



FELSBURG
HOLT &
ULLEVIG

engineering paths to transportation solutions

December 21, 2010

Mr. Jin Wang, P.E.
Engineering Department
City of Fort Collins
281 North College Avenue
Fort Collins, CO 80522

RE: Engineering Design Services
Mason Grade Separation at NRRC
West Plaza Ramp Alternative Design
FHU Job. No. 06-295

Dear Jin,

At your request, we are submitting this proposal to provide additional Engineering Design Services for the Mason Grade Separation at NRRC. It is our understanding that the City would like to re-investigate a ramp alternative at the west end of the recently designed/completed pedestrian bridge. The ramp would replace an elevator that is currently included in the construction plans. Either a ramp or elevator will be required to provide access to meet American with Disabilities Act (ADA) requirements for this facility.

Scope of Work

Phase 1 – Ramp Concept Design

The first phase of the proposed work will include the development of two ramp alternatives at the west end of the pedestrian bridge. The ramp options will extend toward the north, where the current elevator is located. The plaza area south of the bridge, including the at-grade ramps and stairs, and the stair structure up to the bridge platform level, will remain as previously designed.

To meet ADA requirements, the total ramp length is anticipated to be upwards of 450 feet long, and will be aligned as needed to the west of Bay Farm Road. It has been assumed that Bay Farm Road will remain open after the bridge is constructed, and that a ramp alternative will not impact its operation.

We propose the following work for the Conceptual Phase:

1. FHU will develop two ramp alternatives, fit within the constraints of the project location, bordered by Bay Farm Road to the east, and the NRRC parking

Mr. Jin Wang, P.E.
12/21/10

area to the west. The ramp layouts will be aligned to minimize impacts to existing utilities, sidewalks, and pedestrian accesses.

2. A plan view, elevation view, and typical section for each ramp alternative will be developed, meeting ADA requirements and in conformance, as is feasible, with the City of Fort Collins Design Guidelines for Grade-Separated Pedestrian, Cyclist and Equestrian Structures.
3. Architectural renderings for each ramp alternative will be developed, representing the geometric requirements for the ramps, the architectural details and finishes anticipated to fit the theme of the existing bridge design, and providing a relative scale of the structure to the site surroundings.
4. Document potential impacts to existing right-of-way and easement boundaries for accommodating the ramp layout.
5. Architectural and Engineering Exhibits in .pdf format, 11x17 color plots, and larger plots (up to 36"x42") will be provided.
6. Develop conceptual level construction cost estimates for each ramp alternative.

Phase 2 - Ramp Final Design

If one of the ramp layouts is found to be a feasible alternative to the west plaza elevator, the existing pedestrian bridge plans will be updated as required. It is anticipated that a second F.O.R. meeting would be scheduled with CDOT, and appropriate City representatives, to review the pedestrian bridge design with the ramp alternative.

Integrating the ramp into the pedestrian bridge design will require modifications to the structural, architectural, drainage, electrical, site plans, and landscaping plans. The attached fee summary indicates the anticipated tasks required for the disciplines conducted by FHU and its subconsultants, The Abo Group (Architecture) and the Scanlon-Szynskie Group (Lighting and Electrical).

In general, the scope of work will be as follows:

1. Refine the conceptual ramp layout as needed to complete final design
2. Incorporate the final structural ramp design, and update all plans as needed
3. Review all environmental clearances, and update information as appropriate for the revised design
4. Modify drainage, water quality, and erosion control features as necessary for the updated design, and to meet the latest CDOT and City requirements
5. Adjust the west plaza site plan to accommodate the ramp layout
6. Update the specifications, as needed, for an F.O.R. meeting, then advertisement. It has been assumed that the current CDOT 2005 Standard "Blue" Book, and all associated Standard Special provisions will be used for the final design. However, it is our understanding that a new CDOT Standard may be available in early 2011. The Standard used for the project advertisement set will depend on the scheduled advertisement date.
7. Develop final quantities and an updated cost estimate with the ramp alternative

Mr. Jin Wang, P.E.
12/21/10

8. Update and forward electronic F.O.R. review set to City for distribution
9. Hold F.O.R. meeting at City offices
10. Provide formal responses to F.O.R. comments
11. Update plans and specifications for advertisement

All work shall be conducted in conformance with CDOT and City of Fort Collins standards, as appropriate. The design and plan preparation will be completed in anticipation of CDOT Local Agency review by the appropriate disciplines, since the project has federal funding.

Fee Summary

We propose conducting all work on a time and materials basis, in accordance with our current standard hourly rate schedule, plus reimbursable direct expenses such as mileage, printing, etc.

The maximum not-to-exceed amount for the **Phase 1 - Ramp Concept** work, including subconsultants, will be **\$10,950**.

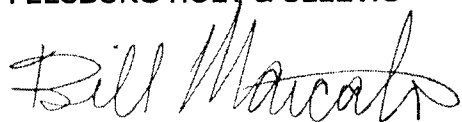
The maximum not-to-exceed amount for the **Phase 2 - Ramp Design** work, including subconsultants, would be **\$49,300**, if necessary.

Attached to this proposal are FHU's 2011 Standard Rate Schedule, and fee proposals received from The Abo Group and the Scanlon-Szynskie Group. No additional work beyond that described in the above Scopes of Work, or additional costs expended beyond our established maximum contracted amount will be executed, unless agreed to and authorized in writing by the City of Fort Collins.

If you have any questions regarding this proposal, please call. Thank you for the opportunity to offer our services.

Sincerely,

FELSBURG HOLT & ULLEVIG



Bill Marcato, P.E.
Senior Bridge Engineer

- Attachments:
- 1) FHU 2011 Billing Rates
 - 2) The Abo Group Fee Proposal
 - 3) The Scanlon-Szynskie Group Fee Proposal

Phase 1 - Ramp Concept Cost Summary
Mason Grade separation at NRRC
City of Fort Collins

Task Description	Principal II \$180.00/hr.	Engineer V \$130.00/hr.	Engineer II \$90.00/hr.	Engineer I \$80.00/hr.	Sr. Bridge Designer \$120.00/hr.	Task Total
Conceptual Ramp Layouts (2 total)						
ADA Standards Review		4				
Develop Two Ramp Layouts		12		4	4	
CADD Linework for Ramps		4	8		8	
Develop Cost Estimates for 2 Ramp Layouts		4		4		
Rendering Coordination with Architect		4			4	
Subtotal hours	0	28	8	8	16	60
Subtotal cost	\$0	\$3,640	\$720	\$640	\$1,920	\$6,920
Other Direct Costs (ODCs)						
Mileage						\$0
Plotting and Reproductions						\$30
Shipping						\$0
ODC Subtotal						\$30
Total Hours						60
Subtotal FHU Ramp Concept Phase Cost						\$6,950
Subconsultants						
The Abo Group (Architectural Renderings of 2 Ramp Alternatives)						\$4,000
Subconsultant Budget for Ramp Concept Phase						\$4,000
Total Original Design Completion with Deduction of Remaining Original Budget						\$10,950

Phase 2 - Ramp Design Cost Summary
Mason Grade separation at NRRC
City of Fort Collins

Final Ramp Design at West End of Bridge

Task Description	Principal II \$180.00/hr.	Associate \$160.00/hr.	Engineer V \$130.00/hr.	Engineer I \$80.00/hr.	Environmental Scientist IV \$115.00/hr.	Sr. Bridge Designer \$120.00/hr.	Senior Designer \$110.00/hr.	Designer III \$85.00/hr.	Task Total
Final Structural Design for Ramp Alternative									
Ramp Superstructure and Substructure Design			8	8					
Update Plans with Ramp Specifications	2		8			12			
Quantities / Cost Estimate			4	4					
Coordination and FOR meetings			6						
Subtotal hours	2	0	30	16	0	12	0	0	60
Subtotal cost	\$360	\$0	\$3,900	\$1,280	\$0	\$1,440	\$0	\$0	\$6,980
Drainage and Erosion Control for Ramp Alternative									
Re-draw drainage basin map at west plaza		8							
Update Drainage Memo for new conditions		4							
Drainage, Water Quality, and Erosion Control Design		8						12	
Update Drainage and Erosion Control Plans								4	
Quantities									
Subtotal hours	0	20	0	0	0	0	0	16	36
Subtotal cost	\$0	\$3,200	\$0	\$0	\$0	\$0	\$0	\$1,360	\$4,560
West Plaza Site Updates with Ramp Alternative									
Adjust Grading to New Ramp Layout							8		
Update ROW/Easement Requirements at West Plaza							4		
Update Drawings							4	16	
Quantities							4		
Subtotal hours	0	0	0	0	0	0	20	16	36
Subtotal cost	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200	\$1,360	\$3,560
Environmental									
Review and update permit data as needed					16				
Prepare permit submittals and coordinate with CDOT					16				
Subtotal hours	0	0	0	0	32	0	0	0	32
Subtotal cost	\$0	\$0	\$0	\$0	\$3,680	\$0	\$0	\$0	\$3,680
Other Direct Costs (ODCs)									
Mileage									\$80
Plotting and Reproductions									\$160
Shipping									\$40
ODC Subtotal									\$280
Total Hours									164
Subtotal FHU Ramp Final Design Phase Cost									\$19,060
Subconsultants									
The Abo Group (Update all Architectural plans to include ramp)									\$24,240
The Scanlon-Szynskie Group (Update Lighting Layout for Ramp)									\$6,000
Subconsultant Budget for Ramp Design Phase									\$30,240
Total FHU Ramp Alternative Design Cost									\$49,300

2011 Rate Sheet

The following hourly billing rates apply to all "Time and Materials" contracts.

Staff Rates

Principal III.....	\$210.00
Principal II.....	\$180.00
Principal I.....	\$160.00
Associate.....	\$160.00
Sr. Engineer.....	\$145.00
Engineer V.....	\$130.00
Engineer IV.....	\$120.00
Engineer III.....	\$105.00
Engineer II.....	\$90.00
Engineer.....	\$80.00
Sr. Environmental Scientist.....	\$145.00
Environmental Scientist V.....	\$130.00
Environmental Scientist IV.....	\$120.00
Environmental Scientist III.....	\$105.00
Environmental Scientist II.....	\$90.00
Environmental Scientist I.....	\$80.00
Sr. Transportation Planner.....	\$145.00
Transportation Planner V.....	\$130.00
Transportation Planner IV.....	\$120.00
Transportation Planner III.....	\$105.00
Transportation Planner II.....	\$90.00
Transportation Planner I.....	\$80.00
Sr. Bridge Designer.....	\$120.00
Sr. Designer.....	\$110.00
Designer V.....	\$100.00
Designer IV.....	\$95.00
Designer III.....	\$85.00
Designer II.....	\$75.00
Designer I.....	\$60.00
Sr. Construction Inspector.....	\$100.00
Construction Inspector V.....	\$95.00
Construction Inspector IV.....	\$85.00
Construction Inspector III.....	\$80.00
Construction Inspector II.....	\$70.00
Construction Inspector I.....	\$60.00
Sr. Environmental Tech.....	\$110.00
Environmental Tech V.....	\$100.00
Environmental Tech IV.....	\$95.00
Environmental Tech III.....	\$85.00
Environmental Tech II.....	\$75.00
Environmental Tech I.....	\$60.00
Administrative.....	\$70.00

Other Direct Costs

Plots

Bond.....	\$0.24/sq ft
Glossy.....	\$0.71/sq ft
Mylar.....	\$0.55/sq ft
Vellum.....	\$0.39/sq ft

Prints

Black and White.....	\$0.08/print
Color.....	\$0.19/print

Presentation Boards

Bond Foam Core Mounted.....	\$1.22/sq ft
Glossy Foam Core Mounted.....	\$1.69/sq ft
Computer Projector.....	\$100.00/meeting

Travel

Mileage.....	\$0.50/Mile (or current allowable Federal rate)
Truck (Construction).....	\$40.00/day

Other Miscellaneous Costs

Courier.....	Actual Vendor Costs
Postage.....	Actual Vendor Costs
Deliveries.....	Actual Vendor Costs
Per Diem.....	Actual Vendor Costs
Subconsultants.....	Actual Subconsultant Costs

Field Equipment

Trimble GPS.....	\$45.00/day
Blue Tooth Camera for GPS.....	\$35.00/day

Other direct costs are reimbursed at a rate of 1.1 times the rates above and / or actual costs.



**FELSBERG
HOLT &
ULLEVIG**

engineering paths to transportation solutions

info@flueng.com • www.flueng.com

the abo group, inc.
 12600 W. Colfax Avenue, Suite C200
 Lakewood, CO 80215

Task/Fee Worksheet

Project: Mason St. Bridge Ramp
Date: 12/17/2010
Estimator: Abo

Rates - Effective 04/15/09	
Managing Principal	\$170.00
Principal	\$140.00
Chief Architect	\$130.00
Project Manager	\$90.00
Architect II	\$70.00
CAD Drafter 1	\$65.00
CAD Drafter 3	\$65.00
Comptroller	\$95.00
Admin. Asst.	\$55.00

Architectural Services

Task	Principal I	Principal II	Associate Principa	Project Architect	Architect II	Arch Intern II	CADD Tech	Comptroller	Admin Assist.	Total Per Task
PRE-DESIGN SERVICES										
Project Start-Up, P Time, Team Selection, Project Mgt										\$0.00
Initial Kick-off Meeting										\$0.00
Existing Conditions Analysis										\$0.00
Create As-Built Drawings										\$0.00
Scope Definition										\$0.00
Special Reports, Analyses, Surveys, Interviews										\$0.00
Preliminary Cost Evaluations										\$0.00
Programming										\$0.00
Codes Analyses										\$0.00
										\$0.00
Total Pre-Design Services	0	0	0	0	0	0	0	0	0	\$0.00
SCHEMATIC DESIGN										
Project Management										\$0.00
Design, Program Implementation										\$0.00
Selective Analyses										\$0.00
Coordination: Internal / Interdisciplinary-QA										\$0.00
Schematic Demo Drawings										\$0.00
Renderings - 2 views										\$4,000.00
Outline Specifications										\$0.00
Schematic Cost Estimate										\$0.00
Schematic Design Submittal										\$0.00
Schematic Design Review										\$0.00
Meetings										\$0.00
										\$0.00
Total Schematic Design	0	0	0	0	0	0	0	0	0	\$4,000.00
DESIGN DEVELOPMENT										
Project Management										\$0.00
Design										\$0.00
Demolition Drawings										\$0.00
Drawing Preparation										\$0.00
Specifications										\$0.00
DD Cost Estimate, Review and Adjustments										\$0.00
Specialty Reports: LCCA, LEED, Energy										\$0.00
Arch./Struct./Mech./Elec. Coord. QA										\$0.00
Drawing Review										\$0.00
Preparation of DD Submittal										\$0.00
Design Development Review										\$0.00
Meetings/Presentations										\$0.00
										\$0.00
Total Design Development	0	0	0	0	0	0	0	0	0	\$0.00
CONSTRUCTION DOCUMENTS										
Project Management								8		\$760.00
Coordination, QA										\$0.00
Complete Drawings					200					\$14,000.00
Specifications					40					\$2,800.00
Final Cost Estimate										\$0.00
Submit CD Package					24					\$1,680.00
Review CD Package	4									\$680.00
Review Response and Document Completion					40					\$2,800.00
Meetings	4				12					\$1,520.00
Additional Services										\$0.00
										\$0.00
Total Construction Documents Costs	8	0	0	0	316	0	0	8	0	\$24,240.00

BIDDING/PRE-CONSTRUCTION											
Addenda Preparation											\$0.00
Pre-Bid Conference											\$0.00
Bid Review and Analysis											\$0.00
Pre Construction Conference											\$0.00
Meetings											\$0.00
											\$0.00
											\$0.00
Total Bidding/Pre-Construction Costs	0	0	0	0	0	0	0	0	0	0	\$0.00
CONSTRUCTION PHASE											
Construction Observation - 36 Weeks											\$0.00
Shop Drawing Review											\$0.00
Testing Review											\$0.00
Pay Application Review											\$0.00
Change Order Review											\$0.00
RFI Review and Response											\$0.00
Punch Lists: Preliminary and Final											\$0.00
Contractor Coordination											\$0.00
LEED Compliance Review											\$0.00
Total Construction Phase Costs	0	0	0	0	0	0	0	0	0	0	0
POST CONSTRUCTION PHASE											
O&M Review											\$0.00
As - Built Record Documents											\$0.00
											\$0.00
											\$0.00
Total Post Construction Phase Costs	0	0	0	0	0	0	0	0	0	0	\$0.00
SPECIAL REQUIREMENTS											
Phased Construction, P Time, PM											\$0.00
Alternates											\$0.00
Specialty Consultants											\$0.00
Multiple Bid Packages-Document Mods.											\$0.00
Energy Analyses											\$0.00
LEED Analysis											\$0.00
LEED Certification											\$0.00
Life Cycle Costing of Alternate Systems											\$0.00
Third Party commissioning of Systems											\$0.00
Cost Estimating											\$0.00
Specifications											\$0.00
Meetings											\$0.00
											\$0.00
											\$0.00
Total Special Requirements Costs	0	0	0	0	0	0	0	0	0	0	\$0.00
TOTAL HOURS AND COSTS											
	8	0	0	0	316	0	0	8	0		28240

Bill.Marcato

From: Charlotte A. Szynskie [char@ssgroupinc.com]
Sent: Monday, December 20, 2010 4:22 PM
To: Bill.Marcato
Cc: 'Paula Gibbs'
Subject: Ft. Collins NRRC railroad bridge ramp addition fee

Bill,

Per our conversation earlier today, our fee to revise the FOR plans to indicate the 450 linear feet of pedestrian ramp in lieu of an elevator is a not to exceed amount of \$6,000.00, to be charged on an hourly basis. This amount is for the plan revisions only. We do not anticipate any meetings.

Thanks,

Charlotte A. Szynskie P.E. LEED AP



Principal Electrical Engineer
Scanlon Szynskie Group, Inc.
Mechanical, Electrical, Plumbing, Lighting & Low Voltage Design
3045 South Parker Road, Building B - Suite 225
Aurora, CO 80014
(East end of Building B)
Office: 303.696.2602
Fax: 303.696.0812
charlotte@ssgroupinc.com

Scanlon Szynskie Group, Inc. is DBE, SBE and WBE certified to provide mechanical, electrical, plumbing, fire alarm and low voltage design services.

Please Note: Our office will be closed December 24th & January 3^d, we will be on reduced hours and staff the week of December 27th. The week of December 27th we will be updating our server and will not have email access for several days, please call us if you need assistance. In an effort to make sure all your project needs are met, please make sure that anything requiring our services is coordinated with the above in mind. Thank you for your assistance and happy holidays.

MEMO



To: Mr. Rick Richter

From: Andrew S. Gingerich, P.E.

Date: May 23, 2012

RE: Alternative design ideas for pedestrian over pass at NRRC property

Rick,

Per your request I have reviewed the previous design and construction plans for the pedestrian overpass, titled "Mason grade separation at NRRC". The previous design utilizes stair wells and elevators to allow access from the ground elevation to the bridge overpass above. As we discussed the current design should function effectively for public access, however you indicated that a secondary design concept should be explored that does not incorporate the elevators. In an effort to allow for pedestrian and bicycle access as well as conforming to ADA standards I have prepared a ramp design concept for your review.

The following are design assumptions and concept discussion for both the east and west plaza ramp access structures

Design Assumptions:

- Access to the bridge must be ADA compliant
 - Maximum 8% ramp slope
 - No rise greater than 30" between landings
 - Landings must be a minimum of 60" x 60"
 - Handrails provided
- Bicycle and pedestrian traffic
 - Minimum of 8' of head clearance
 - Minimum of 60" wide ramps
- General Design Assumptions
 - Ramp sections can be pre-fabricated
 - Ramp sections are 8" thick
 - Columns can be designed to hold front ramp without posing clearance issues on back ramp, or columns may need to exist on both sides.
 - Elevations, grading, site layout, easements, etc. were obtained from Mason Grade Separation at NRRC construction bid plans, dated 10/2011.

East Plaza Site Plan:

The east plaza site plan was modified to incorporate the side by side ramps concept into the existing topography and site layout. Generally, the proposed ramps are the same width as the stair and elevator design. However, the ramps are significantly longer in length in order to achieve 8' head clearance. The ramp structure is 71' in total length compared to the elevator concept which is 55' in total length.

The additional length created some pinch points at the two easterly corners of the structure adjacent to the existing flowline of the access road. The proposed site plan "bumps" the flowline out to the east an additional 3.5' in order to give approximately 4.8' of clearance from the back of curb to the corner of the structure at the narrowest point.

The ramps were configured to allow for ground access from the south side of the structure. This was considered to allow access to the immediately adjacent bus station to the south. Site plan and profile conceptual sketches have been provided with this memo for review.

West Plaza Site Plan:

The west plaza site plan was also modified to incorporate a very similar side by side ramps concept. The ramp structure will be approximately the total width of the previous stairway and elevator design. The ramp structure is 76.5' in total length compared to the previous design of 55'. The additional 5.5' on this site is due to an additional access ramp on the north side of the section to access the Bay Farm Road.

The west site plan proposes two access points into the structure. One is on the north side of the structure accessing Bay Farm Road and the second is below and exists in the middle of the structure on the east side and accesses the NRRC site. The previous site plan incorporated a lot of hardscape and concrete ramps to make the grade difference between the two accesses ADA compliant and allow for ADA and bicycle access from the NRCC to the elevator. This proposed ramp structure concept could eliminate much of this hardscape as the grade difference is made up within the ramp structure.

I believe that the side by side ramp concept is a viable design as an alternative to a stairwell and elevator concept. However, further design and considerations will need to be evaluated if this ramp concept is to move past a preliminary sketch concept as proposed.

After your review of this memo and the attachments please contact me to discuss any of your questions or concerns.

Best Regards,

Andrew S. Gingerich, P.E.



Planning, Development & Transportation

Engineering Department
281 North College Avenue
P.O. Box 580
Fort Collins, CO 80522.0580

970.221.6605
970.221.6378 - fax
fcgov.com/engineering

Date: November 15, 2012

To: Darin Atteberry, City Manager

Cc: Karen Cumbo, Director of Planning, Development and Transportation
Rick Richter, Interim City Engineer
Bruce Hendee, Chief Sustainability Officer

From: Dean Klingner, Interim Engineering and Capital Projects Manager

Re: Spring Creek Overpass Update

Background:

The planned Spring Creek Overpass (near Whole Foods) is an ADA-compliant bicycle and pedestrian grade-separated crossing over the Burlington Northern Santa Fe (BNSF) Railroad to connect the Mason Trail, the Natural Resources Research Center (NRRC) federal employment campus and the Colorado State University (CSU) Veterinary Medical Campus to the University Mall as well as to the residential, commercial, retail and employment corridor along South College. The crossing will also provide connectivity between these major employment campuses and the MAX station.

The project was bid in February of 2012 and the cost exceeded the budget so the project was not awarded.

Current Status:

Additional funds are in the proposed 2013 budget to cover the shortfall, but the City is also thoroughly examining the design to maximize any potential cost savings. The City is underway with a re-design process to prepare the project for another bid in March 2013. This redesign includes potential cost savings and flexibility options to ensure the project can be implemented. These include an alternate design to include ramps instead of an elevator.

Construction is estimated to take 8-10 months and be completed by the end of 2013.



Memorandum

To: Jim O'Neill, Director of Purchasing and Risk Management
From: Erika Keeton, Special Projects Engineer
Date: March 6, 2013
Re: Justification for Change Order - Concrete Express (MAX BRT Project)
Street Maintenance Concrete Repairs on Mason Street Downtown

Budgeted Amount: \$ 220,000

Background:

Project proceeds but so traction is reduced

City Streets Department needs to make concrete repairs on Mason Street between Laurel and Cherry. Engineering already has a number of MAX Bus Rapid Transit project work zones in place under the Concrete Express contract that encompass the same work areas, and will have more in the very near future. After discussing this with the Streets team, I would like to request that CEI be utilized to complete the concrete repairs.

- **Competitive concrete repair prices** – a cost comparison has been completed and the CEI unit prices are lower than the existing Street Maintenance contract. In addition, CEI already has in place the necessary railroad insurance, safety training, and permits.
- ~~**Traffic control cost savings**– CEI can utilize MAX traffic control setups to complete portions of the work at no additional expense to the project. This also avoids the difficulties associated with two traffic control companies and two sets of traffic control equipment in the same area.~~
- **Warranty Consistency** – all repairs would be completed by the same contractor, simplifying the management and repair of any warranty related items in the future.

*Inability
Risk of
Phasing a
separate
contractor*

- **Schedule Control** – CEI is on site and could begin work immediately. This will expedite the completion of the work in the downtown area, and maximize the volume of work that can be completed within existing work zones.
- **Project Delivery Consistency** – all repairs would be managed by the MAX construction management team, which would provide consistent control of the schedule, provide consistent public outreach efforts, and minimize the impacts to citizens due to multiple mobilizations of different contractors.
- **Achieves SMP Critical Path** – It is crucial that Streets complete critical path concrete efforts for their 2013 project this spring. Mason work is not critical path from a Streets perspective, as the paving won't be complete until September. The Phase I and II concrete efforts need to start on the critical path projects, not Mason.

I believe the amount of \$220,240.42 is very reasonable for the work prescribed and as such, I recommend approval of this change order.



engineering paths to transportation solutions

May 24, 2013

Mr. Andrew Gingerich, PE
Project Manager
City of Fort Collins
281 North College Avenue
Fort Collins, CO 80522

RE: **Mason Corridor, Grade-Separation Project (NRRC) – Change Order 5**
FHU Reference No. 106295-04

Dear Mr. Gingerich:

The following is a summary of the our effort to date for Change Order 5, consisting of the Phase 1 - Ramp Study, and Phase 2 – Ramp Design.

The Phase 1 Expenses were as follows:

Invoice 8807 (1/18/13) –	FHU =	\$1,885.00
Invoice 8993 (2/18/13) –	FHU =	\$3,193.98
Invoice 9003 (3/18/13) –	FHU =	<u>\$1,595.00</u>
Total Phase 1 =		\$6,673.98

The original Phase 1 Budget was \$8,400. There will be no more charges to Phase 1.

The Phase 2 Expenses to date are as follows:

Invoice 8993 (2/18/13) –	ABO Group =	\$1,497.50
Invoice 9289 (4/16/13) –	FHU =	\$945.38
Invoice 9425 (5/16/13) –	FHU =	\$12,325.28
		ABO Group = <u>\$1,715.00</u>
Total Phase 2 to Date =		\$16,483.16

The Phase 2 Budget is \$39,700, thus there was \$23,216.84 remaining at the end of April. May expenses to date (FHU Labor) are approximately \$4,060.

If you have any questions regarding this information, please do not hesitate to call me at 303-721-1440.

Respectfully,

FELSBURG HOLT & ULLEVIG

Bill Marcato, PE
Senior Bridge Engineer

6300 South Syracuse Way, Suite 600 Centennial, CO 80111 tel 303.721.1440 fax 303.721.0832
www.fhueng.com info@fhueng.com

Andrew S. Gingerich

From: Bill.Marcato <Bill.Marcato@FHUENG.COM>
Sent: Monday, June 03, 2013 5:48 PM
To: Andrew S. Gingerich
Cc: Rick Richter
Subject: RE: NRRC Pedestrian Ramp Slope

Andrew,

I should be in at 8AM tomorrow.

Joe O'Day left me a message about this, and I tried calling back without success. We improved the ramp slope situation a little (most of the ramps are at 8.17%), but the top ramps on each side are still at 8.33%. We need to leave the columns where they are, but we can adjust the end landings a little, pushing them up to 1' north and south, and lengthening the intermediate ramps to up to 31' in length (overall ramp structure length then increases to as much as 83' from 81'). This would result in max. 8.07% slopes at the top ramp runs, and 7.91% slopes for a majority of the ramps.

We would also slide the on-grade stairs on sheet 30 a foot to the north, and adjust the ground level landing on sheet 31 a foot to the north make up those differences.

This adjustment (full 1' adjustments) to the landing locations will add approximately 6.75 CY of concrete to the ramps, and would add 40 LF to the overall pedestrian railing length.

We can discuss this more in the morning.

Bill Marcato, PE
Felsburg Holt & Ullevig
6300 South Syracuse Way, Ste. 600
Centennial, CO 80111
303-721-1440
bill.marcato@fhueng.com

Bill Marcato, PE
Felsburg Holt & Ullevig
6300 South Syracuse Way, Ste. 600
Centennial, CO 80111
303-721-1440
bill.marcato@fhueng.com

From: Andrew S. Gingerich [<mailto:AGingerich@fcgov.com>]
Sent: Monday, June 03, 2013 4:57 PM
To: Bill.Marcato
Cc: Rick Richter
Subject: NRRC Pedestrian Ramp Slope

Bill,

Do you have a couple minutes to chat tomorrow morning regarding the NRRC pedestrian ramp slopes? It looks like Rick and I have some time available at 8:00 am in the morning if you would be available.

I know we talked about this previously about allowing a little flexibility in the ramps so that while constructing they won't get off steeper than 8.33% but can't remember if we ended up lengthening the ramps a foot or two.

Let me know if you have any availability.

Thanks,

Andrew S. Gingerich, P.E.



281 North College Avenue
Fort Collins, CO 80524
Phone: 970.221.6603
agingrich@fcgov.com



Planning, Development & Transportation

Engineering Department
281 North College Avenue
P.O. Box 580
Fort Collins, CO 80522.0580

970.221.6605
970.221.6378 - fax
fcgov.com/engineering

July 5, 2013

Mr. Tim Tuttle, P.E.
Local Agency Project Manager
Colorado Department of Transportation
Region 4 - Traffic
1420 2nd Street
Greeley, CO 80631

Re: Utility Clearance Certification
Federal Aid Project Number: AQC M455-071
Location: Fort Collins, Colorado
Project Code: 15279

For the above referenced project the City of Fort Collins (COFC) certifies that has included the following information in the Contract Documents:

- (1) *For the City of Fort Collins Storm Water* – As shown on plan, not in conflict.
- (2) *For the City of Fort Collins Sanitary Sewer* - As shown on plan, not in conflict.
- (3) *For the City of Fort Collins Water* - As shown on plan, not in conflict.
- (4) *For Colorado State University Telephone* - The relocation of the existing telephone and pedestals is not a part of this plan, not in conflict.
- (5) *For the City of Fort Collins Electric* - The relocation of the existing electric and pedestals is not a part of this plan, not in conflict.
- (6) *For the Xcel Energy Gas* - The relocation of the existing gas line is not a part of this plan, not in conflict.
- (7) *For the Comcast Cable* – The relocation of the existing cable line is not a part of this plan, not in conflict.
- (8) *For the Centurylink Telephone* – The relocation, adjustment, and resetting of existing facilities and appurtenances (manhole and pedestal adjustments) are not a part of this plan, not in conflict.
- (9) *For the Burlington Northern and Santa Fe Railroad* - The Contractor shall coordinate all work over and around the railroad track with the railroad.

The following utility work shall be performed by the Utility Company or their agents:

Telephone – Centurylink: Relocating telephone lines and resetting pedestal



Telephone – CSU: Relocating telephone lines.

Electric – City of Fort Collins: Relocate existing duct bank

Gas – Xcel: Relocate gas line

Cable - Comcast: Relocate existing cable line

General - The Contractor shall comply with Article 1.5 of Title 9, CRS (“Excavation Requirements”), when excavation or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least three (3) business days prior to commencing such operations. Contact the Utility Notification Center of Colorado (UNCC) to have locations of UNCC-registered lines marked by member companies. Call 1-800-922-1987 for locate requests outside the Denver Metro area. All other underground facilities shall be located by the contacting the respective company. Utility service laterals shall also be located prior to beginning excavation or grading.

The City has applied and was granted approval (Docket No. 11A-856R) by the Public Utilities Commission to construct a new pedestrian and bicycle overpass over the railroad track at the project location.

The City has contacted and provided plans to the utilities referenced above regarding this project. All relocation and utility conflict issues have been either resolved or included as work to be coordinated within the plans and another project. Please issue a utility clearance for this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew S. Gingerich".

Andrew S. Gingerich, P.E.
Project Manager

Attachment: PUC Decision No. C11-1323



FELSBURG
HOLT &
ULLEVIG

engineering paths to transportation solutions

June 6, 2013

MEMORANDUM

PROJECT: Mason Grade Separation at NRRC – Ramp Package
TO: Andrew Gingerich
FROM: Bill Marcato
SUBJECT: Revision 1

A summary of plan changes for Revision 1 is provided below. The changes were a result of a conference call held on June 4th, during which ramp slope construction details were discussed. The changes will provide the Contractor, Concrete Express, some additional flexibility in the ramp construction, to better assure ADA ramp slope limits are maintained. The original sheets shall be replaced with the enclosed Revision 1 sheets (13 total sheets).

The changes are as follows:

Sheet No. 12 (SP-01), Site Plan East Plaza

1. The on-ground ramp landing has been adjusted to allow for 1'-0" of extra ramp length on the ramp structure
2. Slope and elevation data on the on-ground ramp landing has been adjusted

Sheet No. 13 (SP-02), Site Plan West Plaza

1. West-most on-grade ramp has been extended 1'-0" to the north, so that the ramp slope is now 8.07% (previously was 8.33%).
2. Northing and easting data at the foot of the lengthened ramp has been adjusted.

Sheet No. 14 (GR-01), Grading Plan East Plaza

1. The on-ground ramp landing has been adjusted to allow for 1'-0" of extra ramp length on the ramp structure
2. Slope and elevation data on the on-ground ramp landing has been adjusted

Sheet No. 15 (GR-02), Grading and Erosion Control Plan West Plaza

1. Contours have been adjusted at the north end of the west-most on-grade ramp

6300 South Syracuse Way, Suite 600 Centennial, CO 80111 tel 303.721.1440 fax 303.721.0832
www.fhueng.com info@fhueng.com

June 6, 2013

Memorandum – Mason Grade Separation at NRRC – Ramp Package - Revision 1

Page 2

Sheet No. 27 (B-9), Bridge Landing Details

1. In both the East and West Landing Plan views, the top ramp slope as been adjusted to 8.07%, resulting from the addition of 1'-0" of ramp length to each top ramp section

Sheet No. 29 (B-11), Pedestrian Railing (Steel) (1 of 2)

1. Section "C" was modified to have not wire infill panels in the railings, matching the rail elevation in Detail "D"

Sheet No. 30 (B-12), Pedestrian Railing (Steel) (2 of 2)

1. The landing dimension was adjusted, and ramp slope modified in the Stair at West Ramp Landing detail

Sheet No. 31 (B-13), East Ramp Lower Landing

1. In the East Ramp Approach Plan, the lowest ramp structure ramp was lengthened by 1'-0", and extends into the on-ground ramp approach.
2. In the East Ramp Approach Plan, the lowest ramp slope was lowered to 7.91%+/-.
3. In the East Ramp Approach Plan, the slopes on the on-ground landing were adjusted for the condition with the extended structure ramp
4. In the East Ramp Approach Plan, the pedestrian railing spacing was adjusted on the west side of the landing
5. In the East Ramp Approach Plan, the expansion gaps were relocated in the slab
6. In the East Ramp Approach Plan, the expansion locations in the handrails were adjusted
7. In Detail "A", the wall and footing of the on-ground landing section was added, to clarify that there is a jog in the landing due to the 1'-0" extension of the lowest ramp structure ramp.
8. In Detail "C", the landing width at the foot of the lowest ramp structure ramp was narrowed to 7'-0" to accommodate the ramp that was lengthened by 1'-0".

Sheet No. 32 (B-14), East Ramp East Elevation

1. The locations of the ramp end elevations were adjusted
2. The end landing lengths are now dimensioned as 7'-0" (were 8'-0" previously)
3. The north and south landing edges were all adjusted in elevation due to the shorter landing length
4. The typical ramp slope is now indicated as 7.91%+/-.

Sheet No. 34 (B-16), East Ramp Plans

1. In the Top Level plan, the top ramp slope was adjusted to 8.07%+/-.
2. In the Intermediate Level plan, the ramp lengths have been adjusted to 31'-0", and the end landings adjusted to 7'-0". The break lines between the ramps and landings were relocated.

June 6, 2013

Memorandum – Mason Grade Separation at NRRC – Ramp Package - Revision 1

Page 3

3. In the Ground Level Plan, the jog in the on-ground approach ramp resulting from the longer ramp structure ramp is now shown

Sheet No. 35 (B-17), West Ramp West Elevation

1. The locations of the ramp end elevations were adjusted
2. The end landing lengths are now dimensioned as 7'-0" (were 8'-0" previously)
3. The north and south landing edges were all adjusted in elevation due to the shorter landing length
4. The typical ramp slope is now indicated as 7.91%+/-.

Sheet No. 36 (B-18), West Ramp North & South Elevations

1. In the South Elevation, the leader for the expansion joint location was corrected
2. In the North Elevation, the location of the T.O. Column call-out was adjusted for clarity

Sheet No. 37 (B-19), West Ramp Plans

1. In the Top Level plan, the top ramp slope was adjusted to 8.07%+/-.
2. In the Intermediate Level plan, the ramp lengths have been adjusted to 31'-0", and the end landings adjusted to 7'-0". The break lines between the ramps and landings were relocated.