APPENDIX C1

Transportation Needs Report

King County

June 2024

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Chapter 1. Planning Context and Introduction

1.1 What Is the Transportation Needs Report?

The King County Transportation Needs Report (TNR) is a long-term, comprehensive list of improvement needs for the roads, bridges, and related infrastructure located in unincorporated King County. It includes consideration of significant projects in adjacent cities and counties, and on state highways, as they relate to the overall functioning of the transportation system. The transportation needs outlined in the TNR include those that are currently known, as well as those that are forecast based on regionally adopted targets for growth and development.

The TNR is a functional plan of the *King County Comprehensive Plan*. Together with the King County Department of Local Services Road Services Division (Roads) Six-Year Capital Improvement Program (CIP) and the biennial operating budget, the TNR fulfills the requirement of growth management legislation (RCW 36.70A.070) as the transportation capital facilities plan element of the *King County Comprehensive Plan*.

The TNR also fulfills requirements of Washington Administrative Code Chapter 136-14 to describe the process through which roadway needs are prioritized. These requirements are met by Chapter 2 of this report, which describes how Roads meets the standards of good practice established by the Washington State County Road Administration Board, the agency responsible for statutory oversight of Washington's county road departments.

How does the King County Transportation Needs Report comply with the law?

1. It is based on the land use element of the *Comprehensive Plan*.
2. The list of transportation needs and recommended improvements for capacity projects was developed using travel forecasts that are based on the regionally adopted growth targets.
3. It includes a financial analysis that reflects the most recent land use changes, project amendments, costs, and financial revenue assumptions.
4. It documents intergovernmental coordination, with particular attention to potential impacts on adjacent jurisdictions.
5. It includes active transportation (bicycle and pedestrian) needs

1.2 Relationship to the King County Comprehensive Plan

A primary purpose of the TNR is to fulfill specific requirements of the state Growth Management Act. The schedule for updating the TNR corresponds to updates of the *King County Comprehensive Plan*.

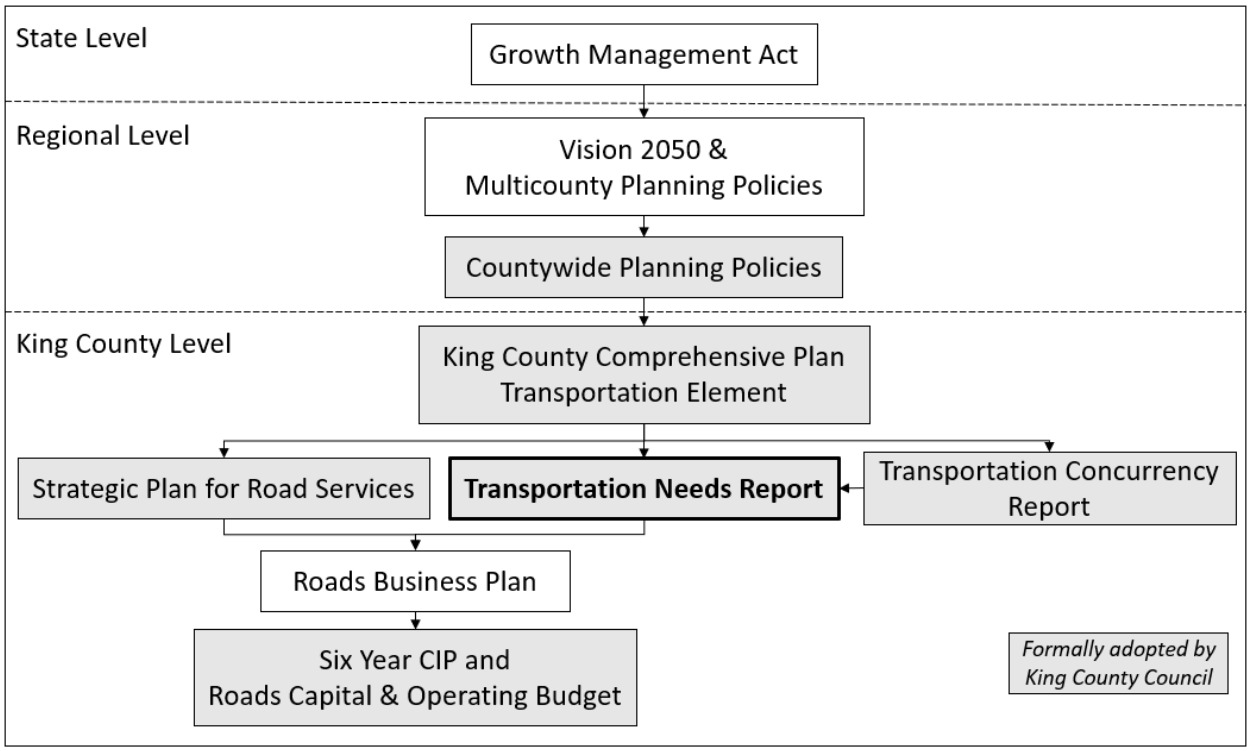
King County's TNR fulfills these requirements, as outlined in state legislation (RCW 36.70A.070 (6)):

- Specific actions and requirements for bringing into compliance locally owned transportation facilities or services that are below the comprehensive plan established level of service standards;
- Forecasts of traffic of at least ten years based on the adopted growth targets and land use plan to provide information on the location, timing, and capacity needs of future growth;
- Identification of state and local system needs to meet current and future demands;
- An analysis of funding capability to judge needs against probable funding resources;
- A multiyear financing plan based on the needs identified.

The development of the TNR is part of a comprehensive planning process guided by state growth management legislation. Figure 1 summarizes the relationships between state regulations, the *King County*

Comprehensive Plan and the *Strategic Plan for Road Services* with the development of the TNR, the Transportation Concurrency Report, the Roads Six-Year CIP, and the Roads biennial budget.

Figure 1. Relationship among Planning Documents

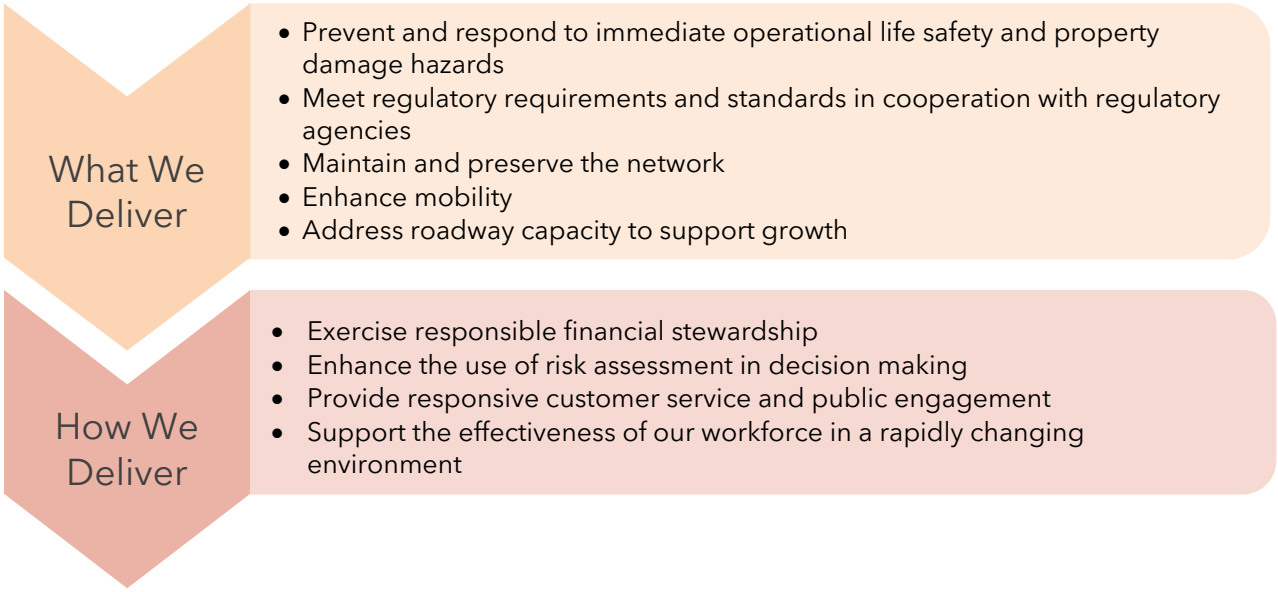


1.3 Strategic Context

The strategic context for preparation of the TNR includes insufficient funds, an aging system of roads and bridges, and a backlog of maintenance and preservation needs. Roads employs a risk management approach to its roads and bridges, and the *Strategic Plan for Road Services* (July 2014) responds to the dilemma of significantly constrained resources by setting clear priorities to guide the division's decision making.[1] The strategic plan's goals prioritize operational safety, regulatory compliance, and the maintenance and preservation of infrastructure (Figure 2).

[1] *Strategic Plan for Road Services* (2014 Update) [LINK]

Figure 2. *Strategic Plan for Road Services* Strategic Goals



While Roads recognizes that it is not able to fully accomplish all of the concepts outlined within its strategic plan, these goals are used to guide work that meets the most critical needs within available funding and resources. This strategic context is exceptionally important as the agency grapples with near-term funding uncertainties.

Revenue projections indicate that the agency does not have the capital funds to address the majority of the project needs identified within the 2024 TNR. Roads applies its strategic plan goals and priorities to build its biennial budget and six-year capital improvement program, which results in funding safety and regulatory work first and then, due to revenue constraints, a limited amount of preservation and maintenance activities. The division lacks resources to fund roadway capacity improvements. The strategic guidance provided by the 2014 *Strategic Plan for Road Services* and the *Road Services Business Plan* will continue to play an important role in the division's decision making, especially as funding for the Roads capital program decreases over time.

1.4 King County's Transportation Needs and Funding

The TNR evaluates the difference between identified transportation needs and revenues associated with a twenty-year planning horizon. This needs analysis augments work undertaken by Roads to assess the County's ability to maintain the condition of its roads and bridges given declining dedicated revenues.

King County continues to experience a structural roads funding crisis. The lack of revenue is significantly impacting the County's ability to maintain and improve roads. The Roads Fund relies on a small tax base relative to the size and age of the unincorporated road network. Without additional funding, it is increasingly difficult to monitor, maintain, and operate the system of bridges and roads in unincorporated King County. Aging infrastructure and maintenance facilities, and an inability to adequately invest in infrastructure asset management, have resulted in a system of roads, bridges, and buildings in decline and at risk of failure. Critical safety work remains the top priority. Without the resources to perform timely preventative maintenance, Roads is forced into a more reactive maintenance mode. Deferring maintenance leads to an exponential increase in the cost to repair and sustain roads in the future.

It has been more than a decade since a new capacity project has been funded, and preservation projects have been primarily associated with one-time funding. The six-year capital improvement program is focused

on addressing critical safety needs and deterioration rather than planned preservation and maintenance. The division anticipates the need to continue to focus available resources on unplanned failures and system deterioration; not all of these needs will be met, which will result in restricted or closed roads and bridges.

Additionally, the unincorporated county road network needs restorative infrastructure investment in traditionally underserved communities. Mobility connects people with opportunities; whether for school, work, or play, the ability to safely and efficiently navigate King County is critical for creating an environment for people to thrive. Investments in these communities were deferred due to anticipated annexations, which have not occurred. Urban segments of the unincorporated road network have some of the oldest infrastructure in the county. This infrastructure was not built to meet current urban standards or to support multimodal transportation. Historic methods for evaluating and prioritizing infrastructure investments have not centered equity. County planning and engagement efforts have highlighted the needs and opportunities for an enhanced, pro-equity, anti-racism, approach to managing and investing in the road system.

In 2015, King County convened a panel of regional leaders and community members to explore solutions for maintaining and preserving the aging bridge and road system in unincorporated King County. The Bridges and Roads Task Force reviewed the history of the roads funding crisis, its current context, and an independent consultant analysis that identified a funding gap of $250 million to $400 million a year to maintain, replace, and improve county bridges and roads. In 2017 and 2018, King County collaborated with the Sound Cities Association, King County cities, the Puget Sound Regional Council, and the Washington State Department of Transportation on a Regional Transportation System Initiative to identify the critical connecting roads that comprise the regional road network and to identify unmet maintenance, operations, and capital needs. King County continues to work with local and regional partners to advance regional transportation funding solutions. See Chapter 6 of this report for additional Roads funding detail.

1.5 Rural Regional Corridors

Rural Regional Corridors are recognized in the *King County Comprehensive Plan* as segments of certain arterials that pass through rural lands to primarily connect urban areas. This type of roadway plays a key mobility role in the regional transportation system. While county policy generally prohibits adding capacity on arterial roads in the rural area, a limited exception is made for Rural Regional Corridors. These corridors may receive capacity improvements if the increased capacity is designed to serve mobility and safety needs of the urban population, while discouraging inappropriate development in the surrounding Rural Area and Natural Resource Lands.

Rural Regional Corridors must be classified as Principal Arterials and carry high traffic volumes, defined as a minimum of 15,000 average daily trips. They also have at least half of their p.m. peak (evening commute) trips traveling to cities or other counties. They connect one urban area to another, or to a highway of statewide significance that provides such connection, by traversing the rural area.

Based on the criteria set by the comprehensive plan, the following King County unincorporated area roads currently qualify as Rural Regional Corridors (Table 1).

Table 1. Rural Regional Corridors of Unincorporated King County

	NE Woodinville Duvall Road	NE Novelty Hill Road	Issaquah Hobart Road SE	Avondale Road NE
Limits	Woodinville city limits to Duvall city limits	Redmond city limits to West Snoqualmie Valley Road	Issaquah city limits to SR-18	NE 116th to Woodinville-Duvall Road
King County Arterial Classification	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
2021 Average Daily Traffic	**18,000**	**24,000**	**19,000**	**22,000**

1.6 How is the TNR Used?

Roads makes use of the TNR in a variety of ways, including to support interagency and intra-agency coordination, to inform annexation discussions, to assess proposed development actions, to review proposed road vacations, and to inform the Roads grant program.

Interagency Coordination: The TNR leverages improved coordination between the Puget Sound Regional Council (PSRC), King County, and other jurisdictions, including the Washington State Department of Transportation (WSDOT), cities, and counties. The PSRC transportation model incorporates the capacity projects anticipated by local agencies. By clearly showing the scope, location, and cost of unincorporated King County road system needs, the TNR provides PSRC and other jurisdictions with information that supports regional collaboration, modeling, and cooperative solutions.

King County Intra-Agency Collaboration: The TNR supports collaboration among King County agencies. The TNR project list is consulted to understand the relationship between road system needs and other county priorities and to help identify projects with multiple benefits.

Annexations: As cities consider annexation of portions of unincorporated King County, the TNR provides useful summary information regarding transportation needs associated with those areas.

Development Review: The TNR project list is one of the tools used during reviews of proposed developments to better understand how the proposals relate to broader transportation needs of the unincorporated King County road system. The TNR can help to determine the appropriate infrastructure improvements associated with new development.

Road Vacation: Property owners can petition King County to have portions of the county's unused road rights-of-way sold to them if the property is not needed for current or future transportation purposes. The TNR is used to identify future projects on the road system and is one tool in the road vacation process.

Grants: As grant opportunities emerge, the TNR is consulted to identify transportation project needs that are consistent with the granting authority's requirements.

1.7 2024 Transportation Needs Report Changes

The adopted 2020 TNR served as a starting point for this update. The 2020 needs list was updated to reflect recently completed capital projects as well as current technical information regarding traffic safety, asset condition, regulatory requirements, community needs, and local or regional considerations. The 2024 TNR list reflects the following changes:

- 127 new needs were added;
- High-priority needs to meet Americans with Disabilities Act standards were added;
- 33 needs identified within the adopted 2020 TNR were addressed through completed capital projects and were removed;
- 27 needs identified within the 2020 TNR were removed due to updated technical information and completed studies.

Table 2 provides a summary of these changes by TNR category. Exhibit A contains a complete list of proposed transportation needs to be included within the 2024 TNR. Exhibit B contains TNR maps.

Table 2. 2024 Transportation Needs Report (TNR) Summary of Changes

Transportation Needs Report Category	2020 TNR				2024 TNR		
	Projects	Completed since 2020	Deleted for 2024	Added for 2024	Projects	Estimated cost	% of TNR cost
Bridge: Vehicular and pedestrian bridge replacement projects improve safety and asset conditions of the county's bridges.	44	4	9	11	**42**	**$473,000,000**	**19%**
Capacity-Major: Capacity projects increase the size of the road to improve its ability to safely accommodate higher traffic volumes.	17	0	2	0	**15**	**$404,360,000**	**17%**
Reconstruction: Road reconstruction projects improve safety and typically involve full removal and replacement of the surface layer, road base, and related road infrastructure (drainage, guardrails, etc.).	36	0	0	0	**36**	**$337,730,000**	**17%**
Active Transportation: Safety improvements to benefit people walking, biking, or using other active transportation. Sidewalk construction or shoulder widening/paving are common active transportation projects.	73	4	1	12	**80**	**$350,280,000**	**14%**
Intersection and Traffic Safety Operations: Projects typically incorporate one or more traffic safety measures, such as sightline improvements, re-channelization ("striping"), signals, and roundabouts.	43	0	1	23	**65**	**$270,740,000**	**11%**
Vulnerable Road Segments: Roads frequently impacted by flooding, tides, wave action, storm surges, or slides are often protected through infrastructure, such as seawalls, armored slopes, and retaining walls.	47	3	0	4	**48**	**$191,320,000**	**8%**
Accessibility Improvements: Projects that improve existing pedestrian facilities to current Americans with Disabilities Act standards.	-	-	-	-	*****	**$118,157,000**	**5%**
Drainage: Projects that preserve road integrity and improve safety by moving water away from the road. Projects typically improve infrastructure such as culverts, ditches, and catch basins.	99	8	0	44	**135**	**$253,060,000**	**10%**
Guardrail: Projects to improve safety by reducing the severity of run-off-the-road collisions.	44	14	14	33	**49**	**$11,294,000**	**0%**
Intelligent Transportation Systems: Projects that advance safety and mobility by integrating communications technologies, such as cameras, vehicle detection, traffic signal equipment, and timing upgrades into transportation infrastructure.	16	0	0	0	**16**	**$10,880,000**	**0%**
Total	419	33	27	127	**486**	**$2,420,821,000**	**100%**

* Due to the large number of accessibility needs and relatively low project costs for individual accessibility improvements, the TNR reports only the total estimated cost to address high-priority needs identified in the *2021 King County Road Services Division Americans with Disabilities Act Transition Plan*.

Chapter 2. Unincorporated King County Road and Bridge Assets

Roads organizes its road and bridge assets into five product families: roadway, bridges/structures, drainage, traffic control/safety, and roadside. This chapter describes each product family and briefly summarizes its assets, the processes used to identify and prioritize projects, and the associated maintenance and operations programs.[2]

2.1 Roadway

The roadway enables the 24/7 movement of people and goods, serving residents, commerce, emergency services, and other users. Cars, trucks, buses, and bicycles all use the roadway for their travel needs. This category of assets includes the drivable surface and the supporting road base (the layers of gravel, dirt, and other materials of the road that provide the structural integrity of the road). Road pavement protects against deterioration of the road base. If the road base becomes deteriorated, no amount of repaving will keep the surface smooth or provide the expected pavement lifespan.

Pavement deteriorates naturally over time. As it ages, the pavement and underlying road base become increasingly susceptible to the impacts of stormwater, weather and temperature changes, and growing traffic volumes. Roads monitors the condition of unincorporated King County roads by assessing and tracking pavement condition and other testing over time. These methods are discussed in detail below.

Roadway Facts

- There are nearly 1,500 miles of unincorporated King County roads (more than the distance from Canada to Mexico).
- About 1/3 of the road system consists of arterials.
- Over 1 million trips per day occur on unincorporated King County roads.

2.1.a Pavement Inspection and Testing

Inspection

Roads conducts regular field assessments of all roadways to visually determine the condition of the pavement using the County Road Administration Board visual data collection system (VisRate). Arterial roads are inspected every two years; local roads are inspected every three years.

The state County Road Administration Board requires the County to rate and report on pavement condition for the County to receive state gas tax revenues.

These assessments use the Pavement Condition Index rating scale, which ranges from 0 to 100, with 0 representing the worst and 100 representing the best possible condition. Roads categorizes pavement condition as Very Poor (<25), Poor (25-49), Fair (50-70), and Good to Excellent (71-100). As the ratings are based on a visual assessment of the road surface, they may not accurately indicate the condition of the underlying base and subgrade of the pavement.

[2] This chapter fulfills Washington Administrative Code Chapter 136-14 requirements to describe the process through which roadway needs are prioritized, following standards of good practice established by the Washington State County Road Administration Board.

Pavement Condition Index scores inform the selection of pavement preservation treatment options, including crack sealing, overlay, and pavement rehabilitation.

Deflection Testing

Between 2003 and 2012, Roads conducted deflection testing on all unincorporated county arterials to evaluate the subsurface condition. The falling weight deflectometer testing used trailer mounted equipment consisting of a load package, load plate, load cell, and geophones ("deflection sensors"). The load package was made of steel plates balanced on either side of the load cell and tower assembly. This package was raised to a set height and dropped onto the load plate. The load cell recorded the amount of load applied to the plate. Testers repeated the process approximately every 200 feet, then analyzed the data using AREA and EVERCALC 5.0 programs to determine the condition of the roadway. The 2003 and 2007 deflection testing efforts collected core samples of road material, which were then analyzed for surface composition, base course thickness, composition and course condition, subgrade soil type, and subgrade strength. The data and calculated parameters identified sections of roadway for potential reconstruction, road base or pavement rehabilitation, or overlay.

2.1.b Pavement Preservation Program

King County employs a risk management approach to its pavement preservation program as funding levels are insufficient to manage the system through a typical asset management program. The pavement preservation program has been focused only on arterial roadways, with the goal of keeping these roads functioning at their current level. No major investment in preserving non-arterial roadways, other than minor maintenance activities, has been made for over ten years.

Unincorporated King County's arterial road system will be subject to considerable deterioration over the next ten years due to recent and projected lack of resources to invest in pavement maintenance or reconstruction. Portions of the system may be subject to speed limitations or partial closure in the future.

By conducting minor rehabilitation and maintenance activities, King County's pavement preservation program seeks to delay the decline of pavement surface conditions and extend the service life of the road system. Roads uses a variety of pavement management methods, including:

- Crack sealing, patching, minor reconstruction, seal coating, paving, and shoulder restoration;
- Chip sealing and hot mix asphalt;
- Pilot project testing of emergent pavement materials.

Additionally, the county's pavement preservation program employs the following program management strategies:

- Conducting benefit-cost analyses to inform the identification of appropriate techniques in a given location.
- Collecting life-cycle costs for each resurfacing type and updating maintenance and rehabilitation costs at the end of each construction season. Cost and performance data is compared to peer agency data.
- Preparing a yearly accomplishment report for the Governmental Accounting Standards Board (GASB), and both projection and accomplishment reports for the County Road Administration Board.

As data accumulates over time, Roads uses it to establish performance measures and targets that support informed programmatic decision making.

Prioritization

Roadway preservation prioritization follows the strategic goals in the *Strategic Plan for Road Services*. This approach directs funding to the highest priority locations; however, the lack of available funding leaves portions of the county roadway network inadequately preserved.

Selection

Selection of roadway preservation candidates starts with the collection and entry of pavement inspection data into the division's Pavement Management System Database, which provides the specific roadway condition data needed to assist engineers in establishing smaller year-, tier-, or pavement condition score-specific candidate lists. Road engineers and maintenance staff jointly review these lists to coordinate pavement preservation efforts throughout the county. See below for details.

Pavement Prioritization Process

1. Process visual condition rating data.
2. Update the Pavement Management System as new data is received.
3. Create candidate list to facilitate collaboration between maintenance and engineering staff, Capital Improvement Program planning, and potential grant funding opportunities.
4. Evaluate potential preservation options based on projected funding.
5. Publish final list for High-Risk Roadway Candidates to be implemented by maintenance staff.
6. Develop the preservation project candidate list to be implemented by a contractor in the upcoming year.

2.1.c Roadway Reconstruction

Roadway reconstruction involves full removal and replacement of the surface layer, road base, and ancillary structures (culverts, guardrail, etc.). No reconstruction projects have been performed in the last 10 years, other than a few grant-funded projects.

In 2007, deflection testing identified 82 road segments requiring further assessment for potential reconstruction. This assessment led to preliminary scope of work and cost estimates for the reconstruction of 30 road segments, which were subsequently added to the TNR. This list has been updated to reflect additional deflectometer testing in 2012, routine pavement condition testing and other studies, completed rehabilitation projects, and completed annexations.

Roads has used pavement overlay, rehabilitation, or crack sealing and patching to temporarily preserve many of the roads identified in the 2024 TNR Reconstruction category. Depending on the original road design, these preservation measures can extend the life of the road for three to ten years.

2.1.d Roadway Maintenance and Operations

Roads programs facilitate routine inspections, maintenance, repair, and operation of the roadway. Roadway Maintenance and Operations programs activities are employed on routine, scheduled, and complaint bases depending on the nature of the work, the urgency of the issue, and available funds. For example, pothole patching is commonly performed in response to customer requests, but may also be scheduled in advance to support planned pavement overlay projects. Sweeping routes are planned based on historic needs and funding availability, and may be informed by community input. Snow and ice control is conducted on a reactive basis, using routes planned in advance of each winter season.

These programs fall into the following categories:

Small Surface Repairs: Pothole filling; square cut, skin surface, and grinder patching; acute pavement surface repair; crack sealing and pouring; curb and gutter replacement and repair; and gravel roadway grading and patching.

General Roadway Maintenance: Routine—but important—safety and environmental compliance work, such as sweeping and dust control, to remove leaves, rocks, fallen trees, and debris from the roadway for safety. Prompt cleaning also prevents sediments from polluting creeks and streams, endangering salmon and water quality.

Storm - Quick Response: Emergency or urgent maintenance and operations activities to address the effects of storms, floods, and slides, such as snow and ice control and washout repair.

2.2 Roadside

The roadside product family includes road system features and components within the road right-of-way, but outside the travel lanes of the road. Drainage facilities may be located in the roadside area but are treated as a separate category. Roadside infrastructure includes:

- Active transportation assets including sidewalks, pathways, and curb ramps to enhance pedestrian safety and mobility;
- Road shoulders to provide space for slow-moving and disabled vehicles, active transportation, construction and maintenance activities, and police and other emergency activities;
- Guardrail to prevent or mitigate the impacts of run-off-the-road collisions;
- Landscaping and vegetation, such as landscaped walls, slopes, and planters.

2.2.a Active Transportation Safety and Mobility

Active transportation is an essential component of King County's multimodal transportation system. Pedestrians, bicyclists, and in some parts of the county, equestrians, are active transportation users of the unincorporated King County network.

In unincorporated King County, Roads maintains active transportation facilities such as bicycle lanes, sidewalks, and shoulders. The division provides crosswalks, signals, pavement markings, and signage to help facilitate safer active travel. The King County Road Design and Construction Standards include accommodation for active transportation uses, including specific criteria for marked bicycle lanes, sidewalks, or road shoulders on unincorporated roads.

Active Transportation Evaluation

Active transportation needs are assessed using criteria that include connectivity to travel destinations, proximity to public transit, road traffic volumes and speeds, existing shoulder widths and roadside conditions, customer requests and feedback from public engagement, proximity of a school or other community gathering place, and overall network connectivity. Roads also considers additional contextual information such as King County arterial classification, surrounding land uses, community plan recommendations, the Puget Sound Regional Bike Network Plan, and best available traffic safety data.

A small portion of the King County Regional Trails network coincides with the unincorporated King County road network. In some locations, a regional trail crosses a King County road; in other locations, a short regional trail segment follows an existing unincorporated King County road. Roads collaborated with the

Parks Division of the King County Department of Natural Resources to update a list of King County regional trail needs that coincide with the unincorporated King County road network (Table 3). While these regional trail projects are not included within the Transportation Needs Report project lists, they are included within this chapter to support future planning, collaboration, and implementation by the King County Parks Division.

Table 3. King County Parks Division Proposed Future Projects with Potential King County Road Connections

Regional Trail Project	Location	Description	From	To	Note
East Plateau Trail	Unincorporated King County near Klahanie; SE Duthie Hill Rd near SE Issaquah-Fall City Rd	SE Duthie Hill Rd, signalized crossing and other ROW improvements			Likely signalized crossing of SE Duthie Hill Rd near SE Issaquah-Fall City Rd to access Duthie Hill Park and continue trail to the northeast
East Plateau Trail	Unincorporated King County west of Trossachs Blvd SE	SE Duthie Hill Rd Trail crossing and sidepath and/or other trail/road ROW project	Duthie Hill Park west of Trossachs Blvd SE	Trossachs Blvd SE	Planning envisions the trail exiting the north entrance of Duthie Hill Park and running as a sidepath in SE Duthie Hill Rd right-of-way before crossing at Trossachs Blvd SE intersection and continuing north along Trossachs Blvd SE
Green to Cedar Rivers Trail (South Segment)	Maple Valley/Black Diamond Green River Valley at 218th Ave SE	Trail sidepath or other trail/road ROW project	218th Ave SE at Green to Cedar Rivers Trail	SE Green Valley Rd	Current feasibility study uses 218th Ave SE as possible route for trail in south Black Diamond to SE Green Valley Rd
Green to Cedar Rivers Trail (South Segment)	Upper Green Valley at 218th Ave SE	SE Green Valley Rd crossing			Current feasibility study would have the trail cross SE Green Valley Rd at 218th Ave SE
Green to Cedar Rivers Trail (South Segment)	Upper Green Valley at SE Green Valley Rd	SE Green Valley Rd sidepath	218th Ave SE	SE Flaming Geyser Rd	Current feasibility study envisions sidepath along SE Green Valley Rd from 218th Ave SE to SE Flaming Geyer Rd
Green River Trail, North Extension (Green to Duwamish)	Tukwila and Unincorporated King County at W Marginal Pl S	W Marginal Pl S sidepath or other trail/road right-of-way project	S 102nd St	S Director St	Design underway for Green River Trail along and incorporating portions of W Marginal Pl S between Cecil Moses Park in Tukwila to Seattle South Park community

Regional Trail Project	Location	Description	From	To	Note
Green River Trail 2.2	S 259th St, Kent at Green River Trail	Trail sidepath or other trail/road right-of-way project	S 259th St at Union Pacific Railway bridge	S 259th St at 80th Ave S sidepath	Design underway by City of Kent. Project assumes relocation and redesign of S 259th St with sidepath between the Union Pacific RR bridge and 80th Ave S sidepath
Green River Trail, Phase 3, North	94th Place S, Unincorporated King County	Trail sidepath or other trail/road right-of-way project	North terminus of 94th Pl S at Green River Rd	South terminus of 94th Pl S at Green River Rd S	Feasibility report recommends possible trail sidepath or other trail project within road right-of-way along west side of 94th Pl S
Green River Trail, Phase 3, South	Green River Rd S, Unincorporated King County	Trail crossing and sidepath or other trail/road right-of-way project	Green River Rd S at south terminus of 94th Place S	Green River Rd at S 277th St	Feasibility report proposes possible trail crossing of Green River Rd S at south terminus of 94th Pl S and sidepath along west side of Green River Rd S to pedestrian bridge near S 277th Street
Green River Trail, Phase 5	Green River Valley	SE Green Valley Rd sidepath or other trail/road right-of-way project	SR-18	SE Flaming Geyser Rd	Upper Green River Trail concept would develop a sidepath along SE Green Valley Rd and Green River
Landsburg-Kanaskat Trail	Landsburg Rd SE at Landsburg	Landsburg Rd SE signalized crossing			Likely signalized crossing of Landsburg Rd SE from existing Cedar River Trail
Preston Snoqualmie Trail	Preston Fall City Rd SE/Raging River	Trail crossing and alignment evaluation			Evaluate location and design alternatives at Fall City Rd SE
Redmond Ridge Trail	North side of NE Novelty Hill Rd	Trail widening			Links two regional trails
Snoqualmie Valley Trail, Snoqualmie Mill Gap	Unincorporated King County, Snoqualmie River Bridge at SE Reinig Rd	SE Reinig Rd Trail Bridge crossing			New trail bridge structure needed to cross SE Reinig Rd to facilitate trail development through Mill Gap from the Snoqualmie River Bridge. Interim at-grade crossing may be used.
Soos Creek Trail Extension	Soos Creek Trail at SE 192nd St	Crossing improvement and trail extension			

Regional Trail Project	Location	Description	From	To	Note
Tolt Pipeline Trail and Bridge – Snoqualmie River	W Snoqualmie Valley Rd NE north of NE 124th St	W Snoqualmie Valley Rd NE signalized crossing and/or other trail/road right-of-way project			Likely crossing of W Snoqualmie Valley Rd to continue trail to the Snoqualmie River

2.2.b Guardrail

King County's guardrail programs install, refurbish, and upgrade existing guardrail to meet current standards. King County uses a quantitative methodology for identifying and ranking potential safety mitigation sites into three categories: new roadside barriers, retrofits to existing barriers, and retrofits to bridge railings.

Risk potential and severity are the primary considerations when considering guardrail and bridge railing prioritization. Risk potential is a function of the probability of vehicles running off the road. Severity is the quantitative potential for personal injury if a run-off-the-road collision were to occur. Factors included in the analysis of guardrail or bridge railing need and priority include collision data, average daily traffic, road functional classification, corridor geometry, bridge geometry, speed limit, embankment slope, and roadside obstacles.

New Roadside Barriers

Roads maintains a priority array of new guardrail locations using an algorithm to assess the factors described above. This method was fully tested following development, using statistically valid sample sizes, field review by county engineering staff, and a comparison between staff ranking and algorithm results. The testing indicated a 90 percent or better correlation between staff and algorithm ranking. Planned installations of new guardrail are identified in the TNR Guardrail category.

Roadside Barrier Retrofits

Federal standards for guardrail design and construction have evolved over time, and older infrastructure is replaced to comply with the latest and best practices. The roadside barrier retrofit program improves road safety by upgrading existing guardrail and guardrail end terminals, often by raising them to meet current height standards.

All sites with existing roadside barriers that are not compliant with current standards are included as candidates for retrofits. Risk exposure, degree of deficiency, and tier service level are the primary considerations in the prioritization process for barrier retrofits.

Bridge Railing Retrofits

Federal standards for bridge railings have changed over time. Roads reviews all existing bridge railings for compliance with current standards. Roads maintains a priority array of bridge railing upgrade locations using an algorithm that considers structural factors related to the existing railing's geometry and strength, the complexity and feasibility of upgrading the railing, the sufficiency of the bridge-to-roadway transition, the risk potential based on average daily traffic, potential collision severity based on posted speed limits, and planned bridge replacement projects. Railing upgrades can be challenging to implement due to the age of the county's bridges, structural design and weight limitations, and other factors. The highest priority bridge railing replacements are identified in the TNR Guardrail category.

2.2.c Americans with Disabilities Act (ADA) Program

The Federal Highway Administration issues regulations to implement the federal Americans with Disabilities Act (ADA). These regulations require that pedestrian facilities such as curb ramps, sidewalks, and signal pushbuttons be upgraded to be accessible to people with disabilities whenever a roadway is altered. Roadway alterations include reconstruction, rehabilitation, or simple asphalt surface overlay.

Accessibility improvements are guided by the *2021 King County Road Services Division Americans with Disabilities Act Transition Plan*. The plan identifies the highest priority unincorporated county road pedestrian facilities to improve based on each facility's geometric design, condition, and proximity to important destinations such as bus stops, schools, and businesses. The plan estimates a total cost of $118,157,000 to address the highest priority needs, and an additional $432,790,000 to address low and medium priority needs. ADA upgrades are completed through a dedicated ADA program, as funding allows, and as incidental elements of other capital projects. The total cost for high-priority needs is included in the TNR.

2.2.d Roadside Maintenance and Operations

Maintenance and operation activities in and along roadsides are done to enhance pedestrian safety and mobility on pathways and sidewalks and to mitigate the impacts of run-off-the-road collisions. Properly maintained roadsides have good sight distance and are free of hazards, obstructions, and vegetation. Roads employs a continuous cycle of inspections, maintenance, repairs, replacement, and improvements to its roadside features. These programs fall into the following categories:

- **Vegetation Management** includes mowing and maintaining trees, brush, and natural areas on the roadside to provide clear sightlines for drivers, improve drainage, keep signs and traffic signals from being obscured, provide pedestrians space to walk outside of the roadway, and prevent roadways from being blocked by dangerous or downed trees. Related activities include noxious weed control and shoulder or roadside spraying. *Slope and shoulder mowing serves a critical safety function by removing vegetation from lines of sight, from blocking visibility of traffic control devices, and from obstructing pedestrian walkways. Limited funding has reduced the frequency of slope and shoulder mowing activities.*
- **Shoulder Cleaning and Restoration** includes maintenance of paved and gravel shoulders, such as gravel patching, grading and restoration, and landscape maintenance. Maintaining shoulders prevents standing water and reduces deterioration of the roadway.
- **Storm Response** includes bank stabilization, material removal and disposal, repairs, and other responses to storms and landslides. Roads conducts a preventive maintenance program that identifies areas with the greatest washout risk and implements measures to prevent future damage. Most critical washout repairs are made immediately, while others take more time to complete.
- **Minor Maintenance** of roadside features includes repair or replacement of guardrails, retaining walls, fences, sidewalks, and walkways, and removal of hazardous material, debris, and other material that may pose a risk to the traveling public.

2.3 Traffic Control

The traffic control product family includes traffic-related safety devices and other measures used to regulate, warn, or guide traffic. King County use and prioritization of these devices is based on King County Code

Title 14 *Roads and Bridges* and the *Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD is published by the Federal Highway Administration to set national standards for road managers when installing and maintaining traffic control devices on public streets, highways, bikeways, and private roads open to public travel. National standards set by the MUTCD apply to all traffic control devices, including:

- **Traffic signs** to warn the public of sharp curves and intersections, provide speed limits, guide traffic, control intersections, and prohibit parking.
- **Traffic signals or controls,** including warning flashers, exclusive and protected left turn lanes, traffic signals, signal timing, signal head and phasing revision (ex., flashing yellow arrow phases), and roundabouts.
- **Roadway delineation or pavement markings,** including centerline and edge line markings, raised pavement markers, markings for crosswalks, rumble strips, or post delineators.
- **Street lighting**
- **Channelization,** including left and right turn lanes, acceleration or deceleration lanes, and access restrictions (i.e., curbs and medians).
- **Pavement treatments** such as high friction surface treatments.
- **Alignment alterations** that modify the horizontal and vertical alignment and curve geometry.

Traffic control devices optimize traffic performance, promote uniformity nationwide, and help improve safety by reducing the number and severity of traffic crashes. Additionally, by enabling the orderly movement of all road users, traffic control devices and intelligent transportation systems can promote safety, increase efficiency, and enhance transit speed and reliability. The following sections describe the processes developed for identifying projects and managing programs to address collisions, congestion, MUTCD requirements, and design constraints.

2.3.a Traffic Signals and Other Intersection Controls

Prior to selecting signalization as a preferred intersection control solution, intersections first undergo an extensive evaluation of alternatives, as listed in the MUTCD, Section 4B.04. The list of alternative evaluations includes, but is not limited to, the construction of additional lanes, revising the intersection geometrics to channelize movements and realign the intersection, installing street lighting, improving sight distance, installing roundabouts, installing measures to reduce approach speeds, changing lane use assignments, restricting movements, or adding stop controls or intersection flashers. Particular attention is given to the predominant type of collision occurring at the intersection. Intersection evaluations also include analyses of existing and future traffic patterns to determine the effectiveness of each alternative, and development of cost estimates for alternative comparisons. Safety outcomes and cost effectiveness are primary determinants for selecting intersection improvement solutions.

Traffic Signal Priority Array

King County's process to identify and prioritize intersection control needs conforms to the *Strategic Plan for Road Services* goals, federal and state law, and the MUTCD. Prioritization and selection of intersections for signalization or other intersection controls starts with data collection. Roads collects vehicle and pedestrian volumes, prevailing speeds, and collision history at each intersection for the most recent three-year period.

Each intersection is then evaluated using MUTCD signal warrants, which define the minimum conditions under which installing a traffic signal might be justified; traffic signals are typically not installed unless one or more of the nine signal warrants are met. Three of the warrants are based on traffic volumes at several periods during the day: the peak hour, the fourth highest hour, and the eighth highest hour. One warrant examines the traffic collision history, focusing on collisions correctable by signalization (left-turn and right-angle types). Two warrants examine whether pedestrian volumes warrant signalization. Two warrants examine whether signalization would improve traffic flow in a coordinated signal system or roadway network. The final warrant examines the proximity to a railway ("grade") crossing.

Roads uses the five primary warrants described below to evaluate signalization need and relative priority across locations. While the remaining warrants are also considered in the evaluation process, they are less applicable to the largely suburban and rural nature of unincorporated King County.

Warrant 1 – Eight-Hour Vehicular Volume
- Condition A: Minimum Vehicular Volume
- Condition B: Interruption of Continuous Traffic

Warrant 2 – Four-Hour Vehicular Volume

Warrant 4 – Pedestrian Volume

Warrant 6 – Coordinated Signal System

Warrant 7 – Crash Experience

In addition to the MUTCD warrants, King County adds a factor for proximity to a school site. While this factor does not replace the pedestrian-related warrants, it addresses the potential for pedestrian activity outside of average-day activities. For locations near schools, shopping, and other pedestrian attractors, the volume of pedestrian activity is examined as well as pedestrian warrants.

For each intersection, Roads assigns values representing the degree to which each of the primary warrants is met, then sums the total for the intersection. Intersections are categorized and sorted first by the number of collisions within the last three years that could be corrected through signalization, then by warrant rating values. The resulting list of rank-ordered intersections forms the Traffic Signal Priority Array, which serves as a starting point for determining locations to construct a signal, roundabout, or other form of intersection control. Ultimately, the selection and use of traffic control signals are based on the warrant analysis, careful analysis of traffic operations, pedestrian and bicyclist needs, engineering judgment, and other factors. Table 4 summarizes intersection criteria and high, medium, and low priority categories.

Table 4. King County Intersection Categories

Category	Intersections that meet:
High	• Warrant 1 (Eight-Hour Vehicular Volume) OR • Both Warrants 2 (Four-Hour Vehicular Volume) and 7 (Crash Experience)
Medium	• Warrant 2 (Four-Hour Vehicular Volume) OR • Warrant 3 (Peak Hour) OR • Warrant 4 (Pedestrian Volume) OR • Warrant 5 (School Crossing)
Low	• Warrant 6 (Coordinated Signal System) OR • Warrant 8 (Roadway Network) OR • Warrant 9 (Intersection Near a Grade Crossing)

Traffic Signal Programmatic Needs: Phasing, Operations, and Lighting

King County regularly reviews existing signalized intersections for left turn phasing revisions, safety needs, and congestion concerns.

Phasing – Monitoring and evaluating the left turn phasing at existing traffic signal locations ensures that the appropriate level of protection and capacity is provided. Engineers determine whether the left turn phase should be permissive (left-turning drivers see a solid green light or flashing yellow arrow and yield to through traffic), protected-permissive (left-turning drivers see a green arrow while through traffic is stopped, then a solid green light when they must yield), or protected-only (left-turning drivers may only turn when they see a green arrow and do not have to yield). Roads updates phasing as needed, then continues to monitor altered intersections for safety.

Signal Operations – Existing traffic signal operations are field-reviewed on a three-year cycle to ensure that changes in conditions such as adjacent new development, shifts in vehicle volumes, new or improved pathways or other pedestrian attractors, vegetation growth, queue lengths relative to length of existing turn pockets, vehicle delays, and other elements of the traffic signal operation are acceptable based on engineering judgment.

Street Lighting – Street lighting helps motorists and other road users safely maneuver. King County Road Design and Construction Standards require street lighting on all roadways with three or more lanes of travel or where local roads intersect arterials.

2.3.b Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) equipment promotes safety and efficiency, and can enhance transit speed and reliability, by enabling the orderly movement of all road users on streets and highways. This equipment also provides real-time traffic information to King County traffic operators, the media, and the traveling public. Installation of new county ITS infrastructure has been primarily funded through grant programs.

Intelligent Transportation Systems Corridor Project Prioritization Criteria

Criteria for prioritizing projects were established through the *2005 ITS Strategic Plan*, and were based on examples from the 2004 Transportation Needs Report, criteria specific to ITS projects, and the county's needs. Each criterion was rated on a scale of 1 to 5 points. The relative priority (low, medium, or high) of each project was established by totaling its points. Criteria included:

- **Average Daily Traffic:** A traffic volume scale was used to assign priority for ITS projects along roads with the highest average daily traffic.
- **Volume to Capacity Ratios:** Roads whose volumes were approaching or exceeding capacity were scored higher.
- **Collision Rates:** Corridors with high collision rates were scored higher.
- **Transit Ridership:** Corridors with greater volumes of transit ridership were scored higher.
- **Potential for Annexation:** Corridors with little probability of annexation were scored higher.
- **Availability of Communications:** Corridors with access to communications infrastructure were scored higher.
- **Links to Other Existing or Planned Projects:** Corridor projects that could coordinate or leverage other county ITS corridor projects were scored higher.
- **Hazard Areas:** Corridors with two or more locations with hazards (collision history, flooding, icing, landslides, etc.) were scored higher than other corridors.

All but two of the high-priority ITS corridor projects have been completed or annexed by other jurisdictions. The remaining projects are low-to-medium priority. Uncompleted projects from the *2005 ITS Strategic Plan* are included on the 2024 TNR project list.

Programmatic Intelligent Transportation System Projects

Programmatic ITS projects provide the information processing and dissemination capability to add value to the data collected by field devices. They include projects that can be implemented countywide and are not focused on one corridor. Regional ITS projects include Emergency Management, Traffic Management, Data Management, Weather and Hazard Detection, Communications, Maintenance and Construction Activity Coordination, and Traveler Information. The *2005 ITS Strategic Plan* prioritizes programmatic ITS projects using the following criteria:

- Improvement to traffic flow
- Improvement to incident response time
- Improvement to regional information sharing for traveling public
- Improvement to the efficiency of county service delivery
- Potential for phased implementation
- Relative ease of implementation
- Eligibility to leverage non-county funding sources
- Potential to leverage existing infrastructure and other projects

2.3.c High Collision Location Analysis

Critical safety work remains the top priority for Roads. King County completes a systemwide study of collision locations every two years. The High Collision Location analysis is consistent with the goals and criteria established by the Washington Traffic Safety Commission Target Zero program. The methodology is updated as needed to reflect current best practices.

The initial list of study locations is compiled by analyzing the spatial density of ten years of collision data to produce heat maps of intersections and road segments with a concentration of crashes. Locations with the highest concentrations receive additional study, including analyses of crash frequency and trends over time, crash rate (the number of crashes compared to the amount of traffic and/or length of road), and the crash history relative to other locations. Locations that meet thresholds from these analyses receive in-depth analysis of collision history, patterns, and trends; traffic volumes; and site conditions and roadway characteristics.

Regular maintenance of traffic control devices ensures that:

- Safety standards are met
- Damaged signs are replaced
- Traffic signs, stripes, and markings are replaced so that they are visible night and day
- Intersections operate efficiently
- Traffic control systems operate correctly
- Traffic information is accurate, clear, and appropriate
- Traffic restrictions are clearly marked

These location-specific studies are used to develop countermeasures (improvements intended to reduce the occurrence of collisions). There are a broad range of countermeasures, ranging from changing roadway geometrics to altering traffic signal timing. Countermeasures are selected based on predominant collision patterns, field observations, King County practices and context, and the expertise of the review team. Countermeasures may not be developed at locations where recent improvements have been completed, where no clear collision pattern or deficiencies are noted, or where the location is no longer under King County jurisdiction.

Once countermeasures are developed, Roads prepares a benefit-cost analysis for each location. Benefit-cost analysis is used to determine whether an improvement is cost-effective (the benefits outweigh the costs) and to compare the relative cost-effectiveness of improvements across all locations.

To determine a potential improvement's benefits, the expected reduction in collisions is estimated using nationally published "crash reduction factors" for the selected countermeasures, with modifications based on the past effectiveness of the countermeasure in King County. The crash reduction factor is used in combination with typical collision costs to determine the expected societal benefit (in dollars) of completing the improvement. Benefits are then normalized by converting to a present value based on the expected service life of the improvement. Finally, the normalized benefit is divided by a planning-level cost estimate to obtain the benefit-cost ratio for the project.

The culmination of this analysis identifies a list of safety improvements, which are further prioritized according to their respective benefit-cost ratio. Many of the proposed projects are smaller, targeted, operational improvements. The analysis informs prioritization across several TNR categories, including the Intersection and Traffic Safety Operations category.

2.3.d Traffic Control Devices: Maintenance and Operations

Common maintenance tasks to ensure the proper functioning of traffic control devices include:

- Maintenance of street lighting, signals, flashers, and ITS equipment, and all associated components such as controllers, lights, mast arms, timers, cameras, cabinets, and loop detectors.
- Sign maintenance including replacement and installation, fabrication, inspection, cleaning, and responding to community member concerns.
- Pavement marking maintenance including replacement of pavement markings, including paint striping, thermoplastic, and raised pavement markings (sometimes referred to as "buttons").

2.4 Drainage Systems

Standing water can be a safety hazard to road users and accelerates the deterioration of the roadway surface and substructure. The drainage asset product family includes infrastructure that moves stormwater away from the roadway and reduces flood risk to the built environment (man-made structures) by collecting and redirecting stormwater to natural bodies of water and designated collection points. Drainage infrastructure reduces water pollution by collecting stormwater and filtering out pollutants and sediment via settlement, infiltration, or other processes.

Roads is responsible for the drainage infrastructure within, alongside, and under unincorporated road right-of-way, including pipes, ditches, catch basins, manholes, retention/detention ponds, rain gardens, vaults, and bio-swales.

2.4.a Large Drainage Project Identification and Prioritization

The largest and most costly components of King County's aging system are enclosed pipes 24 inches and greater in diameter. These pipes serve a critical role in conveying regional surface water. Due to their size and function, failure of these pipes would have significant consequences for public safety, property, and aquatic resources. In unincorporated King County, regional pipe systems represent about 2 percent of the drainage system in the road right-of-way.

This section discusses how larger-scale drainage projects are identified and prioritized. These large projects are included in the 2024 TNR project list. Smaller projects, constructed by county staff under the Countywide Drainage Preservation Program, are prioritized in the same manner but are not included in the TNR project list.

Field Confirmation

Drainage problems and concerns are brought to the attention of Roads in variety of ways, including community member inquiries, routine road patrol and field work, and notification from other agencies. Drainage concerns are reviewed to determine the agency responsible for the infrastructure. When Roads is responsible, a project is created in Roadworks, Roads' asset management database.

Two evaluation systems are used to prioritize drainage projects: Field Priority Score and Habitat Evaluation. A third system based on water quality benefits is under development.

Field Priority Score: Scores for field priority reflect the problem's threat to public safety and impact on private property. There are eight criteria used to evaluate each problem (see below). These criteria help identify system-wide impacts of each drainage problem.

Field priority criteria are assigned point values (from 0 to 10) and weights (from 1 to 5) based on their importance to the maintenance of the county road system.

Field Priority Criteria

1. Threat to public safety
2. Threat to public property
3. Threat to private property
4. Water quality improvement
5. Maintenance problem resolved
6. Road closure severity (detour length and availability, if needed)
7. Road classification (principal/minor or collector arterial vs. local access)
8. Road failure potential

Habitat Evaluation Process: To address federal, state, and local regulatory requirements (such as the Endangered Species Act, the Washington State Hydraulic Code, and the King County Critical Areas Ordinance), and to improve environmental health, a staff biologist completes a field visit and habitat evaluation for projects that affect aquatic areas, fish habitats, and their buffers. The project's impacts or benefits are identified using the habitat evaluation criteria. The Habitat Evaluation also documents potential regulatory mitigation requirements.

Habitat Evaluation Criteria

1. Fish stock status (species of concern or listed under Endangered Species Act)
2. Site specific information (fish passage, water quality, wetland improvement or risk of habitat damage)
3. Basin/system concerns

The Field Priority Score, Habitat Evaluation, and other available information are entered into the Roadworks database. Roadworks is then used to monitor the status of the projects through design, permitting, and project completion. This software can also be used to evaluate lifecycle costs once fully populated, track problems by area, and help guide coordination with other departments using its geospatial analysis and countywide drainage layer.

Life-Cycle Analysis and Condition Assessment

A large portion of King County's unincorporated drainage system is at or nearing the end of its useful life, and its current condition is largely unknown. To address this lack of knowledge, an effort was developed to identify the location, age, type, size, and condition of regional drainage facilities in unincorporated King County right-of-way. This information was necessary to identify and assess the urgency and cost of drainage

facility maintenance and renewal needs. In 2015, Roads coordinated this effort with the King County Water and Land Resources Division for the most at-risk system elements, which are estimated to comprise 40 percent of the pipes that are 24" in diameter and larger, or 2 percent of the entire system in the roadway. This program identified 33 regional system projects deemed critical. Work to address these deficient systems is currently underway; these projects are included in the TNR Drainage category.

This effort provided information for completing an inventory and condition assessment of the remaining drainage system. The assessment also informed policy discussions regarding the responsibility and funding structure for operation, maintenance, and renewal of regional drainage systems in the unincorporated areas.

Drainage infrastructure is doing its job when…

- Safety and environmental standards are met.
- Water on the roadway causes minimal impact to travelers, infrastructure, or private property.
- Surrounding streams, rivers and lakes enjoy good water quality.
- Ponds, ditches, and enclosed drainage systems are free of litter/debris.
- Road-related ponds or ditches are mosquito free.

Fish Passage Prioritization

In order to support the county's Fish Passage Restoration Program, Roads has developed a Culvert Replacement and Fish Passage Program. Projects selected for this program are identified through collaboration with the King County Water and Land Resources Division. The selection process considers the benefits to the safety and condition of the public road system (using the field confirmation process described above), and to fish passage (using Washington Department of Fish and Wildlife guidelines and an analysis of current habitat conditions, upstream and downstream barriers, the amount of potentially restored habitat, and other habitat restoration factors). This selection process may evolve over time. These projects are included in the TNR Drainage category.

Emergency projects and project schedules

Projects are scheduled in the Countywide Drainage Preservation Program annually. Scheduling annually helps reduce frequent reallocation of resources. However, drainage problems are reported to Roads almost daily. Some of these concerns are so urgent that they must be included in the current year's work program. Project priorities are reevaluated every time a new project is identified to ensure that effort is expended on the most urgent safety and preservation projects.

2.4.b Drainage Program Programmatic Needs

Roads prioritizes all known major and minor drainage infrastructure needs, from the replacement of small segments of pipe to large cross-culvert replacements. Drainage improvements may be needed to meet regulatory requirements, safety, or preservation needs. Projects that impact streams undergo a significantly different planning process. These projects are required to meet state or federal design standards for fish passage or other aquatic habitat needs relating to vertical drops, water depth, water velocity, and other factors. Projects that do not impact streams typically include stormwater system retrofits and the installation or replacement of catch basins, vaults, or pipes.

2.4.c Drainage Maintenance and Operations

To ensure successful drainage management, Roads employs routine inspections, and regular maintenance, repair, and infrastructure replacement that fall into the following categories:

- **Quick response:** Work associated with unanticipated failures of the drainage system.
- **Drainage system cleaning:** Routine inspection and maintenance of the drainage system, including cleaning pipes and catch basins, removing sediment, and completing incidental repairs.
- **Ditch maintenance:** Reshaping and cleaning roadside ditches to ensure proper drainage. This work is primarily performed through bucket ditching with a front end loader or a backhoe.
- **Other repair:** Using best management practices to repair or replace drainage pipes, catch basins, catch basin lids, trash racks and headers, and rip-rap; to mark pipes to ensure infrastructure visibility; to prevent erosion; to install stream bypasses; and to restore streams.

- **Stormwater pond maintenance:** Mowing, brush removal, and cleaning of stormwater ponds.

2.5 Bridges and Structures

Bridges and structures are key components of the county road network, providing routes over bodies of water, roads, lowlands, railroad tracks, and other obstacles. Structures enable county roads to exist in diverse landscapes by controlling and shaping the natural environment and providing protection from environmental impacts such as flooding, tides, waves, storm surges, or landslides. Types of roadway structures include seawalls, retaining walls, and mechanically stabilized earth walls.

2.5.a Bridge Program

Roads owns and maintains 185 bridges in the unincorporated area of King County. Built over many generations, these bridges are made of concrete, steel, timber, or a combination of the three building materials. The Roads bridge inventory includes long-span bridges (those over 20 feet in span length, which appear on the national bridge inventory), short-span bridges, safety enhancement bridges that keep wildlife off roadways, and pedestrian bridges.

The Bridge Program employs a comprehensive, integrated strategy to maintain and preserve the county's bridges and the continuity of the road network. Primary bridge program goals include:

- Keeping bridges open and safe for public use;
- Preserving bridge infrastructure by maximizing its useful life through active maintenance, repair, load upgrades, or rehabilitation;
- When possible, replacing existing bridges with reliable new structures when repair, load upgrades, or rehabilitation is not feasible.

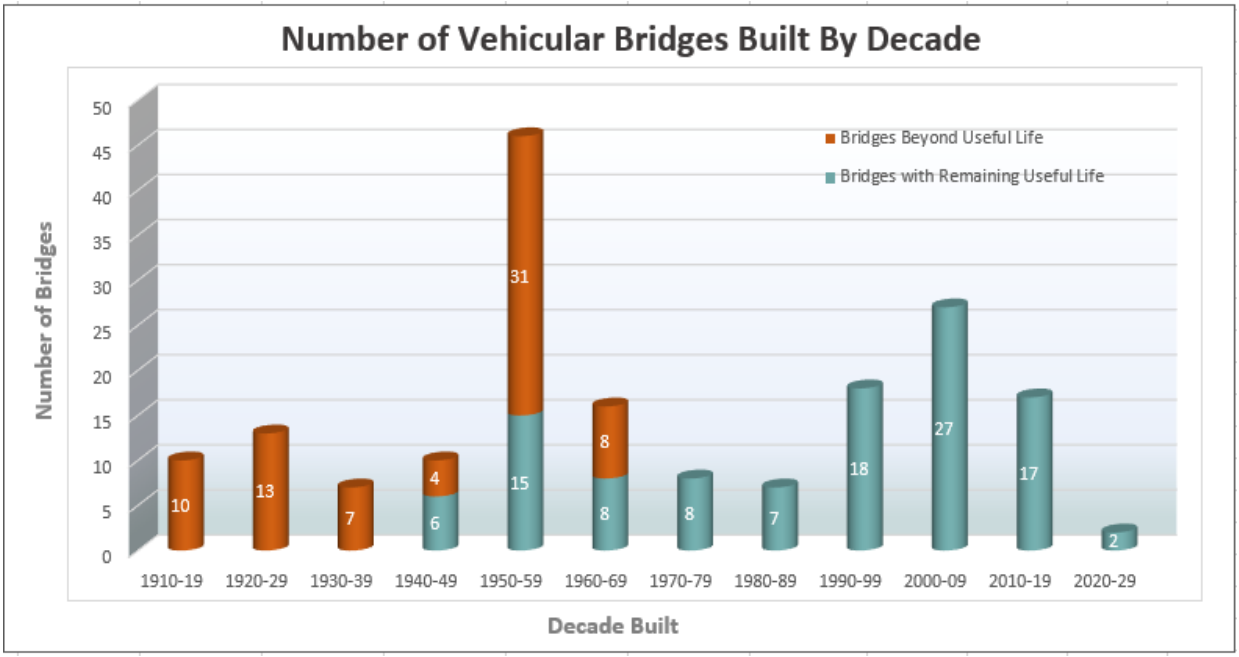
Essential to meeting these goals are a well-documented inspection program coupled with a robust bridge preservation program. Once preservation is no longer an option, it becomes necessary to close or replace bridges. Management challenges for the county-owned bridge inventory include:

- Bridges are aging beyond their useful life and exceeding their theoretical design life;
- Traffic volumes are continuing to grow;

- Type and size of highway trucks are changing, resulting in more concentrated loads on bridges;
- Costs to replace bridges are increasing.

King County-owned bridges range in age from less than two years old to over 100 years old, and many are failing. The average age of the Roads bridge inventory is 53 years old. At the end of 2022, there were 73 bridges beyond their expected useful life. The issue is particularly pronounced with timber bridges, which make up about one-third of the inventory. Although timber bridges have a typical useful life of 50 years, the average age of the Roads timber bridge inventory is 69 years old. The issue of the aging inventory is compounded by the steep revenue decline over the last eight years. Figure 3 summarizes the number of King County vehicle bridges built by decade.

Figure 3. Number of King County Vehicle Bridges Built by Decade (2022 King County Annual Bridge Report)



Roads prepares an Annual Bridge Report to fulfill the requirements of Washington Administrative Code (WAC) 136-20-060. The annual report summarizes best available information about the county's bridges and includes information regarding inspections, the priority array for bridge replacement and rehabilitation, capital project status, and other maintenance and operations information. The report, and the included prioritization, guides bridge replacement and rehabilitation decisions. It is published annually as a supporting document to the Roads budget.

Inspection, Assessment, and Prioritization

Annual assessment and prioritization of bridge needs begins with bridge inspections. Roads inspects and assesses all of its bridges regularly to ensure the safety of the traveling public. Inspection of each King County roadway bridge occurs on a two-year or shorter cycle and aims to implement the National Bridge Inspection Standards by calculating a sufficiency rating for each bridge. The sufficiency rating is based on factors such as structural adequacy and safety, serviceability and functional obsolescence, and how essential the bridge is for public use. Sufficiency rating ranges from zero (worst) to 100 (best).

In addition to the sufficiency rating, the County considers several factors to prioritize bridges for replacement or rehabilitation, such as load limitations, hydraulics, geometric deficiency, and expected

useful life. The prioritization factors, their rationale, and other elements of the King County bridge priority process were adopted in 1994 by the King County Council (Ordinance 11693).

Routinely inspected and maintained bridges and structures serve the public by ensuring that:

- Bridges are kept safe for public use
- Structures are free of hazards
- Roads remain open to travel
- Crossing delays are minimized

One element of the annual bridge ranking process is bridge weight-carrying capacity information. In 2022, Roads completed its mandate to reevaluate the weight-carrying capacity for all of its 181 vehicular bridges using current bridge condition information and new federal standards. Under the new standards, 10 bridges have been posted with weight restrictions.
The Washington State Department of Transportation Local Programs Division (WSDOT) allocates federal bridge funds to local agencies using a technical, competitive process. WSDOT focuses on funding local agency bridges that are classified as "structurally deficient." Structurally deficient bridges have significant load-carrying elements in poor condition, or an inadequate waterway opening under the bridge that causes significant flooding over the bridge deck.

Minor maintenance, repair, and quick response activities are addressed by maintenance and operations. Larger projects are designated as stand-alone preservation projects or are addressed through preservation programs, including bridge preservation and painting programs.

Bridge Preservation

The Bridge Preservation program addresses bridge needs outside of routine operations. Its goal is to perform cost-effective projects that extend the useful life of King County bridges. The program includes the following work categories:

- Load upgrades
- Re-decks
- Painting
- Scour protection
- Seismic retrofits
- Bridge Priority Maintenance repairs

Bridge Painting

The Roads bridge inventory includes 22 bridges with painted steel components requiring regular repainting to prevent premature corrosion, including trusses, steel girders and floor beams, and secondary stabilizing members. Of these bridges, approximately one-third have lead paint that was applied prior to 1970. All lead paint must be properly removed prior to applying new paint, which necessitates a costly full lead containment and abatement system.

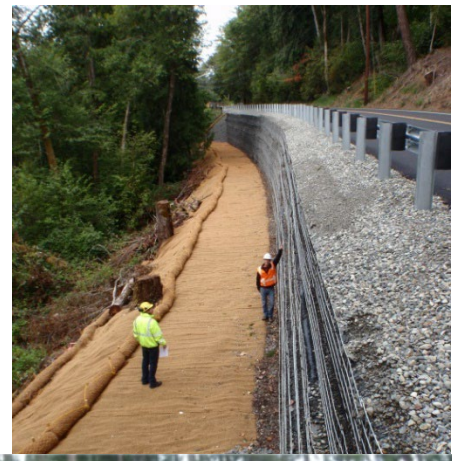
Bridge Inspection Program

All bridges are inspected at two-year or shorter intervals. Inspection reports for bridges on the National Bridge Inventory are provided to the Federal Highway Administration by WSDOT. Some bridges require more frequent or special inspections when deterioration is being closely monitored.

Bridge Replacement

The 20-year projected need for bridge replacement includes 42 bridges selected based on three factors: the current bridge condition and projected remaining useful life, the King County Council-approved prioritization criteria, and a review of candidate bridges by technical subject matter experts and Roads management. The resultant list is the best current representation of the bridges that will be most in need of replacement over the next 20 years. The list includes both short-span and long-span bridges. These projects are included in the 2024 TNR Bridge Replacement Category.

2.5.b Structures Needed to Protect Vulnerable Road Segments



A subset of unincorporated King County roads has suffered repeated failures requiring expensive or frequent repairs following storm or prolonged rain events. The 2005 Vulnerable Road Segments (VRS) study identified, quantified, and prioritized vulnerable road segments throughout the county and developed projects to resolve their vulnerability. The study developed a list of unstable slopes and other locations requiring frequent reactive maintenance. Sixty-three road segments were initially identified as candidates. Each of the road segments was grouped into one of six problem categories: steep slopes, landslide, seawall, river erosion, flood, and roadway settlement. Roads identified proposed solutions, possible environmental impacts, and cost estimates for each category.

Data was gathered for each road segment, including descriptions of the segment and its location. Each segment was then analyzed regarding:

- Traffic data
- Engineering assessment of the problem
- Estimated cost to remedy the problem
- Guardrail needs
- Roadway classification
- Detour length

Recommendations for potential longterm fixes or continued maintenance were developed, then prioritized based on:

- **Maintenance Cost per Year:** This factor reflects the average estimated annual cost of repairing the road segment to its pre-damage condition (temporary repair). Projects with higher annual maintenance costs were given a higher priority.
- **Construction Cost per Vehicle:** This factor divides the cost of the permanent construction fix by the average daily number of vehicles that travel the road. Projects with a lower cost benefitting a higher number of vehicles were given a higher priority.
- **Impact of Failure:** This factor addressed the importance of correcting a vulnerable road segment. Scoring reflected the likelihood and extent of road failure and closure if the segment was left unaddressed beyond routine maintenance.
- **Driver Inconvenience:** This factor measured the overall level of driver inconvenience if a road segment was closed, taking into consideration the detour length and traffic volume. Road segments involving longer detours with higher traffic volumes were given a higher priority.

- **Inclusion in a Future Project:** This factor gave a higher priority to segments that were included in the Roads capital improvement program or Transportation Needs Report to account for the opportunity to address two needs with one project.
- **Guardrail Need:** This factor gave a higher priority to road segments slated for future guardrail improvements to account for the opportunity to address two needs with one project.

The team selected and refined the factors above through an iterative process, adjusting the scoring and factor weighting for reasonableness after each iteration. The final ranking process distributed the full numerical range of each factor across the segments, and the factor weights resulted in a logical ranking.

Proposed permanent solutions to these vulnerabilities include:

- Constructing retaining walls to prevent slides on steep slopes above and below the roadway, stabilizing the slope and adjacent riverbanks.
- Replacing seawalls to adequately support the road prism, protect the road from storm wave action, and eliminate routine road failures.
- Replacing undersized culverts with bridges to provide better conveyance of water, silt, and debris.
- Raising the roadway using walls or other armored structures to minimize flooding and erosion impacts to the roadway. Typically, these projects require perforations in the armored walls to allow for the conveyance of water and the inclusion of guardrails.
- Armoring road shoulders with hardened structures to prevent routine washouts during flood events.

Projects were not proposed for some locations with low average daily traffic, difficulty in obtaining regulatory approvals, limited right-of-way, or sufficient minor repair or routine maintenance options. In 2011, the original study was reevaluated based on current conditions and three new road segments were added. In 2019, the vulnerable road segment list was reviewed with respect to best available information and eight additional vulnerable road segments were added.

The 2024 TNR Vulnerable Road Segment category of needs includes the recommended projects from the 2005 VRS study, and the 2011 and 2019 updates. This category also includes needs identified within the adopted six-year capital improvement program.

2.5.c Bridges and Structures – Maintenance and Operations

If bridges and road structures are not regularly inspected and maintained, they may become unsafe and require closures, which can result in loss of access to property or longer travel times. To minimize these consequences and maximize the outcomes listed above, Roads employs programs that facilitate routine maintenance and repair of bridges and structures. These programs fall into the following categories:

- **Minor bridge maintenance and repair:** Includes the Maintenance Operations Program's routine bridge maintenance and repair activities, such as small repairs, debris removal, surface cleaning, and graffiti removal. Routine inspections inform the need for the minor maintenance and repair of structures.
- **Operations:** Includes the resources needed to operate King County's bascule ("moveable") South Park Bridge, including funding for staff to raise the bridge for boat traffic.
- **Quick response:** Includes work associated with unexpected bridge and seawall failures.

2.6 Facilities

Roads has five regional maintenance facilities that provide routine maintenance and emergency services to the road system throughout the unincorporated area, including remote facilities on Vashon Island and in the Skykomish area near Stevens Pass. Roads also has a maintenance headquarters campus in the City of Renton that provides centralized maintenance and administration functions; a regional maintenance facility; a regional vactor decant facility; and specialized services such as a materials lab, traffic sign and signal shops, and other specialty services and equipment used throughout the system. Ten satellite maintenance sites located throughout King County are used for project staging and for the stockpiling and storage of waste, supplementary equipment, and snow and ice or other emergency response materials.

Many of King County's existing road maintenance facilities are old and require significant capital improvements or have exceeded their useful lives and require replacement. Most are between 40 and 60 years old, with a few dating back to the early 1900s. As a result, some do not meet current building standards or do not readily accommodate the needs of a modern workforce and equipment inventory. Some facilities have inadequate heat, insufficient restrooms, failing septic systems, leaking roofs, mold, or rodent infestations.

The conditions of Roads maintenance facilities compromise the agency's ability to provide routine and emergency services in a timely and efficient manner. These maintenance activities are vital for keeping the county's road-related assets in working condition to maximize the public's investment and to provide for the safety of users. Some common maintenance activities include routine maintenance and repair of pavement, bridge components, ditches, culverts, shoulders, and guardrail; vegetation management; debris removal; maintenance of traffic control devices; and road striping. Examples of Roads emergency response activities include responding to significant collisions that impede travel; winter storm response activities such as plowing, sanding, and salting of the roads; removing downed trees and clearing other debris caused by landslides; managing flood-related or other types of emergency road closures; and completing storm-related repairs to roadways and other assets such as bridges, drainage systems, shoulders, and adjacent slopes.

Adequate maintenance facilities located in the right places and kept in operational condition are necessary for the efficient provision of vital services to the traveling public. Investments in Roads maintenance facilities are necessary for continued delivery of essential safety and routine maintenance services.

2.6.a Assessment of current facilities

The *Strategic Plan for Road Services* reflects an extensive evaluation of the division's maintenance facilities. This effort identified the need to deliver maintenance services more efficiently, consolidate facilities, and complete priority facility repairs. Roads maintenance facilities were evaluated according to physical condition, location suitability, and functional/operation sufficiency.

- **Physical Condition.** To establish a baseline and get a comprehensive understanding of the condition of existing maintenance facilities, buildings and properties were assessed and site-specific capital needs with cost estimates were generated.
- **Location Suitability.** The location of each maintenance facility was assessed based on travel time, size, land use issues, and other contextual factors. The unincorporated service area has changed significantly with annexations and incorporations over the past two decades; as a result, a number of facilities are no longer sited in the best locations to serve the core unincorporated service areas. In addition, the facility sites have certain size, land use, zoning, environmental, and other requirements and constraints. Because Roads facilities have been sited, acquired, and developed ad hoc over a very long period of time, many facilities have issues related to their location (e.g., the Fall City site is located in the Snoqualmie River floodplain). In order to deliver the most service possible with limited resources and to be able to respond to emergencies, crews need to be located centrally within their maintenance districts.

- **Functional/Operational Deficiencies.** Each facility's functional and operational deficiencies were assessed to evaluate covered and heated bays for vehicle and equipment storage; covered sand and bulk salt storage for snow and ice operation; and adequate, safe administrative and crew facilities.

The facility planning and assessment effort identified the following types of facility needs:

- Exploration of facility collocation opportunities with WSDOT;
- Construction, relocation, and/or expansion of permanent facilities;
- Enhancement of two emergency response satellite facilities;
- Major renovation of existing facilities; and
- High-priority maintenance, repair, or installation of septic systems, fencing, doors and windows, HVAC systems, roofs, and interior improvements such as electrical and plumbing systems.

The 2017 *King County Road Services Regional Maintenance Facility Siting Assessment* identifies candidate site alternatives for two maintenance facilities: Vashon and Cadman. Consistent with county financial policies, Roads intends to use the proceeds of future property sales to fund facility replacement activities. The Vashon Island maintenance facility is very old, significantly undersized, and failing. There are a limited number of suitable land parcels on Vashon Island in terms of size, location, allowable zoning, and site conditions. Roads has prioritized advancing the acquisition of a suitable site(s) from the few identified as viable in the 2017 siting assessment study and 2019 study update, before there are no options left for replacing the failing facility.

The Cadman facility in northeast King County is sub-optimally located within the City of Redmond. It does not best serve current and future operational needs. Roads has proposed replace the Cadman facility by acquiring land and constructing a new, centrally located maintenance facility to better serve northeastern King County.

2.6.b Facility Maintenance and Operations

The needs associated with efficiently maintaining and operating facilities include, but are not limited to, yard maintenance, cleaning, utility service, building security, carpentry, electrical repair, painting, fence repair, machinery service, structural repairs, and plumbing.

Chapter 3. Transportation Modeling

The Transportation Needs Report is informed by a regional travel forecasting model that is maintained by the Puget Sound Regional Council (PSRC). The PSRC model is activity-based and uses mathematical and statistical processes to estimate daily travel patterns within the Puget Sound region. This regional model uses existing traffic, population, employment, trip rates, and other data to develop a traffic demand model for a base year, then uses forecast population, employment, and other data to estimate future traffic. These forecasts are used to understand demand versus capacity (level of service), and to meet other policy, planning, and engineering needs. For additional information regarding PSRC's regional model, please visit the PSRC website.[3]

Roads collaborates closely with PSRC and uses the regional transportation model to ensure regional planning consistency with the TNR. The regional model also satisfies the following requirements of the Growth Management Act (RCW 36.70A.070(6)(a)):

1. **Traffic forecasts of 10 years or more:** The model forecasts to 2044, 20 years from the expected adoption of the TNR in 2024.
2. **Land use assumptions:** The model incorporates regionally adopted household, population, and

[3] Puget Sound Regional Council, *Activity-Based Travel Model: SoundCast* [LINK].

employment data.

3. **Intergovernmental coordination:** The model incorporates growth targets agreed to by a coalition of King County jurisdictions.
4. **Estimated traffic impacts to state-owned facilities:** Projected travel on state facilities was included in the sufficiency analysis.
5. **Consistency of plans:** PSRC solicited input from member jurisdictions in the development of the travel model, including forecast land use and road improvement assumptions.

The 2024 TNR was prepared using best available information, including findings from the PSRC regional model.

Chapter 4. Drivers of Change Affecting Transportation in Unincorporated King County

4.1 Puget Sound Regional Demographic and Employment Trends

The most powerful indicators of how people travel are where they live and work. The Puget Sound region is expected to continue to grow jobs and urbanize, creating more demands on an already burdened transportation system. New forecasts from the Puget Sound Regional Council (PSRC) indicate population in the region is expected to reach about 5.8 million people by 2050, a nearly 35 percent increase from 2021.[4] This substantial increase in population will create a need for more housing, employment, and services, and in turn will create significant impacts to existing roads, travel patterns, and demands.

The Puget Sound region's current transportation system reflects and is guided by land use patterns developed through decades of growth. As the region continues to grow, its demographic profile will continue to evolve. On average, future transportation system users will be older and more ethnically and racially diverse. The region is and will remain relatively affluent, with higher wages led by workers in information, technical, and management sectors, historically located in a few urban areas.[5] However, lower-income populations within the region will face increasing economic challenges as housing, transportation, and other living costs continue to escalate.[6]

Increasing public preference for living in compact, walkable neighborhoods may encourage increased density in the county's urban core. As jobs increasingly locate into large city centers, transit and active transportation will become increasingly important.[7] Residents' willingness to pay for transportation choices that they value—particularly transit—remains high, as evidenced by voter support for the 2016 Sound Transit 3 levy and the 2015 Move Seattle levy.

Affordability issues and low housing inventory often force residents to move farther from their jobs, thereby increasing reliance on single-occupancy vehicles and road congestion.[8] The Washington State Growth Management Act and its implementation in King County have produced both intended and unintended consequences related to transportation and road congestion. Urban centers will continue to experience intended densities with improved access to multimodal transportation systems, while rural

[4] Puget Sound Regional Council, *VISION 2050*, October 2020 [LINK] (accessed November 18, 2022), p. 2.
[5] Puget Sound Regional Council, *VISION 2050*, p. 92.
[6] Puget Sound Regional Council, *VISION 2050*, p. 92, 102.
[7] Puget Sound Regional Council, *VISION 2050*, p. 103.
[8] National Association of Realtors, *Millennials and Silent Generation Drive Desire for Walkable Communities, Say Realtors,* December 19, 2017 [LINK] (accessed October 11, 2022); Puget Sound Regional Council, *VISION 2050: Housing Background Paper*, June 2018 [LINK] (accessed November 18, 2022), p.28.

unincorporated King County areas have experienced increased road congestion due to travel to, from, and between urban areas.

4.2 Puget Sound Transportation Trends

Travel by car is expected to remain the predominant transportation mode in the region, despite significant increases in the share of trips made by transit, walking, and biking. In 2021, 80 percent of trips were made by car.[9] The PSRC *Regional Transportation Plan 2022-2050* forecasts that by 2050 the share of trips made by car will drop to 72 percent regionally.[10] The share of trips made by transit will increase to 8 percent, and the share of trips made by walking or biking will increase to 20 percent.[11] These shifts will be particularly pronounced for work-related trips, for which the share of trips made by transit is expected to double.

While personal vehicle travel will continue to be an important mode choice throughout the county, it will remain particularly important in the rural area, where the lack of density and scarcity of funding makes mass transit service impractical. The *Regional Transportation Plan 2022-2050* forecasts that the proportion of the region's trips made by car in 2050 will drop significantly in the region's Metropolitan and Core Cities, but will decrease only 2 to 4 percent in urban unincorporated areas, and 1 percent in the rural area.[12] In the region's urban unincorporated and rural areas, the share of trips made by cars is expected to remain between 86 percent and 90 percent. Daily vehicle miles traveled per capita are also expected to remain relatively high for urban unincorporated and rural areas (17.8 and 24.4 miles, respectively).[13]

Driving is also expected to remain the primary travel mode for commuting, although the share of the region's work trips made by car is expected to drop from 83 percent in 2018 to 69 percent in 2050.[14] Congestion, which typically takes place during commuting periods, will remain high. During peak commute hours in 2018, over 20 percent of the regional road system experienced heavy to severe congestion (i.e., average speeds were less than half of the posted speed limit).[15] By 2050, the portion of roads experiencing heavy to severe commute congestion is expected to rise slightly to 25 percent. Regionally, congestion-related delay is expected to increase most significantly for urban unincorporated and rural areas. While annual delay per capita is expected to drop or rise only slightly for Metropolitan Cities, Core Cities, High-Capacity Transit Communities, and Cities & Towns, the annual delay per capita in urban unincorporated areas is expected to increase to 53 minutes (a 20 percent increase) and to 63 minutes in the rural area (a 26 percent increase).

Transit use is likely to play an increasingly large role in urban and suburban travel. In 2018, regional transit agencies provided 216 million regular transit boardings; by 2050, annual boardings are planned to more than triple to 747 million, outpacing the growth of population and jobs. Regionally, the share of jobs within one half-mile of a high-capacity transit station is expected to increase from 47 percent in 2018 to 76 percent in 2050; within King County, the share is expected to rise to 85 percent.[16] The share of households living within one half-mile of a high capacity transit station is expected to grow from 25 percent in 2018 to 60 percent in 2050.[17] However, the share of households within one half-mile of a high capacity transit station will be much smaller in the region's urban unincorporated area (5 percent in 2018 vs. 20 percent in 2050) and the rural area (0 percent in 2018 vs. 1 percent in 2050).[18]

Roadway tolling of state highways may play a role in shaping regional housing and employment trends. The PSRC *Regional Transportation Plan 2022-2050* sets broad direction for a regional tolling system and

[9] Puget Sound Regional Council, 2021 Household Travel Survey Explorer, [LINK] (accessed November 29, 2022).
[10] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, [LINK] (accessed November 18, 2022), p.159.
[11] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.161.
[12] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, [LINK] (accessed September 6, 2023), Appendix H, p.18.
[13] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, Appendix H, p.10.
[14] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.159.
[15] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.68.
[16] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.163.
[17] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.18.
[18] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.162.

other user fees to raise critical funding for transportation investments, and to reduce peak-period demand on the transportation system.[19] The Washington State Department of Transportation (WSDOT) has implemented tolls on I-405 and state routes 520, 99, and 167. WSDOT is planning for additional tolling on I-405 and State Route 509 in the future, and will likely finance major highway capacity projects at least partially through tolls.[20] In 2020, based on a multi-year investigation, extensive analysis, and a pilot project, the Washington State Transportation Commission recommended enactment of a small-scale road usage charge program. The commission's recommendation is intended to be the first step in a 10- to 25-year transition away from gas taxes to fund the state highway system.[21]

Gas prices may also encourage location of housing near employment. The second highest expense for a typical U.S. household is transportation.[22] Gasoline prices are volatile and affected by multiple factors: worldwide demand for and supply of crude oil; disruptions due to geopolitical events, severe weather, and infrastructure failures; seasonal changes in demand and gasoline specifications; and the amount of gasoline reserves.[23] As of December 2022, Washington's gas price ($4.42 per gallon of regular gas) was the fourth-highest in the nation; Washington gas taxes (49.4 cents per gallon state tax plus 18.4 cents per gallon federal tax) were third-highest in the nation.[24] The effect of electric vehicle technology and teleworking on housing choice and the transportation system are not yet known.

4.3 Transportation Trends in Unincorporated King County

Unincorporated King County's nearly 1,500-mile road network supports more than one million trips per day, with people across the region traveling to work, school, and other destinations.[25] Decades of annexations, limited sales tax revenues, flat/declining gas taxes, and the effects of voter initiatives have contributed to the decline of revenues needed to maintain the road system. Roads has an unsustainable financial model with insufficient revenue to support the preservation of unincorporated road and bridge infrastructure, or address capacity and congestion.

The majority of King County's population, development, and employment growth has been within the Urban Growth Area, not within rural King County.[26] Following adoption of King County's first comprehensive plan in 1994, the percent of growth in the rural area declined sharply, and this trend is expected to continue.[27] Since 2006, less than 3 percent of new housing in King County has occurred in the rural area.[28] With the majority of people and jobs located within the urban growth area, there are few employment options in the county's rural area and many rural residents drive long distances to urban employment centers. PSRC estimates that close to 92 percent of employed residents outside the contiguous urban growth boundary (those in the unincorporated rural area, freestanding cities and towns, tribal reservations, military installations, etc.) travel to jobs inside the Urban Growth Boundary, and they travel about twice as far, with an average commute of 22 miles.[29]

[19] Puget Sound Regional Council, *Regional Transportation Plan 2022-2050*, p.141.
[20] Washington State Transportation Commission, 2022 WSTC Tolling Report & Tacoma Narrows Bridge Loan Update, [LINK] (accessed November 30, 2022), p.11.
[21] Washington State Transportation Commission, Washington State Road Usage Charge Assessment Final Report
[22] U.S. Department of Transportation, Bureau of Transportation Statistics, "Transportation Economic Trends," [LINK] (accessed December 1, 2022).
[23] U.S. Energy Information Administration, "Gasoline explained," [LINK] (accessed November 18,2022); "Oil and petroleum products explained," [LINK] (accessed November 18,2022).
[24] AAA, "State Gas Price Averages," [LINK] (accessed December 1, 2022); Lord, Debbie, "How much tax does your state charge on gasoline? What makes up the price of a gallon?" June 2022, [LINK] (accessed December 1, 2022).
[25] King County Department of Transportation, *Strategic Plan for Road Services*, July 2014, [LINK] (accessed October 18, 2022), p. 1.
[26] Puget Sound Regional Council, *Regional Growth Strategy: Background Paper*, March 2019, [LINK] (accessed November 18, 2022), p. 18.
[27] King County, 2021 King County Urban Growth Capacity Report, June 2021, [LINK] (accessed November 18, 2022), p.46.
[28] King County, 2021 King County Urban Growth Capacity Report, p.30.
[29] Puget Sound Regional Council, *Transportation 2040 Update - Appendix R: Rural Transportation Study*, May 29, 2014, p. 5.

Urban unincorporated King County has also seen relatively low growth; since 2006, the number of urban unincorporated King County housing units grew by just 4 percent.30 Combined, urban and rural unincorporated King County has experienced a population decrease of 14 percent from 2011 to 2022, including population lost through annexations.[31]

Unless changes are made to the state and regional transportation funding allocation process, federal, state, and local transportation investments will continue to be focused within King County's Urban Growth Boundary, serving the densest residential and employment centers. Transportation funding allocated in support of improved local and regional transit will benefit urban portions of unincorporated King County, while more geographically dispersed populations of rural King County will continue to receive less transit and multimodal investment. King County Metro is developing innovative and cost-efficient transit service delivery options, such as reservation-based or flexible route shuttles, community vans, real-time ridesharing, and partnerships with taxi and transportation network companies in areas that don't have the infrastructure, density, or land use to support regular, fixed-route bus service.[32] In spite of these efforts, limited transit service within rural King County will continue to result in many unincorporated King County residents relying on their personal vehicles for transport to work and other destinations. Additionally, demand and usage of unincorporated roads by residents of incorporated areas and other counties will likely continue to increase.[33]

The policies set forth within Washington State's Growth Management Act have successfully created public benefits such as protected parks, farmland, and open spaces by focusing growth within designated cities and urban areas. However, this has created regional traffic demand on the unincorporated road network without commensurate funding. Funding availability for unincorporated King County roads has decreased dramatically as a direct outcome of annexations and associated reductions in property and sales tax contributions to the King County Road Operating Fund. Yet traffic volumes and use of the unincorporated King County road system have increased over time, and portions of the network experience extreme congestion because road capacity has been exceeded. Additionally, many county road facilities have reached the end of their useful life, requiring complete replacement or reconstruction. Insufficient funding has resulted in a backlog of road and bridge projects, and portions of the system are faced with imminent closure if unmet road funding needs are not addressed. This issue is regional, and Roads will continue to work with residents, cities, Washington State, and other partners to achieve scaled-up, regional funding solutions.

Chapter 5. TNR Project Needs and Cost Analysis

The 2024 Transportation Needs Report represents King County's contemporary thinking regarding transportation needs across its system of unincorporated roads and bridges. The underlying approaches taken to identify needs and evaluate road and bridge assets are summarized within Chapter 2 of this report. This chapter provides the cost analysis associated with the 486 identified transportation project needs, organized using ten TNR categories:

- **Bridge:** Vehicular and pedestrian bridge projects include design, compliance, and construction to improve safety and asset conditions of the county's bridges.
- **Capacity-Major:** Capacity projects increase the size of the road to improve its ability to safely accommodate higher traffic volumes.
- **Reconstruction:** Road reconstruction projects improve safety and typically involve full removal and replacement of the surface layer, road base, and related road infrastructure, such as drainage and guardrails.

[30] King County, 2021 King County Urban Growth Capacity Report, p.30.
[31] Puget Sound Regional Council, Puget Sound Trends, [LINK] (accessed November 30, 2022), p. 8.
[32] King County Metro, "Our Programs," [LINK] (accessed November 18, 2022); King County Metro, "On-demand services," [LINK] (accessed November 18, 2022).
[33] King County Department of Transportation, *Strategic Plan for Road Services*, p. 12.

- **Active Transportation:** Safety improvements to benefit people walking, biking, or participating in other active recreation activities. Sidewalk construction or shoulder widening/paving are common active transportation projects.
- **Intersection and Traffic Safety Operations:** Projects typically incorporate one or more traffic safety measures, such as sightline improvements, traffic signals, re-channelization ("striping"), and roundabouts.
- **Vulnerable Road Segments:** Roads frequently impacted by flooding, tides, wave action, storm surges or slides are often protected through infrastructure such as seawalls, armored slopes, and retaining walls.
- **Accessibility Improvements:** Projects that improve existing pedestrian facilities to current Americans with Disabilities Act standards.
- **Drainage:** Projects that preserve the integrity of the road and improve safety by moving water away from the road. Projects typically improve infrastructure such as culverts, ditches, catch basins, and drainage systems.
- **Guardrail:** Roadside guardrail and bridge railing projects to improve safety by reducing the severity of run-off-the-road collisions.
- **Intelligent Transportation Systems (ITS):** Projects that advance safety and mobility by integrating communications technologies such as cameras, vehicle detection, traffic signal equipment, and timing upgrades into transportation infrastructure.

Together the total cost estimates for Capacity and Bridge projects account for over one-third of the total cost of the TNR Project Needs List (see Figures 4 and 5). This is due to the significantly higher cost of engineering, materials, labor, environmental permitting, and right-of-way that goes into rebuilding and widening roads and replacing bridges compared to relatively smaller-scale projects associated with other TNR categories. Figure 6 summarizes the average project cost by TNR category and reveals similar cost patterns. For example, the average Capacity-Major project costs over five times the average TNR project cost. Note that Accessibility (ADA) needs are not included in Figure 6, as the TNR includes these needs at the programmatic rather than project level.

Figure 4. 2024 TNR Summary of Costs, by Category

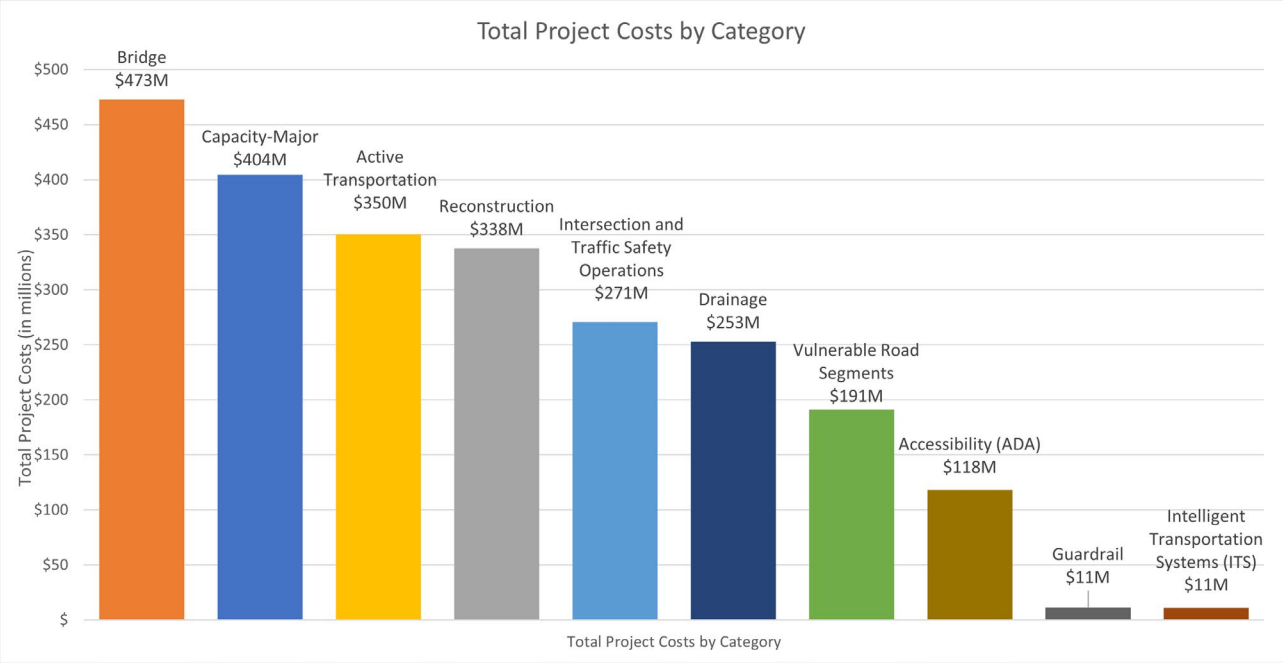


Figure 5. 2024 TNR Percentage of Total Cost, by Category

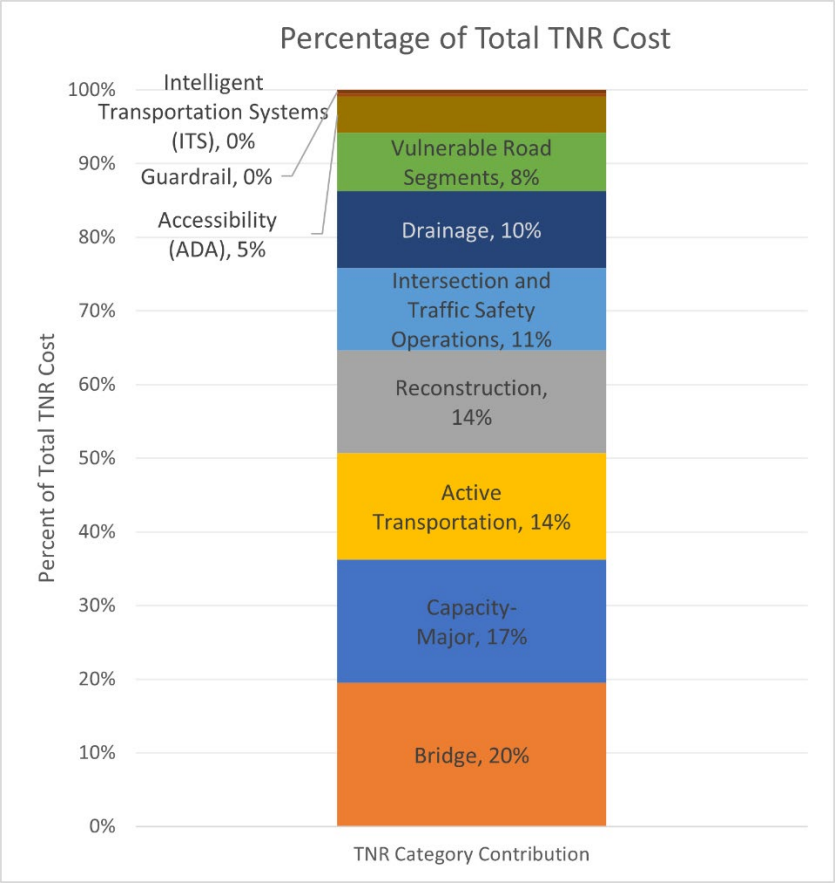
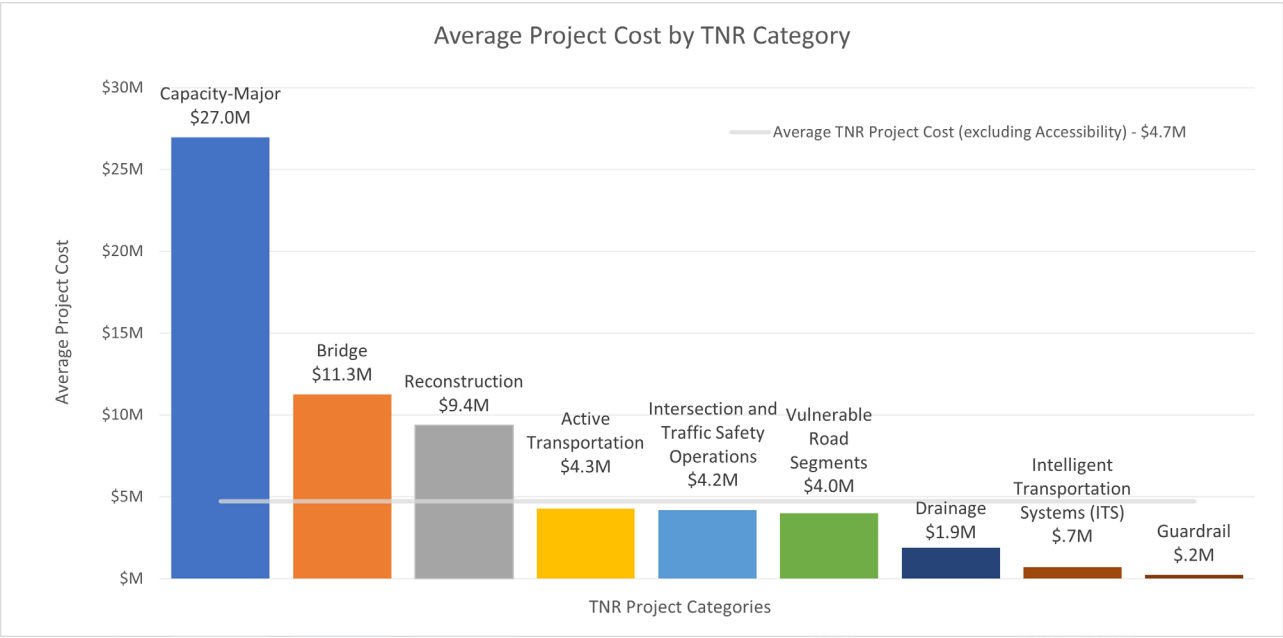


Figure 6. Average Project Cost, by Category



Chapter 6. Financial Analysis

A financial analysis was completed to compare the estimated costs, over twenty years, of projected transportation needs to Roads' anticipated revenue. Planning level cost estimates were generated for each of the 486 transportation needs identified within the 2024 TNR. Cost estimating in support of the 2024 TNR reflects contemporary estimation methods, market rates, and best available information. Table 5 summarizes these estimated costs across ten thematic TNR needs categories. The total estimated cost associated with the identified needs exceeds $2.4 billion.

Table 5. 2024 TNR Financial Summary of Estimated Cost

2024 TNR Category	2024 TNR Project Count	2024 Estimated TNR Costs
Capacity-Major	15	$404,360,000
Bridge	42	$473,000,000
Reconstruction	36	$337,730,000
Active Transportation	80	$350,280,000
Intersection and Traffic Safety Operations	65	$270,740,000
Vulnerable Road Segments	48	$191,320,000
Accessibility (ADA) Improvements	*	$118,157,000
Drainage	135	$253,060,000
Intelligent Transportation Systems (ITS)	16	$10,880,000
Guardrail	49	$11,294,000
Total Estimated 2024 TNR Cost	**486**	**$2,420,821,000**

* Due to the large number of accessibility needs and relatively low project costs for individual improvements, the TNR reports only the total estimated cost to address high-priority needs identified in the *2021 King County Road Services ADA Transition Plan*.

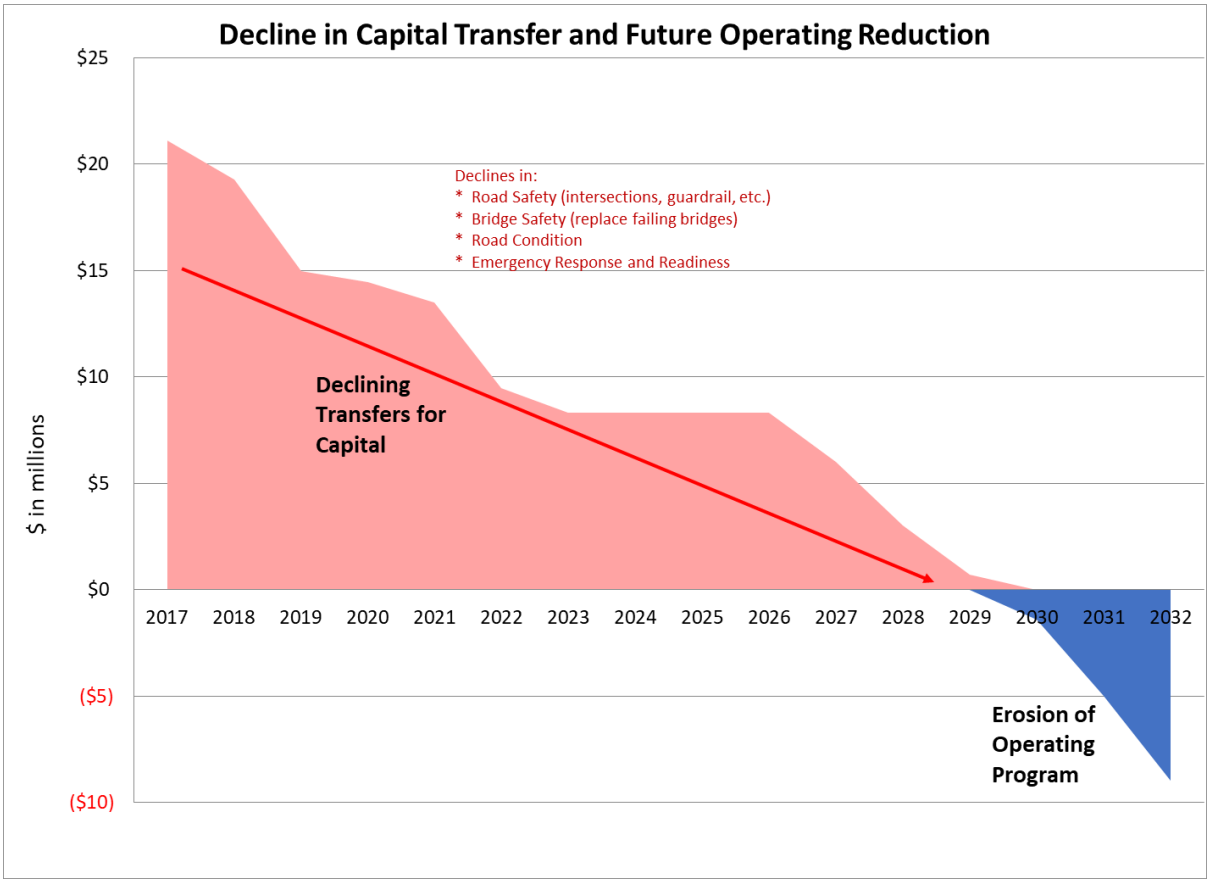
King County continues to experience a road funding crisis as a result of a structural gap. This is a result of an unincorporated—and largely rural—tax base supporting a local and regional system, municipal annexations reducing the taxpayer base, Washington's outdated tax structure, voter initiatives limiting property tax growth, and an aging bridge and road system. The lack of sufficient revenue significantly impacts the county's ability to maintain and improve roads. It has been more than a decade since a project adding new capacity to the system has been funded, and preservation projects have been primarily associated with one-time funding. Dedicated funds for the six-year capital improvement program—gas and property taxes not used for operating expenses—have significantly diminished from past years. The capital improvement program is focused on addressing deterioration, high-priority safety needs, and a small amount of preservation and maintenance. The 2024 TNR was prepared with this funding crisis as a backdrop.

This structural gap between dedicated revenues and expenditures has resulted in insufficient funds for a full preservation program or timely replacement of infrastructure. Available revenues are focused on reacting to the higher risks associated with the deteriorating road system. Expenditures are increasing at a greater rate than the growth of dedicated revenue. The increasing cost of current service levels without a commensurate increase in revenues directly impacts Roads capital and maintenance programs. By 2029, if no sustainable revenue source is identified, the Road Operating Fund contributions to the Roads capital program will end.[34] Figure 7 summarizes the effect of the loss of this revenue source from 2029 onward, which includes a

[34] The Road Operating Fund Contribution is funded primarily by a dedicated unincorporated area property tax and gas tax distribution. Property tax revenue projections are based on the most recent approved King County, Office of Economic and Financial Analysis forecast. Projections shown here reflect the current balance in the operating fund (the source of funds for the capital transfer) and current economic assumptions.

dramatically reduced capital program and a reduction in operating programs.

Figure 7. Decline in Roads CIP Contribution and Future Operating Reduction



Primary revenue sources for Roads capital projects include the Road Operating Fund contribution, as well as state and federal grants. A portion of the Roads capital program is also funded through other agencies and their revenue sources, such as Surface Water Management Fee funding for certain drainage projects, and grants from the Flood Control District. Across these revenue sources, approximately $289 million is forecast to be available to fund 2024 TNR identified needs over a twenty-year period, which translates to an overall funding shortfall of approximately $2.1 billion (Table 6).

Table 6. 2024 TNR Funding Shortfall

Item	Amount
Total estimated 2024 TNR Cost	$2,420,821,000
Projected revenue (2024-2043 forecast) that is available to fund TNR Needs	$288,985,000
Funding shortfall associated with the 2024 TNR	**$2,131,836,000**

Of the revenues available to fund needs identified within the 2024 TNR, over $85 million is through the adopted 2023-2028 Six-Year Capital Improvement Program using Roads funding sources, including 30-year bonds backed by the Real Estate Excise Tax. In addition, it is anticipated that non-Road Operating Fund revenue sources will fund approximately $204 million of 2024 TNR identified needs through 2043 (Table 7).

Table 7. Projected Funding of 2024 TNR Needs, 2024-2043

TNR Category	Funded 2024 TNR Needs (2024-2028) [35]	Anticipated Revenue to Fund 2024 TNR Needs (2095-2043)[36]	Total Projected Revenue to Fund TNR Needs (2024-2043)
Capacity-Major	$0	$0	$0
Bridge	$57,959,000	$0	$57,959,000
Reconstruction	$0	$0	$0
Active Transportation	$1,093,000	$0	$1,093,000
Intersection and Traffic Safety Operations	$551,000	$0	$551,000
Vulnerable Road Segments	$2,336,000	$0	$2,336,000
Accessibility (ADA) Improvements	$847,000	$0	$847,000
Drainage	$22,683,000	$31,016,000	$53,699,000
Intelligent Transportation Systems	$0	$0	$0
Guardrail	$0	$0	$0
Grants (All Categories)	(included above)	$172,500,000	$172,500,000
Total Projected Funded TNR Needs (2024-43)	**$85,469,000**	**$203,516,000**	**$288,985,000**

The county has identified several potential strategies to address the funding shortfall for 2024 TNR needs.[37] The options include:

- **Increased pursuit of grant funding.** Roads actively seeks grant funding to meet the needs of the unincorporated county road network in alignment with the division's strategic priorities. However, grant funds typically require matching funds from the recipient, and have a narrow range of allowable uses.
- **Raising Transportation Benefit District revenue.** Under this strategy, revenues could be raised through a vehicle licensing fee, sales tax increases, general obligation bonds, impact fees on certain development, vehicle tolls, or a combination of measures—many of which would require voter approval.
- **Levy lid lift.** A roads levy lid lift would temporarily increase the property tax levy to the statutory limit. At the conclusion of the levy lid lift period, property tax increases would return to their legal maximum—currently 1 percent of the total proceeds—plus proceeds from new construction. As of January 2023, a levy lid lift would require council and voter approval.
- **Advocate for state funding.** State funding dedicated to management of the county road system would offset the unintended consequences of the Growth Management Act and provide a predictable revenue source for financial planning.
- **Advocate for state legislative changes.** County leadership will use its political leadership to ask the legislature to provide additional or more flexible tools, such as raising the 1 percent property tax limit, giving counties more tools to facilitate annexations, and addressing the broken fiscal underpinnings of the Growth Management Act.
- **Regional funding.** The county anticipates that a regional funding solution would offer the most effective and comprehensive solution to the road funding crisis. County roads form one element in a regional road network and are used to travel to and between urban residential and employment

[35] Existing TNR funding reflects years 2024-2028 of the adopted Roads 2023-2028 Six-Year CIP. CIP funding for other categories of work, such as pavement preservation and facility replacement, are not included in the analysis.
[36] Anticipated TNR funding (2029-2043) reflects a continuation of grant funding and other non-Road Operating Fund revenue sources at approximately current levels and assumes no Road Operating Fund contributions to the capital program.
[37] Unincorporated King County Fiscal Sustainability Plan, December 2021, [LINK], (accessed April 24, 2023).

centers. The county will continue to collaborate with regional partners to identify mutually beneficial transportation funding solutions.

Exhibit A. 2024 Transportation Needs Report Project List

The 2024 Transportation Needs Report (TNR) contains a project list that is comprised of 486 project needs. Individual project needs are organized geographically, using 23 tables (Exhibit A) and corresponding maps (Exhibit B). Due to the large number of accessibility needs and relatively low project costs for individual improvements, the TNR reports only the total estimated cost to address high-priority needs identified in the *2021 King County Road Services ADA Transition Plan*.

TNR project list tables provide the following information for each identified TNR need:

- **TNR Project Number.** The TNR project number is a unique identifier for the 2024 TNR. TNR project numbers are referenced in the corresponding TNR map, in Exhibit B, proximate to the project location.
- **TNR Category.** Each TNR project need is categorized using one of nine TNR categories:
  - Capacity-Major
  - Bridge
  - Reconstruction
  - Active Transportation
  - Intersection and Traffic Safety Operations
  - Vulnerable Road Segments (VRS)
  - Drainage
  - Intelligent Transportation Systems (ITS)
  - Guardrail
- **Location.** The location of each TNR project is provided using the nearest intersection or street address.
- **Project Scope.** A high-level preliminary scope is identified for each TNR project need. Scope information is highly conceptual.
- **Estimated Cost.** A planning level cost estimate is provided for each identified 2024 TNR project need. Estimates reflect best available unit costs, market rate, and other contemporary approaches to generating planning level cost estimates.
- **Community Service Area.** Unincorporated King County is divided into seven Community Service Areas (CSA). The related CSA is identified for each TNR project need.

Map Number 1: North Vashon

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-19	Drainage	Beall Rd SW at SW 188 St	Replace/Construct drainage infrastructure	$1,610,000	Vashon/Maury Island	
DR-20-20	Drainage	SW 156 St E of Vashon Hwy SW	Replace/Construct drainage infrastructure	$1,320,000	Vashon/Maury Island	
DR-20-67	Drainage	11010 SW Cemetery Rd	Replace/Construct drainage infrastructure	$1,350,000	Vashon/Maury Island	
DR-8	Drainage	SW 171st St & 93rd Ave SW (Gorsuch Creek)	Replace/Construct drainage infrastructure	$340,000	Vashon/Maury Island	
NM-0106	Active Transportation	SW Bank Rd: 97 Pl SW to Beall Rd SW	Provide active transportation facility	$710,000	Vashon/Maury Island	
NM-0203	Active Transportation	SW 177th St/98th Pl SW: Vashon Hwy SW to SW Bank Rd, Vashon Hwy SW north of SE SW 177th St, SW Bank Road: Vashon Hwy SW to 98th Pl SW	Provide active transportation facility	$590,000	Vashon/Maury Island	
NM-15-9	Active Transportation	SE Cemetery Rd/ Beall Rd SW: 107th Ave SW to SW 184th St	Provide active transportation facility	$9,420,000	Vashon/Maury Island	
NM-5054	Active Transportation	SW Bank Rd: 107th Ave SW to Vashon Hwy SW	Provide active transportation facility	$6,320,000	Vashon/Maury Island	
RC-56	Vulnerable Road Segments	Westside Highway SW: Crescent Dr SW to McIntyre Rd SW	Reconstruct roadway	$700,000	Vashon/Maury Island	
RC-58	Vulnerable Road Segments	Crescent Dr SW: Westside Highway SW to SW Cove Road	Reconstruct roadway	$880,000	Vashon/Maury Island	

1477 **Map Number 2: South Vashon**

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-15-13	Drainage	Chautauqua Beach Rd SW & Ellisport Creek	Pipe replacement, seawall removal, contaminated solid removal	$2,250,000	Vashon/Maury Island	
DR-20-18	Drainage	SW 232 St at Old Mill Rd SW	Replace/Construct drainage infrastructure	$4,250,000	Vashon/Maury Island	
DR-20-49	Drainage	23737 Old Mill Rd SW	Replace/Construct drainage infrastructure	$2,530,000	Vashon/Maury Island	
GR-15-40	Guardrail	Dockton Rd SW: SW Ellisport Rd to SW 222nd St	Construct guardrail along seawall	$912,000	Vashon/Maury Island	
GR-15-41	Guardrail	Vashon Hwy SW Seawall: SW 240th Pl to 115th Ave SW	Construct guardrail along seawall	$768,000	Vashon/Maury Island	
GR-15-42	Guardrail	SW Quartermaster Dr: Monument Rd SW to Dockton Rd SW	Construct guardrail along seawall	$444,000	Vashon/Maury Island	
NM-9975	Active Transportation	SW Tahlequah Rd near Tahlequah Ferry Dock	Provide active transportation facility	$160,000	Vashon/Maury Island	
RC-10	Vulnerable Road Segments	Dockton Rd SW: SW Ellisport Road to Portage Way SW	Replace seawall	$47,710,000	Vashon/Maury Island	
RC-15	Vulnerable Road Segments	Vashon Hwy SW: 115th Ave SW to SW 240th Pl	Replace seawall	$23,790,000	Vashon/Maury Island	
RC-54	Vulnerable Road Segments	SW Governors Lane: 99th Ave SW to 96th Ave SW	Replace seawall	$4,250,000	Vashon/Maury Island	
RC-59	Vulnerable Road Segments	Kingsbury Rd SW: SW 234th St to 80th Ave SW	Reconstruct roadway	$880,000	Vashon/Maury Island	
VRS-20-11	Vulnerable Road Segments	SW Quartermaster Drive	Rebuild seawall and raise road	$6,750,000	Vashon/Maury Island	

Map Number 3: White Center/Skyway

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-15-5	Drainage	S 96th St: 4th Ave S to 10th Ave S	Replace/Construct drainage infrastructure	$620,000	West King County Areas	
DR-20-21	Drainage	SW 108 St at 10 Ave SW	Replace/Construct drainage infrastructure	$670,000	West King County Areas	
DR-6	Drainage	60th Ave S/S Langston Rd: S 129th St to S 124th St	Replace/Construct drainage infrastructure	$3,370,000	West King County Areas	
INT-TSO-20-12	Intersection and Traffic Safety Operations	64th Ave S & S 129th St	Intersection Improvement	$5,400,000	West King County Areas	
INT-TSO-20-14	Intersection and Traffic Safety Operations	Myers Way S & 6th Ave S	Intersection improvement	$4,270,000	West King County Areas	
INT-TSO-22-18	Intersection and Traffic Safety Operations	Rainier Ave S at S 115th Pl	Replace spanwire signal with mast arms	$800,000	West King County Areas	
INT-TSO-22-3	Intersection and Traffic Safety Operations	Rainier Ave S & S Lakeridge Dr	Intersection Improvement	$1,600,000	West King County Areas	
INT-TSO-22-9	Intersection and Traffic Safety Operations	12th Ave SW at SW 112th St	Replace spanwire signal with mast arms	$800,000	West King County Areas	
ITS-12	ITS	Renton Ave S: Seattle city limits (S 112th St) to Renton city limits (S 130th St)	Cameras, vehicle detection, sync signals, fiber	$280,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
IPA-35	Active Transportation	Renton Ave S: 74th Ave S to 75th Ave S	Provide active transportation facility	$1,110,000	West King County Areas	
IPA-36	Active Transportation	Renton Ave S: 76th Ave S to Renton City Limits	Provide active transportation facility	$4,005,000	West King County Areas	
IPA-37	Active Transportation	S 114th St: Cornell Ave S to 80th Ave S	Provide active transportation facility	$1,620,000	West King County Areas	
IPA-38	Active Transportation	S 126th St: 76th Ave S to 78th Ave S	Provide active transportation facility	$320,000	West King County Areas	
NM-0004	Active Transportation	76th Ave S: S 114th St to S 116th St	Provide active transportation facility	$670,000	West King County Areas	
NM-0302	Active Transportation	1st Ave SW: From SW 110th St to SW 112th St	Provide active transportation facility	$540,000	West King County Areas	
NM-15-1	Active Transportation	S Langston Rd: 64th Ave S to S 132nd St	Provide active transportation facility	$4,970,000	West King County Areas	
NM-15-10	Active Transportation	14th Ave SW: SW 110th St to SW 114th St	Provide active transportation facility	$760,000	West King County Areas	
NM-15-2	Active Transportation	S 132nd St: S Langston Rd to S 133rd St	Provide active transportation facility	$1,570,000	West King County Areas	
NM-15-3	Active Transportation	S 120th St: Beacon Ave S to 68th Ave S	Provide active transportation facility	$2,700,000	West King County Areas	
NM-15-4	Active Transportation	S 133rd St: State Route 900 to S 132nd St	Provide active transportation facility	$11,180,000	West King County Areas	
NM-15-5	Active Transportation	84th Ave S: Rainier Ave S to S 124th St	Provide active transportation facility	$15,620,000	West King County Areas	
NM-15-6	Active Transportation	S 120th Pl: 68th Ave S to Skyway Park	Provide active transportation facility	$1,090,000	West King County Areas	
NM-15-7	Active Transportation	S 123rd St: S 125th St to S 124th St	Provide active transportation facility	$1,710,000	West King County Areas	
NM-15-8	Active Transportation	81st Pl S/S 124th St: SE side of middle school to 84th Ave S	Provide active transportation facility	$1,780,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
NM-20-22	Active Transportation	S Langston Rd between S 132nd St and 76th Avenue S	Provide active transportation facility	$1,080,000	West King County Areas	
NM-20-23	Active Transportation	69th Avenue S/S 125th Street between S 128th Street and 70th Avenue S	Provide active transportation facility	$490,000	West King County Areas	
NM-20-6	Active Transportation	8th Ave S: S 105th St to S 96th St	Provide active transportation facility	$2,517,000	West King County Areas	
NM-22-1	Active Transportation	57th Pl S from State Route 900 to S Langston Rd	Provide active transportation facility	$1,400,000	West King County Areas	
NM-22-12	Active Transportation	1st Ave S from S 116th St to Myers Way S	Provide active transportation facility	$9,335,000	West King County Areas	
NM-22-13	Active Transportation	28th Ave SW from SW 102nd St to SW 106th	Provide active transportation facility	$807,000	West King County Areas	
NM-22-14	Active Transportation	12th Ave SW from SW 106th St to SW 107th St	Provide active transportation facility	$439,000	West King County Areas	
NM-22-5	Active Transportation	14th Avenue S between S 99th St and existing sidewalk on S 100th Street	Provide active transportation facility	$446,000	West King County Areas	
NM-22-6	Active Transportation	SW 102nd Street between 13th Avenue SW & 4th Avenue SW	Provide active transportation facility	$1,859,000	West King County Areas	
NM-22-8	Active Transportation	S 124th Street between 68th Avenue S & 71st Avenue S	Provide active transportation facility	$864,000	West King County Areas	
NM-4012	Active Transportation	80th Ave S: S 114th St to S 118th St	Provide active transportation facility	$400,000	West King County Areas	
NM-4077	Active Transportation	SW 112th St: 16th Ave SW to 10th Ave SW	Provide active transportation facility	$2,160,000	West King County Areas	
NM-5018	Active Transportation	SW 104th St: 15th Ave SW to 17th Ave SW	Provide active transportation facility	$2,190,000	West King County Areas	
NM-5020	Active Transportation	8th Ave SW: SW 108th St to SW 100th St	Provide active transportation facility	$4,790,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
NM-5021	Active Transportation	76th Ave S: S 124th St to S 128th St	Provide active transportation facility	$930,000	West King County Areas	
NM-9920	Active Transportation	28th Ave SW: SW Roxbury St to SW 102nd St	Provide active transportation facility	$400,000	West King County Areas	
NM-9922	Active Transportation	SW 112th St: 16th Ave SW to 26th Ave SW	Provide active transportation facility	$1,090,000	West King County Areas	
NM-9930	Active Transportation	SW 112th St: From 2nd Ln SW to 4th Ave SW	Provide active transportation facility	$1,220,000	West King County Areas	
NM-9936	Active Transportation	75th Ave S / S 122nd St: Renton Ave S to 80th Ave S	Provide active transportation facility	$1,000,000	West King County Areas	
NM-9937	Active Transportation	S 120th St: 76th Ave S to 80th Ave S	Provide active transportation facility	$700,000	West King County Areas	
NM-9938	Active Transportation	78th Ave S: S 120th St to S 124th St	Provide active transportation facility	$1,750,000	West King County Areas	
NM-9939	Active Transportation	76th Ave S: S 120th St to S 124th St	Provide active transportation facility	$700,000	West King County Areas	
RC-41	Vulnerable Road Segments	68th Ave S: from State Route 900 to Renton city limits	Construct retaining wall	$3,320,000	West King County Areas	

Map Number 4: Kent/Des Moines

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
CP-15-6	Capacity-Major	S 277th St & 55th Ave S / S Star Lake Rd	Construct congestion relief measures	$5,090,000	West King County Areas	
CP-5	Capacity-Major	Military Rd S: S 272nd St to S Star Lake Rd	Construct congestion relief measures	$9,150,000	West King County Areas	
DR-15-9	Drainage	Green River Rd S & 94th Pl S	Replace/Construct drainage infrastructure	$1,550,000	West King County Areas	
DR-2	Drainage	S 277th St & 55th Ave S	Replace pipe, retaining wall, and signal	$2,810,000	West King County Areas	
DR-22-23	Drainage	86th Ave S .2 mi north of S 277th St	Replace/Construct drainage infrastructure	$1,278,000	SE King County	
INT-TSO-22-2	Intersection and Traffic Safety Operations	Military Rd S & S Star Lk Rd (N-Intersection)	Intersection Improvement	$800,000	West King County Areas	
OP-INT-120	Intersection and Traffic Safety Operations	40th Ave S & S 272nd St	Add turn lanes on 272nd, rebuild traffic signal	$5,060,000	West King County Areas	
NM-20-25	Active Transportation	Military Rd S from SR 516 to S 240th St	Provide active transportation facility	$3,830,000	West King County Areas	
NM-20-26	Active Transportation	Military Rd S from S 272nd St to S Star Lake Rd	Provide active transportation facility	$2,380,000	West King County Areas	
NM-5015	Active Transportation	Green River Rd: Kent city limits (S 259th St) to Kent city limits (S 277th St)	Provide active transportation facility	$5,950,000	West King County Areas	
VRS-20-14	Vulnerable Road Segments	S 272nd Way debris slump	Construct retaining wall	$1,120,000	West King County Areas	

1485 **Map Number 5: East Federal Way**

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-15-10	Drainage	West Valley Hwy N, 1300 Ft S of S 277th	Replace/Construct drainage infrastructure	$880,000	SE King County	
DR-20-13	Drainage	S 370 St east of Enchanted Parkway S	Replace/Construct drainage infrastructure	$901,000	West King County Areas	
GR-15-29	Guardrail	S 282nd St: 46th Ave SE to 48th Ave SE	Construct guardrail	$48,000	West King County Areas	
INT-TSO-20-1	Intersection and Traffic Safety Operations	28th Ave S & S 360th St	Intersection Improvement	$2,850,000	West King County Areas	
INT-TSO-20-2	Intersection and Traffic Safety Operations	Military Rd S & S 342nd St	Intersection Improvement	$2,920,000	West King County Areas	
INT-TSO-20-3	Intersection and Traffic Safety Operations	48th Ave S & S 288th St	Intersection Improvement	$2,420,000	West King County Areas	
INT-TSO-20-4	Intersection and Traffic Safety Operations	Military Rd S & 42nd Ave S	Construct turn lanes	$2,510,000	West King County Areas	
INT-TSO-20-9	Intersection and Traffic Safety Operations	SE Auburn Black Diamond Rd & Green Valley Rd	Intersection Improvement	$2,420,000	SE King County	
INT-TSO-22-1	Intersection and Traffic Safety Operations	Military Rd S & Peasley Canyon Way S	Intersection Improvement	$6,500,000	West King County Areas	
INT-TSO-22-10	Intersection and Traffic Safety Operations	42nd Ave S at S 288th St	Replace spanwire signal with mast arms	$800,000	West King County Areas	
INT-TSO-22-14	Intersection and Traffic Safety Operations	Military Rd S at 31st Ave S	Replace spanwire signal with mast arms	$800,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
INT-TSO-22-22	Intersection and Traffic Safety Operations	Peasley Canyon Road at S 321st	Intersection Improvement	$1,200,000	West King County Areas	
INT-TSO-22-8	Intersection and Traffic Safety Operations	3203 S 360th St	Replace spanwire signal with mast arms	$800,000	West King County Areas	
IPA-25	Intersection and Traffic Safety Operations	Military Rd S & S 360th St	Intersection Improvement	$5,850,000	West King County Areas	
OP-INT-100	Intersection and Traffic Safety Operations	S 321st St: S Peasley Canyon Rd to 46th Pl S	Reconstruct 321st St approach; expand turn lanes	$5,400,000	West King County Areas	
OP-RD-48	Intersection and Traffic Safety Operations	S 360th St: State Route 161 to 28th Ave S	Construct turn lanes	$8,890,000	West King County Areas	
SW-21	Intersection and Traffic Safety Operations	51st Ave S & S 316th St	Intersection Improvement	$5,400,000	West King County Areas	
SW-73	Intersection and Traffic Safety Operations	46th Pl S & S 321st St	Intersection Improvement	$4,720,000	West King County Areas	
NM-20-17	Active Transportation	S 304th Street between 32nd Ave S and 37th Ave S	Provide active transportation facility	$380,000	West King County Areas	
NM-20-27	Active Transportation	Military Rd S from 31st Ave S to S 320th	Provide active transportation facility	$13,980,000	West King County Areas	
NM-20-8	Active Transportation	S 285th Pl: 46th Ave S to 48th Ave S	Provide active transportation facility	$320,000	West King County Areas	
NM-20-9	Active Transportation	S 308th St: 38th Ave S to 42nd Ave S	Provide active transportation facility	$300,000	West King County Areas	
NM-22-11	Active Transportation	S 298th Street between 36th Place S and 39th Place S	Provide active transportation facility	$1,318,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
NM-22-2	Active Transportation	37th Avenue S from S 300th Place north to existing sidewalk	Provide active transportation facility	$130,000	West King County Areas	
NM-4066	Active Transportation	28th Ave S: S 349 St to S 360th St	Provide active transportation facility	$2,020,000	West King County Areas	
NM-5014	Active Transportation	Military Rd S: Federal Way City Limits to State Route 161	Provide active transportation facility	$47,510,000	West King County Areas	
NM-9970	Active Transportation	34th Ave S: S 288th St to S 298th St	Provide active transportation facility	$1,460,000	West King County Areas	
NM-9971	Active Transportation	36th Pl S/ S 294 St/ 45 Pl S: S 298th St to S 288th St	Provide active transportation facility	$2,540,000	West King County Areas	
RC-137	Reconstruction	SE Auburn Black Diamond Rd: Highway 18 to SE Green Valley Rd	Reconstruct roadway	$1,030,000	SE King County	
RC-138	Reconstruction	SE Auburn Black Diamond Rd: SE Green Valley Rd to SE Lake Holm Dr	Reconstruct roadway	$1,150,000	SE King County	
RC-139	Reconstruction	SE Auburn Black Diamond Rd: SE Lake Holm Rd to 148th Way SE	Reconstruct roadway	$13,040,000	SE King County	
RC-140	Reconstruction	SE Lake Holm Rd: SE Auburn Black Diamond Rd to 147th Ave SE	Reconstruct roadway	$9,810,000	SE King County	*
RC-24	Vulnerable Road Segments	S 304th St: from 32nd Ave S to 37th Ave S	Armor shoulders to reduce road washouts	$300,000	West King County Areas	
RC-42	Vulnerable Road Segments	Peasley Canyon Way S: S Peasley Canyon Rd to Military Rd S	Construct retaining wall	$840,000	West King County Areas	
VRS-20-16	Vulnerable Road Segments	S Peasley Canyon Road Shallow Debris Slide	Construct retaining wall	$11,250,000	West King County Areas	
VRS-20-5	Vulnerable Road Segments	SE Green Valley Road	Elevate roadway	$110,000	SE King County	

Map Number 6: Woodinville

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-1136B	Bridge	Woodinville-Duvall Road Bridge Duvall Slough: NE Woodinville Duvall Rd 0.3 mile west of State Route 203	Replace bridge	$105,600,000	Snoqualmie Valley NE King County	
BR-240A	Bridge	Cottage Lake Creek Bridge: NE 132nd St at Cottage Lake Creek, east of Avondale Rd NE	Replace bridge	$3,810,000	Bear Creek/Sammamish	
BR-333A	Bridge	Bear Creek Bridge: NE 133rd St at Bear Creek, east of Bear Creek Rd NE	Replace bridge	$3,710,000	Bear Creek/Sammamish	
BR-480A	Bridge	Bear Creek Bridge: NE 116th St at Bear Creek, east of Avondale Rd NE	Replace bridge	$2,360,000	West King County Areas, Bear Creek/Sammamish	
BR-5011	Bridge	Walter Shults Bridge: NE 106th St, 0.1 miles E of Avondale Rd	Replace bridge	$4,110,000	Bear Creek/Sammamish	
BR-5042	Bridge	Cottage Lake Creek Bridge: NE 130th St, 0.1 miles W of Avondale Rd	Replace bridge	$4,000,000	Bear Creek/Sammamish	
CP-12	Capacity-Major	Woodinville-Duvall Rd: 171st Ave NE to Avondale Rd NE	Construct congestion relief measures	$19,520,000	Bear Creek/Sammamish	
CP-15-5	Capacity-Major	Avondale Rd NE: NE 133rd St to NE Woodinville Duvall Rd	Construct congestion relief measures	$44,090,000	Bear Creek/Sammamish	
CP-15-3	Capacity-Major	W Snoqualmie Valley Rd: NE 124th St to NE Novelty Hill Rd	Construct congestion relief measures	$10,730,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
CP-15-8	Capacity-Major	NE Novelty Hill Rd: 243rd Ave NE to W Snoqualmie Valley Rd NE	Construct congestion relief measures	$92,010,000	Bear Creek/Sammamish	
CP-16	Capacity-Major	NE Woodinville Duvall Rd: Avondale Rd NE to 194th Ave NE	Construct congestion relief measures	$4,550,000	Bear Creek/Sammamish	
CP-8	Capacity-Major	Novelty Hill Rd: 197th Pl NE to 234th Pl NE	Construct congestion relief measures	$51,900,000	Bear Creek/Sammamish	
OP-RD-52	Capacity-Major	NE 128th St/Avondale Rd NE/NE 132nd St: 181st Ave NE to NE 133rd St	Construct congestion relief measures	$40,140,000	Bear Creek/Sammamish, West King County Areas	
DR-15-1	Drainage	185th Ave NE, north of NE 179th St	Elevate roadway	$4,891,000	Bear Creek/Sammamish	
DR-15-7	Drainage	NE 124th St & 162nd Pl NE	Replace/Construct drainage infrastructure	$630,000	Bear Creek/Sammamish	
DR-20-12	Drainage	NE Woodinville Duvall Rd at NE 172 St	Replace/Construct drainage infrastructure	$5,330,000	Bear Creek/Sammamish	
DR-20-3	Drainage	18430 NE 128 St	Replace/Construct drainage infrastructure	$810,000	Bear Creek/Sammamish	
DR-20-31	Drainage	243 Ave NE at NE Novelty Hill Rd	Replace/Construct drainage infrastructure	$170,000	Bear Creek/Sammamish	
DR-20-33	Drainage	NE 138 St West & SR 203	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
DR-20-41	Drainage	15165 148 Ave NE	Replace/Construct drainage infrastructure	$1,010,000	Bear Creek/Sammamish	
DR-20-47	Drainage	NE 133 St & 227 Ave NE	Replace/Construct drainage infrastructure	$840,000	Bear Creek/Sammamish	
DR-20-50	Drainage	17502 NE 131 St	Replace/Construct drainage infrastructure	$670,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-53	Drainage	148 Ave NE & 140 Pl NE	Replace/Construct drainage infrastructure	$1,010,000	Bear Creek/Sammamish	
DR-20-54	Drainage	148th Ave NE & 140th Pl NE	Replace/Construct drainage infrastructure	$1,010,000	Bear Creek/Sammamish	
DR-20-56	Drainage	16116 140 Pl NE	Replace/Construct drainage infrastructure	$1,350,000	Bear Creek/Sammamish	
DR-20-59	Drainage	NE Woodinville-Duvall Rd at NE Old Woodinville-Duvall Rd	Replace/Construct drainage infrastructure	$1,350,000	Bear Creek/Sammamish	
DR-20-60	Drainage	187th Ave NE & NE 161st Pl	Replace/Construct drainage infrastructure	$670,000	Bear Creek/Sammamish	
DR-20-61	Drainage	20229 NE 198 St	Replace/Construct drainage infrastructure	$670,000	Bear Creek/Sammamish	
DR-20-66	Drainage	NE 124th St and SR 203	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	*
DR-20-69	Drainage	19020 NE Woodinville/Duvall Rd	Replace/Construct drainage infrastructure	$1,690,000	Bear Creek/Sammamish	
DR-20-7	Drainage	Avondale Rd NE at NE 144 Pl	Replace/Construct drainage infrastructure	$1,820,000	Bear Creek/Sammamish	
DR-20-70	Drainage	12527 183 Ave NE	Replace/Construct drainage infrastructure	$340,000	West King County Areas	
DR-20-8	Drainage	NE 165 St at 176 NE	Replace/Construct drainage infrastructure	$920,000	Bear Creek/Sammamish	
DR-22-25	Drainage	Avondale Rd NE north of NE 151st St	Replace/Construct drainage infrastructure	$7,711,000	Bear Creek/Sammamish	
DR-22-43	Drainage	NE Woodinville-Duvall Rd east of 176th Ave NE	Replace/Construct drainage infrastructure	$4,984,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-15-21	Guardrail	NE Redmond Rd: NE Novelty Hill Rd and 204th Ave NE	Construct guardrail	$150,000	Bear Creek/Sammamish	
GR-22-11	Guardrail	Walter Shults Bridge (#5011) on NE 106th St 0.1 Mi E of Avondale Rd	Upgrade bridge rail	$110,000	Bear Creek/Sammamish	
GR-22-18	Guardrail	Bear Creek Bridge (#480A) on NE 116th St 0.1 Mi E of Avondale	Upgrade bridge rail	$150,000	Bear Creek/Sammamish	
GR-22-26	Guardrail	Woodinville-Duvall Bridge (#1136E) on Woodinville Duvall Rd 0.9 Mi W of SR-203	Upgrade bridge rail	$150,000	Snoqualmie Valley NE King County	
GR-22-35	Guardrail	Woodinville-Duvall Rd Bridge (#1136D) on Woodinville Duvall Rd 0.8 Mi W of SR-203	Upgrade bridge rail	$220,000	Snoqualmie Valley NE King County	
INT-TSO-20-11	Intersection and Traffic Safety Operations	Novelty Hill Rd & NE Redmond Rd	Construct roundabout	$3,500,000	Bear Creek/Sammamish	
INT-TSO-20-13	Intersection and Traffic Safety Operations	NE Woodinville-Duvall Rd & 194th Ave NE	Construct turn lanes	$2,320,000	Bear Creek/Sammamish	
INT-TSO-22-12	Intersection and Traffic Safety Operations	172nd Ave NE & NE 128th St	Replace spanwire signal with mast arms	$800,000	West King County Areas	
INT-TSO-22-13	Intersection and Traffic Safety Operations	Woodinville Duvall Rd at 182nd Ave NE	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-15	Intersection and Traffic Safety Operations	Avondale Rd NE at Cottage Lake Elem	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
INT-TSO-22-16	Intersection and Traffic Safety Operations	Avondale Rd NE at NE 132nd St	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-17	Intersection and Traffic Safety Operations	Avondale Rd NE at NE 151st Trail Crossing	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-19	Intersection and Traffic Safety Operations	Bear Creek Rd at NE 133rd St	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-20	Intersection and Traffic Safety Operations	Novelty Hill Rd at 208th Ave NE	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-21	Intersection and Traffic Safety Operations	Novelty Hill Rd at W Snoqualmie Valley Rd	Replace spanwire signal with mast arms	$800,000	Snoqualmie Valley NE King County	
INT-TSO-22-5	Intersection and Traffic Safety Operations	Avondale Rd NE & Woodinville Duvall Rd	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
INT-TSO-22-6	Intersection and Traffic Safety Operations	Avondale Rd NE & NE 128th St	Replace spanwire signal with mast arms	$800,000	Bear Creek/Sammamish	
IPA-23	Intersection and Traffic Safety Operations	162nd Pl NE & NE 124th St	Intersection Improvement	$3,940,000	West King County Areas	
IPA-40	Intersection and Traffic Safety Operations	NE Woodinville-Duvall Rd & West Snoqualmie Valley Rd NE	Intersection and drainage improvements	$7,710,000	Snoqualmie Valley NE King County, Bear Creek/Sammamish	
OP-INT-122	Intersection and Traffic Safety Operations	NE 124th St & West Snoqualmie Valley Rd NE	Construct turn pockets and replace signal	$5,770,000	Snoqualmie Valley NE King County	
OP-INT-81	Intersection and Traffic Safety Operations	155th Ave NE & NE 146th Pl	Reconstruct intersection to improve sight distance	$3,090,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
OP-INT-99	Intersection and Traffic Safety Operations	Avondale Road NE & NE 165th St	Turn lanes, replace traffic signal	$5,230,000	Bear Creek/Sammamish	
ITS-13	ITS	NE Woodinville Duvall Rd: 212th Ave NE to Duvall city limits	Install weather sensors, travel time equipment	$130,000	Bear Creek/Sammamish, Snoqualmie Valley NE King County	*
ITS-16	ITS	NE 124th Way/NE 128th St: Redmond city limits to Avondale Road NE	Cameras, vehicle and flood detection	$4,160,000	West King County Areas, Bear Creek/Sammamish	
ITS-18	ITS	W Snoqualmie Valley Rd NE: NE Woodinville Duvall Road to Ames Lake Carnation Rd NE	Vehicle detection, flood detection, cameras	$930,000	Snoqualmie Valley NE King County	*
ITS-35	ITS	NE Novelty Hill Rd: 208th Ave NE to West Snoqualmie Valley Road	Weather sensors, travel time, and EB DMS	$220,000	Bear Creek/Sammamish	
NM-20-7	Active Transportation	NE 150th St: 216th Ave NE to 221st Ave NE	Provide active transportation facility	$1,520,000	Bear Creek/Sammamish	
NM-5001	Active Transportation	204th Ave NE/NE 198th St/197th Ave: NE Woodinville Duvall Rd to Snohomish County line	Provide active transportation facility	$11,230,000	Bear Creek/Sammamish	
NM-5002	Active Transportation	NE Woodinville Duvall Rd: Avondale Rd NE to Duvall city limits	Provide active transportation facility	$29,530,000	Bear Creek/Sammamish, Snoqualmie Valley NE King County	
NM-5026	Active Transportation	172nd Ave NE: NE 134th Pl to NE 125th St	Provide active transportation facility	$3,340,000	West King County Areas	
NM-5027	Active Transportation	171st/174th Ave NE: NE Woodinville Duvall Rd to NE 172nd Pl	Provide active transportation facility	$3,520,000	Bear Creek/Sammamish	
OP-RD-18	Reconstruction	NE 175 St/NE 172nd Pl NE: 164th Ave NE to 174th Ave NE	Reconstruct roadway	$3,760,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
OP-RD-45	Reconstruction	232nd Ave NE: NE 142nd Pl to Old Woodinville Duvall Rd	Reconstruct roadway	$9,750,000	Bear Creek/Sammamish	
OP-RD-7	Reconstruction	NE 165th St: 179th Pl NE to 183rd Pl NE	Reconstruct roadway	$3,080,000	Bear Creek/Sammamish	
OP-RD-9	Reconstruction	NE Old Woodinville-Duvall Rd: NE Woodinville-Duvall Rd to NE Woodinville-Duvall Rd	Reconstruct roadway	$10,020,000	Bear Creek/Sammamish	
RC-113	Reconstruction	West Snoqualmie Valley Rd NE: NE 124th St to NE Novelty Hill Rd	Reconstruct roadway	$1,980,000	Snoqualmie Valley NE King County	
RC-151	Reconstruction	Avondale Rd NE: NE 133rd St to NE Woodinville Duvall Road	Reconstruct roadway	$37,400,000	Bear Creek/Sammamish	
RC-150	Vulnerable Road Segments	West Snoqualmie Valley Rd NE: Snohomish County line to NE Woodinville Duvall Rd	Replace seawall	$4,610,000	Snoqualmie Valley NE King County	
RC-39	Vulnerable Road Segments	West Snoqualmie Valley Rd NE: NE 124th St to Ames Lake Carnation Rd NE	Construct retaining wall to prevent slides	$4,940,000	Snoqualmie Valley NE King County	*
RC-43	Vulnerable Road Segments	NE Woodinville Duvall Rd: Old Woodinville-Duvall Rd to W Snoqualmie Valley Rd NE	Construct retaining wall	$730,000	Bear Creek/Sammamish, Snoqualmie Valley NE King County	
RC-48	Vulnerable Road Segments	NE 146th Pl: Woodinville city limits to 155th Ave NE	Construct retaining wall	$180,000	Bear Creek/Sammamish	
VRS-20-1	Vulnerable Road Segments	NE 124th St, NE Woodinville Duvall Rd, NE Carnation Farm Rd, Tolt Hill Rd	Study major cross-Snoqualmie Valley roadways to determine cost effectiveness of flood-improvement.	$560,000	Snoqualmie Valley NE King County	*

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
VRS-20-20	Vulnerable Road Segments	NE 124 St east of 162 Way NE	Reinforce slope	$560,000	West King County Areas	
VRS-22-3	Vulnerable Road Segments	NE 165th St near Cottage Lake	Raise roadway to reduce flood risk	$745,000	Bear Creek/Sammamish	

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1489 **Map Number 7: Redmond/Sammamish**

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-180A	Bridge	Evans Creek Bridge: NE 50th St, about 0.1 mile west of State Route 202	Replace bridge	$1,660,000	Bear Creek/Sammamish	
BR-578A	Bridge	Evans Creek Bridge: 196th Ave NE, 0.1 miles S of SR-202	Replace bridge	$3,660,000	Bear Creek/Sammamish	
CP-15-1	Capacity-Major	NE Union Hill Rd: 196th Ave NE to 208th Ave NE	Construct congestion relief measures	$15,230,000	Bear Creek/Sammamish	
OP-RD-5	Capacity-Major	NE Union Hill Rd: 208th Ave NE to 238th Ave NE	Construct congestion relief measures	$22,850,000	Bear Creek/Sammamish	
DR-20-30	Drainage	208 Ave NE at NE 89 St	Replace/Construct drainage infrastructure	$670,000	Bear Creek/Sammamish	
DR-20-4	Drainage	238 Ave NE at NE 70 St	Replace/Construct drainage infrastructure	$1,841,000	Bear Creek/Sammamish	
DR-20-40	Drainage	NE Union Hill Rd & 247 Ave NE	Replace/Construct drainage infrastructure	$670,000	Bear Creek/Sammamish	
DR-20-9	Drainage	NE 80 St at 240 Pl NE	Replace/Construct drainage infrastructure	$4,861,000	Bear Creek/Sammamish	
DR-22-3	Drainage	4810 236 Ave NE	Replace/Construct drainage infrastructure	$1,680,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-22-8	Drainage	NE 45 St & 260 Ave NE	Replace/Construct drainage infrastructure	$1,800,000	Bear Creek/Sammamish	
DR-7	Drainage	NE 40th St & 264th Ave NE (Dry Creek)	Replace/Construct drainage infrastructure	$710,000	Bear Creek/Sammamish	
GR-15-27	Guardrail	NE 50th St: 196th Ave NE to Sahalee Way NE	Construct guardrail	$240,000	Bear Creek/Sammamish	
GR-22-27	Guardrail	Evans Creek Bridge (#578A) on 196th Ave NE 0.1 Mi S of SR-202	Upgrade bridge rail	$130,000	Bear Creek/Sammamish	
OP-INT-113	Intersection and Traffic Safety Operations	208th Ave NE & NE Union Hill Rd	Construct turn lanes	$2,470,000	Bear Creek/Sammamish	
SW-51	Intersection and Traffic Safety Operations	238th Ave NE & NE 63rd Pl	Intersection Improvement	$3,940,000	Bear Creek/Sammamish	
ITS-11	ITS	NE Union Hill Rd: 238th Ave NE to NE Ames Lake Rd	Cameras, speed warning system, vehicle detection	$260,000	Bear Creek/Sammamish	*
ITS-18	ITS	W Snoqualmie Valley Rd NE: NE Woodinville Duvall Road to Ames Lake Carnation Rd NE	Vehicle detection, flood detection, cameras	$930,000	Snoqualmie Valley NE King County	*
ITS-20	ITS	NE Union Hill Rd: 196th Ave NE to 238rd Ave NE	Utilize fiber between 196th and 208th Ave NE, curve warning system, weather station, and travel time equipment	$380,000	Bear Creek/Sammamish	
NM-20-24	Active Transportation	208th Ave NE: NE Union Hill Road to 204th Pl NE	Provide active transportation facility	$4,990,000	Bear Creek/Sammamish	
RC-116	Reconstruction	NE Union Hill Rd: 238th Ave NE to 258th Ave NE	Reconstruct roadway	$7,770,000	Bear Creek/Sammamish	
RC-35	Vulnerable Road Segments	NE 50th St: 214th Ave NE to State Route 202	Armor shoulders to reduce road washouts	$100,000	Bear Creek/Sammamish	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
RC-38	Vulnerable Road Segments	NE 100th St: West Snoqualmie Valley Rd to 284th Ave NE	Armor shoulders to reduce road washouts	$890,000	Snoqualmie Valley NE King County	*
RC-39	Vulnerable Road Segments	West Snoqualmie Valley Rd NE: NE 124th St to Ames Lake Carnation Rd NE	Construct retaining wall to prevent slides	$4,940,000	Snoqualmie Valley NE King County	*
RC-44	Vulnerable Road Segments	NE Union Hill Rd: 196th Ave NE to 206th Pl NE	Construct retaining wall	$240,000	Bear Creek/Sammamish	
RC-51	Vulnerable Road Segments	NE Union Hill Rd: 229th Pl NE to 238th Ave NE	Construct retaining wall	$3,230,000	Bear Creek/Sammamish	
VRS-20-10	Vulnerable Road Segments	NE 8th St at Lake Allen Outlet	Study culvert replacement and road-raising options and implement flood reduction measures.	$3,150,000	Bear Creek/Sammamish	
VRS-20-18	Vulnerable Road Segments	NE Ames Lake Road	Construct retaining wall and/or flatten slope	$560,000	Bear Creek/Sammamish	
VRS-22-1	Vulnerable Road Segments	264th Ave NE off of SR-202	Raise roadway to reduce flood risk	$2,700,000	Bear Creek/Sammamish	

Map Number 8: Newcastle/Issaquah

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
CP-15-2	Capacity-Major	Issaquah Hobart Rd SE: Issaquah city limits to Cedar Grove Rd SE	Construct congestion relief measures	$45,850,000	Four Creeks/Tiger Mountain	*
GR-15-34	Guardrail	169th Ave SE/SE Licorice Way: SE 112th St to end of road (173rd Ave SE)	Construct guardrail	$84,000	Four Creeks/Tiger Mountain	
GR-22-6	Guardrail	May Creek Bridge (#593C) on 164th Ave SE .05 Mi N of SR-900	Upgrade bridge rail	$180,000	Four Creeks/Tiger Mountain	
OP-RD-24	Intersection and Traffic Safety Operations	SE May Valley Rd: Renton city limits (148th Ave SE) to State Route 900	Widen travel lanes	$17,770,000	Four Creeks/Tiger Mountain, West King County Areas	
ITS-15	ITS	Issaquah Hobart Road: Issaquah City Limits to SR 18	Cameras, message signs, weather stations, and travel time equipment	$1,080,000	Four Creeks/Tiger Mountain	*
ITS-34	ITS	164th Ave SE: SE 128th St to SE May Valley Rd	Cameras, data collection station, weather station	$120,000	Four Creeks/Tiger Mountain	*
RC-118	Reconstruction	Issaquah Hobart Rd SE: S Issaquah city limits to SE May Valley Rd	Reconstruct roadway	$9,850,000	Four Creeks/Tiger Mountain	*

Map Number 9: East Renton/Lake Youngs

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-1741A	Bridge	Issaquah Creek Bridge: 252nd Ave SE at Issaquah Creek, south of Issaquah Hobart Rd SE	Replace bridge	$16,430,000	Four Creeks/Tiger Mountain	
BR-3109A	Bridge	Soos Creek Bridge: SE 216th St at Big Soos Creek, about 0.3 mile east of 132nd Ave SE	Replace bridge	$5,410,000	West King County Areas, Greater Maple Valley/Cedar River	
BR-3109B	Bridge	Lake Youngs Way Bridge: SE Lake Youngs Way at Big Soos Creek. 0.3 miles northeast of SE 208th St	Replace bridge	$3,200,000	West King County Areas	
BR-3110	Bridge	Soos Creek Bridge: SE 208th St at Big Soos Creek 0.3 Mi E of SE 204th	Replace bridge	$2,930,000	West King County Areas	
BR-3202	Bridge	Maxwell Road Bridge: 225th Ave SE/Maxwell Rd SE cattle crossing	Replace bridge	$1,660,000	Greater Maple Valley/Cedar River	
BR-493C	Bridge	Fifteen Mile Creek Bridge: SE May Valley Rd at Fifteenmile Creek, west of Issaquah Hobart Rd SE	Replace bridge	$6,000,000	Four Creeks/Tiger Mountain	
BR-83D	Bridge	Issaquah Creek Bridge: Cedar Grove Rd, 2 miles E of SR 169	Replace bridge	$16,570,000	Four Creeks/Tiger Mountain	
CP-15	Capacity-Major	140th Ave SE & SE Petrovitsky Rd	Construct congestion relief measures	$14,930,000	West King County Areas	
CP-15-2	Capacity-Major	Issaquah Hobart Rd SE: Issaquah city limits to Cedar Grove Rd SE	Construct congestion relief measures	$45,850,000	Four Creeks/Tiger Mountain	*
CP-15-4	Capacity-Major	SE Petrovitsky Rd: 151st Ave SE to SE 184th St	Construct congestion relief measures	$19,930,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
OP-RD-25	Capacity-Major	154 Pl SE / SE 142 Pl: SE Jones Rd to 156th Ave SE (Renton city limits)	Construct congestion relief measures	$8,390,000	West King County Areas	
DR-20-1	Drainage	13515 208 Ave SE	Replace/Construct drainage infrastructure	$1,501,000	Four Creeks/Tiger Mountain	
DR-20-16	Drainage	SE Fairwood Blvd at 151 Ave SE	Replace/Construct drainage infrastructure	$4,860,000	West King County Areas	
DR-20-17	Drainage	SE Petrovitsky RD at 134 Ave SE	Replace/Construct drainage infrastructure	$4,860,000	West King County Areas	
DR-20-24	Drainage	134 Ave SE at SE 187 Pl	Replace/Construct drainage infrastructure	$3,040,000	West King County Areas	
DR-20-48	Drainage	20530 140 Ave SE	Replace/Construct drainage infrastructure	$840,000	Greater Maple Valley/Cedar River	
DR-20-57	Drainage	21015 148 Ave SE	Replace/Construct drainage infrastructure	$1,010,000	Greater Maple Valley/Cedar River	
DR-20-68	Drainage	26803 SE 200 St	Replace/Construct drainage infrastructure	$510,000	Greater Maple Valley/Cedar River	
DR-22-12	Drainage	Issaquah Hobart Rd SE at SE 132 Way	Replace/Construct drainage infrastructure	$1,800,000	Four Creeks/Tiger Mountain	
DR-22-16	Drainage	26803 SE 200th St	Replace/Construct drainage infrastructure	$1,800,000	Greater Maple Valley/Cedar River	
DR-22-17	Drainage	17601 SE Jones Rd	Replace/Construct drainage infrastructure	$840,000	Greater Maple Valley/Cedar River	
DR-22-39	Drainage	208 SE at SE 135	Replace/Construct drainage infrastructure	$1,500,000	Four Creeks/Tiger Mountain	
DR-22-6	Drainage	Issaquah Hobart Rd & SE 156 St	Replace/Construct drainage infrastructure	$1,680,000	Four Creeks/Tiger Mountain	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-15-35	Guardrail	SE 156th St: SE Cedar Grove Rd to Issaquah Hobart Rd SE	Construct guardrail	$48,000	Four Creeks/Tiger Mountain	
GR-15-36	Guardrail	SE Mirrormont Dr: Issaquah Hobart Rd SE to Tiger Mountain Rd SE	Replace jersey barrier with improved barrier	$96,000	Four Creeks/Tiger Mountain	
GR-15-38	Guardrail	184th Ave SE / Peter Grubb Rd: SE Lake Youngs Rd to SE 224th St	Construct guardrail	$42,000	Greater Maple Valley/Cedar River	*
GR-22-13	Guardrail	Soos Creek Bridge (#3109A) on SE 216th St 0.3 Mi E of 132nd Ave SE	Upgrade bridge rail	$140,000	West King County Areas	
GR-22-22	Guardrail	Jem Creek Bridge (#3099A) on SE 206th St 0.5 Mi E of SR 169	Upgrade bridge rail	$160,000	Greater Maple Valley/Cedar River	
GR-22-30	Guardrail	Issaquah Creek Bridge (#83B) on SE 156th St 2 Mi E of SR 169	Upgrade bridge rail	$200,000	Four Creeks/Tiger Mountain	
GR-22-31	Guardrail	Issaquah Creek Bridge (#1741A) on 252nd Ave SE (Issaq) 0.1 Mi S of Issaquah Hobart Rd	Upgrade bridge rail	$160,000	Four Creeks/Tiger Mountain	
INT-TSO-20-5	Intersection and Traffic Safety Operations	SE Petrovitsky Rd & 162nd Pl SE	Intersection Improvement	$3,550,000	West King County Areas	
INT-TSO-20-6	Intersection and Traffic Safety Operations	Issaquah Hobart Rd SE & SE Cedar Grove Rd	Intersection Improvement	$6,640,000	Four Creeks/Tiger Mountain	
INT-TSO-20-7	Intersection and Traffic Safety Operations	148th Ave SE & SE 208th St	Intersection Improvement	$3,940,000	Greater Maple Valley/Cedar River	
INT-TSO-20-8	Intersection and Traffic Safety Operations	SE Petrovitsky & 140th Ave SE	Replace and upgrade signal equipment and detection	$1,050,000	West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
INT-TSO-22-7	Intersection and Traffic Safety Operations	Patriot Way & SE 128th St	Replace spanwire signal with mast arms	$800,000	Four Creeks/Tiger Mountain	
IPA-1	Intersection and Traffic Safety Operations	SE Petrovitsky Rd: 140th Ave SE to 143rd Ave SE	Street lighting for existing turn lanes and tapers	$480,000	West King County Areas	
OP-INT-124	Intersection and Traffic Safety Operations	Issaquah Hobart Rd SE & SE May Valley Rd	Intersection Improvement	$6,880,000	Four Creeks/Tiger Mountain	
OP-RD-22	Intersection and Traffic Safety Operations	SE May Valley Rd: SE 128th Way to Issaquah Hobart Rd SE	Widen travel lanes	$22,610,000	Four Creeks/Tiger Mountain	
OP-RD-26	Intersection and Traffic Safety Operations	SE May Valley Rd: State Route 900 to SE 128th Way	Improve sight distance	$14,290,000	Four Creeks/Tiger Mountain	
SW-81	Intersection and Traffic Safety Operations	140th Ave SE & SE 200th St	Construct turn lanes	$2,440,000	West King County Areas	
ITS-15	ITS	Issaquah Hobart Rd: Issaquah City Limits to SR 18	Cameras, message signs, weather stations, and travel time equipment	$1,080,000	Four Creeks/Tiger Mountain	*
ITS-19	ITS	154th Pl SE / SE 142nd Pl: State Route 169 to 156th Ave SE	Cameras, pavement sensors, speed warning system	$300,000	West King County Areas	
ITS-24	ITS	SE Petrovitsky Rd: 151st Ave SE to SR 18	Cameras, vehicle detection, data collection station, weather station, DMS, Travel time (to 134th)	$830,000	Greater Maple Valley/Cedar River, West King County Areas	*
ITS-28	ITS	SE 128th St: 158th Ave SE to SE May Valley Rd	Cameras, data collection station, weather station, curve warning system	$440,000	Four Creeks/Tiger Mountain, West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
ITS-29	ITS	SE May Valley Rd: State Route 900 to Issaquah Hobart Rd SE	Cameras, vehicle detection, road weather sensors, travel time equipment	$420,000	Four Creeks/Tiger Mountain	
ITS-34	ITS	164th Ave SE: SE 128th St to SE May Valley Rd	Cameras, data collection station, weather station	$120,000	Four Creeks/Tiger Mountain	*
NM-20-4	Active Transportation	169th Ave SE: SE 136th St to SE 144th St	Provide active transportation facility	$5,620,000	West King County Areas	
NM-22-3	Active Transportation	171st Ave SE between SE 136th St and SE 144th St	Provide active transportation facility	$4,010,000	West King County Areas	
NM-22-4	Active Transportation	SE 144th Street between 169th Ave SE and Renton/KC Boundary	Provide active transportation facility	$3,554,000	West King County Areas	
NM-22-7	Active Transportation	SE 192nd St between 140th Ave SE to 146th Ave SE	Provide active transportation facility	$4,246,000	West King County Areas	
NM-5038	Active Transportation	SE 208th St: 148th Ave SE to Kent city limits	Provide active transportation facility	$3,780,000	Greater Maple Valley/Cedar River, West King County Areas	
RC-118	Reconstruction	Issaquah Hobart Rd SE: S Issaquah city limits to SE May Valley Rd	Reconstruct roadway	$9,850,000	Four Creeks/Tiger Mountain	*
RC-119	Reconstruction	Issaquah Hobart Rd SE: SE May Valley Rd to Cedar Grove Rd SE	Reconstruct roadway	$12,920,000	Four Creeks/Tiger Mountain	
RC-120	Reconstruction	Issaquah Hobart Rd SE: SE 156th St to Cedar Grove Rd SE	Reconstruct roadway	$11,270,000	Four Creeks/Tiger Mountain	
RC-121	Reconstruction	Issaquah Hobart Rd SE: SE 156th St to Highway 18	Reconstruct roadway	$17,530,000	Four Creeks/Tiger Mountain	*

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
RC-129	Reconstruction	SE 216th Way: State Route 169 to 244th Ave SE	Reconstruct roadway	$8,400,000	Greater Maple Valley/Cedar River	*
RC-3	Reconstruction	SE Petrovitsky Rd: 134th Ave SE to 143rd Ave SE	Reconstruct roadway	$10,750,000	West King County Areas	
RC-50	Vulnerable Road Segments	196th Ave SE: SE 162nd St to SE 170th St	Construct retaining wall	$1,420,000	Greater Maple Valley/Cedar River	
VRS-20-4	Vulnerable Road Segments	Cedar Grove Road	Elevate roadway	$110,000	Greater Maple Valley/Cedar River	

Map Number 10: Covington/Black Diamond

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-3085	Bridge	Covington Bridge: Covington-Sawyer Rd at Jenkins Creek 0.7 Mi SE of SR-516	Replace bridge	$16,820,000	SE King County	
BR-3086OX	Bridge	Berrydale OX Bridge: Kent Black Diamond Rd SE over the railroad, at SE 292nd St (Jenkins Creek)	Replace bridge	$15,290,000	SE King County	
BR-3108	Bridge	Soos Creek Bridge: 148th Ave SE at Soos Creek, about 0.2 mile north of SE 240th	Replace bridge	$3,660,000	West King County Areas	
DR-10	Drainage	SE 240th St & 172nd Ave SE at Little Soos Creek	Replace undersized culvert with a bridge structure	$5,281,000	Greater Maple Valley/Cedar River	
DR-15-17	Drainage	Kent Black Diamond Rd SE & SE 292nd St at Jenkins Creek	Replace/Construct drainage infrastructure	$4,649,000	SE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-14	Drainage	SE 317 Pl and Thomas Rd SE	Replace/Construct drainage infrastructure	$1,801,000	SE King County	
DR-20-43	Drainage	156 Ave SE and SE 240 St	Replace/Construct drainage infrastructure	$4,298,000	Greater Maple Valley/Cedar River	
DR-22-11	Drainage	29030 188th Ave SE	Replace/Construct drainage infrastructure	$1,680,000	SE King County	
DR-22-20	Drainage	268th Ave SE south of SE 273rd Pl	Replace/Construct drainage infrastructure	$2,598,000	Greater Maple Valley/Cedar River	
DR-22-42	Drainage	SE Ravensdale Way south of 272nd Ave SE	Replace/Construct drainage infrastructure	$6,293,000	Greater Maple Valley/Cedar River	
DR-22-7	Drainage	156th Ave SE & SE 234th St	Replace/Construct drainage infrastructure	$1,440,000	Greater Maple Valley/Cedar River	
DR-22-9	Drainage	SE 224 St, 150 feet east of #18023	Replace/Construct drainage infrastructure	$1,680,000	Greater Maple Valley/Cedar River	
DR-9	Drainage	164th Ave SE & SE 225th St	Replace/Construct drainage infrastructure	$1,410,000	Greater Maple Valley/Cedar River	
GR-15-25	Guardrail	SE 224th St: 244th Ave SE to 276th Ave SE	Construct guardrail	$120,000	Greater Maple Valley/Cedar River	*
GR-15-38	Guardrail	184th Ave SE / Peter Grubb Rd: SE Lake Youngs Rd to SE 224th St	Construct guardrail	$42,000	Greater Maple Valley/Cedar River	*
GR-22-17	Guardrail	Berrydale OX Bridge (#3086OX) on SE Kent-Black Diamond Rd at SE 291st	Upgrade bridge rail	$610,000	SE King County	
GR-22-28	Guardrail	Covington Bridge (#3085) on Covington-Sawyer Rd 0.7 Mi SE of SR 516	Upgrade bridge rail	$210,000	SE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-88	Guardrail	156th Ave SE: SE 240th St to SE 251st St/Covington city limits	Construct guardrail	$60,000	Greater Maple Valley/Cedar River	
INT-TSO-22-11	Intersection and Traffic Safety Operations	Soos Creek Trail at SE 240th St	Replace spanwire signal with mast arms	$800,000	West King County Areas	
INT-TSO-22-23	Intersection and Traffic Safety Operations	Covington Way SE east of 164th Place SE	Sightline improvement	$1,770,000	SE King County	
INT-TSO-22-4	Intersection and Traffic Safety Operations	SE 240th Street & 172nd Ave SE	Vertical Realignment	$1,600,000	Greater Maple Valley/Cedar River	
IPA-33	Intersection and Traffic Safety Operations	164th Pl SE & SE Covington-Sawyer Rd	Intersection Improvement	$4,260,000	SE King County	
OP-RD-41	Intersection and Traffic Safety Operations	SE Covington-Sawyer Rd: Thomas Rd to 216th Ave SE	Realign roadway	$21,030,000	SE King County, West King County Areas	
SW-20	Intersection and Traffic Safety Operations	148th Ave SE & SE 224th St	Intersection Improvement	$4,720,000	Greater Maple Valley/Cedar River	
SW-56	Intersection and Traffic Safety Operations	164th Ave SE & SE 240th St	Intersection Improvement	$3,940,000	Greater Maple Valley/Cedar River	
ITS-24	ITS	SE Petrovitsky Rd: 151st Ave SE to Highway 18	Cameras, vehicle detection, data collection station, weather station, DMS, Travel time (to 134th)	$830,000	Greater Maple Valley/Cedar River, West King County Areas	*
NM-0202	Active Transportation	195th Ave SE: E Lake Morton Dr SE to SE 320th St	Provide active transportation facility	$300,000	SE King County	
NM-20-5	Active Transportation	SE Covington Sawyer Way: 164th Pl SE to 216th Ave SE	Provide active transportation facility	$9,310,000	SE King County, West King County Areas	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
NM-4033	Active Transportation	164th Ave SE: SE 224th St to SE 240th St	Provide active transportation facility	$2,500,000	Greater Maple Valley/Cedar River	
NM-4041	Active Transportation	SE 240th St: 156th Ave SE to 172nd Ave SE	Provide active transportation facility	$4,290,000	Greater Maple Valley/Cedar River	
NM-5034	Active Transportation	168th Ave SE: Kent-Black Diamond Rd SE to SE Auburn Black Diamond Rd	Provide active transportation facility	$4,540,000	SE King County	
NM-5049	Active Transportation	SE 216th St: 276th Ave SE to Maxwell Rd SE	Provide active transportation facility	$11,910,000	Greater Maple Valley/Cedar River	*
NM-5051	Active Transportation	Black Diamond-Ravensdale Rd SE: State Route 169 to SE Kent-Kangley Rd	Provide active transportation facility	$17,760,000	Greater Maple Valley/Cedar River	*
NM-5068	Active Transportation	SE 240th St: 148th Ave SE to 164th Ave SE	Provide active transportation facility	$5,530,000	Greater Maple Valley/Cedar River, West King County Areas	
NM-5069	Active Transportation	SE 240th St: 164th Ave SE to 180th Ave SE	Provide active transportation facility	$5,510,000	Greater Maple Valley/Cedar River	
NM-9980	Active Transportation	168th Way SE & Covington Creek	Construct pedestrian bridge	$2,590,000	SE King County	
RC-129	Reconstruction	SE 216th Way: State Route 169 to 244th Ave SE	Reconstruct roadway	$8,400,000	Greater Maple Valley/Cedar River	*
RC-130	Reconstruction	SE 216th St: 244th Ave SE to 276th Ave SE	Reconstruct roadway	$11,320,000	Greater Maple Valley/Cedar River	*
RC-132	Reconstruction	SE Kent-Kangley Rd: Kent city limits to Landsburg Rd SE	Reconstruct roadway	$8,030,000	Greater Maple Valley/Cedar River	*
RC-135	Reconstruction	SE Ravensdale Way: SE Kent-Kangley Rd to 268th Ave SE	Reconstruct roadway	$3,080,000	Greater Maple Valley/Cedar River	*

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
RC-139	Reconstruction	SE Auburn Black Diamond Rd: SE Lake Holm Rd to 148th Way SE	Reconstruct roadway	$13,040,000	SE King County	*
RC-15-3	Reconstruction	SE Summit Landsburg Rd: Kent city limits (244th Ave SE) to Landsburg Rd SE	Reconstruct roadway	$11,890,000	Greater Maple Valley/Cedar River	*
RC-6	Reconstruction	SE Covington-Sawyer Rd: Covington city limits to 216th Ave SE	Reconstruct roadway	$28,430,000	SE King County, West King County Areas	
VRS-20-19	Vulnerable Road Segments	SE Auburn Black Diamond	Relocate road	$22,500,000	SE King County	

Map Number 11: North Enumclaw

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-3015	Bridge	Patton Bridge: SE Green Valley Rd at Green River, about 1.5 miles southeast of Highway 18	Replace bridge	$46,290,000	SE King County	
BR-3020	Bridge	Green Valley Rd Bridge: SE Green Valley Rd, about 5.5 miles east of Highway 18	Replace bridge	$2,960,000	SE King County	
BR-3022	Bridge	Green Valley Road Bridge: SE Green Valley Rd, 6.7 miles E of SR-18	Replace bridge	$3,200,000	SE King County	
BR-3030	Bridge	SE 380th St Bridge: SE 380th St & SE 383rd Way, about 1 mile west of State Route 169	Replace bridge	$980,000	SE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-3056A	Bridge	SE 408th St Bridge: SE 408th St, 0.2 miles E of SR-164	Replace bridge	$2,560,000	SE King County	
DR-15-16	Drainage	SE Auburn Black Diamond Rd at Krisp Creek	Replace/Construct drainage infrastructure	$1,430,000	SE King County	
DR-20-2	Drainage	180 Ave SE at SE 408 St	Replace/Construct drainage infrastructure	$1,410,000	SE King County	
DR-20-37	Drainage	13405 Auburn Black Diamond Rd	Replace/Construct drainage infrastructure	$1,010,000	SE King County	
DR-20-6	Drainage	36500 200 Ave SE	Replace/Construct drainage infrastructure	$1,170,000	SE King County	
DR-22-1	Drainage	13604 SE Auburn Black Diamond Rd	Replace/Construct drainage infrastructure	$600,000	SE King County	
DR-22-14	Drainage	17110 SE 384 St	Replace/Construct drainage infrastructure	$1,035,000	SE King County	
DR-22-21	Drainage	SE 384th St & 176th SE	Replace/Construct drainage infrastructure	$1,642,000	SE King County	
DR-22-27	Drainage	196th Ave SE south of 192nd Pl SE	Replace/Construct drainage infrastructure	$2,126,000	SE King County	
DR-22-33	Drainage	40316 196th Ave SE	Replace/Construct drainage infrastructure	$2,178,000	SE King County	
DR-22-34	Drainage	249th Ave SE 360' south of SE 370th Ln	Replace/Construct drainage infrastructure	$3,700,000	SE King County	
DR-22-36	Drainage	SE 400th St west of 228th Ave SE	Replace/Construct drainage infrastructure	$8,541,000	SE King County	
DR-22-45	Drainage	212th Ave SE at SE 396th St	Replace/Construct drainage infrastructure	$2,132,000	SE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-22-10	Guardrail	Green Valley Road Bridge (#3020) on SE Green Valley Rd 5.5 Mi E of SR-18	Upgrade bridge rail	$100,000	SE King County	
GR-22-21	Guardrail	SE 380 St Bridge (#3030) on SE 308th St 0.8 Mi W of SR-169	Upgrade bridge rail	$120,000	SE King County	
GR-22-33	Guardrail	Green Valley Rd Bridge (#3022) on SE Green Valley Rd 6.7 Mi E of SR-18	Upgrade bridge rail	$140,000	SE King County	
INT-TSO-20-10	Intersection and Traffic Safety Operations	Kent Black Diamond Rd & SE Auburn Black Diamond Rd	Intersection Improvement	$13,610,000	SE King County	
IPA-12	Intersection and Traffic Safety Operations	SE Auburn Black Diamond Rd & 190th Ave SE	Realign intersection	$2,290,000	SE King County	
ITS-27	ITS	SE Auburn Black Diamond Rd: Kent Black Diamond Rd SE to SE Lake Holm Rd	Vehicle detection/flasher system, slide detection	$220,000	SE King County	
NM-20-15	Active Transportation	212th Ave SE: SE 409th St to SE 416th St	Provide active transportation facility	$930,000	SE King County	
NM-5012	Active Transportation	244th Ave SE: Enumclaw city limits (SE 436th) to SE 400th St	Provide active transportation facility	$9,640,000	SE King County	*
NM-5010	Reconstruction	SE 400th Way: SE 400th St to SE 392nd St	Reconstruct roadway	$3,440,000	SE King County	*
RC-139	Reconstruction	SE Auburn Black Diamond Rd: SE Lake Holm Rd to 148th Way SE	Reconstruct roadway	$13,040,000	SE King County	*
RC-140	Reconstruction	SE Lake Holm Rd: SE Auburn Black Diamond Rd to 147th Ave SE	Reconstruct roadway	$9,810,000	SE King County	*

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
RC-142	Reconstruction	SE Green Valley Rd: 243rd Ave SE to State Route 169	Reconstruct roadway	$12,050,000	SE King County	
VRS-20-6	Vulnerable Road Segments	SE 384 St at 176 Ave SE	Replace culvert	$1,860,000	SE King County	

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1501 **Map Number 12: South Enumclaw**

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-3055A	Bridge	Boise X Connection Bridge: SE Mud Mountain Dam Rd at Boise Creek, southeast of State Route 410	Replace bridge	$4,700,000	SE King County	
BR-3060	Bridge	208th Ave SE Bridge: 208th Ave SE at drainage ditch 0.5 Mi S of SR 164	Replace bridge	$2,990,000	SE King County	
DR-20-32	Drainage	27609 SE 432 St	Replace/Construct drainage infrastructure	$1,550,000	SE King County	
DR-20-55	Drainage	46913 284 Ave SE	Replace/Construct drainage infrastructure	$840,000	SE King County	
DR-22-15	Drainage	20702 SE 424th St	Replace/Construct drainage infrastructure	$1,440,000	SE King County	
DR-22-31	Drainage	42406 228th Ave SE	Replace/Construct drainage infrastructure	$2,472,000	SE King County	
DR-22-32	Drainage	45326 196th Ave SE	Replace/Construct drainage infrastructure	$3,679,000	SE King County	
DR-22-35	Drainage	216th Ave SE at SE 436th St	Replace/Construct drainage infrastructure	$1,457,000	SE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-22-37	Drainage	26124 SE 472 St	Replace/Construct drainage infrastructure	$893,000	SE King County	
DR-22-38	Drainage	25414 SE 424 St	Replace/Construct drainage infrastructure	$1,501,000	SE King County	
GR-20-2	Guardrail	SE 472nd St: 288th Ave SE to 303rd Ave SE	Construct guardrail	$90,000	SE King County	
GR-22-25	Guardrail	208th Ave SE Bridge (#3060) on 208th Ave SE 0.5 Mi S of SR-164	Upgrade bridge rail	$140,000	SE King County	
GR-22-36	Guardrail	Newaukum Creek Bridge (#3071) on SE 424th St 0.5 Mi W of SR-169	Upgrade bridge rail	$170,000	SE King County	
GR-22-5	Guardrail	Boise Creek Bridge (#3051) on 276th Ave SE 0.3 Mi S of SR-410	Upgrade bridge rail	$120,000	SE King County	
GR-22-8	Guardrail	284 Ave SE Bridge (#3049) on 284th Ave SE 1.0 Mi S of SR-410	Upgrade bridge rail	$170,000	SE King County	
NM-5008	Active Transportation	SE 432nd St: 284th Ave SE to Enumclaw city limits	Provide active transportation facility	$2,830,000	SE King County	
NM-5012	Active Transportation	244th Ave SE: Enumclaw city limits (SE 436th) to SE 400th St	Provide active transportation facility	$9,640,000	SE King County	*
VRS-20-12	Vulnerable Road Segments	212 Ave SE at 43200 Block	Study to reduce flooding and improve flow capacity.	$220,000	SE King County	

Map Number 13: Duvall

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-39	Drainage	NE Stossel Creek Way @ 4.5 Mi mark off Paved Rd	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
DR-20-46	Drainage	27033 NE Cherry Valley Rd	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	
DR-20-62	Drainage	28810 NE Cherry Valley Rd	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	
DR-20-66	Drainage	NE 124th St and SR 203	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	*
DR-20-73	Drainage	29925 NE Big Rock Rd	Replace/Construct drainage infrastructure	$840,000	Snoqualmie Valley NE King County	
DR-22-22	Drainage	33416 NE Stossel Creek Way	Replace/Construct drainage infrastructure	$4,679,000	Snoqualmie Valley NE King County	
DR-22-24	Drainage	33632 NE Stossel Creek Way	Replace/Construct drainage infrastructure	$4,006,000	Snoqualmie Valley NE King County	
DR-22-26	Drainage	33932 NE Stossel Creek Way	Replace/Construct drainage infrastructure	$3,590,000	Snoqualmie Valley NE King County	
DR-22-28	Drainage	20121 W Snoqualmie River Rd NE	Replace/Construct drainage infrastructure	$4,315,000	Snoqualmie Valley NE King County	
DR-22-29	Drainage	18321 W Snoqualmie River Rd NE	Replace/Construct drainage infrastructure	$1,278,000	Snoqualmie Valley NE King County	
DR-22-30	Drainage	Parcel 2326079008, NE Stossel Creek Way	Replace/Construct drainage infrastructure	$3,592,000	Snoqualmie Valley NE King County	
DR-22-4	Drainage	15866 Kelly Rd NE	Replace/Construct drainage infrastructure	$2,400,000	Snoqualmie Valley NE King County	
DR-4	Drainage	NE 106th St & 314th Ave NE	Replace/Construct drainage infrastructure	$1,120,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-5	Drainage	NE 195th St & Margaret Creek, west of 327th Ave NE	Replace/Construct drainage infrastructure	$1,120,000	Snoqualmie Valley NE King County	
GR-22-2	Guardrail	Stossel Creek Bridge (#5032) on Stossel Creek Rd 6.2 Mi NE of Kelly Rd	Upgrade bridge rail	$110,000	Snoqualmie Valley NE King County	
GR-22-37	Guardrail	Lake Joy Bridge (#5034A) on 346th Pl NE 2.5 Mi NE of SR-203	Upgrade bridge rail	$110,000	Snoqualmie Valley NE King County	

Map Number 14: Carnation

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-1320A	Bridge	Ames Lake Trestle Bridge: Ames Lake-Carnation Rd at Ames Creek .2 Mi S of W Snoqualmie Rd	Replace bridge	$6,330,000	Snoqualmie Valley NE King County	
BR-2133A	Bridge	Sikes Lake Trestle: 284th Ave NE at Sikes Lake, about 0.5 mile east of State Route 202	Replace bridge	$21,770,000	Snoqualmie Valley NE King County	
BR-257Z	Bridge	Horseshoe Lake Creek Bridge: 310th Ave NE at Horseshoe Lake Creek	Replace bridge	$2,560,000	Snoqualmie Valley NE King County	
BR-916A	Bridge	W Snoqualmie River Road Bridge: W Snoqualmie River Rd, 1.5 miles W of SR-203	Replace bridge	$1,660,000	Snoqualmie Valley NE King County	
DR-20-10	Drainage	NE 80 St at West Snoqualmie Valley Rd NE	Replace/Construct drainage infrastructure	$1,420,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-26	Drainage	W Snoqualmie River Rd at NE Tolt Hill Rd	Replace/Construct drainage infrastructure	$170,000	Snoqualmie Valley NE King County	
DR-20-5	Drainage	33609 NE 24 St	Replace/Construct drainage infrastructure	$1,240,000	Snoqualmie Valley NE King County	
DR-22-19	Drainage	NE 80th St east of West Snoqualmie Valley Rd NE	Replace/Construct drainage infrastructure	$4,970,000	Snoqualmie Valley NE King County	
DR-22-40	Drainage	8402 W Snoqualmie Valley Rd NE	Replace/Construct drainage infrastructure	$2,041,000	Snoqualmie Valley NE King County	
DR-22-41	Drainage	NE 100th St .2 mi east of West Snoqualmie Valley Rd NE	Replace/Construct drainage infrastructure	$2,976,000	Snoqualmie Valley NE King County	
GR-22-19	Guardrail	W Snoqualmie River Road Bridge (#916A) on W Snoqualmie River Rd 1.5 Mi W of SR-203	Upgrade bridge rail	$150,000	Snoqualmie Valley NE King County	
ITS-11	ITS	NE Union Hill Rd: 238th Ave NE to NE Ames Lake Rd	Cameras, speed warning system, vehicle detection	$260,000	Bear Creek/Sammamish	*
ITS-25	ITS	W Snoqualmie River Rd SE: SE 24th St to NE Tolt Hill Rd and State Route 203	Cameras, vehicle detection, pavement sensors	$660,000	Snoqualmie Valley NE King County	*
OP-RD-37	Reconstruction	NE Tolt Hill Rd: Tolt Hill Bridge to 500 feet west of State Route 203	Reconstruct roadway	$2,240,000	Snoqualmie Valley NE King County	
RC-18	Vulnerable Road Segments	West Snoqualmie River Rd NE: NE Tolt Hill Rd to SE 24th St	Armor shoulders to reduce road washouts	$480,000	Snoqualmie Valley NE King County	*
RC-32	Vulnerable Road Segments	Tolt Hill Rd: Tolt Hill Bridge to State Route 203	Armor shoulders to reduce road washouts	$130,000	Snoqualmie Valley NE King County	
RC-34	Vulnerable Road Segments	284th Ave NE: NE 100 St to NE Carnation Farm Rd	Armor shoulders to reduce road washouts	$270,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
RC-36	Vulnerable Road Segments	NE 80th St: West Snoqualmie Valley Rd NE to Ames Lake-Carnation Rd	Armor shoulders to reduce road washouts	$2,000,000	Snoqualmie Valley NE King County	
RC-38	Vulnerable Road Segments	NE 100th St: West Snoqualmie Valley Rd to 284th Ave NE	Armor shoulders to reduce road washouts	$890,000	Snoqualmie Valley NE King County	*
RC-39	Vulnerable Road Segments	West Snoqualmie Valley Rd NE: NE 124th St to Ames Lake Carnation Rd NE	Construct retaining wall to prevent slides	$4,940,000	Snoqualmie Valley NE King County	
RC-40	Vulnerable Road Segments	Neal Rd SE: State Route 203 to State Route 203	Armor shoulders to reduce road washouts	$1,690,000	Snoqualmie Valley NE King County	*
VRS-20-1	Vulnerable Road Segments	NE 124th St, NE Woodinville Duvall Rd, NE Carnation Farm Rd, Tolt Hill Rd	Study major cross-Snoqualmie Valley roadways to determine cost effectiveness of flood-improvement.	$560,000	Snoqualmie Valley NE King County	*
VRS-20-17	Vulnerable Road Segments	NE Tolt Hill Road Debris Slide	Construct retaining wall and/or flatten slope	$560,000	Bear Creek/Sammamish	
VRS-22-4	Vulnerable Road Segments	NE Tolt Hill Road near Tolt Bridge	Replace gabion wall	$3,155,000	Snoqualmie Valley NE King County	

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Map Number 15: Snoqualmie

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-1086A	Bridge	Kimball Creek Bridge: SE 80th St at Kimball Creek, 0.4 mile west of State Route 202	Replace bridge	$5,030,000	Snoqualmie Valley NE King County	
BR-1239A	Bridge	Upper Preston Bridge: Upper Preston Rd SE at Echo Lake Creek, north of SE 110th St	Replace bridge	$5,340,000	Snoqualmie Valley NE King County	
BR-249B	Bridge	C.W. Neal Road Bridge: Neal Rd SE, about 1.5 mile south of State Route 203	Replace bridge	$1,660,000	Snoqualmie Valley NE King County	
BR-249C	Bridge	C.W. Neal Road Bridge: CW Neal Rd, 0.3 miles W of SR-203	Replace bridge	$1,660,000	Snoqualmie Valley NE King County	
DR-15-14	Drainage	Just east of Preston Fall City Rd SE & on SE 47th St	Replace/Construct drainage infrastructure	$1,070,000	Snoqualmie Valley NE King County	
DR-20-15	Drainage	SE Duthie Hill Rd at 270 Ave SE	Replace/Construct drainage infrastructure	$1,650,000	Snoqualmie Valley NE King County	
DR-20-35	Drainage	30829 SE 40 St	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	
DR-20-38	Drainage	About 250' East Of 41502 SE Reinig Rd	Replace/Construct drainage infrastructure	$1,180,000	Snoqualmie Valley NE King County	
DR-20-42	Drainage	5935 Preston/Fall City Rd SE	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	
DR-20-51	Drainage	35827 SE David Powell Rd	Replace/Construct drainage infrastructure	$670,000	Snoqualmie Valley NE King County	
DR-20-52	Drainage	28405 SE High Point Way	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-63	Drainage	8106 382 Ave SE	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
DR-20-64	Drainage	8416 Preston/Fall City Rd SE	Replace/Construct drainage infrastructure	$1,350,000	Snoqualmie Valley NE King County	
DR-20-71	Drainage	SE North Bend Way & Meadowbrook Way	Replace/Construct drainage infrastructure	$1,520,000	Snoqualmie Valley NE King County	
DR-20-72	Drainage	30211 SE 40 St	Replace/Construct drainage infrastructure	$1,010,000	Snoqualmie Valley NE King County	
DR-20-75	Drainage	SE David Powell Rd & 347 Pl SE	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
DR-20-77	Drainage	30415 SE 40 St	Replace/Construct drainage infrastructure	$670,000	Snoqualmie Valley NE King County	
DR-20-78	Drainage	8528 378 Ave SE	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
DR-22-44	Drainage	SE High Point Way north of I-90	Replace/Construct drainage infrastructure	$6,426,000	Snoqualmie Valley NE King County	
DR-22-5	Drainage	33638 SE 55 St	Replace/Construct drainage infrastructure	$3,000,000	Snoqualmie Valley NE King County	
GR-22-34	Guardrail	Tokul Cr Park Bridge (#61G) on Fish Hatchery Rd 0.8 Mi S of SR-202	Upgrade bridge rail	$490,000	Snoqualmie Valley NE King County	
GR-22-39	Guardrail	Fire Station Bridge (#186J) on Preston Fall City Rd 0.5 Mi SE of I-90	Upgrade bridge rail	$120,000	Snoqualmie Valley NE King County	
GR-22-40	Guardrail	Patterson Creek Bridge (#927B) on 300th Ave SE 0.1 Mi S of SR-202	Upgrade bridge rail	$100,000	Snoqualmie Valley NE King County	
GR-22-41	Guardrail	Patterson Creek Bridge (#228E) on Snoqualmie River Rd 0.8 Mi N of SR-202	Upgrade bridge rail	$330,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-28	Guardrail	SE David Powell Rd: Preston Fall City Road to 340th block	Construct guardrail	$300,000	Snoqualmie Valley NE King County	
IPA-27	Intersection and Traffic Safety Operations	SE 82nd St/ SE High Point Way & SE 82nd St	Intersection Improvement	$4,840,000	Snoqualmie Valley NE King County	
OP-INT-88	Intersection and Traffic Safety Operations	Preston Fall City Rd SE & SE 43rd St	Realign intersection	$5,500,000	Snoqualmie Valley NE King County	
ITS-14	ITS	Preston Fall City Rd SE: I-90 to State Route 202	Cameras, road sensors, weather station, data collection station	$450,000	Snoqualmie Valley NE King County	
ITS-25	ITS	W Snoqualmie River Rd SE: SE 24th St to NE Tolt Hill Rd and State Route 203	Cameras, vehicle detection, pavement sensors	$660,000	Snoqualmie Valley NE King County	*
RC-15-4	Reconstruction	Preston Fall City Road: the 7600 block to 7800 block	Reconstruct roadway	$1,510,000	Snoqualmie Valley NE King County	
RC-7	Reconstruction	Neal Rd SE: State Route 203 to State Route 203	Reconstruct roadway	$4,490,000	Snoqualmie Valley NE King County	
RC-15-5	Vulnerable Road Segments	Upper Preston Rd: SE 97th St to SE 97th St	Stabilize downhill side and improve drainage	$3,400,000	Snoqualmie Valley NE King County	
RC-17	Vulnerable Road Segments	SE 24th St: 309th Ave SE to W Snoqualmie River Rd SE	Armor shoulders to reduce road washouts	$480,000	Snoqualmie Valley NE King County	
RC-18	Vulnerable Road Segments	West Snoqualmie River Rd NE: NE Tolt Hill Rd to SE 24th St	Armor shoulders to reduce road washouts	$480,000	Snoqualmie Valley NE King County	*
RC-40	Vulnerable Road Segments	Neal Rd SE: State Route 203 to State Route 203	Armor shoulders to reduce road washouts	$1,690,000	Snoqualmie Valley NE King County	*
VRS-20-13	Vulnerable Road Segments	SE David Powell Rd	Reinforce slope	$1,120,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
VRS-20-15	Vulnerable Road Segments	356th Dr SE	Construct horizontal drains and retaining wall	$1,120,000	Snoqualmie Valley NE King County	
VRS-20-2	Vulnerable Road Segments	SE Reining Road	Elevate roadway	$60,000	Snoqualmie Valley NE King County	*
VRS-22-2	Vulnerable Road Segments	334th Avenue SE and SE 43rd Place	Construct drainage system	$2,500,000	Snoqualmie Valley NE King County	

Map Number 16: Tiger Mountain/Hobart

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-909B	Bridge	Clough Creek Bridge: 415th Way SE & SE 141st St	Replace bridge	$5,800,000	Snoqualmie Valley NE King County	
DR-15-18	Drainage	276th Ave SE at Carey Creek	Replace/Construct drainage infrastructure	$3,599,000	Greater Maple Valley/Cedar River	
DR-20-36	Drainage	11429 Upper Preston Rd SE	Replace/Construct drainage infrastructure	$670,000	Snoqualmie Valley NE King County	
DR-20-45	Drainage	13918 415 Way SE	Replace/Construct drainage infrastructure	$340,000	Snoqualmie Valley NE King County	
DR-20-58	Drainage	Kerriston Rd 4 Mi past end of pvmnt - Marker 44	Replace/Construct drainage infrastructure	$510,000	Greater Maple Valley/Cedar River	
DR-22-2	Drainage	Issaquah Hobart Rd SE & SR 18 Ramp	Replace/Construct drainage infrastructure	$600,000	Four Creeks/Tiger Mountain	
GR-22-12	Guardrail	Kerriston Bridge (#896B) on 208th SE 6.8 Mi E of Issaquah-Hobart Rd	Upgrade bridge rail	$130,000	Greater Maple Valley/Cedar River	
GR-22-14	Guardrail	Kerriston Bridge (#896C) on 208th SE 6.8 Mi E of Issaquah-Hobart Rd	Upgrade bridge rail	$180,000	Greater Maple Valley/Cedar River	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
ITS-15	ITS	Issaquah Hobart Road: Issaquah City Limits to SR 18	Cameras, message signs, weather stations, and travel time equipment	$1,080,000	Four Creeks/Tiger Mountain	
RC-121	Reconstruction	Issaquah Hobart Rd SE: SE 156th St to Highway 18	Reconstruct roadway	$17,530,000	Four Creeks/Tiger Mountain	*
RC-125	Reconstruction	276th Ave SE: Highway 18 to SE 200th St	Reconstruct roadway	$5,950,000	Greater Maple Valley/Cedar River	
RC-126	Reconstruction	276th Ave SE: SE 200th St to SE 216th St	Reconstruct roadway	$9,290,000	Greater Maple Valley/Cedar River	

Map Number 17: Ravensdale

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
DR-20-22	Drainage	Landsberg RD SE at SE Summit Landsberg Rd	Replace/Construct drainage infrastructure	$170,000	Greater Maple Valley/Cedar River	
DR-20-65	Drainage	346 Ave SE and SE 268 St	Replace/Construct drainage infrastructure	$510,000	Greater Maple Valley/Cedar River	
DR-22-18	Drainage	290th Ave SE north of SE 312th Way	Replace/Construct drainage infrastructure	$1,727,000	SE King County	
GR-15-25	Guardrail	SE 224th St: 244th Ave SE to 276th Ave SE	Construct guardrail	$120,000	Greater Maple Valley/Cedar River	*
IPA-22	Intersection and Traffic Safety Operations	SE Kent-Kangley Rd & Landsburg Rd SE	Intersection Improvement	$5,410,000	Greater Maple Valley/Cedar River	
OP-INT-92	Intersection and Traffic Safety Operations	SE Kent-Kangley Rd & Retreat Kanaskat Rd	Realign Intersection and install turn lanes	$2,340,000	Greater Maple Valley/Cedar River	
NM-5049	Active Transportation	SE 216th St: 276th Ave SE to Maxwell Rd SE	Provide active transportation facility	$11,910,000	Greater Maple Valley/Cedar River	*

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
NM-5051	Active Transportation	Black Diamond-Ravensdale Rd SE: State Route 169 to SE Kent-Kangley Rd	Provide active transportation facility	$17,760,000	Greater Maple Valley/Cedar River	*
RC-127	Reconstruction	276th Ave SE: SE 216th St to SE Summit Landsburg Rd	Reconstruct roadway	$14,550,000	Greater Maple Valley/Cedar River	*
RC-128	Reconstruction	Landsburg Rd SE: SE Summit Landsburg Rd to SE Kent Kangley Rd	Reconstruct roadway	$6,940,000	Greater Maple Valley/Cedar River	
RC-130	Reconstruction	SE 216th St: 244th Ave SE to 276th Ave SE	Reconstruct roadway	$11,320,000	Greater Maple Valley/Cedar River	*
RC-132	Reconstruction	SE Kent-Kangley Rd: Kent city limits to Landsburg Rd SE	Reconstruct roadway	$8,030,000	Greater Maple Valley/Cedar River	*
RC-133	Reconstruction	SE Kent Kangley Rd: Landsburg Rd SE to Retreat Kanaskat Rd	Reconstruct roadway	$5,790,000	Greater Maple Valley/Cedar River	
RC-135	Reconstruction	SE Ravensdale Way: SE Kent-Kangley Rd to 268th Ave SE	Reconstruct roadway	$3,080,000	Greater Maple Valley/Cedar River	*
RC-136	Reconstruction	Retreat Kanaskat Rd: SE Kent Kangley Rd to Cumberland Kanasket Rd SE	Reconstruct roadway	$17,680,000	Greater Maple Valley/Cedar River	
RC-15-3	Reconstruction	SE Summit Landsburg Rd: Kent city limits (244th Ave SE) to Landsburg Rd SE	Reconstruct roadway	$11,890,000	Greater Maple Valley/Cedar River	*

Map Number 18: Cumberland

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-3032	Bridge	Green River Gorge Bridge: Franklin Road, 4.0 miles E of SR-169	Replace bridge	$31,720,000	SE King County	
DR-20-74	Drainage	SE Kuzak Rd and Cumberland-Kanasket Rd	Replace/Construct drainage infrastructure	$1,010,000	SE King County	
DR-20-76	Drainage	292nd Ave SE at Stonequarry Creek (n/o Fell Hill Park)	Replace/Construct drainage infrastructure	$1,010,000	SE King County	
DR-22-13	Drainage	SE Kuzak Rd ~0.35 Miles east of Veazie-Cumberland Rd SE	Replace/Construct drainage infrastructure	$1,200,000	SE King County	
GR-15-32	Guardrail	292nd Ave SE/SE 416th St: SE 392nd St to 284th Ave SE	Construct guardrail	$180,000	SE King County	
GR-15-33	Guardrail	278th Way SE: SE 392nd St to SE 416th St	Construct guardrail	$312,000	SE King County	
GR-22-9	Guardrail	Veazie Bridge (#3038) on Veazie-Cumberland Rd 0.6 Mi E of SR-169	Upgrade bridge rail	$210,000	SE King County	
NM-5007	Active Transportation	Veazie-Cumberland Rd SE: SE 384th St to SE 416th St	Provide active transportation facility	$11,770,000	SE King County	
NM-5010	Reconstruction	SE 400th Way: SE 400th St to SE 392nd St	Reconstruct roadway	$3,440,000	SE King County	*

Map Number 19: Mount Si

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-364A	Bridge	Deep Creek Bridge: North Fork Rd SE, about 13.7 miles north of North Bend	Replace bridge	$3,400,000	Snoqualmie Valley NE King County	
DR-20-34	Drainage	North Fork Rd SE, 5.3 Miles Past Ernies Grove Rd	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
GR-22-4	Guardrail	Deep Creek Bridge (#364A) on North Fork Rd SE 13.7 Mi N of 1-90	Upgrade bridge rail	$1,550,000	Snoqualmie Valley NE King County	
RC-8	Reconstruction	N Fork Rd SE: 428th Ave SE to Lake Hancock Rd	Reconstruct roadway	$12,990,000	Snoqualmie Valley NE King County	*

Map Number 20: East North Bend

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-122I	Bridge	North Fork Rd Bridge: 428th Ave SE at North Fork Snoqualmie Rd 2.4 Mi E of SR 202	Replace bridge	$30,840,000	Snoqualmie Valley NE King County	
BR-122N	Bridge	Tate Creek Bridge: SE 73rd St at Tate Creek, west of 440th Ave SE	Replace bridge	$6,890,000	Snoqualmie Valley NE King County	
BR-359A	Bridge	Granite Creek Bridge: Private Road, 5.1 miles N of I-90	Replace bridge	$4,670,000	Snoqualmie Valley NE King County	
DR-20-25	Drainage	SE Reinig Rd west of 428 Ave SE	Replace/Construct drainage infrastructure	$1,767,000	Snoqualmie Valley NE King County	
GR-22-1	Guardrail	Tate Creek Bridge (#122N) on SE 73rd St 4.0 Mi N of I-90	Upgrade bridge rail	$110,000	Snoqualmie Valley NE King County	

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
OP-RD-54	Reconstruction	SE Middle Fork Rd: 496th Ave SE to 476th Ave SE	Reconstruct roadway	$8,030,000	Snoqualmie Valley NE King County	
RC-8	Reconstruction	N Fork Rd SE: 428th Ave SE to Lake Hancock Rd	Reconstruct roadway	$12,990,000	Snoqualmie Valley NE King County	*
VRS-20-2	Vulnerable Road Segments	SE Reining Road	Elevate roadway	$60,000	Snoqualmie Valley NE King County	*
VRS-20-21	Vulnerable Road Segments	SE Middle Fork Road lower couplet	Construct retaining walls, widen road, improve clear zone and sight distance.	$21,260,000	Snoqualmie Valley NE King County	
VRS-20-3	Vulnerable Road Segments	SE 92nd Street	Install box culvert to reduce flooding	$840,000	Snoqualmie Valley NE King County	

Map Number 21: Greenwater

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
GR-22-24	Guardrail	Greenwater Bridge (#3050A) on SE 496th Pl 0.3 Mi NE of SR-410	Upgrade bridge rail	$80,000	SE King County	
GR-22-32	Guardrail	Greenwater River Bridge (#3050B) on Two County Road 0.2 Mi NE of SR-410	Upgrade bridge rail	$350,000	SE King County	

Map Number 22: Skykomish

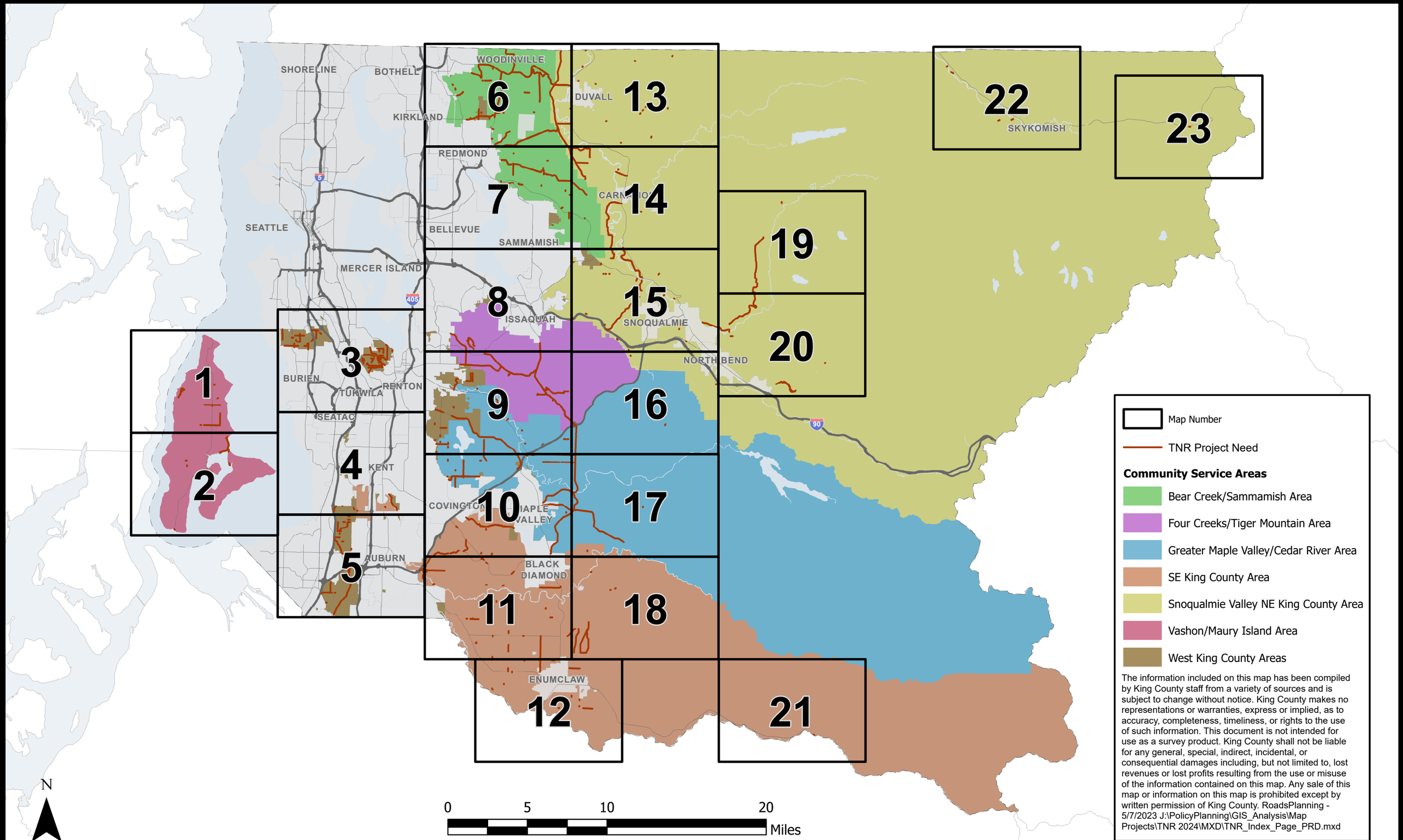
TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-509A	Bridge	Baring Bridge: Index Creek Rd over the South Fork Skykomish River, west of Highway 2	Replace bridge	$22,790,000	Snoqualmie Valley NE King County	
BR-999W	Bridge	Miller River Bridge: Old Stevens Pass Hwy, 1.5 miles SE of SR-2	Replace bridge	$36,350,000	Snoqualmie Valley NE King County	
DR-20-27	Drainage	NE 179 St at 644 Ave NE	Replace/Construct drainage infrastructure	$510,000	Snoqualmie Valley NE King County	
RC-57	Reconstruction	NE Old Cascade Highway at Miller River	Reconstruct roadway	$520,000	Snoqualmie Valley NE King County	
RC-55	Vulnerable Road Segments	NE Money Creek Rd & Money Creek	Construct retaining wall	$1,050,000	Snoqualmie Valley NE King County	

Map Number 23: Scenic

TNR Project Number	TNR Category	Location	Scope	Estimated Cost	Community Service Area	Appears on Multiple Maps
BR-999K2	Bridge	Scenic Bridge: County Road at Tye River 0.1 Mi S of SR-2	Replace bridge	$3,970,000	Snoqualmie Valley NE King County	

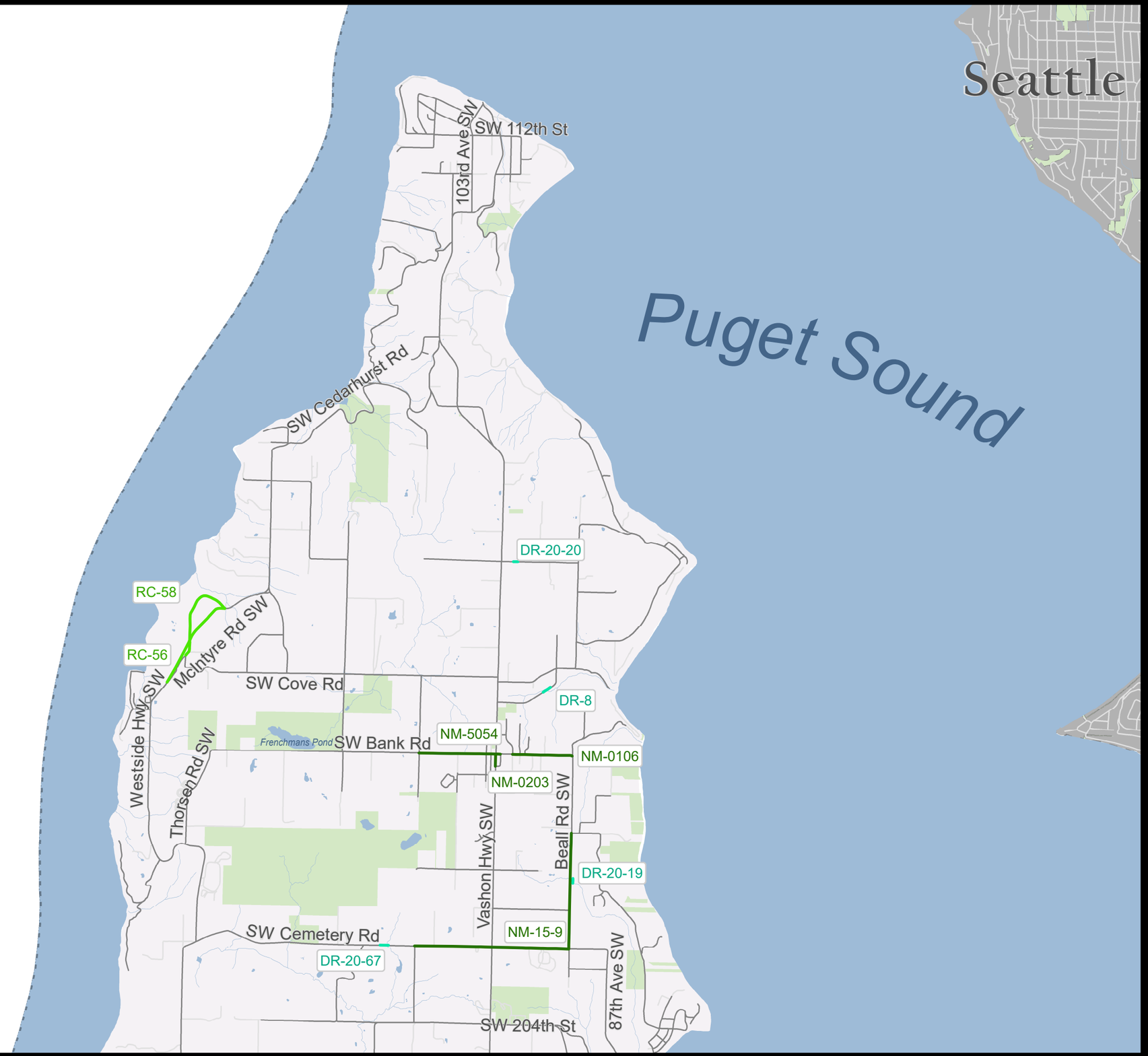
Exhibit B. 2024 Transportation Needs Report Maps

Exhibit B contains 23 maps that identify the approximate location of each needed project. Maps are formatted to print at 11x17. Please see Exhibit A project list tables for additional information associated with each TNR project referenced on the 2024 TNR maps.



2024 Transportation Needs Report

King County
Department of Local Services
Road Services Division



KITSAP COUNTY

North Vashon
Map Number: 1

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area

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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

KITSAP COUNTY

PIERCE COUNTY

SW 204th St
SW 220th St
SW 232nd St
SW Quartermaster Dr
SW Burton Dr
SW Point Robinson Rd
SW Dock St
Westside Hwy SW
Vashon Hwy SW
Monument Rd SW
107th Ave SW
Wax Orchard Rd SW
Dockton Rd SW
99th Ave SW

DR-15-13
GR-15-40
RC-10
VRS-20-11
GR-15-42
DR-20-18
DR-20-49
RC-59
RC-15
GR-15-41
RC-54
NM-9975

Puget Sound

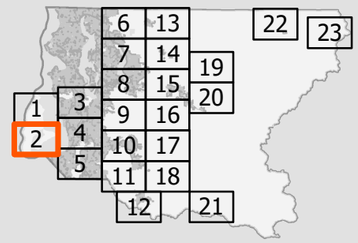
South Vashon
Map Number: 2

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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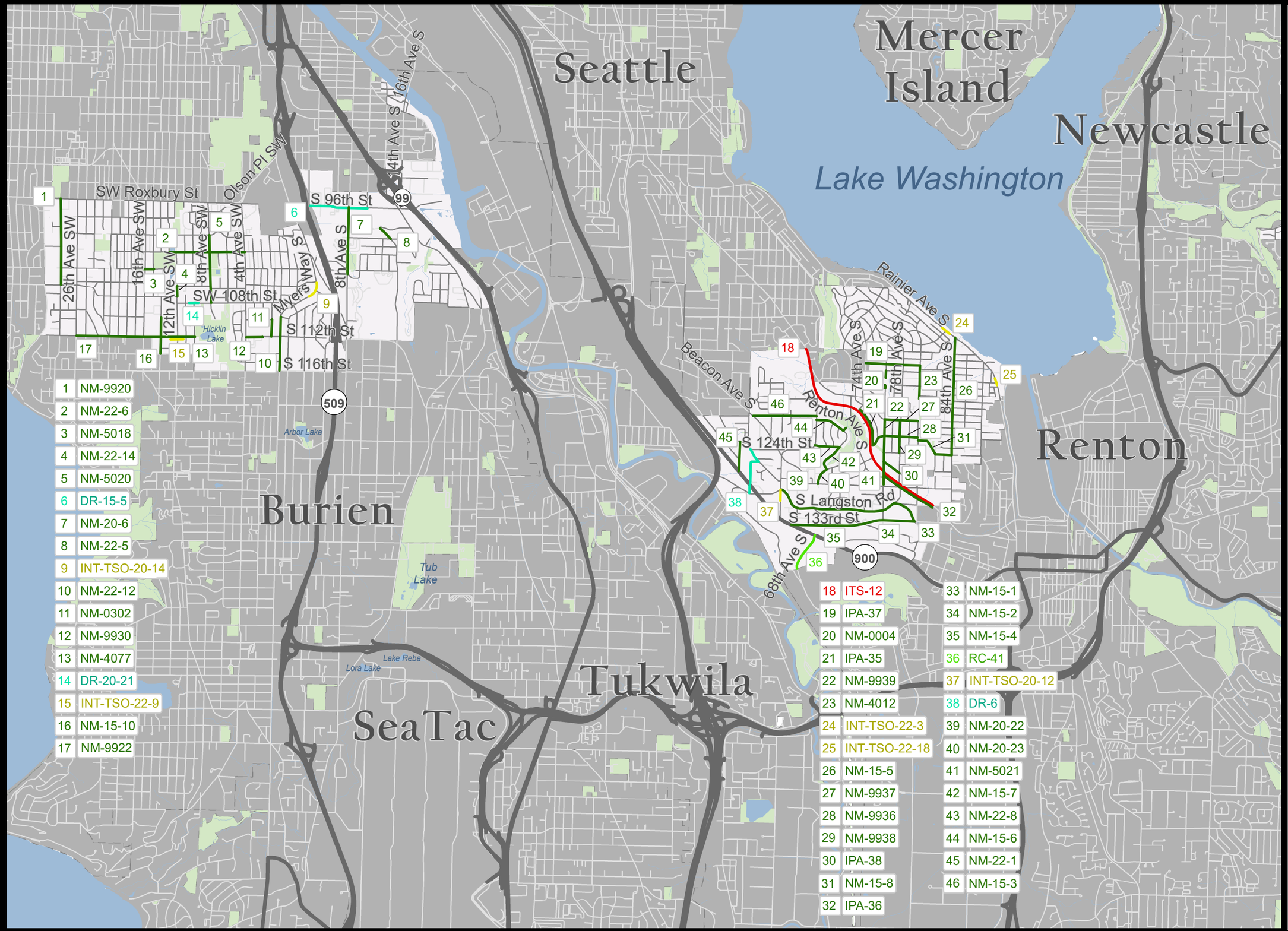
2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division



1	NM-9920
2	NM-22-6
3	NM-5018
4	NM-22-14
5	NM-5020
6	DR-15-5
7	NM-20-6
8	NM-22-5
9	INT-TSO-20-14
10	NM-22-12
11	NM-0302
12	NM-9930
13	NM-4077
14	DR-20-21
15	INT-TSO-22-9
16	NM-15-10
17	NM-9922
18	ITS-12
19	IPA-37
20	NM-0004
21	IPA-35
22	NM-9939
23	NM-4012
24	INT-TSO-22-3
25	INT-TSO-22-18
26	NM-15-5
27	NM-9937
28	NM-9936
29	NM-9938
30	IPA-38
31	NM-15-8
32	IPA-36
33	NM-15-1
34	NM-15-2
35	NM-15-4
36	RC-41
37	INT-TSO-20-12
38	DR-6
39	NM-20-22
40	NM-20-23
41	NM-5021
42	NM-15-7
43	NM-22-8
44	NM-15-6
45	NM-22-1
46	NM-15-3

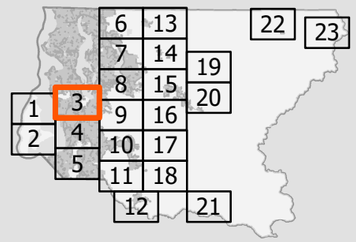
White Center/Skyway
Map Number: 3

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

Burien
Tukwila
Renton
Normandy Park
SeaTac
Kent
Des Moines
Federal Way
Auburn
Puget Sound
Bow Lake
Arrow Lake
Angle Lake
Panther Lake
Clark Lake
Lake Fenwick
Star Lake
Bingaman Pond
Orillia Rd S
Military Rd S
40th Ave S
68th Ave S
East Valley Hwy S
Green River Rd S
S 272nd St
S 277th St
Star Lake Rd S
516
5

NM-20-25
NM-20-26
CP-5
INT-TSO-22-2
OP-INT-120
VRS-20-14
DR-2
CP-15-6
GR-15-29
DR-15-10
DR-22-23
NM-5015
DR-15-9

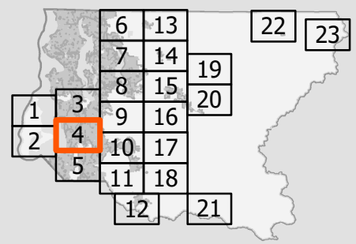
Kent/Des Moines
Map Number: 4

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

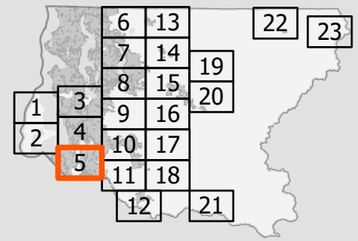
East Federal Way
Map Number: 5

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

SNOHOMISH COUNTY

Woodinville

Duvall

Kirkland

Redmond

Lake Leota

Paradise Lake

Tuck Lake

Cottage Lake

Bassett Pond

Welcome Lake

Radar Lake

Totem Lake

Forbes Lake

NM-5001 DR-20-61 NE 198th St 204th Ave NE West Snoqualmie Val Rd NE RC-150

NM-5027 DR-22-43 INT-TSO-22-13 CP-12 NE Woodinville Duvall Rd DR-15-1 DR-20-69 174th Ave NE NE 172nd Pl 152nd Pl NE 148th Ave NE 140th Pl NE OP-RD-18

ITS-13 NM-5002 DR-20-59 OP-RD-9 NE Woodinville Duvall Rd DR-20-12 INT-TSO-22-5 CP-16 INT-TSO-20-13 OP-INT-99 DR-20-8 NE 165th St VRS-22-3 OP-RD-7 DR-20-60 Mink Rd NE

IPA-40 BR-1136B GR-22-26 GR-22-35 RC-43 NE Old Woodinville-Duvall Rd 232nd Ave NE

DR-20-56 DR-20-54 DR-20-53 DR-20-41 RC-48 OP-INT-81 158th Ave NE INT-TSO-22-15 CP-15-5 DR-22-25 RC-151 INT-TSO-22-17 216th Ave NE NM-20-7 OP-RD-45 NE 146th Pl

ITS-18 DR-20-33 DR-20-7 Bear Creek Rd INT-TSO-22-19 NE 133rd St DR-20-47 BR-333A BR-240A

NM-5026 INT-TSO-22-16 DR-20-50 OP-RD-52 INT-TSO-22-12 DR-20-3 DR-15-7 NE 128th St DR-20-70 ITS-16 IPA-23 VRS-20-20 BR-5042 INT-TSO-22-6 Avondale Rd Trilogy Pkwy NE

OP-INT-122 CP-15-3 VRS-20-1 DR-20-66 NE 124th St RC-113 INT-TSO-22-21 DR-20-31 CP-15-8 NE Novelty Hill Rd Eastridge Dr NE

BR-480A GR-22-18 NE 116th St BR-5011 GR-22-11 GR-15-21 ITS-35 INT-TSO-20-11 CP-8 INT-TSO-22-20 RC-39 RC-38

202 203

NE 124th St

2024 Transportation Needs Report Project Locations

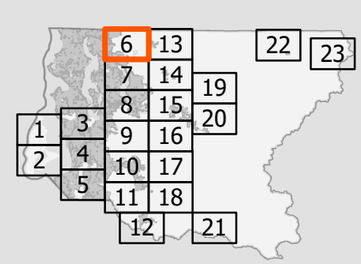
Woodinville Map Number: 6

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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King County
Department of Local Services
Road Services Division

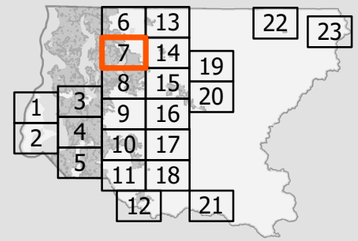
Redmond/Sammamish Map Number: 7

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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Redmond
Bellevue
Sammamish
Lake Sammamish
East Lake Sammamish Trail
Sahalee Way NE
NE Novelty Hill Rd
NE Union Hill Rd
NE Cedar Park Crest
Redmond Ridge Dr NE
208th Ave NE
196th Ave NE
204th Pl NE
238th Ave NE
236th Ave NE
244th Ave NE
NE Ames Lake Rd
202
CP-8
INT-TSO-22-20
DR-20-30
RC-44
CP-15-1
ITS-20
OP-INT-113
NM-20-24
OP-RD-5
RC-51
DR-20-9
DR-20-4
SW-51
ITS-11
DR-20-40
RC-116
GR-22-27
BR-578A
GR-15-27
RC-35
BR-180A
DR-22-3
DR-22-8
RC-38
RC-39
ITS-18
VRS-20-18
VRS-22-1
VRS-20-10
Forbes Lake
Swan Lake
Peterson Pond
Allen Lake
Larsen Lake
Phantom Lake
Beaver Lake

2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

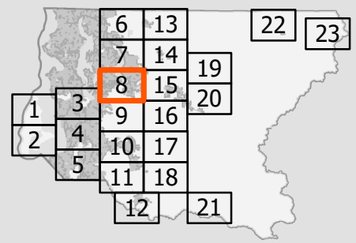
Newcastle/Issaquah
Map Number: 8

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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Bellevue
Sammamish
Issaquah
Newcastle
Renton
Lake Sammamish
Phantom Lake
Pine Lake
Beaver Lake
Long Lake
Laughing Jacobs Lake
Yellow Lake
Lake Boren
Tradition Lake
Round Lake
SE Duthie Hill Rd
SE May Valley Rd
148th Ave SE
Issaquah Hobart Rd SE
90
900
DR-22-44
OP-RD-24
GR-15-34
GR-22-6
ITS-34
ITS-29
OP-RD-26
RC-118
CP-15-2
ITS-15

2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

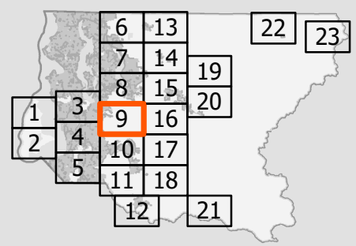
East Renton/ Lake Youngs Map Number: 9

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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Renton
Kent
Lake Youngs
Lake McDonald
Cedar Hills Regional Landfill
Four Lakes
Lake Kathleen
Lake Desire
Otter Lake
Shady Lake (Mud Lake)
Peterson Lake
Shadow Lake
Webster Lake
Francis Lake
OP-RD-24
GR-22-6
ITS-34
OP-RD-26
INT-TSO-22-7
ITS-28
NM-20-4
ITS-19
NM-22-4
NM-22-3
OP-RD-25
DR-22-17
RC-50
DR-20-16
DR-20-17
RC-3
INT-TSO-20-8
IPA-1
CP-15
CP-15-4
INT-TSO-20-5
DR-20-24
NM-22-7
SW-81
BR-3109B
DR-20-48
INT-TSO-20-7
BR-3110
NM-5038
DR-20-57
GR-22-13
BR-3109A
GR-15-38
ITS-24
VRS-20-4
DR-20-1
DR-22-39
OP-RD-22
ITS-29
BR-493C
DR-22-12
CP-15-2
RC-118
OP-INT-124
RC-119
INT-TSO-20-6
RC-120
GR-15-36
DR-22-6
GR-22-30
GR-15-35
GR-22-31
BR-1741A
ITS-15
RC-121
DR-22-2
BR-3202
GR-22-22
DR-20-68
DR-22-16
RC-129
NM-5049
RC-130
SE 128th St
SE 136th St
SE 142nd St
SE 144th St
SE Fairwood Blvd
SE 192nd St
SE 208th St
SE 216th St
SE 200th St
SE May Valley Rd
SE Petrovitsky Rd
SE Lake Francis Rd
Sweeney Rd SE
Issaquah Hobart Rd SE
Cedar Grove Rd SE
164th Ave SE
Patriot Way SE
156th Ave SE
160th Ave SE
154th Pl SE
140th Way SE
140th Ave SE
196th Ave SE
148th Ave SE
244th Ave SE
128th Way SE
900
169
18

2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

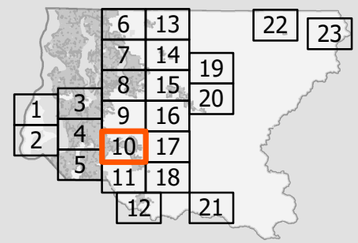
Covington/Black Diamond
Map Number: 10

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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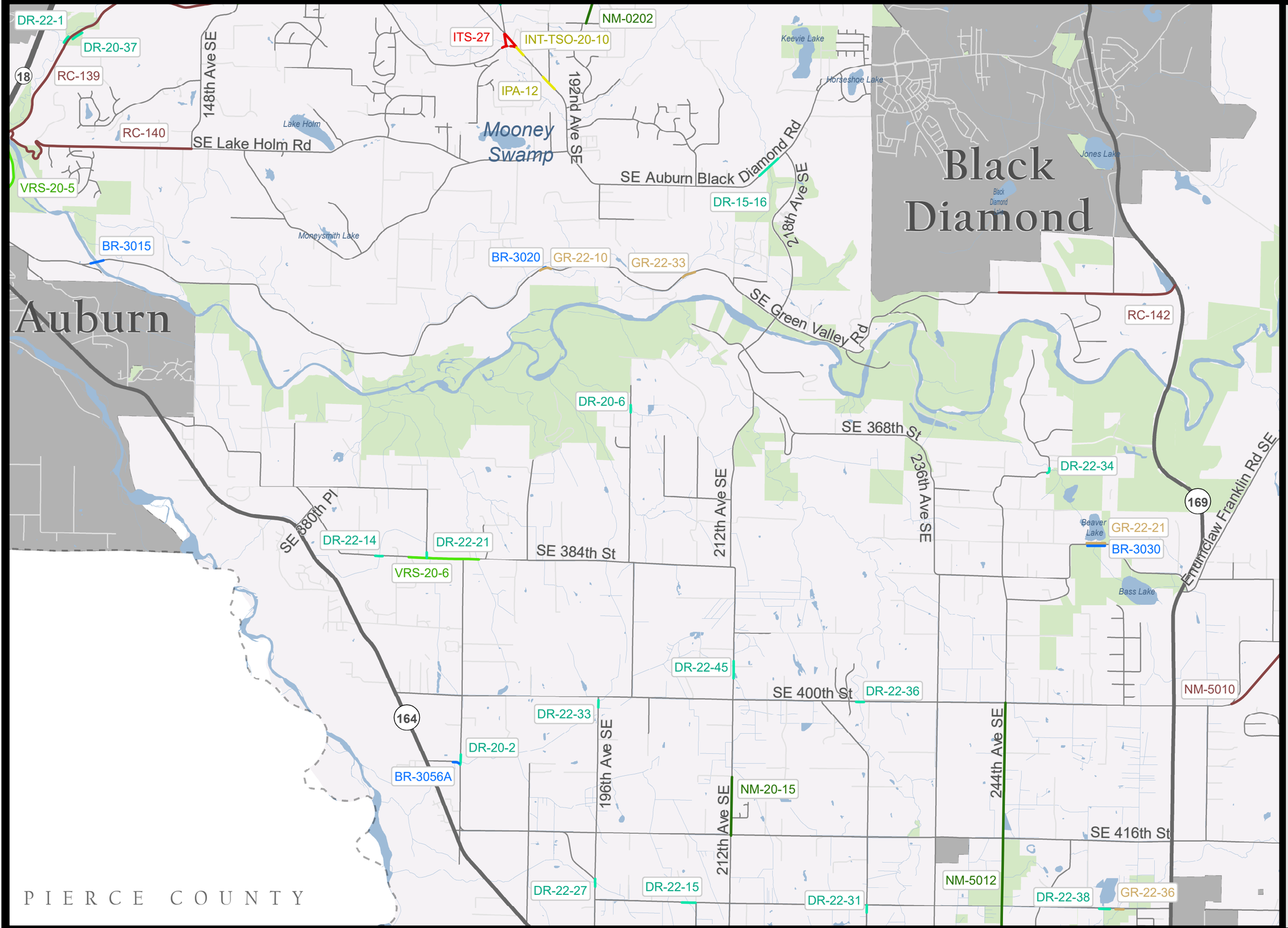
2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division



2024 Transportation Needs Report Project Locations

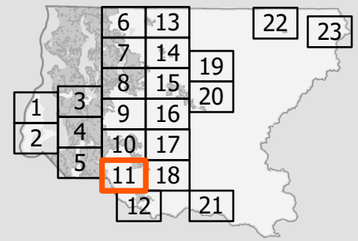
North Enumclaw
Map Number: 11

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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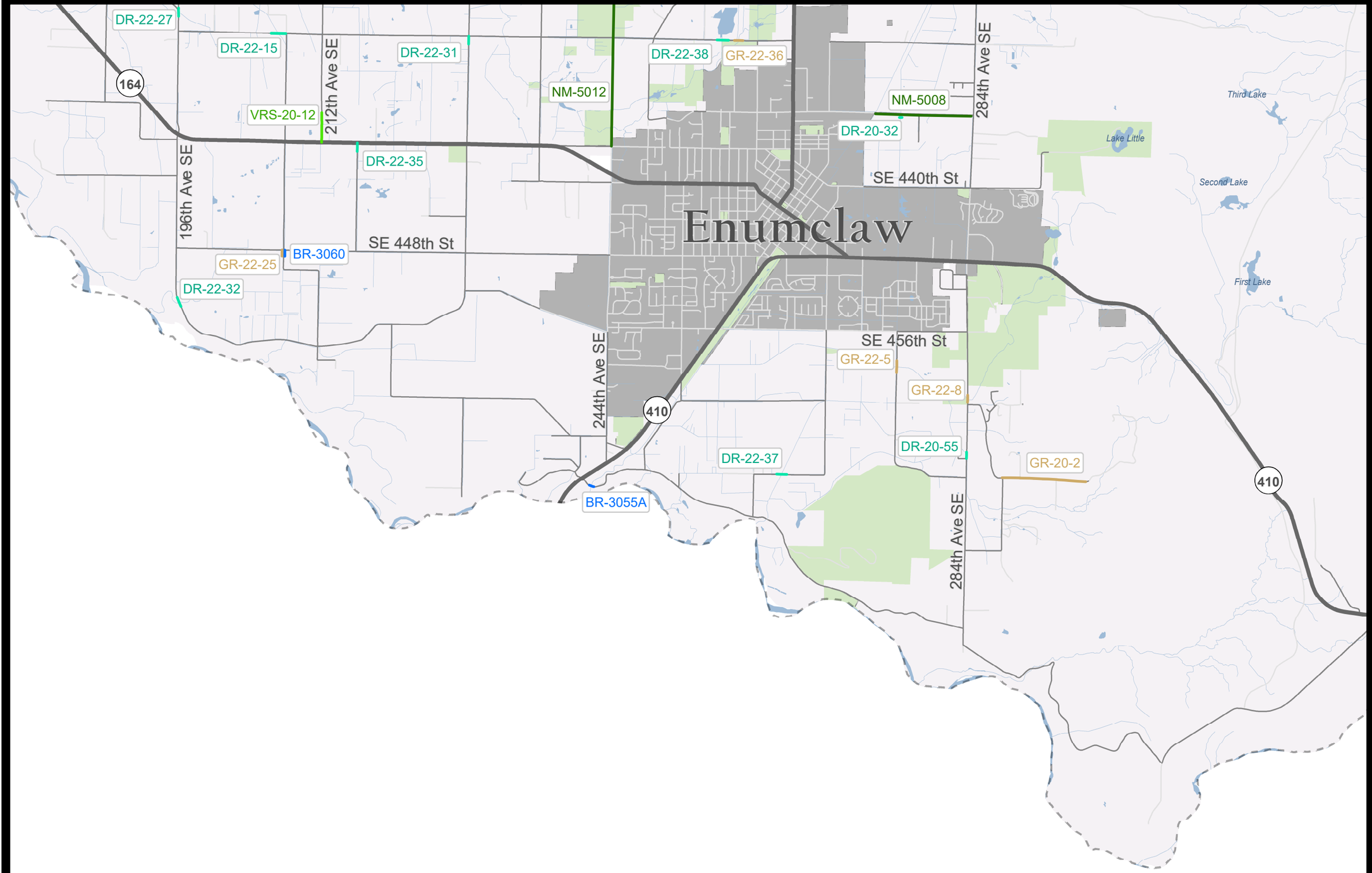
King County
Department of Local Services
Road Services Division



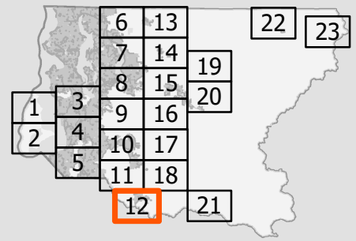
South Enumclaw
Map Number: 12

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

SNOHOMISH COUNTY

DR-22-28
203
DR-22-29
DR-20-46
ITS-13
DR-20-62
Lake Rasmussen
Duvall
Batten Rd NE
NE Big Rock Rd
DR-20-33
VRS-20-1
DR-20-66
DR-20-73
203
DR-22-41
RC-38
RC-34
Harts Swamp
Soup Hole
Lake Margaret
NE 197th St
DR-5
320th Ave NE
Mountain View Rd NE
NE Cherry Valley Rd
DR-22-4
DR-22-26
DR-22-30
DR-22-24
DR-22-22
DR-20-39
GR-22-2
Cherry Lake
Drunken Charlie Lake
GR-22-37
Lake Joy
Moss Lake
Fay Rd NE
Lake Marcel
DR-4
Kelly Rd NE

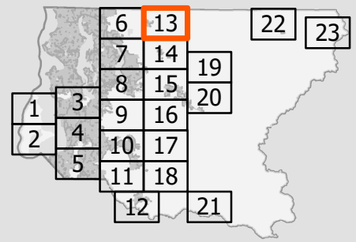
Duvall
Map Number: 13

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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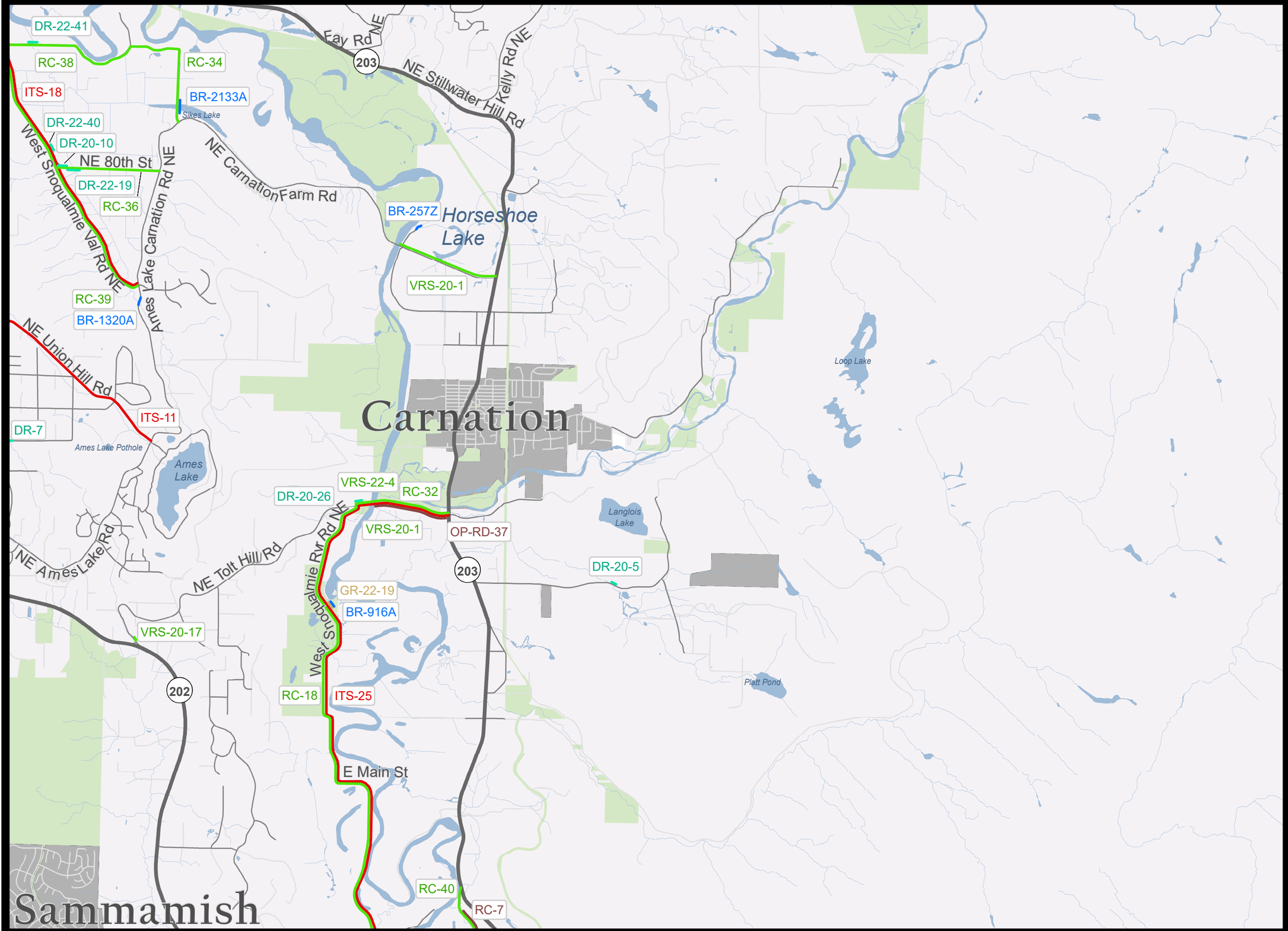
2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division



2024 Transportation Needs Report Project Locations

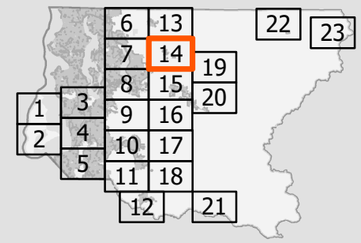
Carnation
Map Number: 14

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



0 0.25 0.5 1 Miles

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King County
Department of Local Services
Road Services Division

Sammamish

ITS-25 RC-18 RC-40 RC-7 GR-22-41 BR-249C BR-249B RC-17 SE 24th St SE Duthie Hill Rd DR-20-15 GR-22-40 308th Ave SE 202 203 Rutherford Slough Lake Marie DR-20-72 DR-20-77 SE Issaquah-Fall City Rd SE 40th St DR-20-35 VRS-22-2 VRS-20-15 OP-INT-88 332nd Ave SE SE 46th St 328th Ave SE VRS-20-13 GR-28 DR-15-14 DR-20-75 DR-20-51 DR-22-5 DR-20-42 GR-22-34 202

Snoqualmie

ITS-14 DR-20-52 90 SE High Point Way DR-22-44 IPA-27 Preston Fall City Rd SE RC-15-4 DR-20-64 GR-22-39 Alice Lake Lake Borst BR-1086A DR-20-78 VRS-20-2 SE Reinig Rd 378th Ave SE 384th Ave SE DR-20-63 Meadowbrook Slough DR-20-38 Our Lake RC-15-5 Echo Lake DR-20-71 SE North Bend Way 90 BR-1239A 18

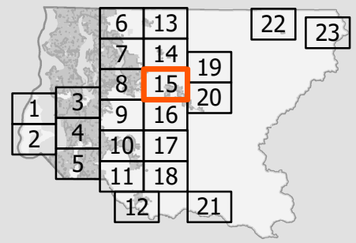
Snoqualmie
Map Number: 15

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

BR-1239A
DR-20-36
90
North Bend
DR-20-45
BR-909B
18
ITS-15
DR-22-2
18
RC-121
DR-15-18
276th Ave SE
RC-125
RC-126
RC-130
NM-5049
SE 216th St
RC-127
Walsh Lake
GR-22-14
GR-22-12
DR-20-58
MT. BAKER-SNOQUALMIE NATIONAL FOREST

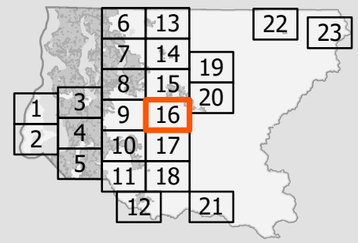
Tiger Mountain/Hobart Map Number: 16

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

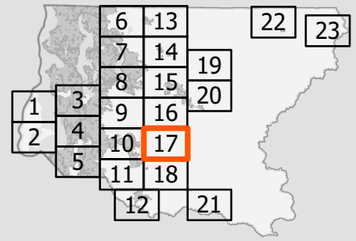
Ravensdale
Map Number: 17

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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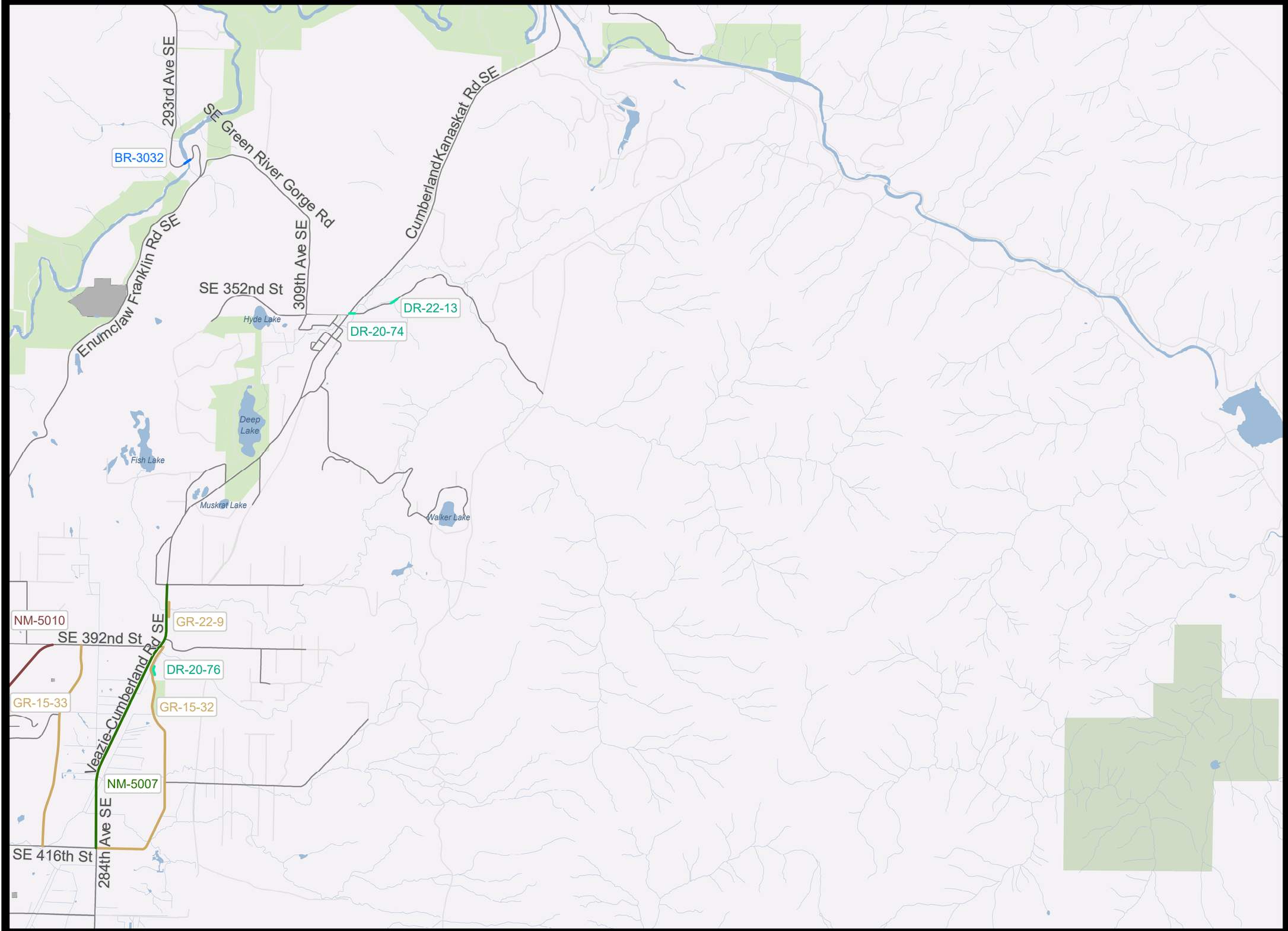
2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division



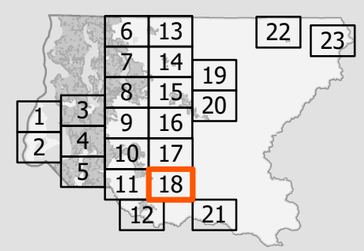
Cumberland
Map Number: 18

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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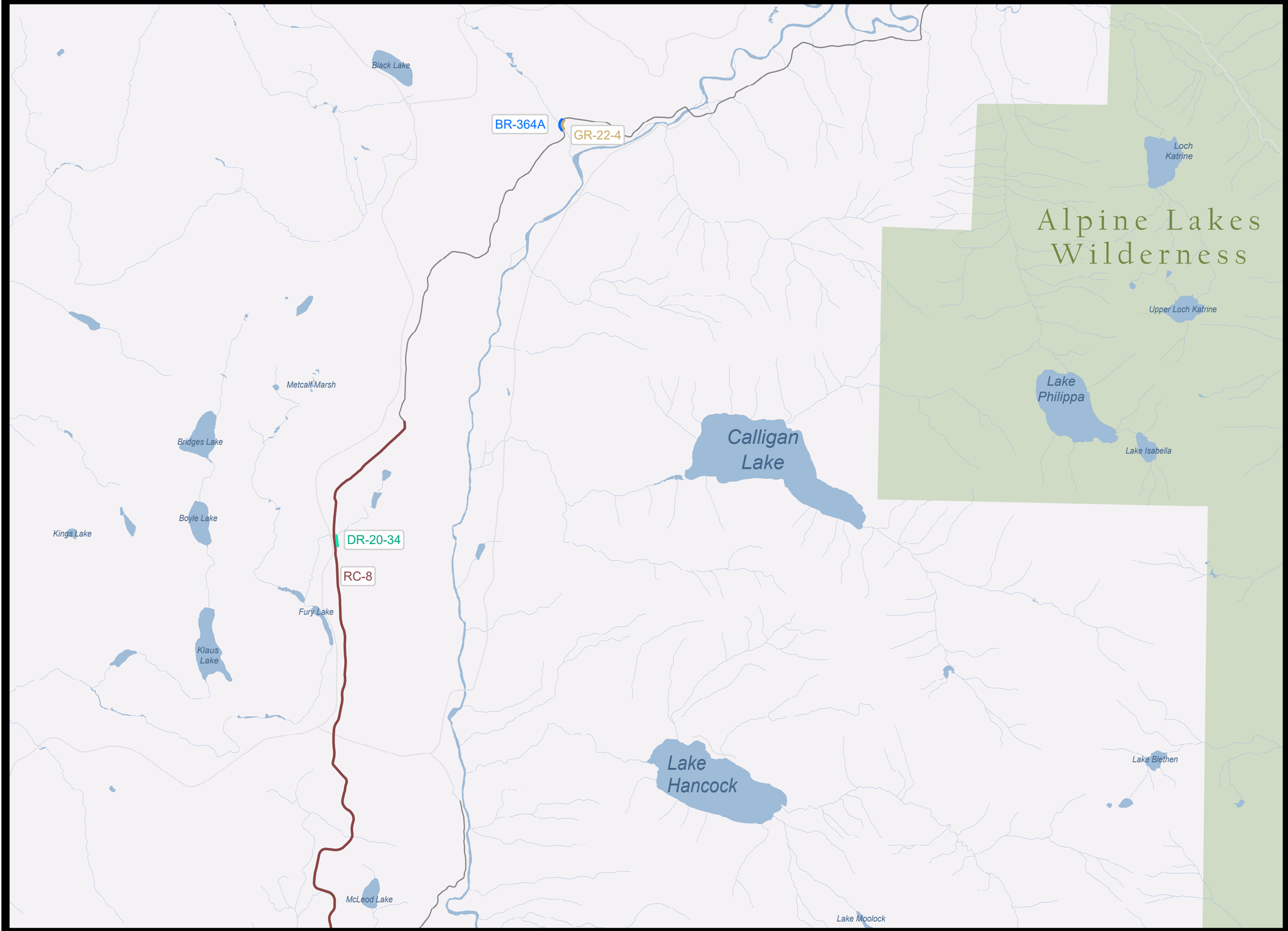
2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division



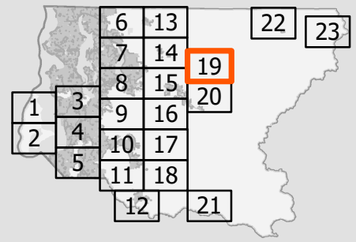
Mount Si
Map Number: 19

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

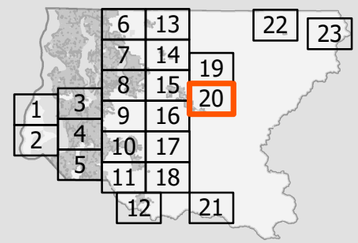
East North Bend
Map Number: 20

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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McLeod Lake
Lake Moolock
Lake Nadeau
SMC Lake
Rachor Lake
RC-8
GR-22-1
BR-122N
DR-20-38
SE Reinig Rd
VRS-20-2
DR-20-25
BR-122I
VRS-20-3
428th Ave SE
BR-359A
SE Mount Si Rd
North Bend
436th Ave SE
SE North Bend Way
90
OP-RD-54
VRS-20-21
468th Ave SE

2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

MT. BAKER-SNOQUALMIE NATIONAL FOREST

410

GR-22-24

GR-22-32

PIERCE COUNTY

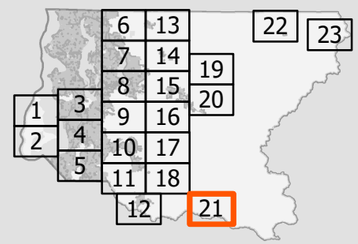
Greenwater
Map Number: 21

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

SNOHOMISH COUNTY

Wild Sky Wilderness

Klinger Lake

Grotto Lake

MT. BAKER-SNOQUALMIE NATIONAL FOREST

BR-509A

DR-20-27

2

Crosby Lake

Cement Lake

Boner Lake

RC-55

RC-57

BR-999W

NE Old Cascade Hwy

Skykomish

MT. BAKER-SNOQUALMIE NATIONAL FOREST

Alpine Lakes Wilderness

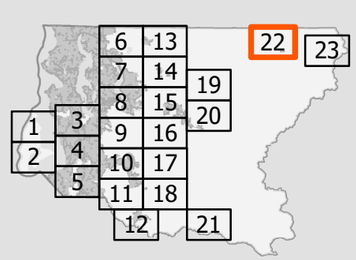
Skykomish
Map Number: 22

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division

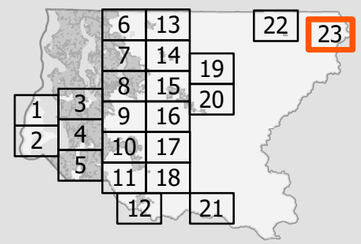
Scenic
Map Number: 23

TNR Project Type

- Bridge
- Capacity-Major
- Drainage
- Guardrail
- ITS
- Intersection and Traffic Safety Operations
- Active Transportation
- Reconstruction
- Vulnerable Road Segment

Jurisdiction

- State or Federal Highway
- Unincorporated King County Maintained Road
- City or Private Road
- King County
- Incorporated Area



0 0.25 0.5 1 Miles

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2024 Transportation Needs Report Project Locations

King County
Department of Local Services
Road Services Division