



TECHNICAL PROPOSAL REPORT

Agreement: E01759	Project Specific	Active
Name: SR 551- L04 Enon Road and SR 351-L06 Petersburg Road Bridge Replacement Projects		Selection Process: Modified
		Initiating Org: Engineering District 11-0
Supplement: 3	Normal	Executed
Description:	add hours to Part 2 and Part 5 for additional effort associated with the FD activities. Funds will be tranfered from unused PDA funds from Part 1 and Part 4 of Sub Consultant HDR drilling and testing items.	

Part 1 - SR 551-L04 Preliminary Design for Enon Rd Bridge

Description

Preliminary Design Services for the SR 551-L04 Enon Rd Bridge Replacement Project over Little Beaver Creek in Little Beaver Township, Lawrence County.

Task 1 - Project Management/Administration

Objective:

2.1.1 - Project Management/Administration

This task consists of the administrative effort required by principals, project manager, and involved personnel to complete the project on time and within budget, and to provide a quality product.

2.1.1.1 - Meetings

This task includes meeting preparation, attendance and documentation in the form of minutes. This includes Project Status, Design Review and Special Purpose Meetings.

2.1.1.3 - Quality Control/Quality Assurance

This task consists of the effort to administer the QC/QA policies and procedures.

2.1.1.5 - Project Schedule Development and Maintenance

The purpose of this task is to prepare and maintain a design schedule that ranges from Scoping Field View to Contract Award.

2.1.1.7 - Project Reporting

This task consists of periodically reporting project schedule and budget progress.

2.1.1.10 - Consultations

This task involves the consultation with various in-house departments or personnel.

2.1.1.13 - Consultant Coordination

This task includes all coordination efforts with all consultants.

Scope:

2.1.1 - Project Management/Administration

Project Management involves the planning, scheduling, organizing and controlling of resources to achieve specific objectives within established schedule, budget and quality standards. The Project Manager is responsible for the tasks outlined in the Department Detail.

2.1.1.1 - Meetings

Attend all project meetings as necessary, including meeting preparation and minutes. Meetings will include but will not be limited to: Project Status Meetings Design Review Meetings Special Purpose Meetings (e.g., Kick-off Meeting, Design Field View, etc.) Public Meetings Preparation for the meetings will include an agenda and any visuals necessary to conduct the meeting. Meeting minutes will be prepared in a timely and accurate manner.

2.1.1.3 - Quality Control/Quality Assurance

Quality Control and Quality Assurance practices and procedures need to be incorporated and administered. PennDOT has implemented procedures to place additional responsibilities on consultants for quality of work. The consultants will be required to submit a corporate quality plan and submit job specific Quality Development plans for PennDOT approval. As part of quality reviews, process reviews, and IAPs, these plans and the consultants' conformance to them will be monitored, evaluated and documented. Design Manual Part 1A can be used as a source of information to develop QC/QA policies and procedures.

2.1.1.5 - Project Schedule Development and Maintenance

Guidance: - Publication 615, Scheduling Manual - All applicable strike-off-letters - ECMS (Project Management Homepage) Scope: 1. Develop a design schedule utilizing Deltek's Open Plan software. The design schedule will be developed in accordance with Publication 615 using the Department's PDSRPRJ and PDSMASTER templates. 2. Maintain the design schedule utilizing Deltek's WelcomHome software. 3. Document all schedule issues to ensure that the project is let on time. Scope Subtasks: 1. Coordinate the schedule development with the entire project team. The project team includes but is not limited to the District Portfolio Manager, the District Project Manager, various District functional units, the Bureau of Design, the Federal Highways Administration and various environmental agencies. Development of the schedule will consist of reviewing the schedule to ensure it contains the appropriate activities. There may be the need to add or delete activities to make the schedule specific to a given project. The review and modification of durations or relationships should also be performed to ensure that the schedule is setup to meet the desired completion date. 2. Prepare a draft of the design schedule that will be reviewed by the project team either in conjunction with a project status meeting or offline depending on the frequency of these meetings. The draft will, if approved, become the initial project schedule and be maintained through the remainder of the project. 3. Monthly progress of the design schedule activities will be input into Deltek's WelcomHome software. The schedule update day of the month will be specified by the District Project Manager to ensure that they have appropriate time to review proposed schedule changes prior to acceptance. 4. In the event that a major change in schedule occurs the Department will provide an Open Plan backup file (bk3) so that revisions can be made and resubmitted to the Department. Re-submittal shall follow the same process as the initial schedule development. Scope Deliverables: 1. Provide the project team a draft design schedule in portable document format (PDF) and/or hard copy. The draft will contain relationships and durations so that they can be reviewed along with the activities that are included in the schedule. Schedules provided in portable document format (PDF) shall be submitted either by email or CD-ROM. 2. Upon acceptance of the schedule by the project team an Open Plan backup file (bk3) shall be provided to the District Project Manager either by email or CD-ROM. 3. Resubmit major revisions to the design schedule, as an Open Plan backup file (bk3), to the District Project Manager either by email or CD-ROM. 4. All schedule

documentation shall be provided in MS Word compatible format to the District Project Manager either by email or CD-ROM.

2.1.1.7 - Project Reporting

On a regular basis (i.e., monthly or as necessary) prepare a project status report of which should address the current status of the project schedule and budget. Note any areas of concern such as delays in the project schedule or potential cost overruns.

2.1.1.10 - Consultations

Meetings with in-house departments or personnel should be conducted on a regular basis or as needed. Document all meetings in the form of meeting minutes for the project file.

2.1.1.13 - Consultant Coordination

Coordination with the appropriate Consultant representative(s) will be required throughout the entire design phase of the project. This will include project correspondence, attendance at meetings, review of invoice and formal submissions, etc.

Detail Task 2 - No Cost Supplement to transfer PDA from Part 1

Department Details:

No-cost supplement to transfer unused PDA funds from Part 1 from Sub Consultant HDR Testing and Drilling Items.

Approach:

MEG / HDR agree with the Department Details

Consultant Hierarchy

Business Partner

DBE Type

Supervising BP

The Markosky Engineering Group, Inc.	Yes	
HDR Engineering, Inc.	No	The Markosky Engineering Group, Inc.

Attachments

No records found.

Part 2 - SR 551-L04 Final Design for Enon Rd Bridge

Description

Final Design Services for the SR 551-L04 Enon Rd Bridge Replacement Project over Little Beaver Creek in Little Beaver Township, Lawrence County.

Task 7 - Roadway

Objective:

2.10.2 - Roadway

This task includes survey, roadway, pavement and drainage design, plans, cross sections, soil profile, final design office meeting, draft special

provisions and final design field view.

2.10.2.3 - Roadway Plan

This task includes the preparation of the final roadway plans and profiles in accordance with Publication 10A, Design Manual Part 1A.

2.10.2.4.1 - Plans

This task is the review of the final roadway plans in accordance with Publication 10A, Design Manual Part 1A.

2.10.2.4.2 - Draft Special Provisions

This task is the review of the draft special provisions in accordance with Publication 10A, Design Manual 1A.

Scope:

2.10.2 - Roadway

Needs completed.

2.10.2.3 - Roadway Plan

The submission will include the completion of the following work items:

~~1. Interchange Design~~

~~2. Intersection Design – Prepare pavement elevation plans to describe the horizontal and vertical geometry that cross sections cannot describe.~~

~~3. Airport Clearances – Review Part 77 of the Federal Aviation Regulations and adjust the design accordingly when the project is within 2 (3.2 km) miles of an operating airport. If the project is within 2 (3.2 km) miles of an operating airport, an Airport Clearance Submission to the FAA is required.~~

Prepare all the following work elements:

(Note: Plans listed below are highway design plans only and do not include also plans.)

1. Title sheet
2. Index/General Note Sheet
3. Typical Section Sheet (Location Map and General Notes)
4. Summary of Quantities Sheets
5. Tabulation of Quantities Sheets
6. Detail Plan Sheets
7. Profile Sheets
8. Contour, Grading, and Drainage Plans
9. ~~Landscaping Plans~~
10. Cross Sections
11. Special Detail Sheets
12. Required Forms, Special Provisions and Estimates

2.10.2.4.1 - Plans

The Engineer will submit 90% plans and specifications for review by the District, ~~Central Office and FHWA~~. The final ~~design office~~ review must be performed prior to the final plan check.

~~The Final Design Office Meeting is held to~~ review project development after the following design issues are approved and the plan has been developed to a 90% level of completion:

- Typical sections
- ~~Pavement design~~
- ~~Service road justification~~
- ~~Interchange geometries~~
- Hydraulic computations
- Addenda (if required) to the draft Soils and Geological Engineering Report
- Final Traffic Control Plan (TCP)
- Erosion and Sedimentation (E&S) Control Plan
- Hydraulic design of structures
- ~~Final Lighting Plans~~
- ~~Final Signing Plans~~
- ~~Final Traffic Signal Plans~~
- Special Provisions
- Planning and coordination of all major utility relocations
- Structural drawings

2.10.2.4.2 - Draft Special Provisions

1. If changes are necessary to a standard special provision then write an individual special provision.
2. Obtain review and approval of proprietary and experimental items in special provisions.
3. Make special provisions available for review by Department offices, municipalities, utilities and others in authority as appropriate.
4. All reviews and issues are to be resolved prior to the PS&E

Detail Task 2 - No Cost Supplement to add hours to Roadway task under Part 2

Department Details:

No-cost supplement to add hours to Part 2 Task 7 of agreement E01759 due to additional unforeseen effort associated with the Final Design activities, specifically with the associated geotechnical design and preparation of the final contract documents which affected the design of the substructure unit and approach roadway.

Approach:

MEG / HDR agree with the Department Details

Task 12 - Final Structure Plans

Objective:

2.10.13 - Final Structure Plans

This task is the development of the final structure plans.

Scope:

2.10.13 - Final Structure Plans

1. Complete final engineering design(s) for structures on the project based upon the approved type, size and location (TS&L) plans and approved foundation recommendations. Prepare design calculations, construction documents and QA/QC forms in accordance with the Department's Design Manuals as amended by current strike-off letters.
2. Provide pay items and special provisions for design alternate bidding.
3. Provide plan details and special provisions as required for support of excavation and for construction phasing.
4. Provide special provisions for items not covered by Department specifications. Obtain current standard special provisions list from District and utilize standard special provisions whenever possible. Write project specific special provisions, if needed.
5. Prepare cost estimate for each structure based upon estimated quantities and historical data for similar structures in the project region. Consider access, phasing, and relative difficulty of construction in establishing unit prices.
6. Make a pre-final submission to the Department of completed plans, special provisions, quantity estimates, cost estimates, QA/QC forms and computations.
7. Revise the previously submitted documents as required to address the Department's comments thereon. Document responses to comments in writing.
8. Submit the final plans, special provisions, quantity estimates, cost estimates, QA/QC forms and computations properly signed and sealed and in the form described in Publication 15M, Design Manual Part 4.

Detail Task 3 - No cost Supplement add hours to Final Structure Plans task under Part 2

Department Details:

No-cost supplement to add hours to Part 2 Task 12 of agreement E01759 due to additional unforeseen effort associated with the Final Design activities, specifically with the associated geotechnical design and preparation of the final contract documents which affected the design of the substructure unit and approach roadway.

Approach:

MEG / HDR agree with the Department Details

Consultant Hierarchy		
Business Partner	DBE Type	Supervising BP
The Markosky Engineering Group, Inc.	Yes	
HDR Engineering, Inc.	No	The Markosky Engineering Group, Inc.

Attachments

No records found.

Part 4 - SR 351-L06 Prelim Design for Petersburg Rd Br**Description**

Preliminary Design Services for SR 351-L06 for Petersburg Rd Bridge Replacement Project over Little Beaver Creek in Little Beaver Township, Lawrence County.

Task 1 - Project Management/Administration**Objective:****2.1.1 - Project Management/Administration**

This task consists of the administrative effort required by principals, project manager, and involved personnel to complete the project on time and within budget, and to provide a quality product.

2.1.1.1 - Meetings

This task includes meeting preparation, attendance and documentation in the form of minutes. This includes Project Status, Design Review and Special Purpose Meetings.

2.1.1.3 - Quality Control/Quality Assurance

This task consists of the effort to administer the QC/QA policies and procedures.

2.1.1.5 - Project Schedule Development and Maintenance

The purpose of this task is to prepare and maintain a design schedule that ranges from Scoping Field View to Contract Award.

2.1.1.7 - Project Reporting

This task consists of periodically reporting project schedule and budget progress.

2.1.1.10 - Consultations

This task involves the consultation with various in-house departments or personnel.

2.1.1.13 - Consultant Coordination

This task includes all coordination efforts with all consultants.

Scope:**2.1.1 - Project Management/Administration**

Project Management involves the planning, scheduling, organizing and controlling of resources to achieve specific objectives within established schedule, budget and quality standards. The Project Manager is responsible for the tasks outlined in the Department Detail.

2.1.1.1 - Meetings

Attend all project meetings as necessary, including meeting preparation and minutes. Meetings will include but will not be limited to: Project Status Meetings Design Review Meetings Special Purpose Meetings (e.g., Kick-off Meeting, Design Field View, etc.) Public Meetings Preparation for the

meetings will include an agenda and any visuals necessary to conduct the meeting. Meeting minutes will be prepared in a timely and accurate manner.

2.1.1.3 - Quality Control/Quality Assurance

Quality Control and Quality Assurance practices and procedures need to be incorporated and administered. PennDOT has implemented procedures to place additional responsibilities on consultants for quality of work. The consultants will be required to submit a corporate quality plan and submit job specific Quality Development plans for PennDOT approval. As part of quality reviews, process reviews, and IAPs, these plans and the consultants' conformance to them will be monitored, evaluated and documented. Design Manual Part 1A can be used as a source of information to develop QC/QA policies and procedures.

2.1.1.5 - Project Schedule Development and Maintenance

Guidance: - Publication 615, Scheduling Manual - All applicable strike-off-letters - ECMS (Project Management Homepage) Scope: 1. Develop a design schedule utilizing Deltek's Open Plan software. The design schedule will be developed in accordance with Publication 615 using the Department's PDSPRJ and PDSMASTER templates. 2. Maintain the design schedule utilizing Deltek's WelcomHome software. 3. Document all schedule issues to ensure that the project is let on time. Scope Subtasks: 1. Coordinate the schedule development with the entire project team. The project team includes but is not limited to the District Portfolio Manager, the District Project Manager, various District functional units, the Bureau of Design, the Federal Highways Administration and various environmental agencies. Development of the schedule will consist of reviewing the schedule to ensure it contains the appropriate activities. There may be the need to add or delete activities to make the schedule specific to a given project. The review and modification of durations or relationships should also be performed to ensure that the schedule is setup to meet the desired completion date. 2. Prepare a draft of the design schedule that will be reviewed by the project team either in conjunction with a project status meeting or offline depending on the frequency of these meetings. The draft will, if approved, become the initial project schedule and be maintained through the remainder of the project. 3. Monthly progress of the design schedule activities will be input into Deltek's WelcomHome software. The schedule update day of the month will be specified by the District Project Manager to ensure that they have appropriate time to review proposed schedule changes prior to acceptance. 4. In the event that a major change in schedule occurs the Department will provide an Open Plan backup file (bk3) so that revisions can be made and resubmitted to the Department. Re-submittal shall follow the same process as the initial schedule development. Scope Deliverables: 1. Provide the project team a draft design schedule in portable document format (PDF) and/or hard copy. The draft will contain relationships and durations so that they can be reviewed along with the activities that are included in the schedule. Schedules provided in portable document format (PDF) shall be submitted either by email or CD-ROM. 2. Upon acceptance of the schedule by the project team an Open Plan backup file (bk3) shall be provided to the District Project Manager either by email or CD-ROM. 3. Resubmit major revisions to the design schedule, as an Open Plan backup file (bk3), to the District Project Manager either by email or CD-ROM. 4. All schedule documentation shall be provided in MS Word compatible format to the District Project Manager either by email or CD-ROM.

2.1.1.7 - Project Reporting

On a regular basis (i.e., monthly or as necessary) prepare a project status report of which should address the current status of the project schedule and budget. Note any areas of concern such as delays in the project schedule or potential cost overruns.

2.1.1.10 - Consultations

Meetings with in-house departments or personnel should be conducted on a regular basis or as needed. Document all meetings in the form of meeting minutes for the project file.

2.1.1.13 - Consultant Coordination

Coordination with the appropriate Consultant representative(s) will be required throughout the entire design phase of the project. This will include

project correspondence, attendance at meetings, review of invoice and formal submissions, etc.

Detail Task 2 - No Cost Supplement to transfer PDA from Part 4

Department Details:

No-cost supplement to transfer unused PDA funds from Part 4 from Sub Consultant HDR Testing and Drilling Items.

Approach:

MEG / HDR agree with the Department Details

Consultant Hierarchy

Business Partner

DBE Type

Supervising BP

The Markosky Engineering Group, Inc.	Yes	
HDR Engineering, Inc.	No	The Markosky Engineering Group, Inc.

Attachments

No records found.

Part 5 - SR 351-L06 Final Design for Petersburg Rd Bridge

Description

Final Design Services for SR 351-L06 for Petersburg Road Bridge Replacement Project over Little Beaver Creek in Little Beaver Township, Lawrence County.

Task 7 - Roadway

Objective:

2.10.2 - Roadway

This task includes survey, roadway, pavement and drainage design, plans, cross sections, soil profile, final design office meeting, draft special provisions and final design field view.

2.10.2.3 - Roadway Plan

This task includes the preparation of the final roadway plans and profiles in accordance with Publication 10A, Design Manual Part 1A.

2.10.2.4.1 - Plans

This task is the review of the final roadway plans in accordance with Publication 10A, Design Manual Part 1A.

2.10.2.4.2 - Draft Special Provisions

This task is the review of the draft special provisions in accordance with Publication 10A, Design Manual 1A.

Scope:

2.10.2 - Roadway
Needs completed.

2.10.2.3 - Roadway Plan

The submission will include the completion of the following work items:

1. ~~Interchange Design~~

2. ~~Intersection Design - Prepare pavement elevation plans to describe the horizontal and vertical geometry that cross sections cannot describe.~~

3. ~~Airport Clearances - Review Part 77 of the Federal Aviation Regulations and adjust the design accordingly when the project is within 2 (3.2 km) miles of an operating airport. If the project is within 2 (3.2 km) miles of an operating airport, an Airport Clearance Submission to the FAA is required.~~

Prepare all the following work elements:

(Note: Plans listed below are highway design plans only and do not include also plans.)

1. Title sheet
2. Index/General Note Sheet
3. Typical Section Sheet (Location Map and General Notes)
4. Summary of Quantities Sheets
5. Tabulation of Quantities Sheets
6. Detail Plan Sheets
7. Profile Sheets
8. Contour, Grading, and Drainage Plans
9. ~~Landscaping Plans~~
10. Cross Sections
11. Special Detail Sheets
12. Required Forms, Special Provisions and Estimates

2.10.2.4.1 - Plans

The Engineer will submit 90% plans and specifications for review by the District, ~~Central Office and FHWA~~. The final ~~design office~~ review must be performed prior to the final plan check.

~~The Final Design Office Meeting is held to~~ review project development after the following design issues are approved and the plan has been developed to a 90% level of completion:

- Typical sections
- ~~Pavement design~~
- ~~Service road justification~~
- ~~Interchange geometrics~~
- Hydraulic computations

- Addenda (if required) to the draft Soils and Geological Engineering Report
- Final Traffic Control Plan (TCP)
- Erosion and Sedimentation (E&S) Control Plan
- Hydraulic design of structures
- ~~Final Lighting Plans~~
- ~~Final Signing Plans~~
- ~~Final Traffic Signal Plans~~
- Special Provisions
- Planning and coordination of all major utility relocations
- Structural drawings

2.10.2.4.2 - Draft Special Provisions

1. If changes are necessary to a standard special provision then write an individual special provision.
2. Obtain review and approval of proprietary and experimental items in special provisions.
3. Make special provisions available for review by Department offices, municipalities, utilities and others in authority as appropriate.
4. All reviews and issues are to be resolved prior to the PS&E

Detail Task 2 - No-cost supplement to add hours to Roadway task under Part 5

Department Details:

No-cost supplement to add hours to Part 5 Task 7 of agreement E01759 due to additional unforeseen effort associated with the Final Design activities, specifically with the associated geotechnical design and preparation of the final contract documents which affected the design of the substructure unit and approach roadway.

Approach:

MEG / HDR agree with the Department Details

Consultant Hierarchy

Business Partner

DBE Type

Supervising BP

The Markosky Engineering Group, Inc.

Yes

HDR Engineering, Inc.

No

The Markosky Engineering Group, Inc.

Attachments

No records found.

You are currently logged in as **Roland L. Rode**.