PUBLIC WORKS COMMITTEE
AGENDA

Online via Zoom and In Person at Tumwater City Hall, Council Conference Room, 555 Israel Rd. SW, Tumwater, WA 98501

Thursday, May 18, 2023
8:00 AM

1. Call to Order
2. Roll Call
3. Approval of Minutes: Public Works Committee, April 6, 2023 & April 20, 2023
4. Resolution No. R2023-008 Six-Year Transportation Improvement Program (Mary Heather Ames)
5. Investment Grade Audit Proposal Discussion (Alyssa Jones Wood)
6. Additional Items
7. Adjourn

Meeting Information
All committee members will be attending remotely. The public are welcome to attend in person, by telephone or online via Zoom.

Watch Online
https://us02web.zoom.us/j/84666372781?pwd=TXpKbFdpY1JVT0lTVVdwRkR1UXNydz09

Listen by Telephone
Call (253) 215-8782, listen for the prompts and enter the Webinar ID 846 6637 2781 and Passcode 609294.

Public Comment
The public may submit comments by sending an email to council@ci.tumwater.wa.us, no later than 5:00 p.m. the day before the meeting. Comments are submitted directly to the Committee members and will not be read individually into the record of the meeting.

Post Meeting
Audio of the meeting will be recorded and later available by request, please email CityClerk@ci.tumwater.wa.us

Accommodations
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contact the Washington State Relay Services at 7-1-1 or 1-(800)-833-6384. To contact the City's ADA Coordinator directly, call (360) 754-4128 or email ADACoordinator@ci.tumwater.wa.us.

TUMWATER PUBLIC WORKS COMMITTEE
MINUTES OF VIRTUAL MEETING
April 6, 2023 Page 1

CONVENE: 8:00 a.m.

PRESENT: Chair Eileen Swarthout and Councilmembers Michael Althauser and Charlie Schneider.

Staff: City Attorney Karen Kirkpatrick, Water Resources and Sustainability Director Dan Smith, Capital Projects Manager Don Carney, Engineering Services Manager Bill Lindauer, Transportation Manager Mary Heather Ames, Water Resources Specialist Dave Kangiser, and Administrative Assistant Bonnie Hale.

Others: Meridith Greer, Greer Environmental Consulting.

APPROVAL OF MINUTES: PUBLIC WORKS COMMITTEE, MARCH 9, 2023:

MOTION: **Councilmember Schneider moved, seconded by Chair Swarthout, to approve the minutes of March 9, 2023 as published. A voice vote approved the motion. Councilmember Althauser abstained.**

RESOLUTION NO. R2023-007 DELEGATION OF SIGNATURE AUTHORITY FOR GRANT DOCUMENTS RELATED TO SOMERSET HILL FISH PASSAGE BARRIER REMOVAL DESIGN:

Consultant Meridith Greer with Greer Environmental Consulting, briefed the committee on the proposed resolution to delegate signature authority for grant documents for design of the Somerset Hill Fish Passage Barrier Removal Project.

Percival Creek originates from Trosper Lake and travels through the City to Capitol Lake. Some of the limiting factors of the creek are fish passage barriers, stream temperature, and the lack of large wood debris and habitat. The City is pursuing many projects along Percival Creek. The creek has 10 potential barriers or areas where roads cross the creek. One full barrier is located at Sapp Road. The City has been working on the design for that project with the City receiving construction funding for construction in summer 2024. Two potential barriers are located at Somerset Hill and north of I-5 are owned by the Department of Fish and Wildlife.

The Somerset Hill project area includes a 5-foot culvert of approximately 103 feet in length serving as a partial barrier because of velocity. The area was assessed in 2015 and reassessed in 2022 confirming the culvert serves as a partial barrier. Ideally, a correctly sized culvert enables fish and water to move naturally throughout the creek. Following measurements of all footprints in the area of the culvert, the minimum crossing size is 22 feet, which will require a larger culvert than the 19-foot culvert for the Sapp Road project.

The City is seeking funding from the Washington State Recreation and Conservation Office's Salmon Recovery Funding Board to fund the design work for the project. The grant is for $280,000, and the funding source requires no match from the City. One of the requirements of the grantee is for the City to adopt a resolution authorizing the City to submit an application for the grant.

Staff continues to work with Skillings to complete a type size and location study for the culvert. Staff is considering three different culvert designs of a three-sided box culvert, installation of a prefabricated bridge, or installation of a steel plate arch culvert. All options have different pros and cons from a cost perspective. Skillings is completing the report, which will provide more information on moving forward to complete the design grant application.

The project can potentially impact Chum, Coho, Chinook, steelhead, and residential trout based on fish sampling in 2019 documenting salmon in the system. Fish are unable to travel above Sapp Road, which speaks to the importance of continuing work along the creek to ensure access to the system by fish.

Ms. Greer requested the committee recommend the City Council approve and authorize the Mayor to sign Resolution No. R2023-007 Somerset Hill Fish Passage Barrier Removal Design. She invited questions from the committee.

Councilmember Schneider inquired about the difficulty of removing the culvert without collapsing the road. Ms. Greer said one option is replacing the culvert with a similar type of culvert followed by replacing top fill. The option of a prefabricated bridge, which creates more open space, involves installing the bridge and stabilizing the bank in the area to avoid a cave-in. Skillings is considering those options as it evaluates alternatives in addition to costs to construct and the feasibility of options that will ensure the project is stable and strong to hold existing fill and the roadway.

Director Smith added that the resolution authorizes the Director of Water Resources and Sustainability to sign and administer all grant paperwork.

Chair Swarthout asked whether the project area is also near an area that the City had experienced some sewer backup. Ms. Greer replied that one of the goals of the project is to protect existing infrastructure to include sewer infrastructure serving the neighborhood. In the past, the neighborhood has experienced sewer overflow issues. The City installed a remote metering device to alert the City to potential overflow activity. The existing configuration of the culvert increases water velocity directly to the bank creating concerns of bank erosion and potentially destroying trees that might impact sewer lines from uprooted tree root systems.

Chair Swarthout reviewed the proposed request for consideration.

MOTION: **Councilmember Schneider moved, seconded by Councilmember Althauser, to recommend the City Council approve and authorize the Mayor to sign Resolution No. R2023-007 Somerset Hill Fish Passage Barrier Removal Design. A voice vote approved the motion unanimously.**

SERVICE PROVIDER AGREEMENT WITH HDR ENGINEERING, INC. FOR THE OLD HIGHWAY 99 AND 79TH AVENUE ROUNDABOUT PROJECT:

Manager Carney reported the proposal is a service provider agreement with HDR Engineering for the Old Highway 99 and 79th Avenue Roundabout project located at the intersection of Old Highway 99 and 79th Avenue. Additionally, the project includes sidewalk improvements on 79th Avenue near a proposed trail and park. Frontages along the City's new Maintenance and Operations facility and the park will be improved as part of the project with other improvements of small sections between the site and the new roundabout to ensure no gaps exist in the sidewalk.

In the 2016, the Transportation Master Plan identified the intersection for improvement. The current level of service at the intersection is significantly low. The roundabout will increase level of service to A. Additionally, the Old Highway 99 Corridor Study identified the need for a roundabout at that intersection.

Manager Carney displayed a concept design of the roundabout that was prepared as part of the Old Highway 99 Corridor Study. The design is similar to the design for the roundabout at Trosper Road and I-5 for consistency within the City's transportation system. The next step is completing 100% design and estimates necessary to initiate construction.

The consultant fees total $735,000 and the source of funding is from transportation impact fees. Additional funds are from the General Government, Water, Sewer, and Stormwater Utility Capital Facilities Plans (CFPs).

Councilmember Schneider asked about the timing of the roundabout in terms of construction of the park. Manager Carney explained that it is dependent upon the timing of design for both projects. The intent is completing designs quickly and initiating construction as soon as possible. However, at this time, it is difficult to forecast the timing of each component.

Councilmember Althauser asked about the timing for deliverables from the consultants. Manager Carney said 30% design for the roundabout is scheduled for completion by late summer 2023 with 60% design completed in late spring 2024. Completion of design and construction drawings is scheduled for late 2024.

Councilmember Althauser asked whether the analysis reflected any

acknowledgement of the safety aspect associated with roundabouts by slowing traffic. Manager Carney advised that although he was not a party to the Old Highway 99 Corridor Study, roundabouts are associated with improving traffic safety as roundabouts slow traffic and decrease the impacts of vehicle accidents.

Chair Swarthout reviewed the proposed request for consideration.

MOTION:

Councilmember Althauser moved, seconded by Councilmember Schneider, to recommend the City Council approve and authorize the Mayor to sign the Service Provider Agreement with HDR Engineering, Inc. for the Old Hwy 99 and 79th Ave Roundabout. A voice vote approved the motion unanimously.

AUTHORITY TO SOLICIT BIDS AND AWARD CONTRACT FOR THE 2023 PAVEMENT MAINTENANCE PROJECT:

Manager Lindauer reported the request is for authorization to solicit construction bids and increase change order authority for the project.

During the planning phase of paving projects, staff utilizes the pavement condition index, a system of evaluation of roadways in the City for prioritization of road projects. The information is verified during field visits with engineers to ensure repairs are timely based on the extent of damage to the roadway. Another project goal is maximizing Transportation Benefit District (TBD) funds to ensure expenditure of funds is appropriate for the project to increase the life of roadways.

The proposed project is larger than most pavement projects the City has completed. Two components of the project include paving and maintenance. The paving component entails asphalt overlays and inlays. The project includes sidewalk ramp repairs, replacement of manhole covers, and minor stormwater drainage repairs. The roadway maintenance component includes the Citywide pavement-marking project combined this year with the pavement project. The project involves restriping the roadways throughout the City. A plastic pavement marking replacement component is also included for specific roadways to replace existing plastic pavement markings and damaged or missing raised pavement markings throughout the City. An important part of the maintenance component is the crack sealing and roadway repair to crack seal pavement to prevent water from infiltrating into the roadway.

Manager Lindauer displayed an aerial illustration of the project area comprised of roadways throughout the City. He shared a copy of the pavement maintenance map designating the different areas of the project.

Manager Lindauer reported the engineer's estimate for the project is $4 million with an expectation that the range would be $3.6 million to $4.4 million dependent upon bids received as asphalt pricing is in constant flux. Funding is from the TBD. The project timeline is 50 working days or

approximately 2-1/2 months. The schedule includes bid opening in mid-May and contracting by mid-June with construction from July through August and early September.

Currently, Tumwater Municipal Code designates change order authority of 10% of the project cost. In previous projects, the authority was increased to 20%. The request is to increase the authority to 20% because pavement projects are different from other design-bid-build projects as the work is fast-paced and contractors mobilize for a large volume of work in a short span of time. The proposal enables staff some flexibility during the project to ensure the best outcomes for the project when conditions change in the field.

Councilmember Schneider commented that during his participation in the Adopt-a-Road Program, he continually picks up plastic road markings. He is also concerned about the markings that could possibly enter the City's storm drains. He asked whether the plastic markings are installed based on a state or federal requirement. Manager Lindauer advised that installation of plastic markers is a local decision; however, due to the Pacific Northwest climate, striping is a "hit or miss" option, which is why raised pavement markings are used to help delineate roadways during inclement weather. The devices have a lifespan and will eventually become dislodged.

Manager Lindauer addressed questions on the change order authority request. Manager Lindauer said the increase authorizes a change in the contract price up to 20%. The change in authority has been implemented for previous pavement projects. The issue does not pertain to funding as the TBD has sufficient funds to absorb an increase in cost. The main purpose is to accommodate quick changes based on the type of project. Once a contractor begins moving asphalt, the process is extremely expensive to stop.

City Attorney Kirkpatrick added that additionally, the City has been able to expand the scope of work because pricing was favorable, which was possible because of the increase in change order authority.

Chair Swarthout asked about the status of the partnership with Thurston County for various components completed on previous projects. Transportation Manager Ames explained that discussions have occurred with Thurston County staff. City staff has worked with Thurston County on the roadway striping component for previous projects; however, at this time, a nexus is lacking for jointly working with Thurston County. Joint conversations are continuing to identify projects where it is possible to participate.

Chair Swarthout reviewed the proposed request for consideration.

MOTION: **Councilmember Althauser moved, seconded by Councilmember Schneider, to authorize staff to solicit bids for the 2023 Pavement**

Maintenance Project and recommend City Council award and authorize the Mayor to sign a public works contract with the lowest responsible bidder. Staff also requests that the Public Works Committee recommend the City Council increase the change order authority provided to the Transportation and Engineering Director under Tumwater Municipal Code 2.14.060 to 20 percent for this project. A voice vote approved the motion unanimously.

AGREEMENT WITH CLEARCREEK CONTRACTORS FOR THE 2023 PALERMO LAGOON DREDGING & MAINTENANCE PROJECT:

Director Smith reported on statewide recognition the City is receiving for its best management practices deployed for managing beaver activities during an upcoming presentation by Water Resources Specialist Dave Kangiser and City stormwater staff.

Director Smith presented the proposal, which was presented to the committee last June during a review of the interlocal agreement with the Washington State Department of Transportation (WSDOT), which serves as the primary responsible party for the Palermo Superfund Project. WSDOT has been investigating the contaminant plume, PCE, and TEC contaminants moving through the Palermo neighborhood. The aeration lagoon serves as a catch basin for surface water draining around the edge of the neighborhood perimeter.

Following adoption of the interlocal agreement in 2022, staff solicited bids and received one bid, which was higher than scoped with WSDOT. In January 2023, staff sought an amendment to increase the amount of the contract with WSDOT. The City is managing the project and is responsible for soliciting bids and developing the contracts with the contractor, and WSDOT is responsible for paying the contractor. The amendment increased the funds to cover any additional costs. Another bid was released to solicit other contractors. The City received only one bid from the original bidding contractor at a cost of $126,650. The contractor is qualified.

Director Smith shared a cross section diagram of the work and described components of the project. The contractor is responsible for removal of sediment. Permitting is currently in process by the City, which serves as the lead permitting agency. Staff submitted a hydraulic project application to the Department of Fish and Wildlife. Following execution of the contract, staff anticipates the contractor will develop a health and safety plan and work plan. The work should take no longer than one month. The project is scheduled for completion by July 31, 2023.

Staff requests the Public Works Committee recommend the City Council approve and authorize the Mayor to sign the Agreement with Clearcreek Contractors for the Palermo Lagoon Dredging & Maintenance Project in the amount of $126,650.

Chair Swarthout inquired about the source of the sediment composition.

Director Smith explained that the sediment is from the stormwater system as it drains towards the golf course. Sediment is generated as surface waters flow through the system. Geoengineers completed a hazardous profile of the site in 2019-2020 during the development of the project scope. At that time, the sediment was not determined to be hazardous; however, sediment will be tested prior to removal to determine if contamination exists.

MOTION: **Councilmember Schneider moved, seconded by Chair Swarthout, Staff requests the Public Works Committee recommend the City Council approve and authorize the Mayor to sign the Agreement with Clearcreek Contractors for the Palermo Lagoon Dredging & Maintenance Project in the amount of $126,650. A voice vote approved the motion.**

STORMWATER CAPACITY GRANT AGREEMENT WITH DEPARTMENT OF ECOLOGY AMENDMENT NO. 1:

Specialist Kangiser reported the capacity grant is a standard grant received by the City from the Department of Ecology to assist the City in meeting its permit compliance obligations under the stormwater National Pollutant Discharge Elimination System (NPDES) permit requirements. The grant is used for printing of educational and informational materials, staff training, and in support of the Equity Index Mapping project. Recently, the Legislature provided an additional $25,000. The additional amount extends the grant period from March 31, 2023 to June 30, 2023. The additional funds will be used for a water quality monitoring program and other educational opportunities with the school district on several projects, as well as expansion of the petway station project.

The request to the committee is to recommend the City Council approve and authorize the Mayor to sign Amendment No. 1 to the 2021-23 Capacity Grant supporting the City's stormwater program.

MOTION: **Councilmember Althauser moved, seconded by Councilmember Schneider, to recommend the City Council approve and authorize the Mayor to sign Amendment No. 1 to the 2021-23 Capacity Grant supporting the City's stormwater program. A voice vote approved the motion unanimously.**

ADJOURNMENT: **With there being no further business, Chair Swarthout adjourned the meeting at 8:49 a.m.**

Prepared by Valerie L. Gow, Recording Secretary/President
Puget Sound Meeting Services, psmsoly@earthlink.net

TUMWATER PUBLIC WORKS COMMITTEE
MINUTES OF VIRTUAL MEETING
April 20, 2023 Page 1

CONVENE: 8:00 a.m.

PRESENT: Chair Eileen Swarthout and Councilmembers Michael Althauser and Charlie Schneider.

Staff: City Administrator John Doan, Transportation and Engineering Director Brandon Hicks, Water Resources and Sustainability Director Dan Smith, Capital Projects Manager Don Carney, and Administrative Assistant Bonnie Hale.

APPROVAL OF MINUTES: PUBLIC WORKS COMMITTEE, FEBRUARY 23, 2023:

MOTION: **Councilmember Althauser moved, seconded by Councilmember Schneider, to approve the minutes of February 23, 2023 as published. A voice vote approved the motion unanimously.**

BRIEFING OF SERVICE PROVIDER AGREEMENT WITH TCF ARCHITECTURE, PLLC, FOR THE CITY OPERATIONS AND MAINTENANCE FACILITY DESIGN:

Manager Carney briefed members on the proposed service provider agreement with TCF Architecture for design of the City's new Operations and Maintenance Facility.

In 2014, the City acquired property at 79th Avenue and Trails End Drive, formerly the Trails End Arena, to construct a Public Works Operations and Maintenance Facility. In 2016, the City contracted with TCF Architecture to develop a Master Plan for the site and complete pre-design work to determine space needs, a preferred site alternative, and a potential park location. Following a series of public meetings and discussions, the location of the facility was changed to the west area of the property. Public works is the only City operation moving to the new facility, as downsizing of the proposal was necessary to reduce the cost of the project. TCF Architecture completed a building layout and identified building sizes, as well as the location for the park. The property is split with Trails End Drive located between the two parcels. The east side will be the location of the park.

Manager Carney displayed an aerial illustration of the proposed layout and access points off 79th Avenue and two access points from Trails End Drive. The layout minimizes the amount of vehicle backing and maneuvering to keep noise limited and to maximize drive aisles and building locations. Buildings will occupy approximately 1.5 acres of the six-acre site. The site will feature a rain garden and buffers to the north and to the west for additional stormwater support. Staff parking is located in front of the building with all maintenance and facility vehicles parked within the lot.

The Office of Financial Management (OFM) provides guidelines for

architectural and engineering contracts. The Department of Enterprise Services utilizes OFM guidelines exclusively for all construction projects completed by the state. The basic design fee is based on the maximum allowable construction cost (MACC) or the cost necessary to pay a contractor to construct the facility. Contract fees are based on the cost estimate of the project. A percentage of the MACC is the basic fee charge for the contract. The fee is structured on the complexity of the building(s) or the site. The OFM Guidelines provide three different categories of A, B, and C with A serving as the most complicated project. The maintenance facility has been assigned a combination above a C but below a B in complexity. Additional fees outside basic fees include some licensed specialty consultants required for the design or for HVAC work. The contract deliverable is based on a schematic design followed by design development, completion of construction documents, and bid packages. The process entails different phases of the design. The scope of work includes 100% completion of plan specifications with estimates. The contract includes all components on the site with off-site work involving utilities provided by a different consultant.

The proposed consultant fee is $2,450,000 with basic services of $1,622,000 and additional services of $827,000 with a management reserve of $202,000 for a total contract cost of $2,450,000. Basic services are estimated at 6.07% of the total contract cost with additional services negotiated between the parties. Funding for the project includes 33% from the General Government Capital Facilities Plan, 33% from the Water Fund, and 17% from the Storm Fund and Sanitary Sewer Fund.

Manager Carney explained that the discussion is only a briefing and not a request for a recommendation based on the review of the fees and scope of service. Staff is ready to move forward following the briefing to the committee.

Councilmember Schneider asked about the status of the funds or whether the City must continue accumulating the funds. Director Hicks advised that the funds are available for the consultant work; however, funds are not available for the utility components. Those costs will be funded by assumption of debt with revenue sources identified to pay off the debt. Although staff originally intended to seek a request for a recommendation from the committee, some recent changes to the agreement prevented a final review by the committee. The request is approval to proceed directly to the Council for action by the Council under Council Considerations during a regular meeting.

Chair Swarthout asked about any specific deadlines for action. Director Hicks explained that the proposal has no established deadline other than the agreement has been delayed for several years as staff and the consultant worked through additional engagement with the public and fine-tuning contracting details. Delaying contracting subsequently increases the cost of

the project as construction costs are not decreasing within the industry. Staff anticipates completion of the design in approximately 18 months with construction beginning in early 2025. The goal is to present the proposal to the Council at its May 2, 2023 meeting.

The committee offered no additional questions.

OFFSITE OFFICE LEASE WITH SOUTH PUGET SOUND COMMUNITY COLLEGE DISCUSSION:

Director Smith reported the proposal is the relocation of the administrative division of Water Resources & Sustainability (WRS) currently located at Tumwater City Hall. Staff researched available office locations because more employees are returning to City Hall and parking has exceeded capacity. Additionally, WRS is considering the addition of a program manager and Transportation and Engineering is adding several new employees over the next several months. At this time, space is unavailable for new employees joining the two departments.

Funds were allocated in the budget to accommodate relocation of a limited number of employees. However, following discussions between the two departments, staff believes the WRS team is the most flexible to move as a work unit. The WRS team has limited interaction with the public while Transportation and Engineering employees meet with the public frequently to address development proposals and transportation issues. Most of the public interaction by WRS staff is in the field.

Staff identified potential office space at Town Center East and then learned South Puget Sound Community College (SPSCC) has unused classrooms no longer being utilized that could be remodeled to serve as office space. A partnership with SPSCC and the City creates space to accommodate new staff anticipated to join both departments, as well as free up parking spaces for City Hall staff, fleet vehicles, and the public.

One of the main benefits of leasing with SPSCC is providing public/environmental career opportunities. Siting WRS office space on SPSCC property would support missions of both the college and the City by establishing an internship/mentorship program to promote public/environmental employment opportunities. Another connection to the Water Resources program is Percival Creek, which runs through the middle of the campus. The City's focus on the creek has increased for recovery of salmon, habitat restoration, and improving water quality. The location provides a good opportunity to sponsor internship/mentorship programs by developing programs and activities with students assisting in the collection of data the City needs to assess conditions in the creek. Other benefits include on-site security through SPSCC, dedicated fleet parking, the availability of EV (electric vehicle) charging stations and possibly assisting the college to expand EV charging stations, and furthering the partnership between the City and SPSCC. The proposal with SPSCC is an all-inclusive lease rate. A lease option with the Town Center East location requires the

City to assume costs for utilities, internet, and janitorial services.

One-time costs associated with the proposal include moving employees and furniture.

Office space at SPSCC would be located in Building 32, the Natural Sciences Building, in rooms 107, 108, 109, and two small spaces for virtual meeting and private meeting space. Director Smith outlined the configuration for workspaces, meeting rooms, and a break room. At this time, eight employees would move to the site. The site would include additional capacity for employees and for others who meet frequently with the WRS team.

The two-year budget approved last year allocated $65,000 for two years. The lease for one year is approximately $65,000. Lease costs were similar for other locations explored by staff. The SPSCC lease would be approximately $61,300 per year with the space at Town Center East several thousand dollars more. The SPSCC lease rate is inclusive while the Town Center East lease would incur additional costs. One-time costs would cover carpet, painting, and new furniture and equipment. The 10-year lease rate includes escalators capped at 3% for the SPSCC lease. An escalator was included in the Town Center East lease as well. A 10-year lease forecast with SPSCC is $935,000 and $1.3 million for the Town Center East location.

Director Smith described other challenges, such as the lack of team connectivity with other employees at City Hall. One area of future discussion is maintaining connectivity with City Hall. The team currently hosts many meetings with other staff units for the purpose of training and coordination with other departments.

SPSCC has indicated a willingness to support an internship/mentorship program in conjunction with the City with details of the collaboration negotiated with the college.

Director Smith invited feedback and questions on the proposal. If the committee concurs, staff plans to draft a lease for the committee's review and consideration at its May 16, 2023 meeting for a recommendation to the Council. If approved by the Council, staff would move forward on an office remodel and begin purchasing furniture and equipment.

City Administrator Doan spoke to the Council goal on workforce development, as well as working with LOTT Clean Water Alliance, SPSCC, and other partners to promote workforce development. A lease with SPSCC would assist in helping the City achieve that goal. A lease with SPSCC also addresses a financial structure issue surrounding City Hall. Currently, utilities do not pay rent for space, which would be corrected by moving to SPSCC.

Councilmember Schneider commented that the lease amounts do not appear to be accurate between the two locations. Director Smith said the difference is because of the escalator rates because the rate of escalation for the Town Center East location was not identified. He estimated a conservative amount of 2% for that location. During preliminary discussions with Town Center East representatives, they indicated the 10-year lease would not necessarily include rates for escalation. As SPSCC is a public entity, the escalation rate was easier to forecast than the Town Center East rate.

Councilmember Althauser noted the information for the Town Center East location indicated a kitchenette and sink. He asked whether the SPSCC location includes a sink and running water. Director Smith replied that the Town Center East location currently does not include a sink with running water. Adding a sink would be in addition to tenant improvements. Funding was identified for the addition to that facility. The budget for the SPSCC site includes $15,000 for similar types of improvements; however, the spaces were previously used as science classrooms with plumbing and sinks.

Discussion ensued on the natural setting and beauty of the SPSCC campus benefitting employees and their role in promoting environment health and restoration activities.

Councilmember Althauser recommended the committee's recommendation on the proposal should move forward as a Council Consideration rather than as a Consent Calendar item.

City Administrator Doan noted that the budget lacks any funds for relocation costs, which are a one-time cost. The amount of the funds for the lease was only budgeted at one-third of the cost. The budget includes $65,000 for the biennium, which would only cover the lease for one year. The proposal is more expensive than the estimate included in the budget. The utility accounts could absorb the additional costs.

Chair Swarthout thanked Director Smith for the presentation on the proposal.

ADJOURNMENT: **With there being no further business, Chair Swarthout adjourned the meeting at 8:49 a.m.**

Prepared by Valerie L. Gow, Recording Secretary/President
Puget Sound Meeting Services, psmsoly@earthlink.net

TO: Public Works Committee

FROM: Mary Heather Ames, Assistant Transportation & Engineering Director

DATE: May 18, 2023

SUBJECT: Resolution No. R2023-008 Six-Year Transportation Improvement Program

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1) Recommended Action:

Staff requests the Public Works Committee review and provide comments on the proposed Six-Year Transportation Improvement Program (TIP) update for 2024-2029.

A public hearing before the full City Council is planned for Tuesday, June 6, 2023, to consider Resolution No. R2023-008, adopting the City's Six-Year Transportation Improvement Program for 2024-2029.

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2) Background:

RCW 35.77.010 requires that each city and town adopt annually, following a public hearing, a Six-Year Transportation Improvement Program detailing projected needs for city transportation improvements. Any project proposed for federal or state funding must appear in this program.

The proposed 2024-2029 TIP includes transportation projects included in the City's Comprehensive Plans, including the Capital Facilities Plan, Transportation Plan, and Recreation and Open Space Plan. It also includes projects that have been identified since the aforementioned plans were adopted. Projects are based on projected growth and available or projected funding. The time lines identified may change depending on growth and the availability of funding.

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3) Policy Support:

Strategic Goal C. Create and Maintain a Transportation System Safe for all Modes of Travel
- Ensure sustainable funding to maintain and improve streets and sidewalks

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4) Alternatives:

- ❑ Approve the project list as presented.
- ❑ Recommend revisions to the project list.

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5) Fiscal Notes:

Fiscal impacts of the Six-Year TIP will be identified through the on-going Capital Facilities Plan and budget processes. Current projected funding needs and sources are identified in the TIP.

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6) Attachments:

A. DRAFT Resolution No. R2023-008
B. DRAFT Six-Year TIP Project Map 2024-2029

RESOLUTION NO. R2023-008

A RESOLUTION of the City Council of the City of Tumwater, Washington adopting a Six-Year Transportation Improvement Program for 2024-2029.

WHEREAS, RCW 35.77.010 requires that each city and town adopt annually, following a public hearing, a Six-Year Transportation Improvement Program detailing projected needs for street construction; and

WHEREAS, the Tumwater City Council held a public hearing on June 6, 2023, to consider the 2024-2029 Six-Year Transportation Improvement Program detailing projected needs for street construction; and

WHEREAS, the Six-Year Transportation Improvement Program is consistent with the Comprehensive Plan, supports the health, safety, and welfare of the residents of Tumwater, and will benefit the public;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUMWATER AS FOLLOWS:

Section 1. **Adoption**. The City of Tumwater's Six-Year Transportation Improvement Program for 2024-2029, attached hereto as Exhibit "A", is hereby adopted.

Section 2. **Ratification**. Any act consistent with the authority and prior to the effective date of this Resolution is hereby ratified and affirmed.

Section 3. **Severability**. The provisions of this Resolution are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section, or portion of this Resolution or the invalidity of the application thereof to any person or circumstance, shall not affect the validity of the remainder of the Resolution, or the validity of its application to other persons or circumstances.

Section 4. **Effective Date**. This Resolution shall become effective immediately upon adoption and signature as provided by law.

RESOLVED this ___ day of _____, 2023.

CITY OF TUMWATER

_____
Debbie Sullivan, Mayor

ATTEST:

_____
Melody Valiant, City Clerk

APPROVED AS TO FORM:

_____
Karen Kirkpatrick, City Attorney

Six Year Transportation Improvement Program Summary 2024 - 2029

Map #	Project Name	Phase in TIP*				Description	6-Year TIP Planned Fund Source / Project Cost			Funding Secured
		PLN	PE	RW	CN		Grant	Local	Total	
CAPACITY										
1	I-5 / Trosper Road / Capitol Boulevard Reconfiguration				X	Realign northbound Interstate 5 on/off ramp, construct new extension of 6th Avenue between Trosper Road and Lee Street, construct three roundabouts.	$4,194,000	$1,806,000	$6,000,000	Yes
2	E Street Connection		X	X		Engineering and right of way acquisition for E Street Connection. Construct new roadway with sidewalk, illumination, storm drainage, and intersection improvements connecting Capitol Boulevard and Cleveland Avenue.	$6,600,000		$6,600,000	No
3	Brewery District Plan - Streetscape Improvements		X		X	Implementation of select elements developed from the Brewery District Plan.	$722,500	$127,500	$850,000	No
4	Henderson Boulevard Bridge		X			Design for future bridge replacement or widening to add capacity including non motorized facilities.	$212,500	$37,500	$250,000	No
5	Old Highway 99 Corridor Improvements - 79th Avenue to 73rd Avenue		X		X	Design and construct urban road section and improvements determined from corridor plan. To include addition of traffic lanes, turn lanes, multi-modal facilities, illumination, storm drainage, landscaping, medians and intersection improvements.	$2,500,000	$2,500,000	$5,000,000	No
6	Old Highway 99 / 79th Avenue Roundabout		X	X	X	Design and construct roundabout at the intersection of Old Highway 99 and 79th Avenue.		$4,500,000	$4,500,000	Yes
7	Tumwater Boulevard Interchange		X	X	X	Design, acquire right-of-way, and construct improvements to the Tumwater Boulevard / I-5 Interchange. Phased project with an interim signal followed by a roundabout, a second roundabout, and overpass widening. Funds shown are for a temporary signal and two roundabouts.	$2,250,000	$11,700,000	$13,950,000	Partial
8	Trosper Road, Littlerock Road to I-5	X				Planning and preliminary engineering for future project to address capacity and safety issues.	$173,000	$27,000	$200,000	No

*PLN - Planning, PE - Design, RW - Right of Way, CN - Construction

Six Year Transportation Improvement Program Summary 2024 - 2029

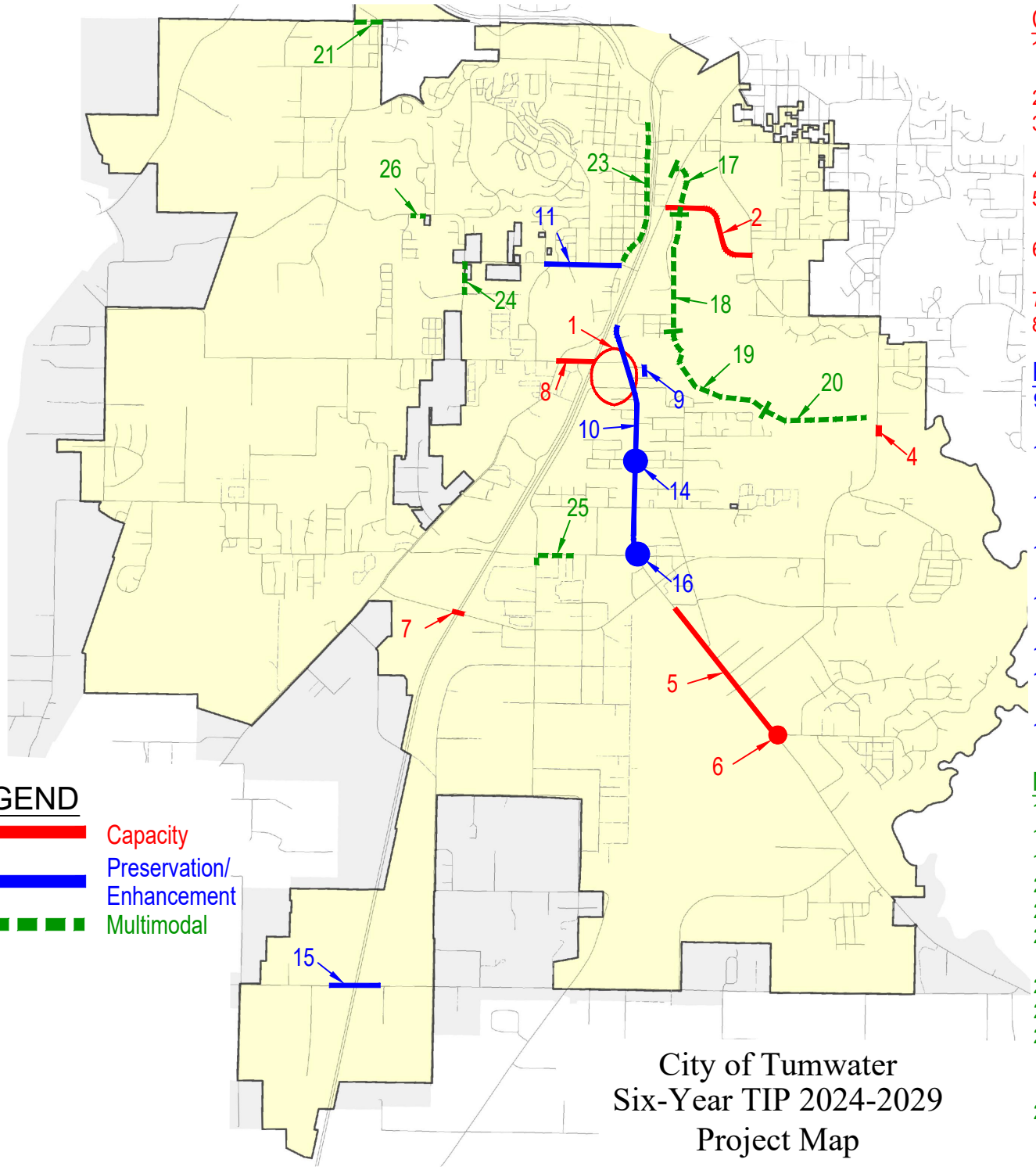
Map #	Project Name	Phase in TIP*				Description	6-Year TIP Planned Fund Source / Project Cost			Funding Secured
		PLN	PE	RW	CN		Grant	Local	Total	
PRESERVATION / ENHANCEMENT / MAINTENANCE										
9	Pavement Maintenance Program		X		X	This program provides for the maintenance and preservation of city streets, including Transportation Benefit District (TBD) projects.		$14,100,000	$14,100,000	Partial
10	Capitol Boulevard Plan, Corridor Improvements			X	X	Right of way acquisition for properties on the alignment of the N-S Road between Linda and Ruby Streets along with design and construction of select ADA and neighborhood improvements per the Capitol Boulevard Corridor Plan.		$650,000	$650,000	No
11	Linwood Avenue Sidewalk, Susitna Lane to 2nd Avenue		X		X	Sidewalk infill and traffic calming on school walking routes in the vicinity of Michael T. Simmons Elementary School, in addition to pedestrian and vehicular safety improvements at the intersections of Linwood Avenue with 2nd Avenue and Lake Park Drive.	$340,000	$420,000	$760,000	Yes
12	Safe Routes to School Program		X		X	Projects in this program seek to improve pedestrian and bicyclist safety near schools. Projects include sidewalks, lighting, ADA ramps, signage, markings, education, beacons and other improvements.	$480,000	$120,000	$600,000	No
13	Traffic Signal Controller & Detection Upgrade		X		X	This project will replace the controllers and necessary associated hardware at eight intersections and will upgrade the detection equipment to current standard cameras at six intersections throughout Tumwater.	$268,150	$41,850	$310,000	Yes
14	X Street Roundabout			X	X	Construction of a roundabout at the intersection of Capitol Boulevard and X Street as proposed in the Capitol Boulevard Corridor Plan.	$3,340,000	$1,660,000	$5,000,000	Partial
15	I-5 & SR 121/93rd Avenue SE Interchange Study	X				In partnership with WSDOT, study to examine safety and multimobility issues, analyze alternatives, and conduct an Intersection Control Evaluation (ICE) at the intersections, if applicable.	$173,000	$27,000	$200,000	No
16	Capitol Boulevard and Dennis Street Roundabout		X	X	X	Construction of a roundabout at the intersection of Capitol Boulevard and Dennis Street as proposed in the Capitol Boulevard Corridor Plan.		$2,000,000	$4,000,000	No

*PLN - Planning, PE - Design, RW - Right of Way, CN - Construction

Six Year Transportation Improvement Program Summary 2024 - 2029

Map #	Project Name	Phase in TIP*				Description	6-Year TIP Planned Fund Source / Project Cost			Funding Secured
		PLN	PE	RW	CN		Grant	Local	Total	
MULTIMODAL										
17	Deschutes Valley Trail, Segment A2		X		X	Construction of a paved walking/bicycling trail connection from Tumwater Falls Park to E Street.	$2,000,000	$1,000,000	$3,000,000	Yes
18	Deschutes Valley Trail, Segment B		X		X	Construction of a paved walking/bicycling trail connection from Tumwater Valley Golf Course to south of E Street.		$750,000	$750,000	No
19	Deschutes Valley Trail, Segment C		X		X	Construction of a paved walking/bicycling trail connection from Tumwater Valley Golf Course to T Street.		$3,000,000	$3,000,000	No
20	Deschutes Valley Trail, Segment D		X		X	Construction of a paved walking/bicycling trail connection from T Street to Pioneer Park.	$3,800,000	$1,000,000	$4,800,000	Yes
21	Mottman Road Improvements		X		X	Installation of sidewalk and street improvements on portions of Mottman Road. The project will have similar improvements to City of Olympia's portion (joint project).	$1,700,000		$1,700,000	Yes
22	Multimodal Improvements and Traffic Calming		X	X	X	Miscellaneous pedestrian, ADA ramp, and traffic calming improvements at various locations throughout the city.		$2,280,000	$2,280,000	Partial
23	2nd Avenue Pedestrian and Bicycle Improvements		X	X	X	Intersection improvements at 2nd and Linwood. Sidewalk, bulb-outs, curb ramps, paving, bike lanes on 2nd from Linwood to B Street.	$2,115,000	$1,490,000	$3,605,000	Yes
24	Rural Road Shoulder Improvements		X	X	X	Construct widened shoulder along Rural Road from 48th Avenue to Linwood Avenue.		$400,000	$400,000	No
25	Israel Road and Linderson Way Pedestrian and Bicycle Improvements		X		X	Roadway and multi-modal improvements at the intersection of Israel Road and Linderson Way including construction of refuge island(s), reconstruction of select sidewalk segments and curb ramps, add bike lanes, signal improvements, roadway and other improvements.	$626,840	$1,358,160	$1,985,000	Yes
26	Percival Creek Fish Passage Barrier Removal				X	Replacement of a full barrier culvert with a four-sided box culvert. Includes roadway reconstruction and the addition of bike lanes and sidewalks throughout.	$2,000,000		$2,000,000	Yes
						Totals	**$33,494,990**	**$50,995,010**	**$86,490,000**	

*PLN - Planning, PE - Design, RW - Right of Way, CN - Construction



CAPACITY

1. I-5 / Trosper Rd / Capitol Blvd Reconfiguration
2. E St Connection
3. Brewery District Plan - Streetscape Improvements (Not Shown)
4. Henderson Blvd Bridge
5. Old Highway 99 Corridor Improvements - 79th Ave to 73rd Ave
6. Old Highway 99 / 79th Ave Roundabout
7. Tumwater Blvd Interchange
8. Trosper Road, Littlerock Road to I-5

PRESERVATION / ENHANCEMENT

9. Pavement Maintenance Program (Not Shown)
10. Capitol Boulevard Plan, Corridor Improvements
11. Linwood Ave Sidewalk, Susitna Lane to 2nd Ave
12. Safe Routes to School Program (Not Shown)
13. Traffic Signal Controller & Detection Upgrade (Not Shown)
14. X Street Roundabout
15. I-5 & SR121 /93rd Ave SE Interchange Improvements Study
16. Capitol Blvd and Dennis St Roundabout

MULTIMODAL

17. Deschutes Valley Trail, Segment A2
18. Deschutes Valley Trail, Segment B
19. Deschutes Valley Trail, Segment C
20. Deschutes Valley Trail, Segment D
21. Mottman Rd Improvements
22. Multimodal Improvements and Traffic Calming (Not Shown)
23. 2nd Ave Pedestrian Improvements
24. Rural Rd Shoulder Improvements
25. Israel Rd and Linderson Way Pedestrian and Bicycle Improvements
26. Percival Creek Fish Passage Barrier Removal

LEGEND

Capacity

Preservation/ Enhancement

Multimodal

City of Tumwater Six-Year TIP 2024-2029 Project Map

TO: Public Works Committee

FROM: Alyssa Jones Wood, Sustainability Coordinator

DATE: May 18, 2023

SUBJECT: Investment Grade Audit Proposal Discussion

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1) Recommended Action:

None. This item is an update on energy efficiency improvements for City facilities considered for the Investment Grade Audit (IGA) through agreement with Department of Enterprise Services (DES).

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2) Background:

The Thurston Climate Mitigation Plan, accepted by the City Council via Resolution R2021-001January 19, 2021, includes actions W1.1 Municipal Energy Efficiency and W2.2 Water Audits. To advance these actions the City entered into Interagency Agreement K7666 with DES in July 2022 to utilize its Energy Program. MacDonald-Miller, the Energy Services Company selected for the project, has completed a preliminary audit of City facilities and identified potential Energy Efficiency Measures with staff support. The project is ready for MacDonald-Miller to complete the formal IGA following staff acceptance of the proposed recommendations for facility improvements. DES will prepare an Energy Services Authorization to allow MacDonald-Miller to begin the full IGA which will be brought back to Public Works Committee and City Council for authorization.

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3) Policy Support:

2023-2024 Strategic Priority: Be a Leader in Environmental Sustainability.

- Continue to update and advance the Climate Action Plan.

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4) Alternatives:

- ❑ Reject the Investment Grade Audit Proposal recommendations.

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5) Fiscal Notes:

The cost of the Investment Grade Audit is $42,863. The cost of improvements will be outlined following the completion of the IGA.

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6) Attachments:

A. Investment Grade Audit Proposal
B. City of Tumwater Energy Efficiency Measures
C. Department of Enterprise Services Energy Savings Performance Contracting Program Process Description

City of Tumwater

INVESTMENT GRADE AUDIT PROPOSAL

Energy Efficiency Upgrades

March 27, 2023

Prepared For

Alyssa Jones Wood
Sustainability Coordinator
City of Tumwater
555 Israel Rd SW
Tumwater, WA 98501

Bernard Jackson
Energy Systems Engineer
WA Department of Enterprise Services
1500 Jefferson St / PO Box 41476
Olympia, WA 98504-1476

Prepared By

MacDonald-Miller
FACILITY SOLUTIONS

MacDonald-Miller FACILITY SOLUTIONS®

We make buildings work better.

March 27, 2023

Alyssa Jones Wood
Sustainability Coordinator
City of Tumwater
Tumwater, WA

Bernard Jackson
State of Washington
Department of Enterprise Services
Olympia, WA 98504

Subject: **Investment Grade Audit Proposal - City of Tumwater**

Dear Alyssa,

MacDonald-Miler Facility Solutions, is pleased to provide the following Investment Grade Audit proposal to the City of Tumwater. The purpose of this proposal is to perform an Investment Grade Audit (IGA) at various locations in Tumwater. All work associated with this effort will be developed in coordination with the City of Tumwater and State of Washington's Energy Services Performance Contracting (ESPC) program.

The purpose of the IGA is to develop a detailed engineering study that will identify the scope of work, energy savings, maintenance savings and financial case that meets the City of Tumwater financial and operational goals. Upon completion of the IGA, an Energy Savings Proposal (ESP) will be delivered that includes all associated project guaranteed cost and savings.

MacDonald-Miller partners with building owners to identify cost effective operational investments and financing strategies. These investments save energy, support sustainability objectives, improve comfort and extend the life expectancy of equipment; while achieving the goal of operational excellence.

Developing a detailed scope of work and reliable budget pricing at an early stage of a project is an innate strength of our company. The historical in-house cost systems and performance matrix provide us with the ability to budget multiple design sets to help the owner make informed decisions on their HVAC, Lighting systems, and building envelope improvements in terms of cost and long-term performance.

We are honored to have the opportunity to work with you on this and future projects. Please contact us with any questions you might have.

Best regards,

Andy Kaplowitz
Public Sector Account Executive

Cell: 206-639-3724

Email: andy.kaplowitz@macmiller.com

PROJECT UNDERSTANDING

MacDonald-Miller has been working closely with the City of Tumwater to help them address their financial and operational goals. These goals are defined as follows:

- Increase occupant comfort.
- Address aging inefficient building systems and components.
- Reduce the overall energy, water and operational costs, reflective of the city of Tumwater's goals of a 2% annual reduction in electricity consumption, or 20% from 2019 levels by 2030, and a 3% annual reduction in potable water consumption, or 33% from 2019 levels by 2030.
- Reduce carbon emissions.
- Reduce overall Financial and Operational costs.
- Identify potential funding sources (including but not limited to capital funds, utility incentives, energy/operational savings and other state or federal grants as applicable).
- Phasing of projects to meet the City's financial funding if necessary.

MacDonald-Miller has been working in collaboration with the City of Tumwater to identify the next phase of energy efficiency measures that meet the above goals. These measures are identified below. This list may be expanded once additional knowledge is gained during the audit, or some measures may be deleted or modified due to high payback or other Owner concerns.

City Hall Campus

- **Decarbonization** – Convert existing HVAC system to Variable Refrigerant Flow (VRF) system.
- **Lighting and Controls Upgrade** – Upgrade the remaining compact fluorescent, florescent, incandescent, or HID lighting fixtures to LED technology and add controls**.**
  Exterior Lighting and Controls Upgrade – Upgrade the exterior lighting fixtures to LED.
- **Controls Upgrade** – Replace existing HVAC controls with Honeywell DDC.
- **Smart Building Analytics, Utility Tracking, and Continuous Commissioning** – Provide fault analytics and monitoring on major equipment to reduce energy waste. Optimize controls via continuous commissioning. Provide a new dashboard with equipment health score and cost forecasting for deferred maintenance.
- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
- **Irrigation System Water Conservation Measures** – Investigate irrigation systems for potential opportunities for water conservation.

Tumwater Library

- **Smart Building Analytics, Utility Tracking, and Continuous Commissioning** – Provide fault analytics and monitoring on major equipment to reduce energy waste. Optimize controls via continuous commissioning. Provide a new dashboard with equipment health score and cost forecasting for deferred maintenance.

- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.

Parks and Facilities Building

- **Decarbonization** – Convert existing natural gas-using HVAC systems and equipment to electric.
- **Lighting and Controls Upgrade** – Upgrade the remaining compact fluorescent, florescent, incandescent, or HID lighting fixtures to LED technology and add controls**.**
  Exterior Lighting and Controls Upgrade – Upgrade the exterior lighting fixtures to LED.
- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
- **Upgrade Domestic Hot Water Heater** – Replace existing domestic hot water heater with new, higher efficiency heat pump water heater.

Public Works Building #2

- **Decarbonization** – Convert existing natural gas-using HVAC systems and equipment to electric.
- **Lighting and Controls Upgrade** – Upgrade the remaining compact fluorescent, florescent, incandescent, or HID lighting fixtures to LED technology and add controls**.**
  Exterior Lighting and Controls Upgrade – Upgrade the exterior lighting fixtures to LED.
- **Door Control Upgrade** – Add door switches to deactivate heating elements when bay doors are open.
- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
- **Upgrade Domestic Hot Water Heater** – Replace existing domestic hot water heater with new, higher efficiency heat pump water heater.

Public Works Building #3

- **Decarbonization** – Convert existing natural gas-using HVAC systems and equipment to electric.
- **Lighting and Controls Upgrade** – Upgrade the remaining compact fluorescent, florescent, incandescent, or HID lighting fixtures to LED technology and add controls**.**
  Exterior Lighting and Controls Upgrade – Upgrade the exterior lighting fixtures to LED.
- **Door Control Upgrade** – Add door switches to deactivate heating elements when bay doors are open.
- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.

Tumwater Valley Golf Club

- **Decarbonization** – Convert existing HVAC system to Variable Refrigerant Flow (VRF) system. Investigate possibility of converting gas-consuming kitchen equipment to electric (will require consultation and approval by tenant.)
- **Lighting and Controls Upgrade** – Upgrade the remaining compact fluorescent, florescent, incandescent, or HID lighting fixtures to LED technology and add controls**.**

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- **Water Conservation Measures** – Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.

INVESTMENT GRADE AUDIT SCOPE OF WORK

MacDonald-Miller will work closely with the City of Tumwater and DES to perform an Investment Grade Audit (IGA) that meets the client's needs. The following actions will be completed in the development of the Investment Grade Audit.

- Perform a targeted energy audit of the facility infrastructure that directly pertains to the proposed measures; including all systems that directly or indirectly affect the usage of energy (electricity, natural gas, fuel oil, etc.) or water/wastewater.
- Collect and analyze trends, drawings and other information that provide insight into the operation of the facility.
- Review facility design documents, specifications and O&M manuals.
- Measure and monitor the energy usage of select equipment to quantify actual operating parameters.
- Analyze, identify, and recommend energy conservation measures that meet the project goals.
- Identify available grants, utility incentives, and other funding sources as applicable. Coordinate with the grant providers and local utilities to obtain these funds to help pay for the proposed project.
- Interview facility/plant operating and engineering staff to understand and prioritize the following:
  1. Equipment issues or deficiencies that need to be resolved.
  2. Gain an understanding of past and current operation.
  3. Solicit infrastructure upgrade/modification recommendations.
  4. Survey occupants to understand comfort issues or concerns.
  5. Coordinate with facility personnel and staff to prevent disruptions to work schedules during audit and implementation.

The Investment Grade Audit/Energy Service Proposal will include the following:

- The recommended conservation measures to be installed and a description of the conservation measures analyzed but disqualified and a reason they were disqualified.
- Recommendations for replacement of existing equipment, along with recommendations for improvements to existing equipment and operating conditions.
- The baseline energy consumption for the facility, including the data, methodology and variables used to compute the baseline, and the baseline calendar period that will not be less than twelve months.
- The energy savings and estimated energy cost savings that are expected to result from the installation of the energy efficiency equipment and an explanation of the method or methods used to calculate these savings.

At the conclusion of the Investment Grade Audit, an Energy Service Proposal will be developed that will include the following:

- A detailed project scope.
- A guaranteed implementation cost and associated guaranteed energy savings for the project scope.
- The maximum allowable construction cost, itemized in detail including an itemization by EEM.
- Preliminary system/equipment selections, schematic drawings as needed to describe the work and preliminary control sequences to achieve the proposed savings.
- Develop a preliminary project schedule that identifies the timeline and steps required to implement the project.
- Identify maintenance requirements for the proposed equipment upgrades.
- The standards of comfort and service appropriate for the facility.
- Options for financing of the project (through the state local loan program or 3rd party low interest financing) as appropriate and as requested by owner.
- A measurement and verification plan that with describe how the savings will be verified during the term of the energy services agreement.

COST EFFECTIVENESS CRITERIA

There are three potential outcomes of the IGA:

- If a facility does not have measures that meet the cost-effectiveness criteria established by the client agency, there is no cost to the Client for the audit. This is true unless the client agency, DES and the ESCO agree to other arrangements. In that case these special arrangements must be reflected in the contract documents.
- If the ESCO identifies cost-effective measures and the client agency decides not to proceed, the ESCO will be reimbursed for the audit.
- If the ESCO identifies cost-effective measures and the client decides to proceed, an energy services proposal is completed and presented.

The cost effectiveness criteria for this project is “lifecycle cost effective”. This is defined as the measure having a net positive present value over the economic lifetime of the measure. For purposes of determining economic lifetime, ESCOs rely on generally accepted engineering practice as is guided by entities such as the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE), or other national or international standard setting bodies.

Owner Goals
Cost Effectiveness Criteria goals stipulated by City of Tumwater include:

- 2% reduction in electricity consumption annually, or 20% from 2019 levels by 2030
- Decrease potable water consumption 3% annually, or 33% from 2019 levels by 2030
- Reduce GHG emissions 45% by 2030

The following criteria will be used to determine the cost-effectiveness of the measures proposed in the ESP.

- The Client may use any combination of the following funding and payment options to discharge its obligations under the Energy Services Agreement, including but not limited to:
    - ESCO financing;
    - State Treasurer's LOCAL Program;
    - Energy cost savings, utility cost savings, and approved O&M savings to pay off any of the above debt structures;
    - Grants, loans and/or incentives from utilities or other funding sources; and
    - The Client capital budget or any other funds at the Client discretion.
- The loan term may not exceed the economic life of the measure, unless otherwise approved by the Client and DES.
- Not more than 90% of the energy cost savings may be used to repay the loan, unless approved by the Client and DES.
- Up to 100% of utility grants may be used to defray project costs or to repay the loan.
- Labor cost savings shall not be included in energy cost savings for the purpose of determining cost-effectiveness, unless specifically approved by the Client. Material cost savings will typically represent costs for purchased parts and service contracts, but not internal labor costs.
- The cost of the measures will include: the cost of the IGA and preparation of the ESP; project design; construction; ESCO's construction and project administration; DES's project management fee; system commissioning; bidding; bonding; overhead and profit; permits; taxes; training; cost and saving guarantees, and other costs that may be agreed to by the ESCO PM, DES and the Client.
- The Client cash flow including savings, utility contributions, cost of measurement and verification services, cost of measures, and loan repayments shall be neutral or positive with respect to the baseline cash flow and based on guaranteed savings.
- Current utility rates shall be used for the purpose of calculating energy and utility cost savings. Energy and utility cost inflation factors shall not be used without the Client expressed approval.

INFORMATION PROVIDED BY OWNER

In developing the IGA, MacDonald-Miller assumes the following information will be provided as required:

- Access to Energy Star Portfolio (if available)
- Hours the facility is occupied (historic and projected)
- Occupancy rates (historic and projected)
- Required heating and cooling set points
- As-built design documents of the mechanical, electrical and controls
- Hazardous Materials Assessment Report for the buildings being audited
- Access to facility, HVAC systems & control systems.

PRELIMINARY SCHEDULE

The following schedule is based on receiving a signed IGA contract by April 10, 2023:

Preliminary Schedule	
Description	**Date**
Deliver Investment Grade Audit Proposal	March 27, 2023
Investment Grade Audit Kickoff	April 24, 2023
Preliminary Cost and Savings	July 13, 2023
Investment Grade Audit Completion	August 3,2023
Energy Service Proposal Delivery	September 6, 2023

MEASUREMENT AND VERIFICATION

MacDonald-Miller conforms to the International Performance Measurement and Verification Protocol (IPMVP) when documenting the energy savings of the installed measures. The proposed length of M&V is one year. IMVP options and term may change during the development of the IGA.

AUDIT FEE

The fee to develop an Investment Grade Audit will be **Forty-two Thousand Eight Hundred Sixty-Three Dollars**. All fees will be included and shown in the ESPC implementation costs.

PRICING	
Investment Grade Audit	$42,863

If this proposal is acceptable, please process the appropriate documents.

We look forward to working with the City of Tumwater and DES on developing and implementing this project.

City of Tumwater

EEM#	EEM Description
City Hall Campus	
IGA	**Investment Grade Audit (IGA) -** Measure Development, Energy Savings Calculations, Preliminary Design (DDC & Mechanical), Incentive Applications (State & Local), Estimating & Preconstruction Services.
EEM 1	**Decarbonization** - Convert existing HVAC system to Variable Refrigerant Flow (VRF) system
EEM 2	**Lighting and Controls Upgrade -** Upgrade the remaining compact fluorescent fixtures to LED and add controls **Exterior Lighting and Controls Upgrade** - Upgrade the exterior lighting fixtures to LED.
EEM 3	**Controls Upgrade -** Replace existing HVAC controls with Honeywell DDC
EEM 4	**Smart Building Analytics, Utility Tracking, and Continuous Commissioning -** Provide fault analytics and monitoring on major equipment to reduce energy waste. Optimize controls via continuous commissioning. Provide a new dashboard with equipment health score and cost forecasting for deferred maintenance.
EEM 5	**Water Conservation Measures -** Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
EEM 6	**Irrigation System Water Conservation Measures -** Investigate irrigation systems for potential opportunities for water conservation.
Tumwater Library	
IGA	**Investment Grade Audit (IGA) -** Measure Development, Energy Savings Calculations, Preliminary Design (DDC & Mechanical), Incentive Applications (State & Local), Estimating & Preconstruction Services.
EEM 1	**Smart Building Analytics, Utility Tracking, and Continuous Commissioning -** Provide fault analytics and monitoring on major equipment to reduce energy waste. Optimize controls via continuous commissioning. Provide a new dashboard with equipment health score and cost forecasting for deferred maintenance.
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Parks and Facilities Building	
IGA	**Investment Grade Audit (IGA) -** Measure Development, Energy Savings Calculations, Preliminary Design (DDC & Mechanical), Incentive Applications (State & Local), Estimating & Preconstruction Services.
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EEM 2	**Water Conservation Measures -** Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
EEM 3	**Upgrade Domestic Hot Water Heater -** Replace existing domestic hot water heater with new, higher efficiency heat pump water heater.
Public Works - Building #2	
IGA	**Investment Grade Audit (IGA) -** Measure Development, Energy Savings Calculations, Preliminary Design (DDC & Mechanical), Incentive Applications (State & Local), Estimating & Preconstruction Services.
EEM 1	**Decarbonization** - Convert existing natural gas-using HVAC systems and equipment to electric
EEM 2	**Lighting and Controls Upgrade -** Upgrade the remaining compact fluorescent fixtures to LED and add controls **Exterior Lighting and Controls Upgrade** - Upgrade the exterior lighting fixtures to LED.
EEM 3	**Door Control Upgrade -** Add door switches to deactivate heating elements when bay doors are open**.**
EEM 4	**Water Conservation Measures -** Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
EEM 5	**Upgrade Domestic Hot Water Heater -** Replace existing domestic hot water heater with new, higher efficiency heat pump water heater.

City of Tumwater

EEM#	EEM Description
Public Works - Building #3	
EEM 1	**Decarbonization** - Convert existing natural gas-using HVAC systems and equipment to electric
EEM 2	**Lighting and Controls Upgrade -** Upgrade the remaining compact fluorescent fixtures to LED and add controls **Exterior Lighting and Controls Upgrade** - Upgrade the exterior lighting fixtures to LED.
EEM 3	**Door Control Upgrade -** Add door switches to deactivate heating elements when bay doors are open**.**
EEM 4	**Water Conservation Measures -** Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption.
Tumwater Valley Golf Club	
IGA	**Investment Grade Audit (IGA) -** Measure Development, Energy Savings Calculations, Preliminary Design (DDC & Mechanical), Incentive Applications (State & Local), Estimating & Preconstruction Services.
EEM 1	**Decarbonization** - Convert existing HVAC system to Variable Refrigerant Flow (VRF) system**.** Investigate possibility of converting gas-consuming kitchen equipment to electric (will require consultation and approval by tenant).
EEM 2	**Lighting and Controls Upgrade -** Upgrade the remaining compact fluorescent fixtures to LED and add controls **Exterior Lighting and Controls Upgrade** - Upgrade the exterior lighting fixtures to LED.
EEM 3	**Controls Upgrade -** Replace existing HVAC controls with Honeywell DDC
EEM 4	**Smart Building Analytics, Utility Tracking, and Continuous Commissioning -** Provide fault analytics and monitoring on major equipment to reduce energy waste. Optimize controls via continuous commissioning. Provide a new dashboard with equipment health score and cost forecasting for deferred maintenance.
EEM 5	**Water Conservation Measures -** Retrofit existing fixtures to low flow, higher efficiency fixtures to reduce water consumption. Investigate irrigation systems for potential opportunities for water conservation.

Energy Savings Performance Contracting Program
Process Description

I. Program History

The Energy Savings Performance Contracting (ESPC) program was developed to provide a means to install Energy Efficiency Measures (EEMs) in State facilities without affecting the State's capital budget. The ESPC program within the Department of Enterprise Services (formerly General Administration) has since been expanded to provide energy conservation services to all public facilities in the State.

In 2001, the Legislature found that the economy of the state and the health, safety, and welfare of its citizens were threatened by the current energy supply and price instabilities. The ESPC program has been involved in over $1billion in total energy construction projects since its inception in 1986, resulting in $40 million a year in annual utility costs reductions to public facilities.

II. Energy Service Company pre-qualification

On a biennial basis, the Energy Program prepares an advertisement to be placed in the Seattle, and Portland editions of The Daily Journal of Commerce, and the Spokesman Review in Spokane. The advertisement describes the intent to develop a pre-approved list of Energy Services Companies (ESCOs) providing services to public facilities in the State for the upcoming biennium. ESCO firms submit a summary of their qualifications and experience. The submittals are reviewed by the Energy Program and those ESCOs deemed to be qualified are interviewed and offered a Master Energy Services Agreement. This makes them eligible to participate in energy related projects at public facilities managed by the DES Energy Program.

III. Client agency and DES contractual agreement

Local governments, school districts and state agencies (referred to as Client Agencies) must enter into an Interagency Agreement (IAA) with DES before they can participate in the program and work with one of the pre-qualified ESCOs. The IAA is drafted pursuant to Chapter 39.34 RCW. It allows the DES Energy Program to provide overall contracting and project management services to the Client Agency. All work by the Energy Program is authorized by amendments to the Agreement. Compensation for DES's Energy Program services is based on a pre-determined fee schedule that sets project management compensation levels based on the total project value. If the Client Agency proceeds with a project, then they are obligated to pay DES based on the project management fee

schedule. If the ESCO fails to develop a project that meets the Client Agencies established cost-effectiveness criteria, then there is no cost to the Client Agency.

IV. ESCO selection by the client agency

Client Agencies are allowed to select any of the pre-qualified ESCOs to work with under the ESPC Program. The DES Energy Program Manager assigns energy project managers (PMs) to work with clients based on their locality within the state or by client organization. The Energy Program PM may provide the client with a copy of executive summaries from each ESCOs statement of qualifications. The summaries provide key information on how each firm approaches projects, their specific experience, and the scope of projects completed in recent years. The PM also has access to the full Statement of Qualification and sample energy audits that each of the ESCO's submitted for evaluation by the pre-qualification selection committee. Client Agencies may use whatever selection process that complies with their own policies and procedures for selecting firms that provide professional services. If the Client Agency chooses to interview firms as part of the selection process, the Energy Program PM may sit in on ESCO interviews but does not participate in the final decision-making process. The Client Agency selects the ESCO.

Energy Program PMs have engineering and other technical experience in energy efficiency technologies and construction projects. These individuals are primarily licensed professional engineers who can interact with the ESCO on issues such as appropriate modification to existing building energy systems, control strategies for heating, ventilating and air-conditioning (HVAC) systems, and appropriate measurement and verification (M&V) methods associated with these retrofit projects.

V. Preliminary audit

After the Client Agency has selected an ESCO for their facility or project, the PM will often conduct a walk-through energy audit of the facility with the selected ESCO and the facility representative to determine the general scope and size of the project. During the development of the preliminary audit, energy baseline development and M&V methods will be discussed. DES and the Client Agency will review and agree with the methods proposed.

Prior to the walk-through the Client Agency should provide the ESCO with information about the facility, including utility billing information from at least the most current 12-month period (data covering the past two years is better). Utility data may include electricity, natural gas and water consumption records as appropriate. Information about the facility such as operating schedule, typical number of occupants and square footage are also helpful. This data is analyzed to establish the energy utilization index (EUI) of the facility. EUI may be thought of as similar to a car's fuel efficiency in miles per gallon (mpg). In buildings the lower the EUI, the better it's performing.

The purpose of the preliminary audit is to determine if a potential project exists and, to identify potential EEMs. This is also the time to evaluate equipment data-logging opportunities. (It is difficult, for instance, to get a good representation of cooling equipment operation in the winter or true occupancy patterns of a school in the summer.) The preliminary audit stage is an opportunity for the Client Agency and the PM to clarify with

the ESCO the Client Agencies cost-effectiveness criteria and any specific requirements or limitations for the project. ESCOs use the preliminary audit and subsequent proposal process to ensure there will be a feasible project established.

Investment grade audit

Once the ESCO, DES Energy PM, and the Client Agency are satisfied that there is adequate energy saving potential in the facility, the next step is to move to the investment grade audit. The ESCO will develop an audit proposal that will include the systems to be evaluated, the timeline to completion, and the cost to conduct the investment grade audit. The PM will review the proposal and negotiate the cost of the audit prior to the proposal being presented to the Client Agency.

Upon receiving Client Agency approval to go forward with the specific proposal, the Energy Program PM will prepare an Energy Services Authorization. The Client Agency receives a Funding Authorization document for signature. By authorizing the funding, the Client Agency certifies to the Energy Program PM that funds are appropriated and/or allocated for the project.

The ESCO will then proceed to conduct a detailed investment grade energy audit of the facility(s) and submit an investment grade audit and energy services proposal to the Energy Program PM and the Client Agency for review and approval.

The investment grade audit is to analyze all cost-effective EEMs for lighting, HVAC equipment, building envelope, steam systems, chilled water systems, domestic hot water and other water using systems, controls, energy generation and distribution systems, and waste management systems, as identified in the audit proposal. The audit will evaluate the economic performance and investment value of the EEMs.

There are three potential outcomes of the Investment Grade Audit:

1. If a facility does not have EEMs that meet the “cost effectiveness criteria” established by the Client Agency, there is no cost to the Client Agency for the audit. This is true unless the Client Agency, DES, and the ESCO agree to other arrangements. In that case these special arrangements must be reflected in the Authorization between the ESCO and Client Agency.
2. If the ESCO identifies cost-effective measures and the Client Agency decides not to proceed, then the ESCO will be reimbursed for the audit and the Energy Program will be paid a termination fee. This occurs rarely.
3. If the ESCO identifies cost-effective measures and the Client Agency decides to proceed, an energy services proposal is presented to the Client Agency.

The energy services proposal outlines the maximum guaranteed construction cost guaranteed and guaranteed equipment performance.

VI. Cost-effectiveness criteria

The definition of cost-effectiveness for energy conservation projects is found in Chapter 39.35C.010 RCW. It states:

> "Cost-effective" means that the present value to a state agency or school district of the energy reasonably expected to be saved or produced by a facility, activity, measure, or piece of equipment over its useful life, including any compensation received from a utility or the Bonneville power administration, is greater than the net present value of the costs of implementing, maintaining, and operating such facility, activity, measure, or piece of equipment over its useful life, when discounted at the cost of public borrowing.

This means that projects are considered cost-effective if they result in a net positive present value over their economic lifetime. For purposes of determining economic lifetime, ESCOs rely on generally accepted engineering practice as is guided by entities such as the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE), or other national or international standard setting bodies.

The following general criteria are commonly used to determine the cost-effectiveness of EEMs proposed in the energy services proposal. Occasionally a Client Agency will have additional criteria that must be met, such as shortened facility life time due to planned replacement.

- The Client Agency may use any combination of the following funding and payment options to discharge its obligations under the Energy Services Agreement:
    - ESCO financing;
    - ESCO arranged Municipal Lease financing;
    - State Treasurer's LOCAL Program;
    - Other third-party financing (banks, etc.)
    - Energy cost savings, utility cost savings, and approved O&M savings to pay off any of the above debt structures;
    - Grants, loans and/or incentives from utilities or other funding sources; and
    - The Client Agencies capital budget or any other funds at the Client Agencies discretion.
- The Client Agencies loan term may not exceed the economic life of the ECM, unless otherwise approved by the Client Agency and DES.
- Not more than 90% of the energy cost savings may be used to repay the loan, unless approved by the Client Agency.
- Up to 100% of utility grants may be used to defray project costs or to repay the loan.
- Labor or maintenance cost savings shall not be included in energy cost savings for the purpose of determining cost-effectiveness, unless specifically approved by the Client Agency. These will typically represent costs for purchased parts and service contracts, not internal labor costs.

- The cost of the EEMs will include: the cost of the investment grade audit and preparation of the energy services proposal; project design; construction; ESCO's construction and project administration; DES's project management fee; system commissioning; bidding; bonding; overhead and profit; permits; taxes; training; cost and saving guarantees, and other costs that may be agreed to by the ESCO PM and the Client Agency.

- The Client Agency's cash flow including savings, utility contributions, cost of measurement and verification services, cost of EEMs, and loan repayments shall be neutral or positive with respect to the baseline cash flow and based on guaranteed savings.

- Current utility rates shall be used for the purpose of calculating energy and utility cost savings. Energy and utility cost inflation factors shall not be used without the Client Agencies expressed approval.

VII. Energy services proposal and ESCO construction contract

The energy services proposal contains a breakdown and details of the following:

- Facility name, description, EUI, square footage, existing equipment, etc.;
- The EEMs proposed for installation, including quantities;
- The EEMs analyzed but not recommended;
- The EEMs proposed/analyzed but not chosen by the Client Agency;
- Improvements to operations and maintenance (O&M) practices for existing equipment;
- The maximum guaranteed project cost, including engineering and design, permits, materials, construction, commissioning, ESCO fees, DES Energy Program fees, measurement and verification fees, etc.;
- The energy and energy cost savings expected from the EEMs and O&M recommendations;
- Savings guarantee;
- Project cash flow over the term of the project financing, including capital infusion, financing expenses, and M&V costs;
- A detailed schedule for project completion;
- Verification that comfort conditions will be maintained at the facility;
- Identify the services and associated costs for the ESCO during the course of the project, including but not limited to; engineering, construction management, preparation of O&M procedures, training of facility personnel, commissioning, functional testing, HVAC testing, adjusting and balancing, start-up/stop, warranty services, and equipment maintenance; and
- The nature and extent of work and equipment that the ESCO will receive from other firms under subcontract.

The ESCO's overhead and profit and other approved markups to the overall cost of the project are set in the Master Energy Services Agreement. A contingency amount is included to cover any hazardous material costs or additional work for unforeseen conditions that may be encountered in the construction of the project. If contingency is used, it will be managed jointly by DES, the ESCO, and the Client Agency. The use of the contingency requires a change order to the ESCO construction contract.

Once the Client Agency approves the energy services proposal, the PM amends the Energy Services Authorization to add the design, construction contract administration, and overhead and profit.

After the project design is completed and approved by the Client Agency and the Energy Program PM, the ESCO will begin the procurement process. ESCO projects are delivered through a turnkey negotiated process and the ESCO is not required to publicly advertise for bids. The ESCO can procure the equipment through bidding, negotiation, or thru self-performance.

- For bidding, the ESCO can solicit bids from preselected sub-contractors, and will consider the client agency's requests for specific sub-contractors. Typically, only two or three subcontractors (pre-approved or requested by the Client Agency) are asked to bid the work.

The ESCO is not required to take the lowest bidder if it is determined to be detrimental to the performance of the project. All sub-contracted work is expected to be competitively bid by the ESCO to assure the ESCO and the Client Agency of a cost-effective installation.

- For negotiation, the ESCO may be allowed to negotiate with specific subcontractors or vendors if it is determined to be beneficial to the project providing that both the client agency and the Energy Program PM agree.
- For self-performance, the ESCO may be allowed to self-perform the work if it is determined to be beneficial to the project and both the client agency and the Energy Program PM agree. For work that is self-performed by the ESCO, the project team must agree on whether the construction group will act as a bidder in a selected bidding process or be treated in the same manner as negotiated procurement. If it is through the selected bidding process, it is recommended that the owner or the Energy Program PM receive the bids and the team open the bids as a group.

The ESCO construction contract identifies the acquisition and installation costs associated with the work, overhead and profit margins, bonds and insurance costs, commissioning activities, training for the Client Agencies maintenance personnel, and Washington State Sales Tax.

VIII. Notice of Commencement of Energy Cost Savings

When project construction is complete, the ESCO will issue a Notice of Commencement of Energy Cost Savings. This document is the formal written notification to DES and the Client Agency that the ESCO has substantially completed installation of ESCO equipment and/or provided ESCO services. This validates that the equipment or services are now providing sufficient energy savings for the Client Agency to begin making payments, as set

forth in the energy services proposal. Acceptance of the Notice of Commencement of Energy Cost Savings by the DES Energy PM and the Client Agency constitutes the date of substantial completion of the project. The Energy Program PM and Client Agency will have inspected the project and accepted it prior to this notice.

The ESCO is confirming that they have inspected the project and that it is complete, that all previously identified “incomplete work items” have been fulfilled, and that the project is providing cost savings sufficient to repay the investment.

IX. Invoices

One of the cornerstones of the ESPC program in Washington State is “open book” pricing. Construction costs are defined as “the actual cost of purchasing and installing the ESCO equipment, as demonstrated by the installation price quotes or construction contracts”. This means that the ESCO furnishes all the subcontractor and equipment invoices as backup to the invoices it submits. The ESCO will track project costs by listing subcontractor amounts and equipment quotes as individual lines on the schedule of values (further broken down by project phase if appropriate) on the “APPLICATION AND CERTIFICATE FOR PAYMENT ON CONTRACT” form that accompanies invoice voucher form A-19. It is preferred that subcontractors and equipment purchases over $10,000 be listed as individual line items on the schedule of values. All contract invoices will be broken down to show all materials and labor costs, even if that contractor is a subsidiary of the ESCO.

If the project is completely financed by the Client Agency through lease purchase or other loan provisions; the ESCO invoice will not be submitted until the project or approved project phase is complete, and the ESCO has submitted the “Notice of Commencement of Energy Cost Savings”. Payments to the ESCO that are dependent on, grants, loans or utility incentive payments will be made within 30 days of the date the Client Agency receives the funds. Payments to the ESCO, which are dependent on funding provided by the Client Agency, may be made by monthly partial payments depending on services provided. The ESCO must meet deadlines for completion and invoicing in order to not delay financing.

X. Measurement & Verification

The ESCO will enter into an M&V Authorization with the DES Energy Program to provide measurement and verification services as described in the energy services proposal to the Client Agency. M&V services are used to verify that energy or other utility savings are indeed being achieved. The recommended time period for M&V services is three years, with a one-year minimum. The Energy Program PM and the Client Agency may determine that additional M&V is required or beneficial in order to ensure savings continue to accrue, or to meet requirements established under utility reimbursement programs.