DOE-ID-NEPA CX DETERMINATION
Idaho National Laboratory

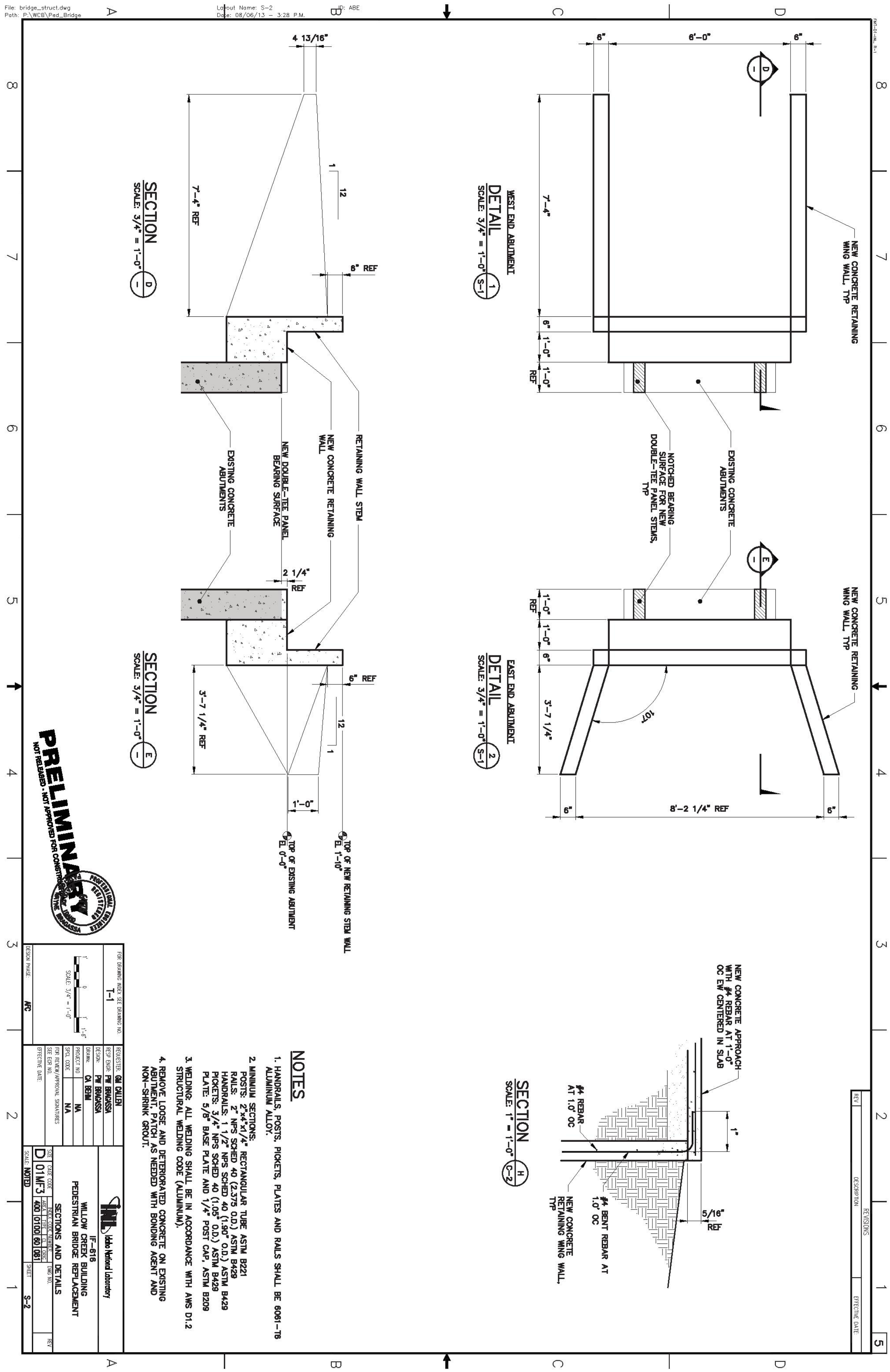
EC Document No.: DOE-ID-INL-13-025

SECTION A. Project Title: Willow Creek Building Pedestrian Bridge Replacement

SECTION B. Project Description:

The purpose and need for the proposed action is to address safety concerns related to the pedestrian bridge across Willow Creek east of the main entrance to the Willow Creek Building (IF-616). The proposed action would remove the current pedestrian bridge and associated steel railing and would remove the existing concrete approaches on either side of the bridge (approximately 4" thick and 100 sq. ft. on the west side of the bridge and 4" thick and 268 sq. ft. on the east side). Project activities would include replacing the old concrete approaches with new concrete approaches matching the elevation of the existing concrete walk and asphalt parking lot. The new concrete approach on the west side of the bridge would be approximately 4" thick and 100 sq. ft. The new concrete approach on the east side of the bridge would be approximately 4" thick and 282 sq. ft.

In addition to replacing the bridge, the proposed action would add a retaining wall and wing walls to reinforce the existing concrete abutment. Prior to adding the retaining wall, loose and deteriorated concrete on the existing abutment would be removed, and the abutment would be patched, as needed, with bonding agent and non-shrink grout. The new retaining wall would require excavation to approximately 2 ft. along the width of the bridge for installation. Wing walls are approximately 6" wide and 3' 7 1/4" long extending at a 107º angle away from the new retaining wall. Excavation activities below the plane of the ordinary high water mark are expected to result in less than 10 cubic yards of excavated soil.



File: bridge_struct.dwg
Path: P:\WCB\Ped_Bridge
Layout Name: S-2
Date: 08/06/13 - 3:28 P.M.
ID: ABE
WEST END ABUTMENT
DETAIL
SCALE: 3/4" = 1'-0"
EAST END ABUTMENT
DETAIL
SCALE: 3/4" = 1'-0"
NEW CONCRETE RETAINING WING WALL, TYP
EXISTING CONCRETE ABUTMENTS
NOTCHED BEARING SURFACE FOR NEW DOUBLE-TEE PANEL STEMS, TYP
SECTION
SCALE: 3/4" = 1'-0"
RETAINING WALL STEM
NEW CONCRETE RETAINING WALL
NEW DOUBLE-TEE PANEL BEARING SURFACE
TOP OF NEW RETAINING STEM WALL EL 1'-10"
TOP OF EXISTING ABUTMENT EL 0'-0"
SECTION
SCALE: 1" = 1'-0"
NEW CONCRETE APPROACH WITH #4 REBAR AT 1'-0" OC EW CENTERED IN SLAB
#4 REBAR AT 1.0' OC
#4 BENT REBAR AT 1.0' OC
NEW CONCRETE RETAINING WING WALL, TYP
NOTES
1. HANDRAILS, POSTS, PICKETS, PLATES AND RAILS SHALL BE 6061-T6 ALUMINUM ALLOY.
2. MINIMUM SECTIONS:
POSTS: 2"x4"x1/4" RECTANGULAR TUBE ASTM B221
RAILS: 2" NPS SCHED 40 (2.375 O.D.) ASTM B429
HANDRAILS: 1 1/2" NPS SCHED 40 (1.90" O.D.) ASTM B429
PICKETS: 3/4" NPS SCHED 40 (1.05" O.D.) ASTM B429
PLATE: 5/8" BASE PLATE AND 1/4" POST CAP, ASTM B209
3. WELDING: ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.2 STRUCTURAL WELDING CODE (ALUMINUM).
4. REMOVE LOOSE AND DETERIORATED CONCRETE ON EXISTING ABUTMENT, PATCH AS NEEDED WITH BONDING AGENT AND NON-SHRINK GROUT.
PRELIMINARY
NOT RELEASED - NOT APPROVED FOR CONSTRUCTION
INL Idaho National Laboratory
IF-818
WILLOW CREEK BUILDING
PEDESTRIAN BRIDGE REPLACEMENT
SECTIONS AND DETAILS
S-2

All conduit located on the existing bridge would be removed and recycled or disposed. Conductors for lighting would be pulled back, coiled, and protected for reinstallation. The existing bridge heating conductors and controls would be removed. The yard lights and the parking lot lights south of the bridge would be disconnected during new bridge installation and reconnected after the new bridge is installed.

Temporary enclosures would be attached to existing conduit to house coiled conductors and tie into existing circuits to temporarily feed parking lot lights during construction activities. Temporary supports over the creek would be installed to support cable for parking lot lighting during construction of the new bridge and would be removed after new conduit and conductors are installed on the new bridge.

Work would occur in FY-14 depending upon funding availability, at a cost of approximately $200K.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions: Portable combustion equipment such as crane(s), generator(s), air compressor(s), etc., would or may be used. This equipment would not remain in the same location for a twelve month period. Some of these activities (excavation, concrete work, etc.) have the potential to generate fugitive dust. All reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Some of the reasonable precautions may include, but are not limited to, the following: use of water or chemicals, application of dust suppressants, use of control equipment, and covering of trucks.

Discharging to Surface-, Storm-, or Ground Water: These activities have the potential to discharge contaminants to surface and/or storm water. Equipment and containers of contaminants (e.g., chemicals, fuels, oil, etc.) would be kept reasonable distances from the stream, storm drains, sewer manholes, etc., such that the potential for release to these areas is minimized in the event of a spill. In addition, reasonable efforts would be made to minimize discharges of soil to the stream bed (e.g., during excavation).

Disturbing Cultural or Biological Resources: This activity has the potential to disturb cultural and/or biological resources. Cultural and/or biological surveys will be performed as required and clearances obtained prior to initiating activities having this potential.

Generating and Managing Waste: Industrial (nonhazardous, nonradioactive) waste (e.g., metal, concrete) would be generated and potentially regulated (e.g., chemical/coating related) waste may be generated. This waste would be managed through Waste Generator Services. Paint on existing bridge will be sampled and analyzed (PCBs and RCRA metals) for characterization purposes.

Releasing contaminants: Materials such as coatings, lubricants, and fuels would be used for their intended purpose. Contact Environmental Support (680-5844) and the Spill Notification Team (241-6400) in the event of a spill or release. Contact Waste Generator Services (881-6633, 881-6634) for assistance in characterization and disposition spill clean-up materials.

Using, Reusing, and Conserving Natural Resources: Materials will be reused and/or recycled where economically practicable. Applicable waste will be diverted from disposal in the landfill where conditions allow. The project will practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are bio-based in content, environmentally preferable, have recycled content, or are non-toxic or less toxic alternatives. Certain removed materials such as metal would be excessed or recycled. Contact Kim Frerichs (526-7174, 419-9187) for assistance in this regard.

SECTION G. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of DOE or Executive Orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not “connected” nor “related” (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: 10 CFR 1021, Appendix B to Subpart D item B2.5, "Facility safety and environmental improvements".

Justification: The proposed action is consistent with 10 CFR 1021, Appendix B to Subpart D categorical exclusion B2.5, "Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading;…These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel)."

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Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on: 8/25/2009