



June 17, 2024

Tyson Ames
MOS Director of Public Works
502 Main St.
Skagway, Ak 99840

SUBJECT: Municipality of Skagway Incinerator Engineering Design and Bidding Services Scope of Work and Fee Proposal.

Dear Mr. Ames:

RESPEC Engineers completed the 35% submittal in 2021 and as requested is now submitting fee proposal for the completion of Design, Bidding, and Permitting services for the Incinerator Replacement in Skagway. From the earlier submittal you have informed us the 8T Incinerator and same make/model replacement is the chosen option. Construction Services are not included at this time but can be added later as desired.

We are proposing the following phases of work. The proposed duration time for each phase is also listed. Time suggested is after notice-to-proceed of the relevant phase. The requested 35% submittal listed below is a refresh of the previous phase and will capture final comments from that earlier 35% submittal.

- Update 35% Construction Documents Submittal 8 weeks
- 65% Construction Documents Submittal 10 weeks
- 95% Construction Documents Submittal 8 weeks
- 100% Construction Documents Submittal 4 weeks
- Permitting and Assistance for Applicable Agencies Concurrent with 100%CD and Bidding Phases
- Bidding 4 weeks

Assumes a one week review period after each submittal except 100% documents assumed a two week review period by MOS. Given a NTP by July 1, 2024 we would anticipate the completion of 100% Documents by March 1, 2025.

The fee and services are based on our understanding of the project and the following assumptions and exceptions. We are including the following disciplines: Project Management, Civil, Survey, Geo-Tech, Fire Protection, Structural, Mechanical, and Electrical disciplines. Sub-consultants include Northwind Architects for Architectural assistance, Estimations for overall Cost Estimating, and ECO WASTE Solutions for assistance on the Incinerator design, cost estimating and procurement.

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SUITE 4
JUNEAU, AK 99801
907.780.6060



The following are our Assumptions/Expectations.

Overall Team Assumptions

Design and Bidding Site Trips

- For the 35% phase site visit full design team will visit the site. Update of previous 35% Submittal is included. Dwgs are not included at this phase.
- During the 35% and 65% design phase the Project Manager, Civil Engineer, and Incinerator engineer will be in Skagway overnight for owner coordination and presentation meetings.
- During 95% Submittal Project Manager, Mechanical Engineer, and Electrical Engineer would visit the site. No trips are planned for the 100% Design period.
- Project Manager would lead and attend Pre-Bid meeting onsite in Skagway.
- We assume that most trips are day trips unless otherwise noted. Time does not include weather delays.

Project Management

Scope of work will include in office project management of the design and bidding services for the Incinerator project including all team oversight and coordination, owner coordination, and Incinerator vendor coordination.

- Coordinate permit application with State Fire Marshal's Office.
- Coordinating and obtaining ADEC compliance for Incinerator operation.

Topographic Mapping

The scope of work will include an on the ground field survey of the existing MOS incinerator building and site focusing on the area of expansion for the ash depositing area. Our Juneau office field surveyors will mobilize to the project site to perform the work. Existing MOS Incinerator building, staging areas, fill limits, existing ash fill zone, lower access roads to ash pit, existing overhead and underground utilities will be mapped to produce an engineering topographic map for our civil engineering design team to work from. Horizontal and vertical control will be established for design and construction purposes.

Civil Engineering

Site improvements will include the expansion of the ash disposal area on the southeast side of the existing incinerator building which will include **an ash disposal life expectancy analysis**, site grading, drainage, liner system leachate containment plans and site retaining walls for the expanded ash disposal area. Clearing and grubbing limits will be defined on the site grading plan for the expanded ash facility. Site demolition plans will be generated showing any existing sheds/site items that need to be removed. Perimeter fence/gate design with details will be prepared. Site utility improvements include a on-site wastewater holding tank with pump out facility for handling any wastewater generated in the incinerator building as the existing steep topography with near surface bedrock does not lend itself well for conventional on-lot wastewater disposal by a leach field system. Estimate of quantities will be prepared for site work and site utilities will be prepared.

- Technical specifications will be prepared for the civil engineering design elements of the project.



- 35%, 65%, 95% and final 100% final bid ready construction plans for the MOS Incinerator facility will be made with submittals in PDF format.
- Site visit at the 35% and 65% design meetings with owner and project presentations to MOS will be included as part of the scope of work.
- Bidding support services will be provided during the bid phase period of the project and participating in the prebid meeting by phone.

Geotechnical Engineering

Geotechnical engineering for this site will include machine dug test pits on the southeast side of the project site where feasible as the existing terrain is quite steep and has random boulders and bedrock visible in locations. RESPEC will rent an excavator with operator from a local contractor for performing machine dug test pits on the property. **We assume a day of digging test pits (4-6) if excavator access is feasible. If not feasible then hand dug test pits to confirm presence of bedrock.**

- RESPEC will prepare a letter recommendation for the site work preparation for the incinerator facility ash expansion area.
- Review of 65/95% civil documents for conformance with geotechnical recommendations will be made.
- Consult during site inspection visit for earthwork.

Fire Protection

- Fire Protection Engineer scope includes the following:
- review the previous 35% submittal dated March 2021,
- confirm design assumptions per team meeting exchange,
- verify client goals for fire water tank configuration, refurbish water tank
- design updates to suppression system per applicable codes **including replacement of fire suppression system. Utilize delegated design process for contractor provided NICET fire suppression documents and installation.**
- Remote monitoring of fire protection system sent to MOS/Transfer Facility

Architect scope includes the following:

- review the previous 35% submittal dated March
- review and update code analysis,
- review egress path compliance with applicable codes,
- **provide design and specifications for toilet room features, finishes, and accessories.**
- **Provide details for building openings, penetrations and flashings.**
- **Provide details on additional and replacement man doors and garage doors.**
- **Provide additional stairs on exterior of north side, replace interior stairs.**
- **Replace broken windows.**



- **Repair exterior siding where needed in spot locations. Replacement of siding is not included.**
- **Provide details for new walls and rooms.**

Structural

- Structural scope is to review the design assumptions from the original record drawings and compare them to the loads that will be imposed on the structure during the replacement of the incinerator.
- Structural design will include minor support modifications for the new equipment and localized retrofits will be designed if necessary. This assumes new equipment will be substantially similar to the existing and not require extensive structural analysis or building modifications.
- Structural design will also develop a demolition and rebuild plan for access to replace the incinerator.
- **Structural will provide for a pallet lift to south side of incinerator.**

Mechanical

- Mechanical scope is to include upgrade and replacement of mechanical systems related to the Incinerator and building function per the previous 35% submittal dated March 2021 including ventilation, plumbing, wastewater holding tank, and fuel oil systems engineering.
- Toilet room facility will be added.
- **Additional building openings for increased ventilation systems. Increased ventilation systems from the original 35% narrative.**
- **Fuel tank replacement and fuel system replacement. Tank level indication with remote monitoring.**
- **Replace air compressor and compressed air system, pipes, appurtenances.**
- **Replace duct collection system.**
- **Replace heating system, pumps, and heating units. Remote monitoring sent to MOS/Transfer Facility.**
- **Replace potable water system, remote monitoring of tank level sent to MOS/Transfer Facility.**
- **Refurbish non-potable water systems, new tank lining, pumps, piping and appurtenances.**

Electrical

- Electrical scope of work is to provide power and lighting design to support the incinerator replacement and facility upgrades, including
- remedying any code compliance issues within the facility;
- replacing the existing fluorescent and HPS lighting with LED;
- replacing (power) equipment that has exceeded it's expected life;



- supporting mechanical equipment upgrades and replacements.
- No modifications to the existing telephone service (and cabinet) are anticipated.
- **Upgrade fire alarm system and heat detectors.**
- **Provide remote monitoring of alarms and control system parameters to MOS.**
- **Provide minimum level of security camera (two outside and two inside)**
- **Provide intrusion alarms.**

Cost Estimating

Estimations will provide cost estimating of the 65% and 95% submittals. See Attachment B for breakdown. Cost estimate will be reviewed by the various disciplines with corrections coordinated. The incinerator manufacturer will provide cost estimating assistance for the equipment.

Incinerator Consultant - ECO WASTE

ECO Waste Solutions will provide assistance with the design submittals including two site trips, review of replacement incinerator requirements and criteria, battery limits and overall scope of the project relating to the Incinerator. See Attachment C for ECO WASTE Scope of Work assumptions.

Estimate of Fee's

ENGINEERING TASK SUMMARY	Task Total (\$)
35% Design	120,476.50
65% Design	201,483.40
95% Design	135,006.90
Construction Documents	54,006.00
Compliance and Permitting	17,253.00
Bidding	17,570.50
Project Total	545,796.30

We propose to perform the Design and Bidding phases as lump sum for \$545,796.30. See attached fee schedules for discipline breakdowns. Additional engineering work that is requested or added to the contract will be billed on a separate time and materials basis or negotiated separately. RESPEC will keep you apprised of budget and scope status throughout the performance of this work and alert you of any non-scope items that may impact the budget.

RESPEC is committed to providing high quality and economical services to MOS.

Thank you for this opportunity; we look forward to beginning this work. Please call if you have any questions or comments.

Sincerely

Douglas Murray, Principal
RESPEC Engineers



RESPEC

Attachments:

Attachment A: Fee Spread Sheet Schedules

Attachment B: ECO WASTE Solutions Letter/Spreadsheet

Attachment C: Estimations Cost Estimating Spreadsheet

Attachment D: Northwind Architects Fee Letter