PLANNING & DEVELOPMENT MEMORANDUM
MEMORANDUM #16-10

DATE: April 25th, 2016
TO: Honorable Mayor Joyce Downing and City Council Members
FROM: James Hayes, AICP, City Manager JH
Brook Svoboda, Director of Planning and Development BS
SUBJECT: RTD 112th Station Design

BACKGROUND:
The following information is intended to inform Council regarding what steps would be necessary to pursue enhancements for the railing design at the 112th Ave RTD Station. **Attachment 1** provides some preliminary options with estimated pricing per square foot (psf). Also included as **Attachment 2,** is a cost estimate for consultant services to facilitate the selection for a preferred design option for the railing with the project architect. Costs for the railing design would come of the Planning Department, professional services line item.

In an attempt to help explain the timing and benefits, the following is couched in the form of questions that Council may have about the process, costs and potential savings.

Why do this now? Staff anticipates that there would be some cost savings to the City by acting now versus later. Savings would be realized as a result of including our railings as part of the project bid for the entire line – all other stations are using the base railing design. By acting now, the savings anticipated would be anywhere from 20%-100%. The consultant cost would be the same if the City acted now or later. The potential savings realized, based on being part of the base bid, would potentially cover the consultant costs. That amount of savings is dependent on whether the Council wishes to replace the entire railing with an alternative or just sections - decorative accent pieces.

What happens if we don't do this now? Nothing. The design of the railing is such that if the City chooses to change, or upgrade at a later date, the City can. The only disadvantage is that pricing will likely increase, as we will not receive the benefit of ordering the materials at the same time as the bulk order from the same manufacturer.

What kind of cost savings are we talking about: As mentioned above Staff anticipates a saving of 20%-100%. It is possible that the vendor bidding on the project would likely not charge a substantial mark up for the additional railings (if at all) in order to secure the bid of the entire project.

Do we have to replace all of the railing or can we just do some (accent) sections? You can do both. If the Council is inclined to do all of the railing the value of savings doing it now is much greater than doing it later. If the Council is inclined to do just accent pieces then it may be more practical to wait and pursue at a later date, once the project is completed.

If we opt to do the design are we obligated to pay for the railing after the bids come in? No. Once the bids come in, Council would have the discretion to say yes or no to the bid and could seek alternate pricing through our RFP process.

RECOMMENDATION: Staff is seeking direction from Council on one of the following options:

- Contract with the project architect to facilitate a preferred design for the railing enhancements
- Pursue railing enhancements at a later date (after station is open)
- Do not pursue enhancements.

STAFF REFERENCE:
Brook Svoboda, Director of Planning and Development bsvoboda@northglenn.org 303.450.8937

ATACHMENTS:

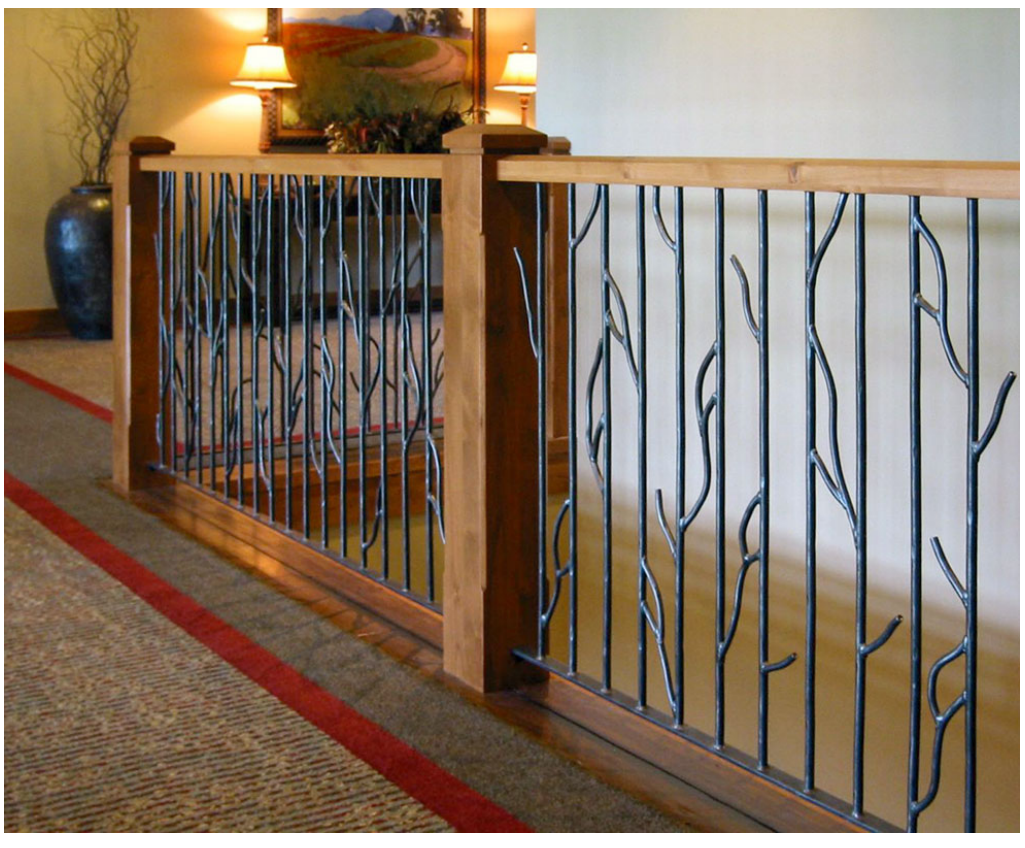
Attachment 1	Preliminary Railing Designs
Attachment 2	Consultant Services for Selecting Design Option

ATTACHMENT 1

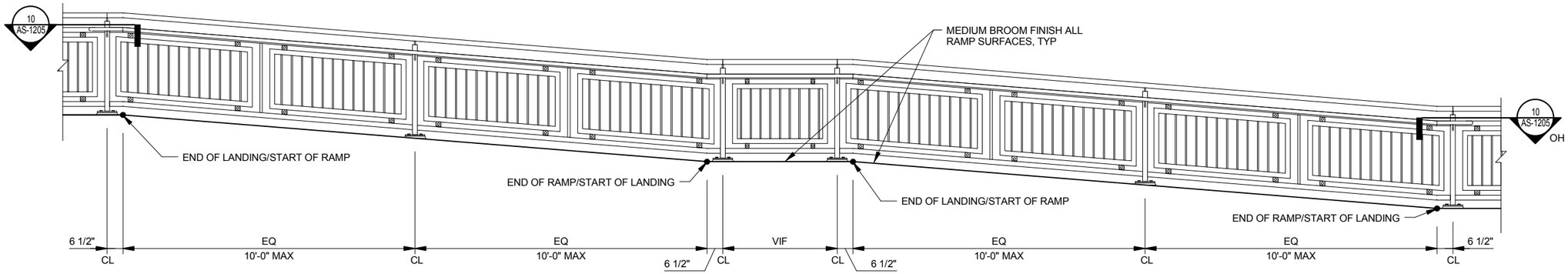
Option 1

Option 2

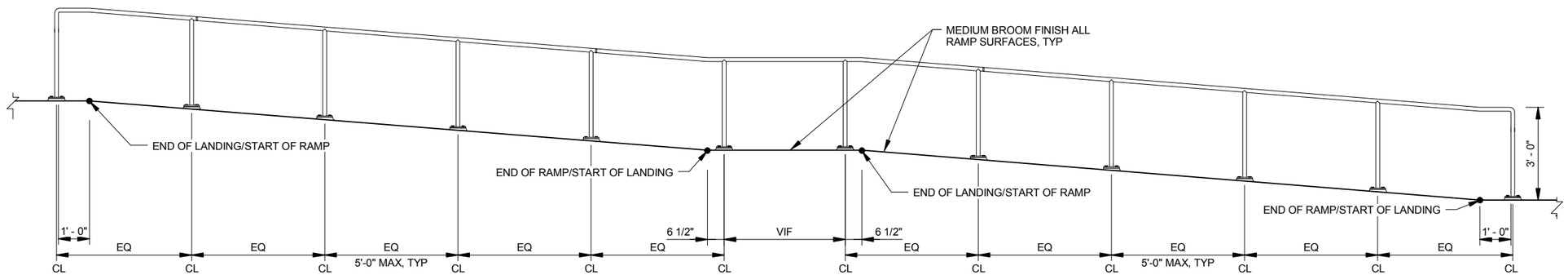
Option 3



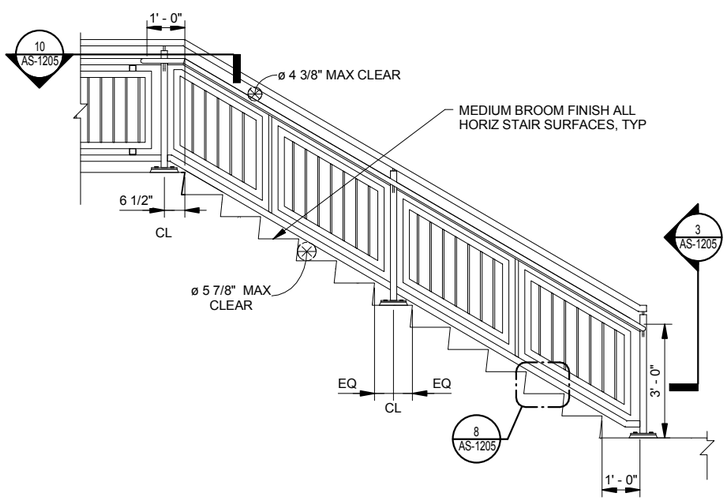
Option 4



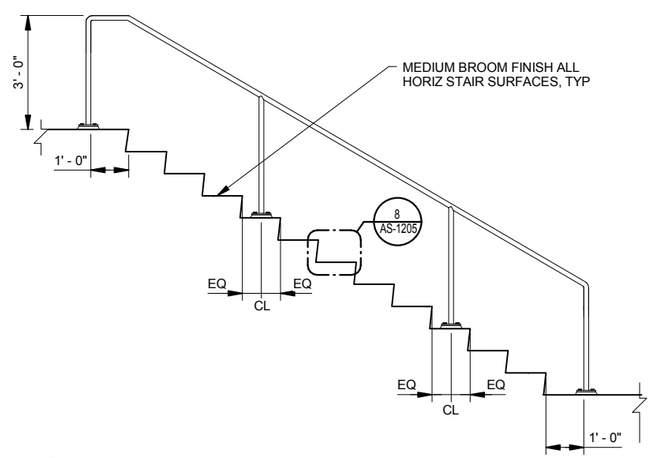
1 GUARDRAIL/HANDRAIL ELEVATION @ RAMP



2 HANDRAIL ELEVATION @ RAMP



3 GUARDRAIL / HANDRAIL ELEVATION @ STAIR



4 HANDRAIL ELEVATION @ STAIR

NOTES:

1. ALL WELDING TO BE SHOP PERFORMED. GRIND WELDS SMOOTH, EASE ALL EDGES INCLUDING DRILLED HOLES IN STEEL AND ALL BASE PLATE EDGES AND CORNERS.
2. STEEL GUARDRAILS AND CONNECTIONS TO BE GALVANIZED AND PAINTED.
3. ALL RAILING BASE PLATES AND ANCHOR BOLTS TO BE 316 STAINLESS STEEL (SST).
4. ALL HANDRAILS AND CONNECTIONS TO BE 316 STAINLESS STEEL (SST).
5. SEE STATION SPECIFIC DRAWINGS FOR GUARDRAIL POST SPACING.
6. SEE STATION SPECIFIC DRAWINGS FOR GUARDRAIL PANEL SIZES.

Typical Railing Elevations

0' 2' 4' 6'
SCALE IN FEET

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	VAM	11/09/2015

DESIGNED BY: MDK DATE: 06/01/14
DRAWN BY: JRM DATE: 06/01/14
CHECKED BY: TLB DATE: 11/09/2015
APPROVED BY: VAM DATE: 11/09/2015
HORZ. SCALE: 1/4" = 1'
VERT. SCALE: N/A

REGIONAL RAIL PARTNERS
Balfour Beatty / GRAHAM JOINT VENTURE

IRON HORSE ARCHITECTS
RESPONSIBLE DESIGN
475 17th Street Suite 720
Denver, Colorado 80202
iron-horse-architects.com

RTD FasTracks North Metro Rail Line
REGIONAL TRANSPORTATION DISTRICT
1600 BLAKE STREET
DENVER, COLORADO 80202
(303) 628-9000

NORTH METRO RAIL LINE

ARCHITECTURAL
STATIONS, STANDARD DETAILS
GUARDRAIL AND HANDRAIL ELEVATIONS AND SECTIONS

DWG No. AS-1201

NM-A-AS-1201
11/5/2015 1:45:32 PM
USER: TBurke

ATTACHMENT 2

Stantec Consulting Services Inc.
2000 South Colorado Boulevard Suite 2-300, Denver CO 80222-7933

April 7, 2016

Mr. Mike Salmon
Regional Rail Partners
1765 W. 121st Avenue, Suite 400
Westminster, CO 80234

Reference: North Metro Rail Line, Subcontract No. 154-800
Northglenn Railing Betterment

Dear Mr. Salmon:

Attached please find our Change Order Request to to work with the City of Northglenn to provide design options for the infill panels at the 112th Station. This work will happen in two phases as outlined below.

Phase 1:

- Explore 4 design options with the City for infill of the panels of the stations standard guardrails as a betterment.
- Work with fabricator to determine contractibility of each option.
- Provide drawings to contractor to sufficiently determine cost of each option.
- (3) Meetings to discuss design

Phase 2:

- Provide construction documents of the final option chosen.

Work excluded from this proposal:

- Value Engineering of final design.
- Formal submittal and QC/QA process as outlined in the DQMP.
- Anything other than digital copies of design and construction documents.

These costs are detailed in the included Project Cost Worksheet (Attachment A). The estimated cost is $10,200.

Please contact me if you have any questions or require additional information.

April 7, 2016

Mr. Mike Salmon
Regional Rail Partners

Sincerely

Stantec Consulting Services, Inc

Paul J Bohl
Principal
Stantec Consulting Services Inc.

Attachments: Attachment A – Change Order Cost Worksheet
Attachment B – Iron Horse Cost Proposal

lh v:\52876\active\187608624 - north metro rail line\01_project management\01.2_contracts\change orders (rrp_rfd_stantec)\68th street rr crossing\68th rr crossing cover letter 10-09-2015.docx

ATTACHMENT A
CHANGE ORDER COST WORKSHEET
Northglenn Railing

Project: North Metro Rail Line
Reference:
Firm Name: Stantec Consulting Services
Type of Proposal : Labor & Subconsultant Estimate

Name of Preparer: Paul Bohl
Phone No. 518-894-8745
Scope of Work Date: 4/7/2016

1A. LABOR RATES

EMPLOYEE CLASSIFICATION	RAW RATE	SURCHARGE (144%)	FEE (8%)	BILLING RATE
Project Assistant	19.00	27.36	3.71	50.07
CADD Technician II	28.00	40.32	5.47	73.79
Design Engineer (EIT)	25.00	36.00	4.88	65.88
Project Engineer I-Structural	36.00	51.84	7.03	94.87
Project Engineer II	46.00	66.24	8.98	121.22
Project Engineer II-Drainage	46.00	66.24	8.98	121.22
Senior Project Engineer-Structural	47.00	67.68	9.17	123.85
Senior Project Engineer-Drainage	47.00	67.68	9.17	123.85
Task Manager	55.00	79.20	10.74	144.94

1B. LABOR COSTS TO COMPLETION

EMPLOYEE CLASSIFICATION	BILLING RATE	WORKHOURS	EXTENDED COST
Project Assistant	50.07		0.00
CADD Technician II	73.79		0.00
Design Engineer (EIT)	65.88		0.00
Project Engineer I	94.87		0.00
Project Engineer II-Civil/Communicatic	121.22		0.00
Project Engineer II-Drainage/Utility	121.22		0.00
Senior Project Engineer-Civil/Structura	123.85		0.00
Senior Project Engineer-Drainage/Utilit	123.85		0.00
Task Manager	144.94	5.00	724.70
		5.00	
		TOTAL LABOR COST	**$724.70**

2 OTHER DIRECT COSTS

ITEM	ESTIMATED UNITS	UNIT RATES	EXTENDED COST
N/A			
		TOTAL ODCs	**$0.00**

3 SUBCONSULTANT AND VENDOR COSTS

FIRM NAME	SCOPE OF SERVICES	FEES
Iron Horse	Stations Lead/Architecture	9476.00
	TOTAL SUBCONSULTANT COST	**$9,476.00**

4 COST SUMMARY

TOTAL LABOR COSTS	724.70
TOTAL OTHER DIRECT COSTS	0.00
TOTAL SUBCONSULTANT AND VENDOR COSTS	9476.00
TOTAL CHANGE ORDER COST	**$10,200.70**

March 30th, 2016

Paul Bohl
Stantec
2000 S Colorado Blvd., Suite 2-300
Denver, CO 80222

Re: Fee Proposal & Scope of Services for Guardrail Betterment Design – City of Northglenn

Dear Mr Bohl,

Iron Horse Architects is pleased to be part of the North Metro Rail Line team, and respectfully submit our fee for the services listed below.

This change order is to work with the City of Northglenn to provide design options for the infill panels at the 112th Station. This work will happen in two phases as outlined below.

Fee Proposal Stations Team Stations Standard Details:

Iron Horse Architects		
Phase 1		$6,318.00
Phase 2		$3,158.00
	Total	**$9,476.00**

Iron Horse Scope of Services

Phase 1:

- Explore 4 design options with the City for infill of the panels of the stations standard guardrails as a betterment.
- Work with fabricator to determine contractibility of each option.
- Provide drawings to contractor to sufficiently determine cost of each option.
- (3) Meetings to discuss design

Phase 2:

- Provide construction documents of the final option chosen.

Work excluded from this proposal:

- Value Engineering of final design.
- Formal submittal and QC/QA process as outlined in the DQMP.
- Anything other than digital copies of design and construction documents.

Documents:

IHA is providing professional services and all documents prepared by IHA in the course of its services are instruments of that service and may not be modified, used on other projects, extensions of this project or otherwise, without IHA's written consent and appropriate compensation as agreed upon.

Insurance and Limit of Liability:
IHA carries insurance to cover professional liability up to $2,000,000 with an annual aggregate limit of $2,000,000.

IHA shall perform its services consistent with the standard of care ordinarily exercised by architects performing the same or similar services at the time and location of the Project. No other warranty, express or implied is given.

IHA shall be entitled to rely on and use information supplied by the client's other consultants and contractors, and shall not be liable therefore. IHA shall not be responsible for the means, methods, techniques, sequences or procedures for construction, fabrication, procurement, shipping, delivery or installation, for the actions and omissions of the construction contractors, any subcontractors or any other persons performing any of the work.

Upon acceptance of this proposal, the client shall provide Iron Horse Architects a signed copy of this proposal. We appreciate the opportunity to work with this team.

Tara Burke, RA
Associate
Iron Horse Architects, Inc.
Date: 03/30/2016

Paul Bohl
Design Lead
Stantec
Date:

NMRL - Northglenn Guardrail

IHA Fee Breakdown

2016.0328

Task	Description	Principal $223.56	Project Manager $151.44	Project Architect 3 $106.73	Job Captain $86.54	Intern 2 $69.23
1						
		30				40
	Hours	30	0	0	0	40
	Staff Fee	$6,706.80	$0.00	$0.00	$0.00	$2,769.20
	Total Project Fee, Staff					**$9,476.00**