

**QUARTERLY PROGRESS REPORT
DTFH61-06-C-00039
FHWA DESIGN MANUAL FOR DEEP MIXING
FOR EMBANKMENT AND FOUNDATION SUPPORT
OCTOBER – DECEMBER 2009**

- 1. Narrative of progress as related to the new schedule outlined in Modification No. 000002 to DTFH61-06-C-00039. The narrative shall list each task and the status of (progress in) the work for each task for achieving the contract objectives, including preliminary or interim results.**

For reference, the new project schedule as outlined in Modification No. 2 to DTFH61-06-C-00039 is shown below:

ITEM	TIME
Project Team Conference Call with FHWA	Approximately 1 month after contract modification. Dependent upon availability of team members and FHWA personnel.
Revised 50% Submittal	1 January 2010
75% Submittal	30 April 2010
100% Draft Submittal (CLIN 0003)	31 August 2010
Final Manual (CLIN 0004)	Within 60 days of receipt of FHWA comments on the 100% Final Draft (by or before 31 December 2010.)

The work conducted during this quarter involved developing the draft manual chapters and compiling a 50% draft manual submittal. All work involved was related to CLIN 0003 “Sections of Draft Manual for Review and Complete Draft Manual”.

The 50% draft manual was submitted to FHWA on December 22, 2009. The status of each chapter relative to the March 2009 submittal of this document is described in the following table.

Project is on schedule.

Chapter		Status Relative to March 2009 Submittal
1	Introduction	<ul style="list-style-type: none"> • FHWA comments on March 2009 draft incorporated. • Drawings to be finalized. • Approximately 85% complete.
2	Terminology	<ul style="list-style-type: none"> • Terms agreed for the specifications chapter (Appendix 9-A) included. • Terms and nomenclature from design chapter to be included. • Additional terms to be included as chapters are finalized. • Approximately 50% complete.
3	Feasibility and Applications	<ul style="list-style-type: none"> • FHWA comments on March 2009 draft incorporated. • Outstanding sections (3.3 Engineering Behavior and 3.4 Feasibility) must be developed based on finalized design. • Overall project/design flowchart must be discussed with FHWA. • Approximately 50% complete.
4	Site Investigation	<ul style="list-style-type: none"> • FHWA comments on March 2009 draft need to be incorporated. • Approximately 90% complete.
5	Treated Soil Properties	<ul style="list-style-type: none"> • FHWA comments on March 2009 draft need to be incorporated. • Approximately 50% complete.
6	Design	<ul style="list-style-type: none"> • Design procedure from the March 2009 submittal must be finalized and procedures for foundations must be developed. • FHWA comments need to be resolved to further develop this chapter. • Approximately 40% complete.
7	Design Examples	<ul style="list-style-type: none"> • To be completed after design procedure finalized. • 0% complete.
8	Contracts and Procurement	<ul style="list-style-type: none"> • New chapter (not included in March 2009 submittal) • 90% complete.
9	Plans and Specifications	<ul style="list-style-type: none"> • New chapter (not included in March 2009 submittal) • Statistical specifications section to be added. • New guide specifications (Appendix) included (not included in March 2009 submittal). • Approximately 65% complete.
10	Preconstruction Bench Scale Testing	<ul style="list-style-type: none"> • New chapter (not included in March 2009 submittal). • Referenced appendices must be reviewed in more detail. • 75% complete.
11	Construction	<ul style="list-style-type: none"> • Revised based on FHWA comments. • Associated appendix revised. • Some photographs to be changed. • Approximately 90% complete.
12	QA/QC	<ul style="list-style-type: none"> • Revised based on FHWA comments. • More detailed discussion among authors is needed on this chapter. • 65% complete.
13	Costs	<ul style="list-style-type: none"> • New chapter (not included in March 2009 submittal) • 80% complete.
14	References	<ul style="list-style-type: none"> • New chapter (not included in March 2009 submittal) • To be completed as other chapters are finalized. • Approximately 75% complete.

2. Work planned in each task for the next quarter.

Work planned for the first quarter 2010 (January-March) will also relate to CLIN 0003. The following table summarizes planned activities in preparation for submittal of the 75% Manual by April 30, 2010.

CHAPTER		PLANNED ACTIVITIES FOR FIRST QUARTER 2010	EXPECTED % COMPLETE BY END FIRST QUARTER 2010
1	Introduction	<ul style="list-style-type: none"> FHWA comments on December 2009 draft to be incorporated. Drawings to be finalized. 	95%
2	Terminology	<ul style="list-style-type: none"> Additional terms and nomenclature to be included as chapters are prepared. 	65%
3	Feasibility and Applications	<ul style="list-style-type: none"> Hold internal discussions with Design team and conference call with FHWA to outline expected behavior section (3.3) and the overview of the design section (3.4). Overall project/design flowchart to be discussed and outlined with FHWA. 	65%
4	Site Investigation	<ul style="list-style-type: none"> FHWA comments on March 2009 draft need to be incorporated. Approximately 90% complete. 	90%
5	Treated Soil Properties	<ul style="list-style-type: none"> Approximately 50% complete 	75%
6	Design	<ul style="list-style-type: none"> Approximately 35% complete 	50%
7	Design Examples	<ul style="list-style-type: none"> To be completed after design procedure finalized. 0% complete. 	0%
8	Contracts and Procurement	<ul style="list-style-type: none"> Incorporate FHWA comments and conduct follow up actions as required. 	95%
9	Plans and Specifications	<ul style="list-style-type: none"> Incorporate FHWA comments on chapter and specification and conduct follow up actions as required. Incorporate dry mixing considerations. 	75%
10	Preconstruction Bench Scale Testing	<ul style="list-style-type: none"> Conduct thorough internal review. Incorporate FHWA comments and conduct follow up actions as required. 	75%

CHAPTER		PLANNED ACTIVITIES FOR FIRST QUARTER 2010	EXPECTED % COMPLETE BY END FIRST QUARTER 2010
11	Construction	<ul style="list-style-type: none"> • Incorporate FHWA comments and conduct follow up actions as required. • Replace photographs, as possible. 	95%
12	QA/QC	<ul style="list-style-type: none"> • Conduct thorough internal review. • Incorporate FHWA comments and conduct follow up actions as required. 	75%
13	Costs	<ul style="list-style-type: none"> • Incorporate FHWA comments and conduct follow up actions as required. • Conduct detailed QA/QC and engineering cost analysis including survey of practitioners 	90%
14	References	<ul style="list-style-type: none"> • To be completed as other chapters are finalized. 	75%

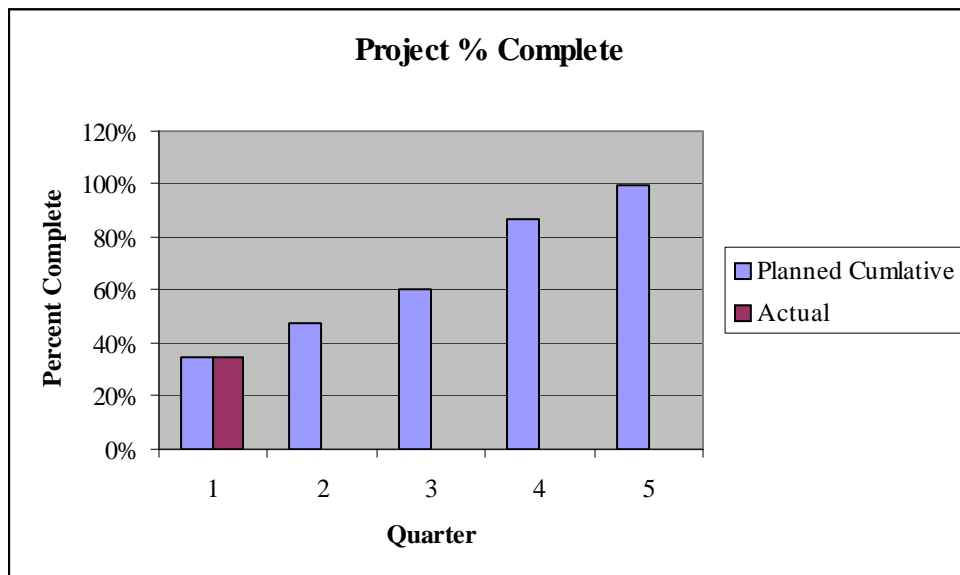
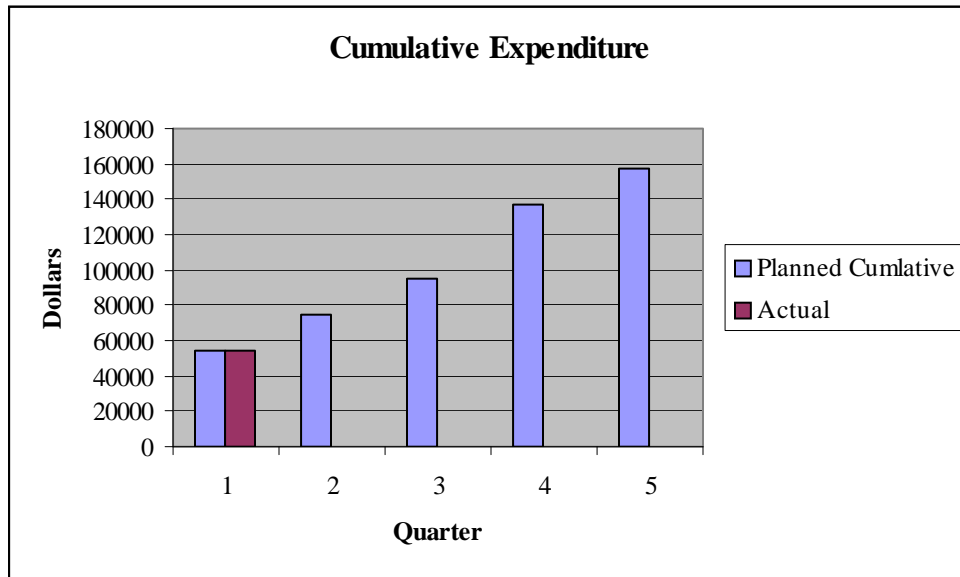
3. Summary of labor expended by personnel.

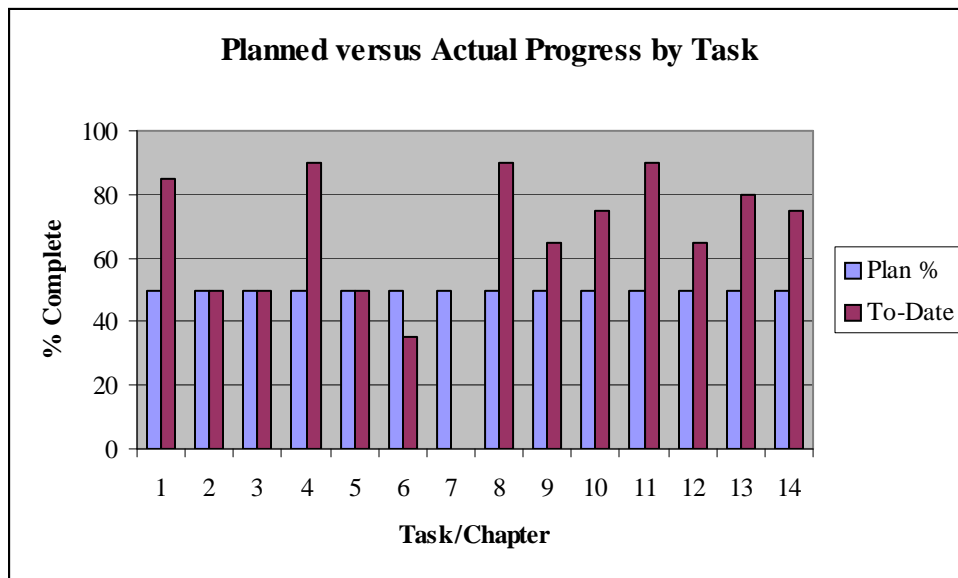
Manhours and expenditures are summarized on the following table.

**SUMMARY OF MANHOURS AND EXPENDITURES TO DATE
CLIN 0003 AND 0004**

PERSONNEL		CLIN 0003				CLIN 0004			
PERSON	HOURLY RATE	BUDGET HOURS	EXPENDED HOURS TO DATE	BUDGET DOLLARS	EXPENDITURE TO DATE	BUDGET HOURS	EXPENDED HOURS TO DATE	BUDGET DOLLARS	EXPENDITURE TO DATE
M.E. Bruce (PM)	\$ 100.00	95	74	\$ 9,500.00	\$ 7,400.00	42	0	\$ 4,200.00	\$ -
M.E. Bruce	\$ 120.00	215	133	\$ 25,800.00	\$ 15,960.00	80	0	\$ 9,600.00	\$ -
Berg	\$ 120.00	40	8	\$ 4,800.00	\$ 960.00	40	0	\$ 4,800.00	\$ -
Burke		0	0	\$ -	\$ -	0	0	\$ -	\$ -
Yang	\$ 120.00	100	40	\$ 12,000.00	\$ 4,800.00	30	0	\$ 3,600.00	\$ -
Macnab	\$ 120.00	25	18.5	\$3000.00	\$ 2200.00	0	0	\$ -	\$ -
Terashi	\$ 120.00	140	130	\$ 16,800.00	\$ 15,600.00	40	0	\$ 4,800.00	\$ -
Filz	\$ 120.00	160	56	\$ 19,200.00	\$ 6,720.00	50	0	\$ 6,000.00	\$ -
Collin	\$ 120.00	110	44.5	\$ 13,200.00	\$ 5340.00	30	0	\$ 3,600.00	\$ -
Bredenberg	\$ 120.00	100	0	\$ 12,000.00	\$ -	40	0	\$ 4,800.00	\$ -
CADD									
TOTALS		985	465	\$ 116,300.00	\$ 54,320.00	352	0	\$ 41,400.00	\$ -

4. **Progress and expenditure charts and summaries.**
 - a. **Chart showing cumulative expenditures versus planned expenditures.**
 - b. **Chart showing cumulative progress versus planned progress.**
 - c. **Bar chart showing the actual and planned progress for each task/manual chapters.**
 - d. **Fiscal summary chart by task.**
 - e. **Table showing scheduled versus actual percentage complete for each task.**





Task/ Chapter	Planned % Complete	% Complete To-Date
1	50	85
2	50	50
3	50	50
4	50	90
5	50	50
6	50	35
7	50	0
8	50	90
9	50	65
10	50	75
11	50	90
12	50	65
13	50	80
14	50	75

- 5. Identification of any current or anticipated problems. These constitute anything that would affect the completion of the contract within the time or money constraints set forth in the contract. This section should also include recommended solutions to such problems.**

Will FHWA provide review comments on the 50% draft?