

SCOPE OF WORK
CONSTRUCTION OF AN ASPHALT PAVED TRAIL AND ASSOCIATED
REST AREAS, ENTRANCE ROAD AND PARKING LOT
CHIEF JOSEPH DAM, BRIDGEPORT, WA

1.0 Project Location:

Chief Joseph Dam, Bridgeport, WA

2.0 Scope of Work:

Contractor shall provide all labor, equipment and materials (with the exception of those listed as provided by the government) to perform all work required to construct an asphalt surfaced accessible Hiking/Biking trail along with related rest areas, and an entrance road and adjacent parking lot, in the vicinity of Chief Joseph Dam as specified herein. Drawing #1 shows the overall layout. The accompanying Bid Sheet will break down this work into individual bid items.

2.1 Existing Conditions:

Existing conditions where the trail, rest areas, entrance road and parking lot shall be built is quite variable in composition and the work required thereof. Surfaces include sand, rock, and soil composition normally found throughout this dryland sagebrush community. Slopes are quite variable as well, ranging up to a sustained 8 % to 10 % along portions of Lupine Way.

2.2 Escorted Site Visit for Bidders:

It is strongly suggested that all bidders arrange for and attend an escorted site visit prior to submitting their bid. Variable existing conditions shall affect the work required. Failure to understand the local existing conditions will not be grounds for additional monies. To attend the escorted site visit, contact Mark Harris (509-686-5501 ext. 664) (mark.l.harris@usace.army.mil) or, Robert Fischer (509-686-5501 ext. 226) (robert.g.fischer@usace.army.mil).

2.3 Pre-construction Conference:

Within 15 days following award the Contractor shall attend a preconstruction conference at Chief Joseph Dam. The specifications will be discussed. The specific layouts of facilities will be discussed at the sites where they will be constructed. The Contractor shall submit their work schedule/ safety plan at this time. How the work will interface with the current traffic flow along the roadways will be discussed.

2.4 Paving Standards:

2.4.1 General:

A mixture of rock, soil, and/or sand shall be removed (Reference Section 4.0.2) to the depths necessary to meet the finish grade requirements below. Gravel bases shall

extend a minimum of 6 inches beyond width of the asphalt mat. Gravel bases shall be rolled to achieve a compaction rate of 92 to 95%. Excess aggregate segregation must be raked off to achieve a smooth surface.

A soil sterilant shall be applied carefully beneath all surfaces to be paved. Caution shall be exercised during spraying such that there is minimal plant damage beyond the gravel base of the trail, rest areas, parking lot, and entrance road. Spraying shall be done by a currently licensed applicator following applicable State Regulations and manufacturers guidelines for the soil sterilant used. A spray log as required by the Wa. State Department of Agriculture shall be provided to the Government.

Finish grades shall be within an inch of the surface grades. Surface grades where the pavement meets existing pavement shall match the road surface. Where the new asphalt abuts existing asphalt, the existing asphalt shall be cut as necessary to allow for a clean crisp joint. Spawled or loose pieces of asphalt shall be removed, and the edges thoroughly cleaned. A tack coat shall be applied to all edges of existing asphalt.

All paving shall consist of a Class A mix of asphalt. The asphalt paving shall be minimum 2 inches thick. Cross slopes shall be kept to a minimum and shall not exceed 3%. All surfaces shall either have a slight cross slope or be slightly crowned to prevent pooling of water on the finished asphalt surface.

2.4.2 Trail Base:

The base for the trail bed shall consist of a minimum 4 inch thick compacted layer of 1 ½ inch minus crushed rock. The base shall be a minimum of 9 feet wide for freestanding trail.

2.4.3 Trail Paving:

The trail surface shall be a minimum 2 inch thick layer of asphalt paving, and shall be a minimum of 8 feet wide throughout the length of the trail.

2.4.4 Tower Parking lot & Entrance Road Base:

The base for the entrance road and the parking lot at the Tower shall consist of a minimum 6 inch thick compacted layer of 1 ½ inch minus crushed rock. This base shall extend a minimum of 12 inches beyond the perimeter of the paved area of the entrance road and parking lot.

2.4.5 Tower Parking Lot & Entrance Road Paving:

The parking lot and entrance road surface shall be a minimum 2 inch thick layer of asphalt paving.

2.5 Culvert Placements:

2.5.1 General:

A base shall be prepared for the placement of all 12 inch diameter polyethylene culverts. It shall consist of a minimum 6 inch wide by 2 inch deep base of 1 ½ inch minus crushed rock. An adequate fill and covering material shall encapsulate the culvert so as to support the weight of paving equipment when paving without damaging the culvert. All up-slope sides of culverts shall have a headwall constructed to deter water from eroding around the culvert. Some existing rock in ditches may be mixed with fill material when

placing the culverts. The Contractor shall supply all material needed for this work. See Attached Drawing # 8 for these locations.

2.5.2 Culvert lengths:

At each ditch crossing where the trail intersects existing asphalt roadway, a suitable length of culvert shall be used to provide unrestricted water flow in the ditch. A section of the trail downhill from the entrance to the Project's North Viewpoint adjoins/abuts Lupine way for a distance of approximately 200 feet. The trail bed will actually span a major portion of the ditch in this area, requiring a run of culvert the full length of it where it adjoins/abuts existing roadway.

2.6 10 inch Steel Pipe Form Placements:

2.6.1 General:

Ten (10) inch diameter steel pipe shall be used as vertical forms for future posts and benches. It shall be placed by the Contractor to be ½ inch below the finished paving surface. They shall be equipped with a removable tack-welded cover during paving, such that when the cover is removed, they will be ready to receive future concrete to anchor posts or benches. After paving these forms shall be left with the removable covers in place so as not to present a safety hazard. The Government shall remove the covers and place all posts and benches. The installation of posts and benches is not included as part of this Contract.

2.6.2 For Benches:

A pair of 10 inch diameter steel pipe forms shall be placed vertically in each rest area to receive the legs of future benches. They shall be placed 53 7/8 inches on center. Each steel pipe form shall be 25 inches long.

The placement of these forms within each rest area will be noted on the attached drawings showing each rest area in detail.

2.6.3 For Posts:

A 10 inch diameter steel pipe form shall be placed vertically at designated locations to receive the bases of posts. Most shall be in the center of the 8 foot wide trail to deter motor vehicles from entering the trail. These tube forms shall be 25 inches long. The placement of each tube form for future posts will be as follows:

- One tube form in center of trail at each point where the trail intersect with existing roadway. (6)

- One tube form in center of each entrance to rest areas with the exception of Rest Area # 1. (6)

Total number of tube forms shall be twelve (12).

2.7 Trail Construction Details:

The route of the trail is roughly staked out in the field, and is shown as well on the attached lay-out drawing. The New trail hooks up with the existing trail at the top of the hill and follows the west side of the ridge in a northeast direction. From its connection to the existing trail, the new trail loops back across the lower side of the hill winding its way down to where it crosses Lupine Way.

During this portion of the trail there will be both cutting and filling work during excavation of the trail bed and rest area. Slight bank stabilization shall occur in areas of cuts and fills to prevent erosion. Stabilization shall consist of sloping banks of cuts and fills. The length of this segment of the trail from where it connects to the existing trail to where it crosses Lupine Way is approximately 900 ft. Markings on the shoulders of Lupine Way mark the location where the trail makes this crossing. Culverts will be placed in the ditches on both sides of Lupine Way where this crossing occurs.

After crossing Lupine Way, the trail turns southwesterly and parallels Lupine Way towards the entrance to the Project's North Viewpoint. It crosses the entrance road to the Project's North Viewpoint at its intersection with Lupine Way. Markings on shoulders of roadway mark the location where the trail makes this crossing. Culverts will be placed on both sides of the entrance to the North Viewpoint where this crossing occurs.

After crossing the entrance road to the North Viewpoint, the trail again parallels Lupine Way down the hill following the contours of the hillside. At times along this segment of the trail, there will be slight cutting and bank stabilization to prevent erosion. Stabilization shall consist of sloping banks of cuts and fills.

Note: Due to a previous water diversion project, it is necessary for this segment of the trail to pass over existing buried facilities. Even though the existing facilities will not pose a problem for the construction of the trail, an as-built drawing showing the location and depth of these facilities shall be provided to the Contractor at the Pre-Construction Conference referenced in Section 2.3 of this Contract.

The trail at times may abut Lupine Way coming down this hill. Long runs of culvert shall be placed where ditching is not feasible. The trail continues down the hill to a point just west of the entrance to the Project's Lower Spillway Access Road. Markings on the roadway shoulders mark the location where the trail makes this crossing.

This segment of the trail, between the crossing of Lupine Way at the top of the hill, and where it crosses Lupine Way at the bottom of the hill is approximately 1650 feet in length.

After crossing Lupine Way at the bottom of the hill, the trail will angle towards the river and follow the crest of the right bank of the Columbia River down-stream until it intersects with the viewing platform and existing asphalt trail from the Orientation Area. From where the trail crosses Lupine Way to where it intersects with the Orientation Area trail is approximately 1775 ft. This segment of the trail poses some unique problems as it crosses over buried irrigation lines.

The locations where the crossings occur will be marked and depths of existing facilities will be provided. Due to existing irrigation facilities, the base of the trail and asphalt width may be narrowed somewhat in the area where these crossings occur.

The Contractor shall attempt to preserve the natural vegetation along the trail wherever possible, and keep the construction disturbance to a minimum

2.8 Rest Area Construction Details:

2.8.1 General:

Each rest area shall include the placement of two 10 inch steel pipe forms for future bench placement as described in section 2.6.2. All rest areas shall be generally level yet retain a slight cross slope to promote ease of access and prevent pooling of water.

Locations shall be marked with stakes where each rest area will be located. Drawing # 2 shows relative locations of all rest areas. Drawings # 3 (rest area # 1), # 4 (rest area # 2), # 5 (rest area # 3), and # 6 (rest area # 4) show relative layout of each rest area.

2.9 Tower Entrance Road and Parking Lot Construction Details:

2.9.1 General:

The entrance road shall be 16 feet wide by approx. 105 feet in length. It extends from the Spillway Access Road to a pair of vehicle bar gates located on an existing dirt roadway used for accessing the High Voltage Transmission Tower (by BPA), and piezometer wells in the area (by COE).

The parking lot shall be 27 ft. deep by 43 ft. long. The parking lot abuts not only the entrance road, but also an access lane, which connects the parking lot to the trailhead and trails. This access lane was previously established in construction of Phase I of the trail. See attached Drawing # 7 for relative layout of the parking lot and entrance road.

3.0 Government Furnished Materials:

3.0.1 If needed for work specified under this contract, non-potable water will be available from a high volume source on the south shore of the dam.

4.0 Removed Materials:

4.0.1 Removed Vegetation:

Removed vegetation shall be taken to the government's burn pile on the Chief Joseph Dam's South Shore or removed from the property by other approved means.

4.0.2 Excess Soil:

Excess soil/sand generated by this work shall be deposited at a site specified by the Government within 1 mile of this work.

4.0.3 Other Materials:

All other waste materials generated, shall be removed from the property and properly disposed of by the Contractor. This includes old asphalt, concrete, and cleanings from equipment etc.

5.1 Archaeological Finds:

5.1.1 Unexpected Finds of Human Remains:

Although it is very unlikely that human remains may be encountered during excavations, if the Contractor encounters them, the Contractor shall immediately cease work in the area of the find and leave all materials intact. The Contractor shall notify the COR within 4 hours of the find, and the COR will contact the Okanogan County Sheriff's Department or the Colville Tribal Police Department to ascertain whether the remains are of recent and potentially criminal origin.

Concurrently, the COR will notify the Colville Confederated Tribes' History Department for consultation about the nature and disposition of the remains should the Sheriff's Department determine that the remains are associated with Native American burial practices.

The Contractor shall redirect work to other areas, sites or tasks until the disposition of the remains is arranged to the satisfaction of the appropriate Indian group. Disposition

will take place as rapidly as possible, in any case within 30 days of the find, in conformity with Native American Graves Protection and Repatriation Act (NAGPRA), Section 3 (d).

5.1.2 Occupation and Midden Sites:

If the Contractor encounters evidence of prehistoric occupation such as non-sawed bone fragments, charcoal, fire-modified rock and cryptocrystalline flaking debris in a place where no prehistoric archaeological site has been identified previously; or encounters concentrated historical debris in excess of 50 years of age in a place where no historic archaeological site has been identified previously, the Contractor shall cease work in the area of the find, leaving all objects in place.

The Contractor shall notify the COR assigned to the contract within 4 hours of the find. The COR would arrange for an onsite inspection by cultural resource specialists, including but not limited to archaeologists, official Colville Tribe cultural specialists, and the Washington State Archaeologist within 24 hours of receiving such notice. A coordinated decision shall be made within 30 days regarding the further disposition of the site.

5.2 Protection of Resources:

Environmental pollution is defined as the presence of chemicals/cleaning products, physical or biological elements, or other agents which adversely affect human health or welfare; unfavorably alter ecological balances; affect other species; or degrade the utility of the environment for aesthetic and recreational purposes.

The control of environmental pollution requires consideration of air, water, land, and involves noise and solid waste management as well as any other pollutants. The Contractor and his/her subcontractors shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement.

5.2.1 Waste Disposal

All waste products shall be disposed of in accordance with all Federal and State laws.

5.3 Measurement for Payment

All work will be paid on actual measurements of the work requested and completed. Trail paving will be paid as per the number of linear feet (LF) as measured by the center of the trail.

Rest areas, parking lot, and entrance road paving will be paid as per the number of actual square feet measured on the finished pavement. The bid sheet shows total quantities that are not to be exceeded.

5.4 Project Duration:

Commencement of work shall be coordinated with the Contracting Officer's Representative (COR), Mr. Robert G. Fischer at telephone # (509) 686-5501 ext. 226. All work shall be performed with a minimal disruption to occupied facilities.

The Contractor shall complete all work specified in this Contract by 12 May, 2000. However, should the actual date of award of this Contract give the Contractor less than 60 calendar days to complete the work, then the contractor shall be given 60 calendar days

from the date they receive the Notice to Proceed to complete the work specified herein. The time given for completion shall include final cleanup of the premises.

5.5 COR Designation:

Mr. Robert G. Fischer is designated as the Contracting Officer's Representative (COR) for this contract. He will be the individual ultimately responsible for insuring contract work is completed as required by the contract requirements. He will certify payments and accept work performed under this contract. Telephone: 509-686-5501, ext. 226.

5.6 COTR Designation:

Mr. Mark L. Harris is designated as the Contracting Officer's Technical Representative (COTR) for this contract. He will be the primary Government contact for technical questions and contract compliance. He will be responsible for quality assurance and general coordination with the Contractor. Telephone: 509-686-5501, ext. 664.

5.7 Safety Requirements:

The Contractor shall comply with all applicable OSHA and WISHA Standards as well as current requirements of Corps of Engineers Manual, EM 385-1-1, "Safety and Health Requirements Manual" dated September 1996. A copy of this manual is available for inspection at the Project Office prior to bid opening, and a copy will be given to the successful bidder after award.

OSHA & WISHA Standards, and EM-385-1-1 are subject to change and the changes may effect the Contractor in his/her performance during the contract period. It is the Contractors responsibility to be knowledgeable of, and to comply with such changes.

**North Shore Trail
Pre-Construction Conference**

Attendees: COE _____ **Contractor** _____

Scope of Work:

Contractor shall provide all labor, equipment, and materials to perform all work required to construct a asphalt surfaced accessible trail and rest areas, and an entrance road and adjacent parking lot @ the Tower Trailhead.

Paving

Gravel bases shall extend a minimum of 6 inches beyond width of the asphalt mat on trails, and 12 inches on entrance road and parking lot. Gravel bases shall be rolled to achieve a compaction rate of 92 to 95% (Modified Proctor). Contractor arranges for and pays costs associated with this testing. The base for the trail bed shall consist of a minimum 4 inch thick compacted layer of 1 ½ inch minus crushed rock. The base shall be a minimum of 9 feet wide for freestanding trail. The base for the entrance road and the parking lot at the Tower shall consist of a minimum 6 inch thick compacted layer of 1 ½ inch minus crushed rock. This base shall extend a minimum of 12 inches beyond the perimeter of the paved area of the entrance road and parking lot.

***** Soil Sterilant *****

A soil sterilant shall be applied carefully beneath all surfaces to be paved. Caution shall be exercised during spraying such that there is minimal plant damage beyond the gravel base of the trail, rest areas, parking lot, and entrance road. Spraying shall be done by a currently licensed applicator following applicable State Regulations and manufacturers guidelines for the soil sterilant used.

Finish grades shall be within an inch of the surface grades. All paving shall consist of a Class A mix of asphalt. The asphalt paving shall be minimum 2 inches thick. Cross slopes shall be kept to a minimum and shall not exceed 3%. All surfaces shall either have a slight cross slope or be slightly crowned to prevent pooling of water on the finished asphalt surface. Surface grades where the pavement meets existing pavement shall match the road surface. Where the new asphalt abuts existing asphalt, the existing asphalt shall be cut as necessary to allow for a clean crisp joint. Spawled or loose pieces of asphalt shall be removed, and the edges thoroughly cleaned. A tack coat shall be applied to all edges of existing asphalt.

Culverts

A base shall be prepared for the placement of all culverts. It shall consist of a minimum 6 inch wide by 2 inch deep base of 1 ½ inch minus crushed rock. An adequate fill and covering of material shall encapsulate the culvert so as to support the weight of paving equipment when paving without damaging the culvert. All up-slope sides of culverts shall have a headwall constructed to deter water from eroding around the culvert.

Existing rock in some ditches may be mixed with fill material when placing the culverts. The Contractor shall supply all other material needed for this work. Drawing # 8 shows locations. At each ditch crossing where the trail intersects existing asphalt roadway, a suitable length of culvert shall be used to provide unrestricted water flow in the ditch. A section of the trail downhill from the entrance to the Project's North Viewpoint adjoins/abuts Lupine way for a distance of approximately 200 feet. The trail bed will actually span a major portion of the ditch in this area, requiring a run of culvert the full length of it where it adjoins/abuts existing roadway.

10 inch Steel Pipe Form Placements

10 inch diameter steel pipe shall be used as forms for posts and benches. It shall be placed by the Contractor to be ½ inch below the finished paving surface. They shall be equipped with a removable tack-welded cover during paving, such that when the cover is removed, they will be ready to receive future concrete to anchor posts or benches. After paving these forms shall be left with the removable cover in place so as not to present a safety hazard

A pair of 10 inch diameter steel pipe forms shall be placed in each rest area to receive the legs of future benches. They shall be placed 53 7/8 inches on center. Each steel pipe form shall be 25 inches long. The placement of these forms within each rest area will be noted on the attached drawings showing each rest area in detail.

A 10 inch diameter steel pipe form shall be placed at designated locations to receive the bases of posts. Most shall be in the center of the 8 foot wide trail to deter large vehicles from entering the trail. These tube forms shall be 25 inches long

Trail Construction

The route of the trail is roughly staked out in the field, and is shown as well on the attached lay-out drawing. The New trail hooks up with the existing trail at the top of the hill and follows the west side of the ridge in a northeast direction looping back across the lower side of the hill winding its way down to where it crosses Lupine Way.

During this portion of the trail there will be both cutting and filling work. Slight bank stabilization shall occur in areas of cuts and fills to prevent erosion. Markings on the shoulders of Lupine Way mark the location where the trail makes this crossing. Culverts will be placed in the ditches on both sides of Lupine Way where this crossing occurs.

After crossing Lupine Way, the trail turns southwesterly and parallels Lupine Way towards the entrance to the Project's North Viewpoint. It crosses the entrance road to the Project's North Viewpoint at its intersection with Lupine Way. Markings on shoulders of roadway mark the location where the trail makes this crossing. Culverts will be placed on both sides of the entrance to the North Viewpoint where this crossing occurs.

After crossing the entrance road to the North Viewpoint, the trail again parallels Lupine Way down the hill following the contours of the hillside. At times along this segment of the trail, there will be significant cutting and bank stabilization to prevent erosion.

Note: Due to a previous water diversion project, it is necessary for this segment of the trail to pass over existing buried facilities. Even though the existing facilities will not pose a problem for the construction of the trail, an as-built drawing showing the location and depth of these facilities shall be provided to the Contractor at the Pre-Construction Conference referenced in Section 2.3 of this Contract.

The trail at times may abut Lupine Way coming down this hill. Long runs of culvert shall be placed where ditching is not feasible. The trail continues down the hill to a point just west of the entrance to the Project's Lower Spillway Access Road.

After crossing Lupine Way at the bottom of the hill, the trail will angle towards the river and follow the crest of the right bank of the Columbia River down-stream until it intersects with the viewing platform and existing asphalt trail from the Orientation Area. This segment of the trail poses some unique problems as it crosses over buried irrigation lines. The locations where the crossings occur will be marked and depths of existing facilities will be provided. Due to existing irrigation facilities, the base of the trail and asphalt width may be narrowed in the area where these crossings occur.

The contractor shall attempt to preserve the natural vegetation along the trail wherever possible, and keep the construction disturbance to a minimum

Rest Area Construction

Each rest area shall include the placement of two 10 inch steel pipe forms for future bench placement. All rest areas shall be generally level yet retain a slight cross slope to promote ease of access and prevent pooling of water.

Locations shall be marked with stakes where each rest area will be located. Drawing # 2 shows relative locations of all rest areas. Drawings # 3 (rest area # 1), # 4 (rest area # 2), # 5 (rest area # 3), and # 6 (rest area # 4) show relative layout of each rest area.

Tower Entrance Road and Parking Lots

The entrance road shall be 16 feet wide by approx. 105 feet in length. It extends from the Spillway Access Road to a pair of vehicle bar gates located on an existing dirt roadway.

The parking lot shall be 27 ft. deep by 43 ft. long. The parking lot abuts not only the entrance road, but also an access lane, which connects the parking lot to the trailhead and trails. This access lane was previously established in construction of Phase I of the trail. Drawing # 7 shows relative layout of the parking lot and entrance road.

Government Furnished Materials

If needed for work specified under this contract, non-potable water will be available from a high volume source on the south shore of the dam.

Removed Materials

Vegetation:

Removed vegetation shall be taken to the government's burn pile on the Chief Joseph Dam's South Shore or removed from the property by other approved means.

Excess Soil:

Excess soil/sand generated by this work shall be deposited at a site specified by the Government within 1 mile of this work.

Other Materials:

All other waste materials generated, shall be removed from the property and properly disposed of by the Contractor. This includes old asphalt, concrete, and cleanings from equipment etc.

Protection of Resources

The control of environmental pollution requires consideration of air, water, land, and involves noise and solid waste management as well as any other pollutants. The Contractor and his/her subcontractors shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement. All waste products shall be disposed of in accordance with all Federal and State laws.

Project Duration

The Contractor shall complete all work specified in this Contract by 12 May, 2000. However, should the actual date of award of this Contract give the Contractor less than 60 calendar days to complete the work, then the contractor shall be given 60 calendar days from the date they receive the Notice to Proceed to complete the work specified herein. The time given for completion shall include final cleanup of the premises.

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