Purchase Description

MMD FPF Additional Workshop Space Building
May 4th, 2026

1 Description of Work

Create design, assembly instructions and stamped engineering drawings and calculations including foundation reactions and anchor bolt layout for a metal building to be used as a workshop, procure and deliver metal building kit in accordance with this Purchase Description, all Federal, State and local codes and regulations and all applicable industry standards.

Price Schedule

01 Metal Building Kit including Mezzanine and required components

02 Instructions for Assembly

03 Design drawings showing dimensions of all components and structural members

04 Stamped engineering drawings and calculations of building, including mezzanine, foundation reactions and foundation anchor bolt layout

05 O&M manuals for building and all components delivered

TECHNICAL SPECIFICATIONS

2 SCOPE SUMMARY

The following Purchase Description is for design, fabrication and delivery of a **cold-formed steel pre-engineered metal building kit.** Deliver all materials in kit to Mud Mountain Dam Fish Passage Facility, 25305 SE Mud Mountain Road, Enumclaw, WA 98022.

Submit a quote in response to this solicitation including drawings of floor plans for ground floor and mezzanine, elevation drawings from all four sides with details of finish and placement of components, and drawings showing the position and dimensions of structural members including isometric, plan and elevation drawings. Submit complete specifications with quote.

The minimum requirements listed in this **Purchase Description** must be met and specifications submitted with quote must indicate compliance. Dimensions and positions of components shown in the **drawings** included with this Purchase Description are advisory and your submitted quote may deviate from them to optimize for structural stability, constructability and user benefit in accordance with industry standards.

Submit stamped engineering drawings with calculations, concrete reactions and concrete anchor bolt layout with calculations and instructions for assembly no later than 60 calendar days after contract award. Deliver building kit no later than 4 calendar months after contract award to Mud Mountain Dam Fish Passage Facility and unload materials in locations indicated by government representative.

Design building strictly 50 ft by 50 ft at base, with eave height between 22 and 26 feet, and covered by gabled roof. Include a mezzanine and meet additional requirements in the Building Requirements section.

The building kit will be erected by government on an existing 6-inch-thick concrete pad constructed on subgrade of sandy gravel with silt and an assumed bearing capacity of 2,500 psf. The government will modify concrete pad as needed to accommodate reaction forces based on engineering provided by government after receipt of stamped engineering drawings, concrete reactions and concrete anchor bolt layout. **Building structural members must be cold-formed steel to minimize modification to existing slab**. Other types of structural members (hot-rolled, plate steel, red iron, etc....) are not acceptable due to the limits of the foundation and practical modifications. Building kit and all components must be capable of assembly without welding, brazing or other hot work.

3 BUILDING REQUIREMENTS

All requirements listed below must be explicitly noted in quote. In addition to requirements listed here, quote and deliver any additional hardware and material necessary to realize full function and operation of building features.

3.1 ARCHITECTURAL:

a. Floor layout: strictly 50 ft by 50 ft.

b. Roof: design and provide kit for gabled roof and complying with the loading requirements listed under the “Structural” heading of this specification. Roof peak height may not exceed 34.5 feet. Design minimum roof pitch of 3:12. Provide standing seam roof of minimum 24-gauge sheet metal thickness Aluminum-Zinc Alloy-coated Steel Sheet conforming to ASTM A792/A792M and AISI D100.

c. Exterior walls: Provide kit for exterior walls with eave height between 22 and 26 feet. Provide concealed-fastener wall panels of minimum sheet metal thickness 24-gauge Aluminum-Zinc Alloy-coated Steel Sheet conforming to ASTM A792/A792M and AISI D100.

d. Locate bracing and lateral supports such that they will not obstruct windows or doors.

e. Exterior roll-up door: provide framed opening for one 20-foot by 20-foot minimum roll-up door on east side of the building. The Contractor bears sole responsibility for ensuring the 20-foot clear span opening can be achieved utilizing cold-formed steel while meeting all wind, snow, and seismic loads specified herein. Roll up door requirements are as follows:
    i. Provide spring counter-balanced, insulated coiling service door designed for use on designed 20-foot by 20-foot minimum exterior opening
    ii. Insulated (minimum R-8 foamed-in-place Polyurethane (CFC-free) core) with 24-gauge minimum exterior skin meeting ASTM A792.
    iii. operated by electric-power with auxiliary hand chain operation
    iv. surface-mounted type with guides at jambs set back a sufficient distance to provide a clear opening when door is in open
    v. designed to withstand a wind pressure of 20 pounds per square foot of door area in accordance with ANSI/DASMA 108.
    vi. designed to operate through a minimum number of 10 cycles per day
    vii. complete with equipment, components, guides, hardware, fasteners, operating mechanisms, and accessories required for the above.

f. Exterior pedestrian doors: provide framed openings for four 36” by 84” minimum pedestrian access doors: one on each side of the building. Position doors sufficiently far from mezzanine columns to ensure efficient entrance and egress. Door requirements are as follows:
    i. Doors to open outwards with hinges on left side while opening door
    ii. Provide 36” wide by 84” tall Level 3, 16-gauge ASTM A653 steel, insulated doors with 14-gauge ASTM A653 steel frames.
    iii. Including a window in upper part of door approximately 10” wide by 10” tall with wired tempered glass.
    iv. Each door to be equipped with keyed, locking lever with a changeable lock cylinder complying with ANSI/BHMA A156.2 Grade 1
        1. Cylinders and Cores must have 6-pin tumblers and be interchangeable, compatible with the A-2 SFIC system and must be fully compatible with products from Best Lock Corporation. Lock mechanisms must be encased in hardened guard barriers to prevent forced entry.

2. Include door latch guards.
3. Exit devices must include touch bars and adjustable strikes and comply with ANSI/BHMA A156.3, Grade 1.

v. Door holder complying with ANSI/BHMA A156.16, Grade 1.
vi. Provide closers installed to the inside (push side) of each exterior door, surface-mounted and modern style with covers complying with the requirements for Type C02012 in accordance with ANSI/BHMA A156.4.
vii. Provide door and frame assemblies with weather stripping, ABA compliant aluminum thresholds and other features that are required to protect the doors from air and water infiltration.
viii. Provide kick plates for each door 2 inches less than the door width and 10 inches high.
ix. At least three non-removable pin hinges complying with ANSI/BHMA A156.1, stainless steel with a BHMA 630 finish or chromium-plated brass/bronze with a BHMA 626 finish.
x. All components listed above must be mutually compatible to form a functional door system.

g. Exterior Windows: Provide framed openings for at least two windows on the east side and at least four windows on the north, west and south sides of building with the bottom of openings between three and six feet above the ground floor or between two and five feet above the mezzanine floor (exception: on east side windows must be between zero and three feet above mezzanine floor). Ground Floor: Position at least one window opening on each specified side between 3 and 6 feet above the finished floor. Mezzanine Level: Position at least one window opening on each specified side between two and five feet above the mezzanine finished floor (exception: on east side windows must be between zero and three feet above mezzanine floor). Openings must accommodate three-foot by three-foot windows at minimum. All window openings must be structurally framed and flashed to accommodate window assemblies as listed below. Provide window assemblies matching the exact count and configuration of the framed window openings:

i. Thermally broken extruded aluminum (6063-T5 min.) framed horizontal sliding venting sash style.
ii. Provide double-pane windows with 1-inch overall thickness and 100% argon filled cavity with a Low-E coating on surface no. 3 (exterior face of the inner pane).
iii. Provide PEMB trim kit.

iv. Thermal performance of the window units must comply with NFRC 100 with maximum U-factor of 0.36.
v. Provide removable 18 x 16 mesh Type 316 Stainless Steel insect screen in a rewirable aluminum frame at all operable sashes.

h. Mezzanine: Provide mezzanine with minimum 125 psf live load capacity in a rectangular shape extending outward 16 feet from the west wall: when facing inward from the roll-up door, the mezzanine should extend along the entire back of interior space.
    i. Mezzanine structural members must be cold-formed steel and mezzanine must be able to be assembled on-site without welding or other hot work.
    ii. Columns are acceptable under edge of mezzanine except for 20-foot-wide section directly in line with door opening to allow long vehicles to enter the workshop.
    iii. Head clearance below the mezzanine must be at least 12 feet 6 inches to accommodate vehicles. Head clearance when standing on the mezzanine must be at least 7 feet 6 inches.
    iv. Provide a high-density, resin-treated engineered wood mezzanine floor panel (min. 3/4" thickness) with a Class A Fire Rating and a factory-applied industrial finish, installed over a galvanized steel corrugated deck (B-Deck).
    v. Provide guardrails in accordance with OSHA standards.
    vi. Provide stamped engineering drawings and calculations showing sufficient load capacity. Provide stamped engineering drawings and calculations showing anchor bolt reactions loads for the mezzanine.

i. Stairs: provide a steel staircase leading from the floor to the mezzanine USACE EM 385-1-1 and NFPA 101 requirements for riser height, tread depth, width, angle and railings. Design mezzanine and stairs so stairs are ascended from east to west along the south side of the building. Provide an upper landing and landing at midpoint meeting USACE EM 385-1-1 (Section 24) and NFPA 101 requirements. Upper landing may be part of stair assembly or mezzanine assembly.

3.2 Insulation and seal

a. Roof: Provide minimum R-38 fiberglass or rock wool insulation with white polyethylene vapor retarder over warm side.

b. Exterior walls: Provide minimum R-21 fiberglass or rock wool insulation with a continuous white polyethylene vapor retarder to the warm side of the insulation. Insulated-core wall panels of minimum R-21, fiberglass or rock wool, are also acceptable.

c. Fabricate metal panel side laps with factory-installed captive gaskets or separator strips that provide a tight seal and prevent metal-to-metal contact, in a manner that will seal weather-tight and minimize noise from movements within panel assembly.

3.3 Coatings and finishes

a. Deliver all metal for structure pre-coated in accordance with industry standards and without requirement for additional coating other than for minor touch up.
b. All panels (roof and wall) are to receive a factory-applied polyvinylidene fluoride of Kynar 500/ Hylar 5000 finish consisting of a baked-on topcoat with a manufacturer's recommended prime coat, conforming to AAMA 621 with minimum 20-year warranty against fading, chalking, and film integrity.
c. All window frames and aluminum trim kits are to receive a factory-applied PVDF (Polyvinylidene Fluoride) fluoropolymer resin system conforming to AAMA 2605 with minimum 20-year warranty against fading, chalking, and film integrity.

3.4 Fasteners

a. All Fasteners, screws and rivets to be corrosion resistant.
b. Where dissimilar metals contact one another or corrosive substrates are present, protect against galvanic action by painting dissimilar metal surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each surface, or by other permanent separation techniques as recommended by the metal building manufacturer.

4 CODE REQUIREMENTS

4.1 STRUCTURAL

Design the building and mezzanine in accordance with UFC 3-301-01 (Structural Engineering), IBC 2024, and ASCE 7-22. Structural calculations and drawings must be stamped by a professional Structural Engineer licensed in the State of Washington.

a. Wind
    a. Base wind speed: 98MPH
    b. Design structure for forces of partially enclosed building with roll-up door open and wind speed of 60MPH

    c. Surface roughness: C
    d. Wind Exposure category: C
b. Snow load - Ground Snow Load (Pg): 55 PSF Roof Snow Load (Ps): 55 PSF; MIN Snow Importance Factor (Is): 1.0; Additional Drift and Rain-on-Snow as per ASCE7.
c. Seismic
        i. Seismic Importance Factor (i.e.): 1.0
        ii. Risk Category: II
        iii. Short Period Spectral Acceleration, Ss: 1.3
        iv. One Second Spectral Acceleration, S1: 0.38
        v. Site Class: D
        vi. Short Period Design Spect Resp Coeff, Sds: 1g. One Second Design Spectral Resp Coeff, Sd1: 0.55
        vii. Seismic Design Category: D

4.2 ARCHITECTURAL

The design and construction shall comply with the most current editions of the following standards at the time of contract award:

a. USACE EM 385-1-1 (Safety and Health Requirements Manual)

b. USACE ER 1110-2-8159 (Life Cycle Design of Civil Works Facilities)

c. UFC 1-200-01 (General Building Requirements)

d. International Building Code (IBC) 2024

e. NFPA 101, Life Safety Code (2024)

f. ASHRAE 90.1 (2022)

Note: In the event of a conflict, USACE EM 385-1-1 and NFPA 101 supersede the IBC.

5 SUBMITTALS

Submit a quote explicitly noting inclusion of all requirements listed above.

Submit for government approval no later than 60 calendar days after contract award:

a. Stamped engineering drawings, concrete reactions and concrete anchor bolt layout with calculations
b. A list of all components of the metal building to include product data, manufacturer specifications and shop drawings as required to completely describe the building construction, mezzanine, stairs, guardrails, insulation, windows, pedestrian doors and roll-up door

Government approval of items (a) and (b) must be received must be received before building kit and components are manufactured or procured.

6 OPERATION AND MAINTENANCE DATA

Submit operating instructions and maintenance data (O&M data) for components of the completed building including instructions on the installation, operation, maintenance, repair, troubleshooting, parts lists, one-line electrical diagrams and manufacturer warranties provided. Assemble all O&M data into a binder complete with labeling tabs and dividers to separate and identify the equipment category and type.

7 WARRANTY

Provide minimum one-year warranty on building materials against manufacturing defects in metal building kit. Include information on manufacturer provided warranties with O&M data.

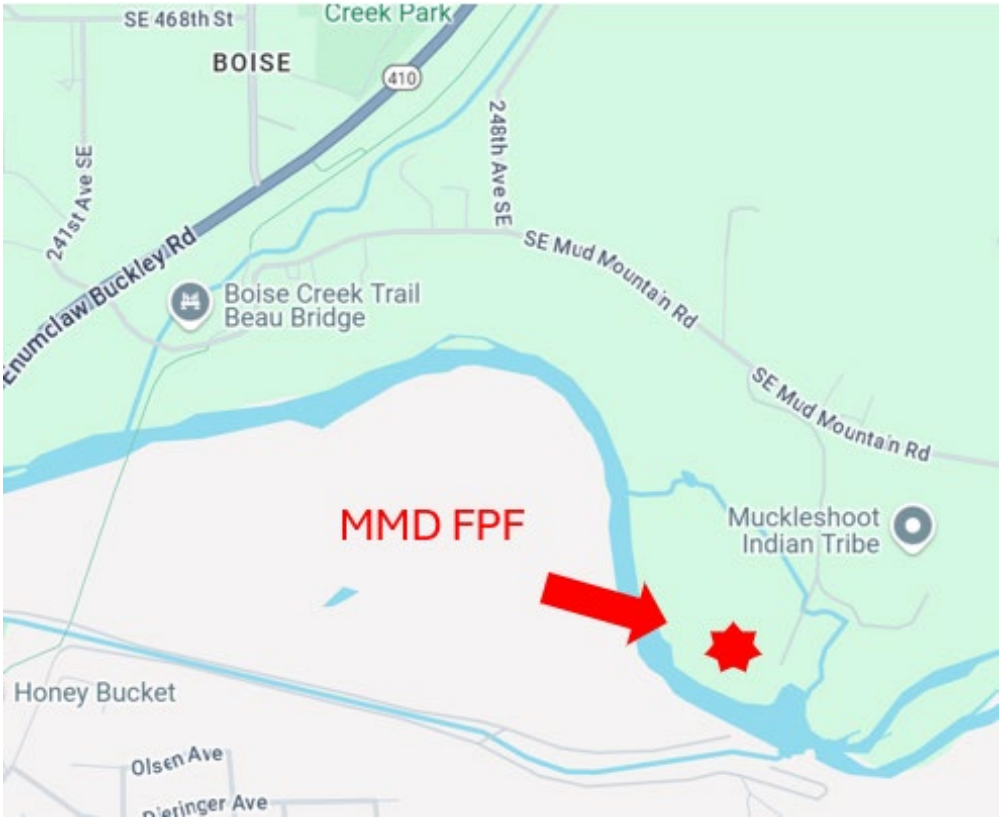
8 DELIVERY

Deliver materials to the **FOB DESTINATION** address and location below and be placed according to government representatives on site. Provide 1-week notice before delivery.

Final acceptance of the building kit is contingent upon a joint material inspection by the Government to verify compliance with all ASTM, AAMA, and gauge requirements specified herein.

US Army Corps of Engineers
ATTN: Casey Butcher
Mud Mountain Dam Fish Passage Facility
25305 SE Mud Mountain Rd, Enumclaw, WA 98022

From SE Mud Mountain Road
25305 SE Mud Mountain Rd,
Enumclaw, WA 98022
Approximate
Delivery Location
Google


SE 468th St
Creek Park
BOISE
410
241st Ave SE
246th Ave SE
Enumclaw Buckley Rd
SE Mud Mountain Rd
Boise Creek Trail
Beau Bridge
SE Mud Mountain Rd
MMD FPF
Muckleshoot
Indian Tribe
Honey Bucket
Olsen Ave