

**GENERAL MEETING OF THE BOARD OF DIRECTORS  
OF THE  
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

**RESOLUTION NO. 03-38**

WHEREAS, the Central Texas Regional Mobility Authority ("CTRMA") is pursuing the development of the US 183-A turnpike project; and

WHEREAS, the CTRMA has received a grant of \$12.7 million from TxDOT as financial assistance to fund certain activities associated with the development of US 183-A (the "183-A Toll Equity Grant"); and

WHEREAS, HNTB, the general engineering consultant retained by the CTRMA (the "GEC"), has developed a scope of work and a proposed budget for the work necessary to expeditiously pursue the development of US 183-A and prepare the project for the issuance of turnpike revenue bonds; and

WHEREAS, a copy of that proposed scope of work and budget is contained in the work authorization attached hereto as Exhibit A (the "183-A Work Authorization"); and

WHEREAS, the CTRMA Board of Directors must approve the 183-A Work Authorization before the GEC may proceed with work thereunder; and


WHEREAS, the GEC has represented to the Board of Directors that the work reflected in the Work Authorization is necessary and appropriate to pursue the development of US 183-A; and

WHEREAS, the 183-A Work Authorization has also been submitted to TxDOT and the TTA Division for review and approval so as to assure that expenses incurred pursuant to the 183-A Work Authorization are reimbursable to the CTRMA from the 183-A Toll Equity Grant;

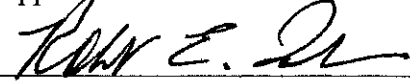
NOW THEREFORE, BE IT RESOLVED, that the Board of Directors approves the 183-A Work Authorization provided that (a) no work be undertaken that is not within the scope of what TxDOT approves as being reimbursable under the 183-A Toll Equity Grant; (b) any work commenced under the 183-A Work Authorization be subject to the contract to be executed by the CTRMA and the GEC; and (c) any work commenced under the 183-A Work Authorization be approved, in advance, by the Executive Committee.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of August, 2003.

Submitted and reviewed by:

  
\_\_\_\_\_  
C. Brian Cassidy  
General Counsel for the Central  
Texas Regional Mobility Authority

Approved:

  
\_\_\_\_\_  
Robert E. Tesch  
Chairman, Board of Directors  
Resolution Number 03-38  
Date Passed 8/27/03

## WORK AUTHORIZATION NO. 3

### CENTRAL TEXAS RMA

#### SERVICES TO BE PROVIDED BY THE GENERAL ENGINEERING CONSULTANT (GEC)

##### GENERAL PROJECT OVERVIEW

##### GEC Core Staff and US 183A Schematic review and revisions

The scope of services for this task order shall include General Engineering services for the CTRMA and Preliminary Design (which shall include evaluation of the existing US 183A Schematic, revisions to Schematic to modify the plan as appropriate, route and design studies, public involvement and environmental document updating, drainage studies, and toll facilities concept/study); Public Involvement; Determination of Project Phasing; Survey; ROW assessment and preparation of ROW plans and documents; and cost certification for the Official Statement Bond documents of US-183A from SH 45 at US183 to a connection with US 183, north of Leander, a distance of approximately 11 miles.

##### 1) MAINTAIN CORE GEC STAFF

The GEC will maintain a core staff of three persons at an office to be designated by the CTRMA. These three people will respond to requests by the CTRMA Board, according to the Scope of Work contained in the master agreement. The GEC core staff will be supported with expertise in Public Involvement, financing methods and the legal and ROW issues involving US 183A roadway development and innovative finance methods.

##### 2) PROJECT MANAGEMENT FOR THE DEVELOPMENT OF US 183A

- a) Design Strategy Meeting: Discuss development of design criteria, toll facility objectives, access management, typical cross section and general process discussion for the development of US 183A. The GEC's Project Manager and the GEC's task team leaders will participate in the Design Strategy Meeting. GEC will prepare and evaluate design needs, concepts, and guideline information into a Design Summary Report (DSR).
- b) Scheduling: The GEC will develop a detailed, graphic project schedule for complete development of the US 183-A project. This will include identification and integration of all activities with the Traffic and Revenue Consultant, Bond Counsel, Legal Staff, Financial Advisor and Public Involvement. The schedule (in Microsoft Project format) will indicate tasks, subtasks, critical dates, milestone events, deliverables, and information requested from external agencies. The project schedule will be in a format

which depicts the order and interdependence of the various tasks, subtasks, milestones, and deliverables for each task identified herein. As a part of the schedule development the GEC will evaluate various constraints and maximize the efficiency of the project.

- c) Progress Reports, Invoices and Billings: The GEC will prepare monthly progress reports (one copy) for review by CTRMA's designee. Invoices for all work completed during the period will be submitted monthly from the GEC and all sub-consultants. Monthly progress reports will include:
  - i) Activities during the reporting period
  - ii) Activities planned for the next period
  - iii) Problems encountered and actions to remedy them
  - iv) Overall status, including a tabulation of percentage completed.
- d) Correspondence: The GEC will submit all written materials, letters, survey forms, etc. used to solicit information or collect data for the project to the CTRMA, or designee, for review and acceptance before its use or distribution. Word processing will be prepared using Microsoft Office 2000 Professional Office Version.
- e) Communication with other resources and/or agencies regarding this project will be handled solely by GEC to ensure all parties are properly notified of any conclusions reached from these communications.
- f) Release of Information. The GEC will not release any project information without consent of the CTRMA's designee.
- g) Document Printing and Distribution. The GEC will be responsible for development of electronic document files and for printing copies of all draft and final documents, reports, etc. produced for the Project except where defined by each specific Task. GEC will be responsible for the distribution of all draft and final documents to appropriate agencies and the public.
- h) Attendance and report at monthly CTRMA Board Meetings, Executive Committee, Planning Committee and other committee functions involving the development of 183A.
- i) Close-Out: Upon completion of the Preliminary Engineering phase, the GEC will organize and retain copies of all associated materials on behalf of CTRMA.

**3) ROUTE AND DESIGN STUDIES FOR THE DEVELOPMENT OF US 183A**

## a) Design Schematic review and evaluation

- i) Review and update where appropriate the design criteria for the US 183A to meet current TxDOT standards.
- ii) The GEC will review and where appropriate revise horizontal and vertical alignments for US 183A. Roadway geometry will be based on the criteria and requirements set forth in part IV of the TxDOT Roadway Design Manual.

## (1) Design speed

- (a) Mainlanes: 70 mph
- (b) Ramps and Frontage Roads: 40 mph
- (c) Cross streets consistent with all locally applicable major thoroughfare plans, including those of Austin, Cedar Park, and Leander.

(2) The horizontal alignment will show bearings in the tangent sections and complete curve data including delta angles, PI stations, tangent lengths, length of curve, and radii. The plan views will show the center-line, edge of pavement, striping, lane widths, shoulder widths, cross slopes, superelevations with transitions, direction of traffic flow, and layouts for all speed change lanes. The GEC will provide horizontal alignments as follows:

- (a) Mainlane horizontal alignment.
- (b) Frontage road horizontal alignment.
- (c) Entrance and exit ramps horizontal alignments for both south and north bound directions.
- (d) Cross street horizontal alignments, best fit of the existing cross street between the frontage roads.

(3) The GEC will review and where appropriate develop horizontal turnarounds at existing grade separation structures. Deceleration lanes will be provided for on all turnarounds. Acceleration lanes will be provided for on turnarounds.

(4) The vertical alignment will show existing and proposed elevations at 100-foot intervals, vertical curve VPI stations, curve lengths, superelevation rates and transitions, design speeds, "K" values (evaluation to obtain minimum "K" values), and tangent grades. The GEC will assess the changes made to the TxDOT Design Manual to see if cost saving can be made by adjusting the vertical alignment. The GEC will provide vertical alignments as follows:

- (a) Main lane vertical alignment.
  - (b) Frontage road vertical alignment.
  - (c) Entrance and exit ramps vertical alignments.
  - (d) Cross road vertical alignments,
  - (e) Turnaround vertical alignments, straight grade alignments between the frontage roads.
- (5) The schematic will be prepared in US Customary units with MicroStation J and GEOPAK 2000.
- (6) The GEC will provide up to 10 senior technical staff to participate in a 5-day Value Engineering Study (V. E. Study.) The GEC will provide a color schematic on roll plans to be used at the V. E. Study.

The GEC will prepare for the Value Engineering Study by developing a cost estimate matrix for the schematic including cost per section, cost per major bid item, cost per interchange etc. This will be done to better determine where cost savings can be found.

- (7) The GEC will assess the currently proposed retaining walls required as part of the project. Geotechnical evaluation of the preferred type will not be completed under this Work Authorization.
- iii) The GEC will evaluate and revise typical sections on the schematic drawing using sections approved by CTRMA. Typical sections for reworking crossroads will also be developed by the GEC and shown on the schematic. The typical sections will also show the intermediate phases of construction related to the construction phasing.
  - iv) The GEC will identify and locate all known utilities impacting the 183A schematic design.
  - v) The GEC will review the earthwork cross-sections and evaluated how to improve section to minimize costs and maintain safety.
  - vi) The GEC will develop line diagrams for traffic and revenue for multiple options to be used in developing the construction phasing.
  - vii) GEC will re-evaluate the capacity and level of service analysis based on any revisions to the traffic information provided by the Traffic and Revenue Consultant. The scope of services and related fee for the Traffic and Revenue Consultant is not included in this Work Authorization.

- viii) The GEC will prepare the schematic drawing using the same scale, legend and symbol as the existing US 183 A schematic.
- ix) GEC will review the locations of guide signs and pavement markings in compliance with Texas Manual for Uniform Traffic Control Devices (TMUTCD). The GEC will update any signs due to revisions made to the geometric design. Guide signs will be included on the schematic.
- x) The GEC will complete any traffic signal warrant studies.
- xi) The GEC shall provide to CTRMA, as a final product, one Mylar copy of the schematic and two (5) Color copies of the schematic. The final schematic shall also be provided in a digital format. CADD Files shall be provided for Document and Information Exchange. Schematic will include the items included in the CTRMA checklist. The updated final schematic will include the following:
  - (1) The location of all main lanes, grade separations, frontage roads, and ramps
  - (2) Vertical profiles for mainlanes, frontage and ramps.
  - (3) Traffic flow direction on all roadways.
  - (4) Right of Way and Control of Access lines
  - (5) Geometric typical sections (including pavement cross slopes, lane and shoulder widths, and slope rates for cuts and fills) for proposed mainlanes, ramps, frontage roads, and cross streets
  - (6) Toll Plaza Footprints and layouts
  - (7) Current and projected traffic volumes as provided by CTRMA (20-year, unless determined otherwise by the CTRMA)
  - (8) Guide signs
  - (9) Toll signs
  - (10) Geometry of speed change (acceleration, deceleration, climbing, etc.) lanes
  - (11) Location of proposed structures, including pertinent dimensions, lanes on roadways and decks, directions of travel and preliminary vertical clearances for grade separations.
- xii) Additional copies of schematics to be provided include:
  - (1) Preliminary schematic, three copies, for review by CTRMA.
  - (2) Draft Final schematic, three copies, for CTRMA and FHWA review.

- b) Pavement design for the all roadways within 183A: Main lanes, Frontage Roads, Ramps, and Cross streets within the US 183A ROW.
- c) Evaluation will be completed for splitting of the project into multiple construction projects in order to develop the multiple projects. The basis for the construction phasing will be to create an efficient project to build as a toll facility that is financially viable and minimizes the traffic delays.
- d) The GEC will develop a certified construction estimate for each phase of the construction detailed in the construction phasing.

#### 4) ENVIRONMENTAL UPDATING FOR US 183A

The GEC will assess any deviations from the current Environmental Impact Statement (EIS) and will draft a letter requesting approval of any changes to the EIS including appropriate evaluation of the impact of the changes to the EIS. Modifications in these areas are within the areas of the scope of services:

- i) Cultural Resources & Surveys
- ii) Noise and Air Quality Analysis
- iii) Wetland investigations
- iv) Hazardous Materials
- v) Endangered Species Coordination/Mitigation

GEC believes that the environmental documents can be updated via a re-evaluation of the EIS. However, the cost if more extensive services are required to modify the EIS or other unanticipated complications, such as significant alignment shifts or additional project or public meeting(s) are not included in the scope, schedule, and budget.

#### 5) PUBLIC INVOLVMENT FOR US 183A

The GEC will provide a colored schematic, showing roadway typical sections, mounted on presentation boards with photos of existing interchanges for four public meetings/hearing as required for US 183A with the intent of developing informed public consent for the project. GEC will make all arrangements for the public meetings/hearing and will handle all mailings, advertisements, and announcements for the public meetings/hearing for US 183A.

- a) The GEC conduct and handle the public meetings/hearing and will make all formal presentations at these meetings.
- b) The GEC will meet with stakeholders during the schematic design process as directed by CTRMA in order to deliver informed public consent for the development of US 183A. It

is anticipated that the project stakeholders will include neighborhood associations, business groups, civic organizations, and area public officials

- c) The meeting minutes and meeting summaries for the public meetings/hearing will be recorded and prepared by the GEC.
- d) The GEC will also develop a community and governmental relations program to gain informed public consent for the US 183A project. This activities will include:
  - 1. Public Involvement Publications and notifications
  - 2. Audio/Visual Production
  - 3. Brochures, Informational Pieces, Presentations
  - 4. Community and Industry Relations
  - 5. Consumer Attitude Tracking
  - 6. Crisis Communication Plan & Training
  - 7. Government Relations
  - 8. Regulatory Review and Analysis
  - 9. Media Relations
  - 10. Strategic Planning

These activities, initiated for US 183A, will serve as a template for future CTRMA activities.

#### **6) ROW AND UTILITY ADJUSTMENT FOR THE DEVELOPMENT OF US 183A**

- a) The GEC will prepare a Right of Way and Control of Access map in order to determine the correct ROW needed. The GEC will modify the ROW map as necessary to provide the most efficient design. Previously establish ground control for the project will be used to document changes to the ROW. Specific attention will be paid to the frontage road side slopes, drainage requirements and conformance with reasonable access where access is allowed. The GEC will evaluate and incorporate ROW previously acquired by other entities.
- b) The GEC will determine any changes to existing ownership information for property adjoining CTRMA right of way.
- c) The GEC will develop metes and bounds descriptions for parcels to be taken.
- d) Assess alternate access to adjacent property to determine, costs, impacts to development of the frontage roads.



- e) Utility Coordination
  - i) Identification of potential conflicts
  - ii) Estimate of likely construction costs for utility relocation
  - iii) Coordination with utility companies regarding the needed adjustment of conflicting utilities.
  - iv) Prepare and negotiate all utility agreements.
- e) Acquire parcels necessary for US 183A right-of-way.

**7) FIELD SURVEYING FOR THE DEVELOPMENT OF US 183A**

- a) GEC will use the planimetric survey and digital topography developed by TTA for existing schematic. New mapping of the corridor is not including in this task order
- b) Additional topographic information to supplement the planimetric survey information as follows
  - i) Field survey near drainage outfalls to develop properly sized drainage easements.
  - ii) Update planimetric for changes that have occurred since the flight
  - iii) Field survey of proposed roadway centerline
  - iv) Field survey of proposed right-of-way
  - v) Field survey and location of existing utilities
- c) Provide any temporary traffic control such as signs, flags, flaggers, and safety equipment that may be required.

**8) TOLL FACILITIES AND TOLL ASSESSMENTS FOR THE DEVELOPMENT OF US 183A**

- a) Complete line diagrams for various options to be studied by the Traffic & Revenue consultant to be used to assess appropriate phasing and Toll facility locations. The scope of services and associated fee for the Traffic and Revenue consultant is not included in this Work Authorization.
- b) Review and assess existing schematic toll collection facilities. Develop recommendations for alternate or interim toll facilities. Revise schematic drawing to show appropriate toll facilities to maximize toll revenues.

- c) Assess the impacts of current location of main lane toll plaza relative to existing residential neighborhoods and assess if better location for main lane toll plaza can be developed.
- d) Where necessary modify ramp locations on schematic design to maximize toll revenue
- e) Develop standardized toll signage for toll plazas, ramps, and mainlines

#### 9) HYDROLOGY AND HYDRAULICS FOR THE DEVELOPMENT OF US 183A

- a) Place locations of existing outfalls for cross drainage and storm sewer systems on schematic.
- b) Develop preliminary report for hydrology and hydraulics to determine appropriate drainage outfall sizes and develop reasonable estimation of drainage costs.
- c) Existing Hydrology or hydraulic studies will be reviewed to evaluate the 100 year storm elevations. The GEC will determine the approximate limits of the 100-year flood boundary based on current FEMA Flood Insurance Rate Maps for inclusion on the roadway schematic. GEC will evaluate the 100-year storm elevation with the Mainlane vertical profile.
- d) Coordination and agreements required with COE and TCEQ for all related activities.
- e) Develop a water quality plan including an implementation plan for water quality facilities including basins, filters, ponds, etc.

#### DELIVERABLES FOR THE DEVELOPMENT OF US 183A

Design Summary Report

Preliminary Schematic

Draft Final Schematic

Design Schematic

Value Engineering Report

Construction Phasing Plan

Certified Construction Cost Estimate

Public Meeting/Hearing Minutes and Summary

Required Environmental Documentation

Revised ROW Map and required parcel descriptions

Estimate of Utility Relocation Costs

Utility Relocation Agreements

Updated Planimetric and Topographic Mapping

Line Diagrams for Toll Assessment

Preliminary Hydrology and Hydraulics Report

Water Quality Plan

Engineers Certification Report required for the Official Statement

NOTES:

- 1) All design shall be in accordance with the above references, except where variances are permitted in writing by CTRMA.
- 2) The GEC is responsible for purchasing all references, which are required for the project.

MANHOURS

Work Description	(Labor Rates)	MANHOURS						TOTAL HRS
		A	B	C	D	E	F	
Core GEC Staff		3720	2200	380	400	800	4120	11620
Project Management		320	476	614	264	272	1692	3638
Route and Design Studies		264	484	1918	3640	2162	236	8704
Environmental		36	104	228	416	268	180	1232
Public Involvement/Relations		460	1422	1320	2029	1245	648	7124
ROW Review & Updated documents		40	200	1896	2540	2040	2244	8960
Design Survey Review		40	160	306	1242	1060	2420	5228
Toll Assessment and Collection		64	128	272	480	240	16	1200
Hydrology & Hydraulics		24	68	388	400	304	80	1264
<b>TOTAL HNTB DIRECT LABOR COST</b>		<b>4968</b>	<b>5242</b>	<b>7322</b>	<b>11411</b>	<b>8391</b>	<b>11636</b>	<b>48970</b>
% of Total Hours by Labor Classification		10.14%	10.70%	14.95%	23.30%	17.13%	23.76%	100.00%
<b>HNTB LABOR COST</b>		<b>\$ 347,760.00</b>	<b>\$ 314,520.00</b>	<b>\$ 366,100.00</b>	<b>\$ 410,796.00</b>	<b>\$ 251,730.00</b>	<b>\$ 232,720.00</b>	<b>\$ 1,923,626.00</b>
<b>OVERHEAD COST</b>		<b>\$ 608,580.00</b>	<b>\$ 550,410.00</b>	<b>\$ 640,675.00</b>	<b>\$ 718,893.00</b>	<b>\$ 440,527.50</b>	<b>\$ 407,260.00</b>	<b>\$ 3,366,345.50</b>
<b>SUBTOTAL LABOR</b>		<b>\$ 956,340.00</b>	<b>\$ 864,930.00</b>	<b>\$ 1,006,775.00</b>	<b>\$ 1,129,689.00</b>	<b>\$ 692,257.50</b>	<b>\$ 639,980.00</b>	<b>\$ 5,289,971.50</b>

HNTB Corporation - TOTAL PROJECT DIRECT COSTS  
 Total Expenses \$589,000

Labor Categories:  
 A - Sr. QA/QC Reviewer  
 B - Project Manager  
 C - Sr. Project Engineer  
 D - Design Engineer  
 E - CADD/Tech/ENT  
 F - Clerical

TOTAL HNTB DIRECT COSTS \$589,000

HNTB OH Multiplier 175.00%  
 HNTB Profit 15.00%

SUBTOTAL PROJECT COST \$ 5,878,972  
 PROJECT PROFIT \$ 881,846

**TOTAL PROJECT COST \$6,760,817**

CFR 101-11.6 & US 183A

HNTB Corporation MANHOUR BREAKDOWN

August 8, 2003

CFRMA

CONTRACT No. 03

WORK AUTHORIZATION NO. 1

**Project Management**

**MANHOURS**

<u>Task</u>	<u>Work Description</u>	(Labor Rate	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>TOTAL</u>
			\$ 70.00	\$ 60.00	\$ 50.00	\$ 36.00	\$ 30.00	\$ 20.00	HRS
1	General Engineering Consultant		3000	2000	140	200	560	4000	9900
2	Finance Related Activities		720	200	240	200	240	120	1720
3	Legal Activities								0
<b>TOTAL HNTB DIRECT LABOR</b>			<b>3720</b>	<b>2200</b>	<b>380</b>	<b>400</b>	<b>800</b>	<b>4120</b>	<b>11620</b>
<b>% Total by Classification</b>			<b>32.01%</b>	<b>18.93%</b>	<b>3.27%</b>	<b>3.44%</b>	<b>6.88%</b>	<b>35.46%</b>	

CTRMA  
 HNTB CONSULTING MANHOUR BREAKDOWN  
 August 2003

CTRMA  
 CONTRACT NO. 333  
 WORK AUTHORIZATION NO. 1

Task	Project Management Work Description	(Labor Rate)	MANHOURS					TOTAL HRS	
			A	B	C	D	E		F
1	Design Kick-off Meeting	\$ 70.00	16	12	40	20	20	20	128
2	Scheduling	\$ 60.00	8	40	60	0	0	20	128
3	Progress Reports and invoices	\$ 50.00	8	32	60	40	0	80	220
4	Correspondence	\$ 36.00	8	60	80	24	0	100	272
5	Document Printing and Distribution	\$ 30.00	4	32	32	16	100	120	304
6	File management and Document Control	\$ 20.00	8	24	60	32	20	160	304
7	Monthly CTRMA Board Meetings		192	192	192	72	72	192	912
8	Project Administration		60	60	40	40	40	960	1200
9	Phase 1 close-out		16	24	50	20	20	40	170
<b>TOTAL HNTB DIRECT LABOR</b>			<b>320</b>	<b>476</b>	<b>614</b>	<b>264</b>	<b>272</b>	<b>1692</b>	<b>3638</b>
% Total by Classification			8.80%	13.08%	16.88%	7.26%	7.48%	46.51%	

Expenses

CDMIA  
 HNTB CORPORATION - MANHOUR BREAKDOWN  
 AUGUST 5, 2003

CDMIA  
 CONTRACT No. 333  
 WORK AUTHORIZATION NO. 1

Route and Design Studies		MANHOURS						TOTAL HRS
Task	Work Description	(Labor Rate: \$ 70.00)	\$ 60.00	\$ 50.00	\$ 36.00	\$ 30.00	\$ 20.00	
1	Develop Roadway Design Criteria	20	40	120	80	16	20	296
2	Typical Sections	0	8	24	80	80	0	192
	Horizontal Alignments (5 rolls - 100:1)	-	-	-	-	-	-	-
3	Centerline	4	8	120	120	72	0	324
4	Frontage Roads	4	8	80	80	40	0	212
5	Ramps	4	8	88	96	90	0	286
6	Cross Streets	4	8	16	60	50	0	138
	Vertical Alignments (5 rolls-100:1)	-	-	-	-	-	-	-
7	Mainlanes	4	12	160	200	60	0	436
8	Frontage Roads	4	12	96	250	80	0	442
9	Ramps	4	12	96	300	120	0	532
10	Cross Streets	4	12	50	150	60	0	276
	Turnaround Evaluation/Design	-	-	-	-	-	-	-
11	Horizontal	4	4	32	32	40	0	112
12	Vertical	4	0	32	64	80	0	180
13	Schematic Annotation (5 rolls)	0	8	32	120	200	0	360
14	Value Engineering Preparation	8	16	40	80	80	16	240
15	Value Engineering Study	40	80	160	120	40	20	460
16	Value Engineering Report	4	16	32	80	30	20	182
17	Retaining Wall analysis	4	8	20	160	32	0	224
18	Typical Section Analysis and revision	4	16	32	80	32	0	164
19	Cross Section and Earthwork Analysis and Revisions	4	16	84	360	240	0	704
20	Traffic Line Diagrams	8	16	40	120	60	16	260
	Level of Service Analysis (mainlanes & Ramps only)	-	-	-	-	-	-	-
21	Mainlanes	4	8	40	120	16	0	188
22	Ramps & weaving	4	8	40	120	16	0	188
23	Traffic Signal Warrants	0	4	30	60	24	16	134
24	Guide Sign Review and Revisions	0	8	24	40	40	0	112
25	Schematic submittal	4	4	4	40	80	40	172
26	Pavement Design	4	16	60	120	120	40	360
27	Preliminary Quantities	4	8	24	32	40	0	108
28	Preliminary Cost Estimate	8	8	16	32	40	0	104
29	Evaluation of Construction Sequencing	8	32	120	100	60	8	328
30	Exhibits of elements in construction sequence	4	8	30	160	120	0	322
31	Design Exception Evaluation	4	8	16	24	24	0	76
32	Certified Construction Estimate	8	24	160	160	80	40	472
33	QA/QC - Route and Design Studies	80	40	0	0	0	0	120
<b>TOTAL HNTB DIRECT LABOR</b>		<b>264</b>	<b>484</b>	<b>1918</b>	<b>3640</b>	<b>2162</b>	<b>236</b>	<b>8704</b>
% Total by Classification		3.03%	5.56%	22.04%	41.82%	24.84%	2.71%	

Task	Work Description	Environmental (Labor Rate)	MANHOURS					TOTAL HRS	
			A \$ 70.00	B \$ 60.00	C \$ 50.00	D \$ 36.00	E \$ 30.00		F \$ 20.00
1	Letter of Revision to EIS		4	16	16	40	40	40	156
2	Overall drafting of letter		0	16	48	40	24	40	168
3	Cultural Resources		0	8	16	40	24	40	128
4	Noise and Air Quality		0	8	32	60	32	8	140
5	Wetland Investigations		0	8	16	48	24	16	112
6	Hazardous Materials		0	8	12	48	24	20	112
7	Endangered Species Coordination/Mitigation			24	88	140	100	16	368
8	QA/QC - Environmental Studies		32	16	0	0	0	0	48
<b>TOTAL HNTB DIRECT LABOR</b>			<b>36</b>	<b>104</b>	<b>228</b>	<b>416</b>	<b>268</b>	<b>180</b>	<b>1232</b>
% Total by Classification			2.92%	8.44%	18.51%	33.77%	21.75%	14.61%	



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 HNTB Corporation - MANHOUR BREAKDOWN  
 August 8, 2003

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 CONTRACT NO. 000  
 WORK AUTHORIZATION NO. 1

## Public Involvement/Relations

## MANHOURS

Task	Work Description	(Labor Rate	MANHOURS						TOTAL HRS
			A \$ 70.00	B \$ 60.00	C \$ 50.00	D \$ 36.00	E \$ 30.00	F \$ 20.00	
1	Exhibits for Public Meetings (4)		0	20	20	80	80	36	236
2	Prepare for and Attend Public Meetings (4)		32	40	120	120	60	120	492
3	Stakeholder, Neighborhood meetings		300	334	360	360	180	80	1614
4	Prepare meeting minutes		0	160	40	24	12	120	356
5	Public Involvement Publications and notices					72	52	48	172
6	Audio Visual Production					80	120	24	224
7	Brochures, Informational Pieces, Presentation					165	85	36	286
8	Community and Industry Relations		40	240	240	300	200	40	1060
9	Consumer Attitude Tracking					110	30	20	160
10	Crisis Communications Plan & Training					12	12	24	48
11	Government Relations		40	300	240	160	160	36	936
12	Internal Communications					40	10	12	62
13	Legislative Monitoring		16	240	160	80	40	12	548
14	Media Relations		8	32	60	300	150	24	574
15	Strategic Planning		16	40	40	70	30	8	204
16	Special Projects as Assigned		8	16	40	56	24	8	152
<b>TOTAL HNTB DIRECT LABOR</b>			<b>460</b>	<b>1422</b>	<b>1320</b>	<b>2029</b>	<b>1245</b>	<b>648</b>	<b>7124</b>
% Total by Classification			6.46%	19.96%	18.53%	28.48%	17.48%	9.10%	

<b>Expenses</b>	
Advertising	\$25,000
Trade Show and Static Displays	\$10,000
Public Meeting expenses	\$32,000
<b>Total Expenses</b>	<b>\$67,000</b>



Design Survey Review

MANHOURS

<u>Task</u>	<u>Work Description</u>	(Labor Rate	MANHOURS					TOTAL HRS	
			A \$ 70.00	B \$ 60.00	C \$ 50.00	D \$ 36.00	E \$ 30.00		F \$ 20.00
1	Review Existing Survey, dtm and Topographic data		0	16	12	12	40	4	84
2	Field Survey of Centerline		0	40	72	300	120	960	1492
3	Field Survey of Proposed Right-of-Way		0	40	72	300	120	1080	1612
4	Survey drainage easements and additional topo features		0	16	50	150	300	16	532
	Update Topography and dtm		0	16	100	480	480	360	1436
40	QA/QC		40	32	0	0	0	0	72
<b>TOTAL HNTB DIRECT LABOR</b>			40	160	306	1242	1060	2420	5228
<i>% Total by Classification</i>			0.77%	3.06%	5.85%	23.76%	20.28%	46.29%	

CDRMA CEC/CEIS/183A  
 HNTB Corporation MANHOOR BREAKDOWN  
 August 2003

CDRMA  
 CONTRACT No. 111  
 WORK AUTHORIZATION NO. 1

Toll Assessment and Collection		MANHOURS						TOTAL	
<i>Task</i>	<i>Work Description</i>	(Labor Rate)	A	B	C	D	E	F	HRS
		\$ 70.00	\$ 60.00	\$ 50.00	\$ 36.00	\$ 50.00	\$ 20.00		
1	Line Diagrams for Toll options		0	24	72	120	40	16	272
	Review existing Toll Plan and Revise		8	24	80	120	80	0	312
	Assess Current ML Toll Plaza location / relocate		8	24	60	120	40	0	252
	Assess and revise current ramp locations to max efficiency		8	32	60	120	80	0	300
2	QA/QC		40	24	0	0	0	0	64
<b>TOTAL HNTB DIRECT LABOR</b>			64	128	272	480	240	16	1200
<i>% Total by Classification</i>			5.33%	10.67%	22.67%	40.00%	20.00%	1.33%	

<u>Hydrology &amp; Hydraulics</u>		<u>MANHOURS</u>							
<u>Task</u>	<u>Work Description</u>	(Labor Rate)	A	B	C	D	E	F	TOTAL
		\$ 70.00	\$ 60.00	\$ 50.00	\$ 36.00	\$ 30.00	\$ 20.00		HRS
1	Locate Outfalls for drainage systems		0	8	8	40	32	0	88
2	Develop preliminary Hydrology and Hydraulic Report		0	16	120	120	32	40	328
3	Assess Toll Facility with Hydrology & Hydraulics Report		0	16	60	80	120	0	276
4	Develop a water Quality plan		4	16	200	160	120	40	540
40	QA/QC		20	12	0	0	0	0	32
<b>TOTAL HNTB DIRECT LABOR</b>			24	68	388	400	304	80	1264
<i>% Total by Classification</i>			1.90%	5.38%	30.70%	31.65%	24.05%	6.33%	