

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[help\]](#)

1. Name of proposed project, if applicable: [\[help\]](#)

West Cashmere Bridge Replacement Project, County Road Project No. 693

2. Name of applicant: [\[help\]](#)

Chelan County Public Works Department

3. Address and phone number of applicant and contact person: [\[help\]](#)

Chelan County Public Works Department
Attn: Jason Detamore, Environmental Manager
316 Washington Street, Suite 402
Wenatchee, WA 98801
(509) 667-6415
Jason.Detamore@co.chelan.wa.us

4. Date checklist prepared: [\[help\]](#)

May 2018

5. Agency requesting checklist: [\[help\]](#)

Chelan County Public Works Department

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

As of 2018, construction is scheduled to begin for spring/summer 2020 and continue through the fall of 2022.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

Besides routine operation and maintenance activities, once the bridge is complete in 2022, future additions, expansions, or any further activities related to the West Cashmere Bridge is not anticipated. Sidewalks may be added to Goodwin Road (south of the bridge) at a later date.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

The following environmental documents have been prepared and may be available upon request.

- Wetland delineation report
- Wetland Jurisdictional Determination (Army Corps of Engineers, Department of Ecology, Chelan County Community Development)
- Cultural Resources Section 106 investigation
- Geotechnical and soils report
- Hydraulics/drainage report
- Section 7 Biological Assessment
- Traffic noise assessment
- Hazardous materials investigation - Phase 1 and 2
- Environmental justice memorandum
- *West Cashmere Bridge Replacement Project, Type, Size, and Location Study* (2016)
- *Cashmere Area Transportation Study* (2015)

The following environmental documents will be or are currently being prepared:

- NEPA Categorical Exclusion (with required documentation)
- Joint Aquatic Resource Permit Application (JARPA)
- Army Corps of Engineers Nationwide Permit (Section 404)
- Department of Ecology Water Quality Certification (Section 401)
- Department of Natural Resources Aquatic Use Authorization
- Department of Ecology Construction Stormwater Permit
- Stormwater Pollution Prevention Plan (SWPPP)
- Endangered Species Act Biological Opinion (USFWS/NMFS)
- Washington Fish and Wildlife Hydraulic Project Approval (HPA)

- Shoreline Substantial Development Permit
- Critical Areas Variance (Chelan County Community Development)
- Stormwater drainage plan
- Spill prevention plan

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [\[help\]](#)

None known.

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

In addition to the summary in Question 8, a right-of-way certification, WSDOT Right-of-Way permit, and WA State Labor and Industries permit (electrical).

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [\[help\]](#)

The West Cashmere Bridge (NBIS Str. ID. #08430900) carries Goodwin Road on the outskirts of the City of Cashmere in Chelan County, Washington. Often referred to as the Goodwin Bridge, the 85-year-old, fracture-critical bridge is both functionally obsolete and structurally deficient. It is currently posted for both weight and height restrictions. In 2012, through fracture-critical inspections by the County's structural engineering consultant, it was estimated that within 10-years, or by 2022, due to the progressive deterioration of the structural elements there would be a substantial decrease in the bridge's load-carrying capacity, unless major rehabilitation of the bridge's structural components is performed. Other deficient elements of this bridge include crumbling bridge railing, spalling concrete deck, scoured bridge piers, inadequate geometrics of the bridge approaches and bridge width, and overall clearance constraints. To address these deficiencies requires the investment of millions of dollars into rehabilitation and retrofit projects simply to increase the longevity of this functionally obsolete bridge.

As a result, it is proposed to replace the existing 1929 West Cashmere Bridge over the Wenatchee River. The physical condition of this bridge has been deteriorating in recent years and requires constant maintenance and occasional closures. Replacement alignment of the existing bridge will be based on considerations of the environmental process determinations, railroad crossing requirements, WSDOT access requirements, and the CRP683 - Cashmere Area Transportation and Freight Study. The completed bridge will have a roadway section that will consist of two 12-foot lanes, two 5-foot shoulders and a sidewalk on one side for a total width of 42 feet. The project is scheduled to go to construction in 2020.

Current bridge restrictions force freight traffic, bound for the west end of Cashmere, to travel through Cashmere's historic residential zone and school zones, specifically a key pedestrian crossing for Vale Elementary School. Further, the width of the bridge does not allow for safe pedestrian or bicycle usage when encountered by vehicular traffic. The West Cashmere Bridge provides the only grade-separated crossing of the major Burlington Northern Santa Fe (BNSF) railroad line (crossings No. 084464L and No. 084462X are at grade crossings in the city core) that bisects the City, making this the only viable option for fire and emergency response to access the portion of Cashmere south of the railroad tracks should other at-grade crossings be blocked. The increased deterioration and potential for closure of the West Cashmere Bridge and

the at-grade railroad crossings exacerbate the challenges for freight access and economic development for the City and the adjacent County lands, which rely heavily on an agricultural-based economy. It also complicates the general traffic circulation throughout the community.

The proposed bridge is longer and higher than the existing bridge and realigns the intersection between Goodwin Road and Hay Canyon Road. The existing bridge has six piers. The new bridge will have four piers, including a mid-channel pier located within the footprint of the existing pier, which will support three spans. The two outside spans will be approximately 235 feet long, and the middle span will be approximately 255 feet long. Piers 1 and 4 (the outside sets of piers) will consist of three drilled shafts each five feet in diameter. Piers 2 and 3 will each consist of a single drilled shaft, ten feet in diameter, supporting 7.5-foot diameter pier columns. The piers will support a steel plate girder bridge with a cast in place concrete deck. The bridge will support utilities and drainage.

The old bridge will be completely demolished, except for the existing bridge Pier 4 between the BNSF railroad tracks and the south side of the river. At this location, the base of the existing pier will be left intact, because it is serving as a retaining wall for the railroad fill prism. Removing it could destabilize the railroad tracks. Some bank stabilization below this pier (between the pier and the river) may be installed. A final decision about this armoring has not been made at the time of this analysis, so it is assumed that up to 100 cubic yards of angular riprap may be used on the riverbank to stabilize the slope around the portion of the existing pier to remain.

In addition to the changes to the bridge, the northern approach to the bridge and the associated intersection at Hay Canyon Road and US 2 will be modified. The existing northern approach and exit from US 2 to Goodwin Road will be abandoned. Under the proposed project, Goodwin Road will pass over US 2 and come down into a new roundabout centered across from the private access road to an adjacent neighborhood. The roundabout will connect Goodwin Road to Hay Canyon Road, as well as the frontage road adjacent to US 2 – Sunburst Lane. The intersection with US 2 will still be signalized; however, the southern leg will be removed.

A type of temporary work trestle is required to be installed across the river in order to decommission the existing bridge and aid in the construction of the new bridge. This temporary bridge is required to be in place for an estimated two consecutive construction seasons. As a result, the temporary bridge will need to be designed to appropriate construction standards, such as the ability to withstand the 100-year flood flow event, a 3-foot clearance from the bottom of the deck to the 100-year water elevation to pass debris, a woody debris/ice management plan, allowance for fish/recreational passage, minimization of river bed disturbance, etc. A typical industry standard, temporary work trestle would install up to 60 steel piles to support the trestle structure. The piles are anticipated to be up to 24 inches in diameter and driven using a vibratory hammer, but may need to be proofed with an impact hammer. It is anticipated that up to four piles can be driven per day.

See enclosed figures for further details of the project.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you

are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [\[help\]](#)

The West Cashmere Bridge is located in Cashmere, WA., approximately 9 miles west of Wenatchee. The bridge extends from Goodwin Road/Ruby Street and terminates south of US 2. The proposed project would extend the bridge over US 2 and intersect with Hay Canyon Road. See enclosed vicinity map for project location.

Township 24 North, Range 19 East, Section 32

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth [\[help\]](#)

a. General description of the site: [\[help\]](#)

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

Approximately 10 percent.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [\[help\]](#)

Cashmont Sandy Loam – 0 to 3 percent slopes ¹

Cashmont Sandy Loam – 3 to 8 percent slopes ¹

Beverly Fine Sandy Loam ¹

Burch Fine Sandy Loam, 0 to 3 percent slopes ¹

Terrace escarpments

¹ According to the USDA, these soils are considered “Prime farmland if irrigated”.*

*An orchard used to be in production west of Hay Canyon Road, where the proposed northern terminus will be located. Sometime before 2005, the orchard was removed and the irrigation was stopped. Therefore, impacts to prime farmland is not anticipated.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

According to Chelan County’s GIS database, there are no known geohazard or landslide hazard areas within the immediate vicinity. Additional, no surface indicators of unstable soils are present.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

The construction of the project will require approximately 5,900 cubic yards of excavation and 6,400 cubic yards of fill. The majority of fill will occur on the retained soil mechanical stabilized earth (MSE) walls at the north approach. Of these amounts, approximately 65 cubic yards of excavation would occur below the ordinary high water mark (OHWM) to allow room for the new shaft in the center pier. Another 10 cubic yards of fill would be used in the area surrounding the shaft below OHWM. If the pile cap of the existing pier is removed fully, an estimated 250 cubic yards of material would be excavated below the OHWM, and an estimated 200 cubic yards of fill would be placed below the OHWM. In compliance with the 2018 WSDOT *Standard*

Specifications for Road, Bridge, and Municipal Construction, the contractor will be responsible for the disposal of excess and unsuitable material outside the project site.

As discussed above, the old bridge will be completely demolished, except for the existing bridge Pier 4 between the BNSF railroad tracks and the south side of the river. At this location, the base of the existing pier will be left intact, because it is serving as a retaining wall for the railroad fill prism. Removing it could destabilize the railroad tracks. Some bank stabilization below this pier (between the pier and the river) may be installed. A final decision about this armoring has not been made at the time of this analysis, so it is assumed that up to 100 cubic yards of angular riprap may be used on the riverbank to stabilize the slope around the portion of the existing pier to remain.

In addition, a type of temporary work trestle is required to be installed across the river in order to decommission the existing bridge and aid in the construction of the new bridge. This temporary bridge is required to be in place for an estimated two consecutive construction seasons. As a result, the temporary bridge will need to be designed to appropriate construction standards, such as the ability to withstand the 100-year flood flow event, a 3-foot clearance from the bottom of the deck to the 100-year water elevation to pass debris, a woody debris/ice management plan, allowance for fish/recreational passage, minimization of river bed disturbance, etc. A typical industry standard temporary work trestle would install up to 60 steel piles to support the trestle structure. The piles are anticipated to be up to 24 inches in diameter and driven using a vibratory hammer, but may need to be proofed with an impact hammer. It is anticipated that up to four piles can be driven per day.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

[\[help\]](#)

Yes, erosion could occur as a result of the project from exposed cut/fill areas. However, measures will be in place to reduce and control erosion and addressed in the temporary erosion and sediment control plan and the Stormwater Pollution Prevention Plan (SWPPP). These measures will be in place until the site is stabilized.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

Existing impervious surface: 100,000 square feet (2.30 acres)

Proposed impervious surface: 129,175 square feet (2.97 acres)

Net new impervious surface resulting from the project: 29,175 square feet (0.67 acres)

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Erosion and sedimentation will be controlled through the implementation of temporary erosion and sediment control (TESC) measures and best management practices (BMPs) utilizing the Department of Ecology's *Stormwater Management Manual for Eastern Washington* and the WSDOT's *Highway Runoff Manual* as guidance. The Department of Ecology's Construction Stormwater Permit will be obtained, thus requiring a Stormwater Pollution Prevention Plan (SWPPP) to be prepared for this project that will discuss appropriate means to reduce and control potential erosion impacts before, during, and after construction. The SWPPP will be created before project construction is initiated and appropriate TESC measures and BMPs will be in place before earthwork begins. Alterations of the SWPPP over the duration of the project may be required to eliminate any potential erosion impacts and sediment-laden runoff leaving the project site.

Some examples of TESC measures and BMPs that may be implemented for this project include: detailing the project limits on the construction plans, straw wattles, silt fencing, check dams, erosion

control blankets, stabilized culvert outfalls, culvert inlet protection, high visibility fencing, detention/retention ponds, and grass lined swales.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [\[help\]](#)

Minor dust, internal combustion engine emissions, and odors typical of diesel equipment may be in the air during construction. After the project is complete, air emissions typical of any other surrounding roadways will be present, which includes dust and engine emissions. All construction emissions will be short term and not present once the project is complete.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

No known offsite sources of emissions or odor will affect this project.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

BMPs will be implemented during construction activities to reduce and control air emissions. These practices may include watering exposed soils, sweeping street surfaces, minimizing soil exposed to wind, using rock base course where feasible, using construction equipment equipped with standard mufflers, and turning off equipment when not in use.

3. Water [\[help\]](#)

- a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [\[help\]](#)

The Wenatchee River is within the immediate project vicinity. The confluence between the Wenatchee River and the Columbia River is approximately 10 miles further downstream from the project area. In addition to the Wenatchee River, four riverine wetlands exist within 200 feet of the West Cashmere Bridge. No impacts to these riverine wetlands are anticipated. An artificial, non-regulated wet area exists near Hay Canyon Road on private property. This wet area will be filled as a result of this project.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [\[help\]](#)

The majority of the bridge replacement work will occur over, in, or adjacent to the Wenatchee River. In-water work at the proposed bridge location is estimated to occur over a period of two construction seasons. Primary in-water work activities for this project will be limited to the demolition of the existing center pier in the river and the installation of a new support column in the similar location. Approximately 40 cubic yards of existing concrete and other material will be removed from the existing pier pile cap for installation of the new pier. At this time, the remaining portion of the pile cap below the mud line is proposed to be left in place. An approximately 40 feet long and 20 feet wide cofferdam is proposed to surround the in-water pier pile cap. It is assumed that the cofferdam will be constructed of reinforced sheet pile or similar design sufficient to withstand wintertime flows in the Wenatchee River in between construction seasons.

Demolition of the on shore piers of the existing bridge is anticipated to be isolated from

the water by cofferdam or other technique. The northern bridge abutment is at or just below the OHWM of the river, but is outside the wetted perimeter during low flow condition. Other activities to occur below the OHWM will include cofferdam installation, dewatering, potential installation of up to 100 cubic yards of riprap to protect the pier adjacent to the BNSF tracks, removal of debris from demolition, and installation and removal of the work trestle.

In addition, a type of temporary work trestle is required to be installed across the river in order to decommission the existing bridge and aid in the construction of the new bridge. This temporary bridge is required to be in place for an estimated two consecutive construction seasons. As a result, the temporary bridge will need to be designed to appropriate construction standards, such as the ability to withstand the 100-year flood flow event, a 3-foot clearance from the bottom of the deck to the 100-year water elevation to pass debris, a woody debris/ice management plan, allowance for fish/recreational passage, minimization of river bed disturbance, etc. A typical industry standard temporary work trestle would install up to 60 steel piles to support the trestle structure. The piles are anticipated to be up to 24 inches in diameter and driven using a vibratory hammer, but may need to be proofed with an impact hammer. It is anticipated that up to four piles can be driven per day.

All in-water work would occur during the WDFW approved fish work window, which is anticipated to be between July 15 and September 30, but will be determined ultimately by consultation with the permitting agencies.

Proposed project plans are enclosed.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [\[help\]](#)

See Question 2 above for quantities of material placed in or removed from surface water. No impacts to wetlands are anticipated with this project. In compliance with the 2018 WSDOT *Standard Specifications for Road, Bridge, and Municipal Construction*, the contractor will be responsible for obtaining fill that meets project and contract requirements.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

Once the temporary cofferdam is installed, water within the containment structure will need to be diverted or pumped out in order to remove the existing pier and construct the new pier. Depending on the quality of the water, it may be returned to the Wenatchee River or conveyed to an upland area to remove sediment before re-entering the river.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

Yes, the bridge replacement project is within FEMA's 100-year floodplain for the Wenatchee River. See enclosed project plans.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [\[help\]](#)

As a result of implementing minimization measures, no waste materials are proposed to enter surface waters.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

The bridge replacement project does not propose to withdraw any groundwater from a well. A water truck will likely be utilized for different aspects of the project and will be filled by using adjacent fire hydrants.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [\[help\]](#)

No waste material is proposed to be discharged into the ground from septic tanks or other sources.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [\[help\]](#)

Stormwater runoff from the proposed project will be treated in compliance with the design standards set forth in the WSDOT *Highway Runoff Manual* (WSDOT 2016) and/or the Washington State Department of Ecology (Ecology) *Stormwater Management Manual for Eastern Washington* (Ecology 2004). Stormwater will be captured (catch basins) and conveyed (piping/ditches) to treatment facilities where it will be infiltrated into the ground via a dry well system (southern side of the project) or an infiltration pond (northern side of the property). As a result of the sizing of stormwater facilities, there will not be a direct stormwater discharge to any surface water (i.e. Wenatchee River).

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

According to Department of Ecology well logs, ground water is estimated to be located on average 50 feet below ground surface. As a result, it is anticipated that by the time stormwater reaches this depth, treatment will have had occurred through the vadose zone - eliminating any potential water quality impact.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [\[help\]](#)

When this project is complete, drainage patterns within the project area will be altered with the addition of a system to capture (catch basins), convey (underground piping) and treat (dry well and infiltration pond) stormwater runoff.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [\[help\]](#)

As stated in Question 3 above, the installation of an appropriately sized stormwater system will prevent uncontrolled runoff flowing through the area.

4. Plants [\[help\]](#)

a. Check the types of vegetation found on the site: [\[help\]](#)

- deciduous tree: alder, maple, aspen, other: Siberian elm and black cottonwood
- evergreen tree: fir, cedar, pine, other
- shrubs: Hemp dogbane, pacific willow
- grass: Reed canary grass, horsetail, Kellogg sedge.
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation: Vegetation typical of residential landscaping

b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

The project will permanently remove up to approximately 20 trees along the existing streambanks or on adjacent properties, as a result of the proximity to the existing and new bridge structures. This impact assumes a temporary disturbance area extending approximately 40 feet around the bridge on the north and south banks. The largest tree to be removed is an approximately 60-inch diameter Siberian elm (*Ulmus pumila*) on the north bank, which is within 40 feet of the existing bridge. Total area of disturbance in these areas is approximately 10,000 square feet. Staging areas will be located in previously disturbed areas, including the open parcel northwest of the intersection of US 2 and Hay Canyon Road, as well as the north approach to the existing bridge (after the road is closed). These areas currently do not support native vegetation. In addition, a small area of landscaped vegetation in front of residences at the intersection of Goodwin Road and Ruby Street is proposed to be removed.

c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

According to the DNR database, there are no known threatened or endangered plant species known to be on or near the site.

According to WDFW's Priority Habitat and Species website, "Wenatchee/Peshastin Riparian Strip" may be found within the project area. This habitat is not considered threatened and/or endangered.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

Any exposed soils in close proximity to the Wenatchee River will be stabilized with hydroseeding and/or native plants. Any exposed soils elsewhere in the project area with a high risk of erosion will be stabilized with erosion fabric and hydroseeding. Additionally, the existing northern approach and exit from US 2 to Goodwin Road will be abandoned. This area will be restored with native vegetation.

e. List all noxious weeds and invasive species known to be on or near the site. [\[help\]](#)

According to Chelan County's noxious weed board, there are no known noxious or invasive species known to be on or near the site.

5. **Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [\[help\]](#)

Examples include:

birds: [hawk](#), [heron](#), [eagle](#), [songbirds](#), [other](#): [Osprey](#)

mammals: [deer](#), bear, elk, beaver, other:

fish: bass, [salmon](#), [trout](#), herring, shellfish, [other](#): [Whitefish](#)

- b. List any threatened and endangered species known to be on or near the site. [\[help\]](#)

Steelhead trout, spring Chinook salmon, bull trout

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

Yes the project area, specifically the Wenatchee River, is considered a migration corridor for threatened and endangered fish species (steelhead trout, spring Chinook salmon, bull trout) who utilize this river to access water higher in the Wenatchee watershed. Additionally, according to WDFW's Priority Habitat and Species website, the following may be found in the project area:

- Sockeye;
- Westslope cutthroat;
- Rainbow trout; and
- Mule Deer Historic Winter Range.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

The project will improve hydraulics in the river by reducing the size of the in-channel pier and removing the pier on the north bank - reclaiming some floodplain functions; the existing northern approach and exit from US 2 to Goodwin Road will be abandoned and restored with native vegetation; and unlike currently where stormwater is allowed to enter the Wenatchee River, a system will be designed in order to collect all infiltrate stormwater from the project corridor; and lastly, the temporary work trestle will have the ability to allow fish passage during all times of the year.

- e. List any invasive animal species known to be on or near the site. [\[help\]](#)

None known at this time.

6. **Energy and Natural Resources** [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [\[help\]](#)

Once the project is complete, electricity may be needed for illumination of the roadway.

- b. Would your project affect the potential use of solar energy by adjacent properties?

If so, generally describe. [\[help\]](#)

No, the completed bridge replacement will not affect the potential use of solar energy by adjacent properties.

- c. What kinds of energy conservation features are included in the plans of this proposal?

List other proposed measures to reduce or control energy impacts, if any: [\[help\]](#)

- LED illumination will be utilized in street lighting in order to conserve energy.

- Instead of a stop light/4-way intersection, a roundabout will be constructed decreasing idling vehicles.
- A sidewalk will be provided in the project corridor to encourage pedestrian use.

7. Environmental Health [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [\[help\]](#)

Environmental health hazards typical of any bridge/roadway use will be present as a result of this project. Emergency response professionals in Chelan County are trained to respond to environmental health hazards if they occur.

- 1) Describe any known or possible contamination at the site from present or past uses.

[\[help\]](#)

Based upon results of soil sampling conducted as part of a hazardous materials study, lead and arsenic are present in a former orchard area (northwest of the intersection between Hay Canyon Road and Sunburst Lane) at concentrations in shallow site soils that exceed Washington's Model Toxics Control Act (MTCA) Method A cleanup levels. A plan to address these materials has been developed during project design and will be implemented during construction. In addition to the orchard, a former gas station was present in this general location and the project area. Past decommissioning activities were deemed "satisfactory" by the Department of Ecology and analyzed soil samples for this project did not indicate the presence of petroleum contaminants at greater than cleanup levels. However, buried inert waste/debris is present at locations believed to have been excavations made when underground storage tanks were removed.

The Phase 1 and Phase 2 Hazardous Materials Study can be provided upon request.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [\[help\]](#)

Besides details provided in Question 1 above, no other hazardous chemical/conditions are known.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [\[help\]](#)

Chemicals typical of roadway construction will be onsite during construction on a short-term basis. These chemicals may include, but not limited to, petroleum products, hydraulic fluid, asphalt, roadway striping painting, etc. These products are required to be staged a minimum of 200 feet from surface waters. Once the project is complete, any staged chemicals will be removed.

No toxic or hazardous chemicals will be stored, used, or produced during the operating life of the proposed new bridge.

- 4) Describe special emergency services that might be required. [\[help\]](#)

Specials emergency services beyond what is currently being conducted within Chelan County is not anticipated.

5) Proposed measures to reduce or control environmental health hazards, if any: [\[help\]](#)

Measures to reduce or control environmental health hazards will be addressed in the spill prevention plan, which will be required to be developed before the project begins. The spill prevention plan will detail what to do if a spill were to occur and spill cleanup/notification procedures.

b. Noise [\[help\]](#)

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

There are no known noise sources in the project area that are anticipated to affect this project. Within the project area, single-family residential, commercial/industrial lands, and two churches exist. Traffic on U.S. 2/97 is the dominant noise source near the north end of the project corridor and traffic on Goodwin Road and Sunset Highway is the dominant noise source near the south end of the project corridor.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [\[help\]](#)

Existing noise levels in the project area range from 51 to 61 dBA during the peak noise hour (4:00 p.m to 5:00 p.m). Under the 2040 No-Build Alternative, noise levels would increase with the expected growth in traffic volumes, ranging from 52 to 62 dBA.

Under the 2040 Build Alternative, traffic noise levels in certain areas are predicted to increase by up to 6 dBA ranging between 54 and 65 dBA when compared to the existing noise levels. In general, the traffic noise levels would increase with expected growth in traffic volumes, the introduction of the new bridge-to-Hay Canyon Road connector at the north end, and the increase in heavy truck traffic usage of Goodwin Road once those vehicles are allowed to use the new bridge. Currently, heavy trucks are prohibited from using the existing bridge to travel from Hay Canyon Road to Goodwin Road, or vice versa. The proposed bridge would be constructed to allow for heavy trucks from Hay Canyon Road to Sunset Highway which is expected to increase traffic noise levels along Goodwin Road. The new connector at Hay Canyon Road would also introduce additional traffic noise near the entrance of the residential neighborhood.

Of note, the proposed project will reduce truck traffic, congestion, and lower noise levels throughout the City of Cashmere limits because of the ability to utilize this bridge.

Construction

Construction noise for the proposed project improvements would result from normal construction activities. There are no city or county noise regulations that are applicable to the project operation or construction. Daytime construction noise is exempt from regulations in the Washington Administrative Code. Noise levels for construction activities can be expected to range from 70 to 95 dBA at locations 50 feet from the activities.

Current construction plans would require some limited nighttime construction activities, including the installation of the bridge girders. This nighttime work is necessary due to the high volumes of vehicles on U.S. 2/97. A construction noise variance from the local jurisdiction may be required to complete this task.

3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

The Federal Highway Administration (FHWA) traffic noise impact criteria, against which the project traffic noise levels are evaluated, are taken from Title 23 of the Code of Federal Regulations (CFR) Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. The FHWA criterion applicable for residences is an exterior hourly equivalent sound level that approaches or exceeds 67 dBA. The exterior criterion for places of worship, schools, recreational uses, and similar areas is also 67 dBA. The criterion applicable for hotels, motels, offices, restaurants/bars, and other developed lands is an exterior Leq that approaches or exceeds 72 dBA. There are no FHWA traffic noise impact criteria for retail facilities, industrial, warehousing, undeveloped lands that are not permitted, or construction noise. No traffic noise analysis is required for those uses for which no criteria exist.

Washington State Department of Transportation (WSDOT) considers a predicted sound level of 1 dBA below the noise abatement criteria (NAC) as sufficient to satisfy the condition of “approach,” or approaching the NAC, required by FHWA for all land use categories. For example, where the NAC is 67 dBA for outdoor use at a residence, a noise level of 66 dBA is considered an impact. Impacts at places of worship, schools, and recreational areas also occur at 66 dBA or higher in Washington. Hotel/motel, office building, and restaurant/bar impacts occur at 71 dBA or higher.

The Build modeled noise levels are predicted to range from 54 to 65 dBA. No modeled receiver locations under the Build alternative would meet or exceed NAC. Because no traffic-noise-related impacts are predicted under the Build Alternative, no noise abatement was considered or is recommended for this project.

Construction

The following is a list of potential construction noise mitigation measures that could be implemented as part of this project:

- Require all engine-powered equipment to have mufflers that were installed according to the manufacturer’s specifications.
- Require all equipment to comply with pertinent EPA equipment noise standards.
- Limit jackhammers, concrete breakers, saws, and other forms of demolition to daytime hours of 7:00 a.m. to 7:00 p.m. on weekdays, with more stringent restrictions on weekends.
- Minimize noise by regular inspection and replacement of defective mufflers and parts that do not meet the manufacturer’s specifications.
- Install temporary or portable acoustic barriers around stationary construction noise sources and along the sides of the temporary bridge structures, where feasible.
- Where possible, schedule the construction of the residential noise barriers early in the project. In some jurisdictions, this may be a requirement in order to get any noise variances.
- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in complaints.
- Notify nearby residents whenever extremely noisy work would be occurring.
- Use broadband back-up alarms or restrict the use of back-up beepers during evening and nighttime hours and use spotters. In all areas, Occupational Safety and Health

Administration (OSHA) will require back-up warning devices and spotters for haul vehicles.

- Use pile driving noise shroud and/or employ auguring techniques where possible to limit effects of pile driving.
- Additional noise mitigation measures might be implemented as more details on the actual construction processes are identified.

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)

The existing West Cashmere Bridge travels southeast to northwest and consists of eight spans with two piers within the 100-year water surface extents. Additionally, a Burlington Northern-Santa Fe rail line is located below. Properties north and south of the project area are developed and occupied by a combination of residential and commercial units. The Hay Canyon portion of the project area consists of cleared upland formerly used as an orchard and a gas station/convenience store.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)

From approximately 1957-1983, the parcel located northwest of the intersection between Hay Canyon Road and Sunburst Lane (northern project area) was used as a working orchard. Since then, the trees have been removed and the parcel has remained as maintained grass. There are no working forest lands in the project area.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [\[help\]](#)

No, the completed project will not affect or be affected by surrounding working farms or forest land business operations. When the replacement bridge is completed, it will assist in getting orchard/agriculture deliveries to distribution warehouses in a more efficient manner.

- c. Describe any structures on the site. [\[help\]](#)

Besides West Cashmere Bridge itself, an old packing shed exists on one piece of property the county may purchase for this project.

- d. Will any structures be demolished? If so, what? [\[help\]](#)

Both the West Cashmere Bridge and the old packing shed will be removed.

- e. What is the current zoning classification of the site? [\[help\]](#)

Rural Commercial, Suburban Residential, and Mixed Commercial – Light Industrial.

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

Rural Commercial, Suburban Residential, and Mixed Commercial – Light Industrial.

- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

Urban (south) and Conservancy (north) designation

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)

Yes. There are a number of wetlands within the project vicinity, in addition to the Wenatchee River.

i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

Not applicable.

j. Approximately how many people would the completed project displace? [\[help\]](#)

No displacement of people is necessary.

k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

Not applicable.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

The project will not change any land use classifications in the area and, once complete, will be consistent with the surrounding land uses.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: [\[help\]](#)

There are no impacts to agricultural and forest lands of long-term commercial significance, therefore there are no measures to reduce or control impacts.

9. Housing [\[help\]](#)

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)

The replacement bridge project will not create any housing units.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)

Not applicable.

c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

Not applicable.

10. Aesthetics [\[help\]](#)

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)

The new bridge will be the tallest structure relating to this project, as both the north and south approaches are lower in elevation. The highest elevation of the new bridge will be at 856 feet (above sea level), while the existing elevation is 844 feet – an approximate 12-foot difference. While no buildings are proposed, the bridge will be made out of a combination of steel and concrete and the final color is unknown.

b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

The southern side of the project will observe an elevation change to the bridge roadway approach. Goodwin Road will be raised by the use of barriers and retaining walls for added structural stability. The northern side of the project will convert an open field into a roadway, which will include a roundabout. Overall, approximately 10,000 square feet of vegetation that surrounds the Wenatchee River will need to be removed for this bridge replacement project.

b. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

Bridge replacement design has attempted to minimize aesthetic impacts within the project area. This includes, conducting alternatives analysis to determine the most appropriate and cost-effective location for the replacement bridge, limiting pavement width to only what is necessary to ensure safety to the public, and only removing vegetation that is necessary.

11. Light and Glare [\[help\]](#)

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

In addition to the changes to the bridge, the northern approach to the bridge and the associated intersection at Hay Canyon Road and US 2 will be modified. Under the proposed project, Goodwin Road will pass over US 2 and come down into a new roundabout centered across from the private access road to an adjacent neighborhood. The roundabout will connect Goodwin Road to Hay Canyon Road, as well as the frontage road adjacent to US 2 – Sunburst Lane. This, in addition to street lighting, may make light or glare more noticeable during nighttime hours for certain property owners.

b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

See response in 11a. Street lighting and vehicles headlights should not create a safety hazard for the traveling public. It is not anticipated views will be impacted from light or glare, only more noticeable because the new roadway configuration changes the way the current lighting is viewed.

c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

Off-site sources of light or glare are not anticipated to affect the proposed West Cashmere Bridge Replacement Project.

d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

The project team is investigating a number of alternatives to minimize potential light and glare that may become more noticeable from the West Cashmere Bridge replacement project. These alternatives may include, but not be limited to, implementing techniques such as glare screens at locations along the corridor or planting vegetation at strategic locations.

12. Recreation [\[help\]](#)

a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

Biking, running, hiking, river rafting, canoeing, and fishing are all available within the vicinity of the project.

b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

No existing recreational uses will be displaced as a result of the project. Some activities, such as river rafting, may need to temporarily alter typical rafting routes in the project area over two seasons as a result of the temporary work trestle placed in the Wenatchee River. All efforts will be taken to ensure recreation in the area will continue.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

In-water work will be done in stages in order to minimize impacts to river recreational activities.

13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe. [\[help\]](#)

The West Cashmere Bridge was built in 1929 and is recommended eligible for the National Register of Historic Properties and the Washington Heritage Register. The packing shed is not recommended eligible for listing on historic registers.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)

On December 12, 2016, a cultural resource assessment and report (Cultural Resource Consultants Technical Memo 1609E-1, DAHP Project: 2016-07-05148 FHWA) was completed for the West Cashmere Bridge Replacement Project. The assessment was developed to identify any previously recorded archaeological or historic sites in the project location and to evaluate the potential for the project to affect cultural resources. Archaeologists conducted a pedestrian survey of the project and excavated 42 shovel test probes within the project boundary determining that there's a low probability for precontact materials or deposits and were negative for cultural resources. These findings were sent to interested Tribes and SHPO for review, comments, and concurrence with the findings.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [\[help\]](#)

Chelan County hired a consulting team with experience in transportation-related cultural resource investigations. Cultural Resource Consultants, LLC assessment methods consisted of review of available project information provided by Chelan County Public Works, local environmental, cultural, and historical information, and records on file at Department of Archaeology and Historic Preservation, as well as field investigations. In addition, CRC contacted cultural resources staff at the Colville Confederated Tribes and the Yakama Nation to inquire about any project specific concerns.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [\[help\]](#)

The Cashmere Area Transportation Study was completed in May 2015, which analyzed numerous alternatives ranging from relocating the bridge to a different location to complete removal of it. It was determined through a stakeholder group to replace the bridge in its current location. Because a historic bridge will be removed, there will be an adverse effect to historic properties. As a result, in October 2017, Chelan County in cooperation with the DAHP, WSDOT, and FHWA signed a Memorandum of Agreement that stipulated mitigation requirements. These mitigation requirements are as follows:

1. The COUNTY will survey and inventory at the intensive level all pre-1969 Chelan County-owned bridges that are longer than 50 feet. The inventory work will be conducted by a cultural resources professional meeting the Secretary of the Interior's

Professional Qualifications in the Architectural Historian, Historian, and/or Historic Architecture areas of expertise and will use DAHP's Historic Property Inventory (HPI) database in WISAARD and guidelines for Cultural Resource Survey and Inventory to record the bridges. The SHPO will be afforded an opportunity to review at least one draft of the HPIs of the pre-1969 bridges before final acceptance into WISAARD.

2. The COUNTY will coordinate with HistoryLink.org to prepare an essay on Maury M. Caldwell, the engineer who designed the West Cashmere Bridge and several other WSDOT historic bridges. The SHPO will be afforded an opportunity to review and comment on a draft of the essay before being uploaded onto the HistoryLink.org website.
3. Based on the historic bridge survey and inventory efforts (completed in fulfillment of stipulation 1), the COUNTY will develop a web page on historic bridges as part of the COUNTY's website. The web page on historic bridges shall be developed by a web site developer with demonstrated experience in graphic design to create an easy-to-use and attractive web-user interface. The COUNTY shall afford the SHPO an opportunity to review and comment on a draft of the web page.

Additionally, an inadvertent discovery plan (IDP) has been developed for use during construction. This plan will assist if any unanticipated cultural resource artifacts are found.

14. **Transportation** [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [\[help\]](#)

See enclosed vicinity map.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [\[help\]](#)

The immediate project area is not serviced by public transit. Approximately 1.3 miles to the east within the City of Cashmere is the closest Link Transit bus stop. The proposed project will not impact this public transit option, however project information will be relayed to Link Transit in order to keep them informed.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)

The project will not create parking, nor eliminate parking.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [\[help\]](#)

As detailed in the project descriptions, the completed bridge will have a roadway section that will consist of two 12-foot lanes, two 5-foot shoulders and a sidewalk on one side for a total width of 42 feet out-to-out. In addition to the changes to the bridge, the northern approach to the bridge and the associated intersection at Hay Canyon Road and US 2 will be modified. The existing northern approach and exit from US 2 to Goodwin Road will be abandoned. Under the proposed project, Goodwin Road will pass over US 2 and come down into a new roundabout centered across from the private access road to an adjacent neighborhood. The roundabout will connect Goodwin Road to Hay Canyon Road, as well as the frontage road adjacent to US 2 –

Sunburst Lane. The intersection with US 2 will still be signalized; however, the southern leg will be removed.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)

The West Cashmere Bridge crosses over a major Burlington Northern Santa Fe (BNSF) railroad line (crossings No. 084464L and No. 084462X), in addition to the Wenatchee River.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)

It is encouraged that the 2015 *Cashmere Area Transportation Study* and the 2016 *West Cashmere Bridge Replacement Project Type, Size, and Location Study* be reviewed for detailed transportation information. 2017 and 2040 vehicle volume data (ADT or average daily traffic) is provided in Table 1 below.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [\[help\]](#)

Current West Cashmere Bridge weight restrictions force freight traffic (agricultural products), bound for the west end of Cashmere, to travel through Cashmere's historic residential zone and school zones. These restrictions exacerbate the challenges for freight access and economic development for the City and the adjacent County lands, which rely heavily on an agricultural-based economy. When the bridge is replaced, it has been designed to accommodate truck traffic and will be the preferred truck route to access warehouse services for the agricultural community bypassing downtown Cashmere.

- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)

Both temporary and permanent measures are proposed to reduce and/or control transportation impacts relating to this project. These include, but are not limited to,

- Once the West Cashmere Bridge Replacement Project is complete, a reduction in vehicles may occur through downtown Cashmere, residential areas, and school zones.
- Alternative local bridges will remain as access options during bridge replacement construction.
- Once complete, the West Cashmere Bridge will continue to provide the only crossing over the BNSF railroad line.
- Delays to traffic on US 2 will be minimized by utilizing nighttime detours.
- Detour routes will be clearly signed throughout the project.

15. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [\[help\]](#)

Once this project is complete, it will be similar to existing conditions (i.e. infrastructure) and is not anticipated to need an increase in public services.

- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

No measures are proposed.

Table 1: 2017 & 2040 Traffic Volumes

Cashmere Area Transportation Study
 Cashmere, Washington
 Traffic Volume Worksheet - Weekday PM Peak Hour

Growth Rate	
All Vehicles:	1.2%

	A	B	C	D	E	F	G	H	I	J	
	Existing 2017 Traffic Volumes				Growth		Projected 2040 Total Traffic Volume				
	Existing 2017 Traffic Volumes	Existing 2017 Truck Volume	Existing 2017 Truck Percentage	Existing 2017 Passenger Car Volume	Truck Background Growth	Passenger Car Background Growth	Projected 2040 Total Traffic Volume	Projected 2040 Truck Traffic Volumes	Projected 2040 Truck Percentage	Projected 2040 Passenger Car Traffic Volumes	
1 US 2/Hay Canyon Rd											
Year: 2017											
SB	Approach	65	1	2%	64	23	532	620	24	4%	596
	Depart	55	2	4%	53	24	276	355	26	7%	329
WB	Approach	795	32	4%	763	13	302	1110	45	4%	1065
	Depart	765	30	4%	735	16	389	1170	46	4%	1124
NB	Approach	110	2	2%	108	-2	-108	0	0	-	0
	Depart	80	1	1%	79	-1	-79	0	0	-	0
EB	Approach	700	30	4%	670	11	244	955	41	4%	914
	Depart	765	32	4%	733	19	416	1200	51	4%	1149
2 US 2 EB off-ramp/Goodwin Rd											
Year: 2017											
SB	Approach	0	0	-	0	0	0	0	0	-	0
	Depart	0	0	-	0	0	0	0	0	-	0
WB	Approach	110	1	1%	109	-1	-109	0	0	-	0
	Depart	115	3	3%	112	-3	-112	0	0	-	0
NB	Approach	80	0	0%	80	0	-80	0	0	-	0
	Depart	110	1	1%	109	-1	-109	0	0	-	0
EB	Approach	35	3	9%	32	-3	-32	0	0	-	0
	Depart	0	0	-	0	0	0	0	0	-	0
4 Sunset Hwy/Goodwin Rd											
Year: 2017											
SB	Approach	120	0	0%	120	20	150	290	20	7%	270
	Depart	120	3	3%	117	18	412	550	21	4%	529
WB	Approach	215	10	5%	205	23	317	555	33	6%	522
	Depart	165	5	3%	160	11	134	310	16	5%	294
NB	Approach	0	0	-	0	0	0	0	0	-	0
	Depart	0	0	-	0	0	0	0	0	-	0
EB	Approach	120	5	4%	115	19	136	275	24	9%	251
	Depart	175	7	4%	168	17	78	270	24	9%	246

Column A: Existing 2017 Turning Movement Volumes
 Column B: Existing 2017 Truck Volumes
 Column C: Column B / Column A
 Column D: Column A - Column B
 Column E: Column H - Column B
 Column F: Column J - Column D
 Column G: Shifts plus 1.2% Annual Growth plus Local Industrial Development
 Column H: Shifts plus 1.2% Annual Growth plus Local Industrial Development
 Column I: Column H / Column G
 Column J: Column G - Column H

16. **Utilities** [help]

a. Circle utilities currently available at the site: [help]

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other: Fiber/cable _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

As a result of this project, the Chelan County PUD has proposed to add new underground (Hay Canyon Road and Vale Road) and overhead (Vale Road to Hagman Road over the Wenatchee River) distribution lines. Additionally, a new overhead high voltage transmission line (Hay Canyon Road, Vale Road, and Vale Road to Hagman Road over the Wenatchee River) will be installed. The existing overhead distribution line between Hay Canyon Road and Goodwin Road (over the Wenatchee River) will be eliminated. Once the West Cashmere Bridge Replacement Project is complete, the public will continue to have the utility services that they presently have.

During construction of the new bridge, intermittent power outages may be needed for the proposed utility work.

C. Signature [help]

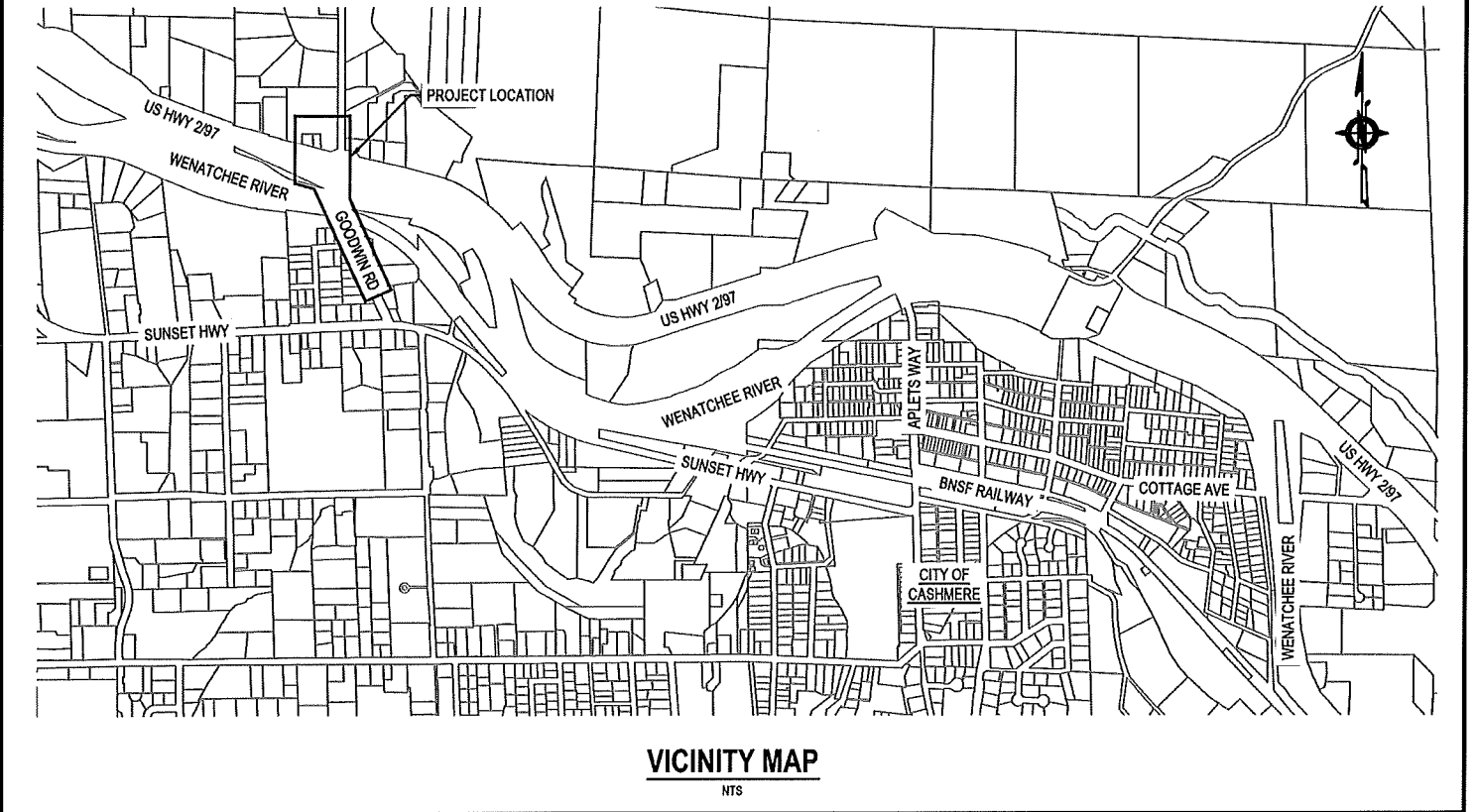
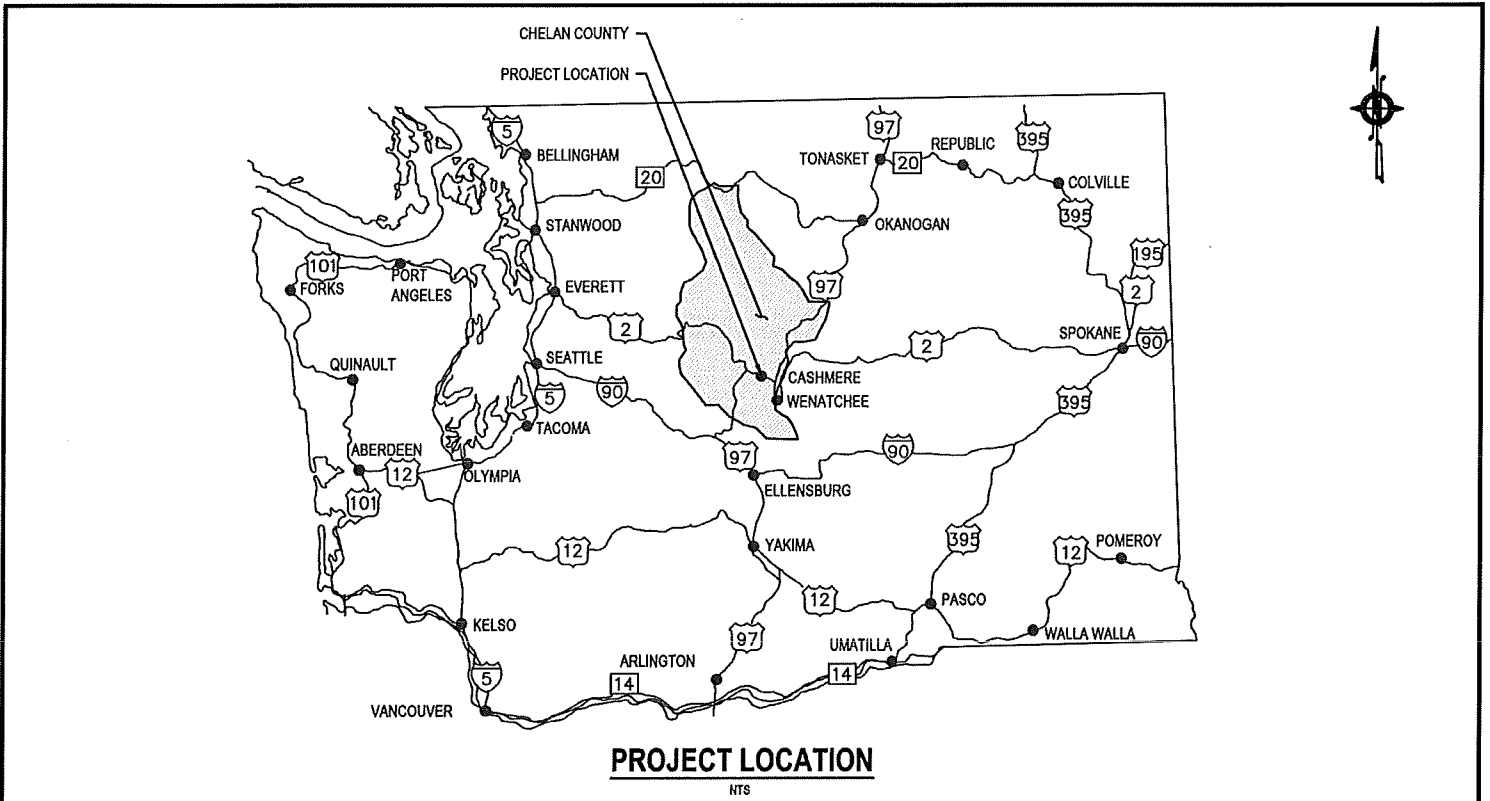
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signer JASON DETAMORE

Position and Agency/Organization ENVIRONMENTAL MANAGER / CHELAN COUNTY PUBLIC WORKS

Date Submitted: 15-MAY-2018



SCALE: NTS

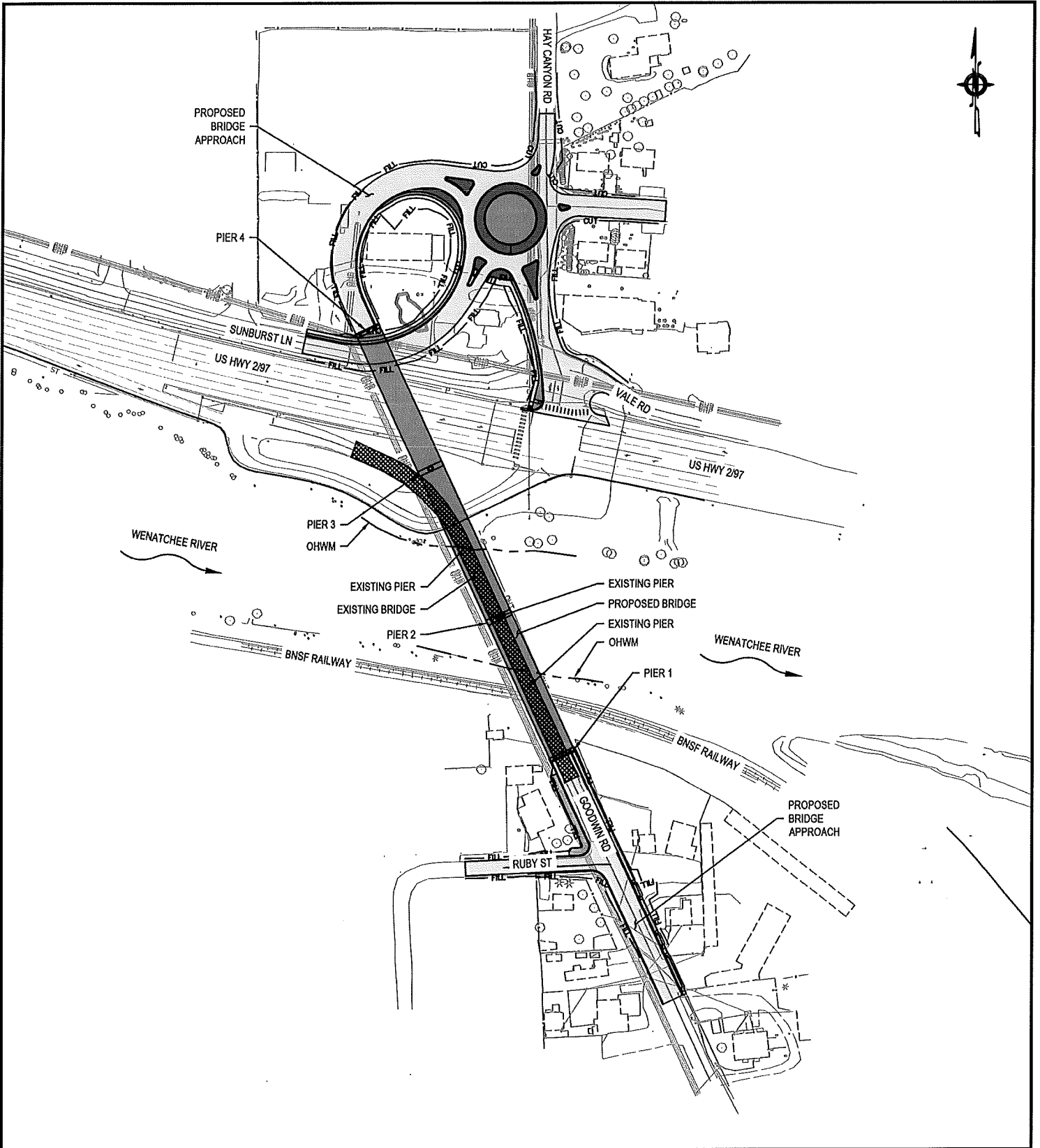
DRAWING IS FULL SCALE WHEN BAR MEASURES 1"

PLOT DATE: 5/14/2018 PAGE 1 OF 1
 J:\data\TRAN\215-054\CAD\Exhibits\LRPA Exhibits AutoCAD
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- APPLICANT: CHELAN COUNTY
- WATERWAY: WENATCHEE RIVER
- SECTION 32 TOWNSHIP 24N RANGE 18E
- CASHMERE, CHELAN COUNTY, WA 98815
- IMPROVEMENTS NEAR US HWY 297, MP 110 TO MP 111
- (47.525417, -120.48582) SOUTH END OF PROJECT
- (47.529169, -120.49088) NORTH END OF PROJECT

FIGURE 1- PROJECT LOCATION

WEST CASHMERE BRIDGE REPLACEMENT PROJECT

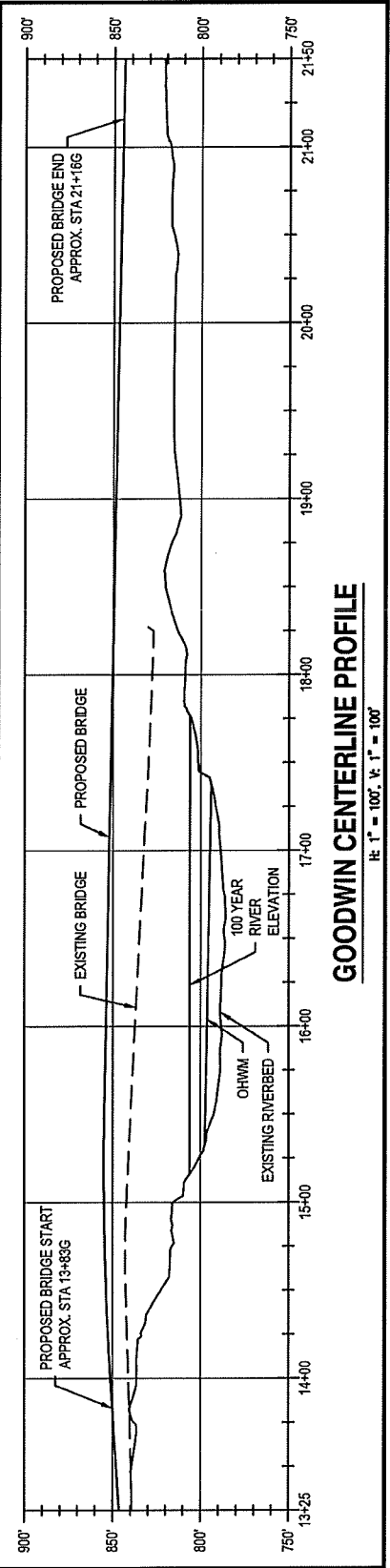
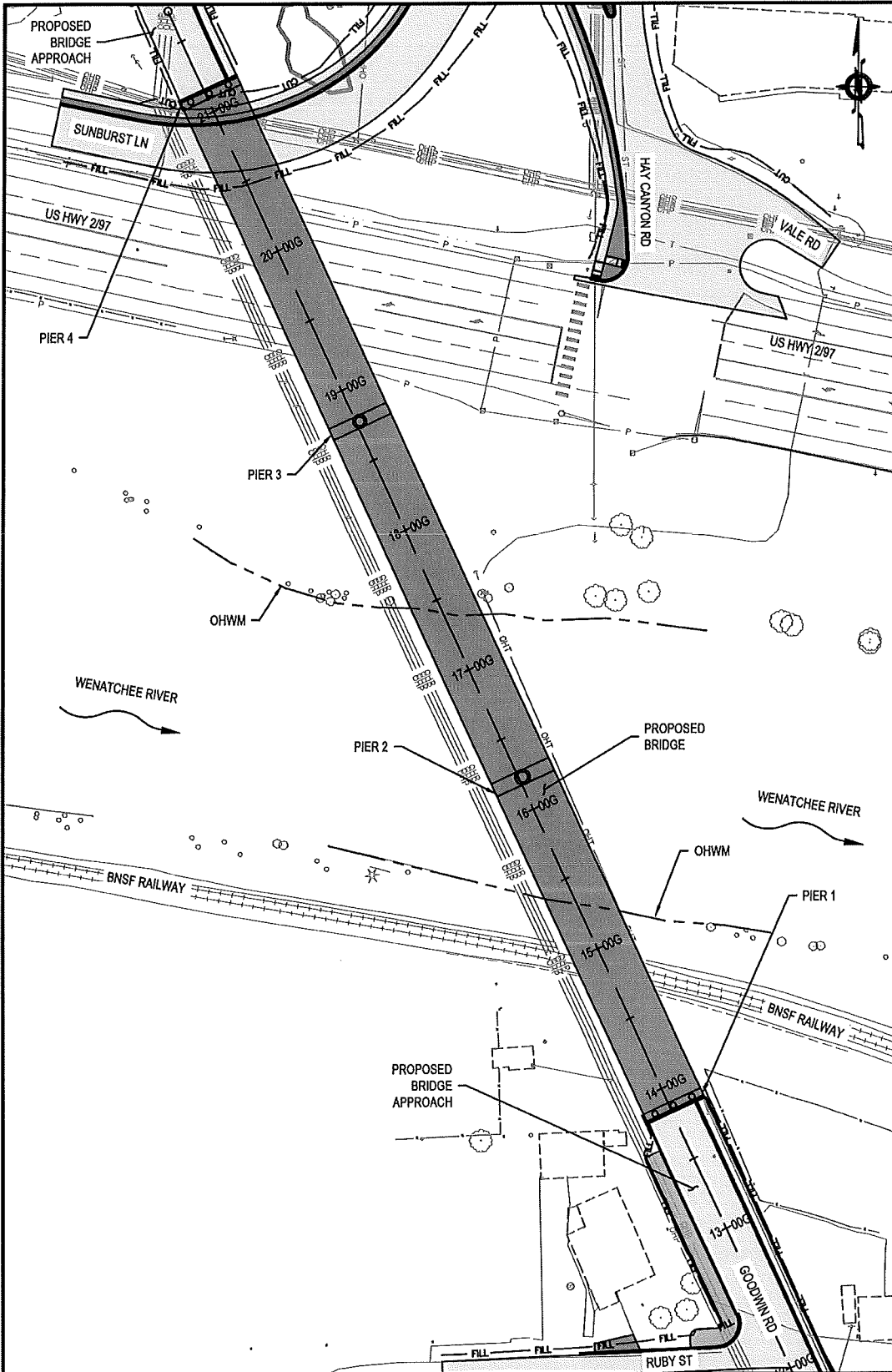


- APPLICANT: CHELAN COUNTY
- WATERWAY: WENATCHEE RIVER
- SECTION 32 TOWNSHIP 24N RANGE 19E
- CASHMERE, CHELAN COUNTY, WA 98815
- IMPROVEMENTS NEAR US HWY 297, MP 110 TO MP 111
- (47.525417, -120.48582) SOUTH END OF PROJECT
- (47.529169, -120.49088) NORTH END OF PROJECT

FIGURE 2 - EXISTING VS. PROPOSED BRIDGE LAYOUT

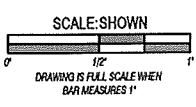
1" = 200'

WEST CASHMERE BRIDGE REPLACEMENT PROJECT



GOODWIN CENTERLINE PROFILE

H: 1" = 100'; V: 1" = 100'

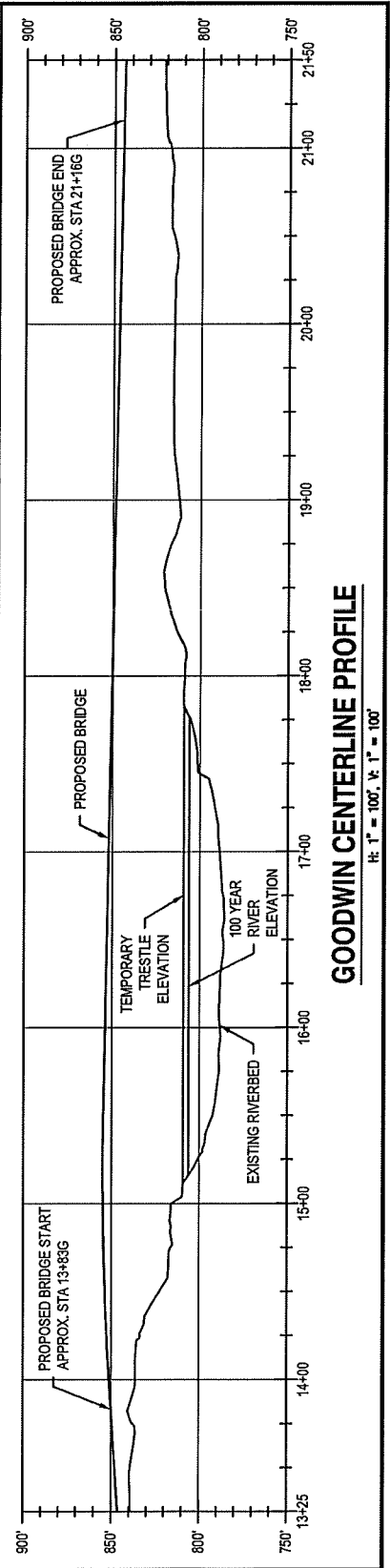
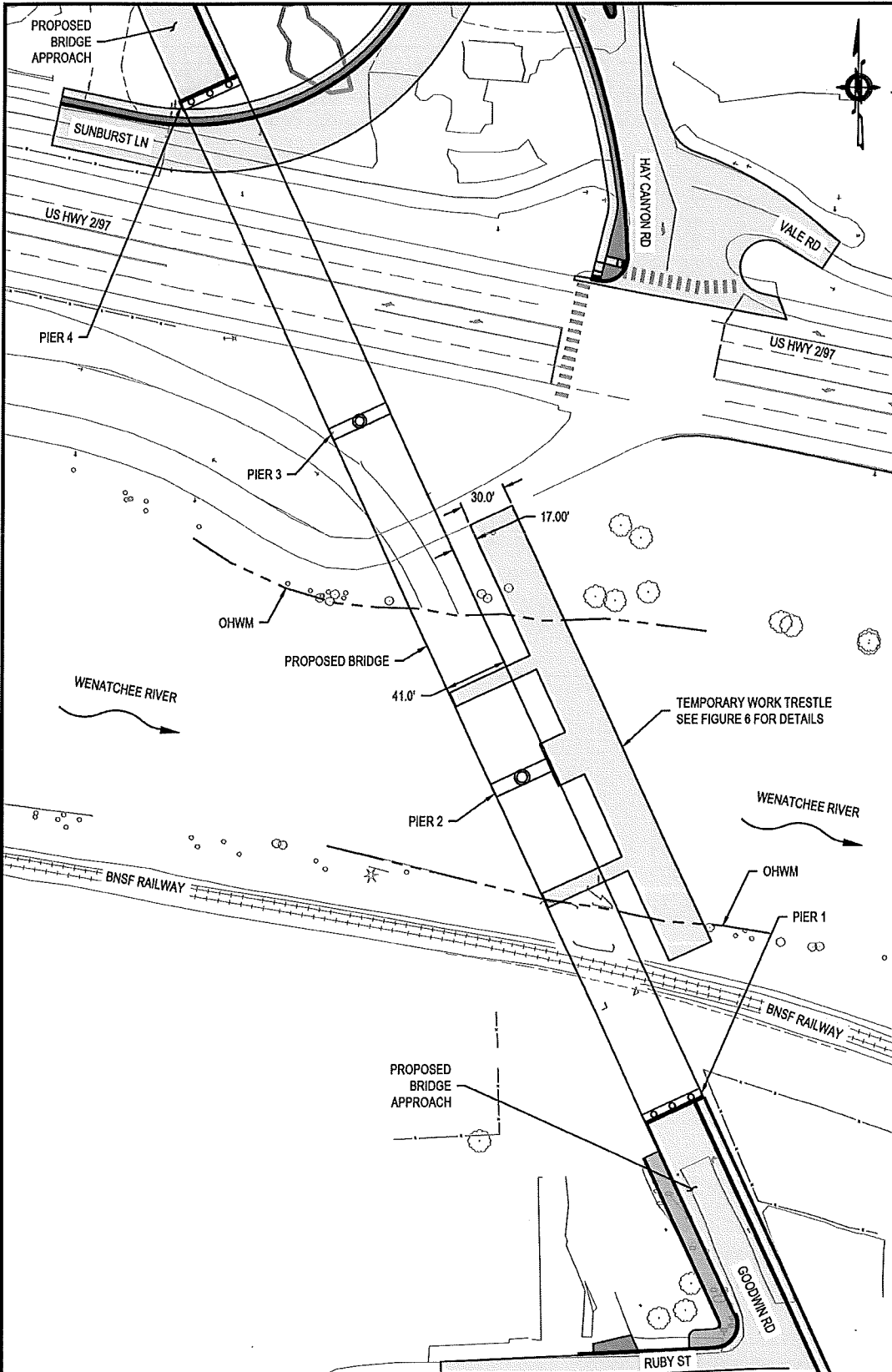


- APPLICANT: CHELAN COUNTY
- WATERWAY: WENATCHEE RIVER
- SECTION 32 TOWNSHIP 24N RANGE 19E
- CASHMERE, CHELAN COUNTY, WA 98815
- IMPROVEMENTS NEAR US HWY 297, MP 110 TO MP 111
- (47.525417, -120.48582) SOUTH END OF PROJECT
- (47.529169, -120.49088) NORTH END OF PROJECT

FIGURE 3 - PROPOSED BRIDGE PLAN & PROFILE

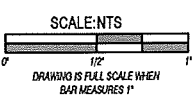
1" = 100'

WEST CASHMERE BRIDGE REPLACEMENT PROJECT



GOODWIN CENTERLINE PROFILE

H: 1" = 100'; V: 1" = 100'

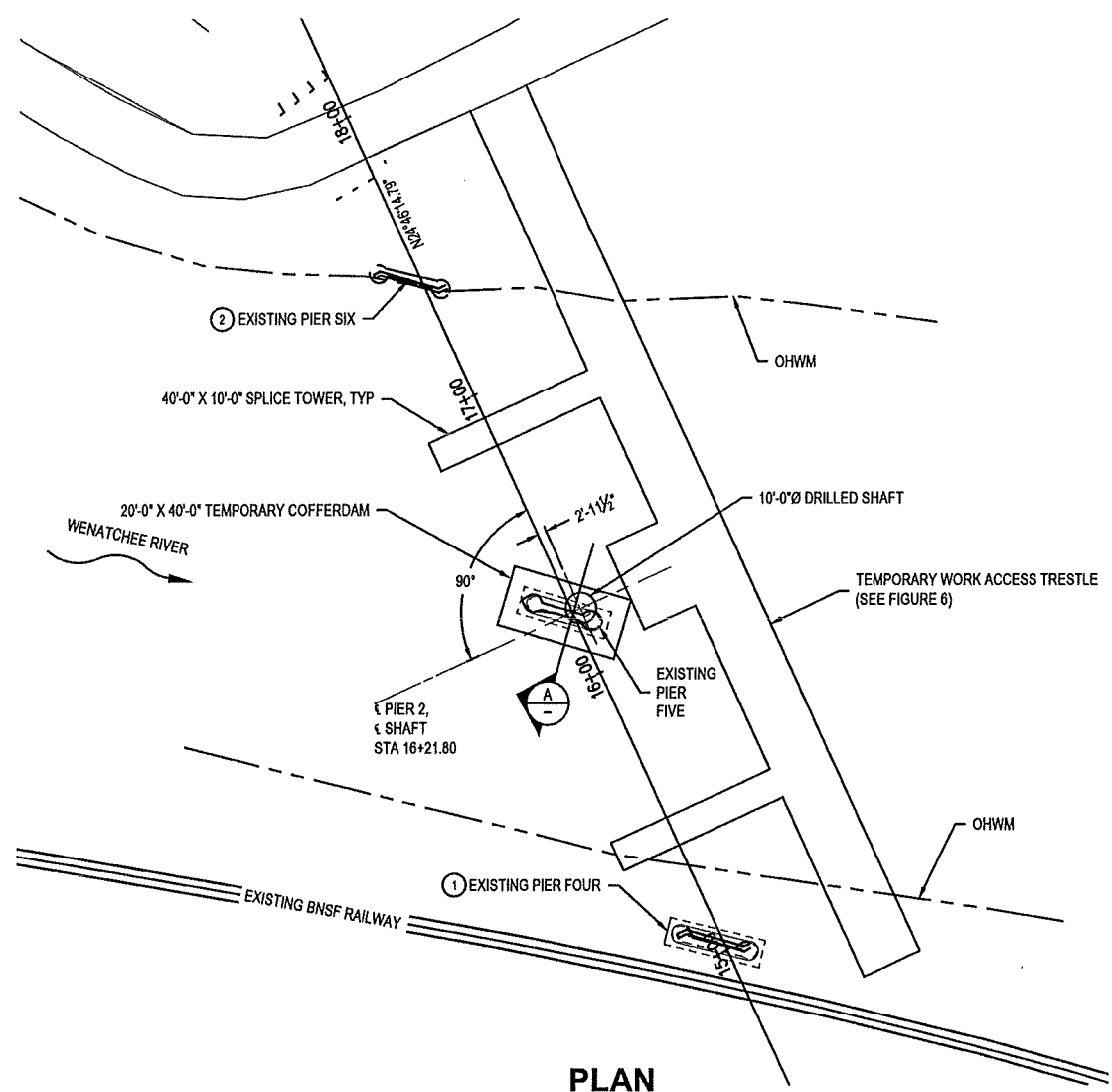


- APPLICANT: CHELAN COUNTY
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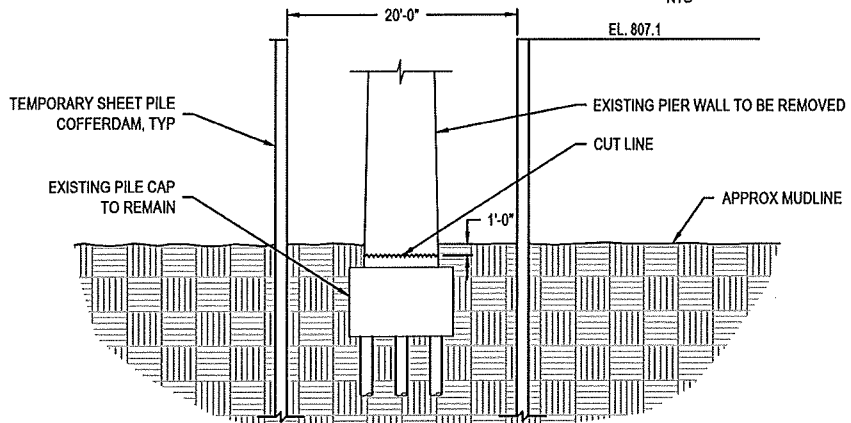
FIGURE 4 - TYPICAL TEMPORARY WORK TRESTLE

1" = 100'

WEST CASHMERE BRIDGE REPLACEMENT PROJECT

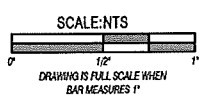


PLAN
NTS



SECTION
NTS

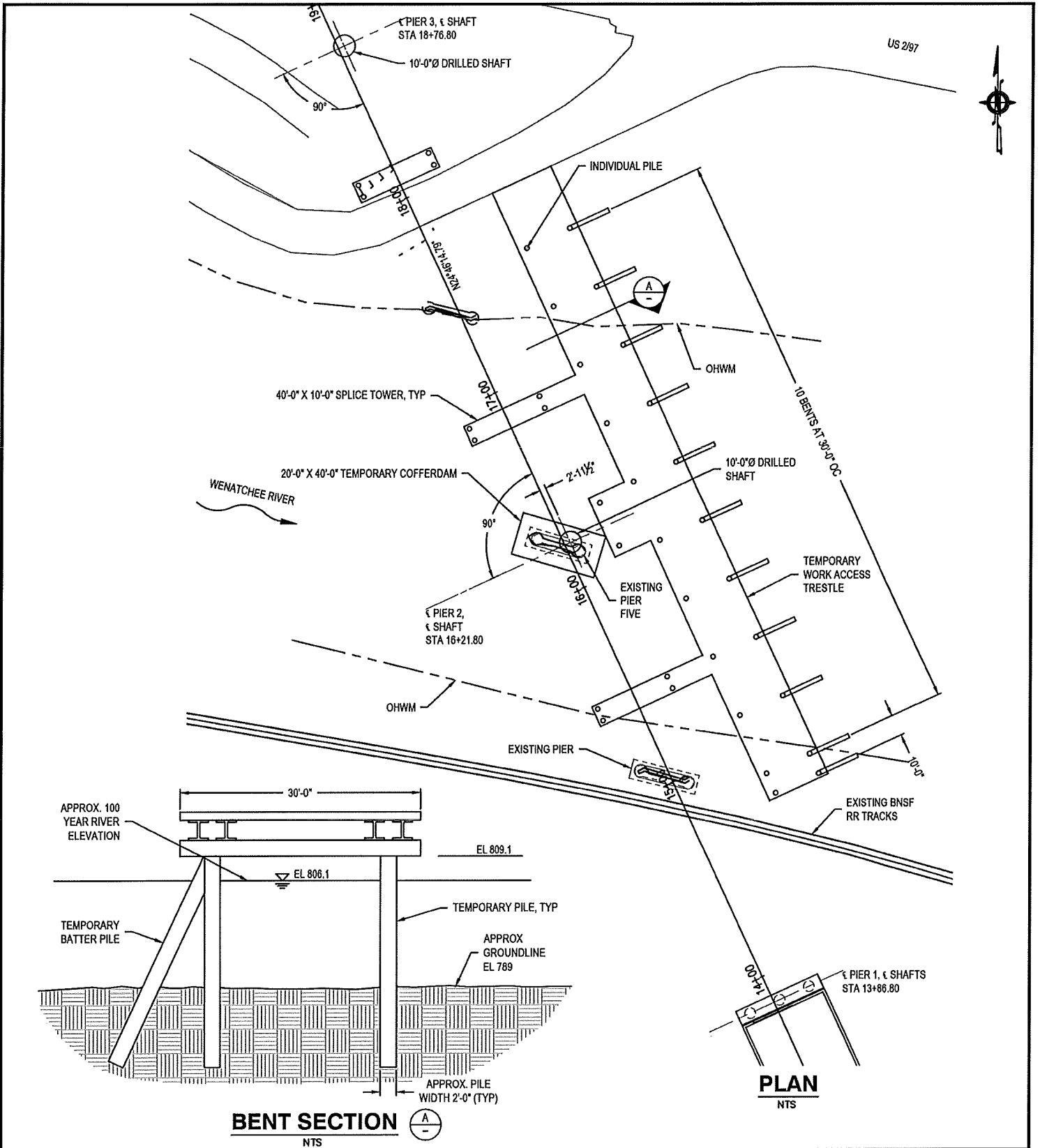
- ① EXISTING PIER TO BE CUT AT GROUND SURFACE. APPROXIMATELY 100 CUBIC YARDS OF RIP RAP BELOW OHWM TO PROTECT RAILWAY.
- ② EXISTING PIER TO BE ISOLATED FROM RIVER FLOW AND REMOVED 1'-0" BELOW MUD LINE.



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FIGURE 5 - COFFERDAM DETAILS

WEST CASHMERE BRIDGE REPLACEMENT PROJECT



SCALE: NTS

0' 1/2" 1'

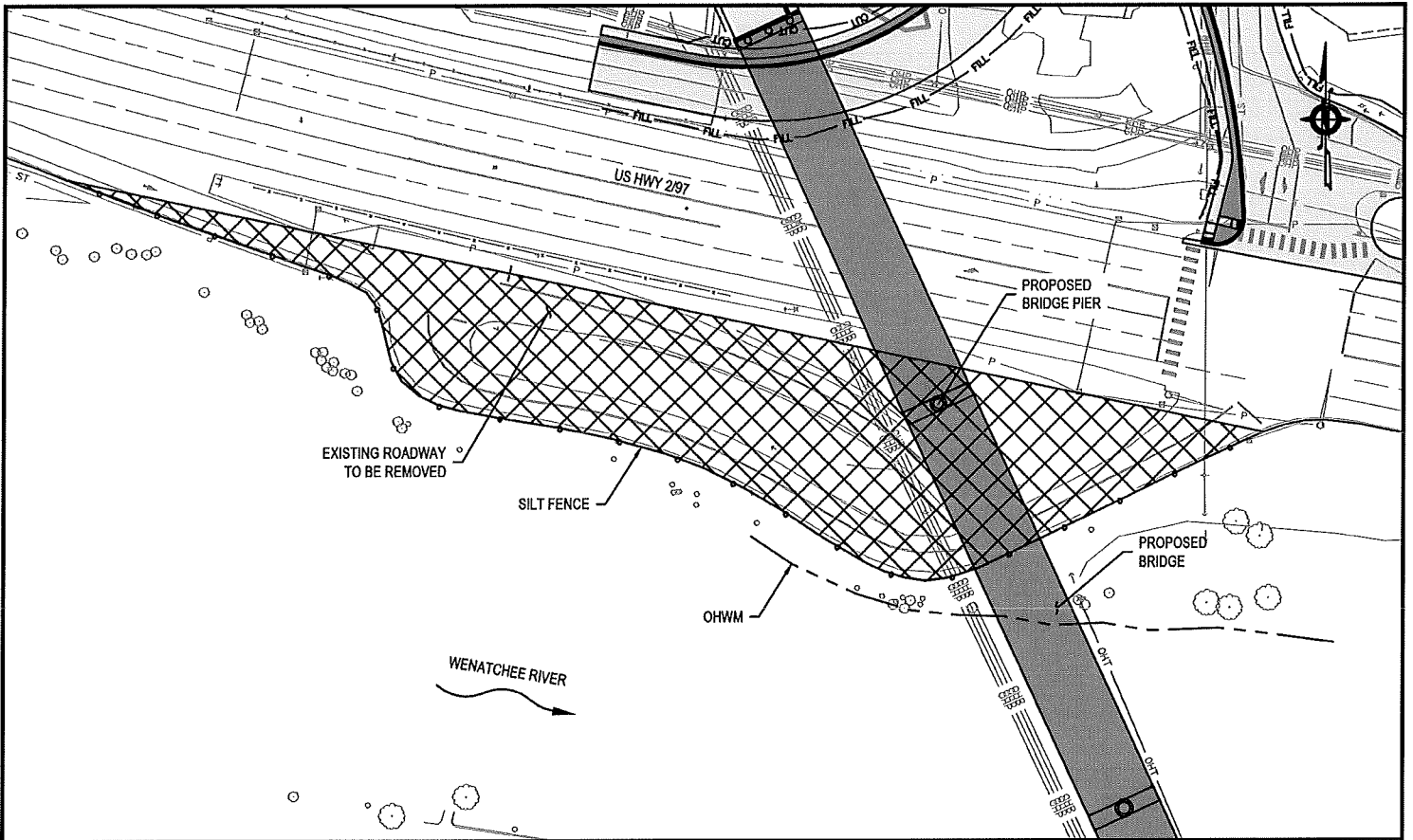
DRAWING IS FULL SCALE WHEN BAR MEASURES 1'

PLOT DATE: 5/14/2018 PAGE 1 OF 1
FILE PATH: J:\cadd\TRAN\216-054\CAD\Exhibits\ARPA Exhibits AutoCAD 2015\WCB ex05.dwg

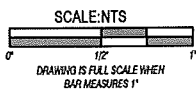
- APPLICANT: CHELAN COUNTY
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FIGURE 6 - TYPICAL TEMPORARY WORK TRESTLE CONCEPT

WEST CASHMERE BRIDGE REPLACEMENT PROJECT



- APPROX. PLANT SCHEDULE** 
- ROSA WOODSII (WOODS' ROSE)
 - SYMPHORICARPOS ALBUS (COMMON SNOWBERRY)
 - RIBES CEREUM (WAX CURRANT)
 - PHILADELPHUS LEWISII (LEWIS' MOCK ORANGE)
 - BERBERIS REPENS (CREEPING OREGON - GRAPE)
 - NATIVE SEED MIX



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**FIGURE 7 - EXISTING NORTH END
BRIDGE APPROACH RESTORATION**

1" = 100'

WEST CASHMERE BRIDGE REPLACEMENT PROJECT