

**Agency: Commerce, Community and Economic Development****Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Cooper Landing Senior Citizen Corporation, Inc.****Federal Tax ID: 920168590****Project Title:****Project Type: Maintenance and Repairs**

# Cooper Landing Senior Citizen Corporation, Inc. - Plan Completion for Water/Drainage Problems

**State Funding Requested: \$50,000**  
One-Time Need**House District: Kenai Areawide (28-30)****Brief Project Description:**

Unforeseen ground water problems under the senior buildings

**Funding Plan:**

Total Project Cost:	\$50,000
Funding Already Secured:	(\$0)
FY2015 State Funding Request:	<u>(\$50,000)</u>
Project Deficit:	\$0

*Funding Details:*

None

**Detailed Project Description and Justification:**

Unforeseen ground water problems were found while working on energy project upgrades. After hydrologists were called, a report was issued in March, 2014, it was found the two buildings were built on an essentially impermeable surface. The field observations regard two distinct projects: a crawl space drain and an aquifer drain.

More details are available within the attached report.

**Project Timeline:**

Summer of 2014

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

Cooper Landing Senior Citizen Corporation, Inc.

**Grant Recipient Contact Information:**

Name:	Mona Painter
Title:	Administrative Assistant
Address:	PO Box 552 Cooper Landing, Alaska 99572
Phone Number:	(907)595-3000
Email:	clscci@arctic.net

Total Project Snapshot Report

2014 Legislature

TPS Report 62691v1

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

# COOPER LANDING SENIOR CITIZEN CORPORATION, INC.

CLSCCI

P.O. Box 552

Cooper Landing, Alaska 99572

Phone (907)595-3000 E-Mail: [clscci@arctic.net](mailto:clscci@arctic.net)

**Location: approximately 2 miles up Snug Harbor Road from the Sterling Highway junction  
at 19958 Campus Drive**

**Internal Revenue Service EIN: 92-0168590**

April 10, 2014



The Honorable Mike Chenault  
House Speaker  
House of Representatives  
[press@housemajority.org](mailto:press@housemajority.org)

Dear Speaker Chenault:

While working on energy projects upgrades for Snug Harbor Senior Haven independent senior housing as recommended in the energy audit with the help of Legislative Grant 13-DC-151, we encountered unforeseen ground water problems under the buildings. We were forced to remove insulation when it became water-logged. We asked for assistance from several sources including KPB Mike Navarre, a DOT project engineer, Sam McLane from McLane Consulting. It became evident that we needed to consult a hydrologist and we were finally able to have Geoff Coble of Coble Geophysical Services meet with CLSCCI President Ronald Sloan and Maintenance Committee Chair Mike Betlej. They spent considerable time looking at all aspects of the water/drainage problem here.

The report from Geoff Coble was received today and we went through it with Grants Administrator Robin Park from Juneau during her inspection this afternoon regarding our current legislative grant. We have permission to use grant funds for mitigation of the crawl space drainage problem, but we need \$50,000 in addition to the grant funds to complete the workplan outlined in the Coble report. Seeing our problem, Ms. Park recommended we immediately contact our legislators.

I am enclosing the Coble report as well as notes made regarding the inspections by Sam McLane, Kevin Lyon, and Shaun Combs.

Cooper Landing Senior Citizen Corp. Inc.(CLSCCI) is a non-profit corporation in good standing with the state. (entity details included). CLSCCI 's purpose if to support and encourage the independence and well-being of all persons 50 years of age and older in the Cooper Landing senior service area which includes Cooper Landing, Hope, Moose Pass, and Primrose. CLSCCI operates a weekly bus to Soldotna and Kenai for people needing transportation to medical appointments, grocery shopping, etc. CLSCCI operates two units of senior housing (12 apartments) for those 55 and older.

CLSCCI is governed by a volunteer board headed by Dr. Ronald Sloan and assisted by Shirley Wilmoth, Gary Brown, Mike Betlej, Ed Holsten, Ken Green, and Alma Fowler. The Sexy Senior Dumpster Cleaners clean Dumpster sites in Cooper Landing, Hope, and Crown Point, weekly, and donate money earned to CLSCCI.

Thank you for responding so quickly to my call.

Cooper Landing Senior Citizen Corp. Inc. is requesting a Legislative Grant for 50,000 to complete the plan for mitigating drainage problems in the senior housing apartments crawl spaces. I will be administering the grant.

Sincerely, *Mona Painter*

Mona Painter, Administrative Assistant





# COBLE GEOPHYSICAL SERVICES

GEOPHYSICAL CONSULTING

P.O. Box 1637

Homer, Alaska

99603-1637

(907) 235-1066

Groundwater/Surface Water  
Geophysics

3/11/14

Ron Sloan, Project Manager  
Cooper Landing Senior Citizens Center Inc. (CLSCCI)  
P.O. Box 552  
Cooper Landing, Alaska 99572  
(907) 595-3000  
ronandsuka@gmail.com

**RE: Site Consult and Workplan Outline  
CLSCCI Drainage  
*Plan to mitigate crawl space drainage and parking lot overflow***

Dear Mr. Sloan,

This letter summarizes the field work on 3/6/14 referenced above, and also provides a non-specific solution to your issues, complete with a proposal should you desire to have our firm do the contract work. However, you are free to use another contractor using the general language in this letter. If you use another contractor we retain no liability for their work, and cannot guarantee any success.

## **Field Report**

This project can be looked at as a giant field measurement of surface aquifer flow. What we have are two buildings built on an essentially impermeable surface (very low permeability). There are springs visible at the base of the bluff where the road cut leaves the site, but what appears to be glacial till is compact and unsaturated for the rest of its exposure. In other words, CLSCCI is built within two shallow wash basins composed of nearly impermeable glacial till.

Originally the shallow aquifer flowed this site, riding on top of the till, with occasional surface springs, but that flow is now interrupted by these crawl spaces which form the wash basin analogy.

The sole effort at ridding the water from the crawl spaces (wash basins) is the footer drain, which has been ineffective from inspection of the outlets and communication with the onsite observations.

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In addition the shallow aquifer discharges directly onto the parking areas, passing over interception drains and ditches, creating icings during the winter and adding water to the 'wash basins'.

On the positive side, this site is very fortunate aspect to have the significant gradient available to allow for gravity drainage of the crawl spaces.

The field observations regard two distinct projects: 1) crawl space drain and 2) aquifer drain.

### **Crawl Space Drainage**

- A) Sump Pump is the method recommended from our standpoint, though they may be unnecessary.

### **Aquifer Drain**

Alders must be grown thickly on the backslope areas to connect to the broader root mat that holds the solid to this slope. It would take some time for this to establish, so steel cables may be necessary to prevent soil creep from taking out the aquifer drain.

In the meantime, we would create an insulated aquifer instead of a standard trench. Allow water into it, and maintain excellent drainage at its base, daylighting into downgradient surface and subsurface drains that account for freezing issues as much as possible. Identification of known springs and providing drains upslope for those will alleviate some of the groundwater pressure as well.

A substantial amount of gravel is necessary for this project, and our quote is through Metco out of Seward, for \$16.07/yard, with a \$280 delivery fee for each 20 yard side dump load, so about \$600 per load. It is difficult to know how much gravel is really necessary at this point, but 260 yards for the parking lot drains (both buildings) should cover what is needed.

Since the interior (crawl space) and exterior (heated sidewalks) work seems prohibitively expensive, not to mention concerns about finding the appropriate labor to accomplish the project, another alternative was looked for that could potentially solve the problem without all the interior/exterior grief.

The final phase entails detailed work to guide roof and parking lot drainage offsite. This includes installation of gutter drains and asphalt curbing for the parking lot to guide surface water offsite. We can subcontract these two details, but they have not been costed out yet and require separate visits by appropriate subcontractors to arrive at those costs.

The principal effort will be to provide a groundwater parking lot drain at the base of the slope behind the complexes, along with convenient points of access for roof

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drains that drain out the bluff. That still requires 200 yards of gravel, perhaps more, as well as hundreds of feet of drain tile.

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ONGOING COST ESTIMATES

Description	Unit Cost	Estimated Cost
Gutter Placement - Installation	8.20 per lineal foot plus corners (20/each)	Client Dependent
Paved Area Asphalt Curbing - Mobilization	2000	2000
Paved Area Asphalt Curbing - Installation	6/foot; 3.35/sq. foot	Client Dependent
Aquifer Drain – Slope Stability Vegetative Expert who works with planting volunteers	Two Site Visits	2000
Aquifer Drain – Excavation and Elevation Surveying	14 days, 1575/day	22,050
Aquifer Drain – Soil Disposal Labor Only, Assumes A Fill Area Onsite	300 yds, 2 days, 1000/day	2,000
Aquifer Drain – Materials (Gravel, Drain Tile etc.)	7,800 gravel; 15,000 drain tile; 1000 delivery	23,800
Aquifer Drain - Installation	14 days, 1500/day	21,000
Aquifer Drain - Equipment	18,000	18,000
Initial Site Visit	600	600

Please let me know if you have any questions about the upcoming work plan, thank you,

Sincerely,

Geoff Coble, M.S., PG  
 Coble Geophysical Services  
 Homer Professional Building  
 910 East End Rd, Suite #1  
 Homer, Alaska 99603

Raingutters

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Teal 5 " K-Style Gutters with Heavy Duty Hidden Hangers installed. \$8.20 L.F

Teal Downspouts with Downspout Straps installed. \$4.50 L.F

Teal Corners with Sealant \$20.00 each

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## Mayme's Maintenance Committee Notes

### And Log of Activities

September 15, 2013

#### Surface Water Issues in Crawl Space – Problems Noted

Date	Activity
Thr 8/29	<p>Mona and I took <b>Mayor Mike Navarre</b> on an excursion after the Appreciation Day Luncheon to Senior Haven. We explained the water problems we were having and asked if there was anything the Borough would be able to help us fix the situation. He offered to send Kevin Lyon, Project Manager and ask his friend Sam McLane an engineer to check it out.</p>
Tue 9/3	<p>I called the Mayor to see if he had been able to contacted the above mentioned people. He had contacted the men and asked me to have Keith Freeman call him regarding the help of heavy equipment. (I did ask Keith to give him a call; however, Keith didn't feel we needed to involve the Mayor.)</p>
Thr 9/5	<p><b>Keith Freeman</b> arrived with his front loader to clean out the ditch and uncovered a drain pipe for a French ditch on either side of the foundation which we were not aware of. (Sadly, no water came out of the pipe.)</p> <p><b>Kevin Lyon, KPB Capital Projects</b>, stopped by on his way to Seward to check out our situation. He crawled around under the building noting pipe coming from well not insulated and much condensation was visible. Blue board insulation would have been best to lay on ground for insulation. Heated sidewalks are constructed differently than regular sidewalks and are meant to be on to keep the area from freezing, regular sidewalks have deeper footers and are not subject to heaving. Elevation of lawn is higher than the foundation. He said we should have <b>Operation/Maintenance (O&amp;M) and Submittals</b> documents which have warranty information. He offered to scan all our info on a disc for a digital file if we get that information to him sometime after his hunting trip. He took pictures and will write a report which he delivered to Mayor's office. <b>Jacque</b> will contact <b>Tim Anderson</b> to help complete our files for both buildings. <b>Mona and Jacque</b> will work together to complete the files.</p>



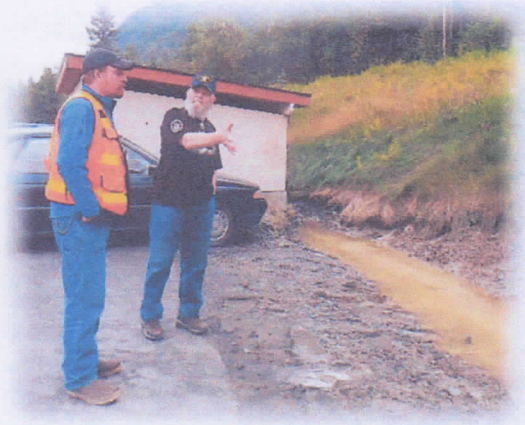
- Sat 9/7** A crew consisting of **Mike Betlej, grandson Jacob, Ed Holsten, Gary Brown, Ron Sloan, Brad LaRock and Mayme Ohnemus** removed wet insulation from crawl space under Unit #1 & 2 and several rolls from lake side of common room. It was noted that there is approximately 5 to 6 inches of water under unit #1. Several continued working to remove wet insulation under Unit #1 in Ravens View after lunch. More work is needed. (Brad didn't have the two young men from Princess Lodge who were to do some time. We really needed their help!)
- Lunch was provided and served by **Jean (Nana) Sether, Myrna Brown, Sue Betlej, Mona Painter, and Mayme Ohnemus.**
- Mon 9/9** I stopped by the DOT field office in Cooper Landing and talked to **Lonnie** and asked if there was anyone there who could come and look at our situation and possibly help us out. She said she would have **Shaun Combs, Project Engineer** call me. I told Mike B what I had done and that I wasn't leaving any rocks unturned when it comes to solving our water problems.
- Thr 9/12** Shaun Combs met with Mike and me at 11 AM. We walked the property and around both buildings. (He didn't need to see the crawl space.) He found two drain pipes at Ravens View that I wasn't aware of. He was concerned about the amount of water coming off the roof with nowhere to drain except to saturate the soil around the buildings. He also was concerned about the insulation on the ground inside of the foundation and explained that the insulation changes the frost line and could cause the foundation to heave. (Take it out.) He promised to make a report with details and diagrams for "Silver Spoon" and "Gold Spoon" remedies. The gold would be more expensive, but a more effective solution than the silver. He will e-mail his information to [clscci@arctic.net](mailto:clscci@arctic.net).
- Fri 9/13** I stopped by the borough building. Pam at the desk mentioned Kevin had dropped off his report with Michele Aranguiz, Special Assistant to the Mayor. They had an extensive discussion. I spoke to Paul Ostrander, Chief of Staff, on my way to the Planning department. John Mohorcich and Marcas Mueller helped me with some copies of our plans and mentioned we are not alone. Surface water is a problem all over the Peninsula.
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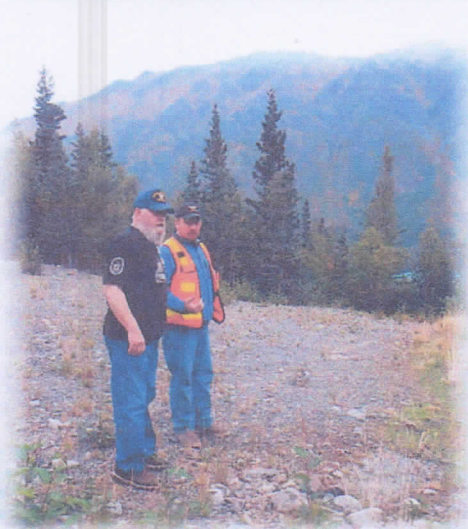
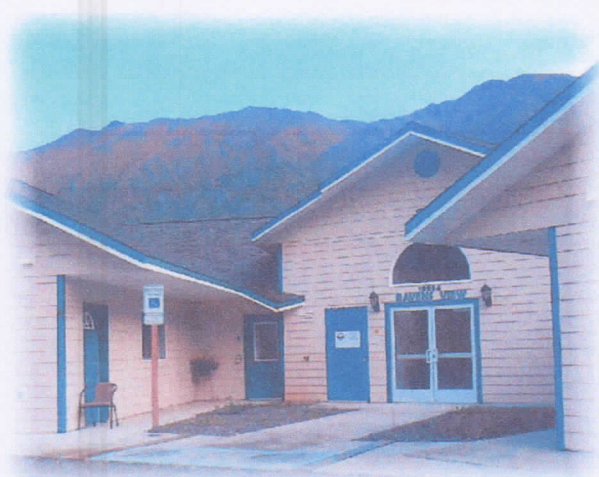
**Sat 9/14**

Sam McLane, Engineer McLane Consulting, met with Mike B, Mona, and me; he had a copy of Kevin's report with pictures. He agreed with Kevin, we have a big problem! Surface water, underground spring, ditching, no gutters, no cleanouts, etc. add to water problems in the crawl space. We need to get the water out of the crawl space and get the area dried out as soon as possible. Dry rot and mold could add to our problems. He will write up his findings and report back to us. He took the blue prints from Keith's file to scan for a copy he can mark up with red obvious lines. Mona and I will pick up the original copy at his office Monday on our way to a Landlord meeting.

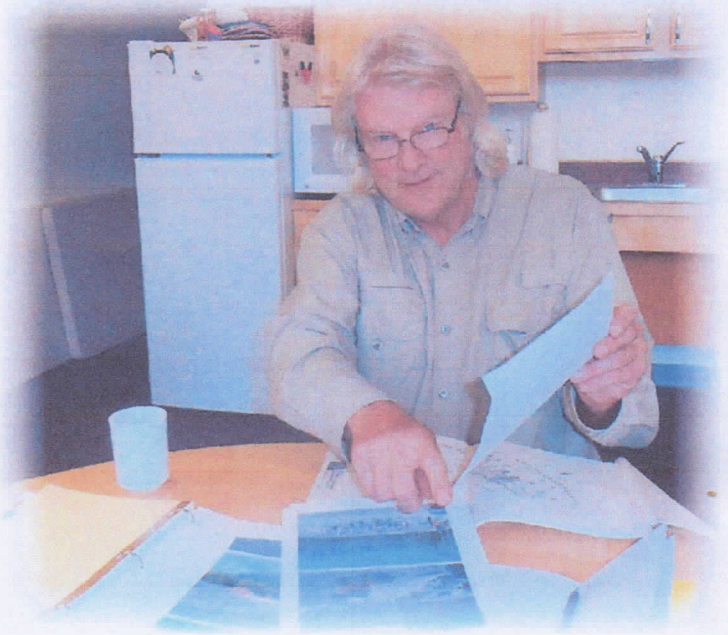




Shaun Combs, DOT Project Engineer, responded to Mayme's request to come look at the water problems at Senior Housing. He expressed several problem areas and possible solutions. He located several drain pipes and noted the vents at Ravens View. Rain run off from roofs with nowhere to drain was one source of excess water collection around the foundation. Shaun will give detailed information with sketches and e-mail them to [clscii@arctic.net](mailto:clscii@arctic.net).







Stan "Sam" McLane of McLane Consulting, Inc. met with us at the Mayor's request. He could see several areas of concern and expressed the project would be costly to resolve our water problems. He suggested we get the water in the crawl space pumped as soon as possible and get the area dried out to prevent dry rot and mold problems. He will do more "Pro Bono" work to help us out. We'll keep in touch.

