# PROJECT DELIVERY PLAN ENDORSEMENT

**Definition:**

The process by which the Cross-functional Team and Management Board (MB) reviews the Project Delivery Plan and endorses the Scope, Schedule and Budget and commits resources for the delivery of the project.

**Responsible Branch:** Project Management

**Perform:** Project Manager (PM)

**Review:** Branch Chiefs

**Coordinate:** Project Manager

**Assist:** Cross Functional Team

**Prerequisites:** Project Delivery Plan

**Deliverable:** Signed Endorsement (2nd page) and Completed Document Check (3rd page)

**Next Step in Project Initiation Process:** Project Execution & Delivery

**Process Steps:**

1. As part of finalizing the Project Delivery Plan all members of the Cross-functional Team sign an endorsement sheet formally documenting their acceptance of the delivery plan.
2. Following endorsement by the cross-functional team the PM electronically distributes the location of delivery plan documents for Management Board review.
3. The PMBC will represent the Management Board when obtaining endorsement to streamline the endorsement process.
    a. The PM provides the Project Management Branch Chief (PMBC) with a copy (electronic or hard copy) of the signed CFT Endorsement and Document Checklist for his endorsement. When the PMBC isn't available an alternate Management Board member may endorse the delivery plan.
    b. The objective is for the delivery plan to be completed prior to starting preliminary design.
    c. Verbal approval from the PMBC may be obtained prior to finalizing the delivery plan when a project's critical path is impacted.
    d. A signed endorsement is required to advance to a Level 4 Baseline. The Project Controls Analyst (PCA) has been instructed to not advance the baseline without the endorsements.
4. All delivery plan documents shall be stored in the project directory where they are accessible to all project team members.
5. Initialing of the original endorsement sheet is done to indicate acceptance of revisions made during completion of a Performance Measurement Baseline Change Control action.

# PROJECT DELIVERY PLAN ENDORSEMENT

**Project Name & Number:** SD PRA BADL 10(7) Dillon Pass

## Project Cross-Functional Team Endorsement

I certify that I have been actively engaged during the development of the Delivery Plan; including the Scoping Report, Statement of Work, Budget Worksheet, Primavera Schedule, Project Agreement, Risk & Opportunity Management Plan, and Preliminary Construction Estimate. As the discipline's representative I have contributed to the evaluation of risk to be assumed in the delivery of the project (e.g., scope, schedule, and budget). By signing this endorsement I signify my acceptance of the delivery plan.

| Name | Signature |
|---|---|
| Project Manager: J. Michael Will | 2/2/2011 |
| Bridge: N/A | |
| Construction: Dave Balding | |
| Design: Jill Mathewson | |
| Environment: N/A | |
| Geotech: N/A | |
| Hydraulic: Gerald Blackler | |
| Materials: Joe Wilson | /s/ by email 2/2/2011 |
| Pavements: Steve Deppmeier | /s/ by email 2/8/2011 |
| ROW & Utilities: N/A | |
| Safety: Ed Demming | |
| Survey & Mapping: N/A | |

Following CFT endorsement electronically distribute location (link) for delivery plan files to Management Board; include a note identifying key focus areas.

## Management Board Endorsement

The Project Delivery Plan is hereby endorsed and development activities may begin.

| Project Manager Branch Chief or alternate | Signature | Date |
|---|---|---|
| Ed Hammontree | /S/ by email 02/10/2011 | |

# PROJECT DELIVERY PLAN ENDORSEMENT

**Project Name & Number:** SD PRA BADL 10(7) Dillon Pass

## Delivery Plan Document Checklist

Indicate all documents generated for inclusion in the delivery plan by checking (double clicking) the checkboxes.

| INTERNALLY DELIVERED PROJECT | A/E DELIVERED PROJECT |
|---|---|
| Primary Documents (required) | Primary Documents (required) |
| ☒ Scoping Report | ☐ Scoping Report |
| ☒ Project Agreement | ☐ Project Agreement |
| ☒ Risk & Opportunity Management Plan | ☐ Risk & Opportunity Management Plan |
| ☒ Preliminary Construction Estimate | ☐ Preliminary Construction Estimate |
| ☒ Internal Statement of Work | ☐ Internal Statement of Work (Oversight Plan)* |
| ☒ Internal Budget Worksheet | ☐ Internal Budget Worksheet |
| ☒ Primavera Schedule (Baseline) | ☐ Primavera Schedule (Baseline) |
| Supplementary Documents (optional) | Supplementary Documents (optional) |
| ☐ Communication Plan | ☐ Communication Plan |
| ☐ Project Specific Quality Control Plan | ☐ Project Specific Quality Control Plan |
| ☐ Project Specific Change Control Plan | ☐ Project Specific Change Control Plan |
| ☐ Procurement Plan | ☐ Procurement Plan |
| ☐ Lessons Learned & Closeout Plan | ☐ Lessons Learned & Closeout Plan |

* Oversight of A/E as described in the Internal Statement of Work and Internal Budget Worksheet is consistent with the A/E Oversight Guidelines unless specifically noted below:

# Federal Highway Administration
# Central Federal Lands Highway Division
# National Park Scoping Report

## Badlands National Park

## Pennington County

## South Dakota

## SD PRA BADL 10(7)

## Roadway Rehabilitation, Restoration, and Resurfacing And Storm Drainage Repair

**Prepared By:**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**
**LAKEWOOD, CO**

**NOVEMBER 2010**

## I. ROUTE DESCRIPTION

**State:** **South Dakota**

**County:** **Pennington County**

**National Park:** **Badlands National Park**

**Route Number and Name:** **Route 10, Badlands Loop Road, Dillon Pass**

**Route Location (include map):** **This route is located in Badlands National Park**

**Route Length:** **Approximately 3.4 miles**

**Maintaining Agency:** **Badlands National Park.**

**Route Segments:**

**Segment 1: Dillon Pass, located approximately between the Pinnacles Parking Lot and mile marker 23. This section of roadway is the only section yet to be rehabilitated.**

| Functional Classification | Terrain | Type | Posted Speed | ADT | Vehicle Classification | Surface Type | Paved/ Bench Width | Structures on Segment |
|---|---|---|---|---|---|---|---|---|
| Principal Park Road (Class I) | Rolling | 3R | 35 mph | 2011: 2498<br>2031: 2963 | %Trucks: 2.0<br>%Buses: 0.5<br>%RV's: 4.5 | Asphalt | 28' | None |

**Project Funding:**

**Fiscal Year:** **2011**

**Funding Type:** **FLHP, Park Roads & Parkways**

**Construction Cost:** **$[redacted]000**

**Seasonal Restrictions:**

**Construction Season:** **August – October**

**Field Work Season:** **April - October**

**Other Restrictions:** **No work Friday through Monday of the first full week in August to accommodate the Sturgis Rally. Also, no work will be performed after**

**dark to allow for cultural and paleontological monitoring during construction.**

## II. CONTACTS

The following people have been designated as primary contacts for Project Development activities that may occur subsequent to the scoping effort:

**National Park:**

Name: Cody Waggener
Title: Facility Manager
Address: 25216 Ben Reifel Rd.
Interior, SD 57750
Phone: (605) 433-5270
Fax:
Email: Cody_Waggener@nps.gov
Responsible for: NPS coordination and PS&E reviews

**FHWA-CFLHD:**

Name: Mike Will
Title: Project Manager
Address: 12300 W. Dakota Ave.
Lakewood, CO 80228
Phone: (720) 963-3647
Fax: (720) 963-3596
Email: Michael.will@dot.gov
Responsible for: Project management for design and construction.

**Denver Service Center:**

Name: Tracy Cudworth
Title: Project Manager
Address: 12795 W. Alameda
Lakewood, CO 80225
Phone: (303) 969-2555
Fax: (303) 969-2736
Email: tracy_cudworth@nps.gov
Responsible for: NPS coordination

**FHWA-CFLHD:**

Name: Jill Mathewson
Title: Hwy Design Engineer
Address: 12300 W. Dakota Ave.
Lakewood, CO 80228
Phone: (720) 963-3342
Fax: (720) 963-3610
Email: jill.mathewson@dot.gov
Responsible for: PS&E preparation and design

## III. AVAILABLE DATA

| | | | |
|---|---|---|---|
| ____ | PMIS Data | ____ On File | ____ Available From: |
| _X_ | General Management Plan | _X_ On File | ____ Available From: |
| _X_ | Road Inventory Program (RIP) Data | _X_ On File | ____ Available From: |
| ____ | As Builts / As Constructed | ____ On File | ____ Available From: |
| _X_ | Previous Project Plans | _X_ On File | ____ Available From: |
| ____ | Construction Records | ____ On File | ____ Available From: |
| ____ | Survey Data | | |
| | _X_ Digital Ortho Quarter Quads | _X_ On File | ____ Available From: |

| | | | | | |
|---|---|---|---|---|---|
| ____ | | ____ | | ____ | |
| X | Digital Raster Graphics | X | On File | ____ | Available From: |
| X | Quad Maps | X | On File | ____ | Available From: |
| X | GPS Trace / Data | X | On File | ____ | Available From: |
| ____ | Utility Agreements | ____ | On File | ____ | Available From: |
| ____ | Geographic Information Systems Data | ____ | On File | ____ | Available From: |
| ____ | Right-of-Way Information | ____ | On File | ____ | Available From: |
| ____ | Bridge Inspection Report | ____ | On File | ____ | Available From: |
| ____ | Engineering Studies / Reports | ____ | On File | ____ | Available From: |
| X | Geotechnical Reports | X | On File | ____ | Available From: |
| X | Pavements/Materials Reports | X | On File | ____ | Available From: |
| ____ | Hydraulics Report | ____ | On File | ____ | Available From: |
| ____ | Bridge Scour Evaluation Report | ____ | On File | ____ | Available From: |
| ____ | Transportation/Traffic Reports | ____ | On File | ____ | Available From: |
| X | Accident Reports / Data | ____ | On File | X | Available From: BADL |
| ____ | Environmental Reports | ____ | On File | ____ | Available From: |
| X | National Park Map | X | On File | ____ | Available From: |

## IV. FUNCTIONAL DISCIPLINE CONSIDERATIONS

### A. SAFETY

1. Provide accident history if available (Sources: NPS, County, State, Local Police or Denver Service Center may have data). If not available, obtain anecdotal accident information or look for evidence of crashes. 2 crashes during 10 years, 1 injury – indicates road is operating safely.

   Accident data is available through BADL. There is no evidence of crashes within the project limits.

2. Describe any potential problems with sight distance, clear zone, roadside hazards (including headwalls, culverts, trees, utilities, etc.), pedestrian or animal crossings or unusual traffic conditions:

   If a road closure is not provided, plenty of time should be given for approaching traffic to slow down prior to the project location since it is located on a slope and sight distance is limited.

3. If the scope of the project is 3R and the profile of the roadway is raised, will the roadway and foreslopes still fit on the existing bench? Will the foreslopes still be an acceptable slope? Will the new pavement edge drop-offs be less than two inches in height?

   The profile of the roadway will not be raised. The section of roadway to be excavated will be placed to match the existing profile. The existing roadway bench will not be changed.

4. If the scope of the project is 3R and the profile of the roadway is raised, will roadside and median barriers be the correct height?

   No, roadside and median barriers will need to be replaced.

5. Does the existing guardrail meet current standards? Terminal sections? Bridge rail? Transitions? Other roadside or median barriers?

   N/A

6. Any areas where guardrail should be added or removed?

   No guardrail is presently located or proposed within the project limits.

7. Are sign supports crashworthy if located within the clear zone?

   Existing sign supports will be inspected for safety features. Signs will be replaced or re-hung on crashworthy supports as needed.

8. Are permanent sign panels in good condition for both day and night, clearly understood and in compliance with the MUTCD? Are passing zones and other pavement markings appropriate?

   Yes, pavement markings are appropriate and will be repainted upon completion of the road improvements. There are no passing zones in this section of roadway. Chevrons will be added around tight curves at spacing specified in the MUTCD. Consider adding pasing zones

9. Describe any special permanent traffic control management. Any special signs, markings, supports, rumble strips or traffic signals required? Any new traffic patterns to be established?

   None.

10. Describe temporary traffic control management. Include any restrictions for widths, seasons, structures, etc. Any time of year when the road can be closed? Will the road be open to all vehicles or will use be restricted (shuttles only, school bus and mail vehicles only, etc.)?

    The road will need to be closed at periods of time to facilitate subexcavation, as well as replacement of culverts if excavation (opposed to pipe jacking) is the chosen method. See below (#11) for detour details. Also see below (#12) for closure details.

11. Any temporary diversions to be constructed or detours that needs to be planned? Consider existing bridge/structure locations and possible construction phasing requirements:

    This portion of Route 10 be closed if the roadway is subexcavated, or excavated for culvert replacement. Traffic will be detoured either around Bigfoot Pass Road to Exit 21 to I-90, around Conata Road to Highway 44, or around Highway 240 to Exit 110 to I-90. Detours will change according to the progress of construction. If a culvert is replaced through pipe jacking, one lane will be closed at a time to facilitate installation of the geogrid if required.

12. Any traffic restrictions for rush hours, weekends and holidays?

    The Sturgis Bike Rally is scheduled for August 8 through 14, 2011. The week before and week after are also busy travel times for the Park. It is anticipated that no work will be allowed on major holidays and from Friday through Monday of the first full week in August to accommodate the Sturgis Rally.

**B. UTILITIES**

1. Are there any known utilities that may need to be relocated or avoided? Describe the location and type of the utilities. Identify the agency(s) responsible for utility issue coordination, relocation and for any costs associated with utility issues. Develop and include a contact list:

   There is an overhead power line crossing the roadway 0.2 miles west of the Homestead Overlook, and a buried telephone cable located in the right ditch line beginning 3.1 miles south of the Old Northeast Road (377/240) intersection and running for 0.2 miles. Neither should be impacted due to construction. This will be verified through coordination with BADL.

2. List any special considerations regarding utilities (hazardous or environmentally sensitive situations, time restrictions on interruption of service, security sensitive utilities, the effect of changing grade above or below a utility, the time or process needed to redesign and relocate utilities (if known), etc.):

   None known.

3. Are there any existing utility agreements or easements between the roadway owner and the utility owner? What are the terms of the agreements and/or easements?

   None known.

4. Any irrigation ditches within the project corridor? Are there time constraints or mandatory operation periods? List owner/contact person if available:

   None.

## C. PERMITS

| PERMIT | REQUIRED? | TO BE OBTAINED BY: |
|---|---|---|
| **<u>Corps of Engineers Section 404 Permit</u>:** | | |
| Will the project require discharging fill into wetland(s)? | No | |
| Will the project require discharging fill into a perennial stream? | No | |
| Or<br>Discharging fill into an intermittent or ephemeral stream? | No | |
| Or<br>Discharging fill in a pond or lake? | No | |
| Will any fill be placed below the ordinary high water mark? | No | |
| Will there be any channelization or channel changes required? | | |
| Is a Nationwide or Individual Permit Required? | Nationwide [X]<br>Individual [ ] | |
| Take photos of any potential impact areas of wetlands and streams. Identify photo locations on a site map.<br>*Photos are extremely helpful in assessing permit needs, in completing applications and providing the Corps useful information for their decision document. Photos are required as part of the documentation in some Corps Districts. | | |
| **<u>NPDES Permit</u>:** | | |
| Will 1 to 5 or 5 or more acres of land be disturbed? | 1 to 5 [X]<br>5 or more [ ] | |

| | | |
|---|---|---|
| Is the project on Tribal lands? | No | |
| Is the project subject to any County or Local sediment/erosion management plan? | No | |
| Is the project subject to a State or Basin sediment/erosion management plan? | No | |
| Is the Park willing to assume responsibility for the NPDES Permit upon completion of construction? | Yes | |
| **Other Permits/Authorizations:** | | |
| Is an authorization required for any of the following? | | |
| Staging Area? | No | |
| Disposal/Waste Area? | N/A | |
| Material Source? | No | |
| Asphalt or Concrete batch plant? | No | |
| Utility line or buried pipe? | N/A | |
| Other? | No | |
| State Dewatering permit? | No | |
| Local, County or State Air Quality Permit? | No | |
| County Road Access or Encroachment permit? | No | |
| State Highway Access or Encroachment permit? | No | |
| Stream alteration permit? | No | |
| Are you aware of any other permits that may be required? | No | |

## D. ENVIRONMENT

| TASK | REQUIRED? | TO BE COMPLETED BY: |
|---|---|---|
| **<u>NEPA Document</u>:** | | |
| Who will complete the Environmental Screening Form (ESF)? | Yes | NPS-Park |
| What is the anticipated type of document (Cat. Ex., EA or EIS)? | EA (* see below) | NPS-Park |
| Who made the determination? | | NPS- Park |
| Who will be doing the resource surveys (T&E species, rare plants, cultural resources, etc.)? | NPS | |
| **<u>FWS – Section 7 Concurrence</u>:** | | |
| Is a Biological Assessment/Evaluation required? | No | |
| Are there any State listed species? | None Known | |
| Is the project located within 100 miles of the coast (National Oceanic and Atmospheric Administration (NOAA), Fisheries jurisdiction)? | No | |
| **<u>SHPO – Section 106 Concurrence</u>:** | | |
| Are any items within the project area on or eligible for listing on the National Historic Register? | No | |
| Is a Cultural Resource Survey required? | No (previously complete) | |
| **<u>Tribal/TCP Issues</u>:** | | |
| Are there any tribes who will have an interest in the project? | No | |
| Are there any Traditional Cultural Properties (TCP's) near the road? | No | |

| | | |
|---|---|---|
| **Wetlands:**<br><br>Is a wetland delineation survey required? | No | |
| **Other Concerns:**<br><br>Is there any known or possible hazardous waste on the project (lead paint, asbestos, underground storage tanks, unidentified 55 gallon drums, abandoned buildings, etc.)? | No | |
| Is the road a designated Scenic Byway or Backway? | No | |
| Are there any rivers in the project area that are designated a State or National Wild and Scenic River? | No | |
| Are there any Water Quality issues that may require a monitoring plan? | No | |
| Are any Storm Water Management devices required? If so, what are the design criteria? | Yes | |
| Will there be a lot of controversy about the project? Are there active environmental groups in the area? | No | |
| Are there any wildlife or aquatic organism crossing/passage issues? | No | |

* NEPA for this project was previously completed by the NPS. An update to file is anticipated.

## E. SURVEY

1. Is any existing survey, mapping or GIS information available?

   A limited amount of GPS data was created during the scoping meeting that includes centerline. The Park has some GIS data available for the area.

2. What type of survey is recommended for the project?

   This route is on rolling terrain. No new alignment, realignment or major grade changes are proposed. GPS data was created in November 2010

that includes centerline and culvert inlets and outlets. Project photos were also taken at that time. No further survey work is anticipated.

3. Are there special features that require precise location (walls, fences, complicated utilities, archaeological sites, wetlands, bridges, other structures, etc.)?

   There are some archaeological sites near the project area. The location of these sites has been verified with the Park to ensure protection, but the proposed construction will not impact these sites.

   A paleontological survey has been completed along the loop road in this area. Because some of the associated sediments could be fossil-rich, a paleontological construction monitor, provided by the Park, will need to be on site during all excavation activity. They shall be notified two weeks in advance prior to excavation.

4. Are there any existing control monumentation records?

   There are no known control monumentation records.

5. Get GPS positions at the beginning, end and any significant locations throughout the project.

   As detailed design progresses, more GPS data may be created as needed.

## F. RIGHT OF WAY (ROW)

1. Is the project located entirely within the National Park? Are there any private parcels or in-holdings located along the project corridor?

   The entire Route 10 is located within Badlands National Park.

2. Are there any special ROW fencing requirements?

   No.

## G. GEOTECHNICAL

1. Describe the soils in the project vicinity:

   Soils in the project vicinity are derived primarily from the Brule Formations of the White River Group. Specifically, these formations consist of bentonitic clays, fine windblown sands and silt, and volcanic ash. The bentonitic clays have significant shrink/swell potential and tend to creep down underlying strata because of their plasticity characteristics.

2. Any evidence of swelling/shrinking soils or areas of distress? Take pictures of distressed areas:

   Native soils in the project vicinity include bentonitic clays with significant shrink/swell potential.

3. Are there any other obvious geological features on the project (sinkholes, slides, bogs, standing water, slope stability problems, etc.)?

   Several culverts were identified that have severely eroded the soil around their outlets. In some cases, the erosion around the culvert is causing the upper fill soils to relax and move downslope, causing pavement distress. This project is developed to address the fill slope failures and subsequent pavement distresses along the route.

4. Any rock fall issues or considerations?

   No.

5. Give locations of borrow pits, stone quarries or any material sources. Describe access and any restrictions:

   Any necessary borrow pits or quarries for this project will be located outside Badlands National Park.

6. Any permits, easements or agreements necessary for drilling?

   No.

## H. PAVEMENTS

1. Describe any areas of pavement distress (take pictures):

   There is cracking along the edges of some of the shoulders throughout the project corridor.

2. Does the distress appear to be related to subgrade failures, oxidation, poor drainage or other problems? Are there areas that have required frequent maintenance?

   The pavement distress appears to be a result of poor conveyance of the stormwater from the outlet of the culverts, along with failing slopes.

3. Any areas of special concern for pavement design (bus parking, bus stops, heavy pedestrian traffic, horse crossings, etc.)?

No.

4. For 3R projects, what is the anticipated structural section (i.e. – pulverized pavement, new asphalt, foamed asphalt base course, etc.)?

   The anticipated structural section for this project is three inches of hot asphalt concrete pavement over six inches of aggregate base course.

5. Is there any information on existing asphalt and base depths?

   Existing pavement and base depths were recorded for the 10(5) project, a section of which is located approximately one mile from the project site near the Pinnacles entrance. The depths are available in the Geotechnical/Pavement Report dated December 2004 by Parsons Brinckerhoff.

## I. HYDROLOGY / HYDRAULICS

1. Photograph and describe location and type of known drainage problems.

   The soil in Badlands National Park is very fine and is susceptible to erosion. The areas around the outlets of several culverts are severely eroded. As water drains from the pipes, the fine soils wash away, forming large gullies at the outlets. In some cases the end sections of the pipes have broken off and washed away with the stormwater. See the Photo Log for pictures of the outlet areas requiring special treatment.

2. Describe location, size, shape, material, and condition of all drainage structures to be retained. Describe evidence of scour/erosion at inlets/outlets, deposition of sediment or debris at inlets/outlets, abrasion or corrosion of pipe, presence of riprap aprons at inlets/outlets, any associated roadway embankment stability concerns. Photograph inlets, outlets, and other cited problems.

   Drainage structures that are clean, well-maintained, and functioning properly will be retained. Drainage structures that are failing, in poor condition, or causing erosion problems will be abandoned, cleaned, repaired, or replaced as necessary. Replacement pipes will include CMP and concrete, depending on the size and location. Flexible pipe rundowns will also be added to several of the pipes to convey stormwater to the channel bottoms. Sideslopes will be re-stabilized where substantial erosion at the outlet of the pipes is causing slope failure and poor stability. Photos of several of the culverts were taken at the initial project site visit.

3. Photograph and describe any channel migration concerns or anticipated stabilization work (photograph channel looking up and downstream).

   None.

4. Does the project potentially impact a floodplain regulated by FEMA? Is there potential for the floodplain to be encroached upon by roadway fill? If yes, get the name of the local floodplain administrator.

   No.

5. Is there potential for embankment and/or retaining walls being located along streams/channels or floodplains? If yes, describe.

   No.

6. Any overriding (superceding CFL Design Manual) local or state requirements for roadway overtopping, backwater, freeboard, design floods, or hydrologic methods at bridged waterways?

   N/A

7. Is there a minimum design flood (in years) or other criteria proposed for culvert and/or roadway drainage design?

   The culverts will be designed using a minimum 50-year design flood.

8. Any fish passage issues? If so, describe issues and locations.

   No.

9. Is the project located within 100 miles of the West coast (National Oceanic and Atmospheric Administration (NOAA) fisheries jurisdiction)?

   No.

10. Are any stream and/or floodplain restoration efforts anticipated? If so, describe.

    No.

11. Are any low-water crossings anticipated? If so, describe.

    No.

12. For existing bridges over waterways, has the bridge been evaluated for scour susceptibility? If yes, obtain Bridge Scour Evaluation Report.

    There are no bridges within the project limits.

## J. HIGHWAY DESIGN

1. Describe any horizontal and vertical alignment problems:

   There are no horizontal or vertical alignment problems in the project vicinity.

2. Intersection problems:

   There are no intersections within the project limits.

3. List the Public Access approach roads within the project limits *(it is not necessary to list all driveways, just public access roads)*:

   There are no Public Access approach roads within the project limits.

4. Are there any private driveways within the project limits? List the approximate number of driveways.

   None.

5. Maintenance Problems:

   The erosion at several culvert inlets and the deep gullies formed from the water flowing from the outlets are creating maintenance problems. Many side slopes are very steep and difficult to perform maintenance on. Some culvert end sections been washed away with the stormwater. More permanent fixes are needed.

6. Describe any parking areas and pullouts included in the project. Will the parking areas and pullouts be reconstructed? If so, who will provide the layouts?

   Parking areas and pullouts will be repaved. Layout information was gathered via GPS during the initial site visit. As detailed design progresses, more GPS data may be created as needed.

7. Are projected bicycle and pedestrian uses accommodated?

   There are currently no trails or bikeways adjacent to the mainline road, nor are they proposed.

8. Are any retaining walls needed along the project? What types of retaining walls will be considered?

   Retaining walls are not proposed in this project.

9. Describe other roadway features to be rehabilitated or rebuilt (i.e. – picnic areas, entrance gates, concession areas, rest areas, bus shelters, etc.). Who will provide design plans?

   Parking pullouts and scenic overlook areas within the project limits will be rehabilitated. Layout information was gathered via GPS during the initial site visit. As detailed design progresses, more GPS data may be created as needed.

10. Any vistas or vegetation to preserve (take pictures):

    There will be no permanent impacts to any vistas. All disturbed areas outside the roadway will be revegetated following construction.

11. Is there a specific seeding season for revegetation efforts? Will the Park be performing any seeding? Obtain the seed mix from the Park for incorporation into the Special Contract Requirements:

    The construction contractor will perform seeding following completion of the project. A specific seed mix and season will be developed by the NPS during project development activities.

12. Any special architectural or decorative aspects to be incorporated into design (stone masonry guard wall, stone curb, rock facing, etc.)?

    No.

13. Are there any realignment options that should be considered? Describe the alternatives and reasons for evaluation:

    None.

14. Is this project part of a series of projects? Is it completion of a defaulted contract? Describe any projects, under design or construction by any agency that may affect this project:

    Dillon Pass, located approximately between the Pinnacles Parking Lot and mile marker 23 is the only section of roadway on Route 10 yet to be rehabilitated.

15. Have there been any construction problems on previous projects? Contact the Construction office for further details:

    The only problems with previous construction projects dealt with cold in place recycling of the existing pavement, which is not proposed under this contract.

16. Discuss any restrictions for construction equipment (limited working space, no driving on newly paved areas, etc.):

    All construction equipment must be cleaned of debris and foreign vegetation according to the Special Contract Requirements. The Park must approve all staging areas prior to construction. A snow fence or other barrier shall be placed around all parked equipment to prevent wildlife from potentially being exposed to any antifreeze or oil leaks.

17. Are there load or hauling restrictions on the project or on roads leading to the project?

    No.

18. List potential staging areas and any restriction or access problems:

    Staging areas shall be pre-approved by the Park and will be discussed as development progresses.

19. Any potential water sources within or near the project?

    Water sources for the project will be discussed with the NPS as development progresses.

20. Are there plans or proposals for other developments along the route that could interfere or be coordinated with the road project?

    No.

21. Is there any way to get a report or listing from maintenance personnel about problem sites, accident history or other areas of concern?

    The project was identified because several areas are consistent maintenance problems for Badlands staff.

22. Any special fencing (wildlife, landscaping, bison containment) along the project? Will it need to be replaced in kind or with another type? Take pictures of special fencing to be replaced in kind:

None.

23. Identify any design concerns not previously covered. These may include political and legal concerns, expected materials shortages, impacted property owners, any compensatory work regarding impacted property, any public opposition to the project, any potentially dangerous situations to CFLHD employees:

    Several culverts outlet onto very steep slopes. Accessing these areas may be difficult.

    Dust abatement during construction will be necessary to protect the sheep population in the vicinity of the project. Dust abatement measures will be further developed as project development progresses.

### K. BRIDGE

There are no bridges, retaining walls, or tunnels within the project limits.

## V. PROPOSED IMPROVEMENTS

### A. SAFETY

Side slopes will be stabilized to prevent undermining of the roadway pavement.

### B. UTILITIES

No improvements.

### C. PERMITS

No improvements.

### D. ENVIRONMENT

No improvements.

### E. SURVEY

No improvements.

### F. RIGHT OF WAY (ROW)

No impacts or improvements.

## G. GEOTECHNICAL

No Geotechnical work is expected at this time.

## H. PAVEMENTS

The proposed improvements include installing geogrid reinforcement beneath the roadway to help stabilize the subgrade. The improved structural section will result in a more durable roadway. This section of roadway, which includes several cracks, will be replaced.

## I. HYDROLOGY / HYDRAULICS

Existing damaged and failing culverts will be replaced with new CMP or concrete culverts. This will result in a longer lasting drainage feature and help prevent erosion. Erosion control will also be added at the culvert outlet to help prevent further washing away of the slope.

## J. HIGHWAY DESIGN

There are no proposed changes to the design of the highway itself.

## K. BRIDGE

No improvements.

### HIGHWAY DESIGN STANDARDS

**Design Standards** **__X__AASHTO** **__X__NPS** **____OTHER**

**Design Vehicle: Motor Home**

**Design Speed: 35 mph (55 km/h)** **Posted Speed Limit: 35 mph (55 km/h)**

| DESIGN CRITERIA | EXISTING CONDITIONS | STANDARD | PROPOSED | REMARKS / POSSIBLE VARIANCES |
|---|---|---|---|---|
| **Travel Way Width (m or ft)** | 22 ft | 22 ft | 22 ft | Maintain existing width |
| **Shoulder Width (m or ft)** | 3 ft | 3 ft | 3 ft | Maintain existing width |
| **Horizontal Curvature (min. radius, m or ft)** | >340’ | 340’ | >340’ | (Assuming e=6%) Maintain existing alignment, no design exceptions. |
| **Superelevation (%)** | | 6% (max) | | |
| **Superelevation Runoff (m or ft)** | | 116’ | | |
| **Vertical Curvature (K value = L/A)** | | K sag = 49<br><br>K crest = 29 | K sag = 49<br><br>K crest = 29 | |
| **Crown (%)** | 2% | 2% | 2% | |
| **Gradient (max. %)** | | Rolling- 9 to 10% | | |
| **Stopping Sight Distance (m or ft)** | | 250’ | 250’ | |
| **Horizontal Clearance to Structures (m or ft) (tunnels and bridge underpasses)** | N/A | - | N/A | |

| DESIGN CRITERIA | EXISTING CONDITIONS | STANDARD | PROPOSED | REMARKS / POSSIBLE VARIANCES |
|---|---|---|---|---|
| **Vertical Clearance to Structures (m or ft)** | N/A | - | N/A | |
| **Bridge Width (m or ft)** | N/A | - | N/A | |
| **Bridge Loading (MS or HS)** | N/A | - | N/A | |
| **Bridge Railing (AASHTO Criteria or Crash Tested)** | N/A | - | N/A | |

**Roadside Design:**

Recommended clear zone for this project is 10 feet. It is not practical to install guardrail throughout the entire Park where the clear zone is not met due to lack of recoverable slope. There are no immediate obstructions in the clear zone. There is also no evidence of accidents due to lack of clear zone in the project vicinity. The clear zone will not be modified other than vegetation removal incidental to culvert replacement.

**Approved for Distribution:**

_____ _____

**Mike Will, P.E.,**
**Project Manager**

**Date**

**DISTRIBUTION**

**National Park Service, Badlands National Park**
Paige Baker, Superintendent
Cody Waggener, Facility Manager
Rachel Benton, Paleontologist
Eddie Childers, Wildlife Biologist
Jay Vogelgesang, Equipment Operator
Galen Livermont, Roads & Trails Supervisor
Brian Kenner, Chief of Resource Management
Marianne Mills, Visitor Resources

**National Park Service, Denver Service Center**
Tracy Cudworth, Project Manager
Pat Walsh, Environmental Compliance

**National Park Service, Midwest Regional Office**
Wayne Vander Tuin, FLHP Coordinator

**Federal Highway Administration, Central Federal Lands Highway Division (CFLHD)**
Mike Will, Project Manager
Ryan Olson, Highway Design Manager
Jill Mathewson, Lead Designer
Scott Sertich, Designer
Bill Jones, Permits
Steve Deppmeier, Pavement Engineer
Justin Henwood, Geotechnical Engineer
Bart Bergendahl, Hydraulics Engineer
Ed Demming, Safety Engineer
Elijah Henley, NPS Planning and Programs Coordinator

# COMPREHENSIVE PROJECT AGREEMENT

*United States Department of the Interior / National Park Service*

**Between the National Park Service,**
**Badlands National Park, Midwest Region, Denver Service Center**
**And the**
**Federal Highway Administration, Central Federal Lands Highway Division**

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*This agreement describes specific project requirements to be fulfilled and duties to be performed by all parties to produce or supply the services and products as agreed to below.*

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**AGREED:**

/s/ _____
Project Manager, Denver Service Center, NPS Date

/s/ _____
Project Manager, Central Federal Lands Highway Division, FHWA Date

/s/ _____
Director of Project Delivery, Central Federal Lands Highway Division, FHWA Date

/s/ _____
Superintendent, Badlands National Park Date

/s/ _____
FLHP Coordinator, Midwest Region Date

/s/ _____
Regional Director, Midwest Region Date

**Rehabilitate Loop Road - Dillon Pass**

**Badlands National Park**
**NPS PMIS No. 86786**
**FHWA Project Name: SD PRA BADL 10(7)**

## PROJECT LOCATION:

The SD PRA BADL 10(7), Dillon Pass project is located on the Badlands Loop Road in the North Unit of the Badlands National Park, approximately 8.5 miles south of the town of Wall, South Dakota in Pennington County. The proposed project begins about 50 feet southeast of the south entrance to the Pinnacles Parking Lot. Roadway work ends 240 ft east of mile marker 23 where the last construction project left off. See Figure 1 for the Project Vicinity Map and Project Location.

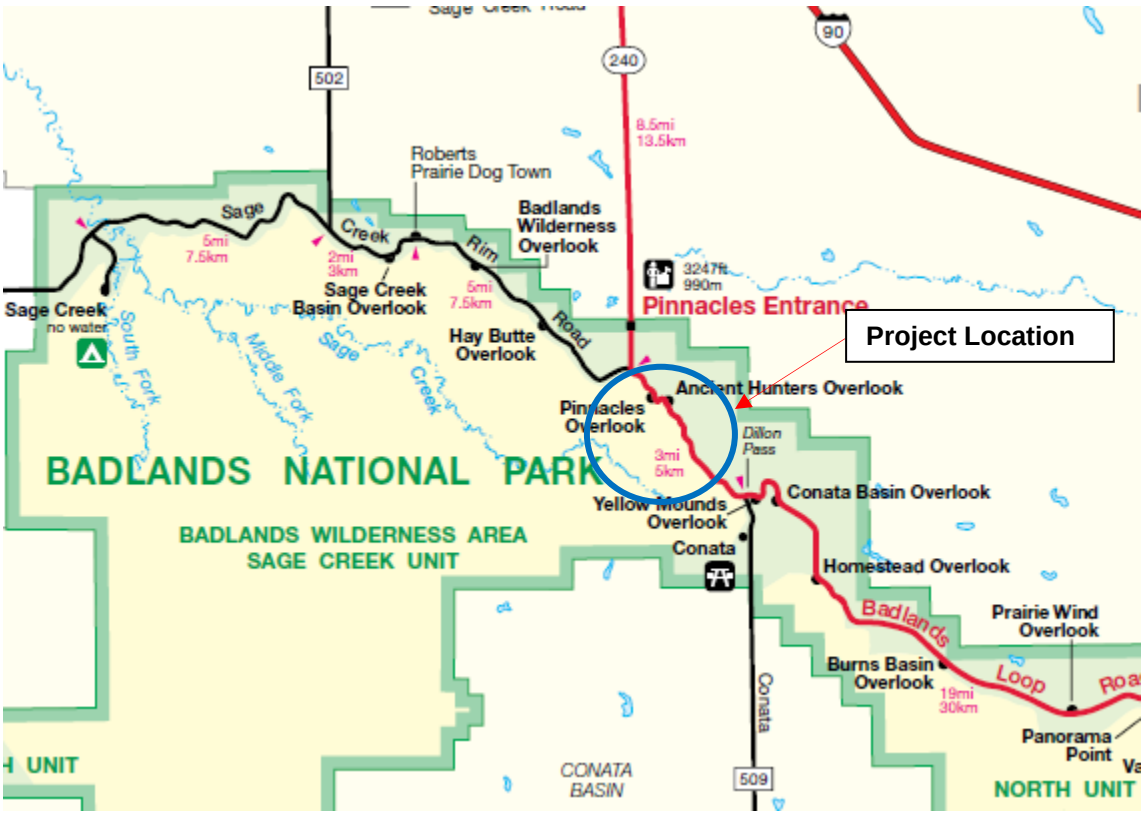


**Figure 1: Project Vicinity Map**

## PROJECT BACKGROUND:

Visitation at Badlands National Park is approximately 850,000 annually, with the vast majority utilizing the Badlands Loop Road for access to outdoor pursuits such as back country hiking, sightseeing, and wildlife watching. The project is located in Pennington County on Route 10, Badlands Loop Road. This route is maintained by Badlands National Park.

In 2007, a spot subexcavation and drainage repair was performed within the project limits near Ancient Hunter's Overlook (approx. milepost 26). This project included a deep subexcavation patch to address a fill slope failure and subsequent pavement distress. The deep culvert at this location was also replaced.

In 2008, 14.5 miles of the Badlands Loop Road was rehabilitated. This project included an asphalt overlay, updating signs to meet current standards, drainage repairs, and parking lot improvements.

The Dillon Pass section of the roadway is the only section that has yet to be rehabilitated.

## PROJECT PURPOSE

This project is designated for Federal Lands Highway Program (FLHP) funding and the Central Federal Lands Highway Division (CFLHD) is designated as an official cooperator in this project.

The general scope of the project is to obtain a reliable roadway while attempting to minimize impacts to Park resources. The project will consist of rehabilitating approximately 3.4 miles of the Badlands Loop Road at Dillon Pass in Badlands National Park. The rehabilitation will include full depth reclamation or pulverizing of the existing 3.4 miles of asphalt roadway including roadside pullouts and parking areas, resurfacing with a new asphalt concrete pavement, potentially improving two parking areas with new curbing and sidewalk, replacing or cleaning culverts and drop inlets where deficiencies exist, replacing or adding culvert rundowns to reduce roadside erosion, and rehabilitating roadside ditches as necessary. Safety improvements will consist of replacing existing roadway signing where sign reflectivity has diminished, adding chevrons around tight curves at spacing specified in the MUTCD, and placement of new roadway pavement markings.
The roadway has an ADT of approximately 3,000 vehicles and is classified as a principal park road (Class I). There is no evidence of crashes within the project limits.

Additionally, Conata Road, beginning at its intersection with the Badlands Loop Road and extending approximately 1.0 mile to the South, including parking areas, will be designed for rehabilitation to the 30% level of development as a part of the Badlands Loop Road – Dillon Pass project. Though rehabilitation of Conata Road is programmed as a separate project, the preliminary design effort will allow refinement of program estimates and scope. Unless funding materializes, Conata Road not be included in 70% PS&E package

## OVERALL PROJECT SCOPE:

**Pavement Structural Section Repair / Rehabilitation:**
Pavement rehabilitation will be designed for a 20-year service life.

Several segments of roadway showed signs of a soft or failing sub-grade. The Federal Highway Administration (FHWA) will identify areas where subgrade conditions require replacement of material (subexcavation) to facilitate stabilization.

**Cross Section:**
The current width of the Badlands Loop Road at Dillon passes averages 30' wide with 12' lanes, 2' shoulders, and paved ditches. Existing widths will be maintained.

**Geometry:**
The route will generally follow the existing horizontal and vertical alignment. Accident data based on the STARS database shows only two crashes over 17 years. No safety issues have been identified. Should accident history (provided by the National Park Service (NPS)) indicate a trend of severe accidents at any location along the route, the FHWA will analyze the geometry to determine the most suitable remedy to mitigate or repair the deficiencies.

**Parking:**
All parking areas or pullouts within the project limits will be evaluated by the NPS and the FHWA staff to identify improvement opportunities.

There are approximately nine informal pullouts and two parking areas along the proposed route. All of the parking areas and pullouts are currently paved except one. This pullout will be evaluated by the NPS and the FHWA to identify if it is appropriate to pave. The other pullouts and parking areas are proposed for rehabilitation, including paving and parking delineations (striping). Other improvements, including replacing the timber curb, sidewalk and/or ADA ramps will be evaluated on a case by case basis as the project progresses.

**Roadside:**
Minimum disturbance is expected to the roadside (three to five feet each side beyond the edge of existing pavement). Disturbed areas will be reseeded and mulched to promote native re-vegetation in these areas. Plans and specifications will include Best Management Practices, an Erosion Control Plan, and a Re-vegetation Plan, if necessary. Following the Preliminary Plan review, plans for re-vegetation will be developed as needed and included in the Roadway Plans and Specifications. Badlands National Park, in consultation with the Midwest Region (MWRO) and the Denver Service Center (DSC) will prepare the Re-vegetation Plan, if necessary, and provide erosion control, reseeding and mulching requirements.

**Drainage:**
All drainage features will be evaluated and replaced or cleaned as necessary. Paved ditches will be rehabilitated with new pavement and curbing. Rundowns will be replaced and/ or added to culverts as appropriate to reduce roadside erosion.

**Safety:**
The proposed route will be evaluated for opportunities to improve the vehicular and pedestrian safety features. The safety evaluation will include the following:

- Horizontal and vertical alignment
- Design speed
- Clear Zone
- Sight distance
- Bicycle / Pedestrian usage
- Accessibility treatments
- Review accident data
- Signing and pavement markings

**Utilities:**
There is an overhead power line crossing the roadway 0.2 miles west of the Homestead Overlook, and a buried telephone cable located in the right ditch line beginning 3.1 miles south of the Old Northeast Road (377/ 240) intersection and running for 0.2 miles. Neither should be impacted due to construction.

**Design Criteria:**

NPS, AASHTO, and FHWA standards and regulations will guide selection of final design criteria and construction methods and procedures. Horizontal/vertical alignments and design speeds will not be modified unless the current element or alignment dictate a revision is necessary. All design exceptions will be validated and documented. Social, economic, and environmental mitigation requirements will be incorporated into the final design and specifications.

The project objective is to rehabilitate 3.4 miles of the Badlands Loop Road at Dillon Pass in a manner that minimizes environmental impacts, meets park standards and exceptions for aesthetic, historic, and cultural identity, preserves and enhances visitor experiences, minimizes visitor and staff impacts during construction, and minimizes future operation and maintenance expenditures while meeting the programmed award date in a fiscally responsible manner, including consideration of new methods, ideas, technologies, and other value engineering materials, methods, or processes.

## COMPLIANCE/REGULATORY REQUIREMENTS:

**National Historic Preservation Act**
There are no properties or sites eligible for listing on the National Register of Historic Places within the project area.

**National Environmental Policy Act and Endangered Species Act**
The NPS will complete the environmental document for this project. Given the projects scope of work, it is anticipated the document will be a categorical exclusion or a memo to the file. The type of work and impacts included in this project were addressed in the previous Environmental Assessment, "Rehabilitate Badlands Loop Road Phases III and IV", dated August 2006. If necessary, the NPS Service Center will be responsible for conducting environmental and resource surveys as necessary to finalize the NEPA document.

The contract for this project may contain special contract provisions and mitigation measures to cover any impact topics identified in the Environmental Screening Form (ESF).

### Project Permits

**404 Permit/401 Certification**
For FHWA projects, the FHWA obtains any Corps of Engineers 404 permit and State Water Quality 401 certification needed. If a 404 permit is necessary, either nationwide or individual, then 401 certification must also be obtained. In the unlikely event that a 404 is necessary for this project, the FHWA will contact the state's water quality board to confirm mitigation measures the state may require and incorporate the requirements into the construction documents and contract.

**NPDES Permit:**
The FHWA will obtain the NPDES Permit from the regional water quality control board. Upon completion of the construction project, if 70% of re-vegetation has not yet established, FHWA will transfer the NPDES permit to the Park.

## GENERAL ROLES AND RESPONSIBILITIES:

The roles and responsibilities of the project team are generally defined as follows:

**Park point of contact (POC) Responsibilities:** Functions as primary park contact on a day-to-day basis to address project questions and issues, provides timely input of project information, and provides consolidated comments on the project documents to the NPS PM on behalf of the park.

**NPS Regional Coordinator:** Acts as a liaison with the National Park Service Washington Office (WASO) on applicable matters; coordinates and/or participates in necessary project reviews; ***monitors and approves project funding requests***. Ensures project compliance with programmatic, regional and national guidelines, policies, and standards. Functions as the primary regional project contact.

**NPS PM:** The NPS PM is responsible as the primary NPS point of project contact for maintaining clear communications with their FHWA counterpart throughout the life of the project. The NPS PM is responsible for developing the Project Agreement, distribution of all review documents and consolidation of all NPS comments for presentation to the FHWA. In addition, the NPS PM is responsible for the landscape architectural elements of the design, including the review and

comment of the 30%, 50%, 70% and the PS&E submittals, reviewing all components of the design such as the horizontal and vertical cross sections, layout, clearing limits, grading, drainage, erosion control, details, revegetation, parking areas and associated site elements, structures and furnishings such as walks, fences, walls, lighting, signs, etc., as these elements affect the overall NPS project investment. In addition, the NPS PM is responsible for providing the overall coordination within the NPS for achieving project compliance milestones and providing review of all natural and cultural resource issues to ensure that the Park Mission, NPS goals and park road standards are maintained.
**FHWA/FLHD PM:** The emphasis of the FLHD PM will be in the area of highway design and construction. This includes the coordination of all project development and construction issues associated with highway design including the technical areas needed to complete these projects (geometric, geotechnical, safety, materials, etc), unless agreed to otherwise. The FLHD PM will incorporate appropriate safety applications, as approved by the NPS, while respecting the resource impacts, historic and cultural values of the Park.

**NOTE: Both PM's are responsible for fulfilling the primary function of project management for on-time project delivery, within the agreed to scope and budget, regardless of their areas of emphasis.**

**Environmental Managers**: As agreed to by this document, functions as the primary contacts for coordinating the development and completion of environmental documentation and permit acquisition and is responsible for preparing the initial environmental screening form and the environmental work plan that defines the steps, timelines and resources needed to comply with environmental project requirements.

## PROJECT RESPONSIBILITIES:

### National Park Service – Badlands National Park

**During Project Development, the NPS-BADL will:**

1. Review and sign this Project Agreement.
2. Attend reviews and meetings.
3. Be responsible for the delivery of environmental clearance for all requested elements within the Plan, Specifications, and Estimate (PS&E) package.
4. Coordinate delivery of required elements for the environmental document including relocation of utility lines and re-vegetation.
5. Verify adherence to the environmental document.
6. Review the plans and specifications at each phase of the design and provide project development support.
7. In coordination with the FHWA project manager, ensure that completed PS&E are consistent with the intended outcome.
8. Provide overall direction regarding NPS policy and administration for the project and will approve the final PS&E.
9. The BADL Superintendent will recommend approval of the PS&E to the NPS Regional Director.

**During Construction, the NPS-BADL will:**

1. Designate a representative who will be the primary contact for the FHWA's Project Engineer.
2. Consider proposed design changes, evaluate change impacts, and provide construction oversight as needed, ensuring that requests meet the requirements intended in the PS&E.
3. Be responsible for visitor inquiries and complaints, and taking appropriate measures to inform visitors of closures or delays resulting from construction activities.
4. Attend final inspection with the FHWA upon completion of construction.
5. Approve final acceptance of the construction work following Pre-Final/Final Inspections by the CFLHD, in cooperation with the BADL and DSC Project Manager.

### NPS – Denver Service Center

**During Project Development, NPS-DSC will:**

1. Review and sign this Project Agreement.

2. Provide general leadership and project coordination for the NPS products and services.
3. Provide technical support to CFLHD as required and facilitate coordination among the NPS service provider and team members.
4. Develop and present information, as required, for decisions by the Park and Regional Office to assist the CFLHD in the resolution of any issues affecting the scope of work, schedule or budget.
5. Review the plans and specifications at each phase of the design and provide project development support.
6. Provide support to the Superintendant who will recommend approval of the PS&E to the MWR Director, based on professional advice from Park staff and CFLHD.
7. Facilitate the inclusion of NPS produced technical, environmental, visitor use, Park operational, utility, re-vegetative, and aesthetic requirements in the design, and insure they are included in the project PS&E documents and construction.

**During Construction, the NPS-DSC will:**

1. Consider proposed design changes, evaluate change impacts, and provide construction oversight as needed, ensuring that requests meet the requirements intended in the PS&E.
2. Attend preconstruction conference, progress meetings as needed and final inspection with the FHWA upon completion of construction.

## NPS – Midwest Region

**During Project Development, NPS-MWO will:**

1. Review and sign this Project Agreement.
2. The FLPH Coordinator will confirm funding and funding schedules.
3. The FLHP Coordinator will confirm project scope, review the PS&E and participate in field reviews as necessary.
4. The Regional Director will approve the PS&E prior to advertisement of the project.

## Federal Highway Administration, Central Federal Lands Highway Division

**During Project Development, the FHWA will:**

1. Develop and sign this Project Agreement.
2. Manage overall project oversight regarding maintenance of the project scope, schedule and budget in coordination with the NPS, BADL, and MWR.
3. Be responsible for inspection, sampling, testing, design, and providing engineering recommendations and design services in coordination with BADL, MWR, and the DCS.
4. Prepare the project PS&E and coordinate reviews of the project development documents in coordination with the BADL, MWR, and DSC.
5. Obtain all necessary permits.
6. The Division Engineer will recommend approval of the PS&E to the NPS Regional Director.
7. Advertise and award the contract. Bids will not be solicited by FHWA until the NPS has approved the PS&E.

**During Construction, the FHWA will:**

1. Provide a Project Engineer to be on site for construction administration.
2. Determine the need for any proposed changes to contract documents, evaluate change impacts, and ensure that the construction meets the requirements intended of the PS&E.
3. Ensure that the contractor will bear all expense of maintaining traffic.
4. Provide a public information program as needed in cooperation with BADL to coordinate all traffic control operations and public information dissemination about the project.
5. Verify adherence to environmental documents.
6. Attend final inspection with the NPS upon completion of construction.

The following matrix **summarizes the responsibilities of the Project Team** and provides contact information for this project.

| ACTIVITY | AGENCY/ OFFICE | INDIVIDUAL/PHONE No. |
|---|---|---|
| **Compliance:** | | |
| Lead Office | BADL/DSC | Brian Kenner, Resource Management,**(701)623-4730** Fax: (605)433-5248 Brian_Kenner@nps.gov |
| | | Tracy Cudworth, Project Manager, **(303)969-2555** Fax: (303)716-4604 tracy_cudworth@nps.gov |
| Environmental Management | DSC | Ginger Molitor, Natural Resource, **(303)969-2975** Fax: (303)716-4631 Ginger_Molitor@nps.gov |
| | FHWA | Wendy Longley, Env. Specialist, **(720)963-3394** Fax: (720)963-3610 Wendy.Longley@dot.gov |
| Project Agreement | DSC | Tracy Cudworth, Project Manager, **(303)969-2555** Fax: (303)716-4604 tracy_cudworth@nps.gov |
| **Design:** | | |
| Project Manager | FHWA | Mike Will, Project Manager **(720)963-3647** Fax: (720)963-3596 Michael.Will@dot.gov |
| Design Team Leader | FHWA | Jill Mathewson, **(720)963-3342** Fax: (720)963-3610 Jill.Mathewson@dot.gov |
| Safety Engineer | FHWA | Ed Demming, **(720)963-3752** Fax: (720)963-3752 Edward.demming@dot.gov |
| Pavements Engineer | FHWA | Richard Duval, **(720)963-3748** Fax: (720)963-3752 Richard.duval@dot.gov |
| Construction Engineer | FHWA | Leo DePaula, **(720)963-3413** Fax: (720)963-3437 Leo.Depaula@dot.gov |
| Project Specialist (LA) | DSC | Gail Stahlecker, **(303)969-2385** Fax: (303)716-4613 Gail_Stahlecker@nps.gov |
| Project Management<br>Project Budget<br>Project Schedule | FHWA/DSC<br>FHWA/DSC<br>FHWA/DSC | Tracy Cudworth, Project Manager, **(303)969-2555** Fax: (303)716-4604 tracy_cudworth@nps.gov<br>Mike Will, Project Manager **(720)963-3647** Fax: (720)963-3596 Michael.Will@dot.gov |
| Project Funding | REGION | Wayne Vander Tuin, FLHP Coordinator **(402)661-1740** Fax: (420)661-1741 Wayne_Vander_Tuin@nps.gov |

| | | |
|---|---|---|
| **Points of Contact:** | FHWA | Mike Will, Project Manager **(720)963-3647** Fax: (720)963-3596<br>Michael.Will@dot.gov<br>**Central Federal Lands Highway Division**<br>**12300 West Dakota Avenue**<br>**Lakewood, CO 80228** |
| | REGION | Wayne Vander Tuin, FLHP Coordinator **(402)661-1740** Fax: (420)661-1741<br>Wayne_Vander_Tuin@nps.gov<br>**National Park Service**<br>**Midwest Region**<br>**601 Riverfront Drive**<br>**Omaha NE 68102** |
| | PARK | Wolf Schwarz, **(605)433-5270** Fax: (605)433-5248<br>wolf_schwarz@nps.gov<br>**National Park Service**<br>**Badlands National Park**<br>**Ben Reifel Rd**<br>**Interior, SD 57750** |
| | DSC | Tracy Cudworth, Project Manager, **(303)969-2555** Fax: (303)716-4604<br>tracy_cudworth@nps.gov<br>**National Park Service**<br>**Denver Service Center – Transportation**<br>**12795 W Alameda Pkwy**<br>**Lakewood, CO 80228** |

## PRODUCTS AND SERVICES

### FHWA:

- Serves as cooperating agency on the NEPA document, reviews the document and provides input.
- Develop PS & E documents for the 30%, 70% and 95% design milestones.
- Participate in on-site plan-in-hand reviews.
- Produce hydrological and geotechnical engineering studies and reports as determined necessary during project development.
- Apply for and obtain any necessary environmental/construction permits.
- Advertise and award construction contract.
- Administration of construction contract.

### PARK:

- Plan and compliance document review and recommendations for approval.
- Participate in on-site plan-in-hand reviews.
- Administer environmental work for BA, Determination of Eligibility (DOE), EA and FONSI, including resource surveys required to support NHPA and NEPA.
- Conduct SHPO consultation under Section 106 of the NHPA, U.S. Fish and Wildlife Service consultation under Section 7 of the Endangered Species Act, and Native American consultations as required.
- Provide assistance regarding resource protection and traffic management during construction.

### DSC:

- Provide assistance to THRO in preparation of environmental work for BA, Determination of Eligibility (DOE), EA and FONSI, including resource surveys required to support NHPA and NEPA.

- Administer A/E consultants to survey and map noxious, exotic, sensitive and T&E plant species within project work limits.
- Administer plant salvage and replanting of T&E or other sensitive or valuable plants within construction limits as needed.
- Coordinate and facilitate Value Analysis/Choosing by Advantages (VA/CBA), and preparation of materials for DAB as needed.
- Reviews PS&E documents at 30%, 70% and 95% and provides comments.
- Coordinate and participate in on-site plan-in-hand reviews.
- Provide oversight during construction, review and approval of submittals, and draft letter of final acceptance for the Superintendent's signature.

**REGION:**

- Reviews and approves compliance document.
- Reviews PS&E documents at 30%, 70% and 95% and provides comments.
- Approves project funding.

## PROJECT MILESTONES, RESPONSIBLE OFFICE and PROJECTED SCHEDULE

The following Project Milestones, Responsible Office and Dates of Completion are required for reporting purposes. Project milestones that are not required for this project have been left blank

| Milestone | Responsible Office | Date of Completion |
|---|---|---|
| **DESIGN - PE** | | |
| Begin Project Scoping and Compliance | FHWA/DSC/BADL | 12/2010 |
| Comprehensive PA Completion | FHWA/DSC/BADL | 5/2011 |
| Prepare Environmental Screening Form | BADL/DSC | 4/2011 |
| NEPA Complete | BADL/DSC | 5/2011 |
| 70% Field Review | FHWA/DSC/BADL | 5/2011 |
| Final Design Review (95%) | FHWA/DSC/BADL | 8/2011 |
| Prepare and Sign Contract Documents | FHWA | 9/2011 |
| **CONSTRUCTION - CE** | | |
| Advertise * | FHWA | 9/2011 |
| Award Construction Contract * | FHWA | 10/2011 |
| Preconstruction Conference * | FHWA | 2/2012 |
| Notice to Proceed * | FHWA | 11/2012 |
| Begin Construction * | FHWA | 03/2012 |
| Final Project Acceptance * | PARK/REGION/FHWA | 11/2012 |

Note: Preliminary Schedule Subject to Change.

## PROJECT FUNDING AND TIMING

This project is currently programmed for funding in fiscal year 2011.

Funding Source: FLHP Category I, 3R
Programmed Net Construction: $[redacted]

**FHWA Preliminary Engineering**

| **Fiscal Year** | **FY11** | **FY12** | **Total** |
|---|---|---|---|
| Geotechnical and Pavements | $[redacted] | | $[redacted]0 |
| Highway Design | $[redacted]0 | $[redacted] | $[redacted]00 |
| Environment and Permits | $[redacted] | | $[redacted]0 |
| Project Management | $[redacted] | $[redacted] | $[redacted]0 |
| Total Preliminary Engineering: | | | $[redacted]00 |
| Total PE % = 6.0% | | | |
| Total Construction: | | (Preliminary estimate) | $[redacted] |
| Construction Engineering: | | | $[redacted]00 |
| Total PLH funds: | | | $[redacted] |

## CONTRACTING AND PROCUREMENT:

FHWA, as the contracting office, will review the available contracting options, and with the concurrence of the National Park Service, utilize the most effective contracting method.

The Contract Special Provisions will make an offer to the contractor to enter into a partnering work session with all parties involved in the contract. In addition, the contractor will be encouraged to develop, prepare, and submit value engineering change proposals (VECPs) and share in any contract savings realized from accepted VECPs.

## PROJECT AGREEMENT AMENDMENT PROCESS

Unless this agreement is modified in writing, it is expected that this project will be delivered within the stated scope, schedule, and budget. If changes are required, the responsible team member will escalate the change needs, with justification for the change, to the team leaders. The team leaders will assure that additional funds are available to accommodate the change. It is the responsibility of the project development team to recognize when changes are needed and to make timely notification to management in order to avoid project delivery delays.

The project agreement may be amended by any party to the agreement, subject to the concurrence by all original signatories. Circumstances that may result in an amendment to this agreement include any major changes in scope, schedule, products, budgets, milestone dates, and key positions. Amendments will be in the form of revisions to the original agreement or changes documented through standard correspondence or electronic mail. Distribute project agreement amendments to all signatories of the original agreement.

## CONFLICT RESOLUTION ESCALATION MATRIX

| CFLHD | NPS | Time to Resolve |
|---|---|---|
| Lead Designer: Jill Mathewson<br>Project Engineer: TBD | Park Coordinator: Wolf Schwarz<br>DSC Project Specialist: Gail Stahlecker | 5 Working Days |
| Project Manager: Michael Will<br>Construction Operations Engineer: Leo DePaula | DSC Project Manager: Tracy Cudworth<br>FLHP Coordinator: Wayne Vander Tuin<br>Park Superintendent: Eric Brunnemann | 5 Working Days |
| Project Development Engineer: Dave Zanetell<br>Construction Engineer: Curtis Scott | Deputy Regional Director: Robert Krumenaker<br>DSC Chief Park Roads & Parkways Branch: Kristie Franzmann | 5 Working Days |
| CFLHD Division Engineer: Ricardo Suarez | Regional Director: Erine Quintana<br>DSC Chief Transportation Division: George Tait | 5 Working Days |

| RISKS | | | | | | | |
|---|---|---|---|---|---|---|---|
| CAUSE | IMPACT | RESULT | Likelihood | Impact | Score | Rank | MITIGATION RESPONSE |
| **Delayed advertisement** | | | | | | | |
| Not enough resources | Milestones not met | Advertisement delayed | 1 | 5 | 5 | 20 | Gain endorsement from BC's on resource priority. |
| | Permits not approved | Advertisement delayed | 1 | 4 | 4 | 23 | Allow permitting agencies enough time to process permits. |
| Funding from FLH program | Cannot get PR signed | Advertisement delayed | 2 | 5 | 10 | 2 | Get updates from programming. |
| Delays with NPS finalizing NEPA | Milestones not met | Advertsisemnt delayed | 2 | 5 | 10 | 2 | Gain endorsement on shedule with NPS on delivery schedule through Project Agreement. |
| Funding from Park | Cannot get PR signed | Advertisement delayed | 2 | 5 | 10 | 2 | Work with Park on timeframes for funding. |
| **Delays during construction / contract mods** | | | Likelihood | Impact | Score | Rank | |
| | Bad weather worse than anticipated | Construction delay | 3 | 3 | 9 | 8 | None. |
| Subsurface conditions unexpected and poor | Additional work | Construction delay and/or modification | 4 | 2 | 8 | 11 | None. |
| R-values worse than anticipated | Additional work | Construction delay and/or modification | 2 | 3 | 6 | 17 | None. |
| Fire in National Park that needs to use Dillon Pass as access | Need to keep road open | Construction delay, contractor claim | 1 | 3 | 3 | 26 | None. Follow Emergency Services Plan. |
| NSO is observed in survey | Restriction on construction operations | Construction delay | 1 | 3 | 3 | 26 | None. |
| | Find cultural resource during construction | Construction delay | 1 | 2 | 2 | 29 | None. |
| **High EE** | | | Likelihood | Impact | Score | Rank | |
| Reevaluation of unit prices | Increase in unit prices | Increased EE | 3 | 2 | 6 | 17 | Research latest unit prices, including those in South Dakota. |
| Contractor uses onsite material for agg base | Lower unit price | Decreased EE | 2 | 3 | 6 | 17 | Provide investigation results in SCR's to highlight that it could be used. |
| | Unknown quantities being calculated | Increased EE | 1 | 3 | 3 | 26 | None. |
| | | | | | | | |
| **High bids** | | | Likelihood | Impact | Score | Rank | |
| Long distance to material sources | Increse in unit prices | High bids | 3 | 3 | 9 | 8 | Allow use of on-site materials. |
| Fuel and oil costs continue to increase | Increase in unit prices | High bids | 3 | 3 | 9 | 8 | Fuel and asphalt escalation clauses included in contract. |
| | | | | | | | |
| **Maintenance costs** | | | Likelihood | Impact | Score | Rank | |
| | Increase in erosion after construction | Increase in maintenance costs (Park) | 3 | 4 | 12 | 1 | Use of dissipators in highly erosive areas. |
| Poor construction | Defects and failures in roadway | Increase in maintenance costs (Park) | 2 | 5 | 10 | 2 | Good inspection during construction. |
| | Public uses Park roads during construction | Increase in maintenance costs (Park) | 1 | 1 | 1 | 31 | Provide Park with reimbursable funding to provide maintenance on their roads. |
| | | | | | | | |
| **Project stopped** | | | Likelihood | Impact | Score | Rank | |
| | All bids are well over the EE | Project is not funded | 2 | 5 | 10 | 2 | None. |
| | No bids received | Project re-advertised | 2 | 5 | 10 | 2 | None. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Public files an injunction (lawsuit) | Project is stopped | 1 | 5 | 5 | 20 | None. |
| | | | | | | | |
| **Decrease of Public Support** | | | Likelihood | Impact | Score | Rank | |
| | Abnormal traffic delays | Public pressure | 2 | 4 | 8 | 11 | Provide requirements for maximum traffic delays. |
| | Poor communication by the contractor with the public | Public pressure | 2 | 4 | 8 | 11 | Development of Public Information Plan. |
| | Nightime delays | Public pressure | 2 | 4 | 8 | 11 | No nightime work. |
| | Overall decrease in safety | Public pressure, accidents | 1 | 5 | 5 | 20 | None. |
| | Revegetation does not go well | Public pressure | 2 | 2 | 4 | 23 | Monitor after construction and re-apply if necessary. |
| | | | | | | | |
| **Decreased Safety** | | | Likelihood | Impact | Score | Rank | |
| | Increased speeds | Decreases safety | 4 | 1 | 4 | 23 | May seetemporary increase of 1-2 mph |
| | Increased erosion after construction | Decreases safety | 4 | 2 | 8 | 11 | Dissipators at hazardous locations. |
| | Roadway width | Decreases safety | 4 | 2 | 8 | 11 | Project will increase existing width - increase safety |
| | Public uses Park route | Decreases safety | 2 | 1 | 2 | 29 | Maintain route. |
| | | | | | | | |

Likelihood and Impact based on rating of 1 (low) to 5 (high). Score are these two numbers multiplied together. Scores are then ranked.

# SCOPE OF WORK

# DILLON PASS
# SD PRA BADL 10(7)

**Scoping/Preliminary Design/Final Design**

**Federal Highway Administration**
**Central Federal Lands Highway Division**

INTERNAL DELIVERY

December 27, 2010

# I. GENERAL INFORMATION

## A. INTRODUCTION

This Scope of Work (SOW) is to perform engineering, hydraulic, pavements design, and project management services towards delivery of a 100% plan set for the Federal Highway Administration, Central Federal Lands Highway Division (CFLHD) for proposed improvements to Badlands Loop Road at Dillon Pass.

## B. PROJECT SUMMARY

Visitation at Badlands National Park is approximately 850,000 annually, with the vast majority utilizing the Badlands Loop Road for access to outdoor pursuits such as back country hiking, sightseeing, and wildlife watching. The project is located in Pennington County on Route 10, Badlands Loop Road. This route is maintained by Badlands National Park.

*In 2007, a spot subexcavation and drainage repair was performed within the project limits near Ancient Hunter's Overlook (approx. milepost 26). This project included a deep subexcavation patch to address a fill slope failure and subsequent pavement distress. The deep culvert at this location was also replaced.*

In 2008, 14.5 miles of the Badlands Loop Road was rehabilitated. This project included an asphalt overlay, updating signs to meet current standards, drainage repairs, and parking lot improvements.

In November of 2010, the National Park Service (NPS) regional FLHP coordinator, the FHWA Project Manager, and the Badlands National Park Facility Manager conducted an overall assessment and review of the condition of the Badlands NPS public roadway system. During this review, approximately 3.4 miles of roadway were identified as needing repair. This segment of roadway shows signs of pavement contains segments showing signs of failure with rutting and cracking. There is evidence of poor subgrade and potentially the result of heavy traffic use during construction of badland 10(5) project. Most notably, are severe cross drainage issues creating the potential for significant roadway failure if left unattended. Along this segment of road are several locations where the pipe rundowns have detached creating large erosion holes adjacent to the roadway as well as junctions connecting drainages have separated, leaving sink holes on the roadway bench.

The segment of roadway to be included in this project starts just west of the Conata Basin parking area and terminates at the Pinnacles Overlook parking area. It lies entirely within the Badlands National Park and is maintained by the NPS.

## C. SCOPE

The general scope of the project is to obtain a reliable roadway while attempting to minimize impacts to Park resources. The project will consist of rehabilitating approximately 3.4 miles of the Badlands Loop Road at Dillon Pass in Badlands National Park. The rehabilitation will include full depth reclamation or pulverizing of the existing 3.4 miles of asphalt roadway including roadside pullouts and parking areas, resurfacing with a new asphalt concrete pavement, potentially improving two parking areas with new curbing and sidewalk, replacing or cleaning culverts and drop inlets where deficiencies exist, replacing or adding culvert rundowns to reduce roadside erosion, and rehabilitating roadside ditches as necessary.

Safety improvements will consist of replacing ALL existing roadway sign panels,, adding chevrons around tight curves at spacing specified in the MUTCD, and placement of new roadway pavement marking that will include an analysis of possible passing zones.

The roadway has an AADT of approximately 300 vehicles per day (I checked thew NPS website and VPD close to 300 at Pinnacles) and is classified as a principal park road (Class I). There is no evidence of recurring crashes due to geometric deficiencies within the project limits. A total of two crashes within project limits over as 10-year span according to STARS database.

Additionally, Conata Road, beginning at its intersection with the Badlands Loop Road and extending approximately 1.0 mile to the South, including parking areas, will be designed for rehabilitation to the 30% level of development as a part of the Badlands Loop Road – Dillon Pass project. Though rehabilitation of Conata Road is programmed as a separate project, the preliminary design effort will allow refinement of program estimates and scope. Unless funding materializes, Conata Road not be included in 70% PS&E package

# II. WORK REQUIRED

## A. PROJECT MANAGEMENT (PRMS Activity PM)

Step 1. Project Management oversight. Typical activities include, but are not limited to, the following:

- Identify the project requirements and determine complexity of the work, technical activities, schedules and resources
- Discuss and coordinate project requirements with the designated project team contacts
- Prepare and maintain project design files & supporting documentation for correspondence, reports, design details and calculations of quantities that are included in the plans.
- Update Project Development Plan (PDP)

Step 2. Develop and maintain a CPM Project Schedule (such as Microsoft Project CPM)

- Identify the deliverable item due dates, milestones, reviews, and meetings, that ensures meeting the completion date objective
- Identify all critical tasks in meeting the completion date
- This schedule will be used to coordinate activities, meetings, and delivery dates

**<u>Deliverables for Project Management</u>**

- Initial CPM Schedule and Revised Schedules

## B. PLANNING (PRMS Activity P1)

**<u>Project Development Planning (P1 Activity)</u>**

This activity is the starting point for all projects. Included are the tasks related to Interdisciplinary/Environmental scoping, pre-construction work planning, scheduling and budgeting. A good working draft of the Project Agreement is developed.

Step 1. Gather preliminary project information including as-builts, traffic counts, accident data, Road Inventory Project data, etc. as available. Submit one copy of project information to the CFLHD Project Manager when complete.

Step 2. Prepare a *Draft Project Delivery Plan (PDP)* for the project. The Project Delivery Plan should include the following:

- Design Scoping Report
  - Follow the FHWA Scoping Report Outline
  - Address all Project Development issues listed in the outline and recommend the work to be accomplished
  - Include recommended Utility Quality Level
- Draft Project Agreement
  - Summarize the key issues associated with the work
  - Highlight the key elements
  - Show a draft schedule of all milestone activities through completion of construction.
- Preliminary cost estimate
  - Show all major work items and include a minimum contingency of 25%
  - Recommend a project without funding limitations and a project within the program funds, if necessary. The final project to be advanced will be determined in cooperation with the Project Team.
- Comprehensive Statement of Work (SOW) for the entire project detailing all work tasks to be accomplished
- Comprehensive Project Baseline Budget
- Baseline schedule using work activities consistent with CFLHD's Project Resource Management System (PRMS).
- Communications Plan
  - Identify information needs, frequency of contact and the medium for communications.
- Risk and Opportunity Management Plan
  - Summarize the potential threats and opportunities for the project
  - Include projected responses to each threat and opportunity.
- Quality Control Plan
  - Highlight the reviews to be completed
- Change Control Plan
  - Include a draft copy of the Change Control Request Form
- Draft Lessons Learned and Closeout Plan
  - Final Plan will be developed following completion of PS&E
- Other Project Documents including (as applicable):
  - Photo Log
  - Culvert Summary
  - Sign Summary
  - Draft Environmental Screening Form (ESF, for NPS projects only)
  - Utility / ROW Cooperator Agreements
  - Other project specific documentation.
- Submit to FHWA for review and comment

Step 3. Incorporate comments and changes recommended by FHWA into the *FINAL Project Delivery Plan*. Produce final document for distribution to all Project Team Members.

- Obtain endorsement from all CFT members on Project Delivery Plan
- Obtain endorsement from Management Board on Project Delivery Plan
- Submit approved SOW and budget to P6

**<u>Deliverables for P1 Activity</u>**

- Preliminary Project Data

- *DRAFT Project Agreement*
- *FINAL Project Agreement*
- *DRAFT Project Scoping and Development Summary*
- *FINAL Project Scoping and Development Summary*

## C. ENVIRONMENT (PRMS Activities E0 to E4)

The NPS will be preparing NEPA compliance for this project. There is no anticipated work for the E0-E4 activities.

## D. GEOTECHNIAL (PRMS Activities G1 to G4)

The scope of work for this project precludes geotechnical involvement. There is no anticipated work for the G1-G4 activities.

## E. PAVEMENTS (PRMS Activities V1 to V3)

**Preliminary Pavement Recommendation (V1 Activity)**

Complete project initiation, field investigation, materials testing, analysis, and determination of cost effective pavement material, design, and rehabilitation recommendations (as applicable).

In addition to the mainline roads, pavement recommendations for pullouts, parking lots, and overlooks within the project must be included. These pavement recommendations may vary from the mainline road because existing conditions and features may vary (i.e. parking lots may have curb and gutter).

Step 1. Project Initiation

- Gather information (archived reports/files, as-builts, scoping reports, PMS data, maintenance records, traffic data, climate data, etc)
- Develop a *Field Investigation Plan* including the investigation, sampling, and testing plan, schedule, and budget. Submit the plan, schedule, and budget to FHWA
- Assume the following sample and data collection methods for this project:

| Sampling / Data Collection | **Depth(s)** | **Interval (total)[1]** | **Offset or Location** |
|---|---|---|---|
| Borings | 1 to 5 feet | ¼ mile | n/a |
| Cores | n/a | | |
| FWD[2] | N/A | | |
| DCP | n/a | | |
| Test Pits | 1 | | |
| Other (i.e. traffic data) | | | |

[1]Actual quantities or number of samples may go up or down based on field conditions encountered. The task order will be modified, as necessary, to account for changes to the estimate.
[2]Refer to FLH FWD Testing and Analysis Guidelines.

- Assume the following tests/analyses for this project:

| Tests / Analysis | Selected Test(s) | Estimated Number of Tests[3] |
|---|---|---|
| Soil Strength / Stiffness<br>-R-Value (AASHTO T 190)<br>-CBR (AASHTO T 193)<br>-Resilient Modulus (AASHTO T 307)<br>-Backcalculation of FWD Data[4]<br>-Correlation of DCP Data (ASTM D 6951) | R-Value: | 10 |
| Soil Classification & Gradation<br>-AASHTO M 145<br>-ASTM 2487<br>-AASHTO T 27 | Soil Classification & Gradation: | 10 |
| Moisture Content of Soil (in situ)<br>-AASHTO T 255 or T 265 | T 255 or T 265: | 10 |
| Moisture-Density Relation<br>-AASHTO T 99, method C<br>-AASHTO T 180, method D | n/a | |
| Soil Stabilization (evaluate feasibility, application rate, and structural value)<br>-Lime, Cement, and/or fly ash | n/a | |
| Cold In-Place Recycling (CIPR) or Full-Depth Reclamation (FDR): Preliminary Mix Designs (evaluate feasibility, application rate, and structural value) | n/a | |
| Other Testing / Analysis | n/a | |

[3]Actual quantities or number of tests may go up or down based on field conditions encountered. The task order will be modified, as necessary, to account for changes to the estimate.
[4]Refer to FLH FWD Testing and Analysis Guidelines.

Step 2. Obtain additional investigative services (traffic control, drilling rigs, etc.)

- Provide traffic control, as needed and acceptable to the local road agency and in conformance with the MUTCD.

Step 3. Complete field investigation

- Coordinate investigation, coring, and drilling access with the FHWA and the appropriate land owning/management agency. Obtain all necessary subsurface utility clearances and access permits prior to commencing investigations.
- Perform field investigation per the standards and guidance of the PDDM and supplements. This includes but is not limited to: sampling and logging (including photos); surveying pavement condition and distresses (including photos); identifying

potential material sources; identifying special pavement issues (i.e. frost heave); identifying areas for subexcavation, pavement drainage, or other spot repairs; identify obstacles for construction or rehabilitation (i.e. suitability of existing shoulder/bench for minor widening of the roadway).

- Upon completion of the field investigation, submit a brief *Field Investigation Summary Memo* (1-page typically) or E-mail to FHWA that summarizes the investigation.

Step 4. Review and compile field notes, logs, photos, etc.

Step 5. Evaluate and submit samples/data for testing and analysis

- Assure submitted samples are an adequate representation of project conditions.

Step 6. Evaluate results from lab testing, field investigation, and engineering analysis. Determine if additional investigation, testing, or analysis is necessary.

- Coordinate additional work with the FHWA

Step 7. Develop *Preliminary Pavement Recommendations Technical Memo*. This technical memo should include, but not be limited to, the following:

- ESALs for the design life of the pavement
- Effective soil resilient modulus
- Pavement structural design
- Design multiple alternatives, especially on pavement rehabilitation projects
- Economic analysis on design alternatives and a recommended alternative
- Material recommendations
- Special recommendations, spot repairs, or other pertinent information (i.e. subexcavation locations, constructability issues, local material availability, material haul distances, pavement depth variability, steep grades, recommended follow-up investigation, etc.).
- Submit to FHWA for review and comment.

## Deliverables for V1 Activity

- *Field Investigation Plan*
- *Field Investigation Summary Memo/E-mail*
- *Preliminary Pavement Recommendations Technical Memo*

## Final Pavement Recommendation (V2 Activity)

Finalize the pavement recommendations within a comprehensive report.

Step 1. Identify and/or develop needed SCRs related to the pavement structural section.

Step 2. Finalize design recommendations

- Pavement structural design
- Material recommendations
- Spot repair recommendations
- Recommendations / information on potential material sources
- Design exceptions.

Step 3. Develop a *DRAFT Pavement Report* per the PDDM and supplements. The activity includes, but is not limited to, the following:

- Development of a comprehensive report that documents all information, assumptions, and calculations that were gathered and completed during the V1 and V2 tasks
- Completing a QA review

- Submit to FHWA for review and comment

Step 4. Prepare *FINAL Pavement Report*

- Address comments by FHWA
- Submit to FHWA

**Deliverables for V2 Activity**

- *DRAFT Pavement Report*
- *FINAL Pavement Report* (hard and electronic copies)

**Final Design (Support) (V3 Activity)**

Step 1. Assure alignment of pavement report recommendations and PS&E.

- Develop addendum to Pavements Report

Step 2. Answer technical questions during the final design stage

## F. HYDROLOGY/HYDRAULICS (PRMS Activities H1 to H4)

**Preliminary Hydraulics Recommendations (H1 Activity)**

The role of the hydraulics engineer on this project will consist primarily of support to the design engineer.

Support drainage design activities through the following:

- Provide review on mitigation of corroded or badly damaged culverts.
- Provide review for outlet extensions and energy dissipation on existing culverts.
- Delineate basins for new culverts (if any).
- Review design sets and technical specifications for drainage portion at 70 and 95 percent.
- Attend site visit at 70 percent to verify quantities and outlet extension locations.

**Deliverables for H1 Activity**

- No deliverables are required under H1.

## G. HIGHWAY DESIGN (PRMS Activities D3, D4, P2 and D5)

**Develop 70% Design (D3 Activity)**

Develop and distribute (70%) detailed plans specifications and estimate (PS&E) package. See 70% Development Checklist for more specific details

Step 1. Post Scoping Field Review

- Produce master redline plan set with field review comments
- Produce trip report, including decision and action register. Submit a draft report to FHWA/CFT for comment. Incorporate comments and finalize and distribute the Scoping Trip Report.

Step 2. Roadway Design

- Develop and finalize the Typical Sections
- Complete horizontal alignment
- Complete planimetric design features (widenings, roadside ditches, guardrail, etc.)

Step 3. Secondary Roadway Design

- Complete all geometric design for approaches, major intersection plans, and intersection safety
- Complete pullout and parking area design
- Develop erosion control design

Step 4. Permanent and Temporary Traffic Control

- Develop permanent traffic control signing and striping design
- Develop construction phasing and/or detour plans
- Develop temporary signing, striping, and traffic control plans

Step 5. Plan production

- Create plan and profile sheets
- Complete plan quantities, summaries and tabulations.
- Include all applicable FLH Standard Plans and CFLHD Details to current version
- Create project specific details and plan sheets including title and site plan sheets
- Print and assemble the 70% plan package accordance with the CFLHD CADD Manual and the 70% Development Checklist. The plan package may be numbered by hand

Step 6. Cross Functional Design Support

- Provide highway design support for storm sewer design if applicable.
- Provide highway design support for environmental mitigation design and commitments.
- Support/finalize all permits and requirements
- Coordinate 70% field review with agencies involved
- Prepare travel and draft field review agenda

Step 7. Engineer's Estimate

- Complete the unit price analysis for all pay items and cost estimate

Step 8. Construction Schedule

- Create CPM construction schedule, production rates/durations for all construction items, update calendar, and written narrative discussing critical schedule elements

Step 9. Specifications

- Develop Special Contract Requirements (SCR's). Include all appropriate up-to-date SCR's from the Library of Specifications. Use the Track Changes feature to highlight or redline project specific requirements to facilitate FHWA review

Step 10. Project Documentation

- Complete Highway Design Standards form
- Risk and Opportunity Management Plan
- Prepare 70% Design Technical Memorandum
- Update Designer's Notebook
- Complete the 70% Development Checklist
- Create electronic file tracker

**<u>70% Pre-submittal/Peer Review (D3PRE Activity)</u>**

Step 1. Pre-sbumittal/Peer Review

- Assemble, print, and distribute PS&E package for peer review. Conduct peer review and incorporate review comments into PS&E package
- Distribute 70% Plans, Specifications, and Estimate package for an in-office review by the CFT

**70% Plan Review (D3PR Activity)**

Step 1. External Review

- Update PS&E from internal review comments
- Print and distribute the 70% package to external agencies
- Prepare draft responses to external reviewers

**Deliverables for D3 Activities**

- Scoping Field Review Trip Report

Pre-submittal/Peer Review Distribution Deliverables

- 70% Plans, Specifications and Estimate for Internal FHWA Distribution
- 70% Pre-submittal Design Support Documents
  - Scoping Field Review Master redlined plan set (no copy, available for meeting review only)
  - Draft Unit Price Analysis
  - Risk and Opportunity Management Plan
  - Draft copy of quantity calculations
  - Draft Highway Design Standards Form
  - Draft 70% Design Technical Memorandum

Internal Distribution Deliverables

- 70% Plans, Specifications and Estimate for Internal FHWA Distribution
- 70% Internal FHWA Distribution Design Support Documents
  - 70% Development Checklist
  - Updated CPM Construction Schedule
  - 70% Unit Price Analysis
  - Risk and Opportunity Management Plan
  - Copy of final quantity calculations and supporting documentation
  - Final Highway Design Standards Form
  - Updated 70% Design Technical Memorandum
  - Electronic Files and Tracking Sheet (Design files profile at centerline and cross sections. Updated survey topo/planimetric files when applicable.)

External Distribution Deliverables

- 70% Plans, Specifications and Estimate for External FHWA Distribution
- 70% External Distribution Design Support Documents
  - CPM Construction Schedule
  - 70% Internal Distribution Comment and Response Form, including responses
  - Final Highway Design Standards Form
  - Updated 70% Design Technical Memorandum

**Develop 95% Design (D4 Activity)**

Develop and distribute the final design and preparation of the 95% PS&E package. See 95% Development Checklist for more specific details. Hours for incorporating 70% comments into the plans are in included in applicable items below

Step 1. Post 70% field review

- Produce master redline plan set with field review comments
- Prepare a Comment and Response Form for all comments received (including both redlined plan comments and type written comments). Final responses are not required at this time.

- Produce trip report, including decision and action register. Submit a draft report to FHWA/CFT for comment. Incorporate comments and finalize and distribute the 70% Trip Report.

Step 2. Roadway Design

- Finalize the Typical Sections
- Finalize horizontal alignment
- Finalize all planimetric design features

Step 3. Secondary Road Design

- Finalize all geometric design for approaches, major intersection plans, and intersection safety
- Finalize pullouts and parking area design
- Finalize erosion control design

Step 4. Permanent and Temporary Traffic Control

- Finalize permanent traffic control signing and striping design
- Temporary Traffic Control
  - Finalize construction phasing and/or detour plans
  - Finalize temporary signing, striping and traffic control plans

Step 5. Plan production

- Standards, Details, Specials and project specific plan sheets
  - Verify/update all applicable FLH Standard Plans and CFLHD Details to current version
  - Finalize project Special Drawings and project specific plan sheets
- Finalize Plan and Profile sheets
- Finalize all plan quantities, summaries and tabulations
- Assemble the 95% plan package according to the CFLHD CADD Manual and the 95% Development Checklist.

Step 6. Cross Functional Design Support

- Provide highway design support for final hydraulics design
- Finalize/support environmental mitigation design and commitments
- Support/finalize all permits and requirements

Step 7. Engineer's Estimate

- Finalize the unit price analysis for all pay items and cost estimate for each bid schedule (if more than one)

Step 8. Construction Schedule

- Finalize CPM construction schedule, production rates/durations for all construction items, update calendar, and written narrative discussing critical schedule elements

Step 9. Specifications

- Finalize the Special Contract Requirements (SCR's). Include all appropriate up-to-date SCR's from the Library of Specifications. Use the Track Changes feature to highlight or redline project specific requirements to facilitate FHWA review

Step 10. Project Documentation

- Finalize Highway Design Standards Form
- Prepare 95% Design Technical Memorandum
- Risk and Opportunity Management Plan
- Update Designer's Notebook
- Complete the 95% Development Checklist
- Update electronic file tracker

- Prepare a draft Project Engineer's Memo (PE Memo)

**95% Pre-submittal/Peer Review (D4PRE Activity)**

Step 1. Pre-submittal/Peer Review

- Assemble, print, and distribute PS&E package for review. Conduct peer review and incorporate review comments into PS&E package.
- Distribute 95% Plans, Specifications, and Estimate package for an in-office review by the CFT

**95% Plan Review (D4PR Activity)**

Step 1. External Review

- Update PS&E from internal review comments
- Print and distribute the 95% package to external agencies
- Prepare draft responses to external reviewers

## Deliverables for D4 Activities

- 70% Field Review Trip Report

Pre-Submittal/Peer Review Deliverables

- Draft 95% Plans, Specifications and Estimate for Pre-Submittal Review
- 95% Design Support Documents
  - 70% Comment and Response Form, including responses
  - 70% Field review Master redlined plan set (no copy, available for meeting review only)
  - Draft Unit Price Analysis
  - Risk and Opportunity Management Plan
  - Draft copy of quantity calculations
  - Draft Highway Design Standards Form
  - Draft Design Technical Memorandum

Internal Distribution Deliverables

- 95% Plans, Specifications and Estimate for Internal FHWA Distribution
- 95% Design Support Documents
  - 95% Development Checklist
  - 70% Comment and Response Form, including responses
  - Final CPM Construction Schedule
  - Final Unit Price Analysis
  - Risk and Opportunity Management Plan
  - Copy of quantity calculations
  - Final Highway Design Standards Form
  - Final 95% Design Technical Memorandum
  - Draft Project Engineer's memo

External Distribution Deliverables

- 95% Plans, Specifications and Estimate for External FHWA Distribution
- 95% Design Support Documents
  - 95% Development Checklist
  - 95% Internal Distribution Comment and Response Form, including draft responses
  - Final CPM Construction Schedule
  - Final Highway Design Standards Form

- Final 95% Design Technical Memorandum
- 95% External Distribution Comment and Response Form, including draft responses

## PS&E Approval and Contract Development (P2 Activity)

Includes revisions to the PS&E as a result of partner agency reviews and approval comments. This is 100% design. See 100% Development Checklist for more specific details.

Step 1. Finalize PS%E

- Incorporate comments and print, compile, and deliver the final PS&E package to FHWA

Step 2. Develop procurement documents and checklists

- PS&E Advertisement Checklist
- Procurement Request (PR) & 1240
- Complete 100% Development Checklist

## 100% Pre-submittal/Peer Review (P2PRE Activity)

Step 1. Peer/Pre-submittal Review

- Assemble, print, and distribute PS&E package for review. Conduct peer review and incorporate review comments into PS&E package.
- Distribute Final Plans, Specifications, and Estimate package for an in-office review by the CFT

## Deliverables for P2 Activities

- 100% Plans, Specifications and Estimate for Internal FHWA Distribution
- 100% Design Support Documents
  - 100% Development Checklist
  - 95% Comment and Response Form, including responses
  - Final CPM Construction Schedule
  - Final Unit Price Analysis
  - Copy of quantity calculations
  - Designer's Notebook
  - Risk and Opportunity Management Plan
  - Final Highway Design Standards Form (signed)
  - Final Design Technical Memorandum
  - Draft Project Engineer's memo
  - Final Electronic File Tracker
  - All Microstation design files (on CD)
  - All Excel design files (on CD)
  - All Geopak design files (on CD)
  - Contact Distribution List (on CD)
  - Final electronic Plans (on CD)
  - PS&E advertisement checklist

## Assemble Project Engineer's Design Package (D5 Activity)

Assemble Project Engineer's Design Package. See Project Engineer's Notebook checklist for more specific details

Step 1. Complete the Project Engineer's Notebook

- Complete checklist. See the Project Engineer's Notebook checklist for more information

- Finalize Project Engineer's memo
- Assemble Project Engineer's Notebook according to the PE notebook checklist including project documentation.

**Deliverables for D5 Activity**

- Final PE memo
- Project Engineer's Design Package

## B. Permits (PRMS E4.1 to E4.4 Activities)

**Permit Development (E4.1 Activity)**

Identify environmental permitting/certification needs, coordinate with the regulatory agencies, and prepare applications.

It is anticipated that the following permits will be required for this project:

- NPDES

Step 1. Research environmental permit/certification/authorization needed for construction projects, including NEPA documents.

Step 2. Coordinate with regulatory agencies if there is any question on the proper permitting/certification application process. Coordination is anticipated with the following agencies:

- SD State Water Board

Step 3. Prepare NPDES Notice of Intent (NOI) or Application including, but not limited to, the following information/attachments:

- Identify any Waters of the US on the 303 d list that may be impacted by Stormwater runoff
- Stormwater Pollution Prevention Plan
- Transmittal letter
- NPDES NOI or Application checklist

Step 4. Incorporate CFLHD comments on the NPDES NOI or Application and resubmit to CFLHD.

Step 5. Track status of permit reviews by regulatory agencies.

**Deliverables for E4.1 Activity**

- NPDES NOI or Application and required information/attachments

**Permit – 404 Renewal (E4.2 Activity)**

No work is anticipated

**Permit – NPDES Renewal (E4.3 Activity)**

Step 1. Prepare and submit permit reissuance documentation.

**Deliverables for E4.3 Activity**

- Permit reissuance documentation

**Permit Closeout/Transfer (E4.4 Activity)**

**NPDES Permit**

Step 1. Coordinate with the Project Manager to determine if the project NPDES will be transferred to the maintaining agency; or, if permit conditions have been met, file NOT without transfer.

- Transfer
  - Compile maintenance plan (SWPPP) including project records for transferred agency
  - Prepare NOT and subsequent maintaining agency NOI and provide to the Project Manager for appropriate signatures.
  - Submit NOT and accompanying NOI.
- Closeout
  - Compile documentation validating permit conditions have been met
  - Prepare and submit NOT

**<u>Deliverables for E4.4 Activity</u>**

- Transfer
  - Maintenance plan
  - NOT
- Closeout
  - Documentation validating permit conditions have been met
  - NOT

## C. Meetings and Field Reviews

**<u>Design Meetings, Plan Reviews, and Field reviews</u>**

Step 1. Attend the Scoping Meeting and Site Visit with the CFLHD Project Manager. It is anticipated that the Scoping Meeting will last 3 days including travel.

Step 2. 70% CFT plan review

Step 3. 70% CFT review meeting

Step 4. 70% field review. It is anticipated that the field review will last 4 days including travel

Step 5. 95% CFT plan review

Step 6. 95% CFT review meeting

**<u>Deliverables for Meetings and Field Reviews</u>**

- CFT Meeting Minutes

## D. Materials and Construction Support During Design (P3 Activities C3, MAT1, and MAT2) (CFL Internal Projects Only)

**<u>Materials Recommendations (MAT1 Activity)</u>**

Review (1) Interim Geotechnical Memoranda (G2 activity); (2) Pavement Field Investigation Plan; (3) Pavement Field Investigation Summary Memo; and (4) Preliminary Pavement Recommendations Technical Memo (V1 activities). Provide Materials recommendations for incorporation into Draft Final Geotechnical Report (support of G3 activity) Pavement Field Investigation Plan (support of V1 activity) and Draft Pavement Report (support of V2 activity).

Step 1. Review and make recommendations to Pavement Field Investigation Plan and Preliminary Pavement Recommendations Technical Memos for use in Draft Pavement Report.

- Review Pavement Field Investigation Plan and provide Materials recommendations relative to sampling and testing (i.e. types of test/analysis, selected tests and estimated number of tests).

- Review Pavement Field Investigation Summary and Preliminary Pavement Recommendations Technical Memos and provide Materials recommendations for use in Draft Pavement Report pertaining to material suitability, types of materials, materials recycling and overall constructability of the pavement structural section.

**Deliverables for MAT1 Activities**

- Materials Recommendations for Pavement Field Investigation Plan.
- Materials Recommendations for Draft Pavement Report.

**Materials Final Recommendations (MAT2 Activity)**

Review Draft Pavement Report (V1 activity). Provide Materials recommendations and sign-off on the Final Pavement Report (support of V2 activities). Identify and develop Materials Special Contract Requirements for the 70% Plans, Specifications and Estimates Package.

Step 1. Review and sign-off of FINAL Pavements report.

- Review Draft Pavement Report and provide Materials recommendations for use in Final Pavement Report pertaining to material suitability, types of materials, materials recycling and overall constructability of the pavement structural section. Sign Final Pavements report.

Step 2. Identify and/or develop special contract requirements and specifications for use in the 70% Plans, Specifications and Estimates Package relative to materials, testing, equipment and construction processes for the pavement structural section and other structures.

**Deliverables for MAT2 Activities**

- Materials Recommendations for Final Pavement Report.
- Materials Special Contract Requirements for 70% Plans, Specifications and Estimates Package.

**Construction Support During Design (C3 Activity)**

Step 1. Construction support during design

- Hours for plan reviews are included in section M. Meetings and field reviews.

## II. DELIVERABLES AND SCHEDULE

| Milestone Activity Schedule | |
|---|---|
| Milestone | Completion Date |
| Scoping Field Review | November, 2010 |
| 70% Field Review | May, 2011 |
| 95% External Review | July, 2011 |
| Advertisement | September, 2011 |
| | |

## III. CROSS FUNCTIONAL TEAM

FHWA-CFLHD Cross Functional Team

Project Manager:  Mike Will
Pavements: Steve Deppmeier
Hydraulics:  Gerald Blackler
Highway Design:  Jill Mathewson
Construcition: Dave Balding
QA/QC: Mike McCann
Safety:  Ed Demming

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)**

PROJECT NAME: **Dillon Pass**

BUDGET DATE: **November 10, 2010**

# Start-Up Page

Please complete the information in the blue cells above and below. Data will be automatically transferred to successive worksheets.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Personnel ==>** | Jill Mathewson | CDP | Design Engineer - Peer | Gerald Blackler | Joe Wilson | Deppmeier | Chuck Luedders | Dave Balding | Daryl Lamb | Mike Will |
| **Wage Rate ====>** | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] |
| **Personnel ==>** | | | | | | | | | | |
| **Wage Rate ====>** | | | | | | | | | | |
| **Personnel ==>** | | | | | | | | | | |
| **Wage Rate ====>** | | | | | | | | | | |

Instructions for Use

1) Fill in all Personnel and burdened Rates. Note that up to 30 classifications can be used. If more are needed, use a generic classification and rate (ex. Designer, Grade 11)
2) On the 'Personnel Tab', fill in the Department and the roleof each person.
3) For each discipline/activity tab, select from the pull-down list the appropriate personnel in row 6.
4) For each discipline, add/remove/revise the tasks in column B.
5) Fill in requried information in the meetings, travel, equipment and materials, and task order tabs.

General Notes

1) Rows can be inserted into each worksheet by pressing CTRL>I or Tools>Macros>Run Macro "InsertRow". Copy the format in column A from the row above down to the new row.
2) Do not delete unnecessary worksheets(tabs) from this file! Simply hide the worksheets as needed.
   > To Hide Worksheets: Click 'Format' > 'Sheet' > 'Hide'
   > To Unhide Worksheets: Click 'Format' > 'Sheet' > 'Unhide'
3) To print, select a range of tabs from Summary to end. Each sheet will be numbered sequentially from X to Y. Print the Start and Personnel tabs separately.

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)**

PROJECT NAME: **Dillon Pass**

BUDGET DATE: **10-Nov-2010**

## PERSONNEL

| Name | Department | Role |
|---|---|---|
| Jill Mathewson | Design | Design Lead/ Review |
| CDP | CDP - Design | Design Support |
| Design Engineer - Peer | Design | Peer Reviews |
| Gerald Blackler | Hydraulics | CFT Support, Reviews, and Site Visits |
| Joe Wilson | Materials | Reviews, C7 support |
| Deppmeier | Pavements | Pavement Design/Review/Support |
| Chuck Luedders | Pavements | Pavement Design/Review/Support |
| Dave Balding | Construction | Construction Support During Design |
| Daryl Lamb | Permits | Prepare NPDES Permit |
| Mike Will | Project Manager | Manages Project |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)**

PROJECT NAME: **Dillon Pass**

BUDGET DATE: **April 25, 2008**

## SUMMARY

| | B | C | D | E | G | H | R (Including U) | Q | S | V | W | X | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PE (Hours)** | | 40 | 824 | | | 14 | | 7 | | 198 | 524 | 2% of PE | 1607 |
| **PE (Labor Costs)** | | $[redacted] | $[redacted] | [redacted] | | [redacted] | | $[redacted] | | $[redacted] | $[redacted] | | $[redacted] |
| **PE (Indirect Costs)** | | $[redacted] | | | | | | | | $[redacted] | $[redacted]00 | $[redacted] | $[redacted] |
| **PE Total** | | $[redacted] | $[redacted] | [redacted] | | [redacted] | | $[redacted] | | $[redacted] | [redacted] | $[redacted] | $[redacted] |
| **AE-P (Task Orders)** | | | | | | | | | | | | | |
| **AG-P (Agreements)** | | | | | | | | | | | | | |
| **TOTALS** | | $[redacted] | $[redacted] | [redacted] | | [redacted] | | $[redacted] | | $[redacted] | [redacted] | $[redacted] | $[redacted] |

**TOTAL BUDGET**

$[redacted]

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT NAME: **Dillon Pass**

| BREAKDOWN | P3 Activity | Work Code | Hours | Labor Costs | Equipment/ Material Costs | Travel Costs | Task Order Costs | Agreement Costs | Total |
|---|---|---|---|---|---|---|---|---|---|
| Project Management | Total | W | 524 | $[redacted] | | $[redacted]00 | | | $[redacted] |
| | PM | W | 168 | $[redacted] | | $[redacted]00 | | | $[redacted] |
| | P1 | W | 74 | $[redacted] | | | | | $[redacted] |
| | P1SV | W | | | | | | | |
| | D1PRI | W | | | | | | | |
| | D1SV | W | | | | | | | |
| | D2PRI | W | | | | | | | |
| | D2SV | W | | | | | | | |
| | D2.1PRI | W | | | | | | | |
| | D2.1SV | W | | | | | | | |
| | D3PRI | W | 57 | $[redacted] | | | | | $[redacted] |
| | D3SV | W | 168 | $[redacted] | | $[redacted]00 | | | $[redacted] |
| | D4PRI | W | 57 | $[redacted] | | | | | $[redacted] |
| | D4SV | W | | | | | | | |
| | E0SV | W | | | | | | | |
| | E1SV | W | | | | | | | |
| | E2SV | W | | | | | | | |
| | E3SV | W | | | | | | | |
| | E4SV | W | | | | | | | |
| Utilities | Total | U | | | | | | | |
| | U1 | U | | | | | | | |
| | U2 | U | | | | | | | |
| | U3 | U | | | | | | | |
| Environment | Total | E | | $[redacted] | | | | | $[redacted] |
| | E0 | E | | | | | | | |
| | E1 | E | | | | | | | |
| | E2 | E | | | | | | | |
| | E3 | E | | | | | | | |

| Personnel | Hours | Rate | Labor Cost |
|---|---|---|---|
| Jill Mathewson | 293 | $[redacted] | $[redacted] |
| CDP | 528 | $[redacted] | $[redacted] |
| Design Engineer - Peer | 24 | $[redacted] | $[redacted] |
| Gerald Blackler | 84 | $[redacted] | $[redacted] |
| Joe Wilson | 27 | $[redacted] | $[redacted] |
| Deppmeier | 167 | $[redacted] | $[redacted] |
| Chuck Luedders | 47 | $[redacted] | $[redacted] |
| Dave Balding | 102 | $[redacted] | $[redacted] |
| Daryl Lamb | 30 | $[redacted] | $[redacted] |
| Mike Will | 168 | $[redacted] | $[redacted] |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT NAME: **Dillon Pass**

| BREAKDOWN | P3 Activity | Work Code | Hours | Labor Costs | Equipment/ Material Costs | Travel Costs | Task Order Costs | Agreement Costs | Total |
|---|---|---|---|---|---|---|---|---|---|
| | E4 | E | | | | | | | |
| | E4.1 | E | | $[redacted] | | | | | $[redacted] |
| Surveys | Total | S | | | | | | | |
| | S1 | S | | | | | | | |
| | S2 | S | | | | | | | |
| | S4 | S | | | | | | | |
| | SC15 | S | | | | | | | |
| | SC30 | S | | | | | | | |
| | SC50 | S | | | | | | | |
| | SC70 | S | | | | | | | |
| | M1 | S | | | | | | | |
| | M2 | S | | | | | | | |
| | M3 | S | | | | | | | |
| Right of Way | Total | R | | | | | | | |
| | R1 | R | | | | | | | |
| | R2 | R | | | | | | | |
| | R3 | R | | | | | | | |
| | R4 | R | | | | | | | |
| | R5 | R | | | | | | | |
| Geotechnical | Total | G | | | | | | | |
| | G1 | G | | | | | | | |
| | G2 | G | | | | | | | |
| | G3 | G | | | | | | | |
| | G4 | G | | | | | | | |
| Pavements | Total | V | 198 | $[redacted] | $[redacted].00 | $[redacted] | | | $[redacted] |
| | V1 | V | 114 | $[redacted] | $[redacted].00 | $[redacted] | | | $[redacted] |
| | V2 | V | 80 | $[redacted] | | | | | [redacted] |
| | V3 | V | 4 | $[redacted] | | | | | $[redacted] |

| Personnel | Hours | Rate | Labor Cost |
|---|---|---|---|
| | | | |
| | | | |
| **Totals** | **1,470** | | $[redacted] |
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**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT NUMBER: **SD PRA BADL 10(7)**

BUDGET DATE: **10-Nov-2010**

PROJECT NAME: **Dillon Pass**

| BREAKDOWN | P3 Activity | Work Code | Hours | Labor Costs | Equipment/ Material Costs | Travel Costs | Task Order Costs | Agreement Costs | Total |
|---|---|---|---|---|---|---|---|---|---|
| Hydraulics | Total | H | 14 | $[redacted] | | | | | $[redacted] |
| | H1 | H | 14 | $[redacted] | | | | | $[redacted] |
| | H2 | H | | | | | | | |
| | H3 | H | | | | | | | |
| Highway Design | Total | D | 824 | $[redacted] | | | | | $[redacted] |
| | D1 | D | | | | | | | |
| | D1PRE | D | | | | | | | |
| | D1PR | D | | | | | | | |
| | D2 | D | | | | | | | |
| | D2PRE | D | | | | | | | |
| | D2PR | D | | | | | | | |
| | D2.1 | D | | | | | | | |
| | D2.1PRE | D | | | | | | | |
| | D2.1PR | D | | | | | | | |
| | D3 | D | 412 | $[redacted] | | | | | $[redacted] |
| | D3PRE | D | 46 | $[redacted] | | | | | $[redacted] |
| | D3PR | D | 32 | $[redacted] | | | | | $[redacted] |
| | D4 | D | 183 | $[redacted] | | | | | $[redacted] |
| | D4PRE | D | 46 | $[redacted]07 | | | | | $[redacted]07 |
| | D4PR | D | 31 | $[redacted] | | | | | $[redacted] |
| | P2 | D | 34 | $[redacted]07 | | | | | $[redacted]07 |
| | P2PRE | D | 25 | $[redacted] | | | | | $[redacted] |
| | D5 | D | 15 | $[redacted] | | | | | $[redacted] |
| **PE Totals** | | | **1,607** | **$[redacted]** | **$[redacted].00** | **$[redacted].00** | | | **$[redacted]** |

| Personnel | Hours | Rate | Labor Cost |
|---|---|---|---|

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **PROJECT MANAGEMENT** | | | Mike Will | | | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **W** | **Project Management** | **Step Weight** | | | | | | | | | | |
| Step 1 | Project management oversight | 95% | 160 | | | | | | | | | 160 |
| Step 2 | Project schedule | 5% | 8 | | | | | | | | | 8 |
| Step 3 | Discussions with COTR | | | | | | | | | | | |
| Step 4 | Monthly progress report | | | | | | | | | | | |
| Step 5 | Draft SOW | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| Subtotal of hours | | | 168 | | | | | | | | | 168 |
| Salary Rate, per hour | | | $[redacted] | | | | | | | | | |
| Subtotal Labor Costs | | | $[redacted] | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | | | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **PROJECT DEVELOPMENT PLANNING** | | | Jill Mathewson | CDP | Gerald Blackler | Daryl Lamb | Deppmeier | Joe Wilson | Dave Balding | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **P1** | **Project Development Planning** | **Step Weight** | | | | | | | | | | |
| Step 1 | Collect project information | 12% | 6 | 3 | | | | | | | | 9 |
| Step 2 | DRAFT Project Delivery Plan | 54% | 17 | 23 | | | | | | | | 40 |
| Step 3 | FINAL Project Delivery Plan | 34% | 2 | 3 | 4 | 4 | 4 | 4 | 4 | | | 25 |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| Subtotal of hours | | P1 | 25 | 29 | 4 | 4 | 4 | 4 | 4 | | | 74 |
| Salary Rate, per hour | | | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | | | |
| Subtotal Labor Costs | | P1 | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | | | |
| **TOTAL LABOR COST, (this sheet)** | | | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **H. Pavements (V1, V2, V3)** | | | Deppmeier | Chuck Luedders | | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **V1** | **Preliminary Pavement Recommendation (3R)** | **Step Weight** | | | | | | | | | | |
| Step 1 | Project initiation | 35% | 20 | 20 | | | | | | | | 40 |
| Step 2 | Obtain additional investigative services | 4% | 4 | | | | | | | | | 4 |
| Step 3 | Complete field investigation | 35% | 20 | 20 | | | | | | | | 40 |
| Step 4 | Review and compile field notes, logs, photos, etc. | 8% | 9 | | | | | | | | | 9 |
| Step 5 | Evaluate and submit samples/data for testing and analysis | 2% | 2 | | | | | | | | | 2 |
| Step 6 | Evaluate results from lab testing, field investigation, and engineering analysis | 8% | 9 | | | | | | | | | 9 |
| Step 7 | Develop Preliminary Pavement Recommendations Techincal Memo | 9% | 9 | 1 | | | | | | | | 10 |
| **V2** | **Final Pavement Recommendation (3R)** | | | | | | | | | | | |
| Step 1 | Identify and/or develop needed SCR's | | | | | | | | | | | |
| Step 2 | Finalize design recommendations | 13% | 9 | 1 | | | | | | | | 10 |
| Step 3 | Develop a DRAFT Pavement Report | 53% | 40 | 2 | | | | | | | | 42 |
| Step 4 | Prepare FINAL Pavement Report | 35% | 27 | 1 | | | | | | | | 28 |
| **V3** | **Final Pavement Recommendation (3R)** | | | | | | | | | | | |
| Step 1 | Assure alignment of pavement report recommendations and PS&E | 50% | 1 | 1 | | | | | | | | 2 |
| Step 2 | Answer technical questions during final design stage | 50% | 1 | 1 | | | | | | | | 2 |
| | Subtotal of hours for | V1 | 73 | 41 | | | | | | | | 114 |
| | Subtotal of hours for | V2 | 76 | 4 | | | | | | | | 80 |
| | Subtotal of hours for | V3 | 2 | 2 | | | | | | | | 4 |
| | Subtotal of hours | | 151 | 47 | | | | | | | | 198 |
| | Salary Rate, per hour | | $[redacted] | $[redacted] | | | | | | | | |
| | Subtotal Labor Costs for | V1 | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs for | V2 | $[redacted]08 | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs for | V3 | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs | | $[redacted] | $[redacted] | | | | | | | | |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **H. Pavements (V1, V2, V3)** | Deppmeier | Chuck Luedders | | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **I. Hydraulics (H1, H2, H3)** | | | Gerald Blackler | | | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **H1** | **Preliminary Hydraulics Recommendations** | **Step Weight** | | | | | | | | | | |
| Step 1 | Provide Design/ CFT Support | 100% | 14 | | | | | | | | | 14 |
| Subtotal of hours for | | H1 | 14 | | | | | | | | | 14 |
| Subtotal of hours for | | H2 | | | | | | | | | | |
| Subtotal of hours for | | H3 | | | | | | | | | | |
| Subtotal of hours | | | 14 | | | | | | | | | 14 |
| Salary Rate, per hour | | | $[redacted] | | | | | | | | | |
| Subtotal Labor Costs for | | H1 | $[redacted] | | | | | | | | | $[redacted] |
| Subtotal Labor Costs for | | H2 | | | | | | | | | | |
| Subtotal Labor Costs for | | H3 | | | | | | | | | | |
| Subtotal Labor Costs | | | $[redacted] | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | | | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| | **J. Highway Design (D3)** | | Jill Mathewson | CDP | Design Engineer - Peer | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WORK ACTIVITY | | | | | | | | | | | |
| | **D3 - Develop 70% Design** | **Step Weight** | | | | | | | | | | |
| Step 1 | Post scoping field review | 3% | 4 | 10 | | | | | | | | 14 |
| Step 2 | Roadway design | 11% | 13 | 31 | | | | | | | | 44 |
| Step 3 | Secondary roadway design | 23% | 27 | 67 | | | | | | | | 94 |
| Step 4 | Permanent and temporary traffic control | 6% | 7 | 16 | | | | | | | | 23 |
| Step 5 | Plan Production | 24% | 29 | 69 | | | | | | | | 98 |
| Step 6 | Cross functional design support | 9% | 14 | 23 | | | | | | | | 37 |
| Step 7 | Engineer's Estimate | 4% | 4 | 12 | | | | | | | | 16 |
| Step 8 | Construction schedule | 3% | 4 | 10 | | | | | | | | 14 |
| Step 9 | Specifications | 11% | 20 | 24 | | | | | | | | 44 |
| Step 10 | Project documentation | 7% | 8 | 20 | | | | | | | | 28 |
| | | | | | | | | | | | | |
| | **D3PRE - 70% Peer Review** | | | | | | | | | | | |
| Step 1 | Peer review | 11% | 10 | 20 | 16 | | | | | | | 46 |
| | **D3PR - 70% External Review** | | | | | | | | | | | |
| Step 1 | External review | 8% | 12 | 20 | | | | | | | | 32 |
| | Subtotal of hours for | D3 | 130 | 282 | | | | | | | | 412 |
| | Subtotal of hours for | D3PRE | 10 | 20 | 16 | | | | | | | 46 |
| | Subtotal of hours for | D3PR | 12 | 20 | | | | | | | | 32 |
| | Subtotal of hours | | 152 | 322 | 16 | | | | | | | 490 |
| | Salary Rate, per hour | | $[redacted] | $[redacted] | $[redacted] | | | | | | | |
| | Subtotal Labor Costs for | D3 | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs for | D3PRE | $[redacted] | $[redacted] | $[redacted] | | | | | | | $[redacted] |
| | Subtotal Labor Costs for | D3PR | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs | | $[redacted] | $[redacted] | $[redacted] | | | | | | | |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **J. Highway Design (D3)** | Jill Mathewson | CDP | Design Engineer - Peer | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **J. Highway Design (D4)** | | | Jill Mathewson | CDP | Design Engineer - Peer | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| | **D4 - Develop 95% Design** | **Step Weight** | | | | | | | | | | |
| Step 1 | Post 70% field review | 9% | 5 | 12 | | | | | | | | 17 |
| Step 2 | Roadway design | 6% | 4 | 7 | | | | | | | | 11 |
| Step 3 | Secondary roadway design | 14% | 9 | 16 | | | | | | | | 25 |
| Step 4 | Permanent and temporary traffic control | 2% | 2 | 2 | | | | | | | | 4 |
| Step 5 | Plan Production | 21% | 13 | 25 | | | | | | | | 38 |
| Step 6 | Cross functional design support | 10% | 7 | 11 | | | | | | | | 18 |
| Step 7 | Engineer's Estimate | 4% | 2 | 6 | | | | | | | | 8 |
| Step 8 | Construction schedule | 3% | 2 | 3 | | | | | | | | 5 |
| Step 9 | Specifications | 19% | 14 | 20 | | | | | | | | 34 |
| Step 10 | Project documentation | 13% | 7 | 16 | | | | | | | | 23 |
| | | | | | | | | | | | | |
| | **D4PRE - 95% Peer Review** | | | | | | | | | | | |
| Step 1 | Peer review | 25% | 13 | 17 | 16 | | | | | | | 46 |
| | **D4PR - 95% External Review** | | | | | | | | | | | |
| Step 1 | External review | 17% | 10 | 21 | | | | | | | | 31 |
| | Subtotal of hours for | D4 | 65 | 118 | | | | | | | | 183 |
| | Subtotal of hours for | D4PRE | 13 | 17 | 16 | | | | | | | 46 |
| | Subtotal of hours for | D4PRE | 10 | 21 | | | | | | | | 31 |
| | Subtotal of hours | | 88 | 156 | 16 | | | | | | | 260 |
| | Salary Rate, per hour | | $[redacted] | $[redacted] | $[redacted] | | | | | | | |
| | Subtotal Labor Costs for | D4 | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| | Subtotal Labor Costs for | D4PRE | $[redacted] | $[redacted] | $[redacted] | | | | | | | $[redacted]07 |
| | Subtotal Labor Costs for | D4PRE | $[redacted] | $[redacted] | | | | | | | | [redacted] |
| | Subtotal Labor Costs | | $[redacted] | $[redacted] | $[redacted] | | | | | | | |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **J. Highway Design (D4)** | Jill Mathewson | CDP | Design Engineer - Peer | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **J. Highway Design (P2&D5)** | | | Jill Mathewson | CDP | Design Engineer - Peer | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **P2** | **PS&E Approval and Contract Development** | **Step Weight** | | | | | | | | | | |
| Step 1 | Finalize PS&E | 76% | 10 | 16 | | | | | | | | 26 |
| Step 2 | Develop procurement documents and checklists | 24% | 3 | 5 | | | | | | | | 8 |
| | | | | | | | | | | | | |
| **P2PRE** | **100% Peer Review** | | | | | | | | | | | |
| Step 1 | Peer review | 74% | 4 | 5 | 16 | | | | | | | 25 |
| **D5** | **Assemble Project Engineer's Design Package** | | 4 | 11 | | | | | | | | 15 |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| Subtotal of hours for | | P2 | 13 | 21 | | | | | | | | 34 |
| Subtotal of hours for | | P2PRE | 4 | 5 | 16 | | | | | | | 25 |
| Subtotal of hours for | | D5 | 4 | 11 | | | | | | | | 15 |
| Subtotal of hours | | | 21 | 37 | 16 | | | | | | | 74 |
| Salary Rate, per hour | | | $[redacted] | $[redacted] | $[redacted] | | | | | | | |
| Subtotal Labor Costs for | | P2 | $[redacted] | $[redacted] | | | | | | | | $[redacted]07 |
| Subtotal Labor Costs for | | P2PRE | $[redacted] | $[redacted] | $[redacted] | | | | | | | $[redacted] |
| Subtotal Labor Costs for | | D5 | $[redacted] | $[redacted] | | | | | | | | $[redacted] |
| Subtotal Labor Costs | | | $[redacted] | [redacted] | $[redacted] | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | | | $[redacted] | | | | | | | Formula Check | | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **L. Permits (E4.1)** | | | Daryl Lamb | | | | | | | | | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **E4.1** | **Permits** | **Step Weight** | | | | | | | | | | |
| Step 1 | Research permit requirements | 11% | 2 | | | | | | | | | 2 |
| Step 2 | Coordinate with regulatory agencies | 11% | 2 | | | | | | | | | 2 |
| Step 3 | Prepare 404 application | | | | | | | | | | | |
| Step 4 | Incorporate 404 commetns and submit final application | | | | | | | | | | | |
| Step 5 | Prepare 401 certification application | | | | | | | | | | | |
| Step 6 | Incorporate 401 commetns and submit final application | | | | | | | | | | | |
| Step 7 | Prepare NPDES | 44% | 8 | | | | | | | | | 8 |
| Step 8 | Incorporate NPDES commetns and submit final application | 11% | 2 | | | | | | | | | 2 |
| Step 9 | Track permit status | 22% | 4 | | | | | | | | | 4 |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| | Subtotal of hours | E4.1 | 18 | | | | | | | | | 18 |
| | Salary Rate, per hour | | $[redacted] | | | | | | | | | |
| | Subtotal Labor Costs | E4.1 | $[redacted] | | | | | | | | | |
| **TOTAL LABOR COST, (this sheet)** | | | $[redacted] | | | | | | | | Formula Check | OK |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **M. Meetings and Reviews** WORK ACTIVITY | Jill Mathewson | CDP | Gerald Blackler | Joe Wilson | Dave Balding | Deppmeier | Daryl Lamb | Design Engineer - Peer | | | | | | | | | | | | | Total Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Plan Reviews, Meetings and Site Visits** | | | | | | | | | | | | | | | | | | | | | |
| D3PRI 70% Internal Plan Review | 5 | 10 | 12 | 8 | 8 | 6 | 4 | 4 | | | | | | | | | | | | | 57 |
| D3SV 70% Site Visit | 42 | 42 | 42 | | 42 | | | | | | | | | | | | | | | | 168 |
| D4PRI 95% Internal Plan Review | 5 | 10 | 12 | 8 | 8 | 6 | 4 | 4 | | | | | | | | | | | | | 57 |
| | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | |
| Subtotal of hours | 52 | 62 | 66 | 16 | 58 | 12 | 8 | 8 | | | | | | | | | | | | | 282 |
| Salary Rate, per hour | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | | | | | | | | | | | | | |
| Subtotal Labor Costs | [redacted] | [redacted] | [redacted] | [redacted] 04 | [redacted] | [redacted] | [redacted] | [redacted] | | | | | | | | | | | | | |

**TOTAL LABOR COST, (this sheet)** $[redacted]

Formula Check OK

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **O. Materials and Construction Support during Design** | | | Personnel | Joe Wilson | Dave Balding | | | | | | | Total Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORK ACTIVITY | | | | | | | | | | | | |
| **MAT1 Material Recommendations** | | **Step Weight** | | | | | | | | | | |
| Step 1 | Review Interim Geotechnical Memorandum | | | | | | | | | | | |
| Step 2 | Review Pavt Field Investigation Plan and Prelim Pavt Recommendations Tech Memos | 1% | | 2 | | | | | | | | 2 |
| **MAT2 Final Materials Recommendations** | | | | | | | | | | | | |
| Step 1 | Review and sign-off of FINAL Pavements report | 0% | | 2 | | | | | | | | 2 |
| Step 2 | Identify/develop SCR's for 70% submittal | 1% | | 3 | | | | | | | | 3 |
| **C3 Construction Support During Design** | | | | | | | | | | | | |
| Step 1 | Construction Support During Design | 1% | | | 40 | | | | | | | 40 |
| Subtotal of hours | | MAT1 | | 2 | | | | | | | | 2 |
| Subtotal of hours | | MAT2 | | 5 | | | | | | | | 5 |
| Subtotal of hours | | C3 | | | 40 | | | | | | | 40 |
| Subtotal of hours | | | | 7 | 40 | | | | | | | 47 |
| Salary Rate, per hour | | | | [redacted] | [redacted] | | | | | | | |
| Subtotal Labor Costs | | MAT1 | | [redacted] | | | | | | | | [redacted] |
| Subtotal Labor Costs | | MAT2 | | [redacted] | | | | | | | | [redacted] |
| Subtotal Labor Costs | | C3 | | | [redacted] | | | | | | | [redacted] |
| Subtotal Labor Costs | | | | [redacted] | [redacted] | | | | | | | |

| | | |
|---|---|---|
| **TOTAL LABOR COST, (this sheet)** | **$[redacted]03** | Formula Check |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| Equipment and Materials | | |
|---|---|---|
| | **P3 Activity Code** | **Total Cost** |
| Project Management | | |
| Utilities | | |
| Project Development | | |
| Environment | | |
| Surveys | | |
| Right of Way | | |
| Geotech | | |
| Pavements | V1 | $[redacted] |
| Hydraulics | | |
| Highway Design | | |
| Bridge | | |
| Permits | | |
| Meetings and Reviews | | |
| | | |
| | | |
| **TOTAL EQUIPMENT AND MATERIALS COST** | | **$[redacted].00** |

**FEDERAL HIGHWAY ADMINISTRATION**

**CENTRAL FEDERAL LANDS HIGHWAY DIVISION**

**CFL INTERNAL BASELINE BUDGET**

PROJECT #: **SD PRA BADL 10(7)** BUDGET DATE: **10-Nov-2010**

PROJECT: **Dillon Pass**

| **Travel** | | | | | | | | Burden Rate | | | 100% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| For Per Diem rates, go to gsa.gov | P3 Activity | # of People | # of Days | Per Diem (per day) | Per Diem Total | Aifare (Each) | Airfare Total | Car Rental Total (Incl Gas) | Misc. Each (Parking, Mileage, Tolls) | Misc. Total | Total (Including Burden) |
| 70% Site visit/ Field review (using seasonal per diem) | D3SV | 2 | 5 | $[redacted] | [redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] |
| Pavement Scoping | V1 | 2 | 1 | $[redacted] | [redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] |
| Pavement Drilling | V1 | 2 | 2 | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted]00 |
| 70% Site visit/Field Review & Incidental trip | PM | 2 | 5 | $[redacted] | [redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted]00 |
| 70% Site visit/Field Review & Incidental trip | C3 | 1 | 2 | $[redacted] | [redacted] | $[redacted] | $[redacted] | $[redacted] | $[redacted] | [redacted]00.00 | $[redacted] |
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| **TOTAL TRAVEL COSTS** | **$[redacted].00** | | | | | | | | | | |

Central Federal Lands Highway Division
US Department of Transportation - Federal Highway Administration

# Resource Plan Report

*Notes: (1) Hours and dollars are rounded. (2) Labor rates may be missing or inaccurate for inactive resources.*
*(3) All data are from P3e, as of each project's indicated summarization date.*
*(4) A check mark indicates that the activity or resource assignment is finished.*
*(5) Totals are limited by Report Specs: e.g. if "Wbs Code" is 'CE*', then PE activities are not shown or totaled.*
*(6) Labor Rate is the weighted average P3e rate in effect during the resource assignment.*

| Report Criteria | |
|---|---|
| Project Name | SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP |
| WBS Code | [!CE.]* |
| Resource Manager | * |
| Project Manager | * |
| COE | * |
| AE Status | * |
| Resource Name | * |
| New Page Per Wbs Code? | No |
| Show Project Totals? | Yes |
| Show Report Totals? | No |
| Earliest Fiscal Year to Display | 2011 |
| Latest Activity Start Date | * |
| Include Finished Activities? | Yes |
| Show Details? | Yes |

SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP ROAD

## SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP ROAD

WILL OLSON No AE

TBD

| P3e Summarized Date | 2/2/2011 | PARS Spread Date | 2/2/2011 |
|---|---|---|---|

| | | | | Burdened Reg Rate | Planned Hours | Planned Cost ($) | Actual Hours | Remaining Work (Hours) All Years | FY11 | FY12 | FY13 | Remaining Work ($) All Years | FY11 | FY12 | FY13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AQ.C0** | ACQUISITIONS.CONSTRUCTION | | | | | | | | | | | | | | |
| C3A | 15-Sep-11 | 28-Nov-11 | C-BALDING | $[redacted] | [redacted] | $[redacted] | 0 | 20 | 5 | 15 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| *C3A ~ CONSTRUCTION SUPPORT (DURING ACQUISTIONS) Total* | | | | | 20 | $[redacted] | 0 | 20 | 5 | 15 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| *AQ.C0 ACQUISITIONS.CONSTRUCTION Total* | | | | | 20 | $[redacted] | 0 | 20 | 5 | 15 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| **AQ.D0** | ACQUISITIONS.DESIGN | | | | | | | | | | | | | | |
| D5 | 08-Sep-11 | 03-Nov-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 11 | 1 | 10 | 0 | $[redacted] | [redacted] | $[redacted] | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | [redacted]0 | 0 | 4 | 0 | 4 | 0 | $[redacted] | $[redacted] | [redacted] | $0 |
| *D5 ~ PROJECT ENGINEER'S PACKAGE Total* | | | | | 15 | $[redacted] | 0 | 15 | 1 | 14 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| *AQ.D0 ACQUISITIONS.DESIGN Total* | | | | | 15 | $[redacted] | 0 | 15 | 1 | 14 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| **AQ.P0** | ACQUISITIONS.PROCUREMENT | | | | | | | | | | | | | | |
| Q1 | 15-Sep-11 | 28-Sep-11 | Q-Generic | $[redacted] | [redacted] | [redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | Q-HOLSOPPLE | $[redacted] | [redacted] | $[redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | Q-KLIETHERMES | $[redacted] | [redacted] | $[redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | Q-ROGERS | $[redacted] | [redacted] | [redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | Q-Sanford | $[redacted] | [redacted] | [redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |

| | | | | Burdened Reg Rate | Planned Hours | Planned Cost ($) | Actual Hours | Remaining Work (Hours) All Years | FY11 | FY12 | FY13 | Remaining Work ( $) All Years | FY11 | FY12 | FY13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Q1 ~ PRE-ADVERTISEMENT Total* | | | | | 25 | $[redacted] | 0 | 25 | 25 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| Q2 | 06-Oct-11 | 03-Nov-11 | Q-Generic | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 0 | 8 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-HOLSOPPLE | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 0 | 8 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-KLIETHERMES | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 0 | 8 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-ROGERS | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 0 | 8 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-Sanford | $[redacted] | [redacted] | [redacted] | 0 | 8 | 0 | 8 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| *Q2 ~ P&A ADVERTISEMENT PHASE Total* | | | | | 40 | $[redacted] | 0 | 40 | 0 | 40 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| Q3 | 04-Nov-11 | 05-Dec-11 | Q-Generic | $[redacted] | [redacted] | [redacted] | 0 | 6 | 0 | 6 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-HOLSOPPLE | $[redacted] | [redacted] | [redacted] | 0 | 3 | 0 | 3 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-KLIETHERMES | $[redacted] | [redacted] | $[redacted] | 0 | 6 | 0 | 6 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-ROGERS | $[redacted] | [redacted] | [redacted] | 0 | 6 | 0 | 6 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| | | | Q-Sanford | $[redacted] | [redacted] | [redacted] | 0 | 6 | 0 | 6 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| *Q3 ~ P&A CLOSEOUT Total* | | | | | 27 | $[redacted] | 0 | 27 | 0 | 27 | 0 | $[redacted] | $0 | $[redacted] | $0 |
| *AQ.P0 ACQUISITIONS.PROCUREMENT Total* | | | | | 92 | $[redacted] | 0 | 92 | 25 | 67 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| **AQ.W0** | ACQUISITIONS.PROJECT MANAGEMENT | | | | | | | | | | | | | | |
| PMA | 06-Sep-11 | 16-Nov-11 | W-WILL | $[redacted] | [redacted] | [redacted] | 0 | 30 | 11 | 19 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| *PMA ~ PROJECT MANAGEMENT (DURING ACQUISITIONS) Total* | | | | | 30 | $[redacted] | 0 | 30 | 11 | 19 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| *AQ.W0 ACQUISITIONS.PROJECT MANAGEMENT Total* | | | | | 30 | $[redacted] | 0 | 30 | 11 | 19 | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |
| **DE.C0** | DESIGN ENGINEERING.CONSTRUCTION | | | | | | | | | | | | | | |
| C3 | 04-Apr-11 | 19-Aug-11 | C-BALDING | $[redacted] | [redacted] | $[redacted] | 0 | 40 | 40 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *C3 ~ CONSTRUCTION SUPPORT DURING PE Total* | | | | | 40 | $[redacted] | 0 | 40 | 40 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *DE.C0 DESIGN ENGINEERING.CONSTRUCTION Total* | | | | | 40 | $[redacted] | 0 | 40 | 40 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| **DE.D0** | DESIGN ENGINEERING.DESIGN | | | | | | | | | | | | | | |
| D3 | 07-Feb-11 | 01-Apr-11 | D-BELLEN | $[redacted] | 0 | $[redacted] | 0 | 0 | 0 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 282 | 282 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 130 | 130 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MELGOZA | $0.00 | 0 | $0 | 0 | 0 | 0 | 0 | 0 | $0 | $0 | $0 | $0 |
| | | | D-OLSON | $0.00 | 0 | $0 | 0 | 0 | 0 | 0 | 0 | $0 | $0 | $0 | $0 |
| *D3 ~ DEVELOP 70% PS&E Total* | | | | | 412 | $[redacted] | 0 | 412 | 412 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D3PRE | 04-Apr-11 | 15-Apr-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 20 | 20 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-GUZMN | $[redacted] | [redacted] | $[redacted] | 0 | 16 | 16 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 10 | 10 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *D3PRE ~ DESIGN PEER REVIEW & UPDATE 70% DESIGN Total* | | | | | 46 | $[redacted] | 0 | 46 | 46 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D4 | 23-May-11 | 23-Jun-11 | D-BELLEN | $[redacted] | [redacted] | $[redacted] | 0 | 6 | 6 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |

| | | | | Burdened Reg Rate | Planned Hours | Planned Cost ($) | Actual Hours | Remaining Work (Hours) All Years | FY11 | FY12 | FY13 | Remaining Work ( $) All Years | FY11 | FY12 | FY13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D4 | 23-May-11 | 23-Jun-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 118 | 118 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | [redacted] | 0 | 65 | 65 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *D4 ~ DEVELOP 95% PS&E Total* | | | | | 189 | $[redacted] | 0 | 189 | 189 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D4PRE | 24-Jun-11 | 08-Jul-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 17 | 17 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-GUZMN | $[redacted] | [redacted] | $[redacted] | 0 | 16 | 16 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 13 | 13 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *D4PRE ~ DESIGN PEER REVIEW & UPDATE 95% DESIGN Total* | | | | | 46 | $[redacted] | 0 | 46 | 46 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| P2 | 08-Aug-11 | 02-Sep-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 21 | 21 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 13 | 13 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *P2 ~ PS&E APPROVAL & CONTR DEV Total* | | | | | 34 | $[redacted] | 0 | 34 | 34 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| P2PRE | 06-Sep-11 | 14-Sep-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted]07 | $0 | $0 |
| | | | D-GUZMN | $[redacted] | [redacted] | $[redacted] | 0 | 16 | 16 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | [redacted]0 | 0 | 4 | 4 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *P2PRE ~ DESIGN PEER REVIEW & UPDATE FINAL 100% DESIGN Total* | | | | | 25 | $[redacted] | 0 | 25 | 25 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *DE.D0 DESIGN ENGINEERING.DESIGN Total* | | | | | 752 | $[redacted] | 0 | 752 | 752 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| **DE.E0** | **DESIGN ENGINEERING.ENVIRONMENT** | | | | | | | | | | | | | | |
| E4.1 | 23-May-11 | 16-Aug-11 | E-LAMB | $[redacted] | [redacted] | $[redacted] | 0 | 18 | 18 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *E4.1 ~ PERMITS Total* | | | | | 18 | $[redacted] | 0 | 18 | 18 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *DE.E0 DESIGN ENGINEERING.ENVIRONMENT Total* | | | | | 18 | $[redacted] | 0 | 18 | 18 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| **DE.H0** | **DESIGN ENGINEERING.HYDRAULICS** | | | | | | | | | | | | | | |
| H1 | 07-Feb-11 | 07-Mar-11 | H-BLACKLER | $[redacted] | [redacted] | $[redacted] | 0 | 14 | 14 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *H1 ~ PRELIM. HYDRAULIC RECOMM. Total* | | | | | 14 | $[redacted] | 0 | 14 | 14 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *DE.H0 DESIGN ENGINEERING.HYDRAULICS Total* | | | | | 14 | $[redacted] | 0 | 14 | 14 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| **DE.Q0** | **DESIGN ENGINEERING.MATERIALS QA/QC** | | | | | | | | | | | | | | |
| MAT1 | 31-Jan-11 | 11-Apr-11 | M-WILSON | $[redacted] | [redacted] | $[redacted] | 0 | 2 | 2 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *MAT1 ~ MATERIAL RECOMMENDATIONS Total* | | | | | 2 | $[redacted] | 0 | 2 | 2 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| MAT2 | 12-Apr-11 | 21-Jun-11 | M-WILSON | $[redacted] | [redacted] | $[redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *MAT2 ~ FINAL MATERIAL RECOMMENDATIONS & SIGN-OFF FINAL PAVEMENTS REPORT Total* | | | | | 5 | $[redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *DE.Q0 DESIGN ENGINEERING.MATERIALS QA/QC Total* | | | | | 7 | $[redacted] | 0 | 7 | 7 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| **DE.V0** | **DESIGN ENGINEERING.PAVEMENTS** | | | | | | | | | | | | | | |
| V1 | 07-Feb-11 | 07-Mar-11 | V-DEPP | $[redacted] | [redacted] | $[redacted] | 0 | 73 | 73 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |

| | | | | Burdened Reg Rate | Planned Hours | Planned Cost ($) | Actual Hours | Remaining Work (Hours) All Years | FY11 | FY12 | FY13 | Remaining Work ( $) All Years | FY11 | FY12 | FY13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V1 | 07-Feb-11 | 07-Mar-11 | V-LUEDDERS | $[redacted] | [redacted] | $[redacted] | 0 | 41 | 41 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | V-MISCEX | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| | | | V-TRVL | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| *V1 ~ PAVEMENT RECOMMENDATIONS Total* | | | | | 114 | $[redacted] | 0 | 114 | 114 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| V2 | 08-Mar-11 | 02-May-11 | V-DEPP | $[redacted] | [redacted] | $[redacted] | 0 | 76 | 76 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | V-LUEDDERS | $[redacted] | [redacted] | $[redacted] | 0 | 4 | 4 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *V2 ~ FINAL PAVEMENT RECOMMENDATIONS Total* | | | | | 80 | $[redacted] | 0 | 80 | 80 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| V3 | 03-May-11 | 27-Jul-11 | V-DEPP | $[redacted] | [redacted] | [redacted] | 0 | 2 | 2 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | V-LUEDDERS | $[redacted] | [redacted] | $[redacted] | 0 | 2 | 2 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *V3 ~ FINAL DESIGN (PS&E REVIEW STAGE) Total* | | | | | 4 | $[redacted] | 0 | 4 | 4 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *DE.V0 DESIGN ENGINEERING.PAVEMENTS Total* | | | | | 198 | $[redacted] | 0 | 198 | 198 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |

## DE.W0 DESIGN ENGINEERING.PROJECT MANAGER

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3PR | 02-May-11 | 13-May-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 20 | 20 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 12 | 12 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *D3PR ~ 70% PLAN REVIEW (external agency review) Total* | | | | | 32 | $[redacted] | 0 | 32 | 32 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D3PRI | 18-Apr-11 | 29-Apr-11 | C-BALDING | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 8 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-DSGN1 | $[redacted] | [redacted] | [redacted] | 0 | 4 | 4 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 10 | 10 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | [redacted] | 0 | 5 | 5 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | E-LAMB | $[redacted] | [redacted] | $[redacted] | 0 | 4 | 4 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | H-BLACKLER | $[redacted] | [redacted] | $[redacted] | 0 | 12 | 12 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | M-WILSON | $[redacted] | [redacted] | $[redacted] | 0 | 8 | 8 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | V-DEPP | $[redacted] | [redacted] | $[redacted] | 0 | 6 | 6 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| | | | W-WILL | $[redacted] | 0 | $[redacted] | 0 | 0 | 0 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *D3PRI ~ INTERNAL CFT REVIEW & UPDATE 70% DESIGN Total* | | | | | 57 | $[redacted] | 0 | 57 | 57 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D3SV | 16-May-11 | 20-May-11 | C-BALDING | $[redacted] | [redacted] | $[redacted] | 0 | 42 | 42 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | C-TRVL | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 42 | 42 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | [redacted] | 0 | 42 | 42 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-TRVL(HDM1) | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| | | | H-BLACKLER | $[redacted] | [redacted] | [redacted] | 0 | 42 | 42 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | W-TRVL | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| | | | W-WILL | $[redacted] | 0 | $[redacted] | 0 | 0 | 0 | 0 | 0 | $[redacted] | [redacted] | $0 | $0 |
| *D3SV ~ 70% FIELD REVIEW (SITE VISIT) Total* | | | | | 168 | $[redacted] | 0 | 168 | 168 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| D4PR | 25-Jul-11 | 05-Aug-11 | D-GenericHDM1 C | $[redacted] | [redacted] | $[redacted] | 0 | 21 | 21 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | $[redacted] | [redacted] | $[redacted] | 0 | 10 | 10 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *D4PR ~ 95% PLAN REVIEW (external agency review) Total* | | | | | 31 | $[redacted] | 0 | 31 | 31 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |

SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP ROAD

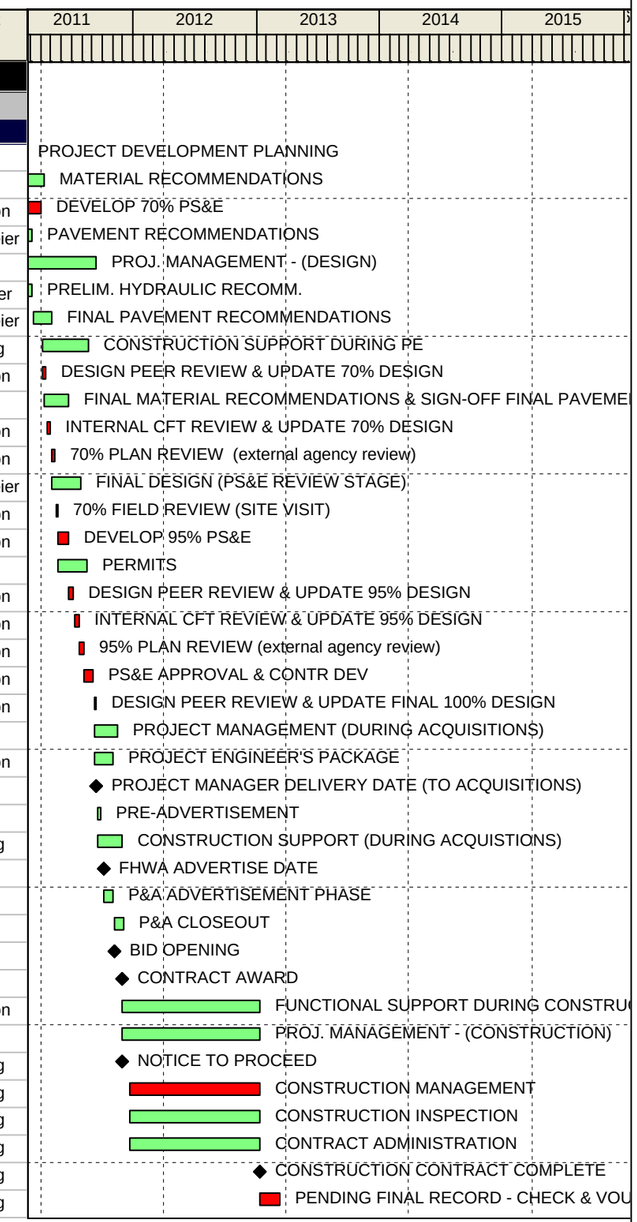
| | | | | Burdened Reg Rate | Planned Hours | Planned Cost ($) | Actual Hours | Remaining Work (Hours) All Years | FY11 | FY12 | FY13 | Remaining Work ( $) All Years | FY11 | FY12 | FY13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D4PRI | 11-Jul-11 | 22-Jul-11 | C-BALDING | [redacted] | [redacted] | $[redacted] | 0 | 8 | 8 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-BLACK | $0.00 | 0 | $0 | 0 | 0 | 0 | 0 | 0 | $0 | $0 | $0 | $0 |
| | | | D-DSGN1 | [redacted] | [redacted] | [redacted] | 0 | 4 | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | D-GenericHDM1 C | [redacted] | [redacted] | [redacted] | 0 | 10 | 10 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | D-MATHEWSON | [redacted] | [redacted] | [redacted] | 0 | 5 | 5 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | E-LAMB | [redacted] | [redacted] | [redacted] | 0 | 4 | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | H-BLACKLER | [redacted] | [redacted] | [redacted] | 0 | 12 | 12 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | M-WILSON | [redacted] | [redacted] | [redacted] | 0 | 8 | 8 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | TS-Demming | [redacted] | 0 | [redacted] | 0 | 0 | 0 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | V-DEPP | [redacted] | [redacted] | [redacted] | 0 | 6 | 6 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | W-BUMANGLAG | [redacted] | 0 | [redacted] | 0 | 0 | 0 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | W-WILL | [redacted] | 0 | [redacted] | 0 | 0 | 0 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| *D4PRI ~ INTERNAL CFT REVIEW & UPDATE 95% DESIGN Total* | | | | | 58 | $[redacted] | 0 | 58 | 58 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| P1 | 01-Nov-10 | 04-Feb-11 | C-BALDING | [redacted] | [redacted] | [redacted] | 0 | 4 | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | D-GenericHDM1 C | [redacted] | [redacted] | [redacted] | 0 | 29 | 29 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | D-MATHEWSON | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| | | | ✔ D-SERTICH | [redacted] | [redacted] | [redacted] | [redacted] | 0 | 0 | 0 | 0 | $0 | $0 | $0 | $0 |
| | | | E-LAMB | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | H-BLACKLER | [redacted] | [redacted] | [redacted]0 | 0 | 4 | 4 | 0 | 0 | [redacted] | [redacted]08 | $0 | $0 |
| | | | M-WILSON | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | V-DEPP | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| | | | W-TRVL | | | $[redacted] | | | | | | $0 | $0 | $0 | $0 |
| | | | W-WILL | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 4 | 0 | 0 | [redacted] | [redacted] | $0 | $0 |
| *P1 ~ PROJECT DEVELOPMENT PLANNING Total* | | | | | 426 | $[redacted] | [redacted] | [redacted] | 78 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| PM | 07-Feb-11 | 14-Sep-11 | W-WILL | [redacted] | [redacted] | $[redacted] | 0 | 160 | 160 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *PM ~ PROJ. MANAGEMENT - (DESIGN) Total* | | | | | 160 | $[redacted] | 0 | 160 | 160 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |
| *DE.W0 DESIGN ENGINEERING.PROJECT MANAGER Total* | | | | | 932 | $[redacted] | [redacted] | [redacted] | 584 | 0 | 0 | $[redacted] | $[redacted] | $0 | $0 |

**DE.X0** DESIGN ENGINEERING.DEPOT

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PX | 08-Nov-10 | 02-Sep-11 | X-MISC | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| *PX ~ DEPOT (PE) Total* | | | | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| *DE.X0 DESIGN ENGINEERING.DEPOT Total* | | | | | | $[redacted] | | | | | | $[redacted] | $[redacted] | $0 | $0 |
| *SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP ROAD Total* | | | | | 2,118 | $[redacted] | [redacted] | [redacted] | [redacted] | [redacted] | 0 | $[redacted] | $[redacted] | $[redacted] | $0 |

Printed: 02-Feb-11

| Activity ID | Activity Name | Orig. Dur. | Rem. Dur. | % Compl | Start | Finish | Total Fl... | BQ Hours | AQ Hours | RQ Hours | At Cmplt. Hrs | Units % Compl. | Cross Funct Team Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Mike Will** | | 591 | 531 | 0.51% | 01-Nov-10 A | 12-Mar-13 | 0 | 4404 | 348 | 4056 | 4404 | 7.9% | |
| **FY2012** | | 591 | 531 | 0.51% | 01-Nov-10 A | 12-Mar-13 | 0 | 4404 | 348 | 4056 | 4404 | 7.9% | |
| ***SD PRA BADL 10(7) DILLON PASS BADLANDS LOOP ROAD*** | | 591 | 531 | 0.51% | 01-Nov-10 A | 12-Mar-13 | 0 | 4404 | 348 | 4056 | 4404 | 7.9% | |
| XCP1 | PROJECT DEVELOPMENT PLANNING | 65 | 5 | 6.72% | 01-Nov-10 A | 04-Feb-11 | 0 | 426 | 348 | 78 | 426 | 81.69% | Mike Will |
| XCMAT1 | MATERIAL RECOMMENDATIONS | 50 | 50 | 0% | 31-Jan-11 | 11-Apr-11 | 32 | 2 | 0 | 2 | 2 | 0% | Joe Wilson |
| XCD3 | DEVELOP 70% PS&E | 39 | 39 | 0% | 07-Feb-11* | 01-Apr-11 | 0 | 412 | 0 | 412 | 412 | 0% | Jill Mathewson |
| XCV1 | PAVEMENT RECOMMENDATIONS | 20 | 20 | 0% | 07-Feb-11 | 07-Mar-11 | 7 | 114 | 0 | 114 | 114 | 0% | Steve Deppmeier |
| XCPM | PROJ. MANAGEMENT - (DESIGN) | 154 | 154 | 0% | 07-Feb-11 | 14-Sep-11 | 5 | 160 | 0 | 160 | 160 | 0% | Mike Will |
| XCH1 | PRELIM. HYDRAULIC RECOMM. | 20 | 20 | 0% | 07-Feb-11 | 07-Mar-11 | 7 | 14 | 0 | 14 | 14 | 0% | Gerald Blackler |
| XCV2 | FINAL PAVEMENT RECOMMENDATIONS | 40 | 40 | 0% | 08-Mar-11 | 02-May-11 | 7 | 80 | 0 | 80 | 80 | 0% | Steve Deppmeier |
| XCC3 | CONSTRUCTION SUPPORT DURING PE | 98 | 98 | 0% | 04-Apr-11 | 19-Aug-11 | 15 | 40 | 0 | 40 | 40 | 0% | Dave Balding |
| XCD3PRE | DESIGN PEER REVIEW & UPDATE 70% DESIGN | 10 | 10 | 0% | 04-Apr-11 | 15-Apr-11 | 0 | 46 | 0 | 46 | 46 | 0% | Jill Mathewson |
| XCMAT2 | FINAL MATERIAL RECOMMENDATIONS & SIGN-OFF FI... | 50 | 50 | 0% | 12-Apr-11 | 21-Jun-11 | 32 | 5 | 0 | 5 | 5 | 0% | Joe Wilson |
| XCD3PRI | INTERNAL CFT REVIEW & UPDATE 70% DESIGN | 10 | 10 | 0% | 18-Apr-11 | 29-Apr-11 | 0 | 57 | 0 | 57 | 57 | 0% | Jill Mathewson |
| XCD3PR | 70% PLAN REVIEW (external agency review) | 10 | 10 | 0% | 02-May-11 | 13-May-11 | 0 | 32 | 0 | 32 | 32 | 0% | Jill Mathewson |
| XCV3 | FINAL DESIGN (PS&E REVIEW STAGE) | 60 | 60 | 0% | 03-May-11 | 27-Jul-11 | 7 | 4 | 0 | 4 | 4 | 0% | Steve Deppmeier |
| XCD3SV | 70% FIELD REVIEW (SITE VISIT) | 5 | 5 | 0% | 16-May-11* | 20-May-11 | 0 | 168 | 0 | 168 | 168 | 0% | Jill Mathewson |
| XCD4 | DEVELOP 95% PS&E | 23 | 23 | 0% | 23-May-11 | 23-Jun-11 | 0 | 189 | 0 | 189 | 189 | 0% | Jill Mathewson |
| XCE4.1 | PERMITS | 60 | 60 | 0% | 23-May-11 | 16-Aug-11 | 13 | 18 | 0 | 18 | 18 | 0% | Daryl Lamb |
| XCD4PRE | DESIGN PEER REVIEW & UPDATE 95% DESIGN | 10 | 10 | 0% | 24-Jun-11 | 08-Jul-11 | 0 | 46 | 0 | 46 | 46 | 0% | Jill Mathewson |
| XCD4PRI | INTERNAL CFT REVIEW & UPDATE 95% DESIGN | 10 | 10 | 0% | 11-Jul-11 | 22-Jul-11 | 0 | 58 | 0 | 58 | 58 | 0% | Jill Mathewson |
| XCD4PR | 95% PLAN REVIEW (external agency review) | 10 | 10 | 0% | 25-Jul-11* | 05-Aug-11 | 0 | 31 | 0 | 31 | 31 | 0% | Jill Mathewson |
| XCP2 | PS&E APPROVAL & CONTR DEV | 20 | 20 | 0% | 08-Aug-11 | 02-Sep-11 | 0 | 34 | 0 | 34 | 34 | 0% | Jill Mathewson |
| XCP2PRE | DESIGN PEER REVIEW & UPDATE FINAL 100% DESIGN | 7 | 7 | 0% | 06-Sep-11 | 14-Sep-11 | 0 | 25 | 0 | 25 | 25 | 0% | Jill Mathewson |
| XCPMA | PROJECT MANAGEMENT (DURING ACQUISITIONS) | 50 | 50 | 0% | 06-Sep-11 | 16-Nov-11 | 14 | 30 | 0 | 30 | 30 | 0% | Mike Will |
| XCD5 | PROJECT ENGINEER'S PACKAGE | 40 | 40 | 0% | 08-Sep-11 | 03-Nov-11 | 22 | 15 | 0 | 15 | 15 | 0% | Jill Mathewson |
| XCA1 | PROJECT MANAGER DELIVERY DATE (TO ACQUISITIO... | 0 | 0 | 0% | | 14-Sep-11* | 0 | 0 | 0 | 0 | 0 | 0% | Mike Will |
| XCQ1 | PRE-ADVERTISEMENT | 10 | 10 | 0% | 15-Sep-11 | 28-Sep-11 | 5 | 25 | 0 | 25 | 25 | 0% | Mike Will |
| XCC3A | CONSTRUCTION SUPPORT (DURING ACQUISTIONS) | 50 | 50 | 0% | 15-Sep-11 | 28-Nov-11 | 7 | 20 | 0 | 20 | 20 | 0% | Dave Balding |
| XCA3 | FHWA ADVERTISE DATE | 0 | 0 | 0% | | 05-Oct-11* | 0 | 0 | 0 | 0 | 0 | 0% | Mike Will |
| XCQ2 | P&A ADVERTISEMENT PHASE | 20 | 20 | 0% | 06-Oct-11 | 03-Nov-11 | 12 | 40 | 0 | 40 | 40 | 0% | Mike Will |
| XCQ3 | P&A CLOSEOUT | 20 | 20 | 0% | 04-Nov-11 | 05-Dec-11 | 12 | 27 | 0 | 27 | 27 | 0% | Mike Will |
| XCC1 | BID OPENING | 0 | 0 | 0% | 08-Nov-11 | | 0 | 0 | 0 | 0 | 0 | 0% | Mike Will |
| XCC2 | CONTRACT AWARD | 0 | 0 | 0% | | 30-Nov-11 | 0 | 0 | 0 | 0 | 0 | 0% | Mike Will |
| XCC7 | FUNCTIONAL SUPPORT DURING CONSTRUCTION | 280 | 280 | 0% | 01-Dec-11 | 11-Jan-13 | 5 | 105 | 0 | 105 | 105 | 0% | Jill Mathewson |
| XCPMC | PROJ. MANAGEMENT - (CONSTRUCTION) | 280 | 280 | 0% | 01-Dec-11 | 11-Jan-13 | 5 | 160 | 0 | 160 | 160 | 0% | Mike Will |
| XCC5 | NOTICE TO PROCEED | 0 | 0 | 0% | 01-Dec-11 | | 0 | 0 | 0 | 0 | 0 | 0% | Dave Balding |
| XCCM | CONSTRUCTION MANAGEMENT | 265 | 265 | 0% | 22-Dec-11 | 11-Jan-13 | 0 | 160 | 0 | 160 | 160 | 0% | Dave Balding |
| XCCI | CONSTRUCTION INSPECTION | 265 | 265 | 0% | 22-Dec-11 | 11-Jan-13 | 5 | 1500 | 0 | 1500 | 1500 | 0% | Dave Balding |
| XCCA | CONTRACT ADMINISTRATION | 265 | 265 | 0% | 22-Dec-11 | 11-Jan-13 | 5 | 320 | 0 | 320 | 320 | 0% | Dave Balding |
| XCC6 | CONSTRUCTION CONTRACT COMPLETE | 0 | 0 | 0% | | 11-Jan-13 | 0 | 0 | 0 | 0 | 0 | 0% | Dave Balding |
| XCC8 | PENDING FINAL RECORD - CHECK & VOUCHER | 40 | 40 | 0% | 14-Jan-13 | 12-Mar-13 | 0 | 40 | 0 | 40 | 40 | 0% | Dave Balding |




**PROPOSED BASELINE02-Feb-11**

Actual Work | Critical Remaining Work | Neg Float Bar
Remaining Work | Milestone