Chairman
Tom Bailer

Commissioners
David Reggiani
John Greenwood
Tom McGann
Scott Pegau
John Baenen
Allen Roemhildt

City Planner
Samantha Greenwood

Assistant Planner
Leif Stavig

PLANNING COMMISSION REGULAR MEETING
DECEMBER 9, 2014 AT 6:30 PM
LIBRARY MEETING ROOM
AGENDA

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

   Chairman Tom Bailer, Commissioners David Reggiani, John Greenwood, Tom McGann, Scott Pegau, John Baenen, and Allen Roemhildt
3. **APPROVAL OF AGENDA** (voice vote)
4. **APPROVAL OF CONSENT CALENDAR** (voice vote)
   a. Minutes of October 28, 2014 Public Hearing ..... Page 2
   b. Minutes of October 28, 2014 Regular Meeting ..... Page 3-6
   c. Record Excused Absence of John Greenwood, Scott Pegau, and John Baenen for October 28, 2014 Regular Meeting
5. **DISCLOSURES OF CONFLICTS OF INTEREST**
6. **CORRESPONDENCE**
   a. State of Alaska DOT Public Notice ..... Page 7-8
   b. State of Alaska DNR Public Notice ..... Page 9-12
7. **COMMUNICATIONS BY AND PETITIONS FROM VISITORS**
   a. Guest Speakers
      i. Kate Morse – Copper River Watershed Project ..... Page 13-16
   b. Audience comments regarding agenda items (3 minutes per speaker)
8. **PLANNER'S REPORT** ..... Page 17
9. **NEW/MISCELLANEOUS BUSINESS**
   a. Site Plan Review - Harborside Pizza ..... Page 18-56
   b. Review of Proposals for Lot 4A, Block 5, North Fill Development Park Addition No. 2 ..... Page 57-92
      i. Nerka Enterprises ..... Page 69
      ii. Becky Chapek ..... Page 76
      iii. Native Village of Eyak ..... Page 80
      iv. Bayside Storage ..... Page 84
      v. Prince William Sound Science Center ..... Page 88
   c. Review of Proposals for Lot 2, Block 7, North Fill Development Park ..... Page 93-123
      i. Mobile Grid Trailers, Inc. ..... Page 104
      ii. Trident Seafoods Corp. ..... Page 111
      iii. Native Village of Eyak ..... Page 115
      iv. Prince William Sound Science Center ..... Page 119
   d. Second Street Parking Recommendation to City Council ..... Page 124-126
   e. Snow Load Discussion ..... Page 127-142
10. **UNFINISHED BUSINESS**
    a. Chapter 16 Discussion ..... Page 143-181
11. **PENDING CALENDAR**
    a. December 2014 Calendar ..... Page 182
    b. January 2015 Calendar ..... Page 183
12. **AUDIENCE PARTICIPATION**
13. **COMMISSION COMMENTS**
14. **ADJOURNMENT**

If you have a disability that makes it difficult to attend city-sponsored functions, you may contact 424-6200 for assistance.
Full Planning Commission agendas and packets are available online at www.cityofcordova.net.

PLANNING COMMISSION PUBLIC HEARING
OCTOBER 28, 2014 AT 6:30 PM
LIBRARY MEETING ROOM
MINUTES

1. CALL TO ORDER

Chairman ***Tom Bailer*** called the Planning Commission Public Hearing to order at 6:30 PM on October 28, 2014 in the Library Meeting Room.

2. ROLL CALL

Present for roll call were Chairman ***Tom Bailer*** and Commissioners ***David Reggiani***, ***Tom McGann***, and ***Allen Roemhildt***. Commissioners ***John Greenwood***, ***Scott Pegau***, and ***John Baenen*** were absent.

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

3 people were in the audience.

3. PUBLIC HEARING

a. Variance Request for Ronald and Anne Winters

Bailer acknowledged the additional correspondence from ***Cindy Hjort***.

M/Reggiani S/Roemhildt to recess.
No objection; meeting recessed.

Bailer called the Public Hearing back to order at 6:44 PM.

4. ADJOURNMENT

M/Reggiani S/McGann to adjourn the Public Hearing at 6:45 PM; with no objection, the meeting was adjourned.

Approved:

_____
Tom Bailer, Chairman

_____
Leif Stavig, Assistant Planner

PLANNING COMMISSION REGULAR MEETING
OCTOBER 28, 2014 AT 6:45 PM
LIBRARY MEETING ROOM
MINUTES

1. CALL TO ORDER

Chairman ***Tom Bailer*** called the Planning Commission Regular Meeting to order at 6:45 PM on October 28, 2014 in the Library Meeting Room.

2. ROLL CALL

Present for roll call were Chairman ***Tom Bailer*** and Commissioners ***David Reggiani***, ***Tom McGann***, and ***Allen Roemhildt***. Commissioners ***John Greenwood***, ***Scott Pegau***, and ***John Baenen*** were absent.

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

3 people were in the audience.

3. APPROVAL OF AGENDA

M/Reggiani S/McGann to approve the Agenda.
Upon voice vote, motion **passed** 4-0.
Yea: ***Bailer***, ***Reggiani, McGann***, ***Roemhildt***
Nay: None
Absent: ***Greenwood, Pegau, Baenen***

4. APPROVAL OF CONSENT CALENDAR

a. Minutes of 9-9-14 Regular Meeting

b. Minutes of 9-24-14 Special Meeting

c. Minutes of 9-24-14 Work Session

M/Reggiani S/McGann to approve the Minutes as listed on our packet.
Upon voice vote, motion **passed** 4-0.
Yea: ***Bailer***, ***Reggiani, McGann***, ***Roemhildt***
Nay: None
Absent: ***Greenwood, Pegau, Baenen***

5. DISCLOSURES OF CONFLICTS OF INTEREST

None.

6. CORRESPONDENCE

a. DNR Public Notice

b. Email from Jerry and Vicki Blackler

7. COMMUNICATIONS BY AND PETITIONS FROM VISITORS

a. Audience comments regarding agenda items

None.

8. PLANNER'S REPORT

a. Second Street Parking

b. Platting

S. Greenwood introduced ***Weston Bennett***, the new Superintendent of Facilities. She said that they just received the appraisals for the Mobile Grid lot and the Impound Lot, so those will be back at the December 9th meeting with proposals so they are out for 30 days. She asked how the commission felt about the Legal Briefings and Zoning Bulletins. After brief discussion, the commission indicated they could go either way.

S. Greenwood asked about the budget for the commission. There is currently $6,500 budgeted for the commission. ***Roemhildt*** and ***Baenen*** are both going to AML training session; that's what the money is going towards. Last year ***Holly Wells***, City Attorney, came to discuss variances. Staff want to keep the $700 for ink. ***Roemhildt*** said that they may have to train new commissioners in the coming year.

S. Greenwood said that the next Regular Meeting is on a holiday and she isn't sure that they even need a meeting. If something came up, they could have a Special Meeting.

Stavig provided an update on the Roads Inventory item. He just got done updating the GIS with the subdivisions that had not been added for several years. The next step towards addressing is getting the road inventory fixed, a component of that will be changing street names for duplications.

Reggiani referenced the Second Street Parking memo attached to the Planner's Report. He said that he sees how problematic it is with the angles. Coming up the hill from Council Ave. and turning right on Second Street; the first couple of spots are the worst. He asked what the Planning Commission's role was when it came to parking? He would be interested in seeing the street go back to parallel parking. ***Randy Robertson***, City Manager, talked about how they needed to do a survey first. ***Reggiani*** said he wanted to push this forward. ***Robertson*** said that this is a community decision and they want to solicit the commission and City Council's opinion. ***Reggiani*** said if it needs to be a recommendation he would like to see that as an action item at a future meeting. ***McGann*** asked about the size of the sidewalk and if there was a way to decrease it. ***S. Greenwood*** said that they could look at it if they redo the road.

S. Greenwood explained the administrative plat process. She said that the administrative plats are a benefit to the City as they dissolve lot lines creating larger lots. ***Reggiani*** clarified that this was consistent with current code and did not require a change.

9. NEW/MISCELLANEOUS BUSINESS

a. Variance Request for Ronald and Anne Winters

M/McGann S/Roemhildt that the request by Ronald and Anne Winters for a variance from the required rear setbacks of 15 feet and side setbacks of 5 feet of the Medium Density Residence District for one foot setbacks for their garage be approved as contained in the staff report with the special condition that the variance shall be contingent on the final closing and purchase of the property.

McGann said that it was clear that Section A does not apply. Since all four conditions need to be complied with for the variance to be granted, that's as far as they need to go. ***Reggiani*** said he agreed with the staff

report and their analysis of the different conditions in the Suggested Findings and their recommendation to deny it. ***Bailer*** asked if they denied the variance where would it leave the property owner? ***S. Greenwood*** said they would still have the ability to purchase the property and they can appeal to the Board of Adjustment for the variance. The purchase is not dependent upon the variance. She said it would eliminate the sale that is currently in place unless they appealed and City Council overturned your decision. She said that she is required to meet those four conditions, and if they want to go through the conditions and not agree with the Planner, they don't have to accept her recommendation.

Roemhildt confirmed that the lot next to the lot in question was nonconforming because of the front lot line.

Reggiani asked if there would be a spot in the back of the house for the garage that would meet the setbacks. ***S. Greenwood*** said that there would not.

S. Greenwood said that the current financing company will not move forward with the sale without a variance in place.

Roemhidt said that there is an exceptional physical circumstance that applies to the property with the fact that the garage was accidentally placed on City property.

Bailer said that he would vote in favor of the variance and see where it goes. He said that the building is there, the property is there, and it's being used. His initial thought was that it's being used, they aren't going to take it, they may as well get it on the tax rolls. ***Roemhildt*** agreed and said that where the property is located is physical circumstance to pass the variance.

Upon voice vote, motion **failed** 2-2.
Yea: ***Bailer***, ***Roemhildt***
Nay: ***Reggiani***, ***McGann***
Absent: ***Greenwood***, ***Pegau, Baenen***

b. Disposal of a Portion of ATS 220

M/Reggiani S/McGann to recommend to City Council to dispose of a portion of ATS 220 which contains the area of encroachment only by direct negotiation with the special condition that Ocean Beauty shall incorporate the additional land purchased from the City in the required re-plat of Lot 1 Block 1 and a re-plat of ATS 220 in that area.

Reggiani said that he reviewed it and it looks like the as-built that was recently commissioned found that the building was a little bit off their lines. This looks like a straight-forward solution. ***McGann*** said he agreed. ***Bailer*** clarified that Ocean Beauty was encroaching and asked what the difference was between this and the ***Winters'*** lot. ***S. Greenwood*** said that for the ***Winters*** the commission recommended to sell to the setbacks; City Council changed that to a foot from the building. Ocean Beauty is just asking to purchase enough for their current and existing building.

Upon voice vote, motion **passed** 4-0.
Yea: ***Bailer***, ***Reggiani, McGann***, ***Roemhildt***
Nay: None
Absent: ***Greenwood, Pegau, Baenen***

10. PENDING CALENDAR

a. November 2014 Calendar

b. December 2014 Calendar

Bailer clarified that Second Street parking would be on the December Regular Meeting.

McGann said it was time to revisit Chapter 16. ***Reggiani*** said he's been frustrated that they did so much work on those codes.

Bailer asked about the critical habitat note that was in the Planner's Report. ***S. Greenwood*** said she doesn't feel like they can amend a public document, but they could put a footnote on it. ***Bailer*** wanted to look at their options.

11. AUDIENCE PARTICIPATION

None.

12. COMMISSION COMMENTS

Roemhildt asked what Chapter 16 was. ***McGann*** said Building Codes.

McGann said he felt bad going against the ***Winters'*** variance request, but he thinks it is the correct move. He recognized that if City Council had sold the ***Winters*** all the land they would not have needed the variance, but he is glad they went the direction they did.

Bailer asked ***Bennett*** to introduce himself.

13. ADJOURNMENT

M/Reggiani S/McGann to adjourn the Regular Meeting at 7:15 PM; with no objection, the meeting was adjourned.

Approved:

_____
Tom Bailer, Chairman

_____
Leif Stavig, Assistant Planner

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Transportation and Public Facilities

STATEWIDE AVIATION
Northern Region Aviation Leasing

2301 Peger Road
Fairbanks, Alaska 99709-5399
Main: 907-451-2216
Fax: 907-451-2253

November 6, 2014

Re: Cordova Airport
Permit ADA-71656
Public Notice

RECEIVED
NOV 10 2014
City of Cordova

DISTRIBUTION

Enclosed is a Public Notice regarding a leasehold interest disposal of State land. Public Notice is required by the Alaska Constitution.

We are sending you this copy for your information only; no action is required on your part. However, you are welcome to post this notice in the public view.

If you have any questions, please call me at (907) 451-5201.

Sincerely,

Diana Osborne

Diana M. Osborne
Airport Leasing Specialist

jkb

Enclosure: Public Notice

cc: Robert Mattson, Jr., Airport Manager

Distribution:

Chugach Alaska Corp., 3800 Centerpoint Dr., Ste. 601, Anchorage, AK 99503-5826
City of Cordova, PO Box 1210, Cordova, AK 99574
Eyak Corporation, PO Box 340, Cordova, AK 99574

"Keep Alaska Moving through service and infrastructure."

PROPOSAL TO AMEND A STATE AIRPORT PERMIT: The Alaska Department of Transportation & Public Facilities proposes to increase the area of Permit ADA-71656, Parcel D, H, and I, consisting of approximately 36.4 acres, at Cordova Airport to include Parcel K, consisting of approximately 4 acres; for a total of 40.4 acres, to expire July 1, 2016. Applicant: Alaska Department of Natural Resources, Division of Forestry. Annual rent: N/A. Authorized uses: non-aviation – Manage the harvesting of white spruce for personal use; issuing woodcutting permits and monitoring the harvest.

Written comments must be received by 4:30 p.m., December 8, 2014, after which the Department will determine whether or not to amend the lease. The Department's decision will be sent only to persons who submit written comment or objection to the Department, at the address and by the date and time specified in this notice, and include their return address. Information is available from Diana M. Osborne, Aviation Leasing, 2301 Peger Road, Fairbanks, AK 99709-5399, (907) 451-5201. Anyone needing hearing impaired accommodation may call TDD (907) 451-2363.

The Department reserves the right to correct technical defects, term, or purposes and may reject any or all applications or comments.

BY: Penelope Adler
Penelope Adler, SR/WA, CM
Chief, Northern Region Aviation Leasing

DATE: November 5, 2014

PLEASE LEAVE POSTED AND FULLY VISIBLE THROUGH DECEMBER 8, 2014

Note: A person who removes, obscures or causes to be removed or obscured a notice posted in a public place before the removal date stated in this notice is subject to disqualification from receiving any lease, permit, or concession related to this notice.

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Natural Resources

Division of Mining, Land & Water
Southcentral Regional Office

550 West 7th Avenue, Suite 900
Anchorage, Alaska 99501-3577
Main: 907.269.8503
TDD: 907.269.8411
Fax: 907.269.8913

November 21, 2014

State of Alaska
Department of Natural Resources
Division of Mining, Land, and Water
Southcentral Region Office
550 W. 7th Avenue, Suite 900C
Anchorage, AK 99501-3577

Public Notice
ADL 231942: Applicant: Trident Seafoods Corporation
Private easement for fish processing outfall line
Cordova, Alaska

Pursuant to Alaska Statue (AS) 38.05.850, the Department of Natural Resources (DNR), Division of Mining, Land, and Water (DMLW), Southcentral Region Office is considering an application to grant a private easement for ADL 231942, an existing outfall line from a fish processing plant in the city of Cordova, extending into Orca Inlet. The outfall line is located within the northwest quarter of Section 28 of Township 15 South, Range 3 West, Copper River Meridian, Alaska.

The purpose of the outfall line is to provide disposal of seafood processing wastes. The easement for the outfall line is expected to be approximately 1,100 feet in length and 30 feet in width, over State-owned and DMLW-managed tidal and submerged lands. The final easement area and location will be determined subsequent to DMLW's receipt of a required as-built record of survey produced to DNR's specifications. Please see the attached drawing for imagery of the proposed easement.

Members of the public and interested parties are invited to comment on this proposal. **DMLW must receive written comments no later than 5:00 pm December 22, 2014.** In order to be given full consideration, all comments should clearly explain the facts on which they are based and how they pertain to the proposed action.

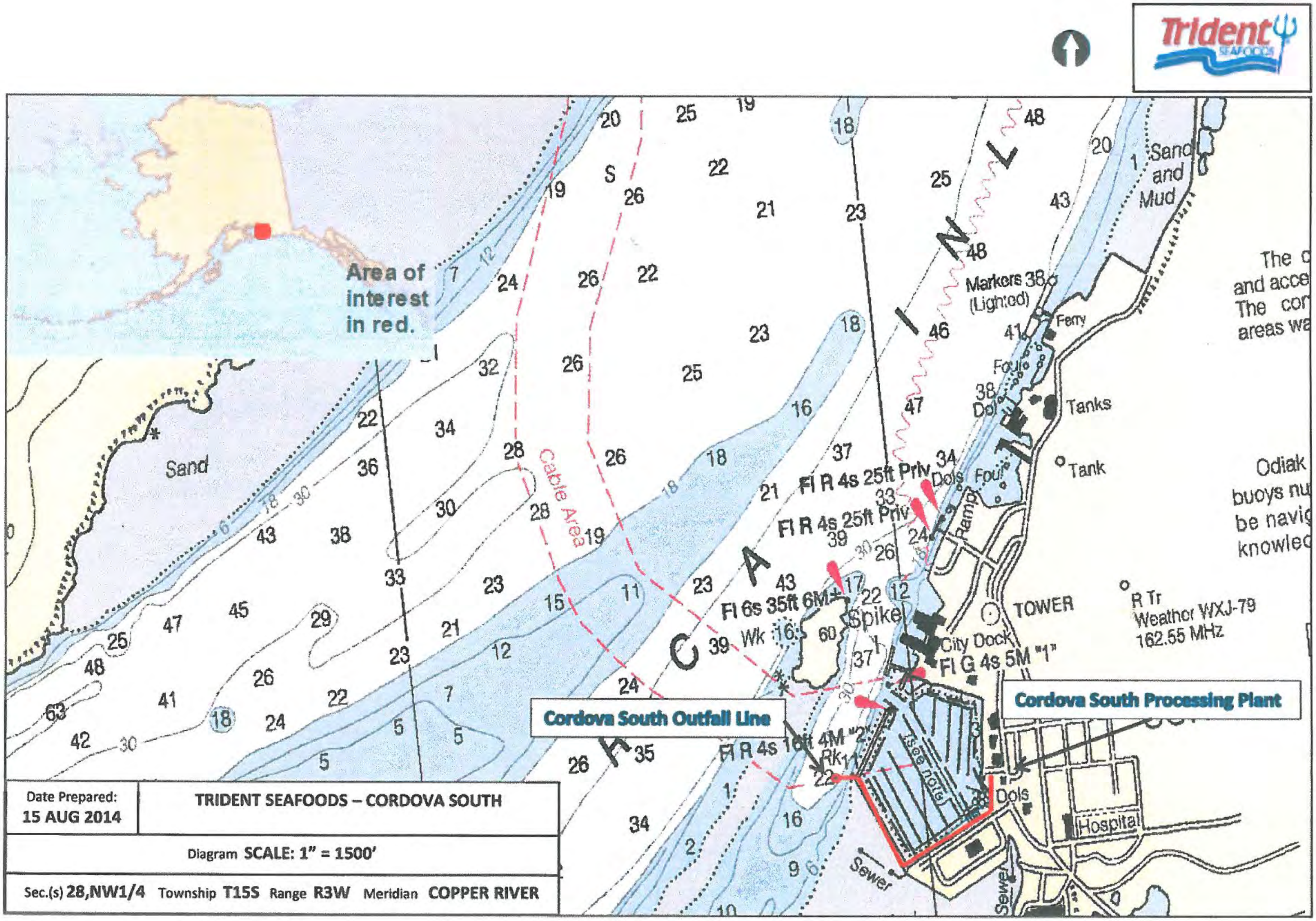
Comments, questions, or requests for further information should be directed to the attention of Carol Hasburgh at the Southcentral Region Office, 550 W. 7th Ave, Suite 900C, Anchorage, Alaska 99501-3577; email carol.hasburgh@alaska.gov; telephone (907) 269-7480, fax (907) 269-8913. Comments may also be received via the Online Public Notices Website at: https://aws.state.ak.us/OnlinePublicNotices/Default.aspx

The State of Alaska, Department of Natural Resources complies with Title II of the Americans with Disabilities Act of 1990. Individuals with disabilities who may need auxiliary aids, services, or special modifications to participate may contact the TDD number at (907) 269-8411. Copies

of the Alaska Statute referenced above may be accessed on-line by searching the State of Alaska website at www.legis.state.ak.us/folhome.htm.

The Division of Mining, Land, and Water, Southcentral Region Office reserves the right to waive technical deficits in this notice.

/s/ Clark Cox, Regional Manager
Division of Mining, Land, and Water
Southcentral Region Office


Trident SEAFOODS
Area of interest in red.
Cordova South Outfall Line
Cordova South Processing Plant
Cable Area
Sand
Sand and Mud
Markers 38 (Lighted)
Ferry
Tanks
Tank
TOWER
R Tr
Weather WXJ-79 162.55 MHz
City Dock
Fl G 4s 5M "1"
Fl R 4s 25ft Priv
Fl 6s 35ft 6M
Fl R 4s 16ft 4M "2"
Spike
Ramp
Dols
Hospital
Sewer
Odiak
Date Prepared: 15 AUG 2014
TRIDENT SEAFOODS – CORDOVA SOUTH
Diagram SCALE: 1" = 1500'
Sec.(s) 28,NW1/4 Township T15S Range R3W Meridian COPPER RIVER

Trident Seafoods Corporation - Cordova South

Outfall Terminus Location

Legend

- Cordova South Outfall Terminus (2013 Survey)
- Cordova South Outfall Terminus 1-acre Buffer
- Trident Alaska Facilities Locations
- Outfall path - approximate

1:5,594 0 0.03 0.06 0.12 Nautical Miles

Cordova's First Bioswale

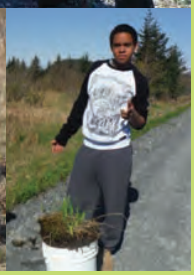
Using native vegetation to filter stormwater entering Odiak Pond

In an effort to improve water quality flowing into Odiak Pond, a type of vegetative filter called a bioswale was constructed behind the Cordova Community Medical Center. Runoff from the parking lot and street drains into and runs through the bioswale and into the pond during Cordova's frequent rainstorms.

The stormwater runoff contains sediments and pollutants from streets, houses, and cars that can harm salmon habitat. Native plants such as columbine, iris, and willow are planted in the bioswale, and these plants are key to the bioswale's success.

The native plants filter the water with their roots, extracting pollutants and successfully breaking down contaminants. The plants also stop sediment and debris from draining into the pond. The bioswale's filtration process provides protection for the environment, allowing cleaner water to flow into the pond. Odiak Pond is spawning and rearing habitat for coho salmon, so keeping the pond clean is very important.

Copper River Watershed Project and its partners are continually working to restore Odiak for fish, wildlife and people, as a home as well as an outdoor space for community members and visitors to enjoy. By working to preserve Odiak watershed, we are also helping to conserve biodiversity of salmon stocks on the Copper River Delta, which is important to the long-term health of regional fisheries.



Youth Involvement

Students from Cordova High School and Bidarki Summer Camps helped to collect native plant seedlings from the Copper River Delta and transplant them into the channel to improve the ability of the bioswale to filter stormwater runoff. Students also created an educational sign that will be permanently installed by the bioswale to educate visitors to the site about how it works (flip over to see a copy of the sign).

The bioswale project was completed with help from the City of Cordova, the Cordova Community Medical Center, Alaska Plant Material Center, and local students and volunteers. Supported with grants from the Prince William Sound Resource Advisory Committee, U.S. Forest Service Chugach National Forest, U.S Fish & Wildlife Service, National Association of Counties Research Foundation, and National Fish and Wildlife Foundation 5-Star Restoration Program: Southern Company, FedEx and EPA.

Nature's Filter

This garden, called a bioswale, works as a natural filter of dirt, gravel, debris, and other contaminants that are carried by stormwater run-off.

What a Bioswale Does

Stormwater run-off flows from hard surfaces such as rooftops, parking lots, and roads, and makes its way into local waterways during Cordova's frequent rainstorms. Stormwater carries micro-pollutants from developed areas that are harmful to salmon habitat. By decreasing the amount of pollutants entering the pond, the bioswale will improve salmon habitat.

How it Works

Stormwater seeps through the plants and is absorbed into the ground. Large debris and sediments are trapped by plants while micro-pollutants are broken down through various chemical processes in the plants and soil.

Odiak Pond watershed provides spawning and rearing habitat for coho salmon. By preserving salmon habitat in Odiak Pond, we are helping to conserve biodiversity in the coho salmon populations around Cordova. Diversity of salmon stocks is vital to maintaining a healthy, sustainable fishery in the surrounding Copper River watershed.

Project by:

With support from:

Alaska Plant Material Center
Cordova School District
National Association of Counties Research Foundation
Native Village of Eyak
National Fish & Wildlife Foundation 5-Star Restoration Program:
Southern Company, FedEx and EPA
Prince William Sound Science Center
United States Fish & Wildlife Service

Sign created by Cordova High School students
Katie Bailer, Gabrielle Brown, and Cadence Moffitt

COPPER RIVER WATERSHED PROJECT

Bringing Back Odiak

Restoring salmon habitat in Cordova's Odiak Pond

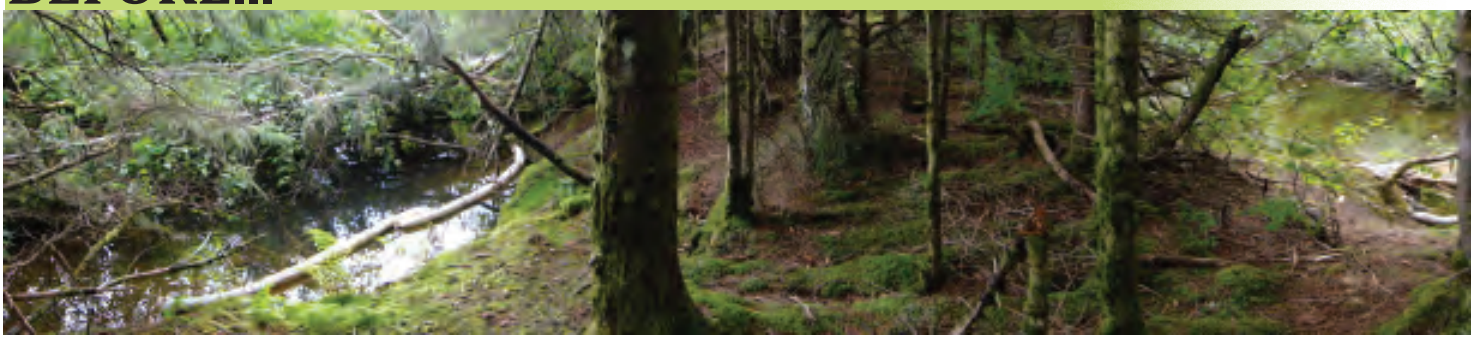
Odiak Pond and stream are still home to coho salmon, a resilient fish that has persevered in this watershed as the community of Cordova has grown up around it. In July, 2014, remnants from the Copper River/Northwest Railroad were removed and an open stream channel was re-established.

The goals of this restoration effort were to support unimpeded movement of juvenile and adult fish, in particular coho salmon, between spawning and rearing habitat and to help return a more natural flow of water through the watershed.

With the assistance of the City of Cordova, the National Civilian Conservation Corps Gold 7 crew and the expertise of the U.S. Forest Service, the old railroad materials were removed using minimal heavy equipment. Dormant willows that had been collected earlier in the year by Cordova High School students were used for brush-layering, a technique developed by Alaska Department of Fish & Game for quickly re-establishing stream banks.

We wish to celebrate this community partnership that has resulted in on-the-ground results for coho salmon -- improvement of their habitat right in the heart of Cordova. This restoration work will provide educational and recreational opportunities for the community of Cordova for generations to come and will help sustain local coho populations by protecting the genetic diversity of individual stocks.

BEFORE...



The trees in the middle of this photo are growing through and around the old railroad trestle. An old wooden culvert connects the stream to the pond.

...AFTER

By removing the old culvert the stream is able to flow freely into the pond.


The site was cleared of trees and excavation with hand tools revealed the upper layers of the railroad trestle.


Come-alongs and griphoists were used to remove the top layer, and a backhoe helped remove the buried materials.


Tons of creosote-soaked lumber were removed. Cutting it into managable chunks revealed the wood had barely deteriorated in the over 100 years it had stood in place.


Coir logs were used to anchor the toe of the bank, and brush-layering with dormant willows was used to re-establish the stream banks. Picture of completed project on other side!

This restoration project was facilitated by the Copper River Watershed Project (CRWP) under award NA11NMF4380268 from National Oceanic and Atmospheric Administration, U.S. Department of Commerce, administered by the Alaska Department of Fish & Game. CRWP also wishes to thank Gabrielle Brown, the City of Cordova, Alaska Forum on the Environment, the Erbey family, the Native Village of Eyak, Americrops NCCC Gold 7crew, Trident Seafoods, and the U.S. Forest Service Cordova Ranger District for their assistance and support.

Planner's Report

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Recent Activities and Updates

- Two building permits issued since last Planning Commission Regular Meeting.
- CTC skill hill lease will be effective January 1.
- Safe Routes to School contract passed City Council; project will begin in May 2015.
- UV equipment RFP passed City Council and design is moving along.
- Tom McGann and Scott Pegau were re-appointed to the board.
- Impound will move to the Mile 17.
- City purchase of Church's property should be completed by January 1.
- Winters property purchase is moving forward.
- Dialog with PWSSC on fill lot and contract.
- Presented recycling changes to CC and will be implementing changes this month.
- Completed budgets and working through fine details.
- Staff added a footnote to the 'Summary of 3 Community Meetings for the South Fill Commercial Area' document. To view the change in the context of the entire document, go to this link:

  http://www.cityofcordova.net/images/FINAL%20Southfill%20Project%20Summary.pdf

Waterfront/SFCA Goals

The overall refined goals for the waterfront area, including the SFCA are:

- Improve waterfront access to both residents and visitors.
- Create a visually attractive waterfront business district.
- Compliment and contribute to the vitality of the downtown area.
- Improve the strength and diversity of Cordova's economy.
- Create a safe and pedestrian-friendly waterfront.
- Consider and protect critical habitat.[1]

Project Consideration Criteria

- Meet the overall goals and will align with other waterfront planning/development efforts/projects.
- Economically feasible - available capital and long-term operation cost and maintenance.

[1] This goal is not intended to designate any area as a critical habitat, nor is this area at the time of this writing designated as critical habitat by federal, state, or city agencies.

Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Site Plan Review – Harborside Pizza

PART I – GENERAL INFORMATION

Requested Actions:	Site Plan Review
Applicant:	Carbon Neutral Alternatives
Owner Name:	Harborside Pizza
Address:	131 Harbor Loop Rd.
Legal Description:	Lot 8, Block 2, South Fill Development Park
Parcel Number:	02-473-144
Zoning:	Waterfront Commercial Park District
Lot Area:	12,986 sq. ft.
Attachments:	Attachment A: Location Map
	Site Plan Review Application
	Construction Documents

PART II – BACKGROUND

Carbon Neutral Alternatives is proposing to construct a 1,352 sq. ft. building for Harborside Pizza on the existing foundation.

PART III – REVIEW OF APPLICABLE CRITERIA & SUGGESTED FINDINGS

Chapter 18.39 ZONING – WATERFRONT COMMERCIAL PARK DISTRICT

The development of an eating and drinking facility is a permitted principal use. A Site Plan Review is required in the Waterfront Industrial District.

Chapter 18.42 ZONING – SITE PLAN REVIEW – Purpose.

Whenever required by this code or the city council, a site plan review shall be completed by the planning commission with a recommendation to the city council. Prior to the issuance of a building permit, the city council must approve the site plan for the project.

Chapter 18.48 ZONING – OFF-STREET PARKING, LOADING AND UNLOADING

Eating and drinking establishments require "one space for each employee of the largest shift, plus one space for each ten seats." According to the submitted plans, the maximum number of employees in the kitchen is two, and the maximum for the dining room is 20 for a total of four required parking spaces. The site plan contains six.

PART IV – SUGGESTED SPECIAL CONDITIONS

1. The Planning Department must be in receipt of a Plan Review from the State of Alaska Fire Marshal prior to issuance of a Building Permit.

2. Carbon Neutral Alternatives will consult with the Public Works Department to install a water meter and backflow preventer prior to the issuance of a Building Permit.

PART V – STAFF RECOMMENDATION

Staff recommend that the Planning Commission recommend the City Council approve the Site Plan Review requested by Carbon Neutral Alternatives to construct a 1,352 sq. ft. building for Harborside Pizza on Lot 8, Block 2, South Fill Development Park based on the findings and with the special conditions as contained in the staff report.

PART VI – SUGGESTED MOTION

"I move that the Planning Commission recommend the City Council approve the Site Plan Review requested by Carbon Neutral Alternatives to construct a 1,352 sq. ft. building for Harborside Pizza on Lot 8, Block 2, South Fill Development Park based on the findings and with the special conditions as contained in the staff report."

ATTACHMENT A

CITY OF CORDOVA

BUILDING 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. The Building Permit Application also serves as an application for a Zoning Compliance Certificate.	☐ Residential Building Permit	$50
	☐ Multi-Family Building Permit	$100
	☒ Commercial Building Permit	$150
	☐ Industrial Building Permit	$200

APPLICANT INFORMATION	
Name:	CARBON NEUTRAL ALTERNATIVES
Mailing Address:	P.O. BOX 383
City/State/Zip:	CORDOVA, ALASKA 99574
Phone Number:	(928) 699-6561
Email Address:	CNA.ALASKA@GMAIL.COM
OWNER INFORMATION*	
Name:	HARBORSIDE PIZZA
Mailing Address:	P.O. BOX 1606
City/State/Zip:	CORDOVA, ALASKA 99574
Phone Number:	(907) 424-3730
Email Address:	HARBORSIDEPIZZA@GMAIL.COM
*If different from applicant.	
CONTRACTOR INFORMATION*	
Contractor Name & License No.:	CARBON NEUTRAL ALTERNATIVES # 8392
Contractor Name & License No.:	
Contractor Name & License No.:	
Contractor Name & License No.:	
*List all contractors working on project. Contractors must have a Cordova Business License.	
PROJECT INFORMATION	
Scope of Work:	NEW CONSTRUCTION ON EXISTING FOUNDATION
Construction Start Date:	ESTIMATED
Estimated Cost:	
PROPERTY INFORMATION*	
Address:	131 HARBOR LOOP RD, CORDOVA, ALASKA 99574
Legal Description:	Lot 8, Block 2, South Fill Development Park
Tax Lot No.:	02-473-144
Zone District:	Waterfront Commercial Park District
*Planning Department can fill out if unknown.	

ADDITIONAL INFORMATION					
Describe Scope of Work in detail:	NEW CONSTRUCTION OF HARBORSIDE PIZZA TO TAKE PLACE ON EXISTING FOUNDATION. TRADITIONAL WOOD FRAMING WITH ONE WAY SLOPED ROOF.				
Dimensions, height, and square footage of construction:	BUILDING FOOTPRINT = 34'x36' w/ 2 8'x8' POPOUTS = 1352 FT² / APROX HEIGHT = 16'				
Existing off-street parking spaces:	6 INCLUDING 1 HANDICAP SPACE				
Proposed off-street parking spaces:	6 INCLUDING 1 ADA				
Required zoning setbacks:	**Front:**	15'	**Proposed setbacks:**	**Front:**	34.8'
	Rear:	5'		**Rear:**	>5'
	Left:	5'		**Left:**	>5'
	Right:	5'		**Right:**	9.6'
Required zoning height:			**Proposed height:**		16'

OTHER QUESTIONS*		
☐ Yes	☒ No	Will you be installing a private septic system?
☐ Yes	☒ No	Are you developing a new driveway that exits onto a State Road?
☒ Yes	☐ No	Does property contain drainages, creeks, wetlands, or other water features?
☐ Yes	☒ No	Will you be using fill to develop the lot?
☐ Yes	☒ No	Is this Building Permit for a Mobile Home?
☐ Yes	☒ No	Is the property within a Flood Plain?
☐ Yes	☒ No	Is your property within the Eyak Lake Area Meriting Special Attention?
☒ Yes	☐ No	Do you intend to get a Sales Tax Exemption Card ($150)?
☒ Yes	☐ No	Do you need to have a Site Plan Review (Zones WCP or WI)?

*See Planning Staff for additional information if you don't understand any of these questions.

ATTACHMENTS	
For new construction or substantial changes:	**Residential building larger than a three-plex or any Commercial or Industrial building:**
☒ Detailed Plot Plan	☐ Fire and Life Safety Review
☒ Front Elevation Drawing	**Other:**
☒ Side Elevation Drawing	☐
Recommended:	☐
☒ As-Built Survey	☐
☐ Photos	☐
Additional Permits:	☐
☐ Variance Permit	☐
☐ Conditional Use Permit	☐

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 propery associated with this application for purposes of conducting necessary site inspections.

Applicant Signature: _____ **Date:** 11/9/14

Print Name and Title: LARAMY SCHMID - PARTNER

HARBORSIDE PIZZA

CORDOVA, ALASKA

CONSTRUCTION DOCUMENT SET

Project No: 13046.01

Issue Date: 11/11/2013

Architects Alaska

900 West Fifth Avenue
Anchorage, Alaska 99501
(907) 272-3567

191 E. Swanson Avenue
Wasilla, Alaska 99654
(907) 373-7503

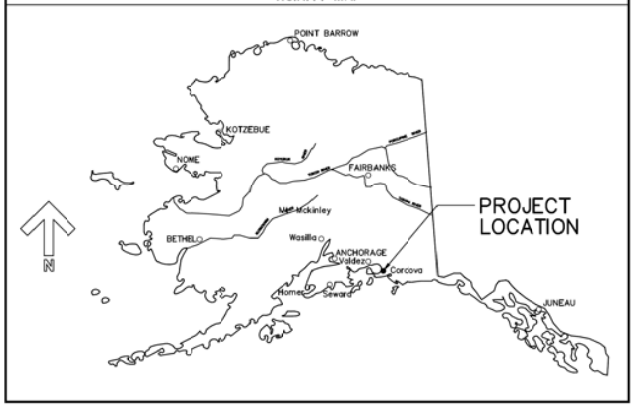
STRUCTURAL ENGINEERING	**PDC INC** 2700 GAMBELL STREET SUITE 500, Anchorage, Alaska 99503
MECHANICAL ENGINEERING	**RSA ENGINEERING INC** 2522 ARCTIC BOULEVARD SUITE 200, Anchorage, Alaska, 99503
ELECTRICAL ENGINEERING	**RSA ENGINEERING INC** 2522 ARCTIC BOULEVARD SUITE 200, Anchorage, Alaska 99503

Plot Date: Nov 12, 2013 - 12:13pm

ABBREVIATIONS

@	AND	FLUOR	FLUORESCENT	PARA	PARALLEL
∠	ANGLE	F.O.B.	FACE OF BLOCK	PART	PARTITION
@	AT	F.O.F.	FACE OF FINISH	PERF	PERFORATED
℄	CENTERLINE	F.O.S.	FACE OF STUD	PERM	PERMANENT
Ø	DIAMETER OR ROUND	F.O.	FACE OF (Conc. etc.)	PERP	PERPENDICULAR
#	POUND OR NUMBER	FRPF	FIREPROOFING	P.I.C.	PRECAST INSULATED CONC.
AC	ASPHALTIC CONCRETE	FRT	FIRE-RETARDENT TREATED	PL	PLATE
ACT	ACOUSTICAL CEILING TILE	FT	FOOT OR FEET	P.LAM	PLASTIC LAMINATE
		FTG	FOOTING	PLAST	PLASTER
		FURR	FURRING	PLYWD	PLYWOOD
ACOUS	ACOUSTICAL	FVT	FIXTURE	PR	PAIR
ADD	ADDITION			PREFAB	PREFABRICATED
ALT	ALTERNATE			PROJ	PROJECT
ALUM	ALUMINUM	GA	GAUGE	PT	POINT
APPROX	APPROXIMATE	GAL	GALLON	PTD	PAPER TOWEL DISPENSER
ARCH	ARCHITECTURAL	GALV	GALVANIZED		
ASPH	ASPHALT	GB	GRAB BAR		
AVG	AVERAGE	GI.	GALVANIZED IRON	R	RISER OR RADIUS
		GL	GLASS	R.D.	ROOF DRAIN
		GWB	GYPSUM WALL BOARD	REF	REFERENCE
BD	BOARD	GYM	GYMNASIUM	REFR	REFRIGERATOR
BLDG	BUILDING	GYP.	GYPSUM	REINF	REINFORCING
BLKG	BLOCKING			REQ	REQUIRED
BM	BENCH MARK			R.H.	RIGHT HAND
B.O.	BOTTOM OF	H.B.	HOSE BIB	R.L.	RAIN LEADER
B.S.	BOTH SIDES	H.C.	HOLLOW CORE	RM	ROOM
BTU	BRITISH THERMAL UNIT	HDWD	HARDWOOD	R.O.	ROUGH OPENING
BUR	BUILT-UP ROOF	HDWR	HARDWARE	R.O.W.	RIGHT OF WAY
		H.M.	HOLLOW METAL		
		H.M.F.	HOLLOW METAL FRAME		
C.B.	CATCH BASIN	HORIZ	HORIZONTAL	S	SOUTH
CEM	CEMENT	H.P.	HIGH POINT	SAN	SANITARY
C.I.	CAST IRON	HR	HOUR	S.C.	SOLID CORE
CIRC	CIRCULAR	HT	HEIGHT	SCHED	SCHEDULE
CLG	CEILING	HW	HOT WATER	SECT	SECTION
C.M.P.	CORRUGATED METAL PIPE	HWY	HIGHWAY	SHEATH	SHEATHING
CMU	CONCRETE MASONRY UNIT			SHT	SHEET
COL	COLUMN			SIM	SIMILAR
COMP	COMPOSITION	I.D.	INSIDE DIAMETER	SND	SANITARY NAPKIN DISPENSER
CONC	CONCRETE	(")	OR IN INCHES	SPEC	SPECIFICATIONS
CONSTR	CONSTRUCTION	INSUL	INSULATION	SQ	SQUARE
CONT	CONTINUOUS	INT	INTERIOR	S.S.	SANITARY SEWER
CORR	CORRIDOR			S.ST.	STAINLESS STEEL
C.R.	COLD ROLLED			STD	STANDARD
C.R.C.	COLD ROLLED CHANNEL	JAN	JANITOR	STL	STEEL
C.T.	CERAMIC TILE	JT	JOINT	STOR	STORAGE
CTR	CENTER			STRUCT	STRUCTURAL
				ST.S.	STORM SEWER
		KIT	KITCHEN	SUSP	SUSPENDED
DBL	DOUBLE			SYM	SYMMETRICAL
DEPT	DEPARTMENT				
D.F.	DRINKING FOUNTAIN	LAB	LABORATORY		
DET	DETAIL	LAM	LAMINATE OR LAMINATED	TB	TACKBOARD
DIA	DIAMETER	LAV	LAVATORY	TEL	TELEPHONE
DIAG	DIAGONAL	LB	POUND	TEMP.	TEMPORARY
DIM.	DIMENSION	LH	LEFT HAND	TERR.	TERRAZZO
DISP	DISPENSER	LL	LIVE LOAD	T.&G.	TONGUE AND GROOVE
DL	DEAD LOAD	L.P.	LOW POINT	THRU	THROUGH
DN.	DOWN			T.O.	TOP OF (eg CONCRETE)
DS.	DOWNSPOUT			T.O.S.	TOP OF STEEL
DWG	DRAWINGS	MAT'L	MATERIAL	TV	TELEVISION
		MAX	MAXIMUM	TYP	TYPICAL
		MECH	MECHANICAL		
E	EAST	MET	METAL		
EA	EACH	MFR	MANUFACTURER	UL	UNDERWRITERS LAB.
ELEV	ELEVATION	MH	MANHOLE	UNFIN	UNFINISHED
	ELEVATOR	MIN	MINIMUM OR MINUTE		
ELEC	ELECTRICAL	MISC	MISCELLANEOUS		
EQ	EQUAL	M.O.	MASONRY OPENING	VCT	VINYL COMPOSITION TILE
EQUIP	EQUIPMENT	MULL	MULLION	VERT	VERTICAL
E.S.	EACH SIDE			VEST	VESTIBULE
EXIST	EXISTING			VR	VAPOR RETARDER
EXP	EXPANSION	N	NORTH		
EXP.AGG.	EXPOSED AGGREGATE	NIC	NOT IN CONTRACT	W	WEST
EXP.JT.	EXPANSION JOINT	NO	NUMBER	W/	WITH
EXT	EXTERIOR	NOM	NOMINAL	WC	WATER CLOSET
		NTS	NOT TO SCALE	WD	WOOD
				W/O	WITHOUT
				WP	WATERPROOF
F.B	FLAT BAR			WT	WEIGHT
F.D.	FLOOR DRAIN	O.C	ON CENTER		
FDN	FOUNDATION	O.D	OUTSIDE DIAMETER		
F.E.	FIRE EXTINGUISHER	OFF	OFFICE		
F.E.C.	FIRE EXTINGUISHER CABINET	OH	OVERHEAD		
FIN	FINISH	OPNG	OPENING		
FF	FINISH FLOOR	OPP	OPPOSITE		

VICINITY MAP

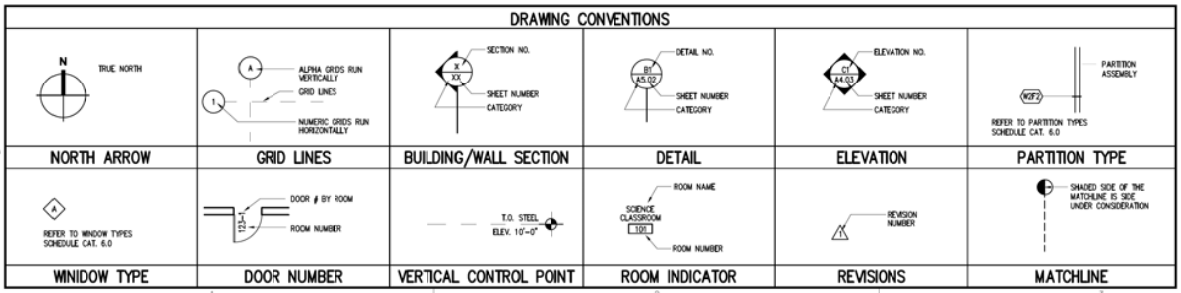


CODE INFORMATION

APPLICABLE CODES	2009 INTERNATIONAL BUILDING CODE INCLUDING ALL STATE AND LOCAL AMENDMENTS	
OCCUPANCY GROUP	GROUP A2	IBC 303.1
CONSTRUCTION TYPE	TYPE V-B	IBC TABLE 503
ACTUAL AREA	1,352 S.F.	
BASIC ALLOWABLE AREA (PER FLOOR):	6000 S.F.	IBC TABLE 503
AREA INCREASE DUE TO FRONTAGE:	$I_f = 100\left[\frac{F}{P} - 0.25\right]\frac{W}{30} = 100\left[\frac{140}{180} - 0.25\right]\frac{30}{30} = 56$	IBC 506.2
TOTAL ADJUSTED ALLOWABLE AREA:	$A_a = A_t + \left[\frac{A_t I_f}{100}\right] + \left[\frac{A_t I_s}{100}\right] = 6{,}000 + 3{,}360 + 0 = 9{,}360$ S.F.	IBC 506.1
EXTERIOR WALL, ROOF AND FLOOR RATING	NONRATED IN V-B EXCEPT WHERE REQUIRED BY SECTION 602	IBC TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE	1-HOUR WHERE SEPARATION DISTANCE IS LESS THAN 10'. EAST WALL REQUIRES A ONE-HOUR RATING FROM INTERIOR SIDE ONLY (SEPARATION EXCEEDS 5' SECTION 721.6.2.3)	IBC TABLE 602
CALCULATED FIRE RESISTANCE	INTERIOR SIDE: 5/8" GWB 40MIN; WOOD STUDS 16" O.C. 20MIN; RATING = 60MIN	IBC 721.6.1 (1) IBC 721.6.1 (2)
	EXTERIOR SIDE: 1/2" PLYWOOD, INFILTRATION BARRIER, CEMENTITIOUS SIDING	IBC 721.6.1 (3)
FIRE PROTECTION SYSTEM	NOT REQUIRED - LESS THAN 5,000 S.F. (903.2.1.2)	IBC CHAPTER 9
MANUAL FIRE ALARMS	NOT REQUIRED - OCCUPANT LOAD LESS THAN 300 (907.2.1)	IBC CHAPTER 9
EXIT SIGNS REQUIRED:	NOT REQUIRED - ONE EXIT (1011.1.1)	IBC CHAPTER 10
FIRE EXTIGUISHERS:	ONE 2A-20B/C + ONE, TYPE K IN KITCHEN	2009 IFC
EMERGENCY LIGHTING:	NOT REQUIRED - ONE EXIT (1006.3.1)	IBC CHAPTER 10

DRAWINGS INDEX

DRAWING CONVENTIONS



GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE 2006 INTERNATIONAL BUILDING CODE, AND ALL OTHER STATE AND LOCAL CODES, INCLUDING ALL AMENDMENTS.
2. ALL DIMENSIONS ARE TO FACE OF STUD, FACE OF CONCRETE, FACE OF CMU, TO CENTERLINE OF STRUCTURAL COLUMN, OR TO STRUCTURAL GRIDLINE UNLESS NOTED OTHERWISE.
3. ALL MATERIALS INDICATED SHALL BE ASSUMED TO BE NEW UNLESS SPECIFICALLY NOTED AS EXISTING.
4. DO NOT SCALE THE DRAWINGS TO OBTAIN CONSTRUCTION DIMENSIONS.

Architects Alaska.
Architects Alaska, Inc.
architectsalaska.com
900 W. 5th Ave, Suite 403
Anchorage, Alaska 99501-2029
907.272.3547 - 907.277.1732 fax
193 E. Swanson Ave. Suite 203
Wasilla, Alaska 99654-7025
907.373.3503 - 90 ...376.3566 fax

Consultant

STATE OF ALASKA
DAVID L. MOORE
99715
REGISTERED PROFESSIONAL ARCHITECT

LOT 8 BLOCK 2 SOUTH FILL DEVELOPMENT PARK
HARBORSIDE PIZZA
Cordova, Alaska

Revisions		
No.	Description	Date

Drawn by DAM	Date 11 NOV 13
Checked DLM	Job No. 13046.01

Sheet Contents
ABBREVIATIONS, VICINITY MAP
DRAWING INDEX, CODE INFORMATION
DRAWING CONVENTIONS, AND
GENERAL NOTES

Category	Sheet No.
G	1.01

Drawing File: W:\2013\13046.01 Harborside Pizza Code Upgrades\Dwg\13-CD\Permit Set\G1.01.dwg
Plot Date: Nov 12, 2013 - 11:44am

ARCHITECTURAL SPECIFICATIONS

SECTION 05500, MISC. METAL FABRICATIONS

THE EXTENT OF MISC. METAL FABRICATIONS WORK IS SHOWN ON THE DRAWINGS AND INCLUDES ITEMS FABRICATED FROM IRON AND STEEL SHAPES, PLATES, BARS STRIPS, TUBES, PIPES AND CAST-INGS WHICH ARE NOT A PART OF THE STRUCTURAL SYSTEM AS SPECIFIED IN OTHER PARTS OF THE DRAWINGS.

FURNISH BENT OR OTHERWISE CUSTOM FABRICATED BOLTS, STEEL PLATES, ANCHORS, HANGERS, DOWELS AND OTHER MISC. STEEL AND IRON SHAPES AS REQUIRED FOR FRAMING AND SUPPORTING WOODWORK TO CONCRETE OR OTHER STRUCTURES. GALVANIZE MISC. BOLTS, PLATES, ANCHORS, HANGERS DOWELS AND OTHER STEEL SHAPES UNLESS NOTED OTHERWISE. PROVIDE STAINLESS STEEL ANCHOR BOLTS AT ALL WEATHER WOOD FOUNDATION, TYP.

STEEL PLATES, SHAPES, & BARS TO COMPLY W/ ASTM A 36/A 36M.

BRASS RAILINGS SHALL COMPLY WITH ASTM B 249 WITH SATIN POLISH FINISH. ESCUTCHEON PLATES AND ANCHORS SHALL BE PROVIDED OF SAME CONSTRUCTION AND BE FROM THE SAME MANUFACTURER AS A COMPLETE SYSTEM.

SECTION 06100, ROUGH CARPENTRY

SEE STRUCTURAL DRAWINGS SPECIFICATIONS ON STRUCTURAL FRAMING LUMBER, PLYWOOD SHEATHING, TRUSS JOISTS, GLUE LAMINATED LUMBER, AND OTHER MISC. STRUCTURAL ELEMENTS.

ALL DECKING AND ALL FRAMING LUMBER EXPOSED TO WEATHER, IN CONTACT WITH THE GROUND OR LESS THAN 12" ABOVE GRADE TO BE TREATED WITH AWPB LP-22.

INFILTRATION BARRIER TO BE BENJAMIN OBDYKE "HOME SLICKER PLUS TYPAR" OR EQUAL.

PROVIDE FRAMING MEMBERS OF THE TYPES AND SIZES AND ON THE SPACINGS SHOWN, AND FRAME OPENINGS AS SHOWN, OR IF NOT SHOWN, COMPLY WITH THE RECOMMENDATIONS OF THE "MAN-UAL FOR HOUSE FRAMING" OF THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) AND THE INTERNATIONAL BUILDING CODE. PROVIDE SIZE AND TYPE ANCHORS AS SHOWN AND COMPLYING WITH TABLE 1 OF THE "MANUAL FOR HOUSE FRAMING".

EXTERIOR GYSUM SHEATHING SHALL COMPLY WITH ASTM C 931, TYPE X AS REQUIRED FOR FIRE RESISTIVE RATED ASSEMBLIES.

SECTION 06200, FINISH CARPENTRY AND MILLWORK

THE FOLLOWING TYPES OF ARCHITECTURAL WOODWORK INCLUDE, BUT ARE NOT LIMITED TO, STANDING AND RUNNING TRIM, EXTER-IOR WOOD TRIM, WOOD HANDRAILS, PLASTIC LAMINATE SILLS, AND FIBERGLASS REINFORCED PANELS AND TRIM.

FOR THE FOLLOWING TYPES OF ARCHITECTURAL WOODWORK COMPLY WITH THE INDICATED STANDARDS AS APPLICABLE:

STANDING AND RUNNING TRIM AWI SECTION 300

EXTERIOR TRIM FOR PAINT OR CLEAR FINISH SHALL BE "D SELECT" WESTER RED CEDAR, WWPA.

EXTERIOR SIDING SHALL BE HARD-PLANK, AS MANUFACTURED BY JAMES HARDI OR APPROVED SUBSTITUTION. INSTALL IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS.

SECTION 07100, MEMBRANE WATERPROOFING

MEMBRANE WATERPROOFING IS SHOWN ON THE DRAWINGS AND INCLUDES A MEMBRANE WATERPROOFING SYSTEM COMPLETE FOR CAST IN PLACE CONCRETE FOUNDATION SYSTEM. THE MEMBRANE WATERPROOFING SYSTEM SHALL BE THE BITUTHENE 3000 SYSTEM AS MANUFACTURED BY GRACE BUILDING PRODUCTS OR EQUAL. PROVIDE MEMBRANE, PRIMERS, MASTICS, PROTECTION BOARD, AND OTHER ACCESSORIES AS REQUIRED OR RECOMMENDED BY THE MANUFACTURER FOR INSTALLATION COMPLETE.

SECTION 07200, INSULATION

THE EXTENT OF THERMAL INSULATION WORK IS SHOWN ON THE DRAWINGS AND INCLUDES UNFACED BLANKET TYPE BUILDING INSUL-ATION COMPLYING WITH FS HH-I 521; TYPE I; MANUFACTURER'S STANDARD SIZES; SELF SUPPORTING AND RIGID INSULATION SHALL BE EXTRUDED POLYSTYRENE COMPLYING WITH ASTM C548, TYPE IV.

VAPOR RETARDER: 6&10 MIL POLYETHYLENE FILM, MAX. PERMEANCE = 0.13 NATURAL COLOR. PROVIDE TAPE & SEALANT PER MANUFACTURER. 10 MIL THICKNESS TO BE USED TO COVER THE GROUND IN THE CRAWL SPACE.

SECTION 07410, PREFORMED ROOFING

THE EXTENT OF PREFORMED METAL ROOFING WORK IS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. PROVIDE 29 GAUGE STEEL ROOF WITH "ZINCALUME" HOT DIP ALLOY COATING AND ALL COMPLEMENTARY RIDGE, RAKE AND EAVE TRIM, TOP AND BOTTOM

CLOSURE STRIPS, GASKETED NON CORROSIVE FASTENERS, SIDE LAP MASTIC STRIPS, PIPE FLASHINGS, AND OTHER ACCESSORIES AS REQUIRED FOR INSTALLATION COMPLETE OF A WATERTIGHT PRE-FORMED METAL ROOFING ASSEMBLY. ROOFING SYSTEM COMPLETE TO BE "NORCLAD" SYSTEM AS MANUFACTURED BY ASC PACIFIC OR EQUAL. COLOR SHALL BE DENALI GREEN.

PROVIDE FELT UNDERLAYMENT COMPLYING WITH ASTM D 226, 15 LB. TYPE. PROVIDE ONE LAYER OF 45 SELF-ADHERING MODIFIED BITUMEN (ICE SHIELD) FROM THE EAVE TO A POINT 36" INSIDE THE EXTERIOR WALL LINE. DRAWINGS SHOW EXTENT & LOCATION OF BUILDING FELT & ICE SHEILD.

SECTION 07900, SEALANTS AND CAULKING

THE EXTENT OF SEALANT AND CAULKING WORK IS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN, AND INCLUDES EXTERIOR WALL JOINTS, INTERIOR SOUND AND AIR SEALED JOINTS, JOINTS AT PENETRATIONS OF WALLS, DECKS AND FLOORS BY PIPING AND OTHER SERVICES AND EQUIPMENT, AND JOINTS AROUND COUNTER TOPS, AND WATERCLOSETS AND OTHER AREAS SUBJECT TO ATTACK BY MILDEW.

PROVIDE EXTERIOR ACID TYPE SILICONE RUBBER SEALANT COMPLYING WITH FS TT-S-00154,3, CLASS A, AT EXTERIOR JOINT SURFACES WHERE BOTH SURFACES ARE NON POROUS.

PROVIDE EXTERIOR NON ACID TYPE SILICONE RUBBER SEALANT COMPLYING WITH FS TT-S-00154,3, CLASS A, AT EXTERIOR JOINT SURFACES WHERE ONE OR BOTH SURFACES ARE POROUS.

PROVIDE INTERIOR SILICONE RUBBER SEALANT COMPLYING WITH FS TT-S-00230, CLASS A, AS A SEAL AROUND COUNTERTOPS, WATER CLOSETS, ALL KITCHEN AREAS AND OTHER AREAS SUBJECT TO ATTACK BY MILDEW. PROVIDE TYPE RECOMMENDED BY THE MANUFACTURER FOR THE TYPE OF JOINT SURFACE.

PROVIDE JOINT CLEANERS, PRIMERS, SEALERS, BOND BREAKER TAPE, BACKER RODS AND OTHER MISCELLANEOUS ACCESSORIES REQUIRED OR RECOMMENDED BY THE SEALANT MANUFACTURER FOR INSTALLATION COMPLETE.

SECTION 08100, METAL DOORS & FRAMES

FIRE RATED METAL FRAME ASSEMBLIES, WHERE SHOWN ON THE DRAWINGS, SHALL COMPLY WITH ASTM E152, ANSI/UL10b OR NFPA 252. KNOCK DOWN FRAMES TO COMPLY W/ S.D.I. 111A

HOLLOW METAL FIRE RATED DOORS SHALL COMPLY WITH S.D.I. 100 AND SHALL BEAR A LABEL INDICATING THE FIRE RATING.

DOORS AND FRAMES SHALL BE TESTED, LABELED & CERTIFIED BY A RECOGNIZED NATIONAL TESTING LABORATORY FOR THE RATINGS SHOWN. PROVIDE FRAME, HINGES, WEATHERSTRIPPING AND LOW PROFILE INTERIOR THRESHOLD OR OTHER THRESHOLD SUITABLE FOR HANDICAP ACCESS.

SECTION 08200, WOOD DOORS & FRAMES

PROVIDE WOOD DOORS COMPLYING WITH THE APPLICABLE REQUIREMENTS OF NWMA I.S. FACE PANELS SHALL BE MANUFACTURER'S STANDARD FINE PLY (2 PLY EACH FACE) CUSTOM GRADE PLAIN SLICED WHITE BIRCH FACE VENEERS. PROVIDE EXPOSED EDGES AND OTHER SOLID WOOD COMPONENTS OF THE SAME SPECIES AS FACE VENEER.

PROVIDE PRE-FITTED WOOD DOOR FRAME AS SHOWN ON CONTRACT-DRAWINGS. COMPLY WITH THE TOLERANCE REQUIREMENTS OF NWMA FOR PRE-FITTING. PREPARE FRAMES TO AS REQUIRED FOR HARDWARE INSTALLATION. PREPARE FRAMES AS REQUIRED FOR FIELD APPLIED CLEAR FINISH.

PREPARE DOORS SHOWN FOR FIELD APPLIED STAIN AND TRANSPARENT FINISH SYSTEM AS SCHEDULED AND SPECIFIED IN SECTION 09900. LOCATE FINISH HARDWARE IN ACCORDANCE WITH "RECOMMENDED LOCATIONS FOR BUILDER'S HARDWARE", PUBLISHED BY THE NATIONAL BUILDER'S HARDWARE ASSOCIAION. PERPARE DOORS AND FRAMES IN ACCORDANCE WITH HARDWARE SCHEDULE AND TEMPLATES PREPARED AND FURNISHED BY HARDWARE SUPPLIER.

SECTION 08600, PLASTIC WINDOW UNITS

THIS SECTION INCLUDES PVC FRAME WINDOW UNITS WITH DOUBLE PANE GLAZING UNITS.

WINDOW UNITS SHALL BE OF PVC FRAME CONSTRUCTION AS MANUFACTURED BY MILGARD, INC. 5000 SERIES OR APPROVED SUBSTITUTION. COMPLY WITH ANSI/NWMA INDUSTRY STANDARDS FOR PVC WINDOWS.

WINDOW UNITS SHALL BE TESTED AND LABLED FOR STRUCTURAL PERFORMANCE (ASTM E 330), AIR INFILTRATION (ASTM E 283) AND WATER PENETRATION (ASTM E 331) AND WITH RESULTS COMPLYING WITH ANSI/NEMA STANDARD LS.2 FOR CLASS "A" IMPROVED WINDOW UNITS.

WINDOW UNITS SHALL BE EQUIPPED WITH HERMETICALLY SEALED INSULATING GLASS UNITS WITH SIGMA CLASS A SEALANT TYPE EDGE CONSTRUCTION, AND DRY OR GAS-FILLED AIR SPACE ENCLOSED BY 2 SHEETS OF GLASS AND WARRANTED FOR A MINIMUM OF 10 YEARS AGAINST FAILURE OF HERMETIC SEAL.

- INTERIOR GLASS: CLEAR FLOAT GLASS, FS DD-G-451 TYPE I, QUALITY q3.
- EXTERIOR GLASS: LOW-E FLOAT GLASS, FS DD-G-451. TYPE I.
- PROVIDE TEMPERERED SAFETY GLAZE WHERE INDICATED ON THE DRAWINGS (HAZARDOUS LOCATIONS PER 2006 IBC).

WINDOW UNITS SHALL BE EQUIPPED WITH MANUFACTURER'S STANDARD ALUMINUM SCREEN FRAMES WITH REMOVABLE, VINYL FABRIC RETAINER SPLINE AND SCREEN MESH OF PLASTIC COATED FIBER THREADS, WOVEN AND FUSED.

OPERABLE WINDOW UNITS SHALL BE EQUIPPED WITH MANUFACTURER'S STANDARD SOLID WHITE METAL OR OF SOLID BRONZE ROTO-TYPE OPERATOR AND HOOK/CAM-TYPE LATCH AND LEVER & ALLOW FOR OPERATION WITHOUT SCREEN REMOVAL OR SCREEN ACCESS PANELS.

SECTION 08700, FINISH HARDWARE

FINISH HARDWARE IS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN

MANUFACTURERS LISTED INCLUDE:

	ABBRV.	MFR. LISTED
BUTTS	ST	STANLEY
CLOSERS	LCN	LCN CLOSER
STOPS	GJ	GLYNN JOHNSON
LOCKSETS	SC	SCHLAGE
GASKETS	PE	PEMKO

ALL HARDWARE TO HAVE BRIGHT BRASS FINISH MATCHING SCHLAGE 605 AS CLOSE AS POSSIBLE. ALL LOCKSETS SHALL HAVE LEVER TYPE HANDLES. ALL LOCKSETS TO HAVE REMOVABLE CYLINDERS.

HARDWARE GROUPS:

HW-1 EXTERIOR DOORS

1.5	PR	BUTTS	ST
1	EA	LOCKSET	SC
1	EA	CLOSER	LCN
1	SET	WEATHER SEAL	PE
1	EA	DOOR BOTTOM	PE
1	EA	WALL STOP	GJ

HW-2 INTERIOR VESTIBULE DOOR

1.5	PR	BUTTS	ST
1	EA	PASSAGE SET	SC
1	EA	WALL STOP	GJ
1	EA	CLOSER	LCN

HW-3 TOILET ROOMS

1.5	PR	BUTTS	ST
1	EA	LOCKSET (PRIVACY)	SC
1	EA	WALL STOP	GJ

HW-4 BOILER ROOM

1.5	PR	BUTTS	ST
1	EA	LOCKSET (STORAGE)	SC
1	EA	WALL STOP	GJ

ALL LOCKS SHOULD BE KEYED AND MASTERKEYED INTO THE MASTERKEY SYSTEM. COORDINATE WITH OWNER. PROVIDE EIGHT (8) KEYS PER LOCK AND EIGHT (8) MASTERKEYS.
ALL EXTERIOR DOORS SHALL BE EQUIPPED WITH LOW-PROFILE THRESHOLDS APPROVED FOR HANDICAP ACCESSIBILITY, AND RECOMMENDED BY THE MANUFACTURER FOR EXTERIOR USE.

SECTION 09250 GYPSUM DRYWALL

THIS SECTION INCLUDES GWB, FIRE RATED GWB AND GWB FINISH, AND MANUFACTURER'S STANDARD VINYL FACED G.W.B. FOR VINYL FACED G.W.B. PROVIDE MANUFACTURER'S STANDARD TRIM AND MISC. ACCESSORIES AS REQUIRED FOR COMPLETE SYSTEM INSTALLATION. G.W.B. WORK SHALL BE COMPLETED IN ACCORDANCE WITH GA-216 "APPLICATION AND FINISHING OF GYPSUM BOARD" BY GYPSUM ASSOCIATION. ALL WORK INDICATED TO BE FIRE-RESISTIVE RATING SHALL BE HAVE ICBO AND/OR LOCAL CODE ENFORCEMENT APPROVAL. GWB JOINT TAPES AND JOINT COMPOUND SHALL COMPLY WITH ASTM C 475.

SECTION 09650 RESILIENT FLOORING

THIS SECTION INCLUDES RESILIENT FLOORING, RESILIENT BASE, RESILIENT EDGE STRIPS AND ADHEASIVES.

RESILIENT FLOORING SHALL BE AS INDICATED ON THE ROOM FINISH SCHEDULE OR AS SELECTED BY OWNER

RESILIENT BASE SHALL BE OF RUBBER COMPLYING WITH FS-SS-W-40 TYPE I (4" HIGH, 1/8" GAUGE STANDARD TOP-SET COVE)

RESILIENT EDGE STRIPS SHALL BE 1/8" THICK, HOMOGENOUS VINYL OR RUBBER COMPOSITION, TAPERED OR BULLNOSE EDGE. COLOR TO MATCH FLOORING.

ADHESIVES SHALL BE AS RECOMMENDED BY FLOORING MANUFACTURER TO SUIT MATERIAL AND SUBSTRATA CONDITIONS.

SECTION 09900 PAINTING

THIS SECTION INCLUDES INTERIOR AND EXTERIOR PAINTING AND STAINING.

EXTERIOR PAINT SYSTEMS

EPS-1 SOLID BODY STAIN FOR ALL EXTERIOR TRIM WOOD AND CEMENTITIOUS SIDING
TWO COATS – SOLID BODY STAIN
ALL EXTERIOR WOOD TRIM TO BE PRIMED ON BACK SIDE.

EPS-2 SEMI-TRANSPARENT STAIN FOR EXTERIOR WOOD SIDING & TRIM (WHERE NOTED):
OLYMPIC STAIN, SEMI-TRANSPARENT WOOD STAIN.

EPS-3 FERROUS MATERIALS:
ONE COAT – ALKYD METAL PRIMER
TWO COATS – HEAVY DUTY ENAMEL

INTERIOR PAINT SYSTEMS

PS-1 DRYWALL WITH SEMI-GLOSS ALKYD ENAMEL
ONE COAT – PRIMER/EALER
ONE COAT – ALKYD SEMI-GLOSS ENAMEL

PS-2 WOOD DOORS & FRAMES, INTERIOR WOOD TRIM AND INTERIOR WOOD WINDOW SURFACES.
ONE COAT – WOOD FILLER
TWO COATS – CLEAR POLYURETHANE SATIN FINISH

SECTION 10150 TOILET ACCESSORIES

THIS SECTION INCLUDES FURNISHING & INSTALLING MIRRORS, GRAB BARS, TOWEL BARS, TOWEL HOOKS, AND TOILET PAPER DISPENSERS AND INSTALLATION OF MISCELLANEOUS BLOCKING AND BACKING AS RECOMMENDED BY THE MANUFACTURER. SECTION ALSO INCLUDES BLOCKING AND BACKING FOR OWNER FURNISHED AND INSTALLED SOAP DISPENSERS AND SANITARY NAPKIN DISPOSAL, AND TRASH DISPOSALS.

PROVIDE THE FOLLOWING ITEMS FROM THE NOTED MANUFACTURERS OR AS APPROVED BY THE OWNER:

MIRRORS: BOBRICK 290 SERIES–GLASS 24x36

GRAB BARS: BRADLEY 812 x 30", 36" AND 42" LONG WHERE SHOWN ON CONTRACT DRAWINGS.

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architectsalaska.com
900 W. 5th Ave. Suite 401
Anchorage, Alaska 99501-2029
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DARI L. MOORE
REGISTERED PROFESSIONAL ARCHITECT

LOT 8 BLOCK 2 SOUTH FILL DEVELOPMENT PARK
HARBORSIDE PIZZA
Cordova, Alaska

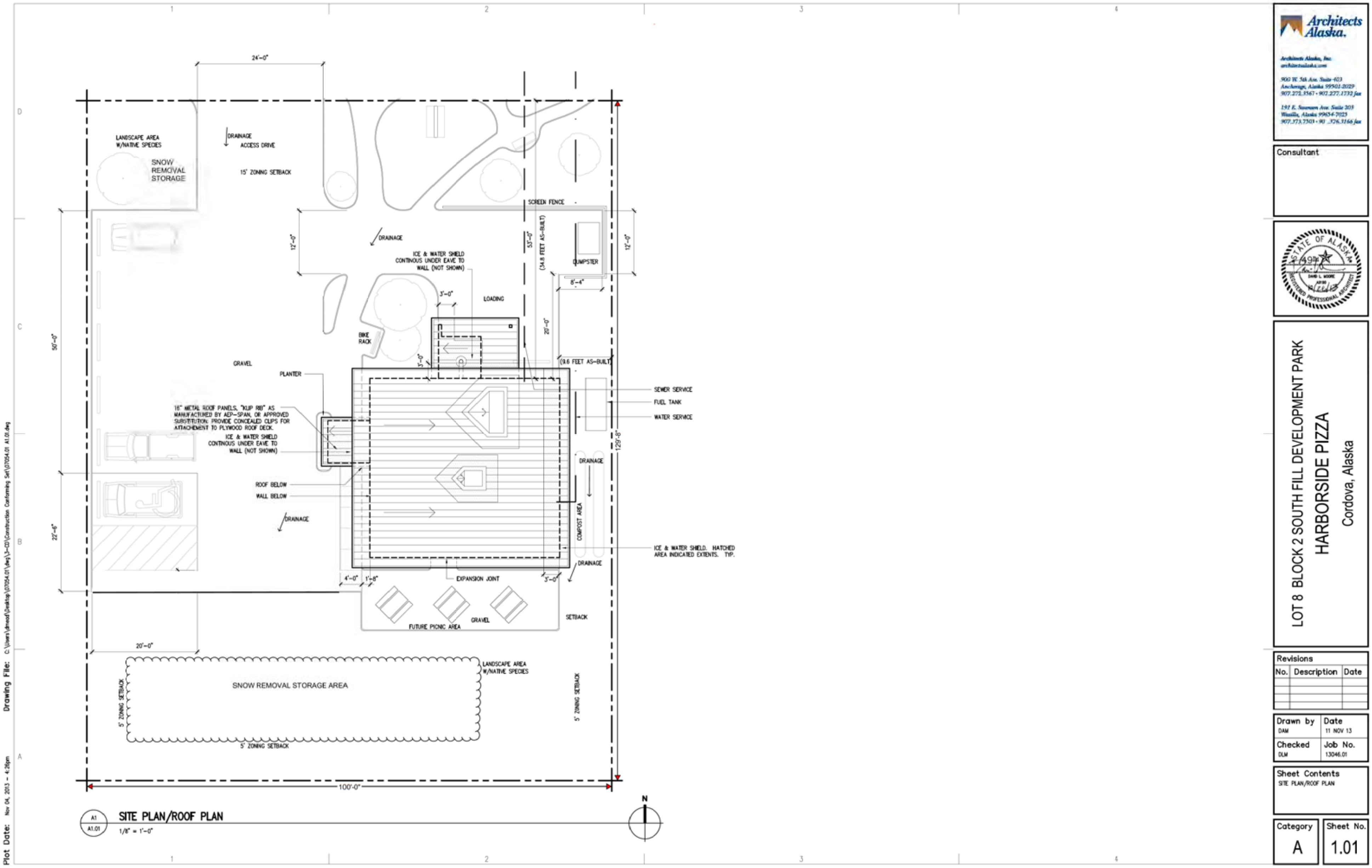
Revisions		
No.	Description	Date

Drawn by: DLM	Date: 11 NOV 13
Checked: DLM	Job No.: 13046.01

Sheet Contents
ARCHITECTURAL SPECIFICATIONS

Category	Sheet No.
G	1.02

Plot Date: Nov 12, 2013 – 11:58am Drawing File: W:\2013\13046.01 Harborside Pizza Code Upgrades\dwg\3-CD\Permit Set\07054.01 G1.02.dwg


24'-0"
LANDSCAPE AREA W/NATIVE SPECIES
SNOW REMOVAL STORAGE
DRAINAGE
ACCESS DRIVE
15' ZONING SETBACK
SCREEN FENCE
DRAINAGE
ICE & WATER SHIELD CONTINOUS UNDER EAVE TO WALL (NOT SHOWN)
DUMPSTER
8'-4"
3'-0"
LOADING
BIKE RACK
(9.6 FEET AS-BUILT)
(34.8 FEET AS-BUILT)
GRAVEL
PLANTER
16" METAL ROOF PANELS, "KLIP RIB" AS MANUFACTURED BY AEP-SPAN, OR APPROVED SUBSTITUTION. PROVIDE CONCEALED CLIPS FOR ATTACHMENT TO PLYWOOD ROOF DECK.
ICE & WATER SHIELD CONTINOUS UNDER EAVE TO WALL (NOT SHOWN)
SEWER SERVICE
FUEL TANK
WATER SERVICE
ROOF BELOW
WALL BELOW
DRAINAGE
COMPOST AREA
ICE & WATER SHIELD. HATCHED AREA INDICATED EXTENTS. TYP.
DRAINAGE
EXPANSION JOINT
4'-0" 1'-6" 3'-0"
FUTURE PICNIC AREA
GRAVEL
SETBACK
50'-0"
22'-6"
12'-0"
20'-0"
129'-8"
20'-0"
LANDSCAPE AREA W/NATIVE SPECIES
SNOW REMOVAL STORAGE AREA
5' ZONING SETBACK
5' ZONING SETBACK
5' ZONING SETBACK
100'-0"
A1 A1.01 SITE PLAN/ROOF PLAN
1/8" = 1'-0"
N
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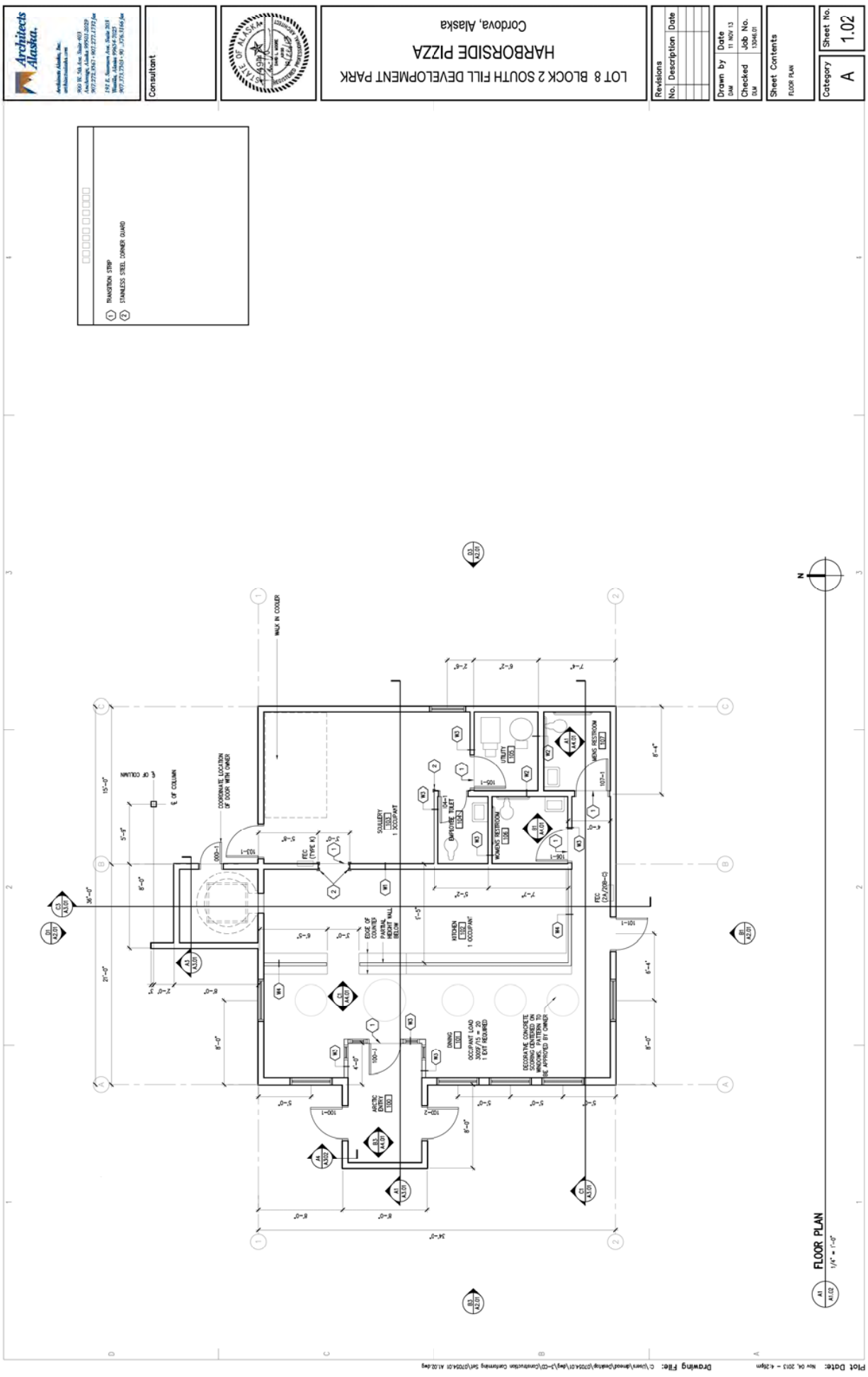
Revisions
No. Description Date
Drawn by DAM
Date 11 NOV 13
Checked DLM
Job No. 13046.01
Sheet Contents SITE PLAN/ROOF PLAN
Category A
Sheet No. 1.01
Plot Date: Nov 04, 2013 - 4:26pm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Revisions
No. Description Date
Drawn by DAM
Date 11 NOV 13
Checked DLM
Job No. 13046.01
Sheet Contents
FLOOR PLAN
Category A
Sheet No. 1.02
1 TRANSITION STRIP
2 STAINLESS STEEL CORNER GUARD
WALK IN COOLER
COORDINATE LOCATION OF DOOR WITH OWNER
℄ OF COLUMN
SCULLERY 103 1 OCCUPANT
UNISEX TOILET 104
WOMENS RESTROOM 106
MENS RESTROOM 107
UTILITY 105
KITCHEN 102 1 OCCUPANT
DINING 101
OCCUPANT LOAD 3005 / 15 = 20 1 EXIT REQUIRED
DECORATIVE CONCRETE SCORING CENTERED ON WINDOW PATTERN TO BE APPROVED BY OWNER
ARCTIC ENTRY 100
FEC (TYPE K)
FEC (2A/20B-C)
EDGE OF COUNTER ABOVE, PARTIAL WALL BELOW
FLOOR PLAN
1/4" = 1'-0"
Plot Date: Nov 04, 2013 - 4:28pm
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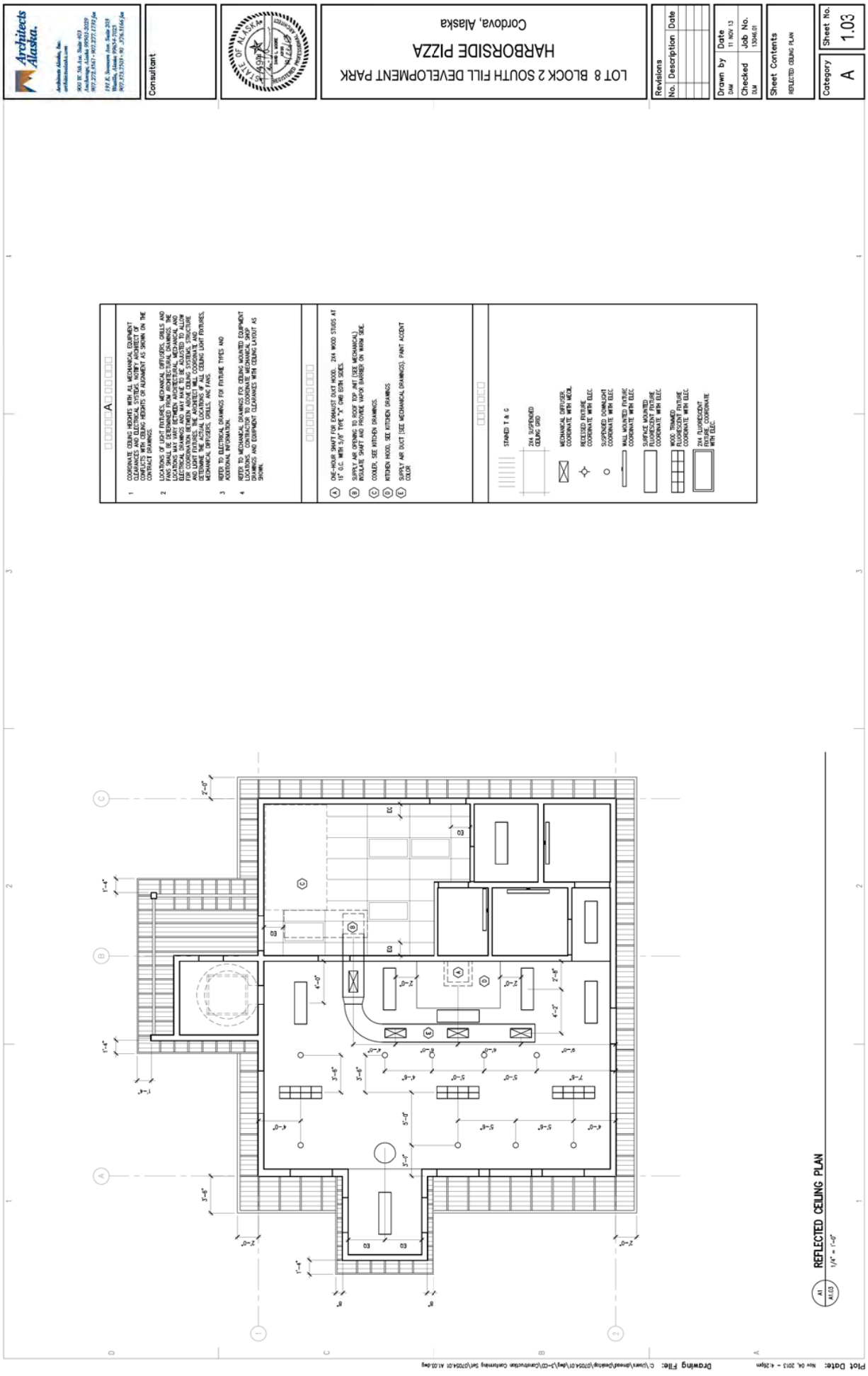
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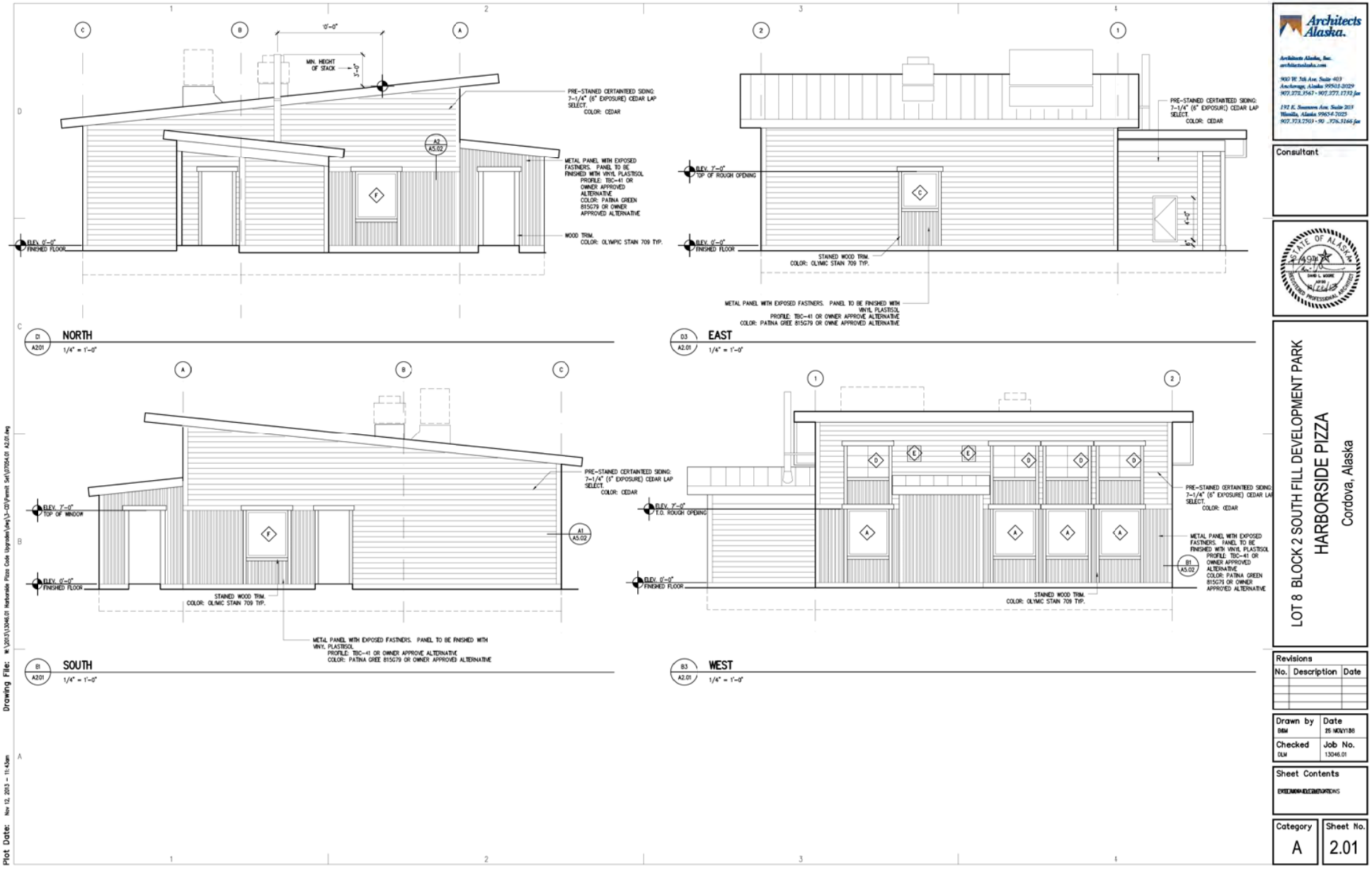
Revisions
No. Description Date
Drawn by DAM
Date 11 NOV 13
Checked DJM
Job No. 13046.01
Sheet Contents
REFLECTED CEILING PLAN
Category A
Sheet No. 1.03
A1 A1.03
REFLECTED CEILING PLAN
1/4" = 1'-0"
Plot Date: Nov 04, 2013 - 4:28pm
Drawing File: C:\Users\dmead\Desktop\07054.01\dwg\3-CD\Construction Contract Set\07054.01 A1.03.dwg



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907.373.2703 - 90 ..376.3166 fax

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REGISTERED PROFESSIONAL ARCHITECT

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Revisions		
No.	Description	Date

Drawn by	Date
BMM	25 NOV'1386
Checked	Job No.
DLM	13046.01

Sheet Contents
EXTERIOR ELEVATIONS

Category	Sheet No.
A	2.01

Drawing File: W:\2013\13046.01 Harborside Pizza Cook Upgrades\dwg\3-CD's\Permit Set\070514.01 A2.01.dwg
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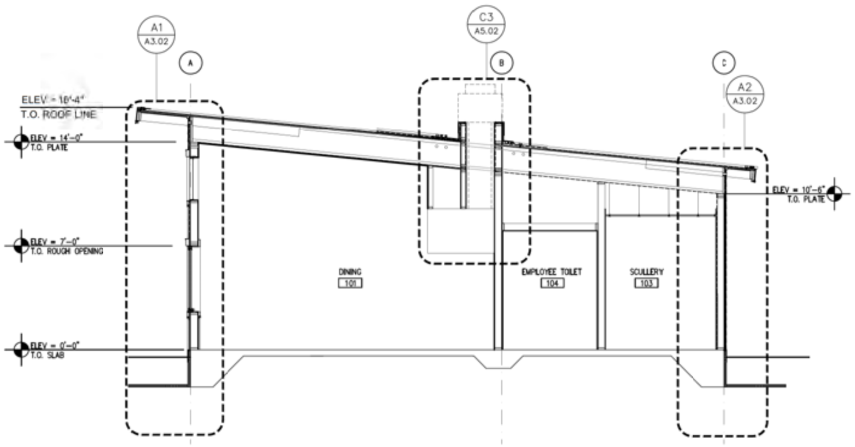
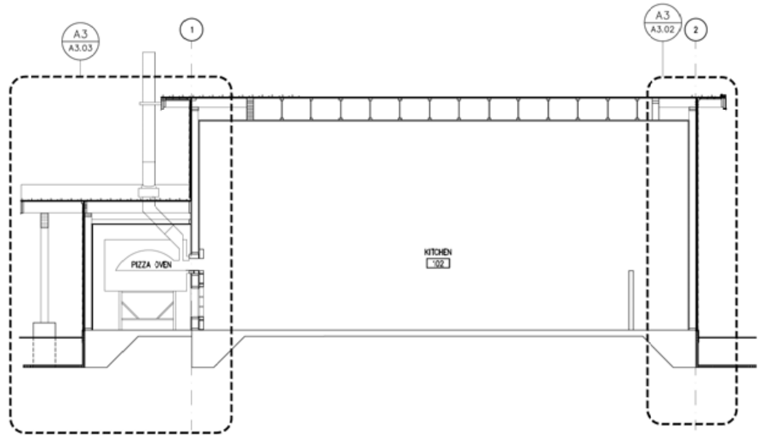
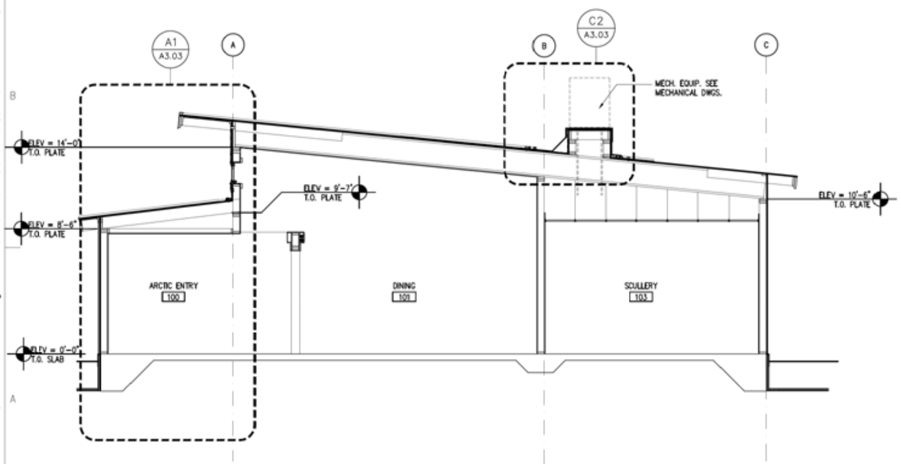


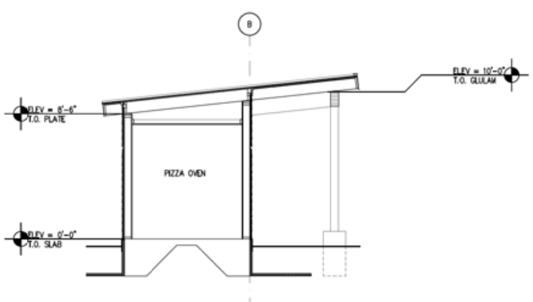
SECTION C1 A3.01
1/4" = 1'-0"



SECTION C3 A3.01
1/4" = 1'-0"



SECTION A1 A3.01
1/4" = 1'-0"



SECTION A3 A3.01
1/4" = 1'-0"

Drawing File: C:\Users\dmoore\Desktop\07054.01\dwg\3-CD\Construction Conforming Set\07054.01 A3.01.dwg
Plot Date: Nov 04, 2013 - 4:25pm

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Revisions		
No.	Description	Date

Drawn by: DAM	Date: 11 NOV 13
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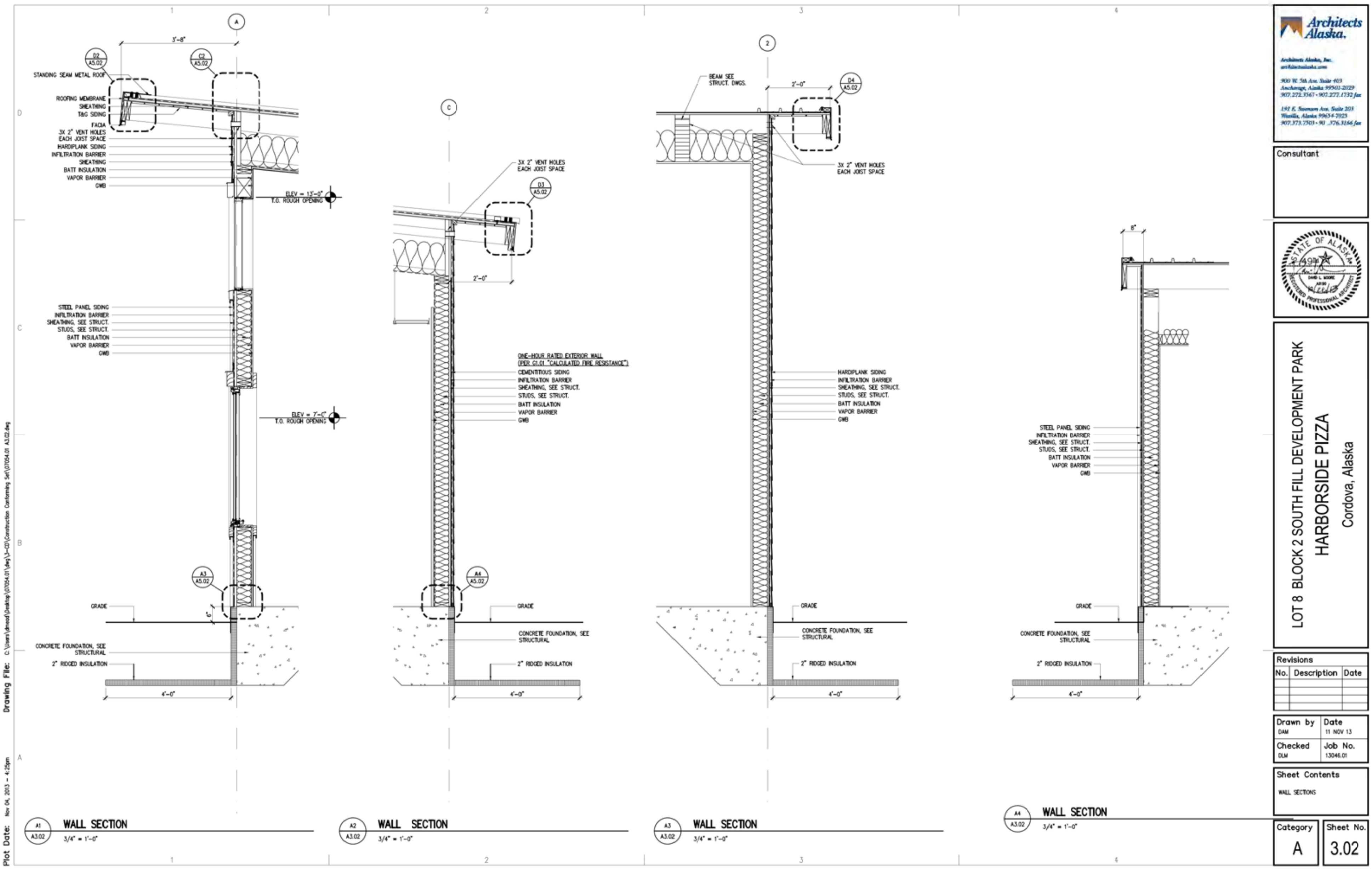
Sheet Contents: BUILDING SECTIONS

Category	Sheet No.
A	3.01


STANDING SEAM METAL ROOF
ROOFING MEMBRANE
SHEATHING
T&G SIDING
FACIA
3X 2" VENT HOLES EACH JOIST SPACE
HARDIPLANK SIDING
INFILTRATION BARRIER
SHEATHING
BATT INSULATION
VAPOR BARRIER
GWB
ELEV = 13'-0" T.O. ROUGH OPENING
STEEL PANEL SIDING
INFILTRATION BARRIER
SHEATHING, SEE STRUCT.
STUDS, SEE STRUCT.
BATT INSULATION
VAPOR BARRIER
GWB
ELEV = 7'-0" T.O. ROUGH OPENING
GRADE
CONCRETE FOUNDATION, SEE STRUCTURAL
2" RIDGED INSULATION
ONE-HOUR RATED EXTERIOR WALL (PER G1.01 "CALCULATED FIRE RESISTANCE")
CEMENTITIOUS SIDING
BEAM SEE STRUCT. DWGS.
A1 WALL SECTION 3/4" = 1'-0"
A2 WALL SECTION 3/4" = 1'-0"
A3 WALL SECTION 3/4" = 1'-0"
A4 WALL SECTION 3/4" = 1'-0"
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No. Description Date
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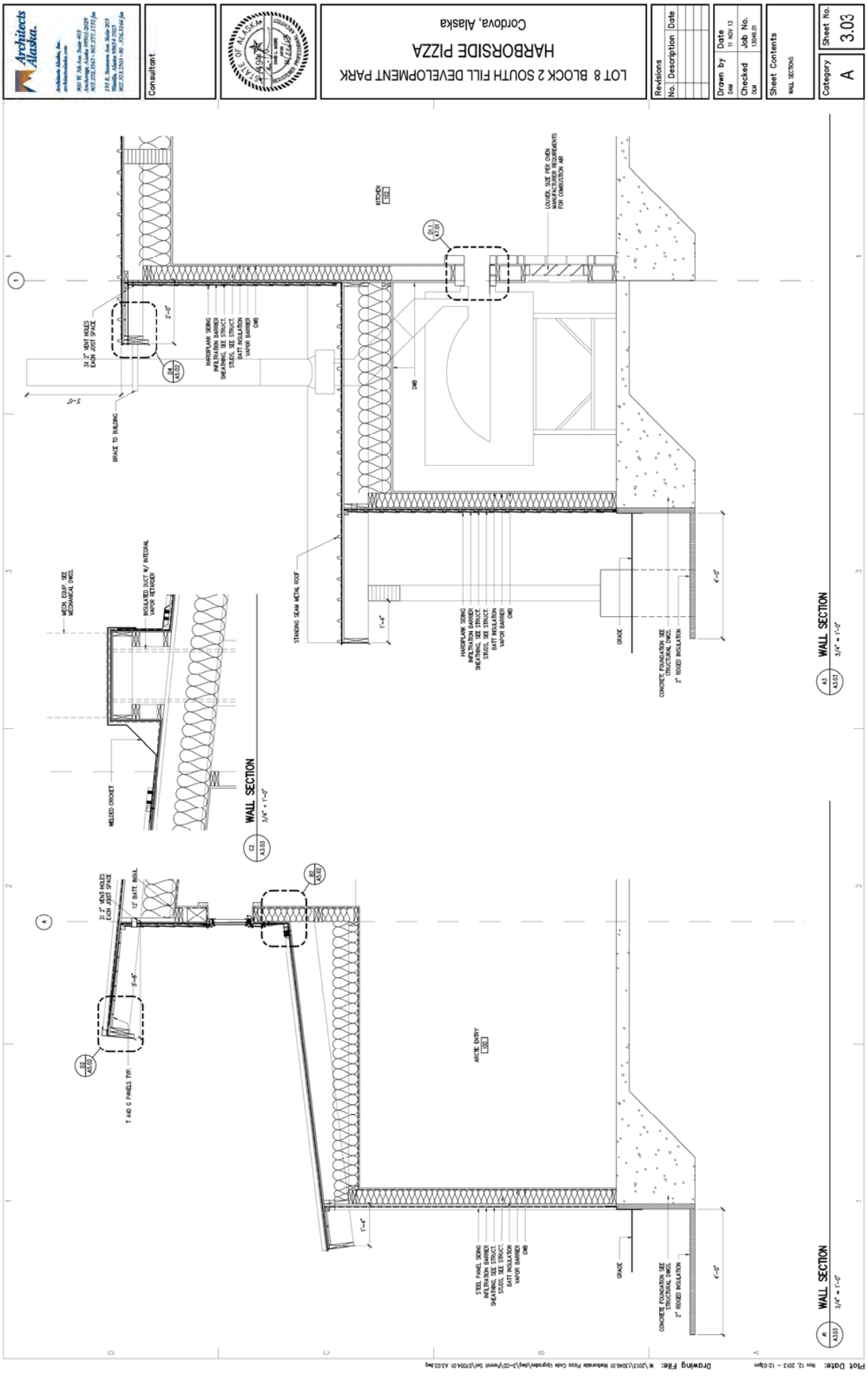
Date 11 NOV 13
Checked DLM
Job No. 13046.01
Sheet Contents WALL SECTIONS
Category A
Sheet No. 3.02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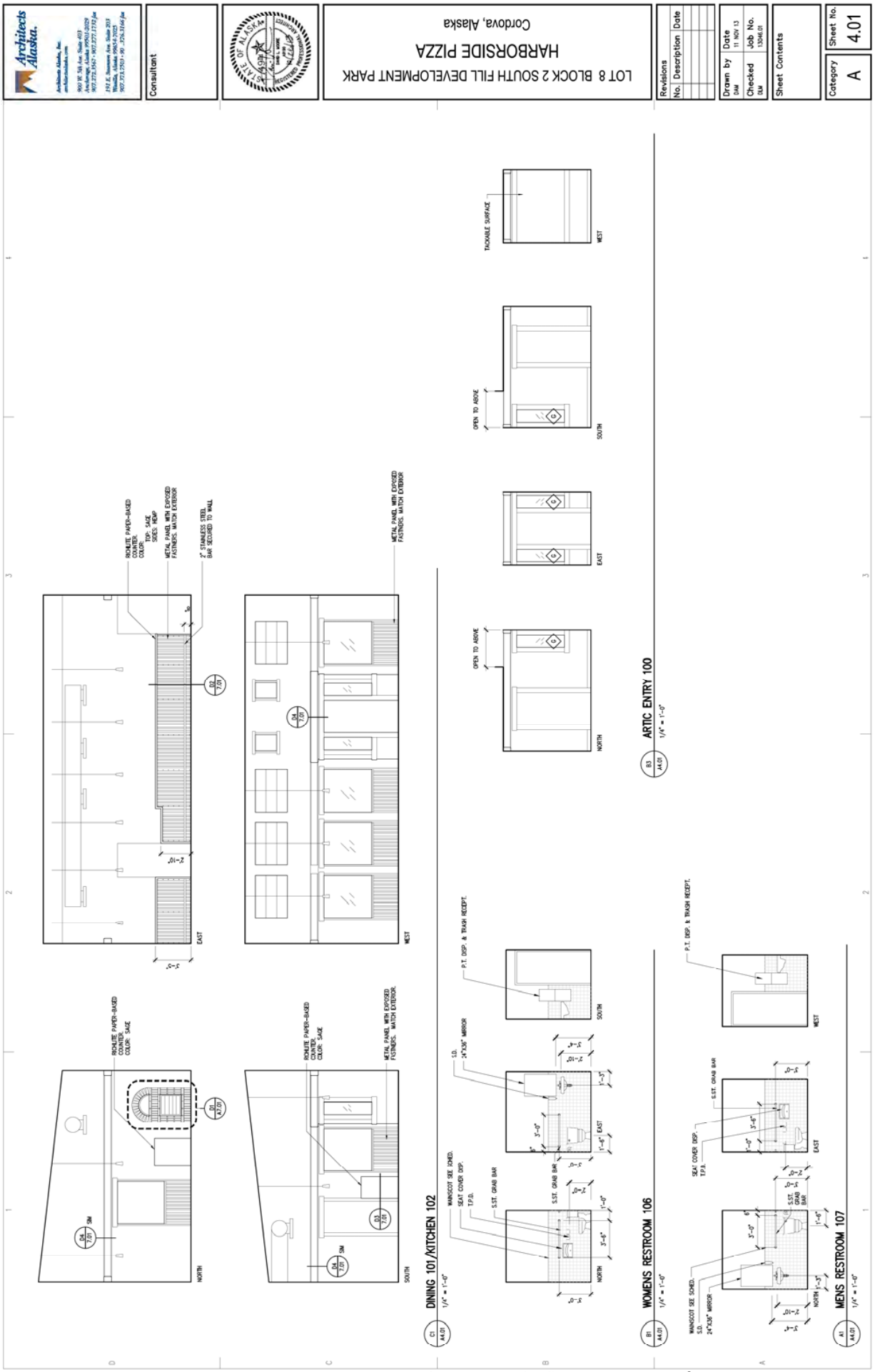
Revisions
No. Description Date
Drawn by DAM
Date 11 NOV 13
Checked DJM
Job No. 13046.01
Sheet Contents
WALL SECTIONS
Category A
Sheet No. 3.03
WALL SECTION
3/4" = 1'-0"
KITCHEN 102
ARCTIC ENTRY 100
LOUVER, SIZE PER OMEN MANUFACTURER REQUIREMENTS FOR COMBUSTION AIR
STANDING SEAM METAL ROOF
HARDIPLANK SIDING
INFILTRATION BARRIER
SHEATHING, SEE STRUCT.
STUDS, SEE STRUCT.
BATT INSULATION
VAPOR BARRIER
GWB
STEEL PANEL SIDING
GRADE
CONCRETE FOUNDATION SEE STRUCTURAL DWGS.
2" RIGIDED INSULATION
BRACE TO BUILDING
31 2" VENT HOLES EACH JOIST SPACE
MECH. EQUIP. SEE MECHANICAL DWGS.
INSULATED DUCT W/ INTEGRAL VAPOR RETARDER
WELDED CRIMPED
12" BATT. INSUL.
T AND G PANELS TYP.
Plot Date: Nov 12, 2013 - 12:03pm
Drawing File: K:\2013\13046.01 Matanuska Pizza Cafe Upgrades\dwg\3-CD\Permit Set\13046.01 A3.03.dwg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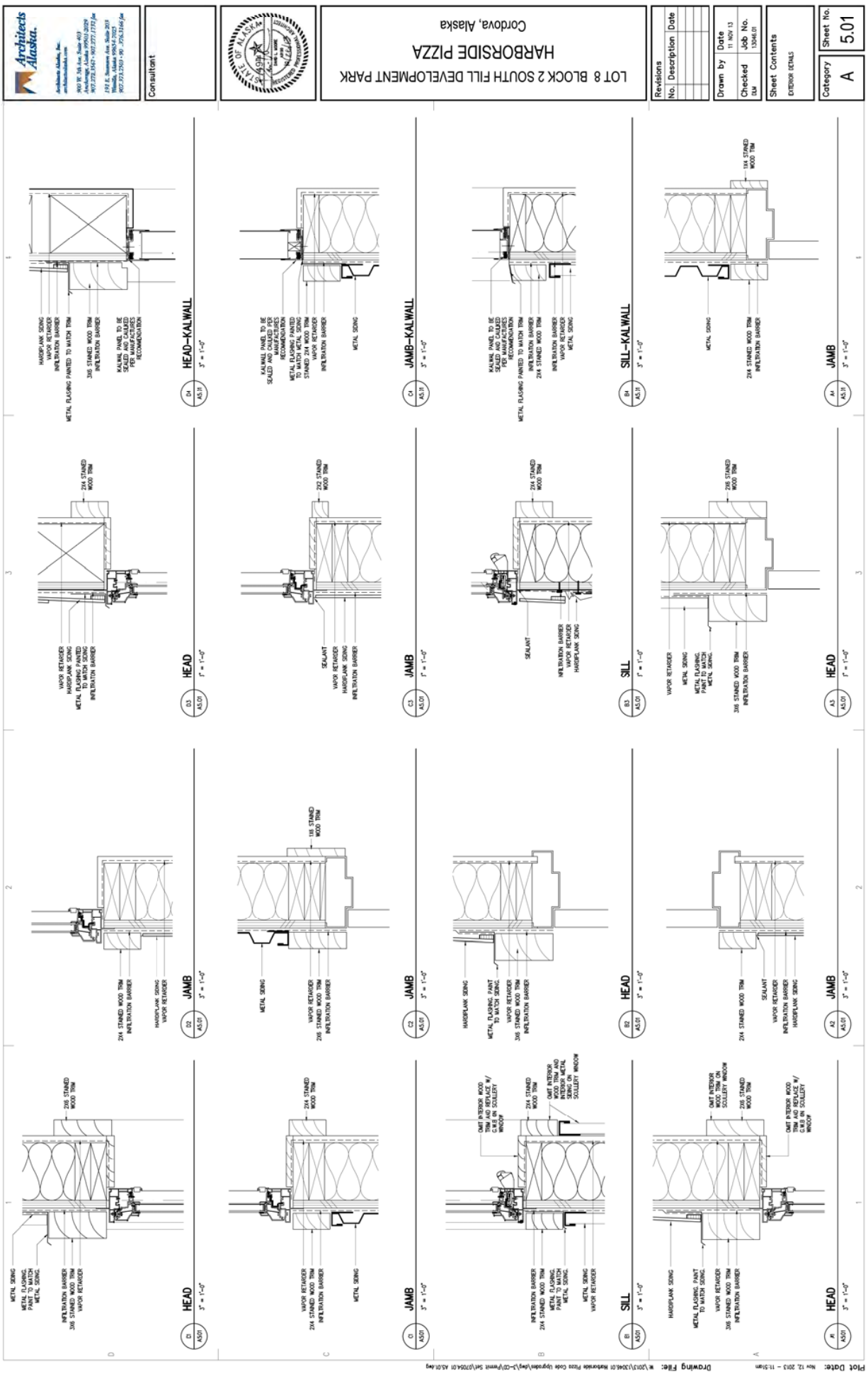
Revisions
No. Description Date
Drawn by DAW
Date 11 NOV 13
Checked DJJ
Job No. 13046.01
Sheet Contents
Category A
Sheet No. 4.01
DINING 101/KITCHEN 102
WOMENS RESTROOM 106
MENS RESTROOM 107
ARTIC ENTRY 100
EAST
WEST
NORTH
SOUTH
OPEN TO ABOVE
TACKABLE SURFACE
WAINSCOT SEE SCHED.
SEAT COVER DISP.
T.P.D.
S.S.T. GRAB BAR
S.D.
24"X36" MIRROR
P.T. DISP. & TRASH RECEPT.
Plot Date: Nov 12, 2013 - 11:56am
Drawing File: K:\2013\13046.01 Naknek Pizza Code Upgrades\dwg\3-CD\Permit Set\13046.01 A4.01.dwg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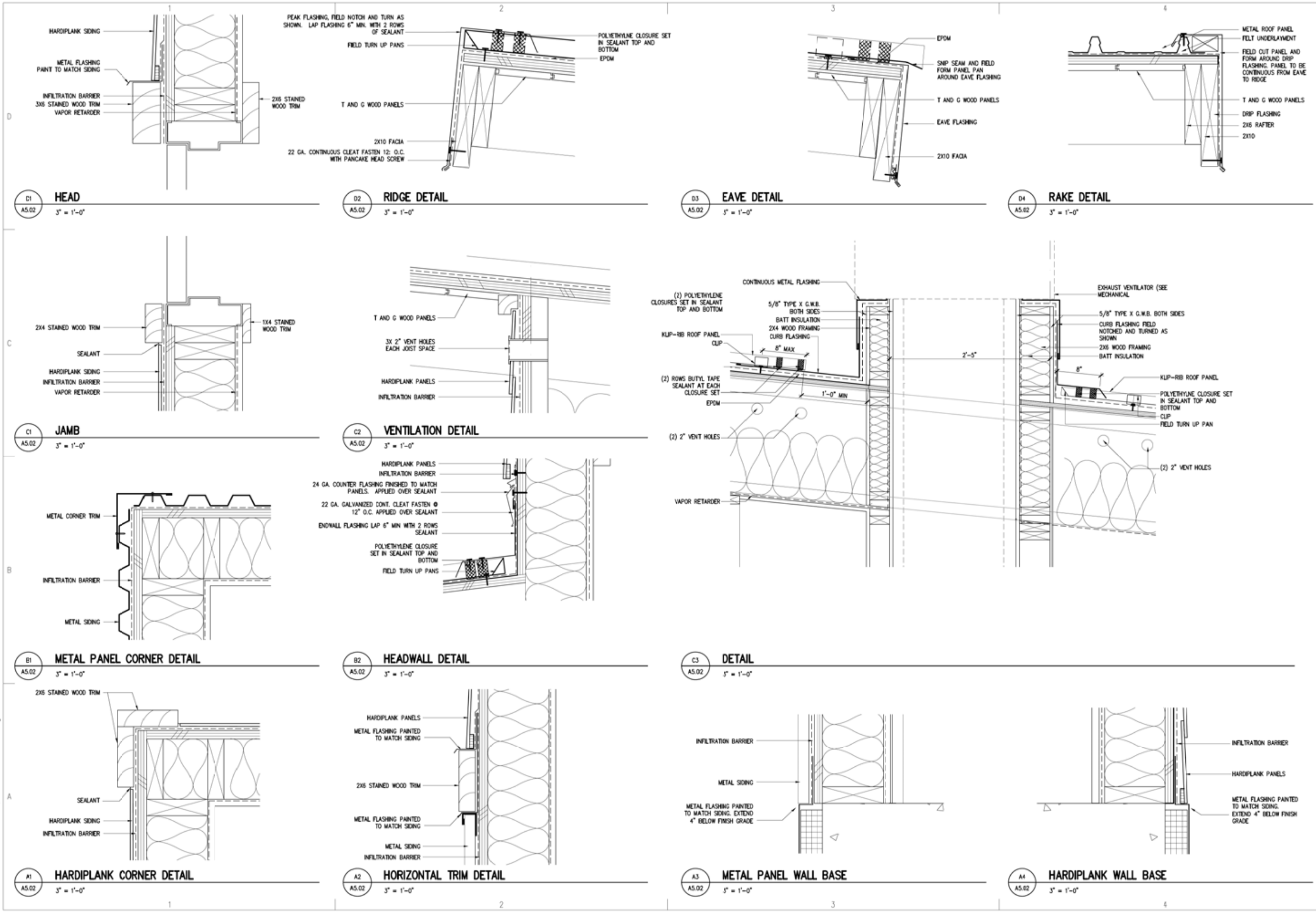
HARBORSIDE PIZZA
Cordova, Alaska
Revisions
No. Description Date
Drawn by Date 11 NOV 13
Checked DM Job No. 13046.01
Sheet Contents EXTERIOR DETAILS
Category A
Sheet No. 5.01
HEAD
JAMB
SILL
HEAD–KALWALL
JAMB–KALWALL
SILL–KALWALL
Plot Date: Nov 12, 2013 - 11:51am
Drawing File: K:\2013\13046.01 Harborside Pizza Cafe Upgrades\dwg\A-CD\Permit Set\013046.01 A5.01.dwg



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Anchorage, Alaska 99501

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No.	Description	Date

Drawn by	Date 11 NOV 13
Checked OLM	Job No. 13046.01

Sheet Contents: EXTERIOR DETAILS

Category	Sheet No.
A	5.02

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR			BASE			WALLS NORTH			WALLS EAST			WALLS SOUTH			WALLS WEST			CEILING			REMARKS
		MATERIAL	FINISH	COLOR	MATERIALS	FINISH	COLOR	MATERIALS	FINISH	COLOR	MATERIALS	FINISH	COLOR	MATERIALS	FINISH	COLOR	MATERIALS	FINISH	COLOR	MATERIALS	FINISH	COLOR	
100	ARCTIC ENTRY	F3	FF		B2	FF	R1	W1	PT	P1	W1	PT	P1	W1	P1	P1	W1	PT	P1	C2	PT	P3	
101	DINING	F1	S	VARIES	B1	ST		W1	PT	P1				W1	P1	P1	W1	PT	P1/P3	C2	PT	P2	1
102	KITCHEN	F1	S		B2	FF	R2	W1	PT	P1	W1	PT	P3	W1	P1	P1	W1	PT	P2	C2	PT	P2	
103	SCULLERY	F2	FF		B3			W2	FF		W2	FF		W2	FF		W2	FF		C1	FF		
104	EMPLOYEE TOILET	F2	FF		B3			W1/W2	PT/FF	P3	W1/W2	PT/FF	P3	W1/W2	PT/FF	P3	W1/W2	PT/FF	P3	C2	PT	P3	2
105	UTILITY	F1	S		B3			W1			W1			W1			W1			C2			
106	WOMENS RESTROOM	F2	FF					W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	C2	PT	P1	
107	MENS RESTROOM	F2	FF					W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	W1/W3	PT/FF	P1	C2	PT	P1	

ROOM FINISH LEGEND

FLOOR MATERIALS
F1 CONCRETE
F2 LINOLEUM
F3 WALK-OFF MAT

FLOOR FINISHES
FF FACTORY FINISH
S SEALED, POLISHED, CONCRETE STAIN

BASE FINISHES
FF FACTORY FINISH
ST STAIN

BASE MATERIALS
B1 WOOD
B2 RUBBER BASE
B3 NONE

WALL MATERIALS
W1 G.W.B.
W2 FIBERGLASS REINFORCED PLASTIC
W3 TILE

WALL FINISHES
PT PAINT
FF FACTORY FINISH

CEILING MATERIALS
C1 SUSP. ACOUSTICAL TILE
C2 G.W.B.

CEILING FINISHES
FF FACTORY FINISH
PT PAINT

INTERIOR COLOR SCHEDULE

PAINT
P1 KI 555
P2 KI 1049
P3 KI 985

LINOLEUM
MARMOLEUM 3156 SERENE GREY

WOOD STAIN
FULLER O'BRIEN SEMI-TRANSPARENT DF242

TILE
BASE COLOR: SANDHILL INDUSTRIES TAN GLASS TILE
ACCENT COLOR: SANDHILL INDUSTRIES GREEN GLASS TILE

WALK-OFF MAT
MANNINGTON FELDSPAR (FESP) RUFFIAN RIDGE

RUBBER BASE
R1 P160 FOREST GREEN
R2 P127 HARVEST YELLOW

FIBERGLASS REINFORCED PLASTIC
KEMLITE BEIGE #293

CONCRETE STAIN
BASE COLOR: AMBER
ACCENT COLOR: VARIES

SUSPENDED ACOUSTICAL TILE
TILE: ARMSTRONG GEORGIAN WHITE
GRID: ARMSTONG PRELUDE PLUS XL FIRE GUARD

FINISH REMARKS LEGEND

1 DECORATIVE SCORING & STAINING WHERE INDICATED
2 PROVIDE FRP WAINSCOT TO 4'-0" AFF

WINDOW SCHEDULE

WINDOW ◇	ROUGH OPENING SIZE W X H	WINDOW TYPE	WINDOW MAT	WINDOW FIN	WINDOW GLASS	WINDOW FRAME COLOR	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
A	4'-0" X 4'-6"	2	VL	FF	I-1	TAN	C1/A5.01	D1/A5.01	B1/A5.01	
C	3'-6" X 3'-6"	2	VL	FF	I-1	TAN	D2/A5.01	A1/A5.01	B1/A5.01	
D	3'-0" X 4'-0"	3	FF	FF	I-3	MATCH MTL SIDING	C6/A5.01	D4/A5.01	B4/A5.01	
E	1'-6" X 1'-6"	1	VL	FF	I-1	TAN	C3/A5.01	D3/A5.01	B3/A5.01	
F	4'-0" X 4'-6"	2	VL	FF	I-1	TAN	C1/A5.01	A1/A5.01	B1/A5.01	
G	1'-2" X 4'-6"	1	WD	WS	T-1	MATCH TRIM	B1/A7.01	C1/A7.01	B1/A7.01	

GLASS TYPE

I-1 INSULATING DOUBLE GLAZE FACTORY GLASS
I-2 INSULATED TEMPERED GLASS
I-3 KALWAL
T-1 TEMPERED GLASS

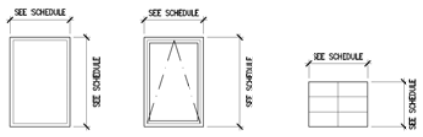
LEGEND

VL VINYL
FF FACTORY FINISH
WD WOOD
WS WOOD STAIN

GENERAL NOTES

1. REFER TO EXTERIOR ELEVATIONS A2.01 FOR NUMBER REFERENCES.
2. VERIFY ALL R.O. WITH CONSTRUCTED DIMENSIONS.

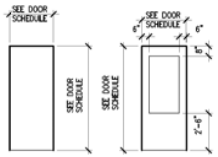
WINDOW TYPE



DOOR SCHEDULE

NO.	SIZE	DOOR TYPE	DOOR MAT	DOOR FIN	DOOR GLASS	DOOR COL	FRAME TYPE	FRAME MAT	FRAME FIN	FRAME COL	RATING	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
000-1	2'-0" X 4'-0"	A	HM	PT		P1	1	TB	PT	P1					B
100-1	3'-0" X 7'-0"	B	HM	PT	I-2	P3	1	TB	PT	P4		C2/A5.01	A3/A5.01	–	A, B
100-2	3'-0" X 7'-0"	B	HM	PT	I-2	P3	1	TB	PT	P4		C2/A5.01	A3/A5.01	–	A, B
100-3	3'-0" X 7'-0"	B	HM	PT	I-2	P3	1	HM	HM	P4		B2/A7.01	C2/A7.01	–	A
101-1	3'-0" X 7'-0"	B	HM	FF	I-2	P3	1	TB	FF	P4		A4/A5.01 D1/A5.01	D1/A5.02	–	A, B
103-1	3'-0" X 7'-0"	A	HM	PT		P1	1	TB	FF	P4		A2/A5.01	B2/A5.01	–	A, B
104-1	3'-0" X 7'-0"	A	HM	FF		FF	1	HM	FF	P1		C3/A7.01	C3/A7.01	–	C
105-1	3'-0" X 7'-0"	A	HM	FF		FF	1	HM	FF	P1		C3/A7.01	C3/A7.01	–	
106-1	3'-0" X 7'-0"	A	WD	WS			1	HM	FF	P4		C3/A7.01	C3/A7.01	–	C
107-1	3'-0" X 7'-0"	A	WD	WS			1	HM	FF	P4		C3/A7.01	C3/A7.01	–	C

DOOR TYPES



DOOR FRAME TYPES

DOOR GENERAL NOTES

1. REFER TO WRITTEN SPECIFICATIONS FOR DOOR HARDWARE GROUPS.
2. THE DOOR SWING INDICATED ON THE FLOOR PLAN INDICATES THE HAND OF THE DOOR ONLY. DOORS SHALL SWING TO THE MAXIMUM EXTENT (BEYOND 90°) WHERE NOT OBSTRUCTED BY ADJACENT WALLS.

DOOR REMARKS LEGEND

A AUTOMATIC CLOSER
B LOCKSET
C PRIVACY LOCK

DOOR LEGEND

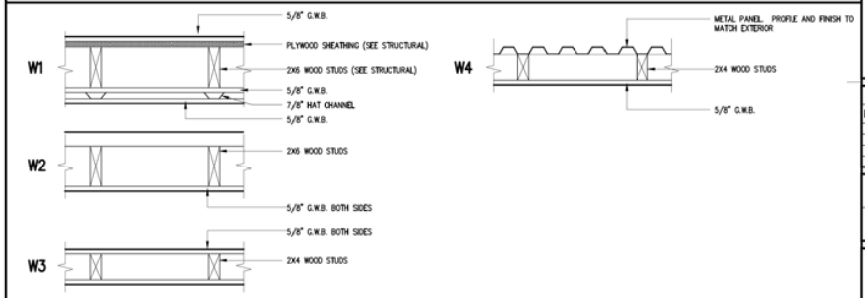
HM HOLLOW METAL
HM INSULATED HOLLOW METAL
TB THERMALLY BROKEN HOLLOW METAL
WD WOOD
PT PAINT
WS MATCH WOOD STAIN INDICATED ON FINISH SCHEDULE
FF FACTORY FINISH

P1 MATCH PAINT COLOR 1 INDICATED ON FINISH SCHEDULE
P2 MATCH PAINT COLOR 2 INDICATED ON FINISH SCHEDULE
P3 MATCH PAINT COLOR 3 INDICATED ON FINISH SCHEDULE
P4 PAINT TO MATCH WOOD TRIM

DOOR GLASS TYPES

I-2 INSULATED TEMPERED GLASS

PARTITION TYPES



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Architects Alaska, Inc.
architectsalaska.com
900 W. 5th Ave. Suite 403
Anchorage, Alaska 99501-2029
907.272.3567 • 907.277.4732 fax
191 E. Swanson Ave. Suite 203
Wasilla, Alaska 99654-7025
907.373.3569 • 90 ...376.3566 fax

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STATE OF ALASKA
DAVID L. MOORE
REGISTERED PROFESSIONAL ARCHITECT

LOT 8 BLOCK 2 SOUTH FILL DEVELOPMENT PARK
HARBORSIDE PIZZA
Cordova, Alaska

Revisions		
No.	Description	Date

Drawn by	Date
DAM	11 NOV 13
Checked	Job No.
DLM	13046.01

Sheet Contents
ROOM FINISH SCHEDULE,
DOOR SCHEDULE
WINDOW SCHEDULE

Category	Sheet No.
A	6.01

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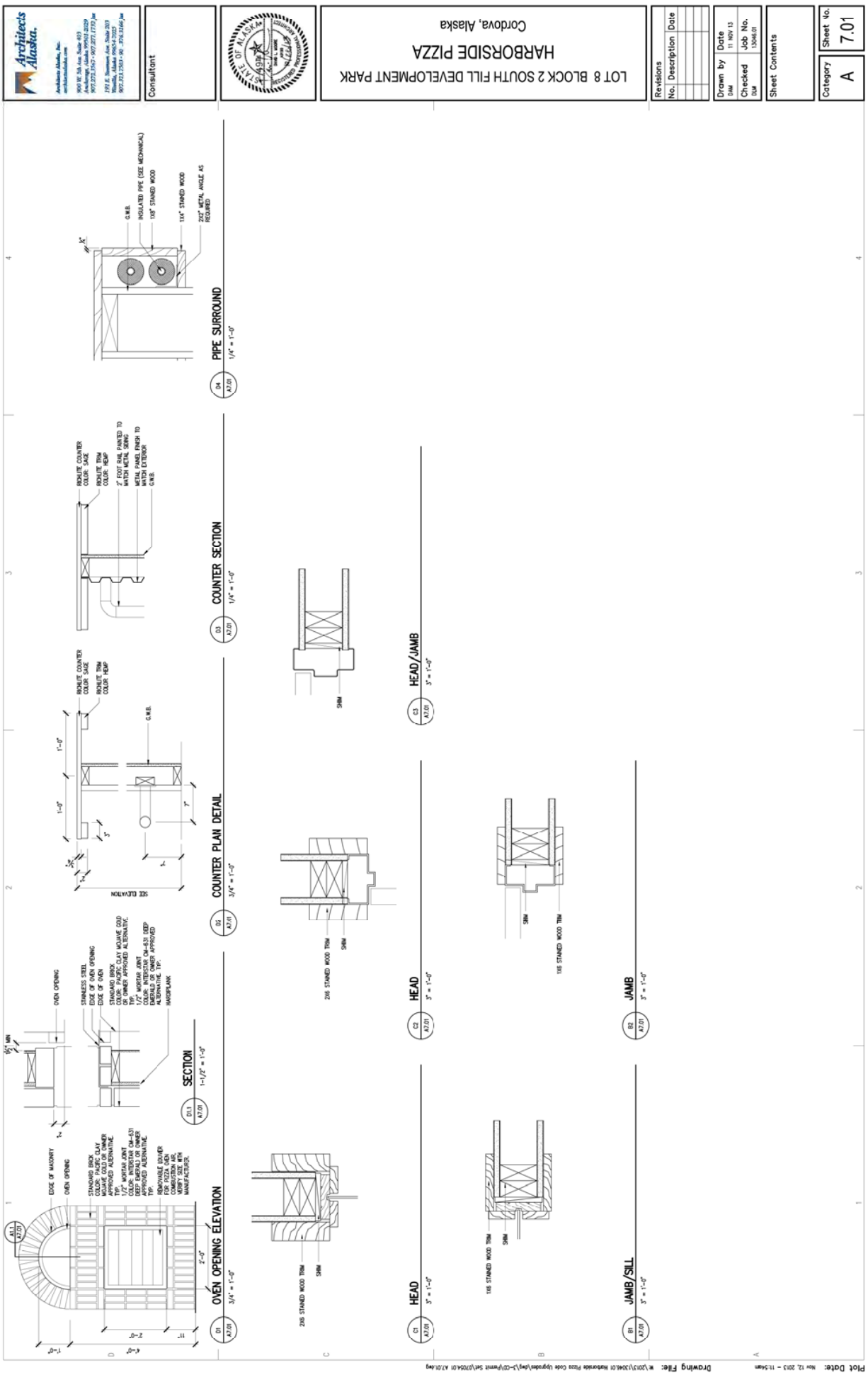
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HARBORSIDE PIZZA
Cordova, Alaska
Revisions
No. Description Date
Drawn by DAM
Date 11 NOV 13
Checked DLM
Job No. 13046.01
Sheet Contents
Category A
Sheet No. 7.01
OVEN OPENING ELEVATION
SECTION
COUNTER PLAN DETAIL
COUNTER SECTION
PIPE SURROUND
HEAD
JAMB
HEAD/JAMB
JAMB/SILL
SIDE ELEVATION
Plot Date: Nov 12, 2013 - 11:54am
Drawing File: M:\2013\13046.01 Harborside Pizza Cordova\dwg\3-CD\Permit Set\13054.01 A7.01.dwg

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:

   THE INTERNATIONAL BUILDING CODE (IBC) 2009 AND ITS REFERENCED STANDARDS, HEREIN REFERRED TO AS "THE CODE".

2. PRIOR TO FABRICATION AND CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS ASSOCIATED WITH THE WORK. ALL OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE RELATED WORK.

3. THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOADS.

STRUCTURAL DESIGN DATA

LIVE LOADS:

MECHANICAL ROOMS . . . . 125 PSF UNLESS INDIVIDUAL MECHANICAL EQUIPMENT GOVERNS

SNOW LOADS: IN ACCORDANCE WITH THE REQUIREMENTS OF THE CODE.

P_G = 150 LB/FT²
P_F = 100 LB/FT²
C_E = .9
C_T = 1.0
I = 1.1
P_S = 100 LB/FT²

SEISMIC LOADS: BASED ON THE EQUIVILENT LATERAL FORCE PROCEDURE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CODE.

SS = 1.75G
SI = 0.60G
SITE CLASS = I
SEISMIC USE GROUP = I
SEISMIC DESIGN CAT = D

LATERAL FORCES ARE CARRIED BY THE ROOF DIAGRAMS TO THE SHEAR WALLS. MOMENTS, SHEARS, AND ROTATIONAL FORCES ARE DELIVERED TO THE FOUNDATION BY THE SHEAR WALLS IN PROPORTION TO THEIR ABILITY TO RESIST LATERAL DEFORMATION.

FOUNDATION

1. ALL SOIL SUPPORTED FOOTINGS SHALL BE FOUNDED UPON UNDISTURBED, NATURAL SUBGRADE WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 2,000 PSF AS INDICATED ON THE DRAWINGS AND AS FIELD VERIFIED AND APPROVED BY OWNER'S SOIL TESTING LABORATORY. INSTALL 1'–0" CLASSIFIED FILL BELOW ALL THICKENED SLAB FOOTINGS, UNO. COMPACT FILL IN (2) TWO SIX INCH LIFTS.
2. ALL FOOTING SUBGRADES AS REQUIRED AND ALL SLAB SUBGRADES INCLUDING PIT SLABS SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ALL BACKFILL AROUND AND ABOVE ALL FOUNDATION ELEMENTS, FOOTINGS, MATS, AND WALLS SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY.
3. ALL ORGANIC AND/OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM SUBGRADE AND BACKFILL AREAS AND BACKFILLED WITH ACCEPTABLE GRANULAR FILL, COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY.
4. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADES BEFORE AND AFTER PLACING OF CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.
5. THE CONCRETE FOR EACH ISOLATED FOOTING SHALL BE PLACED IN ONE (1) CONTINUOUS PLACEMENT.
6. NO CONSTRUCTION SHALL COMMENCE UNTIL ALL SEASONAL FROST HAS THAWED OR BEEN REMOVED.
7. CLASSIFIED FILL AND BACKFILL SHALL CONTAIN NO LUMPS, FROZEN MATERIAL, ORGANIC MATTER, OR OTHER DELETERIOUS MATTER. IT SHALL HAVE A PLASTICITY INDEX NOT GREATER THAN SIX (6) AS DETERMINED BY ASTM D–424 AND SHALL CONFORM TO THE FOLLOWING TYPE AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS:

   MATERIALS FURNISHED BY THE CONTRACTOR FOR USE AS CLASSIFIED FILL AND/OR BACKFILL SHALL BE GRADED WITHIN THE LIMITATIONS OF TABLE 1 DELINEATED BELOW.

TABLE 1

U.S. STD. SIEVE	CUMULATIVE % PASSING BY WEIGHT
2"	100
3/4"	60–100
#4	30–65
#70	20–50
#40	10–30
#200	2–6

8. IN ABSENCE OF SUB SURFACE GEOTECHNICAL SOIL INVESTIGATION REPORT AND FOUNDATION RECOMMENDATIONS THERE IS NO GUARANTEE THAT FROST HEAVE OR SETTLEMENT WILL NOT AFFECT THE STRUCTURE.

STRUCTURAL CONCRETE NOTES

1. ALL CAST–IN–PLACE CONCRETE SHALL HAVE MINIMUM 28 DAY COMPRESSIVE STRENGTHS OF 3,000 PSI.
2. ALL CONCRETE PERMANENTLY EXPOSED TO THE WEATHER SHALL CONTAIN AN APPROVED AIR–ENTRAINING ADMIXTURE.
3. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO THE STANDARDS OF ASTM A615, GRADE 60.
4. ALL WELDED WIRE FABRIC SHALL CONFORM TO THE STANDARDS OF ASTM A185. A MINIMUM 8 INCH LAP SHALL BE PROVIDED FOR SIDE AND END LAPS. WELDED WIRE FABRIC SHALL BE SUPPORTED ON APPROVED CHAIRS.
5. ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS FOR THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318 AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315.
6. WHERE REQUIRED, DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN REINFORCING.
7. MAXIMUM SLUMP SHALL BE 4 INCHES, UNO. MINIMUM CEMENT CONTENT SHALL BE 6 SACKS.
8. MINIMUM CONCRETE COVER SHALL BE:
   a. 3" FOR CONCRETE CAST AGAINST THE EARTH.
   b. 1 1/2" FOR BARS EXPOSED TO WEATHER AND BEAMS AND COLUMNS.
   c. 3/4" FOR SLABS.

STRUCTURAL TIMBER NOTES

1. ALL STRUCTURAL LUMBER SHALL BE VISUALLY OR MACHINE STRESS GRADED, IN ACCORDANCE WITH THE LATEST EDITIONS OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) TECHNICAL PUBLICATION NO. 17 OR THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) "WESTERN LUMBER GRADING RULES (G5)". THE DESIGN AND CONSTRUCTION STANDARDS OF ALL WOOD FRAMING SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 23 OF THE CODE AND THE LATEST EDITION OF THE "AMERICAN FOREST & PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION".
2. MATERIALS UNO:

   a. SAWN LUMBER AND TIMBER:

SPECIES:	DOUGLAS FIR
GRADE:	No. 2
MODULUS OF ELASTICITY:	1,700,000 PSI

   MINIMUM WORKING STRESSES (SPECIFY USE CONDITION):

EXTREME FIBER IN BENDING, Fb TENSION	1,450 PSI
PARALLEL TO GRAIN, Ft COMPRESSION	850 PSI
PARALLEL TO GRAIN, Fc COMPRESSION	1,000 PSI
PERPENDICULAR TO GRAIN, Fc HORIZONTAL	625 PSI
SHEAR, Fv	95 PSI

   b. GLUE LAMINATED TIMBER:

SPECIES:	DF/HF 24
GRADE:	F–V4
MODULES OF ELASTICITY:	1,800,000 PSI

   MINIMUM WORKING STRESSES (SPECIFY USE CONDITION):

EXTREME FIBER IN BENDING, Fb	2,400 PSI
TENSION PARALLEL TO GRAIN, Ft	1,150 PSI
COMPRESSION PARALLEL TO GRAIN, Fc	1,450 PSI
COMPRESSION PERPENDICULAR TO GRAIN, Fc	650 PSI
HORIZONTAL SHEAR, Fv	165 PSI

   c. PLYWOOD:

   ROOF PLYWOOD SHALL BE APA RATED SHEATHING, EXTERIOR, SPAN RATED 40/20. FOR PLYWOOD THICKNESS, SEE PLANS.

   WALL PLYWOOD SHALL BE APA RATED SHEATHING, EXPOSURE 1, SPAN RATED 32/16. FOR PLYWOOD THICKNESS, SEE PLANS.

3. INSTALL ALL PLYWOOD WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS, UNLESS NOTED OTHERWISE, WITH THE PANEL OVER TWO OR MORE SPANS. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND 1/4 INCH AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER. PLYWOOD SHALL BE USED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.
4. WOOD CONNECTORS SHALL BE SIMPSON STRONG–TIE OR EQUAL. CONNECTOR MODEL NUMBERS SHOWN REFER TO SIMPSON STRONG–TIE.
5. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL TIMBER MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR REVIEW OF THE ENGINEER.
6. NO WOOD TREATMENTS OR PRESERVATIVES SHALL BE USED WITHOUT PRIOR REVIEW OF THE ARCHITECT.
7. ALL WOOD LEDGERS,PLATES, SILLS, AND NAILERS IN CONTACT WITH CONCRETE, EARTH, OR WITHIN 6" OF EARTH SHALL BE TREATED IN ACCORDANCE WITH AWPB–FDN. NAILS AND METAL FASTENERS SHALL BE GALVANIZED OR STAINLESS STEEL AS RECOMMENDED BY THE TREATED WOOD MANUFACTURER.
8. ALL NAILS SHALL BE COMMON WIRE NAILS. NAILING AND FASTENING SHALL CONFORM TO TABLE 2304.9.1 OF THE IBC, UNO.
9. STANDARD WASHERS SHALL BE USED UNDER ALL BOLT HEADS AND NUTS CONTACTING WOOD.

DRILLED IN CONCRETE ANCHOR NOTES (DICA)

1. ACCEPTABLE DRILLED IN CONCRETE ANCHORS OF SIZE, NUMBER AND SPACING AS SHOWN ON THE DRAWINGS SHALL BE HILTI "KWIK BOLT", RED HEAD TRUBOLT, OR EQUAL.

ALL WEATHER WOOD (AWW)

1. ALL AWW PLYWOOD AND LUMBER MUST BE PRESSURE TREATED IN ACCORDANCE WITH THE TREATING AND DRYING REQUIREMENTS IN THE AMERICAN WOOD PRESERVERS BUREAU'S AWPB–FDN STANDARD. MEMBERS MORE THAN 8 INCHES ABOVE GROUND NEED NOT HAVE THIS SPECIAL PRESERVATIVE TREATMENT. BELOW GRADE TIMBER FASTENERS SHALL BE TYPE 304 OR TYPE 316 STAINLESS STEEL FASTENERS. ABOVE GRADE PLYWOOD MAY BE ATTACHED WITH HOT–DIPPED OR HOT–TUMBLED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER FASTENERS.

STRUCTURAL ABBREVIATIONS

@	AT	LL	LIVE LOAD
AB	ANCHOR BOLT	LOC	LOCATION
AFF	ABOVE FINISH FLOOR	MATL	MATERIAL
APPROX	APPROXIMATELY	MAX	MAXIMUM
ARCH	ARCHITECTURAL	MIN	MINIMUM
BET/BTWN	BETWEEN	MPH	MILES PER HOUR
BM	BEAM	MTL	METAL
BOF	BOTTOM OF FOOTING	NIC	NOT IN CONTRACT
BOT	BOTTOM	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CONT	CONTINUOUS	PL	PLATE
DF	DOUGLAS FIR	PLF	POUNDS PER LINEAL FOOT
DIA/DIAM/ø	DIAMETER	PSF	POUNDS PER SQUARE FOOT
DICA	DRILLED IN CONCRETE ANCHOR	PSI	POUNDS PER SQUARE INCH
DIM	DIMENSION	PTT	PRESSURE TREATED TIMBER
DL	DEAD LOAD	REF	REFERENCE
EA	EACH	REINF	REINFORCEMENT
ELEV	ELEVATION	REQ'D	REQUIRED
EQ	EQUAL	RO	ROUGH OPENING
FDN	FOUNDATION	SCHED	SCHEDULE
FF	FINISH FLOOR	SIM	SIMILAR
FRMG	FRAMING	SS	SELECT STRUCTURAL
FT	FOOT/FEET	STD	STANDARD
FTG	FOOTING	SWBN	SHEAR WALL BOUNDRY NAILING
GA	GAGE	TOC	TOP OF CONCRETE
H/HORIZ	HORIZONTAL	TYP	TYPICAL
HD	HOLDOWN	UNO	UNLESS NOTED OTHERWISE
HF	HEM FIR	V/VERT	VERTICAL
ICBO	INTERNATIONAL CONFERENCE OF BLDG OFFICALS	W/	WITH
IN	INCH(ES)	WWF	WELDED WIRE FABRIC
JT	JOINT		

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No.	Description	Date

Drawn by: MB/KJ	Date: 28 OCT 13
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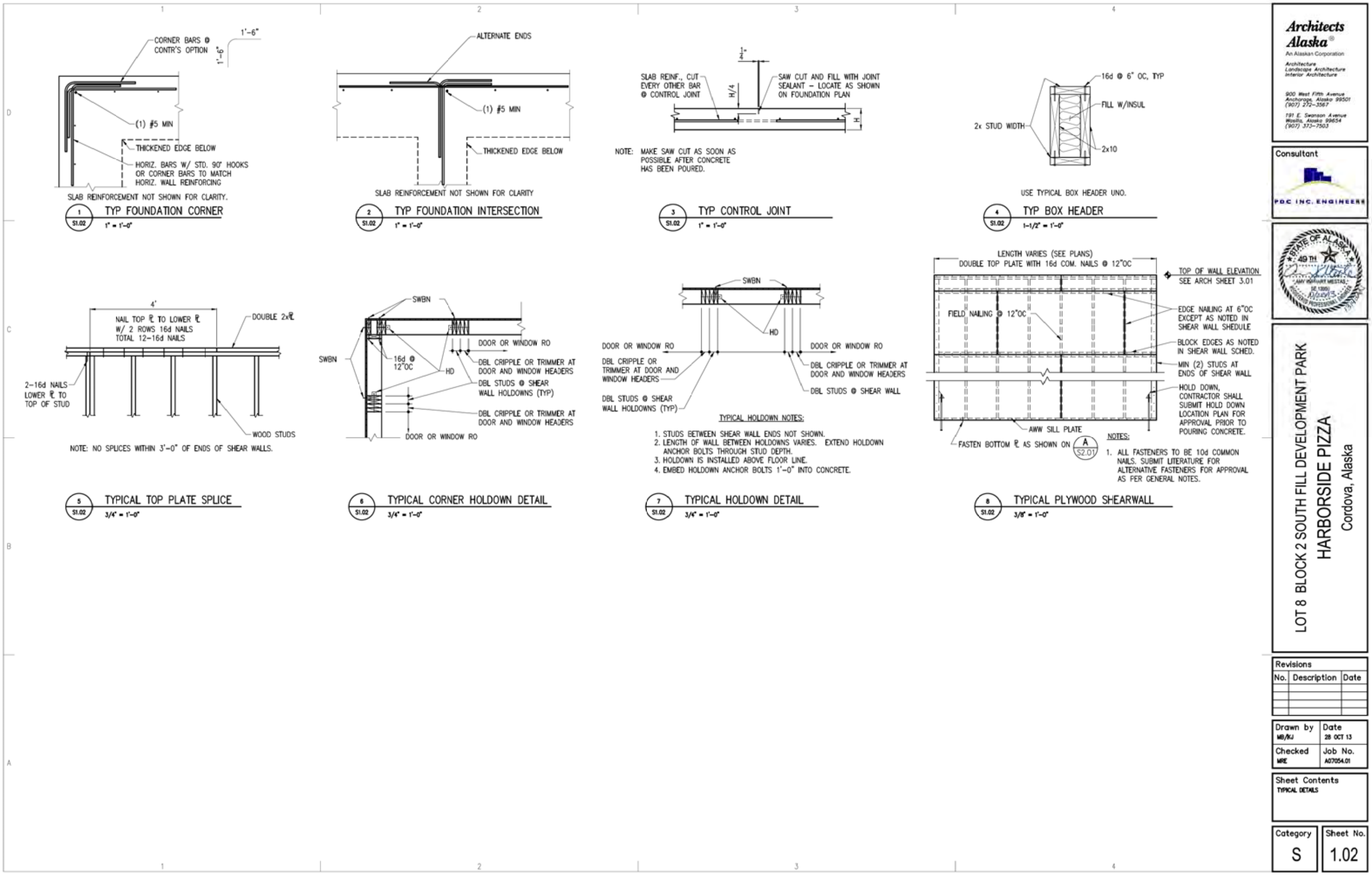
Sheet Contents: GENERAL NOTES

Category: S — Sheet No.: 1.01


CORNER BARS @ CONTR'S OPTION
1'-6"
(1) #5 MIN
THICKENED EDGE BELOW
HORIZ. BARS W/ STD. 90° HOOKS OR CORNER BARS TO MATCH HORIZ. WALL REINFORCING
SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.
1 S1.02 TYP FOUNDATION CORNER 1" = 1'-0"
ALTERNATE ENDS
(1) #5 MIN
THICKENED EDGE BELOW
SLAB REINFORCEMENT NOT SHOWN FOR CLARITY
2 S1.02 TYP FOUNDATION INTERSECTION 1" = 1'-0"
SLAB REINF., CUT EVERY OTHER BAR @ CONTROL JOINT
SAW CUT AND FILL WITH JOINT SEALANT - LOCATE AS SHOWN ON FOUNDATION PLAN
H/4
H
NOTE: MAKE SAW CUT AS SOON AS POSSIBLE AFTER CONCRETE HAS BEEN POURED.
3 S1.02 TYP CONTROL JOINT 1" = 1'-0"
16d @ 6" OC, TYP
FILL W/INSUL
2x STUD WIDTH
2x10
USE TYPICAL BOX HEADER UNO.
4 S1.02 TYP BOX HEADER 1-1/2" = 1'-0"
4'
NAIL TOP ℞ TO LOWER ℞ W/ 2 ROWS 16d NAILS TOTAL 12-16d NAILS
DOUBLE 2x℞
2-16d NAILS LOWER ℞ TO TOP OF STUD
WOOD STUDS
NOTE: NO SPLICES WITHIN 3'-0" OF ENDS OF SHEAR WALLS.
5 S1.02 TYPICAL TOP PLATE SPLICE 3/4" = 1'-0"
SWBN
16d @ 12"OC
HD
DOOR OR WINDOW RO
DBL CRIPPLE OR TRIMMER AT DOOR AND WINDOW HEADERS
DBL STUDS @ SHEAR WALL HOLDOWNS (TYP)
DBL CRIPPLE OR TRIMMER AT DOOR AND WINDOW HEADERS
DOOR OR WINDOW RO
6 S1.02 TYPICAL CORNER HOLDOWN DETAIL 3/4" = 1'-0"
SWBN
HD
DOOR OR WINDOW RO
DBL CRIPPLE OR TRIMMER AT DOOR AND WINDOW HEADERS
DBL STUDS @ SHEAR WALL HOLDOWNS (TYP)
DOOR OR WINDOW RO
DBL CRIPPLE OR TRIMMER AT DOOR AND WINDOW HEADERS
DBL STUDS @ SHEAR WALL
TYPICAL HOLDOWN NOTES:
1. STUDS BETWEEN SHEAR WALL ENDS NOT SHOWN.
2. LENGTH OF WALL BETWEEN HOLDOWNS VARIES. EXTEND HOLDOWN ANCHOR BOLTS THROUGH STUD DEPTH.
3. HOLDOWN IS INSTALLED ABOVE FLOOR LINE.
4. EMBED HOLDOWN ANCHOR BOLTS 1'-0" INTO CONCRETE.
7 S1.02 TYPICAL HOLDOWN DETAIL 3/4" = 1'-0"
LENGTH VARIES (SEE PLANS)
DOUBLE TOP PLATE WITH 16d COM. NAILS @ 12"OC
TOP OF WALL ELEVATION SEE ARCH SHEET 3.01
FIELD NAILING @ 12"OC
EDGE NAILING AT 6"OC EXCEPT AS NOTED IN SHEAR WALL SHEDULE
BLOCK EDGES AS NOTED IN SHEAR WALL SCHED.
MIN (2) STUDS AT ENDS OF SHEAR WALL
HOLD DOWN, CONTRACTOR SHALL SUBMIT HOLD DOWN LOCATION PLAN FOR APPROVAL PRIOR TO POURING CONCRETE.
AWW SILL PLATE
FASTEN BOTTOM ℞ AS SHOWN ON A S2.01
NOTES:
1. ALL FASTENERS TO BE 10d COMMON NAILS. SUBMIT LITERATURE FOR ALTERNATIVE FASTENERS FOR APPROVAL AS PER GENERAL NOTES.
8 S1.02 TYPICAL PLYWOOD SHEARWALL 3/8" = 1'-0"
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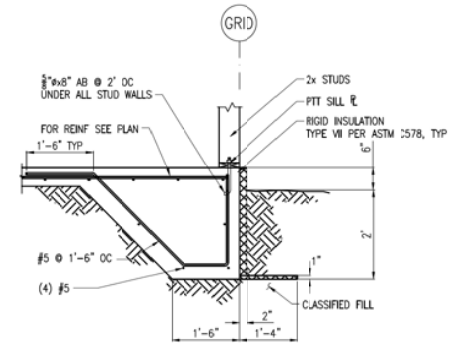
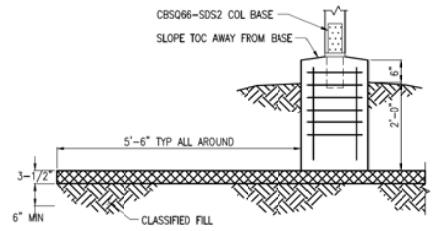
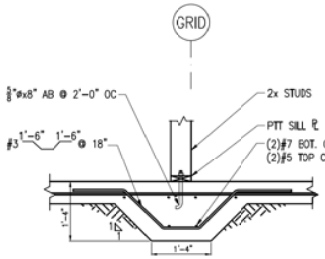
Sheet Contents TYPICAL DETAILS
Category S
Sheet No. 1.02



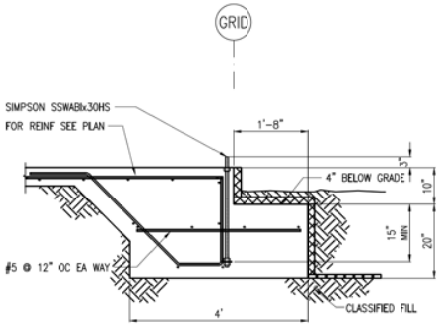
A S2.01 TYP THICKENED SLAB EDGE
3/4" = 1'-0"



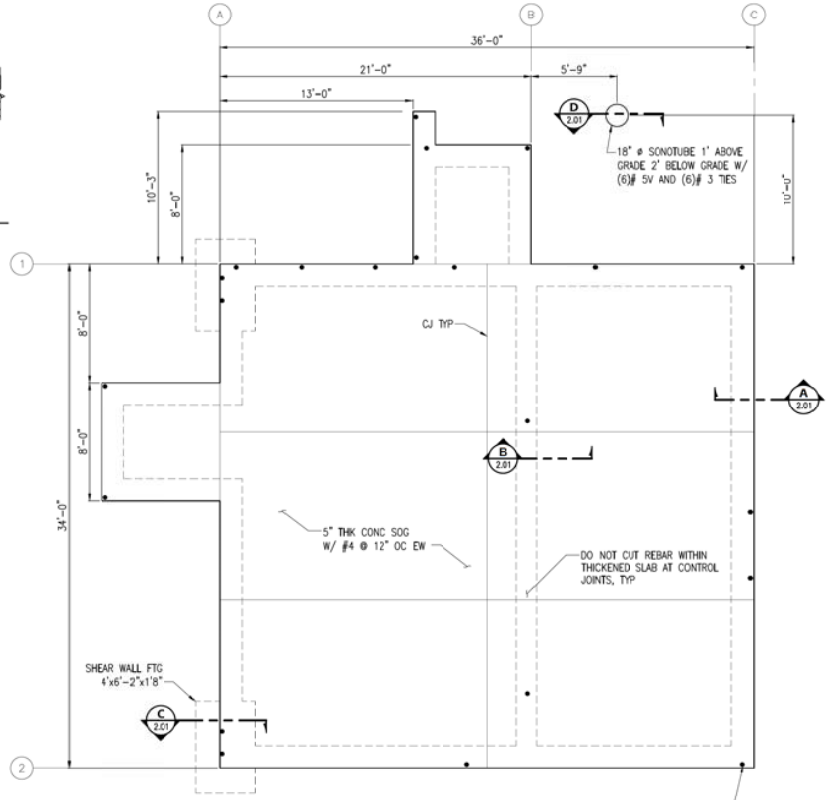
D S2.01 EXTERIOR COLUMN FOOTING
3/4" = 1'-0"



B S2.01 TYP THICKENED SLAB
3/4" = 1'-0"



C S2.01 SHEAR WALL FOOTING DETAIL
3/4" = 1'-0"



NOTES: 1. SEE MECHANICAL FOR HYDRONIC SLAB HEAT DETAIL.

2. SEE TYPICAL DETAILS AND SHEARWALL SCHEDULE FOR HOLDOWN INFORAMTION.

1 S2.01 FOUNDATION PLAN
1/4" = 1'-0"

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LOT 8 BLOCK 2 SOUTH FILL DEVELOPMENT PARK
HARBORSIDE PIZZA
Cordova, Alaska

Revisions		
No.	Description	Date

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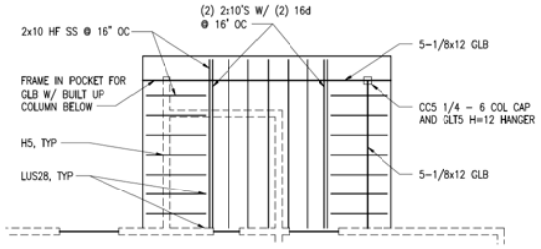
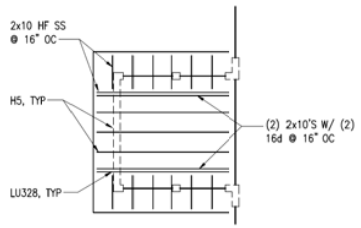
Checked MRE	Job No. A07054.01

Sheet Contents
FOUNDATION PLAN AND DETAILS

Category	Sheet No.
S	2.01

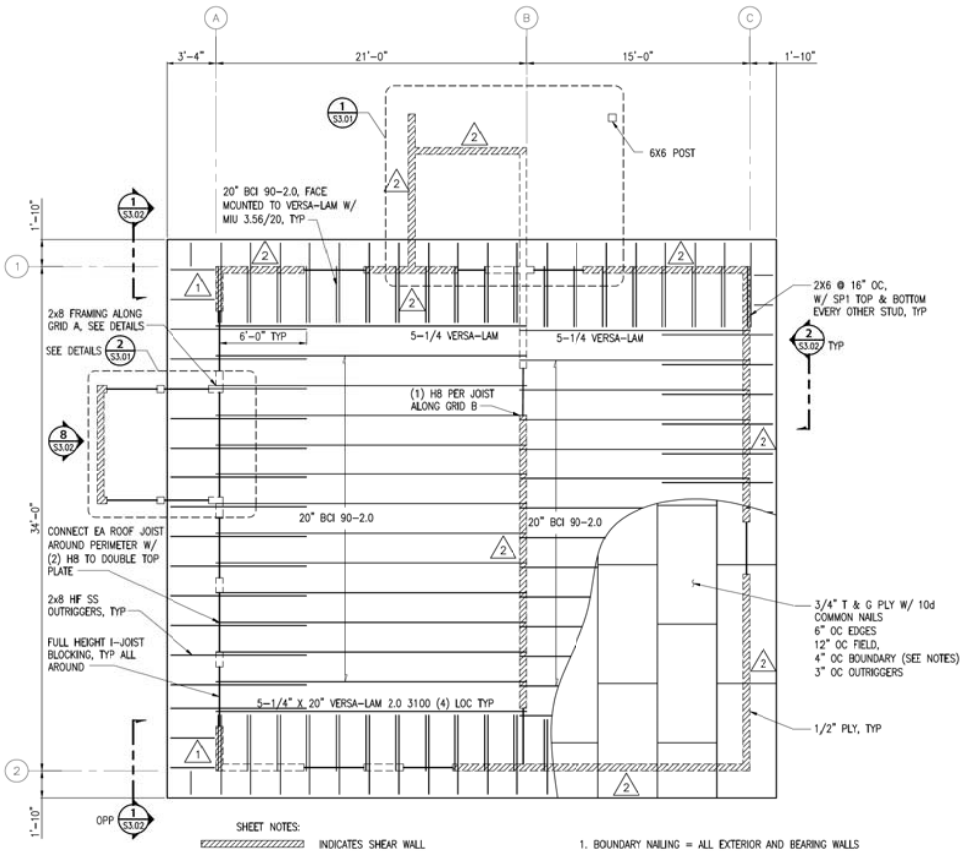


1 S3.01 OVEN ROOF FRAMING PLAN
1/4" = 1'-0"



2 S3.01 ENTRANCE ROOF FRAMING PLAN
1/4" = 1'-0"

SHEAR WALL SCHEDULE				
MARK	MATERIAL	NAILS	NAILING	HOLDOWNS
1	SIMPSON STRONG WALL SSW24 X 13	SEE 1/S3.02 FOR REQUIREMENTS		
2	1/2" SHEATHING	10dx1½" PEN	6" OC EDGE 12" OC FIELD	HDBA



SHEET NOTES:

INDICATES SHEAR WALL

# INDICATES SHEAR WALL TYPE, SEE SCHEDULE

1. BOUNDARY NAILING = ALL EXTERIOR AND BEARING WALLS
2. BLOCKING REQ'D FOR ALL BOUNDARY NAILING
3. SEE ARCHITECTURAL SHEETS FOR WALL ELEVATIONS, DOOR, AND WINDOW LOCATIONS, AND LOW ROOF OVERHANG DIMENSIONS.

1 S2.01 ROOF FRAMING PLAN
1/4" = 1'-0"

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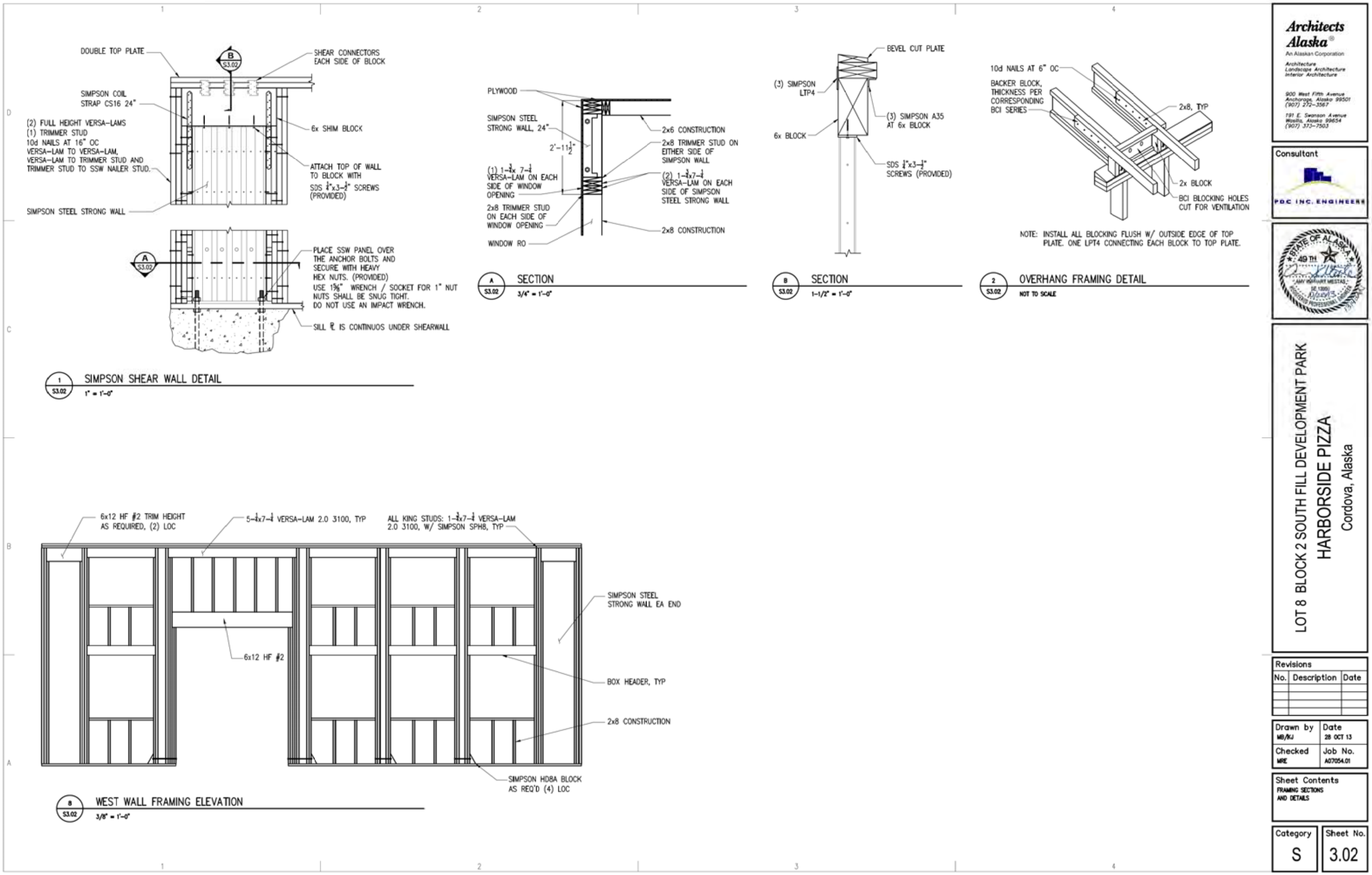
Sheet Contents: ROOF FRAMING PLAN

Category	Sheet No.
S	3.01


DOUBLE TOP PLATE
SHEAR CONNECTORS EACH SIDE OF BLOCK
SIMPSON COIL STRAP CS16 24"
(2) FULL HEIGHT VERSA-LAMS
(1) TRIMMER STUD
10d NAILS AT 16" OC
VERSA-LAM TO VERSA-LAM, VERSA-LAM TO TRIMMER STUD AND TRIMMER STUD TO SSW NAILER STUD.
6x SHIM BLOCK
ATTACH TOP OF WALL TO BLOCK WITH SDS ¼"x3-½" SCREWS (PROVIDED)
SIMPSON STEEL STRONG WALL
PLACE SSW PANEL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY HEX NUTS. (PROVIDED)
USE 1⁵⁄₁₆" WRENCH / SOCKET FOR 1" NUT
NUTS SHALL BE SNUG TIGHT.
DO NOT USE AN IMPACT WRENCH.
SILL ℄ IS CONTINUOS UNDER SHEARWALL
1 S3.02 SIMPSON SHEAR WALL DETAIL
1" = 1'-0"
PLYWOOD
SIMPSON STEEL STRONG WALL, 24"
2'-11½"
(1) 1-¾x 7-¼ VERSA-LAM ON EACH SIDE OF WINDOW OPENING
2x8 TRIMMER STUD ON EACH SIDE OF WINDOW OPENING
WINDOW RO
2x6 CONSTRUCTION
2x8 TRIMMER STUD ON EITHER SIDE OF SIMPSON WALL
(2) 1-¾x7-¼ VERSA-LAM ON EACH SIDE OF SIMPSON STEEL STRONG WALL
2x8 CONSTRUCTION
A S3.02 SECTION
3/4" = 1'-0"
BEVEL CUT PLATE
(3) SIMPSON LTP4
6x BLOCK
(3) SIMPSON A35 AT 6x BLOCK
SDS ¼"x3-½" SCREWS (PROVIDED)
B S3.02 SECTION
1-1/2" = 1'-0"
10d NAILS AT 6" OC
BACKER BLOCK, THICKNESS PER CORRESPONDING BCI SERIES
2x8, TYP
2x BLOCK
BCI BLOCKING HOLES CUT FOR VENTILATION
NOTE: INSTALL ALL BLOCKING FLUSH W/ OUTSIDE EDGE OF TOP PLATE. ONE LPT4 CONNECTING EACH BLOCK TO TOP PLATE.
2 S3.02 OVERHANG FRAMING DETAIL
NOT TO SCALE
6x12 HF #2 TRIM HEIGHT AS REQUIRED, (2) LOC
5-¼x7-¼ VERSA-LAM 2.0 3100, TYP
ALL KING STUDS: 1-¾x7-¼ VERSA-LAM 2.0 3100, W/ SIMPSON SPH8, TYP
SIMPSON STEEL STRONG WALL EA END
6x12 HF #2
BOX HEADER, TYP
2x8 CONSTRUCTION
SIMPSON HD8A BLOCK AS REQ'D (4) LOC
8 S3.02 WEST WALL FRAMING ELEVATION
3/8" = 1'-0"
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Sheet Contents
FRAMING SECTIONS AND DETAILS
Category S
Sheet No. 3.02

PIPING LEGEND

- WASTE
- VENT PIPING
- COLD WATER
- HOT WATER
- XXX — SEE ABBREVIATIONS FOR MEDIA
- PIPE UP
- PIPE DOWN
- TEE UP
- TEE DOWN
- CAP
- UNION
- DIRECTION OF FLOW
- BALL VALVE
- 3-WAY CONTROL VALVE
- CHECK VALVE
- BALANCE VALVE
- PRESSURE/TEMPERATURE RELIEF VALVE
- HOSE BIBB
- PUMP
- CLEANOUT
- METER
- PIPE SLEEVE
- THERMOMETER
- PRESSURE GAUGE W/ ISOLATION COCK
- FLOOR CLEANOUT
- FLOOR DRAIN

DUCTWORK LEGEND

- SENSOR
- THERMOSTAT
- SUPPLY AIR UP & DOWN
- RETURN AIR UP & DOWN
- EXHAUST AIR UP & DOWN
- ROUND DUCT UP & DOWN
- VOLUME DAMPER
- SOUND LINED DUCTWORK
- 12/24 — DUCT SIZE (FIRST FIGURE – SIDE SHOWN) (SECOND FIGURE – SIDE NOT SHOWN)
- INSULATED DUCTWORK

LOGIC

- 1 — DETAIL NUMBER
- M5.01 — SHEET LOCATED ON
- X — SHEET NOTES
- CONNECTION — NECK SIZE
- CFM — CFM
- X — DIFFUSER OR GRILLE TYPE

ABBREVIATIONS

ABV	ABOVE
ADA	AMERICAN WITH DISABILITIES ACT GUIDELINES
AFF	ABOVE FINISHED FLOOR
AHU-X	AIR HANDLING UNIT DESIGNATOR
AL	ALUMINUM
AMPS	AMPERES
APD	AIR PRESSURE DROP
ARCH	ARCHITECTURAL
B-X	BOILER DESIGNATOR
BDD	BACKDRAFT DAMPER
BLDG	BUILDING
BTUH	BRITISH THERMAL UNIT/HOUR
CAP	CAPACITY
C/A	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
CIRC	CIRCULATING
CLG	CEILING
CONT	CONTINUED
C.O./CO	CLEANOUT
CONN	CONNECTION
CP-X	CIRCULATION PUMP DESIGNATOR
CU	COPPER
CUH-X	CABINET UNIT HEATER DESIGNATOR
CW	COLD WATER
dB	DECIBELS
DEG	DEGREE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
E/A	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
EF-X	EXHAUST FAN DESIGNATOR
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
ET-X	EXPANSION TANK DESIGNATOR
EXH	EXHAUST
F	FAHRENHEIT
FC	FORWARD CURVE
FCO	FLOOR CLEAN OUT
FD	FIRE DAMPER
FD-X	FLOOR DRAIN DESIGNATOR
FIN	FINISHED
FLR	FLOOR
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOT-X	FUEL OIL TANK DESIGNATOR
FPM	FEET PER MINUTE
FT	FEET
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GI-X	GREASE INTERCEPTOR DESIGNATOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB-X	HOSE BIBB DESIGNATOR
HD	HEAD
HP	HORSEPOWER
HW	HOT WATER
IN	INCHES
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LWT	LEAVING WATER TEMPERATURE
MAU-X	MAKE-UP AIR UNIT DESIGNATOR
MAX	MAXIMUM
MBH	THOUSAND BTUH
MFGR	MANUFACTURER
M/A	MAKEUP AIR
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
NC	NOISE CRITERIA
NO.	NUMBER
OC	ON CENTER
O/A	OUTSIDE AIR
OD	OUTSIDE DAMPER
OSV	OIL SAFETY VALVE
P-X	PLUMBING FIXTURE DESIGNATOR
PD	PRESSURE DROP
PF-X	PRE-FILTER DESIGNATOR
PH	PHASE
PSI	POUND PER SQUARE INCH
R/A	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
S/A	SUPPLY AIR
SP	STATIC PRESSURE
SQ	SQUARE
TEMP	TEMPERATURE
TSP	TOTAL STATIC PRESSURE
T'STAT	THERMOSTAT
TTL	TOTAL
TV-X	TEMPERING VALVE DESIGNATOR
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UH-X	UNIT HEATER DESIGNATOR
UPC	UNIFORM PLUMBING CODE
V	VENT
VEL	VELOCITY
VTR	VENT THRU ROOF
W	WASTE
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WCO	WALL CLEAN OUT
WG	WATER GAUGE
WH-X	WATER HEATER DESIGNATOR
WHA	WATER HAMMER ARRESTOR
WPD	WATER PRESSURE DROP
YCO	YARD CLEAN OUT

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Cordova, Alaska

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Sheet Contents: MECHANICAL LEGENDS & ABBREVIATIONS

Category	Sheet No.
M	1.01

Drawing File:
Plot Date:

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	CW	TW/HW	WASTE	VENT	TRAP	BASIS OF DESIGN	BASIC MODEL	COLOR/FINISH	TRIM/REMARKS
P-1	WATER CLOSET – FLOOR MOUNT	1	—	3	2	—	AMERICAN STANDARD	2234.015 MADERA	WHITE	ELONGATED BOWL, SLOAN ROYAL 111 1.6 GPF FLUSH VALVE, SPLIT RIM SEAT W/O COVER.
P-1A	WATER CLOSET – ADA – FLOOR MOUNT	1	—	3	2	—	AMERICAN STANDARD	2305.100 MADERA	WHITE	ADA HEIGHT, ELONGATED BOWL, SLOAN ROYAL 111 1.6 GPF FLUSH VALVE, SPLIT RIM SEAT W/O COVER, LOCATE FLUSH HANDLE PER ADA.
P-2	LAVATORY – WALL MOUNT	1/2	1/2	1-1/2	1-1/4	1-1/4	AMERICAN STANDARD	0355.012 LUCERNE	WHITE	CHICAGO FAUCET MODEL 420-E2805ABCP, 4" CENTERS WITH GRID STRAINER, CONCEALED ARMS SUPPORT, PROVIDE W/ TEMP. VALVE TV-1.
P-3	HANDWASH SINK (BY OTHERS)	1/2	1/2	1-1/2	1-1/4	1-1/4	—	—	—	PROVIDE WITH TEMP. VALVE TV-1.
P-4	PREP SINK (BY OTHERS)	1/2	1/2	2	1-1/2	2	—	—	—	PIPE WASTE TO FLOOR SINK.
P-5	3-COMPARTMENT SINK (BY OTHERS)	1/2	1/2	2	1-1/2	2	—	—	—	PIPE TO WASTE TO GREASE INTERCEPTOR.
P-6	MOP SINK (BY OTHERS)	1/2	1/2	2	1-1/2	2	—	—	—	
P-7	WASHER ROUGH-IN	3/4	3/4	2	1-1/2	2	GUY GRAY	WB200	—	SINGLE LEVER HW/CW VALVE, GALVANIZED BOX.
P-8	DISHWASHER (BY OTHERS)	—	3/4	3	2	2	—	—	—	DIRECT CONNECT.
P-9	ICE MACHINE (BY OTHERS)	1/2	—	—	—	—	—	—	—	PIPE WASTE TO FLOOR SINK.
FD-1	FLOOR DRAIN	—	—	2	1-1/2	2	J.R. SMITH	2005-A	—	ROUND TOP, NICKEL BRONZE STRAINER, TRAP PRIMER CONNECTION.
FS-1	FLOOR SINK	—	—	3	2	3	J.R. SMITH	3100-12	—	CAST IRON, ACID RESISTANT INTERIOR, NICKEL BRONZE RIM, 1/2 GRATE, DOME STRAINER.
GI-1	GREASE INTERCEPTOR (BY OTHERS)	—	—	3	2	—	—	—	—	PROVIDE FLOW CONTROL FITTING.
HB-1	HOSE BIBB – FROST PROOF	3/4	—	—	—	—	WOODFORD	MODEL 65	CHROME	FREEZELESS HYDRANT, ANTISIPHON VACUUM BREAKER, DETACHABLE T-HANDLE OPERATOR.

WHA SCHEDULE

SYMBOL	SIZE	FIXTURE UNITS
WHA-A	1/2"	1-11
WHA-B	3/4"	12-32
WHA-C	1"	33-60
WHA-D	1-1/4"	61-113

WATER HEATER SCHEDULE

SYMBOL	MFGR/MODEL	MEDIUM	BURNER FUEL	BURNER CAPACITY GPH	BURNER MOTOR WATTS/V/PH	HOT WATER RECOVERY GPH	HOT WATER CAPACITY GAL	HOT WATER EWT DEG F	HOT WATER LWT DEG F	LABEL	REMARKS
WH-1	BOCK/72E	WATER	OIL	1.42	230/120/1	212	67	50	140	UL	199 MBH INPUT, P&T RELIEF VALVE, SEISMIC RESTRAINT.

EXPANSION TANK SCHEDULE

SYMBOL	MFGR/MODEL	FUNCTION	MEDIUM	MATERIAL	TANK VOLUME TOTAL (GAL)	TANK VOLUME ACCEPTANCE (GAL)	DIMENSIONS	LABEL	REMARKS
ET-1	AMTROL/ EXTROL 90	HEATING	50% PG	STEEL	14.0	11.3	15.5"DIA X 21"H	IAPMO	PROVIDE WITH AIR PURGER AND VENT.
ET-2	AMTROL/ THERM-X-TROL ST5	DOMESTIC WATER	WATER	STEEL	2.0	0.9	8"DIA X 13"H	IAPMO	PRE-CHARGE TO 12 PSI.

TANK SCHEDULE

SYMBOL	MFGR/MODEL	FUNCTION	MEDIUM	MATERIAL	TANK CAPACITY (GAL)	DIMENSIONS	LABEL	REMARKS
FOT-1	ACE/U2K4	FUEL OIL STORAGE	FUEL OIL	DOUBLE-WALL STEEL	550	75"Lx48"DIA	UL-142	SKID MOUNTED, PRIMECOAT OF EPOXY, FINISH COAT-URETHANE, ACCESSORIES PER DETAIL AND SPECIFICATIONS

PUMP SCHEDULE

SYMBOL	MFGR/MODEL	FUNCTION	PUMPED MEDIUM	GPM	HEAD FT.	MOTOR DATA HP/VOLTS/PH	REMARKS
CP-1	GRUNDFOS/UPS 32-160/2	MAU-1 AND CUH-1	50% PG	27	30	3/4 /120/1	SET AT SPEED 2.
CP-2	GRUNDFOS/UP 26-120U	RADIANT FLOOR	50% PG	6	30	1/6 /120/1	
CP-3	GRUNDFOS/UPS 15-42F	INJECTION	50% PG	2	5	1/25 /120/1	SET AT SPEED 2.

FAN SCHEDULE

SYMBOL	MFGR/MODEL	TYPE	SERVICE	CFM	TSP IN W.C.	RPM	MOTOR DATA HP/VOLTS/PH	DRIVE	SONES	REMARKS
EF-1	COOK/165R6B	EXHAUST	KITCHEN HOOD	2900	0.75	1725	3/4 /120/1	BELT	19.4	PROVIDE WITH GREASE CONTAINMENT, 18" CURB, ARCTIC GRADE BELT, UL-762 LISTING FOR GREASE.
EF-2	COOK/GC-142	EXHAUST	RESTROOM	84	0.25	1000	58W /120/1	DIRECT	2.0	PROVIDE WITH WALL CAP WITH BIRDSCREEN AND BDD.

AIR INLET/OUTLET SCHEDULE

SYMBOL	MFGR/MODEL	TYPE	USE	MATERIAL	FINISH	CFM	FACE SIZE (IN.)	NC	THROW	REMARKS
A	TITUS/301FS	GRILLE	SUPPLY	ALUMINUM	WHITE	PER PLANS	24/10	32	2-WAY	PROVIDE FRAME WITH DUCT MOUNTING.

TEMPERING VALVE SCHEDULE

SYMBOL	MFGR/MODEL	FINISH	HW INLET SIZE	CW INLET SIZE	TEMP. RANGE	FLOW RATE GPM	PD @ FLOW RATE	LISTING	REMARKS
TV-1	POWERS/LM495	BRONZE	1/2	1/2	80-120	0.5	< 5 PSI	ASSE 1070	FOR USE WITH LAVATORY P-2 AND SINK P-3, INTEGRAL CHECK STOPS, INLET SCREENS, ADJUSTABLE TEMPERATURE, VANDAL RESISTANT LOCKABLE HANDLE.

CABINET UNIT HEATER SCHEDULE

SYMBOL	MFGR/MODEL	CFM	FLUID	MBH OUTPUT	FLOW GPM	MOTOR DATA HP/VOLTS/PH	EGT	LGT	REMARKS
CUH-1	MODINE/CO8 SIZE 2	150	50% PG	7.6	1.3	1/30 /120/1	180	160	PROVIDE WITH INTERNAL THERMOSTAT.

MAKE-UP AIR UNIT SCHEDULE

SYMBOL	MFGR/MODEL	MAX CAPACITY (MBH)	MAX TEMP. RISE	FLUID	EGT	LGT	FLOW (GPM)	PRES. DROP	FAN TYPE	FAN CFM	FAN ESP/TSP	RPM	MOTOR DATA HP/VOLTS/PH	REMARKS
MAU-1	GREENHECK/MSX-112-H22	219.4	70	50% PG	180	150	16.2	4	CENTRIFUGAL	2900	0.25/0.387	1725	.75/230/1	PROVIDE WITH COIL MODEL 5WH0802B, INTERLOCK WITH EF-1.

BOILER SCHEDULE

SYMBOL	MFGR/MODEL	HEATED MEDIUM	FUEL	CAPACITY GPH	GROSS I-B-R OUTPUT (MBH)	BURNER HP/VOLTS/PH	LABEL	REMARKS
B-1	WEIL-MCLAIN/WGO-8	50% PG	OIL	2.3	266	1/7 /120/1	UL, ASME H	CAST IRON SECTIONAL; STRAP ON REDUNDANT HIGH LIMIT, LOW WATER CUT OFF, 30 PSI RELIEF VALVE, OTHER ACCESSORIES PER ASME CSD-1.

FUEL FIRED UNIT HEATERS

SYMBOL	MFGR/MODEL	CFM	FUEL	MBH INPUT	MBH OUTPUT	MOTOR DATA RPM	MOTOR DATA HP/VOLTS/PH	REMARKS
UH-1	REZNOR/UDAP45	629	PROPANE	45	37.3	1550	0.03/115/1	PROVIDE WITH PROPANE ADAPTER KIT, SET INTEGRAL THERMOSTAT TO 45 DEG F.

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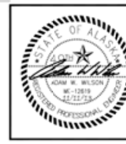

HARBORSIDE PIZZA
Cordova, Alaska

Revisions

No.	Description	Date

Drawn by: ARN	Date: 11 NOV 13
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Sheet Contents: SCHEDULES

Category: M | Sheet No.: 1.02

MECHANICAL SPECIFICATIONS

FRONT END ADMINISTRATIVE

PLANS – THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. THE DRAWINGS ARE PARTLY DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF PIPING AND DUCTS, UNLESS SPECIFICALLY DIMENSIONED.

COMPLETE PROJECT – THE INTENT OF THIS PROJECT IS TO LET ONE CONTRACT WHICH INCLUDES ALL WORK REQUIRED FOR A COMPLETE JOB.

PERMITS – THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND FEES.

CODE – ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), UNIFORM PLUMBING CODE (UPC) AND NATIONAL ELECTRICAL CODE (NEC) AS AMENDED BY THE STATE OF ALASKA AND LOCAL JURISDICTIONS. SHEET METAL WORK SHALL BE DONE IN ACCORDANCE WITH SMACNA STANDARDS.

INSURANCE – CONTRACTOR MUST PROVIDE BUILDER'S ALL RISK INSURANCE, WORKER'S COMPENSATION INSURANCE, AND GENERAL LIABILITY INSURANCE AT ALL TIMES WHILE WORKING ON THIS PROJECT.

EQUIPMENT SUBSTITUTIONS – ALL EQUIPMENT LISTED IS REPRESENTATIVE OF THE STANDARD OF QUALITY AND PERFORMANCE REQUIRED. "OR EQUAL" SUBSTITUTIONS WILL BE CONSIDERED IF THE SUBSTITUTE CATALOG CUTS ARE SUBMITTED AND ARE SHOWN TO BE OF EQUAL OR BETTER QUALITY, INCLUDING EFFICIENCY OF PERFORMANCE, SIZE AND WEIGHT.

WARRANTY – ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.

ELECTRICAL WORK – ALL ELECTRICAL WORK IS TO BE PERFORMED BY A LICENSED ELECTRICIAN, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, NEC.

MATERIALS – ALL MATERIALS OTHER THAN OWNER SUPPLIED SHALL BE NEW AND UNUSED, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND IN THE BEST PRACTICE OF THE CRAFT. OBTAIN OWNER'S APPROVAL OF ALL PRODUCTS PRIOR TO ORDERING OR INSTALLING ANY PART OF ANY SYSTEM.

SUBMITTALS – SUBMITTALS SHALL BE IN BOOKLET FORM. THE DATA SHALL BE ARRANGED AND INDEXED UNDER BASIC CATEGORIES. SUBMIT ON WATER HEATER, PUMPS, CONTROLS, CONTROLLERS, FANS, TANKS, VALVES, PEX TUBING, RADIANT MANIFOLDS, PIPING, UNIONS, FLANGES, PIPING SUPPORTS AND ANCHORS, UNIT HEATERS, PLUMBING FIXTURES, INSULATION, AND MAKE-UP AIR UNIT.

BALANCE – THE CONTRACTOR SHALL BALANCE THE AIR AND HYDRONIC SYSTEMS ACCORDING TO NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) RECOMMENDED PROCEDURES AND CONTRACT DOCUMENTS, AND TO THE SATISFACTION OF THE OWNER. AIRFLOWS ARE TO BE BALANCED TO WITHIN 10% OF INDICATED FLOWS, PER AMERICAN AIR BALANCING COUNCIL (AABC) RECOMMENDED METHODS.

OPERATION AND MAINTENANCE MANUAL – PROVIDE THE OWNER WITH AN OPERATING AND MAINTENANCE MANUAL, TO INCLUDE MANUFACTURER'S SPECIFICATIONS, OPERATING AND MAINTENANCE INSTRUCTIONS, WARRANTY INFORMATION ON EACH PIECE OF EQUIPMENT, AND SCHEMATIC DIAGRAMS OF CONTROL SYSTEMS AS-BUILT, AS WELL AS A SOURCE OF SUPPLY FOR SPARE PARTS AND SERVICE.

ACCESS – PROVIDE WORKABLE ACCESS TO ALL SERVICEABLE AND/OR OPERABLE EQUIPMENT.

TEST AND START-UP – TEST ALL PLUMBING AND PIPING SYSTEMS WITH 60 PSIG FOR ONE HOUR BEFORE FILLING AND IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE, UPC. FILL ALL HEATING PIPING WITH TRISODIUM PHOSPHATE SOLUTION AND OPERATE FOR SEVERAL HOURS AT NORMAL OPERATING TEMPERATURE BEFORE FLUSHING AND FILLING.

EQUIPMENT INSTALLATION – INSTALL ALL EQUIPMENT WHERE NOTED ON THE DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE MISCELLANEOUS APPURTENANCES, ACCESSORIES, SUPPORTS AND CONTROL CONNECTIONS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES.

DUCTWORK

FABRICATE AND SUPPORT DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS, EXCEPT AS INDICATED.

DUCTWORK – PROVIDE GALVANIZED SHEET METAL RECTANGULAR OR ROUND DUCT WHERE CALLED OUT ON THE PLANS. SEAL ALL DUCT SEAMS AND JOINTS AIRTIGHT. USE TURNING VANES IN ALL SQUARE ELBOWS AND FLAT OVAL ELBOWS. INSTALL VOLUME DAMPERS AND EXTRACTORS WHERE SHOWN ON THE DRAWINGS. ALL SHEET METAL WORK TO BE CONSTRUCTED, INSTALLED, TESTED AND BALANCED IN ACCORDANCE WITH SMACNA STANDARDS. SUPPORT LOW AND MEDIUM PRESSURE DUCTWORK PER SMACNA GUIDELINES.

VOLUME DAMPER – FABRICATE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

KITCHEN HOOD EXHAUST DUCT WORK – FABRICATE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, AND NFPA 96. CONSTRUCT OF 16 GAUGE CARBON STEEL OR 18 GAUGE STAINLESS STEEL, USING CONTINUOUS EXTERNAL WELDED JOINTS. INSULATE WITH ZERO-CLEARANCE TO COMBUSTIBLE FIRE WRAP PER PLANS AND SPECIFICATIONS.

INSULATION

DOMESTIC COLD WATER	ALL SIZES	1"
DOMESTIC HOT WATER	ALL SIZES	1"
PLUMBING VENT THROUGH WALL	ALL SIZES	1"
PIPING EXPOSED TO FREEZING	ALL SIZES	2"
HANDICAP LAVATORIES	ALL SIZES	1/2"
EXHAUST DUCTS	ALL SIZES	1"
DUCT LINER	—	1"
HEATING GLYCOL SUPPLY/RETURN	UP TO 1.5"	1"
HEATING GLYCOL SUPPLY/RETURN	> 1.5"	2"

INSULATION

- PIPING – GLASS FIBER, RIGID, MOLDED, NON-COMBUSTIBLE INSULATION; ANSI/ASTM C547; 'K' VALUE OF 0.24 AT 75 DEG F, RATED TO 850 DEG F, VAPOR RETARDER JACKET OF KRAFT PAPER BONDED TO ALUMINUM FOIL; JOHNS MANVILLE "MICRO-LOK" OR EQUAL.
- ADA LAVATORY – CELLULAR FOAM, PREFORMED FOR TAILPIECE, P-TRAP, ANGLE STOPS AND SUPPLY TUBES. LAV GUARD2 AS MANUFACTURED BY TRUEBRO OR EQUAL.
- DUCTWORK – FSK DUCT WRAP: FLEXIBLE GLASS FIBER; ANSI/ASTM C553; COMMERCIAL GRADE; 'K' VALUE OF 0.27 AT 75 DEG F. JOHNS MANVILLE "MICROLITE XG" OR EQUAL.
- DUCTWORK – RIGID FIBER BOARD: ANSI/ASTM C612, 'K' VALUE OF 0.24 AT 75 DEG F, 3.0 LB./CU. FT. DENSITY. 0.00035 INCH FOIL SCRIM FACING. CERTAINTEED "IB BOARD" OR EQUAL.
- DUCTWORK – DUCT LINER: CLOSE CELL, CFC- AND HCFC-FREE FLEXIBLE ELASTOMERIC ACOUSTICAL INSULATION WITH SCRIM-REINFORCED ACRYLIC ADHESIVE ON ONE SIDE. ; ASTM C534 TYPE 2 (SHEET) GRADE 1, ASTM E84: 25/50 AT 2" AND BELOW; 'K' VALUE OF 0.25 AT 75 DEG F; R-4.2 AND NOISE REDUCTION COEFFICIENT (NRC) OF 0.5 AT 1" THICK; RECOMMENDED FOR -40 TO 200 DEG F TEMPERATURE APPLICATIONS; INSTALL METAL NOSING FOR AIR VELOCITIES GREATER THAN 4,000 FT./MIN., UL LISTED ADHESIVE GALVANIZED STEEL PINS. K-FLEX USA "K-FLEX DUCT LINER GRAY" OR EQUAL.
- GREASE DUCT (WITHOUT IMC 506.3.10 DUCT ENCLOSURE) – INSULATION SHALL BE 1.5 INCH THICK (MIN.), IN-ORGANIC BLANKET, ENCAPSULATED WITH A SCRIM-REINFORCED FOIL. INSULATION SHALL NOT CONTAIN ASBESTOS, AND SHALL COMPLY WITH NFPA 96. INSULATION SHALL BE INSTALLED ACCORDING TO MANUFACTURE'S INSTRUCTIONS. 3M FIRE BARRIER DUCT WRAP 15A OR EQUAL.
- VAPOR BARRIER JACKETS – KRAFT REINFORCED FOIL VAPOR BARRIER WITH SELF-SEALING ADHESIVE JOINTS.
- INTERIOR JACKETING – ONE PIECE, PVC JACKETS, PRE-MOLDED TYPE, SCHULLER ZESTON 2000, FITTING COVERS AND JACKETING MATERIAL. ALL EXPOSED PIPING BELOW 10' IN THE BOILER ROOM SHALL BE JACKETED.

IDENTIFICATION – LABEL ALL EQUIPMENT WITH HEAT RESISTANT LAMINATED PLASTIC LABELS HAVING ENGRAVED LETTERING 1/2" HIGH. IF ITEMS ARE NOT SPECIFICALLY LISTED ON THE SCHEDULES, CONSULT THE ENGINEER CONCERNING DESIGNATION TO USE. SETON ENGRAVED SETON-PLY NAMEPLATES OR EQUAL. IDENTIFY PIPING TO INDICATE CONTENTS AND FLOW DIRECTION OF EACH PIPE EXPOSED TO VIEW BY A LABELED SLEEVE (OR ADHESIVE PIPE MARKERS) IN LETTERS READABLE FROM FLOOR AT LEAST ONCE IN EACH ROOM AND AT INTERVALS OF NOT MORE THAT 20' APART AND ON EACH SIDE OF PARTITION PENETRATIONS. COLORING SCHEME IN ACCORDANCE WITH ANSI A13.1-1981, SETON OPTI-CODE OR EQUAL.

VALVES AND UNIONS ETC.

BALL VALVES – UP TO 2 INCHES: CLASS 150, BRONZE TWO PIECE BODY, FULL PORT, FORGED BRASS, CHROME PLATED BALL, TEFLON SEATS AND STUFFING BOX RING, BLOW-OUT PROOF STEM, LEVER HANDLE, SOLDER OR THREADED ENDS.

SWING CHECK VALVES – CLASS 125, BRONZE SWING DISC, SOLDER OR SCREWED ENDS.

SPRING LOADED CHECK VALVES – IRON BODY, BRONZE TRIM, STAINLESS STEEL SPRING, RENEWABLE COMPOSITION DISC, SCREWED, WAFER OR FLANGED ENDS.

DIELECTRIC CONNECTIONS: UNION WITH GALVANIZED OR PLATED STEEL THREADED END, COPPER SOLDER END, WATER IMPERVIOUS ISOLATION BARRIER.

FLANGES, UNIONS, AND COUPLINGS – 150 PSIG MALLEABLE IRON UNIONS FOR THREADED FERROUS PIPING; BRONZE UNIONS FOR COPPER PIPE, SOLDERED JOINTS.

PIPE HANGERS AND SUPPORTS – DESIGNED AND INSTALLED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE (UPC).

GAS ISOLATION VALVE – UP TO 2 INCHES: BRONZE TWO PIECE BODY, FULL PORT, FORGED BRASS, CHROME PLATED BALL, TEFLON SEATS AND STUFFING BOX RING, LEVER HANDLE THREADED ENDS, AGA LISTED.

PLUMBING

DIAPHRAGM-TYPE COMPRESSION TANKS – WELDED STEEL CONSTRUCTION, RATED FOR WORKING PRESSURE OF 125 PSIG, WITH FLEXIBLE EPDM DIAPHRAGM SEALED INTO TANK. NSF APPROVED LINER, FOR DOMESTIC WATER EXPANSION TANK, AIR-CHARGING FITTING.

PIPING

BURIED WASTE PIPING – CAST IRON PIPE: ASTM A74 SERVICE WEIGHT. FITTINGS: CAST IRON. JOINTS: HUB-AND-SPIGOT, CISPI HSN COMPRESSION TYPE WITH ASTM C564 NEOPRENE GASKETS. CAST IRON PIPE: CISPI 301, HUBLESS, SERVICE WEIGHT. FITTINGS: CAST IRON. JOINTS: NEOPRENE GASKETS AND STAINLESS STEEL CLAMP-AND-SHIELD ASSEMBLIES.

ABOVE GRADE WASTE PIPING:

CAST IRON PIPE: CISPI 301, HUBLESS, SERVICE WEIGHT. FITTINGS: CAST IRON. JOINTS: CISPI 310, NEOPRENE GASKETS AND STAINLESS STEEL CLAMP-AND-SHIELD ASSEMBLIES.

COPPER PIPE: ASTM B306, DWV. FITTINGS: ASME B16.3, CAST BRONZE, OR ASME B16.29, WROUGHT COPPER (DWV). JOINTS: ANSI/ASTM B32, SOLDER: GRADE 95TA; FLUX: ASTM B813.

ABS PIPE: ASTM D2751. FITTINGS: ABS. JOINTS: ASTM D2235, SOLVENT WELD.

PROPANE GAS PIPING, ABOVE GRADE – STEEL PIPE: ASTM A53, SCHEDULE 40 BLACK. FITTINGS: ANSI/ASME B16.3, MALLEABLE IRON, OR ASTM A234, STEEL WELDING TYPE. JOINTS: SCREWED FOR PIPE TWO INCHES AND UNDER AND IF LOW PRESSURE, OR IF MEDIUM PRESSURE AND OUTSIDE BUILDING; ANSI/AWS D1.1, WELDED, FOR PIPE OVER TWO INCHES.

DOMESTIC WATER PIPING, ABOVE GROUND – COPPER TUBING: ASTM B88, TYPE L, HARD DRAWN. FITTINGS: ASME B16.18 CAST BRONZE OR ASME B16.22 WROUGHT COPPER. JOINTS: ASTM B32, LEAD FREE SOLDER, WATER SOLUBLE FLUX OR VIEGA, PRO PRESS SYSTEM. IAPMO LISTED PEX WATER PIPING SYSTEM.

AIR CHAMBERS – 3/4" DIAMETER, 10" TALL, TYPE L COPPER WITH FACTORY SPUN CLOSED END, SIOUX CHIEF ITEM NUMBER 623-L10 OR APPROVED EQUAL.

HEATING WATER PIPING, ABOVE GROUND – COPPER TUBING: ASTM B88, TYPE L, HARD DRAWN. FITTINGS: ANSI/ASME B16.18 CAST BRONZE OF ANSI/ASME B16.22 WROUGHT COPPER. JOINTS: ASTM B32, SOLDER, GRADE 95TA OR ANSI/AWS A5.8, BCUP SILVER BRAZE; FLUX: ASTM B813.

RADIANT FLOOR HEATING – TUBING SHALL BE HIGH DENSITY CROSS-LINKED POLYETHYLENE (PEX) MANUFACTURED IN ACCORDANCE WITH ASTM F877. ALL TUBING SHALL BE FULLY CROSS-LINKED TO THE SPECIFIED STANDARD PRIOR TO SHIPMENT FROM MANUFACTURE. TUBING SHALL BE RATED FOR NOT LESS THAN 180°F WORKING TEMPERATURE AND 100 PSIG WORKING PRESSURE. TUBING SHALL HAVE A CO-EXTRUDED OXYGEN DIFFUSION BARRIER CAPABLE OF LIMITING OXYGEN DIFFUSION THROUGH THE TUBE TO NO GREATER THAT 0.10/GM3/DAY AT 104 DEG F WATER TEMPERATURE, IN ACCORDANCE WITH DIN 4726. FITTINGS, MANIFOLDS, AND CONTROL VALVES SHALL BE MANUFACTURED OF BRASS AND SHALL BE SUPPLIED BY THE TUBING MANUFACTURER AS PART OF A PROVEN CATALOGED SYSTEM. TUBE COUPLINGS EMBEDDED WITHIN THE THERMAL MASS SHALL NOT BE ALLOWED. DISTRIBUTION MANIFOLDS SHALL BE A PROVEN CATALOGED PART OF THE MANUFACTURER'S SYSTEM AND SHALL BE EQUIPPED WITH BALANCING AND ISOLATION VALVES FOR EACH CIRCUIT. MANUFACTURED BY REHAU OR APPROVED EQUAL.

PIPING SUPPORTS AND HANGERS – SIZED AND SPACED IN ACCORDANCE WITH THE UPC. INSTALLED AS PER THE MANUFACTURERS INSTRUCTIONS.

DISINFECTION OF POTABLE WATER SYSTEM – THE NEW PORTIONS OF THE DOMESTIC WATER PIPING SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 609.9 OF THE UPC.

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Anchorage, Alaska 99501
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191 E. Swanson Avenue
Wasilla, Alaska 99654
(907) 373-7503

Consultant
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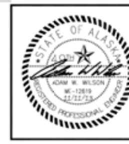
Mechanical and Electrical Consulting Engineers
2522 Arctic Boulevard, Anchorage, AK 99503, (907) 276-0521
191 Swanson Avenue, Wasilla, Alaska 99654, (907) 357-1521



HARBORSIDE PIZZA
Cordova, Alaska

Revisions

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Sheet Contents
SPECIFICATIONS

Category: M
Sheet No.: 1.03

MECHANICAL SPECIFICATIONS

HYDRONICS

DIAPHRAGM-TYPE COMPRESSION TANKS – CONSTRUCTION: WELDED STEEL, RATED FOR WORKING PRESSURE OF 125 PSIG, WITH FLEXIBLE BUTYL DIAPHRAGM SEALED INTO TANK. ACCESSORIES: PRESSURE GAUGE AND AIR-CHARGING FITTING, TANK DRAIN; PRE-CHARGE TO 12 PSIG.

AIR VENTS – MANUAL TYPE: DISK TYPE VENT WITH BUILT-IN CHECK VALVE FOR MANUAL OR AUTOMATIC OPERATION, DISCS REPLACEABLE WITHOUT DRAINING SYSTEM, 1/8 INCH SHANK, RATED AT 50 PSI; HOFFMAN NO. 500 OR APPROVED EQUAL. FLOAT TYPE: BRASS OR SEMI-STEEL BODY, COPPER FLOAT, STAINLESS STEEL VALVE AND VALVE SEAT; 1/8 INCH NPT CONNECTION TO ATMOSPHERE WITH DRAIN PIPING SUITABLE FOR SYSTEM OPERATING TEMPERATURE AND PRESSURE; WITH ISOLATING VALVE. HOFFMAN NO. 79 OR APPROVED EQUAL. HIGH CAPACITY AUTOMATIC AIR VENT: CAST IRON BODY, STAINLESS STEEL AND BRASS TRIM, EPDM DIAPHRAGM, RATED FOR 250 DEG F, 2 PSIG THROUGH 150 PSIG, 3/4 INCH SYSTEM CONNECTION, 3/8 INCH NPT CONNECTION TO ATMOSPHERE WITH DRAIN PIPING. PROVIDE WITH ISOLATION VALVE UPSTREAM OF VENT, ARMSTRONG AAE-750 OR APPROVED EQUAL.

IN-LINE CIRCULATORS – MAINTENANCE FREE, SELF-LUBRICATED, 3 SPEED INDUSTRIAL/COMMERCIAL SINGLE STAGE, DIRECT DRIVE CIRCULATOR. CASING: CAST IRON. IMPELLER: TYPE 304 STAINLESS STEEL. BEARINGS: UPPER AND LOWER RADIAL BEARINGS TO BE ALUMINUM OXIDE CERAMIC, TUNGSTEN CARBIDE SHAFT BEARING SURFACES. SHAFT: STAINLESS STEEL WITH TYPE 430F.

BALANCE VALVES – ANGLE OR STRAIGHT PATTERN, INSIDE SCREW GLOBE VALVE FOR 125 PSIG WORKING PRESSURE, WITH BRONZE BODY AND INTEGRAL UNION FOR SCREWED CONNECTIONS, RENEWABLE COMPOSITION DISC, PLASTIC WHEEL HANDLE FOR SHUT-OFF SERVICE, AND LOCKSHIELD KEY CAP FOR BALANCING SERVICE. INSTALL PER MANUFACTURER'S INSTRUCTIONS. B&G CIRCUIT SETTER OR APPROVED EQUAL.

PIZZA OVEN VENTING

THE CHIMNEY SHALL BE LISTED AND MEET THE REQUIREMENTS OF THE SIXTH EDITION OF UL-103. THE CHIMNEY INNER AND OUTER JACKETS SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL. THE INNER JACKET SHALL BE 20 GAUGE AND THE OUTER JACKET SHALL BE 22 GAUGE, MINIMUM THICKNESS. A ONE INCH SPACE BETWEEN WALLS SHALL BE INSULATED. PROVIDE CHIMNEY SUPPORT PACKAGE, DRIPLESS SMOKE PIPE ADAPTER, STORM COLLAR, HIGH TEMPERATURE SILICONE FLEXIBLE FLASHING, ROOF BRACE KIT AND ALL OTHER ACCESSORIES SHOWN ON DRAWINGS OR AS REQUIRED FOR A COMPLETE FINISHED INSTALLATION. PROVIDE UL LISTED STAINLESS STEEL RAIN CAP AT OUTLET. INSULATED DOUBLE WALL CHIMNEYS SHALL BE MODEL P1 AS MANUFACTURED BY SCHEBLER. INSTALL PER MANUFACTURER'S REQUIREMENTS INCLUDING CLEARANCES TO STRUCTURE AND INSTALL PER MANUFACTURER'S REQUIREMENTS INCLUDING CLEARANCES TO STRUCTURE AND EQUIPMENT, PROVIDE ALL EQUIPMENT AND ACCESSORIES INDICATED BY MANUFACTURER FOR A COMPLETE AND OPERABLE SYSTEM.

APPLIANCE VENTING

BOILER, WATER HEATER – THE CHIMNEY SHALL BE LISTED AND MEET THE REQUIREMENTS OF THE SIXTH EDITION OF UL-103. THE CHIMNEY INNER AND OUTER JACKETS SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL. THE INNER JACKET SHALL BE 20 GAUGE AND THE OUTER JACKET SHALL BE 22 GAUGE, MINIMUM THICKNESS. A ONE INCH SPACE BETWEEN WALLS SHALL BE INSULATED. PROVIDE CHIMNEY SUPPORT PACKAGE, DRIPLESS SMOKE PIPE ADAPTER, BAROMETRIC DAMPER, STORM COLLAR, HIGH TEMPERATURE SILICONE FLEXIBLE FLASHING, ROOF BRACE KIT AND ALL OTHER ACCESSORIES SHOWN ON DRAWINGS OR AS REQUIRED FOR A COMPLETE FINISHED INSTALLATION. PROVIDE UL LISTED STAINLESS STEEL RAIN CAP AT OUTLET. INSULATED DOUBLE WALL CHIMNEYS SHALL BE MODEL P1 AS MANUFACTURED BY SCHEBLER. INSTALL PER MANUFACTURER'S REQUIREMENTS INCLUDING CLEARANCES TO STRUCTURE AND EQUIPMENT, PROVIDE ALL EQUIPMENT AND ACCESSORIES INDICATED BY MANUFACTURER FOR A COMPLETE AND OPERABLE SYSTEM.

FUEL OIL PIPING

STEEL PIPE: ASTM A53, SCHEDULE 40 BLACK. FITTINGS: ANSI/ASTM B16.3, MALLEABLE IRON, OR ASTM A234, STEEL WELDING TYPE. JOINTS: SCREWED FOR PIPE TWO INCHES AND UNDER; ANSI/AWS D1.1, WELDED, FOR PIPE OVER TWO INCHES.

DOUBLE-WALL FLEXIBLE PRIMARY PIPING: UL971 LISTED, KYNAR PVDF OUTER JACKET, BRAIDED FIBER REINFORCEMENT. HYDROLOGICALLY STABILIZED FUEL-GRADE POLYURETHANE LAYER. KYNAR PVDF CORE LAYER (POLYVINYLIDENE FLUORIDE). PRIMARY PIPE IS TESTED FOR TYPE A & TYPE B EXTERNAL AND INTERNAL FLUIDS INSIDE AND OUT. WORKING PRESSURE: 75PSIG, 5 BAR AVERAGE, BURST PRESSURE: 600PSIG, 40 BAR, TEMPERATURE RATING: -20° TO +120°F, -29° TO +49°C, MINIMUM BEND RADIUS: 24 IN., 600 MM. OPW FLEXWORKS OR EQUAL.

DOUBLE WALL FLEXIBLE ACCESS PIPING: CRUSH AND PUNCTURE-RESISTANT FLEXIBLE CORRUGATED OUTER WALL WITH SMOOTH INNER SURFACE, RATED FOR H-20 LOADING. PRIMARY PIPE FITTINGS: PRIMARY PIPE FITTING AND COUPLINGS SHALL BE OF STAINLESS STEEL CONSTRUCTION SPECIALLY DESIGNED FOR FLEXIBILITY IN INSTALLATION OF PIPE. BRASS COUPLINGS SHALL NOT BE PERMITTED. OPW FLEXWORKS OR EQUAL.

PIPE AND CONDUIT ENTRY SEALS: PIPE AND CONDUIT ENTRY SEALS SHALL HAVE AN EXTERIOR STUDDED COMPRESSION RING ENCAPSULATED WITHIN RUBBER TO PROTECT IT FROM CORROSION. ALL STUDS SHALL BE STAINLESS STEEL AND EXPOSED ONLY ON THE INSIDE OF THE CONTAINMENT CHAMBER. OPW FLEXWORKS OR EQUAL.

FUEL OIL TANKS

ABOVE GRADE FUEL OIL STORAGE TANK – FURNISH A 550 GALLON ABOVE GROUND, HORIZONTAL, DOUBLE-WALL TYPE I, STEEL STORAGE TANK. TANK SHALL BE FABRICATED FROM MILD CARBON STEEL WITH FLAT-FLANGED HEADS. MINIMUM INNER TANK THICKNESS FABRICATED FROM MILD CARBON STEEL WITH FLAT-FLANGED HEADS. MINIMUM INNER TANK THICKNESS 12 GAUGE HEAD AND SHELL. MINIMUM OUTER TANK THICKNESS 10 GAUGE HEAD AND SHELL. ALL ITEMS INCLUDED WITH THE TANK SHALL BE COATED WITH RED PRIMER PAINT WITH WHITE URETHANE FINISH COAT. THE TANK SHALL BE MANUFACTURED IN CONFORMANCE WITH UNDERWRITERS LABORATORIES' UL-142 SPECIFICATIONS AND SO LABELED.

SEISMIC RESTRAINT

SEISMIC RESTRAINT – ALL EQUIPMENT INSTALLED UNDER THIS PROJECT SHALL BE BRACED FOR A SEISMIC EVENT AS PER ASCE 7. CONTRACTOR TO PROVIDE SEISMIC RESTRAINT CALCULATIONS AND SHOP DRAWINGS, INCLUDING STRUCTURAL ENGINEERS STAMP AND SIGNATURE TO STATE FIRE MARSHAL'S OFFICE FOR REVIEW.

INSTRUMENTATION / CONTROLS

STEM TYPE THERMOMETERS – 9 INCH SCALE, UNIVERSAL ADJUSTABLE ANGLE, RED APPEARING MERCURY, LENS FRONT TUBE, CAST ALUMINUM CASE WITH BLUEBLACK METALLIC FINISH AND CLEAR LEXAN WINDOW, EXTENDED BRASS STEM, CAST ALUMINUM ADJUSTABLE JOINT WITH POSITIVE LOCKING DEVICE, 2 PERCENT OF SCALE ACCURACY TO ASTM E77, SCALE CALIBRATED IN BOTH DEGREES F AND DEGREES C. MODEL AA5H-9 AS MANUFACTURED BY WEKSLER.

PRESSURE GAUGES – SOFT SOLDERED PHOSPHOR BRONZE BOURDON TUBE AND BRASS SOCKET. BLACK FINISH STEEL CASE, PLASTIC FACE, DUAL SCALE RANGES IN BOTH PSI AND KPA, 1/4 NPT CONNECTION, MODEL UA AS MANUFACTURED BY WEKSLER.

GAUGE COCKS – BRASS CONSTRUCTION, TEE HANDLE, 125 PSI MAXIMUM WORKING PRESSURE. MODEL A10 AS MANUFACTURED BY WEKSLER.

THERMOSTATS – PROGRAMMABLE DIGITAL, SINGLE STAGE HEATING ONLY, PROGRAMMABLE FOR 7 DAY OR 24 HOUR SCHEDULES, PROGRAMMABLE FOR 2 TO 4 TEMPERATURES PER DAY, 3 HOUR OVERRIDE, PROGRAMMING SHALL NOT BE EFFECTED BY POWER OUTAGES, 2"x4" BOX MOUNTING ADAPTER. CONTRACTOR SHALL PROVIDE INITIAL PROGRAMMING BASED ON END USER INPUT. REHAU MODEL 236457 OR APPROVED EQUAL.

THERMOSTAT GUARDS – LOCKING, CLEAR ACRYLIC, COMPLETE WITH BASE PLATE, ALL GUARDS SHALL BE KEYED ALIKE. HONEYWELL MODEL TG510A1001 OR APPROVED EQUAL.

CONTROL VALVES – SELECT VALVES TO FAIL SAFE IN THE HEATING POSITION. SELECT TWO-WAY VALVES FOR LIQUIDS TO HAVE EQUAL PERCENTAGE CHARACTERISTICS. PROVIDE VALVES WITH END SWITCH CONTACTS. SIZE VALVE OPERATORS TO CLOSE VALVES AGAINST PUMP SHUT OFF HEAD. SIZE FOR MAXIMUM 3 PSI DROP.

SEQUENCE OF OPERATION

RADIANT HEATING – WHEN ZONE THERMOSTAT CALLS FOR HEAT, A MOTORIZED VALVE SHALL OPEN AT THE MANIFOLD FOR THAT ZONE. AN END SWITCH ON THE MOTORIZED VALVE SHALL SEND A SIGNAL TO THE CONTROLLER TO START THE RADIANT SYSTEM PUMP, CP-2, AND THE INJECTION PUMP, CP-3. THE CONTROLLER SHALL ADJUST THE SPEED OF THE INJECTION PUMP BASED ON THE SUPPLY TEMPERATURE OF THE RADIANT LOOP AND THE HEATING HOT WATER SUPPLY TEMPERATURE. TEKMAR 361 CONTROLLER OR EQUAL.

KITCHEN HOOD EXHAUST – A HEAT SENSOR SHALL BE INSTALLED IN THE COOKING HOOD THAT WILL START THE KITCHEN HOOD EXHAUST FAN, EF-1, AND MAKE-UP AIR UNIT, MAU-1. A MANUAL SWITCH SHALL ALSO BE INSTALLED TO OPERATE EF-1 AND MAU-1. MAU-1 SHALL BE INTERLOCKED TO START AND STOP SIMULTANEOUSLY. A DISCHARGE AIR SENSOR SHALL BE USED TO KEEP THE MAU-1 SUPPLY AIR AT A CONSTANT TEMPERATURE OF 65° (ADJUSTABLE). OPERATE VALVE TO MAINTAIN SUPPLY-AIR SETPOINT. UPON ACTIVATION OF THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM, EF-1 AND MAU-1 SHALL SHUT-OFF IMMEDIATELY.

CP-1 – PUMP SHALL BE SET TO RUN WHEN BOILER IS ON.

B-1 – THE BOILER SHALL OPERATE WHEN OUTDOOR TEMP IS BELOW 60 DEG F (ADJUSTABLE) OR DURING ANY CALL FOR HEAT BY THE RADIANT FLOOR, CUH-1, OR MAU-1. THE BOILER SHALL OPERATE TO MAINTAIN TEMPERATURE AT 180 DEG F, +/- 5 DEG F.

CHU-1 – SHALL MAINTAIN ENTRY VESTIBULE AT 65 DEG F (ADJUSTABLE).

UH-1 – SHALL BE USED ONLY AS EMERGENCY HEAT AND SHALL BE SET TO MAINTAIN THE SPACE AT 45 DEG F (ADJUSTABLE).

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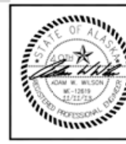

HARBORSIDE PIZZA
Cordova, Alaska

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Sheet Contents
SPECIFICATIONS (CONT)

Category: M
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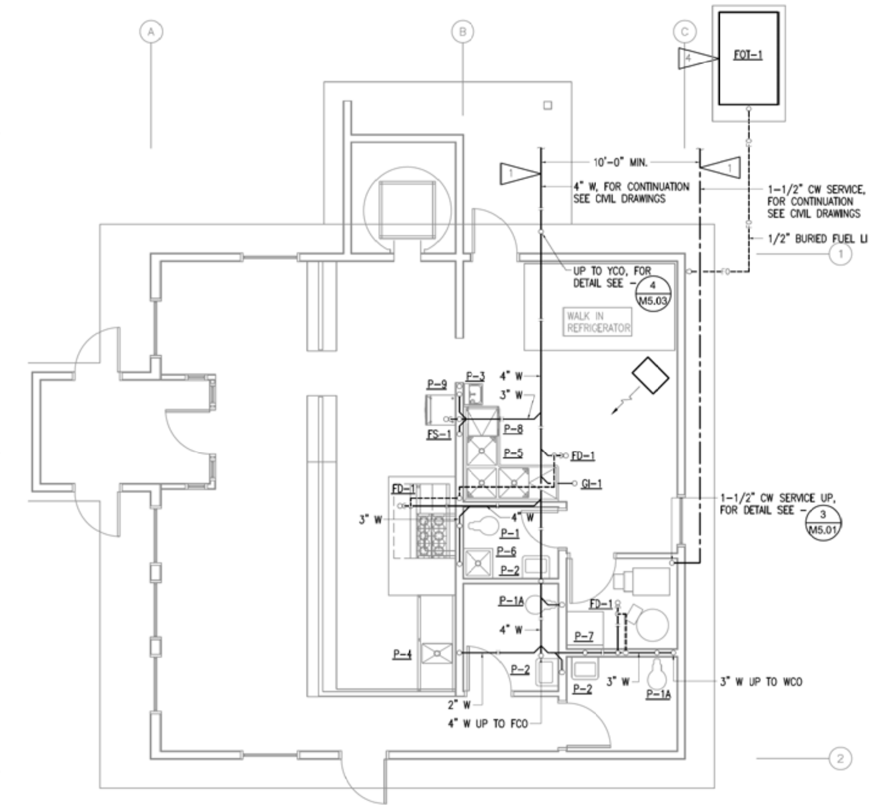
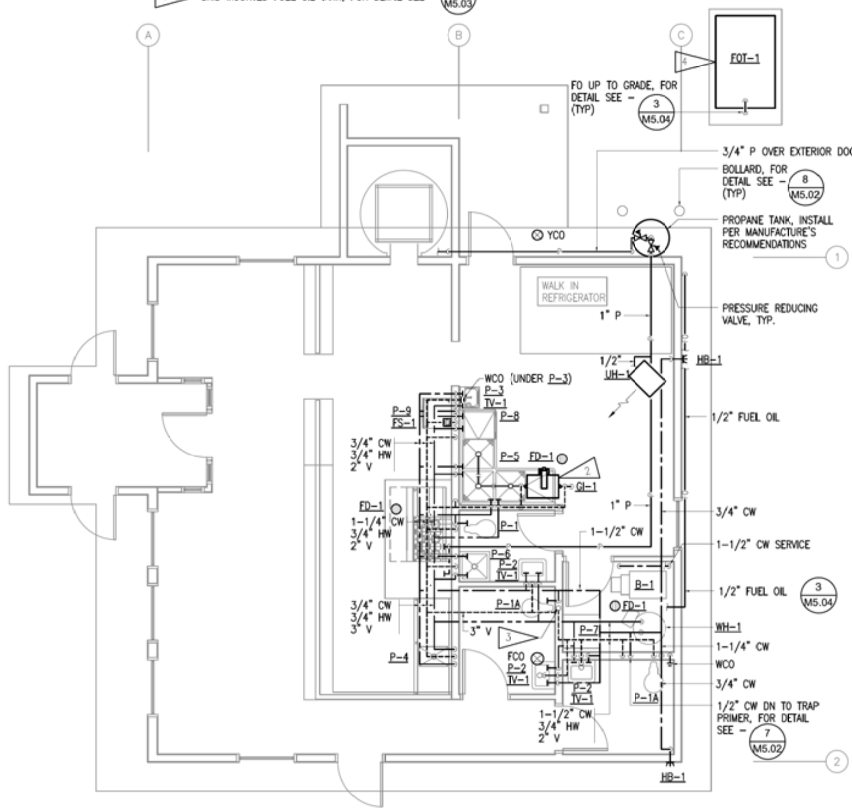
SHEET NOTES

1. APPROXIMATE LOCATION OF WASTE AND WATER SERVICE. CONTRACTOR TO VERIFY LOCATIONS AND MAKE ADJUSTMENTS TO PIPING LAYOUT AS NEEDED.
2. GREASE INTERCEPTOR INSTALLED ABOVE FLOOR, FOR DETAIL SEE – 5/M5.04
3. 3" V UP TO 4" VTR, FOR VTR DETAIL SEE – 3/M5.03
4. SKID MOUNTED FUEL OIL TANK, FOR DETAIL SEE – 1/M5.03



1 BELOW FLOOR PLUMBING PLAN
1/4" = 1'-0"



2 ABOVE FLOOR PLUMBING PLAN
1/4" = 1'-0"

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Sheet Contents: PLUMBING PLANS

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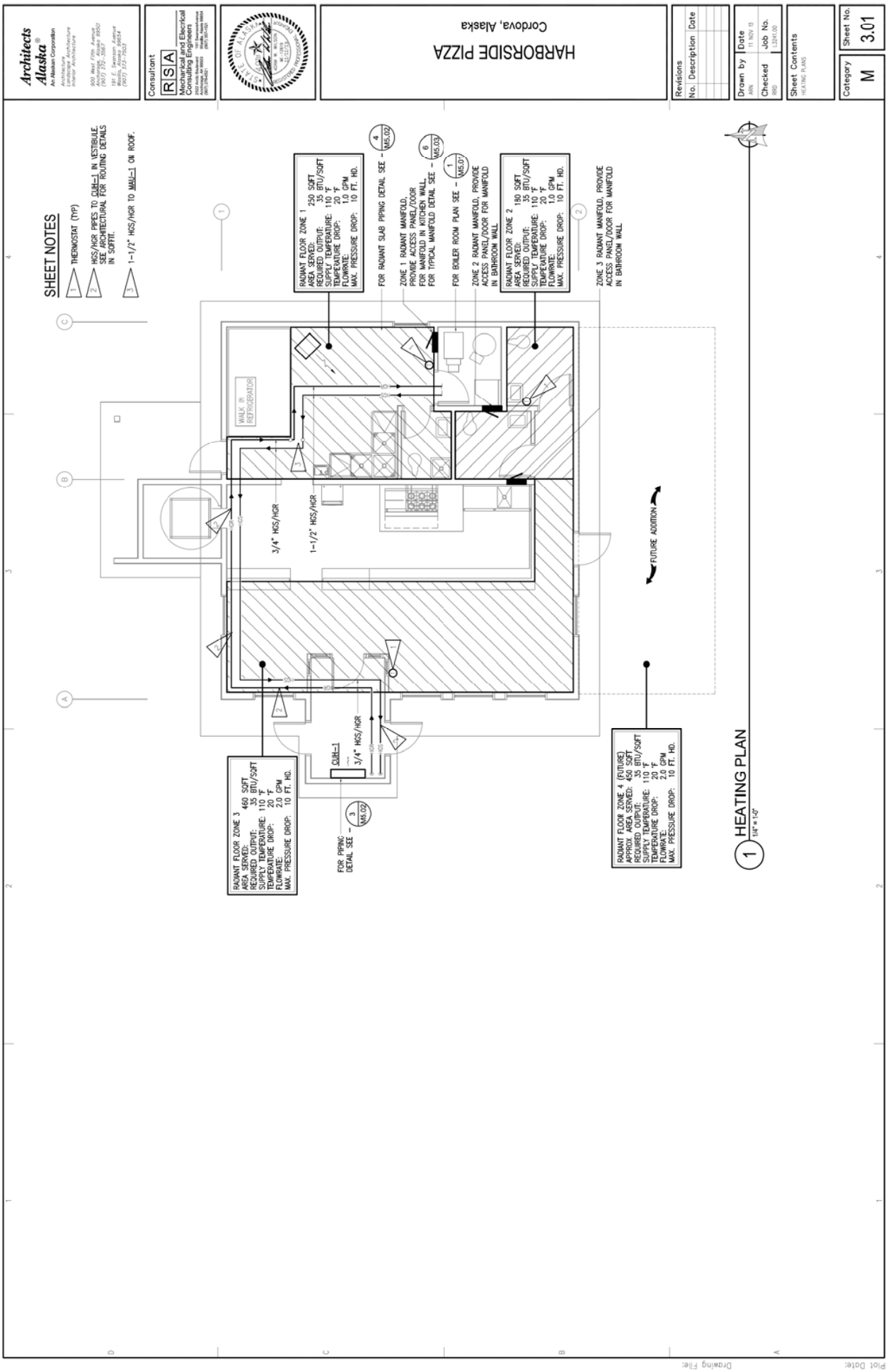
M	2.01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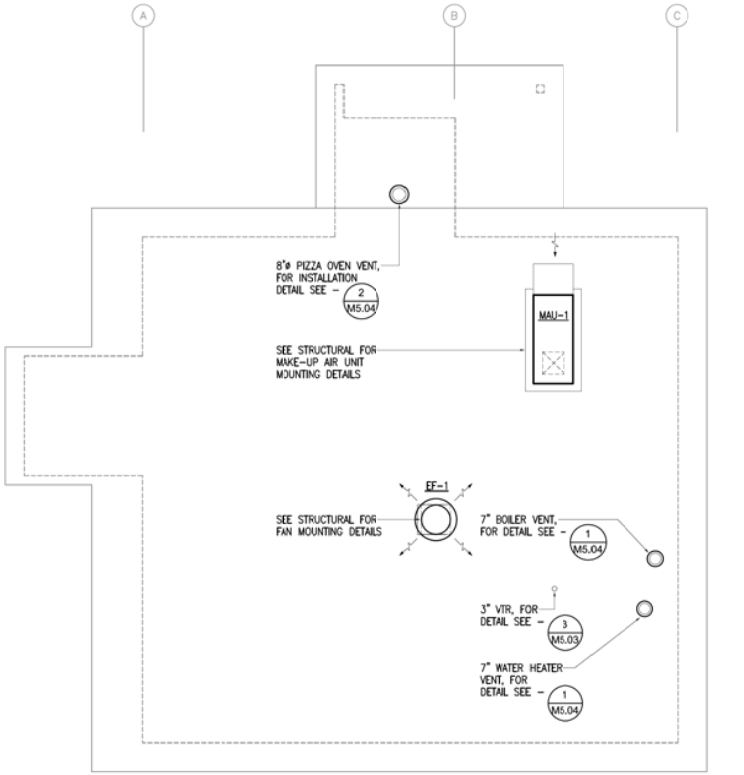
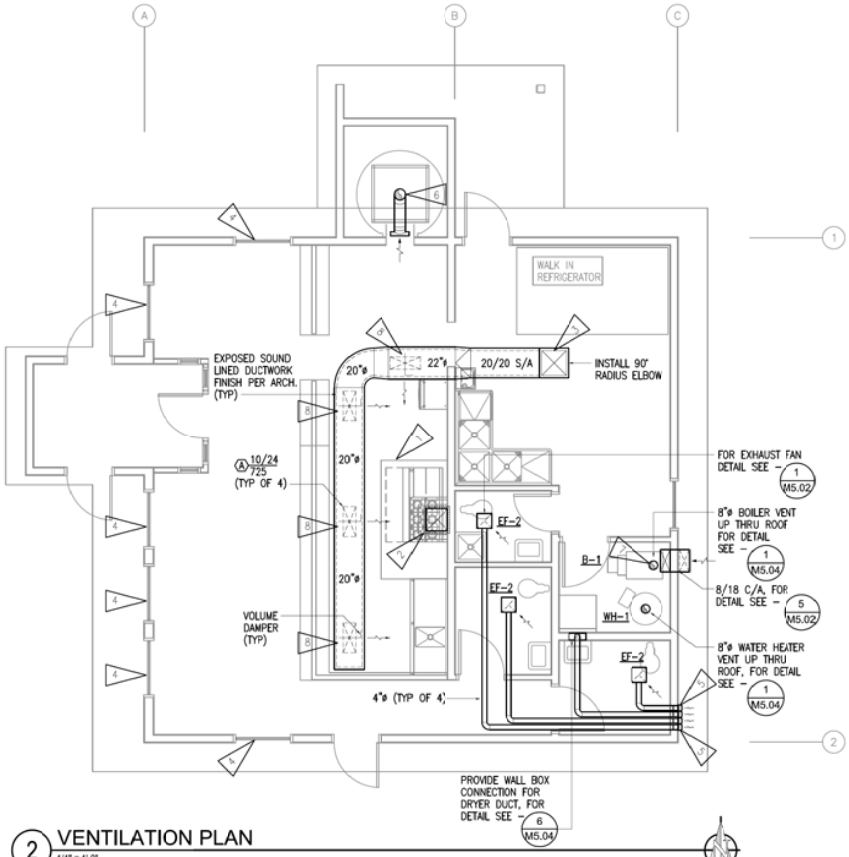
Revisions
No. Description Date
Drawn by ABN
Date 11 NOV 13
Checked RID
Job No. L3241.00
Sheet Contents
HEATING PLANS
Category M
Sheet No. 3.01
SHEET NOTES
1 THERMOSTAT (TYP)
2 HGS/HGR PIPES TO CUH-1 IN VESTIBULE. SEE ARCHITECTURAL FOR ROUTING DETAILS IN SOFFIT.
3 1-1/2" HGS/HGR TO MAU-1 ON ROOF.
RADIANT FLOOR ZONE 1
AREA SERVED: 250 SQFT
REQUIRED OUTPUT: 35 BTU/SQFT
SUPPLY TEMPERATURE: 110 °F
TEMPERATURE DROP: 20 °F
FLOWRATE: 1.0 GPM
MAX. PRESSURE DROP: 10 FT. HD.
FOR RADIANT SLAB PIPING DETAIL SEE - 4 M5.02
ZONE 1 RADIANT MANIFOLD, PROVIDE ACCESS PANEL/DOOR FOR MANIFOLD IN KITCHEN WALL FOR TYPICAL MANIFOLD DETAIL SEE - 6 M5.03
FOR BOILER ROOM PLAN SEE - 1 M5.01
ZONE 2 RADIANT MANIFOLD, PROVIDE ACCESS PANEL/DOOR FOR MANIFOLD IN BATHROOM WALL
RADIANT FLOOR ZONE 2
AREA SERVED: 180 SQFT
REQUIRED OUTPUT: 35 BTU/SQFT
SUPPLY TEMPERATURE: 110 °F
TEMPERATURE DROP: 20 °F
FLOWRATE: 1.0 GPM
MAX. PRESSURE DROP: 10 FT. HD.
ZONE 3 RADIANT MANIFOLD, PROVIDE ACCESS PANEL/DOOR FOR MANIFOLD IN BATHROOM WALL
WALK IN REFRIGERATOR
3/4" HGS/HGR
1-1/2" HGS/HGR
CUH-1
3/4" HGS/HGR
FUTURE ADDITION
RADIANT FLOOR ZONE 3
AREA SERVED: 460 SQFT
REQUIRED OUTPUT: 35 BTU/SQFT
SUPPLY TEMPERATURE: 110 °F
TEMPERATURE DROP: 20 °F
FLOWRATE: 2.0 GPM
MAX. PRESSURE DROP: 10 FT. HD.
FOR PIPING DETAIL SEE - 3 M5.02
RADIANT FLOOR ZONE 4 (FUTURE)
APPROX. AREA SERVED: 400 SQFT
REQUIRED OUTPUT: 35 BTU/SQFT
SUPPLY TEMPERATURE: 110 °F
TEMPERATURE DROP: 20 °F
FLOWRATE: 2.0 GPM
MAX. PRESSURE DROP: 10 FT. HD.
1 HEATING PLAN
1/4" = 1'-0"
Plot Date:
Drawing File:

SHEET NOTES

1. KITCHEN EXHAUST HOOD, BY OTHERS
2. 18/18 EXHAUST DUCT WITH FIRE WRAP INSULATION UP TO ROOF MOUNTED EF-1
3. 18/18 SOUND LINED SUPPLY DUCT UP TO ROOF MOUNTED MAU-1
4. OPERABLE WINDOWS SHALL PROVIDE VENTILATION PER 2009 IMC 402.2
5. EXHAUST FAN WALL CAP WITH BACKDRAFT DAMPER
6. 8"ø PIZZA OVEN VENT. FOR VENT TERMINATION DETAIL SEE – 2/M5.04
7. 8" BOILER ROOM VENT, FOR TERMINATION DETAIL SEE – 1/M5.04
8. S/A DIFFUSERS



1 ROOF PLAN
1/4" = 1'-0"



2 VENTILATION PLAN
1/4" = 1'-0"

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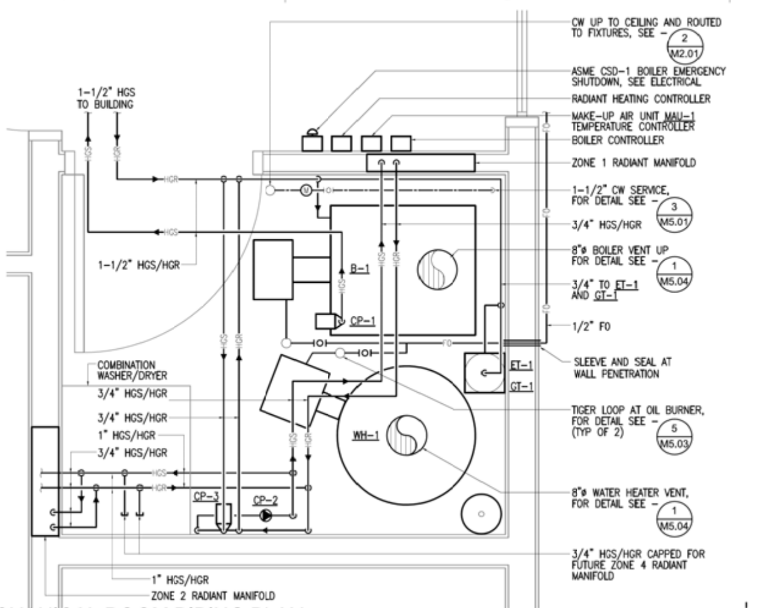
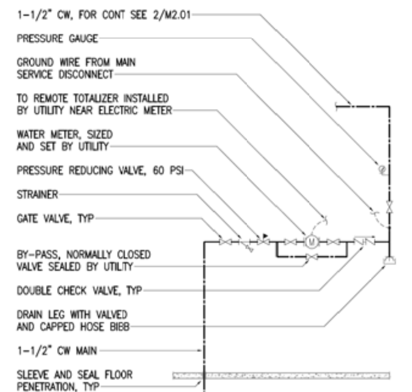
Sheet Contents
ROOF AND VENTILATION PLANS

Category	Sheet No.
M	4.01

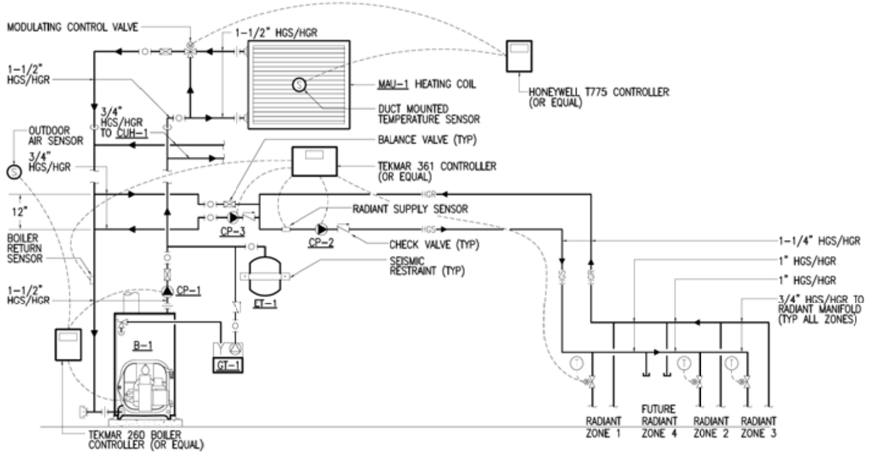
Plot Date: Drawing File:



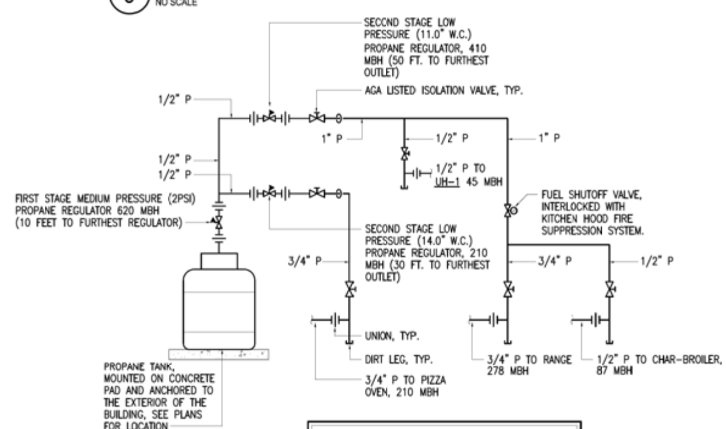
1 MECHANICAL ROOM PIPING PLAN
1" = 1'-0"



3 WATER SERVICE PIPING SCHEMATIC
NO SCALE



2 BOILER PIPING SCHEMATIC
NO SCALE



GAS PIPING SIZED PER IFGC 2009	
MEDIUM PRESSURE :	TABLE 402.4 (25)
LOW PRESSURE :	TABLE 402.4 (26)

4 PROPANE GAS PIPING SCHEMATIC
NO SCALE

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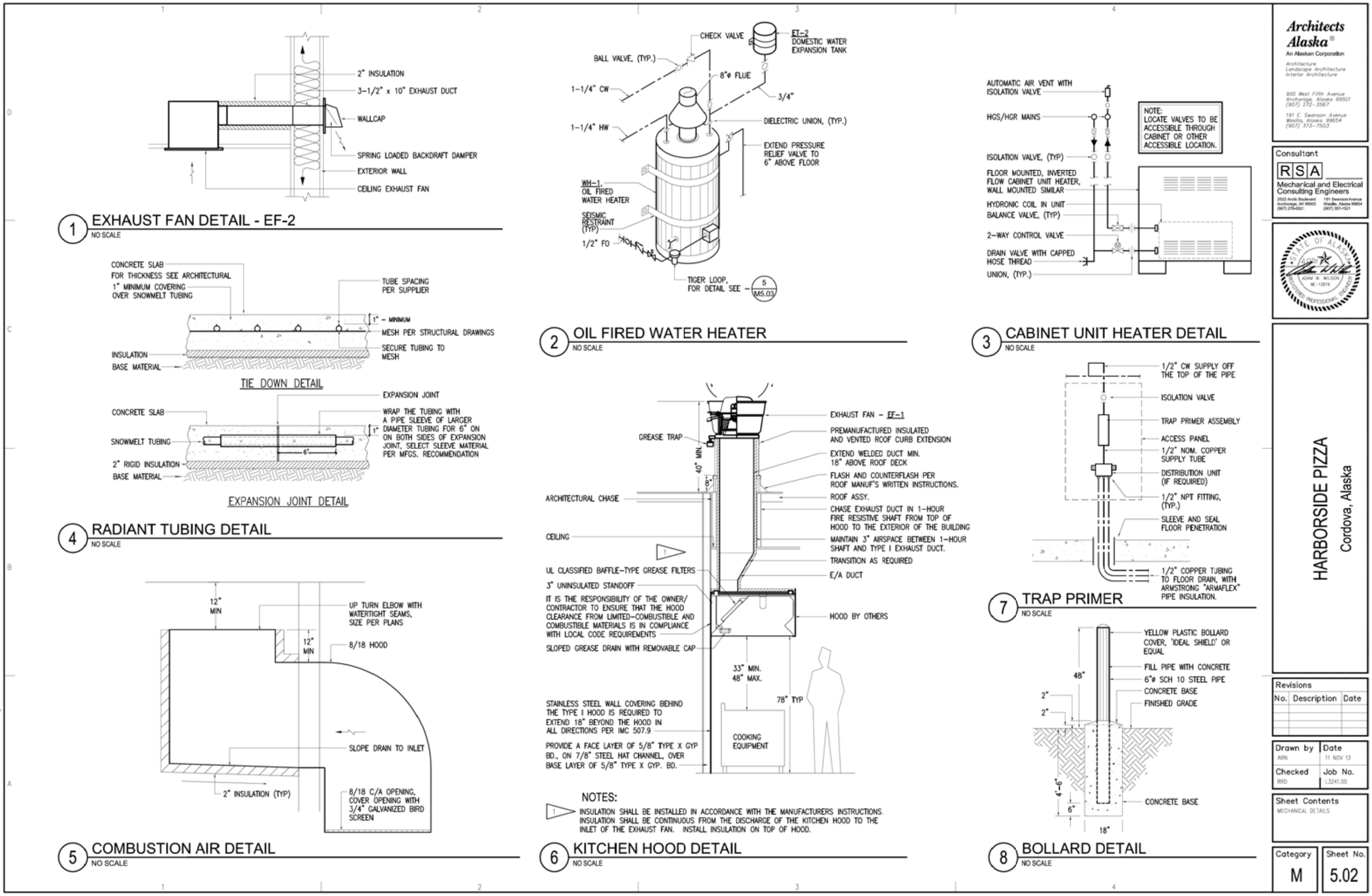
Sheet Contents
MECHANICAL ROOM PLAN AND SCHEMATICS

Category	Sheet No.
M	5.01

Plot Date:
Drawing File:


2" INSULATION
3-1/2" x 10" EXHAUST DUCT
WALLCAP
SPRING LOADED BACKDRAFT DAMPER
EXTERIOR WALL
CEILING EXHAUST FAN
1 EXHAUST FAN DETAIL - EF-2
NO SCALE
CHECK VALVE
ET-2 DOMESTIC WATER EXPANSION TANK
BALL VALVE, (TYP.)
8"ø FLUE
1-1/4" CW
3/4"
1-1/4" HW
DIELECTRIC UNION, (TYP.)
EXTEND PRESSURE RELIEF VALVE TO 6" ABOVE FLOOR
WH-1, OIL FIRED WATER HEATER
SEISMIC RESTRAINT (TYP)
1/2" FO
TIGER LOOP, FOR DETAIL SEE 5 M5.03
2 OIL FIRED WATER HEATER
NO SCALE
AUTOMATIC AIR VENT WITH ISOLATION VALVE
HGS/HGR MAINS
NOTE: LOCATE VALVES TO BE ACCESSIBLE THROUGH CABINET OR OTHER ACCESSIBLE LOCATION.
ISOLATION VALVE, (TYP)
FLOOR MOUNTED, INVERTED FLOW CABINET UNIT HEATER, WALL MOUNTED SIMILAR
HYDRONIC COIL IN UNIT
BALANCE VALVE, (TYP)
2-WAY CONTROL VALVE
DRAIN VALVE WITH CAPPED HOSE THREAD
UNION, (TYP.)
3 CABINET UNIT HEATER DETAIL
NO SCALE
CONCRETE SLAB FOR THICKNESS SEE ARCHITECTURAL
1" MINIMUM COVERING OVER SNOWMELT TUBING
TUBE SPACING PER SUPPLIER
1" - MINIMUM
MESH PER STRUCTURAL DRAWINGS
SECURE TUBING TO MESH
INSULATION
BASE MATERIAL
TIE DOWN DETAIL
EXPANSION JOINT
CONCRETE SLAB
WRAP THE TUBING WITH A PIPE SLEEVE OF LARGER DIAMETER TUBING FOR 6" ON ON BOTH SIDES OF EXPANSION JOINT, SELECT SLEEVE MATERIAL PER MFGS. RECOMMENDATION
SNOWMELT TUBING
6"
2" RIGID INSULATION
BASE MATERIAL
EXPANSION JOINT DETAIL
4 RADIANT TUBING DETAIL
NO SCALE
EXHAUST FAN - EF-1
GREASE TRAP
PREMANUFACTURED INSULATED AND VENTED ROOF CURB EXTENSION
EXTEND WELDED DUCT MIN. 18" ABOVE ROOF DECK
40" MIN.
FLASH AND COUNTERFLASH PER ROOF MANUF'S WRITTEN INSTRUCTIONS.
ARCHITECTURAL CHASE
ROOF ASSY.
CHASE EXHAUST DUCT IN 1-HOUR FIRE RESISTIVE SHAFT FROM TOP OF HOOD TO THE EXTERIOR OF THE BUILDING
CEILING
MAINTAIN 3" AIRSPACE BETWEEN 1-HOUR SHAFT AND TYPE I EXHAUST DUCT.
TRANSITION AS REQUIRED
UL CLASSIFIED BAFFLE-TYPE GREASE FILTERS
E/A DUCT
3" UNINSULATED STANDOFF
IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS
HOOD BY OTHERS
SLOPED GREASE DRAIN WITH REMOVABLE CAP
33" MIN. 48" MAX.
78" TYP
STAINLESS STEEL WALL COVERING BEHIND THE TYPE I HOOD IS REQUIRED TO EXTEND 18" BEYOND THE HOOD IN ALL DIRECTIONS PER IMC 507.9
COOKING EQUIPMENT
PROVIDE A FACE LAYER OF 5/8" TYPE X GYP BD., ON 7/8" STEEL HAT CHANNEL, OVER BASE LAYER OF 5/8" TYPE X GYP. BD.
NOTES:
1 INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. INSULATION SHALL BE CONTINUOUS FROM THE DISCHARGE OF THE KITCHEN HOOD TO THE INLET OF THE EXHAUST FAN. INSTALL INSULATION ON TOP OF HOOD.
6 KITCHEN HOOD DETAIL
NO SCALE
12" MIN
UP TURN ELBOW WITH WATERTIGHT SEAMS, SIZE PER PLANS
12" MIN
8/18 HOOD
SLOPE DRAIN TO INLET
2" INSULATION (TYP)
8/18 C/A OPENING, COVER OPENING WITH 3/4" GALVANIZED BIRD SCREEN
5 COMBUSTION AIR DETAIL
NO SCALE
1/2" CW SUPPLY OFF THE TOP OF THE PIPE
ISOLATION VALVE
TRAP PRIMER ASSEMBLY
ACCESS PANEL
1/2" NOM. COPPER SUPPLY TUBE
DISTRIBUTION UNIT (IF REQUIRED)
1/2" NPT FITTING, (TYP.)
SLEEVE AND SEAL FLOOR PENETRATION
1/2" COPPER TUBING TO FLOOR DRAIN, WITH ARMSTRONG "ARMAFLEX" PIPE INSULATION.
7 TRAP PRIMER
NO SCALE
YELLOW PLASTIC BOLLARD COVER, 'IDEAL SHIELD' OR EQUAL
FILL PIPE WITH CONCRETE
48"
6"ø SCH 10 STEEL PIPE
CONCRETE BASE
2"
FINISHED GRADE
2"
4'-6"
CONCRETE BASE
6"
18"
8 BOLLARD DETAIL
NO SCALE
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Sheet Contents MECHANICAL DETAILS
Category M
Sheet No. 5.02
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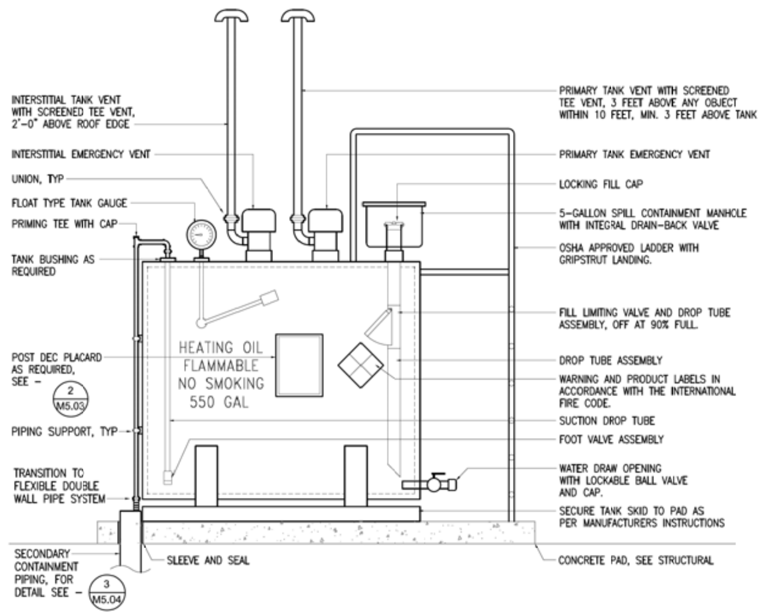
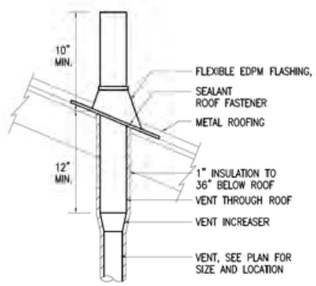


1 FUEL OIL STORAGE TANK DETAIL
NO SCALE

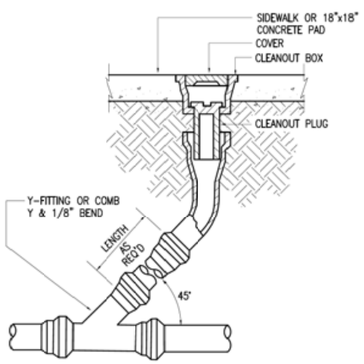
2 DEC PLACARD
NO SCALE



INCREASE VENT AS FOLLOWS:

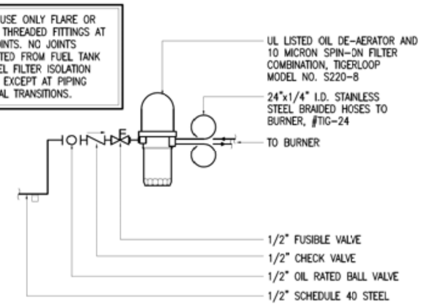
VENT	V.T.R.
1 1/2"	3" MIN.
2"	3"
2 1/2"	4"
3"	4"
4"	6"
6" & UP	SAME AS VENT

3 VENT THROUGH ROOF DETAIL
NO SCALE

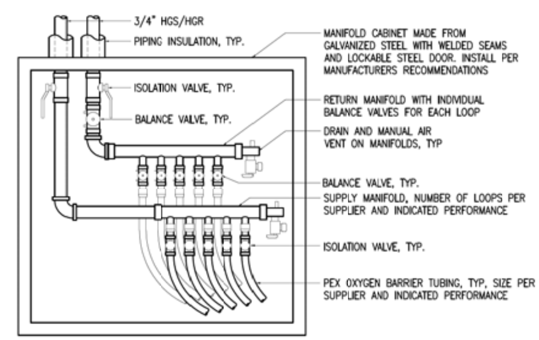


4 YARD CLEANOUT DETAIL
NO SCALE

NOTE: USE ONLY FLARE OR BRASS THREADED FITTINGS AT ALL JOINTS. NO JOINTS PERMITTED FROM FUEL TANK TO FUEL FILTER ISOLATION VALVE, EXCEPT AT PIPING MATERIAL TRANSITIONS.



5 TIGER LOOP DETAIL
NO SCALE



6 RADIANT MANIFOLD DETAIL
NO SCALE

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Sheet Contents
MECHANICAL DETAILS

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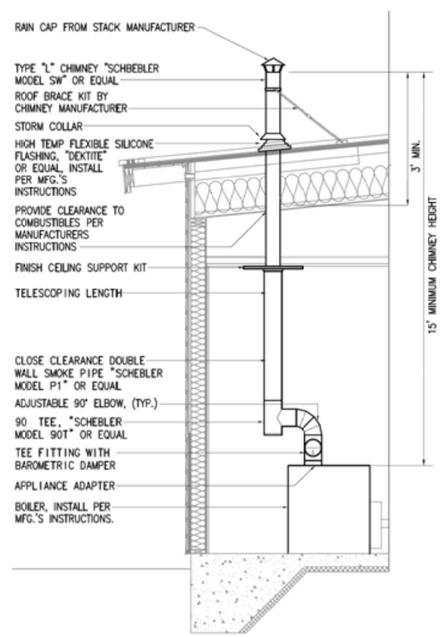
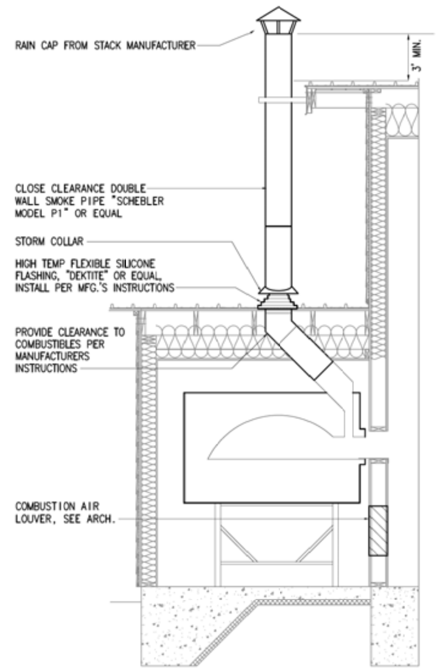
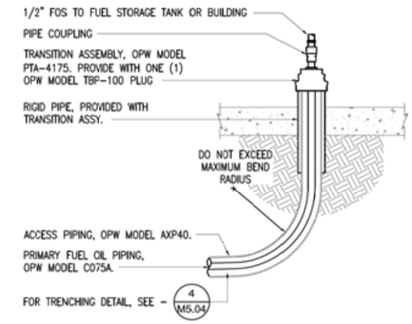


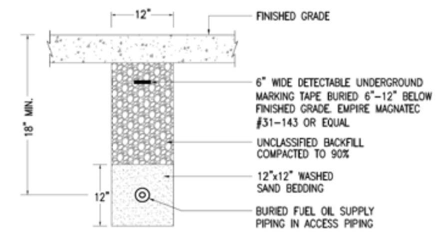
1 BOILER VENT THRU ROOF DETAIL
NO SCALE (WATER HEATER VENTING SIMILAR)



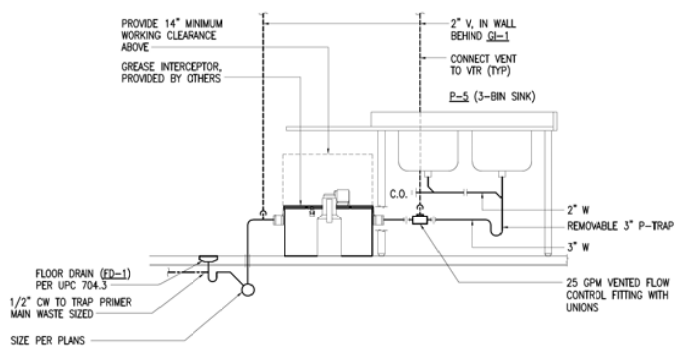
2 PIZZA OVEN VENT THRU ROOF DETAIL
NO SCALE



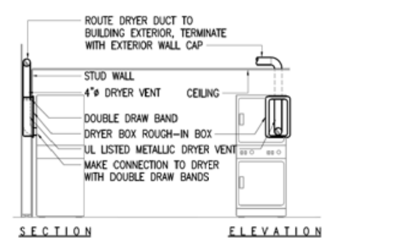
3 FUEL OIL PIPING TRANSITION DETAIL
NO SCALE



4 PIPING TRENCH DETAIL
NO SCALE



5 GREASE INTERCEPTOR PIPING SCHEMATIC
NO SCALE



NOTES:

1. DRYER ROUGH-IN BOX, GUY GRAY MODEL DB425 ALUMINIZED STEEL.
2. COORDINATE DRYER BOX ROUGH-IN WITH THE CLOTHES DRYER OUTLET.
3. ALL DRYER DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SECTION 504 OF THE IMC.
4. ALL DRYER DUCTWORK SHALL BE HARD SEALED.

6 DRYER BOX DETAIL
NO SCALE

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Sheet Contents
MECHANICAL DETAILS

Category	Sheet No.
M	5.04

LEGEND

○	LIGHT FIXTURE – SURFACE MTD ON CLG	#10 / #12	NUMBER AND SIZE OF WIRES (NO MARKS = 3 #12)
⊢○	LIGHT FIXTURE – SURFACE MTD ON WALL	A–2	HOMERUN TO PANEL (PANEL AND CIRCUIT No.)
	EMERGENCY EXIT LIGHT – SURFACE MTD CLG		PANEL
	EMERGENCY EXIT LIGHT – SURFACE MTD WALL		DUPLEX RECEPTACLE
	EMERGENCY LIGHT		DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
	EMERGENCY FIXTURE – FLUORESCENT		QUADRAPLEX RECEPTACLE
	FLUORESCENT FIXTURE – RECESS MTD		SPECIAL PURPOSE OUTLET
	FLUORESCENT FIXTURE – SURFACE MTD		TELEPHONE OUTLET
	FLUORESCENT FIXTURE – WALL MTD		JUNCTION BOX
	FLUORESCENT FIXTURE STRIP – SURFACE MTD CLG	1	NOTE TAG (No. INDICATES NOTE)
A	FIXTURE TAG (LETTER INDICATES TYPE)	C	CONDUIT
	PHOTOCELL	CF	COMPACT FLUORESCENT
	PUSHBUTTON	CO	CONDUIT ONLY
	MOTOR (SIZED AS NOTED)	E	DENOTES EXISTING ITEM
	DISCONNECT SWITCH	EM	DENOTES EMERGENCY POWER
	DISCONNECT SWITCH (FUSED)	GRSC	GALVANIZED RIGID STEEL CONDUIT
	COMBINATION DISCONNECT/MAGNETIC MOTOR STARTER	HPS	HIGH PRESSURE SODIUM
$_F$	FRACTIONAL HORSEPOWER MOTOR STARTER	MH	METAL HALIDE
$	SINGLE POLE SWITCH	NL	NIGHTLIGHT
$$_3$	THREE WAY SWITCH	QZ	HALOGEN
$$_P$	PILOT LIGHT SWITCH	UON	UNLESS OTHERWISE NOTED
	CONDUIT, CONCEALED	WP	WEATHERPROOF

LIGHT FIXTURE SCHEDULE

TYPE	LOCATION	MANUFACTURER AND CATALOG NUMBER (OR APPROVED EQUAL)	LUMINAIRE DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	LAMPS NO.	LAMPS WATTS	BALLAST NO.	BALLAST TYPE	INPUT WATTS
A	AS SHOWN	METALUX #WS-432-ER82	WIDE BODY SURFACE MOUNTED WRAP AROUND, STEEL HOUSING WITH WHITE POLYESTER POWDER ENAMEL FINISH, PRISMATIC ACRYLIC LENS, DAMP LISTED, AND UNIVERSAL VOLTAGE ELECTRONIC BALLAST.	PENDANT	+10'-0" AFF	4	32 T8	4	UNIVERSAL VOLTAGE ELECT. PROGRAM START BALLAST.	120
B	RESTROOMS	METALUX #SNU-232-UNV-ER81	WALL BRACKET WITH UPLIGHT, BRUSHED ALUMINUM HOUSING, WHITE POLYESTER POWDER ENAMEL FINISH, ACRYLIC DIFFUSER, DAMP LOCATION LISTED AND UNIVERSAL VOLTAGE ELECTRONIC BALLAST.	WALL	ABOVE MIRROR	2	32 T8	1	UNIVERSAL VOLTAGE ELECT. PROGRAM START BALLAST	60
C	DINING	BRUCK #220-941-MC-MP2	PENDANT MOUNT LOW VOLTAGE FIXTURE WITH OPAL GLASS SHADE, AND MATTE CHROME FINISH. AND PROVIDE 2" SURFACE MOUNTED CANOPY WITH 50W, 120V TRANSFORMER, FELD CUT CABLE.	PENDANT	+7'-0" AFF	1	50 MR16	1	50VA, 120V TRANSFORMER	50
D	DINING	METALUX #DT-432-D-R	RESIDENTIAL SURFACE MOUNTED DECORATIVE FIXTURE WITH SOLID WOOD TRIMS, OPAL WHITE ACRYLIC DIFFUSER, BAKED WHITE ENAMEL FINISH, AND ELECTRONIC BALLAST.	SURFACE	CEILING	2	32 T8	1	120V ELECTRONIC INSTANT START BALLAST	60
E	EXTERIOR	SHAPER #694-16-WF-MH/1/50-120V-ALP	EXTERIOR WALL MOUNTED CLASSIC QUARTER DOWNLIGHT, WHITE ACRYLIC DIFFUSER, AND ALUMININ POLYESTER POWDER PAINT FINISH.	WALL	+7'-0" AFF	1	50 MH	1	120V ELECTRONIC BALLAST	67
F	PREP CLEANING	METALUX #2GC8-432A-UNV-ER82	RECESSED 2'x4' LENSED TROFFER, WITH BAKED WHITE ENAMEL FINISH, AND ACRYLIC PRISMATIC LENS.	RECESSED	CEILING	4	32 T8	2	UNIVERSAL VOLTAGE ELECT. PROGRAM START BALLAST	120
G	VESTIBULE	SHAPER #449-EL-24-CFL/4/26-120V-MW-15AC-48	PENDANT MOUNTED FIXTURE, ELLIPTICAL ACRYLIC BOWL WITH MATTE WHITE TRIM, 48" SINGLE STEM AIRCRAFT CABLE PENDANT.	PENDANT	+7'-0" AFF	4	26 DTT	N/A	INTEGRAL MULTI-VOLT ELECTRONIC BALLAST	108
H	BOILER ROOM	METALUX #SNF-232-UNV-ER81-WG/SNF-4FT	STANDARD 4' STRIP FIXTURE WITH BAKED WHITE ENAMEL FINISH, AND WIRE GUARD.	SURFACE	CEILING	2	32 T8	1	UNIVERSAL VOLTAGE ELECT. PROGRAM START BALLAST	60
X	AS SHOWN	LITHONIA #LHQM-LED-R-HORO	WHITE THERMOPLASTIC, EXIT SIGN WITH RED LED STENCILED LETTERS, SLF-DIAGNOSTIC CIRCUITRY, UNIVERSAL MOUNTING, HIGH-OUTPUT NI-CAD MAINTENANCE FREE BATTERY AND LESS LAMPS.	WALL	ABOVE DOOR	N/A	4.3 LED	1	DUAL VOLTAGE INPUT ELECTRONIC DRIVER	4.3
X1	EXTERIOR	LITHONIA #ELA-T-QWF-L0309-SD	WEATHERPROOF TWIN HEAD REMOTE EMERGENCY FIXTURE WITH GRAY FINISHED CAST ALUMINUM HOUSING, AND RATED FOR 9.6V.	WALL	ABOVE DOOR	2	1.5 LED	N/A	N/A	N/A
X2	AS SHOWN	LITHONIA #ELM2-LED-SD	WHITE THERMOPLASTIC EMERGENCY LIGHTING UNIT, WITH (2) FULLY ADJUSTABLE LAMPS, AND SELF-DIAGNOSTIC CIRCUITRY.	WALL	+7'-0" AFF	2	1.5 LED	N/A	DUAL VOLTAGE INPUT	1.44

PANEL 'A'

MFR/MODEL: SQUARE 'D' TYPE NQ | VOLTS: 120/240V,1PH,3W | ENCLOSURE: NEMA 1 | 200 A

TYPE: PANELBOARD | VOLT-AMPS | MTG: SURFACE

NOTE	CIRC	POLE	AMPS	SERVICE	TYPE	A	B	TYPE	SERVICE	AMPS	POLE	CIRC	NOTE
	1	1	20	KIT. DINING, EXT - RECP	RECP	1,080 402		LTG	EXTERIOR LIGHTS	20	1	2	
	3	1	20	PREP AREA, ROOF - RECP	RECP	360 792		LTG	KIT. DINING - LTG	20	1	4	
	5	1	20	OFFICE, BOILER, UH-1 - RECP	RECP	900 622		LTG	DINING, VEST - LTG	20	1	6	
	7	1	20	RESTROOMS - RECP	RECP	540 900		LTG	PREP AREA, BOILER, RESTROOMS - LTG	20	1	8	
	9	1	15	CUH-1 (VEST)	MOTR	100 6,000		MISC	WASHER/DRYER	70	2	10	
	11	1	15	REF. PIZZA PREP	SPEC	948 6,000		MISC	**	70	2	12	
	13	1	20	CASHIER(POS) - RECP	RECP	180 89		MOTR	CP-3	15	1	14	
	15	1	15	WORK TOP FREEZER	SPEC	1,140 528		MOTR	CP-2	15	1	16	
	17	1	20	WALK-IN LIGHTING AND DOOR HEATER	LTG	600 696		MOTR	B-1	15	1	18	
	19	1	15	EXHAUST HOOD	MOTR	420 230		MISC	WH-1	15	1	20	
	21	1	25	ICE MACHINE	MOTR	1,530 100		SPEC	PIZZA OVEN	15	1	22	
	23	1	15	DISPLAY CASE	MISC	900 1,440		MOTR	MUA	25	2	24	
	25	2	50	DISHWASHER	SPEC	4,550 1,440		MOTR	**	25	2	26	
	27	2	50	**	SPEC	4,560 1,650		MOTR	EF-1	25	1	28	
	29	1	20	SODA FOUNTAINE	RECP	1,800			SPARE	20	1	30	
	31	2	15	WALK-IN COOLER	MOTR	828 828		MOTR	CP-1	15	2	32	
	33	2	15	**	MOTR	828 828		MOTR	**	15	2	34	
	35	2	40	60 QUART MIXER	MOTR	2,160			SPACE	-	1	36	
	37	2	40	**	MOTR	2,160			SPACE	-	1	38	
	39	2	30	WALK-IN FREEZER	MOTR	1,812			SPACE	-	1	40	
	41	2	30	**	MOTR	1,812			SPACE	-	1	42	
				TOTAL V-A		25,823	26,036			51,659	VA		
				TOTAL AMPS		214	217			215	A		
				A.I.C. RATING 10,000									

PANEL NOTES:

PANEL OPTIONS:
MAIN LUGS ONLY

ELECTRICAL LOAD CALCULATION

PROJECT: CORDOVA PIZZA
DATE: 11/12/2013

COMPUTED LOAD (NEC 220.12)
BULDING AREA 1,841 Sq. Ft

LIGHTING LOAD

GENERAL LIGHTING FIRST FLOOR (CONNECTED)	3,316 VA
GENERAL LIGHTING FIRST FLOOR (AT 3 VA/SF)	4,041 VA
GREATER OF THE TWO LOADS ABOVE	4,041 VA
EXTERIOR LIGHTING	1,092 VA
TOTAL CONTINUOUS LOAD	5,133 VA
SUBTOTAL LIGHTING LOAD AT 125%	6,416 VA

NONCONTINUOUS MOTOR AND EQUIPMENT LOADS

MUA UNIT	2,880 VA
WASHER/DRYER	12,000 VA
CASHIER	180 VA
CP-1	1,656 VA
CP-2	528 VA
CP-3	89 VA
WATER HEATER WH-1	230 VA
RANGE HOOD	420 VA
B-1	696 VA
EF-1	1,656 VA
CUH-1	100 VA
EXHAUST FANS EF-2	174 VA
BURNERS	696 VA
CHARBROILER	696 VA
PIZZA OVEN	100 VA
UNIT HEATER UH-1	47 VA
25% LARGEST MOTOR	720 VA
	22,880 VA

KITCHEN LOADS

REF. PIZZA PREP	948 VA	
DISPLAY CASE	900 VA	
60 QT. MIXER	2,320 VA	
WALK-IN COOLER	2,320 VA	
WALK-IN FREEZER	2,424 VA	
WORK TOP FREEZER	1,140 VA	
ICE MACHINE	1,920 VA	
SODA FOUNTAINE	1,800 VA	
DISHWASHER	4,800 VA	
TOTAL	21,072 VA	
KITCHEN EQUIPMENT DEMAND FACTOR (NEC 220.56) OVER 6 AT 65%		13,697 VA

RECEPTACLE LOAD (NEC TABLE 220.44)
RECEPS AT 180VA: 13 2,340 VA
2,340 @ 100%
0 @ 50%
2,340 VA

NET COMPUTED DEMAND LOAD: 45,321 VA

MINIMUM FEEDER/SERVICE SIZE FOR 120/240 V, SINGLE PHASE SERVICE:

45,321 VA / 240V = 188.8 A

Architects Alaska®
An Alaskan Corporation
Architecture
Landscape Architecture
Interior Architecture
900 West Fifth Avenue
Anchorage, Alaska 99501
(907) 272-3567
191 E. Swanson Avenue
Wasilla, Alaska 99654
(907) 373-7503

Consultant
RSA
Mechanical and Elecrical Consulting Engineers
2522 Arctic Boulevard
Anchorage, AK 99503
(907) 276-0521
191 Swanson Avenue
Wasilla, Alaska 99654
(907) 357-1521

STATE OF ALASKA — TIMOTHY C. HALL — 12-1-13 — REGISTERED PROFESSIONAL ENGINEER

HARBORSIDE PIZZA
Cordova, Alaska

Revisions

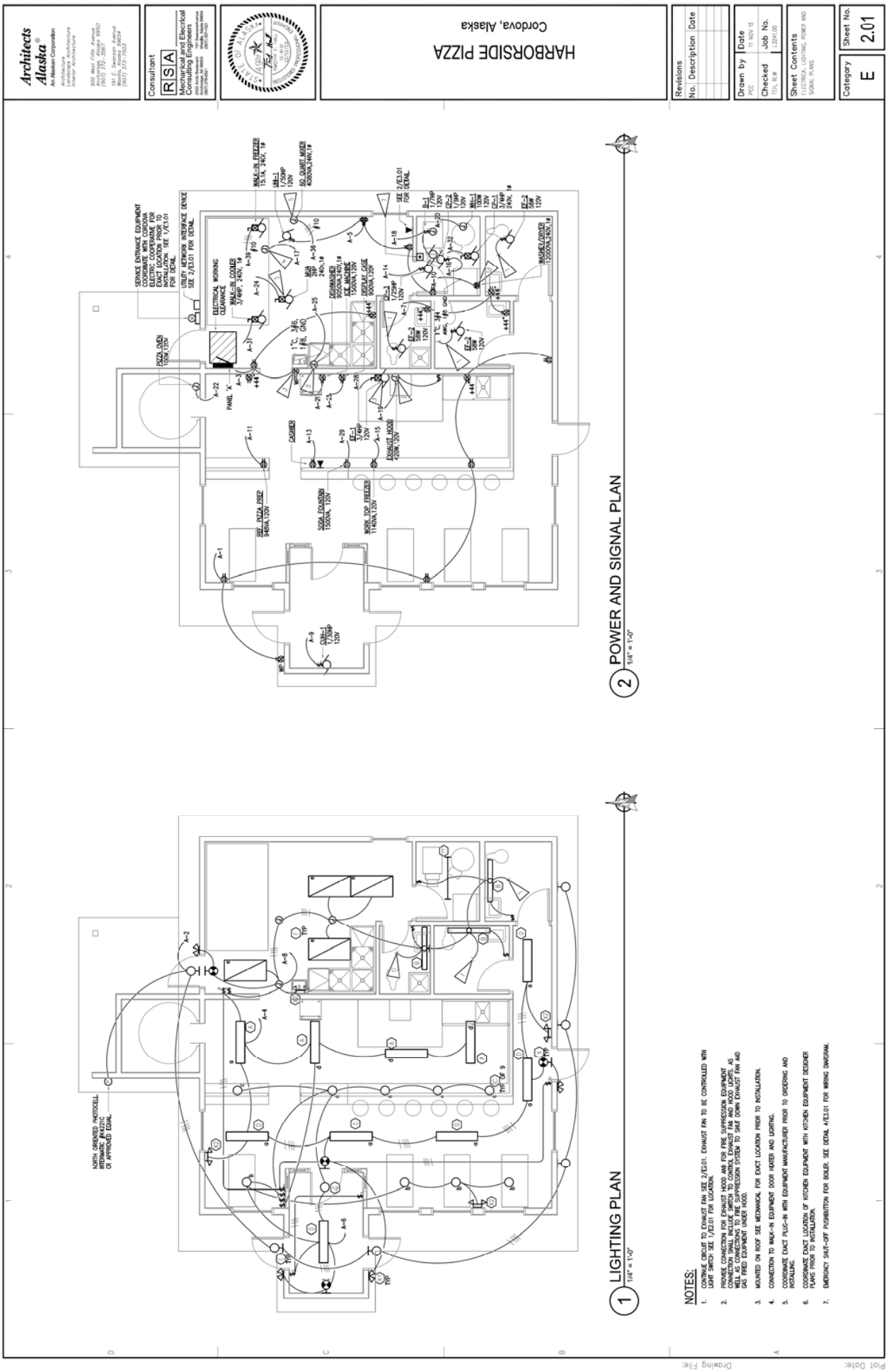
No.	Description	Date

Drawn by	Date
PCC	11 NOV 13
Checked	Job No.
TDH, RLW	L3241.00

Sheet Contents
ELECTRICAL LEGEND, PANEL SCHEDULE, FIXTURE SCHEDULE AND LOAD CALCULATIONS

Category	Sheet No.
E	1.01

Plot Date: Drawing File: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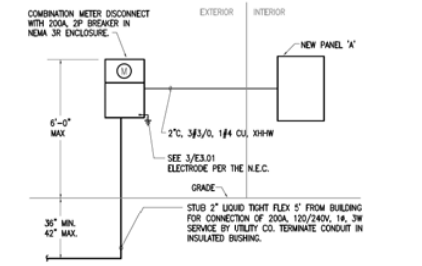
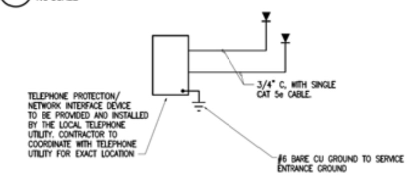
An Alaskan Corporation
Consultant
RSA
Mechanical and Electrical Consulting Engineers
HARBORSIDE PIZZA
Cordova, Alaska
Revisions
No. Description Date
Drawn by Date
PCC 11 NOV 13
Checked Job No.
TDI, RLW L3241.00
Sheet Contents
ELECTRICAL LIGHTING, POWER AND SIGNAL PLANS
Category
E
Sheet No.
2.01
1 LIGHTING PLAN
1/4" = 1'-0"
2 POWER AND SIGNAL PLAN
1/4" = 1'-0"
NOTES:
1. CONTINUE CIRCUIT TO EXHAUST FAN SEE 2/EG.01. EXHAUST FAN TO BE CONTROLLED WITH LIGHT SWITCH SEE 1/EZ.01 FOR LOCATION.
2. PROVIDE CONNECTION FOR EXHAUST HOOD AHU FOR FIRE SUPPRESSION EQUIPMENT CONNECTION SHALL INCLUDE SWITCH TO CONTROL EXHAUST FAN AND HOOD LIGHTS. AS WELL AS CONTACTS TO SHUNT TRIP THE SUPPRESSION SYSTEM TO SHUT DOWN EXHAUST FAN AND GAS FIRED EQUIPMENT UNDER HOOD.
3. MOUNTED ON ROOF SEE MECHANICAL FOR EXACT LOCATION PRIOR TO INSTALLATION.
4. CONNECTION TO WALK-IN EQUIPMENT DOOR HEATER AND LIGHTING.
5. COORDINATE EXACT PLUG-IN WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING AND INSTALLING.
6. COORDINATE EXACT LOCATION OF KITCHEN EQUIPMENT WITH KITCHEN EQUIPMENT DESIGNER PLANS PRIOR TO INSTALLATION.
7. EMERGENCY SHUT-OFF PUSHBUTTON FOR BOILER. SEE DETAIL 4/E3.01 FOR WIRING DIAGRAM.



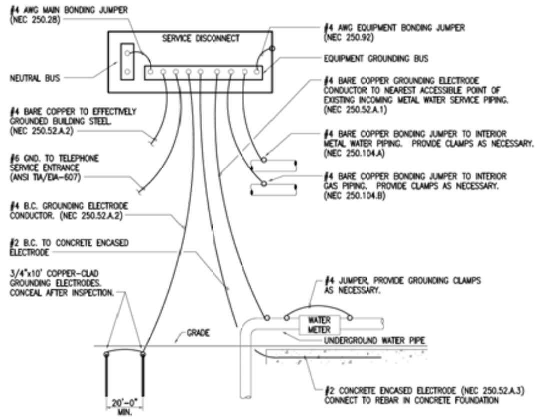
1 POWER ONE-LINE DIAGRAM
NO SCALE



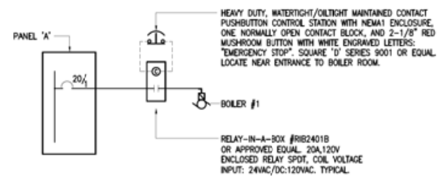
DETAIL NOTES:

1. SEE 2/E2.01 FOR TELEPHONE OUTLET LOCATIONS

2 TELEPHONE DETAIL
NO SCALE



3 GROUNDING DETAIL
NO SCALE



4 BOILER SHUTDOWN WIRING DIAGRAM
NO SCALE

ELECTRICAL SPECIFICATION

SCOPE OF WORK – FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT FOR A COMPLETE AND WORKABLE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.

STANDARDS, CODES AND REGULATIONS – COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING CODE, AND INTERNATIONAL FIRE CODE INCLUDING ALL STATE AND LOCAL AMENDMENTS TO THESE CODES.

DRAWINGS – THE DRAWINGS ARE DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. UNLESS SPECIFICALLY DIMENSIONED. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION. BRING QUESTIONABLE OR OBSCURE ITEMS, APPARENT CONFLICTS BETWEEN PLANS AND SPECIFICATIONS, GOVERNING CODES OR UTILITIES REGULATIONS TO THE ATTENTION OF THE ARCHITECT. CODES, ORDINANCES, REGULATIONS, MANUFACTURER'S INSTRUCTIONS OR STANDARDS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS.

RECORD DRAWINGS – MARK UP A CLEAN SET OF DRAWINGS AS THE WORK PROGRESSES TO SHOW THE DIMENSIONED LOCATION AND ROUTING OF ALL ELECTRICAL WORK WHICH WILL BECOME PERMANENTLY CONCEALED. SHOW ROUTING OF WORK IN PERMANENTLY CONCEALED BLIND SPACES WITHIN THE BUILDING. SHOW COMPLETE ROUTING AND SIZING OF ANY SIGNIFICANT REVISIONS TO THE SYSTEMS SHOWN.

WORKMANSHIP – INSTALLATION OF ALL WORK SHALL BE MADE SO THAT ITS SEVERAL COMPONENT PARTS SHALL FUNCTION AS A WORKABLE SYSTEM COMPLETE WITH ALL ACCESSORIES NECESSARY FOR ITS OPERATION. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS AND/OR INSTALLATION DRAWINGS AND IN ACCORDANCE WITH NECA STANDARDS. MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM WITH APPLICABLE INDUSTRY STANDARDS, NEMA STANDARDS AND UNDERWRITERS LABORATORIES STANDARDS WHERE APPLICABLE.

SUBMITTALS – PROVIDE MATERIAL AND EQUIPMENT SUBMITTALS CONTAINING A COMPLETE LISTING OF MATERIAL AND EQUIPMENT SHOWN ON THE DRAWINGS. INCLUDE CATALOG NUMBERS, WIRING DIAGRAMS, ROUGH-IN DIMENSIONS AND PERFORMANCE DATA FOR ALL MATERIAL AND EQUIPMENT. SUBMITTALS SHALL BE BOUND IN HARD COVER, LOOSE-LEAF BINDERS SEPARATE FROM WORK FURNISHED UNDER OTHER DIVISIONS. INDEX AND CLEARLY IDENTIFY ALL MATERIAL AND EQUIPMENT BY ITEM, NAME OR DESIGNATION USED ON THE DRAWINGS. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND ARRANGEMENT ONLY AND DOES NOT RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SUBMITTALS ARE NOT CHECKED FOR QUANTITY, DIMENSION, OR FOR PROPER OPERATION. WHERE DEVIATIONS OF A SUBSTITUTE PRODUCT OR SYSTEM PERFORMANCE HAVE NOT BEEN SPECIFICALLY NOTED IN THE SUBMITTAL BY THE CONTRACTOR, PROVISIONS OF A COMPLETE AND SATISFACTORY WORKING INSTALLATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

OPERATION AND MAINTENANCE MANUALS – PROVIDE OPERATION AND MAINTENANCE MANUALS FOR TRAINING OF THE OWNER'S PERSONNEL. DESCRIBE THE PROCEDURES NECESSARY TO OPERATE THE SYSTEM INCLUDING START-UP, OPERATION, EMERGENCY OPERATION AND SHUTDOWN. PROVIDE INSTRUCTIONS AND A SCHEDULE OF PREVENTIVE MAINTENANCE IN TABULAR FROM FOR ALL ROUTINE CLEANING, INSPECTION AND LUBRICATION WITH RECOMMENDED LUBRICANTS. PROVIDE INSTRUCTIONS FOR MINOR REPAIR OR ADJUSTMENTS REQUIRED FOR PREVENTIVE MAINTENANCE ROUTINES. PROVIDE MANUFACTURER'S DESCRIPTIVE LITERATURE INCLUDING APPROVED SHOP DRAWINGS COVERING DEVICES USED IN ANY CONTRACTOR-PROVIDED EQUIPMENT OR SYSTEMS WITH ILLUSTRATION, EXPLODED VIEWS, ETC.

WARRANTY – THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM BENEFICIAL OCCUPANCY. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.

PERMITS – SECURE AND PAY FOR ALL FEES, PERMITS, ETC. REQUIRED BY LOCAL AND STATE AGENCIES AND ALL LOCAL UTILITY COMPANIES. COSTS OF LINE EXTENSIONS TO THE METER ARE TO BE PAID BY THE OWNER.

REFERENCE SYMBOLS – THE ELECTRICAL "LEGEND" ON THE DRAWINGS IS A STANDARDIZED VERSION, AND ALL SYMBOLS SHOWN MAY NOT BE USED. USE THE "LEGEND" AS A REFERENCE FOR THE SYMBOLS USED ON THE DRAWINGS.

IDENTIFICATION – PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC NAMEPLATES WITH WHITE LETTERS ON A BLACK BACKGROUND TO IDENTIFY ALL ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT, LOADS SERVED AND AS NOTED ON THE DRAWINGS. LETTER HEIGHTS SHALL BE 1/8 INCH FOR INDIVIDUAL SWITCHES, MOTOR STARTERS AND LOADS SERVED AND 1/4 INCH ON PANELBOARDS. SECURE NAMEPLATES TO EQUIPMENT FRONTS USING SCREWS, OR RIVETS. THE USE OF ADHESIVES IS ACCEPTABLE.

CONDUITS: MARK ALL CONDUITS ENTERING OR LEAVING PANELBOARDS WITH INDELIBLE BLACK MAGIC MARKER WITH THE CIRCUIT NUMBERS OF THE CIRCUITS CONTAINED INSIDE.

JUNCTION BOXES: MARK ALL CIRCUIT NUMBERS OF WIRING ON ALL JUNCTION BOXES WITH SHEET STEEL COVERS. MARK WITH INDELIBLE BLACK MARKER. ON EXPOSED JUNCTION BOXES IN PUBLIC AREAS, MARK ON INSIDE OF COVER. MARK ALL OTHER SPECIAL SYSTEM JUNCTION BOXES WITH SHEET STEEL COVERS.

CONDUIT – ALL WIRING SHALL BE INSTALLED IN METALLIC RACEWAY. RACEWAY SHALL BE INSTALLED CONCEALED EXCEPT AT SURFACE MOUNTED CABINETS, MOTORS AND EQUIPMENT CONNECTIONS. INSTALL AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS. UTILIZE GALVANIZED RIGID STEEL OR INTERMEDIATE METAL CONDUIT FOR SERVICE ENTRANCE, FEEDERS, IN WET LOCATIONS, IN DIRECT CONTACT WITH CONCRETE OR BELOW SLAB ON GRADE. ELECTRICAL METALLIC TUBING MAY BE USED IN ALL CONCEALED, DRY, INTERIOR LOCATIONS. UTILIZE SHORT EXTENSIONS (36 INCHES MAXIMUM) OF FLEXIBLE CONDUIT FOR CONNECTION OF ALL MOTORS AND OTHER EQUIPMENT SUBJECT TO VIBRATION. UTILIZE LIQUIDTIGHT FLEXIBLE CONDUIT FOR MOTOR AND EQUIPMENT CONNECTIONS IN WET LOCATIONS. PAINT ALL EXPOSED RACEWAYS TO MATCH THE SURFACE TO WHICH IT IS ATTACHED OR CROSSES. COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS.

CONDUCTORS – ALL CONDUCTORS SHALL BE COPPER WITH TYPE XHHW, THWN, THW OR THHN INSULATION. MINIMUM BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE 12 AWG. MINIMUM CONTROL CIRCUIT CONDUCTOR SIZE SHALL BE #18 AWG. WIRING IN LIGHTING FIXTURE CHANNELS SHALL BE COPPER WITH TYPE XHHW OR OTHER INSULATION RATED 90 DEGREES C OR HIGHER, 600 VOLT. PULL ALL CONDUCTORS INTO THE RACEWAY AT THE SAME TIME. USE UL LISTED WIRE PULLING LUBRICANT FOR PULLING 4 AWG AND LARGER WIRES. COLOR CODE CONDUCTORS AS FOLLOWS: 120/240 VOLT SYSTEMS: BLACK, RED AND WHITE. USE PROPERLY SIZED INSULATED SPRING WIRE CONNECTORS WITH PLASTIC CAPS FOR ALL CONDUCTORS #8 AWG AND SMALLER. TERMINATE #6 AWG AND LARGER CONDUCTORS WITH CRIMP OR COMPRESSION TYPE CONNECTORS INSTALLED WITH TOOL RECOMMENDED BY CONNECTION MANUFACTURER AND INSULATE WITH PROPERLY SIZED 600 VOLT RATED HEAT SHRINK TUBING.

OUTLET BOXES – PROVIDE GALVANIZED OR CADMIUM PLATED, ONE PIECE PRESSED STEEL OUTLET BOXES 4 INCH SQUARE OR OCTAGONAL, 1 1/2 INCHES DEEP MINIMUM SIZE FOR USE IN INTERIOR AREAS. FOR TELEPHONE SYSTEM SYSTEMS OUTLET BOXES SHALL BE 4 INCHES SQUARE, 2-1/8 INCHES DEEP MINIMUM. PROVIDE CAST ALUMINUM OR FERALLOY TYPE BOXES WITH GASKETED COVER, THREADED HUBS AND NEMA 3R RATING FOR USE IN EXTERIOR OR WET LOCATIONS. PROVIDE FIXTURE OUTLETS WITH 1/2 INCH MALE FIXTURE STUDS AS REQUIRED. PROVIDE OUTLET BOXES AS SHOWN ON THE DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, DEVICE INSTALLATION AND CODE COMPLIANCE. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS. PROVIDE A MINIMUM 6 INCH SEPARATION FOR MINIMUM SOUND TRANSMISSION. USE MULTIPLE-GANG BOXES WHERE MORE THAN ONE DEVICE ARE MOUNTED TOGETHER; DO NOT USE SECTIONAL BOXES. SUPPORT BOXES INDEPENDENTLY OF CONDUIT. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED ABOVE COUNTERS, BENCHES AND BACKSPLASHES.

PANELBOARDS – PROVIDE DEAD-FRONT CIRCUIT BREAKER PANELBOARDS WITH BUS SIZE, SHORT CIRCUIT RATING, NUMBER AND SIZE OF BRANCH CIRCUITS AS SHOWN ON THE DRAWINGS. CABINETS SHALL BE 6 INCHES DEEP BY 20 INCHES WIDE MINIMUM. PROVIDE WITH FLUSH OR SURFACE FRONTS, AS NOTED ON THE DRAWINGS, WITH CONCEALED TRIM CLAMPS, CONCEALED HINGE AND FLUSHLOCK. FINISH IN MANUFACTURER'S STANDARD GRAY ENAMEL. MOLDED CASE CIRCUIT BREAKERS SHALL BE BOLT-ON THERMAL MAGNETIC TRIP TYPE WITH COMMON TRIP HANDLE FOR ALL POLES. PROVIDE CIRCUIT BREAKERS UL LISTED AS TYPE HCAR FOR AIR HANDLING/CONDITIONING CIRCUITS. PROVIDE UL CLASS A GROUND FAULT INTERRUPTER CIRCUIT BREAKERS FOR GFCI CIRCUITS AS INDICATED ON THE DRAWINGS. INSTALL PANELBOARDS PLUMB WITH TOP OF CABINET 6'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED ON THE DRAWINGS. PROVIDE TYPED CIRCUIT DIRECTORIES FOR EACH PANELBOARD. MEASURE STEADY STATE LOAD CURRENTS OF EACH PANELBOARD FEEDER AND REARRANGE BRANCH CIRCUITS AS REQUIRED TO MAINTAIN A MAXIMUM 20 PERCENT DIFFERENCE BETWEEN PHASES. REVISE CIRCUIT DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.

RECEPTACLES – PROVIDE NEMA 5-20R DUPLEX GROUNDING TYPE RECEPTACLES WITH IVORY FINISH, UL NO. 498 APPROVED, SELF-GROUNDING, CERTIFIED TO COMPLY WITH NEMA WD-1-4.02 THROUGH 4.11, 1979 TESTS. SCREW TERMINAL OR SCREW CLAMP TYPE ONLY. SPRING CLAMPED TYPE TERMINATIONS ARE NOT ACCEPTABLE. PROVIDE DUPLEX CONVENIENCE RECEPTACLES WITH CLASS "A" INTEGRAL GROUND FAULT CURRENT INTERRUPTER WITH INTEGRAL LOCKOUT FUNCTION THAT MEETS UL 943 (2003) REQUIREMENTS. PROVIDE SPECIFIC-USE RECEPTACLES WHERE INDICATED ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, INSTALL RECEPTACLES 18 INCHES ABOVE FINISH FLOOR, 4 INCHES ABOVE COUNTERS AND BACKSPLASHES WITH GROUNDING POLE ON BOTTOM. UNLESS OTHERWISE NOTED DIMENSIONS ARE TO CENTERLINE OF OUTLET.

SWITCHES – PROVIDE NEMA WD-1 20 AMPERE, 120/277 VOLT AC GENERAL-USE SNAP SWITCH, UL NO. 20 LISTED, SELF-GROUNDING BINDING SCREW TYPE TERMINALS WITH IVORY TOGGLE, SINGLE POLE, THREE WAY OR FOUR WAY AS INDICATED ON THE DRAWINGS. INSTALL SWITCHES 48 INCHES ABOVE FINISHED FLOOR, OFF POSITION DOWN.

DEVICE PLATES – PROVIDE UL LISTED ONE PIECE ROUNDED EDGE "STREAMLINE" DESIGN FLUSH DEVICE PLATES OF IVORY WITH METAL COUNTER SUNK SCREWS TO MATCH DEVICE PLATE. PROVIDE GALVANIZED DEVICE PLATES WHERE EXPOSED WIRING IS PERMITTED. PROVIDE UL LISTED, CAST ALUMINUM, HINGED OUTLET COVER/ENCLOSURE WITH GASKET BETWEEN THE ENCLOSURE AND THE MOUNTING SURFACE, SUITABLE FOR WET LOCATION WHILE IN USE FOR ALL OUTLETS ON THE EXTERIOR OF THE BUILDING. PROVIDE 1/2 INCH RAISED, SQUARE, GALVANIZED OR CADMIUM PLATED, PRESSED STEEL COVER PLATE SUPPORTING DEVICES INDEPENDENT OF THE OUTLET BOX FOR ALL EXPOSED WORK.

LIGHTING EQUIPMENT – PROVIDE AND INSTALL ALL LIGHTING EQUIPMENT OR APPROVED EQUAL AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE "FIXTURE SCHEDULE". PROVIDE LIGHTING EQUIPMENT COMPLETE, WIRED, ASSEMBLED, WITH PROPER FLANGES, MOUNTING SUPPORTS, HARDWARE, ETC. ALL LIGHTING EQUIPMENT INSTALLED IN LAY-IN TYPE CEILINGS SHALL BE PROVIDED WITH SAFETY CHAINS, CAPABLE OF SUPPORTING 200 POUNDS, SECURELY FASTENED TO THE LIGHT FIXTURE AND THE BUILDING STRUCTURE SO THAT NO PART OF THE FIXTURE WILL DROP BELOW A HEIGHT OF 7'-6" ABOVE THE FLOOR IN THE EVENT OF A CEILING SUSPENSION SYSTEM FAILURE. PROVIDE ENERGY SAVING LAMPS AND BALLASTS FOR ALL FLUORESCENT FIXTURES AND HIGH POWER FACTOR, REGULATING OR CONSTANT WATTAGE TYPE BALLASTS FOR HID FIXTURES. UNLESS OTHERWISE NOTED ON THE DRAWINGS, FLUORESCENT LAMPS SHALL BE TCLP COMPLIANT, 3500 DEGREE K, TRI-PHOSPHOR TYPE WITH A MINIMUM CRI OF 82. COMPACT FLUORESCENT LAMPS SHALL UTILIZE AMALGAM TECHNOLOGY, SHALL MATCH THE COLOR TEMPERATURE OF THE T8 LAMPS, SHALL HAVE A MINIMUM CRI OF 82 AND SHALL BE PROVIDED WITH A 4 PIN BASE WHEN USED WITH ELECTRONIC BALLASTS AND A 2 PIN BASE WHEN USED WITH MAGNETIC BALLASTS. METAL HALIDE LAMPS SHALL BE 3700K, LAMPS WITH A MINIMUM CRI OF 70, PHOSPHOR-COATED. LAMPS SHALL BE SELECTED SPECIFICALLY FOR THE ORIENTATION IN WHICH THEY WILL BE INSTALLED I.E. HORIZONTAL OR VERTICAL. UNIVERSAL BURN LAMPS ARE NOT ACCEPTABLE.

EQUIPMENT CONNECTIONS – PROVIDE WIRING AND CONNECTION OF EQUIPMENT REQUIRING ELECTRICAL POWER BUT SPECIFIED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS. EQUIPMENT SHALL INCLUDE BUT IS NOT LIMITED TO FOOD SERVICE EQUIPMENT, MOTORS, PUMPS, WATER HEATERS, HVAC EQUIPMENT, ETC. REVIEW EQUIPMENT SUBMITTALS PRIOR TO INSTALLATION AND ELECTRICAL ROUGH-IN. VERIFY LOCATION, SIZE, TYPE OF CONNECTIONS, AND THAT EQUIPMENT IS READY FOR ELECTRICAL CONNECTION. MAKE WIRING CONNECTIONS IN CONTROL PANEL OR IN WIRING COMPARTMENT OF PREWIRED EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE INTERCONNECTING WIRING AND DISCONNECTS WHERE REQUIRED.

DISCONNECT SWITCHES – PROVIDE UL LISTED 250V, HEAVY DUTY NON-FUSIBLE QUICK-MAKE, QUICK BREAK, LOAD INTERRUPTER, ENCLOSED KNIFE SWITCHES WITH EXTERNALLY OPERABLE HANDLE INTERLOCKED TO PREVENT OPENING FRONT COVER WITH SWITCH IN ON POSITION, HANDLE LOCKABLE IN OFF POSITION,. ENCLOSURES SHALL BE NEMA 1 OR 3R AS INDICATED ON THE DRAWINGS.

SERVICE ENTRANCE – COORDINATE WITH UTILITY COMPANY FOR PERMANENT ELECTRIC SERVICE. INSTALL SERVICE ENTRANCE IN ACCORDANCE WITH UTILITY COMPANY'S RULES AND REGULATIONS. PROVIDE COMBINATION METERBASE/DISCONNECT WITH RATINGS AS SHOWN ON THE DRAWINGS. COORDINATE WITH LOCAL UTILITY COMPANY FOR METERING REQUIREMENTS. PROVIDE GROUNDING AND BONDING AT SERVICE ENTRANCE AS SHOWN ON THE DRAWINGS.

UNDERGROUND: INSTALL SERVICE ENTRANCE CONDUITS FROM UTILITY COMPANY'S PAD-MOUNTED TRANSFORMER TO BUILDING SERVICE ENTRANCE EQUIPMENT. UTILITY COMPANY WILL CONNECT SERVICE LATERAL CONDUCTORS TO SERVICE ENTRANCE CONDUCTORS.

MOTOR STARTERS – PROVIDE MAGNETIC MOTOR STARTERS: NEMA ICS 2; AC GENERAL-PURPOSE CLASS A MAGNETIC CONTROLLER FOR INDUCTION MOTORS RATED IN HORSEPOWER. FULL VOLTAGE STARTING: REVERSING TYPE. OVERLOAD RELAY SHALL BE THE MELTING ALLOY TYPE. COMBINE MOTOR STARTERS WITH MOTOR CIRCUIT PROTECTOR DISCONNECT IN COMMON ENCLOSURE. PROVIDE TWO FIELD CONVERTIBLE CONTACTS IN ADDITION TO SEAL-IN CONTACT. PROVIDE HAND/OFF//AUTO SELECTOR SWITCH AND A RED "RUN" LED INDICATOR LIGHT IN FRONT COVER. PROVIDE CONTROL POWER TRANSFORMERS AS REQUIRED. INSTALL MOTOR CONTROL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SELECT AND INSTALL HEATER ELEMENTS IN MOTOR STARTERS TO MATCH INSTALLED MOTOR CHARACTERISTICS. MOTOR DATA: PROVIDE NEATLY TYPED LABEL INSIDE EACH MOTOR STARTER ENCLOSURE DOOR IDENTIFYING MOTOR SERVED, NAMEPLATE HORSEPOWER, FULL LOAD AMPERES, CODE LETTER, SERVICE FACTOR, AND VOLTAGE/PHASE RATING.

FRACTIONAL HORSEPOWER MANUAL STARTER – NEMA ICS 2; AC GENERAL-PURPOSE CLASS A MANUALLY OPERATED, NUMBER OF POLES AS REQUIRED BY THE LOAD SERVED, FULL-VOLTAGE CONTROLLER FOR FRACTIONAL HORSEPOWER INDUCTION MOTORS, WITH THERMAL OVERLOAD UNIT, RED LED PILOT LIGHT, AND TOGGLE OPERATOR.

ARC-FLASH SIGNAGE – ALL , MOTOR STARTERS, MOTOR CONTROL CENTERS, PANELBOARDS AND FUSED DISCONNECTS SHALL HAVE SIGNAGE FOR ARC HAZARD INSTALLED. THE MARKING SHALL BE LOCATED TO BE CLEARLY VISIBLE TO QUALIFIED PERSONNEL BEFORE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE OF THE EQUIPMENT. AT A MINIMUN THE 3-LINE SIGNAGE SHALL STATE THE FOLLOWING: WARNING – ARC FLASH AND SHOCK HAZARD – APPROPRIATE PPE REQUIRED.

PENETRATIONS OF FIRE BARRIERS – ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE SEALED IN ACCORDANCE WITH NEC ARTICLE 300-21 AND THE FOLLOWING:

ALL HOLES OR VOIDS CREATED TO EXTEND ELECTRICAL SYSTEMS THROUGH FIRE RATED FLOORS, WALLS OR CEILING SHALL BE SEALED WITH AN ASBESTOS-FREE INTUMESCENT FIRE STOPPING MATERIAL CAPABLE OF EXPANDING 8 TO 10 TIMES WHEN EXPOSED TO TEMPERATURES 250 DEGREES F OR HIGHER.

MATERIALS SHALL BE SUITABLE FOR THE FIRE STOPPING OF PENETRATIONS MADE BY STEEL, GLASS, PLASTIC AND SHALL BE CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME, SMOKE AND GASES IN COMPLIANCE WITH THE REQUIREMENTS OF ASTM E814, UL 1479 AND THE UL FIRE RESISTANCE DIRECTORY REQUIREMENTS FOR THROUGH-PENETRATION FIRESTOP DEVICES (XHCR).

THE RATING OF THE FIRE STOPS SHALL BE THE SAME AS THE TIME-RATED FLOOR, WALL OR CEILING ASSEMBLY.

INSTALL FIRE STOPPING MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

UNLESS PROTECTED FROM POSSIBLE LOADING OR TRAFFIC, INSTALL FIRE STOPPING MATERIALS IN FLOORS HAVING VOID OPENINGS OF FOUR (4) INCHES OR MORE TO SUPPORT THE SAME FLOOR LOAD REQUIREMENTS AS THE SURROUNDING FLOOR."

Architects Alaska®
An Alaskan Corporation
Architecture
Landscape Architecture
Interior Architecture
900 West Fifth Avenue
Anchorage, Alaska 99501
(907) 272-3567
191 E. Swanson Avenue
Wasilla, Alaska 99654
(907) 373-7503

Consultant
RSA
Mechanical and Electrical Consulting Engineers

HARBORSIDE PIZZA
Cordova, Alaska

Revisions

No.	Description	Date

Drawn by: PCC | Date: 11 NOV 13
Checked: TEH, RLW | Job No.: L3241.00

Sheet Contents: DETAILS

Category: E | Sheet No.: 3.01

Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Review of Proposals for Lot 4A, Block 5, North Fill Development Park Addition No. 2

PART I – GENERAL INFORMATION

Requested Actions:	Review Proposals and give a recommendation to City Council
Legal Description:	Lot 4A, Block 5, North Fill Development Park Addition No. 2
Parcel Number:	02-060-128
Zoning:	Waterfront Industrial District
Lot Area:	8,267 sq. ft.
Attachments:	Proposal Packet (The packet distributed to potential proposers)
	Proposals: Nerka Enterprises
	Becky Chapek
	Native Village of Eyak
	Bayside Storage
	Prince William Sound Science Center

The public notice period for this property disposal began Oct. 30th and ended Dec. 1st at 10 AM. The City received five proposals for the property. The lot has been used by the City as an Impound Lot for several years. The City will move the impound lot to the landfill as it becomes necessary.

While the lot is 8,267 SF and the minimum lot size for the Waterfront Industrial District is 10,000 SF, the City is able to sell the lot. The City approved the subdivision of Lot 4 in 2001 thus approving two lots that did not meet the standard lot size for that zoning district. Any proposal for future development on the lot will be required to meet all the Waterfront Industrial code requirements except for the minimum lot size.

The proposed price from each proposal is as follows (minimum bid = $48,000):

Nerka Enterprises	$48,500
Becky Chapek	$54,000
Native Village of Eyak	$48,000
Bayside Storage	$50,400
Prince William Sound Science Center	$70,000

PART II – APPLICABLE CRITERIA

Chapter 5.22 – REVENUE AND FINANCE – DISPOSAL OF CITY REAL PROPERTY – Methods of disposal for fair market value.

D. A request for proposals to lease or purchase city real property shall specify the criteria upon which proposals shall be evaluated, which may include without limitation the type of proposed development and its benefit to the community, the qualifications and organization of the proposer, the value of the proposed improvements to the real property, and the required rent or purchase price. All proposals submitted in response to a request for proposals shall be reviewed by the planning commission, which shall recommend a proposal to the city council for award.

PART III – SUGGESTED MOTION

"I move that the Planning Commission recommend City Council approve the proposal from _____ to purchase Lot 4A, Block 5, North Fill Development Park Addition No. 2."

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: _____

Name of Organization: _____

Address: _____ Phone #: _____

_____ Email: _____

_____

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $_____

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Additional Information Required (please attach separately with this proposal form):

1. Describe the type of business you're proposing to develop.
2. What is the proposed square footage of the development?
3. Provide a sketch, to scale, of the proposed development in relationship to the lot. (Attachment C)
4. What is the benefit of the proposed development to the community?
5. What is the value of the proposed improvements (in dollars)?
6. What is your proposed timeline for development?

Included for your convenience:

Attachment A: Criteria used when evaluating each submitted proposal.
Attachment B: A location map showing the subject property.
Attachment C: The property parcel with measurements.
Attachment D: Cordova Municipal Code - Waterfront Industrial District

Please mail proposals to: **City of Cordova**
Planning Department
C/O Proposals
P.O. Box 1210
Cordova, Alaska 99574

Or email proposals to planning2@cityofcordova.net. The email subject line shall be "Proposal for Lot 4A, Block 5," and the proposal shall be attached to the email as a PDF file.

Or deliver your proposal to the front desk at City Hall.

For questions or more information about the land disposal process, contact the City Planning Department at 424-6220, planning2@cityofcordova.net, or stop by in person.

Proposals received after December 1st, 2014 at 10 AM will not be considered.

ATTACHMENT A

Each proposal will be evaluated on the criteria in the table below. Each criteria will be scored from 1-10. The multiplier will then be applied to the scores to determine a final score.

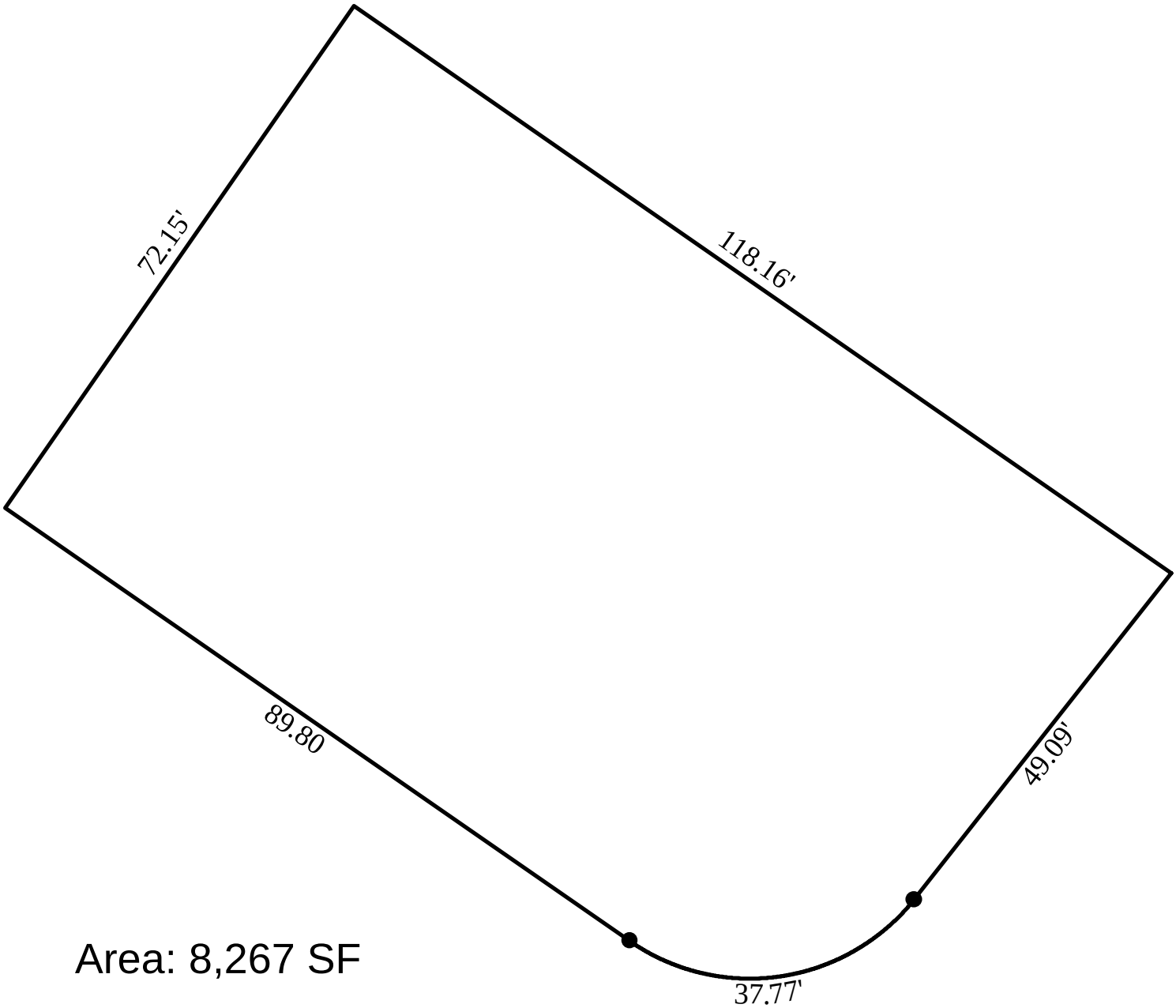
Final Land Disposal Evaluation Criteria

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

ATTACHMENT B

ATTACHMENT B

ATTACHMENT C



ATTACHMENT D

Chapter 18.33 - WATERFRONT INDUSTRIAL DISTRICT

Sections:

18.33.010 - Purpose.

The following statement of intent and use regulations shall apply in the WI district:

The waterfront Industrial district is intended to be applied to land with direct access or close proximity to navigable tidal waters within the city. Uses within the waterfront industrial district are intended to be marine-dependent or marine-oriented, and primarily those uses which are particularly related to location or commercial enterprises that derive an economic benefit from a waterfront location.

(Ord. 634 (part), 1988).

18.33.020 - Permitted principal uses and structures.

The following are the permitted principal uses and structures in the waterfront industrial district:

A. Marine sales;

B. Open wet moorage;

C. Covered wet moorage;

D. Passenger staging facility;

E. Haulout facilities;

F. Marine construction, repair and dismantling;

G. Cargo terminal;

H. Cargo handling and marine-oriented staging area;

I. Fish and seafood processing;

J. Warehousing and wholesaling;

K. Open storage for marine-related facilities;

L. Fuel storage and sales.

(Ord. 634 (part), 1988).

18.33.030 - Permitted accessory uses and structures.

A. Bunkhouses in conjunction with permitted principal uses;

B. Residential dwelling for watchman or caretaker employed on the premises, or owner-operator and members of his family, in conjunction with permitted principal uses;

C. Retail business when accessory to a permitted principal use.

(Ord. 634 (part), 1988).

18.33.040 - Conditional uses and structures.

Subject to the requirements of the conditional use standards and procedures of this title, the following uses and structures may be permitted in the WI district:

A. Log storage and rafting;

B. Timber and mining manufacturing.

(Ord. 634 (part), 1988).

18.33.050 - Prohibited uses and structures.

Any use or structure not of a character as indicated under permitted uses, accessory uses, or conditional uses.

(Ord. 634 (part), 1988).

18.33.060 - Setbacks.

A. Minimum Setbacks.

1. Front yard-Twenty feet.
2. Side yard and rear yard: subject to Uniform Building Code regarding fire walls and separation of buildings.

(Ord. 634 (part), 1988).

18.33.070 - Lot coverage.

A. Maximum lot coverage by all buildings and structures as regulated by the Uniform Building Code.

(Ord. 634 (part), 1988).

18.33.080 - Height.

A. Maximum height of buildings and structures: subject to Uniform Building Code regarding building heights.

(Ord. 634 (part), 1988).

18.33.090 - Off-street parking and loading.

A. Off- street Parking and Loading. The requirements for off-street parking and loading in the waterfront industrial district shall be as set forth in Chapter 18.48 of this code.

(Ord. 634 (part), 1988).

18.33.100 - Minimum lot requirements.

A. Minimum Lot Requirements.

1. Lot width: 100 feet;
2. Lot size: 10,000 feet.

(Ord. 634 (part), 1988).

18.33.110 - Signs.

A. Signs. Signs may be allowed in the waterfront industrial district subject to the supplementary district regulations, the Uniform Sign Code, as set forth in Chapter 18.44 of this code.

(Ord. 634 (part), 1988).

18.33.120 - Floor elevations.

A. Minimum Finished Floor Elevations. In the waterfront industrial district, the following minimum finished floor elevations for the ground floor shall be adhered to:

North Fill Development Park

Block 1	
Lot 1	27.00’
Lot 2	26.50’
Lot 3	27.25’
Block 2	
Lot 4	27.25’
Lot 1	26.50’
Block 3	
Lot 2	26.25’
Lot 1	26.50’
Block 4	
Lot 1	27.25’
Lot 2	27.25’
Lot 3	27.25’
Lot 4	27.25’
Lot 5	26.25’
Block 5	
Lot 1	27.25’
Lot 2	27.25’
Block 6	

Lot 2	26.50′
Lot 1	26.25′
Block 7	
Lot 2	26.50′
Lot 3	26.25′
Lot 1	26.75′
Lot 3	27.25′
Block 8	
Lot 1	27.00′
Lot 2	26.75′
Lot 3	26.50′
Lot 4	26.25′

Note: The elevation datum used is based on the following described bench mark:

USC & GS Standard Brass Disk Located in Sidewalk Adjacent to Fish Game Building near Southwest Corner of Intersection Railroad Avenue and Breakwater Avenue. Elevation 40.40 Above M.L.L.W.

(Ord. 634 (part), 1988).

18.33.130 - Site plan review.

A. Prior to the issuance of a building for construction within the waterfront industrial district, the planning commission shall approve the development plan for the project. The site plan review shall be conducted in accordance with Chapter 18.42 of this code.

B. The exterior siding and roof shall be finished in earthtone colors.

(Ord. 634 (part), 1988).

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: GREG + EVA LOFORTE

Name of Organization: NERKA ENTERPRISES.

Address: BOX 865
CORDOVA 99574

Phone #: 424-5585

Email: loforteqreq@GMAIL.COM

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 48,500.00

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Greg & Eva LoForte
Box 865
Cordova, Alaska 99574
November 17, 2014

City of Cordova
Planning Department
Re: Lot 4A Block 5 North Fill

A. We propose to re-plat lots 4A & 4B to its original configuration which would eliminate the present condition of two sub-standard lots.

B. We then plan to construct a metal sided building which would be very similar to the one on our existing property, 5/12 pitch roof, Beige siding, Red roof, 16' doors and two or three man doors.

C. We propose to lease/rent this building out to a business requiring such a structure. During the past 14 years we have had numerous requests to rent our existing building which we have done from time to time. (Inside heated storage after Copper River Seafood's warehouse caved in, active net loft, rented out to local craftsman for fiberglass work, aluminum welding, installation of flush decks, vessel re-wiring, etc.) We believe that these requests have shown us that there is a definite need for a dedicated facility that would serve the Marine industry.

D. The proposed building would be 40' by 50' which gives us 2000 sq. ft. of floor space. The estimated cost would be $130,000.00 . There is possibility that a larger structure may be constructed. We would adhere to all of the required set-backs before considering this second option.

E. Just a little background on terms: the City originally leased lot 4B to me for three years with the stipulation that I complete the proposed development plan within this time frame. This requirement was met one year ahead of schedule. At that time 1/2 of the lease price was applied to the cost of the property. We realize that times have changed so we would like to propose these payment options:

1) We would pay $48,500.00 to the city upon acceptance of this offer. The costs for re-platting would be at our expense. The City would be required to clean up the lot.

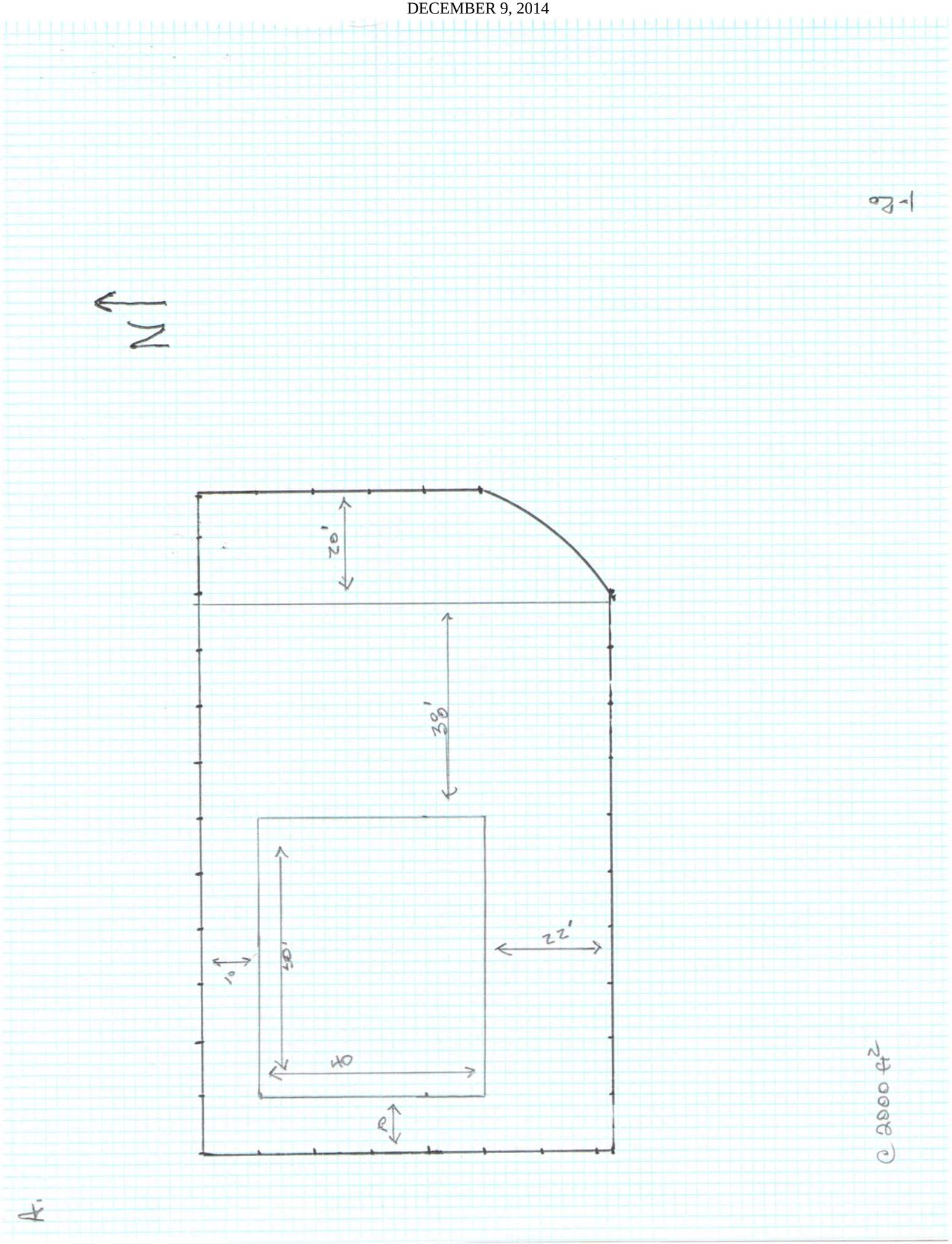
2) We would put 25% of the purchased price down and lease the property for three years with the stipulation that the project is completed within this time frame.This arrangement would only work for us if we were able to start work this next spring. I consider 2015 to be critical for ground work.

Thank you for considering our proposal and we look forward to hearing from you.

Sincerely,

Greg LoForte

Greg LoForte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92'
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22'
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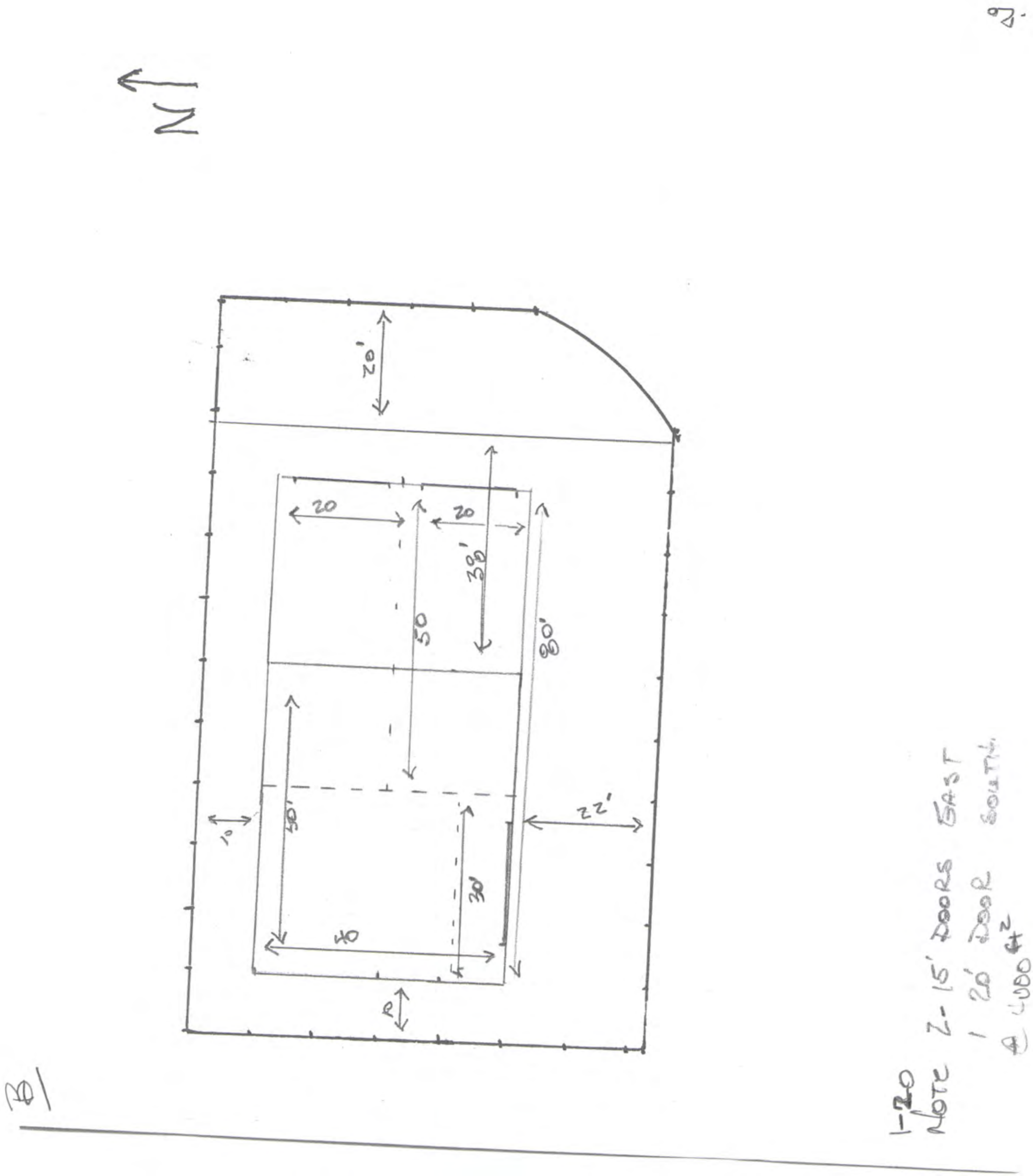
N
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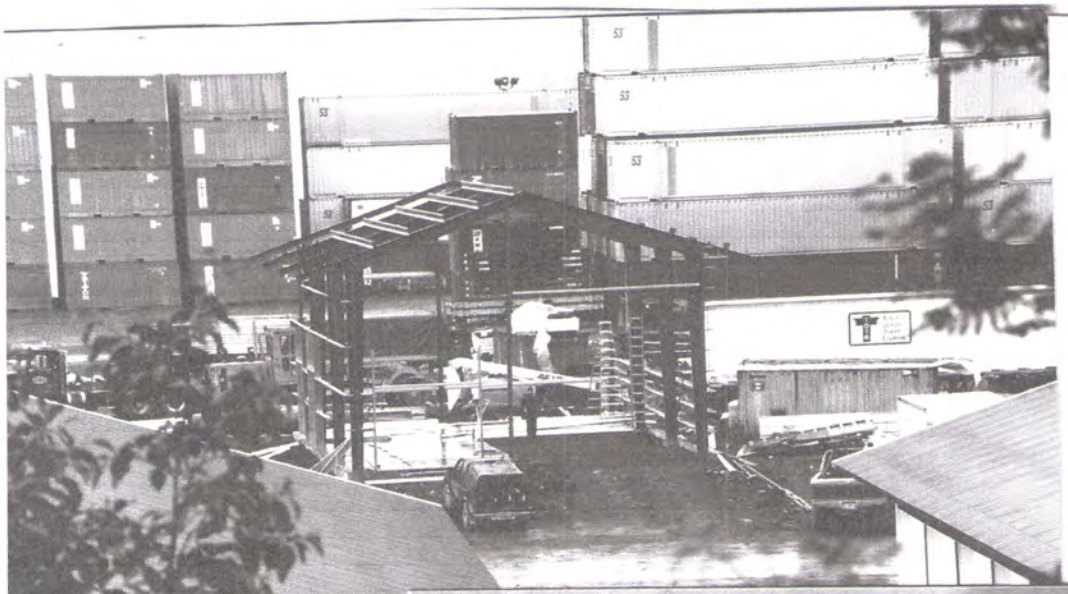
NOTE 2- 15' DOORS EAST
1 20' DOOR SOUTH



PLAN	WAREHOUSE INTERIOR
OWNER / BUILDER	GREG LOFORTE
	CORDOVA, AK 99574
DRAWN BY HITAG THM	SCALE / DATE / SHEET

Drawn: YTD | Scale: 1"= 40' | Date: 5/1"

Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

RECEIVED
DEC 01 2014
City of Cordova

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: Becky Chapek

Name of Organization: _____

Address: P.O Box 1564
Cordova, AK
99574

Phone #: 424-5356

Email: _____

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 54,000

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

TO: City of Cordova – P & Z
FROM: Becky Chapek
DATE: November 30, 2014
RE: Lot 4A, Block 5, North Fill

This lot would be purchased to facilitate the opening of a full service small boat repair shop. It will be open year round and will offer clients a warm, dry & pleasant place to do boat repair. There will be 4 bays with designated use attached to each unit i.e. - fiberglass work & painting - mechanical rebuilds – interior cabin & deck upgrades & general maintenance.

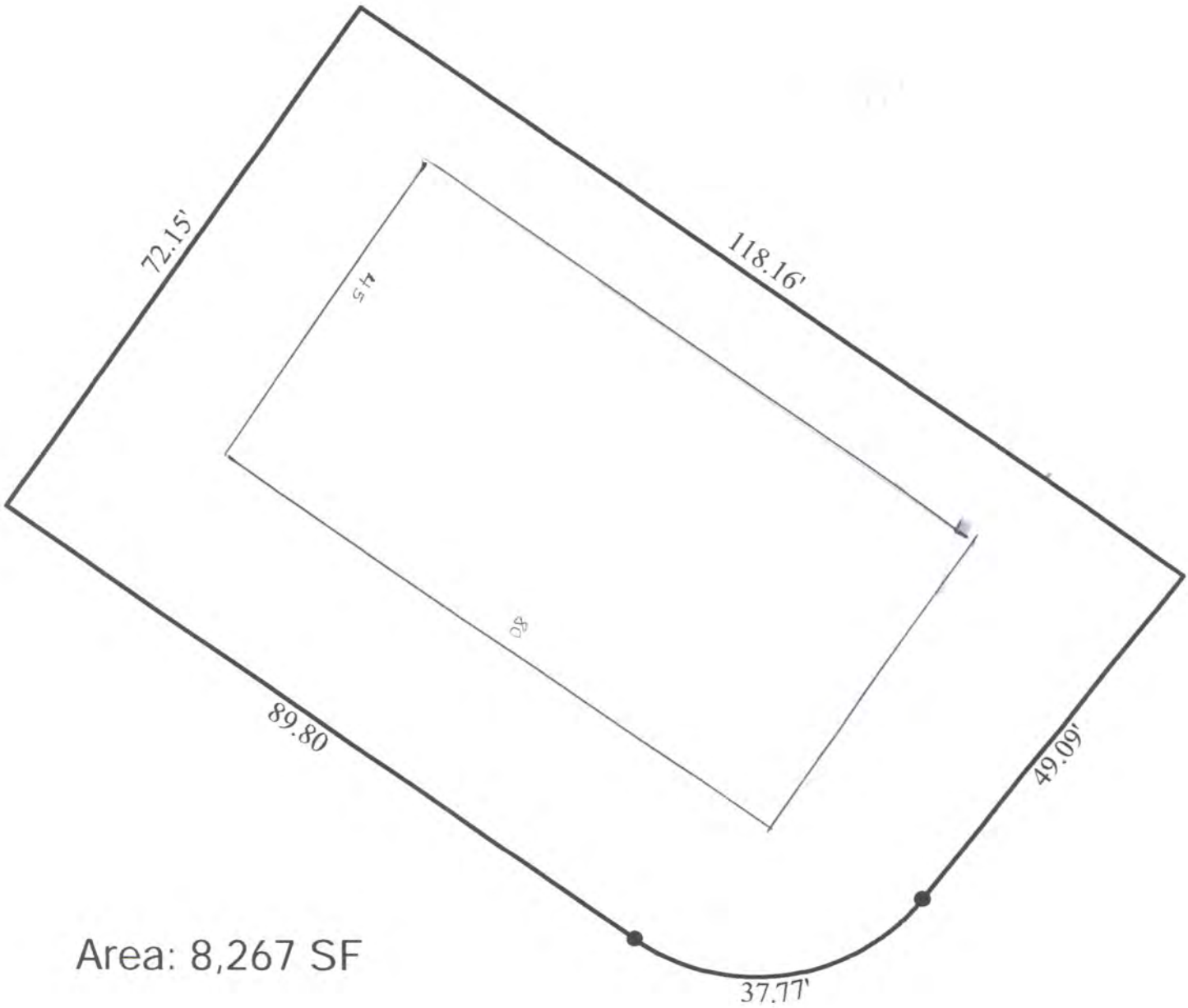
The building is approximately 3840 square feet with a 45' X 80' footprint. It will be an iron frame, steel clad building with a heated slab. An estimated cost is $342,500 for the framework, slab and building with interior upgrades and equipment adding an additional $287,500.

Preparation for the lot would be completed in 2015 so the foundation work could be poured before winter. In the spring of 2016, the building would be raised on the heated slab. Target date for opening is June 2016.

As a result of opening this business, Cordova's fishermen will have an affordable, healthy place to do boat work. Having "survived" the deplorable options here for trying to do inside boat work especially during the winter, I can tell you this building will be used year round by people overjoyed by the existence of such a great option. It will provide year round employment for skilled craftsmen who in the past could not find a place to work. It's also a great option for fishermen who cannot justify their own private shop, but need a place to work on their projects.

Although the result of this project will produce jobs & sales tax revenue that will benefit the City, I believe part of the worth in this proposal is intangible. Building something like this recognizes the need to have services that support the fleet. Allowing me to build this will enhance the City's image as being supportive of the fishing industry and recognizes Cordova's heritage as the base for area E fisheries. I believe it will prove to be a very valuable & much appreciated asset to our community.

ATTACHMENT C



Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: Moe Zamarron

Name of Organization: Native Village of Eyak

Address: PO Box 1388
Cordova, AK 99574

Phone #: 907-424-7738

Email: moe.zamarron@eyak-nsn.gov

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 48,000

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Lot 4A, Block 5, North Fill Development Park Addition No. 2, City of Cordova, Alaska.
Currently known as 'The City's Impound Lot'

1. The Native Village of Eyak (NVE) proposes to develop the above referenced parcel into a service facility providing an assortment of general repair, maintenance and upgrade tasks to the marine and land transportation industries. To address the growing needs of its expanding fleet of vessels and work vehicles it is necessary for NVE to make plans for a new facility that would adequately support in-house operations. While some amenities would be limited in use to NVE others would be made available commercially. Equipment has been secured that enables NVE to perform shrink-wrapping of vessels and equipment, perform tire repair for large trucks and heavy equipment and to provide general welding work. These services would be available to the public from this facility along with the rental of specialized equipment, with certain restrictions. Additionally, room would be made available for the storage of small vessels, equipment and supplies for NVE programs.
2. Taking final design criteria and code restrictions into account, NVE proposes to set the area of the building at the maximum allowed for the lot. Once the design team has considered all pertinent information a final footprint can be presented but initially this proposal shows a 60' x 90' building for an area of 5,400 square feet. Drainage, parking space counts, snow handling and setbacks all will have bearing on the building layout and may alter the final square footage of development.
3. See attachment 'A' for required sketch of proposed development.
4. Benefit of proposed development to the community. NVE operates a number of programs that bring direct benefit to the tribal members in the area and to the community of Cordova at large. Through the transportation, natural resources, wellness and housing departments NVE channels outside funding to Cordova that promotes health, affordable utilities and increased standards of living. The ability of NVE to house, maintain and operate equipment related to these programs offers two primary benefits for continued program development. First, this facility provides the means to keep program equipment functional, efficient and ready for use. This demonstrates to funders a level of competence and responsibility on the part of NVE in following through with the requirements of programs as expansion occurs. Secondly, the new facility provides potential funders with an accurate picture of NVE's ability to build capacity through preparation and partnership development. Through this facility NVE will provide services that are not otherwise found in Cordova and do so at cost which reinforces local economic wellbeing and promotes cooperation between organizations.
5. The dollar value of the proposed development is estimated at $600,000.
6. The proposed timeline for development is to have an initial design ready by the 1st quarter of 2016 and have construction start in 2017.

FRONT ELEVATION
SEAFOOD LANE

SIDE ELEVATION

LOT 4A, BLOCK 5

Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: Paul and Linda Kelly

Name of Organization: Bayside Storage

Address: 350 Jim Poor Ave
P.O. Box 265
Cordova, AK 99574

Phone #: 907-424-3109

Email: akkelly@ctcak.net

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

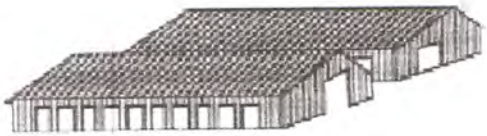
Proposed Price $ 50,400.00

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

BAYSIDE STORAGE

Paul and Linda Kelly
350 Jim Poor Ave
Box 265
Cordova, AK 99574



November 30, 2014

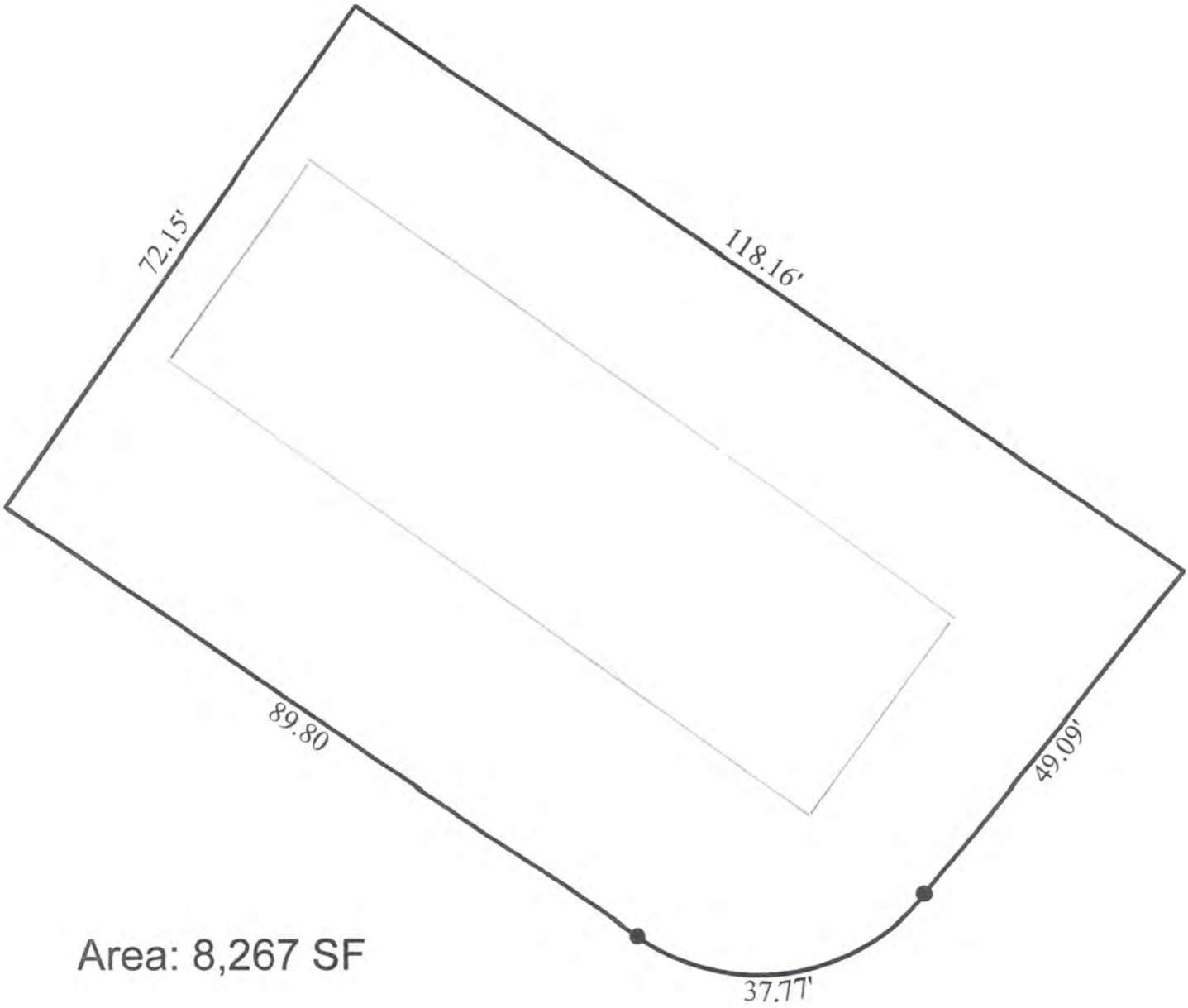
City of Cordova
Planning Department
C/O Proposals
P.O. Box 1210
Cordova, AK 99574

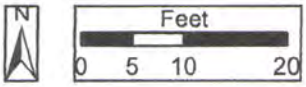
RE: Sealed Proposal for Lot 4A, Block 5, North Fill Development

Additional Information:

1. Type of business-Dry storage and small business operating space.
2. Proposed square footage: Approximately 2456 sq ft per floor
3. See provided sketch
4. Benefit to Community: Provides needed dry storage space, and business operating space for fishing industry and all community members. Approximately $6000/year in sales tax plus $6700 property tax. Bayside Storage employees 5..
5. Value of improvements: $450,000.00
6. Proposed timeline for development: 0-3 years

ATTACHMENT C





Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 4A, Block 5, North Fill Development Park Addition No. 2. See attached map.

Name of Proposer: KATRINA HOFFMAN

Name of Organization: PRINCE WILLIAM SOUND SCIENCE CENTER

Address: 300 BREAKWATER AVE.
PO BOX 705
CORDOVA, AK 99574

Phone #: 907 424 5800 x 225

Email: khoffman@pwssc.org

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 4A, Block 5, North Fill Development Park Addition No. 2 is **$48,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 70,000.00

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Property: Lot 4A, Block 5, North Fill Development Park

Name of Proposer: Katrina Hoffman
Name of Organization: Prince William Sound Science Center
Address: 300 Breakwater Avenue, Cordova, AK 99574
Phone: 907-424-5800 x225
Email: khoffman@pwssc.org

Additional Information Required:

1. Describe the type of business you're proposing to develop.

This site will be developed as a portion of the distributed campus of a well-known research and education institution, the Prince William Sound Science Center. The building developed on this site will provide:
--shop space for marine equipment construction, repair, and dismantling;
--warehousing for equipment and supply storage;
--marine oriented staging for research activities
--haulout and storage area for the multiple vessels owned by the organization, as dictated by vessel maintenance and storage needs
--bunkhouse space for employees and professionals with responsibility for using, constructing, repairing, dismantling, and/or organizing supplies and equipment of the business

2. What is the proposed square footage of the development?

The proposed square footage of the development is 2,400 square feet per floor at two stories for a total of 4,800 square feet. The site development plan also includes a lean-to structure that will provide covered storage outside the building. The lean-to has a 600 square foot footprint.

The maximum height shall not exceed that dictated by Uniform Building Code.

Off-street parking and loading is provided for as designated in the site plan.

3. Provide a sketch, to scale, of the proposed development in relationship to the lot.

See Attachment C.

4. What is the benefit of the proposed development to the community?

The benefits of the proposed development to the community are multiple. It will support an organization that has between 20 (year round) to 30 (high season) employees on staff at any given time of year. It will allow for the addition of an employee at an operations manager level. Construction of the facility will employ

local laborers and use materials from local vendors, generating sales tax revenue through direct purchases. Seasonal employees who stay in the bunk space will be within walking distance of the downtown core and will purchase goods and services in the community, generating sales taxes as well. Increased access to space for constructing, maintaining, and storing research equipment will attract research collaborations with individuals from organizations outside of Cordova. These collaborations will generate additional visitors to the community.

The importance to the community is high. These facilities are critical to the ability of PWSSC to carry out its water dependent and water related work, with an annual budget of $5,000,000 and over $100,000 per month in local payroll. Further, these facilities will enable PWSSC to increase the value of the annual work pursued and completed, enabling the hiring of one or more additional permanent staff and drawing multiple visitors from collaborating institutions to Cordova for shorter periods of time.

The building will be designed to represent the aesthetic of a classic fishing village cannery building. External trim will give it charm. A functional yet decorative balcony off the second floor will be constructed of handsome decking materials and will enable the display of planters that permit seasonal landscaping enhancements.

The center-peak roof of the building will allow snow to shed to both sides of the building. There is ample space purposefully left available for the movement and storage of snow on-site.

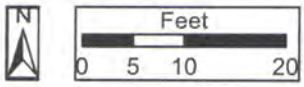
5. What is the value of the proposed improvements (in dollars)?

The value of the proposed improvements is $300,000.

6. What is your proposed timeline for development?

The proposed timeline for building completion is 12 months. Within 18 months, at least one new permanent staff member will be hired. Within 24 months, relationships will be established with partners that will draw collaborators to Cordova for research and education purposes.

ATTACHMENT C
PWSSC



Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Review of Proposals for Lot 2, Block 7, North Fill Development Park

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PART I – GENERAL INFORMATION

Requested Actions:	Review Proposals and give a recommendation to City Council
Legal Description:	Lot 2, Block 7, North Fill Development Park
Parcel Number:	02-060-136
Zoning:	Waterfront Industrial District
Lot Area:	11,534 sq. ft.
Attachments:	Proposal Packet (The packet distributed to potential proposers)
	Proposals: Mobile Grid Trailers, Inc.
	Trident Seafoods Corp.
	Native Village of Eyak
	Prince William Sound Science Center

The public notice period for this property disposal began Oct. 30th and ended Dec. 1st at 10 AM. The City received four proposals for the property. This lot has been leased to Mobile Grid Trailers, Inc. since 2003. Prior to the most recent lease term, City Council expressed an interest in putting this lot out for proposals. The last lease term, which expired October 19, 2014 and is now in hold-over, was for a period of 18 months in order to give Mobile Grid enough time to plan for the anticipated disposal process.

The proposed price from each proposal is as follows (minimum bid = $65,000):

Mobile Grid Trailers, Inc.	$67,500
Trident Seafoods Corp.	$90,000
Native Village of Eyak	$65,000
Prince William Sound Science Center	$100,000

PART II – APPLICABLE CRITERIA

Chapter 5.22 – REVENUE AND FINANCE – DISPOSAL OF CITY REAL PROPERTY – Methods of disposal for fair market value.

D. A request for proposals to lease or purchase city real property shall specify the criteria upon which proposals shall be evaluated, which may include without limitation the type of proposed development and its benefit to the community, the qualifications and organization of the proposer, the value of the proposed improvements to the real property, and the required rent or purchase price. All proposals submitted in response to a request for proposals shall be reviewed by the planning commission, which shall recommend a proposal to the city council for award.

PART III – SUGGESTED MOTION

"I move that the Planning Commission recommend City Council approve the proposal from _____ to purchase Lot 2, Block 7, North Fill Development Park."

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 2, Block 7, North Fill Development Park. See attached map.

Name of Proposer: _____

Name of Organization: _____

Address: _____ Phone #: _____

_____ Email: _____

_____

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 2, Block 7, North Fill Development Park is **$65,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $_____

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Additional Information Required (please attach separately with this proposal form):

1. Describe the type of business you're proposing to develop.
2. What is the proposed square footage of the development?
3. Provide a sketch, to scale, of the proposed development in relationship to the lot. (Attachment C)
4. What is the benefit of the proposed development to the community?
5. What is the value of the proposed improvements (in dollars)?
6. What is your proposed timeline for development?

Included for your convenience:

Attachment A: Criteria used when evaluating each submitted proposal.
Attachment B: A location map showing the subject property.
Attachment C: The property parcel with measurements.
Attachment D: Cordova Municipal Code - Waterfront Industrial District

Please mail proposals to: **City of Cordova**
Planning Department
C/O Proposals
P.O. Box 1210
Cordova, Alaska 99574

Or email proposals to planning2@cityofcordova.net. The email subject line shall be "Proposal for Lot 2, Block 7," and the proposal shall be attached to the email as a PDF file.

Or deliver your proposal to the front desk at City Hall.

For questions or more information about the land disposal process, contact the City Planning Department at 424-6220, planning2@cityofcordova.net, or stop by in person.

Proposals received after December 1st, 2014 at 10 AM will not be considered.

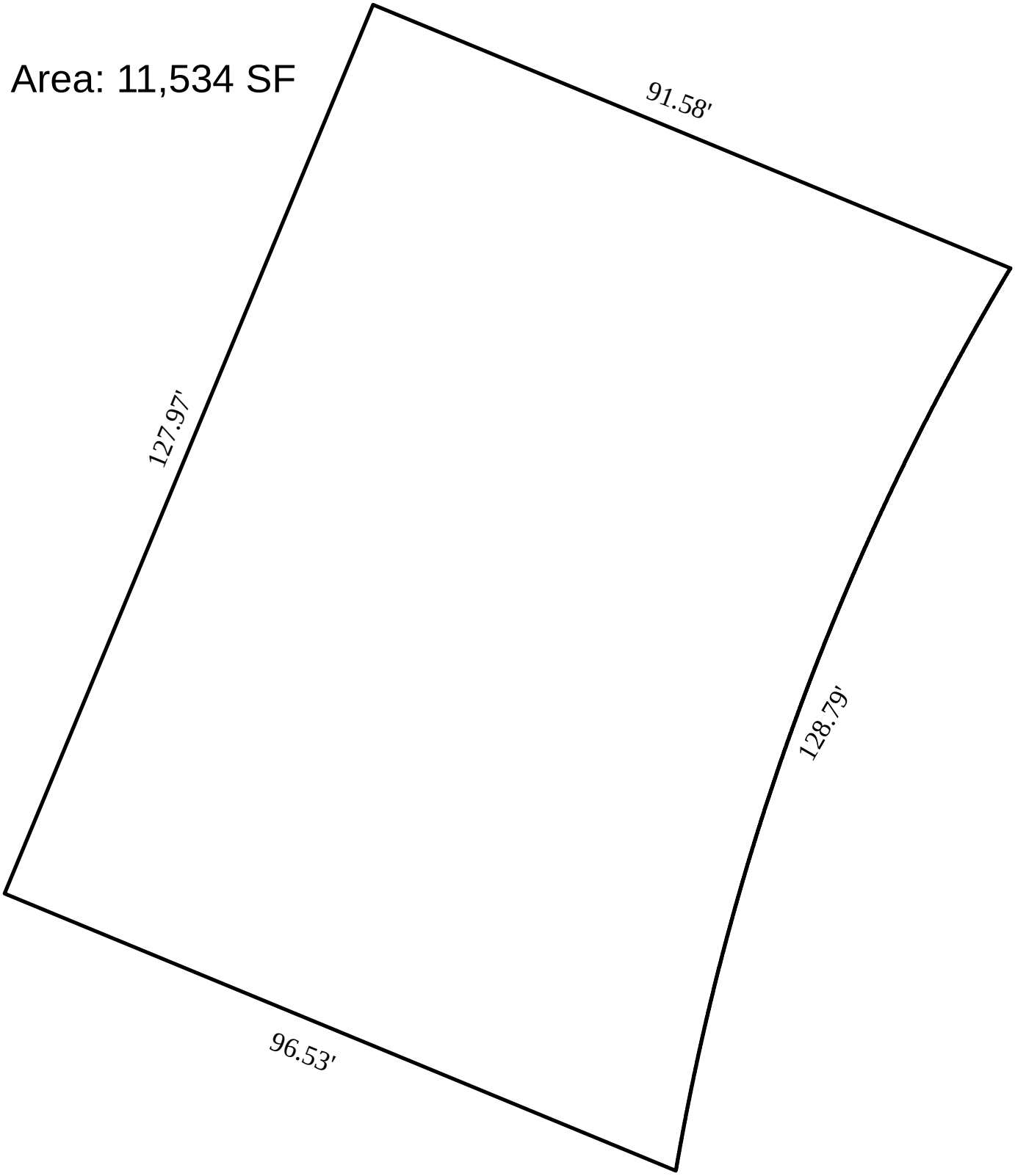
Each proposal will be evaluated on the criteria in the table below. Each criteria will be scored from 1-10. The multiplier will then be applied to the scores to determine a final score.

Final Land Disposal Evaluation Criteria

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

ATTACHMENT B

ATTACHMENT B


Area: 11,534 SF
91.58'
127.97'
128.79'
96.53'
N
Feet
0 5 10 20

Chapter 18.33 - WATERFRONT INDUSTRIAL DISTRICT

Sections:

The following statement of intent and use regulations shall apply in the WI district:

The waterfront Industrial district is intended to be applied to land with direct access or close proximity to navigable tidal waters within the city. Uses within the waterfront industrial district are intended to be marine-dependent or marine-oriented, and primarily those uses which are particularly related to location or commercial enterprises that derive an economic benefit from a waterfront location.

(Ord. 634 (part), 1988).

18.33.020 - Permitted principal uses and structures.

The following are the permitted principal uses and structures in the waterfront industrial district:

A. Marine sales;

B. Open wet moorage;

C. Covered wet moorage;

D. Passenger staging facility;

E. Haulout facilities;

F. Marine construction, repair and dismantling;

G. Cargo terminal;

H. Cargo handling and marine-oriented staging area;

I. Fish and seafood processing;

J. Warehousing and wholesaling;

K. Open storage for marine-related facilities;

L. Fuel storage and sales.

(Ord. 634 (part), 1988).

18.33.030 - Permitted accessory uses and structures.

A. Bunkhouses in conjunction with permitted principal uses;

B. Residential dwelling for watchman or caretaker employed on the premises, or owner-operator and members of his family, in conjunction with permitted principal uses;

C. Retail business when accessory to a permitted principal use.

(Ord. 634 (part), 1988).

18.33.040 - Conditional uses and structures.

Subject to the requirements of the conditional use standards and procedures of this title, the following uses and structures may be permitted in the WI district:

A. Log storage and rafting;

B. Timber and mining manufacturing.

(Ord. 634 (part), 1988).

18.33.050 - Prohibited uses and structures.

Any use or structure not of a character as indicated under permitted uses, accessory uses, or conditional uses.

(Ord. 634 (part), 1988).

18.33.060 - Setbacks.

A. Minimum Setbacks.

1. Front yard-Twenty feet.
2. Side yard and rear yard: subject to Uniform Building Code regarding fire walls and separation of buildings.

(Ord. 634 (part), 1988).

18.33.070 - Lot coverage.

A. Maximum lot coverage by all buildings and structures as regulated by the Uniform Building Code.

(Ord. 634 (part), 1988).

18.33.080 - Height.

A. Maximum height of buildings and structures: subject to Uniform Building Code regarding building heights.

(Ord. 634 (part), 1988).

18.33.090 - Off-street parking and loading.

A. Off- street Parking and Loading. The requirements for off-street parking and loading in the waterfront industrial district shall be as set forth in Chapter 18.48 of this code.

(Ord. 634 (part), 1988).

18.33.100 - Minimum lot requirements.

A. Minimum Lot Requirements.

1. Lot width: 100 feet;
2. Lot size: 10,000 feet.

(Ord. 634 (part), 1988).

18.33.110 - Signs.

A. Signs. Signs may be allowed in the waterfront industrial district subject to the supplementary district regulations, the Uniform Sign Code, as set forth in Chapter 18.44 of this code.

(Ord. 634 (part), 1988).

18.33.120 - Floor elevations.

A. Minimum Finished Floor Elevations. In the waterfront industrial district, the following minimum finished floor elevations for the ground floor shall be adhered to:

North Fill Development Park

Block 1	
Lot 1	27.00’
Lot 2	26.50’
Lot 3	27.25’
Block 2	
Lot 4	27.25’
Lot 1	26.50’
Block 3	
Lot 2	26.25’
Lot 1	26.50’
Block 4	
Lot 1	27.25’
Lot 2	27.25’
Lot 3	27.25’
Lot 4	27.25’
Lot 5	26.25’
Block 5	
Lot 1	27.25’
Lot 2	27.25’
Block 6	

Lot 2	26.50′
Lot 1	26.25′
Block 7	
Lot 2	26.50′
Lot 3	26.25′
Lot 1	26.75′
Lot 3	27.25′
Block 8	
Lot 1	27.00′
Lot 2	26.75′
Lot 3	26.50′
Lot 4	26.25′

Note: The elevation datum used is based on the following described bench mark:

USC & GS Standard Brass Disk Located in Sidewalk Adjacent to Fish Game Building near Southwest Corner of Intersection Railroad Avenue and Breakwater Avenue. Elevation 40.40 Above M.L.L.W.

(Ord. 634 (part), 1988).

18.33.130 - Site plan review.

A. Prior to the issuance of a building for construction within the waterfront industrial district, the planning commission shall approve the development plan for the project. The site plan review shall be conducted in accordance with Chapter 18.42 of this code.

B. The exterior siding and roof shall be finished in earthtone colors.

(Ord. 634 (part), 1988).

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 2, Block 7, North Fill Development Park. See attached map.

Name of Proposer: _____Richard and Osa Schultz_____

Name of Organization: _dba: Mobile Grid Trailers, Inc.

Address: PO Box 1291 - 109 Council Ave. - Cordova, AK 99574

Phone #: 907-253-5269 Osa's cell, 907-253-3146 Ric's cell

Email: _AdoreAlaska@gmail.com

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 2, Block 7, North Fill Development Park is **$65,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $_67,500_____

MOBILE GRID TRAILERS, INC.

Owners/Operators: Richard and Osa Schultz
PO Box 1291
Cordova, AK 99574

Mobile Grid Trailers began doing business in 1985 providing boat trailering services and building trailers for the Cordova fishing fleet. Within a few years we began providing repair and towing services to the general Cordova public as well. In 1989 we moved into a unit at Bayside Storage. In April of 2000, we rented Lot 2 of Block 7 from the City of Cordova for staging our trailers and equipment. It has always been our intent to purchase this property, however, it has only recently become practical for us to transition our operations into a structure on the property.

Our current operations include:

- Trailering Boats for Repairs by owner or to local shops
- Boat Blocking for Seasonal Layup or Hull Repairs
- Boat and Utility Trailer Manufacturing, Sales and Repairs
- Wheel Bearing Repair and Trailer tire Mounting
- Retail Sales of Trailer Axles, Tires, Rims and Suspension Parts
- Loading/Offloading vehicles, equipment and boats on/off ferry
- Automotive Recovery and Towing
- Automotive Disposal preparation
- Equipment Rental – Trailers, Scaffolding, Blocking
- Equipment Moving – nets, engines, etc.
- Light Salvage – Repurposing of usable metal, trailer and auto parts
- Equipment Storage

Current Business Activity and Revenues

Our active Customer List totals 344 - being clients we have provided services for or sold products to in the last 4 years. Some customers we helped once, others multiple times. Invoices for boat tows usually include a Pull & Launch and often sales invoices include a combination of services - boat tows as well as trailer repairs & parts.

This chart shows a relative breakdown of our different activities tabulated from those invoices.

YEAR	Boat/Trailer Tows	Truck or Car Tows	Repairs	Parts
2011	138	16	18	20
2012	139	29	27	27
2013	122	35	28	33
2014	132	24	23	26

Our current operations have generated these revenues and the resulting Sales Taxes over the last 4 years.

YEAR	SERVICES	PARTS	TRAILERS	TOTAL SALES	SALES TAX
2011	45,240	3,925	0	$49,265	$2,595
2012	38,591	9,909	2,000	$50,500	$2,666
2013	39,665	6,471	5,825	$51,961	$2,358
2014	53,850	7,931	0	$61,781	$2,674

Over the 14 years that we have leased this city lot it has been essential for the operation of our business. It provides space for staging and storage of our trailer fleet and equipment. We reduced the size of our trailer fleet over the last 6 years as more fishermen purchased their own trailers. We rented this extra space, approximately 1/3 of the total area, to our customers for storage of their boats, trailers, and equipment. This fall we turned away those customers in preparation for this project.

As the Cordova fleet has increased their ownership of boat trailers, the South Fill has become less available for parking and repairs. In response the City has made useful improvements to the trailer staging area on the North Fill. We have increasingly used the North Ramp since the addition of the floating dock, and even more this last season with water & electricity available in that area. With our current shop location at Bayside Storage and our equipment staged on the adjacent lot, Mobile Grid has been perfectly located to provide services at both ramps. This proximity has allowed us to support the City's intent to increase usage of the North Ramp.

Presently, we are the only commercial marine service business located on the North Fill.

Proposed Building – Size, Use, and Value

Our plan is to construct a warehouse 62' x 70' with a square footage of 4,340. It would be divided into 2 large bays and a group of rental lockers – 4 @ 300 sq. ft. and 2 @ 180 sq. ft. Mobile Grid will utilize about 1600 sq. ft. of the warehouse leaving 2740 sq. ft. of its 1st floor available for lease. The rental income at $1 per sq. ft. would average $2,700/ month and generate an additional $1973 per year in sales tax.

We are also looking to have it engineered to eventually add a second floor loft that could be made available for net storage and gear hanging. As commercial fishers for over 30 years, we know that there is great demand for indoor space for these uses.

We have been communicating with R & M Steel Co. to review warehouse package options. There are a reputable company that has provided engineered building packages for construction in Cordova for decades; they are very familiar with the snow and wind requirements of our area.

We estimate the improvements to the property for this development to be valued at approximately $275,000. The substantial increase in the property taxes on the lot would generate additional revenues for the city.

Proposed Timeline

We have already begun to reduce the amount of superfluous equipment and materials on the lot; multiple vehicles and a boat damaged by the 2012 snow fall, and items previously being kept for salvage or recycle opportunities, have been consolidated or disposed of. We will continue this process throughout the winter as weather allows.

<u>Spring 2015</u>

We presently have financing available and are prepared to purchase the property in the amount of $67,500, plus the required fees as per city code, within 90 days of the City presenting us a sale contract.

Once we are the titled property owners, we will commence the development process, applying for the required permits and preparing the lot for the laying out of a structure. The lot requires a substantial amount of fill to bring it up to a buildable grade, and it will require reasonable amount of time to be worked and settled.

Summer 2015
Once our building plans have been approved, installation of utilities and site preparation will follow as crews are available and weather permits.
While we will be commercial fishing as well as continuing to operate our other businesses at this time, we will make every effort to move the project forward and keep the property in a productive mode.

Ideally, we would like to start construction by the end of the summer, however, with many unknowns and multiple factors influencing the schedule, it is possible that phase will not happen until Spring of 2016.

Benefits to the Community
Presently, our company provides important services to the marine industry as well as to the general public by offering towing of boats, trucks, cars, and equipment. Cordova's rugged environment takes its toll on axles and tires, keeping them in repair is critical for their safe operation. We deal with many failed trailers during the season and get them back to work for their owners.
This location also makes it easy for us to support the Harbor Dept. in encouraging boat owners to use the North Ramp facility, reducing the trailer traffic around the City Harbor ramp.
The approval of this project will allow our business to grow and offer more products to our customers. Once our company sets up business in the new warehouse we expect to be able to hire an additional employee to increase our hours of operation, our shop productivity, and retail sales.

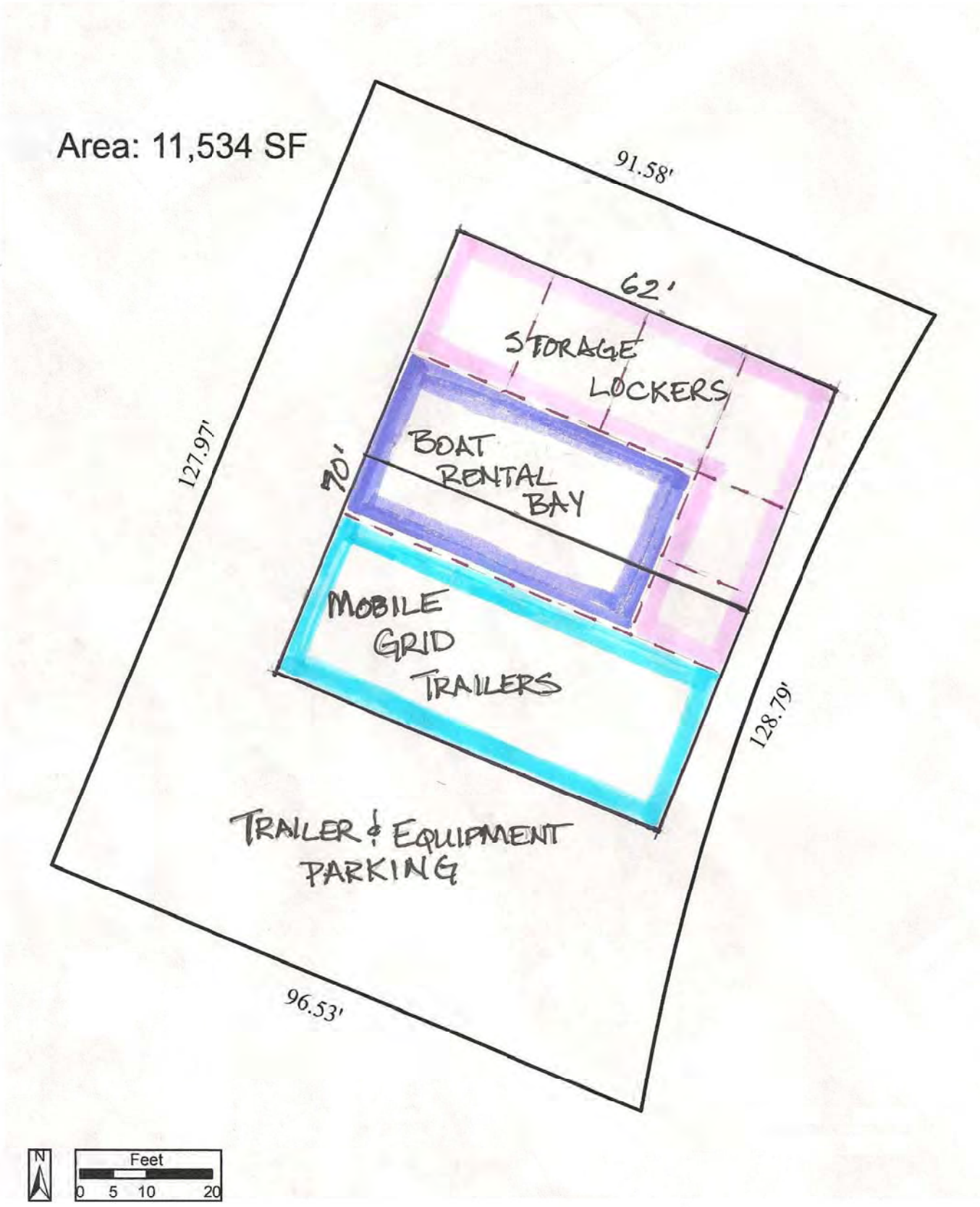
The North Fill was originally created for precisely this type of development. Lot 2 of Block 7 is an **essential** component to the future of our business. There is virtually no alternative property in the area to relocate to – losing it would force us to liquidate the majority of our equipment and assets. This would gravely reduce the services we can provide to our customers, undermine our ability to meet our overhead costs, and could ultimately result in the closure of our business.

We respectfully request your careful consideration of our proposal. Please advise us of all scheduled meeting dates that we could be available to comment on our behalf and we invite you to contact us with any questions regarding this proposal.

Thank you,

Richard & Osa Schultz
Mobile Grid Trailers, Inc.

ATTACHMENT C

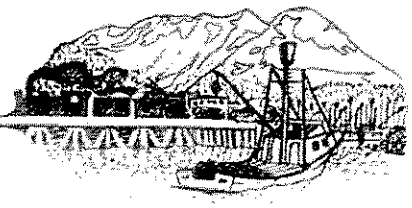


Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA



SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 2, Block 7, North Fill Development Park. See attached map.

Name of Proposer: Rick Isaacson

Name of Organization: Trident Seafoods Corp.

Address: 5303 Shilshole Ave NW
Seattle WA 98107

Phone #: 206-783-3818

Email: risaacson@tridentseafoods.com

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 2, Block 7, North Fill Development Park is **$65,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 90,000

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District.**

TRIDENT SEAFOODS CORPORATION

5303 Shilshole Ave. NW, Seattle, WA 98107-4000
• (206) 783-3818• Fax: (206) 781-7604

December 1, 2014

RE: Property: Lot 2, Block 7, North Fill Development Park.

To City of Cordova Planning Department,

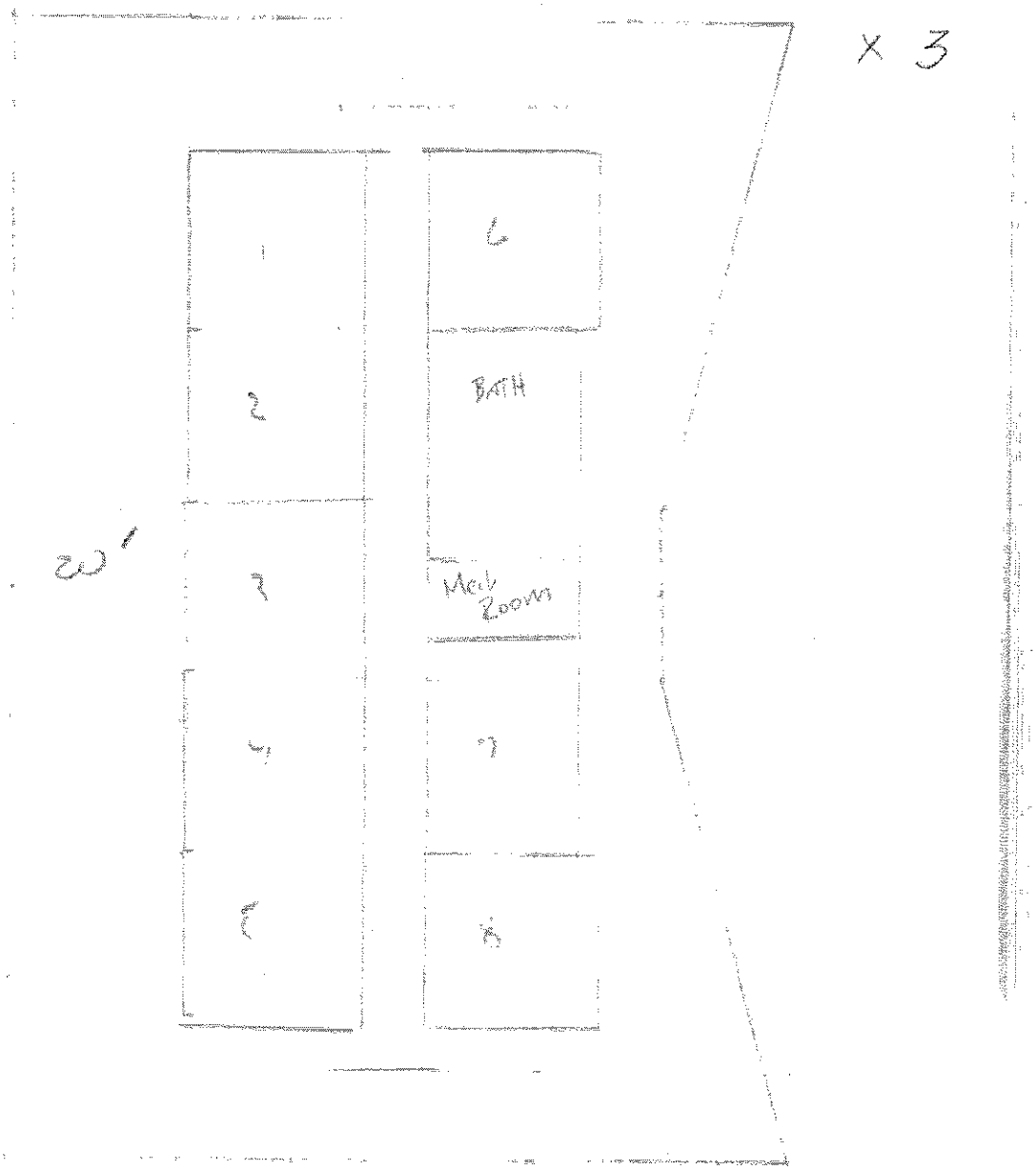
Trident Seafoods is proposing to develop Lot 2, Block 7, North Fill Development Park into a 3 story, 144 person bunkhouse that will be approximately 15,000 square feet. The design will be similar to the bunkhouse that we built in 2013. With the increase in bunk space we will be able to increase our daily production by 25% and give us the ability bring more fish and taxes into the City of Cordova. We are budgeting $2,000,000 for this project, not including the price of purchase for the property. We are looking at a completion in the spring of 2016.

Please see attached drawing of proposed building.

Please contact me if you have any further questions.

Thank you,

Rick Isaacson
Trident Seafoods Corporation
PWS Operations Manager
Direct: 206-297-5663
Email: risaacson@tridentseafoods.com



8 Rooms @ 6 people = 48 people per Floor

3 Floors @ 48 = Total 144 Bunks.

Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 2, Block 7, North Fill Development Park. See attached map.

Name of Proposer: Moe Zamarron

Name of Organization: Native Village of Eyak

Address: PO Box 1388
Cordova, AK 99574

Phone #: 907-424-7738

Email: moe.zamarron@eyak-nsn.gov

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 2, Block 7, North Fill Development Park is **$65,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

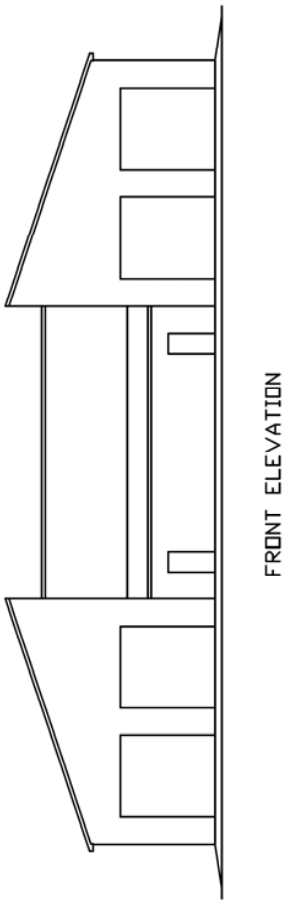
Proposed Price $ 65,000

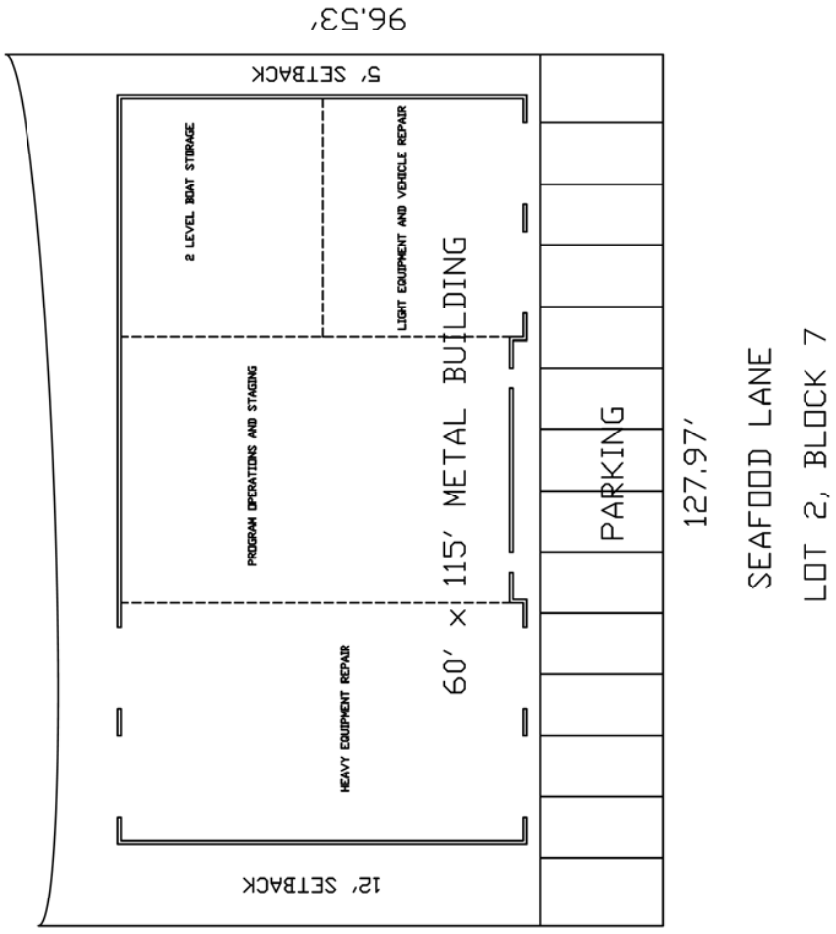
The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Lot 2, Block 7, North Fill Development Park, City of Cordova, Alaska.
Current location of Mobile Grid

1. The Native Village of Eyak (NVE) proposes to develop the above referenced parcel into a combination marine and land based transportation service facility providing an assortment of general repair, maintenance and upgrade tasks. To address the growing needs of its expanding fleet of vessels and work vehicles it is necessary for NVE to make plans for a new facility that would adequately support in-house operations. While some amenities would be limited in use to NVE while others would be made available commercially. Equipment has been secured that enables NVE to perform shrink-wrapping of vessels and equipment, perform tire repair for large trucks and heavy equipment and to provide general welding work. These services would be available to the public from this facility along with the rental of specialized equipment, with certain restrictions. Additionally, room would be made available for the storage of small vessels, equipment and supplies but only for NVE programs.
2. Taking final design criteria and code restrictions into account NVE proposes to set the area of the building at the maximum allowed for the lot. Once the design team has considered all pertinent information a final footprint can be presented but initially this proposal shows a 60' x 115' building for an area of 6,900 square feet. Drainage, parking space counts, snow handling and setbacks all will have bearing on the building layout and may alter the proposed square footage of development.
3. See attachment 'A' for required sketch of proposed development.
4. Benefit of proposed development to the community. NVE operates a number of programs that bring direct benefit to the tribal members in the area and to the community of Cordova at large. Through the transportation, natural resources, wellness and housing departments NVE channels outside funding to Cordova that promotes health, affordable utilities and increased standards of living. The ability of NVE to house, maintain and operate equipment related to these programs offers two primary benefits for continued program development. First, this facility provides the means to keep program equipment functional, efficient and ready for use. This demonstrates to funders a level of competence and responsibility on the part of NVE in following through with the requirements of program expansion. Secondly, the new facility provides potential funders with an accurate picture of NVE's ability to build capacity through preparation and partnership development. This facility will provide services that are not currently in Cordova which reinforces local economic wellbeing and promotes cooperation between organizations. Future programs will receive more favorable consideration when local interests are addressed collectively.
5. The dollar value of the proposed development is estimated at $759,000.
6. The proposed timeline for development is to have an initial design ready by the 1st quarter of 2016 and have construction start in 2017.


FRONT ELEVATION


96.53'
5' SETBACK
2 LEVEL BOAT STORAGE
LIGHT EQUIPMENT AND VEHICLE REPAIR
PROGRAM OPERATIONS AND STAGING
115' METAL BUILDING
60' X
HEAVY EQUIPMENT REPAIR
12' SETBACK
PARKING
127.97'
SEAFOOD LANE
LOT 2, BLOCK 7
91.58'

Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

CITY OF CORDOVA

SEALED PROPOSAL FORM

All proposals must be received by the Planning Department by December 1st, 2014 at 10 AM.

Property: Lot 2, Block 7, North Fill Development Park. See attached map.

Name of Proposer: KATRINA HOFFMAN

Name of Organization: PRINCE WILLIAM SOUND SCIENCE CENTER

Address: 300 BREAKWATER AVENUE
PO BOX 705
CORDOVA, AK 99574

Phone #: 907·424·5800 x 225

Email: khoffman@pwssc.org

Note: All submitted proposals for this property will be reviewed by the Planning Commission using the attached criteria. The Planning Commission will then recommend a proposal to City Council for final review and acceptance.

The City Council reserves the right to reject any proposal, part of any proposal, or all proposals. The City Council may accept any proposal deemed most advantageous to the City of Cordova.

The chosen proposal will be subject to a Site Plan Review conducted in accordance with Chapter 18.42 of the Cordova Municipal Code. Prior to the issuance of a Building Permit, the City Council must approve the site plan for the project and the State Fire Marshal must approve the plan review for Fire and Life Safety.

The fair market value for Lot 2, Block 7, North Fill Development Park is **$65,000.00**. The fair market value has been determined by a qualified licensed appraiser and will be the **minimum** price that will be accepted for the property. If the successful proposal amount is greater than the minimum price, that shall be the amount paid for the property.

All organizations that submit proposals will be required to meet the appropriate criteria within Cordova Municipal Code Section 5.22. A link to the City Code is available at www.cityofcordova.net.

Proposed Price $ 100,000.00

The applicant shall also be responsible for all fees and costs the City incurred to third-parties in the transaction, including without limitation costs of appraisal, attorney's fees and costs, surveying and platting fees and costs, closing costs and escrow fees as per City of Cordova Municipal Code section 5.22.100.

Please review the attached section of Code for the permitted uses within the **Waterfront Industrial District**.

Property: Lot 2, Block 7, North Fill Development Park

Name of Proposer: Katrina Hoffman
Name of Organization: Prince William Sound Science Center
Address: 300 Breakwater Avenue, PO Box 705, Cordova, AK 99574
Phone: 907-424-5800 x225
Email: khoffman@pwssc.org

Additional Information Required:

1. Describe the type of business you're proposing to develop.

This site will be developed as a portion of the distributed campus of a well-known research and education institution, the Prince William Sound Science Center. The building developed on this site will provide:
--shop space for marine equipment construction, repair, and dismantling;
--warehousing for equipment and supply storage;
--marine oriented staging for research activities
--haulout and storage area for the multiple vessels owned by the organization, as dictated by vessel maintenance and storage needs
--bunkhouse space for employees and professionals with responsibility for using, constructing, repairing, dismantling, and/or organizing supplies and equipment of the business
--Yard space and lean-to space will allow for the storage and maintenance of rolling stock, vessels, and deployable equipment.

2. What is the proposed square footage of the development?

The proposed square footage of the development is 2,400 square feet per floor at two stories for a total of 4,800 square feet in an enclosed building. The site development plan also includes a lean-to structure that will provide covered storage outside the building. The lean-to has a 600 square foot footprint. There is additional space allocated in the site plan for haulout and storage of the vessels owned by PWSSC, as dictated by vessel maintenance needs.

The maximum height shall not exceed that dictated by Uniform Building Code.

Off-street parking and loading is provided for as designated in the site plan.

3. Provide a sketch, to scale, of the proposed development in relationship to the lot.

See Attachment C.

4. What is the benefit of the proposed development to the community?

The benefits of the proposed development to the community are multiple. It will support an organization that has between 20 (year round) to 30 (high season) employees on staff at any given time of year. It will allow for the addition of an employee at an operations manager level. Construction of the facility will employ local laborers and use materials from local vendors, generating sales tax revenue through direct purchases. Seasonal employees who stay in the bunk space will be within walking distance of the downtown core and will purchase goods and services in the community, generating sales taxes as well. Increased access to space for constructing, maintaining, and storing research equipment will attract research collaborations with individuals from organizations outside of Cordova. These collaborations will generate additional visitors to the community.

The importance to the community is high. These facilities are critical to the ability of PWSSC to carry out its water dependent and water related work, with an annual budget of $5,000,000 and over $100,000 per month in local payroll. Further, these facilities will enable PWSSC to increase the value of the annual work pursued and completed, enabling the hiring of one or more additional permanent staff and drawing multiple visitors from collaborating institutions to Cordova for shorter periods of time.

The building will be designed to represent the aesthetic of a classic fishing village cannery building. External trim will give it charm. A functional yet decorative balcony off the second floor will be constructed of handsome decking materials and will enable the display of planters that permit seasonal landscaping enhancements.

The center-peak roof of the building will allow snow to shed to both sides of the building. There is ample space purposefully left available for the movement and storage of snow on-site.

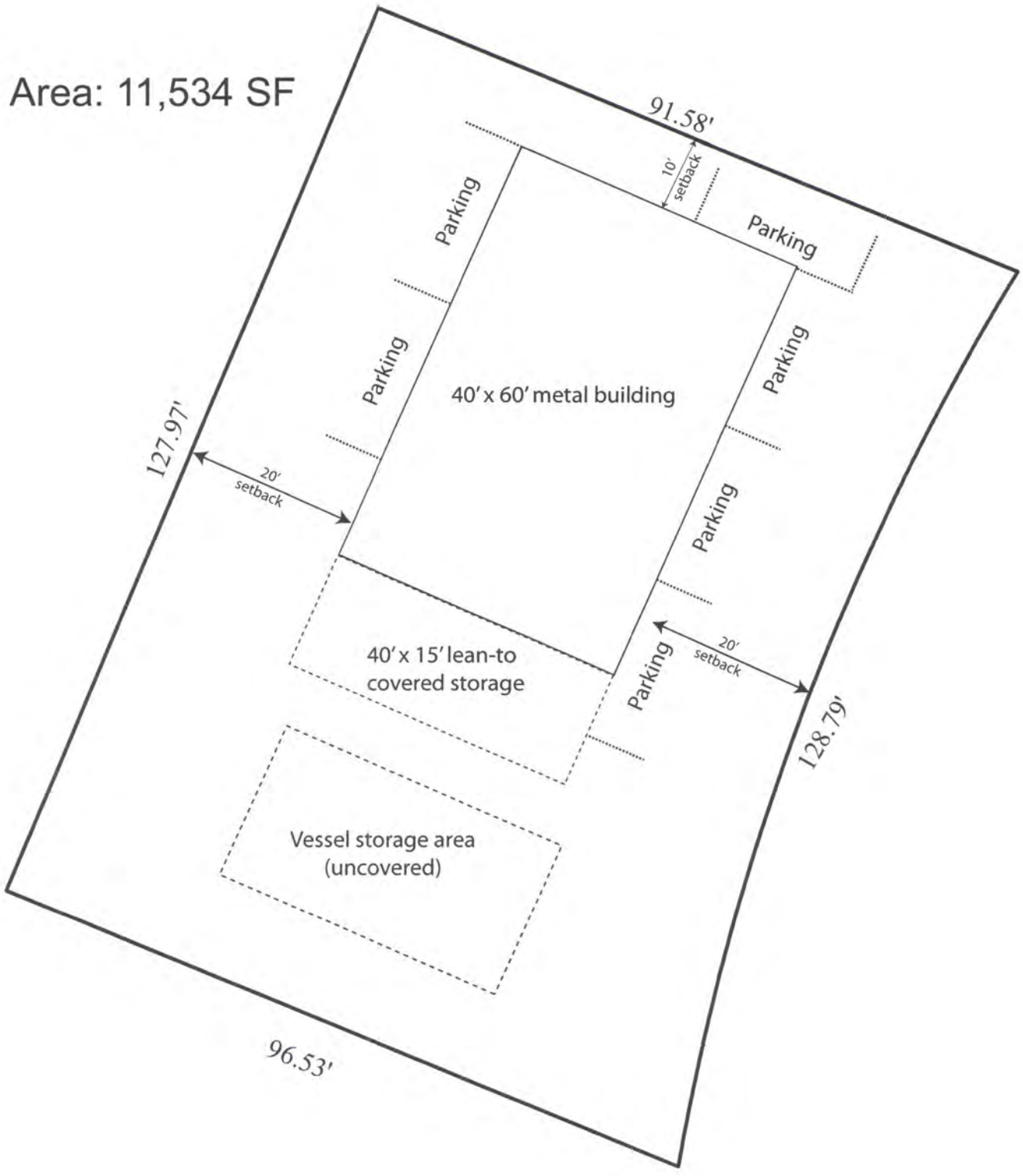
5. What is the value of the proposed improvements (in dollars)?

The value of the proposed improvements is $350,000.

6. What is your proposed timeline for development?

The proposed timeline for building completion is 12 months. Within 18 months, at least one new permanent staff member will be hired. Within 24 months, relationships will be established with partners that will draw collaborators to Cordova for research and education purposes.

ATTACHMENT C



Land Disposal Evaluation Criteria

Proposal: _____

Criteria	Multiplier	Proposal Rank 1-10	Subtotal for Proposal
Value of improvements	1.75		
Number of Employees	1		
Sales Tax Revenue	1		
Importance to Community	1.75		
5yr Business Plan/Timeline	0.75		
Enhanced Architectural Design	1.25		
Proposal Price	1		
Consistency with Comprehensive Plan	1.5		
Total	**10**		

Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Second Street Parking Recommendation to City Council

PART I – GENERAL INFORMATION

This memo was presented to the Planning Commission at the October 28th Regular Meeting in the Planner's Report. At the request of the commission, it has been edited to become an action item as a recommendation from the commission to City Council.

At the Planning Commission September 24th Work Session, staff was directed to investigate the parking on Second Street between Browning Avenue and Council Avenue. Staff have determined that the total length of curb dedicated to parking is approximately 320 feet (see Attachment A). Using the measurements provided in the City's Code (18.48.010 see Part II), there would be the following number of parking spaces for each condition:

Parallel Parking (0°) – 13 spaces
Angled Parking (35°) – 17 spaces
Angled Parking (45°) – 21 spaces
Angled Parking (55°) – 26 spaces

The parking currently on Second Street appears to be generally 45°-55° from the curb, however the parking spaces are not delineated in the entire length of the street. The parallel parking scenario accounts for 23 feet, but this is probably more variable as there are no lines painted on the ground (ex.: Main Street is parallel parking, but individual spaces are not marked so as to provide the maximum number of parking spaces) and the length of larger vehicles reaches nearly 23 feet. The amount of spaces decreases fairly significantly as you change the angle of the parking.

In conclusion, a good rule of thumb is that angled parking at 55° provides two times the amount of parking spaces as parallel parking, however whether or not the spaces are marked on the ground likely plays a large role in the actual number of spaces used.

PART II – APPLICABLE CODE

Chapter 10.04.010 VEHICLES AND TRAFFIC – GENERAL PROVISIONS – Emergency and experimental regulations.

A. The traffic authority of the city is empowered to make regulations necessary to make effective the provisions of the traffic ordinances of this city and to make and enforce temporary or experimental regulations to cover emergencies or special conditions. No such temporary or experimental regulation shall remain in effect for more than ninety days.

Chapter 10.04.050 VEHICLES AND TRAFFIC – GENERAL PROVISIONS – Definitions.

In this title:

B. "Traffic authority" means the city manager or the city manager's designee.

Chapter 18.48.010 ZONING – OFF-STREET PARKING, LOADING AND UNLOADING – General regulations.

F. Plans for the layout of off-street parking facilities shall be in accordance with the following minimum requirements:

Parking Pattern	Maneuvering Lane Width	Parking Space Width	Parking Space Length	Total Width of One Tier of Spaces Plus Maneuvering Lane	Total Width of Two Tiers of Spaces Plus Maneuvering Lane
0° (parallel parking)	12 ft.	8 ft.	23 ft.	20 ft.	28 ft.
30° to 53°	13 ft.	9 ft.	20 ft.	33 ft.	53 ft.
54° to 74°	18 ft.	9 ft.	21 ft.	39 ft.	60 ft.
75° to 90°	25 ft.	9 ft.	19 ft.	44 ft.	63 ft.

PART III – STAFF RECOMMENDATION

Following the last Regular Meeting, City staff met to go over different options for parking on Second Street. Staff attending the meeting included police chief, fire chief and public works. Many options were reviewed including P&Z's recommendation of moving towards all parallel parking for the entire West side of the street. Staff believes that the challenge at the intersection can be mitigated by less impactful measures. Staff would recommend the Planning Commission to consider recommending to City Council that the parking on the West side of Second Street be changed as follows:

- The first 50 feet of angled parking going South from Council Avenue will be parking for compact cars only (<17 ft), and will be delineated by paint on the asphalt and signage.

Staff decided on this recommendation because it does not decrease the number of parking spaces on Second Street, but will eliminate the issue of longer vehicles extending out into the intersection. It also has the least amount of impact on the business located on the corner. The first 15 feet of the curb will be "No Parking" and the next 50 feet will be compact only (17 feet or less) and have angled lines painted that will control the angle at which the vehicle is parked. Public safety has tried different lengths of cars and believes that a 17 foot cut off will be adequate when parked at the correct angle to allow traffic to turn into the lane without having to veer into the oncoming lane. This length includes small cars, trucks and SUVs but would not include full size, extended cab, or long beds trucks.

- Average car: 14'
- Small pickup truck: 18'
- Full pickup truck, SUV, or van: 20' or 22'

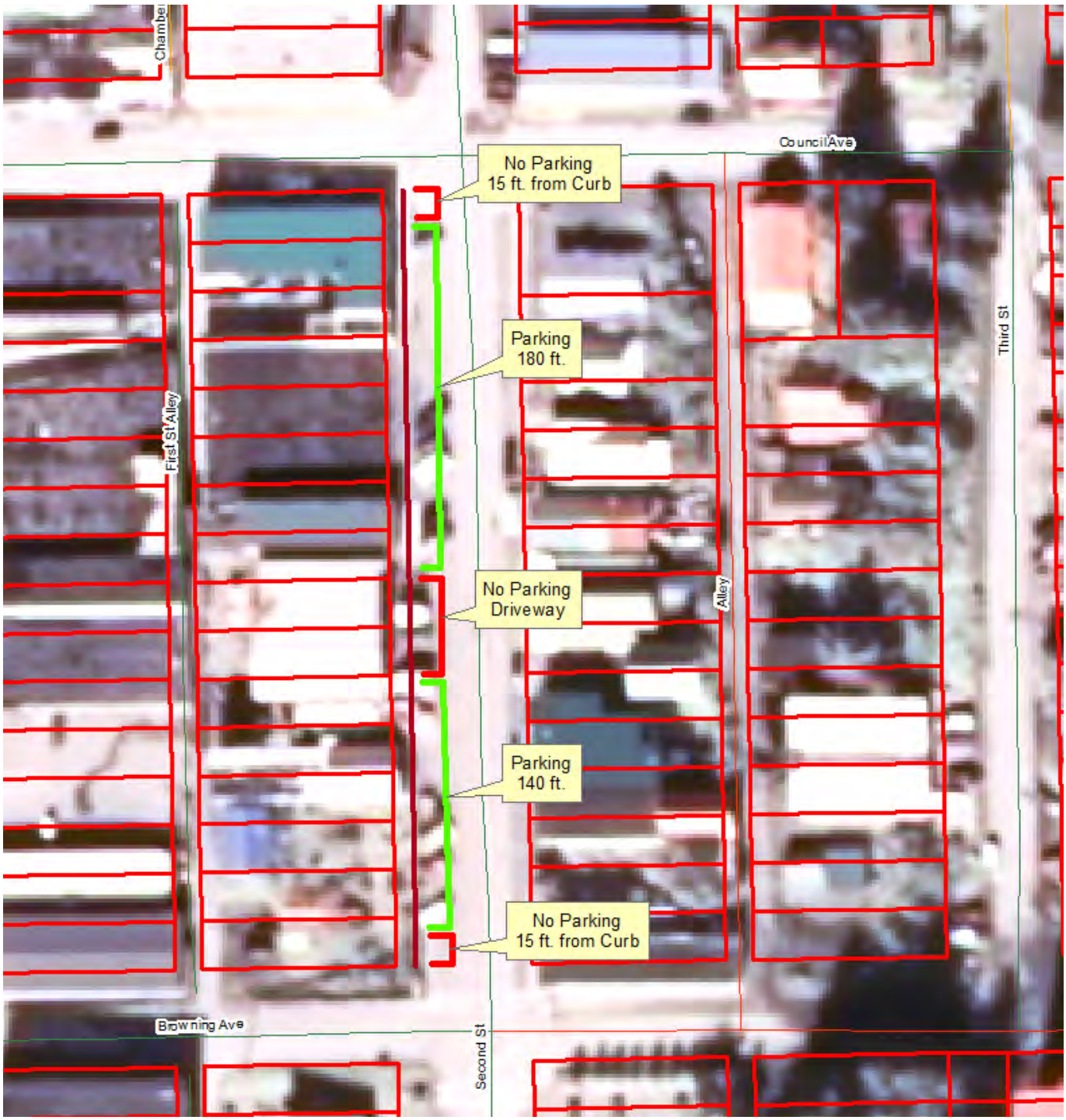
PART IV – RECOMMENDED MOTION

"I move the Planning Commission recommend to City Council that the parking on the West side of Second Street be changed as follows (select one option below or suggest other) :

- The first 50 feet of angled parking going South from Council Avenue will be parking for compact cars only (<17 ft), and will be delineated by paint on the asphalt and signage.

- The West side of Second Street will be parallel parking from Council to Browning Avenue.

Attachment A



Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Snow Load Discussion

PART I – GENERAL INFORMATION

The commission requested a discussion on the 150 lbs. per square foot ground snow load requirement. Staff prepared this memo to help provide background information and facilitate the discussion.

> **GROUND SNOW LOAD** – The weight of snow on the ground. The 50-year mean recurrence of ground snow is used to determine the design roof snow load.
>
> **ROOF SNOW LOAD** – Load induced by the weight of snow on the roof of the structure.

Links for additional information:

http://www.bgstructuralengineering.com/BGASCE7/BGASCE7008/index.htm

http://www.ce.udel.edu/courses/CIEG407/CIEG_407_Protected/Chapter%207%20Commentary.pdf

http://www.civil.utah.edu/~cv5450/roofload/SNOWLOAD.htm
good general information

http://www.ehow.com/how_6144596_calculate-roof-snow-loads.html
how snow load is calculated

The Truss Company provided a quote showing the cost difference in trusses for 100 lbs. and 150 lbs. snow load. (Attachment F) This is for 40 X 60 shop, seismic D, wind load 100 and Condition C.
I have contacted an engineer from Anchorage to provide a cost comparison of the engineering requirements between the snow loads. At the time the packet is being printed we have not received a report. If the report comes prior to the meeting we will email it to the commissioners and provide copies at the P&Z meeting.

Attachments: Attachment A: Excerpt from Minutes of 4/10/12 Planning Commission Regular Meeting
Attachment B: Excerpt from Minutes of 5/8/12 Planning Commission Regular Meeting
Attachment C: Resolution 12-03
Attachment D: Excerpt from Minutes of 5/14/12 City Council Special Meeting
Attachment E: Ground Snow Load Analysis prepared by Steve “Hoots” Witsoe
Attachment F: Cost Comparison for Trusses

PART II – BACKGROUND

4/10/12 – At the Planning Commission Regular Meeting, the commission had a discussion on the snow load requirements for Cordova. See attached minutes.

5/8/12 – At the Planning Commission Regular Meeting, the commission had Steve "Hoots" Witsoe prepare a report and give a recommendation concerning snow load. The commission went on to pass Resolution 12-03 recommending the change in snow load to City Council. See attached minutes and resolution.

5/14/12 – At the City Council Special Meeting, the council accepted the resolution from the Planning Commission. See attached minutes for the discussion.

6/20/12 – At the City Council Regular Meeting, the council passed the first reading of Ordinance 1095, an ordinance increasing the ground snow load to 150 lbs. per square foot. The ordinance was passed in the consent calendar with no discussion.

7/5/12 – At the City Council Regular Meeting, the council passed the second reading of the ordinance with no discussion.

PART III – APPLICABLE CODE

16.15.2305(d) LOCAL AMENDMENTS TO THE UNIFORM BUILDING CODE, 1985 EDITION – Snow Loads.

Delete the last sentence in the second paragraph and substitute the following:

(i) The minimum basic design snow load shall be 100 pounds per square foot on the horizontal projection of the roof for building permits issued or required prior to September 1, 2012.

(ii) The minimum basic design snow load shall be 150 pounds per square foot ground snow load for construction requiring or issued a building permit on or after September 1, 2012.

Attachment A: Excerpt from Minutes of 4/10/12 Regular Meeting

2.) Discussion on Snow Load

Reggiani ~ Well I asked that maybe we take a look at this after the recent event that we just went through, it seemed like in the community here was a lot of confusion on snow load and what it Code and why are buildings collapsing. I kind of looked into it and I looked at the table of Ground Snow Loads for Alaska communities. What stood out to me was that Cordova was at 100 psf, Yakutat is at 150 psf, Valdez is at 160 psf and Whittier is at 300 psf. I couldn't really figure out where that data actually come from and how old that table is. And I don't know if that matters or not but typically with historical datasets you'll update them periodically and I don't know what our ground load was this year compared to the historical average.
Josh Hallquist ~ That's what you're supposed to base it off of is a 50 year snow.
Reggiani ~ It looks like the Alaska Statues leave it up to the local municipality. Other than just picking a number I don't really know how to put some data behind it.
Pegau ~ We actually are collecting the data up on Ski Hill, there's a snow pillow that gives you snow water equivalents. It will tell you exactly how much water equivalent there was and from that you can figure out the pounds per square foot. Historically there hasn't been a measure other than height, but for the last five years they've been recording the snow depth at that elevation.
Reggiani ~ When do you think that data will be available?
Pegau ~ It's online, I always end up looking up Mt. Eyak SNOTEL.
Greenwood ~ Hoots and Kirsti are checking it regularly.
Srb ~ Tom, I have a question I'd just like to hang out there. With regards particularly to the Municipal buildings and such but is there a mechanism or way of developing a mechanism that kind of takes away the decision making process out of any one individuals processes with regards to making a determination that I need to have this shoveled or that shoveled. Some kind of way of calculating a real time snow load within the municipality that says; "within these parameters all municipal buildings will hire somebody to shovel the roofs."
Bailer ~ I think Dave (Reggiani) is kind of heading that direction aren't you?
Reggiani ~ We are, Council has asked me to start working on a Memorandum of Understanding between the City and the School District to talk about maintenance of all of the municipal buildings so that one party isn't waiting for another party or thinking that the other party is going to do something and the same thing the other way. But as far as actually getting some data and understanding that I think you could probably come up with some real good general rules from that. But going through all of this, I was impressed, just to get the discussion started I was just hoping for the table to be thrown into this but Faith and Sam did a wonderful job putting everything in there. I was looking and happy to find an importance factor thrown into it on page 64 and I think what we need to have from the City's side of things is some history and make sure that the importance factor was factored into the equation on these municipal buildings for sure. The higher the category the more important the facility is to the community.
Josh Hallquist ~ I would say by what I've seen here it would be safe to bump it up a little bit.
Srb ~ On our current building permits if someone comes in and says that they want to attach a shed style roof to the side of their house, is there any requirement for engineering?
Samantha Greenwood ~ We don't require engineering for in residential for anything.

After a lengthy discussion the Commission agreed to have the data from the SNOTEL site compiled and bring that information back for further dialogue.

Attachment B: Excerpt from Minutes of 5/8/12 Regular Meeting

1. Snow Load

Steve "Hoots" Witsoe ~ Okay, Snow Loads area what's used to determine how much load they can hold and what the roof needs to be built for. The Code book has a table and Cordova is at 100 pounds per square foot, the interesting thing about that is Yakutat is at 150 psf, Valdez is at 160 psf and Whittier is at 300 pounds per square foot. So the purpose of what I was doing was use extreme value statistical analysis to determine what our snow load really is. So, what I did is I went through weather data and we don't have great weather data, but we do have 26 years from CEC's Orca Power Plant and then we have a bunch of data from the Airport. Originally I had more information from the Power Plant and the Power Plant typically represents the town better than the Airport. Keep in mind that we get much more snow at higher elevations than we do at sea level.
I came up with two recommendations:
140 pounds per square foot at Sea level and at 100 vertical feet you would add another 20 pounds. (40% density)
150 pounds per square foot at Sea level and at 100 vertical feet you would add another 20 pounds. (50% density)

Commission had a lengthy discussion and explanations on the snow load data provided by Hoots.

Bailer ~ Thank you so much for all your hard work on this.
Bailer ~ Tom how about you, you're doing a lot of building, what do you think?
McGann ~ I think we should increase it, I was looking at it from a cost standpoint in residential. A cut roof, basically just adding more rafters, even if you had to double the amount of rafter it would only increase the dry in package by 3.6%. I looked at trusses and if you had to double the trusses it would only increase the total dry in package by 4.6%. So I don't think that it's becoming cost prohibitive to do this stuff.
Bailer ~ Yeah I would agree.
Samantha Greenwood ~ And I talked with a metal guy I don't know if you saw it in the Planners Report, but he is in Wasilla but has built buildings here. He did say that he thought that the labor would not substantially increase, but that there would be an increase of about 25%. Most of that would be weight and shipping.
Srb ~ With the idea in mind that some of these properties are being sold as seasonal and nobody is going to be there to babysit them it might behoove us to bump things up and try to better protect investments.
Samantha Greenwood ~ Okay, so I threw in that resolution in case you guys wanted to move forward like that, it's not something that we have to do.

After a lengthy discussion and explanation on the snow load data provided by Hoots the Commission agreed that in their opinion the snow load for Cordova should be increased to 150 pounds per square foot.

M/Srb S/McGann "I'd like to make a motion to make a change in the current snow load requirement of 100 pounds ground snow load to 150 pounds ground snow load to the City Council of the City of Cordova, Alaska.

Bailer ~ Scott did you hear the motion?
Pegau ~ Yes, I did hear the motion, the only comment I had was on the "whereas's" you might want to strike "Whereas, this year's snow load was not a record for City of Cordova." because you can't demonstrate it.
Samantha Greenwood ~ You're right.

Upon voice vote, motion passed, 6-0

Attachment C: Resolution 12-03

CITY OF CORDOVA, ALASKA
PLANNING AND ZONING COMMISSION
RESOLUTION 12-03.

A RESOLUTION OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF CORDOVA, ALASKA, RECOMMENDING TO CHANGE THE CURRENT SNOW LOAD REQUIREMENT OF 100 POUNDS GROUND SNOW LOAD TO 150 GROUND SNOW LOAD TO THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA

WHEREAS, the City of Cordova experienced an exceptional snow year for 2011-12; and

WHEREAS, there were roof collapses and damage to buildings from snow load throughout the town; and

WHEREAS, to help provide for the public welfare and safety of citizens of Cordova; and

WHEREAS, after reviewing previous years ground snow load numbers, reviewing ground snow codes for nearby coastal communities, historical snow accumulation totals, and impact building cost building; and

WHEREAS, the Planning Department staff and the Planning and Zoning Commission would like to recommend to the City Council of Cordova to accept and support the new ground snow load of 150 pounds.

NOW, THEREFORE, BE IT RESOLVED THAT the Planning and Zoning Commission of the City of Cordova recommends to change the current snow load requirement of 100 pounds ground snow load to 150 ground snow load to the city council of the city of Cordova, Alaska

PASSED AND APPROVED THIS 8th DAY OF MAY, 2012

Tom Bailer, Chairman

ATTEST:

Samantha Greenwood, City Planner

Attachment D: Excerpt from Minutes of 5/14/12 City Council Special Meeting

19. Acceptance of Planning and Zoning Commission Resolution 12-03
M/Allison S/Reggiani to accept resolution 12-03 from the Planning and Zoning Commission.
Mayor Kallander informed Council that to approve this resolution will add to the cost of new construction. ***Beedle*** opined that if this is passed than 100% of Cordova is out of compliance. What happens when a person goes to sell their house? ***Greenwood*** replied that existing structures would be grandfathered in; this would be required on new structures. ***Beedle*** asked if this is passed tonight when it takes effect. Will those building currently have to adjust their plans to accommodate this change? ***Greenwood*** responded that this resolution is just asking for Council's support. It is not passing anything. It will have to be changed in code, which would be an ordinance, two readings, and then 30 days after that. Until it becomes code we are still at the old code. When a person gets their building permit they will be notified of the building requirements according to code at that point in time. ***Bradford*** stated that he has no problem with this he will support it. ***Reggiani*** stated that he is going to support this.
Vote on motion: 4 yeas, 1 nay (Beedle), 1 absent (van den Broek). Motion passes.

Ground Snow Load Analysis

Prepared for:
City of Cordova
May 1st, 2012

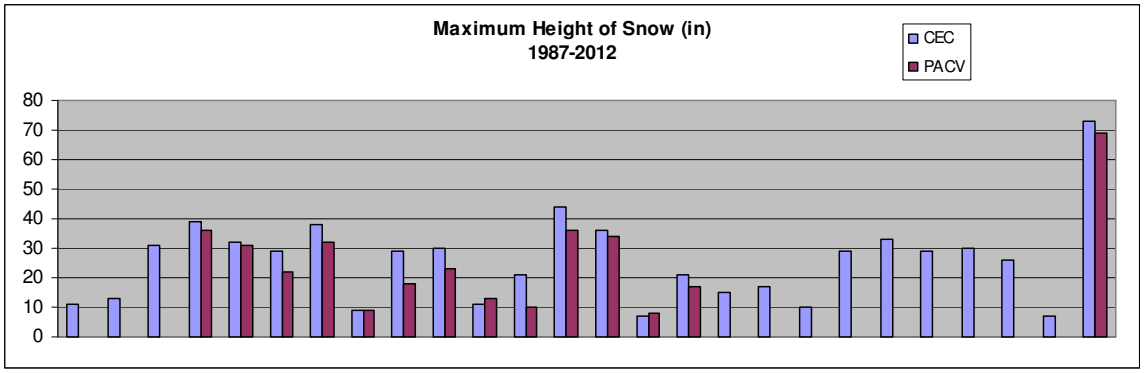
Prepared by:
Steve “Hoots” Witsoe

Current snow load requirements for the City of Cordova are based on the International Building Code. Design snow loads for roofs are determined using ground snow load; p_g. Ground snow loads for Alaska locations are set forth in Table 7-1, ASCE 7-05, with Cordova at 100 lbs/ft^2. Interestingly, Cordova's nearest neighbors have significantly larger ground snow loads, with Yakutat at 150, Valdez at 160, and Whittier at 300 lbs/ft2. Authorities having jurisdiction can also determine ground snow load using extreme value statistical analysis of data available with a 2 percent annual probability of being exceeded (50 year mean recurrence interval).[1]

Weather data for Cordova is limited to CEC Orca Power Plant[2], Mudhole Smith Airport[3], Mt Eyak Snotel[4], and personal observations[5].

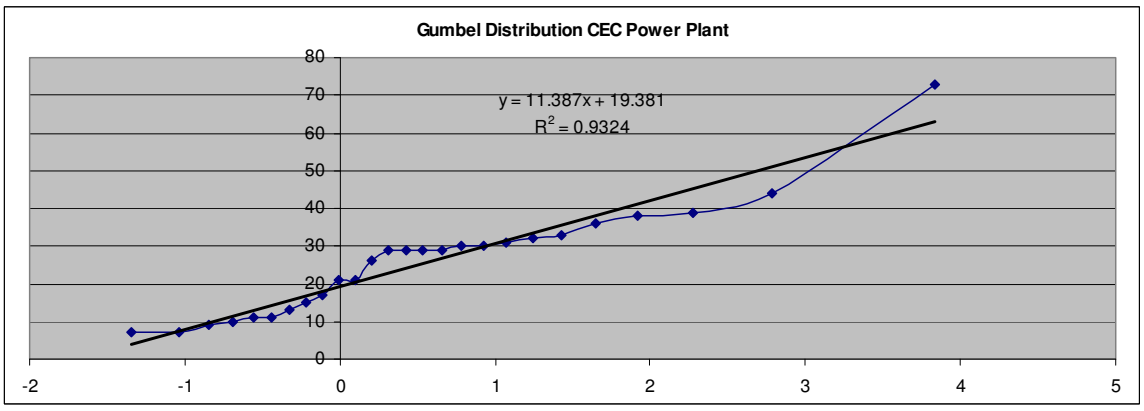
For this analysis, 26 years of power plant data and 14 years of airport data was used. A larger dataset exists for the airport but was not accessible at the time. While weather can be quite different between the power plant and the airport, their annual maximum height of snow is very similar (see Figure 1). The power plant data was used over the airport data because the data set was larger and the snow heights were slightly higher. It should also be noted that there are no weather records available for Whitshed Road, where snow heights are generally accepted as higher than the rest of town.

Figure 1



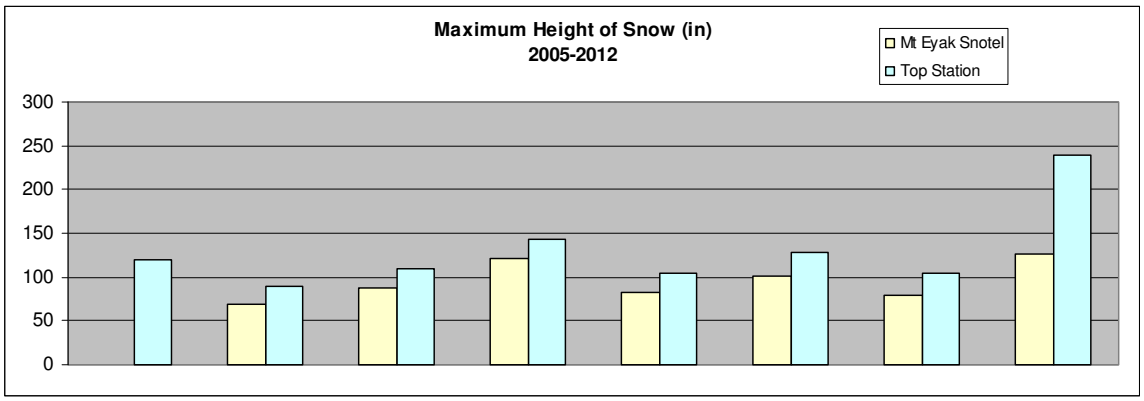
Extreme value statistical analysis was done using Gumbel Distributions and Gringorten estimations.[6] For CEC Power Plant data, the maximum height of snow =11.387x+19.381. Using a 50 year return period, x=-ln(-ln(1-(1/50)=3.90, and the height of snow = 63.8 in. (See figure 2)

Figure 2



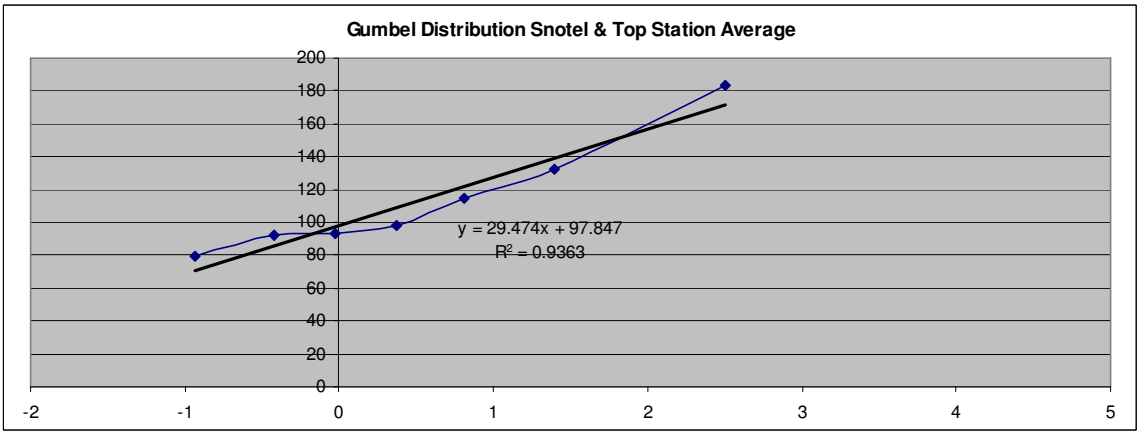
Mt Eyak Snotel had only 7 years of data, but gives insight into the affects of elevation on snow height. Its location is at approximately 1500 feet. The Snotel site, however, is prone to wind stripping. The nearby snow stake at the top of the ski hill has a similar elevation but offers a more wind loaded site, and shows the differences of snow height with site selection (see Figure 2).

Figure 2



Analysis of Mt Eyak Snotel data estimated a 50 year event at 156.9 inches, while Top Station data estimated 255.3 inches. An average of the data was used for the analysis to compensate for the differences between the datasets. Analysis of the average estimated a 50 year event at 212.9 inches.

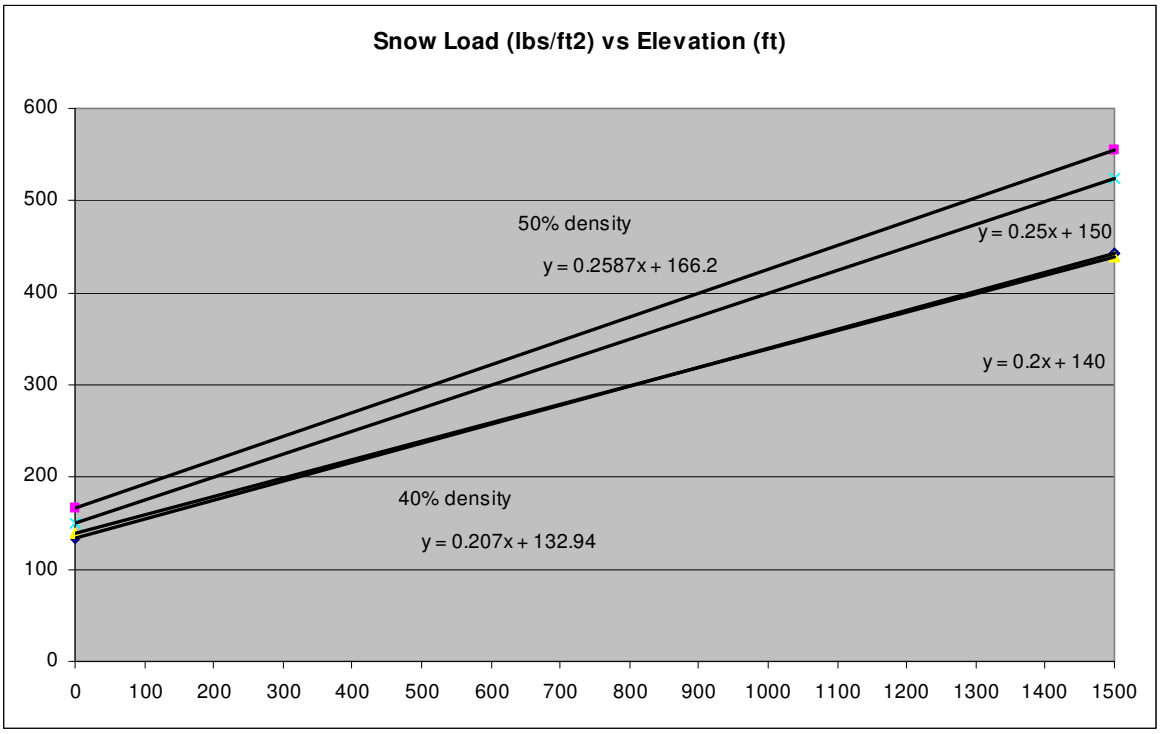
Figure 4



Ground snow load equals the maximum height of snow multiplied by the density of snow. Densities vary through the snow pack, so a single density is used to estimate the value. Industry standard varies from 30% to 50% density of water, with 40% the norm.[7] With the amount of rain Cordova can receive in winter, 50% density may be realistic. However, by the time 50% density is reached the height of snow would be lower than the maximum.

Using the Power Plant data for sea level, and the average of Snotel and Top Station data for 1500 vertical feet, a linear equation was used to interpolate the ground snow load versus elevation. This was done for both 40 % and 50% density (See Figure 5).

Figure 5



Conclusion

The 40% and 50% linear equations offer a recommended range for ground snow loads with respect to elevation. To simplify the equations for easier use, the slope and intercept can be rounded. The first recommended equation closely resembles the 40% equation, while the second recommended equation is slightly more conservative.

Recommended Ground Snow Load:

p_g (lbs/ft^2) = 140 + (0.2 x Elevation in feet)

p_g (lbs/ft^2) = 150 + (0.25 x Elevation in feet)

CEC Orca Power Plant

Water Year	Max HS	V	m	N	Pv	ln (Pv)	ln (ln (Pv))
1987	11	7	1	26	0.02144	3.84252	-1.34613
1988	13	7	2	26	0.05972	2.81802	-1.03603
1989	31	9	3	26	0.09801	2.32269	-0.84273
1990	39	10	4	26	0.13629	1.99294	-0.68961
1991	32	11	5	26	0.17458	1.74538	-0.55697
1992	29	11	6	26	0.21286	1.54710	-0.43638
1993	38	13	7	26	0.25115	1.38171	-0.32332
1994	9	15	8	26	0.28943	1.23983	-0.21497
1995	29	17	9	26	0.32772	1.11560	-0.10939
1996	30	21	10	26	0.36600	1.00511	-0.00510
1997	11	21	11	26	0.40429	0.90563	0.09913
1998	21	26	12	26	0.44257	0.81515	0.20438
1999	44	29	13	26	0.48086	0.73218	0.31172
2000	36	29	14	26	0.51914	0.65558	0.42224
2001	7	29	15	26	0.55743	0.58442	0.53713
2002	21	29	16	26	0.59571	0.51800	0.65778
2003	15	30	17	26	0.63400	0.45571	0.78590
2004	17	30	18	26	0.67228	0.39708	0.92362
2005	10	31	19	26	0.71057	0.34169	1.07384
2006	29	32	20	26	0.74885	0.28921	1.24059
2007	33	33	21	26	0.78714	0.23935	1.42981
2008	29	36	22	26	0.82542	0.19186	1.65098
2009	30	38	23	26	0.86371	0.14652	1.92057
2010	26	39	24	26	0.90199	0.10315	2.27156
2011	7	44	25	26	0.94028	0.06158	2.78738
2012	73	73	26	26	0.97856	0.02167	3.83170

R	Pv=1-(1/R)	-ln(-ln(Pv)	y=11.387x(-ln(-ln(Pv)+19.381	ft/in conv	lbs/ft3	snow density	Pg (lbs/ft2)
50	0.98	3.90	63.81	0.08	62.5	0.4	132.94

Snotel & Top Station Average

Water Year	Snotel	Top Station	Average	V	m	N	Pv	ln (Pv)	ln (ln (Pv))
2006	69	90	79.5	79.5	1	7	0.07865	2.54273	-0.93324
2007	87	110	98.5	92	2	7	0.21910	1.51822	-0.41754
2008	121	144	132.5	93.5	3	7	0.35955	1.02290	-0.02264
2009	83	104	93.5	98.5	4	7	0.50000	0.69315	0.36651
2010	101	128	114.5	114.5	5	7	0.64045	0.44559	0.80837
2011	80	104	92	132.5	6	7	0.78090	0.24731	1.39711
2012	127	240	183.5	183.5	7	7	0.92135	0.08192	2.50205

R	Pv=1-(1/R)	-ln(-ln(Pv)	y=11.387x(-ln(-ln(Pv)+19.381	ft/in conv	lbs/ft3	snow density	Pg (lbs/ft2)
50	0.98	3.90	212.85	0.08	62.5	0.4	443.44

References

1 ASCE 7-05 Minimum Design Loads for Buildings and Other Structures

2 CEC Orca Power Plant Weather Observations
http://www.ncdc.noaa.gov/oa/ncdc.html

3 Mudhole Smith Airport Weather Observations
http://www.ncdc.noaa.gov/oa/ncdc.html

4 Mt Eyak Snotel Weather Observations
http://ambcs.org/

5 Steve “Hoots” Witsoe
hoots@ctcak.net

6 National Institute of Standards and Technology
http://www.nist.gov/itl/sed/index.cfm

7 Communication with Terry Onslow, Dave Hamre, and Pete Carter

29336 Airport Road
Eugene, OR 97402
theTRUSSco.inc.
Phone: (541) 688-8671 Fax: (541) 688-0412

PRODUCT PROPOSAL AND PURCHASE AGREEMENT

PROPOSAL SUBMITTED TO:	QUOTE# 26859Q	DATE: 12/01/14
Phone Quote/Walk-In	JOB NAME: CPU - City of Cordova	
ATTN: Customer	STREET: CPU	
STREET:	CITY: CPU - Eugene	STATE: OR
CITY:	FAX:	PHONE:

We are pleased to quote the Metal-Connected Wood Trusses for this project.

A. Roof Loading: 25.0,8.0,0.0,7.0 Truss Gable Stud Spacing: 0.0 In. O.C. (Typ.)

B. Lumber is Dry HFir/DFir 19% Moisture Content at time of manufacture.

C. F.O.B. Jobsite plateline*, in bundles, within the limits of our equipment
*PLATE LINE DELIVERY REQUIREMENTS: Street access to site, plate can be safely reached with boom, contractor aids driver, contractor assumes responsibility should the truck get stuck or breaks concrete.

D. Shop Drawings and Truss Engineering will be provided after receipt of signed Proposal and Purchase Agreement by authorized agent.

100lb. Snowload

E. Allow 10 working days for manufacturing after receipt of approved drawings.

F. Hardware included with trusses:
#0 No Blocking
#01 No Hangers

GRAND TOTAL: $4727.00

PURCHASER: We hereby propose to furnish labor and materials -- complete in accordance with the above specifications, for the sum of: **$4727.00** with payment to be made as follows:

Terms: 1/2 down at time of order, balance due at time of delivery; or net 10th with approved credit.

All material is to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from the above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above estimate.

NOTE: This proposal contingent upon approval of credit. Backcharges are not allowed without prior written approval by The Truss Co.

This proposal may be withdrawn by us if not accepted within 5 days and delivered within 15 days.

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work specified.

Payment will be made as outlined above. I agree your liability on this order is limited to the amount paid to you and that there shall be no liability or claims made by me for incidental, consequential or delay damage claims of any kind.

In the event of any delinquency in my account, I authorize you to charge me 1 1/2% (18% annual rate) per month on any delinquent account balance, together with any attorney fees, costs and expenses incurred by The Truss Co. in collecting on any amount I owe to you.

theTRUSSCO Inc.

By: John N Mahn

Title: TRUSS DESIGNER

PURCHASER:

Accepted By: _____ Date: _____

Title: _____

29336 Airport Road
Eugene, OR 97402
theTRUSSco.inc.
Phone: (541) 688-8671 Fax: (541) 688-0412

SOLD TO: Phone Quote/Walk-In
,
PH- FAX-

SHIP TO: CPU - City of Cordova
CPU
CPU - Eugene, OR

QUOTATION

QUOTE #	26859Q
ORDER #	
PAGE	1
DATE	12/01/14

PROJECT: City of Cordova
MODEL: 100# Snow Load
TAG:
LOT # **SUBDIV:**

Contact:	Job Super:	Ordered By:
Name:	Customer	Customer
Phone:	( ) -	( ) -
Fax:		

Account No: 3100
Salesman: House
Designer: JT
P.O. Number:

Tentative Delivery Date: / /

DELIVERY INSTRUCTIONS:

CUSTOMER NOTES: Samantha Greenwood
907-424-6233
planning@cityofcordova.net

Roof Loading: 25.0,8.0,0.0,7.0 Truss Gable Stud Spacing: 0.0 In. O.C. (Typ.)

Profile:	Qty:	Truss Id:	Span:	Truss Type:	Slope:	LOH	ROH	
	2	**A01GE** 239 lbs.	**40-00-00** 2 X 6 2 X 4	OAH 07-09-13 GABLE	**4.00** 0.00	02-00-00	02-00-00	
	29	**A02** 197 lbs.	**40-00-00** 2 X 6 2 X 4	OAH 07-09-13 DBL. FINK	**4.00** 0.00	02-00-00	02-00-00	

31 Total Trusses **2** Total Designs

MISC. ITEMS @

Quantity:	Description:
0	#0 No Blocking
0	#01 No Hangers

Terms: Pre-Pay

My signature below indicates acceptance of all terms on the Product Proposal and Purchase Agreement. The prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work specified. Payment will be made as outlined on the Product Proposal and Purchase Agreement. In the event of any delinquency in my account, I authorize you to charge me 1 ½% (18% annual rate) per month on any delinquent account balance.

Accepted By: _____ Date: _____

GRAND TOTAL	**$4727.00**

29336 Airport Road
Eugene, OR 97402
theTRUSSco.inc.
Phone: (541) 688-8671 Fax: (541) 688-0412

PRODUCT PROPOSAL AND PURCHASE AGREEMENT

PROPOSAL SUBMITTED TO:	QUOTE# 26859A	DATE: 12/01/14
Phone Quote/Walk-In	JOB NAME: CPU - City of Cordova	
ATTN: Customer	STREET: CPU - Eugene	
STREET:	CITY: CPU	STATE: OR
CITY:	FAX:	PHONE:

We are pleased to quote the Metal-Connected Wood Trusses for this project.

A. Roof Loading: 25.0,8.0,0.0,7.0 Truss Gable Stud Spacing: 0.0 In. O.C. (Typ.)

B. Lumber is Dry HFir/DFir 19% Moisture Content at time of manufacture.

C. F.O.B. Jobsite plateline*, in bundles, within the limits of our equipment
*PLATE LINE DELIVERY REQUIREMENTS: Street access to site, plate can be safely reached with boom, contractor aids driver, contractor assumes responsibility should the truck get stuck or breaks concrete.

D. Shop Drawings and Truss Engineering will be provided after receipt of signed Proposal and Purchase Agreement by authorized agent.

150lb. Snowload

E. Allow 10 working days for manufacturing after receipt of approved drawings.

F. Hardware included with trusses:
#0 No Blocking
#01 No Hangers

GRAND TOTAL: $6776.00

PURCHASER: We hereby propose to furnish labor and materials -- complete in accordance with the above specifications, for the sum of: **$6776.00** with payment to be made as follows:

Terms: 1/2 down at time of order, balance due at time of delivery; or net 10th with approved credit.

All material is to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from the above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above estimate.

NOTE: This proposal contingent upon approval of credit. Backcharges are not allowed without prior written approval by The Truss Co.

This proposal may be withdrawn by us if not accepted within 5 days and delivered within 15 days.

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work specified.

Payment will be made as outlined above. I agree your liability on this order is limited to the amount paid to you and that there shall be no liability or claims made by me for incidental, consequential or delay damage claims of any kind.

In the event of any delinquency in my account, I authorize you to charge me 1 1/2% (18% annual rate) per month on any delinquent account balance, together with any attorney fees, costs and expenses incurred by The Truss Co. in collecting on any amount I owe to you.

theTRUSSCO Inc.

By: Joshua N Mowbray

Title: TRUSS DESIGNER

PURCHASER:

Accepted By: _____ Date: _____

Title: _____

29336 Airport Road
Eugene, OR 97402

theTRUSSco.inc.

Phone: (541) 688-8671 Fax: (541) 688-0412

SOLD TO: Phone Quote/Walk-In

,

PH- FAX-

SHIP TO: CPU - City of Cordova
CPU - Eugene
CPU, OR

QUOTATION

QUOTE #	26859A
ORDER #	
PAGE	1
DATE	12/01/14

PROJECT: City of Cordova	Contact:	Job Super:	Ordered By:	Account No:	3100
MODEL: 150# Snow Load	Name:	Customer	Customer	Salesman:	House
TAG:	Phone:	( ) -	( ) -	Designer:	JT
LOT # **SUBDIV:**	Fax:			P.O. Number:	

Tentative Delivery Date: / /

DELIVERY INSTRUCTIONS:

CUSTOMER NOTES: Samantha Greenwood

907-424-6233

planning@cityofcordova.net

Roof Loading: 25.0,8.0,0.0,7.0 Truss Gable Stud Spacing: 0.0 In. O.C. (Typ.)

Profile:	Qty:	Truss Id:	Span:	Truss Type:	Slope:	LOH	ROH	
	2	**A01GE** 307 lbs.	**40-00-00** 2 X 8 2 X 6	OAH 07-11-10 GABLE	**4.00** 0.00	02-00-00	02-00-00	
	29	**A02** 266 lbs.	**40-00-00** 2 X 8 2 X 6	OAH 07-11-10 DBL. FINK	**4.00** 0.00	02-00-00	02-00-00	

31 Total Trusses **2** Total Designs

MISC. ITEMS @

Quantity:	Description:
0	#0 No Blocking
0	#01 No Hangers

Terms: Pre-Pay

My signature below indicates acceptance of all terms on the Product Proposal and Purchase Agreement. The prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work specified. Payment will be made as outlined on the Product Proposal and Purchase Agreement. In the event of any delinquency in my account, I authorize you to charge me 1 ½% (18% annual rate) per month on any delinquent account balance.

Accepted By: _____ Date: _____

GRAND TOTAL	**$6776.00**

Memorandum

To: Planning Commission
From: Planning Staff
Date: 12/4/14
Re: Chapter 16 Building Codes

PART I – GENERAL INFORMATION

Attachment A Design Criteria
Attachment B Seismic zone map
Attachment C letter from Engineer
Attachment D comparison of 2006 to 2009 IRC
IBC is the international building code for commercial building.

IRC is the international residential code for single, two and multiply family dwellings up to 3-plexs

We are a deferred community meaning that we use the state fire marshal for fire life and safety reviews and are obligated to adopt the same IBC as the State.

For this meeting I am attaching the current design criteria for review. We will be discussing the snow load at this meeting under a different agenda item. In the past there was substantial discussion about the seismic design category for Cordova. I have attached the seismic zone map from the IRC and a letter from Grand Engineer outlining their thoughts on the seismic design category for Cordova. The city of Anchorage is Seismic Design Category – D (IBC), D_2 (IRC)

I have also attached a document that outlines the major changes between the 2009 and 2006 IRC for review. Since the State does not adopt a version of the IRC we can stay with 2006 or move to 2009.

ATTACHMENT A

CITY OF CORDOVA

Planning Department

City of Cordova
602 Railroad Ave.
P.O. Box 1210
Cordova, Alaska 99574

Phone: (907) 424-6220
Fax: (907) 424-6000
Email: planning2@cityofcordova.net
Web: www.cityofcordova.net

DESIGN CRITERIA**

In accordance with the International Building Code (IBC)

Design Type	**Criteria**
Roof Snow Load	150 lbs. per sq. foot
Wind Speed	100 mile per hour
Seismic Zone	d
Weathering	Severe
Frost Line Depth	24”
Termite	No
Decay	Yes
Winter Design Temperature	12°
Flood Hazards	Yes

Design Winter Temp	-2°
Design Winter Wind Speed	4.8 mph
Heating Degree Days	9004

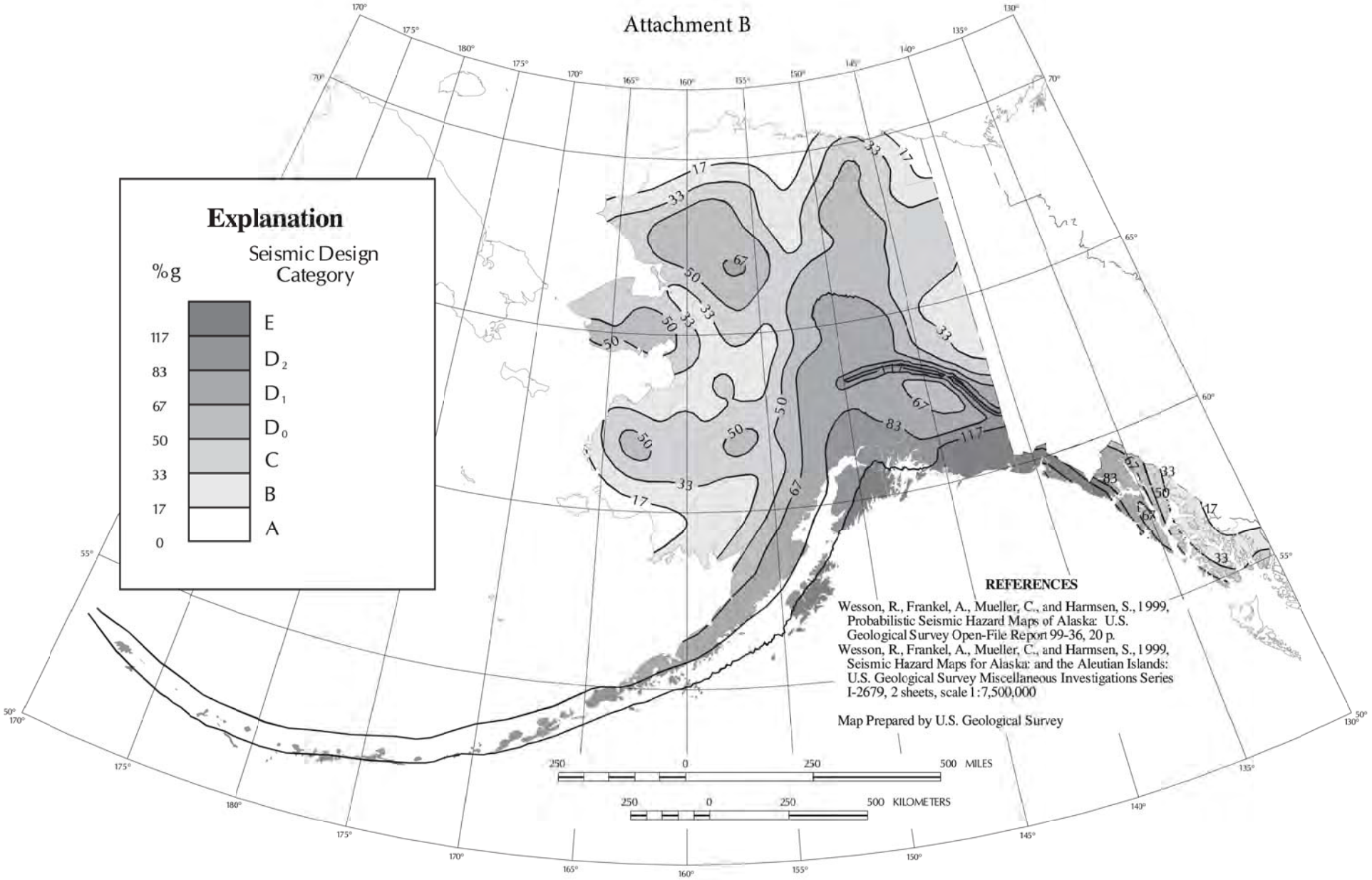


FIGURE R301.2(2) SEISMIC DESIGN CATEGORIES
- SITE CLASS D (continued)

Attachment C

Grand Engineering LLC | P.O. Box 877650 | Wasilla, Alaska 99687
Phone: 907-373-2313 | Fax: 907-357-2313 | Email: sgrand@mtaonline.net

October 3, 2012

Mr. Dee High
DHI CONSULTING ENGINEERS
Sent by email: deeh@dhialaska.com

Dee:
Here's some preliminary notes regarding our phone conversation & email:

Cordova plans to adopt the 2006 editions of the International Building Code (IBC), and International Residential Code (IRC), and is considering local amendments.

I assume that "Seismic zone E" in this case refers to "Seismic Design Category (SDC) E", which is used in both codes and is mapped by the IRC.

The IRC map is pretty small, but it looks like Cordova is within SDC="D2" & close to SDC="E". USGS's website gives SDC= "E" near the Cordova airport for Soil Type "D" (stiff soil). See the USGS notes below.

IBC Seismic Design Category (SDC) is determined by soil type, ground acceleration, and building occupancy. SDC is used along with construction type (steel, wood,etc.), structural system: bearing & shear walls, frames, bracing, etc, and other factors to estimate the response of the building under seismic ground motion.

The SDC value is also used to limit building heights, encourage ductility, and discourage some types of construction, and to discourage buildings in highly active seismic areas on poor soil.

It seems reasonable that a local amendment to the IRC might include a requirement that a design must provide for a minimum of SDC = "E" for stiff soil. This might be given as appropriate replacement text in relevant sections of the code.

This amendment would not be appropriate for the IBC, though others might be considered.

Please let me know if I can be of any more help on this.

Grand Engineering LLC
Phone: 907-373-2313
P.O. Box 877650
Fax: 907-357-2313
Wasilla, Alaska 99687
Email: sgrand@mtaonline.net

USGS:

1. Web site: http://earthquake.usgs.gov/hazards/designmaps/javacalc.php. Version 5.1.0 of the Java Application provides 2006 IRC seismic data..
2. http://geohazards.usgs.gov/designmaps/us/. U.S. Seismic Design Maps Web Application provides data for most current codes. 2010 ASCE 7 data is most current

Sincerely:

Steve Grand

Steve Grand PE
Grand Engineering LLC

Attachment D

Significant Changes to the IRC – 2009 **Quick Reference Sheet**

Section/Topic	2006 IRC	2009 IRC	Notes/Additional Comments
Scope and Administration (Chapter 1)			
R101.2 Modification: 'Grade Plane' replaces the word 'grade' in determining the story limitations.	IRC provisions applies to 1-2 family dwellings & townhouses not more than 3 stories above grade.	Grade plane is an average of the finished ground level measured at the lowest point within 6 feet of the exterior wall. e n practice new language will not	In practice new language will not change the outcome in most cases.
R101.2 Addition: A new exception allows a mix of residential & non-residential uses.		Live/work units complying with requirements of IBC 419 shall be permitted to be built as 1-2 family dwellings or townhouses not more than 3 stories above grade plane.	Requires fire suppressions per 419.5 of the IBC.
R105.2 Modification: The floor area for accessory structures that are exempt from permits has increased from 120 to 200 sq. ft.	The permit exemption was reduced to 120 sq. ft. due to concerns about building garages.	The permit exemption went back to 2003 standards.	Unattached decks 200 sq. ft. or under & not serving as required exit door & not more than 30 in. above grade do not need a permit.
R105.2 Modification: The code now provides a list of electrical repairs & installations considered sufficiently routine to forgo permitting & inspection as previous language was deemed too vague & subjective.	Electrical – A permit shall not be required for minor repair work.	Electrical: 1. Listed cord and plug connected temporary lighting. 2. Reinstallation of attachment plug receptacles but not the outlets therefore. 3. Replacement of branch circuit overcurrent devices of the required capacity in the same location. 5. Electrical wiring, devices appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.	Minor repair work remains in the list giving discretion to the building official to make a determination.
R106.1.1 Modification The code now lists specific wall bracing information to be included on drawings or other construction docs.		Requiring wall bracing details on construction drawings ensures that bracing is being considered during the design & review process. The builder will also readily see what is required. Foundation & attachment details must be identified.	As with other submittals, the building official is authorized to decide if such information is necessary for a particular project.
Definitions (Chapter 2)			
R202 Addition: Attic definition has been revised & a new definition for habitable attic has been added in order to be more inclusive.	The unfinished space between the ceiling joists of the top story & the roof rafters.	The unfinished space between the ceiling assembly of the top story and the roof assembly. Attic, Habitable: A finished or unfinished area, not considered a story, complying with the following: 1. Occupiable floor area is at least 70 square feet. 2. Occupiable floor area has	Habitable attics are not considered a story, but must meet minimum room size & ceiling height requirements, require a smoke detector, emergency escape and rescue opening and means of egress complying with R311.

		ceiling height in accordance w/R305. 3. Occupaible space is enclosed by the roof assembly above, knee walls on the sides and the floor-ceiling assembly below.	
R202 Modification: Definitions for labeled & listed have been revised for clarity & consistency.		The code now clarifies that the testing laboratory or testing agency must be nationally recognized.	
R202 Addition: IRC now includes prescriptive methods of construction using structural insulated panels (SIPs) with new definitions.	SIP – Factory fabricated panels of solid core insulation with structural skins of oriented strand board (OSB) or plywood.	SIP – A structural sandwich panel that consists of a light-weight foam plastic core securely laminated between 2 thin, rigid wood structural panel facings.	Added definitions for: Cap Plate Core Facing Spline
Building Planning (Chapter 3)			
R301.1.1 Modification: The IRC now recognizes a recently developed standard for log construction & the reference standard for cold formed steel framing has been updated.	1 – American Forest & Paper Association (AF&PA) Wood Frame Construction Manual. 2 – American Iron & Steel Institute (AISI) Standard for Cold Formed Steel Framing (COFS/PM) with Supplement to Standard for Cold-Formed Steel Framing – Prescriptive Method for 1 & 2 Family Dwellings.	Year 2004 AISI has been replaced with year 2007 AISI 230. The IRC now requires ICC-400 Standard on the Design & Construction of Log structures.	The prescriptive methods for cold-formed steel framing now apply to 3 story buildings – an increase from an allowable 2 stories in the previous standard & the 2006 IRC & are consistent with the height limits of conventional wood frame construction.
R301.2.1.1 Modification: The IRC now recognizes structural insulated panel (SIP) construction for high wind areas – bringing the list of design alternatives to 6.	1 - American Forest & Paper Association (AF&PA) Wood Frame Construction Manual for 1-2 Family Dwellings (WCFM); or 2 – Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10). 3 – Minimum Design Loads for Buildings & Other Structures (ACSE 7); or 4 – American Iron & Steel Institute (AISI), Standard for Cold Formed Steel Framing – Prescriptive Method for 1-2 Family Dwellings (COFS/PM). 5 – Concrete construction shall be designed in accordance with the provisions of this code.	2 – ICC Standard for Residential Construction in High Wind Regions (ICC-600) replaces SSTD 10. 4 – AISI S230 replaces AISI. 6 – Structural insulated panel (SIP) walls shall be designated in accordance with the provisions of this code.	
R301.2.1.2 & Table R301.2.1.2 Modification: Protection of glazed openings for garage doors is now specifically required in windborne debris region.	The IRC required glazing only in windows to be protected from windborne debris and did not specifically address protection of glazing in garage doors.	When wood structural panels are used for any opening protection, they must be predrilled & the mounting hardware must be permanently attached to the building to ease installation. The	

		prescriptive methods for attaching wood structural panels now require additional anchors with greater embedment depth & resistance. The testing of the garage door in aaccordance with ANSI/DASMA 115 is also used to determine compliance with the component and cladding loads of Table R301.2.	
R301.2.1.5 and Table R301.2 (1) Addition: Under very limited circumstances in localized geographic areas, design of buildings sited on a hill, ridge, or escarpment must consider the effects of topographic wind speedup.		To determine wind speedup engineered designs according to ASCE 7 may be required or one may use the simplified method to design for an increased basic wind speed based on the slope of the topographic feature in accordance with Table R301.2.1.5.1.	The provisions for topographic wind speedup effects apply only where there are historical data of structural damage from such effects. These circumstances are most likely to occur in areas of the Pacific Northwest where there are dramatic changes in ground topography.
R301.2.2 Seismic Provisions Clarification Reorganization of the seismic provisions clarifies the design application within each seismic design category.		The seismic provisions have been rearranged in a sequential order to clarify when they apply.	The second confusing paragraph of the previous code was removed which had sent the user to provisions that applied to all SDCs.
R301.2.3 Snowloads Modification: Structural Insulated Panels (SIPs) have been added to the list of approved prescriptive construction methods that are limited to a maximum ground snow load of 70 psf.		The IRC now includes prescriptive requirements for construction with SIPs. Buildings located in areas where ground snow load exceeds 70 psf must be designed in accordance with accepted engineering practice.	
R301.3 Story Height Modification: Floor framing is now permitted to exceed 16 in. provided the overall story height is not exceeded. SIP bearing walls are limited to 10 ft. in height.	The code limited story height to the sum of the tabular value for stud wall height plus 16 in. for the floor framing height in order to limit story height, measured from the finished floor surface one 1 story to the finished floor of the next story.	The new language permits floor framing to exceed the 16 in. height limit provided the story height does not exceed 11ft. 7 in. For masonry walls, a maximum bearing wall clear height of 12 ft. plus a height of floor framing not to exceed 16 in.	For wood framed wall buildings with bracing in accordance with Tables R602.10.1.2(1) and R602.3(5), the wall stud clear height may be increased to 12 ft. without requiring an engineered design.
Table R301.5 Minimum Uniformly Distributed Live Loads Modification: The definitions for deck and balcony have been removed & the minimum uniform live load for balconies has been lowered.		The minimum live load for balconies has been lowered from 60 psf to 40 psf to be consistent with decks as both perform the same function. The criteria for determining a limited attic storage area now considers the required depth of the insulation relative to the truss bottom chord depth. Habitable attics & attics served	A new defined term in the 2009 IRC, habitable attics are occupiable space between the uppermost floor/ceiling assembly & the roof assembly.

		with stairs have been added to the table and have a minimum live load of 30 psf.	
R302.1 and Table R302.1 Fire Resistant Construction at Exterior Walls Modification: R302 has been renamed *Fire-Resistant Construction* & pulls in related provisions from sections on separations, penetrations, and other fire-resistance requirements so that they reside in 1 section & can be more easily located.	Construction, projections, openings & penetration of exterior walls of dwellings & accessory buildings shall comply with Table 302.1. These provisions shall not apply to walls, projections, openings or penetrations in walls that are perpendicular to the line used to determine the fire separation distance.	All fire-resistance provisions have been reorganized & placed into Section R302. Exterior walls requiring a 1 hour fire-resistance rating due to fire separation distance must now meet requirements of ASTM E 119 or UL 263. Fire separation distances no longer apply to buildings on the same lot – no separation distance or fire-resistance rating is required between detached structures on the same lot. Changes to Table 302.1 clarify the application of the fire separation distance requirements.	Changes to the text of the various sections that are brought into R302 are minor & editorial. This new exception does not apply to townhouses or detached garages less than 3 ft. from a dwelling.
R302.2 & R302.3 Dwelling Unit Separation Modification: The dwelling unit separation provisions have been relocated from Section R317 to R302.	302.3 - Detached garages accessory to a dwelling located within 2ft. of a lot line are permitted to have roof eave projections not exceeding 4 in. 302.3 – Foundation vents installed in compliance with this code are permitted.	The fire-resistance rating for the common wall between townhouses has been reduced from 2 hours to 1 hour as fire sprinklers are now required in all new townhouses. Each townhouse shall be considered a separate building & shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1. Each individual townhouse shall be structurally independent. Dwelling units in 2 family dwellings shall be separated from each other by wall and/or floor assemblies having not less than 1 hour fire-resistance-rating when tested.	The code now recognizes UL 263 as an equivalent test standard to ASTM E 119 for fire-resistance. A common 1 hour fire resistance rated wall satisfies the townhouse separation requirements. The 1 hour fire-resistance rating wall assembly is permitted if the walls do not contain plumbing, or mechanical equipment, ducts or vents in the cavity of the wall.
R302.4 Rated Penetrations for Dwelling Unit Separation Modification: The rated penetration provisions for dwelling unit separation have been relocated from Section R317 to Section R302.		R317.1 has been replaced with R302.1. R317.2 has been replaced with R302.3. R317.3.1.1 has been replaced with R302.4.1.1 with no changes to the text. R317.3.1.2 has been replaced with R302.4.1.2 with no changes to the text.	The exception to Section R302.4.1 permits penetrating items of specified metal pipe or conduit in 2 instances in lieu of a listed assembly or penetration firestop system. In the 1st instance, firestopping materials may be concrete, grout, or masonry. In the 2nd instance, the code now recognizes UL 263 as an equivalent test standard to ASTM E 119.

		R317.3.2 has been replaced with R302.4.1 and R302.4.2	
R302.5 Garage Openings & Penetrations Modification: The dwelling/garage separation provisions in Sections R309.1 & R309.2 of the 2006 IRC have been relocated to Section R302 with the other fire-resistant construction provisions.	See Sections R309.1 & R309.2. Penetrations other than ducts required the opening around the penetrating item to be filled with approved material to restrict passage of combustion products.	Openings & penetrations through the walls or ceilings separating the dwelling from the garage shall be in accordance with Section R302.5.1 through R302.5.3. Penetration requirements reference the fireblocking provisions (previously R602.8) have been relocated to Section R302.11. R302.11 requires fireblocking to cut off all concealed draft openings & to form an effective fire barrier between stories & between a top story & the roof space The application of this change is to seal around openings of pipes, vents, cables, and wires penetrating the separation at the floor & ceiling level.	The provisions for door openings & duct penetrations through the separation between the dwelling & the garage have not changed.
R302.6 and Table R302.6 Garage Separation Clarification: The dwelling/garage separation provisions in sections R309.1 and R309.2 have been relocated to Section R302 with the other fire resistant construction provisions.	See Sections R309.1 & R309.2	For clarification, the provisions requiring the application of gypsum board on the garage side of the separation from a dwelling have been placed in a new table & the corresponding text has been deleted from Section R309.2.	No technical change to the code is in intended with this revision to place the garage/dwelling separatin requirements in an easier to read table format.
R305.1 Minimum Ceiling Height Modification: Ceiling Height requirements have been reorganized for clarification.	Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 ft.	The 7 ft. ceiling height now specifically applies to habitable space as defined in Section R 202, hallways, bathrooms, toilet rooms, and laundry rooms. Bathrooms shall have a minimum ceiling height of 6 ft. 8i n. at the center of the front clearance area for fixtures as shown in Figure R307.1 Provisions for lower ceiling heights in portions of basement used for utility & storage have been moved to a separate subsection. For rooms with sloped ceilings, at least 50% of the required floor area of the room must have a	Corridors have been removed from the list because the term is not relevant to buildings regulated by the IRC. The exception allowing beams & girders to project below the required ceiling height has been removed.

		ceiling height of 7 ft with no ceiling height less than 5 ft..	
R308.1 & R308.3 Identification of Glazing & Human Impact Loads Modification: The code now recognizes ANSI Z97.1 as an alternative test procedure to CPSC 16 CFR 1201 for safety glazing products not regulated by the federal standard.	CPSC 16 CFR 1201 is a federal standard that mandates where & when safety glazing material must be in architectural applications & preempts any non-identical state or local standard.	The major difference between the 2 standards is their scope & function. The CPSC requires the installation of safety glazing materials meeting 16 CFR 1201 only in storm doors, combination doors, entrance-exit doors, sliding patio doors, closet doors, and shower & tub doors & enclosures. For other locations requiring safety glazing under the IRC, the code new recognizes testing with ANSI Z97.1 as well.	In an editorial change, exceptions from R308.4 have been relocated to Section R308.3 where they are more appropriately placed.
R308.4 Hazardous Locations Requiring Safety Glazing Modification: Requirements for safety glazing at hazardous locations subject to human impact have been reorganized in an easy to use format.	The 2006 IRC code identified 11 hazardous locations requiring safety glazing & in a separate list, provided 10 exceptions, each of which applied to 1 or more of the hazardous locations.	The 2009 code clarifies the application of the provisions by deleting repetitive or unnecessary language, organizing the material in logical manner, and moving exceptions to directly follow the rule to which they apply. The 11 rules of 2006 have been reduced to 8 by merging the information related to safety glazing in doors.	The 2009 change is largely editorial.
R310.1 Emergency Escape & Rescue Openings Modification: Habitable attics have been added to the locations requiring an emergency escape & rescue opening.	Basements & every sleeping room shall have at least 1 operable emergency escape & rescue opening.	Habitable attics are considered spaces for sleeping & so shall require an emergency escape & opening.	
R311 Egress Modification: The means of egress provisions have been reorganized in a systematic order to provide a better understanding of the requirements.	Stairways, ramps, exterior egress balconies, hallways & doors shall comply with all sections of the code. All egress doors shall be readily openable in the direction of the egress. A door with a nominal size of 3ft. by 6ft 8in. satisfied the size requirements for the 1 required exit door.	New language clarifies that the means of egress in the IRC ends when the occupant reaches grade at the exterior of the building & there are no requirements beyond that point. Net clear opening requirements have replaced the nominal door size for the required egress door to the exterior. The means of egress shall provide a continuous & unobstructed path of vertical and horizontal egress travel from all portions of the dwelling to the exterior of the dwelling at the required egress door without requiring travel through a garage. Habitable attics require a stair or ramp meeting the egress provisions of Section R311. The word 'egress' replaces the word 'exit' for the requirements of at least 1 egress door in Section 311.2. Now only the 1 required	The revision of the entire section organizes provisions in a user-friendly format but intends only minor technical changes.

		egress door must be readily openable from the inside of the building. The code now specifies that the required net clear opening dimensions & the method for measuring when the door is opened to the 90 degree position. The minimum net opening dimensions are now consistent with the door requirements for means of egress & accessibility for persons with disabilities in the IBC.	
R311.7.2 Stairway Headroom Modification: The minimum headroom is measure above the usable area of the treads in an open stairway & does not apply to the ends of treads where they project under the edge of the floor opening above.	R311.5.2 states that the minimum headroom in all parts of the stairway shall not be less than 6ft. 8 in. measured vertically from the sloped plane adjoining the tread noising or from the floor surface of the landing or platform.	R311.7.2 replaces R311.5.2. The code now more clearly states the intent that minimum stair headroom height is required above only the area where a person normally walks on the stair. The exception states that where the nosing of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall be allowed to project horizontally into the required headroom a maximum of 4 ¾ in.	The code change permits stair openings & support walls to be positioned in line in the vertical plane without creating any hazard.
R311.7.3 & R311.7.4 Stair Treads & Risers Modification: New provisions defining the walk line intend to clarify the tread depth requirements for winders.	See R311.5.3	R311.7.3 replaces R311.5.3. The walk line across winder treads shall be concentric to the curved direction of travel through the turn & located 12 in. from the side of where the winders are narrower. The 12in. standard dimension shall be measured from the widest point of the clear stair width at the walking surface of the winder. If the winders are adjacent within the flight, the point of the widest stair width of the adjacent winders shall be used. R311.7.4.1 replaces R311.5.3.1. For the purpose of this section all dimensions & dimensional surfaces shall be exclusive of carpets, rugs, or runners. R311.7.4.1 replaces R311.5.1 but does not change the text. R311.7.4.2 replaces R311.5.3.2. The minimum tread depth shall be 10in. It shall be measure horizontally between the vertical planes of the foremost projection	The IRC now provides for measurement of stair risers before carpet is installed. Carpet is not regulated by the code but is commonly considered in measuring stair riser height. Carpet may not be installed at the time of the final inspection or initial occupancy. A nosing is not required where the tread depth is a minimum of 11 in. The opening between adjacent treads is not limited on stairs with a total rise of 30 in. or less.

		of adjacent treads & at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more 3/8 in. Consistently shaped winders at the walk line shall be allowed within the same flight of stairs as rectangular treads & do not have to be within 3/8in. of the rectangular tread depth. Winder treads shall have a minimum tread depth of 6 in. at any point within the clear width of the stair. Within any flight of stairs, the largest winder tread depth at the walk line shall not exceed the smallest by more than 3/8 in. R311.7.4.3 replaces R311.5.3. The radius of curvature at the nosing shall be no greater than 9/16in. Risers shall be vertical or sloped under the tread above the underside of the nosing above at an angle not more than 30 degrees from the vertical.	
R311.7.7 Handrails Modification: Transition changes are now permitted to exceed the maximum handrail height of 38 in.	R311.5.6	R311.7.7 replaces R311.5.6 with no change of text. R311.7.7.1 replaces R311.5.6.1 with no change of text. However, the use of a volute, turnout, or starting easing shall be allowed over the lowest tread. The other exception is that when handrail fittings or bendings are used to provide continuous between flights, the transition from handrail height at the fittings or bendings shall be permitted to exceed the maximum height. R311.7.7.2 replaces R311.5.6.2 with change of text. R311.7.7.3 replaces R311.5.6.3 with no change of text except for Type I handrails, which adds that edges shall have a minimum radius of .01 in.	An editorial change clarifies that Type I handrails must have rounded edges consistent with the description of Type II handrails.
R312 Guards Modification: The provisions for guards have been reorganized into 3 separate sections – required locations, height, and opening limitations – and the technical provisions revised for clarification & consistency in application.	See R312 -– Porches, balconies, ramps or raised floor surfaces located more than 30 in. above the floor or grade below shall have guards not less than 36 in. in height. Open sides of stairs with a total rise of more than 30 in. above the floor or grade below shall have guards not less than 34 in. in height measured	Guards shall be located along open sided walking surfaces, including stairs, ramps, landings, that are located more than 30 in. measured vertically to the floor or grade below at any point within 36 in. horizontally to the edge of the open side. Insect screening shall not be considered as a guard.	The first section now only determines where guards are required & gives an objective means for measuring the height of the walking surface above the grade below.

	vertically from the nosing of the treads. Porches & decks which are enclosed with insect screening shall be equipped where the walking surface is located more than 30 in. above the floor or grade below. R312.2 Guard Opening Limitations – Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere of 4 in. or more in diameter. 2 exceptions are listed.	312.2 replaces Guard Opening Limitations with Height Requirements. Required guards at open sided walking surfaces, including stairs, porches, balconies, or landings, shall not be less than 36 in. high measure vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads with 2 exceptions listed. R312.3 replaces R 312.2. It takes out the word 'Guard' from 'Guard Opening Limitations.' Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere of 4in. in diameter with the 2 exceptions also modified.	
R313 Automatic Fire Sprinkler Systems Addition: An automatic fire sprinkler system is now required in 1-2 family dwellings & townhouses.		An automatic fire sprinkler system installed in accordance with IRC Section P2904 or NFPA 13D is now required for 1-2 family dwellings & townhouses. In 1-2 family dwellings the ruling will not take effect until Jan 1, 2011.	The new standards uses less water, may be taken from water wells, and do not need to be placed in every room.
R314 Smoke Alarms Clarification: New text clarifies the maintenance & supervision requirements for household fire alarm systems.	See R 313.1	Reorganization of the smoke alarm provisions places all of the power requirements in 1 section and separates the alternative household fire alarm systems from the smoke alarm section. Section R314 replaces Section R313 with some editing. Where a household fire warning system is installed using a combination of smoke detector & audible notification devices, it shall become a permanent fixture of the occupancy & owned by the homeowner. The system shall be monitored by an approved supervising station & be maintained in accordance with NFPA 72. Exception 1 from the old R313.2.1 has been removed. R314.4 replaces R 313.3 and says that smoke alarms shall be interconnected. It also takes away a section from the old ruling & replaces it with 2 exceptions.	The requirement in the 2006 IRC for the household fire alarm systems to operate if the panel was removed has been deleted & language added to clarify these provisions. Such a system cannot function if the fire alarm panel is removed. The added language ensures system reliability by requiring the system to be owned by the occupant & to be electronically monitored & maintained.

R315 Carbon Monoxide Alarms Addition: Carbon monoxide alarms in new dwellings & in existing dwellings are required when work requiring a permit takes place.		R315.1 states that for new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel fired appliances are installed & in dwelling units that have detached garages. R315.2 states that where work requiring a permit occurs in existing dwellings that have attached garages or in existing dwellings within which fuel fire appliances exist, carbon monoxide alarms shall be provided in accordance with Section R315.1. R315.3 says that single station carbon monoxide alarms shall be listed as complying with UL 2034 & shall be installed in accordance with this code & the manufacturer's installation instructions.	
R317.1 Locations for Protection Against Decay Modification: Protection from decay is now required for wood siding & wall framing less than 2 in. above a concrete slab exposed to weather.	See Section R319	R317.1 replaces 319.1 but with only 1 text change from no. 5 where the new provision is added in.	
R317.3 Fasteners & Connectors in Contact with Treated Wood Modification: The fastener requirements have been expanded to include fasteners & connectors in contact with preservative-treated & fire-retardant-treated wood.	R319.3 says that fasteners for pressure-preservative & fire-retardant-treated wood shall be hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper with 2 exceptions given.	R317.3 replaces R319.3 and says that fasteners and connectors in contact with pressure-treated wood & fire-retardant-treated wood shall be in accordance with this section. It keeps the 2 exceptions the same but does change out 'larger' with 'greater' in the first exception. R317.3.1 states that fasteners for preservative-treated wood shall be hot dipped zinc-coated galvanize steel, stainless steel, silicon, bronze or copper. Coating types & weights for connectors in contact with preservative treated wood shall be in accordance with the connector's manufacturer's recommendations, a minimum of ASTM A 635 type G185 zinc-coated galvanized steel, or equivalent, shall be used. R317.3.2 states that fastenings	Changes to this section related to fasteners & connectors in contact with preservative treated wood intend to clarify the applicable reference standards & the minimum zinc coating weights for galvanized products. The standards are different for fasteners & connectors.

		for wood foundations shall be as required in AF&PA Technical Report No. 7 R317.3.3 states that fasteners for fire retardant treated wood used in exterior applications or wet or damp locations shall be of hot dipped zinc coated galvanized steel, stainless steel, silicon, bronze or copper. Fasteners others than nails & timber rivets shall be permitted to be mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum. R317.3.4 says that fasteners for fire Retardant treated wood used in interior locations shall be in accordance with the manufacturer's recommendations. In the absence of the manufacturer's recommendations, Section R317.3.3 shall apply.	
R317.4 Wood/Plastic Composites Addition: A definition & specific requirements for manufactured wood/plastic composites are introduced into the IRC.	Wood plastic composites were used with the approval of the building official under the alternative materials & methods of construction provisions based on available data from the manufacturer & other sources such as ICC Evaluation Services (ES) reports.	R317.4 states that wood/plastic composites used in exterior deck boards, stair treads, handrails and guardrail systems shall bear a label indicating the required performance levels & demonstrating compliance with the provisions of ASTM D 7032.	
R318.1 Subterranean Termite Control Methods Modification: When used for protection against termite damage, pressure-preservative-treated wood must now meet the location requirements for protection against decay in R317 in addition to the AWPA standards.	See R320.1	R318.1 replaces R320.1 with a few minor changes. The definition of naturally resistant wood has been removed from Section R318 & revised definitions for naturally durable wood & termite-resistant material have been placed in Section R202. Steel is now specifically recognized as being termite resistant.	Alaska yellow cedar & western red cedar have been included in the list of termite resistant woods.
R319.1 Address Numbers Modification: The IRC now prescribes the minimum size of address numbers & requires a contrasting background for visibility.	See R 321.1	R319.1 replaces 321.1. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 in. high with a minimum stroke width of ½ in. Where access is by means of private road & the building	

		address cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure.	
R322 Flood Resistant Construction Modification: The code now directly references ASCE 24 for the design & construction of buildings or structures in floodways & coastal high hazard V zones.	See R324.1 where the IRC previously referenced the IBC for design in flood prone areas.	R322.1 replaces R324.1 where the IRC now specifically references ASCE 24. R322.1.1 states that ASCE 24 is permitted in coastal high hazard areas. R322.2 states the flood hazard areas that have been delineated as subject to wave heights between 1.5 ft. & 3 ft. shall be designated as Coastal A Zones. R322.3.2 has added several new provisions in the elevation requirements, but deleted a few as well. The entire code change here is too extensive to be included here. Refer to Code Changes RB48-06/07, RB129-06/07, RB130-06/07, RB92-07/08, RB93-07/08, RB96-07/08, RB97-07/08, and RB100-07/08 in the 2009 IRC Code Changes Resource Collection.	The prohibition against fill beneath buildings in high hazard coastal areas was deemed overly restrictive & has been removed.
R323 Storm Shelters Addition: Storm shelters must be constructed in accordance with the new ICC/NSSA-500 Standard on the Design & Construction of Storm Shelters.		Shelters conforming to the ICC-500 standard are designed to withstand impact from winborne projectiles that are common to high wind events.	
R401.3 Surface Drainage Modification: Where it is not feasible to provide the prescribed fall of 6 in. within the first 10 ft. away from a foundation, the code includes new performance language requiring drainage away from the foundation without prescribing a slope.	The 2006 IRC afforded an alternative to provide a 5% slope adjacent to the foundation & to further direct the surface drainage with swales sloped not less than 2%.	The revised exception provides performance language to achieve surface drainage without specifying minimum slopes. The intent is to allow as moderate a grade as possible to prevent slope instability & erosion & still drain surface water to an approved location. The performance criteria recognizes that the appropriate slope for the lot is a function of the combined ground frost & moisture conditions, soil type, geological conditions, and local geographic conditions. The 2009 IRC maintains the minimum slope provisions of 25 (1/4 in. per ft.) for impervious surfaces within 10 ft. of the building.	

R401.4 Soil Tests Modification: The revised text defines the necessary criteria for requiring a soil test in more objective terms based on available scientific data.	The 2006 language giving authority to require a soil test was deemed subjective & open to various interpretations. At issue was the opening phrase 'in areas likely to have.'	The revised text requires that a determination be based on existing soil maps, test data records, or other documentation with quantifiable data that are based on accepted geotechnical methodologies. When the data exist, the code directs the building official to make a determination of whether to require soil testing or not.	
R402.3 Precast Concrete Foundation Materials Modification: Minimum specifications for materials used in the manufacture of precast concrete foundations have been added to the code.	Approved precast concrete foundations shall be designed & installed in accordance with the provisions of this code and the manufacturer's installation instructions.	The 2009 IRC establishes R402.3.1 that show minimum requirements for the materials used in the manufacture of precast concrete foundations in accordance with Section R404.5.	
R403.1.3.2 Seismic Reinforcing for Slabs-on-Ground with Turned Down Footings Modification: For turned-down footings in Seismic Design Categories (SDCs) D0, D1 & D2, this change clarifies that the exception permitting bars in the middle of the footing depth is an alternative to the top & bottom bar location of horizontal reinforcing in the footing.	The footings generally require a minimum of 1 No. 4 horizontal reinforcing bar continuous at the bottom of the footing. The exception allowed for greater reinforcing – 1 No. 5 bar or 2 No. 4 bars – located in the middle third of the footing depth.	To address the possibility that a code user might infer that reinforcing must be located in the middle third where the footing & slab are monolithic, the new wording clarifies that the exception is an alternative. Where the slab is not cast monolithically with the footing, No. 3 or larger vertical dowels with standard hooks on each end shall be provided in accordance with Figure R403.1.3.2. Standard hooks shall comply with Section R611.5.4.5.	
R403.1.6 Foundation Anchorage Modification: The revision & reorganization of Section R403.1.6 removes redundant language & clarifies the anchorage requirements for wood sill & sole plates resting on concrete & masonry foundations.	When braced wall panels are supported directly on continuous foundations, the wood sill plate or cold formed steel bottom track shall be anchored to the foundation in accordance with this section.	The code no longer allows wood plate anchorage to brick or solid masonry foundations. Anchor bolts must be placed in concrete or in the grouted cells of hollow concrete masonry units (CMUs). The bolting requirement for cold-formed steel bottom track has been removed in favor of references to applicable requirements for cold-formed steel framing. This deletion does not lessen the anchorage requirements for cold-formed steel framing. The applicable sections of R505.3.1 & R603.1.1 are still reference for the anchorage requirements for cold-formed steel framing systems. In addition, such systems must conform to the requirements of AISI S230.	It is important to note that this section applies to anchorage of wood sill & sole plates to continuous foundations.

R403.4 Footings for Precast Foundations Addition: Prescriptive requirements for crushed stone footings supporting precast concrete foundations are now included in the code.		R403.4 Footings for precast concrete foundations shall comply with Section R403.4. R403.4.1 Clean crushed stone shall be free from organic, clayey, or silty soils. Crushed stone shall be angular in nature & meet ASTM C 33, with the maximum size stone not to exceed ½ in. & the minimum stone size not to be smaller than 1/16 in. Crushed stone footings for precast foundations shall be installed in accordance with Figure R403.4 (1) & Table R403.4. Crushed stone footings shall be consolidated using a vibratory in maximum of 8 in. lifts. Crushed stone footings shall be limited to Seismic Design Categories A, B, & C. R403.4.2 Concrete footings shall be installed in accordance with Section R403.1 & Figure R403.4 (2).	Crushed stone footings for precast concrete foundations are not allowed for building sites in Seismic Design Categories D0, D1, & D2. Requirements for concrete footings supporting precast concrete foundation walls match those for masonry & cast-in-place concrete foundation walls.
Tables R404.1(1) through R404.1(3) Deletion: The prescriptive lateral restraints provisions for the top of concrete & masonry foundation walls based on soil type, height of wall, and unbalanced backfill height have been removed from the code.			Deletion of these lateral restraint provisions brings the 2009 IRC into agreement with the 2000 & 2003 editions. Proponents of removing the top of foundation wall lateral restraint provisions reasoned that the traditional prescriptive provisions for anchor bolts & floor systems connections have performed well for many years without substantiated problems or failures.
R404.1 Concrete & Masonry Foundation Walls Modification: The technical provisions for concrete foundation walls have been substantially revised & are now separated from the masonry foundation provisions.	See 404.1 – in the 2006 IRC, the tables for removable form concrete walls required a yield strength of 60,000 psi (Grade 60) reinforcing steel, and the tables for ICF walls required 40,000 psi (Grade 40) steel	The prescriptive concrete provisions for Section 404.1 are based on PCA 100. The tabular values for vertical reinforcement are revised to reflect changes to the referenced standards ACI 318 & ASCE 7. In addition to the provisions of the referenced standards ACI 318 & ACI 332, PCA 100 is referenced as another option for alternate design of concrete foundation walls that are beyond the scope of prescriptive provisions of the IRC. With these changes, the prescriptive provisions for concrete foundation walls are	The 2009 IRC revises the prescriptive concrete foundation wall requirements to reflect the provisions of the new referenced Portland Cement Association standard PCA 100 Prescriptive Design of Exterior Concrete Walls for 1-2 family dwellings.

		more comprehensive. New provisions govern the location, cover, and continuity of reinforcement, lap splices & standard hooks, and installation of construction joints. The provisions also incorporate technical requirements for constructing concrete stem wall foundations not presently in the code. The vertical reinforcement tables for both removable form concrete walls & ICF walls are now based on reinforcement steel with a yield strength of 60,000 psi (Grade 60). However, a new table provides more flexibility for the use of different bar sizes or grades of steel than specified in other tables. The IRC now specifies the material & placement requirements for concrete mixing, delivery, aggregate size, proportioning, slump & consolidation (vibration). New requirements also specify approved materials for forms & form ties.	
R404.5 Precast Concrete Foundation Walls Addition: This new section in the IRC requires engineering & sets designs & labeling requirements for precast foundation walls.		R404.5 – the design & manufacture of precast concrete foundation wall panels shall comply with the materials requirements of Section R402.3 or ACI 318. The panel design drawings shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1. R404.5.2 – precast concrete foundation wall design drawings shall be submitted to the building official & approved prior to installation. Drawings shall include Design Loading, Footing Design, Concentrated Loads & their points of application, Soil-Bearing Capacity, Maximum Allowable Total Uniform Load, Seismic Design Category, and Basic Wind Speed. R404.5.3 – precast concrete foundation wall panels shall be identified by a certificate of	The minimum performance design criteria in Section R404.5 do not favor or exclude any specific system, providing neutral & nonproprietary requirements.

		inspection label issued by an approved 3rd party inspection agency.	
R405.1.1 Precast Concrete Foundation Drainage Addition: Drainage pipe must be installed a minimum of 1 ft. beyond the edge of a wall to preserve the integrity of the effective bearing surface of the crushed stone footing.		R405.1.1 – precast concrete walls that retain earth & enclose habitable or useable space located below grade that rest on crushed stone footings shall have a perforated drainage pipe installed below the base of a wall on either the interior or exterior side of the wall, at least 1 ft. beyond the edge of the wall. If the exterior drainage pipe is used, an approved filter membrane material shall cover the pipe. The drainage system shall discharge into an approved sewer system or to daylight.	The type & location of the drainage pipe is instrumental in preserving the bearing capabilities of the crushed stone footing.
R406.4 Precast Concrete Foundation System Dampproofing Addition: Precast concrete basement foundations require panel joints to be filled & sealed and the exterior below-grade surface to be dampproofed to prevent water intrusion into the below grade space.		R406.4 – except where required by Section R406.2 to be waterproofed, precast concrete foundation walls enclosing habitable or useable spaces located below grade shall be dampproofed in accordance with Section R406.1. R406.4.1 – precast concrete foundation panel joints shall be sealed full height with a sealant meeting ASTM C 920, Type S or M, Grade NS, Class 25, Use NT, M, or A. Joint sealant shall be installed in accordance with the manufacturer's installation instructions.	
R407.3 Steel Columns Clarification: Steel Columns must be fabricated or not less than 3 in. diameter Schedule 40 pipe.	The columns shall be restrained to prevent lateral displacement at the bottom end. Wood columns shall not be less than in nominal size than 4x4 in. and steel columns shall not be less than 3 in. diameter standard pipe or approved equivalent.	The new reference to Schedule 40 pipe manufactured in accordance with ASTM A 53 Grade B clearly defines the wall thickness & strength properties required for steel pipe columns. The code still recognizes other steel columns that provide equivalent performance characteristics.	The previous reference to standard pipe for steel columns became unfamiliar to inspectors over time, resulting in a perceived inconsistent application of the requirement.
R408.1 & R408.2 Underfloor Space Ventilation Modification: This change re-establishes a provision found in the 2003 IRC for reducing the require net area of ventilation openings to 1/1500 of the underfloor area where the ground is covered with a vapor retarder.	See R408.1 - the 2006 IRC deleted a provision for reduced ventilation of crawl space where a vapor retarder covered the ground of the crawl space.	R408.1 – the minimum net area of ventilation openings shall not be less than 1 sq. ft. for each 150 sq. ft. of underfloor space area, unless the ground surface is covered by a Class I vapor retarder material. When a Class I vapor retarder material is used, the minimum net area of ventilation openings shall not be less than 1 sq. ft. for each 1500 sq. ft. of underfloor space area.	Polyethylene sheeting is the most commonly used material to satisfy the requirement of Class I vapor retarder.

		R408.2 – openings for underfloor ventilation now includes the exception that the total area of ventilation openings shall be permitted to be reduced to 1/500 of the underfloor area where the ground surface is covered with an approved Class I vapor retarder material & the required openings are placed so as to provide cross ventilation of the space. The installation of louvers shall not be prohibited.	
R502.2.2.1 & Table 502.2.2.1 Table Deck Ledger Addition: Prescriptive methods for securely attaching a wood deck to the dwelling structure are now included in the IRC.	Other than performance requirements that floors be capable of accommodating all loads & the deck provisions of Section R502.2.2, the 2006 IRC contained no specific methods for attaching a deck to the structure.	R502.2.2.1 prescribes support specifications for deck ledger connections to band joist & all lag screws, bolts & washers shall be hot-dipped galvanized or stainless steel. R502.2.2.1.1 the lag screws or bolts shall be placed 2 in. from the bottom or top of the deck ledgers & between 2- 5 in. from the ends. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger. R502.2.2.2 deck ledger connections not conforming to Table R502.2.2.1 shall be designed in accordance with accepted engineering practice. R502.2.2.3 the lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with FigureR502.2.2.3.	
R502.7 Lateral Restrain for Wood Joists Clarification: New text clarifies that installation of engineered wood products including lateral support to prevent rotation is determined by the installation instructions of the manufacturer.		502.7 adds the new exception that trusses, structural composite lumber, structural glued-laminated members & I-joists shall be supported laterally as required by the manufacturer's recommendations.	The prescribed lateral support requirements are intended to apply only to solid-sawn lumber joists. The 2009 IRC clarifies that the requirements do not apply to engineered wood products such as plate-connected trusses, I-joists, glued-laminated lumber & structural composite lumber.

R505 Cold Formed Steel Floor Framing Modification: The prescriptive provisions of cold-formed steel framing now apply to 3 story buildings. This section has been reorganized & modified to clarify the application of the code. New provisions, tables & figures provides more options for the design & construction of dwellings using the prescriptive cold-formed steel framing provisions.	2006 IRC had prescriptive provisions of cold-formed steel framing for up to 2 story buildings.	Section R 505 has undergone significant revision & updating to incorporate provisions of the new American Iron and Steel Institute (AISI) Standard for Cold-Formed Steel Framing – Prescriptive Method for 1-2 Family Dwellings (AISI S230-2007). The most notable change is in the scope of application where the the height limitation has increased from 2 story to 3 story buildings, consistent with the height limits of conventional wood frame construction. Terminology has been updated throughout the text to reflect current usage by industry & to provide consistency in the code. Many minor modifications improve the organization, clarity & usability of the code provisions. In general the revisions provide m more options for the design & construction of dwellings using the prescriptive cold formed steel framing provisions.	The tolerances for floor joists located in line with cold-formed steel studs have been revised to account for the special case of the bearing stiffener located on the back side of the joist. Provisions concerning web holes & the web hole adjustments have been modified & placed into 1 location. The code user now has the choice to reinforce nonconforming holes, or design nonconforming holes, patch nonconforming holes, or design nonconforming holes in accordance with accepted engineering practice. Provisions for joist bracing & blocking have been divided into 4 distinct sections. 4 tables have been added detailing the design of clip angle bearing stiffeners in order to permit more options for the builder.
Table 602.3(1) Fastener Schedule for Structural Members Modification: Table R602.3(1) has been reorganized & updated to reflect currently accepted industry standards & manufacturer's recommendations.		The fastening requirements for solid-sawn lumber framing members in R602.3(1) have been reorganized into 4 categories related to roof, wall, floor & beam/girder locations, and each condition has been given an item number. The fastening requirements for ceiling joist & rafter tie connections to rafters have been deleted because these connection requirements appear in Table R802.5.1.9, Rafter/Ceiling Joist Heel Joint Connections. The sheathing fastener schedule has been updated to reflect current industry recommendations & commonly used or available materials. Common nails are not recommended for attaching gypsum sheathing. The prescribed fastener spacing at the edges & in the field of gypsum sheathing panels is now 7 in. & matches the attachment	The new format makes it easier to locate appropriate nailing requirements.

		requirements for gypsum board used as wall bracing. Wood structural panels with a thickness of 5/16 in. are no longer commonly available or used in construction. The minimum thickness of wood structural panels recognized in Table 602.3(1) is now 3/8 in.	
R602.3 & Table R602.3(3) Wood Structural Panel Wall Sheathing Used to Resist Wind Pressures Modification: The component & cladding wind load requirements of Section R301.2.1 & Table R301.2(2) are now referenced in Section R602.3.	Table 602.3(3) provided the minimum thickness of wood structural panels attached to studs 16 in. & 24 in. on center based on the panel floor & roof span rating. Wood structural panel fastening requirements were located in Table 602.3(1).	Wood structural panels used as exterior wall sheathing must comply with the new Table 602.3(3), which now establishes minimum requirements for fastening, panel thickness, span ratings & stud spacing based on designed wind speed & wind exposure category.	Because the changing language of Section R602.10 applies to all exterior walls regardless of the exterior wall type covering type, the reference to the wall bracing section for foam plastic sheathing was considered unnecessary & has been deleted from Section R602.3.
Table 602.3(5) Size, Height & Spacing of Wood Studs Modification: A habitable attic, a new defined term in 2009 IRC, is treated the same as a typical roof & ceiling forming an attic in determining wood stud size & spacing in Table R602.3(5).		Placement of habitable attics in the wood stud table clarifies that wood studs of a size, height & spacing adequate for carrying a roof & ceiling also are adequate for supporting a habitable attic.	Footnote d places a limitation of 32 ft. for the roof span when using 2x4 studs to support a habitable attic. For greater roof spans, the code requires not less than 2x6 studs or an engineered design.
R602.6.1 Drilling & Notching Top Plate Modification: When a metal tie is required across the opening of a notched or drilled top plate, the tie must now extend at least 6 in. beyond each side of the opening	At least 16d nails were required to fasten the tie on each side of the opening & the minimum length of the tie was not specified.	To reduce the possibility of splitting the wood plate, the length of the nails used to attach the metal tie has been reduced from 3 ½ in. to 1 ½ in & a tie of sufficient length to extend at least 6 in. beyond the opening on each side is now prescribed. Nails must have a minimum diameter of .148 in.	Though a 10d nail is 3 in. long, the intent of this change is that1 ½ in. long nails with a diameter equivalent to 10d common nails (.148 in.) provide adequate shear capacity & satisfy the requirement.
R602.10 Braced Wall Lines & Braced Wall Panels Modification: The wood frame wall bracing provisions of Section R602.10 have been entirely rewritten to provide technical accuracy & clarity.	IRC 2006 definitions were circular in that they used the other term in the definition – a braced wall line was a series of braced wall panels & a braced wall panel was a segment of a braced wall line. It distinguished between exterior & interior braced wall lines. This led some to believe that the interior braced wall lines had to begin & end inside the building. The code was silent on mixing various types of bracing methods on the same building, though the practice of mixing methods was very common.	The code no longer differentiates between exterior & interior braced wall lines. The terms braced wall line & braced wall panel are more precisely defined. By introducing the term intermittent bracing to define the use of isolated wall panels within a braced wall line, the code now clearly distinguishes the 3 separate paths for compliance with the bracing requirements – the prescriptive methods using intermittent braced wall panels or continuous wall sheathing, or bracing in accordance with an engineered design.	Many of the changes are the result of work by the ICC Ad Hoc Committee on Wall Bracing including engineering analysis of the prescriptive methods used to resist lateral seismic & wind forces. In a structural sense, all braced wall lines act in the same way regardless where they are located. By inserting the exemption from R301.2.2 (Seismic requirements) into the beginning of Section R602.10. the code clarifies the application of wall bracing provisions for 1-2 family

		The code now also specifically allows mixing of methods between stories & from one wall line to the next. Different bracing methods are also permitted within the same wall line in SDCs A, B, & C only.	dwellings. 1-2 family dwellings located in SDC C need only comply with the requirements for buildings located in SDCs A & B, which have no seismic requirements.
R602.10.1.2 Length of Wall Bracing Modification: Lateral bracing requirements related to wind loads & seismic loads have been placed in separate tables. The greater tabular value from the 2 tables based on the building location applies.	The amount of bracing was expressed as a percentage of the braced wall line.	The amount of bracing is now expressed as length in feet. After all adjustments are made, the minimum total length of bracing in a braced wall line must be at least 48 in. Seismic loading is predominantly proportional to the length of the braced wall line, but the wind loading is proportional to the wall line spacing, the height of the walls, and the height of the roof relative to the eaves. Accordingly values in the seismic table are function of braced wall line length, and values in the wind table are a function of braced wall line spacing. R602.10.1.2 clarifies that for other than angled walls, only wall panels parallel to the braced wall line count in satisfying the amount of bracing requirements. Where exterior braced wall panels are subjected to wind uplift, connections must be provided unless the weight of the wall above offsets the wind uplift forces. When the net uplift at the bottom of wall exceeds 100 plf, connections such as straps must be provided from story-to-story to provide a complete load path from the roof to the foundation.	Walls perpendicular to the braced wall line do not count toward the bracing amount required in the direction of the braced wall panels that are subjected to wind uplift. Values in the wind table are based on an assumed 10 ft. high wall for each story & 10 ft. height between the eave & ridge of the roof. A footnote to the wind bracing table permits the required bracing length for methods other than let-in-bracing in 1 story or the top story of 2 or 3 story buildings to be reduced when tie down devices are provided at braced wall panels.
R602.10.13 Angled Corners of Braced Wall Lines Addition: This new section allows angled wall segments to contribute to the amount of wall bracing in a braced wall line.		This change permits angled walls up to 8ft. long & no more than 45 degrees out of plane of the braced wall line to be included in the amount of required bracing.	
R602.10.1.4 Braced Wall Panel Location Modification: The location requirements for braced wall construction are now grouped together in a	The 2006 IRC permitted a maximum inset distance to 12.5 ft. from both ends of a braced wall line, provided the amount of bracing satisfied the percentage	The 2009 IRC limits the combined total inset distance to 12.5 ft. while still allowing inflexibility to inset a panel a distance of 12.5 ft. from 1 end.	The change is a result of concerns that 1 4ft. braced wall panel installed in the center of a 25ft. long braced wall line would not provide

single section & adds several figures.	requirements.	New text clarifies that all of the braced wall panels are allowed to be offset 4 ft. from the line that establishes the braced wall line & the total out-to-out offset of brace wall panels is not more than 8 ft.	adequate bracing even if it satisfied the minimum bracing length requirements.
R602.10.1.5 Braced Wall Line Spacing for Seismic Design Categories D0, D1 & D2 Modification: This change expands the exception to permit wall line spacing of 35ft. for buildings in Seismic Design Categories D0, D1 & D2 subject to adjustment factors to provide an amount of bracing adjusted to be equivalent to the 25ft. spacing requirements.	R602.10.11.1 the 2006 IRC permitted an increase to 35ft. braced wall line spacing for only 1 large room not exceeding 900 sq. ft.	R602.10.1.5 replaces & modifies the 2006 R602.10.11.1. The new exception allows spacing up to 35ft. throughout the building by increasing the amount of braced wall panels in the braced wall line. This exception also places limits on length-to-width ratio for the roof and floor diaphragms to ensure lateral loads are adequately transferred to the braced wall lines & increases the fastening for top plate splices to account for the increased span of the diaphragm.	The change does not reduce the seismic resistance but allows the same building plans to be used in Seismic Design Categories D0, D1 & D2 as are used in Seismic Design Category C when the appropriate bracing adjustments are applied.
R602.10.2 Intermittent Brace Wall Panel Construction Methods Modification: The bracing methods of the 2006 IRC listed as types 1-8 & the 2 alternate braced wall panel methods have been grouped into 1 table & given a 2-3 letter abbreviation to make the section more user friendly.		The code now uses the term 'intermittent' to describe bracing methods utilizing isolated braced wall panels & to clearly differentiate these methods from continuous sheathing methods. The intermittent bracing methods are now placed in tabular format with a description, illustrative icon & connection criteria. R602.10.2 the construction of intermittent braced wall panels shall be in accordance with 1 of the methods listed in Table 602.10.2 R602.10.2.1 intermittent *braced wall panels* shall have gypsum wall board installed on the side of the wall opposite the bracing material. Gypsum wall board shall be not less than 1/2 in. in thickness & be fastened in accordance with Table R702.3.5 for interior gypsum wall board. Exceptions: 1. Wall panels that are braced in accordance with methods GB, ABW, PFG & PFH. 2. When an *approved* interior finish material with an in-plane shear resistance equivalent to gypsum board is installed. 3. For methods DWB, WSP, SFB, PBS, PCP & HPS, omitting gypsum wall board is permitted	The new tabular format is intended to make it easier for code users to understand the options available. The reorganization & labeling intend to clarify the prescriptive bracing provisions & the 2 distinct paths for compliance – intermittent & continuous methods – to promote more consistent application.

		provided the length of bracing in Tables R602.10.1.2(1) & R602.10.1.2(2) is multiplied by a factor of 1.5. The prohibition of adhesive attachment of wall sheathing in Seismic Design Categories C, D0, D1 & D2 is relocated from Section 602.10.11.5 of the 2006 IRC.	
R602.10.3 Minimum Length of Brace Wall Panels Modification: The code now recognizes braced wall panels less than 48 in. but not less than 36in. in length in Seismic Design Categories A,B & C.	R602.10.4 was inconsistent in terminology, expressing such braced wall panel measurements as width, length or percentage of the braced wall line.	R602.10.3 replaces & modifies the 2006 R602.10.4. The amount of bracing is now expressed as the minimum total length of braced wall panels measured in the direction of the braced wall line. In most cases, the length of the braced wall panel in the 2009 IRC is equal to the actual length of the braced wall panel in the horizontal direction, provided it is not less than 48 in. The added text in Section R602.10.3 mirrors the footnotes of the referenced tables in advising that the amount of gypsum board required by the applicable table must be doubled when gypsum board is applied to only 1 side.	For intermittent braced wall panels using methods other than in-bracing & gypsum board, the code now recognizes that panels less than 48in. in length contribute to the bracing of buildings. For braced wall panels not less than 36in. in length in Seismic Design Categories A, B & C, the new partial credit allowance maintains the bracing strength requirements while providing some flexibility. There is no partial credit for panels less than 48in. in length on 10ft. high walls or panels less than 42in. in length on 9ft. high walls.
R602.10.3.2 Method ABW – Alternate Braced Wall Panels Modification: A new figure replaces much of the text in this section to more clearly illustrate the construction details for alternate braced wall panels, now described as bracing method ABW.	R602.10.6 alternate braced wall panels shall be constructed in accordance with Sections R602.10.6.1 & R602.10.6.2.	R602.10.3.2 replaces & modifies the 2006 R602.10.6. The construction details for minimum materials, concrete reinforcement, hold-downs, anchoring, fastening & splicing are more clearly illustrated in drawing form rather than detailed code language. Much of the text of this section has been deleted in favor of the new figure without making technical changes to the method of construction.	Alternate braced wall panel construction (ABW), is 1 of the more complicated provisions in the wall bracing section. Other editorial changes to this section reflect the preferred terminology in an effort to provide accuracy & consistency.
R602.10.3.3 Method PFH – Portal Frame with Holds-Down Modification: The alternate bracing method for a braced wall panel adjacent to a door or window opening, typically used at large overhead garage door openings, is now known as portal frame with holds-down (Method PFH).	R602.10.6.2 Alternate Braced Wall Panel Adjacent to a Door or Window Opening.	R602.10.3.3 replaces & modifies the 2006 R602.10.6.2. The braced wall segments in Figure R602.10.6.2 are now labeled as 'portal frames,' a term that more accurately describes the configuration, prompting a change to designate this method of bracing as portal frame with holds-down (Method PFH). The text describing the materials & connection details has been deleted in favor of Figure	As with alternate braced wall panels (ABW), bracing method PFH provides equivalent strength to standard 48in. braced wall panel through very specific reinforcing & connection details. The lengthy text describing those details was viewed as cumbersome & confusing and has been deleted in favor of the line drawing illustration.

		R602.10.3.2 for illustrating this method of bracing construction. There is a minor revision which clarifies that 2 anchor bolts are required at the portal frame panel.	
R602.10.4 Continuous Sheathing Modification: The code now recognizes the practice of mixing intermittent bracing methods with the continuous sheathing method. The continuous sheathing method of bracing has undergone extensive revision & expansion to provide more flexibility in the design of & construction of dwellings.	R602.10.5 Length Requirements for Braced Wall Panels in a continuously sheathed wall did not clearly explain that continuous sheathing was a separate path from isolated wood structural panels for compliance with bracing provisions. Table R602.10.5 computed the panel length required based on the height of the adjacent door or window & the applicable maximum height to length aspect ratio.	R602.10.4 replaces & modified the 2006 R602.10.5. In an effort to clearly differentiate intermittent from continuous bracing methods, the continuous sheathing provisions are no longer tied to wood structural panel bracing method WSP (formerly method 3). Table R602.10.5 has been deleted & the minimum total length of braced wall panels for continuous sheathing appears in the applicable column of either Table R602.10.1.2(1), when wind controls, or Table R602.10.1.2(2), when seismic controls. The tabular value is no longer based on adjacent opening heights expressed as a percentage of wall heights. Amounts of required bracing are expressed as the length of braced wall panels in feet rather than a percentage of the braced wall line. The expanded Section R602.10.4 established 3 separate & distinct methods for bracing with continuous sheathing & assigns to the table for intermittent sheathing methods. The alternates for wood structural panel adjacent to garage openings (CS-G) & continuous portal frame (CS-PF) were developed from the footnotes that appeared in the 2006 IRC Table R602.10.5. Section 602.10.4 requires continuous wood structural panel sheathing on all sheathable surfaces on 1 side of braced wall lines of exterior walls. This change permits other bracing methods to be used at other braced wall lines at any story. The code clarifies the requirements for a minimum 24	The entire code change is rather extensive so refer to the 2009 IRC Code Changes Resource Collection for the complete text & history of the code changes related to Section R602.10. In SDC A, B & C where the basic wind speed is less than or equal to 100 mph, the code permits mixing of methods in the same story & from story to story. When using the continuous sheathing method in Seismic Design Categories D0, D1 & D2, or where the wind speed exceeds 100 mph, mixing is not permitted on the same story. When using the continuous portal frame method, the total amount of bracing in the braced wall line must still meet the applicable tabular values for continuous wall sheathing.

		in. wood structural panel on both sides of the corner at each end of the continuously sheathed braced wall line. A hold down device with a capacity of 800 lbs. installed on the corner stud of the end panel of the braced wall line that provides overturning restraint is permitted to substitute the 24in. corner return segment that is perpendicular to the braced wall line.	
R602.10.6 & R602.10.7 Braced Wall Panel Connections & Support Modification: Requirements for braced wall panel connection to wood framing have been revised & the code now recognizes masonry stem wall construction for supporting braced wall panels & prescribes reinforcing when those walls are 48 in. or less in length.	Masonry stem walls were not addressed in relation to bracing in previous editions of the IRC. In particular, the absence of language addressing portal frame panels supported masonry stem walls, as sometime occur at garage doors & slab on grade conditions, has resulted in inconsistent application of the code.	R602.10.6 Braced wall panels shall be connected to floor framing or foundations as follows: 1. Where joists are perpendicular to a *braced wall panel* above or below, a rim joist, band joist or blocking shall be provided along the entire length of the *braced wall panel* in accordance with Figure R602.10.6(1). Fastening of top & bottom wall plates to framing, rim joist, band joist and/or blocking shall be in accordance with Table R602.3(1). 2. Where joists are parallel to a *braced wall panel* above or below, a rim joist, end joist or other parallel framing member shall be provided directly above & below the *braced wall panel* in accordance with Figure R602.10.6(2). Where a parallel framing member cannot be located directly above & below the panel, full-depth blocking at 16 in. spacing shall be provided between the parallel framing members to each side of the *braced wall panel* in accordance with Figure R602.10.6(2). Fastening of blocking & wall plates shall be in accordance with Table R602.3(1) & Figure R602.10.6(2). 3. Connections of *braced wall panel*s to concrete or masonry shall be in accordance with Section R403.1.6. R602.10.7 Braced wall panel support shall be provided as follows: 1. Cantilevered floor joists, supporting *braced wall lines*, shall comply with Section R502.3.3. Solid blocking shall be provided at the nearest bearing wall location. In Seismic Design	The new connection details apply to buildings located in SDC D0, D1 or D2 or areas with wind speeds of 100 mph or greater, or when the roof member heel height exceeds 91/4in. The change also clarifies that these bracing connection requirements apply to the individual braced all panel segments, not the entire braced wall line. New figures illustrate the connection options to ensure proper installation without compromising the lateral load resisting capacity. New text also recognizes floor joist cantilever conditions to support braced wall panels consistent with the requirements of Section R502.3.3.

		Categories A, B & C, where the cantilever is not more than 24 in. a full height rim joist instead of solid blocking shall be provided. 2. Elevated post or pier foundations supporting *braced wall panels* shall be designed in accordance with accepted engineering practice. 3. Masonry stem walls with a length of 48 in. or less supporting *braced wall panels* shall be reinforced in accordance with Figure R602.10.7. Masonry stem walls with a length greater than 48in. supporting *braced wall panels* shall be constructed in accordance with Section R403.1 *Braced wall panels* constructed in accordance with Sections R602.10.3.2 & R602.10.3.3 shall not be attached to masonry stem walls.	
R602.10.8 Braced Wall Panel Joints Modification: The exception permitting horizontal joints without blocking in lower Seismic Design Categories has been deleted. The code now permits horizontal joints without blocking for panel sheathing except hardboard panel siding, provided the minimum required amount of bracing is doubled.	R602.10.7 panel joints – all vertical joints of panel sheathing shall occur over, and be fastened to, common studs. Horizontal joints in braced wall panels shall occur over, and be fastened to, common blocking of a minimum 1½ in.thickness.	R602.10.8 replaces & modifies the 2006 R602.10.7 Blocking is now required for the horizontal joints of braced wall panel sheathing in all Seismic Design Categories. This change also clarifies that blocking is required only for the prescribed braced wall panels, not the entire braced wall line. Blocking at horizontal joints shall not be required in wall segments that are not counted as *braced wall panels*. Where the bracing length provided is at least twice the minimum length required by Tables R602.10.1.2(1) & R602.10.1.2(2) blocking at horizontal joints shall not be required in *braced wall panels* constructed using Methods WSP, SFB, GB, PBS or HPS. Gypsum board braced wall panels (Method GB) applied horizontally do not require attachment to horizontal blocking at the joints.	Blocking at intermediate joints increases stiffness to keep braced wall panels from buckling out of plane when subject to in-plane loads. Testing has shown a 50% reduction in the bracing strength of wood structural panels when the blocking is omitted.
R602.10.9 Cripple Wall Bracing Modification: This section has been relocated & the terminology updated to be consistent with other changes to Section	R602.10.2 Cripple Wall Bracing according to Table R602.10.1.	R602.10.9 replaces & modifies the 2006 R602.10.2. Table R602.10.1 has been replaced by separate Tables R602.10.1.2(1) & R602.10.1.2(2)	

602.10. Required bracing is now measured as length in feet rather than a percentage of the braced wall line & is determined from the wind or seismic table, whichever is greater value.		for determining the total length of bracing to resist the predominant loads from either wind or seismic forces. The 8 types of bracing using isolated braced wall panels & previously represented by numbers are now known as intermittent bracing methods & have been relabeled with short abbreviations. Method WSP now represents wood structural panel bracing replacing the method 3 designation.	
R602.11 Wall Anchoring Clarification: Braced wall panel connections to wood framing at interior & exterior wall locations have been consolidated in the appropriate connections provisions in Section 602.10.6.	R602.11 the framing & connections details of buildings located in Seismic Design Categories D_0, D_1 and D_2 shall be in accordance with Sections R602.11.1 through R602.11.3.	Section 602.11 now includes only those provisions related to anchorage of the braced wall line to concrete & masonry foundations. As part of the effort to reorganize the all bracing provisions of Sections 602.10 & R602.11, redundant language has been removed & all provisions related to braced wall panel connections to wood framing of floor & roof/ceiling diaphragms are now located in Section R602.10.6 Section R 602.11, Wall Anchorage, consolidates requirements for anchoring the sill plate of the braced wall line to a concrete or masonry foundation. Reorganization of this section clarifies that Section R403.1.6 applies to the sill anchorage of braced wall lines for all buildings in Seismic Design Categories (SDC's) A & B, and for 1-2 family dwellings in SDC C. The anchorage provisions of Section 602.11.1 apply to all buildings in SDCs D0, D1 & D2 and townhouses in SDC C. The stepped foundation provisions related to wall bracing do not apply to buildings sited in SDC A, B, or C. The code no longer differentiates interior from exterior braced wall panels or braced wall lines.	Changes in this section are consistent with the effort to place seismic provisions in the section where they are applicable to make bracing provisions more user friendly and eliminate the need to thumb back & forth throughout the code to locate requirements.

R603 Steel Wall Framing Modification: Section R603 has undergone extensive revision & expansion to clarify & update the prescriptive provisions for cold-formed steel light frame wall construction. These changes correlate the requirements to those in the new referenced standard AISI S230, Standard for Cold-Formed Steel Framing – Prescriptive Method for 1-2 Family Dwellings, 2007 edition.	R603.1 General elements shall be straight & free of any defects that would significantly affect structural performance. Cold-formed steel wall framing members shall comply with the requirements of this section.	The 2009 IRC expand the scope of the prescriptive methods to include 3 story buildings, an increase from the previous limitations of 2 stories. Section R603 now includes framing details & new header tables for gable end walls intended to clarify the prescriptive methods. All requirements concerning web holes & web hole adjustments are now consolidated in 1 location, clarifying that the code user has the choice to reinforce nonconforming holes, patch nonconforming holes, or design nonconforming holes with accepted engineering practice. Table R603.2(2) reflects current industry standardized thickness for structural members expressed as base steel thickness in mils. Reference Gage Number is no longer used in referencing structural members & has been removed from the table.	Many new figure have been added to the code to clarify the application of the cold-formed steel framing provisions.
R606.3 & R606.4 Corbeled Masonry Modification: Section 606.3 has been divided into 3 subsections to clarify the masonry corbelling requirements. The code now specifically recognizes masonry units filled with mortar or grout as adequate for corbelling.	The 2006 IRC prescribed solid masonry units for corbelling.	The 2009 IRC change recognizes that corbelled masonry units filled with mortar or grout act the same as solid units in supporting the construction above & distribute the load as effectively as solid masonry units. The requirement to fill the hollow space behind the corbel with mortar or grout has been relocated to the foundation support provisions in Section R606.4.	Solid masonry units are not always available, whereas units filled solid with mortar or grout can be readily made on the job site as they are needed, providing more flexibility to the builder.
R606.12.2.1 & Table R606.12.2.1 Minimum Length of Masonry Walls Without Openings Addition: This change adds prescriptive requirements for minimum lengths of masonry walls to provide wall bracing.	The 2006 IRC did not address minimum lengths of masonry walls to resist lateral loads parallel to the wall.	Section R606.12.2.1 & Table R606.12.2.1 add prescriptive masonry wall bracing requirements for high Seismic Design Categories (SDCs). The new provisions apply to above grade masonry wall construction for townhouses located in Seismic Design Category (SDC) C & all building sites in SDC D0, D1, or D2.	The minimum solid wall length along exterior masonry wall lines was developed in part to correlate to the minimum length requirements for insulated concrete form (ICF) walls.
R611 Exterior Concrete Wall Construction Modification: Section R611 has been completely revised to reflect the provisions of the new referenced Portland Cement Association standard PCA	The 2006 IRC Section R612 referenced the design & construction requirements of Section R611 for flat insulated concrete form (ICF) walls or ACI 318 with regard to above ground concrete wall provisions.	The 2009 IRC merges & correlated the conventionally formed concrete wall provisions with those of the ICF walls in the substantially revised provisions of Section R611.	

100 Prescriptive Design of Exterior Concrete Walls for 1-2 Family Dwellings. Conventionally formed above ground concrete wall provisions have been integrated with the insulated concrete form (ICF) wall requirements.		The applicability limits of Section 611 are generally consistent with the limitations of PCA 100 for building plan dimensions, height, projections, and dead loads. Section R611 is limited to detached 1-2 family dwellings & townhouses located in SDC A or B, and detached 1-2 family dwellings in SDC C. The limited provisions for concrete walls of buildings in high seismic areas that appeared in the 2006 IRC have been deleted but still appear in PCA 100. Townhouses in SDC C & all buildings is SDC D must now meet the requirements of PCA 100 or be designed in accordance with ACI 318. Revised figures & tables for constructing flat, waffle-grid & screen-grid ICF wall systems appear in Section R611.5. Additional provisions are included for constructing these concrete walls based on concrete, aggregate, and steel reinforcement materials used. New provisions govern the location, cover & continuity of the reinforcement & installation of construction joints. The prescriptive technical provisions for exterior concrete walls in R611.6 through R611.8 have been replaced entirely & reflect changes made to ACI 318 & ASCE 7. The new provisions cover horizontal & vertical reinforcement, reinforcement & shear wall (solid wall) requirements around openings & lintels over openings. Section R611.9 has also been replaced with the revised details for connecting wood & cold formed steel framing assemblies to exterior concrete walls. The IRC no longer includes prescriptive provisions for above ground concrete walls in high Seismic Design Categories (SDCs). Section R612 has been deleted.	

R612.2 Window Sills Modification: Changes to Sections R612.2 through R612.4 clarify the child fall prevention alternatives to the minimum window sill height. In the 1st alternative, window fall prevention device replaces the term 'guard' as the barrier installed at operable windows with sills below 24 in. In the 2nd option, the code details the performance criteria for opening limiting devices, including provisions for emergency escape & rescue opening.	The 2006 IRC required a 24 in. minimum window sill height when the opening is more than 72 in. above grade & referenced the ASTM F 2006 Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape & Release Mechanisms.	The 2009 change clarifies & updates & expands the information on the alternatives for fall prevention when the sill is lower than 24in. above the floor – installing a barrier or limiting the dimensions of the window opening. With sills lower than 24 in. above the floor, barriers are required at the window opening that does not permit passage of 4 in. diameter sphere. Window fall prevention devices installed on any window must conform to ASTM F 2090, thereby complying with the operation provisions for emergency escape & rescue openings in Section R310. The ASTM F 2006 Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape & Release Mechanisms is no longer referenced.	An opening limiting device installed on any window must have an emergency release device that is clearly identified & that operates without the need for a key, tool, or special knowledge. The code also limits the opening force of the release mechanism.
R613 Structural Insulated Wall Panel Construction Addition: Prescriptive provisions for structural insulated panel (SIP) wall construction have been added to the code in a new Section R613.		The 2009 IRC includes prescriptive provisions recognizing structural insulated panels (SIPs) for exterior & Interior wall bearing construction. Similar to the prescriptive provisions for cold-formed steel framing, SIP wall construction in accordance with R613 is limited to 1-2 story buildings not greater than 40 ft. wide by 60 ft. long with 10ft. wall heights & sited in Seismic Design Categories A, B & C. Maximum design wind speed is 130 mph in Exposure C & maximum snow load is 70 psf. R613 contains prescriptive tables, materials specifications, bracing information & construction details similar to those found in the wood & cold formed steel framing & concrete wall sections of the code. The minimum thickness of SIP for a particular application is determined in accordance with Tables R613.5(1) & R613.5(2) based on building width, design wind speed, snow load & elements being supported.	The new provisions are based on testing using industry developed minimum properties for panels, adhesives & foam density. Tests included axial, shear & transverse loads, all conducted in accordance with the recognized test methods in developing panel capacities.

R703 & Table R703.4 Modification: Performance requirements for wind resistance have been added to the water resistance provisions of exterior wall covering systems in Section R703.1. Changes to Table R703.4 clarify the water resistive barrier requirements for various wall covering & cladding systems & update the fastening requirements to reflect current industry practices.	R703.1 General - exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed & constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer as required by Section R703.2. and a means of draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Chapter 11 of this code.	The provisions for weather resistance in Section R703.1 have been broken into 2 subsections to recognize both water & wind resistance for exterior wall covering systems. The water resistance requirements in this section remain unchanged. Section R 703.1.2 provides a testing & analysis of wind pressure resistance of all exterior covering systems, and references the component & cladding wind load requirements of Table R301.2(2) & R301.2(3). The change to Section R703.3.2 requires lap siding to be installed as recommended by the manufacturer. The omission of a water resistive barrier behind masonry veneer with a 1in. air space is no longer permitted by Table R703.4. The line item for 'stone veneer' has been deleted, the row for brick & masonry veneer has been changed to 'anchored veneer.' Anchored veneer now includes brick, concrete, masonry & stone that is secured to the structure with the code prescribed metal ties. Other changes included fastening requirements for wood structural panel siding & vinyl siding to recognize current industry & manufacturer's recommendations & rest reports.	
R703.7.3 Lintels Modification: Steel lintels supporting masonry veneer above openings now require a shop coat of rust-inhibitive primer or other protection against corrosion. The 2009 IRC also provides an alternative prescriptive method for supporting veneer above measuring up to 18ft. 3 in. in length using a combination of a steel angle & masonry with horizontal reinforcing.	R703.7.3 Lintels.Masonry - veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of noncombustible materials & the allowable span shall not exceed the value set forth in Table R703.7.3. The lintels shall have a length of bearing not less than 4 in.	Section R703.7.3 now specifically requires corrosion resistance for steel lintels to inhibit the development of rust & protect the integrity of the masonry veneer. R703.7.3.1 The allowable span shall not exceed the values set forth in Table R703.7.3.1. The new section R703.7.3.2 provides a cost effective alternative to the existing steel lintel table for spanning large masonry veneer openings such as occur at overhead garage doors. These prescriptive provisions combine a steel angle with masonry veneer & reinforcing above to form the noncombustible	

		lintel. Shoring is required to support steel lintel & veneer for a period of 7 days to allow the mortar to gain sufficient strength for the lintel to support the dead load of the masonry above.	
R703.7.4 Masonry Veneer Anchorage Modification: The code now prescribes the minimum embedment & cover dimensions for metal wall ties in the mortar of masonry veneer.	The 2006 IRC specified the type, size & spacing of the ties but lacked guidance on the embedment details.	The new text completes the necessary prescriptive requirements for anchorage of masonry veneer & provides consistency with ACI 530.1/ASCE 6/TMS 602 Specification for Masonry Structures (MSJC Specification). The code now prescribes a minimum embedment of 1 1/2 in. into the mortar or grout with not less than 5/8 in. cover on the face side of the veneer.	
R703.11.1.1 & R703.11.2 Vinyl Siding Addition: The 2009 IRC specifically requires vinyl soffit to be fastened in place in accordance with industry standards to ensure adequate wind resistance. New provisions address installations of vinyl siding over foam plastic sheathing based on design wind speed & wind exposure category.		Section R703.11.1 requires vinyl siding, soffit & accessories to be installed with the manufacturer's installation instructions, requirements that have not changed in the 2009 IRC. To provide more guidance to the installer & code user, the IRC now specifies that vinyl soffit must be attached to suitable backing or nailing strips. Section R703.11.1.2 has been added to improve wind resistance performance for vinyl siding applies over foam plastic sheathing, a common installation for meeting energy efficient requirements. The code now offers prescriptive fastening requirements for areas with a basic wind speed not greater than 90 mph & a wind Exposure B condition.	For basic wind speeds greater than 90 mph or locations in Exposure Category C or D, the design wind pressure rating of the exterior wall covering assembly is determined by applying a prescribed adjustment factor to a base value in the vinyl siding manufacturer's product specifications. The higher adjustment factor is based on wall assembly with gypsum board applied to the interior of the wall. The adjusted design pressure rating for the wall assembly must satisfy the component & cladding requirements of Tables R301.2(2) & R301.2(3).
R804 Cold Framed Steel Roof Framing Modification: Section 804 has been extensively revised & reorganized to clarify & update the prescriptive provisions for cold-formed steel light frame roof construction. Applicability of the prescriptive methods has expanded to include 3 story buildings from 2 story.	R804.1 – elements shall be straight & free of any defects that would significantly affect their structural performance. Cold-formed steel roof framing members shall comply with the requirements of this section.	All requirements concerning web holes & web hole adjustments are now consolidated in 1 location. The code user now has the choice to reinforce nonconforming holes, patch nonconforming holes, or design nonconforming holes in accordance with accepted engineering practice. In place of uncoated steel thickness, the code now uses the current industry standardized thickness for structural members expressed as base steel thickness in thousandths of an	The changes reflect the provisions in the new referenced standard AISI S230, Standard for Cold-Formed Steel Framing – Prescriptive Method for 1-2 Family Dwellings 2007 edition.

		inch. Reference Gage No. is no longer used in referencing structural members & has been removed from the associated tables. The in-line framing tolerance in Section R804.1.2 has been revised to account for the special case of the bearing stiffener located on the back side of the joist. Section R804.3.1, Ceiling Joists, has been modified to include the latest provisions from AISI S230-07 & to improve the understanding of the application. Minimum ceiling joist size, ceiling joist bearing stiffeners, ceiling joist bottom flange bracing & ceiling joist splicing have been relocated into individual subsections to clarify the different requirements. In similar fashion R804.3.2, Roof Rafters, places information for raft size, rafter support brace, rafter splice, rafter to ceiling joist & ridge member connection, & rafter bottom flange bracing into separate subsections. Figure R804.3.2.1.2 has been added to clarify the new subsections on eave overhangs & rake overhangs. The extensive changes to Section R804 also include new tables on roof rafter spans & for framing members & fastening requirements. Wind exposure Category A has been deleted from the cold-formed steel provisions because it no longer exists is ASCE 7-05.	
R806 Attic Ventilation Modification: The attic ventilation requirements now permit methods & materials other than wire mesh for protecting openings against the entry of insects.	The 2006 IRC required metal wire mesh to prevent insects from entering the ventilated area.	The minimum opening dimension has been reduced from 1/8 in. to 1/16 in. Vapor retarders are broken into 3 classes based on properties associated with the rate of restricting the passage of water. The provisions for unvented attic spaces have been rewritten for accuracy & clarification.	The change recognizes that modern manufacturing techniques produce products with punched, slotted, or hidden ventilation openings that do not require traditional insect screening.

R807.1 Attic Access Clarification: Section R807.1 now prescribes the methods to measure the height of attics requiring access & the height above the attic access opening.		The new text clarifies that measurements are taken from the framing members & not from the insulation. In determining attic height, the measurement is taken from the top of the ceiling joist or truss bottom chord to the bottom of the rafter or truss top chord. Conversely, the minimum clearance height above the attic access opening is measured from the bottom of the ceiling joist or truss bottom chord. The other change to this section clarifies that access openings through a wall require a minimum height of 30 in.	The intent of this change is to resolve some confusion regarding the methods for measuring heights of attics & the required height above attic access, and to promote uniform application of the provisions.
R905.2 Asphalt Shingles Modification: The changes to the asphalt shingle provisions clarify the attachment & wind resistance requirements & correlate to the applicable ASTM standards.	R905.2 Asphalt shingles - the installation of asphalt shingles shall comply with the provisions of this section.	New tables provide asphalt shingle classifications based on design wind speed & whether the shingles are sealed in accordance with ASTM D 7158 or unsealed in accordance with ASTM D 3161. The valley lining provisions have been revised to reference the appropriate standard for the use of self adhering polymer modified bitumen underlayment in a closed valley application. The code now prescribes the minimum dimensions for step flashings. Editorial changes improve the mandatory language.	
R905.8.6 Wood shake Installation Modification: To improve longevity, the minimum spacing between wood shakes has increased to 3/8 in.	The 2006 IRC permitted keyway widths as small as 1/8 in.	The code now requires the space between adjacent wood shakes or keyway to be not less than 3/8 in.	The Cedar Shake & Shingle Bureau brought about this change.
R1001 & R1003 Masonry Fireplaces & Chimneys Modification: The 2009 IRC adds minimum thickness, parging, & lining requirements to the masonry fireplace smoke chamber provisions & references the applicable standards.		Masonry fireplace smoke chambers now specifically require protection from parging or clay flue liners able to withstand temperatures of 1800 degrees F. The new text in this section also references the appropriate ASTM standards & intends to preserve the integrity of masonry fireplaces. The references to protecting the cores of corbelled masonry units	The revised definition of masonry chimney provides consistency with language in the masonry fireplace & smoke chamber sections.

		has been removed. The revised definition for masonry chimney clarifies that approved materials include both solid & hollow masonry units be grouted solid. These materials are consistent with those approved for masonry fireplaces in Section R1001.5, Firebox Walls, and R1001.8, Smoke Chamber. Clay flue liners for masonry chimneys require a non water soluble refractory mortar in accordance with ASTM C 1283 & ASTM C 199.	

December 2014

December 2014

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January 2015

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Nov 30	Dec 1	2	3 6:00pm City Council Work Session (Library) 7:00pm City Council Regular (Library)	4 12:00pm Cordova Center (Library)	5	6
7	8	9 6:30pm Planning Commission Regular (Library)	10 7:00pm Harbor Commission Regular (City Hall) 7:00pm School Board Regular (High School)	11 12:00pm Cordova Center (Library)	12	13
14	15 5:00pm Library Board (Library)	16	17 6:30pm City Council Public Hearing (Library) 7:00pm City Council Regular (Library)	18 12:00pm Cordova Center (Library)	19	20
21	22	23	24	25 City Closed - Christmas	26	27
28	29	30	31	Jan 1, 15	2	3

January 2015

January 2015

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2015

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Dec 28	29	30	31	Jan 1, 15 City Closed - New Year's Day	2	3
4	5	6	7 7:00pm City Council Regular (Library)	8 12:00pm Cordova Center (Library)	9	10
11	12	13 6:30pm Planning Commission Regular (Library)	14 7:00pm Harbor Commission Regular (City Hall) 7:00pm School Board Regular (High School)	15 12:00pm Cordova Center (Library)	16	17
18	19 City Closed - Martin Luther King Day	20	21 7:00pm City Council Regular (Library)	22 12:00pm Cordova Center (Library)	23	24
25	26	27	28	29 12:00pm Cordova Center (Library)	30	31