastate telecommunications services in at least one state.[5] Among these six subsidiaries is one holding a certificate authorizing it to conduct business as a telephone corporation in California; that entity is known as ExteNet Systems (California) LLC (U6959C) (hereinafter, ESI-CA).

Originally, in 2005, ESI-CA's certificate and utility designation number (U6959C) were issued to its parent, ESI. ESI-CA did not exist at the time. In two decisions, one (D.05-07-004) issued shortly after ESI was initially authorized

[1] Frontier California was formerly Verizon California, Inc. (Verizon). As of April 1, 2016, Verizon's operations in California were acquired and are now operated by Frontier California, Inc., pursuant to Decision (D.) 15-12-005.

[2] SureWest Telephone was acquired by Consolidated Communications Inc. in 2012, pursuant to D.12-06-004, and SureWest Telephone changed its name to Consolidated Communications of California Company as of January 1, 2016.

[3] *See* Application at 2. ESI represents in its application that it holds authorizations to provide telecommunications services in 43 states, plus the District of Columbia.

[4] *Ibid.*

[5] Application at 2.

to operate as a telephone corporation in California and the other (D.06-04-063) a year later, the Commission increased ESI's operating authority to allow ESI to provide full facilities-based and resold competitive local exchange and non-dominant interexchange services.

In November 2006, ESI organized ESI-CA as its wholly owned subsidiary.[6] In April 2007, the Commission granted ESI permission to transfer its CPCN to ESI-CA.[7]

ESI explains in its current application that it desires a CPCN of its own, again, which it will use to provide the same services in California as ESI-CA, even while ESI-CA continues to operate in California.[8] Documents, sent by ESI to the Communications Division of the Commission, indicate that ESI's purpose for seeking another CPCN while ESI-CA continues to hold the original CPCN is "to align the [ESI-CA and ESI] companies with their current and future customer focus … and to obtain debt financing."[9]

ESI represents that it and ESI-CA will pursue two new debt financing transactions, each to a separate lender. According to ESI, its subsidiary, ESI-CA, will pledge some of its California assets to secure financing from one source and other of its California assets to secure financing from a different source; however, ESI will provide the services associated with some of the pledged assets while

[6] Advice Letter No. 4, dated April 3, 2007, at 2.

[7] On April 24, 2007 the Commission approved the transfer requested in Advice Letter No. 4.

[8] Application at 7 ("… Applicant will offer similar services at the same rates and on the same conditions as currently provided by [ESI-CA] …"); *see also*, ESI's Response to ALJ Request for Additional Information, filed May 29, 2019, at 2 ("ESI and ESI CA will provide identical services in California following issuance of a CPCN to ESI").

[9] Advice Letter No. 141, dated June 7, 2019, at 3. This advice letter sought permission to transfer control of ESI-CA to a newly created, indirect subsidiary of ESI, called ExteNet Issuer, LLC. The Commission granted permission for the change of control on June 10, 2019.

ESI-CA continues to provide services associated with the remainder of the newly pledged assets.[10]

ESI provides services to the following types of business customers: wireless carriers, broadband providers, commercial property owners, enterprises, communities and Internet of Things (IoT) companies. It has a comparatively small number of core customers which provide significant, aggregate, annual, consolidated revenue. If its application for a CPCN is granted, ESI intends to provide infrastructure facilities, such as dark fiber and metro cell nodes, to transport and transmit communications from wireless and wireline carriers in California. ESI states that it expects that any outside plant construction will be small scale, such as short conduit routes, installation of poles or conduit where existing facilities are inadequate and small, above-ground facilities in roadways and other previously developed rights of way.[11]

ESI filed its application on November 1, 2018. On November 29, 2018 the Commission determined the proceeding should be characterized as ratesetting and a hearing would be necessary. The proceeding was assigned to Commissioner Liane Randolph and Administrative Law Judge (ALJ) Charles Ferguson.

A prehearing conference was held before the assigned ALJ on April 22, 2019 at which only ESI appeared. On May 29, 2019 ESI supplemented its application by submitting further confidential financial information requested by the assigned ALJ at the April 22 prehearing conference.

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[10] *See* ESI's Response to ALJ Request for Additional Information, filed May 29, 2019, at 2 ("Certain assets currently held in California by ESI CA will be pledged to one financing party and other assets currently held by ESI CA will be pledged to a separate financing party[;] … both ESI and ESI CA will need CPCNs in order to allow them to provide the services associated with those pledged assets").

[11] *See* Application, Exh. D.

A scoping memo was issued by the assigned Commissioner on August 12, 2019.

2. Jurisdiction

Public Utilities Code (Pub. Util. Code) § 216(a) defines the term "public utility" to include a "telephone corporation," which in turn is defined in Pub. Util. Code § 234(a) as "every corporation or person owning, controlling, operating, or managing any telephone line for compensation within this state."

ESI proposes to provide full facilities-based and resold competitive services throughout California.

ESI is a Common Carrier as defined by § 153 of the Federal Telecommunications Act of 1996 (Act) eligible to interconnect with the public switched telephone network pursuant to §§ 251 and 252 of the Act, and that if granted a CPCN, it will operate as a telephone corporation under Pub. Util. Code § 234(a), and obey the Public Utility Code and all Commission rules, decisions, and orders applicable to telephone corporations.

3. California Environmental Quality Act (CEQA)

Pursuant to CEQA and Rule 2.4[12] of the Commission's Rules of Practice and Procedure, the Commission examines projects to determine any potential environmental impacts in order that adverse effects are avoided, and environmental quality is fully restored or enhanced as much as possible under CEQA.

As noted above, ESI's proposed construction activities will generally include the installation of dark fiber and metro cell nodes, to transport and transmit communications by wireless and wireline carriers in California. These

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[12] Unless otherwise noted, items labeled "Rule" are from the Commission's Rules of Practice and Procedure.

will be small scale, such as short conduit routes, installation of poles, or conduit where existing facilities are inadequate, and small, above-ground facilities in roadways and other previously developed rights of way.

These activities fall within the following classes of projects that are exempt from CEQA and for which neither an Environmental Impact Report nor a Negative Declaration is required.

- Class 1 Exemption: operation, repair, maintenance, leasing or minor alteration of existing public or private structures and facilities, with negligible or no expansion of an existing use. This includes existing facilities used to provide public utility services. (14 CCR § 15301.)
- Class 3 Exemption: construction including water main, sewage, electrical, gas and *other utility extensions of reasonable length* to serve such construction. This includes the construction of limited numbers of new small facilities or utility extensions. (14 CCR § 15303.)

ESI's proposed activities involve construction of reasonably short utility extensions (Class 3). In order to provide its service, ESI will install its dark fiber and metro cell nodes in existing roadways and rights of way. The fiber will either be attached to existing poles or will be placed underground in existing conduits or, if there are no poles and no underground conduit, ESI will add them to the existing right of way. Exemption of these activities is consistent with Commission precedent. ESI's proposed new construction activities are like those undertaken by other carriers that we have decided are categorically exempt from CEQA. *See, e.g,* D.06-04-063 (*ClearLinx Network Corporation*); D.06-04-067 (*CA-CLEC LLC*).

ESI requests approval to utilize a procedure for expedited review of its projects once it is aware of a specific site(s) in which it plans construction. The proposed procedure tracks the expedited review procedure that we have approved for other carriers. Such a process will expedite CEQA review and is appropriate for the type of construction outlined here, which will be categorically exempt. By establishing this expedited review process, we can review the information on a specific project to confirm that it is categorically exempt from CEQA or to explain why further environmental review is required. At the same time, the proposed CEQA review process will enable ESI to undertake construction of its projects in an efficient manner without experiencing delays caused by an unnecessarily protracted CEQA review.

As we provided for other carriers, the following procedure will be used to obtain Commission approval of ESI's claimed CEQA exemptions for proposed construction projects:

- ESI will provide the Commission's Energy Division with:
  - A detailed description of the proposed project, including:
    - Customer(s) to be served;
    - The precise location of the proposed construction project; and
    - Regional and local site maps.
- A description of the environmental setting, to include at a minimum:
  - Cultural, historical, and paleontological resources;
  - Biological resources; and
  - Current land use and zoning.
- A construction workplan, to include:
  - Commission Preconstruction Survey Checklist—Archaeological Resources;
  - Commission Preconstruction Survey Checklist—Biological Resources;

    - A detailed schedule of construction activities, including site restoration activities;
    - A description of construction/installation techniques;
    - A list of other agencies contacted with respect to siting, land use planning, and environmental resource issues, including contact information; and
    - A list of permits required for the proposed project.
- A statement of the CEQA exemption(s) applicable to the proposed project; and
    - Documentation and factual evidence enough to support a finding that the claimed exemption(s) is (are) applicable.
- The Energy Division will review ESI's submission for the proposed project to confirm that the claimed exemption(s) from CEQA are applicable.
- Within 21 days from the date of ESI's submittal, the Energy Division will issue either:
    - A Notice to Proceed (NTP) and file a Notice of Exemption with the State Clearinghouse, Office of Planning and Research, or
    - A letter of denial stating the specific reasons why the claimed exemption(s) are not applicable to the proposed project.

We have reviewed the application and find that:

- ESI's proposed facilities-based project activities are very limited;
- These activities would in almost all circumstances be very likely to qualify for an exemption from CEQA; and
- The proposed process for reviewing the applicability of CEQA exemptions to ESI's facilities-based projects is not only adequate for the Commission's purposes as CEQA Lead Agency, but is also in the public interest because it enables ESI to respond in a timely manner to requests for

> service without the delay or burden of a full CEQA review when such review is unnecessary.

We therefore approve ESI's proposed process for Commission review of claimed CEQA exemptions for construction projects undertaken pursuant to ESI's full facilities-based authority, based on the specific facts of this case with the following modifications related to the Commission's Energy Division review and approval or disapproval of the proposed exemptions.

If the Energy Division disapproves ESI's claimed CEQA exemption(s) and issues a letter of denial to ESI, ESI must either re-design the specific project and facilities and then reapply for a finding of exemption from CEQA, or file a formal application with the Commission seeking the requisite approval and full CEQA review, before commencing any construction activities.

ESI shall not perform any full facilities-based construction activities without first obtaining an NTP from the Energy Division or authorization by the Commission after the requisite environmental review.

We have previously determined that the public convenience and necessity require that competition be allowed in the provision of competitive local exchange service, Rulemaking 95-04-043/Investigation 95-04-044. Granting this application will benefit the public interest by expanding the availability of technologically advanced telecommunications services within the state.

4. Financial Qualifications

To be granted a CPCN, an applicant for authority to provide full facilities-based and resold competitive local exchange and interexchange services must demonstrate that it has a minimum of $100,000 cash or cash equivalent, reasonably liquid and readily available to meet the firm's start-up expenses.[13] An applicant must also demonstrate that it has sufficient additional resources to cover all deposits required by local exchange carriers and/or interexchange carriers in order to provide the proposed service.[14] In this proceeding, ESI provided its audited financial statements for 2017 and 2018 showing that $100,000, plus an amount equal to the deposits required by AT&T California, Frontier California, Frontier Communications, and Consolidated Communications would be available to ESI for one year following certification. Since ESI has provided documentation that it possesses a minimum of $100,000 that is reasonably liquid and available, it has demonstrated that it has enough funds to meet its start-up expenses and has fulfilled this requirement. ESI's financial documentation will be subject to verification and review by the Commission for one year to ensure that such funds are available.

5. Technical Qualifications

To be granted a CPCN for authority to provide competitive local exchange and interexchange service, an applicant must make a reasonable showing of managerial and technical expertise in telecommunications or a related business.[15] ESI has been a part of the telecommunications industry nationwide for many years and supplied biographical information on its management in Exhibit I (eye) to its application that demonstrates it and they have sufficient expertise and

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[13] The financial requirement for Competitive Local Exchange Carriers (CLEC) is contained in D.95-12-056, Appendix C. The financial requirement for Non-Dominant Interexchange Carriers (NDIEC) is contained in D.91-10-041.

[14] The requirement for Competitive Local Carrier (CLC) applicants to demonstrate that they have additional financial resources to meet any deposits required by underlying Local Exchange Carriers (LEC) and/or IECs is set forth in D.95-12-056, Appendix C. For NDIECs, the requirement is found in D.93-05-010.

[15] D.95-12-056 at Appendix C, Rule 4.A.

training to operate as a telecommunications provider in California. Furthermore, ESI's wholly owned subsidiary, ESI-CA, has been providing telecommunications service in California for several years. There are no outstanding complaints against ESI-CA at this Commission and no notices of deficiencies have ever been issued against ESI-CA by this Commission. ESI represents in its application that it will share the same management team with ESI-CA, thereby benefitting from that team's knowledge and experience with the California market.[16]

In its application, ESI verified that no one associated with or employed by ESI as an affiliate, officer, director, partner, or owner of more than 10 percent of ESI, or anyone acting in a management capacity for ESI**:**

> (a) held one of these positions with a company that filed for bankruptcy; (b) been personally found liable, or held one of these positions with a company that has been found liable, for fraud, dishonesty, failure to disclose, or misrepresentations to consumers or others; (c) been convicted of a felony; (d) been (to his/her knowledge) the subject of a criminal referral by judge or public agency; (e) had a telecommunications license or operating authority denied, suspended, revoked, or limited in any jurisdiction; (f) personally entered into a settlement, or held one of these positions with a company that has entered into settlement of criminal or civil claims involving violations of §§ 17000 et seq., §§ 17200 et seq., or §§ 17500 et seq. of the California Business & Professions Code, or of any other statute, regulation, or decisional law relating to fraud, dishonesty, failure to disclose, or misrepresentations to consumers or others; or (g) been found to have violated any statute, law, or rule pertaining to public utilities or other regulated industries; or (h) entered into any settlement agreements or made any voluntary payments or agreed to any

[16] Application at 8, section II, subsection 10.

> other type of monetary forfeitures in resolution of any action by any regulatory body, agency, or attorney general.[17]

Also, to the best of ESI's knowledge, neither ESI, nor any affiliate, officer, director, partner, nor owner of more than 10 percent of ESI, nor any person acting in such capacity whether or not formally appointed, is being, or has been investigated by the Federal Communications Commission or any law enforcement or regulatory agency for failure to comply with any law, rule or order.[18]

For the above reasons, we find that ESI has complied with the requirements of D.13-05-035.

ESI represents that no deposit is required by AT&T California, Frontier California, Frontier Communications, and Consolidated Communications.[19] Therefore, no additional resources are required at this time to cover deposits.

6. Tariffs

ESI has requested detariffed status. In its application, ESI states that it does not intend to offer basic service or switched access. It represents that it will provide the services described above in section one "on a non-discriminatory," "individual case basis" and "at competitive rates."[20] ESI further represents that it will comply with all consumer protection rules identified in D.98-08-031 to the extent they are applicable to the services ESI provides. Furthermore, ESI represents that it will first comply with all tariffing obligations should it ever

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[17] *See* Application, Exhibit J, par. 4. These certifications are required by D.13-05-035, Ordering Paragraph 14.

[18] Application, Exh. J, par. 4.

[19] Application at 8 - 9.

[20] *Id.* at 9, section II, subsection 13.

decide to offer basic services or switched access.[21] Exemption from tariffing obligations is therefore appropriate.

7. Map of Service Territory

To be granted a CPCN for authority to provide competitive local exchange service, an applicant must provide a map of the service territories it proposes to serve.[22] In Exhibit F to its application, ESI provided a map of the location of its proposed service territory, in compliance with this requirement.

8. Rule 3.1(i) Statement

Rule 3.1(i) sets forth the requirement that a utility filing an application under Pub. Util. Code § 1001, provide a statement regarding General Order (GO) 104-A, Section 2. ESI states that it is not aware of any reportable matters pursuant to General Order 104-A, Section 2.[23] ESI, therefore, has nothing to report under this rule. On a going forward basis, though, ESI must file all reports required of a public utility under Commission jurisdiction and it has represented that it will do so.[24]

9. Expected Customer Base

ESI provided its estimated customer base for the first and fifth years of operation in Exhibit H of its application. Therefore, ESI has complied with this requirement.

10. Requests for Non-dominant Carrier Treatment and for Exemptions

ESI requests treatment as a non-dominant interexchange carrier, which would include exemption from the requirements of Pub. Util. Code §§ 816-830

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[21] Application 9, Section II, Subsection 13.

[22] D.95-12-056 at Appendix C, Rule 4.E.

[23] Application at 9, section II, subsection 14.

[24] *Ibid.*

concerning stocks and securities and § 851 concerning the encumbrance and transfer of utility property. While the Commission has granted exemption from §§ 816 – 830 to others, exemption from § 851 is not commonly granted unless the exemption is expressly limited to issuances of securities and transfers or encumbrances of a utility's assets for purposes of securing debt.[25] The Commission issued detailed rules regarding exemption of non-dominant carriers in D.85-01-008, which it subsequently modified in D.85-07-081 and D.85-11-044.

ESI represents that it will provide service to business customers only, specifically, wireless service providers, and that it seeks exemption from § 851 for the limited purposes of securing debt. We grant ESI's request for non-dominant interexchange carrier status, which provides an exemption from Pub. Util. Code §§ 816-830, as well as ESI's request for a limited exemption from § 851 in order to use stocks and securities to secure debt, provided that it follows all rules detailed in the above referenced decisions.

ESI also requests exemption from any requirement to maintain its books and records in accordance with the Uniform System of Accounts specified in Title 47 C.F.R. Part 32. Consistent with D.99-02-038, which relieved competitive local carriers that are not part of an incumbent local exchange carrier corporate entity from the requirement to keep their books of account in conformance with the Uniform System of Accounts, we will extend similar relief to ESI.

11. Safety Considerations

With the adoption of the *Safety Policy Statement of the California Public Utilities Commission* on July 10, 2014, the Commission has, among other things, heightened its focus on the potential safety implications of every proceeding. We

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[25] *See* D.85-07-081; D.85-11-044; D.86-08-057 and D.90-09-032.

have considered the potential safety implications here. The Commission is satisfied that ESI will meet the Commission's minimum safety goals and expectations of competitive local exchange carriers (CLECs) because: (1) ESI has taken steps to meet the financial requirements as set forth in this decision for a facilities-based CLEC, and (2) ESI is a public utility that is required pursuant to Pub. Util. Code § 451 to "… furnish and maintain such adequate, efficient, just and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities … as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public."

12. Conclusion

We conclude that ESI's application conforms to our rules for certification as a competitive local exchange and interexchange carrier. Accordingly, we grant ESI a CPCN to provide resold and competitive full facilities-based local exchange telecommunications service in the service territory of AT&T California, Frontier California, Frontier Communications, and Consolidated Communications and interexchange service in California subject to compliance with the terms and conditions set forth in the Ordering Paragraphs.

The CPCN granted by this decision provides benefits to ESI and corresponding obligations. ESI receives authority to operate in the prescribed service territory, and this authority enables ESI, pursuant to 251 of the 1934 Communications Act, as amended by the 1996 Telecommunications Act (47 U.S.C. § 251), to interconnect with telecommunications carriers.[26] This authority also enables ESI to obtain access to public rights-of-way in California as

[26] The California Public Utilities Code uses the term "telephone corporation." Its counterpart in federal law is a "telecommunications carrier."

set forth in D.98-10-058, subject to the CEQA requirements set forth in this decision.

In return, ESI is obligated to comply with all Public Utilities Code provisions, Commission rules, General Orders, and decisions applicable to telephone corporations providing approved services. The applicable statutes, rules, General Orders, and decisions include, but are not limited to consumer protection rules, tariffing, and reporting requirements. Moreover, ESI is obligated to pay all Commission prescribed user fees and public purpose program surcharges as set forth in the Appendix B of this decision, to comply with CEQA, and to adhere to Pub. Util. Code § 451 which states that every public utility "…shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in § 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public."

13. Requests to File Under Seal

Pursuant to Rule 11.4 of the Commission's Rules of Practice and Procedure, ESI has filed motions for leave to file Exhibits G, H and K to its application as confidential materials under seal. ESI represents that the information is sensitive, and disclosure could place ESI at an unfair business disadvantage. We have granted similar requests in the past and do so here.

14. Categorization and Need for Hearings

In Resolution ALJ 176-3328, dated November 29, 2018, the Commission preliminarily categorized this application as ratesetting, and preliminarily determined that hearings were necessary. No party filed a protest to the application. On April 22, 2019, the assigned ALJ held a pre-hearing conference.

On August 12, 2019, the assigned Commissioner issued a scoping memo stating no hearing was necessary, as no one had appeared to oppose ESI's application. Therefore, there will be no evidentiary hearing in this matter.

15. Waiver of Comment Period

This is an uncontested matter in which the decision grants the relief requested. Accordingly, pursuant to § 311(g)(2) of the Public Utilities Code and Rule 14.6(c)(2), the otherwise applicable 30-day period for public review and comment is waived.

16. Assignment of Proceeding

Liane Randolph is the assigned Commissioner and Charles Ferguson is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. ESI is a telephone corporation and a public utility as defined in Pub. Util. Code § 234(a) and § 216(a).

2. ESI's proposed construction activities appear to fall within one or more CEQA categorical exemptions.

3. ESI has a minimum of $100,000 of cash or cash equivalent that is reasonably liquid and readily available to meet its start-up expenses.

4. ESI has enough additional cash or cash equivalent to cover deposits that may be required by other telephone corporations in order to provide the proposed service.

5. ESI's management possesses enough experience, knowledge, and technical expertise to provide local exchange services to the public.

6. No one associated with or employed by ESI as an affiliate, officer, director, partner, agent, or owner (directly or indirectly) of more than 10 percent of ESI, or anyone acting in a management capacity for ESI: (a) held one of these positions

with a company that filed for bankruptcy; (b) been personally found liable, or held one of these positions with a company that has been found liable, for fraud, dishonesty, failure to disclose, or misrepresentations to consumers or others; (c) been convicted of a felony; (d) been the subject of a criminal referral by judge or public agency; (e) had a telecommunications license or operating authority denied, suspended, revoked, or limited in any jurisdiction; (f) personally entered into a settlement, or held one of these positions with a company that has entered into settlement of criminal or civil claims involving violations of §§ 17000 *et seq.*, §§ 17200 *et seq*., or §§ 17500 *et seq*. of the California Business & Professions Code, or of any other statute, regulation, or decisional law relating to fraud, dishonesty, failure to disclose, or misrepresentations to consumers or others; or (g) been found to have violated any statute, law, or rule pertaining to public utilities or other regulated industries; or (h) entered into any settlement agreements or made any voluntary payments or agreed to any other type of monetary forfeitures in resolution of any action by any regulatory body, agency, or attorney general.

7. To the best of ESI's knowledge, neither ESI, or any affiliate, officer, director, partner, nor owner of more than 10 percent of ESI, or any person acting in such capacity whether or not formally appointed, is being, or has been investigated by the Federal Communications Commission or any law enforcement or regulatory agency for failure to comply with any law, rule or order.

8. ESI requested and is eligible for exemption from tariffing requirements and must observe the consumer protection rules adopted in D.98-08-031.

9. ESI provided a map of the location of its proposed service territory.

10. ESI has no information to report under Rule 3.1(i), which requires that a utility filing an application under Pub. Util. Code §1001, provide a statement regarding compliance with GO 104-A, Section 2.

11. ESI provided an estimate of its customer base for the first and fifth year of operation.

12. Pursuant to Rule 11.4, ESI filed motions for leave to file confidential materials under seal, including Exhibits G, H and K to ESI's application in this proceeding.

Conclusions of Law

1. ESI should be granted a CPCN to provide resold, full facilities-based local exchange telecommunications service in the service territories of AT&T California, Frontier California, Frontier Communications, Consolidated Communications and interexchange service in California, subject to the terms and conditions set forth in the Ordering Paragraphs.

2. ESI should be allowed to use the Energy Division 21-day CEQA exemption process.

3. ESI, once granted a CPCN, should be subject to the applicable Commission rules, decisions, General Orders, and statutes that pertain to California public utilities.

4. ESI should be granted an exemption from the requirement to file tariffs.

5. ESI's motion to file under seal its Exhibits G, H and K to its application, should be granted for three years.

6. ESI should be granted non-dominant carrier status, subject to Commission rules and regulations as detailed in D.85-01-008 and modified in D.85-07-081 and D.85-11-044.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to ExteNet Services, Inc. to provide resold and competitive full facilities-based local exchange telecommunications services in the territories of Pacific Bell Telephone Company d/b/a AT&T California, Frontier California Inc., Citizens Telecommunications Company of California, Inc. d/b/a/ Frontier Communications of California, and Consolidated Communications of California Company, and interexchange service in California, subject to the terms and conditions set forth below.

2. The corporate identification number assigned to ExteNet Services, Inc., U7363C, must be included in the caption of all original filings with this Commission, and in the titles of other pleadings filed in existing cases.

3. ExteNet Services, Inc., must file, in this docket, a written acceptance of the certificate granted in this proceeding within 30 days of the effective date of this decision. Written acceptance filed in this docket does <u>not</u> reopen the proceeding.

4. The certificate granted by this decision will expire if not exercised within 12 months of the effective date of this decision.

5. ExteNet Services, Inc. must notify the Director of the Communications Division of the date that local exchange service is first rendered to the public, no later than five days after service first begins, by email to cdcompliance@cpuc.ca.gov.

6. ExteNet Services, Inc. (ESI) must obtain a performance bond of at least $25,000 in accordance with Decision 13-05-035. The performance bond must be a continuous bond (*i.e.,* there is no termination date on the bond) issued by a corporate surety company authorized to transact surety business in California,

and the Commission must be listed as the obligee on the bond. Within five days of acceptance of its certificate of public convenience and necessity authority, ESI must submit a Tier-1 advice letter to the Communications Division, containing a copy of the license holder's executed bond, and submit a Tier-1 advice letter annually, but not later than March 31, with a copy of the executed bond.

7. ExteNet Services, Inc. must not allow its performance bond to lapse during any period of its operation. Pursuant to Decision 13-05-035, the Commission may revoke a certificate of public convenience and necessity if a carrier is more than 120 days late in providing the Communications Division a copy of its executed performance bond and the carrier has not been granted an extension of time by the Communications Division.

8. In addition to all the requirements applicable to competitive local exchange carriers and interexchange carriers included in Attachments B, C, and D to this decision, ExteNet Services, Inc. is subject to the Consumer Protection Rules contained in General Order (GO) 168, and all applicable Commission rules, decisions, GOs, and statutes that pertain to California public utilities.

9. ExteNet Services, Inc. must pay the public purpose surcharges specified in Attachment B, and the Combined California Public Utilities Commission Telephone Surcharge Transmittal Form must be submitted even if the amount due is $0.

10. ExteNet Services, Inc. must pay an annual minimum user fee of $100 or 0.30 percent of gross intrastate revenue, whichever is greater. Under Public Utilities Code § 405, carriers that are in default of reporting and submitting user fees for a period of 30 days or more will be subject to penalties including suspension or revocation of their authority to operate in California.

11. Prior to initiating service, ExteNet Services, Inc. must provide the Commission's Consumer Affairs Branch with the name(s), address(es), and telephone number(s) of its designated contact person(s) for purposes of resolving consumer complaints. This information must be updated if the name(s), address(es), or telephone number(s) change, or at least annually.

12. Prior to initiating service, ExteNet Services, Inc. must provide the Commission's Communications Division with the name(s), address(es), and telephone number(s) of its designated regulatory/official contact person(s). This information must be provided electronically, using the "Regulatory/Official Contact Information Update Request" found at http://www.cpuc.ca.gov/communications. This information must be updated if the name or telephone number changes, or at least annually.

13. ExteNet Services, Inc. must submit an affiliate transaction report to the Director of the Communications Division, by e-mail to cdcompliance@cpuc.ca.gov, in compliance with Decision 93-02-019, on a calendar year basis using the form contained in Attachment D.

14. ExteNet Services, Inc. must submit an annual report to the Director of the Communications Division, by email to cdcompliance@cpuc.ca.gov, in compliance with General Order 104-A, on a calendar-year basis with the information contained in Attachment C to this decision.

15. ExteNet Services, Inc. must apply for expanded authority to operate without Non-dominant Interexchange Carrier status prior to construction of full facilities.

16. The staff of the Commission's Energy Division is authorized to review, process, and act upon ExteNet Services, Inc. 's requests for a determination that

its full facilities-based construction activities are exempt from the requirements of the California Environmental Quality Act.

17. If ExteNet Services, Inc. (ESI) wishes to engage in full facilities-based construction activities and believes that these activities are exempt from California Environmental Quality Act, ESI shall first apply to the Commission's Energy Division staff for a determination of exemption from California Environmental Quality Act by providing the Commission's Energy Division (Energy Division) with:

a. A detailed description of the proposed project, including:
   - i. Customer(s) to be served;
   - ii. The precise location of the proposed construction project; and
   - iii. Regional and local site maps.

b. A description of the environmental setting, including at a minimum:
   - i. Cultural, historical, and paleontological resources;
   - ii. Biological resources; and
   - iii. Current land use and zoning.

c. A construction workplan, including:
   - i. Commission Preconstruction Survey Checklist—Archaeological Resources;
   - ii. Commission Preconstruction Survey Checklist—Biological Resources;
   - iii. A detailed schedule of construction activities, including site restoration activities;
   - iv. A description of construction/installation techniques;
   - v. A list of other agencies contacted with respect to siting, land use planning, and environmental resource issues, including contact information; and
   - vi. A list of permits required for the proposed project.

d. A statement of the California Environmental Quality Act exemption(s) claimed to apply to the proposed project; and

e. Documentation supporting the finding of exemption from California Environmental Quality Act.

f. The Energy Division will then review the submittal and notify ESI of either its approval or its denial of ESI's claim for exemption from California Environmental Quality Act review within 21 days from the time that ESI's submittal is complete.

18. If the Energy Division approves ExteNet Services, Inc. (ESI's) claimed California Environmental Quality Act exemption(s), the staff shall prepare a Notice to Proceed and file a Notice of Exemption with the State Clearinghouse, Office of Planning and Research. If the Energy Division disapproves ESI's claimed California Environmental Quality Act exemptions, the staff shall issue to ESI a letter which states the specific reasons that the claimed California Environmental Quality Act exemptions do not apply to the proposed project.

19. If the Energy Division disapproves ExteNet Services, Inc. (ESI's) claimed California Environmental Quality Act exemption(s), ESI shall either re-design the specific project and facilities and then reapply for a finding of exemption from California Environmental Quality Act, or file a formal application with the Commission seeking the requisite approval and full California Environmental Quality Act review, before commencing any full facilities-based construction activities.

20. ExteNet Services, Inc. (ESI's) motion to file under seal its Exhibits G, H and K is granted for a period of three years after the date of this decision. During this three-year period, this information shall not be publicly disclosed except on further Commission order or Administrative Law Judge ruling. If ESI believes that it is necessary for this information to remain under seal for longer than

three years, ESI may file a new motion showing good cause for extending this order by no later than 30 days before the expiration of this order.

21. Application 18-11-002 is closed.

This decision is effective today.

Dated September 26, 2019, 2019 at San Francisco, California.

MARYBEL BATJER
President
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners

ATTACHMENT A

This Attachment Is Intentionally Left Blank.

(END OF ATTACHMENT A)

ATTACHMENT B

REQUIREMENTS APPLICABLE TO COMPETITIVE LOCAL EXCHANGE CARRIERS AND INTEREXCHANGE CARRIERS

1. Applicant must file, in this docket with reference to this decision number, a written acceptance of the certificate granted in this proceeding within 30 days of the effective date of this order. (Please note, written acceptance filed in this docket does not re-open the proceeding.)

2. The certificate granted and the authority to render service under the rates, charges, and rules authorized will expire if not exercised within 12 months of the date of this decision.

3. Applicant is subject to the following fees and surcharges that must be regularly remitted. Per the instructions in Exhibit E to Decision (D.) 00-10-028, the Combined California PUC Telephone Surcharge Transmittal Form must be submitted even if the amount due is $0.

   a. The Universal Lifeline Telephone Service Trust Administrative Committee Fund (Pub. Util. Code § 879);

   b. The California Relay Service and Communications Devices Fund (Pub. Util. Code § 2881; D.98-12-073);

   c. The California High Cost Fund-A (Pub. Util. Code § 739.3; D.96-10-066, at 3-4, App. B, Rule 1.C);

   d. The California High Cost Fund-B (D.96-10-066, at 191, App. B, Rule 6.F.; D.07-12-054);

   e. The California Advanced Services Fund (D.07-12-054);

   f. The California Teleconnect Fund (D.96-10-066, at 88, App. B, Rule 8.G);

g. The User Fee provided in Pub. Util. Code §§ 431-435. The minimum annual User Fee is $100, as set forth in D.13-05-035.

Note: These fees change periodically. In compliance with Resolution T-16901, December 2, 2004, Applicant must check the joint tariff for surcharges and fees filed by Pacific Bell Telephone Company (d/b/a AT&T California) and apply the current surcharge and fee amounts in that joint tariff on end-user bills until further revised. Current and historical surcharge rates can be found at http://www.cpuc.ca.gov/General.aspx?id=1124.

i. Carriers must report and remit CPUC telephone program surcharges online using the CPUC Telecommunications and User Fees Filing System (TUFFS). Information and instructions for online reporting and payment of surcharges are available at http://www.cpuc.ca.gov/General.aspx?id=1010. To request a user ID and password for TUFFS online filing and for questions, please e-mail Telcosurcharge@cpuc.ca.gov.

ii. Carriers must submit and pay the PUC User Fee (see Item 3.g above) upon receiving the User Fee statement sent by the Commission Instructions for reporting and filing are available at http://www.cpuc.ca.gov/General.aspx?id=1009. Please send an email to userfees@cpuc.ca.gov for additional questions regarding User Fee reporting and payment.

4. If Applicant is a competitive local exchange carrier, the effectiveness of its future competitive local exchange carrier tariffs is subject to the requirements of General Order 96-B and the Telecommunications Industry Rules (D.07-09-019).

5. If Applicant is a non-dominant interexchange carrier, the effectiveness of its future non-dominant interexchange carrier tariffs is subject to the requirement of General Order 96-B and the Telecommunications Industry Rules (D.07-09-019).

6. Tariff filings must reflect all fees and surcharges to which Applicant is subject, as reflected in Item 3, above.

7. Applicant must obtain a performance bond of at least $25,000 in accordance with Decision 13-05-035. The performance bond must be a continuous bond (*i.e.*, there is no termination date on the bond) issued by a corporate surety company authorized to transact surety business in California, and the Commission must be listed as the obligee on the bond. Within five days of acceptance of its certificate of public convenience and necessity authority, Applicant must submit a Tier-1 Advice Letter to the Communications Division, containing a copy of the license holder's executed bond, and submit a Tier-1 advice letter annually, but not later than March 31, with a copy of the executed bond.

8. Applicant must not allow its performance bond to lapse during any period of its operation. Pursuant to Decision 13-05-035, the Commission may revoke a certificate of public convenience and necessity if a carrier is more than 120 days late in providing the Communications Division a copy of its executed performance bond and the carrier has not been granted an extension of time by the Communications Division.

9. Applicants providing local exchange service must submit a service area map as part of their initial tariff to the Communications Division.

10. Prior to initiating service, Applicant must provide the Commission's Consumer Affairs Branch with the name(s), address(es), and telephone number(s) of its designated contact person(s) for purposes of resolving consumer complaints. This information must be updated if the name(s), address(es), and telephone number(s) change, or at least annually.

11. In addition, Applicant must provide the Commission's Communications Division with the name(s), address(es), and telephone number(s) of its designated regulatory/official contact persons(s). This information must be provided electronically, using the "Regulatory/Official Contact Information Update Request" found at http://www.cpuc.ca.gov/communications. This information must be updated if the name(s), address(es), and telephone number(s) change, or at least annually.

12. Applicant must notify the Director of the Communications Division, in writing submitted by email to cdcompliance@cpuc.ca.gov, no later than five days after service first begins, of the date that local exchange service is first rendered to the public.

13. Applicant must keep its books and records in accordance with the Generally Accepted Accounting Principles.

14. In the event Applicant's books and records are required for inspection by the Commission or its staff, it must either produce such records at the Commission's offices or reimburse the Commission for the reasonable costs incurred in having Commission staff travel to its office.

15. Applicant must submit an annual report to the Director of the Communications Division at cdcompliance@cpuc.ca.gov, in compliance with GO 104-A, on a calendar-year basis with the information contained in Attachment C to this decision.

16. Applicant must submit an affiliate transaction report to the Director of the Communications Division at cdcompliance@cpuc.ca.gov, in compliance with D.93-02-019, on a calendar-year basis using the form contained in Attachment D.

17. Applicant must ensure that its employees comply with the provisions of Pub. Util. Code § 2889.5 regarding solicitation of customers.

18. Within 60 days of the effective date of this order, Applicant must comply with Pub. Util. Code § 708, Employee Identification Cards, and notify the Director of the Communications Division of its compliance in writing, by email to cdcompliance@cpuc.ca.gov.

19. If Applicant is 90 days or more late in submitting an annual report, or in remitting the surcharges and fee listed in Item 3 above, and has not received written permission from the Communications Division to file or remit late, the Communications Division must prepare for Commission consideration a resolution that revokes Applicant's CPCN.

20. Applicant is exempt from Rule 3.1(b) of the Commission's Rules of Practice and Procedure.

21. Applicant is exempt from Pub. Util. Code §§ 816-830, and 851.

22. If Applicant decides to discontinue service or file for bankruptcy, it must immediately notify the Communications Division's Bankruptcy Coordinator.

23. Applicant must send a copy of this decision to concerned local permitting agencies no later than 30 days from the date of this order.

(END OF ATTACHMENT B)

ATTACHMENT C

ANNUAL REPORT

An original and a machine readable, copy using Microsoft Word or compatible format must be submitted to the California Public Utilities Commission, Communications Division, 505 Van Ness Avenue, San Francisco, CA 94102-3298, no later than March 31st of the year following the calendar year for which the annual report is submitted. In addition, an electronic copy of the report must be emailed to cdcompliance@cpuc.ca.gov.

Failure to submit this information on time may result in a penalty as provided for in Pub. Util. Code §§ 2107 and 2108.

Required information:

1. Exact legal name and U # of the reporting utility.
2. Address.
3. Name, title, address, and telephone number of the person to be contacted concerning the reported information.
4. Name and title of the officer having custody of the general books of account and the address of the office where such books are kept.
5. Type of organization (*e.g.*, corporation, partnership, sole proprietorship, etc.).

   If incorporated, specify:

   a. Date of filing articles of incorporation with the Secretary of State.
   b. State in which incorporated.
6. Number and date of the Commission decision granting the Certificate of Public Convenience and Necessity.
7. Date operations were begun.
8. Description of other business activities in which the utility is engaged.
9. List of all affiliated companies and their relationship to the utility. State if affiliate is a:
   a. Regulated public utility.
   b. Publicly held corporation.
10. Balance sheet as of December 31st of the year for which information is submitted.

11. Income statement for California operations for the calendar year for which information is submitted.
12. Cash Flow statement as of December 31st of the calendar year for which information is submitted, for California operations only.

For any questions concerning this report, please send an email to cdcompliance@cpuca.ca.gov with a subject line that includes: "CD Annual Reports."

(END OF ATTACHMENT C)

ATTACHMENT D

CALENDAR YEAR AFFILIATE TRANSACTION REPORT

An original and a machine readable, copy using Microsoft Word and Excel, or compatible format must be submitted to the California Public Utilities Commission, Communications Division, 505 Van Ness Avenue, San Francisco, CA 94102-3298, no later than May 1st of the year following the calendar year for which the annual report is submitted. In addition, an electronic copy of the report must be emailed to cdcompliance@cpuc.ca.gov.

1. Each utility must list and provide the following information for each affiliated entity and regulated subsidiary that the utility had during the period covered by the Annual Affiliate Transaction Report.

    - Form of organization (*e.g.*, corporation, partnership, joint venture, strategic alliance, etc.);
    - Brief description of business activities engaged in;
    - Relationship to the utility (*e.g.*, controlling corporation, subsidiary, regulated subsidiary, affiliate);
    - Ownership of the utility (including type and percent ownership)
    - Voting rights held by the utility and percent; and
    - Corporate officers.

2. The utility must prepare and submit a corporate organization chart showing any and all corporate relationships between the utility and its affiliated entities and regulated subsidiaries in Item 1 above. The chart must have the controlling corporation (if any) at the top of the chart, the utility and any subsidiaries and/or affiliates of the controlling corporation in the middle levels of the chart, and all secondary subsidiaries and affiliates (*e.g.*, a subsidiary that in turn is owned by another subsidiary and/or affiliate) in the lower levels. Any regulated subsidiary must be clearly noted.

3. For a utility that has individuals who are classified as "controlling corporations" of the competitive utility, the utility must only report under the requirements of Items 1 and 2 above any affiliated entity that either (a) is a public utility or (b) transacts any business with the utility filing the annual report excluding the provision of tariff services.

4. Each annual report must be signed by a corporate officer of the utility stating under penalty of perjury under the laws of the State of California (CCP 2015.5) that the annual report is complete and accurate with no material omissions.

5. Any required material that a utility is unable to provide must be reasonably described and the reasons the data cannot be obtained, as well as the efforts expended to obtain the information, must be set forth in the utility's Annual Affiliate Transaction Report and verified in accordance with Section I-F of Decision 93-02-019.

6. Utilities that do not have affiliated entities must submit, in lieu of the annual transaction report, an annual statement to the Commission stating that the utility had no affiliated entities during the report period. This statement must be signed by a corporate officer of the utility, stating under penalty of perjury under the laws of the State of California (CCP 2015.5) that the annual report is complete and accurate with no material omissions.

For any questions concerning this report, please send an email to cdcompliance@cpuca.ca.gov with a subject line that includes: "CD Annual Reports."

(END OF ATTACHMENT D)

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: LOS ANGELES SMSA LIMITED PARTNERSHIP

ATTN: REGULATORY
LOS ANGELES SMSA LIMITED PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
KNKA209	
Radio Service	
CL - Cellular	
Market Numer	**Channel Block**
CMA002	B
Sub-Market Designator	
0	

FCC Registration Number (FRN): 0002963817

Market Name
Los Angeles-Long Beach/Anaheim

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-26-2014	11-01-2016	10-01-2024		

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
6	33-56-38.2 N	116-53-37.3 W	915.0	51.2	1011029

Address: 1999 8TH STREET
City: BANNING **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-668.200	-417.800	269.800	-7.400	64.200	272.000	202.300	-88.300
Transmitting ERP (watts)	91.830	91.830	91.830	91.830	91.830	91.830	91.830	91.830

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
10	34-30-25.0 N	117-54-06.3 W	926.8	33.5	

Address: 12747 PEARBLOSSOM HIGHWAY

City: Pearblossom **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	116.900	94.400	-29.400	-328.400	-564.200	-289.100	-8.200	133.600
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
11	34-08-51.0 N	118-41-54.3 W	234.4	21.3	

Address: 4937 LAS VIRGENES ROAD

City: CALABASAS **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-160.900	-26.900	-90.200	-182.500	42.000	-144.500	-34.300	184.100
Transmitting ERP (watts)	93.330	93.330	93.330	93.330	93.330	93.330	93.330	93.330

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	33-52-01.1 N	116-26-03.0 W	476.1	37.2	

Address: 70500 VARNER RD.

City: DESERT HOT SPRINGS **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-61.800	-211.400	183.500	419.200	366.400	352.700	234.700	214.200
Transmitting ERP (watts)	3.800	28.840	91.200	85.110	24.550	2.750	0.200	0.200

Antenna: 6
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-61.800	-211.400	183.500	419.200	366.400	352.700	234.700	214.200
Transmitting ERP (watts)	0.580	0.100	0.100	2.370	15.660	31.940	25.130	6.090

Antenna: 7
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-61.800	-211.400	183.500	419.200	366.400	352.700	234.700	214.200
Transmitting ERP (watts)	159.760	78.440	12.150	0.700	0.400	2.370	30.450	125.700

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	34-31-47.0 N	118-08-42.3 W	1334.0	42.7	

Address: 35660 VISTA VIEW TERRACE
City: PALMDALE **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	566.300	578.400	482.000	143.100	268.300	476.600	313.000	379.200
Transmitting ERP (watts)	43.010	42.930	29.600	14.430	38.260	24.800	7.300	29.950

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
15	34-36-37.1 N	117-17-17.3 W	1376.6	27.4	

Address: 17232 ORO GRANDE PEAK ROAD
City: VICTORVILLE **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	454.800	339.700	434.200	487.100	535.000	507.100	549.400	571.400
Transmitting ERP (watts)	60.630	56.330	17.180	0.590	0.240	0.240	0.820	23.790

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	455.400	340.500	434.900	487.700	535.600	507.700	550.000	572.000
Transmitting ERP (watts)	0.240	0.490	6.630	27.690	47.610	40.110	14.060	1.790

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	34-23-11.0 N	118-19-47.2 W	1481.3	30.5	

Address: 11005 SANTA CLARA DIVIDE RD., 8 MI N OF
City: LOS ANGELES **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	738.500	640.900	78.900	506.700	856.500	908.500	872.400	901.100
Transmitting ERP (watts)	87.060	100.090	74.220	12.600	0.290	3.640	43.660	101.550

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	33-49-38.0 N	116-57-15.0 W	1083.0	15.5	

Address: 40480 SOBOBA ROAD
City: SAN JACINTO **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	325.900	245.500	-151.100	487.000	580.100	623.300	604.100	487.900
Transmitting ERP (watts)	0.200	0.510	7.560	24.990	25.340	22.840	5.030	0.200

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	325.900	245.500	-151.100	487.000	580.100	623.300	604.100	487.900
Transmitting ERP (watts)	1.480	0.100	0.100	0.280	3.840	10.190	10.010	8.530

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	34-05-06.0 N	118-46-57.3 W	842.4	16.8	

Address: 1953 LATIGO CANYON ROAD
City: MALIBU **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	457.000	528.300	404.700	722.400	615.600	591.600	449.600	520.100
Transmitting ERP (watts)	16.000	4.020	0.380	0.100	0.100	0.100	0.330	3.580

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	34-48-09.9 N	118-48-53.3 W	1485.0	31.1	

Address: Gorman Peak Site 37411 GORMAN POST ROAD
City: GORMAN **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	493.200	130.500	522.900	363.600	531.400	265.600	-158.700	438.900
Transmitting ERP (watts)	0.540	4.110	215.770	27.160	1.560	0.540	0.540	0.540

Antenna: 6
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	493.200	130.500	522.900	363.600	531.400	265.600	-158.700	438.900
Transmitting ERP (watts)	0.480	0.480	1.010	6.830	242.180	6.230	0.920	0.480

Antenna: 7
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	493.200	130.500	522.900	363.600	531.400	265.600	-158.700	438.900
Transmitting ERP (watts)	1.560	0.540	0.540	0.540	0.540	4.110	215.770	27.160

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
24	34-15-54.0 N	117-10-08.1 W	1620.3	13.4	

Address: 29101 Hospital Road
City: Lake Arrowhead **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	309.100	0.000	-283.100	-77.700	553.300	602.400	233.100	388.000
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
28	33-31-32.1 N	115-56-38.0 W	-64.0	31.7	

Address: 98775 HIGHWAY 111
City: MECCA **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-334.700	-474.700	-122.900	24.800	37.100	32.100	31.800	-53.700
Transmitting ERP (watts)	10.230	0.950	0.200	0.350	3.390	33.110	95.500	63.100

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-334.700	-474.700	-122.900	24.800	37.100	32.100	31.800	-53.700
Transmitting ERP (watts)	2.180	18.960	137.390	250.000	99.530	12.530	1.070	0.500

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
29	33-46-17.1 N	118-22-10.3 W	272.2	15.5	

Address: 734 SILVER SPUR ROAD
City: ROLLING HILLS **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	247.600	263.800	256.200	80.700	282.000	142.000	176.100	266.400
Transmitting ERP (watts)	6.680	6.680	6.680	6.680	6.680	6.680	6.680	6.680

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
31	33-23-12.1 N	118-24-08.6 W	479.2	39.7	

Address: 5 miles NW of Avalon, ON BLACK JACK MTN.
City: Santa Catalina ISLAN **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	472.000	473.800	478.100	157.500	383.600	196.000	365.500	282.600
Transmitting ERP (watts)	0.100	0.100	0.960	1.740	0.240	0.100	0.100	0.100

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	472.000	473.800	478.100	157.500	383.600	196.000	365.500	282.600
Transmitting ERP (watts)	0.690	0.100	0.100	0.100	0.100	0.100	0.380	1.950

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
32	33-39-19.1 N	115-27-12.9 W	1147.8	35.7	

Address: CHUCKWALLA CELL SITE: 6 MILES SW OF
City: DESERT CENTER **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	851.900	909.500	545.300	242.600	479.000	655.200	690.100	569.500
Transmitting ERP (watts)	34.990	34.990	34.990	34.990	34.990	34.990	34.990	34.990

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
34	34-54-53.1 N	117-31-27.4 W	997.9	25.9	

Address: KRAMER HILLS ROAD AND HIGHWAY 395
City: 5 MI S OF KRAMER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	242.800	265.900	246.000	150.000	146.300	114.200	118.300	219.700
Transmitting ERP (watts)	0.200	0.840	11.380	81.100	57.810	6.110	0.320	0.200

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	242.800	265.900	246.000	150.000	146.300	114.200	118.300	219.700
Transmitting ERP (watts)	0.200	0.860	48.980	34.670	0.870	0.200	0.200	0.200

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	242.800	265.900	246.000	150.000	146.300	114.200	118.300	219.700
Transmitting ERP (watts)	70.790	68.230	8.260	0.410	0.200	0.200	0.780	8.430

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
36	33-36-20.1 N	114-54-07.9 W	118.6	53.0	

Address: WILEYS WELL ROAD AND INTERSTATE 10

City: 14 M. W. OF BLYTHE **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-98.800	-118.400	24.600	-35.200	0.200	1.000	45.700	39.500
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
37	35-26-09.9 N	115-55-29.0 W	1354.2	40.5	

Address: TURQUOISE MOUNTAIN COMMUNICATIONS CELL SITE: 14 MILES NORTHEAST OF

City: BAKER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	360.700	223.700	176.800	312.300	610.900	621.100	701.400	470.500
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
38	34-42-36.0 N	116-09-07.0 W	634.0	60.7	

Address: 25255 BAGDAD CHASE ROAD; 3 MI S OF

City: LUDLOW **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	255.100	63.800	81.700	151.500	25.100	-88.300	35.600	71.400
Transmitting ERP (watts)	183.670	183.670	183.670	183.670	183.670	183.670	183.670	183.670

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	34-50-05.0 N	114-37-03.0 W	186.2	34.7	1025847

Address: 1111 BAILEY AVE

City: NEEDLES **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	67.300	22.600	27.900	67.800	-91.000	-244.700	-271.000	-51.900
Transmitting ERP (watts)	157.770	22.540	1.120	0.400	0.400	1.240	12.740	120.790

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	34-50-05.0 N	114-37-03.0 W	186.2	34.7	1025847

Address: 1111 BAILEY AVE
City: NEEDLES **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	67.300	22.600	27.900	67.800	-91.000	-244.700	-271.000	-51.900
Transmitting ERP (watts)	0.400	1.600	22.750	162.190	115.620	12.220	0.640	0.400

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	67.300	22.600	27.900	67.800	-91.000	-244.700	-271.000	-51.900
Transmitting ERP (watts)	1.040	0.400	0.830	7.910	72.620	196.800	110.160	15.140

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	34-09-11.6 N	116-23-22.4 W	1156.1	24.4	1263982

Address: Yucca Valley Site 58399 Serin Drive
City: YUCCA VALLEY **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.400	270.600	356.000	110.600	-53.900	154.300	-106.700	-1.300
Transmitting ERP (watts)	2.780	49.430	311.890	159.960	10.570	1.390	0.680	0.680

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.400	270.600	356.000	110.600	-53.900	154.300	-106.700	-1.300
Transmitting ERP (watts)	1.360	0.680	0.680	3.500	35.810	284.450	196.790	14.930

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.400	270.600	356.000	110.600	-53.900	154.300	-106.700	-1.300
Transmitting ERP (watts)	319.150	58.080	4.610	0.710	0.680	0.680	10.090	156.310

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	33-39-17.7 N	115-59-10.8 W	560.0	38.4	

Address: INTERSTATE 10, 12 MILES EAST OF
City: INDIO **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-249.500	-376.300	189.300	272.700	507.000	541.900	491.700	229.100
Transmitting ERP (watts)	0.100	0.100	0.160	2.400	14.390	7.620	0.770	0.100

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	33-39-17.7 N	115-59-10.8 W	560.0	38.4	

Address: INTERSTATE 10, 12 MILES EAST OF
City: INDIO **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-249.500	-376.300	189.300	272.700	507.000	541.900	491.700	229.100
Transmitting ERP (watts)	30.760	2.470	0.200	0.200	0.200	1.770	25.230	99.770

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
42	35-19-26.8 N	117-37-05.2 W	998.5	25.6	

Address: .4 MILES WEST OF STATE HIGHWAY 395 4 MILES SOUTH OF JOHANNESBURG
City: SAN BERNARDINO **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	0.100	-127.300	173.100	106.600	116.800	64.100	-36.500	68.700
Transmitting ERP (watts)	30.900	144.890	195.450	85.320	12.330	0.800	0.400	2.520

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	0.100	-127.300	173.100	106.600	116.800	64.100	-36.500	68.700
Transmitting ERP (watts)	1.150	15.170	100.240	200.000	132.140	24.610	2.240	0.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
43	35-07-57.9 N	116-12-23.1 W	468.8	34.7	

Address: RASOR ROAD AND INTERSTATE 15 16 MILES SOUTHWEST OF
City: BAKER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-195.100	115.600	158.900	177.300	113.600	118.000	146.900	-272.200
Transmitting ERP (watts)	183.670	183.670	183.670	183.670	183.670	183.670	183.670	183.670

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
44	33-40-53.1 N	115-14-52.9 W	220.7	49.8	

Address: CORN SPRINGS ROAD & INTERSTATE 10 9 MILES EAST OF DESERT CENTER
City: Corn Springs **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	127.000	40.100	131.000	61.800	-133.600	-362.100	-99.600	89.600
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
45	33-29-37.1 N	116-47-42.0 W	1136.0	25.6	

Address: 43395 MCCAIN LANE; 5 MILES NE OF
City: AGUANGA **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-65.300	-42.700	-98.200	-165.800	131.300	372.900	554.800	287.600
Transmitting ERP (watts)	2.940	106.640	79.060	2.080	0.500	0.500	0.500	0.500

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-65.300	-42.700	-98.200	-165.800	131.300	372.900	554.800	287.600
Transmitting ERP (watts)	0.650	0.340	0.340	0.340	0.710	4.790	169.820	4.370

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
46	35-27-10.9 N	116-35-41.1 W	1603.0	26.2	1215044

Address: Fort Irwin Military Base
City: Fort Irwin **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	659.700	503.700	552.800	657.000	724.400	627.500	595.200	719.100
Transmitting ERP (watts)	0.960	4.300	49.710	106.690	33.400	3.890	0.610	0.610

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	659.700	503.700	552.800	657.000	724.400	627.500	595.200	719.100
Transmitting ERP (watts)	3.440	0.890	0.610	0.700	4.240	82.600	306.890	92.680

Antenna: 6
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	659.700	503.700	552.800	657.000	724.400	627.500	595.200	719.100
Transmitting ERP (watts)	125.500	153.290	39.110	0.430	0.430	0.430	0.430	13.790

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
47	34-04-48.0 N	114-46-45.0 W	277.7	60.7	1030851

Address: STATE HIGHWAY 62
City: RICE **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-162.100	3.500	-20.100	65.300	115.700	98.800	63.200	65.700
Transmitting ERP (watts)	200.950	5.410	0.680	0.400	0.400	0.400	0.780	6.650

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-162.100	3.500	-20.100	65.300	115.700	98.800	63.200	-65.700
Transmitting ERP (watts)	0.400	0.780	6.650	200.950	5.410	0.680	0.400	0.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
48	34-10-45.1 N	114-34-04.9 W	269.8	53.0	

Address: 4200 STATE HIGHWAY 95
City: VIDAL JUNCTION **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-103.400	-72.300	65.200	134.100	51.000	26.400	-35.500	-43.200
Transmitting ERP (watts)	5.330	80.350	357.270	341.190	69.500	6.580	0.860	0.860

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-103.400	-72.300	65.200	134.100	51.000	26.400	-35.500	-43.200
Transmitting ERP (watts)	1.230	1.080	1.080	13.900	173.780	540.750	130.920	9.820

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-103.400	-72.300	65.200	134.100	51.000	26.400	-35.500	-43.200
Transmitting ERP (watts)	427.560	61.090	3.040	1.080	1.080	3.370	34.510	327.340

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
49	34-28-42.0 N	114-24-59.8 W	175.7	53.0	

Address: 12121 Malamedia Rd.
City: HAVASU LAKE **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 7
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	62.100	-41.700	-25.600	23.800	-147.000	-70.800	-116.100	-221.600
Transmitting ERP (watts)	55.790	65.260	36.320	5.710	0.490	0.370	2.880	21.870

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
49	34-28-42.0 N	114-24-59.8 W	175.7	53.0	

Address: 12121 Malamedia Rd.
City: HAVASU LAKE **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 8
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	62.100	-41.700	-25.600	23.800	-147.000	-70.800	-116.100	-221.600
Transmitting ERP (watts)	0.730	11.170	42.900	65.740	53.820	16.090	1.850	0.370

Antenna: 9
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	62.100	-41.700	-25.600	23.800	-147.000	-70.800	-116.100	-221.600
Transmitting ERP (watts)	1.630	0.350	0.350	0.350	1.240	44.920	170.780	50.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
50	34-38-38.9 N	116-37-36.0 W	1815.7	37.8	

Address: 21411 CAMP ROCK ROAD 15 MILES SOUTH OF NEWBERRY SPRINGS
City: Newberry Springs **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	824.700	743.900	677.300	839.400	833.100	662.000	512.600	548.900
Transmitting ERP (watts)	0.400	0.400	0.400	1.260	38.110	191.000	76.040	3.320

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	824.700	743.900	677.300	839.400	833.100	662.000	512.600	548.900
Transmitting ERP (watts)	186.650	31.700	1.050	0.400	0.400	0.500	3.480	83.370

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	824.700	743.900	677.300	839.400	833.100	662.000	512.600	548.600
Transmitting ERP (watts)	0.910	14.830	144.890	141.590	12.050	0.940	0.400	0.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
51	35-14-12.0 N	115-25-24.0 W	1471.6	42.1	

Address: CIMA ROAD AND RANCH ROAD 4.5 MILES EAST OF
City: CIMA **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	417.900	269.400	-214.300	-119.100	-157.300	302.100	121.100	119.900
Transmitting ERP (watts)	1.120	9.350	77.810	195.450	129.130	25.180	3.030	0.490

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
51	35-14-12.0 N	115-25-24.0 W	1471.6	42.1	

Address: CIMA ROAD AND RANCH ROAD 4.5 MILES EAST OF
City: CIMA **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	417.900	269.400	-214.300	-119.100	-157.300	302.100	121.100	119.900
Transmitting ERP (watts)	0.960	0.470	3.170	26.980	135.220	186.650	70.960	8.730

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	417.900	269.400	-214.300	-119.100	-157.300	302.100	121.100	119.900
Transmitting ERP (watts)	195.450	138.370	31.700	3.640	1.050	5.510	44.770	151.720

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
52	34-07-59.0 N	116-03-59.0 W	680.3	29.3	

Address: 73195 CACTUS DRIVE
City: TWENTYNINE PALMS **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	134.700	155.500	139.300	-190.300	-632.400	-495.000	-49.300	23.700
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
53	34-52-50.7 N	115-04-05.9 W	1097.6	30.5	

Address: GOFF'S BUTTE CELL SITE: 3.7 MILES NORTH OF I-40; .5 MILES WEST OF MOUNTAIN SPRI
City: GOFFS BUTTE **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	250.200	340.200	397.500	375.600	176.300	416.300	380.300	233.200
Transmitting ERP (watts)	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
55	35-45-58.8 N	116-19-43.0 W	453.0	20.7	

Address: (IBEX site) STATE HIGHWAY 127, 35 MILES NW OF
City: BAKER **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-83.200	-87.600	-16.900	191.800	269.700	270.300	212.000	-397.200
Transmitting ERP (watts)	224.790	93.710	5.780	0.890	0.460	0.460	8.550	110.100

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-83.200	-87.600	-16.900	191.800	269.700	270.300	212.000	-397.200
Transmitting ERP (watts)	0.460	4.190	57.780	224.790	159.140	17.450	1.130	0.460

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
56	34-18-34.1 N	114-09-55.8 W	523.8	6.1	

Address: BLACK METAL MT. COMMUN. SITE; 2 MI NW OF
City: PARKER DAM **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	220.200	94.400	251.600	185.000	304.800	249.100	0.000	345.600
Transmitting ERP (watts)	1.100	0.800	0.800	1.260	16.290	235.500	296.480	25.230

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
57	35-14-23.8 N	116-44-47.4 W	1098.8	26.2	1215047

Address: (FT IRWIN) Gate of Fort Irwin Military Base
City: Fort Irwin **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	128.000	283.200	378.100	281.200	362.300	130.800	-56.000	83.500
Transmitting ERP (watts)	0.570	7.300	91.300	284.110	68.780	5.160	0.650	0.570

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	128.000	283.200	378.100	281.200	362.300	130.800	-56.000	83.500
Transmitting ERP (watts)	91.300	284.110	68.780	5.160	0.650	0.570	0.570	7.300

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	128.000	283.200	378.100	281.200	362.300	130.800	-56.000	83.500
Transmitting ERP (watts)	42.310	2.270	0.570	0.570	1.200	13.660	141.740	251.470

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
59	33-37-03.0 N	114-46-23.0 W	247.6	37.2	1048302

Address: LOWER MCCOY PEAK
City: BLYTHE **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	112.500	147.100	183.600	192.400	161.700	129.300	144.200	-158.200
Transmitting ERP (watts)	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
62	34-07-14.0 N	115-46-07.9 W	399.6	54.3	

Address: 14 MILES E OF TWENTYNINE PALMS; STATE HWY 62 (29 PALMS HWY); ASSESORS PARCEL NUM
City: TWENTYNINE PALMS **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-105.500	-127.200	42.200	-239.300	-136.200	-226.200	-16.000	36.500
Transmitting ERP (watts)	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
63	33-45-00.0 N	114-31-28.8 W	204.3	9.8	

Address: BIG MARIA COMMUNIUCATIONS SITE, 11 MILES N OF BLYTHE, OFF HIGHWAY 95
City: RIVERSIDE **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	121.100	107.700	76.400	71.900	129.400	108.800	-49.800	-150.000
Transmitting ERP (watts)	96.160	2.640	0.290	0.200	0.200	0.200	0.440	6.710

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
64	33-37-47.0 N	116-14-22.0 W	-17.3	33.5	

Address: 81600 Avenue 58
City: La Quinta **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	3.200	-7.600	35.200	44.400	-315.900	-942.000	-454.200	-44.500
Transmitting ERP (watts)	1.380	0.400	0.400	1.320	12.050	117.770	151.720	17.830

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
64	33-37-47.0 N	116-14-22.0 W	-17.3	33.5	

Address: 81600 Avenue 58
City: La Quinta **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	3.200	-7.600	35.200	44.400	-315.900	-942.000	-454.200	-44.500
Transmitting ERP (watts)	244.310	137.390	11.690	0.790	0.690	2.280	51.040	233.310

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	3.200	-7.600	35.200	44.400	-315.900	-942.000	-454.200	-44.500
Transmitting ERP (watts)	3.560	49.090	200.000	53.830	4.200	0.560	0.400	0.780

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
79	34-31-07.0 N	115-08-45.0 W	1327.4	15.9	

Address: OLD WOMAN CELL SITE 1.69 MILES SOUTH OF SNFLWR SPRING SPUR, 18.1 MILES E
City: OLD WOMAN **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	323.300	522.400	690.400	645.800	574.600	395.800	574.700	224.800
Transmitting ERP (watts)	150.000	150.000	150.000	150.000	150.000	150.000	150.000	150.000

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
118	34-09-02.0 N	115-08-25.0 W	570.0	53.0	

Address: IRON MOUNTAINS CELL SITE 1.19 MILES WEST OF IRON MTN PUMPING ROAD 4.9 MILES N
City: IRON MOUNTAINS **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	400.400	405.100	411.700	358.100	222.400	150.900	176.500	287.700
Transmitting ERP (watts)	0.680	23.120	210.860	319.150	80.170	2.910	0.680	0.680

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	400.400	405.100	411.700	358.100	222.400	150.900	176.500	287.700
Transmitting ERP (watts)	1.360	0.860	2.190	23.010	188.360	430.530	202.770	25.180

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
118	34-09-02.0 N	115-08-25.0 W	570.0	53.0	

Address: IRON MOUNTAINS CELL SITE 1.19 MILES WEST OF IRON MTN PUMPING ROAD 4.9 MILES N
City: IRON MOUNTAINS **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	400.400	405.100	411.700	358.100	222.400	150.900	176.500	287.700
Transmitting ERP (watts)	859.010	22.590	1.710	1.710	1.710	1.710	1.710	34.990

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
128	35-34-43.7 N	117-42-30.5 W	808.0	40.2	

Address: 2600 S. China Lake Blvd.
City: Ridgecrest **County:** KERN **State:** CA **Construction Deadline:** 03-14-2007

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	141.100	108.400	-42.300	-137.800	-238.800	-157.600	11.800	95.700
Transmitting ERP (watts)	369.910	307.680	25.010	1.000	1.040	1.000	1.000	36.150

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	141.100	108.400	-42.300	-137.800	-238.800	-157.600	11.800	95.700
Transmitting ERP (watts)	1.000	1.990	95.080	487.640	165.230	11.700	1.000	1.000

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	141.100	108.400	-42.300	-137.800	-238.800	-157.600	11.800	95.700
Transmitting ERP (watts)	5.350	1.000	1.000	1.000	10.190	222.900	455.090	68.880

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
132	33-59-12.1 N	118-09-45.3 W	40.8	33.8	

Address: 5701 S Eastern Ave
City: City of Commerce **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-73.900	-22.300	-55.700	33.300	43.100	37.200	18.400	-24.000
Transmitting ERP (watts)	0.160	1.370	1.890	1.740	1.130	0.120	0.100	0.100

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-73.900	-22.300	-55.700	33.300	43.100	37.200	18.400	-24.000
Transmitting ERP (watts)	0.100	0.100	0.100	0.390	1.830	1.830	1.740	0.610

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
132	33-59-12.1 N	118-09-45.3 W	40.8	33.8	

Address: 5701 S Eastern Ave
City: City of Commerce **County:** LOS ANGELES **State:** CA **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-73.900	-22.300	-55.700	33.300	43.100	37.200	18.400	-24.000
Transmitting ERP (watts)	1.800	1.560	0.270	0.100	0.100	0.100	0.850	1.860

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
133	33-52-52.0 N	117-36-18.0 W	198.1	28.0	1011242

Address: (CORONA II) 519 MAPLE STREET
City: CORONA **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.700	21.300	-29.100	-82.300	-476.400	-256.800	63.500	31.300
Transmitting ERP (watts)	4.140	32.530	106.140	96.220	25.270	3.190	0.330	0.330

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.700	21.300	-29.100	-82.300	-476.400	-256.800	63.500	31.300
Transmitting ERP (watts)	1.720	0.330	1.210	9.430	59.740	146.100	77.290	13.540

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.700	21.300	-29.100	-82.300	-476.400	-256.800	63.500	31.300
Transmitting ERP (watts)	71.570	52.490	13.320	1.450	0.330	0.900	9.410	45.890

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
139	35-08-21.4 N	117-14-16.4 W	1190.9	15.2	

Address: 195 Black Canyon Rd
City: Hinkley **County:** SAN BERNARDINO **State:** CA **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	213.500	241.000	268.000	395.900	568.000	560.000	414.200	223.800
Transmitting ERP (watts)	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
140	33-36-07.4 N	117-20-38.8 W	1071.4	36.8	

Address: 35603 Main Divide Truck Trail
City: Lake Elsinore **County:** RIVERSIDE **State:** CA **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	658.800	659.400	646.700	513.800	459.600	548.000	485.600	209.200
Transmitting ERP (watts)	0.110	1.290	5.600	5.530	1.090	0.100	0.100	0.100

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	658.800	659.400	646.700	513.800	459.600	548.000	485.600	209.200
Transmitting ERP (watts)	5.020	15.200	5.450	0.330	0.100	0.100	0.100	0.390

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
141	34-04-44.5 N	115-20-04.8 W	364.9	47.2	

Address: 8 miles West of Hwy 177 (1A)
City: 29 Palms **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 08-18-2009

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	181.600	40.100	41.700	90.400	-260.600	-334.300	-219.800	-75.100
Transmitting ERP (watts)	33.220	2.640	1.070	1.070	3.480	39.010	390.070	372.510

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	181.600	40.100	41.700	90.400	-260.600	-334.300	-219.800	-75.100
Transmitting ERP (watts)	2.760	30.980	309.840	295.900	26.370	2.090	0.850	0.850

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
142	34-09-34.2 N	117-54-29.9 W	230.3	15.8	

Address: 1964 N. San Gabriel Canyon Rd.
City: Azusa **County:** LOS ANGELES **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-642.800	-395.900	-358.700	-6.300	88.100	124.300	-36.300	-802.600
Transmitting ERP (watts)	5.020	63.170	186.420	61.730	4.900	0.400	0.400	0.490

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-642.800	-395.900	-358.700	-6.300	88.100	124.300	-36.300	-802.600
Transmitting ERP (watts)	0.400	0.400	0.400	3.550	50.170	182.170	77.710	6.930

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
143	34-09-11.6 N	117-39-06.1 W	601.2	7.1	

Address: 2426 N. Euclid Avenue
City: Upland **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-1293.800	-1039.300	68.300	249.300	281.800	247.900	-30.300	-481.100
Transmitting ERP (watts)	1.680	58.300	226.820	56.980	4.130	0.450	0.450	0.450

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-1293.800	-1039.300	68.300	249.300	281.800	247.900	-30.300	-481.100
Transmitting ERP (watts)	4.130	0.450	0.450	0.450	1.680	58.300	226.820	56.980

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-1293.800	-1039.300	68.300	249.300	281.800	247.900	-30.300	-481.100
Transmitting ERP (watts)	226.820	56.980	4.130	0.450	0.450	0.450	1.680	58.300

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
144	34-11-04.0 N	118-07-55.3 W	372.8	11.3	

Address: 2235 N. Lake Avenue
City: Altadena **County:** LOS ANGELES **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-784.300	-874.500	-285.000	221.400	209.600	172.300	10.300	-585.100
Transmitting ERP (watts)	62.010	6.060	0.460	0.460	1.270	11.550	83.640	225.130

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-784.300	-874.600	-285.000	221.400	209.600	172.300	10.300	-585.100
Transmitting ERP (watts)	83.820	225.590	62.130	6.070	0.460	0.460	1.270	11.570

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
146	34-30-05.5 N	117-45-29.8 W	1026.0	23.2	

Address: 20719 East Avenue V13
City: Palmdale **County:** LOS ANGELES **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	179.900	121.600	14.800	-265.300	-642.400	-252.800	76.300	173.200
Transmitting ERP (watts)	2.220	21.170	127.550	156.920	22.170	2.600	0.380	0.380

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
146	34-30-05.5 N	117-45-29.8 W	1026.0	23.2	

Address: 20719 East Avenue V13
City: Palmdale **County:** LOS ANGELES **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	179.900	121.600	14.800	-265.300	-642.400	-252.800	76.300	173.200
Transmitting ERP (watts)	4.950	0.380	0.380	1.030	9.430	68.310	183.860	50.640

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	179.900	121.600	14.800	-265.300	-642.400	-252.800	76.300	173.200
Transmitting ERP (watts)	160.130	118.710	13.020	0.780	0.380	0.480	3.670	29.820

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
147	34-21-51.5 N	117-38-00.8 W	1899.0	20.4	

Address: 1255 Rivera Dr.
City: Wrightwood **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 06-26-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	677.600	636.900	518.400	342.200	-365.500	181.400	-269.800	357.800
Transmitting ERP (watts)	0.450	2.850	74.900	216.010	43.100	3.120	0.450	0.450

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	677.600	636.900	518.400	342.200	-365.500	181.400	-269.800	357.800
Transmitting ERP (watts)	0.470	0.450	0.450	16.430	168.150	139.860	11.370	0.450

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	677.600	636.900	518.400	342.200	-0.300	181.400	-269.800	357.800
Transmitting ERP (watts)	6.680	0.450	0.450	0.450	0.490	31.950	211.100	92.150

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
149	33-46-58.5 N	116-45-19.1 W	1763.6	23.8	

Address: Hwy. 243, 1/4 Mile South of Round Robin Dr.
City: Idyllwild **County:** RIVERSIDE **State:** CA **Construction Deadline:** 07-20-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	464.900	163.700	-147.500	125.100	444.300	932.400	938.800	399.500
Transmitting ERP (watts)	0.520	4.640	71.940	146.890	26.730	2.120	0.520	0.520

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
149	33-46-58.5 N	116-45-19.1 W	1763.6	23.8	

Address: Hwy. 243, 1/4 Mile South of Round Robin Dr.
City: Idyllwild **County:** RIVERSIDE **State:** CA **Construction Deadline:** 07-20-2010

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	464.900	163.700	-347.500	125.100	444.300	932.400	938.800	399.500
Transmitting ERP (watts)	157.390	47.530	1.770	0.520	0.520	0.520	2.170	42.360

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
150	33-33-55.5 N	116-32-39.3 W	1426.9	27.4	

Address: Hwy 74 Near Santa Rosa Rd.
City: Mountain Center **County:** RIVERSIDE **State:** CA **Construction Deadline:** 07-20-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.800	290.100	42.600	-143.300	403.200	148.000	144.700	3.100
Transmitting ERP (watts)	4.640	71.940	146.890	26.730	2.120	0.520	0.520	0.520

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.800	290.100	42.600	-143.300	403.200	148.000	144.700	3.100
Transmitting ERP (watts)	2.120	0.520	0.520	0.520	4.640	71.940	146.890	26.730

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	135.800	290.100	42.600	-143.300	403.200	148.000	144.700	3.100
Transmitting ERP (watts)	0.520	0.520	2.170	42.360	157.390	47.530	1.770	0.520

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
151	33-57-39.4 N	114-31-21.2 W	118.3	45.7	

Address: I-95 (40480 Soboba Rd.)
City: Desert Center **County:** RIVERSIDE **State:** CA **Construction Deadline:** 07-20-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-166.600	53.300	46.000	55.300	62.700	-125.300	-82.200	-200.300
Transmitting ERP (watts)	210.380	200.910	17.910	1.420	0.580	0.580	1.870	21.040

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-166.600	53.300	46.000	55.300	62.700	-125.300	-82.200	-200.300
Transmitting ERP (watts)	0.580	0.580	2.590	56.620	283.790	110.410	5.280	0.960

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
152	34-17-03.3 N	114-39-17.7 W	418.8	59.7	

Address: 1303 S. Hwy 95
City: Needles **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 07-20-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	94.600	59.900	-10.100	151.600	129.900	-15.400	-225.900	-36.000
Transmitting ERP (watts)	1.160	98.400	493.170	6.500	1.160	1.160	1.160	1.160

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	94.600	59.900	-10.100	151.600	129.900	-15.400	-225.900	-36.000
Transmitting ERP (watts)	0.580	1.330	14.890	183.230	225.420	23.600	2.250	0.580

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	94.600	59.900	-10.100	151.600	129.900	-15.400	-225.900	-36.000
Transmitting ERP (watts)	290.400	87.700	3.260	0.840	0.580	0.670	4.010	78.160

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
153	34-04-35.0 N	118-28-08.2 W	158.5	17.1	

Address: 641 N. Sepulveda Blvd.
City: Los Angeles **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-91.000	-70.900	92.700	112.100	149.800	144.100	-226.500	-212.000
Transmitting ERP (watts)	0.420	0.420	9.210	139.470	156.490	13.630	0.920	0.460

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-91.000	-70.900	92.700	112.100	149.800	144.100	-226.500	-212.000
Transmitting ERP (watts)	124.300	10.830	0.730	0.370	0.330	0.330	7.320	110.790

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
154	33-50-03.3 N	117-47-53.9 W	252.4	43.9	

Address: Cannon Road
City: Orange **County:** ORANGE **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	27.400	57.200	-196.400	-3.700	208.100	222.700	217.200	175.500
Transmitting ERP (watts)	1.080	149.280	52.970	1.010	0.640	0.640	0.640	0.640

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
154	33-50-03.3 N	117-47-53.9 W	252.4	43.9	

Address: Cannon Road
City: Orange **County:** ORANGE **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	27.400	57.200	-196.400	-3.700	208.100	222.700	217.200	175.500
Transmitting ERP (watts)	0.920	0.640	0.640	0.640	0.640	2.480	175.390	33.420

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
155	33-41-59.0 N	117-59-18.2 W	13.7	21.3	

Address: 18080 Beach Blvd.
City: Huntington Beach **County:** ORANGE **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	15.800	6.600	23.400	13.600	30.500	31.800	33.500	29.700
Transmitting ERP (watts)	0.520	1.080	14.650	28.630	7.610	0.630	0.480	0.480

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	15.800	6.600	23.400	13.600	30.500	31.800	33.500	29.700
Transmitting ERP (watts)	1.310	0.380	0.810	8.600	66.590	136.440	87.060	15.260

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	15.800	6.600	23.400	13.600	30.500	31.800	33.500	29.700
Transmitting ERP (watts)	27.250	5.830	0.570	0.480	0.480	0.530	1.460	17.650

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
156	34-13-38.8 N	118-14-50.9 W	468.2	16.8	

Address: 4441 Cloud Avenue
City: La Crescenta **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-582.300	-521.000	-493.500	152.300	238.000	198.400	66.800	-125.600
Transmitting ERP (watts)	0.940	1.830	38.280	264.850	126.770	10.540	0.580	0.670

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-582.300	-521.000	-493.500	152.300	238.000	198.400	66.800	-125.600
Transmitting ERP (watts)	6.970	0.580	0.750	1.360	2.590	55.340	283.790	103.040

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
156	34-13-38.8 N	118-14-50.9 W	468.2	16.8	

Address: 4441 Cloud Avenue
City: La Crescenta **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-582.300	-521.000	-493.500	152.300	238.000	198.400	66.800	-125.600
Transmitting ERP (watts)	241.550	155.960	13.270	0.580	0.580	0.580	1.560	29.040

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
157	33-39-51.0 N	117-39-34.1 W	262.4	6.1	

Address: 20996 Marin
City: Lake Forest **County:** ORANGE **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-167.300	-504.700	-300.000	18.300	117.900	131.200	198.200	109.900
Transmitting ERP (watts)	0.570	36.880	243.680	106.370	7.710	0.520	0.520	0.520

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-167.300	-504.700	-300.000	18.300	117.900	131.200	198.200	109.900
Transmitting ERP (watts)	244.450	32.980	1.230	0.520	0.520	0.600	5.350	99.580

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
158	34-07-40.7 N	117-53-09.7 W	193.6	15.2	

Address: 990 East Alosta Avenue
City: Azusa **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-462.500	-506.900	-155.600	-55.700	20.200	91.700	63.600	-664.800
Transmitting ERP (watts)	3.000	43.300	184.710	103.870	9.050	0.900	0.390	0.390

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-462.500	-506.900	-155.600	-55.700	20.200	91.700	63.600	-664.800
Transmitting ERP (watts)	1.110	0.390	0.390	2.170	32.850	172.380	122.030	12.490

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-462.500	-506.900	-155.600	-55.700	20.200	91.700	63.600	-664.800
Transmitting ERP (watts)	189.010	45.340	2.800	0.400	0.390	0.450	9.260	99.190

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
159	34-12-02.0 N	118-31-13.3 W	225.9	18.3	

Address: 17750 Sherman Way
City: Encino **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-169.500	-63.100	15.500	-20.700	-85.200	-121.900	-50.400	-132.700
Transmitting ERP (watts)	3.140	47.320	210.380	200.910	40.930	3.870	0.510	0.510

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-169.500	-63.100	15.500	-20.700	-85.200	-121.900	-50.400	-132.700
Transmitting ERP (watts)	0.510	0.510	1.870	28.970	171.400	233.880	66.070	6.530

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-169.500	-63.100	15.500	-20.700	-85.200	-121.900	-50.400	-132.700
Transmitting ERP (watts)	218.870	78.360	8.600	0.510	0.510	1.470	22.490	139.050

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
160	34-08-13.0 N	117-58-35.2 W	148.1	19.8	

Address: 1400 Buena Vista Street
City: Duarte **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-812.800	-494.300	-81.700	-17.500	55.100	69.600	-26.300	-721.200
Transmitting ERP (watts)	0.540	13.530	62.250	55.070	7.910	0.540	0.540	0.540

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-812.800	-494.300	-81.700	-17.500	55.100	69.600	-26.300	-721.200
Transmitting ERP (watts)	0.540	0.540	0.540	0.540	9.960	59.120	59.260	10.510

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-812.800	-494.300	-81.700	-17.500	55.100	69.600	-26.300	-721.200
Transmitting ERP (watts)	252.800	110.350	7.990	0.540	0.540	0.540	0.590	38.260

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
161	34-02-03.9 N	117-56-15.1 W	105.2	16.2	

Address: 15920 Amar Road
City: City of Industry **County:** LOS ANGELES **State:** CA **Construction Deadline:** 09-17-2010

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-118.000	-84.500	-127.500	-101.200	-37.000	-4.100	28.700	10.100
Transmitting ERP (watts)	0.600	21.900	224.300	186.600	15.200	0.600	0.630	0.600

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-118.000	-84.500	-127.500	-101.200	-37.000	-4.100	28.700	10.100
Transmitting ERP (watts)	0.600	0.600	0.600	1.060	29.090	120.700	45.630	2.540

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-118.000	-84.500	-127.500	-101.200	-37.000	-4.100	28.700	10.100
Transmitting ERP (watts)	276.000	41.770	3.240	0.600	0.600	0.600	6.180	135.180

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
162	33-38-15.2 N	117-14-15.2 W	544.0	23.2	

Address: (The Farm) 24240 Bundy Canyon Rd
City: Wildomar **County:** RIVERSIDE **State:** CA **Construction Deadline:** 04-27-2011

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	86.600	90.900	89.600	132.600	122.400	-27.900	31.700	55.400
Transmitting ERP (watts)	0.520	3.360	54.570	153.810	36.060	1.730	0.520	0.520

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	86.600	90.900	89.600	132.600	122.400	-27.900	31.700	55.400
Transmitting ERP (watts)	0.520	0.520	0.520	1.400	30.690	153.810	59.840	2.860

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	86.600	90.900	89.600	132.600	122.400	-27.900	31.700	55.400
Transmitting ERP (watts)	27.350	42.360	5.580	0.520	0.520	0.520	0.520	1.500

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
163	33-40-49.5 N	117-40-41.6 W	212.1	20.4	

Address: (Cooks Bay site)25931 Towne Center Drive
City: Foothill Ranch **County:** ORANGE **State:** CA **Construction Deadline:** 04-27-2011

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-195.100	-438.500	-298.400	-24.000	93.200	94.600	178.100	83.600
Transmitting ERP (watts)	20.600	284.500	334.200	23.100	0.900	0.900	0.900	0.900

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-195.100	-438.500	-298.400	-24.000	93.200	94.600	178.100	83.600
Transmitting ERP (watts)	236.590	9.420	0.900	0.900	0.900	1.710	40.180	374.970

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
164	34-02-39.7 N	117-26-08.6 W	335.9	19.2	

Address: (Via Larga site) 11660 Sierra Avenue
City: Fontana **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 04-27-2011

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-111.600	-11.700	41.800	44.600	86.800	136.400	79.100	-29.100
Transmitting ERP (watts)	95.060	487.000	165.200	11.700	1.000	1.000	1.000	1.990

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-111.600	-11.700	41.800	44.600	86.800	136.400	79.100	-29.100
Transmitting ERP (watts)	1.590	1.590	13.200	269.520	437.110	16.620	1.590	1.590

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-11.600	-11.700	41.800	44.700	86.800	136.400	79.100	-29.100
Transmitting ERP (watts)	148.300	10.500	0.890	0.890	0.890	1.780	85.340	437.650

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
165	33-27-58.7 N	117-08-29.8 W	481.9	40.5	

Address: 30025 Front Street
City: Temecula **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-04-2011

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	143.500	88.600	54.300	80.600	241.200	256.600	179.100	53.800
Transmitting ERP (watts)	3.190	0.870	11.070	2.110	3.340	0.640	0.640	0.640

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
165	33-27-58.7 N	117-08-29.8 W	481.9	40.5	

Address: 30025 Front Street
City: Temecula **County:** RIVERSIDE **State:** CA **Construction Deadline:** 11-04-2011

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	143.500	88.600	54.300	80.600	241.200	256.600	179.100	53.800
Transmitting ERP (watts)	9.140	2.223	0.640	0.640	0.640	0.780	0.640	9.470

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	143.500	88.600	54.300	80.600	241.200	256.600	179.100	53.800
Transmitting ERP (watts)	6.160	11.000	0.640	1.560	0.640	0.640	0.640	3.020

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
166	33-35-07.6 N	117-36-49.5 W	220.7	13.7	

Address: (Tesora site) 29658 Oso Parkway
City: Las Flores **County:** ORANGE **State:** CA **Construction Deadline:** 02-10-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-156.400	-303.900	-228.800	23.300	91.700	123.000	84.000	77.900
Transmitting ERP (watts)	0.400	1.090	12.520	134.100	164.980	21.750	1.770	0.400

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-156.400	-303.900	-228.800	23.300	91.700	123.000	84.000	77.900
Transmitting ERP (watts)	11.950	1.040	0.400	0.400	1.940	23.850	172.760	125.150

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-156.400	-303.900	-228.800	23.300	91.700	123.000	84.000	77.900
Transmitting ERP (watts)	57.210	202.970	65.680	5.100	0.420	0.400	0.400	4.140

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
167	34-29-04.0 N	115-28-55.0 W	243.9	68.3	1025110

Address: Cadiz site SECTION 35, TOWNSHIP 5N, RANGE 14E
City: CADIZ **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-79.100	-24.400	-154.700	89.600	119.000	39.000	110.000	69.900
Transmitting ERP (watts)	430.530	430.530	430.530	430.530	430.530	430.530	430.530	430.530

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
168	34-48-42.0 N	115-36-31.0 W	1261.7	30.5	

Address: Granite Pass Granite Mountain
City: Baker **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	244.400	-10.600	367.600	392.900	279.700	178.300	-159.900	354.500
Transmitting ERP (watts)	113.370	113.370	113.370	113.370	113.370	113.370	113.370	113.370

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
169	34-43-10.0 N	115-39-18.0 W	1112.5	60.6	

Address: Fenner Valley Site 91919 Brown Buttes Rd
City: Twenty-nine Palms **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-78.700	78.200	339.900	382.800	617.500	494.400	269.200	-136.100
Transmitting ERP (watts)	15.630	210.860	271.640	29.110	1.670	0.670	0.670	1.430

Antenna: 5
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-78.700	78.200	339.900	382.800	617.500	494.400	269.200	-136.100
Transmitting ERP (watts)	0.670	0.670	2.060	49.430	297.850	163.680	8.390	0.960

Antenna: 6
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-78.700	78.200	339.900	382.800	617.500	494.400	269.200	-136.100
Transmitting ERP (watts)	13.000	1.130	0.670	0.670	1.920	36.640	277.970	192.310

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
170	34-43-52.0 N	115-52-02.0 W	885.1	59.7	

Address: Old Dads Mountain 26420 E. Siberia Rd
City: Amboy **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	275.900	-155.400	-13.100	134.400	422.400	366.500	207.900	168.100
Transmitting ERP (watts)	3.120	82.040	304.790	277.970	58.080	1.710	0.680	0.680

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	275.900	-155.400	-13.100	134.400	422.400	366.500	207.900	168.100
Transmitting ERP (watts)	7.660	0.680	0.680	0.680	36.640	236.590	326.590	118.580

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
171	33-46-29.1 N	117-29-13.2 W	309.8	51.8	

Address: Temescal Cyn 23900 Temescal Canyon Rd
City: Corona **County:** RIVERSIDE **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	23.800	-82.900	-318.400	-75.100	-539.400	-551.000	-414.600	38.300
Transmitting ERP (watts)	3.120	31.950	127.200	118.710	24.800	2.260	0.300	0.300

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	23.800	-82.900	-318.400	-75.100	-539.400	-551.000	-414.600	38.300
Transmitting ERP (watts)	38.430	24.970	2.630	0.300	0.300	2.000	21.020	38.420

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	23.800	-82.500	-318.400	-75.100	-539.400	-551.000	-414.600	38.300
Transmitting ERP (watts)	0.580	0.330	0.330	1.190	56.820	160.130	80.260	0.770

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
172	33-54-07.0 N	116-21-58.8 W	331.6	16.7	

Address: Sky Valley 74555 Dillon Rd
City: Desrt Hot Springs **County:** RIVERSIDE **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-750.400	-790.300	-333.100	85.200	214.200	148.900	78.900	-268.900
Transmitting ERP (watts)	2.030	13.730	62.080	5.040	12.650	2.520	0.740	0.740

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-750.400	-790.300	-333.100	85.200	214.200	148.900	78.900	-268.900
Transmitting ERP (watts)	0.820	0.820	2.230	15.100	68.250	62.720	13.910	2.770

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-750.400	-790.300	-333.100	852.000	214.200	148.900	78.900	-268.900
Transmitting ERP (watts)	25.260	2.010	0.820	0.820	2.650	29.680	296.830	283.470

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
173	33-31-00.3 N	117-03-38.5 W	443.2	32.2	

Address: (Cerro Site) 34410 Calac Rd

City: Temecula **County:** RIVERSIDE **State:** CA **Construction Deadline:** 03-01-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-52.900	-134.900	-161.100	-184.100	38.300	67.700	72.500	26.300
Transmitting ERP (watts)	0.720	13.630	103.390	88.000	9.210	0.400	0.400	0.400

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-52.900	-134.900	-161.100	-184.100	38.300	67.700	72.500	26.300
Transmitting ERP (watts)	0.770	0.770	0.770	3.580	60.810	242.100	94.190	6.820

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-52.900	-134.900	-161.100	-184.100	38.300	67.700	72.500	26.300
Transmitting ERP (watts)	121.470	23.150	1.080	0.400	0.400	0.400	5.300	65.240

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
174	34-23-33.8 N	117-34-33.4 W	1553.6	24.4	

Address: Mountain Top 7770 Hwy 138

City: Phelan **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 07-06-2012

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	439.000	423.200	304.800	473.100	-232.300	-481.000	-274.200	356.700
Transmitting ERP (watts)	0.580	2.970	30.410	241.550	167.110	12.680	1.160	0.580

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	439.000	423.200	304.800	473.100	-232.300	-481.000	-274.200	356.700
Transmitting ERP (watts)	0.960	0.580	0.580	2.590	56.620	283.790	110.410	5.280

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	439.000	423.200	304.800	473.100	-232.300	-481.000	-274.200	356.700
Transmitting ERP (watts)	110.410	5.280	0.960	0.580	0.580	2.590	56.620	283.790

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
175	33-55-28.8 N	116-25-30.1 W	339.2	22.9	

Address: (Long Canyon) 70-875 Dillon Road

City: Desert Hot Springs **County:** RIVERSIDE **State:** CA **Construction Deadline:** 07-27-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-671.100	-711.400	-420.900	55.300	145.300	181.400	87.100	-211.300
Transmitting ERP (watts)	0.650	42.070	277.970	121.340	8.790	0.590	0.590	0.590

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-671.100	-711.400	-420.900	55.300	145.300	181.400	87.100	-211.300
Transmitting ERP (watts)	3.190	0.590	0.590	0.590	6.080	133.050	271.640	41.110

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	-671.100	-711.400	-420.900	55.300	145.300	181.400	87.100	-211.300
Transmitting ERP (watts)	297.850	74.820	5.420	0.590	0.590	0.590	2.210	76.560

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
176	34-10-26.0 N	116-43-18.4 W	2529.8	27.7	1271970

Address: (Barton Flats site) 49150 Hwy 38

City: Angelus Oaks **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 04-11-2014

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	396.800	653.100	769.400	784.300	679.600	-137.600	470.000	245.200
Transmitting ERP (watts)	90.600	255.260	59.800	2.860	0.640	0.520	0.520	5.580

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	396.800	653.100	769.400	784.300	679.600	-137.600	470.000	245.200
Transmitting ERP (watts)	3.520	0.550	0.520	0.520	7.710	119.390	243.770	44.360

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
177	34-37-35.2 N	114-38-17.6 W	614.2	59.7	

Address: (Havasu Pass site) On Hwy 95

City: Needles **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 04-11-2014

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	246.500	241.200	161.400	-85.300	160.600	203.000	128.100	49.800
Transmitting ERP (watts)	0.160	1.230	9.960	14.400	2.970	0.240	0.100	0.100

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
177	34-37-35.2 N	114-38-17.6 W	614.2	59.7	

Address: (Havasu Pass site) On Hwy 95
City: Needles **County:** SAN BERNARDINO **State:** CA **Construction Deadline:** 04-11-2014

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	246.500	241.200	161.400	-85.300	160.600	203.000	128.100	49.800
Transmitting ERP (watts)	0.110	0.130	0.790	15.430	57.330	17.310	0.640	0.170

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	246.500	241.200	161.400	-85.300	160.600	203.000	128.100	49.800
Transmitting ERP (watts)	31.760	17.850	1.660	0.240	0.110	0.110	0.470	6.200

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
178	33-29-16.5 N	117-34-55.1 W	269.1	12.2	

Address: (Portada Village site) 1498 1/2 Avenida Talega
City: San Clemente **County:** ORANGE **State:** CA **Construction Deadline:** 04-11-2014

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	98.600	-121.500	-96.900	134.200	201.000	244.300	200.400	152.100
Transmitting ERP (watts)	3.420	58.080	192.310	68.320	4.110	0.380	0.380	0.380

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	98.600	-121.500	-96.900	134.200	201.000	244.300	200.400	152.100
Transmitting ERP (watts)	0.380	0.380	0.380	10.810	110.660	175.390	30.480	1.390

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	98.600	-121.500	-96.900	134.200	201.000	244.300	200.400	152.100
Transmitting ERP (watts)	17.140	0.400	0.380	0.380	0.380	21.090	149.280	142.560

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
179	35-21-45.8 N	117-38-27.1 W	1260.9	78.0	1200992

Address: (Johannesburg) 36753 Randsburg Loop
City: Johannesburg **County:** KERN **State:** CA **Construction Deadline:** 08-14-2014

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	348.100	240.400	331.500	397.200	350.400	146.700	538.800	431.600
Transmitting ERP (watts)	354.700	104.950	5.940	0.740	0.740	0.740	2.380	84.380

Licensee Name: LOS ANGELES SMSA LIMITED

Call Sign: KNKA209 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
179	35-21-45.8 N	117-38-27.1 W	1260.9	78.0	1200992

Address: (Johannesburg) 36753 Randsburg Loop
City: Johannesburg **County:** KERN **State:** CA **Construction Deadline:** 08-14-2014

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	348.100	240.400	331.500	397.200	350.400	146.700	538.800	431.600
Transmitting ERP (watts)	0.740	0.880	28.460	301.410	202.420	16.350	1.290	0.740

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	348.100	240.400	331.500	397.200	350.400	146.700	538.800	431.600
Transmitting ERP (watts)	16.350	1.290	0.740	0.740	0.880	28.460	301.410	202.420

Control Points:

Control Pt. No. 5

Address: 500 W. Dove Road
City: Southlake **County:** TARRANT **State:** TX **Telephone Number:** (800)264-6620

Waivers/Conditions:

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report

Site No. CA002_GLENDALE_137

SW-CA-GLENDA-00237C

Front Of 1544 Kenneth Rd
Glendale, California 91201
Los Angeles County
34.174022; -118.282517 NAD83

EBI Project No. 6222007072

Prepared for:

Verizon Small Cell

c/o ExteNet, LLC

3030 Warrenville Road, Suite 340
Lisle, Illinois 60532

Prepared by:

EBI Consulting

environmental | engineering | due diligence

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APPENDICES

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by ExteNet to to conduct radio frequency electromagnetic (RF-EME) modeling for ExteNet site SW-CA-GLENDA-00237C located in Glendale, California to determine RF-EME exposure levels from the proposed wireless communications equipment at this site. As described in greater detail in Appendix B, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

Modeling results included in this report are based on a site node list dated March 19, 2021 as provided to EBI Consulting. Subsequent changes to the drawings or site design may yield changes in the MPE levels or FCC Compliance recommendations.

The nearest adjacent building is located at a distance of at least 46 feet from the proposed installation. Since the exact height of the adjacent structure is unknown, calculations were performed at the Maximum Antenna Face Value at a horizontal distance of 46 feet. All adjacent buildings are assumed to be accessible to the general public, including all persons not fully aware of RF hazards and who are not trained in RF safety procedures

Maximum Permissible Exposure (MPE) Summary					
Location	**% of FCC General Public/Uncontrolled Exposure Limit**	**% of FCC Occupational/Controlled Exposure Limit**	**Power Density (mW/cm^2)**	**Horizontal Approach Distance of Occupational Limit**	**Horizontal Approach Distance of General Public Limit**
Proposed Verizon Antennas					
Maximum Antenna Face Value	198.0600	39.6120	1.9806	N/A	4
Nearest Walking Surface	0.6875	0.1375	0.0069	N/A	N/A
Ground Level	0.1000	0.0200	0.0010	N/A	N/A

These results are calculated based on max power assumptions for this site. The proposed antennas will contribute the majority to these emissions. Workers accessing any equipment on the pole should follow all safety procedures outlined by the carrier and property owner.

Statement of Compliance

Signage recommendations are presented in Section 3.0 to bring the site into compliance with the FCC Rules and Regulations.

1.0 SITE DESCRIPTION AND ANTENNA INVENTORY

This project involves the installation of three proposed active wireless telecommunication antennas on a pole in Glendale, California. This site is located in the right of way.

The antennas are to be mounted on a pole and operating in the directions, frequencies, and heights mentioned below.

Ant #	Operator	Antenna Make	Antenna Model	Frequency (MHz)	Azimuth (deg.)	Aperture (feet)	Total Power Input (Watts)	Antenna Gain (dBd)	Total ERP (Watts)	Total EIRP (Watts)
1	Verizon	ERICSSON	SM6705 CM1 02.07.22 28GHz VZW	28000	0	1.3	0.6	26.14	250.8	411.3
2	Verizon	ERICSSON	SM6705 CM1 02.07.22 28GHz VZW	28000	120	1.3	0.6	26.14	250.8	411.3
3	Verizon	ERICSSON	SM6705 CM1 02.07.22 28GHz VZW	28000	240	1.3	0.6	26.14	250.8	411.3

ID	Carrier	X	Y	Antenna Radiation Centerline	Z-Height Ground
1	Verizon	0.2	0.4	26	25.4
2	Verizon	0.2	0.4	26	25.4
3	Verizon	0.2	0.4	26	25.4

*Z-Height represents the distance measured from the bottom of the antenna.

2.0 BACKGROUND INFORMATION AND MODELING PROCEDURE

EBI has performed theoretical modeling using Roofmaster™ software to estimate the worst-case power density at the site antenna face, ground level and relevent adjacent structures-level resulting from the operation of the antennas. Using the computational methods set forth in Federal Communications (FCC) Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65), Roofmaster™ calculates predicted power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. Roofmaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

For this report, EBI utilized antenna and power data provided by ExteNet and compared the resultant worst-case MPE levels to the FCC's occupational/controlled exposure limits outlined in OET Bulletin 65. The assumptions used in the modeling are based upon information provided by ExteNet and information gathered from other sources. The parameters used for modeling are summarized in Section 1.0.

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

3.0 MITIGATION/SITE CONTROL OPTIONS

EBI's modeling indicates that there are no areas in front of the Verizon antennas that exceed the FCC standards for occupational or general public exposure at ground level or on any adjacent structure observed within 50 feet of this site.

To reduce the risk of exposure and/or injury, EBI recommends that access to areas associated with the active antenna installation be restricted and secured where possible.

Access to this site is accomplished by approaching the pole at ground level. Access to the pole is gained via a lift or climbing with fall protection and therefore antennas are not considered to be accessible to the general public.

Implementation of recommended signage in this report will bring this site into compliance with the FCC's rules and regulations.

Attachment 1: Signage Table

Sign	Description	Posting Instructions	Required Signage / Mitigation
	**Yellow Caution Sign** Used to alert individuals that they are entering an area where the power density emitted from transmitting antenna(s) may exceed the FCC's maximum permissible exposure limit for the occupational population.	Securely post 2 signs on opposite sides of the pole 3 feet below the antennas (22.4 feet above ground level).	2 signs posted below the antennas.

4.0 SUMMARY AND CONCLUSIONS

EBI has prepared this Radiofrequency – Electromagnetic Energy (RF-EME) Compliance Report for the proposed ExteNet site to be located on a pole in Glendale, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from the proposed antennas to document potential MPE levels at this location and to ensure that site control measures are adequate to meet FCC and OSHA requirements.

Maximum Permissible Exposure (MPE) Summary					
Location	**% of FCC General Public/Uncontrolled Exposure Limit**	**% of FCC Occupational/Controlled Exposure Limit**	**Power Density (mW/cm^2)**	**Horizontal Approach Distance of Occupational Limit**	**Horizontal Approach Distance of General Public Limit**
Proposed Verizon Antennas					
Maximum Antenna Face Value	198.0600	39.6120	1.9806	N/A	4
Nearest Walking Surface	0.6875	0.1375	0.0069	N/A	N/A
Ground Level	0.1000	0.0200	0.0010	N/A	N/A

Workers should be informed about the presence and locations of antennas and their associated fields. Recommended control measures are outlined in Section 3.0.

To reduce the risk of exposure and/or injury, EBI recommends that access to areas associated with the active antenna installation be restricted and secured where possible.

Implementation of the signage recommended in this report will bring this site into compliance with the FCC's rules and regulations.

5.0 LIMITATIONS

This report was prepared for the use of ExteNet. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

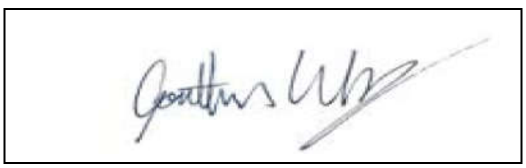
Appendix A

Certifications

Preparer Certification

I, Jonathan Walz, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified “occupational” under the FCC regulations.
- I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation.
- I have been trained on RF-EME modeling using Roofmaster™ modeling software.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



Reviewed and Approved by:

sealed 30dec2022

Michael McGuire
Electrical Engineer
mike@h2dc.com

Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

Appendix B

Federal Communications Commission (FCC) Requirements

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

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

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

Table 1 and Figure 1 (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

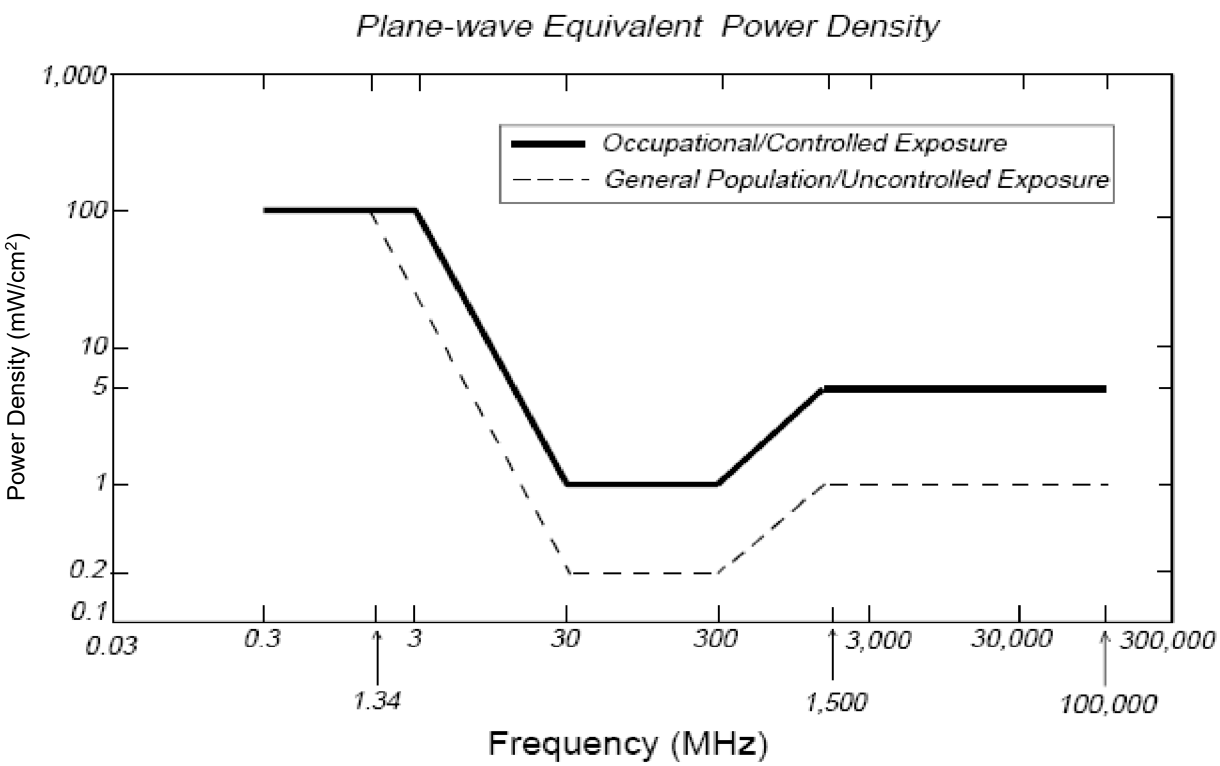
The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm^2). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm^2) and an uncontrolled MPE of 1 mW/cm^2 for equipment operating in the 1900 MHz frequency range.

Equipment operating in the 700 MHz frequency range has an established occupational MPE of 2.33 (mW/cm^2) and a general public MPE of 0.47 mW/cm^2, equipment operating in the 850 MHz frequency range the occupational MPE is 2.83 mW/cm^2 and the general public MPE is 0.57 mW/cm^2, and equipment operating in the 1900 and 2100 MHz frequency range the occupational MPE is 5 mW/cm^2 and general public MPE is 1 mW/cm2. These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (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
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (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
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)
* Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Microwave (Point-to-Point)	5,000 - 80,000 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Broadband Radio (BRS)	2,600 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Wireless Communication (WCS)	2,300 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Advanced Wireless (AWS)	2,100 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Cellular Telephone	870 MHz	2.90 mW/cm^2	0.58 mW/cm^2
Specialized Mobile Radio (SMR)	855 MHz	2.85 mW/cm^2	0.57 mW/cm^2
Long Term Evolution (LTE)	700 MHz	2.33 mW/cm^2	0.47 mW/cm^2
Most Restrictive Frequency Range	30-300 MHz	1.00 mW/cm^2	0.20 mW/cm^2

MPE limits are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

Personal Communication Services (PCS) facilities operate within a frequency range of 1850-1990 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Advanced Wireless Services (AWS) facilities operate within a frequency range of 2155-2180 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets); and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units. Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS/AWS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

FCC Compliance Requirement

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

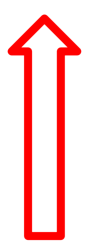
Alternative Site Analysis

SW-CA-GLENDA-00237C

Front of 1544 W. Kenneth Rd., Glendale, CA91201

February 2, 2023

Site Location and Vicinity Map



North

Proposed Site

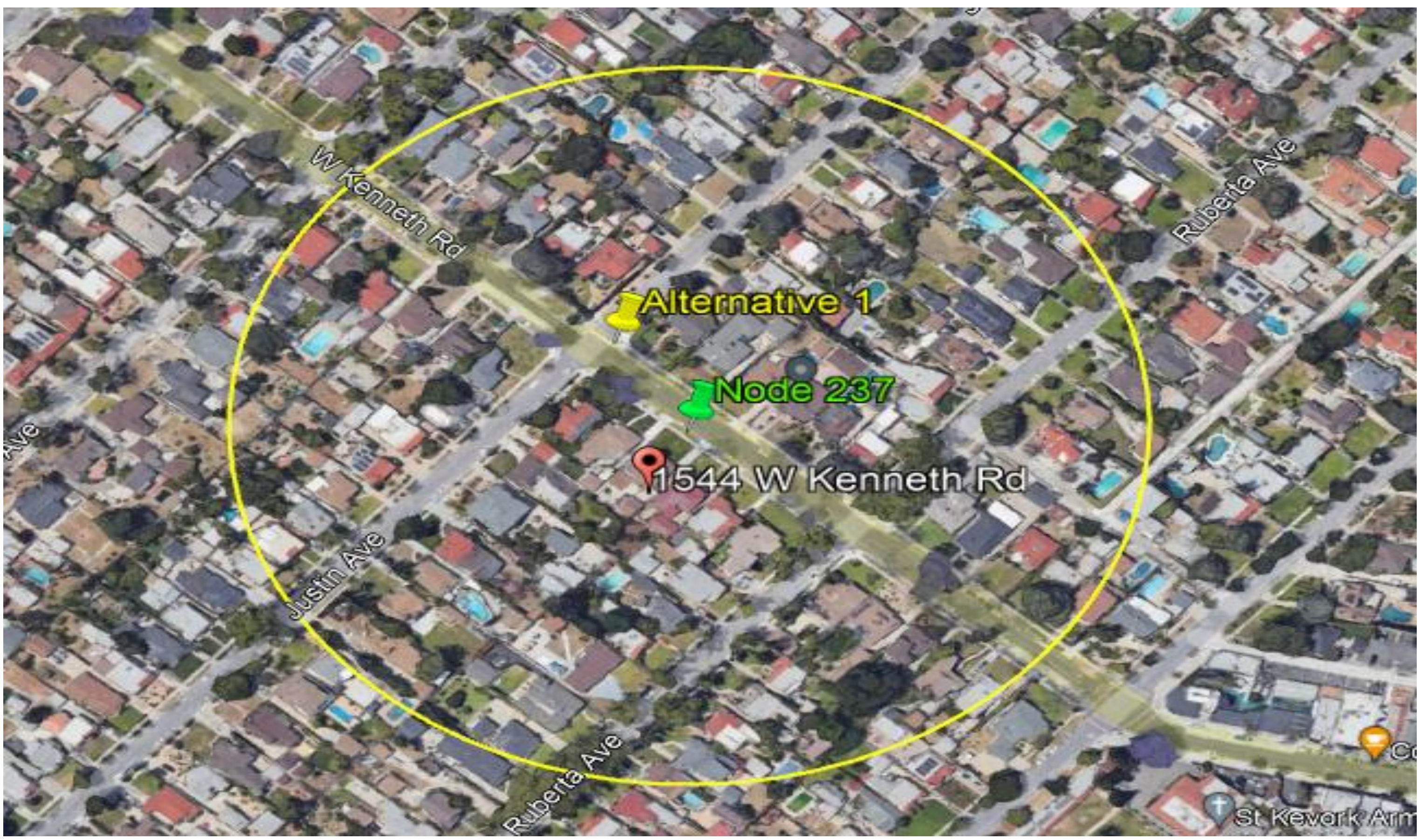
- The proposed site location will adequately fulfill the RF coverage objectives and will eliminate or minimize gaps in pre-existing coverage.
- Provides coverage along the roadway and adjacent areas.
- There are no tall trees or structures in the immediate vicinity of this site which would decrease the RF coverage.

Aerial View

Alternative 1

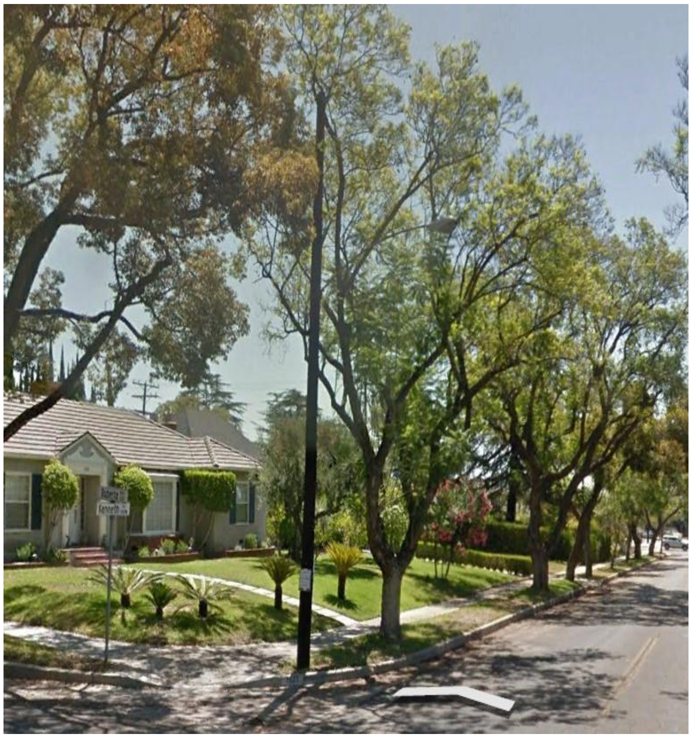
- Alternative 1 is on the wooden utility pole which GWP has advised against.
- Alternative 1 is located at an intersection and would require more extensive traffic coordination than the proposed site.
- Alternative 1 has tree in the immediate vicinity which would decrease the RF coverage.

Aerial View



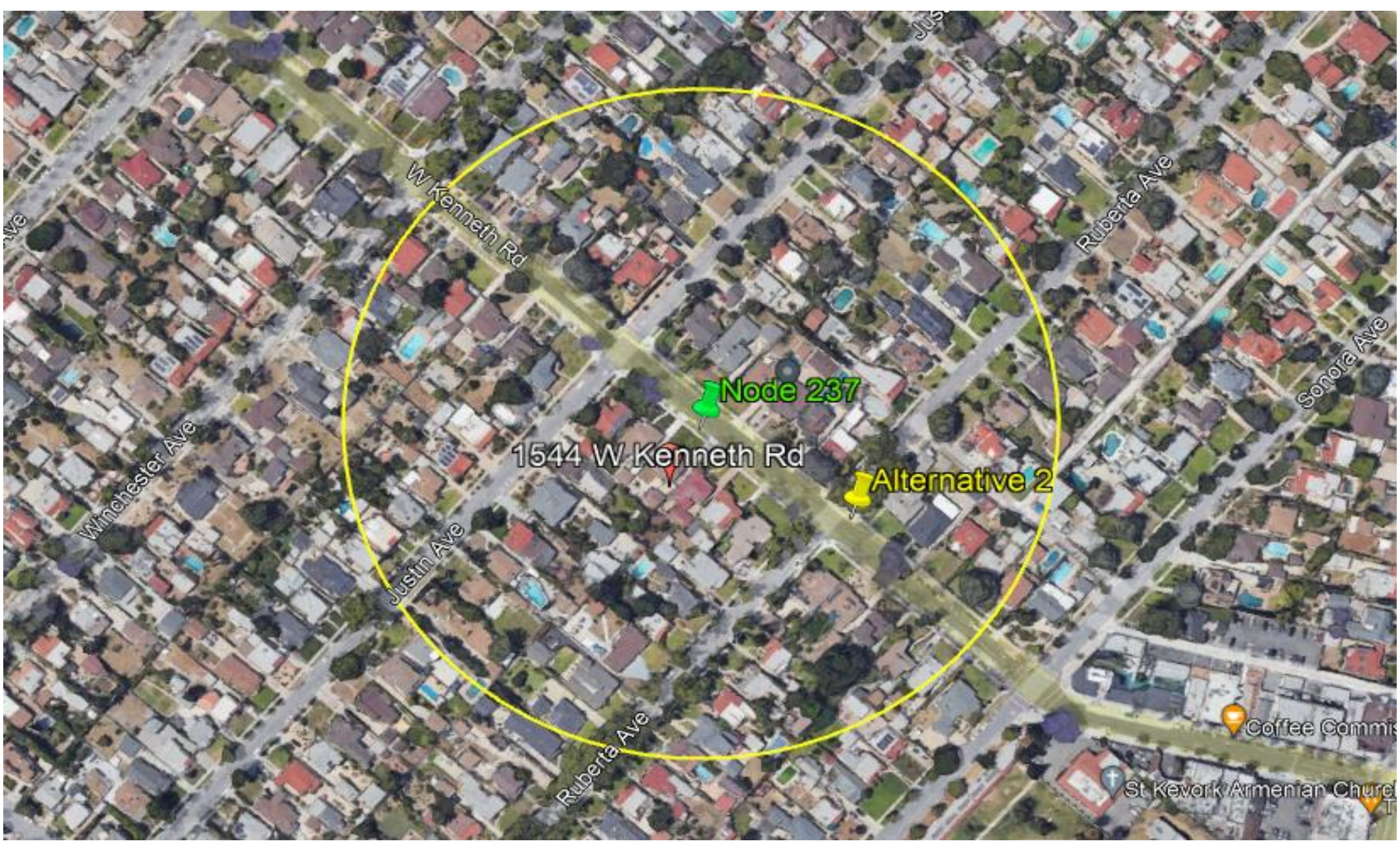
TeleWorld Solutions extenet verizon

Alternative 2



- Alternative 2 is on the wooden utility pole which GWP has advised against.
- Alternative 2 is located at an intersection and would require more extensive traffic coordination than the proposed site.
- Alternative 2 has tree in the immediate vicinity which would decrease the RF coverage.

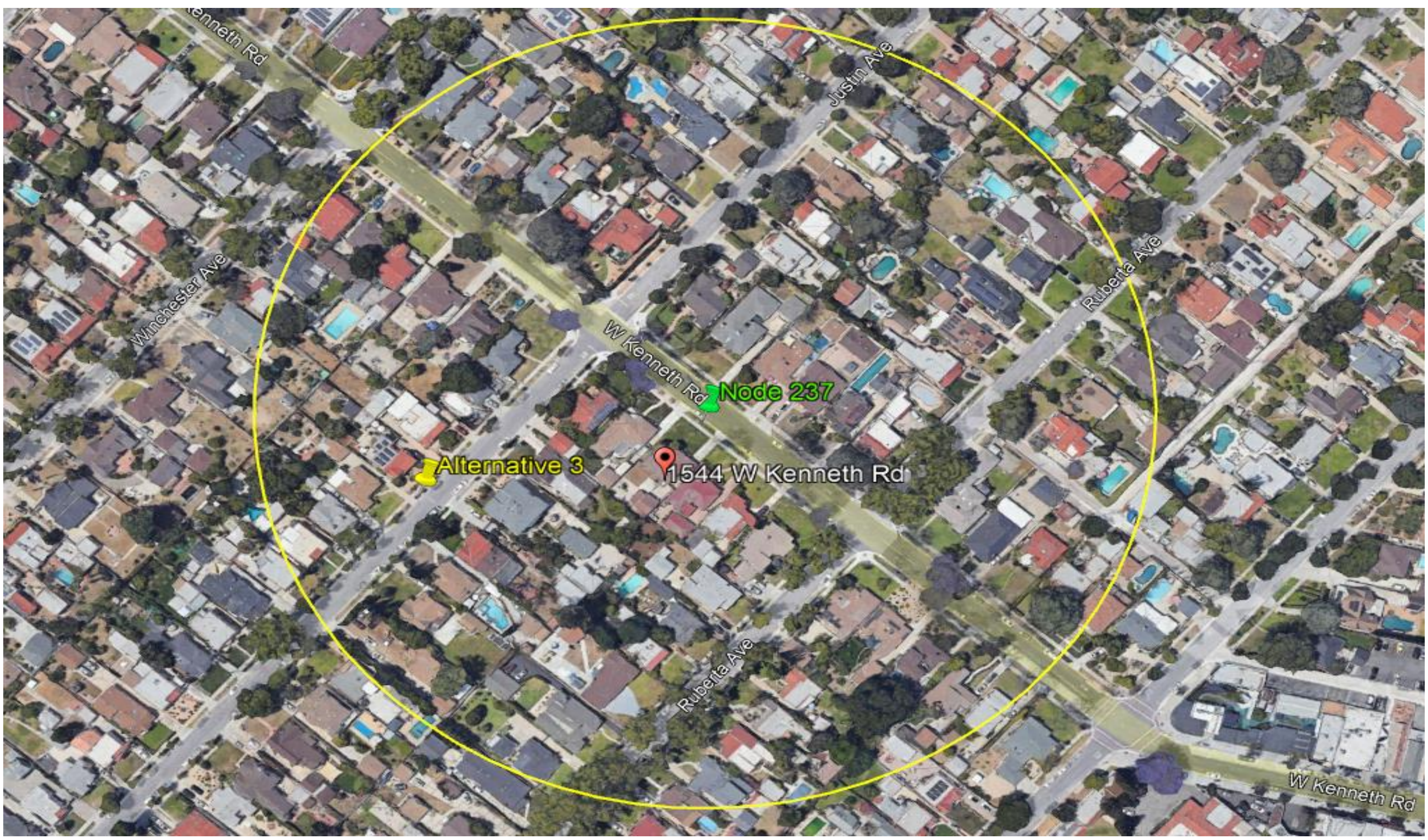
Aerial View

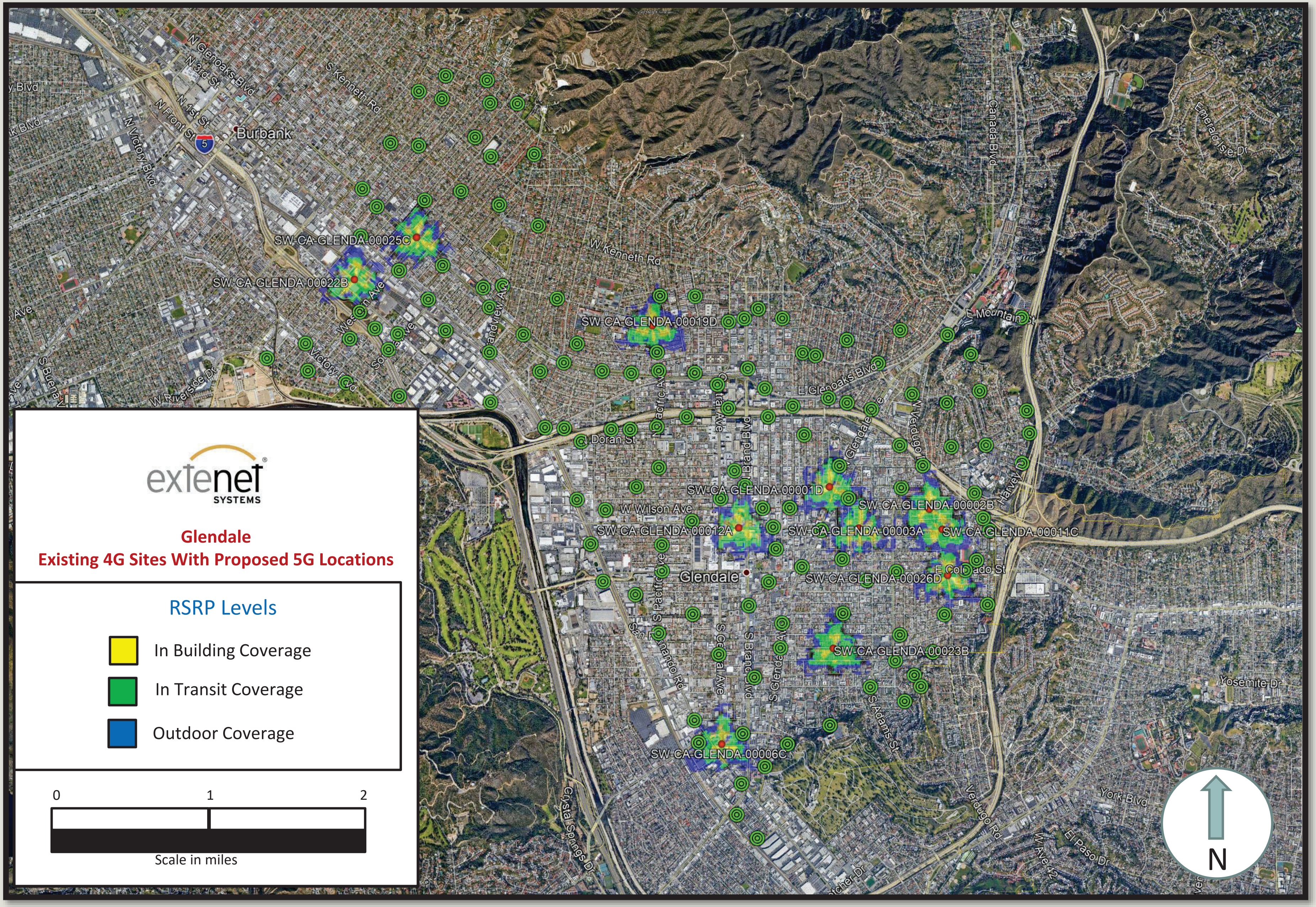


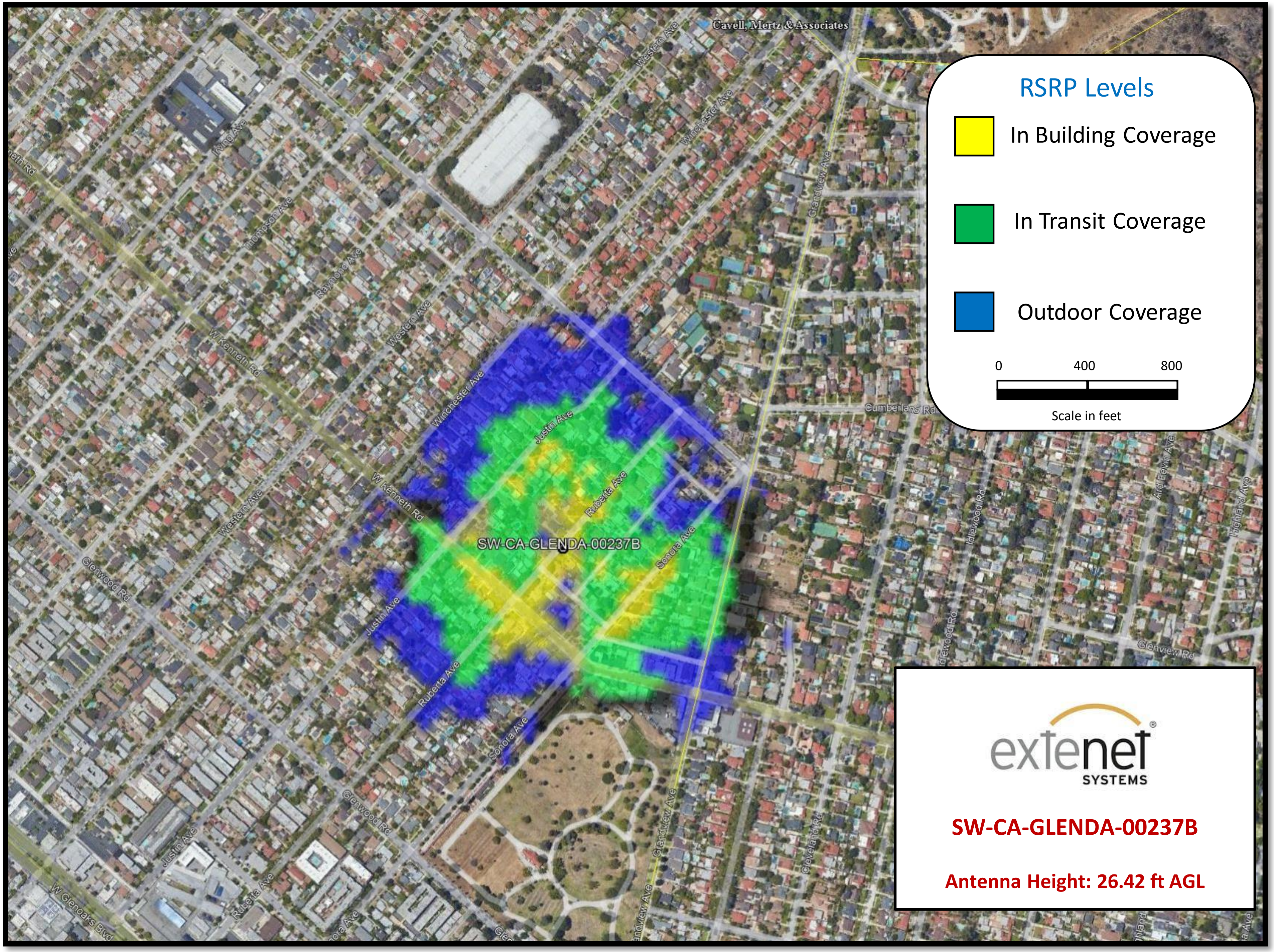
Alternative 3

- Alternative 3 is farther away from the coverage objective.
- Alternative 3 is located close to the driveway which is not recommended.
- Alternative 3 is not in a location that will meet coverage objectives.
-

Aerial View




extenet SYSTEMS
Glendale
Existing 4G Sites With Proposed 5G Locations
RSRP Levels
In Building Coverage
In Transit Coverage
Outdoor Coverage
0
1
2
Scale in miles
N
Burbank
Glendale
SW-CA-GLENDA-00025C
SW-CA-GLENDA-00022B
SW-CA-GLENDA-00019D
SW-CA-GLENDA-00001D
SW-CA-GLENDA-00002B
SW-CA-GLENDA-00012A
SW-CA-GLENDA-00003A
SW-CA-GLENDA-00011C
SW-CA-GLENDA-00026D
SW-CA-GLENDA-00023B
SW-CA-GLENDA-00006C
W Kenneth Rd
S Kenneth Rd
E Glenoaks Blvd
Doran St
W Wilson Ave
E Colorado St
Canada Blvd
Yosemite Dr
York Blvd
El Paso Dr
Verdugo Rd
Crystal Springs Dr
S Adams St
N Victory Blvd
W Riverside Dr
N Glenoaks Blvd
N 1st St
N Front St



RSRP Levels
In Building Coverage
In Transit Coverage
Outdoor Coverage
0
400
800
Scale in feet
SW-CA-GLENDA-00237B
Cavell, Mertz & Associates
extenet SYSTEMS
SW-CA-GLENDA-00237B
Antenna Height: 26.42 ft AGL

SW-CA-GLENDA-00237C

FO 1544 W Kenneth Rd
Glendale, CA 91201

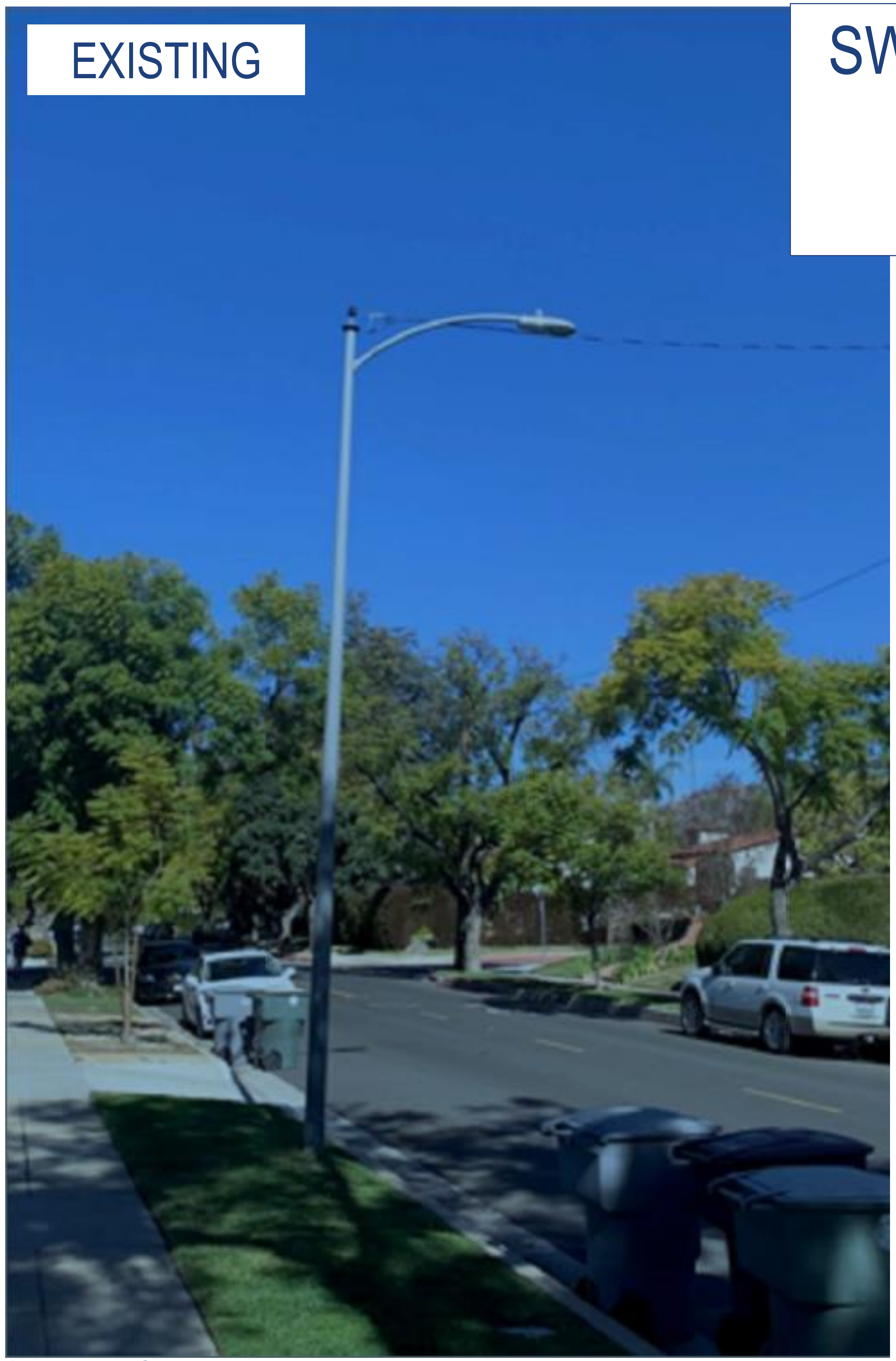
Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

SW-CA-GLENDA-00237C

FO 1544 W Kenneth Rd
Glendale, CA 91201

Facing North

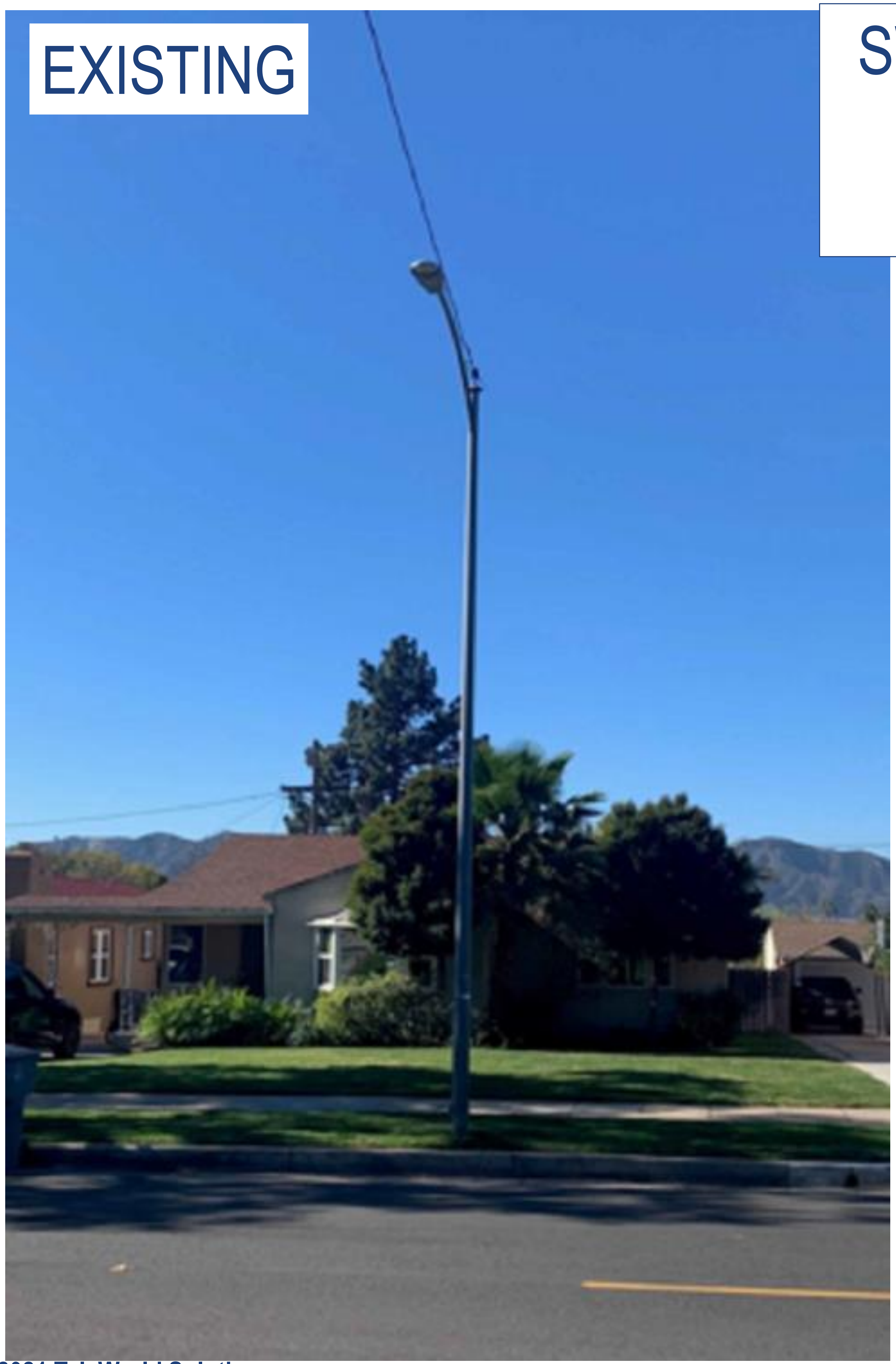
EXISTING



PROPOSED

extenet
TeleWorld Solutions

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.



SW-CA-GLENDA-00237C

FO 1544 W Kenneth Rd
Glendale, CA 91201

Facing West

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

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

1. GLENDALE BUILDING & SAFETY CODE, 2019 - ORDINANCE 5892
2. GLENDALE BUILDING & SAFETY CODE, 2019 - INSERT VERSION
3. 2019 CALIFORNIA BUILDING CODE
4. 2019 CALIFORNIA RESIDENTIAL CODE
5. 2019 CALIFORNIA EXISTING BUILDING CODE
6. 2019 CALIFORNIA PLUMBING CODE
7. 2019 CALIFORNIA MECHANICAL CODE
8. 2019 CALIFORNIA ELECTRICAL CODE
9. 2019 CALIFORNIA FIRE CODE
10. 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
11. 2019 CALIFORNIA ENERGY CODE
12. GO95/GO128

ADA COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. AND IS EXEMPTED FROM ACCESSIBILITY REQUIREMENTS IN ACCORDANCE WITH 2019 CALIFORNIA BUILDING CODE SECTION 11B-203.5

CODE COMPLIANCE

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEEDED.

GENERAL NOTES

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

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH). CALL DIG ALERT

TOLL FREE: 1-800-227-2600 OR www.digalert.org

CALIFORNIA STATUTE REQUIRES MINIMUM OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

PROPERTY OWNER:	PUBLIC RIGHT OF WAY
POLE OWNER:	GLENDALE WATER AND POWER
POWER PROVIDER:	GLENDALE WATER AND POWER 141 N. GLENDALE AVE. GLENDALE, CA 91206 CONTACT: SENIOR ELECTRICAL ENGINEER PHONE: (818) 548-3924 EMAIL: TBD
APPLICANT: ADDRESS:	EXTENET SYSTEMS, CA LLC. 300 E. MAGNOLIA BLVD. SUITE 400 BURBANK, CA 91502
LATITUDE (NAD 83):	34° 10' 26.48" N 34.174022°
LONGITUDE (NAD 83):	118° 16' 57.06" W -118.282517°
LONGITUDE / LATITUDE TYPE:	NAVD 83
GROUND ELEVATION (NAVD 88):	±624'-6"
ADJACENT APN#:	5622-027-018
JURISDICTION:	CITY OF GLENDALE
CURRENT ZONING:	PUBLIC RIGHT OF WAY
NEW USE:	UNMANNED TELECOMMUNICATIONS

SITE INFORMATION

PROJECT MANAGER
TELEWORLD SOLUTIONS
43130 AMBERWOOD PLAZA, SUITE 210
CHANTILLY, VA 20152
CONTACT: RYAN GROSS
PHONE: (224) 293-6355
EMAIL: ryan.gross@partner.teleworldsolutions.com

OSP ENGINEER
TBD
CONTACT:
PHONE:
EMAIL:

SAC/ZONING/PERMITTING
TELEWORLD SOLUTIONS
43130 AMBERWOOD PLAZA, SUITE 210
CHANTILLY, VA 20152
CONTACT: ALEXANDER NOVAK
PHONE: (682) 351-3335
EMAIL: alexander.novak@partner.teleworldsolutions.com

SENIOR CONSTRUCTION MANAGER
EXTENET SYSTEMS CA, LLC.
300 E. MAGNOLIA BLVD. SUITE 400
BURBANK, CA 91502
CONTACT: MARCOS A. CASTRO
PHONE: (760) 625-5476
EMAIL: mcastro@extenetsystems.com

RF ENGINEER
TBD
CONTACT:
PHONE:
EMAIL:

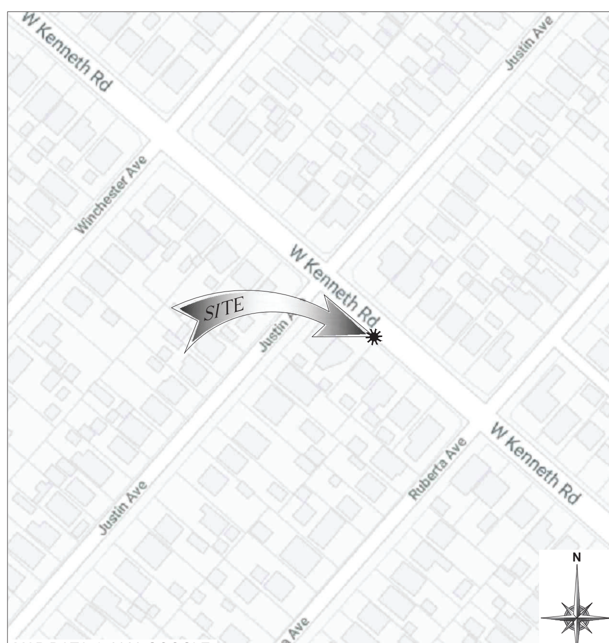
SENIOR TECHNICAL PROJECT MANAGER
EXTENET SYSTEMS CA, LLC.
300 E. MAGNOLIA BLVD. SUITE 400
BURBANK, CA 91502
CONTACT: EDWARD MARTINEZ
PHONE: (818) 419-2147
EMAIL: emartinez@extenetsystems.com

PROJECT TEAM

PROJECT: SW-CA-GLN5GG02-VZW
SITE NAME: CA002_GLENDALE_137
SITE NUMBER: SW-CA-GLENDA-00237C

extenet

POLE ID#: SL_6164
SITE ADDRESS: FRONT OF 1544 W KENNETH RD. GLENDALE, CA 91201



VICINITY MAP

LOCAL MAP

DIRECTIONS FROM EXTENET OFFICE:

300 E. MAGNOLIA BLVD. SUITE 400, BURBANK, CA 91502.

HEAD NORTHEAST ON E MAGNOLIA BLVD TOWARD N GLENOAKS BLVD, TURN RIGHT ONTO N GLENOAKS BLVD, TURN LEFT ONTO ALLEN AVE, TURN RIGHT ONTO W KENNETH RD, DESTINATION WILL BE ON THE RIGHT.

ARRIVE AT 1544 W KENNETH RD., GLENDALE, CA 91201

DRIVING DIRECTIONS

IF USING 11" X 17" PLOT. DRAWINGS WILL BE HALF SCALE

CONSTRUCTION DRAWING

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

APPROVED BY:	INITIALS:	DATE:
RF ENGINEER:		
OPERATIONS:		
SITE ACQUISITION MANAGER:		
PROJECT MANAGER:		
ZONING MANAGER:		
LEASING VENDOR:		
CONSTRUCTION MANAGER:		
A/E MANAGER:		
PROPERTY OWNER:		
UTILITY:		

APPROVALS

THE PROJECT CONSIST OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT FOR EXTENET'S PERSONAL COMMUNICATION SERVICE (PCS) WIRELESS TELECOMMUNICATIONS NETWORK.

- REMOVE & REPLACE EXISTING 25'-0" AGL ROUND METAL STREET LIGHT POLE & FOUNDATION WITH NEW 25'-0" AGL ROUND METAL STREET LIGHT POLE (CA002_GLENDALE_137) & FOUNDATION 5'-0" EAST OF ORIGINAL LOCATION.
- NEW 3'-6" X 8'-0" REINFORCED FOUNDATION 5'-0" EAST OF ORIGINAL LOCATION.
- (3) 16.2" X 8.1" X 6.1" PANEL ANTENNAS WITH INTEGRATED RRU'S WITHIN CONCEALMENT SHROUD.
- 11.50" X 8.0" X 3.313" METER CAN WITHIN NEW ROUND METAL STREET LIGHT POLE.
- 10.43" X 9.38" X 5.06" AC DISCONNECT/LOAD CENTER WITH INTEGRATED SURGE PROTECTION WITHIN NEW ROUND METAL STREET LIGHT POLE.
- (1) 24" X 36" X 18" PULL BOX FOR FIBER (UNDER SEPARATE PERMIT).
- (2) 17" X 30" X 24" PULL BOX FOR POWER.
- PROPOSED FACILITY WILL NOT EMIT ANY SOUND.

PROJECT DESCRIPTION

SHEET INDEX

SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

DO NOT SCALE DRAWINGS

extenet
300 E. MAGNOLIA BLVD, SUITE 400
BURBANK, CA 91502

TeleWorld SOLUTIONS

WT Group
Engineering • Design • Consulting
Structural | Mechanical/Electrical/Plumbing
Civil | Land Survey | Telecommunication | Aquatic
Accessibility Consulting | Design & Program Management
Engineering with Precision, Pace & Passion.
6671 S. Las Vegs Blvd. Ste. D210-271 | Las Vegas, NV 89119
wtgroup.com
JOB#: T2100237

DRAWN BY:	WTG		
CHECKED BY:	JKR		

REV	DATE	DESCRIPTION	INT.
0	09/23/21	90% REVIEW	WTG
1	11/11/22	UPDATED	DYP
2	01/11/23	STRUCTURAL	DYP
3	02/21/23	1A	DYP
4	04/12/23	GWP COMMENTS	DYP

STAMP

EXPIRES: 12/31/24 SIGNED: 06/27/23

SITE NUMBER
SW-CA-GLENDA-00237C

SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
TITLE SHEET

SHEET NUMBER
T-1

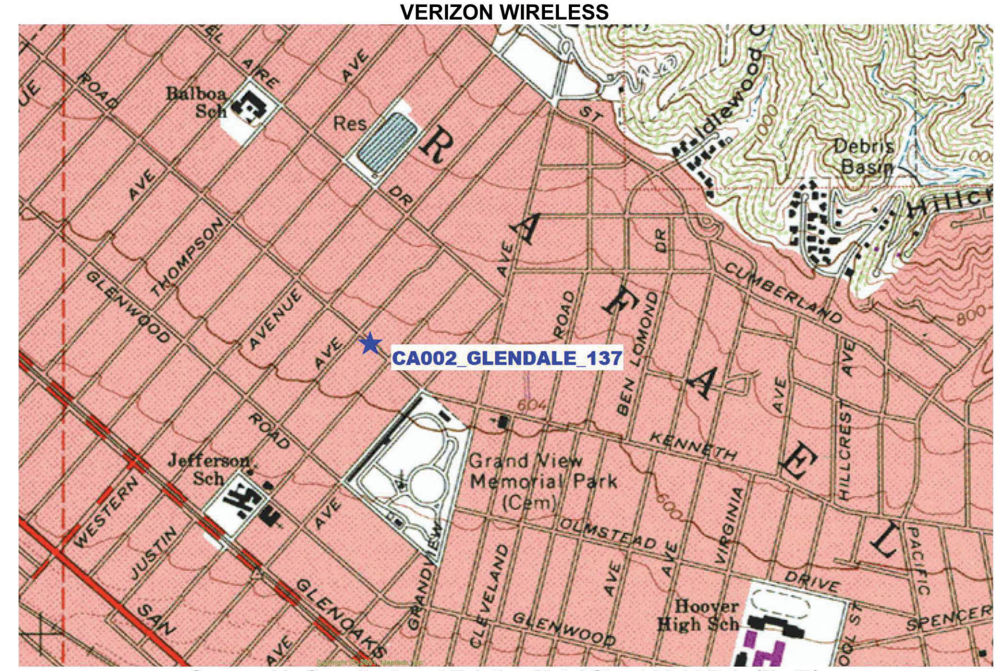
GENERAL NOTES:

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS, CONTRACT AND CONSTRUCTION DOCUMENTS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THESE PLANS AND IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITES(S) AND BE RESPONSIBLE FOR ALL THE CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO BID SUBMITTAL.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONTRACT AND CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PREFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES, INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT AND CONSTRUCTION DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW AND RESOLVE THE CONFLICT WITH DIRECTION FROM THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION ENGINEER AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER.
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENET.
9. CONTRACTOR IS TO KEEP THE GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 227- 2600, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.
13. THE EXISTING STREET LIGHT FACILITIES (PULL BOXES, STREET LIGHT POLES, CONDUITS, ETC.) SHALL BE PROTECTED IN PLACE AND BE ACCESSIBLE TO GWP PERSONNEL AT ALL TIMES.
14. ANY WORK TO BE DONE BY GLENDALE WATER & POWER, AS A RESULT OF THIS PROJECT, SHALL BE COORDINATED WITH GWP STREET LIGHT ENGINEERING DEPARTMENT IN ADVANCE AT THE PROJECT'S EXPENSE.

GENERAL NOTES 1

CAL VADA
SURVEYING INC

1-A ACCURACY CERTIFICATION
VERIZON WIRELESS



Geographic Coordinates at Existing Metal Street Light Pole (No ID)
(NAD 83)

LATITUDE:	34°10' 26.48" N	(34.174022 DD)
LONGITUDE:	118°16' 57.06" W	(-118.282517 DD)

Elevations (NAVD 88)

Ground Elevation at Existing Metal Street Light Pole	624.5 Feet A.M.S.L. (± 624' – 6")
Top of Existing Metal Street Light Pole	25.0 Feet A.G.L. (± 25' – 0")
Overall Height: Top of Existing Metal Street Light Sensor	26.2 Feet A.G.L. (± 26' – 2")

Site Name: CA002_GLENDALE_137
Site Address: Front of 1544 W. Kenneth Rd., Glendale, CA 91201
Los Angeles County
Survey Date: April 02, 2021
Data Source: The Smartnet North America C.O.R.S. "CALA"

LICENSED LAND SURVEYOR
Armando D. DuPont
L.S. 7780
04/06/2021
STATE OF CALIFORNIA

I hereby certify that the **latitude** and **longitude** shown above are accurate to within +/- 20 feet horizontally and that the **elevation** shown above are accurate to within +/- 3 feet vertically. The horizontal datum (Geographic Coordinates) is in terms of the North American Datum of 1983 (NAD 83) and is expressed in degrees (°), minutes (') and seconds ("), to the nearest hundredth of a second. The vertical datum (Elevations) is in terms of the North American Vertical Datum of 1988 (NAVD 88) and is determined to the nearest tenth of a foot.

Note: DD indicates Decimal Degrees.

Job No. 21098-136-R1
02/01/2023 GBM

Los Angeles 411 Jenks Circle, Suite 205, Corona, CA 92880 Phone (951) 280-9960 Fax (951) 280-9746

COMPLETED BY OTHERS/ FOR REFERENCE ONLY

1-A CERTIFICATION LETTER 2

extenet
300 E. MAGNOLIA BLVD. SUITE 400
BURBANK, CA 91502

TeleWorld SOLUTIONS

CAL VADA SURVEYING, INC.

DRAWN BY:	WTG
CHECKED BY:	JKR

REV	DATE	DESCRIPTION	INT.
0	09/23/21	90% REVIEW	WTG
1	11/11/22	UPDATED	DYP
2	01/11/23	STRUCTURAL	DYP
3	02/21/23	1A	DYP
4	04/12/23	GWP COMMENTS	DYP

STAMP

SITE NUMBER
SW-CA-GLENDA-00237C

SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
GENERAL NOTES AND 1-A CERTIFICATION LETTER

SHEET NUMBER
T-2

EXISTING SITE POLE LOCATION LOOKING NORTH | 1

EXISTING SITE POLE LOCATION LOOKING WEST | 2

extenet
300 E. MAGNOLIA BLVD. SUITE 400
BURBANK, CA 91502

TeleWorld SOLUTIONS

WT Group
Engineering • Design • Consulting
Engineering with Precision, Pace & Passion.
JOB#: T2100237

DRAWN BY:	WTG		
CHECKED BY:	JKR		
REV	DATE	DESCRIPTION	INT.
0	09/23/21	90% REVIEW	WTG
1	11/11/22	UPDATED	DYP
2	01/11/23	STRUCTURAL	DYP
3	02/21/23	1A	DYP
4	04/12/23	GWP COMMENTS	DYP

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REGISTERED PROFESSIONAL ENGINEER
JEFFERY S. GUTOWSKY
S 5743
STRUCTURAL
STATE OF CALIFORNIA

EXPIRES: 12/31/24 SIGNED: 06/27/23

SITE NUMBER
SW-CA-GLENDA-00237C

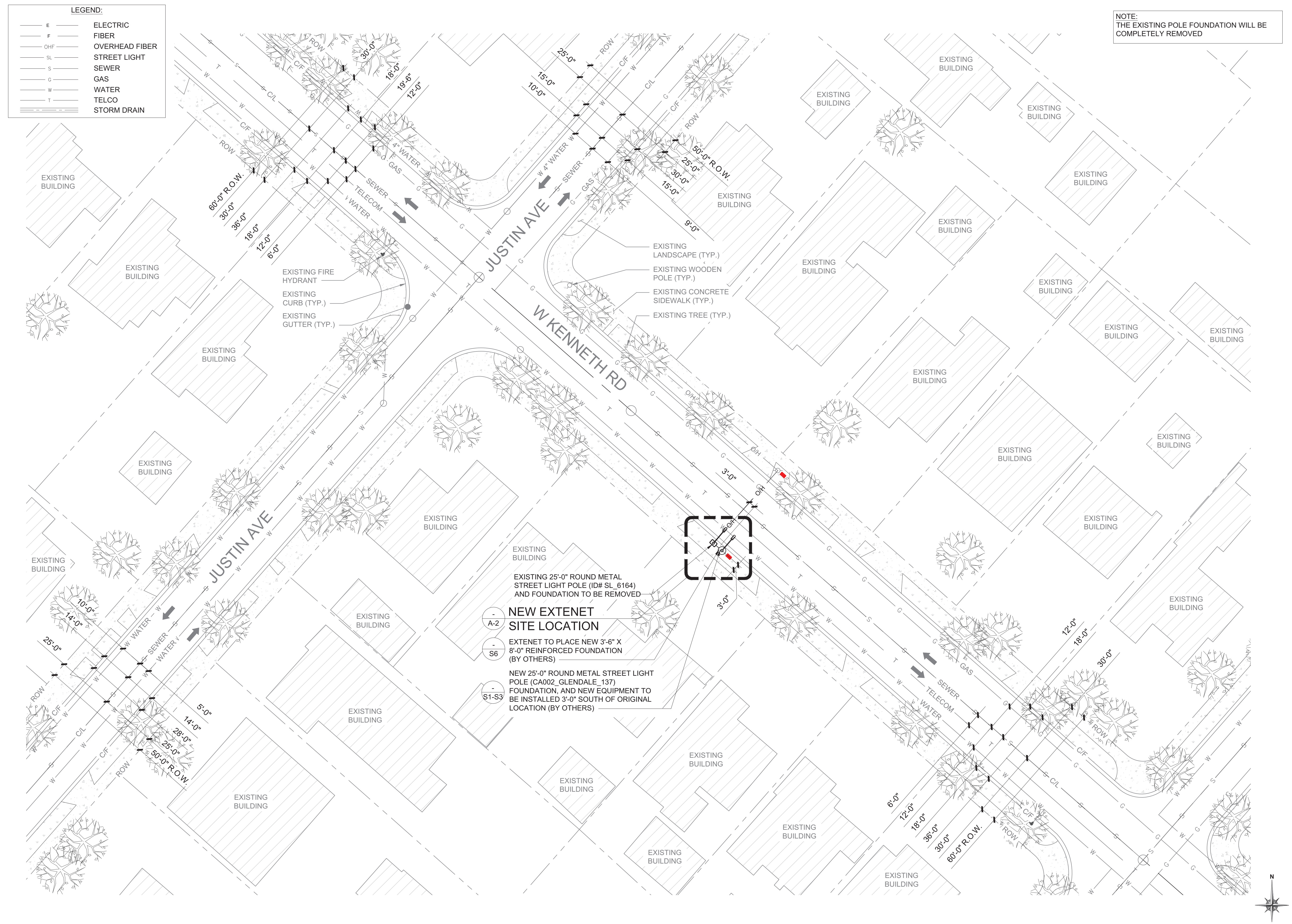
SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
EXISTING SITE POLE PHOTOS

SHEET NUMBER
T-3



OVERALL SITE PLAN

24"x36" SCALE: 1" = 20'-0"
11"x17" SCALE: 1" = 40'-0"

1

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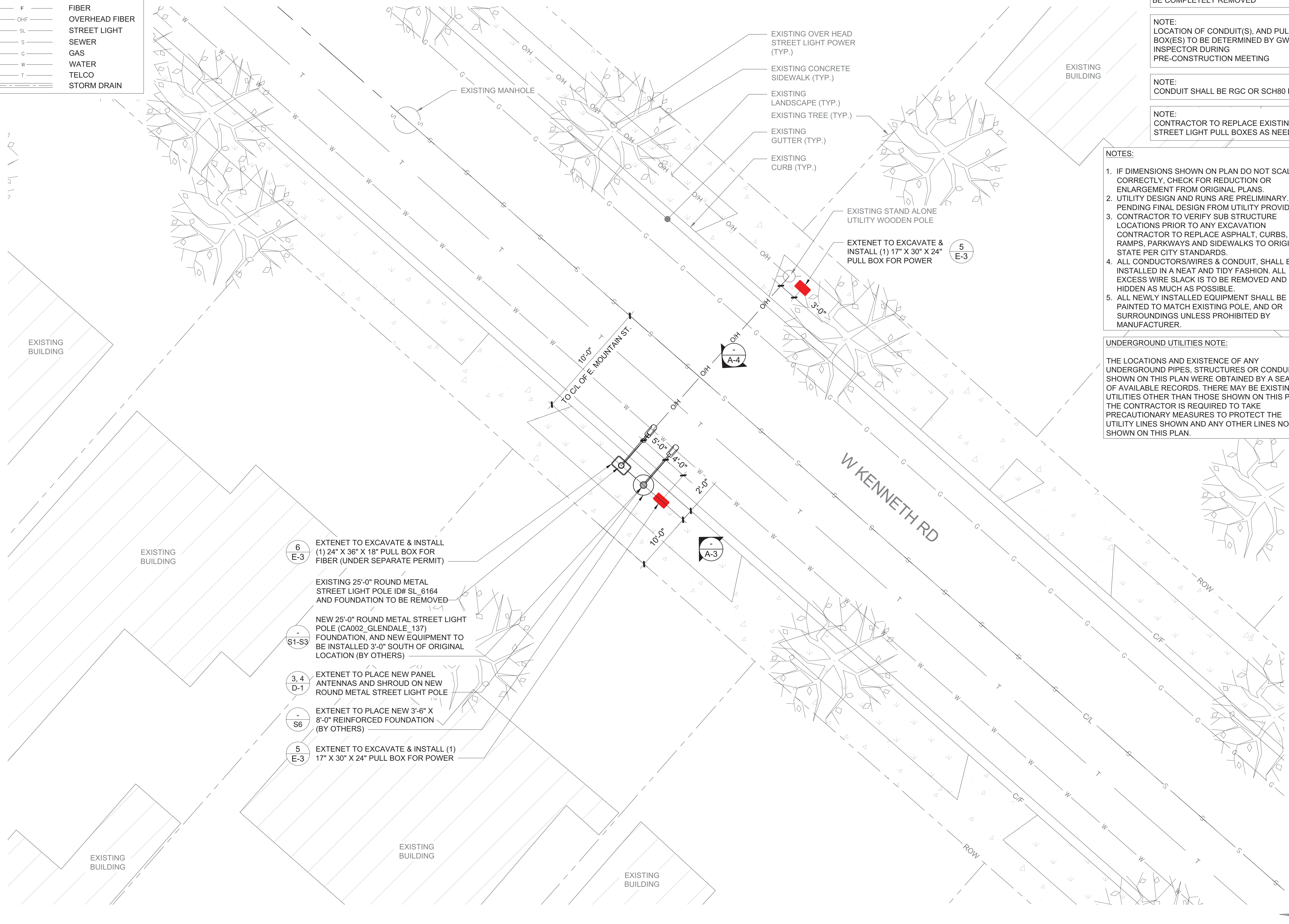
SHEET NAME
OVERALL SITE PLAN

SHEET NUMBER
A-1

LEGEND:

E	ELECTRIC
F	FIBER
OHF	OVERHEAD FIBER
SL	STREET LIGHT
S	SEWER
G	GAS
W	WATER
T	TELCO
	STORM DRAIN



NOTE:
THE EXISTING POLE FOUNDATION WILL BE COMPLETELY REMOVED

NOTE:
LOCATION OF CONDUIT(S), AND PULL BOX(ES) TO BE DETERMINED BY GWP INSPECTOR DURING PRE-CONSTRUCTION MEETING

NOTE:
CONDUIT SHALL BE RGC OR SCH80 PVC

NOTE:
CONTRACTOR TO REPLACE EXISTING STREET LIGHT PULL BOXES AS NEEDED.

NOTES:

1. IF DIMENSIONS SHOWN ON PLAN DO NOT SCALE CORRECTLY, CHECK FOR REDUCTION OR ENLARGEMENT FROM ORIGINAL PLANS.
2. UTILITY DESIGN AND RUNS ARE PRELIMINARY. PENDING FINAL DESIGN FROM UTILITY PROVIDERS.
3. CONTRACTOR TO VERIFY SUB STRUCTURE LOCATIONS PRIOR TO ANY EXCAVATION CONTRACTOR TO REPLACE ASPHALT, CURBS, ADA RAMPS, PARKWAYS AND SIDEWALKS TO ORIGINAL STATE PER CITY STANDARDS.
4. ALL CONDUCTORS/WIRES & CONDUIT, SHALL BE INSTALLED IN A NEAT AND TIDY FASHION. ALL EXCESS WIRE SLACK IS TO BE REMOVED AND HIDDEN AS MUCH AS POSSIBLE.
5. ALL NEWLY INSTALLED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE, AND OR SURROUNDINGS UNLESS PROHIBITED BY MANUFACTURER.

UNDERGROUND UTILITIES NOTE:

THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.

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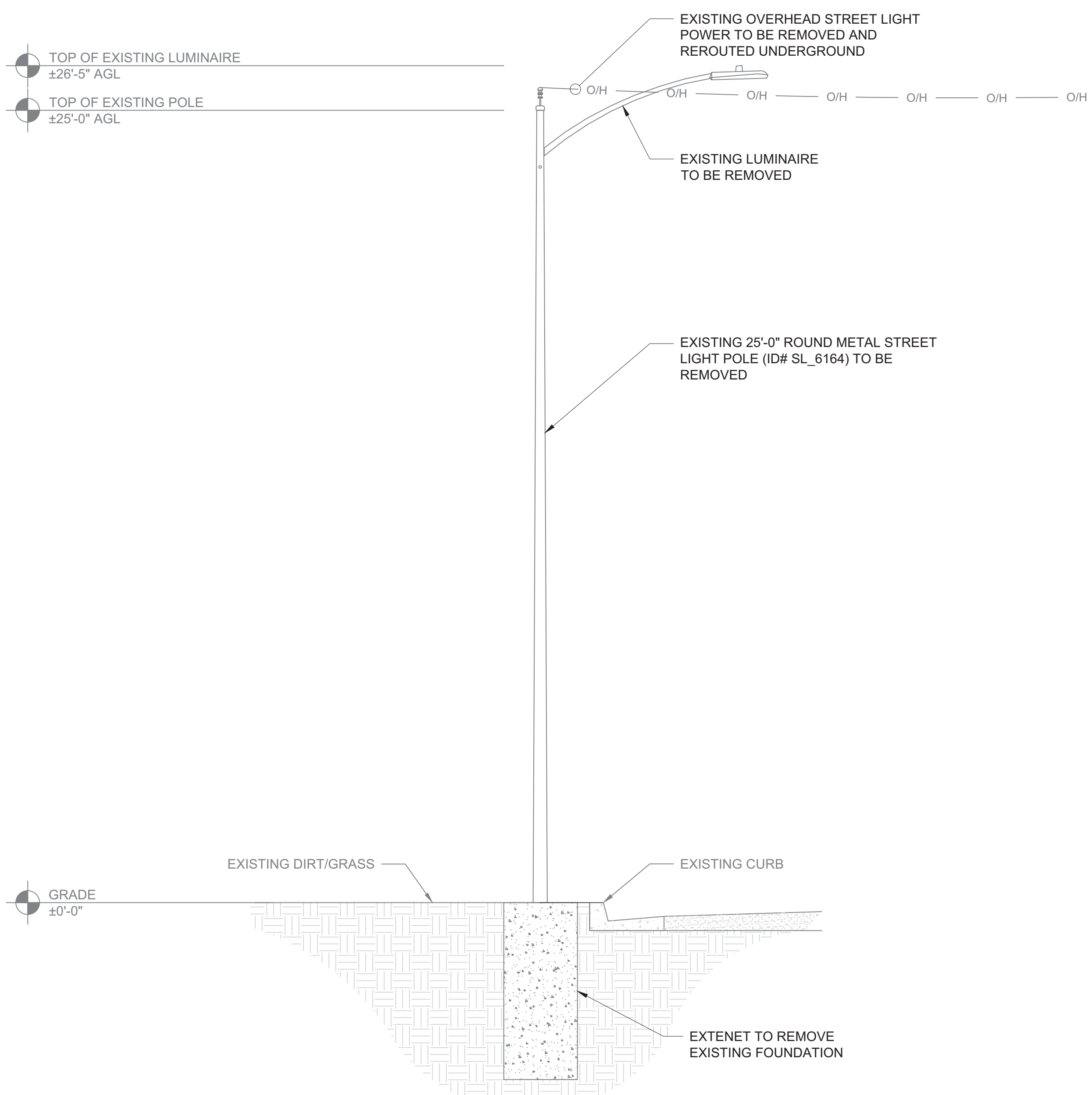
SHEET NAME
ENLARGED SITE PLAN

SHEET NUMBER
A-2

ENLARGED SITE PLAN

24"x36" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"
8' 6' 4' 2' 0" 8'

1



EXISTING SOUTH ELEVATION (LOOKING NORTH)

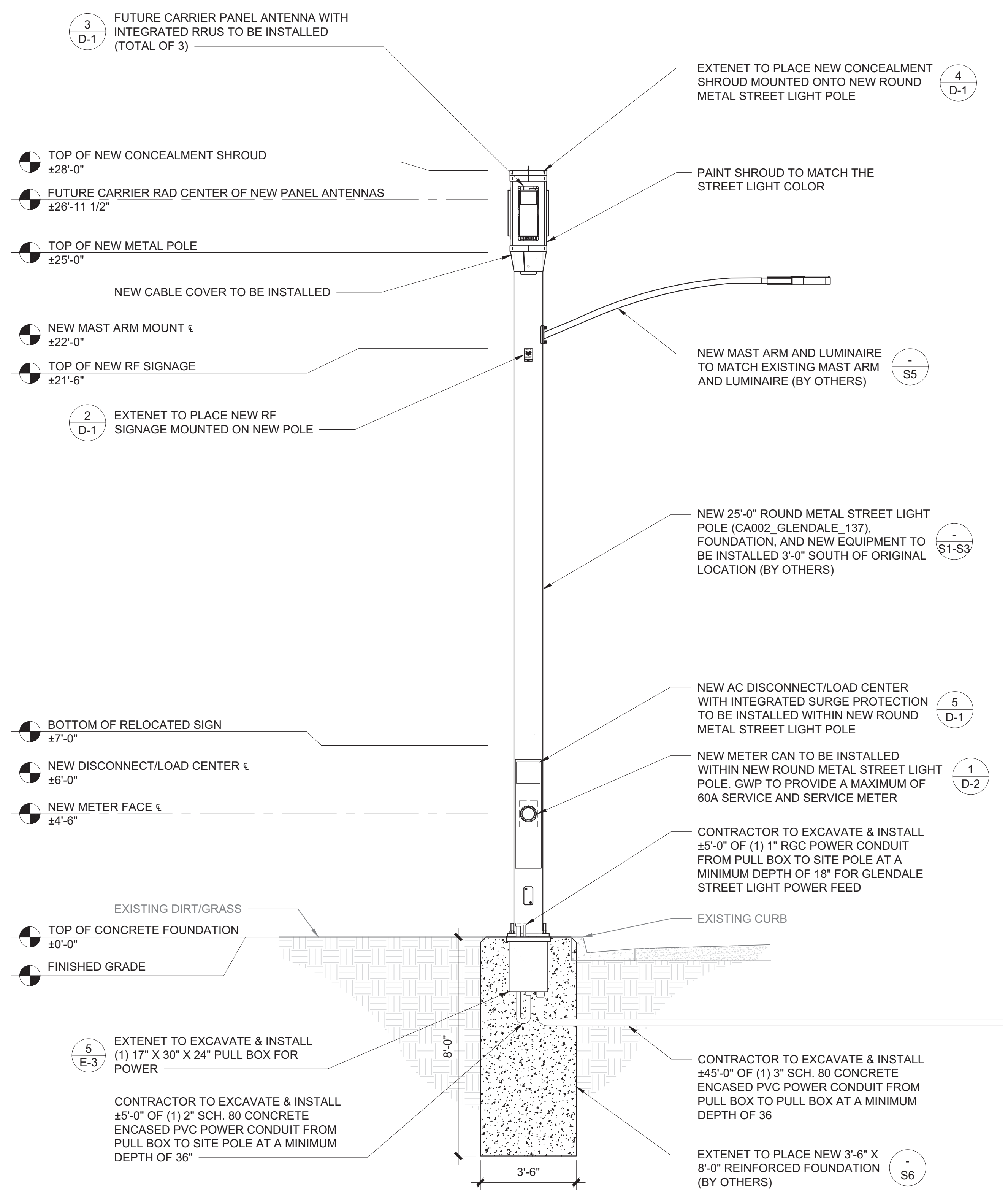
24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

1

NOTE:
AN ANALYSIS OF THE TOWER OR STRUCTURE HAS BEEN PERFORMED BY NB+C ENGINEERING SERVICES DATED 12/19/2022. THE LOCATION AND MOUNTING SHOWN IN THE STRUCTURAL ANALYSIS SHALL SUPERSEDE THESE DRAWINGS.

NOTE:
TOWER DESIGN HAS BEEN COMPLETED BY OTHERS. SEE SHEETS S1-S3.

NOTE:
TOWER FOUNDATION DESIGN HAS BEEN COMPLETED BY OTHERS. SEE SHEET S6.



NEW SOUTH ELEVATION (LOOKING NORTH)

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

2

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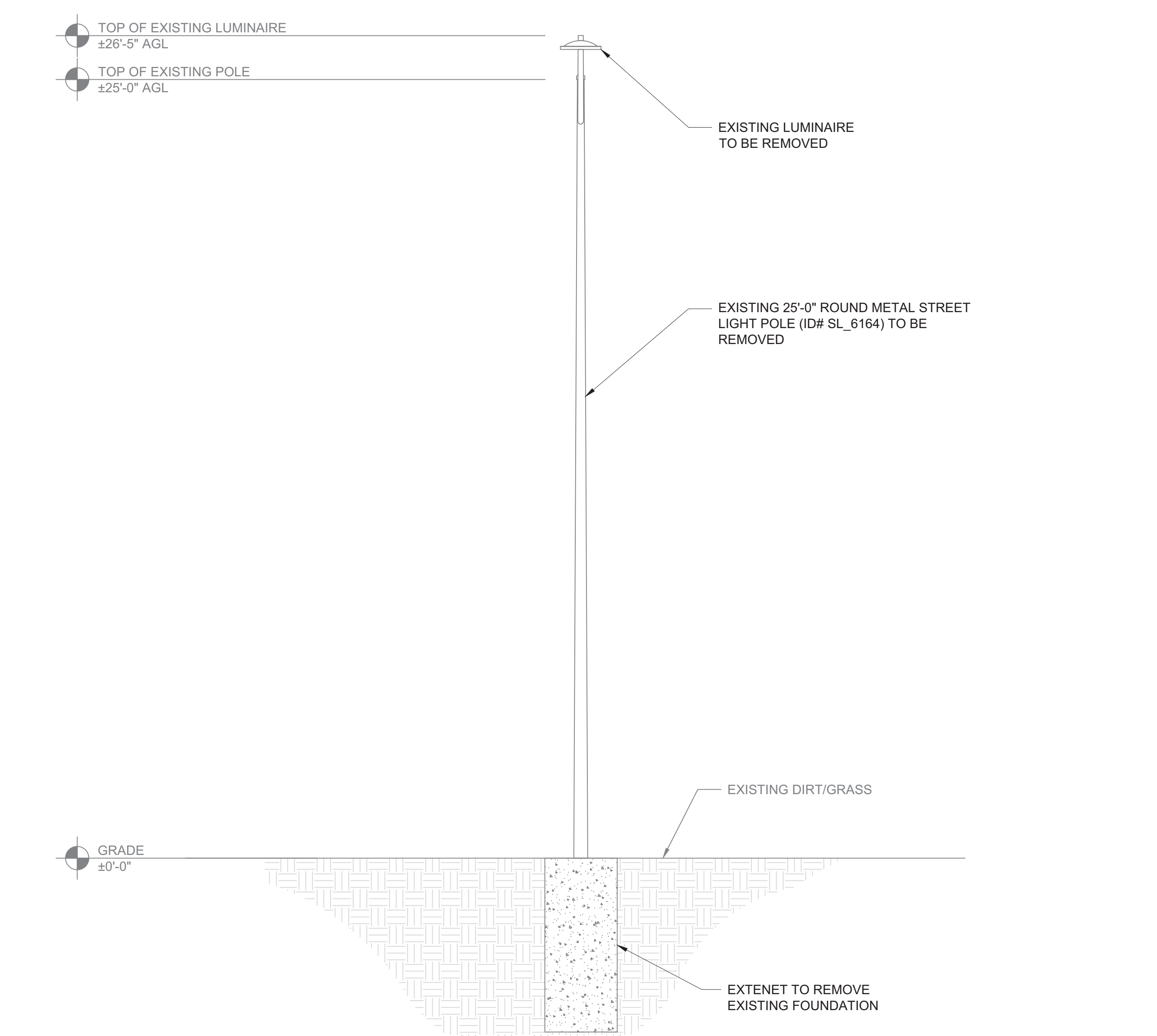
GLENDALE, CA 91201

SHEET NAME
EXISTING AND NEW SOUTH ELEVATIONS

SHEET NUMBER
A-3



EXISTING EAST ELEVATION (LOOKING WEST)

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

1

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NOTE:
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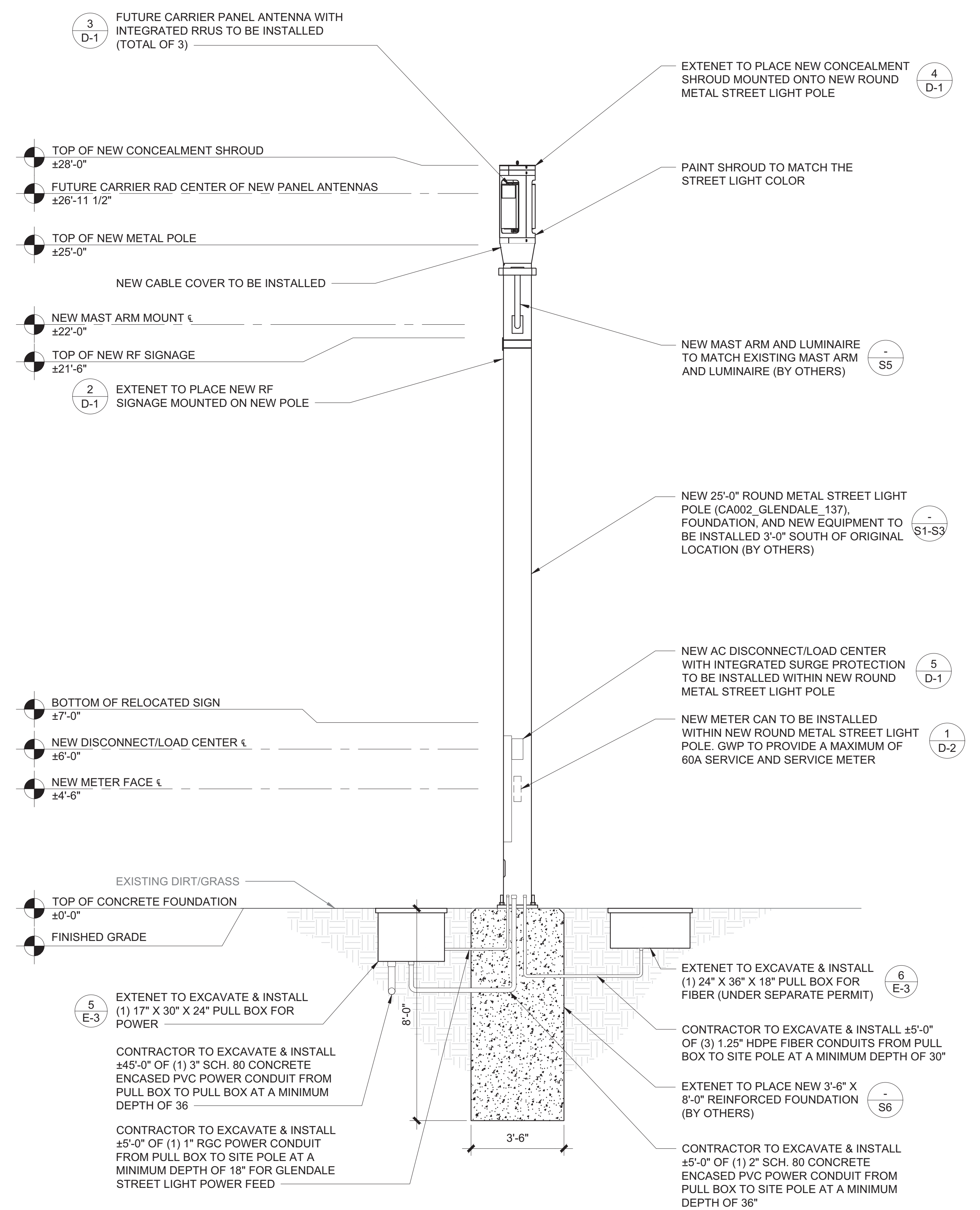

NEW EAST ELEVATION (LOOKING WEST)

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

2

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SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
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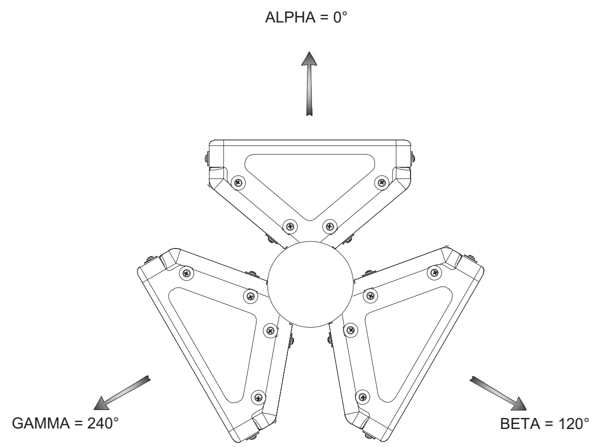
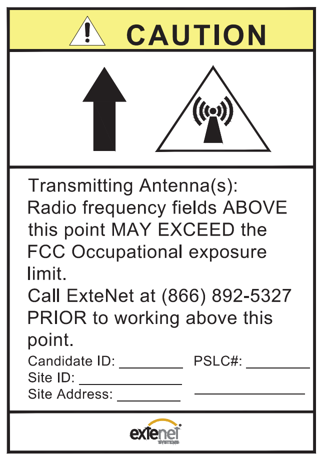
SHEET NAME
EXISTING AND NEW EAST ELEVATIONS

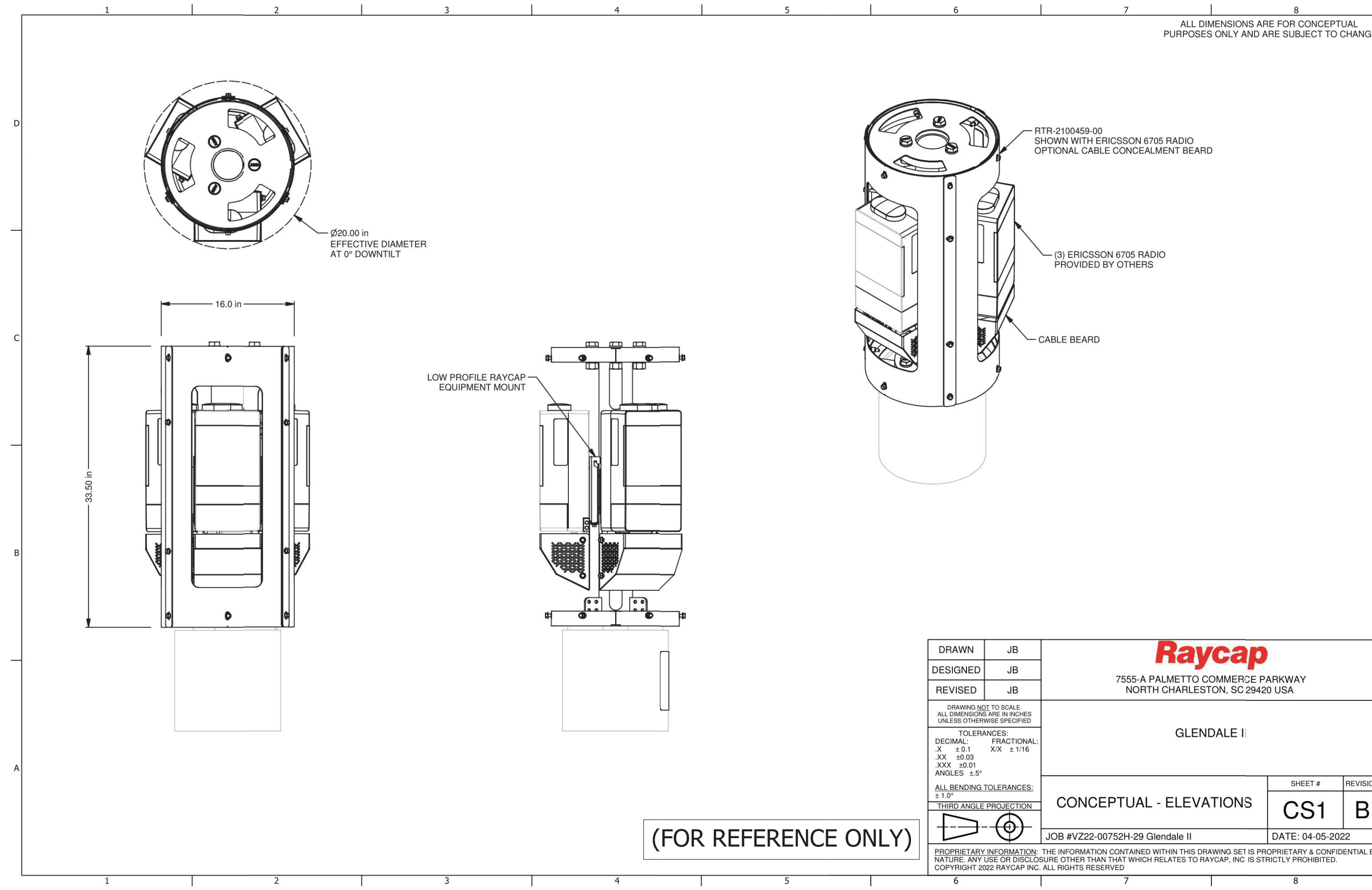
SHEET NUMBER
A-4



CARRIER AZIMUTHS 1



RF SIGNAGE DETAIL 2



CONCEALMENT SHROUD DETAIL 4

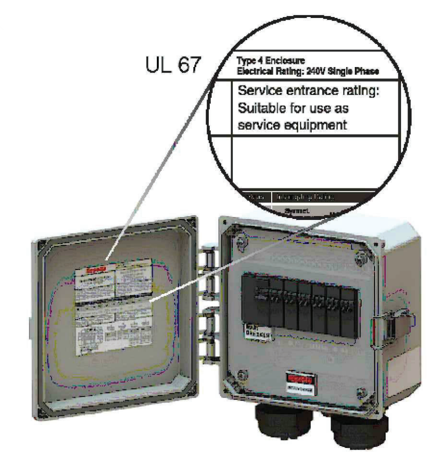
ERICSSON - AIR 6705

DIMENSIONS: 16.2" X 8.1" X 6.1"
WEIGHT: 31 LBS (14KG)

ANTENNA DETAIL 3

RAYCAP - RSCAC-1333-P-240

Electrical			
Model Number	RSCAC-1333-P-240		
Main Disconnect	60A main breaker		
Number of Circuits	Available up to 12		
Breakers	Includes 6 tandem		
Breaker Interrupt Rating (KAIC)	22kA		
Means of External Disconnect	Internal		
Surge Protection Device (SPD) Type to UL	Strikesorb 30-A-2CHV		
Surge Protective Device (SPD) Type per UL 1449 4th Ed.	Recognized UL SPD		
Surge Protection Device (SPD) Class to IEC 61643-11	Class I		
Nominal Operating Voltage [U_n]	120V / 240V split phase		
Nominal Discharge Current [I_n] per UL 1449 4th Ed.	20kA 8/20µs		
Maximum Discharge Current [I_{max}] per IEC 61643-11	60kA 8/20µs		
Impulse Discharge Current [I_{imp}] per IEC 61643-11	5kA 10/350µs		
Maximum Continuous Operating Voltage [U_c] (MCOV)	150V per line		
Voltage Protection Level [U_p] per IEC 61643-11	700V		
Suppression Technology	MOV		
Protection Modes	L1 to Neutral, L2 to Neutral		
Mechanical			
Connection (Power)	Main Breaker #12 - #2Ø AWG (3.31 - 67.4mm²) Branch Breaker #14 - #8 AWG (2.5 - 6mm²) Ground and Neutral Busbars #14 - #2 AWG (2.08 - 33.6mm²)		
Environmental Ingress Protection (IP) Rating	NEMA 4X	NEMA 4X	IP68 & NEMA 6/6P
Operation Temperature (°C)	-40° C to +80° C		
Storage Temperature (°C)	-70° C to +80° C		
Enclosure Type (Outdoor)	Polycarbonate UL 94V-0 Rated		
Enclosure Dimension (L×W×H)	10.43" x 9.38" x 5.06"		
Enclosure	Hinged with Clasp		
Weight	8 lbs [3.62kg]		
Standards Compliance & Certifications			
Strikesorb modules are compliant to the following Surge Protective Device (SPD) standards: UL 1449 4th Edition: 2011, IEC 61643-11: 2011, EN 61643-11: 2012, IEEE C62.11: 2005, IEEE C62.41: 2002, IEEE C62.45: 2002, NEMA-LS-1			
Certification	UL, VDE, CE		
Panel Board Certification	UL 67 (suitable for use as service equipment)		



DISCONNECT DETAIL 5

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FRONT OF
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GLENDALE, CA 91201

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
D-1

MILBANK - U7490-RL-TG

4 TERMINAL RING TYPE SMALL HUB OPEN TRIPLEX GROUND 125 AMPERE

TYPE:	RING TYPE METER SOCKET
APPLICATION:	METER SOCKET
STANDARD:	UL LISTED; TYPE 3R
VOLTAGE RATING:	600 VOLTS ALTERNATING CURRENT
AMPERAGE RATING:	125 CONTINUOUS AMPERE
PHASE:	1 PHASE
FREQUENCY RATING:	60 HERTZ
SIZE:	3.313L X 8W X 11.5H
NUMBER OF MAIN BREAKERS:	0
MAIN BREAKER SIZE:	NO MAIN BREAKER
CABLE ENTRY:	OVERHEAD OR UNDERGROUND
TERMINAL:	LAY IN
INSULATION:	GLASS POLYESTER
MOUNTING:	SURFACE MOUNT
MATERIAL:	G90 GALVANIZED STEEL WITH POWER COAT FINISH
NUMBER OF JAWS:	4 TERMINAL
BYPASS PROVISION:	NO BYPASS
NUMBER OF METER POSITIONS:	1 POSITION
EQUIPMENT GROUND:	TRIPLEX GROUND
HUB/CLOSING PLATE:	SMALL HUB OPENING
LINE SIDE WIRE RANGE:	6 - 2/0 AWG
LOAD SIDE WIRE RANGE:	6 - 2/0 AWG
NUMBER OF RECEPTACLES:	0

METER CAN DETAIL 1

RF SYSTEM SCHEDULE

ANTENNA SECTOR	AZIMUTH	NUMBER OF ANTENNAS	ANTENNA MODEL NO.	COAX SIZE	JUMPER ANTENNA	ANTENNA RAD CENTER	# OF COAX
A	0°	1	ERICSSON AIR 6705	1/2"	-	26'-11 1/2"	TBD
B	120°	1	ERICSSON AIR 6705	1/2"	-	26'-11 1/2"	TBD
C	240°	1	ERICSSON AIR 6705	1/2"	-	26'-11 1/2"	TBD

RF SYSTEM SCHEDULE 3

Streetmacro 6705

Spectrum	28GHz (n261/257) 39 GHz (n260) 24GHz (n258)
IBW	Full band
Total Carrier BW	800 MHz, continuous/non-continuous carriers
EIRP	59 dBm (CM1, 800MHz config), 62dBm (CM2, 400MHz)
EIS	-116/-113 dBm (CM1, 800MHz config)
Layers:	2 @ 800 MHz, 4 @ 400MHz
Modulation	64/64 (256) QAM UL/DL
Service Angular Range:	± 60°, ±15°
Total Antenna BW	1600 MHz
Throughput	~ 5 Gbps DL/ 1 Gbps UL
Synchronization	1588v2, GNSS
Power Consumption	<350 W typical, <500 W Max
Weight	~ 13 kg
Dimensions	366x150x200 mm wo protrusions 409x154x204 mm w protrusions (eg GNSS)
Operational conditions	-40 to +55 degrees
Cooling	Active
Power	AC, 100-250 V
IP Class	IP 65

2021-09-29 | Commercial in Confidence | Page 8

ANTENNA SPECIFICATIONS 2

R.F. INFORMATION

RF ENGINEER: TBD

STREET ADDRESS: 1544 W KENNETH RD. GLENDALE, CA 91201

COORDINATES: LATITUDE: 34° 10' 26.48" N LONGITUDE: 118° 16' 57.06" W

R.F. REQUIREMENTS

GROUND ELV.	RC AMSL	BTS LOCATION	# OF TRU'S	DIVERSITY SEP	BTS TYPE
±624'-6"	± 651'-0"	ON POLE	-	-	RRUS
SECTOR A			SECTOR A ANTENNA	CABLE LENGTH(S)	SECTOR A QTY
AZIMUTH TN	RC	TIP HT.			
0°	26'-11 1/2"	28'-0"	ERICSSON AIR 6705	TBD	1
SECTOR B			SECTOR B ANTENNA	CABLE LENGTH(S)	SECTOR B QTY
AZIMUTH TN	RC	TIP HT.			
120°	26'-11 1/2"	28'-0"	ERICSSON AIR 6705	TBD	1
SECTOR C			SECTOR G ANTENNA	CABLE LENGTH(S)	SECTOR C QTY
AZIMUTH TN	RC	TIP HT.			
240°	26'-11 1/2"	28'-0"	ERICSSON AIR 6705	TBD	1

GENERAL PROJECT INFORMATION

OSP ENG.:	TBD
POLE NUMBER	TBD
POLE HEIGHT	25'-0" AGL
ANTENNA TIP HEIGHT	28'-0"
X-ARM ORIENTATION	N/A
CROSS STREET	W KENNETH RD
T.B.G. MAP NO.:	TBD
PWR E. M. OTHER	CITY OF GLENDALE
PWR PLANNER/PHONE #	TBD
CLOSEST AVAILABLE PWR.	TBD
COMM: GTE, H	N/A (EXTENET)
TELCO CONTACT/PHONE #	N/A
CLOSEST AVAILABLE TELCO	N/A

RF INFORMATION 4

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SHEET NAME

EQUIPMENT DETAILS

SHEET NUMBER

D-2

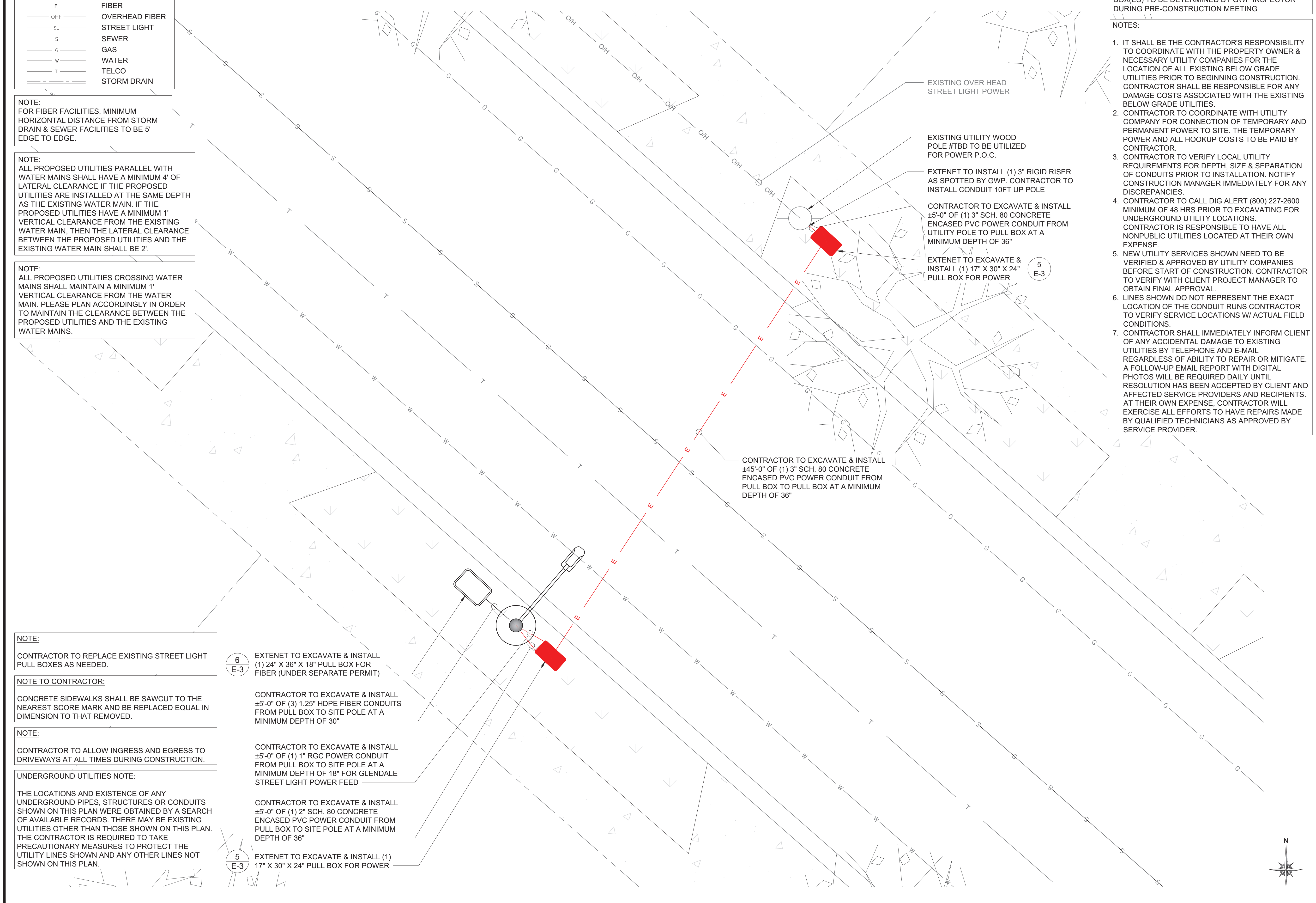
LEGEND:

E	ELECTRIC
F	FIBER
OHF	OVERHEAD FIBER
SL	STREET LIGHT
S	SEWER
G	GAS
W	WATER
T	TELCO
	STORM DRAIN

NOTE:
FOR FIBER FACILITIES, MINIMUM HORIZONTAL DISTANCE FROM STORM DRAIN & SEWER FACILITIES TO BE 5' EDGE TO EDGE.

NOTE:
ALL PROPOSED UTILITIES PARALLEL WITH WATER MAINS SHALL HAVE A MINIMUM 4' OF LATERAL CLEARANCE IF THE PROPOSED UTILITIES ARE INSTALLED AT THE SAME DEPTH AS THE EXISTING WATER MAIN. IF THE PROPOSED UTILITIES HAVE A MINIMUM 1' VERTICAL CLEARANCE FROM THE EXISTING WATER MAIN, THEN THE LATERAL CLEARANCE BETWEEN THE PROPOSED UTILITIES AND THE EXISTING WATER MAIN SHALL BE 2'.

NOTE:
ALL PROPOSED UTILITIES CROSSING WATER MAINS SHALL MAINTAIN A MINIMUM 1' VERTICAL CLEARANCE FROM THE WATER MAIN. PLEASE PLAN ACCORDINGLY IN ORDER TO MAINTAIN THE CLEARANCE BETWEEN THE PROPOSED UTILITIES AND THE EXISTING WATER MAINS.



NOTE:
LOCATION OF PEDESTAL, CONDUIT(S), AND PULL BOX(ES) TO BE DETERMINED BY GWP INSPECTOR DURING PRE-CONSTRUCTION MEETING

NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER & NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH THE EXISTING BELOW GRADE UTILITIES.
2. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
3. CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY FOR ANY DISCREPANCIES.
4. CONTRACTOR TO CALL DIG ALERT (800) 227-2600 MINIMUM OF 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. CONTRACTOR IS RESPONSIBLE TO HAVE ALL NONPUBLIC UTILITIES LOCATED AT THEIR OWN EXPENSE.
5. NEW UTILITY SERVICES SHOWN NEED TO BE VERIFIED & APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH CLIENT PROJECT MANAGER TO OBTAIN FINAL APPROVAL.
6. LINES SHOWN DO NOT REPRESENT THE EXACT LOCATION OF THE CONDUIT RUNS CONTRACTOR TO VERIFY SERVICE LOCATIONS W/ ACTUAL FIELD CONDITIONS.
7. CONTRACTOR SHALL IMMEDIATELY INFORM CLIENT OF ANY ACCIDENTAL DAMAGE TO EXISTING UTILITIES BY TELEPHONE AND E-MAIL REGARDLESS OF ABILITY TO REPAIR OR MITIGATE. A FOLLOW-UP EMAIL REPORT WITH DIGITAL PHOTOS WILL BE REQUIRED DAILY UNTIL RESOLUTION HAS BEEN ACCEPTED BY CLIENT AND AFFECTED SERVICE PROVIDERS AND RECIPIENTS. AT THEIR OWN EXPENSE, CONTRACTOR WILL EXERCISE ALL EFFORTS TO HAVE REPAIRS MADE BY QUALIFIED TECHNICIANS AS APPROVED BY SERVICE PROVIDER.

NOTE:
CONTRACTOR TO REPLACE EXISTING STREET LIGHT PULL BOXES AS NEEDED.

NOTE TO CONTRACTOR:
CONCRETE SIDEWALKS SHALL BE SAWCUT TO THE NEAREST SCORE MARK AND BE REPLACED EQUAL IN DIMENSION TO THAT REMOVED.

NOTE:
CONTRACTOR TO ALLOW INGRESS AND EGRESS TO DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

UNDERGROUND UTILITIES NOTE:
THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.

UTILITY SITE PLAN

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
4' 3' 2' 1' 0" 4'

1

extenet
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JOB#: T2100237

DRAWN BY: WTG
CHECKED BY: JKR

REV	DATE	DESCRIPTION	INT.
0	09/23/21	90% REVIEW	WTG
1	11/11/22	UPDATED	DYP
2	01/11/23	STRUCTURAL	DYP
3	02/21/23	1A	DYP
4	04/12/23	GWP COMMENTS	DYP

STAMP

REGISTERED PROFESSIONAL ENGINEER
DEREK GEORGE STEFUREAC
E19828
EXP. ___
ELECTRICAL
STATE OF CALIFORNIA

EXPIRES: 03/31/24 SIGNED: 06/27/23

SITE NUMBER
SW-CA-GLENDA-00237C

SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
UTILITY SITE PLAN

SHEET NUMBER
E-1

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, 2019 CEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
12. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
13. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
14. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
15. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
16. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
17. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
21. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
22. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS
23. METAL DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
24. NONMETALLIC DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
25. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
26. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN

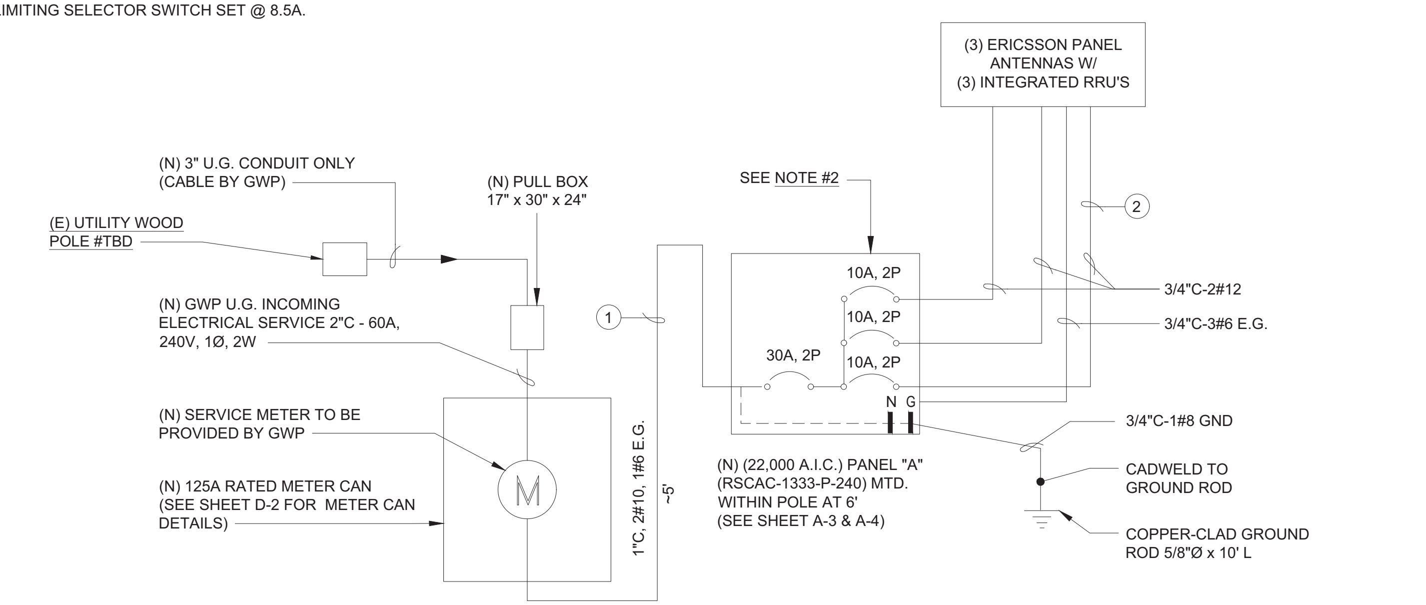
GROUNDING NOTES

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) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA 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 GES'S) 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 IEEE 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 BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
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. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
9. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
10. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

ELECTRICAL | 1

NOTE #1: CONTRACTOR TO DETERMINE APPLICABILITY OF ELECTRIC SINGLE LINE AND WIRING PLAN. IF CONDITIONS EXIST THAT REQUIRE MODIFICATIONS TO THE ELECTRIC SINGLE LINE OR WIRING PLAN, CONTRACTOR TO NOTIFY THE ELECTRICAL ENGINEER FOR A REVISED E SHEET.

NOTE #2: BREAKERS MUST COMPLY WITH AT LEAST CURVE (3) TRIPPING CHARACTERISTICS AND IN ACCORDANCE WITH IEC/60934. 15A BREAKER SIZED FOR PSU INPUT CURRENT LIMITING SELECTOR SWITCH SET @ 8.5A.



NOTE: SEE WT GROUP SHEETS E-1 FOR SITE PLAN AND A-3 & A-4 FOR POLE EQUIPMENT LOCATIONS

CONNECTED LOAD SUMMARY
METER/MAIN TOTAL CONNECTION LOAD = 10A @ 240V, 1Ø, 2W

VOLTAGE DROP TABLE			
1	2#10 AWG. CU.	~5' L	%VD = 0.27%
2	2#12 AWG. CU.	20' L	%VD = NEGL

SINGLE LINE DIAGRAM | 2

(22,000 A.I.C.) PANEL "A"

30A BUS | 240 VOLTS | 1 PHASE | 2 WIRE | MAIN 30A - 2P | TYPE NEMA 4X

VOLT AMPS PHASE A	VOLT AMPS PHASE B	REMARK	REC	LTG	POLE	BKR	CIR		CIR	BKR	POLE	LTG	REC	REMARK	VOLT AMPS PHASE A	VOLT AMPS PHASE B
	500	RRU #1			2	10A				10A	2			RRU #2	500	
	500	RRU #3			2	10A										
		VA/LINE														
	PHASE B = 1000 W														PHASE A = 500 W	

CONTINUOUS LOADS	NON-CONTINUOUS LOADS	
1500 W x1.25= 1875 W	0 W	TOTAL ADJUST WATT = 1875 TOTAL ADJUST AMPS = 7.8 A W/LCL

1. UTILITY POINTS OF SERVICE AND WORK / MATERIALS SHOWN ARE BASED UPON PRELIMINARY INFORMATION PROVIDED BY THE UTILITY COMPANIES AND ARE FOR BID PURPOSES ONLY.
2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR FINAL AND EXACT WORK / MATERIALS REQUIREMENTS AND CONSTRUCT TO UTILITY COMPANY ENGINEERING PLANS AND SPECIFICATIONS ONLY. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, PULL ROPES, CABLES, PULL BOXES, CONCRETE ENCASEMENT OF CONDUIT (IF REQUIRED), TRANSFORMER PAD, BARRIERS, POLE RISERS, TRENCHING, BACKFILL, PAY ALL UTILITY COMPANY FEES AND INCLUDE ALL REQUIREMENTS IN SCOPE OF WORK.
3. SEE WT GROUP SHEET G-1 FOR GROUNDING DETAILS.
4. SEE WT GROUP SHEET D-1 FOR EQUIPMENT DETAILS.

PANEL SCHEDULE | 3

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JOB#: T2100237

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4	04/12/23	GWP COMMENTS	DYP

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DEREK GEORGE STEFUREAC
E19828
EXP.
ELECTRICAL
STATE OF CALIFORNIA

EXPIRES: 03/31/24 SIGNED: 06/27/23

SITE NUMBER
SW-CA-GLENDA-00237C

SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

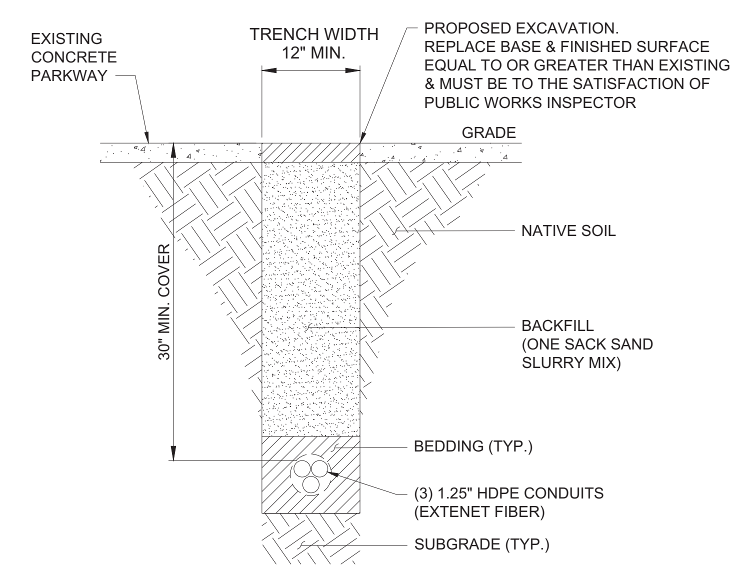
SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
SINGLE LINE DIAGRAM & PANEL SCHEDULE

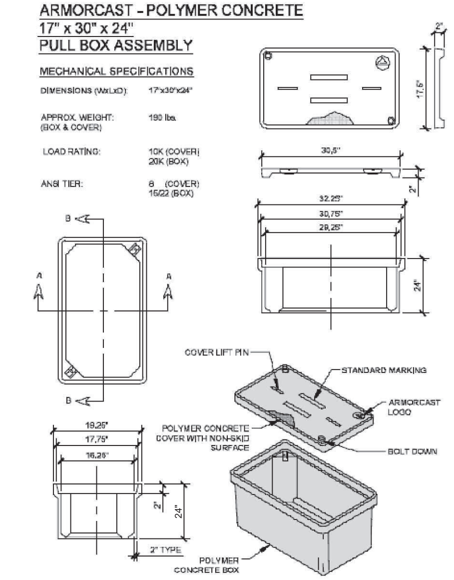
SHEET NUMBER
E-2

NOT USED

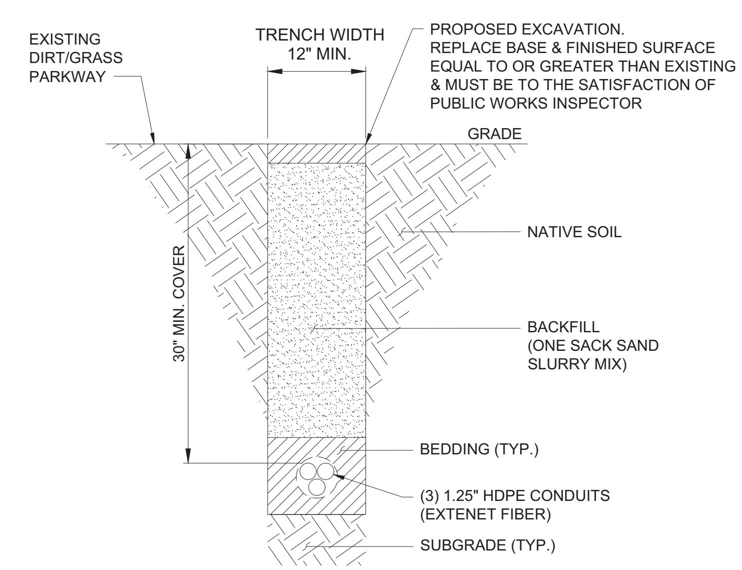
1



TRENCH DETAIL (FIBER ONLY UNDER CONCRETE) 2

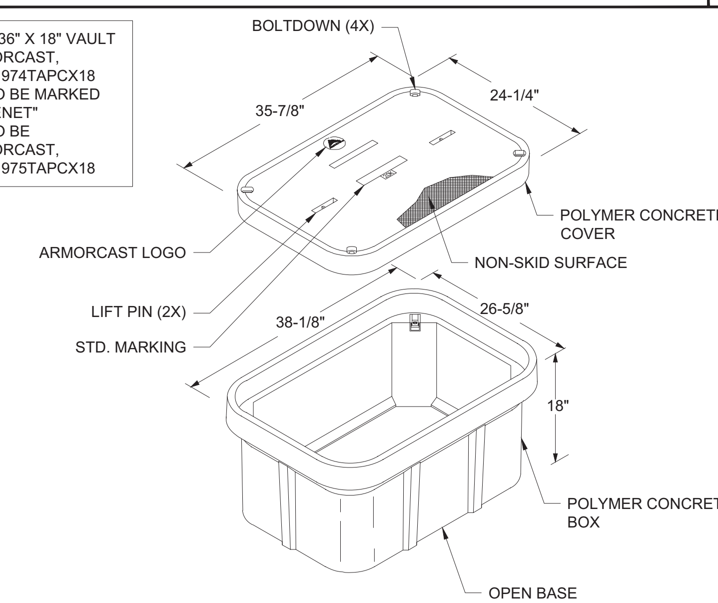


17" X 30" X 24" PULL BOX DETAIL 5

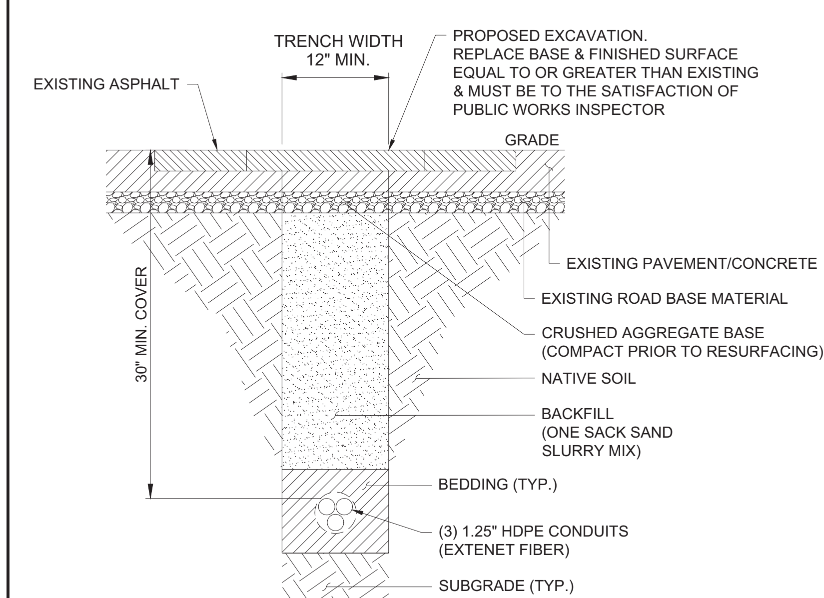


TRENCH DETAIL (FIBER ONLY UNDER DIRT/GRASS) 3

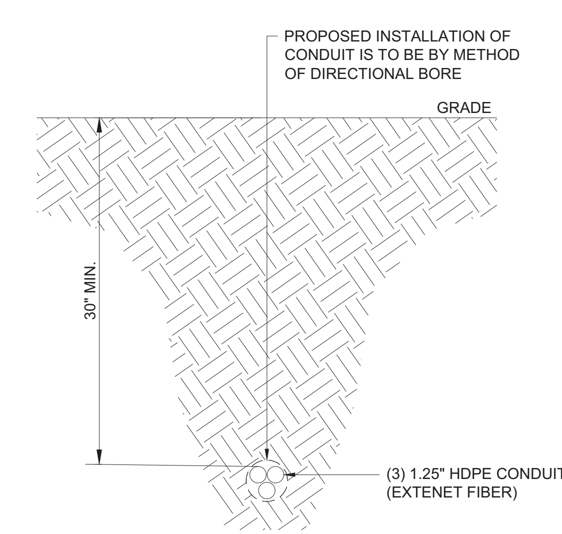
- 24" X 36" X 18" VAULT ARMORCAST, A6001974TAPCX18
- LID TO BE MARKED "EXTENET"
- LID TO BE ARMORCAST, A6001975TAPCX18



24" X 36" X 18" PULL BOX DETAIL 6



TRENCH DETAIL (FIBER ONLY UNDER ASPHALT) 4



BORE DETAIL (FIBER ONLY) 7

extenet
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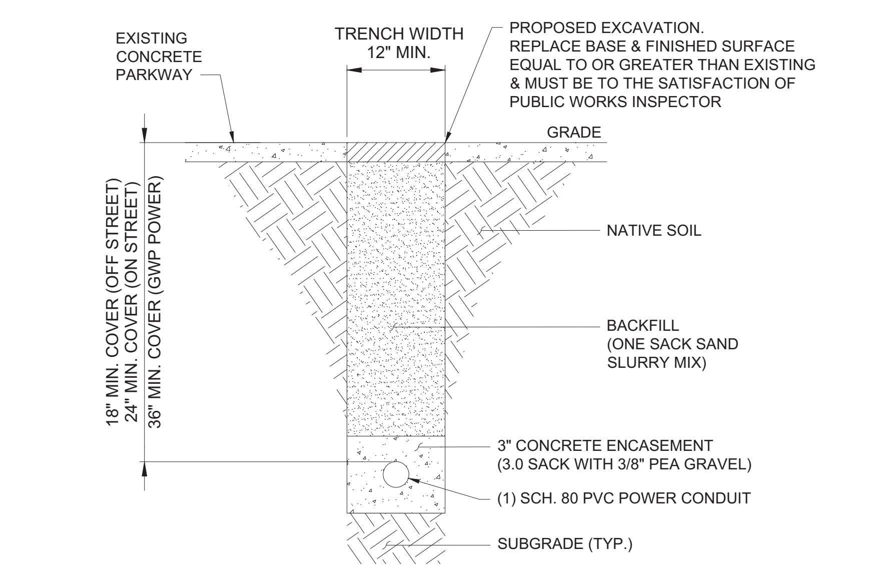
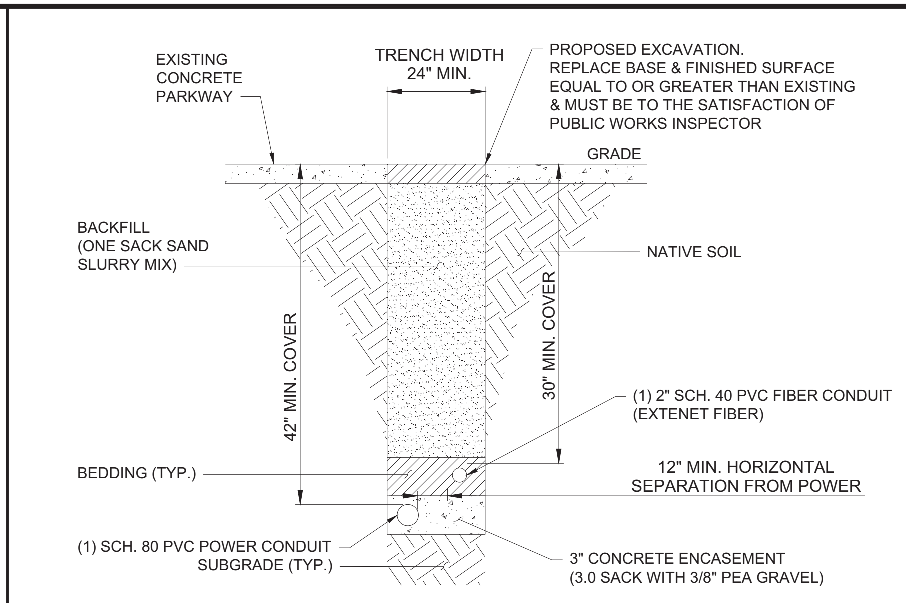
SHEET NAME
CONDUIT PLACEMENT DETAILS

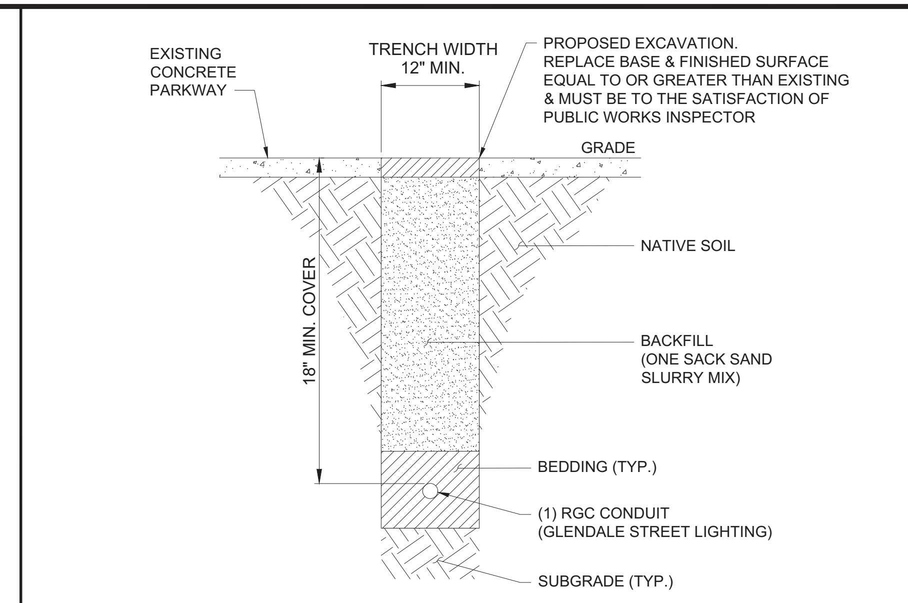
SHEET NUMBER
E-3



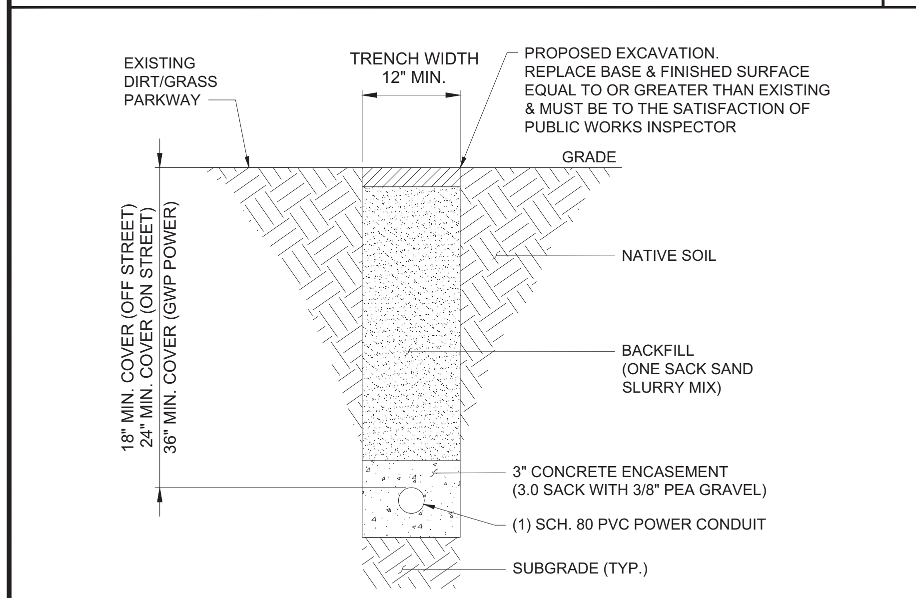
TRENCH DETAIL (POWER ONLY UNDER CONCRETE) 1



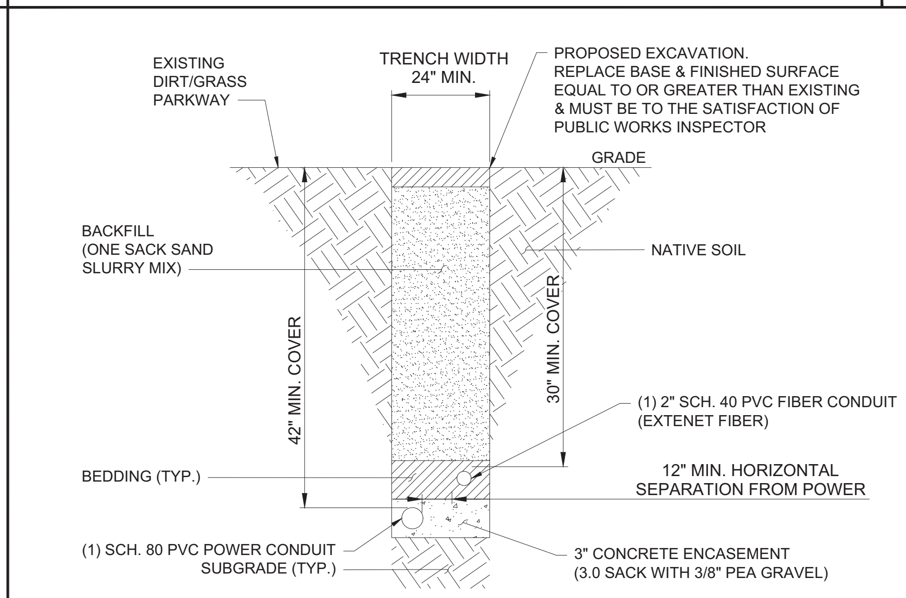
JOINT TRENCH DETAIL (POWER/FIBER UNDER CONCRETE) 4



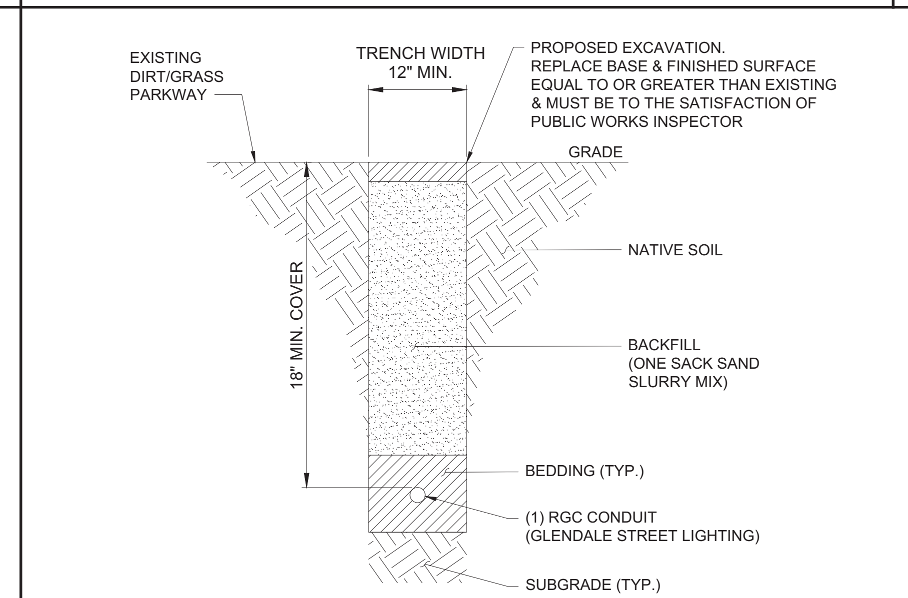
TRENCH DETAIL (STREET LIGHTING UNDER CONCRETE) 7



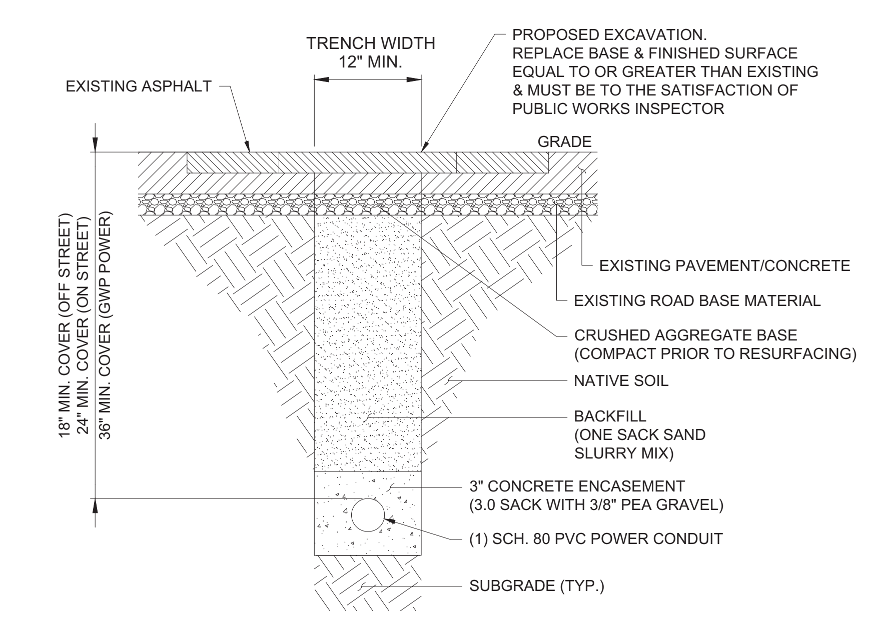
TRENCH DETAIL (POWER ONLY UNDER DIRT/GRASS) 2



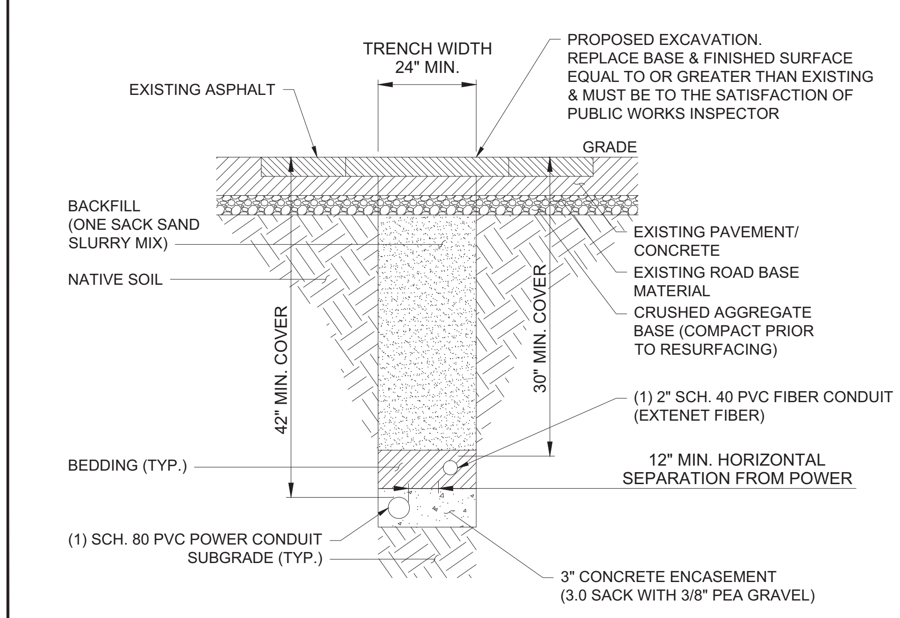
JOINT TRENCH DETAIL (POWER/FIBER UNDER DIRT/GRASS) 5



TRENCH DETAIL (STREET LIGHTING UNDER DIRT/GRASS) 8

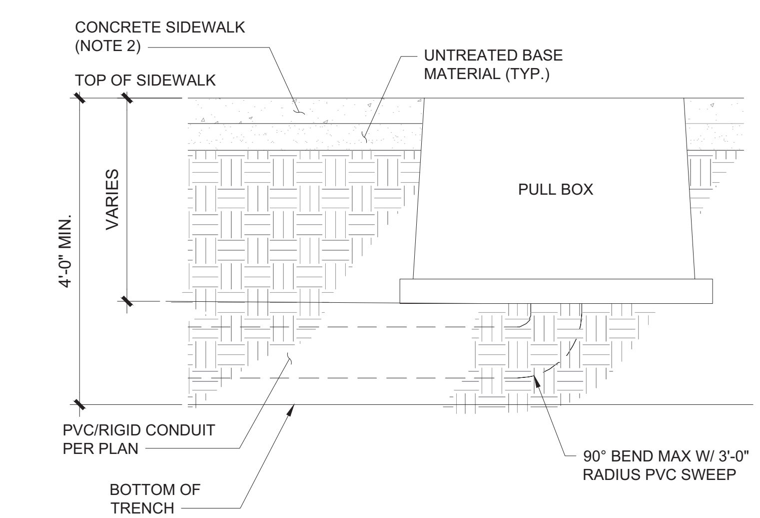


TRENCH DETAIL (POWER ONLY UNDER ASPHALT) 3



JOINT TRENCH DETAIL (POWER/FIBER UNDER ASPHALT) 6

NOTES:
1. SIMILAR CONSTRUCTION FOR FEWER CONDUITS.
2. NO CUTS THROUGH THE EXISTING CONCRETE SHALL BE MADE. CONTRACTOR SHALL REMOVE/REPAIR THE EXISTING SQUARE CUT SECTIONS ALONG THE NEW TRENCH.
3. BWP CONDUIT TO ENTER VERTICALLY (USE 90° SWEEP WITH MIN. 36" RADIUS. CONDUIT SHOULD TERMINATE 6" ABOVE GRAVEL AND 8" UNDERNEATH LID. DOT NOT CUT SWEEP.



CONDUIT STUB-UP/TRENCH DETAIL 9

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SHEET NUMBER
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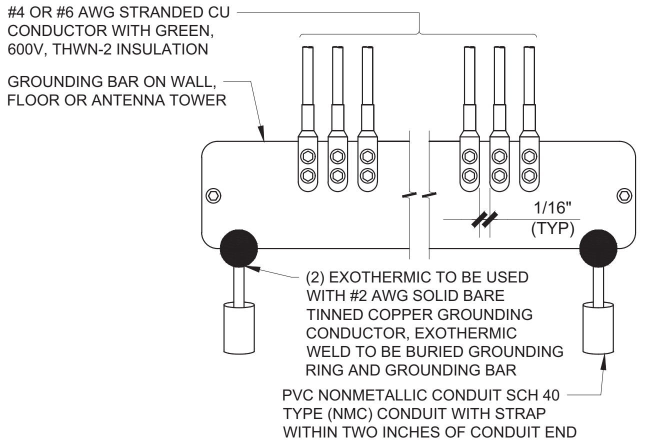
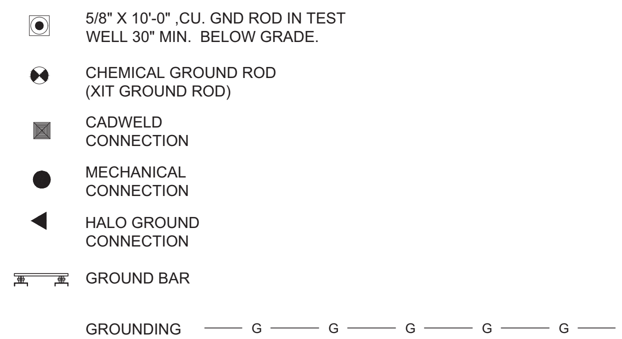
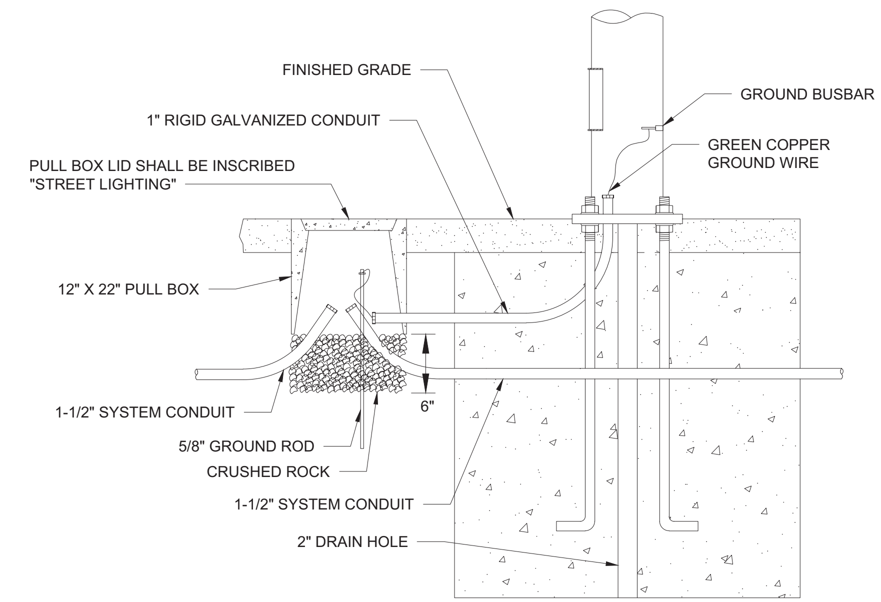


GROUNDING BAR DETAIL 1

GROUNDING SYMBOLS:



GROUNDING LEGEND 3



GROUNDING DETAIL 7

GROUNDING NOTES:

1. THE CONDUIT ROUTING ARE DIAGRAMMATICALLY SHOWN ON THE PLANS AND ARE ONLY APPROXIMATIONS. THE EXACT LOCATION AND ROUTING SHALL BE FIELD VERIFIED.

2. THE SUBCONTRACTOR SHALL SUPPLY 'FUTURE CARRIER' WITH THE RESULTS FROM PRE-CONSTRUCTION AND POST- CONSTRUCTION OHM TESTING (GROUNDING) RESULTS ON ALL MODIFIED CELL SITES AND AS REQUIRED BY 'FUTURE CARRIER' GROUNDING & BONDING STANDARD TP-76416.

3. THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TWO APPROVED "FALL OF POTENTIAL" TESTS. THE FIRST, WILL BE CONDUCTED PRIOR TO MAKING CONNECTIONS AND THE SECOND WILL BE CONDUCTED AFTER THE FINAL CONNECTIONS HAVE BEEN MADE TO NEW EQUIPMENT, THE SUPPLEMENTAL GROUNDING SYSTEM, AND THE EXISTING GROUNDING SYSTEM. THESE TESTS SHALL BE PERFORMED BY A QUALIFIED AND CERTIFIED TESTING AGENT. PROVIDE INDEPENDENT TEST RESULTS TO THE PROJECT MANAGER FOR REVIEW. THE GROUNDING SYSTEM RESISTANCE TO EARTH GROUNDING SHALL NOT EXCEED (5) OHMS. IF THE GROUNDING TEST EXCEEDS THE MAXIMUM OF (5) OHMS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL GROUNDING RODS AND CONNECTIONS AS REQUIRED TO MEET THE (5) OHMS' MAXIMUM.

4. THE INSPECTOR HAVING JURISDICTION SHALL INSPECT ALL GROUNDING CONNECTIONS FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BEFORE BEING PERMANENTLY CONCEALED.

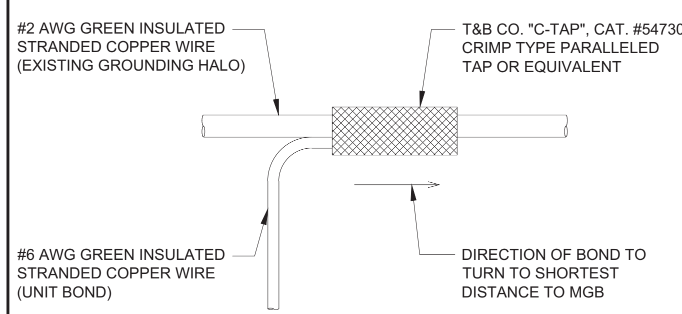
5. SUBCONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEF AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

6. SUBCONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, DIPLEXER'S, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

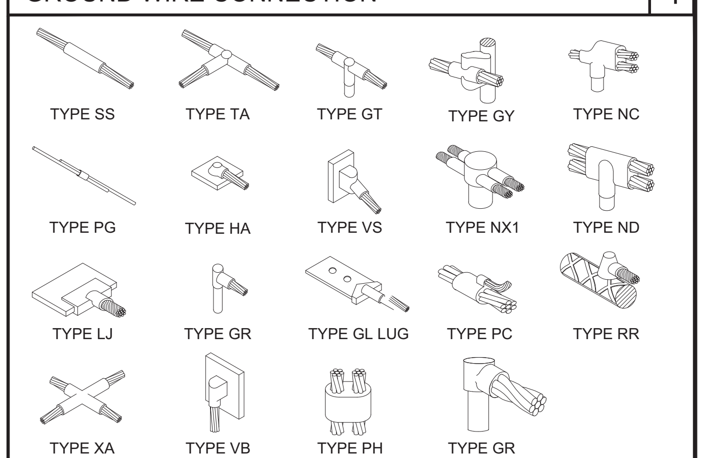
7. ALL ELECTRICAL EQUIPMENT AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES, INDICATING THE CIRCUITS ORIGINATION AND ALL EQUIPMENT TERMINATIONS.

8. SUBCONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS, CABLE TRAY, AND CIRCUIT CONDUCTORS, AS REQUIRED FOR A COMPLETED SYSTEM AND SHALL BE IN COMPLIANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

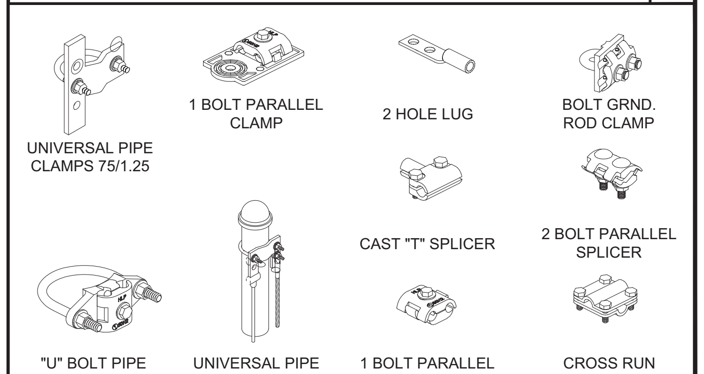
GROUNDING NOTES 2



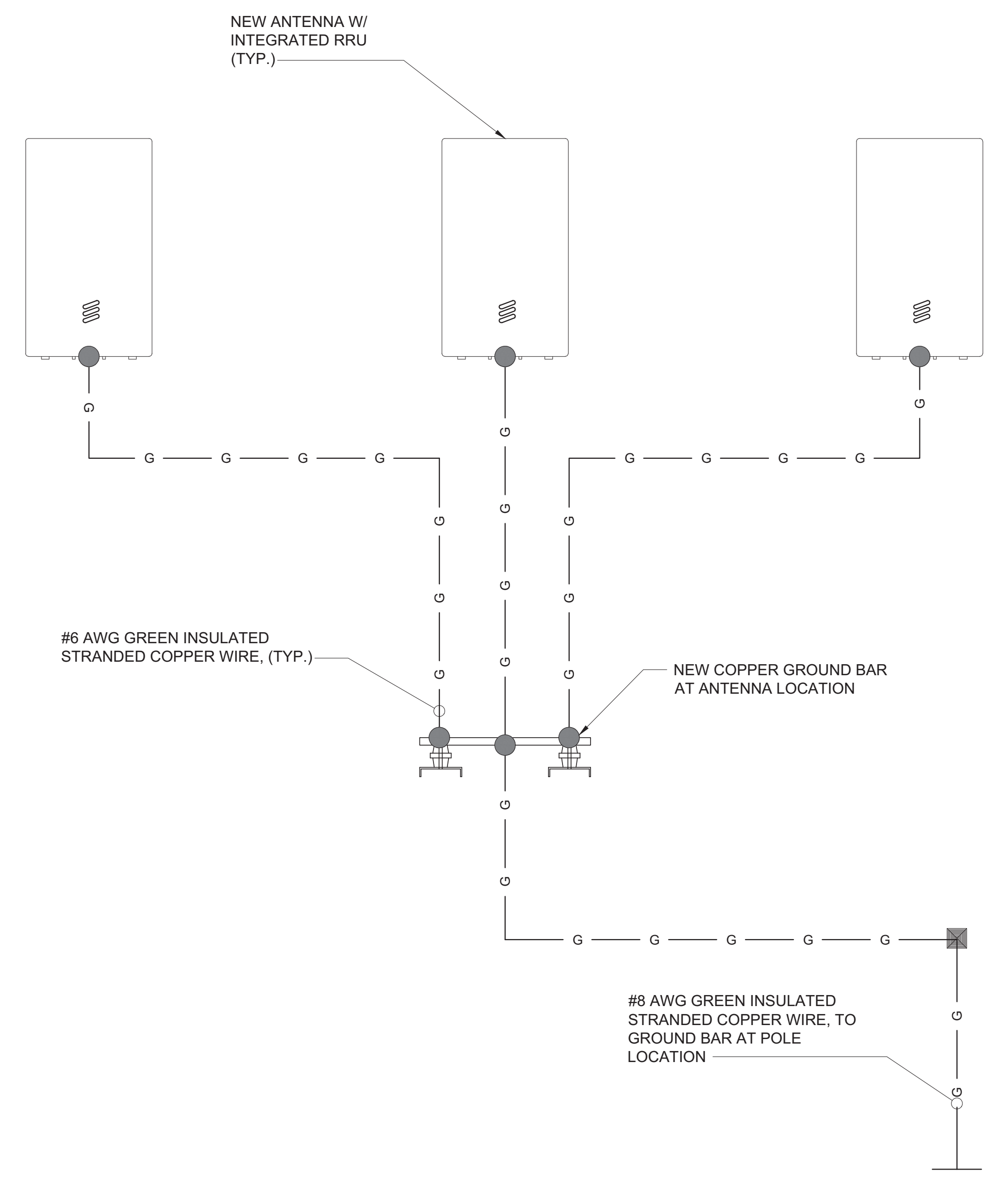
GROUND WIRE CONNECTION 4



EXOTHERMIC CONNECTION 5



MECHANICAL CONNECTION 6



GROUNDING DIAGRAM 8

extenet
300 E. MAGNOLIA BLVD. SUITE 400
BURBANK, CA 91502

TeleWorld SOLUTIONS

WT Group
Engineering • Design • Consulting
Engineering with Precision, Pace & Passion.
6671 S. Las Vegas Blvd. Ste. D210-271 | Las Vegas, NV 89119
wtgroup.com
JOB#: T2100237

DRAWN BY: WTG
CHECKED BY: JKR

REV	DATE	DESCRIPTION	INT.
0	09/23/21	90% REVIEW	WTG
1	11/11/22	UPDATED	DYP
2	01/11/23	STRUCTURAL	DYP
3	02/21/23	1A	DYP
4	04/12/23	GWP COMMENTS	DYP

STAMP

REGISTERED PROFESSIONAL ENGINEER
DEREK GEORGE STEFUREAC
E19828
EXP.
ELECTRICAL
STATE OF CALIFORNIA

EXPIRES: 03/31/24 SIGNED: 06/27/23

SITE NUMBER
SW-CA-GLENDA-00237C

SITE NAME
CA002_GLENDALE_137

HUB LOCATION
GLENDALE, CA 91201

SITE POLE # & ADDRESS
STRUCTURE ID: SL_6164
FRONT OF
1544 W KENNETH RD.
GLENDALE, CA 91201

SHEET NAME
GROUNDING DIAGRAM, NOTES AND DETAILS

SHEET NUMBER
G-1

GENERAL

1. THIS PRODUCT IS SOLD PURSUANT TO RAYCAP, INC. TERMS AND CONDITIONS, WHICH ARE INCORPORATED HEREIN BY REFERENCE.
2. THESE SHALL APPLY FOR ALL CASES UNLESS NOTED OTHERWISE (U.N.O.).
3. ANY ITEMS REFERENCED AS BEING ON "HOLD" ARE TO BE INCLUDED IN THE WORK AS SHOWN. HOWEVER, CONSTRUCTION OR FABRICATION IS NOT TO BEGIN UNTIL THE "HOLD" REFERENCE IS REMOVED.
4. IN THE CASE WHERE DIMENSIONS CONTAINED WITHIN ARE LABELED TO BE VERIFIED IN FIELD (V.I.F.), THEY MUST BE FIELD VERIFIED AND/OR CUSTOMER APPROVED PRIOR TO FABRICATION OF MATERIALS.
5. IN THE CASE THAT THE PROPOSED IS TO BE PLACED ON AN EXISTING STRUCTURE, THE MODIFICATIONS DEPICTED IN THESE DRAWINGS ARE INTENDED TO PROVIDE STRUCTURAL SUPPORT FOR THE ADDITION OF THE TELECOM STRUCTURE OUTLINED WITHIN. THE EXISTING STRUCTURE, WHETHER IT BE A FOUNDATION, POLE, OR BUILDING (IF APPLICABLE) SHALL BE ANALYZED AND RETROFITTED AS REQUIRED, BY OTHERS, TO WITHSTAND THE LOADS IMPOSED BY THE NEW RAYCAP STRUCTURE SHOWN ON THE DRAWINGS.
6. TELECOM PRODUCTS SHALL BE INSTALLED BY A CONTRACTOR EXPERIENCED IN SIMILAR WORK. CARE SHALL BE TAKEN IN THE INSTALLATION OF ANY AND ALL MEMBERS IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND PROCEDURES. ALL APPLICABLE OSHA SAFETY GUIDELINES ARE TO BE FOLLOWED. RAYCAP IS NOT PROVIDING FIELD INSTALLATION SUPERVISION.
7. NOTES FOR CONTRACTOR/INSTALLER: ALL BIDS FOR THE INSTALLATION/ERECTION OF THIS PRODUCT SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING MINIMUM REQUIRED TRADES: RIGGING, STEEL ERECTION, STEEL FABRICATION/MODIFICATION, WELDING, ELECTRICAL, CONCRETE, EXCAVATION AND WATERPROOFING. CONTRACTOR MAY, IN CONTRACTOR'S SOLE AND ABSOLUTE DISCRETION, DETERMINE ADDITIONAL TRADES ARE NECESSARY TO INSTALL/ERECT THE PRODUCT.
8. THESE DRAWINGS INDICATE THE MAJOR OPERATIONS TO BE PERFORMED, BUT DO NOT SHOW EVERY FIELD CONDITION THAT MAY BE ENCOUNTERED. THEREFORE, PRIOR TO BEGINNING OF WORK THE CONTRACTOR SHOULD SURVEY THE JOB SITE THOROUGHLY TO MINIMIZE FIELD PROBLEMS.
9. PROTECTION OF EXISTING STRUCTURES DURING THE COURSE OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
10. THE STRUCTURAL INTEGRITY OF THIS STRUCTURE IS DESIGNED TO BE ATTAINED IN ITS COMPLETED STATE. WHILE UNDER CONSTRUCTION ANY TEMPORARY BRACING OR SHORING WHICH MAY BE REQUIRED TO MAINTAIN STABILITY PRIOR TO COMPLETION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
11. THE PLANS AND DETAILS WITHIN DO NOT INCLUDE DETAILS OR DESIGN FOR DRAINAGE FROM OR WATERPROOFING OF EXTERIOR OR INTERIOR SURFACES OF THE STRUCTURE. THESE DETAILS MUST BE COMPLETED BY OTHERS.
12. CONTRACTOR TO SHIM BASE PLATES AND MATING FLANGES AS REQUIRED TO ENSURE LEVEL SURFACE.

STRUCTURAL STEEL AND ALUMINUM

1. STEEL FABRICATION AND INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL AND SPECIFICATIONS.
2. STEEL I-SHAPE, ANGLE, CHANNEL, AND MISCELLANEOUS MEMBERS SHALL CONFORM TO ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
3. STEEL PLATE MEMBERS SHALL CONFORM TO MINIMUM ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
4. STEEL PIPE AND ROUND TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (42 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
5. STEEL RECTANGULAR AND SQUARE TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (46 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
6. STEEL WIDEFLANGE MEMBERS SHALL CONFORM TO ASTM A992 (50 KSI MIN, YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
7. STEEL TAPERED POLES SHALL CONFORM TO ASTM A572 GR50 FOR 11 GA AND ASTM A572 GR65 FOR .188" and .25" WALL THICKNESS.
8. ALUMINUM PLATE MEMBERS SHALL BE GRADE 5052-H34. EXCEPTION FOR ⅜" OR THICKER UNBENT MEMBERS TO BE GRADE 6061-T6.
9. ALUMINUM PIPE TO BE GRADE 6061-T6.
10. ALUMINUM TAPERED POLES TO BE GRADE 6063-T6.
11. ALL STRUCTURAL BOLTS SHALL CONFORM TO ASTM F3125 GRADE A325 SPECIFICATIONS, U.N.O. A325N AND A325X ALLOWED. ALL BOLTS ARE RECOMMENDED TO BE ORIENTED WITH THREADS UP AND OUT UNLESS SITE SPECIFIC CONDITIONS WARRANT OTHERWISE.
12. STRUCTURAL BOLTS SHALL BE TIGHTENED PER THE "TURN OF THE NUT" METHOD.
13. STRUCTURAL BOLT HOLE EDGE DISTANCES SHALL BE PER AISC SECTION J3
14. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND PROCEDURES OF THE AMERICAN WELDING SOCIETY (AWS) BY CERTIFIED WELDERS PER AWS D1.1 FOR STEEL, AWS D1.2 FOR ALUMINUM AND AWS D1.6 FOR STAINLESS STEEL. STEEL WELDS SHALL BE BY E70XX, LOW HYDROGEN ELECTRODE. ALUMINUM WELDS SHALL UTILIZE 4043 FILLER OR APPROVED ALTERNATIVES. VERIFY FILLER MATERIAL IS COMPATIBLE WITH BASE METAL FOR EACH WELDED JOINT.
15. UNCOATED STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 SPECIFICATIONS AFTER FABRICATION OR PAINTED WITH RUST INHIBITIVE PRIMER.
16. STEEL HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM F2329, U.N.O.
17. AFTER ANY FIELD HOLE PUNCHING / DRILLING OR CUTTING HAS BEEN COMPLETED, OR FOR ANY DAMAGED STRUCTURAL MEMBER, THE GALVANIZING MUST BE REPAIRED ACCORDING TO ASTM A780.
18. ALL WELDED STEEL ASSEMBLIES AND INDIVIDUAL STEEL PARTS SHOULD HAVE THE PART NUMBER WELDED OR TAGGED ONTO THE PART OR ASSEMBLY. IF WELDED, THE PART NUMBERS SHOULD BE LOCATED CONSISTENTLY AND AWAY FROM ANY CONNECTION POINT TO AVOID ANY INTERFERENCE ISSUES WITH THE WELD.
19. DISSIMILAR METALS IN CONTACT SHALL BE INSULATED WITH PAINT OR OTHER APPROVED COATING TO PREVENT GALVANIC CORROSION.

DISCLAIMERS:

1. ALL STRUCTURAL COMPONENTS TO BE CONNECTED TOGETHER SHALL BE COMPLETELY FIT UP ON THE GROUND OR OTHERWISE VERIFIED FOR COMPATIBILITY PRIOR TO LIFTING ANY COMPONENT INTO PLACE. REPAIRS REQUIRED DUE TO FIT-UP OR CONNECTION COMPATIBILITY PROBLEMS AFTER PARTIAL ERECTION ARE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
2. SOME TELECOMMUNICATION STRUCTURES ARE SUSCEPTIBLE TO WIND-INDUCED OSCILLATIONS. OSCILLATIONS MAY OCCUR AT LOW OR MODERATE WIND SPEEDS AND MAY CAUSE STRUCTURAL DAMAGE. TIA PROVIDES NO PRACTICAL ANALYTICAL METHOD TO PREDICT AND PREVENT WIND-INDUCED STRUCTURAL OSCILLATIONS. RAYCAP, INC. RECOMMENDS FREQUENT MONITORING TO IDENTIFY WIND-INDUCED OSCILLATION AND REGULAR CONDITION ASSESSMENTS TO IDENTIFY FATIGUE CRACKING, LOOSE OR MISSING BOLTS, AND ANY OTHER STRUCTURAL DEFECTS. ANY OSCILLATION OR DEFECTS OBSERVED SHALL BE IMMEDIATELY REPORTED TO RAYCAP, INC. FOR FURTHER EVALUATION AND POSSIBLE REPAIRS OR MODIFICATIONS WHICH MAY BE REQUIRED AT THE OWNERS EXPENSE.
3. WHERE EFFECTIVE PROJECTED AREAS (EPA) ARE USED, IT IS THE RESPONSIBILITY OF OTHERS TO VERIFY INSTALLED EQUIPMENT DOES NOT EXCEED LISTED EPA.

SPECIAL INSPECTIONS & STRUCTURAL OBSERVATION:

1. STEEL FABRICATION SHALL BE DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED AS REQUIRED BY THE BUILDING CODE TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. ALTERNATIVELY, SPECIAL INSPECTION OF MATERIALS, WELDING, AND FABRICATION PROCEDURES SHALL BE REQUIRED FOR FABRICATION BY AN UNAPPROVED FABRICATOR.
2. NO FIELD WELDING SHALL BE PERMITTED.
3. THE FOLLOWING SPECIAL INSPECTIONS (WHERE APPLICABLE) SHALL BE REQUIRED PER CHAPTER 17 OF THE BUILDING CODE. □ A. SPECIAL INSPECTION OF HIGH-STRENGTH BOLTING (WHEN□ APPLICABLE):□ I. PERIODIC SPECIAL INSPECTION IF BOLTS ARE □ PRETENSIONED WITH MATCH-MARKING TECHNIQUES.□ II. CONTINUOUS SPECIAL INSPECTION OF ALL OTHER□ HIGH-STRENGTH BOLTING.
4. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL. THUS, SPECIAL INSPECTION ITEMS ABOVE MAY BE WAIVED AS DEEMED APPROPRIATE BY THE BUILDING OFFICIAL.
5. NO STRUCTURAL OBSERVATION IS REQUIRED.

DESIGN NOTES:

STRUCTURAL DESIGN IS BASED ON THE 2018 IBC & ANSI/TIA-222-H

SITE LOCATION:

GLENDALE, CA

DESIGN LOADS:

WIND:

ULTIMATE WIND SPEED: 95 MPH (3-SEC GUST)

RISK CATEGORY: II

EXPOSURE: C

SEISMIC:

IMPORTANCE FACTOR: 1.0

RISK CATEGORY: II

SITE CLASS: D

MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss = 2.168g S1 = 0.728g

SEISMIC DESIGN CATEGORY: E

SPECTRAL RESPONSE COEFFICIENTS: Sds = 1.7341g Sd1 = N/A

REACTIONS:

SHEAR REACTION: V= 2.81 kips

AXIAL REACTION: R= 3.21 kips

MOMENT: M= 40.1 kip-ft

REGISTERED PROFESSIONAL ENGINEER
ARASH ZANDIEH
C 82118
CIVIL
STATE OF CALIFORNIA
Exp. 03/31/2024

AHZ CONSULTING ENGINEERS INC.

DRAWN	DSP
DESIGNED	ARS
REVISED	NB+C

Raycap
7555-A PALMETTO COMMERCE PARKWAY
NORTH CHARLESTON, SC 29420 USA

DRAWING NOT TO SCALE.
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

TOLERANCES:
DECIMAL: .X ± 0.1, .XX ±0.03, .XXX ±0.01, ANGLES ±.5°
FRACTIONAL: X/X ± 1/16

ALL BENDING TOLERANCES: ± 1.0°

THIRD ANGLE PROJECTION

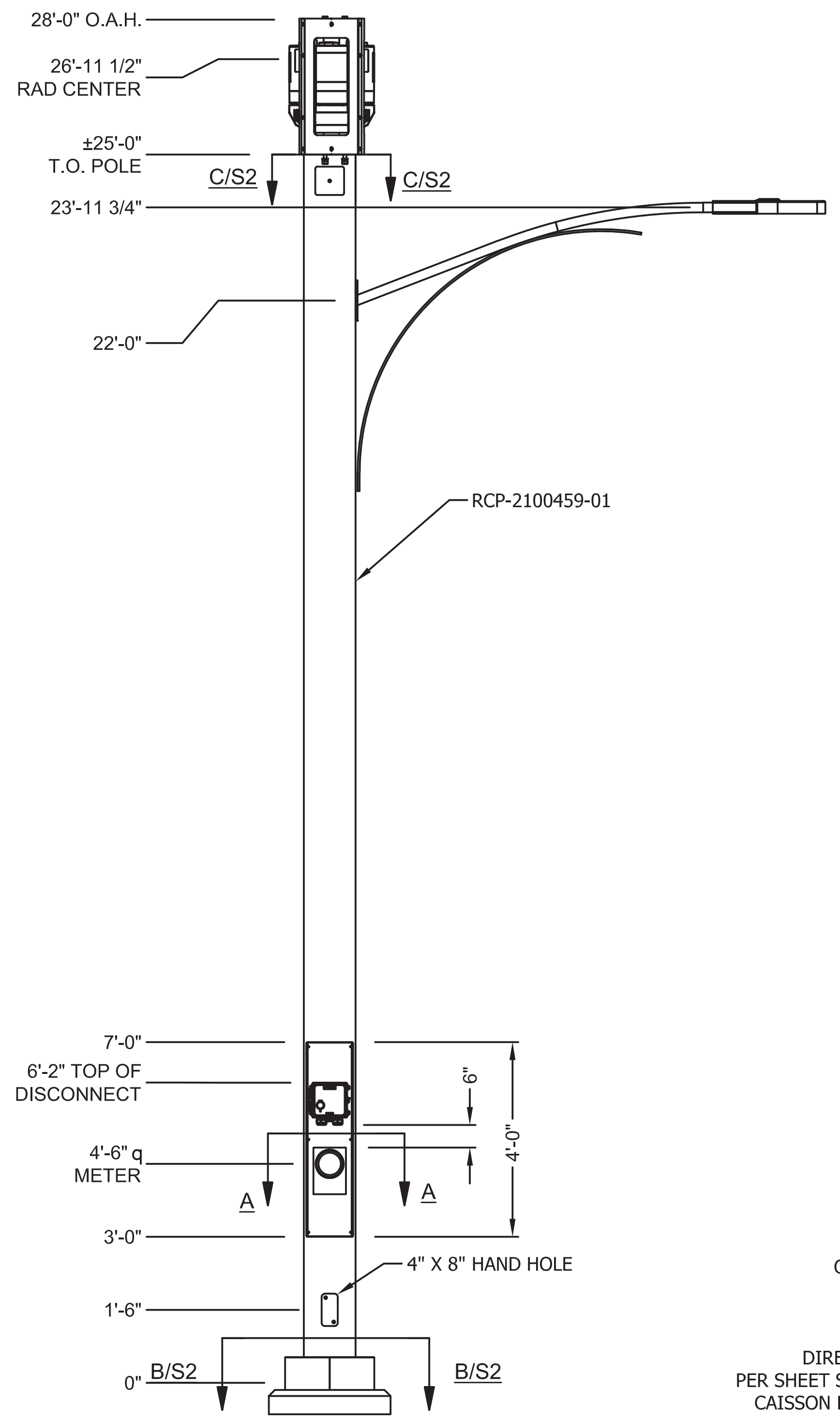
EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

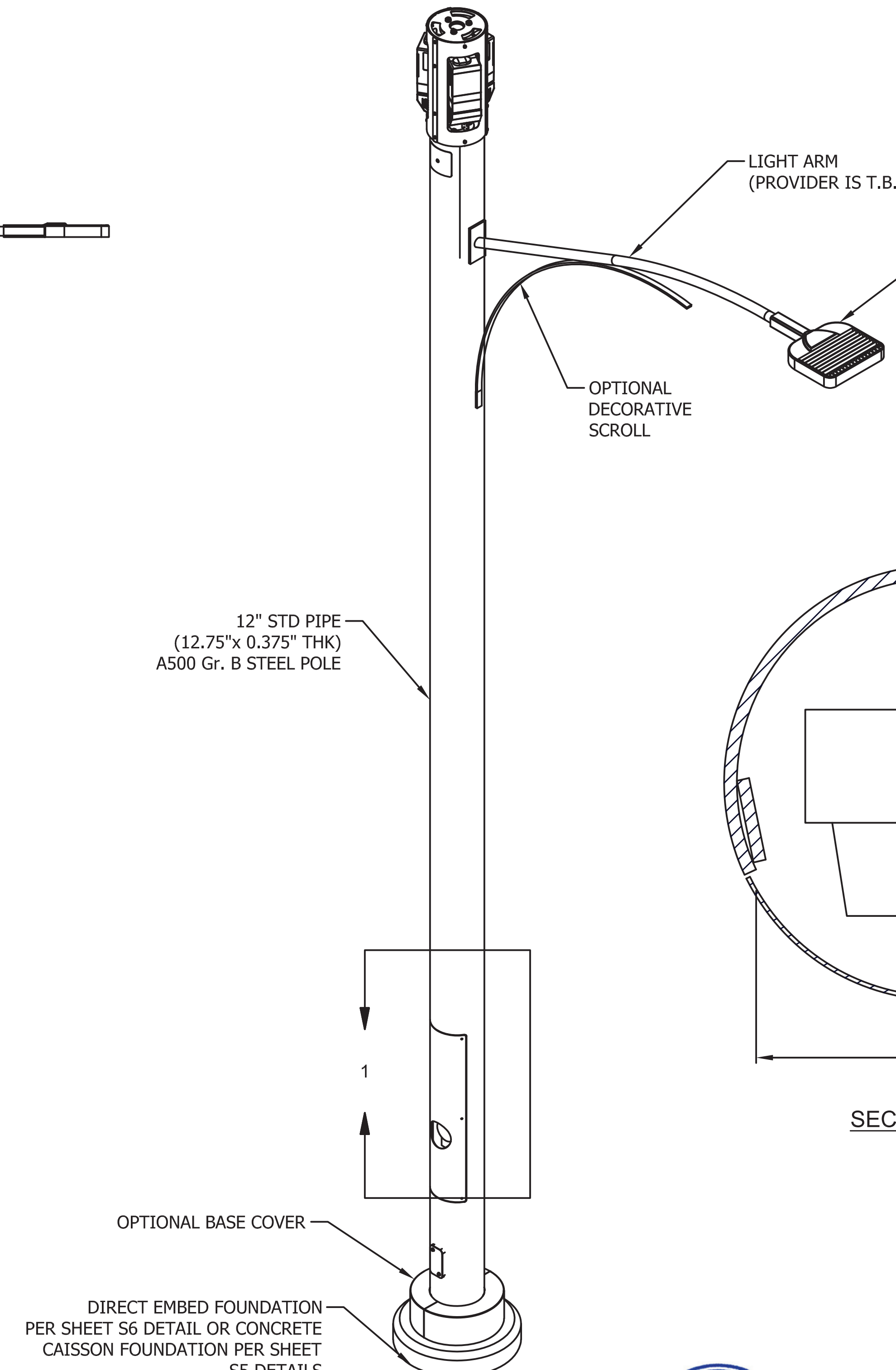
NOTES & SPECIFICATIONS

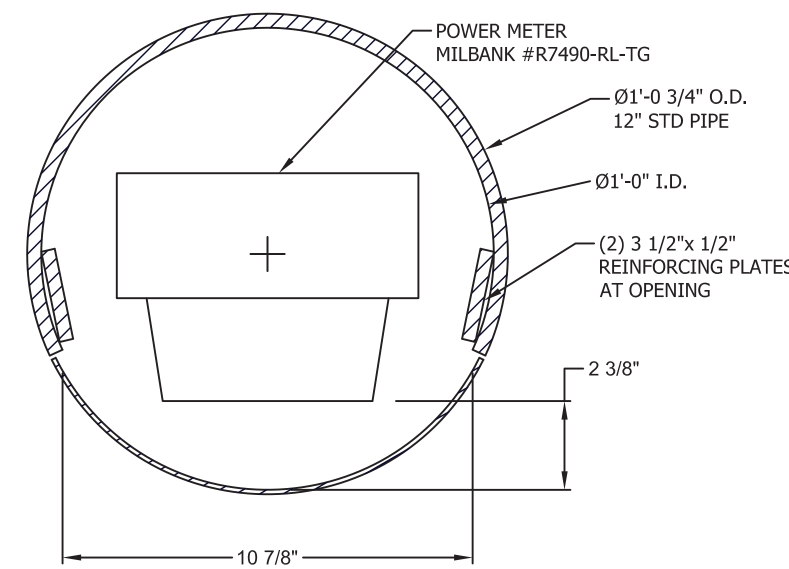
SHEET #	REVISION
N1	A

RAYCAP #VZ22-01389H-29

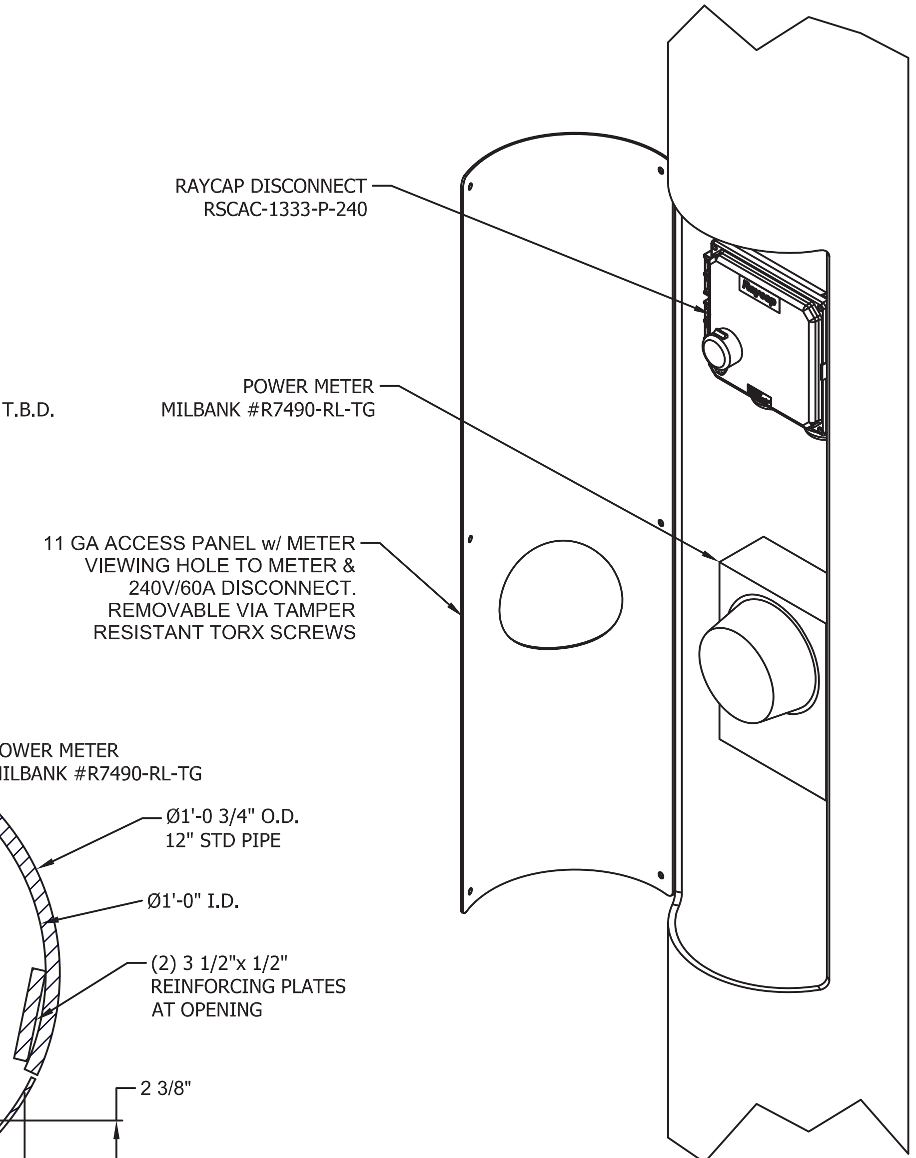
DATE: 12-14-2022







SECTION A-A



DETAIL 1

AHZ CONSULTING ENGINEERS INC.

DRAWN	DSP
DESIGNED	ARS
REVISED	NB+C

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FRACTIONAL: X/X ± 1/16

ALL BENDING TOLERANCES: ± 1.0°

THIRD ANGLE PROJECTION

Raycap
7555-A PALMETTO COMMERCE PARKWAY
NORTH CHARLESTON, SC 29420 USA

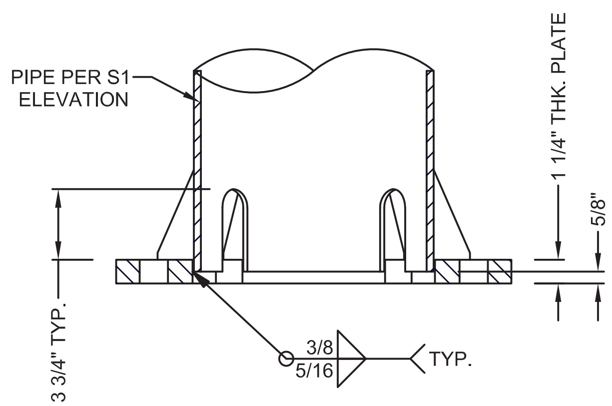
EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

ASSEMBLY - ELEVATIONS

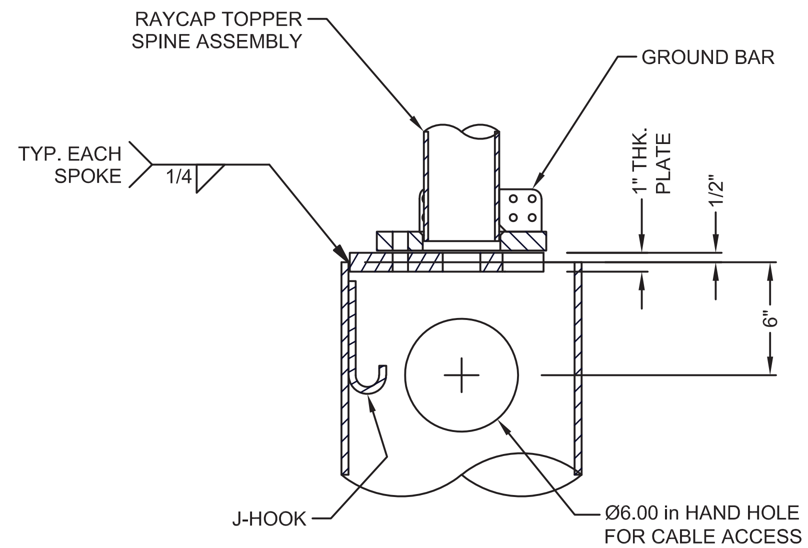
SHEET #	REVISION
S1	A

RAYCAP #VZ22-01389H-29

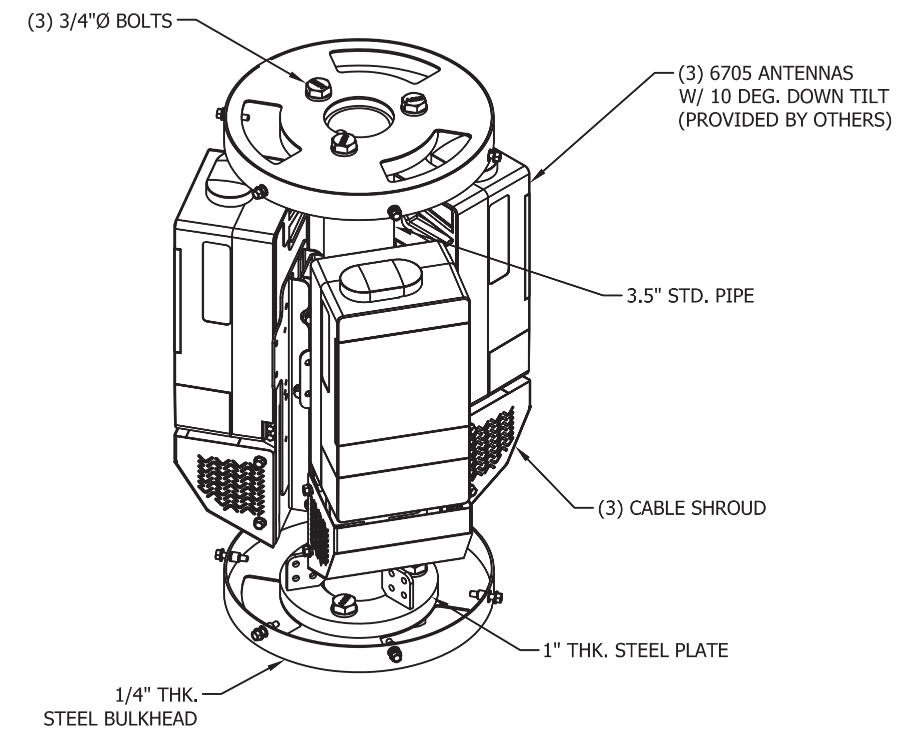
DATE: 12-14-2022



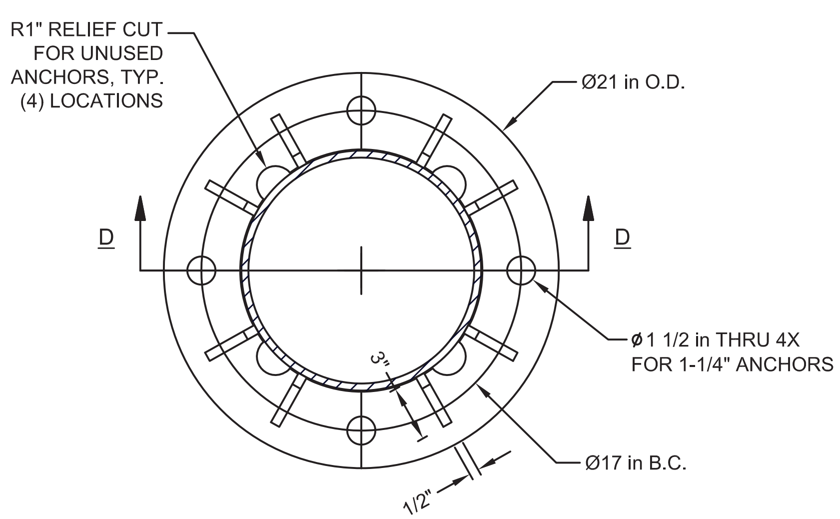
SECTION D-D
BOTTOM OF POLE



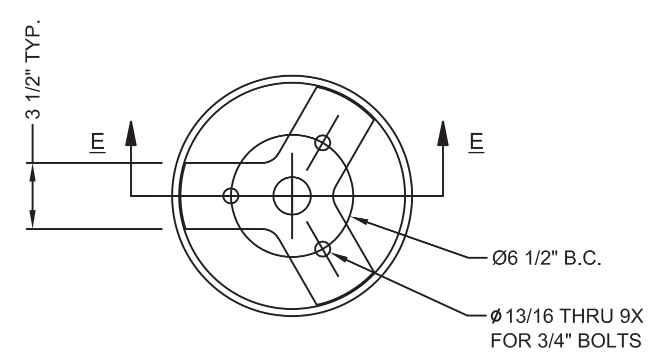
SECTION E-E
TOP OF POLE



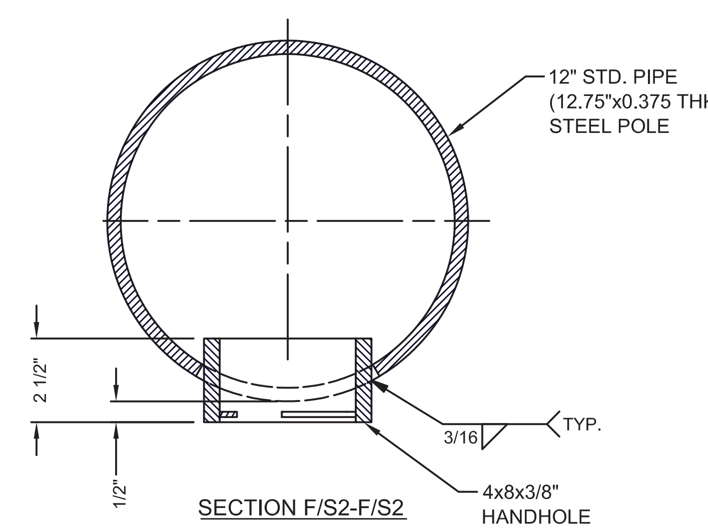
5G-ONLY TOPPER DETAIL



SECTION B/S1-B/S1
BASE PLATE DETAIL



SECTION C/S1-C/S1
TOP PLATE DETAIL



SECTION F/S2-F/S2

REGISTERED PROFESSIONAL ENGINEER
ARASH ZANDIEH
C 82118
CIVIL
STATE OF CALIFORNIA
Exp. 03/31/2024

CONSULTING ENGINEERS INC.

DRAWN	DSP
DESIGNED	ARS
REVISED	NB+C

DRAWING NOT TO SCALE.
ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE SPECIFIED

TOLERANCES:
DECIMAL: .X ± 0.1 .XX ±0.03 .XXX ±0.01 ANGLES ±.5°
FRACTIONAL: X/X ± 1/16

ALL BENDING TOLERANCES:
± 1.0°

THIRD ANGLE PROJECTION

Raycap
7555-A PALMETTO COMMERCE PARKWAY
NORTH CHARLESTON, SC 29420 USA

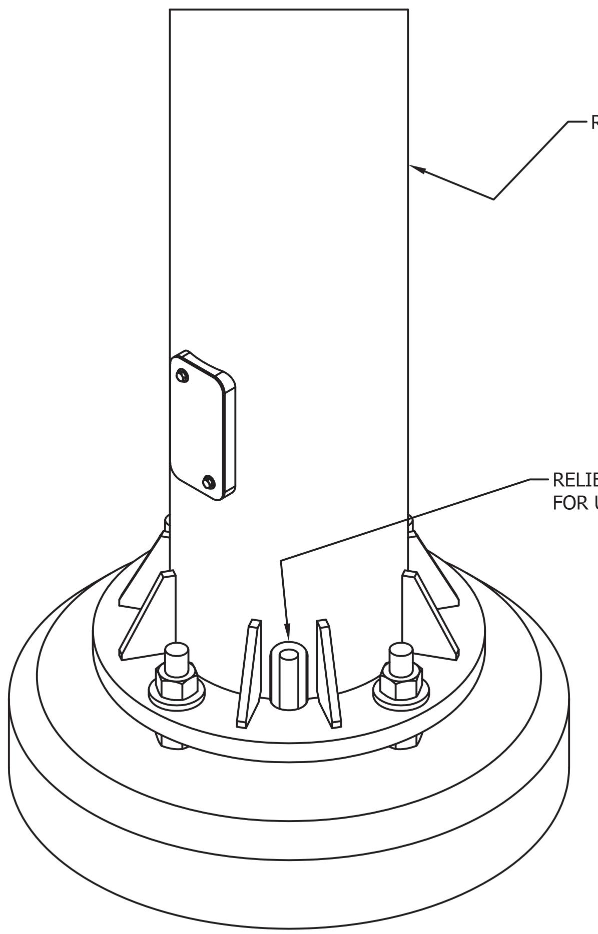
EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

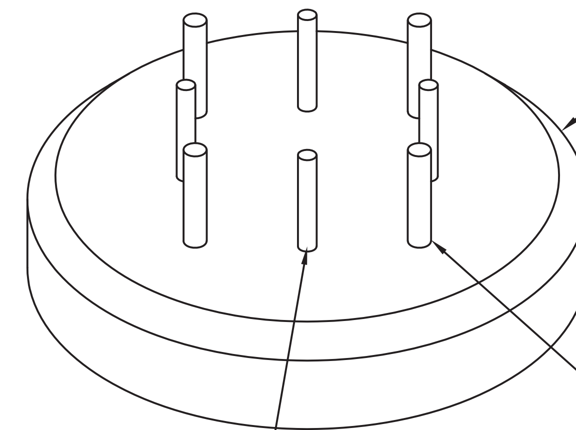
ASSEMBLY - ELEVATIONS

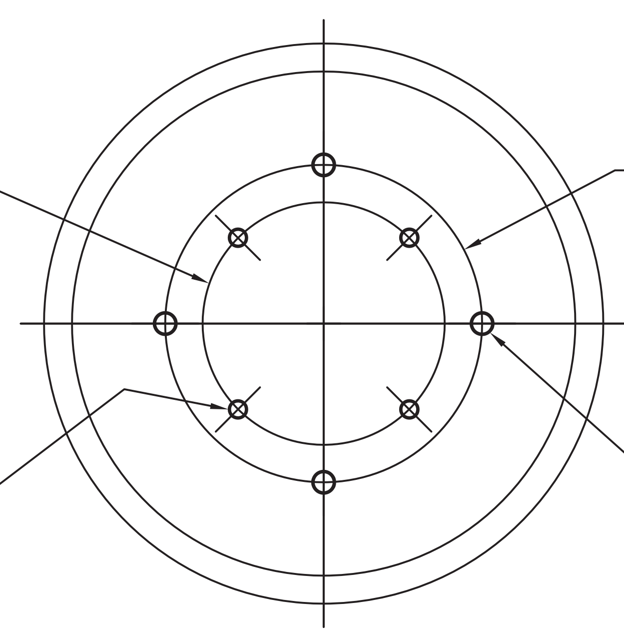
SHEET #	REVISION
S2	A

RAYCAP #VZ22-01389H-29

DATE: 12-14-2022







REGISTERED PROFESSIONAL ENGINEER
ARASH ZANDIEH
C 82118
CIVIL
STATE OF CALIFORNIA
Exp. 03/31/2024

AHZ CONSULTING ENGINEERS INC.

DRAWN	DSP	**Raycap** 7555-A PALMETTO COMMERCE PARKWAY NORTH CHARLESTON, SC 29420 USA
DESIGNED	ARS	
REVISED	NB+C	

DRAWING NOT TO SCALE.
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

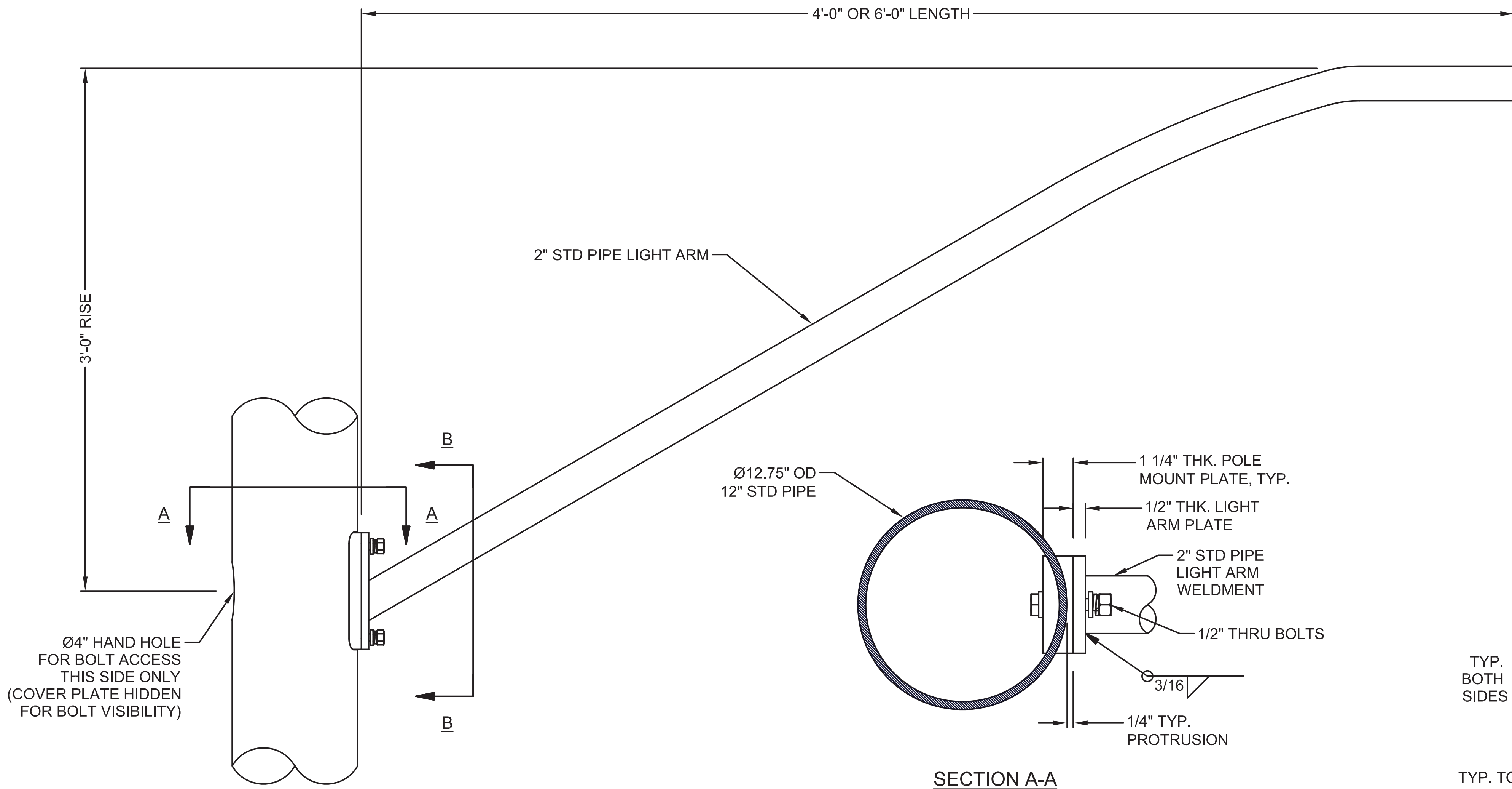
TOLERANCES:
DECIMAL: .X ± 0.1; .XX ±0.03; .XXX ±0.01; ANGLES ±.5°
FRACTIONAL: X/X ± 1/16

ALL BENDING TOLERANCES: ± 1.0°

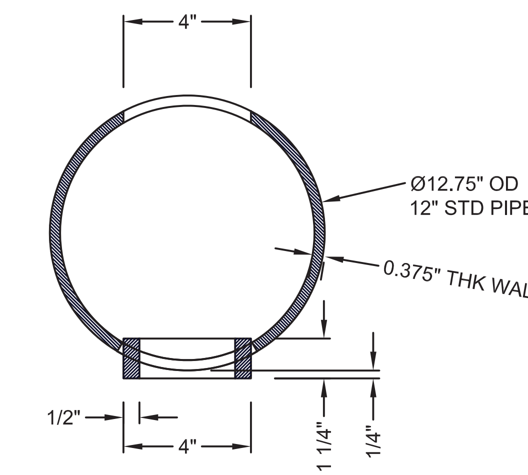
THIRD ANGLE PROJECTION

EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

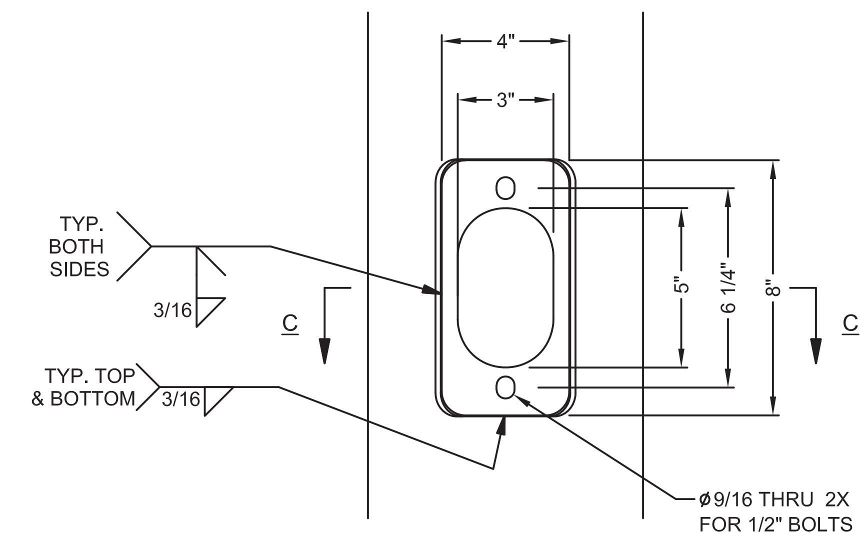
ASSEMBLY - ELEVATIONS	SHEET #	REVISION
	S3	A
RAYCAP #VZ22-01389H-29	DATE: 12-14-2022	



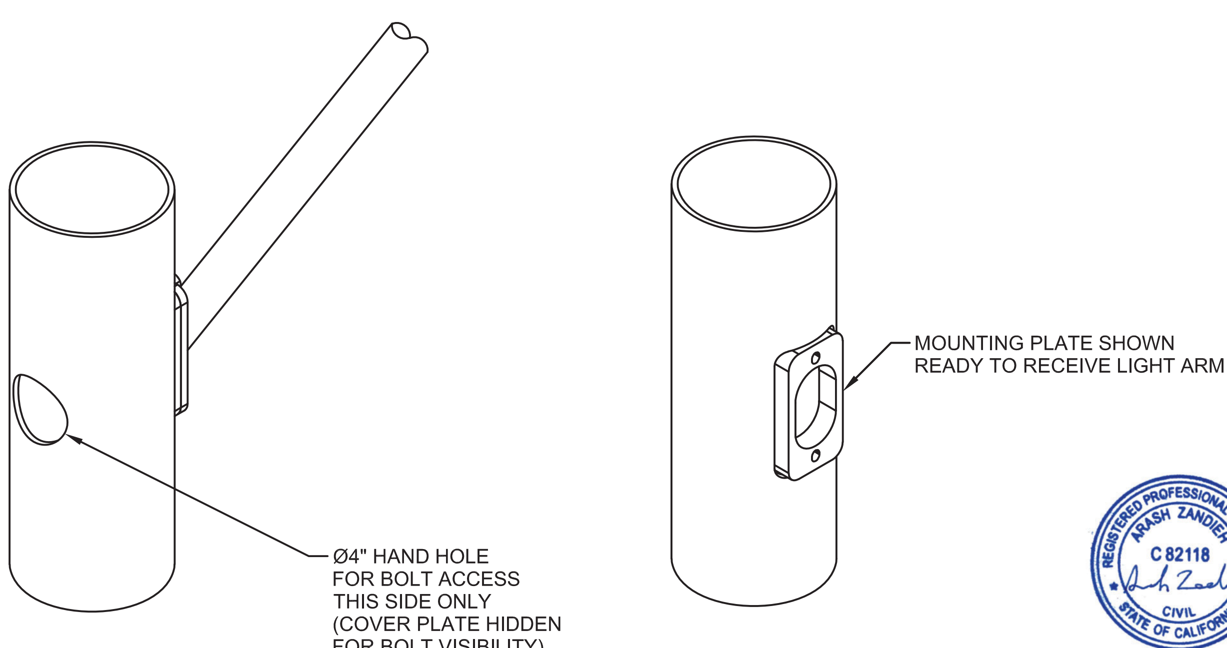
SECTION A-A



SECTION C-C
(REINFORCEMENT SECTION VIEW)



SECTION B-B



REGISTERED PROFESSIONAL ENGINEER
ARASH ZANDIEH
C 82118
CIVIL
STATE OF CALIFORNIA
Exp. 03/31/2024

AHZ CONSULTING ENGINEERS INC.

DRAWN	DSP
DESIGNED	ARS
REVISED	NB+C

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TOLERANCES:
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ALL BENDING TOLERANCES:
± 1.0°

THIRD ANGLE PROJECTION

Raycap
7555-A PALMETTO COMMERCE PARKWAY
NORTH CHARLESTON, SC 29420 USA

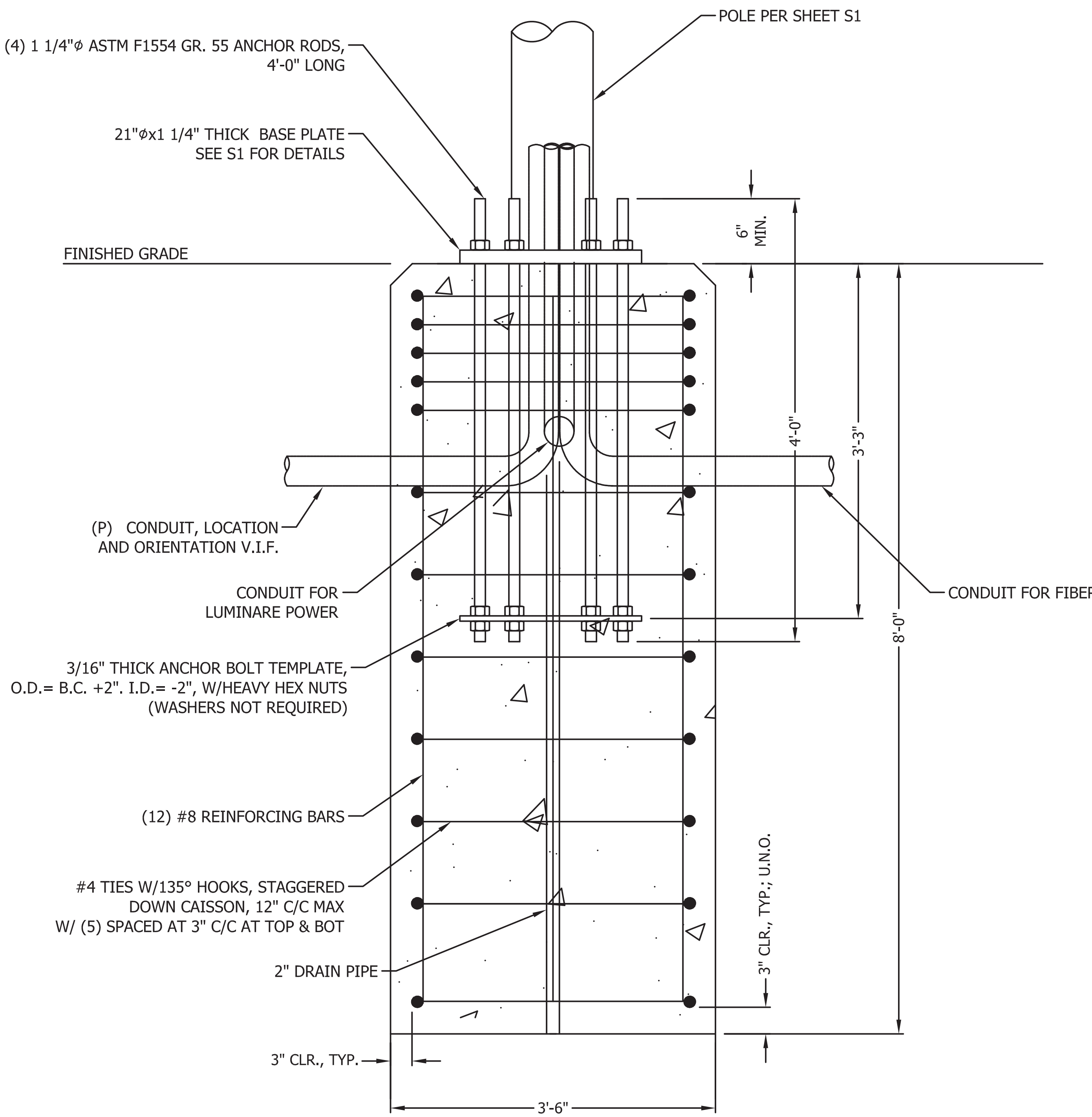
EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

LIGHT ARM CONNECTION DETAILS

SHEET #	REVISION
S5	A

RAYCAP #VZ22-01389H-29

DATE: 12-14-2022



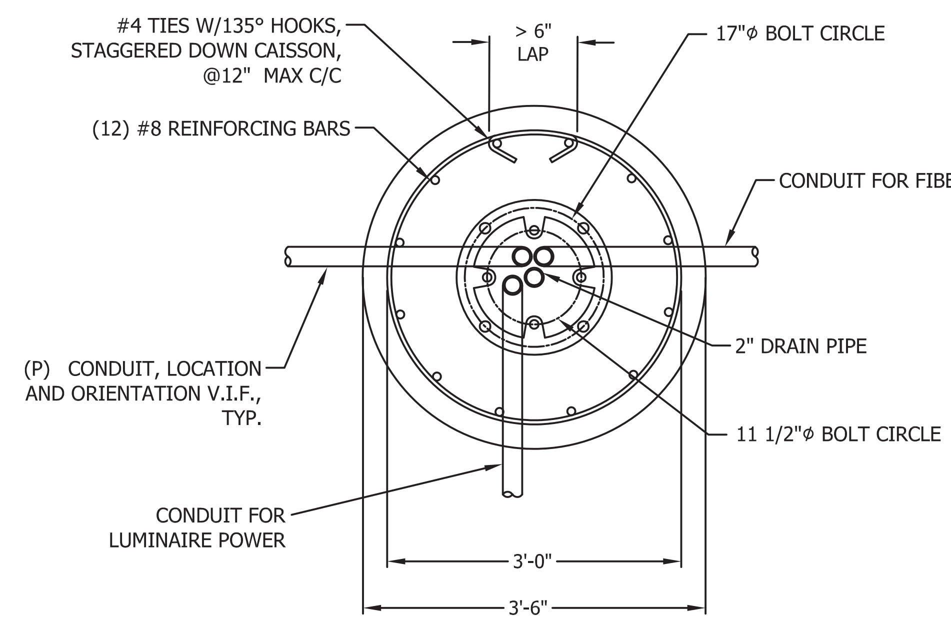
ELEVATION VIEW

FOUNDATION NOTES:

1. ALL CONCRETE SHALL USE TYPE II PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (6± 1.5%) CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATION OF 0.50. CONCRETE SHALL HAVE A SLUMP OF 5" (±1). ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-14. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS" LATEST EDITION.
2. REINFORCING STEEL SHALL CONFORM WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE IN THIS DRAWING.
3. INSTALLATION OF DRILLED PIERS SHALL BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER FIRM. GEOTECHNICAL ENGINEER SHALL PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORD PURPOSES.
4. ANCHOR RODS SHALL CONFORM W/ ASTM F1554 GR. 55 GALVANIZED U.N.O.

NOTE: VERIFY PROPOSED CONDUIT LOCATION AND ORIENTATION

135° HOOK TIES WITH 3" MINIMUM LENGTH TO ENGAGE VERTICAL REBAR



PLAN VIEW

SITE SPECIFIC DESIGN NOTE:
NO INFORMATION REGARDING PROPOSED POLE LOCATION AND/OR EXISTING SITE SPECIFIC CONDITIONS,INCLUDING SOIL PROPERTIES/CONDITIONS HAVE BEEN PROVIDED OR CONSIDERED AS PART OF THIS DESIGN AND ANALYSIS. IT IS RECOMMENDED THE ENGINEER OF RECORD BE CONSULTED TO DETERMINE THIS POLE DESIGN'S SUITABILITY FOR USE AT ANY PARTICULAR LOCATION.

THE IN-SITU ARE ASSUMED TO BE SAND,PER TABLE F-1: PRESUMPTIVE SOIL PARAMETERS OF THE ANSI/TIA-222-H CODE

REGISTERED PROFESSIONAL ENGINEER ARASH ZANDIEH C 82118 CIVIL STATE OF CALIFORNIA
Exp. 03/31/2024

CONSULTING ENGINEERS INC.

DRAWN	DSP
DESIGNED	ARS
REVISED	NB+C

DRAWING NOT TO SCALE.
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

TOLERANCES:
DECIMAL: .X ± 0.1; .XX ±0.03; .XXX ±0.01; ANGLES ±.5°
FRACTIONAL: X/X ± 1/16

ALL BENDING TOLERANCES: ± 1.0°

THIRD ANGLE PROJECTION

Raycap
7555-A PALMETTO COMMERCE PARKWAY
NORTH CHARLESTON, SC 29420 USA

EXTENET GLENDALE POLES PHASE 2
25' FT. POLE
GLENDALE, CA

FOUNDATION DETAILS

SHEET #	REVISION
S6	A

RAYCAP #VZ22-01389H-29

DATE: 12-14-2022

AHZ Consulting Engineers

Raycap Pole Design

Prepared for Raycap – Verizon New Site Build

SITE INFORMATION

Address	Glendale, CA
Verizon Site Name	ExtenetGlendale Poles Phase 2 (25ft Pole)
Raycap Project Number	VZ22-01389H-29
NB+C Project Number	100111
Date	December 16, 2022

NB+C Engineering Services, LLC

Prepared by: Ian Suppo

Respectfully Submitted by:
Arash Zandieh, P.E.
Principal Engineer
CA PE License #C82118

PURPOSE / ASSUMPTIONS

The purpose of these calculation is to design light pole located in Glendale, CA for supporting the new Verizon Wireless panel antennas. Contractor to verify the site specific conditions prior to fabrications)

Code	**- 2018 IBC and ANSI/TIA-222-H**
Ultimate Windspeed	**- 95mph**
Exposure Category	**- C**
Site Class	**- II**
Ice Thickness	**- 0in**
Ice Windspeed	**- 30mph**
Goetech Condition	**- Presumptive Soil Parameters provided by ANSI/TIA-222-H Annex F** **- Ground Water assumed at 1ft depth** **- Neglected Soil depth - 2ft**

Raycap Pole Mount Pole Design Summary:

Base Pole	**- 12" STD pipe stressed at 35.4%**
Base Plate	**- 1.25" A36 thick base plate, 21"diameter stressed at 37.9%**
Anchor Bolts	**- (4) 1.25" bolts with bolt center 17" stressed at 47.9%**
Foundation	**- 42" ϕ x 8' minimum embedment**

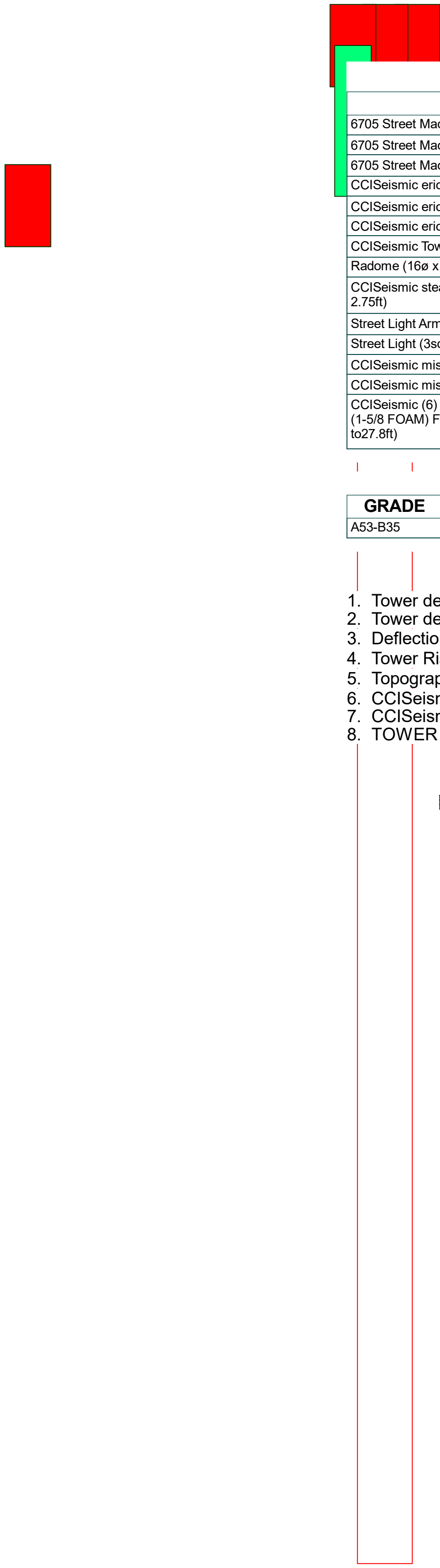
Structural Analysis : Passing

Section	Size	Length (ft)	Grade	Weight (K)
1	P 3.5 STD	2.80	A53-B35	0.0
2	HSS12.75x.375	25.00	A500-42	1.2
				1.2

27.8 ft

25.0 ft

0.0 ft



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
6705 Street Macro	26.92	CCISeismic Tower Section 2 - 1	22.5
6705 Street Macro	26.92	CCISeismic Tower Section 2 - 2	15
6705 Street Macro	26.92	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (7.8ft to17.8ft)	12.8
CCISeismic ericsson VZ-AIR6701 TB	26.92	Enclosed Equipment (500 lbs)	6
CCISeismic ericsson VZ-AIR6701 TB	26.92	CCISeismic stealth Enclosed Equipment (500 lbs)	6
CCISeismic ericsson VZ-AIR6701 TB	26.92	CCISeismic Tower Section 2 - 3	5
CCISeismic Tower Section 1 - 1	26.4	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (0ft to7.8ft)	3.9
Radome (16ø x 2.75ft)	26.29		
CCISeismic stealth Radome (16ø x 2.75ft)	26.29		
Street Light Arm	24		
Street Light (3sq ft)	24		
CCISeismic miscl Street Light (3sq ft)	24		
CCISeismic miscl Street Light Arm	24		
CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (17.8ft to27.8ft)	22.8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B35	35 ksi	60 ksi	A500-42	42 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 95 mph basic wind in accordance with the TIA-222-H Standard.
3. Deflections are based upon a 60 mph wind.
4. Tower Risk Category II.
5. Topographic Category 1 with Crest Height of 0.00 ft
6. CCISeismic Note: Seismic loads generated by CCISeismic 3.3.5
7. CCISeismic Note: Seismic calculations are in accordance with TIA-222-H
8. TOWER RATING: 24.4%

ALL REACTIONS ARE FACTORED

AXIAL 3 K

SHEAR 2 K

MOMENT 40 kip-ft

SEISMIC

AXIAL 3 K

SHEAR 1 K

MOMENT 13 kip-ft

TORQUE 1 kip-ft

REACTIONS - 95 mph WIND

NB+C
Network Building + Consulting
6095 Marshalee Dr.
Elkridge, MD 21075
Phone: (410) 712-7092
FAX:

Job: **ExtenetGlendale PolesPhs2**		
Project: **VZ22-01389H-29**		
Client: Raycap (100111)	Drawn by: isuppo	App'd:
Code: TIA-222-H	Date: 12/13/22	Scale: NTS
Path:		Dwg No. E-1

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

- Tower base elevation above sea level: 561.00 ft.
- Basic wind speed of 95 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Deflections calculated using a wind speed of 60 mph.
- CCISeismic Note: Seismic loads generated by CCISeismic 3.3.5.
- CCISeismic Note: Seismic calculations are in accordance with TIA-222-H.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Pole Section Geometry

Section	*Elevation* *ft*	*Section Length* *ft*	*Pole Size*	*Pole Grade*	*Socket Length* *ft*
L1	27.80-25.00	2.80	P 3.5 STD	A53-B35 (35 ksi)	
L2	25.00-0.00	25.00	HSS12.75x.375	A500-42 (42 ksi)	

Tower Elevation *ft*	*Gusset Area (per face)* *ft²*	*Gusset Thickness* *in*	*Gusset Grade*	*Adjust. Factor* A_f	*Adjust. Factor* A_r	*Weight Mult.*	*Double Angle Stitch Bolt Spacing Diagonals* *in*	*Double Angle Stitch Bolt Spacing Horizontals* *in*	*Double Angle Stitch Bolt Spacing Redundants* *in*
L1 27.80-25.00				1	1	1			
L2 25.00-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Area

Description	*Face or Leg*	*Allow Shield*	*Exclude From Torque Calculation*	*Component Type*	*Placement* *ft*	*Total Number*		C_AA_A *ft²/ft*	*Weight* *plf*
LDF7-50A (1-5/8 FOAM)	B	No	Yes	Inside Pole	27.80 - 0.00	6	No Ice	0.00	0.82

Feed Line/Linear Appurtenances Section Areas

Tower Section	*Tower Elevation* *ft*	*Face*	A_R ft^2	A_F ft^2	C_AA_A *In Face* ft^2	C_AA_A *Out Face* ft^2	*Weight* *K*
L1	27.80-25.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.00
L2	25.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.12
		C	0.000	0.000	0.000	0.000	0.00

User Defined Loads - Seismic

Description	*Elevation* *ft*	*Offset From Centroid* *ft*	*Azimuth Angle* °	E_v *K*	E_{hx} *K*	E_{hz} *K*	E_h *K*
CCISeismic Tower Section 1 - 1	26.40	0.00	0.0000	0.01	0.00	0.00	0.05
CCISeismic Tower Section 2 - 1	22.50	0.00	0.0000	0.07	0.00	0.00	0.38
CCISeismic Tower Section 2 - 2	15.00	0.00	0.0000	0.13	0.00	0.00	0.50
CCISeismic Tower Section 2 - 3	5.00	0.00	0.0000	0.13	0.00	0.00	0.17
CCISeismic ericsson VZ-AIR6701 TB	26.92	0.00	0.0000	0.01	0.00	0.00	0.06
CCISeismic ericsson VZ-AIR6701 TB	26.92	0.00	0.0000	0.01	0.00	0.00	0.06
CCISeismic ericsson VZ-AIR6701 TB	26.92	0.00	0.0000	0.01	0.00	0.00	0.06
CCISeismic stealth Radome (16ø x 2.75ft)	26.29	0.00	0.0000	0.03	0.00	0.00	0.19
CCISeismic stealth Enclosed Equipment (500 lbs)	6.00	0.00	0.0000	0.14	0.00	0.00	0.22
CCISeismic miscl Street Light (3sq ft)	24.00	0.00	0.0000	0.02	0.00	0.00	0.12
CCISeismic miscl Street Light Arm	24.00	0.00	0.0000	0.02	0.00	0.00	0.14
CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (17.8ft to27.8ft)	22.80	0.00	0.0000	0.01	0.00	0.00	0.08
CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (7.8ft to17.8ft)	12.80	0.00	0.0000	0.01	0.00	0.00	0.05
CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (0ft to7.8ft)	3.90	0.00	0.0000	0.01	0.00	0.00	0.01

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert (ft ft ft)	Azimuth Adjustment (°)	Placement (ft)		C_AA_A Front (ft^2)	C_AA_A Side (ft^2)	Weight (K)
6705 Street Macro	C	From Leg	0.50 0.00 0.00	0.0000	26.92	No Ice	1.09	0.83	0.03
6705 Street Macro	A	From Leg	0.50 0.00 0.00	0.0000	26.92	No Ice	1.09	0.83	0.03
6705 Street Macro	B	From Face	0.50 0.00 0.00	0.0000	26.92	No Ice	1.09	0.83	0.03
Radome (16ø x 2.75ft)	C	From Leg	0.50 0.00 0.00	0.0000	26.29	No Ice	1.83	1.83	0.10
Enclosed Equipment (500 lbs)	C	From Leg	0.50 0.00 0.00	0.0000	6.00	No Ice	0.00	0.00	0.50
Street Light (3sq ft)	C	From Leg	7.00 0.00 0.00	0.0000	24.00	No Ice	3.00	3.00	0.07
Street Light Arm	C	From Leg	6.00 0.00 0.00	0.0000	24.00	No Ice	3.67	3.67	0.08

Force Totals

Load Case	Vertical Forces (K)	Sum of Forces X (K)	Sum of Forces Z (K)	Sum of Overturning Moments, M_x (kip-ft)	Sum of Overturning Moments, M_z (kip-ft)	Sum of Torques (kip-ft)
Leg Weight	1.18					
Bracing Weight	0.00					
Total Member Self-Weight	1.18			0.80	1.41	
Total Weight	2.16			0.80	1.41	
Wind 0 deg - No Ice		0.00	-0.59	-9.93	1.30	-0.92
Wind 30 deg - No Ice		0.30	-0.51	-8.55	-4.05	-0.54
Wind 60 deg - No Ice		0.51	-0.30	-4.66	-7.93	-0.01
Wind 90 deg - No Ice		0.59	-0.00	0.68	-9.31	0.52
Wind 120 deg - No Ice		0.51	0.29	6.06	-7.82	0.91
Wind 150 deg - No Ice		0.29	0.51	10.03	-3.85	1.06
Wind 180 deg - No Ice		-0.00	0.59	11.52	1.53	0.92
Wind 210 deg - No Ice		-0.30	0.51	10.14	6.87	0.54
Wind 240 deg - No Ice		-0.51	0.30	6.26	10.76	0.01
Wind 270 deg - No Ice		-0.59	0.00	0.91	12.14	-0.52
Wind 300 deg - No Ice		-0.51	-0.29	-4.47	10.65	-0.91
Wind 330 deg - No Ice		-0.29	-0.51	-8.44	6.68	-1.06
Total Weight	2.16			0.80	1.41	
Wind 0 deg - Service		0.00	-0.25	-3.52	1.37	-0.33
Wind 30 deg - Service		0.13	-0.22	-2.96	-0.78	-0.19
Wind 60 deg - Service		0.22	-0.13	-1.40	-2.35	-0.00
Wind 90 deg - Service		0.25	-0.00	0.76	-2.90	0.19
Wind 120 deg - Service		0.21	0.12	2.92	-2.31	0.32
Wind 150 deg - Service		0.12	0.21	4.51	-0.71	0.38

Load Case	*Vertical Forces* *K*	*Sum of Forces X* *K*	*Sum of Forces Z* *K*	*Sum of Overturning Moments,* M_x *kip-ft*	*Sum of Overturning Moments,* M_z *kip-ft*	*Sum of Torques* *kip-ft*
Wind 180 deg - Service		-0.00	0.25	5.11	1.45	0.33
Wind 210 deg - Service		-0.13	0.22	4.55	3.61	0.19
Wind 240 deg - Service		-0.22	0.13	2.99	5.17	0.00
Wind 270 deg - Service		-0.25	0.00	0.84	5.73	-0.19
Wind 300 deg - Service		-0.21	-0.12	-1.33	5.13	-0.32
Wind 330 deg - Service		-0.12	-0.21	-2.92	3.54	-0.38
Seismic Vertical	0.62					
Seismic Horizontal 0 deg		0.00	-2.08	-37.97	0.00	0.00
Seismic Horizontal 30 deg		1.04	-1.80	-32.88	-18.99	0.00
Seismic Horizontal 60 deg		1.80	-1.04	-18.99	-32.88	0.00
Seismic Horizontal 90 deg		2.08	0.00	0.00	-37.97	0.00
Seismic Horizontal 120 deg		1.80	1.04	18.99	-32.88	0.00
Seismic Horizontal 150 deg		1.04	1.80	32.88	-18.99	0.00
Seismic Horizontal 180 deg		0.00	2.08	37.97	0.00	0.00
Seismic Horizontal 210 deg		-1.04	1.80	32.88	18.99	0.00
Seismic Horizontal 240 deg		-1.80	1.04	18.99	32.88	0.00
Seismic Horizontal 270 deg		-2.08	0.00	0.00	37.97	0.00
Seismic Horizontal 300 deg		-1.80	-1.04	-18.99	32.88	0.00
Seismic Horizontal 330 deg		-1.04	-1.80	-32.88	18.99	0.00

Load Combinations

Comb. No.	*Description*
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	Dead+Wind 0 deg - Service
27	Dead+Wind 30 deg - Service
28	Dead+Wind 60 deg - Service
29	Dead+Wind 90 deg - Service
30	Dead+Wind 120 deg - Service
31	Dead+Wind 150 deg - Service
32	Dead+Wind 180 deg - Service

Comb. No.	Description
33	Dead+Wind 210 deg - Service
34	Dead+Wind 240 deg - Service
35	Dead+Wind 270 deg - Service
36	Dead+Wind 300 deg - Service
37	Dead+Wind 330 deg - Service
38	1.2 Dead+1.0 Ev+1.0 Eh 0 deg
39	0.9 Dead-1.0 Ev+1.0 Eh 0 deg
40	1.2 Dead+1.0 Ev+1.0 Eh 30 deg
41	0.9 Dead-1.0 Ev+1.0 Eh 30 deg
42	1.2 Dead+1.0 Ev+1.0 Eh 60 deg
43	0.9 Dead-1.0 Ev+1.0 Eh 60 deg
44	1.2 Dead+1.0 Ev+1.0 Eh 90 deg
45	0.9 Dead-1.0 Ev+1.0 Eh 90 deg
46	1.2 Dead+1.0 Ev+1.0 Eh 120 deg
47	0.9 Dead-1.0 Ev+1.0 Eh 120 deg
48	1.2 Dead+1.0 Ev+1.0 Eh 150 deg
49	0.9 Dead-1.0 Ev+1.0 Eh 150 deg
50	1.2 Dead+1.0 Ev+1.0 Eh 180 deg
51	0.9 Dead-1.0 Ev+1.0 Eh 180 deg
52	1.2 Dead+1.0 Ev+1.0 Eh 210 deg
53	0.9 Dead-1.0 Ev+1.0 Eh 210 deg
54	1.2 Dead+1.0 Ev+1.0 Eh 240 deg
55	0.9 Dead-1.0 Ev+1.0 Eh 240 deg
56	1.2 Dead+1.0 Ev+1.0 Eh 270 deg
57	0.9 Dead-1.0 Ev+1.0 Eh 270 deg
58	1.2 Dead+1.0 Ev+1.0 Eh 300 deg
59	0.9 Dead-1.0 Ev+1.0 Eh 300 deg
60	1.2 Dead+1.0 Ev+1.0 Eh 330 deg
61	0.9 Dead-1.0 Ev+1.0 Eh 330 deg

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	27.8 - 25	Pole	Max Tension	19	0.00	-0.00	-0.00
			Max. Compression	42	-0.33	-0.50	0.31
			Max. Mx	56	-0.33	0.73	-0.02
			Max. My	50	-0.33	0.07	-0.67
			Max. Vy	56	-0.42	0.73	-0.02
			Max. Vx	50	0.42	0.07	-0.67
			Max. Torque	2			0.02
L2	25 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	42	-3.21	-31.34	18.12
			Max. Mx	56	-3.21	39.86	-0.96
			Max. My	50	-3.21	1.71	-39.12
			Max. Vy	56	-2.09	32.05	-0.96
			Max. Vx	50	2.09	1.71	-31.30
			Max. Torque	24			1.06

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K

Location	*Condition*	*Gov. Load Comb.*	*Vertical K*	*Horizontal, X K*	*Horizontal, Z K*
Pole	Max. Vert	42	3.21	-1.80	1.04
	Max. H_x	57	1.32	2.08	0.00
	Max. H_z	39	1.32	-0.00	2.08
	Max. M_x	39	37.33	-0.00	2.08
	Max. M_z	45	36.77	-2.08	0.00
	Max. Torsion	24	1.06	0.29	0.51
	Min. Vert	55	1.32	1.80	-1.04
	Min. H_x	45	1.32	-2.08	0.00
	Min. H_z	51	1.32	-0.00	-2.08
	Min. M_x	50	-39.12	-0.00	-2.08
	Min. M_z	56	-39.86	2.08	0.00
	Min. Torsion	12	-1.06	-0.29	-0.51

Tower Mast Reaction Summary

Load Combination	*Vertical K*	*$Shear_x$ K*	*$Shear_z$ K*	*Overturning Moment, M_x kip-ft*	*Overturning Moment, M_z kip-ft*	*Torque kip-ft*
Dead Only	2.16	0.00	-0.00	0.80	1.42	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	2.59	0.00	-0.59	-9.81	1.59	-0.92
0.9 Dead+1.0 Wind 0 deg - No Ice	1.94	0.00	-0.59	-10.04	1.16	-0.92
1.2 Dead+1.0 Wind 30 deg - No Ice	2.59	0.30	-0.51	-8.42	-3.78	-0.54
0.9 Dead+1.0 Wind 30 deg - No Ice	1.94	0.30	-0.51	-8.65	-4.20	-0.54
1.2 Dead+1.0 Wind 60 deg - No Ice	2.59	0.51	-0.30	-4.52	-7.68	-0.01
0.9 Dead+1.0 Wind 60 deg - No Ice	1.94	0.51	-0.30	-4.76	-8.10	-0.01
1.2 Dead+1.0 Wind 90 deg - No Ice	2.59	0.59	-0.00	0.85	-9.06	0.52
0.9 Dead+1.0 Wind 90 deg - No Ice	1.94	0.59	-0.00	0.61	-9.48	0.52
1.2 Dead+1.0 Wind 120 deg - No Ice	2.59	0.51	0.29	6.25	-7.57	0.91
0.9 Dead+1.0 Wind 120 deg - No Ice	1.94	0.51	0.29	6.00	-7.98	0.91
1.2 Dead+1.0 Wind 150 deg - No Ice	2.59	0.29	0.51	10.23	-3.58	1.06
0.9 Dead+1.0 Wind 150 deg - No Ice	1.94	0.29	0.51	9.98	-4.00	1.06
1.2 Dead+1.0 Wind 180 deg - No Ice	2.59	-0.00	0.59	11.73	1.82	0.92
0.9 Dead+1.0 Wind 180 deg - No Ice	1.94	-0.00	0.59	11.48	1.39	0.92
1.2 Dead+1.0 Wind 210 deg - No Ice	2.59	-0.30	0.51	10.34	7.19	0.54
0.9 Dead+1.0 Wind 210 deg - No Ice	1.94	-0.30	0.51	10.09	6.75	0.54
1.2 Dead+1.0 Wind 240 deg - No Ice	2.59	-0.51	0.30	6.44	11.09	0.01
0.9 Dead+1.0 Wind 240 deg - No Ice	1.94	-0.51	0.30	6.20	10.65	0.01
1.2 Dead+1.0 Wind 270 deg - No Ice	2.59	-0.59	0.00	1.07	12.47	-0.52

Load Combination	*Vertical* *K*	*Shear$_x$* *K*	*Shear$_z$* *K*	*Overturning Moment, M_x* *kip-ft*	*Overturning Moment, M_z* *kip-ft*	*Torque* *kip-ft*
0.9 Dead+1.0 Wind 270 deg - No Ice	1.94	-0.59	0.00	0.83	12.04	-0.52
1.2 Dead+1.0 Wind 300 deg - No Ice	2.59	-0.51	-0.29	-4.33	10.97	-0.91
0.9 Dead+1.0 Wind 300 deg - No Ice	1.94	-0.51	-0.29	-4.56	10.54	-0.91
1.2 Dead+1.0 Wind 330 deg - No Ice	2.59	-0.29	-0.51	-8.31	6.99	-1.06
0.9 Dead+1.0 Wind 330 deg - No Ice	1.94	-0.29	-0.51	-8.54	6.56	-1.06
Dead+Wind 0 deg - Service	2.16	0.00	-0.25	-3.53	1.38	-0.33
Dead+Wind 30 deg - Service	2.16	0.13	-0.22	-2.97	-0.78	-0.19
Dead+Wind 60 deg - Service	2.16	0.22	-0.13	-1.40	-2.35	-0.00
Dead+Wind 90 deg - Service	2.16	0.25	-0.00	0.76	-2.91	0.19
Dead+Wind 120 deg - Service	2.16	0.21	0.12	2.93	-2.31	0.32
Dead+Wind 150 deg - Service	2.16	0.12	0.21	4.53	-0.71	0.38
Dead+Wind 180 deg - Service	2.16	-0.00	0.25	5.13	1.46	0.33
Dead+Wind 210 deg - Service	2.16	-0.13	0.22	4.57	3.62	0.19
Dead+Wind 240 deg - Service	2.16	-0.22	0.13	3.00	5.19	0.00
Dead+Wind 270 deg - Service	2.16	-0.25	0.00	0.84	5.75	-0.19
Dead+Wind 300 deg - Service	2.16	-0.21	-0.12	-1.33	5.15	-0.32
Dead+Wind 330 deg - Service	2.16	-0.12	-0.21	-2.93	3.55	-0.38
1.2 Dead+1.0 Ev+1.0 Eh 0 deg	3.21	0.00	-2.08	-37.19	1.71	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 0 deg	1.32	0.00	-2.08	-37.33	1.28	-0.00
1.2 Dead+1.0 Ev+1.0 Eh 30 deg	3.21	1.04	-1.80	-32.08	-17.37	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 30 deg	1.32	1.04	-1.80	-32.23	-17.75	-0.00
1.2 Dead+1.0 Ev+1.0 Eh 60 deg	3.21	1.80	-1.04	-18.12	-31.34	0.00
0.9 Dead-1.0 Ev+1.0 Eh 60 deg	1.32	1.80	-1.04	-18.31	-31.68	0.00
1.2 Dead+1.0 Ev+1.0 Eh 90 deg	3.21	2.08	-0.00	0.96	-36.45	0.00
0.9 Dead-1.0 Ev+1.0 Eh 90 deg	1.32	2.08	-0.00	0.72	-36.77	0.00
1.2 Dead+1.0 Ev+1.0 Eh 120 deg	3.21	1.80	1.04	20.04	-31.34	0.00
0.9 Dead-1.0 Ev+1.0 Eh 120 deg	1.32	1.80	1.04	19.74	-31.68	0.00
1.2 Dead+1.0 Ev+1.0 Eh 150 deg	3.21	1.04	1.80	34.01	-17.37	0.00
0.9 Dead-1.0 Ev+1.0 Eh 150 deg	1.32	1.04	1.80	33.67	-17.75	0.00
1.2 Dead+1.0 Ev+1.0 Eh 180 deg	3.21	0.00	2.08	39.12	1.71	0.00
0.9 Dead-1.0 Ev+1.0 Eh 180 deg	1.32	0.00	2.08	38.77	1.28	0.00
1.2 Dead+1.0 Ev+1.0 Eh 210 deg	3.21	-1.04	1.80	34.01	20.78	0.00
0.9 Dead-1.0 Ev+1.0 Eh 210 deg	1.32	-1.04	1.80	33.67	20.30	0.00
1.2 Dead+1.0 Ev+1.0 Eh 240 deg	3.21	-1.80	1.04	20.04	34.75	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 240 deg	1.32	-1.80	1.04	19.74	34.23	-0.00
1.2 Dead+1.0 Ev+1.0 Eh 270 deg	3.21	-2.08	-0.00	0.96	39.86	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 270 deg	1.32	-2.08	-0.00	0.72	39.32	-0.00
1.2 Dead+1.0 Ev+1.0 Eh 300 deg	3.21	-1.80	-1.04	-18.12	34.75	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 300 deg	1.32	-1.80	-1.04	-18.31	34.23	-0.00
1.2 Dead+1.0 Ev+1.0 Eh 330 deg	3.21	-1.04	-1.80	-32.08	20.78	-0.00
0.9 Dead-1.0 Ev+1.0 Eh 330	1.32	-1.04	-1.80	-32.23	20.30	-0.00

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
deg						

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.00	-2.16	0.00	-0.00	2.16	0.00	0.000%
2	0.00	-2.59	-0.59	-0.00	2.59	0.59	0.000%
3	0.00	-1.94	-0.59	-0.00	1.94	0.59	0.000%
4	0.30	-2.59	-0.51	-0.30	2.59	0.51	0.002%
5	0.30	-1.94	-0.51	-0.30	1.94	0.51	0.002%
6	0.51	-2.59	-0.30	-0.51	2.59	0.30	0.002%
7	0.51	-1.94	-0.30	-0.51	1.94	0.30	0.002%
8	0.59	-2.59	-0.00	-0.59	2.59	0.00	0.002%
9	0.59	-1.94	-0.00	-0.59	1.94	0.00	0.002%
10	0.51	-2.59	0.29	-0.51	2.59	-0.29	0.000%
11	0.51	-1.94	0.29	-0.51	1.94	-0.29	0.000%
12	0.29	-2.59	0.51	-0.29	2.59	-0.51	0.000%
13	0.29	-1.94	0.51	-0.29	1.94	-0.51	0.000%
14	-0.00	-2.59	0.59	0.00	2.59	-0.59	0.000%
15	-0.00	-1.94	0.59	0.00	1.94	-0.59	0.000%
16	-0.30	-2.59	0.51	0.30	2.59	-0.51	0.000%
17	-0.30	-1.94	0.51	0.30	1.94	-0.51	0.000%
18	-0.51	-2.59	0.30	0.51	2.59	-0.30	0.000%
19	-0.51	-1.94	0.30	0.51	1.94	-0.30	0.003%
20	-0.59	-2.59	0.00	0.59	2.59	-0.00	0.000%
21	-0.59	-1.94	0.00	0.59	1.94	-0.00	0.000%
22	-0.51	-2.59	-0.29	0.51	2.59	0.29	0.000%
23	-0.51	-1.94	-0.29	0.51	1.94	0.29	0.000%
24	-0.29	-2.59	-0.51	0.29	2.59	0.51	0.000%
25	-0.29	-1.94	-0.51	0.29	1.94	0.51	0.000%
26	0.00	-2.16	-0.25	-0.00	2.16	0.25	0.001%
27	0.13	-2.16	-0.22	-0.13	2.16	0.22	0.001%
28	0.22	-2.16	-0.13	-0.22	2.16	0.13	0.000%
29	0.25	-2.16	-0.00	-0.25	2.16	0.00	0.001%
30	0.21	-2.16	0.12	-0.21	2.16	-0.12	0.001%
31	0.12	-2.16	0.21	-0.12	2.16	-0.21	0.001%
32	-0.00	-2.16	0.25	0.00	2.16	-0.25	0.001%
33	-0.13	-2.16	0.22	0.13	2.16	-0.22	0.001%
34	-0.22	-2.16	0.13	0.22	2.16	-0.13	0.001%
35	-0.25	-2.16	0.00	0.25	2.16	-0.00	0.001%
36	-0.21	-2.16	-0.12	0.21	2.16	0.12	0.001%
37	-0.12	-2.16	-0.21	0.12	2.16	0.21	0.001%
38	0.00	-3.21	-2.08	-0.00	3.21	2.08	0.001%
39	0.00	-1.32	-2.08	-0.00	1.32	2.08	0.001%
40	1.04	-3.21	-1.80	-1.04	3.21	1.80	0.001%
41	1.04	-1.32	-1.80	-1.04	1.32	1.80	0.001%
42	1.80	-3.21	-1.04	-1.80	3.21	1.04	0.001%
43	1.80	-1.32	-1.04	-1.80	1.32	1.04	0.001%
44	2.08	-3.21	0.00	-2.08	3.21	0.00	0.001%
45	2.08	-1.32	0.00	-2.08	1.32	0.00	0.001%
46	1.80	-3.21	1.04	-1.80	3.21	-1.04	0.001%
47	1.80	-1.32	1.04	-1.80	1.32	-1.04	0.001%
48	1.04	-3.21	1.80	-1.04	3.21	-1.80	0.001%
49	1.04	-1.32	1.80	-1.04	1.32	-1.80	0.001%
50	0.00	-3.21	2.08	-0.00	3.21	-2.08	0.001%
51	0.00	-1.32	2.08	-0.00	1.32	-2.08	0.001%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	*PX K*	*PY K*	*PZ K*	*PX K*	*PY K*	*PZ K*	*% Error*
52	-1.04	-3.21	1.80	1.04	3.21	-1.80	0.001%
53	-1.04	-1.32	1.80	1.04	1.32	-1.80	0.001%
54	-1.80	-3.21	1.04	1.80	3.21	-1.04	0.001%
55	-1.80	-1.32	1.04	1.80	1.32	-1.04	0.001%
56	-2.08	-3.21	0.00	2.08	3.21	0.00	0.001%
57	-2.08	-1.32	0.00	2.08	1.32	0.00	0.001%
58	-1.80	-3.21	-1.04	1.80	3.21	1.04	0.001%
59	-1.80	-1.32	-1.04	1.80	1.32	1.04	0.001%
60	-1.04	-3.21	-1.80	1.04	3.21	1.80	0.001%
61	-1.04	-1.32	-1.80	1.04	1.32	1.80	0.001%

Non-Linear Convergence Results

Load Combination	*Converged?*	*Number of Cycles*	*Displacement Tolerance*	*Force Tolerance*
1	Yes	6	0.00000001	0.00000001
2	Yes	7	0.00000001	0.00000001
3	Yes	7	0.00000001	0.00000001
4	Yes	6	0.00000001	0.00011994
5	Yes	6	0.00000001	0.00000001
6	Yes	6	0.00000001	0.00000001
7	Yes	6	0.00000001	0.00000001
8	Yes	6	0.00000001	0.00011710
9	Yes	6	0.00000001	0.00000001
10	Yes	7	0.00000001	0.00000001
11	Yes	7	0.00000001	0.00000001
12	Yes	7	0.00000001	0.00000001
13	Yes	7	0.00000001	0.00000001
14	Yes	7	0.00000001	0.00000001
15	Yes	7	0.00000001	0.00000001
16	Yes	7	0.00000001	0.00000001
17	Yes	7	0.00000001	0.00000001
18	Yes	7	0.00000001	0.00000001
19	Yes	6	0.00000001	0.00014642
20	Yes	7	0.00000001	0.00000001
21	Yes	7	0.00000001	0.00000001
22	Yes	7	0.00000001	0.00000001
23	Yes	7	0.00000001	0.00000001
24	Yes	7	0.00000001	0.00000001
25	Yes	7	0.00000001	0.00000001
26	Yes	6	0.00000001	0.00000001
27	Yes	6	0.00000001	0.00000001
28	Yes	6	0.00000001	0.00000001
29	Yes	6	0.00000001	0.00000001
30	Yes	6	0.00000001	0.00000001
31	Yes	6	0.00000001	0.00000001
32	Yes	6	0.00000001	0.00000001
33	Yes	6	0.00000001	0.00000001
34	Yes	6	0.00000001	0.00000001
35	Yes	6	0.00000001	0.00000001
36	Yes	6	0.00000001	0.00000001
37	Yes	6	0.00000001	0.00000001
38	Yes	7	0.00000001	0.00007948
39	Yes	7	0.00000001	0.00000001
40	Yes	7	0.00000001	0.00007378
41	Yes	7	0.00000001	0.00000001

42	Yes	7	0.00000001	0.00007266
43	Yes	7	0.00000001	0.00000001
44	Yes	7	0.00000001	0.00007724
45	Yes	7	0.00000001	0.00000001
46	Yes	7	0.00000001	0.00007459
47	Yes	7	0.00000001	0.00000001
48	Yes	7	0.00000001	0.00007844
49	Yes	7	0.00000001	0.00000001
50	Yes	7	0.00000001	0.00008503
51	Yes	7	0.00000001	0.00000001
52	Yes	7	0.00000001	0.00008117
53	Yes	7	0.00000001	0.00000001
54	Yes	7	0.00000001	0.00008223
55	Yes	7	0.00000001	0.00000001
56	Yes	7	0.00000001	0.00008718
57	Yes	7	0.00000001	0.00000001
58	Yes	7	0.00000001	0.00008081
59	Yes	7	0.00000001	0.00000001
60	Yes	7	0.00000001	0.00007701
61	Yes	7	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	*Elevation* *ft*	*Horz. Deflection* *in*	*Gov. Load Comb.*	*Tilt* °	*Twist* °
L1	27.8 - 25	0.332	34	0.0910	0.0135
L2	25 - 0	0.279	34	0.0834	0.0127

Critical Deflections and Radius of Curvature - Service Wind

Elevation *ft*	*Appurtenance*	*Gov. Load Comb.*	*Deflection* *in*	*Tilt* °	*Twist* °	*Radius of Curvature* *ft*
26.92	6705 Street Macro	34	0.315	0.0886	0.0132	17255
26.40	CCISeismic Tower Section 1 - 1	34	0.305	0.0872	0.0131	17255
26.29	Radome (16ø x 2.75ft)	34	0.303	0.0869	0.0131	17255
24.00	Street Light (3sq ft)	34	0.262	0.0805	0.0124	17255
22.80	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (17.8ft to27.8ft)	34	0.242	0.0771	0.0121	17255
22.50	CCISeismic Tower Section 2 - 1	34	0.237	0.0762	0.0120	17159
15.00	CCISeismic Tower Section 2 - 2	34	0.135	0.0526	0.0087	24556
12.80	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (7.8ft to17.8ft)	34	0.111	0.0452	0.0076	28776
6.00	Enclosed Equipment (500 lbs)	34	0.048	0.0215	0.0037	61389
5.00	CCISeismic Tower Section 2 - 3	34	0.040	0.0180	0.0031	73667
3.90	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (0ft to7.8ft)	34	0.031	0.0140	0.0024	73667

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	27.8 - 25	0.689	18	0.1843	0.0377
L2	25 - 0	0.583	18	0.1693	0.0357

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
26.92	6705 Street Macro	18	0.655	0.1796	0.0371	8915
26.40	CCISeismic Tower Section 1 - 1	18	0.635	0.1768	0.0367	8915
26.29	Radome (16ø x 2.75ft)	18	0.631	0.1763	0.0367	8915
24.00	Street Light (3sq ft)	18	0.547	0.1637	0.0349	8915
22.80	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (17.8ft to27.8ft)	18	0.506	0.1568	0.0338	8915
22.50	CCISeismic Tower Section 2 - 1	18	0.497	0.1551	0.0335	8866
15.00	CCISeismic Tower Section 2 - 2	18	0.287	0.1077	0.0245	12687
12.80	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (7.8ft to17.8ft)	18	0.236	0.0927	0.0213	14868
6.00	Enclosed Equipment (500 lbs)	18	0.103	0.0442	0.0104	31718
5.00	CCISeismic Tower Section 2 - 3	18	0.085	0.0369	0.0087	38062
3.90	CCISeismic (6) andrew (cci) LDF7-50A (1-5/8 FOAM) From 0 to 27.8 (0ft to7.8ft)	18	0.066	0.0288	0.0068	38062

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	27.8 - 26.4	P 3.5 STD	2.80	0.00	0.0	2.6795	-0.16	84.41	0.002
	26.4 - 25					2.6795	-0.33	84.41	0.004
L2	25 - 23.75	HSS12.75x.375	25.00	0.00	0.0	13.5967	-0.63	513.95	0.001
	23.75 - 22.5					13.5967	-0.72	513.95	0.001
	22.5 - 21.25					13.5967	-0.86	513.95	0.002
	21.25 - 20					13.5967	-0.94	513.95	0.002
	20 - 18.75					13.5967	-1.02	513.95	0.002
	18.75 - 17.5					13.5967	-1.09	513.95	0.002
	17.5 - 16.25					13.5967	-1.17	513.95	0.002
	16.25 - 15					13.5967	-1.25	513.95	0.002
	15 - 13.75					13.5967	-1.46	513.95	0.003
	13.75 - 12.5					13.5967	-1.55	513.95	0.003
	12.5 - 11.25					13.5967	-1.62	513.95	0.003
	11.25 - 10					13.5967	-1.70	513.95	0.003

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	10 - 8.75					13.5967	-1.78	513.95	0.003
	8.75 - 7.5					13.5967	-1.86	513.95	0.004
	7.5 - 6.25					13.5967	-1.93	513.95	0.004
	6.25 - 5					13.5967	-2.76	513.95	0.005
	5 - 3.75					13.5967	-2.98	513.95	0.006
	3.75 - 2.5					13.5967	-3.06	513.95	0.006
	2.5 - 1.25					13.5967	-3.14	513.95	0.006
	1.25 - 0					13.5967	-3.21	513.95	0.006

*Refer to Mathcad Calculations for Section Capacity

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	27.8 - 26.4	P 3.5 STD	0.12	8.46	0.014	0.00	8.46	0.000
	26.4 - 25		0.73	8.46	0.086	0.00	8.46	0.000
L2	25 - 23.75	HSS12.75x.375	2.57	169.11	0.015	0.00	169.11	0.000
	23.75 - 22.5		3.45	169.11	0.020	0.00	169.11	0.000
	22.5 - 21.25		4.88	169.11	0.029	0.00	169.11	0.000
	21.25 - 20		6.31	169.11	0.037	0.00	169.11	0.000
	20 - 18.75		7.73	169.11	0.046	0.00	169.11	0.000
	18.75 - 17.5		9.16	169.11	0.054	0.00	169.11	0.000
	17.5 - 16.25		10.59	169.11	0.063	0.00	169.11	0.000
	16.25 - 15		12.02	169.11	0.071	0.00	169.11	0.000
	15 - 13.75		14.09	169.11	0.083	0.00	169.11	0.000
	13.75 - 12.5		16.16	169.11	0.096	0.00	169.11	0.000
	12.5 - 11.25		18.28	169.11	0.108	0.00	169.11	0.000
	11.25 - 10		20.40	169.11	0.121	0.00	169.11	0.000
	10 - 8.75		22.51	169.11	0.133	0.00	169.11	0.000
	8.75 - 7.5		24.63	169.11	0.146	0.00	169.11	0.000
	7.5 - 6.25		26.74	169.11	0.158	0.00	169.11	0.000
	6.25 - 5		29.70	169.11	0.176	0.00	169.11	0.000
	5 - 3.75		32.30	169.11	0.191	0.00	169.11	0.000
	3.75 - 2.5		34.91	169.11	0.206	0.00	169.11	0.000
	2.5 - 1.25		37.51	169.11	0.222	0.00	169.11	0.000
	1.25 - 0		40.11	169.11	0.237	0.00	169.11	0.000

*Refer to Mathcad Calculations for Section Capacity

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	27.8 - 26.4	P 3.5 STD	0.18	25.32	0.007	0.00	8.40	0.000
	26.4 - 25		0.42	25.32	0.017	0.00	8.40	0.000
L2	25 - 23.75	HSS12.75x.375	0.68	154.19	0.004	0.00	168.10	0.000
	23.75 - 22.5		0.76	154.19	0.005	0.00	168.10	0.000
	22.5 - 21.25		1.14	154.19	0.007	0.00	168.10	0.000
	21.25 - 20		1.14	154.19	0.007	0.00	168.10	0.000
	20 - 18.75		1.14	154.19	0.007	0.00	168.10	0.000
	18.75 - 17.5		1.14	154.19	0.007	0.00	168.10	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	17.5 - 16.25		1.14	154.19	0.007	0.00	168.10	0.000
	16.25 - 15		1.14	154.19	0.007	0.00	168.10	0.000
	15 - 13.75		1.65	154.19	0.011	0.00	168.10	0.000
	13.75 - 12.5		1.69	154.19	0.011	0.00	168.10	0.000
	12.5 - 11.25		1.69	154.19	0.011	0.00	168.10	0.000
	11.25 - 10		1.69	154.19	0.011	0.00	168.10	0.000
	10 - 8.75		1.69	154.19	0.011	0.00	168.10	0.000
	8.75 - 7.5		1.69	154.19	0.011	0.00	168.10	0.000
	7.5 - 6.25		1.69	154.19	0.011	0.00	168.10	0.000
	6.25 - 5		1.91	154.19	0.012	0.00	168.10	0.000
	5 - 3.75		2.09	154.19	0.014	0.00	168.10	0.000
	3.75 - 2.5		2.09	154.19	0.014	0.00	168.10	0.000
	2.5 - 1.25		2.08	154.19	0.014	0.00	168.10	0.000
	1.25 - 0		2.08	154.19	0.014	0.00	168.10	0.000

*Refer to Mathcad Calculations for Section Capacity

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	27.8 - 26.4	0.002	0.014	0.000	0.007	0.000	0.016 ✔	1.000	4.8.2 ✔
	26.4 - 25	0.004	0.086	0.000	0.017	0.000	0.090 ✔	1.000	4.8.2 ✔
L2	25 - 23.75	0.001	0.015	0.000	0.004	0.000	0.016 ✔	1.000	4.8.2 ✔
	23.75 - 22.5	0.001	0.020	0.000	0.005	0.000	0.022 ✔	1.000	4.8.2 ✔
	22.5 - 21.25	0.002	0.029	0.000	0.007	0.000	0.031 ✔	1.000	4.8.2 ✔
	21.25 - 20	0.002	0.037	0.000	0.007	0.000	0.039 ✔	1.000	4.8.2 ✔
	20 - 18.75	0.002	0.046	0.000	0.007	0.000	0.048 ✔	1.000	4.8.2 ✔
	18.75 - 17.5	0.002	0.054	0.000	0.007	0.000	0.056 ✔	1.000	4.8.2 ✔
	17.5 - 16.25	0.002	0.063	0.000	0.007	0.000	0.065 ✔	1.000	4.8.2 ✔
	16.25 - 15	0.002	0.071	0.000	0.007	0.000	0.074 ✔	1.000	4.8.2 ✔
	15 - 13.75	0.003	0.083	0.000	0.011	0.000	0.086 ✔	1.000	4.8.2 ✔
	13.75 - 12.5	0.003	0.096	0.000	0.011	0.000	0.099 ✔	1.000	4.8.2 ✔
	12.5 - 11.25	0.003	0.108	0.000	0.011	0.000	0.111 ✔	1.000	4.8.2 ✔
	11.25 - 10	0.003	0.121	0.000	0.011	0.000	0.124 ✔	1.000	4.8.2 ✔
	10 - 8.75	0.003	0.133	0.000	0.011	0.000	0.137	1.000	4.8.2 ✔

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	8.75 - 7.5	0.004	0.146	0.000	0.011	0.000	0.149	1.000	4.8.2 ✔
	7.5 - 6.25	0.004	0.158	0.000	0.011	0.000	0.162	1.000	4.8.2 ✔
	6.25 - 5	0.005	0.176	0.000	0.012	0.000	0.181	1.000	4.8.2 ✔
	5 - 3.75	0.006	0.191	0.000	0.014	0.000	0.197	1.000	4.8.2 ✔
	3.75 - 2.5	0.006	0.206	0.000	0.014	0.000	0.213	1.000	4.8.2 ✔
	2.5 - 1.25	0.006	0.222	0.000	0.014	0.000	0.228	1.000	4.8.2 ✔
	1.25 - 0	0.006	0.237	0.000	0.014	0.000	0.244	1.000	4.8.2 ✔

*Refer to Mathcad Calculations for Section Capacity

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$øP_{allow}$ K	% Capacity	Pass Fail
*L1	27.8 - 25	Pole	P 3.5 STD	1	-0.33	84.41	9.0	Pass
*L2	25 - 0	Pole	HSS12.75x.375	2	-3.21	513.95	24.4	Pass
							Summary	
						Pole (L2)	24.4	Pass
						RATING =	**24.4**	**Pass**

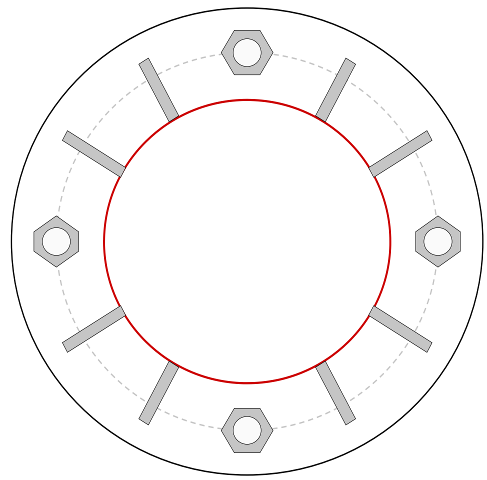
*Refer to Mathcad Calculations for Section Capacity

Monopole Base Plate Connection

Site Info	
Client	Raycap
Site Name	xtenetGlendale PolesPh
Foundation Type	

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	40.11
Axial Force (kips)	3.21
Shear Force (kips)	2.08



Connection Properties

Anchor Rod Data

(4) 1-1/4" ø bolts (F1554-55 N; Fy=55 ksi, Fu=75 ksi) on 17" BC

Base Plate Data

21" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Stiffener Data

(8) 6"H x 3"W x 0.5"T, Notch: 0.5"
plate: Fy= 36 ksi ; weld: Fy= 70 ksi
horiz. weld: 0.1875" fillet
vert. weld: 0.1875" fillet

Pole Data

12.75" x 0.349" round pole (A500-42; Fy=42 ksi, Fu=58 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_c = 29.06	ϕPn_c = 60.75	**Stress Rating**
Vu = 0.52	ϕVn = 27.34	**47.9%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	12.27	(Roark's Flexural)
Allowable Stress (ksi):	32.4	
Stress Rating:	**37.9%**	**Pass**

Stiffener Summary

Horizontal Weld:	**43.8%**	**Pass**
Vertical Weld:	**23.4%**	**Pass**
Plate Flexure+Shear:	**9.6%**	**Pass**
Plate Tension+Shear:	**22.6%**	**Pass**
Plate Compression:	**30.0%**	**Pass**

Pole Summary

Punching Shear:	**7.0%**	**Pass**

Monopole Flange Plate Connection

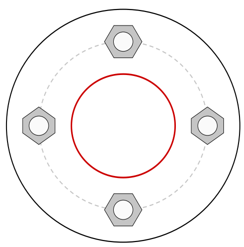
Elevation = 25 ft.

BU #	
Site Name	xtenetGlendale PolesPh
Order #	

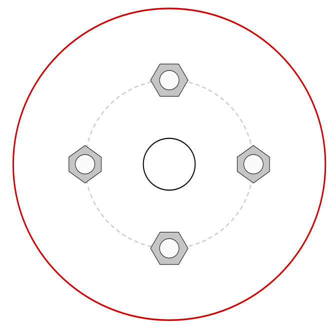
TIA-222 Revision	H

Applied Loads	
Moment (kip-ft)	0.73
Axial Force (kips)	0.33
Shear Force (kips)	0.42

Top Plate - External



Bottom Plate - Internal



Connection Properties

Bolt Data

(4) 3/4" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 6.5" BC

Top Plate Data

9" OD x 1" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

2" ID x 1" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

4" x 0.226" round pole (A53-B35; Fy=35 ksi, Fu=60 ksi)

Bottom Pole Data

12.75" x 0.349" round pole (A500-42; Fy=42 ksi, Fu=58 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	1.25	
Allowable (kips)	30.06	
Stress Rating:	**4.2%**	Pass

Top Plate Capacity

Max Stress (ksi):	1.38	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**4.3%**	Pass
Tension Side Stress Rating:	**1.5%**	Pass

Bottom Plate Capacity

Max Stress (ksi):	1.66	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	**5.1%**	Pass
Tension Side Stress Rating:	**N/A**	

Drilled Pier Foundation

BU # :	
Site Name:	ExtenetGlendale Poles
Order Number:	

TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	40.11	
Axial Force (kips)	3.21	
Shear Force (kips)	2.08	

Material Properties		
Concrete Strength, f'c:	3.5	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

Pier Design Data		
Depth	8	ft
Ext. Above Grade	0	ft
Pier Section 1		
From 0' below grade to 8' below grade		
Pier Diameter	3.5	ft
Rebar Quantity	12	
Rebar Size	8	
Clear Cover to Ties	3	in
Tie Size	4	
Tie Spacing	3	in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	2.54	-
Soil Safety Factor	1.89	-
Max Moment (kip-ft)	45.28	-
Rating	*70.3%*	-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	14.34	-
End Bearing (kips)	28.86	-
Weight of Concrete (kips)	9.53	-
Total Capacity (kips)	43.20	-
Axial (kips)	12.74	-
Rating	*26.8%*	-
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	2.54	-
Critical Moment (kip-ft)	45.28	-
Critical Moment Capacity	713.56	-
Rating	*6.3%*	-
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	5.69	-
Critical Shear (kip)	16.81	-
Critical Shear Capacity	301.85	-
Rating	*5.6%*	-

Shear-Friciton Methodology is Applied

Soil Interaction Rating	**70.3%**
Structural Foundation Rating	**6.3%**

Check Limitation	
Apply TIA-222-H Section 15.5:	☐
N/A	☑
Shear Design Options	
Check Shear along Depth of Pier:	☑
Utilize Shear-Friction Methodology:	☑

Go to Soil Calculations

Soil Profile

Groundwater Depth	2
# of Layers	3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	1	1	110	150			0.000	0.000					Cohesionless
2	1	2	1	110	150			0.000	0.000					Cohesionless
3	2	8	6	47.6	87.6	0	30	0.290	0.290			4	10	Cohesionless

Version 4.1.2

Embedded Pole Foundation

BU # :	
Site Name:	ExtenetGlendale Poles Phas
Order Number:	
TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	40.11	
Axial Force (kips)	3.21	
Shear Force (kips)	2.08	

Material Properties		
Concrete Strength, f'c:	3.5	ksi

Pier Design Data		
Depth	8	ft
Ext. Above Grade	0	ft
Pier Section 1		
From 0' below grade to 8' below grade		
Pier Diameter	3.5	ft

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	2.54	-
Soil Safety Factor	1.89	-
Max Moment (kip-ft)	45.28	-
Rating	*70.3%*	-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	14.34	-
End Bearing (kips)	28.86	-
Weight of Concrete (kips)	9.05	-
Total Capacity (kips)	43.20	-
Axial (kips)	12.26	-
Rating	*28.4%*	-
Embedded Pole Interaction	*Compression*	*Uplift*
Critical Depth (ft from TOC)	2.54	-
Critical Moment (kip-ft)	45.28	-
Critical Moment Capacity	106.51	-
Rating	*43.9%*	-

Structural Foundation Rating	**43.9%**
Soil Interaction Rating	**70.3%**

Check Limitation	
Apply TIA-222-H Section 15.5:	☐
N/A	☐
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	☐
Shear Design Options	
N/A	☑
N/A	☐
N/A	☐

Go to Soil Calculations

Soil Profile

Groundwater Depth	2	# of Layers	3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	1	1	110	150			0.000	0.000					Cohesionless
2	1	2	1	110	150			0.000	0.000					Cohesionless
3	2	8	6	47.6	87.6		30	0.290	0.290			4	10	Cohesionless

SUPPLEMENTAL EMBEDDED POLE REPORT

BU # :
Site Name: ExtenetGlendale Poles Phase 2
Order Number:

Embedded Pole Properties

Encased in Concrete:	No
Number of Sides:	0
Yield Strength (ksi):	42
Thickness (in):	0.349
Bend Radius (in):	0.5235
Taper Factor (in/ft):	0.0000

Maximum Axial Rating

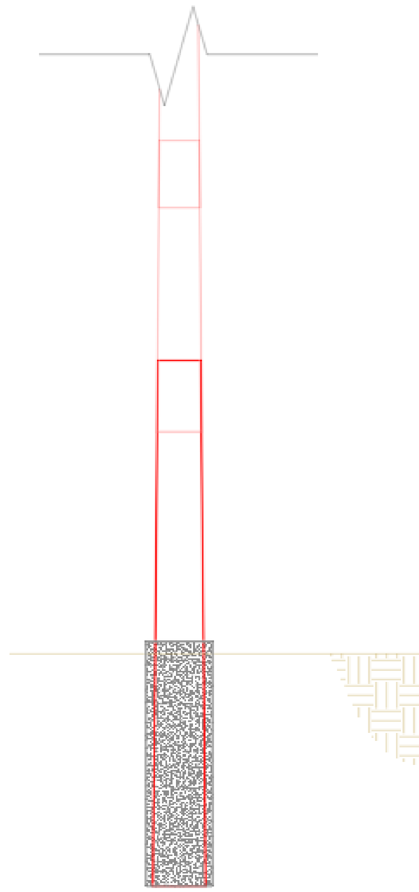
Depth from Grade (ft):	8.00
Diameter (in):	10.19
Axial Demand (kip):	5.93
Axial Capacity (kip):	407.65
Rating:	**1.5%**

Maximum Flexural Rating

Depth from Grade (ft):	2.54
Diameter (in):	10.19
Flexural Demand (kip-ft):	45.28
Flexural Capacity (kip-ft):	106.51
Rating:	**42.5%**

Maximum Interaction Rating

Depth from Grade (ft):	2.54
Diameter (in):	10.19
Axial Demand (kip):	5.70
Axial Capacity (kip):	407.65
Flexural Demand (kip-ft):	45.28
Flexural Capacity (kip-ft):	106.51
Rating:	**43.9%**



Structural Rating:	**43.9%**

Version 5.0.3

Wind Load per 2018 IBC

Location:		**ANSI / TIA-222-H**
Risk category:	II	Table 2-1
Importance factor:	$I := 1.0$	Table 2-3
Exposure:	$Exp := "C"$	Section 2.6.5
Topographic factor:	$K_{zt} := 1.0$	Section 2.6.6.2
Ground Elevation factor:	$K_e := 1.0$	Section 2.6.8
Wind directional factor:	$K_d := 0.95$	Table 2-2
Gust response factor:	$G := 1.1$	Section 2.6.9
Basic wind speed:	$V := 95$ mph	Section 2.6.4
Equipment Height (ft):	$z := 25ft$	

Nominal Height of the Atmospheric Boundary Layer:

$$z_g := \begin{cases} 1200ft & \text{if } Exp = "B" \\ 900ft & \text{if } Exp = "C" \\ 700ft & \text{if } Exp = "D" \end{cases} = 274.32$$

Table 2-4

3-Sec Gust-Speed Power Law Exponent:

$$\alpha := \begin{cases} 7 & \text{if } Exp = "B" \\ 9.5 & \text{if } Exp = "C" \\ 11.5 & \text{if } Exp = "D" \end{cases} = 9.5$$

Velocity Pressure Exposure Coefficients:

$$K(x) := 2.01 \cdot \left(\frac{\max(15ft, x)}{z_g} \right)^{\frac{2}{\alpha}}$$

Section 2.6.5.2

Velocity Pressure:

$$q(x) := \begin{array}{|l} K_z \leftarrow K(x) \\ q_x \leftarrow 0.00256 \cdot K_z \cdot K_{zt} \cdot K_e \cdot K_d \cdot V^2 \cdot psf \end{array}$$

Section 2.6.11.6

Atmospheric Ice Loads on Pole Per TIA-222-H (2.6.10)

Nominal Ice Thickness: $t := 0in$

Height Factor: $k_{iz} := \left(\frac{z}{33ft} \right)^{0.1} = 0.973 \quad < 1.4$

Importance Factor: $I_i := 1.0$ Table 2-3

Design Ice Thickness: $t_d := t \cdot I_i \cdot k_{iz} \cdot K_{zt}^{0.35} = 0 \cdot in$

Ice Density: $\rho_i := 56pcf$

Design Wind Speed on Ice: $V_i := 30$

Wind on Ice Velocity Pressure (psf): $q_{hi} := 0.00256 \cdot K(z) \cdot K_{zt} \cdot K_d \cdot I_i \cdot V_i^2 psf$

$q_{zi} := q_{hi} = 2.07 \cdot psf$

Force Coefficient for Pole: Table 2-8b

D in ft

$$
Cp(d, shape) := \left|
\begin{array}{l}
C_r \leftarrow \left(K_{zt} \cdot K(z) \cdot K_e\right)^{0.5} \cdot V \cdot \dfrac{d}{12in} \\
C_{18} \leftarrow \left| \begin{array}{ll} 1.2 & \text{if } C_r \le 39 \\ \dfrac{16.6}{C_r^{0.717}} & \text{if } 39 < C_r < 78 \\ 0.73 & \text{if } C_r > 78 \end{array} \right. \\
C_{16} \leftarrow \left| \begin{array}{ll} 1.2 & \text{if } C_r \le 39 \\ \dfrac{14.4}{C_r^{.678}} & \text{if } 39 < C_r < 78 \\ 0.75 & \text{if } C_r > 78 \end{array} \right. \\
C_{12} \leftarrow \left| \begin{array}{ll} 1.2 & \text{if } C_r \le 39 \\ \dfrac{4.12}{C_r^{0.337}} & \text{if } 39 < C_r < 78 \\ 0.95 & \text{if } C_r > 78 \end{array} \right. \\
C_8 \leftarrow \left| \begin{array}{ll} 1.2 & \text{if } C_r \le 39 \\ 1.2 & \text{if } 39 < C_r < 78 \\ 1.2 & \text{if } C_r > 78 \end{array} \right. \\
C_0 \leftarrow \left| \begin{array}{ll} 1.2 & \text{if } C_r \le 39 \\ \dfrac{46.8}{C_r^{1}} & \text{if } 39 < C_r < 78 \\ 0.60 & \text{if } C_r > 78 \end{array} \right. \\
\text{return } C_{18} \ \text{ if } \ shape = 18 \\
\text{return } C_{16} \ \text{ if } \ shape = 16 \\
\text{return } C_{12} \ \text{ if } \ shape = 12 \\
\text{return } C_8 \ \text{ if } \ shape = 8 \\
\text{return } C_0 \ \text{ if } \ shape = 0
\end{array}
\right.
$$

Design Wind Force:

$$
F_f(app, l, d, type, shape) := \left|
\begin{array}{ll}
[q(z) \cdot G \cdot Cf(l, d, type) \cdot (l \cdot d)] & \text{if } app = \text{"antenna"} \\
[q(z) \cdot G \cdot Cp(d, shape) \cdot (l \cdot d)] & \text{if } app = \text{"pole"}
\end{array}
\right.
$$

Top Pole Capacity

$\phi_c := 0.9$ resistance factor for axial compression Section 4.8.2

$\phi_f := 0.9$ resistance factor for flexure

$\phi_v := 0.9$ resistance facture for shear

$\phi_T := 0.95$ resistance factor for torsion

$$F_y(shape, f_y, D, t, E) := \left|\begin{array}{l}
F_{18} \leftarrow \left|\begin{array}{l} 1.27 f_y \text{ if } \sqrt{\frac{f_y}{E}} \cdot \frac{D}{t} < 0.759 \\ 1.56 f_y \cdot \left(1.0 - 0.245 \cdot \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}}\right) \text{ if } 0.759 < \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}} < 2.14 \end{array}\right. \\
F_{16} \leftarrow \left|\begin{array}{l} 1.27 f_y \text{ if } \sqrt{\frac{f_y}{E}} \cdot \frac{D}{t} < 0.836 \\ 1.578 f_y \cdot \left(1.0 - 0.233 \cdot \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}}\right) \text{ if } 0.836 < \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}} < 2.14 \end{array}\right. \\
F_{12} \leftarrow \left|\begin{array}{l} 1.26 f_y \text{ if } \sqrt{\frac{f_y}{E}} \cdot \frac{D}{t} < 0.992 \\ 1.611 f_y \cdot \left(1.0 - 0.220 \cdot \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}}\right) \text{ if } 0.992 < \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}} < 2.14 \end{array}\right. \\
F_{8} \leftarrow \left|\begin{array}{l} 1.24 f_y \text{ if } \sqrt{\frac{f_y}{E}} \cdot \frac{D}{t} < 1.10 \\ 1.578 f_y \cdot \left(1.0 - 0.194 \cdot \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}}\right) \text{ if } 1.10 < \sqrt{\frac{f_y}{E} \cdot \frac{D}{t}} < 2.14 \end{array}\right. \\
F_{0} \leftarrow \left|\begin{array}{l} f_y \text{ if } \frac{D}{t} < 0.114 \frac{E}{f_y} \\ \left[\frac{0.0379E}{\left(\frac{D}{t}\right) \cdot f_y} + \frac{2}{3}\right] \cdot f_y \text{ if } 0.114 \frac{E}{f_y} < \frac{D}{t} < 0.448 \frac{E}{f_y} \\ \left[0.337 \cdot \frac{E}{\left(\frac{D}{t}\right)}\right] \text{ if } 0.448 \frac{E}{f_y} < \frac{D}{t} < 300 \end{array}\right. \\
\text{return } F_{18} \text{ if } shape = 18 \\
\text{return } F_{16} \text{ if } shape = 16 \\
\text{return } F_{12} \text{ if } shape = 12 \\
\text{return } F_{8} \text{ if } shape = 8 \\
\text{return } F_{0} \text{ if } shape = 0
\end{array}\right.$$

CALCULATE LOADS ON EQUIPMENT AND SUPPORT

Radome:

Dimensions: $h := 33.25in$ $w := 16in$ $d := 16in$

Cross Section Type: type := round app := antenna side := N/A

Front Wind Load: $F_f(app, h, w, type, side) = 42.2\,lbf$

$$\frac{1}{h \cdot w}\left(F_f(app, h, w, type, side)\right) = 11.4 \cdot psf$$

Antenna:

Dimensions: $h := 20in$ $w := 8in$ $d := 5in$

Cross Section Type: type := flat app := antenna side := N/A

Front Wind Load: $F_f(app, h, w, type, side) = 30.4\,lbf$

Side Wind Load: $F_f(app, h, d, type, side) = 20.1\,lbf$

Total Wind Load: $W_{total} := 32.1lbf + 21.1lbf = 53.2\,lbf$

Light Arm:

Dimensions: $h := 72in$ $w := 2.375in$ $d := 2.375in$

Cross Section Type: type := round app := pole side := Round

Front Wind Load: $F_f(app, h, w, type, side) = 32.5\,lbf$

$$\frac{1}{h}\left(F_f(app, h, w, type, side)\right) = 5.4 \cdot plf$$

Light:

Dimensions: $h := 1.5ft$ $w := 1.5ft$ $W_1 := 70lbf$

Cross Section Type: type := flat app := antenna side := N/A

Front Wind Load: $F_f(app, h, w, type, side) = 61.6\,lbf$

Base Pole Capacity

Effective Yield Stress fo 12" STD pipe Members

$f_y := 42ksi$ minimum yield strength of steel

$E := 29000ksi$ modulus of elasticity

$D := 12.75in$ diameter of base module

$t := 0.349in$ design wall thickness

Section Properties from CAD at base plate

$A := 10.7924in^2$ area of cross section

$c := 6.2961in$ distance from neutral axis to edge

$I_x := 207.6563in^4$ Moment of Inertia along X axis

$I_z := 207.6563in^4$ Moment of Inertia along Z axis

$J := I_x + I_z = 415.31 \cdot in^4$ Polar moment of Inertia

$S := \frac{I_x}{c} = 32.98 \cdot in^3$ Section Modulus

$A_t := \frac{A}{2}$ Area in compression and tension

$A_c := A_t$ for constant yielding stress from CAD

$d_t := 4.1072in$ Distance of neutral axis fro area in tension

$d_c := 4.1072in$ Distance of neutral axis fro area in compression

$Z := A_t \cdot d_t + A_c \cdot d_c$ Plastic Section Modulus

$Z = 44.33 \cdot in^3$

$side := 0$

$$m(side) := \left(\begin{array}{l} 1.58 \text{ if } side \leftarrow 18 \\ 1.59 \text{ if } side \leftarrow 16 \\ 1.61 \text{ if } side \leftarrow 12 \\ 1.66 \text{ if } side \leftarrow 8 \\ 1.57 \text{ if } side \leftarrow 0 \end{array} \right)$$

torsional constant Table 4-9

$C_t := m(side) \cdot t \cdot (D - t)^2$

$C_t = 89.094 \cdot in^3$

$L_p := z$ height of pole structre

Forces on the pole

$M_u := 40.11\text{kip}\cdot\text{ft}$ flexural moment due to factored loads

$P_u := 3.21\text{kip}$ axial compressive loads due to factored loads

$V_u := 2.08\text{kip}$ transverse shear due to factored loads

$T_u := 0\text{kip}\cdot\text{ft}$ torsion due to factored loads

Design Strength

Section 4.8.2

$\boxed{P_n := F_y(\text{side}, f_y, D, t, E)\cdot A = 453.3\cdot\text{kip}}$ nominal axial compressive strength

Section 4.8.2.1/4.8.2.2

$$V_n(\text{shape}) := \begin{array}{|l} F_{side} \leftarrow 0.6\,F_y(\text{side}, f_y, D, t, E)\,\dfrac{A}{2} \\ F_{round} \leftarrow 0.5\cdot A\cdot \min\left[0.6\cdot F_y(\text{side}, f_y, D, t, E), \max\left[\dfrac{1.60E}{\sqrt{\dfrac{L_p}{D}\cdot\left(\dfrac{D}{t}\right)^{\frac{5}{4}}}}, \dfrac{0.78E}{\left(\dfrac{D}{t}\right)^{\frac{3}{2}}}\right]\right] \\ \text{return } F_{round} \text{ if shape} = 0 \\ \text{return } F_{side} \text{ otherwise} \end{array}$$

$\boxed{V_n := V_n(\text{side}) = 136.0\cdot\text{kip}}$ nominal shear strength

Section 4.8.2.1/4.8.2.2

$$T_n(\text{shape}) := \begin{array}{|l} F_{side} \leftarrow 0.6\,F_y(\text{side}, f_y, D, t, E)C_t \\ F_{round} \leftarrow C_t\cdot \min\left[0.6\cdot F_y(\text{side}, f_y, D, t, E), \max\left[\dfrac{1.23E}{\sqrt{\dfrac{L_p}{D}\cdot\left(\dfrac{D}{t}\right)^{\frac{5}{4}}}}, \dfrac{0.6E}{\left(\dfrac{D}{t}\right)^{\frac{3}{2}}}\right]\right] \\ \text{return } F_{round} \text{ if shape} = 0 \\ \text{return } F_{side} \text{ otherwise} \end{array}$$

$\boxed{T_n := T_n(\text{side}) = 187.1\cdot\text{kip}\cdot\text{ft}}$ nominal torsional strength

Section 4.7.2/4.7.3

$$M_n(shape) := \begin{vmatrix} F_{side} \leftarrow F_y(side, f_y, D, t, E)\,S \\ F_{round} \leftarrow \begin{vmatrix} F_y(side, f_y, D, t, E)\cdot S \quad \text{if} \quad \dfrac{T_u}{\phi_T \cdot T_n} > 0.2 \\ \text{if} \quad \dfrac{T_u}{\phi_T \cdot T_n} < 0.2 \\ \quad \begin{vmatrix} f_y \cdot Z \quad \text{if} \quad \dfrac{D}{t} < 0.0714\dfrac{E}{f_y} \\ \left[\dfrac{0.0207E}{\left(\dfrac{D}{t}\right)\cdot f_y} + 1\right]\cdot f_y \cdot S \quad \text{if} \quad 0.0714\dfrac{E}{f_y} < \dfrac{D}{t} < 0.309\dfrac{E}{f_y} \\ \left[0.330\cdot\dfrac{E}{\left(\dfrac{D}{t}\right)}\right]\cdot S \quad \text{if} \quad 0.309\dfrac{E}{f_y} < \dfrac{D}{t} < 300 \end{vmatrix} \end{vmatrix} \\ \text{return } F_{round} \quad \text{if} \quad side = 0 \\ \text{return } F_{side} \quad \text{otherwise} \end{vmatrix}$$

$\boxed{M_n := M_n(side) = 155.1 \cdot kip \cdot ft}$ nominal flexural stength

Combined Bending and Axial Foces

$$\left[\frac{P_u}{(\phi_c \cdot P_n)}\right] + \left[\frac{M_u}{(\phi_f \cdot M_n)}\right] + \left[\left[\frac{V_u}{(\phi_v \cdot V_n)}\right] + \left[\frac{T_u}{(\phi_T \cdot T_n)}\right]\right]^2 = 29.5\cdot\%$$

Base Pole Capacity

Effective Yield Stress fo 12" STD pipe Members

$f_y := 42ksi$	minimum yield strength of steel
$E := 29000ksi$	modulus of elasticity
$D := 12.75in$	diameter of base module
$t := 0.349in$	design wall thickness
3.5x0.5 A36 Plates	Reinforcement

Section Properties from CAD for Cut Out w/ Reinforcement

$A := 12.17in^2$	area of cross section
$c := 5.0604in$	distance from neutral axis to edge
$I_x := 107.02in^4$	Moment of Inertia along X axis
$I_z := 304.98in^4$	Moment of Inertia along Z axis
$J := I_x + I_z = 412.00 \cdot in^4$	Polar moment of Inertia
$S := \frac{I_x}{c} = 21.15 \cdot in^3$	Section Modulus
$A_t := \frac{A}{2}$	Area in compression and tension
$A_c := A_t$	for constant yielding stress from CAD
$d_t := 3.23in$	Distance of neutral axis fro area in tension
$d_c := 2.02in$	Distance of neutral axis fro area in compression
$Z := A_t \cdot d_t + A_c \cdot d_c$	Plastic Section Modulus

$Z = 31.95 \cdot in^3$

$side := 0$

$$m(side) := \left(\begin{array}{l} 1.58 \text{ if } side \leftarrow 18 \\ 1.59 \text{ if } side \leftarrow 16 \\ 1.61 \text{ if } side \leftarrow 12 \\ 1.66 \text{ if } side \leftarrow 8 \\ 1.57 \text{ if } side \leftarrow 0 \end{array} \right)$$

torsional constant   Table 4-9

$C_t := m(side) \cdot t \cdot (D - t)^2$

$C_t = 89.094 \cdot in^3$

$L_p := z$ height of pole structre

Forces on the pole

$M_u := 34.91kip\cdot ft$ flexural moment due to factored loads

$P_u := 3.06kip$ axial compressive loads due to factored loads

$V_u := 2.09kip$ transverse shear due to factored loads

$T_u := 0kip\cdot ft$ torsion due to factored loads

Design Strength

Section 4.8.2

$\boxed{P_n := F_y(side, f_y, D, t, E)\cdot A = 511.1\cdot kip}$ nominal axial compressive strength

Section 4.8.2.1/4.8.2.2

$$V_n(shape) := \begin{array}{|l} F_{side} \leftarrow 0.6\,F_y(side, f_y, D, t, E)\,\dfrac{A}{2} \\ F_{round} \leftarrow 0.5\cdot A\cdot \min\left[0.6\cdot F_y(side, f_y, D, t, E), \max\left[\dfrac{1.60E}{\sqrt{\dfrac{L_p}{D}\cdot\left(\dfrac{D}{t}\right)^{\frac{5}{4}}}}, \dfrac{0.78E}{\left(\dfrac{D}{t}\right)^{\frac{3}{2}}}\right]\right] \\ \text{return } F_{round} \text{ if } shape = 0 \\ \text{return } F_{side} \text{ otherwise} \end{array}$$

nominal shear strength

$\boxed{V_n := V_n(side) = 153.3\cdot kip}$

Section 4.8.2.1/4.8.2.2

$$T_n(shape) := \begin{array}{|l} F_{side} \leftarrow 0.6\,F_y(side, f_y, D, t, E)C_t \\ F_{round} \leftarrow C_t\cdot \min\left[0.6\cdot F_y(side, f_y, D, t, E), \max\left[\dfrac{1.23E}{\sqrt{\dfrac{L_p}{D}\cdot\left(\dfrac{D}{t}\right)^{\frac{5}{4}}}}, \dfrac{0.6E}{\left(\dfrac{D}{t}\right)^{\frac{3}{2}}}\right]\right] \\ \text{return } F_{round} \text{ if } shape = 0 \\ \text{return } F_{side} \text{ otherwise} \end{array}$$

nominal torsional strength

$\boxed{T_n := T_n(side) = 187.1\cdot kip\cdot ft}$

Section 4.7.2/4.7.3

$$M_n(shape) := \left| \begin{array}{l} F_{side} \leftarrow F_y(side, f_y, D, t, E)\,S \\ F_{round} \leftarrow \left| \begin{array}{l} F_y(side, f_y, D, t, E)\cdot S \quad \text{if} \quad \dfrac{T_u}{\phi_T \cdot T_n} > 0.2 \\ \text{if} \quad \dfrac{T_u}{\phi_T \cdot T_n} < 0.2 \\ \quad \left| \begin{array}{l} f_y \cdot Z \quad \text{if} \quad \dfrac{D}{t} < 0.0714\,\dfrac{E}{f_y} \\ \left[\dfrac{0.0207E}{\left(\dfrac{D}{t}\right)\cdot f_y} + 1\right]\cdot f_y \cdot S \quad \text{if} \quad 0.0714\,\dfrac{E}{f_y} < \dfrac{D}{t} < 0.309\,\dfrac{E}{f_y} \\ \left[0.330\cdot\dfrac{E}{\left(\dfrac{D}{t}\right)}\right]\cdot S \quad \text{if} \quad 0.309\,\dfrac{E}{f_y} < \dfrac{D}{t} < 300 \end{array} \right. \end{array} \right. \\ \text{return } F_{round} \quad \text{if} \quad side = 0 \\ \text{return } F_{side} \quad \text{otherwise} \end{array} \right.$$

$$\boxed{M_n := M_n(side) = 111.8\cdot kip\cdot ft}$$

nominal flexural stength

Combined Bending and Axial Foces

$$\left[\frac{P_u}{(\phi_c \cdot P_n)}\right] + \left[\frac{M_u}{(\phi_f \cdot M_n)}\right] + \left[\left[\frac{V_u}{(\phi_v \cdot V_n)}\right] + \left[\frac{T_u}{(\phi_T \cdot T_n)}\right]\right]^2 = 35.4\cdot\%$$

Weld Check for Poles :

Forces on the pole at base plate

$M_u := 40.1\text{kip}\cdot\text{ft}$	flexural moment due to factored loads
$P_u := 3.21\text{kip}$	axial compressive loads due to factored loads
$V_u := 2.08\text{kip}$	transverse shear due to factored loads
$T_u := 0\text{kip}\cdot\text{ft}$	torsion due to factored loads

Weld Properties:

Weld Shear Strength:	$f_w := 0.6\cdot 70\text{ksi}$
Resistance Factor:	$\phi := 0.75$
Diameter of Pole:	$D := 10.19\text{in}$
Thickness of Fillet:	$t := 0.3125\text{in}$
Throat:	$a := .707t = 0.22\cdot\text{in}$
Weld Throat Area:	$A_w := 4\cdot 8\text{in}\cdot a = 7.07\cdot\text{in}^2$
Weld Moment of Inertia:	$I_w := 207.6563\text{in}^4 = 207.66\cdot\text{in}^4$
Weld Polar Moment of Inertia:	$J_w := 2\cdot I_w = 415.31\cdot\text{in}^4$
Stress Due to Axial:	$s_a := \frac{P_u}{A_w} = 0.45\cdot\text{ksi}$
Stress Due to Moment:	$s_m := \frac{M_u\cdot\frac{D}{2}}{I_w} = 11.81\cdot\text{ksi}$
Stress Due to Shear:	$s_v := \frac{V_u}{A_w} = 0.29\cdot\text{ksi}$
Stress Due to Torque:	$s_t := \frac{T_u\cdot\frac{D}{2}}{J_w} = 0.00\cdot\text{ksi}$
Max Stress:	$Max := \sqrt{(s_a + s_m)^2 + (s_v + s_t)^2} = 12.26\cdot\text{ksi}$
Ultimate Stress:	$\phi\cdot f_w = 31.5\cdot\text{ksi}$

$$DC_{ratio} := \frac{Max}{\phi\cdot f_w} = 38.9\cdot\%$$

$$Hence := \begin{cases} \text{"O.K"} & \text{if } DC_{ratio} < 1 \\ \text{"NOT O.K"} & \text{if } DC_{ratio} > 1 \end{cases}$$

$\boxed{Hence = \text{"O.K"}}$

Weld Check for Poles :

Forces on the pole at flange base plate

$M_u := 40.1kip \cdot ft$ — flexural moment due to factored loads

$P_u := 3.21kip$ — axial compressive loads due to factored loads

$V_u := 2.08kip$ — transverse shear due to factored loads

$T_u := 0kip \cdot ft$ — torsion due to factored loads

Weld Properties:

Weld Shear Strength: $f_w := 0.6 \cdot 70ksi$

Resistance Factor: $\phi := 0.75$

Diameter of Pole: $D := 12.75in$

Thickness of Fillet: $t := 0.3125in$

Groove Depth: $g_d := 0.25in$

Throat: $a := \sqrt{t^2 + \left(g_d - \frac{1}{8}in\right)^2} = 0.34 \cdot in$

Weld Throat Area: $A_w := 4 \cdot 8in \cdot a = 10.77 \cdot in^2$

Weld Moment of Inertia: $I_w := 207.6563in^4 = 207.66 \cdot in^4$

Weld Polar Moment of Inertia: $J_w := 2 \cdot I_w = 415.31 \cdot in^4$

Stress Due to Axial: $s_a := \frac{P_u}{A_w} = 0.30 \cdot ksi$

Stress Due to Moment: $s_m := \frac{M_u \cdot \frac{D}{2}}{I_w} = 14.77 \cdot ksi$

Stress Due to Shear: $s_v := \frac{V_u}{A_w} = 0.19 \cdot ksi$

Stress Due to Torque: $s_t := \frac{T_u \cdot \frac{D}{2}}{J_w} = 0.00 \cdot ksi$

Max Stress: $Max := \sqrt{(s_a + s_m)^2 + (s_v + s_t)^2} = 15.07 \cdot ksi$

Ultimate Stress: $\phi \cdot f_w = 31.5 \cdot ksi$

$DC_{ratio} := \frac{Max}{\phi \cdot f_w} = 47.8 \cdot \%$

$$Hence := \begin{cases} \text{"O.K"} & \text{if } DC_{ratio} < 1 \\ \text{"NOT O.K"} & \text{if } DC_{ratio} > 1 \end{cases}$$

$\boxed{Hence = \text{"O.K"}}$

Weld Check at Top

$\phi := 0.75$

Forces on the pole at Top

$M_u := 0.73\text{kip}\cdot\text{ft}$ flexural moment due to factored loads

$P_u := 0.33\text{kip}$ axial compressive loads due to factored loads

$V_u := 0.42\text{kip}$ transverse shear due to factored loads

$T_u := 0\text{kip}\cdot\text{ft}$ torsion due to factored loads

$L := 3.5\text{in}$

Maximum Tension force (in Y-direction) $P_{max} := P_u + \dfrac{M_u}{D}$ $P_{max} = 1017.1\cdot\text{lbf}$

Maximum Shear at each bolt $V_{max} := V_u + \dfrac{T_u}{D}$ $V_{max} = 420.0\cdot\text{lbf}$

Weld size:(1/16 of an in): $D_w := 4\text{in}$

Weld Length $l := L = 3.5\cdot\text{in}$

Weld Strength $F_{exx} := 70\text{ksi}$

Weld Strength $R_n := \phi\left[0.6\cdot F_{exx}\cdot.707\cdot\left(\dfrac{D_w}{16}\right)\cdot l\right] = 19.487\cdot\text{kip}$

$DC_{ratio} := \dfrac{P_{max}}{R_n} = 5.2\cdot\%$

Hence := | "O.K" if $DC_{ratio} < 1$
| "NOT O.K" if $DC_{ratio} > 1$

$\boxed{\text{Hence} = \text{"O.K"}}$

Weld Check for Poles :

Forces on the pole at Light Arm

$M_u := .92\text{kip}\cdot\text{ft}$	flexural moment due to factored loads
$P_u := 0.15\text{kip}$	axial compressive loads due to factored loads
$V_u := 0.15\text{kip}$	transverse shear due to factored loads
$T_u := 0\text{kip}\cdot\text{ft}$	torsion due to factored loads

Weld Properties:

Weld Shear Strength:	$f_w := 0.6\cdot 70\text{ksi}$
Resistance Factor:	$\phi := 0.75$
Diameter of Pole:	$D := 2.375\text{in}$
Thickness of Fillet:	$t := .1875\text{in}$
Throat:	$a := .707t = 0.13\cdot\text{in}$
Weld Throat Area:	$A_w := 4\cdot 8\text{in}\cdot a = 4.24\cdot\text{in}^2$
Weld Moment of Inertia:	$I_w := 207.6563\text{in}^4 = 207.66\cdot\text{in}^4$
Weld Polar Moment of Inertia:	$J_w := 2\cdot I_w = 415.31\cdot\text{in}^4$
Stress Due to Axial:	$s_a := \dfrac{P_u}{A_w} = 0.04\cdot\text{ksi}$
Stress Due to Moment:	$s_m := \dfrac{M_u\cdot\frac{D}{2}}{I_w} = 0.06\cdot\text{ksi}$
Stress Due to Shear:	$s_v := \dfrac{V_u}{A_w} = 0.04\cdot\text{ksi}$
Stress Due to Torque:	$s_t := \dfrac{T_u\cdot\frac{D}{2}}{J_w} = 0.00\cdot\text{ksi}$
Max Stress:	$Max := \sqrt{(s_a + s_m)^2 + (s_v + s_t)^2} = 0.10\cdot\text{ksi}$
Ultimate Stress:	$\phi\cdot f_w = 31.5\cdot\text{ksi}$

$$DC_{ratio} := \frac{Max}{\phi\cdot f_w} = 0.3\cdot\%$$

$$Hence := \begin{cases} \text{"O.K"} & \text{if } DC_{ratio} < 1 \\ \text{"NOT O.K"} & \text{if } DC_{ratio} > 1 \end{cases}$$

$$\boxed{Hence = \text{"O.K"}}$$

Bolt Check at Light Arm

1/2" A325 Bolts

$F_{nt} := 90ksi$ Table J3.2 (A325 Bolts)

$F_{nv} := 54ksi$ Table J3.2

$D_b := 6.25in$

Bolt Diameter: $d := 0.5in$

Number of Bolts: $n := 1$

Bolt Area: $A_b := \pi \cdot \frac{d^2}{4} = 0.196 \cdot in^2$

$F_{nt} \cdot A_b = 17.671 \cdot kip$

$F_{nv} \cdot A_b = 10.603 \cdot kip$

Max Load from RISA 3D using LRFD Load Combinations :

$F_{T1} := 143lbf$

$F_{V1} := 146lbf$

$F_{V2} := 105lbf$

$M_T := 918lbf \cdot ft$

$F_T := F_{T1}$

$$F_V := \sqrt{F_{V1}^2 + F_{V2}^2} + \frac{M_T}{D_b} = 1942.4 \cdot lbf$$

$\phi := 0.75$

$$\frac{F_T}{\phi \cdot F_{nt} \cdot A_b \cdot n} + \frac{F_V}{\phi \cdot F_{nv} \cdot A_b \cdot n} = 25.5 \cdot \%$$ <100% **OKAY**

Design Port Hole Reinforcement for 4"x8" Opening:

Yield Strength of Pole: $F_y := 42ksi$

Yield Strength of Reinforcement: $F_{yr} := 46ksi$

Bottom Section of Monopole Properties

Outside Diameter $OD := 12.75in$

Thickness: $t := .375in$

Inside Diameter: $ID := OD - 2 \cdot t = 12 \cdot in$

Port Holes

Area of Pole Removed: $A_p := 4in \cdot t = 1.5 \cdot in^2$

Required Area of Reinforcement:

$$A_r := \frac{A_p \cdot F_y}{F_{yr}} = 1.37 \cdot in^2$$

Radius of Section: $r := \frac{OD}{2} = 6.375 \cdot in$

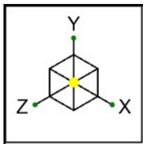
Thickness of Reinforcement $t_r := 0.375in$

$A_{ract} := 2 \cdot 2.5in \cdot t_r = 1.875 \cdot in^2$ $\qquad A_{ract} > A_r$ OK

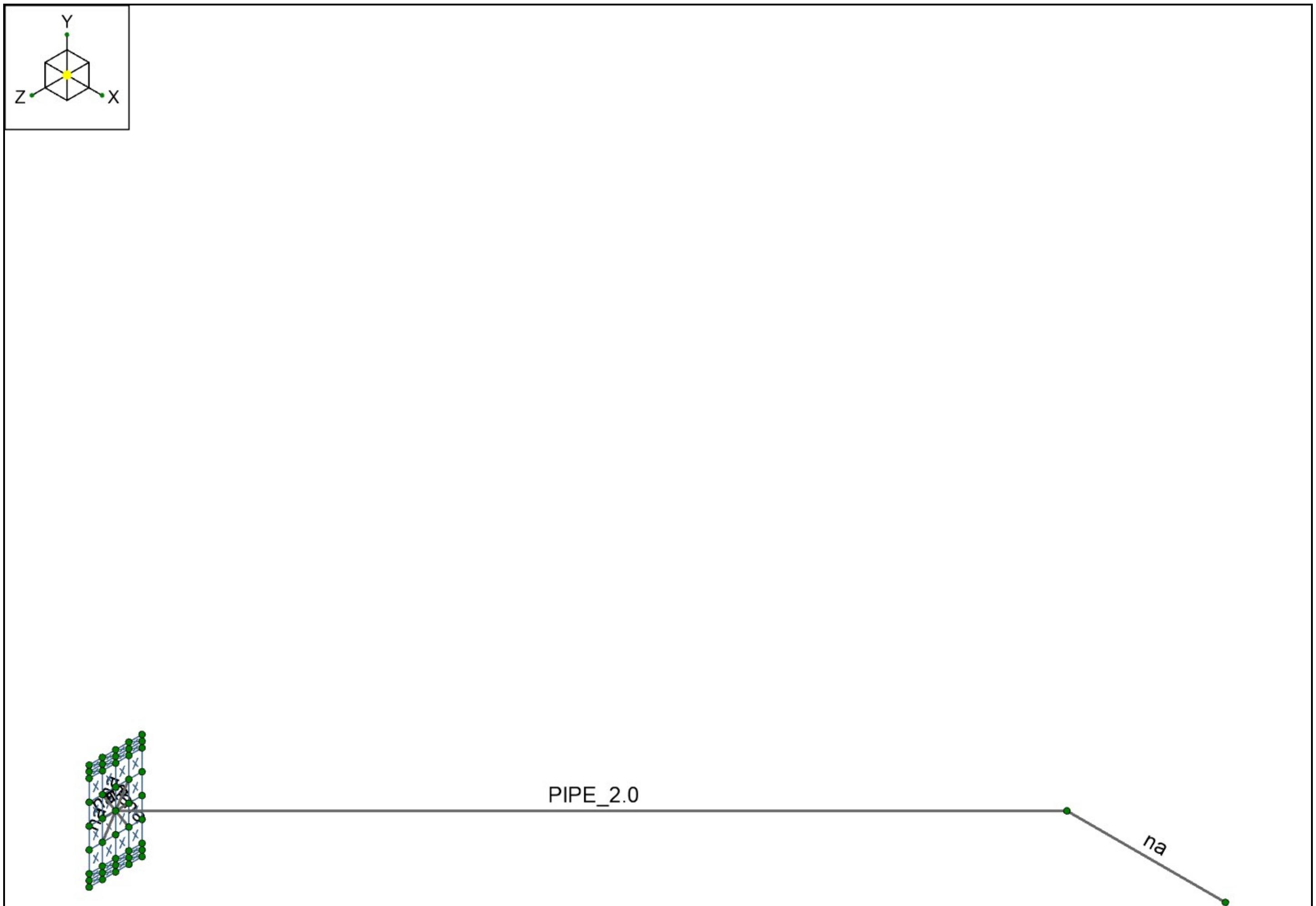
Minimum distance from centerline of section to centerline of Reinforcement:

$$X_r := \frac{A_p \cdot F_y \cdot 0.5(OD - t)}{A_{ract} \cdot F_{yr}} = 4.52 \cdot in$$

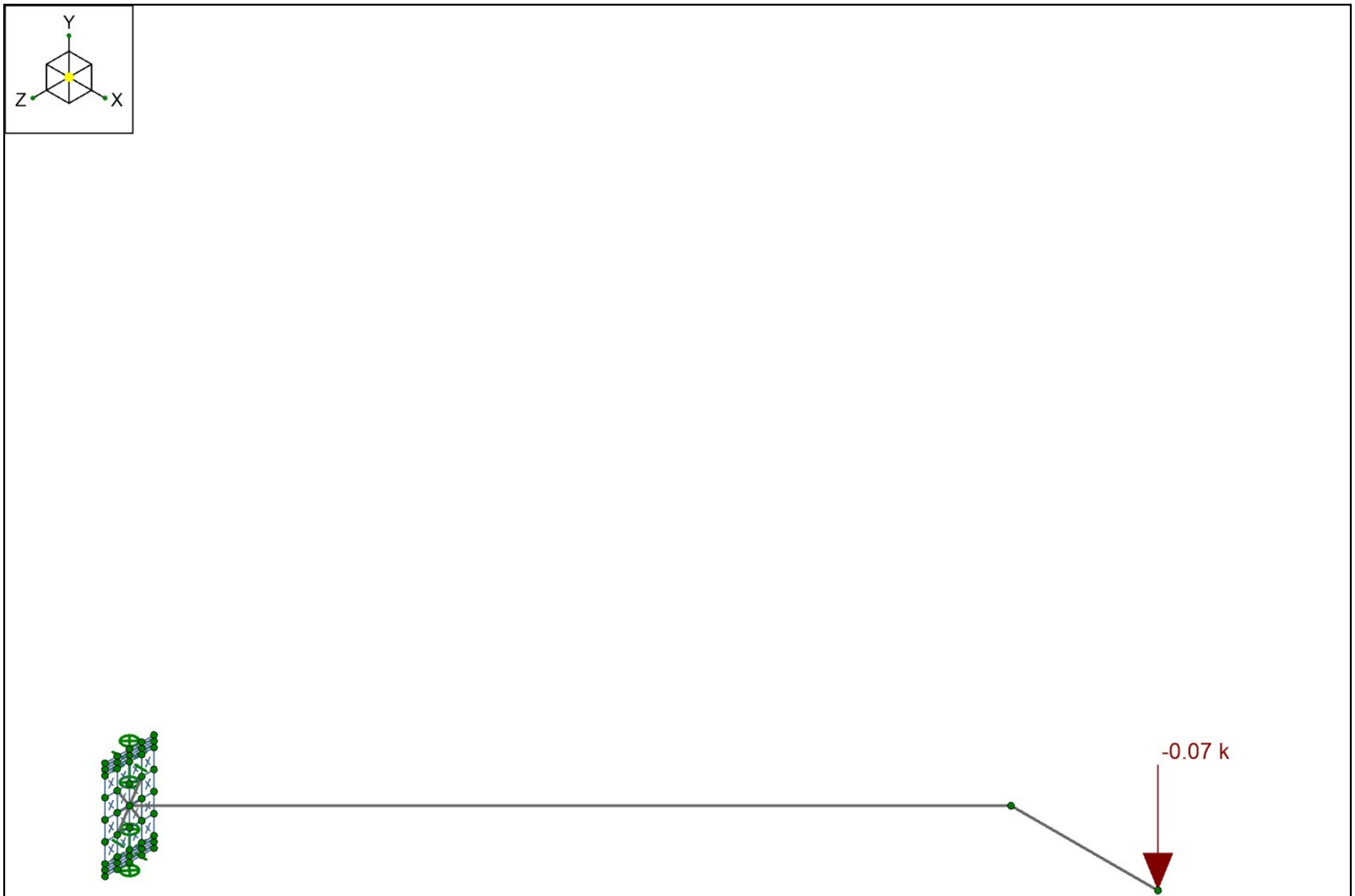
$X_{ract} := \frac{0.5in}{2} + r = 6.625 \cdot in$ $\qquad X_{ract} > X_r$ OK



NB+C ES	Raycap	SK-1
IAS		Dec 15, 2022
100111	Rendered	Light Arm.r3d

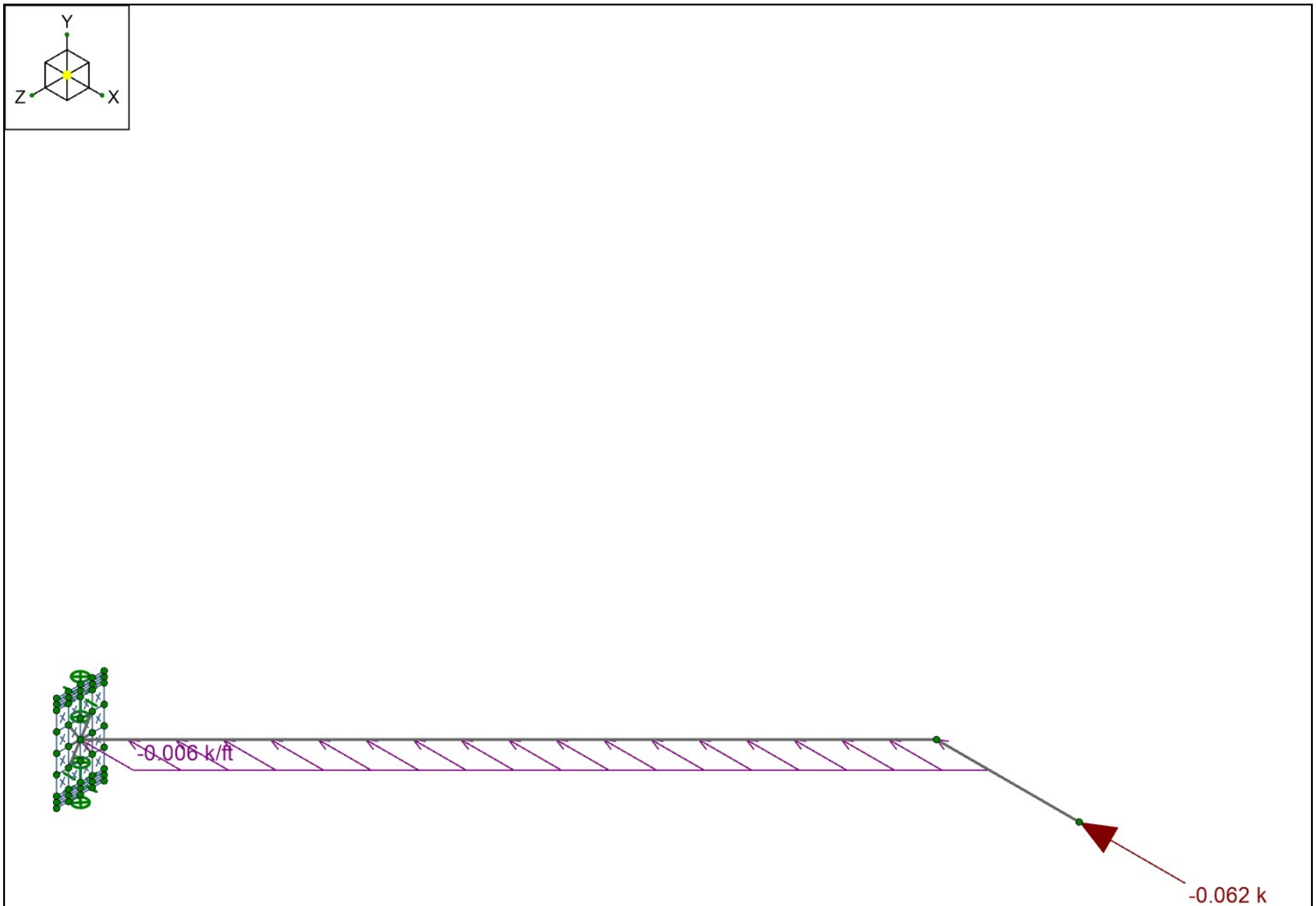


NB+C ES	Raycap	SK-2
IAS		Dec 15, 2022
100111	Shapes	Light Arm.r3d



Loads: BLC 1, DEAD

NB+C ES	Raycap	SK-1
IAS		Dec 15, 2022
100111	Dead	Light Arm.r3d

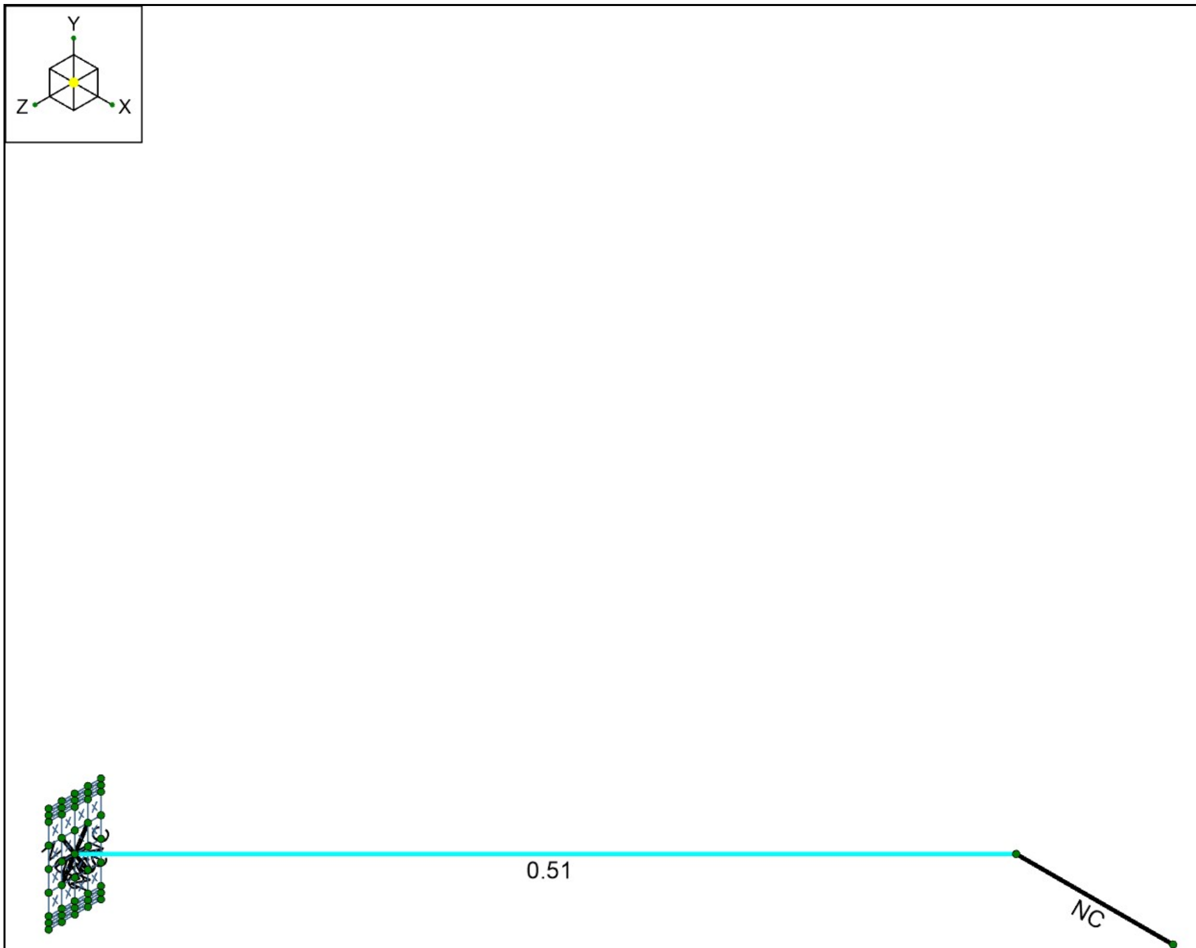


Loads: BLC 2, WIND X

NB+C ES	Raycap	SK-2
IAS		Dec 15, 2022
100111	Wind X	Light Arm.r3d

Loads: BLC 3, WIND Z

NB+C ES	Raycap	SK-3
IAS		Dec 15, 2022
100111	Wind Z	Light Arm.r3d

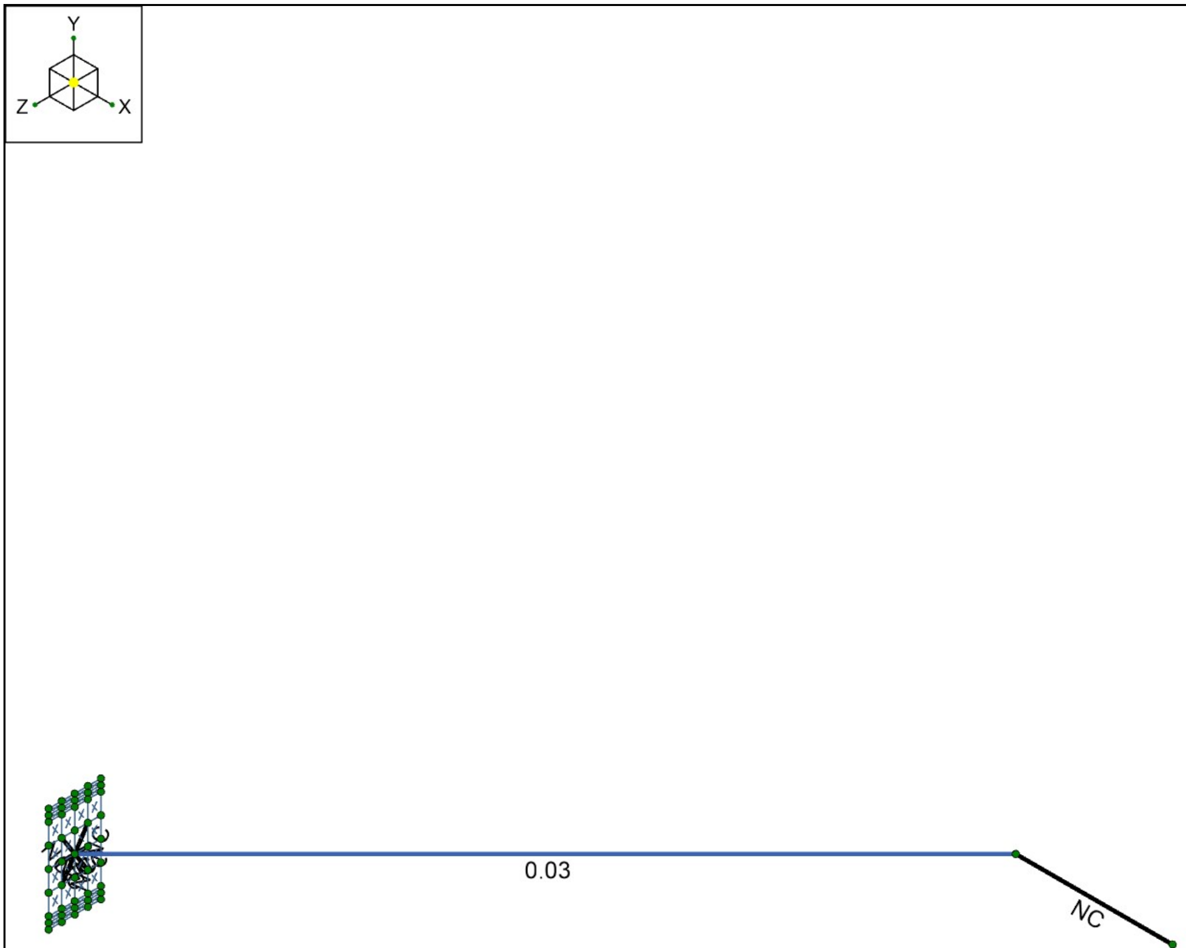


Code Check (Env)

- No Calc
- > 1.0
- .90-1.0
- .75-.90
- .50-.75
- 0.-.50

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

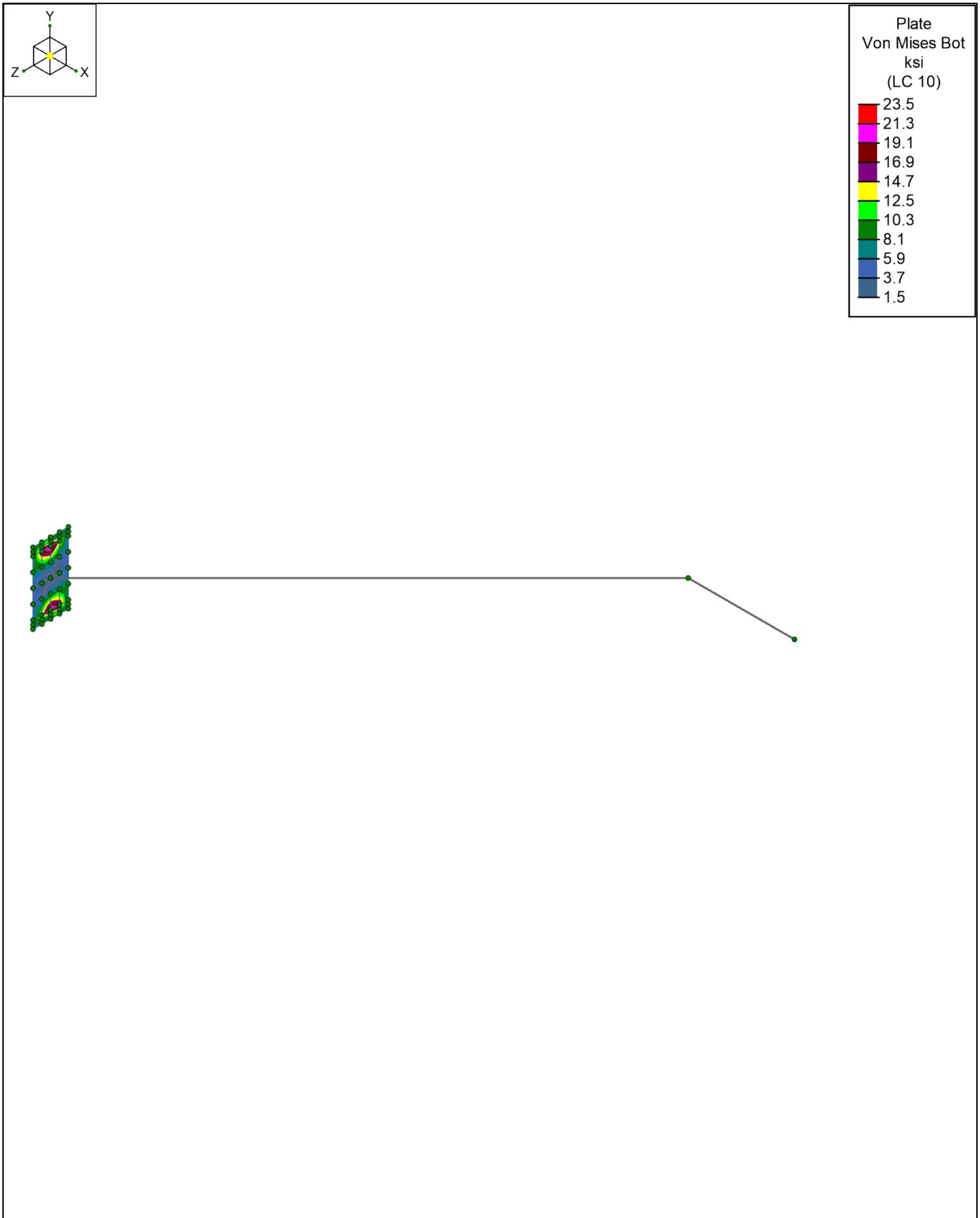
NB+C ES	Raycap	SK-6
IAS		Dec 15, 2022
100111	Bending	Light Arm.r3d



Shear Check (Env)
No Calc
> 1.0
.90-1.0
.75-.90
.50-.75
0.-.50

Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

NB+C ES	Raycap	SK-7
IAS		Dec 15, 2022
100111	Shear	Light Arm.r3d



NB+C ES	Raycap	SK-8
IAS		Dec 15, 2022
100111	Plate Stress	Light Arm.r3d

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	Y Rot [k-ft/rad]
1	N11	Reaction	Reaction	Reaction	Reaction
2	N14	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	FRP	2800	450	0.35	0.44	0.12	16.67	1.5	50	1.2
9	ABS	297	77.8	0.2	0.07	0.064	9.5	1	9.5	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Light Arm	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
2	Channel	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25

Member Primary Data

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N1	N2	Light Arm	Beam	Pipe	A53 Gr.B	Typical
2	M4	N1	N27	RIGID	None	None	RIGID	Typical
3	M5	N1	N30	RIGID	None	None	RIGID	Typical
4	M6	N1	N34	RIGID	None	None	RIGID	Typical
5	M7	N1	N37	RIGID	None	None	RIGID	Typical
6	M8	N28	N1	RIGID	None	None	RIGID	Typical
7	M9	N1	N31	RIGID	None	None	RIGID	Typical
8	M8A	N47	N2	RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	Physical	Deflection Ratio Options	Seismic DR
1	M1	Yes	N/A	None
2	M4	Yes	** NA **	None
3	M5	Yes	** NA **	None
4	M6	Yes	** NA **	None
5	M7	Yes	** NA **	None
6	M8	Yes	** NA **	None
7	M9	Yes	** NA **	None
8	M8A	Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	M1	Light Arm	80.498	Lbyy	N/A	N/A	Lateral

Plate Primary Data

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
1	P9	N9	N17	N19	N18	gen_Steel	0.5
2	P10	N17	N13	N20	N19	gen_Steel	0.5
3	P11	N18	N19	N21	N3	gen_Steel	0.5
4	P12	N19	N20	N11	N21	gen_Steel	0.5
5	P12A	N3	N21	N23	N22	gen_Steel	0.5
6	P13	N21	N11	N24	N23	gen_Steel	0.5
7	P14	N22	N23	N25	N6	gen_Steel	0.5
8	P15	N23	N24	N12	N25	gen_Steel	0.5
9	P15A	N13	N26	N27	N20	gen_Steel	0.5
10	P16	N26	N8	N28	N27	gen_Steel	0.5
11	P17	N20	N27	N29	N11	gen_Steel	0.5
12	P18	N27	N28	N1	N29	gen_Steel	0.5
13	P18A	N11	N29	N30	N24	gen_Steel	0.5
14	P19	N29	N1	N31	N30	gen_Steel	0.5
15	P20	N24	N30	N32	N12	gen_Steel	0.5
16	P21	N30	N31	N5	N32	gen_Steel	0.5
17	P21A	N8	N33	N34	N28	gen_Steel	0.5
18	P22	N33	N16	N35	N34	gen_Steel	0.5
19	P23	N28	N34	N36	N1	gen_Steel	0.5
20	P24	N34	N35	N14	N36	gen_Steel	0.5
21	P24A	N1	N36	N37	N31	gen_Steel	0.5
22	P25	N36	N14	N38	N37	gen_Steel	0.5
23	P26	N31	N37	N39	N5	gen_Steel	0.5
24	P27	N37	N38	N15	N39	gen_Steel	0.5
25	P27A	N16	N40	N41	N35	gen_Steel	0.5
26	P28	N40	N10	N42	N41	gen_Steel	0.5
27	P29	N35	N41	N43	N14	gen_Steel	0.5
28	P30	N41	N42	N4	N43	gen_Steel	0.5
29	P30A	N14	N43	N44	N38	gen_Steel	0.5
30	P31	N43	N4	N45	N44	gen_Steel	0.5
31	P32	N38	N44	N46	N15	gen_Steel	0.5
32	P33	N44	N45	N7	N46	gen_Steel	0.5

Node Loads and Enforced Displacements (BLC 1 : DEAD)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/in, k*s²*in)]
1	N47	L	Y	-0.07

Node Loads and Enforced Displacements (BLC 2 : WIND X)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/in, k*s²*in)]
1	N47	L	X	-0.062

Node Loads and Enforced Displacements (BLC 3 : WIND Z)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/in, k*s²*in)]
1	N47	L	Z	-0.062

Member Distributed Loads (BLC 2 : WIND X)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/in]	End Magnitude [k/ft, F, ksf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 3 : WIND Z)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/in]	End Magnitude [k/ft, F, ksf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	Z	-0.006	-0.006	0	%100

Load Combinations

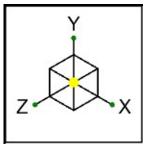
	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Deflection 1	Yes	Y	1	1						
2	Deflection 2	Yes	Y	LL	1						
3	Deflection 3	Yes	Y	1	1	LL	1				
4	IBC 16-8	Yes	Y	1	1						
5	IBC 16-9	Yes	Y	1	1	LL	1				
6	1.2D + 1.0Wo (0º)	Yes	Y	1	1.2	2	1	3			
7	1.2D + 1.0Wo (30º)	Yes	Y	1	1.2	2	0.866	3	0.5		
8	1.2D + 1.0Wo (45º)	Yes	Y	1	1.2	2	0.707	3	0.707		
9	1.2D + 1.0Wo (60º)	Yes	Y	1	1.2	2	0.5	3	0.866		
10	1.2D + 1.0Wo (90º)	Yes	Y	1	1.2	2		3	1		
11	1.2D + 1.0Wo (120º)	Yes	Y	1	1.2	2	-0.5	3	0.866		
12	1.2D + 1.0Wo (135º)	Yes	Y	1	1.2	2	-0.707	3	0.707		
13	1.2D + 1.0Wo (150º)	Yes	Y	1	1.2	2	-0.866	3	0.5		
14	1.2D + 1.0Wo (180º)	Yes	Y	1	1.2	2	-1	3			
15	1.2D + 1.0Wo (210º)	Yes	Y	1	1.2	2	-0.866	3	-0.5		
16	1.2D + 1.0Wo (225º)	Yes	Y	1	1.2	2	-0.707	3	-0.707		
17	1.2D + 1.0Wo (240º)	Yes	Y	1	1.2	2	-0.5	3	-0.866		
18	1.2D + 1.0Wo (270º)	Yes	Y	1	1.2	2		3	-1		
19	1.2D + 1.0Wo (330º)	Yes	Y	1	1.2	2	0.5	3	-0.866		
20	1.2D + 1.0Wo (315º)	Yes	Y	1	1.2	2	0.707	3	-0.707		
21	1.2D + 1.0Wo (330º)	Yes	Y	1	1.2	2	0.866	3	-0.5		
22	***ICE***										
23	1.2D + 1.0Di + 1.0Wi (0º)	Yes	Y	1	1.2	4	1	5	1	6	
24	1.2D + 1.0Di + 1.0Wi (30º)	Yes	Y	1	1.2	4	1	5	0.866	6	0.5
25	1.2D + 1.0Di + 1.0Wi (45º)	Yes	Y	1	1.2	4	1	5	0.707	6	0.707
26	1.2D + 1.0Di + 1.0Wi (60º)	Yes	Y	1	1.2	4	1	5	0.5	6	0.866
27	1.2D + 1.0Di + 1.0Wi (90º)	Yes	Y	1	1.2	4	1	5		6	1
28	1.2D + 1.0Di + 1.0Wi (120º)	Yes	Y	1	1.2	4	1	5	-0.5	6	0.866
29	1.2D + 1.0Di + 1.0Wi (135º)	Yes	Y	1	1.2	4	1	5	-0.707	6	0.707
30	1.2D + 1.0Di + 1.0Wi (150º)	Yes	Y	1	1.2	4	1	5	-0.866	6	0.5
31	1.2D + 1.0Di + 1.0Wi (180º)	Yes	Y	1	1.2	4	1	5	-1	6	
32	1.2D + 1.0Di + 1.0Wi (210º)	Yes	Y	1	1.2	4	1	5	-0.866	6	-0.5
33	1.2D + 1.0Di + 1.0Wi (225º)	Yes	Y	1	1.2	4	1	5	-0.707	6	-0.707
34	1.2D + 1.0Di + 1.0Wi (240º)	Yes	Y	1	1.2	4	1	5	-0.5	6	-0.866
35	1.2D + 1.0Di + 1.0Wi (270º)	Yes	Y	1	1.2	4	1	5		6	-1
36	1.2D + 1.0Di + 1.0Wi (300º)	Yes	Y	1	1.2	4	1	5	0.5	6	-0.866
37	1.2D + 1.0Di + 1.0Wi (315º)	Yes	Y	1	1.2	4	1	5	0.707	6	-0.707
38	1.2D + 1.0Di + 1.0Wi (330º)	Yes	Y	1	1.2	4	1	5	0.866	6	-0.5

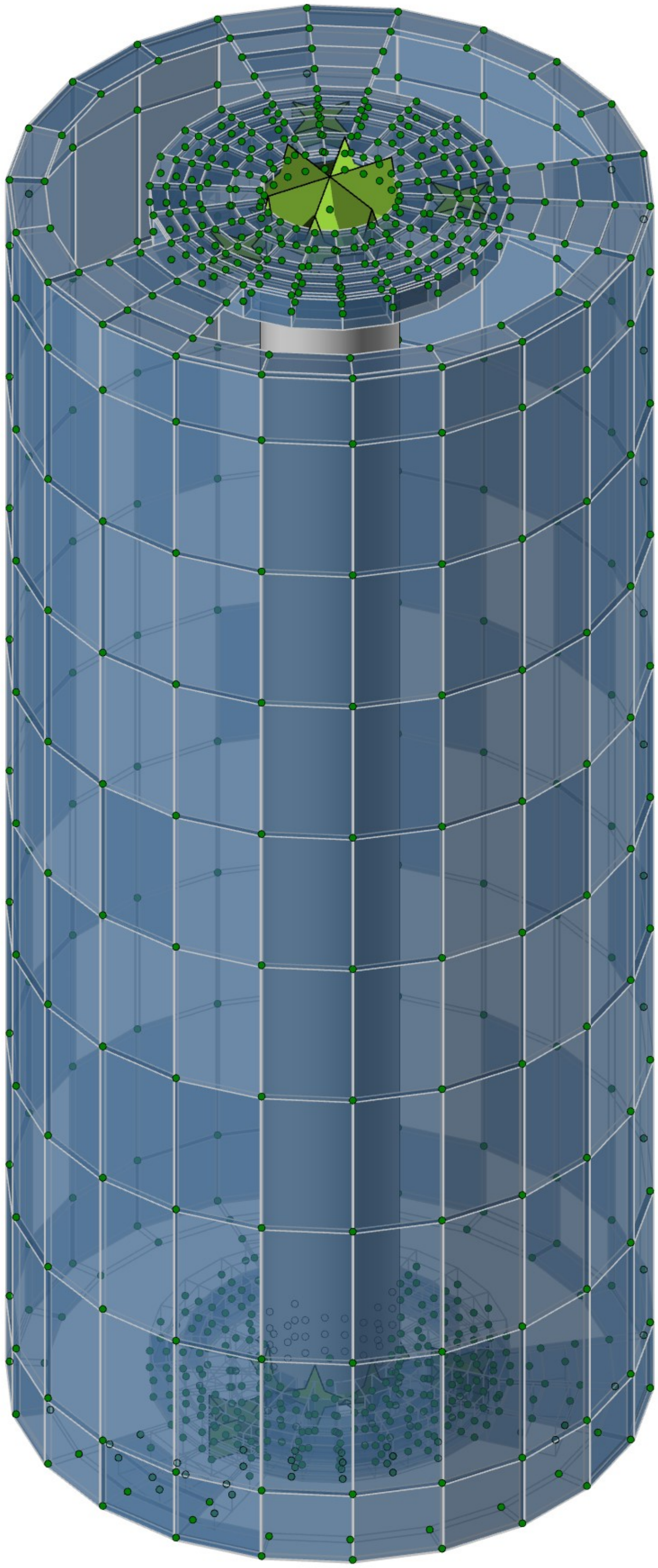
Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N11	max	0	2	0.059	6	0.528	10	0	38	0.28	18	0	38
2		min	-1.802	14	0	2	-0.528	18	0	1	-0.28	10	0	1
3	N14	max	1.7	14	0.059	6	0.426	18	0	38	0.28	18	0	38
4		min	0	2	0	2	-0.426	10	0	1	-0.28	10	0	1
5	Totals:	max	0.102	6	0.117	6	0.102	10						
6		min	-0.102	14	0	2	-0.102	18						

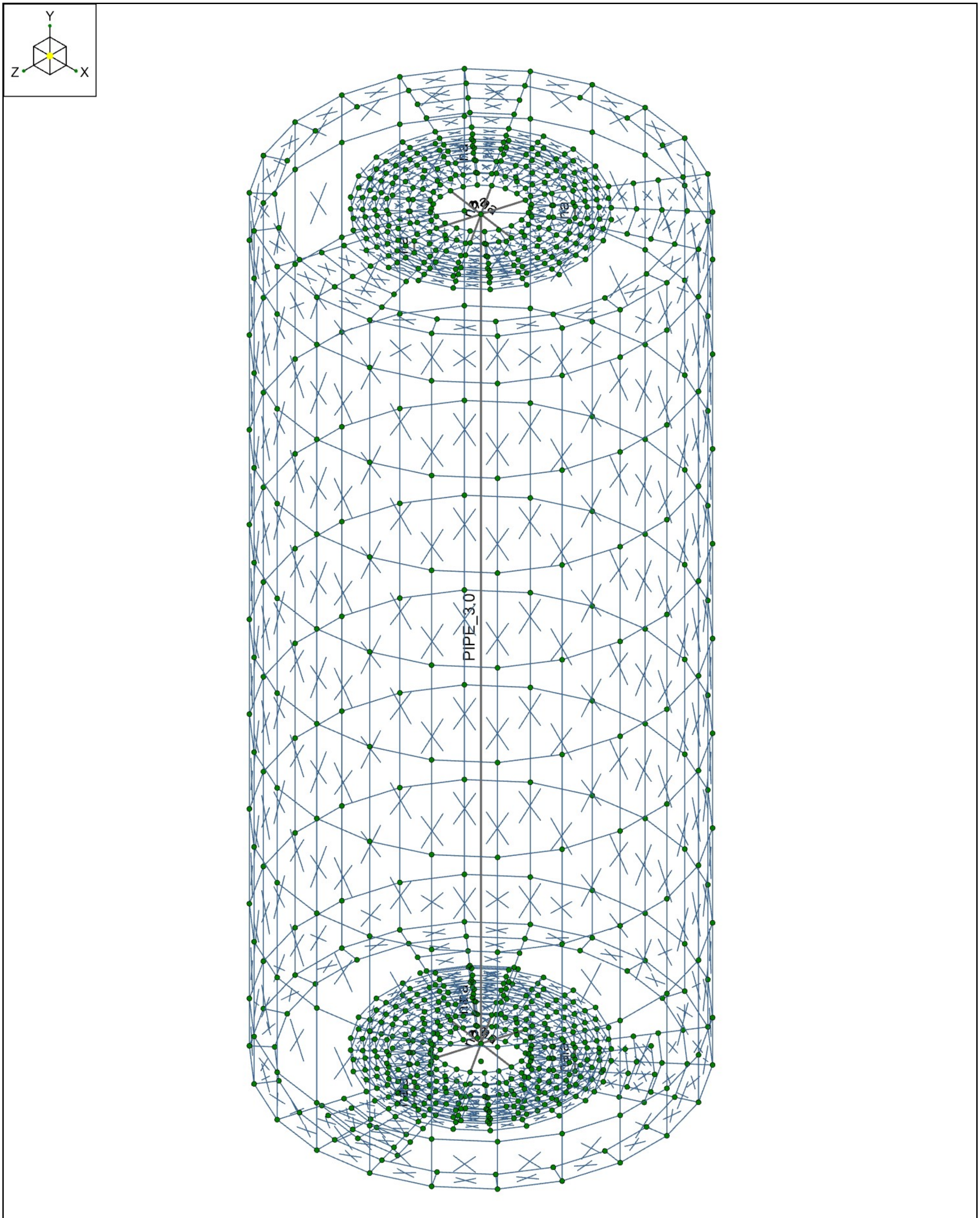
Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M1	PIPE_2.0	0.509	0	17	0.032	0	18	18.732	32.13	1.872	1.872	1	H1-1b

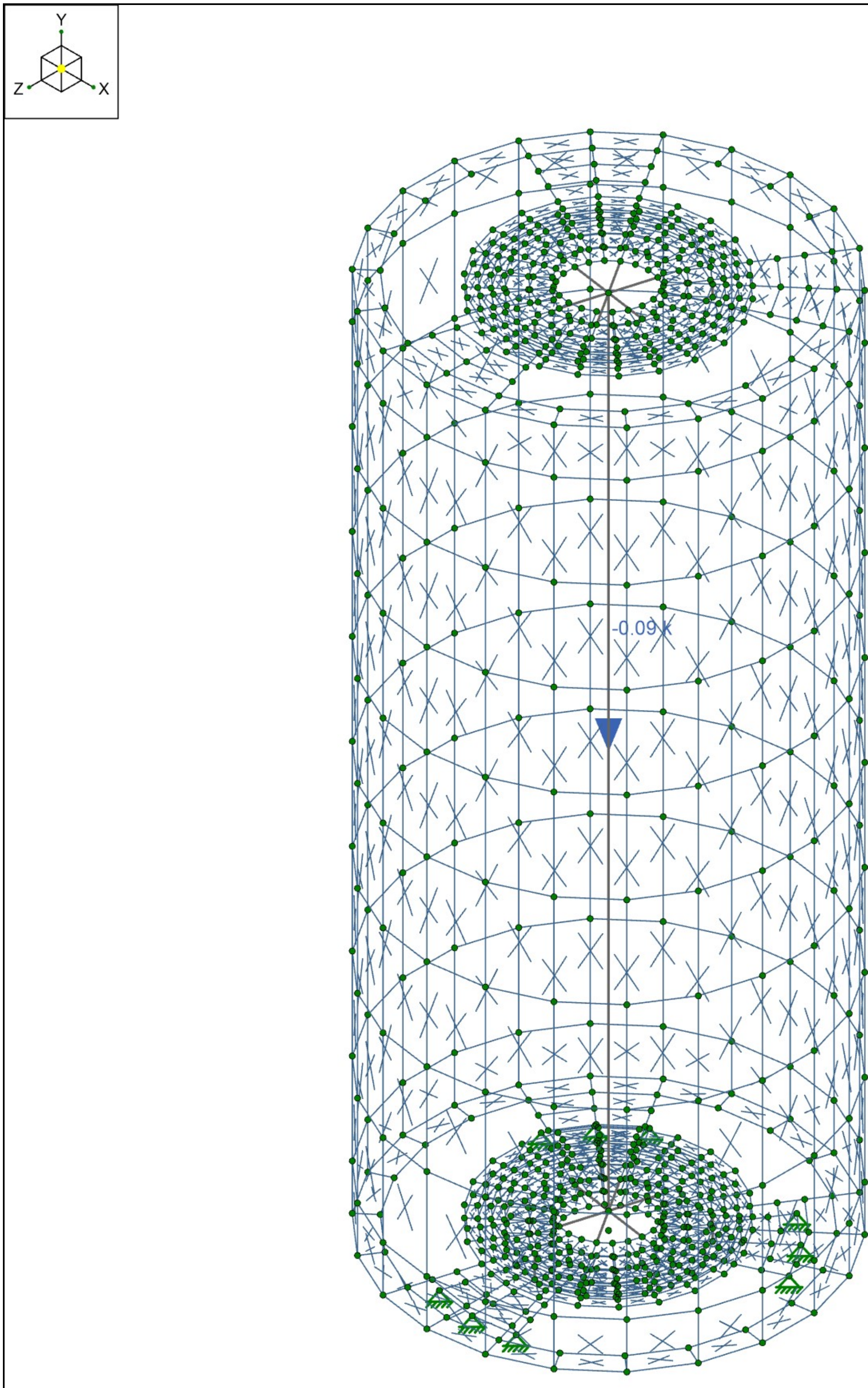




NB+C ES	Raycap	SK-1
IAS		Dec 13, 2022
100111	Rendered	Radome.r3d

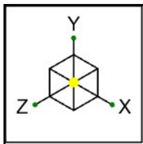


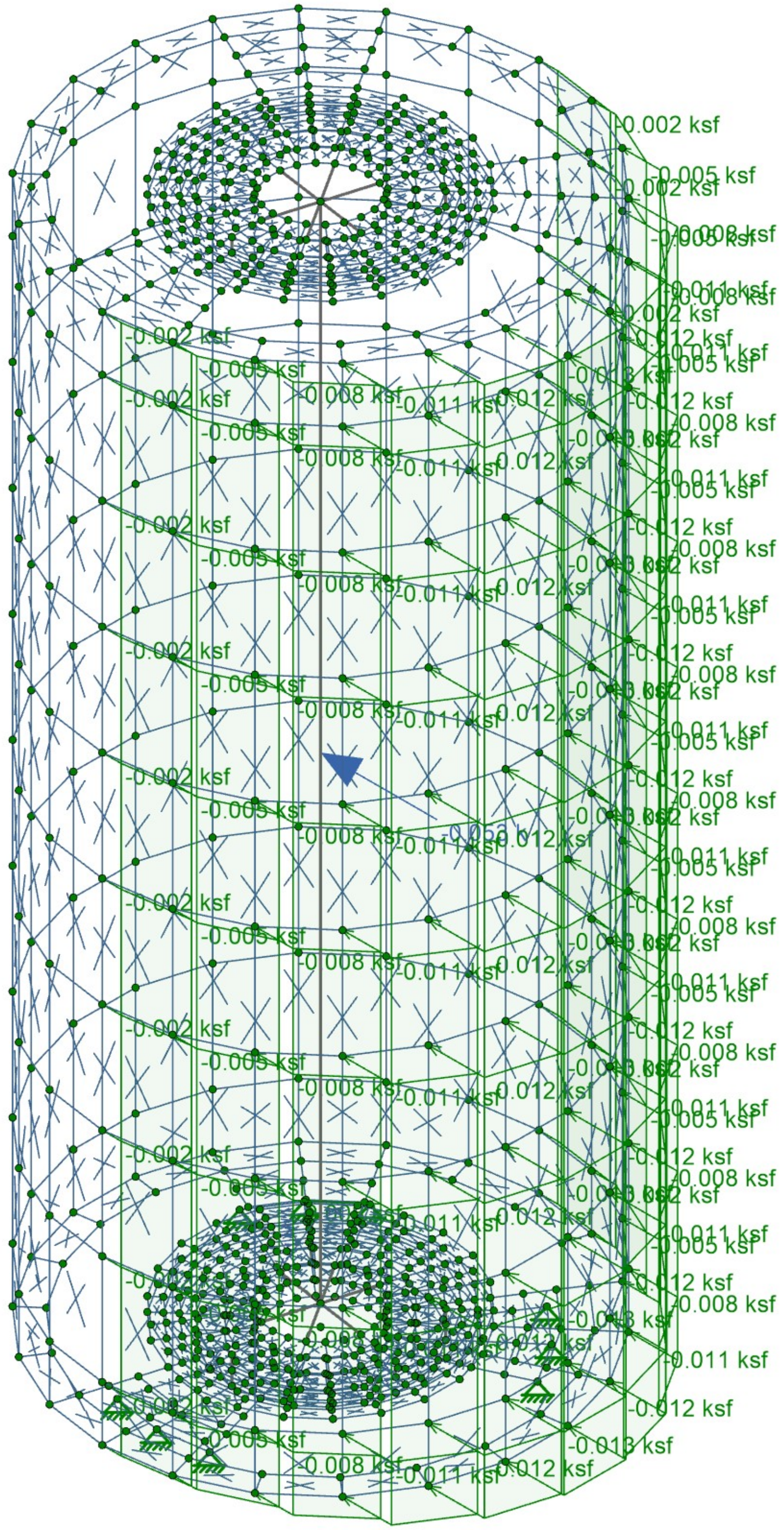
NB+C ES	Raycap	SK-2
IAS		Dec 13, 2022
100111	Shapes	Radome.r3d



Loads: BLC 1, DEAD

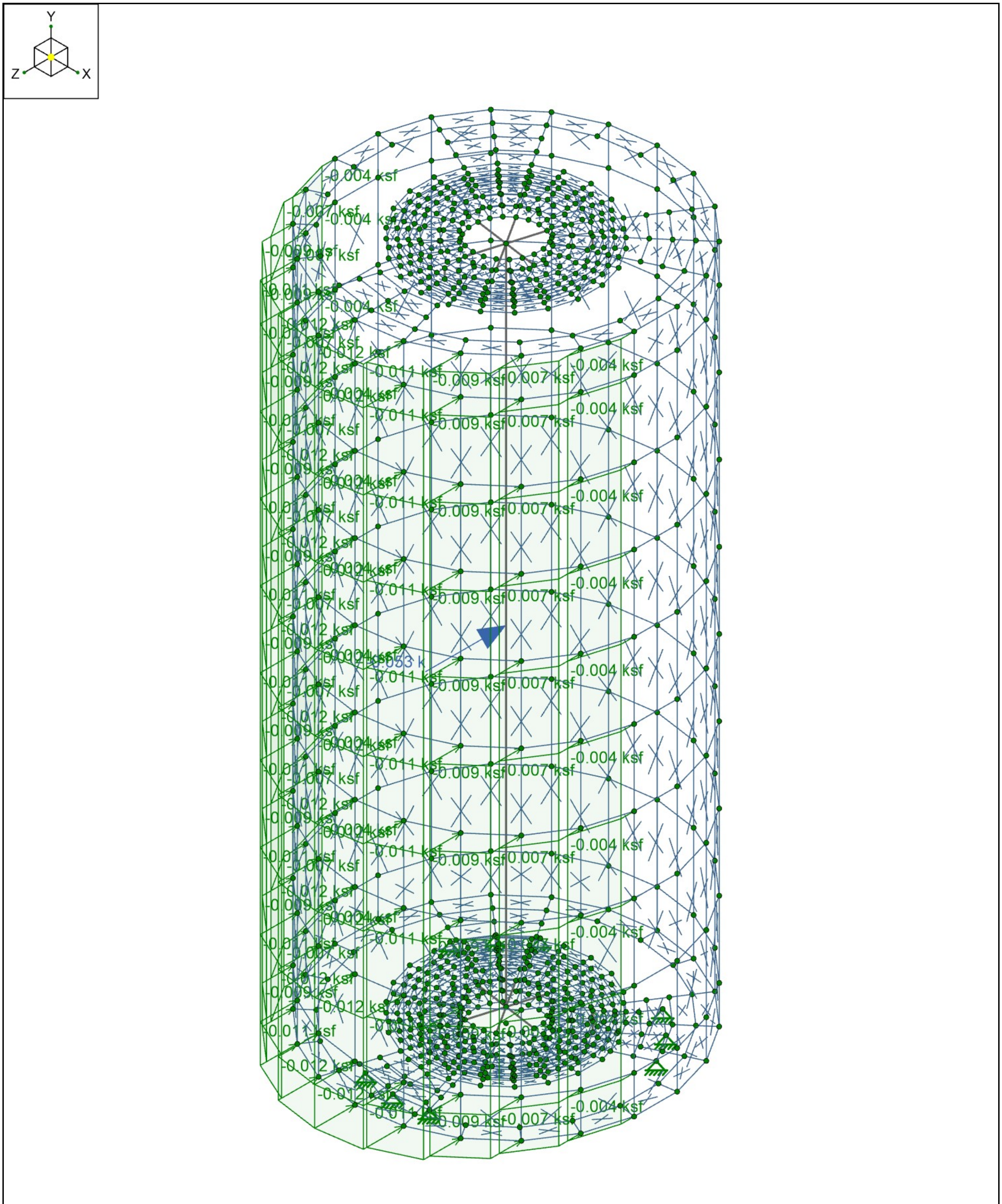
NB+C ES	Raycap	SK-1
IAS		Dec 16, 2022
100111	Dead	Radome.r3d





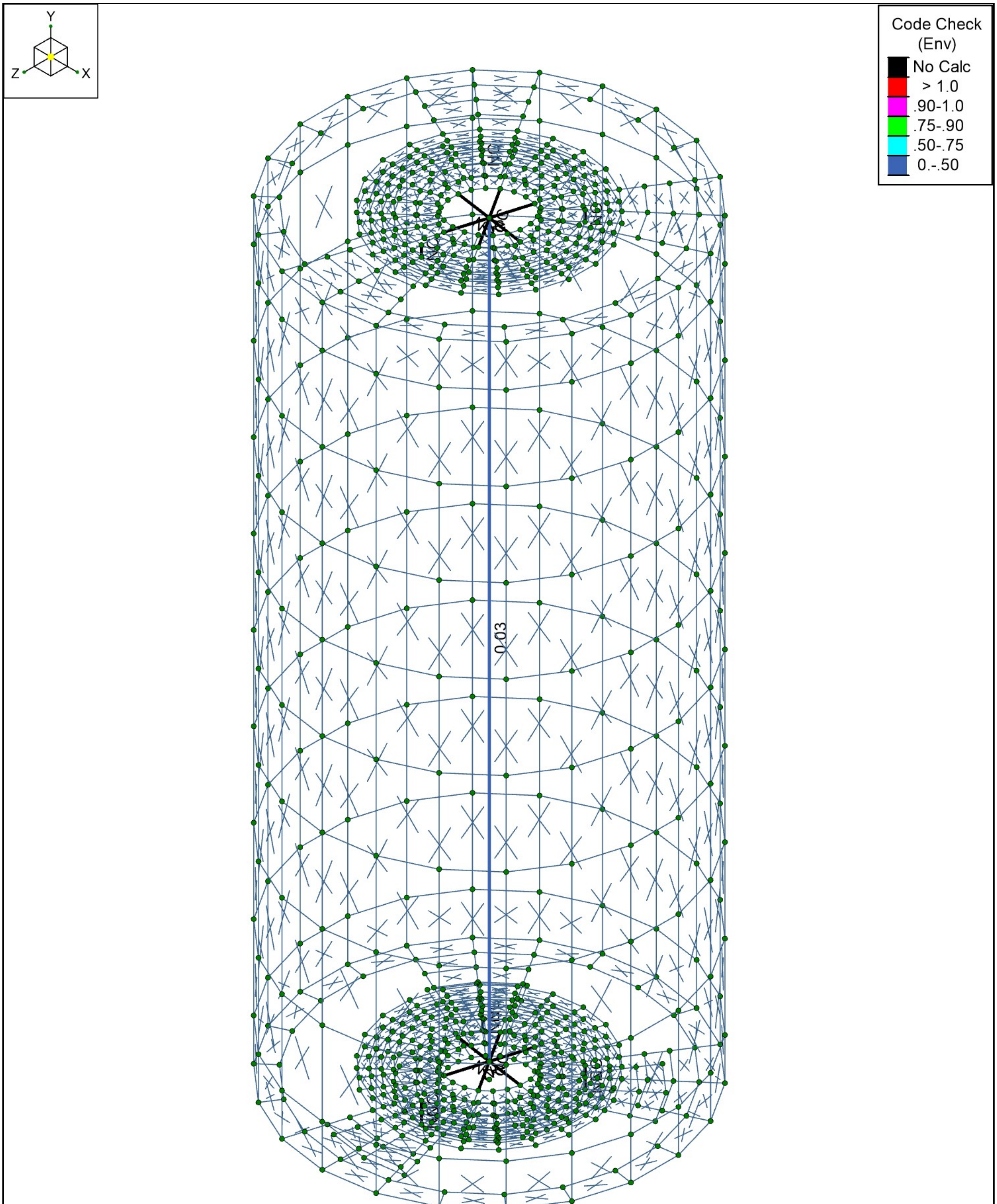
Loads: BLC 2, WIND X

NB+C ES	Raycap	SK-2
IAS		Dec 16, 2022
100111	Wind X	Radome.r3d



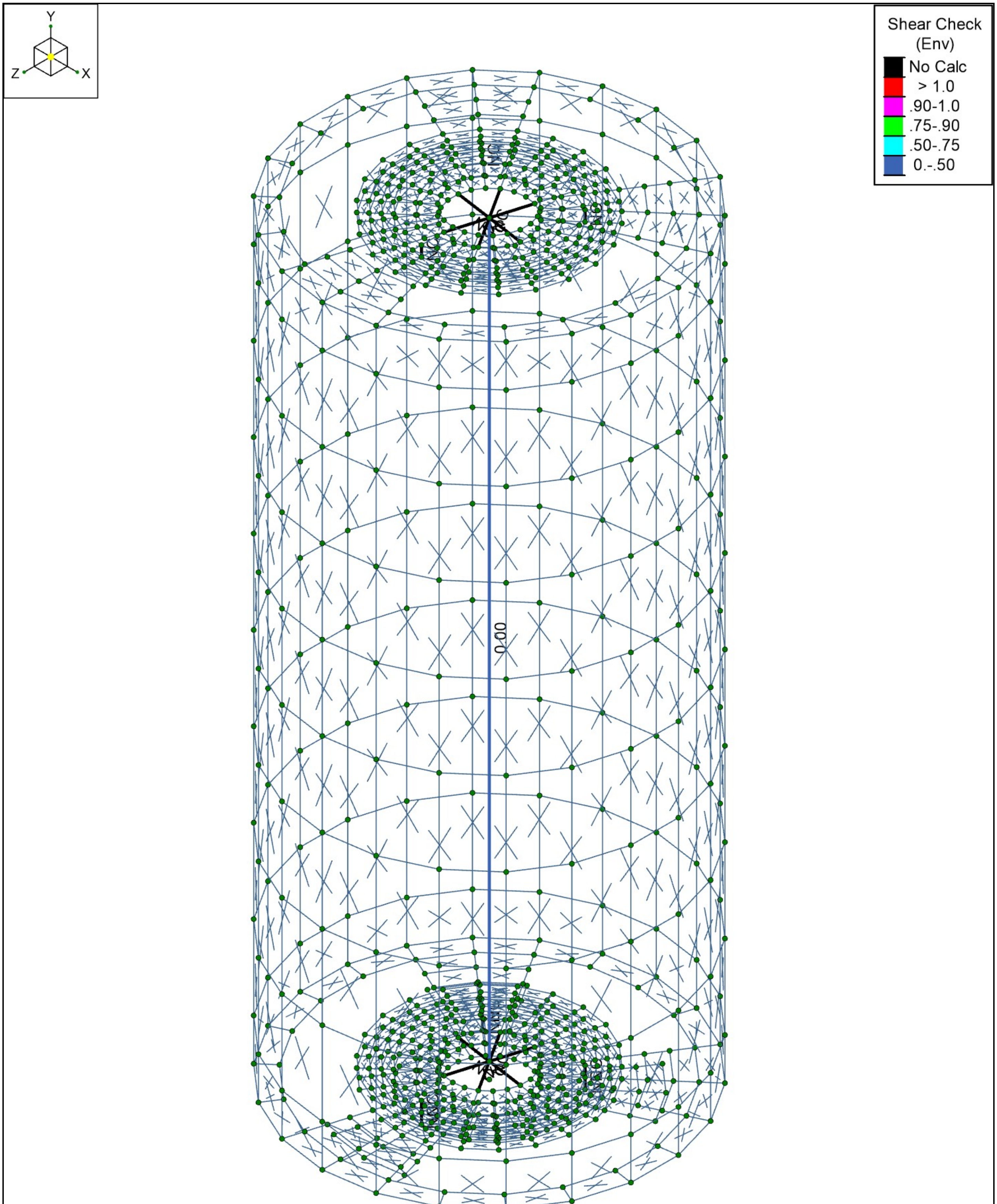
Loads: BLC 3, WIND Z

NB+C ES	Raycap	SK-3
IAS		Dec 16, 2022
100111	Wind Z	Radome.r3d



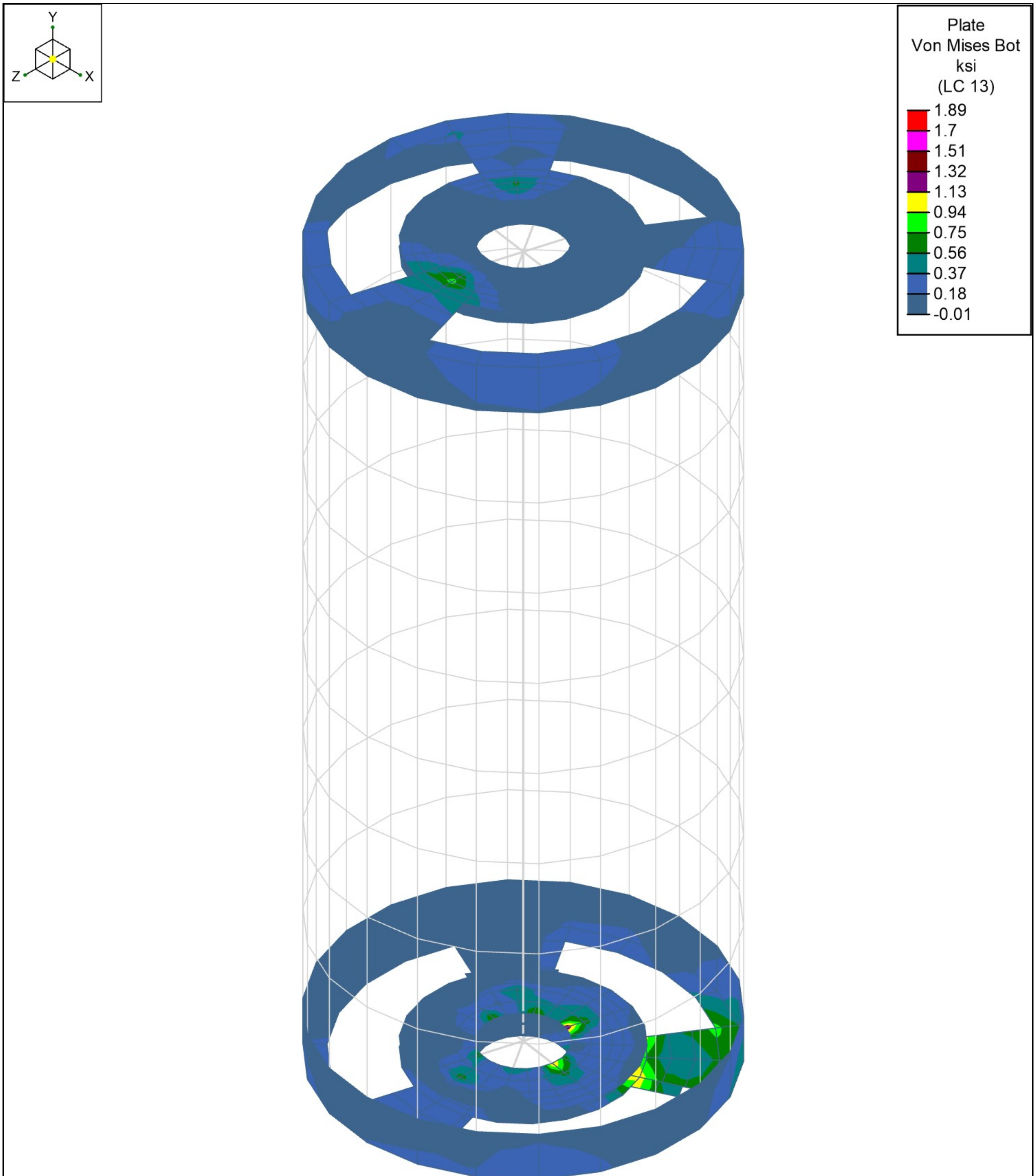
Member Code Checks Displayed (Enveloped)

NB+C ES	Raycap	SK-4
IAS		Dec 13, 2022
100111	Bending	Radome.r3d



Member Shear Checks Displayed (Enveloped)

NB+C ES	Raycap	SK-5
IAS		Dec 13, 2022
100111	Shear	Radome.r3d



NB+C ES	Raycap	SK-4
IAS		Dec 16, 2022
100111	Plate Stress	Radome.r3d

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]
1	N2	Reaction	Reaction	Reaction
2	N3	Reaction	Reaction	Reaction
3	N9	Reaction	Reaction	Reaction
4	N10	Reaction	Reaction	Reaction
5	N11	Reaction	Reaction	Reaction
6	N15	Reaction	Reaction	Reaction
7	N16	Reaction	Reaction	Reaction
8	N17	Reaction	Reaction	Reaction
9	N23	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	FRP	2800	450	0.35	0.44	0.12	16.67	1.5	50	1.2
9	ABS	297	77.8	0.2	0.07	0.064	9.5	1	9.5	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	MOUNT PIPE	PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Channel	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25

Member Primary Data

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N71	N125A	RIGID	None	None	RIGID	Typical
2	M2	N79	N128A	RIGID	None	None	RIGID	Typical
3	M3	N85	N131A	RIGID	None	None	RIGID	Typical
4	M4	N128A	N366A	RIGID	None	None	RIGID	Typical
5	M5	N125A	N363A	RIGID	None	None	RIGID	Typical
6	M6	N131A	N369A	RIGID	None	None	RIGID	Typical
7	M7	N772A	N860A	RIGID	None	None	RIGID	Typical
8	M8	N778	N866A	RIGID	None	None	RIGID	Typical
9	M9	N775	N863A	RIGID	None	None	RIGID	Typical
10	M10	N415	N404A	RIGID	None	None	RIGID	Typical
11	M11	N410	N399A	RIGID	None	None	RIGID	Typical
12	M12	N396A	N407	RIGID	None	None	RIGID	Typical
13	M13	N824	N813	RIGID	None	None	RIGID	Typical
14	M14	N819	N808	RIGID	None	None	RIGID	Typical
15	M15	N805	N816	RIGID	None	None	RIGID	Typical
16	M16	N945A	N946A	MOUNT PIPE	Beam	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	Physical	Deflection Ratio Options	Seismic DR
1	M1	Yes	** NA **	None
2	M2	Yes	** NA **	None
3	M3	Yes	** NA **	None
4	M4	Yes	** NA **	None
5	M5	Yes	** NA **	None
6	M6	Yes	** NA **	None
7	M7	Yes	** NA **	None
8	M8	Yes	** NA **	None
9	M9	Yes	** NA **	None
10	M10	Yes	** NA **	None
11	M11	Yes	** NA **	None
12	M12	Yes	** NA **	None
13	M13	Yes	** NA **	None
14	M14	Yes	** NA **	None
15	M15	Yes	** NA **	None
16	M16	Yes	N/A	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	M16	MOUNT PIPE	35	Lbyy	N/A	N/A	Lateral

Plate Primary Data

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
1	P1	N2	N3	N26	N25	gen_Steel	1
2	P8	N9	N10	N33	N32	gen_Steel	1
3	P9	N10	N11	N34	N33	gen_Steel	1
4	P14	N15	N16	N39	N38	gen_Steel	1
5	P15	N16	N17	N40	N39	gen_Steel	1
6	P22	N23	N2	N25	N46	gen_Steel	1
7	P23	N25	N26	N49	N48	gen_Steel	1
8	P30	N32	N33	N56	N55	gen_Steel	1
9	P31	N33	N34	N57	N56	gen_Steel	1
10	P36	N38	N39	N62	N61	gen_Steel	1
11	P37	N39	N40	N63	N62	gen_Steel	1
12	P44	N46	N25	N48	N69	gen_Steel	1
13	P45	N48	N49	N72	N71	gen_Steel	1
14	P52	N55	N56	N79	N78	gen_Steel	1
15	P53	N56	N57	N80	N79	gen_Steel	1
16	P58	N61	N62	N85	N84	gen_Steel	1
17	P59	N62	N63	N86	N85	gen_Steel	1
18	P66	N69	N48	N71	N92	gen_Steel	1
19	P89	N113	N114	N137	N136	gen_Steel	1
20	P90	N114	N115	N138	N137	gen_Steel	1
21	P91	N115	N116	N139	N138	gen_Steel	1
22	P92	N116	N117	N140	N139	gen_Steel	1
23	P93	N117	N118	N141	N140	gen_Steel	1
24	P94	N118	N119	N142	N141	gen_Steel	1
25	P95	N119	N120	N143	N142	gen_Steel	1
26	P96	N120	N121	N144	N143	gen_Steel	1
27	P97	N121	N122	N145	N144	gen_Steel	1
28	P98	N122	N123	N146	N145	gen_Steel	1
29	P99	N123	N124	N147	N146	gen_Steel	1

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
30	P100	N124	N125	N148	N147	gen_Steel	1
31	P101	N125	N126	N149	N148	gen_Steel	1
32	P102	N126	N127	N150	N149	gen_Steel	1
33	P103	N127	N128	N151	N150	gen_Steel	1
34	P104	N128	N129	N152	N151	gen_Steel	1
35	P105	N129	N130	N153	N152	gen_Steel	1
36	P106	N130	N131	N154	N153	gen_Steel	1
37	P107	N131	N132	N155	N154	gen_Steel	1
38	P108	N132	N133	N156	N155	gen_Steel	1
39	P109	N133	N134	N157	N156	gen_Steel	1
40	P110	N134	N113	N136	N157	gen_Steel	1
41	P111	N136	N137	N72	N71	gen_Steel	1
42	P112	N137	N138	N161	N72	gen_Steel	1
43	P113	N138	N139	N162	N161	gen_Steel	1
44	P114	N139	N140	N163	N162	gen_Steel	1
45	P115	N140	N141	N164	N163	gen_Steel	1
46	P116	N141	N142	N165	N164	gen_Steel	1
47	P117	N142	N143	N78	N165	gen_Steel	1
48	P118	N143	N144	N79	N78	gen_Steel	1
49	P119	N144	N145	N80	N79	gen_Steel	1
50	P120	N145	N146	N169	N80	gen_Steel	1
51	P121	N146	N147	N170	N169	gen_Steel	1
52	P122	N147	N148	N171	N170	gen_Steel	1
53	P123	N148	N149	N84	N171	gen_Steel	1
54	P124	N149	N150	N85	N84	gen_Steel	1
55	P125	N150	N151	N86	N85	gen_Steel	1
56	P126	N151	N152	N175	N86	gen_Steel	1
57	P127	N152	N153	N176	N175	gen_Steel	1
58	P128	N153	N154	N177	N176	gen_Steel	1
59	P129	N154	N155	N178	N177	gen_Steel	1
60	P130	N155	N156	N179	N178	gen_Steel	1
61	P131	N156	N157	N92	N179	gen_Steel	1
62	P132	N157	N136	N71	N92	gen_Steel	1
63	P107A	N156A	N157A	N179A	N178A	Stainless Steel 304	0.188
64	P108A	N157A	N158	N180A	N179A	Stainless Steel 304	0.188
65	P109A	N158	N159A	N181	N180A	Stainless Steel 304	0.188
66	P110A	N159A	N160A	N182	N181	Stainless Steel 304	0.188
67	P111A	N160A	N161A	N183	N182	Stainless Steel 304	0.188
68	P112A	N161A	N162A	N184	N183	Stainless Steel 304	0.188
69	P113A	N162A	N163A	N185	N184	Stainless Steel 304	0.188
70	P114A	N163A	N164A	N186	N185	Stainless Steel 304	0.188
71	P115A	N164A	N165A	N187	N186	Stainless Steel 304	0.188
72	P116A	N165A	N166A	N188	N187	Stainless Steel 304	0.188
73	P117A	N166A	N167A	N189	N188	Stainless Steel 304	0.188
74	P118A	N167A	N168A	N190	N189	Stainless Steel 304	0.188
75	P119A	N168A	N169A	N191	N190	Stainless Steel 304	0.188
76	P120A	N169A	N170A	N192	N191	Stainless Steel 304	0.188
77	P121A	N170A	N171A	N193	N192	Stainless Steel 304	0.188
78	P122A	N171A	N172A	N194	N193	Stainless Steel 304	0.188
79	P123A	N172A	N173A	N195	N194	Stainless Steel 304	0.188
80	P124A	N173A	N174A	N196	N195	Stainless Steel 304	0.188
81	P125A	N174A	N175A	N197	N196	Stainless Steel 304	0.188
82	P126A	N175A	N176A	N198	N197	Stainless Steel 304	0.188
83	P127A	N176A	N177A	N199	N198	Stainless Steel 304	0.188
84	P128A	N177A	N156A	N178A	N199	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
85	P129A	N178A	N179A	N126A	N125A	Stainless Steel 304	0.188
86	P130A	N179A	N180A	N202	N126A	Stainless Steel 304	0.188
87	P131A	N180A	N181	N203	N202	Stainless Steel 304	0.188
88	P132A	N181	N182	N204	N203	Stainless Steel 304	0.188
89	P133	N182	N183	N205	N204	Stainless Steel 304	0.188
90	P134	N183	N184	N206	N205	Stainless Steel 304	0.188
91	P135	N184	N185	N127A	N206	Stainless Steel 304	0.188
92	P136	N185	N186	N128A	N127A	Stainless Steel 304	0.188
93	P137	N186	N187	N129A	N128A	Stainless Steel 304	0.188
94	P138	N187	N188	N210	N129A	Stainless Steel 304	0.188
95	P139	N188	N189	N211	N210	Stainless Steel 304	0.188
96	P140	N189	N190	N212	N211	Stainless Steel 304	0.188
97	P141	N190	N191	N130A	N212	Stainless Steel 304	0.188
98	P142	N191	N192	N131A	N130A	Stainless Steel 304	0.188
99	P143	N192	N193	N132A	N131A	Stainless Steel 304	0.188
100	P144	N193	N194	N216	N132A	Stainless Steel 304	0.188
101	P145	N194	N195	N217	N216	Stainless Steel 304	0.188
102	P146	N195	N196	N218	N217	Stainless Steel 304	0.188
103	P147	N196	N197	N219	N218	Stainless Steel 304	0.188
104	P148	N197	N198	N220	N219	Stainless Steel 304	0.188
105	P149	N198	N199	N133A	N220	Stainless Steel 304	0.188
106	P150	N199	N178A	N125A	N133A	Stainless Steel 304	0.188
107	P151	N204A	N205A	N228	N227	Stainless Steel 304	0.188
108	P152	N205A	N206A	N229	N228	Stainless Steel 304	0.188
109	P153	N206A	N207	N230	N229	Stainless Steel 304	0.188
110	P154	N207	N208	N231	N230	Stainless Steel 304	0.188
111	P155	N208	N209	N232	N231	Stainless Steel 304	0.188
112	P156	N209	N210A	N233	N232	Stainless Steel 304	0.188
113	P157	N210A	N211A	N234	N233	Stainless Steel 304	0.188
114	P158	N211A	N212A	N235	N234	Stainless Steel 304	0.188
115	P159	N212A	N213	N236	N235	Stainless Steel 304	0.188
116	P160	N213	N214	N237	N236	Stainless Steel 304	0.188
117	P161	N214	N215	N238	N237	Stainless Steel 304	0.188
118	P162	N215	N216A	N239	N238	Stainless Steel 304	0.188
119	P163	N216A	N217A	N240	N239	Stainless Steel 304	0.188
120	P164	N217A	N218A	N241	N240	Stainless Steel 304	0.188
121	P165	N218A	N219A	N242	N241	Stainless Steel 304	0.188
122	P166	N219A	N220A	N243	N242	Stainless Steel 304	0.188
123	P167	N220A	N221	N244	N243	Stainless Steel 304	0.188
124	P168	N221	N222	N245	N244	Stainless Steel 304	0.188
125	P169	N222	N223	N246	N245	Stainless Steel 304	0.188
126	P170	N223	N224	N247	N246	Stainless Steel 304	0.188
127	P171	N224	N225	N248	N247	Stainless Steel 304	0.188
128	P172	N225	N204A	N227	N248	Stainless Steel 304	0.188
129	P173	N227	N228	N251	N250	Stainless Steel 304	0.188
130	P174	N228	N229	N252	N251	Stainless Steel 304	0.188
131	P175	N229	N230	N253	N252	Stainless Steel 304	0.188
132	P176	N230	N231	N254	N253	Stainless Steel 304	0.188
133	P177	N231	N232	N255	N254	Stainless Steel 304	0.188
134	P178	N232	N233	N256	N255	Stainless Steel 304	0.188
135	P179	N233	N234	N257	N256	Stainless Steel 304	0.188
136	P180	N234	N235	N258	N257	Stainless Steel 304	0.188
137	P181	N235	N236	N259	N258	Stainless Steel 304	0.188
138	P182	N236	N237	N260	N259	Stainless Steel 304	0.188
139	P183	N237	N238	N261	N260	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
140	P184	N238	N239	N262	N261	Stainless Steel 304	0.188
141	P185	N239	N240	N263	N262	Stainless Steel 304	0.188
142	P186	N240	N241	N264	N263	Stainless Steel 304	0.188
143	P187	N241	N242	N265	N264	Stainless Steel 304	0.188
144	P188	N242	N243	N266	N265	Stainless Steel 304	0.188
145	P189	N243	N244	N267	N266	Stainless Steel 304	0.188
146	P190	N244	N245	N268	N267	Stainless Steel 304	0.188
147	P191	N245	N246	N269	N268	Stainless Steel 304	0.188
148	P192	N246	N247	N270	N269	Stainless Steel 304	0.188
149	P193	N247	N248	N271	N270	Stainless Steel 304	0.188
150	P194	N248	N227	N250	N271	Stainless Steel 304	0.188
151	P195	N250	N251	N126A	N125A	Stainless Steel 304	0.188
152	P196	N251	N252	N202	N126A	Stainless Steel 304	0.188
153	P197	N252	N253	N203	N202	Stainless Steel 304	0.188
154	P198	N253	N254	N204	N203	Stainless Steel 304	0.188
155	P199	N254	N255	N205	N204	Stainless Steel 304	0.188
156	P200	N255	N256	N206	N205	Stainless Steel 304	0.188
157	P201	N256	N257	N127A	N206	Stainless Steel 304	0.188
158	P202	N257	N258	N128A	N127A	Stainless Steel 304	0.188
159	P203	N258	N259	N129A	N128A	Stainless Steel 304	0.188
160	P204	N259	N260	N210	N129A	Stainless Steel 304	0.188
161	P205	N260	N261	N211	N210	Stainless Steel 304	0.188
162	P206	N261	N262	N212	N211	Stainless Steel 304	0.188
163	P207	N262	N263	N130A	N212	Stainless Steel 304	0.188
164	P208	N263	N264	N131A	N130A	Stainless Steel 304	0.188
165	P209	N264	N265	N132A	N131A	Stainless Steel 304	0.188
166	P210	N265	N266	N216	N132A	Stainless Steel 304	0.188
167	P211	N266	N267	N217	N216	Stainless Steel 304	0.188
168	P212	N267	N268	N218	N217	Stainless Steel 304	0.188
169	P213	N268	N269	N219	N218	Stainless Steel 304	0.188
170	P214	N269	N270	N220	N219	Stainless Steel 304	0.188
171	P215	N270	N271	N133A	N220	Stainless Steel 304	0.188
172	P216	N271	N250	N125A	N133A	Stainless Steel 304	0.188
173	P217	N204A	N205A	N316	N315	Stainless Steel 304	0.188
174	P224	N211A	N212A	N323	N322	Stainless Steel 304	0.188
175	P225	N212A	N213	N324	N323	Stainless Steel 304	0.188
176	P230	N217A	N218A	N329	N328	Stainless Steel 304	0.188
177	P231	N218A	N219A	N330	N329	Stainless Steel 304	0.188
178	P238	N225	N204A	N315	N336	Stainless Steel 304	0.188
179	P239	N315	N316	N339	N338	Stainless Steel 304	0.188
180	P246	N322	N323	N346	N345	Stainless Steel 304	0.188
181	P247	N323	N324	N347	N346	Stainless Steel 304	0.188
182	P252	N328	N329	N352	N351	Stainless Steel 304	0.188
183	P253	N329	N330	N353	N352	Stainless Steel 304	0.188
184	P260	N336	N315	N338	N359	Stainless Steel 304	0.188
185	P261	N338	N339	N362	N361	Stainless Steel 304	0.188
186	P268	N345	N346	N369	N368	Stainless Steel 304	0.188
187	P269	N346	N347	N370	N369	Stainless Steel 304	0.188
188	P274	N351	N352	N375	N374	Stainless Steel 304	0.188
189	P275	N352	N353	N376	N375	Stainless Steel 304	0.188
190	P282	N359	N338	N361	N382	Stainless Steel 304	0.188
191	P283	N361	N362	N385	N384	Stainless Steel 304	0.188
192	P284	N362	N363	N386	N385	Stainless Steel 304	0.188
193	P285	N363	N364	N387	N386	Stainless Steel 304	0.188
194	P286	N364	N365	N388	N387	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
195	P287	N365	N366	N389	N388	Stainless Steel 304	0.188
196	P288	N366	N367	N390	N389	Stainless Steel 304	0.188
197	P289	N367	N368	N391	N390	Stainless Steel 304	0.188
198	P290	N368	N369	N392	N391	Stainless Steel 304	0.188
199	P291	N369	N370	N393	N392	Stainless Steel 304	0.188
200	P292	N370	N371	N394	N393	Stainless Steel 304	0.188
201	P293	N371	N372	N395	N394	Stainless Steel 304	0.188
202	P294	N372	N373	N396	N395	Stainless Steel 304	0.188
203	P295	N373	N374	N397	N396	Stainless Steel 304	0.188
204	P296	N374	N375	N398	N397	Stainless Steel 304	0.188
205	P297	N375	N376	N399	N398	Stainless Steel 304	0.188
206	P298	N376	N377	N400	N399	Stainless Steel 304	0.188
207	P299	N377	N378	N401	N400	Stainless Steel 304	0.188
208	P300	N378	N379	N402	N401	Stainless Steel 304	0.188
209	P301	N379	N380	N403	N402	Stainless Steel 304	0.188
210	P302	N380	N381	N404	N403	Stainless Steel 304	0.188
211	P303	N381	N382	N405	N404	Stainless Steel 304	0.188
212	P304	N382	N361	N384	N405	Stainless Steel 304	0.188
213	P279	N394A	N395A	N417	N416	gen_Steel	1
214	P280	N395A	N396A	N418	N417	gen_Steel	1
215	P281	N396A	N397A	N419	N418	gen_Steel	1
216	P282A	N397A	N398A	N420	N419	gen_Steel	1
217	P283A	N398A	N399A	N421	N420	gen_Steel	1
218	P284A	N399A	N400A	N422	N421	gen_Steel	1
219	P285A	N400A	N401A	N423	N422	gen_Steel	1
220	P286A	N401A	N402A	N424	N423	gen_Steel	1
221	P287A	N402A	N403A	N425	N424	gen_Steel	1
222	P288A	N403A	N404A	N426	N425	gen_Steel	1
223	P289A	N404A	N405A	N427	N426	gen_Steel	1
224	P290A	N405A	N406	N428	N427	gen_Steel	1
225	P291A	N406	N407	N429	N428	gen_Steel	1
226	P292A	N407	N408	N430	N429	gen_Steel	1
227	P293A	N408	N409	N431	N430	gen_Steel	1
228	P294A	N409	N410	N432	N431	gen_Steel	1
229	P295A	N410	N411	N433	N432	gen_Steel	1
230	P296A	N411	N412	N434	N433	gen_Steel	1
231	P297A	N412	N413	N435	N434	gen_Steel	1
232	P298A	N413	N414	N436	N435	gen_Steel	1
233	P299A	N414	N415	N437	N436	gen_Steel	1
234	P300A	N415	N394A	N416	N437	gen_Steel	1
235	P301A	N416	N417	N364A	N363A	gen_Steel	1
236	P302A	N417	N418	N438	N364A	gen_Steel	1
237	P303A	N418	N419	N439	N438	gen_Steel	1
238	P304A	N419	N420	N440	N439	gen_Steel	1
239	P305	N420	N421	N441	N440	gen_Steel	1
240	P306	N421	N422	N442	N441	gen_Steel	1
241	P307	N422	N423	N365A	N442	gen_Steel	1
242	P308	N423	N424	N366A	N365A	gen_Steel	1
243	P309	N424	N425	N367A	N366A	gen_Steel	1
244	P310	N425	N426	N443	N367A	gen_Steel	1
245	P311	N426	N427	N444	N443	gen_Steel	1
246	P312	N427	N428	N445	N444	gen_Steel	1
247	P313	N428	N429	N368A	N445	gen_Steel	1
248	P314	N429	N430	N369A	N368A	gen_Steel	1
249	P315	N430	N431	N370A	N369A	gen_Steel	1

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
250	P316	N431	N432	N446	N370A	gen_Steel	1
251	P317	N432	N433	N447	N446	gen_Steel	1
252	P318	N433	N434	N448	N447	gen_Steel	1
253	P319	N434	N435	N449	N448	gen_Steel	1
254	P320	N435	N436	N450	N449	gen_Steel	1
255	P321	N436	N437	N371A	N450	gen_Steel	1
256	P322	N437	N416	N363A	N371A	gen_Steel	1
257	P323	N451	N452	N474	N473	gen_Steel	1
258	P324	N452	N453	N475	N474	gen_Steel	1
259	P325	N453	N454	N476	N475	gen_Steel	1
260	P326	N454	N455	N477	N476	gen_Steel	1
261	P327	N455	N456	N478	N477	gen_Steel	1
262	P328	N456	N457	N479	N478	gen_Steel	1
263	P329	N457	N458	N480	N479	gen_Steel	1
264	P330	N458	N459	N481	N480	gen_Steel	1
265	P331	N459	N460	N482	N481	gen_Steel	1
266	P332	N460	N461	N483	N482	gen_Steel	1
267	P333	N461	N462	N484	N483	gen_Steel	1
268	P334	N462	N463	N485	N484	gen_Steel	1
269	P335	N463	N464	N486	N485	gen_Steel	1
270	P336	N464	N465	N487	N486	gen_Steel	1
271	P337	N465	N466	N488	N487	gen_Steel	1
272	P338	N466	N467	N489	N488	gen_Steel	1
273	P339	N467	N468	N490	N489	gen_Steel	1
274	P340	N468	N469	N491	N490	gen_Steel	1
275	P341	N469	N470	N492	N491	gen_Steel	1
276	P342	N470	N471	N493	N492	gen_Steel	1
277	P343	N471	N472	N494	N493	gen_Steel	1
278	P344	N472	N451	N473	N494	gen_Steel	1
279	P345	N473	N474	N496	N495	gen_Steel	1
280	P346	N474	N475	N497	N496	gen_Steel	1
281	P347	N475	N476	N498	N497	gen_Steel	1
282	P348	N476	N477	N499	N498	gen_Steel	1
283	P349	N477	N478	N500	N499	gen_Steel	1
284	P350	N478	N479	N501	N500	gen_Steel	1
285	P351	N479	N480	N502	N501	gen_Steel	1
286	P352	N480	N481	N503	N502	gen_Steel	1
287	P353	N481	N482	N504	N503	gen_Steel	1
288	P354	N482	N483	N505	N504	gen_Steel	1
289	P355	N483	N484	N506	N505	gen_Steel	1
290	P356	N484	N485	N507	N506	gen_Steel	1
291	P357	N485	N486	N508	N507	gen_Steel	1
292	P358	N486	N487	N509	N508	gen_Steel	1
293	P359	N487	N488	N510	N509	gen_Steel	1
294	P360	N488	N489	N511	N510	gen_Steel	1
295	P361	N489	N490	N512	N511	gen_Steel	1
296	P362	N490	N491	N513	N512	gen_Steel	1
297	P363	N491	N492	N514	N513	gen_Steel	1
298	P364	N492	N493	N515	N514	gen_Steel	1
299	P365	N493	N494	N516	N515	gen_Steel	1
300	P366	N494	N473	N495	N516	gen_Steel	1
301	P367	N495	N496	N364A	N363A	gen_Steel	1
302	P368	N496	N497	N438	N364A	gen_Steel	1
303	P369	N497	N498	N439	N438	gen_Steel	1
304	P370	N498	N499	N440	N439	gen_Steel	1

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
305	P371	N499	N500	N441	N440	gen_Steel	1
306	P372	N500	N501	N442	N441	gen_Steel	1
307	P373	N501	N502	N365A	N442	gen_Steel	1
308	P374	N502	N503	N366A	N365A	gen_Steel	1
309	P375	N503	N504	N367A	N366A	gen_Steel	1
310	P376	N504	N505	N443	N367A	gen_Steel	1
311	P377	N505	N506	N444	N443	gen_Steel	1
312	P378	N506	N507	N445	N444	gen_Steel	1
313	P379	N507	N508	N368A	N445	gen_Steel	1
314	P380	N508	N509	N369A	N368A	gen_Steel	1
315	P381	N509	N510	N370A	N369A	gen_Steel	1
316	P382	N510	N511	N446	N370A	gen_Steel	1
317	P383	N511	N512	N447	N446	gen_Steel	1
318	P384	N512	N513	N448	N447	gen_Steel	1
319	P385	N513	N514	N449	N448	gen_Steel	1
320	P386	N514	N515	N450	N449	gen_Steel	1
321	P387	N515	N516	N371A	N450	gen_Steel	1
322	P388	N516	N495	N363A	N371A	gen_Steel	1
323	P389	N509A	N510A	N385	N384	Stainless Steel 304	0.188
324	P390	N510A	N511A	N386	N385	Stainless Steel 304	0.188
325	P391	N511A	N512A	N387	N386	Stainless Steel 304	0.188
326	P392	N512A	N513A	N388	N387	Stainless Steel 304	0.188
327	P393	N513A	N514A	N389	N388	Stainless Steel 304	0.188
328	P394	N514A	N515A	N390	N389	Stainless Steel 304	0.188
329	P395	N515A	N516A	N391	N390	Stainless Steel 304	0.188
330	P396	N516A	N517	N392	N391	Stainless Steel 304	0.188
331	P397	N517	N518	N393	N392	Stainless Steel 304	0.188
332	P398	N518	N519	N394	N393	Stainless Steel 304	0.188
333	P399	N519	N520	N395	N394	Stainless Steel 304	0.188
334	P400	N520	N521	N396	N395	Stainless Steel 304	0.188
335	P401	N521	N522	N397	N396	Stainless Steel 304	0.188
336	P402	N522	N523	N398	N397	Stainless Steel 304	0.188
337	P403	N523	N524	N399	N398	Stainless Steel 304	0.188
338	P404	N524	N525	N400	N399	Stainless Steel 304	0.188
339	P405	N525	N526	N401	N400	Stainless Steel 304	0.188
340	P406	N526	N527	N402	N401	Stainless Steel 304	0.188
341	P407	N527	N528	N403	N402	Stainless Steel 304	0.188
342	P408	N528	N529	N404	N403	Stainless Steel 304	0.188
343	P409	N529	N530	N405	N404	Stainless Steel 304	0.188
344	P410	N530	N509A	N384	N405	Stainless Steel 304	0.188
345	P411	N553	N554	N510A	N509A	Invisiwave	0.181
346	P412	N554	N555	N511A	N510A	Invisiwave	0.181
347	P413	N555	N556	N512A	N511A	Invisiwave	0.181
348	P414	N556	N557	N513A	N512A	Invisiwave	0.181
349	P415	N557	N558	N514A	N513A	Invisiwave	0.181
350	P416	N558	N559	N515A	N514A	Invisiwave	0.181
351	P417	N559	N560	N516A	N515A	Invisiwave	0.181
352	P418	N560	N561	N517	N516A	Invisiwave	0.181
353	P419	N561	N562	N518	N517	Invisiwave	0.181
354	P420	N562	N563	N519	N518	Invisiwave	0.181
355	P421	N563	N564	N520	N519	Invisiwave	0.181
356	P422	N564	N565	N521	N520	Invisiwave	0.181
357	P423	N565	N566	N522	N521	Invisiwave	0.181
358	P424	N566	N567	N523	N522	Invisiwave	0.181
359	P425	N567	N568	N524	N523	Invisiwave	0.181

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
360	P426	N568	N569	N525	N524	Invisiwave	0.181
361	P427	N569	N570	N526	N525	Invisiwave	0.181
362	P428	N570	N571	N527	N526	Invisiwave	0.181
363	P429	N571	N572	N528	N527	Invisiwave	0.181
364	P430	N572	N573	N529	N528	Invisiwave	0.181
365	P431	N573	N574	N530	N529	Invisiwave	0.181
366	P432	N574	N553	N509A	N530	Invisiwave	0.181
367	P433	N576	N577	N554	N553	Invisiwave	0.181
368	P434	N577	N578	N555	N554	Invisiwave	0.181
369	P435	N578	N579	N556	N555	Invisiwave	0.181
370	P436	N579	N580	N557	N556	Invisiwave	0.181
371	P437	N580	N581	N558	N557	Invisiwave	0.181
372	P438	N581	N582	N559	N558	Invisiwave	0.181
373	P439	N582	N583	N560	N559	Invisiwave	0.181
374	P440	N583	N584	N561	N560	Invisiwave	0.181
375	P441	N584	N585	N562	N561	Invisiwave	0.181
376	P442	N585	N586	N563	N562	Invisiwave	0.181
377	P443	N586	N587	N564	N563	Invisiwave	0.181
378	P444	N587	N588	N565	N564	Invisiwave	0.181
379	P445	N588	N589	N566	N565	Invisiwave	0.181
380	P446	N589	N590	N567	N566	Invisiwave	0.181
381	P447	N590	N591	N568	N567	Invisiwave	0.181
382	P448	N591	N592	N569	N568	Invisiwave	0.181
383	P449	N592	N593	N570	N569	Invisiwave	0.181
384	P450	N593	N594	N571	N570	Invisiwave	0.181
385	P451	N594	N595	N572	N571	Invisiwave	0.181
386	P452	N595	N596	N573	N572	Invisiwave	0.181
387	P453	N596	N597	N574	N573	Invisiwave	0.181
388	P454	N597	N576	N553	N574	Invisiwave	0.181
389	P455	N599	N600	N577	N576	Invisiwave	0.181
390	P456	N600	N601	N578	N577	Invisiwave	0.181
391	P457	N601	N602	N579	N578	Invisiwave	0.181
392	P458	N602	N603	N580	N579	Invisiwave	0.181
393	P459	N603	N604	N581	N580	Invisiwave	0.181
394	P460	N604	N605	N582	N581	Invisiwave	0.181
395	P461	N605	N606	N583	N582	Invisiwave	0.181
396	P462	N606	N607	N584	N583	Invisiwave	0.181
397	P463	N607	N608	N585	N584	Invisiwave	0.181
398	P464	N608	N609	N586	N585	Invisiwave	0.181
399	P465	N609	N610	N587	N586	Invisiwave	0.181
400	P466	N610	N611	N588	N587	Invisiwave	0.181
401	P467	N611	N612	N589	N588	Invisiwave	0.181
402	P468	N612	N613	N590	N589	Invisiwave	0.181
403	P469	N613	N614	N591	N590	Invisiwave	0.181
404	P470	N614	N615	N592	N591	Invisiwave	0.181
405	P471	N615	N616	N593	N592	Invisiwave	0.181
406	P472	N616	N617	N594	N593	Invisiwave	0.181
407	P473	N617	N618	N595	N594	Invisiwave	0.181
408	P474	N618	N619	N596	N595	Invisiwave	0.181
409	P475	N619	N620	N597	N596	Invisiwave	0.181
410	P476	N620	N599	N576	N597	Invisiwave	0.181
411	P477	N622	N623	N600	N599	Invisiwave	0.181
412	P478	N623	N624	N601	N600	Invisiwave	0.181
413	P479	N624	N625	N602	N601	Invisiwave	0.181
414	P480	N625	N626	N603	N602	Invisiwave	0.181

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
415	P481	N626	N627	N604	N603	Invisiwave	0.181
416	P482	N627	N628	N605	N604	Invisiwave	0.181
417	P483	N628	N629	N606	N605	Invisiwave	0.181
418	P484	N629	N630	N607	N606	Invisiwave	0.181
419	P485	N630	N631	N608	N607	Invisiwave	0.181
420	P486	N631	N632	N609	N608	Invisiwave	0.181
421	P487	N632	N633	N610	N609	Invisiwave	0.181
422	P488	N633	N634	N611	N610	Invisiwave	0.181
423	P489	N634	N635	N612	N611	Invisiwave	0.181
424	P490	N635	N636	N613	N612	Invisiwave	0.181
425	P491	N636	N637	N614	N613	Invisiwave	0.181
426	P492	N637	N638	N615	N614	Invisiwave	0.181
427	P493	N638	N639	N616	N615	Invisiwave	0.181
428	P494	N639	N640	N617	N616	Invisiwave	0.181
429	P495	N640	N641	N618	N617	Invisiwave	0.181
430	P496	N641	N642	N619	N618	Invisiwave	0.181
431	P497	N642	N643	N620	N619	Invisiwave	0.181
432	P498	N643	N622	N599	N620	Invisiwave	0.181
433	P499	N645	N646	N623	N622	Invisiwave	0.181
434	P500	N646	N647	N624	N623	Invisiwave	0.181
435	P501	N647	N648	N625	N624	Invisiwave	0.181
436	P502	N648	N649	N626	N625	Invisiwave	0.181
437	P503	N649	N650	N627	N626	Invisiwave	0.181
438	P504	N650	N651	N628	N627	Invisiwave	0.181
439	P505	N651	N652	N629	N628	Invisiwave	0.181
440	P506	N652	N653	N630	N629	Invisiwave	0.181
441	P507	N653	N654	N631	N630	Invisiwave	0.181
442	P508	N654	N655	N632	N631	Invisiwave	0.181
443	P509	N655	N656	N633	N632	Invisiwave	0.181
444	P510	N656	N657	N634	N633	Invisiwave	0.181
445	P511	N657	N658	N635	N634	Invisiwave	0.181
446	P512	N658	N659	N636	N635	Invisiwave	0.181
447	P513	N659	N660	N637	N636	Invisiwave	0.181
448	P514	N660	N661	N638	N637	Invisiwave	0.181
449	P515	N661	N662	N639	N638	Invisiwave	0.181
450	P516	N662	N663	N640	N639	Invisiwave	0.181
451	P517	N663	N664	N641	N640	Invisiwave	0.181
452	P518	N664	N665	N642	N641	Invisiwave	0.181
453	P519	N665	N666	N643	N642	Invisiwave	0.181
454	P520	N666	N645	N622	N643	Invisiwave	0.181
455	P521	N668	N669	N646	N645	Invisiwave	0.181
456	P522	N669	N670	N647	N646	Invisiwave	0.181
457	P523	N670	N671	N648	N647	Invisiwave	0.181
458	P524	N671	N672	N649	N648	Invisiwave	0.181
459	P525	N672	N673	N650	N649	Invisiwave	0.181
460	P526	N673	N674	N651	N650	Invisiwave	0.181
461	P527	N674	N675	N652	N651	Invisiwave	0.181
462	P528	N675	N676	N653	N652	Invisiwave	0.181
463	P529	N676	N677	N654	N653	Invisiwave	0.181
464	P530	N677	N678	N655	N654	Invisiwave	0.181
465	P531	N678	N679	N656	N655	Invisiwave	0.181
466	P532	N679	N680	N657	N656	Invisiwave	0.181
467	P533	N680	N681	N658	N657	Invisiwave	0.181
468	P534	N681	N682	N659	N658	Invisiwave	0.181
469	P535	N682	N683	N660	N659	Invisiwave	0.181

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
470	P536	N683	N684	N661	N660	Invisiwave	0.181
471	P537	N684	N685	N662	N661	Invisiwave	0.181
472	P538	N685	N686	N663	N662	Invisiwave	0.181
473	P539	N686	N687	N664	N663	Invisiwave	0.181
474	P540	N687	N688	N665	N664	Invisiwave	0.181
475	P541	N688	N689	N666	N665	Invisiwave	0.181
476	P542	N689	N668	N645	N666	Invisiwave	0.181
477	P543	N691	N692	N669	N668	Invisiwave	0.181
478	P544	N692	N693	N670	N669	Invisiwave	0.181
479	P545	N693	N694	N671	N670	Invisiwave	0.181
480	P546	N694	N695	N672	N671	Invisiwave	0.181
481	P547	N695	N696	N673	N672	Invisiwave	0.181
482	P548	N696	N697	N674	N673	Invisiwave	0.181
483	P549	N697	N698	N675	N674	Invisiwave	0.181
484	P550	N698	N699	N676	N675	Invisiwave	0.181
485	P551	N699	N700	N677	N676	Invisiwave	0.181
486	P552	N700	N701	N678	N677	Invisiwave	0.181
487	P553	N701	N702	N679	N678	Invisiwave	0.181
488	P554	N702	N703	N680	N679	Invisiwave	0.181
489	P555	N703	N704	N681	N680	Invisiwave	0.181
490	P556	N704	N705	N682	N681	Invisiwave	0.181
491	P557	N705	N706	N683	N682	Invisiwave	0.181
492	P558	N706	N707	N684	N683	Invisiwave	0.181
493	P559	N707	N708	N685	N684	Invisiwave	0.181
494	P560	N708	N709	N686	N685	Invisiwave	0.181
495	P561	N709	N710	N687	N686	Invisiwave	0.181
496	P562	N710	N711	N688	N687	Invisiwave	0.181
497	P563	N711	N712	N689	N688	Invisiwave	0.181
498	P564	N712	N691	N668	N689	Invisiwave	0.181
499	P565	N714	N715	N692	N691	Invisiwave	0.181
500	P566	N715	N716	N693	N692	Invisiwave	0.181
501	P567	N716	N717	N694	N693	Invisiwave	0.181
502	P568	N717	N718	N695	N694	Invisiwave	0.181
503	P569	N718	N719	N696	N695	Invisiwave	0.181
504	P570	N719	N720	N697	N696	Invisiwave	0.181
505	P571	N720	N721	N698	N697	Invisiwave	0.181
506	P572	N721	N722	N699	N698	Invisiwave	0.181
507	P573	N722	N723	N700	N699	Invisiwave	0.181
508	P574	N723	N724	N701	N700	Invisiwave	0.181
509	P575	N724	N725	N702	N701	Invisiwave	0.181
510	P576	N725	N726	N703	N702	Invisiwave	0.181
511	P577	N726	N727	N704	N703	Invisiwave	0.181
512	P578	N727	N728	N705	N704	Invisiwave	0.181
513	P579	N728	N729	N706	N705	Invisiwave	0.181
514	P580	N729	N730	N707	N706	Invisiwave	0.181
515	P581	N730	N731	N708	N707	Invisiwave	0.181
516	P582	N731	N732	N709	N708	Invisiwave	0.181
517	P583	N732	N733	N710	N709	Invisiwave	0.181
518	P584	N733	N734	N711	N710	Invisiwave	0.181
519	P585	N734	N735	N712	N711	Invisiwave	0.181
520	P586	N735	N714	N691	N712	Invisiwave	0.181
521	P587	N751	N752	N715	N714	Stainless Steel 304	0.188
522	P588	N752	N753	N716	N715	Stainless Steel 304	0.188
523	P589	N753	N754	N717	N716	Stainless Steel 304	0.188
524	P590	N754	N755	N718	N717	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
525	P591	N755	N756	N719	N718	Stainless Steel 304	0.188
526	P592	N756	N757	N720	N719	Stainless Steel 304	0.188
527	P593	N757	N758	N721	N720	Stainless Steel 304	0.188
528	P594	N758	N759	N722	N721	Stainless Steel 304	0.188
529	P595	N759	N760	N723	N722	Stainless Steel 304	0.188
530	P596	N760	N761	N724	N723	Stainless Steel 304	0.188
531	P597	N761	N762	N725	N724	Stainless Steel 304	0.188
532	P598	N762	N763	N726	N725	Stainless Steel 304	0.188
533	P599	N763	N764	N727	N726	Stainless Steel 304	0.188
534	P600	N764	N765	N728	N727	Stainless Steel 304	0.188
535	P601	N765	N766	N729	N728	Stainless Steel 304	0.188
536	P602	N766	N767	N730	N729	Stainless Steel 304	0.188
537	P603	N767	N768	N731	N730	Stainless Steel 304	0.188
538	P604	N768	N769	N732	N731	Stainless Steel 304	0.188
539	P605	N769	N770	N733	N732	Stainless Steel 304	0.188
540	P606	N770	N771	N734	N733	Stainless Steel 304	0.188
541	P607	N771	N772	N735	N734	Stainless Steel 304	0.188
542	P608	N772	N751	N714	N735	Stainless Steel 304	0.188
543	P631	N803	N804	N826	N825	gen_Steel	1
544	P632	N804	N805	N827	N826	gen_Steel	1
545	P633	N805	N806	N828	N827	gen_Steel	1
546	P634	N806	N807	N829	N828	gen_Steel	1
547	P635	N807	N808	N830	N829	gen_Steel	1
548	P636	N808	N809	N831	N830	gen_Steel	1
549	P637	N809	N810	N832	N831	gen_Steel	1
550	P638	N810	N811	N833	N832	gen_Steel	1
551	P639	N811	N812	N834	N833	gen_Steel	1
552	P640	N812	N813	N835	N834	gen_Steel	1
553	P641	N813	N814	N836	N835	gen_Steel	1
554	P642	N814	N815	N837	N836	gen_Steel	1
555	P643	N815	N816	N838	N837	gen_Steel	1
556	P644	N816	N817	N839	N838	gen_Steel	1
557	P645	N817	N818	N840	N839	gen_Steel	1
558	P646	N818	N819	N841	N840	gen_Steel	1
559	P647	N819	N820	N842	N841	gen_Steel	1
560	P648	N820	N821	N843	N842	gen_Steel	1
561	P649	N821	N822	N844	N843	gen_Steel	1
562	P650	N822	N823	N845	N844	gen_Steel	1
563	P651	N823	N824	N846	N845	gen_Steel	1
564	P652	N824	N803	N825	N846	gen_Steel	1
565	P653	N825	N826	N773	N772A	gen_Steel	1
566	P654	N826	N827	N847	N773	gen_Steel	1
567	P655	N827	N828	N848	N847	gen_Steel	1
568	P656	N828	N829	N849	N848	gen_Steel	1
569	P657	N829	N830	N850	N849	gen_Steel	1
570	P658	N830	N831	N851	N850	gen_Steel	1
571	P659	N831	N832	N774	N851	gen_Steel	1
572	P660	N832	N833	N775	N774	gen_Steel	1
573	P661	N833	N834	N776	N775	gen_Steel	1
574	P662	N834	N835	N852	N776	gen_Steel	1
575	P663	N835	N836	N853	N852	gen_Steel	1
576	P664	N836	N837	N854	N853	gen_Steel	1
577	P665	N837	N838	N777	N854	gen_Steel	1
578	P666	N838	N839	N778	N777	gen_Steel	1
579	P667	N839	N840	N779	N778	gen_Steel	1

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
580	P668	N840	N841	N855	N779	gen_Steel	1
581	P669	N841	N842	N856	N855	gen_Steel	1
582	P670	N842	N843	N857	N856	gen_Steel	1
583	P671	N843	N844	N858	N857	gen_Steel	1
584	P672	N844	N845	N859	N858	gen_Steel	1
585	P673	N845	N846	N780	N859	gen_Steel	1
586	P674	N846	N825	N772A	N780	gen_Steel	1
587	P675	N860	N861	N883	N882	gen_Steel	1
588	P676	N861	N862	N884	N883	gen_Steel	1
589	P677	N862	N863	N885	N884	gen_Steel	1
590	P678	N863	N864	N886	N885	gen_Steel	1
591	P679	N864	N865	N887	N886	gen_Steel	1
592	P680	N865	N866	N888	N887	gen_Steel	1
593	P681	N866	N867	N889	N888	gen_Steel	1
594	P682	N867	N868	N890	N889	gen_Steel	1
595	P683	N868	N869	N891	N890	gen_Steel	1
596	P684	N869	N870	N892	N891	gen_Steel	1
597	P685	N870	N871	N893	N892	gen_Steel	1
598	P686	N871	N872	N894	N893	gen_Steel	1
599	P687	N872	N873	N895	N894	gen_Steel	1
600	P688	N873	N874	N896	N895	gen_Steel	1
601	P689	N874	N875	N897	N896	gen_Steel	1
602	P690	N875	N876	N898	N897	gen_Steel	1
603	P691	N876	N877	N899	N898	gen_Steel	1
604	P692	N877	N878	N900	N899	gen_Steel	1
605	P693	N878	N879	N901	N900	gen_Steel	1
606	P694	N879	N880	N902	N901	gen_Steel	1
607	P695	N880	N881	N903	N902	gen_Steel	1
608	P696	N881	N860	N882	N903	gen_Steel	1
609	P697	N882	N883	N905	N904	gen_Steel	1
610	P698	N883	N884	N906	N905	gen_Steel	1
611	P699	N884	N885	N907	N906	gen_Steel	1
612	P700	N885	N886	N908	N907	gen_Steel	1
613	P701	N886	N887	N909	N908	gen_Steel	1
614	P702	N887	N888	N910	N909	gen_Steel	1
615	P703	N888	N889	N911	N910	gen_Steel	1
616	P704	N889	N890	N912	N911	gen_Steel	1
617	P705	N890	N891	N913	N912	gen_Steel	1
618	P706	N891	N892	N914	N913	gen_Steel	1
619	P707	N892	N893	N915	N914	gen_Steel	1
620	P708	N893	N894	N916	N915	gen_Steel	1
621	P709	N894	N895	N917	N916	gen_Steel	1
622	P710	N895	N896	N918	N917	gen_Steel	1
623	P711	N896	N897	N919	N918	gen_Steel	1
624	P712	N897	N898	N920	N919	gen_Steel	1
625	P713	N898	N899	N921	N920	gen_Steel	1
626	P714	N899	N900	N922	N921	gen_Steel	1
627	P715	N900	N901	N923	N922	gen_Steel	1
628	P716	N901	N902	N924	N923	gen_Steel	1
629	P717	N902	N903	N925	N924	gen_Steel	1
630	P718	N903	N882	N904	N925	gen_Steel	1
631	P719	N904	N905	N773	N772A	gen_Steel	1
632	P720	N905	N906	N847	N773	gen_Steel	1
633	P721	N906	N907	N848	N847	gen_Steel	1
634	P722	N907	N908	N849	N848	gen_Steel	1

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
635	P723	N908	N909	N850	N849	gen_Steel	1
636	P724	N909	N910	N851	N850	gen_Steel	1
637	P725	N910	N911	N774	N851	gen_Steel	1
638	P726	N911	N912	N775	N774	gen_Steel	1
639	P727	N912	N913	N776	N775	gen_Steel	1
640	P728	N913	N914	N852	N776	gen_Steel	1
641	P729	N914	N915	N853	N852	gen_Steel	1
642	P730	N915	N916	N854	N853	gen_Steel	1
643	P731	N916	N917	N777	N854	gen_Steel	1
644	P732	N917	N918	N778	N777	gen_Steel	1
645	P733	N918	N919	N779	N778	gen_Steel	1
646	P734	N919	N920	N855	N779	gen_Steel	1
647	P735	N920	N921	N856	N855	gen_Steel	1
648	P736	N921	N922	N857	N856	gen_Steel	1
649	P737	N922	N923	N858	N857	gen_Steel	1
650	P738	N923	N924	N859	N858	gen_Steel	1
651	P739	N924	N925	N780	N859	gen_Steel	1
652	P740	N925	N904	N772A	N780	gen_Steel	1
653	P763	N891A	N892A	N914A	N913A	Stainless Steel 304	0.188
654	P764	N892A	N893A	N915A	N914A	Stainless Steel 304	0.188
655	P765	N893A	N894A	N916A	N915A	Stainless Steel 304	0.188
656	P766	N894A	N895A	N917A	N916A	Stainless Steel 304	0.188
657	P767	N895A	N896A	N918A	N917A	Stainless Steel 304	0.188
658	P768	N896A	N897A	N919A	N918A	Stainless Steel 304	0.188
659	P769	N897A	N898A	N920A	N919A	Stainless Steel 304	0.188
660	P770	N898A	N899A	N921A	N920A	Stainless Steel 304	0.188
661	P771	N899A	N900A	N922A	N921A	Stainless Steel 304	0.188
662	P772	N900A	N901A	N923A	N922A	Stainless Steel 304	0.188
663	P773	N901A	N902A	N924A	N923A	Stainless Steel 304	0.188
664	P774	N902A	N903A	N925A	N924A	Stainless Steel 304	0.188
665	P775	N903A	N904A	N926	N925A	Stainless Steel 304	0.188
666	P776	N904A	N905A	N927	N926	Stainless Steel 304	0.188
667	P777	N905A	N906A	N928	N927	Stainless Steel 304	0.188
668	P778	N906A	N907A	N929	N928	Stainless Steel 304	0.188
669	P779	N907A	N908A	N930	N929	Stainless Steel 304	0.188
670	P780	N908A	N909A	N931	N930	Stainless Steel 304	0.188
671	P781	N909A	N910A	N932	N931	Stainless Steel 304	0.188
672	P782	N910A	N911A	N933	N932	Stainless Steel 304	0.188
673	P783	N911A	N912A	N934	N933	Stainless Steel 304	0.188
674	P784	N912A	N891A	N913A	N934	Stainless Steel 304	0.188
675	P785	N913A	N914A	N861A	N860A	Stainless Steel 304	0.188
676	P786	N914A	N915A	N935	N861A	Stainless Steel 304	0.188
677	P787	N915A	N916A	N936	N935	Stainless Steel 304	0.188
678	P788	N916A	N917A	N937	N936	Stainless Steel 304	0.188
679	P789	N917A	N918A	N938	N937	Stainless Steel 304	0.188
680	P790	N918A	N919A	N939	N938	Stainless Steel 304	0.188
681	P791	N919A	N920A	N862A	N939	Stainless Steel 304	0.188
682	P792	N920A	N921A	N863A	N862A	Stainless Steel 304	0.188
683	P793	N921A	N922A	N864A	N863A	Stainless Steel 304	0.188
684	P794	N922A	N923A	N940	N864A	Stainless Steel 304	0.188
685	P795	N923A	N924A	N941	N940	Stainless Steel 304	0.188
686	P796	N924A	N925A	N942	N941	Stainless Steel 304	0.188
687	P797	N925A	N926	N865A	N942	Stainless Steel 304	0.188
688	P798	N926	N927	N866A	N865A	Stainless Steel 304	0.188
689	P799	N927	N928	N867A	N866A	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
690	P800	N928	N929	N943	N867A	Stainless Steel 304	0.188
691	P801	N929	N930	N944	N943	Stainless Steel 304	0.188
692	P802	N930	N931	N945	N944	Stainless Steel 304	0.188
693	P803	N931	N932	N946	N945	Stainless Steel 304	0.188
694	P804	N932	N933	N947	N946	Stainless Steel 304	0.188
695	P805	N933	N934	N868A	N947	Stainless Steel 304	0.188
696	P806	N934	N913A	N860A	N868A	Stainless Steel 304	0.188
697	P807	N948	N949	N971	N970	Stainless Steel 304	0.188
698	P808	N949	N950	N972	N971	Stainless Steel 304	0.188
699	P809	N950	N951	N973	N972	Stainless Steel 304	0.188
700	P810	N951	N952	N974	N973	Stainless Steel 304	0.188
701	P811	N952	N953	N975	N974	Stainless Steel 304	0.188
702	P812	N953	N954	N976	N975	Stainless Steel 304	0.188
703	P813	N954	N955	N977	N976	Stainless Steel 304	0.188
704	P814	N955	N956	N978	N977	Stainless Steel 304	0.188
705	P815	N956	N957	N979	N978	Stainless Steel 304	0.188
706	P816	N957	N958	N980	N979	Stainless Steel 304	0.188
707	P817	N958	N959	N981	N980	Stainless Steel 304	0.188
708	P818	N959	N960	N982	N981	Stainless Steel 304	0.188
709	P819	N960	N961	N983	N982	Stainless Steel 304	0.188
710	P820	N961	N962	N984	N983	Stainless Steel 304	0.188
711	P821	N962	N963	N985	N984	Stainless Steel 304	0.188
712	P822	N963	N964	N986	N985	Stainless Steel 304	0.188
713	P823	N964	N965	N987	N986	Stainless Steel 304	0.188
714	P824	N965	N966	N988	N987	Stainless Steel 304	0.188
715	P825	N966	N967	N989	N988	Stainless Steel 304	0.188
716	P826	N967	N968	N990	N989	Stainless Steel 304	0.188
717	P827	N968	N969	N991	N990	Stainless Steel 304	0.188
718	P828	N969	N948	N970	N991	Stainless Steel 304	0.188
719	P829	N970	N971	N993	N992	Stainless Steel 304	0.188
720	P830	N971	N972	N994	N993	Stainless Steel 304	0.188
721	P831	N972	N973	N995	N994	Stainless Steel 304	0.188
722	P832	N973	N974	N996	N995	Stainless Steel 304	0.188
723	P833	N974	N975	N997	N996	Stainless Steel 304	0.188
724	P834	N975	N976	N998	N997	Stainless Steel 304	0.188
725	P835	N976	N977	N999	N998	Stainless Steel 304	0.188
726	P836	N977	N978	N1000	N999	Stainless Steel 304	0.188
727	P837	N978	N979	N1001	N1000	Stainless Steel 304	0.188
728	P838	N979	N980	N1002	N1001	Stainless Steel 304	0.188
729	P839	N980	N981	N1003	N1002	Stainless Steel 304	0.188
730	P840	N981	N982	N1004	N1003	Stainless Steel 304	0.188
731	P841	N982	N983	N1005	N1004	Stainless Steel 304	0.188
732	P842	N983	N984	N1006	N1005	Stainless Steel 304	0.188
733	P843	N984	N985	N1007	N1006	Stainless Steel 304	0.188
734	P844	N985	N986	N1008	N1007	Stainless Steel 304	0.188
735	P845	N986	N987	N1009	N1008	Stainless Steel 304	0.188
736	P846	N987	N988	N1010	N1009	Stainless Steel 304	0.188
737	P847	N988	N989	N1011	N1010	Stainless Steel 304	0.188
738	P848	N989	N990	N1012	N1011	Stainless Steel 304	0.188
739	P849	N990	N991	N1013	N1012	Stainless Steel 304	0.188
740	P850	N991	N970	N992	N1013	Stainless Steel 304	0.188
741	P851	N992	N993	N861A	N860A	Stainless Steel 304	0.188
742	P852	N993	N994	N935	N861A	Stainless Steel 304	0.188
743	P853	N994	N995	N936	N935	Stainless Steel 304	0.188
744	P854	N995	N996	N937	N936	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
745	P855	N996	N997	N938	N937	Stainless Steel 304	0.188
746	P856	N997	N998	N939	N938	Stainless Steel 304	0.188
747	P857	N998	N999	N862A	N939	Stainless Steel 304	0.188
748	P858	N999	N1000	N863A	N862A	Stainless Steel 304	0.188
749	P859	N1000	N1001	N864A	N863A	Stainless Steel 304	0.188
750	P860	N1001	N1002	N940	N864A	Stainless Steel 304	0.188
751	P861	N1002	N1003	N941	N940	Stainless Steel 304	0.188
752	P862	N1003	N1004	N942	N941	Stainless Steel 304	0.188
753	P863	N1004	N1005	N865A	N942	Stainless Steel 304	0.188
754	P864	N1005	N1006	N866A	N865A	Stainless Steel 304	0.188
755	P865	N1006	N1007	N867A	N866A	Stainless Steel 304	0.188
756	P866	N1007	N1008	N943	N867A	Stainless Steel 304	0.188
757	P867	N1008	N1009	N944	N943	Stainless Steel 304	0.188
758	P868	N1009	N1010	N945	N944	Stainless Steel 304	0.188
759	P869	N1010	N1011	N946	N945	Stainless Steel 304	0.188
760	P870	N1011	N1012	N947	N946	Stainless Steel 304	0.188
761	P871	N1012	N1013	N868A	N947	Stainless Steel 304	0.188
762	P872	N1013	N992	N860A	N868A	Stainless Steel 304	0.188
763	P873	N948	N949	N1015	N1014	Stainless Steel 304	0.188
764	P874	N955	N956	N1017	N1016	Stainless Steel 304	0.188
765	P875	N956	N957	N1018	N1017	Stainless Steel 304	0.188
766	P876	N961	N962	N1020	N1019	Stainless Steel 304	0.188
767	P877	N962	N963	N1021	N1020	Stainless Steel 304	0.188
768	P878	N969	N948	N1014	N1022	Stainless Steel 304	0.188
769	P879	N1014	N1015	N1024	N1023	Stainless Steel 304	0.188
770	P880	N1016	N1017	N1026	N1025	Stainless Steel 304	0.188
771	P881	N1017	N1018	N1027	N1026	Stainless Steel 304	0.188
772	P882	N1019	N1020	N1029	N1028	Stainless Steel 304	0.188
773	P883	N1020	N1021	N1030	N1029	Stainless Steel 304	0.188
774	P884	N1022	N1014	N1023	N1031	Stainless Steel 304	0.188
775	P885	N1023	N1024	N1033	N1032	Stainless Steel 304	0.188
776	P886	N1025	N1026	N1040	N1039	Stainless Steel 304	0.188
777	P887	N1026	N1027	N1041	N1040	Stainless Steel 304	0.188
778	P888	N1028	N1029	N1046	N1045	Stainless Steel 304	0.188
779	P889	N1029	N1030	N1047	N1046	Stainless Steel 304	0.188
780	P890	N1031	N1023	N1032	N1053	Stainless Steel 304	0.188
781	P891	N1032	N1033	N752	N751	Stainless Steel 304	0.188
782	P892	N1033	N1034	N753	N752	Stainless Steel 304	0.188
783	P893	N1034	N1035	N754	N753	Stainless Steel 304	0.188
784	P894	N1035	N1036	N755	N754	Stainless Steel 304	0.188
785	P895	N1036	N1037	N756	N755	Stainless Steel 304	0.188
786	P896	N1037	N1038	N757	N756	Stainless Steel 304	0.188
787	P897	N1038	N1039	N758	N757	Stainless Steel 304	0.188
788	P898	N1039	N1040	N759	N758	Stainless Steel 304	0.188
789	P899	N1040	N1041	N760	N759	Stainless Steel 304	0.188
790	P900	N1041	N1042	N761	N760	Stainless Steel 304	0.188
791	P901	N1042	N1043	N762	N761	Stainless Steel 304	0.188
792	P902	N1043	N1044	N763	N762	Stainless Steel 304	0.188
793	P903	N1044	N1045	N764	N763	Stainless Steel 304	0.188
794	P904	N1045	N1046	N765	N764	Stainless Steel 304	0.188
795	P905	N1046	N1047	N766	N765	Stainless Steel 304	0.188
796	P906	N1047	N1048	N767	N766	Stainless Steel 304	0.188
797	P907	N1048	N1049	N768	N767	Stainless Steel 304	0.188
798	P908	N1049	N1050	N769	N768	Stainless Steel 304	0.188
799	P909	N1050	N1051	N770	N769	Stainless Steel 304	0.188

Plate Primary Data (Continued)

	Label	A Node	B Node	C Node	D Node	Material	Thickness [in]
800	P910	N1051	N1052	N771	N770	Stainless Steel 304	0.188
801	P911	N1052	N1053	N772	N771	Stainless Steel 304	0.188
802	P912	N1053	N1032	N751	N772	Stainless Steel 304	0.188

Member Point Loads (BLC 1 : DEAD)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(in, %)]
1	M16	Y	-0.09	%50

Member Point Loads (BLC 2 : WIND X)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(in, %)]
1	M16	X	-0.053	%50

Member Point Loads (BLC 3 : WIND Z)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(in, %)]
1	M16	Z	-0.053	%50

Plate Surface Loads (BLC 2 : WIND X)

	Plate Label	Direction	Magnitude [ksf, F]
1	P389	PX	-0.013
2	P390	PX	-0.013
3	P391	PX	-0.013
4	P392	PX	-0.013
5	P393	PX	-0.013
6	P394	PX	-0.013
7	P395	PX	-0.013
8	P396	PX	-0.013
9	P397	PX	-0.013
10	P398	PX	-0.013
11	P399	PX	-0.013
12	P411	PX	-0.013
13	P412	PX	-0.013
14	P413	PX	-0.013
15	P414	PX	-0.013
16	P415	PX	-0.013
17	P416	PX	-0.013
18	P417	PX	-0.013
19	P418	PX	-0.013
20	P419	PX	-0.013
21	P420	PX	-0.013
22	P421	PX	-0.013
23	P433	PX	-0.013
24	P434	PX	-0.013
25	P435	PX	-0.013
26	P436	PX	-0.013
27	P437	PX	-0.013
28	P438	PX	-0.013
29	P439	PX	-0.013
30	P440	PX	-0.013
31	P441	PX	-0.013
32	P442	PX	-0.013

Plate Surface Loads (BLC 2 : WIND X) (Continued)

	Plate Label	Direction	Magnitude [ksf, F]
33	P443	PX	-0.013
34	P455	PX	-0.013
35	P456	PX	-0.013
36	P457	PX	-0.013
37	P458	PX	-0.013
38	P459	PX	-0.013
39	P460	PX	-0.013
40	P461	PX	-0.013
41	P462	PX	-0.013
42	P463	PX	-0.013
43	P464	PX	-0.013
44	P465	PX	-0.013
45	P477	PX	-0.013
46	P478	PX	-0.013
47	P479	PX	-0.013
48	P480	PX	-0.013
49	P481	PX	-0.013
50	P482	PX	-0.013
51	P483	PX	-0.013
52	P484	PX	-0.013
53	P485	PX	-0.013
54	P486	PX	-0.013
55	P487	PX	-0.013
56	P499	PX	-0.013
57	P500	PX	-0.013
58	P501	PX	-0.013
59	P502	PX	-0.013
60	P503	PX	-0.013
61	P504	PX	-0.013
62	P505	PX	-0.013
63	P506	PX	-0.013
64	P507	PX	-0.013
65	P508	PX	-0.013
66	P509	PX	-0.013
67	P521	PX	-0.013
68	P522	PX	-0.013
69	P523	PX	-0.013
70	P524	PX	-0.013
71	P525	PX	-0.013
72	P526	PX	-0.013
73	P527	PX	-0.013
74	P528	PX	-0.013
75	P529	PX	-0.013
76	P530	PX	-0.013
77	P531	PX	-0.013
78	P543	PX	-0.013
79	P544	PX	-0.013
80	P545	PX	-0.013
81	P546	PX	-0.013
82	P547	PX	-0.013
83	P548	PX	-0.013
84	P549	PX	-0.013
85	P550	PX	-0.013
86	P551	PX	-0.013
87	P552	PX	-0.013

Plate Surface Loads (BLC 2 : WIND X) (Continued)

	Plate Label	Direction	Magnitude [ksf, F]
88	P553	PX	-0.013
89	P565	PX	-0.013
90	P566	PX	-0.013
91	P567	PX	-0.013
92	P568	PX	-0.013
93	P569	PX	-0.013
94	P570	PX	-0.013
95	P571	PX	-0.013
96	P572	PX	-0.013
97	P573	PX	-0.013
98	P574	PX	-0.013
99	P575	PX	-0.013
100	P587	PX	-0.013
101	P588	PX	-0.013
102	P589	PX	-0.013
103	P590	PX	-0.013
104	P591	PX	-0.013
105	P592	PX	-0.013
106	P593	PX	-0.013
107	P594	PX	-0.013
108	P595	PX	-0.013
109	P596	PX	-0.013
110	P597	PX	-0.013

Plate Surface Loads (BLC 3 : WIND Z)

	Plate Label	Direction	Magnitude [ksf, F]
1	P389	PZ	-0.013
2	P390	PZ	-0.013
3	P391	PZ	-0.013
4	P392	PZ	-0.013
5	P393	PZ	-0.013
6	P394	PZ	-0.013
7	P405	PZ	-0.013
8	P406	PZ	-0.013
9	P407	PZ	-0.013
10	P408	PZ	-0.013
11	P409	PZ	-0.013
12	P410	PZ	-0.013
13	P411	PZ	-0.013
14	P412	PZ	-0.013
15	P413	PZ	-0.013
16	P414	PZ	-0.013
17	P415	PZ	-0.013
18	P416	PZ	-0.013
19	P427	PZ	-0.013
20	P428	PZ	-0.013
21	P429	PZ	-0.013
22	P430	PZ	-0.013
23	P431	PZ	-0.013
24	P432	PZ	-0.013
25	P433	PZ	-0.013
26	P434	PZ	-0.013
27	P435	PZ	-0.013
28	P436	PZ	-0.013
29	P437	PZ	-0.013

Plate Surface Loads (BLC 3 : WIND Z) (Continued)

	Plate Label	Direction	Magnitude [ksf, F]
30	P438	PZ	-0.013
31	P449	PZ	-0.013
32	P450	PZ	-0.013
33	P451	PZ	-0.013
34	P452	PZ	-0.013
35	P453	PZ	-0.013
36	P454	PZ	-0.013
37	P455	PZ	-0.013
38	P456	PZ	-0.013
39	P457	PZ	-0.013
40	P458	PZ	-0.013
41	P459	PZ	-0.013
42	P460	PZ	-0.013
43	P471	PZ	-0.013
44	P472	PZ	-0.013
45	P473	PZ	-0.013
46	P474	PZ	-0.013
47	P475	PZ	-0.013
48	P476	PZ	-0.013
49	P477	PZ	-0.013
50	P478	PZ	-0.013
51	P479	PZ	-0.013
52	P480	PZ	-0.013
53	P481	PZ	-0.013
54	P482	PZ	-0.013
55	P493	PZ	-0.013
56	P494	PZ	-0.013
57	P495	PZ	-0.013
58	P496	PZ	-0.013
59	P497	PZ	-0.013
60	P498	PZ	-0.013
61	P499	PZ	-0.013
62	P500	PZ	-0.013
63	P501	PZ	-0.013
64	P502	PZ	-0.013
65	P503	PZ	-0.013
66	P504	PZ	-0.013
67	P515	PZ	-0.013
68	P516	PZ	-0.013
69	P517	PZ	-0.013
70	P518	PZ	-0.013
71	P519	PZ	-0.013
72	P520	PZ	-0.013
73	P521	PZ	-0.013
74	P522	PZ	-0.013
75	P523	PZ	-0.013
76	P524	PZ	-0.013
77	P525	PZ	-0.013
78	P526	PZ	-0.013
79	P537	PZ	-0.013
80	P538	PZ	-0.013
81	P539	PZ	-0.013
82	P540	PZ	-0.013
83	P541	PZ	-0.013
84	P542	PZ	-0.013

Plate Surface Loads (BLC 3 : WIND Z) (Continued)

	Plate Label	Direction	Magnitude [ksf, F]
85	P543	PZ	-0.013
86	P544	PZ	-0.013
87	P545	PZ	-0.013
88	P546	PZ	-0.013
89	P547	PZ	-0.013
90	P548	PZ	-0.013
91	P559	PZ	-0.013
92	P560	PZ	-0.013
93	P561	PZ	-0.013
94	P562	PZ	-0.013
95	P563	PZ	-0.013
96	P564	PZ	-0.013
97	P565	PZ	-0.013
98	P566	PZ	-0.013
99	P567	PZ	-0.013
100	P568	PZ	-0.013
101	P569	PZ	-0.013
102	P570	PZ	-0.013
103	P581	PZ	-0.013
104	P582	PZ	-0.013
105	P583	PZ	-0.013
106	P584	PZ	-0.013
107	P585	PZ	-0.013
108	P586	PZ	-0.013
109	P587	PZ	-0.013
110	P588	PZ	-0.013
111	P589	PZ	-0.013
112	P590	PZ	-0.013
113	P591	PZ	-0.013
114	P592	PZ	-0.013
115	P603	PZ	-0.013
116	P604	PZ	-0.013
117	P605	PZ	-0.013
118	P606	PZ	-0.013
119	P607	PZ	-0.013
120	P608	PZ	-0.013

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Deflection 1	Yes	Y	1	1						
2	Deflection 2	Yes	Y	LL	1						
3	Deflection 3	Yes	Y	1	1	LL	1				
4	IBC 16-8	Yes	Y	1	1						
5	IBC 16-9	Yes	Y	1	1	LL	1				
6	1.2D + 1.0Wo (0º)	Yes	Y	1	1.2	2	1	3			
7	1.2D + 1.0Wo (30º)	Yes	Y	1	1.2	2	0.866	3	0.5		
8	1.2D + 1.0Wo (45º)	Yes	Y	1	1.2	2	0.707	3	0.707		
9	1.2D + 1.0Wo (60º)	Yes	Y	1	1.2	2	0.5	3	0.866		
10	1.2D + 1.0Wo (90º)	Yes	Y	1	1.2	2		3	1		
11	1.2D + 1.0Wo (120º)	Yes	Y	1	1.2	2	-0.5	3	0.866		
12	1.2D + 1.0Wo (135º)	Yes	Y	1	1.2	2	-0.707	3	0.707		
13	1.2D + 1.0Wo (150º)	Yes	Y	1	1.2	2	-0.866	3	0.5		
14	1.2D + 1.0Wo (180º)	Yes	Y	1	1.2	2	-1	3			
15	1.2D + 1.0Wo (210º)	Yes	Y	1	1.2	2	-0.866	3	-0.5		
16	1.2D + 1.0Wo (225º)	Yes	Y	1	1.2	2	-0.707	3	-0.707		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
17	1.2D + 1.0Wo (240º)	Yes	Y	1	1.2	2	-0.5	3	-0.866		
18	1.2D + 1.0Wo (270º)	Yes	Y	1	1.2	2		3	-1		
19	1.2D + 1.0Wo (330º)	Yes	Y	1	1.2	2	0.5	3	-0.866		
20	1.2D + 1.0Wo (315º)	Yes	Y	1	1.2	2	0.707	3	-0.707		
21	1.2D + 1.0Wo (330º)	Yes	Y	1	1.2	2	0.866	3	-0.5		
22	***ICE***										
23	1.2D + 1.0Di + 1.0Wi (0º)	Yes	Y	1	1.2	4	1	5	1	6	
24	1.2D + 1.0Di + 1.0Wi (30º)	Yes	Y	1	1.2	4	1	5	0.866	6	0.5
25	1.2D + 1.0Di + 1.0Wi (45º)	Yes	Y	1	1.2	4	1	5	0.707	6	0.707
26	1.2D + 1.0Di + 1.0Wi (60º)	Yes	Y	1	1.2	4	1	5	0.5	6	0.866
27	1.2D + 1.0Di + 1.0Wi (90º)	Yes	Y	1	1.2	4	1	5		6	1
28	1.2D + 1.0Di + 1.0Wi (120º)	Yes	Y	1	1.2	4	1	5	-0.5	6	0.866
29	1.2D + 1.0Di + 1.0Wi (135º)	Yes	Y	1	1.2	4	1	5	-0.707	6	0.707
30	1.2D + 1.0Di + 1.0Wi (150º)	Yes	Y	1	1.2	4	1	5	-0.866	6	0.5
31	1.2D + 1.0Di + 1.0Wi (180º)	Yes	Y	1	1.2	4	1	5	-1	6	
32	1.2D + 1.0Di + 1.0Wi (210º)	Yes	Y	1	1.2	4	1	5	-0.866	6	-0.5
33	1.2D + 1.0Di + 1.0Wi (225º)	Yes	Y	1	1.2	4	1	5	-0.707	6	-0.707
34	1.2D + 1.0Di + 1.0Wi (240º)	Yes	Y	1	1.2	4	1	5	-0.5	6	-0.866
35	1.2D + 1.0Di + 1.0Wi (270º)	Yes	Y	1	1.2	4	1	5		6	-1
36	1.2D + 1.0Di + 1.0Wi (300º)	Yes	Y	1	1.2	4	1	5	0.5	6	-0.866
37	1.2D + 1.0Di + 1.0Wi (315º)	Yes	Y	1	1.2	4	1	5	0.707	6	-0.707
38	1.2D + 1.0Di + 1.0Wi (330º)	Yes	Y	1	1.2	4	1	5	0.866	6	-0.5

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N2	max	0.017	14	0.039	18	0.007	10	0	38	0	38	0	38
2		min	-0.017	6	-0.03	10	-0.108	18	0	1	0	1	0	1
3	N3	max	0.017	13	0.131	17	0.03	13	0	38	0	38	0	38
4		min	-0.034	21	-0.049	9	-0.079	21	0	1	0	1	0	1
5	N9	max	0.021	19	0.141	14	0.019	12	0	38	0	38	0	38
6		min	-0.051	11	-0.068	6	-0.007	20	0	1	0	1	0	1
7	N10	max	0.022	21	0.043	13	0.077	14	0	38	0	38	0	38
8		min	-0.078	13	-0.042	21	-0.028	6	0	1	0	1	0	1
9	N11	max	0.014	6	0.1	11	0.073	15	0	38	0	38	0	38
10		min	-0.037	14	-0.04	19	-0.033	7	0	1	0	1	0	1
11	N15	max	0.038	21	0.101	9	0.076	21	0	38	0	38	0	38
12		min	-0.015	13	-0.039	17	-0.037	13	0	1	0	1	0	1
13	N16	max	0.074	7	0.044	7	0.075	6	0	38	0	38	0	38
14		min	-0.018	15	-0.043	15	-0.026	14	0	1	0	1	0	1
15	N17	max	0.048	10	0.142	6	0.018	9	0	38	0	38	0	38
16		min	-0.018	18	-0.069	14	-0.006	17	0	1	0	1	0	1
17	N23	max	0.034	15	0.13	19	0.029	7	0	38	0	38	0	38
18		min	-0.016	7	-0.051	11	-0.079	15	0	1	0	1	0	1
19	Totals:	max	0.103	6	0.22	10	0.103	10						
20		min	-0.103	14	0	2	-0.103	18						

Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M16	PIPE_3.0	0.026	0	6	0.004	17.135	6	62.302	65.205	5.749	5.749	1	H1-1b

Envelope Plate Principal Stresses

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1	P202	max	T	0.814	21	0.396	21	0.531	13	1.82	6	1.772	13
2		min		-0.983	13	-2.046	13	0	2	-0.715	7	0	2
3		max	B	2.089	13	0.98	13	0.555	13	2.036	17	1.811	13
4		min		-0.395	21	-0.858	21	0	2	-0.365	18	0	2
5	P216	max	T	0.723	10	0.277	11	0.562	18	1.992	13	1.738	18
6		min		-0.884	19	-2.002	18	0	2	-0.362	14	0	2
7		max	B	2.064	18	0.902	19	0.593	18	1.903	6	1.794	18
8		min		-0.294	11	-0.798	10	0	2	-0.69	7	0	2
9	P195	max	T	0.721	10	0.268	10	0.562	18	2.139	13	1.736	18
10		min		-0.876	18	-2	18	0	2	-0.428	14	0	2
11		max	B	2.061	18	0.873	18	0.594	18	2.287	7	1.791	18
12		min		-0.269	10	-0.797	10	0	2	-0.391	8	0	2
13	P209	max	T	0.711	15	0.314	15	0.518	7	2.103	18	1.672	7
14		min		-0.892	7	-1.929	7	0	2	-0.358	19	0	2
15		max	B	1.963	7	0.886	7	0.539	7	2.222	13	1.703	7
16		min		-0.307	15	-0.748	15	0	2	-0.175	14	0	2
17	P203	max	T	0.688	20	0.272	20	0.522	12	1.934	6	1.666	12
18		min		-0.876	12	-1.921	12	0	2	-0.709	7	0	2
19		max	B	1.954	12	0.856	12	0.553	13	1.922	17	1.696	12
20		min		-0.268	19	-0.73	20	0	2	-0.349	18	0	2
21	P208	max	T	0.701	16	0.326	16	0.505	8	1.936	18	1.669	8
22		min		-0.918	8	-1.927	8	0	2	-0.3	19	0	2
23		max	B	1.955	8	0.902	8	0.527	8	2.286	13	1.695	8
24		min		-0.326	16	-0.743	16	0	2	-0.239	14	0	2
25	P59	max	T	1.57	7	0.471	7	0.55	7	2.35	12	1.396	7
26		min		-0.279	15	-0.828	15	0	2	-0.552	13	0	2
27		max	B	0.891	15	0.261	15	0.67	7	2.299	18	1.6	7
28		min		-0.431	7	-1.771	7	0	2	-0.381	19	0	2
29	P52	max	T	1.554	13	0.466	13	0.544	13	2.04	17	1.381	13
30		min		-0.272	21	-0.816	21	0	2	-0.678	18	0	2
31		max	B	0.89	21	0.255	21	0.672	13	2.322	8	1.599	13
32		min		-0.425	13	-1.769	13	0	2	-0.449	9	0	2
33	P45	max	T	1.504	18	0.427	17	0.542	18	2.117	6	1.344	18
34		min		-0.173	9	-0.604	10	0	2	-0.698	7	0	2
35		max	B	0.618	10	0.172	10	0.662	18	2.195	12	1.557	18
36		min		-0.391	18	-1.716	18	0	2	-0.741	13	0	2
37	P66	max	T	1.505	18	0.425	19	0.542	18	2.065	6	1.345	18
38		min		-0.187	10	-0.611	10	0	2	-0.783	7	0	2
39		max	B	0.624	10	0.184	10	0.662	18	2.322	13	1.557	18
40		min		-0.391	18	-1.715	18	0	2	-0.388	14	0	2
41	P58	max	T	1.484	7	0.399	8	0.551	7	2.294	12	1.335	7
42		min		-0.198	16	-0.789	15	0	2	-0.66	13	0	2
43		max	B	0.819	15	0.18	16	0.652	7	2.074	18	1.519	7
44		min		-0.364	7	-1.668	7	0	2	-0.368	19	0	2
45	P53	max	T	1.475	13	0.4	12	0.544	13	2.123	17	1.325	13
46		min		-0.207	20	-0.789	21	0	2	-0.508	18	0	2
47		max	B	0.825	21	0.183	20	0.653	13	2.189	7	1.519	13
48		min		-0.361	13	-1.667	13	0	2	-0.69	8	0	2
49	P173	max	T	0.608	10	0.191	10	0.427	19	2.214	13	1.299	18
50		min		-0.653	18	-1.495	18	0	2	-0.351	14	0	2
51		max	B	1.535	18	0.663	18	0.446	19	2.158	6	1.333	18
52		min		-0.202	10	-0.665	10	0	2	-0.574	7	0	2
53	P194	max	T	0.608	10	0.192	10	0.42	18	2.337	14	1.298	18
54		min		-0.655	18	-1.495	18	0	2	-0.554	15	0	2
55		max	B	1.535	18	0.665	18	0.435	18	2.351	7	1.333	18

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
56		min		-0.203	10	-0.664	10	0	2	-0.547	8	0	2
57	P181	max	T	0.585	21	0.207	20	0.399	13	2.176	6	1.249	13
58		min		-0.664	12	-1.439	13	0	2	-0.68	7	0	2
59		max	B	1.467	13	0.657	12	0.417	13	2.309	17	1.275	13
60		min		-0.209	20	-0.629	21	0	2	-0.145	18	0	2
61	P180	max	T	0.602	21	0.262	21	0.374	12	2.133	7	1.255	13
62		min		-0.717	13	-1.449	13	0	2	-0.774	8	0	2
63		max	B	1.455	13	0.719	13	0.377	12	1.909	17	1.26	13
64		min		-0.261	21	-0.621	21	0	2	-0.544	18	0	2
65	P186	max	T	0.554	15	0.231	16	0.365	7	1.764	18	1.211	7
66		min		-0.682	8	-1.398	7	0	2	-0.736	19	0	2
67		max	B	1.412	7	0.676	8	0.374	7	2.273	13	1.223	7
68		min		-0.233	16	-0.585	15	0	2	-0.515	14	0	2
69	P187	max	T	0.55	15	0.226	15	0.37	8	2.217	18	1.205	7
70		min		-0.67	7	-1.392	7	0	2	-0.224	19	0	2
71		max	B	1.408	8	0.672	7	0.376	8	2.276	12	1.22	8
72		min		-0.228	15	-0.574	16	0	2	-0.594	13	0	2
73	P151	max	T	0.572	10	0.108	10	0.429	19	2.224	13	1.104	18
74		min		-0.41	18	-1.251	18	0	2	-0.414	14	0	2
75		max	B	1.289	18	0.422	18	0.45	19	2.244	6	1.138	18
76		min		-0.121	10	-0.627	10	0	2	-0.496	7	0	2
77	P172	max	T	0.571	10	0.109	10	0.419	18	2.208	14	1.103	18
78		min		-0.412	18	-1.25	18	0	2	-0.621	15	0	2
79		max	B	1.288	18	0.423	18	0.433	18	2.314	7	1.137	18
80		min		-0.121	10	-0.626	10	0	2	-0.616	8	0	2
81	P288A	max	T	1.155	21	0.202	19	0.685	13	2.356	11	1.508	13
82		min		-0.299	11	-1.616	13	0	2	-0.749	10	0	2
83		max	B	1.236	13	0.292	11	0.492	13	2.343	21	1.131	13
84		min		-0.2	19	-1.045	21	0	2	-0.769	20	0	2
85	P159	max	T	0.526	21	0.125	20	0.389	13	2.21	6	1.042	13
86		min		-0.424	12	-1.184	13	0	2	-0.686	7	0	2
87		max	B	1.214	13	0.42	12	0.406	13	2.295	16	1.071	13
88		min		-0.13	20	-0.578	21	0	2	-0.727	17	0	2
89	P284A	max	T	1.069	21	0.232	6	0.575	13	2.3	8	1.322	13
90		min		-0.323	14	-1.445	13	0	2	-0.749	7	0	2
91		max	B	1.155	13	0.267	14	0.454	13	2.308	15	1.053	13
92		min		-0.213	6	-0.985	21	0	2	-0.766	14	0	2
93	P158	max	T	0.528	21	0.153	21	0.361	12	2.257	8	1.019	13
94		min		-0.456	13	-1.168	13	0	2	-0.717	9	0	2
95		max	B	1.172	12	0.453	13	0.363	12	1.945	17	1.024	12
96		min		-0.149	20	-0.543	21	0	2	-0.594	18	0	2
97	P164	max	T	0.483	15	0.14	16	0.353	7	2.308	19	0.989	7
98		min		-0.437	8	-1.131	7	0	2	-0.696	20	0	2
99		max	B	1.141	7	0.434	8	0.357	7	2.267	13	0.998	7
100		min		-0.144	16	-0.514	15	0	2	-0.553	14	0	2
101	P165	max	T	0.477	16	0.138	15	0.351	8	2.235	18	0.979	8
102		min		-0.43	7	-1.119	8	0	2	-0.279	19	0	2
103		max	B	1.137	8	0.433	7	0.357	8	2.231	11	0.995	8
104		min		-0.143	15	-0.505	16	0	2	-0.76	12	0	2
105	P858	max	T	0.096	13	0.038	12	0.293	20	2.219	13	0.989	21
106		min		-0.561	21	-1.142	21	0	2	-0.503	14	0	2
107		max	B	1.086	21	0.57	21	0.259	20	1.958	11	0.941	21
108		min		-0.03	13	-0.055	13	0	2	-0.753	12	0	2
109	P292A	max	T	0.943	15	0.126	17	0.588	7	2.34	12	1.247	7
110		min		-0.173	9	-1.307	7	0	2	-0.368	11	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
111		max	B	0.998	7	0.204	9	0.415	7	2.298	21	0.926	7
112		min		-0.134	17	-0.872	15	0	2	-0.776	20	0	2
113	P872	max	T	0.032	18	0	2	0.32	10	1.754	20	0.974	11
114		min		-0.487	11	-1.121	11	0	2	-0.452	21	0	2
115		max	B	1.054	11	0.48	11	0.287	11	2.057	17	0.914	11
116		min		0	2	0	2	0	2	-0.459	18	0	2
117	P171	max	T	0.388	11	0	2	0.469	19	2.324	15	0.901	19
118		min		0	2	-0.858	19	0	2	-0.782	16	0	2
119		max	B	0.875	18	0.008	14	0.469	18	2.274	9	0.908	18
120		min		-0.009	8	-0.414	10	0	2	-0.734	10	0	2
121	P152	max	T	0.384	10	0	2	0.462	18	2.302	10	0.891	18
122		min		0	2	-0.855	18	0	2	-0.775	11	0	2
123		max	B	0.875	18	0.02	6	0.468	18	2.307	18	0.907	18
124		min		-0.013	12	-0.415	10	0	2	-0.782	19	0	2
125	P851	max	T	0.033	18	0	2	0.327	11	2.333	21	0.966	10
126		min		-0.47	10	-1.111	10	0	2	-0.378	6	0	2
127		max	B	1.039	10	0.475	10	0.282	10	1.709	15	0.901	10
128		min		0	2	0	2	0	2	0	2	0	2
129	P864	max	T	0.017	7	0	8	0.288	16	1.683	8	0.933	16
130		min		-0.5	16	-1.076	16	0	2	0	2	0	2
131		max	B	1.032	16	0.524	16	0.254	16	1.805	6	0.894	16
132		min		0	2	-0.001	7	0	2	0	2	0	2
133	P865	max	T	0.021	8	0	2	0.289	16	2.061	9	0.93	16
134		min		-0.496	16	-1.073	16	0	2	-0.349	10	0	2
135		max	B	1.023	16	0.506	16	0.258	16	1.601	16	0.886	16
136		min		0	2	-0.003	8	0	2	0	2	0	2
137	P294A	max	T	0.912	15	0.153	14	0.533	7	2.313	10	1.163	7
138		min		-0.198	6	-1.24	7	0	2	-0.767	9	0	2
139		max	B	0.957	7	0.194	6	0.39	7	2.241	18	0.882	7
140		min		-0.152	14	-0.82	15	0	2	-0.758	17	0	2
141	P157	max	T	0.403	21	0	2	0.466	13	2.243	9	0.895	13
142		min		0	2	-0.852	13	0	2	-0.776	10	0	2
143		max	B	0.821	13	0.01	9	0.455	13	2.144	18	0.869	13
144		min		-0.005	18	-0.379	21	0	2	-0.731	19	0	2
145	P859	max	T	0.009	12	0	2	0.298	20	2.196	13	0.895	20
146		min		-0.44	19	-1.029	20	0	2	-0.706	14	0	2
147		max	B	0.985	20	0.461	19	0.263	20	1.701	8	0.854	20
148		min		0	2	0	2	0	2	0	2	0	2
149	P280	max	T	0.712	10	0.11	9	0.523	18	2.356	19	1.12	18
150		min		-0.152	17	-1.18	18	0	2	-0.765	18	0	2
151		max	B	0.91	18	0.15	17	0.387	18	2.326	11	0.85	18
152		min		-0.109	9	-0.715	10	0	2	-0.742	10	0	2
153	P30	max	T	0.767	14	0.189	12	0.319	14	2.11	17	0.712	14
154		min		-0.08	20	-0.415	6	0	2	-0.749	18	0	2
155		max	B	0.455	21	0.074	21	0.377	14	2.259	8	0.836	13
156		min		-0.171	12	-0.908	13	0	2	-0.587	9	0	2
157	P37	max	T	0.779	6	0.188	8	0.327	6	2.337	11	0.724	6
158		min		-0.078	16	-0.426	14	0	2	-0.631	12	0	2
159		max	B	0.453	15	0.073	16	0.376	6	2.288	18	0.834	7
160		min		-0.173	8	-0.906	7	0	2	-0.47	19	0	2
161	P300A	max	T	0.74	10	0.17	11	0.541	18	2.273	7	1.181	18
162		min		-0.196	19	-1.26	18	0	2	0	2	0	2
163		max	B	0.915	18	0.233	19	0.35	18	2.272	15	0.829	18
164		min		-0.166	11	-0.741	10	0	2	-0.612	14	0	2
165	P166	max	T	0.343	15	0	2	0.427	7	2.331	17	0.821	7

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
166		min		-0.001	12	-0.784	7	0	2	-0.568	18	0	2
167		max	B	0.787	8	0.009	12	0.427	7	2.323	9	0.822	7
168		min		-0.005	18	-0.348	16	0	2	-0.771	10	0	2
169	P160	max	T	0.331	20	0	2	0.41	12	2.341	20	0.808	12
170		min		0	16	-0.795	12	0	2	-0.772	21	0	2
171		max	B	0.807	13	0.007	16	0.414	12	2.344	12	0.817	13
172		min		-0.005	6	-0.377	21	0	2	-0.777	13	0	2
173	P163	max	T	0.334	16	0	2	0.408	8	2.348	6	0.803	8
174		min		-0.001	19	-0.788	8	0	2	-0.77	7	0	2
175		max	B	0.774	7	0.004	19	0.404	8	2.27	14	0.791	7
176		min		0	14	-0.347	15	0	2	-0.772	15	0	2
177	P23	max	T	0.727	17	0.206	18	0.301	16	2.076	21	0.665	17
178		min		-0.067	10	-0.321	9	0	2	-0.778	6	0	2
179		max	B	0.299	10	0.066	10	0.345	17	2.245	12	0.786	18
180		min		-0.19	18	-0.863	18	0	2	-0.714	13	0	2
181	P44	max	T	0.728	19	0.205	18	0.301	20	2.262	7	0.667	19
182		min		-0.065	10	-0.33	11	0	2	-0.743	8	0	2
183		max	B	0.302	10	0.065	10	0.343	19	2.244	13	0.784	18
184		min		-0.19	18	-0.862	18	0	2	-0.547	14	0	2
185	P238	max	T	0.919	18	0.351	18	0.298	19	2.151	15	0.803	18
186		min		-0.111	10	-0.568	10	0	2	-0.575	14	0	2
187		max	B	0.518	11	0.098	10	0.286	19	2.149	8	0.779	19
188		min		-0.341	18	-0.888	19	0	2	-0.724	7	0	2
189	P217	max	T	0.918	18	0.351	18	0.302	19	2.025	15	0.808	19
190		min		-0.111	10	-0.577	11	0	2	-0.759	14	0	2
191		max	B	0.501	10	0.097	10	0.264	18	2.035	7	0.758	18
192		min		-0.341	18	-0.869	18	0	2	-0.654	6	0	2
193	P291	max	T	0.294	21	0.012	18	0.341	13	2.223	6	0.716	13
194		min		-0.067	12	-0.746	13	0	2	-0.533	7	0	2
195		max	B	0.726	13	0.003	38	0.394	13	2.019	17	0.758	13
196		min		0	2	-0.279	21	0	2	0	2	0	2
197	P36	max	T	0.662	7	0.206	7	0.23	8	2.353	13	0.588	8
198		min		-0.082	16	-0.359	15	0	2	-0.504	14	0	2
199		max	B	0.398	15	0.081	16	0.317	7	2.158	18	0.75	7
200		min		-0.193	7	-0.828	7	0	2	-0.5	19	0	2
201	P193	max	T	0.337	11	0	2	0.38	19	2.001	14	0.752	19
202		min		-0.006	15	-0.744	19	0	2	-0.586	15	0	2
203		max	B	0.745	18	0.007	15	0.377	18	2.309	8	0.749	18
204		min		0	2	-0.347	10	0	2	-0.663	9	0	2
205	P31	max	T	0.657	13	0.206	13	0.227	12	2.351	17	0.582	13
206		min		-0.082	21	-0.358	21	0	2	-0.471	18	0	2
207		max	B	0.4	21	0.081	21	0.317	13	2.234	7	0.749	13
208		min		-0.192	13	-0.827	13	0	2	-0.71	8	0	2
209	P174	max	T	0.322	10	0	2	0.37	18	2.274	12	0.734	18
210		min		-0.004	6	-0.728	18	0	2	-0.36	13	0	2
211		max	B	0.744	18	0.004	21	0.376	18	2.333	6	0.748	18
212		min		0	2	-0.347	10	0	2	0	2	0	2
213	P131	max	T	0.332	10	0.052	10	0.317	18	2.286	11	0.685	18
214		min		-0.094	18	-0.728	18	0	2	-0.715	10	0	2
215		max	B	0.778	18	0.083	18	0.348	18	2.338	20	0.74	18
216		min		-0.052	10	-0.333	10	0	2	-0.773	19	0	2
217	P120	max	T	0.363	21	0.052	20	0.287	13	2.345	13	0.642	13
218		min		-0.12	12	-0.693	13	0	2	-0.775	12	0	2
219		max	B	0.788	13	0.112	12	0.34	13	2.346	19	0.74	13
220		min		-0.047	20	-0.413	21	0	2	-0.344	18	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
221	P112	max	T	0.325	10	0.049	10	0.317	18	2.33	19	0.686	18
222		min		-0.094	18	-0.728	18	0	2	-0.763	18	0	2
223		max	B	0.777	18	0.083	18	0.347	18	2.275	10	0.739	18
224		min		-0.05	10	-0.324	10	0	2	-0.739	9	0	2
225	P179	max	T	0.364	21	0	2	0.381	13	1.909	8	0.757	13
226		min		-0.003	23	-0.752	13	0	2	-0.647	9	0	2
227		max	B	0.731	13	0.004	9	0.373	13	2.343	18	0.738	13
228		min		0	2	-0.348	21	0	2	-0.545	19	0	2
229	P117	max	T	0.388	20	0.062	21	0.31	12	2.313	21	0.676	12
230		min		-0.106	13	-0.721	13	0	2	-0.768	20	0	2
231		max	B	0.775	13	0.097	13	0.339	13	2.354	14	0.732	13
232		min		-0.062	21	-0.401	21	0	2	-0.746	13	0	2
233	P126	max	T	0.389	16	0.063	15	0.309	8	2.332	9	0.676	8
234		min		-0.11	7	-0.722	7	0	2	-0.776	8	0	2
235		max	B	0.773	7	0.1	7	0.337	7	2.324	15	0.728	7
236		min		-0.063	15	-0.399	15	0	2	-0.717	14	0	2
237	P123	max	T	0.36	15	0.05	16	0.287	7	2.355	15	0.642	7
238		min		-0.123	8	-0.694	7	0	2	-0.719	14	0	2
239		max	B	0.775	7	0.116	9	0.333	7	0.989	12	0.726	7
240		min		-0.045	16	-0.396	15	0	2	-0.782	11	0	2
241	P269	max	T	0.224	21	0	2	0.365	13	2.247	6	0.706	13
242		min		0	2	-0.679	13	0	2	-0.554	7	0	2
243		max	B	0.664	12	0	2	0.383	12	1.931	17	0.721	12
244		min		0	2	-0.213	21	0	2	-0.105	18	0	2
245	P829	max	T	0.089	18	0	2	0.256	11	2	21	0.732	11
246		min		-0.354	10	-0.839	11	0	2	-0.088	6	0	2
247		max	B	0.794	10	0.347	10	0.235	11	2.223	15	0.689	10
248		min		0	2	-0.037	18	0	2	-0.762	16	0	2
249	P188	max	T	0.303	15	0	2	0.345	7	2.144	17	0.687	7
250		min		-0.003	23	-0.684	7	0	2	-0.721	18	0	2
251		max	B	0.685	7	0.004	11	0.347	7	2.231	11	0.689	7
252		min		0	2	-0.306	15	0	2	-0.724	12	0	2
253	P850	max	T	0.089	19	0	2	0.241	10	1.955	21	0.726	10
254		min		-0.355	11	-0.836	10	0	2	-0.717	6	0	2
255		max	B	0.793	10	0.353	11	0.223	10	1.544	15	0.689	10
256		min		0	2	-0.049	19	0	2	-0.709	17	0	2
257	P224	max	T	0.823	13	0.343	12	0.257	14	2.308	9	0.718	13
258		min		-0.113	20	-0.485	21	0	2	-0.665	8	0	2
259		max	B	0.442	21	0.111	20	0.227	14	2.11	18	0.687	13
260		min		-0.347	12	-0.791	13	0	2	-0.577	17	0	2
261	P297	max	T	0.213	15	0.057	16	0.285	7	2.274	13	0.629	7
262		min		-0.112	9	-0.675	7	0	2	-0.369	12	0	2
263		max	B	0.67	7	0.018	11	0.342	7	1.803	19	0.677	7
264		min		0	2	-0.223	15	0	2	-0.748	18	0	2
265	P296	max	T	0.197	16	0.066	15	0.278	8	2.104	14	0.618	8
266		min		-0.116	7	-0.665	8	0	2	-0.42	13	0	2
267		max	B	0.66	8	0.03	19	0.337	8	1.573	21	0.667	8
268		min		0	2	-0.205	16	0	2	-0.187	18	0	2
269	P275	max	T	0.133	14	0	2	0.329	6	1.51	15	0.632	6
270		min		-0.012	11	-0.6	6	0	2	-0.064	20	0	2
271		max	B	0.615	7	0.002	18	0.354	7	1.56	10	0.666	7
272		min		-0.004	13	-0.159	15	0	2	-0.047	14	0	2
273	P182	max	T	0.272	20	0.001	18	0.317	12	2.285	6	0.653	12
274		min		-0.04	10	-0.669	12	0	2	0	2	0	2
275		max	B	0.675	12	0.029	10	0.325	12	2.291	16	0.663	12

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
276		min		0	2	-0.301	20	0	2	-0.7	17	0	2
277	P836	max	T	0.086	13	0	2	0.188	20	2.166	14	0.672	20
278		min		-0.4	21	-0.776	20	0	2	-0.703	15	0	2
279		max	B	0.763	20	0.403	21	0.182	20	1.595	10	0.661	20
280		min		-0.001	12	-0.055	13	0	2	-0.171	12	0	2
281	P299A	max	T	0.54	11	0.229	11	0.226	18	1.991	7	0.685	19
282		min		-0.357	19	-0.79	19	0	2	-0.687	6	0	2
283		max	B	0.758	19	0.315	19	0.228	20	2.311	14	0.659	19
284		min		-0.229	11	-0.587	11	0	2	-0.628	13	0	2
285	P185	max	T	0.283	16	0.001	17	0.319	8	2.351	19	0.657	8
286		min		-0.038	10	-0.674	8	0	2	-0.645	20	0	2
287		max	B	0.666	8	0.027	10	0.323	8	1.755	13	0.656	8
288		min		0	2	-0.295	16	0	2	-0.66	14	0	2
289	P837	max	T	0.058	13	0	2	0.223	21	2.196	13	0.674	20
290		min		-0.344	19	-0.776	20	0	2	-0.758	14	0	2
291		max	B	0.752	20	0.352	19	0.206	21	2.197	9	0.651	20
292		min		0	2	-0.02	13	0	2	-0.771	10	0	2
293	P843	max	T	0.037	8	0	2	0.195	16	1.528	8	0.661	16
294		min		-0.373	16	-0.763	16	0	2	0	2	0	2
295		max	B	0.746	16	0.37	16	0.188	16	2.257	6	0.646	16
296		min		0	2	-0.007	8	0	2	0	2	0	2
297	P842	max	T	0.039	8	0	2	0.191	16	2.293	10	0.657	16
298		min		-0.377	16	-0.758	16	0	2	-0.504	11	0	2
299		max	B	0.743	16	0.385	16	0.179	16	1.558	6	0.644	16
300		min		0	8	-0.011	8	0	2	0	2	0	2
301	P274	max	T	0.096	16	0	2	0.318	9	2.005	18	0.611	9
302		min		-0.011	20	-0.583	9	0	2	-0.083	19	0	2
303		max	B	0.593	8	0.007	14	0.341	8	1.776	14	0.642	8
304		min		0	2	-0.12	16	0	2	-0.057	17	0	2
305	P225	max	T	0.753	13	0.354	12	0.217	14	2.253	8	0.653	13
306		min		-0.113	20	-0.441	21	0	2	-0.773	7	0	2
307		max	B	0.387	21	0.106	20	0.195	13	2.234	17	0.633	13
308		min		-0.351	12	-0.73	13	0	2	-0.752	16	0	2
309	P290	max	T	0.194	21	0	2	0.25	13	2.256	6	0.551	13
310		min		-0.107	11	-0.592	13	0	2	-0.656	7	0	2
311		max	B	0.609	13	0.007	10	0.315	13	1.729	15	0.62	13
312		min		0	2	-0.22	21	0	2	0	2	0	2
313	P289A	max	T	0.44	20	0.217	18	0.326	7	2.21	18	0.624	8
314		min		-0.42	11	-0.691	9	0	2	-0.653	17	0	2
315		max	B	0.685	10	0.359	11	0.304	7	2.227	5	0.612	9
316		min		-0.228	19	-0.496	18	0	2	-0.776	9	0	2
317	P231	max	T	0.725	7	0.35	8	0.189	7	2.291	19	0.628	7
318		min		-0.119	16	-0.394	16	0	2	-0.5	18	0	2
319		max	B	0.362	15	0.112	15	0.18	7	2.262	12	0.609	7
320		min		-0.344	7	-0.704	7	0	2	-0.672	11	0	2
321	P230	max	T	0.708	8	0.352	7	0.179	8	2.274	20	0.613	8
322		min		-0.12	16	-0.39	15	0	2	-0.684	19	0	2
323		max	B	0.358	16	0.112	16	0.177	8	2.024	14	0.608	8
324		min		-0.349	8	-0.702	8	0	2	-0.746	13	0	2
325	P291A	max	T	0.494	16	0.169	17	0.288	6	2.204	11	0.633	8
326		min		-0.341	9	-0.726	8	0	2	-0.625	10	0	2
327		max	B	0.683	10	0.276	9	0.283	13	2.244	19	0.605	10
328		min		-0.186	17	-0.501	17	0	2	-0.623	18	0	2
329	P828	max	T	0.15	19	0	2	0.245	10	2.245	6	0.631	10
330		min		-0.222	10	-0.712	10	0	2	-0.576	7	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
331		max	B	0.682	11	0.222	11	0.23	11	1.94	16	0.602	11
332		min		0	2	-0.116	19	0	2	-0.492	17	0	2
333	P807	max	T	0.168	19	0	2	0.265	11	2.051	21	0.658	11
334		min		-0.222	10	-0.737	11	0	2	-0.51	6	0	2
335		max	B	0.674	10	0.222	9	0.241	11	2.319	15	0.6	11
336		min		0	2	-0.097	18	0	2	-0.578	16	0	2
337	P292	max	T	0.235	21	0.002	18	0.299	12	2.297	6	0.579	12
338		min		0	2	-0.56	13	0	2	-0.187	7	0	2
339		max	B	0.508	12	0	2	0.326	12	2.018	17	0.593	12
340		min		0	2	-0.203	20	0	2	0	2	0	2
341	P268	max	T	0.138	14	0	2	0.303	14	2.33	20	0.552	13
342		min		0	2	-0.483	13	0	2	-0.772	6	0	2
343		max	B	0.514	13	0.003	18	0.318	13	1.85	16	0.585	13
344		min		0	2	-0.125	14	0	2	0	2	0	2
345	P301A	max	T	0.39	13	0	2	0.271	21	2.35	19	0.525	21
346		min		0	2	-0.506	21	0	2	-0.602	18	0	2
347		max	B	0.447	6	0	2	0.3	14	2.191	11	0.585	14
348		min		-0.034	23	-0.568	14	0	2	-0.668	10	0	2
349	P303	max	T	0.152	20	0	2	0.282	19	0.82	12	0.505	19
350		min		-0.053	14	-0.417	18	0	2	-0.615	18	0	2
351		max	B	0.417	19	0.027	8	0.334	19	1.802	14	0.584	19
352		min		0	2	-0.25	19	0	2	-0.738	9	0	2
353	P295A	max	T	0.502	14	0.269	14	0.167	17	2.335	12	0.54	6
354		min		-0.422	6	-0.608	6	0	2	-0.661	11	0	2
355		max	B	0.648	6	0.37	6	0.173	19	2.324	38	0.563	6
356		min		-0.291	14	-0.537	14	0	2	-0.739	19	0	2
357	P284	max	T	0.138	19	0	2	0.264	18	2.213	9	0.482	18
358		min		-0.005	14	-0.416	18	0	2	-0.747	10	0	2
359		max	B	0.414	17	0.042	13	0.311	18	2.282	6	0.546	18
360		min		-0.001	7	-0.24	19	0	2	0	2	0	2
361	P261	max	T	0.086	17	0	2	0.286	15	0.888	8	0.538	15
362		min		-0.054	10	-0.498	15	0	2	-0.209	12	0	2
363		max	B	0.495	16	0.049	10	0.292	16	2.023	6	0.545	16
364		min		0	2	-0.114	18	0	2	-0.714	7	0	2
365	P308	max	T	0.347	15	0.059	15	0.208	10	2.348	19	0.38	9
366		min		-0.071	6	-0.376	8	0	2	-0.53	18	0	2
367		max	B	0.465	7	0.095	21	0.253	17	1.562	13	0.538	16
368		min		-0.225	13	-0.579	15	0	2	-0.781	12	0	2
369	P815	max	T	0.099	13	0	2	0.214	21	2.244	13	0.562	21
370		min		-0.221	19	-0.636	21	0	2	-0.738	14	0	2
371		max	B	0.609	20	0.229	19	0.197	21	2.278	9	0.533	20
372		min		0	2	-0.052	12	0	2	-0.572	10	0	2
373	P283	max	T	0.027	10	0	2	0.228	17	1.806	9	0.483	17
374		min		-0.049	17	-0.506	17	0	2	-0.54	10	0	2
375		max	B	0.511	17	0.032	12	0.274	17	2.073	6	0.53	17
376		min		0	2	-0.073	19	0	2	-0.502	7	0	2
377	P290A	max	T	0.322	21	0	2	0.335	14	2.257	14	0.582	14
378		min		0	2	-0.417	13	0	2	-0.771	15	0	2
379		max	B	0.359	13	0	2	0.303	14	2.27	21	0.526	14
380		min		0	2	-0.303	21	0	2	-0.77	6	0	2
381	P814	max	T	0.103	13	0	2	0.18	20	2.306	15	0.531	20
382		min		-0.25	20	-0.609	20	0	2	-0.708	16	0	2
383		max	B	0.602	20	0.259	21	0.173	20	1.498	8	0.523	20
384		min		0	2	-0.076	13	0	2	-0.085	11	0	2
385	P322	max	T	0.299	7	0	2	0.25	15	2.097	10	0.462	15

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
386		min		0	2	-0.412	15	0	2	-0.672	9	0	2
387		max	B	0.367	14	0	2	0.277	6	1.146	19	0.521	6
388		min		-0.024	23	-0.481	6	0	2	-0.748	18	0	2
389	P827	max	T	0.089	18	0.006	17	0.254	10	2.35	9	0.496	10
390		min		-0.008	6	-0.482	10	0	2	-0.748	10	0	2
391		max	B	0.503	11	0.006	17	0.268	11	0.871	16	0.52	11
392		min		0	2	-0.075	19	0	2	-0.703	18	0	2
393	P315	max	T	0.283	19	0	2	0.219	10	2.273	10	0.427	10
394		min		0	2	-0.413	10	0	2	-0.677	9	0	2
395		max	B	0.441	11	0	2	0.27	11	2.354	17	0.515	19
396		min		-0.022	7	-0.501	19	0	2	-0.548	16	0	2
397	P304	max	T	0.034	9	0	2	0.216	18	0.54	10	0.448	18
398		min		-0.073	15	-0.462	18	0	2	-0.238	19	0	2
399		max	B	0.472	18	0.066	12	0.271	18	2.027	8	0.51	18
400		min		0	2	-0.069	18	0	2	-0.76	9	0	2
401	P821	max	T	0.053	8	0.001	8	0.18	16	1.623	10	0.524	16
402		min		-0.24	16	-0.601	16	0	2	0	2	0	2
403		max	B	0.586	16	0.24	16	0.173	16	2.142	21	0.51	16
404		min		0	2	-0.025	8	0	2	-0.655	6	0	2
405	P820	max	T	0.053	8	0.002	7	0.176	16	2.086	10	0.517	16
406		min		-0.243	16	-0.594	16	0	2	-0.594	11	0	2
407		max	B	0.587	16	0.25	16	0.168	16	1.338	6	0.51	16
408		min		0	2	-0.028	8	0	2	0	2	0	2
409	P367	max	T	0.534	6	0.103	8	0.239	6	1.925	14	0.55	14
410		min		-0.172	16	-0.601	14	0	2	0	2	0	2
411		max	B	0.565	15	0.148	16	0.21	15	2.136	9	0.508	15
412		min		-0.104	8	-0.413	7	0	2	-0.61	10	0	2
413	P118	max	T	0.434	21	0.237	21	0.269	15	2.29	18	0.561	14
414		min		-0.196	11	-0.592	14	0	2	-0.78	1	0	2
415		max	B	0.585	13	0.331	13	0.145	14	2.285	9	0.508	13
416		min		-0.267	21	-0.438	21	0	2	-0.633	8	0	2
417	P298	max	T	0.132	14	0.032	16	0.242	6	2.29	12	0.461	6
418		min		-0.054	10	-0.434	6	0	2	-0.411	11	0	2
419		max	B	0.428	6	0	2	0.28	6	2.299	18	0.507	6
420		min		0	2	-0.156	14	0	2	-0.119	17	0	2
421	P873	max	T	0.482	10	0.182	10	0.158	11	1.823	7	0.424	11
422		min		0	2	-0.178	19	0	2	-0.681	6	0	2
423		max	B	0.284	19	0	2	0.196	11	2.008	16	0.505	11
424		min		-0.186	10	-0.57	11	0	2	-0.759	15	0	2
425	P125	max	T	0.433	15	0.243	15	0.269	21	2.177	11	0.561	6
426		min		-0.198	9	-0.593	6	0	2	0	2	0	2
427		max	B	0.579	7	0.331	7	0.14	6	2.331	19	0.504	7
428		min		-0.272	15	-0.429	15	0	2	-0.585	18	0	2
429	P887	max	T	0.103	13	0	2	0.263	20	2.334	11	0.498	20
430		min		0	2	-0.463	20	0	2	-0.694	14	0	2
431		max	B	0.478	21	0.004	5	0.255	21	1.843	7	0.495	21
432		min		0	2	-0.119	13	0	2	0	2	0	2
433	P808	max	T	0.117	19	0.014	20	0.258	11	1.19	17	0.511	11
434		min		-0.01	15	-0.505	11	0	2	-0.779	18	0	2
435		max	B	0.474	10	0.015	21	0.253	10	2.345	13	0.491	10
436		min		0	17	-0.051	18	0	2	-0.777	14	0	2
437	P813	max	T	0.061	12	0	2	0.24	20	2.289	17	0.459	20
438		min		-0.007	15	-0.435	20	0	2	-0.764	18	0	2
439		max	B	0.469	21	0.001	15	0.254	21	0.911	10	0.49	21
440		min		0	2	-0.074	13	0	2	-0.651	13	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
441	P878	max	T	0.521	11	0.182	10	0.171	11	2.159	7	0.459	11
442		min		0	2	-0.214	19	0	2	-0.132	6	0	2
443		max	B	0.249	19	0	2	0.186	11	2.119	16	0.481	11
444		min		-0.186	10	-0.543	11	0	2	-0.704	15	0	2
445	P899	max	T	0.108	13	0	2	0.269	21	2.259	13	0.508	21
446		min		0	2	-0.473	20	0	2	-0.732	14	0	2
447		max	B	0.488	21	0.032	18	0.235	21	1.961	6	0.479	21
448		min		0	2	-0.123	13	0	2	0	2	0	2
449	P282	max	T	0.109	20	0	2	0.228	18	0.373	7	0.42	18
450		min		-0.055	10	-0.377	17	0	2	-0.444	11	0	2
451		max	B	0.41	18	0.05	11	0.262	18	2.073	10	0.477	18
452		min		0	2	-0.117	19	0	2	0	2	0	2
453	P295	max	T	0.1	17	0.039	16	0.218	10	2.068	15	0.42	10
454		min		-0.059	6	-0.423	9	0	2	-0.683	14	0	2
455		max	B	0.412	9	0	2	0.257	9	2.183	19	0.472	9
456		min		0	2	-0.114	17	0	2	-0.438	18	0	2
457	P94	max	T	0.163	20	0.007	6	0.185	12	1.731	17	0.37	12
458		min		-0.016	15	-0.37	12	0	2	-0.613	18	0	2
459		max	B	0.461	13	0.016	17	0.237	13	1.071	6	0.468	13
460		min		0	2	-0.144	21	0	2	-0.374	10	0	2
461	P374	max	T	0.505	7	0.14	6	0.219	15	2.087	11	0.525	15
462		min		-0.165	14	-0.582	15	0	2	-0.513	10	0	2
463		max	B	0.529	14	0.192	14	0.182	15	2.179	38	0.466	15
464		min		-0.144	6	-0.424	7	0	2	-0.747	12	0	2
465	P201	max	T	0.276	21	0.017	19	0.216	13	2.092	9	0.478	13
466		min		-0.092	11	-0.514	13	0	2	-0.375	10	0	2
467		max	B	0.494	13	0.08	11	0.213	13	1.65	17	0.464	13
468		min		-0.008	19	-0.261	21	0	2	-0.766	18	0	2
469	P105	max	T	0.161	16	0.007	14	0.183	8	2.022	13	0.367	8
470		min		-0.016	21	-0.368	8	0	2	0	2	0	2
471		max	B	0.456	7	0.016	19	0.233	7	2.319	13	0.461	7
472		min		0	2	-0.14	15	0	2	-0.37	18	0	2
473	P381	max	T	0.529	13	0.147	14	0.203	13	1.834	19	0.497	21
474		min		-0.184	6	-0.557	21	0	2	0	2	0	2
475		max	B	0.52	6	0.172	6	0.182	21	2.242	16	0.461	21
476		min		-0.141	14	-0.439	13	0	2	-0.468	17	0	2
477	P388	max	T	0.521	13	0.105	11	0.24	14	2.175	10	0.5	14
478		min		-0.183	19	-0.542	21	0	2	-0.605	17	0	2
479		max	B	0.515	21	0.147	20	0.187	21	2.147	5	0.461	21
480		min		-0.105	12	-0.399	13	0	2	-0.741	19	0	2
481	P108	max	T	0.137	10	0	2	0.184	18	1.474	6	0.368	18
482		min		-0.006	6	-0.366	18	0	2	-0.601	7	0	2
483		max	B	0.45	18	0.015	6	0.235	18	1.695	13	0.461	18
484		min		-0.008	13	-0.123	10	0	2	-0.481	14	0	2
485	P111	max	T	0.379	10	0.199	10	0.229	16	1.972	7	0.498	17
486		min		-0.14	18	-0.538	17	0	2	-0.609	6	0	2
487		max	B	0.529	18	0.285	18	0.122	18	2.165	5	0.459	18
488		min		-0.22	9	-0.372	10	0	2	-0.744	14	0	2
489	P91	max	T	0.134	10	0	2	0.185	18	1.922	21	0.369	18
490		min		-0.006	14	-0.368	18	0	2	0	2	0	2
491		max	B	0.448	18	0.016	14	0.234	18	2.318	11	0.458	18
492		min		-0.008	7	-0.115	10	0	2	-0.512	12	0	2
493	P132	max	T	0.384	10	0.21	10	0.233	20	2.252	7	0.499	19
494		min		-0.139	18	-0.535	19	0	2	-0.753	6	0	2
495		max	B	0.529	18	0.287	18	0.121	18	1.86	14	0.458	18

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
496		min		-0.232	11	-0.378	10	0	2	-0.597	13	0	2
497	P135	max	T	0.523	13	0.272	12	0.139	14	1.892	10	0.453	13
498		min		-0.078	21	-0.258	21	0	2	-0.597	9	0	2
499		max	B	0.259	21	0.098	21	0.131	14	1.88	19	0.457	13
500		min		-0.298	12	-0.526	13	0	2	-0.721	18	0	2
501	P215	max	T	0.249	11	0.025	9	0.219	19	1.434	14	0.473	19
502		min		-0.105	17	-0.502	19	0	2	-0.485	15	0	2
503		max	B	0.487	18	0.095	17	0.209	19	2.328	8	0.453	19
504		min		-0.011	9	-0.244	10	0	2	-0.574	9	0	2
505	P283A	max	T	0.379	6	0.253	7	0.206	19	2.048	18	0.443	14
506		min		-0.376	15	-0.493	14	0	2	0	2	0	2
507		max	B	0.515	15	0.373	14	0.195	18	2.28	9	0.453	15
508		min		-0.245	6	-0.393	6	0	2	-0.764	8	0	2
509	P196	max	T	0.227	10	0.027	11	0.202	17	2.092	11	0.44	17
510		min		-0.106	19	-0.477	18	0	2	-0.768	12	0	2
511		max	B	0.485	18	0.098	19	0.199	18	2.077	21	0.448	18
512		min		-0.014	11	-0.244	10	0	2	-0.701	6	0	2
513	P119	max	T	0.39	21	0.186	21	0.217	10	2.203	17	0.455	11
514		min		-0.17	14	-0.497	12	0	2	-0.629	16	0	2
515		max	B	0.513	13	0.315	13	0.118	6	2.356	38	0.448	13
516		min		-0.215	20	-0.419	21	0	2	-0.736	9	0	2
517	P246	max	T	0.397	14	0.001	10	0.287	14	0.68	14	0.509	14
518		min		-0.027	19	-0.31	6	0	2	-0.599	6	0	2
519		max	B	0.241	6	0.028	19	0.252	14	2.212	15	0.448	14
520		min		0	2	-0.35	14	0	2	0	2	0	2
521	P314	max	T	0.259	14	0	2	0.274	6	2.326	14	0.487	6
522		min		0	2	-0.383	6	0	2	-0.697	13	0	2
523		max	B	0.243	20	0	2	0.255	13	2.128	8	0.448	13
524		min		-0.017	9	-0.333	12	0	2	-0.715	7	0	2
525	P397	max	T	0.433	13	0.086	10	0.185	13	2.344	7	0.405	13
526		min		0	2	-0.198	21	0	2	-0.647	6	0	2
527		max	B	0.206	21	0	2	0.22	13	1.058	19	0.441	13
528		min		-0.058	9	-0.442	13	0	2	-0.488	17	0	2
529	P822	max	T	0.031	15	0.002	9	0.225	16	2.339	8	0.437	16
530		min		-0.002	21	-0.421	16	0	2	-0.703	9	0	2
531		max	B	0.424	16	0.002	9	0.228	16	2.342	21	0.44	16
532		min		0	2	-0.031	16	0	2	-0.703	9	0	2
533	P124	max	T	0.386	15	0.18	15	0.213	10	2.329	5	0.453	9
534		min		-0.169	6	-0.497	8	0	2	-0.763	11	0	2
535		max	B	0.505	7	0.303	8	0.113	14	2.228	19	0.44	7
536		min		-0.202	16	-0.402	15	0	2	-0.4	18	0	2
537	P281	max	T	0.336	7	0.204	8	0.205	20	2.06	8	0.427	17
538		min		-0.369	16	-0.482	17	0	2	-0.774	7	0	2
539		max	B	0.507	15	0.301	16	0.183	13	2.201	15	0.439	15
540		min		-0.199	8	-0.38	7	0	2	-0.703	14	0	2
541	P819	max	T	0.023	8	0.001	7	0.214	16	2.354	12	0.418	16
542		min		0	2	-0.406	16	0	2	-0.774	13	0	2
543		max	B	0.433	16	0.005	6	0.222	16	2.32	8	0.439	16
544		min		0	2	-0.014	8	0	2	0	2	0	2
545	P149	max	T	0.502	19	0.277	18	0.124	20	2.232	15	0.435	19
546		min		-0.062	10	-0.226	11	0	2	-0.414	14	0	2
547		max	B	0.224	11	0.076	10	0.131	21	2.284	9	0.437	19
548		min		-0.288	18	-0.505	19	0	2	-0.593	8	0	2
549	P849	max	T	0.063	18	0	2	0.202	10	2.328	21	0.405	10
550		min		-0.011	6	-0.407	10	0	2	-0.707	6	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
551		max	B	0.426	11	0.013	6	0.213	11	2.328	21	0.426	11
552		min		0	2	-0.06	19	0	2	-0.553	20	0	2
553	P816	max	T	0.057	13	0.004	13	0.215	20	1.109	10	0.426	21
554		min		-0.003	9	-0.422	21	0	2	-0.409	11	0	2
555		max	B	0.419	20	0.025	14	0.214	20	2.353	18	0.424	20
556		min		0	2	-0.01	12	0	2	-0.777	23	0	2
557	P99	max	T	0.082	21	0	2	0.136	13	1.99	16	0.276	13
558		min		-0.014	11	-0.28	13	0	2	0	2	0	2
559		max	B	0.421	11	0.021	10	0.209	12	2.304	21	0.418	12
560		min		-0.009	18	-0.126	20	0	2	-0.609	6	0	2
561	P835	max	T	0.062	12	0	2	0.196	20	2.334	15	0.391	20
562		min		-0.01	16	-0.39	20	0	2	-0.679	16	0	2
563		max	B	0.419	21	0.008	9	0.208	21	1.346	10	0.417	21
564		min		-0.01	14	-0.072	13	0	2	-0.55	11	0	2
565	P885	max	T	0.07	11	0	2	0.188	21	0.031	8	0.375	21
566		min		-0.019	19	-0.375	6	0	2	-0.141	15	0	2
567		max	B	0.416	21	0.03	18	0.209	21	1.798	14	0.417	21
568		min		0	2	-0.055	10	0	2	0	2	0	2
569	P210	max	T	0.223	15	0.03	16	0.179	7	2.013	17	0.416	7
570		min		-0.101	8	-0.456	7	0	2	-0.627	18	0	2
571		max	B	0.453	7	0.09	8	0.183	7	2.203	11	0.417	7
572		min		-0.019	16	-0.224	15	0	2	-0.131	12	0	2
573	P130A	max	T	0.482	18	0.276	18	0.118	16	2.318	13	0.419	18
574		min		-0.063	10	-0.221	10	0	2	-0.708	12	0	2
575		max	B	0.2	10	0.076	10	0.12	15	1.984	6	0.415	17
576		min		-0.289	18	-0.479	17	0	2	-0.759	21	0	2
577	P371	max	T	0.358	14	0.015	16	0.18	14	2.191	19	0.359	14
578		min		-0.015	8	-0.245	6	0	2	-0.495	18	0	2
579		max	B	0.264	6	0.006	8	0.208	14	2.201	10	0.414	14
580		min		-0.005	16	-0.412	14	0	2	-0.172	9	0	2
581	P311	max	T	0.342	20	0.063	18	0.238	13	2.345	16	0.494	13
582		min		-0.104	10	-0.519	12	0	2	-0.628	17	0	2
583		max	B	0.422	12	0.11	10	0.204	13	2.355	7	0.413	13
584		min		-0.089	18	-0.326	21	0	2	-0.67	8	0	2
585	P141	max	T	0.469	8	0.285	8	0.1	10	2.342	20	0.409	8
586		min		-0.086	16	-0.199	16	0	2	-0.557	19	0	2
587		max	B	0.19	16	0.093	16	0.097	10	2.248	14	0.411	8
588		min		-0.311	7	-0.469	9	0	2	-0.586	13	0	2
589	P900	max	T	0.102	20	0	2	0.224	20	2.347	14	0.407	20
590		min		0	2	-0.347	20	0	2	0	2	0	2
591		max	B	0.392	21	0	2	0.212	21	2.145	7	0.409	21
592		min		0	2	-0.114	13	0	2	0	2	0	2
593	P144	max	T	0.468	7	0.274	7	0.104	6	2.088	19	0.407	7
594		min		-0.081	15	-0.21	15	0	2	-0.724	18	0	2
595		max	B	0.206	15	0.099	15	0.099	6	2.13	11	0.409	7
596		min		-0.296	7	-0.467	7	0	2	-0.45	10	0	2
597	P302	max	T	0.208	11	0	2	0.234	19	2.295	6	0.424	19
598		min		0	2	-0.356	19	0	2	-0.784	7	0	2
599		max	B	0.295	19	0	2	0.233	19	0.817	18	0.408	19
600		min		0	2	-0.171	19	0	2	-0.76	14	0	2
601	P888	max	T	0.046	16	0	2	0.224	17	0.48	10	0.428	17
602		min		-0.001	7	-0.403	17	0	2	-0.214	6	0	2
603		max	B	0.394	17	0.004	5	0.209	17	1.866	10	0.406	17
604		min		0	2	-0.024	18	0	2	0	2	0	2
605	P305	max	T	0.353	6	0.051	7	0.232	14	2.108	18	0.502	14

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
606		min		-0.071	14	-0.534	14	0	2	-0.629	19	0	2
607		max	B	0.437	14	0.082	15	0.191	13	2.002	9	0.405	14
608		min		-0.064	7	-0.326	6	0	2	-0.602	10	0	2
609	P889	max	T	0.047	17	0	2	0.222	15	0.162	10	0.422	15
610		min		0	2	-0.399	14	0	2	-0.667	6	0	2
611		max	B	0.391	14	0.005	5	0.208	14	1.793	7	0.404	14
612		min		0	2	-0.026	16	0	2	0	2	0	2
613	P100	max	T	0.082	15	0	2	0.135	7	2.268	14	0.274	7
614		min		-0.015	9	-0.279	7	0	2	-0.765	15	0	2
615		max	B	0.409	9	0.022	10	0.199	8	1.482	18	0.403	9
616		min		-0.009	18	-0.111	16	0	2	-0.767	19	0	2
617	P830	max	T	0.065	19	0	2	0.202	11	2.191	18	0.407	11
618		min		-0.022	16	-0.41	11	0	2	-0.765	19	0	2
619		max	B	0.401	10	0.017	21	0.199	10	2.218	20	0.4	10
620		min		0	2	-0.032	18	0	2	0	2	0	2
621	P138	max	T	0.455	11	0.302	12	0.107	9	2.195	7	0.399	11
622		min		-0.086	19	-0.194	20	0	2	-0.777	6	0	2
623		max	B	0.172	19	0.096	20	0.102	9	2.171	15	0.4	11
624		min		-0.323	12	-0.453	11	0	2	-0.585	14	0	2
625	P207	max	T	0.209	16	0.029	16	0.157	8	1.904	19	0.395	8
626		min		-0.13	7	-0.444	8	0	2	-0.684	20	0	2
627		max	B	0.44	8	0.108	8	0.166	8	2.153	13	0.398	8
628		min		-0.018	16	-0.219	16	0	2	-0.587	14	0	2
629	P8	max	T	0.359	14	0.072	11	0.186	15	2.345	17	0.361	14
630		min		-0.035	20	-0.186	6	0	2	-0.785	14	0	2
631		max	B	0.188	6	0.046	20	0.181	14	2.305	9	0.391	14
632		min		-0.128	11	-0.416	14	0	2	0	2	0	2
633	P309	max	T	0.218	6	0	2	0.281	14	2.315	15	0.491	14
634		min		0	2	-0.344	14	0	2	-0.758	14	0	2
635		max	B	0.193	17	0	2	0.223	7	2.25	6	0.39	8
636		min		-0.093	12	-0.298	9	0	2	-0.721	21	0	2
637	P904	max	T	0.044	19	0	2	0.214	17	2.168	7	0.421	17
638		min		-0.005	12	-0.414	16	0	2	-0.634	6	0	2
639		max	B	0.417	17	0.078	15	0.177	17	1.938	10	0.389	17
640		min		0	2	-0.051	6	0	2	0	2	0	2
641	P204	max	T	0.193	20	0.042	20	0.147	11	2.042	21	0.38	12
642		min		-0.148	13	-0.432	12	0	2	-0.773	6	0	2
643		max	B	0.436	12	0.129	13	0.154	12	2.341	16	0.389	12
644		min		-0.032	20	-0.216	20	0	2	-0.132	17	0	2
645	P15	max	T	0.365	6	0.075	9	0.189	21	0.805	20	0.367	6
646		min		-0.035	16	-0.194	14	0	2	-0.631	14	0	2
647		max	B	0.185	14	0.044	16	0.18	6	2.284	18	0.388	6
648		min		-0.128	9	-0.412	6	0	2	-0.752	23	0	2
649	P109	max	T	0.206	9	0.062	11	0.138	17	1.829	12	0.323	17
650		min		-0.123	19	-0.356	17	0	2	-0.584	11	0	2
651		max	B	0.406	18	0.067	20	0.177	18	1.101	7	0.383	18
652		min		-0.06	12	-0.184	10	0	2	-0.654	6	0	2
653	P905	max	T	0.036	12	0	2	0.21	15	1.367	7	0.415	15
654		min		0	2	-0.411	15	0	2	-0.769	6	0	2
655		max	B	0.413	15	0.077	17	0.176	14	2.057	9	0.383	15
656		min		0	2	-0.041	10	0	2	0	2	0	2
657	P95	max	T	0.231	20	0.099	6	0.131	11	1.945	15	0.32	12
658		min		-0.15	14	-0.363	12	0	2	-0.592	16	0	2
659		max	B	0.412	13	0.083	14	0.174	12	0.952	18	0.383	12
660		min		-0.05	6	-0.189	21	0	2	-0.585	16	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
661	P93	max	T	0.037	20	0	2	0.122	13	2.304	20	0.235	13
662		min		-0.001	7	-0.225	13	0	2	-0.758	21	0	2
663		max	B	0.383	14	0.013	16	0.19	14	1.165	7	0.381	14
664		min		0	2	-0.056	6	0	2	-0.504	8	0	2
665	P377	max	T	0.306	12	0.021	10	0.17	13	2.278	16	0.32	12
666		min		-0.02	18	-0.214	20	0	2	-0.729	15	0	2
667		max	B	0.224	20	0.007	18	0.197	12	2.085	7	0.381	12
668		min		-0.011	10	-0.371	11	0	2	-0.764	6	0	2
669	P136	max	T	0.344	14	0	2	0.216	14	2.296	20	0.396	14
670		min		-0.145	8	-0.241	6	0	2	-0.74	7	0	2
671		max	B	0.248	6	0.125	7	0.204	14	2.164	18	0.381	14
672		min		0	2	-0.347	14	0	2	0	2	0	2
673	P90	max	T	0.198	11	0.061	9	0.137	19	2.255	15	0.322	19
674		min		-0.123	17	-0.354	19	0	2	0	2	0	2
675		max	B	0.404	18	0.069	16	0.176	18	2.131	11	0.381	18
676		min		-0.061	8	-0.174	10	0	2	0	2	0	2
677	P98	max	T	0.187	6	0.066	19	0.121	14	2.022	17	0.296	14
678		min		-0.128	12	-0.33	14	0	2	0	2	0	2
679		max	B	0.406	13	0.088	10	0.173	13	2.29	21	0.38	13
680		min		-0.048	18	-0.187	21	0	2	-0.763	6	0	2
681	P874	max	T	0.396	21	0.188	20	0.107	21	2.159	17	0.344	21
682		min		0	2	-0.109	13	0	2	-0.675	16	0	2
683		max	B	0.153	13	0	2	0.139	6	1.647	10	0.379	21
684		min		-0.177	19	-0.432	21	0	2	-0.626	9	0	2
685	P104	max	T	0.229	16	0.098	14	0.131	9	2.049	12	0.319	9
686		min		-0.15	6	-0.361	8	0	2	0	2	0	2
687		max	B	0.409	7	0.086	6	0.171	8	2.239	15	0.379	8
688		min		-0.051	14	-0.187	15	0	2	-0.775	14	0	2
689	P282A	max	T	0.26	21	0	2	0.243	13	2.309	19	0.433	13
690		min		0	2	-0.375	14	0	2	-0.745	20	0	2
691		max	B	0.311	14	0	2	0.218	19	2.286	10	0.378	13
692		min		0	2	-0.25	21	0	2	-0.67	11	0	2
693	P92	max	T	0.032	10	0	2	0.122	18	1.886	21	0.233	18
694		min		-0.004	7	-0.22	18	0	2	0	2	0	2
695		max	B	0.378	16	0.015	14	0.187	17	2.175	9	0.376	16
696		min		-0.003	7	-0.037	9	0	2	-0.62	10	0	2
697	P285	max	T	0.185	10	0.036	8	0.24	19	2.275	14	0.425	19
698		min		-0.058	15	-0.333	18	0	2	-0.775	12	0	2
699		max	B	0.26	18	0.037	14	0.216	19	2.343	6	0.375	19
700		min		-0.004	7	-0.184	19	0	2	-0.778	21	0	2
701	P106	max	T	0.036	16	0	2	0.119	7	1.922	11	0.229	7
702		min		-0.002	13	-0.219	7	0	2	0	2	0	2
703		max	B	0.375	6	0.014	20	0.186	6	2.182	14	0.373	6
704		min		0	2	-0.052	14	0	2	-0.74	15	0	2
705	P107	max	T	0.032	10	0	2	0.121	18	2.289	11	0.231	18
706		min		-0.004	13	-0.219	18	0	2	0	2	0	2
707		max	B	0.374	20	0.015	6	0.186	19	1.804	13	0.372	19
708		min		-0.003	13	-0.039	11	0	2	-0.565	14	0	2
709	P239	max	T	0.333	17	0.163	19	0.256	14	2.129	19	0.45	14
710		min		-0.071	10	-0.383	13	0	2	-0.726	18	0	2
711		max	B	0.301	12	0.062	10	0.213	15	2.334	21	0.371	15
712		min		-0.143	20	-0.3	17	0	2	0	2	0	2
713	P312	max	T	0.252	20	0.073	18	0.223	14	2.319	15	0.412	13
714		min		-0.111	10	-0.418	11	0	2	-0.735	16	0	2
715		max	B	0.346	12	0.13	10	0.213	14	2.338	6	0.371	14

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
716		min		-0.101	18	-0.253	20	0	2	-0.692	7	0	2
717	P396	max	T	0.395	13	0.072	10	0.167	13	2.289	7	0.368	13
718		min		0	2	-0.205	21	0	2	-0.689	18	0	2
719		max	B	0.21	21	0	2	0.173	13	0.944	20	0.37	13
720		min		-0.052	10	-0.39	13	0	2	-0.437	14	0	2
721	P372	max	T	0.288	13	0	2	0.158	13	2.332	18	0.303	13
722		min		-0.003	8	-0.207	21	0	2	0	2	0	2
723		max	B	0.224	6	0	2	0.192	13	2.083	10	0.369	13
724		min		0	2	-0.356	14	0	2	-0.409	9	0	2
725	P893	max	T	0.192	12	0	2	0.192	11	2.331	6	0.333	11
726		min		-0.024	7	-0.2	11	0	2	0	2	0	2
727		max	B	0.258	11	0.056	7	0.211	12	1.963	16	0.368	11
728		min		0	2	-0.181	12	0	2	-0.779	14	0	2
729	P844	max	T	0.024	8	0	2	0.181	16	2.309	8	0.363	16
730		min		-0.009	21	-0.366	16	0	2	-0.223	10	0	2
731		max	B	0.37	16	0.01	11	0.182	16	2.199	9	0.367	16
732		min		0	2	-0.013	8	0	2	0	2	0	2
733	P349	max	T	0.322	14	0	2	0.168	14	2.152	19	0.329	14
734		min		0	8	-0.207	6	0	2	-0.37	18	0	2
735		max	B	0.229	6	0	2	0.187	14	2.171	10	0.366	14
736		min		0	2	-0.358	14	0	2	-0.101	9	0	2
737	P253	max	T	0.281	7	0.003	10	0.221	6	0.733	14	0.388	6
738		min		-0.053	17	-0.194	20	0	2	-0.494	6	0	2
739		max	B	0.166	21	0.045	17	0.208	6	2.331	14	0.366	6
740		min		0	2	-0.266	7	0	2	0	2	0	2
741	P370	max	T	0.306	15	0.024	15	0.141	15	2.264	20	0.295	15
742		min		-0.022	7	-0.186	7	0	2	-0.722	19	0	2
743		max	B	0.212	7	0.011	7	0.179	15	2.003	11	0.363	15
744		min		-0.011	15	-0.369	15	0	2	-0.694	10	0	2
745	P391	max	T	0.203	19	0.003	38	0.185	20	2.351	10	0.321	20
746		min		-0.006	8	-0.173	21	0	2	-0.782	11	0	2
747		max	B	0.199	20	0	2	0.209	19	2.313	6	0.362	19
748		min		0	2	-0.222	19	0	2	-0.782	21	0	2
749	P101	max	T	0.183	14	0.064	17	0.121	6	1.712	10	0.295	6
750		min		-0.128	8	-0.329	6	0	2	-0.755	11	0	2
751		max	B	0.39	7	0.092	10	0.163	7	2.024	18	0.362	7
752		min		-0.048	18	-0.169	15	0	2	-0.664	19	0	2
753	P841	max	T	0.025	7	0	2	0.171	16	1.062	9	0.349	16
754		min		-0.025	19	-0.357	16	0	2	-0.552	11	0	2
755		max	B	0.372	16	0.033	18	0.171	16	2.31	8	0.358	16
756		min		0	2	-0.013	8	0	2	0	2	0	2
757	P879	max	T	0.16	10	0.091	12	0.156	21	2.113	11	0.29	20
758		min		0	2	-0.267	20	0	2	-0.752	10	0	2
759		max	B	0.339	20	0.004	18	0.19	21	1.786	15	0.357	20
760		min		-0.098	11	-0.199	11	0	2	-0.399	14	0	2
761	P1	max	T	0.345	16	0.087	19	0.189	15	0.834	13	0.361	15
762		min		-0.038	10	-0.172	8	0	2	-0.598	8	0	2
763		max	B	0.117	9	0.04	10	0.172	15	2.332	13	0.352	16
764		min		-0.181	19	-0.38	17	0	2	-0.757	14	0	2
765	P383	max	T	0.277	6	0.004	19	0.154	7	1.864	11	0.291	7
766		min		-0.007	12	-0.196	14	0	2	-0.601	10	0	2
767		max	B	0.215	14	0	2	0.181	6	2.017	18	0.349	6
768		min		0	2	-0.334	6	0	2	-0.639	17	0	2
769	P22	max	T	0.344	20	0.088	17	0.188	21	2.35	9	0.359	21
770		min		-0.035	10	-0.178	12	0	2	-0.772	19	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
771		max	B	0.119	11	0.038	10	0.169	21	2.321	13	0.348	20
772		min		-0.182	17	-0.377	19	0	2	-0.739	14	0	2
773	P409	max	T	0.28	19	0.054	15	0.176	19	2.257	18	0.322	19
774		min		0	2	-0.143	11	0	2	0	2	0	2
775		max	B	0.159	11	0	2	0.19	19	0.679	19	0.345	19
776		min		-0.015	15	-0.295	19	0	2	-0.755	12	0	2
777	P260	max	T	0.395	20	0.067	17	0.219	21	0.792	20	0.409	20
778		min		-0.071	10	-0.369	11	0	2	-0.368	13	0	2
779		max	B	0.306	12	0.062	10	0.176	21	2.336	21	0.345	20
780		min		-0.045	18	-0.344	20	0	2	0	2	0	2
781	P142	max	T	0.23	9	0	2	0.2	9	2.347	15	0.347	9
782		min		-0.051	19	-0.173	8	0	2	-0.782	18	0	2
783		max	B	0.144	9	0.048	15	0.196	9	2.143	13	0.343	9
784		min		0	2	-0.248	9	0	2	0	2	0	2
785	P891	max	T	0.05	11	0	2	0.161	6	0.387	13	0.333	6
786		min		-0.052	19	-0.344	6	0	2	-0.017	21	0	2
787		max	B	0.361	21	0.04	21	0.161	6	2.136	13	0.342	21
788		min		0	2	-0.002	12	0	2	0	2	0	2
789	P589	max	T	0.181	12	0	2	0.181	12	2.351	18	0.313	12
790		min		0	2	-0.181	12	0	2	-0.782	17	0	2
791		max	B	0.198	13	0.001	16	0.197	12	2.355	12	0.342	12
792		min		0	2	-0.197	12	0	2	-0.758	13	0	2
793	P129A	max	T	0.287	15	0.015	13	0.191	17	2.351	6	0.336	17
794		min		-0.14	6	-0.223	20	0	2	-0.631	21	0	2
795		max	B	0.197	7	0.116	6	0.186	15	2.229	8	0.341	15
796		min		0	2	-0.296	15	0	2	0	2	0	2
797	P143	max	T	0.254	6	0	2	0.195	6	0.762	15	0.343	6
798		min		-0.089	12	-0.193	9	0	2	-0.502	6	0	2
799		max	B	0.176	13	0.078	12	0.191	6	2.345	16	0.339	6
800		min		0	2	-0.267	6	0	2	-0.771	15	0	2
801	P910	max	T	0.166	11	0	2	0.193	11	2.282	38	0.335	11
802		min		-0.02	16	-0.22	11	0	2	-0.771	14	0	2
803		max	B	0.264	11	0.012	16	0.191	11	2.327	16	0.339	11
804		min		0	2	-0.14	19	0	2	-0.76	17	0	2
805	P838	max	T	0.04	13	0	2	0.166	20	0.664	9	0.342	20
806		min		-0.023	18	-0.352	20	0	2	-0.735	12	0	2
807		max	B	0.352	19	0.033	18	0.162	20	2.2	9	0.338	20
808		min		0	2	-0.002	12	0	2	-0.611	11	0	2
809	P348	max	T	0.29	15	0	2	0.147	15	2.244	20	0.292	15
810		min		-0.001	7	-0.169	7	0	2	-0.665	19	0	2
811		max	B	0.198	7	0	2	0.171	15	1.931	11	0.337	15
812		min		0	2	-0.332	15	0	2	-0.6	10	0	2
813	P398	max	T	0.287	12	0.044	8	0.135	13	1.422	8	0.278	13
814		min		0	2	-0.121	20	0	2	-0.433	21	0	2
815		max	B	0.134	20	0	2	0.18	13	1.353	7	0.335	13
816		min		-0.047	8	-0.306	12	0	2	-0.424	17	0	2
817	P886	max	T	0.081	21	0	2	0.188	21	0.323	6	0.344	21
818		min		0	2	-0.296	21	0	2	-0.425	13	0	2
819		max	B	0.277	14	0.012	17	0.187	21	1.978	6	0.335	21
820		min		0	2	-0.105	6	0	2	0	2	0	2
821	P317	max	T	0.29	14	0.053	13	0.191	7	2.228	10	0.41	6
822		min		-0.07	21	-0.439	6	0	2	-0.352	11	0	2
823		max	B	0.35	7	0.08	21	0.158	7	2.23	17	0.334	7
824		min		-0.066	13	-0.276	15	0	2	-0.747	18	0	2
825	P150	max	T	0.265	21	0	2	0.191	19	0.557	17	0.335	19

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
826		min		-0.109	14	-0.206	17	0	2	-0.749	12	0	2
827		max	B	0.179	13	0.075	14	0.188	20	2.145	6	0.334	20
828		min		0	2	-0.272	21	0	2	0	2	0	2
829	P595	max	T	0.101	13	0	2	0.156	21	2.317	14	0.308	21
830		min		-0.056	17	-0.303	21	0	2	-0.68	15	0	2
831		max	B	0.306	21	0.044	17	0.178	21	2.102	6	0.334	21
832		min		0	2	-0.107	13	0	2	0	2	0	2
833	P369	max	T	0.264	17	0.002	14	0.143	18	1.913	6	0.276	17
834		min		-0.004	7	-0.162	9	0	2	-0.745	21	0	2
835		max	B	0.173	9	0	2	0.173	17	2.278	11	0.333	17
836		min		0	2	-0.318	17	0	2	-0.542	10	0	2
837	P408	max	T	0.198	19	0.003	38	0.166	19	2.293	18	0.29	19
838		min		0	2	-0.157	11	0	2	0	2	0	2
839		max	B	0.17	19	0	2	0.192	19	2.352	10	0.332	19
840		min		0	2	-0.213	19	0	2	-0.784	12	0	2
841	P403	max	T	0.359	7	0.133	7	0.113	7	2.295	12	0.314	7
842		min		0	15	-0.128	15	0	2	-0.775	13	0	2
843		max	B	0.133	15	0	2	0.139	7	2.296	18	0.332	7
844		min		-0.091	7	-0.368	7	0	2	-0.541	19	0	2
845	P911	max	T	0.209	11	0	2	0.229	11	0.66	19	0.397	11
846		min		-0.036	17	-0.249	11	0	2	-0.602	12	0	2
847		max	B	0.237	11	0.04	6	0.19	11	2.012	19	0.332	11
848		min		0	2	-0.143	11	0	2	0	2	0	2
849	P402	max	T	0.355	8	0.129	8	0.113	8	2.356	13	0.311	8
850		min		-0.001	16	-0.129	15	0	2	-0.566	14	0	2
851		max	B	0.128	15	0	17	0.14	8	2.125	18	0.331	8
852		min		-0.084	8	-0.364	8	0	2	-0.556	19	0	2
853	P137	max	T	0.232	10	0	2	0.191	11	0.781	18	0.331	10
854		min		-0.093	17	-0.203	13	0	2	-0.502	14	0	2
855		max	B	0.161	13	0.051	17	0.188	10	2.304	19	0.331	10
856		min		0	2	-0.243	10	0	2	0	2	0	2
857	P116	max	T	0.078	21	0	2	0.15	13	2.338	18	0.279	13
858		min		0	2	-0.253	13	0	2	-0.405	19	0	2
859		max	B	0.299	13	0	2	0.175	13	1.338	7	0.328	13
860		min		0	2	-0.103	21	0	2	-0.278	8	0	2
861	P313	max	T	0.254	15	0.044	18	0.207	6	2.294	14	0.389	7
862		min		-0.069	10	-0.38	7	0	2	-0.758	15	0	2
863		max	B	0.293	7	0.082	10	0.181	6	1.427	18	0.327	6
864		min		-0.073	18	-0.249	15	0	2	-0.742	19	0	2
865	P304A	max	T	0.256	6	0.047	7	0.196	14	2.297	19	0.417	15
866		min		-0.054	15	-0.441	15	0	2	-0.715	20	0	2
867		max	B	0.362	15	0.09	15	0.149	13	2.311	10	0.326	14
868		min		-0.068	7	-0.247	6	0	2	-0.608	11	0	2
869	P130	max	T	0.079	10	0	2	0.149	18	2.168	7	0.276	18
870		min		0	2	-0.249	18	0	2	-0.58	8	0	2
871		max	B	0.295	18	0.002	7	0.175	18	1.31	12	0.326	18
872		min		0	2	-0.084	10	0	2	-0.348	13	0	2
873	P113	max	T	0.074	10	0	2	0.148	18	1.879	6	0.276	18
874		min		0	2	-0.249	18	0	2	-0.518	7	0	2
875		max	B	0.295	18	0.003	13	0.175	18	2.078	12	0.326	18
876		min		0	2	-0.08	10	0	2	-0.296	13	0	2
877	P898	max	T	0.113	13	0	2	0.198	21	0.291	6	0.379	21
878		min		-0.002	9	-0.362	20	0	2	-0.715	12	0	2
879		max	B	0.344	20	0.064	18	0.151	21	1.85	21	0.324	20
880		min		0	2	-0.098	13	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
881	P127	max	T	0.076	16	0	2	0.149	7	2.182	13	0.277	7
882		min		0	2	-0.251	7	0	2	0	2	0	2
883		max	B	0.294	7	0	2	0.172	7	1.929	17	0.323	7
884		min		0	2	-0.099	15	0	2	-0.781	18	0	2
885	P390	max	T	0.261	18	0.035	15	0.158	19	2.321	10	0.286	18
886		min		0	2	-0.125	10	0	2	-0.673	9	0	2
887		max	B	0.142	10	0	2	0.18	19	2.338	20	0.322	19
888		min		-0.012	1	-0.279	18	0	2	-0.763	19	0	2
889	P384	max	T	0.275	6	0.01	20	0.137	6	2.356	10	0.275	6
890		min		-0.012	12	-0.187	14	0	2	-0.504	9	0	2
891		max	B	0.203	14	0.004	12	0.162	6	2.343	17	0.322	6
892		min		-0.002	21	-0.32	6	0	2	-0.621	16	0	2
893	P289	max	T	0.116	20	0	2	0.119	15	2.331	6	0.239	13
894		min		-0.054	10	-0.254	13	0	2	-0.771	21	0	2
895		max	B	0.283	13	0	2	0.175	13	1.36	10	0.322	13
896		min		0	2	-0.067	12	0	2	0	2	0	2
897	P875	max	T	0.348	20	0.19	19	0.084	21	2.193	15	0.302	20
898		min		0	2	-0.072	13	0	2	-0.732	14	0	2
899		max	B	0.124	13	0	2	0.107	6	2.353	9	0.322	21
900		min		-0.188	19	-0.371	21	0	2	-0.706	8	0	2
901	P303A	max	T	0.222	9	0.04	8	0.183	18	2.34	21	0.384	17
902		min		-0.057	16	-0.407	17	0	2	-0.458	6	0	2
903		max	B	0.325	18	0.066	15	0.158	18	2.313	11	0.321	18
904		min		-0.059	7	-0.222	10	0	2	-0.746	12	0	2
905	P214	max	T	0.147	11	0.002	13	0.147	19	2.322	21	0.319	19
906		min		-0.05	21	-0.339	19	0	2	0	2	0	2
907		max	B	0.333	18	0.054	6	0.152	18	2.333	9	0.319	18
908		min		0	2	-0.146	10	0	2	-0.742	10	0	2
909	P197	max	T	0.132	10	0.016	7	0.145	18	2.301	10	0.309	18
910		min		-0.051	15	-0.325	18	0	2	-0.68	13	0	2
911		max	B	0.332	18	0.053	15	0.152	18	2.325	16	0.319	18
912		min		0	2	-0.146	10	0	2	-0.785	17	0	2
913	P355	max	T	0.268	11	0.006	10	0.146	12	2.299	16	0.279	12
914		min		-0.011	18	-0.168	19	0	2	-0.682	15	0	2
915		max	B	0.188	19	0.003	18	0.163	12	2.054	7	0.317	11
916		min		-0.002	10	-0.311	11	0	2	-0.733	6	0	2
917	P296A	max	T	0.211	14	0	2	0.222	6	2.188	9	0.411	6
918		min		0	2	-0.379	21	0	2	-0.695	10	0	2
919		max	B	0.292	21	0.001	20	0.17	7	2.268	16	0.317	6
920		min		-0.004	12	-0.213	14	0	2	-0.764	17	0	2
921	P378	max	T	0.258	11	0.029	10	0.148	14	2.259	16	0.271	13
922		min		-0.024	18	-0.172	20	0	2	-0.781	15	0	2
923		max	B	0.183	19	0.011	18	0.161	12	2.317	6	0.316	11
924		min		-0.017	10	-0.319	10	0	2	-0.618	21	0	2
925	P306	max	T	0.272	21	0.047	7	0.194	13	2.101	18	0.406	13
926		min		-0.06	15	-0.424	14	0	2	-0.706	19	0	2
927		max	B	0.33	13	0.063	15	0.149	13	2.252	9	0.316	13
928		min		-0.052	7	-0.254	21	0	2	-0.597	10	0	2
929	P298A	max	T	0.181	11	0	2	0.229	18	2.337	9	0.403	18
930		min		0	2	-0.334	19	0	2	-0.582	10	0	2
931		max	B	0.261	19	0.011	6	0.178	18	2.035	14	0.315	18
932		min		-0.005	13	-0.177	11	0	2	-0.781	15	0	2
933	P375	max	T	0.361	18	0.117	19	0.174	16	2.202	7	0.346	17
934		min		-0.154	11	-0.379	10	0	2	-0.772	6	0	2
935		max	B	0.355	10	0.137	11	0.122	10	2.139	19	0.314	10

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
936		min		-0.112	20	-0.258	18	0	2	0	2	0	2
937	P252	max	T	0.265	9	0	2	0.193	10	0.512	11	0.338	10
938		min		-0.063	15	-0.158	11	0	2	-0.594	17	0	2
939		max	B	0.13	11	0.056	15	0.177	9	2.069	12	0.314	9
940		min		0	2	-0.249	9	0	2	0	2	0	2
941	P890	max	T	0.069	11	0	2	0.144	6	0.066	21	0.281	21
942		min		-0.017	19	-0.284	21	0	2	-0.068	13	0	2
943		max	B	0.332	20	0.04	19	0.146	20	1.65	13	0.314	20
944		min		0	2	-0.066	12	0	2	0	2	0	2
945	P192	max	T	0.143	11	0	2	0.162	19	2.119	21	0.323	19
946		min		-0.016	15	-0.322	19	0	2	0	2	0	2
947		max	B	0.313	18	0.01	15	0.157	18	2.352	12	0.313	18
948		min		0	2	-0.137	10	0	2	-0.754	7	0	2
949	P175	max	T	0.128	10	0	2	0.152	18	1.749	6	0.306	18
950		min		-0.015	21	-0.308	18	0	2	-0.745	7	0	2
951		max	B	0.313	18	0.008	38	0.156	18	1.27	13	0.313	18
952		min		0	2	-0.137	10	0	2	-0.754	14	0	2
953	P380	max	T	0.382	19	0.099	17	0.178	20	2.227	7	0.368	19
954		min		-0.161	9	-0.385	11	0	2	-0.7	6	0	2
955		max	B	0.351	10	0.105	10	0.123	10	2.344	10	0.312	10
956		min		-0.093	17	-0.257	18	0	2	-0.71	11	0	2
957	P97	max	T	0.263	6	0.135	20	0.139	15	2.243	18	0.362	14
958		min		-0.172	13	-0.412	13	0	2	-0.421	19	0	2
959		max	B	0.357	13	0.174	11	0.121	14	2.263	6	0.31	13
960		min		-0.124	20	-0.197	21	0	2	-0.778	7	0	2
961	P877	max	T	0.33	16	0.197	16	0.066	16	2.086	11	0.288	16
962		min		0	2	-0.04	8	0	2	-0.179	6	0	2
963		max	B	0.074	8	0.004	9	0.081	17	1.709	6	0.31	16
964		min		-0.195	16	-0.357	16	0	2	-0.195	21	0	2
965	P327	max	T	0.288	14	0	2	0.146	14	1.99	19	0.29	14
966		min		-0.001	9	-0.175	6	0	2	-0.175	18	0	2
967		max	B	0.199	6	0	2	0.156	14	2.047	10	0.31	14
968		min		0	2	-0.307	14	0	2	-0.03	9	0	2
969	P200	max	T	0.16	21	0.016	7	0.15	13	2.327	14	0.325	13
970		min		-0.057	15	-0.345	13	0	2	0	2	0	2
971		max	B	0.325	13	0.052	15	0.145	12	2.314	18	0.309	13
972		min		0	2	-0.149	21	0	2	-0.686	19	0	2
973	P903	max	T	0.101	19	0	2	0.179	18	2.252	7	0.325	18
974		min		0	2	-0.277	18	0	2	-0.694	6	0	2
975		max	B	0.284	18	0.045	15	0.17	19	1.963	11	0.308	19
976		min		0	2	-0.101	6	0	2	0	2	0	2
977	P247	max	T	0.245	10	0	2	0.206	9	0.57	18	0.356	9
978		min		-0.07	19	-0.215	7	0	2	-0.737	21	0	2
979		max	B	0.179	7	0.063	19	0.177	9	2.106	18	0.308	9
980		min		0	2	-0.231	11	0	2	0	2	0	2
981	P880	max	T	0.19	21	0	2	0.15	21	0.605	6	0.262	21
982		min		0	2	-0.126	13	0	2	-0.37	13	0	2
983		max	B	0.188	13	0	2	0.175	6	2.25	6	0.308	6
984		min		0	2	-0.23	21	0	2	0	2	0	2
985	P178	max	T	0.154	21	0	2	0.164	13	2.128	14	0.327	13
986		min		-0.008	23	-0.326	13	0	2	0	2	0	2
987		max	B	0.303	13	0.008	38	0.156	13	2.312	21	0.307	13
988		min		0	2	-0.137	21	0	2	-0.755	6	0	2
989	P102	max	T	0.258	14	0.133	16	0.14	21	2.34	11	0.362	6
990		min		-0.171	7	-0.412	7	0	2	-0.703	12	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
991		max	B	0.353	7	0.174	8	0.115	6	1.867	17	0.306	7
992		min		-0.124	16	-0.185	15	0	2	-0.753	18	0	2
993	P350	max	T	0.25	13	0.004	17	0.141	13	2.293	18	0.268	13
994		min		-0.006	8	-0.168	21	0	2	0	2	0	2
995		max	B	0.185	6	0.002	8	0.158	13	2.009	10	0.305	14
996		min		0	17	-0.294	14	0	2	-0.344	9	0	2
997	P892	max	T	0.207	11	0	2	0.206	10	0.675	13	0.358	10
998		min		-0.052	21	-0.247	9	0	2	-0.643	17	0	2
999		max	B	0.237	9	0.025	21	0.173	10	2.33	12	0.304	10
1000		min		0	2	-0.141	11	0	2	-0.78	14	0	2
1001	P884	max	T	0.189	11	0.057	11	0.133	21	0.898	12	0.261	19
1002		min		0	2	-0.258	19	0	2	0	2	0	2
1003		max	B	0.305	19	0.005	19	0.15	19	2.299	14	0.302	19
1004		min		-0.061	10	-0.237	11	0	2	-0.688	13	0	2
1005	P386	max	T	0.231	19	0	2	0.134	18	2.249	9	0.25	18
1006		min		0	2	-0.148	11	0	2	-0.757	8	0	2
1007		max	B	0.16	11	0	2	0.158	19	2.282	15	0.301	19
1008		min		0	2	-0.283	19	0	2	-0.323	14	0	2
1009	P906	max	T	0.092	13	0	2	0.176	14	2.087	6	0.318	14
1010		min		0	2	-0.265	14	0	2	-0.604	21	0	2
1011		max	B	0.266	14	0.034	18	0.164	13	2.262	8	0.3	13
1012		min		0	2	-0.093	10	0	2	0	2	0	2
1013	P606	max	T	0.143	19	0	2	0.16	11	2.321	8	0.277	11
1014		min		-0.002	15	-0.178	11	0	2	-0.753	9	0	2
1015		max	B	0.184	11	0	2	0.173	11	2.351	18	0.3	11
1016		min		0	2	-0.162	11	0	2	0	2	0	2
1017	P876	max	T	0.335	16	0.201	16	0.067	17	1.83	21	0.292	16
1018		min		0	2	-0.045	8	0	2	-0.215	6	0	2
1019		max	B	0.07	8	0.004	7	0.075	16	1.667	6	0.299	16
1020		min		-0.195	16	-0.345	16	0	2	-0.706	21	0	2
1021	P211	max	T	0.134	15	0.013	14	0.136	7	2.326	15	0.296	7
1022		min		-0.057	21	-0.316	7	0	2	0	2	0	2
1023		max	B	0.315	7	0.053	21	0.141	8	0.826	18	0.299	7
1024		min		-0.002	14	-0.135	15	0	2	-0.761	21	0	2
1025	P318	max	T	0.248	14	0.04	13	0.178	6	2.333	10	0.372	6
1026		min		-0.045	21	-0.386	6	0	2	-0.324	11	0	2
1027		max	B	0.32	6	0.066	21	0.142	7	2.32	17	0.299	6
1028		min		-0.056	13	-0.234	14	0	2	-0.579	18	0	2
1029	P189	max	T	0.131	15	0	2	0.147	7	1.73	12	0.298	7
1030		min		-0.008	20	-0.302	7	0	2	-0.666	17	0	2
1031		max	B	0.297	7	0.009	19	0.148	7	1.256	18	0.296	7
1032		min		0	2	-0.128	15	0	2	-0.542	21	0	2
1033	P326	max	T	0.267	15	0	2	0.134	15	2.18	20	0.268	15
1034		min		0	2	-0.149	7	0	2	-0.49	19	0	2
1035		max	B	0.182	7	0	2	0.149	15	1.761	11	0.296	15
1036		min		0	2	-0.295	15	0	2	-0.383	10	0	2
1037	P894	max	T	0.167	21	0	2	0.145	21	2.33	21	0.252	21
1038		min		0	2	-0.146	13	0	2	-0.764	6	0	2
1039		max	B	0.178	12	0.019	9	0.17	21	2.347	10	0.296	21
1040		min		-0.026	17	-0.201	20	0	2	-0.31	9	0	2
1041	P121	max	T	0.04	14	0	2	0.116	12	1.908	17	0.215	12
1042		min		0	2	-0.195	12	0	2	-0.67	18	0	2
1043		max	B	0.273	12	0.001	8	0.156	12	2.112	21	0.294	12
1044		min		0	2	-0.065	20	0	2	-0.784	6	0	2
1045	P590	max	T	0.161	21	0	2	0.159	13	2.345	6	0.276	13

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1046		min		0	2	-0.159	13	0	2	-0.678	8	0	2
1047		max	B	0.167	13	0	2	0.17	12	2.272	13	0.294	12
1048		min		0	9	-0.175	12	0	2	-0.783	14	0	2
1049	P362	max	T	0.254	6	0	2	0.133	6	1.684	11	0.26	6
1050		min		0	2	-0.161	14	0	2	-0.766	10	0	2
1051		max	B	0.181	14	0	2	0.15	6	1.831	18	0.292	6
1052		min		0	2	-0.285	6	0	2	-0.762	17	0	2
1053	P285A	max	T	0.253	21	0	2	0.272	13	1.301	17	0.496	13
1054		min		-0.006	8	-0.425	13	0	2	-0.623	18	0	2
1055		max	B	0.25	11	0.018	7	0.159	11	1.85	7	0.291	11
1056		min		-0.008	16	-0.237	19	0	2	-0.553	8	0	2
1057	P385	max	T	0.242	20	0.01	21	0.118	20	2.16	10	0.239	20
1058		min		-0.013	13	-0.147	12	0	2	-0.648	9	0	2
1059		max	B	0.165	13	0.005	13	0.146	20	2.315	16	0.29	20
1060		min		0	2	-0.289	21	0	2	-0.628	15	0	2
1061	P376	max	T	0.17	13	0.029	10	0.117	14	1.331	18	0.204	14
1062		min		-0.053	18	-0.14	21	0	2	-0.542	17	0	2
1063		max	B	0.164	21	0.024	18	0.151	13	2.258	7	0.29	13
1064		min		-0.041	10	-0.276	12	0	2	-0.701	6	0	2
1065	P607	max	T	0.12	12	0	2	0.16	11	0.705	6	0.281	11
1066		min		-0.043	7	-0.202	11	0	2	-0.778	9	0	2
1067		max	B	0.211	11	0.025	7	0.164	11	2.163	19	0.288	11
1068		min		0	2	-0.117	11	0	2	0	2	0	2
1069	P320	max	T	0.206	11	0.037	13	0.178	18	2.204	8	0.356	19
1070		min		-0.039	21	-0.368	19	0	2	-0.777	9	0	2
1071		max	B	0.289	19	0.062	21	0.144	18	2.179	14	0.288	18
1072		min		-0.057	13	-0.199	10	0	2	-0.705	15	0	2
1073	P594	max	T	0.121	13	0	2	0.153	21	2.349	13	0.291	21
1074		min		-0.053	9	-0.275	21	0	2	-0.749	14	0	2
1075		max	B	0.269	21	0.039	9	0.154	13	2.166	6	0.288	21
1076		min		0	2	-0.135	13	0	2	0	2	0	2
1077	P361	max	T	0.243	6	0.007	19	0.132	7	1.872	11	0.252	6
1078		min		-0.011	12	-0.162	14	0	2	-0.478	10	0	2
1079		max	B	0.18	14	0.004	12	0.147	6	2.018	18	0.287	6
1080		min		-0.002	19	-0.279	6	0	2	-0.562	17	0	2
1081	P392	max	T	0.149	21	0	2	0.152	21	2.334	15	0.264	21
1082		min		0	2	-0.155	21	0	2	-0.77	14	0	2
1083		max	B	0.175	20	0	2	0.165	20	2.352	6	0.287	20
1084		min		0	9	-0.159	21	0	2	-0.694	21	0	2
1085	P897	max	T	0.08	11	0	2	0.117	11	0	2	0.206	11
1086		min		0	2	-0.16	12	0	2	-0.675	12	0	2
1087		max	B	0.225	13	0.034	18	0.161	13	1.808	6	0.285	13
1088		min		0	2	-0.115	11	0	2	0	2	0	2
1089	P912	max	T	0.065	12	0	2	0.129	9	0.089	19	0.257	6
1090		min		-0.056	19	-0.277	21	0	2	-0.334	11	0	2
1091		max	B	0.306	21	0.057	6	0.127	20	1.65	19	0.283	20
1092		min		0	2	-0.03	13	0	2	0	2	0	2
1093	P122	max	T	0.04	6	0	2	0.114	8	2.315	14	0.213	8
1094		min		0	2	-0.192	8	0	2	-0.539	15	0	2
1095		max	B	0.265	9	0.001	12	0.15	8	1.586	18	0.283	8
1096		min		0	2	-0.055	16	0	2	-0.451	19	0	2
1097	P103	max	T	0.237	16	0.154	15	0.118	20	2.274	13	0.337	7
1098		min		-0.193	7	-0.39	7	0	2	-0.638	14	0	2
1099		max	B	0.325	8	0.203	7	0.104	10	2.34	21	0.283	8
1100		min		-0.142	15	-0.18	17	0	2	-0.177	6	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1101	P356	max	T	0.239	10	0.011	10	0.118	12	2.323	15	0.235	11
1102		min		-0.013	18	-0.14	19	0	2	-0.603	14	0	2
1103		max	B	0.161	18	0.004	18	0.14	10	2.272	6	0.282	10
1104		min		-0.005	10	-0.285	10	0	2	-0.592	21	0	2
1105	P96	max	T	0.241	20	0.155	21	0.117	16	2.344	17	0.337	13
1106		min		-0.195	13	-0.39	13	0	2	-0.639	18	0	2
1107		max	B	0.321	12	0.204	13	0.104	10	1.33	21	0.279	12
1108		min		-0.145	21	-0.18	19	0	2	-0.608	6	0	2
1109	P156	max	T	0.11	21	0	2	0.164	13	1.925	13	0.295	13
1110		min		-0.002	9	-0.242	13	0	2	0	2	0	2
1111		max	B	0.224	13	0.002	18	0.156	13	2.319	7	0.279	13
1112		min		0	2	-0.093	21	0	2	-0.55	8	0	2
1113	P170	max	T	0.104	11	0	2	0.163	19	1.909	19	0.293	19
1114		min		0	2	-0.243	19	0	2	-0.044	14	0	2
1115		max	B	0.225	19	0	2	0.155	19	2.237	13	0.278	19
1116		min		0	2	-0.089	11	0	2	-0.044	14	0	2
1117	P347	max	T	0.234	17	0.008	14	0.126	17	1.9	6	0.243	17
1118		min		-0.01	7	-0.134	9	0	2	-0.618	21	0	2
1119		max	B	0.149	9	0.002	7	0.142	17	2.341	11	0.277	17
1120		min		-0.001	14	-0.269	17	0	2	-0.452	10	0	2
1121	P279	max	T	0.155	11	0	2	0.174	19	2.34	21	0.312	19
1122		min		-0.009	15	-0.255	19	0	2	-0.757	23	0	2
1123		max	B	0.193	19	0	2	0.158	20	2.343	13	0.276	20
1124		min		-0.01	9	-0.187	12	0	2	-0.671	14	0	2
1125	P588	max	T	0.117	11	0	2	0.142	11	2.322	16	0.247	11
1126		min		-0.022	23	-0.183	20	0	2	-0.669	17	0	2
1127		max	B	0.191	10	0.006	38	0.158	11	2.352	10	0.276	11
1128		min		0	2	-0.126	11	0	2	-0.685	11	0	2
1129	P321	max	T	0.208	10	0.032	12	0.172	18	1.211	6	0.353	18
1130		min		-0.031	21	-0.361	18	0	2	-0.768	7	0	2
1131		max	B	0.277	18	0.038	21	0.14	17	1.299	6	0.274	18
1132		min		-0.042	12	-0.211	10	0	2	-0.746	21	0	2
1133	P110	max	T	0.227	9	0.128	10	0.127	15	2.211	21	0.324	17
1134		min		-0.188	18	-0.371	17	0	2	-0.74	6	0	2
1135		max	B	0.313	17	0.186	19	0.107	15	2.15	11	0.274	17
1136		min		-0.121	10	-0.191	9	0	2	-0.761	12	0	2
1137	P205	max	T	0.099	19	0.045	18	0.111	13	2.353	20	0.266	12
1138		min		-0.136	9	-0.299	11	0	2	0	2	0	2
1139		max	B	0.299	12	0.132	9	0.123	13	0.851	8	0.272	12
1140		min		-0.038	18	-0.117	20	0	2	-0.699	10	0	2
1141	P183	max	T	0.109	19	0.01	18	0.126	12	2.256	6	0.275	11
1142		min		-0.055	10	-0.296	11	0	2	-0.658	21	0	2
1143		max	B	0.288	12	0.057	10	0.127	13	0.974	19	0.271	12
1144		min		-0.008	18	-0.123	20	0	2	-0.453	15	0	2
1145	P857	max	T	0.066	13	0	2	0.114	21	1.849	15	0.248	21
1146		min		-0.053	16	-0.265	21	0	2	-0.504	16	0	2
1147		max	B	0.293	21	0.055	19	0.121	21	2.224	16	0.271	21
1148		min		0	2	-0.076	13	0	2	-0.517	11	0	2
1149	P89	max	T	0.222	11	0.128	10	0.126	21	2.284	8	0.322	19
1150		min		-0.188	18	-0.369	19	0	2	-0.664	9	0	2
1151		max	B	0.307	19	0.188	17	0.105	21	2.301	15	0.269	19
1152		min		-0.121	10	-0.184	10	0	2	-0.114	16	0	2
1153	P153	max	T	0.092	9	0	2	0.153	17	1.643	12	0.276	17
1154		min		-0.003	6	-0.23	17	0	2	-0.531	11	0	2
1155		max	B	0.219	18	0.002	13	0.15	18	2.187	13	0.268	18

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1156		min		0	2	-0.082	10	0	2	-0.512	14	0	2
1157	P363	max	T	0.226	21	0	2	0.117	20	2.088	10	0.23	20
1158		min		0	2	-0.132	13	0	2	-0.577	9	0	2
1159		max	B	0.155	13	0	2	0.136	21	2.326	16	0.267	21
1160		min		0	2	-0.262	21	0	2	-0.535	15	0	2
1161	P307	max	T	0.231	21	0	2	0.23	13	2.31	7	0.421	13
1162		min		0	2	-0.368	13	0	2	-0.729	6	0	2
1163		max	B	0.231	12	0	2	0.146	12	2.163	15	0.267	12
1164		min		0	2	-0.203	20	0	2	-0.781	14	0	2
1165	P113A	max	T	0.249	14	0.013	13	0.122	15	2.315	6	0.245	14
1166		min		-0.045	21	-0.116	7	0	2	-0.672	7	0	2
1167		max	B	0.122	6	0.049	21	0.131	12	2.343	18	0.267	13
1168		min		-0.021	13	-0.276	13	0	2	-0.551	19	0	2
1169	P379	max	T	0.166	8	0.042	10	0.126	6	2.334	14	0.218	6
1170		min		-0.061	18	-0.135	15	0	2	-0.737	13	0	2
1171		max	B	0.144	15	0.03	18	0.147	6	2.268	6	0.266	7
1172		min		-0.049	10	-0.248	8	0	2	-0.774	21	0	2
1173	P297A	max	T	0.193	13	0.02	13	0.176	19	2.192	9	0.359	20
1174		min		-0.024	21	-0.368	20	0	2	-0.642	10	0	2
1175		max	B	0.277	20	0.031	21	0.13	18	2.347	16	0.265	20
1176		min		-0.025	13	-0.186	12	0	2	-0.684	17	0	2
1177	P167	max	T	0.094	14	0	2	0.149	7	1.602	18	0.268	7
1178		min		-0.002	11	-0.223	7	0	2	-0.563	17	0	2
1179		max	B	0.219	7	0.002	18	0.147	7	1.14	16	0.265	7
1180		min		0	2	-0.087	15	0	2	-0.37	19	0	2
1181	P871	max	T	0.061	18	0	2	0.108	11	1.154	20	0.244	11
1182		min		-0.057	9	-0.267	10	0	2	-0.619	6	0	2
1183		max	B	0.286	11	0.066	9	0.118	12	1.51	5	0.264	11
1184		min		0	2	-0.057	19	0	2	-0.497	18	0	2
1185	P119A	max	T	0.242	9	0	2	0.128	10	2.304	18	0.247	10
1186		min		-0.033	17	-0.082	18	0	2	-0.6	19	0	2
1187		max	B	0.078	18	0.03	17	0.133	9	2.18	13	0.263	9
1188		min		-0.001	23	-0.261	9	0	2	-0.723	14	0	2
1189	P115A	max	T	0.251	13	0.085	11	0.11	14	2.349	20	0.233	14
1190		min		-0.057	19	-0.114	6	0	2	-0.765	21	0	2
1191		max	B	0.135	6	0.063	19	0.124	14	2.296	18	0.263	14
1192		min		-0.094	11	-0.276	14	0	2	-0.293	19	0	2
1193	P122A	max	T	0.226	6	0.004	6	0.111	6	2.342	17	0.224	6
1194		min		-0.034	15	-0.091	12	0	2	-0.649	18	0	2
1195		max	B	0.097	14	0.036	15	0.13	7	2.164	13	0.26	7
1196		min		-0.01	6	-0.261	7	0	2	-0.581	14	0	2
1197	P9	max	T	0.243	10	0.11	13	0.128	9	0.837	7	0.239	10
1198		min		-0.048	21	-0.124	18	0	2	-0.52	18	0	2
1199		max	B	0.135	6	0.06	21	0.111	9	2.355	9	0.26	12
1200		min		-0.189	14	-0.3	12	0	2	-0.726	1	0	2
1201	P206	max	T	0.1	17	0.044	18	0.105	7	2.253	6	0.262	8
1202		min		-0.128	11	-0.296	9	0	2	-0.785	19	0	2
1203		max	B	0.288	8	0.127	11	0.114	7	0.785	19	0.259	8
1204		min		-0.036	18	-0.109	16	0	2	-0.696	15	0	2
1205	P14	max	T	0.249	10	0.113	7	0.132	11	2.337	10	0.244	10
1206		min		-0.048	16	-0.127	18	0	2	-0.726	9	0	2
1207		max	B	0.137	14	0.058	15	0.113	11	2.273	18	0.259	8
1208		min		-0.188	6	-0.299	8	0	2	-0.724	19	0	2
1209	P184	max	T	0.115	16	0.01	18	0.127	8	2.083	21	0.277	8
1210		min		-0.055	10	-0.296	9	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1211		max	B	0.275	8	0.057	10	0.12	7	2.346	14	0.258	8
1212		min		-0.009	18	-0.114	16	0	2	-0.425	13	0	2
1213	P116A	max	T	0.242	10	0.001	12	0.13	10	2.191	21	0.252	10
1214		min		-0.028	19	-0.089	17	0	2	-0.737	6	0	2
1215		max	B	0.087	6	0.026	19	0.13	11	2.323	18	0.258	11
1216		min		-0.001	23	-0.257	11	0	2	-0.096	19	0	2
1217	P319	max	T	0.17	12	0.003	13	0.167	19	2.217	9	0.321	19
1218		min		0	2	-0.312	20	0	2	-0.644	10	0	2
1219		max	B	0.249	20	0.008	21	0.139	18	2.256	15	0.256	19
1220		min		-0.01	13	-0.16	12	0	2	-0.779	16	0	2
1221	P596	max	T	0.057	13	0	2	0.11	21	2.11	14	0.211	21
1222		min		-0.037	16	-0.202	21	0	2	0	2	0	2
1223		max	B	0.213	21	0.039	16	0.142	21	2.001	6	0.256	21
1224		min		0	10	-0.07	21	0	2	0	2	0	2
1225	P389	max	T	0.282	17	0.11	18	0.089	16	2.264	9	0.246	17
1226		min		0	2	-0.057	10	0	2	-0.765	7	0	2
1227		max	B	0.091	10	0	2	0.103	15	2.322	21	0.255	17
1228		min		-0.101	18	-0.288	17	0	2	-0.724	20	0	2
1229	P107A	max	T	0.221	19	0.078	17	0.106	20	0.822	7	0.212	19
1230		min		-0.024	9	-0.098	11	0	2	-0.562	12	0	2
1231		max	B	0.125	12	0.028	9	0.132	21	2.329	7	0.255	20
1232		min		-0.089	17	-0.255	19	0	2	0	2	0	2
1233	P333	max	T	0.237	11	0.002	10	0.12	11	2.252	16	0.239	11
1234		min		-0.003	18	-0.132	19	0	2	-0.573	15	0	2
1235		max	B	0.158	19	0.001	18	0.128	11	1.873	7	0.255	11
1236		min		-0.001	10	-0.254	11	0	2	-0.678	6	0	2
1237	P302A	max	T	0.177	10	0.021	7	0.181	18	2.329	6	0.345	18
1238		min		-0.009	14	-0.324	18	0	2	0	2	0	2
1239		max	B	0.235	18	0.015	15	0.137	19	2.331	9	0.253	19
1240		min		-0.018	7	-0.183	10	0	2	-0.704	8	0	2
1241	P364	max	T	0.21	19	0.008	6	0.116	18	2.308	8	0.221	19
1242		min		-0.009	13	-0.127	11	0	2	-0.485	7	0	2
1243		max	B	0.141	11	0.002	13	0.131	19	2.185	15	0.253	19
1244		min		-0.001	6	-0.243	19	0	2	-0.277	14	0	2
1245	P791	max	T	0.295	21	0.183	20	0.059	6	1.758	38	0.257	21
1246		min		-0.005	12	-0.06	13	0	2	-0.033	11	0	2
1247		max	B	0.06	13	0	2	0.075	6	2.239	10	0.252	21
1248		min		-0.154	20	-0.291	21	0	2	-0.535	9	0	2
1249	P120A	max	T	0.236	7	0.081	9	0.103	6	1.224	17	0.219	6
1250		min		-0.052	17	-0.102	14	0	2	-0.748	18	0	2
1251		max	B	0.121	14	0.056	17	0.117	6	2.214	12	0.25	6
1252		min		-0.092	9	-0.264	7	0	2	-0.747	13	0	2
1253	P340	max	T	0.228	6	0	2	0.116	6	1.62	11	0.23	6
1254		min		0	2	-0.135	14	0	2	-0.668	10	0	2
1255		max	B	0.158	14	0	2	0.126	6	1.702	18	0.25	6
1256		min		0	2	-0.247	6	0	2	-0.676	17	0	2
1257	P121A	max	T	0.229	9	0.085	6	0.107	10	0.919	15	0.212	9
1258		min		-0.061	15	-0.094	17	0	2	-0.756	16	0	2
1259		max	B	0.122	17	0.07	15	0.125	10	2.308	13	0.25	9
1260		min		-0.095	6	-0.267	9	0	2	-0.659	14	0	2
1261	P114A	max	T	0.232	11	0.085	14	0.106	10	2.309	6	0.213	11
1262		min		-0.062	21	-0.093	19	0	2	-0.781	7	0	2
1263		max	B	0.122	19	0.071	21	0.125	10	2.276	18	0.249	11
1264		min		-0.096	14	-0.269	11	0	2	-0.735	19	0	2
1265	P310	max	T	0.232	21	0.051	18	0.198	13	2.284	14	0.386	13

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1266		min		-0.072	10	-0.375	13	0	2	-0.774	15	0	2
1267		max	B	0.25	13	0.089	10	0.135	6	2.328	6	0.249	13
1268		min		-0.072	18	-0.212	21	0	2	-0.751	7	0	2
1269	P161	max	T	0.074	19	0.012	16	0.14	11	2.034	6	0.261	11
1270		min		-0.006	6	-0.24	10	0	2	-0.583	21	0	2
1271		max	B	0.222	11	0.002	7	0.133	11	1.571	17	0.247	11
1272		min		-0.001	17	-0.073	19	0	2	-0.296	15	0	2
1273	P293A	max	T	0.132	17	0.01	14	0.145	9	2.308	10	0.264	9
1274		min		-0.017	21	-0.227	9	0	2	-0.781	11	0	2
1275		max	B	0.177	10	0	2	0.141	10	2.349	18	0.247	10
1276		min		0	2	-0.163	18	0	2	-0.678	19	0	2
1277	P387	max	T	0.167	18	0.015	21	0.116	17	2.28	11	0.206	17
1278		min		-0.027	12	-0.136	10	0	2	-0.593	12	0	2
1279		max	B	0.135	10	0.029	13	0.126	18	2.174	14	0.247	18
1280		min		-0.035	6	-0.241	18	0	2	-0.266	13	0	2
1281	P316	max	T	0.209	15	0.032	13	0.175	7	2.287	11	0.341	7
1282		min		-0.025	20	-0.331	7	0	2	-0.618	12	0	2
1283		max	B	0.236	7	0.049	20	0.128	8	2.291	15	0.246	8
1284		min		-0.034	13	-0.193	15	0	2	-0.784	14	0	2
1285	P792	max	T	0.21	6	0.007	6	0.107	21	0.554	10	0.209	21
1286		min		-0.075	13	-0.13	14	0	2	-0.077	15	0	2
1287		max	B	0.123	14	0.079	14	0.136	21	2.03	19	0.245	21
1288		min		0	2	-0.211	6	0	2	0	2	0	2
1289	P334	max	T	0.22	10	0.003	10	0.108	10	2.306	15	0.218	10
1290		min		-0.004	18	-0.11	18	0	2	-0.429	14	0	2
1291		max	B	0.146	18	0.001	18	0.121	10	2.211	6	0.242	10
1292		min		-0.002	10	-0.243	10	0	2	-0.399	21	0	2
1293	P368	max	T	0.172	19	0.011	15	0.114	19	2.307	15	0.206	19
1294		min		-0.017	9	-0.14	11	0	2	-0.581	16	0	2
1295		max	B	0.13	10	0.026	8	0.123	19	1.956	14	0.241	18
1296		min		-0.033	15	-0.242	18	0	2	-0.609	13	0	2
1297	P128A	max	T	0.216	17	0.084	20	0.096	16	0.55	8	0.203	17
1298		min		-0.004	10	-0.082	10	0	2	-0.663	15	0	2
1299		max	B	0.109	9	0.011	10	0.121	16	2.26	7	0.241	16
1300		min		-0.091	20	-0.25	17	0	2	0	2	0	2
1301	P852	max	T	0.061	18	0	2	0.106	10	2.327	19	0.244	10
1302		min		-0.058	11	-0.267	10	0	2	-0.446	21	0	2
1303		max	B	0.266	10	0.066	11	0.104	9	2.041	14	0.241	10
1304		min		0	2	-0.035	18	0	2	0	2	0	2
1305	P410	max	T	0.259	18	0.129	17	0.094	20	2.205	6	0.228	19
1306		min		0	2	-0.057	10	0	2	0	2	0	2
1307		max	B	0.091	11	0.002	9	0.092	19	0.631	21	0.241	18
1308		min		-0.102	18	-0.275	18	0	2	-0.497	10	0	2
1309	P162	max	T	0.08	17	0	2	0.142	9	2.177	20	0.266	9
1310		min		0	2	-0.241	9	0	2	0	2	0	2
1311		max	B	0.215	9	0.002	12	0.13	9	2.257	15	0.24	9
1312		min		-0.001	19	-0.069	17	0	2	-0.605	14	0	2
1313	P287A	max	T	0.17	21	0	2	0.197	14	2.321	13	0.344	14
1314		min		-0.014	10	-0.25	13	0	2	-0.747	14	0	2
1315		max	B	0.135	8	0	2	0.137	7	2.344	6	0.237	7
1316		min		0	2	-0.154	6	0	2	-0.707	7	0	2
1317	P805	max	T	0.271	11	0.171	10	0.058	13	1.754	38	0.236	11
1318		min		0	2	-0.029	19	0	2	-0.052	20	0	2
1319		max	B	0.038	19	0	2	0.06	11	2.277	17	0.237	11
1320		min		-0.157	10	-0.273	11	0	2	-0.748	16	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1321	P341	max	T	0.209	21	0	2	0.106	21	1.902	10	0.21	21
1322		min		0	2	-0.117	13	0	2	-0.385	9	0	2
1323		max	B	0.144	13	0	2	0.119	21	2.338	16	0.235	21
1324		min		0	2	-0.233	21	0	2	-0.321	15	0	2
1325	P108A	max	T	0.229	15	0	2	0.126	14	2.33	10	0.235	15
1326		min		-0.038	9	-0.101	6	0	2	-0.715	11	0	2
1327		max	B	0.095	6	0.04	9	0.126	20	2.254	8	0.234	19
1328		min		-0.006	16	-0.229	18	0	2	0	2	0	2
1329	P134	max	T	0.249	13	0.089	15	0.089	12	2.331	10	0.221	13
1330		min		0	2	-0.13	21	0	2	-0.477	9	0	2
1331		max	B	0.138	21	0.013	6	0.086	13	2.153	18	0.234	13
1332		min		-0.104	14	-0.266	13	0	2	0	2	0	2
1333	P328	max	T	0.214	13	0	2	0.111	13	2.304	18	0.219	13
1334		min		-0.001	9	-0.131	21	0	2	-0.779	9	0	2
1335		max	B	0.147	6	0.001	9	0.118	14	1.841	10	0.234	14
1336		min		0	2	-0.231	14	0	2	0	2	0	2
1337	P286	max	T	0.184	12	0.021	9	0.166	13	2.343	11	0.288	13
1338		min		-0.002	17	-0.169	20	0	2	-0.768	10	0	2
1339		max	B	0.131	21	0	2	0.135	13	2.316	21	0.234	13
1340		min		-0.002	17	-0.145	13	0	2	-0.747	6	0	2
1341	P404	max	T	0.222	6	0.071	7	0.099	19	2.251	11	0.201	21
1342		min		0	2	-0.086	16	0	2	-0.782	12	0	2
1343		max	B	0.086	14	0	2	0.116	21	2.175	17	0.234	6
1344		min		-0.037	8	-0.241	6	0	2	-0.667	18	0	2
1345	P382	max	T	0.16	8	0.02	21	0.098	9	1.067	19	0.18	9
1346		min		-0.013	14	-0.129	16	0	2	-0.457	6	0	2
1347		max	B	0.139	15	0.03	13	0.115	8	1.847	19	0.232	8
1348		min		-0.037	21	-0.237	7	0	2	-0.734	18	0	2
1349	P786	max	T	0.252	9	0.172	10	0.048	8	2.247	20	0.223	10
1350		min		0	2	-0.008	19	0	2	-0.637	19	0	2
1351		max	B	0.052	19	0	2	0.063	21	1.663	15	0.231	10
1352		min		-0.157	10	-0.265	10	0	2	-0.625	14	0	2
1353	P294	max	T	0.092	14	0.023	17	0.119	11	2.348	13	0.216	11
1354		min		-0.037	7	-0.201	10	0	2	-0.748	14	0	2
1355		max	B	0.169	11	0.026	6	0.131	12	0.822	9	0.23	11
1356		min		0	2	-0.101	13	0	2	-0.727	19	0	2
1357	P115	max	T	0.033	21	0	2	0.111	14	2.291	21	0.221	14
1358		min		0	2	-0.22	14	0	2	-0.662	6	0	2
1359		max	B	0.231	14	0.009	16	0.114	14	0.886	6	0.229	14
1360		min		0	2	-0.046	21	0	2	-0.391	9	0	2
1361	P797	max	T	0.255	17	0.198	16	0.031	17	2.234	9	0.232	16
1362		min		0	2	-0.016	8	0	2	-0.355	8	0	2
1363		max	B	0.023	8	0	2	0.049	17	2.334	21	0.229	16
1364		min		-0.166	16	-0.261	16	0	2	-0.685	20	0	2
1365	P401	max	T	0.213	10	0.063	8	0.115	13	2.296	13	0.207	12
1366		min		0	2	-0.104	15	0	2	-0.774	14	0	2
1367		max	B	0.088	15	0	2	0.116	11	1.97	18	0.228	10
1368		min		-0.029	8	-0.229	9	0	2	-0.762	19	0	2
1369	P127A	max	T	0.225	20	0	18	0.117	20	1.475	11	0.23	20
1370		min		-0.038	11	-0.081	14	0	2	-0.78	12	0	2
1371		max	B	0.084	9	0.038	11	0.12	17	2.354	8	0.227	18
1372		min		0	23	-0.227	18	0	2	-0.699	9	0	2
1373	P114	max	T	0.026	10	0	2	0.111	17	2.06	6	0.22	17
1374		min		0	2	-0.217	17	0	2	0	2	0	2
1375		max	B	0.227	17	0.009	14	0.113	17	2.347	8	0.227	17

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1376		min		0	2	-0.029	10	0	2	-0.66	10	0	2
1377	P352	max	T	0.255	6	0.041	6	0.161	14	2.037	18	0.34	14
1378		min		-0.036	14	-0.357	14	0	2	-0.107	19	0	2
1379		max	B	0.255	14	0.078	14	0.088	14	2.309	10	0.226	14
1380		min		-0.051	6	-0.22	6	0	2	-0.483	11	0	2
1381	P129	max	T	0.027	10	0	2	0.11	19	2.214	10	0.217	19
1382		min		0	2	-0.214	19	0	2	-0.72	11	0	2
1383		max	B	0.225	19	0.009	6	0.112	19	0.804	11	0.225	19
1384		min		0	2	-0.029	10	0	2	-0.45	14	0	2
1385	P339	max	T	0.208	6	0.001	19	0.106	6	1.519	11	0.21	6
1386		min		-0.003	11	-0.125	14	0	2	-0.267	10	0	2
1387		max	B	0.143	14	0.001	11	0.113	6	1.834	18	0.224	6
1388		min		0	19	-0.222	6	0	2	-0.382	17	0	2
1389	P128	max	T	0.031	15	0	2	0.108	6	2.036	12	0.216	6
1390		min		0	2	-0.215	6	0	2	0	2	0	2
1391		max	B	0.225	6	0.01	20	0.11	6	2.28	14	0.223	6
1392		min		0	2	-0.043	15	0	2	-0.753	15	0	2
1393	P593	max	T	0.097	12	0	2	0.133	12	1.272	7	0.234	12
1394		min		-0.042	7	-0.17	12	0	2	-0.754	9	0	2
1395		max	B	0.15	13	0.045	7	0.128	12	2.334	21	0.222	12
1396		min		0	2	-0.106	12	0	2	-0.774	6	0	2
1397	P148	max	T	0.252	18	0.098	21	0.09	18	2.33	17	0.225	18
1398		min		0	12	-0.123	10	0	2	-0.77	16	0	2
1399		max	B	0.121	11	0.001	11	0.081	18	2.157	9	0.222	19
1400		min		-0.093	19	-0.253	19	0	2	0	2	0	2
1401	P866	max	T	0.039	8	0	2	0.09	16	2.301	9	0.215	16
1402		min		-0.058	15	-0.238	16	0	2	-0.334	10	0	2
1403		max	B	0.248	16	0.071	15	0.089	16	1.936	19	0.221	16
1404		min		-0.001	6	-0.029	8	0	2	0	2	0	2
1405	P800	max	T	0.247	16	0.188	16	0.03	15	2.243	9	0.224	16
1406		min		0	2	-0.019	9	0	2	-0.767	10	0	2
1407		max	B	0.028	9	0	2	0.046	16	1.533	6	0.221	16
1408		min		-0.161	16	-0.252	16	0	2	0	2	0	2
1409	P325	max	T	0.201	17	0.001	13	0.103	17	1.604	6	0.203	17
1410		min		-0.003	6	-0.103	9	0	2	-0.387	21	0	2
1411		max	B	0.127	8	0	6	0.111	16	1.804	12	0.22	16
1412		min		0	2	-0.219	16	0	2	-0.743	11	0	2
1413	P373	max	T	0.106	10	0	2	0.083	11	2.282	21	0.144	11
1414		min		0	2	-0.095	18	0	2	-0.555	6	0	2
1415		max	B	0.103	20	0	2	0.12	12	2.293	16	0.219	12
1416		min		-0.005	17	-0.191	12	0	2	-0.35	17	0	2
1417	P881	max	T	0.118	19	0	2	0.106	19	0.081	7	0.184	19
1418		min		0	2	-0.111	14	0	2	-0.661	13	0	2
1419		max	B	0.139	14	0	2	0.126	15	1.784	7	0.218	15
1420		min		0	2	-0.121	17	0	2	0	2	0	2
1421	P863	max	T	0.044	7	0	2	0.087	15	1.018	8	0.211	15
1422		min		-0.069	17	-0.236	16	0	2	-0.323	12	0	2
1423		max	B	0.246	16	0.093	17	0.077	16	1.616	11	0.216	16
1424		min		0	2	-0.032	8	0	2	-0.578	7	0	2
1425	P131A	max	T	0.25	18	0.093	16	0.094	19	2.334	13	0.224	18
1426		min		0	2	-0.124	10	0	2	-0.672	11	0	2
1427		max	B	0.11	10	0.007	7	0.081	18	2.355	20	0.215	18
1428		min		-0.093	17	-0.245	18	0	2	-0.752	19	0	2
1429	P883	max	T	0.134	16	0	2	0.124	15	0	2	0.214	15
1430		min		0	2	-0.119	14	0	2	-0.584	6	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1431		max	B	0.126	13	0.003	9	0.124	15	1.68	7	0.215	15
1432		min		0	2	-0.143	16	0	2	0	2	0	2
1433	P354	max	T	0.108	12	0	2	0.073	13	1.845	17	0.131	13
1434		min		0	2	-0.085	21	0	2	-0.697	16	0	2
1435		max	B	0.106	21	0	2	0.117	13	2.094	7	0.214	13
1436		min		0	2	-0.188	12	0	2	-0.767	6	0	2
1437	P882	max	T	0.132	16	0	2	0.119	16	0.426	10	0.206	16
1438		min		0	2	-0.106	16	0	2	-0.004	6	0	2
1439		max	B	0.107	18	0.004	7	0.123	17	1.96	14	0.213	17
1440		min		0	2	-0.141	16	0	2	0	2	0	2
1441	P587	max	T	0.002	17	0	2	0.082	21	1.932	14	0.181	21
1442		min		-0.052	23	-0.195	6	0	2	-0.694	15	0	2
1443		max	B	0.194	21	0.034	9	0.113	21	2.135	9	0.212	21
1444		min		0	2	-0.036	19	0	2	-0.723	10	0	2
1445	P794	max	T	0.229	19	0.201	20	0.046	15	2.333	11	0.215	19
1446		min		0	2	-0.021	12	0	2	-0.043	8	0	2
1447		max	B	0.045	12	0	2	0.062	15	1.234	10	0.211	19
1448		min		-0.175	20	-0.236	19	0	2	-0.615	7	0	2
1449	P608	max	T	0.04	13	0	2	0.1	20	2.35	10	0.199	20
1450		min		-0.076	8	-0.203	21	0	2	-0.779	13	0	2
1451		max	B	0.182	21	0.062	8	0.116	20	1.878	21	0.211	20
1452		min		0	2	-0.051	20	0	2	0	2	0	2
1453	P798	max	T	0.156	16	0	2	0.102	17	0.536	21	0.183	17
1454		min		-0.022	8	-0.097	21	0	2	-0.084	10	0	2
1455		max	B	0.113	18	0.016	8	0.121	17	2.057	18	0.21	17
1456		min		0	2	-0.139	16	0	2	0	2	0	2
1457	P600	max	T	0.045	6	0	2	0.097	20	2.291	6	0.198	18
1458		min		-0.07	16	-0.221	17	0	2	-0.722	21	0	2
1459		max	B	0.225	17	0.045	16	0.103	19	2.174	11	0.209	18
1460		min		0	2	-0.048	6	0	2	-0.772	10	0	2
1461	P407	max	T	0.098	19	0	2	0.101	19	2.234	21	0.174	19
1462		min		0	2	-0.103	19	0	2	-0.753	6	0	2
1463		max	B	0.135	19	0	2	0.12	19	2.347	14	0.208	19
1464		min		0	2	-0.116	11	0	2	-0.641	7	0	2
1465	P145	max	T	0.237	7	0.1	21	0.083	8	1.987	20	0.209	7
1466		min		-0.009	14	-0.115	15	0	2	-0.624	18	0	2
1467		max	B	0.112	15	0.024	14	0.071	8	2.356	10	0.208	7
1468		min		-0.113	6	-0.239	7	0	2	-0.769	21	0	2
1469	P299	max	T	0.076	14	0.037	14	0.103	21	2.024	12	0.209	6
1470		min		-0.027	8	-0.217	6	0	2	-0.704	13	0	2
1471		max	B	0.188	21	0.003	9	0.109	21	0.661	13	0.205	21
1472		min		0	2	-0.064	13	0	2	-0.784	6	0	2
1473	P605	max	T	0.105	19	0	2	0.102	11	2.33	14	0.177	11
1474		min		0	2	-0.103	11	0	2	-0.683	9	0	2
1475		max	B	0.111	19	0	2	0.117	11	2.222	15	0.203	11
1476		min		0	2	-0.128	11	0	2	-0.782	6	0	2
1477	P293	max	T	0.096	19	0.059	21	0.116	11	0.934	7	0.237	11
1478		min		-0.037	14	-0.243	12	0	2	-0.533	19	0	2
1479		max	B	0.182	11	0.059	15	0.114	10	2.345	9	0.203	10
1480		min		-0.03	21	-0.103	8	0	2	-0.758	1	0	2
1481	P601	max	T	0.036	10	0	2	0.089	12	2.13	6	0.194	17
1482		min		-0.071	15	-0.218	15	0	2	-0.737	21	0	2
1483		max	B	0.22	15	0.048	15	0.096	13	2.31	10	0.202	14
1484		min		0	2	-0.04	10	0	2	-0.671	9	0	2
1485	P799	max	T	0.138	15	0	2	0.09	15	0	2	0.163	15

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1486		min		-0.006	8	-0.073	6	0	2	-0.558	10	0	2
1487		max	B	0.099	15	0	2	0.115	15	1.67	8	0.2	15
1488		min		0	2	-0.132	15	0	2	0	2	0	2
1489	P140	max	T	0.23	8	0.16	10	0.075	14	2.318	20	0.199	8
1490		min		-0.028	18	-0.1	17	0	2	-0.662	19	0	2
1491		max	B	0.088	17	0.024	18	0.052	14	2.292	11	0.199	9
1492		min		-0.178	10	-0.223	9	0	2	0	2	0	2
1493	P599	max	T	0.08	6	0	2	0.115	21	2.335	7	0.205	21
1494		min		-0.035	17	-0.168	20	0	2	-0.773	6	0	2
1495		max	B	0.166	19	0.015	17	0.111	21	2.192	11	0.198	20
1496		min		0	10	-0.075	6	0	2	0	2	0	2
1497	P793	max	T	0.125	18	0	2	0.098	17	0.149	9	0.172	17
1498		min		0	2	-0.072	17	0	2	-0.474	17	0	2
1499		max	B	0.122	20	0.011	9	0.114	18	1.565	11	0.197	18
1500		min		0	2	-0.12	17	0	2	0	2	0	2
1501	P112A	max	T	0.188	15	0.147	13	0.082	18	0.681	16	0.165	14
1502		min		-0.012	6	-0.09	20	0	2	-0.623	11	0	2
1503		max	B	0.099	20	0.04	6	0.07	18	2.248	18	0.197	13
1504		min		-0.152	13	-0.225	12	0	2	0	2	0	2
1505	P139	max	T	0.228	12	0.162	10	0.073	14	2.313	7	0.198	12
1506		min		-0.028	18	-0.1	20	0	2	-0.755	6	0	2
1507		max	B	0.082	19	0.025	18	0.05	14	2.298	14	0.197	11
1508		min		-0.179	10	-0.222	11	0	2	-0.773	13	0	2
1509	P117A	max	T	0.225	10	0.146	11	0.081	7	2.354	21	0.197	10
1510		min		-0.038	18	-0.075	20	0	2	-0.77	20	0	2
1511		max	B	0.054	20	0.023	19	0.066	15	2.083	17	0.196	11
1512		min		-0.144	11	-0.223	11	0	2	0	2	0	2
1513	P785	max	T	0.169	7	0	2	0.096	7	0.167	15	0.182	7
1514		min		-0.02	15	-0.102	15	0	2	-0.494	9	0	2
1515		max	B	0.118	12	0.04	15	0.108	7	1.519	17	0.196	7
1516		min		0	2	-0.166	7	0	2	0	2	0	2
1517	P860	max	T	0.041	13	0	2	0.069	20	2.355	13	0.195	20
1518		min		-0.084	20	-0.222	20	0	2	-0.779	12	0	2
1519		max	B	0.225	19	0.103	20	0.062	19	2.186	8	0.196	19
1520		min		0	2	-0.007	12	0	2	-0.714	11	0	2
1521	P123A	max	T	0.19	8	0.128	6	0.082	18	0.686	12	0.166	6
1522		min		-0.029	14	-0.085	16	0	2	-0.629	16	0	2
1523		max	B	0.091	16	0.047	14	0.071	18	2.2	12	0.195	7
1524		min		-0.131	7	-0.225	7	0	2	0	2	0	2
1525	P342	max	T	0.178	19	0.001	6	0.092	19	2.255	8	0.181	19
1526		min		-0.003	14	-0.098	11	0	2	-0.128	7	0	2
1527		max	B	0.116	11	0.001	14	0.099	19	2.025	15	0.195	19
1528		min		0	2	-0.193	19	0	2	-0.033	14	0	2
1529	P118A	max	T	0.224	10	0.155	9	0.077	13	0.635	15	0.195	10
1530		min		-0.038	18	-0.071	16	0	2	-0.736	19	0	2
1531		max	B	0.055	17	0.02	17	0.06	13	2.177	13	0.195	10
1532		min		-0.153	9	-0.223	10	0	2	0	2	0	2
1533	P834	max	T	0.023	12	0	2	0.085	20	2.168	6	0.167	20
1534		min		-0.008	9	-0.165	20	0	2	0	2	0	2
1535		max	B	0.192	21	0.008	17	0.097	21	2.326	11	0.193	21
1536		min		0	2	-0.036	13	0	2	-0.701	14	0	2
1537	P909	max	T	0.11	19	0	2	0.1	19	1.176	38	0.173	19
1538		min		0	2	-0.09	19	0	2	-0.738	8	0	2
1539		max	B	0.133	11	0	2	0.108	19	2.344	6	0.193	19
1540		min		0	2	-0.156	19	0	2	-0.752	17	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1541	P856	max	T	0.033	13	0	2	0.077	20	2.351	20	0.167	20
1542		min		-0.033	8	-0.177	20	0	2	-0.772	21	0	2
1543		max	B	0.205	21	0.034	6	0.087	21	0.709	20	0.191	21
1544		min		0	2	-0.039	13	0	2	-0.623	13	0	2
1545	P848	max	T	0.024	18	0	2	0.087	10	2.121	14	0.174	10
1546		min		-0.008	23	-0.175	10	0	2	0	2	0	2
1547		max	B	0.191	11	0.01	7	0.095	11	2.315	19	0.191	11
1548		min		0	2	-0.025	20	0	2	-0.677	18	0	2
1549	P870	max	T	0.027	18	0	2	0.082	10	2.348	14	0.175	10
1550		min		-0.037	14	-0.185	10	0	2	0	2	0	2
1551		max	B	0.201	11	0.028	13	0.087	11	2.334	19	0.189	11
1552		min		0	2	-0.017	19	0	2	-0.678	18	0	2
1553	P357	max	T	0.102	8	0	2	0.072	7	2.312	16	0.128	7
1554		min		0	2	-0.078	15	0	2	-0.778	15	0	2
1555		max	B	0.087	15	0	2	0.103	7	2.283	6	0.188	7
1556		min		0	2	-0.164	8	0	2	-0.705	21	0	2
1557	P109A	max	T	0.203	18	0.136	17	0.101	13	0.601	21	0.182	19
1558		min		-0.02	9	-0.098	10	0	2	-0.761	11	0	2
1559		max	B	0.09	10	0.022	9	0.076	12	2.037	21	0.187	18
1560		min		-0.137	17	-0.216	18	0	2	0	2	0	2
1561	P346	max	T	0.122	19	0.015	6	0.073	18	1.971	14	0.13	18
1562		min		-0.027	13	-0.102	11	0	2	-0.765	15	0	2
1563		max	B	0.087	10	0.022	13	0.102	18	1.19	6	0.187	18
1564		min		-0.022	6	-0.163	18	0	2	-0.709	7	0	2
1565	P591	max	T	0.102	6	0	2	0.098	6	2.327	8	0.171	6
1566		min		0	2	-0.095	6	0	2	-0.724	9	0	2
1567		max	B	0.105	21	0	2	0.108	21	2.28	15	0.186	21
1568		min		0	2	-0.11	21	0	2	-0.766	16	0	2
1569	P126A	max	T	0.204	18	0.143	19	0.087	8	0.74	9	0.177	19
1570		min		-0.026	12	-0.095	10	0	2	-0.627	14	0	2
1571		max	B	0.09	10	0.018	11	0.066	8	2.334	7	0.186	18
1572		min		-0.143	19	-0.214	18	0	2	-0.729	9	0	2
1573	P395	max	T	0.208	13	0.071	15	0.121	20	2.319	20	0.209	20
1574		min		0	2	-0.128	20	0	2	-0.769	19	0	2
1575		max	B	0.128	21	0	2	0.106	20	0.766	19	0.185	20
1576		min		-0.062	15	-0.187	13	0	2	-0.47	13	0	2
1577	P360	max	T	0.106	9	0.015	11	0.07	7	2.288	20	0.125	8
1578		min		-0.025	19	-0.082	17	0	2	-0.709	21	0	2
1579		max	B	0.087	16	0	2	0.102	7	2.353	13	0.184	7
1580		min		-0.019	12	-0.157	8	0	2	-0.685	18	0	2
1581	P365	max	T	0.113	17	0.013	14	0.072	18	2.33	12	0.128	18
1582		min		-0.022	7	-0.095	9	0	2	-0.67	13	0	2
1583		max	B	0.087	10	0.016	7	0.1	18	2.14	6	0.184	18
1584		min		-0.02	14	-0.16	18	0	2	0	2	0	2
1585	P288	max	T	0.055	19	0	2	0.091	14	2.3	17	0.166	14
1586		min		-0.004	8	-0.143	14	0	2	-0.766	8	0	2
1587		max	B	0.136	16	0.026	21	0.105	15	2.348	8	0.184	15
1588		min		0	2	-0.081	14	0	2	-0.463	9	0	2
1589	P902	max	T	0.078	21	0	2	0.11	21	2.347	6	0.194	21
1590		min		-0.016	15	-0.142	21	0	2	-0.776	21	0	2
1591		max	B	0.149	19	0.027	15	0.103	21	2.304	11	0.181	21
1592		min		-0.001	10	-0.078	7	0	2	-0.77	12	0	2
1593	P602	max	T	0.073	10	0	2	0.101	11	2.341	21	0.184	11
1594		min		-0.037	15	-0.158	12	0	2	-0.773	20	0	2
1595		max	B	0.157	13	0.023	16	0.101	11	2.325	9	0.18	12

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1596		min		-0.001	6	-0.073	10	0	2	0	2	0	2
1597	P393	max	T	0.089	14	0	2	0.095	14	2.309	17	0.165	14
1598		min		0	2	-0.102	14	0	2	-0.748	16	0	2
1599		max	B	0.111	13	0	2	0.104	13	2.327	8	0.18	13
1600		min		0	2	-0.096	13	0	2	-0.722	7	0	2
1601	P806	max	T	0.137	13	0	2	0.088	14	0.593	13	0.159	13
1602		min		0	2	-0.082	20	0	2	-0.104	21	0	2
1603		max	B	0.093	9	0.009	21	0.101	12	2.118	9	0.179	12
1604		min		0	2	-0.136	13	0	2	0	2	0	2
1605	P853	max	T	0.027	18	0	2	0.087	11	2.236	19	0.18	11
1606		min		-0.036	6	-0.186	11	0	2	-0.733	18	0	2
1607		max	B	0.187	10	0.03	7	0.082	10	0.674	18	0.177	10
1608		min		0	2	-0.008	18	0	2	-0.69	11	0	2
1609	P812	max	T	0.049	21	0	2	0.089	21	1.996	7	0.159	21
1610		min		-0.001	10	-0.129	21	0	2	0	2	0	2
1611		max	B	0.148	21	0.001	17	0.097	21	2.272	12	0.176	21
1612		min		-0.001	11	-0.046	21	0	2	-0.015	10	0	2
1613	P351	max	T	0.094	8	0.014	9	0.054	13	2.268	20	0.094	13
1614		min		-0.025	17	-0.093	15	0	2	-0.779	21	0	2
1615		max	B	0.08	14	0.005	18	0.1	13	2.305	15	0.175	13
1616		min		-0.019	8	-0.135	11	0	2	-0.781	16	0	2
1617	P831	max	T	0.024	18	0	2	0.088	11	2.21	21	0.177	11
1618		min		-0.008	6	-0.178	11	0	2	-0.717	20	0	2
1619		max	B	0.177	10	0.008	13	0.087	9	0.677	18	0.175	10
1620		min		0	2	-0.012	18	0	2	-0.503	10	0	2
1621	P845	max	T	0.011	20	0	2	0.081	16	2.208	8	0.164	16
1622		min		-0.011	12	-0.166	16	0	2	-0.617	9	0	2
1623		max	B	0.176	15	0.01	13	0.084	15	2.208	8	0.172	15
1624		min		0	2	-0.01	20	0	2	-0.617	9	0	2
1625	P359	max	T	0.2	14	0.051	14	0.109	6	1.713	10	0.246	6
1626		min		-0.049	6	-0.266	6	0	2	-0.119	11	0	2
1627		max	B	0.197	6	0.073	6	0.065	7	1.959	17	0.172	6
1628		min		-0.055	14	-0.175	14	0	2	-0.782	18	0	2
1629	P867	max	T	0.005	9	0	2	0.076	16	2.192	8	0.164	16
1630		min		-0.031	13	-0.174	16	0	2	-0.784	9	0	2
1631		max	B	0.185	15	0.033	14	0.078	16	2.192	8	0.172	15
1632		min		0	2	-0.006	6	0	2	-0.784	9	0	2
1633	P147	max	T	0.182	19	0.074	21	0.081	18	0.785	10	0.172	18
1634		min		-0.006	13	-0.071	11	0	2	-0.595	17	0	2
1635		max	B	0.069	11	0.005	13	0.073	18	2.342	12	0.171	19
1636		min		-0.063	21	-0.19	19	0	2	-0.785	10	0	2
1637	P840	max	T	0.021	8	0	2	0.065	16	2.11	13	0.144	16
1638		min		-0.034	18	-0.155	17	0	2	0	2	0	2
1639		max	B	0.184	17	0.032	18	0.077	17	2.321	8	0.171	17
1640		min		0	2	-0.019	8	0	2	-0.512	7	0	2
1641	P826	max	T	0.046	11	0	2	0.087	11	1.994	14	0.155	11
1642		min		-0.002	16	-0.128	11	0	2	-0.116	18	0	2
1643		max	B	0.143	11	0.002	6	0.094	11	1.571	19	0.169	11
1644		min		0	19	-0.044	11	0	2	-0.116	18	0	2
1645	P353	max	T	0.179	21	0.041	19	0.122	14	1.47	13	0.255	13
1646		min		-0.044	10	-0.264	13	0	2	0	2	0	2
1647		max	B	0.186	13	0.057	11	0.075	14	1.799	21	0.168	13
1648		min		-0.043	19	-0.157	21	0	2	0	2	0	2
1649	P133	max	T	0.17	13	0.081	15	0.08	11	0.663	20	0.162	12
1650		min		0	2	-0.072	21	0	2	-0.681	12	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1651		max	B	0.069	21	0.014	7	0.073	12	2.314	20	0.167	13
1652		min		-0.075	15	-0.184	13	0	2	0	2	0	2
1653	P111A	max	T	0.156	13	0.06	15	0.09	18	0.603	19	0.163	18
1654		min		0	2	-0.069	20	0	2	-0.746	8	0	2
1655		max	B	0.067	21	0.007	7	0.078	18	2.226	21	0.166	13
1656		min		-0.063	14	-0.183	13	0	2	0	2	0	2
1657	P839	max	T	0.013	13	0	2	0.071	21	1.777	14	0.154	20
1658		min		-0.035	17	-0.165	20	0	2	-0.395	11	0	2
1659		max	B	0.179	19	0.034	17	0.075	19	1.43	10	0.166	19
1660		min		0	2	-0.005	8	0	2	-0.395	11	0	2
1661	P330	max	T	0.214	6	0.011	6	0.156	14	2.21	18	0.318	14
1662		min		-0.009	14	-0.322	14	0	2	-0.104	19	0	2
1663		max	B	0.171	14	0.021	14	0.079	6	2.353	10	0.166	6
1664		min		-0.014	6	-0.172	6	0	2	-0.359	11	0	2
1665	P169	max	T	0.06	11	0	2	0.091	21	2.079	15	0.18	20
1666		min		-0.009	20	-0.184	20	0	2	0	2	0	2
1667		max	B	0.167	19	0.009	20	0.08	19	2.212	10	0.164	19
1668		min		-0.001	13	-0.046	11	0	2	-0.602	9	0	2
1669	P862	max	T	0.003	9	0	10	0.06	15	2.356	13	0.146	16
1670		min		-0.069	18	-0.165	16	0	2	-0.485	10	0	2
1671		max	B	0.186	17	0.07	18	0.061	16	1.005	9	0.163	17
1672		min		0	2	-0.003	9	0	2	-0.485	10	0	2
1673	P301	max	T	0.139	11	0	2	0.101	11	2.33	18	0.178	11
1674		min		0	2	-0.124	19	0	2	-0.677	15	0	2
1675		max	B	0.101	12	0	2	0.094	12	2.264	16	0.163	12
1676		min		0	2	-0.088	20	0	2	-0.677	15	0	2
1677	P125A	max	T	0.18	19	0.064	21	0.088	8	2.339	14	0.169	18
1678		min		-0.003	13	-0.075	10	0	2	-0.642	16	0	2
1679		max	B	0.061	10	0	2	0.073	18	2.353	10	0.163	19
1680		min		-0.06	21	-0.181	19	0	2	0	2	0	2
1681	P861	max	T	0.013	9	0	10	0.069	21	2.266	15	0.156	20
1682		min		-0.076	17	-0.173	20	0	2	-0.716	13	0	2
1683		max	B	0.183	19	0.074	16	0.065	20	0.551	13	0.163	19
1684		min		0	2	-0.01	9	0	2	-0.57	7	0	2
1685	P110A	max	T	0.174	18	0.064	16	0.095	12	0.612	20	0.176	19
1686		min		0	2	-0.072	11	0	2	-0.735	10	0	2
1687		max	B	0.053	10	0.003	7	0.079	12	2.202	6	0.162	18
1688		min		-0.062	16	-0.175	17	0	2	0	2	0	2
1689	P191	max	T	0.058	12	0	2	0.088	19	2.294	15	0.179	20
1690		min		-0.018	6	-0.182	20	0	2	0	2	0	2
1691		max	B	0.163	19	0.023	6	0.085	18	2.203	11	0.162	19
1692		min		-0.002	13	-0.047	11	0	2	-0.778	10	0	2
1693	P132A	max	T	0.178	18	0.076	15	0.088	19	2.354	10	0.171	18
1694		min		0	2	-0.062	10	0	2	-0.741	12	0	2
1695		max	B	0.053	9	0.011	7	0.073	18	2.303	6	0.161	17
1696		min		-0.066	15	-0.18	17	0	2	0	2	0	2
1697	P168	max	T	0.053	14	0	2	0.091	6	1.804	18	0.179	6
1698		min		-0.007	7	-0.176	6	0	2	-0.773	17	0	2
1699		max	B	0.158	6	0.006	7	0.081	6	1.56	13	0.16	6
1700		min		-0.001	13	-0.036	15	0	2	-0.67	11	0	2
1701	P124A	max	T	0.167	7	0.064	6	0.09	18	0.802	11	0.163	18
1702		min		0	2	-0.066	15	0	2	-0.681	16	0	2
1703		max	B	0.058	15	0.009	14	0.078	18	2.349	12	0.159	7
1704		min		-0.062	6	-0.18	6	0	2	-0.765	13	0	2
1705	P818	max	T	0.012	14	0	2	0.069	17	1.963	12	0.136	17

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1706		min		-0.001	20	-0.132	17	0	2	0	2	0	2
1707		max	B	0.156	17	0	11	0.081	17	1.571	9	0.159	17
1708		min		0	2	-0.01	14	0	2	-0.004	19	0	2
1709	P176	max	T	0.045	9	0	2	0.084	18	2.038	11	0.165	17
1710		min		-0.016	14	-0.169	16	0	2	-0.777	10	0	2
1711		max	B	0.148	17	0.023	14	0.085	18	1.946	7	0.158	18
1712		min		-0.003	7	-0.04	10	0	2	-0.572	6	0	2
1713	P345	max	T	0.125	8	0.05	8	0.088	16	1.537	18	0.209	16
1714		min		-0.055	16	-0.231	16	0	2	0	2	0	2
1715		max	B	0.178	17	0.069	15	0.064	18	2.265	11	0.157	17
1716		min		-0.047	8	-0.111	8	0	2	-0.653	12	0	2
1717	P809	max	T	0.042	10	0	2	0.085	10	1.615	17	0.153	10
1718		min		-0.003	21	-0.127	10	0	2	0	2	0	2
1719		max	B	0.134	9	0.003	14	0.086	9	1.615	17	0.157	9
1720		min		0	2	-0.041	10	0	2	-0.325	12	0	2
1721	P146	max	T	0.174	7	0.074	21	0.078	9	0.743	11	0.161	7
1722		min		-0.01	13	-0.061	15	0	2	-0.758	16	0	2
1723		max	B	0.05	15	0.02	13	0.066	8	2.192	10	0.157	7
1724		min		-0.068	21	-0.178	6	0	2	-0.735	11	0	2
1725	P764	max	T	0.147	10	0.001	9	0.076	11	0.321	13	0.147	11
1726		min		0	2	-0.037	14	0	2	-0.553	19	0	2
1727		max	B	0.034	21	0	2	0.084	6	1.95	13	0.157	6
1728		min		0	10	-0.145	7	0	2	0	2	0	2
1729	P213	max	T	0.072	11	0	2	0.076	19	2.174	16	0.171	20
1730		min		-0.034	21	-0.185	20	0	2	0	2	0	2
1731		max	B	0.17	19	0.042	21	0.072	18	0.546	16	0.156	19
1732		min		0	2	-0.067	11	0	2	-0.776	12	0	2
1733	P286A	max	T	0.107	13	0.003	17	0.133	12	2.354	18	0.232	12
1734		min		0	2	-0.171	11	0	2	-0.081	17	0	2
1735		max	B	0.125	10	0	2	0.088	10	2.331	11	0.156	10
1736		min		-0.003	14	-0.123	18	0	2	-0.73	10	0	2
1737	P901	max	T	0.079	16	0.011	13	0.077	18	2.298	8	0.137	18
1738		min		-0.04	7	-0.121	19	0	2	0	2	0	2
1739		max	B	0.162	20	0.029	6	0.076	19	2.222	9	0.156	19
1740		min		-0.033	12	-0.053	14	0	2	-0.783	8	0	2
1741	P817	max	T	0.023	21	0	2	0.074	21	1.635	10	0.14	19
1742		min		-0.002	15	-0.137	19	0	2	-0.063	11	0	2
1743		max	B	0.154	18	0.001	7	0.079	18	1.635	10	0.156	18
1744		min		0	2	-0.022	21	0	2	-0.249	6	0	2
1745	P823	max	T	0.038	16	0	2	0.083	16	1.61	6	0.15	16
1746		min		-0.001	10	-0.127	15	0	2	0	2	0	2
1747		max	B	0.133	15	0.001	20	0.085	15	1.61	6	0.154	15
1748		min		-0.001	8	-0.037	16	0	2	-0.41	19	0	2
1749	P154	max	T	0.049	9	0	2	0.087	16	2.286	11	0.172	16
1750		min		-0.008	17	-0.172	17	0	2	-0.611	10	0	2
1751		max	B	0.155	18	0.008	17	0.077	18	1.839	7	0.154	18
1752		min		-0.001	8	-0.039	10	0	2	-0.569	6	0	2
1753	P895	max	T	0.123	21	0.016	18	0.079	14	2.354	6	0.14	14
1754		min		-0.009	10	-0.122	13	0	2	-0.707	7	0	2
1755		max	B	0.117	13	0.003	10	0.087	13	2.264	15	0.154	13
1756		min		-0.031	18	-0.123	21	0	2	-0.722	17	0	2
1757	P775	max	T	0.18	16	0.001	38	0.09	17	0.413	6	0.18	16
1758		min		0	2	-0.019	9	0	2	-0.16	8	0	2
1759		max	B	0.022	8	0.002	9	0.078	18	2.005	6	0.154	17
1760		min		0	14	-0.152	17	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1761	P190	max	T	0.046	14	0	2	0.084	7	2.136	17	0.166	6
1762		min		-0.019	21	-0.171	6	0	2	-0.745	16	0	2
1763		max	B	0.153	6	0.022	21	0.081	7	1.556	12	0.154	7
1764		min		-0.002	12	-0.034	16	0	2	-0.692	11	0	2
1765	P772	max	T	0.172	19	0.001	11	0.086	19	0.331	9	0.172	19
1766		min		0	2	-0.025	14	0	2	-0.596	13	0	2
1767		max	B	0.035	14	0	2	0.079	17	1.938	9	0.152	18
1768		min		-0.001	21	-0.148	18	0	2	0	2	0	2
1769	P198	max	T	0.062	9	0	2	0.071	17	2.249	10	0.161	17
1770		min		-0.036	15	-0.175	17	0	2	-0.717	9	0	2
1771		max	B	0.159	18	0.044	15	0.072	18	0.697	11	0.152	18
1772		min		0	2	-0.061	10	0	2	-0.52	19	0	2
1773	P199	max	T	0.069	6	0	2	0.074	13	2.202	10	0.167	14
1774		min		-0.037	15	-0.182	14	0	2	0	2	0	2
1775		max	B	0.156	13	0.042	15	0.07	12	0.615	10	0.149	13
1776		min		0	2	-0.065	21	0	2	-0.648	20	0	2
1777	P769	max	T	0.187	21	0.02	21	0.092	20	0.515	10	0.185	20
1778		min		-0.008	12	-0.046	14	0	2	-0.393	14	0	2
1779		max	B	0.044	14	0	2	0.077	7	2.048	10	0.148	6
1780		min		-0.015	21	-0.15	6	0	2	0	2	0	2
1781	P358	max	T	0.147	15	0.041	17	0.088	6	1.984	38	0.189	7
1782		min		-0.051	10	-0.202	7	0	2	-0.7	18	0	2
1783		max	B	0.162	7	0.048	9	0.069	6	2.071	10	0.147	7
1784		min		-0.042	17	-0.137	15	0	2	-0.665	9	0	2
1785	P177	max	T	0.053	6	0	2	0.083	14	2.173	10	0.171	14
1786		min		-0.018	16	-0.175	14	0	2	-0.64	9	0	2
1787		max	B	0.146	14	0.023	16	0.079	12	2.289	6	0.147	13
1788		min		-0.002	7	-0.038	20	0	2	-0.727	20	0	2
1789	P212	max	T	0.058	14	0.008	14	0.067	6	2.271	16	0.159	6
1790		min		-0.043	6	-0.176	6	0	2	-0.54	14	0	2
1791		max	B	0.159	6	0.045	21	0.066	7	1.519	13	0.147	7
1792		min		-0.003	13	-0.056	16	0	2	-0.678	11	0	2
1793	P598	max	T	0.091	6	0	2	0.095	6	2.335	9	0.164	6
1794		min		-0.004	17	-0.099	21	0	2	-0.741	7	0	2
1795		max	B	0.082	21	0	2	0.084	21	2.35	14	0.146	21
1796		min		-0.001	10	-0.086	6	0	2	-0.779	13	0	2
1797	P400	max	T	0.099	13	0.008	9	0.094	14	2.354	17	0.164	14
1798		min		0	2	-0.105	14	0	2	-0.778	16	0	2
1799		max	B	0.091	14	0	2	0.084	13	2.356	21	0.145	13
1800		min		0	2	-0.081	12	0	2	-0.626	6	0	2
1801	P155	max	T	0.049	6	0	2	0.082	14	2.013	10	0.17	14
1802		min		-0.011	14	-0.175	14	0	2	-0.624	9	0	2
1803		max	B	0.148	14	0.01	14	0.071	13	2.26	21	0.145	13
1804		min		-0.001	7	-0.033	21	0	2	-0.751	19	0	2
1805	P907	max	T	0.028	11	0	2	0.081	11	1.944	6	0.15	12
1806		min		0	2	-0.135	12	0	2	-0.672	19	0	2
1807		max	B	0.14	13	0.018	15	0.076	11	2.325	10	0.144	12
1808		min		-0.004	21	-0.058	8	0	2	-0.763	11	0	2
1809	P399	max	T	0.088	13	0.006	38	0.056	13	1.795	38	0.102	13
1810		min		-0.004	19	-0.064	6	0	2	-0.298	1	0	2
1811		max	B	0.068	12	0	2	0.082	12	2.193	7	0.142	12
1812		min		0	2	-0.095	12	0	2	-0.744	8	0	2
1813	P332	max	T	0.084	11	0	2	0.05	11	2.328	15	0.093	11
1814		min		0	2	-0.052	19	0	2	-0.582	14	0	2
1815		max	B	0.068	20	0	2	0.073	12	2.342	6	0.138	12

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1816		min		0	2	-0.129	11	0	2	-0.567	21	0	2
1817	P771	max	T	0.172	21	0.06	19	0.069	6	0.56	8	0.154	21
1818		min		-0.002	13	-0.025	12	0	2	-0.624	14	0	2
1819		max	B	0.024	13	0	2	0.057	6	2.089	8	0.137	21
1820		min		-0.053	19	-0.154	21	0	2	0	2	0	2
1821	P783	max	T	0.145	10	0.001	12	0.074	9	0.543	17	0.146	10
1822		min		0	2	-0.028	18	0	2	-0.223	7	0	2
1823		max	B	0.033	18	0	2	0.07	13	2.025	17	0.137	13
1824		min		-0.001	6	-0.133	13	0	2	0	2	0	2
1825	P778	max	T	0.18	15	0.002	14	0.089	16	0.212	19	0.179	16
1826		min		-0.008	7	-0.034	8	0	2	-0.644	8	0	2
1827		max	B	0.031	8	0	2	0.068	15	1.754	19	0.134	15
1828		min		0	2	-0.133	15	0	2	0	2	0	2
1829	P777	max	T	0.178	17	0.057	14	0.074	18	0.814	6	0.164	17
1830		min		-0.005	7	-0.028	20	0	2	-0.508	10	0	2
1831		max	B	0.022	20	0	2	0.058	18	2.327	6	0.133	17
1832		min		-0.046	15	-0.147	16	0	2	0	2	0	2
1833	P405	max	T	0.091	19	0.008	6	0.074	18	2.35	9	0.129	18
1834		min		-0.003	14	-0.069	17	0	2	-0.664	10	0	2
1835		max	B	0.066	19	0	2	0.076	20	2.35	16	0.133	20
1836		min		-0.011	9	-0.094	21	0	2	-0.658	17	0	2
1837	P366	max	T	0.104	11	0.053	12	0.076	19	2.218	8	0.184	19
1838		min		-0.056	20	-0.205	19	0	2	-0.65	9	0	2
1839		max	B	0.153	19	0.07	20	0.051	18	2.352	5	0.133	19
1840		min		-0.051	11	-0.091	11	0	2	-0.754	15	0	2
1841	P592	max	T	0.069	11	0	2	0.078	11	2.335	8	0.136	11
1842		min		0	2	-0.088	11	0	2	-0.6	10	0	2
1843		max	B	0.076	12	0	2	0.076	12	2.142	17	0.132	12
1844		min		0	2	-0.076	12	0	2	-0.538	18	0	2
1845	P770	max	T	0.174	19	0.056	6	0.074	18	2.348	14	0.158	19
1846		min		-0.004	12	-0.035	15	0	2	-0.591	15	0	2
1847		max	B	0.029	14	0	2	0.058	18	1.934	10	0.132	19
1848		min		-0.048	21	-0.147	20	0	2	0	2	0	2
1849	P776	max	T	0.169	15	0.059	17	0.063	14	2.308	9	0.15	15
1850		min		-0.002	8	-0.018	8	0	2	-0.546	10	0	2
1851		max	B	0.017	8	0	2	0.052	14	2.308	9	0.13	15
1852		min		-0.05	17	-0.147	15	0	2	0	2	0	2
1853	P787	max	T	0.146	10	0.056	8	0.047	10	0.751	10	0.128	10
1854		min		0	2	-0.006	18	0	2	-0.421	18	0	2
1855		max	B	0.033	19	0	2	0.055	11	2.318	11	0.128	11
1856		min		-0.062	7	-0.141	11	0	2	-0.766	10	0	2
1857	P337	max	T	0.161	14	0.013	14	0.112	6	1.779	10	0.23	6
1858		min		-0.012	6	-0.236	6	0	2	-0.388	11	0	2
1859		max	B	0.12	6	0.02	6	0.06	14	2.181	18	0.127	14
1860		min		-0.014	14	-0.134	14	0	2	-0.175	19	0	2
1861	P331	max	T	0.169	21	0.013	18	0.127	13	1.617	17	0.257	13
1862		min		-0.01	10	-0.26	13	0	2	-0.13	18	0	2
1863		max	B	0.122	13	0.014	10	0.064	6	1.77	7	0.127	6
1864		min		-0.011	19	-0.127	21	0	2	0	2	0	2
1865	P896	max	T	0.069	6	0.003	19	0.078	9	2.34	10	0.138	9
1866		min		-0.051	14	-0.117	10	0	2	-0.779	11	0	2
1867		max	B	0.106	11	0.024	15	0.07	10	0.947	14	0.126	10
1868		min		0	2	-0.046	8	0	2	-0.017	19	0	2
1869	P287	max	T	0.119	13	0.032	10	0.078	21	2.225	14	0.139	21
1870		min		-0.021	18	-0.111	21	0	2	-0.338	1	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1871		max	B	0.119	21	0.02	19	0.066	6	2.339	21	0.125	6
1872		min		-0.031	11	-0.118	13	0	2	-0.749	6	0	2
1873	P804	max	T	0.155	11	0.064	14	0.05	11	0.526	19	0.137	11
1874		min		0	2	-0.011	19	0	2	-0.763	11	0	2
1875		max	B	0.025	18	0	2	0.047	10	2.25	15	0.124	10
1876		min		-0.063	13	-0.14	10	0	2	-0.741	14	0	2
1877	P603	max	T	0.067	10	0	2	0.076	10	2.322	16	0.132	10
1878		min		-0.003	14	-0.086	11	0	2	-0.464	15	0	2
1879		max	B	0.077	11	0	2	0.071	11	2.339	7	0.123	11
1880		min		0	2	-0.068	10	0	2	-0.367	6	0	2
1881	P335	max	T	0.084	10	0	2	0.047	10	2.348	16	0.089	10
1882		min		0	2	-0.04	17	0	2	-0.681	15	0	2
1883		max	B	0.053	18	0	2	0.063	9	2.266	6	0.121	9
1884		min		0	2	-0.117	10	0	2	-0.611	21	0	2
1885	P773	max	T	0.169	19	0.082	18	0.047	20	0.279	7	0.147	19
1886		min		0	2	-0.004	8	0	2	-0.626	13	0	2
1887		max	B	0.017	11	0	2	0.048	15	2.045	7	0.12	19
1888		min		-0.081	18	-0.139	19	0	2	0	2	0	2
1889	P774	max	T	0.165	18	0.087	17	0.046	19	0.337	6	0.143	18
1890		min		0	2	-0.004	7	0	2	-0.098	9	0	2
1891		max	B	0.016	7	0	2	0.047	21	2.06	8	0.12	19
1892		min		-0.087	17	-0.138	19	0	2	0	2	0	2
1893	P790	max	T	0.165	21	0.063	6	0.052	20	0.527	11	0.145	21
1894		min		0	2	-0.037	13	0	2	-0.782	21	0	2
1895		max	B	0.034	13	0	2	0.046	19	2.313	9	0.119	20
1896		min		-0.055	7	-0.135	20	0	2	-0.553	8	0	2
1897	P765	max	T	0.144	10	0.072	9	0.046	12	0.349	12	0.125	10
1898		min		0	2	-0.016	19	0	2	-0.527	20	0	2
1899		max	B	0.041	19	0	2	0.064	20	2.101	12	0.118	21
1900		min		-0.07	9	-0.121	11	0	2	0	2	0	2
1901	P847	max	T	0.013	10	0	2	0.053	11	1.946	9	0.101	11
1902		min		-0.002	14	-0.096	11	0	2	0	2	0	2
1903		max	B	0.114	13	0.002	6	0.061	12	1.606	21	0.118	12
1904		min		0	2	-0.012	10	0	2	-0.115	6	0	2
1905	P336	max	T	0.141	15	0.013	18	0.1	6	1.781	38	0.203	7
1906		min		-0.012	9	-0.206	7	0	2	-0.646	11	0	2
1907		max	B	0.105	6	0.012	10	0.059	14	2.249	10	0.117	14
1908		min		-0.011	17	-0.115	14	0	2	-0.6	19	0	2
1909	P784	max	T	0.151	9	0.052	13	0.066	7	0.196	14	0.141	8
1910		min		0	2	-0.023	18	0	2	-0.58	10	0	2
1911		max	B	0.021	18	0	2	0.047	8	1.66	20	0.116	9
1912		min		-0.048	11	-0.13	9	0	2	0	2	0	2
1913	P324	max	T	0.086	19	0.007	6	0.047	18	2.345	15	0.088	19
1914		min		-0.01	13	-0.065	11	0	2	-0.679	16	0	2
1915		max	B	0.057	10	0.009	13	0.062	18	2.299	7	0.115	18
1916		min		-0.009	6	-0.105	18	0	2	-0.629	8	0	2
1917	P825	max	T	0.007	10	0	2	0.053	11	1.849	9	0.103	11
1918		min		0	14	-0.1	11	0	2	0	2	0	2
1919		max	B	0.112	12	0.001	6	0.059	12	1.588	21	0.114	12
1920		min		0	2	-0.01	21	0	2	-0.038	6	0	2
1921	P763	max	T	0.151	11	0.054	9	0.074	13	0.7	13	0.146	12
1922		min		0	2	-0.031	19	0	2	-0.437	20	0	2
1923		max	B	0.025	19	0	2	0.057	6	2.234	13	0.114	11
1924		min		-0.047	9	-0.129	10	0	2	0	2	0	2
1925	P796	max	T	0.143	17	0.106	18	0.027	6	0.391	8	0.128	17

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1926		min		0	2	-0.004	7	0	2	-0.76	13	0	2
1927		max	B	0.018	7	0	10	0.039	6	2.18	18	0.114	16
1928		min		-0.104	18	-0.131	16	0	2	-0.145	10	0	2
1929	P801	max	T	0.147	15	0.067	14	0.043	17	1.046	7	0.128	15
1930		min		0	2	-0.008	8	0	2	-0.561	8	0	2
1931		max	B	0.017	9	0	2	0.043	17	2.326	14	0.114	16
1932		min		-0.06	13	-0.13	16	0	2	-0.782	18	0	2
1933	P833	max	T	0.015	19	0	2	0.049	20	1.986	19	0.091	21
1934		min		-0.001	7	-0.084	21	0	2	0	2	0	2
1935		max	B	0.11	6	0.002	15	0.059	6	0.441	17	0.114	6
1936		min		0	2	-0.012	19	0	2	-0.018	16	0	2
1937	P338	max	T	0.073	9	0.006	11	0.045	7	2.237	20	0.082	8
1938		min		-0.004	19	-0.047	17	0	2	-0.766	21	0	2
1939		max	B	0.052	16	0.001	18	0.062	7	2.171	13	0.113	7
1940		min		-0.006	11	-0.102	8	0	2	-0.69	14	0	2
1941	P795	max	T	0.143	19	0.106	18	0.028	21	0.585	11	0.126	19
1942		min		0	2	-0.004	12	0	2	-0.626	13	0	2
1943		max	B	0.023	12	0	10	0.037	6	2.257	20	0.113	20
1944		min		-0.103	18	-0.13	20	0	2	0	2	0	2
1945	P343	max	T	0.077	17	0.006	14	0.045	18	2.297	12	0.083	18
1946		min		-0.009	7	-0.06	9	0	2	-0.68	13	0	2
1947		max	B	0.059	10	0.007	7	0.06	18	2.257	6	0.113	18
1948		min		-0.008	14	-0.103	18	0	2	0	2	0	2
1949	P597	max	T	0.054	14	0.002	11	0.047	14	1.875	5	0.083	21
1950		min		-0.001	10	-0.068	21	0	2	-0.17	9	0	2
1951		max	B	0.07	21	0	2	0.064	21	2.331	16	0.112	21
1952		min		-0.001	10	-0.059	21	0	2	-0.785	15	0	2
1953	P394	max	T	0.081	18	0	2	0.074	18	2.193	18	0.129	18
1954		min		0	2	-0.072	19	0	2	-0.755	17	0	2
1955		max	B	0.069	19	0	2	0.064	18	2.098	10	0.111	18
1956		min		-0.001	11	-0.066	15	0	2	-0.76	9	0	2
1957	P869	max	T	0.013	18	0	2	0.042	10	1.984	9	0.091	11
1958		min		-0.023	13	-0.098	11	0	2	0	2	0	2
1959		max	B	0.119	12	0.018	14	0.051	12	0.407	9	0.111	12
1960		min		0	2	-0.009	19	0	2	-0.545	19	0	2
1961	P846	max	T	0.013	18	0	2	0.05	15	1.706	6	0.095	15
1962		min		-0.001	13	-0.091	15	0	2	0	2	0	2
1963		max	B	0.107	14	0.001	20	0.055	14	1.706	6	0.109	14
1964		min		0	2	-0.011	18	0	2	-0.495	19	0	2
1965	P855	max	T	0.015	12	0	2	0.041	20	2.102	20	0.085	20
1966		min		-0.025	7	-0.089	21	0	2	0	2	0	2
1967		max	B	0.117	6	0.022	7	0.049	21	0.426	18	0.108	6
1968		min		0	2	-0.014	13	0	2	-0.614	14	0	2
1969	P811	max	T	0.008	19	0	2	0.047	21	1.865	19	0.091	21
1970		min		0	7	-0.088	21	0	2	0	2	0	2
1971		max	B	0.105	6	0.001	14	0.054	6	0.312	18	0.107	6
1972		min		0	2	-0.007	19	0	2	-0.01	17	0	2
1973	P832	max	T	0.016	11	0	2	0.051	10	1.634	19	0.096	10
1974		min		-0.002	6	-0.089	10	0	2	0	2	0	2
1975		max	B	0.104	8	0.002	15	0.055	9	0.016	15	0.107	8
1976		min		0	2	-0.014	12	0	2	-0.554	14	0	2
1977	P766	max	T	0.127	9	0.034	8	0.057	20	0.417	12	0.115	9
1978		min		0	2	-0.011	19	0	2	-0.376	18	0	2
1979		max	B	0.035	19	0	2	0.057	20	2.076	11	0.107	11
1980		min		-0.032	8	-0.105	11	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1981	P824	max	T	0.007	18	0	2	0.051	15	1.663	7	0.099	15
1982		min		0	13	-0.097	15	0	2	0	2	0	2
1983		max	B	0.105	14	0	21	0.053	15	1.663	7	0.105	14
1984		min		0	2	-0.009	6	0	2	-0.311	18	0	2
1985	P788	max	T	0.117	9	0.039	7	0.045	10	0.497	12	0.105	9
1986		min		0	2	-0.008	13	0	2	-0.327	18	0	2
1987		max	B	0.022	19	0	2	0.055	13	2.084	10	0.105	11
1988		min		-0.04	7	-0.105	11	0	2	0	2	0	2
1989	P782	max	T	0.143	10	0.076	11	0.042	9	0.483	16	0.124	10
1990		min		0	2	-0.013	18	0	2	-0.285	9	0	2
1991		max	B	0.03	17	0	2	0.056	17	2.156	16	0.104	15
1992		min		-0.075	11	-0.118	10	0	2	0	2	0	2
1993	P810	max	T	0.009	11	0	2	0.051	10	1.606	19	0.099	10
1994		min		-0.001	6	-0.095	10	0	2	0	2	0	2
1995		max	B	0.102	9	0.001	14	0.053	9	0.025	14	0.104	9
1996		min		0	2	-0.009	12	0	2	-0.399	13	0	2
1997	P868	max	T	0.01	9	0	2	0.039	16	1.986	9	0.087	15
1998		min		-0.027	14	-0.095	15	0	2	0	2	0	2
1999		max	B	0.113	14	0.025	14	0.044	11	0.353	9	0.103	14
2000		min		0	2	-0.005	19	0	2	-0.425	18	0	2
2001	P854	max	T	0.013	18	0	2	0.045	13	2.067	19	0.091	11
2002		min		-0.026	7	-0.095	10	0	2	0	2	0	2
2003		max	B	0.11	8	0.022	7	0.045	8	0.359	18	0.102	8
2004		min		0	2	-0.006	18	0	2	-0.461	12	0	2
2005	P329	max	T	0.07	7	0.006	9	0.04	14	2.343	20	0.073	14
2006		min		-0.006	17	-0.07	15	0	2	-0.674	21	0	2
2007		max	B	0.046	14	0.003	18	0.057	13	2.28	14	0.102	12
2008		min		-0.005	9	-0.085	11	0	2	-0.733	15	0	2
2009	P781	max	T	0.134	12	0.034	13	0.054	16	0.405	19	0.122	12
2010		min		0	2	-0.011	18	0	2	-0.377	9	0	2
2011		max	B	0.028	18	0	2	0.054	16	2.124	18	0.099	16
2012		min		-0.032	13	-0.105	11	0	2	0	2	0	2
2013	P803	max	T	0.126	12	0.036	14	0.049	11	0.452	19	0.114	12
2014		min		0	2	-0.006	19	0	2	-0.458	9	0	2
2015		max	B	0.018	18	0	2	0.046	10	2.09	18	0.099	10
2016		min		-0.039	13	-0.105	11	0	2	0	2	0	2
2017	P767	max	T	0.139	21	0.039	6	0.054	20	0.441	12	0.126	21
2018		min		0	2	-0.014	11	0	2	-0.372	18	0	2
2019		max	B	0.022	11	0	2	0.054	11	2.036	11	0.098	11
2020		min		-0.035	6	-0.088	20	0	2	0	2	0	2
2021	P780	max	T	0.143	14	0.034	14	0.055	15	0.374	18	0.13	14
2022		min		0	2	-0.012	9	0	2	-0.418	8	0	2
2023		max	B	0.022	9	0	2	0.053	10	2.145	18	0.098	10
2024		min		-0.031	14	-0.097	15	0	2	0	2	0	2
2025	P779	max	T	0.166	15	0.071	15	0.047	15	0.319	19	0.144	15
2026		min		0	2	-0.016	9	0	2	-0.573	8	0	2
2027		max	B	0.022	9	0	2	0.049	10	2.075	18	0.096	15
2028		min		-0.067	15	-0.11	15	0	2	0	2	0	2
2029	P802	max	T	0.121	15	0.039	14	0.044	15	0.474	18	0.109	15
2030		min		0	2	-0.007	19	0	2	-0.371	8	0	2
2031		max	B	0.015	19	0	2	0.044	17	2.14	18	0.095	16
2032		min		-0.039	14	-0.102	15	0	2	0	2	0	2
2033	P323	max	T	0.083	9	0.015	8	0.095	17	2.309	6	0.196	17
2034		min		-0.013	16	-0.202	17	0	2	-0.126	7	0	2
2035		max	B	0.1	17	0.021	15	0.043	18	2.29	12	0.092	17

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2036		min		-0.012	9	-0.087	8	0	2	-0.587	13	0	2
2037	P789	max	T	0.124	21	0.041	7	0.047	20	0.483	13	0.112	21
2038		min		0	2	-0.009	12	0	2	-0.474	18	0	2
2039		max	B	0.015	12	0	2	0.044	19	1.999	12	0.092	20
2040		min		-0.042	7	-0.097	20	0	2	0	2	0	2
2041	P768	max	T	0.159	21	0.089	21	0.042	10	0.498	11	0.138	21
2042		min		0	2	-0.027	12	0	2	-0.293	18	0	2
2043		max	B	0.028	12	0	2	0.049	10	2.197	7	0.092	8
2044		min		-0.083	21	-0.105	7	0	2	0	2	0	2
2045	P604	max	T	0.044	19	0	2	0.037	19	2.232	15	0.064	19
2046		min		0	2	-0.038	10	0	2	-0.283	13	0	2
2047		max	B	0.053	19	0	2	0.052	19	2.232	15	0.091	19
2048		min		0	2	-0.056	12	0	2	-0.755	6	0	2
2049	P406	max	T	0.038	18	0	2	0.036	18	1.823	6	0.062	18
2050		min		-0.001	6	-0.043	10	0	2	-0.601	7	0	2
2051		max	B	0.056	19	0	2	0.051	11	2.346	15	0.088	11
2052		min		0	2	-0.051	11	0	2	-0.601	7	0	2
2053	P344	max	T	0.068	10	0.015	12	0.087	18	2.197	7	0.179	18
2054		min		-0.013	19	-0.184	18	0	2	-0.683	8	0	2
2055		max	B	0.084	18	0.021	21	0.04	17	2.308	38	0.081	18
2056		min		-0.013	11	-0.07	11	0	2	-0.718	15	0	2
2057	P908	max	T	0.052	19	0.023	16	0.038	12	2.299	16	0.066	12
2058		min		-0.01	8	-0.047	11	0	2	-0.629	14	0	2
2059		max	B	0.067	11	0.003	10	0.04	11	2.34	20	0.077	20
2060		min		-0.031	18	-0.081	19	0	2	-0.768	19	0	2
2061	P300	max	T	0.084	12	0.032	10	0.044	21	2.352	21	0.083	12
2062		min		-0.021	18	-0.07	20	0	2	-0.717	20	0	2
2063		max	B	0.055	14	0.027	17	0.043	6	2.279	17	0.076	6
2064		min		-0.03	9	-0.073	7	0	2	-0.758	15	0	2
2065	P640	max	T	0.057	19	0.019	18	0.019	20	0.896	10	0.05	20
2066		min		0	2	0	2	0	2	0	2	0	2
2067		max	B	0	2	0	2	0.031	21	2.355	8	0.072	21
2068		min		-0.019	18	-0.079	20	0	2	-0.785	19	0	2
2069	P636	max	T	0.051	20	0.014	21	0.019	20	2.356	15	0.046	20
2070		min		0	2	0	2	0	2	-0.776	13	0	2
2071		max	B	0	2	0	2	0.026	20	0.974	13	0.06	20
2072		min		-0.015	21	-0.066	20	0	2	0	2	0	2
2073	P644	max	T	0.043	16	0.015	17	0.014	16	2.151	19	0.038	16
2074		min		0	2	0	2	0	2	0	2	0	2
2075		max	B	0	2	0	2	0.024	15	1.139	7	0.056	15
2076		min		-0.014	18	-0.061	15	0	2	0	2	0	2
2077	P652	max	T	0.038	11	0.014	10	0.012	12	2.188	13	0.033	11
2078		min		0	2	0	2	0	2	0	2	0	2
2079		max	B	0	2	0	2	0.024	10	0.549	21	0.054	10
2080		min		-0.011	9	-0.059	10	0	2	0	2	0	2
2081	P646	max	T	0.042	15	0.012	16	0.015	15	0.858	21	0.038	15
2082		min		0	2	0	2	0	2	0	2	0	2
2083		max	B	0	2	0	2	0.023	16	2.302	6	0.053	16
2084		min		-0.012	16	-0.058	16	0	2	-0.782	10	0	2
2085	P632	max	T	0.039	9	0.01	9	0.014	8	0.94	14	0.035	8
2086		min		0	2	0	2	0	2	0	2	0	2
2087		max	B	0	2	0	2	0.023	10	2.354	17	0.052	10
2088		min		-0.01	8	-0.056	10	0	2	-0.783	16	0	2
2089	P641	max	T	0.039	18	0.024	19	0.009	15	2.338	14	0.034	18
2090		min		0	2	0	2	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2091		max	B	0	2	0	2	0.013	14	0.849	14	0.039	17
2092		min		-0.028	19	-0.045	17	0	2	-0.078	6	0	2
2093	P643	max	T	0.04	17	0.02	17	0.01	18	1.052	13	0.035	17
2094		min		0	2	0	2	0	2	0	2	0	2
2095		max	B	0	2	0	2	0.011	21	2.344	19	0.038	18
2096		min		-0.024	17	-0.044	18	0	2	-0.705	10	0	2
2097	P651	max	T	0.036	8	0.018	10	0.01	7	1.057	14	0.031	8
2098		min		0	2	0	2	0	2	0	2	0	2
2099		max	B	0	2	0	2	0.011	10	2.317	17	0.035	10
2100		min		-0.019	11	-0.04	10	0	2	-0.774	16	0	2
2101	P661	max	T	0.018	15	0.006	14	0.006	15	1.321	7	0.016	15
2102		min		0	2	0	6	0	2	0	2	0	2
2103		max	B	0.002	6	0	2	0.014	21	2.312	15	0.028	20
2104		min		-0.007	14	-0.027	20	0	2	-0.771	16	0	2
2105	P663	max	T	0.025	19	0.007	18	0.009	19	0.387	8	0.022	19
2106		min		0	2	0	2	0	2	-0.177	13	0	2
2107		max	B	0	2	0	2	0.011	20	1.909	7	0.027	20
2108		min		-0.008	18	-0.029	19	0	2	0	2	0	2
2109	P667	max	T	0.017	10	0.008	6	0.006	13	0.849	21	0.015	11
2110		min		0	2	0	2	0	2	0	2	0	2
2111		max	B	0	2	0	2	0.011	16	2.337	11	0.026	16
2112		min		-0.007	21	-0.028	16	0	2	-0.76	20	0	2
2113	P642	max	T	0.021	19	0	10	0.011	19	0.282	7	0.022	19
2114		min		0	2	-0.002	6	0	2	-0.191	13	0	2
2115		max	B	0.005	6	0	2	0.014	20	1.95	7	0.026	20
2116		min		0	2	-0.024	19	0	2	0	2	0	2
2117	P647	max	T	0.027	16	0.019	16	0.007	7	2.332	12	0.024	16
2118		min		0	2	0	2	0	2	-0.776	6	0	2
2119		max	B	0	2	0	2	0.008	9	1.031	8	0.026	15
2120		min		-0.019	14	-0.029	15	0	2	0	2	0	2
2121	P664	max	T	0.025	18	0.008	18	0.009	19	0.276	7	0.022	18
2122		min		0	2	0	2	0	2	-0.304	13	0	2
2123		max	B	0	2	0	2	0.01	19	1.85	7	0.025	19
2124		min		-0.008	18	-0.028	18	0	2	0	2	0	2
2125	P637	max	T	0.016	21	0.001	13	0.009	21	0	2	0.017	21
2126		min		0	2	-0.001	21	0	2	-0.334	21	0	2
2127		max	B	0.003	20	0	2	0.013	20	1.581	12	0.025	20
2128		min		-0.001	14	-0.024	19	0	2	0	2	0	2
2129	P653	max	T	0.026	20	0.006	18	0.01	21	1.475	13	0.024	21
2130		min		0	2	0	2	0	2	0	2	0	2
2131		max	B	0	2	0	2	0.011	10	2.338	20	0.025	10
2132		min		-0.006	20	-0.026	10	0	2	-0.768	17	0	2
2133	P666	max	T	0.019	21	0.009	6	0.005	20	2.337	16	0.016	21
2134		min		0	2	0	2	0	2	-0.735	17	0	2
2135		max	B	0	2	0	2	0.011	16	1.385	8	0.024	16
2136		min		-0.009	21	-0.026	17	0	2	0	2	0	2
2137	P633	max	T	0.024	12	0.017	8	0.005	14	2.284	17	0.021	11
2138		min		0	2	0	2	0	2	-0.783	7	0	2
2139		max	B	0	2	0	2	0.007	19	0.99	19	0.023	6
2140		min		-0.018	8	-0.026	6	0	2	-0.069	12	0	2
2141	P674	max	T	0.022	17	0.006	18	0.008	17	2.31	16	0.019	17
2142		min		0	2	0	2	0	2	-0.769	15	0	2
2143		max	B	0	2	0	2	0.011	10	0.834	18	0.022	10
2144		min		-0.007	17	-0.024	11	0	2	0	2	0	2
2145	P657	max	T	0.023	21	0.004	15	0.01	21	0.183	12	0.022	21

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2146		min		0	2	0	2	0	2	-0.251	18	0	2
2147		max	B	0	2	0	2	0.01	20	1.717	12	0.022	20
2148		min		-0.005	6	-0.024	21	0	2	0	2	0	2
2149	P635	max	T	0.022	21	0.021	20	0.006	12	1.323	19	0.022	21
2150		min		0	2	0	2	0	2	0	2	0	2
2151		max	B	0	2	0	2	0.008	11	2.296	38	0.022	6
2152		min		-0.021	6	-0.026	10	0	2	-0.776	7	0	2
2153	P729	max	T	0	6	0	2	0.011	19	1.653	13	0.023	19
2154		min		-0.002	16	-0.024	19	0	2	0	2	0	2
2155		max	B	0.022	18	0.001	16	0.01	19	0.082	13	0.021	18
2156		min		0	2	0	6	0	2	-0.328	7	0	2
2157	P413	max	T	0.012	12	0	16	0.012	12	0.777	10	0.021	12
2158		min		-0.002	8	-0.013	12	0	2	-0.778	6	0	2
2159		max	B	0.012	12	0	16	0.012	12	0.777	10	0.021	12
2160		min		-0.002	8	-0.013	12	0	2	-0.778	6	0	2
2161	P660	max	T	0.013	11	0.004	13	0.007	7	2.355	20	0.013	8
2162		min		0	2	-0.005	21	0	2	-0.769	11	0	2
2163		max	B	0.004	21	0	2	0.011	20	1.061	12	0.021	19
2164		min		-0.003	13	-0.019	19	0	2	0	2	0	2
2165	P662	max	T	0.018	18	0.006	18	0.006	18	0.514	8	0.016	18
2166		min		0	2	0	2	0	2	0	2	0	2
2167		max	B	0	2	0	2	0.009	20	2.094	6	0.021	19
2168		min		-0.007	17	-0.023	19	0	2	0	2	0	2
2169	P659	max	T	0.015	21	0.002	13	0.008	21	0	2	0.015	21
2170		min		0	2	0	21	0	2	-0.514	18	0	2
2171		max	B	0.001	20	0	2	0.011	20	1.484	12	0.02	20
2172		min		-0.001	10	-0.02	20	0	2	0	2	0	2
2173	P658	max	T	0.02	21	0.004	14	0.008	21	0	2	0.018	21
2174		min		0	2	0	2	0	2	-0.432	17	0	2
2175		max	B	0	2	0	2	0.009	20	1.534	12	0.02	20
2176		min		-0.004	7	-0.022	20	0	2	0	2	0	2
2177	P707	max	T	0.001	6	0	2	0.01	19	1.641	13	0.02	19
2178		min		0	16	-0.02	19	0	2	0	2	0	2
2179		max	B	0.02	18	0	11	0.01	18	0.07	13	0.02	18
2180		min		0	2	-0.001	6	0	2	-0.266	7	0	2
2181	P708	max	T	0	14	0	2	0.01	19	1.757	13	0.02	19
2182		min		0	18	-0.02	19	0	2	0	2	0	2
2183		max	B	0.02	18	0	10	0.01	18	0.194	13	0.02	18
2184		min		0	2	0	14	0	2	-0.151	7	0	2
2185	P634	max	T	0.017	21	0	2	0.01	21	0.253	12	0.019	21
2186		min		0	2	-0.002	21	0	2	-0.17	19	0	2
2187		max	B	0.003	11	0	2	0.011	20	1.921	12	0.02	21
2188		min		0	2	-0.019	21	0	2	0	2	0	2
2189	P730	max	T	0	2	0	2	0.01	19	1.822	13	0.021	19
2190		min		-0.002	18	-0.022	18	0	2	0	2	0	2
2191		max	B	0.021	18	0.002	19	0.01	18	0.266	13	0.02	18
2192		min		0	2	0	2	0	2	-0.194	7	0	2
2193	P723	max	T	0	11	0	2	0.009	20	1.789	19	0.019	21
2194		min		-0.001	8	-0.019	21	0	2	0	2	0	2
2195		max	B	0.02	21	0.001	14	0.01	21	0.222	18	0.02	21
2196		min		0	2	0	21	0	2	-0.07	12	0	2
2197	P414	max	T	0.011	12	0	2	0.011	12	0.797	10	0.02	12
2198		min		-0.001	8	-0.012	20	0	2	-0.741	6	0	2
2199		max	B	0.011	12	0	2	0.011	12	0.797	10	0.02	12
2200		min		-0.001	8	-0.012	20	0	2	-0.741	6	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2201	P567	max	T	0.012	19	0.002	16	0.011	20	2.353	13	0.02	20
2202		min		-0.002	8	-0.011	11	0	2	-0.785	12	0	2
2203		max	B	0.012	19	0.002	16	0.011	20	2.353	13	0.02	20
2204		min		-0.002	8	-0.011	11	0	2	-0.785	12	0	2
2205	P504	max	T	0.02	13	0.003	14	0.009	21	1.623	16	0.019	21
2206		min		-0.003	6	-0.021	21	0	1	-0.074	17	0	1
2207		max	B	0.02	13	0.003	14	0.009	21	1.623	16	0.019	21
2208		min		-0.003	6	-0.021	21	0	1	-0.074	17	0	1
2209	P482	max	T	0.02	13	0.003	14	0.009	21	1.836	16	0.019	21
2210		min		-0.003	6	-0.021	21	0	2	-0.314	17	0	2
2211		max	B	0.02	13	0.003	14	0.009	21	1.836	16	0.019	21
2212		min		-0.003	6	-0.021	21	0	2	-0.314	17	0	2
2213	P656	max	T	0.021	6	0.004	15	0.009	6	0.302	12	0.02	6
2214		min		0	2	0	2	0	2	-0.133	19	0	2
2215		max	B	0	2	0	2	0.009	21	1.849	12	0.019	6
2216		min		-0.004	7	-0.021	6	0	2	0	2	0	2
2217	P665	max	T	0.019	18	0.006	18	0.007	18	0.214	8	0.017	18
2218		min		0	2	0	2	0	2	-0.394	13	0	2
2219		max	B	0	2	0	2	0.007	17	1.796	7	0.019	17
2220		min		-0.007	18	-0.022	18	0	2	0	2	0	2
2221	P499	max	T	0.02	19	0.003	18	0.009	12	1.571	7	0.019	11
2222		min		-0.003	10	-0.02	11	0	2	-0.023	10	0	2
2223		max	B	0.02	19	0.003	18	0.009	12	1.571	7	0.019	11
2224		min		-0.003	10	-0.02	11	0	2	-0.023	10	0	2
2225	P477	max	T	0.02	19	0.003	18	0.009	12	1.763	7	0.019	11
2226		min		-0.003	10	-0.02	11	0	1	-0.178	8	0	1
2227		max	B	0.02	19	0.003	18	0.009	12	1.763	7	0.019	11
2228		min		-0.003	10	-0.02	11	0	1	-0.178	8	0	1
2229	P686	max	T	0	13	0	2	0.009	19	1.682	13	0.017	19
2230		min		0	1	-0.017	19	0	2	0	2	0	2
2231		max	B	0.019	18	0	38	0.009	18	0.111	13	0.019	18
2232		min		0	2	0	14	0	2	-0.069	7	0	2
2233	P520	max	T	0.02	19	0.003	18	0.008	11	1.645	16	0.018	11
2234		min		-0.003	10	-0.02	11	0	2	0	1	0	2
2235		max	B	0.02	19	0.003	18	0.008	11	1.645	16	0.018	11
2236		min		-0.003	10	-0.02	11	0	2	0	1	0	2
2237	P685	max	T	0	21	0	2	0.009	18	1.571	17	0.017	18
2238		min		0	2	-0.017	18	0	2	0	2	0	2
2239		max	B	0.018	18	0	17	0.009	18	0.009	14	0.018	18
2240		min		0	2	0	6	0	2	-0.161	7	0	2
2241	P722	max	T	0	2	0	2	0.008	21	1.639	19	0.016	6
2242		min		-0.001	7	-0.017	6	0	2	0	2	0	2
2243		max	B	0.019	6	0.001	15	0.009	6	0.095	19	0.018	6
2244		min		0	2	0	2	0	2	-0.254	12	0	2
2245	P701	max	T	0	18	0	2	0.008	21	1.741	21	0.017	21
2246		min		0	9	-0.016	21	0	2	0	2	0	2
2247		max	B	0.018	21	0	14	0.009	21	0.175	18	0.018	21
2248		min		0	2	-0.001	20	0	2	-0.013	11	0	2
2249	P498	max	T	0.019	19	0.003	18	0.008	11	1.929	7	0.018	11
2250		min		-0.003	10	-0.019	11	0	1	-0.295	8	0	1
2251		max	B	0.019	19	0.003	18	0.008	11	1.929	7	0.018	11
2252		min		-0.003	10	-0.019	11	0	1	-0.295	8	0	1
2253	P655	max	T	0.019	7	0.004	17	0.008	7	0.467	13	0.017	7
2254		min		0	2	0	2	0	2	0	2	0	2
2255		max	B	0	2	0	2	0.008	10	1.965	11	0.018	10

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2256		min		-0.005	7	-0.02	10	0	2	0	2	0	2
2257	P669	max	T	0.019	15	0.005	21	0.007	15	0.363	18	0.017	15
2258		min		0	2	0	2	0	2	-0.135	8	0	2
2259		max	B	0	2	0	2	0.007	16	1.942	16	0.018	15
2260		min		-0.005	14	-0.02	15	0	2	0	2	0	2
2261	P568	max	T	0.011	13	0.002	16	0.01	20	2.328	9	0.018	20
2262		min		-0.001	8	-0.011	21	0	2	0	2	0	2
2263		max	B	0.011	13	0.002	16	0.01	20	2.328	9	0.018	20
2264		min		-0.001	8	-0.011	21	0	2	0	2	0	2
2265	P724	max	T	0.001	20	0	2	0.009	20	1.903	21	0.018	20
2266		min		0	8	-0.018	20	0	2	0	2	0	2
2267		max	B	0.017	21	0	13	0.009	21	0.298	18	0.018	21
2268		min		0	2	-0.001	20	0	2	0	2	0	2
2269	P650	max	T	0.014	13	0	2	0.008	11	0	2	0.015	11
2270		min		0	2	-0.002	11	0	2	-0.324	8	0	2
2271		max	B	0.004	9	0	2	0.01	10	1.635	17	0.018	10
2272		min		-0.001	16	-0.016	12	0	2	0	2	0	2
2273	P435	max	T	0.011	19	0.001	16	0.01	12	2.355	19	0.018	12
2274		min		-0.002	8	-0.011	11	0	2	-0.75	18	0	2
2275		max	B	0.011	19	0.001	16	0.01	12	2.355	19	0.018	12
2276		min		-0.002	8	-0.011	11	0	2	-0.75	18	0	2
2277	P700	max	T	0	13	0	2	0.008	21	1.61	19	0.015	21
2278		min		0	6	-0.015	21	0	2	0	2	0	2
2279		max	B	0.017	6	0	15	0.009	6	0.064	19	0.018	6
2280		min		0	2	0	11	0	2	-0.192	12	0	2
2281	P648	max	T	0.016	15	0	20	0.009	15	0.201	17	0.017	15
2282		min		0	2	-0.001	15	0	2	-0.175	8	0	2
2283		max	B	0.003	17	0	2	0.009	15	1.859	17	0.017	13
2284		min		-0.001	9	-0.018	12	0	2	0	2	0	2
2285	P721	max	T	0.001	12	0	2	0.008	9	1.469	19	0.016	9
2286		min		0	7	-0.016	8	0	2	0	2	0	2
2287		max	B	0.017	6	0.001	16	0.009	6	0	2	0.017	6
2288		min		0	2	-0.001	6	0	2	-0.373	13	0	2
2289	P481	max	T	0.017	13	0.003	15	0.008	20	1.908	16	0.017	21
2290		min		-0.003	7	-0.018	21	0	2	-0.206	17	0	2
2291		max	B	0.017	13	0.003	15	0.008	20	1.908	16	0.017	21
2292		min		-0.003	7	-0.018	21	0	2	-0.206	17	0	2
2293	P412	max	T	0.01	20	0	16	0.01	12	2.342	18	0.017	12
2294		min		-0.001	8	-0.01	12	0	2	-0.718	17	0	2
2295		max	B	0.01	20	0	16	0.01	12	2.342	18	0.017	12
2296		min		-0.001	8	-0.01	12	0	2	-0.718	17	0	2
2297	P526	max	T	0.018	13	0.004	14	0.008	12	1.876	9	0.017	13
2298		min		-0.004	6	-0.018	21	0	1	-0.296	8	0	1
2299		max	B	0.018	13	0.004	14	0.008	12	1.876	9	0.017	13
2300		min		-0.004	6	-0.018	21	0	1	-0.296	8	0	1
2301	P436	max	T	0.012	13	0.001	16	0.009	12	1.344	8	0.017	20
2302		min		-0.002	8	-0.013	21	0	2	-0.753	7	0	2
2303		max	B	0.012	13	0.001	16	0.009	12	1.344	8	0.017	20
2304		min		-0.002	8	-0.013	21	0	2	-0.753	7	0	2
2305	P503	max	T	0.018	13	0.003	14	0.008	12	1.736	16	0.017	13
2306		min		-0.003	6	-0.018	21	0	1	0	1	0	1
2307		max	B	0.018	13	0.003	14	0.008	12	1.736	16	0.017	13
2308		min		-0.003	6	-0.018	21	0	1	0	1	0	1
2309	P649	max	T	0.015	14	0.002	15	0.007	14	0.032	17	0.015	14
2310		min		0	2	0	2	0	2	-0.273	8	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2311		max	B	0	2	0	2	0.008	11	1.697	17	0.017	12
2312		min		-0.002	14	-0.017	12	0	2	0	2	0	2
2313	P521	max	T	0.017	19	0.003	18	0.008	12	1.835	16	0.017	11
2314		min		-0.003	10	-0.018	11	0	2	-0.234	15	0	2
2315		max	B	0.017	19	0.003	18	0.008	12	1.835	16	0.017	11
2316		min		-0.003	10	-0.018	11	0	2	-0.234	15	0	2
2317	P668	max	T	0.016	15	0.004	6	0.006	15	0.385	17	0.014	15
2318		min		0	2	0	2	0	2	0	2	0	2
2319		max	B	0	2	0	2	0.007	16	2.095	16	0.017	15
2320		min		-0.004	12	-0.018	15	0	2	0	2	0	2
2321	P654	max	T	0.016	6	0.004	17	0.007	6	0.59	14	0.015	6
2322		min		0	2	0	2	0	2	0	2	0	2
2323		max	B	0	2	0	2	0.008	10	2.137	10	0.017	10
2324		min		-0.003	6	-0.017	10	0	2	0	2	0	2
2325	P679	max	T	0	20	0	2	0.007	21	1.666	20	0.014	21
2326		min		0	1	-0.014	21	0	2	0	2	0	2
2327		max	B	0.016	6	0	38	0.008	6	0.086	19	0.016	6
2328		min		0	2	0	19	0	2	0	1	0	2
2329	P460	max	T	0.017	13	0.004	14	0.007	20	2.154	16	0.016	21
2330		min		-0.004	6	-0.018	21	0	2	-0.44	17	0	2
2331		max	B	0.017	13	0.004	14	0.007	20	2.154	16	0.016	21
2332		min		-0.004	6	-0.018	21	0	2	-0.44	17	0	2
2333	P702	max	T	0.001	20	0	2	0.008	20	1.868	21	0.015	20
2334		min		0	2	-0.015	20	0	2	0	2	0	2
2335		max	B	0.016	21	0	13	0.008	21	0.27	18	0.016	21
2336		min		0	2	-0.001	20	0	2	0	2	0	2
2337	P735	max	T	0	21	0	2	0.008	15	1.571	7	0.016	15
2338		min		0	12	-0.016	15	0	2	0	2	0	2
2339		max	B	0.016	15	0	20	0.008	15	0.014	10	0.016	15
2340		min		0	2	-0.001	15	0	2	-0.287	17	0	2
2341	P542	max	T	0.017	19	0.003	18	0.007	11	2.012	16	0.016	11
2342		min		-0.003	10	-0.018	11	0	2	-0.336	15	0	2
2343		max	B	0.017	19	0.003	18	0.007	11	2.012	16	0.016	11
2344		min		-0.003	10	-0.018	11	0	2	-0.336	15	0	2
2345	P678	max	T	0	11	0	2	0.007	21	1.571	38	0.013	21
2346		min		0	1	-0.013	21	0	2	0	2	0	2
2347		max	B	0.016	6	0	38	0.008	6	0	38	0.016	6
2348		min		0	2	0	12	0	2	-0.089	13	0	2
2349	P455	max	T	0.017	19	0.003	18	0.007	20	1.93	7	0.016	20
2350		min		-0.003	10	-0.017	11	0	1	-0.578	8	0	1
2351		max	B	0.017	19	0.003	18	0.007	20	1.93	7	0.016	20
2352		min		-0.003	10	-0.017	11	0	1	-0.578	8	0	1
2353	P639	max	T	0.013	17	0.003	14	0.005	18	0.126	14	0.012	17
2354		min		0	2	0	2	0	2	0	2	0	2
2355		max	B	0	2	0	2	0.008	21	2.175	6	0.016	21
2356		min		-0.003	17	-0.017	21	0	2	0	2	0	2
2357	P699	max	T	0.001	11	0	2	0.007	8	1.479	18	0.014	7
2358		min		0	2	-0.014	7	0	2	0	2	0	2
2359		max	B	0.016	7	0	17	0.008	7	0	2	0.016	7
2360		min		0	2	-0.001	10	0	2	-0.3	13	0	2
2361	P545	max	T	0.011	19	0.003	16	0.009	20	2.309	9	0.016	20
2362		min		-0.002	8	-0.01	11	0	2	-0.771	10	0	2
2363		max	B	0.011	19	0.003	16	0.009	20	2.309	9	0.016	20
2364		min		-0.002	8	-0.01	11	0	2	-0.771	10	0	2
2365	P505	max	T	0.017	13	0.003	14	0.007	21	1.571	9	0.016	21

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2366		min		-0.003	6	-0.017	21	0	1	-0.075	8	0	1
2367		max	B	0.017	13	0.003	14	0.007	21	1.571	9	0.016	21
2368		min		-0.003	6	-0.017	21	0	1	-0.075	8	0	1
2369	P672	max	T	0.015	13	0.004	21	0.006	13	0	2	0.014	13
2370		min		0	2	0	2	0	2	-0.44	7	0	2
2371		max	B	0	2	0	2	0.007	10	1.611	17	0.016	10
2372		min		-0.004	14	-0.017	10	0	2	0	2	0	2
2373	P670	max	T	0.016	15	0.003	19	0.007	15	0.185	17	0.015	15
2374		min		0	2	0	2	0	2	-0.3	7	0	2
2375		max	B	0	2	0	2	0.007	15	1.765	17	0.016	15
2376		min		-0.003	13	-0.017	15	0	2	0	2	0	2
2377	P566	max	T	0.01	19	0.002	16	0.009	20	1.571	16	0.016	20
2378		min		-0.001	8	-0.01	11	0	2	-0.768	15	0	2
2379		max	B	0.01	19	0.002	16	0.009	20	1.571	16	0.016	20
2380		min		-0.001	8	-0.01	11	0	2	-0.768	15	0	2
2381	P483	max	T	0.017	13	0.003	14	0.007	21	1.909	16	0.016	21
2382		min		-0.003	6	-0.017	21	0	1	-0.547	17	0	1
2383		max	B	0.017	13	0.003	14	0.007	21	1.909	16	0.016	21
2384		min		-0.003	6	-0.017	21	0	1	-0.547	17	0	1
2385	P731	max	T	0	2	0	2	0.007	19	2.02	14	0.017	18
2386		min		-0.004	18	-0.019	18	0	2	0	2	0	2
2387		max	B	0.017	19	0.003	7	0.007	18	0.389	12	0.016	18
2388		min		0	2	0	2	0	2	-0.009	21	0	2
2389	P459	max	T	0.015	13	0.003	15	0.007	20	1.47	15	0.015	20
2390		min		-0.003	7	-0.016	21	0	2	-0.665	16	0	2
2391		max	B	0.015	13	0.003	15	0.007	20	1.47	15	0.015	20
2392		min		-0.003	7	-0.016	21	0	2	-0.665	16	0	2
2393	P673	max	T	0.015	13	0.005	20	0.006	13	0	2	0.014	13
2394		min		0	2	0	2	0	2	-0.595	6	0	2
2395		max	B	0	2	0	2	0.006	10	1.461	18	0.015	10
2396		min		-0.005	13	-0.017	10	0	2	0	2	0	2
2397	P476	max	T	0.017	19	0.003	18	0.007	20	2.044	7	0.015	19
2398		min		-0.003	10	-0.017	11	0	1	-0.594	8	0	1
2399		max	B	0.017	19	0.003	18	0.007	20	2.044	7	0.015	19
2400		min		-0.003	10	-0.017	11	0	1	-0.594	8	0	1
2401	P434	max	T	0.013	19	0.002	17	0.008	12	2.339	17	0.015	12
2402		min		-0.002	8	-0.013	11	0	2	0	2	0	2
2403		max	B	0.013	19	0.002	17	0.008	12	2.339	17	0.015	12
2404		min		-0.002	8	-0.013	11	0	2	0	2	0	2
2405	P525	max	T	0.016	13	0.003	15	0.007	12	1.816	9	0.015	13
2406		min		-0.003	7	-0.016	21	0	2	-0.176	8	0	2
2407		max	B	0.016	13	0.003	15	0.007	12	1.816	9	0.015	13
2408		min		-0.003	7	-0.016	21	0	2	-0.176	8	0	2
2409	P546	max	T	0.012	13	0.003	16	0.009	20	2.227	14	0.015	20
2410		min		-0.002	8	-0.012	21	0	2	0	2	0	2
2411		max	B	0.012	13	0.003	16	0.009	20	2.227	14	0.015	20
2412		min		-0.002	8	-0.012	21	0	2	0	2	0	2
2413	P419	max	T	0.009	14	0	2	0.009	6	0.987	18	0.015	6
2414		min		0	2	-0.01	6	0	2	-0.781	17	0	2
2415		max	B	0.009	14	0	2	0.009	6	0.987	18	0.015	6
2416		min		0	2	-0.01	6	0	2	-0.781	17	0	2
2417	P430	max	T	0.009	18	0	2	0.009	10	2.34	9	0.015	10
2418		min		0	14	-0.01	10	0	2	-0.778	10	0	2
2419		max	B	0.009	18	0	2	0.009	10	2.34	9	0.015	10
2420		min		0	14	-0.01	10	0	2	-0.778	10	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2421	P713	max	T	0	17	0	2	0.007	15	1.571	6	0.014	15
2422		min		0	11	-0.013	15	0	2	0	2	0	2
2423		max	B	0.014	15	0	6	0.008	15	0.018	8	0.015	15
2424		min		0	2	-0.001	16	0	2	-0.228	17	0	2
2425	P719	max	T	0.015	10	0	2	0.009	10	1.236	18	0.017	10
2426		min		0	2	-0.004	19	0	2	0	2	0	2
2427		max	B	0.008	21	0	2	0.008	19	2.347	13	0.015	18
2428		min		-0.004	12	-0.013	15	0	2	-0.782	12	0	2
2429	P709	max	T	0.001	14	0	2	0.008	19	1.967	14	0.015	19
2430		min		0	2	-0.015	19	0	2	0	2	0	2
2431		max	B	0.014	19	0	7	0.007	19	0.352	13	0.015	19
2432		min		0	2	-0.001	14	0	2	0	2	0	2
2433	P736	max	T	0	6	0	2	0.007	14	1.718	8	0.014	14
2434		min		0	15	-0.014	15	0	2	0	2	0	2
2435		max	B	0.014	14	0.001	19	0.007	14	0.161	8	0.014	14
2436		min		0	2	0	14	0	2	-0.184	17	0	2
2437	P728	max	T	0	2	0	2	0.008	19	1.634	11	0.017	19
2438		min		-0.004	17	-0.018	19	0	2	0	2	0	2
2439		max	B	0.015	17	0.003	11	0.007	18	0	14	0.014	18
2440		min		0	2	0	2	0	2	-0.457	8	0	2
2441	P544	max	T	0.013	19	0.002	16	0.008	20	1.221	8	0.014	20
2442		min		-0.003	8	-0.013	11	0	2	-0.593	9	0	2
2443		max	B	0.013	19	0.002	16	0.008	20	1.221	8	0.014	20
2444		min		-0.003	8	-0.013	11	0	2	-0.593	9	0	2
2445	P677	max	T	0	10	0	2	0.006	6	1.512	18	0.012	6
2446		min		0	2	-0.012	6	0	2	0	2	0	2
2447		max	B	0.014	7	0	2	0.007	7	0	2	0.014	7
2448		min		0	2	0	12	0	2	-0.179	13	0	2
2449	P671	max	T	0.013	14	0	19	0.007	13	0.052	17	0.013	14
2450		min		0	2	-0.001	9	0	2	-0.335	8	0	2
2451		max	B	0.002	8	0	2	0.007	10	1.68	17	0.014	11
2452		min		0	14	-0.014	12	0	2	0	2	0	2
2453	P429	max	T	0.008	18	0	2	0.008	10	2.343	10	0.014	10
2454		min		0	6	-0.009	10	0	2	-0.785	14	0	2
2455		max	B	0.008	18	0	2	0.008	10	2.343	10	0.014	10
2456		min		0	6	-0.009	10	0	2	-0.785	14	0	2
2457	P437	max	T	0.012	12	0.002	15	0.007	20	1.039	10	0.014	20
2458		min		-0.003	7	-0.014	20	0	2	-0.494	6	0	2
2459		max	B	0.012	12	0.002	15	0.007	20	1.039	10	0.014	20
2460		min		-0.003	7	-0.014	20	0	2	-0.494	6	0	2
2461	P527	max	T	0.015	13	0.003	14	0.006	21	2.074	9	0.014	21
2462		min		-0.003	6	-0.015	21	0	1	-0.417	8	0	1
2463		max	B	0.015	13	0.003	14	0.006	21	2.074	9	0.014	21
2464		min		-0.003	6	-0.015	21	0	1	-0.417	8	0	1
2465	P631	max	T	0.013	6	0.003	17	0.007	7	0.553	20	0.013	6
2466		min		0	2	-0.002	9	0	2	0	2	0	2
2467		max	B	0	11	0	2	0.007	11	2.181	11	0.014	10
2468		min		-0.002	6	-0.014	10	0	2	0	2	0	2
2469	P584	max	T	0.01	18	0	6	0.008	18	2.349	17	0.014	18
2470		min		0	14	-0.009	10	0	2	-0.765	16	0	2
2471		max	B	0.01	18	0	6	0.008	18	2.349	17	0.014	18
2472		min		0	14	-0.009	10	0	2	-0.765	16	0	2
2473	P680	max	T	0	20	0	2	0.006	20	1.755	20	0.012	20
2474		min		0	2	-0.012	20	0	2	0	2	0	2
2475		max	B	0.014	21	0	14	0.007	21	0.164	18	0.014	21

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2476		min		0	2	0	6	0	2	0	2	0	2
2477	P573	max	T	0.009	14	0	2	0.008	14	2.356	7	0.014	14
2478		min		0	2	-0.009	6	0	2	-0.773	6	0	2
2479		max	B	0.009	14	0	2	0.008	14	2.356	7	0.014	14
2480		min		0	2	-0.009	6	0	2	-0.773	6	0	2
2481	P645	max	T	0.012	17	0.003	7	0.006	16	0.298	13	0.012	17
2482		min		0	2	0	14	0	2	0	2	0	2
2483		max	B	0	2	0	2	0.006	17	2.101	15	0.014	17
2484		min		-0.002	13	-0.015	17	0	2	0	2	0	2
2485	P418	max	T	0.009	14	0	10	0.008	6	2.338	14	0.014	14
2486		min		0	2	-0.009	6	0	2	-0.771	15	0	2
2487		max	B	0.009	14	0	10	0.008	6	2.338	14	0.014	14
2488		min		0	2	-0.009	6	0	2	-0.771	15	0	2
2489	P714	max	T	0	16	0	2	0.006	15	1.686	8	0.012	15
2490		min		0	12	-0.012	15	0	2	0	2	0	2
2491		max	B	0.013	14	0	21	0.007	14	0.127	8	0.014	14
2492		min		0	2	0	17	0	2	-0.148	17	0	2
2493	P478	max	T	0.014	19	0.003	17	0.007	12	1.733	7	0.014	12
2494		min		-0.003	9	-0.014	11	0	2	0	2	0	2
2495		max	B	0.014	19	0.003	17	0.007	12	1.733	7	0.014	12
2496		min		-0.003	9	-0.014	11	0	2	0	2	0	2
2497	P740	max	T	0.014	10	0	2	0.008	11	2.018	10	0.015	10
2498		min		0	2	-0.004	15	0	2	0	2	0	2
2499		max	B	0.007	15	0	2	0.007	19	0.602	6	0.013	20
2500		min		-0.004	8	-0.013	21	0	2	-0.158	11	0	2
2501	P720	max	T	0	2	0	2	0.006	9	1.353	18	0.013	10
2502		min		-0.003	11	-0.014	10	0	2	0	2	0	2
2503		max	B	0.014	6	0.004	18	0.006	7	0	2	0.013	6
2504		min		0	2	0	2	0	2	-0.606	15	0	2
2505	P461	max	T	0.014	13	0.003	14	0.006	21	2.163	16	0.013	21
2506		min		-0.003	6	-0.015	21	0	1	-0.603	17	0	1
2507		max	B	0.014	13	0.003	14	0.006	21	2.163	16	0.013	21
2508		min		-0.003	6	-0.015	21	0	1	-0.603	17	0	1
2509	P500	max	T	0.014	19	0.003	17	0.006	12	1.459	6	0.013	11
2510		min		-0.003	9	-0.014	11	0	2	-0.092	10	0	2
2511		max	B	0.014	19	0.003	17	0.006	12	1.459	6	0.013	11
2512		min		-0.003	9	-0.014	11	0	2	-0.092	10	0	2
2513	P456	max	T	0.013	19	0.003	17	0.007	12	1.995	8	0.013	12
2514		min		-0.003	9	-0.013	11	0	2	0	2	0	2
2515		max	B	0.013	19	0.003	17	0.007	12	1.995	8	0.013	12
2516		min		-0.003	9	-0.013	11	0	2	0	2	0	2
2517	P415	max	T	0.008	12	0	2	0.008	20	0.841	10	0.013	20
2518		min		0	8	-0.009	20	0	2	-0.689	6	0	2
2519		max	B	0.008	12	0	2	0.008	20	0.841	10	0.013	20
2520		min		0	8	-0.009	20	0	2	-0.689	6	0	2
2521	P547	max	T	0.013	13	0.003	16	0.007	12	2.011	12	0.013	12
2522		min		-0.003	7	-0.013	21	0	2	0	2	0	2
2523		max	B	0.013	13	0.003	16	0.007	12	2.011	12	0.013	12
2524		min		-0.003	7	-0.013	21	0	2	0	2	0	2
2525	P738	max	T	0.001	8	0	2	0.007	10	1.934	9	0.013	10
2526		min		0	13	-0.013	11	0	2	0	2	0	2
2527		max	B	0.013	13	0	2	0.007	13	0.429	7	0.013	13
2528		min		0	2	-0.001	14	0	2	0	2	0	2
2529	P706	max	T	0.001	21	0	2	0.008	19	1.604	12	0.015	19
2530		min		0	2	-0.014	18	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2531		max	B	0.013	17	0	12	0.007	18	0	2	0.013	17
2532		min		0	2	-0.002	6	0	2	-0.45	8	0	2
2533	P732	max	T	0.016	15	0	2	0.01	17	2.064	14	0.018	17
2534		min		0	2	-0.01	6	0	2	0	2	0	2
2535		max	B	0.009	6	0	2	0.007	21	0.542	13	0.013	21
2536		min		-0.003	14	-0.01	14	0	2	0	2	0	2
2537	P687	max	T	0	14	0	2	0.007	20	1.86	14	0.013	20
2538		min		0	2	-0.013	20	0	2	0	2	0	2
2539		max	B	0.013	19	0	10	0.007	19	0.273	13	0.013	19
2540		min		0	2	-0.001	14	0	2	0	2	0	2
2541	P691	max	T	0	15	0	2	0.006	15	1.571	21	0.011	15
2542		min		0	1	-0.011	15	0	2	0	2	0	2
2543		max	B	0.013	14	0	21	0.007	14	0	21	0.013	14
2544		min		0	2	0	16	0	2	-0.128	17	0	2
2545	P737	max	T	0.001	7	0	2	0.006	12	1.83	7	0.012	13
2546		min		0	14	-0.012	13	0	2	0	2	0	2
2547		max	B	0.013	14	0	19	0.007	13	0.293	8	0.013	14
2548		min		0	2	-0.001	9	0	2	0	2	0	2
2549	P572	max	T	0.009	14	0	2	0.007	14	2.33	8	0.013	6
2550		min		0	18	-0.009	6	0	2	-0.774	7	0	2
2551		max	B	0.009	14	0	2	0.007	14	2.33	8	0.013	6
2552		min		0	18	-0.009	6	0	2	-0.774	7	0	2
2553	P583	max	T	0.009	18	0	38	0.007	18	2.345	18	0.013	18
2554		min		0	2	-0.008	10	0	2	0	2	0	2
2555		max	B	0.009	18	0	38	0.007	18	2.345	18	0.013	18
2556		min		0	2	-0.008	10	0	2	0	2	0	2
2557	P522	max	T	0.013	19	0.003	16	0.006	20	1.273	18	0.013	20
2558		min		-0.003	9	-0.013	11	0	2	-0.279	14	0	2
2559		max	B	0.013	19	0.003	16	0.006	20	1.273	18	0.013	20
2560		min		-0.003	9	-0.013	11	0	2	-0.279	14	0	2
2561	P452	max	T	0.009	18	0	6	0.007	10	2.323	9	0.013	10
2562		min		0	2	-0.01	10	0	2	-0.783	10	0	2
2563		max	B	0.009	18	0	6	0.007	10	2.323	9	0.013	10
2564		min		0	2	-0.01	10	0	2	-0.783	10	0	2
2565	P519	max	T	0.014	19	0.003	18	0.006	11	1.865	16	0.013	11
2566		min		-0.003	10	-0.014	11	0	2	-0.785	1	0	2
2567		max	B	0.014	19	0.003	18	0.006	11	1.865	16	0.013	11
2568		min		-0.003	10	-0.014	11	0	2	-0.785	1	0	2
2569	P420	max	T	0.007	14	0	18	0.007	6	2.299	17	0.013	6
2570		min		0	10	-0.008	6	0	2	-0.783	16	0	2
2571		max	B	0.007	14	0	18	0.007	6	2.299	17	0.013	6
2572		min		0	10	-0.008	6	0	2	-0.783	16	0	2
2573	P441	max	T	0.008	14	0	2	0.007	6	1.008	18	0.013	6
2574		min		0	2	-0.008	6	0	2	-0.732	17	0	2
2575		max	B	0.008	14	0	2	0.007	6	1.008	18	0.013	6
2576		min		0	2	-0.008	6	0	2	-0.732	17	0	2
2577	P497	max	T	0.013	19	0.003	18	0.006	11	2.121	7	0.012	11
2578		min		-0.003	10	-0.014	11	0	2	-0.785	1	0	2
2579		max	B	0.013	19	0.003	18	0.006	11	2.121	7	0.012	11
2580		min		-0.003	10	-0.014	11	0	2	-0.785	1	0	2
2581	P716	max	T	0.001	7	0	2	0.006	11	1.868	9	0.011	11
2582		min		0	2	-0.011	11	0	2	0	2	0	2
2583		max	B	0.012	13	0	2	0.006	13	0.344	7	0.012	13
2584		min		0	2	-0.001	10	0	2	0	2	0	2
2585	P734	max	T	0	2	0	2	0.006	15	1.59	7	0.013	15

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2586		min		-0.004	18	-0.014	15	0	2	0	2	0	2
2587		max	B	0.013	15	0.004	6	0.006	14	0	9	0.012	15
2588		min		0	2	0	2	0	2	-0.296	18	0	2
2589	P692	max	T	0	16	0	2	0.005	15	1.571	38	0.01	15
2590		min		0	1	-0.01	15	0	2	0	2	0	2
2591		max	B	0.012	14	0	38	0.006	14	0	38	0.012	14
2592		min		0	2	0	17	0	2	-0.065	17	0	2
2593	P543	max	T	0.013	19	0.003	17	0.006	12	1.359	17	0.012	12
2594		min		-0.003	9	-0.013	11	0	2	-0.487	16	0	2
2595		max	B	0.013	19	0.003	17	0.006	12	1.359	17	0.012	12
2596		min		-0.003	9	-0.013	11	0	2	-0.487	16	0	2
2597	P715	max	T	0	9	0	2	0.005	12	1.796	8	0.011	13
2598		min		0	14	-0.011	13	0	2	0	2	0	2
2599		max	B	0.012	14	0	19	0.006	13	0.253	7	0.012	14
2600		min		0	2	-0.001	8	0	2	0	2	0	2
2601	P433	max	T	0.013	20	0.003	17	0.006	21	2.062	8	0.012	20
2602		min		-0.003	9	-0.012	12	0	2	0	1	0	2
2603		max	B	0.013	20	0.003	17	0.006	21	2.062	8	0.012	20
2604		min		-0.003	9	-0.012	12	0	2	0	1	0	2
2605	P487	max	T	0.011	21	0	18	0.006	13	1.571	18	0.012	13
2606		min		0	1	-0.012	13	0	2	-0.247	17	0	2
2607		max	B	0.011	21	0	18	0.006	13	1.571	18	0.012	13
2608		min		0	1	-0.012	13	0	2	-0.247	17	0	2
2609	P451	max	T	0.007	10	0	2	0.007	18	2.346	7	0.012	18
2610		min		0	1	-0.008	18	0	2	-0.124	23	0	2
2611		max	B	0.007	10	0	2	0.007	18	2.346	7	0.012	18
2612		min		0	1	-0.008	18	0	2	-0.124	23	0	2
2613	P440	max	T	0.01	14	0	38	0.007	6	2.341	15	0.012	6
2614		min		0	1	-0.01	6	0	1	-0.757	16	0	1
2615		max	B	0.01	14	0	38	0.007	6	2.341	15	0.012	6
2616		min		0	1	-0.01	6	0	1	-0.757	16	0	1
2617	P569	max	T	0.009	13	0.001	16	0.007	12	2.23	10	0.012	12
2618		min		-0.001	8	-0.008	20	0	2	0	2	0	2
2619		max	B	0.009	13	0.001	16	0.007	12	2.23	10	0.012	12
2620		min		-0.001	8	-0.008	20	0	2	0	2	0	2
2621	P562	max	T	0.009	18	0	2	0.007	18	2.319	18	0.012	18
2622		min		0	2	-0.009	10	0	2	-0.768	17	0	2
2623		max	B	0.009	18	0	2	0.007	18	2.319	18	0.012	18
2624		min		0	2	-0.009	10	0	2	-0.768	17	0	2
2625	P698	max	T	0.001	10	0	2	0.006	9	1.321	18	0.011	8
2626		min		0	2	-0.01	7	0	2	0	2	0	2
2627		max	B	0.012	6	0	19	0.006	6	0	2	0.012	6
2628		min		0	2	-0.002	13	0	2	-0.499	14	0	2
2629	P541	max	T	0.013	19	0.002	18	0.005	19	2.201	16	0.012	19
2630		min		-0.002	10	-0.013	11	0	2	-0.785	1	0	2
2631		max	B	0.013	19	0.002	18	0.005	19	2.201	16	0.012	19
2632		min		-0.002	10	-0.013	11	0	2	-0.785	1	0	2
2633	P465	max	T	0.01	21	0	18	0.006	13	1.571	18	0.012	13
2634		min		0	1	-0.011	13	0	2	-0.495	17	0	2
2635		max	B	0.01	21	0	18	0.006	13	1.571	18	0.012	13
2636		min		0	1	-0.011	13	0	2	-0.495	17	0	2
2637	P739	max	T	0	2	0	2	0.005	11	2.078	11	0.012	11
2638		min		-0.002	14	-0.013	11	0	2	0	2	0	2
2639		max	B	0.012	14	0.004	19	0.006	13	0.692	21	0.012	13
2640		min		0	2	0	11	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2641	P509	max	T	0.011	21	0	38	0.006	13	1.587	6	0.012	21
2642		min		0	1	-0.011	13	0	1	0	1	0	1
2643		max	B	0.011	21	0	38	0.006	13	1.587	6	0.012	21
2644		min		0	1	-0.011	13	0	1	0	1	0	1
2645	P733	max	T	0.015	17	0	2	0.009	16	1.404	8	0.017	17
2646		min		0	2	-0.007	8	0	2	0	2	0	2
2647		max	B	0.008	9	0	2	0.007	6	0	2	0.012	6
2648		min		0	2	-0.009	19	0	2	-0.379	20	0	2
2649	P563	max	T	0.012	19	0	21	0.006	19	2.296	17	0.011	19
2650		min		-0.001	12	-0.011	11	0	2	-0.785	1	0	2
2651		max	B	0.012	19	0	21	0.006	19	2.296	17	0.011	19
2652		min		-0.001	12	-0.011	11	0	2	-0.785	1	0	2
2653	P564	max	T	0.012	19	0.003	18	0.005	12	2.147	17	0.011	11
2654		min		-0.003	10	-0.013	11	0	2	-0.701	16	0	2
2655		max	B	0.012	19	0.003	18	0.005	12	2.147	17	0.011	11
2656		min		-0.003	10	-0.013	11	0	2	-0.701	16	0	2
2657	P548	max	T	0.013	13	0.004	14	0.005	12	2.322	8	0.011	13
2658		min		-0.004	6	-0.012	21	0	2	-0.293	7	0	2
2659		max	B	0.013	13	0.004	14	0.005	12	2.322	8	0.011	13
2660		min		-0.004	6	-0.012	21	0	2	-0.293	7	0	2
2661	P431	max	T	0.007	18	0	6	0.007	10	2.313	9	0.011	10
2662		min		0	14	-0.008	10	0	2	-0.785	1	0	2
2663		max	B	0.007	18	0	6	0.007	10	2.313	9	0.011	10
2664		min		0	14	-0.008	10	0	2	-0.785	1	0	2
2665	P638	max	T	0.01	18	0.004	15	0.004	6	0	2	0.008	19
2666		min		0	2	0	2	0	2	-0.558	6	0	2
2667		max	B	0	2	0	2	0.005	19	1.448	12	0.011	19
2668		min		-0.003	16	-0.012	19	0	2	0	2	0	2
2669	P550	max	T	0.01	13	0	2	0.006	14	2.343	8	0.011	6
2670		min		0	1	-0.01	21	0	2	-0.737	7	0	2
2671		max	B	0.01	13	0	2	0.006	14	2.343	8	0.011	6
2672		min		0	1	-0.01	21	0	2	-0.737	7	0	2
2673	P551	max	T	0.008	14	0	2	0.007	14	2.353	19	0.011	14
2674		min		0	2	-0.007	6	0	2	-0.56	18	0	2
2675		max	B	0.008	14	0	2	0.007	14	2.353	19	0.011	14
2676		min		0	2	-0.007	6	0	2	-0.56	18	0	2
2677	P493	max	T	0.011	11	0	14	0.006	19	1.776	7	0.011	19
2678		min		0	1	-0.011	19	0	2	0	1	0	2
2679		max	B	0.011	11	0	14	0.006	19	1.776	7	0.011	19
2680		min		0	1	-0.011	19	0	2	0	1	0	2
2681	P574	max	T	0.007	14	0	2	0.006	14	2.332	8	0.011	14
2682		min		0	2	-0.006	6	0	2	-0.776	9	0	2
2683		max	B	0.007	14	0	2	0.006	14	2.332	8	0.011	14
2684		min		0	2	-0.006	6	0	2	-0.776	9	0	2
2685	P549	max	T	0.012	13	0.002	13	0.005	21	2.095	9	0.011	21
2686		min		-0.002	21	-0.012	21	0	1	-0.77	8	0	1
2687		max	B	0.012	13	0.002	13	0.005	21	2.095	9	0.011	21
2688		min		-0.002	21	-0.012	21	0	1	-0.77	8	0	1
2689	P693	max	T	0	9	0	2	0.005	14	1.691	9	0.009	14
2690		min		0	1	-0.009	14	0	2	0	2	0	2
2691		max	B	0.011	14	0	38	0.006	14	0.135	7	0.011	14
2692		min		0	2	0	8	0	2	0	1	0	2
2693	P458	max	T	0.01	13	0.002	15	0.006	20	1.079	9	0.011	20
2694		min		-0.002	7	-0.011	21	0	2	-0.484	7	0	2
2695		max	B	0.01	13	0.002	15	0.006	20	1.079	9	0.011	20

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2696		min		-0.002	7	-0.011	21	0	2	-0.484	7	0	2
2697	P488	max	T	0.011	21	0	18	0.006	13	1.571	18	0.011	13
2698		min		0	1	-0.011	13	0	2	-0.225	17	0	2
2699		max	B	0.011	21	0	18	0.006	13	1.571	18	0.011	13
2700		min		0	1	-0.011	13	0	2	-0.225	17	0	2
2701	P475	max	T	0.012	19	0.002	19	0.005	11	2.172	7	0.011	11
2702		min		-0.002	11	-0.012	11	0	2	-0.785	1	0	2
2703		max	B	0.012	19	0.002	19	0.005	11	2.172	7	0.011	11
2704		min		-0.002	11	-0.012	11	0	2	-0.785	1	0	2
2705	P585	max	T	0.008	19	0	6	0.006	18	2.281	18	0.011	18
2706		min		0	14	-0.008	11	0	2	-0.785	1	0	2
2707		max	B	0.008	19	0	6	0.006	18	2.281	18	0.011	18
2708		min		0	14	-0.008	11	0	2	-0.785	1	0	2
2709	P453	max	T	0.01	19	0.001	21	0.006	10	2.287	8	0.011	10
2710		min		-0.001	13	-0.011	11	0	2	-0.785	1	0	2
2711		max	B	0.01	19	0.001	21	0.006	10	2.287	8	0.011	10
2712		min		-0.001	13	-0.011	11	0	2	-0.785	1	0	2
2713	P684	max	T	0.001	21	0	2	0.006	18	1.588	11	0.012	18
2714		min		0	2	-0.011	18	0	2	0	2	0	2
2715		max	B	0.011	17	0	14	0.006	17	0	14	0.011	17
2716		min		0	2	-0.001	6	0	2	-0.354	7	0	2
2717	P442	max	T	0.008	21	0	2	0.006	6	1.501	18	0.011	6
2718		min		0	2	-0.008	13	0	2	-0.745	17	0	2
2719		max	B	0.008	21	0	2	0.006	6	1.501	18	0.011	6
2720		min		0	2	-0.008	13	0	2	-0.745	17	0	2
2721	P694	max	T	0	9	0	2	0.004	12	1.753	9	0.009	12
2722		min		0	2	-0.009	13	0	2	0	2	0	2
2723		max	B	0.011	13	0	18	0.006	13	0.201	7	0.011	13
2724		min		0	2	0	8	0	2	0	2	0	2
2725	P515	max	T	0.011	11	0	38	0.006	19	1.571	14	0.011	19
2726		min		0	1	-0.011	19	0	1	0	1	0	1
2727		max	B	0.011	11	0	38	0.006	19	1.571	14	0.011	19
2728		min		0	1	-0.011	19	0	1	0	1	0	1
2729	P438	max	T	0.011	13	0.004	14	0.005	19	2.164	15	0.011	20
2730		min		-0.004	6	-0.012	21	0	2	-0.625	16	0	2
2731		max	B	0.011	13	0.004	14	0.005	19	2.164	15	0.011	20
2732		min		-0.004	6	-0.012	21	0	2	-0.625	16	0	2
2733	P727	max	T	0.017	20	0.001	6	0.009	19	1.366	13	0.017	20
2734		min		0	2	-0.005	14	0	2	0	2	0	2
2735		max	B	0.007	14	0	2	0.006	14	2.355	8	0.011	14
2736		min		-0.007	21	-0.012	6	0	2	-0.766	21	0	2
2737	P510	max	T	0.011	21	0	38	0.005	21	1.571	18	0.011	21
2738		min		0	1	-0.011	13	0	1	-0.039	16	0	1
2739		max	B	0.011	21	0	38	0.005	21	1.571	18	0.011	21
2740		min		0	1	-0.011	13	0	1	-0.039	16	0	1
2741	P726	max	T	0.019	20	0.002	21	0.009	19	2.186	6	0.018	20
2742		min		0	2	-0.006	13	0	2	0	2	0	2
2743		max	B	0.006	11	0	2	0.006	14	0.588	18	0.011	14
2744		min		-0.005	20	-0.011	17	0	2	0	2	0	2
2745	P466	max	T	0.009	21	0	19	0.005	13	1.571	18	0.011	13
2746		min		0	1	-0.011	13	0	2	-0.471	17	0	2
2747		max	B	0.009	21	0	19	0.005	13	1.571	18	0.011	13
2748		min		0	1	-0.011	13	0	2	-0.471	17	0	2
2749	P531	max	T	0.01	21	0	38	0.005	21	1.846	9	0.011	21
2750		min		0	10	-0.01	13	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2751		max	B	0.01	21	0	38	0.005	21	1.846	9	0.011	21
2752		min		0	10	-0.01	13	0	2	0	2	0	2
2753	P494	max	T	0.01	11	0	14	0.005	19	1.89	7	0.011	19
2754		min		0	1	-0.01	19	0	2	0	1	0	2
2755		max	B	0.01	11	0	14	0.005	19	1.89	7	0.011	19
2756		min		0	1	-0.01	19	0	2	0	1	0	2
2757	P471	max	T	0.01	11	0	14	0.005	19	2.151	7	0.011	19
2758		min		0	1	-0.01	19	0	2	0	1	0	2
2759		max	B	0.01	11	0	14	0.005	19	2.151	7	0.011	19
2760		min		0	1	-0.01	19	0	2	0	1	0	2
2761	P428	max	T	0.006	11	0	14	0.006	18	2.298	10	0.011	18
2762		min		-0.001	6	-0.007	19	0	2	-0.765	9	0	2
2763		max	B	0.006	11	0	14	0.006	18	2.298	10	0.011	18
2764		min		-0.001	6	-0.007	19	0	2	-0.765	9	0	2
2765	P450	max	T	0.008	11	0	14	0.006	18	2.276	8	0.01	18
2766		min		0	1	-0.009	19	0	2	-0.708	7	0	2
2767		max	B	0.008	11	0	14	0.006	18	2.276	8	0.01	18
2768		min		0	1	-0.009	19	0	2	-0.708	7	0	2
2769	P472	max	T	0.009	11	0	14	0.005	19	2.181	7	0.01	19
2770		min		0	1	-0.01	19	0	2	0	1	0	2
2771		max	B	0.009	11	0	14	0.005	19	2.181	7	0.01	19
2772		min		0	1	-0.01	19	0	2	0	1	0	2
2773	P712	max	T	0.001	15	0	2	0.006	16	1.501	7	0.011	16
2774		min		0	12	-0.011	16	0	2	0	2	0	2
2775		max	B	0.01	14	0	8	0.005	15	0	2	0.01	14
2776		min		0	2	-0.001	16	0	2	-0.308	18	0	2
2777	P443	max	T	0.008	21	0	18	0.006	13	1.571	18	0.01	13
2778		min		0	1	-0.01	13	0	2	-0.768	17	0	2
2779		max	B	0.008	21	0	18	0.006	13	1.571	18	0.01	13
2780		min		0	1	-0.01	13	0	2	-0.768	17	0	2
2781	P561	max	T	0.006	10	0	38	0.006	18	2.229	6	0.01	18
2782		min		0	2	-0.006	18	0	2	-0.708	15	0	2
2783		max	B	0.006	10	0	38	0.006	18	2.229	6	0.01	18
2784		min		0	2	-0.006	18	0	2	-0.708	15	0	2
2785	P454	max	T	0.012	19	0.003	18	0.004	20	2.24	8	0.01	19
2786		min		-0.003	11	-0.011	11	0	2	-0.682	9	0	2
2787		max	B	0.012	19	0.003	18	0.004	20	2.24	8	0.01	19
2788		min		-0.003	11	-0.011	11	0	2	-0.682	9	0	2
2789	P516	max	T	0.01	11	0	38	0.005	11	1.571	7	0.01	11
2790		min		0	1	-0.01	19	0	1	-0.051	6	0	1
2791		max	B	0.01	11	0	38	0.005	11	1.571	7	0.01	11
2792		min		0	1	-0.01	19	0	1	-0.051	6	0	1
2793	P439	max	T	0.011	13	0.002	13	0.005	14	2.273	15	0.01	21
2794		min		-0.002	21	-0.011	21	0	1	-0.746	16	0	1
2795		max	B	0.011	13	0.002	13	0.005	14	2.273	15	0.01	21
2796		min		-0.002	21	-0.011	21	0	1	-0.746	16	0	1
2797	P532	max	T	0.01	21	0	20	0.005	21	1.816	9	0.01	21
2798		min		0	12	-0.009	13	0	2	-0.052	10	0	2
2799		max	B	0.01	21	0	20	0.005	21	1.816	9	0.01	21
2800		min		0	12	-0.009	13	0	2	-0.052	10	0	2
2801	P524	max	T	0.01	13	0.003	16	0.005	12	1.991	14	0.01	12
2802		min		-0.002	8	-0.01	21	0	2	0	2	0	2
2803		max	B	0.01	13	0.003	16	0.005	12	1.991	14	0.01	12
2804		min		-0.002	8	-0.01	21	0	2	0	2	0	2
2805	P537	max	T	0.01	11	0	38	0.005	11	1.571	14	0.01	11

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2806		min		0	1	-0.01	19	0	1	-0.197	15	0	1
2807		max	B	0.01	11	0	38	0.005	11	1.571	14	0.01	11
2808		min		0	1	-0.01	19	0	1	-0.197	15	0	1
2809	P552	max	T	0.007	21	0	2	0.006	14	2.24	9	0.01	14
2810		min		0	2	-0.007	14	0	2	0	2	0	2
2811		max	B	0.007	21	0	2	0.006	14	2.24	9	0.01	14
2812		min		0	2	-0.007	14	0	2	0	2	0	2
2813	P676	max	T	0.001	10	0	2	0.004	6	1.409	18	0.008	6
2814		min		0	2	-0.008	6	0	2	0	2	0	2
2815		max	B	0.009	6	0	2	0.005	6	0	2	0.01	6
2816		min		0	2	-0.001	13	0	2	-0.37	14	0	2
2817	P457	max	T	0.007	19	0.001	16	0.005	12	2.336	18	0.01	12
2818		min		-0.002	8	-0.007	11	0	2	-0.582	17	0	2
2819		max	B	0.007	19	0.001	16	0.005	12	2.336	18	0.01	12
2820		min		-0.002	8	-0.007	11	0	2	-0.582	17	0	2
2821	P725	max	T	0	2	0	2	0.006	20	2.224	21	0.012	20
2822		min		-0.002	16	-0.012	20	0	2	0	2	0	2
2823		max	B	0.009	6	0.002	13	0.005	6	0.547	15	0.01	6
2824		min		0	2	-0.001	21	0	2	0	2	0	2
2825	P480	max	T	0.01	13	0.003	15	0.005	20	1.277	11	0.01	20
2826		min		-0.003	7	-0.01	21	0	2	-0.265	21	0	2
2827		max	B	0.01	13	0.003	15	0.005	20	1.277	11	0.01	20
2828		min		-0.003	7	-0.01	21	0	2	-0.265	21	0	2
2829	P538	max	T	0.009	11	0	38	0.005	11	1.571	38	0.009	11
2830		min		0	2	-0.008	19	0	2	-0.345	15	0	2
2831		max	B	0.009	11	0	38	0.005	11	1.571	38	0.009	11
2832		min		0	2	-0.008	19	0	2	-0.345	15	0	2
2833	P717	max	T	0.001	10	0	2	0.005	11	2.018	10	0.01	11
2834		min		0	16	-0.009	13	0	2	0	2	0	2
2835		max	B	0.009	14	0	17	0.005	12	0.55	21	0.009	14
2836		min		0	2	-0.002	7	0	2	0	2	0	2
2837	P444	max	T	0.007	21	0	18	0.005	13	1.571	18	0.009	13
2838		min		0	1	-0.009	13	0	2	-0.785	17	0	2
2839		max	B	0.007	21	0	18	0.005	13	1.571	18	0.009	13
2840		min		0	1	-0.009	13	0	2	-0.785	17	0	2
2841	P464	max	T	0.008	21	0	18	0.005	14	1.571	18	0.009	13
2842		min		0	2	-0.008	13	0	2	-0.571	17	0	2
2843		max	B	0.008	21	0	18	0.005	14	1.571	18	0.009	13
2844		min		0	2	-0.008	13	0	2	-0.571	17	0	2
2845	P411	max	T	0.007	21	0.001	17	0.005	13	2.213	18	0.009	13
2846		min		0	9	-0.006	13	0	2	0	2	0	2
2847		max	B	0.007	21	0.001	17	0.005	13	2.213	18	0.009	13
2848		min		0	9	-0.006	13	0	2	0	2	0	2
2849	P486	max	T	0.008	21	0	18	0.005	13	1.571	18	0.009	13
2850		min		0	2	-0.008	13	0	2	-0.354	17	0	2
2851		max	B	0.008	21	0	18	0.005	13	1.571	18	0.009	13
2852		min		0	2	-0.008	13	0	2	-0.354	17	0	2
2853	P553	max	T	0.008	21	0	38	0.005	21	2.158	9	0.009	21
2854		min		0	2	-0.007	13	0	2	0	2	0	2
2855		max	B	0.008	21	0	38	0.005	21	2.158	9	0.009	21
2856		min		0	2	-0.007	13	0	2	0	2	0	2
2857	P449	max	T	0.008	11	0	14	0.005	19	2.194	8	0.009	19
2858		min		0	1	-0.009	19	0	2	-0.594	7	0	2
2859		max	B	0.008	11	0	14	0.005	19	2.194	8	0.009	19
2860		min		0	1	-0.009	19	0	2	-0.594	7	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2861	P502	max	T	0.009	13	0.003	15	0.004	20	1.794	15	0.009	21
2862		min		-0.003	7	-0.009	21	0	1	0	1	0	1
2863		max	B	0.009	13	0.003	15	0.004	20	1.794	15	0.009	21
2864		min		-0.003	7	-0.009	21	0	1	0	1	0	1
2865	P690	max	T	0.001	15	0	2	0.004	15	1.571	9	0.008	15
2866		min		0	2	-0.008	15	0	2	0	2	0	2
2867		max	B	0.009	14	0	9	0.005	14	0	9	0.009	14
2868		min		0	2	0	16	0	2	-0.214	18	0	2
2869	P582	max	T	0.006	18	0	14	0.005	10	2.318	16	0.009	10
2870		min		0	2	-0.005	10	0	2	-0.778	17	0	2
2871		max	B	0.006	18	0	14	0.005	10	2.318	16	0.009	10
2872		min		0	2	-0.005	10	0	2	-0.778	17	0	2
2873	P560	max	T	0.007	11	0	38	0.005	10	1.571	38	0.009	10
2874		min		0	2	-0.007	19	0	2	-0.731	15	0	2
2875		max	B	0.007	11	0	38	0.005	10	1.571	38	0.009	10
2876		min		0	2	-0.007	19	0	2	-0.731	15	0	2
2877	P421	max	T	0.006	21	0	18	0.005	14	2.237	17	0.009	13
2878		min		-0.001	10	-0.008	12	0	2	-0.762	16	0	2
2879		max	B	0.006	21	0	18	0.005	14	2.237	17	0.009	13
2880		min		-0.001	10	-0.008	12	0	2	-0.762	16	0	2
2881	P528	max	T	0.009	13	0.001	13	0.004	21	2.195	9	0.009	21
2882		min		-0.001	6	-0.009	21	0	2	-0.642	8	0	2
2883		max	B	0.009	13	0.001	13	0.004	21	2.195	9	0.009	21
2884		min		-0.001	6	-0.009	21	0	2	-0.642	8	0	2
2885	P508	max	T	0.008	21	0	2	0.005	13	1.648	6	0.009	13
2886		min		0	2	-0.008	13	0	2	0	2	0	2
2887		max	B	0.008	21	0	2	0.005	13	1.648	6	0.009	13
2888		min		0	2	-0.008	13	0	2	0	2	0	2
2889	P710	max	T	0.007	15	0	2	0.005	20	2.132	14	0.009	21
2890		min		0	2	-0.008	6	0	2	0	2	0	2
2891		max	B	0.007	6	0	2	0.005	6	0.784	14	0.009	6
2892		min		-0.002	14	-0.004	14	0	2	0	2	0	2
2893	P697	max	T	0.007	10	0	2	0.005	9	1.217	17	0.008	10
2894		min		0	2	-0.003	8	0	2	0	2	0	2
2895		max	B	0.005	19	0	2	0.005	19	2.334	14	0.009	19
2896		min		-0.002	12	-0.005	18	0	2	-0.747	9	0	2
2897	P492	max	T	0.008	11	0	11	0.004	19	1.687	7	0.009	19
2898		min		0	19	-0.009	19	0	1	0	1	0	1
2899		max	B	0.008	11	0	11	0.004	19	1.687	7	0.009	19
2900		min		0	19	-0.009	19	0	1	0	1	0	1
2901	P514	max	T	0.008	11	0	10	0.004	19	1.628	11	0.009	19
2902		min		0	18	-0.009	19	0	1	0	1	0	1
2903		max	B	0.008	11	0	10	0.004	19	1.628	11	0.009	19
2904		min		0	18	-0.009	19	0	1	0	1	0	1
2905	P417	max	T	0.006	14	0	5	0.005	14	2.317	14	0.008	14
2906		min		0	1	-0.006	6	0	1	-0.748	15	0	1
2907		max	B	0.006	14	0	5	0.005	14	2.317	14	0.008	14
2908		min		0	1	-0.006	6	0	1	-0.748	15	0	1
2909	P682	max	T	0.005	21	0	2	0.003	21	2.289	38	0.005	21
2910		min		0	2	-0.003	13	0	2	-0.721	18	0	2
2911		max	B	0.004	12	0	2	0.004	21	1.497	20	0.008	21
2912		min		-0.001	18	-0.009	21	0	2	0	2	0	2
2913	P506	max	T	0.009	13	0.002	14	0.004	21	1.571	9	0.008	21
2914		min		-0.002	6	-0.009	21	0	2	-0.261	8	0	2
2915		max	B	0.009	13	0.002	14	0.004	21	1.571	9	0.008	21

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2916		min		-0.002	6	-0.009	21	0	2	-0.261	8	0	2
2917	P571	max	T	0.007	13	0	38	0.005	6	2.303	8	0.008	6
2918		min		0	1	-0.007	21	0	1	-0.768	7	0	1
2919		max	B	0.007	13	0	38	0.005	6	2.303	8	0.008	6
2920		min		0	1	-0.007	21	0	1	-0.768	7	0	1
2921	P565	max	T	0.006	20	0.001	17	0.005	21	1.081	17	0.008	13
2922		min		-0.001	9	-0.007	12	0	2	-0.615	16	0	2
2923		max	B	0.006	20	0.001	17	0.005	21	1.081	17	0.008	13
2924		min		-0.001	9	-0.007	12	0	2	-0.615	16	0	2
2925	P554	max	T	0.008	21	0	38	0.004	21	1.97	9	0.008	21
2926		min		0	2	-0.007	13	0	2	-0.075	10	0	2
2927		max	B	0.008	21	0	38	0.004	21	1.97	9	0.008	21
2928		min		0	2	-0.007	13	0	2	-0.075	10	0	2
2929	P462	max	T	0.009	13	0.001	12	0.004	6	2.293	16	0.008	6
2930		min		-0.001	20	-0.009	21	0	1	-0.69	17	0	1
2931		max	B	0.009	13	0.001	12	0.004	6	2.293	16	0.008	6
2932		min		-0.001	20	-0.009	21	0	1	-0.69	17	0	1
2933	P530	max	T	0.007	21	0	2	0.004	13	1.952	9	0.008	21
2934		min		0	2	-0.007	13	0	2	0	2	0	2
2935		max	B	0.007	21	0	2	0.004	13	1.952	9	0.008	21
2936		min		0	2	-0.007	13	0	2	0	2	0	2
2937	P484	max	T	0.009	13	0.002	14	0.003	21	2.152	16	0.008	21
2938		min		-0.002	6	-0.009	21	0	1	-0.657	17	0	1
2939		max	B	0.009	13	0.002	14	0.003	21	2.152	16	0.008	21
2940		min		-0.002	6	-0.009	21	0	1	-0.657	17	0	1
2941	P703	max	T	0.003	21	0	2	0.006	21	2.144	21	0.011	20
2942		min		0	2	-0.009	20	0	2	0	2	0	2
2943		max	B	0.007	7	0	2	0.004	21	0.466	17	0.008	6
2944		min		0	2	-0.002	19	0	2	0	2	0	2
2945	P523	max	T	0.007	19	0.002	16	0.005	20	2.353	9	0.008	20
2946		min		-0.002	8	-0.006	11	0	2	-0.686	10	0	2
2947		max	B	0.007	19	0.002	16	0.005	20	2.353	9	0.008	20
2948		min		-0.002	8	-0.006	11	0	2	-0.686	10	0	2
2949	P473	max	T	0.005	10	0	14	0.005	18	2.216	7	0.008	18
2950		min		0	1	-0.006	18	0	2	-0.081	6	0	2
2951		max	B	0.005	10	0	14	0.005	18	2.216	7	0.008	18
2952		min		0	1	-0.006	18	0	2	-0.081	6	0	2
2953	P470	max	T	0.008	11	0	11	0.004	19	2.061	7	0.008	19
2954		min		0	19	-0.008	19	0	1	0	1	0	1
2955		max	B	0.008	11	0	11	0.004	19	2.061	7	0.008	19
2956		min		0	19	-0.008	19	0	1	0	1	0	1
2957	P559	max	T	0.008	11	0	38	0.004	11	1.571	38	0.008	11
2958		min		0	2	-0.007	19	0	2	-0.631	15	0	2
2959		max	B	0.008	11	0	38	0.004	11	1.571	38	0.008	11
2960		min		0	2	-0.007	19	0	2	-0.631	15	0	2
2961	P695	max	T	0.001	13	0	2	0.004	13	1.902	10	0.007	13
2962		min		0	2	-0.007	13	0	2	0	2	0	2
2963		max	B	0.008	14	0	2	0.004	14	0.392	6	0.008	14
2964		min		0	2	-0.001	6	0	2	0	2	0	2
2965	P536	max	T	0.008	11	0	10	0.004	19	1.643	14	0.008	19
2966		min		0	18	-0.008	19	0	1	0	1	0	1
2967		max	B	0.008	11	0	10	0.004	19	1.643	14	0.008	19
2968		min		0	18	-0.008	19	0	1	0	1	0	1
2969	P711	max	T	0.007	16	0	2	0.005	16	1.462	7	0.008	16
2970		min		0	2	-0.006	7	0	2	0	2	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
2971		max	B	0.006	8	0	2	0.004	7	0	2	0.008	7
2972		min		-0.001	16	-0.003	18	0	2	-0.63	15	0	2
2973	P422	max	T	0.005	20	0	18	0.004	12	2.175	17	0.007	12
2974		min		-0.001	10	-0.007	12	0	2	-0.684	16	0	2
2975		max	B	0.005	20	0	18	0.004	12	2.175	17	0.007	12
2976		min		-0.001	10	-0.007	12	0	2	-0.684	16	0	2
2977	P489	max	T	0.007	21	0	6	0.004	13	1.876	9	0.007	13
2978		min		0	14	-0.007	13	0	2	-0.485	23	0	2
2979		max	B	0.007	21	0	6	0.004	13	1.876	9	0.007	13
2980		min		0	14	-0.007	13	0	2	-0.485	23	0	2
2981	P704	max	T	0.01	21	0.001	21	0.004	21	2.351	19	0.009	21
2982		min		0	2	-0.004	13	0	2	-0.782	7	0	2
2983		max	B	0.004	12	0	2	0.004	13	1.407	21	0.007	20
2984		min		-0.003	19	-0.008	20	0	2	0	2	0	2
2985	P511	max	T	0.007	21	0	6	0.004	13	1.787	9	0.007	13
2986		min		0	14	-0.007	13	0	2	-0.785	1	0	2
2987		max	B	0.007	21	0	6	0.004	13	1.787	9	0.007	13
2988		min		0	14	-0.007	13	0	2	-0.785	1	0	2
2989	P474	max	T	0.006	18	0	21	0.004	10	2.346	9	0.007	10
2990		min		0	13	-0.007	10	0	2	-0.721	10	0	2
2991		max	B	0.006	18	0	21	0.004	10	2.346	9	0.007	10
2992		min		0	13	-0.007	10	0	2	-0.721	10	0	2
2993	P467	max	T	0.006	21	0	6	0.003	13	1.571	18	0.007	13
2994		min		0	14	-0.007	13	0	2	-0.427	17	0	2
2995		max	B	0.006	21	0	6	0.003	13	1.571	18	0.007	13
2996		min		0	14	-0.007	13	0	2	-0.427	17	0	2
2997	P575	max	T	0.006	21	0	18	0.004	6	2.255	8	0.007	21
2998		min		0	10	-0.004	13	0	2	-0.777	9	0	2
2999		max	B	0.006	21	0	18	0.004	6	2.255	8	0.007	21
3000		min		0	10	-0.004	13	0	2	-0.777	9	0	2
3001	P427	max	T	0.005	12	0	14	0.004	19	2.352	9	0.007	19
3002		min		-0.001	6	-0.006	20	0	2	-0.646	8	0	2
3003		max	B	0.005	12	0	14	0.004	19	2.352	9	0.007	19
3004		min		-0.001	6	-0.006	20	0	2	-0.646	8	0	2
3005	P463	max	T	0.004	14	0	18	0.004	6	1.571	18	0.007	6
3006		min		0	2	-0.005	6	0	2	-0.668	17	0	2
3007		max	B	0.004	14	0	18	0.004	6	1.571	18	0.007	6
3008		min		0	2	-0.005	6	0	2	-0.668	17	0	2
3009	P683	max	T	0.004	21	0	2	0.002	19	1.721	10	0.004	20
3010		min		0	2	-0.004	14	0	2	0	2	0	2
3011		max	B	0.004	13	0	2	0.003	21	2.216	38	0.007	21
3012		min		-0.001	21	-0.007	21	0	2	-0.734	17	0	2
3013	P718	max	T	0.006	10	0	6	0.004	12	2.125	10	0.008	12
3014		min		0	2	-0.003	12	0	2	0	2	0	2
3015		max	B	0.004	17	0	2	0.004	18	1.903	11	0.007	18
3016		min		-0.002	8	-0.004	20	0	2	-0.059	12	0	2
3017	P533	max	T	0.007	21	0	6	0.003	21	2.137	5	0.007	21
3018		min		0	14	-0.006	13	0	2	-0.202	10	0	2
3019		max	B	0.007	21	0	6	0.003	21	2.137	5	0.007	21
3020		min		0	14	-0.006	13	0	2	-0.202	10	0	2
3021	P540	max	T	0.006	19	0	21	0.003	19	2.351	17	0.006	19
3022		min		0	13	-0.006	11	0	2	-0.701	16	0	2
3023		max	B	0.006	19	0	21	0.003	19	2.351	17	0.006	19
3024		min		0	13	-0.006	11	0	2	-0.701	16	0	2
3025	P539	max	T	0.005	10	0	38	0.004	10	1.571	38	0.006	10

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
3026		min		0	2	-0.005	18	0	2	-0.635	6	0	2
3027		max	B	0.005	10	0	38	0.004	10	1.571	38	0.006	10
3028		min		0	2	-0.005	18	0	2	-0.635	6	0	2
3029	P705	max	T	0.008	21	0	7	0.004	19	1.508	12	0.008	20
3030		min		0	2	-0.004	14	0	2	0	2	0	2
3031		max	B	0.005	13	0	2	0.004	14	2.339	18	0.006	14
3032		min		-0.003	21	-0.007	21	0	2	-0.485	23	0	2
3033	P416	max	T	0.004	11	0	14	0.004	18	1.571	14	0.006	18
3034		min		-0.001	6	-0.005	19	0	2	-0.628	15	0	2
3035		max	B	0.004	11	0	14	0.004	18	1.571	14	0.006	18
3036		min		-0.001	6	-0.005	19	0	2	-0.628	15	0	2
3037	P495	max	T	0.005	10	0	14	0.004	18	2.024	7	0.006	18
3038		min		0	1	-0.005	18	0	2	-0.183	6	0	2
3039		max	B	0.005	10	0	14	0.004	18	2.024	7	0.006	18
3040		min		0	1	-0.005	18	0	2	-0.183	6	0	2
3041	P688	max	T	0.003	15	0	2	0.004	21	2.215	14	0.007	21
3042		min		0	2	-0.007	6	0	2	0	2	0	2
3043		max	B	0.006	6	0	2	0.003	6	1.488	14	0.006	6
3044		min		-0.001	15	-0.003	14	0	2	-0.246	11	0	2
3045	P448	max	T	0.006	11	0	38	0.003	19	1.857	8	0.006	19
3046		min		0	1	-0.006	19	0	1	-0.519	7	0	1
3047		max	B	0.006	11	0	38	0.003	19	1.857	8	0.006	19
3048		min		0	1	-0.006	19	0	1	-0.519	7	0	1
3049	P445	max	T	0.005	21	0	21	0.003	13	1.635	18	0.006	13
3050		min		0	2	-0.006	13	0	2	-0.62	17	0	2
3051		max	B	0.005	21	0	21	0.003	13	1.635	18	0.006	13
3052		min		0	2	-0.006	13	0	2	-0.62	17	0	2
3053	P558	max	T	0.006	11	0	38	0.003	19	1.679	14	0.006	19
3054		min		0	1	-0.006	19	0	1	0	1	0	1
3055		max	B	0.006	11	0	38	0.003	19	1.679	14	0.006	19
3056		min		0	1	-0.006	19	0	1	0	1	0	1
3057	P576	max	T	0.006	20	0	18	0.003	21	2.24	9	0.006	21
3058		min		0	10	-0.004	13	0	2	-0.121	10	0	2
3059		max	B	0.006	20	0	18	0.003	21	2.24	9	0.006	21
3060		min		0	10	-0.004	13	0	2	-0.121	10	0	2
3061	P681	max	T	0.001	21	0	2	0.004	20	2.032	21	0.007	20
3062		min		0	2	-0.006	20	0	2	0	2	0	2
3063		max	B	0.006	7	0	2	0.003	6	0.391	18	0.006	6
3064		min		0	2	-0.001	19	0	2	0	2	0	2
3065	P555	max	T	0.006	21	0	8	0.003	21	2.004	5	0.006	21
3066		min		0	2	-0.005	13	0	2	-0.314	10	0	2
3067		max	B	0.006	21	0	8	0.003	21	2.004	5	0.006	21
3068		min		0	2	-0.005	13	0	2	-0.314	10	0	2
3069	P529	max	T	0.004	14	0	2	0.003	14	2.248	19	0.006	14
3070		min		0	2	-0.004	6	0	2	-0.649	18	0	2
3071		max	B	0.004	14	0	2	0.003	14	2.248	19	0.006	14
3072		min		0	2	-0.004	6	0	2	-0.649	18	0	2
3073	P432	max	T	0.005	6	0	20	0.003	8	2.268	9	0.006	7
3074		min		0	12	-0.004	14	0	2	-0.701	10	0	2
3075		max	B	0.005	6	0	20	0.003	8	2.268	9	0.006	7
3076		min		0	12	-0.004	14	0	2	-0.701	10	0	2
3077	P479	max	T	0.005	19	0.002	17	0.003	12	2.204	18	0.006	12
3078		min		-0.002	8	-0.005	11	0	2	-0.623	17	0	2
3079		max	B	0.005	19	0.002	17	0.003	12	2.204	18	0.006	12
3080		min		-0.002	8	-0.005	11	0	2	-0.623	17	0	2

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
3081	P517	max	T	0.005	10	0	38	0.003	18	1.522	7	0.006	18
3082		min		0	1	-0.005	18	0	1	-0.382	6	0	1
3083		max	B	0.005	10	0	38	0.003	18	1.522	7	0.006	18
3084		min		0	1	-0.005	18	0	1	-0.382	6	0	1
3085	P570	max	T	0.005	12	0.001	14	0.003	11	2.245	8	0.005	11
3086		min		-0.001	6	-0.004	20	0	2	-0.718	7	0	2
3087		max	B	0.005	12	0.001	14	0.003	11	2.245	8	0.005	11
3088		min		-0.001	6	-0.004	20	0	2	-0.718	7	0	2
3089	P689	max	T	0.003	15	0	2	0.003	7	1.505	7	0.005	7
3090		min		0	2	-0.005	7	0	2	0	2	0	2
3091		max	B	0.005	8	0	2	0.003	8	2.227	13	0.005	8
3092		min		-0.001	17	-0.003	15	0	2	-0.638	12	0	2
3093	P581	max	T	0.005	11	0	14	0.003	11	2.156	15	0.005	11
3094		min		0	6	-0.004	19	0	2	-0.76	16	0	2
3095		max	B	0.005	11	0	14	0.003	11	2.156	15	0.005	11
3096		min		0	6	-0.004	19	0	2	-0.76	16	0	2
3097	P675	max	T	0.003	10	0	2	0.003	8	1.171	17	0.004	8
3098		min		0	2	-0.003	8	0	2	0	2	0	2
3099		max	B	0.004	19	0	2	0.003	19	2.292	7	0.005	19
3100		min		-0.001	14	-0.004	11	0	2	-0.785	23	0	2
3101	P586	max	T	0.005	19	0	20	0.003	17	2.157	18	0.005	11
3102		min		0	12	-0.005	11	0	2	-0.771	17	0	2
3103		max	B	0.005	19	0	20	0.003	17	2.157	18	0.005	11
3104		min		0	12	-0.005	11	0	2	-0.771	17	0	2
3105	P423	max	T	0.004	20	0	19	0.002	12	2.24	17	0.005	12
3106		min		0	11	-0.005	12	0	2	-0.451	16	0	2
3107		max	B	0.004	20	0	19	0.002	12	2.24	17	0.005	12
3108		min		0	11	-0.005	12	0	2	-0.451	16	0	2
3109	P496	max	T	0.005	19	0.001	19	0.002	10	2.266	8	0.005	11
3110		min		-0.001	11	-0.005	11	0	2	-0.775	9	0	2
3111		max	B	0.005	19	0.001	19	0.002	10	2.266	8	0.005	11
3112		min		-0.001	11	-0.005	11	0	2	-0.775	9	0	2
3113	P518	max	T	0.005	19	0.001	18	0.002	20	2.128	18	0.005	19
3114		min		-0.002	10	-0.005	11	0	2	-0.785	1	0	2
3115		max	B	0.005	19	0.001	18	0.002	20	2.128	18	0.005	19
3116		min		-0.002	10	-0.005	11	0	2	-0.785	1	0	2
3117	P426	max	T	0.004	12	0	14	0.002	19	2.094	9	0.005	20
3118		min		0	6	-0.004	20	0	1	-0.726	8	0	1
3119		max	B	0.004	12	0	14	0.002	19	2.094	9	0.005	20
3120		min		0	6	-0.004	20	0	1	-0.726	8	0	1
3121	P501	max	T	0.004	18	0.002	17	0.002	20	1.359	8	0.004	19
3122		min		-0.003	9	-0.004	10	0	2	-0.725	9	0	2
3123		max	B	0.004	18	0.002	17	0.002	20	1.359	8	0.004	19
3124		min		-0.003	9	-0.004	10	0	2	-0.725	9	0	2
3125	P577	max	T	0.004	21	0	6	0.002	21	1.926	5	0.004	21
3126		min		0	14	-0.004	13	0	2	-0.465	10	0	2
3127		max	B	0.004	21	0	6	0.002	21	1.926	5	0.004	21
3128		min		0	14	-0.004	13	0	2	-0.465	10	0	2
3129	P696	max	T	0.002	10	0.001	6	0.002	13	2.312	21	0.004	13
3130		min		0	2	-0.003	13	0	2	-0.51	20	0	2
3131		max	B	0.003	18	0	2	0.002	18	1.781	7	0.004	10
3132		min		-0.001	6	-0.004	10	0	2	0	2	0	2
3133	P485	max	T	0.003	14	0	18	0.002	6	1.12	19	0.004	6
3134		min		0	2	-0.003	6	0	2	-0.534	17	0	2
3135		max	B	0.003	14	0	18	0.002	6	1.12	19	0.004	6

Envelope Plate Principal Stresses (Continued)

	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
3136		min		0	2	-0.003	6	0	2	-0.534	17	0	2
3137	P513	max	T	0.004	10	0	8	0.002	19	1.965	14	0.004	19
3138		min		0	17	-0.004	18	0	1	0	1	0	1
3139		max	B	0.004	10	0	8	0.002	19	1.965	14	0.004	19
3140		min		0	17	-0.004	18	0	1	0	1	0	1
3141	P535	max	T	0.004	10	0	8	0.002	18	2.142	14	0.004	18
3142		min		0	17	-0.004	18	0	2	-0.121	15	0	2
3143		max	B	0.004	10	0	8	0.002	18	2.142	14	0.004	18
3144		min		0	17	-0.004	18	0	2	-0.121	15	0	2
3145	P557	max	T	0.003	10	0	7	0.002	18	2.027	13	0.004	18
3146		min		0	1	-0.004	18	0	2	-0.785	14	0	2
3147		max	B	0.003	10	0	7	0.002	18	2.027	13	0.004	18
3148		min		0	1	-0.004	18	0	2	-0.785	14	0	2
3149	P491	max	T	0.004	11	0	10	0.002	19	1.761	14	0.004	19
3150		min		0	18	-0.004	19	0	1	0	1	0	1
3151		max	B	0.004	11	0	10	0.002	19	1.761	14	0.004	19
3152		min		0	18	-0.004	19	0	1	0	1	0	1
3153	P580	max	T	0.004	11	0	38	0.002	19	1.692	14	0.004	19
3154		min		0	21	-0.004	19	0	1	-0.49	15	0	1
3155		max	B	0.004	11	0	38	0.002	19	1.692	14	0.004	19
3156		min		0	21	-0.004	19	0	1	-0.49	15	0	1
3157	P469	max	T	0.004	11	0	10	0.002	11	1.809	7	0.003	11
3158		min		0	18	-0.003	19	0	1	0	1	0	1
3159		max	B	0.004	11	0	10	0.002	11	1.809	7	0.003	11
3160		min		0	18	-0.003	19	0	1	0	1	0	1
3161	P579	max	T	0.003	10	0	8	0.002	18	2.129	13	0.003	18
3162		min		0	16	-0.003	18	0	2	-0.627	14	0	2
3163		max	B	0.003	10	0	8	0.002	18	2.129	13	0.003	18
3164		min		0	16	-0.003	18	0	2	-0.627	14	0	2
3165	P507	max	T	0.002	14	0	2	0.002	14	2.041	19	0.003	14
3166		min		0	2	-0.002	6	0	2	-0.785	18	0	2
3167		max	B	0.002	14	0	2	0.002	14	2.041	19	0.003	14
3168		min		0	2	-0.002	6	0	2	-0.785	18	0	2
3169	P556	max	T	0.003	6	0	2	0.002	14	2.251	10	0.003	14
3170		min		0	2	-0.003	14	0	2	-0.785	1	0	2
3171		max	B	0.003	6	0	2	0.002	14	2.251	10	0.003	14
3172		min		0	2	-0.003	14	0	2	-0.785	1	0	2
3173	P447	max	T	0.003	11	0	38	0.001	11	1.571	14	0.003	11
3174		min		0	21	-0.003	19	0	1	-0.161	6	0	1
3175		max	B	0.003	11	0	38	0.001	11	1.571	14	0.003	11
3176		min		0	21	-0.003	19	0	1	-0.161	6	0	1
3177	P578	max	T	0.002	6	0	7	0.001	14	2.188	10	0.003	14
3178		min		0	16	-0.003	14	0	2	-0.666	11	0	2
3179		max	B	0.002	6	0	7	0.001	14	2.188	10	0.003	14
3180		min		0	16	-0.003	14	0	2	-0.666	11	0	2
3181	P534	max	T	0.003	6	0	7	0.001	13	1.817	9	0.003	14
3182		min		0	16	-0.003	14	0	2	-0.785	1	0	2
3183		max	B	0.003	6	0	7	0.001	13	1.817	9	0.003	14
3184		min		0	16	-0.003	14	0	2	-0.785	1	0	2
3185	P512	max	T	0.002	6	0	7	0.001	13	1.853	9	0.003	14
3186		min		0	16	-0.003	14	0	2	-0.785	1	0	2
3187		max	B	0.002	6	0	7	0.001	13	1.853	9	0.003	14
3188		min		0	16	-0.003	14	0	2	-0.785	1	0	2
3189	P490	max	T	0.002	6	0	18	0.001	14	1.807	9	0.002	14
3190		min		0	16	-0.003	14	0	2	-0.785	1	0	2

Envelope Plate Principal Stresses (Continued)

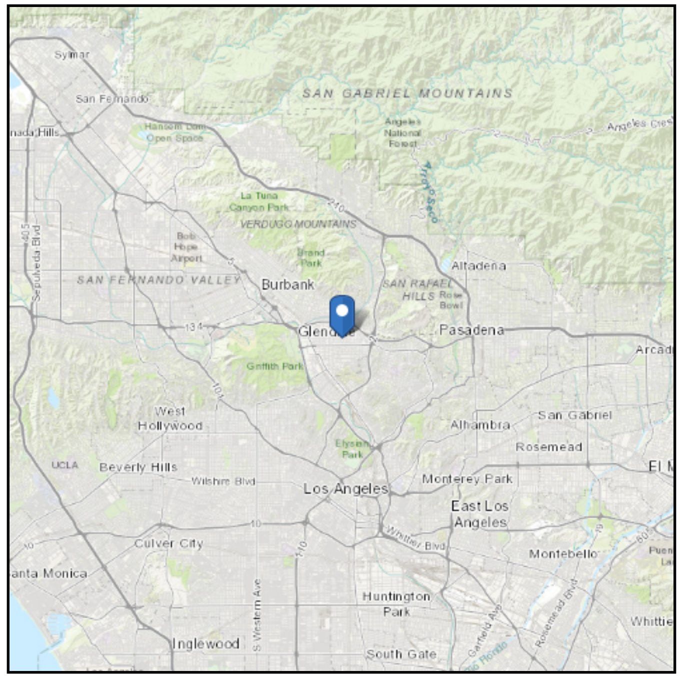
	Plate		Surface	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
3191		max	B	0.002	6	0	18	0.001	14	1.807	9	0.002	14
3192		min		0	16	-0.003	14	0	2	-0.785	1	0	2
3193	P425	max	T	0.002	11	0	10	0.001	11	1.929	7	0.002	11
3194		min		0	2	-0.002	19	0	2	-0.155	6	0	2
3195		max	B	0.002	11	0	10	0.001	11	1.929	7	0.002	11
3196		min		0	2	-0.002	19	0	2	-0.155	6	0	2
3197	P468	max	T	0.002	6	0	7	0.001	13	1.87	9	0.002	14
3198		min		0	15	-0.002	14	0	2	-0.785	1	0	2
3199		max	B	0.002	6	0	7	0.001	13	1.87	9	0.002	14
3200		min		0	15	-0.002	14	0	2	-0.785	1	0	2
3201	P446	max	T	0.002	6	0	2	0.001	14	2.139	18	0.002	14
3202		min		0	2	-0.002	14	0	2	-0.785	1	0	2
3203		max	B	0.002	6	0	2	0.001	14	2.139	18	0.002	14
3204		min		0	2	-0.002	14	0	2	-0.785	1	0	2
3205	P424	max	T	0.002	6	0	7	0.001	6	2.165	18	0.002	6
3206		min		0	14	-0.002	14	0	2	-0.785	1	0	2
3207		max	B	0.002	6	0	7	0.001	6	2.165	18	0.002	6
3208		min		0	14	-0.002	14	0	2	-0.785	1	0	2

ASCE 7 Hazards Report

Address:
Glendale
California,

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Elevation: 561.82 ft (NAVD 88)
Latitude: 34.14633
Longitude: -118.24864



Wind

Results:

Wind Speed:	95 Vmph
10-year MRI	66 Vmph
25-year MRI	72 Vmph
50-year MRI	76 Vmph
100-year MRI	81 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Wed Mar 31 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	2.168	S_{D1} :	N/A
S_1 :	0.728	T_L :	8
F_a :	1.2	PGA :	0.937
F_v :	N/A	PGA_M :	1.125
S_{MS} :	2.601	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.734	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Wed Mar 31 2021

Date Source: USGS Seismic Design Maps

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Ice

Results:

Ice Thickness:	0.00 in.
Concurrent Temperature:	25 F
Gust Speed:	30 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Wed Mar 31 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Small Cell Noise Study

Site No. CA002_GLENDALE_137
SW-CA-GLENDA-00237C

Front Of 1544 Kenneth Rd
Glendale, California 91201
Los Angeles County
34.174022; -118.282517 NAD83

EBI Project No. 6222007072
December 9, 2022

Prepared for:

Verizon Small Cell

c/o EXTENET, LLC

3030 Warrenville Road, Suite 340
Lisle, Illinois 60532

Prepared by:

EBI Consulting
environmental | engineering | due diligence

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by ExteNet to evaluate potential environmental noise impacts for Verizon Site CA002_GLENDALE_137 located in Front Of 1544 Kenneth Rd in Glendale, California.

This report summarizes the results of EBI's technical review of equipment specifications in relation to the Exterior Noise Standards as outlined in the City of Glendale Municipal Code, Section 8.36, Article I, General Provisions. Theoretical results included in this report are based on equipment and site data provided by ExteNet on March, 19 2021. Subsequent changes to the site design may yield changes in the projected post construction noise levels or compliance with applicable regulations and guidelines.

Statement of Compliance

Based on the results of this study, EBI concludes that the noise produced from operation of the proposed remote radio units (RRUs) and associated wireless telecommunication equipment will comply with the City of Glendale Municipal Code, Section 8.36, Article I, General Provisions at the nearest building.

1.0 REGULATORY REQUIREMENTS

City of Glendale Municipal Code: Exterior Noise Standards 8.36.040 (Article I, Section A)

The City of Glendale limits exterior noise as follows:

Table 1 – Exterior Noise Level Limits (Adapted from Glendale Municipal Code Section 8.36.040)

Zone	Daytime	Nighttime
Cemetery and residential (single family and duplex)	*55 dbA*	*45 dbA*
Residential (multifamily, hotels, motels and transient lodgings)	*60 dbA (anytime)*	
Central business district and commercial	*65 dbA (anytime)*	
Industrial	*70 dbA (anytime)*	

2.0 PROJECT DESCRIPTION

The Site CA002_GLENDALE_137 includes a proposed Small Cell Wireless Facility on a proposed utility pole at an existing right of way located in Glendale, California. The proposed site design does not include installation of emergency back-up generators, equipment cabinets or other noise-generating equipment typically associated with traditional wireless telecommunications sites. The following equipment is proposed for installation at this site:

Table 2 – Proposed Equipment

Quantity	Description	Manufacturer	Model Number	Sound Pressure Level (dBA)	Distance (feet)
3	Integrated Antenna	Ericsson	6705	32*	3.3
n/a	RF Coaxial Cables	n/a	n/a	none measurable	n/a
n/a	Power Conductors	n/a	n/a	none measurable	n/a

*Manufacturer acoustic data specifies an average sound pressure level of 32 dBA per unit when measured at a distance of 1 meter and operating at temperatures of 95°

6.0 RESULTS AND CONCLUSIONS

Projected noise levels from the equipment installation in Front Of 1544 Kenneth Rd were calculated using the methodology shown in Appendix B, and equipment data provided by the manufacturer for the proposed antennas are provided in Appendix A for the purposes of this study. The proposed installations will not utilize any external alarms.

Sound level propagation calculations were performed to determine a minimum compliance distance for equipment-generated noise from any residential building façade. The sources and receiver were assumed to be at the same reference height in order to account for balconies, open windows, and changes in elevation at adjacent properties in the site vicinity. Equipment was assumed to be operating continuously 24-hours per day. All calculations shown in Table 3 assume a free-field environment with no ground absorption, reflecting surfaces, barriers, or other obstructions. Audible equipment noise impact varies greatly under different ambient noise conditions.

TABLE 3 – CALCULATED SOUND LEVEL RESULTS AND APPLICABLE LIMITS

Source	**Minimum Compliance Distance from Residential Building Façade**
	1.3 feet
Equipment (See Table 2)	<45 dBA

The sound pressure level from operation of each 6705 unit was assumed to be 32 dBA of spherical distribution when measured at a distance of 3.3 feet. The combined sound pressure level of the three proposed Ericsson 6705 antennas is less than 45 dBA when measured at a distance of 1.3 feet.

The pole on which the proposed equipment will be mounted is located at least 46 feet from a residential building façade.

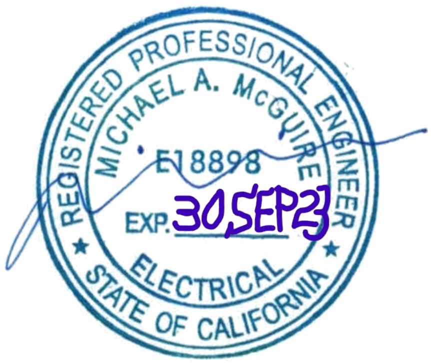
Therefore, using the site design furnished by ExteNet and Verizon Small Cell and the analysis outline above, EBI concludes that the proposed CA002_GLENDALE_137 Small Cell installation located in Front Of 1544 Kenneth Rd in Glendale, California will comply with the acoustic requirements of the Exterior Noise Standards as outlined in the City of Glendale Municipal Code, Section 8.36, Article I, General Provisions.

7.0 LIMITATIONS

This report was prepared for the use of ExteNet. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by ExteNet. The observations in this report are valid on the date of the investigation. Calculations contained in this report should be considered accurate to within one decibel. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

8.0 CERTIFICATION

This report has been reviewed and approved by:



sealed 12dec2022

Michael McGuire PE
Professional Electrical Engineer
California License# E18898
mike@h2dc.com

Note that EBI's scope of work is limited to an evaluation of the Sound Properties of the equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

Appendix A

Equipment Specifications

Sound Pressure L_{PA} @ 3.3 ft (1m) 6705 AC Free field placement

Ambient temperature (°F / °C)		Sound Pressure L_{PA} (dBA)						
Max traffic load		Front	Left	Rear	Right	Top	Bottom	Average
≤ 86 °F	≤ 30 °C	30	29	27	28	25	30	28
95 °F	35 °C	33	32	31	31	28	34	32
106 °F	41 °C	36	35	33	33	30	35	34
113 °F	45 °C	39	38	36	37	34	38	37
131 °F	55 °C	48	49	45	47	45	50	47

The standard deviation of sound pressure values presented are ≤ 1.5 dBA

Appendix B

Calculation Methodology

CALCULATION METHODOLOGY

All sounds originate from a source. The sound energy, produced by a source, creates variations in air pressure, which travels in all directions much like a wave ripples across the water. The "loudness" or intensity of a sound is a function of the sound pressure level, defined as the ratio of two pressures: the measured sound pressure from the source divided by a reference pressure (i.e. threshold of human hearing). Sound level measurements are most commonly expressed using the decibel (dB) scale. The decibel scale is logarithmic to accommodate the wide range of sound intensities to which the human ear is capable of responding. On this scale, the threshold of human hearing is equal to 0 dB, while levels above 140 dB can cause immediate hearing damage.

One property of the decibel scale is that the combined sound pressure level of separate sound sources is not simply the sum of the contributing sources. For example, if the sound of one source of 70 dB is added to another source of 70 dB, the total is only 73 dB, not a doubling to 140 dB. In terms of human perception of sound, a 3 dB difference is the minimum perceptible change for broadband sounds (i.e. sounds that include all frequencies). A difference of 10 dB represents a perceived halving or doubling of loudness.

Environmental sound is commonly expressed in terms of the A-weighted sound level (dBA). The A-weighting is a standard filter to make measured sound levels more nearly approximate the frequency response of the human ear. Table 1 and Figure 2 show the adjustments made at each octave band frequency to contour un-weighted sound levels (dB) to A-weighted sound levels (dBA). This frequency response is defined in the American National Standards Institute Standard No. 5.1 and most other relevant standards related to measurement of noise levels.

Table 1
A-Weighted Octave Band Adjustment (+/- dB)

Octave Band Center Frequency (Hz)	32	64	125	250	500	1000	2000	4000	8000	16000
A-weighting Adjustment (±dB)	-39.4	-26.2	-16.1	-8.6	-3.6	0.0	+1.2	+1.0	-1.1	-6.6

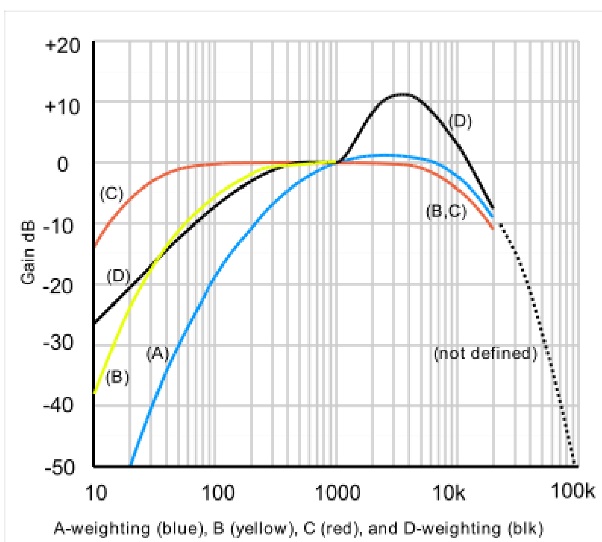


FIGURE 2 - WEIGHTED OCTAVE BAND ADJUSTMENTS (±dB)

Environmental sound varies depending on environmental conditions. Some sounds are sharp impulses lasting for short periods, while others rise and fall over longer periods. There are various measures (metrics) of sound pressure designed for different purposes. The Leq, or equivalent sound level, is the steady-state sound level over a period of time that has the same acoustic energy as the fluctuating sound that was measured over the same period. The Leq is commonly referred to as the average sound level and is calculated automatically by the sound level meter using methods defined in ANSI S1.4-1983[1]. Manufacturer-provided data for noise-generating equipment typically includes a measured sound pressure level (L_p), expressed in A-weighted decibels, taken at a specific distance from the equipment, known as a reference distance. For the purposes of this report, L_1 refers to the measured sound level, and r_1 refers to the reference distance from the source.

Sound varies inversely as the square of the distance from the source increases. This property of sound propagation is used to determine the sound levels at various distances from the source when L_1 and r_1 have been provided. In an unobstructed free-field environment, without any barriers or reflecting surfaces, sounds pressure drops by 6 dBA with each doubling of distance. This relationship is expressed in the following equation:

$$L_2 = L_1 - |20 * \log\left(\frac{r_1}{r_2}\right)|$$

Where r_2 refers to the distance at distance 2 and L_2 refers to the sound level in dBA at distance 2.

When multiple sound sources are combined, the L_P values for each source must first be converted to sound power (L_W).

$$L_W = L_P + |10 * \log\left(\frac{Q}{4\pi * r^2}\right)|$$

In this report, EBI has assumed Q (directionality) is equal to 1 to represent full-sphere propagation.

The resultant L_W values are then added together, using logarithmic decibel addition, where L_Σ refers to the total sound power level, and L_1, L_2, etc. refer to the sound power of different individual sources.

$$L_\Sigma \quad = 10 * \ log_{10} \left(10^{\frac{L_1}{10}} + 10^{\frac{L_2}{10}} + \cdots 10^{\frac{L_n}{10}}\right) dB$$

The total sound power (L_W) of all proposed sources is then used to calculate the total sound pressure level (L_P) at a reference distance (r).

$$L_P = L_W - |10 * \log\left(\frac{Q}{4\pi * r^2}\right)|$$

[1] American National Standards Institute, ANSI S1-4-1983, American National Standard Specification for Sound Level Meters, 1983

February 12, 2021

City of Glendale
633 E Broadway
Glendale, CA 91206

RE: Letter of Authorization for ExteNet Systems, Representatives

To whom it may concern:

This letter authorizes Alexander Novak, representative of TeleWorld Solutions, to take all necessary actions to apply for and obtain permits on behalf of ExteNet Systems.

TeleWorld Solutions is also authorized to make payments for any application/permits, although ExteNet Systems will continue to be the Financially Responsible Party.
If you have any questions or concerns, please feel free to email or call the number listed below.

Sincerely,

Jesus Loreto, SE
Senior Construction Manager, OSP SouthWest
jloreto@extenetsystems.com

Mobile: *(818)489-9625* | **Las Vegas, Utah** **Southern California** | extenetsystems.com

February 15, 2023

Ms. Narine Pogosyan
City of Glendale Public Works
633 East Broadway, #209
Glendale, CA 91206

**RE: ExteNet Systems, LLC – Statement of Co-location – SW-CA-GLENDA-0237;
1544 W Kenneth Rd Glendale, CA 91201 – Pole ID: SL_6164**

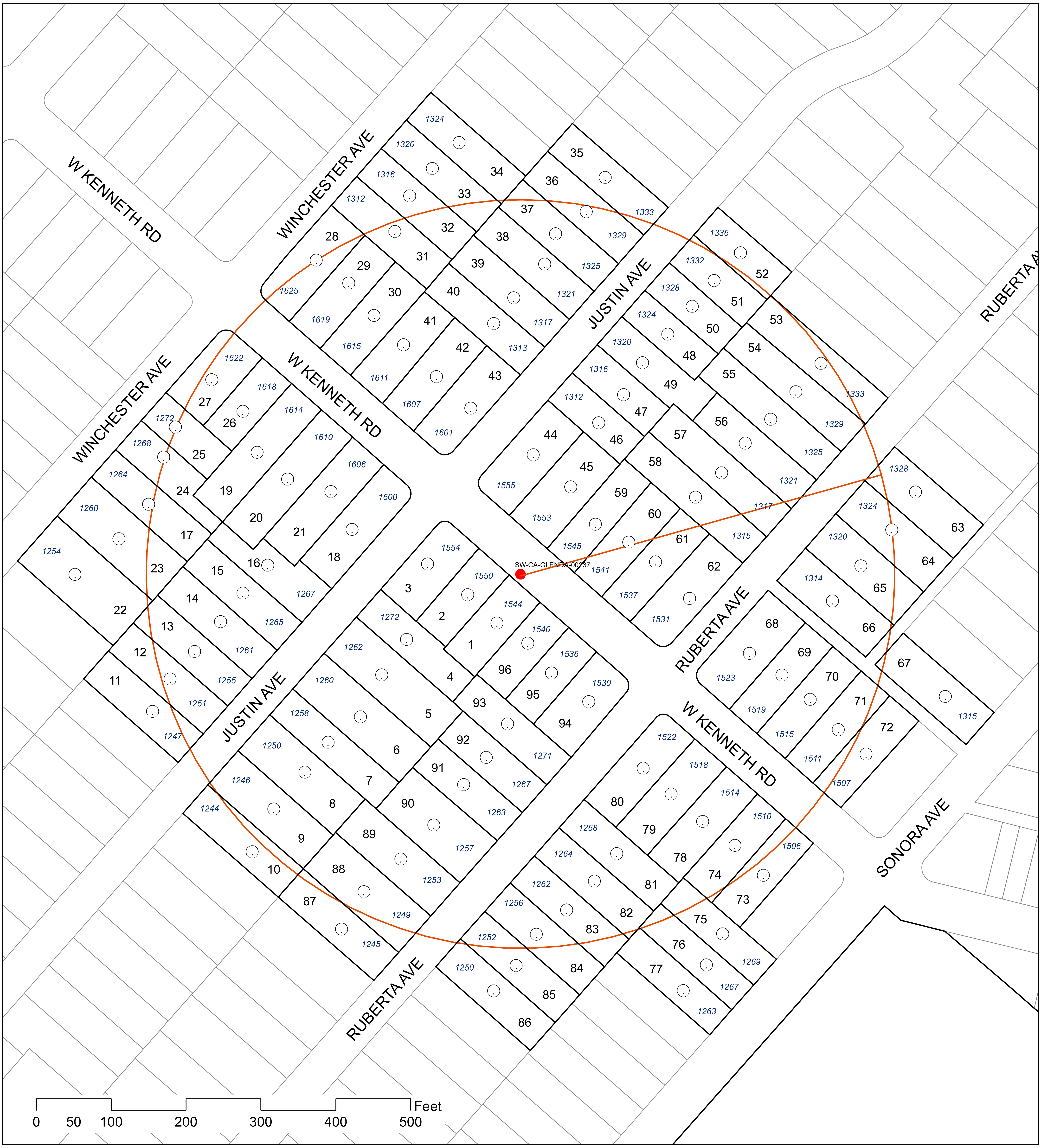
Dear Ms. Pogosyan:

Pursuant to Section 4, Item 6 of the City of Glendale WTF Application form, ExteNet Systems, LLC, hereby submits this statement declaring its willingness to allow other carriers to co-locate on the proposed WTF wherever technically and economically feasible and where co-location would not harm community compatibility.

Please feel free to reach out to me with any questions regarding co-location on ExteNet Systems, LLC facilities. I can be reached by email at jmilone@extenetsystems.com or at (281) 203-6100.

Regards,

Joe Milone
Executive Director
Government Relations & Permitting



LMG Map Prepared by:

Leon Mapping & GIS Services
15031 Chatsworth St, Ste 17
Mission Hills, CA 91345

818-235-7649
leonmapping@hotmail.com
www.laradiusmaps.com

SW-CA-GLENDA-00237

RADIUS 500'

DATE: 11/21/2022
UPDATE:________

N

CASE #
USES: FIELD

CONTACT: ALEXANDER NOVAK
PHONE : 682.351.3335

SW-CA-GLENDA-00237 500' RADIUS

OWNER	AssessorID	OWNER_NAME	ADDRESS	CITY_ZIP
1	5622-027-018	KARAPETYAN ARPINE	1544 W KENNETH RD	GLENDALE, CA 91201
2	5622-027-017	ARO SHAKER CO TR	1550 W KENNETH RD	GLENDALE, CA 91201
3	5622-027-016	DE BOND DESIREE M	1554 W KENNETH RD	GLENDALE, CA 91201
4	5622-027-015	JUNG DANIEL C AND CHRIS J TRS	1272 JUSTIN AVE	GLENDALE, CA 91201
5	5622-027-044	KESACHEKIAN PETER B ANTAPLYAN NATASHA	1262 JUSTIN AVE	GLENDALE, CA 91201
6	5622-027-045	CORTEZ OSCAR & DEBRA M	1260 JUSTIN AVE	GLENDALE, CA 91201
7	5622-027-046	AGHAYAN ARMEN	1258 JUSTIN AVE	GLENDALE, CA 91201
8	5622-027-013	PETSCHAUER BRIAN TRUST	1250 JUSTIN AVE	GLENDALE, CA 91201
9	5622-027-012	ARABAJYAN HAKOB TRUST	6447 MATILIJA AVE	VAN NUYS, CA 91401
10	5622-027-011	VARTANIAN ROBERT & SARPIE	1244 JUSTIN AVE	GLENDALE, CA 91201
11	5622-028-015	HONARCHIAN SOSEH	362 W KENNETH RD	GLENDALE, CA 91202
12	5622-028-014	OHANIAN SARO MEGERDICHIAN SELINE	1251 JUSTIN AVE	GLENDALE, CA 91201
13	5622-028-013	ANTABLIAN RICHARD J	1255 JUSTIN AVE	GLENDALE, CA 91201
14	5622-028-012	FEUCHT ALEX CO TR	1261 JUSTIN AVE	GLENDALE, CA 91201
15	5622-028-006	PUGLISI ANTHONY M	1265 JUSTIN AVE	GLENDALE, CA 91201
16	5622-028-007	NIELSEN KAI K	13110 NE 177TH PL #363	WOODINVILLE, WA 98072
17	5622-028-005	BARKHORDARIAN HOVSEP	1264 WINCHESTER AVE	GLENDALE, CA 91201
18	5622-028-008	KIRK WILLIAM M AND DENA B TRS	1600 W KENNETH RD	GLENDALE, CA 91201
19	5622-028-009	PETROSYAN NAIRA	1614 W KENNETH RD	GLENDALE, CA 91201
20	5622-028-010	DAVIDIAN GEORGE AND ANAHID TRS	1610 W KENNETH RD	GLENDALE, CA 91201
21	5622-028-011	FLYNN AIDAN & HELEN	1606 W KENNETH RD	GLENDALE, CA 91201
22	5622-028-020	PEREZ FELIX AND OLGA TRS	1254 WINCHESTER AVE	GLENDALE, CA 91201
23	5622-028-021	CHIRINIAN ACHOOT & GARINEH	1260 WINCHESTER AVE	GLENDALE, CA 91201
24	5622-028-004	TYLER MICHAEL TRUST	1268 WINCHESTER AVE	GLENDALE, CA 91201
25	5622-028-003	KADEHJIAN RITA	1272 WINCHESTER AVE	GLENDALE, CA 91201
26	5622-028-002	PACKARD LAUNIE L J C	1618 W KENNETH RD	GLENDALE, CA 91201
27	5622-028-001	REYNOLDS ESTER M	1622 W KENNETH RD	GLENDALE, CA 91201
28	5622-020-041	OCARIZ NICOLE M	1625 W KENNETH RD	GLENDALE, CA 91201
29	5622-020-042	HOVHANNESSIAN AROUTIUN	1619 W KENNETH RD	GLENDALE, CA 91201
30	5622-020-043	GUIRAGOSSIAN JIRAIR AND SIMA TRS	1615 W KENNETH RD	GLENDALE, CA 91201
31	5622-020-040	KIRAKOSYAN ZHILBERT GEVORGYAN ASTGIK	1312 WINCHESTER AVE	GLENDALE, CA 91201
32	5622-020-039	GEVORGYAN HAIK & VAHAN	1316 WINCHESTER AVE	GLENDALE, CA 91201
33	5622-020-038	BOIADJIAN,AKOP TR	1320 WINCHESTER AVE	GLENDALE, CA 91201
34	5622-020-044	PILAVJYAN VARTAN NALCHYAN DIANA	1324 WINCHESTER AVE	GLENDALE, CA 91201
35	5622-020-013	BARAKAT TEDDY M PETIT SARA S	1333 JUSTIN AVE	GLENDALE, CA 91201
36	5622-020-012	WITHERS,WILLIAM AND BONNIE TRS	1019 BETHANY RD	BURBANK, CA 91504
37	5622-020-011	ASLANYAN,NORAYR CO TR	1325 JUSTIN AVE	GLENDALE, CA 91201
38	5622-020-010	AGHAZARIAN ARABO & OHANIAN SILVA	1321 JUSTIN AVE	GLENDALE, CA 91201
39	5622-020-009	MEDINA TOBIAS	1317 JUSTIN AVE	GLENDALE, CA 91201
40	5622-020-008	BALTRENAS LAIMA	1313 JUSTIN AVE	GLENDALE, CA 91201
41	5622-020-007	KESHISHIAN ELMINA TRUST	1611 W KENNETH RD	GLENDALE, CA 91201
42	5622-020-006	ABRAM SOUREN & AZINE	5785 HALLECK DR	SAN JOSE, CA 95123
43	5622-020-005	BOSSI DEBBI KERNER WATER	1601 W KENNETH RD	GLENDALE, CA 91201
44	5622-021-040	BAUMANN ELIZABETH TRUST	1555 W KENNETH RD	GLENDALE, CA 91201
45	5622-021-039	HAIRAPETIAN ERIK	10923 N 137TH ST	SCOTTSDALE, AZ 85259

SW-CA-GLENDA-00237 500' RADIUS

OWNER	AssessorID	OWNER_NAME	ADDRESS	CITY_ZIP
46	5622-021-038	MURADYAN ANI TRUST	1312 JUSTIN AVE	GLENDALE, CA 91201
47	5622-021-037	SIEGEL DANIEL S & ANDREA R	1316 JUSTIN AVE	GLENDALE, CA 91201
48	5622-021-035	GOTSCHALL HELEN M	1324 JUSTIN AVE	GLENDALE, CA 91201
49	5622-021-043	SONNER FREDERICK F TR AND	1320 JUSTIN AVE	GLENDALE, CA 91201
50	5622-021-034	CHAPHAM DENNIS TRS	1328 JUSTIN AVE	GLENDALE, CA 91201
51	5622-021-033	SCORZA DANIEL & SEVAN	1332 JUSTIN AVE	GLENDALE, CA 91201
52	5622-021-032	JARASA BENJAMIN & ANNA	1336 JUSTIN AVE	GLENDALE, CA 91201
53	5622-021-011	GHAPGHARAN FRANCO CO TR	1333 RUBERTA AVE	GLENDALE, CA 91201
54	5622-021-012	CORTEZ PETE R AND CAROL L TRS	1329 RUBERTA AVE	GLENDALE, CA 91201
55	5622-021-013	SHIM JAI KYOUNG AND JUNGAE TRS	1325 RUBERTA AVE	GLENDALE, CA 91201
56	5622-021-014	BARP RAYMOND AND VALENTINA TRS	1321 RUBERTA AVE	GLENDALE, CA 91201
57	5622-021-016	DZHAMBAZIAN SHUSANIK TRUST	1317 RUBERTA AVE	GLENDALE, CA 91201
58	5622-021-017	OGLAKHCHIAN KHACHATOUR & MARIAM	1315 RUBERTA AVE	GLENDALE, CA 91201
59	5622-021-018	MASIHI PATRICK & KARINA	1545 W KENNETH RD	GLENDALE, CA 91201
60	5622-021-019	TERKAZARYAN KAREN RGARYAN LIANA	1541 W KENNETH RD	GLENDALE, CA 91201
61	5622-021-020	VARDANIAN HOVIK MKHIKIAN SUSAN	1537 W KENNETH RD	GLENDALE, CA 91201
62	5622-021-021	MILLER DOUGLAS S & NANCY S	1531 W KENNETH RD	GLENDALE, CA 91201
63	5622-022-010	TSILIKYAN GOHAR TRUST	1328 RUBERTA AVE	GLENDALE, CA 91201
64	5622-022-009	KVRYAN ROZA	1324 RUBERTA AVE	GLENDALE, CA 91201
65	5622-022-008	STADLER RANDOLPH D CO TR	PO BOX 61	LA CANADA, CA 91012
66	5622-022-007	BROWNE HOLDINGS 2021 LLC	222 MONTEREY RD #802	GLENDALE, CA 91206
67	5622-022-034	VARDANYAN LIANA	1315 SONORA AVE	GLENDALE, CA 91201
68	5622-022-006	GERINGER ROBERT D & DALE G	1516 STONE LN	GLENDALE, CA 91202
69	5622-022-005	OSEPO DALAR	1519 W KENNETH RD	GLENDALE, CA 91201
70	5622-022-004	SHIRVANIAN VANIK	1515 W KENNETH RD	GLENDALE, CA 91201
71	5622-022-003	MCCLEMENTS GEORGE III & RACHEL	1511 W KENNETH RD	GLENDALE, CA 91201
72	5622-022-002	BOGHOSSIAN VAROOJ CO TR	1507 W KENNETH RD	GLENDALE, CA 91201
73	5622-026-002	NORAVIAN ANITA TRUST	1506 W KENNETH RD	GLENDALE, CA 91201
74	5622-026-003	PEMBEDJIAN ANAID A	1510 W KENNETH RD	GLENDALE, CA 91201
75	5622-026-004	HOVSEPIAN ALEK AND ALIS TRS	1269 SONORA AVE	GLENDALE, CA 91201
76	5622-026-005	DEHM GREGORY L CO TR	1267 SONORA AVE	GLENDALE, CA 91201
77	5622-026-006	WEST MARLON C	1263 SONORA AVE	GLENDALE, CA 91201
78	5622-026-024	JACOBS CYBELLE A	1514 W KENNETH RD	GLENDALE, CA 91201
79	5622-026-025	CEVALLOS JAIME O CO TR	1518 W KENNETH RD	GLENDALE, CA 91201
80	5622-026-026	AVANESSIAN VAROUSH CO TR	1522 W KENNETH RD	GLENDALE, CA 91201
81	5622-026-027	PEREIRA REINA P	1506 IRVING AVE	GLENDALE, CA 91201
82	5622-026-028	BERGHOUDIAN MARLEN & SARKIS	1264 RUBERTA AVE	GLENDALE, CA 91201
83	5622-026-029	WHITING JIM & JULIE	1262 RUBERTA AVE	GLENDALE, CA 91201
84	5622-026-030	PATEL SAPANA TRUST	1256 RUBERTA AVE	GLENDALE, CA 91201
85	5622-026-031	SINANI HAMAZASB	1252 RUBERTA AVE	GLENDALE, CA 91201
86	5622-026-032	GASPARIAN ARMEN AND NELA TRS	1250 RUBERTA AVE	GLENDALE, CA 91201
87	5622-027-024	CONWAY JOSEPH W & TINA M	1245 RUBERTA AVE	GLENDALE, CA 91201
88	5622-027-023	FABIO NINA NINA FABIO TRUST	1249 RUBERTA AVE	GLENDALE, CA 91201
89	5622-027-022	PEEK ROSE M	1253 RUBERTA AVE	GLENDALE, CA 91201
90	5622-027-040	BAGDZHADZHYAN OVSANNA & ANUSH	1257 RUBERTA AVE	GLENDALE, CA 91201

SW-CA-GLENDA-00237 **500' RADIUS**

OWNER	AssessorID	OWNER_NAME	ADDRESS	CITY_ZIP
91	5622-027-020	STRONG SUNDAY ET AL STRONG CHOSOVI	1263 RUBERTA AVE	GLENDALE, CA 91201
92	5622-027-019	YAGHOBI EDMOND CO TR	1267 RUBERTA AVE	GLENDALE, CA 91201
93	5622-027-037	ISAKHANIAN ARTIN & ANDRE	1271 RUBERTA AVE	GLENDALE, CA 91201
94	5622-027-034	GATES G HARDY & LAUREL	1530 W KENNETH RD	GLENDALE, CA 91201
95	5622-027-035	FAGLIONI RUFINA FAGLIONI TRUST	1536 W KENNETH RD	GLENDALE, CA 91201
96	5622-027-036	TERTERYAN GUEVORG MANOUKIAN NINEL	1540 W KENNETH RD	GLENDALE, CA 91201
9	5622-027-012	OCCUPANT	1246 JUSTIN AVE	GLENDALE, CA 91201
11	5622-028-015	OCCUPANT	1247 JUSTIN AVE	GLENDALE, CA 91201
36	5622-020-012	OCCUPANT	1329 JUSTIN AVE	GLENDALE, CA 91201
42	5622-020-006	OCCUPANT	1607 W KENNETH RD	GLENDALE, CA 91201
45	5622-021-039	OCCUPANT	1553 W KENNETH RD	GLENDALE, CA 91201
66	5622-022-007	OCCUPANT	1314 RUBERTA AVE	GLENDALE, CA 91201
65	5622-022-008	OCCUPANT	1320 RUBERTA AVE	GLENDALE, CA 91201
68	5622-022-006	OCCUPANT	1523 W KENNETH RD	GLENDALE, CA 91201
		ALEXANDER NOVAK	1054 TEXAN TRAIL STE 300	GRAPEVINE,TX 76051
				105