



## Transportation & Public Works Meeting Agenda

August 6, 2020; 5:30 – 6:30 PM  
“Virtual Meeting”

*Due to the current COVID-19 public health emergency, and social distancing protocols, pursuant to the Governor’s and public health officials’ orders, this meeting will be conducted virtually. The meeting will be live streamed on SeaTV and the City’s website. The public may also call in to the conference line to listen to the meeting. The number is 206-973-4555. While you will be able to hear the meeting, you will not be able to participate in the meeting. Please note that if you are unable to mute your phone, everyone else on the call-in line will be able to hear you, so please refrain from speaking. City Hall is closed so no one will be able to physically attend this meeting.*

Councilmembers:

Peter Kwon, Chair  
Pam Fernald  
Takele Gobena

**Note: A quorum of the Council may be present**

Staff Coordinators: Will Appleton, Public Works Director; Florendo Cabudol, City Engineer;

Other Staff participating:

TIME	TOPIC	PROCESS	WHO	TIME
1	Call to order		Chair	
2	Public Comment Process: In an effort to adhere to the social distancing protocols, pursuant to the Governor’s and public health officials’ orders, and in order to keep our residents, Council and staff healthy, the Committee will not hear any in-person public comments during this COVID-19 public health emergency. If you wish to submit a public comment, please email any comments by 2:30 PM the day of the meeting to <a href="mailto:tpwpubliccomment@seatacwa.gov">tpwpubliccomment@seatacwa.gov</a> . The public comment will be mentioned by name and subject, and then placed in the T&PW handout packet posted to the website.		Chair	5
3	Prior Minutes Approval	July 16 minutes to approve	Chair	5

4	Construction Management Contract Amendment for Perteeet on the ST-125 Military Rd South/S 152nd Street Project	Discussion/Recommendation	Florendo Cabudol	10
5	National Flood Plain Insurance Program Compliance	Discussion/Recommendation	Florendo Cabudol	20
7	<u>Future Meeting Topics:</u> Sound Transit Parking Tax; Tukwila International Blvd. Reconfiguration; 1% for the Arts on PW Projects;			5
7	Adjourn	Adjourn Meeting	Chair	



# Transportation & Public Works Committee Meeting Minutes

Thursday, July 16, 2020  
4:30 PM – 6:00 PM  
\*\* Virtual Meeting \*\*

Members:	Present:	Absent:	Commence: 4:32 PM Adjourn: 5:45 PM
Peter Kwon, Chair	X		
Pam Fernald	X		
Takele Gobena	X		

Other Councilmembers participating: Mayor Erin Sitterley;

Staff Coordinators: Will Appleton, Public Works Director; Florendo Cabudol, City Engineer

Other Staff Participating: Brenton Cook, Civil Engineer; Trevor Ralph, Civil Engineer; Gwen Voelpel, Deputy City Manager; Mark Johnsen, Asst. Sr. City Attorney

Public Comment.	None
1. Approve Prior Meetings' Minutes	July 2 Minutes were approved to go to Council
2. Professional Services Contract for ST-141 Pedestrian Improvements	<p>Discussion/Recommendation</p> <p>Trevor Ralph is the Project Manager; this project represents the first design opportunity of a project within the Airport Station Area, and will be influenced by our City Center Plan and the International Blvd Safety Plan.</p> <p>This design contract will be scoping out major right of way improvements for South 176th St, South 180th Street, and 32nd Ave South. The project scope includes ADA access improvements, potential bike lanes, new sidewalks, street lighting, undergrounding of overhead utilities, and incorporating and designing street elements consistent with the City Center Plan.</p> <p>KPG were selected from three consultants that responded to the Request for Qualifications for this project. \$1.7 Million is KPG's initial estimate for the design scope. Staff is working with KPG to refine the scope and reduce the fee.</p> <p>Staff is looking for recommendation from the Committee to bring the design contract forward at the August 11 Regular Council Meeting.</p> <p>Questions were raised by the Committee: Is future public outreach planned?</p>

	<p>Staff answered yes. Also, we will be drawing from the previous City Center Phase One outreach results. Committee stated that residents need to be fully aware of where improvements are planned and details about sidewalks, whether on one side of street or both.</p> <p>When will construction start? Staff expects construction start in 2022, but it is subject to securing the necessary right-of-way to construct the improvements.</p> <p>Does this project address the flooding regularly experienced at the end of South 180th Street? Staff responded that the localized flooding problem is being addressed by a separate project, South 180<sup>th</sup> St Flood Reduction project (SWMCIIP-08), which will be constructed sooner than the Airport Station Area Pedestrian Improvements.</p> <p>The topic before Committee today is the design contract. We won't receive a more representative estimate of full project costs until 60% design. It is currently estimated at \$13.9M. Staff will be actively pursuing grant opportunities for this project and has already identified two grants to apply for this year.</p> <p>The Committee approved this item to move to August 11 RCM.</p>
<p>3. Professional Services Contract for 2021 Annual Overlays</p>	<p>Discussion/Recommendation</p> <p>The 2020 Overlay project has been deferred to consolidate with the 2021 Overlays for one bigger project. Staff is presenting the design contract for the 2021 Overlay Project, which entails two project areas: South 188th Street from just west of International Blvd. to Des Moines Memorial Drive. The project scope includes grinding and overlay approximately 5,200 LF of pavement. Due to the South 188<sup>th</sup> Street tunnel under the airport runway, we will be coordinating with the Port of Seattle on this portion of the project.</p> <p>The other project site is the intersection of Military Road South, South 164<sup>th</sup> Street and 42<sup>nd</sup> Ave South. The east leg of the project belongs to the City of Tukwila, so we will be coordinating with them on this portion of the project.</p> <p>Staff has negotiated the consultant's contract amount down about \$50,000 to \$336,700.</p> <p>Staff is asking for Committee to approve the design contract to move to July 28 Regular Council Meeting. The Committee approved.</p>
<p>4. Deferrals of Improvements Covenants</p>	<p>Discussion/Recommendation</p> <p>Staff discussed the topic of covenants deferring construction improvements and the issue that they present with respect to capital projects. Staff recommended that the matter of resolving issues surrounding covenants of the nature discussed should be done at an administrative level through a policy to ensure consistent and fair</p>

	<p>handling on a case by case basis. An example of what that policy approach would likely be was presented to committee verbally with a commitment to have a draft policy for full council review prior to consideration.</p> <p>Committee members were supportive of the idea. CM Fernald asked about what other jurisdictions were doing – staff indicated that they had not but would reach out to neighbor jurisdictions to ask. CM Kwon expressed concern about how home owners with this covenant might react to our approach. – staff indicated that our approach would seek to benefit both parties. Committee members reinforced concerns that our approach be fully vetted by the legal department.</p> <p>The committee voted 3-0 to forward to Council for consideration</p>
5. Adjourn	Adjourn Meeting

**Approve Prior  
Meeting Minutes**



## MEMORANDUM

To: Transportation and Public Works Committee  
Through: William Appleton, Public Works Director  
From: Florendo Cabudol, City Engineer  
Date: August 4, 2020  
Subject: Amendment to Perteet, Inc. agreement for construction management services for ST-125 Military Road South/South 152nd Street Project

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### **Purpose:**

Staff is asking to place this proposed amendment to the Perteet, Inc. professional services agreement for construction managements services on Project ST-125, on the Consent Agenda for August 11 Regular Council Meeting (RCM).

### **Background:**

The proposed amendment accounts for additional work that was required during construction to complete the construction of the Military Road South/South 152nd Street Project (ST-125). Additional out of scope work was required to provide support in addressing the following issues during construction:

- 1) Seattle City Light (SCL) Coordination and Changes
  - a) The undergrounding of overhead power encountered several challenges that has required additional coordination with SCL to resolve. They include:
    - Eleven (11) meetings with SCL project team to discuss changes, conflicts, coordination, and costs.
    - Preparation of written notices to SCL of impacts to the project schedule and budget.
    - Three (3) site meetings with SCL Engineering to discuss solutions to related to conflicts with installation of SCL facilities.
    - Coordination with SCL crews to accurately locate the new poles as they were positioned in the sidewalk.
    - Coordination with SCL to resolve utility conflicts related to installation of underground conduit bank and vaults.
  
- 2) Coordination with Tukwila Justice Center (TJC) project
  - a) The project team coordinated with the TJC project team throughout construction. The following items of work were not included in the original scope of services and required additional support from Perteet:
    - The contract plans called for installation of the sanitary sewer connection from the TJC to be installed by others. The TJC team believed the Military Road S. project was to install their sewer connection. The added effort included coordination between the TJC construction team and our contractor (Johansen Construction) to facilitate the installation of the sewer connection before installation of any of stormwater piping or

other utilities. This effort included support staff to attend several critical meetings, and handle phone conversations, email correspondence, and documentation.

- There was a grade elevation conflict between the TJC stormwater connection to the new stormwater system installed along Military Road South. The TJC design did not reference the same elevations established on the Military Road South/South 152nd Street Project. To reconcile the design conflict, additional coordination meetings organized by Perteet, the City's designer Parametrix, the TJC project team, and the Contractor Johansen Construction were conducted.

3) Electrical power service coordination for TJC

- a) Additional coordination was needed with the Johansen Construction to stake the correct location to install a utility pole to provide power to the TJC. Perteet provided communication services and facilitated meetings with TJC team and Johansen Construction to complete the work.

4) Sidewalk elevation conflict at interface with Military Road South and TJC

- a) Perteet provided communication services and conducted several meetings between the project teams to resolve the elevation conflict.

5) Construction contract challenges

- a) Johansen Construction has challenged the contract documents throughout construction seeking extra compensation they perceived was not part of the contract. Perteet provided services to City staff in documenting and responding to each challenge. This effort avoided several potential claims and protests.

The total authorized expenditure amount at construction award was \$5,140,496 which includes a 15% contingency of \$625,882 (Agenda Bill 5186). The forecasted total cost at construction completion is \$4,641,322. There are sufficient funds allocated to pay for the additional \$67,125 cost of the proposed contract amendment.

Perteet has been fiscally responsible with their time and charges to this project. All charges have been transparent and accompanied with justification.

**Options/Recommendation:**

Staff recommends placing the approval of this supplement on the Consent Agenda for the August 11, 2020 RCM.

# City of SeaTac

## Project No. ST-125

### AMENDMENT

Amendment Number: 1	Date: May 13, 2020
Project: Military Road South-Construction Administration	City Project number: ST-125
Consultant: Perteet Inc.	TIB number: 8-1-121(008)-1

The City of SeaTac desires to amend the agreement, dated May 17, 2019, with Perteet Inc. for the ST-125 Military Road South, South 150th Street to South 152nd Street and International Blvd Project. All provisions in the basic agreement remain in effect except as expressly modified by this amendment.

The changes to this agreement are described as follows:

Scope: See attached Exhibit A Scope of Services Amendment No. 1.

Fee: See Attached Exhibit A Scope of Services Amendment No. 1 for hourly rates with a sum not to exceed \$67,125.00


Original Contract Amount:	Current Contract Amount	Net Change This Amendment	Estimated Contract Total After Change
<u>\$262,066.46</u>	<u>\$262,066.46</u>	<u>\$67,125.00</u>	<u>\$ 329,191.46</u>
 Perteet, Inc.		Approved:	
<u>7/2/2020</u> Date		_____ City of SeaTac	_____ Date



Exhibit "A"  
 Scope of Services  
 City of SeaTac  
 ST-125 Military Road South, South 150th Street to South 152nd Street and International Blvd.  
 Amendment No. 1

Following is a summary of contract actions to-date:

Contract Element	Description	Date	Authorized Element Amount	Total Authorized Amount
Original Contract		5/17/19	\$ 262,066.46	\$ 262,066.46
Amendment #1	Added Effort	5/13/20	\$67,125.00	\$ 329,191.46

The City of SeaTac desires to amend the agreement with Pertee Inc. for the ST-125 Military Road South, South 150th Street to South 152nd Street and International Blvd Project. All provisions in the basic agreement remain in effect except as expressly modified by this amendment.

The request to amend the Contract and add additional funds is outlined below. The estimate for cost takes into account the current budget, remaining tasks and project schedule for completion. The Consultant shall continue the scope as outlined in the original Contract and coordinate with the utility companies, City and Construction Contractor during the undergrounding of the overhead services. This is current completion date for this work is September 2020.

#### SEATTLE CITY LIGHT COORDINATION AND CHANGES

The undergrounding of the overhead power has experienced a few challenges during the installation that has required additional effort to coordinate with Seattle City Light. The additional effort includes:

1. Eleven (11) meetings with SCL project management to discuss changes, conflicts, coordination, and costs.
2. Preparation of written notice to SCL of impact to the project.
3. Three (3) site meetings with SCL Engineering to discuss solutions to installation conflicts.
4. Coordination with SCL crews to locate the new poles as they were positioned in the sidewalk.

These items all contributed to the added effort not accounted for in the initial scope of services.

#### COORDINATION WITH TUKWILA JUSTICE CENTER TEAM

The project has worked and coordinated with the Tukwila Justice Center (TJC) project team during the project as expected. The items that were not included in the project and added to the effort include the following items:

1. The contract plans called for installation of the sanitary sewer connection from the TJC to be installed by others. The TJC believed the Military project was to install their connection. The added effort included coordination with the TJC and Contractor to allow them to install the connection before any of the storm or utilities were installed. This required meetings, phone conversations, email correspondence, and updates to the City Project Manager.
2. Elevation conflict with storm connection to the new system installed along Military Road. This required coordination meetings with the Design Team and the Contractor. The cause of this was the TJC design team did not use the same elevation hub as Parametrix.
3. SCL service coordination for the TJC and the added coordination to get the contractor to stake the poles. This required the Contractor to move materials and equipment. CM team participated in emails and phone conferences on the topic.
4. Sidewalk elevations between the two projects required working with the Contractor and directing them to get stake the back of sidewalk. CM team participated in two meetings, emails and phone conferences on the topic.



Project: PROMO HRS Sea Tac Military Road S. S 150th St to S Contract Start Date: 2/1/2020 Last Update date: 5/20/2020  
 Client: City of Sea Tac Contract End Date: 9/27/2020 Perteet Project No.  
 PM: Joshua Cheatham Contract Duration: 7 Months

Task	Billing Rate	Principal	Const Technician III	Construction Supervisor	Accountant	Total Hours	Labor Dollars
<b>Task 1: Project Administration</b>							
General Project Management	5.00			10.00		15.00	\$3,300.00
Progress Report and Billing					7.00	7.00	\$665.00
<b>Total Task 1: Project Administration</b>	<b>5.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10.00</b>	<b>7.00</b>	<b>22.00</b>	<b>\$3,965.00</b>
<b>Task 2: Construction Administration</b>							
Project Documentation			172.00	168.00		340.00	\$54,200.00
Construction Inspection Management			28.00	28.00		56.00	\$8,960.00
<b>Total Task 2: Construction Administration</b>	<b>0.00</b>	<b>0.00</b>	<b>200.00</b>	<b>196.00</b>	<b>0.00</b>	<b>396.00</b>	<b>\$63,160.00</b>
<b>Expenses</b>							
<b>Total Expenses</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>\$0.00</b>
<b>Total Hours</b>	<b>5.00</b>	<b>200.00</b>	<b>206.00</b>	<b>206.00</b>	<b>7.00</b>	<b>418.00</b>	
<b>Total Dollars</b>	<b>\$1,200.00</b>	<b>\$22,000.00</b>	<b>\$43,260.00</b>	<b>\$665.00</b>			<b>\$67,125.00</b>

SUMMARY	
Labor	\$67,125.00
Expenses	\$0.00
Subconsultants	\$0.00
<b>CONTRACT TOTAL</b>	<b>\$67,125.00</b>



# MEMORANDUM

To: Transportation and Public Works Committee  
Through: William Appleton, Public Works Director  
From:  
Date: August 4, 2020  
Subject: Emergency Ordinance to adopt Interim Floodplain Management Code Amendments

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## **Purpose:**

Seeking Committee recommendation to approve Council action on an Emergency Ordinance to adopt interim floodplain management code amendments to keep the City in compliance with the National Flood Insurance Program (NFIP). The interim floodplain management code amendment also provides staff additional time needed to prepare and adopt permanent code amendments using standard procedures.

## **Background:**

The Federal Emergency Management Agency (FEMA) has completed a new countywide Flood Insurance Study (FIS) and subsequently updated the associated Flood Insurance Rate Maps (FIRM). This work supports the NFIP which aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters and businesses. It also encourages communities to adopt and enforce floodplain management regulations. Property owners, in communities that are in compliance with the NFIP requirements, are able to purchase flood insurance through the program. This is especially important for owners who have property within special flood hazard areas, since NFIP insurance would likely be the only affordable/available flood insurance option. There are six (6) known policy holders within the City of SeaTac.

The recently completed countywide FIS and update of the FIRM (see attached map) will become effective on August 19, 2020. To ensure our property owners continue to have access to affordable flood insurance through the NFIP, the City seeks to adopt interim floodplain management code amendments that bring the City into compliance requirements of the program. The interim amendments will also allow for the necessary time to adopt permanent language through the standard code amendment process. The State of Washington Model Flood Damage Prevention Ordinance (see attached) was used as the basis for updating SeaTac Municipal Code. Numerous changes were made to Critical Areas Chapters 15.700.015 and 15.700.200 through 15.700.240 as well as to Public Utilities Chapters 12.40.020 and Chapters 12.40.040 through 12.40.100 (see attached excerpts). Mandatory sections of the model Ordinance that

were included in the SeaTac Municipal Code include sections 3.1 – 3.4, 3.8, 4.1-4.3-4, 4.3-6, 5.1-5.2-5, 5.3-5.4-3, section 6, Appendix A, Appendix B, and numerous definitions. The proposed amendments are the minimum necessary to remain in compliance with the NFIP. As an emergency Ordinance, this requires adoption by an affirmative vote of a majority of the Council plus one member. It becomes effective upon adoption thereby allowing SeaTac to meet the August 19, 2020 implementation deadline.

As pointed out above, numerous interim changes are proposed to SMC; a summary of some of the more substantial changes are:

- Added variance provisions
- Aligned residential and non-residential construction requirements when inside a flood hazard area
- Cleaned up and added definitions
- Clarified/aligned required information for Development Permits
- Included penalties for non-compliance
- Included language addressing substantially damaged residences in the floodway
- Added adoption language for the latest FIS and FIRM's

**Options/Recommendation:**

In Summary, adoption of the proposed interim code amendments is necessary to keep the City in compliance with the NFIP and preserve the eligibility of several SeaTac property owners to be insured. The City of SeaTac has extremely low flood risk and has no recent records of development or proposed development within the identified flood hazard area associated with Miller Creek. Staff recommends that interim code amendments be approved through an Emergency Ordinance. Staff will follow the standard code amendment procedures to present Council the permanent code amendment language for adoption.

**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 10. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NINGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base Map** information shown on the FIRM was derived from multiple sources. Base map files were provided in digital format by King County GIS, WA DNR, WSDOT, and Pierce County GIS. This information was compiled at scales of 1:12,000 to 24,000 during the time period of 1994-2012.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

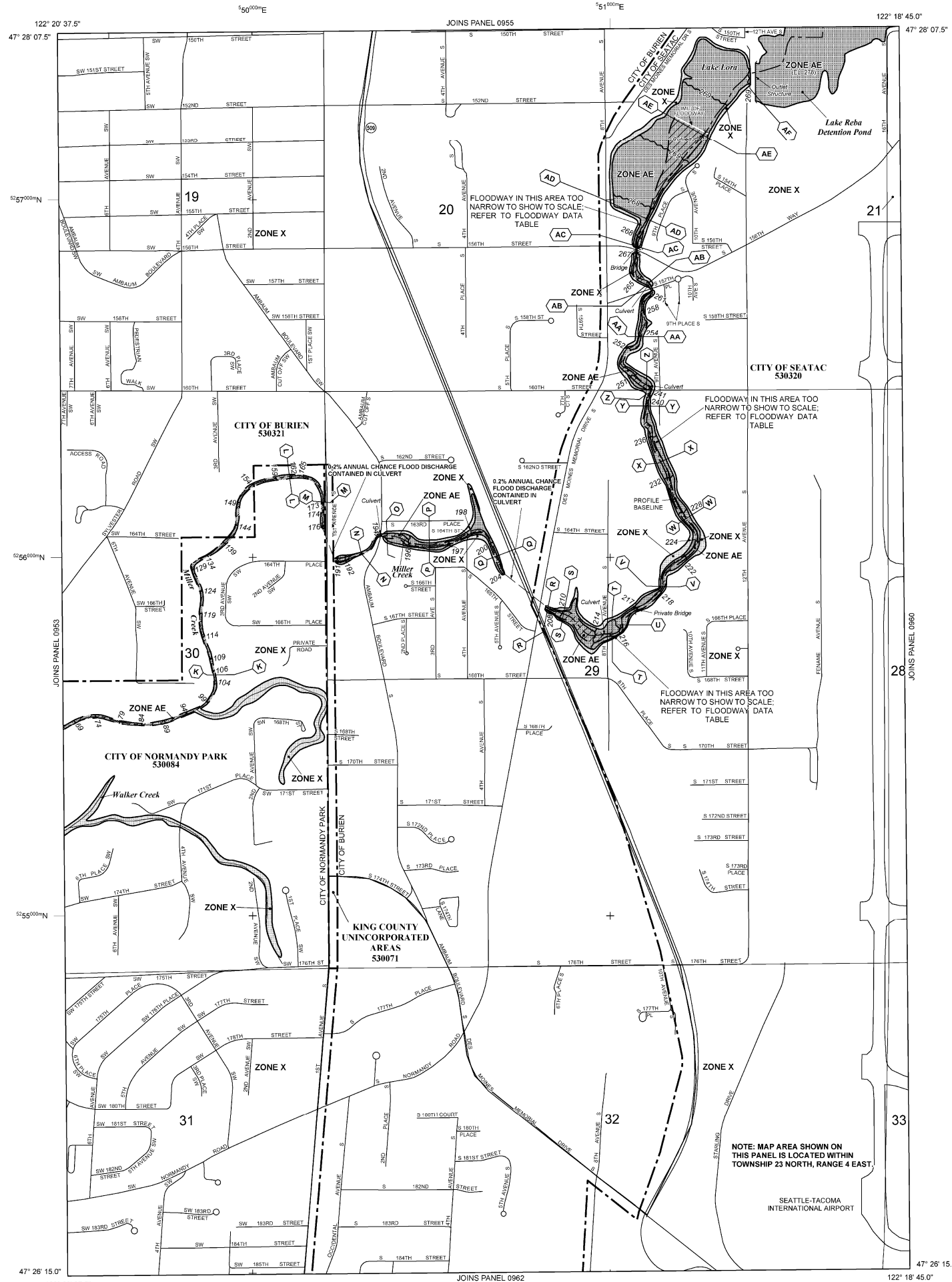
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations** and **floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unreviewed streams may differ from what is shown on previous maps.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfp>.



**LEGEND**

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A** No Base Flood Elevations determined.  
**ZONE AE** Base Flood Elevations determined.  
**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.  
**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.  
**ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently derelict. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.  
**ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.  
**ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.  
**ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**  
**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.  
**OTHER AREAS**  
**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
**OTHERWISE PROTECTED AREAS (OPAs)**  
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.  
1% Annual Chance Floodplain Boundary  
0.2% Annual Chance Floodplain Boundary  
Floodway boundary  
Zone D boundary  
CBRS and OPA boundary  
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.  
Base Flood Elevation line and value; elevation in feet\*  
Base Flood Elevation value where uniform within zone; elevation in feet\*

\*Referenced to the North American Vertical Datum of 1988

**Cross section line**  
**Transect line**  
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere  
1000-meter Universal Transverse Mercator grid values, zone 10  
Bench mark (see explanation in Notes to Users section of this FIRM panel)  
River Mile

**MAP REPOSITORIES**  
Refer to Map Repositories list on Map Index  
**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
September 28, 1999  
**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
May 16, 1995  
August 19, 2020 - to change Base Flood Elevations, to update corporate limits, to add roads and road names, to update the effects of levee action, to change Special Flood Hazard Areas, to change zone designations and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History Issue located in the Flood Insurance Study report for this jurisdiction.  
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

**MAP SCALE 1" = 500'**  
250 500 1000  
150 0 150 300  
FEET  
METERS

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0954G**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**KING COUNTY, WASHINGTON AND INCORPORATED AREAS**

**PANEL 954 OF 1725**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
BURIED, CITY OF	530321	0954	G
KING COUNTY	530071	0954	G
NORMANDY PARK, CITY OF	530084	0954	C
SEATAC, CITY OF	530320	0954	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
**53033C0954G**  
**MAP REVISED**  
**AUGUST 19, 2020**  
Federal Emergency Management Agency