

Homer Harbormaster's Office Alternatives Analysis



Prepared for
City of Homer
December 2012

By
Nelson Engineering, PC

in Association with

Klauder & Company Architects, Inc.
Spurlock & Associates, Inc.
EIC Engineers, Inc.



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Executive Summary

The City of Homer has requested Nelson Engineering to Analyze three alternatives for a new Harbormasters Office:

1. Renovate and expand the existing facility.
2. Build new adjacent to existing facility.
3. Renovate the existing Happy Face Restaurant building.

Nelson Engineering, PC organized a consulting team to complete the Alternatives Analysis. The team and task assignments are as follows:

Bill Nelson, PE: Nelson Engineering, PC Project Manager/Structural/Civil Engineer.

Peter Klauder, Architect: Klauder & Company, Architect.

Eric Cowling, EE: EIC Engineers, Electrical Engineer.

Tom Spurlock, ME: Spurlock & Associates, Mechanical Engineer.

Jay Lavoie: Estimations, Inc. Cost Estimator.

Renovation and Expansion of the existing Harbormasters office would include adding a second story to increase the available space as required to meet program requirements for the renovated facility. Two options were considered. Option 1A would add a second story above the existing space. Option 1B would raise the existing space and construct a new first story under the existing. The cost of Option 1A was not since it was determined to be economically unfeasible due to the cost of removing the existing roof structure and constructing a new floor in it's place.

Alternatives Cost Estimates

Option 1A:

Add second story over Existing Harbormaster Office	Unfeasible
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Option 1B:

Renovate and Raise Existing Harbormaster Office/Add Second Story	\$2,173,302
Restroom/Shower Facility	<u>\$ 847,108</u>
	\$3,020,410

Option 2:

New Harbormaster Office	\$2,141,383
Restroom/Shower Facility	<u>\$ 847,108</u>
	\$2,988,490

Option 3:

Land Value	\$ 166,700
Assessed Improvements	\$ 453,100
Renovations	<u>\$2,724,665</u>
	\$3,344,465

Space Requirements for Harbormaster Operations and Restroom/Shower Facilities.

All members of the team visited the site on October 5, 2012. The team met with Harbormaster Brian Hawkins and other harbor staff to discuss programming information such as Harbor operations, functional requirements and space needs. After the meeting the team inspected the existing Harbormaster office and Happy Face Restaurant building and reviewed open property surrounding the Harbormaster office.

Architect Peter Klauder used programming information gathered during the meeting with Harbor staff to develop a conceptual design for a new Harbormasters Office and for a new Public Restroom and Showers facility. Klauder & Company then prepared a Conceptual design for a new Harbormasters Office to be used for developing cost estimates for the Alternatives Analysis. The conceptual design addresses the space requirements for Harbormaster office functions, public areas, conference rooms, restrooms, filing, storage, utility, circulation and shop areas. The programming effort established a baseline area requirement of 5,077 square feet to provide for meet program requirements for the Harbormaster office and 1,000 sf for the Public Restrooms and Showers Building.

The existing Harbormasters office building footprint is approximately 2210 square feet. Alternative 1 would increase the total area to 4420 sf by the addition of a second story. Two variations of Option 1 were considered: Option 1A would involve adding a second story on top of the existing structure. Option 1B would involve raising the existing structure and constructing a new first story under the existing structure. It would also be necessary to construct an additional 667 square feet of space at the ground level to house the shop/garage/locker space identified in the programming effort. The total square footage for the renovated shop Harbormasters Office, with the new second story and ground added 667 square feet at ground level is 5077 square feet.

The existing restroom facility does not include showers and has a footprint area of approximately 1100 square feet. All of the proposed Alternatives include demolishing the existing restroom facility and constructing a new restroom/shower facility. A new Restroom/Shower building would be constructed under Alternatives 1 and 2. The new restroom/shower facility would be housed in the renovated ground floor of the Happy Face building under Alternative 3.

Alternative 1: Renovate and Expand Existing Harbormaster Office

Tax Valuation

The existing Harbormaster office is located on Lot 28 and 29, Homer Spit Subdivision, Amended. Lot 29 is also the site of a harbor restroom facility. The Kenai Peninsula Borough Tax valuation for Lot 28 is \$94,400 for land and \$0 for Improvements. The taxable valuation for Lot 28 is \$0. The Kenai Peninsula Borough Tax valuation for Lot 29 is \$185,200 for land and \$111,800 for Improvements. The taxable valuation for Lot 29 is \$0.

Architectural Considerations

The exterior walls and interior walls are wood studs. Some of the exterior bearing walls are comprised of 2x4 wood studs while other walls appear to be of 2x6 wood stud construction. The exterior wall finish is painted T1-11 plywood sheathing/siding. Interior wall and ceiling finish is painted/textured gypsum wall board. The existing construction is not up to today's standards and appears to be quite energy inefficient. The windows are older and again do not meet today's standards for energy efficiency. The attic does not appear to be properly ventilated with gable end vents, soffit vents or a continuous ridge vent. In Alaska's environment this means that moisture vapor will build up in the existing fiberglass batt insulation and significantly reduce the R value of the insulation material. The T-111 siding generally extends down as skirting all the way to the ground and is subject to moisture damage. The building is raised approximately 4 feet above grade requiring a stairs and a ramp for ADA compliance. Both the stairs and ramp lack proper guard rail systems to comply with code. The ADA entrance ramp is not well protected to prevent rain, snow and ice buildup. The guard rail at the exterior deck on the harbor side of the building is also inadequate and does not meet code.

The foundation system consists of creosote treated wood poles of varying diameter. Wood beams span between poles to support wood floor joists. Wood foundation systems will ultimately rot and are generally considered of lower quality than concrete block or cast-in-place concrete foundations. The existing foundation system would not be adequate to support a second level, see structural. Expanding the main level would require either raising the new addition to the same height above grade as the existing or dealing with a transition if floor height, which is not conducive to cost effective ADA compliance.

The roof consists of wood frame trusses, with approximately 3:12 pitch. The building has intersecting gable roofs. Roof trusses are covered with plywood sheathing and asphalt shingles.

The interior of the building does not meet the needs of the user groups. The Homer Small Boat Harbor has grown significantly over the years and the space needed to manage the harbor has grown as well. The interior is crowded and would require considerable renovation to completely comply with ADA. A sizeable addition would be required to meet the needs of the current user groups and this would trigger all of the ADA and code required upgrades for compliance. Adding a second level to this building would be very problematic and depending upon the occupancies housed on the upper level could trigger a requirement for an elevator.

It appears that renovation of the existing building would not be cost effective as the existing structure has basically outlived its useful life time and would simply not be a good investment of resources.

In summary, it appears that renovating and remodeling the existing building would likely exceed the cost of new construction and the net result would be a building of lower quality. The city can more cost effectively construct a new building and generate savings over the long term in terms of energy and maintenance expenses.

Structural Considerations

The building is a single story wood frame structure. The building is Tee shaped in plan and appears to be comprised of an original core structure with two additions. The original structure measures

approximately 20' x 47.5'. One addition is approximately 20' x 24' and the other addition is approximately 24.5' x 32.5'. The total area of the existing Harbormaster building is approximately 2226 square feet.

Roof and floor loads are supported along the building perimeter as well as along interior bearing lines located approximately midway between interior bearing walls. There are also interior bearing walls along the interface between the original structure and the two additions.

The exterior walls and interior walls are wood studs. Some of the exterior bearing walls are comprised of 2x4 wood studs while other walls appear to be of 2x6 wood stud construction. Stud spacing was not determined. Exterior wall finish is T1-11 plywood sheathing/siding. Interior wall and ceiling finish is painted/textured drywall.

The foundation system consists of creosote treated wood poles of varying diameter. The poles extend below grade to an undetermined depth. It appears that the poles were set in place in dug holes, rather than driven into place, so it is assumed that the piles extend approximately 4 feet or less below grade. Wood beams span between poles to support wood floor joists.

The building floor is approximately 4 feet above grade, so the building has a handicap access ramp at the main entrance and stairs at the rear exit. The crawl space under the building is enclosed with an insulated skirting wall.

Renovation and Expansion

Adding a second story to the existing building is being considered as a means to more or less double the area. A second story could be added by either adding on top of the existing structure or, by raising the existing structure and adding a second floor at ground level.

If a second story is added on top of the existing building, it would be necessary to remove the existing gable roof and then construct a new floor over the existing walls. After the new floor is constructed, the walls and roof structure for the second story would be constructed on top of the new floor.

Due to the Tee shaped configuration of the existing building and the lack of structure continuity between the original building and the two additions, it would be problematic to attempt to raise the existing building and construct a new story underneath it. The building would have to be shored and raised incrementally, with special care given to insure that all three sections of the building were raised simultaneously, to prevent damage to the structure that would be likely to occur if the sections are not raised in unison.

It does not appear that the existing wood poles will have adequate bearing capacity to support live and dead loads imposed by the addition of a second story. It would be necessary to provide additional embedded poles and to reinforce existing floor/wall support beams or, to completely remove the poles after shoring the structure and then to construct new continuous concrete footings and foundation walls under the building.

Special work associated with adding a second story to the existing building includes:

Option 1A: Adding a second story on top

1. Remove and demolish existing roof structure: Trusses, sheathing insulation, roof covering, electrical wiring.
2. Re-level existing top of walls, construct new floor.
3. Work in confined crawl space to add new piles/poles and reinforce floor beams to support second floor or; construct new concrete footing and foundation wall in confined work area.
4. Remove interior wall finish at all bearing walls to reinforce 2x4 studs/add studs to support second floor.
5. Relocate window headers as required for new window opening locations for revised floor plan. Add cripple studs to support second floor loads.

Option 1B: Raising the existing building and constructing second story under it

1. Raise building and provide temporary bracing to resist lateral wind/seismic forces.
2. Work in confined crawl space to add new piles/poles and reinforce floor beams to support second floor or; construct new concrete footing and foundation wall in confined work area.
3. construct new first story in confined work area. Match up to old structure. Lower old structure onto new.

Civil/Site

It is likely that the existing sewer service connection to the main can be disconnected from the plumbing for the existing building and then reconnected at minimal cost.

The water service will probably need to be upgraded in order to provide increased service capacity to the enlarged building.

Site excavation and grading will be minimal.

Electrical

The existing facility has a 200 Amp single phase 240/120V electrical service. The existing service would not be adequate to serve the renovated/expanded facility.

Several branch circuit panels are located in the facility. The existing branch circuit panels are full and nearing the end of useful life. The existing system is not adequate to serve the expanded facility.

The existing lighting is for the most part 2x4 grid mounted fluorescent. The fixtures are in fair condition. The ballast and lamp technology in use is outdated. No automatic controls were noted. The existing emergency lighting is in poor condition.

The telecommunication system was pieced together over the life of the building to serve the needs of the occupants. The system has a make shift termination board in the back shop area.

The renovated and expanded facility will require a new 400 Amp 208Y/120V 3 phase service, with new branch circuit distribution panels. A manual transfer switch to allow for connection of portable generator will be provided. Assume a 400 Amp manual transfer switch that would require manual load shedding. New lighting would be provided throughout the new and remodel areas using RT8 2x4 grid mounted fluorescent fixtures. Local lighting control will be provided in each space with automatic control in spaces that are intermittently occupied.

New exterior lighting will be provided to illuminate the building perimeter and parking lot. New power distribution system will be provided to service all mechanical equipment and general purpose power needs of the facility.

A new telecommunication system will be provided with a 2 cables routed to each workspace and printer/copier location. The system will include cable support throughout the facility and a telecommunication room for the equipment. Two dedicated 30 Amp 120V receptacles will be provided for future rack mounted UPS units.

A CCTV system would be included to monitor the building perimeter and facility public lobby. Assume 5 cameras are required.

Power and data connections will be provided for two the weather update stations. It is assumed that Fire Alarm, Door Access Control, Standby Power Supply Generator or other systems not noted are not desired or required.

Mechanical

The existing facilities consist of two structures, a single story office/operations building and a public restroom building.

The heating system in the existing office building is a combination of electric baseboard and oil fired Toyo heaters. The current fuel oil tank sets adjacent to the building.

There is currently no mechanical ventilation system for the building. The occupants rely on operable windows for fresh air.

Upgrades to the building mechanical systems would include the addition of a mechanical room and the installation of hydronic baseboard for building heat. Boilers would be high efficiency oil fired boilers with the ability to convert to natural gas when it becomes available in two years. Domestic hot water would be produced by indirect fired water heaters. Installation of the new heating system would be hampered by the lack of existing ceiling space.

Upgrades to the building ventilation system would be to add a ventilation system. A centralized ventilation system would be added to provide fresh air to the occupants. The system in the existing facility would be difficult as there is very little ceiling space. Duct work would have to be ran exposed or in chases.

Alternative 2: Build new Harbormaster's Office Adjacent to Existing

Architectural

The Proposed new Harbormaster Office building is rectangular with several recessed or projecting elements for view of the harbor, to accentuate entry or simply to meet space demands. The construction assemblies include a slab on grade with either an insulated shallow footing or a full depth perimeter footing, per structural. The exterior walls are planned to be reinforced concrete block, CMU, in part due to the salty environment of the spit. A combination of split face colored block and scored colored block could be used to develop an aesthetically appealing façade.

The main level exterior wall assembly is as follows:

- 8" reinforced CMU, over
- 4" rigid insulation adhered to CMU with offset seams over
- 6 mil poly vapor retarder adhered to insulation board over
- 2x4 wood studs at 24" O.C. with
- 1" rigid insulation board in stud cavity over
- 5/8" type X GWB

The upper level is illustrated with horizontal metal siding (which offers a 30 year warranty in salt water environments). The upper level exterior wall assembly is as follows:

- Horizontal metal siding over
- Tyvek building wrap over
- Building wrap over
- Structural wall sheathing over
- 2 x 6 wood frame walls @ 24" O.C. with
- 6" fiberglass ball insulation in wall cavity over
- 6 mil poly vapor retarder over
- 3/4" hat channel at 24" O.C. with
- 3/4" rigid insulation board in hat channel cavity over
- 5/8" type X GWB

The roof assembly is as follows:

- The roof is a standing seam metal roof over
- Ice and water shield (entire roof) over
- Structural roof sheathing over
- Pre-engineered wood trusses with
- R=50 blown in cellulose insulation in attic space over
- 6 mil poly vapor retarder over
- 5/8" Type X GWB

The interior floor finishes are proposed to be:

- Raised disc pattern rubber flooring in Public Circulation Areas and Stair.
- Sheet carpet in Offices, Open Office Work Spaces, Private Hall, Office Supply Storage Rooms,
- Tele Comm, Conference Room and Upper Level Operations Lookout.
- Resilient sheet flooring at Kitchenette and Multipurpose Break Room.

Ceramic tile flooring in Building Restrooms.
Concrete slab with sealer in Utility, Shower, Shop-Garage-Locker and Mechanical Room.

The interior wall finishes are proposed to be:

Gypsum wall board throughout unless otherwise noted. Water resistant gypsum board in all wet locations.
Ceramic tile wainscot over cementitious board substrate in Building Restrooms.
Fiberglass reinforced panels in Shower Room over water resistant gypsum board.

The interior ceiling finishes are proposed to be:

Suspended Acoustical Ceiling Tile system throughout unless otherwise noted.
Water resistant gypsum board ceiling in Shower, Utility, Restrooms, Shop-Garage-Locker and Mechanical Room.

Additional miscellaneous interior finish systems are proposed to be:

Solid surface countertops.
Solid wood, hickory cabinets in the Conference Room Kitchenette.
Plastic laminate faced countertops elsewhere.
Interior doors to be solid core wood doors, in hollow metal frames, typical.
Front entry doors to be thermally broken, insulated aluminum frame and doors, with an anodized finish.
All other exterior doors to be thermally broken insulated hollow metal frame and doors.

Formal landscaping would be primarily limited to the front entry area. Paved access, paved ADA parking, gravel parking lot, and grass lawn would cover the remainder of the lot. The building would be connected to the existing wood boardwalk access to the harbor on both sides of the building.

Structural

New construction is envisioned as a two story structure with concrete masonry unit (block) exterior walls for the lower level and wood frame exterior walls for the upper level. The roof structure would be wood frame. The upper floor structure would be wood joists with wood sheathing and the ground floor would be a concrete slab on grade. The building would be supported on conventional spread concrete footings/foundations.

Civil/Site Considerations

It is likely that the existing sewer service connection to the main can be disconnected from the plumbing for the existing building and then reconnected at minimal cost.

The water service will probably need to be upgraded in order to provide increased service capacity to the enlarged building.

Site excavation and grading will be minimal.

Electrical

A new facility would actually provide more cost effective approach to the new facility as the remodel coordination of demolition and keeping the existing facility up and running would be vastly more difficult. The new facility will require a new 400 Amp 208Y/120V 3 phase service, with new branch circuit distribution panels. A manual transfer switch to allow for connection of portable generator will be provided. Assume a 400 Amp manual transfer switch that would require manual load shedding.

New lighting would be provided throughout the new facility using RT8 2x4 grid mounted fluorescent fixtures. Local lighting control will be provided in each space with automatic control in spaces that are intermittently occupied.

New exterior lighting will be provided to illuminate the building perimeter and parking lot.

New power distribution system will be provided to service all mechanical equipment and general purpose power needs of the facility.

A new telecommunication system will be provided with a 2 cables routed to each workspace and printer/copier location. The system will include cable support throughout the facility and a telecommunication room for the equipment. Two dedicated 30 Amp 120V receptacles will be provided for future rack mounted UPS units.

A CCTV system would be included to monitor the building perimeter and facility public lobby. Assume 5 cameras are required.

Power and data connections will be provided for two the weather update stations.

It is assumed that Fire Alarm, Door Access Control, Standby Power Supply Generator or other systems not noted are not desired or required.

Mechanical

The construction of a new facility appears to be the best solution. The mechanical systems within the new facility would be designed and constructed to current codes and standards.

The heating system would consist of efficient oil fired boilers that could be converted to natural gas in two years when it due to becomes available. Terminal devices would include baseboard heaters in most of the building. Cabinet unit heaters would be located in any high traffic entry vestibules. Hydronic unit heaters would be provided in shop and storage areas. Zoning of the system would be provided to maintain occupant comfort.

Ventilation for the facility would include a centralized ventilation system circulating air through the space and providing code required fresh air to occupied spaces. The outside air would be tempered by a hydronic coil in the central air handler. Toilet rooms, break rooms and shop areas would be provided with exhaust fans. Building design would provide for adequate ceiling cavity to run piping and duct work.

The plumbing system would utilize commercial grade fixtures where shown on the drawings. Domestic hot water would be provided by indirect fired water heaters served by the boiler system.

Alternative 3: Renovate Existing Happy Face Restaurant Building.

Tax Valuation

The Happy Face Restaurant is located on Lot 32 Homer Spit Subdivision Amended. The Kenai Peninsula Borough Tax valuation for Lot 32 is \$166,700 for land and \$453,100 for Improvements. The taxable valuation for Lot 32 is \$619,800.

Architectural Narrative

The Happy Face Restaurant is located on Lot 32 Homer Spit Subdivision Amended.

The Happy Face building is a two story wood frame structure. The building is approximately 3,782 square feet on each level, for a combined area of 7,564 square feet. The building is rectangular in plan and the exterior footprint dimensions are approximately 44.5' x 85'. The lower story is a slab on grade. The second story is accessible from an exterior stairway and an interior stairway. There is no elevator access to the second story. The ground floor is currently used as retail space and the upper floor contains a restaurant, commercial kitchen and an apartment. It appears that the exiting from the upper level does not conform to the currently adopted codes. There is a non compliant ramp to the upper level but for any public access to the upper level to be ADA compliant an elevator or an extensive ramp system would be required.

There is a suspended acoustical ceiling in the dining room of the upper level. The finishes throughout the bulk of the rest of the building are gypsum wall board and gypsum ceilings.

It appears that the walls are framed with 2x6 wood studs. The beams and columns on the main level are wrapped with gypsum wall board.

The roof covering is light gage steel panels, attached to roof sheathing with exposed fasteners. The soffits are provided with continuous strip vents.

The building is in better condition than the existing Harbormaster's Office building. The building appears to have a decent foundation and to be a somewhat dated but of reasonably sturdy construction. The building does not appear to meet today's standards for energy efficiency. There are several serious challenges when considering purchasing this building and converting the building into the Homer harbormaster's Office building. First off development by the city of publically accessed space would be limited to the main level or require the installation of an elevator. If one did renovate the upper level and install an elevator one would presumably demolish the existing commercial kitchen which undoubtedly has considerable value which is presumably reflected in the purchase price.

In summary, it appears that renovating and remodeling the existing building would likely exceed the cost of new construction and the net result would be a building of lower quality.

Structural

The ground floor is a concrete slab on grade. There is a slight difference in elevation (approximately 1-2") between the front 'half' and rear 'half' of the slab. The slab has been tapered to form a transition across the elevation change.

The wall framing was not visible. It appears that the walls are framed with 2x6 wood studs. Floor joist framing was not visible. Joists are supported by beams and columns on a rectangular grid. The column spacing varies but average approximately 11-12 feet on center. Beams and columns were concealed by gypsum drywall furred out around the structural elements.

The roof framing was not visible. It appears that the roof is spanned by wood trusses with interior support along and interior column line, with a resulting clear span of approximately 33 feet. The interior bearing appears to align with one of the interior column lines in the floor below.

The roof covering is light gage steel panels, attached to roof sheathing with exposed fasteners.

Renovation

Configuration of the floor plan on the ground floor will need to conform to the existing column grid. Changes to room sizes, partition walls and circulation space will be influenced by the 11'x12' column spacing. Configuration of the upper floor will not be as limited by column spacing.

It appears that adequate shear wall are available along side and rear walls of the building although it is expected that seismic upgrades including installation of shear wall hold downs, additional shear wall framing and additional sheathing on the interior of the west end wall will be required. It is also expected that the roof diaphragm nailing and roof truss blocking and attachment will need seismic upgrades to conform to IBC code. It may be necessary to remove the steel roofing panels to expose the plywood sheathing and to remove plywood sheathing from the eave, back 4" so that solid blocking between joists can be installed. After the blocking is installed, the plywood sheathing should be replaced with new material and then fastened to the trusses and to the new blocking between trusses, over the longitudinal bearing walls. After the sheathing is fastened, the metal roofing panels should be replaced with new material.

Civil/Site Considerations

The existing water service will probably need to be increased in size to accommodate increased demand from the new use of the structure. The sewer service connection to the main can probably be used also, however, if public restroom and shower facilities are to be located on the ground floor it will be necessary to cut and remove portions of the 4" concrete slab on grade floor in order to locate the new waste lines.

Site excavation and grading requirements will be minimal.

Electrical

The existing Happy Face Restaurant has an 800 Amp 208Y/120 V service. The building is currently configured for a restaurant, dining and dwelling on the 2nd floor and general store on the first floor. The condition of the existing electrical system is good however is currently configured incorrectly for use as Harbormaster Facility.

The renovated facility will require a new branch circuit distribution panels to be located to facilitate the new configuration of the building.

New lighting would be provided throughout the new and remodel areas using RT8 2x4 grid mounted fluorescent fixtures. Local lighting control will be provided in each space with automatic control in spaces that are intermittently occupied.

New exterior lighting will be provided to illuminate the building perimeter and parking lot.

A new telecommunication system will be provided with a 2 cables routed to each workspace and printer/copier location. The system will include cable support throughout the facility and a telecommunication room for the equipment. Two dedicated 30 Amp 120V receptacles will be provided for future rack mounted UPS units.

A CCTV system would be included to monitor the building perimeter and facility public lobby. Assume 5 cameras are required.

Power and data connections will be provided for two the weather update stations.

It is assumed that Fire Alarm, Door Access Control, Standby Power Supply Generator or other systems not noted are not desired or required.

Due to the amount of remodel work required and the larger than required floor space that would be remodeled the cost effectiveness of this approach appears to be the least viable of the options from an electrical perspective.

Mechanical

The existing facilities consist of two story structure, with the first floor serving as a retail space and the second floor serving as a restaurant.

The heating system in the existing restaurant is one oil fired Toyo heater. The current fuel oil tank sets adjacent to the building. No heating system was found for the first floor.

There is currently no mechanical ventilation system for the building. The occupants rely on operable windows for fresh air.

Upgrades to the building mechanical systems would include the addition of a mechanical room and the installation of hydronic baseboard for building heat. Boilers would be high efficiency oil fired boilers with the ability to convert to natural gas when it becomes available in two years. Domestic hot water would be produced by indirect fired water heaters. Installation of the new heating system would be hampered by the lack of existing ceiling space.

Upgrades to the building ventilation system would be to add a ventilation system. A centralized ventilation system would be added to provide fresh air to the occupants. The system in the existing facility would be difficult as there is very little ceiling space. Duct work would have to be ran exposed or in chases.

**Homer Harbor Master Study
Concept Estimate
Homer, Alaska**

**Construction Cost Estimate
December 12, 2012**



1225 E. International Airport Road, Suite 205
Anchorage, Alaska 99518
907.561.0790

Prepared for:
Nelson and Associates
155 Bidarka Street
Kenai, Alaska 99611
907.283.4514

Item	Total Cost
Option 1A: Add Second Story over Existing Harbormaster Office	Unfeasible
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath plus Build New Restroom Facility	
Renovate and Raise, with Added Second Story Underneath	\$2,173,302
Restroom/Shower Facility	\$847,108
Total	\$3,020,410
Option 2: New Harbormaster Office Plus Build New Restroom and Shower Facility	
New Harbormaster Office	\$2,141,383
Restroom/Shower Facility	\$847,108
Total	\$2,988,490
Option 3: Buy Happy Face Restaurant Building, Renovate and Include New Harbormaster Office and Restroom/Shower Facility on the Ground Floor	
Land Value	\$166,700
Assessed Improvements	\$453,100
Renovations	\$2,724,665
Total	\$3,344,465

Homer Harbor Master Study

Prepared for Nelson and Associates by Estimations

Construction Cost Estimate Concept Estimate December 12, 2012

Documents

- Concept Designs
- Floor plan
- Site Plan
- Elevations
- System Narratives

Notes and Assumptions

- 1 Based on 2014 procurement/2014 construction.
- 2 Labor rates based on Davis Bacon, 50 hours/week.
- 3 Weather, logistics and construction time window has been considered, assume a spring NTP.
- 4 Assumes open competitive bid procurement.
- 5 Building Permits are not included in the estimate.
- 6 Sufficient Water Pressure will be Present for Fire Flow.

Excluded

- 1 Furniture Fixtures and Equipment
- 2 Design, Construction Administration, Geological Investigation.
- 3 No hazardous cleanup of site if contaminants are present.

Option 1B Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath

Homer Harbor Master Study
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Summary (Level 2)						
A SUBSTRUCTURE	5,077	GSF	\$21.75		\$110,447	
B SHELL	5,077	GSF	\$52.49		\$266,490	
C INTERIORS	5,077	GSF	\$42.90		\$217,782	
D SERVICES	5,077	GSF	\$108.80		\$552,398	
E EQUIPMENT & FURNISHINGS	5,077	GSF	\$0.67		\$3,390	
F SPECIAL CONSTRUCTION AND DEMOLITION	5,077	GSF	\$47.45		\$240,890	
G SITEWORK	5,077	GSF	\$8.64		\$43,878	
Z MARKUPS	5,077	GSF	\$145.37		\$738,028	
Total Estimated Cost	5,077	GSF	\$428.07		\$2,173,302	

Homer Harbor Master Study
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
A SUBSTRUCTURE	5,077	GSF			\$110,447	\$21.75
A10 Foundations	5,077	GSF			\$110,447	\$21.75
Perimeter Foundations	344	LF	\$196.35	\$67,545		
Interior Foundations	60	LF	\$41.73	\$2,504		
Slab on Grade	5,077	SF	\$7.96	\$40,399		
A20 Basement	-	NONE			\$0	\$0.00
B SHELL	5,077	GSF			\$266,490	\$52.49
B10 Superstructure	817	SF			\$12,913	\$15.81
Roof Structure	817	SF	\$15.81	\$12,913		
B20 Exterior Closure	5,077	SF			\$208,019	\$40.97
New Siding, Insulation, Vapor Barrier	2,880	SF	\$26.98	\$77,696		
Exterior Walls, Block, 2" Insuation, Furring Vapor Barrier, GWB	2,880	SF	\$24.03	\$69,205		
Exterior Doors, IHM	3	LV	\$3,367.33	\$10,102		
Entrances	4	LV	\$3,500.00	\$14,000		
Garage Door	1	EA	\$4,500.00	\$4,500		
Windows	630	SF	\$50.00	\$31,500		
Exterior Accessories	5,077	SF	\$0.20	\$1,015		
B30 Roofing	2,531	SF			\$45,558	\$18.00
Metal Roofing (Replace)	2,531	SF	\$18.00	\$45,558		

Homer Harbor Master Study
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
C INTERIORS						
C10 Interior Construction						
Partitions/Soffits	5,077	GSF			\$217,782	\$42.90
Interior Doors	3,197	SF	\$13.78	\$44,056		
Interior Fittings	18	LV	\$1,405.00	\$25,290		
Self Supported Counters	5,077	SF	\$3.00	\$15,231		
Cabinet, Base With Counters (Solid Surface)	102	LF	\$75.00	\$7,650		
Cabinet, Wall	18	LF	\$380.00	\$6,840		
Reception Counter	12	LF	\$140.00	\$1,680		
Lockers	22	LF	\$450.00	\$9,900		
Storage Shelving	6	EA	\$350.00	\$2,100		
Toilet Accessories, Public	22	LF	\$75.00	\$1,650		
Toilet Accessories, Private	2	EA	\$4,500.00	\$9,000		
	2	SETS	\$1,200.00	\$2,400		
C20 Stairs						
Stair Framing	1	EA	\$1,500.00	\$1,500		
Stair Flooring, Rubber Treads	108	SF	\$12.00	\$1,296		
Handrails	34	LF	\$30.00	\$1,020		
Guardrails	14	LF	\$230.00	\$3,220		
					\$7,036	\$0.00
C30 Interior Finishes						
Flooring (Carpet Tile Typical)	5,077	SF			\$84,949	\$16.73
Flooring (Sealed Conc)	4,420	SF	\$8.75	\$38,657		
Tile (Ceramic)	657	SF	\$1.50	\$986		
Wall Finishes (Paint)	250	SF	\$21.17	\$5,291		
Ceilings (Paint, Stain, ACT)	9,274	SF	\$1.75	\$16,230		
	5,077	SF	\$4.68	\$23,785		

Homer Harbor Master Study
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
D SERVICES	5,077	GSF			\$552,398	\$108.80
D10 Conveying	-	NONE			\$0	\$0.00
D20 Plumbing	15	FIX			\$86,705	\$5,780.33
Fixtures	15	FIX	\$891.00	\$13,365		
Plumbing Roughin	15	FIX	\$4,636.00	\$69,540		
Plumbing Equipment	1	LS	\$3,800.00	\$3,800		
D30 HVAC	5,077	SF			\$227,112	\$44.73
Ventilation						
Air Handling	4,315	CFM	\$6.20	\$26,756		
Air Distribution System	5,077	SF	\$18.50	\$93,925		
Heat Generation	300	MBH	\$40.00	\$12,000		
Heat Distribution	5,077	SF	\$12.50	\$63,463		
Controls	5,077	SF	\$5.00	\$25,385		
Test & Balance	5,077	SF	\$1.10	\$5,585		
D40 Fire Protection	5,077	GSF			\$24,116	\$4.75
Wet Pipe Sprinkler System	5,077	SF	\$4.75	\$24,116		
D50 Electrical	5,077	SF			\$214,465	\$42.24
Service & Distribution						
400A Service & Feeder	1	EA	\$4,500.00	\$4,500		
Feeder 400A	50	LF	\$130.00	\$6,500		
Panelboard & Feeders (200A)	2	EA	\$9,500.00	\$19,000		
Lighting						
General Lighting	4,420	SF	\$14.00	\$61,880		
Garage Lighting	657	SF	\$8.00	\$5,256		
Branch Wiring						
Convenience Outlets	92	EA	\$220.00	\$20,260		
Motor Circuits and Controls	5,077	SF	\$3.50	\$17,770		
Communications and Security						
Comm Equipment	1	LS	\$25,000.00	\$25,000		
Comm - Outlets	24	EA	\$700.00	\$16,800		
CCTV (Total Cost Per Camera)	5	EA	\$7,500.00	\$37,500		

Homer Harbor Master Study

Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate

Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
E EQUIPMENT & FURNISHINGS						
E10 Equipment	5,077	GSF			\$3,390	\$0.67
Refrigerator	1	LS			\$1,800	\$1,800.00
	1	EA	\$1,800.00	\$1,800		
E20 Furnishings						
Tables, Chairs, Office System Furniture Not Included, Assume FF&E Items	5,077	SF			\$1,590	\$0.31
Window Treatment	530	SF	\$3.00	\$1,590		
F SPECIAL CONSTRUCTION AND DEMOLITION						
F10 Special Construction	5,077	GSF			\$240,890	\$47.45
Raise building	5,077	SF			\$159,120	\$31.34
	2,210	SF	\$72.00	\$159,120		
F20 Selective Building Demolition						
Demolition, Gut Interior	5,077	SF			\$81,770	\$16.11
Demo Roofing, Siding, Windows	2,210	SF	\$20.00	\$44,200		
Remove Foundations	2,210	SF	\$10.00	\$22,100		
	2,210	SF	\$7.00	\$15,470		
G SITEWORK						
G10 Site Preparation	5,077	GSF			\$43,878	\$8.64
Site Clearing, Demolition	1	LS			\$40,536	\$40,536.22
Earthwork	1	LS	\$10,000.00	\$10,000		
Building	5,077	SF	\$2.00	\$10,154		
Parking and Drives - Minor Improvements	1	LS	\$20,000.00	\$20,000		
Sidewalks	344	SF	\$1.11	\$382		
G20 Site Improvements						
Pedestrian Paving	5,077	SF			\$3,341	\$0.66
Roadways & Parking - HCP Area Only	344	SF	\$7.00	\$2,408		
	44	SY	\$21.00	\$933		

Homer Harbor Master Study
Option 1B: Renovate and Raise Existing Harbormaster Office and Add Second Story Underneath
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
G SITEWORK CONTINUED						
G30 Site Mechanical Utilities		NONE			\$0	\$0.00
G40 Site Electrical Utilities		NONE			\$0	\$0.00
G90 Other Site Construction		NONE			\$0	\$0.00
Z MARKUPS						
Z10 Contractor Markups	5,077	GSF			\$738,028	\$145.37
Management & Site Facilities	12.0%			\$172,233		
OH&P	10.0%			\$160,751		
Mob/Demob	1.5%			\$26,524		
Z20 Contingency					\$378,520	
Estimating Contingency	15.0%			\$269,217		
Escalation (2014 Construction)	5.3%			\$109,303		
Total Estimated Cost	5,077	SF			\$2,173,302	\$428.07

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Summary (Level 2)						
A SUBSTRUCTURE	5,077	GSF	\$18.68		\$94,846	
B SHELL	5,077	GSF	\$118.37		\$600,954	
C INTERIORS	5,077	GSF	\$41.39		\$210,117	
D SERVICES	5,077	GSF	\$108.23		\$549,484	
E EQUIPMENT & FURNISHINGS	5,077	GSF	\$0.67		\$3,390	
F SPECIAL CONSTRUCTION AND DEMOLITION	-	GSF	\$0.00		\$0	
G SITEWORK	5,077	GSF	\$14.87		\$75,478	
Z MARKUPS	5,077	GSF	\$119.58		\$607,115	
Total Estimated Cost	5,077	GSF	\$421.78		\$2,141,383	

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
A SUBSTRUCTURE	5,077	GSF			\$94,846	\$18.68
A10 Foundations	5,077	GSF			\$94,846	\$18.68
Perimeter Foundations	308	LF	\$196.35	\$60,476		
Interior Foundations	30	LF	\$41.73	\$1,252		
Slab on Grade	4,162	SF	\$7.96	\$33,118		
A20 Basement	-	NONE			\$0	\$0.00
B SHELL	5,077	GSF			\$600,954	\$118.37
B10 Superstructure		NONE			\$304,699	\$0.00
Floor Framing Level 1	4,162	SF	\$30.00	\$124,860		
Floor Framing Level 2	915	SF	\$30.00	\$27,450		
Roof Construction						
Roof Framing, Joist/Trusses, GLB, Columns and Plywood Decking, Insulation & Vapor Retarde	9,642	SF	\$15.81	\$152,389		
B20 Exterior Closure	4,212	SF			\$132,424	\$31.44
Exterior Walls, Block, 2" Insuation, Furring Vapor Barrier, GWB	3,370	SF	\$24.03	\$80,980		
Framed Wall Constructor	842	SF	\$33.02			
Exterior Doors, IHM	3	LV	\$3,367.33	\$10,102		
Aluminum Entrances	4	LV	\$3,500.00	\$14,000		
Vinyl Windows	530	SF	\$50.00	\$26,500		
Exterior Accessories	4,212	SF	\$0.20	\$842		
B30 Roofing	9,642	SF			\$163,830	\$16.99
Metal Roofing	9,642	SF	\$16.99	\$163,830		

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
C INTERIORS	5,077	GSF			\$210,117	\$41.39
C10 Interior Constructor	5,077	SF			\$114,721	\$22.60
Partitions/Soffits	3,996	SF	\$8.25	\$32,980		
Interior Doors	18	LV	\$1,405.00	\$25,290		
Interior Fittings	5,077	SF	\$3.00	\$15,231		
Self Supported Counters	102	LF	\$75.00	\$7,650		
Cabinet, Base With Counters (Solid Surface)	18	LF	\$380.00	\$6,840		
Cabinet, Wall	12	LF	\$140.00	\$1,680		
Reception Counter	22	LF	\$450.00	\$9,900		
Lockers	6	EA	\$350.00	\$2,100		
Storage Shelving	22	LF	\$75.00	\$1,650		
Toilet Accessories, Public	2	EA	\$4,500.00	\$9,000		
Toilet Accessories, Private	2	SETS	\$1,200.00	\$2,400		
C20 Stairs						
Stair Framing	1	LS			\$7,036	\$7,036.00
Stair Flooring, Rubber Treads	1	EA	\$1,500.00	\$1,500		
Handrails	108	SF	\$12.00	\$1,296		
Guardrails	34	LF	\$30.00	\$1,020		
	14	LF	\$230.00	\$3,220		
C30 Interior Finishes						
Flooring (Carpet Tile Typical)	5,077	SF			\$88,360	\$17.40
Tile (Ceramic)	4,172	SF	\$8.75	\$36,485		
Wall Finishes (Paint)	250	SF	\$21.17	\$5,300		
Ceilings (Paint, Stain, ACT)	13,023	SF	\$1.75	\$22,790		
	5,077	SF	\$4.68	\$23,785		

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
D SERVICES	5,077	GSF		\$549,484	\$549,484	\$108.23
D10 Conveying	-	NONE			\$0	\$0.00
D20 Plumbing						
Fixtures	15	FIX	\$891.00	\$13,365	\$86,713	\$5,780.85
Plumbing Roughin	15	FIX	\$4,636.00	\$69,540		
Plumbing Equipment	5,077	SF	\$0.75	\$3,808		
D30 HVAC						
Ventilation	5,077	SF			\$219,710	\$43.28
Air Handling	4,320	CFM	\$6.20	\$26,784		
Air Distribution System	5,077	SF	\$17.00	\$86,309		
Heat Generation	305	MBH	\$40.00	\$12,185		
Heat Distribution	5,077	SF	\$12.50	\$63,463		
Controls	5,077	SF	\$5.00	\$25,385		
Test & Balance	5,077	SF	\$1.10	\$5,585		
D40 Fire Protection						
Wet Pipe Sprinkler System	5,077	GSF			\$24,116	\$4.75
D50 Electrical						
Service & Distribution	5,077	SF			\$218,946	\$43.12
400A Service & Feeder	1	EA	\$4,500.00	\$4,500		
Feeder 400A	50	LF	\$130.00	\$4,500		
Panelboard & Feeders (200A)	2	EA	\$9,500.00	\$19,000		
Lighting	5,077	SF	\$14.00	\$71,078		
Branch Wiring	92	EA	\$220.00	\$20,260		
Convenience Outlets	5,077	SF	\$4.00	\$20,308		
Motor Circuits and Controls						
Communications and Security						
Comm Equipment	1	LS	\$25,000.00	\$25,000		
Comm - Outlets	24	EA	\$700.00	\$16,800		
CCTV (Total Cost Per Camera)	5	EA	\$7,500.00	\$37,500		

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
E EQUIPMENT & FURNISHINGS						
E10 Equipment	5,077	GSF			\$3,390	\$0.67
Refrigerator	5,077	SF			\$1,800	\$0.35
	1	EA	\$1,800.00	\$1,800		
E20 Furnishings						
Tables, Chairs, Office System Furniture Not Included, Assume FF&E Items	5,077	SF			\$1,590	\$0.31
Window Treatment	530	SF	\$3.00	\$1,590		
F SPECIAL CONSTRUCTION AND DEMOLITION						
F10 Special Construction	-	NONE			\$0	\$0.00
	-	NONE			\$0	\$0.00
F20 Selective Building Demolitor						
	-	NONE			\$0	\$0.00
G SITEWORK						
G10 Site Preparation	5,077	GSF			\$75,478	\$14.87
Site Clearing, Demolitor	1.0	LS			\$40,536	\$40,536.22
Earthwork	1	LS	\$10,000.00	\$10,000		
Building	5,077	SF	\$2.00	\$10,154		
Parking and Drives - Minor Improvement:	1	LS	\$20,000.00	\$20,000		
Sidewalks	344	SF	\$1.11	\$382		
G20 Site Improvements						
Roadways & Parking - HCP Area Only	5,077	SF			\$3,341	\$0.66
Pedestrian Paving	44	SY	\$21.00	\$933		
	344	SF	\$7.00	\$2,408		

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
G SITEWORK CONTINUED						
G30 Site Mechanical Utilities	100	LF			\$22,000	\$220.00
Water Main to Building 6"	50	LF	\$250.00	\$12,500		
Sewer Main	50	LF	\$190.00	\$9,500		
G40 Site Electrical Utilities						
Electrical To Building, By Utility, Not Included In The Estimate	2	EA			\$9,600	\$4,800.00
Communication To Building, By Utility, Not Included In The Estimate						
Site Lighting, Parking	2	EA	\$4,800.00	\$9,600		
G90 Other Site Construction						
	-	NONE			\$0	\$0.00
Z MARKUPS						
Z10 Contractor Markups	5,077	GSF			\$607,115	\$119.58
Management & Site Facilities				\$184,112		
OH&P	12.0%			\$103,103		
Mob/Demob	6.0%			\$27,322		
	1.5%					
Z20 Contingency						
Estimating Contingency				\$184,880		
Escalation (2014 Construction)	10.0%			\$107,697		
	5.3%					
Total Estimated Cost					\$2,141,383	\$421.78

Option 3 Renovate Happy Face Restaurant to Included Harbormaster Office and Public Restroom/Showers

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renvoate and Include New
Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Summary (Level 2)						
A SUBSTRUCTURE	7,564	GSF	\$1.05		\$7,957	
B SHELL	7,564	GSF	\$29.06		\$219,809	
C INTERIORS	7,564	GSF	\$50.10		\$378,994	
D SERVICES	7,564	GSF	\$128.07		\$968,748	
E EQUIPMENT & FURNISHINGS	7,564	GSF	\$0.45		\$3,390	
F SPECIAL CONSTRUCTION AND DEMOLITION	7,564	GSF	\$24.69		\$186,780	
G SITEWORK	7,564	GSF	\$4.46		\$33,724	
Z MARKUPS	7,564	GSF	\$122.32		\$925,264	
Total Estimated Cost				7,564 GSF	\$360.21	\$2,724,665

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renvoate and Include New
Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate

Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
A SUBSTRUCTURE	7,564	GSF			\$7,957	\$1.05
A10 Foundations	7,564	GSF			\$7,957	\$1.05
Slab on Grade	1,000	SF	\$7.96	\$7,957		
A20 Basement	-	NONE			\$0	\$0.00
B SHELL	7,564	GSF			\$219,809	\$29.06
B10 Superstructure		NONE			\$0	\$0.00
B20 Exterior Closure	7,564	SF			\$219,809	\$29.06
New Siding, Insulation, Vapor Barrier	6,216	SF	\$26.98	\$167,694		
Exterior Doors, IHM	3	LV	\$3,367.33	\$10,102		
Entrances	4	LV	\$3,500.00	\$14,000		
Windows	530	SF	\$50.00	\$26,500		
Exterior Accessories	7,564	SF	\$0.20	\$1,513		
B30 Roofing		NONE			\$0	\$0.00
No work						

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renovate and Include New
Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate

Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
C INTERIORS	7,564	GSF			\$378,994	\$50.10
C10 Interior Construction	7,564	SF			\$207,781	\$27.47
Partitions/Soffits	6,226	SF	\$13.78	\$85,795		
Interior Doors	27	LV	\$1,405.00	\$37,935		
Interior Fittings	5,077	SF	\$3.00	\$15,231		
Self Supported Counters	102	LF	\$75.00	\$7,650		
Cabinet, Base With Counters (Solid Surface)	18	LF	\$380.00	\$6,840		
Cabinet, Wall	12	LF	\$140.00	\$1,680		
Reception Counter	22	LF	\$450.00	\$9,900		
Lockers	6	EA	\$350.00	\$2,100		
Storage Shelving	22	LF	\$75.00	\$1,650		
Toilet Accessories, Public	2	EA	\$4,500.00	\$9,000		
Toilet Accessories, Private	20	SETS	\$1,500.00	\$30,000		
C20 Stairs						
Stair Flooring, Rubber Treads	108	SF	\$12.00	\$1,296		
Handrails	34	LF	\$30.00	\$1,020		
Guardrails	14	LF	\$230.00	\$3,220		
	1	LS			\$5,536	\$5,536.00
C30 Interior Finishes						
Flooring (Carpet Tile Typical)	7,564	SF	\$8.75	\$66,155		
Tile (Ceramic)	250	SF	\$21.17	\$5,291		
Wall Finishes (Paint)	17,631	SF	\$1.75	\$30,854		
Wall Finishes (FRP)	5,080	SF	\$5.50	\$27,940		
Ceilings (Paint, Stain, ACT)	7,564	SF	\$4.68	\$35,436		
	7,564	SF			\$165,677	\$21.90

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renovate and Include New
Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
D SERVICES	7,564	GSF		\$968,748	\$968,748	\$128.07
D10 Conveying		NONE			\$0	\$0.00
D20 Plumbing						
Fixtures	53	FIX	\$891.00	\$47,223	\$302,731	\$5,711.91
Plumbing Roughin	53	FIX	\$4,636.00	\$245,708		
Plumbing Equipment	1	LS	\$9,800.00	\$9,800		
D30 HVAC						
Ventilation	7,564	SF			\$365,276	\$48.29
Air Handling	6,429	CFM	\$6.20	\$39,862		
Air Distribution System	7,564	SF	\$18.50	\$139,934		
Exhaust	18	EA	\$400.00	\$7,200		
Heat Generation	450	MBH	\$40.00	\$18,000		
Heat Distribution	7,564	SF	\$15.09	\$114,139		
Controls	7,564	SF	\$5.00	\$37,820		
Test & Balance	7,564	SF	\$1.10	\$8,320		
D40 Fire Protection						
Wet Pipe Sprinkler System	7,564	GSF			\$35,929	\$4.75
D50 Electrical						
Service & Distribution - To Remain	2	EA	\$9,500.00	\$19,000		
Panelboard & Feeders (200A)						
Lighting	7,564	SF	\$14.00	\$105,896		
General Lighting						
Branch Wiring						
Convenience Outlets	138	EA	\$220.00	\$30,360		
Motor Circuits and Controls	7,564	SF	\$4.00	\$30,256		
Communications and Security						
Comm Equipment	1	LS	\$25,000.00	\$25,000		
Comm - Outlets	24	EA	\$700.00	\$16,800		
CCTV (Total Cost Per Camera)	5	EA	\$7,500.00	\$37,500		
					\$264,812	\$35.01

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renovate and Include New Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
E EQUIPMENT & FURNISHINGS						
E10 Equipment	7,564	GSF			\$3,390	\$0.45
Refrigerator	1	LS			\$1,800	\$1,800.00
	1	EA	\$1,800.00	\$1,800		
E20 Furnishings						
Tables, Chairs, Office System Furniture Not Included, Assume FF&E Items	7,564	SF			\$1,590	\$0.21
Window Treatment	530	SF	\$3.00	\$1,590		
F SPECIAL CONSTRUCTION AND DEMOLITION						
F10 Special Construction						
Seismic Upgrades	7,564	GSF			\$186,780	\$24.69
	1	LS			\$75,640	\$75,640.00
	7,564	SF	\$10.00	\$75,640		
F20 Selective Building Demolition						
Demolition, Gut Interior	7,564	SF	\$10.00	\$75,640		\$14.69
Demo Kitchen	1	LS	\$5,000.00	\$5,000		
Demo SOG	500	SF	\$11.00	\$5,500		
Demo Restroom/Shower	1	LS	\$25,000.00	\$25,000		
G SITEWORK						
G10 Site Preparation						
Site Clearing, Demolition	1	LS			\$33,724	\$4.46
Earthwork	1	LS	\$10,000.00	\$10,000	\$30,382	\$30,382.22
Parking and Drives - Minor Improvements	1	LS	\$20,000.00	\$20,000		
Sidewalks	344	SF	\$1.11	\$382		
G20 Site Improvements						
Pedestrian Paving	7,564	SF			\$3,341	\$0.44
Roadways & Parking - HCP Area Only	344	SF	\$7.00	\$2,408		
	44	SY	\$21.00	\$933		

Homer Harbor Master Study

Option 3: Buy Happy Face Restaurant Building, Renvoate and Include New
Harbormaster Office and Restroom/Shower Facility on the Ground Floor
Prepared for Nelson and Associates

Construction Cost Estimate

Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
G SITEWORK CONTINUED						
G30 Site Mechanical Utilities		NONE			\$0	\$0.00
G40 Site Electrical Utilities		NONE			\$0	\$0.00
G90 Other Site Construction		NONE			\$0	\$0.00
Z MARKUPS						
Z10 Contractor Markups	7,564	GSF			\$925,264	\$122.32
Management & Site Facilities				\$215,928		
OH&P				\$201,533		
Mob/Demob				\$33,253		
Z20 Contingency					\$474,550	
Estimating Contingency	15.0%			\$337,517		
Escalation (2014 Construction)	5.3%			\$137,033		
Total Estimated Cost	7,564	SF			\$2,724,665	\$360.21

Public Restroom/Shower for Options 1B and 2

Homer Harbor Master Study
Public Restrooms/Showers for Options 1B and 2
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Summary (Level 2)						
A SUBSTRUCTURE	1,000	GSF	\$39.77		\$39,766	
B SHELL	1,000	GSF	\$174.11		\$174,107	
C INTERIORS	1,000	GSF	\$79.81		\$79,814	
D SERVICES	1,000	SF	\$260.54		\$260,542	
E EQUIPMENT & FURNISHINGS	-	NONE	\$0.00		\$0	
F SPECIAL CONSTRUCTION AND DEMOLITION	1	NONE	\$25,000.00		\$25,000	
G SITEWORK	1,000	GSF	\$33.18		\$33,178	
Z MARKUPS	1,000	GSF	\$234.70		\$234,700	
Total Estimated Cost	1,000	GSF	\$847.11		\$847,108	

Homer Harbor Master Study
Public Restrooms/Shower for Options 1B and 2
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
A SUBSTRUCTURE	1,000	GSF			\$39,766	\$39.77
A10 Foundations	1,000	GSF			\$39,766	\$39.77
Perimeter Foundations	162	LF	\$196.35	\$31,809		
Slab on Grade	1,000	SF	\$7.96	\$7,957		
A20 Basement	-	NONE			\$0	\$0.00
B SHELL	1,000	GSF			\$174,107	\$174.11
B10 Superstructure	1,714	SF			\$7,650	\$4.46
Roof Construction						
Roof Framing, Joist/Trusses, GLB, Columns and Plywood Decking, Insulation & Vapor Retarder	484	SF	\$15.81	\$7,650		
B20 Exterior Closure	1,000	SF			\$137,333	\$137.33
Exterior Walls, Metal Framing, Rigid Insulation 2", Batts, Air Barrier, Vapor Barrier and GWB, Metal Siding	2,880	SF	\$26.98	\$77,696		
Exterior Walls, Block, 2" Insulation, Furring Vapor Barrier, GWB	1,920	SF	\$24.03	\$46,137		
Exterior Doors, IHM	19	LV	\$700.00	\$13,300		
Exterior Accessories	1,000	SF	\$0.20	\$200		
B30 Roofing	1,714	SF			\$29,125	\$16.99
Metal Roofing	1,714	SF	\$16.99	\$29,125		

Homer Harbor Master Study
Public Restrooms/Showers for Options 1B and 2
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
C INTERIORS	1,000	GSF			\$79,814	\$79.81
C10 Interior Construction	1,000	SF			\$48,674	\$48.67
Partitions/Soffits	1,730	SF	\$12.53	\$21,674		
Toilet Accessories	18	EA	\$1,500.00	\$27,000		
C20 Stairs		NONE			\$0	\$0.00
C30 Interior Finishes	1,000	SF			\$31,140	\$31.14
Flooring (Sealed Concrete)	1,000	SF	\$1.45	\$1,450		
Wall Finishes (FRP)	5,080	SF	\$5.50	\$27,940		
Ceilings (Paint)	1,000	SF	\$1.75	\$1,750		

Homer Harbor Master Study
Public Restrooms/Shower for Options 1B and 2
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
D SERVICES	1,000	GSF		\$260,542	\$260,542	\$260.54
D10 Conveying	-	NONE			\$0	\$0.00
D20 Plumbing	38	FIX		\$193,352	\$5,088.21	
Fixtures	38	FIX				
Showers	6	FIX	\$1,260.00	\$7,560		
Water Closets	14	FIX	\$936.00	\$13,104		
Lavatories	18	FIX	\$816.00	\$14,688		
Plumbing Roughin	38	FIX	\$4,000.00	\$152,000		
Plumbing Equipment	1	LS	\$6,000.00	\$6,000		
D30 HVAC	1,000	SF		\$30,300	\$30.30	
Ventilation						
Exhaust	18	EA	\$400.00	\$7,200		
Heat Generation	100	MBH	\$40.00	\$4,000		
Heat Distribution	1,000	SF	\$14.00	\$14,000		
Controls	1,000	SF	\$4.00	\$4,000		
Test & Balance	1,000	SF	\$1.10	\$1,100		
D40 Fire Protection	1,000	GSF		\$4,750	\$4.75	
Wet Pipe Sprinkler System	1,000	SF	\$4.75	\$4,750		
D50 Electrical	1,000	SF		\$32,140	\$32.14	
Service & Distribution						
200A Service & Feeder	1	EA	\$4,500.00	\$4,500		
Feeder 200A	50	LF	\$80.00	\$4,000		
Lighting						
General Lighting	1,000	SF	\$14.00	\$14,000		
Branch Wiring						
Convenience Outlets	18	EA	\$230.00	\$4,140		
Motor Circuits and Controls	1,000	SF	\$2.00	\$2,000		
Communications and Security						
Fire Detection & Alarm	1,000	SF	\$3.50	\$3,500		

Homer Harbor Master Study
Public Restrooms/Shower for Options 1B and 2
 Prepared for Nelson and Associates

Construction Cost Estimate
 Concept Estimate
 December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
E EQUIPMENT & FURNISHINGS		NONE			\$0	\$0.00
E10 Equipment		NONE			\$0	\$0.00
E20 Furnishings		NONE			\$0	\$0.00
F SPECIAL CONSTRUCTION AND DEMOLITION					\$25,000	\$25,000.00
F10 Special Construction	-	NONE			\$0	\$0.00
F20 Selective Building Demolition	1	LS			\$25,000	\$25,000.00
Demo Existing Facility	1	LS	\$25,000.00	\$25,000		
G SITEWORK	1,000	GSF			\$33,178	\$33.18
G10 Site Preparation	1.0	LS			\$6,278	\$6,277.78
Site Clearing, Demolition	1	LS	\$3,500.00	\$3,500		
Earthwork						
Building	1,000	SF	\$2.00	\$2,000		
Sidewalks	700	SF	\$1.11	\$778		
G20 Site Improvements	1,000	SF			\$4,900	\$4.90
Pedestrian Paving	700	SF	\$7.00	\$4,900		

Homer Harbor Master Study
Public Restrooms/Shower for Options 1B and 2
Prepared for Nelson and Associates

Construction Cost Estimate
Concept Estimate
December 12, 2012

Item	Qty	Unit	Unit Cost	Line Cost	Total Cost	Unit Cost
Detail (Level 3)						
G SITEWORK CONTINUED						
G30 Site Mechanical Utilities	100	LF			\$22,000	\$220.00
Water Main to Building 6"	50	LF	\$250.00	\$12,500		
Sewer Main	50	LF	\$190.00	\$9,500		
G40 Site Electrical Utilities						
Electrical To Building, By Utility, Not Included In The Estimate		NONE			\$0	\$0.00
Communication To Building, By Utility, Not Included In The Estimate						
G90 Other Site Construction						
	-	NONE			\$0	\$0.00
Z MARKUPS						
Z10 Contractor Markups	1,000	GSF			\$234,700	\$234.70
Management & Site Facilities	11.0%			\$67,365		
OH&P	6.0%			\$40,786		
Mob/Demob	1.5%			\$10,808		
Z20 Contingency						
Estimating Contingency	10.0%			\$73,137		
Escalation (2014 Construction)	5.3%			\$42,604		
Total Estimated Cost						
	1,000	SF			\$847,108	\$847.11

Homer Harbormaster Office Alternatives Analysis
Photos by Estimations, Inc.



1. Harbormaster Office-West side



2. Harbormaster Office -West and South side.



3. Harbormaster Office-South and east side.



4. Harbormaster Office-East side.



5. Harbormaster Office-East and North side.



6. Harbormaster Office-North side.

Homer Harbormaster Office Alternatives Analysis
Photos by Estimations, Inc.



7. Restrooms-Northeast side.



8. Restrooms-Northwest side.



9. Restrooms-South side.



10. Restrooms-South side.



11. Restrooms-South and east side.

Homer Harbormaster Office Alternatives Analysis
Photos by Estimations, Inc.



12. Happy Face –South side.



13. Happy Face-West side.



14. Happy Face-North west corner.



15. Happy Face-South and east side.



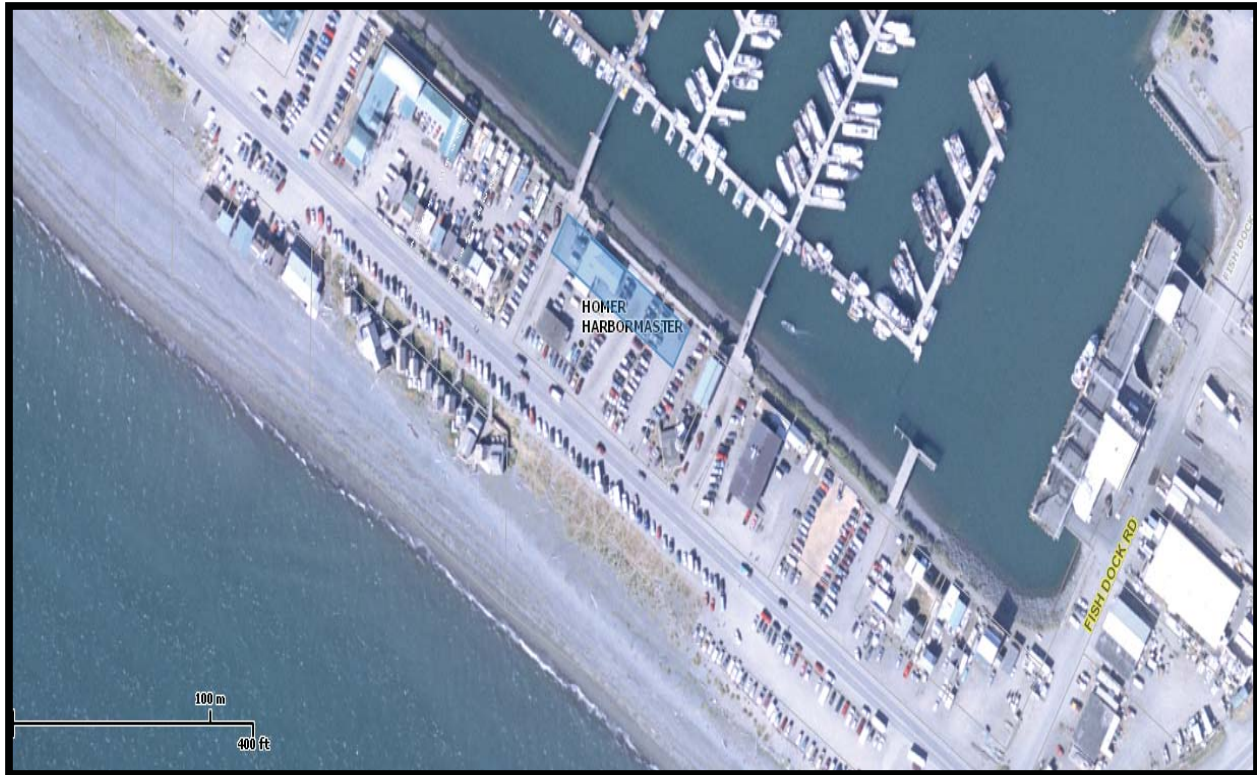
16. Happy Face-East side.



17. Happy Face-East side.

Kenai Peninsula Borough Property Report - 18103311

Wed Nov 14 2012 09:21:22 AM



Parcel Number: 18103311
Address: 4350 HOMER SPIT RD
Owner: HOMER CITY OF

491 E PIONEER AVE
HOMER, AK 99603
Tax Area: 20 - HOMER CITY
Usage Code: 100 Residential Vacant
Acreage: 0.28

Land Value: \$94,400
Improvement Value: \$0
Assessed Value: \$94,400
Taxable Value: \$0

Legal Description: T 7S R 13W SEC 1 SEWARD MERIDIAN HM 0890034 HOMER SPIT SUB AMENDED LOT 28



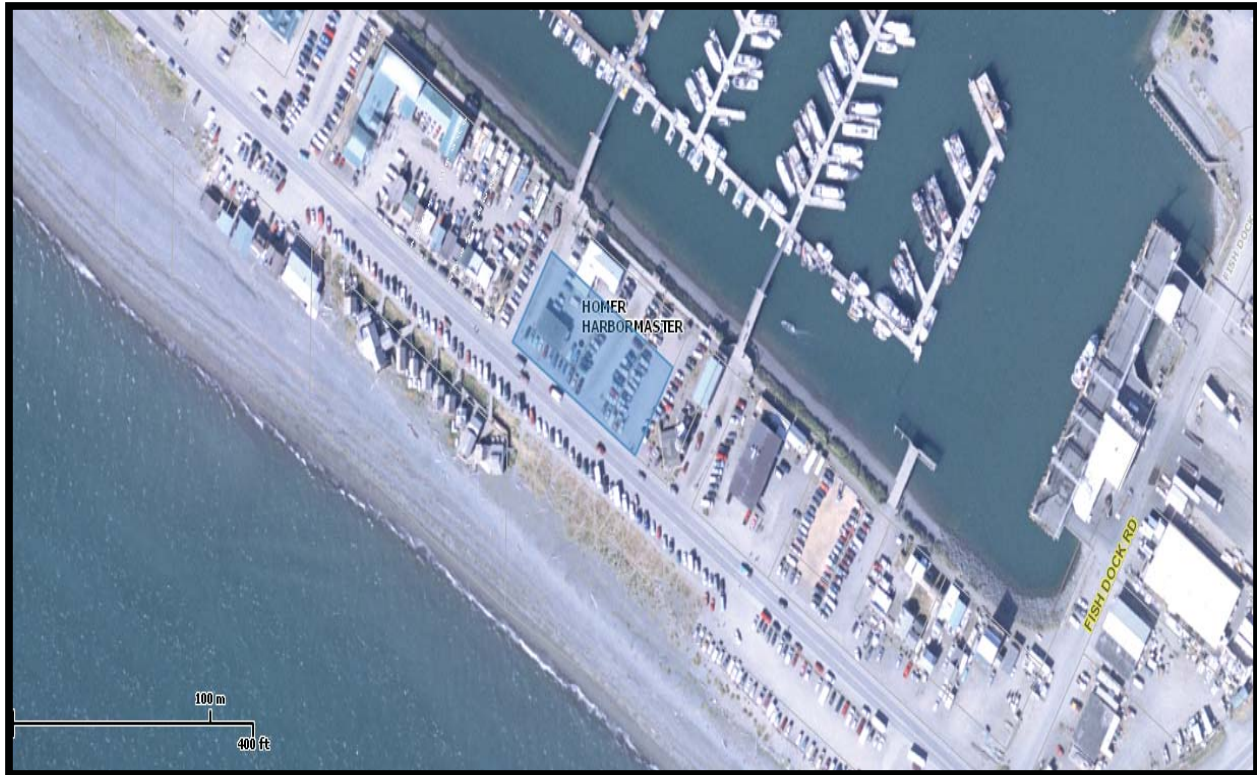
DISCLAIMER: The data displayed herein is neither a legally recorded map nor survey and should only be used for general reference purposes. Kenai Peninsula Borough assumes no liability as to the accuracy of any data displayed herein. Original source documents should be consulted for accuracy verification.

Number of Structures: 1

Structure #	Year Built	Square Ft	Structure Type
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Kenai Peninsula Borough Property Report - 18103310

Wed Nov 14 2012 09:22:49 AM



Parcel Number: 18103310
Address: 4348 HOMER SPIT RD
Owner: HOMER CITY OF

491 E PIONEER AVE
HOMER, AK 99603
Tax Area: 20 - HOMER CITY
Usage Code: 850 General Institutional
Acreage: 0.65

Land Value: \$185,200
Improvement Value: \$111,800
Assessed Value: \$297,000
Taxable Value: \$0

Legal Description: T 7S R 13W SEC 1 SEWARD MERIDIAN HM 0890034 HOMER SPIT SUB AMENDED LOT 29



DISCLAIMER: The data displayed herein is neither a legally recorded map nor survey and should only be used for general reference purposes. Kenai Peninsula Borough assumes no liability as to the accuracy of any data displayed herein. Original source documents should be consulted for accuracy verification.

Number of Structures: 3

Structure #	Year Built	Square Ft	Structure Type
C01	1968	2,060	GENOFF
C02	1974	1,092	RESTROOM
C03	1978	130	

Kenai Peninsula Borough Property Report - 18103432

Wed Nov 14 2012 09:19:56 AM



Parcel Number: 18103432
Address: 4400 HOMER SPIT RD
Owner: HOMER CITY OF

Tax Area: 20 - HOMER CITY
Usage Code: 651 Leased Commercial
Acreage: 0.57

Land Value: \$166,700
Improvement Value: \$453,100
Assessed Value: \$619,800
Taxable Value: \$619,800

Legal Description: T 7S R 13W SEC 1 SEWARD MERIDIAN HM 0890034 HOMER SPIT AMENDED LOT 32



DISCLAIMER: The data displayed herein is neither a legally recorded map nor survey and should only be used for general reference purposes. Kenai Peninsula Borough assumes no liability as to the accuracy of any data displayed herein. Original source documents should be consulted for accuracy verification.

Number of Structures: 1

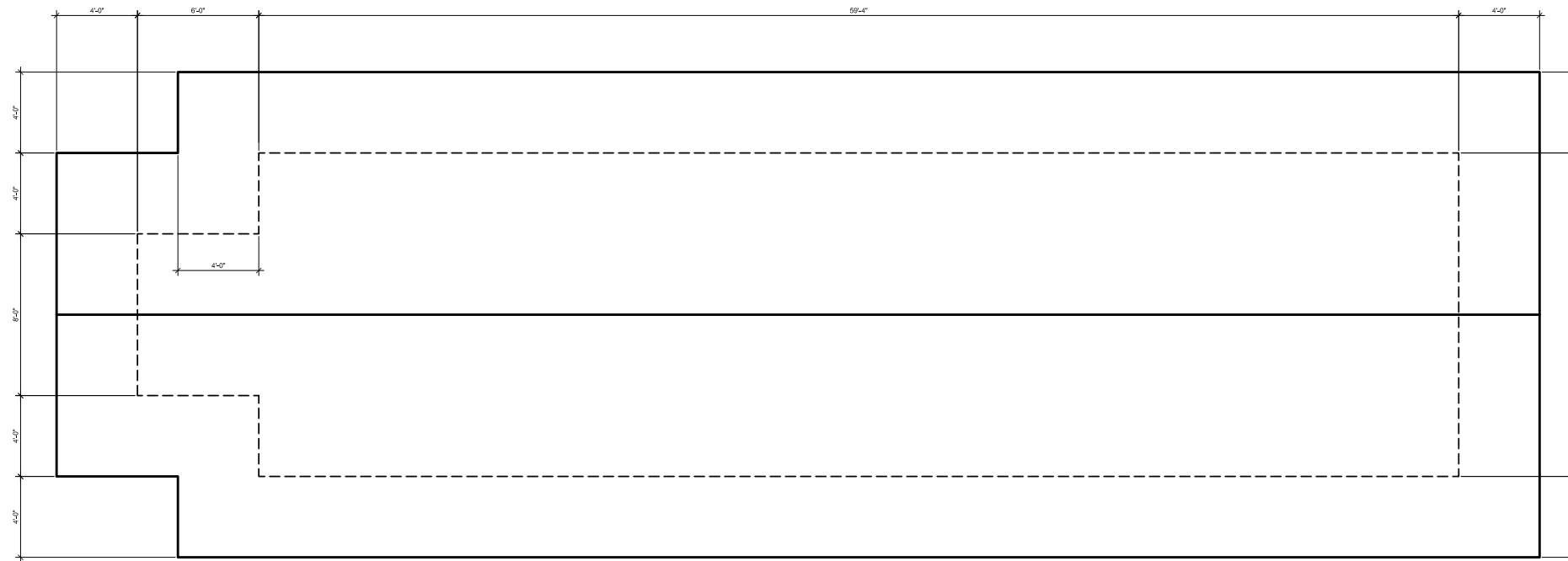
Structure #	Year Built	Square Ft	Structure Type
C01	1995	7,392	RESTURNT

NOT FOR CONSTRUCTION

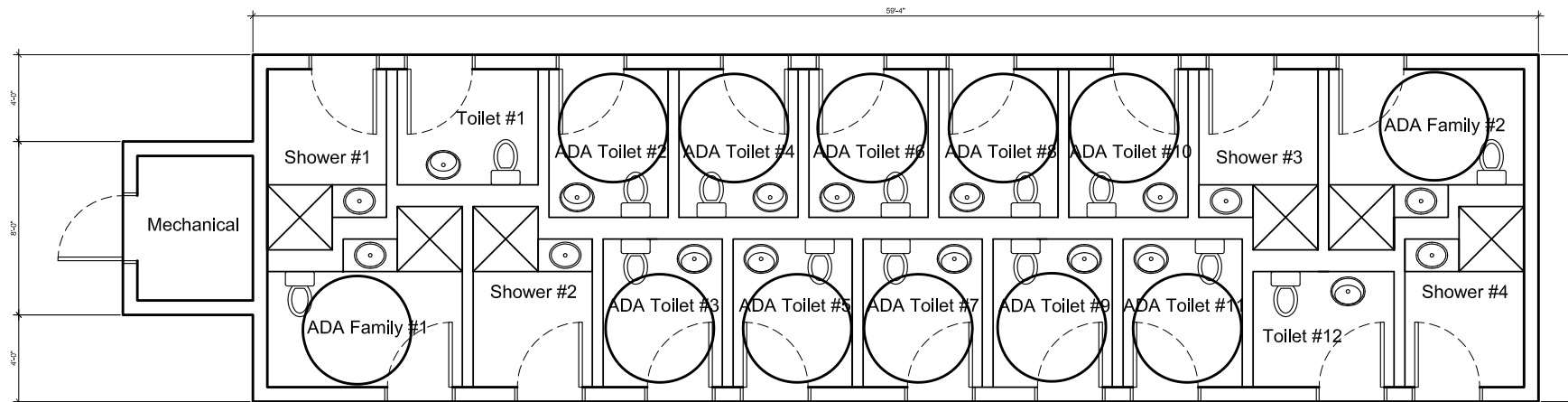
PLOTTED 1/2 SCALE

SCALE: AS SHOWN

AutoCAD FILE: 1226 concept plan.dwg



C1 PUBLIC RESTROOMS AND SHOWERS - ROOF PLAN
A1.0 1/4" = 1'-0" (22x34); 1/8" = 1'-0" (11x17)



A1 PUBLIC RESTROOMS AND SHOWERS - FLOOR PLAN
A1.0 1/4" = 1'-0" (22x34); 1/8" = 1'-0" (11x17)



PRELIMINARY

HOMER HARBOR MASTER'S OFFICE

PROJECT:

HOMER, ALASKA

CLIENT:

KLAUDER & COMPANY
ARCHITECTS, INC.
 606 Petersen Way
 Kenai, Alaska 99611
 Tel (907) 283-1919 ; Fax (907) 283-0450
 klauder@alaska.net

DESIGN BY:

PK

DRAWN:

BC

CHECKED:

PK

JOB NO:

1226

DATE:

REVISIONS:

CATEGORY:

SHEET:

A 1.0

SHEET CONTENTS:
 PUBLIC RESTROOMS
 AND SHOWERS

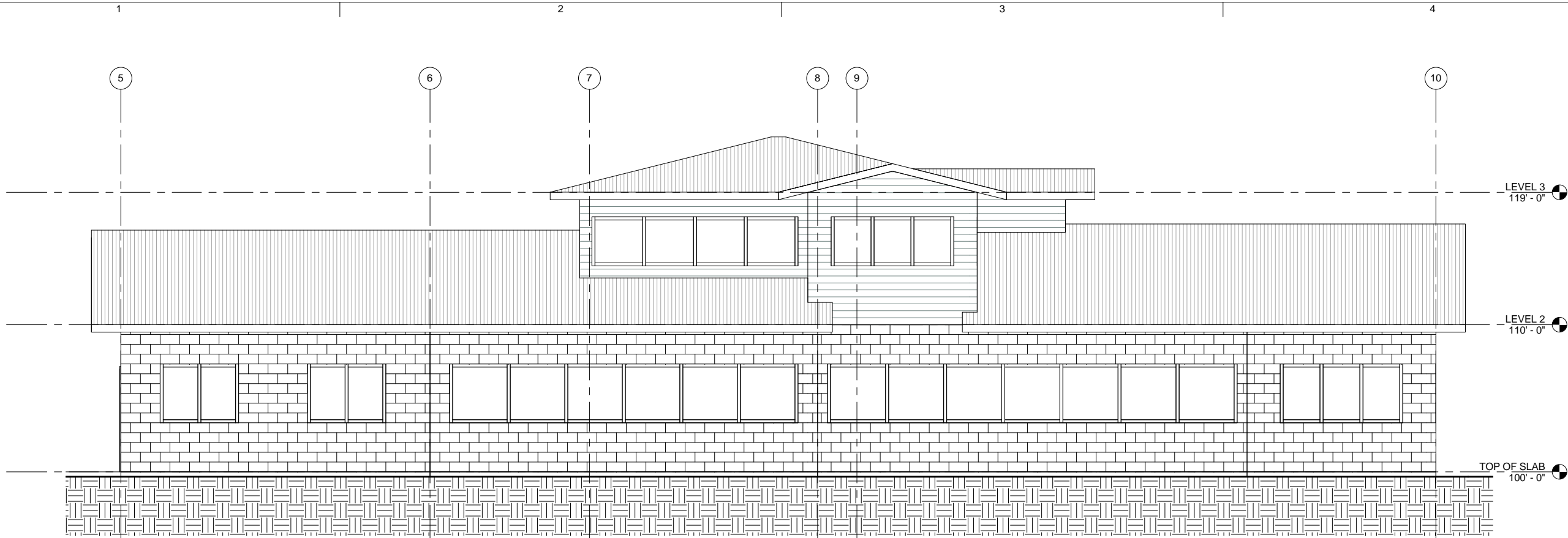
FLOOR PLAN
 ROOF PLAN

NOT FOR CONSTRUCTION

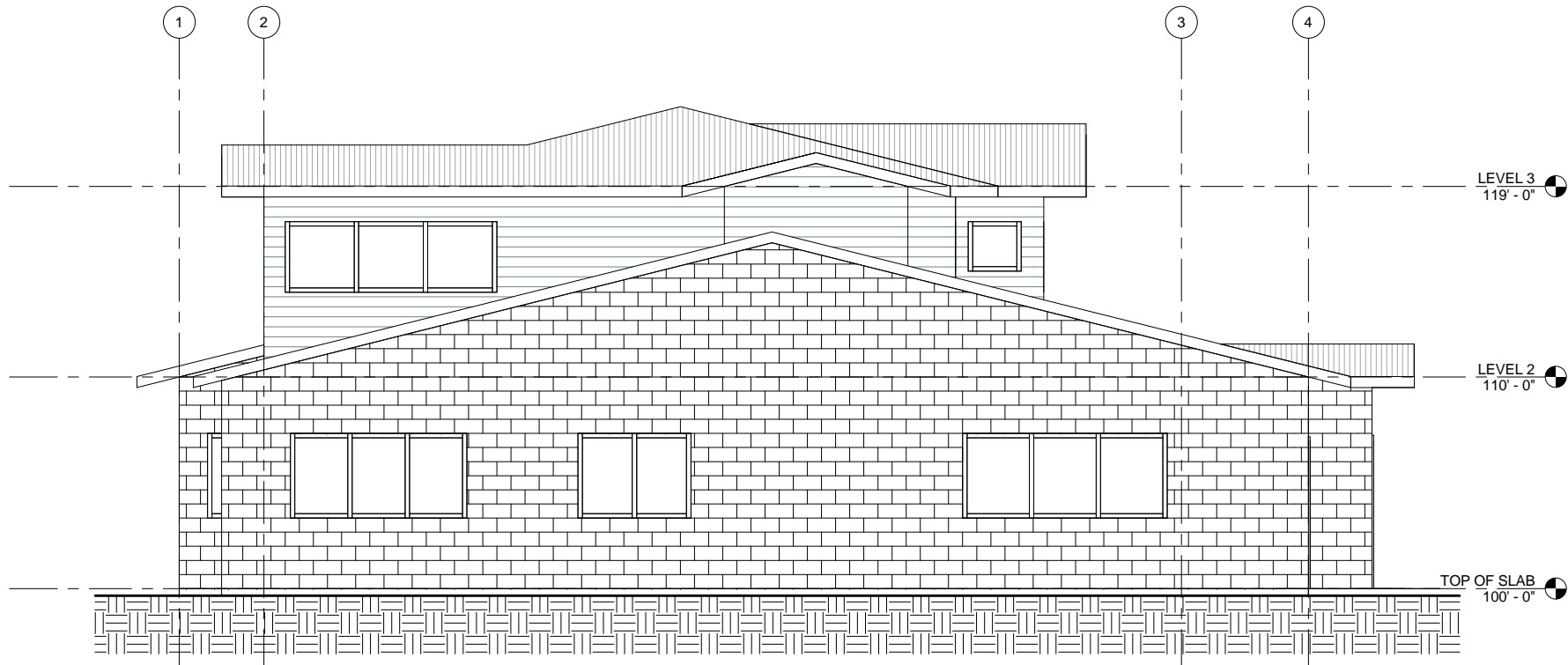
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11/12/2012 9:50:51 AM

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C1 WEST ELEVATION
A3.1 1/4" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)



A2 SOUTH ELEVATION
A3.1 1/4" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)

PRELIMINARY

11-12-2012

HOMER HARBOR MASTER'S OFFICE

PROJECT:

Owner
HOMER, ALASKA

CLIENT:

**Klauder & Company
Architects, Inc.**

606 Petersen Way
Kenai, AK 99611
Office: (907) 283-1919 Fax: (907) 283-0450
klauder@alaska.net

DESIGN BY: Designer
 DRAWN: Author
 CHECKED: Checker
 JOB NO: 1226
 DATE: 11-12-2012

REVISIONS:

NO.	DATE

SHEET NUMBER
A3.1

SHEET CONTENTS
SOUTH AND WEST
ELEVATIONS

NOT FOR CONSTRUCTION

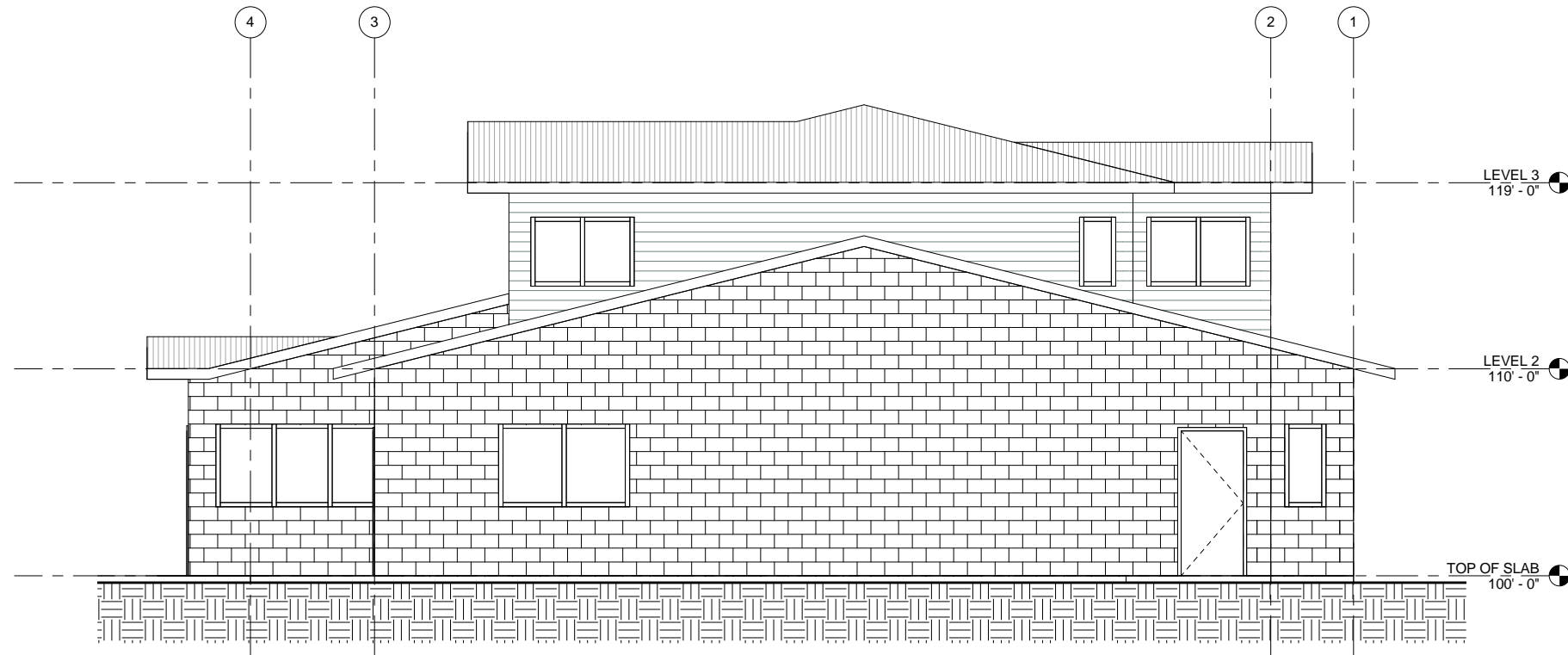
PLOTTED 1/2 SCALE

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\\FILESERV\File Stor\Jobs\1226 Homer Harbor Master's Office\1226 Drawings\Revit\1226 HHMO.rvt



C1 EAST ELEVATION
 A3.0 1/4" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)



A2 NORTH ELEVATION
 A3.0 1/4" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)

PRELIMINARY

11-12-2012

HOMER HARBOR MASTER'S OFFICE

PROJECT:

Owner
HOMER, ALASKA

CLIENT:

**Klauder & Company
Architects, Inc.**

606 Petersen Way
Kenai, AK 99611
Office: (907) 283-1919 Fax: (907) 283-0450
klauder@alaska.net

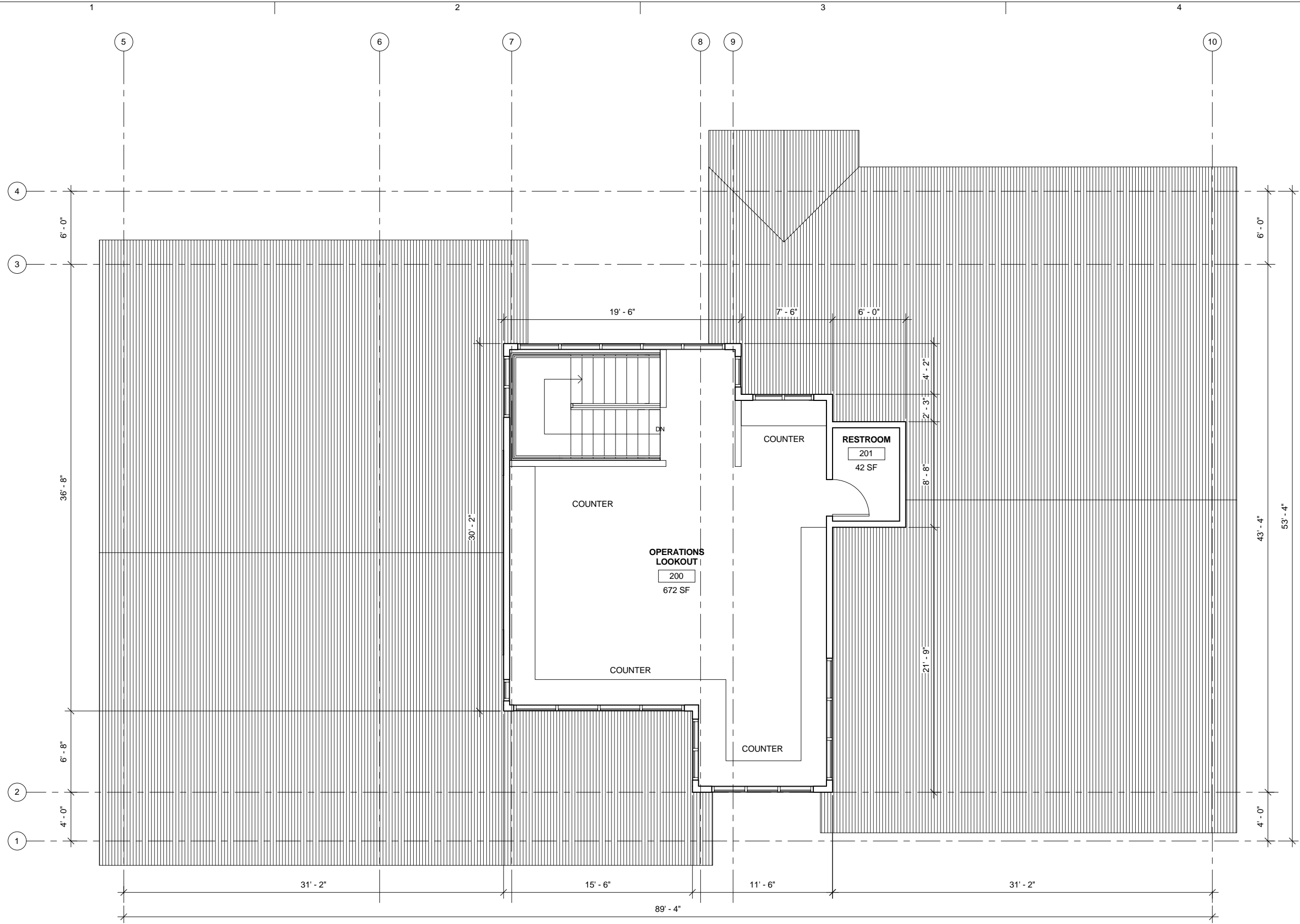
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 DRAWN: Author
 CHECKED: Checker
 JOB NO: 1226
 DATE: 11-12-2012

REVISIONS:

NO.	DATE

SHEET NUMBER
A3.0

SHEET CONTENTS
NORTH AND EAST
ELEVATIONS



A1 2ND FLOOR PLAN
A2.4 1/4" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)

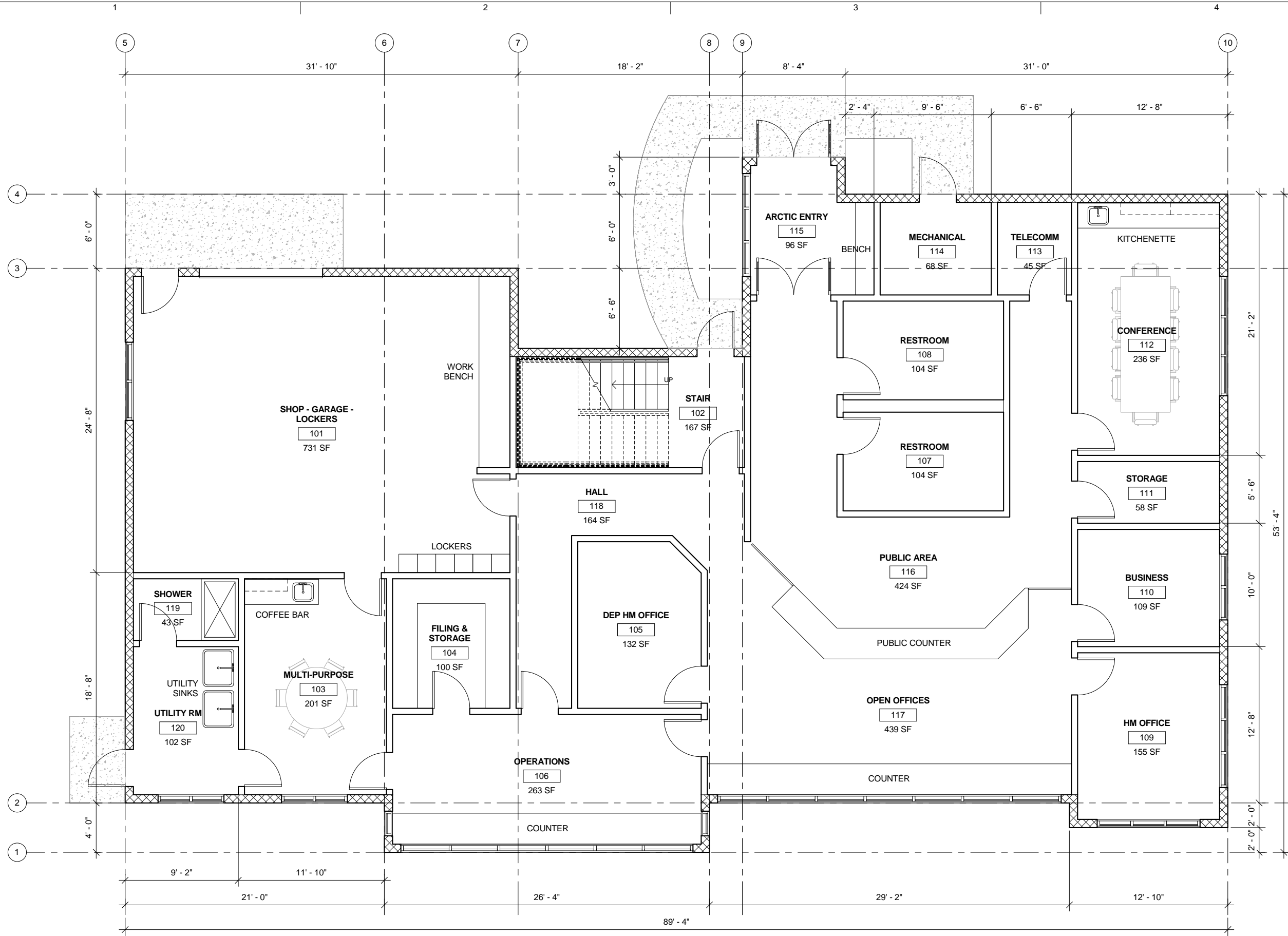


NOT FOR CONSTRUCTION

PLOTTED 1/2 SCALE

11/17/2012 9:48:59 AM

\\FILESERV\file\Jobs\1226 Homer Harbor Master's Office\1226 Drawings\Revit\1226 HHMO.rvt



A1 1ST FLOOR PLAN
 A2.0 1/4" = 1'-0" (22x34); 1/8" = 1'-0" (11x17)



PRELIMINARY
 11-12-2012

HOMER HARBOR MASTER'S OFFICE
 PROJECT:
 Owner
HOMER, ALASKA
 CLIENT:

Klauder & Company Architects, Inc.
 606 Petersen Way
 Kenai, AK 99611
 Office: (907) 283-1919 Fax: (907) 283-0450
 klauder@alaska.net

DESIGN BY:	Designer
DRAWN:	Author
CHECKED:	Checker
JOB NO:	1226
DATE:	11-12-2012
REVISIONS:	
NO.	DATE

SHEET NUMBER
A2.0
 SHEET CONTENTS
 FLOOR PLAN - LEVEL 1

NOT FOR CONSTRUCTION

PLOTTED 1/2 SCALE

11/17/2012 9:56:48 AM

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C1 **NORTHEAST**
A3.2 12" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)



C2 **SOUTHWEST**
A3.2 12" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)



A1 **NORTHWEST**
A3.2 12" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)



A2 **SOUTHEAST**
A3.2 12" = 1'-0" (22x34); 1/2" = 1'-0" (11x17)

PRELIMINARY
11-12-2012

HOMER HARBOR MASTER'S OFFICE
PROJECT:

Owner
HOMER, ALASKA
CLIENT:

**Klauder & Company
Architects, Inc.**

606 Petersen Way
Kenai, AK 99611
Office: (907) 283-1919 Fax: (907) 283-0450
klauder@alaska.net

DESIGN BY: Designer
DRAWN: Author
CHECKED: Checker
JOB NO: 1226
DATE: 11-12-2012

REVISIONS:	
NO.	DATE

SHEET NUMBER
A3.2

SHEET CONTENTS
RENDERED IMAGES