

**DESIGN BULLETIN No. 39/2006 (Revised June 2007)**

**TENDER SUBMISSION REQUIREMENTS**

**June 2007 Amendment to Design Bulletin #39/2006**

This amendment is issued to reiterate and update the requirement for submitting a separate C-estimate cost for each Project in a tender. For cost tracking and forecasting purposes, the department requires a quantity breakdown by bid item for each Project in a tender, regardless if the Project has been issued a PR0# or not.

In addition to the C-estimate requirements identified in the "*Engineering Consultant Guidelines for Highway and Bridge Projects - Volume 1 - Design and Tender*" (ECG Vol 1) manual, the Consultant shall provide a quantity breakdown by bid item – in Microsoft Excel file format – for each Project of a tender.

All Project(s) quantities shall be listed in the same spreadsheet for comparative purposes (each Project will have a separate quantity column). The spreadsheet shall include all bid items of the tender including the bid item number, description, units of measure and the Consultant's estimated unit prices. The bid items shall be in the same order as the tender document's unit price schedule.

Also, the Consultant is required to provide updates to this quantity breakdown by Project whenever there is a revision made to tender quantities via addendum.

An example of an estimated quantity breakdown by Project is attached. An Excel spreadsheet template will be made available upon request.

This design bulletin is issued as an additional requirement to the "*Engineering Consultant Guidelines for Highway and Bridge Projects - Volume 1 - Design and Tender*" (ECG Vol 1). This Bulletin, pertaining to the Department's tender submission requirements, shall form part of Section 11 "Contract Tendering" of this manual:

**BACKGROUND**

In recent months, largely attributed to the high volumes of construction activities in the Province, it has been increasingly difficult for the Consultant to accurately estimate the contract value prior to the tender closing date. Inaccurate "C-Estimates" will result in inaccurate fiscal forecasts, and results in additional administrative burden on the Contracts Review Committee (CRC) to obtain approval on seriously over-budget projects.

Due to the importance of accurate project cost estimates to the Department, Executive has directed that increased Consultant effort be directed towards the provision of accurate C-Estimates.

As a means of assisting the Consultant in the provision of accurate cost estimates, average bid price for most major bid items have been published on the Department's web site. Recently, in response to concerns over the difficulty estimating lump sum bid items common to bridge projects, Technical Standards Branch undertook an analysis of average prices for bridge projects. This new average bridge cost information has been published on the Department's web page since mid-February. The Unit Price Averages Report is available at the following web address:

[http://www.infratrans.gov.ab.ca/Tendering\\_%26\\_Contracting/Roads%2c\\_Bridges\\_%26\\_Water/Unit\\_Price\\_Averages/index.htm](http://www.infratrans.gov.ab.ca/Tendering_%26_Contracting/Roads%2c_Bridges_%26_Water/Unit_Price_Averages/index.htm)

## REQUIREMENTS

In addition to the current requirements of Section 11, the Consultant's tender submission shall include the following items:

- The C-Estimate for the Tender. This estimate will be the Consultant's best estimate of each project's actual cost if it were to be tendered on the date the C-estimate was prepared. **The C-estimate must NOT include any estimate of inflation to account for any expected delay in the tender of the project.**

The Consultant's C-Estimate should use the Department's average price report as a starting point. The Consultant shall adjust the C-estimate based on project specific local conditions including but not limited to: project location, contractor availability, long/short aggregate haul distances, recent increases in the price asphalt binder, pit conditions (i.e. higher than normal sand elimination), high moisture content of common or borrow material, delivery time for materials in relation to contract completion dates, tight time-lines for construction (i.e. limited float), etc...

- If the Tender contains multiple Projects, the Consultant's C-estimate shall include a quantity breakdown by bid item for each Project, and a summary C-estimate for the entire Tender. (See attached sample). The Consultant is required to provide updated C-estimates, including the quantity breakdown by Project, whenever revisions are made to tender quantities via addendum.
- The Average Price Estimate. The Consultant's tender submission shall include the average price estimate that was used as the starting point for the preparation of the C-estimate. Typically, this will be the most recent average price information published on the Department's web page. The format of the estimate shall be the same as the format used for the C-Estimate submission. For bridge rehabilitation work, and/or other specialized work where average price information is not available, the average price estimate is not mandatory.
- The Consultant shall provide a one or two page memo explaining the rationale that was used to determine his estimated prices. The memo should concentrate on only the major bid items and shall provide sufficient information to allow the Project Sponsor and Program Management Branch to assess the validity of any assumptions being made. The memo shall include a space for the Project Sponsor to sign-off prior to submission to Professional Services. (See attached sample letter). The Project Sponsor's signature of the memo will be used to validate the assumptions made and will verify that the Project Sponsor accepts responsibility for the accuracy of the Consultant's estimate.

#### DEPARTMENT APPLICATION OF INFLATION

When Programming Section verifies that PSS should proceed with the advertisement of a project, Professional Services will take the following actions:

1. If the Consultant's estimate is more than 2-months old, the Consultant will be asked to provide both a new C-estimate and an average price estimate based on the most recent information available. Re-submission of the 1-page memo will not be required unless there has been a change in the rationale used by the Consultant to develop his C-estimate.
2. If, during the tender review, Professional Services identifies changes to the project's schedule that are substantially different from the assumptions previously validated by the Project Sponsor, the Project Sponsor and Consultant will be advised of the changes. The Consultant shall review the impact of the changes on the existing C-estimate and shall make any necessary revisions to the C-estimate.

#### IMPLEMENTATION OF BULLETIN

Implementation of this bulletin is effective immediately for all future Consultant tender submissions.

Date of Issue: October 23, 2006.

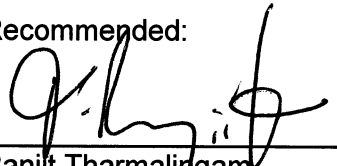
Effective Date: October 23, 2006.

Revised Date (1): June 29, 2007

#### CONTACTS

Any questions with regard to this Design Bulletin should be directed to Alberta Infrastructure and Transportation's Professional Services Section (Attention: Specifications and Tendering Specialist (780) 427-1581).

Recommended:

  
\_\_\_\_\_  
Ranjit Tharmalingam  
Director, Professional Services

Approved:

  
for \_\_\_\_\_  
Tim Hawnt  
Executive Director, Program  
Management Branch

Consultant's Letterhead Logo

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Alberta Infrastructure and Transportation  
Construction/Bridge Manager  
1234 Main Street  
Anytown, AB T0H 0H0

Attention: Construction and/or Bridge Manager

Re: **Hwy XXX:XX – Grading, Paving, and Bridge Structures, Tender No. XXXX/06,  
CE No. XXX/05**

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Attached, please find the draft tender document, C-Estimate, and Average Cost Estimate for your review and approval on the above mentioned Project.

Our design cost estimates for the project are as follows:

- C- Estimate is \$2,900,500
- Average Cost Estimate is \$2,645,000

The C-estimate is based on the following assumptions:

*(i.e. project specific local conditions including but not limited to: project location, contractor availability, long/short aggregate haul distances, recent increases in the price asphalt binder, pit conditions (i.e. higher than normal sand elimination), high moisture content of common or borrow material, delivery time for materials in relation to contract completion dates, tight time-lines for construction, etc...)*

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The Consultant certifies that the C-Estimate has been prepared based on the most current information available, and to the best of the Consultant's knowledge represents an accurate assessment of the anticipated project cost.

Sincerely,

Reviewed and Approved:

.....  
Consultant's Project Director  
XYZ Consulting Ltd.

.....  
Construction or Bridge Manager  
Infrastructure and Transportation

CONSULTANT NAME/ LOGO			TENDER: 9999/99		PROJECT QUANTITIES								Total Tender Quantities
Bid Item #	CEB Code	Bid Item Description	Unit	Estimated Unit Price	Hwy 009:99	Hwy 099:99	Hwy 999:99	INT 099:99/999:99	BF 99999				
1	X100	Mobilization	lump sum	\$2,000,000.00	0.20	0.20	0.20	0.20	0.20				1.00
2	X018	Project Identification Signs	lump sum	\$10,000.00	0.25	0.25	0.50	0.00	0.00				1.00
3	X004	Site Occupancy	days	\$1,500.00									
4	A800	Supply of Aggregate - With Option	t	\$2.00	70,000.00	34,000.00	13,000.00	0.00	0.00				117,000.00
5	G100	Clearing	ha	\$15,000.00	3.00	2.00	1.00	0.00	0.00				6.00
6	G225	Common Excavation	m3	\$7.00	200,000.00	50,000.00	0.00	0.00	0.00				250,000.00
7	G270	Sideslope Improvement	km	\$25,000.00	5.00	3.00	0.00	0.00	0.00				8.00
8	G300	Topsoil Placement	m2	\$2.00	50,000.00	25,000.00	10,000.00	0.00	0.00				85,000.00
9	B100	Subgrade Excavation	m3	\$20.00	2,500.00	2,500.00	0.00	0.00	0.00				5,000.00
10	B152	Granular Fill - Des 6 Class 25	t	\$30.00	5,000.00	2,000.00	3,000.00	0.00	0.00				10,000.00
11	B282	Granular Base Course - Des 2 Class 25	t	\$20.00	30,000.00	20,000.00	5,000.00	0.00	0.00				55,000.00
12	Q565	Cold Milling Asphalt Pavement	m2	\$5.00	2,000.00	0.00	0.00	0.00	0.00				2,000.00
13	Q990	Asphalt Concrete Pavement - EPS Mix Type H1 (150-200A )	t	\$80.00	30,000.00	10,000.00	5,000.00	0.00	0.00				45,000.00
14	Q991	Asphalt Concrete Pavement - EPS Mix Type M1 (200-300A )	t	\$85.00	5,000.00	2,000.00	0.00	0.00	0.00				7,000.00
15	D100	Culverts - Remove and Dispose (C.S.P.) (up to 700 mm dia.)	m	\$100.00	100.00	60.00	0.00	0.00	0.00				160.00
16	D105	Culverts - Remove and Dispose (C.S.P.) (over 700 mm dia.)	m	\$120.00	30.00	0.00	0.00	0.00	0.00				30.00
17	D200	Granular Backfill - Culverts	m3	\$50.00	300.00	100.00	0.00	0.00	0.00				400.00
18	D410	Culverts - Supply and Install (600 mm dia. C.S.P.)	m	\$250.00	110.00	65.00	0.00	0.00	0.00				175.00
19	D425	Culverts - Supply and Install (800 mm dia. C.S.P.)	m	\$350.00	33.00	0.00	0.00	0.00	0.00				33.00
20	G452	Remove and Dispose of Existing Fence	km	\$1,700.00	8.00	5.00	0.00	0.00	0.00				13.00
21	G470	New Fence - Supply and Install - Class A	km	\$5,000.00	8.00	5.00	0.00	0.00	0.00				13.00
22	S825	Remove and Dispose of Existing Guardrail	m	\$30.00	1,500.00	1,000.00	250.00	0.00	0.00				2,750.00
23	S800	W-Beam Guardrail - Supply and Install	m	\$120.00	1,500.00	1,000.00	250.00	0.00	0.00				2,750.00

CONSULTANT NAME/ LOGO			TENDER: 9999/99		PROJECT QUANTITIES							Total Tender Quantities	
Bid Item #	CEB Code	Bid Item Description	Unit	Estimated Unit Price	Hwy 009:99	Hwy 099:99	Hwy 999:99	INT 099:99/999:99	BF 99999				
24	S275	Removal and Reinstallation or Disposal of Existing Signs - One Post	signs	\$160.00	70.00	50.00	20.00	0.00	0.00				140.00
25	S272	Supply of Signs, Aluminum	m2	\$250.00	10.00	5.00	2.00	0.00	0.00				17.00
26	S288	Install Sign - Less than 1 m2	signs	\$100.00	14.00	7.00	4.00	0.00	0.00				25.00
27	S350	Roadway Lines - Supplying Paint and Painting (Directional Dividing and 2 Edge Lines)	km	\$800.00	20.00	15.00	7.00	0.00	0.00				42.00
28	S360	Intersection Lines - Supplying Paint and Painting	intersections	\$300.00	0.00	0.00	0.00	1.00	0.00				1.00
29	U100	Trenching and Backfilling	m	\$22.00	0.00	0.00	0.00	50.00	0.00				50.00
30	U103	Underground Electrical Conduit - Supply and Install - Pushed Conduit (100mm dia.)	m	\$120.00	0.00	0.00	0.00	50.00	0.00				50.00
31	U105	Secondary Cable - Supply and Install (2c #10 Teck 90 HL)	m	\$10.00	0.00	0.00	0.00	50.00	0.00				50.00
32	U110	Removal and Salvage of Existing Light Fixtures - 30m High Mast c/w Base Demolition	units	\$1,500.00	0.00	0.00	0.00	4.00	0.00				4.00
33	U120	Concrete Base - Supply and Install for 13m Davit Pole	units	\$2,500.00	0.00	0.00	0.00	4.00	0.00				4.00
34	U125	Street Light Standard - Supply and Install 13m Davit with 250W-347V Luminaire	units	\$6,000.00	0.00	0.00	0.00	4.00	0.00				4.00
35	U135	Underground Junction Box - Supply and Install	units	\$1,000.00	0.00	0.00	0.00	1.00	0.00				1.00
36	U018	Traffic Signal System - Supply and Install (Hwy 54 & Hwy 2A)	lump sum	\$300,000.00	0.00	0.00	0.00	1.00	0.00				1.00
37	X054	Traffic Accommodation for Bridge Construction	lump sum	\$100,000.00	0.00	0.00	0.00	0.00	1.00				1.00
38	F170	Removal of Bridge Structures	lump sum	\$50,000.00	0.00	0.00	0.00	0.00	1.00				1.00
39	F187	Excavation - Channel	lump sum	\$75,000.00	0.00	0.00	0.00	0.00	1.00				1.00
40	F018	Backfill - Non-Granular	lump sum	\$50,000.00	0.00	0.00	0.00	0.00	1.00				1.00
41	F018	Backfill - Granular	lump sum	\$50,000.00	0.00	0.00	0.00	0.00	1.00				1.00
42	F493	SPCSP - Supply	m	\$1,700.00	0.00	0.00	0.00	0.00	50.00				50.00
43	F494	SPCSP - Assembly	m	\$850.00	0.00	0.00	0.00	0.00	50.00				50.00
44	F018	Concrete End Treatment	lump sum	\$50,000.00	0.00	0.00	0.00	0.00	1.00				1.00
45	F500	Heavy Rock Riprap (Class 1)	m3	\$200.00	0.00	0.00	0.00	0.00	100.00				100.00
46	E435	Erosion Control Barrier (Silt Fence)	m	\$15.00	0.00	0.00	0.00	0.00	150.00				150.00

CONSULTANT NAME/ LOGO			TENDER: 9999/99		PROJECT QUANTITIES								Total Tender Quantities
Bid Item #	CEB Code	Bid Item Description	Unit	Estimated Unit Price	Hwy 009:99	Hwy 099:99	Hwy 999:99	INT 099:99/ 999:99	BF 99999				
47	E611	Fish Capture and Release	lump sum	\$40,000.00	0.00	0.00	0.00	0.00	1.00				1.00
<b>CONTRACT ITEMS:</b>					\$6,224,850	\$2,688,200	\$1,103,200	\$748,900	\$964,750				\$11,729,900
<b>10% CONTINGENCIES:</b>					\$622,485	\$268,820	\$110,320	\$74,890	\$96,475				\$1,172,990
<b>ENGINEERING:</b>					\$300,000	\$100,000	\$75,000	\$25,000	\$25,000				\$525,000
<b>RIGHT OF WAY:</b>					\$0	\$0	\$0	\$20,000	\$0				\$20,000
<b>UTILITIES:</b>					\$0	\$0	\$0	\$10,000	\$0				\$10,000
<b>TOTALS:</b>					<b>\$7,147,335</b>	<b>\$3,057,020</b>	<b>\$1,288,520</b>	<b>\$878,790</b>	<b>\$1,086,225</b>				<b>\$13,457,890</b>