

Matanuska-Susitna Borough

Administrative Hearing Agenda

Meeting Date: July 15, 2026

Meeting Time: 9:30 AM



Meeting Location

Assembly Chambers – Dorothy Swanda Jones Building

350 E. Dahlia Avenue

Palmer, Alaska 99645

Ways to Participate in the Meeting

1. Participate In Person

Members of the public may attend the meeting in person. You will have **three (3) minutes** to provide oral comments unless otherwise directed by the Chair.

2. Submit Written Comments

Send written comments to the Planning Commission Clerk:

Email: msb.planning.commission@matsugov.us

Deadline: Written comments must be received **by 12:00 PM (noon) on the Friday before the meeting.**

3. Provide Testimony by Telephone

- 1) Dial **1-855-290-3803**.
- 2) You will hear “joining conference” when connected.
- 3) You will be automatically muted and able to listen to the meeting.
- 4) When the Chair opens public testimony, press ***3** to raise your hand.
- 5) You will hear “Your hand has been raised.”
- 6) When it is your turn to speak, you will hear “Your line has been unmuted.”
- 7) State your name for the record, spell your last name, and provide your testimony.

4. Observe the Meeting Online

You may watch the meeting live using one of the following platforms:

- [Matanuska-Susitna Borough Facebook page](#)
- [Matanuska-Susitna Borough YouTube channel](#)

Meeting Agenda

1. Pledge of Allegiance

2. Public Hearings

- A. An Administrative Permit In Accordance With MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures, For A Cell Tower Located at 7880 W Alascom Rd, Tax ID# 20N12E08C001.

Applicant: New Horizons, on behalf of The Matanuska - Susitna Borough

Property Owner: Alascom, Inc.

Staff: Wade Long, Development Services Manager

- B. An Administrative Permit in accordance with MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures, For A Cell Tower Located At 33693 S. Noel Wien Avenue, Tax ID# 4287000L001.

Applicant: Atlas Tower 1, LLC

Property Owner: The Brown Family Revocable Trust

Staff: Natasha Grover, Current Planner

3. Unfinished Business

15. Adjournment

Accessibility and Accommodation Information

Individuals with disabilities who need reasonable accommodation to participate in this meeting should contact the Borough ADA Coordinator:

Phone: 907-861-8432

Request Deadline: At least **one week before the meeting.**

2A

STAFF REPORT



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822

www.matsu.gov

DEVELOPMENT SERVICES DIVISION STAFF REPORT

Date: July 15, 2026

File Number: TOWER-2026-010042

Applicant: New Horizons on behalf of the Matanuska-Susitna Borough

Property Owner: State of Alaska

Request: Administrative Permit in accordance with MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures

Location: Near 7880 W Alascom Rd

Size of Property: Approximately 2 acres

Staff: Wade Long, Development Services Manager

Staff Recommendation: Approval

EXECUTIVE SUMMARY

An Administrative Permit application under MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures, has been submitted to construct a 120-foot-tall, lattice tower.

A tall structure exceeding 85 feet in height is only permitted upon the issuance of an Administrative or Conditional Use Permit. Unless this type of use is maintained under and in accordance with a lawfully issued permit, a tall structure is declared to be a public nuisance. The operation of such a land use without a permit is prohibited.

LAND USE

Existing Land Use:

The subject site near 7880 W. Alascom Road is located within Interagency Land Management Assignment (ILMA) No. 229350, a 2-acre State of Alaska communications site located in Section

8, Township 20 North, Range 12 East, Seward Meridian. The ILMA authorizes the site for communications facilities and Matanuska-Susitna Borough public safety communications equipment. The site is situated on a hilltop overlooking the Glacier View area and is currently developed with telecommunications infrastructure, including two existing communications towers, equipment shelters, associated utility infrastructure, and access improvements. The remainder of the site consists primarily of native brush and low vegetation typical of the surrounding upland terrain. The proposed 120-foot self-support lattice communications tower will be located within an existing communications facility area and will expand public safety communications capabilities at a site already dedicated to telecommunications use.

Surrounding Land Use:

The surrounding area consists primarily of undeveloped State land, mountainous terrain, open space, and native vegetation characteristic of the Glacier View area. Development in the immediate vicinity is limited to existing telecommunications infrastructure associated with the Alascom communications site. The site occupies a prominent hilltop location and is surrounded by extensive areas of brush-covered open land with no concentrated residential, commercial, or industrial development nearby. Beyond the developed communications site, the surrounding landscape remains largely natural and undeveloped, with expansive views of the Matanuska Valley and surrounding mountain ranges. The proposed tower would be located adjacent to existing communications facilities within an area already utilized for telecommunications purposes.

REVIEW OF APPLICABLE CRITERIA AND FINDINGS

MSB 17.03 – Public Notification

A public notice was mailed to 54 notices to all property owners within a four mile radius of the subject property and to the Glacier View Community Council on June 17, 2026. The public hearing announcement in the June 17, 2026, edition. Staff posted the application material on the Borough website for public review on June 12, 2016. Staff received one response from the public opposing the proposed tower.

Section 17.67.040 Types of Permits Available

(A) *There are three types of permits available for tall structures:*

(1) *Administrative permit: new tall structures that are greater than 85 feet but less than or equal to 125 feet. The applicant may request that the decision on an administrative permit be made by the planning commission. The request shall be in writing at the time of application and all requirements for a conditional use permit shall be followed.*

(2) *Conditional use permit: new tall structures greater than 125 feet; or tall structures that exceed the height threshold at which a conditional use permit within a special land use district is required.*

(3) *Network improvement permit: allows legally constructed telecommunication towers to be increased in height in accordance with MSB 17.67.110.*

Findings of Fact:

1. According to the application material, the proposed tall structure will be a 120-foot-tall, lattice tower telecommunications tower.

2. The applicant has not requested that the Planning Commission decide on this Administrative Permit application.

Conclusion of Law: Based on the above findings, the proposed use meets the criteria to qualify for an Administrative Permit for the construction of a 120-foot-tall structure (MSB 17.67.040(A)(1)).

Section 17.60.080 Standards for Approval of New Tall Structures

(A) A permit for a new tall structure may only be approved if it meets the requirements of this section in addition to any other applicable standards required by this chapter.

(B) In granting or denying a permit, the commission or director shall make findings on whether the applicant has demonstrated that:

(1) To the extent that is technically feasible and potentially available, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized;

Findings of Fact:

1. The proposed tower site is located within Interagency Land Management Assignment (ILMA) No. 229350, a 2-acre State of Alaska communications site.
2. The ILMA authorizes the site for communications facilities and Matanuska-Susitna Borough public safety communications equipment.
3. The subject site is situated on a hilltop within the Glacier View area.
4. The surrounding area consists primarily of undeveloped State land, mountainous terrain, open space, and native brush vegetation.
5. The subject site is currently developed with telecommunications infrastructure, including existing communications towers, equipment shelters, associated utility infrastructure, and access improvements.
6. According to the application materials, the proposed tall structure will be a 120-foot self-support lattice communications tower intended to support State of Alaska Department of Public Safety and Matanuska-Susitna Borough public safety communications systems.
7. According to the application materials, the site currently contains an existing communications tower that has reached its structural loading capacity and cannot accommodate additional public safety communications equipment.
8. According to the application materials, the proposed tower location was selected to utilize an existing communications site and associated infrastructure.
9. According to the application materials, the tower's height of 120 feet is required to meet service objectives.
10. According to the application materials, the structure will be finished in a natural gray/steel color with a non-reflective matte finish intended to avoid unnecessary attention and blend with the area's natural surroundings.
11. The open lattice structure of the tower allows it to visually disappear against the backdrop of trees, mountains, and open sky, reducing the perception of bulk and mass and making the tower less visually obtrusive.

12. According to the application materials, existing vegetation surrounding the site will remain to the maximum extent practicable and continue to provide visual screening.
13. According to the application materials, the proposed tower will expand public safety communications capabilities while reducing the need for additional communications facilities in the surrounding area.

Conclusion of Law: Based on the above findings, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized (MSB 17.67.080(B)(1)).

(2) Visibility of the tall structure from public parks, trails recognized within adopted borough plans, and water bodies has been minimized to the extent that is technically feasible and potentially available;

Findings of Fact:

1. The Glacier View Comprehensive Plan identifies several trails within the planning area that are recognized in the Borough Recreational Trails Plan.
2. Majestic Valley Ski Trail is located approximately 3.4 miles west of the proposed tower site.
3. Trail Lake Trail, an ATV trail, extends north from the Glenn Highway and generally follows the Alascom Road corridor to within approximately one-half mile of the proposed tower site.
4. Goober Lake Trail, an ATV trail, is located approximately one-half mile north of the proposed tower site and extends east of the tower location.
5. East Fork Trail, a snowmachine trail, is located approximately 3 miles east of the proposed tower site.
6. Trail Lake is located approximately 3,744 feet north of the proposed tower site.
7. Knob Lake is located approximately 1,993 feet west of the proposed tower site.
8. Sheep Mountain Airstrip (PASP), identified in the Matanuska-Susitna Borough Regional Aviation System Plan, is located approximately 5.9 miles west of the proposed tower site as measured in a straight-line distance.
9. Tahneta Pass Airport is located approximately 4.7 miles north of the proposed tower site.
10. Majestic Heli Ski Airstrip is located approximately 4.5 miles west of the proposed tower site.

11. According to the application materials, visibility of the tower from public parks, trails, and waterbodies has been minimized through the use of an existing communications site, surrounding vegetation, and site topography.
12. According to the application materials, the structure will be finished in a natural gray/steel color with a non-reflective matte finish intended to avoid unnecessary attention and blend with the area's natural surroundings.
13. According to the application materials, the open lattice structure of the tower allows it to visually disappear against the backdrop of trees, mountains, and open sky, reducing the perception of bulk and mass and making the tower less visually obtrusive.
14. According to the application materials, existing vegetation surrounding the site will remain to the maximum extent practicable and continue to provide visual screening.
15. The proposed tower will be located adjacent to existing communications towers and support facilities within an established communications site.

Conclusion of Law: Based on the above findings, the proposed tall structures' visibility from public parks and trails has been minimized (MSB 17.67.080(B)(2)).

(3) The tall structure will not interfere with the approaches to any existing airport or airfield that are identified in the borough's regional aviation system plan or by the Alaska State Aviation System Plan; and

Findings of Fact:

1. Tahnetta Pass Airport is located approximately 4.7 miles north of the proposed tower site.
2. Sheep Mountain Airstrip (PASP), identified in the Matanuska-Susitna Borough Regional Aviation System Plan, is located approximately 5.9 miles west of the proposed tower site as measured by straight-line distance.
3. Majestic Heli Ski Airstrip is located approximately 4.5 miles west of the proposed tower site.
4. According to the application materials, an FAA Obstruction Evaluation Study is not required for the proposed tower. Confirmation of this determination was included with the application materials.
5. According to the application materials, FAA Form 7460-1 is not required for the proposed tower.
6. According to the application materials, no impact to Tahnetta Pass Airport or Sheep Mountain Airstrip is anticipated due to the presence of existing communications infrastructure at the site and FAA's determination that an obstruction evaluation is not required.
7. According to the Regional Aviation System Plan there are over 200 private airstrips in the Matanuska-Susitna Borough (RASP 2017).

Conclusion of Law: Based on the above findings, the proposed tall structure will not interfere with the approaches to any existing airport or airfield (MSB 17.67.080(B)(3)).

(4) Granting the permit will not be harmful to the public health, safety, convenience, and welfare.

Findings of Fact:

1. The proposed tower site is located within Interagency Land Management Assignment (ILMA) No. 229350, a 2-acre State of Alaska communications site authorized for communications facilities and Matanuska-Susitna Borough public safety communications equipment.
2. According to the application materials, the proposed tall structure will be a 120-foot self-support lattice communications tower intended to support State of Alaska Department of Public Safety and Matanuska-Susitna Borough public safety communications systems.
3. According to the application materials, the proposed tower will improve the reliability, resiliency, and geographic coverage of public safety communications infrastructure used for emergency response, law enforcement, fire protection, emergency management, and related governmental communications while addressing existing communications coverage limitations in the area.
4. According to the application materials, the existing communications tower at the site has reached its structural loading capacity and cannot support additional equipment or future system growth.
5. According to the application materials, the proposed tower will be constructed adjacent to the existing communications shelter in order to utilize existing infrastructure, site access, and utilities while minimizing additional land disturbance.
6. According to the application materials, the surrounding area is already developed for communications use and includes a nearby communications compound and tower facility on an adjacent lease area.
7. According to the application materials, the proposed development includes a 120-foot self-support tower, associated tower foundation, a 30-foot ice bridge from the existing AKDPS shelter to the tower, and an 8-foot security fence around the compound.
8. According to the application materials, the road and compound area are specifically for telecommunications use.
9. According to the application materials, no residential or protected structures are located in the vicinity of the proposed tower and there are no habitable structures on adjacent properties within the projected fall zone.
10. According to the application materials, public traffic in the immediate vicinity of the proposed tower is minimal.
11. According to the application materials, breakpoint technology was not proposed because the site is dedicated to telecommunications use, no residential or protected structures are located in the vicinity of the proposed tower, public traffic is minimal.

12. According to the application materials, the proposed tower and associated equipment will be designed and installed in accordance with certified site plans and tower design drawings prepared by a licensed professional engineer.
13. According to the application materials, the proposed tower is designed to withstand high winds, seismic activity, and other environmental forces common to the area.
14. According to the application materials, the project complies with applicable federal, state, and local regulations, including those administered by the Federal Communications Commission.
15. The applicant provided information obtained from the Federal Aviation Administration Notice Criteria Tool indicating that the proposed tower does not require notice to the FAA, and that an FAA Obstruction Evaluation Study and FAA Form 7460-1 are not required for the proposed tower.
16. According to the application materials, Tahnetta Pass Airport is located approximately 4.7 miles from the proposed tower site and Sheep Mountain Airport is located approximately 6 miles from the proposed tower site. The application materials state that no impacts to either airport are anticipated.
17. The applicant provided information obtained from the Federal Aviation Administration's (FAA) online Notice Criteria Tool indicating that the proposed tower does not require a determination of no hazard to air navigation because it does not exceed thresholds requiring notice to the FAA.
18. The applicant submitted documentation demonstrating that the Federal Communications Commission (FCC) has approved the proposed telecommunications tower at the location identified in the application material.

Discussion:

Staff received one public comment regarding the proposed tower. The comment asked whether there was any hope to stop the new cell phone tower from being constructed. No additional information or specific concerns regarding public health, safety, convenience, welfare, property values, aesthetics, aviation safety, or compliance with Borough code were provided.

Conclusion of Law: Based on the above findings, and with conditions, the proposed tower will not be harmful to public health, safety, convenience, and welfare (MSB 17.67.080(B)(4)).

Section 17.67.090 Operation Standards for New Tall Structures

(A) The following setback requirements shall apply to all new telecommunications towers regulated under this chapter:

(1) The equipment compound shall meet minimum setback distances from all property lines in accordance with MSB 17.55.

Findings of Fact:

1. The proposed tower site is located within Interagency Land Management Assignment (ILMA) No. 229350, a 2-acre State of Alaska communications site.

2. According to the application materials, the proposed tower and equipment compound will be located within an existing communications site already developed with telecommunications infrastructure.
3. According to the application materials, setback distances are determined from the dimensions of the entire lot, even though the tower may be located within a lease area.
4. According to the application materials, the proposed development includes a 120-foot self-support lattice communications tower, associated tower foundation, a 30-foot ice bridge connecting the tower to the existing AKDPS shelter, and an 8-foot security fence surrounding the equipment compound.
5. According to the application materials, the tower site will be located adjacent to existing communications towers, equipment shelters, and associated support infrastructure.
6. According to the application materials, the equipment compound has been designed to meet the applicable setback requirements of MSB 17.55.
7. According to the application materials, the proposed tower and associated facilities will be constructed in accordance with certified site plans and engineering drawings prepared by a licensed professional engineer..

Conclusion of Law: Based on the above findings, and with conditions, the proposed equipment compound meets the minimum setback distances from all property lines in accordance with MSB 17.55 (MSB 17.67.090(A)(1)).

(2) Minimum setback for the tower base shall be a distance equal to the height of the tower or to the extent of the projected fall zone, if the structure incorporates a frangible design or equivalent engineered collapse mitigation system.

(a) The commission, or director if it is an administrative permit, may reduce the setback to a distance less than the height of the tower, if the applicant demonstrates there is no risk to public health, safety, or welfare of adjacent property owners.

i. At a minimum, the applicant must show there are no habitable structures on adjacent properties within the projected fall zone.

(b) The setback distance shall not be reduced to less than 25 feet.

Findings of Fact:

1. The proposed tower site is located within Interagency Land Management Assignment (ILMA) No. 229350, a 2-acre State of Alaska communications site.
2. According to the application materials, the proposed tower will be a 120-foot self-support lattice communications tower.
3. According to the application materials, the proposed tower is located approximately 100 feet from the adjacent Alascom Inc. property line.
4. According to the application materials, setback distances are determined from the dimensions of the entire lot, even though the tower may be located within a lease area.
5. According to the application materials, the road and compound area are specifically for telecommunications use.

6. According to the application materials, no residential or protected structures are located in the vicinity of the proposed tower.
7. According to the application materials, there are no habitable structures on adjacent properties within the projected fall zone.
8. According to the application materials, public traffic in the immediate vicinity of the proposed tower is minimal.
9. According to the application materials, the proposed development includes a 120-foot self-support tower, associated tower foundation, a 30-foot ice bridge from the existing AKDPS shelter to the tower, and an 8-foot security fence surrounding the compound.
10. According to the application materials, access to the communications compound will be restricted through a secured and fenced equipment area.
11. According to the application materials, breakpoint technology was not proposed because the site is dedicated to telecommunications use, no residential or protected structures are located in the vicinity of the proposed tower, public traffic is minimal, and the tower appears to be within an acceptable range of required setbacks.
12. According to the application materials, the proposed tower and associated equipment will be designed and installed in accordance with certified site plans and tower design drawings prepared by a licensed professional engineer.
13. According to the application materials, the proposed tower is designed to withstand high winds, seismic activity, and other environmental forces common to the area.
14. The surrounding area consists primarily of communications infrastructure, undeveloped State land, and open space.

Conclusion of Law: Based on the above findings, the proposed tower base meets the minimum setback distances from all property lines and habitable structures in accordance with (MSB 17.67.090(A)(2)).

(B) For all tall structures regulated under this chapter, adequate vehicle parking shall be provided on the subject property, outside of public use easements and rights-of-way, to enable emergency vehicle access.

(1) No more than two spaces per provider shall be required.

Findings of Fact:

1. According to the application material, four parking spaces are provided at the proposed tower location.

Conclusion of Law: Based on the above finding, adequate vehicle parking has been provided (MSB 17.67.090(B)(1)).

(C) The following requirements apply to all new and existing telecommunication towers and wind energy conversion systems regulated under this chapter:

(1) The following signage shall be visibly posted at the equipment compound:

(a) informational signs for the purpose of identifying the tower such as the antenna structure registration number required by the Federal

Communications Commission (FCC), as well as the party responsible for the operation and maintenance of the facility;

Findings of Fact:

1. According to the application materials, the placard will include owner/operator contact information as well as the FCC Tower ID.

Conclusion of Law: Based on the above finding, adequate signage has been provided (MSB 17.67.090(C)(1)(a)).

(b) if more than 220 volts are necessary for the operation of the facility, warning signs shall be located at the base of the facility and shall display in large, bold, high contrast letters the following: "HIGH VOLTAGE – DANGER"; and

Findings of Fact:

The proposed tower shall be secured with a locked 8' chain fencing to prevent unauthorized visitors. The proposed facility will not operate at 220 Volts and will not require a sign.

Conclusion of Law: Based on the above findings, a "HIGH VOLTAGE - DANGER" sign is not required to be displayed on the equipment compound (MSB 17.67.090(C)(1)(b)).

(c) a 24-hour emergency contact number.

Findings of Fact:

1. According to the application material, signage identifying the tower and the party responsible for the operation and maintenance will be posted.
2. According to the application material, a contact number will be posted at the proposed tower location.
3. The phone number and contact will be required as a condition.

Conclusion of Law: Based on the above findings, a 24-hour emergency contact number must be provided (MSB 17.67.090(C)(1)(c)).

(2) A fence or wall not less than six feet in height with a secured gate shall be maintained around the base of the tower.

Findings of Fact:

1. According to the application material, the proposed tower is located within an eight-foot-tall secured and fenced area.
2. According to the application material, the gate providing access to the equipment compound will be secured by a chain link fence.

Conclusion of Law: Based on the findings above, a fence not less than six feet in height with a secured gate, is being provided (MSB 17.67.090(C)(2)).

STAFF RECOMMENDATIONS

Staff recommends approval of the Administrative Permit to construct a 120-foot self-support lattice communications tower on the subject site within Interagency Land Management Assignment (ILMA) No. 229350. The application meets all applicable standards of MSB 17.67, and staff recommends approval of this request with the following conditions:

1. All aspects of the operation shall comply with the description detailed in the application materials and with the conditions of this permit. Before any change of the approved use, an amendment to the Administrative Permit shall be required.
2. The operation shall comply with all federal, state, and local regulations.
3. Borough-authorized representatives shall be allowed to inspect the site and related records at reasonable times to monitor compliance with all permit conditions. Upon reasonable notice from the Borough, the permittee shall provide necessary assistance to facilitate authorized inspections (MSB 17.67.300(D)).
4. The tower, equipment compound, and associated facilities shall be removed at the owner's expense within 90 days after abandonment in accordance with MSB 17.67.130(A)(1).
5. The permittee shall visibly post and maintain signage identifying the party responsible for operation and maintenance of the facility, the FCC Tower ID or registration number if applicable, and a 24-hour emergency contact number in accordance with MSB 17.67.090(C)(1).
6. The communications compound shall be enclosed by and maintained with a minimum 6-foot security fence and a secured gate in accordance with MSB 17.67.090(C)(2).

APPLICATION MATERIAL



EUREKA TELECOMMUNICATION TOWER ADMINISTRATIVE PERMIT APPLICATION v.1

May 19th, 2026

**Prepared For
Matanuska-Susitna Borough**

**Structure Owner
Matanuska-Susitna Borough**

**Authorized Agent
New Horizons Telecom, Inc.**



Project Narrative

This application seeks an Administrative Permit in accordance with Matanuska-Susitna Borough (MSB) 17.67 Tall Structures. The proposed project involves construction of a communications tower intended to support State of Alaska Department of Public Safety (DPS) and Matanuska-Susitna Borough public safety communications systems serving the surrounding area. The primary purpose of the facility is to improve the reliability, resiliency, and geographic coverage of public safety communications infrastructure used for emergency response, law enforcement, fire protection, emergency management, and related governmental communications. The proposed 120' self-support communications tower and associated antennas will assist in addressing existing coverage limitations in this remote area and enhance communications capabilities for both routine and emergency incidents affecting residents, travelers, recreation users, and public safety personnel.

Site Selection:

The project site is located at 61°49'56.7"N, 147°19'43.1"W near 7880 W Alascom Road and was selected to support expansion of existing public safety communications infrastructure already established at the site under a lease with the Department of Natural Resources (DNR) (ILMA 229350). The area currently contains an existing tower and associated communications shelter facilities; however, the existing tower has reached its structural loading capacity and cannot support additional equipment or future system growth. The proposed Matanuska-Susitna Borough (MSB) tower will be constructed adjacent to the existing communications shelter in order to utilize existing infrastructure, site access, and utilities while minimizing additional land disturbance. The surrounding area is already developed for communications use and includes a nearby AT&T communications compound and tower facility on an adjacent lease area.

Zoning Compliance:

The development of this tower falls within an Administrative Permit because the proposed tower height is within the MSB defined threshold of 125 feet. The site is located within the Glacier View Special Use District (SpUD) and outside of the Sheep Mountain Subdistrict. The tower location within this SpUD does not affect the tall structure development standards as outlined in Title 17. The proposed tower aligns with the community's goals, particularly in addressing the crucial need for improved emergency service communications in the area, which will enhance public safety and support the safe enjoyment of recreational activities. The selected location of the tower site on the parcel and preliminary desktop review indicate that it will meet setbacks required in the MSB code, such as equipment compound distance from property lines (17.55) and minimum setback distance equal to the height of the tower (17.67.090.A.2), but will be confirmed via the land survey. Section 17.67.060.A.3 indicates that *"Setbacks shall be determined from the dimensions of the entire lot, even though the tower may be located on lease areas within the lot."* The site is located within an Interagency Land Management Assignment (ILMA) No. 229350 and is owned by the State of Alaska. The agreement also authorizes the site to be used for MSB public safety equipment.

Height and Design:

The tower's height of 120 feet is required to meet service objectives. The structure color will be natural grey/steel color, and the non-reflective/matte finish will avoid unnecessary attention and will blend in with the area's natural surroundings. In addition, the open lattice structure of the tower allows the tower to visually "disappear" against the backdrop of trees, mountains or open sky. The open structure reduces the perception of bulk and mass, in an attempt to make it less visually obtrusive.



The location has been chosen to minimize its prominence in the landscape, situated away from major view corridors (i.e., Glenn Highway) as reinforced by the presence of the nearby AT&T communications compound and tower. The area surrounding the tower site compound will keep as much of the natural vegetation as possible, consistent with the surrounding area.

The site, consisting of a tower within a secure fenced compound as well as ice-bridge to existing SOA shelter, will be offset from the drivable road surface to visually screen the site from the public as much as possible. The leased area will include a 4-space parking and turnaround area in accordance with parking requirements noted in MSB 17.67.0900(B)(1). This can be seen on the Zoning Drawings included as Attachment B.

A sign/placard will be placed on the outside of the fence to address MSB 17.67.090(C)(a)(b)(c) signage requirements. The placard will include owner/operator contact information as well as the FCC Tower ID if applicable. There is no requirement for a high-voltage sign/warning associated with this tower.

Included with this application as Attachment C are the current PE stamped Tower and Foundation Design Drawings providing certification of the structural integrity of the tower structure and its foundation. The tower base plate will be elevated no more than 5' above grade level.

Regarding the decision to not utilize breakpoint technology in the tower's design at this site, breakpoint technology is typically incorporated in tower designs to limit structural failure to a predetermined point which minimizes the risk of potential harm to the public or surrounding properties. However, for this specific site:

- The road and compound area is specifically for telecom use
- No residential or protected structures are in the vicinity of the proposed tower
- Minimal public traffic
- Tower appears to be within acceptable range of required setbacks

Environmental Impact:

The tower is expected to have little to no effects on the local environment. Vegetation clearing will be minimized to the extent possible and will stay within the leased area and access driveway. New Horizons conducted a high-level viewshed analysis using desktop tools to determine potential view impacts from popular recreational areas. The locations of trails and recreational areas identified is based on those included Matanuska-Susitna Borough's Recreational Trails Plan (August 2016 version). The viewshed analysis focused on locations within a 3-mile radius from the site because generally towers become less noticeable beyond 2-3 miles in flatter terrain. However, visibility may be amplified due to the higher elevation of the site compared to surrounding areas. Visual Analysis is included as Attachment E.

Public Benefit:

The proposed communications tower will significantly benefit the public by improving the reliability of public safety communications systems utilized by the State of Alaska DPS and MSB emergency services. Improved communications infrastructure will support more efficient emergency response, coordination, and communications capabilities while enhancing public safety, well-being, and connectivity for residents and visitors throughout the area.

Technical Specifications:



The proposed tower is intended to primarily support Borough and State public safety communications infrastructure and therefore has not been designed to accommodate significant commercial co-location capacity.

The tower is designed to meet or exceed the applicable structural standards set by the TIA-222-H (Telecommunications Industry Association) and local building codes. This ensures the tower can withstand high winds, seismic activity, and other environmental forces common to the area.

Regulatory Compliance:

The project complies with relevant federal, state, and local regulations, including those set forth by The Federal Communications Commission (FCC). An FAA Obstruction Evaluation Study is not required per the FAA. Confirmation of this determination is included as Attachment D. The nearest airports are Tahneta Pass Airport (approx. 4.7 miles away) and Sheep Mountain Airport (approx. 6 miles away). No impact to either is anticipated based on the existing AT&T communications tower and confirmation from FAA that a 7460-1 obstruction evaluation is not needed.

Maintenance and Decommissioning Plans:

The MSB performs a visual inspection from the ground at minimum once per year. In addition, if any tower work is needed by a contractor, they will visually inspect conditions as they climb and report back any issues that need addressed. The MSB aims to have a formal tower inspection climb approximately every 5 years and/or after major events that may have had negative impacts to the structure integrity of the tower. However, the goal is for inspections to coincide with other equipment repairs or additions for cost-efficiency. The MSB will be responsible for all aspects of the operation, improvements, development, maintenance and/or decommissioning of the site in compliance with applicable requirements.

In conclusion, the proposed communications tower aligns with the community's goals and addresses a critical need for improved emergency services communications, particularly in areas of high recreational activity. **The following pages address specific requirements in the Matanuska-Susitna Borough code for Tall Structures.**

We appreciate your consideration of this application and look forward to the opportunity to discuss any further requirements or address any concerns. Thank you for your time and attention to this matter.

17.67.070 GENERAL APPLICATION REQUIREMENTS FOR ADMINISTRATIVE AND CONDITIONAL USE PERMITS.

(A) An application for a conditional use or administrative permit to construct a new tall structure may be initiated by a property owner or the owner's authorized agent and shall include:

(1) completed application form provided by the department and signed by the property owner or authorized agent;



- (2) *design drawings for the proposed tall structure, drawn to scale, and certified by a registered engineer or architect;*
 - (3) *fee in the amount designated in MSB [17.99](#);*
 - (4) *citizen participation report in accordance with MSB [17.67.050\(B\)](#);*
 - (5) *a certified site plan;*
 - (6) *copy of a determination of no hazard to air navigation from the Federal Aviation Administration; and*
 - (7) *if breakpoint technology is intended to be utilized, a written statement specifying the height at which the engineered structural weakness will be located.*
- (Ord. 15-016, § 2 (part), 2015)*

Statement of Compliance:

This Administrative Permit application for Tall Structures provides the required documentation outlined in items (1) through (6) above. The tower does not intend to utilize breakpoint technology outlined in item (7), therefore no written statement is provided.

17.67.080 STANDARDS FOR APPROVAL OF NEW TALL STRUCTURES.

- (A) A permit for a new tall structure may only be approved if it meets the requirements of this section in addition to any other applicable standards required by this chapter.*
- (B) In granting or denying a permit, the commission or director shall make findings on whether the applicant has demonstrated that:*
- (1) To the extent that is technically feasible and potentially available, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized;*
 - (2) Visibility of the tall structure from public parks, trails recognized within adopted borough plans, and water bodies has been minimized to the extent that is technically feasible and potentially available;*
 - (3) The tall structure will not interfere with the approaches to any existing airport or airfield that are identified in the borough's regional aviation system plan or by the Alaska State Aviation System Plan; and*
 - (4) Granting the permit will not be harmful to the public health, safety, convenience, and welfare.*
- (Ord. 15-016, § 2 (part), 2015)*

Statement of Compliance:

The proposed development for the communications tower aligns with the standards outlined in MSB 17.67.080 for the approval of new tall structures. If there are any specific questions or further information required, please let us know for prompt clarification.

1. The location of the tall structure has been chosen to minimize negative effects on the visual and scenic resources of surrounding properties to the extent technically feasible and potentially available.
2. Visibility of the tall structure from public parks, trails recognized within adopted borough plans, and water bodies has been minimized to the extent technically feasible and potentially available.
3. The tall structure will not interfere with the approaches to any existing airport or airfield identified in the borough's regional aviation system plan or by the Alaska State Aviation System Plan.
4. Granting the permit for the proposed communications tower will not be harmful to the public health, safety, convenience, and welfare. The tower will comply with local, state and federal regulations.



17.67.090 OPERATION STANDARDS FOR NEW TALL STRUCTURES.

(A) *The following setback requirements shall apply to all new telecommunications towers regulated under this chapter:*

(1) *The equipment compound shall meet minimum setback distances from all property lines in accordance with MSB [17.55](#).*

(2) *Minimum setback for the tower base shall be a distance equal to the height of the tower.*

(a) *The commission, or director if it is an administrative permit, may reduce the setback to a distance less than the height of the tower, if the applicant demonstrates there is no risk to public health, safety, or welfare of adjacent property owners.*

(3) *Setbacks shall be determined from the dimensions of the entire lot, even though the tower may be located on lease areas within the lot.*

(B) *For all tall structures regulated under this chapter, adequate vehicle parking shall be provided on the subject property, outside of public use easements and rights-of-way, to enable emergency vehicle access.*

(1) *No more than two spaces per provider shall be required.*

(C) *The following requirements apply to all new and existing telecommunication towers and wind energy conversion systems regulated under this chapter:*

(1) *The following signage shall be visibly posted at the equipment compound:*

(a) *Informational signs for the purpose of identifying the tower such as the antenna structure registration number required by the Federal Communications Commission, as well as the party responsible for the operation and maintenance of the facility;*

(b) *If more than 220 volts are necessary for the operation of the facility, warning signs shall be located at the base of the facility and shall display in large, bold, high contrast letters the following: "HIGH VOLTAGE – DANGER"; and*

(c) *a 24-hour emergency contact number.*

(2) *A fence or wall not less than six feet in height with a secured gate shall be maintained around the base of the tower.*

(Ord. 15-016, § 2 (part), 2015)

Statement of Compliance:

The proposed development for the communications tower has met all relevant requirements outlined in MSB 17.67.090, including tower height and design specifications, setbacks meeting MSB 17.55 standards, adherence to FAA (AC 70/7460-1) regulations, and the inclusion of certified site plans, zoning, and tower design drawings.

If there are any specific questions or clarifications needed regarding how each requirement has been satisfied, please let us know.

Signature:

Permitting Acting Agent

Sierra Larson, Project Manager, New Horizons Telecom, Inc.



**Attachment A:
Matanuska-Susitna Borough
Application for Tall Structures
and Zoning Maps**





MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822 • Fax (907) 861-8158

Email: permitcenter@matsugov.us

APPLICATION FOR A TALL STRUCTURE – MSB 17.67

Carefully read instructions and applicable borough code. Fill out forms completely. Attach information as needed. Incomplete applications will not be processed.

Application fee must be attached:

_____ \$1,500 for **Conditional Use Permit** - > 125 feet in height

☒ \$ 500 for **Administrative Permit** – 85' to 125' in height

_____ \$ 100 for **Network Improvement Permit** – In accordance with MSB 17.67.110.

*Prior to the public hearing, the applicant must also pay the mailing and advertising fees associated with the application. Applicants will be provided with a statement of advertising and mailing charges. Payment must be made **prior** to the application presentation before the Borough Planning Commission or Planning Director decision.*

Subject Property Township: 20N, Range: 12E, Section: 8, Meridian Seward

MSB Tax Account # N/A

SUBDIVISION: _____ BLOCK(S): _____, LOT(S): C1

STREET ADDRESS: closest street address: 7880 W Alascom Road (AT&T Tower)

(US Survey, Aliquot Part, Lat. /Long. etc) 61°49'56.7"N, 147°19'43.1"W

Ownership A written authorization by the owner must be attached for an agent or contact person, if the owner is using one for the application. Is authorization attached? ☐ Yes ☐ No ☐ N/A

Name of Property Owner

State of Alaska (DNR, DMWL & Dept. of Administration)

Address: _____

Phne: Hm _____ Fax _____

Wk _____ Cell _____

E-mail _____

Name of Agent/ Contact for application

Sierra Larson, New Horizons Telecom (agent for MSB)

Address: 901 Cope Industrial Way

Palmer, Alaska 99645

Phne: Hm _____ Fax _____

Wk 907-761-6054 Cell _____

E-mail slarson@newhorizons.io

Special Land Use District (if applicable): Glacier View Special Land Use Distruct

Pre-Application Requirements for New Tall Structures that Require a Conditional Use Permit	
<i>Prior to applying for a conditional use permit for a new tall structure, the applicant shall hold at least one community meeting.</i>	
1. The meeting shall be held at the nearest facility where community council meetings are regularly scheduled. If the facility is not available, the nearest available public facility that is capable of seating a minimum of 20 people shall be utilized.	
2. The meeting shall be held at least 15 calendar days after mailing of the notification.	
3. The meeting shall not start prior to 5:00 p.m. and no later than 7:00 p.m.	
4. Notification of the meeting shall, at a minimum, include the following: • Legal description and map of the general parcel, or parcels, within the coverage area under consideration for the telecommunication facility. • Description of the proposed development including height, design, lighting, potential access to the site and proposed service. • Date, time, and location of the informational meeting. • Contact name, telephone number, and address of applicant. • Comment form created by the borough that has a comment submittal deadline and provides options for submitting comments.	
5. At a minimum, the notification area for the meeting shall include the following: • Property owners within one-half mile of the parcels under consideration for the proposed tall structure. • The nearest community council and any community council whose boundary is within 1200 feet of the parcels under consideration for the tall structure.	
<i>A written report summarizing the results of the community meeting shall be prepared that includes the following information:</i>	Attached
1. Dates and locations of all meetings where citizens were invited to discuss the potential applicant's proposal.	
2. Content, dates mailed, and numbers of mailings, including letters, meeting notices, newsletters and other publications.	
3. Sign-in sheet(s) used at the meeting, that includes places for names, address, phone numbers and other contact information such as e-mail addresses.	
4. A list of residents, property owners, and interested parties who have requested in writing that they keep informed of the proposed development through notices, newsletters, or other written materials.	
5. The number of people who attended meetings.	
6. Copies of written comments received at the meeting.	
7. A certificate of mailing identifying all who were notified of the meeting.	
8. A written summary that addresses the following: • The substance of the public's written concerns, issues, and problems. • How the applicant has addressed, or intends to address, concerns, issues and problems expressed during the process. • Concerns issues, and problems the applicant has not addressed or does not intend to address and why.	

General application requirements for <u>Administrative</u> and <u>Conditional Use Permits</u>	Attached
1. Design drawings for the proposed tall structure, drawn to scale, and certified by a registered engineer or architect.	✓
2. Citizen participation report (<i>if applying for a Conditional Use Permit</i>)	N/A
3. Certified site plan (<i>As defined in MSB 17.125.010</i>)	✓
4. Copy of a determination of no hazard to air navigation from the Federal Aviation Administration.	N/A
5. If breakpoint technology is intended to be utilized, a written statement specifying the height at which the engineered structural weakness will be located.	N/A

In order to grant a <u>Conditional Use Permit</u> or <u>Administrative Permit</u> the Planning Commission or Planning Director must find that each of the following criteria has been met. Explain the following in detail:	Attached
1. To the extent that is technically feasible and potentially available, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized.	✓
2. Visibility of the tall structure from public parks, trails recognized within adopted MSB plans, and waterbodies has been minimized to the extent that is technically feasible and potentially available.	✓
3. The tall structure will not interfere with the approaches to any existing airport or airfield that are identified in the MSB Regional Aviation System Plan or by the Alaska State Aviation System Plan.	✓
4. That granting the permit will not be harmful to the public health, safety, convenience, and welfare.	✓

Application requirements for a <u>Network Improvement Permit</u>	Attached
1. A description of the proposed modifications to the telecommunication tower, including a description of the height, type, and lighting of the new or modified structure and the existing structure.	✓
2. A certified site (<i>as defined in MSB 17.125.010</i>) for purposes of setback verification.	✓
3. Design drawings for the proposed modified or new structure, drawn to scale, and certified by a registered engineer or architect.	✓

In order to grant a <u>Network Improvement Permit</u> the Planning Director must find that each of the following criteria has been met. Explain the following in detail.	Attached
1. The proposed development conforms to setback requirements of MSB 17.55.	
2. The telecommunication tower being extended was lawfully constructed at the time of application for a Network Improvement Permit.	
3. The proposed modification does not violate permit conditions of any valid permits that have been issued to the existing facility, provided that the condition being violated does not limit height of the structure.	

Operation Standards for New Tall Structures – Conditional Use Permit, Administrative Permit, and Network Improvement Permit	Attached
1. The equipment compound shall meet minimum setback distances from all property lines in accordance with MSB 17.55	✓
2. Setbacks shall be determined from the dimensions of the entire lot, even though the tower may be located on lease areas within the lot.	✓
3. Adequate vehicle parking shall be provided on the subject property, outside of public use easements and rights-of-way to enable emergency vehicle access. No more than two spaces per provider shall be required.	✓
4. Information signs for the purpose of identifying the tower such as the antenna structure registration number required by the Federal Communications Commission, as well as the party responsible for the operation and maintenance of the facility shall be visibly posted at the equipment compound.	✓
5. If more than 220 volts are necessary for the operation of the facility, warning signs shall be located at the base of the facility and shall display in large, bold, high contrast letters the following: "HIGH VOLTAGE – DANGER".	N/A
6. A 24-hour emergency contact number shall be visibly posted at the equipment compound.	✓
7. A fence or wall not less than six (6) feet in height with a secured gate shall be maintained around the base of the tower.	✓

Additional Standards for <u>Wind Energy Conversion Systems (WECS)</u> – In addition to the operations standards for new tall structures, the following standards shall apply to WECS	Attached
1. WECS shall be equipped with an automatic overspeed control device designed to protect the system from sustaining structural failure such as splintered or thrown blades and the overturning or breaking of towers due to an uncontrolled condition brought on by high winds.	
2. WECS shall have a manually operable method that assures the WECS can be brought to a safe condition in high winds. Acceptable methods include mechanical or hydraulic brakes or tailvane deflection systems which turn the rotor out of the wind.	

OWNER'S STATEMENT: I am owner of the following property:

MSB Tax parcel ID #(s) _____ and,
I hereby apply for approval conditional use permit on that property as described in this application.

I understand all activity must be conducted in compliance with all applicable standards of MSB [17.67](#) and with all other applicable borough, state or federal laws.

I understand that other rules such as local, state and federal regulations, covenants, plat notes, and deed restrictions may be applicable and other permits or authorization may be required. I understand that the borough may also impose conditions and safeguards designed to protect the public's health, safety and welfare and ensure the compatibility of the use with other adjacent uses.

I understand that it is my responsibility to identify and comply with all applicable rules and conditions, covenants, plat notes, and deed restrictions, including changes that may occur in such requirements.

I understand that this permit and zoning status may transfer to subsequent owners of this land and that it is my responsibility to disclose the requirements of this status to the buyer when I sell the land.

I understand that changes from the approved conditional use permit may require further authorization by the Borough Planning Commission. I understand that failure to provide applicable documentation of compliance with approved requirements, or violation of such requirements will nullify legal status, and may result in penalties.

I grant permission for borough staff members to enter onto the property as needed to process this application and monitor compliance. Such access will at a minimum, be allowed when the activity is occurring and, with prior notice, at other times necessary to monitor compliance.

The information submitted in this application is accurate and complete to the best of my knowledge.

Signature: Property Owner

Printed Name

Date

Sierra Larson

5/19/2026

Signature: Agent

Printed Name

Date

MSB USE ONLY

Date application submitted:

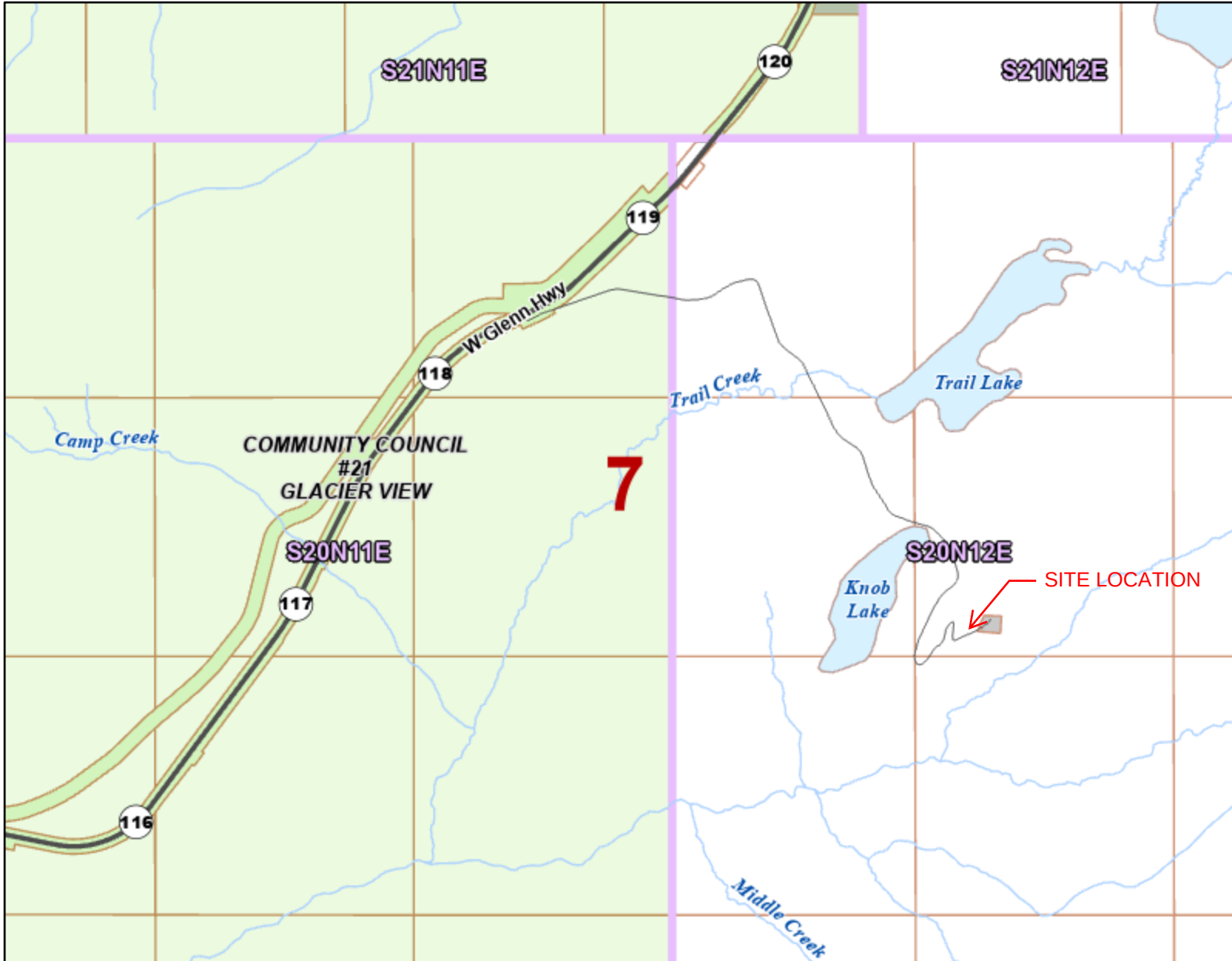
Date application determined complete: _____



Community Council Map

7

COMMUNITY COUNCIL
#21
GLACIER VIEW



Legend

Parcel Viewer

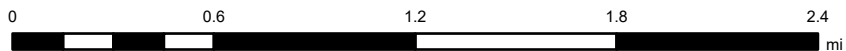
- Road Mileposts
- Highway
- Minor Road
- Mat-Su Borough Boundary
- Assembly District
- Lakes and Rivers
- Streams
- Private
- Unknown
- Waterbodies
- Glacier View

Notes

Generated on 19.05.2026 (dd/mm/yyyy)

Site location outside community council area

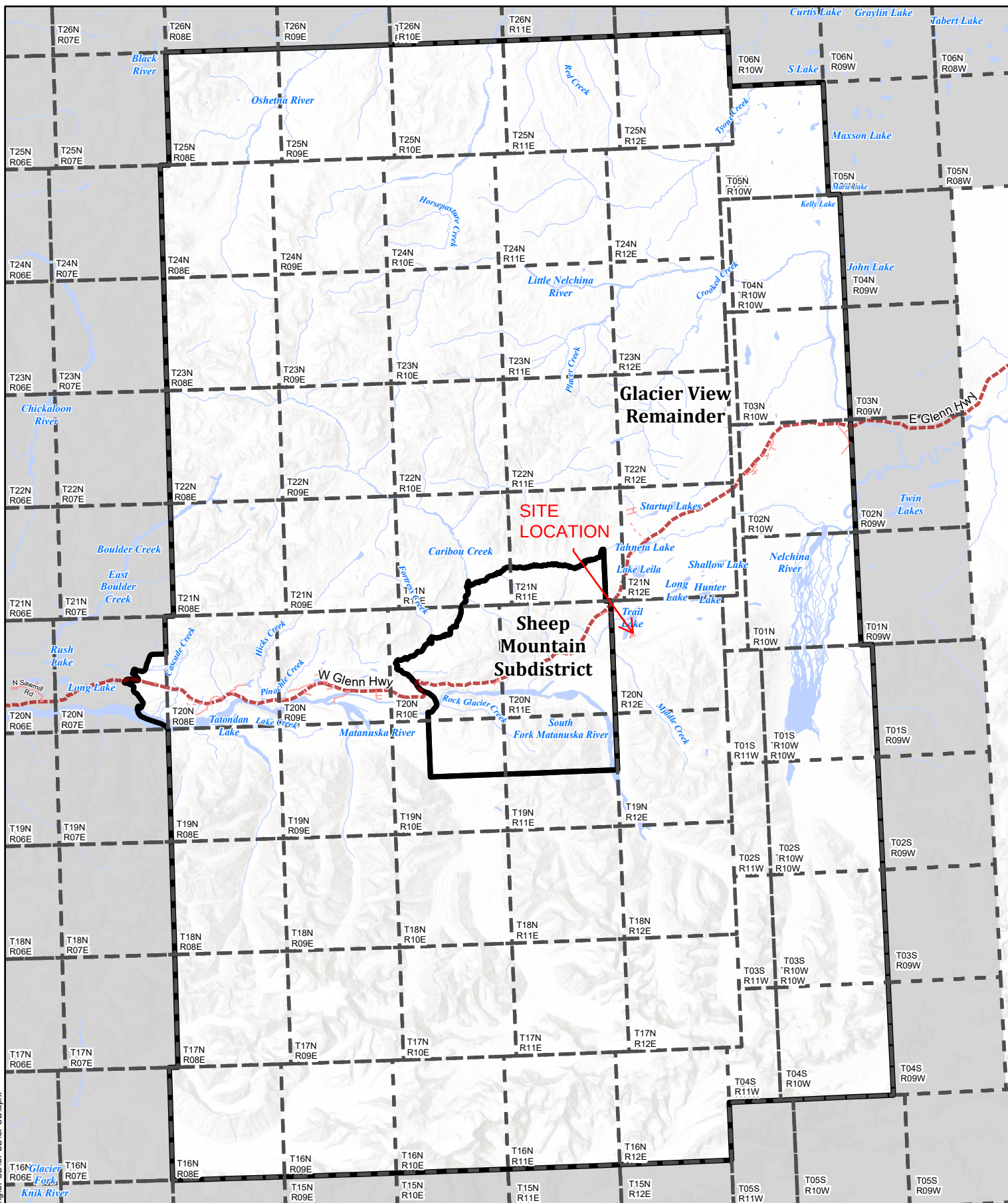
THIS MAP IS NOT TO BE USED FOR NAVIGATION



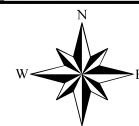
NAD 1983 State Plane Alaska 4 FIPS 5004 Feet



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Matanuska-Susitna Borough - Informational Map
SPECIAL LAND USE DISTRICT MSB 17.19
GLACIER VIEW
MSB ORDINANCE NO. 07-056 & 95-102



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Map produced by MSB IT Department/GIS Division
Last Updated: 9/17/2024

Attachment B: Zoning Drawings





MATANUSKA-SUSITNA BOROUGH EUREKA TELECOMMUNICATIONS TOWER

ZONING DRAWINGS

TBD W ALASCOM RD
EUREKA, AK

61° 49' 56.22" N, 147° 19' 43.60" W

(GOOGLE EARTH)



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NOT FOR CONSTRUCTION

DWN:JAA DSN:JCM APP: JCM
JOB #: 26-0045-10 DATE: 260507

PROJECT SUMMARY

PROJECT SCOPE INCLUDES INSTALLATION OF:
(1) U-10 x 120' SELF-SUPPORTING TOWER AND ASSOCIATED TOWER FOUNDATION
(1) ~30' ICE BRIDGE FROM EXISTING AKDPS SHELTER TO TOWER
(1) 8' SECURITY FENCE AROUND COMPOUND
(1) ELECTRICAL METER REPAIR/UPGRADE (AS REQUIRED)
TOWER AND ICE BRIDGE GROUNDING

CONTACT INFORMATION

CIVIL/ELECTRICAL ENGINEERING & PERMITTING:
NEW HORIZONS TELECOM, INC
901 COPE INDUSTRIAL WAY
PALMER, AK 99645
(907) 761-6000
LICENSE # AECC610

CIVIL
JENNIFER C MORIGEAU, PE
(907) 761-6052
JMORIGEAU@NEWHORIZONS.IO

ELECTRICAL
PATRICK T GOODYEAR, PE
(907) 761-6070
PGOODYEAR@NEWHORIZONS.IO

PERMITTING
SIERRA LARSON
(907) 761-6054
SLARSON@NEWHORIZONS.IO

PROJECT MANAGER
JUHREE PSENAK
(907) 761-6073
JPSENAK@NEWHORIZONS.IO

STRUCTURAL/GEOTECHNICAL ENGINEERING:
DEVISE ENGINEERING
8301 SCHOON STREET, STE 200
ANCHORAGE, AK 99518
(907) 302-0455
LICENSE # 219671

STRUCTURAL
NICHOLAS CHOROMANSKI, PE, SE
(907) 302-1570
NCHOROMANSKI@DEVISE-ENG.COM

GEOTECHNICAL
STEVEN HALCOMB, PE, GE, BC,GE
(907) 302-1852
SHALCOMB@DEVISE-ENG.COM

PROJECT OWNER:
MATANUSKA-SUSITNA-BOROUGH
533 E FIREWEED AVE
PALMER, AK 99645

CONSTRUCTION PROJECT MANAGER
DONALD JOURDIAN
(907) 982-3253
DONALD.JOURDIAN@MATSUGOV.US

PROJECT INFORMATION

MSB PARCEL ID: 13166
PROPERTY OWNER: AKDNR DIVISION OF MINING, LAND & WATER
LESSEE: AK DEPARTMENT OF PUBLIC SAFETY
APPLICANT: MATANUSKA-SUSITNA BOROUGH
LEGAL DESCRIPTION: ILMA NO. 229350 (PLAT # 2010-55) LOCATED WITHIN UNSURVEYED SECTION 8, TRACT A, T20N, R12E, SEWARD MERIDIAN, AK, PALMER RECORDING DISTRICT, CONTAINING 1.99 ACRES
FCC ASR: TBD
TOWER HEIGHT: 125' AGL (MAX)

CODE INFORMATION

JURISDICTION: MATANUSKA-SUSITNA BOROUGH (MSB)
ZONING CLASSIFICATION: GENERAL USE - TALL STRUCTURES
APPLICABLE CODES: 2021 IBC W/ AK ADOPTED AMENDMENTS
2020 IBC W/ AK ADOPTED AMENDMENTS
CONSTRUCTION: V-B
OCCUPANCY: U

VICINITY MAP



AREA MAP



DIRECTIONS TO SITE

FROM ANCHORAGE TAKE THE GLENN HWY (AK-1) TOWARDS PALMER/WASILLA (34 MI FROM MP 0 AT WEST END OF MERRILL FIELD)
USE RIGHT 2 LANES TO TAKE AK-1 E EXIT TOWARD PALMER/GLENNALLEN (1.0 MI)
CONTINUE ONTO AK-1 N (75.8 MI)
TURN RIGHT ONTO W ALASCOM RD / ALASCOM ACCESS RD (~MP 118.5) (3.2 MI)
ACCESS DRIVE TO SITE ON LEFT

DRAWING INDEX

SHEET #	TITLE	REV #
T1.0	TITLE SHEET	B
C1.0	PRELIMINARY SITE PLAN	B
C1.1	PRELIMINARY COMPOUND PLAN	B
C2.0	PRELIMINARY TOWER ELEVATION	B

ATTACHED REFERENCE DRAWINGS

DESCRIPTION
RECORD OF SURVEY OF ILMA NO. 229350 (PLAT # 2010-55, PALMER RECORDING DISTRICT)

FULL SCALE (22"x34")
HALF SCALE (11"x17")

MAT-SU BOROUGH
EUREKA
TELECOM TOWER
IFP
ZONING DRAWINGS

REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	260507
B	UPDATED TOWER/ENCE LOCATION	260519

TITLE
SHEET

T1.0



- NOTES:
1. SITE PLAN DEVELOPED FROM REFERENCE DOCUMENTS.
 2. CONTOURS GENERATED FROM MSB 2011 SURFACE DATA.
 3. SITE PLAN IS PRELIMINARY FOR PERMITTING PURPOSES AND IS SUBJECT TO CHANGE BASED ON SITE SURVEY AND SITE SPECIFIC TOWER FOUNDATION DESIGN. FINAL SITE PLAN WILL BE INCLUDED IN FINAL CONSTRUCTION DRAWINGS.



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DWN:JAA DSN:JCM APP: JCM
JOB #: 26-0045-10 DATE: 260507

MAT-SU BOROUGH
EUREKA
TELECOM TOWER
IFP
ZONING DRAWINGS

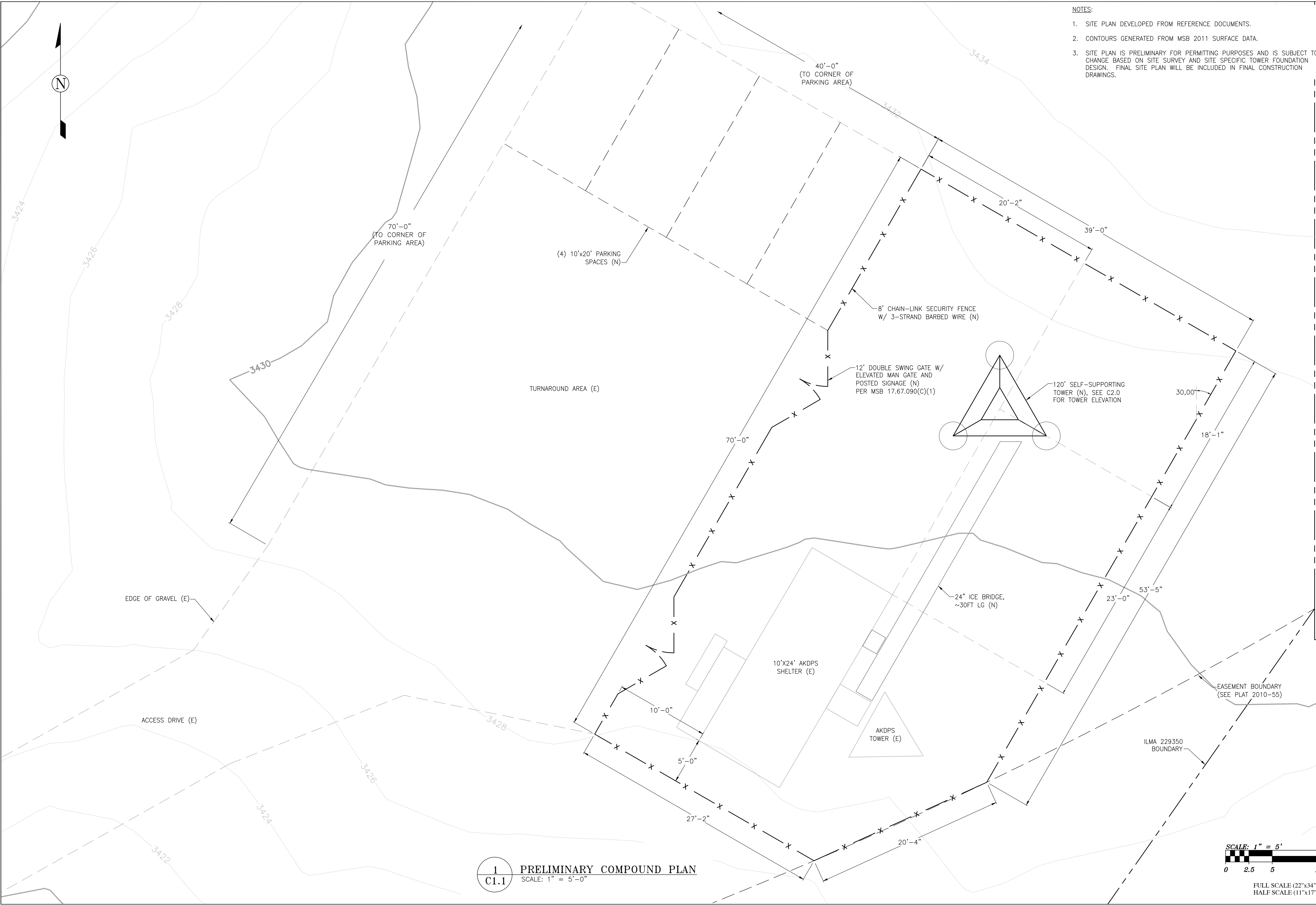
REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	260507
B	UPDATED TOWER/ENCE LOCATION	260519

PRELIMINARY
SITE
PLAN

C1.0

1
C1.0
PRELIMINARY SITE PLAN
SCALE: 1" = 20'

SCALE: 1" = 20'
0 10 20 40
FULL SCALE (22"x34")
HALF SCALE (11"x17")



- NOTES:
1. SITE PLAN DEVELOPED FROM REFERENCE DOCUMENTS.
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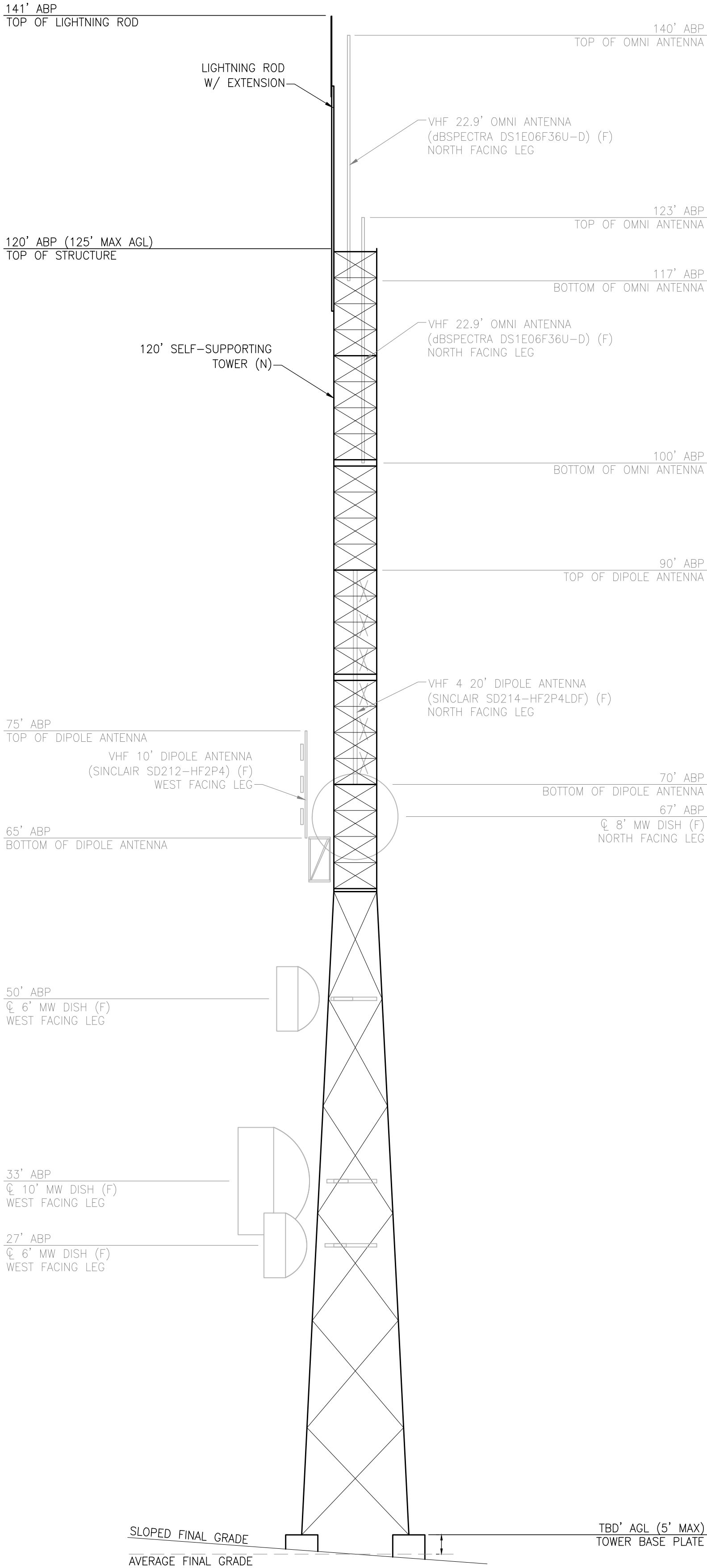
DWN:JAA DSN:JCM APP: JCM
JOB #: 26-0045-10 DATE: 260507

MAT-SU BOROUGH
EUREKA
TELECOM TOWER
IFP
ZONING DRAWINGS

REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	260507
B	UPDATED TOWER/ENCE LOCATION	260519

PRELIMINARY
COMPOUND
PLAN

C1.1



NOTES:

- ABOVE BASE PLATE (ABP) ELEVATIONS ARE MEASURED FROM THE BASE PLATE AT THE BASE OF THE TOWER. THE ELEVATION OF THE TOWER BASE PLATE ABOVE GROUND LEVEL (AGL) IS PENDING TOWER FOUNDATION DESIGN AND SHALL BE NO MORE THAN 5 FEET AGL.
 - AGL ELEVATION = ABP ELEVATION + TOWER BASE PLATE AGL ELEVATION
- TOWER ANALYSIS CALCULATIONS BY VALMONT (JOB #: 669161), STAMPED 04/07/26. TOWER RATING IS 99.7%.
- TOWER DESIGN DRAWINGS BY VALMONT (JOB #: 669161), STAMPED 04/16/26.
- TOWER FOUNDATION DESIGN PENDING GEOTECHNICAL REPORT AND SITE SURVEY. FINAL FOUNDATION DESIGN WILL ENSURE THE TOWER BASE PLATE IS LESS THAN 5 FEET ABOVE FINISHED GRADE.
- THIS TOWER HAS BEEN EVALUATED AND DESIGNED FOR FUTURE EQUIPMENT LOADING AS SPECIFIED BY THE MATANUSKA-SUSITNA BOROUGH (MSB). PRELIMINARY MOUNTS WERE SELECTED FOR THE TOWER STRUCTURAL ANALYSIS TO ENSURE TOWER CAPACITY FOR FUTURE SPECIFIED MOUNTS. EQUIPMENT MOUNTS ARE NOT SPECIFIED, EVALUATED NOR INSTALLED UNDER THE SCOPE OF THIS PROJECT.
 - IN ACCORDANCE WITH THE TOWER DESIGN DRAWINGS; FUTURE ANTENNAS, MOUNTS, MOUNT ACCESSORIES, ETC. SHOULD NOT BE ATTACHED TO THE DIAGONALS OF THE TOWER.
- TOWER LIGHTING REQUIREMENT PENDING FAA DETERMINATION.



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DWN:JAA DSN:JCM APP: JCM
JOB #: 26-0045-10 DATE: 260507

MAT-SU BOROUGH
EUREKA
TELECOM TOWER
IFP
ZONING DRAWINGS

REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	260507
B	UPDATED TOWER/FENCE LOCATION	260519

PRELIMINARY
TOWER
ELEVATION

C2.0

FULL SCALE (22"x34")
HALF SCALE (11"x17")

A
C2.0
PRELIMINARY TOWER ELEVATION
SCALE: NTS

ADDITIONAL NOTES ON SHEET 2

T. 20 N., S.M.

REFERENCE ONLY
NEW SITE SURVEY TO BE
PROVIDED AT A LATER DATE

AS-BUILT GRAVEL ROAD CENTERLINE DATA

<i>AB-L1</i>	<i>S 32°26'43" E 61.75'</i>	<i>AB-L6</i>	<i>N 57°16'51" E 291.31'</i>
<i>AB-C1</i>	<i>Delta: 80°37'03" LEFT</i>	<i>AB-C6</i>	<i>Delta: 20°09'57" LEFT</i>
	<i>Radius: 80.00'</i>		<i>Radius: 500.00'</i>
	<i>Length: 112.56'</i>		<i>Length: 175.98'</i>
	<i>Tangent: 67.87'</i>		<i>Tangent: 88.91'</i>
	<i>Chord: 103.51'</i>		<i>Chord: 175.07'</i>
	<i>Course: S 72°45'14" E</i>		<i>Course: N 67°21'50" E</i>

<i>AB-L2</i>	<i>N 66°56'14" E 389.96'</i>	<i>AB-L7</i>	<i>N 77°26'48" E 243.48'</i>
<i>AB-C2</i>	<i>Delta: 04°29'21" RIGHT</i>	<i>AB-C7</i>	<i>Delta: 83°16'13" RIGHT</i>
	<i>Radius: 600.00'</i>		<i>Radius: 180.00'</i>
	<i>Length: 43.52'</i>		<i>Length: 261.61'</i>
	<i>Tangent: 21.77'</i>		<i>Tangent: 160.01'</i>
	<i>Chord: 43.51'</i>		<i>Chord: 239.18'</i>
	<i>Course: N 69°00'54" E</i>		<i>Course: S 60°55'05" E</i>

<i>AB-L3</i>	<i>N 71°05'35" E</i>	<i>1299.27'</i>	<i>AB-L8</i>	<i>S 19°16'59" E</i>	<i>1131.48'</i>
<i>AB-C3</i>	<i>Delta: 28°45'56" RIGHT</i>		<i>AB-C8</i>	<i>Delta: 32°02'05" LEFT</i>	
	<i>Radius: 700.00'</i>			<i>Radius: 500.00'</i>	
	<i>Length: 351.44'</i>			<i>Length: 279.56'</i>	
	<i>Tangent: 179.51'</i>			<i>Tangent: 143.54'</i>	
	<i>Chord: 347.76'</i>			<i>Chord: 275.93'</i>	
	<i>Course: N 85°28'33" E</i>			<i>Course: S 35°18'01" E</i>	

AB-L4 S 80°08'29" E 1154.08' AB-L9 S 51°19'04" E 361.61'
NOT TANGENT
AB-C4 Delta: 117°0'24" LEFT MATCH RECORD C09
Radius: 900.00'
Length: 175.51'
Tangent: 88.03'
Chord: 175.23'
Course: S 85°43'41" E

AB-L5 N 88° 41' 07" E 116.75'

AB-C5 Delta: 31°24'16" LEFT
Radius: 700.00'
Length: 493.30'
Tangent: 253.02'
Chord: 487.15'
Course: N 72°58'59" E

NGDC
10/30/2008

CERTIFICATE OF OWNERSHIP

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE DIRECTOR, DIVISION OF MINING, LAND AND WATER, AND THAT THE STATE OF ALASKA IS OWNER OF THE LANDS DEPICTED HEREON, I HEREBY APPROVE THIS SURVEY AND PLAT FOR THE STATE OF ALASKA.

DATE July 16, 2010 Gerald Jennings
for DIRECTOR, DIVISION OF MINING, LAND AND WATER

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 16th DAY
OF July, 20 10 FOR: Gerald Jennings
Ronda Wilson
NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES: with office

APPLICANT CERTIFICATE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE APPLICANT AS SHOWN HEREON. I APPROVE THIS SURVEY AND PLAT.

ADL NO. 229350

SIGNATURE _____ DATE _____
AN L. STRID, COMMUNICATIONS ENGINEER II
STATE OF ALASKA
DEPARTMENT OF ADMINISTRATION
DIVISION OF ETS-INFORMATION TECHNOLOGY

NOTARY'S ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS 23rd DAY
OF June, 20 10 FOR: DAAN STAUD
Novella H. Coleman
NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES: with office

THIS SUMMARY DOES NOT CONSTITUTE
A SUBDIVISION AS DEFINED BY
AS 40.15.0900(5).

SCALE
1" = 500'

500' 1000' 1500' 2000' FT.

0 125 250 375 500 625 METRS.

1 METER = 3.2808333 U.S. SURVEY FEET, 1 U.S. ACRE = 0.4047 HECTARE

TAHNETA PASS RADIO RELAY SITE
BLM CASE SERIAL NO.
A-052079
AA-55011
DEPT. OF THE ARMY
ALASKA DISTRICT ENGINEER
DWG NO. A3-4-4
REV 12/12/72
PARCEL 2- ACCESS ROAD
PARCEL 1- RADIO RELAY SITE

"BASIS OF COORDINATES"
CONTROL MONUMENT "SNLC-1"
NAD 83 (CORS96 EPOCH 2003.0000)
OPUS SOLUTION
OVER 4 HOUR OCCUPATION
LAT 61°49'57.75279"N
LONG 147°19'38.20705"W
NAD 27
LAT 61°49'59.611"N
LONG 147°19'30.344"W

FOUND BRASS DISC
SET IN BEDROCK
GOOD CONDITION
NO DATE ON CAP

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT.

DATE 6/23/2010 REGISTRATION NO. 6726-S


STEPHEN STOLL
REGISTERED LAND SURVEYOR

Palmer 2010-55

DATE OF SURVEY:	NAME OF SURVEYOR:
BEGINNING: 06/28/2008	McCLINTOCK LAND ASSOCIATES, Inc.
ENDING: 06/18/2010	16942 N. Eagle River Loop Road
	Eagle River, AK, 99577

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
ANCHORAGE, ALASKA

RECORD OF SURVEY
OF ILMA NO. 229350
DEPARTMENT OF ADMINISTRATION COMMUNICATIONS SITE
AND THE EASEMENT DEED
RECORDED FEB. 14, 1985 IN BOOK 345 AT PAGE 205
PALMER RECORDING DISTRICT

LOCATED WITHIN UNSURVEYED SECTION 8, TRACT A
T.20 N., R.12 E., SEWARD MERIDIAN, AK.
PALMER RECORDING DISTRICT
CONTAINING 1.99 ACRES

DRAWN BY: SS	APPROVAL RECOMMENDED
DATE 6/20/10	 FOR <u>7-15-10</u> STATEWIDE PLATTING SUPERVISOR DATE

CHECKED BY: SS,mm	SCALE: 1"=500'	FILE NO. EPF 20060011
SHEET 1 OF 2		

LEGEND:

	CORPS OF ENGINEERS CONTROL MONUMENT RECOVERED
	GLO/BLM MONUMENT RECOVERED
	GLO/BLM MONUMENT OF RECORD NOT FOUND
	HIGHWAY CENTERLINE MONUMENT RECOVERED
	PRIMARY MONUMENT SET THIS SURVEY (SEE NOTE 1)
	SECONDARY REFERENCE MONUMENT SET THIS SURVEY
— — — — —	UNSURVEYED
=====	SURVEYED
- - - - -	CENTERLINE 16' GRAVEL ACCESS ROAD
- . - . - . -	COMPUTED DOT CENTERLINE
(C) (COMP)	COMPUTED
(M) (MEAS)	MEASURED
(REC-DOA)	RECORD DEPARTMENT OF THE ARMY-SEE NOTE 2
(REC-BLM)	RECORD BUREAU OF LAND MANAGEMENT- USRS PLAT
(REC-DOT)	RECORD DEPARTMENT OF TRANSPORTATION PROJ. NO.

FOUND BLM 3-1/4" BC MONUMENT
2-1/2" IRON PIPE 0.4' A.G.
GOOD CONDITION

FOUND SCRIBED BEARING TREE
16" SPRUCE, BEARS FROM MONUMENT
S 29°33'46" E 139.62' (M)
S 30°30' E 139.92' (R)

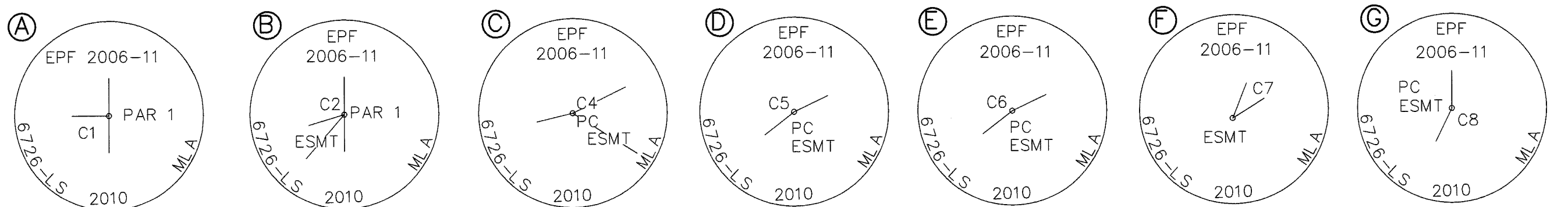
FOUND SCRIBED BEARING TREE
16" SPRUCE, BEARS FROM MONUMENT
S 43°43'10" W 98.60' (M)
S 34°00' W 97.02' (R)

FOUND BLAZED 15" SPRUCE
POSSIBLE BEARING TREE RECORD BEARING
N 37°15' W 95.04' TO MONUMENT—NOT FOUND

STATE OF
ALASKA

STATE OF ALASKA
49th
Stephen Stoll
STEPHEN STOLL
No. 6726-S
6/23/2010
PROFESSIONAL LAND SURVEYOR





SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS

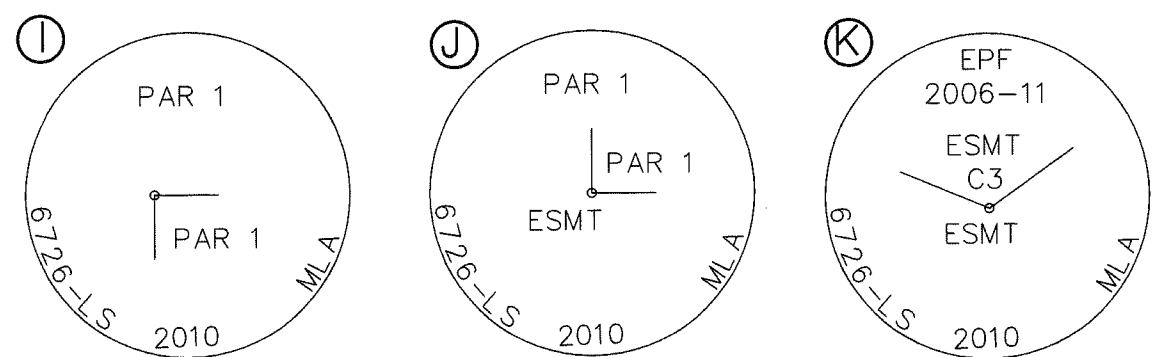
SET 3.2" BRASS DISC IN 11" DIA x 12" TALL CONCRETE TABLET 0.2" BELOW GRADE CARSONITE W. P. AND REFERENCE MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND REFERENCE MONS

SET 3.2" BRASS DISC IN 11" DIA x 12" TALL CONCRETE TABLET 0.2" BELOW GRADE CARSONITE W. P. AND REFERENCE MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND REFERENCE MONS

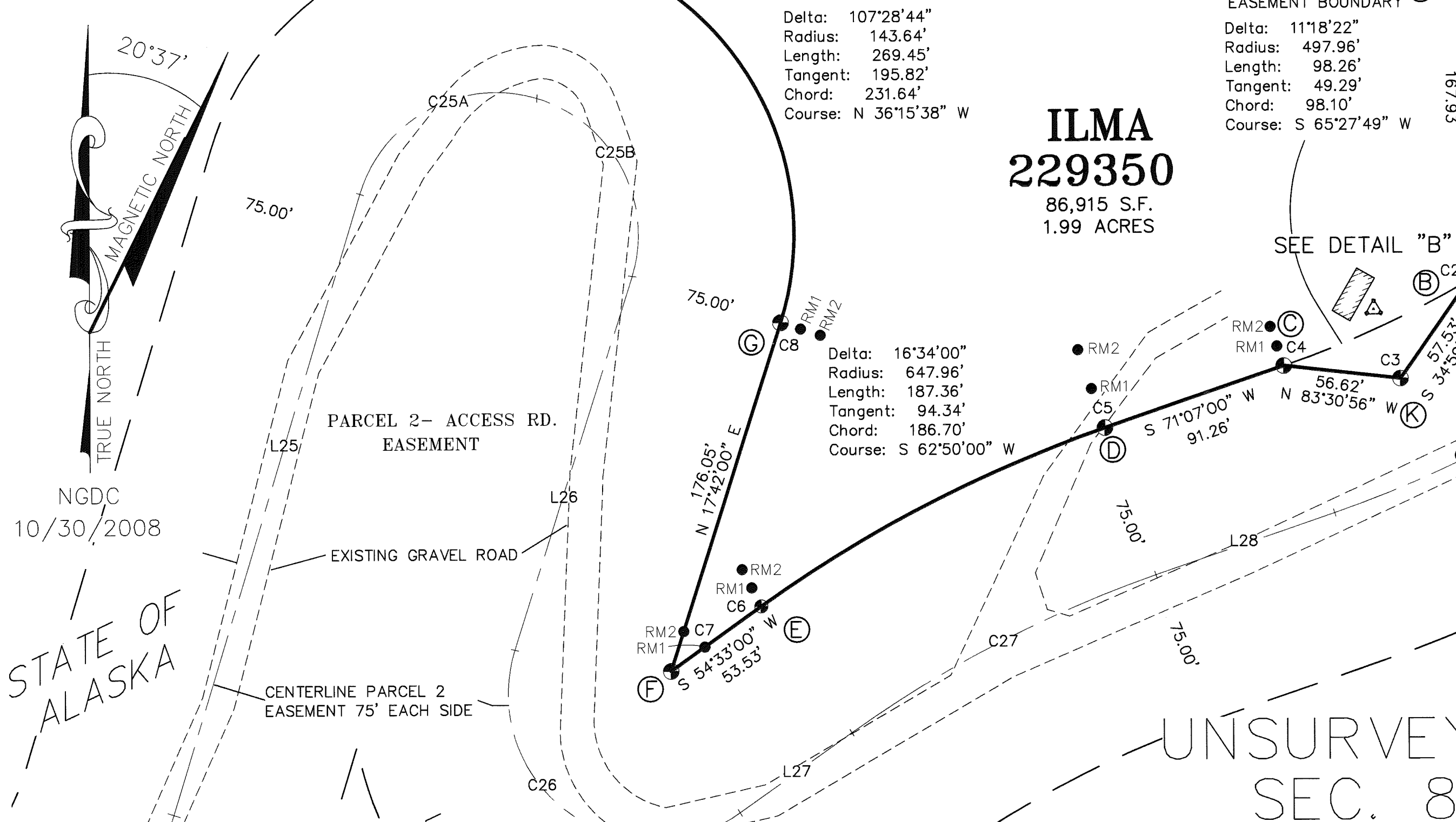
SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND REFERENCE MONS



SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS

SET 2-1/2" ALUMINUM CAP ON 2-1/2"x30" FLANGED ALUM. PIPE 0.2" ABOVE GRADE CARSONITE W. P. AND BEARING MONS



STATE OF ALASKA

STATE OF IDAHO

THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION AS DEFINED BY AS 40,15.0900(5)

LEGEND:

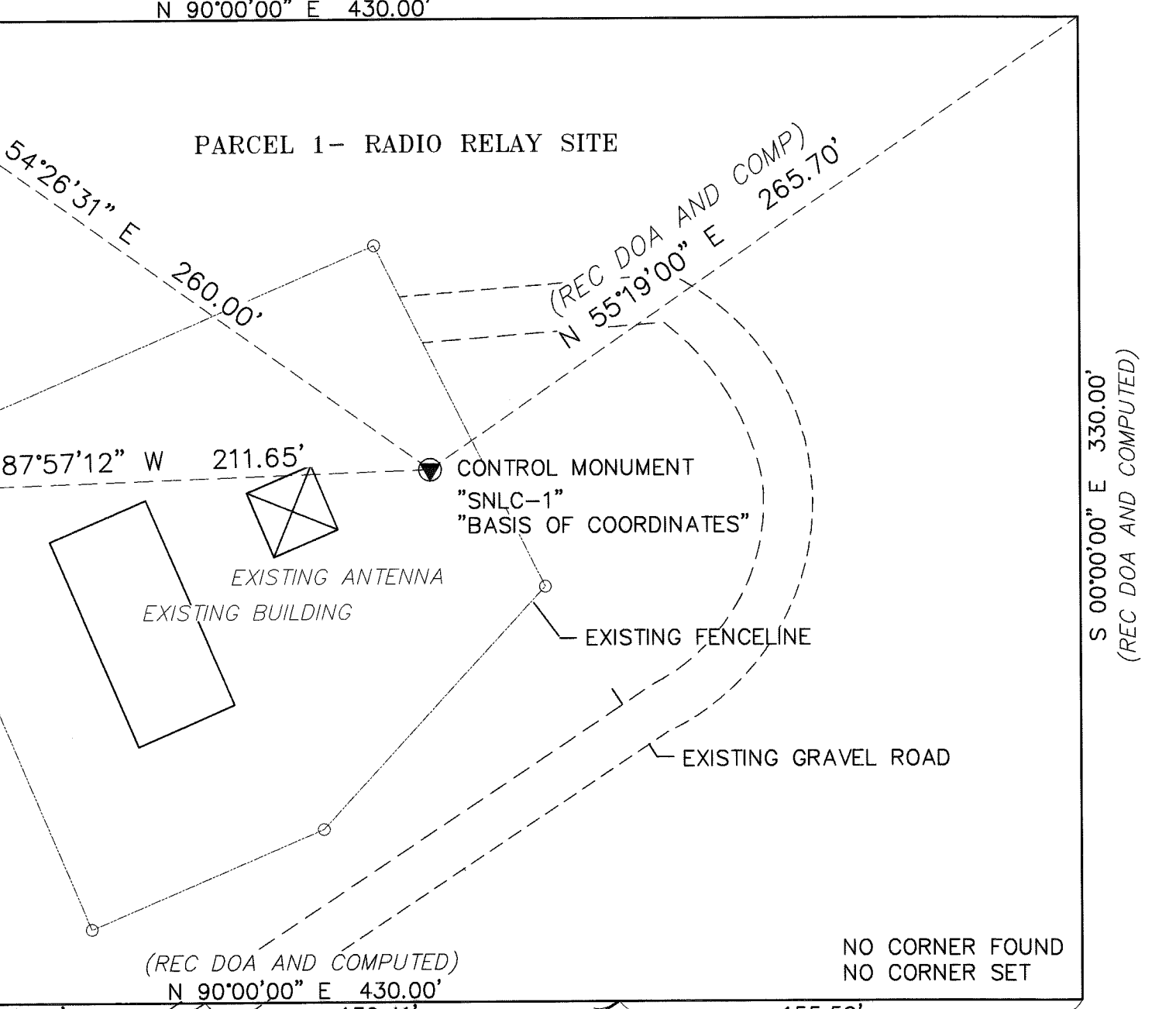
- (C) (COMP) CORPUS OF ENGINEERS CONTROL MONUMENT RECOVERED
- (M) (MEAS) GLO/BLM MONUMENT RECOVERED
- (REC-DOA) GLO/BLM MONUMENT OF RECORD NOT FOUND
- (REC-BLM) PRIMARY MONUMENT SET THIS SURVEY (SEE NOTE 1)
- (REC-DOT) HIGHWAY CENTERLINE MONUMENT RECOVERED
- (REC-DOT) SECONDARY REFERENCE MONUMENT SET THIS SURVEY (SEE NOTE 1)
- (REC-DOT) UNSURVEYED
- (REC-DOT) SURVEYED
- (REC-DOT) CENTERLINE PARCEL 2, (REC-DOA)
- (REC-DOT) BOUNDARY PARCEL 2, (REC-DOA)

NOTES:

- UNLESS NOTED OTHERWISE, ALL EXTERIOR CORNERS OF THIS SURVEY WERE MONUMENTED WITH FLANGED, MAGNETIZED ALUMINUM MONUMENTS WITH 2-1/2" CAPS ON 2-1/2" O. D. PIPES, 30" LONG, BURIED 26" DEEP. IN LOCATIONS WITH SHALLOW BEDROCK, 11" DIAMETER x 12" TALL CONCRETE TABLETS WITH A 3" BRASS CAP AND REBAR FOR MAGNETIC LOCATION WERE SET, WHERE NO BEARING OBJECTS WERE AVAILABLE, REFERENCE MONUMENTS CONSISTING OF 2" ALCAPS ON 5/8"x36" POINTED REBAR WERE SET.
- THE LOCATION OF THE TRACT BOUNDARIES OF ILMA 229350 WAS CONTROLLED BY LOCATION OF THE BOUNDARIES OF PARCELS 1 AND 2 OF THE TAHNETA PASS RADIO RELAY STATION AS DEFINED BY FEDERAL PERMIT A-052079 AND DEPARTMENT OF THE ARMY, ALASKA DISTRICT ENGINEER DRAWING NO. A3-4-4 REVISED 12/12/1972. THE DRAWING DATA WAS TRANSCRIBED IN THE EASEMENT DEED RECORDED IN BOOK 345 AT PAGES 209-217, PALMER RECORDING DISTRICT.
- THIS SURVEY WAS ACCOMPLISHED IN ACCORDANCE WITH GSI 2006-11 AND AS 34.65.030.
- THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:5000.
- ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARING, AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
- ALL PARCELS OF LAND OWNED BY THE STATE OF ALASKA, LOCATED WITHIN FIFTY (50.00) FEET OF, OR BISECTED BY A SURVEYED OR PROTRACTED SECTION LINE, ARE SUBJECT TO A FIFTY (50.00) FOOT EASEMENT, EACH SIDE OF THE SECTION LINE, WHICH IS RESERVED TO THE STATE OF ALASKA FOR PUBLIC HIGHWAYS UNDER A.S. 19.10.010.
- THIS SURVEY WAS CONDUCTED IN JUNE THROUGH AUGUST, AND MONUMENTATION WAS COMPLETED IN APRIL, 2010, USING TOPCON DUAL FREQUENCY, GLOSSNA EN-ABLED HIPER PLUS AND G6 SERIES RECEIVERS. ALL PROPERTY CORNERS FOUND AND SET HAVE BOTH RTK AND STATIC OBSERVATIONS TO CONFIRM THE ACCURACY OF THE REPORTED LOCATIONS. RTK POSITIONS WERE PROCESSED USING TOPCON TOOLS v7.1 AND THE STATIC NETWORK WAS PROCESSED USING TOPCON TOOLS v7.1, GPS METHODOLOGY AND ACCURACY CONFORM TO THE "GEOMETRIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING RELATIVE POSITIONING TECHNIQUES," v5.0, REPRINT AUGUST 1989.
- THE BASIS OF GEODETIC COORDINATES IS AN OPUS SOLUTION OF A FOUR HOUR GPS OCCUPATION OF THE CORPUS OF ENGINEERS CONTROL POINT "SNLC-1," THE NAD 83 COORDINATES SHOWN ARE MORE PROPERLY DEFINED AS HAVING A REFERENCE FRAME OF "NAD 83 (CORS96) (EPOCH:2003.0000)." THE NAD 27 COORDINATES WERE CONVERTED USING THE NADCON CONVERSION IN TOPCON TOOLS v7.1.
- THE BASIS OF BEARING ON THIS PLAT WAS DETERMINED BY A HIGH-PRECISION GPS SURVEY USING TOPCON HIPER PLUS AND G6 RECEIVERS DIFFERENTIALLY CORRECTED AND PROCESSED USING TOPCON TOOLS v7.1 SOFTWARE.

MILITARY RESERVE
BLM CASE SERIAL NO.
A-052079
PARCEL 2- ACCESS RD.
PARCEL 1- RADIO RELAY SITE
RECORDED FEB 14, 1984
BOOK 345 PAGE 205 P.R.D.

NO CORNER FOUND
NO CORNER SET



CENTERLINE DATA-PARCEL 2 ACCESS ROAD
REFERENCE DEPT. OF THE ARMY ALASKA DISTRICT ENGINEER
DRAWING A3-4-4 (REC- DOA)

L01 S 53°44'24" E 244.85'
C01 Delta: 31°58'55" LEFT
Radius: 229.18'
Length: 127.93'
Tangent: 65.68'
Chord: 126.28'
Course: S 69°43'53" E

L02 S 85°43'19" E 399.09'
C02 Delta: 23°15'54" LEFT
Radius: 572.96'
Length: 232.65'
Tangent: 117.95'
Chord: 231.06'
Course: N 82°38'41" E

L03 N 71°00'47" E 1491.19'
C03 Delta: 28°47'19" RIGHT
Radius: 572.96'
Length: 287.89'
Tangent: 147.05'
Chord: 284.87'
Course: N 85°24'27" E

L04 S 80°11'54" E 1205.52'
C04 Delta: 16°34'20" LEFT
Radius: 572.96'
Length: 331.44'
Tangent: 166.89'
Chord: 330.29'
Course: S 88°29'03" E

L05 N 83° 13' 46" E 107.43'
C05 Delta: 25°19'51" LEFT
Radius: 572.96'
Length: 253.31'
Tangent: 128.76'
Chord: 251.25'
Course: N 70°33'50" E

L06 N 57°53'55" E 373.57'
C06 Delta: 20°07'37" RIGHT
Radius: 572.96'
Length: 201.27'
Tangent: 101.68'
Chord: 200.24'
Course: N 67°57'43" E

L07 N 78°01'33" E 245.31'
C07 Delta: 82°25'50" RIGHT
Radius: 143.24'
Length: 191.17'
Tangent: 206.08'
Chord: 188.76'
Course: S 60°45' 30" E

L08 S 19°32'37" E 1152.18'
C08 Delta: 32°22'33" LEFT
Radius: 381.97'
Length: 215.84'
Tangent: 110.89'
Chord: 212.98'
Course: S 35°43'54" E

L09 S 51° 55' 10" E 398.05'
C09 Delta: 26°08'35" RIGHT
Radius: 381.97'
Length: 174.29'
Tangent: 88.69'
Chord: 172.78'
Course: S 38°50'51" E

L10 S 25°46'34" E 1413.34'
C10 Delta: 31°56'06" LEFT
Radius: 572.96'
Length: 319.35'
Tangent: 163.94'
Chord: 315.23'
Course: S 41°44'37" E

L11 S 57°42'40" E 234.64'
C11 Delta: 39°03'29" RIGHT
Radius: 381.97'
Length: 1145.92'
Tangent: 135.48'
Chord: 255.38'
Course: S 38°10'54" E

L12 S 18°39'12" E 512.53'
C12 Delta: 13°13'47" LEFT
Radius: 572.96'
Length: 132.30'
Tangent: 66.45'
Chord: 132.01'
Course: S 25°16'06" E

L13 S 31°52'59" E 564.71'
C13 Delta: 40°13'50" LEFT
Radius: 381.97'
Length: 140.12'
Tangent: 263.10'
Course: S 52°01'41" E

L14 S 72°06'49" E 660.66'
C14 Delta: 28°40'30" RIGHT
Radius: 381.97'
Length: 191.17'
Tangent: 97.63'
Chord: 189.18'
Course: S 57°46'33" E

L15 S 43°26'20" E 93.33'
C15 Delta: 05°15'40" LEFT
Radius: 572.96'
Length: 52.67'
Tangent: 26.35'
Chord: 52.67'
Course: S 46° 04' 21" E

L16 S 48°42'00" E 107.56'
C16 Delta: 30°34'00" RIGHT
Radius: 381.97'
Length: 152.83'
Tangent: 78.28'
Chord: 151.02'
Course: S 33°25'01" E

L17 S 18 08'00" E 505.95'
C17 Delta: 66°17'00" RIGHT
Radius: 286.48'
Length: 331.42'
Tangent: 187.05'
Chord: 313.25'
Course: S 15° 00' 31" W

L18 S 48° 09' 00" W 223.76'
C18 Delta: 03°28 00" LEFT
Radius: 1145.92'
Length: 69.33'
Tangent: 34.68'
Chord: 69.32'
Course: S 46°25'00" W

L19 S 44°41'00" W 16.40'
C19 Delta: 20°17'00" LEFT
Radius: 572.96'
Length: 338.06'
Tangent: 170.82'
Chord: 336.30'
Course: S 34°32'30" W

L20 S 24° 24' 00" W 627.30'
C20 Delta: 10°12'02" LEFT
Radius: 1145.92'
Length: 204.00'
Tangent: 102.27'
Chord: 203.73'
Course: S 19°18'00" W

L21 S 14°12'00" W 225.18'
C21 Delta: 80°16'00" LEFT
Radius: 119.37'
Length: 167.72'
Tangent: 101.06'
Chord: 154.26'
Course: S 26°03'05" E

L22 S 66°04'00" E 14.90
C22 Delta: 79°16'00" LEFT
Radius: 119.37'
Length: 165.14'
Tangent: 98.87'
Chord: 152.282'
Course: N 74°18'04" E

L23 N 34°40' 00" E 237.30'
C23 Delta: 20°06' 00" RIGHT
Radius: 572.96'
Length: 201.00'
Tangent: 101.54'
Chord: 199.97'
Course: N 44°43'00" E

L24 N 54°46'00" E 28.85'
C24 Delta: 37°52'00" LEFT
Radius: 190.98'
Length: 126.22'
Tangent: 65.51'
Chord: 123.94'
Course: N 35°49'59" E

L25 N 16° 54' 00" E 312.67'
C25A Delta: 90°24'00" RIGHT
Radius: 68.64'
Length: 108.17'
Tangent: 68.99'
Chord: 97.31'
Course: N 62° 02' 41" E

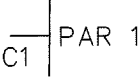
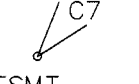
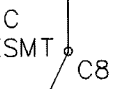
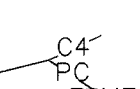
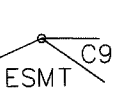
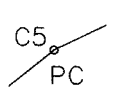
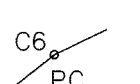
L25B Delta: 90°24'00" RIGHT
Radius: 68.64'
Length: 108.17'
Tangent: 68.99'
Chord: 97.31'
Course: S 27°39'57" E

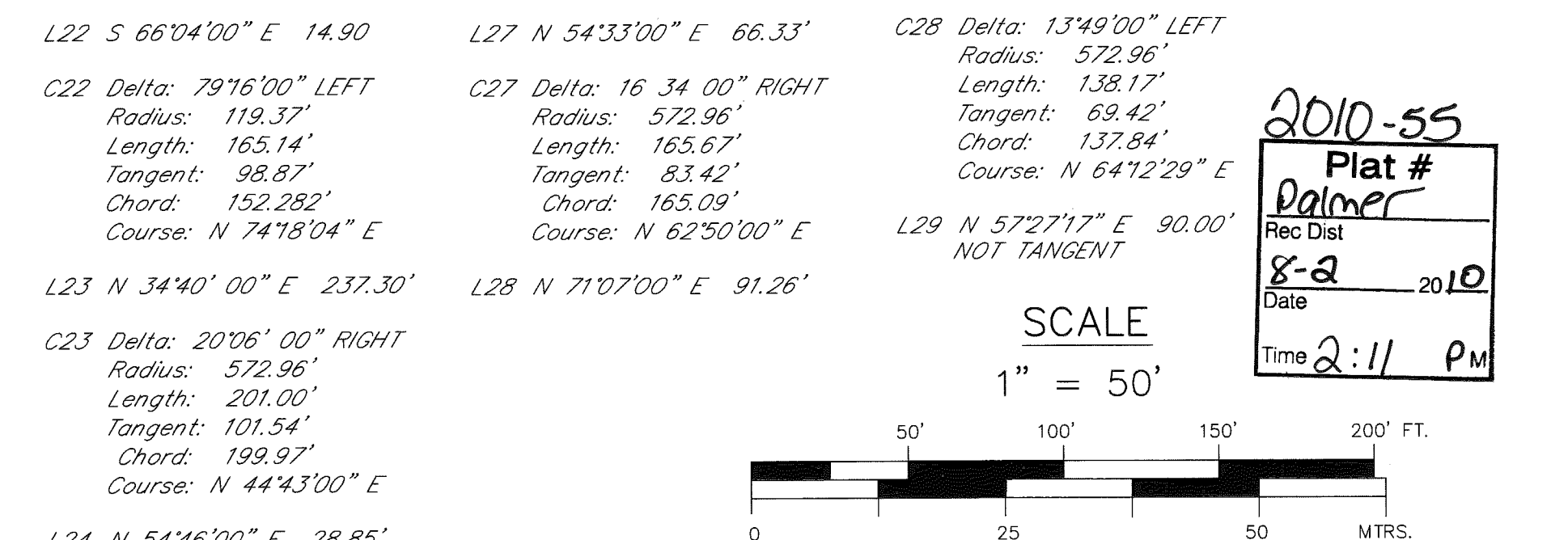
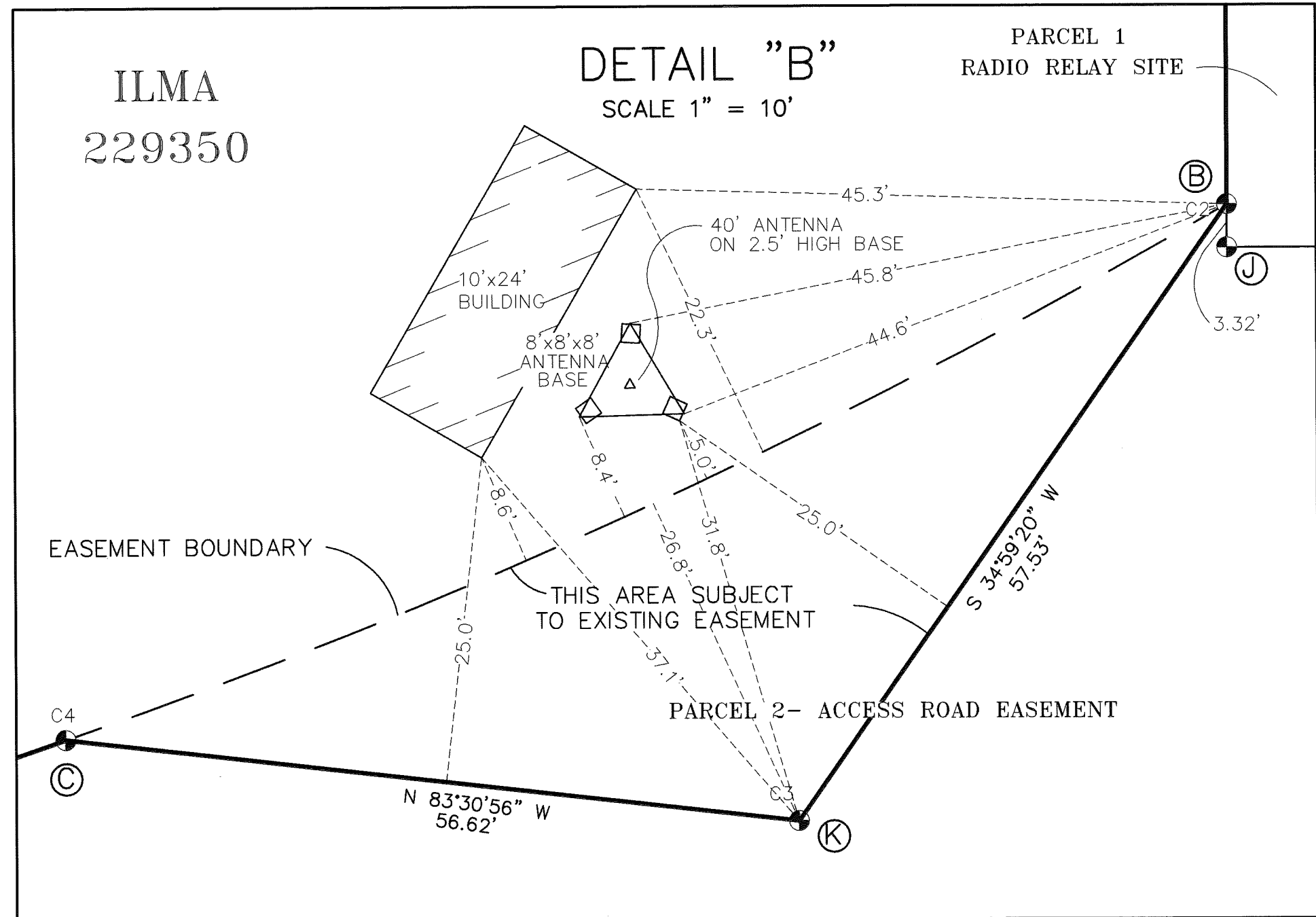
L26 S 17° 42' 00" 188.67'
C26 Delta: 14°30'09" LEFT
Radius: 70.74'
Length: 176.73'
Tangent: 212.30'
Chord: 134.22'
Course: S 53°52'16" E

L27 N 54°33'00" E 66.33'
C27 Delta: 16 34 00" RIGHT
Radius: 572.96'
Length: 165.67'
Tangent: 83.42'
Chord: 165.09'
Course: N 64°12'29" E

L28 N 71°07'00" E 91.26'
C28 Delta: 13°49'00" LEFT
Radius: 572.96'
Length: 138.17'
Tangent: 69.42'
Chord: 137.84'
Course: N 64°12'29" E

L29 N 57°27'17" E 90.00'
NOT TANGENT

MONUMENT ACCESSORIES					MONUMENT ACCESSORIES				
CODE	DESC.	OBJECT	BEARING	DIST.	CODE	DESC.	OBJECT	BEARING	DIST.
(A)		FENCEPOST 3" P 7" S	N 67°28' E S 26°57' W S 76°34' E	31.7' 60.8' 67.8'	(F)		RM1 RM2	N 54°33'00" E N 17°42'00" E	20.00' 20.00'
(B)		RM1 RM2	N 00°00'00" E N 00°00'00" E	20.00' 40.00'	(G)		RM1 RM2	S 72°18'00" E S 72°18'00" E	10.00' 20.00'
(C)		RM1 RM2	N 18°53'00" W N 18°53'00" W	10.00' 20.00'	(H)		RM1 RM2	S 90°00'00" E S 90°00'00" E	20.00' 40.00'
(D)		RM1 RM2	N 18°53'00" W N 18°53'00" W	20.00' 40.00'	(I)		RM1 RM2	S 90°00'00" E S 00°00'00" E	20.27' 20.19'
(E)		RM1 RM2	N 35°27'00" W N 35°27'00" W	10.00' 20.00'	(J)		FENCEPOST 7" S ANT SUP	N 75°40' E S 39°01' W S 72°25' W	100.00' 89.5' 41.5'
FENCEPOST= 3" DIA FENCE CORNER POST 3" P = 3" DIA. POPLAR TREE 7" S = 7" DIA. SPRUCE TREE					RM= REFERENCE MONUMENT 2" ALCAP ON 5/8"x36" REBAR ANT SUP= CLOSEST CORNER OF CLOSEST ANTENNA SUPPORT WITH CHISEL MARK				



DATE OF SURVEY: BEGINNING: 06/28/2008 ENDING: 06/18/2010

NAME OF SURVEYOR: McCLINTOCK LAND ASSOCIATES, Inc. 16942 N. Eagle River Loop Road Eagle River, AK, 99577

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
ANCHORAGE, ALASKA

RECORD OF SURVEY
OF ILMA NO. 229350
DEPARTMENT OF ADMINISTRATION COMMUNICATIONS SITE
AND THE EASEMENT DEED
RECORDED FEB. 14, 1985 IN BOOK 345 AT PAGE 205
PALMER RECORDING DISTRICT

LOCATED WITHIN UNSURVEYED SECTION 8, TRACT A
T.20 N., R.12 E., SEWARD MERIDIAN, AK.
PALMER RECORDING DISTRICT
CONTAINING 1.99 ACRES

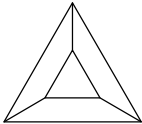
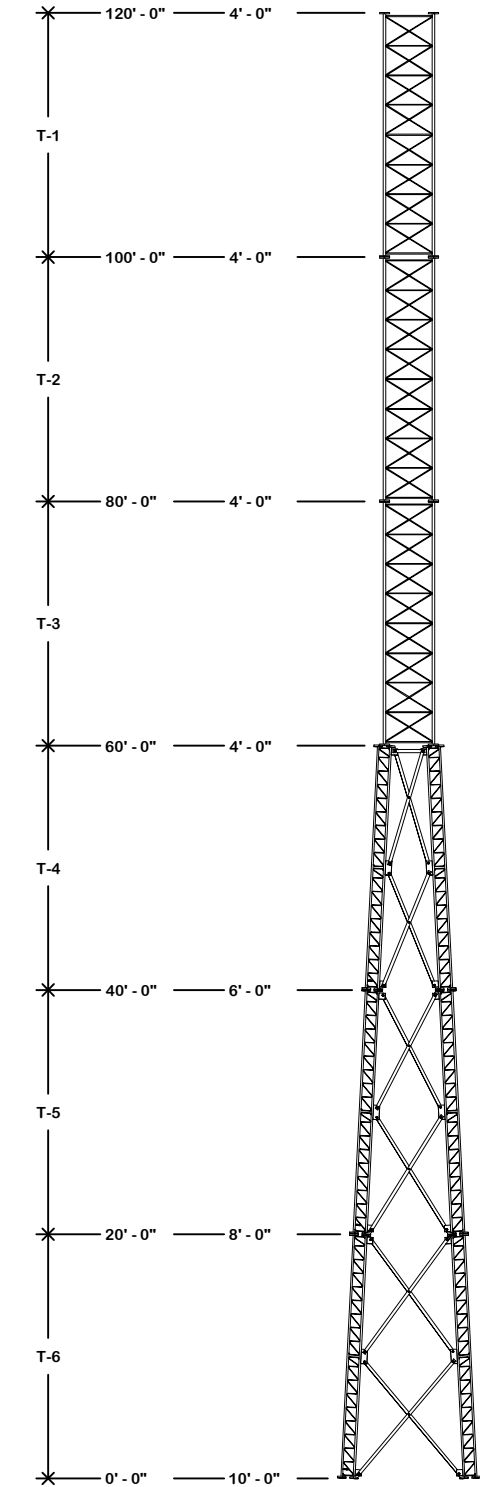
DRAWN BY: SS APPROVAL RECOMMENDED
DATE 6/2010 STATEWIDE PLATTING SUPERVISOR DATE 7-15-10

CHECKED BY: SS,mm SCALE: 1"=50' FILE NO. EPF 20060011

SHEET 2 OF 2

**Attachment C:
Tower and Foundation Design Drawings**





SEE PAGE 2 FOR
APPURTENANCES

TOWER DESIGN CRITERIA

Design Standard: TIA-222-H*
Design Wind Speeds: 129 mph (no ice)
60 mph (0.25" ice)
60 mph (deflection only)
Service Wind Speed: 60 mph (deflection only)
Risk Category: IV
Exposure Category: C
Topographic Category: 3
Crest Height: 957 ft.
Site Elevation: 3435 (NAVD 88)

Latitude: 61.83241667
Longitude: -147.32863889

MATERIAL STRENGTHS

Solid Rod A36 (rod dia. <3/4")
A572 Gr. 50 (3/4" thru 1" dia.)
A572 Gr. 58 (>1" dia.)
Pipe A500 Gr. B (antenna pipes)
A500 Gr. B/C (tower legs min. Fy 50 ksi)

Angle A572 Gr. 50

Plate A572 Gr. 50

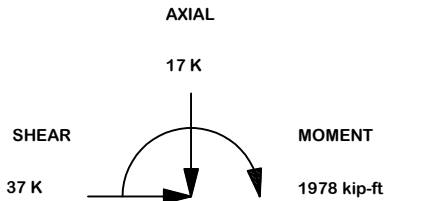
Bolts A-325/A-449 (leg & angle)

Anchor Bolt F1554 Grade 105 or A687

Finish: Tower & Hardware are hot dip galvanized

1. ALL STRUCTURAL HARDWARE IS GALVANIZED IN ACCORDANCE WITH ASTM A-153 (HDG). TOWER SECTIONS & ASSOCIATED STRUCTURAL COMPONENTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A-123 (HDG).
2. ALL BOLTS & NUTS MUST BE IN PLACE BEFORE ADJOINING SECTION(S) ARE INSTALLED.
3. ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC & RCSC SPECIFICATION FOR STRUCTURAL JOINTS UNLESS NOTED OTHERWISE.
4. ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATION. 5/16" MINIMUM WELD SIZE UNLESS NOTED OTHERWISE.
5. MATERIAL LABELED AS ASTM A-572 GR. 58 OR 58 KSI YIELD STRENGTH ALSO CONFORMS TO ASTM A-572 GR. 50.
6. ANALYSIS PERFORMED USING STEEL GRADES LISTED UNDER MATERIALS STRENGTHS SHOWN ON THIS PAGE.
7. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, SEQUENCES AND PROCEDURES.
8. THE CONTRACTOR MUST BE EXPERIENCED IN THE PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN.
9. (VIBRATION DISCLAIMER) ALTHOUGH RARE, VIBRATIONS SEVERE ENOUGH TO CAUSE DAMAGE CAN OCCASIONALLY OCCUR IN STRUCTURES OF ALL TYPES, BECAUSE THEY ARE INFLUENCED BY MANY INTERACTING VARIABLES. VIBRATIONS ARE GENERALLY UNPREDICTABLE. THE USER'S MAINTENANCE PROGRAM SHOULD INCLUDE OBSERVATION FOR EXCESSIVE VIBRATION AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING. THE VALMONT WARRANTY SPECIFICALLY EXCLUDES FATIGUE FAILURE OR SIMILAR PHENOMENA RESULTING FROM INDUCED VIBRATION, HARMONIC OSCILLATION OR RESONANCE ASSOCIATED WITH MOVEMENT OF AIR CURRENTS AROUND THE PRODUCT.
10. THE CONTRACTOR SHALL VERIFY MATERIALS TO BE FREE FROM FAULTS AND DEFECTS UPON ARRIVAL, AND IN CONFORMANCE WITH THE SUPPLIED DOCUMENTS. ALL SUBSTITUTIONS MUST BE DULY APPROVED AND AUTHORIZED IN WRITING BY VALMONT ENGINEERING PRIOR TO FABRICATION AND INSTALLATION. VALMONT IS NOT RESPONSIBLE FOR MATERIALS DAMAGED DURING UNLOADING OR CONSTRUCTION.
11. THE CONTRACTOR SHALL MAINTAIN A CHECK OF TOWER PLUMBNESS DURING ALL PHASES OF CONSTRUCTION WORK. THE TOWER SHALL BE PLUMB WITHIN THE TOLERANCE SPECIFIED IN THE LATEST REVISION OF THE TIA - STANDARD. MEANS AND METHODS ARE FULL RESPONSIBILITY OF THE CONTRACTOR. AFTER COMPLETION OF THE TOWER ERECTION, WITH ALL JOINTS TIGHT, AND ALL APPURTENANCES INSTALLED, THE CONTRACTOR SHALL MAKE A FINAL CHECK OF TOWER PLUMBNESS. CONTRACTOR SHALL SUBMIT DOCUMENTS TO THE THIRD PARTY INSPECTOR APPOINTED BY THE TOWER OWNER AS REQUIRED.
12. ANTENNAS, MOUNTS, MOUNT ACCESSORIES ETC. SHOULD NOT BE ATTACHED TO THE DIAGONALS SHOWN ON THIS DRAWING.

Maximum Base Reactions



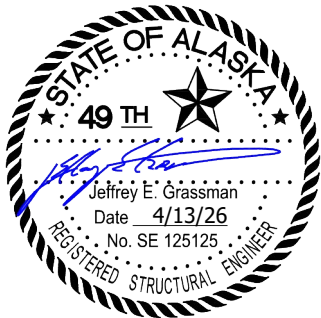
MAX. LEG REACTIONS:

DOWN: 228 K
UPLIFT: -224 K
SHEAR: 25 K

TORQUE 41 kip-ft
REACTIONS 129 mph WIND (no ice)

*Factored Reactions provided per ANSI/TIA-222 Design Criteria & Load Combinations

TOWER COLUMN										
SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONTAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	100' - 120'	4.0'	8	1.25"	SHFAB	2 x 1"	SR 3/4"	SR 7/8"		805.73
T2	80' - 100'	4.0'	8	1.50"	SHFAB	2 x 1"	SR 3/4"	SR 7/8"		918.21
T3	60' - 80'	4.0'	8	2.00"	SHFAB	4 x 1"	SR 7/8"	SR 1"		1672.74
T4	40' - 60'	6.0'	2	1.25"	12BDFH	6 x 1"	5/16" x 3" x 3"	3/16" x 3" x 3"	1 x 1 1/4 "	2404.53
T5	20' - 40'	8.0'	2	1.25"	12BDFH	6 x 1"	3/16" x 2-1/2" x 2-1/2"		1 x 1 "	1967.97
T6	0' - 20'	10.0'	2	1.50"	12BDFH	4 x 1 1/8"	3/16" x 3" x 3"		1 x 1 "	2579.04



@A	<ACBATCH>		KRC	4/7/2026
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY				
DRAWN BY KRC	APPROVED BY SAN	DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026

SITE

MSB EUREKA, AK
NEW HORIZONS TELECOMMUNICATION
U 10 X 120'

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PROPRIETARY NOTE:
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DESCRIPTION

Tower View Page 1

ENG. FILE NO.

669161

valmont 

1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

STRUCTURES

DWG. NO.

299641T

PAGE

1 OF 8

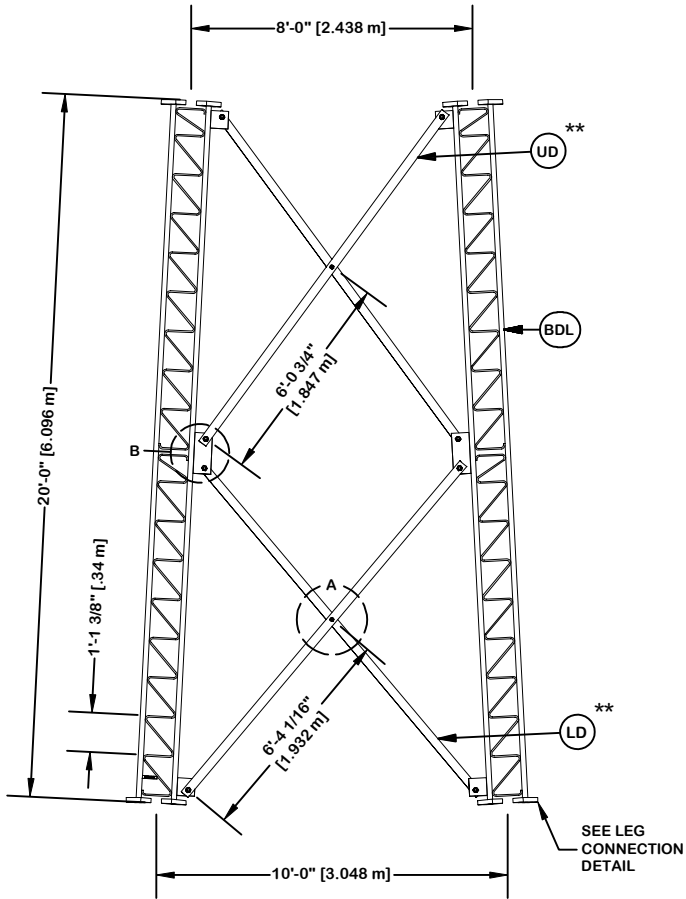
DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	120.0000'
(1) DS1E06F36U-D	120.0000'
(1) SP1 HS4-KHD	118.0000'
(1) DS1E06F36U-D	100.0000'
(1) SP1 HS4-KHD	98.0000'
(1) SP1 PSA3	90.0000'
(1) SD214-HF2P4LDF	70.0000'
(1) SP1 PSA3	70.0000'
(1) 8' HP ()	67.0000'
(1) SP1 R6 (INCLUDES 4.5"X72" PIPE)	67.0000'
(1) SD212-HF2P4	65.0000'
(1) SP1 PSA3	63.0000'
(2) 2-1/2" X 5' SCH. 40 FACE TIE BACK PIPE	50.0000'
(1) 6' HP ()	50.0000'
(1) SP1 R5 (INCLUDES 4.5"X72" PIPE)	50.0000'
(1) 10' HP ()	33.0000'
(1) 2-1/2" X 5' SCH. 40 FACE TIE BACK PIPE	33.0000'
(1) 2-1/2" X 7' SCH. 40 FACE TIE BACK PIPE	33.0000'
(1) SP1 R6 (INCLUDES 4.5"X72" PIPE) W/ BCAM-SDLL-	33.0000'
(2) 2-1/2" X 8' SCH. 40 FACE TIE BACK PIPE	27.0000'
(1) 6' HP ()	27.0000'
(1) SP1 R5 (INCLUDES 4.5"X72" PIPE)	27.0000'

					SITE MSB EUREKA, AK NEW HORIZONS TELECOMMUNICATION U 10 X 120' COPYRIGHT 2022			DESCRIPTION Tower View Page 2			valmont STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR		
@A	<ACBATCH>					KRC	4/7/2026						
REV	DESCRIPTION OF REVISIONS				CPD	BY	DATE						
REVISION HISTORY													
DRAWN BY KRC		APPROVED BY SAN		DESIGNED BY AK		APPROVED BY J_L		RELEASE DATE 4/7/2026		PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.			
					ENG. FILE NO. 669161				DWG. NO. 299641T		PAGE 2 OF 8		

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

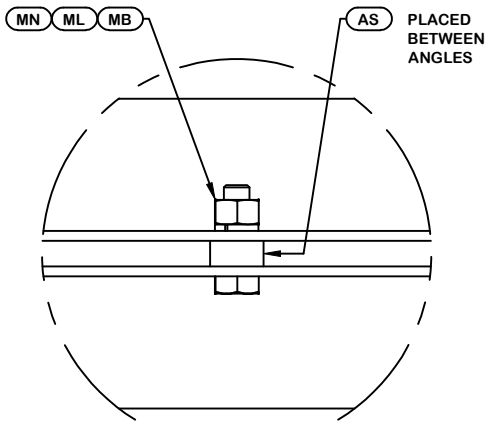
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

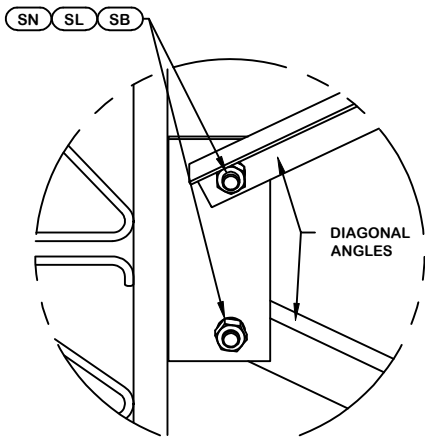


PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	281216	#12 BASE SECTION - 1 1/2" LEG - 1/2" BRACE W/ (1)	658.920	1976.760
LD	6	126798	U-10 LOWER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	48.330	289.980
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
UD	6	126794	U-10 UPPER DIAGONAL - 3" x 3" x 3/16" ANGLE (A572	45.890	275.340
Total Wt				2579.04 lb [1170.91 kg]	

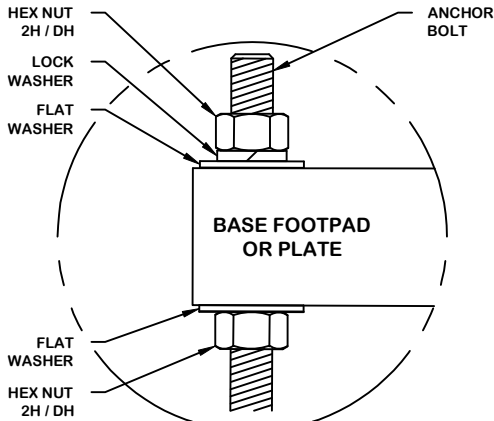
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



ANCHOR BOLT ASSY. (TYP)
SEE FOUNDATION DRAWING FOR DETAILS

@A	<ACBATCH>		KRC	4/7/2026
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				
DRAWN BY KRC	APPROVED BY SAN	DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026

SITE
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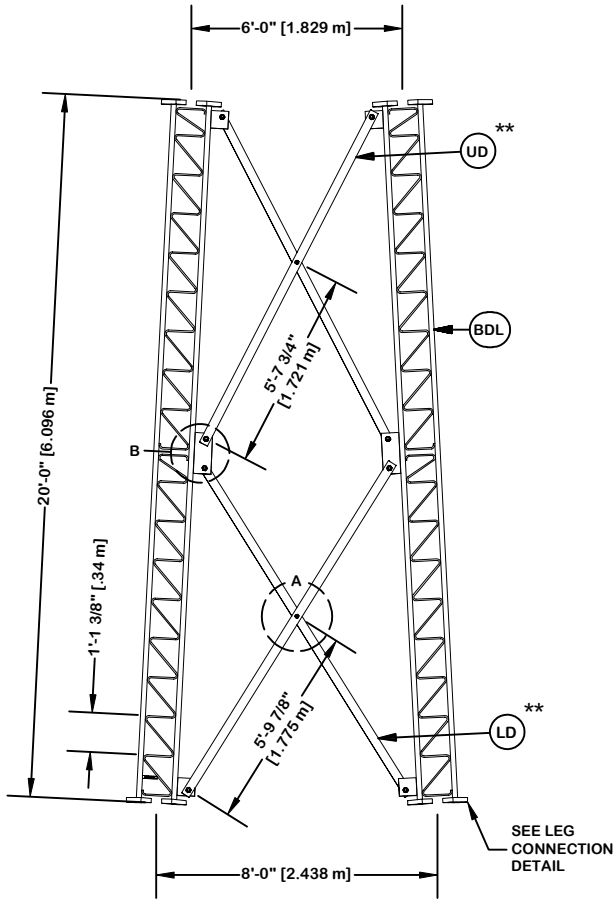
DESCRIPTION
SECTION U-10.0 (0' - 20' ELEVATION)
ENG. FILE NO.
669161

valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES	
DWG. NO.	299641T
PAGE	3 OF 8

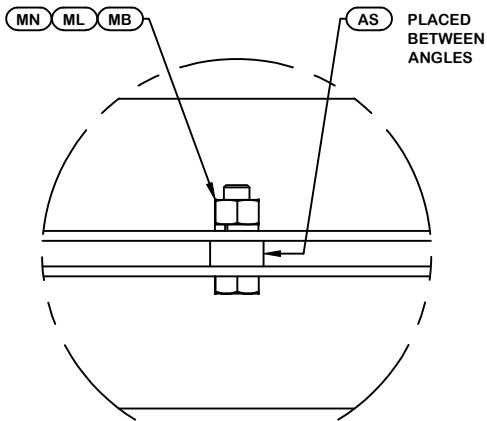
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TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

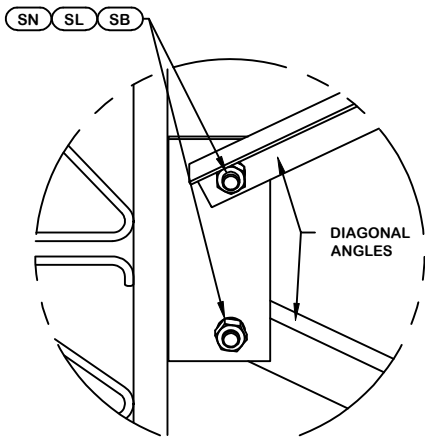
** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,  THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



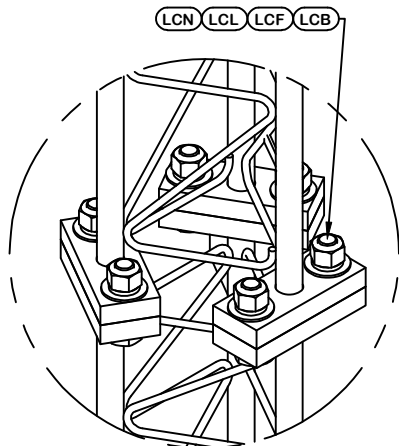
NOTE: THE VIEWS SHOWN BELOW ARE FOR PART IDENTIFICATION ONLY. THE ACTUAL PART STYLE MAY VARY FROM WHAT IS DEPICTED BELOW. PLEASE SEE ASSEMBLY INFORMATION IN THE UPPER LEFT CORNER FOR FURTHER INSTALLATION INSTRUCTIONS.



DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
BDL	3	194434	#12 LEG SECT - 1-1/4" LEG - 1/2" BRACE - 1" BOLT -	489.830	1469.490
LD	6	126789	U-8 LOWER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	36.220	217.320
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SL	24	312223	1" GALVANIZED LOCKWASHER	0.080	1.920
SN	24	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	10.320
SB	24	172265	1"-8 X 2-1/4" A-325 BOLT WITH 1-3/4" THREAD	0.840	20.160
UD	6	126785	U-8 UPPER DIAGONAL - 2 1/2" x 2 1/2" x 3/16" ANGLE	34.610	207.660
LCB	18	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	24.840
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740

Total Wt 1967.97 lb [893.48 kg]

@A	<ACBATCH>		KRC	4/7/2026	
REV	DESCRIPTION OF REVISIONS		CPD	BY	DATE
REVISION HISTORY					
DRAWN BY KRC	APPROVED BY SAN	DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026	

SITE
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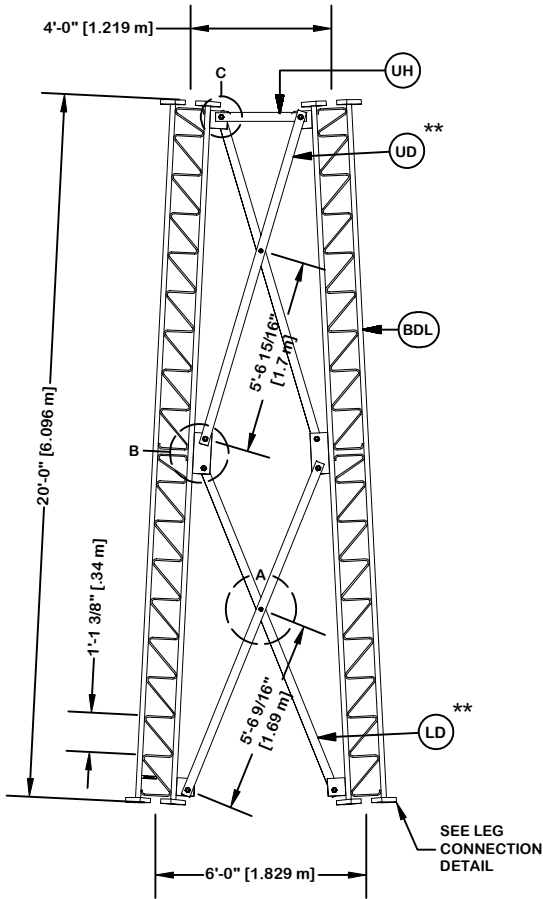
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SECTION U-8.0 (20' - 40' ELEVATION)
ENG. FILE NO.
669161

 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR		
DWG. NO.	299641T	PAGE 4 OF 8

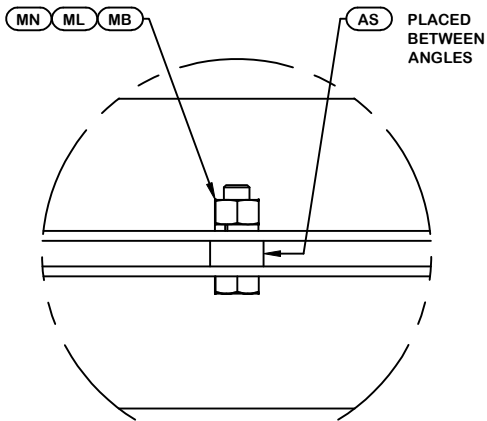
ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

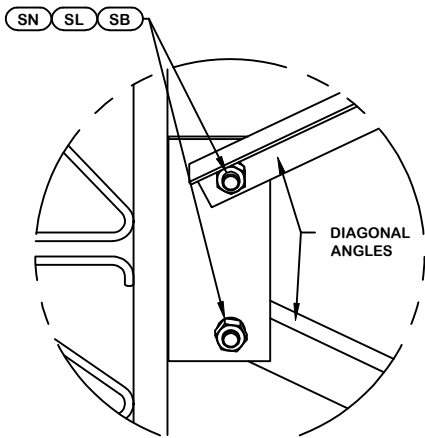
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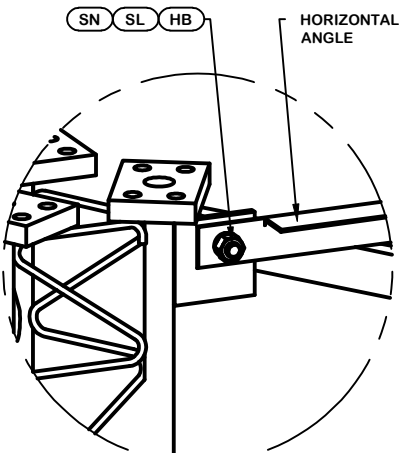
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BDL	3	194649	#12 LEG SECTION - 1-1/4" LEG - 1/2" BRACE - 1-1/4"	504.780	1514.340
LD	6	126881	U-6 LOWER DIAGONAL - 3" x 3" x 5/16" ANGLE (A572 G	64.990	389.940
AS	6	104291	RING FILL SPACER 1/2" THICK 1.049" HOLE	0.070	0.420
MN	6	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	1.140
ML	6	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.180
MB	6	160427	3/4"-10 X 3" A-325T BOLT WITH FULL THREAD	0.470	2.820
SB	18	222019	1-1/4"-7 X 2-3/4" A-325T BOLT FULL THREAD HDG	1.590	28.620
SL	24	312283	1-1/4" GALVANIZED LOCKWASHER	0.150	3.600
SN	24	312507	1-1/4"-7 HOT DIPPED GALVANIZED NUT	0.730	17.520
UD	6	126879	U-6 UPPER DIAGONAL - 3" x 3" x 5/16" ANGLE (A572 G	63.020	378.120
UH	3	268796	U-6 TAPERED UPPER HORIZONTAL ANGLE (TYPE 1) - 3" x	7.250	21.750
HB	6	311288	1-1/4"-7 X 2-3/4" A-325T BOLT WITH FULL THREAD	1.590	9.540
LCB	18	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	24.840
LCF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
LCL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
LCN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
Total Wt				2404.53 lb [1091.68 kg]	



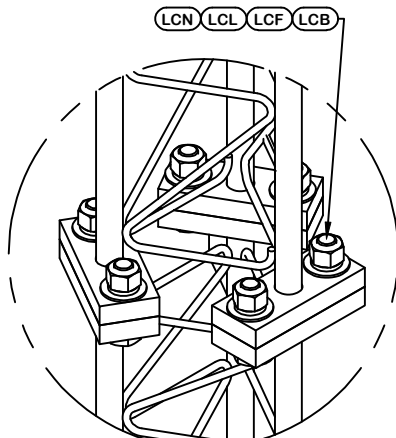
DETAIL A
ANGLE INTERSECTION CONNECTION



DETAIL B
MID SIDE PLATE ANGLE CONNECTION



DETAIL C
HORIZONTAL CONNECTION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

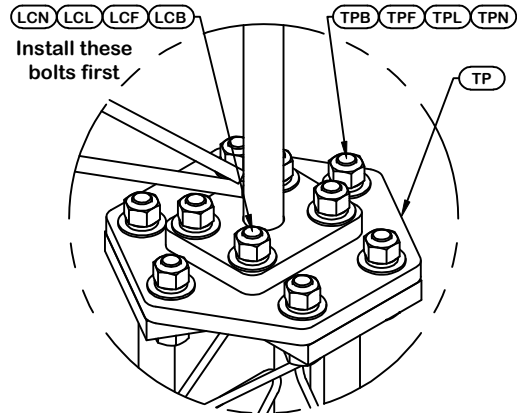
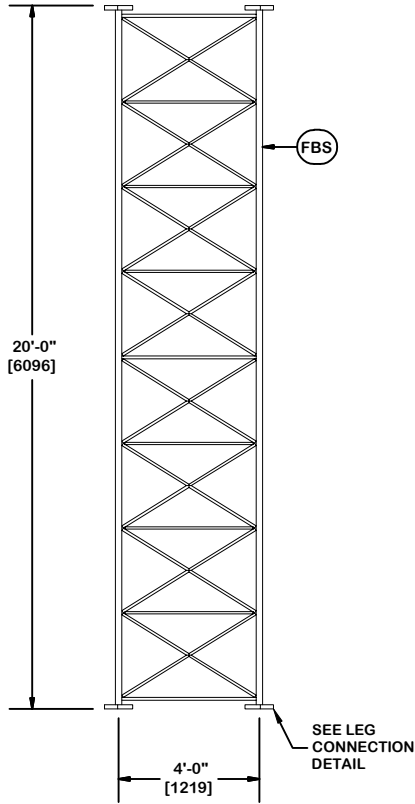
@A	<ACBATCH>		KRC	4/7/2026
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				
DRAWN BY KRC	APPROVED BY SAN	DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026

SITE
MSB EUREKA, AK NEW HORIZONS TELECOMMUNICATION U 10 X 120'
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PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
SECTION U-6.0 (40' - 60' ELEVATION)
ENG. FILE NO.
669161

valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
DWG. NO.	299641T	PAGE 5 OF 8

ORIENT SECTION WITH P/N STAMP
TOWARD BOTTOM OF TOWER



LEG TO LEG CONNECTION

The Transition Plate **MUST** be attached to the upper section before installing onto lower section

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	246648	#48 SECT W/ FOOTPADS 2" - 1 1/2" LEG 7/8" BRACE 20	1360.500	1360.500
TP	3	209573	TRANSITION PLATE (6) 1" BOLTS TO (4) 1" BOLTS	83.780	251.340
TPB	18	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	24.840
TPF	18	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	2.520
TPL	18	312223	1" GALVANIZED LOCKWASHER	0.080	1.440
TPN	18	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	7.740
LCB	12	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	16.560
LCF	12	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	1.680
LCL	12	312223	1" GALVANIZED LOCKWASHER	0.080	0.960
LCN	12	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	5.160
Total Wt				1672.74 lb [759.44 kg]	

@A	<ACBATCH>		KRC	4/7/2026
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY				
DRAWN BY KRC	APPROVED BY SAN	DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026

SITE

MSB EUREKA, AK
NEW HORIZONS TELECOMMUNICATION
U 10 X 120'

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PROPRIETARY NOTE:
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DESCRIPTION

SECTION V-4.0 (60' - 80' ELEVATION)

ENG. FILE NO.

669161

valmont

STRUCTURES

1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

DWG. NO.

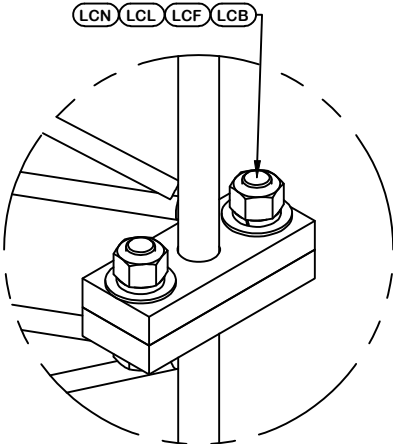
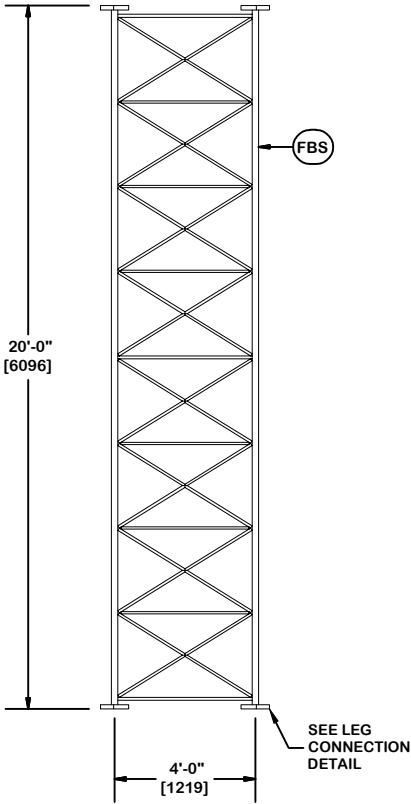
299641T

PAGE

6 OF 8

ORIENT SECTION WITH P/N STAMP
TOWARD BOTTOM OF TOWER

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	246635	#48 SECT W/ FOOTPADS 1 1/2" LEG 3/4" BRACE 20'-0"	906.030	906.030
LCB	6	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	8.280
LCF	6	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	0.840
LCL	6	312223	1" GALVANIZED LOCKWASHER	0.080	0.480
LCN	6	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	2.580
Total Wt				918.21 lb [416.88 kg]	

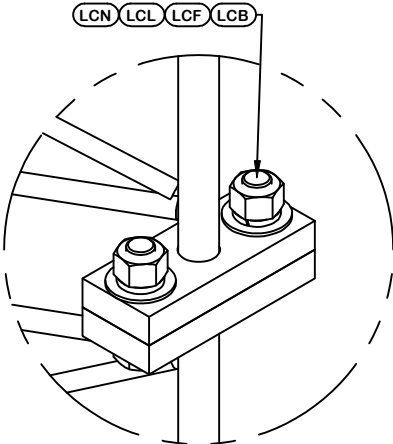
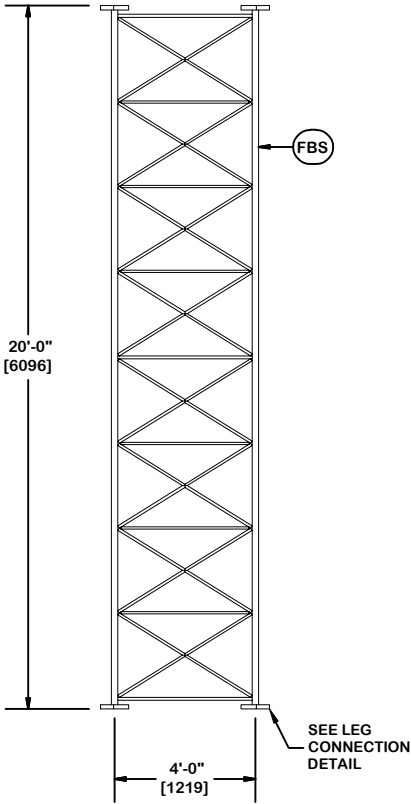


LEG TO LEG CONNECTION

					SITE MSB EUREKA, AK NEW HORIZONS TELECOMMUNICATION U 10 X 120' COPYRIGHT 2022		DESCRIPTION SECTION V-4.0 (80' - 100' ELEVATION)		valmont STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR		
@A	<ACBATCH>			KRC	4/7/2026						
REV	DESCRIPTION OF REVISIONS			CPD	BY	DATE					
REVISION HISTORY											
DRAWN BY KRC		APPROVED BY SAN		DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026	PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		ENG. FILE NO. 669161	DWG. NO. 299641T	PAGE 7 OF 8

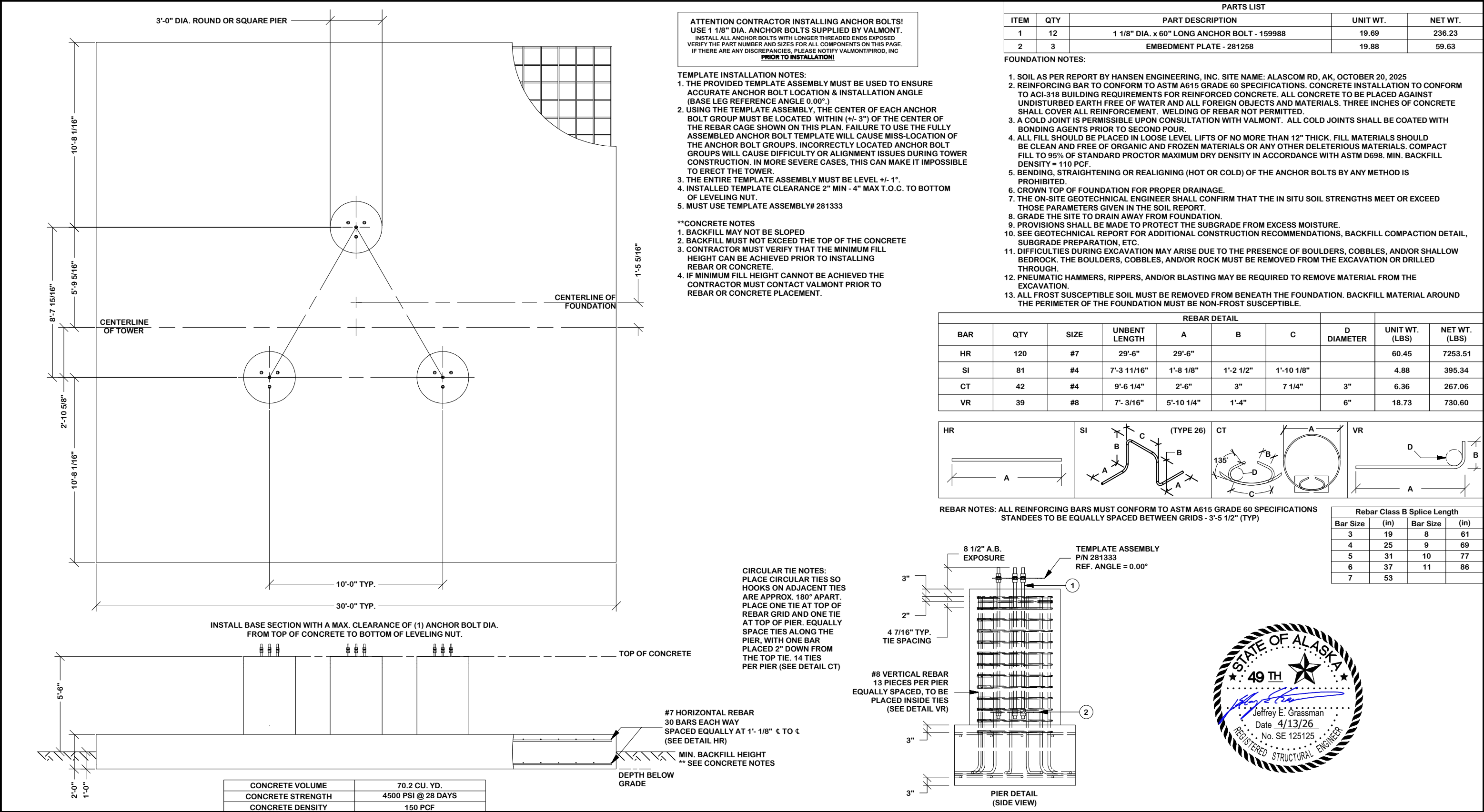
ORIENT SECTION WITH P/N STAMP
TOWARD BOTTOM OF TOWER

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
FBS	1	246634	#48 SECT W/ FOOTPADS 1 1/4" LEG 3/4" BRACE 20'-0"	793.550	793.550
LCB	6	222016	1"-8 X 4-3/4" A-325 BOLT WITH 1-3/4" THREAD	1.380	8.280
LCF	6	312222	1" GALVANIZED FLAT WASHER (F436)	0.140	0.840
LCL	6	312223	1" GALVANIZED LOCKWASHER	0.080	0.480
LCN	6	312504	1"-8 HOT DIPPED GALVANIZED NUT	0.430	2.580
Total Wt				805.73 lb [365.81 kg]	



LEG TO LEG CONNECTION

					SITE MSB EUREKA, AK NEW HORIZONS TELECOMMUNICATION U 10 X 120' COPYRIGHT 2022		DESCRIPTION SECTION V-4.0 (100' - 120' ELEVATION)		valmont 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR STRUCTURES		
@A	<ACBATCH>				KRC	4/7/2026					
REV	DESCRIPTION OF REVISIONS			CPD	BY	DATE					
REVISION HISTORY											
DRAWN BY KRC		APPROVED BY SAN		DESIGNED BY AK	APPROVED BY J_L	RELEASE DATE 4/7/2026	PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		ENG. FILE NO. 669161		
									DWG. NO. 299641T		
									PAGE 8 OF 8		



REVISION HISTORY					SITE MSB EUREKA, AK NEW HORIZONS TELECOMMUNICATION U 10 X 120' COPYRIGHT 2022	DESCRIPTION SHALLOW MAT WITH RAISED PIERS TOWER FOUNDATION #1	valmont STRUCTURES 1-877-467-4763 Plymouth, IN 1-800-547-2151 Salem, OR
@B	DESIGN UPDATE		J_L	4/10/2026			
@A	DESIGN UPDATE		J_L	4/7/2026			
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE			
DRAWN BY KRC					APPROVED BY SAN	DESIGNED BY AK	RELEASE DATE 4/13/2026
ENG. FILE NO. 669161					DWG. NO. 299641F		
PAGE 1 OF 1					THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.		

**Attachment D:
FAA Confirmation of Study Exclusion**





Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)

Profile

Logout

- Home
- Dashboard
- Reports
- Search
- Download
- Pre-Screening Tool
- Tools
- FAQ & Resources

1 Contact Details

Location/Map

Latitude	Longitude	Datum	Site Elevation	Total Structure Height
61°49'56.7"	147°19'43.1"	WGS 84	3435	125

Label: MSB Eureka

Find Coordinates by Address

Description of Location	Tower
Description of Proposal	Tower
Nearest City	Sutton
Nearest State	Alaska

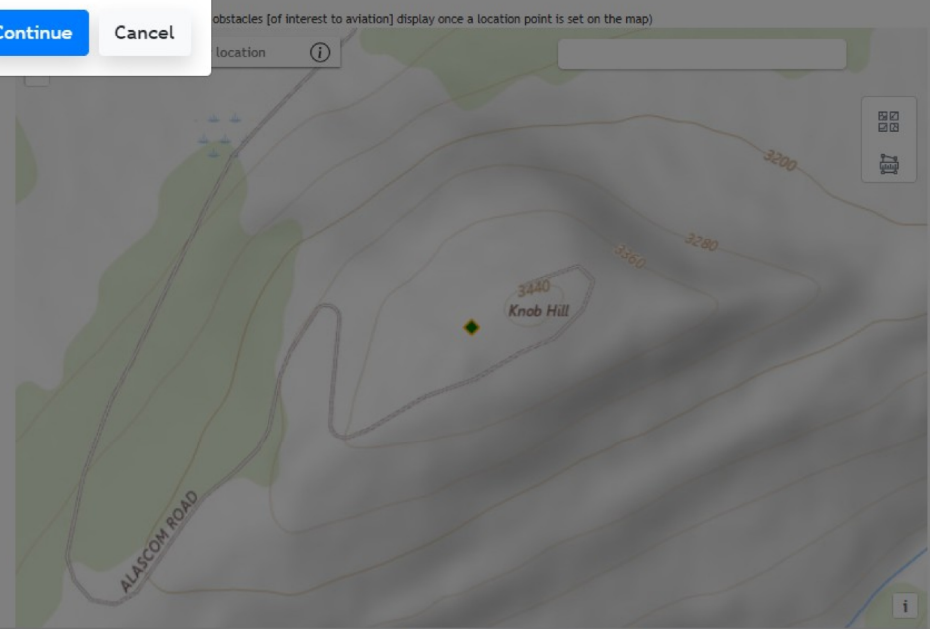
Based on the information you provided, you are not required to file notice with the FAA.

Select **Cancel** to exit this notice without saving your input OR Select **Continue**.

Continue Cancel

4 Additional Details

5 Summary



< Previous

Save and Next >

**Attachment E:
Google Earth Viewshed Analysis**



Eureka Tower

Viewshed analysis (3 mile radius from proposed tower)
Green areas indicate potential visibility.

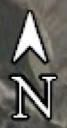
Legend

 Viewshed Analysis Limits



Google Earth

Image © 2026 Airbus
Image © 2026 Maxar Technologies
Image © 2026 CNES / Airbus



1 mi



Building Tomorrow's Infrastructure Today

► **Corporate Headquarters**

901 Cope Industrial Way
Palmer, Alaska 99645
907.761.6000

www.nhti.usa.com



Site Visit Photos







PUBLIC NOTICE

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

«NAME»
«ADDRESS_1»
«ADDRESS_2»
«ADDRESS_3»

PUBLIC HEARING

Sierra Larson, New Horizons Telecom Inc., on behalf of Matanuska-Susitna Borough applied for an Administrative Permit under MSB 17.67—Tall Structures. The Permit is for a 120-foot telecommunications tower located near 7880 W Alascom Road, Tax ID# 20N12E08C001.

The Matanuska-Susitna Borough Planning Director will conduct a public hearing concerning the application on Wednesday, July 15, 2026, at 9:30 a.m. in the Borough Assembly Chambers located at 350 E. Dahlia Avenue in Palmer. This may be the only presentation of this item before the Planning Director, and you are invited to attend.

Application materials may be viewed online at www.matsu.gov by clicking on “All Public Notices & Announcements.” For additional information, you may contact Wade Long, Development Services Manager, by phone: 907-861-7865. Provide written comments by e-mail to wade.long@matsugov.us, or by mail to MSB Development Services Division, 350 E. Dahlia Avenue, Palmer, AK 99645.

The public may provide verbal testimony at the meeting or telephonically by calling 1-855-290-3803. To be eligible to file an appeal from a decision of the Planning Director, a person must be designated an interested party. See MSB 15.39.010 for the definition of an interested party. The procedures governing appeals to the Board of Adjustment and Appeals are contained in MSB 15.39.010-250, which is available on the Borough home page: www.matsu.gov, in the Borough Clerk’s office, and at various libraries within the borough.

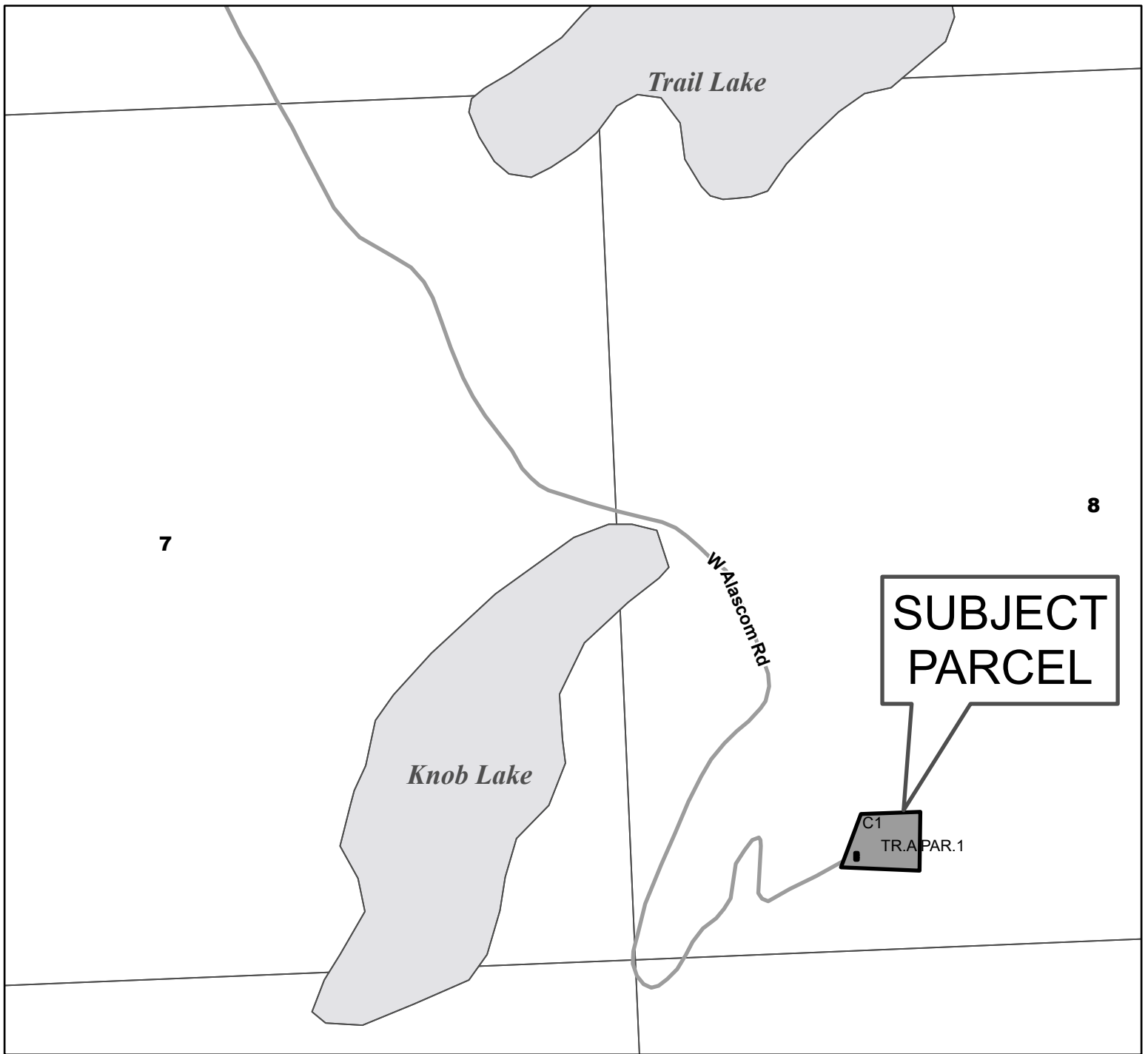
Comments are due on or before July 2, 2026, and will be included in the Planning Director packet. Please be advised that comments received from the public after that date will not be included in the staff report but will be provided to the Director at the meeting.

Name: _____ *Mailing Address:* _____

Location/Legal Description of your property: _____

Comments: _____

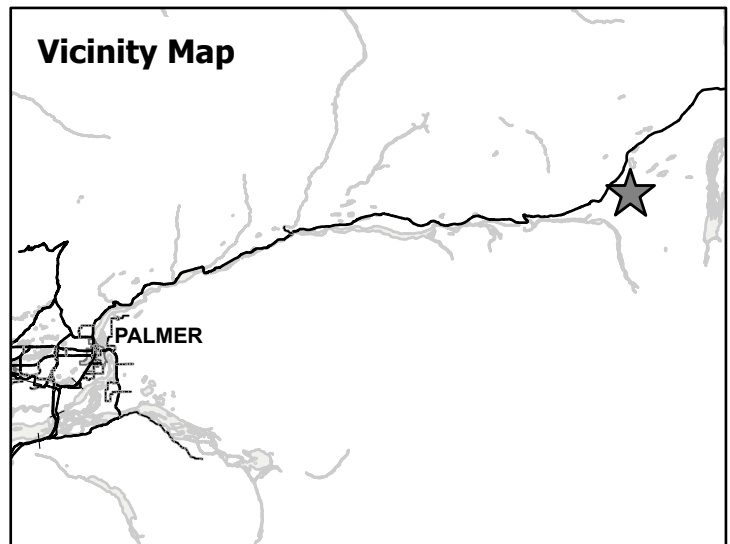
Note: Vicinity Map Located on Reverse Side



20N12E08C001

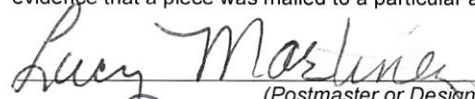


This map is for informational purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-861-7801.





Certificate of Bulk Mailing — Domestic

Fee for Certificate			Use Current Price List (Notice 123)	Postage: Mailers must affix postage stamps here.	 US POSTAGE PAID BY PITNEY BOWES ZIP 99645 \$ 013.50⁰ 02 7W 0008035337 JUN 16 2026
Up to 1,000 pieces (1 certificate for total number)					
For each additional 1,000 pieces, or fraction thereof					
Duplicate Copy ☐					
Number of Identical Weight Pieces 54	Class of Mail 1st	Postage for Each Mailpiece Paid ☐ Verified	Number of Pieces to the Pound 45	Acceptance employee must cancel postage affixed (by round-date) at the time of mailing.	
Total Number of Pounds 1162.902	Total Postage Paid for Mailpieces \$39.90	Fee Paid \$13.50	If payment of total fee due is being paid by Permit Imprint, include the PostalOne! Transaction Number here: _____		
Mailed For Permit Center		Mailed By Betty Jean Black			
Postmaster's Certification					
It is hereby certified that the number of mailpieces presented and the associated postage and fee were verified. This certificate does not provide evidence that a piece was mailed to a particular address.					
 (Postmaster or Designee)					

Number	Owner 1	Owner 2	Mailing Address Line 2	Mailing Address Line 1	Mailing Address City	Mailing Address : Mailing Address Zipcode
1	ALASCOM INC	ATTEN PROP TAX DEPT		1010 PINE ST # 9E-L-01	SAINT LOUIS	MO 63101-2015
2	AVE VICTOR M			2110 DAWNLIGHT CT	ANCHORAGE	AK 99501-5717
3	BALDRIDGE JEFFREY L & MONICA			PO BOX 871129	WASILLA	AK 99587
4	BIG SKY DEVELOPMENT LLC			100 SANDY CREEK TRL	WEATHERFORD	TX 76085
5	BIRD AARON D			PO BOX 875556	WASILLA	AK 99587-5556
6	BROWN STANLEY D			20715 MELODY LN	WASILLA	AK 99577-8744
7	CHRISTIANSEN KYLE RICHARD	CHRISTIANSEN CASSANDRA LYNN		1680 N CATALINA DR	WASILLA	AK 99654-6021
8	CLINE STEVEN L & PAMELA J	ROHRBAUGH EMILY & DENN MATTHEW	STE 1	7070 N MELODY LN	WASILLA	AK 99654
9	COADY COLT			2205 CLIFF CT	ANCHORAGE	AK 99517
10	COFFMAN JUSTIN & ALYSON			351 W SWANSON AVE	WASILLA	AK 99502-2102
11	COMISKEY KIEL	LAMB MELISSA		3103 W 62ND AVE	ANCHORAGE	AK 99654
12	CORBIN RICHARD D			PO BOX 871184	WASILLA	AK 99687-1184
13	COTE ANNA	% STEVEN COTE		2690 DE ARMOUN RD	ANCHORAGE	AK 99516
14	CRAWFORD FAMILY LVG TR			PO BOX 870482	WASILLA	AK 99687-0281
15	DARBY KETH W & VYMAN L TREES	DARBY K & V FAM TR		PO BOX 870281	CHUGIAK	AK 99515
16	DRENNY TRAVIS CHARLES			221 W 121ST AVE	ANCHORAGE	AK 99517
17	FIRMIN ROBERT E & MORAE			3809 DELORES DR	EAGLE RIVER	AK 99515
18	GALLEY ANDREW C & ELIZABETH G			6975 N POLAR LIGHTS RD	PALMER	AK 99517
19	GRAHAM JAMES E & CHRISTINA M			4105 PATRICIA LN	ANCHORAGE	AK 99504
20	HANSEN ERIC & DIANE			10378 S OLD GLENN HWY	PALMER	AK 99515
21	HEIDEMANN EMMET F JR			PO BOX 190961	ANCHORAGE	AK 99519-0961
22	JOHNSON GALE & JANET LVG TR	JOHNSON GALE R & JANET I TREES		PO BOX 870126	CHUGIAK	AK 99567-0126
23	KARICH DOUGLAS A			2716 TURNAGAIN PRWY	ANCHORAGE	AK 99517
24	LARSON JANE F			55 CIMARRON TRL	SILVER CITY	NM 88061-9151
25	LARSON RICHARD & PATRICIA TRUST			2515 N WILLOW DR	WASILLA	AK 99507-1229
26	LUCAS FAMILY TR	LUCAS BOBBY A & M DIANE TREES		PO BOX 871229	WASILLA	AK 99507-1264
27	LUTTEN DOUGLAS & BARBARA			7060 TULUGAK CIR	ANCHORAGE	AK 99507
28	LUTTEN MARK E & PAMELA A			6761 ROUND TREE DR	ANCHORAGE	AK 99507
29	MAIDL RYAN B			19039 BEVERLY AVE	CHUGIAK	AK 99567
30	MARINELLI STEINBERG JAMIE	STEINBERG MELVIN		17227 BEAR PAW CIR	EAGLE RIVER	AK 99577
31	MARLIN GLENN & SWAMANTHA J			2350 E MUSK OX CIR	WASILLA	AK 99654-1849
32	MILLER KYLE W			102 SPRING ROSE DR	MAGNOLIA	AK 77354-7244
33	MURRAY PATRICK LALESLEE J			5175 E IROQUOIS CT	WASILLA	AK 99654-6710
34	NEWMAN STEVEN & KELLY A			PO BOX 874066	WASILLA	AK 99687-4066
35	NUTGASS ZOLAN FAM TR			15032 E WASHINGTON BLVD	EAGLE RIVER	AK 99577
36	RACHOW RICHARD & JOCELLEN			7063 N WASILLA FISHHOOK R	PALMER	AK 99645
37	RIESE KRAIG H & MELISSA K			7597 E SANDSTONE DR	WASILLA	AK 99654
38	RING JEROME L & TERRIL			10672 KENAI SPUR HWY	WASILLA	AK 99654
39	ROZMAN ALASKA FAM TR			332 W MALIBU DR	KENAI	AK 99611
40	SCHMIDT ROBERT J JR LVG TR			HC 1 BOX 2218	CHANDLER	AZ 85248
41	SCHUENING HAP VAN			PO BOX 1787	GLENNALLEN	AK 99588-8501
42	SEMLER JASON S & LESLIE N			259 GERMARD DR	PALMER	AK 99645
43	SHARP TIMOTHY COLLIN			10938 SUNEAGLE CIR	EAST HAMPTON	NY 99645
44	SINGLETON JACK W	SINGLETON MICHAEL & ELISA		47465 WINDRIDGE AVE	EAGLE RIVER	AK 11937
45	SMITH DAVID P	GARDNER SAMUEL W		19048 WHIRLAWAY RD	KENAI	AK 99611
46	SMITH RANDY			30605 PRUDHOE BAY AVE	EAGLE RIVER	AK 99577-7202
47	SOMMER MATTHEW L			PO BOX 871353	CHUGIAK	AK 99577-9738
48	STACY DAVID DA JENNIFER L			893 MAHO CIR	ANCHORAGE	AK 99567
49	TAHNEA LAKE LLC			2281 W SUCCESS DR	WASILLA	AK 99515
50	THIBODEAU JERRY A & MELISSA C			6881 ABBOTT LOOP RD	ANCHORAGE	AK 99654
51	UNITED STATES OF AMERICA	DEPT OF INTERIOR BUREAU OF LAND MANEGEME	# 1 % FIELD MGR/ANCH FLD OFIC	22973 NORTHWOODS DR	CHUGIAK	AK 99607
52	WARROPE ROBT J & PATTL			16820 HELMAUR PL	CHUGIAK	AK 99567
53	WARNER ANDREW & MICHELLE			65975 S WOLVERINE CIR	PALMER	AK 99645
54	GLACIER VIEW COMMUNITY COUNCIL				CHICKALOON	AK 99674

Enhanced Search

120N12E08C001

Search result

Enhanced Search

By ShapeBy ValueBy Spatial

Select all parcel, parcel points, and/or subdivisions with a spatial relationship to a selected origin polygon (with an optional buffer).

Clear all

Select by data

Relationship

Intersect

Selecting features

Parcels

Buffer distance

4

Mile

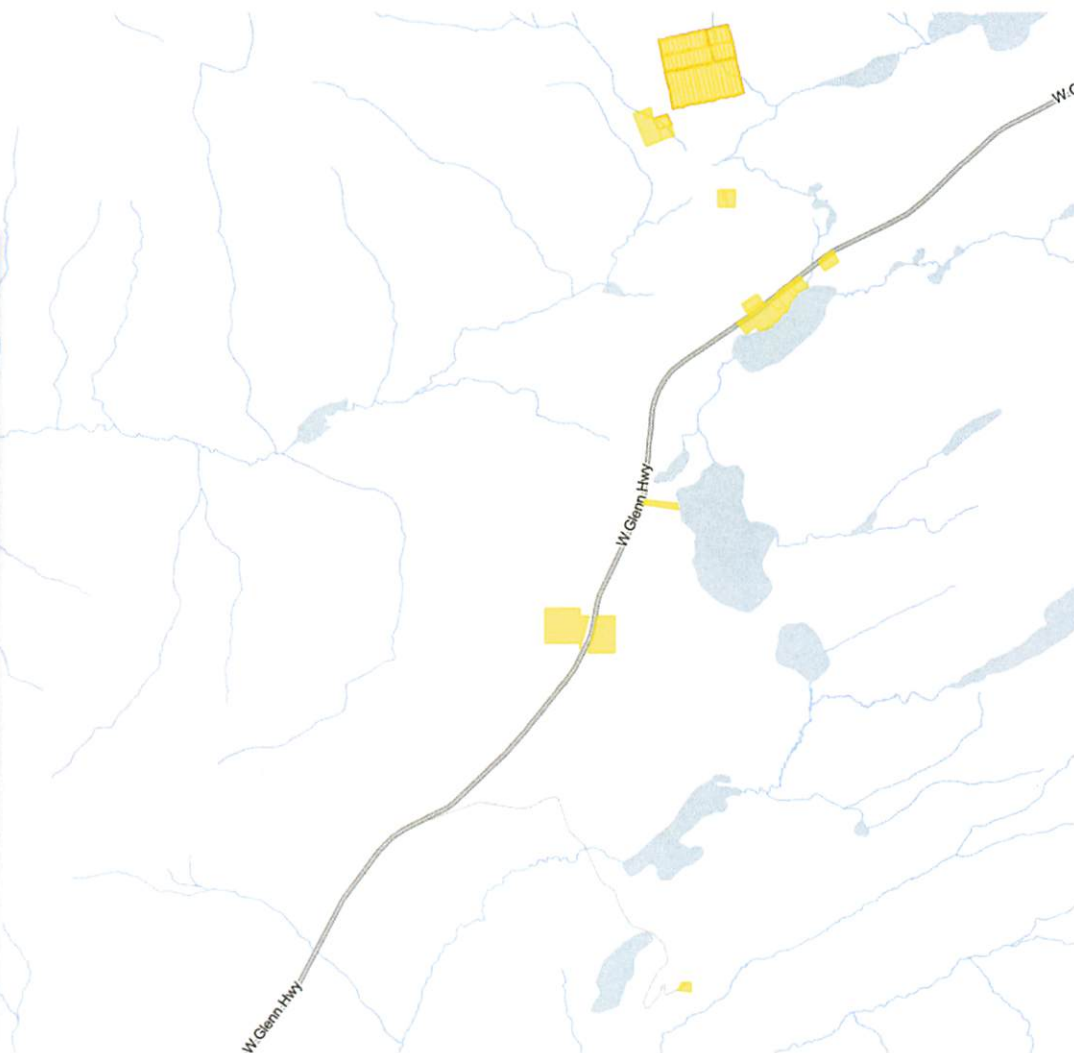
There are 75 features inside this data.

Layers

☒ Parcels 75

☐ Parcel Points

☐ Subdivisions

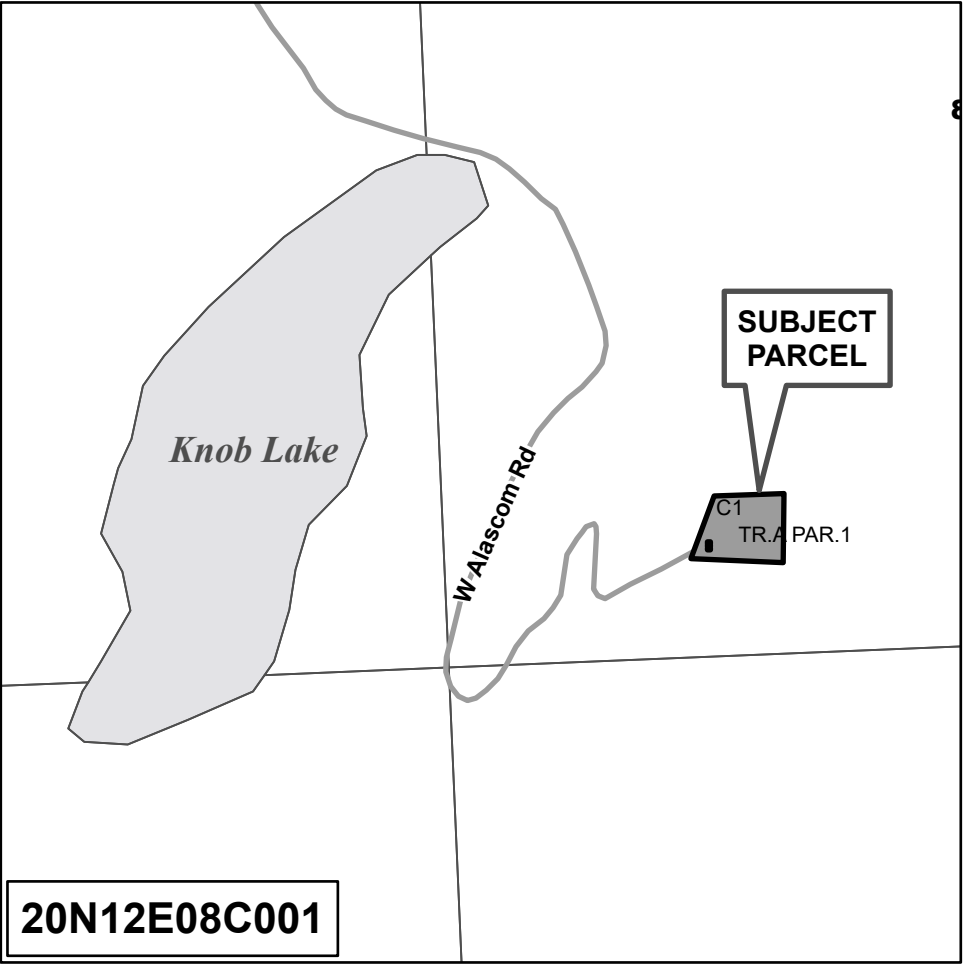


MSB Planning & Land Use – Administrative Hearing

The Matanuska-Susitna Borough Planning Director will conduct a public hearing on **Wednesday, July 15, 2026**, at 9:30 a.m. in the Mat-Su Borough Assembly Chambers located at 350 E. Dahlia Avenue in Palmer. This may be the only presentation of these items before the Planning Director, and you are invited to attend. Application materials may be viewed online at www.matsu.gov by clicking on “All Public Notices & Announcements.”

MSB 17.67 – Tall Structure near 7880 W. Alascom Road, Eureka

New Horizons Telecom, Inc., on behalf of the Matanuska-Susitna Borough, applied for an Administrative Permit under MSB 17.67—Tall Structures. The Permit is for a 120-foot telecommunications tower located near 7880 W. Alascom Road, Tax ID# 20N12E08C001.



CORRESPONDENCE

Re: Cell phone tower

From Wade Long <Wade.Long@matsugov.us>

Date Thu 6/25/2026 8:11 AM

To manwiller <manwiller@protonmail.com>

Mr. Manwiller,

Thank you for your inquiry regarding the tower application.

The application is scheduled for an administrative public hearing on July 15, 2026, at 9:30 a.m. The hearing will be held in the Borough Assembly Chambers, 350 E. Dahlia Avenue, Palmer, Alaska.

Members of the public are welcome to submit written comments through July 2, 2026. In addition, individuals may attend the hearing to provide oral testimony, either in person or telephonically by calling 1-855-290-3803 on July 15th. Thank you.

Respectfully,

Wade Long

Development Services Manager

Matanuska-Susitna Borough

350 E. Dahlia Ave

Palmer, AK 99645

office: 907-861-7865

cell: 907-707-4741

From: manwiller <manwiller@protonmail.com>

Sent: Wednesday, June 24, 2026 6:33 PM

To: Wade Long <wade.long@matsugov.us>

Subject: Cell phone tower

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]

Is there any hope to stop the new cell phone tower going up?

David Manwiller
Glacier View



Outlook

New Tower

From Rick Brenden <rickbrenden@gmail.com>

Date Sat 6/27/2026 9:10 AM

To Wade Long <wade.long@matsugov.us>

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

I see that a new tower is proposed to be built on Alascom Hill. I assume it is a cell tower.
One more tower on a hill full of towers shouldn't be a problem.

Rick

Glacier View

2B

STAFF REPORT



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822

www.matsu.gov

DEVELOPMENT SERVICES DIVISION STAFF REPORT

Date: July 15, 2026

File Number: TOWER-2024-010035

Applicant: Atlas Tower 1, LLC

Property Owner: The Brown Family Revocable Trust

Request: Administrative Permit in accordance with MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures

Location: 33693 S. Noel Wien Avenue, Tax ID# 4287000L001

Size of Property: Approximately 3.43 acres

Proposed Lease Area: Approximately 50' x 50' within Tax ID# 4287000L001

Reviewed By: Wade Long, Development Services Manager

Staff: Natasha Grover, Current Planner

Staff Recommendation: Approval

EXECUTIVE SUMMARY

An Administrative Permit application under MSB 17.67 – Tall Structures Including Telecommunication Facilities, Wind Energy Conversion Systems, and Other Tall Structures, has been submitted to construct a 125-foot-tall, lattice tower on the above-referenced property within a 50' x 50' leased area.

A tall structure exceeding 85 feet in height is only permitted upon the issuance of an Administrative or Conditional Use Permit. Unless this type of use is maintained under and in accordance with a lawfully issued permit, a tall structure is declared to be a public nuisance. The operation of such a land use without a permit is prohibited.

LAND USE

Existing Land Use:

The subject parcel at 33693 S. Noel Wien Avenue, Moose Hollow Subdivision Addition No. 1 Lot 1, is a parcel approximately 3.43 acres in size. The parcel is primarily used for residential use and contains existing structures including the primary dwelling and a few accessory structures. The subject parcel is largely covered with natural tree vegetation and existing foliage with some areas cleared for existing structures and access. The subject parcel has two low volume driveway permits issued for access to the parcel from Noel Wien Avenue.

Surrounding Land Use

The subject property is located directly east of South Noel Wien Avenue, south of East Moose Hollow Avenue, west of Benka Lake, and northeast of South Talkeetna Spur Road. The area immediately surrounding the subject property consists primarily of residential homes within the Moose Hollow and Sunshine Lakes subdivisions with lots ranging in size from approximately one to six acres. The general surrounding area also includes large parcels of unsubdivided land including a tract of approximately 76 acres located directly northwest of the subject property on the opposite side of South Noel Wien Avenue. Nearby land usage includes a variety of low density residential, undeveloped, institutional, and industrial uses. This development pattern is typical in the area along South Talkeetna Spur Road which has a historical functional classification as a major arterial road.

REVIEW OF APPLICABLE CRITERIA AND FINDINGS

MSB 17.03 – Public Notification

The public notice mailed 113 notices to all property owners within approximately ½ mile radius of the subject property and to the Susitna Community Council on June 17, 2026. The ADN (Anchorage Daily News) published the public hearing announcement in the June 17, 2026, edition. Staff posted the application material on the Borough website for public review on June 17, 2026. Staff received nine responses from the public regarding the proposed tower; eight opposed, and one with an aviation related request.

Section 17.67.040 Types of Permits Available

(A) *There are three types of permits available for tall structures:*

(1) *Administrative permit: new tall structures that are greater than 85 feet but less than or equal to 125 feet. The applicant may request that the decision on an administrative permit be made by the planning commission. The request shall be in writing at the time of application and all requirements for a conditional use permit shall be followed.*

(2) *Conditional use permit: new tall structures greater than 125 feet; or tall structures that exceed the height threshold at which a conditional use permit within a special land use district is required.*

(3) *Network improvement permit: allows legally constructed telecommunication towers to be increased in height in accordance with MSB 17.67.110.*

Findings of Fact:

1. According to the application material, the proposed tall structure will be a 125-foot-tall, lattice tower telecommunications tower.

2. The applicant has not requested that the Planning Commission decide on this Administrative Permit application.

Conclusion of Law: Based on the above findings, the proposed use meets the criteria to qualify for an Administrative Permit for the construction of a 125-foot-tall structure (MSB 17.67.040(A)(1)).

Section 17.60.080 Standards for Approval of New Tall Structures

(A) A permit for a new tall structure may only be approved if it meets the requirements of this section in addition to any other applicable standards required by this chapter.

(B) In granting or denying a permit, the commission or director shall make findings on whether the applicant has demonstrated that:

(1) To the extent that is technically feasible and potentially available, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized;

Findings of Fact:

1. The proposed tower site is located on a privately-owned parcel approximately 3.43 acres in size, residential in nature, and is situated within the Matanuska-Susitna Borough.
2. According to the application materials, the proposed tower location was chosen to maximize visual aesthetic and distance from residential homes.
3. According to the application materials, the equipment compound surrounding the proposed tall structure will be located approximately 45 feet from the northern property line, 110 feet from the eastern property line, 280 feet from the southern property line, and 200 feet from the western property line.
4. According to the application materials, the base of the tall structure will be located approximately 75 feet from the northern property line, 143 feet from the eastern property line, 315 feet from the southern property line, and 250 feet from the western property line.
5. According to the application materials, the nearest structure on the subject property will be located approximately 135 feet to the west of the equipment compound and approximately 180 feet from the base of the tall structure.
6. According to the application materials, the nearest residential structure on the subject property, the primary residence, will be located approximately 205 feet to the southwest of the equipment compound and approximately 245 feet from the base of the tall structure.
7. According to the application materials, the nearest residential structures on adjacent properties are located on the parcels to the north and east of the subject property and approximately 285 feet from the proposed tower base.
8. According to the application materials, all other residential structures are greater than 400 feet from the proposed tower base.
9. According to the application materials, South Talkeetna Spur Road is approximately 1415 feet southwest from the proposed tower location.
10. According to the application materials, the proposed tower location is located in the north half of the subject property, surrounded by dense vegetation and established birch and spruce trees, in a depression approximately 20 feet lower than the surrounding area.

11. According to the application materials, the tower shall be marked and lighted in conformance with local building codes, FAA regulations, and TIA-222-H. The proposed tower is an open lattice style structure which will remain a galvanized color with no light installed.
12. According to the application materials, the tower height of 125 feet is required to meet service objectives.
13. Site Visit photos indicate that a few surrounding parcel owners may have limited visibility to the proposed tower depending on the elevation and orientation from an individual structure, and the time of year with corresponding foliage coverage of existing vegetation.
14. According to the application materials, visual renderings indicate that the tower will be visible from surrounding areas and will be constructed to minimize visual effects to the extent that is technically feasible.

Conclusion of Law: Based on the above findings, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized (MSB 17.67.080(B)(1)).

(2) Visibility of the tall structure from public parks, trails recognized within adopted borough plans, and water bodies has been minimized to the extent that is technically feasible and potentially available;

Findings of Fact:

1. According to the application materials, the proposed tower location was chosen to maximize visual aesthetic and distance from residential homes.
2. According to the application materials, the proposed tower location is located in the north half of the subject property, surrounded by dense vegetation and established birch and spruce trees, in a depression approximately 20 feet lower than the surrounding area.
3. According to the application materials, the tall structure is located approximately three miles from any public trailheads with four recognized trailheads within five miles of the proposed location; Dorothy Jones Trail, Sunshine, Luthman, and Montana Creek Falls. According to application materials, there are not anticipated views of the tower from any of these locations due to the dense vegetation and elevation changes.
4. The proposed tower location is located approximately 0.27 miles from the Talkeetna Spur Separated Path.
5. The proposed tower location is located approximately 2.6 miles from the Luthman Trailhead.
6. The proposed tower location is located approximately 3.1 miles from the Sunshine Creek Campground.
7. The proposed tower location is located approximately 3.9 miles from the Su Valley Jr/Sr High School Trailhead / Dorothy Jones Trail.
8. The proposed tower location is located approximately 4.25 miles from the Montana Creek Trailhead.

9. According to the application materials, the nearest waterbody to the proposed tower location is Benka Lake. According to application materials, there are not anticipated views of the tower from this waterbody due to the dense vegetation and elevation changes.
10. The proposed tower location is located approximately 0.36 miles west of Benka Lake.
11. The proposed tower location is located to the northeast of West and East Sunshine Lakes, approximately 0.45 miles northeast of East Sunshine Lake.
12. According to the application materials, the tower shall be marked and lighted in conformance with local building codes, FAA regulations, and TIA-222-H. The proposed tower is an open lattice style structure which will remain a galvanized color with no light installed.
13. According to the application materials, the tower height of 125 feet is required to meet service objectives.
14. Site Visit photos indicate that a few surrounding parcel owners may have limited visibility to the proposed tower depending on the elevation and orientation from an individual structure, and the time of year with corresponding foliage coverage of existing vegetation.
15. According to the application materials, visual renderings indicate that the tower will be visible from surrounding areas and will be constructed to minimize visual effects to the extent that is technically feasible.

Conclusion of Law: Based on the above findings, the proposed tall structures' visibility from public parks, trails, and waterbodies has been minimized (MSB 17.67.080(B)(2)).

(3) The tall structure will not interfere with the approaches to any existing airport or airfield that are identified in the borough's regional aviation system plan or by the Alaska State Aviation System Plan; and

Findings of Fact:

1. According to the application materials, the proposed tower location is over one mile from airstrip AK19 Carl's Landing and does not interfere with the direct flight path of the airstrip.
2. According to the application materials, the Federal Communications Commission (FCC) has approved the proposed telecommunications tower at the location identified in the application materials. The FCC found no hazard to air navigation and no necessary painting and lighting requirements.
3. The proposed tower location is located approximately 1.46 miles from airstrip AK19 Carl's Landing.
4. The proposed tower location is located approximately 3.92 miles from airstrip 51AK Birch Creek Landing.
5. According to the application materials, the tower shall be marked and lighted in conformance with local building codes, FAA regulations, and TIA-222-H. The proposed tower is an open lattice style structure which will remain a galvanized color with no light installed.

6. According to the application materials, the tower height of 125 feet is required to meet service objectives.
7. Staff received multiple public comments with concerns regarding the light pollution of a potential light on the tower and the association with the quality of life for adjacent residential areas.
8. Staff received one public comment with a request to include an aviation grade marker beacon on the top with 24/7 operation and maintenance feature.

Conclusion of Law: Based on the above findings, the proposed tall structure will not interfere with the approaches to any existing airport or airfield (MSB 17.67.080(B)(3)).

(4) Granting the permit will not be harmful to the public health, safety, convenience, and welfare.

Findings of Fact:

1. The applicant submitted certified documents from a Registered Professional Engineer in the State of Alaska including site plans for the proposed tall structure and associated equipment compound, structural design criteria for the tall structure and foundation, design supporting calculations, and a letter describing the expected performance of the tall structure.
2. According to application materials, breakpoint design technology will be utilized with the breakpoint level of the structure to be fifty percent of the tower structure height.
3. According to the application materials, the possibility of a tower collapse is very unlikely.
4. According to the application materials, in the event of a tower collapse the most likely mode of failure would be a buckling failure of one of the tower sections due to excessive wind loading. The anticipated action in the event of failure would be the top 45 feet of the tower falling within a 35-foot radius of the tower.
5. According to the application materials, the equipment compound surrounding the proposed tall structure will be located approximately 45 feet from the northern property line, 110 feet from the eastern property line, 280 feet from the southern property line, and 200 feet from the western property line.
6. According to the application materials, the base of the tall structure will be located approximately 75 feet from the northern property line, 143 feet from the eastern property line, 315 feet from the southern property line, and 250 feet from the western property line.
7. According to the application materials, access to the equipment compound is secured by a seven-foot-tall external fence.
8. According to the application materials, the proposed tower shall be secured within the equipment compound surrounded by a locked six-foot chain link fencing with an additional one-foot of barbed wire on top to prevent unauthorized visitors.
9. According to the application material, the gate providing access to the equipment compound will be secured by chain link fence and multi-lock padlock security.

10. According to the application material, signs will be posted including radio frequency notice and warnings, the Federal Communications Commission Antenna Structure Registration (FCC ASR) number, and a 24-hour emergency contact.
11. According to the application materials, telecommunication facilities are essentially silent and any expected noise may be produced from an on site generator in some rare instances.
12. According to the application materials, the frequency of traffic to the proposed tower location will be minimal even if/when the tower is at full capacity with up to four carriers. After installation of the tall structure, the anticipated traffic at the proposed tower location includes one truck visiting the site for maintenance on one to four occasions per year, per carrier.
13. According to the application materials, there are no residential structures located within a radius equal to the height of the tall structure.
14. According to the application materials, the nearest structure to the proposed tower will be located on the subject property approximately 180 feet from the base of the tall structure.
15. According to the application materials, there is utility development located within a radius equal to the height of the tall structure.
16. A utility easement exists within close proximity to the proposed tower location (Plat 94-21 Moose Hollow Addition No. 1).
17. According to application materials, the utility easement is located approximately 25.2 feet from the base of the tall structure.
18. According to application materials, the center of the overhead utility line is located approximately 42.5 feet from the base of the tall structure.
19. Matanuska Electric Association confirmed that power is located within the subject utility easement for service at Moose Hollow Addition No. 1 Lot 8A.
20. Staff received eight public comments opposing the proposed tower due to health concerns related to radio frequency, aesthetic impact, environmental impact, economic impact on adjacent property values, and rural quality of life in the area.
21. According to the application materials, the proposed tower will expand coverage and improve cellular and data performance in the area.

Discussion: Staff received multiple comments opposing the proposed tower due to health concerns related to radiofrequency electromagnetic radiation (RF-EMR) emissions. The United States Congress adopted the Telecommunications Act of 1996 (TA96), which requires cellular towers to comply with the Federal Communication Commission (FCC) health and safety standards for RF-EMR emissions. TA96 also preempts local governments from making zoning and land use decisions based on the environmental effects of RF-EMF emissions. As such, this review does not contemplate the potential environmental effects of electromagnetic radiation. In addition, there is no evidence to support that the proposed tall structure will negatively affect surrounding property values.

The proximity of the proposed tower to the existing utility easement is a factor that could be considered harmful to public health, safety, convenience, and welfare. Due to the unlikely event

of a structural failure, the distance from the tower to the utility line, and the potential impact of the effect on the line this review finds that this tall structure will not be harmful to the overall public health, safety, convenience, and welfare of the surrounding area.

Conclusion of Law: Based on the above findings, and with conditions, the proposed tower will not be harmful to public health, safety, convenience, and welfare (MSB 17.60.080(B)(4)).

Section 17.67.090 Operation Standards for New Tall Structures

(A) The following setback requirements shall apply to all new telecommunications towers regulated under this chapter:

(1) The equipment compound shall meet minimum setback distances from all property lines in accordance with MSB 17.55.

Findings of Fact:

1. The proposed tower site is located on a privately-owned parcel approximately 3.43 acres in size, residential in nature, and is situated within the Matanuska-Susitna Borough.
2. According to the application materials, the equipment compound surrounding the proposed tall structure will be located approximately 45 feet from the northern property line, 110 feet from the eastern property line, 280 feet from the southern property line, and 200 feet from the western property line.
3. According to the application materials, the proposed tower and equipment compound will be within a 50' x 50' leased area on the subject property.

Conclusion of Law: Based on the above findings, the proposed equipment compound meets the minimum setback distances from all property lines in accordance with MSB 17.55 (MSB 17.67.090(A)(1)).

(2) Minimum setback for the tower base shall be a distance equal to the height of the tower or to the extent of the projected fall zone, if the structure incorporates a frangible design or equivalent engineered collapse mitigation system.

(a) The commission, or director if it is an administrative permit, may reduce the setback to a distance less than the height of the tower, if the applicant demonstrates there is no risk to public health, safety, or welfare of adjacent property owners.

i. At a minimum, the applicant must show there are no habitable structures on adjacent properties within the projected fall zone.

(b) The setback distance shall not be reduced to less than 25 feet.

Findings of Fact:

1. The proposed tower site is located on a privately-owned parcel approximately 3.43 acres in size, residential in nature, and is situated within the Matanuska-Susitna Borough.
2. According to the application materials, the equipment compound surrounding the proposed tall structure will be located approximately 45 feet from the northern property line, 110 feet from the eastern property line, 280 feet from the southern property line, and 200 feet from the western property line.

3. According to the application materials, the base of the tall structure will be located approximately 75 feet from the northern property line, 143 feet from the eastern property line, 315 feet from the southern property line, and 250 feet from the western property line.
4. According to the application materials, the nearest structure on the subject property will be located approximately 135 feet to the west of the equipment compound and approximately 180 feet from the base of the tall structure.
5. According to the application materials, the nearest residential structure on the subject property, the primary residence, will be located approximately 205 feet to the southwest of the equipment compound and approximately 245 feet from the base of the tall structure.
6. According to the application materials, the nearest residential structures on adjacent properties are located on the parcels to the north and east of the subject property and approximately 285 feet from the proposed tower base.
7. According to the application materials, all other residential structures are greater than 400 feet from the proposed tower base.
8. The applicant submitted certified documents from a Registered Professional Engineer in the State of Alaska including site plans for the proposed tall structure and associated equipment compound, structural design criteria for the tall structure and foundation, design supporting calculations, and a letter describing the expected performance of the tall structure.
9. According to application materials, breakpoint design technology will be utilized with the breakpoint level of the structure to be fifty percent of the tower structure height.
10. According to the application materials, the possibility of a tower collapse is very unlikely.
11. According to the application materials, in the event of a tower collapse the most likely mode of failure would be a buckling failure of one of the tower sections due to excessive wind loading. The anticipated action in the event of failure would be the top 45 feet of the tower falling within a 35-foot radius of the tower.

Conclusion of Law: Based on the above findings, the proposed tower base meets the minimum setback distances from all property lines and habitable structures in accordance with (MSB 17.67.090(A)(2)).

(B) For all tall structures regulated under this chapter, adequate vehicle parking shall be provided on the subject property, outside of public use easements and rights-of-way, to enable emergency vehicle access.

(1) No more than two spaces per provider shall be required.

Findings of Fact:

1. According to the application materials, two parking spaces are provided at the proposed tower location.
2. The subject parcel has two low volume driveway permits issued for access to the parcel from Noel Wien Avenue. According to the application materials and the property owner, the northern driveway access will be the primary access for the proposed tower location.

Conclusion of Law: Based on the above finding, adequate vehicle parking has been provided (MSB 17.67.090(B)).

(C) The following requirements apply to all new and existing telecommunication towers and wind energy conversion systems regulated under this chapter:

(1) The following signage shall be visibly posted at the equipment compound:

(a) informational signs for the purpose of identifying the tower such as the antenna structure registration number required by the Federal Communications Commission (FCC), as well as the party responsible for the operation and maintenance of the facility;

Findings of Fact:

1. According to the application materials, signage will be posted identifying the tower's FCC registration number and the party responsible for the operation and maintenance.

Conclusion of Law: Based on the above finding, adequate signage has been provided (MSB 17.67.090(C)(1)(a)).

(b) if more than 220 volts are necessary for the operation of the facility, warning signs shall be located at the base of the facility and shall display in large, bold, high contrast letters the following: "HIGH VOLTAGE – DANGER"; and

Findings of Fact:

1. According to the application materials, the proposed tower shall be secured with a locked six-foot chain link fencing with an additional one-foot of barbed wire on top to prevent unauthorized visitors. The proposed facility will operate at 220 Volts and will not require a sign.

Conclusion of Law: Based on the above findings, a "HIGH VOLTAGE - DANGER" sign is not required to be displayed on the equipment compound (MSB 17.67.090(C)(1)(b)).

(c) a 24-hour emergency contact number.

Findings of Fact:

1. According to the application materials, signage will be posted identifying the tower's FCC registration number and the party responsible for the operation and maintenance.
2. According to the application material, a 24-hour contact number will be posted at the proposed tower location.
3. The Atlas Tower phone number provided is (303) 448-8896. This is the 24/7 phone contact and will be displayed on the fence surrounding the equipment compound.

Conclusion of Law: Based on the above findings, a 24-hour emergency contact number has been provided (MSB 17.67.090(C)(1)(c)).

(2) A fence or wall not less than six feet in height with a secured gate shall be maintained around the base of the tower.

Findings of Fact:

1. According to the application materials, access to the equipment compound is secured by a seven-foot-tall external fence.
2. According to the application materials, the proposed tower shall be secured within the equipment compound surrounded by a locked six-foot chain link fencing with an additional one-foot of barbed wire on top to prevent unauthorized visitors.
3. According to the application material, the gate providing access to the equipment compound will be secured by chain link fence and multi-lock padlock security.

Conclusion of Law: Based on the findings above, a fence not less than six feet in height with a secured gate, is being provided (MSB 17.67.090(C)(2)).

STAFF RECOMMENDATIONS

Staff recommends approval of the Administrative Permit to construct a 125-foot-tall lattice tower on the above-referenced property within a 50' x 50' leased area. The application meets all the applicable standards of MSB 17.67, and staff recommends approval of this request with the following conditions:

1. All aspects of the operation shall comply with the description detailed in the application materials and with the conditions of this permit. Before any change of the conditional use, an amendment to the Administrative Permit shall be required.
2. The operation shall comply with all federal, state, and local regulations.
3. Borough-authorized representatives shall be allowed to inspect the site and related records at reasonable times to monitor compliance with all permit conditions. Upon reasonable notice from the Borough, the permittee shall provide necessary assistance to facilitate authorized inspections (MSB 17.67.300(D)).
4. The telecommunications tower, equipment compound, and associated facilities shall be removed at the owner's expense within 90 days after abandonment or termination of the permit in accordance with MSB 17.67.130(A)(1).
5. The permittee shall visibly post and maintain signage identifying the party responsible for operation and maintenance of the facility, the FCC Tower ID or registration number if applicable, and a 24-hour emergency contact number in accordance with MSB 17.67.090(C)(1).
6. The communications compound shall be enclosed by and maintained with a minimum 6-foot security fence and a secured gate, consistent with the approved application materials.

APPLICATION MATERIALS



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822 • Fax (907) 861-8158

Email: permitcenter@matsugov.us

APPLICATION FOR A TALL STRUCTURE – MSB 17.67

Carefully read instructions and applicable borough code. Fill out forms completely. Attach information as needed. Incomplete applications will not be processed.

Application fee must be attached:

- ☐ \$1,500 for Conditional Use Permit - > 125 feet in height
☒ \$ 500 for Administrative Permit – 85' to 125' in height
☐ \$ 100 for Network Improvement Permit – In accordance with MSB 17.67.110.

Prior to the public hearing, the applicant must also pay the mailing and advertising fees associated with the application. Applicants will be provided with a statement of advertising and mailing charges. Payment must be made prior to the application presentation before the Borough Planning Commission or Planning Director decision.

Subject Property Township: S24, Range: N04, Section: W09, Meridian _____

MSB Tax Account # 4287000L001

SUBDIVISION: Moose Hollow Add #1 BLOCK(S): _____, LOT(S): 1

STREET ADDRESS: 33693 S Noel Wein Ave

(US Survey, Aliquot Part, Lat. /Long. etc) _____

Ownership A written authorization by the owner must be attached for an agent or contact person, if the owner is using one for the application. Is authorization attached? ☐ Yes ☐ No ☐ N/A

Name of Property Owner

Elizabeth Brown

Address: HC 89 Box 8245

Talkeetna, AK 99676-9702

Phne: Hm _____ Fax _____

Wk _____ Cell (907) 671-7166

E-mail Wheelsinnthewoods@gmail.com

Name of Agent/ Contact for application

PARKER BINGHAM

Address: 2500 30th St, STE 304

Boulder, CO 80301

Phne: Hm _____ Fax _____

Wk _____ Cell (916) 505-1017

E-mail pbingham@atlastowers.com

Special Land Use District (if applicable): N/A

Pre-Application Requirements for New Tall Structures that Require a Conditional Use Permit	
<i>Prior to applying for a conditional use permit for a new tall structure, the applicant shall hold at least one community meeting.</i>	
1. The meeting shall be held at the nearest facility where community council meetings are regularly scheduled. If the facility is not available, the nearest available public facility that is capable of seating a minimum of 20 people shall be utilized.	
2. The meeting shall be held at least 15 calendar days after mailing of the notification.	
3. The meeting shall not start prior to 5:00 p.m. and no later than 7:00 p.m.	
4. Notification of the meeting shall, at a minimum, include the following: • Legal description and map of the general parcel, or parcels, within the coverage area under consideration for the telecommunication facility. • Description of the proposed development including height, design, lighting, potential access to the site and proposed service. • Date, time, and location of the informational meeting. • Contact name, telephone number, and address of applicant. • Comment form created by the borough that has a comment submittal deadline and provides options for submitting comments.	
5. At a minimum, the notification area for the meeting shall include the following: • Property owners within one-half mile of the parcels under consideration for the proposed tall structure. • The nearest community council and any community council whose boundary is within 1200 feet of the parcels under consideration for the tall structure.	
<i>A written report summarizing the results of the community meeting shall be prepared that includes the following information:</i>	Attached
1. Dates and locations of all meetings where citizens were invited to discuss the potential applicant's proposal.	
2. Content, dates mailed, and numbers of mailings, including letters, meeting notices, newsletters and other publications.	
3. Sign-in sheet(s) used at the meeting, that includes places for names, address, phone numbers and other contact information such as e-mail addresses.	
4. A list of residents, property owners, and interested parties who have requested in writing that they keep informed of the proposed development through notices, newsletters, or other written materials.	
5. The number of people who attended meetings.	
6. Copies of written comments received at the meeting.	
7. A certificate of mailing identifying all who were notified of the meeting.	
8. A written summary that addresses the following: • The substance of the public's written concerns, issues, and problems. • How the applicant has addressed, or intends to address, concerns, issues and problems expressed during the process. • Concerns issues, and problems the applicant has not addressed or does not intend to address and why.	

General application requirements for <u>Administrative</u> and <u>Conditional Use Permits</u>	Attached
1. Design drawings for the proposed tall structure, drawn to scale, and certified by a registered engineer or architect.	
2. Citizen participation report <i>(if applying for a Conditional Use Permit)</i>	
3. Certified site plan <i>(As defined in MSB 17.125.010)</i>	
4. Copy of a determination of no hazard to air navigation from the Federal Aviation Administration.	
5. If breakpoint technology is intended to be utilized, a written statement specifying the height at which the engineered structural weakness will be located.	

In order to grant a <u>Conditional Use Permit</u> or <u>Administrative Permit</u> the Planning Commission or Planning Director must find that each of the following criteria has been met. Explain the following in detail:	Attached
1. To the extent that is technically feasible and potentially available, the location of the tall structure is such that its negative effects on the visual and scenic resources of all surrounding properties have been minimized.	
2. Visibility of the tall structure from public parks, trails recognized within adopted MSB plans, and waterbodies has been minimized to the extent that is technically feasible and potentially available.	
3. The tall structure will not interfere with the approaches to any existing airport or airfield that are identified in the MSB Regional Aviation System Plan or by the Alaska State Aviation System Plan.	
4. That granting the permit will not be harmful to the public health, safety, convenience, and welfare.	

<u>Application requirements for a Network Improvement Permit</u>	Attached
1. A description of the proposed modifications to the telecommunication tower, including a description of the height, type, and lighting of the new or modified structure and the existing structure.	
2. A certified site <i>(as defined in MSB 17.125.010)</i> for purposes of setback verification.	
3. Design drawings for the proposed modified or new structure, drawn to scale, and certified by a registered engineer or architect.	

<u>In order to grant a Network Improvement Permit</u> the Planning Director must find that each of the following criteria has been met. Explain the following in detail.	Attached
1. The proposed development conforms to setback requirements of MSB 17.55.	
2. The telecommunication tower being extended was lawfully constructed at the time of application for a Network Improvement Permit.	
3. The proposed modification does not violate permit conditions of any valid permits that have been issued to the existing facility, provided that the condition being violated does not limit height of the structure.	

Operation Standards for New Tall Structures – Conditional Use Permit, Administrative Permit, and Network Improvement Permit	Attached
1. The equipment compound shall meet minimum setback distances from all property lines in accordance with MSB 17.55	
2. Setbacks shall be determined from the dimensions of the entire lot, even though the tower may be located on lease areas within the lot.	
3. Adequate vehicle parking shall be provided on the subject property, outside of public use easements and rights-of-way to enable emergency vehicle access. No more than two spaces per provider shall be required.	
4. Information signs for the purpose of identifying the tower such as the antenna structure registration number required by the Federal Communications Commission, as well as the party responsible for the operation and maintenance of the facility shall be visibly posted at the equipment compound.	
5. If more than 220 volts are necessary for the operation of the facility, warning signs shall be located at the base of the facility and shall display in large, bold, high contrast letters the following: "HIGH VOLTAGE – DANGER".	
6. A 24-hour emergency contact number shall be visibly posted at the equipment compound.	
7. A fence or wall not less than six (6) feet in height with a secured gate shall be maintained around the base of the tower.	

Additional Standards for Wind Energy Conversion Systems (WECS) – In addition to the operations standards for new tall structures, the following standards shall apply to WECS.	Attached
1. WECS shall be equipped with an automatic overspeed control device designed to protect the system from sustaining structural failure such as splintered or thrown blades and the overturning or breaking of towers due to an uncontrolled condition brought on by high winds.	
2. WECS shall have a manually operable method that assures the WECS can be brought to a safe condition in high winds. Acceptable methods include mechanical or hydraulic brakes or tailvane deflection systems which turn the rotor out of the wind.	

OWNER'S STATEMENT: I am owner of the following property:

MSB Tax parcel ID #(s) 547870000 L001 Moose Hollow Add #1 Lot 1 and, I hereby apply for approval conditional use permit on that property as described in this application.

I understand all activity must be conducted in compliance with all applicable standards of MSB 17.67 and with all other applicable borough, state or federal laws.

I understand that other rules such as local, state and federal regulations, covenants, plat notes, and deed restrictions may be applicable and other permits or authorization may be required. I understand that the borough may also impose conditions and safeguards designed to protect the public's health, safety and welfare and ensure the compatibility of the use with other adjacent uses.

I understand that it is my responsibility to identify and comply with all applicable rules and conditions, covenants, plat notes, and deed restrictions, including changes that may occur in such requirements.

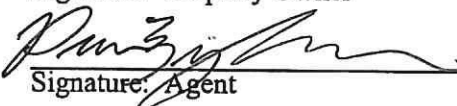
I understand that this permit and zoning status may transfer to subsequent owners of this land and that it is my responsibility to disclose the requirements of this status to the buyer when I sell the land.

I understand that changes from the approved conditional use permit may require further authorization by the Borough Planning Commission. I understand that failure to provide applicable documentation of compliance with approved requirements, or violation of such requirements will nullify legal status, and may result in penalties.

I grant permission for borough staff members to enter onto the property as needed to process this application and monitor compliance. Such access will at a minimum, be allowed when the activity is occurring and, with prior notice, at other times necessary to monitor compliance.

The information submitted in this application is accurate and complete to the best of my knowledge.

~~The Brown Family Revocable Trust~~ ~~by Elizabeth A. Brown, Trustee~~ ~~Signature: Property Owner~~
~~THE BROWN FAMILY~~ ~~Revocable Trust By~~ ~~Elizabeth Brown, as Trustee~~ ~~Printed Name~~ ~~10/8/2024~~ ~~Date~~

 ~~Signature: Agent~~ ~~PARKER BINGHAM~~ ~~Printed Name~~ ~~10/14/2024~~ ~~Date~~

MSB USE ONLY

Date application submitted:

Date application determined complete: _____

Atlas Tower 1, LLC
2500 30th Street, Suite 304
Boulder, CO 80301
(303) 448-8896

ATLAS TOWER

July 7, 2026

RE: Zoning Narrative for Telecommunications Facility
Site Name: TALKEETNA - BROWN

To Whom It May Concern:

Atlas Tower 1, LLC is submitting an Admin Design Review to the Planning and Zoning Department for review of a new proposed wireless telecommunications facility build on the property of 33693 S Noel Wien Ave, Talkeetna AK 99676-9702 in Matanuska-Susitna County, Parcel #: **4414**. This letter shall serve as a narrative for the proposed 125' Lattice telecommunications facility and how this project will provide the needed mobile network coverage while reducing the need for additional cellular facilities in the future. This project is being proposed and this justification is being provided to alleviate current mobile network voice, data, and first responder issues in an area that is severely lacking reliable network coverage and capacity.

SITE DETAILS

Land Owner:

Elizabeth Brown
HC 89 BOX 8245
TALKEETNA, AK 99676-9702

Applicant:

Atlas Tower 1, LLC
4041 Hanover Ave
Boulder, CO 80305

Zoning:

Mat-Su General Use Area

Site Address:

33693 S Noel Wien Ave, Talkeetna AK 99676-9702
Matanuska-Susitna Borough
Parcel #: **4414**

Coordinates:

Latitude: 62.187839
Longitude: -150.031552
Ground Elevation: 415 (NAVD '88)*

Lease Area:

(50 feet x 50 feet, measuring 2500 sq. feet.)

PROPOSAL SUMMARY

The purpose of this request is to build a 125' Lattice telecommunications tower within a (50 feet x 50 feet, measuring 2500 sq. feet.) wireless facility with included access and utilities. This facility will provide critical wireless coverage to the surrounding area. The proposed site is zoned where coverage is lacking, and the capacity of the existing infrastructure is reaching its limit. As the area develops further, and the existing users demand more data for their existing devices, existing infrastructure will reach capacity limits and be unable to meet coverage needs. This tower and facility will be used for structural support of up to four wireless providers, with one carrier confirmed for install at the time of construction. Each provider will install antennas and on-the-ground base-station equipment.

WIRELESS TELECOMMUNICATION FACILITY CHARACTERISTICS

Visual Effect from nearby parks, trails, etc.

We strive to design our facilities and locate parcels that create the least amount of community disturbance. The surrounding area is largely rural with low density residential zones nearby. The proposed site is chosen to maximize visual aesthetic and distance from residential homes. The tower is located approximately 3-6 miles away from any public trailheads. According to Borough-recognized trailheads, there are 4 trailheads within 5 miles of the proposed location, trailheads as follows:

#253 – Dorothy Jones Trail: Dense tree coverage and the elevation difference does not allow for a view of the tower.

#148 - Sunshine: The low trailhead elevation paired with the tall trees, looking toward tower site would not produce viewsheds of the tower.

#79 - Luthman: Trailhead sits significantly higher than elevation of the tower, paired with the tree coverage of the area there would be no view of the tower.

#80 - Montana Creek Falls: Trailhead sits significantly higher than elevation of the tower, paired with the tree coverage of the area there would be no view of the tower.

Benka Lake is the largest recognizable water body nearby, sitting at approximately 0.5 miles to the East. Due to the elevation change and dense tree coverage, visibility of the tower is not expected. The closest airstrip is AK19 Carl's Landing, located approximately 1.2 miles away. The proposed tower is not in the direct flight path of the landing strip, and in accordance with the determination of no hazard, is not an issue with the FAA. Included with this narrative are photo-simulations of the tower from various viewpoints around the site.

Frequency Of Maintenance Work On The Proposed Facility

On average, after initial installation, a carrier or its contactors would likely visit the facility about one to four times a year for maintenance, though this number could vary depending on the specific circumstances of the facility. With one carrier confirmed at time of construction, we would expect to see only 1-4 visits a year.

The Average Number Of Vehicles Visiting The Facility

The average maintenance visit by a carrier or its contractors would likely involve one pickup truck. With an average of one to four visits a year and one truck a visit, there would likely be about one pickup truck visiting the site every 3 months, per carrier, if at full capacity. There are two parking spaces included on the site plans for maintenance vehicles.

The Average Duration Work Visits on The Facility

For typical maintenance visits, a carrier or its contactors would only be at the site a few hours, but this number could increase depending on the work that needed to be completed at the site.

Construction of Tower and Access

The Tower, as well as the 20-foot Access and Utility easements will all be constructed by the same GC provider in the same construction period. The access is using an existing driveway off Noel Wein Ave which has been approved by the borough permit center for this use.

Expected Noise Levels

Telecommunications facilities are essentially silent. This would be true whether there were one or four carriers. A generator could be operated on site in the rare instance that power went out. The generator

would create noise, but it would not be noticeable or audible in the location the telecommunications facility is proposed to be.

Carrier Involvement

At the time of construction, GCI will be installing equipment for their cellular services. The proposed tower has been marketed to AT&T, Verizon, and T-Mobile as well. The radiofrequency (RF) analysis for GCI is provided alongside this narrative.

Site Security and Warnings

The proposed tower shall be secured with a locked 6' chain link fencing with an addition 1' of barbed wire on top to prevent unauthorized visitors. The facility will be operating at 220 Volts and will not require a sign.

Building Codes; Safety Standards

Atlas Tower will ensure the structural integrity of towers, ensure that it is maintained in compliance with standards contained in applicable state or local building codes and the applicable standards for towers that are published by the Electronic Industries Association, as amended from time to time. If, upon inspection, concludes that a tower fails to comply with such codes and standards and constitutes a danger to persons or property, then upon notice being provided to the owner of the tower, the owner shall have thirty (30) days to bring such tower into compliance with such standards, unless a longer time is reasonably necessary. Failure to bring such tower into compliance within said thirty (30) days shall constitute grounds for the removal of the tower or antenna at the owner's expense.

Public safety regarding nearby powerlines and fall zone

The tower has been and certified by a licensed professional, to alleviate concern of nearby powerlines. The tower and foundation will be in conformance with TIA standards and therefore built with the intention to not fail. Should the highly improbable occurrence of the tower falling happen, it would crumple and hinge on itself, thereby reducing the total affected radius.

FAA/FCC Compliance

The proposed facility shall conform to the requirements of this title, this code, and other laws, including pertinent federal regulations of the Federal Communications Commission (FCC) and the Federal Aviation Administration (FAA). A determination of no hazard issued by the FAA is included with this proposal.

This narrative represents required and supplementary information to document the technological, economic, and social necessity and benefits of a new 125' Lattice telecommunications tower near Talkeetna. The information provided highlights the advantages associated with a telecommunications facility at our proposed site. See attached documents to showing our survey and tower drawings.

Atlas Tower 1, LLC respectfully requests the acceptance of our application for an Admin Design review for the proposed communications tower facility.

Best Regards,

Parker Bingham

Project Manager

(916) 505-1017

www.atlastowers.com

4041 Hanover Ave, Boulder, CO 80305

GENERAL NOTES:

1. ALL REFERENCES TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED ATLAS TOWER 1, LLC, OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF ALASKA.
3. STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA/EIA–222–H. THIS CONFORMS TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2020 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2020 EDITION.
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER’S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERCEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR’S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND IT’S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER’S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR. CONTRACTOR SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REWORKED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
17. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
18. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

A. STRUCTURAL STEEL, ASTM DESIGNATION A36 OR A992 GR50.

B. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.

C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.

D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT–DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. ALL ASSEMBLY BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", DATED JUNE 30, 2004.
11. FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.
12. DO NOT OVER TORQUE ASSEMBLY BOLTS. GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.
13. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. PAL NUTS ARE NOT REQUIRED WHEN SELF–LOCKING NUTS ARE PROVIDED.
14. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
15. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1–2010 STRUCTURAL WELDING CODE – STEEL.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA–SUSITNA BOROUGH)

PLANS PREPARED FOR:

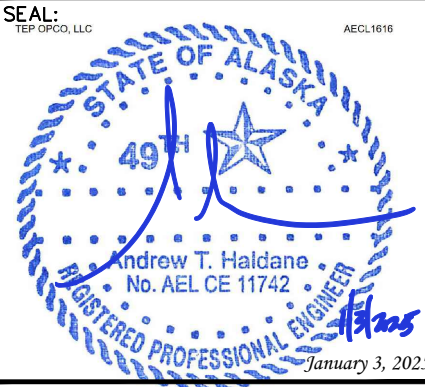
ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448–8896

PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net



I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: KES | CHECKED BY: KES

SHEET TITLE:

GENERAL
NOTES

SHEET NUMBER: N-1	REVISION: 1 TEP #: 342594.440704
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LEGEND

- PARENT PROPERTY LINE
- - - - -

ADJACENT PROPERTY LINE
- EASEMENT/LEASE CORNER
- EXIST. METER
- EXIST. TRANSFORMER
- EXIST. UTILITY POLE
- EXIST. TELCO PEDESTAL
- PROPERTY CORNER
- - 4650 - -

EXIST. CONTOUR LINE
- EDGE OF PAVEMENT
- - - OHW - - -

OVERHEAD WIRE
- - - - F - - - -

BURIED FIBER
- - - - G - - - -

GAS LINE
- - - R/W - - -

RIGHT-OF-WAY
- x -

FENCE
- EXISTING TREE LINE

TOWER SETBACKS

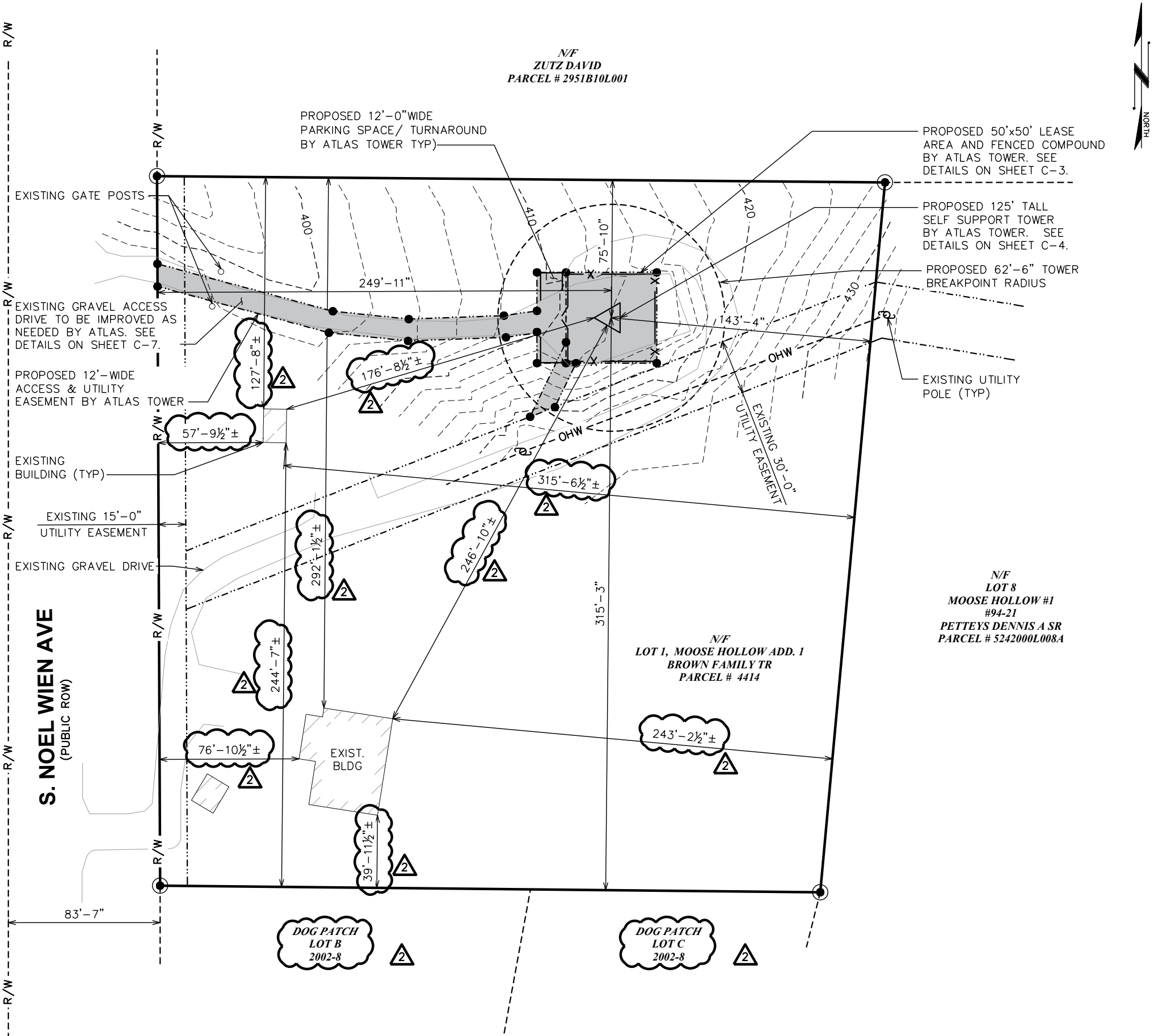
PROPERTY LINE	REQUIRED	PROPOSED
NORTH	125'-0"	75'-10"±
EAST	125'-0"	143'-4"
SOUTH	125'-0"	315'-3"±
WEST	125'-0"	249'-11"±

NOTES:

1. BASIS OF BEARINGS IS PER RECORD PLAT OF MOOSE HOLLOW SUBDIVISION, ADDITION 1, PLAT 94-21, TALKEETNA RECORDING DISTRICT.
2. THE TOWER IS LOCATED IN ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA FLOOD MAP 02170C3520F, DATED SEPTEMBER 27, 2019.
3. TOWER TO BE CONSTRUCTED WITH BREAKPOINT DESIGN TECHNOLOGY. THE BREAKPOINT LEVEL OF THE STRUCTURE IS TO BE FIFTY-PERCENT OF THE TOWER STRUCTURE HEIGHT.

AREA PLAN

SCALE: 1" = 60'



PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

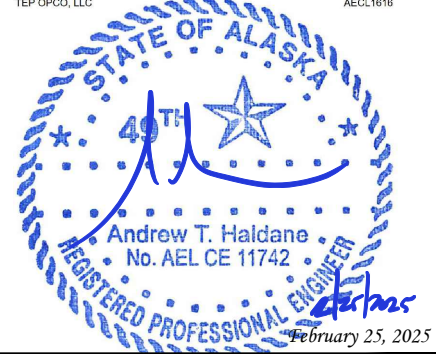
2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:



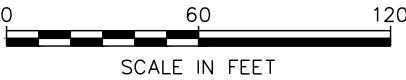
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1	01-03-25	CONSTRUCTION
0	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

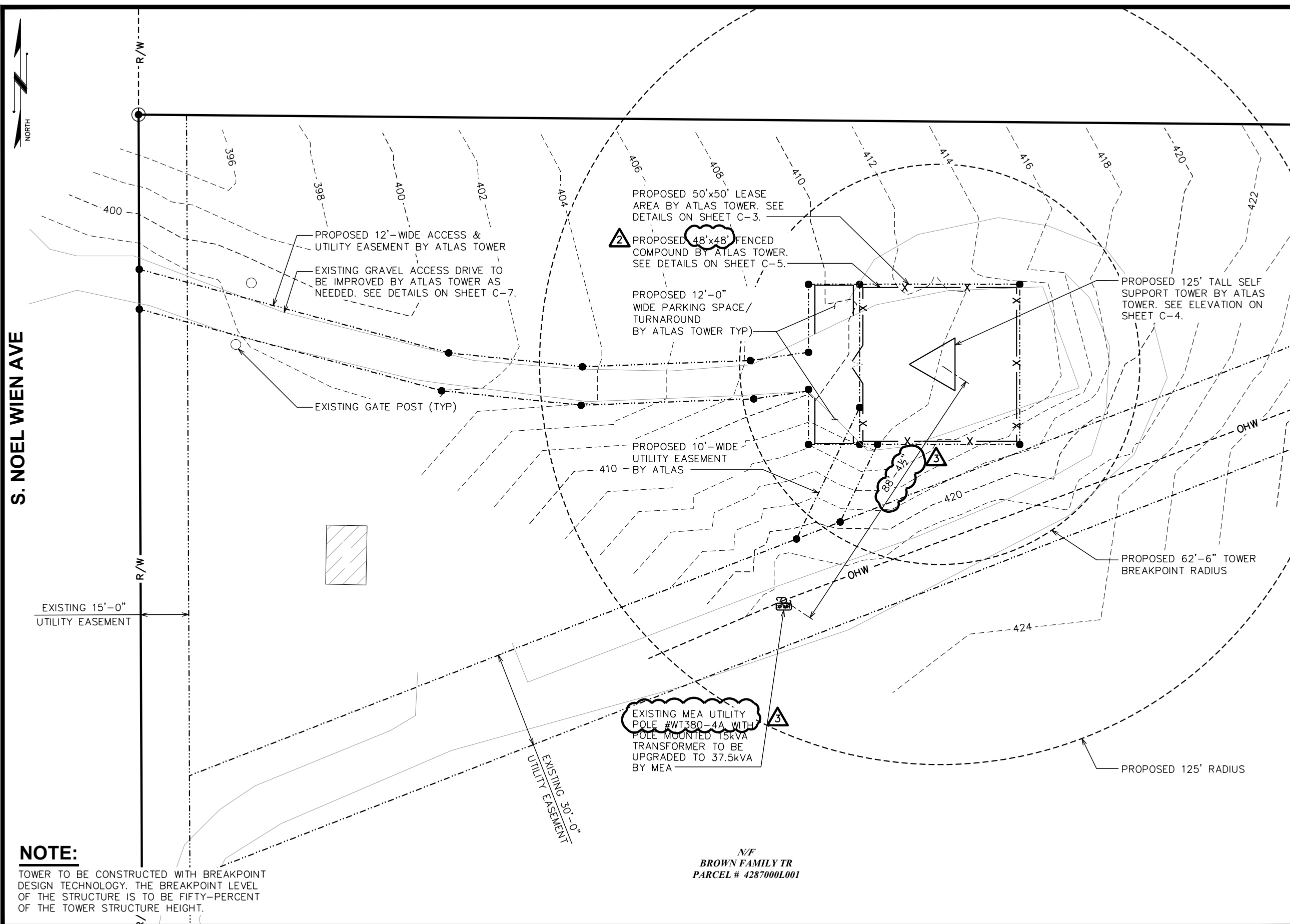
DRAWN BY: KES CHECKED BY: KES

SHEET TITLE:

AREA PLAN

SHEET NUMBER:	REVISION:
C-1	2
TEP#: 342594.440704	





PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

4041 HANOVER AVE
BOULDER, CO 80305
Office: (303) 448-8896

PLANS PREPARED BY:

TEP

4570 IVY STREET, SUITE B-100
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:

STATE OF ALASKA

49TH

Andrew T. Haldane
No. AEL CE 11742
6/10/2020
REGISTERED PROFESSIONAL ENGINEER

June 10, 2026

3	06-10-26	CONSTRUCTION
2	02-25-25	CONSTRUCTION
1	01-03-25	CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: KES

CHECKED BY: ARB

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C-2

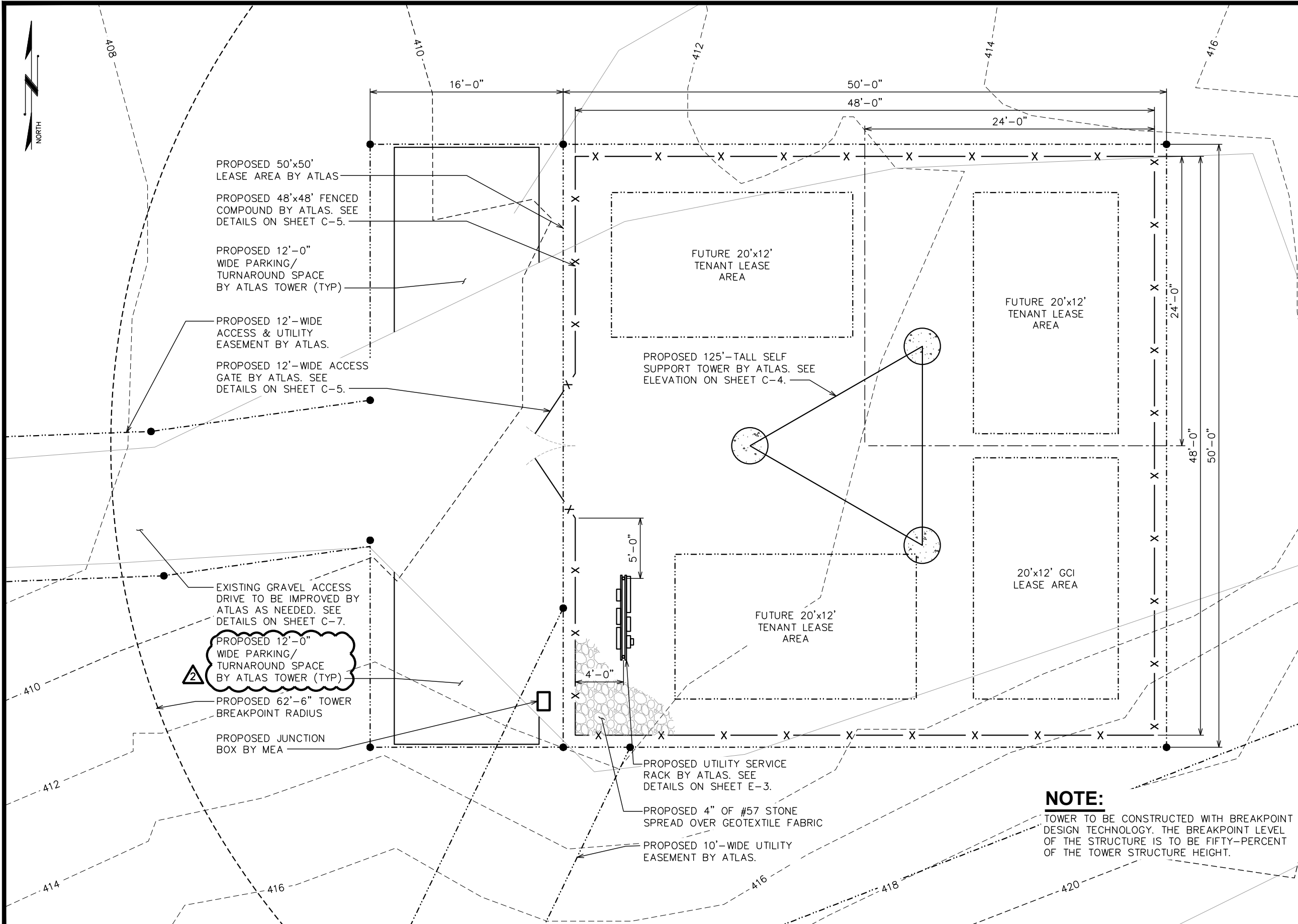
REVISION:

3

TEP#: 342594.440704

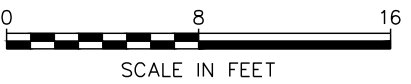
SITE PLAN

SCALE: 1" = 30'



COMPOUND DETAIL

SCALE: 1/8" = 1'



PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

2500 30TH ST, SUITE 304
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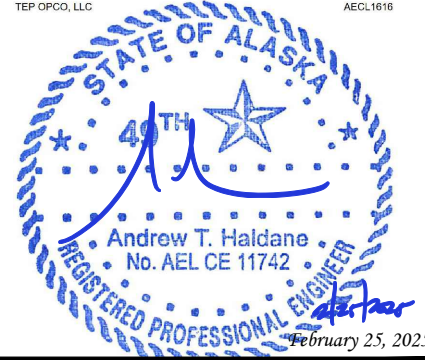
PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:
TEP OPCO, LLC

AECL1616



2	02-25-25	CONSTRUCTION
1	01-03-25	CONSTRUCTION
0	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: KES | CHECKED BY: KES

SHEET TITLE:

**COMPOUND
DETAIL**

SHEET NUMBER:

C-3

REVISION:

2

TEP#: 342594.440704

125'-0"±
T/TOWER

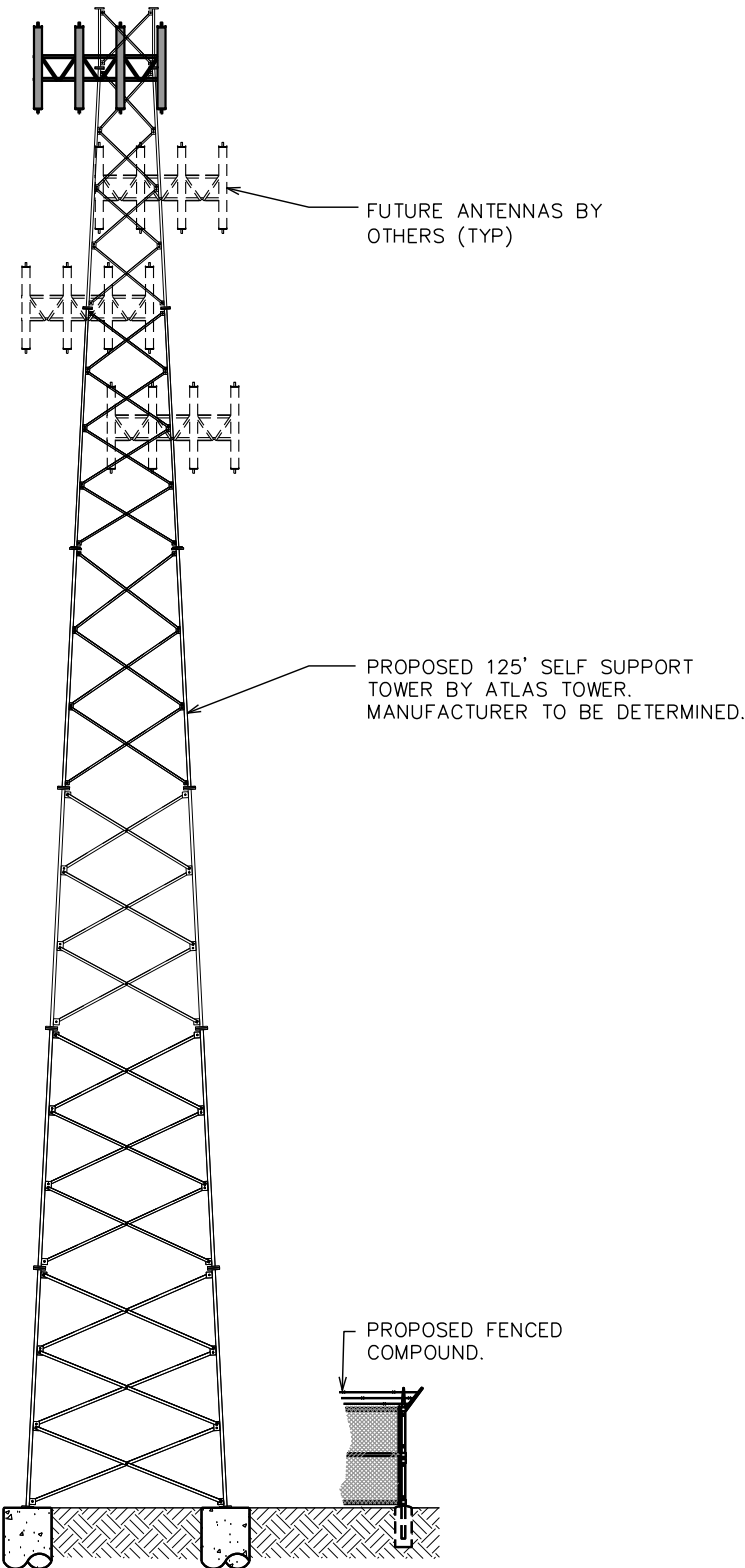
120'-0"±
CL/GCI ANTENNAS

110'-0"±
CL/FUTURE ANTENNAS

100'-0"±
CL/FUTURE ANTENNAS

90'-0"±
CL/FUTURE ANTENNAS

0'-0" (REF)
T/ GRADE



FUTURE ANTENNAS BY
OTHERS (TYP)

PROPOSED 125' SELF SUPPORT
TOWER BY ATLAS TOWER.
MANUFACTURER TO BE DETERMINED.

PROPOSED FENCED
COMPOUND.

NOTES:

1. TOWER TO REMAIN GALVANIZED COLOR.
2. TOWER SHALL BE LIT ONLY IF REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION.
3. PROPOSED COAX ROUTED UP TOWER USING WAVEGUIDE LADDER.
4. TOWER TO INCLUDE SAFETY CABLE. DO NOT INCLUDE SAFETY CLIMB MECHANISM.
5. TOWER EQUIPMENT LOADING AND CENTERLINES ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE.
6. TOWER TO BE CONSTRUCTED WITH BREAKPOINT DESIGN TECHNOLOGY. THE BREAKPOINT LEVEL OF THE STRUCTURE IS TO BE FIFTY-PERCENT OF THE TOWER STRUCTURE HEIGHT.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

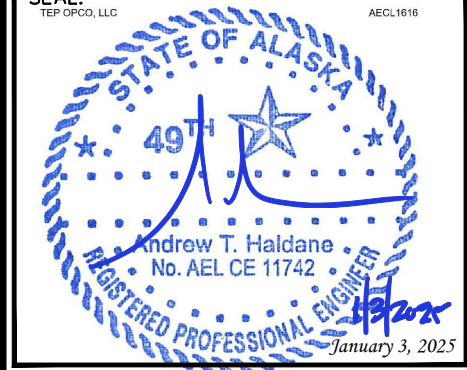
PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:
TEP OPGO, LLC

AECL1618



REV	DATE	ISSUED FOR:
I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY

DRAWN BY: KES CHECKED BY: KES

SHEET TITLE:

TOWER ELEVATION

SHEET NUMBER:

C-4

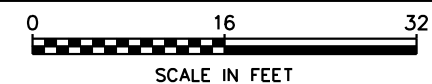
REVISION:

1

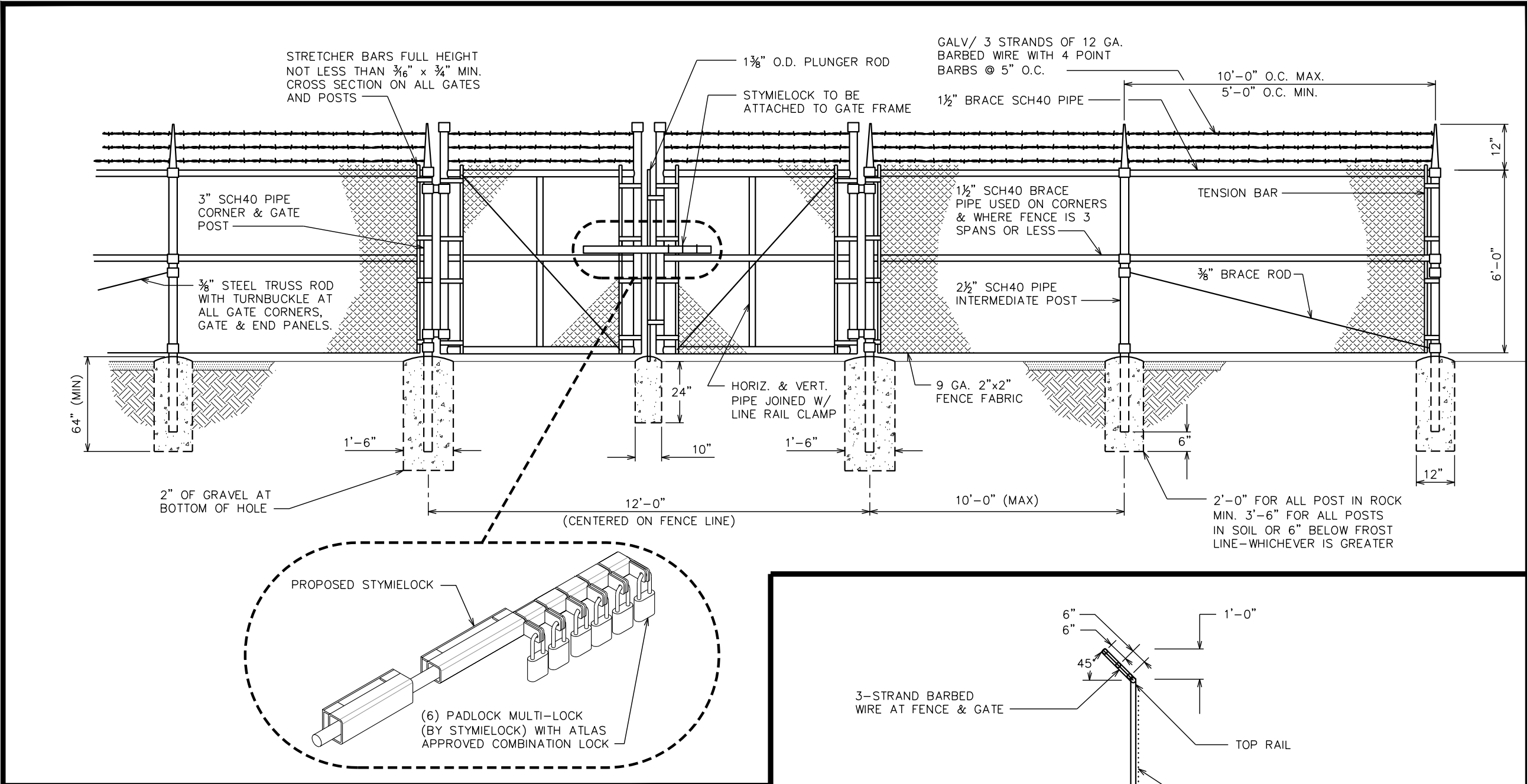
TEP#: 342594.440704

TOWER ELEVATION

SCALE: 1/8" = 1'-0"

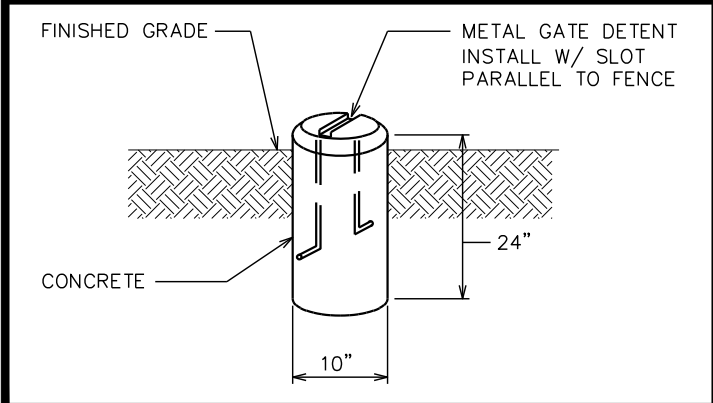


SCALE IN FEET



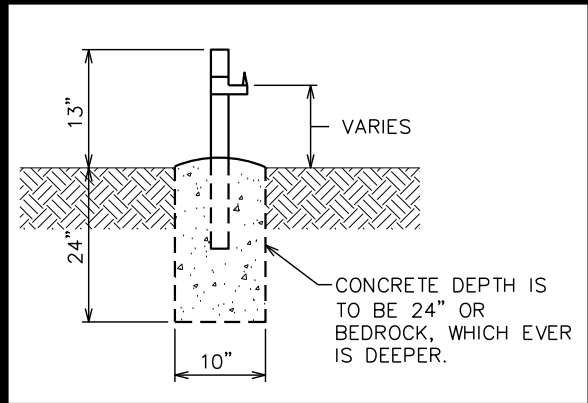
TYPICAL FENCE ELEVATION

SCALE: N.T.S.



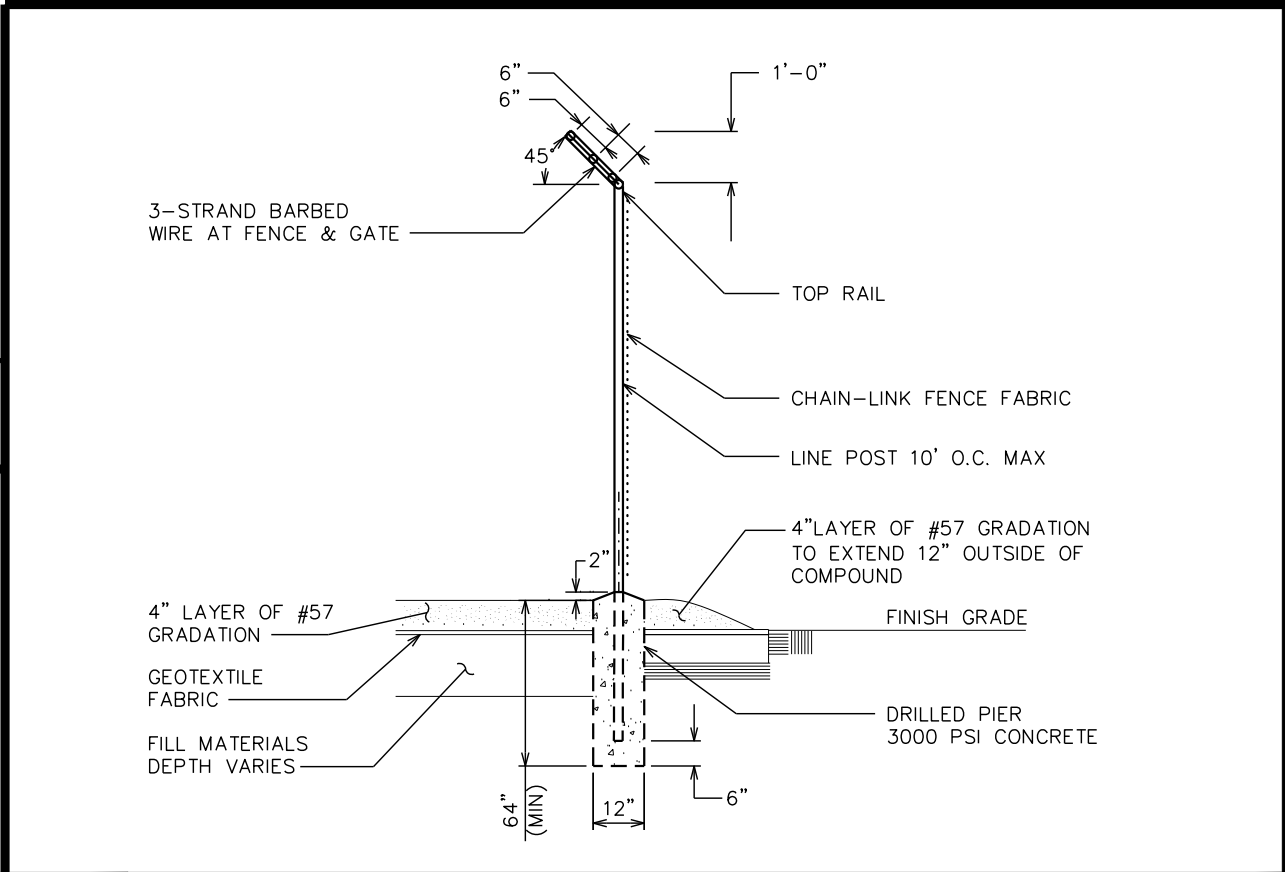
GATE DETENT DETAIL

SCALE: N.T.S.



GATE STOP/KEEPER DETAIL

SCALE: N.T.S.



FENCE / BARBED WIRE ARM DETAIL

SCALE: N.T.S.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:

TEP

4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:

TEP OPGO, LLC AECL1618

STATE OF ALASKA

40TH

Andrew T. Haldane
No. AEL CE 11742

REGISTERED PROFESSIONAL ENGINEER

January 3, 2025

I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: GPJ CHECKED BY: ARB

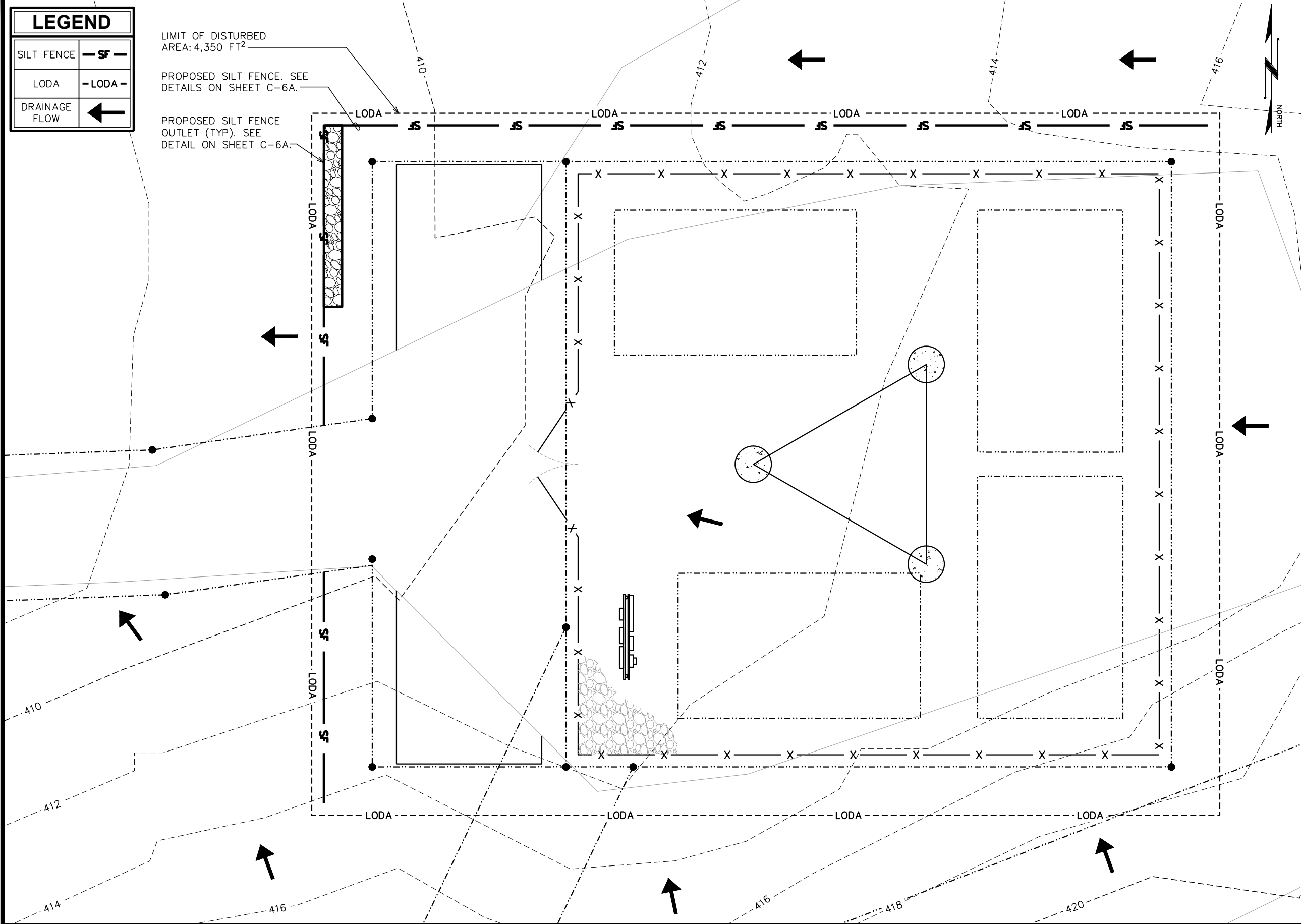
SHEET TITLE:

FENCE DETAILS

SHEET NUMBER: **C-5**

REVISION: **1**

TEP#: 342594.440704



LEGEND	
SILT FENCE	-sf-
LODA	-LODA-
DRAINAGE FLOW	←

LIMIT OF DISTURBED
AREA: 4,350 FT²

PROPOSED SILT FENCE. SEE
DETAILS ON SHEET C-6A.

PROPOSED SILT FENCE
OUTLET (TYP). SEE
DETAIL ON SHEET C-6A.

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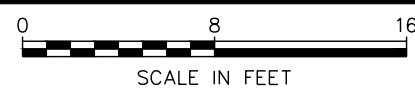
SHEET TITLE:

SOIL EROSION
CONTROL PLAN

SHEET NUMBER:	REVISION:
C-6	1
TEP#: 342594.440704	

SOIL EROSION CONTROL PLAN

SCALE: 1/8" = 1'-0"

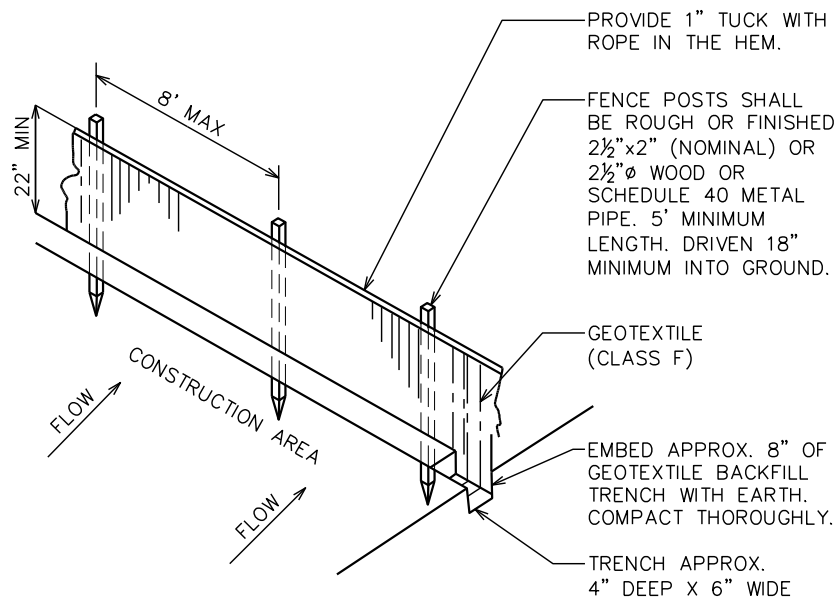


SITE GRADING NOTES:

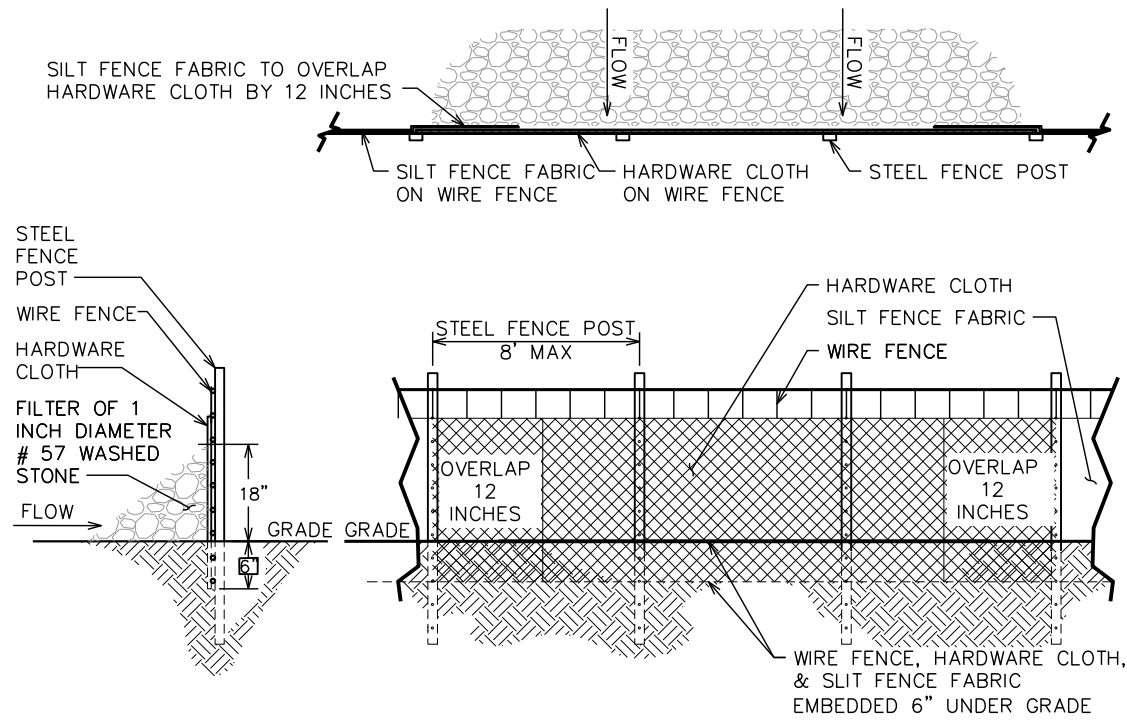
- 1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- 2. TEMPORARY SEEDING OR OTHER STABILIZATION, INCLUDING GRAVEL COVER ON ANY NEW ACCESS ROAD, WILL FOLLOW IMMEDIATELY AFTER GRADING.
- 3. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- 4. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

GEOTEXTILE FABRIC NOTES:

- 1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIES OR HOG RINGS. 3 FASTENERS PER POST.
- 2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3' (MINIMUM).
- 3. THIS DEVICE IS INTENDED TO CONTROL SHEET FLOW ONLY. IT WILL NOT BE USED IN AREAS OF CONCENTRATED FLOW WITH A DRAINAGE AREA OF ½ ACRE OR MORE.



SILT FENCE



SILT FENCE OUTLET

SILT FENCE DETAIL

N.T.S.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

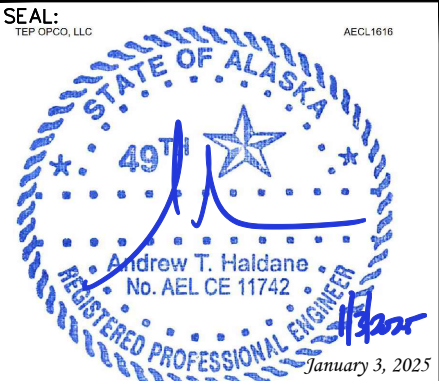
ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:



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DRAWN BY: KES CHECKED BY: KES

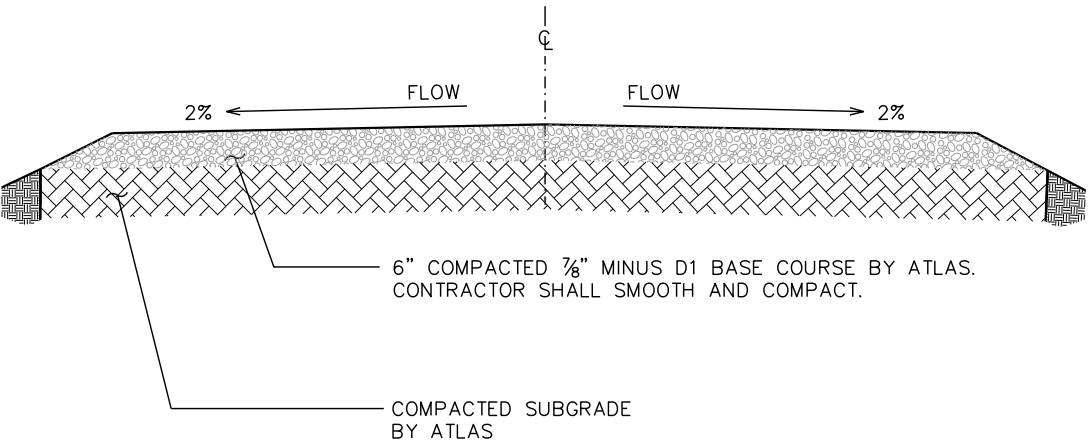
SHEET TITLE:

SILT FENCE DETAIL

SHEET NUMBER:	REVISION:
C-6A	1
TEP#: 342594.440704	

NOTE:

ROAD TO BE DESIGNED IN ACCORDANCE
WITH M.S.B. 11.12.060 LOW VOLUME
DRIVEWAY STANDARDS

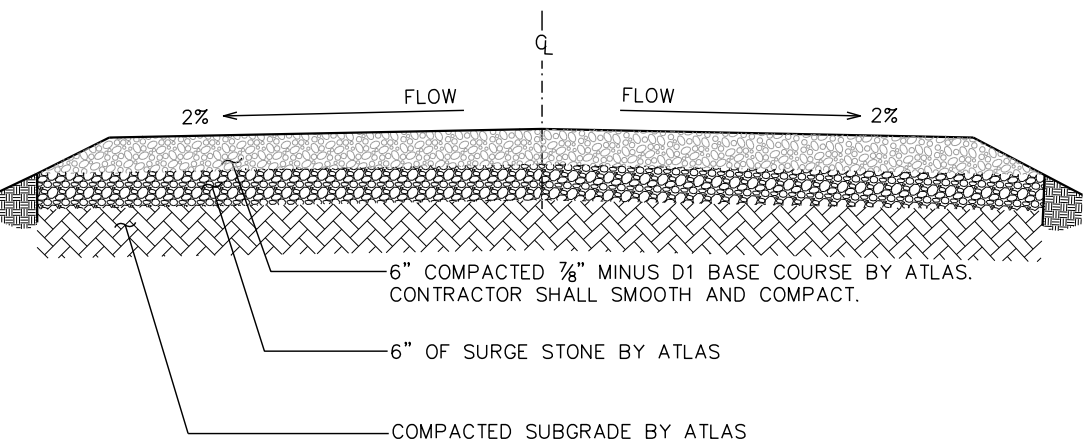


STANDARD ROAD SECTION (GOOD SUBGRADE)

SCALE: 3/8" = 1'-0"

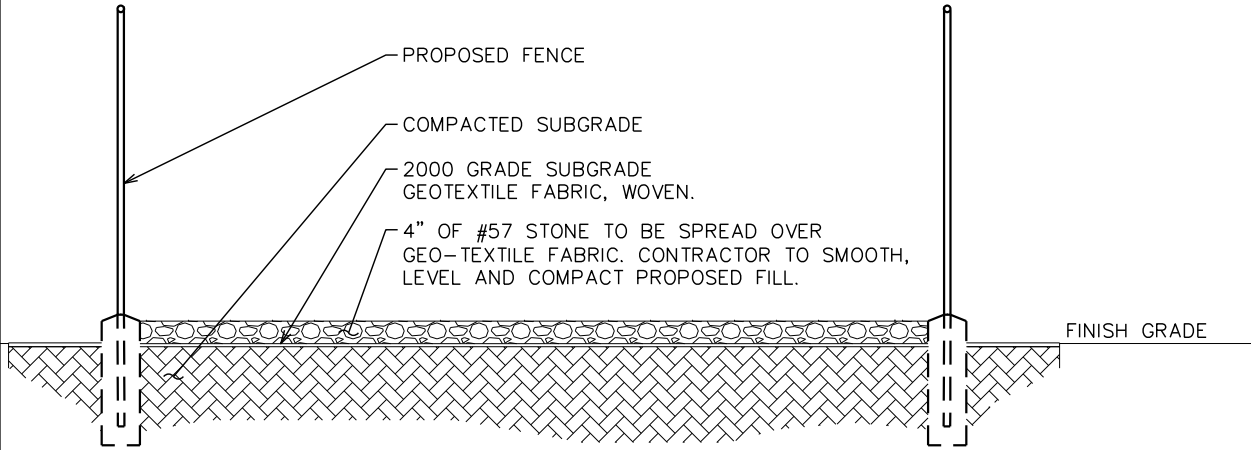
NOTE:

ROAD TO BE DESIGNED IN ACCORDANCE
WITH M.O.A. 11.12.060 LOW VOLUME
DRIVEWAY STANDARDS



STANDARD ROAD SECTION (POOR SUBGRADE)

SCALE: 3/8" = 1'-0"



COMPOUND SECTION VIEW

SCALE: N.T.S.

PROJECT INFORMATION:

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TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

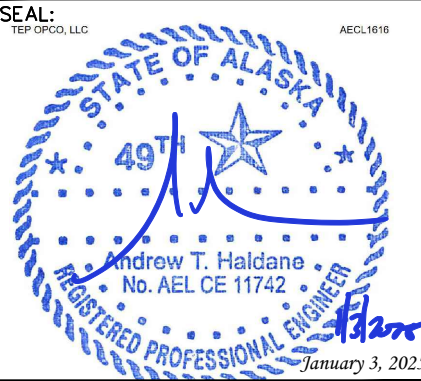
ATLAS TOWER

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DRAWN BY: CHECKED BY:

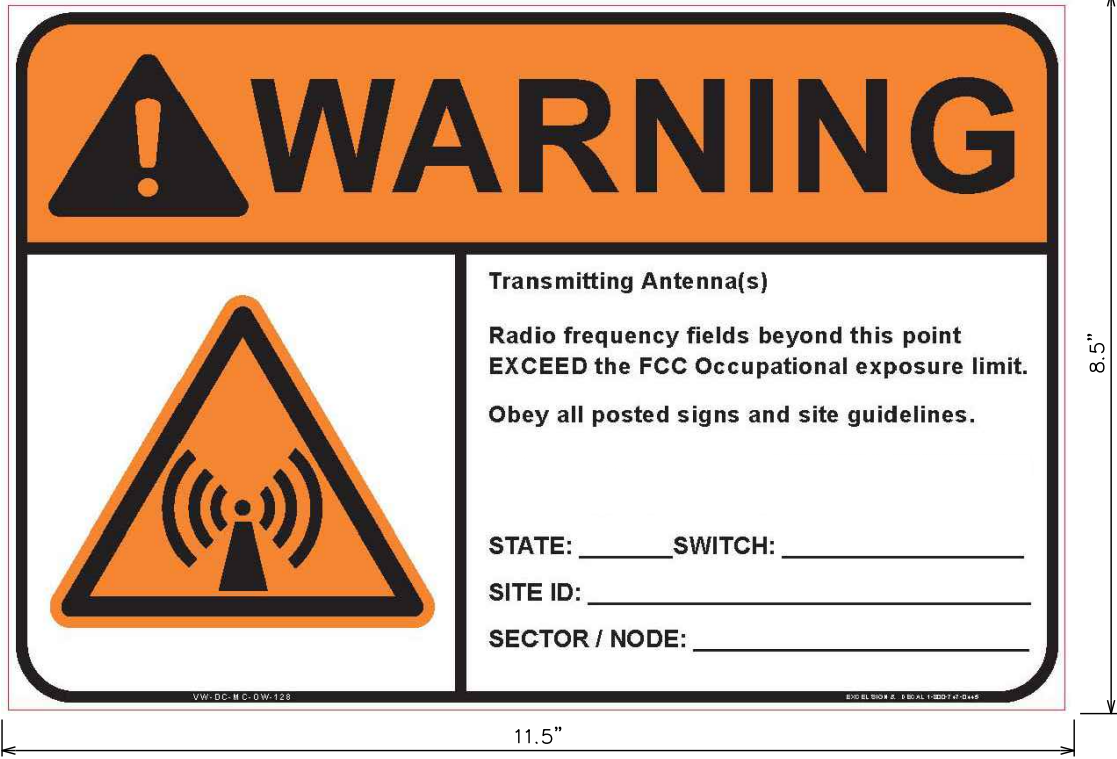
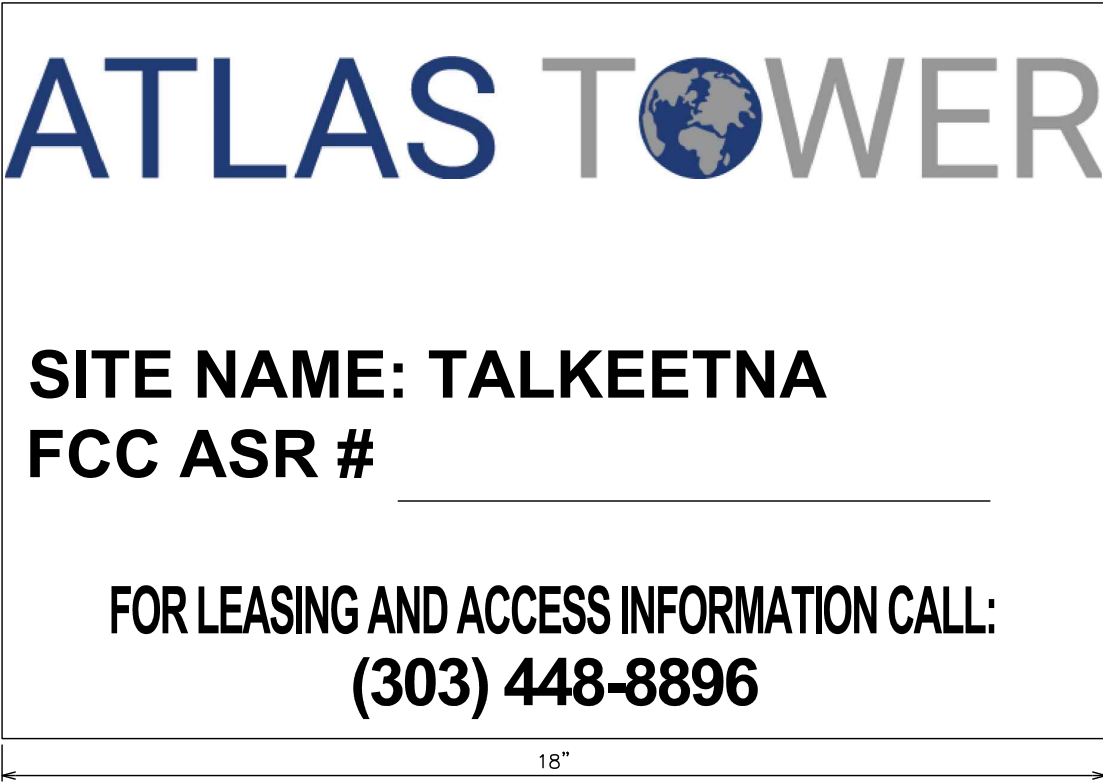
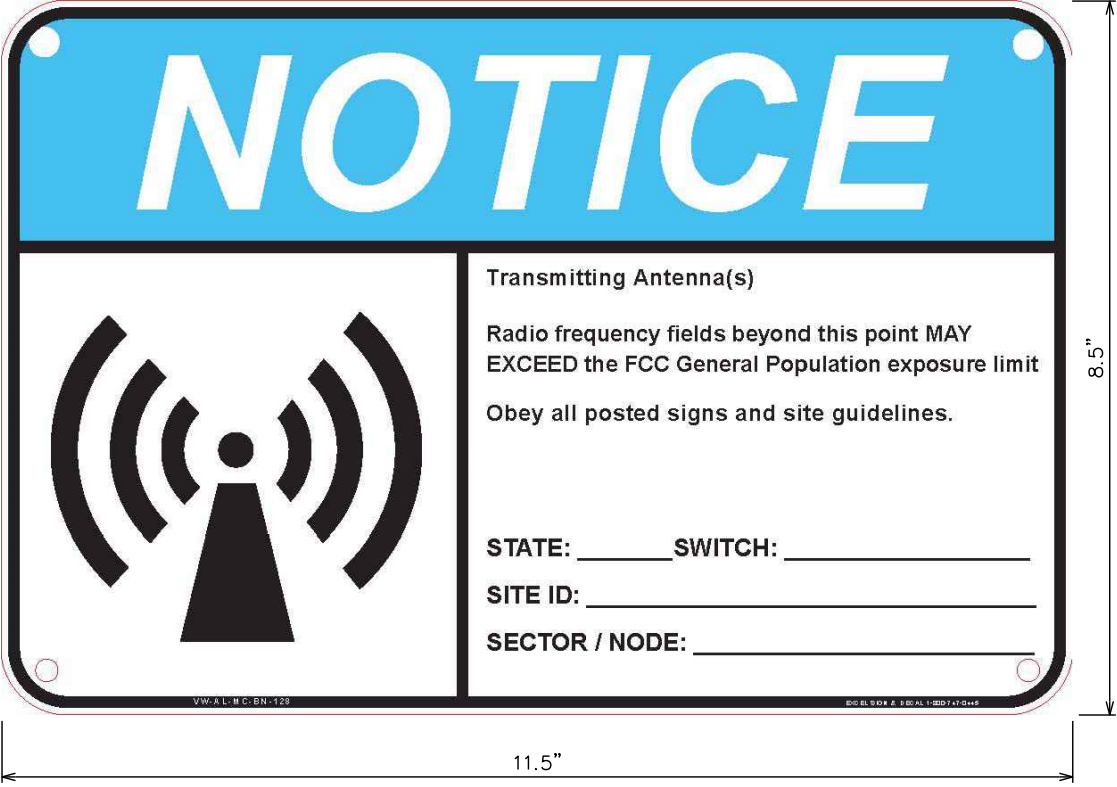
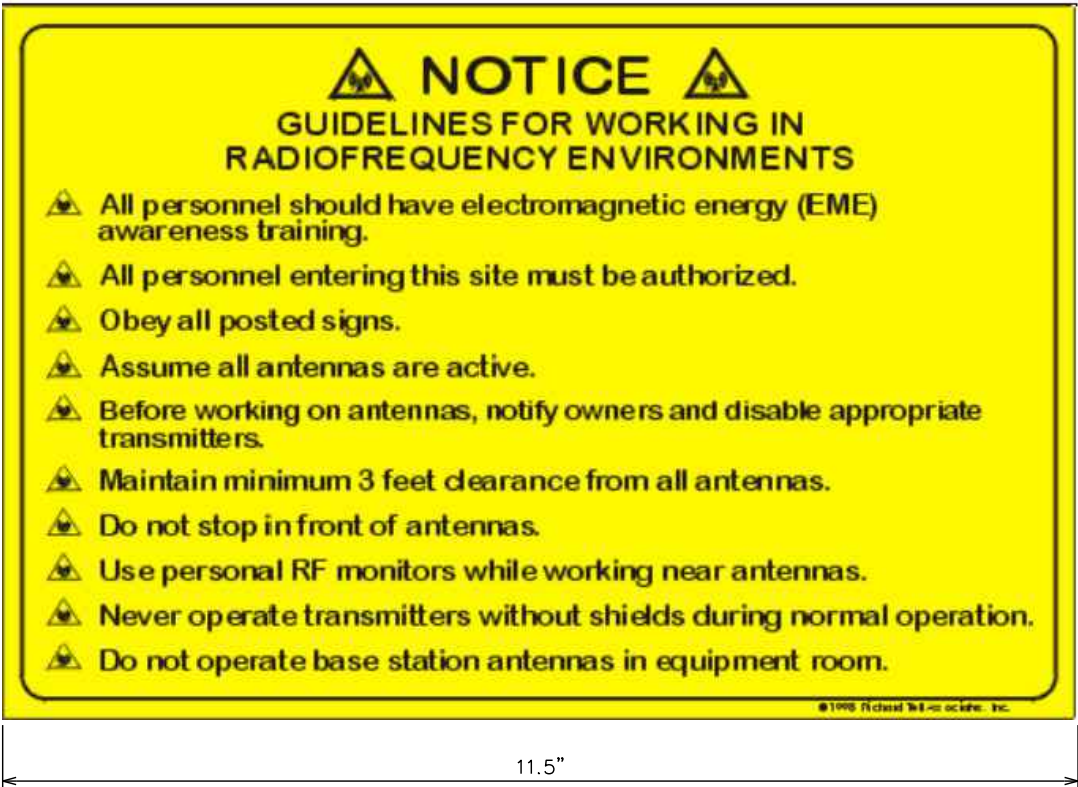
SHEET TITLE:

DRIVEWAY DETAILS

SHEET NUMBER:	REVISION:
C-7	1
	TEP#: 342594.440704

NOTES:

- ALL SIGNS TO BE HUNG ON FENCE USING HOG RINGS OR ALUMINUM FENCE TIES, ZIP TIES OR REBAR WIRE WILL NOT BE ACCEPTABLE
- THE RED WARNING SIGN SHALL BE PLACED ON THE TOWER, IDEALLY AT THE BASE OF THE SAFETY CLIMB.



PROJECT INFORMATION:

TALKEETNA

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TALKEETNA, AK 99676
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ATLAS TOWER

2500 30TH ST, SUITE 304
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Office: (303) 448-8896

PLANS PREPARED BY:



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I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: KES CHECKED BY: KES

SHEET TITLE:

**SIGNAGE
DETAILS**

SHEET NUMBER:	REVISION:
C-8	1
TEP#: 342594.440704	

SIGNAGE DETAILS

ELECTRICAL NOTES:

SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
- A. THE NATIONAL ELECTRICAL SAFETY CODE

D. LOCAL AND STATE AMENDMENTS

B. THE NATIONAL ELECTRIC CODE – NFPA–70

E. THE INTERNATIONAL ELECTRIC CODE –

C. REGULATIONS OF THE SERVING UTILITY COMPANY

IEC (WHERE APPLICABLE)
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTEE CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

RACEWAYS / CONDUITS GENERAL:

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. WHERE INSTALLED ON EXTERIOR STRUCTURES OR EXPOSED TO DAMAGE, THE CONDUIT SHALL BE RIGID STEEL.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.

INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
- A. MINIMUM WIRE SIZE SHALL BE #12 AWG.

B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.

C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.

D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP–ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON–CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – “LIGHTNING PROTECTION” AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

ABBREVIATIONS AND LEGEND

A	–	AMPERE	PNLBD	–	PANELBOARD
AFG	–	ABOVE FINISHED GRADE	PVC	–	RIGID NON–METALLIC CONDUIT
ATS	–	AUTOMATIC TRANSFER SWITCH	RGS	–	RIGID GALVANIZED STEEL CONDUIT
AWG	–	AMERICAN WIRE GAUGE	SW	–	SWITCH
BCW	–	BARE COPPER WIRE	TGB	–	TOWER GROUND BAR
BFG	–	BELOW FINISHED GRADE	UL	–	UNDERWRITERS LABORATORIES
BKR	–	BREAKER	V	–	VOLTAGE
C	–	CONDUIT	W	–	WATTS
CKT	–	CIRCUIT	XFMR	–	TRANSFORMER
DISC	–	DISCONNECT	XMTR	–	TRANSMITTER
EGR	–	EXTERNAL GROUND RING			
EMT	–	ELECTRIC METALLIC TUBING			
FSC	–	FLEXIBLE STEEL CONDUIT			
GEN	–	GENERATOR			
GPS	–	GLOBAL POSITIONING SYSTEM			
GRD	–	GROUND			
IGB	–	ISOLATED GROUND BAR			
IGR	–	INTERIOR GROUND RING (HALO)			
KW	–	KILOWATTS			
NEC	–	NATIONAL ELECTRIC CODE			
PCS	–	PERSONAL COMMUNICATION SYSTEM			
PH	–	PHASE			
PNL	–	PANEL			

-----E-----

UNDERGROUND ELECTRICAL CONDUIT

-----T-----

UNDERGROUND TELEPHONE CONDUIT



KILOWATT–HOUR METER

UNDERGROUND BONDING AND GROUNDING CONDUCTOR.



GROUND ROD



CADWELD



GROUND ROD WITH INSPECTION WELL

PROJECT INFORMATION:

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33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA–SUSITNA BOROUGH)

PLANS PREPARED FOR:

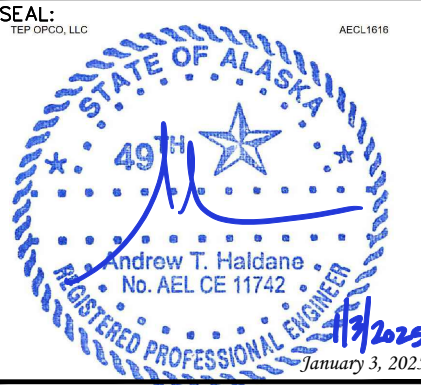
ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
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PLANS PREPARED BY:



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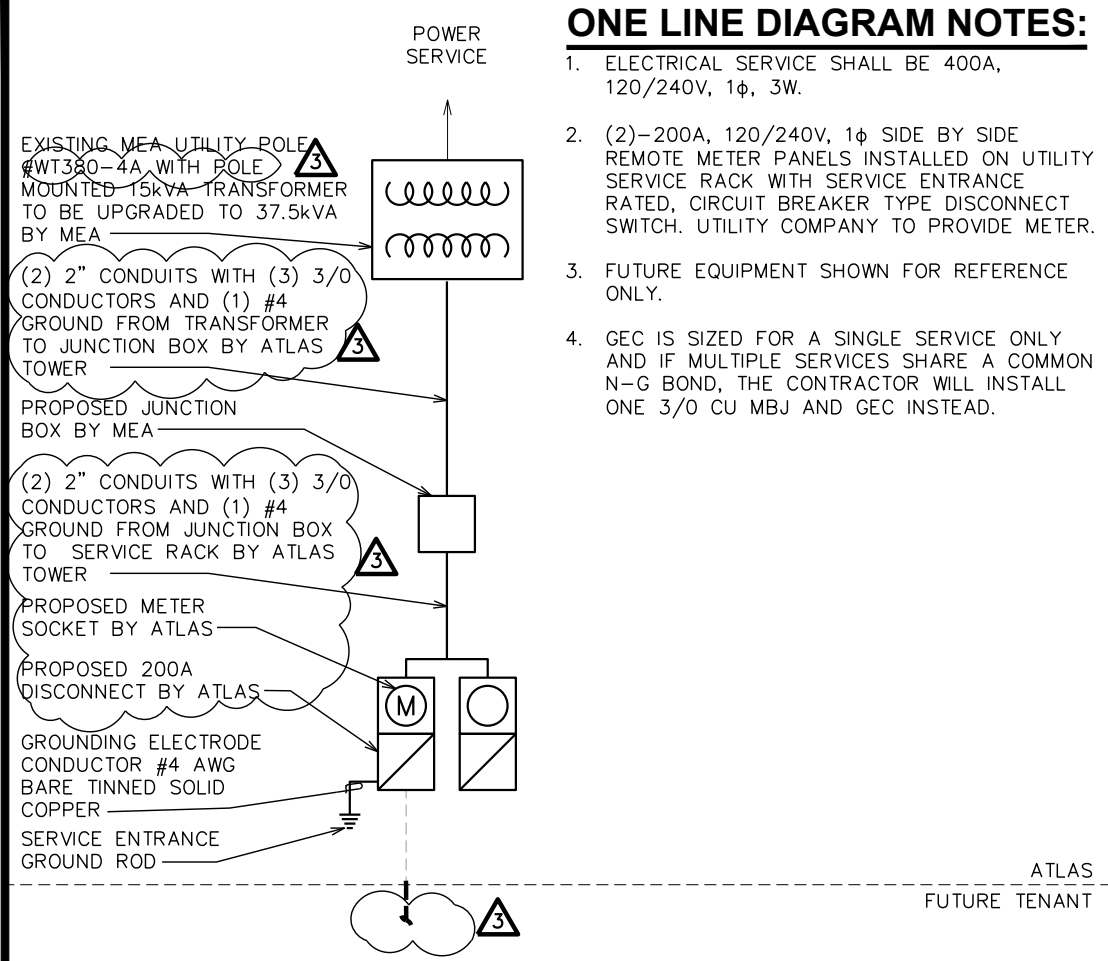
I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: AKP | CHECKED BY: NMC

SHEET TITLE:

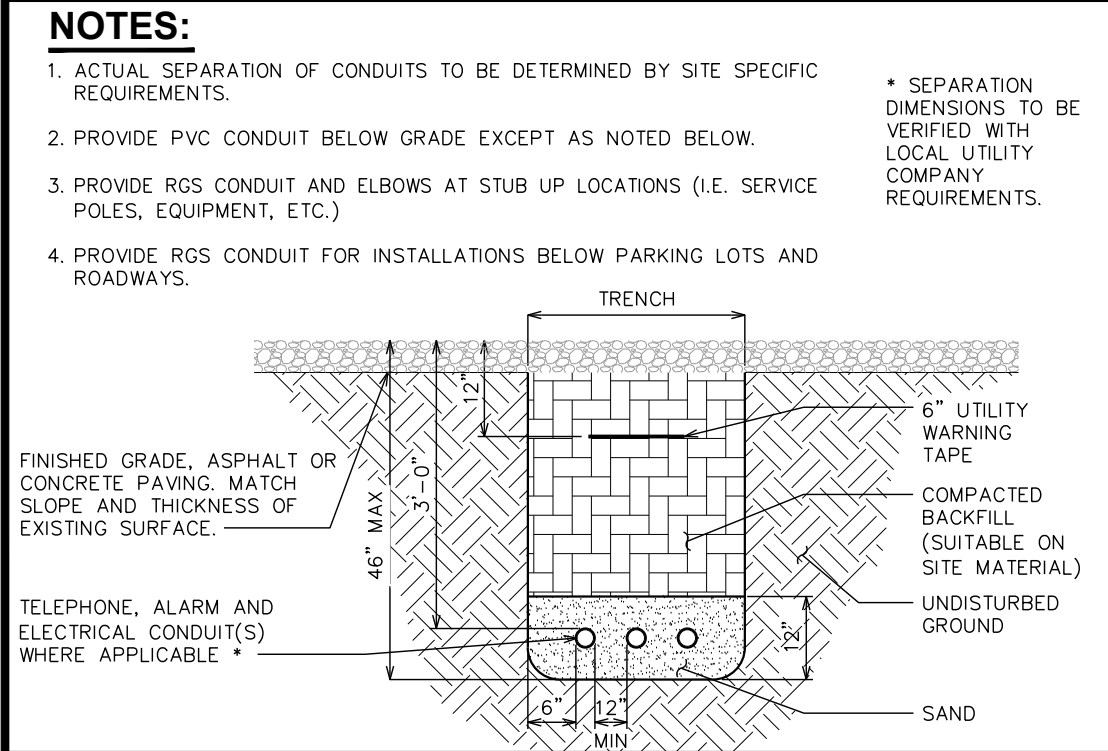
ELECTRICAL
NOTES

SHEET NUMBER:	REVISION:
E-1	1
	TEP #: 342594.440704



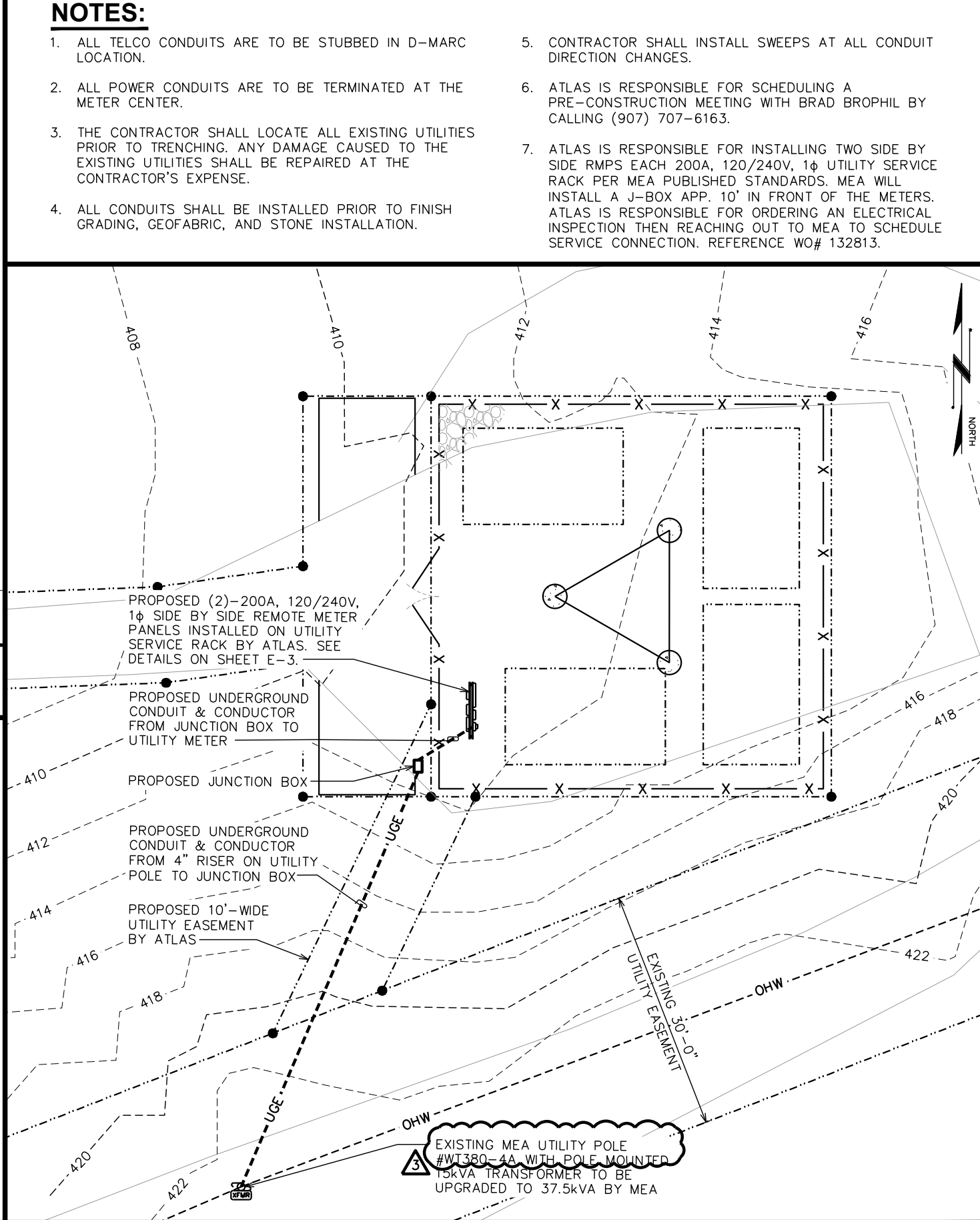
ONE-LINE DETAIL

SCALE: N.T.S.



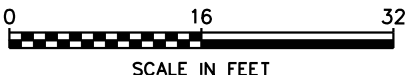
UNDERGROUND CONDUIT(S) TRENCH DETAIL

SCALE: N.T.S.



POWER PLAN

SCALE: 1/16" = 1'-0"



PROJECT INFORMATION:

TALKEETNA

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TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

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PLANS PREPARED BY:

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SEAL:

STATE OF ALASKA
49TH
Andrew T. Haldane
No. AEL CE 11742
REGISTERED PROFESSIONAL ENGINEER
June 10, 2026

REV	DATE	ISSUED FOR:
3	06-10-26	CONSTRUCTION
2	02-25-25	CONSTRUCTION
1	01-03-25	CONSTRUCTION

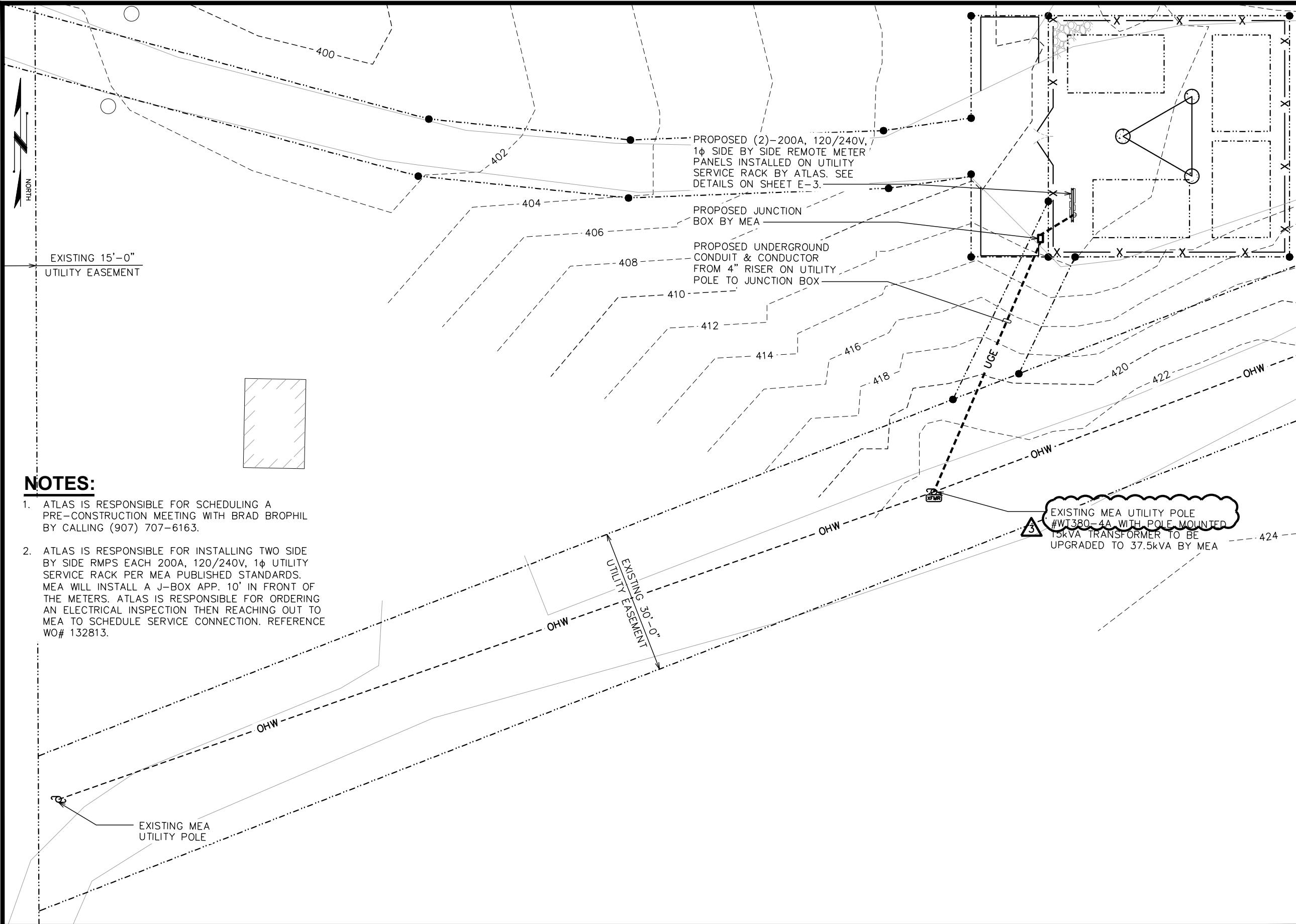
DRAWN BY: KES | CHECKED BY: NMC

SHEET TITLE:

POWER PLAN AND ONE-LINE DIAGRAM

SHEET NUMBER: **E-2** | REVISION: **3**

TEP#: 342594.440704



NOTES:

1. ATLAS IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH BRAD BROPHIL BY CALLING (907) 707-6163.
2. ATLAS IS RESPONSIBLE FOR INSTALLING TWO SIDE BY SIDE RMPS EACH 200A, 120/240V, 1 ϕ UTILITY SERVICE RACK PER MEA PUBLISHED STANDARDS. MEA WILL INSTALL A J-BOX APP. 10' IN FRONT OF THE METERS. ATLAS IS RESPONSIBLE FOR ORDERING AN ELECTRICAL INSPECTION THEN REACHING OUT TO MEA TO SCHEDULE SERVICE CONNECTION. REFERENCE WO# 132813.

EXTENDED POWER PLAN

SCALE: 1" = 20'



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ATLAS TOWER

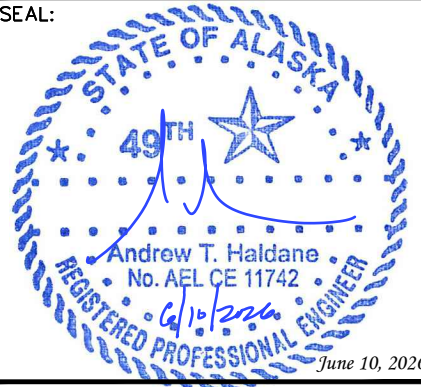
4041 HANOVER AVE
BOULDER, CO 80305
Office: (303) 448-8896

PLANS PREPARED BY:



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SEAL:



3	06-10-26	CONSTRUCTION
2	02-25-25	CONSTRUCTION
1	01-03-25	CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: KES | CHECKED BY: KES

SHEET TITLE:

EXTENDED POWER PLAN

SHEET NUMBER:

E-2A

REVISION:

3

TEP#: 342594.440704

NOTES:

- 1

REFER TO THE SITE LAYOUT PLAN FOR THE EXACT LOCATION OF THE H-FRAME.
- 2

CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANY FOR METER.
- 3

UTILITY COMPANY TO PROVIDE AND INSTALL METER SOCKET.
- 4

CONTRACTOR TO ENSURE METER RACK WORKING SPACES REQUIRED BY THE NEC (ART. 110.26), STATE, OR LOCAL CODES ARE MAINTAINED BOTH ON THE FRONT SIDE AND THE BACK SIDE OF THE H-FRAME PRIOR TO INSTALLATION.
- 5

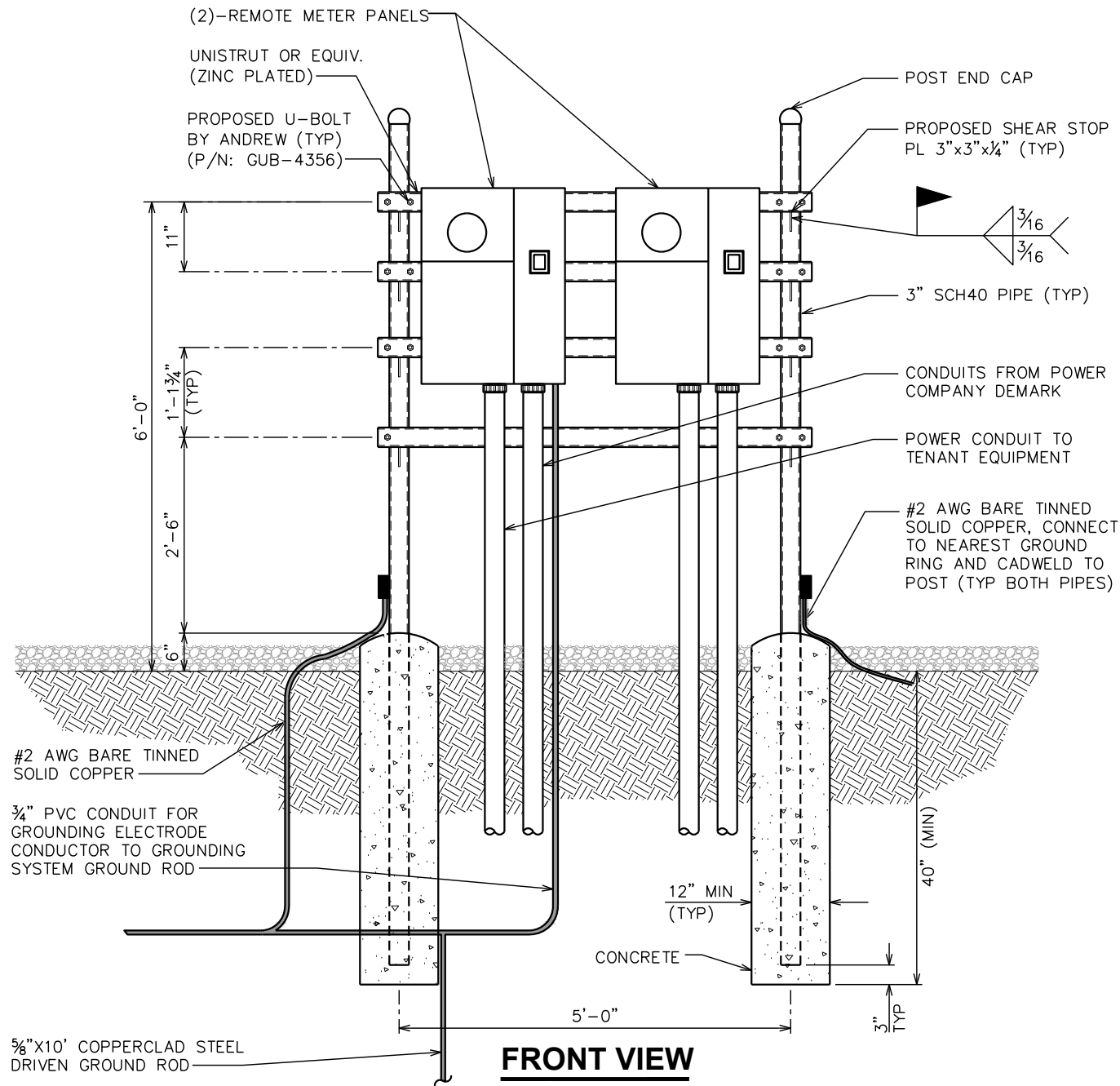
SHOW LOCATION (INCLUDING DIMENSIONS) OF ALL CAPPED UNDERGROUND CONDUIT ON FINAL AS-BUILT DRAWINGS SUBMITTED TO OWNER.
- 6

COORDINATE EXACT LOCATION OF UNDERGROUND FEEDERS AND CIRCUITRY WITH THE OWNER.
- 7

CONTRACTOR SHALL COORDINATE EFFORTS WITH (LOCAL, ELECTRICAL) AUTHORITY HAVING JURISDICTION (AHJ) AND OTHER TRADES TO DETERMINE "FROST" LINE, AND TYPE(S) OF RACEWAYS REQUIRED FOR INSTALLATION.
- 8

BOND ALL ELECTRICAL EQUIPMENT TO RACK.
- 9

DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE ALTERED IN THE FIELD AS APPROVED BY OWNER TO BETTER SUIT ACTUAL CONDITIONS OR EQUIPMENT RECEIVED.



FRONT VIEW

SERVICE RACK DETAILS

SCALE: 1/2" = 1'-0"



PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

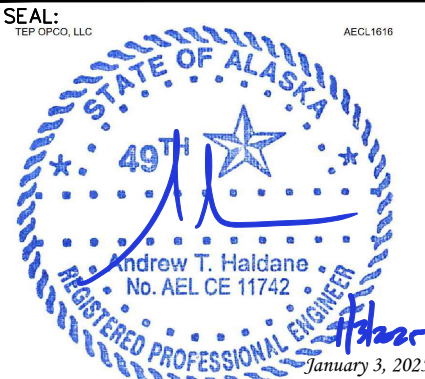
ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net



I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: KES CHECKED BY: NMC

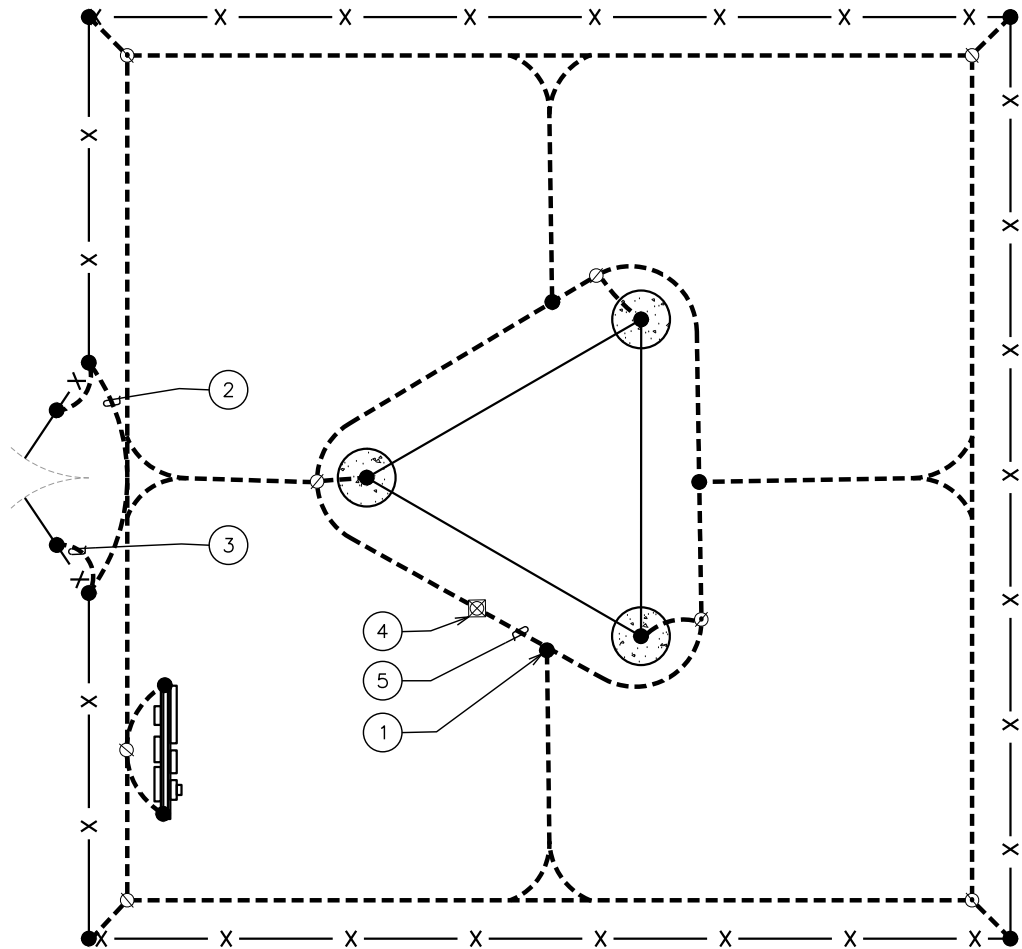
SHEET TITLE:

SERVICE RACK DETAILS

SHEET NUMBER:	REVISION:
E-3	1
	TEP#: 342594.440704

DRAWING NOTES:

- 1
- $\frac{5}{8}$ "x10' COPPER GROUND ROD (TYP).
- 2
- GATE POST BONDING. SEE DETAIL ON THIS SHEET.
- 3
- FENCE GATE GROUNDING. SEE DETAIL ON THIS SHEET.
- 4
- PROPOSED INSPECTION WELL. SEE DETAIL ON SHEET E-5.
- 5
- PROPOSED TOWER GROUND RING. #2 COPPER CONDUCTOR-BARE TINNED BURIED 50" BFG BY ATLAS TOWER.

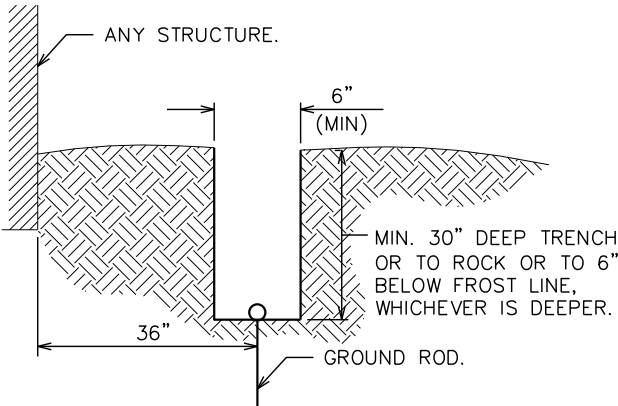


TYPICAL GROUNDING PLAN

SCALE: N.T.S.

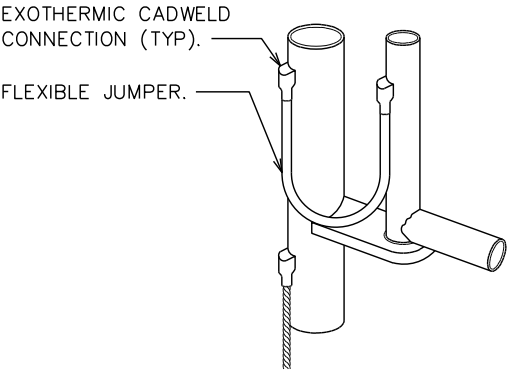
GROUNDING NOTES

1.
- GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 SOLID CONDUCTOR. THE TOP OF THE GROUND RODS AND THE CONDUCTOR SHALL BE 30" (MIN) BELOW FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS. (6'-0" MINIMUM; 16'-0" MAXIMUM)
2.
- BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3.
- ROUND SHELTER TO GROUND RING PER NSTD46 CELL SITE GROUNDING AND LIGHTING PROTECTION, ISSUED 2/1/11.



TRENCH DETAIL

SCALE: N.T.S.



GROUNDING AT GATE POST

SCALE: N.T.S.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
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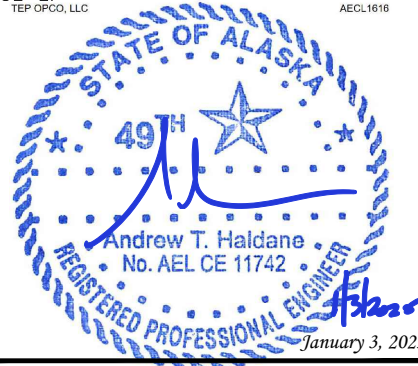
PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:
TEP OPGO, LLC

AECL1616



I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: KES CHECKED BY: ARB

SHEET TITLE:

GROUNDING PLAN
AND DETAILS

SHEET NUMBER:

E-4

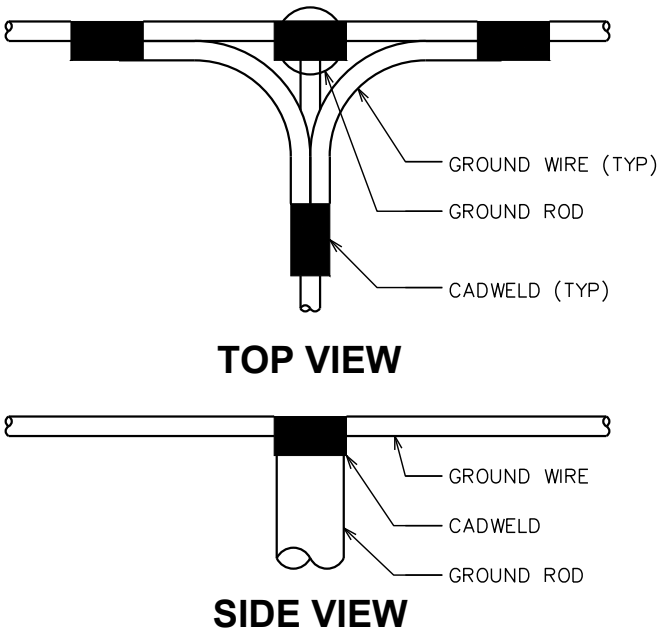
REVISION:

1

TEP#: 342594.440704

NOTE:

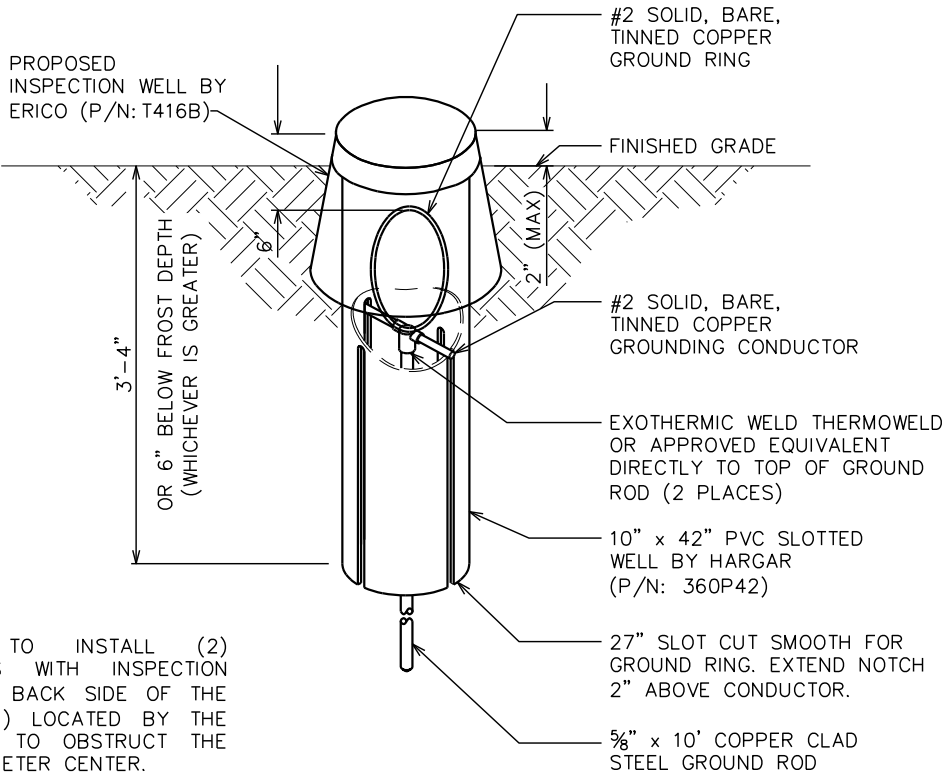
MINIMUM SPACING OF 12" BETWEEN ALL CADWELDS



CADWELD GROUNDING DETAIL

SCALE: N.T.S.

NOT USED

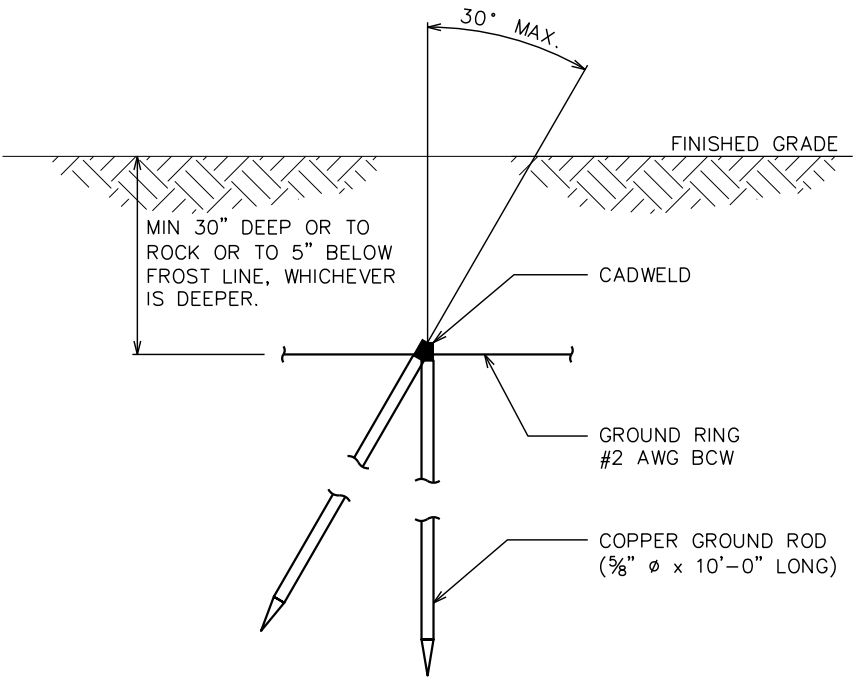


NOTE:

CONTRACTOR TO INSTALL (2) GROUND RODS WITH INSPECTION WELLS. (1) ON BACK SIDE OF THE TOWER AND (1) LOCATED BY THE H-FRAME NOT TO OBSTRUCT THE PATH TO THE METER CENTER.

INSPECTION WELL DETAIL

SCALE: N.T.S.



COPPER-CLAD STEEL GROUND ROD

SCALE: N.T.S.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:

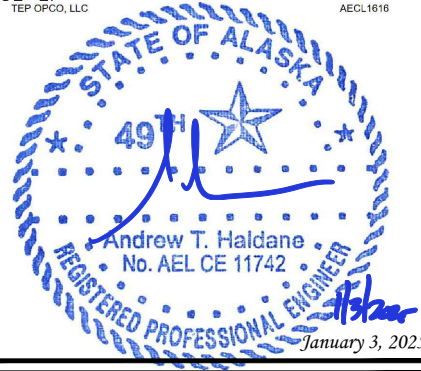


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DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:

TEP OPGO, LLC

AECL1616



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O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

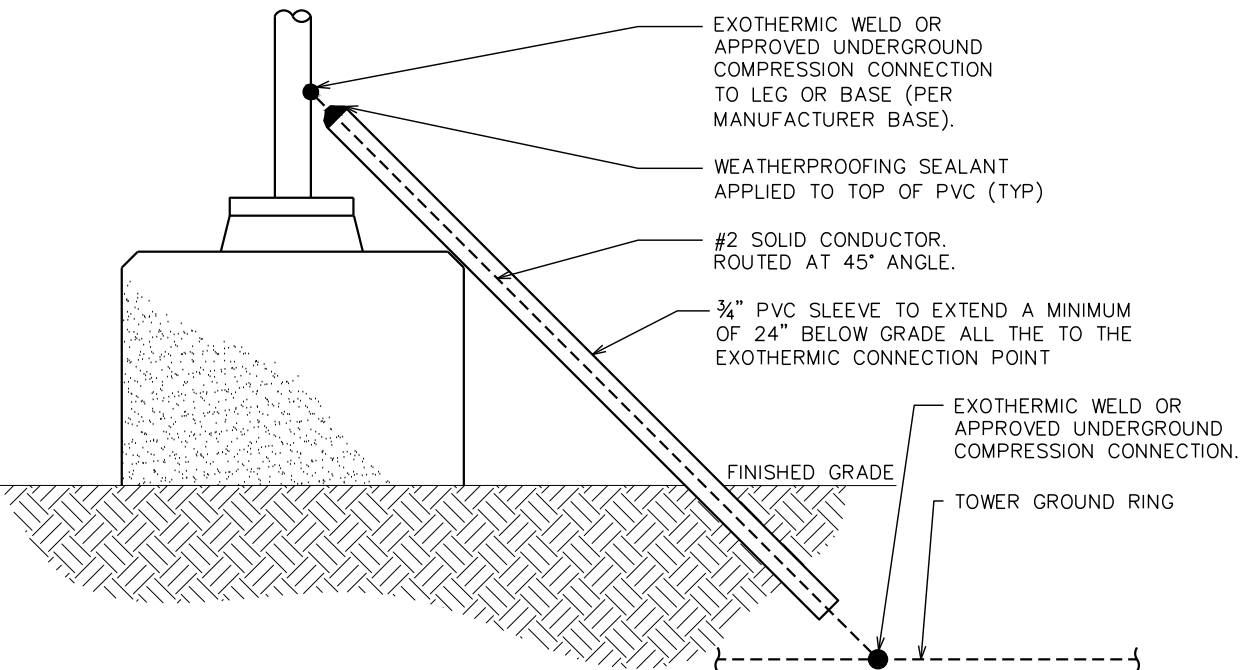
DRAWN BY: AKP CHECKED BY: NMC

SHEET TITLE:

GROUNDING DETAILS

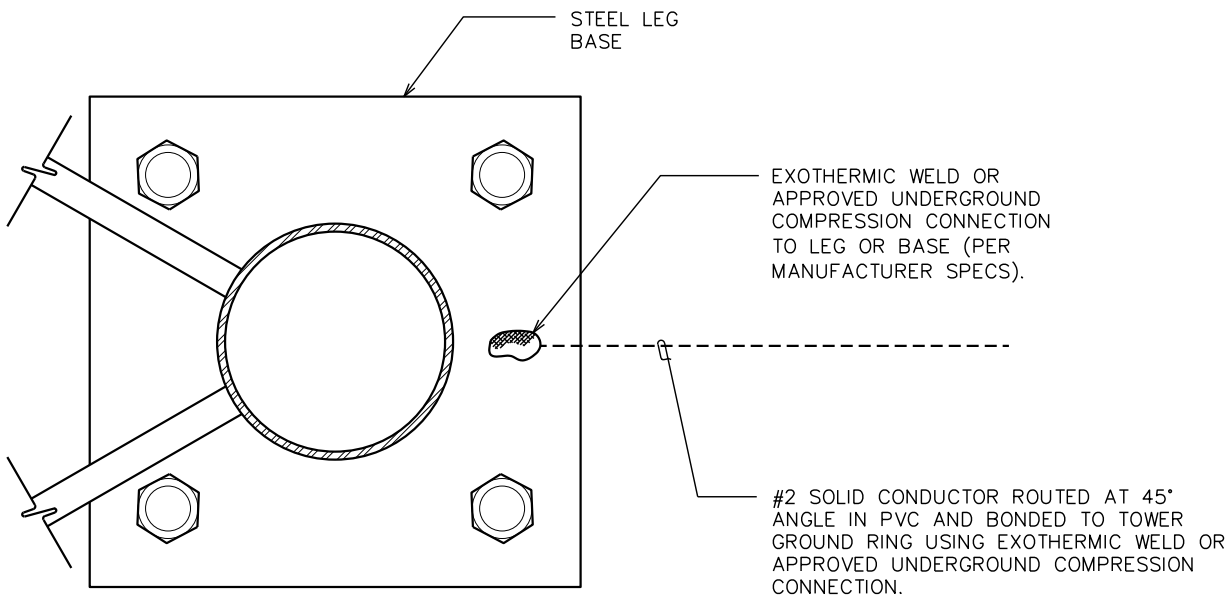
SHEET NUMBER: E-5 REVISION: 1

TEP#: 342594.440704



TYPICAL TOWER BASE GROUNDING DETAIL

SCALE: N.T.S.



TYPICAL TOWER GROUNDING

SCALE: N.T.S.

PROJECT INFORMATION:

TALKEETNA

33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:

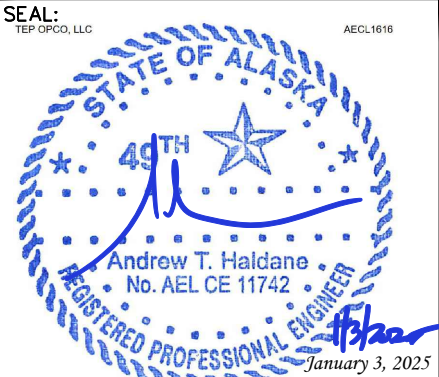
ATLAS TOWER

2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:



4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net



I	01-03-25	CONSTRUCTION
O	12-02-24	PRELIMINARY
REV	DATE	ISSUED FOR:

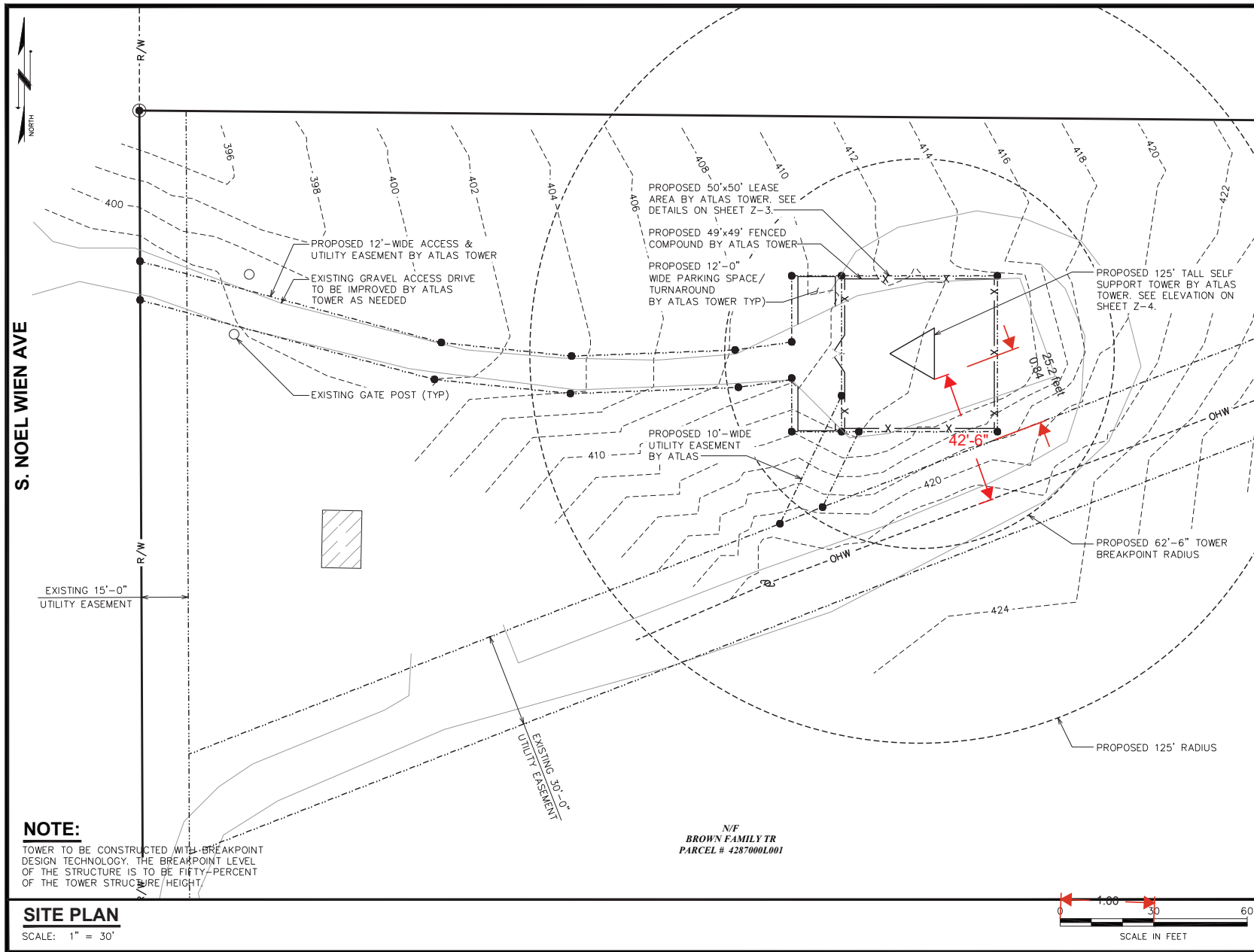
DRAWN BY: AKP CHECKED BY: NMC

SHEET TITLE:

**TOWER FOUNDATION
GROUNDING DETAILS**

SHEET NUMBER: E-6	REVISION: 1 TEP#: 342594.440704
-----------------------------	--

REDLINE COPY: Scaled measurements associated with proximity to overhead utility line.



PROJECT INFORMATION:
TALKEETNA
33693 S NOEL WIEN AVE,
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH)

PLANS PREPARED FOR:
ATLAS TOWER
2500 30TH ST, SUITE 304
BOULDER, CO 80301
Office: (303) 448-8896

PLANS PREPARED BY:
TEP
4700 DAHLIA STREET
DENVER, CO 80216
OFFICE: (303) 566-9914
www.tepgroup.net

SEAL:
ZONING REVIEW

3	11-27-24	ZONING
2	10-23-24	ZONING
1	10-08-24	ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: KES CHECKED BY: ARB

SHEET TITLE:
SITE PLAN

SHEET NUMBER: **Z-2** REVISION: **3**
TEP #: 342594.440704



1201 S Sheridan St
South Bend, IN 46619

Phone: 574-288-3632
Fax: 574-288-5860
www.nelloinc.com

April 2, 2026

Atlas Tower
2500 30th Street, Suite 304
Boulder, CO 80301

Re: Nello Tower Fall Radius – Nello 125.9' NSX Lattice Self-Support Tower
Project Name: Talkeetna - Brown
Nello Job #: SO32729
Tower Drawing #: 773613

To Whom It May Concern:

This letter is regarding your inquiry about the expected performance of your proposed tower designed by Nello based on site-specific criteria.

Our towers are designed to meet or exceed industry standards defined by TIA-222-H, "Structural Standards for Antenna Supporting Structures and Antennas" (TIA Standard). It is our opinion that the possibility of a tower collapse is very unlikely. The tower is designed using extreme wind and ice conditions. In fact, wind speeds specified by the TIA Standard are 50-year wind speeds. That is, they have only a 2% statistical chance of occurring in any given year.

This tower has been designed using the following wind conditions as a minimum: a 115 mph 3-second gust wind speed with no ice and a 60 mph 3-second gust wind with 0.5" ice. The TIA Standard specifies 115 mph as the wind speed required for this site in Matanuska-Susitna Borough, Alaska. The "3-second gust wind speed" refers to a wind measured at 33 feet above the ground. Equations in the TIA Standard take into account that wind speed escalates with increasing height of the tower.

Although we cannot guarantee exactly how a tower would fall if it were to fail, the most likely mode of failure would be a buckling failure of one of the tower sections due to excessive wind loading. The tower leg with the highest stress ratio is located at the 80' – 100' level. The stress ratio in that leg is calculated to be 77.4% of the code-permitted design loading. Given that the tower section with the highest stress ratio will most likely fail first, the proposed tower would fail at the 80' level with the top 45' of the tower collapsing. Depending on the conditions at the time of failure and the stress levels in structural material below, the top 45' of the tower would likely fall within a 35' fall radius. This helps prevent the risk of falling on nearby powerlines.

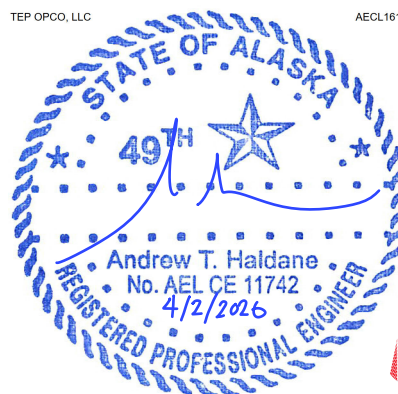
The fall radius statement above assumes proper foundation construction and tower installation. The foundation design should be reviewed to ensure that no foundation limit state governs the entire structural system and negates the fall radius design. The fall radius expectancy requires that the foundation be designed with a capacity greater than that of the tower capacity. If the foundation design used in association with this tower is performed by a third party, Nello must be provided the opportunity to review the design in order to confirm that the fall radius remains satisfactory. If for some reason Nello does not provide the tower design, or is not given the opportunity to design or review the foundation for this specific project, the content of this letter becomes void.

If you have any other questions or concerns regarding the design of your site-specific tower, please contact our engineering or sales department.

Sincerely,

TEP OPCO, LLC

AECL1616



TEP

125' —
120' —

100' —

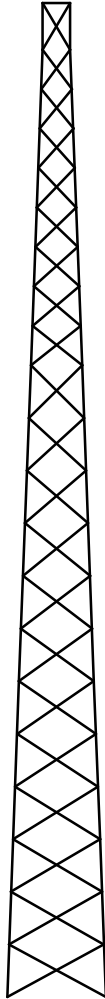
80' —

60' —

40' —

20' —

0' —



Self-Supporting Tower Section Data

Section Number	Bottom Elevation (ft)	Top Elevation (ft)	Model	Bottom Face Width (ft)	Top Face Width (ft)	Number of Panels	Leg Size (in)	Diagonal Size (in)	Girt Size (in)	Mid-Horizontal Size (in)	Redundant Horizontal Size (in)	Redundant Diagonal Size (in)
7	120	125	NSX	3.5	3.5	1	P2x.154	L1 3/4x1 3/4x1/8	L1 3/4x1 3/4x1/8			
6	100	120	NSX	5.0	3.5	4	P3x.216	L2x2x1/8				
5	80	100	NSX	6.5	5.0	4	P4x.237	L2x2x1/8				
4	60	80	NSX	8.0	6.5	3	P6x.28	L2x2x3/16				
3	40	60	NSX	9.5	8.0	3	P8x.322	L2 1/2x2 1/2x3/16				
2	20	40	NSX	11.0	9.5	3	P8x.322	L2 1/2x2 1/2x3/16				
1	0	20	NSX	12.5	11.0	3	P8x.322	L2 1/2x2 1/2x3/16				

Tower Reactions

No Ice

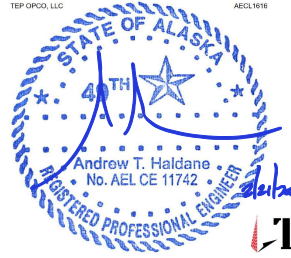
Shear: 26.3 kips
Moment: 2350.85 ft-kips
Weight: 24.1 kips

With Ice

Shear: 8.9 kips
Moment: 789.37 ft-kips
Weight: 33.2 kips

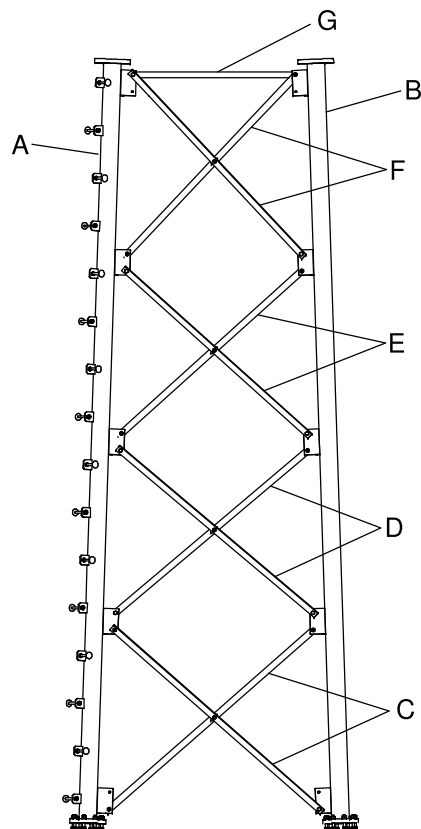
Leg Reactions

Compression: 225.2 kips
Uplift: -205.1 kips
Shear: 16.9 kips

		
TITLE: Atlas Tower NSX 12.5' X 125'		
Talkeetna - Brown Matanuska-Susitna Borough., AK		1201 S. Sheridan St. South Bend, IN 46619 Bus: (574)288-3632 Fax: (574)288-5860

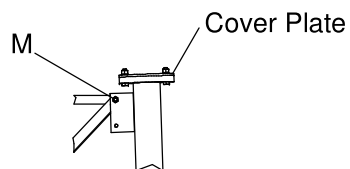
REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

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	DWG. PROG: v2.05	SHEET: 1 OF 6



NSX Section Detail

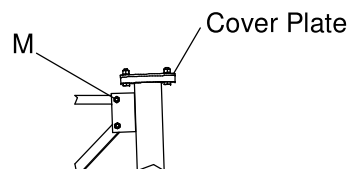
1. A part number is stamped on the bottom footpad of each leg.
2. A part number is stamped and /or labeled on the bottom end of each angle.
3. Be sure to place diagonal bracing angles in correct positions, angles in the top panel may be longer than they are in the middle panel.
4. The bolt head must bear against the angle bracing.



One plain nut and one lockwasher per bolt.

Detail A: NSX Top Connection

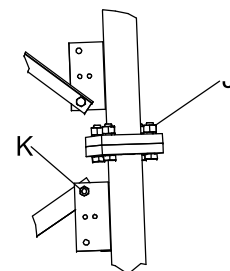
- *Applicable to all 20 ft Sections.
- *Applicable to all Sections Shorter than 20 ft and are Straight.



One plain nut and one lockwasher per bolt.

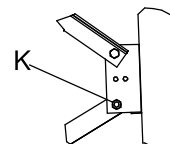
Detail B: NSX Top Connection

- *Applicable to all Sections Shorter than 20 ft that are Tapered Sections.



One plain nut and one lockwasher per bolt.

NSX Leg Connection

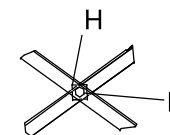


One plain nut and one lockwasher per bolt.

NSX Bracing Detail

NSX Section Legend:

- A. Climbing Leg
- B. Non-Climbing Leg
- C. Diag., Panel 1
- D. Diag., Panel 2
- E. Diag., Panel 3
- F. Diag., Panel 4
- G. Top Girt
- H. Spacer
- J. Leg Bolts
- K. Diagonal Bolts
- L. Stitch Bolts
- M. Top Girt Bolts



One plain nut and one lockwasher per bolt.

NSX Spacer Detail

TEP OPCO, LLC
AECL1616

TEP

TITLE:

Atlas Tower

NSX 12.5' X 125'

Talkeetna - Brown

Matanuska-Susitna

Borough., AK

N E L L O

1201 S. Sheridan St.

South Bend, IN 46619

Bus: (574)288-3632

Fax: (574)288-5860

REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

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	DWG. PROG: v2.05	SHEET: 2 OF 6

NSX Section Part Numbers

Item	Elevation	Climbing Leg (A)	Non-Climbing Leg (B)	Diagonal - Panel 1 (C)	Diagonal - Panel 2 (D)	Diagonal - Panel 3 (E)	Diagonal - Panel 4 (F)	Top Girt (G)	Spacer (H)
7	120' - 125'	141432	141431	167310				167379	132233
6	100' - 120'	141387	141383	193703	193704	193705	193706		132233
5	80' - 100'	141292	141287	167388	167389	167390	167391		132233
4	60' - 80'	129729		167216	167217	167218			132233
3	40' - 60'	129695		167005	167006	167007			132233
2	20' - 40'	129695		167170	167171	167172			132233
1	0' - 20'	129701		168102	168103	168104			132233

NSX Section Hardware

Item	Elevation	Leg Bolts (J)	Diagonal Bolts (K)	Stitch Bolts (L)	Top Girt Bolts (M)	Section Weight (Lbs.)
7	120' - 125'	(12) 3/4" x 3-1/2"	(12) 1/2" x 1-1/2"	(3) 1/2" x 1-1/2"	(6) 1/2" x 1-1/2"	290
6	100' - 120'	(24) 3/4" x 3-1/2"	(48) 1/2" x 1-1/2"	(12) 1/2" x 1-1/2"		1040
5	80' - 100'	(24) 3/4" x 3-1/2"	(48) 5/8" x 2-1/2"	(12) 5/8" x 2-1/2"		1330
4	60' - 80'	(24) 1" x 3-3/4"	(36) 5/8" x 2-1/2"	(9) 5/8" x 2-1/2"		2020
3	40' - 60'	(24) 1" x 3-3/4"	(36) 3/4" x 2-1/4"	(9) 3/4" x 2-1/4"		2880
2	20' - 40'	(24) 1" x 3-3/4"	(36) 3/4" x 2-1/4"	(9) 3/4" x 2-1/4"		2950
1	0' - 20'	0	(36) 3/4" x 2-1/4"	(9) 3/4" x 2-1/4"		3020

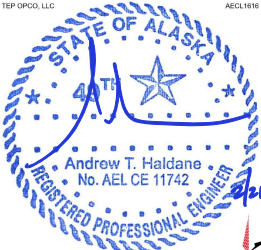
REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

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ORIG. DATE: 2/21/2025	DWG. PROG: v2.05
DWG. NO: 773613	SHEET: 3 OF 6

TEP OP&G, LLC

AECL1616



Andrew T. Haldane
No. AEL CE 11742
REGISTERED PROFESSIONAL ENGINEER

TEP

TITLE:
Atlas Tower
NSX 12.5' X 125'

Talkeetna - Brown
Matanuska-Susitna
Borough., AK

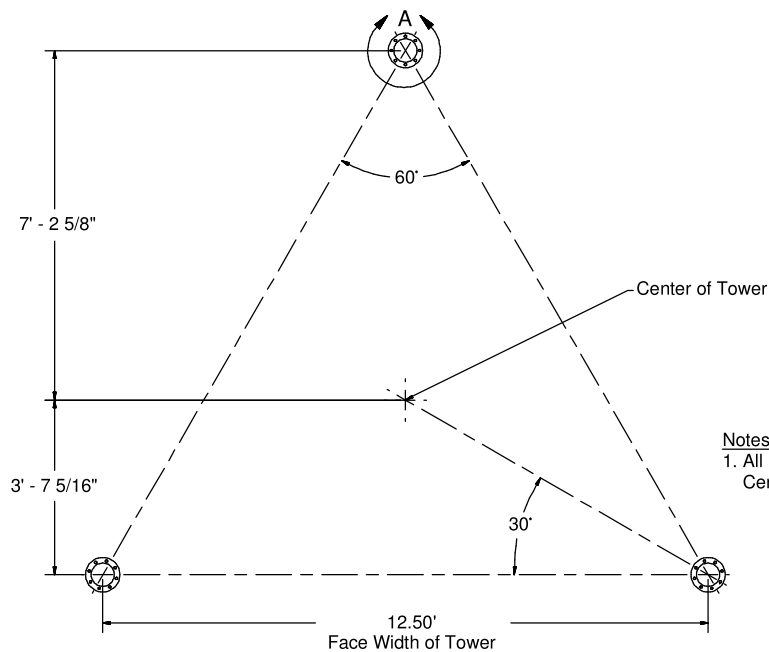


N E L L O

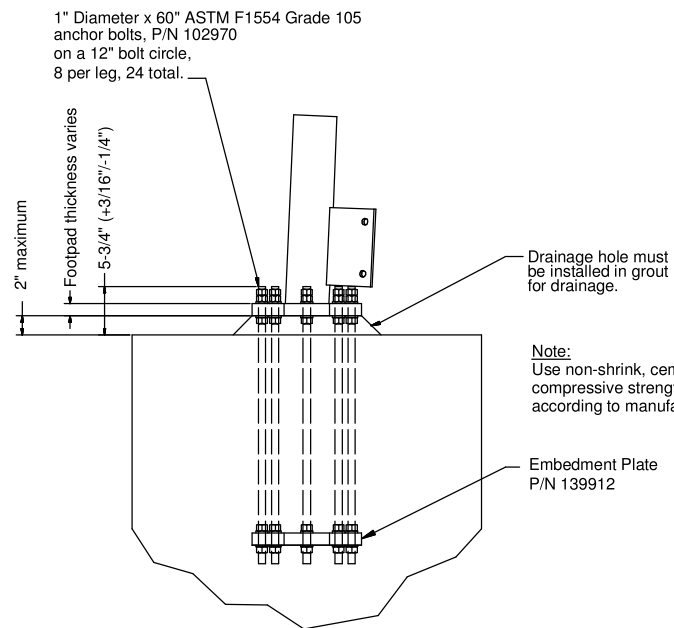
1201 S. Sheridan St.
South Bend, IN 46619
Bus: (574)288-3632
Fax: (574)288-5860



DETAIL A
Bolt hole must be aligned with center of tower.



Notes:
1. All Dimensions are from Center of Bolt Circles.



Drainage hole must be installed in grout for drainage.

Note:
Use non-shrink, cement grout with a minimum compressive strength of 5000 psi. Mix and install according to manufacturer's recommendations.

TEP OPCO, LLC
AECL1616

TITLE: Atlas Tower NSX 12.5' X 125' Talkeetna - Brown Matanuska-Susitna Borough., AK	
--	--

REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

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	DWG. PROG: v2.05	SHEET: 4 OF 6

Antenna Loading

Height	Qty.	Description
120'	1	30,000 sq in CaAa
110'	1	30,000 sq in CaAa
100'	1	Dish Pipe Mount
90'	1	Dish Pipe Mount

Feedline Loading

Height	Qty.	Description
0' - 120'	4	LDF7-50A (1-5/8 FOAM)
0' - 110'	4	LDF7-50A (1-5/8 FOAM)
0' - 100'	1	LDF7-50A (1-5/8 FOAM)
0' - 90'	1	LDF7-50A (1-5/8 FOAM)

Dish Loading

Height	Qty.	Description
100'	1	6' Dish with Radome
90'	1	6' Dish with Radome

REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

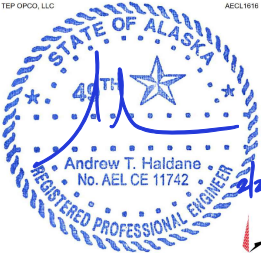
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ORIG. DATE: 2/21/2025
DWG. PROG: v2.05

DWG NO: 773613
SHEET: 5 OF 6

TEP OPCO, LLC

AECL1616



TITLE:

Atlas Tower

NSX 12.5' X 125'

Talkeetna - Brown

Matanuska-Susitna

Borough., AK



NE LLO

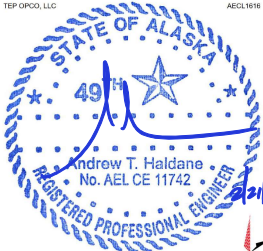
1201 S. Sheridan St.
South Bend, IN 46619
Bus: (574)288-3632
Fax: (574)288-5860

Tower Notes:

1. Tower is designed per TIA-222-H, "Structural Standard for Antenna Supporting Structures, Anennas and Small Wind Turbine Support Structures," for the following loading conditions:
115 mph 3-second gust ultimate wind speed with no ice per ASCE 7-16
60 mph 3-second gust basic wind speed with 1/2 inch basic ice thickness per ASCE 7-16
Risk Category: II
Exposure Category: C
Topographic Category: 1
Crest Height: 0 feet
2. A tower field inspection shall be performed in order to verify that design exposure and topographic parameters are consistent with the existing tower site conditions.
3. Tower design includes the antennas, dishes, and/or lines listed in the appurtenance loading tables on sheet 5.
4. Antenna mounting pipes may need to be field cut to match the lengths listed in the appurtenance loading tables on sheet 5.
5. Tower member design does not include stresses due to erection since erection equipment and procedures are unknown. Tower installation shall be performed by competent and qualified erectors in accordance with TIA-222-H and OSHA standards and all applicable building codes.
6. Field connections shall be bolted. No field welds shall be allowed unless otherwise noted.
7. Structural bolts shall conform to ASTM A325, except for 1/2 inch diameter and smaller bolts, which shall conform to ASTM A449 or SAE J429 Grade 5.
8. Structural steel and connection bolts shall be galvanized after fabrication in accordance with TIA-222-H.
9. All high strength bolts shall be tightened to a "snug tight" condition as defined in the RCSC "Specification for Structural Joints Using ASTM A325 or A490 Bolts."
10. Tower shall be marked and lighted in conformance with local building codes, FAA regulations, and TIA-222-H.
11. Tower shall be grounded in conformance with local building codes and TIA-222-H. Evaluation of protective grounding and consideration for special grounding systems shall be performed by others.
12. Allowable tolerance on as-built tower steel height is plus 1% or minus 1/2%.
13. Maintenance and inspection shall be performed over the life of the structure in accordance with TIA-222-H.
14. Material specifications:
Self Supporting Pipe Legs - ASTM A500 Grade 50
Angle Bracing - ASTM A529 Grade 50
Leg Footpads - ASTM A572 Grade 50
Leg Side Plates - ASTM A36 (Min)
15. Remove anchor bolt template before erecting tower. Place non-shrink grout under base section footpads after leveling tower.
16. Concrete contractor shall be responsible for properly aligning anchor bolts and materials before and after placing concrete, regardless of whether an anchor bolt template is provided.

TEP OPCO, LLC

AECL1616



Andrew T. Haldane
No. AEL CE 11742
REGISTERED PROFESSIONAL ENGINEER



TITLE:
Atlas Tower
NSX 12.5' X 125'


N E L L O

Talkeetna - Brown
Matanuska-Susitna
Borough., AK

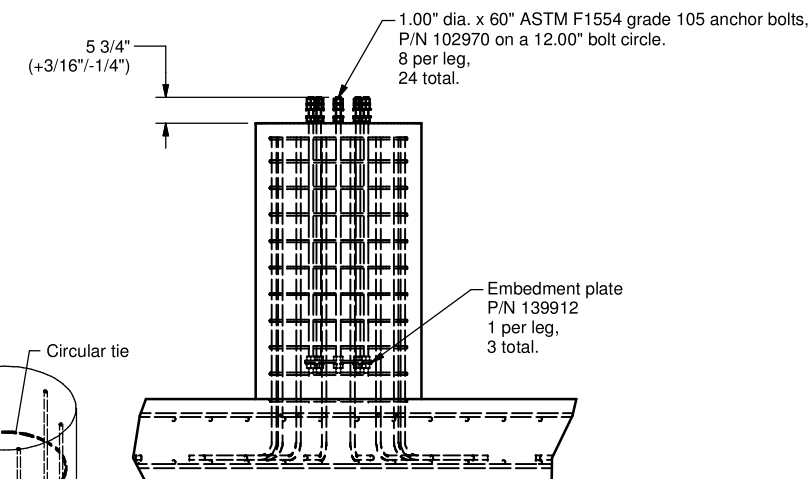
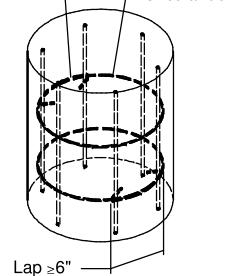
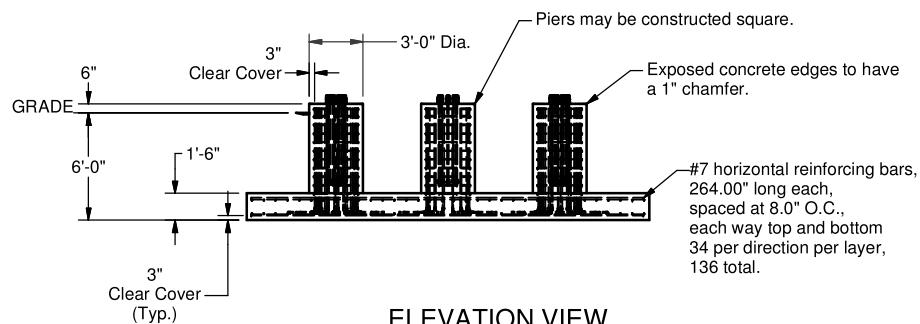
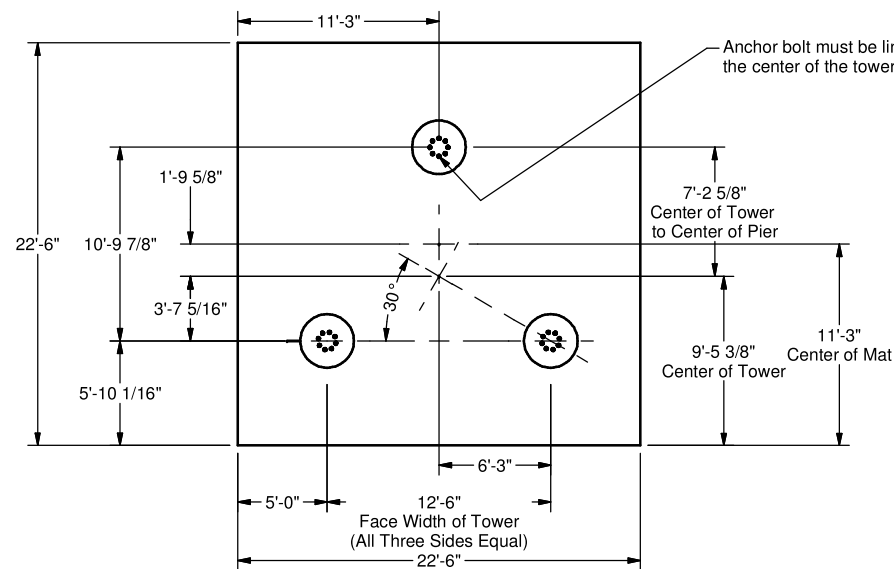
1201 S. Sheridan St.
South Bend, IN 46619
Bus: (574)288-3632
Fax: (574)288-5860

REV	BY	DATE	DESCRIPTION
1	DF	2/21/2025	Revised tower for fall radius per ECO 7883

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ORIG. DATE: 2/21/2025
DWG. PROG: v2.05

DWG NO: 773613
SHEET: 6 OF 6



CAUTION:

1. Ensure that all anchor bolt nuts are tightened.
2. Ensure that all three face width dimensions (pier center to pier center) are measured and verified before pouring concrete.

Concrete Compressive Strength, $f'_c = 4500$ psi

TITLE:

Talkeetna - Brown
Matanuska-Susitna
Borough, AK



REV	BY	DATE	DESCRIPTION
1	DF	2/24/2025	Revised foundation per ECO 7883

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ORIG. DATE: 12/21/2024

4 DWG NO: 773614

Foundation Notes:

1. This foundation has been designed for the following tower reactions:
- Leg Compression: 225.2 Kips
 - Leg Uplift: 205.1 Kips
 - Leg Shear: 16.9 Kips
 - Tower Shear: 26.3 Kips
 - Tower Moment: 2350.9 Ft-Kips
 - Tower Weight: 24.1 Kips
2. Foundation design is based on the Geotechnical Report dated 12/13/2024, by Sinnott Gering and Schmitt Towers, Inc.; Project No. 2410116.
3. A field inspection shall be performed in order to verify that the actual site soil parameters meet or exceed the assumed soil parameters and that the depth of standard foundations are adequate based on the frost penetration and groundwater depth. Local frost depth must be no deeper than the bottom of the base foundation or the top of the anchor.
4. Reinforcement shall be deformed and conform to the requirements of ASTM A615 Grade 60 unless otherwise noted. Splices in reinforcement shall not be allowed unless otherwise indicated.
5. Welding is prohibited on reinforcing steel and anchorage.
6. Structural backfill placed below pad must be compacted in 8" loose lifts to 98% of maximum dry density at optimum moisture content in accordance with ASTM D698. Backfill must be clean and free of organic and frozen soils and foreign materials.
7. Backfill above foundation should be compacted to 95% of maximum dry density at water content within 2 percent of optimum. Backfill must be clean and free of organic and frozen soils and foreign materials.
8. Finished grade shall be leveled over the entire foundation footprint. Backfill is recommended to slope to native grade using a 2:1 (H:V) slope.
9. Loose material shall be removed from bottom of excavation prior to concrete placement.
10. Concrete cover from exposed surface of concrete to surface of reinforcement shall not be less than 3".
11. Concrete and reinforcement installation must conform to ACI 318, "Building Code Requirements for Structural Concrete."
12. Concrete shall develop a minimum compressive strength of 4500 psi at 28 days.
13. Concrete shall be placed as soon as practical after excavating to avoid disturbance of bearing and side wall surfaces
14. Concrete contractor shall be responsible for properly aligning anchor bolts before and after placing concrete, regardless of whether an anchor bolt template is provided.
15. Positive drainage shall be maintained during construction and throughout the life of the facility to minimize the potential for surface water infiltration.
16. If unsuitable soils are encountered, overexcavation of unsuitable soils for compacted backfill placement below footings should extend laterally beyond all edges of the footings at least 12 inches per foot of overexcavation depth below footing base elevation.
17. It shall be the contractor's responsibility to locate and prevent damage to any existing underground utilities, foundations or other buried objects that might be damaged or interfered with during construction of the foundation.
18. It is permissible to utilize a cold joint during construction of a pier and pad type foundation. The cold joint must be located at the interface of the piers with the pad, and contractor shall use a bonding agent suitable for cold joints.
19. It is permissible for the top of the vertical reinforcement cage alignment to fluctuate slightly, allowing for a minimum clear cover of 2" to a maximum clear cover of 3" over the top of any individual vertical bar.
20. Earthwork operations and foundation installation methods shall be in accordance with the geotechnical report and all applicable American Concrete Institute (ACI) Standards.
21. Groundwater was not encountered during the geotechnical investigation.
22. Rock conditions were encountered about 4 feet bgs in the geotechnical investigation (see geo report for details). The contractor should anticipate difficult excavation below this depth and be prepared with the necessary equipment to remove such material in order to create a level bearing surface. The depth to rock material may vary across the foundation footprint. The entire footing shall bear on leveled, competent rock or bear on a layer of lean concrete (2000 psi) placed in direct contact with competent rock
23. This mat design assumes an ultimate bearing capacity of 21546 psf (allowable bearing capacity of 10773 psf) based on the geotechnical report. The bearing surface shall be inspected prior to concrete placement.
24. During placement, concrete shall be suitably consolidated. Proper curing methods shall be used directly following concrete placement as established by the contractor. Concrete shall develop a minimum compressive strength of 3000 psi prior to backfill and compaction operations, and backfill shall be compacted to a minimum moist unit weight of 110 pcf.

REV	BY	DATE	DESCRIPTION
1	DF	2/24/2025	Revised foundation per ECO 7883

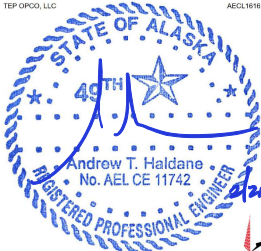
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ORIG. DATE: 12/21/2024
DWG. PROG: v2.05

DWG NO: 773614
SHEET: 2 OF 2

TEP OPCO, LLC

AECL1616



Andrew T. Haldane
No. AEL CE 11742
REGISTERED PROFESSIONAL ENGINEER



TITLE:
Atlas Tower
NSX 12.5' X 125.9'

Talkeetna - Brown
Matanuska-Susitna
Borough, AK


N E L L O

1201 S. Sheridan St.
South Bend, IN 46619
Bus: (574)288-3632
Fax: (574)288-5860

Site 277 – Talkeetna Noel
Wien – RAD Analysis

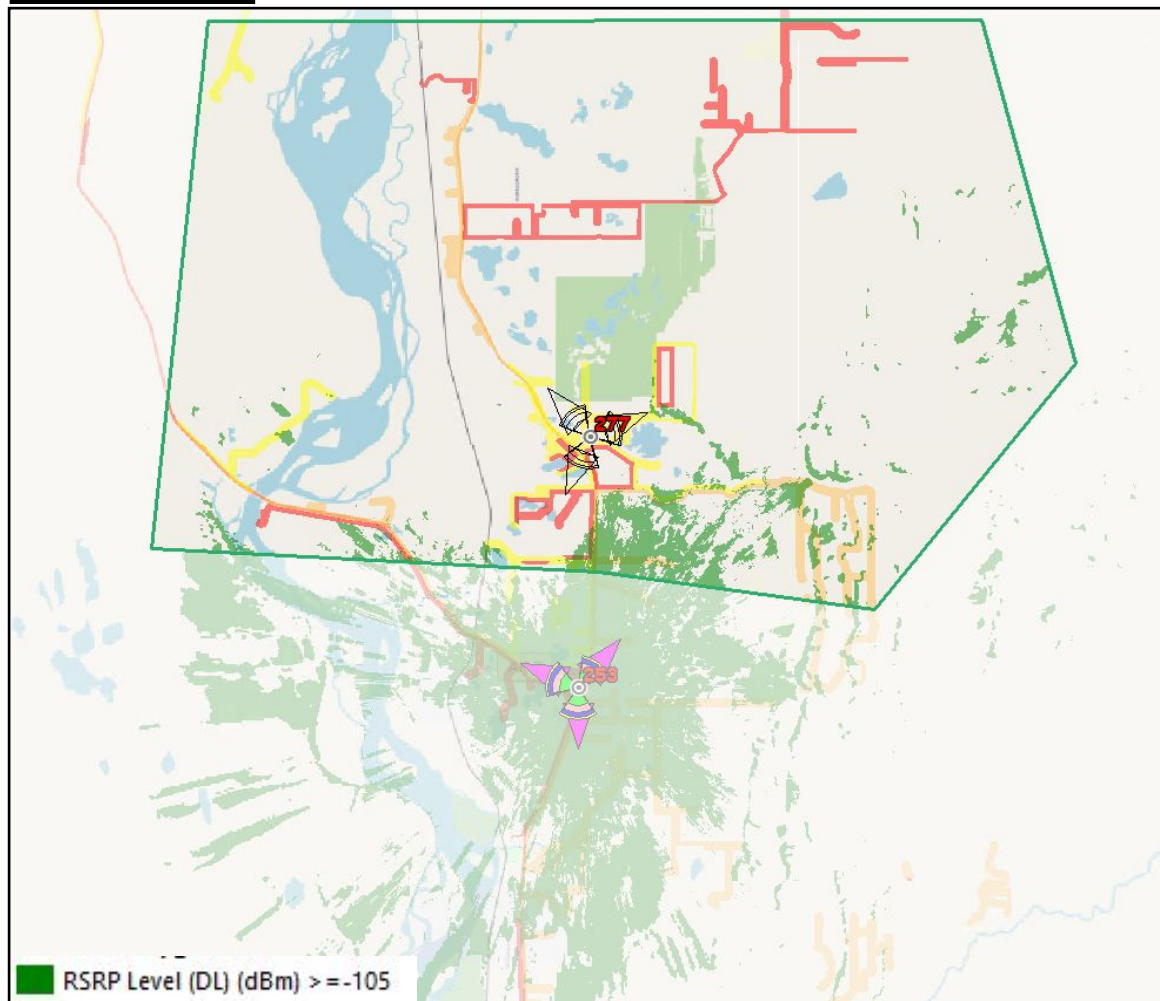
Wireless Site ID = 277

Talkeetna

Azimuth 70/200/320

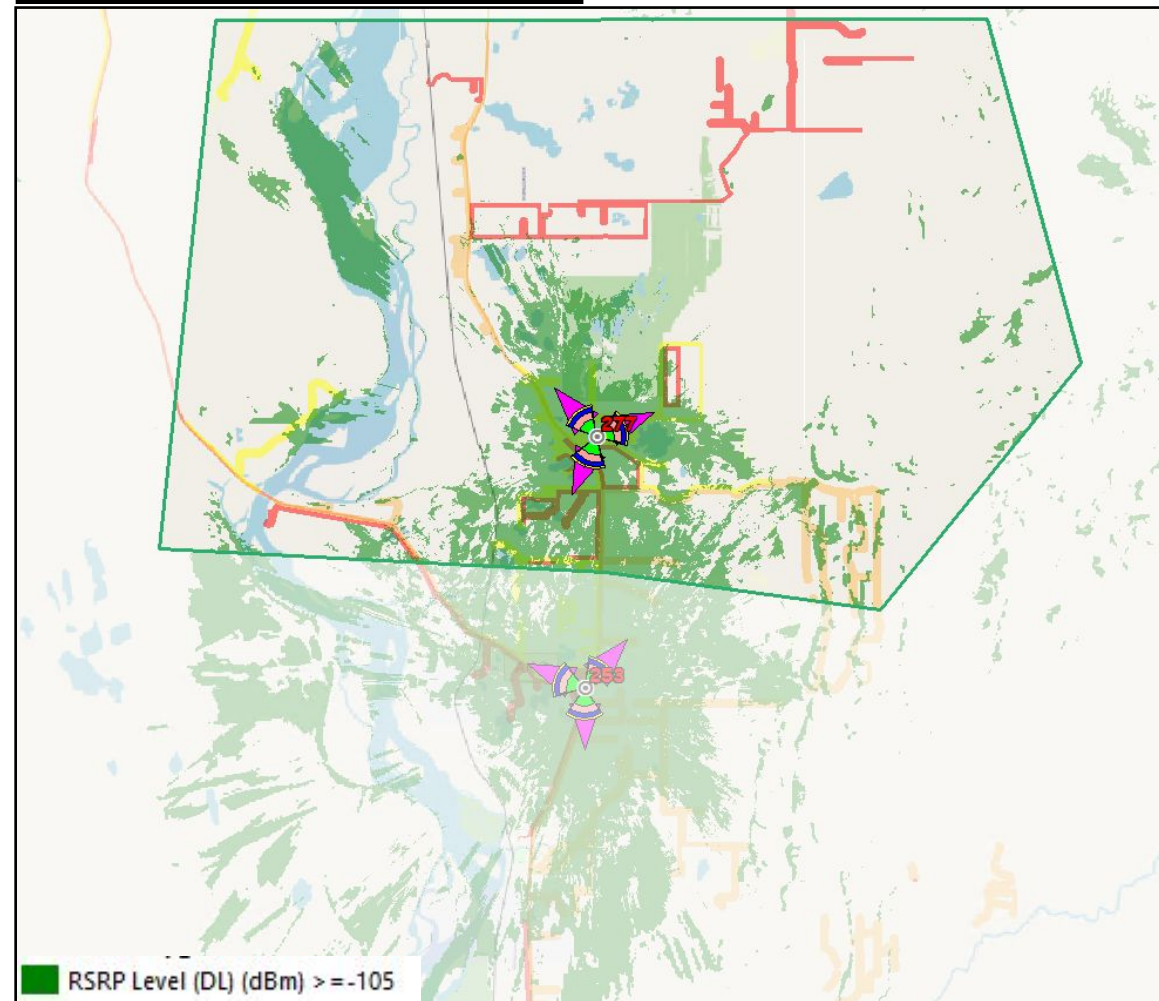
RAD Analysis for Zoning

Site 253 Only



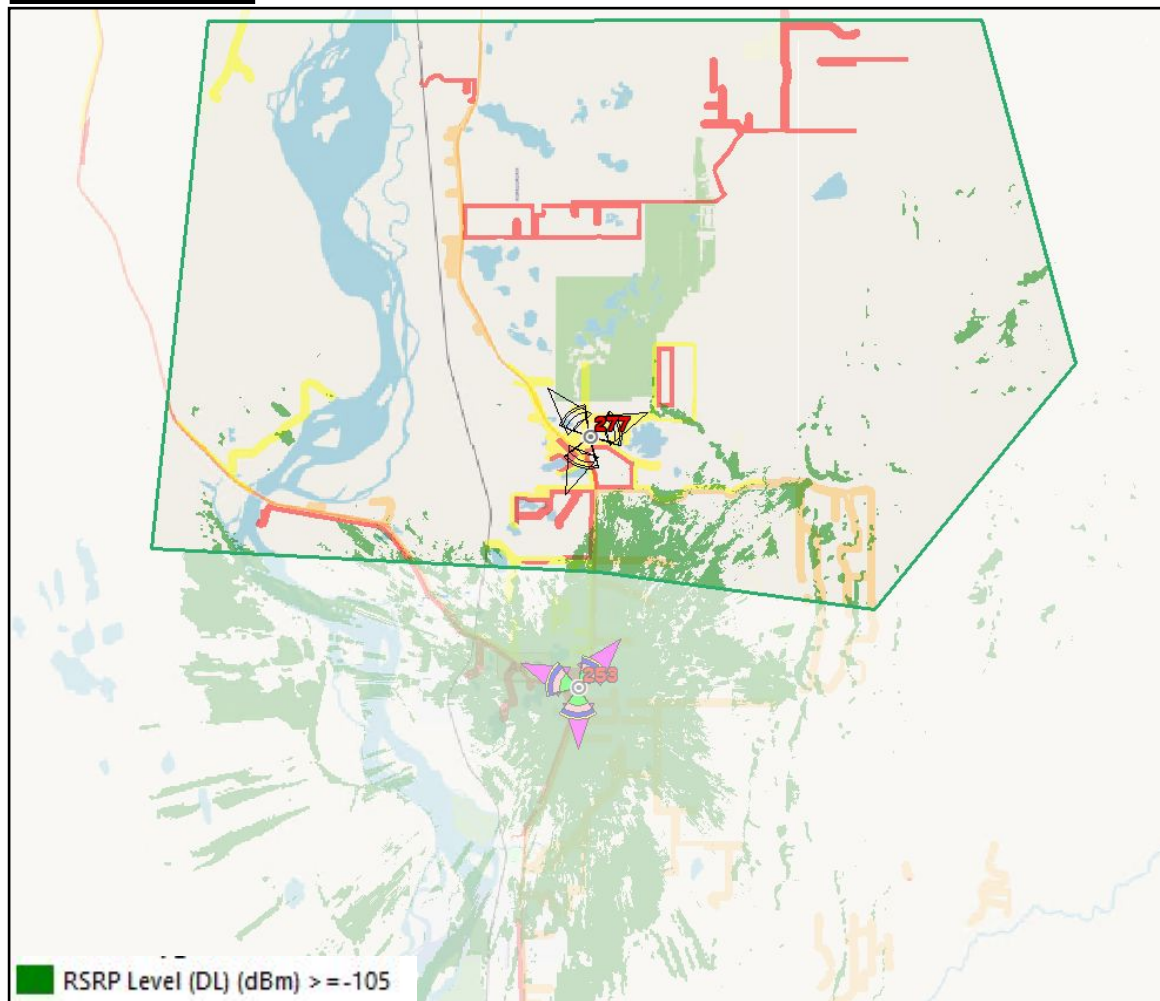
Legend	Zone Surface (mi ²)	Population (Population)	Population (%Population)	Population (Population [total])
	90.4887	39.18	7.18	545.61
RSRP Level (DL) (dBm) ≥ -105		39.18	7.18	545.61

Site 253 + 277 Talkeetna 120' RAD



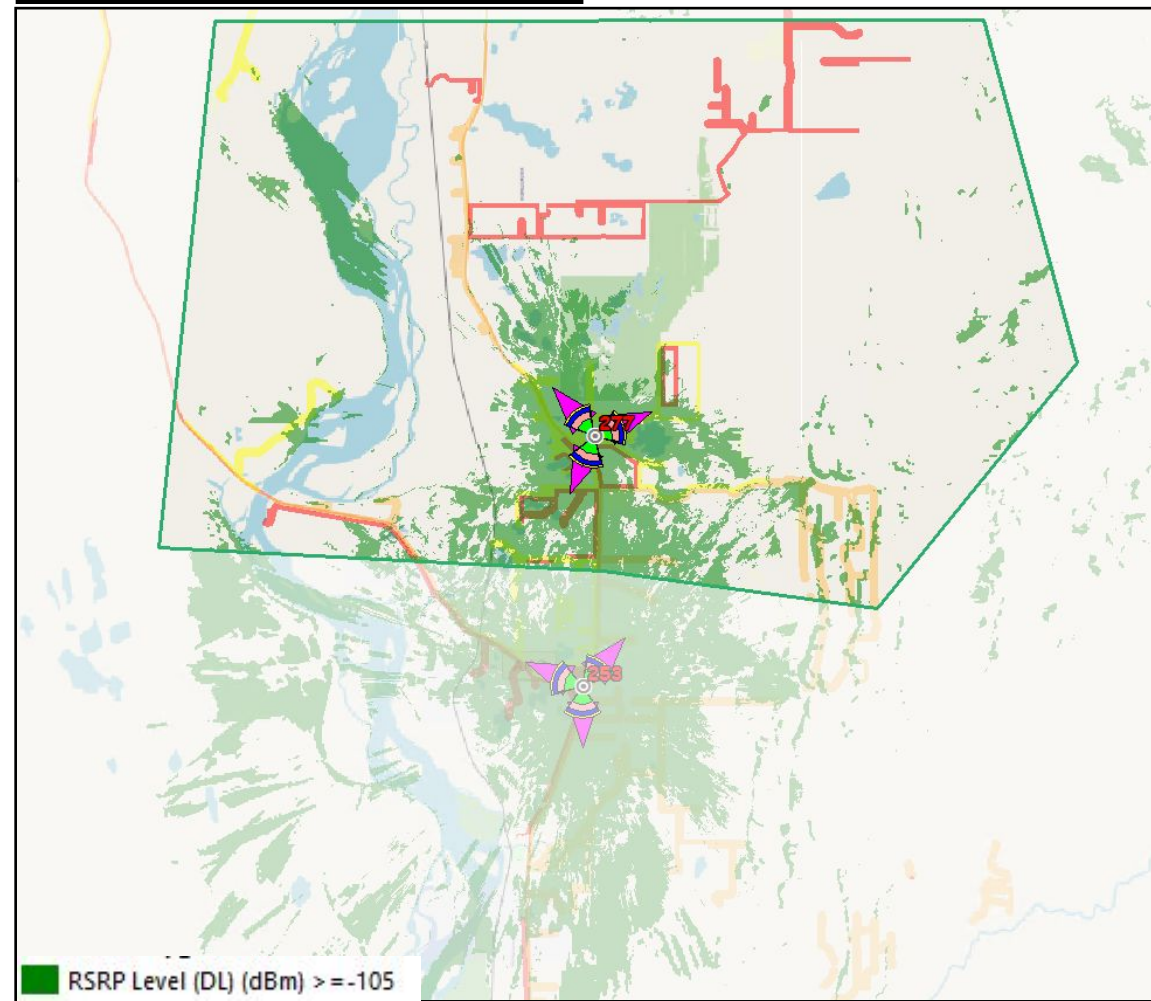
Legend	Zone Surface (mi ²)	Population (Population)	Population (%Population)	Population (Population [total])
	90.4887	264.83	48.54	545.61
RSRP Level (DL) (dBm) ≥ -105		264.83	48.54	545.61

Site 253 Only



Legend	Zone Surface (mi ²)	Population (Population)	Population (%Population)	Population (Population [total])
	90.4887	39.18	7.18	545.61
RSRP Level (DL) (dBm) ≥ -105		39.18	7.18	545.61

Site 253 + 277 Talkeetna 110' RAD



Legend	Zone Surface (mi ²)	Population (Population)	Population (%Population)	Population (Population [total])
	90.4887	256.19	46.95	545.61
RSRP Level (DL) (dBm) ≥ -105		256.19	46.95	545.61

Conclusion

The goal is to know the coverage and POPs gained with different RAD centers for the antennas for the site Talkeetna, better results observed at 120’:

- 277 – Talkeetna at 120’ RAD ☐ 225.83 POPs covered
- 277 – Talkeetna at 110’ RAD ☐ 217.01 POPs covered
- Below 110’, for every 10’ of reduction, we are losing around 10% of our target population.

Legend	Population (Population)	Population (%Population)	Population (Population [total])	RAD Center [ft]	Antenna
RSRP Level (DL) (dBm) >= -105	264.83 (225.65 Gained)	48.54	545.61	120	3 - Panel 70, 200, 320
RSRP Level (DL) (dBm) >= -105	256.19 (217.01 Gained)	46.95	545.61	110	3 - Panel 70, 200, 320





USA • INTERNATIONAL

SITE NAME: TALKEETNA
PROPOSED 125' SELF SUPPORT TOWER

33693 S NOEL WIEN AVE
TALKEETNA, AK 99676
(MATANUSKA-SUSITNA BOROUGH COUNTY)



PHOTO RENDERED BY TOWER ENGINEERING PROFESSIONALS, INC.



EXISTING VIEW: LOCATION 1

**ATLAS
TOWER**

USA • INTERNATIONAL

SITE NAME: TALKEETNA
ADDRESS: 33693 S NOEL WIEN AVE
TALKEETNA, AK 99676
COUNTY: MATANUSKA-SUSITNA BOROUGH

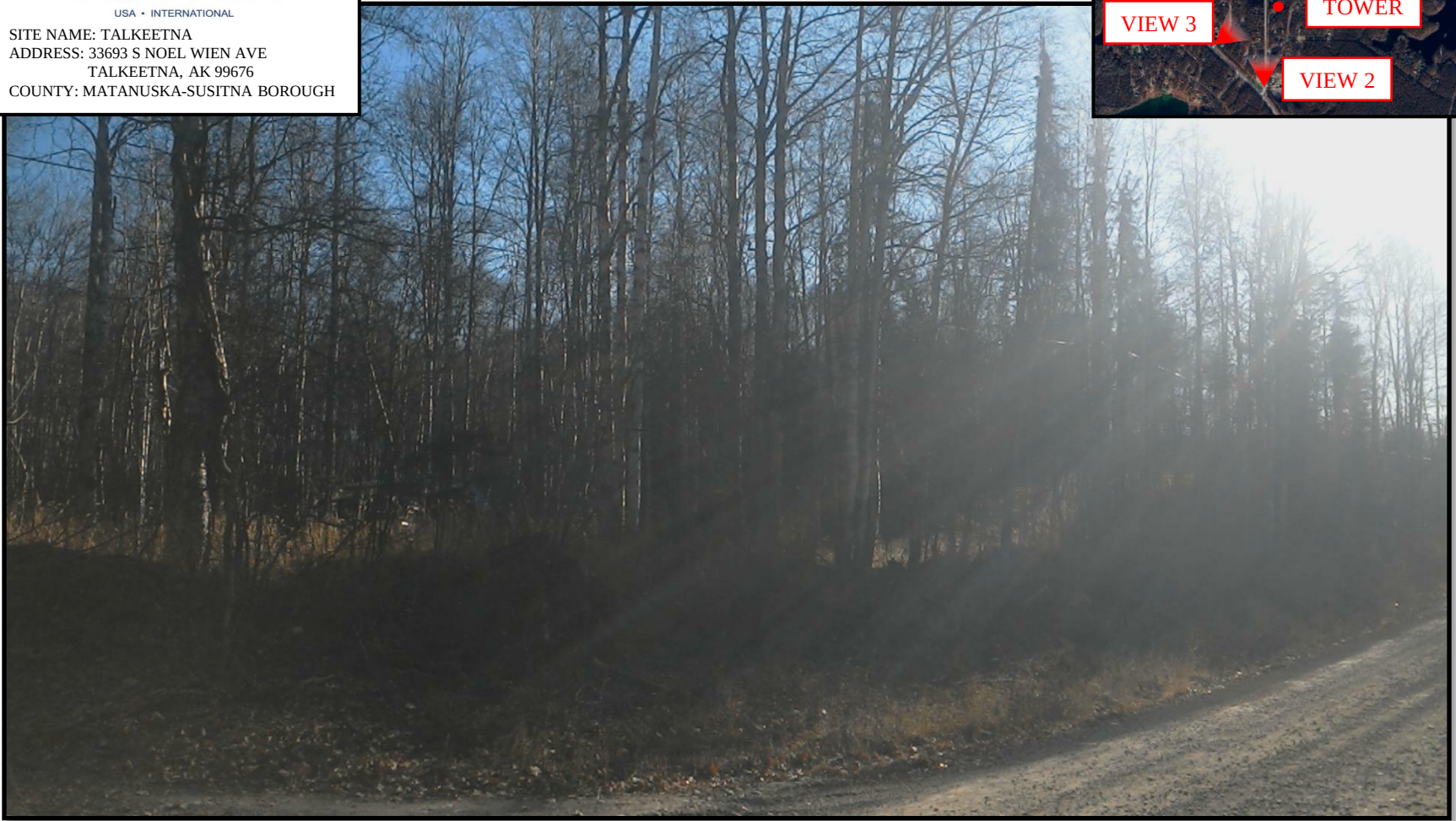
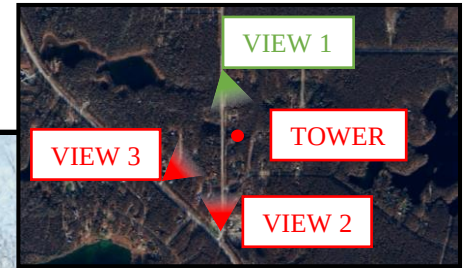


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PROPOSED VIEW: LOCATION 1

**ATLAS
TOWER**

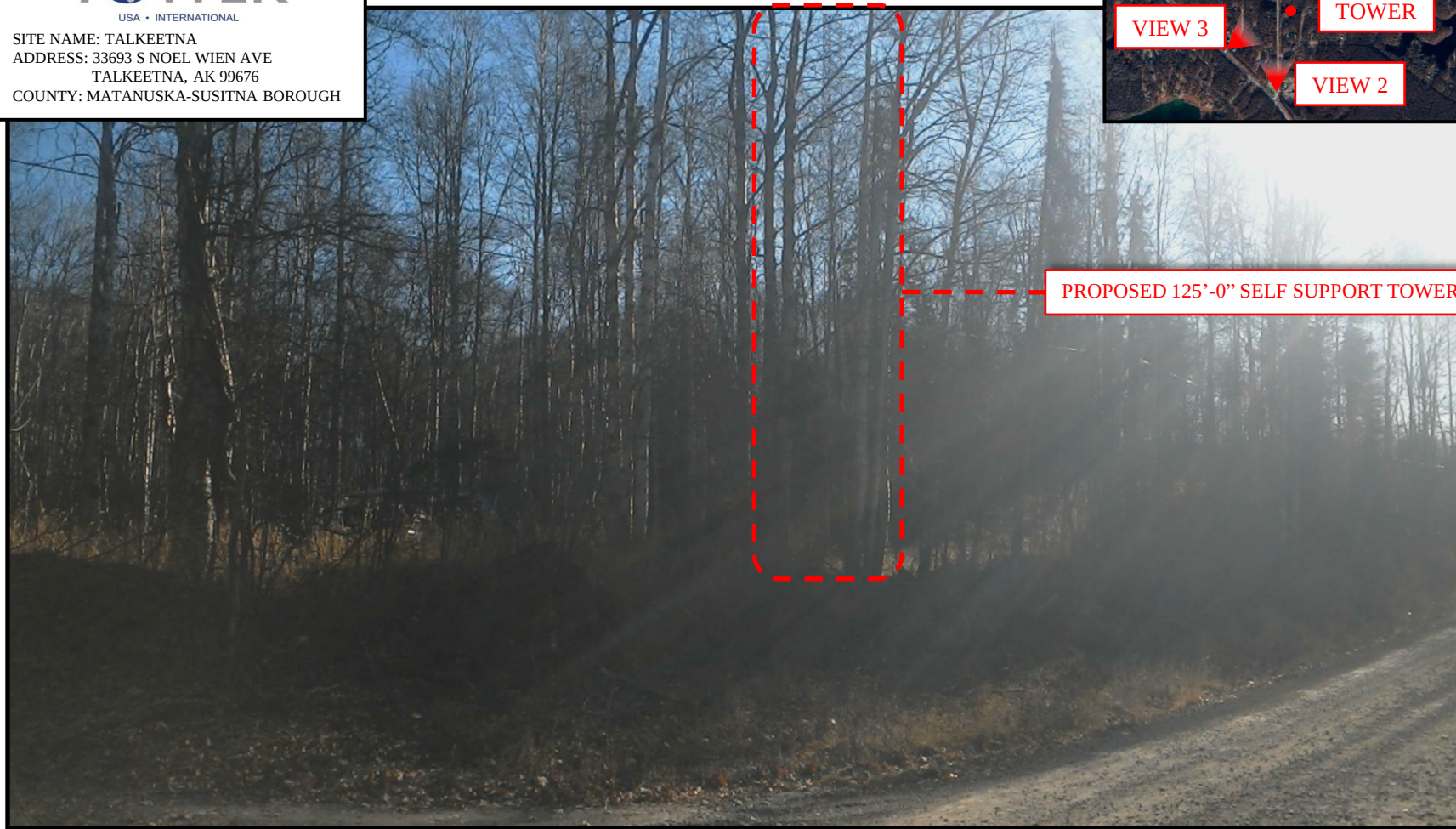
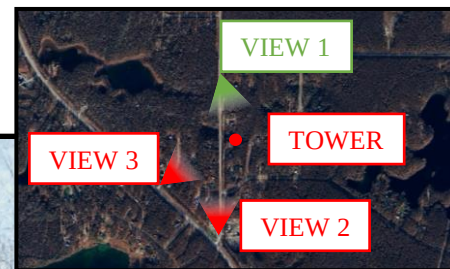
USA • INTERNATIONAL

SITE NAME: TALKEETNA

ADDRESS: 33693 S NOEL WIEN AVE

TALKEETNA, AK 99676

COUNTY: MATANUSKA-SUSITNA BOROUGH



PROPOSED 125'-0" SELF SUPPORT TOWER



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EXISTING VIEW: LOCATION 2

**ATLAS
TOWER**

USA • INTERNATIONAL

SITE NAME: TALKEETNA
ADDRESS: 33693 S NOEL WIEN AVE
TALKEETNA, AK 99676
COUNTY: MATANUSKA-SUSITNA BOROUGH

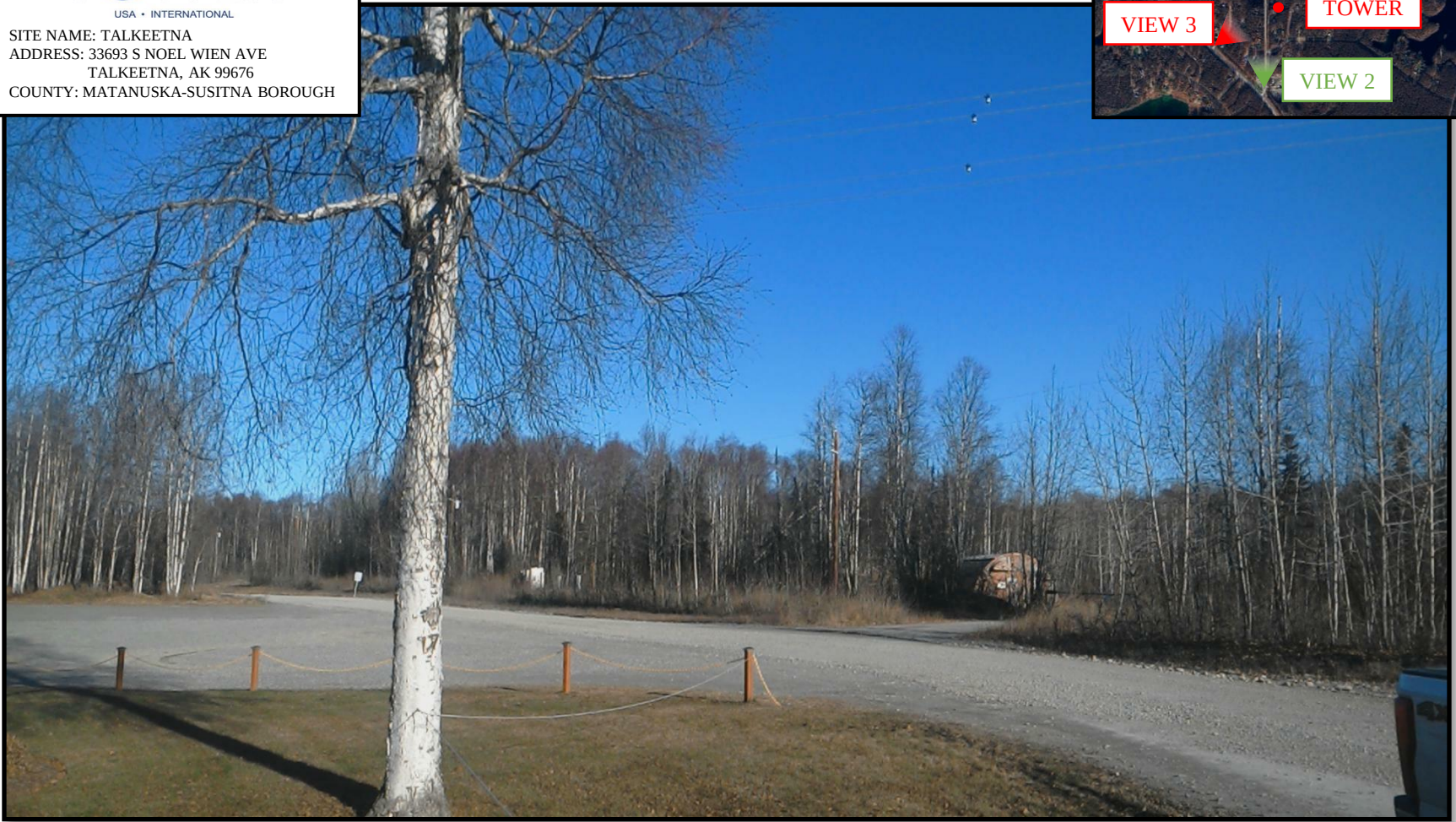
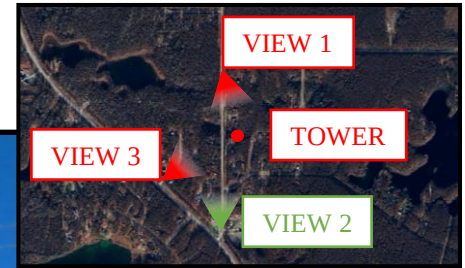


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PROPOSED VIEW: LOCATION 2

**ATLAS
TOWER**

USA • INTERNATIONAL

SITE NAME: TALKEETNA

ADDRESS: 33693 S NOEL WIEN AVE

TALKEETNA, AK 99676

COUNTY: MATANUSKA-SUSITNA BOROUGH

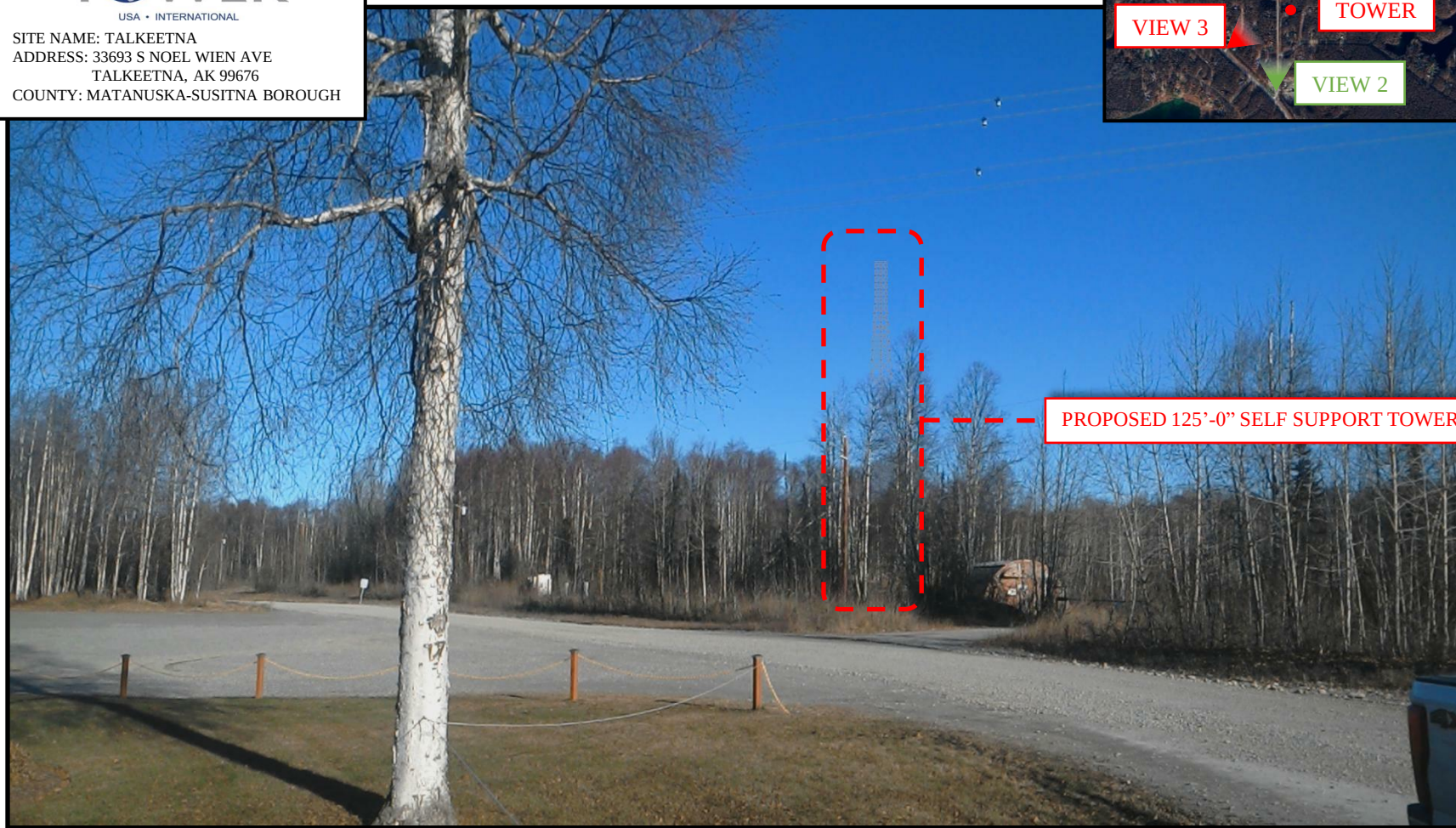
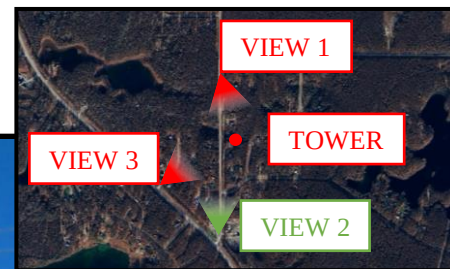


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EXISTING VIEW: LOCATION 3

**ATLAS
TOWER**

USA • INTERNATIONAL

SITE NAME: TALKEETNA
ADDRESS: 33693 S NOEL WIEN AVE
TALKEETNA, AK 99676
COUNTY: MATANUSKA-SUSITNA BOROUGH

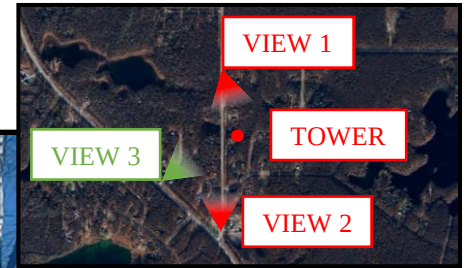


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PROPOSED VIEW: LOCATION 3

**ATLAS
TOWER**

USA • INTERNATIONAL

SITE NAME: TALKEETNA
ADDRESS: 33693 S NOEL WIEN AVE
TALKEETNA, AK 99676
COUNTY: MATANUSKA-SUSITNA BOROUGH

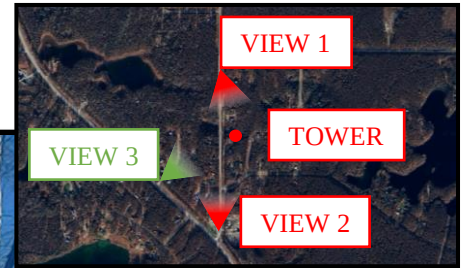


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**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
ANTENNA STRUCTURE REGISTRATION**



OWNER: Atlas Tower 1- LLC

FCC Registration Number (FRN): 0025718495

ATTN: Cornelius Whitehead Atlas Tower 1- LLC 3002 Bluff St, Ste 300 Boulder, CO 80301	Antenna Structure Registration Number 1329903		
	Issue Date 04/24/2026		
Location of Antenna Structure 33693 S Noel Wien Ave Talkeetna, AK 99676-9702 County: MATANUSKA-SUSITNA	Ground Elevation (AMSL) 125.5 meters		
	Overall Height Above Ground (AGL) 39.3 meters		
Latitude 62- 11- 16.2 N	Longitude 150- 01- 53.5 W	NAD83	Overall Height Above Mean Sea Level (AMSL) 164.8 meters
Center of Array Coordinates N/A			Type of Structure LTOWER Lattice Tower
Painting and Lighting Requirements: FAA Chapters NONE			
Conditions:			

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 5 DAYS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <https://www.fcc.gov/antenna-structure-registration>. Electronic filing is required. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and *display* your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

- **Posting the Registration Number:** The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).
- **Inspecting lights and equipment:** The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.
- **Reporting outages and malfunctions:** When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.
- **Maintaining assigned painting:** The antenna structure must be repainted as often as necessary to maintain good visibility.
- **Complying with environmental rules:** If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).
- **Updating information:** The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

Copies of the Code of Federal Regulations (which contain the FCC's antenna structure registration rules, 47 C.F.R Part 17) are available from the Government Printing Office (GPO). To purchase CFR volumes, call (202) 512-1800. For GPO Customer Service, call (202) 512-1803. For additional FCC information, consult the Antenna Homepage on the internet at <https://www.fcc.gov/antenna-structure-registration> or call (877) 480-3201 (TTY 717-338-2824).



N E L L O

Design Supporting Calculations

Sales Order: SO32729
Drawing Number(s)
Tower: 773613
Foundation: 773614
Order Description: NSX 12.5' x 125.9'
Site Name: Talkeetna - Brown
Location: Matanuska-Susitna Borough, AK

Prepared For:
Customer: Atlas Tower
Contact: Corey Bonner
Date: 2/24/2025

TEP OPGO, LLC

AECL1616

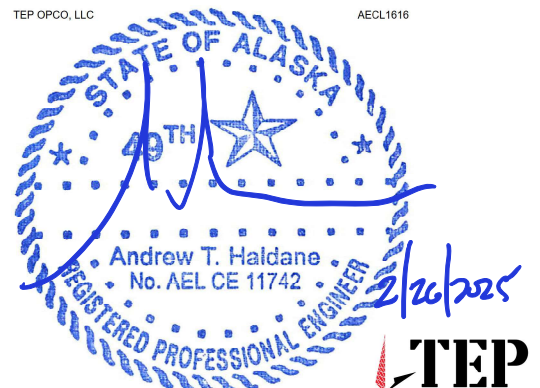


Table of Contents

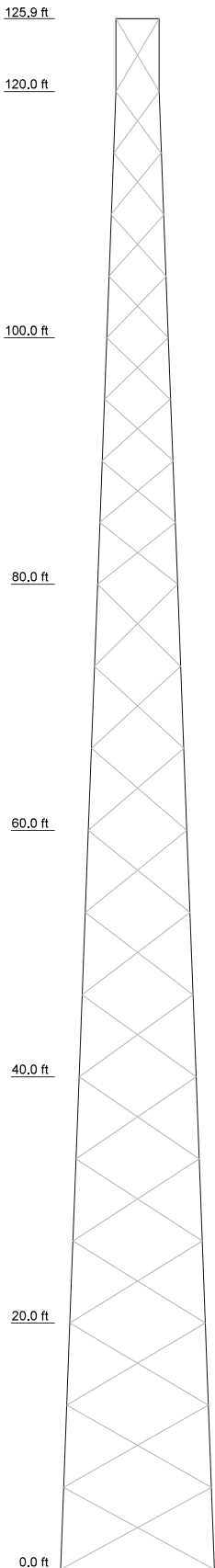
Tower Analysis - Short form

Tower Analysis - Long form

Foundation Analysis

Seismic Analysis

Section	T1	T2	T3	T4	T5	T6	T7	
Legs	P2x.154	P3x.216	P4x.237	P6x.28	A500-50	P8x.322		
Leg Grade								
Diagonals		L2x2x1/8		L2x2x3/16		L2 1/2x2 1/2x3/16		
Diagonal Grade					A529-50			
Top Girts					N.A.			
Face Width (ft)	3.5	5	6.5	8	9.5	11	12 @ 6.56667	2709.3
# Panels @ (ft)	1 @ 5.9	8 @ 5						
Weight (lb)	152.8	786.9	1045.3	1729.4	2556.9	2691.4		



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
H7	125.9	6' Solid w/Radome	90
30,000 sq in CaAa	120	Dish Pipe Mount	90
H6	110	H4	70
30,000 sq in CaAa	110	H3	50
6' Solid w/Radome	100	H2	30
Dish Pipe Mount	100	H1	10
H5	90		

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L1 3/4x1 3/4x1/8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A500-50	50 ksi	62 ksi	A529-50	50 ksi	65 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 115 mph ultimate wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 60 mph basic wind with 0.50 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 77.4%



ALL REACTIONS
ARE FACTORED

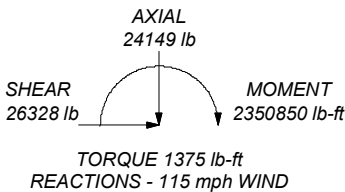
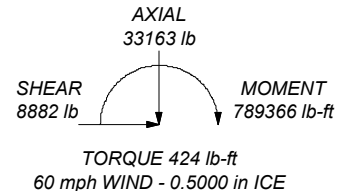
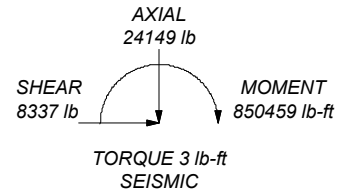
MAX. CORNER REACTIONS AT BASE:

DOWN: 225211 lb

SHEAR: 16872 lb

UPLIFT: -205079 lb

SHEAR: 15623 lb



<i>Nello Corporation</i> 1201 S. Sheridan Street South Bend, IN. 46619 Phone: 800-806-3556 FAX:	Job: SO32729; Tower 773613; Foundation 773614		
	Project: NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK		
	Client: Atlas Tower	Drawn by: AG	App'd:
	Code: TIA-222-H	Date: 02/21/25	Scale: NTS
	Path: N:\eri\7736\773613.eri		Dwg No. E-1

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 1 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 125.90 ft above the ground line.

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

The face width of the tower is 3.50 ft at the top and 12.50 ft at the base.

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

The following design criteria apply:

Tower base elevation above sea level: 0.00 ft.

Ultimate wind speed of 115 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.

Nominal ice thickness of 0.5000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 60 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

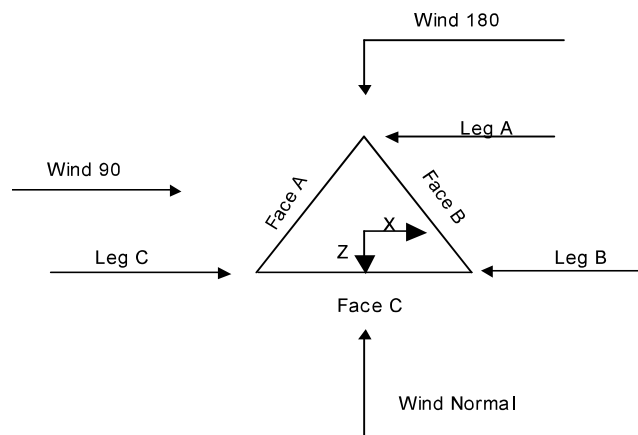
Stress ratio used in tower member design is 1.

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

Options

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

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Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	125.90-120.00			3.50	1	5.90
T2	120.00-100.00			3.50	1	20.00
T3	100.00-80.00			5.00	1	20.00
T4	80.00-60.00			6.50	1	20.00
T5	60.00-40.00			8.00	1	20.00
T6	40.00-20.00			9.50	1	20.00
T7	20.00-0.00			11.00	1	20.00

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	125.90-120.00	5.90	X Brace	No	No	0.0000	0.0000
T2	120.00-100.00	5.00	X Brace	No	No	0.0000	0.0000
T3	100.00-80.00	5.00	X Brace	No	No	0.0000	0.0000
T4	80.00-60.00	6.67	X Brace	No	No	0.0000	0.0000
T5	60.00-40.00	6.67	X Brace	No	No	0.0000	0.0000
T6	40.00-20.00	6.67	X Brace	No	No	0.0000	0.0000
T7	20.00-0.00	6.67	X Brace	No	No	0.0000	0.0000

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Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
T1 125.90-120.00	Pipe	P2x.154	A500-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x1/8	A529-50 (50 ksi)
T2 120.00-100.00	Pipe	P3x.216	A500-50 (50 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T3 100.00-80.00	Pipe	P4x.237	A500-50 (50 ksi)	Equal Angle	L2x2x1/8	A529-50 (50 ksi)
T4 80.00-60.00	Pipe	P6x.28	A500-50 (50 ksi)	Equal Angle	L2x2x3/16	A529-50 (50 ksi)
T5 60.00-40.00	Pipe	P8x.322	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A529-50 (50 ksi)
T6 40.00-20.00	Pipe	P8x.322	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A529-50 (50 ksi)
T7 20.00-0.00	Pipe	P8x.322	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A529-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>Top Girt Type</i>	<i>Top Girt Size</i>	<i>Top Girt Grade</i>	<i>Bottom Girt Type</i>	<i>Bottom Girt Size</i>	<i>Bottom Girt Grade</i>
T1 125.90-120.00	Equal Angle	L1 3/4x1 3/4x1/8	A529-50 (50 ksi)	Solid Round		A529-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation ft</i>	<i>Gusset Area (per face) ft²</i>	<i>Gusset Thickness in</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals in</i>	<i>Double Angle Stitch Bolt Spacing Horizontal in</i>	<i>Double Angle Stitch Bolt Spacing Redundants in</i>
T1 125.90-120.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T2 120.00-100.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T3 100.00-80.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T4 80.00-60.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T5 60.00-40.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T6 40.00-20.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000
T7 20.00-0.00	0.00	0.0000	A36 (36 ksi)	1	1	1.1	36.0000	36.0000	36.0000

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Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T3 100.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 60.00-40.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 40.00-20.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF7-50A (1-5/8 FOAM)	C	No	No	Ar (CaAa)	120.00 - 0.00	4	2	0.2700 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	B	No	No	Ar (CaAa)	110.00 - 0.00	4	2	0.2700 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	A	No	No	Ar (CaAa)	100.00 - 0.00	1	1	0.2700 0.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM)	C	No	No	Ar (CaAa)	90.00 - 0.00	1	1	0.2700 0.0000	1.9800		0.82

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight lb
T1	125.90-120.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T2	120.00-100.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	7.920	0.000	32.80
		C	0.000	0.000	15.840	0.000	65.60
T3	100.00-80.00	A	0.000	0.000	3.960	0.000	16.40
		B	0.000	0.000	15.840	0.000	65.60
		C	0.000	0.000	17.820	0.000	73.80
T4	80.00-60.00	A	0.000	0.000	3.960	0.000	16.40
		B	0.000	0.000	15.840	0.000	65.60
		C	0.000	0.000	19.800	0.000	82.00
T5	60.00-40.00	A	0.000	0.000	3.960	0.000	16.40
		B	0.000	0.000	15.840	0.000	65.60
		C	0.000	0.000	19.800	0.000	82.00
T6	40.00-20.00	A	0.000	0.000	3.960	0.000	16.40
		B	0.000	0.000	15.840	0.000	65.60
		C	0.000	0.000	19.800	0.000	82.00
T7	20.00-0.00	A	0.000	0.000	3.960	0.000	16.40
		B	0.000	0.000	15.840	0.000	65.60
		C	0.000	0.000	19.800	0.000	82.00

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Feed Line/Linear Appurtenances Section Areas - With Ice

<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face or Leg</i>	<i>Ice Thickness in</i>	<i>A_R ft²</i>	<i>A_F ft²</i>	<i>C_AA_A In Face ft²</i>	<i>C_AA_A Out Face ft²</i>	<i>Weight lb</i>
T1	125.90-120.00	A	0.570	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T2	120.00-100.00	A	0.564	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	9.236	0.000	82.86
		C		0.000	0.000	18.472	0.000	165.71
T3	100.00-80.00	A	0.553	0.000	0.000	6.171	0.000	50.61
		B		0.000	0.000	18.393	0.000	164.13
		C		0.000	0.000	21.478	0.000	189.43
T4	80.00-60.00	A	0.539	0.000	0.000	6.116	0.000	49.58
		B		0.000	0.000	18.296	0.000	162.20
		C		0.000	0.000	24.412	0.000	211.78
T5	60.00-40.00	A	0.521	0.000	0.000	6.045	0.000	48.25
		B		0.000	0.000	18.170	0.000	159.70
		C		0.000	0.000	24.215	0.000	207.95
T6	40.00-20.00	A	0.495	0.000	0.000	5.941	0.000	46.35
		B		0.000	0.000	17.986	0.000	156.09
		C		0.000	0.000	23.927	0.000	202.44
T7	20.00-0.00	A	0.444	0.000	0.000	5.735	0.000	42.68
		B		0.000	0.000	17.622	0.000	149.02
		C		0.000	0.000	23.357	0.000	191.70

Feed Line Center of Pressure

<i>Section</i>	<i>Elevation ft</i>	<i>CP_X in</i>	<i>CP_Z in</i>	<i>CP_X Ice in</i>	<i>CP_Z Ice in</i>
T1	125.90-120.00	0.0000	0.0000	0.0000	0.0000
T2	120.00-100.00	0.9984	1.6252	1.0388	1.6705
T3	100.00-80.00	1.1568	1.0916	1.0185	1.1126
T4	80.00-60.00	1.2930	1.6686	1.0907	1.7161
T5	60.00-40.00	1.2678	1.6551	1.0782	1.7077
T6	40.00-20.00	1.3826	1.8222	1.1732	1.8598
T7	20.00-0.00	1.4749	1.9588	1.2615	1.9813

Shielding Factor Ka

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T2	1	LDF7-50A (1-5/8 FOAM)	100.00 - 120.00	0.6000	0.6000
T2	2	LDF7-50A (1-5/8 FOAM)	100.00 - 110.00	0.6000	0.6000
T3	1	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T3	2	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T3	3	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T3	4	LDF7-50A (1-5/8 FOAM)	80.00 - 90.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T4	1	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T4	2	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T4	3	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T4	4	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T5	1	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T5	2	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T5	3	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T5	4	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T6	1	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T6	2	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T6	3	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T6	4	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T7	1	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T7	2	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T7	3	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T7	4	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000

User Defined Loads - Seismic

Description	Elevation	Offset From Centroid	Azimuth Angle	E_v	E_{hx}	E_{hz}	E_h
	ft	ft	°	lb	lb	lb	lb
H1	10.00	0.00	0.0000	0.00	0.00	0.00	134.80
H2	30.00	0.00	0.0000	0.00	0.00	0.00	197.10
H3	50.00	0.00	0.0000	0.00	0.00	0.00	324.60
H4	70.00	0.00	0.0000	0.00	0.00	0.00	350.20
H5	90.00	0.00	0.0000	0.00	0.00	0.00	564.70
H6	110.00	0.00	0.0000	0.00	0.00	0.00	6608.00
H7	125.90	0.00	0.0000	0.00	0.00	0.00	157.80

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustment	Placement	$C_A A_A$ Front	$C_A A_A$ Side	Weight
			Vert ft ft ft	°	ft	ft ²	ft ²	lb
30,000 sq in CaAa	C	None		0.0000	120.00	No Ice 1/2" Ice	208.00 250.00	3536.00 4738.00
30,000 sq in CaAa	B	None		0.0000	110.00	No Ice 1/2" Ice	208.00 250.00	3536.00 4738.00
Dish Pipe Mount	A	From Leg	0.00 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice	0.00 2.10	103.00 119.00
Dish Pipe Mount	C	From Leg	0.00 0.00 0.00	0.0000	90.00	No Ice 1/2" Ice	0.00 2.10	103.00 119.00

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Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft²	Weight lb	
6' Solid w/Radome	A	Paraboloid w/Radome	From Leg	0.00	0.0000		100.00	6.00	No Ice	28.27	162.00
				0.00					1/2" Ice	29.07	321.00
				0.00							
6' Solid w/Radome	C	Paraboloid w/Radome	From Leg	0.00	0.0000		90.00	6.00	No Ice	28.27	162.00
				0.00					1/2" Ice	29.07	321.00
				0.00							

Tower Pressures - No Ice

$$G_H = 0.850$$

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
T1 125.90-120.00	122.95	1.322	38	21.818	A	2.369	2.335	2.335	49.64	0.000	0.000
					B	2.369	2.335		49.64	0.000	0.000
					C	2.369	2.335		49.64	0.000	0.000
T2 120.00-100.00	110.00	1.291	37	90.837	A	8.157	11.678	11.678	58.88	0.000	0.000
					B	8.157	11.678		58.88	7.920	0.000
					C	8.157	11.678		58.88	15.840	0.000
T3 100.00-80.00	90.00	1.238	36	122.505	A	9.503	15.014	15.014	61.24	3.960	0.000
					B	9.503	15.014		61.24	15.840	0.000
					C	9.503	15.014		61.24	17.820	0.000
T4 80.00-60.00	70.00	1.174	34	156.049	A	9.103	22.104	22.104	70.83	3.960	0.000
					B	9.103	22.104		70.83	15.840	0.000
					C	9.103	22.104		70.83	19.800	0.000
T5 60.00-40.00	50.00	1.094	31	189.385	A	12.624	28.777	28.777	69.51	3.960	0.000
					B	12.624	28.777		69.51	15.840	0.000
					C	12.624	28.777		69.51	19.800	0.000
T6 40.00-20.00	30.00	0.982	28	219.385	A	14.215	28.777	28.777	66.94	3.960	0.000
					B	14.215	28.777		66.94	15.840	0.000
					C	14.215	28.777		66.94	19.800	0.000
T7 20.00-0.00	10.00	0.85	24	249.385	A	15.856	28.777	28.777	64.47	3.960	0.000
					B	15.856	28.777		64.47	15.840	0.000
					C	15.856	28.777		64.47	19.800	0.000

Tower Pressure - With Ice

$$G_H = 0.850$$

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Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²			
T1 125.90-120.00	122.95	1.322	10	0.5703	22.378	A	2.369	5.001	3.457	46.90	0.000	0.000
						B	2.369	5.001		46.90	0.000	0.000
						C	2.369	5.001		46.90	0.000	0.000
T2 120.00-100.00	110.00	1.291	10	0.5640	92.719	A	8.157	20.041	15.441	54.76	0.000	0.000
						B	8.157	20.041		54.76	9.236	0.000
						C	8.157	20.041		54.76	18.472	0.000
T3 100.00-80.00	90.00	1.238	10	0.5528	124.349	A	9.503	23.956	18.703	55.90	6.171	0.000
						B	9.503	23.956		55.90	18.393	0.000
						C	9.503	23.956		55.90	21.478	0.000
T4 80.00-60.00	70.00	1.174	9	0.5390	157.848	A	9.103	30.608	25.701	64.72	6.116	0.000
						B	9.103	30.608		64.72	18.296	0.000
						C	9.103	30.608		64.72	24.412	0.000
T5 60.00-40.00	50.00	1.094	9	0.5212	191.124	A	12.624	37.519	32.255	64.33	6.045	0.000
						B	12.624	37.519		64.33	18.170	0.000
						C	12.624	37.519		64.33	24.215	0.000
T6 40.00-20.00	30.00	0.982	8	0.4953	221.037	A	14.215	37.714	32.082	61.78	5.941	0.000
						B	14.215	37.714		61.78	17.986	0.000
						C	14.215	37.714		61.78	23.927	0.000
T7 20.00-0.00	10.00	0.85	7	0.4437	250.865	A	15.856	37.367	31.738	59.63	5.735	0.000
						B	15.856	37.367		59.63	17.622	0.000
						C	15.856	37.367		59.63	23.357	0.000

Tower Pressure - Service

$$G_H = 0.850$$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	ft ²		ft ²	ft ²	ft ²			
T1 125.90-120.00	122.95	1.322	10	21.818	A	2.369	2.335	2.335	49.64	0.000	0.000
					B	2.369	2.335		49.64	0.000	0.000
					C	2.369	2.335		49.64	0.000	0.000
T2 120.00-100.00	110.00	1.291	10	90.837	A	8.157	11.678	11.678	58.88	0.000	0.000
					B	8.157	11.678		58.88	7.920	0.000
					C	8.157	11.678		58.88	15.840	0.000
T3 100.00-80.00	90.00	1.238	10	122.505	A	9.503	15.014	15.014	61.24	3.960	0.000
					B	9.503	15.014		61.24	15.840	0.000
					C	9.503	15.014		61.24	17.820	0.000
T4 80.00-60.00	70.00	1.174	9	156.049	A	9.103	22.104	22.104	70.83	3.960	0.000
					B	9.103	22.104		70.83	15.840	0.000
					C	9.103	22.104		70.83	19.800	0.000
T5 60.00-40.00	50.00	1.094	9	189.385	A	12.624	28.777	28.777	69.51	3.960	0.000
					B	12.624	28.777		69.51	15.840	0.000
					C	12.624	28.777		69.51	19.800	0.000
T6 40.00-20.00	30.00	0.982	8	219.385	A	14.215	28.777	28.777	66.94	3.960	0.000
					B	14.215	28.777		66.94	15.840	0.000
					C	14.215	28.777		66.94	19.800	0.000
T7 20.00-0.00	10.00	0.85	7	249.385	A	15.856	28.777	28.777	64.47	3.960	0.000
					B	15.856	28.777		64.47	15.840	0.000
					C	15.856	28.777		64.47	19.800	0.000

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 10 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Tower Forces - No Ice - Wind Normal To Face

Section Elevation <i>ft</i>	Add Weight <i>lb</i>	Self Weight <i>lb</i>	F a c e	<i>e</i>	C_F	q_z <i>psf</i>	D_F	D_R	A_E <i>ft²</i>	F <i>lb</i>	w <i>plf</i>	Ctrl. Face
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	38	1	1	3.718	305.89	51.85	C
			B	0.216	2.545		1	1	3.718			
			C	0.216	2.545		1	1	3.718			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	37	1	1	14.906	1489.71	74.49	C
			B	0.218	2.536		1	1	14.906			
			C	0.218	2.536		1	1	14.906			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	36	1	1	17.684	1872.75	93.64	C
			B	0.2	2.596		1	1	17.684			
			C	0.2	2.596		1	1	17.684			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	34	1	1	19.627	1955.52	97.78	C
			B	0.2	2.596		1	1	19.627			
			C	0.2	2.596		1	1	19.627			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	31	1	1	25.764	2205.97	110.30	C
			B	0.219	2.535		1	1	25.764			
			C	0.219	2.535		1	1	25.764			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	28	1	1	26.977	2103.19	105.16	C
			B	0.196	2.61		1	1	26.977			
			C	0.196	2.61		1	1	26.977			
T7 20.00-0.00	164.00	2709.25	A	0.179	2.668	24	1	1	28.527	1938.64	96.93	C
			B	0.179	2.668		1	1	28.527			
			C	0.179	2.668		1	1	28.527			
Sum Weight:	910.20	11611.80						OTM	699691.42 lb-ft	11871.66		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation <i>ft</i>	Add Weight <i>lb</i>	Self Weight <i>lb</i>	F a c e	<i>e</i>	C_F	q_z <i>psf</i>	D_F	D_R	A_E <i>ft²</i>	F <i>lb</i>	w <i>plf</i>	Ctrl. Face
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	38	0.8	1	3.244	266.90	45.24	C
			B	0.216	2.545		0.8	1	3.244			
			C	0.216	2.545		0.8	1	3.244			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	37	0.8	1	13.274	1359.04	67.95	A
			B	0.218	2.536		0.8	1	13.274			
			C	0.218	2.536		0.8	1	13.274			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	36	0.8	1	15.783	1723.38	86.17	C
			B	0.2	2.596		0.8	1	15.783			
			C	0.2	2.596		0.8	1	15.783			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	34	0.8	1	17.807	1819.79	90.99	C
			B	0.2	2.596		0.8	1	17.807			
			C	0.2	2.596		0.8	1	17.807			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	31	0.8	1	23.239	2034.72	101.74	C
			B	0.219	2.535		0.8	1	23.239			
			C	0.219	2.535		0.8	1	23.239			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	28	0.8	1	24.134	1924.93	96.25	C
			B	0.196	2.61		0.8	1	24.134			
			C	0.196	2.61		0.8	1	24.134			
T7 20.00-0.00	164.00	2709.25	A	0.179	2.668	24	0.8	1	25.356	1762.74	88.14	C
			B	0.179	2.668		0.8	1	25.356			
			C	0.179	2.668		0.8	1	25.356			

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	SO32729; Tower 773613; Foundation 773614	11 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
ft	lb	lb										
Sum Weight:	910.20	11611.80						OTM	641910.97 lb-ft	10891.50		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
ft	lb	lb										
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	38	0.85	1	3.362	276.65	46.89	C
			B	0.216	2.545		0.85	1	3.362			
			C	0.216	2.545		0.85	1	3.362			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	37	0.85	1	13.682	1391.71	69.59	A
			B	0.218	2.536		0.85	1	13.682			
			C	0.218	2.536		0.85	1	13.682			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	36	0.85	1	16.258	1763.79	88.19	A
			B	0.2	2.596		0.85	1	16.258			
			C	0.2	2.596		0.85	1	16.258			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	34	0.85	1	18.262	1856.63	92.83	A
			B	0.2	2.596		0.85	1	18.262			
			C	0.2	2.596		0.85	1	18.262			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	31	0.85	1	23.871	2080.24	104.01	A
			B	0.219	2.535		0.85	1	23.871			
			C	0.219	2.535		0.85	1	23.871			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	28	0.85	1	24.844	1971.93	98.60	A
			B	0.196	2.61		0.85	1	24.844			
			C	0.196	2.61		0.85	1	24.844			
T7 20.00-0.00	164.00	2709.25	A	0.179	2.668	24	0.85	1	26.148	1808.82	90.44	A
			B	0.179	2.668		0.85	1	26.148			
			C	0.179	2.668		0.85	1	26.148			
Sum Weight:	910.20	11611.80						OTM	657065.03 lb-ft	11149.76		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
ft	lb	lb										
T1 125.90-120.00	0.00	298.69	A	0.329	2.221	10	1	1	5.413	105.81	17.93	C
			B	0.329	2.221		1	1	5.413			
			C	0.329	2.221		1	1	5.413			
T2 120.00-100.00	248.57	1323.65	A	0.304	2.285	10	1	1	20.186	498.94	24.95	C
			B	0.304	2.285		1	1	20.186			
			C	0.304	2.285		1	1	20.186			
T3 100.00-80.00	404.17	1668.16	A	0.269	2.382	10	1	1	23.635	639.14	31.96	C
			B	0.269	2.382		1	1	23.635			
			C	0.269	2.382		1	1	23.635			
T4	423.55	2406.08	A	0.252	2.433	9	1	1	27.020	693.38	34.67	C

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	SO32729; Tower 773613; Foundation 773614	12 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK Client Atlas Tower	Date 11:34:28 02/21/25 Designed by AG

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
80.00-60.00			B	0.252	2.433		1	1	27.020			
			C	0.252	2.433		1	1	27.020			
T5	415.90	3418.30	A	0.262	2.401	9	1	1	34.691	772.41	38.62	C
60.00-40.00			B	0.262	2.401		1	1	34.691			
			C	0.262	2.401		1	1	34.691			
T6	404.89	3499.69	A	0.235	2.483	8	1	1	36.145	734.17	36.71	C
40.00-20.00			B	0.235	2.483		1	1	36.145			
			C	0.235	2.483		1	1	36.145			
T7 20.00-0.00	383.40	3529.17	A	0.212	2.556	7	1	1	37.406	665.23	33.26	C
			B	0.212	2.556		1	1	37.406			
			C	0.212	2.556		1	1	37.406			
Sum Weight:	2280.49	16143.76						OTM	241249.37 lb-ft	4109.07		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T1	0.00	298.69	A	0.329	2.221	10	0.8	1	4.939	96.55	16.36	C
125.90-120.00			B	0.329	2.221		0.8	1	4.939			
			C	0.329	2.221		0.8	1	4.939			
T2	248.57	1323.65	A	0.304	2.285	10	0.8	1	18.554	466.89	23.34	A
120.00-100.00			B	0.304	2.285		0.8	1	18.554			
			C	0.304	2.285		0.8	1	18.554			
T3	404.17	1668.16	A	0.269	2.382	10	0.8	1	21.734	601.83	30.09	C
100.00-80.00			B	0.269	2.382		0.8	1	21.734			
			C	0.269	2.382		0.8	1	21.734			
T4	423.55	2406.08	A	0.252	2.433	9	0.8	1	25.200	658.75	32.94	C
80.00-60.00			B	0.252	2.433		0.8	1	25.200			
			C	0.252	2.433		0.8	1	25.200			
T5	415.90	3418.30	A	0.262	2.401	9	0.8	1	32.166	728.26	36.41	C
60.00-40.00			B	0.262	2.401		0.8	1	32.166			
			C	0.262	2.401		0.8	1	32.166			
T6	404.89	3499.69	A	0.235	2.483	8	0.8	1	33.302	687.99	34.40	C
40.00-20.00			B	0.235	2.483		0.8	1	33.302			
			C	0.235	2.483		0.8	1	33.302			
T7 20.00-0.00	383.40	3529.17	A	0.212	2.556	7	0.8	1	34.235	619.36	30.97	C
			B	0.212	2.556		0.8	1	34.235			
			C	0.212	2.556		0.8	1	34.235			
Sum Weight:	2280.49	16143.76						OTM	226751.90 lb-ft	3859.62		

Tower Forces - With Ice - Wind 90 To Face

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb							ft ²	lb	plf	
T1 125.90-120.00	0.00	298.69	A	0.329	2.221	10	0.85	1	5.058	98.86	16.76	C
			B	0.329	2.221		0.85	1	5.058			
			C	0.329	2.221		0.85	1	5.058			
T2 120.00-100.00	248.57	1323.65	A	0.304	2.285	10	0.85	1	18.962	474.90	23.74	A
			B	0.304	2.285		0.85	1	18.962			
			C	0.304	2.285		0.85	1	18.962			
T3 100.00-80.00	404.17	1668.16	A	0.269	2.382	10	0.85	1	22.209	612.00	30.60	A
			B	0.269	2.382		0.85	1	22.209			
			C	0.269	2.382		0.85	1	22.209			
T4 80.00-60.00	423.55	2406.08	A	0.252	2.433	9	0.85	1	25.655	668.20	33.41	A
			B	0.252	2.433		0.85	1	25.655			
			C	0.252	2.433		0.85	1	25.655			
T5 60.00-40.00	415.90	3418.30	A	0.262	2.401	9	0.85	1	32.797	740.04	37.00	A
			B	0.262	2.401		0.85	1	32.797			
			C	0.262	2.401		0.85	1	32.797			
T6 40.00-20.00	404.89	3499.69	A	0.235	2.483	8	0.85	1	34.012	700.19	35.01	A
			B	0.235	2.483		0.85	1	34.012			
			C	0.235	2.483		0.85	1	34.012			
T7 20.00-0.00	383.40	3529.17	A	0.212	2.556	7	0.85	1	35.028	631.40	31.57	A
			B	0.212	2.556		0.85	1	35.028			
			C	0.212	2.556		0.85	1	35.028			
Sum Weight:	2280.49	16143.76						OTM	230569.25 lb-ft	3925.59		

Tower Forces - Service - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb							ft ²	lb	plf	
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	10	1	1	3.718	83.27	14.11	C
			B	0.216	2.545		1	1	3.718			
			C	0.216	2.545		1	1	3.718			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	10	1	1	14.906	405.52	20.28	C
			B	0.218	2.536		1	1	14.906			
			C	0.218	2.536		1	1	14.906			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	10	1	1	18.129	519.30	25.97	C
			B	0.2	2.596		1	1	18.129			
			C	0.2	2.596		1	1	18.129			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	9	1	1	21.801	576.43	28.82	C
			B	0.2	2.596		1	1	21.801			
			C	0.2	2.596		1	1	21.801			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	9	1	1	28.711	654.89	32.74	C
			B	0.219	2.535		1	1	28.711			
			C	0.219	2.535		1	1	28.711			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	8	1	1	30.367	630.38	31.52	C
			B	0.196	2.61		1	1	30.367			
			C	0.196	2.61		1	1	30.367			
T7 20.00-0.00	164.00	2709.25	A	0.179	2.668	7	1	1	32.214	583.40	29.17	C
			B	0.179	2.668		1	1	32.214			
			C	0.179	2.668		1	1	32.214			
Sum Weight:	910.20	11611.80						OTM	199421.43 lb-ft	3453.18		

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK Client Atlas Tower	Date 11:34:28 02/21/25 Designed by AG

Tower Forces - Service - Wind 60 To Face

Section Elevation <i>ft</i>	Add Weight <i>lb</i>	Self Weight <i>lb</i>	F a c e	<i>e</i>	C_F	q_z <i>psf</i>	D_F	D_R	A_E <i>ft²</i>	F <i>lb</i>	w <i>plf</i>	Ctrl. Face
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	10	0.8	1	3.244	72.65	12.31	C
			B	0.216	2.545		0.8	1	3.244			
			C	0.216	2.545		0.8	1	3.244			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	10	0.8	1	13.274	369.95	18.50	A
			B	0.218	2.536		0.8	1	13.274			
			C	0.218	2.536		0.8	1	13.274			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	10	0.8	1	16.228	478.64	23.93	C
			B	0.2	2.596		0.8	1	16.228			
			C	0.2	2.596		0.8	1	16.228			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	9	0.8	1	19.980	539.48	26.97	C
			B	0.2	2.596		0.8	1	19.980			
			C	0.2	2.596		0.8	1	19.980			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	9	0.8	1	26.186	608.27	30.41	C
			B	0.219	2.535		0.8	1	26.186			
			C	0.219	2.535		0.8	1	26.186			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	8	0.8	1	27.524	581.86	29.09	C
			B	0.196	2.61		0.8	1	27.524			
			C	0.196	2.61		0.8	1	27.524			
T7 20.00-0.00	164.00	2709.25	A	0.179	2.668	7	0.8	1	29.043	535.52	26.78	C
			B	0.179	2.668		0.8	1	29.043			
			C	0.179	2.668		0.8	1	29.043			
Sum Weight:	910.20	11611.80						OTM	183692.91 lb-ft	3186.37		

Tower Forces - Service - Wind 90 To Face

Section Elevation <i>ft</i>	Add Weight <i>lb</i>	Self Weight <i>lb</i>	F a c e	<i>e</i>	C_F	q_z <i>psf</i>	D_F	D_R	A_E <i>ft²</i>	F <i>lb</i>	w <i>plf</i>	Ctrl. Face
T1 125.90-120.00	0.00	152.77	A	0.216	2.545	10	0.85	1	3.362	75.31	12.76	C
			B	0.216	2.545		0.85	1	3.362			
			C	0.216	2.545		0.85	1	3.362			
T2 120.00-100.00	98.40	786.87	A	0.218	2.536	10	0.85	1	13.682	378.84	18.94	A
			B	0.218	2.536		0.85	1	13.682			
			C	0.218	2.536		0.85	1	13.682			
T3 100.00-80.00	155.80	1045.32	A	0.2	2.596	10	0.85	1	16.703	489.64	24.48	A
			B	0.2	2.596		0.85	1	16.703			
			C	0.2	2.596		0.85	1	16.703			
T4 80.00-60.00	164.00	1729.37	A	0.2	2.596	9	0.85	1	20.436	549.51	27.48	A
			B	0.2	2.596		0.85	1	20.436			
			C	0.2	2.596		0.85	1	20.436			
T5 60.00-40.00	164.00	2556.85	A	0.219	2.535	9	0.85	1	26.817	620.66	31.03	A
			B	0.219	2.535		0.85	1	26.817			
			C	0.219	2.535		0.85	1	26.817			
T6 40.00-20.00	164.00	2631.37	A	0.196	2.61	8	0.85	1	28.235	594.65	29.73	A
			B	0.196	2.61		0.85	1	28.235			
			C	0.196	2.61		0.85	1	28.235			

tnxTower Nello Corporation 1201 S. Sheridan Street South Bend, IN. 46619 Phone: 800-806-3556 FAX:	Job	Page
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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK Client Atlas Tower	Date 11:34:28 02/21/25 Designed by AG

Section Elevation <i>ft</i>	Add Weight <i>lb</i>	Self Weight <i>lb</i>	F a c e	e	C _F	q _z <i>psf</i>	D _F	D _R	A _E <i>ft²</i>	F <i>lb</i>	w <i>plf</i>	Ctrl. Face
T7 20.00-0.00	164.00	2709.25	A B C	0.179 0.179 0.179	2.668 2.668 2.668	7	0.85 0.85 0.85	1 1 1	29.836 29.836 29.836	548.06	27.40	A
Sum Weight:	910.20	11611.80						OTM	187818.03 lb-ft	3256.67		

Mast Vectors - No Ice

Section No.	Section Elevation <i>ft</i>	Wind Azimuth <i>°</i>	Directionality	F <i>lb</i>	V _x <i>lb</i>	V _z <i>lb</i>	OTM _x <i>lb-ft</i>	OTM _z <i>lb-ft</i>	Torque <i>lb-ft</i>
T1	125.90-120.00	0	Wind Normal	305.89	0.00	-305.89	-37608.97	0.00	0.00
		30	Wind 90	276.65	138.32	-239.58	-29456.81	-17006.90	0.00
		60	Wind 60	266.90	231.14	-133.45	-16407.71	-28418.98	0.00
		90	Wind 90	276.65	276.65	0.00	0.00	-34013.80	0.00
		120	Wind Normal	305.89	264.91	152.94	18804.48	-32570.32	0.00
		150	Wind 90	276.65	138.32	239.58	29456.81	-17006.90	0.00
		180	Wind 60	266.90	0.00	266.90	32815.41	0.00	0.00
		210	Wind 90	276.65	-138.32	239.58	29456.81	17006.90	0.00
		240	Wind Normal	305.89	-264.91	152.94	18804.48	32570.32	0.00
		270	Wind 90	276.65	-276.65	0.00	0.00	34013.80	0.00
		300	Wind 60	266.90	-231.14	-133.45	-16407.71	28418.98	0.00
		330	Wind 90	276.65	-138.32	-239.58	-29456.81	17006.90	0.00
T2	120.00-100.00	0	Wind Normal	1489.71	0.00	-1489.71	-163801.20	-42.61	123.95
		30	Wind 90	1391.71	695.85	-1205.26	-132511.45	-76586.65	211.21
		60	Wind 60	1354.25	1172.81	-677.12	-74416.85	-129051.91	230.01
		90	Wind 90	1382.12	1382.12	0.00	66.70	-152075.32	187.18
		120	Wind Normal	1480.11	1281.82	740.06	81472.98	-141042.41	106.06
		150	Wind 90	1386.91	693.46	1201.10	132187.88	-76322.81	-3.48
		180	Wind 60	1359.04	0.00	1359.04	149561.49	-42.61	-123.95
		210	Wind 90	1391.71	-695.85	1205.26	132644.86	76501.42	-211.21
		240	Wind Normal	1484.91	-1285.97	742.46	81736.82	141414.17	-230.01
		270	Wind 90	1382.12	-1382.12	0.00	66.70	151990.10	-187.18
		300	Wind 60	1349.45	-1168.66	-674.72	-74153.01	128509.71	-106.06
		330	Wind 90	1386.91	-693.46	-1201.10	-132054.47	76237.58	3.48
T3	100.00-80.00	0	Wind Normal	1872.75	0.00	-1872.75	-168486.87	-78.93	180.53
		30	Wind 90	1763.79	881.89	-1527.49	-137413.02	-79449.44	252.94
		60	Wind 60	1723.38	1492.49	-861.69	-77491.39	-134403.16	238.18
		90	Wind 90	1754.59	1754.59	0.00	60.74	-157992.20	159.61
		120	Wind Normal	1863.55	1613.89	931.78	83920.67	-145328.59	57.65
		150	Wind 90	1754.59	877.30	1519.52	136817.65	-79035.56	-59.76
		180	Wind 60	1723.38	0.00	1723.38	155165.01	-78.93	-180.53
		210	Wind 90	1763.79	-881.89	1527.49	137534.50	79291.59	-252.94
		240	Wind Normal	1872.75	-1621.85	936.38	84334.55	145887.59	-238.18
		270	Wind 90	1754.59	-1754.59	0.00	60.74	157834.34	-159.61
		300	Wind 60	1714.18	-1484.53	-857.09	-77077.51	133528.45	-57.65
		330	Wind 90	1754.59	-877.30	-1519.52	-136696.16	78877.71	59.76
T4	80.00-60.00	0	Wind Normal	1955.52	0.00	-1955.52	-136794.51	-97.38	210.70
		30	Wind 90	1856.63	928.31	-1607.89	-112460.18	-65079.35	330.65
		60	Wind 60	1819.79	1575.98	-909.89	-63600.64	-110416.08	339.26
		90	Wind 90	1847.90	1847.90	0.00	91.90	-129450.69	256.96
		120	Wind Normal	1946.80	1685.98	973.40	68229.78	-118115.66	128.55
		150	Wind 90	1847.90	923.95	1600.33	112115.15	-64774.03	-34.30
		180	Wind 60	1819.79	0.00	1819.79	127476.96	-97.38	-210.70

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
T5	60.00-40.00	210	Wind 90	1856.63	-928.31	1607.89	112643.97	64884.59	-330.65
		240	Wind Normal	1955.52	-1693.53	977.76	68535.10	118449.73	-339.26
		270	Wind 90	1847.90	-1847.90	0.00	91.90	129255.93	-256.96
		300	Wind 60	1811.06	-1568.43	-905.53	-63295.32	109692.50	-128.55
		330	Wind 90	1847.90	-923.95	-1600.33	-111931.36	64579.28	34.30
		0	Wind Normal	2205.97	0.00	-2205.97	-110188.94	-115.83	233.07
		30	Wind 90	2080.24	1040.12	-1801.54	-89967.59	-52121.95	366.61
		60	Wind 60	2034.72	1762.12	-1017.36	-50758.45	-88221.96	376.67
		90	Wind 90	2072.12	2072.12	0.00	109.65	-103721.73	285.80
		120	Wind Normal	2197.85	1903.39	1098.92	55055.78	-95285.31	143.60
		150	Wind 90	2072.12	1036.06	1794.51	89835.00	-51918.78	-37.08
		180	Wind 60	2034.72	0.00	2034.72	101845.85	-115.83	-233.07
T6	40.00-20.00	210	Wind 90	2080.24	-1040.12	1801.54	90186.90	51890.29	-366.61
		240	Wind Normal	2205.97	-1910.43	1102.99	55258.95	95405.55	-376.67
		270	Wind 90	2072.12	-2072.12	0.00	109.65	103490.08	-285.80
		300	Wind 60	2026.60	-1755.08	-1013.30	-50555.28	87638.41	-143.60
		330	Wind 90	2072.12	-1036.06	-1794.51	-89615.69	51687.13	37.08
		0	Wind Normal	2103.19	0.00	-2103.19	-62968.16	-134.28	242.33
		30	Wind 90	1971.93	985.96	-1707.74	-51104.74	-29713.17	381.83
		60	Wind 60	1924.93	1667.04	-962.46	-28746.54	-50145.41	392.69
		90	Wind 90	1964.63	1964.63	0.00	127.40	-59073.12	298.34
		120	Wind Normal	2095.89	1815.09	1047.94	31565.72	-54587.03	150.37
		150	Wind 90	1964.63	982.31	1701.42	51169.94	-29603.70	-37.89
		180	Wind 60	1924.93	0.00	1924.93	57875.28	-134.28	-242.33
T7	20.00-0.00	210	Wind 90	1971.93	-985.96	1707.74	51359.55	29444.61	-381.83
		240	Wind Normal	2103.19	-1821.41	1051.59	31675.19	54508.09	-392.69
		270	Wind 90	1964.63	-1964.63	0.00	127.40	58804.56	-298.34
		300	Wind 60	1917.63	-1660.72	-958.82	-28637.06	49687.24	-150.37
		330	Wind 90	1964.63	-982.31	-1701.42	-50915.13	29335.14	37.89
		0	Wind Normal	1938.64	0.00	-1938.64	-19241.21	-152.73	238.28
		30	Wind 90	1808.82	904.41	-1566.48	-15519.65	-9196.81	375.94
		60	Wind 60	1762.74	1526.57	-881.37	-8668.52	-15418.47	386.92
		90	Wind 90	1802.50	1802.50	0.00	145.16	-18177.74	294.24
		120	Wind Normal	1932.32	1673.44	966.16	9806.77	-16887.12	148.65
		150	Wind 90	1802.50	901.25	1561.01	15755.28	-9165.23	-36.77
		180	Wind 60	1762.74	0.00	1762.74	17772.52	-152.73	-238.28
T7	20.00-0.00	210	Wind 90	1808.82	-904.41	1566.48	15809.97	8891.36	-375.94
		240	Wind Normal	1938.64	-1678.91	969.32	9838.34	16636.36	-386.92
		270	Wind 90	1802.50	-1802.50	0.00	145.16	17872.28	-294.24
		300	Wind 60	1756.42	-1521.10	-878.21	-8636.95	15058.32	-148.65
		330	Wind 90	1802.50	-901.25	-1561.01	-15464.96	8859.78	36.77

Mast Totals - No Ice

Wind Azimuth °	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	-11871.66	-699089.86	-621.75	1228.86
30	5574.88	-9655.98	-568433.45	-329154.26	1919.17
60	9428.16	-5443.35	-320090.09	-556075.98	1963.73
90	11100.51	0.00	601.56	-654504.59	1482.12
120	10238.50	5911.20	348856.18	-603816.44	734.88
150	5552.65	9617.47	567337.70	-327827.01	-209.28
180	0.00	10891.50	642512.53	-621.75	-1228.86
210	-5574.88	9655.98	569636.57	327910.77	-1919.17
240	-10277.01	5933.43	350183.43	604871.82	-1963.73
270	-11100.51	0.00	601.56	653261.10	-1482.12

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

<i>Wind Azimuth</i> °	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
300	-9389.66	-5421.12	-318762.84	552533.61	-734.88
330	-5552.65	-9617.47	-566134.58	326583.51	209.28

Mast Vectors - With Ice

<i>Section No.</i>	<i>Section Elevation ft</i>	<i>Wind Azimuth</i> °	<i>Directionality</i>	<i>F</i> lb	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
T1	125.90-120.00	0	Wind Normal	105.81	0.00	-105.81	-13009.39	0.00	0.00
		30	Wind 90	98.86	49.43	-85.62	-10526.77	-6077.63	0.00
		60	Wind 60	96.55	83.61	-48.27	-5935.28	-10280.20	0.00
		90	Wind 90	98.86	98.86	0.00	0.00	-12155.26	0.00
		120	Wind Normal	105.81	91.63	52.91	6504.70	-11266.46	0.00
		150	Wind 90	98.86	49.43	85.62	10526.77	-6077.63	0.00
		180	Wind 60	96.55	0.00	96.55	11870.55	0.00	0.00
		210	Wind 90	98.86	-49.43	85.62	10526.77	6077.63	0.00
		240	Wind Normal	105.81	-91.63	52.91	6504.70	11266.46	0.00
		270	Wind 90	98.86	-98.86	0.00	0.00	12155.26	0.00
		300	Wind 60	96.55	-83.61	-48.27	-5935.28	10280.20	0.00
		330	Wind 90	98.86	-49.43	-85.62	-10526.77	6077.63	0.00
T2	120.00-100.00	0	Wind Normal	498.94	0.00	-498.94	-54714.61	-107.64	43.19
		30	Wind 90	474.90	237.45	-411.27	-45071.71	-26227.09	73.07
		60	Wind 60	465.58	403.20	-232.79	-25438.42	-44460.13	80.15
		90	Wind 90	472.29	472.29	0.00	168.50	-52059.26	65.74
		120	Wind Normal	496.33	429.83	248.16	27466.42	-47389.02	36.96
		150	Wind 90	473.59	236.80	410.14	45284.32	-26155.27	-1.73
		180	Wind 60	466.89	0.00	466.89	51525.99	-107.64	-43.19
		210	Wind 90	474.90	-237.45	411.27	45408.71	26011.80	-73.07
		240	Wind Normal	497.63	-430.96	248.82	27538.24	47298.13	-80.15
		270	Wind 90	472.29	-472.29	0.00	168.50	51843.97	-65.74
		300	Wind 60	464.27	-402.07	-232.14	-25366.60	44120.45	-36.96
		330	Wind 90	473.59	-236.80	-410.14	-44947.31	25939.98	1.73
T3	100.00-80.00	0	Wind Normal	639.14	0.00	-639.14	-57370.22	-183.02	54.24
		30	Wind 90	612.00	306.00	-530.00	-47547.81	-27722.81	79.80
		60	Wind 60	601.83	521.20	-300.92	-26930.03	-47091.33	78.70
		90	Wind 90	609.49	609.49	0.00	152.50	-55037.27	56.51
		120	Wind Normal	636.64	551.34	318.32	28801.19	-49804.02	24.46
		150	Wind 90	609.49	304.75	527.84	47657.67	-27610.14	-14.15
		180	Wind 60	601.83	0.00	601.83	54317.54	-183.02	-54.24
		210	Wind 90	612.00	-306.00	530.00	47852.81	27356.77	-79.80
		240	Wind Normal	639.14	-553.51	319.57	28913.86	49633.11	-78.70
		270	Wind 90	609.49	-609.49	0.00	152.50	54671.23	-56.51
		300	Wind 60	599.33	-519.04	-299.67	-26817.36	46530.15	-24.46
		330	Wind 90	609.49	-304.75	-527.84	-47352.67	27244.10	14.15
T4	80.00-60.00	0	Wind Normal	693.38	0.00	-693.38	-48299.27	-223.75	63.02
		30	Wind 90	668.20	334.10	-578.68	-40270.38	-23610.72	107.55
		60	Wind 60	658.75	570.50	-329.38	-22819.27	-40158.44	117.07
		90	Wind 90	665.82	665.82	0.00	237.04	-46831.47	95.22
		120	Wind Normal	691.00	598.42	345.50	24422.08	-42113.48	54.05
		150	Wind 90	665.82	332.91	576.62	40600.51	-23527.61	-1.61
		180	Wind 60	658.75	0.00	658.75	46349.65	-223.75	-63.02
		210	Wind 90	668.20	-334.10	578.68	40744.46	23163.22	-107.55
		240	Wind Normal	693.38	-600.48	346.69	24505.19	41809.93	-117.07
		270	Wind 90	665.82	-665.82	0.00	237.04	46383.97	-95.22
		300	Wind 60	656.38	-568.44	-328.19	-22736.16	39566.99	-54.05
		330	Wind 90	665.82	-332.91	-576.62	-40126.43	23080.11	1.61
T5	60.00-40.00	0	Wind Normal	772.41	0.00	-772.41	-38342.74	-263.15	69.40

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 18 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
T6	40.00-20.00	30	Wind 90	740.04	370.02	-640.89	-31766.68	-18764.04	118.56
		60	Wind 60	728.26	630.69	-364.13	-17928.72	-31797.77	129.07
		90	Wind 90	737.82	737.82	0.00	277.80	-37154.33	105.00
		120	Wind Normal	770.20	667.01	385.10	19532.76	-33613.73	59.67
		150	Wind 90	737.82	368.91	638.97	32226.49	-18708.74	-1.65
		180	Wind 60	728.26	0.00	728.26	36690.84	-263.15	-69.40
		210	Wind 90	740.04	-370.02	640.89	32322.28	18237.74	-118.56
		240	Wind Normal	772.41	-668.93	386.21	19588.07	33183.21	-129.07
		270	Wind 90	737.82	-737.82	0.00	277.80	36628.02	-105.00
		300	Wind 60	726.05	-628.78	-363.02	-17873.41	31175.67	-59.67
		330	Wind 90	737.82	-368.91	-638.97	-31670.89	18182.43	1.65
		0	Wind Normal	734.17	0.00	-734.17	-21710.67	-300.19	71.78
		30	Wind 90	700.19	350.10	-606.38	-17877.25	-10803.08	122.47
		60	Wind 60	687.99	595.81	-343.99	-10005.49	-18174.59	133.19
		90	Wind 90	698.21	698.21	0.00	314.30	-21246.38	108.21
		120	Wind Normal	732.18	634.09	366.09	11296.98	-19322.75	61.41
		150	Wind 90	698.21	349.10	604.66	18454.23	-10773.28	-1.85
		180	Wind 60	687.99	0.00	687.99	20953.87	-300.19	-71.78
T7	20.00-0.00	210	Wind 90	700.19	-350.10	606.38	18505.84	10202.71	-122.47
		240	Wind Normal	734.17	-635.81	367.08	11326.78	18773.99	-133.19
		270	Wind 90	698.21	-698.21	0.00	314.30	20646.00	-108.21
		300	Wind 60	686.00	-594.09	-343.00	-9975.69	17522.60	-61.41
		330	Wind 90	698.21	-349.10	-604.66	-17825.64	10172.91	1.85
		0	Wind Normal	665.23	0.00	-665.23	-6313.16	-330.63	69.93
		30	Wind 90	631.40	315.70	-546.81	-5128.91	-3487.63	118.66
		60	Wind 60	619.36	536.38	-309.68	-2757.62	-5694.44	128.53
		90	Wind 90	629.68	629.68	0.00	339.18	-6627.45	103.96
		120	Wind Normal	663.51	574.62	331.76	3656.75	-6076.84	58.60
		150	Wind 90	629.68	314.84	545.32	5792.38	-3479.04	-2.47
		180	Wind 60	619.36	0.00	619.36	6532.76	-330.63	-69.93
		210	Wind 90	631.40	-315.70	546.81	5807.26	2826.37	-118.66
		240	Wind Normal	665.23	-576.11	332.62	3665.34	5430.46	-128.53
		270	Wind 90	629.68	-629.68	0.00	339.18	5966.18	-103.96
		300	Wind 60	617.64	-534.89	-308.82	-2749.02	5018.28	-58.60
		330	Wind 90	629.68	-314.84	-545.32	-5114.02	2817.77	2.47

Mast Totals - With Ice

Wind Azimuth °	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	-4109.07	-239760.06	-1408.39	371.57
30	1962.79	-3399.66	-198189.52	-116693.01	620.12
60	3341.40	-1929.16	-111814.82	-197656.89	666.71
90	3912.18	0.00	1489.31	-231111.41	534.65
120	3546.95	2047.83	121680.88	-209586.30	295.14
150	1956.74	3389.18	200542.36	-116331.72	-23.46
180	0.00	3859.62	228241.21	-1408.39	-371.57
210	-1962.79	3399.66	201168.14	113876.24	-620.12
240	-3557.43	2053.88	122042.18	207395.30	-666.71
270	-3912.18	0.00	1489.31	228294.63	-534.65
300	-3330.92	-1923.11	-111453.53	194214.34	-295.14
330	-1956.74	-3389.18	-197563.74	113514.94	23.46

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Mast Vectors - Service

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
T1	125.90-120.00	0	Wind Normal	83.27	0.00	-83.27	-10237.60	0.00	0.00
		30	Wind 90	75.31	37.65	-65.22	-8018.49	-4629.48	0.00
		60	Wind 60	72.65	62.92	-36.33	-4466.37	-7735.98	0.00
		90	Wind 90	75.31	75.31	0.00	0.00	-9258.95	0.00
		120	Wind Normal	83.27	72.11	41.63	5118.80	-8866.02	0.00
		150	Wind 90	75.31	37.65	65.22	8018.49	-4629.48	0.00
		180	Wind 60	72.65	0.00	72.65	8932.74	0.00	0.00
		210	Wind 90	75.31	-37.65	65.22	8018.49	4629.48	0.00
		240	Wind Normal	83.27	-72.11	41.63	5118.80	8866.02	0.00
		270	Wind 90	75.31	-75.31	0.00	0.00	9258.95	0.00
		300	Wind 60	72.65	-62.92	-36.33	-4466.37	7735.98	0.00
		330	Wind 90	75.31	-37.65	-65.22	-8018.49	4629.48	0.00
T2	120.00-100.00	0	Wind Normal	405.52	0.00	-405.52	-44540.06	-42.61	33.74
		30	Wind 90	378.84	189.42	-328.08	-36022.62	-20878.80	57.49
		60	Wind 60	368.64	319.25	-184.32	-20208.59	-35160.46	62.61
		90	Wind 90	376.23	376.23	0.00	66.70	-41427.70	50.95
		120	Wind Normal	402.90	348.93	201.45	22226.45	-38424.41	28.87
		150	Wind 90	377.53	188.77	326.95	36031.64	-20806.98	-0.95
		180	Wind 60	369.95	0.00	369.95	40760.94	-42.61	-33.74
		210	Wind 90	378.84	-189.42	328.08	36156.03	20793.57	-57.49
		240	Wind Normal	404.21	-350.06	202.11	22298.27	38463.58	-62.61
		270	Wind 90	376.23	-376.23	0.00	66.70	41342.47	-50.95
		300	Wind 60	367.34	-318.12	-183.67	-20136.77	34950.84	-28.87
		330	Wind 90	377.53	-188.77	-326.95	-35898.23	20721.75	0.95
T3	100.00-80.00	0	Wind Normal	519.30	0.00	-519.30	-46676.39	-78.93	49.14
		30	Wind 90	489.64	244.82	-424.04	-38102.97	-22112.76	68.85
		60	Wind 60	478.64	414.52	-239.32	-21478.10	-37385.31	64.84
		90	Wind 90	487.14	487.14	0.00	60.74	-43921.27	43.45
		120	Wind Normal	516.80	447.56	258.40	23316.65	-40359.33	15.69
		150	Wind 90	487.14	243.57	421.87	38029.32	-22000.10	-16.27
		180	Wind 60	478.64	0.00	478.64	43138.44	-78.93	-49.14
		210	Wind 90	489.64	-244.82	424.04	38224.46	21954.90	-68.85
		240	Wind Normal	519.30	-449.73	259.65	23429.31	40396.62	-64.84
		270	Wind 90	487.14	-487.14	0.00	60.74	43763.41	-43.45
		300	Wind 60	476.14	-412.35	-238.07	-21365.44	37032.31	-15.69
		330	Wind 90	487.14	-243.57	-421.87	-37907.83	21842.24	16.27
T4	80.00-60.00	0	Wind Normal	576.43	0.00	-576.43	-40258.27	-97.38	57.36
		30	Wind 90	549.51	274.76	-475.89	-33220.45	-19330.27	90.01
		60	Wind 60	539.48	467.21	-269.74	-18790.00	-32801.78	92.35
		90	Wind 90	547.14	547.14	0.00	91.90	-38396.95	69.95
		120	Wind Normal	574.06	497.15	287.03	20183.87	-34897.69	34.99
		150	Wind 90	547.14	273.57	473.83	33260.30	-19247.16	-9.34
		180	Wind 60	539.48	0.00	539.48	37855.69	-97.38	-57.36
		210	Wind 90	549.51	-274.76	475.89	33404.25	19135.52	-90.01
		240	Wind Normal	576.43	-499.20	288.22	20266.98	34846.89	-92.35
		270	Wind 90	547.14	-547.14	0.00	91.90	38202.19	-69.95
		300	Wind 60	537.11	-465.15	-268.55	-18706.89	32463.07	-34.99
		330	Wind 90	547.14	-273.57	-473.83	-33076.50	19052.41	9.34
T5	60.00-40.00	0	Wind Normal	654.89	0.00	-654.89	-32634.73	-115.83	63.44
		30	Wind 90	620.66	310.33	-537.51	-26765.85	-15632.41	99.80
		60	Wind 60	608.27	526.78	-304.14	-15097.15	-26454.77	102.53
		90	Wind 90	618.45	618.45	0.00	109.65	-31038.38	77.80
		120	Wind Normal	652.68	565.23	326.34	16426.53	-28377.50	39.09
		150	Wind 90	618.45	309.23	535.59	26889.36	-15577.10	-10.09
		180	Wind 60	608.27	0.00	608.27	30523.24	-115.83	-63.44
		210	Wind 90	620.66	-310.33	537.51	26985.16	15400.75	-99.80
		240	Wind Normal	654.89	-567.15	327.44	16481.84	28241.64	-102.53
		270	Wind 90	618.45	-618.45	0.00	109.65	30806.72	-77.80

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
T6	40.00-20.00	300	Wind 60	606.06	-524.86	-303.03	-15041.84	26127.33	-39.09
		330	Wind 90	618.45	-309.23	-535.59	-26670.06	15345.45	10.09
		0	Wind Normal	630.38	0.00	-630.38	-18784.01	-134.28	65.96
		30	Wind 90	594.65	297.33	-514.98	-15322.06	-9054.03	103.94
		60	Wind 60	581.86	503.90	-290.93	-8600.45	-15251.37	106.90
		90	Wind 90	592.66	592.66	0.00	127.40	-17914.18	81.21
		120	Wind Normal	628.39	544.21	314.20	9553.31	-16460.43	40.93
		150	Wind 90	592.66	296.33	513.26	15525.25	-9024.23	-10.32
		180	Wind 60	581.86	0.00	581.86	17583.11	-134.28	-65.96
		210	Wind 90	594.65	-297.33	514.98	15576.87	8785.47	-103.94
		240	Wind Normal	630.38	-545.93	315.19	9583.11	16243.49	-106.90
		270	Wind 90	592.66	-592.66	0.00	127.40	17645.63	-81.21
T7	20.00-0.00	300	Wind 60	579.87	-502.18	-289.94	-8570.65	14931.20	-40.93
		330	Wind 90	592.66	-296.33	-513.26	-15270.44	8755.67	10.32
		0	Wind Normal	583.40	0.00	-583.40	-5688.82	-152.73	64.86
		30	Wind 90	548.06	274.03	-474.63	-4601.17	-2893.02	102.33
		60	Wind 60	535.52	463.77	-267.76	-2532.42	-4790.42	105.33
		90	Wind 90	546.34	546.34	0.00	145.16	-5616.12	80.09
		120	Wind Normal	581.68	503.75	290.84	3053.55	-5190.21	40.46
		150	Wind 90	546.34	273.17	473.14	4876.60	-2884.43	-10.01
		180	Wind 60	535.52	0.00	535.52	5500.31	-152.73	-64.86
		210	Wind 90	548.06	-274.03	474.63	4891.49	2587.57	-102.33
		240	Wind Normal	583.40	-505.24	291.70	3062.15	4899.64	-105.33
		270	Wind 90	546.34	-546.34	0.00	145.16	5310.67	-80.09
		300	Wind 60	533.80	-462.28	-266.90	-2523.82	4470.08	-40.46
		330	Wind 90	546.34	-273.17	-473.14	-4586.28	2578.97	10.01

Mast Totals - Service

Wind Azimuth °	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	-3453.18	-198819.87	-621.75	334.51
30	1628.34	-2820.36	-162053.62	-94530.76	522.42
60	2758.35	-1592.53	-91173.08	-159580.08	534.55
90	3243.26	0.00	601.56	-187573.55	403.45
120	2978.93	1719.89	99879.16	-172575.60	200.04
150	1622.28	2809.88	162630.96	-94169.47	-56.97
180	0.00	3186.37	184294.47	-621.75	-334.51
210	-1628.34	2820.36	163256.74	93287.27	-522.42
240	-2978.93	1725.94	100240.45	171957.88	-534.55
270	-3243.26	0.00	601.56	186330.05	-403.45
300	-2747.86	-1586.48	-90811.79	157710.81	-200.04
330	-1622.28	-2809.88	-161427.84	92925.97	56.97

Discrete Appurtenance Pressures - No Ice G_H = 0.850

Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _A Ac Front ft²	C _A Ac Side ft²
30,000 sq in CaAa	0.0000	3536.00	0.00	0.00	120.00	1.315	38	208.00	208.00
30,000 sq in CaAa	0.0000	3536.00	0.00	0.00	110.00	1.291	37	208.00	208.00

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	Client	Atlas Tower	Designed by	AG

Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²
Dish Pipe Mount	0.0000	103.00	0.00	-2.89	100.00	1.266	36	0.00	1.80
Dish Pipe Mount	240.0000	103.00	-2.87	1.66	90.00	1.238	36	0.00	1.80
	Sum	7278.00							
	Weight:								

Discrete Appurtenance Vectors - No Ice

30,000 sq in CaAa - Elevation 120 - None C							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	6691.28	0.00	0.00	-6691.28	-802954.09	0.00	0.00
30	6691.28	0.00	3345.64	-5794.82	-695378.64	-401477.04	0.00
60	6691.28	0.00	5794.82	-3345.64	-401477.04	-695378.64	0.00
90	6691.28	0.00	6691.28	0.00	0.00	-802954.09	0.00
120	6691.28	0.00	5794.82	3345.64	401477.04	-695378.64	0.00
150	6691.28	0.00	3345.64	5794.82	695378.64	-401477.04	0.00
180	6691.28	0.00	0.00	6691.28	802954.09	0.00	0.00
210	6691.28	0.00	-3345.64	5794.82	695378.64	401477.04	0.00
240	6691.28	0.00	-5794.82	3345.64	401477.04	695378.64	0.00
270	6691.28	0.00	-6691.28	0.00	0.00	802954.09	0.00
300	6691.28	0.00	-5794.82	-3345.64	-401477.04	695378.64	0.00
330	6691.28	0.00	-3345.64	-5794.82	-695378.64	401477.04	0.00

30,000 sq in CaAa - Elevation 110 - None B							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	6569.83	0.00	0.00	-6569.83	-722681.05	0.00	0.00
30	6569.83	0.00	3284.91	-5689.64	-625860.14	-361340.52	0.00
60	6569.83	0.00	5689.64	-3284.91	-361340.52	-625860.14	0.00
90	6569.83	0.00	6569.83	0.00	0.00	-722681.05	0.00
120	6569.83	0.00	5689.64	3284.91	361340.52	-625860.14	0.00
150	6569.83	0.00	3284.91	5689.64	625860.14	-361340.52	0.00
180	6569.83	0.00	0.00	6569.83	722681.05	0.00	0.00
210	6569.83	0.00	-3284.91	5689.64	625860.14	361340.52	0.00
240	6569.83	0.00	-5689.64	3284.91	361340.52	625860.14	0.00
270	6569.83	0.00	-6569.83	0.00	0.00	722681.05	0.00
300	6569.83	0.00	-5689.64	-3284.91	-361340.52	625860.14	0.00
330	6569.83	0.00	-3284.91	-5689.64	-625860.14	361340.52	0.00

Dish Pipe Mount - Elevation 100 - From Leg A							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	0.00	0.00	0.00	-297.34	0.00	0.00
30	0.00	27.86	27.86	0.00	-297.34	-2786.24	-80.43
60	0.00	48.26	48.26	0.00	-297.34	-4825.91	-139.31
90	0.00	55.72	55.72	0.00	-297.34	-5572.48	-160.86
120	0.00	48.26	48.26	0.00	-297.34	-4825.91	-139.31
150	0.00	27.86	27.86	0.00	-297.34	-2786.24	-80.43
180	0.00	0.00	0.00	0.00	-297.34	0.00	0.00
210	0.00	27.86	-27.86	0.00	-297.34	2786.24	80.43
240	0.00	48.26	-48.26	0.00	-297.34	4825.91	139.31

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	Client	Atlas Tower	Designed by	AG

Dish Pipe Mount - Elevation 100 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
270	0.00	55.72	-55.72	0.00	-297.34	5572.48	160.86
300	0.00	48.26	-48.26	0.00	-297.34	4825.91	139.31
330	0.00	27.86	-27.86	0.00	-297.34	2786.24	80.43

Dish Pipe Mount - Elevation 90 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	0.00	47.20	-23.60	-40.88	-3507.95	2420.15	-156.69
30	0.00	27.25	-13.63	-23.60	-1953.05	1522.43	-90.47
60	0.00	0.00	0.00	0.00	170.97	296.12	0.00
90	0.00	27.25	13.63	23.60	2294.99	-930.18	90.47
120	0.00	47.20	23.60	40.88	3849.88	-1827.90	156.69
150	0.00	54.50	27.25	47.20	4419.01	-2156.48	180.94
180	0.00	47.20	23.60	40.88	3849.88	-1827.90	156.69
210	0.00	27.25	13.63	23.60	2294.99	-930.18	90.47
240	0.00	0.00	0.00	0.00	170.97	296.12	0.00
270	0.00	27.25	-13.63	-23.60	-1953.05	1522.43	-90.47
300	0.00	47.20	-23.60	-40.88	-3507.95	2420.15	-156.69
330	0.00	54.50	-27.25	-47.20	-4077.07	2748.73	-180.94

Discrete Appurtenance Totals - No Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	-23.60	-13301.99	-1529440.41	2420.15	-156.69
30	6644.79	-11508.06	-1323489.17	-764081.38	-170.90
60	11532.72	-6630.56	-762943.93	-1325768.57	-139.31
90	13330.46	23.60	1997.65	-1532137.80	-70.40
120	11556.32	6671.43	766370.11	-1327892.59	17.38
150	6685.67	11531.66	1325360.46	-767760.29	100.50
180	23.60	13301.99	1529187.68	-1827.90	156.69
210	-6644.79	11508.06	1323236.43	764673.63	170.90
240	-11532.72	6630.56	762691.20	1326360.82	139.31
270	-13330.46	-23.60	-2250.39	1532730.05	70.40
300	-11556.32	-6671.43	-766622.85	1328484.84	-17.38
330	-6685.67	-11531.66	-1325613.19	768352.54	-100.50

Discrete Appurtenance Pressures - With Ice

$G_H = 0.850$

Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	z ft	K_z	q_z psf	C_{AAc} Front ft ²	C_{AAc} Side ft ²	t_z in
30,000 sq in CaAa	0.0000	4903.64	0.00	0.00	120.00	1.315	10	255.79	255.79	0.5689
30,000 sq in CaAa	0.0000	4891.79	0.00	0.00	110.00	1.291	10	255.37	255.37	0.5640
Dish Pipe Mount	0.0000	120.88	0.00	-2.89	100.00	1.266	10	0.00	2.14	0.5586
Dish Pipe Mount	240.0000	120.69	-2.87	1.66	90.00	1.238	10	0.00	2.13	0.5528
Sum		10036.99								

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	Client	Atlas Tower	Designed by	AG

Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	z ft	K _z	q _z psf	C _{AAc} Front ft ²	C _{AAc} Side ft ²	t _z in
	Weight:									

Discrete Appurtenance Vectors - With Ice

30,000 sq in CaAa - Elevation 120 - None C							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	2239.92	0.00	0.00	-2239.92	-268790.45	0.00	0.00
30	2239.92	0.00	1119.96	-1939.83	-232779.36	-134395.22	0.00
60	2239.92	0.00	1939.83	-1119.96	-134395.22	-232779.36	0.00
90	2239.92	0.00	2239.92	0.00	0.00	-268790.45	0.00
120	2239.92	0.00	1939.83	1119.96	134395.22	-232779.36	0.00
150	2239.92	0.00	1119.96	1939.83	232779.36	-134395.22	0.00
180	2239.92	0.00	0.00	2239.92	268790.45	0.00	0.00
210	2239.92	0.00	-1119.96	1939.83	232779.36	134395.22	0.00
240	2239.92	0.00	-1939.83	1119.96	134395.22	232779.36	0.00
270	2239.92	0.00	-2239.92	0.00	0.00	268790.45	0.00
300	2239.92	0.00	-1939.83	-1119.96	-134395.22	232779.36	0.00
330	2239.92	0.00	-1119.96	-1939.83	-232779.36	134395.22	0.00

30,000 sq in CaAa - Elevation 110 - None B							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	2195.70	0.00	0.00	-2195.70	-241527.34	0.00	0.00
30	2195.70	0.00	1097.85	-1901.53	-209168.81	-120763.67	0.00
60	2195.70	0.00	1901.53	-1097.85	-120763.67	-209168.81	0.00
90	2195.70	0.00	2195.70	0.00	0.00	-241527.34	0.00
120	2195.70	0.00	1901.53	1097.85	120763.67	-209168.81	0.00
150	2195.70	0.00	1097.85	1901.53	209168.81	-120763.67	0.00
180	2195.70	0.00	0.00	2195.70	241527.34	0.00	0.00
210	2195.70	0.00	-1097.85	1901.53	209168.81	120763.67	0.00
240	2195.70	0.00	-1901.53	1097.85	120763.67	209168.81	0.00
270	2195.70	0.00	-2195.70	0.00	0.00	241527.34	0.00
300	2195.70	0.00	-1901.53	-1097.85	-120763.67	209168.81	0.00
330	2195.70	0.00	-1097.85	-1901.53	-209168.81	120763.67	0.00

Dish Pipe Mount - Elevation 100 - From Leg A							
Wind Azimuth °	F _a lb	F _s lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	0.00	0.00	0.00	-348.94	0.00	0.00
30	0.00	9.00	9.00	0.00	-348.94	-899.68	-25.97
60	0.00	15.58	15.58	0.00	-348.94	-1558.29	-44.98
90	0.00	17.99	17.99	0.00	-348.94	-1799.35	-51.94
120	0.00	15.58	15.58	0.00	-348.94	-1558.29	-44.98
150	0.00	9.00	9.00	0.00	-348.94	-899.68	-25.97
180	0.00	0.00	0.00	0.00	-348.94	0.00	0.00
210	0.00	9.00	-9.00	0.00	-348.94	899.68	25.97
240	0.00	15.58	-15.58	0.00	-348.94	1558.29	44.98
270	0.00	17.99	-17.99	0.00	-348.94	1799.35	51.94
300	0.00	15.58	-15.58	0.00	-348.94	1558.29	44.98
330	0.00	9.00	-9.00	0.00	-348.94	899.68	25.97

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Dish Pipe Mount - Elevation 90 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	0.00	15.22	-7.61	-13.18	-985.64	1031.70	-50.51
30	0.00	8.78	-4.39	-7.61	-484.39	742.30	-29.16
60	0.00	0.00	0.00	0.00	200.33	346.98	0.00
90	0.00	8.78	4.39	7.61	885.05	-48.34	29.16
120	0.00	15.22	7.61	13.18	1386.29	-337.74	50.51
150	0.00	17.57	8.78	15.22	1569.76	-443.66	58.33
180	0.00	15.22	7.61	13.18	1386.29	-337.74	50.51
210	0.00	8.78	4.39	7.61	885.05	-48.34	29.16
240	0.00	0.00	0.00	0.00	200.33	346.98	0.00
270	0.00	8.78	-4.39	-7.61	-484.39	742.30	-29.16
300	0.00	15.22	-7.61	-13.18	-985.64	1031.70	-50.51
330	0.00	17.57	-8.78	-15.22	-1169.11	1137.62	-58.33

Discrete Appurtenance Totals - With Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	-7.61	-4448.80	-511652.36	1031.70	-50.51
30	2222.42	-3848.97	-442781.49	-255316.27	-55.14
60	3856.95	-2217.81	-255307.50	-443159.47	-44.98
90	4458.01	7.61	536.11	-512165.48	-22.78
120	3864.55	2230.99	256196.25	-443844.19	5.53
150	2235.59	3856.58	443168.99	-256502.23	32.36
180	7.61	4448.80	511355.14	-337.74	50.51
210	-2222.42	3848.97	442484.27	256010.23	55.14
240	-3856.95	2217.81	255010.28	443853.43	44.98
270	-4458.01	-7.61	-833.33	512859.44	22.78
300	-3864.55	-2230.99	-256493.47	444538.15	-5.53
330	-2235.59	-3856.58	-443466.21	257196.19	-32.36

Discrete Appurtenance Pressures - Service $G_H = 0.850$

Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	z ft	K_z	q_z psf	$C_{A/C}$ Front ft ²	$C_{A/C}$ Side ft ²
30,000 sq in CaAa	0.0000	3536.00	0.00	0.00	120.00	1.315	10	208.00	208.00
30,000 sq in CaAa	0.0000	3536.00	0.00	0.00	110.00	1.291	10	208.00	208.00
Dish Pipe Mount	0.0000	103.00	0.00	-2.89	100.00	1.266	10	0.00	1.80
Dish Pipe Mount	240.0000	103.00	-2.87	1.66	90.00	1.238	10	0.00	1.80
Sum Weight:		7278.00							

Discrete Appurtenance Vectors - Service

30,000 sq in CaAa - Elevation 120 - None C

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job	SO32729; Tower 773613; Foundation 773614	Page	25 of 47
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<i>Wind Azimuth</i> °	<i>F_a</i> lb	<i>F_s</i> lb	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
0	1821.45	0.00	0.00	-1821.45	-218573.51	0.00	0.00
30	1821.45	0.00	910.72	-1577.42	-189290.21	-109286.76	0.00
60	1821.45	0.00	1577.42	-910.72	-109286.76	-189290.21	0.00
90	1821.45	0.00	1821.45	0.00	0.00	-218573.51	0.00
120	1821.45	0.00	1577.42	910.72	109286.76	-189290.21	0.00
150	1821.45	0.00	910.72	1577.42	189290.21	-109286.76	0.00
180	1821.45	0.00	0.00	1821.45	218573.51	0.00	0.00
210	1821.45	0.00	-910.72	1577.42	189290.21	109286.76	0.00
240	1821.45	0.00	-1577.42	910.72	109286.76	189290.21	0.00
270	1821.45	0.00	-1821.45	0.00	0.00	218573.51	0.00
300	1821.45	0.00	-1577.42	-910.72	-109286.76	189290.21	0.00
330	1821.45	0.00	-910.72	-1577.42	-189290.21	109286.76	0.00

<i>30,000 sq in CaAa - Elevation 110 - None B</i>							
<i>Wind Azimuth</i> °	<i>F_a</i> lb	<i>F_s</i> lb	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
0	1788.38	0.00	0.00	-1788.38	-196722.25	0.00	0.00
30	1788.38	0.00	894.19	-1548.79	-170366.47	-98361.13	0.00
60	1788.38	0.00	1548.79	-894.19	-98361.13	-170366.47	0.00
90	1788.38	0.00	1788.38	0.00	0.00	-196722.25	0.00
120	1788.38	0.00	1548.79	894.19	98361.13	-170366.47	0.00
150	1788.38	0.00	894.19	1548.79	170366.47	-98361.13	0.00
180	1788.38	0.00	0.00	1788.38	196722.25	0.00	0.00
210	1788.38	0.00	-894.19	1548.79	170366.47	98361.13	0.00
240	1788.38	0.00	-1548.79	894.19	98361.13	170366.47	0.00
270	1788.38	0.00	-1788.38	0.00	0.00	196722.25	0.00
300	1788.38	0.00	-1548.79	-894.19	-98361.13	170366.47	0.00
330	1788.38	0.00	-894.19	-1548.79	-170366.47	98361.13	0.00

<i>Dish Pipe Mount - Elevation 100 - From Leg A</i>							
<i>Wind Azimuth</i> °	<i>F_a</i> lb	<i>F_s</i> lb	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
0	0.00	0.00	0.00	0.00	-297.34	0.00	0.00
30	0.00	7.58	7.58	0.00	-297.34	-758.45	-21.89
60	0.00	13.14	13.14	0.00	-297.34	-1313.67	-37.92
90	0.00	15.17	15.17	0.00	-297.34	-1516.90	-43.79
120	0.00	13.14	13.14	0.00	-297.34	-1313.67	-37.92
150	0.00	7.58	7.58	0.00	-297.34	-758.45	-21.89
180	0.00	0.00	0.00	0.00	-297.34	0.00	0.00
210	0.00	7.58	-7.58	0.00	-297.34	758.45	21.89
240	0.00	13.14	-13.14	0.00	-297.34	1313.67	37.92
270	0.00	15.17	-15.17	0.00	-297.34	1516.90	43.79
300	0.00	13.14	-13.14	0.00	-297.34	1313.67	37.92
330	0.00	7.58	-7.58	0.00	-297.34	758.45	21.89

<i>Dish Pipe Mount - Elevation 90 - From Leg C</i>							
<i>Wind Azimuth</i> °	<i>F_a</i> lb	<i>F_s</i> lb	<i>V_x</i> lb	<i>V_z</i> lb	<i>OTM_x</i> lb-ft	<i>OTM_z</i> lb-ft	<i>Torque</i> lb-ft
0	0.00	12.85	-6.42	-11.13	-830.48	874.31	-42.65
30	0.00	7.42	-3.71	-6.42	-407.22	629.94	-24.63
60	0.00	0.00	0.00	0.00	170.97	296.12	0.00
90	0.00	7.42	3.71	6.42	749.15	-37.69	24.63

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	Project	NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date	11:34:28 02/21/25
	Client	Atlas Tower	Designed by	AG

Dish Pipe Mount - Elevation 90 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
120	0.00	12.85	6.42	11.13	1172.41	-282.06	42.65
150	0.00	14.84	7.42	12.85	1327.33	-371.50	49.25
180	0.00	12.85	6.42	11.13	1172.41	-282.06	42.65
210	0.00	7.42	3.71	6.42	749.15	-37.69	24.63
240	0.00	0.00	0.00	0.00	170.97	296.12	0.00
270	0.00	7.42	-3.71	-6.42	-407.22	629.94	-24.63
300	0.00	12.85	-6.42	-11.13	-830.48	874.31	-42.65
330	0.00	14.84	-7.42	-12.85	-985.40	963.75	-49.25

Discrete Appurtenance Totals - Service

Wind Azimuth °	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	-6.42	-3620.96	-416423.57	874.31	-42.65
30	1808.79	-3132.63	-360361.23	-207776.39	-46.52
60	3139.34	-1804.92	-207774.25	-360674.23	-37.92
90	3628.71	6.42	451.82	-416850.35	-19.16
120	3145.77	1816.04	208522.96	-361252.41	4.73
150	1819.92	3139.05	360686.68	-208777.83	27.36
180	6.42	3620.96	416170.84	-282.06	42.65
210	-1808.79	3132.63	360108.50	208368.64	46.52
240	-3139.34	1804.92	207521.51	361266.48	37.92
270	-3628.71	-6.42	-704.55	417442.60	19.16
300	-3145.77	-1816.04	-208775.69	361844.66	-4.73
330	-1819.92	-3139.05	-360939.42	209370.08	-27.36

Dish Pressures - No Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	K_z	A_A ft ²	q_z psf
100.00	6' Solid w/Radome	0.0000	162.00	0.00	-2.89	1.266	28.27	36
90.00	6' Solid w/Radome	240.0000	162.00	-2.87	1.66	1.238	28.27	36
	Sum		324.00					
	Weight:							

Dish Vectors - No Ice

6' Solid w/Radome - Elevation 100 - From Leg A											
Wind Azimuth °	C_A	C_S	C_M	F_A lb	F_S lb	F_M lb-ft	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	-0.001770	0.000000	0.000000	-605.11	0.00	0.00	0.00	-605.11	-60978.82	0.00	0.00
30	-0.001330	-0.000700	-0.000132	-454.69	-239.31	-270.76	239.31	-454.69	-45936.49	-23930.97	-961.59
60	-0.000420	-0.000890	-0.000404	-143.59	-304.27	-828.70	304.27	-143.59	-14826.23	-30426.52	-1707.03
90	0.000340	-0.001040	-0.000390	116.24	-355.55	-799.98	355.55	116.24	11155.96	-35554.58	-1826.35
120	0.001070	-0.001280	0.000002	365.80	-437.59	4.10	437.59	365.80	36112.54	-43759.49	-1259.12
150	0.001950	-0.001050	0.000277	666.65	-358.96	568.19	358.96	666.65	66197.19	-35896.45	-468.05
180	0.002210	0.000000	0.000000	755.53	0.00	0.00	0.00	755.53	75085.83	0.00	0.00

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 27 of 47
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6' Solid w/Radome - Elevation 100 - From Leg A											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
210	0.001950	0.001050	-0.000277	666.65	358.96	-568.19	-358.96	666.65	66197.19	35896.45	468.05
240	0.001070	0.001280	-0.000002	365.80	437.59	-4.10	-437.59	365.80	36112.54	43759.49	1259.12
270	0.000340	0.001040	0.000390	116.24	355.55	799.98	-355.55	116.24	11155.96	35554.58	1826.35
300	-0.000420	0.000890	0.000404	-143.59	304.27	828.70	-304.27	-143.59	-14826.23	30426.52	1707.03
330	-0.001330	0.000700	0.000132	-454.69	239.31	270.76	-239.31	-454.69	-45936.49	23930.97	961.59

6' Solid w/Radome - Elevation 90 - From Leg C											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
0	0.001070	-0.001280	0.000002	357.78	-428.00	4.01	95.85	-549.54	-49190.02	-8160.44	-1416.83
30	0.001950	-0.001050	0.000277	652.02	-351.09	555.73	389.12	-630.06	-56436.94	-34555.46	-609.81
60	0.002210	0.000000	0.000000	738.96	0.00	0.00	639.96	-369.48	-32984.33	-57130.54	0.00
90	0.001950	0.001050	-0.000277	652.02	351.09	-555.73	740.21	-21.96	-1707.43	-66153.55	609.81
120	0.001070	0.001280	-0.000002	357.78	428.00	-4.01	523.84	191.77	17527.86	-46680.03	1416.83
150	0.000340	0.001040	0.000390	113.69	347.75	782.43	272.33	244.31	22257.15	-24043.80	1936.86
180	-0.000420	0.000890	0.000404	-140.44	297.59	810.52	27.17	327.94	29783.41	-1979.92	1798.45
210	-0.001330	0.000700	0.000132	-444.71	234.06	264.82	-268.10	425.06	38524.20	24595.07	1041.85
240	-0.001770	0.000000	0.000000	-591.84	0.00	0.00	-512.55	295.92	26901.58	46594.90	0.00
270	-0.001330	-0.000700	-0.000132	-444.71	-234.06	-264.82	-502.16	19.66	2037.86	45660.47	-1041.85
300	-0.000420	-0.000890	-0.000404	-140.44	-297.59	-810.52	-270.42	-187.50	-16606.37	24803.22	-1798.45
330	0.000340	-0.001040	-0.000390	113.69	-347.75	-782.43	-75.42	-358.00	-31951.12	7253.36	-1936.86

Dish Totals - No Ice

Wind Azimuth °	V _x	V _z	OTM _x	OTM _z	Torque
	lb	lb	lb-ft	lb-ft	lb-ft
0	95.85	-1154.66	-110168.83	-8160.44	-1416.83
30	628.43	-1084.75	-102373.43	-58486.43	-1571.40
60	944.22	-513.07	-47810.57	-87557.06	-1707.03
90	1095.76	94.28	9448.53	-101708.13	-1216.54
120	961.44	557.57	53640.40	-90439.51	157.71
150	631.29	910.96	88454.34	-59940.25	1468.81
180	27.17	1083.47	104869.24	-1979.92	1798.45
210	-627.07	1091.71	104721.38	60491.52	1509.90
240	-950.14	661.72	63014.12	90354.39	1259.12
270	-857.71	135.89	13193.82	81215.05	784.50
300	-574.68	-331.09	-31432.60	55229.74	-91.41
330	-314.73	-812.69	-77887.61	31184.33	-975.27

Dish Pressures - With Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf	t _z in
100.00	6' Solid w/Radome	0.0000	339.64	0.00	-2.89	1.266	29.16	10	0.5586
90.00	6' Solid w/Radome	240.0000	337.78	-2.87	1.66	1.238	29.15	10	0.5528
	Sum Weight:		677.42						

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	Client	Atlas Tower	Designed by	AG

Dish Vectors - With Ice

6' Solid w/Radome - Elevation 100 - From Leg A											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
0	-0.001770	0.000000	0.000000	-169.92	0.00	0.00	0.00	-169.92	-17972.41	0.00	0.00
30	-0.001330	-0.000700	-0.000132	-127.68	-67.20	-76.03	67.20	-127.68	-13748.42	-6719.98	-270.02
60	-0.000420	-0.000890	-0.000404	-40.32	-85.44	-232.70	85.44	-40.32	-5012.45	-8543.97	-479.35
90	0.000340	-0.001040	-0.000390	32.64	-99.84	-224.64	99.84	32.64	2283.53	-9983.97	-512.85
120	0.001070	-0.001280	0.000002	102.72	-122.88	1.15	122.88	102.72	9291.51	-12287.96	-353.57
150	0.001950	-0.001050	0.000277	187.20	-100.80	159.55	100.80	187.20	17739.48	-10079.97	-131.43
180	0.002210	0.000000	0.000000	212.16	0.00	0.00	0.00	212.16	20235.47	0.00	0.00
210	0.001950	0.001050	-0.000277	187.20	100.80	-159.55	-100.80	187.20	17739.48	10079.97	131.43
240	0.001070	0.001280	-0.000002	102.72	122.88	-1.15	-122.88	102.72	9291.51	12287.96	353.57
270	0.000340	0.001040	0.000390	32.64	99.84	224.64	-99.84	32.64	2283.53	9983.97	512.85
300	-0.000420	0.000890	0.000404	-40.32	85.44	232.70	-85.44	-40.32	-5012.45	8543.97	479.35
330	-0.001330	0.000700	0.000132	-127.68	67.20	76.03	-67.20	-127.68	-13748.42	6719.98	270.02

6' Solid w/Radome - Elevation 90 - From Leg C											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
0	0.001070	-0.001280	0.000002	100.43	-120.15	1.13	26.91	-154.27	-13323.32	-1450.41	-397.73
30	0.001950	-0.001050	0.000277	183.03	-98.56	156.00	109.23	-176.87	-15357.66	-8859.96	-171.18
60	0.002210	0.000000	0.000000	207.44	0.00	0.00	179.65	-103.72	-8774.10	-15197.18	0.00
90	0.001950	0.001050	-0.000277	183.03	98.56	-156.00	207.79	-6.16	5.88	-17730.10	171.18
120	0.001070	0.001280	-0.000002	100.43	120.15	-1.13	147.05	53.83	5405.57	-12263.54	397.73
150	0.000340	0.001040	0.000390	31.91	97.62	219.64	76.45	68.58	6733.17	-5909.15	543.71
180	-0.000420	0.000890	0.000404	-39.42	83.54	227.53	7.63	92.06	8845.92	284.57	504.86
210	-0.001330	0.000700	0.000132	-124.84	65.70	74.34	-75.26	119.32	11299.61	7744.65	292.46
240	-0.001770	0.000000	0.000000	-166.14	0.00	0.00	-143.88	83.07	8036.94	13920.39	0.00
270	-0.001330	-0.000700	-0.000132	-124.84	-65.70	-74.34	-140.97	5.52	1057.25	13658.08	-292.46
300	-0.000420	-0.000890	-0.000404	-39.42	-83.54	-227.53	-75.91	-52.64	-4176.51	7803.08	-504.86
330	0.000340	-0.001040	-0.000390	31.91	-97.62	-219.64	-21.17	-100.50	-8484.05	2876.52	-543.71

Dish Totals - With Ice

Wind Azimuth °	V _x	V _z	OTM _x	OTM _z	Torque
	lb	lb	lb-ft	lb-ft	lb-ft
0	26.91	-324.19	-31295.73	-1450.41	-397.73
30	176.43	-304.55	-29106.08	-15579.93	-441.21
60	265.09	-144.04	-13786.55	-23741.15	-479.35
90	307.63	26.48	2289.41	-27714.07	-341.67
120	269.93	156.55	14697.07	-24551.50	44.16
150	177.25	255.78	24472.65	-15989.11	412.28
180	7.63	304.22	29081.39	284.57	504.86
210	-176.06	306.52	29039.09	17824.61	423.90
240	-266.76	185.79	17328.45	26208.35	353.57
270	-240.81	38.16	3340.78	23642.04	220.39
300	-161.35	-92.96	-9188.96	16347.05	-25.51
330	-88.37	-228.18	-22232.48	9596.50	-273.69

Dish Pressures - Service

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	Offset _x ft	Offset _z ft	K _z	A _A ft ²	q _z psf
100.00	6' Solid w/Radome	0.0000	162.00	0.00	-2.89	1.266	28.27	10
90.00	6' Solid w/Radome	240.0000	162.00	-2.87	1.66	1.238	28.27	10
	Sum		324.00					
	Weight:							

Dish Vectors - Service

6' Solid w/Radome - Elevation 100 - From Leg A											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
0	-0.001770	0.000000	0.000000	-164.72	0.00	0.00	0.00	-164.72	-16939.50	0.00	0.00
30	-0.001330	-0.000700	-0.000132	-123.77	-65.14	-73.70	65.14	-123.77	-12844.80	-6514.29	-261.76
60	-0.000420	-0.000890	-0.000404	-39.09	-82.82	-225.58	82.82	-39.09	-4376.23	-8282.45	-464.67
90	0.000340	-0.001040	-0.000390	31.64	-96.78	-217.76	96.78	31.64	2696.43	-9678.37	-497.15
120	0.001070	-0.001280	0.000002	99.58	-119.12	1.12	119.12	99.58	9489.90	-11911.84	-342.75
150	0.001950	-0.001050	0.000277	181.47	-97.71	154.67	97.71	181.47	17679.30	-9771.44	-127.41
180	0.002210	0.000000	0.000000	205.67	0.00	0.00	0.00	205.67	20098.89	0.00	0.00
210	0.001950	0.001050	-0.000277	181.47	97.71	-154.67	-97.71	181.47	17679.30	9771.44	127.41
240	0.001070	0.001280	-0.000002	99.58	119.12	-1.12	-119.12	99.58	9489.90	11911.84	342.75
270	0.000340	0.001040	0.000390	31.64	96.78	217.76	-96.78	31.64	2696.43	9678.37	497.15
300	-0.000420	0.000890	0.000404	-39.09	82.82	225.58	-82.82	-39.09	-4376.23	8282.45	464.67
330	-0.001330	0.000700	0.000132	-123.77	65.14	73.70	-65.14	-123.77	-12844.80	6514.29	261.76

6' Solid w/Radome - Elevation 90 - From Leg C											
Wind Azimuth °	C _A	C _S	C _M	F _A	F _S	F _M	V _x	V _z	OTM _x	OTM _z	Torque
				lb	lb	lb-ft	lb	lb	lb-ft	lb-ft	lb-ft
0	0.001070	-0.001280	0.000002	97.39	-116.51	1.09	26.09	-149.59	-13194.40	-1882.40	-385.68
30	0.001950	-0.001050	0.000277	177.49	-95.57	151.27	105.92	-171.51	-15167.09	-9067.43	-166.00
60	0.002210	0.000000	0.000000	201.15	0.00	0.00	174.20	-100.58	-8783.02	-15212.63	0.00
90	0.001950	0.001050	-0.000277	177.49	95.57	-151.27	201.50	-5.98	-269.08	-17668.80	166.00
120	0.001070	0.001280	-0.000002	97.39	116.51	-1.09	142.60	52.20	4966.99	-12367.88	385.68
150	0.000340	0.001040	0.000390	30.95	94.66	212.99	74.13	66.51	6254.36	-6206.04	527.24
180	-0.000420	0.000890	0.000404	-38.23	81.01	220.63	7.40	89.27	8303.09	-199.99	489.56
210	-0.001330	0.000700	0.000132	-121.06	63.71	72.09	-72.98	115.71	10682.44	7034.03	283.60
240	-0.001770	0.000000	0.000000	-161.11	0.00	0.00	-139.52	80.55	7518.63	13022.65	0.00
270	-0.001330	-0.000700	-0.000132	-121.06	-63.71	-72.09	-136.69	5.35	750.43	12768.28	-283.60
300	-0.000420	-0.000890	-0.000404	-38.23	-81.01	-220.63	-73.61	-51.04	-4324.74	7090.70	-489.56
330	0.000340	-0.001040	-0.000390	30.95	-94.66	-212.99	-20.53	-97.45	-8501.77	2313.42	-527.24

Dish Totals - Service

Wind Azimuth °	V _x	V _z	OTM _x	OTM _z	Torque
	lb	lb	lb-ft	lb-ft	lb-ft
0	26.09	-314.31	-30133.90	-1882.40	-385.68
30	171.07	-295.28	-28011.90	-15581.72	-427.75
60	257.03	-139.66	-13159.25	-23495.09	-464.67
90	298.28	25.66	2427.35	-27347.18	-331.16
120	261.71	151.78	14456.89	-24279.73	42.93
150	171.85	247.97	23933.66	-15977.47	399.83
180	7.40	294.93	28401.99	-199.99	489.56
210	-170.70	297.18	28361.74	16805.47	411.01
240	-258.64	180.13	17008.53	24934.49	342.75
270	-233.48	36.99	3446.86	22446.66	213.55

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job	SO32729; Tower 773613; Foundation 773614	Page	30 of 47
	Project	NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date	11:34:28 02/21/25
	Client	Atlas Tower	Designed by	AG

<i>Wind Azimuth</i> °	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
300	-156.44	-90.13	-8700.97	15373.15	-24.88
330	-85.67	-221.22	-21346.57	8827.71	-265.48

User Load Vectors - No Ice

User Load Totals - No Ice

<i>Wind Azimuth</i> °	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00
240	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00
300	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00

User Load Vectors - With Ice

User Load Totals - With Ice

<i>Wind Azimuth</i> °	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00
240	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00
300	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00

User Load Vectors - Service

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 31 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

User Load Totals - Service

Wind Azimuth °	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00
240	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00
300	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00

User Load Vectors - Seismic

H1 - Elevation 10								
Wind Azimuth °	Offset _x ft	Offset _z ft	F lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	0.00	0.00	134.80	0.00	-134.80	-1348.00	0.00	0.00
30	0.00	0.00	134.80	67.40	-116.74	-1167.40	-674.00	0.00
60	0.00	0.00	134.80	116.74	-67.40	-674.00	-1167.40	0.00
90	0.00	0.00	134.80	134.80	0.00	0.00	-1348.00	0.00
120	0.00	0.00	134.80	116.74	67.40	674.00	-1167.40	0.00
150	0.00	0.00	134.80	67.40	116.74	1167.40	-674.00	0.00
180	0.00	0.00	134.80	0.00	134.80	1348.00	0.00	0.00
210	0.00	0.00	134.80	-67.40	116.74	1167.40	674.00	0.00
240	0.00	0.00	134.80	-116.74	67.40	674.00	1167.40	0.00
270	0.00	0.00	134.80	-134.80	0.00	0.00	1348.00	0.00
300	0.00	0.00	134.80	-116.74	-67.40	-674.00	1167.40	0.00
330	0.00	0.00	134.80	-67.40	-116.74	-1167.40	674.00	0.00

H2 - Elevation 30								
Wind Azimuth °	Offset _x ft	Offset _z ft	F lb	V_x lb	V_z lb	OTM_x lb-ft	OTM_z lb-ft	Torque lb-ft
0	0.00	0.00	197.10	0.00	-197.10	-5913.00	0.00	0.00
30	0.00	0.00	197.10	98.55	-170.69	-5120.81	-2956.50	0.00
60	0.00	0.00	197.10	170.69	-98.55	-2956.50	-5120.81	0.00
90	0.00	0.00	197.10	197.10	0.00	0.00	-5913.00	0.00
120	0.00	0.00	197.10	170.69	98.55	2956.50	-5120.81	0.00
150	0.00	0.00	197.10	98.55	170.69	5120.81	-2956.50	0.00
180	0.00	0.00	197.10	0.00	197.10	5913.00	0.00	0.00
210	0.00	0.00	197.10	-98.55	170.69	5120.81	2956.50	0.00
240	0.00	0.00	197.10	-170.69	98.55	2956.50	5120.81	0.00
270	0.00	0.00	197.10	-197.10	0.00	0.00	5913.00	0.00
300	0.00	0.00	197.10	-170.69	-98.55	-2956.50	5120.81	0.00
330	0.00	0.00	197.10	-98.55	-170.69	-5120.81	2956.50	0.00

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job	SO32729; Tower 773613; Foundation 773614	Page	32 of 47
	Project	NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date	11:34:28 02/21/25
	Client	Atlas Tower	Designed by	AG

<i>H3 - Elevation 50</i>								
<i>Wind Azimuth</i> °	<i>Offset_x</i> <i>ft</i>	<i>Offset_z</i> <i>ft</i>	<i>F</i> <i>lb</i>	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	324.60	0.00	-324.60	-16230.00	0.00	0.00
30	0.00	0.00	324.60	162.30	-281.11	-14055.59	-8115.00	0.00
60	0.00	0.00	324.60	281.11	-162.30	-8115.00	-14055.59	0.00
90	0.00	0.00	324.60	324.60	0.00	0.00	-16230.00	0.00
120	0.00	0.00	324.60	281.11	162.30	8115.00	-14055.59	0.00
150	0.00	0.00	324.60	162.30	281.11	14055.59	-8115.00	0.00
180	0.00	0.00	324.60	0.00	324.60	16230.00	0.00	0.00
210	0.00	0.00	324.60	-162.30	281.11	14055.59	8115.00	0.00
240	0.00	0.00	324.60	-281.11	162.30	8115.00	14055.59	0.00
270	0.00	0.00	324.60	-324.60	0.00	0.00	16230.00	0.00
300	0.00	0.00	324.60	-281.11	-162.30	-8115.00	14055.59	0.00
330	0.00	0.00	324.60	-162.30	-281.11	-14055.59	8115.00	0.00

<i>H4 - Elevation 70</i>								
<i>Wind Azimuth</i> °	<i>Offset_x</i> <i>ft</i>	<i>Offset_z</i> <i>ft</i>	<i>F</i> <i>lb</i>	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	350.20	0.00	-350.20	-24514.00	0.00	0.00
30	0.00	0.00	350.20	175.10	-303.28	-21229.75	-12257.00	0.00
60	0.00	0.00	350.20	303.28	-175.10	-12257.00	-21229.75	0.00
90	0.00	0.00	350.20	350.20	0.00	0.00	-24514.00	0.00
120	0.00	0.00	350.20	303.28	175.10	12257.00	-21229.75	0.00
150	0.00	0.00	350.20	175.10	303.28	21229.75	-12257.00	0.00
180	0.00	0.00	350.20	0.00	350.20	24514.00	0.00	0.00
210	0.00	0.00	350.20	-175.10	303.28	21229.75	12257.00	0.00
240	0.00	0.00	350.20	-303.28	175.10	12257.00	21229.75	0.00
270	0.00	0.00	350.20	-350.20	0.00	0.00	24514.00	0.00
300	0.00	0.00	350.20	-303.28	-175.10	-12257.00	21229.75	0.00
330	0.00	0.00	350.20	-175.10	-303.28	-21229.75	12257.00	0.00

<i>H5 - Elevation 90</i>								
<i>Wind Azimuth</i> °	<i>Offset_x</i> <i>ft</i>	<i>Offset_z</i> <i>ft</i>	<i>F</i> <i>lb</i>	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	564.70	0.00	-564.70	-50823.00	0.00	0.00
30	0.00	0.00	564.70	282.35	-489.04	-44014.01	-25411.50	0.00
60	0.00	0.00	564.70	489.04	-282.35	-25411.50	-44014.01	0.00
90	0.00	0.00	564.70	564.70	0.00	0.00	-50823.00	0.00
120	0.00	0.00	564.70	489.04	282.35	25411.50	-44014.01	0.00
150	0.00	0.00	564.70	282.35	489.04	44014.01	-25411.50	0.00
180	0.00	0.00	564.70	0.00	564.70	50823.00	0.00	0.00
210	0.00	0.00	564.70	-282.35	489.04	44014.01	25411.50	0.00
240	0.00	0.00	564.70	-489.04	282.35	25411.50	44014.01	0.00
270	0.00	0.00	564.70	-564.70	0.00	0.00	50823.00	0.00
300	0.00	0.00	564.70	-489.04	-282.35	-25411.50	44014.01	0.00
330	0.00	0.00	564.70	-282.35	-489.04	-44014.01	25411.50	0.00

<i>H6 - Elevation 110</i>								
<i>Wind Azimuth</i> °	<i>Offset_x</i> <i>ft</i>	<i>Offset_z</i> <i>ft</i>	<i>F</i> <i>lb</i>	<i>V_x</i> <i>lb</i>	<i>V_z</i> <i>lb</i>	<i>OTM_x</i> <i>lb-ft</i>	<i>OTM_z</i> <i>lb-ft</i>	<i>Torque</i> <i>lb-ft</i>
0	0.00	0.00	6608.00	0.00	-6608.00	-726880.00	0.00	0.00
30	0.00	0.00	6608.00	3304.00	-5722.70	-629496.55	-363440.00	0.00

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job	Page
	SO32729; Tower 773613; Foundation 773614	33 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

H6 - Elevation 110								
Wind Azimuth °	Offset _x ft	Offset _z ft	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
60	0.00	0.00	6608.00	5722.70	-3304.00	-363440.00	-629496.55	0.00
90	0.00	0.00	6608.00	6608.00	0.00	0.00	-726880.00	0.00
120	0.00	0.00	6608.00	5722.70	3304.00	363440.00	-629496.55	0.00
150	0.00	0.00	6608.00	3304.00	5722.70	629496.55	-363440.00	0.00
180	0.00	0.00	6608.00	0.00	6608.00	726880.00	0.00	0.00
210	0.00	0.00	6608.00	-3304.00	5722.70	629496.55	363440.00	0.00
240	0.00	0.00	6608.00	-5722.70	3304.00	363440.00	629496.55	0.00
270	0.00	0.00	6608.00	-6608.00	0.00	0.00	726880.00	0.00
300	0.00	0.00	6608.00	-5722.70	-3304.00	-363440.00	629496.55	0.00
330	0.00	0.00	6608.00	-3304.00	-5722.70	-629496.55	363440.00	0.00

H7 - Elevation 125.9								
Wind Azimuth °	Offset _x ft	Offset _z ft	F lb	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	0.00	157.80	0.00	-157.80	-19867.02	0.00	0.00
30	0.00	0.00	157.80	78.90	-136.66	-17205.34	-9933.51	0.00
60	0.00	0.00	157.80	136.66	-78.90	-9933.51	-17205.34	0.00
90	0.00	0.00	157.80	157.80	0.00	0.00	-19867.02	0.00
120	0.00	0.00	157.80	136.66	78.90	9933.51	-17205.34	0.00
150	0.00	0.00	157.80	78.90	136.66	17205.34	-9933.51	0.00
180	0.00	0.00	157.80	0.00	157.80	19867.02	0.00	0.00
210	0.00	0.00	157.80	-78.90	136.66	17205.34	9933.51	0.00
240	0.00	0.00	157.80	-136.66	78.90	9933.51	17205.34	0.00
270	0.00	0.00	157.80	-157.80	0.00	0.00	19867.02	0.00
300	0.00	0.00	157.80	-136.66	-78.90	-9933.51	17205.34	0.00
330	0.00	0.00	157.80	-78.90	-136.66	-17205.34	9933.51	0.00

User Load Totals - Seismic

Wind Azimuth °	V _x lb	V _z lb	OTM _x lb-ft	OTM _z lb-ft	Torque lb-ft
0	0.00	-8337.20	-845575.02	0.00	0.00
30	4168.60	-7220.23	-732289.45	-422787.51	0.00
60	7220.23	-4168.60	-422787.51	-732289.45	0.00
90	8337.20	0.00	0.00	-845575.02	0.00
120	7220.23	4168.60	422787.51	-732289.45	0.00
150	4168.60	7220.23	732289.45	-422787.51	0.00
180	0.00	8337.20	845575.02	0.00	0.00
210	-4168.60	7220.23	732289.45	422787.51	0.00
240	-7220.23	4168.60	422787.51	732289.45	0.00
270	-8337.20	0.00	0.00	845575.02	0.00
300	-7220.23	-4168.60	-422787.51	732289.45	0.00
330	-4168.60	-7220.23	-732289.45	422787.51	0.00

Force Totals

tnxTower Nello Corporation 1201 S. Sheridan Street South Bend, IN. 46619 Phone: 800-806-3556 FAX:	Job	Page
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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK Client Atlas Tower	Date 11:34:28 02/21/25 Designed by AG

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M_x lb-ft	Sum of Overturning Moments, M_z lb-ft	Sum of Torques lb-ft
Leg Weight	8204.63					
Bracing Weight	3407.17					
Total Member Self-Weight	11611.80			276.44	140.13	
Total Weight	20124.00			276.44	140.13	
Wind 0 deg - No Ice		72.25	-26328.31	-2338699.11	-6362.05	-344.67
Wind 30 deg - No Ice		12848.11	-22248.79	-1994296.05	-1151722.07	176.87
Wind 60 deg - No Ice		21905.10	-12586.97	-1130844.59	-1969401.60	117.39
Wind 90 deg - No Ice		25526.73	117.88	12047.74	-2288350.52	195.18
Wind 120 deg - No Ice		22756.26	13140.20	1168866.69	-2022148.55	909.96
Wind 150 deg - No Ice		12869.61	22060.10	1981152.49	-1155527.55	1360.04
Wind 180 deg - No Ice		50.77	25276.96	2276569.45	-4429.57	726.28
Wind 210 deg - No Ice		-12846.74	22255.74	1997594.38	1153075.92	-238.37
Wind 240 deg - No Ice		-22759.87	13225.71	1175888.75	2021587.02	-565.30
Wind 270 deg - No Ice		-25288.68	112.29	11544.99	2267206.19	-627.22
Wind 300 deg - No Ice		-21520.66	-12423.64	-1116818.28	1936248.19	-843.67
Wind 330 deg - No Ice		-12553.05	-21961.82	-1969635.38	1126120.39	-866.50
Member Ice	4531.96					
Total Weight Ice	29138.66			920.91	-90.29	
Wind 0 deg - Ice		19.30	-8882.06	-782708.15	-1827.10	-76.67
Wind 30 deg - Ice		4361.64	-7553.18	-670077.09	-387589.21	123.78
Wind 60 deg - Ice		7463.44	-4291.01	-380908.87	-664557.52	142.38
Wind 90 deg - Ice		8677.82	34.08	4314.83	-770990.96	170.21
Wind 120 deg - Ice		7681.44	4435.37	392574.21	-677981.99	344.82
Wind 150 deg - Ice		4369.58	7501.54	668183.99	-388823.07	421.17
Wind 180 deg - Ice		15.24	8612.64	768677.74	-1461.55	183.80
Wind 210 deg - Ice		-4361.27	7555.15	672691.50	387711.08	-141.09
Wind 240 deg - Ice		-7681.14	4457.49	394380.90	677457.08	-268.15
Wind 270 deg - Ice		-8610.99	30.55	3996.76	764796.12	-291.49
Wind 300 deg - Ice		-7356.83	-4247.05	-377135.95	655099.54	-326.17
Wind 330 deg - Ice		-4280.71	-7473.93	-663262.42	380307.63	-282.59
Total Weight	20124.00			276.44	140.13	
Wind 0 deg - Service		19.67	-7388.45	-645978.90	-1008.09	-93.82
Wind 30 deg - Service		3608.19	-6248.27	-551028.31	-317267.13	48.15
Wind 60 deg - Service		6154.72	-3537.11	-312708.13	-543127.65	31.95
Wind 90 deg - Service		7170.25	32.09	2879.17	-631149.33	53.13
Wind 120 deg - Service		6386.41	3687.70	322257.45	-557485.99	247.70
Wind 150 deg - Service		3614.05	6196.91	546649.74	-318303.02	370.22
Wind 180 deg - Service		13.82	7102.26	628265.74	-482.05	197.70
Wind 210 deg - Service		-3607.82	6250.16	551125.42	319083.12	-64.89
Wind 240 deg - Service		-6387.39	3710.98	324168.94	558780.60	-153.88
Wind 270 deg - Service		-7105.45	30.57	2742.31	626841.05	-170.74
Wind 300 deg - Service		-6050.07	-3492.65	-308890.01	535550.37	-229.66
Wind 330 deg - Service		-3527.87	-6170.16	-544315.39	311745.51	-235.87
Seismic Vertical	0.00					
Seismic Horizontal 0 deg		0.00	-8337.20	-845575.02	0.00	0.00
Seismic Horizontal 30 deg		4168.60	-7220.23	-732289.45	-422787.51	0.00
Seismic Horizontal 60 deg		7220.23	-4168.60	-422787.51	-732289.45	0.00
Seismic Horizontal 90 deg		8337.20	0.00	0.00	-845575.02	0.00
Seismic Horizontal 120 deg		7220.23	4168.60	422787.51	-732289.45	0.00
Seismic Horizontal 150 deg		4168.60	7220.23	732289.45	-422787.51	0.00
Seismic Horizontal 180 deg		0.00	8337.20	845575.02	0.00	0.00
Seismic Horizontal 210 deg		-4168.60	7220.23	732289.45	422787.51	0.00
Seismic Horizontal 240 deg		-7220.23	4168.60	422787.51	732289.45	0.00
Seismic Horizontal 270 deg		-8337.20	0.00	0.00	845575.02	0.00
Seismic Horizontal 300 deg		-7220.23	-4168.60	-422787.51	732289.45	0.00
Seismic Horizontal 330 deg		-4168.60	-7220.23	-732289.45	422787.51	0.00

<i>tnxTower</i> <i>Nello Corporation</i> <i>1201 S. Sheridan Street</i> <i>South Bend, IN. 46619</i> <i>Phone: 800-806-3556</i> <i>FAX:</i>	Job SO32729; Tower 773613; Foundation 773614	Page 35 of 47
	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Load Combinations

<i>Comb. No.</i>	<i>Description</i>
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	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service
51	1.2 Dead+1.0 Ev+1.0 Eh 0 deg
52	0.9 Dead+1.0 Ev+1.0 Eh 0 deg
53	1.2 Dead+1.0 Ev+1.0 Eh 30 deg
54	0.9 Dead+1.0 Ev+1.0 Eh 30 deg
55	1.2 Dead+1.0 Ev+1.0 Eh 60 deg
56	0.9 Dead+1.0 Ev+1.0 Eh 60 deg
57	1.2 Dead+1.0 Ev+1.0 Eh 90 deg
58	0.9 Dead+1.0 Ev+1.0 Eh 90 deg
59	1.2 Dead+1.0 Ev+1.0 Eh 120 deg

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

<i>Comb. No.</i>	<i>Description</i>
60	0.9 Dead-1.0 Ev+1.0 Eh 120 deg
61	1.2 Dead+1.0 Ev+1.0 Eh 150 deg
62	0.9 Dead-1.0 Ev+1.0 Eh 150 deg
63	1.2 Dead+1.0 Ev+1.0 Eh 180 deg
64	0.9 Dead-1.0 Ev+1.0 Eh 180 deg
65	1.2 Dead+1.0 Ev+1.0 Eh 210 deg
66	0.9 Dead-1.0 Ev+1.0 Eh 210 deg
67	1.2 Dead+1.0 Ev+1.0 Eh 240 deg
68	0.9 Dead-1.0 Ev+1.0 Eh 240 deg
69	1.2 Dead+1.0 Ev+1.0 Eh 270 deg
70	0.9 Dead-1.0 Ev+1.0 Eh 270 deg
71	1.2 Dead+1.0 Ev+1.0 Eh 300 deg
72	0.9 Dead-1.0 Ev+1.0 Eh 300 deg
73	1.2 Dead+1.0 Ev+1.0 Eh 330 deg
74	0.9 Dead-1.0 Ev+1.0 Eh 330 deg

Maximum Member Forces

<i>Section No.</i>	<i>Elevation ft</i>	<i>Component Type</i>	<i>Condition</i>	<i>Gov. Load Comb.</i>	<i>Axial lb</i>	<i>Major Axis Moment lb-ft</i>	<i>Minor Axis Moment lb-ft</i>
T1	125.9 - 120	Leg	Max Tension	18	1022.03	-0.00	0.00
			Max. Compression	14	-1056.97	0.75	-41.95
			Max. Mx	20	-7.20	-143.71	4.49
			Max. My	4	-7.22	68.54	-127.55
			Max. Vy	20	47.49	-0.00	-0.00
			Max. Vx	4	41.67	0.00	-0.00
		Diagonal	Max Tension	2	1365.74	0.00	0.00
			Max. Compression	14	-1420.98	0.00	0.00
			Max. Mx	14	-1415.39	14.98	-0.40
			Max. My	16	-115.78	2.52	6.14
			Max. Vy	14	6.02	14.98	-0.40
			Max. Vx	16	1.79	0.00	0.00
		Top Girt	Max Tension	14	665.72	0.00	0.00
			Max. Compression	2	-640.70	0.00	0.00
			Max. Mx	26	6.17	-6.15	0.00
			Max. My	6	-322.76	0.00	0.00
			Max. Vy	26	-7.03	0.00	0.00
			Max. Vx	6	-0.00	0.00	0.00
T2	120 - 100	Leg	Max Tension	15	41762.04	-27.36	1.59
			Max. Compression	10	-47726.43	340.05	-22.85
			Max. Mx	2	-47706.74	340.60	-3.43
			Max. My	16	-1567.29	-25.00	672.57
			Max. Vy	14	-2365.04	-41.95	-0.75
			Max. Vx	4	-2125.76	4.41	144.60
		Diagonal	Max Tension	20	6207.25	0.00	0.00
			Max. Compression	20	-6327.09	0.00	0.00
			Max. Mx	10	5332.59	31.98	2.17
			Max. My	12	-3797.94	-2.28	27.28
			Max. Vy	10	-12.14	31.98	2.17
			Max. Vx	12	-9.32	0.00	0.00
		Leg	Max Tension	15	90703.02	-353.40	-1.55
			Max. Compression	18	-98511.79	703.66	-5.12
			Max. Mx	18	-98511.79	703.66	-5.12
			Max. My	12	-3851.41	-2.69	-717.65
			Max. Vy	6	-307.73	-401.62	-0.82
			Max. Vx	24	359.35	10.71	280.31
T3	100 - 80	Diagonal	Max Tension	12	5661.94	0.00	0.00
			Max. Compression	12	-5756.76	0.00	0.00

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK	Date 11:34:28 02/21/25
	Client Atlas Tower	Designed by AG

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T4	80 - 60	Leg	Max. Mx	2	4089.61	27.01	0.46
			Max. My	22	-4848.13	-6.32	-4.90
			Max. Vy	35	-10.89	15.81	-0.76
			Max. Vx	22	1.49	0.00	0.00
			Max Tension	15	125258.72	-867.99	3.93
			Max. Compression	18	-135300.92	1502.89	-5.77
			Max. Mx	18	-135300.92	1502.89	-5.77
			Max. My	12	-4258.95	-0.89	-1349.76
		Diagonal	Max. Vy	2	-150.31	1502.88	8.91
			Max. Vx	4	100.94	1.68	-979.33
			Max Tension	4	5416.05	0.00	0.00
			Max. Compression	4	-5602.91	0.00	0.00
			Max. Mx	18	4000.31	31.11	-1.05
			Max. My	14	-4607.42	-3.39	-3.30
			Max. Vy	33	14.73	20.33	-1.98
			Max. Vx	14	0.87	0.00	0.00
T5	60 - 40	Leg	Max Tension	15	154288.29	-1736.80	3.11
			Max. Compression	18	-167373.09	1854.30	-4.66
			Max. Mx	18	-146680.06	1983.84	-3.39
			Max. My	16	-5407.40	-13.51	1931.59
			Max. Vy	14	140.35	-1954.98	3.23
			Max. Vx	16	-112.62	-13.51	1931.59
		Diagonal	Max Tension	4	4754.13	0.00	0.00
			Max. Compression	4	-4900.49	0.00	0.00
			Max. Mx	18	4092.98	41.43	-1.72
			Max. My	14	-4056.63	-1.54	-3.08
			Max. Vy	33	21.01	30.69	-2.51
			Max. Vx	32	0.90	0.00	0.00
		Leg	Max Tension	15	179276.22	-1778.55	3.97
			Max. Compression	18	-195500.26	1815.19	-5.15
			Max. Mx	18	-176862.96	1854.30	-4.66
			Max. My	16	-6573.15	-2.74	1867.13
			Max. Vy	37	-135.27	-730.21	1.03
			Max. Vx	4	72.37	-2.67	-1863.35
T6	40 - 20	Diagonal	Max Tension	4	4574.44	0.00	0.00
			Max. Compression	4	-4736.82	0.00	0.00
			Max. Mx	2	3891.20	42.26	1.67
			Max. My	32	-879.63	27.54	-3.11
			Max. Vy	33	23.37	35.72	-2.96
			Max. Vx	32	-0.94	0.00	0.00
		Leg	Max Tension	15	201147.17	-1766.28	6.50
			Max. Compression	18	-220565.67	-0.00	-0.00
			Max. Mx	35	-78395.74	3275.31	-3.66
			Max. My	16	-7714.86	-85.25	3098.99
			Max. Vy	37	-673.24	-2253.47	0.74
			Max. Vx	16	519.48	-85.25	3098.99
T7	20 - 0	Diagonal	Max Tension	5	4816.35	0.00	0.00
			Max. Compression	10	-5062.37	0.00	0.00
			Max. Mx	33	168.14	47.85	-3.62
			Max. My	37	-2368.54	36.55	4.07
			Max. Vy	33	25.56	47.85	-3.62
			Max. Vx	37	-1.06	0.00	0.00

Maximum Reactions

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	Client Atlas Tower	Designed by AG

<i>Location</i>	<i>Condition</i>	<i>Gov. Load Comb.</i>	<i>Vertical lb</i>	<i>Horizontal, X lb</i>	<i>Horizontal, Z lb</i>
Leg C	Max. Vert	18	225210.66	14623.83	-8415.51
	Max. H _x	18	225210.66	14623.83	-8415.51
	Max. H _z	7	-204564.38	-13520.29	7798.38
	Min. Vert	7	-204564.38	-13520.29	7798.38
	Min. H _x	7	-204564.38	-13520.29	7798.38
	Min. H _z	18	225210.66	14623.83	-8415.51
Leg B	Max. Vert	10	224925.03	-14609.76	-8386.11
	Max. H _x	23	-201251.92	13309.79	7639.26
	Max. H _z	23	-201251.92	13309.79	7639.26
	Min. Vert	23	-201251.92	13309.79	7639.26
	Min. H _x	10	224925.03	-14609.76	-8386.11
	Min. H _z	10	224925.03	-14609.76	-8386.11
Leg A	Max. Vert	2	225201.63	-18.42	16874.60
	Max. H _x	21	4970.29	955.93	268.89
	Max. H _z	2	225201.63	-18.42	16874.60
	Min. Vert	15	-205079.38	32.59	-15622.81
	Min. H _x	9	4924.00	-985.29	264.24
	Min. H _z	15	-205079.38	32.59	-15622.81

Tower Mast Reaction Summary

<i>Load Combination</i>	<i>Vertical lb</i>	<i>Shear_x lb</i>	<i>Shear_z lb</i>	<i>Overturning Moment, M_x lb-ft</i>	<i>Overturning Moment, M_z lb-ft</i>	<i>Torque lb-ft</i>
Dead Only	20124.00	0.00	0.00	276.60	140.03	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	24148.80	72.25	-26328.31	-2350739.70	-6351.54	-351.78
0.9 Dead+1.0 Wind 0 deg - No Ice	18111.60	72.25	-26328.31	-2347757.40	-6388.56	-349.91
1.2 Dead+1.0 Wind 30 deg - No Ice	24148.80	12848.11	-22248.79	-2004594.01	-1157670.26	179.77
0.9 Dead+1.0 Wind 30 deg - No Ice	18111.60	12848.11	-22248.79	-2002053.64	-1156197.93	181.91
1.2 Dead+1.0 Wind 60 deg - No Ice	24148.80	21905.11	-12586.97	-1136687.69	-1979619.60	112.35
0.9 Dead+1.0 Wind 60 deg - No Ice	18111.60	21905.11	-12586.97	-1135278.00	-1977066.63	113.75
1.2 Dead+1.0 Wind 90 deg - No Ice	24148.80	25526.73	117.87	12146.06	-2300204.58	183.68
0.9 Dead+1.0 Wind 90 deg - No Ice	18111.60	25526.73	117.88	12050.77	-2297236.81	183.99
1.2 Dead+1.0 Wind 120 deg - No Ice	24148.80	22756.26	13140.20	1174970.28	-2032573.44	911.91
0.9 Dead+1.0 Wind 120 deg - No Ice	18111.60	22756.26	13140.20	1173355.54	-2029967.48	911.48
1.2 Dead+1.0 Wind 150 deg - No Ice	24148.80	12869.61	22060.10	1991522.60	-1161483.17	1375.09
0.9 Dead+1.0 Wind 150 deg - No Ice	18111.60	12869.61	22060.10	1988827.50	-1160007.56	1374.04
1.2 Dead+1.0 Wind 180 deg - No Ice	24148.80	50.77	25276.96	2288492.78	-4407.92	733.31
0.9 Dead+1.0 Wind 180 deg - No Ice	18111.60	50.77	25276.96	2285404.04	-4447.14	731.47
1.2 Dead+1.0 Wind 210 deg - No Ice	24148.80	-12846.74	22255.75	2008026.71	1159096.34	-241.23
0.9 Dead+1.0 Wind 210 deg - No Ice	18111.60	-12846.74	22255.74	2005313.95	1157535.51	-243.38

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	Project NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK Client Atlas Tower	Date 11:34:28 02/21/25 Designed by AG

<i>Load Combination</i>	<i>Vertical lb</i>	<i>Shear_x lb</i>	<i>Shear_z lb</i>	<i>Overturning Moment, M_x lb-ft</i>	<i>Overturning Moment, M_z lb-ft</i>	<i>Torque lb-ft</i>
1.2 Dead+1.0 Wind 240 deg - No Ice	24148.80	-22759.87	13225.71	1182016.91	2032075.46	-560.11
0.9 Dead+1.0 Wind 240 deg - No Ice	18111.60	-22759.87	13225.71	1180394.65	2029382.42	-561.55
1.2 Dead+1.0 Wind 270 deg - No Ice	24148.80	-25288.68	112.29	11644.52	2279034.10	-615.81
0.9 Dead+1.0 Wind 270 deg - No Ice	18111.60	-25288.68	112.29	11549.65	2276001.51	-616.14
1.2 Dead+1.0 Wind 300 deg - No Ice	24148.80	-21520.66	-12423.64	-1122594.57	1946393.69	-845.36
0.9 Dead+1.0 Wind 300 deg - No Ice	18111.60	-21520.66	-12423.64	-1121200.19	1943788.79	-844.96
1.2 Dead+1.0 Wind 330 deg - No Ice	24148.80	-12553.05	-21961.82	-1979824.05	1132032.86	-881.36
0.9 Dead+1.0 Wind 330 deg - No Ice	18111.60	-12553.05	-21961.82	-1977310.41	1130500.44	-880.31
1.2 Dead+1.0 Ice+1.0 Temp	33163.46	-0.00	-0.00	976.30	-62.41	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	33163.46	19.30	-8882.05	-788069.76	-1800.06	-79.74
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	33163.46	4361.64	-7553.17	-674672.14	-390239.19	121.20
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	33163.46	7463.43	-4291.01	-383506.73	-669135.51	140.74
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	33163.46	8677.81	34.08	4390.45	-776300.08	169.96
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	33163.46	7681.43	4435.37	395338.59	-682631.73	346.28
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	33163.46	4369.58	7501.54	672874.54	-391480.60	423.89
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	33163.46	15.24	8612.64	774072.21	-1432.06	186.82
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	33163.46	-4361.26	7555.15	677406.87	390437.23	-138.47
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	33163.46	-7681.13	4457.48	397155.02	682177.78	-266.52
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	33163.46	-8610.99	30.55	4070.96	770143.73	-291.19
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	33163.46	-7356.82	-4247.05	-379711.63	659698.13	-327.51
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	33163.46	-4280.71	-7473.93	-667818.23	382990.90	-285.32
Dead+Wind 0 deg - Service	20124.00	19.67	-7388.45	-648161.26	-1632.53	-95.41
Dead+Wind 30 deg - Service	20124.00	3608.19	-6248.27	-552809.07	-319261.07	45.84
Dead+Wind 60 deg - Service	20124.00	6154.72	-3537.11	-313461.68	-546102.31	30.83
Dead+Wind 90 deg - Service	20124.00	7170.25	32.09	3492.04	-634502.03	53.45
Dead+Wind 120 deg - Service	20124.00	6386.41	3687.70	324249.89	-560510.97	248.17
Dead+Wind 150 deg - Service	20124.00	3614.05	6196.91	549622.21	-320301.22	370.70
Dead+Wind 180 deg - Service	20124.00	13.82	7102.26	631594.21	-1104.33	199.32
Dead+Wind 210 deg - Service	20124.00	-3607.82	6250.16	554113.30	319842.52	-62.56
Dead+Wind 240 deg - Service	20124.00	-6387.39	3710.98	326167.81	560567.85	-152.75
Dead+Wind 270 deg - Service	20124.00	-7105.45	30.57	3355.01	628935.75	-171.03
Dead+Wind 300 deg - Service	20124.00	-6050.07	-3492.65	-309629.28	537255.75	-230.11
Dead+Wind 330 deg - Service	20124.00	-3527.87	-6170.16	-546071.70	312477.85	-236.38
1.2 Dead+1.0 Ev+1.0 Eh 0 deg	24148.80	-0.00	-8337.20	-849754.30	172.93	-2.80
0.9 Dead-1.0 Ev+1.0 Eh 0 deg	18111.60	-0.00	-8337.20	-848701.84	128.77	-2.10
1.2 Dead+1.0 Ev+1.0 Eh 30 deg	24148.80	4168.60	-7220.23	-735864.84	-424871.11	-3.37
0.9 Dead-1.0 Ev+1.0 Eh 30 deg	18111.60	4168.60	-7220.23	-734964.37	-424347.46	-2.46
1.2 Dead+1.0 Ev+1.0 Eh 60 deg	24148.75	7220.10	-4168.53	-424712.90	-736023.89	-2.12
0.9 Dead-1.0 Ev+1.0 Eh 60 deg	18111.60	7220.23	-4168.60	-424227.38	-735084.45	-1.58
1.2 Dead+1.0 Ev+1.0 Eh 90 deg	24148.80	8337.20	-0.00	329.24	-849913.05	-0.30
0.9 Dead-1.0 Ev+1.0 Eh 90 deg	18111.60	8337.20	-0.00	247.21	-848822.12	-0.29

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<i>Load Combination</i>	<i>Vertical lb</i>	<i>Shear_x lb</i>	<i>Shear_z lb</i>	<i>Overturning Moment, M_x lb-ft</i>	<i>Overturning Moment, M_z lb-ft</i>	<i>Torque lb-ft</i>
1.2 Dead+1.0 Ev+1.0 Eh 120 deg	24148.80	7220.23	4168.60	425372.88	-736022.21	0.68
0.9 Dead-1.0 Ev+1.0 Eh 120 deg	18111.60	7220.23	4168.60	424723.12	-735083.57	0.51
1.2 Dead+1.0 Ev+1.0 Eh 150 deg	24148.80	4168.60	7220.23	736527.02	-424868.96	1.48
0.9 Dead-1.0 Ev+1.0 Eh 150 deg	18111.60	4168.60	7220.23	735461.54	-424345.86	1.17
1.2 Dead+1.0 Ev+1.0 Eh 180 deg	24148.75	-0.00	8337.05	850417.21	173.00	2.80
0.9 Dead-1.0 Ev+1.0 Eh 180 deg	18111.60	-0.00	8337.20	849199.14	128.82	2.09
1.2 Dead+1.0 Ev+1.0 Eh 210 deg	24148.80	-4168.60	7220.23	736527.04	425214.93	3.37
0.9 Dead-1.0 Ev+1.0 Eh 210 deg	18111.60	-4168.60	7220.23	735461.55	424603.47	2.46
1.2 Dead+1.0 Ev+1.0 Eh 240 deg	24148.80	-7220.23	4168.60	425372.92	736368.13	2.12
0.9 Dead-1.0 Ev+1.0 Eh 240 deg	18111.60	-7220.23	4168.60	424723.15	735341.15	1.59
1.2 Dead+1.0 Ev+1.0 Eh 270 deg	24148.80	-8337.20	-0.00	329.31	850258.92	0.30
0.9 Dead-1.0 Ev+1.0 Eh 270 deg	18111.60	-8337.20	-0.00	247.26	849079.67	0.29
1.2 Dead+1.0 Ev+1.0 Eh 300 deg	24148.75	-7220.10	-4168.53	-424712.83	736369.74	-0.68
0.9 Dead-1.0 Ev+1.0 Eh 300 deg	18111.60	-7220.23	-4168.60	-424227.33	735341.99	-0.51
1.2 Dead+1.0 Ev+1.0 Eh 330 deg	24148.80	-4168.60	-7220.23	-735864.79	425216.97	-1.48
0.9 Dead-1.0 Ev+1.0 Eh 330 deg	18111.60	-4168.60	-7220.23	-734964.33	424605.00	-1.17

Solution Summary

<i>Load Comb.</i>	<i>Sum of Applied Forces</i>			<i>Sum of Reactions</i>			<i>% Error</i>
	<i>PX lb</i>	<i>PY lb</i>	<i>PZ lb</i>	<i>PX lb</i>	<i>PY lb</i>	<i>PZ lb</i>	
1	0.00	-20124.00	0.00	0.00	20124.00	0.00	0.000%
2	72.25	-24148.80	-26328.31	-72.25	24148.80	26328.31	0.000%
3	72.25	-18111.60	-26328.31	-72.25	18111.60	26328.31	0.000%
4	12848.11	-24148.80	-22248.79	-12848.11	24148.80	22248.79	0.000%
5	12848.11	-18111.60	-22248.79	-12848.11	18111.60	22248.79	0.000%
6	21905.10	-24148.80	-12586.97	-21905.11	24148.80	12586.97	0.000%
7	21905.10	-18111.60	-12586.97	-21905.11	18111.60	12586.97	0.000%
8	25526.73	-24148.80	117.88	-25526.73	24148.80	-117.87	0.000%
9	25526.73	-18111.60	117.88	-25526.73	18111.60	-117.88	0.000%
10	22756.26	-24148.80	13140.20	-22756.26	24148.80	-13140.20	0.000%
11	22756.26	-18111.60	13140.20	-22756.26	18111.60	-13140.20	0.000%
12	12869.61	-24148.80	22060.10	-12869.61	24148.80	-22060.10	0.000%
13	12869.61	-18111.60	22060.10	-12869.61	18111.60	-22060.10	0.000%
14	50.77	-24148.80	25276.96	-50.77	24148.80	-25276.96	0.000%
15	50.77	-18111.60	25276.96	-50.77	18111.60	-25276.96	0.000%
16	-12846.74	-24148.80	22255.74	12846.74	24148.80	-22255.75	0.000%
17	-12846.74	-18111.60	22255.74	12846.74	18111.60	-22255.74	0.000%
18	-22759.87	-24148.80	13225.71	22759.87	24148.80	-13225.71	0.000%
19	-22759.87	-18111.60	13225.71	22759.87	18111.60	-13225.71	0.000%
20	-25288.68	-24148.80	112.29	25288.68	24148.80	-112.29	0.000%

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	Client Atlas Tower	Designed by AG

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
21	-25288.68	-18111.60	112.29	25288.68	18111.60	-112.29	0.000%
22	-21520.66	-24148.80	-12423.64	21520.66	24148.80	12423.64	0.000%
23	-21520.66	-18111.60	-12423.64	21520.66	18111.60	12423.64	0.000%
24	-12553.05	-24148.80	-21961.82	12553.05	24148.80	21961.82	0.000%
25	-12553.05	-18111.60	-21961.82	12553.05	18111.60	21961.82	0.000%
26	-0.00	-33163.46	0.00	0.00	33163.46	0.00	0.000%
27	19.30	-33163.46	-8882.06	-19.30	33163.46	8882.05	0.000%
28	4361.64	-33163.46	-7553.18	-4361.64	33163.46	7553.17	0.000%
29	7463.44	-33163.46	-4291.01	-7463.43	33163.46	4291.01	0.000%
30	8677.82	-33163.46	34.08	-8677.81	33163.46	-34.08	0.000%
31	7681.44	-33163.46	4435.37	-7681.43	33163.46	-4435.37	0.000%
32	4369.58	-33163.46	7501.54	-4369.58	33163.46	-7501.54	0.000%
33	15.24	-33163.46	8612.64	-15.24	33163.46	-8612.64	0.000%
34	-4361.27	-33163.46	7555.15	4361.26	33163.46	-7555.15	0.000%
35	-7681.14	-33163.46	4457.49	7681.13	33163.46	-4457.48	0.000%
36	-8610.99	-33163.46	30.55	8610.99	33163.46	-30.55	0.000%
37	-7356.83	-33163.46	-4247.05	7356.82	33163.46	4247.05	0.000%
38	-4280.71	-33163.46	-7473.93	4280.71	33163.46	7473.93	0.000%
39	19.67	-20124.00	-7388.45	-19.67	20124.00	7388.45	0.000%
40	3608.19	-20124.00	-6248.27	-3608.19	20124.00	6248.27	0.000%
41	6154.72	-20124.00	-3537.11	-6154.72	20124.00	3537.11	0.000%
42	7170.25	-20124.00	32.09	-7170.25	20124.00	-32.09	0.000%
43	6386.41	-20124.00	3687.70	-6386.41	20124.00	-3687.70	0.000%
44	3614.05	-20124.00	6196.91	-3614.05	20124.00	-6196.91	0.000%
45	13.82	-20124.00	7102.26	-13.82	20124.00	-7102.26	0.000%
46	-3607.82	-20124.00	6250.16	3607.82	20124.00	-6250.16	0.000%
47	-6387.39	-20124.00	3710.98	6387.39	20124.00	-3710.98	0.000%
48	-7105.45	-20124.00	30.57	7105.45	20124.00	-30.57	0.000%
49	-6050.07	-20124.00	-3492.65	6050.07	20124.00	3492.65	0.000%
50	-3527.87	-20124.00	-6170.16	3527.87	20124.00	6170.16	0.000%
51	0.00	-24148.80	-8337.20	0.00	24148.80	8337.20	0.000%
52	0.00	-18111.60	-8337.20	0.00	18111.60	8337.20	0.000%
53	4168.60	-24148.80	-7220.23	-4168.60	24148.80	7220.23	0.000%
54	4168.60	-18111.60	-7220.23	-4168.60	18111.60	7220.23	0.000%
55	7220.23	-24148.80	-4168.60	-7220.10	24148.75	4168.53	0.001%
56	7220.23	-18111.60	-4168.60	-7220.23	18111.60	4168.60	0.000%
57	8337.20	-24148.80	0.00	-8337.20	24148.80	0.00	0.000%
58	8337.20	-18111.60	0.00	-8337.20	18111.60	0.00	0.000%
59	7220.23	-24148.80	4168.60	-7220.23	24148.80	-4168.60	0.000%
60	7220.23	-18111.60	4168.60	-7220.23	18111.60	-4168.60	0.000%
61	4168.60	-24148.80	7220.23	-4168.60	24148.80	-7220.23	0.000%
62	4168.60	-18111.60	7220.23	-4168.60	18111.60	-7220.23	0.000%
63	0.00	-24148.80	8337.20	0.00	24148.75	-8337.05	0.001%
64	0.00	-18111.60	8337.20	0.00	18111.60	-8337.20	0.000%
65	-4168.60	-24148.80	7220.23	4168.60	24148.80	-7220.23	0.000%
66	-4168.60	-18111.60	7220.23	4168.60	18111.60	-7220.23	0.000%
67	-7220.23	-24148.80	4168.60	7220.23	24148.80	-4168.60	0.000%
68	-7220.23	-18111.60	4168.60	7220.23	18111.60	-4168.60	0.000%
69	-8337.20	-24148.80	0.00	8337.20	24148.80	0.00	0.000%
70	-8337.20	-18111.60	0.00	8337.20	18111.60	0.00	0.000%
71	-7220.23	-24148.80	-4168.60	7220.10	24148.75	4168.53	0.001%
72	-7220.23	-18111.60	-4168.60	7220.23	18111.60	4168.60	0.000%
73	-4168.60	-24148.80	-7220.23	4168.60	24148.80	7220.23	0.000%
74	-4168.60	-18111.60	-7220.23	4168.60	18111.60	7220.23	0.000%

Non-Linear Convergence Results

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<i>Load Combination</i>	<i>Converged?</i>	<i>Number of Cycles</i>	<i>Displacement Tolerance</i>	<i>Force Tolerance</i>
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00000001
3	Yes	4	0.00000001	0.00000001
4	Yes	4	0.00000001	0.00000128
5	Yes	4	0.00000001	0.00000119
6	Yes	4	0.00000001	0.00000001
7	Yes	4	0.00000001	0.00000001
8	Yes	4	0.00000001	0.00000133
9	Yes	4	0.00000001	0.00000123
10	Yes	4	0.00000001	0.00000001
11	Yes	4	0.00000001	0.00000001
12	Yes	4	0.00000001	0.00000139
13	Yes	4	0.00000001	0.00000129
14	Yes	4	0.00000001	0.00000001
15	Yes	4	0.00000001	0.00000001
16	Yes	4	0.00000001	0.00000129
17	Yes	4	0.00000001	0.00000120
18	Yes	4	0.00000001	0.00000001
19	Yes	4	0.00000001	0.00000001
20	Yes	4	0.00000001	0.00000130
21	Yes	4	0.00000001	0.00000120
22	Yes	4	0.00000001	0.00000001
23	Yes	4	0.00000001	0.00000001
24	Yes	4	0.00000001	0.00000135
25	Yes	4	0.00000001	0.00000125
26	Yes	4	0.00000001	0.00000001
27	Yes	4	0.00000001	0.00000001
28	Yes	4	0.00000001	0.00000001
29	Yes	4	0.00000001	0.00000001
30	Yes	4	0.00000001	0.00000001
31	Yes	4	0.00000001	0.00000001
32	Yes	4	0.00000001	0.00000001
33	Yes	4	0.00000001	0.00000001
34	Yes	4	0.00000001	0.00000001
35	Yes	4	0.00000001	0.00000001
36	Yes	4	0.00000001	0.00000001
37	Yes	4	0.00000001	0.00000001
38	Yes	4	0.00000001	0.00000001
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000001
41	Yes	4	0.00000001	0.00000001
42	Yes	4	0.00000001	0.00000001
43	Yes	4	0.00000001	0.00000001
44	Yes	4	0.00000001	0.00000001
45	Yes	4	0.00000001	0.00000001
46	Yes	4	0.00000001	0.00000001
47	Yes	4	0.00000001	0.00000001
48	Yes	4	0.00000001	0.00000001
49	Yes	4	0.00000001	0.00000001
50	Yes	4	0.00000001	0.00000001
51	Yes	4	0.00000001	0.00000001
52	Yes	4	0.00000001	0.00000001
53	Yes	4	0.00000001	0.00000001
54	Yes	4	0.00000001	0.00000001
55	Yes	4	0.00000001	0.00000001
56	Yes	4	0.00000001	0.00000001
57	Yes	4	0.00000001	0.00000001
58	Yes	4	0.00000001	0.00000001
59	Yes	4	0.00000001	0.00000001
60	Yes	4	0.00000001	0.00000001
61	Yes	4	0.00000001	0.00000001
62	Yes	4	0.00000001	0.00000001

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63	Yes	4	0.00000001	0.00000001
64	Yes	4	0.00000001	0.00000001
65	Yes	4	0.00000001	0.00000001
66	Yes	4	0.00000001	0.00000001
67	Yes	4	0.00000001	0.00000001
68	Yes	4	0.00000001	0.00000001
69	Yes	4	0.00000001	0.00000001
70	Yes	4	0.00000001	0.00000001
71	Yes	4	0.00000001	0.00000001
72	Yes	4	0.00000001	0.00000001
73	Yes	4	0.00000001	0.00000001
74	Yes	4	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	Elevation <i>ft</i>	Horz. Deflection <i>in</i>	Gov. Load Comb.	Tilt °	Twist °
T1	125.9 - 120	3.865	47	0.2812	0.0079
T2	120 - 100	3.520	47	0.2827	0.0079
T3	100 - 80	2.343	47	0.2428	0.0086
T4	80 - 60	1.424	47	0.1676	0.0051
T5	60 - 40	0.799	47	0.1144	0.0027
T6	40 - 20	0.374	47	0.0767	0.0015
T7	20 - 0	0.107	47	0.0383	0.0006

Critical Deflections and Radius of Curvature - Service Wind

Elevation <i>ft</i>	Appurtenance	Gov. Load Comb.	Deflection <i>in</i>	Tilt °	Twist °	Radius of Curvature <i>ft</i>
125.90	H7	47	3.865	0.2812	0.0079	45629
120.00	30,000 sq in CaAa	47	3.520	0.2827	0.0079	43884
110.00	30,000 sq in CaAa	47	2.919	0.2708	0.0086	48563
100.00	6' Solid w/Radome	47	2.343	0.2428	0.0086	14707
90.00	6' Solid w/Radome	47	1.842	0.2052	0.0061	14604
70.00	H4	47	1.080	0.1377	0.0039	19366
50.00	H3	47	0.566	0.0950	0.0020	29427
30.00	H2	47	0.219	0.0578	0.0011	27865
10.00	H1	47	0.041	0.0191	0.0003	46850

Maximum Tower Deflections - Design Wind

Section No.	Elevation <i>ft</i>	Horz. Deflection <i>in</i>	Gov. Load Comb.	Tilt °	Twist °
T1	125.9 - 120	14.117	2	1.0295	0.0290
T2	120 - 100	12.853	2	1.0349	0.0290
T3	100 - 80	8.543	18	0.8880	0.0315
T4	80 - 60	5.181	18	0.6123	0.0187
T5	60 - 40	2.902	18	0.4172	0.0100

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T6	40 - 20	1.354	2	0.2793	0.0055
T7	20 - 0	0.385	2	0.1392	0.0024

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
125.90	H7	2	14.117	1.0295	0.0290	12427
120.00	30,000 sq in CaAa	2	12.853	1.0349	0.0290	11952
110.00	30,000 sq in CaAa	2	10.653	0.9911	0.0318	13248
100.00	6' Solid w/Radome	18	8.543	0.8880	0.0315	4012
90.00	6' Solid w/Radome	18	6.711	0.7503	0.0224	3980
70.00	H4	18	3.928	0.5024	0.0143	5280
50.00	H3	18	2.053	0.3460	0.0073	8024
30.00	H2	2	0.791	0.2101	0.0039	7630
10.00	H1	2	0.146	0.0692	0.0011	12857

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	P2x.154	5.90	5.90	89.9 K=1.00	1.0745	-1056.97	26762.20	0.039 ¹
T2	120 - 100	P3x.216	20.02	5.00	51.6 K=1.00	2.2285	-47726.40	82532.90	0.578 ¹
T3	100 - 80	P4x.237	20.02	5.00	39.8 K=1.00	3.1741	-98511.80	127223.00	0.774 ¹
T4	80 - 60	P6x.28	20.02	6.67	35.7 K=1.00	5.5813	-135301.00	228860.00	0.591 ¹
T5	60 - 40	P8x.322	20.02	6.67	27.3 K=1.00	8.3993	-167373.00	357982.00	0.468 ¹
T6	40 - 20	P8x.322	20.02	6.67	27.3 K=1.00	8.3993	-195500.00	357982.00	0.546 ¹
T7	20 - 0	P8x.322	20.02	6.67	27.3 K=1.00	8.3993	-220566.00	357982.00	0.616 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

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Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	L1 3/4x1 3/4x1/8	6.86	3.24	112.0 K=1.00	0.4219	-1420.98	9631.15	0.148 ¹
T2	120 - 100	L2x2x1/8	6.69	3.27	98.8 K=1.00	0.4844	-6327.09	13049.50	0.485 ¹
T3	100 - 80	L2x2x1/8	8.05	3.91	117.9 K=1.00	0.4844	-5186.42	9966.75	0.520 ¹
T4	80 - 60	L2x2x3/16	10.22	4.91	149.6 K=1.00	0.7150	-5086.76	9140.81	0.556 ¹
T5	60 - 40	L2 1/2x2 1/2x3/16	11.40	5.41	131.2 K=1.00	0.9020	-4796.55	14994.70	0.320 ¹
T6	40 - 20	L2 1/2x2 1/2x3/16	12.65	6.05	146.7 K=1.00	0.9020	-4660.53	12004.30	0.388 ¹
T7	20 - 0	L2 1/2x2 1/2x3/16	13.95	6.71	162.6 K=1.00	0.9020	-5062.37	9765.99	0.518 ¹

¹ $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	L1 3/4x1 3/4x1/8	3.50	3.30	114.3 K=1.00	0.4219	-640.70	9249.83	0.069 ¹

¹ $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	P2x.154	5.90	5.90	89.9	1.0745	1022.03	48353.90	0.021 ¹
T2	120 - 100	P3x.216	20.02	5.00	51.6	2.2285	41762.00	100281.00	0.416 ¹
T3	100 - 80	P4x.237	20.02	5.00	39.8	3.1741	90703.00	142832.00	0.635 ¹
T4	80 - 60	P6x.28	20.02	6.67	35.7	5.5813	125259.00	251161.00	0.499 ¹
T5	60 - 40	P8x.322	20.02	6.67	27.3	8.3993	154288.00	377967.00	0.408 ¹
T6	40 - 20	P8x.322	20.02	6.67	27.3	8.3993	179276.00	377967.00	0.474 ¹

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Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T7	20 - 0	P8x.322	20.02	6.67	27.3	8.3993	201147.00	377967.00	0.532 ¹

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	L1 3/4x1 3/4x1/8	6.86	3.24	71.2	0.3164	1365.74	15424.80	0.089 ¹
T2	120 - 100	L2x2x1/8	6.69	3.27	62.7	0.3633	6207.25	17710.00	0.350 ¹
T3	100 - 80	L2x2x1/8	7.21	3.49	67.0	0.3633	5661.94	17710.00	0.320 ¹
T4	80 - 60	L2x2x3/16	9.49	4.56	88.6	0.5363	5416.05	26142.20	0.207 ¹
T5	60 - 40	L2 1/2x2 1/2x3/16	10.61	5.02	77.5	0.6765	4754.13	32979.40	0.144 ¹
T6	40 - 20	L2 1/2x2 1/2x3/16	11.81	5.63	86.9	0.6765	4574.44	32979.40	0.139 ¹
T7	20 - 0	L2 1/2x2 1/2x3/16	13.95	6.71	103.4	0.6765	4816.35	32979.40	0.146 ¹

¹ $P_u / \phi P_n$ controls

Top Girt Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	125.9 - 120	L1 3/4x1 3/4x1/8	3.50	3.30	72.6	0.3164	665.72	15424.80	0.043 ¹

¹ $P_u / \phi P_n$ controls

Section Capacity Table

Section No.	Elevation <i>ft</i>	Component Type	Size	Critical Element	<i>P</i> <i>lb</i>	ϕP_{allow} <i>lb</i>	% Capacity	Pass Fail
T1	125.9 - 120	Leg	P2x.154	3	-1056.97	26762.20	3.9	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail	
T2	120 - 100	Diagonal	L1 3/4x1 3/4x1/8	7	-1420.98	9631.15	14.8	Pass	
		Top Girt	L1 3/4x1 3/4x1/8	4	-640.70	9249.83	6.9	Pass	
		Leg	P3x.216	14	-47726.40	82532.90	57.8	Pass	
T3	100 - 80	Diagonal	L2x2x1/8	22	-6327.09	13049.50	48.5	Pass	
		Leg	P4x.237	40	-98511.80	127223.00	77.4	Pass	
T4	80 - 60	Diagonal	L2x2x1/8	47	-5186.42	9966.75	52.0	Pass	
		Leg	P6x.28	67	-135301.00	228860.00	59.1	Pass	
T5	60 - 40	Diagonal	L2x2x3/16	74	-5086.76	9140.81	55.6	Pass	
		Leg	P8x.322	88	-167373.00	357982.00	46.8	Pass	
T6	40 - 20	Diagonal	L2 1/2x2 1/2x3/16	95	-4796.55	14994.70	32.0	Pass	
		Leg	P8x.322	109	-195500.00	357982.00	54.6	Pass	
T7	20 - 0	Diagonal	L2 1/2x2 1/2x3/16	116	-4660.53	12004.30	38.8	Pass	
		Leg	P8x.322	130	-220566.00	357982.00	61.6	Pass	
		Diagonal	L2 1/2x2 1/2x3/16	134	-5062.37	9765.99	51.8	Pass	
							Summary		
							Leg (T3)	77.4	Pass
							Diagonal (T4)	55.6	Pass
							Top Girt (T1)	6.9	Pass
							RATING =	77.4	Pass

Combined Foundation Design

Order/Quote Number:	SO32729
Part Number:	773614
Tower Model:	NSX 12.5' x 125.9'
Company:	Atlas Tower
Site:	NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough., AK

Tower Reactions (Factored)	
Shear:	26,328 kips
Moment:	2350,850 ft-kips
Weight:	24,149 kips
Leg Compression:	225,211 kips
Leg Uplift:	205,079 kips
Leg Shear:	16,872 kips

Site Details	
Soil Type:	Sand
Soil Unit Weight (Backfill):	110 pcf
Allowable Bearing Pressure:	10773 psf
Factor of Safety:	2
Ultimate Bearing Pressure:	21,546 psf
Bearing Pressure Type:	Net Bearing Pressure
Angle of Internal Friction:	30 degrees
Cohesion:	0 psf
Sliding Friction Coefficient:	0.25
Frost Depth (Neglected):	- ft
Min. Bearing Depth:	6 ft
Water Depth:	999 ft
Rock Depth:	4 ft
Passive Pressure Coefficient:	3.00
Active Pressure Coefficient:	0.33

Design Dimensions	
Tower Base Width:	12.5 ft
Base Leg Diameter (Nominal):	8 in
Base Leg Member:	
Tower Bracing System:	
Pier Extension:	0.5 ft
Pier Diameter:	3 ft
Depth:	6 ft
Pad Thickness:	1.5 ft
Pad Width:	22.5 ft
Tower Offset:	☒ Tower Center is Offset
Eccentricity:	1.80 ft
Distance Between Piers:	10.83 ft
Edge 1	5.00 ft
Edge 2	5.84 ft
Edge 3	5.84 ft
Soil Corrosion Risk:	

Concrete Pad Volume (cubic yd)	Concrete Pier Volume (cubic yd)	Total Concrete Volume (cubic yd)	Concrete Weight (kips)	Soil Volume (cubic yd)	Soil Weight (kips)	Soil Weight Removed (kips)	Total Dead Load (kips)	Total Factored Dead Load (LC 0.9D controls) (kips)
28.13	1.31	32.05	129.81	80.84	240.10	334.13	388.02	351.03

Lateral Capacity											
Minimum Depth Required (ft)	Soil Unit Weight Below GWT (pcf)	Ultimate Passive Pressure						Ultimate Active Pressure			
		@ Depth Neglected (ksf)	@ Top of Footing (ksf)	@ Bottom of Footing (ksf)	@ Top of Pressure Zone (ksf)	@ GWT (ksf)	Average (ksf)	@ Top of Footing (ksf)	@ Bottom of Footing (ksf)	@ GWT (ksf)	Average (ksf)
6	47.6	1.98	1.49	1.98	1.98	329.67	1.98	0.17	0.22	36.63	0.19
OK											

Effective Pad Thickness (ft)	Effective Pad Area (sq ft)	Nominal Passive Resistance (kips)	Nominal Active Loading (kips)	Nominal Friction Resistance (kips)	Design Lateral Resistance (kips)
0	0	0.00	0.00	97.00	72.75
					OK
					36.2%

Overturning							
Weight of Soil Wedge on Back Face (kips)	Moment Resistance From Weight (ft-kips)	Moment Resistance from Soil Wedge (ft-kips)	Moment Resistance from Passive Pressure (ft-kips)	Moment Loading from Active Pressure (ft-kips)	Overturning Moment (ft-kips)	Design Overturning Resistance (ft-kips)	Maximum Eccentricity (LC: 0.9D) (ft)
25.72	3916.39	608.42	0.00	0.00	2554.86	4372.71	7.3
						OK	OK
						58.4%	71.9%

Bearing Pressure												
Solve for Min. Pressure 0,000 This Cell = 0 when spreadsheet is solved.												
Case 1: Entire Mat is in Positive Bearing				Case 2: Back Edge of Mat is Uplifting			Maximum Gross Bearing Pressure	Maximum Net Bearing Pressure	Width of Bearing Section	Net Bearing Pressure at Pier 1	Net Bearing Pressure at Pier 2	Maximum Bearing Pressure
Minimum Pressure (ksf)	Maximum Pressure (ksf)	Entire Mat is in Positive Bearing (TRUE/FALSE)	Adjusted Bearing Width (ft)	Minimum Pressure (ksf)	Maximum Pressure (ksf)	Back Edge of Mat is Uplifting (TRUE/FALSE)	(ksf)	(ksf)	ft	(ksf)	(ksf)	(ksf)
-0,59	2,12	FALSE	13,75	0,00	2,51	TRUE	2,51	1,85	13,75	0,86	0,00	1,85
												OK
												11.4%

Pad Reinforcement Design										
Flexural Strength Reduction Factor = 0.9 ACI-318-14 21.2.2 ACI-318-14 9.6.1.1										
Number of Bars	Bar Size	Bar Length (in)	Bar Diameter (in)	Bar Weight (lb/ft)	Total Bar Weight (lb)	Bar Area (sq in)	Total Bar Area per Layer per Direction (sq in)	Minimum Bar Area Required (sq in)	Ctr-Ctr Spacing (in)	Clear Spacing (in)
34	7	264	0.88	2.04	6116	0.60	20.40	4.37	8.0	7.1
							OK		OK	OK
									Constructability:	OK

Foundation Design Reactions	
Additional Load Factor:	1.00
Shear:	26,328 kips
Moment:	2350,850 ft-kips
Weight:	24,149 kips
Compression:	225,211 kips
Uplift:	205,079 kips
Individual Shear:	16,872 kips

Geotechnical Report:	
Company:	Sinott Gering and Schmitt Towers, Inc.
Date:	12/13/2024
Project:	2410116
Seismic Site Class:	C TIA-222-H 2-10
Design Response Acc., S _{DS} :	1.200 g
Design Response Acc., S _{DI} :	0.560 g
Seismic Design Category:	D

Material Specifications	
Concrete Unit Weight:	150 pcf
Concrete Strength:	4500 psi
Rebar Yield Strength:	60 ksi
Clear Cover:	3 in
Clear Cover (Top of Pier):	3 in
Clear Cover Tolerance, +/- (Top of Piers):	1 in

Development Length Requirements	
Pad Reinforcement Location Factor:	1.0 ACI-318-14 R23.4.2.2
Pier Reinforcement Location Factor:	1.0 ACI-318-14 R23.4.2.2
Coating Factor:	1.0 ACI-318-14 R23.4.2.2
Lightweight Concrete Factor:	1.0 ACI-318-14 R23.4.2.2
Transverse Reinforcement Index:	0.0 in ACI-318-14 25.4.2.3
Pad Development Length Reduction:	☐ No Reduction ACI-318-14 25.4.10
Compressive Development Length Red:	☒ Yes; Utilize Reduction ACI-318-14 25.4.10
Tension Development Length Reduction:	☐ No Reduction ACI-318-14 25.4.10
Pad Ties Development Length Reduction:	☐ No Ties in Pad ACI-318-14 25.4.10

Maximum Foundation Capacity Rating:	71.9%
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ANSI/TIA-222-H - Design Factors		
Uplift Resistance Factor, Phi:		0.75
Compressive Resistance Factor, Phi:		0.75
Bearing Capacity Resistance, Phi:		0.75
Lateral Resistance Factor, Phi:		0.75

Summary Check	
Minimum Depth: TIA-222-H 9.3	OK
Lateral Check:	OK
Overturning Check:	OK
Maximum Eccentricity Check:	OK
Bearing Check:	OK
Concrete Strength Check:	OK
Max Pad Reinforcement Spacing:	OK
Min. Pad Reinforcement Spacing:	OK
Pad Constructability Check:	OK
Min. Pad Reinforcement Check:	OK
Pad Reinforcement Yield Check:	OK
Pad Flexural Check:	OK
Pad Development Length:	OK
One Way Shear Check:	OK
Two-Way Shear Check:	OK
Vertical Bar Quantity Check:	OK
Min/Max Vertical Bar Spacing Check:	OK
Pier Constructability Check:	OK
Minimum Vertical Reinforcement:	OK
Pier Compressive Strength:	OK
Pier Reinforcement Stress:	OK
Compressive Development in Pier:	OK
Compressive Development in Footing:	OK
Tensile Development in Pier:	OK
Tensile Development in Footing:	HOOK REQ'D
Hook Development Length:	OK
Space of Hook:	OK
Rebar Engaged by Anchors:	OK
Plate & Rebar Spacing Check:	OK
Anchor Embedment Clearance:	PIER ONLY
Anchor Strength Check:	OK
Anchor Concrete Punching Check:	OK

Flexural Strength									Required Development Length (in)	Available Development Length (in)
Effective Depth (in)	Effective Width (in)	Compressive Zone Depth (in)	Concrete Strength Factor	Edge Unbraced Length (ft)	Inner Unbraced Length (ft)	Corner Unbraced Length (ft)	Factored Moment (ft-kips)	Design Moment (ft-kips)		
14,13	270,00	1,185	0,83	5,84	7,83	6,33	882,60	1242,28	23,48	49,05
Yield Check:									OK	OK
									71.0%	

Concrete Shear Capacity										
Shear Strength Reduction Factor = 0.75										
One-Way Shear						Two-Way Shear				
Effective Shear Depth (ft)	Effective Shear Width (ft)	Factored Shear Force (kips)	Nominal Concrete Shear Strength (kips)	Nominal Rebar Shear Strength (kips)	Design Shear Strength (kips)	Shear Perimeter (ft)	Factored Shear Force (kips)	Nominal Concrete Shear Strength (kips)	Nominal Rebar Shear Strength (kips)	Design Shear Strength (kips)
1,14	22,50	133,00	495,82	0,00	371,87	13,01	213,60	538,01	0,00	403,51
OK						OK				
35.8%						52.9%				

Tie Reinforcement Design													
Number of Bars	Bar Size	Bar Diameter (in)	Bar Weight (lb/ft)	Total Bar Weight (lb)	Bar Area (sq in)	Min. Seismic Hook Extension (in)	Total Length (in)	Zone	Maximum Tie Spacing (in)	Zone Distance (in)	Number of Tie Spaces	Actual Tie Spacing (in)	Number of Ties per Zone
11	4	0,50	0,67	67	0,20	3,0	110,2	End	5	5	1	5	2
								Top	0	0	0	0	0
								Middle	6	52	9	5 12/16	9
								Pad	N/A	N/A	N/A	N/A	N/A
						6,0	overlap (min)						

Shear (Compression)										Shear (Uplift)		
Factored Axial Force N_u (lb)	Distance to Tension Reinf. d (in)	Ratio of A_s to $b_w d$	Concrete Weight W_c (lb)	Pier Gross Area A_g (in ²)	Nom. Strength Concrete V_c (kip)	Minimum Bar Area A_{min} (in ²)	Total Bar Area A_s (in ²)	Nom. Strength Reinforcement V_s (kip)	Des. Shear Strength ϕV_n (kip)	Factored Axial Force N_u (lb)	Nom. Shear Concrete V_c (kip)	Des. Shear Strength ϕV_n (kip)
225299	28,800	0,011	88,357	1017,876	154,496	0,000	0,400	230,400	288,672	225123	77,572	230,979
OK						OK			OK			
									5.8%			

Splice Length - Ties									
Bar Size	Reinf. Location Factor, α	Coating Factor, β	Reinf. Size Factor, γ	Lightwt. Aggregate Factor, λ	Spacing or Cover, c (in)	Transverse Reinf. Index, K_T	Development Length ℓ_d (in)	Splice Length Tolerance (in)	Splice Length $1.3 * \ell_d$ (in)
4	1,0	1,0	0,8	1,0	2,88	0,0	12,0	1,0	18,0

Pier Vertical Reinforcement Design												
Number of Bars	Bar Size	Bar Diameter (in)	Hook Bend Radius (in)	Hook Extension Length (in)	90 degree Std. Hook Length (in)	Bar Length (in)	Bar Area (sq in)	Pier Gross Area (sq in)	Total Bar Area (sq in)	Minimum Bar Area Required (sq in)	Ctr-Ctr Spacing (in)	Clear Spacing (in)
14	8	1,00	3,00	12,00	15,00	84,00	0,79	1017,88	11,06	5,09	6,2	5,2
OK										OK	OK	
										Constructability:	OK	

Development Length - Vertical Pier Reinforcement				Tension Development		Hook Development Length				Space for Hook			
Compressive Development				Tension Development			Basic Development Length	Concrete Cover Factor	Required Development Length	Development Length Available	Hook Orientation	Space Available for Hook	Space Required for Hook
Required Length (in)	Required Length Adj. (in)	Available in Pier (in)	Available in Footing (in)	Required Length (in)	Available in Pier (in)	Available in Footing (in)	(in)		(in)	(in)		(in)	(in)
18.00	8.00	57.00	13.25	26.83	57.00	13.25	17.89	0.7	12.5	13.25	Hooks Extend Outward	42.50	15.0
ACI-318-14 25.4.9.2		ACI-318-14 22.4.10		ACI-318-14 25.4.2.3.4		ACI-318-14 25.4.3.1		ACI-318-14 Table 25.4.3.2		ACI-318-14 25.4.3.1			
OK		OK		OK		HOOK REQ'D				OK		OK	

Pier Axial Strength - Compression and Tension							Reinforcement Stress						
Pier Gross Area (in ²)	Nominal Compressive Strength (kip)	Compressive Strength Reduction Factor	Design Compressive Strength (kip)	Nominal Tensile Strength (kip)	Tensile Strength Reduction Factor	Design Tensile Strength (kip)	Diameter of Reinforcement Circle (in)	Equivalent Pipe			Reinforcement Stress (ksi)	Design Stress (ksi)	
						Outer Diameter (in)	Inner Diameter (in)	Thickness (in)	Section Modulus (in ^ 3)				
1017,88	4514,67	0,65	2347,63	663,60	0,90	597,24	28,00	28,13	27,87	0,251	77,1	31,68	54
ACI-318-14 22.4.2.2 C1-318-14 Table 21.3							ACI-318-14 22.4.3.1 ACI-318-14 Table 21.2						
OK							OK						
9.6%							34.3%						
							OK						
							58.7%						

Anchor Bolt Design													
Bolt Threads per Inch	Gross Area (in ²)	Bolt Net Area (in ²)	Ultimate Tensile Stress (ksi)	Bolt Yield Strength (ksi)	Bolt Nominal Tensile Strength (kip)	Nominal Shear Rupture Strength (kip)	Nominal Compression Yield Strength	Nominal Shear Yield Strength (kip)	Anchor Bolt Interaction Equation	Embedment Depth of Anchor (in)	Pier Allowable Embedment Depth (in)	Footing Embedment Top Limit (in)	Footing Embedment Bot. Limit (in)
8	0.785	0.606	125	105	75.718	49.087	63.603	19.081	0.455	54,500	60,000	66,750	71,250
TIA-222-H 4.9.6.1					TIA-222-H 4.9.9		TIA-222-H 4.9.9	TIA-222-H 4.9.9	TIA-222-H 4.9.9		OK		
											PIER ONLY		
TIA-222-H 4.9.9													

Anchor Bolts and Embedment Plate													
Anchor Bolt PN	Number of Bolts	Bolt Diameter (in)	Bolt Length (in)	Length Protruding From Concrete			Plate PN	Plate O.D. or Width (in)	Plate Thickness (in)	Bolt Circle Diameter (in)	Rebar Engaged by Bolts (in)	Length Required (in)	Gap Btwn Rebar & Plate (in)
				Specified (in)	Tolerance Above (in)	Tolerance Below (in)							
102970	8	1,00	60	5,75	0,1875	-0,25	139912	14,50	0,5	12	40,06	26,83	6,25
Std. Pattern											OK	ACI 318-14 25.4.2.3	

Notes

- Foundation design is based on the Geotechnical Report dated 12/13/2024, by Sinnott Gering and Schmitt Towers, Inc., Project No. 2410116.
- Groundwater was not encountered during the geotechnical investigation.
- Rock conditions were encountered about 4 feet bgs in the geotechnical investigation (see geo report for details). The contractor should anticipate difficult excavation below this depth and be prepared with the necessary equipment to remove such material in order to create a level bearing surface. The depth to rock material may vary across the foundation footprint. The entire footing shall bear on leveled, competent rock or bear on a layer of lean concrete (2000 psi) placed in direct contact with competent rock.
- This mat design assumes an ultimate bearing capacity of 21546 psf (allowable bearing capacity of 10773 psf) based on the geotechnical report. The bearing surface shall be inspected prior to concrete placement.
- During placement, concrete shall be suitably consolidated. Proper curing methods shall be used directly following concrete placement as established by the contractor. Concrete shall develop a minimum compressive strength of 3000 psi prior to backfill and compaction operations, and backfill shall be compacted to a minimum moist unit weight of 110 pcf.

Combined (MAT) Foundation Design Summary

Max. Foundation Capacity Rating:	71.9%
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FOUNDATION DIMENSIONS	
Tower Width:	12.5 ft
Pier Extension:	0.5 ft
Depth:	6 ft
Pad Width:	22.5 ft
Pad Thickness:	1.5 ft
Pier Diameter:	3 ft
Clear Cover:	3 in
Volume:	32.1 yd ³

MAT REINFORCEMENT	
Bar Size:	7
Bar Length:	264 in
Bar Center to Center Spacing:	8.0 in
Quantity per Layer per Direction:	34
Total Quantity:	136
Weight per Bar:	45.0 lbs
Total Weight:	6116 lbs

PIER REINFORCEMENT	
Bar Size:	8
Bar Length:	84 in
Bend Radius:	3 in
Standard Hook Length:	15 in
Hook Orientation:	Hooks Extend Outward
Bar Center to Center Spacing:	6.2 in
Quantity per Pier:	14
Total Quantity:	42
Weight per Pier:	262 lbs
Total Weight:	785 lbs

TIE REINFORCEMENT	
Bar Size:	4
Bar Length:	111 in
Circular Tie Outer Diameter:	30 in
Overlap:	6 in
Tie Termination Type:	3" Seismic Hooks
Quantity of Ties in Pad:	N/A
Quantity per Pier:	11
Bar Center to Center Spacing:	5.8 in
Total Quantity:	33
Weight per Pier:	67 lbs
Total Weight:	201 lbs

TOWER REACTIONS	
Tower Shear:	26.3 kip
Tower Moment:	2350.9 ft-kip
Tower Weight:	24.1 kip
Leg Compression:	225.2 kip
Leg Uplift:	205.1 kip
Leg Shear:	16.9 kip

MATERIAL SPECIFICATIONS	
Concrete Strength:	4500 psi
Concrete Weight:	150 pcf
Soil Strength (Ultimate Bearing):	21,546 psf
Rebar Yield Strength:	60 ksi

ANCHORING DETAILS	
Anchor P/N:	102970
Anchor Diameter:	1 in
Anchor Length:	60 in
Anchor Quantity per Leg:	8
	Std. Pattern
Anchor Projection:	5.75 in
	+ 0.1875" -0.25"
Bolt Circle Diameter:	12 in
Template P/N	139912

STRUCTURAL FILL CRITERIA	
Loose Lift Thickness:	8 in
Percent Compaction:	98%
ASTM Standard:	D698
Optimum Moisture Content	2%
Tolerance:	-2%

BACKFILL CRITERIA (NON-STRUCTURAL)	
Loose Lift Thickness:	8 in
Percent Compaction:	95%
ASTM Standard:	D698
Optimum Moisture Content	2%
Tolerance:	-2%

ECO #:	7883
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ADDITIONAL NOTES

- Foundation design is based on the Geotechnical Report dated 12/13/2024, by Sinnott Gering and Schmitt Towers, Inc.; Project No. 2410116.
- Groundwater was not encountered during the geotechnical investigation.
- Rock conditions were encountered about 4 feet bgs in the geotechnical investigation (see geo report for details). The contractor should anticipate difficult excavation below this depth and be prepared with the necessary equipment to remove such material in order to create a level bearing surface. The depth to rock material may vary across the foundation footprint. The entire footing shall bear on leveled, competent rock or bear on a layer of lean concrete (2000 psi) placed in direct contact with competent rock.
- This mat design assumes an ultimate bearing capacity of 21546 psf (allowable bearing capacity of 10773 psf) based on the geotechnical report. The bearing surface shall be inspected prior to concrete placement.
- During placement, concrete shall be suitably consolidated. Proper curing methods shall be used directly following concrete placement as established by the contractor. Concrete shall develop a minimum compressive strength of 3000 psi prior to backfill and compaction operations, and backfill shall be compacted to a minimum moist unit weight of 110 pcf.



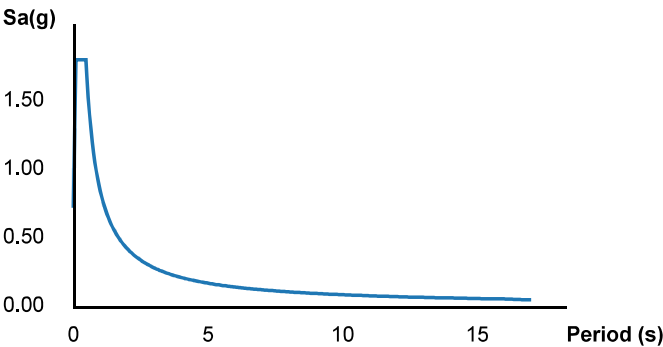
Hazards by Location

Search Information

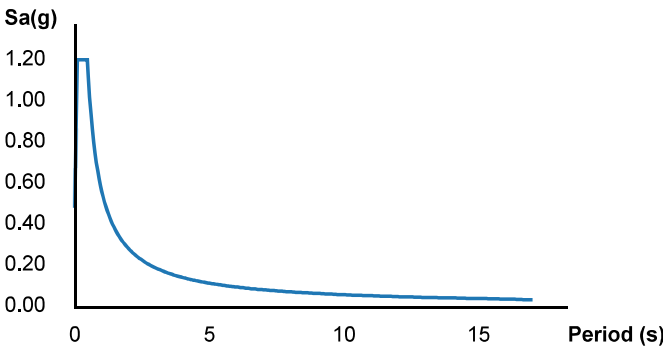
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Elevation: 416 ft
Timestamp: 2024-12-20T20:44:17.323Z
Hazard Type: Seismic
Reference Document: ASCE7-16
Risk Category: II
Site Class: C



MCER Horizontal Response Spectrum



Design Horizontal Response Spectrum



Basic Parameters

Name	Value	Description
S_S	1.5	MCE _R ground motion (period=0.2s)
S_1	0.6	MCE _R ground motion (period=1.0s)
S_{MS}	1.8	Site-modified spectral acceleration value
S_{M1}	0.84	Site-modified spectral acceleration value
S_{DS}	1.2	Numeric seismic design value at 0.2s SA
S_{D1}	0.56	Numeric seismic design value at 1.0s SA

▼Additional Information

Name	Value	Description
SDC	D	Seismic design category
F_a	1.2	Site amplification factor at 0.2s
F_v	1.4	Site amplification factor at 1.0s
CR_S	1.091	Coefficient of risk (0.2s)
CR_1	1.043	Coefficient of risk (1.0s)

PGA	0.5	MCE _G peak ground acceleration
F _{PGA}	1.2	Site amplification factor at PGA
PGA _M	0.6	Site modified peak ground acceleration
T _L	16	Long-period transition period (s)
SsRT	1.681	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.541	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.5	Factored deterministic acceleration value (0.2s)
S1RT	0.679	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.651	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.6	Factored deterministic acceleration value (1.0s)
PGAd	0.5	Factored deterministic acceleration value (PGA)

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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TOWER SEISMIC ANALYSIS

EARTHQUAKE LOADING

ANSI/TIA-222-H / SEI/ASCE 7

Tower Parameters

Tower Type:

Latticed Self-Support

Latticed Self-Support Parameters

Structure Class:

II

Base Face Width of Structure:

$w_o = 12.5$ ft

Seismic Site Class:

C

Top Face Width of Structure:

$w_t = 3.5$ ft

Height of Structure:

$H = 125.9$ ft

Length of Straight Section:

$L_s = 5$ ft

Design Base Shear Due to Wind:

$V_w = 25.804$ kips

Design Base Moment Due to Wind:

$M_w = 2330.77$ kip-ft N/A

$I_{bot} =$ in⁴

Total Weight of Structure:

$W = 17.799$ kips N/A

$I_{top} =$ in⁴

Height to Level under Consideration:

$H_z =$ ft

Weight of Level under Consideration:

$W_z = 0.000$ kips N/A

$n_g =$

Spectral Response Acceleration at Short Periods (0.2-Second) - Mapped:

$S_s = 1.500$ N/A

$N_i =$

150% g

N/A

$G_r =$ ft

$S_1 = 0.600$

Spectral Response Acceleration at 1-Second Periods - Mapped:

60% g

Steel Guy Cables [None]

Guy Level i (Elevation) (ft)	Guy Diameter (in)	Average Chord Length @ Level i (ft)	Initial Tension (%)

Guy Level i (ft)	Wires per Strand	Guy Tensile Area (in ²)	Tension (lbs)

Guy Level i (ft)	Guy Weight (lbs)	Equivalent Guy Stiffness

Total: 0.00 0.00000

Table of Weights

	Level i [Elevation] (ft)	Structure Weight (lbs)	Transmission Feed] Line Weight (lbs)	Microwave Dish Weight (lbs)	Appurtenance Weight (lbs)	Total Weight (lbs)
1	10.0	2709.3	164.0			2873.3
2	20.0					
3	30.0	1843.8	164.0			2007.8
4	40.0					
5	50.0	1784.8	164.0			1948.8
6	60.0					
7	70.0	1288.2	164.0			1452.2
8	80.0					
9	90.0	1045.3	155.8	103.0		1407.1
10	100.0			103.0		
11	110.0	786.9	98.4		3536.0	7957.3
12	120.0				3536.0	
13	125.9	152.8	0.0			152.8
14						
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
26						0.0
27						0.0
28						0.0
29						0.0
30						0.0

Total (lbs): 9611.1 + 910.2 + 206 + 7072 = 17,799.3

~ Earthquake Effects May Be Ignored ~

> Use Seismic Analysis Procedure Method 2

Computed Earthquake Design Data

Importance Factor:	I = 1.00		Response Modification Coefficient:	R = 3.0
Steel Modulus of Elasticity:	E = 29000	ksi	Acceleration-Based Site Coefficient at Short Periods (0.2-Second):	F _a = 1.200
Acceleration Due to Gravity:	g = 32.174	ft/s ²	Design Spectral Response Acceleration at Short Periods (0.2-Second):	S _{DS} = 1.200
Number of Tower Levels (10' Sections):	n = 13		Velocity-Based Site Coefficient for a 1-Second Period:	F _v = 1.500
Weight for Fundamental Frequencies:	W ₁ = 9.638	kips	Design Spectral Response Acceleration for a 1-Second Period:	S _{D1} = 0.600
Weight within Top 5% of Structure:	W ₂ = 3.699	kips	Natural Frequency Conversion Factor for Guyed Masts:	C _g =
Average Face Width of Structure:	w _a = 7.821	ft	Simplified Natural Frequency Conversion Factor for Guyed Masts:	K _m =
Number of Levels@ Top Third of Tower:	n _u =		Coefficient for Fundamental Frequencies of Latticed Self-Supports:	K _s = 4540
Weight of Apprt. @ Top Third of Tower:	W _u =	kips		
Weight of Structure Excluding App.:	W _L =	kips		
Average Moment of Inertia of Pole:	I _{avg} =	in ⁴		
Equivalent Stiffness of Guy Cables:	K _g =			
Fundamental Frequency of Structure:	f ₁ = 1.904	Hertz		

Seismic Analysis Results: Induced Earthquake Loading

Distribution of Seismic Forces (lbs)

20 ft	Eh1 = 134.8	69057
40 ft	Eh2 = 197.1	lbs
60 ft	Eh3 = 324.6	lbs
80 ft	Eh4 = 350.2	lbs
100 ft	Eh5 = 564.7	lbs
120 ft	Eh6 = 6608.0	lbs
125.9 ft	Eh7 = 157.8	lbs

Equivalent Lateral Force Procedure (Method 1)

Seismic Force Distribution Exponent:	k _e = 1.060	
Lateral Seismic Force @ ft:	F _{SZ} = 0.000	kips
Total Seismic Shear at Base:	V_S = 6.779	kips
Seismic Overturning Moment:	M_S =	kip-ft

~ PERMITTED ~

Equivalent Modal Analysis Procedure (Method 2)

Modal Acceleration Coefficient:	a = 0.000	
Modal Acceleration Coefficient:	b = 0.000	
Modal Acceleration Coefficient:	c = 0.000	
Design Spectral Response Acceleration:	S _A = 1.143	
Acceleration Coefficient at height z:	S _{az} = 0.000	
Lateral Seismic Force @ ft:	F _{SZ} = 0.000	kips
Total Seismic Shear at Base:	V_S = 8.337	kips
Seismic Overturning Moment:	M_S = 927.37	kip-ft



Corporate Headquarters

1201 South Sheridan St.
South Bend, IN 46619
Phone: (800) 806-3556
Fax: 574-288-5860
www.nelloinc.com

Date:	12/26/2024
Engineer:	KYW
SO#:	32729
Client:	Atlas Tower
Project:	NS 125.9' - Talkeetna - Brown - Matanuska-Susitna Borough, AK
Site Address:	33693 S Noel Wien Ave, Talkeetna, AK
Coordinates:	Latitude: 62.187783 Longitude: -150.031444

TOWER SEISMIC ANALYSIS - RESULTS SUMMARY

ANSI/TIA-222-H / SEI/ASCE 7

Equivalent Modal Analysis Procedure

Tower Type / Seismic Force Resisting System:	Latticed Self-Support
Construction Type:	Type IIB
Use Group:	Group U
Risk (Occupancy) Category:	II
Seismic Site Class:	C
Seismic Design Category:	D
Structure Class:	II
Height of Structure:	H = 125.9 ft
Design Base Shear Due to Wind:	$V_w = 25.804$ kips
Design Base Moment Due to Wind:	$M_w = 2330.77$ kip-ft
Total Weight of Structure:	W = 17.799 kips
Importance Factor:	I = 1.00
Mapped Spectral Response Acceleration at Short Periods (0.2-Second):	$S_s = 1.500$ 150% g
Mapped Spectral Response Acceleration at 1-Second Periods:	$S_1 = 0.600$ 60% g
Response Modification Coefficient:	R = 3.0
Design Spectral Response Acceleration at Short Periods (0.2-Second):	$S_{DS} = 1.200$
Design Spectral Response Acceleration for a 1-Second Period:	$S_{D1} = 0.600$
Total Axial Load at Base:	$P_s = 21.359$ kips
Total Seismic Shear at Base:	$V_s = 8.337$ kips
Seismic Shear Check:	OK
TNX: Total Seismic Shear at Base:	$V_s =$ kips
TNX Full Structural Analysis Seismic Check:	OK
Seismic Overturning Moment at Base:	$M_s = 927.37$ kip-ft
Seismic OTM Check:	OK

RESULT: - WIND is the Controlling Load Case for Structural Design
 - Tower is adequately designed to resist lateral seismic forces
 ~ Earthquake Effects May Be Ignored ~

Full Structural Analysis is NOT required per TIA-222-H 2.7.3

SUPPLEMENTAL REFERENCES



MATANUSKA-SUSITNA BOROUGH

Real Property Detail for Account: 54287000L001

Site Information

Account Number	54287000L001	Subdivision	MOOSE HOLLOW ADD #1	
Parcel ID	4414	City	None	
TRS	S24N04W09	Map MO02	Tax Map	
Abbreviated Description (Not for Conveyance)	MOOSE HOLW ADD #1 LOT 1			
Site Address	33693 S Noel Wien Ave			

Ownership

Owners	BROWN FAMILY TR BROWN ELIZABETH A TRE	Buyers	
Primary Owner's Address	HC 89 BOX 8245 TALKEETNA AK 99676-9702	Primary Buyer's Address	

Appraisal Information

Year	Land Appraised	Bldg. Appraised	Total Appraised	Year	Land Assessed	Bldg. Assessed	Total Assessed ¹
2026	\$25,600.00	\$320,700.00	\$346,300.00	2026	\$0.00	\$61,041.00	\$61,041.00
2025	\$22,300.00	\$303,500.00	\$325,800.00	2025	\$0.00	\$46,080.00	\$46,080.00
2024	\$22,300.00	\$288,500.00	\$310,800.00	2024	\$0.00	\$40,119.00	\$40,119.00

Building Information

Structure 0 of 2			
Residential Units	1	Use	Residential Building
Condition	Standard	Design	Cabin
Basement	None	Construction Type	Frame
Year Built	2003	Grade	1215 - Cabin
Foundation	Unknown	Well	
Septic			
Structure 1 of 2			
Residential Units	1	Use	Residential Building
Condition	Standard	Design	Two Story
Basement	None	Construction Type	Frame
Year Built	2003	Grade	04.4
Foundation	Poured Concrete	Well	Well 1 - Drilled Well
Septic	Septic - 1 - Septic Tank		

Building Item Details

Building Number	Description	Area	Percent Complete
0	First Story	256 Sq. Ft.	100%
1	First Story	1344 Sq. Ft.	85 %
1	Second Story	544 Sq. Ft.	85 %
1	Oil Heat	1 Sq. Ft.	100%

Tax/Billing Information

Year	Certified	Zone	Mill	Tax Billed
2026	Yes	0050	::	::
2025	Yes	0050	14.741	\$679.27
2024	Yes	0050	15.083	\$605.12

Recorded Documents

Date	Type	Recording Info (offsite link to DNR)
4/26/2010	WARRANTY DEED (ALL TYPES)	Talkeetna 2010-000600-0
8/17/2006	WARRANTY DEED (ALL TYPES)	Talkeetna 2006-001396-0
7/8/2003	QUITCLAIM DEED (ALL TYPE)	Talkeetna 2003-001121-0

Tax Account Status ²

Status	Tax Balance	Farm	Disabled Veteran	Senior	Total ³	LID Exists
Current	\$0.00	\$0.00	\$0.00	\$150,000.00	\$285,259.00	No

Land and Miscellaneous

Gross Acreage	Taxable Acreage	Assembly District	Precinct	Fire Service Area	Road Service Area
3.43	3.43	Assembly District 007	30-595	024 Talkeetna FSA	029 Greater Talkeetna RSA

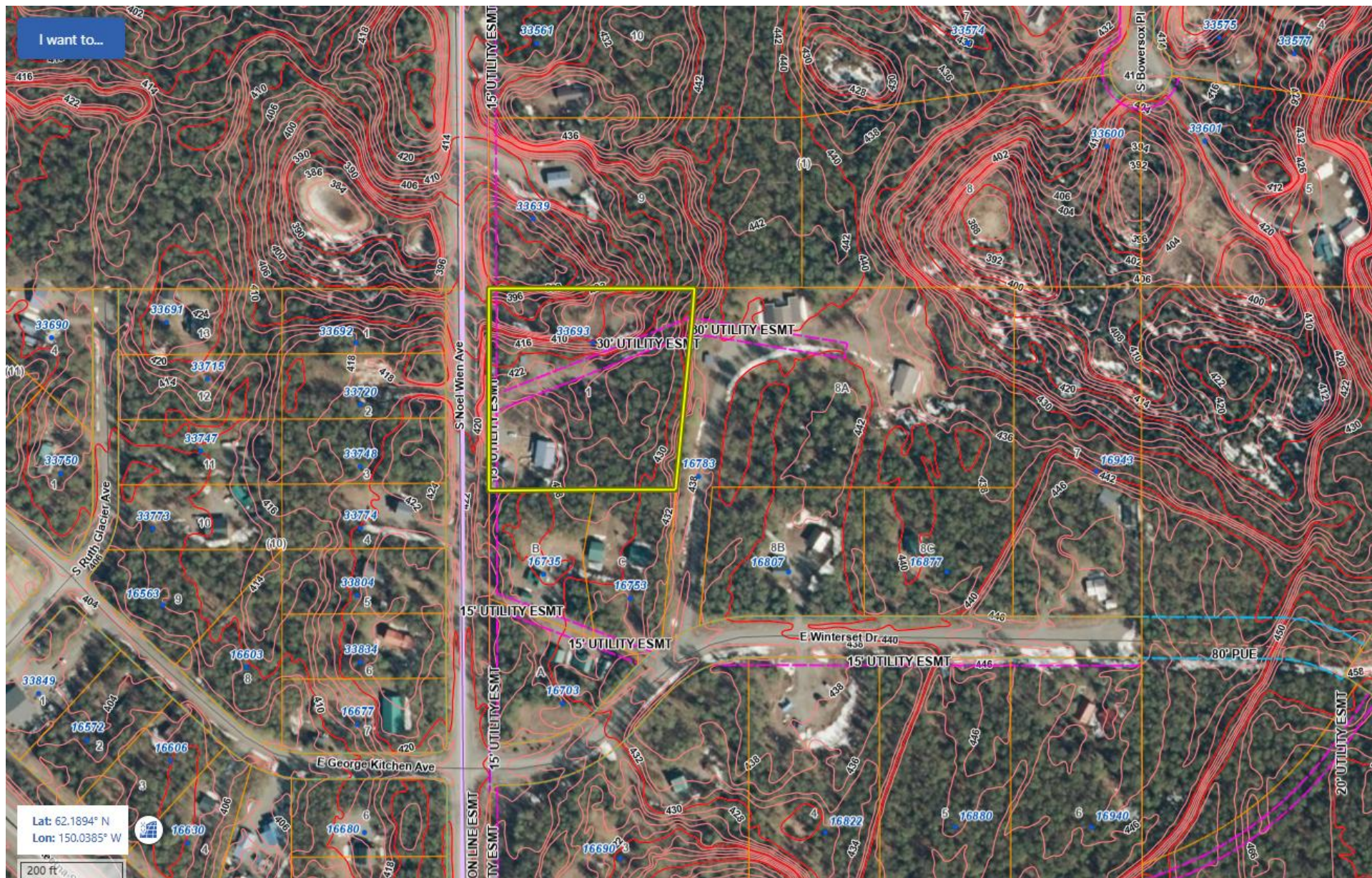
¹ Total Assessed is net of exemptions and deferrals, rest, penalties, and other charges posted after Last Update Date are not reflected in balances.

Last Updated: 6/15/2026 10:00:00 AM

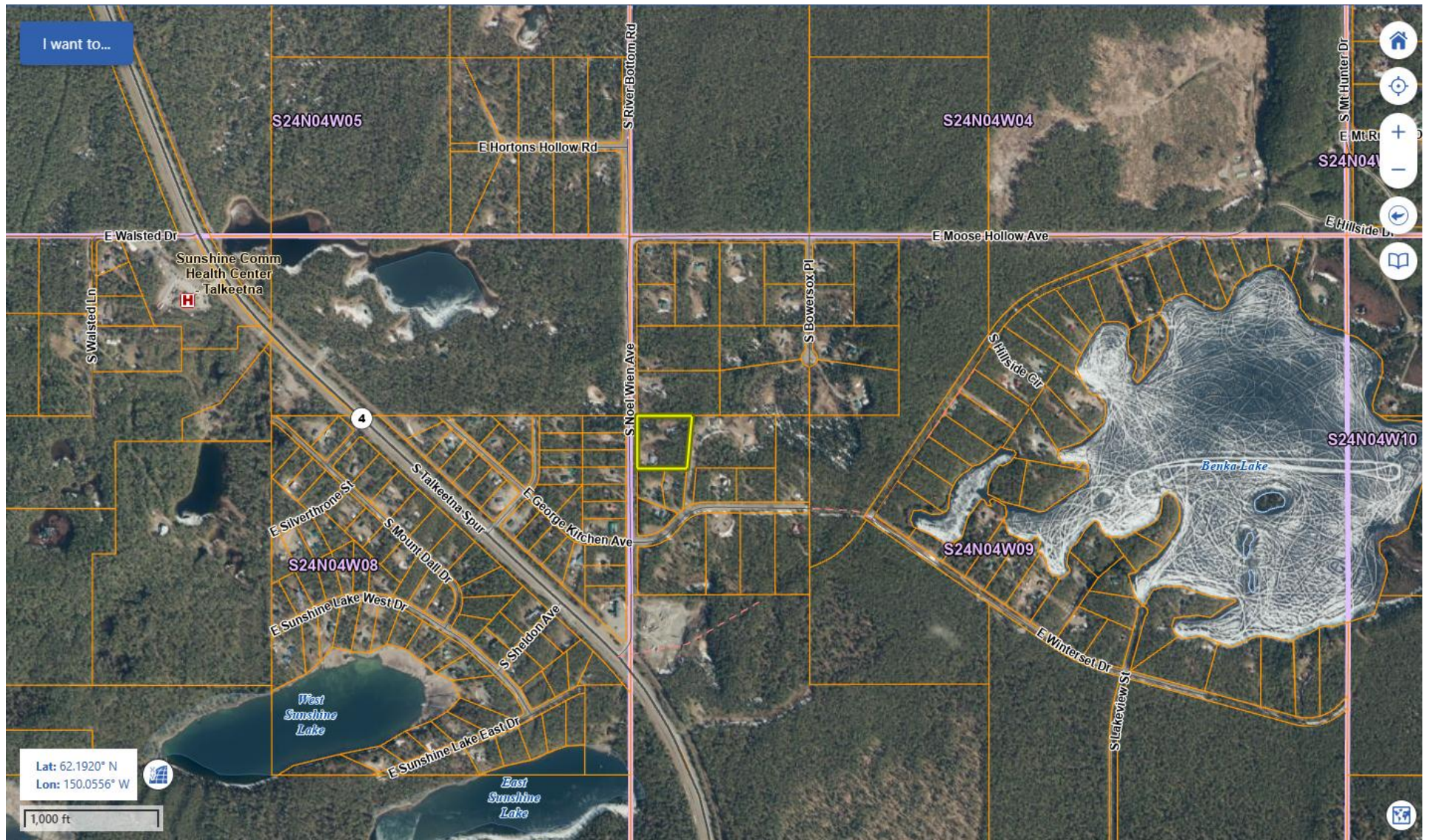
² If account is in foreclosure, payment must be in certified funds.

³ If you reside within the city limits of Palmer or Houston, your exemption amount may be different.

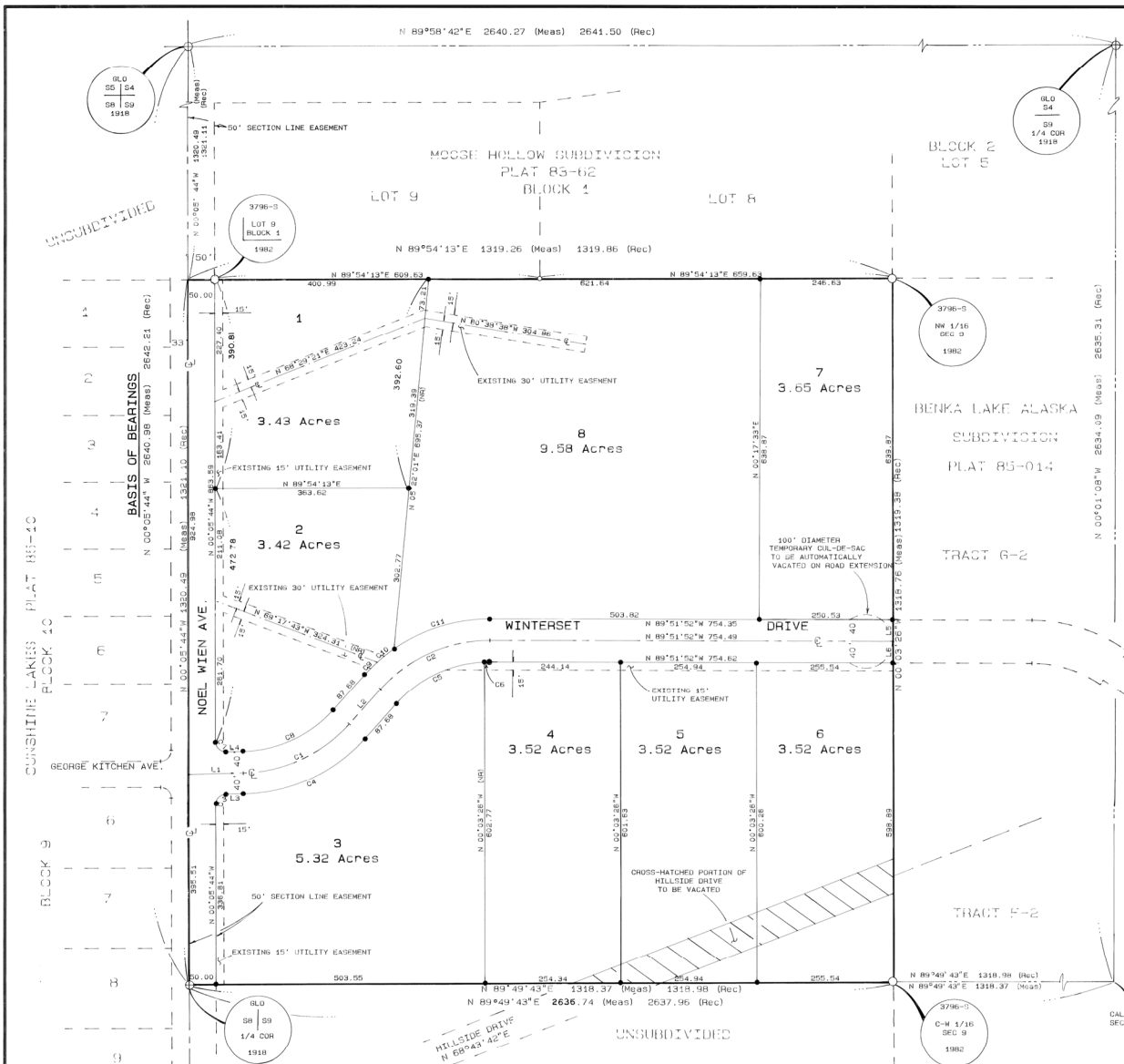




Aerial Imagery 2023 with 2011 Contour



Aerial Imagery 2023



LEGEND

- 1918 GLO MONUMENT RECOVERED THIS SURVEY
- 2 1/2" PIPE WITH BRASS CAP RECOVERED THIS SURVEY
- 5/8" REBAR WITH AL CAP (3796-S) RECOVERED THIS SURVEY
- 5/8"x 24" REBAR WITH AL CAP SET THIS SURVEY
- (NR) NON-RADIAL
- (REC) RECORD DATA PER BENKA LAKE ALASKA SUBDIVISION

NOTES

- THESE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL PARCEL OWNER TO OBTAIN A DETERMINATION WHETHER SUCH REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN HEREON.
- NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS SUCH SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERN THOSE SYSTEMS.
- ALL LOTS CONTAIN A MINIMUM 20,000 SQUARE FEET OF USABLE AREA AS DEFINED BY THE MATANUSKA-SUSITNA BOROUGH.
- RESTRICTIVE COVENANTS WERE RECORDED 5-26-1994. AT THE TALKEETNA RECORDING DISTRICT IN BOOK 142, PAGE NO. 342.

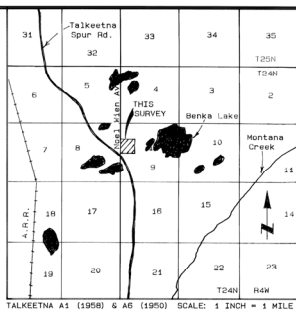
CALCULATED POSITION, CENTER 1/4 CORNER SECTION 3, NOTHING SET

CERTIFICATE OF APPROVAL
ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WASTEWATER DISPOSAL, SOIL CONDITIONS, WATER TABLE LEVELS, AND SOIL SLOPES IN THIS SUBDIVISION HAVE BEEN FOUND SUITABLE FOR CONVENTIONAL WHITE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS SERVING SINGLE-FAMILY OR DUPLEX RESIDENCES AND MEETING THE REGULATORY REQUIREMENTS OF THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION. ANY OTHER TYPE OF WASTEWATER TREATMENT AND DISPOSAL SYSTEM MUST BE APPROVED BY THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

SUBJECT TO ANY NOTED RESTRICTIONS, THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION APPROVES THIS SUBDIVISION FOR PLATTING.

Signature Title Date



CERTIFICATE OF OWNERSHIP

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I HEREBY AGREE THIS PLAN OF SUBDIVISION BY MY FREE CONSENT, DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.

Darrell R. Bowersox Date 3-8-94
HC 89 Box 8260 Talkeetna AK 99676
Judith L. Bowersox Date 3-8-94
HC 89 Box 8260 Talkeetna AK 99676

NOTARY'S ACKNOWLEDGMENT

I CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH. AND THAT THE PLAT HAS BEEN APPROVED BY PLATTING BOARD/BOARD OF ADJUSTMENTS AND APPEALS BY PLATTING RESOLUTION NO. 94-22-P, DATED 9-3-92, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE RECORDING DISTRICT IN WHICH THE PLAT IS LOCATED.

Notary for the State of Alaska My commission expires 9-26-94
Borough Tax Collection Official Date

CERTIFICATION OF PAYMENT OF TAXES

I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THROUGH 12-31, 1993, AGAINST THE PROPERTY, INCLUDED IN THE SUBDIVISION HEREON HAVE BEEN PAID.

John W. Simola May 25, 1994
Planning Director
Muelen M. Simola
Platting Clerk

CERTIFICATE OF LAND SURVEYOR

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Mac A. Stevens 3/8/94
Date

MOOSE HOLLOW SUBDIVISION
ADDITION No. 1
Located in the SW 1/4 of the NW 1/4 of Sec. 9, T 24 N, R 4 W, S.M., AK.
TALKEETNA RECORDING DISTRICT
Containing 38.44 Acres more or less

SHEET 1 OF 1

SURVEYOR: MAC A. STEVENS BOX 74 TALKEETNA, AK 99676	CLIENT: DARRELL R. BOWERSOX HC 89 BOX 8260 TALKEETNA AK 99676
DATE OF SURVEY: 2/21/94	SCALE: 1" = 100'
DRAWN: MCN	J.N. 92-368

MSB Recreational Trails Plan

-  Roads
-  Over Water Routes
-  Primitive Route
-  Proposed Trail
-  Trails

- 35. Willow Sled
- 60. Montana Creek Dog Mushers
- 75. S. Fork Montana Creek
- 77. Emil Lake
- 78. Upper S. Fork Montana Creek
- 79. Luthman
- 80. Montana Creek Falls
- 81. S. Fork Loop
- 147. Parker Lake
- 148. Sunshine
- 149. 300 Mile Race
- 152. Rainbow Lake
- 153. N. Fork Kashwitna Connector
- 154. Montana Creek Dog Mushers 50 Mile
- 184. Caswell Area
- 214. Mail Trail Reroute
- 253. Dorothy Jones/ Su Valley High



 Miles
0 1 2

Map #10

2016



This map is solely for informational purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-745-4801.

SITE VISIT PHOTOS

MAY 1, 2026



On subject property. Facing east along utility easement.



On subject property. Facing northeast along utility easement.



On subject property. Facing east along utility easement.



On subject property. Facing east along utility easement.



Existing driveway access to the proposed tower location from South Noel Wien Avenue.



Directly north of subject property on right of way near adjacent parcel. Facing south toward existing development and proposed tower location. Existing development includes an existing structure South Noel Wien Avenue can be seen on the far right of the photo running parallel with the visible utility lines.



Directly north of subject property on right of way near adjacent parcel. Facing south toward existing development through existing vegetation.



Directly north of subject property on right of way near adjacent parcel. Facing southeast toward proposed tower location through existing vegetation.

PUBLIC NOTICE

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

«NAME»
«ADDRESS_1»
«ADDRESS_2»
«ADDRESS_3»

PUBLIC HEARING

Atlas Tower 1, LLC, on behalf of The Brown Family Revocable Trust, applied for an Administrative Permit under MSB 17.67 *Tall Structures*. The Permit is for a 125-foot telecommunications tower located at 33693 S. Noel Wien Avenue, Tax ID# 4287000L001.

The Matanuska-Susitna Borough Planning Director will conduct a public hearing concerning the application on **Wednesday, July 15, 2026**, at 9:30 a.m. in the Borough Assembly Chambers located at 350 E. Dahlia Avenue in Palmer. This may be the only presentation of this item before the Planning Director, and you are invited to attend.

Application materials may be viewed online at www.matsu.gov by clicking on “All Public Notices & Announcements.” For additional information, you may contact Natasha Grover, Current Planner, by phone: 907-861-8606. Provide written comments by e-mail to Natasha.Grover@matsugov.us, or by mail to MSB Development Services Division, 350 E. Dahlia Avenue, Palmer, AK 99645.

The public may provide verbal testimony at the meeting or telephonically by calling 1-855-290-3803. To be eligible to file an appeal from a decision of the Planning Director, a person must be designated an interested party. See MSB 15.39.010 for the definition of an interested party. The procedures governing appeals to the Board of Adjustment and Appeals are contained in MSB 15.39.010-250, which is available on the Borough home page: www.matsu.gov, in the Borough Clerk’s office, and at various libraries within the borough.

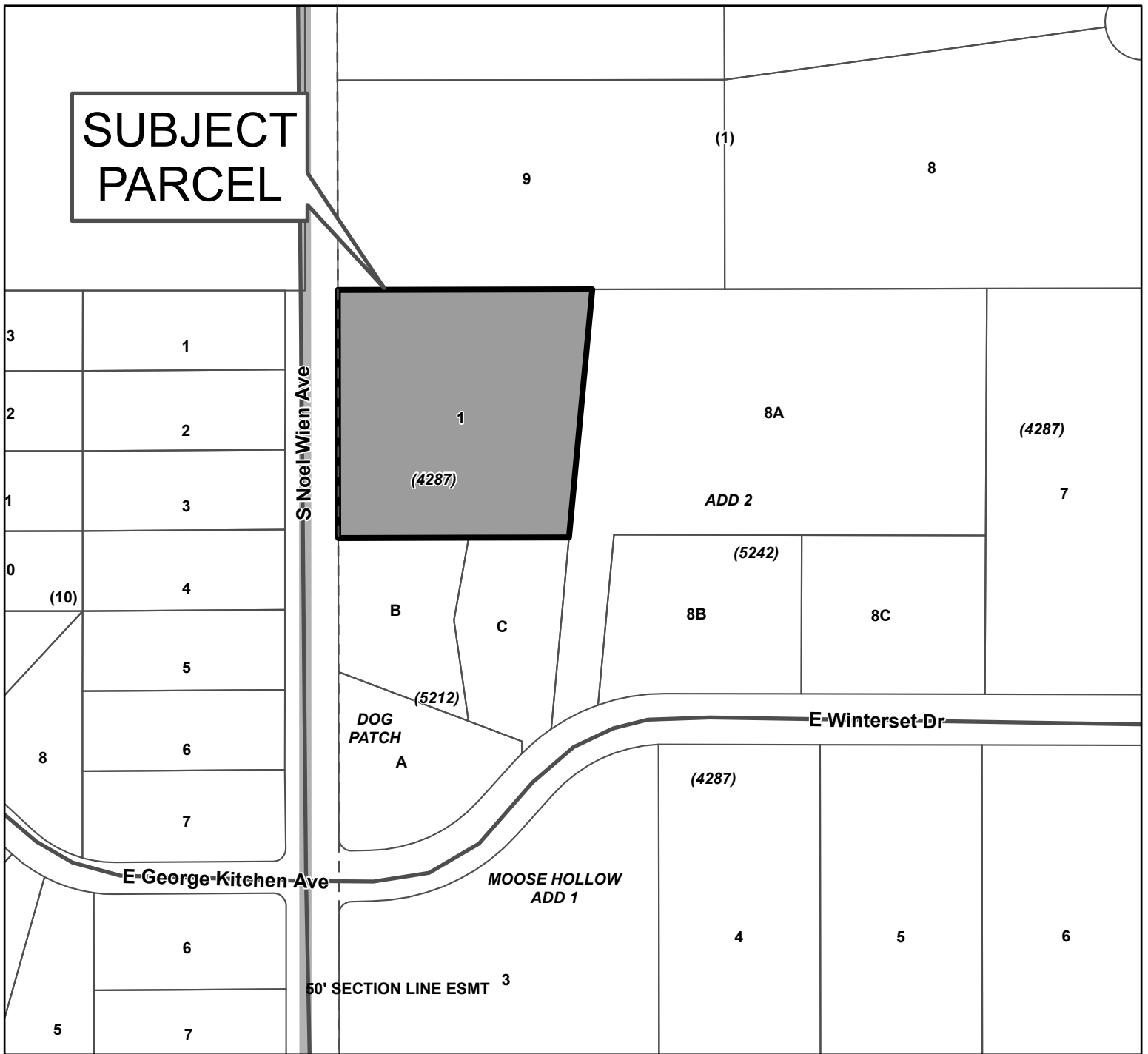
Comments are due on or before **July 2, 2026**, and will be included in the Planning Director packet. Please be advised that comments received from the public after that date will not be included in the staff report but will be provided to the Director at the meeting.

Name: _____ **Mailing Address:** _____

Location/Legal Description of your property: _____

Comments: _____

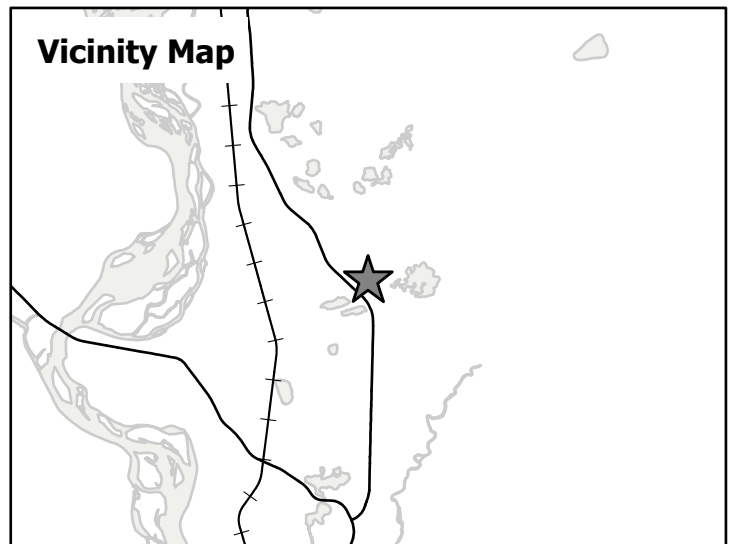
Note: Vicinity Map Located on Reverse Side



4287000L001



This map is solely for informational purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-861-7858.





Certificate of Bulk Mailing — Domestic

Fee for Certificate			Use Current Price List (Notice 123)	Postage: Mailers must affix postage stamps here	
Up to 1,000 pieces (1 certificate for total number)					
For each additional 1,000 pieces, or fraction thereof					
Duplicate Copy ☐					
Number of Identical Weight Pieces	Class of Mail	Postage for Each Mailpiece Paid	Number of Pieces to the Pound	Acceptance employee must cancel postage affixed (by round-date) at the time of mailing.	
113	1st	☐ Verified	45	If payment of total fee due is being paid by Permit Imprint, include the PostalOne! Transaction Number here: _____	
Total Number of Pounds	Total Postage Paid for Mailpieces	Fee Paid			
2166.6005	\$83.602	\$13.50			
Mailed For	Mailed By				
Permit Center	Betty Jean Black				
Postmaster's Certification					
It is hereby certified that the number of mailpieces presented and the associated postage and fee were verified. This certificate does not provide evidence that a piece was mailed to a particular address.					
 (Postmaster or Designee)					

#	Owner 1	Owner 2	Mailing Address Line 2	Mailing Address Line 1	Mailing Address City	Mailing Address State	Mailing Address Zipcode
1	ALASKA STATE OF	DEPT OF NATURAL RESOURCES DIV OF LANDS		550 W 7TH AVE	ANCHORAGE	AK	99501-3579
2	ALASKA UNIVERSITY OF	BOARD OF REGENTS TRE	STE 101	1815 BRAGAW ST	ANCHORAGE	AK	99508
3	AMELINE WILLIAM T & STEPHANIE A			4100 FURROW CRK RD	ANCHORAGE	AK	99516
4	ANDERSON HEIDI M			PO BOX 311	TALKEETNA	AK	99676
5	BAISDEN PAUL A III & D K			HC 89 BOX 8199	TALKEETNA	AK	99676
6	BARCLAY JAMES C & BRITTANY N			10721 FLAGSHIP CIR	ANCHORAGE	AK	99515
7	BASILONE TODD S			PO BOX 733	TALKEETNA	AK	99676-0733
8	BENESCH DUDLEY BENESCH DAVID	BENESCH DANNIE BENESCH GEO		3222 COMMERCIAL DR	ANCHORAGE	AK	99501
9	BLOCZYNSKI CLARENCE I & DIANNA R			PO BOX 13421	TRAPPER CREEK	AK	99683-3421
10	BORCHERS BRIAN B & KATHERINE E			PO BOX 1198	TALKEETNA	AK	99676-1198
11	BREDIN DAVID WILLIAM & ELLEN JAYNE			6600 KINCAID RD	ANCHORAGE	AK	99502
12	BRENNEMAN FAMILY TRUST			7917 HEATHER LN	VACAVILLE	CA	95688
13	BRINKMAN RYAN & GILLIAN			8521 MENTRA CIR	ANCHORAGE	AK	99518
14	BROWN FAMILY TR	BROWN ELIZABETH A TRE		HC 89 BOX 8245	TALKEETNA	AK	99676-9702
15	BUDDY TWO INVESTMENTS LLC			PO BOX 85	BRUSH PRAIRIE	WA	98606
16	BURNELL HEATHER			PO BOX 1226	GIRDWOOD	AK	99587-1226
17	BUSKIRK LARRY & JANE REV TR	BUSKIRK LARRY D & JANE E TRES		PO BOX 310	TALKEETNA	AK	99676
18	BYRD DUSTY			PO BOX 301	TALKEETNA	AK	99676-0301
19	CAFMEYER ERIC & LINNEA			19600 WINGHAM CIR	EAGLE RIVER	AK	99577
20	CAMPBELL CHRISTOPHER D SR	CAMPBELL LINDA A		HC 89 BOX 8248	TALKEETNA	AK	99676-9702
21	CARLSON MERLE			PO BOX 34	TALKEETNA	AK	99676
22	CARNEGIE STUART J		11/2 MUNRO ST	MCMAHONS POINT 2060	NSW AUSTRALIA		99999
23	CHAPPEL ERIC & JAMIE LYNN			HC 89 BOX 8246	TALKEETNA	AK	99676
24	COOK INLET REGION INC			PO BOX 93330	ANCHORAGE	AK	99509-3330
25	CORREIRA BRIAN RICHARD			3891 N RED FOX CIR	WASILLA	AK	99654
26	COURTNEY FAMILY TRUST	COURTNEY M J & A L TRES		14377 EQUESTRIAN CIR	ANCHORAGE	AK	99516
27	CROW JONATHAN R & MICHELLE L			PO BOX 417	TALKEETNA	AK	99676-0417
28	CUTSHALL JACQUELINE K & COBURN			PO BOX 962	TALKEETNA	AK	99676
29	DAGEN JAY A			PO BOX 250	TALKEETNA	AK	99676-0250
30	DENTON SCOTT & MARY A			PO BOX 925	TALKEETNA	AK	99676-0925
31	DIVERSIFIED CONSULTANTS		% JENNIFER DESROCHES	PO BOX 771421	EAGLE RIVER	AK	99577
32	FEILD ANDREW PHILIP			2880 SEAFARRER LOOP	ANCHORAGE	AK	99516
33	FELTON KAREN T			PO BOX 532	TALKEETNA	AK	99676
34	FERRELL DEANNA K	BAISDEN ADINA		HC 89 BOX 8230	TALKEETNA	AK	99676
35	FLEMING MICHAEL PAUL			PO BOX 527	TALKEETNA	AK	99676-0527
36	FOLLETT KIMBERLY G			PO BOX 386	TALKEETNA	AK	99676-0386
37	FORD AMY ALICE			PO BOX 976	WILLITS	CA	95490-0976
38	GAMBS MARY ANN TR		# 4316	4001 SOUTHWEST PKY	WICHITA FALLS	TX	76308
39	GEIGER ALLEN			2101 CASEY CUSACK LOOP	ANCHORAGE	AK	99515-2810
40	GILLARD TIMOTHY H	STRANDLIE KATHY J		PO BOX 1055	TALKEETNA	AK	99676
41	GREENFIELD RICHIE P			HC 89 BOX 8203	TALKEETNA	AK	99676
42	GROSZ ORVILLE D & PATRICIA EST			PO BOX 629	TALKEETNA	AK	99676-0629
43	GUNDERSON MARNE M DECL TR			PO BOX 1142	TALKEETNA	AK	99676-1142
44	HARRIS JOHN D & DAWN M			6850 W JOES DR	WASILLA	AK	99623-9292
45	HEBERT RONALD K			PO BOX 267	TALKEETNA	AK	99676
46	HELTON CHAD & CRYSTAL			PO BOX 229	TALKEETNA	AK	99676-0229
47	HENCKEL MARK E			3 RICHVILLE RD	STANDISH	ME	4004
48	HVISC ROBERT G			PO BOX 189	TALKEETNA	AK	99676
49	JOHNSON TERRENCE K & JANET M			1537 OTTER ST	ANCHORAGE	AK	99504-2540
50	JONES REECE D & JO ANN			1180 DEVONSHIRE DR	VACAVILLE	CA	95687-5624
51	JORGENSEN SHELIS R		% BRONN SALMON	PO BOX 459	TALKEETNA	AK	99676-0459
52	KASO ASHLEY B & KELSEY D			PO BOX 1177	TALKEETNA	AK	99676-1177
53	KEEN FAMILY 2014 TR	SUGAI RAYMOND & TERESA A		HC 89 BOX 8210	TALKEETNA	AK	99676-9702
54	KREIDER JACOB & RENE			4955 N KIPLING DR	WASILLA	AK	99654-9093

55 LANCASTER KEN A & TABITHA		5156 HWY 51 S	ARKDELPHIA	AR	71923
56 LARSON NANCY S EST	% KAREN WILSON PER REP	PO BOX 4149	PALMER	AK	99645
57 LEMMONS THOMAS E & JANET S		609 W 76TH AVE	ANCHORAGE	AK	99518-2571
58 LEPLEY JOSEPH L & LYNNE M		PO BOX 163	TALKEETNA	AK	99676
59 LOWEN WILLIAM L & BONNIE M		PO BOX 1200	TALKEETNA	AK	99676-1200
60 MAHAY KELLY		PO BOX 44	TALKEETNA	AK	99676
61 MAHAY STEPHEN		PO BOX 133	TALKEETNA	AK	99676-0133
62 MARQUEZ MARLENE R REV LVG TR	MARQUEZ ALBERT B REV LVG TR	1791 HOLLYBROOK CIR	ANCHORAGE	AK	99507
63 MATHIESEN PETER & SANDRA		PO BOX 159	TALKEETNA	AK	99676-0159
64 MATTA WESLEY A & CAITLIN M		33577 S BOWERSOX PL	TALKEETNA	AK	99676
65 MATTHEWS MICHAEL J	VALENTINE BETH N	PO BOX 270	TALKEETNA	AK	99676-0270
66 MAY MARILYN	LAWLOR JAS G	2212 ST ELIAS DR	ANCHORAGE	AK	99517-1247
67 MCCULLOUGH EXC & SNOWPLOWING		PO BOX 222	TALKEETNA	AK	99676-0222
68 MCCULLOUGH PETER L & GINA M Y		PO BOX 707	TALKEETNA	AK	99676
69 MILLER CONARD V & A M M		12845 E ALLISON CT	PALMER	AK	99645-9511
70 MOORE DOUGLAS W & APRIL J		HC 89 BOX 8574	TALKEETNA	AK	99676-9705
71 MOORE JUSTIN & CHARITY		HC 89 BOX 8570	TALKEETNA	AK	99676-9705
72 MOORES MANAGEMENT CO LLC	% MOORES HARDWARE & BUILD	HC 89 BOX 8570	TALKEETNA	AK	99676
73 MURRAY JOHN G & KAREN G LVG TR	MURRAY ROBERT P JR	26151 MILLSTREAM DR	CANYON COUNTRY	CA	91387
74 NEWMAN DOUGLAS G		PO BOX 240	TALKEETNA	AK	99676
75 NICKOLS MICHAEL J & PAMELA A		PO BOX 706	TALKEETNA	AK	99676-0706
76 O'HARE CHARLES SEAN	O'HARE LUBOV BELAVTSEVA	880 WESTBURY	ANCHORAGE	AK	99503
77 PALMER MICHAEL A		34422 S WALSTED LN	TALKEETNA	AK	99676
78 PETTEYS DENNIS A SR	MONTAGNINO SHARON A	PO BOX 464	TALKEETNA	AK	99676-0464
79 PINARD DALTON		1500 N SUNNYHILL CIR	WASILLA	AK	99654
80 PODZEMNY JENIFER		HC 89 BOX 623	WILLOW	AK	99688
81 PORTER JOHN		PO BOX 112	TALKEETNA	AK	99676-0112
82 POTTER MICHAEL C & PAMALA J		PO BOX 1050	TALKEETNA	AK	99676
83 PRITZA RONALD J	PRITZA DAVID R TRUST	6565 N 159TH AVE CIR	OMAHA	NE	68116
84 PUDGE KYLE AND JENNIFER	PUDGE LORIN & KAREN	8110 WOODGREEN CIR	ANCHORAGE	AK	99518
85 R2A PROPERTIES LLC		2985 W OLD HIGHWAY RD	MORGAN	UT	84050
86 RABE D MICHAEL & ANNA M		5900 W TREE DR	ANCHORAGE	AK	99507
87 RESTAD MARK V		64575 DIAMOND RIDGE RD	HOMER	AK	99603
88 REYNOLDS FRANCES		PO BOX 724	TALKEETNA	AK	99676
89 ROHAN AARON M & MICHELLE L		HC 89 BOX 8205	TALKEETNA	AK	99676-9702
90 ROTHERMEL CHRISTOPHER M	ROTHERMEL MEAGHAN D	6507 COBBLE CREEK CIR	ANCHORAGE	AK	99507-2223
91 RUNSTROM ERIC J	BREINER LINDA M	HC 89 BOX 8182	TALKEETNA	AK	99676-9701
92 SICKLER JAMES		PO BOX 1161	TALKEETNA	AK	99676-1161
93 SPIRES JAYME L		HC 89 BOX 8192	TALKEETNA	AK	99676
94 STEERE MICHAEL V & TRACY L		PO BOX 226	TALKEETNA	AK	99676-0226
95 STURGIS ELBERT & JANICE		PO BOX 264	TALKEETNA	AK	99676-0264
96 STURGIS JASON		PO BOX 264	TALKEETNA	AK	99676-0264
97 SUMMERHILL JOE A		245 GIN	GURDON	AR	71743
98 SUNDBERG WILLIAM & MELISSA		7900 PORT ORFORD DR	ANCHORAGE	AK	99507
99 SUTTON DAVID & MILDRED		PO BOX 726	TALKEETNA	AK	99676-0726
100 SUTTON ELAINE C		PO BOX 116	TALKEETNA	AK	99676
101 SWANSON DENNIS V	MCKAY NANCY S	PO BOX 845	TALKEETNA	AK	99676-0845
102 TALKEETNA BAPTIST CHURCH		HC 89 BOX 8582	TALKEETNA	AK	99676
103 TALKEETNA TR		537 N BAILEY ST	PALMER	AK	99645-6033
104 TEXAS LLC	%JEN PODZEMNY	HC 89 BOX 623	WILLOW	AK	99688
105 UMPHERS HEATHER		PO BOX 195	TALKEETNA	AK	99676-0195
106 VINYARD HARLEN W	VINYARD JASON W	310 ROSS WAY	WALLULA	WA	99363
107 WALTER LISA		PO BOX 153	TALKEETNA	AK	99676
108 WENTZEL DANA J	ENZWEILER TAYLOR	781 E COLT RD	CHANDLER	AZ	85225
109 WICK MARILYN J		PO BOX 654	TALKEETNA	AK	99676-0654

110 WILLSON GARY & DENISE		27722 NE 143RD ST	DUVALL	WA		98019
111 ZERO TH KATHY S EST	ZERO TH LEEROY R EST	PO BOX 753	TALKEETNA	AK	99676-0753	
112 ZUTZ DAVID	ZUTZ JINNY REESE	3900 E 65TH AVE	ANCHORAGE	AK		99507
113 SUSITNA COMMUNITY COUNCIL		PO BOX 586	WILLOW	AK		99688

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

RECEIVED

JUN 24 2026

Mat-su Borough
Development Services

17
BUSKIRK LARRY & JANE REV TR
BUSKIRK LARRY D & JANE E TRES
PO BOX 310
TALKEETNA AK 99676

PUBLIC HEARING

Atlas Tower 1, LLC, on behalf of The Brown Family Revocable Trust, applied for an Administrative Permit under MSB 17.67 *Tall Structures*. The Permit is for a 125-foot telecommunications tower located at 33693 S. Noel Wien Avenue, Tax ID# 4287000L001.

The Matanuska-Susitna Borough Planning Director will conduct a public hearing concerning the application on Wednesday, July 15, 2026, at 9:30 a.m. in the Borough Assembly Chambers located at 350 E. Dahlia Avenue in Palmer. This may be the only presentation of this item before the Planning Director, and you are invited to attend.

Application materials may be viewed online at www.matsu.gov by clicking on "All Public Notices & Announcements." For additional information, you may contact Natasha Grover, Current Planner, by phone: 907-861-8606. Provide written comments by e-mail to Natasha.Grover@matsugov.us, or by mail to MSB Development Services Division, 350 E. Dahlia Avenue, Palmer, AK 99645.

The public may provide verbal testimony at the meeting or telephonically by calling 1-855-290-3803. To be eligible to file an appeal from a decision of the Planning Director, a person must be designated an interested party. See MSB 15.39.010 for the definition of an interested party. The procedures governing appeals to the Board of Adjustment and Appeals are contained in MSB 15.39.010-250, which is available on the Borough home page: www.matsu.gov, in the Borough Clerk's office, and at various libraries within the borough.

Comments are due on or before July 2, 2026, and will be included in the Planning Director packet. Please be advised that comments received from the public after that date will not be included in the staff report but will be provided to the Director at the meeting.

Name: JANE + LARRY BUSKIRK Mailing Address: P.O. BOX 310, TALKEETNA, AK 99676

Location/Legal Description of your property: Township 24N Range 4W Section 8 Lot A5

Comments: OUR HOME, plus our 5 lots adjacent, are all close to this proposed "tall structure". We are ADAMANTLY OPPOSED to this being built at this site. Reasons for opposing this are: Risk of RF radiation exposure in the neighborhood; Fire risk; property values drop; aesthetic impact; hazardous materials stored on site; environmental impact, including effects on birds, bees (reduced colony strength), trees (growth). We already have nearby cell towers that provide excellent cell reception; there's no need for another tower in this area. This is a neighborhood, not a commercial / industrial area. VOTE NO!

Note: Vicinity Map Located on Reverse Side

Natasha Grover

From: katy borchers <ak.paradise@yahoo.com>
Sent: Saturday, June 27, 2026 5:33 PM
To: Natasha Grover
Subject: Opposition to Atlas Tower 1

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Dear Ms. Grover,

My family and I reside at 33834 S. Noel Wien Avenue in Talkeetna, and are adamantly against the proposed Atlas Tower 1 located at 33693 S. Noel Wien Avenue. This puts our property approximately 260 meters from the back corner (furthest possible location) of the telecommunication tower; any other location puts the tower closer. We have lived here since 2018, when our daughter was 5 and started attending Talkeetna Elementary School. The residential neighborhood with numerous families nearby was the leading attraction to this area of Talkeetna. The proposed tower is within 400 meters of multiple families with young school-age children. There are many real health concerns related to cell towers located within 400 meters of homes, particularly related to developing children. There are also negative impacts on property value of homes due to cell towers. We are dedicated to this community, the welfare of our children, and trust the Matanuska Susitna Borough government to safeguard our families and investments. Please consider the following arguments against the permit and placement of a 125-foot telecommunications tower near our home.

It has long been documented that cell phones can increase the risk of cancer, cellular stress, headaches, sleep issues and more (ehtrust.org, 7/16/2024). We are not discussing one cell phone that you are capable of turning off in your home, we are talking about hundreds, maybe thousands of cell signals associated with a cell tower within 400 meters of our home that will be on 24-hours a day. Cell towers emit radio frequency radiation and research has shown that serious health effects, particularly among developing children, are found within 400 meters. These effects include the aforementioned as well as heart arrhythmia, dizziness and fatigue, anxiety, memory loss and mood changes (emf-harmony.com, 2026). For children with developing nervous systems, higher moisture/ionic content in brain tissue and thinner skulls, studies link elevated RF-EMF exposure from cell towers to delayed fine/gross motor skills, impaired spatial working memory, reduced attention spans, and more serious cellular stresses like altered white blood cell count and increased DNA damage (National Institute of Health, Health effects of electromagnetic fields on children, 5/26/2020). My daughter is 13. Our neighbor, less than 50 feet away, has a 7 year old, 13 year old, and 15 year old. I can continue to share the ages of our neighborhood children, which are numerous, but the point is they will continue to live, grow, and develop here in our homes (hopefully) over the course of the next 5-10 years. Please consider our children and deny this permit.

In addition to the health implications, there is also the concern of telecommunication towers having a negative impact on property value. This will directly impact the Borough in regards to assessed value of a large number of homes in vicinity of the tower. Some research suggests the value can decrease by as much as 20%. This is a result of the real health concerns, but also aesthetics of the area (nar.realtor.com, 11/06/2024). Research shows that over 90% of home buyers would pay less for property near a cell tower, and the Department of Housing and Urban Development classifies a cell tower as a "Hazard and Nuisance, requiring appraisers to make adjustments to value due to the effect on marketability," (wiresessequity.com, How Cell Towers Impact Property Value). Our neighborhood is lovely, safe, and the result of years of landscaping, home improvement and maintenance. There may be a need for additional cell towers in Talkeetna, but there are countless lots of land where a 125-foot telecommunications tower could exist without impacting a neighborhood full of loving families, developing children, and borough residents invested in the future of our community.

We oppose the Atlas Tower 1 permit at 33693 S. Noel Wien Avenue. Please reach out with any questions, concerns, or if you require further comments or testimony.

Regards,

Katherine Borchers, 907-599-0022
Secretary/Registrar Susitna Valley Jr/Sr High School

33834 S. Noel Wien Ave./PO Box 1198
Talkeetna, AK 99676

Natasha Grover

From: tkamermaid <tkamermaid@att.net>
Sent: Monday, June 29, 2026 8:37 AM
To: Natasha Grover
Subject: Ref: Atlas Tower1 LLC. Application for Permit at 33693 S. Noel Wien Ave. Tax ID# 4287000L001

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Please accept and submit my comments in regards to the proposed tower installation permit.

I am the Owner and Resident on Lot 8B and I also own Lot 4 of Moose Hollow Add 1. I am opposed to the installation of a lighted Cell Tower in such close vicinity to my residence. During the dark winter nights the light pollution will pierce the sky and ruin any opportunity to clearly view the Northern Lights. Also, if it is a flashing red or white light it will be very annoying and distracting.

We do frequently experience low flying aircraft such as helicopters and float planes, the tower may require them to alter their flight paths, which will be sad because I rather enjoy seeing them. I also have concerns about the potential health affects from the microwave energy being emitted from such towers as well as potential electronic interference that may be caused by their operations. Also any noise coming from the tower will be very disturbing to our very quiet neighborhood.

Again, I emphatically oppose the installation of this proposed tower!

Heidi M. Anderson

Property owner and resident at 16807 E. Winterset Drive and property owner of 16822 E. Winterset Drive.

Mailing Address:
PO Box 311
Talkeetna, AK 99676
907-360-0603

Thank you.

Sent from my Galaxy

Natasha Grover

From: Sharon Montagnino <chwc2004@yahoo.com>
Sent: Wednesday, July 1, 2026 9:09 AM
To: Natasha Grover
Subject: Tall structure on S. Noel Wien Ave. in Talkeetna

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

This proposed Atlas Tower borders my property on Winterset Dr. My house front windows and front porch face the power line and S. Noel Wien. I do not want to have see the tower when sitting on my porch or in my living room. I especially do not want to have any lights on the proposed tower to shine in my house. Also, I am concerned that placing a tower this close to someones property my lower the property value. I would like to see this proposed tower request denied.

Sharon Montagnino
PO Box 464, Talkeetna 99676
Moose Holw Add #2 Lot 8A Parcel ID 12428

Natasha Grover

From: JAMES SICKLER <James.Sickler@matsuk12.us>
Sent: Wednesday, July 1, 2026 3:50 PM
To: Natasha Grover
Subject: Please No Atlas Tower 1 at 33693 S Noel Wien Ave.

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

I am writing in opposition to the proposed cell tower at 33693 S Noel Wien Ave, Talkeetna, AK 99676.

This letter represents my tenants, Chris and Samantha Drews, who dwell at 33804 S Noel Wien Ave across the street from the proposed tower. They are concerned about the potential health risks.

Thank you for considering an alternative location.

Jimmy Sickler – *Athletic Director, Business Education*

Susitna Valley Jr/Sr High School

Talkeetna, Alaska 99676

PH: 907-733-9300 | Fax: 907-733-9380

www.matsuk12.us/svs

Natasha Grover

From: wstearns@mtaonline.net
Sent: Wednesday, July 1, 2026 1:08 PM
To: Natasha Grover
Cc: ALASKA RESOURCE GROUP LLC
Subject: Tall Structures Tax ID# 4287000L001 Located at 33693 S. Noel Wien Av

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Ms. Grover - As a local helicopter owner/pilot, I am formally requesting that the proposed 125 foot telecommunications tower be fitted with an aviation grade marker beacon on the top with 24/7 operation & maintenance feature.

Thank you.

William W. Stearns
35269 S. Hopper Drive
Talkeetna AK 99676

Natasha Grover

From: Dana Wentzel <danajohnwentzel@gmail.com>
Sent: Wednesday, July 1, 2026 4:02 PM
To: Natasha Grover
Subject: Comment for proposed 125-foot telecommunications tower at 33693 S. Noel Wein Avenue

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Dana John Wentzel and Taylor Enzweiler
16756 E Moose Hollow Ave.,
Talkeetna, Alaska 99676

Parcel 2528B01L003
Parcel Owner(s)
WENTZEL DANA J
ENZWEILER TAYLOR

Ownership
PRIVATE

Legal Description
MOOSE HOLLOW BLOCK 1 LOT 3

I respectfully submit this comment in opposition to the administrative permit application submitted by Atlas Tower 1, LLC, on behalf of the Brown Family, for the proposed 125-foot telecommunications tower at 33693 S. Noel Wein Avenue.

My partner and I moved to this area because of its rural character, natural beauty, and the opportunity to live away from the commercial development and infrastructure commonly found in more populated areas. The quiet, open landscape is one of the primary reasons we chose to invest in our property, and a 125-foot telecommunications tower would significantly alter the character of our neighborhood.

As a Marine Corps veteran with a 70% VA disability rating, I already live with ongoing health challenges. These include persistent headaches, dizziness, insomnia, fatigue, difficulty concentrating, memory issues, and tinnitus. Because I live with these conditions every day, I am deeply concerned about introducing a large telecommunications tower so close to my home. Whether or not the tower ultimately contributes to these symptoms, its presence would be a constant source of stress and anxiety for me and would diminish the peaceful environment that we intentionally sought when we moved to rural Alaska.

In addition to my personal concerns, I believe the proposed tower is incompatible with the surrounding rural residential area. A 125-foot commercial telecommunications tower would become a dominant visual feature of the landscape, fundamentally changing the character of the neighborhood. Many of us chose this area because of its open views, natural setting, and lack of large commercial infrastructure. The proposed tower would negatively affect our enjoyment of our properties and could adversely impact nearby property values.

I respectfully ask the Borough to carefully evaluate whether this location is appropriate for a structure of this size and whether less intrusive alternatives exist, including co-location on existing telecommunications facilities or siting the tower in a location farther from established residences.

I appreciate the Borough's consideration of the interests of the surrounding property owners and respectfully request that the administrative permit be denied or that an alternative location be required.

Natasha Grover

From: Eric Chappel <ericwchappel@gmail.com>
Sent: Thursday, July 2, 2026 5:59 PM
To: Natasha Grover
Subject: Proposed Tower located 428700L001

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

July 1, 2026

Matanuska-Susitna Borough Development Services Division
Attn: Natasha Grover, Current Planner
350 E. Dahlia Avenue
Palmer, AK 99645

Re: Public Comment – Administrative Permit for Telecommunications Tower 33693 S. Noel Wien Avenue – Tax ID #4287000L001

Dear Planning Director,

We are writing as nearby property owners to provide public comment regarding the proposed 125-foot telecommunications tower at 33693 S. Noel Wien Avenue.

Our residence is located at **16677 E. George Kitchen Avenue, Talkeetna, Alaska 99676**, and we respectfully oppose approval of this permit at the proposed location.

While we recognize the importance of reliable cellular service, we believe this tower should be located in a less densely populated area where it would have a reduced impact on surrounding residents.

Our concerns include:

- The proposed tower is located within a residential subdivision and is not consistent with the rural residential character of the neighborhood.
- We are concerned that a structure of this height will have a significant visual impact on nearby homes and properties.
- We are concerned about any lighting that may be required on the tower. Preserving the dark skies in our community is important to us, and additional lighting could diminish our enjoyment of our property and our ability to view the northern lights.
- We also have concerns regarding the potential long-term health effects of locating a telecommunications tower in close proximity to homes.
- We believe there are alternative locations that would allow the applicant to provide cellular coverage while minimizing impacts on surrounding residents.

For these reasons, we respectfully request that the permit be denied at this location and that alternative sites with fewer impacts to nearby homeowners be considered.

Thank you for considering our comments.

Sincerely,

Eric Chappel
Jamie Chappel
16677 E. George Kitchen Avenue
Talkeetna, AK 99676

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

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JUL 02 2026

Mat-su Borough
Development Services

78
PETTEYS DENNIS A SR
MONTAGNINO SHARON A
PO BOX 464
TALKEETNA AK 99676-0464

PUBLIC HEARING

Atlas Tower 1, LLC, on behalf of The Brown Family Revocable Trust, applied for an Administrative Permit under MSB 17.67 *Tall Structures*. The Permit is for a 125-foot telecommunications tower located at 33693 S. Noel Wien Avenue, Tax ID# 4287000L001.

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The public may provide verbal testimony at the meeting or telephonically by calling 1-855-290-3803. To be eligible to file an appeal from a decision of the Planning Director, a person must be designated an interested party. See MSB 15.39.010 for the definition of an interested party. The procedures governing appeals to the Board of Adjustment and Appeals are contained in MSB 15.39.010-250, which is available on the Borough home page: www.matsu.gov, in the Borough Clerk's office, and at various libraries within the borough.

Comments are due on or before July 2, 2026, and will be included in the Planning Director packet. Please be advised that comments received from the public after that date will not be included in the staff report but will be provided to the Director at the meeting.

Name: Sharon Montaguino Mailing Address: PO Box 464, Talkeetna AK 99676

Location/Legal Description of your property: Moose Hollow Add #2 Lot 8A Parcel ID 12428

Comments: This proposed Atlas Tower borders my property on Winterset Dr. My house front windows and front porch face the powerline and S. Noel Wien. I do not want to have to see the tower when sitting outside or in my living room. I especially do not want any tower lights shining in my house. Also, I am concerned that placing a tower this close to someone's property may lower the property value. I would like to see the proposed tower request denied.

Note: Vicinity Map Located on Reverse Side

CORRESPONDENCE

Natasha Grover

From: MEAContact <MEAContact@mea.coop>
Sent: Tuesday, July 7, 2026 2:57 PM
To: Natasha Grover
Subject: 33693 S Noel Wien Ave

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good afternoon, Natasha

Per our phone conversation earlier, confirming power is located for service at Moose Hollow ADD1 Lot 1 and Lot 8A. For specific easement questions please contact the Right of Way department at meadow@mea.coop

Thank you,
Bettina

Matanuska Electric Association, Inc.

Phone: (907) 761-9300
FAX: (907) 761-9520
Mail: 163 E Industrial Way Palmer AK 99645-6703
E-mail: meacontact@mea.coop



This email and any files transmitted with it are the property of the sender and are intended solely for the use of the individual or entity to whom this email is addressed and should not be copied or forwarded to others without the permission of the sender. If you are not one of the named recipients or otherwise have reason to believe that you have received this message in error, please notify the sender and delete this message immediately from your computer. Any other use, retention, dissemination, forwarding, printing, or copying of this message is strictly prohibited. Information contained herein is my opinion and view and not necessarily those of MEA unless specifically stated.

Natasha Grover

From: Natasha Grover
Sent: Tuesday, July 7, 2026 1:42 PM
To: 'Parker Bingham'
Subject: RE: Materials Needed, Finalizing Staff Recommendation Report - 33693 S. Noel Wien Ave. - TOWER-2024-10035
Attachments: 1000027313.jpg; 1000027315.jpg

Thanks Parker.

Payment is complete, all good there.

Stamped site plans received; we've had so many versions for this one I knew they must exist somewhere. For this version, are all of the changes noted by the "clouds" around the notations?

Thanks for clarifying the redline distance.

Depending on the easement creation, the lines don't always sit exactly centered. My goal was just to clarify the distance between the tower base and the nearest physical line to compare with the potential crumple radius.

A couple site visit photos are attached for reference. As with most utility lines there are wires that extend beyond the centerline of the power pole, which is why I asked about the closest distance.

The likelihood of a tower collapse, and the distance from the utility lines will be a discussion point and taken into consideration for the health & safety aspect. However, due to the low likelihood of collapse and the limited effect of the lines in that event, the overall recommendation is approval. This info was all considered previously, but dotting i's and crossing t's for the record.

Thank you,

Natasha Grover

Current Planner
Mat-Su Borough Planning Department
350 E. Dahlia Ave. Palmer, Alaska 99645
Desk: (907) 861-8606
Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Tuesday, July 7, 2026 12:25 PM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: Materials Needed, Finalizing Staff Recommendation Report - 33693 S. Noel Wien Ave. - TOWER-2024-10035

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

I paid for the fees online not too long ago so that should be good to go. I also just sent the stamped drawings that I was mistaken in not having.

For the redline, we had measured from the base of the tower closest to the line, to the center of the actual powerline. Since the easement is 15' on each side of the line, it would be approx. 27.5' from the easement itself. Let me know if you need that shown and we can draw that up. Thanks!

Best,
Parker

On Tue, Jul 7, 2026 at 2:21 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Thank you Parker,

Can you confirm if that distance to the powerline is to the nearest overhead wire or to the center of the lines and the power pole(s)?

If you can provide a redline version showing both distances to the easement and to the overhead wire, then the report will facilitate the discussion based on your provided site plans.

If at all possible, the stamped site plans are necessary as part of the application to comply with MSB 17.67.070(A)(5).

With all of the revisions for this project I know we had previously stamped versions but not the most recently provided.

If necessary a condition will be sufficient for this application.

Thank you for confirming the lighting plans and payment method.

When sending the check, please note the permit number and/or have ATTN: Permit Center or myself to be sure it is routed to our department correctly.

Thank you,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>

Sent: Tuesday, July 7, 2026 11:34 AM

To: Natasha Grover <Natasha.Grover@matsugov.us>

Subject: Re: Materials Needed, Finalizing Staff Recommendation Report - 33693 S. Noel Wien Ave. - TOWER-2024-10035

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Please find attached a redlined copy of the site drawings. We added a to-scale line marking 42.5' from the base of the tower to the powerline. The fall letter notes that there would be a crumple radius of 35'. Please let me know if you need anything else on this.

I am also confirming that Atlas Tower has no intention to install a light on the tower, per the FAA recommendation.

I will see what I can do about getting the drawings stamped prior to the meeting. Worst case they will be in the queue for stamping at the time of the hearing, but I imagine that can be a condition of approval.

Lastly, we will send a check for payment of the noticing.

Best,

Parker

On Tue, Jul 7, 2026 at 1:17 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Hi Parker,

Nice to catch you this morning.

As discussed, there are no FAA requirements for lighting on the tower and there is no proposed light being placed on the tower.

Can you please reply to confirm this is accurate?

The most current materials that I have been working from to finalize the staff report can be found at the following link where the public notice was posted:

<https://matsu.gov/public-notices/msb-17-67-tall-structures-application-for-33693-s-noel-wien-avenue-tax-id-4287000-l-001>

Prior to the hearing on July 15, 2026, please provide the following:

- Certified Site Plan including certified stamp. The site plans received 5/1/2026 (pg. 12 of the application packet) do not include the engineer's stamp.
- Please provide a distance, on the site plan or in statement form, confirming the distance from the base of the tower to the electric easement.
- Mailing and Advertising Fees – This invoice will be sent momentarily from the EPL system and may be paid online or a check may be mailed.

○ Postage:	\$83.62
○ Certificate of Bulk Mailing:	\$13.50
○ Newspaper posting:	\$61.60
○ Total Public Notice Fee Due:	\$158.72

Talk to you soon,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

Natasha Grover

From: Natasha Grover
Sent: Friday, June 26, 2026 12:30 PM
To: Parker Bingham
Subject: RE: Review Status - TOWER-2024-10035, 33693 S. Noel Wien

You as well!

Thank you for your patience. We look forward to wrapping up this tower process with you.

Have a great day,

Natasha Grover

Current Planner
Mat-Su Borough Planning Department
350 E. Dahlia Ave. Palmer, Alaska 99645
Desk: (907) 861-8606
Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Friday, June 26, 2026 7:01 AM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: Review Status - TOWER-2024-10035, 33693 S. Noel Wien

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Thank you very much, Natasha!
Have a great weekend!

Best,
Parker

On Thu, Jun 25, 2026 at 8:14 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Hello Parker,

The administrative hearing for TOWER-2024-10035, proposed at 33693 S. Noel Wien Avenue, is scheduled for Wednesday July 15, 2026 at 9:30 a.m. in the Mat-Su Borough Assembly Chambers located at 350 E. Dahlia Avenue in Palmer.

After a review of the materials submitted and the facts currently available, it is the staff's recommendation to approve the Administrative Permit to construct a 125' lattice tower on the property at the proposed location in accordance with MSB 17.67.

It is always possible that if other facts come to light, it could change the staff's recommendation.

If there are any further clarifications needed prior to the hearing we will let you know as soon as possible.

A final staff report and packet associated with the agenda of the meeting will be available the week prior to the meeting.

Per MSB 17.67.020(D), permits are required prior to construction of all new tall structures. However, there is nothing prohibiting any site work to begin so long as construction of the tower does not commence until the permit is completed.

Please let me know if you have any questions.

Have a great day,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

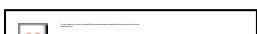
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Parker Bingham

Project Manager

Cell: +1 (303) 667-8304

pbingham@atlastowers.com



Natasha Grover

From: Natasha Grover
Sent: Thursday, June 25, 2026 10:49 AM
To: 'Parker Bingham'
Subject: RE: MSB Admin Tower - Noel Wien - Status Update

Hi Parker!!

Today! I have shut my door and I am “not here” in the office.
Finalizing the tower report so we can send the written “soft” recommendation to you.

Stay tuned, and once again thank you for your patience.

Talk to you soon,

Natasha Grover

Current Planner
Mat-Su Borough Planning Department
350 E. Dahlia Ave. Palmer, Alaska 99645
Desk: (907) 861-8606
Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Thursday, June 25, 2026 5:29 AM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good morning Natasha,

Kindly following up on the written recommendation you had referenced. Do you think we can get that today or early tomorrow? Thanks!

Best,
Parker

On Tue, Jun 23, 2026 at 11:45 AM Parker Bingham <pbingham@atlastowers.com> wrote:

Thank you for the update, Natasha.

best,
Parker

On Mon, Jun 22, 2026 at 10:22 AM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Good morning Parker,

Thank you yet again for your patience.

My director had a change of schedule, but we have now had the chance to connect and review key application details.

I will get something in writing to you by the end of the day for our current recommendation based on the facts currently at hand; to approve the permit for the 125' administrative tower in it's proposed location.

Talk to you soon,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Thursday, June 18, 2026 7:09 AM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good morning Natasha,

Checking in here, are we able to get a statement letter or something in the form of documentation that has this "soft recommendation"?

Thanks!

Best,

Parker

On Fri, Jun 12, 2026 at 8:47 AM Parker Bingham <pbingham@atlastowers.com> wrote:

Good morning Natasha,

I wanted to check if you're available to move our call up today. Please let me know if 10-11am would work for you, no worries if not, we can always stick to noon. Thanks!

Best,

Parker

On Wed, Jun 10, 2026 at 2:36 PM Parker Bingham <pbingham@atlastowers.com> wrote:

Sounds good, thanks for the update!

On Tue, Jun 9, 2026 at 6:21 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Hi Parker,

Thanks for your email this morning, and for the well wishes.

That email was supposed to send to you last week but must've gotten stuck in my outbox.

I am back in the office and hope to have a better update for you by Friday.

Friday 6/12 at noon (AK time) work for you?

Thank you for the timeline update. Our goal is always to expedite the process best we can, but it is also very helpful to understand the constraints you are faced with.

The “soft” answer I have received about the “soft answer” is that my director should be able to send an informal note to you/GCI that indicates the general direction of the decision based on the current facts. As we’ve said, a decision cannot be made prior to the public meeting and it is possible that other facts to the case may be brought to light prior to the final decision being issued. That being said, they are included to share the general recommendation with the limited facts when the staff report is finalized.

Talk to you soon,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham pbingham@atlastowers.com

Sent: Monday, June 8, 2026 8:20 AM

To: Natasha Grover Natasha.Grover@matsugov.us

Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good morning Natasha,

Just kindly wanted to see if you were able to have that discussion with the planning manager on the "soft approval?". I spoke with my team a bit more on this and one thing I wanted to bring up was that GCI is partially funding this project because of a federal grant. However, their grant money explicitly requires that the funds are used by the end of 2026, otherwise they disappear and cannot be utilized.

Because of this I did want to stress the importance of us sticking closely to our schedule. If we have to wait until July 9th to order the tower our build timelines will be pushed out, and as you know our build windows in Alaska are shorter. We run the risk of not getting the tower up this year and if that is the case, GCI will end up pulling the budget and this project may not happen for another few years.

Understanding your department cannot flat out "pre-approve" a decision, we would welcome a conversation about reasonable assurances so we can make an informed decision on how we want to proceed and potentially take on risk.

Thanks for your understanding on all this!

Best,

Parker

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Tuesday, June 9, 2026 12:32 PM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Sorry to hear you caught something and I hope you have a speedy recovery. Do you think you'd have availability to discuss on Friday, or is next week the only time you'll be available? We would just appreciate as many updates as we can get so we can make as informed a decision as possible.

Thanks!

Best,

Parker

On Tue, Jun 9, 2026 at 1:35 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Received, thanks Paker.

Unfortunately I got hit with a bug and am not in office today.

Let's raincheck out meeting to touch base on Monday or Tuesday.

I did discuss timing with my director, and it looks like we will shoot for hearing on Wednesday July 15th.

Talk to you soon,

Natasha

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Friday, June 5, 2026 7:45 AM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Here is the revised tower height drawings, reducing the height to 125' above concrete. Please let me know if this looks good to you, thanks!

Best,

Parker

On Wed, Jun 3, 2026 at 3:09 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Received, thank you!

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>

Sent: Wednesday, June 3, 2026 12:54 PM

To: Natasha Grover <Natasha.Grover@matsugov.us>

Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Likewise, thanks for the call.

Attached is the current FAA and RF maps for the location being discussed. Please let me know if you have any questions or need updates to those for any reason.

I'll get the drawings updated with those two callouts you mention above as well.

Thanks!

Best,

Parker

On Wed, Jun 3, 2026 at 2:36 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Hi Parker,

So very nice to catch up with you this afternoon.

Thank you again for your positive attitude and understanding – it really does make all the difference.

As we discussed, I am working to finalize the staff report and recommendations for the Brown Family admin tower permit at 33693 S. Noel Wien Avenue.

It would be very helpful if you could provide me with the following info:

- Updated plans reflecting a total tower height of 125'
- Add distance to site plan showing the proximity between tower and electric easement
- FAA no hazard determination: please send most current document
- RF analysis: please send most current documents

I'll chat with my director and see what type of "soft answer" we can get for you.

Talk to you Friday!

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Natasha Grover <Natasha.Grover@matsugov.us>
Sent: Wednesday, June 3, 2026 9:57 AM
To: Parker Bingham <pbingham@atlastowers.com>
Subject: RE: MSB Admin Tower - Noel Wien - Status Update

12:00 pm AK time it is.

Talk to you soon!

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Wednesday, June 3, 2026 5:12 AM
To: Natasha Grover <Natasha.Grover@matsugov.us>
Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good morning Natasha,

If we could schedule for 12 that would be great. Thank you!

On Tue, Jun 2, 2026 at 3:36 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Tomorrow sounds great.

Thanks again for your understanding especially as we are so short staffed at the moment. We know how frustrating it can be to be waiting on these parts of the process.

Tomorrow I can make myself available anytime between 11:00 - 4:00 pm AK time.

You pick what works best for you and let me know.

Talk to you soon,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>

Sent: Tuesday, June 2, 2026 12:40 PM

To: Natasha Grover <Natasha.Grover@matsugov.us>

Subject: Re: MSB Admin Tower - Noel Wien - Status Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Great to hear from you, and thanks for getting back to me. Unfortunately today at those times would not work for me. Can we schedule something for tomorrow? I am generally available so if there is a time that works best for you please let me know.

Looking forward to speaking with you on it, thanks again!

Best,

Parker

On Tue, Jun 2, 2026 at 2:37 PM Natasha Grover <Natasha.Grover@matsugov.us> wrote:

Hello Parker,

Thank you very much for your patience.

I sincerely apologize for the delay in response with you about the status of this permit.

Do you have time today to chat?

Would 2:30 or 3:00 pm AK time work for you?

Talk to you soon,

Natasha Grover

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Grover@matsugov.us

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Parker Bingham

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ATLAS  TOWER 

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Parker Bingham

Project Manager

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ATLAS  TOWER 

Natasha Grover

From: Natasha Heindel
Sent: Monday, March 16, 2026 11:20 AM
To: 'Parker Bingham'
Subject: RE: Tower-2025-10041 - UofA, 24N04W05C001

Hi Parker,

Thank you for asking for clarification.

If you would like to pursue both tower applications, that is an option.

Though if only one tower is desired to be constructed, we would prefer if Atlas gives an indication of the preferred site and we can coordinate a path to success together.

MSB 17.67.010(B)(2) states the borough's intent to minimize the overall number of future towers by encouraging collocation. At the hearing staff may address the close proximity of the towers to each other.

University of Alaska – Tax ID # 24N04W05C001

- Design drawings must be signed by a registered engineer or architect.
 - Provide structural engineering plans for the tower (i.e., concrete footing, etc.).
- Certified site plan must be signed by an architect, engineer, or surveyor licensed by the state of Alaska.

Brown Family Trust – Tax ID # 4287000L001, 33693 S. Noel Wien Ave.

- Provide updated site plans with proposed location of tower; minimum acceptable distance from utility lines will be equal to breakpoint height.
 - Looking at the last plans provided for the Brown Family tower, the tower base was located less than 40' from the overhead utility lines. The proximity of the utility lines pose a safety hazard to the public.

Talk to you soon,

Natasha Heindel

Current Planner
Mat-Su Borough Planning Department
350 E. Dahlia Ave. Palmer, Alaska 99645
Desk: (907) 861-8606
Natasha.Heindel@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Monday, March 9, 2026 6:47 AM
To: Natasha Heindel <Natasha.Heindel@matsugov.us>
Subject: Re: Tower-2025-10041 - UofA, 24N04W05C001

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Good morning Natasha,

I wanted to not only check on the current status of the University of Alaska parcel for zoning but also bring up another point of discussion regarding this tower.

As you know, we had previously worked on Ms. Brown's parcel for a zoning approval to install the Talkeetna project tower there. Due to setbacks not being met we had to move elsewhere, which prompted this new lease with the University of Alaska and subsequent zoning review.

Since the code has now been amended to allow for setback reduction via breakpoint technology, we wanted to revisit the original location as it is significantly more straightforward path to getting a tower up. We are facing permitting slowdowns with AK DNR on the university parcel and it could result in delays that would disqualify it from GCI's 2026 federal funding.

I know you are nearly ready to release a zoning hearing date for the current parcel, but I wanted to check with you on what would be necessary to put the original parcel back onto the schedule? I am getting a new signature of authorization from Ms. Brown, but would you like me to resend the relevant documents?

Please advise what I need to do to get that one brought back up. To clarify, we prefer to complete zoning reviews for both parcels simultaneously. We don't want to slow down, but our intention is to construct only **one** of these projects. There is no need nor budget for both.

Thanks for the help!

Best,
Parker

On Thu, Feb 19, 2026 at 1:33 PM Parker Bingham <pbingham@atlastowers.com> wrote:

Hi Natasha,

Just wanted to check on this one. Assuming the site visit was successful, when do you believe we will be able to get this one scheduled for hearing? Thanks!

Best,
Parker

On Thu, Feb 12, 2026 at 4:18 PM Parker Bingham <pbingham@atlastowers.com> wrote:

Sure thing, please see attached.

Best,
Parker

On Thu, Feb 12, 2026 at 10:40 AM Natasha Heindel <Natasha.Heindel@matsugov.us> wrote:

Thank you Parker,

I will be in touch after the full review and site visit with any clarifications needed.

Are you able to resend the "Talkeetna Obstructions Evaluation Airport Airspace Analysis" uploaded for the FAA Determination?

I am unable to view or download the attachment uploaded with the application.

Thank you,

Natasha Heindel

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Heindel@matsugov.us

From: Parker Bingham <pbingham@atlastowers.com>
Sent: Thursday, February 12, 2026 6:26 AM
To: Natasha Heindel <Natasha.Heindel@matsugov.us>
Subject: Re: Tower-2025-10041 - UofA, 24N04W05C001

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Hi Natasha,

Thank you for the reminder and update. The fee has been paid in full. Please let me know if there are any questions or concerns after the visit, thanks!

Best,

Parker

On Wed, Feb 11, 2026 at 8:37 PM Natasha Heindel <Natasha.Heindel@matsugov.us> wrote:

Hello Parker,

Please note that the fee remains unpaid for the administrative tower permit for the proposed 125' lattice tower to be developed on Talkeetna Spur Road.

If you have any trouble accessing your permit portal account to pay the invoice please let me know.

We will be in the area and conducting a site visit tomorrow, Thursday February 12th.

Talk to you soon,

Natasha Heindel

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Heindel@matsugov.us

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Parker Bingham
Project Manager
(916) 505-1017
pbingham@atlastowers.com

Natasha Grover

From: Natasha Heindel
Sent: Saturday, May 3, 2025 9:23 AM
To: Parker Bingham
Cc: Rick Benedict; Rebecca Skjothaug
Subject: Status Update & Information Required

Good morning Parker,

It was nice to speak with you last week regarding the details needed to move forward with a tower at the proposed location on Noel Wien Avenue in Talkeetna.

Property Owner & Permit Status

I also spoke with the property owner this week in efforts to conduct a site visit of the property. We were going to be in the area and reached out to give the property owner notice of our visit.

When speaking with Ms. Brown on 4/30/25, she made it clear that they were choosing not to proceed with the proposed tower.

If Atlas Tower chooses to provide updated materials and move forward with the proposed project, it will be essential that the Landlord of the lease area agrees to the conditions and is aware that the borough may enter the property at any time to perform inspections related to the tower permit.

Please provide a status update to clarify the current intent of the application.

The key points of our conversation on 4/25/25 regarding application materials are outlined below.

Setbacks to Property Lines

To recap our conversation, the proposed tower is expected to meet setback requirements outlined in MSB 17.67.

If a reduction in setbacks is pursued, an updated justification is required.

The justification for setback reduction must include clear, detailed, and factual evidence to support the reduction.

An example in the previous justification, as we discussed, mentioned things such as topography, but did not clearly explain the topography of the site and why the proposed location is necessary.

Please expand on the justification narrative to explain in detail why the proposed tower location is necessary compared to other areas on the subject property.

Public Safety

Related to the justification narrative, it had been requested that the application address the public safety per MSB 17.67.090(A)(2)(a).

The powerline in close proximity to the proposed tower needs to be addressed in the application materials.

Along with the proposed breakpoint technology, please provide a narrative regarding the proximity to the powerline and the effect on public safety.

Adjacent Property Input

It has been determined that input from adjacent properties is not adequate support for the tower in lieu of the code requirements.

Allowing a neighbor to affect the permit decision would be an illegal delegation of authority, in which other parties may be able to have an undue effect on the permit outcome.

From our conversation, I understand that Atlas Tower will update the application materials from those submitted on 2/28/25.

We look forward to confirming the proposal status and reviewing any updated materials.

Talk to you soon,

Natasha Heindel

Current Planner

Mat-Su Borough Planning Department

350 E. Dahlia Ave. Palmer, Alaska 99645

Desk: (907) 861-8606

Natasha.Heindel@matsugov.us