

Chair

Tom McGann

Commissioners

Scott Pegau

John Baenen

Allen Roemhildt

Mark Frohnapfel

Heath Kocan

Nancy Bird

City Planner

Samantha Greenwood

Assistant Planner

Leif Stavig

**PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017 AT 6:45 PM
CORDOVA CENTER COMMUNITY ROOMS A & B**

AGENDA**1. CALL TO ORDER****2. ROLL CALL**

Chair Tom McGann, Commissioners Scott Pegau, John Baenen, Allen Roemhildt, Mark Frohnapfel, Heath Kocan, and Nancy Bird

3. APPROVAL OF AGENDA (voice vote)**4. APPROVAL OF CONSENT CALENDAR (voice vote)**

- a. Minutes of July 11, 2017 Public Hearing **Page 2**
- b. Minutes of July 11, 2017 Regular Meeting **Page 3**
- c. Record excused absence for John Baenen and unexcused absence for Heath Kocan from the July 11, 2017 Regular Meeting

5. DISCLOSURES OF CONFLICTS OF INTEREST**6. CORRESPONDENCE****7. COMMUNICATIONS BY AND PETITIONS FROM VISITORS**

- a. Guest Speakers
- b. Audience comments regarding agenda items (3 minutes per speaker)

8. PLANNER'S REPORT **Page 5****9. NEW/MISCELLANEOUS BUSINESS**

- a. CTC Telecommunication Tower - Conditional Use Permit **Page 6**
- b. Resolution 17-02 – Capital Improvement List **Page 44**
A resolution of the Planning Commission of the City of Cordova, Alaska, recommending a capital improvement list to the City Council of the City of Cordova, Alaska

10. PENDING CALENDAR

- a. August 2017 Calendar **Page 49**
- b. September 2017 Calendar **Page 50**

11. AUDIENCE PARTICIPATION**12. COMMISSION COMMENTS****13. ADJOURNMENT**

PLANNING COMMISSION PUBLIC HEARING
JULY 11, 2017 AT 6:30 PM
CORDOVA CENTER COMMUNITY ROOMS A & B
MINUTES

1. CALL TO ORDER

Chair **Tom McGann** called the Planning Commission Public Hearing to order at 6:30 PM on July 11, 2017 in Cordova Center Community Rooms A & B.

2. ROLL CALL

Present for roll call were Chair **Tom McGann** and Commissioners, **Scott Pegau**, **Allen Roemhildt**, **Mark Frohnapfel**, and **Nancy Bird**. **John Baenen** and **Heath Kocan** were absent.

Also present was City Planner **Samantha Greenwood** and Assistant Planner **Leif Stavig**.

0 people were in the audience.

3. PUBLIC HEARING

a. Final Plat Approval for Tract E, Whitshed Road Mile 5, Anderson Lot Subdivision

M/Pegau S/Frohnapfel to recess until 6:44.
With no objection, the hearing was recessed.

The Public Hearing came back to order at 6:44 PM.

4. ADJOURNMENT

M/Frohnapfel S/Pegau to adjourn the Public Hearing at 6:45 PM.
With no objection, the hearing was adjourned.

Approved:

Tom McGann, Chair

Leif Stavig, Assistant Planner

PLANNING COMMISSION REGULAR MEETING
JULY 11, 2017 AT 6:45 PM
CORDOVA CENTER COMMUNITY ROOMS A & B
MINUTES

1. CALL TO ORDER

Chair **Tom McGann** called the Planning Commission Regular Meeting to order at 6:45 PM on July 11, 2017 in Cordova Center Community Rooms A & B.

2. ROLL CALL

Present for roll call were Chair **Tom McGann** and Commissioners, **Scott Pegau**, **Allen Roemhildt**, **Mark Frohnapfel**, and **Nancy Bird**. **John Baenen** and **Heath Kocan** were absent.

Also present was City Planner **Samantha Greenwood** and Assistant Planner **Leif Stavig**.

0 people were in the audience.

3. APPROVAL OF AGENDA

M/Bird S/Frohnafel to approve the agenda.

Upon voice vote, motion passed 5-0.

Yea: McGann, Pegau, Roemhildt, Frohnafel, Bird

Absent: Baenen, Kocan

4. APPROVAL OF CONSENT CALENDAR

a. Minutes of June 13, 2017 Public Hearing

b. Minutes of June 13, 2017 Regular Meeting

c. Record excused absence for **Scott Pegau** and **Heath Kocan** from the June 13, 2017 Regular Meeting

M/Bird S/Roemhildt to approve the consent calendar.

Upon voice vote, motion passed 5-0.

Yea: McGann, Pegau, Roemhildt, Frohnafel, Bird

Absent: Baenen, Kocan

5. DISCLOSURES OF CONFLICTS OF INTEREST

6. CORRESPONDENCE

a. Letter from State of Alaska DOT

7. COMMUNICATIONS BY AND PETITIONS FROM VISITORS

a. Guest Speakers

b. Audience comments regarding agenda items

8. PLANNER'S REPORT

Bird verified with *Greenwood* that the budget process was starting a lot sooner than normal.

9. NEW/MISCELLANEOUS BUSINESS

a. Final Plat Approval for Tract E, Whitshed Road Mile 5, Anderson Lot Subdivision

M/Pegau S/Frohnappfel to recommend to City Council to approve the final plat request for Tract E, Whitshed Road Mile 5, Anderson Lot Subdivision.

Roemhildt verified that the property owner was the Eyak Corporation, which is different than the applicant. *Stavig* said that the Eyak Corporation would be signing the plat.

Upon voice vote, motion passed 5-0.

Yea: McGann, Pegau, Roemhildt, Frohnappfel, Bird

Absent: Baenen, Kocan

10. PENDING CALENDAR

Pegau asked if the commission would be asked for their input on the budget. *Greenwood* said there was a new manager and they would have to see how he wanted to do things.

Pegau said he would not be able to attend the next meeting

11. AUDIENCE PARTICIPATION

12. COMMISSION COMMENTS

Roemhildt said he wanted to see a list of the accomplished capital projects.

Frohnappfel said an inspector was in town and someone got dinged for not having a house number.

McGann suggested the city look at the beach next to CEC's old plant on Eyak Lake as a potential recreation area.

13. ADJOURNMENT

M/Pegau S/Frohnappfel to adjourn the Regular Meeting at 7:37 PM.
With no objection, the meeting was adjourned.

Approved:

Tom McGann, Chair

Leif Stavig, Assistant Planner

Planner's Report

To: Planning Commission
From: Planning Staff
Date: 8/2/2017
Re: Recent Activities and Updates

- Zero building permits issued since the last meeting.
- Working with ADOT on replacement of Fleming Spit culverts. Land acquisition, engineering for relocating 16-inch water line and tracking for reimbursement.
- Adams Avenue grant has completed environmental review and is now determining which department will administer the grant.
- Working on easement on Tract C of the Crater Lake Watershed Tracts for CTC and CEC.
- Participated in tsunami public event during Salmon Jam noon to 3pm. We along with Joanie Behrends, Dick Groff, FEMA Region 10, and state employees educated the children about tsunamis and earthquakes.
- Working on loan application and environmental documents for Harbor piling replacement and storm drain improvement projects.
- Working with ADOT on Whitshed MOU amendment.
- Working with Carol to determining zoning by business license then to develop policy for utility charges.
- Continue to determine eligibility for multiple loans and grants.
- Wrote ordinance to fix obsolete reference in Avalanche code 18.35.
- Developing 2018 budget for City Manager.



AGENDA ITEM # 9a

Planning Commission Meeting Date: 8/8/2017

PLANNING COMMISSION COMMUNICATION FORM

FROM: Planning Staff

DATE: 8/2/17

ITEM: CTC Telecommunication Tower Conditional Use Permit

NEXT STEP: Approve Conditional Use Permit

☐ INFORMATION
☒ MOTION
☐ RESOLUTION

I. REQUEST OR ISSUE:

Requested Actions: Telecommunication Tower – Conditional Use Permit
Applicant: Cordova Telephone Cooperative, Inc.
Parcel Number: 02-025-100
Zoning: Unrestricted
Attachments: Location Map
Application

II. RECOMMENDED ACTION / NEXT STEP:

“I move to approve the request by Cordova Telephone Cooperative, Inc. for a Conditional Use Permit to construct a telecommunication tower on Tract A, Crater Lake Watershed Tracts as described in their application.”

III. FISCAL IMPACTS:

N/A

IV. BACKGROUND INFORMATION:

The following Conditional Use Standards have been met:

1. The requested conditional use permit will not adversely affect the public's health, safety, and general welfare.

The area in which CTC is proposing to construct their tower is very remote and will have little to no direct impact to anyone. The expanded coverage that will be provided by CTC will positively affect the public's health, safety, and general welfare by increasing communication capabilities in and around Cordova.

2. The requested conditional use will not permanently or substantially injure the lawful use of neighboring properties.

The area is remote and the terrain is steep. There are very few uses that are feasible in the area and it is the ideal location for a telecommunication tower.

3. The requested conditional use is compatible with the zoning district in which it is requested.

The Unrestricted District allows any legal use of property. Telecommunication towers are permitted in any zoning district with a Conditional Use Permit.

4. The proposed conditional use will not have a permanent negative impact on pedestrian and vehicular traffic circulation and safety substantially greater than that anticipated from permitted development.

There is no traffic or pedestrian impact as the tower will be located on a steep mountain ridge.

5. The proposed conditional use will not have a permanent negative impact on the demand for and availability of public services and facilities substantially greater than that anticipated from permitted development.

The tower will have no impact on public services and facilities.

The additional conditions for telecommunication towers contained in Section 18.60.015 of the Cordova Municipal Code are addressed in the application provided by CTC. Staff concur with the findings provided by CTC and see no reason to not grant the Conditional Use Permit as requested.

For condition C9, CTC requests that the Conditional Use Permit be granted with the setback reduced 1.2' from the east property boundary. Staff find that the request is reasonable as both tracts of land are very large and are owned by the same property owner. It is highly unlikely that there will ever be any other development in the area. The terrain is steep and mountainous, and the site chosen for the tower was the best location for the tower.

For condition C12, CTC requests that the Conditional Use Permit be granted without requiring an eight foot tall fence around the perimeter of the site. Staff find that the request is reasonable as the site is steep, mountainous, and remote. The fence itself could become a safety hazard and it is impractical for the tower.

V. LEGAL ISSUES:

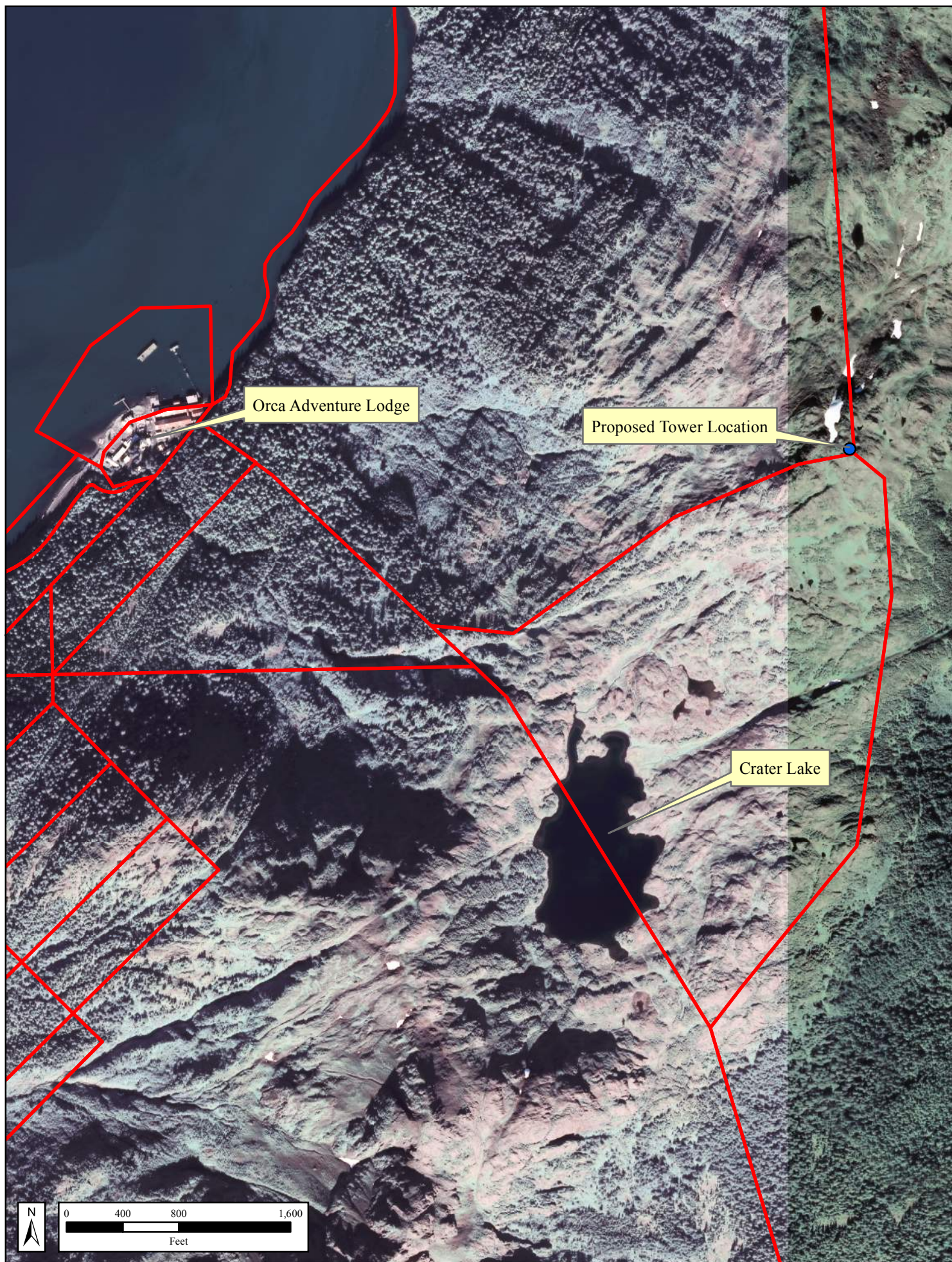
No legal review required.

VI. CONFLICTS OR ENVIRONMENTAL ISSUES:

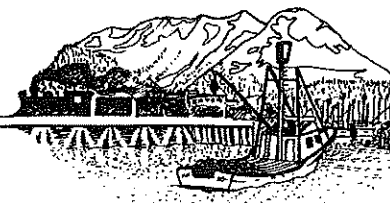
N/A

VII. SUMMARY AND ALTERNATIVES:

N/A



CITY OF CORDOVA



CONDITIONAL USE PERMIT APPLICATION

City of Cordova, Alaska

INSTRUCTIONS	PERMIT TYPE	FEE
Print or type requested information. Incomplete applications will be returned to the applicant and will delay issuance of the permit. Attach this application to the Building Permit Application.	<input type="checkbox"/> Conditional Use Permit	\$250

STANDARDS FOR CONDITIONAL USE

The Planning Commission may only approve the conditional use if the commission finds that ALL of the following standards are satisfied. Conditional uses are subject to strict review because of the potential they hold to harm neighboring properties.

Explain how the requested conditional use permit will not adversely affect the public's health, safety, and general welfare.

The tower will not adversely affect the public's health, safety or welfare. The tower is up on Eyak Mountain out of the general area of the population and will only work to increase the services we provide to the public.

Explain how the requested conditional use will not permanently or substantially injure the lawful use of neighboring properties.

The tower will sit on a ridge of Eyak mountain. The tower will not be preventing any type of use on neighboring properties.

Explain how the requested conditional use is compatible with the zoning district in which it is requested.

The zoning district our tower would be built in is an unrestricted zone, which is usable for any legal use of the property per city code. This is a legal use.

Explain how the proposed conditional use will not have a permanent negative impact on pedestrian and vehicular traffic circulation and safety substantially greater than that anticipated from permitted development.

The cell tower is on top of a ridge in a non-populated area of Mt. Eyak that does not see vehicular or pedestrian traffic; there will not be any impact on traffic circulation or safety.

Explain how the proposed conditional use will not have a permanent negative impact on the demand for and availability of public services and facilities substantially greater than that anticipated from permitted development.

The tower will only expand the availability of cellular services into areas of Nelson Bay and Orca Rd. There would not be any negative impact on the demand for and availability of public services and facilities.

OTHER REQUIREMENTS FOR CONDITIONAL USE

Any application approved by the planning commission shall be conditional upon the privilege granted being utilized within (12) months after the effective date of approval.

Site and Building Plan are required. The Site Plan needs to be drawn to scale, showing the location of all existing and proposed buildings or improvements, elevations of such buildings or alterations, and off-street parking areas.

The City Planning Commission shall have the authority to impose such conditions and safeguards as it deems necessary to protect the best interests of the surrounding property or neighborhood and the Comprehensive City Plan and zoning ordinance.

Some conditional uses (telecommunication tower, coastal management areas, junkyard) are subject to additional conditions in Chapter 18.60 of the Cordova Municipal Code.

APPLICANT CERTIFICATION

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate. Furthermore, I (we) hereby authorize the City and its representatives to enter the property associated with this application for purposes of conducting necessary site inspections.

Applicant Signature:

Lisa Koker

Date:

8/21/2017

Print Name and Title:

Lisa Koker Interim GM/CEO

18.60.015 - Conditional use for telecommunication tower.

- A. The planning commission may grant a conditional use permit for a telecommunication tower in any zoning district subject to the conditions in this section.
- B. The application for a conditional use permit for a telecommunication tower shall include the following information:

1. A written narrative explaining why the proposed site has been chosen, why the telecommunication tower is necessary, why the requested height was chosen, and a full explanation regarding the telecommunication tower's ability to accommodate other providers; and

This site was chosen as a telecom site for location purposes. Adding a telecommunications tower increases our cell phone coverage to better serve the public on Orca Road, in Nelson Bay, Simpson Bay, Sheep Bay, and the surrounding area. It will also strengthen our coverage on the North side of town. This height was chosen to provide service with minimal impact to the area and is designed for future expansion. The site is able to accommodate future equipment needs; we will be collocating with Prince William Science Center for weather tracking and have tentative plans with CEC to allow them to mount microwave equipment on the tower.

2. Specifications for the telecommunication tower and all antennas to be located on it, including a description of design characteristics and material;

The tower design will be provided by New Horizons Telecom, Inc and Sabre. Please see Attachment A regarding tower specifications and Attachment B regarding antennas. The "Designed Appurtence Loading" list on Attachment A is not what is going on the tower. The list on Attachment A is indicating what the tower can handle. We are only placing 3 cellular antennas on the tower, but we have designed the tower to hold more. Please see Attachment B for the specifications of the antennas we will be installing on the tower.

3. A site plan drawn to scale showing property boundaries, telecommunication tower location, telecommunication tower height, guy wires and anchors and existing structures and land uses on the site and on adjacent property;

Please see Attachment C. The location coordinates will be approximately N60.579445 W145.690850. The tower will be 40 feet in height. There are no other existing structures or land uses on the adjacent properties.

4. A map showing the locations of the applicant's existing telecommunication towers that serve customers in the city and of all telecommunication towers that the applicant proposes to construct to serve customers in the city;

See Attachment D.

5. A report prepared by a person registered as a structural engineer in Alaska showing the capacity by type and number of the telecommunication tower and antennas, and that the telecommunication tower and antennas are designed to withstand winds in accordance with the latest revision of ASI/EIA/TIA/222 standards ("Structural standards for steel communications antenna towers and communications antenna supporting structures");

Please see Attachment E. This includes the certified tower design by a certified engineer registered for Alaska.

6. Identification of the person or persons who own the telecommunication tower and the equipment that is to be located on it;

The telecommunication tower and equipment located on it belongs to Cordova Wireless Communications, LLC.

7. Written authorization for the application from the owner of the site;
Please see Attachment F.
 8. Evidence that the applicant has a valid FCC license for the use of the telecommunication tower;
We are licensed by the FCC to use the wireless spectrum. Please see Attachment G.
 9. A line of sight analysis showing the potential visual and aesthetic impacts of the telecommunication tower on adjacent residential districts through the use of photo simulations of the telecommunication tower, including all antennas, structures, and equipment, using the vantage points and number of photo simulations requested by the planning department;
There are no adjacent residential districts. The tower will be below the top of a ridge on Eyak Mountain past Orca Lodge. It will be painted black to blend in with the surroundings and not create a reflection. There will be a very small visual/aesthetic impact.
 10. A written agreement, on a form approved by the city attorney, to remove the telecommunication tower and restore the site to its original condition within one hundred eighty days after the telecommunication tower is substantially unused for a period of twelve consecutive months, and providing that if the telecommunication tower is not removed within this one hundred eighty-day period, the city may remove the telecommunication tower at the cost of the owner;
See Attachment H.
 11. A cell phone coverage map showing the applicant's proposed cell phone coverage within the city;
See Attachment I.
 12. A certificate from an engineer licensed in Alaska that the telecommunication tower, and all antennas and other equipment located on it, are built and installed to approved specifications and will contain only equipment meeting Federal Communications Commission requirements;
This will be provided within 30 days of completion.
 13. Any additional information required by the planning department during the application process.
- C. The planning commission may approve an application under this section, with or without conditions, if the application meets the following criteria:
1. Location and Visual Impact. The proposed location of the telecommunication tower will minimize the visual impact on the surrounding area while allowing the telecommunication tower to function in accordance with minimum standards imposed by the applicable telecommunications regulations and the applicant's technical design requirements. Telecommunication towers and attached antennas and equipment must be painted or coated in a color that blends with the surrounding environment. Muted colors, earth tones, and subdued hues, such as gray, shall be used. All associated structures such as equipment buildings, including the roofs, shall be painted with earth tone colors unless otherwise required under this code or other applicable law. Where necessary to make a telecommunication tower compatible with the historical, environmental or cultural character of its location, the planning commission may require that the telecommunication tower be disguised, hidden or screened, or integrated as an architectural feature of a structure, to reduce its visual impact.
There will be little view impact on the surrounding area. The tower will be painted black to blend in with the surrounding area and not create a reflection.
 2. Inability to Collocate. It is not feasible to locate the applicant's telecommunication antenna and other equipment on any existing structure or tower under the control of the applicant.

There are no other existing structures under the control of the applicant in that area. The nearest tower to this proposed site is on Tri-pod, which is 2 miles away. This tower provides excellent coverage however it does not reach all the areas in Nelson Bay and the surrounding area that we need to cover, particularly the areas used by SERVUS, Orca Lodge, as other business that use these areas.

3. Location in a Residential Zoning District. An applicant seeking to locate a telecommunication tower in a residential zoning district must show that the area cannot be adequately served by a telecommunication tower located in a nonresidential zoning district for valid technical reasons.

This tower is not located in a residential district.

4. Location on Public Property or Other Private Property. If the applicant proposes to acquire a site on private property for the telecommunication tower, the applicant must show that no available publicly owned site or available privately owned site occupied by a compatible use is suitable under applicable communications regulations and the applicant's technical design requirements.

There are no other publicly owned or privately owned sites occupied by a compatible use in that area. The nearest tower is located on Tri-pod, located two miles away

5. Design for Future Use. A new telecommunication tower shall be designed to allow collocation of telecommunication antennas equal in number to the applicant's present and reasonably foreseeable future requirements.

The tower is designed to allow for future additional use with space for necessary equipment and antennas. There are three antennas going onto the tower. The capacity would be 6 antennas of the same type. Any more than that would depend on type and specifications of the antenna.

6. Safety Code Met. The telecommunication tower meets all applicable laws and code requirements, including without limitation health, nuisance, noise, fire, building and safety code requirements.

This will be provided with the tower and building drawings. They will meet all building and safety codes. We will have a ladder on the tower for access. Please refer to Attachment A for tower plans of the climbing ladder. This ladder does reach to the ground, however, the location of the tower and ladder is very isolated and barely accessible except by helicopter. For these reasons we do not see this ladder as being a safety issue. However, like we did with the tower on Tripod, we will attach a cover secured with a lock to prevent unauthorized access.

7. Distance from Existing Telecommunication Towers. A telecommunications tower shall not be approved if it is located within one-half mile (two thousand six hundred forty feet) of an existing telecommunication tower, unless the applicant certifies that the existing telecommunication tower does not meet the applicant's structural specifications and technical design requirements, or that a collocation agreement could not be obtained.

This tower is not within one-half mile of an existing telecommunications tower. The closest tower is on Tri-pod, located two miles away. Please see C-2 and C-4.

8. Zoning Requirements. With the exception of requirements for setback and height, which are established in this section, the telecommunication tower must comply with all applicable zoning laws and regulations, including, without limitation, all laws governing land development, visibility, fencing, screening, landscaping, parking, access, lot size, exterior illumination, and sign, storage.

This will be provided with the tower and building drawings. The plans meet the applicable zoning laws and regulations.

9. **Setback.** In all zoning districts, a telecommunication tower must be located no less than a distance equal to the tower height from all lot lines.

Please refer to Attachment C. Our tower will be 40.3' away from the lot line on the south facing side. On the East facing side, our tower is only 38.8' from the line. We cannot move our tower from this location as moving the tower will put it on a downward slope towards Orca Bay. This location is as far away from the lot line as possible to install the tower on level ground.

10. **Signs.** No signs may be located on a telecommunication tower except for identification signage.

No signs will be installed.

11. **Lighting.** No lighting may be located on a telecommunication tower except as reasonably required for safety purposes or as required by the Federal Communications Commission, Federal Aviation Administration or other government agency with jurisdiction.

There will be no lighting on this tower.

12. **Fencing.** A fence with a minimum height of eight feet must be placed on the perimeter of the site of a telecommunications tower site to limit access by the public.

The tower is located on a ridge on Eyak Mountain that is not easily traversed by or accessible to the public or close to trails. We request that the Planning Commission waive the fence requirement. A fence becomes a hazard in deep snow conditions. A person could posthole through the snow and impale themselves on a fence. Further, the site is built on solid rock and a rock drill would have to be used to drill every hole. The terrain is extremely uneven and a fence would impede access to the owner as well as the public due to the difficulty in opening the gate in feet of frozen snow.

13. **Height.** The height of a telecommunications tower may not exceed the maximum tower height specified in the conditional use permit or in this section.

The height of the tower is 40 feet.

- D. No decision regulating the placement, construction or modification of a telecommunication tower may be made on the basis of environmental or health effects of radio frequency emission if the antennas and other equipment on the telecommunication tower comply with Federal Communications Commission regulations.

(Ord. No. 1070, § 12, 7-21-2010)

AUGUST 8, 2017
ATTACHMENT A

Designed Appurtenance Loading

Elev	Description	Tx-Line
40	3T-Boom(R) - 10ft Face - 3ft Standoff	
40	(9) 96" x 14.6" x 7.3" panel	(18) 1 1/4"
40	(3) 12" x 4.25" Whip	(3) 1 1/4"
40	(1) PTZ Camera (IP)	(1) 1/2"
30	(2) Leg Dish Mount	
30	(2) 6' Solid Dish W/ Radome	(4) 1 1/4"

Base Reactions

Total Foundation		Individual Footing	
Shear (kips)	48.31	Shear (kips)	26.94
Axial (kips)	22.07	Compression (kips)	230
Moment (ft-kips)	1375	Uplift (kips)	225
Torsion (ft-kips)	-15.69		

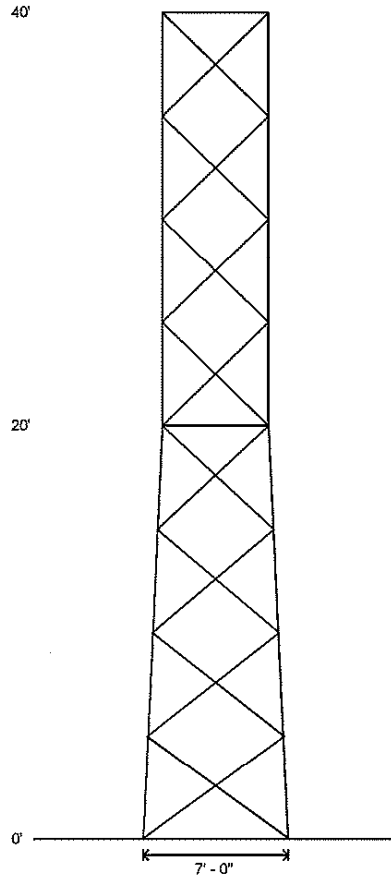
Material List


Display	Value
A	L 2 1/2 X 2 1/2 X 1/4

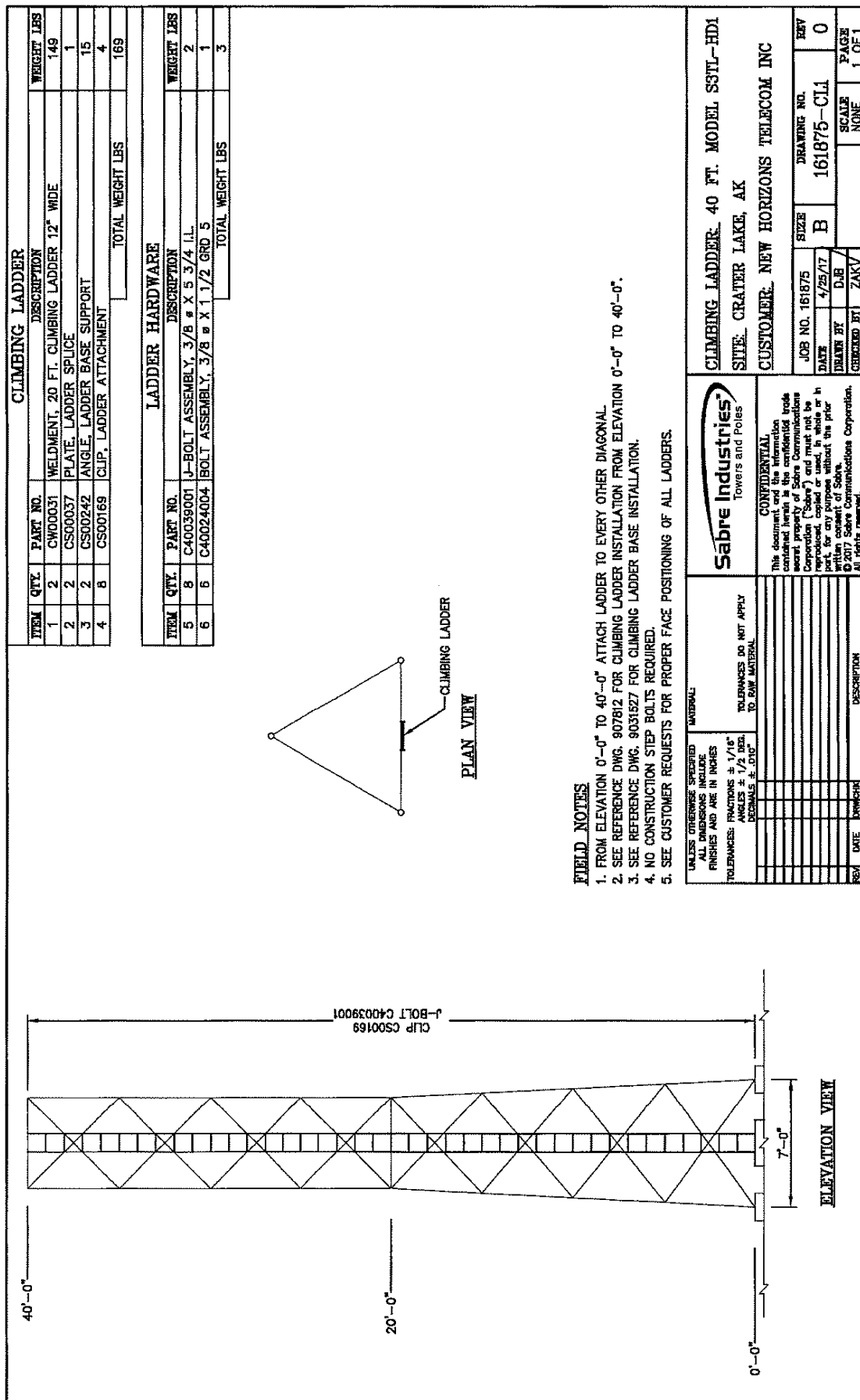
Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 12 hole waveguide ladders.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) (6) 1" dia. F1554 grade 105 anchor bolts per leg. Minimum 35.5" embedment from top of concrete to top of nut.
- 9) All unequal angles are oriented with the short leg vertical.
- 10) Weights shown are estimates. Final weights may vary.
- 11) This tower was designed for a basic wind speed of 130 mph with 0" of radial ice, and 60 mph with 1/2" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category D, Topographic Category 3, with a Crest Height of 2250'.
- 12) The foundation loads shown are factored loads.

SIZES ARE PRELIMINARY AND MAY CHANGE UPON FINAL DESIGN					
Legs	5.563 OD X .375	3.600 OD X .300			
Diagonals	L 2 X 2 X 1/4	L 2 1/2 X 2 1/2 X 5/16			
Horizontals	NONE	NONE	A		
Brace Bolts	(1) 5/8"	(1) 3/4"			
Top Face Width		5'			
Panel Count/Height		8 @ 5'			
Section Weight		2146			1672



 <p>Sabre Industries Towers and Poles</p> <p>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</p>	<p>Sabre Communications Corporation 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814</p>		Quote:	17-6269-RSS-R1 Option 1
			Customer:	NEW HORIZONS TELECOM INC
			Site Name:	Crater Lake, AK
			Description:	40' S3TL
			Date:	4/12/2017 By: PSW Page: 1



Multi-band Panel

Dual Polarization

Half-power Beam Width

Integrated replaceable Remote Control Unit

Adjustable Electrical Downtilt

698–894

X

65°

IRCU

0.5°–9.5°

KATHREIN

Antennen · Electronic



XPoI Panel IRCU 698–894 65° 17dBi 0.5°–9.5°T

Type No.	80010736v01	
A) Antenna specifications		
	698 – 894	
Frequency range	698 – 806 MHz	824 – 894 MHz
Polarization	+45°, –45°	+45°, –45°
Gain	14.25 dBd / 16.4 dBi	14.85 dBd / 17 dBi
Horizontal Pattern:		
Half-power beam width	67°	68°
Front-to-back ratio	Copolar: > 30 dB Average: 35 dB	Copolar: > 30 dB Average: 35 dB
Cross polar ratio		
Main direction	Typically: > 25 dB	Typically: > 20 dB
Sector	> 11 dB, Avg. 15 dB	> 11 dB, Avg. 15 dB
Vertical Pattern:		
Half-power beam width	9.5°	8.6°
Electrical tilt	0.5°–9.5°, continuously adjustable	
Min. sidelobe suppression for first sidelobe above main beam:	0.5° ... 5° ... 9.5° T 16 ... 16 ... 16 dB	0.5° ... 5° ... 9.5° T 18 ... 18 ... 17 dB
Average:	18 ... 18 ... 17 dB	20 ... 20 ... 20 dB
Impedance	50 Ω	
VSWR	< 1.5	
Isolation, between ports	> 30 dB	
Intermodulation IM3	< –150 dBc (2 x 43 dBm carrier)	
Max. power per input	500 W (at 50 °C ambient temperature)	



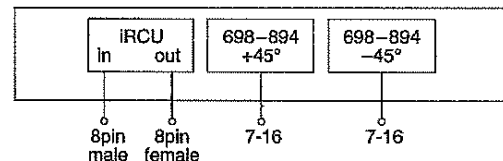
B) IRCU specifications (86010149)*	
Field replaceable without dismantling the antenna	
Logical interface ex factory ¹⁾	3GPP/AISG 2.0
Protocols	Compliant to AISG 1.1 and 3GPP/AISG 2.0
Hardware interface ²⁾	2 x 8pin connector acc. IEC 60130-9; according to AISG: – IRCU in (male): Control / Daisy chain in – IRCU out (female): Daisy chain out
Power supply	10 ... 30 V
Power consumption	< 1 W (stand by) < 8.5 W (motor activated)
Adjustment time (full range)	40 sec.
Adjustment cycles	> 50,000
Certification	CE, FCC ³⁾

* See mounting instructions and warnings.

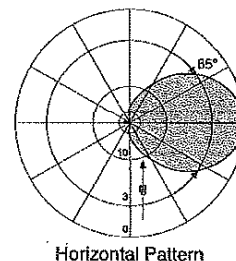
¹⁾ The protocol of the logical interface can be switched from 3GPP/AISG 2.0 to AISG 1.1 and vice versa with a vendor specific command. Start-up operation of the IRCU 86010149 is possible in a RET system supporting AISG 1.1 or supporting 3GPP/AISG 2.0 after performing a layer 2 reset before address assignment. The protocol can also be changed as follows: AISG 1.1 to 3GPP: Enter „3GPP“ into the additional data field „Installer's ID“ and perform a layer 7 reset or a power reset. 3GPP to AISG 1.1: Enter „AISG 1“ into the additional data field „Installer's ID“ and perform a layer 2 reset or a power reset. After switching the protocol any other information can be entered into the „Installer's ID“ field.

²⁾ The tightening torque for fixing the connector must be 0.5 – 1.0 Nm ("hand-tightened"). The connector should be tightened by hand only!

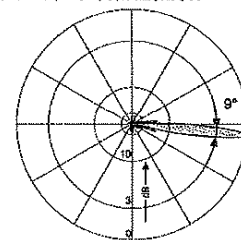
³⁾ Tested to comply with FCC Standards. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



698 – 894 MHz: +45°/–45° Polarization



Horizontal Pattern



Vertical Pattern
0°–10° electrical downtilt

936.4274/b Subject to alteration.

Accessories General Information

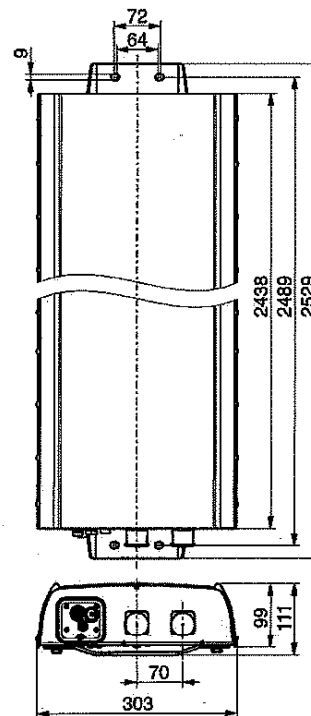
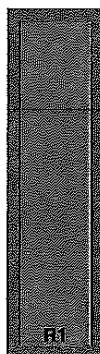
KATHREIN
Antennen · Electronic

C) Mechanical specifications	
Input	2 x 7-16 female IRCU in: 1 x 8pin male IRCU out: 1 x 8pin female
Connector position	Bottom
Wind load	Frontal: 1160 N (at 150 km/h) 2900 N (at 150 mph) Lateral: 390 N (at 150 km/h) 970 N (at 150 mph) Rearside: 1380 N (at 150 km/h) 3450 N (at 150 mph)
Max. wind velocity	241 km/h (150 mph)
Height/width/depth	2438 / 303 / 99 mm (96 / 11.9 / 3.9 inches)
Category of mounting hardware	H (Heavy)
Weight	17 kg (37.5 lbs) / 19 kg (41.9 lbs) (clamps incl.)
Packing size	2600 x 315 x 115 mm (102.4 x 12.4 x 4.5 inches)
Scope of supply	Panel and 2 units of clamps 42 – 115 mm diameter

Material: Reflector screen: Weather-proof aluminum. Radiator: Tin-plated zinc.
IRCU housing: Coated aluminum.
Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.
All screws and nuts: Stainless steel.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

Environmental tests: IRCU additionally fulfill the standards:
EN 60950-1 (Safety), EN 55022 (Emission) and EN 55024 (Immunity)



Bottom view
Dimensions refer to radome.

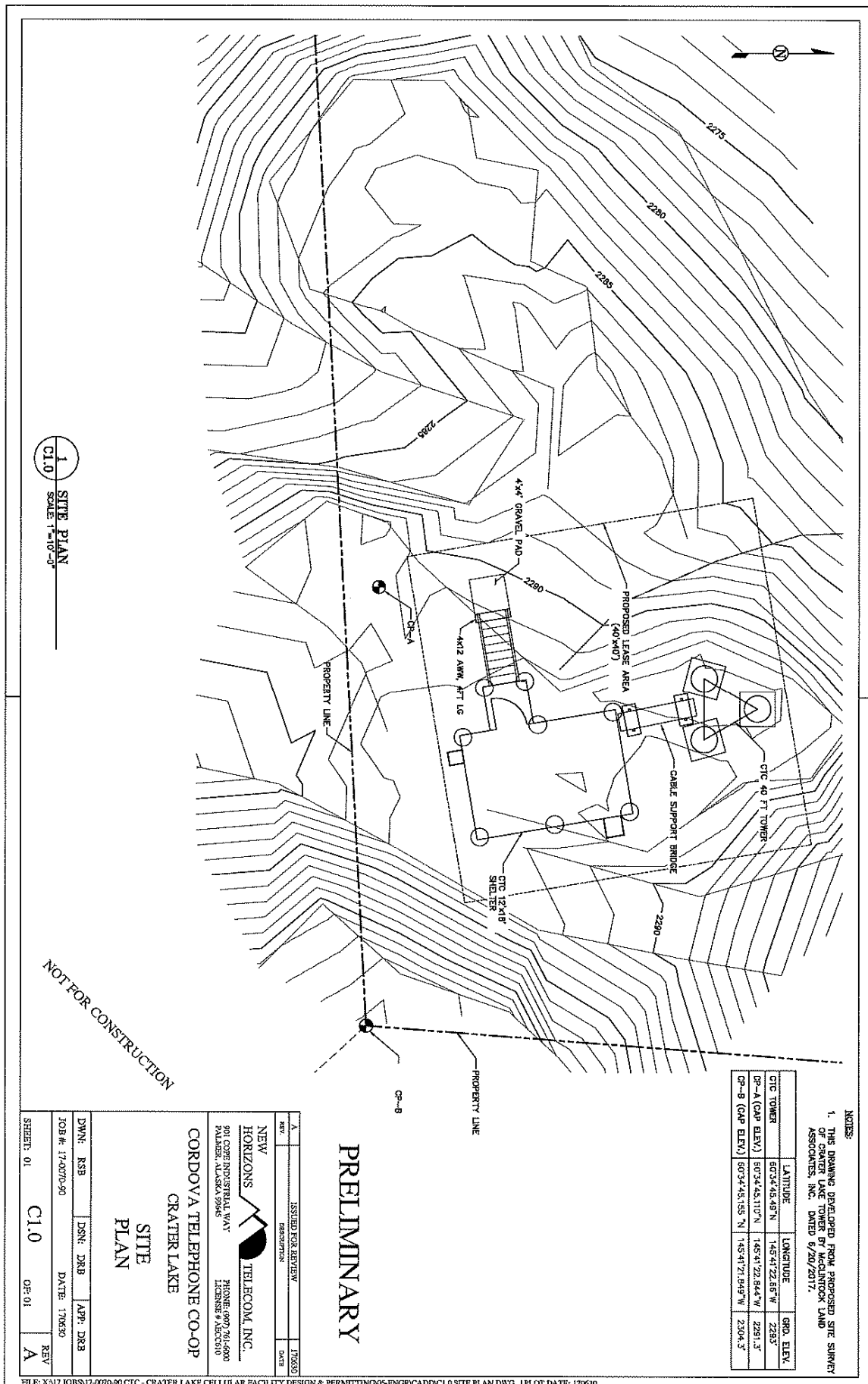
All dimensions in mm.

Accessories

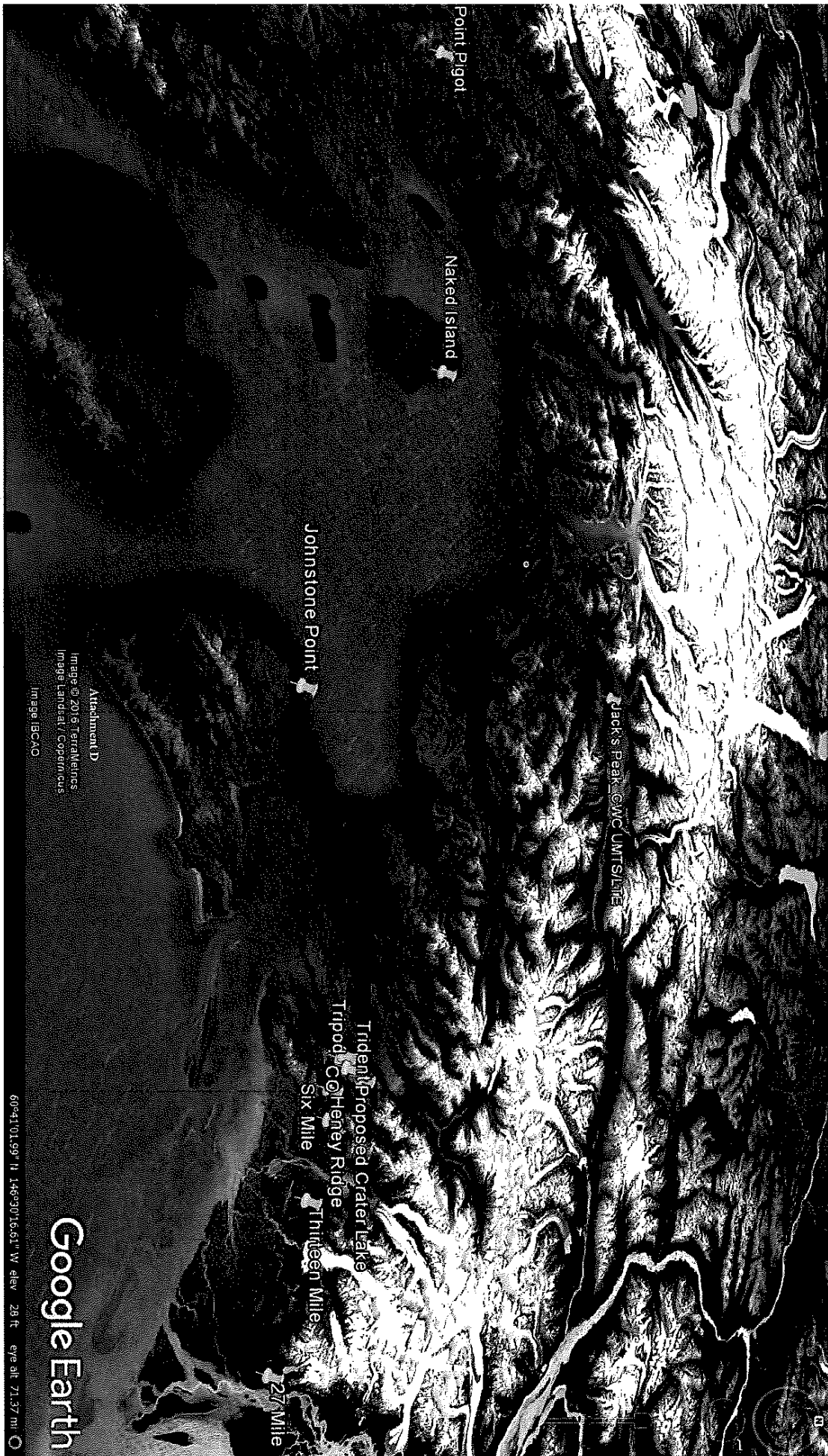
Type No.	Description	Remarks	Weight approx.		Units per antenna
			kg	lbs	
738546	1 clamp	Mast: 42 – 115 mm diameter	1.1	2.4	2 (included in the scope of supply)
85010002	1 clamp	Mast: 110 – 220 mm diameter	2.7	6.0	2 (order separately if required)
85010003	1 clamp	Mast: 210 – 360 mm diameter	4.8	10.6	2 (order separately if required)
85010008	1 downtilt kit	Downtilt angle: 0° – 8°	6.5	14.3	1 (order separately if required)

Wall mounting: No additional mounting kit needed.

PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT C







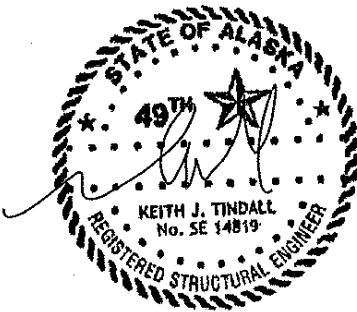


Structural Design Report
40' S3TL Series HD1 Self-Supporting Tower
Site: Crater Lake, AK

Prepared for: NEW HORIZONS TELECOM INC
by: Sabre Towers & Poles TM

Job Number: 161875
Revision A
April 21, 2017

Tower Profile.....	1
Maximum Leg Loads.....	2
Maximum Diagonal Loads.....	3
Maximum Foundation Loads.....	4
Calculations.....	5-11



4/21/17

Certificate of Authorization #113307

**PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT E**

Designed Appurtenance Loading

Elev	Description	Tx-Line
40	3T-Boom(R) - 10ft Face - 3ft Standoff	
40	(9) 96" x 14" x 7" panel	(18) 1 1/4"
40	(3) 12" x 5" Omni	(3) 1 1/4"
40	(1) PTZ Camera (IP)	(1) 1/2"
30	(2) Leg Dish Mount	
30	(2) 6' Solid Dish W/ Radome	(4) 1 1/4"

Base Reactions

Total Foundation		Individual Footing	
Shear (kips)	49.13	Shear (kips)	27.41
Axial (kips)	22.68	Compression (kips)	235
Moment (ft-kips)	1407	Uplift (kips)	230
Torsion (ft-kips)	-15.69		

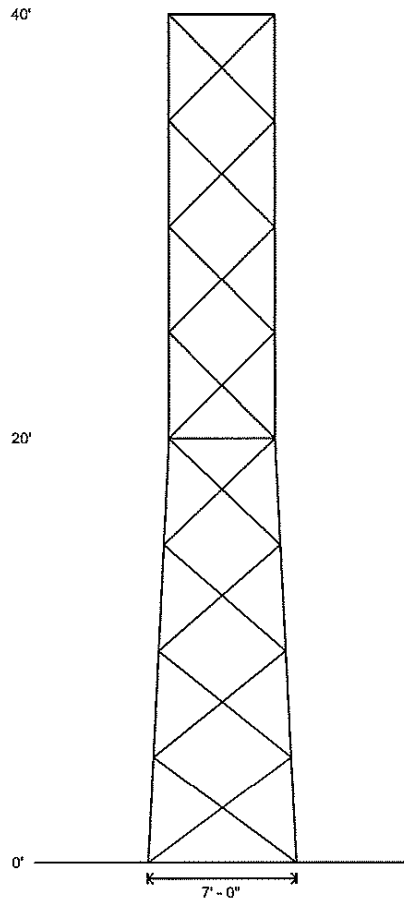
Material List

Display	Value
A	L 2 1/2 X 2 1/2 X 1/4

Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 12 hole waveguide ladders.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) (6) 1" dia. F1554 grade 105 anchor bolts per leg. Minimum 35.5" embedment from top of concrete to top of nut.
- 9) All unequal angles are oriented with the short leg vertical.
- 10) Weights shown are estimates. Final weights may vary.
- 11) This tower was designed for a basic wind speed of 130 mph with 0" of radial ice, and 60 mph with 1/2" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category D, Topographic Category 3, with a Crest Height of 2250'.
- 12) The foundation loads shown are factored loads.
- 13) Tower Rating: 98.98%

Legs	3.500 OD X .300			
Diagonals	L 2 1/2 X 2 1/2 X 5/16			A
Horizontals	NONE	L 2 X 2 X 1/4		
Brace Bolts	(1) 3/4"			
Top Face Width	(1) 5/8"	5'		
Panel Count/Height		8 @ 5'		
Section Weight	2146			1672



Sabre Industries™ Towers and Poles <small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small>	Sabre Communications Corporation 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814		Job: 161875A
	Customer: NEW HORIZONS TELECOM INC		Site Name: Crater Lake, AK
	Description: 40' S3TL		Date: 4/21/2017
	By: KJT		

PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT E

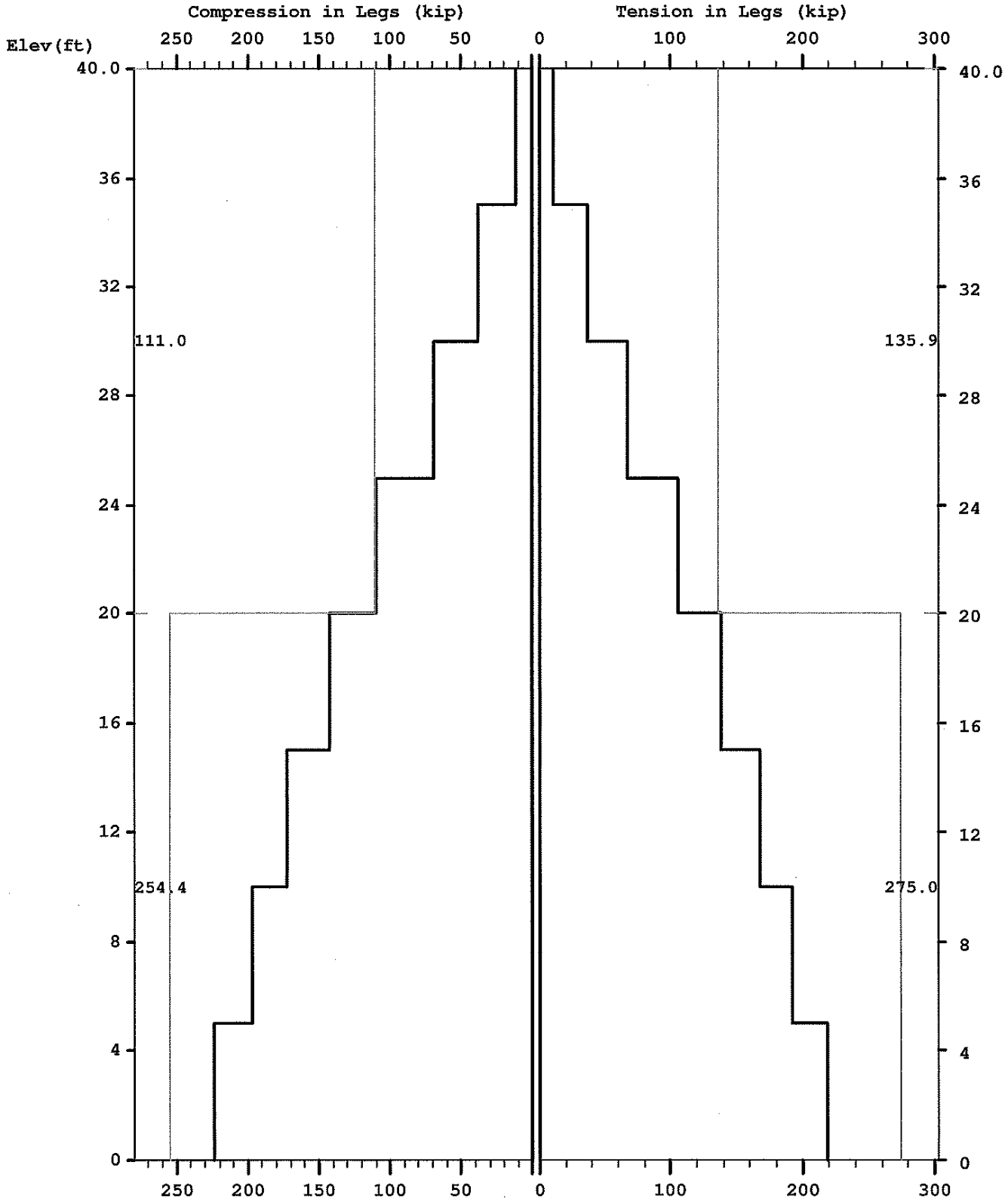
DRAWFORCE Ver 2.2 (c) Guymast Inc. 2006-2009
Licensed to: Sabre Towers and Poles

Phone: (416) 736-7453

21 apr 2017

9:09:17

Maximum



PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT E

DRAWFORCE Ver 2.2 (c) Guymast Inc. 2006-2009

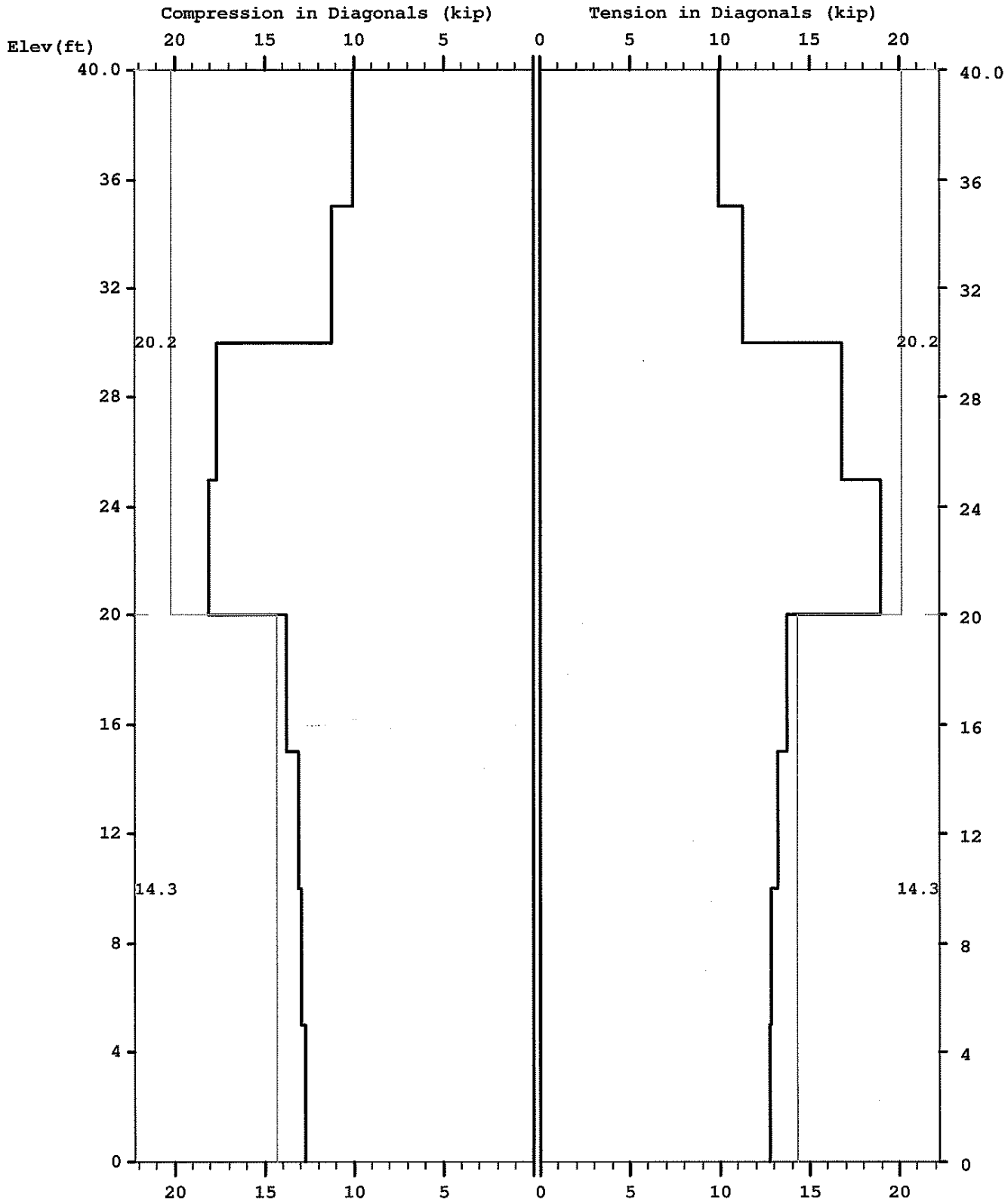
Phone: (416) 736-7453

21 apr 2017

Licensed to: Sabre Towers and Poles

9:09:17

Maximum



PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT E

DRAWFORCE Ver 2.2 (c) Guymast Inc. 2006-2009 Phone: (416) 736-7453

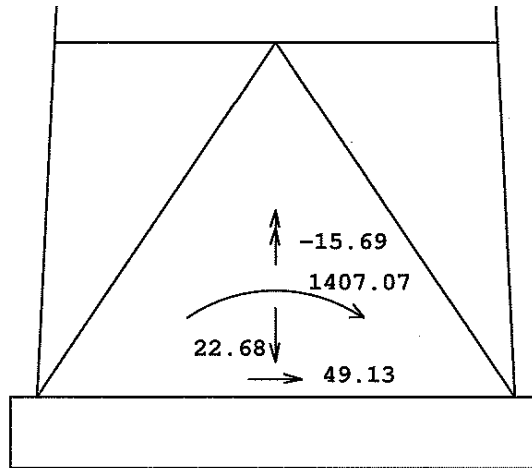
21 apr 2017

Licensed to: Sabre Towers and Poles

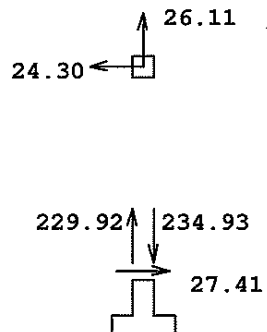
9:09:17

Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)



INDIVIDUAL FOOTING LOADS (kip)



AUGUST 8, 2017

ATTACHMENT E

Latticed Tower Analysis (Unguyed)
Processed under license at:

(c)2013 Guymast Inc. 416-736-7453

Sabre Towers and Poles

on: 21 apr 2017 at: 9:09:17

MAST GEOMETRY (ft)

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.W..AT BOTTOM	F.W..AT TOP	TYPICAL PANEL HEIGHT
X	3	35.00	40.00	5.00	5.00	5.00
X	3	20.00	35.00	5.00	5.00	5.00
X	3	15.00	20.00	5.50	5.00	5.00
X	3	0.00	15.00	7.00	5.50	5.00

MEMBER PROPERTIES

MEMBER TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /deg
LE	20.00	40.00	3.016	1.136	29000.	0.0000116
LE	0.00	20.00	6.111	1.136	29000.	0.0000116
DI	20.00	40.00	1.465	0.761	29000.	0.0000116
DI	0.00	20.00	0.938	0.761	29000.	0.0000116
HO	35.00	40.00	1.188	0.769	29000.	0.0000116
HO	15.00	20.00	0.938	0.769	29000.	0.0000116

FACTORED MEMBER RESISTANCES

BOTTOM ELEV ft	TOP ELEV ft	LEGS COMP kip	TENS kip	DIAGONALS COMP kip	TENS kip	HORIZONTALS COMP kip	TENS kip	INT BRACING COMP kip	TENS kip
35.0	40.0	110.98	135.90	20.19	20.19	16.15	16.15	0.00	0.00
20.0	35.0	110.98	135.90	20.19	20.19	0.00	0.00	0.00	0.00
15.0	20.0	254.38	274.95	14.32	14.32	10.88	10.88	0.00	0.00
0.0	15.0	254.38	274.95	14.32	14.32	0.00	0.00	0.00	0.00

* Only 3 condition(s) shown in full

* Some wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

130 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING

LOAD TYPE	ELEV	APPLY..LOAD..AT	LOAD	.....FORCES.....		.....MOMENTS.....		
		RADIUS	AZI	AZI	HORIZ	DOWN	VERTICAL	TORSNAL
	ft	ft			kip	kip	ft-kip	ft-kip
C	40.0	0.00	0.0	0.0	18.74	2.47	0.00	0.00
D	40.0	0.00	38.2	0.0	0.63	0.14	0.02	0.03
D	35.0	0.00	38.2	0.0	0.63	0.14	0.02	0.03
D	35.0	0.00	38.2	0.0	0.58	0.12	0.02	0.03
D	30.0	0.00	38.2	0.0	0.58	0.12	0.02	0.03
D	30.0	0.00	33.7	0.0	0.61	0.13	0.02	-0.03
D	20.0	0.00	33.7	0.0	0.62	0.13	0.02	-0.03

AUGUST 8, 2017

ATTACHMENT E

D	20.0	0.00	33.6	0.0	0.64	0.16	0.02	-0.03
D	0.0	0.00	33.3	0.0	0.64	0.15	0.01	-0.03

ANTENNA LOADING

.....ANTENNA.....			ATTACHMENT	ANTENNA FORCES.....			
TYPE	ELEV ft	AZI	RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	30.0	90.0	4.4	120.0	0.54	-1.64	0.24	-3.69
STD+R	30.0	270.0	4.4	240.0	0.54	1.64	0.24	3.69

SUPPRESS PRINTING

LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

LOADING CONDITION M

130 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	40.0	0.00	0.0	0.0	18.74	1.85	0.00	0.00
D	40.0	0.00	38.2	0.0	0.63	0.10	0.02	0.03
D	35.0	0.00	38.2	0.0	0.63	0.10	0.02	0.03
D	35.0	0.00	38.2	0.0	0.58	0.09	0.02	0.03
D	30.0	0.00	38.2	0.0	0.58	0.09	0.02	0.03
D	30.0	0.00	33.7	0.0	0.61	0.10	0.01	-0.03
D	20.0	0.00	33.7	0.0	0.62	0.10	0.01	-0.03
D	20.0	0.00	33.6	0.0	0.64	0.12	0.01	-0.03
D	0.0	0.00	33.3	0.0	0.64	0.11	0.01	-0.03

ANTENNA LOADING

.....ANTENNA.....			ATTACHMENT	ANTENNA FORCES.....			
TYPE	ELEV ft	AZI	RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	30.0	90.0	4.4	120.0	0.54	-1.64	0.18	-3.69
STD+R	30.0	270.0	4.4	240.0	0.54	1.64	0.18	3.69

SUPPRESS PRINTING

LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

LOADING CONDITION Y

60 mph wind with 0.5 ice. Wind Azimuth: 0°

AUGUST 8, 2017

ATTACHMENT E

MAST LOADING

=====

LOAD TYPE	ELEV ft	APPLY...LOAD...AT RADIUS ft AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....		
				HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip	
C	40.0	0.00 0.0	0.0	4.11	5.97	0.00	0.00	
D	40.0	0.00 37.4	0.0	0.14	0.35	0.10	0.01	
D	35.0	0.00 37.4	0.0	0.14	0.35	0.10	0.01	
D	35.0	0.00 37.4	0.0	0.13	0.32	0.10	0.01	
D	30.0	0.00 37.4	0.0	0.13	0.32	0.10	0.01	
D	30.0	0.00 35.0	0.0	0.13	0.35	0.06	-0.01	
D	20.0	0.00 35.0	0.0	0.13	0.35	0.06	-0.01	
D	20.0	0.00 34.8	0.0	0.14	0.40	0.06	-0.01	
D	10.0	0.00 34.1	0.0	0.13	0.41	0.07	-0.01	
D	10.0	0.00 33.4	0.0	0.14	0.44	0.07	-0.01	
D	5.0	0.00 33.4	0.0	0.14	0.44	0.07	-0.01	
D	5.0	0.00 32.5	0.0	0.15	0.46	0.07	-0.01	
D	0.0	0.00 32.5	0.0	0.15	0.46	0.07	-0.01	

ANTENNA LOADING

=====

.....ANTENNA..... TYPE	ELEV ft	AZI	ATTACHMENT		.....ANTENNA FORCES.....			
			RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	30.0	90.0	4.4	120.0	0.08	-0.23	0.67	-0.55
STD+R	30.0	270.0	4.4	240.0	0.08	0.23	0.67	0.55

SUPPRESS PRINTING

=====

LOADS INPUT	...FOR THIS LOADING...			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

MAXIMUM MAST DISPLACEMENTS:

=====

ELEV ft	-----DEFLECTIONS (ft)-----			--TILTS (DEG)--		TWIST DEG
	NORTH	EAST	DOWN	NORTH	EAST	
40.0	-0.246 A	-0.256 D	0.001 i	-0.553 A	-0.571 D	-0.145 E
35.0	-0.196 A	-0.204 D	0.001 j	-0.541 A	-0.560 D	-0.144 E
30.0	-0.151 A	-0.157 D	0.001 i	-0.499 A	-0.517 D	-0.143 E
25.0	-0.104 A	-0.109 D	0.001 d	-0.425 A	-0.441 D	-0.121 E
20.0	-0.071 A	-0.074 D	0.001 d	-0.306 A	-0.319 D	-0.099 E
15.0	-0.043 A	-0.045 D	0.001 z	-0.237 A	-0.248 D	-0.067 E
10.0	-0.023 A	-0.024 D	0.000 d	-0.164 A	-0.172 D	-0.041 E
5.0	-0.007 A	-0.007 D	0.000 d	-0.083 A	-0.087 D	-0.019 E
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

=====

ELEV ft	AZI deg	TYPE *	.....BEAM DEFLECTIONS (deg).....			
			PITCH	YAW	ROLL	TOTAL
30.0	90.0	STD+R	0.499 A	0.143 E	-0.517 D	0.499 A
30.0	270.0	STD+R	-0.499 A	0.143 E	0.517 D	0.499 A

MAXIMUM TENSION IN MAST MEMBERS (kip)

=====

AUGUST 8, 2017
ATTACHMENT E

ELEV ft	LEGS	DIAG	HORIZ	BRACE
40.0	-----		2.84 G	0.00 A
	10.45 M	9.96 T		
35.0	-----		0.40 A	0.00 A
	36.56 Q	11.30 B		
30.0	-----		0.22 W	0.00 A
	66.69 Q	16.83 P		
25.0	-----		0.45 A	0.00 A
	105.47 Q	18.95 D		
20.0	-----		1.47 N	0.00 A
	138.59 Q	13.77 Q		
15.0	-----		0.32 E	0.00 A
	168.13 Q	13.23 D		
10.0	-----		0.06 W	0.00 A
	192.54 Q	12.82 P		
5.0	-----		0.22 E	0.00 A
	218.39 Q	12.78 D		
0.0	-----		0.00 A	0.00 A

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
40.0	-----		-3.10 M	0.00 A
	-11.92 G	-10.03 B		
35.0	-----		-0.34 W	0.00 A
	-38.43 K	-11.26 T		
30.0	-----		-0.28 A	0.00 A
	-68.86 K	-17.62 D		
25.0	-----		-0.40 W	0.00 A
	-109.85 K	-18.12 P		
20.0	-----		-2.17 A	0.00 A
	-142.32 K	-13.76 D		
15.0	-----		-0.31 W	0.00 A
	-172.58 K	-13.13 P		
10.0	-----		-0.06 A	0.00 A
	-197.08 K	-12.92 D		
5.0	-----		-0.21 W	0.00 A
	-223.35 K	-12.72 P		
0.0	-----		0.00 A	0.00 A

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

-----LOAD-----COMPONENTS-----				TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
26.11 G	-24.30 Q	234.93 K	-229.92 Q	27.41 K

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

-----HORIZONTAL-----			DOWN	-----OVERTURNING-----			TORSION
NORTH	EAST	TOTAL		NORTH	EAST	TOTAL	
		@ 299.8				@ 299.7	
-47.0	-48.6	49.1	22.7	-1342.7	-1403.0	1407.1	-15.7
A	D	E	Z	A	D	E	E

AUGUST 8, 2017

ATTACHMENT E

Latticed Tower Analysis (Unguyed)
Processed under license at:

(c)2013 Guymast Inc. 416-736-7453

Sabre Towers and Poles

on: 21 apr 2017 at: 9:09:27

***** Service Load Condition *****

* Only 1 condition(s) shown in full

* Some wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

60 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	40.0	0.00	0.0	0.0	2.64	2.06	0.00	0.00
D	40.0	0.00	38.2	0.0	0.09	0.11	0.02	0.01
D	35.0	0.00	38.2	0.0	0.09	0.11	0.02	0.01
D	35.0	0.00	38.2	0.0	0.09	0.10	0.02	0.01
D	30.0	0.00	38.2	0.0	0.09	0.10	0.02	0.01
D	30.0	0.00	33.7	0.0	0.09	0.11	0.01	-0.01
D	20.0	0.00	33.7	0.0	0.09	0.11	0.01	-0.01
D	20.0	0.00	33.6	0.0	0.09	0.13	0.01	-0.01
D	5.0	0.00	33.4	0.0	0.09	0.13	0.01	-0.01
D	5.0	0.00	33.4	0.0	0.09	0.13	0.01	-0.01
D	0.0	0.00	33.4	0.0	0.09	0.13	0.01	-0.01

ANTENNA LOADING

.....ANTENNA..... TYPE	ELEV ft	AZI	ATTACHMENT		.....ANTENNA FORCES.....			
			RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	30.0	90.0	4.4	120.0	0.07	-0.22	0.20	-0.49
STD+R	30.0	270.0	4.4	240.0	0.07	0.22	0.20	0.49

SUPPRESS PRINTING

LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

MAXIMUM MAST DISPLACEMENTS:

ELEV ft	-----DEFLECTIONS (ft)-----			--TILTS (DEG)---		TWIST DEG
	NORTH	EAST	DOWN	NORTH	EAST	

AUGUST 8, 2017

ATTACHMENT E

40.0	0.036 G	0.036 J	0.000 L	0.080 G	0.080 J	-0.019 E
35.0	0.029 G	0.029 J	0.000 L	0.078 G	0.079 J	-0.019 E
30.0	0.022 G	0.022 J	0.000 L	0.072 G	0.073 J	-0.019 E
25.0	0.015 G	0.015 J	0.000 F	0.062 G	0.062 J	-0.016 E
20.0	0.010 G	0.010 J	0.000 F	0.045 G	0.045 J	-0.013 E
15.0	0.006 G	0.006 J	0.000 B	0.035 G	0.035 J	-0.009 E
10.0	0.003 G	0.003 J	0.000 H	0.024 G	0.024 J	-0.005 E
5.0	0.001 G	0.001 J	0.000 H	0.012 G	0.012 J	-0.002 E
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

=====

ELEV ft	AZI deg	TYPE *	.....BEAM DEFLECTIONS (deg)..... PITCH	YAW	ROLL	TOTAL
30.0	90.0	STD+R	-0.072 G	0.019 E	0.073 J	0.072 G
30.0	270.0	STD+R	0.072 G	0.019 E	-0.073 J	0.072 G

MAXIMUM TENSION IN MAST MEMBERS (kip)

=====

ELEV ft	LEGS	DIAG	HORIZ	BRACE
40.0	-----	-----	0.43 C	0.00 A
	0.86 A	1.38 F		
35.0	-----	-----	0.07 A	0.00 A
	4.33 E	1.68 L		
30.0	-----	-----	0.03 K	0.00 A
	8.41 E	2.28 D		
25.0	-----	-----	0.08 A	0.00 A
	13.61 E	2.71 J		
20.0	-----	-----	0.16 L	0.00 A
	18.32 E	1.90 E		
15.0	-----	-----	0.05 E	0.00 A
	22.25 E	1.86 J		
10.0	-----	-----	0.01 K	0.00 A
	25.62 E	1.77 E		
5.0	-----	-----	0.03 E	0.00 A
	29.08 E	1.79 J		
0.0	-----	-----	0.00 A	0.00 A

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

=====

ELEV ft	LEGS	DIAG	HORIZ	BRACE
40.0	-----	-----	-0.40 A	0.00 A
	-2.28 G	-1.48 L		
35.0	-----	-----	-0.04 K	0.00 A
	-6.34 K	-1.62 F		
30.0	-----	-----	-0.04 A	0.00 A
	-10.90 K	-2.50 J		
25.0	-----	-----	-0.05 K	0.00 A
	-17.09 K	-2.44 J		
20.0	-----	-----	-0.37 A	0.00 A
	-21.85 K	-1.99 K		
15.0	-----	-----	-0.04 K	0.00 A
	-26.56 K	-1.79 D		
10.0	-----	-----	-0.01 A	0.00 A
	-30.30 K	-1.84 K		
5.0	-----	-----	-0.03 K	0.00 A
	-34.43 K	-1.75 D		
0.0	-----	-----	0.00 A	0.00 A

**PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT E**

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

=====				
-----LOAD-----	---COMPONENTS---			TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
3.99 G	3.64 K	36.22 K	-30.66 E	4.13 K

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

-----HORIZONTAL-----			DOWN	-----OVERTURNING-----			TORSION
NORTH	EAST	TOTAL		NORTH	EAST	TOTAL	
		@ 149.7				@ 149.7	
7.0	6.8	7.3	7.2	197.1	196.6	205.4	-2.1
G	J	L	B	G	J	L	E

=====

PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT F

The Eyak Corporation
901 LeFevre Street
PO Box 340
Cordova, AK 99574
Email: abutler@eyakcorp.com
Toll Free: (800) 478-7161
Phone: (907) 424-7161
Fax: (907) 424-5161

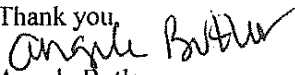


April 14, 2017

To Whom It May Concern,

Cordova Telephone Cooperative is authorized to build a cell phone tower and lay cable on land owned by The Eyak Corporation.

Please contact me at the above telephone number with any further questions.

Thank you,

Angela Butler
General Manager, Cordova Operations

AUGUST 8, 2017

ATTACHMENT G



Federal Communications Commission
Wireless Telecommunications Bureau

89

Spectrum Leasing Arrangement

ATTN: PAUL KELLY
CORDOVA WIRELESS COMMUNICATIONS, LLC
621 2ND STREET
CORDOVA, AK 99574

Date: 04/15/2015
Reference Number: 5980516

This approval allows the Lessee to lease spectrum from the Licensee pursuant to the provisions and requirements of Subpart X of Part 1 of the Commission's Rules, 47 C.F.R. Part 1, and as described in the associated spectrum leasing application or notification.

Type of Lease Arrangement	Lease Term	Lease Identifier
Spectrum Manager Lease	Long Term	L000015992

Lease Grant/Accepted Date	Lease Commencement Date	Lease Expiration Date
04/14/2015	04/09/2015	06/13/2019

Call Sign	Radio Service
WQIZ597	WY - 700 MHz Lower Band (Blocks A, B & E)

Lessee Information
0004333589 Cordova Wireless Communications, LLC Attn: Paul Kelly 621 2nd Street Cordova, AK 99574

Licensee Information
0014980726 AT&T Mobility Spectrum LLC Attn: Reginald Youngblood 3300 E. Renner Road, B3132 Richardson, TX 75082

PLANNING COMMISSION REGULAR MEETING
AUGUST 8, 2017
ATTACHMENT G

Geographically-Licensed Services		
Market Number	Market Name	Channel Block
CMA316	Alaska 2 - Bethel	B

Condition:

This lease may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum associated with this leasing agreement, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

Conditions:

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

AUGUST 8, 2017

ATTACHMENT G

ULS License - Cellular License - WPOL372 - Cordova Wireless Co...

<http://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp;JSESSIONID...>

ULS License

Cellular License - WPOL372 - Cordova Wireless Communications, LLC

Call Sign	WPOL372		Radio Service	CL - Cellular
Status	Active		Auth Type	Regular
Market				
Market	CMA316 - Alaska 2 - Bethel		Channel Block	A
Submarket	0		Phase	2
Dates				
Grant	09/23/2014		Expiration	10/01/2024
Effective	03/21/2015		Cancellation	
Five Year Buildout Date				
03/30/2000				
Control Points				
None				
Licensee				
FRN	0004333589		Type	Limited Liability Company
Licensee				
Cordova Wireless Communications, LLC PO Box 438 621 2nd Street Cordova, AK 99574 ATTN Paul Kelly			P:(907)424-2245 F:(907)424-2344 E:paul@ctcak.net	
Contact				
Herman & Whiteaker, LLC Kenneth C Johnson 3204 Tower Oaks Blvd., Suite 180 Rockville, MD 20852			P:(202)827-0664 F:(202)706-6056 E:ken@hermanwhiteaker.com	
Ownership and Qualifications				
Radio Service Type	Mobile			
Regulatory Status	Common Carrier	Interconnected	Yes	
Alien Ownership				
The Applicant answered "No" to each of the Alien Ownership questions.				
Basic Qualifications				
The Applicant answered "No" to each of the Basic Qualification questions.				
Demographics				

PLANNING COMMISSION REGULAR MEETING

AUGUST 8, 2017

ATTACHMENT G

ULS License - Cellular License - WPOL372 - Cordova Wireless Co...

<http://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp;JSESSIONID...>

Race			
Ethnicity		Gender	

AUGUST 8, 2017

ATTACHMENT G

ULS License - Cellular License - WPYE240 - Cordova Wireless Co...

<http://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp?licKey=2535...>

ULS License

Cellular License - WPYE240 - Cordova Wireless Communications, LLC

Call Sign	WPYE240	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular
Market			
Market	CMA316 - Alaska 2 - Bethel	Channel Block	A
Submarket	0	Phase	2
Dates			
Grant	09/04/2013	Expiration	07/25/2023
Effective	03/21/2015	Cancellation	
Five Year Buildout Date			
Control Points			
None			
Licensee			
FRN	0004333589	Type	Limited Liability Company
Licensee			
Cordova Wireless Communications, LLC PO Box 438 621 2nd Street Cordova, AK 99574 ATTN Paul Kelly		P:(907)424-2245 F:(907)424-2344 E:paul@ctcak.net	
Contact			
Herman & Whiteaker, LLC Kenneth C Johnson 3204 Tower Oaks Blvd., Suite 180 Rockville, MD 20852		P:(202)827-0664 F:(202)706-6056 E:ken@hermanwhiteaker.com	
Ownership and Qualifications			
Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes
Alien Ownership			
The Applicant answered "No" to each of the Alien Ownership questions.			
Basic Qualifications			
The Applicant answered "No" to each of the Basic Qualification questions.			
Demographics			

PLANNING COMMISSION REGULAR MEETING

AUGUST 8, 2017

ATTACHMENT G

ULS License - Cellular License - WPYE240 - Cordova Wireless Co...

<http://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp?licKey=2535...>

Race			
Ethnicity		Gender	



PO Box 459, 611 Second St., Cordova, Alaska 99574
(907) 424-2345 Fax (907) 424-2344

City of Cordova
PO Box 1210
Cordova, AK 99574

April 13, 2017

RE: Conditional Use Permit Application

Cordova Telephone Communications, Inc. does agree to remove the telecommunications tower located at Mt. Eyak and restore the site to its original condition within one hundred and eighty days should the telecommunications tower be unused for a period of twelve consecutive months.

If the tower is not removed in the time frame referenced above, the city may remove the telecommunications tower at the cost of Cordova Telephone Cooperative, Inc.

William Osborn
Signature

4.21.17
Date

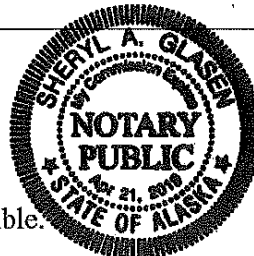
State of Alaska

County of Valdez-Cordova 3rd judicial district

This instrument was signed before me on April 21, 2017

By William Osborn
Print name of signer(s)

[Signature]
Notary Signature

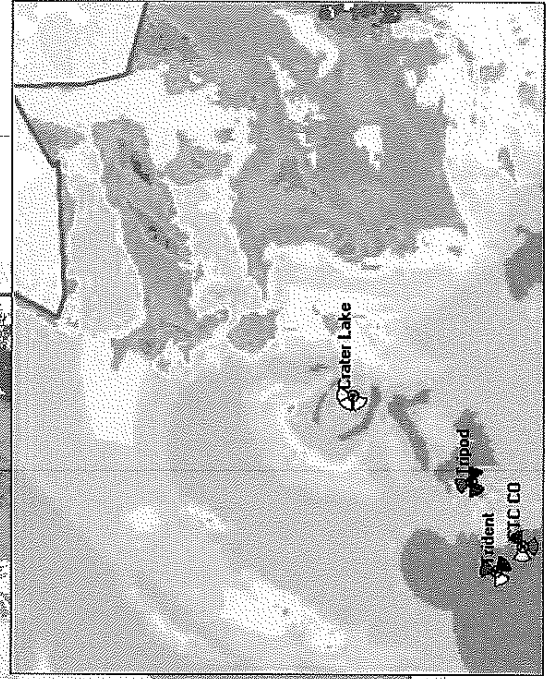
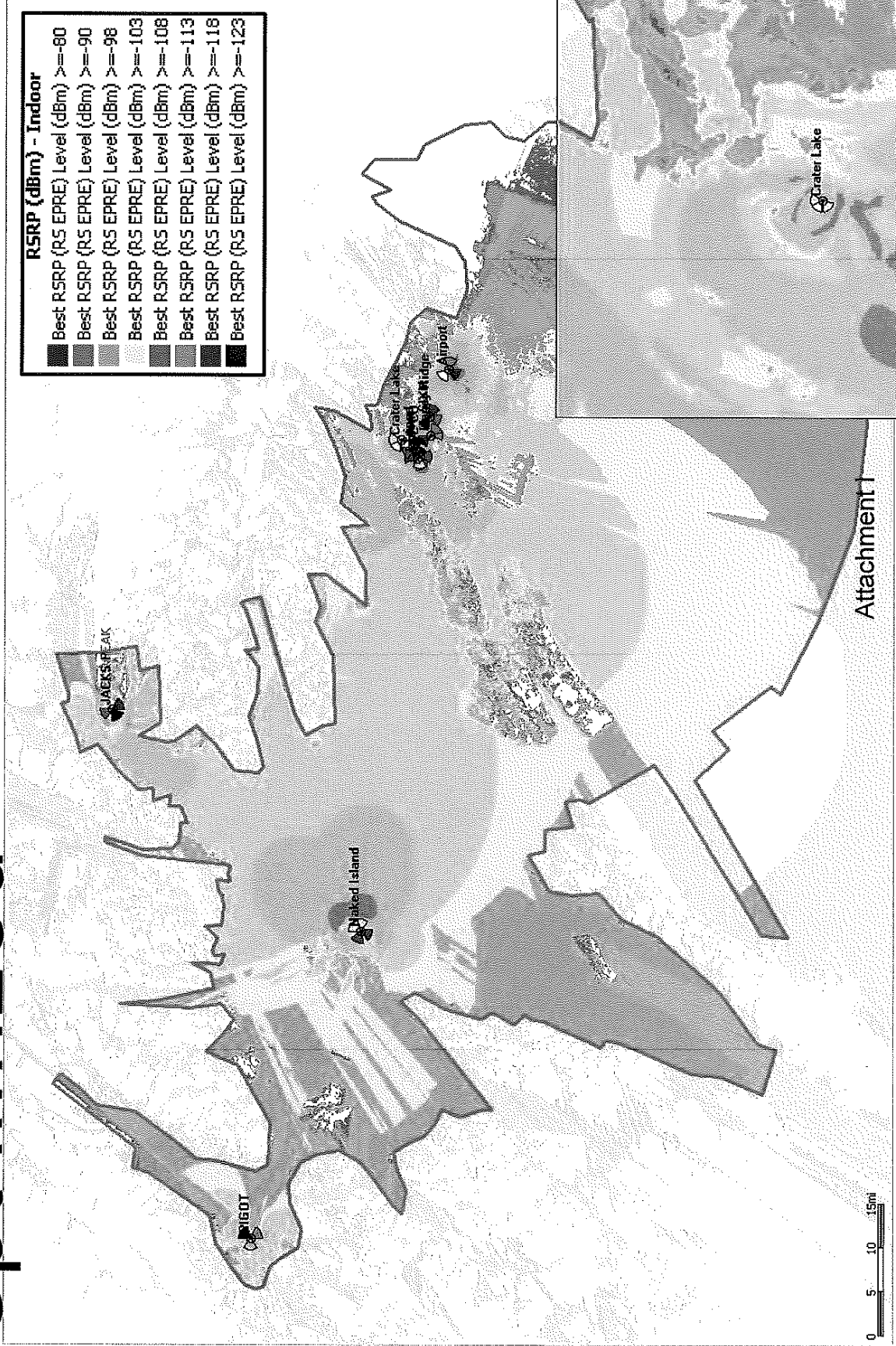


Affix seal/stamp as close to signature as possible.

RSRP Coverage- Optimized



Crater Lake





AGENDA ITEM # 9b

Planning Commission Meeting Date: 8/8/2017

PLANNING COMMISSION COMMUNICATION FORM

FROM: Planning Staff

DATE: 8/2/17

ITEM: Resolution 17-02 – Capital Improvement List

NEXT STEP: Pass Resolution

☐ INFORMATION
☐ MOTION
☒ RESOLUTION

I. REQUEST OR ISSUE:

The Planning Commission is required by the City Code to:

Submit annually to the city council, not less than ninety days prior to the beginning of the budget year, a list of recommended capital improvements which in the opinion of the commission are necessary or desirable to be constructed during the forthcoming three-year period. Such list shall be arranged in order of preference, with recommendations as to which projects shall be constructed in which year (CMC 3.40.080 B).

II. RECOMMENDED ACTION / NEXT STEP:

The current draft of Resolution 17-02 contains last years' list. After making the motion to approve the resolution, the commission can discuss and make changes to the list. Ideally, the commission should prepare a new list and amend the resolution once.

“I move to approve Resolution 17-02.”

III. FISCAL IMPACTS:

The city is dealing with financial challenges which will likely continue to limit capital expenditures for the 2017 budget.

IV. BACKGROUND INFORMATION:

Last year’s Capital Improvement List recommended to City Council by Resolution 16-04 was as follows:

1. Comprehensive Plan Update - \$75,000
2. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Railroad Avenue from Nicholoff to Council and Council from Railroad to First Street - \$25,000-\$35,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage
 - Nicholoff to Water currently has drawings, but need update
 - Water to Council needs drawings
3. To create a Shovel Ready Project that provides for public safety, additional parking and ADA accessible sidewalks to be used in grant/loan applications. Design parking and walkway on north side of Harbor - \$122,013
 - Shovel-ready design
 - Walkway to meet ADA standards
 - To extend in harbor 25 feet
 - Includes contract services from engineer
 - Based on the cost from South Fill report with engineering at 15% of project cost
4. Addressing contract
5. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Second Street from Council to Adams - \$70,000-\$100,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage
 - Survey work completed
 - Extensive drainage work
6. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Adams Avenue from Second to Fifth - \$25,000-\$35,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage
 - Survey work completed
7. Code updates - \$25,000
8. Water/Sewer infrastructure – as needed

V. LEGAL ISSUES:

No legal review required.

VI. CONFLICTS OR ENVIRONMENTAL ISSUES:

N/A

VII. SUMMARY AND ALTERNATIVES:

The 2016 CIP list from the Planning Commission was submitted to City Council. The 2017 budget process was challenging, and few capital projects were funded. Despite the lack of funding, staff and the commission have reviewed Title 16 of the municipal code and have it ready for final attorney review and ordinance. Staff have also pursued funding opportunities for the shovel ready projects. Water infrastructure projects have also been moving forward with the Post LT2 project. Staff completed changing the name of a street and are pursuing other addressing issues in the city.

**CITY OF CORDOVA, ALASKA
PLANNING COMMISSION
RESOLUTION 17-02**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CORDOVA,
ALASKA, RECOMMENDING A CAPITAL IMPROVEMENT LIST TO THE CITY COUNCIL
OF THE CITY OF CORDOVA, ALASKA**

WHEREAS, the City of Cordova's Planning Commission is directed by Cordova Municipal Code 3.40.080(E) to *Submit annually to the City Council, not less than ninety days prior to the beginning of the budget year, a list of recommended capital improvements which in the opinion of the commission are necessary or desirable to be constructed during the forthcoming three-year period. Such list shall be arranged in order of preference, with recommendations as to which projects shall be constructed in which year; and*

WHEREAS, the City of Cordova's Planning Commission has identified and prioritized a Capital Improvement List that will benefit the citizens of Cordova; and

WHEREAS, the City of Cordova's Planning Commission has identified the following Capital Improvement List as being critical to the future wellbeing and economy of Cordova and the surrounding area:

1. Comprehensive Plan Update - \$75,000
2. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Railroad Avenue from Nicholoff to Council and Council from Railroad to First Street - \$25,000-\$35,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage
 - Nicholoff to Water currently has drawings, but need update
 - Water to Council needs drawings
3. To create a Shovel Ready Project that provides for public safety, additional parking and ADA accessible sidewalks to be used in grant/loan applications. Design parking and walkway on north side of Harbor - \$122,013
 - Shovel-ready design
 - Walkway to meet ADA standards
 - To extend in harbor 25 feet
 - Includes contract services from engineer
 - Based on the cost from South Fill report with engineering at 15% of project cost
4. Addressing contract
5. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Second Street from Council to Adams - \$70,000-\$100,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage
 - Survey work completed
 - Extensive drainage work
6. To create Shovel Ready Projects that provide for public safety and ADA accessible sidewalks which to be used in grant/loan applications. Design streets and sidewalks on Adams Avenue from Second to Fifth - \$25,000-\$35,000
 - Shovel-ready design
 - Includes ADA sidewalks and drainage

- Survey work completed
- 7. Code updates - \$25,000
- 8. Water/Sewer infrastructure – as needed

NOW, THEREFORE BE IT RESOLVED THAT the Planning Commission of the City of Cordova, Alaska hereby recommend a capital improvement list to the City Council of the City of Cordova, Alaska.

PASSED AND APPROVED THIS 8TH DAY OF AUGUST, 2017

Tom McGann, Chair

ATTEST:

Samantha Greenwood, City Planner

DRAFT

PLANNING COMMISSION REGULAR MEETING AUGUST 8, 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	01	02 6:00 PM - City Council Work Session (Cordova Center Rooms A & B) 7:00 PM - City Council Regular Meeting (Cordova Center Rooms A & B)	03	04	05
06	07	08 6:30 PM - Planning Commission Public Hearing (Cordova Center Rooms A & B) 6:45 PM - Planning Commission Regular Meeting (Cordova Center Rooms A & B)	09 7:00 PM - Harbor Commission Regular Meeting (Cordova Center Room B) 7:00 PM - School Board Regular Meeting (High School Library)	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24 6:00 PM - CCMC Board Regular Meeting (CCMC Conference Room)	25	26
27	28	29 6:00 PM - City Council Work Session (TBD) 6:00 PM - Parks and Recreation Commission Regular Meeting (Cordova Center Rooms A & B)	30	31	01	02
03	04	05	06	07	08	09

2017 SEPTEMBER

PLANNING COMMISSION REGULAR MEETING AUGUST 8, 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	31	01	02
03	04 City Closed - Labor Day	05	06 7:00 PM - City Council Regular Meeting (Cordova Center Rooms A & B)	07	08	09
10	11	12 6:45 PM - Planning Commission Regular Meeting (Cordova Center Rooms A & B)	13 7:00 PM - Harbor Commission Regular Meeting (Cordova Center Room B) 7:00 PM - School Board Regular Meeting (High School Library)	14	15	16
17	18	19	20 7:00 PM - City Council Regular Meeting (Cordova Center Rooms A & B)	21	22	23
24	25	26 6:00 PM - Parks and Recreation Commission Regular Meeting (Cordova Center Rooms A & B)	27	28 6:00 PM - CCMC Board Regular Meeting (CCMC Conference Room)	29	30
01	02	03	04	05	06	07