

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Cooper Landing Senior Citizens Corporation, Inc.****Federal Tax ID: 92-0168590****Project Title:****Project Type: Remodel, Reconstruction and Upgrades**

Cooper Landing Senior Citizens Corporation, Inc. - Senior Housing Energy Project

State Funding Requested: \$100,000
One-Time Need**House District: Kenai Areawide (33-35)****Brief Project Description:**

Grant for \$100,000 for energy saving materials and labor for senior housing.

Funding Plan:

Total Project Cost:	\$100,000
Funding Already Secured:	(\$0)
FY2013 State Funding Request:	<u>(\$100,000)</u>
Project Deficit:	\$0

*Funding Details:**Energy audit reimbursed by State. (?)***Detailed Project Description and Justification:**

see attachments

Project Timeline:

\$100,000 in FY 13

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Cooper Landing Senior Citizen Corp., Inc.

Grant Recipient Contact Information:

Name:	Ronald Sloan
Title:	President
Address:	PO Box 552 Cooper Landing, Alaska 99572
Phone Number:	(907)595-3000
Email:	clsccl@arctic.net

Has this project been through a public review process at the local level and is it a community priority? Yes No

February 24, 2012

Attn: Ron Sloan
Snug Harbor Senior Haven
37395 Snug Harbor Road
Cooper Landing, Alaska 99572

RE: Ravens View and Eagles View
Energy Audit Review

Dear Mr. Sloan,

We have reviewed the audit report provided by Energy Auditing Services on June 1, 2011 as requested. We have identified the items and recommendations that we agree with and have provided alternative recommendations where we see appropriate.

It is our understanding that there is a limited budget for this scope of work, therefore some priority items will be the focus of the current improvements and we have identified items we feel will be most effective and provide the best return on investment. The recommendations follow the format of the original energy audit as follows:

Eagles View: Snug Harbor Senior Haven:

Lighting

- 1) *Modify targeted T8 two lamp fixtures:* Agreed to the extent desirable lighting levels are still met.
- 2) *De-lamp every four lamp fluorescent fixture:* Agreed to the extent desirable lighting levels are still met.
- 3) *Replace indoor and outdoor incandescent/halogen lamps:* Agreed.

Heating and Domestic Hot Water Systems

- 1) *Re-design boiler for staged approach:* This modification is logical with regard to energy savings. However, a cost for altering the existing system was not provided. A cost benefit analysis would need to be performed once an estimate has been acquired.
- 2) *Install a modulating aquastat or outdoor reset control:* Agreed. Training should be provided for staff and maintenance in order to ensure proper operation of automatic controls.

- 3) *Install programmable thermostats:* Agreed.
- 4) *Turn off the re-circulating heat pump/loop system at night:* Agreed. Training to be provided for staff and maintenance in order to ensure proper operation of automatic controls.
- 5) *Insulate all supply and return lines in crawlspace:* Agreed.

Building Envelope

Recommendations per the document titled “Building Envelope and Heating System Energy Conservation Measures (ECM) Report”

- 1) *Install Programmable thermostat:* Agreed.
- 2) *Install Modulating Aquastat, Location – Primary heating System:* Agreed. Training to be provided for staff and maintenance in order to ensure proper operation of automatic controls.
- 3) *Install R-20 fiberglass batt insulation on the perimeter 4 feet of crawl space floor:* This is a modification from the original recommendation of R-30. We have discussed this with Bill Steyer and he is in agreement. Given the potential for moisture in a crawl space, we recommend installing rigid insulation which adds additional cost to the modification.
- 4) Recommendation has been modified to R-20 at a perimeter foundation wall as completed on recent 5 Star+ rated homes. We have discussed this modification with Bill Steyer and he is in agreement.
- 5) *Add R-21 blown cellulose insulation to attic:* Agreed. Adequate cold roof ventilation must be maintained. Ensure adequate distance between the insulation and the underside of the structure.
- 6) *Remove existing door and install fiberglass door:* Implementing this change has a 17 year pay back. Due to the length of the payback period, we do not recommend implementing this energy conservation measure.
- 7) *Remove existing door and install fiberglass door:* Implementing this change has a 24 year pay back. Due to the length of the payback period, we do not recommend implementing this energy conservation measure.

Ravens View: Snug Harbor Senior Haven:

Lighting

- 1) *Modify targeted T8 two lamp fixtures:* Agreed to the extent desirable lighting levels are still met.
- 2) *De-lamp every four lamp fluorescent fixture:* Agreed to the extent desirable lighting levels are still met.
- 3) *Replace indoor and outdoor incandescent/halogen lamps:* Agreed.

Heating and Domestic Hot Water Systems

- 1) *Install a modulating aquastat or outdoor reset control:* Agreed. Training should be provided for staff and maintenance in order to ensure proper operation of automatic controls.
- 2) *Implement the setback conservation features in the existing programmable thermostats:* Agreed. Training to be provided for staff and maintenance in order to ensure proper operation of automatic controls.
- 3) *Insulate all supply and return lines in crawlspace:* Agreed.

Building Envelope

Recommendations per the document titled "Building Envelope and Heating System Energy Conservation Measures (ECM) Report"

- 1) *Install Programmable thermostat:* Agreed.
- 2) *Install Modulating Aquastat, Location – Primary heating System:* Agreed. Training to be provided for staff and maintenance in order to ensure proper operation of automatic controls.
- 3) *Install R-20 fiberglass batt insulation on the perimeter 4 feet of crawl space floor:* This is a modification from the original recommendation of R-30. We have discussed this with Bill Steyer and he is in agreement. Given the potential for moisture in a crawl space, we recommend installing rigid insulation which adds additional cost to the modification.
- 4) *Add R-5 insulating blanket to garage door:* Implementing this change has a 3 year payback. Given the quality of the product and its susceptibility to damage, the life of the blankets may not make their cost worth the investment. An alternative would be to replace the existing garage doors with new garage doors, minimum R-11.
- 5) *Install U-0.16 fiberglass door with polyurethane core – bedroom entry door:* Implementing this change has a 17 year pay back. Due to the length of the payback period, we do not recommend implementing this energy conservation measure.

- 6) *Install U-0.16 fiberglass door with polyurethane core – rear patio doors:*
Implementing this change has a 17 year pay back. Due to the length of the payback period, we do not recommend implementing this energy conservation measure.
- 7) *Install U-0.16 fiberglass door with polyurethane core - exterior entry doors:*
Implementing this change has a 24 year pay back. Due to the length of the payback period, we do not recommend implementing this energy conservation measure.

Based on the above information, the recommended modifications we view as top priority that will provide the best return on your investment are the lighting modifications, additional insulation and programmable thermostats. Secondary items would be programmable aquastats and training on existing and new automatic controls.

If you have any questions, please feel free to contact me.

Sincerely,



Deanna Wlad, AIA, LEED BD+C
Partner, Architect