

CIP DESIGN AND ENGINEERING MEMORANDUM
#08-30

September 11, 2008

TO: Honorable Mayor Kathleen M. Novak and City Council members

FROM: David Allen, Acting City Manager *DA*
Joliette Woodson, Civil Engineer II *JW*

SUBJECT: CR-138 – For Final Design of 104th Avenue Bridge Enhancements

RECOMMENDATION:

Attached to this memorandum is a Resolution which, if approved, would authorize the Mayor to execute Addendum #1 to the professional services agreement between the City of Northglenn and DTJ Design, Inc. (DTJ) for the 104th Avenue Bridge Enhancements Project final design in the amount of \$99,700.00. Staff recommends approval of the proposed Resolution.

BACKGROUND:

The Colorado Department of Transportation (CDOT) will replace the bridge at 104th Avenue and I-25 in 2009. This project is currently in the final design phase. The City of Northglenn has the opportunity to enhance the 104th Avenue / I-25 interchange bridge with additional aesthetic improvements beyond the level of the basic bridge replacement.

On May 22, 2008, Council approved a contract with DTJ for preliminary design services in the amount of \$33,900.00. The preliminary work completed by DTJ includes the development of alternatives with associated construction costs for review by Council. Based on the City's \$250,000 contribution and the Northglenn Urban Renewal Authority's dedication of \$500,000 towards the project, DTJ is ready to begin final design and preparation of final cost estimates.

BUDGET/TIME IMPLICATIONS:

Funding for the design and construction of the 104th Avenue Bridge Enhancement Project was not included in the original 2008 budget. However, the preliminary design for the work completed to date has been funded from the General Design Services Project that was included in the 2008 CIP. The final design, in the amount of \$99,700.00, would be funded from the same General Design Services Project. Since City Council has dedicated \$250,000 for the construction of the project, sufficient funds will need to be allocated in the 2009 CIP Budget.

STAFF REFERENCE:

If Council members have any comments or questions, they may contact Joliette Woodson, Project Manager (jwoodson@northglenn.org or 303.450.8835).

SPONSORED BY: MAYOR NOVAK

COUNCILMAN'S RESOLUTION

RESOLUTION NO.

No. CR-138
Series of 2008

Series of 2008

A RESOLUTION APPROVING THE FIRST ADDENDUM TO THE AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE CITY OF NORTHGLENN AND DTJ DESIGN, INC.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. The First Addendum to Agreement for Professional Services between the City of Northglenn and DTJ Design, Inc., in the amount of \$99,700.00, attached hereto as **Exhibit 1**, is hereby approved and the Mayor is authorized to execute same on behalf of the City.

DATED at Northglenn, Colorado, this ____ day of _____, 2008.

SHERI L. PAIZ
Mayor Pro Tem

ATTEST:

JOHANNA SMALL, CMC
Acting City Clerk

APPROVED AS TO FORM:

COREY Y. HOFFMANN
City Attorney

ADDENDUM #1 TO AGREEMENT FOR PROFESSIONAL SERVICES

THIS FIRST ADDENDUM TO AGREEMENT FOR PROFESSIONAL SERVICES is made and entered into this ____ day of _____, 2008, by and between the CITY OF NORTHGLENN, State of Colorado (hereinafter referred to as the "City") and DTJ Design, Inc. (hereinafter referred to as "Consultant").

RECITALS:

A. On May 22, 2008, the City and Consultant entered into an Agreement for Professional Services for civil engineering services (the "Agreement").

B. The parties desire to supplement the Agreement with this Addendum #1 to allow for an additional scope of services to complete the final design for the 104th Avenue / I-25 Bridge Enhancements.

AGREEMENT

NOW, THEREFORE, it is hereby agreed that for the consideration hereinafter set forth, that Consultant shall provide to the City, professional engineering services as needed in the manner provided in the Agreement.

1. The Scope of Services in the Agreement is hereby supplemented to include the scope of services for the design services attached hereto as **Exhibit A-1**, and incorporated herein by this reference (the "Additional Scope of Services"). Consultant shall commence work on the Additional Scope of Services within ten (10) days of the issuance of a Notice to Proceed.

2. Subparagraph A. of Article IV entitled "Compensation" is hereby amended to provide as follows:

A. Compensation shall not exceed \$99,700.00 for the Additional Scope of Services described in **Exhibit A-1** to this Addendum #1.

3. The original Agreement is in full force and effect and is hereby ratified by the City and the Consultant. The original Agreement and this Addendum constitute all of the agreements between the City and the Consultant.

EXHIBIT A-1



DTJ DESIGN

ARCHITECTURE
PLANNING
LANDSCAPE ARCHITECTURE

PROFESSIONAL DESIGN SERVICES PROPOSAL

September 3, 2008
(September 5, 2008)

Ms. Joliette Woodson
Project Manager
CITY OF NORTHGLENN
11701 Community Center Drive
Northglenn, CO 80233

RE: Proposal for Architectural Enhancements – Final Design, Bid Assistance and Services During Construction for the 104th Avenue/I-25 Bridge Replacement Project located in Northglenn, Colorado

Dear Joliette:

Thank you for the opportunity to present this Proposal for Design Services for Bridge Architectural Enhancements. DTJ DESIGN, Inc. (Consultant) is very excited about the continued relationship with the City of Northglenn (Client) to provide Final Design, Bid Assistance and Services During Construction for the Bridge Replacement Project located at 104th Avenue and I-25, in Northglenn, Colorado.

The Proposal is organized in the following manner:

- I. UNDERSTANDING / METHOD OF APPROACH
- II. BASIC SERVICES TO BE PROVIDED BY CONSULTANT
- III. SCHEDULE
- IV. PROPOSED COMPENSATION AND PAYMENT FOR SERVICES
- V. RESPONSIBILITIES OF THE CLIENT
- VI. CONSULTANT'S EXCLUDED AND/OR ADDITIONAL SERVICES

DTJ DESIGN, Inc.
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Boulder, Colorado 80302
T 303.443.7534 F 303.443.7534
www.dtjdesign.com
BOULDER | COLORADO

CITY OF NORTHGLENN
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(Revised September 5, 2008)

I. UNDERSTANDING / METHOD OF APPROACH

GENERAL:

We understand that the Client would like a specific Proposal for Architectural Enhancements – Final Design, Bid Assistance and Services During Construction for the 104th Avenue/I-25 Bridge Replacement project located in Northglenn, Colorado.

DTJ previously provided conceptual design alternatives, as requested, to obtain design direction from various City of Northglenn Representatives (City Staff, City Council and Northglenn Urban Renewal Authority (NURA) input). This Proposal is based on the information provided by City Staff.

The work includes Final Design, Bid Assistance and Services During Construction services to enhance the 104th Avenue / I-25 Interchange Bridge beyond the level of the basic bridge replacement project that the Colorado Department of Transportation (CDOT) is planning.

Funding for the project may come from two potential sources - \$250,000 dedicated by Northglenn City Council and \$500,000 dedicated by Northglenn Urban Renewal Authority (NURA).

CITY OF NORTHGLENN – PRIMARY CITY STAFF CONTACTS:

Acting City Manager
David Allen
Director of Public Works and Utilities
(303) 450-8783

Project Manager
Joliette Woodson, P.E.
Civil Engineer II
(303) 450-8835

PRIMARY DESIGN TEAM CONTACTS (Consultant):

Principal-in-Charge
DTJ DESIGN, Inc.
Mike Beitzel
Principal and President
(303) 443-7533

Project Manager
DTJ DESIGN, Inc.
Jay Johnston
Associate
(303) 443-7533

SUB-CONSULTING TEAM CONTACTS:

No sub-consultants are anticipated

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DEVELOPMENT PROGRAM:

DTJ understands that the enhancements to the 104th Avenue Bridge will add to the 'family' of several existing bridge enhancements within the City of Northglenn along the I-25 Corridor. DTJ will provide Final Design, Bid Assistance and Services During Construction in concert with CDOT. The City has directed DTJ to produce Final Design documents based on the following information and assumptions:

- A. Construction cost for architectural bridge enhancements as dedicated by City Council for \$250,000 and an additional \$500,000 dedicated by NURA.
- B. Improvements to include the following:
 - 1. Upgraded pedestrian rail from CDOT standard, including design elements from the 112th Avenue Bridge Project.
 - 2. Upgraded concrete color/coating from CDOT standard.
 - 3. Upgraded lighting from CDOT standard, including design elements from the 112th Avenue Bridge Project (to be included as separate item in CDOT bid tabulation).
 - 4. "City of Northglenn" or "NORTHGLENN" cast letters into the north bound and south bound bridge wall as and upgrade from CDOT standard (pending CDOT approval). Alternative approach to include "City of Northglenn" or "NORTHGLENN" at the north bound and south bound quadrant of the infield area as a pin letter attachment onto an upgraded retaining wall as integrated with the style of the overall bridge design.
 - 5. Monument upgrades at each end of the bridge as the budget permits.
 - 6. See Exhibit A - 104th Avenue Bridge Conceptual Design dated August 26, 2008.
- C. Infield landscaping will not be a part of this work and may be considered in future endeavors. As budget permits, design may include minimal tree planting to help ground the four corners of the bridge

The proposed Basic Services and Fees are based on the degree of finish as outlined, and assumes that the work be prepared as one (1) bid package for the project. Preparation of additional design services, documentation or separate phases beyond those outlined in this Proposal will be provided as Additional Services.

II. BASIC SERVICES TO BE PROVIDED BY CONSULTANT

FINAL DESIGN

Design Development:

Provide design refinement of Conceptual Designs Alternatives (previously provided under separate Proposal) and provide Estimate of Probable Construction Costs.

- A. Obtain current CDOT documents and bridge drawings files in AutoCAD format to produce base drawings.

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- B. Assemble findings from Conceptual Design Alternatives (previously provided under separate proposal).
- C. Hold in-house design charette to finalize preferred design direction.
- D. Project design direction based on Estimate of Probable Construction Costs (revised from previous Proposal – see Exhibit B)
- E. Generate outline specifications and coordinate with CDOT Standards.
- F. Generate and coordinate Design Development Drawings.
 - 1. Provide lighting layout, luminary types, utility coordination – secondary electrical design for bridge lighting initiated at transformer to luminaries. Transformer and primary electrical design by others.
 - 2. Provide structural design services for monument and secondary retaining sign walls not directly associated with bridge.
 - 3. Architectural upgrades, monument-structural design, and integration with CDOT bridge structure. CDOT design staff will be responsible for engineering services for improvements directly associated with structural integrity of the bridge as well as engineering requirements of the pedestrian rail connection.
 - 4. Bridge pedestrian rail details.
- G. Coordinate design plans, sections and perspectives (CDOT with FIR Plans).

Deliverables:

- A. Design Development Drawings – One (1) ½ size set of drawings (11 x 17) and one (1) full size set of drawings (24 x 36).
- B. Estimate of Probable Construction Costs based on Design Development drawings – One (1) hard copy and one (1) electronic copy.
- C. Outline Specifications – One (1) hard copy and One (1) electronic copy.

Construction Drawings (CD's):

Based upon the approved Design Development drawings, Consultant will provide detailed Bridge Architectural Upgrade Drawings, which will be adequate to describe each design-intent for inclusion into CDOT Construction Drawings. Provide scale Construction Drawings showing, elevations, layout, and material locations. Consultant will review and give input to the CDOT's Engineering Construction Drawings and will assist regarding key dimensions, detailing and specification development.

- A. Assemble findings from Design Development.
- B. Identify and complete key detailing and materials selection for scope items.
- C. Adjust and finalize Construction Drawings for inclusion with CDOT Construction Package.

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- D. Develop bid tabulation for initial price bid.
- E. Finalize Technical Specifications.
- F. Develop 90% Construction Documents.
 - 1. Provide architectural elevation layout and design.
 - 2. Provide final design detail coordination for design scope items.
 - 3. Provide lighting layout, luminary types, utility coordination – secondary electrical design for bridge lighting initiated at transformer to luminaries. Transformer and primary electrical design by others.
 - 4. Provide structural design services for monument and secondary retaining sign walls not directly associated with bridge.
 - 5. Architectural upgrades, monument-structural design, and integration with CDOT bridge structure. CDOT design staff will be responsible for engineering services for improvements directly associated with structural integrity of the bridge as well as engineering requirements of pedestrian and vehicular railing.
- G. **Meeting 1** – Final coordination with City Staff and CDOT (CDOT FOR Plans).
- H. Generate bid drawings.
 - 1. Complete minor refinements based on CDOT FOR directives.
 - 2. Provide one (1) set of 95% CD's for meetings and evaluations prior to bid.
 - 3. Provide Technical Specifications for inclusion into CDOT Project Manual (Project Manual provided by CDOT).
 - 4. Provide one (1) set of 100% CD's for inclusion into CDOT bid documents.

Deliverables:

- A. Construction Drawings – one (1) ½ size set of drawings (11 x 17) and one (1) full size set of drawings (24 x 36).
- B. Bid tabulation spreadsheet based on Construction Drawings – one (1) hard copy and one (1) electronic copy.
- C. Technical Specifications – one (1) hard copy and one (1) electronic copy.

BID ASSISTANCE

- A. Review Contractor prequalification assistance for architectural scope improvements.
- B. **Meeting 2** - Attend one (1) pre-bid meeting (bid conducted by CDOT).
- C. Provide addendum information and bid assistance.

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- D. **Meeting 3** - Attend one (1) meeting to review bid results with City Staff.
- E. **Meeting 4** - Attend one (1) meeting to review bid results with City Staff and Council if necessary.
- F. Assist Client during selection process.

SERVICES DURING CONSTRUCTION

Construction Period:

City and CDOT will have full-time, on-site project administration service, and Consultant will assist in their clarification efforts regarding implementation. On-site visits shall be provided solely for the purpose of observing construction conformance with the visual design intent of the project as assistance to the project authorized administrators.

- A. **Meeting 5** - Attend one (1) pre-construction meeting (Construction Administration provided by CDOT).
- B. Process submittals for scope elements as provided by the contractor.
- C. Provide Change Order information as directed by the City Staff and CDOT (at the written request by the Client, this would be an Additional Service).
- D. **Meeting 6 thru 9** - Attend four (4) on-site evaluations during active construction duration to evaluate conformance to design intent relative to scope elements.

NOTE:

- A. Attendance at weekly or bi-weekly on-site or office construction meetings is not included in this Scope of Work but can be provided at written request from the Client as Additional Services.
- B. **It is understood and agreed that the Scope of Services of this Proposal does not extend to, or include the review of or verification of, dimension accuracy, testing, fit of building, or conformance with the various specifications and guidelines.** Consultant shall not control or be responsible for construction means, progress, methods, techniques, sequences, supervision, or procedures; not for safety precautions and programs in connection with the project; nor for the acts or omissions of the Client's Representative, his/her contractor or sub-contractors, or any other persons performing work on the project; nor for the failure of any of these to carry out the project in accordance with any plans or documents prepared by Consultant.
- C. It is assumed that CDOT will perform all structural services during construction.

Close Out:

- A. **Meeting 10 and 11** - Attend one (1) preliminary and one (1) final walk-through, and provide corresponding punch list for close out to start warranty periods.
- B. Provide required hard copy and electronic information of field review information to the Client (upon request).

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III. SCHEDULE

CDOT has tentatively planned the Final Office Review (FOR) in October, 2008 and Advertisement for Bid in late January, 2009. It is anticipated that work would begin immediately upon execution of contract.

ESTIMATE OF PHASE TASKS:

	<u>Duration</u>
FINAL DESIGN	
Design Development Drawings	4 Weeks
Construction Drawings	18 Weeks
BID ASSISTANCE	4 Weeks
SERVICES DURING CONSTRUCTION	
Construction Period (active construction duration of scope items)	8 Weeks
Close Out	4 Weeks

IV. PROPOSED COMPENSATION AND PAYMENT FOR SERVICES

Regarding the services to be provided under this Proposal, Consultant will execute the work for a Fixed Fee of \$99,700, including expenses, for Final Design, Bid Assistance and Services During Construction. You will be billed monthly, based on the percent-of-completion.

FINAL DESIGN	\$82,300
Design Development Drawings	
Construction Drawings	
BID ASSISTANCE	1,900
SERVICES DURING CONSTRUCTION	<u>11,500</u>
Construction Period	
Close out	
TOTAL SERVICES	<u>\$95,700</u>
Reimbursable Expenses	<u>4,000</u>
TOTAL SERVICES AND REIMBURSABLE EXPENSES	\$99,700

V. RESPONSIBILITIES OF THE CLIENT

The items listed below are the responsibility of the Client and are excluded from the Basic Design Services to be provided by the Consultant:

- A. All applicable processing or permit fees.
- B. The legal description and survey of the properties, and "As-Built" drawings for the project.
- C. Establishment and updating of an overall budget for the project, including construction costs, the Client's other costs and reasonable contingencies.

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- D. Services of other consultants, when such services are reasonably required by the Scope of the Projects, including, but not limited to Geotechnical/Soil, Civil, Structural, Mechanical, Plumbing and Electrical Engineer, Flood Engineer, Signage/Graphic Consultants, Telecommunications, Transportation Engineer, Legal Counsel, etc.
- E. Tests, inspections, or reports required by law or contract documents related to soils, structural, mechanical, electrical, air and water pollution, and test for hazardous materials.

VI. CONSULTANT'S EXCLUDED AND/OR ADDITIONAL SERVICES

In addition to Basic Services, Additional Services may be provided when authorized in writing by the Client and billed monthly based on the Consultant's Standard Hourly Rate Schedules, unless otherwise agreed to in writing.

Listed below are items which are excluded and/or Additional Services available from the Consultant. These services are not included in the Basic Services itemized in Section II.

- A. Bridge Structural Engineering (by others).
- B. Landscaping and Irrigation Design Services.
- C. Street and specialty street lighting.
- D. Special features or any outside consultants not included or beyond the Basic Scope of Services.
- F. Geotechnical/Soil, Civil, Structural, Mechanical, Plumbing and Electrical Engineer, Flood Engineer, Signage/Graphic Consultants, Telecommunications, Transportation Engineer, Legal Counsel, etc.
- G. Meetings above and beyond those specified in the Basic Services to resolve problems or requirements from public officials, neighbors, etc.
- H. Record drawings.
- I. Making revisions in drawings, specifications or other documents, when such revisions are:
 - 1. Inconsistent with previous approvals or instructions, including revisions made necessary by adjustments to the Client's programs or budgets.
 - 2. Required by the enactment or revision of codes, regulations or laws; and/or
 - 3. Due to changes required as a result of the Client's failure to render decisions in a timely manner.
- J. Boundary surveying and construction staking.
- K. Exterior/interior way finding and graphic design.
- L. Value Engineering cost estimating exercise or construction management in addition to those described under Basic Services.
- M. Generation of graphic illustrative (colored and/or reduced) materials or scale models.

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- N. Public Approvals Processes, including Planning Board and City Council Presentations in addition to those described under Basic Services.
- O. Client review meetings and field trips in addition to those described under Basic Services.
- P. Services in connection with Substitutions, Change Orders and Construction Change Directives.

Joliette, we are very enthusiastic about continuing our working relationship with you on the 104th Bridge Replacement Project. Please contact us if you have any questions or refinements to this Proposal. We look forward to hearing from you.

Thank you for this opportunity.

Sincerely,

DTJ DESIGN, Inc.

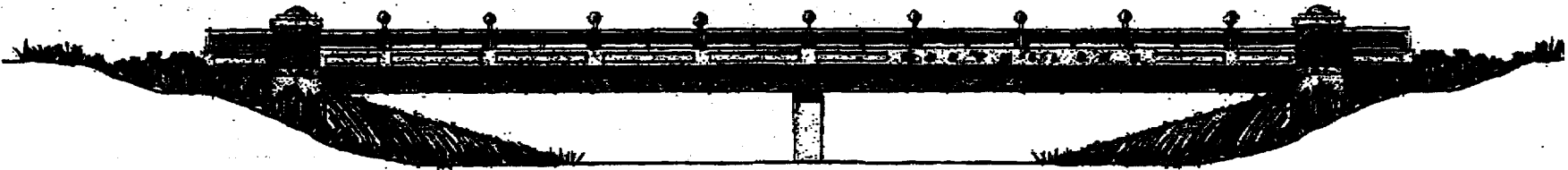
Michael A. Beitzel
President

Date

Attachments

JNJ/kav
S:\Contracts & Proposals\City of Northglenn\LA Revised Arch Enhance, Final Des, Bid Assesst, SDC 104th Ave-I-25 Bridge.Pro.doc
P200A-172 (LA-ST)

FROM :



104TH AVE BRIDGE CONCEPTUAL DESIGN
 CITY OF NORTHGLENN

DJ DESIG
 1/2" = 1' @

8-26-08

FRX NO. : 3034437534

Sep. 05 2008 01:28PM P11

EXHIBIT A

8/26/2008

Preliminary Estimate of Probable Cost of Construction - NORTHGLENN 104th Ave Bridge Upgrades

BID TAB NUMBER	SPEC.	ITEM NUMBER	DESCRIPTION	UNIT	ROADWAY	STRUC.	ARCH. FINISHES	PROJECT TOTALS	UNIT PRICE	EXTENDED PRICE
1			City Logo Signage	EACH			4.0		\$4,500.00	\$18,000.00
2	CDOT		Pedestrian Railing (Steel)	LF			730.0		\$100.00	\$73,000.00
3	CDOT		Railing Install / Equip.	LF			730.0		\$15.00	\$10,950.00
4	CDOT		Class V Concrete Finish - Dk Brown	SFF			4461.0		\$3.00	\$13,383.00
5	CDOT		Stain Concrete Finish / skimcoat - Lt. Brown	SFF			11513.0		\$7.50	\$86,347.50
6	CDOT		Lighting	LS			1.0		\$147,455.00	\$147,455.00
7	CDOT		Concrete - Extra 1.5"	CY			6.4		\$300.00	\$1,920.00
8	CDOT		Formwork / Reveals/ Name	LS			1.0		\$30,000.00	\$30,000.00
9	CDOT		CMU Block for Monuments	SFF			2461.0		\$12.00	\$29,532.00
10	CDOT		PtP Concrete Cap	CY			70.4		\$300.00	\$21,120.00
11			Stucco Covered Sphere	EACH			4.0		\$5,000.00	\$20,000.00
12	CDOT		Imported Backfill for Monuments	CY			500.0		\$20.00	\$10,000.00
13	CDOT		Concrete Monument Base	CY			166.0		\$300.00	\$49,800.00
14	CDOT		Bridge Monument Calsson	EACH			16.0		\$3,000.00	\$48,000.00
SEE "BRIDGE CONCEPTUAL DESIGN" DRAWING: 8 25 08 104th ave Concept Final-11x17.jpg										
									Total	\$559,507.50
									20% Contingency	0.20 \$111,901.50
									Grand Total	\$671,409.00
									Budget	\$500,000.00
									under / -over	-\$171,409.00
									NURA Contingency	250,000.00
									under / -over	\$78,591.00

NOTE: The following items are not included in this cost estimate:

1. Any and all Overlot / Major Grading / Excavation
2. Design fees or other professional fees.
3. Mobilization, permit fees, taxes, traffic or safety control
4. Required retaining Walls

EXHIBIT B