

**ASSEMBLY STANDING COMMITTEE
COMMITTEE OF THE WHOLE
THE CITY AND BOROUGH OF JUNEAU, ALASKA
October 27, 2014, 6:00 PM.
City Hall Assembly Chambers**

Worksession - No public comments

- I. ROLL CALL**
- II. APPROVAL OF AGENDA**
- III. APPROVAL OF MINUTES**
 - A. October 6, 2014 Committee of the Whole Meeting Minutes**
- IV. AGENDA TOPICS**
 - A. Economic Development Plan - Town Meetings**
 - B. State Library Archives and Museum Resolution**
 - C. Biosolids Update - Biosolids Disposal Options**
 - D. Biosolids Update - Solid Waste Planning Re-Cap**
 - E. Capital Transit Revised Plan**
 - F. Tongass Advisory Committee Update**
- V. ADJOURNMENT**

Note: Agenda packets are available for review online at www.juneau.org.
ADA accommodations available upon request: Please contact the Clerk's office 72 hours prior to any meeting so arrangements can be made to have a sign language interpreter present or an audiotape containing the Assembly's agenda made available. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city_clerk@ci.juneau.ak.us

**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

October 6, 2014 Committee of the Whole Meeting Minutes

ATTACHMENTS:

Description	Upload Date	Type
☐ DRAFT Minutes - October 6, 2014 - Committee of the Whole Meeting	10/22/2014	Minutes

**ASSEMBLY STANDING COMMITTEE
COMMITTEE OF THE WHOLE
THE CITY AND BOROUGH OF JUNEAU, ALASKA
MINUTES**

October 6, 2014, 6:00 PM.
Municipal Building - Assembly Chambers

Worksession - No public testimony will be taken.

I. ROLL CALL

Deputy Mayor Mary Becker called the meeting to order at 6:00 p.m. in the Assembly Chambers.

Assemblymembers Present: Mary Becker, Karen Crane, Loren Jones (telephonic), Jesse Kiehl, Jerry Nankervis, Merrill Sanford, Carlton Smith, Kate Troll and Randy Wanamaker.

Assemblymembers Absent: None.

Staff present: Kim Kiefer, City Manager; Rob Steedle, Deputy City Manager; Laurie Sica, Municipal Clerk; Kirk Duncan, Public Works Director; Samantha Stroughtenger; Wastewater Superintendent; Michele Elfers, Engineer/Architect.

II. APPROVAL OF AGENDA

Hearing no objection, the agenda was approved as presented.

III. APPROVAL OF MINUTES

A. September 22, 2014 Committee of the Whole Meeting Minutes

Hearing no objection, the minutes of the September 22, 2014 Committee of the Whole meeting were approved as corrected on page 5, 2nd graph, line 6, removing repetitive language.

IV. AGENDA TOPICS

A. Tobacco Tax - Presentation from National Council on Alcohol and Drug Dependency

Kristin Cox, Naturopath representing the National Council on Alcohol and Drug Dependency (NCADD), spoke about the effects of tobacco taxes and said as the cost of tobacco increases, the rate of consumption decreases. She summarized Juneau's tobacco tax history. She spoke about the support for tobacco tax increases, and the effect of a 20% increase. The average cost of a pack of cigarettes in Juneau was \$9 a pack, which included a \$2 Alaska State tax and a \$1 local tax. She said the direct medical and indirect productivity costs in Alaska of smoking were \$19 a pack. She gave information on the cost of cigarettes and taxes in other communities in Alaska. Petersburg would be voting on a tax increase on the 2014 ballot, which included taxing e-cigarettes. She said most states were prohibited from raising cigarette taxes locally. The FY13 actual total revenue at \$1 tax per pack was \$1,446,400. An additional \$2 local tax (a local tax total of \$3 per pack) would generate \$4,339,200. She estimated that the actual anticipated revenue would be closer to \$3,904,208 to account for a decrease in consumption.

Dr. Cox said NCADD recommended the Assembly increase the tax and that the revenues be used for prevention services. Currently the funds were used for the social service block grants, Bartlett Regional Hospital and the general fund. She said that Parks and Recreation was an appropriate use of "prevention" funds. The Assembly had the authority to raise the tax by a motion of the Assembly and she cited a Supreme Court decision from August 29, 2008, that upheld a Mat-Su Superior Court decision that found a borough's state granted general taxation powers included passing an excise tax without voter approval. The public could pass such a tax through a ballot initiative, which required a significant effort and could be divisive in the community. Youth consumption of tobacco was "price

sensitive" and the elimination of youth smoking translated into the elimination of adult smoking.

The Assembly asked questions of Dr. Cox, Matt Felix of NCADD and Ms. Kiefer. There was some discussion of including taxation of e-cigarettes in the tobacco excise tax.

MOTION, by Sanford to refer the issue to the Finance Committee to investigate the answers to questions raised.

Mr. Wanamaker supported preparation of an ordinance to increase taxes on smoking and non-smoking tobacco and said the ordinance should include intent language that outlined that the funds should be spent on health related purposes. He said if passed, he hoped to see an increase in funding for social service programs.

Hearing no objection, it was so ordered. Ms. Becker thanked Dr. Cox for her presentation.

B. Biosolids Treatment and Disposal Evaluation, Phase II Update

Ms. Kiefer introduced Michele Elfers, Engineering, and Samatha Stroughtenger, Wastewater Superintendent, who presented information included in the Final Report on Biosolids Treatment and Disposal Evaluation - Phase II, by CH2M Hill, dated September, 2014. Ms. Stroughtenger provided some historical perspective on the treatment plants. Michele Elfers said the current process to ship biosolids was problematic and the costs were rising. It currently costs \$2 Million per year to ship 7000 wet tons of biosolids out of Juneau. Uncertainty over environmental regulations, and issues with odors and leaking containers were leading to an unstable long-term solution. CBJ has a contract with Waste Management to accept and ship the biosolids.

CBJ hired CH2M Hill to look at the problem and identify possible solutions. The goal is to produce a dryer product, and less of it - one that is classified as a Class A biosolid. The preferred alternatives identified were narrowed down to four options: 1) maintain status quo, 2) thermal dryer, 3) thermal dryer with heat recovery furnace, and 4) thermal oxidation / incinerator. Ms. Elfers said that the Tetra Tech Study of 2013 outlined ten alternatives, but staff met internally and identified priorities for public and staff health and safety. Handling lime was considered a risk and that option fell off the list. Reducing the volume is important. The first phase was a process of gathering information, understanding the situation, the impact of a lack of land to address the problem, and it was determined that there are really only three - four options that make sense.

The Assembly expressed concerns about a lack of basis for how some of the decision made by staff were made, and that the Assembly had not had a role in narrowing down the list of options. Ms. Elfers explained Class A as opposed to Class B biosolids and provided examples of both in containers for the Assembly to see. She said she would provide the Assembly with a memo that was presented to the Public Works and Facilities Committee meeting at an earlier date at which this topic was discussed. Ms. Stroughtenger said the goal was to provide a stable, long term biosolids disposal option. She explained the EPA definitions of emerging technologies and the staff was concerned about the risk involved with technologies not considered established by the EPA. With the status quo option there were risks with the cost increases and variables in shipping rates. She discussed the analysis of all four options and said that staff's recommended alternative was installation of a thermal dryer with a heat-recovery furnace. The cost was projected at \$28.7 Million for capital investment with a \$664,000 annual operating cost. The advantages to this alternative included:

- 1 Lowest O&M costs
- 1 Usable fuel/fertilizer or low volume ash end-product
- 1 Simple disposal options with minimal restrictions
- 1 Smallest carbon footprint
- 1 Juneau solution to a Juneau problem

The next steps would include funding (by revenue bonds, grants and loans and approved utility rate increases), site visits by staff to operating facilities, review by CBJ committees (including the Juneau

Commission on Sustainability, the Planning Commission and the COW) and public outreach.

The Assemblymembers asked several questions about the processes, the location for the proposal, odors, alternative methods and the process of arriving at the study's recommendation. Mayor Sanford said the recommendation only took care of one quarter of the waste stream, and wanted to know about how it fit into the larger picture. He asked about incinerator technology for combined waste and biosolid disposal. Ms. Elfer said that the consultants did not believe there was enough waste in Southeast to efficiently run such a system. The other issues were regulation and risky technology. Mayor Sanford said the Navy used smaller incinerators on their ships, as an example, and he did not want to overlook any option. The Assembly expressed concerns about the cost, about taking part of a step that could preclude other options, the possibility of future technologies providing better solutions, and the interest in getting more analysis of the current options and other options, including working with the private sector to provide a solution. Ms. Elfers said there was an RFP to private entities to deal with biosolids about a year ago and there were proposals that were given to us and the location proposed did not seem realistic. The timeline did not consider permitting and the city was not comfortable accepting the solution - due to permitting and adjacent land use issues. Mr. Steedle said the risk was too high in the option proposed - but the Assembly was now asking a different question - how to look at the entire waste stream, and this had not been done.

Mayor Sanford said he wanted to know if there were private companies could provide a solution. Ms. Becker said that \$28 million for a piecemeal project was too much. In response to a question from the Assembly, Ms. Elfers said that to get more detail on other alternatives from the consultant would come at a significant cost and amount of time. She said that staff should have spent more time revisiting the previous study and staff could do so to more clearly outline why some alternatives were eliminated, without spending more time and money. The Assembly indicated that information would be helpful.

V. COMMITTEE MEMBER / LIAISON COMMENTS AND QUESTIONS

VI. ADJOURNMENT

There being no further business to come before the committee, the meeting was adjourned at 7:50 p.m.

Submitted by Laurie Sica, Municipal Clerk

**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

Economic Development Plan - Town Meetings

**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

State Library Archives and Museum Resolution

ATTACHMENTS:

Description	Upload Date	Type
☐ Letter from Historic Resource Advisory Committee - Sept 16 2014	10/22/2014	Cover Memo
☐ Progress Report	10/23/2014	Exhibit
☐ Mitigation Display	10/23/2014	Exhibit



Historic Resources Advisory Committee

**155 S. Seward Street
Juneau, Alaska 99801**

Advising on Historic Resources and City Museum Issues

September 16, 2014

Kim Kiefer, City Manager
City and Borough of Juneau
155 S. Seward Street
Juneau, AK 99801

Re.: Historic Resources Advisory Committee response regarding the State Museum's
"Flicker Feather" Panel Demolition

Dear Ms. Kiefer:

The new State Libraries, Archives and Museum (SLAM) project is well under way and when completed will be a fine addition to the community. However, one important element has been deleted from the project. Recently the CBJ City Manager was copied on a memo (attached) from Linda Thibodeau, Director of the State of Alaska Division of Libraries, Archives, and Museums to Judy Bittner, Alaska State Historic Preservation Officer (SHPO). The memo stated that the plan to salvage and re-use two concrete panels from the historic Alaska State Centennial Museum (State Museum) would not be carried out. The decision was made by the State Museum based on letters from the contractor and engineer that the panels could not be removed safely and re-used as originally planned. This decision is in direct conflict with the CBJ Conditional Use Permit (USE2011-0026) and City/State Project review (CSP2011-0007) as well as the Assembly's desire contained in Resolution 2551am.

The State Museum building was determined eligible for listing on the National Register of Historic Place for its importance in Juneau's, and Alaska's history, and for its unique architecture. Built in 1967-68 for the Centennial celebration of the purchase of Alaska, the project was funded with a federal matching grant with matching funds provided by Juneau residents through a voter approved 1% sales tax initiative.

The building's architecture is a blend of New Formalism and Brutalism with a strong Northwest Coast Native influence which is unique to buildings of that period. According to the Determination of Eligibility (DOE) report prepared by the State of Alaska, the panels feature Southeast Alaska Tlingit Indian motifs of a "flicker feather" and "eye", as designed by the architect. The "flicker feather" was synonymous with the State Museum – it appeared on the building, was used in promotions of the museum, and is used in the logo of the Friends of the Alaska State Museum support group. The "flicker feather" became a unique symbol of the State Museum and was recognized by patrons and supporters.

The decision to demolish the State Museum building was not unanimously supported at public meetings during planning of the facility and from testimony and discussions at the Juneau Historic Resources Advisory Committee (HRAC). It became clear that the building and “flicker feather” motif was important to long-time Juneau residents. The salvage and re-use of the panels was seen as a mitigating factor for demolition of the building while retaining an important visual element to memorialize the building for its historic significance. For these reasons the idea to preserve a couple panels was seen as a way to retain this unique identifying symbol of the historic building and its recognition within the community.

The City Manager asked that the HRAC comment on the decision of the State Museum to not use the panels as originally planned. At its September 3, 2014 regular public meeting, HRAC considered the state decision, and discussed the issues related to the panels. The HRAC noted that the original plan indicated the panels would be included in the outdoor plaza area of the new SLAM project. The HRAC adopted a motion that recognizes that the original concrete panels are not salvageable but that the mitigation intent should still be honored. The HRAC recommends that at least one of the State Museum’s flicker feather panels be recreated to scale, such as by concrete-casting, and be incorporated as planned and required in the design of the new facility. While reconstructing these historic important elements is not ideal, it is an alternative method of preserving these important design elements, as outlined in the National Park Service’s *Secretary of the Interior’s Standards for Rehabilitation*.

Due to the importance of this building in Juneau’s and the State’s history and its unique architecture, the HRAC asks that the City and Borough require that at least one panel be recreated and placed at the new museum site as planned thereby meeting the intent of the mitigation measure for demolition of this important historic building.

Sincerely,



Gary Gillette, Chair
Historic Resource Advisory Committee
City and Borough of Juneau

Attachments

Presented by: The Manager
Introduced: 12/20/2010
Drafted by: J.W. Hartle

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2551am

A Resolution Supporting the State's Recommendation That the Alaska State Centennial Museum Be Eligible for Listing in the National Register of Historic Places and That Certain Preservation Mitigation Be Required If the Museum Building Is Demolished for the Library Archive Museum ("LAM") Project, and Encouraging the State to Relocate the LAM Project and Work with the City and Borough to Determine Another Use for the Existing Museum Building.

WHEREAS, a 1964 Act of Congress formally recognized the Alaska Purchase Centennial Celebration as an event of national significance, and the construction of the Alaska State Centennial Museum building ("museum building") was designated an Alaska Purchase Centennial project; and

WHEREAS, the Alaska Department of Natural Resources, Office of History and Archeology, (a.k.a. Alaska State Historic Preservation Office or "SHPO") determined in Short Report 2010-04, dated November 2010, that the museum building satisfies one or more of the four National Register Criteria for evaluating "significance," in that it is associated with the Alaska Purchase Centennial Celebration, and it represents a unique blend of New Formalism and Brutalism architecture with Northwest Coast Native design influences; and

WHEREAS, in its report, SHPO also determined that the museum building retains all seven qualities of historic integrity that convey "significance," (location, design, setting, materials, workmanship, feeling and association), and recommended that the museum building be eligible for listing in the National Register of Historic Places; and

WHEREAS, the Alaska Department of Education and Early Development ("DEED"), owner of the museum building property and adjacent lot, has a Project Team developing plans to integrate the State Division of Libraries Archives and Museums (the "Library Archives Museum" or "LAM" project), which plans currently call for developing a new facility on the site, and mitigating the complete demolition of the museum building by reusing the existing concrete exterior panels and planning for interpretive work and/or exhibits that celebrate the Centennial and the original museum, and the significance of each; and

WHEREAS, SHPO asked the LAM Project Team to consider an alternate site for the LAM project and, the Project Team has since prepared an Alternate Sites Feasibility Study that identifies the Sub Port Site as a potentially feasible site; and

WHEREAS, by letter dated December 1, 2010, the Alaska Department of Transportation and Public Facilities, on behalf of DNR and DEED, formally asked HRAC to review: SHPO's Short Report 2010-04; an Alaska State Museum Condition Summary Memorandum, dated November 12, 2010; and the LAM Project Alternate Sites Feasibility Study, dated November 30, 2010 and to provide input on the following issues:

1. SHPO's recommendation that the museum building be eligible for listing in the National Register of Historic Places;
2. The scope and adequacy of the mitigation options incorporated in to the LAM project plans, if the museum building site is used for the project; and
3. Whether HRAC supports the relocation of the LAM project in order to preserve the museum building, if DEED determines alternate site acquisition and development is possible and viable; and
4. In the event the LAM project is relocated, whether HRAC would recommend the State and CBJ work together to determine an appropriate use for the existing museum, as the State has no other use for the building.

WHEREAS, Policy 16.2 of the City and Borough Comprehensive Plan provides that it is the policy of the City and Borough to identify historic resources within the City and Borough and to take appropriate measures to document and preserve these resources, and under CBJ 49.10.410(f)(2), it is a duty of the Historic Resources Advisory Committee ("HRAC") to review and develop nominations to the National Register of Historic Places; and,

WHEREAS, at a regular meeting December 6, 2010, HRAC voted to recommend that the Assembly support SHPO's recommendation that the museum building be eligible for listing in the National Register of Historic Places, and that the Assembly advocate, in event the building is demolished, for mitigation to be required in the form of preserving some of the concrete panels for interior or exterior display, and providing a publication and interpretive exhibit on the history of the original museum, in the new facility; and

WHEREAS, at the December 6, 2010 meeting, HRAC also voted to recommend that the State and CBJ work together to determine an appropriate use for the existing museum and that, in any event, the museum building should only be demolished if an alternate site or reuse of the museum building is not feasible.

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

Section 1. That the CBJ hereby acknowledges SHPO's recommendation that the Alaska State Centennial Museum be eligible to be listed in the National Register of Historic Places.

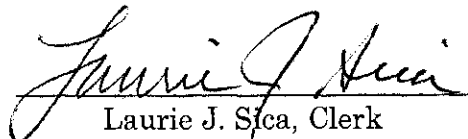
Section 2. That the CBJ hereby agrees that if the museum building is demolished, mitigation should be required in the form of preserving one or more of the concrete panels for interior or exterior display, and providing a publication and interpretive exhibit on the history of the original museum, in the new facility.

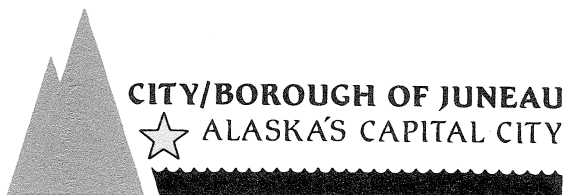
Section 3. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this 20th day of December, 2010.


Bruce Botelho, Mayor

Attest:


Laurie J. Sica, Clerk



**PLANNING COMMISSION
NOTICE OF DECISION**

Date: January 25, 2012

File No.: CSP20110007

ECI Hyer Architecture & Interiors
101 W. Benson Blvd, Suite 306
Anchorage, AK 99503

State of Alaska, DOTPF, DEED
200 East 42nd Avenue
Anchorage, AK 99508

Application For: A State Project Review for the 118,000 square foot State Library, Archive, and Museum (SLAM) Facility - at one time proposed to be called Library, Archive, Museum Project (LAMP)

Legal Description: Tidelands Addition Block 66 Lots 4, 5, 6 FR & 10 FR

Parcel Code No.: 1-C06-0-K66-003-0

Property Address: 395 Whittier Street, Juneau

Hearing Date: January 24, 2012

The Planning Commission, at a regular public meeting, adopted the analysis and findings listed in the attached memorandum dated January 20, 2012 and approved the 118,000 square foot State Library, Archive, and Museum (SLAM) Facility to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Vegetative cover must be installed as shown in the plans prior to the issuance of a Certificate of Occupancy.
2. All exterior lighting fixtures shall be of a "full cutoff" design.
3. Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare. Approval of the plan shall at the discretion of the Community Development Department, according to the requirements at CBJ§49.40.230(d).
4. Pedestrian improvements must be installed as shown in the attached plans prior to the issuance of a Certificate of Occupancy.

Advisory Condition:

1. As mitigation for demolition of the Alaska State Centennial Museum (a historic place) one or more of the concrete panels be preserved and displayed, either inside or outside the new facility. A publication and interpretative exhibit on the history of the original museum will also be provided.

Furthermore, the Planning Commission adopted the Director's analysis and adopt the bonus point total per CBJ§49.60.150 to allow a maximum building height of 45 feet for this project.

Attachments: January 20, 2012 memorandum from Beth McKibben, Community Development, to the CBJ Planning Commission regarding CSP20110007.

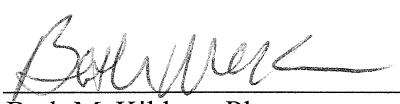
January 24, 2012, memorandum from Beth McKibben, Community Development to the CBJ Planning Commission regarding USE2011 0026.

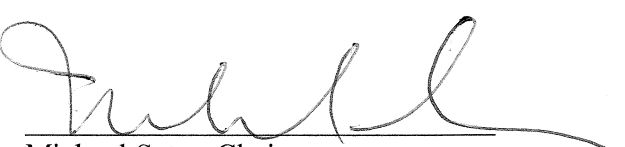
This Notice of Decision does not authorize construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

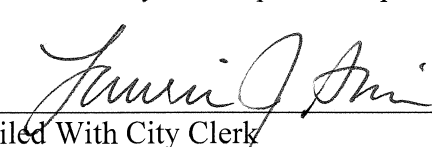
This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c).

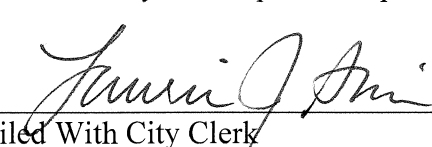
Effective Date: The permit is effective upon approval by the Commission, January 24, 2012.

Project Planner:


Beth McKibben, Planner
Community Development Department


Michael Satre, Chair
Planning Commission


Filed With City Clerk


Date

1/26/2012

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ - adopted regulations. The State Government and project designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

MEMORANDUM

STATE OF ALASKA

Department of Education & Early Development
Division of Libraries, Archives & Museums

Date: August 12, 2014

To: Judy Bittner
Chief, Office of History and Archeology

From: Linda Thibodeau
Director, LAM

Subject: MOA mitigation-2012-04-27, State Project Number 68816

According to the State Museum Demolition's Mitigation Agreement, Section II, Parts D.1 & D.2, "LAM will supply a written determination to the OHA and CBJ regarding our decision related to use of one or more of the existing building exterior concrete flicker feather panels...." and "keep a record of cost estimates and meeting summaries that document decisions made and actions taken related to the use of the panels...." This memo supplies the notification and record-keeping requirements of that memo.

The flicker feather panels of the old State Museum will not be used in the new building or on its grounds. Extraordinary good faith efforts have been made to secure the panels for re-use, but these efforts have shown that they cannot be used. Advice from structural engineers and demolition contractors present evidence that the panels are structurally unsound and unsafe. Their integrity has been severely compromised and it would not be safe to pick them from the old building, move them, or to re-install them in any way. Letters supporting these analyses are attached.

Therefore, LAM, its partner agency, DOTPF, and the building's construction company, PCL, have determined not to use the panels. Instead the panels will be destroyed as the building is torn down, without salvage.

LAM will submit evidence of carrying out the other requirements of the mitigation agreement, if requested.

Cc: Kim Kiefer, Manager
City and Borough of Juneau



CONSTRUCTION LEADERS

August 6, 2014

Jennifer Pepin
State of Alaska Department of Transportation and Public Facilities
4111 Aviation Avenue
Anchorage, AK 99519

RE: AKSAS Project No: 68816
Salvage of Existing Precast Concrete Wall Panels

Dear Ms. Pepin:

Please see attached letter from our Demolition Subcontractor regarding the salvage of the existing precast concrete wall panels. PCL and PCI Democon have safety and structural concerns with being able to salvage, handle, and re-use these panels as required in the Contract Documents.

PCL, the Department, and PCI Democon met on August 5, 2014, and agreed to engage the structural engineer of record for the project to evaluate possible engineering solutions to be able to safely remove and handle the two panels that will be salvaged for re-use on the project. We have scheduled a meeting through the Department on site today, August 6, 2014.

PCL is committed to working with the Department on a path forward for this issue, and we will follow up this letter with further correspondence after a decision is made by the project team on how to proceed. Should you have any questions, please feel free to contact me directly.

Sincerely,

PCL Construction Services, Inc.

Trever
Gallagher

Digitally signed by Trever Gallagher
DN: cn=ad, dc=Network, dc=PCL, INC,
ou=Districts, ou=Seattle, ou=District
Office, ou=Users, ou=Trever Gallagher
Date: 2014.08.06 09:14:53 -0700

Trever Gallagher
Senior Project Manager

TSG/tsg

Cc: File 2A.1 0112

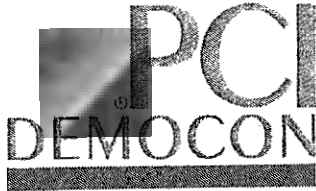
PCL Construction Services, Inc.

AK License #PCL 294038

291 Whittier Street, Suite A, Juneau, Alaska 99503 • Telephone (907) 523-4600

PCL IS AN AFFIRMATIVE ACTION, EQUAL OPPORTUNITY EMPLOYER M/F/D/V

5750009/FILE CODE: 2A.1



7415 West Bostian Road, Woodinville, WA 98072

Telephone: 425-806-8404 Fax: 425-806-7404

PCL Construction Services, Inc.
1400 West Benson Blvd., Suite 510
Anchorage, AK 99503

August 5, 2014

RE: SLAM

Attn: Rick Peterson

Mr. Peterson:

Per the attached letter from Nick Fett with KPFF dated August 5, 2014, PCI Democon has determined that based upon the existing conditions of the pre-cast concrete panels, the request to save/salvage the panels utilizing the existing panel pick points is not an option.

Additionally, due to age and weather exposure, the structural integrity of these panels has been severely compromised.

Therefore, for safety reasons, PCI Democon cannot risk moving forward with the salvage of these panels without additional engineering and rigging design by others.

A prompt decision regarding this issue needs to be determined quickly in order to eliminate delays to the schedule and additional costs incurred.

Sincerely,

A handwritten signature in black ink, appearing to read "Guy Hampton", written in a cursive style.

Guy Hampton
Senior Project Estimator
PCI Democon



1601 Fifth Avenue, Suite 1600 Seattle, WA 98101
(206) 622-5822 fax (206) 622-8130

MEMORANDUM

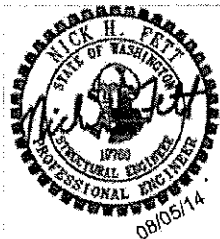
Date: August 05, 2014
To: Guy Hampton
PCI
7415 West Bostian Road
Woodinville, WA 98072
From: Nick Fett - KPFF
SLAM Juneau
Subject: Existing PC Panel Pick Points

Guy,

I have reviewed the existing precast panel pick points for the SLAM Juneau project. The existing PC panels have lifting eyes that have been proposed for use in lifting the panels for reuse.

The existing pick points appear to be a type of fasteners for threaded fasteners. The existing points are very rusted and appear to be deteriorated; due to exposure to weather, salt water and age. The pick points do not appear to be adequate to support the panels and would be unsafe to use for reuse of the panels. Also the panels do not appear to be adequate to core drill for lifting the panels; the panels would not be adequate to reuse. I would not recommend that the existing panels be reused.

Please let me know if you need additional information or have any questions.



Memo



**State Libraries, Archives, and Museums (SLAM)
State Historic Preservation Office Mitigation**

October 21, 2014

Budget Overview

	Budget	Expenses to date (including existing contract obligations)	Unbudgeted Allocation
Non- construction related services: Publication, archival documentation, exhibit development	\$250,000	\$250,000	\$0
Existing panel salvage and installation	\$55,000	\$55,000*	\$0
Panel replication: design, fabrication and installation costs			\$235,000
TOTALs	\$305,000	\$305,000	\$235,000

*Actual costs expended due to attempted salvage.

Deliverable Status and Overview

HABS (Historic As-Built Survey)

1. Drawings and photos were prepared according to Secretary of the Interior Standards and were acquisitioned into the collection of the Alaska State Archives. Complete.

Exhibits

1. Publication: *The View From the Future -2017: 50 Years After the Alaska Purchase Centennial*.
Based on personal interviews, tells the story of how each community interacted with and benefitted from the gift of a Centennial building or project.
 - a. Status:
 - i. Draft Final reviewed by SHPO and LAM. August 2014
 - ii. Terrance Cole selected as Foreword author. August 2014
 - iii. Foreword delivered. October 15, 2014
 - iv. Currently in Pre-Design Phase. Page Proof #1 will be delivered in November 2014. Proof #2 in December 2014
 - v. Publication. March 2015
 - vi. Distribution: Early April 2015
2. Permanent Exhibit in the Lobby of SLAM. Includes a scale model, photographs, founding plaques from former building and current building, interpretive text, and background depicting "flicker feather" panels.
 - a. Concept submitted to SHPO for Review. (September 15, 2014).

SLAM**State Historic Preservation Office Mitigation**

October 21, 2014

PROGRESS REPORT

3. Traveling Exhibit. Rendered from the publication, the exhibit will examine the communities where the 1967 Centennial took place. A virtual version of the exhibit will also be produced.
 - a. Concept submitted to SHPO for Review. (September 15, 2014).

Flicker Feather Panels

1. Flicker Feather Panel Reuse. Intent was to reuse one exterior concrete panel in the building or on the grounds.
 - a. Engineering recommendation that panels are not salvageable due to age and deterioration. Demolition and salvage was put on hold. August 5, 2014.
 - b. Alternative solutions were investigated but panels were determined to be structurally unsound and unsafe to reuse.
 - c. SHPO was notified that flicker feather panels could not be salvaged and would be demolished. August 12, 2014.
 - d. SHPO acknowledged receipt of information and per the agreement demolition could recommence. August 13, 2014.
 - e. Demolition restarted. August 13, 2014.

3-Form or transparent substrate for for interpretive text

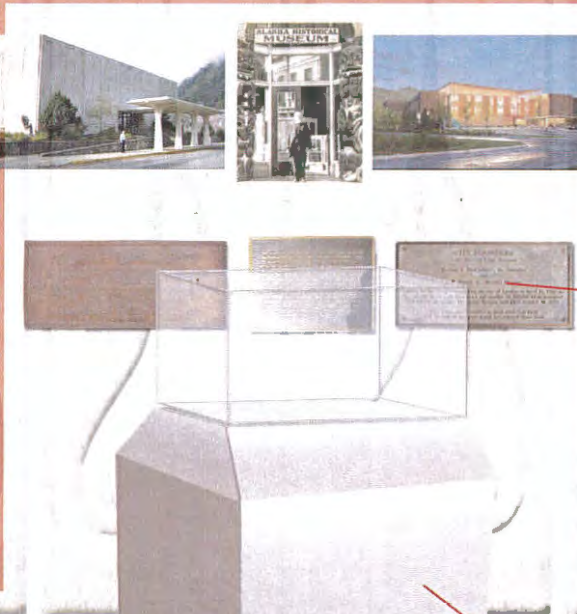
Corian or 3-Form engraved with Flicker Feather design.

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and Institution

Interpretive Text:
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Alaska Historical Library & Museum • 1900 Alaska State Centennial Museum • 1967 Alaska State Libraries, Archives & Museums • 2016

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Founders Plaques
Historical and New

Model
Case designed to match
Eagle Tree base and
Information desk

Founders Wall Concept

Alaska State Libraries, Archives, and Museum Building
10/14

Scale 1' = 1"



**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

Biosolids Update - Biosolids Disposal Options

ATTACHMENTS:

	Description	Upload Date	Type
☐	Oct 27 2014 Staff Report on Biosolids Shipping and Alternatives Selection Process	10/23/2014	Cover Memo

DATE: 27 October 2014

TO: Assembly Committee of the Whole

FROM: Samantha Stoughtenger, PE – Wastewater Utility Superintendent
Michele Elfers – Engineering Project Manager

RE: Biosolids Shipping and Alternatives Selection Process

This memorandum provides background information on shipping of the biosolids and clarifies the alternatives selection process from Phase I to Phase II for the biosolids evaluation.

Shipping History:

After the CBJ biosolids incinerator was decommissioned in 2010, the City and Borough of Juneau (CBJ) began landfilling the wastewater biosolids through a contract with Waste Management (WM); this temporary measure was employed while a long-term solution was sought. WM subcontracted biosolids transportation between Juneau and Seattle via barge with Alaska Marine Lines (AML) and from Seattle to Arlington, Oregon via rail with Union Pacific Railroads (UP) for the final disposal in the Columbia Ridge Landfill. At the time, shipping and landfilling appeared to be an acceptable and cost effective way to manage the problem on a short-term basis. Operationally, however, the shipping process was challenged from the start. The first real signs of trouble occurred in the summer 2012 when the turnaround time on the shipping containers was insufficient; as such, shipping stagnated and biosolids began accumulating at the facilities. The truly tenuous nature of shipping biosolids became more apparent by the week. Then, during the hot and sunny 2013 summer, the WM owned shipping containers created an even more problematic scenario where both AML and UP refused to transport the biosolids due to leakage, odor, potential contamination of other shipped products and transportation employee health concerns. Immediate action needed to be taken, CBJ purchased 60 specifically designed and constructed sealed biosolids-hauling containers and continued efforts to identify a long-term solution. In late 2013, AML became the only barge line in/out of Juneau. Then in early 2014, the original WM disposal contract expired, requiring CBJ to sign a new 5-year contract with WM. This new contract allows WM to walk away at any time with no consequences leaving CBJ in a perilous situation. If a long-term option is not implemented soon, CBJ could be left with no way to ship out the biosolids and no local alternative for disposal.

Alternatives Selection Process:

This section explains how the ten (10) treatment and (3) disposal alternatives developed in 2012/2013 under the Phase I TetraTech 'Biosolids Management System Alternatives Study and Matrix' were refined to the four (4) options examined in the 2014 CH2M Hill 'Biosolids Treatment and Disposal Evaluation – Phase II'.

In the Phase I study, CBJ worked with Tetra Tech to provide a general overview of 10 treatment processes and 3 disposal strategies. The goal was to understand the spectrum of treatment and disposal options that may be viable for Juneau. During the process of research and evaluation, the following two governing principles were established for further analysis and decision making:

- **Produce a Class A biosolid.** This refers to the United States Environmental Protection Agency (USEPA) classification for biosolids pathogen characteristics. A Class A product meets the most stringent pathogen standards, is considered safe for public use, and has the least disposal restrictions; for example it can be used as topsoil in residential gardens.
- **Reduce the volume of the biosolids.** Disposing of biosolids costs money. The more biosolids we have to dispose, the more expensive it is. Juneau has very little land that is of suitable size (multiple acres), flat, uplands, and in areas with compatible uses.

As scoping for the 2014 Phase II study began, the following governing principles were added to further define requirements of the long-term biosolids solution:

- **Allow for multiple end uses enabling ease of disposal.** Available disposal options include landfilling, monofilling, land applying (as a soil amendment), or burning (as a fuel source). Unfortunately, ground appropriate for a monofill or land application is limited, the landfill is nearing its capacity (within 20 years), and the market demand for a soil amendment product is uncertain.
- **Is classified as an established or innovative technology as defined by USEPA for system reliability.** An established technology is used at more than 25 facilities in the United States. An innovative technology may be established overseas but has some degree of initial, full-scale tested use in the United States.

Several of the Phase I study alternatives focused on the improvement to overall plant performance and subsequently required additional treatment processes to produce biosolids that could be handled and disposed locally. **Defining an improved biosolids treatment technology that allows for a long-term disposal solution is the key focus for this project.** As such, alternatives from the Phase I study were evaluated and the elimination rationale is described below:

Aerobic digestion could improve the overall treatment performance and reduce the quantity of biosolids produced but would only produce a Class B product (which has few to no local reuse options). With a low solids content, the end product makes handleability very difficult. To allow for local disposal, this treatment technology would require further treatment, and was therefore eliminated.

Composting was not carried forward into Phase II due to the uncertainty in market demand for the large volume of end-product and the consistent supply of significant quantities of buffering materials, such as wood chips or tires. Further, the process requires a large, flat, upland area of ground for operation and maintenance of the facility.

Anaerobic digestion is primarily a wastewater treatment process enhancement which was not advanced to the Phase II study. It has the capacity to produce Class A or Class B biosolids but would generally require additional treatment to make an end-product suitable for handling and disposal considerations. Additionally, its explosive byproduct generation poses a real public health and safety risk. However, it may produce biogas or other products that could be recycled as heat or fuel but typically requires a waste stream larger than the current CBJ volume and a significant capital infusion to operate as such.

Autothermal thermophilic aerobic digestion (ATAD) would alter the existing treatment process by the introduction of heat and aerobic digestion. Moderate amounts of biosolids would be produced from the ATAD process with low total solids content, requiring additional treatment to enable local disposal. This realization at the beginning of the Phase II study eliminated it from further consideration.

Supercritical water oxidation was not further analyzed as it is still in the research and development phase, considered embryonic technology as defined by the USEPA.

Lime stabilization produces a Class B biosolids which has few to no options for reuse locally. It produces more biosolids than the current status-quo operations. Additionally, lime is very caustic and working conditions can be hazardous.

Lime plus heat stabilization produces biosolids of significant quantities having low total solids content. Handling the biosolids and finding end disposal of this product would be difficult. Additionally, lime is very caustic and working conditions can be hazardous. Therefore, both lime stabilization and lime plus heat stabilization were eliminated from further study.

Various other vendors and interested parties have contacted CBJ with technology proposals (many embryonic and experimental) for wastewater and biosolids treatment. Each of these proposals has been evaluated by the consultants against the goals and governing principles of the project.

Consequently of the Phase I study alternatives, **incineration** and **heat drying** remain viable options with the **status-quo** for comparison. A fourth alternative, **heat drying with a furnace**, was proposed by CH2M Hill in Phase II as it met the goals and governing principles for the project. The CBJ project team added this final alternative to the study as it significantly reduced the end-product volume, allowed for energy recovery, minimized operation and maintenance costs, offered multiple disposal options, and presented a local solution to the biosolids treatment and disposal issue.

**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

Biosolids Update - Solid Waste Planning Re-Cap

ATTACHMENTS:

	Description	Upload Date	Type
☐	Oct 20 2014 Staff Memo - Solid Waste Planning	10/23/2014	Cover Memo
☐	Oct 22 2014 - CH2M Hill Report - Combined Treatment and Disposal of MSW and Biosolids	10/23/2014	Report



Engineering Department
155 South Seward Street
Juneau, Alaska 99801
Telephone: 586-0800 Facsimile: 463-2606

TO: Mary Becker, Deputy Mayor
Chair, Assembly Committee of the Whole

DATE: 10/20/14

FROM: Rorie Watt, P.E., Director

SUBJECT: Solid Waste Planning

The Assembly has been interested in information regarding the potential joining of bio-solids disposal solutions with some type of garbage (municipal solid waste, MSW) incineration or alternative disposal. This memo reviews the technical aspects of co treatment and disposal as well as the history of solid waste planning in the CBJ.

Co Treatment and Disposal of Biosolids and MSW

The short answer as described in the attached Technical Memo #4 from CH2M Hill is that Juneau's waste stream, whether or not combined with our bio-solids, is not of sufficient quantity to make a co-incinerator economically feasible.

Adding the rest of SE Alaska into the waste stream still does not create enough waste to make such a system economically desirable.

It is true that other entities have pursued smaller waste destruction or waste to energy facilities, but they have only done so under one or more of the following conditions, none of which we experience:

- A. Experimental Programs
- B. Venture Capital
- C. Large Outside Grants
- D. High prevailing power rates
- E. Department of Defense Experimental Budgets
- F. Strict Land Use Regulations that prohibit or limit landfilling of MSW

It is critical that we make a decision about the disposal of biosolids. Our current method of taking biosolids and trucking them and loading into containers, barge shipping, rail shipping and out of state disposal is not sustainable. There are three reasons that solid waste planning should not delay decision making and implementation of a biosolids solution:

1. Heat Drying Is Compatible with Incineration

Even if an incinerator or other heat destruction technology were accessible at our scale, biosolids would have to be dewatered before they could be destroyed in that system. Therefore, heat drying, as proposed, is not out of sync with a MSW/Biosolids Incinerator.

2. Biosolids/MSW Co Treatment Timeline is 10-20 Years

Planning, funding, permitting, designing and constructing an MSW/Biosolids Incinerator is likely to take at least a decade, possibly two. By the time an incinerator could be financed, permitted and constructed, a biosolids heat dryer constructed today would have been used for at least half of its useful life and would be continued to be used to dry the watery biosolids.

3. Land Acquisition Adds Time and Money

The CH2MHill authors point out that an incinerator would require 10-15 acres of land in an industrial area. Identifying a parcel of industrial land that large, in and of itself, would be a very difficult, time consuming and expensive task.

Solid Waste Planning:

In the late 2000's the Assembly pursued a comprehensive solid waste management strategy. The goal was essentially to do something better than the dump. Solid waste planning experts were hired and reports and recommendations were produced in 2007 and 2008. A number of highly informative documents can be found at:

<http://www.juneau.org/pubworks/projects/SWMS/index.php>

I have attached the executive summary of the Solid Waste Strategy – it made twelve key recommendations about how Juneau could plan for the future. In 2010, for various reasons, the Assembly was unable to pursue the plan's two key components:

1. Securing the RCA Certificate for Refuse Collection
2. Implementing mandatory refuse collection

CBJ Solid waste planning ended in March 2010 when the Assembly voted to table the planning effort due to what seemed at the time insurmountable obstacles.

The landfill is privately owned by Waste Management. The garbage collection business is a franchise that is privately owned by Arrow Refuse. Both businesses are regulated by the State, not the City. The City currently has no control over the garbage, garbage is a business. However distasteful and potentially short sighted, Arrow Refuse and Waste Management are providing the public with the lowest cost garbage disposal option.

Juneau can be as dissatisfied as its wants to be with WM or Arrow for the current situation, but in the end, neither company gets to make the rules. They operate their businesses to generate profits for their owners and from a business perspective this makes sense. Juneau citizens provide garbage and money to the equation, and in contrast to the business approach, we also contribute philosophical goals of sustainability, aesthetics, and a desire for the smart use of resources. The executive summary of the Solid Waste Strategy states that

“... the issue before the Assembly was a fundamental policy call as to what the City should or should not be doing regarding solid waste. The City has long range solid waste goals. The

Assembly has passed resolutions and comprehensive plan policies regarding integrated solid waste management regarding recycling and there has been a fundamental disconnect with those goals and the City's ability to influence those goals, given that the landfill and the separate waste hauling service are both owned by private companies."

Recommendations:

We are in the midst of budgetary difficulties. While we are unsatisfied with the dump, it is unclear if we are sufficiently unsatisfied that we are willing to expend the funds or make the policy changes necessary to change the current garbage equation. I recommend that the Assembly do the following:

1. Study the previous planning effort. It is a detailed nuanced issue.
2. Continue solid waste planning only at such a time that Juneau is ready to:
 - a. Secure the RCA Certificate from Arrow
 - b. Provide revenue necessary to pay for the certificate
 - c. Set aside or purchase industrial land for an incineration facility
3. Solve the biosolids disposal problem now as step towards solving all of Juneau's waste disposal issues.

City and Borough of Juneau Solid Waste Strategy Executive Summary

February 2008

Prepared by

WIH RESOURCE GROUP
Environmental & Logistical Solutions™

In association with



**zia engineering
& environmental
consultants, llc.**



BELL & Associates, Inc.

City and Borough of Juneau Solid Waste Strategy

Executive Summary

Background

In early 2007, the City and Borough of Juneau (CBJ) retained WIH Resource Group (WIH) to assist with conducting a long range solid waste management strategy and alternatives analysis. In order to achieve the City's objectives, the project work was performed in two phases. Phase one consists of information gathering and preliminary analysis and Phase Two work consists of identifying, analyzing and making recommendations on alternatives.

The final report provides a strategy for implementing environmentally prudent and cost-effective integrated solid waste management components to enhance or upgrade the CBJ's existing solid waste management and recycling systems. The strategy begins with an overview of the CBJ's existing solid waste management system and the subsequent sections of the strategy discuss individual solid waste programs in detail.

Some driving factors resulted in prompting the City to undertake this long-range solid waste management strategy and alternatives analysis. Specifically, in 2004 the private landfill operator ceased operations of its two incinerators (that had been operating for approximately 20 years) and returned to direct landfilling of the CBJ's solid waste. This forced the City to become more involved in solid waste and special waste management such as disposal of medical waste.

Since the closure of the incinerators, the landfill is growing and a mound of solid waste is visible from the adjacent highway and is generating interest from the public. Items of concern include the visual impact of the landfill mound as well as the long-term environmental effects of direct solid waste disposal near the wetlands of Lemon Creek. The incinerator closure has also meant that more birds have been attracted to the landfill, causing concern for aircraft safety, as the airport is located nearby. These visible solid waste issues were the impetus for the project. In addition, a large segment of the community continues to push for increased opportunities to recycle.

The data, information, analysis, conclusions, and recommendations in the Solid Waste Strategy consider the planning period from 2007 to 2030.

The original Request for Proposals (RFP) issued by the CBJ for a Solid Waste Management Strategy stated the Strategy should address methods of achieving Juneau's commitment to integrated solid waste management practices as expressed in the Comprehensive Plan and Assembly Resolution 1433 (March 19, 1990). Those practices are, in order of priority:

- Waste reduction,
- Recovery / recycling of resources,
- Recovery / recycling of heat or electricity from waste incineration,
- Treatment and processing of waste to reduce volume,
- Waste incineration, and,
- Landfilling in an environmentally sound manner

Given these priority objectives, two key questions were considered and contemplated by the WIH Resource Group Project Team, the SWWG and the CBJ staff throughout the course of the project as follows:

1. What is the future role and involvement of CBJ in solid waste management?
2. What form of "control" should the CBJ have over solid waste management and what is the rationale for this?

The central conclusion is that under present circumstances the CBJ has only marginal control and leverage in the present solid waste system and this is not consistent with having extensive public policy expectations, priorities, and objectives for solid waste management.

Solid Waste Strategy Planning Process

The WIH Project Team developed the Solid Waste Strategy by visiting Juneau on four separate trips and having discussions with public and private sector representatives about solid waste management conditions and needs. There was ongoing cooperation and coordination with the various representatives for the purposes of gathering data and sharing ideas. The information used in preparing the Solid Waste Strategy is the most accurate data that the WIH Project Team was able to obtain, either through published reports, interviews with personnel, or from records

kept by the appropriate governmental entity / department. Material, data, and comments have also been specifically provided by Arrow Refuse and Waste Management, Inc. as the local refuse collection and disposal service providers respectively for the CBJ and its citizens.

The WIH Project Team approached the analysis of the CBJ's solid waste management issues and alternatives from an integrated perspective. The various practices and operations that characterize how solid waste is handled in a given area are viewed as the related components of a solid waste management system. Consideration of individual elements is done within the framework of the whole program and involves examining how they are related and conflict with, or support, each other.

A Solid Waste Working Group (SWWG) was formed to provide feedback to the WIH Project Team and CBJ Staff and Assembly as to the contents of the Solid Waste Management Strategy as it was being developed. Four meetings of the SWWG were held. The SWWG consisted of eight members made up of residents from the community both in public roles, with the City and Borough of Juneau, as well as members from privately held companies and other citizens. The Project Manager for the CBJ recruited members of the SWWG.

With assistance from the City and Borough of Juneau (CBJ) staff, the CBJ's Solid Waste Working Group (SWWG), City contracted, non-contracted private service providers, and other key stakeholders, the WIH Resource Group Project Team gathered data to characterize how solid waste and recycling is managed within the CBJ including a list of programs, quantities collected, and planning-level cost estimates. The components of the current solid waste management system include:

- Solid waste collection
- Privately owned landfill
- Recycling drop off program
- Special waste management – Junked Vehicles
- Urban Bear Ordinance enforcement
- Household hazardous waste (HHW) management
- SE Conference (SEC) regional solid waste management efforts
- Public Education

The final report provided to the CBJ by WIH Resource Group provides the CBJ with recommendations for the long-term management of solid waste considering cost effectiveness, service to the community, and the ability to achieve the City's goals of integrated solid waste management. The analysis includes planning-level costs for various alternatives plus short-term (1-5 years), mid-term (5-10 years), and long-term (20-30-years) implementation recommendations.

Solid Waste Strategy Recommendations

The process for preparing the Solid Waste Management Strategy for the CBJ consists of a series of logically connected technical steps and feedback interactions involving the WIH Project Team, the SWWG, CBJ Staff and the CBJ Assembly.

The recommended solid waste management strategy is designed to build on the strengths of the present system by encouraging further development of the private refuse collection / disposal and recyclables processing / marketing operations but with CBJ providing more substantive program / policy guidance and contractual oversight.

The recommendations are intended to be considered, approved, and implemented as integrated package instead of on an item-by-item basis. This approach offers a comprehensive rather than a piecemeal strategy for addressing the CBJ's solid waste priorities. The recommendations are also intended to be consistent with the analysis regarding solid waste issues affecting the CBJ.

The core twelve recommendations of the Solid Waste Management Strategy that were developed by the WIH Project Team for the CBJ are to be implemented during the time frame 2008 to 2012. The specific twelve recommendations are as follows:

1. Continue to Use Waste Management (WM) Landfill for Disposal
2. Hire Solid Waste Coordinator
3. Adopt Policy on Universal Trash & Recycling Collection Service
4. Transfer Arrow Refuse RCA Certificate to CBJ

5. Form Contractual Partnerships Between CBJ, Arrow Refuse, & Waste Management
6. Secure Land for Multi – Purpose Materials Recovery Facility (MRF)
7. Design & Implement Fully Automated Residential Refuse Collection with Variable Rates
8. Design & Construct a Material Recovery Facility (MRF)
9. Design & Implement Promotion, Education, Outreach (PEO) Plan
10. Design & Implement Residential Recycling Collection Service
11. Design & Implement Commercial / Institutional Recycling Collection Service
12. Develop Recycling Standards for Designated Construction & Demolition Projects

Recommendations # 2 (Transfer Arrow Refuse RCA certificate to CBJ) and # 5 (Form a long – term contractual partnership between the CBJ, Arrow Refuse, and Waste Management, Inc. for a minimum period of 10 years) are the essential basis for the other recommendations and for the overall solid waste management strategy.

Once transfer of the Certificate of Public Convenience and Necessity from Arrow Refuse to the CBJ has been officially approved by the RCA then a contract for solid waste services can be established directly between CBJ and Arrow Refuse without involvement of the RCA. As part of the contract negotiation service rates would be determined.

Adoption of Solid Waste Strategy by CBJ Assembly

A special meeting of the City and Borough of Juneau Assembly (Special Assembly Meeting 2007-29) was held in the Assembly Chambers of the Municipal Building on November 29th, 2007. At the meeting, members of the WIH Resource Group Project Team, along with CBJ Staff, made presentations to the Assembly about the Solid Waste Strategy recommendations.

The WIH Project Team made a PowerPoint presentation and distributed a modified implementation schedule to the “Final Draft of the Solid Waste Management Strategy for the City and Borough of Juneau,” dated November 30, 2007, by the WIH Resource Group, in association with Zia Engineering and Environmental Consultants. The Solid Waste Working

Group (SWWG) had reviewed the plan before it was presented to the public and the Assembly and outlined a modified Section 8.0, Table 7, and Implementation Schedule for review.

The CBJ Project Manager explained that the issue before the Assembly was a fundamental policy call as to what the city should or should not be doing regarding solid waste. The city has had long range solid waste goals. The Assembly has passed resolutions and comprehensive plan policies regarding integrated solid waste management regarding recycling and there has been a fundamental disconnect with those goals and the city's ability to influence those goals, given that the landfill and the separate waste hauling service are both owned by private companies.

After the presentation and a question and answer session, members expressed conceptual agreement with the direction recommended by this process, and said they looked forward to working with Waste Management and Arrow Refuse to move the CBJ forward.

Assembly Member Doll complimented the CBJ's Project Manager and the WIH Resource Group Project Team for the product of their work.

Acknowledgements

The WIH Resource Group Project Team would like to extend its appreciation to the following municipalities, agencies and companies that provided the WIH Project Team and the CBJ with critical information and key data throughout the project that assisted in the development of the Solid Waste Strategy for the CBJ.

A significant amount of time, effort, research and analysis went into the development of the CBJ's Solid Waste Strategy and the WIH Resource Group Project Team extends its sincere appreciation to those who participated in the project. The following participating parties are listed in alphabetical order.

- ADEC – Alaska Department of Environmental Conservation
- Advanced Combustion Services (ACS, Inc.)
- Alaska Electric Light and Power Company (AEL&P)
- Alaska Marine Lines
- Allied Waste Services
- Arrow Refuse
- Channel Construction, Inc.
- City and Borough of Juneau Alaska - Staff; Solid Waste Working Group; City Manager; Public Works Director; Assembly Members and the Mayor
- City of Ketchikan Public Works Department
- Idaho Waste Systems
- Northland Marine
- Philips Services (PSC) Burlington Environmental
- Regulatory Commission of Alaska (RCA)
- Southeast Conference
- Waste Connections
- Waste Management, Inc.

We apologize for any parties that may have been unintentionally omitted from this Acknowledgement.

Biosolids Treatment and Disposal Evaluation – Phase II

Options for Combined Treatment and Disposal of MSW and Biosolids

PREPARED FOR: City/Borough of Juneau (CBJ), Alaska

PREPARED BY: CH2M HILL

DATE: October 22, 2014

1.0 Introduction

The purpose of this technical memorandum (TM) is to provide a general summary of options for combined treatment of municipal solid waste (MSW) and sewage sludge (biosolids), with a focus on incineration and gasification thermal conversion technologies. Conversion technologies are methods of treating or converting MSW and biosolids into a more stable or useful form. Thermal conversion technologies are methods of converting MSW and biosolids into heat or energy. MSW and biosolids are the feedstock for the thermal conversion process.

2.0 Background

This section provides background on the generation and management of Juneau's MSW and CBJ's biosolids.

2.1 Municipal Solid Waste

MSW is refuse or garbage generated by residents or businesses in Juneau. The Capitol Landfill in Juneau is privately and jointly owned by Capitol Disposal Inc. and Waste Management, Inc. (WMI). Arrow Refuse, a subsidiary of Alaska Pacific Environmental Services, holds the exclusive rights for MSW collection in Juneau. MSW is hauled by Arrow Refuse or self-hauled by retail customers to the Capitol Landfill. MSW disposed in 2013 was 26,449 tons (Vance, 2014). Construction & demolition waste (C&D) disposed in 2013 was 4,585 tons (Vance, 2014). These totals do not include recyclables that were diverted at the Recycling Center. The remaining service life of the Capitol Landfill is estimated to be approximately 20 years (Vance, 2014).

2.2 Biosolids

Biosolids are generated at each of the three wastewater treatment plants (WWTP) in Juneau (Auke Bay WWTP, Mendenhall WWTP, and Juneau-Douglas WWTP) for a combined total of 6,993 wet tons in 2013 (CH2M HILL, 2014). The City/Borough of Juneau (CBJ) disposes of these biosolids via contract with WMI. In 2013, 12% of Juneau's biosolids were disposed at the Capitol Landfill in Juneau and 88% were shipped south and disposed at the Columbia Ridge Landfill in Oregon. Biosolids are dewatered to 14 - 16% by belt filter press at the Mendenhall and Juneau-Douglas WWTPs, but most of the biosolids are not digested before shipping. Future disposal of biosolids at the Capitol Landfill is not considered feasible because of volume, space and operational constraints, especially regarding odor generation (Vance, 2014). Shipping of biosolids to Oregon has also been problematic because of odors generated by the biosolids as this material decomposes during storage, shipping and transport. CBJ is evaluating local options for managing biosolids in Juneau.

3.0 Current Technologies to Treat MSW and Biosolids

There are very few technologies that can effectively co-treat MSW and biosolids. Brief descriptions of available conversion technologies are included below:

- Co-disposal means burial of biosolids together with MSW in a landfill.
- Co-composting is a conversion technology involving composting of biosolids and the organic portion of MSW under controlled conditions with a bulking agent like wood chips. The organic portion of MSW would be separated from the rest of the waste stream. If the right conditions are met during composting, then the finished compost can be certified for unlimited use.
- Co-digestion is a conversion technology involving anaerobic digestion of biosolids and the organic portion of MSW. Anaerobic digestion is the controlled breakdown of organic materials under anaerobic (no oxygen) conditions in a closed tank to yield bio-gas. Bio-gas can be used to generate heat or make electricity. The material left over after the digestion is called digestate, which also requires disposal.
- Incineration is a thermal conversion technology involving the combustion of biosolids and MSW to produce heat. The heat is typically converted to steam for power generation. Byproducts of incineration include flue gas (the combustion gasses) and ash. Mass-burn incineration involves direct combustion of the waste with little to no prior sorting, and is the most common form of incineration.
- Conventional gasification is a thermal conversion technology where biosolids and MSW (feedstock) is partially oxidized under air-starved conditions to produce synthesis gas (syngas). The syngas can be converted to energy or liquid fuels.
- Plasma arc gasification is a thermal conversion technology where biosolids and MSW (feedstock) is thermally decomposed to primary atoms under the intense heat of the plasma arc to produce syngas. The syngas can be converted to energy or liquid fuels.

Co-disposal is not feasible at the Capitol Landfill because of physical difficulties placing, compacting, and burying the biosolids. Co-composting is not feasible in Juneau because it requires lots of space (large areas of flat, uplands that are away from neighborhoods or commercial areas or incompatible use areas), and such space is not available in Juneau. Co-digestion will also require shipping or composting of the digestate (approximately 70 to 90% of the original feedstock), which is not considered feasible for Juneau because of the desire to avoid shipping of waste, and the lack of available space for composting as noted above.

Technologies like co-composting and co-digestion can treat the biosolids, but can only treat the organic part of the MSW. The remaining inorganic portion of the MSW (typically 60 to 70%) must still be managed via landfill or other process. Also, the high moisture content of the biosolids is detrimental to the thermal conversion of the combined organic waste. Driving out the 80% to 85% moisture from the biosolids takes significant energy which reduces thermal conversion efficiency. For large thermal conversion systems where the percentage biosolids to MSW is small (e.g., large mass burn incinerator operations in Europe and the eastern US), the addition of a small percentage of wet biosolids does not significantly impact system operations. However at Juneau where the percentage of biosolids is approaching 25% of the total waste mass, the efficiency of the thermal conversion system would be significantly decreased unless the biosolids were dried prior to thermal conversion.

CH2M HILL is not aware of any cities in the US with a waste generation rate similar to Juneau's where biosolids and MSW are being thermally co-treated. Juneau's relatively small volume of MSW is not sufficient to achieve the economy of scale necessary for an economically viable project. If the waste from all the other communities in Southeast Alaska (approximately 80 tons/day) were to be delivered to Juneau, the economy of scale would be more favorable but still falls short of the amount required to make the project economically viable using established thermal conversion technology, based on the cost and scale of other projects. Today in the U.S., the minimum volume for economic viability for a waste-to-energy mass-burn incinerator appears to range from 200 tons/day to 500 tons/day based on local conditions and situation. Juneau's tonnage is approximately 87 tons/day with MSW and biosolids combined.

It is not possible to estimate costs for thermal conversion technologies specific to Juneau without in-depth development of a design basis, followed by obtaining vendor quotes for equipment. Some cost information is available in the literature, but they vary widely and pose a high risk in using such numbers for CBJ's planning decisions. Relying on cost factors from the technical literature is not recommended because:

- Most available cost numbers are for systems much larger than Juneau, so costs of other facilities would need to be scaled to Juneau's tonnage. There are substantial fixed costs associated with thermal treatment, so scaling is not likely to be accurate.
- Cost factors from other projects will not be specific to Juneau's situation (i.e., location factors, site constraints, cost of fuel and utilities, etc.)
- Cost factors from other projects do not necessarily correspond to the co-treatment of biosolids and MSW, and certainly not in the ratios of biosolids to MSW that Juneau experiences.

The cost ranges provided in this TM are based on a literature review and CH2M HILL professional judgment.

The status of technology development is very important. There are no conventional or plasma arc gasification facilities operating on a commercial scale in the US. CH2M HILL strongly recommends that CBJ avoid these technologies because they are not established and the risk of system failure is too high.

A summary of conversion technologies that have been used to treat both MSW and biosolids is shown in Table 1 (next page). The remainder of this Technical Memorandum focuses on thermal conversion technologies.

4.0 Permitting, Siting, and Public Health Issues

A federal Title V air permit would be required for any thermal conversion facility. Also, a Minor Source Permit may be required under 18 Alaska Administrative Code (AAC) 50.502. Both permits will likely apply the standard operating permit conditions of 18 AAC 50.346. Incinerators are specifically regulated in 18 AAC 50.050 – Incinerator Emission Standards. Emissions are limited both by concentration and by weight per unit time. Incinerators have particulate matter (PM) limits that apply to MSW and biosolids.

The Mendenhall Valley area of Juneau has been designated by the EPA as “nonattainment” for PM-10, meaning that the air quality does not meet the ambient standard for small particulate matter with a diameter of 10 micrometers or less. However, through the implementation of a wood smoke control program and paving of unpaved roads, the PM-10 levels measured in the Mendenhall Valley have been about a third of the 24-hour standard since the year 2000. The Alaska Department of Environmental Conservation (ADEC) is currently in the process of downgrading Juneau’s PM-10 status to maintenance. The PM-10 nonattainment issues are not a factor in the ability to obtain a Title V operating permit.

With air pollution control systems, we believe the emissions from the existing facilities and a thermal conversion system should easily meet existing minor source limits or be below levels even requiring a Minor Source Permit. In that case, only the Title V Operating Permit would be required. However, obtaining a Title V Operating Permit is still a substantial undertaking and it would impact any other onsite emissions sources (such as emergency generators) as well.

A thermal conversion facility including access, waste pre-processing, and on-site power generation facilities would require a minimum of 10 to 15 acres of land. Such a facility would be fenced and self-contained, but would not be suitable for residential neighborhood due to traffic, noise, and odors associated with the incoming waste and operations. The facility should be located in an industrial area with a sufficient buffer to minimize complaints from neighbors.

It is expected that the primary public health and safety concern about operation of a thermal conversion facility would be related to air quality. A new thermal conversion system at Juneau’s scale would be required to have state-of-the-art air emission controls. A public relations effort, working closely with ADEC, would be recommended to address this and other health and safety issues if CBJ moves forward with this option.

TABLE 1

Technology	Description	Status	Pre-processing Required	End Product	Use or Disposal	ROM Capital Cost ¹	ROM O&M Cost ²	Biosolids type accepted
Co-disposal	Co-disposal of MSW and biosolids in a landfill	Established	Not required	Landfill	Landfill	Not feasible at Capitol LF due to biosolids placement problems and lack of space	Not feasible at Capitol LF due to biosolids placement problems and lack of space	80-85% moisture (no additional drying required)
Co-composting	Composting of biosolids and organic fraction of MSW	Established	Separation of organics, bulking, mixing	Compost	Compost	Not feasible due to lack of space	Not feasible due to lack of space	80-85% moisture (no additional drying required)
Co-digestion	Anaerobic digestion of biosolids and organic fraction of MSW	Established	Separation of organics, mixing	Digestate	Compost	Not feasible due to lack of space for composting digestate	Not feasible due to lack of space for composting digestate	80-85% moisture (no additional drying required)
The following are all classified as thermal conversion technologies								
Mass Burn Incineration	Combustion with oxygen to produce energy and flue gas	Established	Not required	Ash	Landfill	\$70M - \$200M	\$2.3M - \$3M	30 to 40% moisture (additional drying required)
Conventional Gasification ³	Partial oxidation to produce syn gas	Innovative - no commercial facilities in U.S.	Sorting	Ash	Landfill	\$60M - \$120M	\$2.5M - \$3M	30 to 40% moisture (additional drying required)
Plasma-arc gasification ³	Thermal decomposition under intense heat to produce syn gas	Innovative - no commercial facilities in U.S.	Sorting, shredding	Slag	Aggregate/ Landfill	\$50M - \$70M	\$2.5M - \$3M	30 to 40% moisture (additional drying required)

Notes

ROM - Rough order of magnitude

¹ References: EPA, 2012; Clark, 2010; SCS, 2009; World Bank, 1999; UK Government, 2013. \$20M has been added to each thermal conversion technology for heat drying of biosolids. Many sources note that costs are highly variable. Caution should be used when using these numbers for planning.

² References: SCS, 2009; Clark, 2010. Higher value for range from SCS, 2009 used for all technologies. \$1M has been added to each thermal conversion technology for heat drying of biosolids. Caution should be used when using these numbers for planning.

³ These innovative technologies are not recommended due to high risk of failure.

5.0 Facility Operation, Staffing, and Safety

Thermal conversion facilities can be highly complex and require trained professionals to operate and maintain. Whereas a biosolids incinerator burns only dewatered biosolids of a fairly consistent nature, an MSW/biosolids facility must have very careful and consistent mixing of the variable feedstock, which requires considerably more attention on the front end. Also, the higher operating efficiencies of today's thermal conversion facilities require more sophisticated controls, and the equipment has more sophisticated needs for maintenance. It is common for facility owners to have an operating agreement with the technology supplier for operation and maintenance of the system. Alternately, CBJ could hire or train employees to operate the facility with periodic support from the technology suppliers. Waste would be supplied via a collection contract, and ash would be transported to the landfill via contract. Electrical power generation facilities or heat-recovery facilities could be maintained under separate contract or by the local electrical utility. The coordination and planning activities associated with procuring and operating thermal conversion technologies are quite complex.

Strict health and safety procedures would be implemented inside the facility to protect workers. Process safety would be carefully evaluated during technology selection to ensure that the equipment was designed to prevent explosions, fires, uncontrolled emissions, or other hazards to the nearby community.

6.0 Risk Factors

Risk factors include: project cost overruns, technology failure or lack of performance, bankruptcy of technology provider(s), additional costs for disposal of residuals (e.g., ash), and increased costs from future tightening of regulations. These types of risks tend to be elevated when the technology is not established. Some of these risks can be addressed via careful drafting of the supply and operating agreements. Other risks can be addressed via waste screening and sorting. Specifically, procedures would be implemented to identify and remove dangerous wastes such as explosive gas cylinders and flammable or toxic waste to prevent damage of the facility or release of uncontrolled emissions in violation of operating permits.

7.0 Timeline for Implementation

Implementation timeline depends on contract arrangement and delivery approach. The initial planning tasks may take several years, and involve critical decisions such as selection of technology, securing funding, and site selection. These decisions usually require time-consuming political and public involvement.

Including technology selection, funding and site selection, the time required for project implementation could easily take 10 years or more.

Once funding has been secured and both site and technology have been selected, the timeline for permitting, design, and completion of construction would range from 5 to 8 years with the standard design, bid, and build delivery approach. The design-build approach can reduce the time to completion, but likely not less than 4 to 5 years.

8.0 Control of Waste Stream

There are at least two existing, contractual issues that would need to be resolved before CBJ could send MSW to a new thermal conversion system:

1. Arrow Refuse is the owner of the Regulatory Commission of Alaska (RCA) solid waste collection certificate for Juneau, giving them exclusive rights to waste collection and therefore disposal. One of the main recommendations from the 2008 Solid Waste Management Plan was that CBJ work to transfer this certificate from Arrow Refuse to CBJ. CBJ will be unable to direct waste disposal until transfer of this certificate is completed.

2. There is an existing contract between WMI and Arrow Refuse which stipulates that Arrow Refuse will take all MSW collected within Juneau to the Capitol Landfill for the duration of the contract. The expiration date on this contract is December 31, 2021. The disposal rates in this contract provide the basis for the RCA-regulated collection rates. This contract would have to be vacated or amended before CBJ could send the MSW to a thermal conversion system.

9.0 Recommendations

Based on our professional experience and research, the expected capital and operational costs for an established mass-burn incineration system with or without energy recovery are still likely too high to be feasible for current application in Juneau. The Capitol Landfill is expected to last another 20 years before it has to be closed, and it does not make economic sense to abandon landfilling of MSW while there is still remaining capacity at the Capitol Landfill. It might be possible to extend the remaining landfill even longer if additional controls could be imposed on the waste stream, but enacting such controls takes time, and CBJ lacks the necessary control of the waste stream that would be required to implement near-term changes to the current waste disposal.

New generations of thermal conversion technologies for MSW and biosolids like conventional gasification and plasma arc gasification are in commercial operation in a few facilities in Europe and Asia, in at least one demonstration scale project in Canada, and are progressing toward commercialization in the U.S.; however, these technologies still lack the necessary operating record in the U.S. to be seriously considered cost competitive viable alternatives for Juneau at this time. The implementation of these technologies in other countries has been based on two key conditions that make the facilities economically feasible: 1) extremely high costs for landfill disposal, primarily based on laws and regulations that preclude or severely restrict disposal of MSW in landfills, and 2) premium prices for renewable electricity generated by the thermal conversion facilities. In Juneau, neither of these conditions currently exist.

It is acknowledged that in approximately 20 years when the Capitol Landfill reaches capacity, there is expected to be no available space in Juneau for another landfill, so a different type of waste management solution will be required. Based on the progress of thermal conversion technologies in that past decade or so, it appears quite possible that some type of thermal conversion with energy recovery and volume reduction could be in Juneau's future.

CH2M HILL recommends that the CBJ start soon to carefully plan the transition from landfill to a different waste-management solution—possibly one that involves a thermal conversion system. At a minimum, the planning process will need to address the following objectives:

- Eventual transfer of the RCA collection certificate from Arrow Refuse to CBJ
- Funding strategies
- Siting study and securing of site
- Technology research and selection
- Permitting strategies
- Integration of energy recovery
- Location for ash disposal.

Regarding future ash disposal, with no space for a new landfill, it may make sense to reserve capacity at the Capitol Landfill now for future ash disposal, which would mean less time for landfilling of MSW at the existing Capitol Landfill.

In summary, we recommend that CBJ continue to pursue a course of prudent integrated solid waste management including capture of recyclables, landfilling of MSW, and thermal drying of biosolids with heat recovery at one of the Juneau WWTPs.

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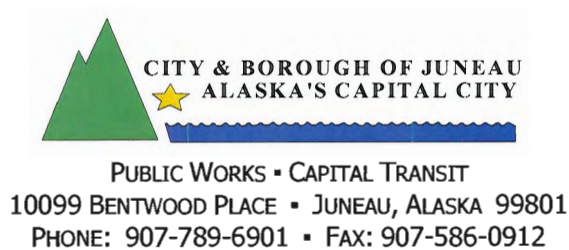
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**ASSEMBLY AGENDA/MANAGER'S REPORT
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

Capital Transit Revised Plan

ATTACHMENTS:

	Description	Upload Date	Type
☐	2014-10-27-Staff Memo - Capital Transit Plan Update	10/23/2014	Cover Memo



DATE: October 22, 2014

TO: Assembly Committee of the Whole

FROM: Kirk Duncan
Public Works Director

SUBJECT: Capital Transit Plan Update

At the August 18, 2014 COW, we reported on our plan to implement elements of the adopted 2014 Transit Development Plan. At that meeting, the committee members understood that Capital Transit drivers were quite critical of the plan, because the drivers felt that the travel times were unrealistic, leaving too little break and recovery time. The drivers' skepticism was well-founded. When we re-timed the route segments, we learned that the times used to develop the schedules were incorrect due to a communication error between the consultants and Capital Transit senior management. Management and drivers worked with our consultants from Nelson\Nygaard to revise again the routes and schedules. We now think we have workable routes and schedules that will allow Capital Transit to provide reliable service, realize many of the goals of the adopted plan, and operate within budget.

Key elements of the plan are:

- Projected run times will allow timed transfers to be achievable.
- Thirty minute service will be maintained during peak times.
- Service will start earlier in the morning Monday through Friday by approximately one hour and service in the evening will have more frequency and end at approximately the same time.
- Riverside Drive will be served between Stephen Richards and Mendenhall Mall Roads
- Service on Back Loop Road will be maintained.
- Service on Davis Avenue and Lemon Creek Road will be maintained.
- Buses will no longer enter the UAS campus.
- Mendenhall Loop Road between Stephen Richards and Mendenhall Mall Roads will no longer be served.
- Buses will no longer travel through the downtown loop of Franklin, Fourth, and Main Streets.
- Service in Douglas beyond the Post Office to St. Anne's Avenue will be eliminated.

- Transfers in the valley will be shifted north from the Nugget Mall to Pipeline Skate Park on Mendenhall Loop Road. (This change will be made in order to retain reliable 30-minute service; the site is the only one feasible that could be put into service in the near-term.)
- All buses will now travel to and from the Downtown Transit Center (DTC).
- The plan uses about 3 percent fewer operator hours than the current schedule.

There will be five Capital Transit routes:

Route #1 – Douglas

The route will terminate at Savikko Park. Transfers to the Valley Local bus will be at the DTC and there will be a 23 minute wait. Transfers to the Valley Express bus will be at the DTC with a 9 minute wait. Inbound express bus transfer to the Douglas bus will have an approximately 5 minute wait while the Valley Local bus to the Douglas bus will have an approximately 17 minute wait time.

Route #2 – North Douglas

Service will continue as it does today with one round trip in the morning and afternoon peak hours.

Route #3 – Mendenhall Valley Local

The frequency of service will remain every half hour until 5:22 pm, switching to hourly service for the remainder of the evening, similar to the current schedule. All transfers will be at the DTC and the Pipeline Park Station (PPS). The Valley Local bus will operate as it currently does from the DTC to the Federal Building, Juneau Douglas High School, the Hospital, Lemon Creek Road, and Fred Meyer. It will turn at the McNugget intersection onto Glacier Highway with the first stop on Glacier Highway near the Shell Simmons intersection.

After the bus leaves from the PPS traveling outbound, the bus will go to the Mendenhall Mall, up Riverside Drive (serving the Thunder Mountain High School, the Dimond Park Aquatic Center, field house and the new library) to Stephen Richards Avenue, then turn left on the Loop Road and travel around the Back Loop to Auke Bay, and back to the Mendenhall Mall before arrival at the PPS for transfers to the Express Bus.

Route 4X – Mendenhall Valley Express

The frequency of service remains every half hour except for the time period from 9:38 am to 2:38 pm when it will operate hourly service. However, (hourly) service will be provided until 10:08 pm, nearly four hours longer than the current Express route. The route of the Express Bus will be from the DTC to the Federal Building on Egan to the Airport then to the PPS for transfers to the Local Bus if desired. The bus will then travel to the Mendenhall Mall, on to Auke Bay, around the Back Loop Road to Stephen Richards Drive down Riverside Drive to the Mendenhall Mall back to the PPS. From the PPS the Express Bus will travel to the Airport, down Egan to the Federal Building and back to the DTC. The Express bus will not travel to the Nugget Mall.

The Express route will no longer provide service from the Back Loop Road directly into UAS. Passengers will walk from UAS to the newly installed Back Loop stop for service on either the Local or Express. Express bus Passengers wishing to go to the Nugget Mall from downtown will have the choice to either walk from the airport to the Nugget Mall or walk from the Valley Restaurant stop to the Nugget Mall. Alternately, passengers can also transfer from the Express at the PPS to the Local to get to the Glacier Highway/Shell Simmons stop to walk to the Nugget Mall.

Route 5 – Auke Bay Express

The route for the morning Auke Bay Commuter Bus will be from Auke Bay along Glacier Highway to the PPS to Fred Meyer continuing to Western Auto entering Egan Drive at Vanderbilt continuing to the Federal Building and the DTC. The afternoon route will be the reverse. The buses will commence operation 50 minutes earlier with the first bus arriving at the DTC at 6:24 am compared to the current 7:35 am. Afternoon departure times will be similar to the current times, but with revised timing to better integrate with the Mendenhall Valley Express.

The Capital Transit system is complex and has not changed in any significant way for many years. In order to explain the changes to transit customers and the community, Capital Transit staff will be holding a series of public meetings with locations, times and dates to be confirmed soon. When the still-to-be-determined implementation date approaches we will also advise current Capital Transit riders of the specific schedule and route changes.

Additional information will be posted on www.juneau.org/capitaltransit/
Customers will also be able to get information by calling 586-BUS1 (2871) or by e-mailing
Capital_Transit@juneau.org.