

SCOPE OF WORK
PROJECT SPECIFIC
April 19, 2010

CONTRACT TYPE: Project Specific /Non Task Specific

CONTRACT DATE:

PROJECT NUMBER: IM 0703-303

PROJECT LOCATION: I-70 Mtn. Corridor – Empire Junction
PROJECT CODE: 15613

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SECTION 1 PROJECT SPECIFIC INFORMATION

1.01 Planned Activities. The general planned activities include conducting a visioning effort to better understand the desired and required improvements to the Empire Junction Interchange Complex. The visioning effort will include, but not be limited to, the investigation of congestion relief, mobility and safety improvements, relocating the Port of Entry from the Downieville interchange, identifying access to proposed local development and addressing local traffic issues, and exploring Transit Oriented Development (TOD) possibilities. Emergency response access, maintenance needs, and other strategic facilities will be integral to the visioning effort. Following the visioning effort, a feasibility study will be conducted to evaluate the detailed social and environmental limitations of the project area, and develop feasible alternatives to support the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS) Tier 1 decision. Criteria will be established to compare, evaluate and narrow the feasible alternatives to gain an understanding of how the project can be phased to ensure that the implementation will be efficient, economical, and responsive to available funding. This study will be able to provide assurance that we are not precluding alternatives, and that this Tier 2 project has independent utility and is operationally independent.

1.02 Project Goals. This project is intended to produce the following improvements:

- Develop a Vision for the Empire Junction Area and Complex,
- Investigate the feasibility of relocating the Port of Entry to the Empire Junction Area,
- Develop a range of alternatives that meets the desired Vision,
- Understand and evaluate environmental and social impacts of the range of alternatives,
- Screen and refine the alternative(s)
- Develop phasing plan(s) for remaining alternative(s), and
- Preliminary design of selected components of remaining alternative(s).

1.03 Project Location. The project study area is in Clear Creek County, extending from about two miles east of the existing interchange (approx. MP 235 on I-70) to two miles west of the existing interchange along I-70 (approx. MP 231) and about one and a half miles west along US 40 (approx. MP 256).

1.04 Project Cost. The design cost for this project is estimated at \$2,000,000.

1.05 Work Duration. The time period for the work described in this scope is approximately 730 calendar days.

1.06 Consultant Responsibility. CDOT has made a commitment to employ Context Sensitive Solutions (CSS) on all projects in the I-70 Mountain Corridor. The project will require

the consultant to implement CSS as delineated in the *I-70 Mountain Corridor Guidance* and to coordinate with various stakeholders. It is the Consultants responsibility to demonstrate in the single page Work Plan Appendix their understanding of the *Guidance*, the 6-Steps, and how they will be used on this project.

The consultant will work with the established Project Leadership Team (PLT) to develop a Feasibility Study for the Empire Junction Area and Complex utilizing CSS principles. Final scope and details of the Feasibility Study will be developed and refined through the PLT.

1.07 Work Product. The Project Team work products are:

- Report outlining Visioning results
- Feasibility of relocation Port of Entry memo
- Public Involvement Plan
- Screening criteria and approach report
- Alternative comparison report
- Phasing plan for refined alternative(s)
- Preliminary design of selected phases of refined alternative(s)
- Cost Estimates for preliminary designs
- Critical Path Method (CPM) Schedule for completion of Feasibility Study
- Drawdown Schedule for overall project

The above list of Work Products is not intended to be complete; the detailed work product requirements are described in the following sections and will be Task Order driven.

1.08 Work Product Completion. All submittals must be accepted by the PLT and CDOT Contract Administrators or their designee.

1.09 Additional Project Information. Additional information regarding this project is included in the following documents:

- *I-70 Mountain Corridor Draft PEIS*

Copies of this document may be obtained from the CDOT Contract Administrators or their designee. Additional information can also be found at the following web site:

- www.I70MtnCorridor.com

1.10 Scope of Work Organization

This draft scope of work has been reviewed by the Department and reflects a plan of approach based on the known goals. One factor determining the selection of a Consultant is the ability of that consultant to analyze the project goals, evaluate the work elements, and formulate a work plan that factors in the desires of the PLT. This process may produce new approaches or modification to the project work elements. Because of that, all consultants should be aware that the Final Scope of Work for a project will be produced with input from the selected Consultant.

SECTION 2 PROJECT MANAGEMENT AND COORDINATION

2.01 CDOT Contacts. The Contract Administrators for this project are:

Peter Kozinski	Bill Scheuerman
(Process, Coordination & PIP lead)	(Engineering & Technical lead)
I-70 Mtn. Corridor Management Team	CDOT Region 1
714 Grand Avenue	425 Corporate Circle
Eagle, CO 81631	Golden, CO 80401
Phone: 970-328-6385	Phone: 720-479-6918

2.02 Project Coordination. Coordination will be required with, but not limited to, the following known agencies:

- PEIS PLT
- Clear Creek County
- Town of Empire
- Trout Unlimited
- Upper Clear Creek Watershed Association
- Clear Creek Watershed Foundation
- Dumont/Lawson/Downieville
- Town of Georgetown
- Utility Companies (Xcel Energy, Qwest and Comcast)

The Consultant should anticipate that a design that affects an agency will need to be accepted by that agency prior to its acceptance by the Colorado Department of Transportation. Submittals to affected agencies will be coordinated with CDOT. Above is a list of known agencies. It should not be considered as complete.

All external CDOT-related Web sites shall be hosted on CDOT's server and developed in-house with assistance from the Web Team and the Office of Public Relations. The use of all Web 2.0 and similar social marketing applications on behalf of CDOT (including all regions, divisions and offices) is strictly prohibited unless authorized by the Director of the Office of Public Relations. No contractor or consultant working for CDOT will post material on behalf of the agency on such applications without expressed written consent of the Director of the Office of Public Relations.

SECTION 3 PROJECT DESCRIPTION

3.01 Background

The objective of the Empire Junction Feasibility Study is needed to position CDOT for future funding opportunities and make meaningful improvements to the I-70 Mountain Corridor as soon as possible. The Feasibility Study would allow a detailed understanding of the improvements needed and solidify an approach to deliver construction projects in a way that would be adaptable to the amount of funding available. The focus would be to understand the detailed social, environmental, historical and physical limitations of the Empire Junction Complex, develop criteria to compare alternatives, develop feasible alternatives to support the Tier 1 decision, evaluate the feasible alternatives, and consider phasing opportunities.

The Feasibility Study would provide an understanding of how a project can be phased to ensure that CDOT is prepared to implement the project as efficiently as possible. The Feasibility Study will be able to provide assurance that the project is not precluding alternatives, has independent utility, and is operationally independent.

The Empire Junction Area and Complex gives CDOT the best opportunity to develop a range of shelf projects, having a variety of meaningful improvements to the safety, mobility and operation of the I-70 Mountain Corridor.

The Empire Junction Area and Complex is the intersection of I-70 and US 40, which are strategically important corridors and heavily used year-round. It is a known bottleneck with a high volume of vehicles that must interact with the commercial truck traffic generated from the Port of Entry located a few miles to the east.

3.02 Project Limits

The project limits extend from about two miles east of the existing interchange (approx. MP 235 on I-70) to two miles west of the existing interchange along I-70 (approx. MP 231) and about one and a half miles west along US 40 (approx. MP 256).

3.03 Work Elements

The consultant with support from stakeholders will develop a Vision for the Empire Junction Area and Complex that will be captured in a final report. Development of this Vision into alternatives, phasing plans, and environmental consequences will be captured in a Feasibility Study.

The work will include but not be limited to the following:

- a. Public Relations. Follow CSS principles regarding stakeholder involvement.
- b. Specialized Design. Complete all specialized design elements necessary to complete the Feasibility Study.
- c. Administrative Support. Provide clerical and word processing support as well as assist with exhibits and meetings.
- d. Context Sensitive Solutions. Apply the Context Sensitive Solutions (CSS) approach developed for the I-70 Mountain Corridor. Participate in the project specific CSS team that will be formed for the project. Additional public and private meetings may be required. Participate in the PLT that will be formed for the project.
- e. Schedules. Develop and maintain a resource loaded critical path method (CPM) schedule for the project.
- f. Environmental Analysis. Collect, analyze and document environmental consequences of proposed actions.

SECTION 4 KNOWN EXISTING FEATURES

4.01 Major Structures.

ON I-70

MP 231.367 E-14-T (COUNTY ROAD 306)
MP 231.889 E-14-S (US 40)
MP 232.284 E-14-AV (CLEAR CREEK)
MP 232.537 E-14-BC (SIGN WBND – VMS)
MP 232.560 E-14-AN (SIGNC EBND – VMS)
MP 233.037 E-14-AM (COUNTY ROAD)
MP 233.508 E-14-AL (RAMP TO I 70)
MP 234.209 E-14-AK (COUNTY ROAD)
MP 234.210 E-14-AJ (COUNTY ROAD)
MP 234.860 E-14-O (MILL CREEK SR SERVICE ROAD)
MP 235.006 E-14-AX (COUNTY ROADS)
MP 235.020 E-14-AW (CLEAR CREEK SR SERVICE ROAD)
MP 236.230 E-14-B (SPRING GULCH SERVICE RD)
MP 236.240 E-14-BA (CLEAR CREEK)

4.01 Major Structures (*continued*).

ON US 40

MP 257.457 E-14-BH (CLEAR CREEK)

MP 257.635 E-14-S (I-70)

4.02 Utilities. Contact U.N.C.C. at 1-800-922-1987. (Xcel Energy, Qwest and Comcast)

4.03 Irrigation Ditches. Unknown if irrigation ditches exist. Location and owners shall be determined by the Consultant.

4.04 Railroads. A physical indication of railroads exists, and historically this area was serviced by a railroad. The old Empire Station exists on private property.

Note: The above is a list of the known features in the area. It should not be considered as complete. The Consultant should be alert to the existence of other possible conflicts.

**SECTION 5
ITEMS TO BE FURNISHED BY CDOT**

5.01 CDOT Manuals, Specifications, Standards, etc. can be obtained from CDOT Printing and Visual Communications Center (303-757-9214). A moderate fee, determined by document size, will be charged. Electronic Files of applicable CDOT standards and forms specified in this document will be provided free of charge.

5.02 Project Specific Items

As constructed information as necessary.

SECTION 6 GENERAL INFORMATION

6.01 Authorization to Proceed. Work will not commence until the written Notice-to-Proceed is issued by the State with certification from the Consultant that the work will be completed within the allotted time. The time charged will be exclusive of time lost for:

- a. Reviews and Approvals.
- b. Delays in not receiving responses/direction.
- c. Work may be required, night or day, on weekends, on holidays, or on split shifts.

CDOT must concur in time lost reports prior to the time lost delays being subtracted from time charges.

6.02 Project Coordination. The routine working contact will be between the CDOT Project Manager (CDOT/PM) and the Consultant Project Manager (C/PM) as defined in Attachment C. Each Project Manager will provide the other with:

- a. Written synopses or copy of their respective contacts (both by telephone and in person) with others.
- b. Copies of pertinent written communications

6.03 Routine Reporting and Billing. The Consultant will provide the following on a routine basis:

- a. Coordination of all contract activities by the C/PM
- b. The periodic reports and billings required by CDOT Procedural Directive 400.2 (Monitoring Consultant Contracts).
- c. Minutes of all Meetings: The minutes will be completed and will be provided to the CDOT/PM within five (5) working days after the meeting. When a definable task is discussed during a meeting, the minutes will identify the "Action Item", the agency responsible for accomplishing it, and the proposed completion date.
- d. In general, all reports and submittals must be accepted by CDOT prior to their content being utilized in follow-up work effort.

6.04 Personnel Qualifications. The Consultant Project Manager (C/PM), must be approved by the CDOT Contract Administrator. Certain tasks must be done by Licensed Professional Engineers or Professional Land Surveyors who are registered with the Colorado State Board of Registration for Professional Engineers and Land Surveyors. National Institute for Certification in Engineering Technology may be required for project inspectors and testers (if applicable).

6.05 CDOT Computer/Software Information. The Project Team shall utilize the most recent CDOT adopted software. The primary types of software used by CDOT are:

Earthwork-	InRoads
Drafting-	MicroStation
Survey-	InRoads TMOSS (developed by CDOT to convert topographic survey to design format)
Geometry-	CDOT COGO (Coordinate Geometry)
Bridge-	Staff Bridge software shall be used in either design or design check
Estimating-	Trns*port (to be handled by CDOT). Bid items to be provided to CDOT in a compatible file format (i.e. Estimator) which will be imported into Trns*port.
Specifications-	Microsoft Word
Scheduling-	MS Project
E-File Management-	Project Wise
Miscellaneous-	MS Outlook, Excel, Power Point

6.06 Computer Data Compatibility. CDOT presently utilizes two data formats which Consultants shall be required to use for submitting survey, photogrammetry, and design data: InRoads TMOSS (Topography) Modeling Survey System and InRoads. The data format used by the Consultant to submit surveying and photogrammetric data shall be as determined by the CDOT/PM in coordination with the Region 1 PLS. The data format for submitting design computer files shall be compatible with the CDOT InRoads program. Preliminary and final design shall be submitted to CDOT electronically. The Consultant shall immediately notify the CDOT/PM if the firm is unable to produce the desired format for any reason and cease work until the problem(s) is (are) resolved.

6.07 Project Design Data and Standards

- a. General. Attachment A is a list of technical references applicable to CDOT work. The Consultant is responsible for ensuring compliance with the listed references. Conflicts in criteria shall be resolved by the CDOT/PM.
- b. Specific Criteria. Attachment B is a list of specific project criteria. The list is comprehensive and may include items that are not required for a tasks defined in this scope. The Consultant shall submit the pertinent criteria to the CDOT/PM at one of the periodic progress meetings prior to initiating design.
- c. Construction Materials/Methods. The materials specified for construction and any indicated construction methods will be selected to minimize the initial construction and long-term maintenance cost to the State of Colorado. Non-typical construction materials and methods must be approved in writing by CDOT/PM.

**SECTION 7
WORK ACTIVITY ASSIGNMENTS**

This list establishes the consultant's individual task responsibility. The consultant shall maintain the ability to perform all work tasks which are indicated below by an 'X' mark in the consultant column in accordance with the applicable CDOT standards. Selected work tasks shall be assigned only after coordination and consultation with CDOT. The Project Team is responsible for coordinating the required work schedule for those tasks accomplished by CDOT and other agencies.

PRECONSTRUCTION

	<u>CDOT/OTHER</u>	<u>CONSULTANT</u>
A. Project Initiation and Continuing Requirements:		
1. Initial Project Meeting	<u>X</u>	<u>X</u>
2. Review Environmental Mitigation Requirements	<u>X</u>	<u>X</u>
3. Independent Design Review	<u>X</u>	<u>X</u>
4. Project Schedule	<u>X</u>	<u>X</u>
5. Develop Design Criteria	<u>X</u>	<u>X</u>
6. Initiate Survey	<u>X</u>	<u> </u>
7. Right-of-Entry and Permits	<u>X</u>	<u>X</u>
8. Traffic Control	<u>X</u>	<u> </u>
9. Initial Submittals	<u> </u>	<u>X</u>
10. Progress Meetings	<u>X</u>	<u>X</u>
11. Structure Review Meetings	<u>X</u>	<u>X</u>
12. Project Management	<u>X</u>	<u>X</u>
B. Project Development:		
1. Communication and Consensus Building		
a. Contact List	<u>X</u>	<u>X</u>
b. Public Notices/Advertisements	<u>X</u>	<u>X</u>
c. General Meetings		
(1) Small Group	<u>X</u>	<u>X</u>
(2) General Public	<u>X</u>	<u>X</u>
(3) Project Review	<u>X</u>	<u>X</u>
d. Communication Aids	<u>X</u>	<u>X</u>
(1) Graphics Support	<u>X</u>	<u>X</u>
(2) Newsletter	<u>X</u>	<u>X</u>

	<u>CDOT/OTHER</u>	<u>CONSULTANT</u>
(3) Wall Displays	<u> X</u>	<u> X</u>
(4) Study Model	<u> X</u>	<u> X</u>
(5) Local Office	<u> X</u>	<u> X</u>
2. Project Review Team	<u> X</u>	<u> X</u>
3. Route Location Surveys	<u> X</u>	<u> —</u>
a. Presurvey Conference	<u> X</u>	<u> —</u>
b. Survey Data Research	<u> X</u>	<u> —</u>
c. Secure Rights of Entry	<u> X</u>	<u> —</u>
d. Project Control Survey		
(1) Locate or establish HARN Stations	<u> X</u>	<u> —</u>
(2) Monumentation	<u> X</u>	<u> —</u>
(3) Project Control	<u> X</u>	<u> —</u>
e. Photogrammetry		
(1) Camera Calibration Report	<u> X</u>	<u> —</u>
(2) Flight Plan	<u> X</u>	<u> —</u>
(3) Flight	<u> X</u>	<u> —</u>
(4) Contact Prints	<u> X</u>	<u> —</u>
(5) Negatives	<u> X</u>	<u> —</u>
(6) Enlargements	<u> X</u>	<u> —</u>
(7) Photo Index	<u> X</u>	<u> —</u>
(8) Supplemental Survey (wing points)	<u> X</u>	<u> —</u>
f. Supplemental Surveying	<u> X</u>	<u> —</u>
g. Accuracy Tests	<u> X</u>	<u> —</u>
h. Review (by Registered Professional Land Surveyor)	<u> X</u>	<u> —</u>
i. Reviewed (by Registered Professional Land Surveyor)	<u> X</u>	<u> —</u>
4. Conceptual Design		
a. Aesthetics	<u> —</u>	<u> X</u>
b. System Feasibility	<u> —</u>	<u> X</u>
c. Alternatives Analysis	<u> —</u>	<u> X</u>
d. Final Alternatives Reports	<u> —</u>	<u> X</u>
e. Interchange Approval Process	<u> —</u>	<u> X</u>

5.	Data Gathering Analysis, and Mitigation Development		
a.	Traffic Related		
	(1) Traffic Study	<u> </u>	<u> X </u>
	(2) Accident Study	<u> </u>	<u> X </u>
	(3) Noise Study	<u> X </u>	<u> X </u>
	(4) Air Quality		
	(a) Air Quality Monitoring	<u> X </u>	<u> X </u>
	(b) Air Quality Analysis	<u> X </u>	<u> X </u>
	(5) Alternate Transportation Sys.	<u> X </u>	<u> X </u>
b.	Archaeology		
	(1) Gather Data & Analysis	<u> X </u>	<u> X </u>
	(2) Mitigation Implementation	<u> X </u>	<u> X </u>
c.	Paleontology		
	(1) Gather Data & Analysis	<u> X </u>	<u> X </u>
	(2) Mitigation Implementation	<u> X </u>	<u> X </u>
d.	Initial Geology Investigation	<u> X </u>	<u> X </u>
e.	Water Quality		
	(1) Quality Analysis	<u> X </u>	<u> X </u>
	(2) Quality Monitoring	<u> X </u>	<u> X </u>
f.	Ecological Assessment	<u> X </u>	<u> X </u>
g.	Historical		
	(1) Historical Bridge Clearance	<u> X </u>	<u> X </u>
	(2) Historical Study & Clearance	<u> X </u>	<u> X </u>
h.	Floodplain and Drainage Assessment	<u> X </u>	<u> X </u>
i.	Right-of-Way		
	(1) Early ROW	<u> X </u>	<u> X </u>
	(2) ROW Review	<u> X </u>	<u> X </u>
j.	4(f)/6(f) Activity		
	(1) Evaluation	<u> X </u>	<u> X </u>
	(2) Clearance/Concurrence	<u> X </u>	<u> X </u>
k.	Threatened and/or Endangered Species		
	(1) Determination of Presence	<u> X </u>	<u> X </u>
	(2) Implement Mitigation	<u> X </u>	<u> X </u>
l.	Wetlands		
	(1) Wetlands Determination	<u> X </u>	<u> X </u>
	(2) Wetlands Findings Report	<u> X </u>	<u> X </u>

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m. Hazardous Materials		
(1) Field Search	<u>X</u>	<u>X</u>
(2) Research	<u>X</u>	<u>X</u>
(3) Conduct in-situ tests	<u>X</u>	<u>X</u>
(4) Analyze and Assess Impacts	<u>X</u>	<u>X</u>
n. Existing Roadway/Major Structure	<u>X</u>	<u>X</u>
o. Construction Requirements	<u>X</u>	<u>X</u>
p. Aesthetic Considerations	<u>X</u>	<u>X</u>
q. Utilities	<u>X</u>	<u> </u>
r. Economics	<u> </u>	<u>X</u>
s. Farmland	<u> </u>	<u>X</u>
t. Energy Usage	<u> </u>	<u>X</u>
6. Environmental Assessment (EA) Process	<u> </u>	<u>X</u>
7. Environmental Impact Study (EIS) Process	<u> </u>	<u> </u>
8. Design Report Process	<u>X</u>	<u>X</u>
9. Obtain Permits	<u>X</u>	<u>X</u>

C. Preliminary Design:

1. Design Field Surveys		
a. Presurvey Conference	<u>X</u>	<u> </u>
b. Survey Data Research	<u>X</u>	<u> </u>
c. Secure Rights of Entry	<u>X</u>	<u> </u>
d. Project Control Survey		
(1) Locate or Establish HARN Stations	<u>X</u>	<u> </u>
(2) Monumentation	<u>X</u>	<u> </u>
(3) Local Project Control	<u>X</u>	<u> </u>
e. InRoads TMOSS Survey	<u>X</u>	<u> </u>
f. Terrain Survey	<u>X</u>	<u> </u>
g. Utility Survey	<u>X</u>	<u> </u>
h. Hydraulic Survey	<u>X</u>	<u> </u>
i. Material Survey	<u>X</u>	<u> </u>
j. Supplemental Surveying	<u>X</u>	<u> </u>
k. Survey Report	<u>X</u>	<u> </u>
l. Accuracy Tests	<u>X</u>	<u> </u>
m. Review (by Registered Professional Land Surveyor)	<u>X</u>	<u> </u>
n. Wetland Boundary	<u>X</u>	<u> </u>

	<u>CDOT/OTHER</u>	<u>CONSULTANT</u>
2. Traffic Engineering	_____	<u> X </u>
3. Materials Engineering	_____	<u> X </u>
a. Preliminary Soil Investigation	_____	<u> X </u>
b. Pavement Rehabilitation	_____	<u> X </u>
c. New Pavement Structure	_____	<u> X </u>
d. Pavement Justification	_____	<u> X </u>
e. Pavement Design Report	_____	<u> X </u>
f. Existing Bridge Investigation	_____	<u> X </u>
g. Foundation Investigation	_____	<u> X </u>
4. Hydrology/Hydraulics Engineering		
a. Hydrology	<u> X </u>	<u> X </u>
b. Hydraulics	<u> X </u>	<u> X </u>
c. Preliminary Hydraulics Report	<u> X </u>	<u> X </u>
5. Utility Coordination		
a. Location Maps	_____	<u> X </u>
b. Reviews and investigations	_____	<u> X </u>
(1) "Potholing"-Excavation	_____	<u> X </u>
(2) "Potholing"-Surveying Utility Locations	_____	<u> X </u>
c. Relocation recommendations	_____	<u> X </u>
d. Ditch Company coordination	_____	<u> X </u>
6. Roadway Design and Roadside Development		
a. Roadway Design	_____	<u> X </u>
b. Roadside Development	_____	<u> X </u>
(1) Guardrail and delineator	_____	<u> X </u>
(2) Landscaping	_____	<u> X </u>
(3) Sprinkler Systems/Liquid Anti-Icing	_____	<u> X </u>
(4) Sound Barriers	_____	<u> X </u>
(5) Bike paths	_____	<u> X </u>
(6) Truck Escape Ramps	_____	<u> X </u>
(7) Rest Areas	_____	_____
(8) Safety analysis	_____	<u> X </u>
c. Lighting Plan	_____	<u> X </u>

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7.	Right-of-Way		
	a. Research	<u>X</u>	<u> </u>
	b. Ownership Map	<u>X</u>	<u> </u>
8.	Major Structural Design		
	a. Structural Data Collection	<u> </u>	<u>X</u>
	b. Structure concept study	<u> </u>	<u>X</u>
	c. Value Engineering	<u> </u>	<u>X</u>
	d. Structure Selection Report	<u> </u>	<u>X</u>
	e. Foundation Investigation Request	<u> </u>	<u>X</u>
9.	Construction Phasing Plan	<u> </u>	<u>X</u>
10.	Preparation for the FIR	<u> </u>	<u>X</u>
11.	Field Inspection Review	<u> </u>	<u>X</u>
12.	Post FIR Revisions	<u> </u>	<u>X</u>

D. Final Design:

1.	Project Review	<u> </u>	<u>X</u>
2.	Design Coordination	<u> </u>	<u>X</u>
3.	Utility Coordination	<u> </u>	<u>X</u>
4.	Hydraulic Design		
	a. Data Review	<u> </u>	<u>X</u>
	b. Storm Water Pollution Prevention Plan	<u> </u>	<u>X</u>
	c. Major Structure Channel Design	<u> </u>	<u>X</u>
	d. Final Hydraulics Report	<u> </u>	<u>X</u>
5.	Interim Plans		
	a. Initiate ROW Authorization Process	<u> </u>	<u>X</u>
	b. Final Utility Plans	<u> </u>	<u>X</u>
	c. Final Railroad Plans	<u> </u>	<u>X</u>
6.	Right-of-Way		
	a. ROW Plans Content	<u> </u>	<u>X</u>
	b. Title Insurance and Closing Services	<u> </u>	<u>X</u>
	c. Authorization Plan	<u> </u>	<u>X</u>
	d. Appraisal Staking	<u> </u>	<u>X</u>
	e. ROW Plan Revisions (During Negotiations)	<u> </u>	<u>X</u>

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7.	Materials Engineering		
	a. Materials Data	_____	<u> X </u>
	b. Stabilization validity	_____	<u> X </u>
	c. Stabilization Plan	_____	<u> X </u>
8.	Traffic Engineering		
	a. Permanent Signing/Pavement Marking Plans	_____	<u> X </u>
	b. Signalized Intersections	_____	<u> X </u>
	c. Traffic Control Plan	_____	<u> X </u>
9.	Roadside Planning		
	a. Landscaping	_____	<u> X </u>
	b. Other	_____	<u> X </u>
	(1) Sprinkler systems/Liquid Anti-Icing	_____	<u> X </u>
	(2) Bike paths	_____	<u> X </u>
	(3) Sound barriers	_____	<u> X </u>
	(4) Truck escape ramps	_____	<u> X </u>
	(5) Rest Areas	_____	<u> X </u>
	(6) Guardrail and delineator	_____	<u> X </u>
	(7) Safety analysis	_____	<u> X </u>
	c. Lighting Plans	_____	<u> X </u>
10.	Roadway Design	_____	<u> X </u>
11.	Final Major Structural Design		
	a. Structure Final Design	_____	<u> X </u>
	b. Preparation of Structure Plans and Specifications	_____	<u> X </u>
	c. Independent Design, Detail, and Quantity Check	_____	<u> X </u>
	d. Bridge Rating and Field Packages	_____	<u> X </u>
	e. Structure Final Review Plans and Specifications	_____	<u> X </u>
12.	Construction Phasing Plan	_____	<u> X </u>
13.	Plan Preparation for FOR	_____	<u> X </u>
14.	Final Office Review	_____	<u> X </u>
15.	Construction Plan Package	_____	<u> X </u>

E. Corridor Management Support:

1. Design Control	_____	<u> X </u>
2. Information Services	_____	<u> X </u>
3. Budget Planning Support	_____	<u> X </u>

F. Value Engineering	_____	<u> X </u>
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SERVICES AFTER DESIGN

A. Review of Shop Drawings	_____	<u> X </u>
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B. Construction Services

1. Coordinate Schedule	<u> X </u>	<u> X </u>
2. Provide field observation		
a. Pile driving/caisson drilling	<u> X </u>	<u> X </u>
b. Major concrete pours	<u> X </u>	<u> X </u>
c. Placement of girders	<u> X </u>	<u> X </u>
d. Splicing of girders	<u> X </u>	<u> X </u>
e. Post-tensioning duct and anchorage placement	<u> X </u>	<u> X </u>
f. Post-tensioning operations	<u> X </u>	<u> X </u>
3. Technical assistance	<u> X </u>	<u> X </u>
4. Submittals		
a. Diary	<u> X </u>	_____
b. Documentation/justification	<u> X </u>	_____
c. Progress reports	<u> X </u>	_____
d. Calculations, drawings, and specifications	<u> X </u>	_____
e. Daily time sheets	<u> X </u>	_____

C. Post Design Plan Modifications	<u> X </u>	<u> X </u>
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D. Post Construction Services:

1. Final earthwork determination	<u> X </u>	_____
2. As-built plans	<u> X </u>	_____

	<u>CDOT/OTHER</u>	<u>CONSULTANT</u>
3. Revisions to Right-of-Way Plans (Excess Land)	<u>X</u>	<u>X</u>
4. Monument ROW	<u>X</u>	<u>X</u>
5. Set Property Corners (Remainders)	<u>X</u>	<u>X</u>
6. Deposit ROW Plans	<u>X</u>	<u>X</u>
E. Construction Engineering	<u>X</u>	<u> </u>

**SECTION 8
SUBMITTALS**

CDOT/OTHER CONSULTANT

A. Project Initiation and Continuing Requirements:

1. Periodic Reports & Billings	_____	<u> X </u>
2. Meeting Minutes	_____	<u> X </u>
3. Project Schedule	_____	<u> X </u>
4. Completed Specific Design	_____	<u> X </u>
Criteria (Attachment B)	_____	<u> X </u>
5. Survey Plan	<u> X </u>	_____
6. Permissions to Enter (Form 730)	<u> X </u>	_____
7. Traffic Control Plan	_____	<u> X </u>
8. Initial Submittal of InRoads TMOSS and/or MOSS Compatible Data	_____	<u> X </u>
9. Initial Submittal of an Original Plan Sheet	_____	<u> X </u>

B. Project Development:

1. Public Communication Contact List	<u> X </u>	<u> X </u>
2. Route Location Survey:		
<input type="checkbox"/> Electronic Survey Files	<u> X </u>	_____
<input type="checkbox"/> Survey InRoads TMOSS Data	<u> X </u>	_____
<input type="checkbox"/> Monument Records	<u> X </u>	_____
<input type="checkbox"/> Control & Monumentation Plan Sheets	<u> X </u>	_____
<input type="checkbox"/> Aerial Photography Index Map Sheets	<u> X </u>	_____
<input type="checkbox"/> Aerial Photography Contact Prints	<u> X </u>	_____
<input type="checkbox"/> Aerial Photography Negatives	<u> X </u>	_____
<input type="checkbox"/> Photogrammetry		
Electronic Data	<u> X </u>	_____
Base Map Sheets	<u> X </u>	_____
Base Map Index Sheet(s)	<u> X </u>	_____
<input type="checkbox"/> Rectified Photos with Mylar Originals	<u> X </u>	_____
3. System Feasibility Study	_____	<u> X </u>
4. Final Alternatives Report	_____	<u> X </u>
5. System Feasibility Study	_____	<u> X </u>
6. Noise Assessment Report	_____	<u> X </u>
7. Air Quality Report	_____	<u> X </u>

	<u>CDOT/OTHER</u>	<u>CONSULTANT</u>
8. Archaeology Survey Report & Mitigation Plan	_____	<u> X </u>
9. Paleontology Preliminary Report & Mitigation Plan	_____	<u> X </u>
10. Water Quality Report	_____	<u> X </u>
11. Ecology Report	_____	<u> X </u>
12. Historical Bridge Clearance or Mitigation Plan	_____	<u> X </u>
13. Historical Cultural Resources Report	_____	<u> X </u>
14. Floodplain and Drainage Assessment Report & Mitigation Plan	_____	<u> X </u>
15. ROW Report	_____	<u> X </u>
16. 4(f)/6(f) Mitigation Plan	_____	<u> X </u>
17. Threatened and/or Endangered Species Assessment	_____	<u> X </u>
18. Wetlands Findings Report	_____	<u> X </u>
19. Hazardous Materials Findings	_____	<u> X </u>
20. Environmental Assessment (EA)		
a. Preliminary EA	_____	<u> X </u>
b. Certified Verbatim Transcript	_____	<u> X </u>
c. Finding of No Significant Impact (FONSI)	_____	<u> X </u>
21. Environmental Impact Statement		
a. Draft EIS	_____	<u> X </u>
b. Certified Transcript of Meeting	_____	<u> X </u>
c. Final EIS	_____	<u> X </u>
21. Design Report Process		
a. Preliminary Design Report	_____	<u> X </u>
b. Final Design Report	_____	<u> X </u>
22. Permits		
<input type="checkbox"/> 401 Permit	_____	<u> X </u>
<input type="checkbox"/> 402 Permit	_____	<u> X </u>
<input type="checkbox"/> 404 Permit	_____	<u> X </u>
<input type="checkbox"/> Wildlife Certification	_____	<u> X </u>
<input type="checkbox"/> NPDES Storm Water Permit	_____	<u> X </u>
23. Preliminary Design		
a. Electronic Survey	_____	<u> X </u>
b. Traffic Data & Recommendations	_____	<u> X </u>

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c. Soils Investigation Report	_____	<u>X</u>
d. Pavement Design Report	_____	<u>X</u>
e. Existing Bridge Condition Report	_____	<u>X</u>
f. Foundation Investigation Report	_____	<u>X</u>
g. Engineering Geology Plan Sheet(s)	_____	<u>X</u>
h. Preliminary Hydraulics Report	_____	<u>X</u>
i. Utility Relocation Recommendations	_____	<u>X</u>
j. Ditch Structure Plans	_____	<u>X</u>
h. Stabilization Plan	_____	<u>X</u>
i. FIR Plan Set	_____	<u>X</u>
24. Final Design		
a. Corrected FIR Plan Set	_____	<u>X</u>
b. Preliminary Cost Estimate	_____	<u>X</u>
c. List of Deviations from Standard Design Criteria	_____	<u>X</u>
d. Final Hydraulics Report	_____	<u>X</u>
e. Signing/Pavement Marking Plans	_____	<u>X</u>
f. Signal Warrants	_____	<u>X</u>
g. Signalized Intersection Plans and specifications	_____	<u>X</u>
h. Traffic Control Plan	_____	<u>X</u>
i. Structural Selection Report	_____	<u>X</u>
j. Foundation Investigation Request	_____	<u>X</u>
k. Structure Final Review Plans and Special Provisions	_____	<u>X</u>
l. Construction Phasing Plan	_____	<u>X</u>
m. FOR Plan Sheets and Special Provisions	_____	<u>X</u>
n. FOR Cost Estimate	_____	<u>X</u>
o. FOR Revised Plans and Special Provisions	_____	<u>X</u>
p. Final Review Revisions	_____	<u>X</u>
q. Final Utility Plan Set	_____	<u>X</u>
25. Roadside Planning		
a. Landscaping Plans & Specs.	_____	<u>X</u>
b. Certification of plant Availability	_____	<u>X</u>
c. Sprinkler System Plans & Specs.	_____	<u>X</u>
d. Bike path Plans & Specs.	_____	<u>X</u>

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e. Sound Barrier Plans & Specs.	_____	<u> X </u>
f. Truck Escape Ramp Plans & Specs.	_____	<u> X </u>
g. Rest Area Plans & Specs.	_____	<u> X </u>
h. Lighting Plans	_____	<u> X </u>

C. Right-of-Way

1. Memoranda of Ownership	_____	<u> X </u>
2. Preliminary Ownership Map (include in the FIR plan set)	_____	<u> X </u>
3. Area Calculations	_____	<u> X </u>
4. Authorization Plans	_____	<u> X </u>
5. Legal Descriptions	_____	<u> X </u>
6. ROW Authorization Plans	_____	<u> X </u>

D. Construction Plan Package

1. Roadway Design Data Submittal	_____	_____
2. Major Structure Design Final Submittal	_____	_____
3. Record Plan Sets	_____	_____

SECTION 9 CONTRACT CONCLUSION

9.01 Supplemental Work. It is anticipated that this contract will be supplemented for:

- Completion of the "as-built" plans and/or final ROW plans

9.02 Contract Completion. This Contract will be satisfied upon acceptance of the following items if applicable:

- Project Schedule
- Project Progress Meeting Minutes
- All Documents Found In Research
- All Permission to Enter Forms
- Ownership Map
- Original Field Notes

and the completion of review of contract submittals. Additionally, CDOT shall retain all work products should the contract be terminated.