



TRANSMITTAL MEMORANDUM
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TO: The Honorable Mayor and City Council

FROM: Karl R. Amylon, City Manager

DATE: April 27, 2021

RE: **Public Works Director's Project Status Report – April 2021**

Attached for City Council review is the project status report of the Public Works Director for the month of April 2021. Should the City Council have questions regarding the Public Works Director's report, staff can respond accordingly.

## **PUBLIC WORKS DIRECTOR'S REPORT**

### **APRIL 2021**

Project:	<b>KETCHIKAN GENERAL HOSPITAL ADDITION &amp; ALTERATION</b>
Project Cost:	\$45,207,269
Completion Date:	2016

#### **PROJECT SUMMARY & BACKGROUND**

In October of 2013, Ketchikan voters passed a \$43M Bond Referendum to fund the first phase of the expansion and alteration project. Principal funding will consist of the \$43M in bonds, \$15M from a legislative grant, and \$8M from PeaceHealth. On September 4, 2014, Council action finalized the Phase I Guaranteed Maximum Price of \$45,935,018. NAC Architecture has been issued a contract amendment bringing the total A/E contract to an amount not to exceed \$1,221,616. The DOWL HKM Contract Amendment has been approved for Phase I project management, bringing the contract total to \$1,801,000.

#### **UPDATE**

Phase I construction was observed to be substantially complete on June 24, 2016. The contractor continues to work on a short list of lingering items. LDC and the City continue to meet bi-weekly to discuss and work through obstacles to wrapping the work up. Meanwhile, LDC and Marble Construction finished the locker room finishes and temporary door infill (near the ER entrance) on August 17, removing the last outstanding item on the Phase I final Certificate of Occupancy. An issue with an occasional exceedance of the OR relative humidity requirements has been raised by PeaceHealth. The project's mechanical engineer has been tasked with offering HVAC operational suggestions (within the context and cost of the existing professional services agreement). Peace Health has also engaged a mechanical engineer to review the matter at their cost. PeaceHealth's stated goal is to have this resolved for the summer of 2019.

Phase II - T- Phase II-T is substantially complete. The contractor has finished all punch list items. The City is withholding funds to ensure remedy of the final outstanding issues. Vinyl floor replacement is now complete. WJE has completed the design work on the seismic joint between the addition and the old hospital. At this point, the work to repair the joint will occur in this year, possibly as early as Spring. The shop drawing submittal process has begun, and a meeting to review Layton's approach has been scheduled with our architect WJE. The parking garage intumescent repair has been pushed back to late summer according to Dawson.

Project:	<b>FIRE STATION NO. 2 OVERHEAD DOORS REPLACEMENT</b>
Project Cost:	\$320,000
Completion Date:	August 2019

#### PROJECT SUMMARY & BACKGROUND

In adopting the 2019 General Government Operating and Capital Budget, the City Council appropriated \$424,150 to repair and renovate various components of Fire Station No. 2. Following a building-wide survey for hazardous materials, the Overhead Doors Replacement project was designed by local architect Tim Whiteley. This project will replace the two failing overhead doors with three fast-acting four-fold doors. Sealed bids were opened on January 30, 2019 by the City Clerk in City Council Chambers. At its meeting of February 21, 2019, City Council accepted the bid of Island Contractors, Inc. in the amount of \$292,340 with a contingency of \$29,234. Notice to Proceed was issued on March 7, 2019. Doors are completely installed and in operation. There was some damage noted as a result of shipping, and money has been withheld from final payment. Staff continues to work through that issue, but in the meantime, the doors are a huge improvement. The City has withheld funds and is in discussions with the Contractor together with the City Attorney.

#### UPDATE

None

Project:	<b>WISH DOMESTIC VIOLENCE SHELTER - REMODEL</b>
Project Cost:	\$1,500,000
Completion Date:	July 2021

#### PROJECT SUMMARY & BACKGROUND

In adopting the 2020 General Government Operating and Capital Budget, the City Council appropriated \$850,000 to be reimbursed through a Community Development Block Grant, and partnered with Women in Safe Homes, whose contribution to the project will be \$650,000, to renovate the former Ketchikan Regional Youth Facility into a shelter for battered spouses and children.

#### UPDATE

BAM Construction and their subcontractors continue to construct the additions on the front of the building. Wall framing and sheathing is complete and roofing is ongoing. Mechanical and electrical work continues on the interior of the building.



Project:	<b>STEDMAN STREET RESTROOM FACILITY</b>
Project Cost:	\$1,600,000
Completion Date:	Spring 2022

#### PROJECT SUMMARY & BACKGROUND

In adopting the 2020 Capital Improvement Program Budget, City Council funded \$62,200 for the design of the Stedman Street Restroom by local Architect, Welsh Whiteley Architects, LLC. The project is currently near completion of the Design Development phase. Welsh Whiteley Architects is nearly complete with their previously authorized design work. The City Council deferred the project and directed Staff to explore alternate locations. In response staff gathered up the previous site analysis and forwarded that to City Council. At this point, absent acquiring a new site, the project is on hold pending further direction from City Council.

#### UPDATE

None

Project:	<b>PARK AVENUE SAFE SHELTER</b>
Project Cost:	\$119,000
Completion Date:	<b>Completed</b>

#### PROJECT SUMMARY & BACKGROUND

At the Council meeting on October 21, 2020 City Council funded \$119,000 for the interior remodel of the former KYI building into a new overnight warming shelter for Ketchikan's homeless population. Minor interior demolition and construction work will begin the week of October 23, construction is anticipated to last 4 weeks. As of December 7, the shelter has been occupied overnight and has been near or at capacity on a regular basis. Construction is complete and the shelter is functioning as intended. Design of a building addition is ongoing with anticipated construction in the summer of 2021.

#### UPDATE

Welsh Whitely has been working on developing a design for the shelter addition (shown below) that was funded through a Cares Act grant. The budget on this is expected to be very tight especially given the increases in shipping costs, and materials. It is likely some in house effort will be required to make the addition feasible from a cost perspective.



Project:	<b>NEW AERIAL PHOTOS &amp; TOPO MAPS</b>
Project Cost:	\$240,000
Completion Date:	Summer 2022

#### PROJECT SUMMARY & BACKGROUND

The aerial orthophotos purchased jointly between the City, KPU, and Ketchikan Gateway Borough in 2008 are out of date. The aerial orthophotos purchased by FEMA in 2014 are also out of date and did not cover some vital facilities and areas, including Ketchikan Lakes, Whitman, Fawn Mountain, and Upper & Lower Silvis Lakes. The aerial maps and topographic maps are used for a variety of in-house purposes and public presentations. The cost of the project will be funded equally between the City and Ketchikan Public Utilities. An RFQ was prepared by Staff and publicly advertised. Numerous proposals were received, and evaluated by a selection committee. The City Council awarded the contract to Lidar America at the April 4, 2019 Council meeting. Prior to contract award, an increased photo resolution was negotiated without increasing the contract cost. This will result in state of the art picture clarity and increase the quality of data that can be obtained from the photo. Staff postponed the data acquisition flight in order to capture the Front, Mill, and Stedman improvements in the photos. Unfortunately, the ADOT project took longer than expected to finish and the weather window to complete the flight passed.

The Coronavirus pandemic delayed the project through 2020 due to Canadian travel restrictions. The contractor has reviewed the latest travel restrictions to fly through Canada and while there are many steps and requirements, it can be done. We are now watching the weather and are planning for a spring/summer flight acquisition. It is expected that the totality of the delays on this contract could result in additional costs.

#### UPDATE

None

### BRIDGES & TRESTLES

Project:	<b>SAYLES/GORGE AND WATER STREET TRESTLE #1 REPLACEMENT</b>
Project Cost:	\$4,800,000
Completion Date:	2021

#### PROJECT SUMMARY & BACKGROUND

The Public Works Department is working in support of the Alaska Department of Transportation and Public Facilities for design and complete replacement of these two structures. The two projects are included in the Statewide Transportation Improvement Plan with Water Street Trestle #1 planned for 2020 replacement and Sayles/Gorge Trestle planned for a 2021 replacement. ADOT permitting and design is ongoing. R&M Engineering from Anchorage was awarded the design by ADOT. Streets Division cleaned the underside of the structure to allow R&M to use scanning technology to survey the structure.

Public Works designed and installed an interim abutment to support the structure until the ADOT construction project begins.

Staff met with the ADOT bridge design team to evaluate design criteria and design concept options. For Water St #1 the design concept recommended is a retaining wall and fill section, eliminating the life-cycle costs of bridge ownership.

For Sayles/Gorge, two bridge design concepts were chosen for further vetting. Eliminating the bridge and constructing a fill section for Sayles Gorge was evaluated and ruled out. ADOT & PF's consultant completed a bridge selection report. The consultant evaluated a fill section along with steel and concrete structure. The steel and concrete structure was recommended.

ADOT design engineers are beginning final design for Water St. Trestle No. 1. The City has provided its local share necessary to enter this phase of the design.

#### UPDATE

None

### STREETS DIVISION (Capital Improvement Projects)

Project:	TRANSPORTATION INFRASTRUCTURE (Annual CIP)
Capital Budget:	\$ 180,000
Completion Date:	2021

#### PROJECT SUMMARY & BACKGROUND

This budget item replaces the Safer Streets & Sidewalks, Staircase & Boardwalk Repair, Pavement Overlay-Surface Repair, Concrete Road Repair, Bridge Repair and Wall & Abutment Repair line items of previous budgets.

In 2021 a major component (approximately \$100K) of this CIP may be new pavement on Valley Court as mandated by a previous legal settlement Agreement.

#### UPDATE

**Fair Street and Park Street bridge deck repairs** – Staff has prepared and is requesting quotes to complete the final phase of surface repairs to the bridge decks. Final repairs will be the application of an epoxy and aggregate surfacing to provide all three bridges with a new wear course.

**Deermount & Fair St** – The contractor is gearing up to begin this project.

**Ketchikan Lakes Road** –The contractor is waiting for work at Deermount & Fair to be completed before beginning his project.

Staff have been prioritizing projects and reviewing requests that have come in through Public Service Requests, as well as routine inspection of the Transportation Infrastructure. With the current budget shortfall we anticipate that more than 90% of the work will be of a **temporary repair** nature that will be self-performed by the Streets Division personnel.

**Ridgewood St. Road Improvements** – A resident inquired if the City would consider improvements to Ridgewood St. given that numerous properties along the street were set to be developed for commercial use. In response to the inquiry, Public Works will support the bloom of economic activity



in the area of Don King Rd./Ridgewood St. As such, staff has created this new project. Design is complete for road realignment, widening, and drainage improvements. The road will not be paved at this time. The Streets Division will perform the work this summer.

Project:	<b>STORMWATER INFRASTRUCTURE (Annual CIP)</b>
Capital Budget:	\$ 100,000
Completion Date:	2021

#### PROJECT SUMMARY & BACKGROUND

Staff have been prioritizing projects and reviewing requests that have come in through Public Service Requests, as well as routine inspection of the Stormwater Infrastructure.

#### UPDATE

None

Project:	<b>SCHOENBAR CULVERT REHABILITATION</b>
Project Cost:	\$2.5M
Completion Date:	2021

#### PROJECT SUMMARY & BACKGROUND

This project will rehabilitate and repair an existing 12-foot wide corrugated metal plate arch culvert located in Schoenbar Creek, adjacent to Schoenbar Road. The majority of the culvert is in good shape, but the bottom is rotted which makes it a good candidate for trenchless rehabilitation as opposed to a traditional dig and replace. Mill Creek Management Technologies, a trenchless rehabilitation specialty firm, performed a condition assessment report with recommendations. The report found that the culvert is salvageable and trenchless rehabilitation of the bottom is feasible. During Phase I of the project in 2019, it was discovered that there is a tremendous amount of groundwater flowing around, under and ultimately into the culvert through its rotted bottom. The groundwater was problematic in the 2019 project area; however, the amount of water intrusion in the remaining sections of culvert will make rehabilitation using concrete nearly impossible. As such, staff tried to determine the source of the groundwater in order to design an appropriate dewatering system. Staff completed exploratory potholes along the outside of the culvert to investigate possible sources for the water intrusion; a specific source could not be identified during this effort.

Due to heavy rains over the 2020 summer, staff's plans were delayed until September. Upon inspecting in September, it was apparent that the pace of the culvert deterioration has accelerated substantially. Staff designed a project to buy time by temporarily stabilizing the scour areas and providing better support on the perforated pipe haunch. This temporary stabilization project was designed in-house and will pump concrete into the voids around the pipe bottom and haunches. Groundwater in this area is a severe challenge to this effort. The contract was awarded to Log Jam Construction at the November 5 City Council meeting and was completed in January 2021.

In terms of a long-term solution for this pipe, the best solution would be to dig up the metal plate arch and replace it with a precast concrete culvert. However, current economic constraints make this approach difficult to fund to the point it may very well jeopardize the timing of the project. Unfortunately, we are out of time with this culvert.

It will not be possible to move forward with the Schoenbar Road sewer and water utility replacement project absent a long-term culvert repair. The risk of collapsing the culvert due to the impacts from adjacent construction is simply too high. Staff has prepared preliminary cost estimates for the long-term solution for this nearly 500-foot long culvert, and the rough order of magnitude is between \$2.5M if the design of a pipe inside the existing pipe is successful, and \$5M if we have to dig it up and replace it. The estimate range is not based on a completed design nor on actual permits, therefore it is offered to convey a sense of the seriousness of the situation, and is not suitable for drawing comparisons to the final estimate after a design is complete.

As an alternative to the dig and replace option, staff has completed an evaluation of 13 long-term remedies for the culvert and have narrowed the field to a few rehabilitation options that will now move into the next stage of detailed evaluation before beginning the in-house design. An important component of moving the project forward is FEMA permitting, consisting of a flood analysis and associated flood map revisions. The FEMA permitting will be completed in parallel with the final evaluations and design; City Council awarded a contract to R&M Engineering Ketchikan in December 2020.

The temporary stabilization project placing pumped concrete in the culvert voids is complete and was successful in buying time for the permanent rehabilitation to continue design and funding acquisition.

#### UPDATE

R&M continues the necessary analysis and calculations for determining the impacts to the FEMA flood maps. As they continue to evaluate the impacts, staff continues working with ADF&G to evaluate the rehabilitation options for passage of fish as the culvert conveys a fish bearing stream. An innovative baffle system is being evaluated and has a conceptual buy in from ADF&G with a request for additional data and information required before a final approval can be issued. This dynamic baffle is flexible in that it stands up in low flows to provide for fish passage and also fold down in high flows to allow for improved hydraulic conveyance (compared to traditional baffles & weirs) during storm conditions.

Staff recently re-inspected the concrete that was placed as temporary stabilization earlier this year and report that the concrete that was placed is continuing to stabilize the culvert invert and noted that there are no new voids visible.

### TOURISM & ECONOMIC DEVELOPMENT (Capital Improvement Projects)

Project:	<b>Married Man's Trail Exit Improvements</b>
Capital Budget:	\$250,000
Completion Date:	Deferred

#### PROJECT SUMMARY & BACKGROUND

With the adoption of the 2021 Capital Improvement Program Budget, City Council funded a continuation of a multi-year effort of improving pedestrian amenities in downtown Ketchikan. In February of 2020 Public Works Department developed a CIP to address some of the needs that were identified and one of those projects was the Married Mans' Trail Exit Improvements.

## UPDATE

Staff continues the in-house design and is working through structural load calculations. On March 18 the City Council deferred this project as part of the Mitigation Plan for Substantially Reduced or No Cruise Season; however, we will complete the design for when funds become available in the future.

### WASTEWATER DIVISION (Capital Improvement Projects)

Project:	<b>TONGASS AVE SEWER FORCE MAIN REHAB &amp; GRAVITY SEWER REPLACEMENT PHASE II</b>
Project Cost:	\$8,000,000
Completion Date:	2018

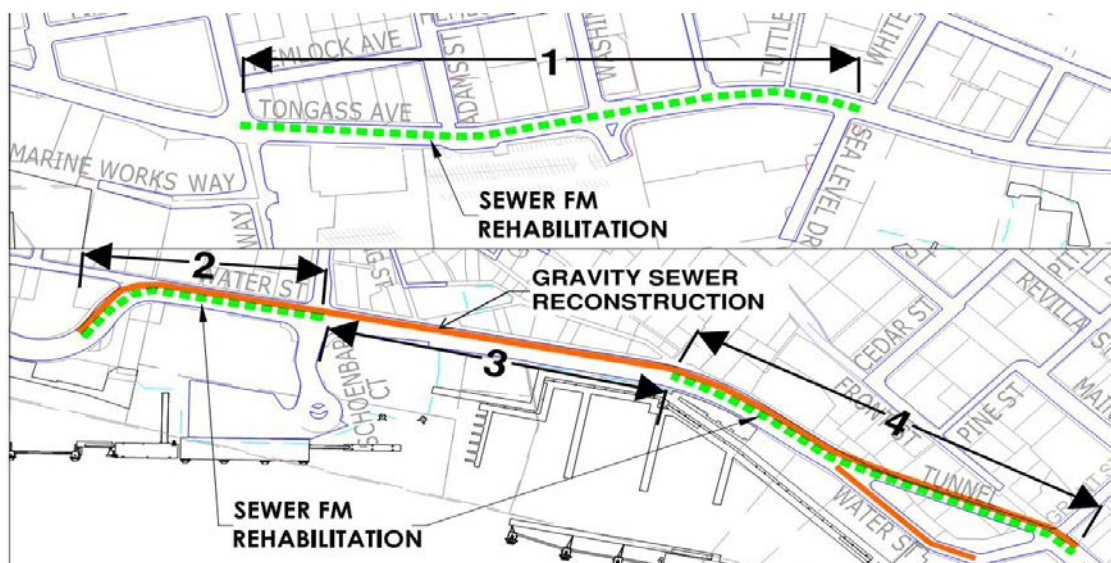
### PROJECT SUMMARY & BACKGROUND

Phase II involves rehabilitating the City's remaining 2,700-linear feet of sewer force main and 1,700-linear feet of sewer gravity mains. This section of gravity sewer is known to be a major contributor to the sewer system's inflow and infiltration. On June 15, 2017 the City Council approved this project's nomination for the National Infrastructure Program. At the same meeting, the City Council approved an amendment adding funds to a contract with Stephi Engineering to fast track design of this project. The project has been broken into four distinct segments that will each be separate construction projects. These projects are critical in order to reduce the amount of infiltration and inflow coming to the wastewater treatment plant. High peak flows in August and October, during heavy rain events that also corresponded to high tides, resulted in bypassing at pump stations. Based on historical infiltration and inflow studies, it is envisioned that these projects will take a significant step towards muting those peak flows. Value engineering is complete. As such, the project design will incorporate portions of trenchless technology to help mitigate high cost, elevated risk and potential impacts to residents and businesses along the project corridor.

#### Design Status:

- Segment 1 is complete
- Segment 2 is 65%
- Segment 3 is 80%
- Segment 4 is 90%

Staff has been in contact with the design firm and review of designs for each phase are ongoing. Staff has completed the install of 5 flow monitoring devices along the Water Street Corridor. This installation completes the initial setup to allow measurement of infiltration and inflow in the sewer lines along this corridor.



## UPDATE

The flow monitoring study is ongoing. The study will last about four months. Staff intends to reduce sewer reconstruction project costs by using the results of this study to tailor the scope and refine the design of projects.

Project:	<b>SCHOENBAR UTILITIES RECONSTRUCTION</b>
Project Cost:	\$11M
Completion Date:	Fall 2021

## PROJECT SUMMARY & BACKGROUND

In 2012, Dowl was contracted to design water and wastewater utility replacements within Schoenbar Road from Park Avenue to Valley Forge. The design reached 95% completion and then was shelved due to lack of funding and permitting issues. In 2019, the promise of ADEC loan funding reinvigorated the project. To re-start the project, staff located the original design team with Dowl and agreed on a proposal to complete the design and contract documents. Staff is conducting State and Federal permitting in-house and several permits have been received. Permitting and design work were postponed in mid-2019 due to concerns about the deteriorating 36-inch raw water main, which suffered several recent breaks.

KPU Water Division is working with Dowl to design and construct the raw water main replacement. The urgent nature of the raw water main has meant that it has taken precedence over the design of the water and sewer reconstruction project.

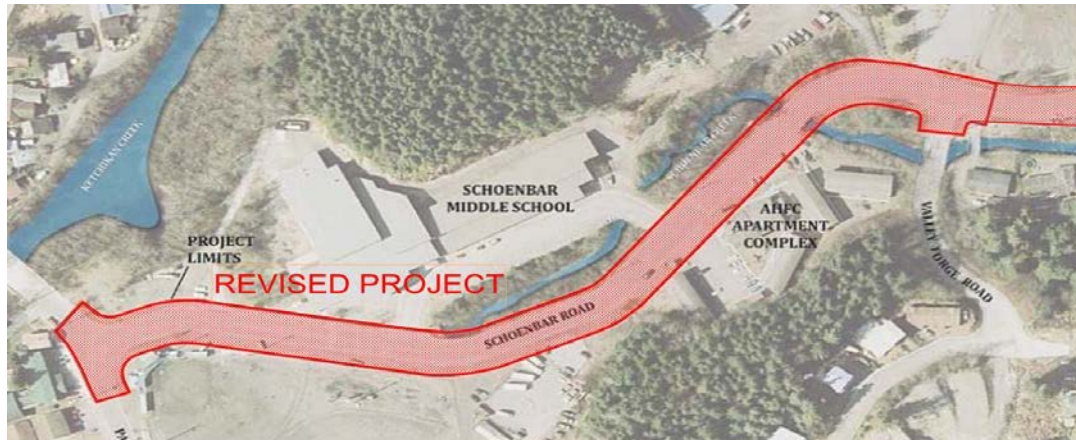
Staff is also working with ADEC to re-structure the municipal loans and make associated allowances for the additional \$5M bond to fund the additional raw water replacement. New loan questionnaires were submitted to ADEC requesting funding for the increased project scope due to the addition of the raw water main.

Staff reviewed the design and estimate and comments were submitted for incorporation in a 95% design. The cost estimate is showing that the wastewater portion of the project is costing less than

was budgeted. It is important to the wastewater budget that any possible surplus in this budget item be preserved for replacement of dilapidated corrugated metal sewer main and leaking force main.

#### UPDATE

Staff is awaiting the 95% design drawings and estimates from DOWL for review.



Project:	<b>PUMP STATIONS GENERATOR REPLACEMENT</b>
Project Cost:	\$130,000 per year
Completion Date:	March 2023

#### PROJECT SUMMARY & BACKGROUND

In adopting the 2018 General Government Operating and Capital Budget, the City Council appropriated money to large and small pump station upgrades for replacement of the aged generators and components at each of the seven pump stations. Electrical engineering company Haight & Associates was hired to design a year by year phased set of construction documents that will go out to bid beginning in 2019.

On September 17, the City Council approved a contract to procure the 150kW Generator Set. Staff is moving forward with that purchase and arranging for the installation. The 150KW Cummins/Onan Generator set has been ordered and is expected within the next 6 months.

#### UPDATE

None

## WASTEWATER DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Wastewater Division performed the following work during the past month:

- Wastewater crews continue to assist Engineering staff with the Water St. Flow study
- Wastewater collection crews continue on a corrosion control campaign in all pump stations involving rust removal, metal treatment, and painting.
- The treatment crew installed a sump pump system in the effluent valve vault behind Treatment Pant B.
- The Collection crew replaced a faulty submersible pump and cleaned the wet well in Pump Station 3 with the assistance from a local electrical contractor.
- Wastewater treatment crews rebuilt a number of Penn Valley double disc sludge moving pumps.



Wastewater Collection Crew Swapping a Submersible Pump at Station 3



## STREETS DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Streets Division performed the following work during the past month:

- Streets Division received some complaints about catch basins not taking water properly. A crew was dispatched to the area of Lower Anderson to fix a catch basin. There was a hole just above the basin causing water to drain into the hole and causing the ground to form a sinkhole. The crew cut out around the catch basin, added a few bricks to the uphill side, added D1 to the hole, and sealed it with Aquaphalt. The same process was followed for 2 other catch basins in the area.
- Streets used the Vactor in several areas around town. Mainly in areas leading to a storm system where rocks were building up near grizzlies. They vactored College Court, Clinton Court and Rex Allen drive. They were also sent to View Drive near Tyler Rental and vactored a line that had standing water in the ditch.
- Streets crews have continued sweeping roads to get the excess debris and sand that was used for the recent snow storms around the end of March.
- Streets received a complaint of water going over a curb into the back yard of a resident on 5th Ave. Crews added IRR to the curb line and raised it 2-3 inches to stop the water from going into the back yard, and continue to the catch basin near the end of the street.
- A crew pressure washed graffiti on Grant Street near the entrance to the Main School parking lot. They also removed graffiti across the street that was near the Grant Street playground. There were also reports of garbage dumping, as well as freezers in the Main School parking lot. Crews used our flatbed and picked up the garbage.
- Streets have been working with the Garage mechanics to solve a mechanical issue that we are having with our crack sealer. The crack sealer is vital to our summer projects, filling holes around broken asphalt to prevent water from getting to the rock portion of the road, and filling cracks in our concrete roads.
- A crew was sent to Heneghan Street to fix the guardrail that a car drove through. We were able to find extra guardrail in our lockup, and fixed the broken metal and wood.
- Streets removed trees and a cinderblock wall near our south entrance. We prepped the site for concrete and are awaiting First City Electric to add pipe to wire the new generator.
- A crew cut down brush and alder trees near Grant Street. The alders have been growing heavily in the area, and we wanted to get them cut down before they became too much of a problem.
- Streets crews are working with the Landfill and started Spring Clean-Up Week. They will be picking up trash from residents on their garbage pick-up day.







## **GARAGE DIVISION (Operations)**

In addition to the routine work performed on a regular basis, the Garage Division performed the following work during the past month:

- The Garage is in the process of removing plows, sanders, etc., and preparing them for next season.
- We have been going through the emergency generators city-wide and performing annual service and inspections.
- The crew is removing all studded tires from vehicles and performing routine inspections while they are lifted up.
- We completed an overhaul on the Solid Waste Division's hook truck.
- Salmon sign bases are being fabricated for future installation on the Salmon Walk.





## BUILDING MAINTENANCE DIVISION (Operations)

In addition to the routine work performed on a regular basis, the Building Maintenance Division performed the following work during the past month:

- At the Wastewater Lab, we removed and replaced an old window with a new Milgard window.
- We replaced refrigerant and fixed a leak in the coil of the A/C unit supplying Telephone.
- At City Hall, we pressure washed the entire roof and fixed a fan coil for the HVAC unit.
- We fixed a corner of the Landfill warehouse that had been damaged.
- A valve and actuator was replaced at the Totem Heritage Center and Library.
- We met with the Museum Director and artist to discuss adjustments for the new gates at the Tongass Historical Museum.
- Annuals were performed city-wide on building boiler systems.





## BUILDING INSPECTION DEPARTMENT

### PERMITS

PERMITS ISSUED	SINCE LAST REPORTING PERIOD	YEAR-TO-DATE
Traffic Control Permits:	1	5
Permits to Excavate:	8	25
Side Sewer Permits:	2	5
Site Development Permits:	1	9
Building Permits:	6	19
UPDATED: 04/19/21		