CMGC Design Phase State Report

For

Riverdale Road

Project No.
SP-0026(4)0-A
SP-0026(4)0-B
SP-0026(4)0
S-0026(10)2

PIN No. 6867, 6868, 2495, and 7447

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Purpose

The purpose of the State CMGC Report is to summarize the project in terms of which innovations were used and what were their impacts on the cost, schedule, quality, design, constructability and the benefit to the public. It will also contain information about the contractor's role in risk reduction, environmental stewardship and an analysis of the performance of this project. The information in this report was obtained by interviewing key personnel with UDOT, the designer and the contractor. All interview questions and answers are attached in the appendix.

Project Overview

The Request for Proposals for the Utah State Road 26 (also referred to as Riverdale Road) project identified the following goals in order of importance:

- A high level of public satisfaction with business and property owners, motorists, and other stakeholders;
- Completion of the project on or before October 31, 2009; and
- Completion of the project within the project budget.

The result of the selection process confirmed that UDOT prioritized schedule over cost. Granite, the selected contractor, had submitted the highest pricing proposal (See appendix D and E of the Proposal). Although they had the highest price, they offered the best quality project in terms of their approach to meeting the goals stated above. It is not common to choose schedule over cost, but in this case the project's impact to the local economy was closely linked to the construction schedule. The project will impact many retail stores, and without accelerating the schedule construction will likely lag into the holiday shopping season. Reducing user costs by completing construction in time for Black Friday will offset the increased bid cost.

The physical description of the project is included below:

Utah State Road 26 is a principal urban arterial which begins at SR 126 (1900 West) in Roy and continues northeast through the cities of Roy, Riverdale, South Ogden and Ogden to US-89 (Washington Blvd.) in Ogden. The purpose of this project is to improve mobility, enhance safety, correct roadway deficiencies, and replace the I-15 and I-84 bridges. The project limits extend from 1900 West to Washington Boulevard, approximately 3.7 miles. The existing conditions of the pavement section in conjunction with the need for an additional travel lane in each direction has warranted the reconstruction of Riverdale Road. In addition the I-15 and I-84 bridges are also at the end of their respective service life and will need to be replaced to accommodate the proposed travel lane sections. The project also requires geometric upgrades such as dual turn

movements at selected intersections with replacement of all traffic signals along the corridor. Retaining walls are proposed at selected locations primarily at the I-15 and I-84 bridge locations and restriping of the entire project.

Project Number	SP-0026(4)0-A	SP-0026(4)0-B	SP-0026(4)0	S-0026(10)2
Project Type	URBAN			
Pin	6867	6868	2495	7447
Funding Source	STATE			
Notice to Proceed	1/2/2008	2/26/2008	6/11/2008	5/13/2009
Commission Approved Amount[1]	$5,000,000.00	$8,000,000.00	$40,641,210.00	$31,010,000.00

Note:

1. Commission Approved Amount is based on ePM495 screen

Table 1 Project Phases

CMGC allows the phasing of the project to provide the most effective use of the time during design and construction. The Riverdale Road project was phased into four parts. Project summary data is shown in Table 1.

Design Costs

Granite Construction Company was selected on September 14, 2007 as the CMGC contractor for all four phases of the project. Parsons Brinkerhoff acted as the designers and Stanton Constructability performed the Independent Cost Estimates for the project (ICE).

Table 2 CMGC Design Fees

Designer's Fee	$4,870,899.00
CMGC Design Fee	$595,771.48
ICE Preparer's Fee	$224,025.00
Total Design Costs	$5,690,695.48.00
CMGC % of Total	10.5%

Bid Prices

The bid for SP-0026(4)0-A, the first phase of work, was opened on December 10, 2007 and included the procurement of long lead items including structural steel, and the materials for the piles and retaining walls. There was a significant discrepancy between the Engineer's Estimate

(EE) and the bid. This is due primarily to the EE estimating structural steel at $0.60 a pound while both the contractor and the ICE reported prices of $2.14/lb and $2.35/lb respectfully.

Table 3 Cost Breakdown of Phases Compared to Engineer's Estimate and ICE

Project Number	Engineer's Estimate (EE)	Independent Cost Estimate (ICE)	Final Bid	% Difference of EE	% Difference of ICE
SP-0026(4)0-A [1]	$1,320,312.86	$2,635,933.75	$2,549,341.30	93.1%	-3.3%
SP-0026(4)0-B	$10,410,775.95	$10,786,287.33	$10,778,168.40	3.5%	-0.1%
SP-0026(4)0	$24,880,996.50	$26,123,094.43	$26,273,979.00	5.6%	0.6%
S-0026(10)2	$21,889,359.86	$21,395,828.21	$20,399,648.00	-6.8%	-4.7%
Total	**$58,501,445.17**	**$60,941,143.72**	**$60,001,136.70**	**3%**	**-2%**

Notes:

1. Large discrepancy in the EE is due to a gross pricing error by the designer for structural steel.

After bid opening the discrepancy was discussed with UDOT officials and it was determined that the prices of the ICE and that contractor represented the current market conditions. The bid was let and the materials were obtained.

The bid for the second phase, SP-0026(4)0-B was opened on January 11, 2008 and dealt primarily with utility coordination, clearing and grubbing, construction of the retaining walls, and the setting of the piles. Both the EE and the ICE agreed with the bid so the project was awarded.

The bid for the third phase, SP-0026(4)0 was opened on May 9, 2008 and dealt with the construction of the actual roadway from I-15 to approximately 550 West using Portland Cement Concrete Pavement (PCCP). The bid for remaining roadway from 550 West to Chimes Avenue, S-0026(10)2 was opened April 27, 2009 and continued the construction of the roadway.

Applicability of the CMGC Process

UDOT selected CMGC over Design build as the delivery method for the Riverdale Road project in order to better manage risk and expedite the schedule. It was also important for the contractor to understand the needs of the public before the design was finalized and the price was set. CMGC introduced the contractor to the public early, allowing the contractor to provide design recommendations that addressed the public's needs as well as the project's goals. This type of thorough preparation has enabled the team to plan for a limited number of change orders and overruns.

Innovative Process

The key benefit of the CMGC process is the contractor's involvement in the design. Contractors often bring a different perspective than the engineers, which can be useful in solving complex issues. This section focuses on how these innovations have improved this project.

Innovations Used

A variety of innovations were incorporated into this project as a result of contractor participation in the design team. The following is a list of notable innovations:

- Thinning up the roadway section to avoid existing utilities
- Creative phasing plan and sequencing of traffic control
- Joint trench for UDOT and utility facilities
- Utilizing single trunk line instead of dual trunk line design to create a utility corridor for Third Party utilities
- Making the contractor responsible for private utility relocations and restoration of landscaping
- Precast deck panels used on the bridge surfaces
- ABC, Prefabricated bridge elements, non-composite deck panels
- Simplified the layout of the road construction
- Contractor involvement with the public during design
- Early Partnering with utility companies.

Impact to Schedule

The flexibility of the CMGC process gave the design team an opportunity to prepare a plan set that would get construction underway as quickly as possible. The team took advantage of this opportunity by awarding contracts for material acquisition and early construction. This was done to ensure that construction could proceed without delay as soon as the entire design was completed. If the project would not have received NTP on the materials for the bridge until final project design then the order for the girders would not have occurred until April, making delivery in September or October. Instead the girders were delivered in June ensuring that traffic could be switched to completed Phase I structure in September. A similar design bid build project would not have been able to release early packages and would have required a construction schedule one year longer than the one set for the Riverdale Road project.

The list of milestone schedules shown in Table 4 illustrates the rapid process with which CMGC can implement a project. With just more than two months time from the selection date the contractor began ordering long lead items and within another month was on site beginning construction. Had the project waited until the completed design, the construction would have been delayed until May of 2009. Instead the construction was started almost 17 months prior. This concurrent work between design and construction can only be done via CMGC or Design Build (DB). However, the selection process of CMGC took approximately 2 months. The

selection process for DB typically takes 6 to 8 months for a project of this size. By interviewing the project team leaders a project wide savings of one year is agreed upon.

Project Schedule Milestones	Action
7/28/07	Advertisement of RFP in newspapers
7/30/07	Posting of RFP on UDOT Consultant Services Project Advertisement website
8/4/07	2nd Advertisement of RFP in newspapers
8/10/07	Pre-Proposal Meeting
8/31/07	Technical & Price Proposals are due
9/26/07	Select Contractor
10/04/07	Contractor Debriefing
1/2/08	Construction NTP Phase I
5/13/09	Construction Final Acceptance of Phase I
2/26/08	Construction NTP Phase II
9/16/09	Final Acceptance of Phase II
6/11/08	Construction NTP Phase III
9/17/09	Final Acceptance of Phase III
5/13/09	Construction NTP Phase IV
7/15/10	Projected Completion of Phase IV

Table 4 Project Milestones

Impact to Quality

Granite selected their subcontractors who possessed the experience and knowledge to best meet the project goals. The contractor was able to hire subcontractors that specialized in areas in which the contractor did not possess a great deal of expertise. This broadened the contractor's knowledge base, which enabled the team to include design provisions aimed at setting an ambitious construction schedule. This would not have been possible if the contractor were not involved in design. On a traditional project the contractor would have submitted a bid without being aware of the importance of the schedule, or being capable of properly addressing aspects of the project that affect the schedule. To meet the bid price the contractor would then be under pressure to select based on price, rather than on their ability to positively influence the schedule.

Impact to Design

The CMGC process allows the contractor to better understand the intent of the design. This understanding lets the contractor make meaningful contributions to the design, giving the contractor a sense of ownership in the project and a real commitment to its goals.

Some of the items that were influenced by the contractor and the designer working together were:

- The team was very capable and proactive with regard to utility and Right of Way work. This was essential to meeting a tight schedule.
- The contractor helped develop a sensible phasing plan that allowed the design team to focus on what to design first. This helped the team prioritize the schedule for utility coordination by giving utilities adequate time to prepare for construction.

- Maintenance of Traffic was a high priority concern on this project, and the contractors' involvement helped create a better traffic plan to minimize the amount of time lanes were shut down.
- The designers also benefited from having the contractor's experience in the design process by better prioritizing the work to include the sequence of utility and Right of Way work.

Impact to Constructability

The designers and the contractors both gained a lot from working together during the design phase. The designers were able to learn about new construction techniques and a better understanding of what capabilities the contractor had, and the contractor had the time to get updated information on new techniques that the team wanted to implement on the project. In the CMGC process the final design decisions are made by the owner, but the contractor's review and input allowed open discussion which lead to significantly alleviating field problems. Some of the improvements to the constructability of this project were:

- The contractor helped develop details for the pre-cast structure.-
- The contractor helped determine the optimal location of the water line to avoid interfering with existing utilities.

Benefit to the Public

Through the CMGC process the contractor was selected early enough to be involved in public meetings, when commitments were being established. This gave the contractor an opportunity to set public expectations and plan construction efforts to preserve the interests of stakeholders. Some of the benefits to the public on this project were:

- The input from the contractor in conjunction with the designer created a very favorable phasing plan and allowed the traffic flow to have minimum effect on the public.
- Contractor and Designer worked together to avoid utility conflicts. . This allowed them to plan utility upgrades that would take advantage of the contractor's traffic control, thus avoiding additional impacts to the public. This was coordination was made possible thanks to the contractor's rapport with Utility companies.
- Utility relocations were planned to occur simultaneously with construction activities; reducing additional impacts to the public.

Risk

One of the largest advantages to CMGC is the reduction in risk. By allowing the contractor to be part of the design phase of the project they can work together with the designer to identify risks and eliminate them before the project is under construction. Risks that can't be eliminated can be mitigated to minimize their impact. This mitigation was done by withholding parts of the design associated with the risk and letting the contracts out and then using "planned" change orders to address the risk once additional information is obtained. . Some of the risks that were eliminated by the contractor's involvement were:

- The contractor helped to identify and resolve utility problems, high groundwater issues and the slope of hills on the west end of the project.
- The contractor recommended the use of post-tensioning instead of rebar splices, citing that it was more practical to align up bars and ducts at 18" rather than aligning small tolerance splice sleeves at 6" or 8" spacing.
- The contractor contributed to discussions on prefabricated elements which helped avoid construction risk of delayed schedule and increased cost.
- Removing concrete ribbons saved variable pavement thickness problems, this also optimized the profile, minimizing R.O.W takes. The elevation of the ribbons could potentially effect tie in points behind the sidewalk, requiring walls, landscaping, and ROW.
- The contractor's suggestion to use dual trunk lines reduced the risk of additional utility interference by only using one trench.
- Reducing the depth of pipe between the beginning of the project and I-84 reduced the risk of additional utility interference.
- Joint trench arrangement was made with the ATMS conduit, street lighting conduit and Qwest's LAN cable that reduced the cost and improved schedule efficiency for UDOT and Qwest's relocation work.
- Contractor provided traffic control for utility relocations insured schedule coordination, compliance with Limitation of Operations, and resulted in cost savings to both UDOT and utility companies.

Impact on change orders

This design is expected to reduce the impact of change orders by including a way to plan for them. The contract set up contingency items to cover potential risks, such as replacing unsuitable sub grade. When the team identified the project risks, UDOT elected to carry much of the risk and cost for unknown items. The plans include provisions so that the majority of change orders will be tracked as time and material, keeping the original margins the same. This is to ensure that UDOT only pays for work that is actually performed. This approach to change orders allowed the team to set a benchmark for their total cost.

Another way that the CMGC process helped to control change orders was by allowing the team to develop details, such as fabrication techniques and joint details, that address issues that would otherwise cause construction problems and result in change orders.

Analysis of Performance

After contractor selection, UDOT developed a Gold Standard price comparison algorithm to assess the prices provided by all proposers that participated in the selection process. This was done to predict the bid price of the project based on the limited items that were bid on in the Price and Approach to Price sections of the Request for Proposals (see Appendix D and E of the RFP for pricing data). The data analyzed is presented in Table 5. This preliminary analysis suggested that the prices would be approximately 92% of the state wide average prices. This became the goal for pricing evaluation. However, bid results showed significant increases in every bid item provided in the proposal. Despite this fact, the bid prices were very close to the

ICE (see Table 3). This suggests that though the project's measurement and payment descriptions for each item changed significantly between selection and bidding. In fact 7.5 inch thick Portland Cement Concrete Pavement (PCCP) and prestressed concrete members were never part of the final bids though they were part of the price analysis in the proposal evaluations. Table 1 shows the performance of each bid opening for the four phases of the Riverdale Road project.

Description	RFP Quantity	Unit	Winning Proposal Unit Price	State Ave. Price 9-15-06 to 9-14-07	Anticipated Price Ratio[2]	Awarded Bid Quantities	Awarded Bid Unit Price[1]
PCCP 7.5 inches thick [4]	92498	sq yd	$70.01	$61.22		NA	NA
Structural Concrete	3040	cu yd	$685.35	$860.80		1955	$1,421.53
Precast Concrete Deck Panels (I-84)	25217	sq ft	$25.25	29.67	0.92	26143	$46.00
Structural Steel[5]	1600000	lb	$1.94	2.78		692795	$2.14
Prestressed Concrete Members	2844	ft	$304.06	287.85		NA	NA

Notes:

1. Unit prices are a weighted average of all three phases.
2. Anticipated Ratio of Price is the SOQ Appendix D elements compared to the State Average Prices (if state averages are NA, assumed proposal prices as average)
3. Ratio of Price is the Bid items prices compared to the State Average Price (if available)
4. Actual bid item was for 8, 10, and 11 inches thick PCCP.
5. Major portion of Structural Steel from phase 3 was bid as lump sum with no quantity this volume is not included in table

Table 5 Bid Opening

The pricing at bidding was high in every phase but the first which dealt with early procurement of items and early earthwork. Figure 1 shows that when the bid items were compared to the state wide prices, the project prices were well above the average. Furthermore, the 92% pricing goal was not achieved as pricing between the proposal stage and the bidding stage raised approximately 44% project wide. The percentages shown in Figure 1 indicate the number of items that had bid item equivalents in the state bid pricing database for comparison. Refer to Appendix B for the calculations used to develop Figure 1.

When compared to state average comparison pricing, the project's cost was 33% higher. Typically projects in urban areas have a higher price associated with them because of the utility coordination efforts.

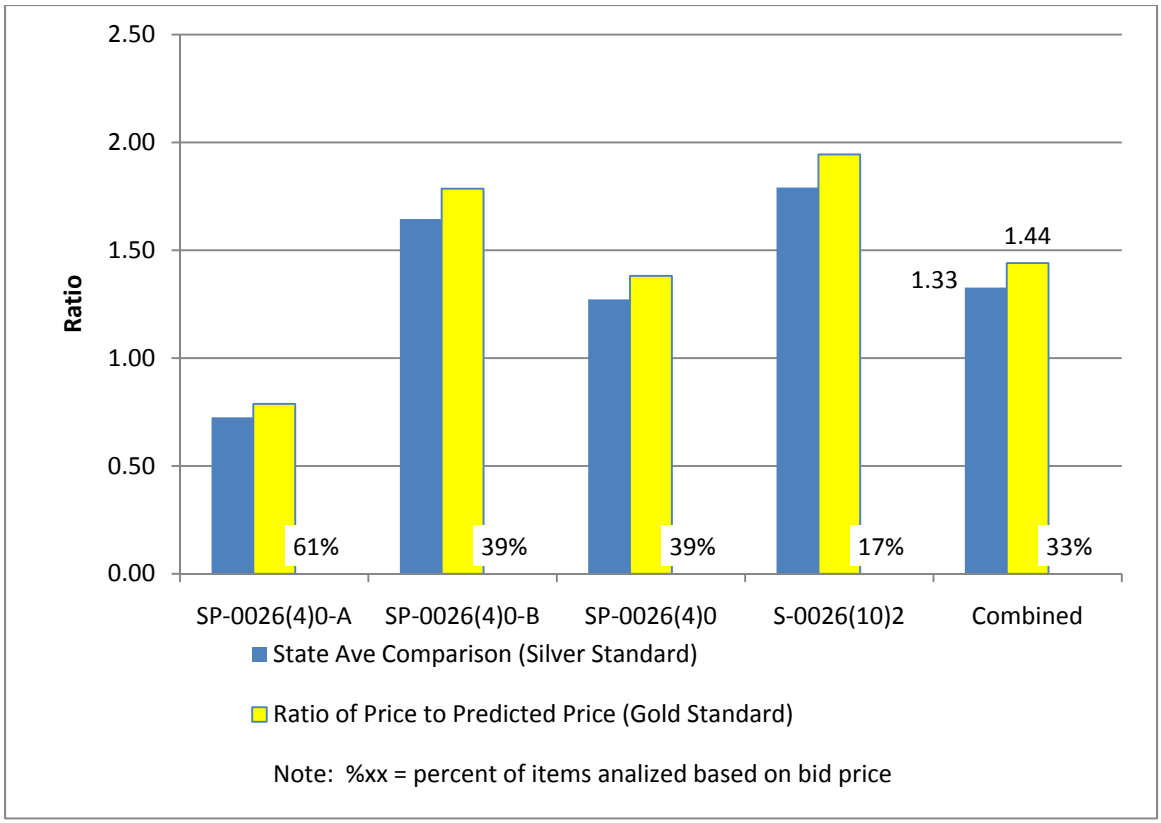

Figure 1 Pricing Performance at Bid Opening - Riverdale Road

Environmental Stewardship

The contractor was provided the environmental documents during design, giving them an early opportunity to become familiar with the key issues and commitments. This allowed the contractor and owner to discuss means and methods while maintaining an awareness of commitments made in the Environmental Assessment.

Lessons Learned

The following are some of the lessons learned from the start of design until the start of construction for this project, based on feedback during interviews:

- Having the contractor's input, especially on a unique, new bridge design, was very helpful. Even though the contractor is involved in the design process, it is very difficult for them to put a bid together without having the final plans. Risk and guesstimates have to be included if all the information is not there.
- Prices for betterments were significantly higher than cities anticipated; they are not accustomed to best value approaches.
- Master Agreements were not used, but multiple utility agreements with companies were required to accommodate early release contract and certification, and then again for subsequent segments of the project.

- If pricing is going to be considered during the evaluations make sure that it is very clear about what is to be included. For example, is project overhead, company overhead, and division overhead included? Also, consider that the items of work being priced may change significantly during design or not even apply at all. If this is the case then the price evaluation for the items that effect the contractor selection may not even be constructed during the project if alternate designs are used. This may deem the pricing criteria slightly faulted.
- Input from Construction, both from Construction Management/RE and the contractor, is always tremendously helpful during design, but the accelerated schedule, i.e. lack of time between the completion of roadway design and the resultant completion of utility relocation design engineering, is impractical in terms of getting the required agreements, funding and authorizations in place to allow the utility companies to schedule, order materials, and be ready to go to work as soon as the contractor can.
- More time up-front for the design/contractor input/bid would have made the project awarding go a little smoother.
- Need to provide time in schedule for utilities to generate cost estimates and to execute utility agreements.

Conclusion

CMGC is a valuable tool that can be used to tailor a high profile project to meet various goals. Many believe that CMGC can be applied to reduce project cost, but this is not the only way that the CMGC process adds value to a project. This project employed the CMGC process to deliver solutions aimed at shortening the overall schedule rather than lowering construction costs. Because schedule was the motivating goal of the project, pricing was higher than anticipated. However, the overall savings of the project due to the reduction in schedule and the implementation of innovations will greatly outweigh the disproportion in cost. The project was, however, designed to lower user costs by providing for construction to be completed in time to allow full access to businesses in the project area in time for Black Friday, the biggest retail shopping day of the year. This project demonstrates that CMGC enables the owner, designer, and contractor to optimize design, streamline schedule, ensure constructability, and incorporate innovations.

APPENDIX A- Interview Notes

CMGC Interview Questions

UDOT Project Manager-

Project Description: Riverdale Road

Pin:

Project Phase:

Individual complied responses to Riverdale CMGC questions

Design

What benefits did you see in design because of contractor participation?

- Decision on how to match cast abutments. Brainstorming on non-composite deck panels. In general, fabrication and details of all precast elements. (*Designer*)
- Use of lightweight fill needed to meet contractor's schedule. (*Designer*)
- As the contractor we were able to provide inputs on where utilities were to be placed to reduce risk. In addition our early involvement enabled us to engage the utility companies early in the process and partner with them in finding solutions. This open relationship included our honest reporting of unexpected utility hits that were repaired instead of buried for future more costly repairs. (*Contractor*)
- Designers were able to focus R.O.W. documents and utility coordination around critical path of the project. Construction staging was laid out during the design phase to identify utility impacts and identify where to start first with relocates. Contractor was involved in developing the details on the project. (*Contractor*)
- Contractor representatives attended weekly coordination meetings between designers and utility companies. They were fully aware of required utility relocations and scheduling issues and constraints. *(UDOT)*
  - The contractor assisted designers to determine the proposed utility locations/constructability. *(UDOT)*

What challenges came up during design?

- We helped to develop a sensible phasing plan that got utilities on board early where we needed them. This gave utilities adequate time to prepare for construction to meet our schedule. A sensible phasing plan also focused the design team on what to design first.
  - Maintenance of Traffic was a big concern on this project and our involvement helped to minimize the impact on the public and improve construction. (*Contractor*)

What risks did you help

- We helped to identify and resolve utility problems, underground

to identify during design?	water issues and the slope of hills on the west end of the project. • We were involved with the public and improved their perception of the project. The owners along the corridor gave us a rating of 88 in the first quarter. (Contractor)
How did the team identify, evaluate, and track project risk?	• Through task force meetings and plan reviews. One example of a risk item was the decision to use post-tensioning instead of rebar splices. The P-T may have been an increase in material cost, but the contractor felt more comfortable having to align up bars and ducts at 18" instead of aligning small tolerance splice sleeves at 6" or 8" spacing. (*Designer*) • There were several meetings held during the CM process to identify and discuss risk items. At these meetings the level of risk was discussed as well as how and where the risk would be carried. (*Contractor*)
Which contractor suggestions helped reduce risk and control costs?	• The discussion of cast-in-place pile caps not slowing the process anymore than precast pile caps was valuable. Precast pile caps may have increased cost and risk, and knowing that they were not needed to accelerate the schedule was helpful. (*Designer*) • Discussion on prefabricated elements as stated above was valuable and helped avoid construction risk of delayed schedule and increased cost. (*Designer*) • Removing concrete ribbons saved variable pavement thickness problems this also optimized the profile minimizing R.O.W takes. Eliminating dual trunk lines. Reducing depth of pipe between I-84 and begin project. (*Contractor*) • Joint trench arrangement was made with the ATMS conduit, street lighting conduit and Qwest's LAN cable that reduced the cost and improved schedule efficiency for UDOT and Qwest's relocation work. (*UDOT*) • Contractor provided traffic control for utility relocations insured schedule coordination, compliance with Limitation of Operations, and resulted in cost savings to both UDOT and utility companies. (*UDOT*)
What is the expected cost savings produced by contractor's suggestions?	• I believe the decisions really affected end product quality more than saving money. All the fabrication techniques and joint details have provided a very quality finished look to the bridge. The coordination with these new details may have saved construction problems/change orders, which would be a cost and schedule savings. (*Designer*) • Lightweight increased material cost, but was used to accelerate schedule and meet required deadlines to reduce user costs. (*Designer*) • Optimized pavement section, which eliminated the granular borrow section and also significantly reduced utility relocates. (*Contractor*)
Innovations	
What innovations were used to reduce cost?	• We encouraged the shallow design of drainage ponds to reduce cost (*Contractor*) • We influenced the phasing plan and the sequencing of traffic control to

reduce impact on business and the traveling public. (*Contractor*)

- The direction of the bridge design from the client was more focused on reducing construction schedule and user costs than reducing construction cost. (*Designer*)
- Joint trench for UDOT and utility facilities. (*UDOT*)
- Single contract to reattach all communication cables to power poles. (*UDOT*)
- Utility corridor for Third Party utilities. Utilizing single trunk line instead of dual trunk line design. Minimizing overall thickness of pavement section to minimize disruption and unnecessary utility relocations. Utilizing as much existing storm drain as possible. Protecting Qwest lines in place at the I-84 interchange. Minimized profile changes such that the new pavement conforms at adjacent parcels matched closely reducing unnecessary R.O.W. costs

What innovations were used to reduce schedule?

- The direction of the bridge design from the client was more focused on reducing construction schedule and user costs than reducing construction cost. (*Designer*)
- Our help in selecting a phasing plan and encouraging early design packages to begin construction of sensitive portions of the project (*Contractor*)
- Making the contractor responsible for private utility relocates and restoration of landscaping was a benefit to the project by placing control and responsibility all on one party (*Contractor*)

What technology innovations were used?

- We used precast deck panels but because the design was late we did not save time. Phase 2 should do better (*Contractor*)
- ABC, Prefabricated bridge elements, non-composite deck panels (*Designer*)

What innovations were used to reduce impacts to the public?

- We kept the layout to the road construction simple to not confuse the traveling public (*Contractor*)
- By using the CMGC process the contractor was introduced to the public and other stakeholders early on giving the project team a face instead of the traditional method in where only the owner has interactions with the public until final design and project award. This allowed the contractor to gain valuable trust from the public as well as build relationships that were needed to resolve conflict concerning property access issues, land use and an overall partnering relationship with the stakeholders.

Constructability

How was constructability

- Being involved with the design allowed the contractor to have input into all aspects of the design. In the CMGC process the final design decisions are made by the owner, but the contractor review and

improved by involvement of the contractor in design?	input allows open discussions on any concerns or questions the contractor has significantly alleviating field problems. This was particularly useful in developing the details for the pre-cast structure. Location of water line was optimized. (*Contractor*) • In spite of the team's best efforts, we still ran into utility conflicts. Utilities showed up in unexpected locations and did not follow expected paths. (*Contractor*) • We did not control the design or make design decisions. Our concerns were listened to but not always followed. (*Contractor*) • The bridge design was late and reduced the benefit of Accelerated Bridge Construction. By the time we got the deck panels cured we could have done the job just as fast if we had poured in place. (*Contractor*)
What constructability issues identified by the contractor were included in design?	Contract phasing was identified and incorporated into plan set. (*Contractor*)
How did these issues get followed through in the field?	• I would say 80% to 90% of the issues discussed and decisions made were carried out into the field and had a positive benefit. This is from my limited knowledge of the construction. (*Designer*) • Ideas were incorporated into the plan set. (*Contractor*)

Schedule

Was the construction schedule shortened or lengthened? How do you know? By how much?	• We had a reduced schedule because we were able to establish a workable phasing plan, get early design packages, and deal with utilities early. If this had been a traditional project it would have taken longer. (*Contractor*) • The construction schedule was shortened by 6 months by awarding early packages for material acquisition and early construction package(s). If the project would not have received NTP on the materials for the bridge until final project design then the order for the girders would not have occurred until April, making delivery in September or October. Instead the girders were delivered in June and the traffic switched to completed Phase I structure in September. (*Contractor*)

Change Orders –

What change orders occurred because of	• Small underground conflicts that could not be foreseen in design resulted in changes orders. (*Contractor*)

design oversights?

- The risk of underground water was assumed by UDOT and planned for in their contingency funding. (*Contractor*)
- The risk of unstable trench material was also assumed by UDOT. (*Contractor*)

Environmental Stewardship

How did bringing the contractor on early alleviate environmental concerns?

- The contractor was provided the environmental documents early on to get familiar with the key issues and commitments. This allowed the contractor and owner to discuss ideas to efficiently work while maintaining commitments made in the EA. (*Contractor*)

Benefits to the Public

How did the public benefit from the CMGC process?

- Utility relocation impacts were simultaneous with construction activities; no additional impacts to the public were required. (*UDOT*)

Lessons Learned

What did you learn in this CMGC process?

- We were concerned about the reaction of the UDOT complex to cost on this project. (*Contractor*)
- UDOT complex was concerned because there is close agreement between the engineer's estimate and the contractors proposed price on traditional projects but a wide separation on CMGC projects. The Riverdale project was particularly troubling because the Engineers Estimate for phase 1 and 2 were ½ the contractors proposed cost. This was accentuated by the fact that the project did not have enough funding to do the full scope of work. (UDOT)
- Conceptually we believe that CMGC should cost less because the contractor is helping us to improve the design, constructability, and identify and reduce risk. We also anticipate that this reduction in risk and improvement in constructability will enable the contractor to reduce his expense and improve his profit while delivering more to the public for less money. Apparently you felt some of our frustration but we also take note that you have done a good job and we noted improvements in how the bid review process improved for I-15 deck replacement where your proposal came in less than the ICE. (*UDOT*)
- Obviously, having the contractor's input, especially on a unique, new bridge design, was very helpful. I think the other thing I learned is that even though the contractor is involved in the design process, it is very difficult for them to put a bid together without having the final plans.

Risk and guesstimates have to be included if all the information is not there. (*Designer*)

- CMCG also seems to lend itself to the designer being involved more with the construction after the design is let. I think this is also a benefit to the project. But this also needs to be identified in the initial scoping and cost of the designer. (*Designer*)
- With our project, the design was still not finalized when the Early Release Package was advertised. From a utility agreement execution perspective, there is no time between the end of design and the bid review process to allow agreements to go through the execution process. (*UDOT*)
- Bid review and execution of contracts happens so rapidly at the end of the design process makes it difficult to complete betterment agreements and others that require at least estimated prices up front. (*UDOT*)
- Prices for betterments were significantly higher than cities anticipated; they are not accustomed to best value approaches. (*UDOT*)
- Master Agreements were not used, but multiple agreements with companies were required to accommodate early release contract and certification, and then again for subsequent segments of the project. (*UDOT*)

Was there anything you would change during the RFP portion of the project?

- If pricing is going to be considered during the evaluations make sure that it is very clear on what is to be included. For example is overhead project overhead, company overhead, and division overhead. Also, consider that the items of work being priced may change significantly during design or not even apply at all. If this is the case then the price evaluation for the items that effect the contractor selection may not even be constructed during the project if alternate designs are used. This may deem the pricing criteria slightly faulted. Perhaps use cost model moving forward (*Contractor*)

What is your opinion of the value of CMGC?

- Input from Construction, both from Construction Management/RE and the contractor, is always tremendously helpful during design, but the accelerated schedule, i.e. lack of time between the completion of roadway design and the resultant completion of utility relocation design engineering, is impractical in terms of getting the required agreements, funding and authorizations in place to allow the utility companies to schedule, order materials, and be ready to go to work as soon as the contractor can. *(UDOT)*
- I think the value changes depending on HOW you use it. For this project, I believe its main use was to accelerate the overall project process and get the contractor in the field in a much shorter time than a design-bid-build would have allowed. I think it was successful in that aspect. I also think it was successful in the aspect of the quality and speed of assembly with the ABC bridge. Some see the use of CMGC to reduce *construction* costs. I don't believe that that was its goal on this project nor did it

necessarily accomplish that. However, it may very well have reduced the *project costs* (including user costs) by getting all those shoppers to the stores on Black Friday. (*Designer*)

- In high profile or complex projects it is a viable and valuable contracting method. By bringing the owner and contractor together the project goals are collectively evaluated during design and prior to construction. This also allows the owner, designer and contractor to collectively share ideas to optimize design, streamline schedule, consider innovative ideas and ensure that the project is constructible. (*Contractor*)

Additional Comments:

- The contractor was very helpful during the design stage and I think most definitely improved the quality of the I-84 Bridge with their input. I think more time up-front for the design/contractor input/bid would have made the project awarding go a little smoother, but as stated above we didn't have that time and I think the CMGC process allowed the project to accomplish what it did in a short timeframe. (Designer)
- Value is added to the project because of quality, and meeting project goals. (UDOT)
- Original project intent was to identify the budget necessary to complete the project. This was one reason the project was chosen to go CMGC. (UDOT)
- Need to provide time in schedule for utilities to generate cost estimates and to execute utility agreements. (UDOT)

Appendix B – Pricing Analysis

	Project No: SP-0026(4)0-A Project Name: SR-26;RIVERDALE ROAD, I-15 TO WASHINGTON BLVD Desc of Construction: ROADWAY RECONSTRUCTION, 1ST EARLY PHASE CONTRACT Estimate Completion date on or before County: WEBER (57)	Engineer's Estimate	INDEPENDENT COST ESTIMATE (STANTON) 3261 W 5720 S TAYLORSVILLE,UT 84118	GRANITE CONSTRUCTION COMPANY 1000 N. WARM SPRINGS RD. SALT LAKE CITY,UT 84116	State average Costs 04-27-2008 through 04-26-2009	Gold Standard (Goal from proposal – 0.921 of the State pricing average)

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	15710155	Environmental Control Supervisor	1	Lump	$5,400.00	$5,400.00	$3,200.00	$3,200.00	$8,730.00	$8,730.00		$0.00	$0.00	$0.00
2	26101472	36 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	1696	ft	$42.55	$72,164.80	$44.00	$74,624.00	$49.90	$84,630.40	$241.00	$408,736.00	$221.96	$376,445.86
3	26101474	42 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	1531	ft	$73.26	$112,161.06	$71.50	$109,466.50	$85.90	$131,512.90		$0.00	$0.00	$0.00
4	02633003P	Manhole 72 inch diameter	14	Each	$2,400.00	$33,600.00	$3,278.00	$45,892.00	$2,724.00	$38,136.00		$0.00	$0.00	$0.00
5	02455004D	Driven Piles HP 14 X 102-Materials	5730	ft	$72.00	$412,560.00	$65.85	$377,320.50	$66.42	$380,586.60		$0.00	$0.00	$0.00
6	51200020	Structural Steel	692795	lb	$0.60	$415,677.00	$2.35	$1,628,068.25	$2.14	$1,482,581.30	$2.53	$1,752,771.35	$2.33	$1,614,302.41
7	02831001*	Retainning Wall RxxxA - Materials	3635	sq ft	$15.00	$54,525.00	$27.25	$99,053.75	$23.03	$83,714.05		$0.00	$0.00	$0.00
8	02831002*	Retainning Wall RxxxB - Materials	1045	sq ft	$15.00	$15,675.00	$27.25	$28,476.25	$28.81	$30,106.45		$0.00	$0.00	$0.00
9	02831003*	Retainning Wall RxxxC - Materials	1310	sq ft	$15.00	$19,650.00	$27.25	$35,697.50	$27.64	$36,208.40		$0.00	$0.00	$0.00
10	02831004*	Retainning Wall RxxxD - Materials	1200	sq ft	$15.00	$18,000.00	$27.25	$32,700.00	$28.06	$33,672.00		$0.00	$0.00	$0.00
11	02831005*	Retainning Wall RxxxE - Materials	1260	sq ft	$15.00	$18,900.00	$27.25	$34,335.00	$27.82	$35,053.20		$0.00	$0.00	$0.00
12	02892003D	Traffic Signal System (1050 West) - Materials	1	Lump	$40,000.00	$40,000.00	$51,700.00	$51,700.00	$59,578.00	$59,578.00		$0.00	$0.00	$0.00
13	02892004D	Traffic Signal System (900 West) - Materials	1	Lump	$40,000.00	$40,000.00	$44,800.00	$44,800.00	$59,249.00	$59,249.00		$0.00	$0.00	$0.00
14	02892005D	Traffic Signal System (700 West) - Materials	1	Lump	$40,000.00	$40,000.00	$46,700.00	$46,700.00	$59,329.00	$59,329.00		$0.00	$0.00	$0.00
15	13594001*	Fiber Optic Communication System - Mini Hub	1	Lump	$22,000.00	$22,000.00	$23,900.00	$23,900.00	$26,254.00	$26,254.00		$0.00	$0.00	$0.00
15						$1,320,312.86	Sum	$2,635,933.75		$2,549,341.30				
							Sum of matched items			$1,575,941.70			$2,161,507.35	
							Number of matched items		2					
							Percent of matched items		13.3%					
							Percent of Price Matched		61.5%					
							Ratio of Silver Standard		0.73					
							Ratio of Gold Standard		0.79					

	Project No: SP-0026(4)0-B Project Name: SR-26;RIVERDALE ROAD, I-15 TO WASHINGTON BLVD. Desc of Construction: ROADWAY RECONSTRUCTION, 2ND EARLY PHASE CONTRACT Estimate Completion date on or before 09/01/2008 County: WEBER (57)	Engineer's Estimate	INDEPENDENT COST ESTIMATE (STANTON) 3261 W 5720 S TAYLORSVILLE,UT 84118	GRANITE CONSTRUCTION COMPANY 1000 N. WARM SPRINGS RD. SALT LAKE CITY,UT 84116	State average Costs 04-27-2008 through 04-26-2009	Gold Standard (Goal from proposal - 0.921 based on the state wide pricing averages)

num	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	12850010	Mobilization	1	Lump	$983,695.00	$983,695.00	$1,025,000.00	$1,025,000.00	$1,309,274.20	$1,309,274.20		$-	$-	$-
2	13150010	Public Information Services	1	Lump	$25,000.00	$25,000.00	$19,400.00	$19,400.00	$1.00	$1.00		$-	$-	$-
3	15540005	Traffic Control	1	Lump	$1,229,619.00	$1,229,619.00	$1,328,500.00	$1,328,500.00	$1,253,000.00	$1,253,000.00		$-	$-	$-
4	01571001*	Temporary Environmental Controls	1	Lump	$50,000.00	$50,000.00	$75,600.00	$75,600.00	$76,200.00	$76,200.00		$-	$-	$-
5	15710155	Environmental Control Supervisor	1	Lump	$30,000.00	$30,000.00	$17,900.00	$17,900.00	$25,272.00	$25,272.00		$-	$-	$-
6	17210010	Survey	1	Lump	$150,000.00	$150,000.00	$116,000.00	$116,000.00	$124,000.00	$124,000.00		$-	$-	$-
7	18920050	Reconstruct Manhole	2	Each	$3,000.00	$6,000.00	$840.00	$1,680.00	$2,400.00	$4,800.00	$1,201.36	$2,402.72	$1,106.45	$2,212.91
8	20560070	Embankment for Bridge	5350	Ton	$24.50	$131,075.00	$30.00	$160,500.00	$23.20	$124,120.00	$21.00	$112,350.00	$19.34	$103,474.35
9	02221002*	Remove Drainage Structure	32	Each	$1,000.00	$32,000.00	$825.00	$26,400.00	$850.00	$27,200.00		$-	$-	$-
10	02221003*	Remove Manhole (Sewer)	5	Each	$1,000.00	$5,000.00	$2,441.00	$12,205.00	$904.00	$4,520.00		$-	$-	$-
11	22210075	Remove Guardrail	765	ft	$5.00	$3,825.00	$18.00	$13,770.00	$3.60	$2,754.00	$2.69	$2,057.85	$2.48	$1,895.28
12	22210095	Remove Pipe Culvert	11785	ft	$27.00	$318,195.00	$21.00	$247,485.00	$26.00	$306,410.00	$17.89	$210,833.65	$16.48	$194,177.79
13	22210140	Remove Raised Island	272	sq yd	$100.00	$27,200.00	$105.00	$28,560.00	$87.00	$23,664.00	$10.21	$2,777.12	$9.40	$2,557.73
14	02221072*	Remove Concrete Ditch	375	ft	$14.00	$5,250.00	$13.00	$4,875.00	$14.00	$5,250.00		$-	$-	$-
15	02221080*	Remove Junction Box	3	Each	$1,500.00	$4,500.00	$600.00	$1,800.00	$500.00	$1,500.00		$-	$-	$-
16	02221082*	Remove Fire Hydrant	7	Each	$1,500.00	$10,500.00	$1,800.00	$12,600.00	$1,100.00	$7,700.00		$-	$-	$-
17	02221083*	Remove Water Valve	8	Each	$1,200.00	$9,600.00	$1,200.00	$9,600.00	$1,100.00	$8,800.00		$-	$-	$-
18	02221086*	Remove Light Pole	1	Each	$1,500.00	$1,500.00	$720.00	$720.00	$1,100.00	$1,100.00		$-	$-	$-
19	02221090*	Remove and Salvage Signal Pole	1	Each	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00		$-	$-	$-
20	02221091*	Remove and Salvage Mini-Hub Communication	1	Each	$5,000.00	$5,000.00	$6,000.00	$6,000.00	$2,700.00	$2,700.00		$-	$-	$-
21	02221092*	Remove and Salvage Signal Controller	1	Each	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00		$-	$-	$-
22	22310010	Clearing and Grubbing	1	Lump	$50,000.00	$50,000.00	$81,400.00	$81,400.00	$50,000.00	$50,000.00	$24,063.73	$24,063.73	$22,162.70	$22,162.70
23	02316002*	Pond Excavation (Plan Quantity)	37084	cu yd	$13.00	$482,092.00	$14.70	$545,134.80	$14.25	$528,447.00		$-	$-	$-
24	23160020	Roadway Excavation (Plan Quantity)	37212	cu yd	$18.00	$669,816.00	$19.90	$740,518.80	$16.00	$595,392.00	$8.14	$302,905.68	$7.50	$278,976.13
25	23730010	Loose Riprap	100	cu yd	$150.00	$15,000.00	$90.00	$9,000.00	$171.00	$17,100.00	$19.56	$1,956.00	$18.01	$1,801.48

num	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
26	02413001*	Waterline Loop Installation	2	Each	$10,000.00	$20,000.00	$8,400.00	$16,800.00	$7,600.00	$15,200.00		$-	$-	$-
27	02511001*	Relocate Water Meter	88	ft	$105.00	$9,240.00	$108.00	$9,504.00	$73.00	$6,424.00		$-	$-	$-
28	02511008*	Reconnect Water Lateral	124	ft	$105.00	$13,020.00	$76.34	$9,466.16	$93.00	$11,532.00		$-	$-	$-
29	02543001*	Reconstruct Sewer Cleanout	5	Each	$1,500.00	$7,500.00	$960.00	$4,800.00	$900.00	$4,500.00		$-	$-	$-
30	26101466	18 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	165	ft	$103.00	$16,995.00	$126.00	$20,790.00	$109.00	$17,985.00	$51.50	$8,497.50	$47.43	$7,826.20
31	26101468	24 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	780	ft	$115.00	$89,700.00	$120.00	$93,600.00	$117.00	$91,260.00	$52.72	$41,121.60	$48.56	$37,872.99
32	02610147*	36 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B (Install Only)	1685	ft	$118.00	$198,830.00	$113.00	$190,405.00	$118.00	$198,830.00		$-	$-	$-
33	26101470	30 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	1405	ft	$120.00	$168,600.00	$149.00	$209,345.00	$147.00	$206,535.00		$-	$-	$-
34	02610148*	42 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B (Install Only)	1520	ft	$144.50	$219,640.00	$169.00	$256,880.00	$121.00	$183,920.00		$-	$-	$-
35	02610151*	12 Inch - HPDE, Irrigation/Storm Drain, Class C	160	ft	$95.50	$15,280.00	$107.00	$17,120.00	$107.00	$17,120.00		$-	$-	$-
36	26101510	18 Inch - HDPE, Irrigation/Storm Drain, Class C	1470	ft	$103.00	$151,410.00	$125.00	$183,750.00	$118.00	$173,460.00	$81.87	$120,348.90	$75.40	$110,841.34
37	26101512	24 Inch - HDPE, Irrigation/Storm Drain, Class C	550	ft	$112.00	$61,600.00	$145.00	$79,750.00	$147.00	$80,850.00	$30.00	$16,500.00	$27.63	$15,196.50
38	26130020	Culvert End Section 12 inch	2	Each	$500.00	$1,000.00	$540.00	$1,080.00	$480.00	$960.00	$435.85	$871.70	$401.42	$802.84
39	26130030	Culvert End Section 18 inch	6	Each	$835.00	$5,010.00	$720.00	$4,320.00	$480.00	$2,880.00	$349.03	$2,094.18	$321.46	$1,928.74
40	26130040	Culvert End Section 24 inch	4	Each	$835.00	$3,340.00	$810.00	$3,240.00	$600.00	$2,400.00	$462.41	$1,849.64	$425.88	$1,703.52
41	26130050	Culvert End Section 30 inch	2	Each	$1,250.00	$2,500.00	$1,380.00	$2,760.00	$1,020.00	$2,040.00	$490.07	$980.14	$451.35	$902.71
42	02622001D	Underdrain, 6 inch - HDPE Perforated	2020	ft	$60.00	$121,200.00	$64.00	$129,280.00	$43.50	$87,870.00		$-	$-	$-
43	26330010	Concrete Drainage Structure	28	cu yd	$1,350.00	$37,800.00	$3,722.00	$104,216.00	$3,000.00	$84,000.00	$749.44	$20,984.32	$690.23	$19,326.56
44	26330020	Concrete Drainage Structure Reinforcing Steel	2733	lb	$2.15	$5,875.95	$2.16	$5,903.28	$2.40	$6,559.20	$2.15	$5,875.95	$1.98	$5,411.75
45	02633021P	Small Structure Type A	25	Each	$6,000.00	$150,000.00	$3,287.86	$82,196.50	$4,120.00	$103,000.00		$-	$-	$-
46	02633022P	Small Structure Type B	12	Each	$8,000.00	$96,000.00	$6,472.14	$77,665.68	$7,660.00	$91,920.00		$-	$-	$-
47	02633026P	Small Structure Type B (Install Only)	14	Each	$2,500.00	$35,000.00	$1,051.00	$14,714.00	$4,260.00	$59,640.00		$-	$-	$-
48	02891027P	Remove Small Sign	18	Each	$200.00	$3,600.00	$180.00	$3,240.00	$120.00	$2,160.00		$-	$-	$-
49	02891028P	Remove Large Sign	3	Each	$350.00	$1,050.00	$1,080.00	$3,240.00	$1,020.00	$3,060.00		$-	$-	$-
50	29110015	Wood Fiber Mulch	620	1000 sqft	$45.00	$27,900.00	$48.00	$29,760.00	$36.00	$22,320.00	$41.87	$25,959.40	$38.56	$23,908.61
51	29120050	Strip, Stockpile, and Spread Topsoil	69007	sq yd	$6.00	$414,042.00	$3.96	$273,267.72	$4.00	$276,028.00	$1.10	$75,907.70	$1.01	$69,910.99

num	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
		(Plan Quantity)												
52	29220040	Broadcast Seed	620	1000 sqft	$80.00	$49,600.00	$42.00	$26,040.00	$36.00	$22,320.00	$25.78	$15,983.60	$23.74	$14,720.90
53	24550010	Pile Driving Equipment	1	Lump	$20,000.00	$20,000.00	$75,000.00	$75,000.00	$12,000.00	$12,000.00	$25,725.00	$25,725.00	$23,692.73	$23,692.73
54	02455004D	Driven Piles HP 14 X 102	5048	ft	$24.00	$121,152.00	$16.00	$80,768.00	$30.00	$151,440.00		$-	$-	$-
55	32110015	Reinforcing Steel - Coated	250320	lb	$1.25	$312,900.00	$1.25	$312,900.00	$1.25	$312,900.00	$1.24	$310,396.80	$1.14	$285,875.45
56	03310001D	Structural Concrete(Est. Lump Qty: 1205 cu yd)	1205	cu yd	$1,931,152.00	$1,931,152.00	$1,989,100.00	$1,989,100.00	$1,666.46	$2,008,090.00	$1,029.56	$1,240,619.80	$948.22	$1,142,610.84
57	02831001*	Retaining Wall RxxxA	3635	sq ft	$88.00	$319,880.00	$82.72	$300,687.20	$85.00	$308,975.00		$-	$-	$-
58	02831002*	Retaining Wall RxxxB	1045	sq ft	$120.00	$125,400.00	$101.59	$106,161.55	$117.00	$122,265.00		$-	$-	$-
59	02831003*	Retaining Wall RxxxC	1310	sq ft	$120.00	$157,200.00	$92.17	$120,742.70	$107.00	$140,170.00		$-	$-	$-
60	02831004*	Retaining Wall RxxxD	1200	sq ft	$120.00	$144,000.00	$121.35	$145,620.00	$141.00	$169,200.00		$-	$-	$-
61	02831005*	Retaining Wall RxxxE	1260	sq ft	$120.00	$151,200.00	$109.79	$138,335.40	$117.00	$147,420.00		$-	$-	$-
62	02892003D	Traffic Signal System (1050 West)	1	Lump	$72,552.00	$72,552.00	$98,400.00	$98,400.00	$82,750.00	$82,750.00		$-	$-	$-
63	02892004D	Traffic Signal System (900 West)	1	Lump	$87,436.00	$87,436.00	$98,400.00	$98,400.00	$108,000.00	$108,000.00		$-	$-	$-
64	02892005D	Traffic Signal System (700 West)	1	Lump	$89,601.00	$89,601.00	$164,400.00	$164,400.00	$90,000.00	$90,000.00		$-	$-	$-
65	02892006P	Traffic Signal Power Service	1	Lump	$25,650.00	$25,650.00	$48,000.00	$48,000.00	$30,247.00	$30,247.00		$-	$-	$-
66	13594010P	Temporary Wireles Communications	1	Lump	$28,000.00	$28,000.00	$12,000.00	$12,000.00	$41,804.00	$41,804.00		$-	$-	$-
67	13594020P	Fiber Optic Communication System - Mini-Hub	1	Lump	$109,501.00	$109,501.00	$114,544.61	$114,544.61	$144,734.00	$144,734.00		$-	$-	$-
68	13594030P	Hub Building Power Service	1	Lump	$21,350.00	$21,350.00	$6,000.00	$6,000.00	$15,319.00	$15,319.00		$-	$-	$-
69	23760010	Erosion Control Blanket	6225	sq yd	$5.00	$31,125.00	$1.70	$10,582.50	$2.00	$12,450.00	$2.03	$12,636.75	$1.87	$11,638.45
70	02533002*	10 inch PVC Pipe SDR-35	1165	ft	$105.00	$122,325.00	$160.87	$187,413.55	$175.00	$203,875.00		$-	$-	$-
71	02533003*	Sewer Lateral Connection	110	ft	$105.00	$11,550.00	$142.31	$15,654.10	$108.00	$11,880.00		$-	$-	$-
72	02533004*	4 foot Dia. Sewer Manhole	5	Each	$5,000.00	$25,000.00	$4,913.13	$24,565.65	$6,860.00	$34,300.00		$-	$-	$-
73	02411008*	8 inch PVC Pipe C900 Class 200	15	ft	$100.00	$1,500.00	$328.56	$4,928.40	$144.00	$2,160.00		$-	$-	$-
74	02411009*	10 inch PVC Pipe C900 Class 200	1700	ft	$105.00	$178,500.00	$115.41	$196,197.00	$107.00	$181,900.00		$-	$-	$-
75	02411010*	12 inch Ductile Iron Pipe Class 51	985	ft	$120.00	$118,200.00	$155.40	$153,069.00	$141.00	$138,885.00		$-	$-	$-
76	02411011*	Fire Hydrant	7	Each	$5,000.00	$35,000.00	$6,433.39	$45,033.73	$4,775.00	$33,425.00		$-	$-	$-
76						$10,410,775.95	Sum	$10,786,287.33		$10,778,168.40				
							Sum of matched items			$4,252,742.20				
							Number of matched items				25	$2,585,699.73		$2,381,429.45
							Percent of matched items				32.9%			
							Percent of Price Matched				39.5%			
							Ratio of Silver Standard				1.64			

num	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
							Ratio of Gold Standard				1.79			

Project No: SP-0026(4)0 Project Name: RIVERDALE RD., I-15 TO WASHINGTON BLVD Desc of Construction: BITUMINOUS PAVEMENT, RECONSTRUCTION & WIDENING Estimate Completion date on or before 05/15/2009 County: WEBER (57)Date Opened: 05/09/2008 County: 38 Pavement Surfacing Width: 94 ft Length of Project: 3.68 mi	Engineer's Estimate	INDEPENDENT COST ESTIMATE (STANTON) 3261 W 5720 S TAYLORSVILLE,UT 84118	GRANITE CONSTRUCTION COMPANY 1000 N. WARM SPRINGS RD. SALT LAKE CITY,UT 84116	State average Costs 04-27-2008 through 04-26-2009	Gold Standard (Goal from proposal - 0.921 based on the state wide pricing averages)

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	12850010	Mobilization	1	Lump	$3,053,000.00	$3,053,000.00	$4,122,681.15	$4,122,681.15	$3,565,766.66	$3,565,766.66		$-	$-	$-
2	13150010	Public Information Services	1	Lump	$50,000.00	$50,000.00	$70,000.00	$70,000.00	$42,000.00	$42,000.00		$-	$-	$-
3	01551001*	Law Enforcement Officer	320	Hour	$100.00	$32,000.00	$66.00	$21,120.00	$60.00	$19,200.00		$-	$-	$-
4	15540005	Traffic Control	1	Lump	$2,583,000.00	$2,583,000.00	$2,237,514.00	$2,237,514.00	$2,300,000.00	$2,300,000.00		$-	$-	$-
5	01554001*	Temporary Traffic Signal	2	Each	$20,000.00	$40,000.00	$22,320.00	$44,640.00	$22,000.00	$44,000.00		$-	$-	$-
6	01571001P	Temporary Environmental Control	1	Lump	$120,000.00	$120,000.00	$148,000.00	$148,000.00	$114,000.00	$114,000.00		$-	$-	$-
7	15710155	Environmental Control Supervisor	1	Lump	$75,712.00	$75,712.00	$59,256.00	$59,256.00	$64,500.00	$64,500.00		$-	$-	$-
8	01572002P	Dust Control and Watering	1	Lump	$200,000.00	$200,000.00	$264,285.00	$264,285.00	$183,000.00	$183,000.00		$-	$-	$-
9	17210010	Survey	1	Lump	$277,000.00	$277,000.00	$248,682.00	$248,682.00	$334,000.00	$334,000.00		$-	$-	$-
10	01727001*	Preconstruction Survey	1	Lump	$18,750.00	$18,750.00	$41,715.00	$41,715.00	$8,000.00	$8,000.00		$-	$-	$-
11	18920010	Reconstruct Catch Basin	2	Each	$2,195.00	$4,390.00	$1,858.00	$3,716.00	$2,640.00	$5,280.00	$1,179.16	$2,358.32	$1,086.01	$2,172.01
12	18920030	Reconstruct Meter Box	2	Each	$1,245.00	$2,490.00	$2,400.00	$4,800.00	$2,800.00	$5,600.00	$693.21	$1,386.42	$638.45	$1,276.89
13	18920040	Reconstruct Valve Box	14	Each	$1,195.00	$16,730.00	$386.00	$5,404.00	$1,100.00	$15,400.00	$495.11	$6,931.54	$456.00	$6,383.95
14	18920050	Reconstruct Manhole	40	Each	$2,400.00	$96,000.00	$720.00	$28,800.00	$1,250.00	$50,000.00	$1,201.36	$48,054.40	$1,106.45	$44,258.10
15	20560020	Granular Borrow	1508	Ton	$29.16	$43,973.28	$28.66	$43,219.28	$28.00	$42,224.00	$10.95	$16,512.60	$10.08	$15,208.10
16	20560070	Embankment for Bridge	4255	Ton	$23.20	$98,716.00	$27.85	$118,501.75	$21.00	$89,355.00	$21.00	$89,355.00	$19.34	$82,295.96
17	02075005*	Flexible Channel Liner	1800	ft	$5.00	$9,000.00	$4.00	$7,200.00	$14.00	$25,200.00		$-	$-	$-
18	02221002*	Remove Drainage Structure	18	Each	$850.00	$15,300.00	$1,050.00	$18,900.00	$1,000.00	$18,000.00		$-	$-	$-
19	02221003*	Remove Manhole (Sewer)	1	Each	$905.00	$905.00	$1,656.00	$1,656.00	$3,250.00	$3,250.00		$-	$-	$-
20	02221004*	Remove Manhole (ATMS)	2	Each	$905.00	$1,810.00	$1,315.00	$2,630.00	$3,130.00	$6,260.00		$-	$-	$-
21	22210050	Remove Tree	40	Each	$745.00	$29,800.00	$222.00	$8,880.00	$145.00	$5,800.00	$322.66	$12,906.40	$297.17	$11,886.79
22	22210075	Remove Guardrail	582	ft	$3.60	$2,095.20	$3.12	$1,815.84	$3.00	$1,746.00	$2.69	$1,565.58	$2.48	$1,441.90
23	22210080	Remove Fence	221	ft	$2.45	$541.45	$8.50	$1,878.50	$9.50	$2,099.50	$0.90	$198.90	$0.83	$183.19
24	02221009*	Remove Pipe Culvert (Storm Drain)	1520	ft	$26.00	$39,520.00	$29.70	$45,144.00	$24.00	$36,480.00		$-	$-	$-

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
25	02221010*	Remove Pipe Culvert (Water Line)	4425	ft	$26.00	$115,050.00	$31.24	$138,237.00	$19.40	$85,845.00		$-	$-	$-
26	02221011*	Remove Pipe Culvert (Sanitary Sewer)	300	ft	$26.00	$7,800.00	$55.00	$16,500.00	$28.00	$8,400.00		$-	$-	$-
27	22210110	Remove Concrete Sidewalk	2991	sq yd	$18.16	$54,316.56	$11.40	$34,097.40	$6.75	$20,189.25	$6.32	$18,903.12	$5.82	$17,409.77
28	22210115	Remove Concrete Driveway	2893	sq yd	$22.75	$65,815.75	$16.90	$48,891.70	$13.50	$39,055.50	$12.80	$37,030.40	$11.79	$34,105.00
29	22210120	Remove Concrete Curb	946	ft	$12.44	$11,768.24	$9.30	$8,797.80	$1.20	$1,135.20	$1.17	$1,106.82	$1.08	$1,019.38
30	22210125	Remove Concrete Curb and Gutter	9209	ft	$9.50	$87,485.50	$5.17	$47,610.53	$3.40	$31,310.60	$3.76	$34,625.84	$3.46	$31,890.40
31	02221013*	Remove Concrete Rolled Gutter	580	ft	$9.50	$5,510.00	$11.80	$6,844.00	$2.80	$1,624.00		$-	$-	$-
32	02221014*	Remove Concrete Flatwork	684	sq yd	$22.75	$15,561.00	$15.80	$10,807.20	$1.30	$889.20		$-	$-	$-
33	02221015*	Remove Wall	67	ft	$200.00	$13,400.00	$35.00	$2,345.00	$18.00	$1,206.00		$-	$-	$-
34	02221016*	Remove Sign Base and Flatwork	1	Each	$3,000.00	$3,000.00	$2,300.00	$2,300.00	$3,000.00	$3,000.00		$-	$-	$-
35	02221075*	Remove and Relocate Boulder	15	Each	$240.00	$3,600.00	$145.00	$2,175.00	$360.00	$5,400.00		$-	$-	$-
36	02221078*	Remove Bollard	11	Each	$200.00	$2,200.00	$200.00	$2,200.00	$170.00	$1,870.00		$-	$-	$-
37	02221082*	Remove Fire Hydrant	20	Each	$1,100.00	$22,000.00	$1,800.00	$36,000.00	$1,600.00	$32,000.00		$-	$-	$-
38	02221084*	Remove Gate Post	4	Each	$200.00	$800.00	$140.00	$560.00	$3,500.00	$14,000.00		$-	$-	$-
39	02221085*	Remove Water Meter	1	Each	$1,000.00	$1,000.00	$585.00	$585.00	$1,400.00	$1,400.00		$-	$-	$-
40	02221086*	Remove Light Pole	22	Each	$1,100.00	$24,200.00	$749.00	$16,478.00	$1,230.00	$27,060.00		$-	$-	$-
41	02221092*	Remove and Relocate Flagpole	1	Each	$2,500.00	$2,500.00	$3,000.00	$3,000.00	$2,800.00	$2,800.00		$-	$-	$-
42	02221093*	Remove Light Pole Base	1	Each	$1,500.00	$1,500.00	$1,800.00	$1,800.00	$460.00	$460.00		$-	$-	$-
43	02221094*	Remove ATMS Vault	5	Each	$3,000.00	$15,000.00	$2,070.00	$10,350.00	$3,200.00	$16,000.00		$-	$-	$-
44	02221095*	Remove Asphalt	1074	sq yd	$25.00	$26,850.00	$9.72	$10,439.28	$12.00	$12,888.00		$-	$-	$-
45	02221096*	Remove Asphalt Driveway	56	sq yd	$25.00	$1,400.00	$12.45	$697.20	$21.50	$1,204.00		$-	$-	$-
46	02221097*	Remove Concrete Barrier	157	ft	$20.00	$3,140.00	$8.50	$1,334.50	$17.00	$2,669.00		$-	$-	$-
47	02221098*	Remove and Salvage Signal Pole	4	Each	$2,000.00	$8,000.00	$1,040.00	$4,160.00	$1,650.00	$6,600.00		$-	$-	$-
48	02221099*	Remove and Relocate Private Light Pole	3	Each	$5,000.00	$15,000.00	$5,400.00	$16,200.00	$6,240.00	$18,720.00		$-	$-	$-
49	02221101*	Remove and Salvage Signal Controller	1	Each	$1,000.00	$1,000.00	$750.00	$750.00	$750.00	$750.00		$-	$-	$-
50	02221103*	Remove Mailbox	2	Each	$200.00	$400.00	$187.00	$374.00	$400.00	$800.00		$-	$-	$-
51	02223002*	Remove and Relocate Lighting System (Sta. 81+25 TO 88+33 Left)	1	Lump	$72,000.00	$72,000.00	$65,700.00	$65,700.00	$70,000.00	$70,000.00		$-	$-	$-
52	02223003*	Remove and Relocate Lighting System (Sta. 78+54 TO 79+62 Right)	1	Lump	$15,000.00	$15,000.00	$17,400.00	$17,400.00	$20,000.00	$20,000.00		$-	$-	$-
53	02223004*	Remove and Relocate Lighting System (Sta. 89+38 TO 95+98 Right)	1	Lump	$35,000.00	$35,000.00	$30,830.00	$30,830.00	$34,000.00	$34,000.00		$-	$-	$-
54	02223005*	Remove and Relocate Lighting System (Sta.100+03 TO 102+45 Right)	1	Lump	$35,000.00	$35,000.00	$24,060.00	$24,060.00	$27,000.00	$27,000.00		$-	$-	$-
55	22310010	Clearing and Grubbing	1	Lump	$50,000.00	$50,000.00	$45,327.00	$45,327.00	$46,000.00	$46,000.00	$24,063.73	$24,063.73	$22,162.70	$22,162.70

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
56	02243001*	Remove and Relocate Business Sign (Sta. 66+40 Left)	1	Lump	$10,000.00	$10,000.00	$12,000.00	$12,000.00	$18,000.00	$18,000.00		$-	$-	$-
57	02243002*	Remove and Relocate Business Sign (Sta. 80+09 Left)	1	Lump	$60,000.00	$60,000.00	$21,000.00	$21,000.00	$55,000.00	$55,000.00		$-	$-	$-
58	02243003*	Remove and Relocate Business Sign (Sta. 84+37 Left)	1	Lump	$60,000.00	$60,000.00	$21,000.00	$21,000.00	$38,000.00	$38,000.00		$-	$-	$-
59	02243004*	Remove and Relocate Business Sign (Sta. 85+62 Left)	1	Lump	$20,000.00	$20,000.00	$21,000.00	$21,000.00	$29,000.00	$29,000.00		$-	$-	$-
60	02243005*	Remove and Relocate Business Sign (Sta. 91+50 Left.)	1	Lump	$5,000.00	$5,000.00	$12,000.00	$12,000.00	$10,000.00	$10,000.00		$-	$-	$-
61	02243006*	Remove and Relocate Business Sign (Sta. 91+86 Left)	1	Lump	$5,000.00	$5,000.00	$12,000.00	$12,000.00	$10,000.00	$10,000.00		$-	$-	$-
62	23160020	Roadway Excavation (Plan Quantity)	45187	cu yd	$25.00	$1,129,675.00	$26.00	$1,174,862.00	$27.25	$1,231,345.75	$8.14	$367,822.18	$7.50	$338,764.23
63	23180020	Surface Ditch	1800	ft	$5.00	$9,000.00	$24.50	$44,100.00	$16.00	$28,800.00	$6.19	$11,142.00	$5.70	$10,261.78
64	23730010	Loose Riprap	52	cu yd	$171.00	$8,892.00	$120.00	$6,240.00	$240.00	$12,480.00	$19.56	$1,017.12	$18.01	$936.77
65	02379001*	Remove and Replace Unsuitable Trench Material	25	cu yd	$100.00	$2,500.00	$103.00	$2,575.00	$94.00	$2,350.00		$-	$-	$-
66	02379002*	Remove and Replace Unsuitable Subgrade Material	50	cu yd	$100.00	$5,000.00	$132.00	$6,600.00	$118.00	$5,900.00		$-	$-	$-
67	02511001*	Relocate Water Meter	15	Each	$1,195.00	$17,925.00	$4,430.00	$66,450.00	$4,400.00	$66,000.00		$-	$-	$-
68	02610145*	12 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	140	ft	$100.00	$14,000.00	$156.00	$21,840.00	$143.00	$20,020.00		$-	$-	$-
69	02610146*	15 inch - Concrete Pipe, Irrigation/Storm Drain, Class B	45	ft	$120.00	$5,400.00	$160.00	$7,200.00	$144.00	$6,480.00		$-	$-	$-
70	26101466	18 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	328	ft	$130.00	$42,640.00	$139.00	$45,592.00	$152.00	$49,856.00	$51.50	$16,892.00	$47.43	$15,557.53
71	26101472	36 Inch - Concrete Pipe, Irrigation/Storm Drain, Class B	27	ft	$150.00	$4,050.00	$310.00	$8,370.00	$241.00	$6,507.00	$241.00	$6,507.00	$221.96	$5,992.95
72	26101510	18 Inch - HDPE, Irrigation/Storm Drain, Class C	1653	ft	$118.00	$195,054.00	$150.00	$247,950.00	$146.00	$241,338.00	$81.87	$135,331.11	$75.40	$124,639.95
73	02615001*	Stormwater Treatment System 115+00 Lt	1	Each	$161,607.00	$161,607.00	$217,350.00	$217,350.00	$243,000.00	$243,000.00		$-	$-	$-
74	02621002*	6 inch PVC Schedule 80 Casing	746	ft	$30.00	$22,380.00	$42.70	$31,854.20	$65.00	$48,490.00		$-	$-	$-
75	02626001*	Repair Pipe	12	Each	$2,000.00	$24,000.00	$3,190.00	$38,280.00	$6,800.00	$81,600.00		$-	$-	$-
76	26330010	Concrete Drainage Structure	12	cu yd	$600.00	$7,200.00	$890.00	$10,680.00	$1,200.00	$14,400.00	$749.44	$8,993.28	$690.23	$8,282.81
77	26330020	Concrete Drainage Structure Reinforcing Steel	1404	lb	$2.50	$3,510.00	$1.62	$2,274.48	$1.80	$2,527.20	$2.15	$3,018.60	$1.98	$2,780.13
78	02633019*	Flap Gate 36 inch	2	Each	$1,500.00	$3,000.00	$5,920.00	$11,840.00	$8,200.00	$16,400.00		$-	$-	$-
79	02633021P	Small Structure Type A	6	Each	$4,120.00	$24,720.00	$3,261.00	$19,566.00	$4,500.00	$27,000.00		$-	$-	$-
80	02633022P	Small Structure Type B	36	Each	$7,660.00	$275,760.00	$5,435.00	$195,660.00	$7,300.00	$262,800.00		$-	$-	$-

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
81	26430010	Concrete-Lined Ditch	14	cu yd	$300.00	$4,200.00	$1,165.00	$16,310.00	$1,200.00	$16,800.00	$1,200.00	$16,800.00	$1,105.20	$15,472.80
82	27210010	Untreated Base Course	39650	Ton	$19.95	$791,017.50	$30.16	$1,195,844.00	$30.35	$1,203,377.50	$21.14	$838,201.00	$19.47	$771,983.12
83	02735001P	Micro-Surfacing	3556	sq yd	$3.30	$11,734.80	$6.60	$23,469.60	$4.25	$15,113.00	$4.05	$14,401.80	$3.73	$13,264.06
84	27410060	HMA - 3/4 inch	14050	Ton	$98.00	$1,376,900.00	$83.22	$1,169,241.00	$84.00	$1,180,200.00	$87.53	$1,229,796.50	$80.62	$1,132,642.58
85	02752001P	Portland Cement Concrete Pavement 8 inch Thick	7136	sq yd	$71.81	$512,436.16	$62.00	$442,432.00	$64.00	$456,704.00		$-	$-	$-
86	02752002P	Portland Cement Concrete Pavement 10 inch Thick	32321	sq yd	$74.00	$2,391,754.00	$74.76	$2,416,317.96	$77.00	$2,488,717.00		$-	$-	$-
87	27520030	Portland Cement Concrete Pavement 11 inch Thick	29977	sq yd	$77.00	$2,308,229.00	$80.94	$2,426,338.38	$83.00	$2,488,091.00	$83.00	$2,488,091.00	$76.44	$2,291,531.81
88	02764001*	Asphalt Driveway	19054	sq ft	$14.00	$266,756.00	$8.74	$166,531.96	$12.00	$228,648.00		$-	$-	$-
89	27650020	Pavement Message Paint	30	Each	$30.00	$900.00	$23.00	$690.00	$26.00	$780.00	$23.75	$712.50	$21.87	$656.21
90	27650030	Remove Pavement Markings	4212	ft	$1.28	$5,391.36	$1.07	$4,506.84	$0.65	$2,737.80	$0.70	$2,948.40	$0.64	$2,715.48
91	27650050	Pavement Marking Paint	118	gal	$25.41	$2,998.38	$28.60	$3,374.80	$26.00	$3,068.00	$24.45	$2,885.10	$22.52	$2,657.18
92	02765008P	4 inch Grooved-in Pavement Marking Paint - White with Black Contrast	24052	ft	$6.44	$154,894.88	$2.09	$50,268.68	$1.00	$24,052.00		$-	$-	$-
93	02765009P	4 inch Grooved-in Pavement Marking Paint - White	13345	ft	$5.23	$69,794.35	$2.09	$27,891.05	$0.75	$10,008.75		$-	$-	$-
94	02765011P	8 inch Grooved-in Pavement Marking Paint - White	6960	ft	$10.47	$72,871.20	$3.12	$21,715.20	$1.10	$7,656.00		$-	$-	$-
95	02768012P	4 inch Grooved-in Pavement Marking Paint - Yellow	13497	ft	$5.23	$70,589.31	$2.09	$28,208.73	$0.75	$10,122.75		$-	$-	$-
96	02768013P	Grooved-in Pavement Message Paint (Stop bars, Crosswalks - 12 inch)	5230	ft	$16.11	$84,255.30	$15.46	$80,855.80	$10.00	$52,300.00		$-	$-	$-
97	02768014P	Grooved-in Pavement Message Paint	95	Each	$400.00	$38,000.00	$185.40	$17,613.00	$170.00	$16,150.00		$-	$-	$-
98	27710015	Concrete Curb Type B4	997	ft	$30.79	$30,697.63	$16.40	$16,350.80	$51.00	$50,847.00	$22.92	$22,851.24	$21.11	$21,045.99
99	27710017	Concrete Curb Type B5	1224	ft	$30.79	$37,686.96	$12.90	$15,789.60	$30.00	$36,720.00	$18.84	$23,060.16	$17.35	$21,238.41
100	27710025	Concrete Curb and Gutter Type B1	9452	ft	$21.00	$198,492.00	$19.78	$186,960.56	$21.00	$198,492.00	$14.97	$141,496.44	$13.79	$130,318.22
101	27710045	Concrete Driveway Flared, 7 inch Thick	10502	sq ft	$12.45	$130,749.90	$7.93	$83,280.86	$8.40	$88,216.80	$7.35	$77,189.70	$6.77	$71,091.71
102	27710059	Pedestrian Access Ramp	42	Each	$4,475.00	$187,950.00	$2,258.00	$94,836.00	$1,800.00	$75,600.00	$1,347.14	$56,579.88	$1,240.72	$52,110.07
103	27710100	Plowable End Section	6	Each	$1,652.00	$9,912.00	$838.00	$5,028.00	$720.00	$4,320.00	$381.39	$2,288.34	$351.26	$2,107.56
104	02771010P	Concrete Curb Wall	54	ft	$41.10	$2,219.40	$42.00	$2,268.00	$51.00	$2,754.00		$-	$-	$-
105	27760010	Concrete Sidewalk	54269	sq ft	$5.00	$271,345.00	$4.25	$230,643.25	$5.00	$271,345.00	$3.94	$213,819.86	$3.63	$196,928.09
106	27760030	Concrete Flatwork 4 inch thick	392	sq ft	$10.00	$3,920.00	$7.77	$3,045.84	$8.00	$3,136.00	$3.95	$1,548.40	$3.64	$1,426.08
107	27760050	Concrete Flatwork 7 inch thick	1469	sq ft	$13.51	$19,846.19	$7.52	$11,046.88	$8.00	$11,752.00	$5.01	$7,359.69	$4.61	$6,778.27
108	27860010	Open Graded Surface Course	400	Ton	$65.00	$26,000.00	$77.50	$31,000.00	$170.00	$68,000.00	$73.09	$29,236.00	$67.32	$26,926.36

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
109	27860020	Asphalt Binder PG 64-34	24	Ton	$330.00	$7,920.00	$769.00	$18,456.00	$0.01	$0.24	$366.34	$8,792.16	$337.40	$8,097.58
110	27890010	Asphalt Slurry Seal Coat	1045	sq yd	$2.50	$2,612.50	$19.80	$20,691.00	$4.10	$4,284.50	$4.21	$4,399.45	$3.88	$4,051.89
111	28210008	6 ft Chain Link Fence, Type I	344	ft	$60.00	$20,640.00	$19.00	$6,536.00	$21.00	$7,224.00	$19.50	$6,708.00	$17.96	$6,178.07
112	02822003P	Temporary Fence	226	ft	$5.48	$1,238.48	$7.50	$1,695.00	$24.00	$5,424.00		$-	$-	$-
113	28420020	Delineator Type II	62	Each	$52.30	$3,242.60	$33.60	$2,083.20	$34.00	$2,108.00	$32.41	$2,009.42	$29.85	$1,850.68
114	28420030	Delineator - Culvert Marker	4	Each	$50.81	$203.24	$33.60	$134.40	$34.00	$136.00	$34.64	$138.56	$31.90	$127.61
115	28430010	Crash Cushion Type B	8	Each	$23,801.00	$190,408.00	$19,344.00	$154,752.00	$20,000.00	$160,000.00	$17,071.16	$136,569.28	$15,722.54	$125,780.31
116	02843005*	Remove Crash Cushion	1	Each	$6,500.00	$6,500.00	$1,216.00	$1,216.00	$1,800.00	$1,800.00		$-	$-	$-
117	28440010	Precast Concrete Full Barrier (New Jersey Shape)	2636	ft	$83.94	$221,265.84	$48.48	$127,793.28	$60.00	$158,160.00	$56.66	$149,355.76	$52.18	$137,556.65
118	02897001*	Weber County Monuments	5	Each	$500.00	$2,500.00	$844.00	$4,220.00	$600.00	$3,000.00		$-	$-	$-
119	03611001*	Concrete Bollard	7	Each	$300.00	$2,100.00	$857.00	$5,999.00	$1,000.00	$7,000.00		$-	$-	$-
120	05831001P	Expansion Joint Modification	1	Lump	$52,800.00	$52,800.00	$33,600.00	$33,600.00	$31,000.00	$31,000.00		$-	$-	$-
121	02223001*	Remove Bridges	1	Lump	$150,000.00	$150,000.00	$197,831.04	$197,831.04	$166,200.00	$166,200.00		$-	$-	$-
122	24550010	Pile Driving Equipment	1	Lump	$20,000.00	$20,000.00	$33,600.00	$33,600.00	$12,000.00	$12,000.00	$25,725.00	$25,725.00	$23,692.73	$23,692.73
123	02455004D	Driven Piles HP 14 X 102	4536	ft	$80.00	$362,880.00	$93.90	$425,930.40	$114.00	$517,104.00		$-	$-	$-
124	02821002*	5 ft Chain Link Fence - 1 inch Mesh, Coated Black Type I	384	ft	$24.00	$9,216.00	$34.32	$13,178.88	$37.00	$14,208.00		$-	$-	$-
125	02894001*	Overhead Signal Structure	1	Lump	$100,000.00	$100,000.00	$131,790.00	$131,790.00	$126,000.00	$126,000.00		$-	$-	$-
126	32110015	Reinforcing Steel - Coated	247717	lb	$1.25	$309,646.25	$1.32	$326,986.44	$1.40	$346,803.80	$1.24	$307,169.08	$1.14	$282,902.72
127	03310001D	Structural Concrete(Est. Lump Qty: 750 cu yd)	750	cu yd	$700,000.00	$700,000.00	$820,039.00	$820,039.00	$1,028.00	$771,000.00	$1,029.56	$772,170.00	$948.22	$711,168.57
128	03371001*	Structure Murals	1	Lump	$60,000.00	$60,000.00	$60,000.00	$60,000.00	$60,000.00	$60,000.00		$-	$-	$-
129	33720010	Thin Bonded Polymer Overlay, Type I	32810	sq ft	$5.75	$188,657.50	$6.30	$206,703.00	$6.50	$213,265.00	$6.28	$206,046.80	$5.78	$189,769.10
130	03485001*	Precast Deck Panels	26143	sq ft	$27.23	$711,873.89	$48.60	$1,270,549.80	$46.00	$1,202,578.00		$-	$-	$-
131	05120001D	Structural Steel	1	Lump	$170,000.00	$170,000.00	$314,383.82	$314,383.82	$360,000.00	$360,000.00		$-	$-	$-
132	165260010	Electrical Work Bridges	1	Lump	$10,000.00	$10,000.00	$18,000.00	$18,000.00	$18,000.00	$18,000.00	$11,341.67	$11,341.67	$10,445.68	$10,445.68
133	02831006*	Retaining Wall R-541	455	sq ft	$165.00	$75,075.00	$195.00	$88,725.00	$177.00	$80,535.00		$-	$-	$-
134	03154001*	Moment Slab and Barrier Wall R-536B	57	ft	$500.00	$28,500.00	$412.00	$23,484.00	$420.00	$23,940.00		$-	$-	$-
135	03154002*	Moment Slab and Barrier Wall R-536C	78	ft	$500.00	$39,000.00	$412.00	$32,136.00	$420.00	$32,760.00		$-	$-	$-
136	03154003*	Moment Slab and Barrier Wall R-536D	74	ft	$500.00	$37,000.00	$412.00	$30,488.00	$420.00	$31,080.00		$-	$-	$-
137	03154004*	Moment Slab and Barrier Wall R-536E	69	ft	$500.00	$34,500.00	$412.00	$28,428.00	$420.00	$28,980.00		$-	$-	$-
138	29110015	Wood Fiber Mulch	69	1000sqft	$36.00	$2,484.00	$120.00	$8,280.00	$120.00	$8,280.00	$41.87	$2,889.03	$38.56	$2,660.80
139	29120010	Contractor Furnished Topsoil	9348	sq yd	$12.01	$112,269.48	$6.94	$64,875.12	$8.00	$74,784.00	$4.05	$37,859.40	$3.73	$34,868.51
140	29220040	Broadcast Seed	69	1000sqft	$36.00	$2,484.00	$42.00	$2,898.00	$67.00	$4,623.00	$25.78	$1,778.82	$23.74	$1,638.29

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
141	29220060	Turf Sod	15000	sq ft	$0.90	$13,500.00	$0.72	$10,800.00	$0.85	$12,750.00	$0.74	$11,100.00	$0.68	$10,223.10
142	02922007*	Restore Landscaping	1	Lump	$213,100.00	$213,100.00	$308,818.00	$308,818.00	$306,000.00	$306,000.00		$-	$-	$-
143	28910030	Sign Type A-1, 21 inch X 15 inch	18	Each	$230.00	$4,140.00	$186.00	$3,348.00	$65.00	$1,170.00	$86.09	$1,549.62	$79.29	$1,427.20
144	28910037	Sign Type A-1, 24 Inch X 24 Inch	24	Each	$655.00	$15,720.00	$312.00	$7,488.00	$427.00	$10,248.00	$319.33	$7,663.92	$294.10	$7,058.47
145	28910040	Sign Type A-1, 24 inch X 12 inch	20	Each	$230.00	$4,600.00	$162.00	$3,240.00	$65.00	$1,300.00	$107.43	$2,148.60	$98.94	$1,978.86
146	28910050	Sign Type A-1, 24 inch X 30 inch	10	Each	$640.00	$6,400.00	$331.00	$3,310.00	$443.00	$4,430.00	$377.84	$3,778.40	$347.99	$3,479.91
147	28910055	Sign Type A-1, 30 inch X 24 inch	1	Each	$0.01	$0.01	$300.00	$300.00	$443.00	$443.00	$214.86	$214.86	$197.89	$197.89
148	02891006*	Sign Type A-1, 36 inch X 24 inch	1	Each	$0.01	$0.01	$264.00	$264.00	$530.00	$530.00		$-	$-	$-
149	28910065	Sign Type A-1, 36 inch X 36 inch	5	Each	$825.00	$4,125.00	$402.00	$2,010.00	$576.00	$2,880.00	$322.32	$1,611.60	$296.86	$1,484.28
150	02891007*	Sign Type A-2, 15 inch X 8 inch	1	Each	$300.00	$300.00	$162.00	$162.00	$394.00	$394.00		$-	$-	$-
151	02891008*	Sign Type A-2, 12 inch X 24 inch	2	Each	$300.00	$600.00	$211.00	$422.00	$402.00	$804.00		$-	$-	$-
152	28910085	Sign Type A-2, 21 inch X 15 inch	17	Each	$400.00	$6,800.00	$180.00	$3,060.00	$72.00	$1,224.00	$84.08	$1,429.36	$77.44	$1,316.44
153	28910095	Sign Type A-2, 24 inch X 12 inch	22	Each	$300.00	$6,600.00	$211.00	$4,642.00	$72.00	$1,584.00	$77.68	$1,708.96	$71.54	$1,573.95
154	28910103	Sign Type A-2, 24 inch x 24 inch	18	Each	$500.00	$9,000.00	$360.00	$6,480.00	$437.00	$7,866.00	$346.42	$6,235.56	$319.05	$5,742.95
155	28910115	Sign Type A-2, 30 inch X 30 inch	8	Each	$800.45	$6,403.60	$384.00	$3,072.00	$478.00	$3,824.00	$317.68	$2,541.44	$292.58	$2,340.67
156	02891012*	Sign Type A-2, 36 inch X 24 inch	2	Each	$750.00	$1,500.00	$396.00	$792.00	$545.00	$1,090.00		$-	$-	$-
157	28910120	Sign Type A-2, 36 inch X 36 inch	11	Each	$800.80	$8,808.80	$600.00	$6,600.00	$600.00	$6,600.00	$541.67	$5,958.37	$498.88	$5,487.66
158	02891019*	Guide Signs	180	sq ft	$50.00	$9,000.00	$96.00	$17,280.00	$80.00	$14,400.00		$-	$-	$-
159	02891027P	Remove Small Sign	44	Each	$120.00	$5,280.00	$300.00	$13,200.00	$180.00	$7,920.00		$-	$-	$-
160	02891028P	Remove Large Sign	1	Each	$1,020.00	$1,020.00	$1,440.00	$1,440.00	$780.00	$780.00		$-	$-	$-
161	02892002D	Traffic Signal System (I-84)	1	Lump	$200,500.00	$200,500.00	$233,623.00	$233,623.00	$274,000.00	$274,000.00		$-	$-	$-
162	16525001D	Highway Lighting System (Riverdale Road)	1	Lump	$394,100.00	$394,100.00	$379,590.00	$379,590.00	$434,000.00	$434,000.00		$-	$-	$-
163	135940010	Fiber Optic Communication System	1	Lump	$675,920.00	$675,920.00	$752,134.00	$752,134.00	$861,000.00	$861,000.00	$407,333.33	$407,333.33	$375,154.00	$375,154.00
164	13594002*	TMS Site	2	Each	$45,585.00	$91,170.00	$15,370.00	$30,740.00	$15,400.00	$30,800.00		$-	$-	$-
165	02411011*	Fire Hydrant - Type A	12	Each	$5,000.00	$60,000.00	$10,259.00	$123,108.00	$6,800.00	$81,600.00		$-	$-	$-
166	02411012*	Fire Hydrant - Type B	7	Each	$4,000.00	$28,000.00	$5,555.00	$38,885.00	$6,000.00	$42,000.00		$-	$-	$-
167	02411013*	Fire Hydrant - Type C	1	Each	$6,000.00	$6,000.00	$12,366.00	$12,366.00	$6,800.00	$6,800.00		$-	$-	$-
168	02413001*	Waterline Loop Installation	2	Each	$7,600.00	$15,200.00	$11,018.00	$22,036.00	$6,900.00	$13,800.00		$-	$-	$-
169	02610158*	6 inch Ductile Iron Pipe Class 51	56	ft	$150.00	$8,400.00	$216.00	$12,096.00	$284.00	$15,904.00		$-	$-	$-
170	02411002*	6 inch PVC C-900 Class 200	53	ft	$100.00	$5,300.00	$150.00	$7,950.00	$263.00	$13,939.00		$-	$-	$-
171	02411003*	8 inch PVC C-900 Class 200	3265	ft	$150.00	$489,750.00	$77.53	$253,135.45	$101.00	$329,765.00		$-	$-	$-
172	02411004*	10 inch PVC C-900 Class 200	76	ft	$160.00	$12,160.00	$216.00	$16,416.00	$303.00	$23,028.00		$-	$-	$-
173	02411011*	Fire Hydrant - Type A	1	Each	$5,000.00	$5,000.00	$10,259.00	$10,259.00	$6,700.00	$6,700.00		$-	$-	$-

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
174	02411015*	Waterline Lateral	3	Each	$5,000.00	$15,000.00	$6,873.00	$20,619.00	$3,600.00	$10,800.00		$-	$-	$-
175	02533001*	8 inch PVC Pipe SDR-35	300	ft	$150.00	$45,000.00	$111.35	$33,405.00	$208.00	$62,400.00		$-	$-	$-
176	02533004*	Sewer Lateral Connection	11	ft	$108.00	$1,188.00	$258.00	$2,838.00	$598.00	$6,578.00		$-	$-	$-
177	02533005*	4 Foot Diameter Sewer Manhole	1	Each	$6,860.00	$6,860.00	$5,500.00	$5,500.00	$7,000.00	$7,000.00		$-	$-	$-
178	02610159*	12 inch Ductile Iron Pipe Class 51	971	ft	$150.00	$145,650.00	$112.00	$108,752.00	$141.00	$136,911.00		$-	$-	$-
178						$24,880,996.50	Sum	$26,123,094.43	$26,273,979.00	$26,273,979.00				
							Sum of matched items			$10,357,032.64		$8,141,214.82		$7,498,058.85
							Number of matched items				68			
							Percent of matched items				38.2%			
							Percent of Price Matched				39.4%			
							Ratio of Silver Standard				1.27			
							Ratio of Gold Standard				1.38			

Project No: S-0026(10)2 Project Name: RIVERDALE ROAD; 550 WEST TO CHIMES VIEW DRIVE Desc of Construction: Roadway Reconstruction and Widening Estimate Completion date on or before 07/15/2010 County: WEBER (57)	Engineer's Estimate	GRANITE CONSTRUCTION COMPANY 1000 N. WARM SPRINGS RD. SALT LAKE CITY,UT 84116	INDEPENDENT COST ESTIMATE (STANTON) 3261 W 5720 S TAYLORSVILLE,UT 84118	State Average Price (4-27-2008 through 4-26-2009)	Gold Standard (goal based on proposal pricing - 0.921

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	12850010	Mobilization	1	Lump	$2,600,000.00	$2,600,000.00	$2,844,000.64	$2,844,000.64	$2,840,000.00	$2,840,000.00		$0.00	$0.00	$0.00
2	13150010	Public Information Services	1	Lump	$0.01	$0.01	$0.01	$0.01	$0.01	$0.01		$0.00	$0.00	$0.00
3	01551001*	Law Enforcement Officer	94	Hour	$60.00	$5,640.00	$60.00	$5,640.00	$54.00	$5,076.00		$0.00	$0.00	$0.00
4	15540005	Traffic Control	1	Lump	$3,300,000.00	$3,300,000.00	$2,400,000.00	$2,400,000.00	$2,867,000.00	$2,867,000.00		$0.00	$0.00	$0.00
5	01554001*	Temporary Wireless Traffic Signal Control	1	Lump	$20,000.00	$20,000.00	$15,600.00	$15,600.00	$15,600.00	$15,600.00		$0.00	$0.00	$0.00
6	01571001P	Temporary Environmental Control	1	Lump	$200,000.00	$200,000.00	$150,000.00	$150,000.00	$193,600.00	$193,600.00		$0.00	$0.00	$0.00
7	15710155	Environmental Control Supervisor	1	Lump	$55,000.00	$55,000.00	$35,000.00	$35,000.00	$28,500.00	$28,500.00		$0.00	$0.00	$0.00
8	01572002P	Dust Control and Watering	1	Lump	$300,000.00	$300,000.00	$190,000.00	$190,000.00	$310,500.00	$310,500.00		$0.00	$0.00	$0.00
9	01721001*	Preconstruction Survey	1	Lump	$21,000.00	$21,000.00	$73,000.00	$73,000.00	$48,400.00	$48,400.00		$0.00	$0.00	$0.00
10	17210010	Survey	1	Lump	$400,000.00	$400,000.00	$275,000.00	$275,000.00	$384,000.00	$384,000.00		$0.00	$0.00	$0.00
11	18910020	Move Mailbox	5	Each	$335.00	$1,675.00	$619.00	$3,095.00	$300.00	$1,500.00	$233.74	$1,168.70	$215.27	$1,076.37
12	18920010	Reconstruct Catch Basin	11	Each	$1,805.00	$19,855.00	$1,380.00	$15,180.00	$1,200.00	$13,200.00	$1,179.16	$12,970.76	$1,086.01	$11,946.07
13	01892003P	Reconstruct Water Valve	4	Each	$955.00	$3,820.00	$360.00	$1,440.00	$300.00	$1,200.00		$0.00	$0.00	$0.00
14	01892004P	Reconstruct Monitoring Well	3	Each	$1,000.00	$3,000.00	$660.00	$1,980.00	$420.00	$1,260.00		$0.00	$0.00	$0.00
15	18920050	Reconstruct Manhole	35	Each	$1,100.00	$38,500.00	$480.00	$16,800.00	$480.00	$16,800.00	$1,201.36	$42,047.60	$1,106.45	$38,725.84
16	20560010	Borrow	1400	Ton	$20.00	$28,000.00	$19.50	$27,300.00	$19.00	$26,600.00	$7.47	$10,458.00	$6.88	$9,631.82
17	20560020	Granular Borrow	1672	Ton	$25.00	$41,800.00	$29.00	$48,488.00	$27.00	$45,144.00	$10.95	$18,308.40	$10.08	$16,862.04
18	22210025	Remove Manhole	5	Each	$1,590.00	$7,950.00	$1,410.00	$7,050.00	$800.00	$4,000.00	$867.33	$4,336.65	$798.81	$3,994.05
19	02221003*	Remove Water Meter	7	Each	$300.00	$2,100.00	$250.00	$1,750.00	$300.00	$2,100.00		$0.00	$0.00	$0.00
20	22210050	Remove Tree	33	Each	$300.00	$9,900.00	$250.00	$8,250.00	$360.00	$11,880.00	$322.66	$10,647.78	$297.17	$9,806.61
21	22210080	Remove Fence	57	ft	$30.00	$1,710.00	$40.00	$2,280.00	$6.00	$342.00	$0.90	$51.30	$0.83	$47.25
22	02221009P	Remove/Abandon Pipe Culvert	3892	ft	$19.00	$73,948.00	$21.65	$84,261.80	$16.00	$62,272.00	$17.89	$69,627.88	$16.48	$64,127.28
23	22210110	Remove Concrete Sidewalk	4568	sq yd	$7.00	$31,976.00	$8.50	$38,828.00	$5.75	$26,266.00	$6.32	$28,869.76	$5.82	$26,589.05
24	22210115	Remove Concrete Driveway	647	sq yd	$11.25	$7,278.75	$15.00	$9,705.00	$10.90	$7,052.30	$12.80	$8,281.60	$11.79	$7,627.35
25	02221012*	Remove Concrete Flatwork	119	sq yd	$9.50	$1,130.50	$8.25	$981.75	$13.60	$1,618.40		$0.00	$0.00	$0.00
26	22210120	Remove Concrete Curb	234	ft	$7.00	$1,638.00	$2.50	$585.00	$4.65	$1,088.10	$1.17	$273.78	$1.08	$252.15

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
27	22210125	Remove Concrete Curb and Gutter	9374	ft	$6.00	$56,244.00	$5.00	$46,870.00	$4.45	$41,714.30	$3.76	$35,246.24	$3.46	$32,461.79
28	02221017*	Remove Asphalt Parking Lot	443	sq yd	$10.00	$4,430.00	$8.50	$3,765.50	$2.85	$1,262.55		$0.00	$0.00	$0.00
29	02221018*	Remove Bollard	1	Each	$140.00	$140.00	$200.00	$200.00	$150.00	$150.00		$0.00	$0.00	$0.00
30	02221030*	Remove Drainage Structure	50	Each	$850.00	$42,500.00	$900.00	$45,000.00	$650.00	$32,500.00		$0.00	$0.00	$0.00
31	02221097*	Remove and Salvage Signal Pole	17	Each	$1,425.00	$24,225.00	$1,050.00	$17,850.00	$1,065.00	$18,105.00		$0.00	$0.00	$0.00
32	02221102*	Remove and Salvage Signal Controller Cabinet	4	Each	$600.00	$2,400.00	$805.00	$3,220.00	$810.00	$3,240.00		$0.00	$0.00	$0.00
33	02221111*	Remove Fire Hydrant	15	Each	$500.00	$7,500.00	$560.00	$8,400.00	$1,185.00	$17,775.00		$0.00	$0.00	$0.00
34	02221119*	Remove Wall	270	ft	$18.00	$4,860.00	$8.50	$2,295.00	$12.60	$3,402.00		$0.00	$0.00	$0.00
35	02223001*	Remove and Relocate Private Light Pole	3	Each	$5,000.00	$15,000.00	$3,960.00	$11,880.00	$3,960.00	$11,880.00		$0.00	$0.00	$0.00
36	02223002*	Relocate Flag Pole	1	Each	$2,500.00	$2,500.00	$900.00	$900.00	$950.00	$950.00		$0.00	$0.00	$0.00
37	22310010	Clearing and Grubbing	1	Lump	$35,000.00	$35,000.00	$29,400.00	$29,400.00	$23,600.00	$23,600.00	$24,063.73	$24,063.73	$22,162.70	$22,162.70
38	23160020	Roadway Excavation (Plan Quantity)	22372	cu yd	$30.00	$671,160.00	$27.50	$615,230.00	$30.00	$671,160.00	$8.14	$182,108.08	$7.50	$167,721.54
39	02377001*	Trench Repair Type 1 (Existing Crossing)	2500	sq ft	$20.00	$50,000.00	$56.00	$140,000.00	$45.00	$112,500.00		$0.00	$0.00	$0.00
40	02377002*	Trench Repair Type 2 (New Crossing)	332	ft	$120.00	$39,840.00	$64.00	$21,248.00	$80.00	$26,560.00		$0.00	$0.00	$0.00
41	02379001*	Remove and Replace Unsuitable Trench Material	1487	Ton	$55.00	$81,785.00	$16.25	$24,163.75	$18.50	$27,509.50		$0.00	$0.00	$0.00
42	02379002*	Remove and Replace Unsuitable Subgrade Material	9326	cu yd	$75.00	$699,450.00	$72.00	$671,472.00	$67.50	$629,505.00		$0.00	$0.00	$0.00
43	02411006*	New Water Meter	8	Each	$2,000.00	$16,000.00	$2,475.00	$19,800.00	$2,400.00	$19,200.00		$0.00	$0.00	$0.00
44	02411111*	Fire Hydrant - Type A	15	Each	$5,000.00	$75,000.00	$5,650.00	$84,750.00	$5,435.00	$81,525.00		$0.00	$0.00	$0.00
45	02413001*	Waterline Loop	1	Each	$5,400.00	$5,400.00	$7,750.00	$7,750.00	$3,700.00	$3,700.00		$0.00	$0.00	$0.00
46	02511001*	Relocate Water Meter	17	Each	$1,500.00	$25,500.00	$3,175.00	$53,975.00	$2,400.00	$40,800.00		$0.00	$0.00	$0.00
47	02522006*	Relocate Fire Hydrant	1	Each	$2,840.00	$2,840.00	$4,700.00	$4,700.00	$1,800.00	$1,800.00		$0.00	$0.00	$0.00
48	26101230	18 Inch Culvert, Reinforced Concrete, Class B	608	ft	$65.00	$39,520.00	$115.00	$69,920.00	$105.00	$63,840.00	$45.91	$27,913.28	$42.28	$25,708.13
49	26101232	24 Inch Culvert, Reinforced Concrete, Class B	123	ft	$140.00	$17,220.00	$157.00	$19,311.00	$114.00	$14,022.00	$46.94	$5,773.62	$43.23	$5,317.50
50	26101236	36 Inch Culvert, Reinforced Concrete, Class B	94	ft	$160.00	$15,040.00	$210.00	$19,740.00	$144.00	$13,536.00	$58.94	$5,540.36	$54.28	$5,102.67
51	02610123P	12 Inch Culvert, Reinforced Concrete, Class B	181	ft	$110.00	$19,910.00	$105.00	$19,005.00	$104.00	$18,824.00		$0.00	$0.00	$0.00
52	02610124P	15 Inch Culvert, Reinforced Concrete, Class B	110	ft	$115.00	$12,650.00	$110.00	$12,100.00	$123.00	$13,530.00		$0.00	$0.00	$0.00
53	26101320	18 Inch Culvert, HDPE, Class C, smooth	3439	ft	$65.00	$223,535.00	$102.00	$350,778.00	$100.00	$343,900.00	$32.60	$112,111.40	$30.02	$103,254.60
54	26101322	24 Inch Culvert, HDPE, Class C, smooth	69	ft	$120.00	$8,280.00	$133.00	$9,177.00	$128.00	$8,832.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
55	26101326	36 Inch Culvert, HDPE, Class C, smooth	7	ft	$200.00	$1,400.00	$263.00	$1,841.00	$228.00	$1,596.00	$60.06	$420.42	$55.32	$387.21
56	02610132P	12 Inch Culvert, HDPE, Class C, smooth	119	ft	$100.00	$11,900.00	$99.00	$11,781.00	$105.00	$12,495.00		$0.00	$0.00	$0.00
57	02615001*	Stormwater Treatment System (Contech)	2	Each	$65,000.00	$130,000.00	$60,550.00	$121,100.00	$52,000.00	$104,000.00		$0.00	$0.00	$0.00
58	02615002*	Stormwater Treatment System (Stormceptor)	4	Each	$17,000.00	$68,000.00	$20,700.00	$82,800.00	$15,500.00	$62,000.00		$0.00	$0.00	$0.00
59	02626001*	Repair Pipe	9	Each	$5,000.00	$45,000.00	$4,760.00	$42,840.00	$5,470.00	$49,230.00		$0.00	$0.00	$0.00
60	02633001*	Diversion Structure	1	Each	$14,000.00	$14,000.00	$11,550.00	$11,550.00	$6,800.00	$6,800.00		$0.00	$0.00	$0.00
61	02633002*	Small Structure Type A	49	Each	$4,000.00	$196,000.00	$4,450.00	$218,050.00	$4,000.00	$196,000.00		$0.00	$0.00	$0.00
62	02633003*	Small Structure Type B	23	Each	$6,000.00	$138,000.00	$6,500.00	$149,500.00	$5,000.00	$115,000.00		$0.00	$0.00	$0.00
63	02641001*	Underground Detention (STA 139+50 RT)	1	Lump	$40,000.00	$40,000.00	$33,400.00	$33,400.00	$32,300.00	$32,300.00		$0.00	$0.00	$0.00
64	02641002*	Underground Detention (STA 153+00 LT)	1	Lump	$35,000.00	$35,000.00	$29,500.00	$29,500.00	$26,700.00	$26,700.00		$0.00	$0.00	$0.00
65	02641003*	Underground Detention (STA 167+50 RT)	1	Lump	$35,000.00	$35,000.00	$29,500.00	$29,500.00	$24,700.00	$24,700.00		$0.00	$0.00	$0.00
66	02721001P	Untreated Base Course 3/4 or 1 Inch Max	16775	Ton	$22.00	$369,050.00	$20.75	$348,081.25	$22.50	$377,437.50	$11.00	$184,525.00	$10.13	$169,947.53
67	27350010	Micro-Surfacing	4382	sq yd	$3.05	$13,365.10	$12.00	$52,584.00	$12.00	$52,584.00	$4.05	$17,747.10	$3.73	$16,345.08
68	02741003P	HMA Stabilization Course (Under PCCP)	11791	Ton	$95.00	$1,120,145.00	$92.50	$1,090,667.50	$90.00	$1,061,190.00		$0.00	$0.00	$0.00
69	27410060	HMA - 3/4 inch	1198	Ton	$110.00	$131,780.00	$125.00	$149,750.00	$107.00	$128,186.00	$87.53	$104,860.94	$80.62	$96,576.93
70	02741008*	Asphalt Driveway	35979	sq ft	$10.00	$359,790.00	$5.25	$188,889.75	$6.00	$215,874.00		$0.00	$0.00	$0.00
71	02752004P	Portland Cement Concrete Pavement - 10 Inch thick	31086	sq yd	$70.00	$2,176,020.00	$72.10	$2,241,300.60	$82.50	$2,564,595.00		$0.00	$0.00	$0.00
72	02752005P	Portland Cement Concrete Pavement - 8 Inch thick	24401	sq yd	$60.00	$1,464,060.00	$61.30	$1,495,781.30	$62.00	$1,512,862.00		$0.00	$0.00	$0.00
73	27650020	Pavement Message Paint	47	Each	$21.00	$987.00	$27.00	$1,269.00	$26.40	$1,240.80	$23.75	$1,116.25	$21.87	$1,028.07
74	27650030	Remove Pavement Markings	1300	ft	$0.50	$650.00	$0.75	$975.00	$1.20	$1,560.00	$0.70	$910.00	$0.64	$838.11
75	27650050	Pavement Marking Paint	60	gal	$20.00	$1,200.00	$28.00	$1,680.00	$31.20	$1,872.00	$24.45	$1,467.00	$22.52	$1,351.11
76	02765010*	4 Inch Grooved-in Pavement Marking Paint - White	7574	ft	$0.60	$4,544.40	$0.75	$5,680.50	$0.85	$6,437.90		$0.00	$0.00	$0.00
77	02765011*	4 Inch Grooved-in Pavement Marking Paint - White with Black Contrast	3763	ft	$0.80	$3,010.40	$1.15	$4,327.45	$0.85	$3,198.55		$0.00	$0.00	$0.00
78	02765012*	4 Inch Grooved-in Pavement Marking Paint - Yellow	10881	ft	$0.60	$6,528.60	$0.75	$8,160.75	$0.85	$9,248.85		$0.00	$0.00	$0.00
79	02765013*	8 Inch Grooved-in Pavement Marking Paint - White	4070	ft	$0.90	$3,663.00	$1.00	$4,070.00	$1.20	$4,884.00		$0.00	$0.00	$0.00
80	02765014*	Grooved-in Pavement Message Paint	4997	ft	$8.00	$39,976.00	$7.60	$37,977.20	$8.30	$41,475.10		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
		(Stop Bars, Crosswalks - 12 Inch)												
81	02765015*	Grooved-in Pavement Message Paint	78	Each	$140.00	$10,920.00	$174.00	$13,572.00	$190.00	$14,820.00		$0.00	$0.00	$0.00
82	27710015	Concrete Curb Type B4	931	ft	$40.00	$37,240.00	$51.00	$47,481.00	$54.00	$50,274.00	$22.92	$21,338.52	$21.11	$19,652.78
83	27710017	Concrete Curb Type B5	2457	ft	$24.00	$58,968.00	$28.00	$68,796.00	$14.40	$35,380.80	$18.84	$46,289.88	$17.35	$42,632.98
84	27710020	Concrete Curb Type M2	134	ft	$16.00	$2,144.00	$38.50	$5,159.00	$38.80	$5,199.20	$23.79	$3,187.86	$21.91	$2,936.02
85	27710025	Concrete Curb and Gutter Type B1	9661	ft	$22.00	$212,542.00	$22.50	$217,372.50	$21.50	$207,711.50	$14.97	$144,625.17	$13.79	$133,199.78
86	02771003P	Concrete Curb and Gutter Type P	431	ft	$20.00	$8,620.00	$24.75	$10,667.25	$22.25	$9,589.75		$0.00	$0.00	$0.00
87	27710045	Concrete Driveway Flared, 7 inch Thick	8391	sq ft	$8.00	$67,128.00	$9.00	$75,519.00	$8.80	$73,840.80	$7.35	$61,673.85	$6.77	$56,801.62
88	02771004P	Concrete Curb Wall	794	ft	$40.00	$31,760.00	$53.50	$42,479.00	$55.00	$43,670.00		$0.00	$0.00	$0.00
89	27710059	Pedestrian Access Ramp	37	Each	$1,800.00	$66,600.00	$2,155.00	$79,735.00	$2,200.00	$81,400.00	$1,347.14	$49,844.18	$1,240.72	$45,906.49
90	27710100	Plowable End Section	6	Each	$600.00	$3,600.00	$600.00	$3,600.00	$1,250.00	$7,500.00	$381.39	$2,288.34	$351.26	$2,107.56
91	27760010	Concrete Sidewalk	50729	sq ft	$5.50	$279,009.50	$6.00	$304,374.00	$5.50	$279,009.50	$3.94	$199,872.26	$3.63	$184,082.35
92	02776002*	Concrete Waterway	108	sq ft	$12.00	$1,296.00	$19.50	$2,106.00	$24.00	$2,592.00		$0.00	$0.00	$0.00
93	27760030	Concrete Flatwork 4 inch thick	310	sq ft	$7.00	$2,170.00	$6.75	$2,092.50	$9.60	$2,976.00	$3.95	$1,224.50	$3.64	$1,127.76
94	02776004*	Stamped Concrete Flatwork	3299	sq ft	$9.00	$29,691.00	$11.25	$37,113.75	$12.30	$40,577.70		$0.00	$0.00	$0.00
95	27760050	Concrete Flatwork 7 inch thick	3373	sq ft	$9.00	$30,357.00	$8.75	$29,513.75	$10.40	$35,079.20	$5.01	$16,898.73	$4.61	$15,563.73
96	27890010	Asphalt Slurry Seal Coat	15564	sq yd	$3.40	$52,917.60	$3.50	$54,474.00	$3.60	$56,030.40	$4.21	$65,524.44	$3.88	$60,348.01
97	02821002*	Modify Iron Fence	12	ft	$75.00	$900.00	$45.50	$546.00	$120.00	$1,440.00		$0.00	$0.00	$0.00
98	03611001*	Steel Bollard	7	Each	$1,000.00	$7,000.00	$660.00	$4,620.00	$360.00	$2,520.00		$0.00	$0.00	$0.00
99	05125001*	Handrail	710	ft	$25.00	$17,750.00	$83.00	$58,930.00	$65.00	$46,150.00		$0.00	$0.00	$0.00
100	20560025	Granular Backfill Borrow (Plan Quantity)	320	cu yd	$48.00	$15,360.00	$73.00	$23,360.00	$29.00	$9,280.00	$35.68	$11,417.60	$32.86	$10,515.61
101	02221002P	Remove/Abandon Box Culvert	1	Each	$60,000.00	$60,000.00	$128,250.00	$128,250.00	$43,700.00	$43,700.00		$0.00	$0.00	$0.00
102	26450010	Precast Concrete Box Culvert	1	Lump	$200,000.00	$200,000.00	$176,000.00	$176,000.00	$271,630.00	$271,630.00		$0.00	$0.00	$0.00
103	03211001P	Reinforcing Steel - Coated (Est Qty 4,000 ibs)	4000	lbs	$1.20	$4,800.00	$1.01	$4,032.00	$1.44	$5,760.00	$1.24	$4,960.00	$1.14	$4,568.16
104	03310001D	Structural Concrete(Est. Lump Qty: 18 cu yd)	18	cu yd	$1,500.00	$27,000.00	$2,175.00	$39,150.00	$1,572.22	$28,300.00	$1,029.56	$18,532.08	$948.22	$17,068.05
105	02831001*	Retaining Wall R-552A	1405	sq ft	$140.00	$196,700.00	$111.00	$155,955.00	$134.00	$188,270.00		$0.00	$0.00	$0.00
106	02831002*	Retaining Wall R-552B	1108	sq ft	$140.00	$155,120.00	$119.00	$131,852.00	$110.00	$121,880.00		$0.00	$0.00	$0.00
107	02831003*	Retaining Wall R-552C	619	sq ft	$140.00	$86,660.00	$124.00	$76,756.00	$115.00	$71,185.00		$0.00	$0.00	$0.00
108	02874001*	Restore Landscaping (STA 144+76 LT TO 150+15 LT, RIVERDALE CENTER II)	1	Lump	$7,000.00	$7,000.00	$15,169.00	$15,169.00	$7,740.00	$7,740.00		$0.00	$0.00	$0.00
109	02874002*	Restore Landscaping (300 WEST STA 10+60 LT TO 12+43 LT, JLM	1	Lump	$3,000.00	$3,000.00	$7,868.00	$7,868.00	$4,245.00	$4,245.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
		ASSOCIATES)												
110	02874003*	Restore Landscaping (300 WEST, STA 12+43 LT TO 14+39 LT, RIVERDALE CENTER II)	1	Lump	$7,000.00	$7,000.00	$11,525.00	$11,525.00	$9,000.00	$9,000.00		$0.00	$0.00	$0.00
111	02874004*	Restore Landscaping (STA 156+42 LT TO 157+63 LT, RIVERDALE CENTER II)	1	Lump	$3,000.00	$3,000.00	$3,797.00	$3,797.00	$3,435.00	$3,435.00		$0.00	$0.00	$0.00
112	02874005*	Restore Landscaping (STA 157+63 LT TO 161+38 LT, RC WILLEY)	1	Lump	$7,000.00	$7,000.00	$11,593.00	$11,593.00	$7,320.00	$7,320.00		$0.00	$0.00	$0.00
113	02874006*	Restore Landscaping (STA 161+38 LT TO 166+07 LT, RIVERDALE CENTER II)	1	Lump	$3,000.00	$3,000.00	$5,660.00	$5,660.00	$6,120.00	$6,120.00		$0.00	$0.00	$0.00
114	02874007*	Restore Landscaping (STA 172+26 LT TO 174+88 LT, KIRK A & LEIGH C DEAN)	1	Lump	$3,000.00	$3,000.00	$4,148.00	$4,148.00	$6,120.00	$6,120.00		$0.00	$0.00	$0.00
115	02874008*	Restore Landscaping (STA 175+46 LT TO 177+20 LT, TOM STANGER)	1	Lump	$3,000.00	$3,000.00	$188.00	$188.00	$1,665.00	$1,665.00		$0.00	$0.00	$0.00
116	02874009*	Restore Landscaping (STA 178+46 LT TO 181+01 LT, SUPERSONIC CARWASH)	1	Lump	$3,000.00	$3,000.00	$5,934.00	$5,934.00	$3,565.00	$3,565.00		$0.00	$0.00	$0.00
117	02874010*	Restore Landscaping (STA 143+17 RT TO 144+15 RT, KI JEONG LEE)	1	Lump	$3,000.00	$3,000.00	$786.00	$786.00	$2,040.00	$2,040.00		$0.00	$0.00	$0.00
118	02874011*	Restore Landscaping (STA 148+14 RT TO 149+85 RT, FARMERS INSURANCE)	1	Lump	$3,000.00	$3,000.00	$5,240.00	$5,240.00	$5,760.00	$5,760.00		$0.00	$0.00	$0.00
119	02874012*	Restore Landscaping (STA 151+47 RT TO 152+90 RT, DESTINY ENTERPRISE)	1	Lump	$3,000.00	$3,000.00	$2,895.00	$2,895.00	$2,560.00	$2,560.00		$0.00	$0.00	$0.00
120	02874013*	Restore Landscaping (STA 154+02 RT TO 155+60 RT, PREMOCO CORPORATION)	1	Lump	$7,000.00	$7,000.00	$6,321.00	$6,321.00	$3,600.00	$3,600.00		$0.00	$0.00	$0.00
121	02874014*	Restore Landscaping (STA 162+07 RT TO 163+17 RT, DAVID L & CYNTHIA F LONG)	1	Lump	$3,000.00	$3,000.00	$828.00	$828.00	$1,800.00	$1,800.00		$0.00	$0.00	$0.00
122	02874015*	Restore Landscaping (STA 166+40 RT TO 168+67 RT, RUFFKNIGHT LC)	1	Lump	$7,000.00	$7,000.00	$9,108.00	$9,108.00	$6,120.00	$6,120.00		$0.00	$0.00	$0.00
123	02874016*	Restore Landscaping (STA 171+09 RT TO 173+20 RT, ALLAN J WALLOCK TRUSTE)	1	Lump	$3,000.00	$3,000.00	$4,235.00	$4,235.00	$2,910.00	$2,910.00		$0.00	$0.00	$0.00
124	02874017*	Restore Landscaping (STA 176+31 RT TO 177+61 RT, VALLEY AUTO)	1	Lump	$3,000.00	$3,000.00	$2,488.00	$2,488.00	$2,635.00	$2,635.00		$0.00	$0.00	$0.00
125	02874018*	Restore Landscaping (STA 178+25 RT TO 179+93 RT, DIAMOND BAR VINYL)	1	Lump	$3,000.00	$3,000.00	$3,837.00	$3,837.00	$4,070.00	$4,070.00		$0.00	$0.00	$0.00
126	02874019*	Resotre Landscaping (STA 138+44 LT TO 143+51 LT, RIVERDALE CENTER IV INC)	1	Lump	$7,000.00	$7,000.00	$8,120.00	$8,120.00	$3,910.00	$3,910.00		$0.00	$0.00	$0.00
127	02874020*	Restore Landscaping (STA 143+51 LT	1	Lump	$3,000.00	$3,000.00	$2,233.00	$2,233.00	$1,950.00	$1,950.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
		TO 144+76 LT, MARTHA M CRAIG)												
128	02874021*	Restore Landscaping (STA 150+15 LT TO 151+42 LT, ROBERT SWANSON)	1	Lump	$7,000.00	$7,000.00	$10,227.00	$10,227.00	$5,810.00	$5,810.00		$0.00	$0.00	$0.00
129	02874022*	Restore Landscaping (STA153+94 LT TO 156+42 LT, DIAMOND INVESTMENT CO)	1	Lump	$3,000.00	$3,000.00	$3,030.00	$3,030.00	$2,210.00	$2,210.00		$0.00	$0.00	$0.00
130	02874023*	Restore Landscaping (STA 166+07 LT TO 166+95 LT, NEWGATE MALL LLC)	1	Lump	$7,000.00	$7,000.00	$14,546.00	$14,546.00	$6,100.00	$6,100.00		$0.00	$0.00	$0.00
131	02874024*	Restore Landscaping (STA 167+26 LT TO 171+19 LT, CROSSPOINT SHOPES LLC)	1	Lump	$7,000.00	$7,000.00	$9,155.00	$9,155.00	$4,250.00	$4,250.00		$0.00	$0.00	$0.00
132	02874025*	Restore Landscaping (STA 174+88 LT TO 175+46 LT, VACANT LOT)	1	Lump	$3,000.00	$3,000.00	$1,112.00	$1,112.00	$1,570.00	$1,570.00		$0.00	$0.00	$0.00
133	02874026*	Restore Landscaping (CHIMES VIEW DR, STA 10+45 LT TO 12+72 LT, MBS CONNECTING	1	Lump	$3,000.00	$3,000.00	$2,537.00	$2,537.00	$2,050.00	$2,050.00		$0.00	$0.00	$0.00
134	02874027*	Restore Landscaping (STA 133+81 RT TO 137+67 RT, JED P NAISBITT)	1	Lump	$3,000.00	$3,000.00	$723.00	$723.00	$1,450.00	$1,450.00		$0.00	$0.00	$0.00
135	02874028*	Restore Landscaping (STA 138+33 RT TO 139+82 RT, HALLE PROPERTIES LLC)	1	Lump	$7,000.00	$7,000.00	$12,760.00	$12,760.00	$5,455.00	$5,455.00		$0.00	$0.00	$0.00
136	02874029*	Restore Landscaping (STA 139+82 RT TO 142+07 RT, PEP BOYS OF CALIFORNIA)	1	Lump	$3,000.00	$3,000.00	$685.00	$685.00	$1,430.00	$1,430.00		$0.00	$0.00	$0.00
137	02874030*	Restore Landscaping (STA 144+15 RT TO 145+04 RT, LONG TONG HUANG 1/2 ETAL)	1	Lump	$3,000.00	$3,000.00	$1,385.00	$1,385.00	$2,100.00	$2,100.00		$0.00	$0.00	$0.00
138	02874031*	Restore Landscaping (STA 145+04 RT TO 145+70 RT, JOSEPHINE & LOUISE BRANZ)	1	Lump	$3,000.00	$3,000.00	$1,279.00	$1,279.00	$1,980.00	$1,980.00		$0.00	$0.00	$0.00
139	02874032*	Restore Landscaping (STA 145+70 RT TO 146+86 RT, BRANZ'S 50% ETAL)	1	Lump	$3,000.00	$3,000.00	$1,385.00	$1,385.00	$2,040.00	$2,040.00		$0.00	$0.00	$0.00
140	02874033*	Restore Landscaping (STA 146+86 RT TO 148+14 RT, BRANZ'S 50% ETAL)	1	Lump	$3,000.00	$3,000.00	$770.00	$770.00	$1,665.00	$1,665.00		$0.00	$0.00	$0.00
141	02874034*	Restore Landscaping (STA 149+85 RT TO 151+47 RT, JOHN PARAS FURNITURE)	1	Lump	$7,000.00	$7,000.00	$8,507.00	$8,507.00	$4,000.00	$4,000.00		$0.00	$0.00	$0.00
142	02874035*	Restore Landscaping (STA 155+60 RT TO 158+04 RT, ROMNEY LUMBER COMPANY)	1	Lump	$3,000.00	$3,000.00	$4,479.00	$4,479.00	$2,700.00	$2,700.00		$0.00	$0.00	$0.00
143	02874036*	Restore Landscaping (STA 158+04 RT TO 162+07 RT, SHOPKO SPE REAL ESTATE)	1	Lump	$7,000.00	$7,000.00	$7,620.00	$7,620.00	$3,750.00	$3,750.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
144	02874037*	Restore Landscaping (STA 163+17 RT TO 163+97 RT, ROMNEY LUMBER COMPANY)	1	Lump	$3,000.00	$3,000.00	$324.00	$324.00	$1,310.00	$1,310.00		$0.00	$0.00	$0.00
145	02874038*	Restore Landscaping (STA 164+63 RT TO 166+40 RT, VNO TRU RIVERDALE ROAD)	1	Lump	$3,000.00	$3,000.00	$1,765.00	$1,765.00	$1,790.00	$1,790.00		$0.00	$0.00	$0.00
146	02874039*	Restore Landscaping (STA 166+43 RT TO 170+43 RT, DIANE & DOUGLAS BLEDSOE)	1	Lump	$3,000.00	$3,000.00	$2,738.00	$2,738.00	$2,120.00	$2,120.00		$0.00	$0.00	$0.00
147	02874040*	Restore Landscaping (STA 173+20 RT TO 176+31 RT, NO NAME)	1	Lump	$3,000.00	$3,000.00	$1,163.00	$1,163.00	$1,910.00	$1,910.00		$0.00	$0.00	$0.00
148	02233001*	Remove and Relocate Business Sign (STA 138+58 60 RT, DISCOUND TIRE CO)(Est. Lump	1	Lump	$30,000.00	$30,000.00	$23,950.00	$23,950.00	$23,900.00	$23,900.00		$0.00	$0.00	$0.00
149	02233002*	Remove and Relocate Business Sign (STA 140+48 55 RT, PEP BOYS)	1	Lump	$40,000.00	$40,000.00	$36,992.00	$36,992.00	$36,900.00	$36,900.00		$0.00	$0.00	$0.00
150	02233003*	Remove and Relocate Business Sign (STA 142+14 54 RT, TRULY NOLEN)	1	Lump	$30,000.00	$30,000.00	$23,391.00	$23,391.00	$23,350.00	$23,350.00		$0.00	$0.00	$0.00
151	02233004*	Remove and Relocate Business Sign (STA 143+18 52 RT, BEST BURGER)	1	Lump	$20,000.00	$20,000.00	$19,431.00	$19,431.00	$20,000.00	$20,000.00		$0.00	$0.00	$0.00
152	02233005*	Remove and Relocate Business Sign (STA 148+44 57 RT, FARMERS INSURANCE)	1	Lump	$30,000.00	$30,000.00	$14,157.00	$14,157.00	$14,100.00	$14,100.00		$0.00	$0.00	$0.00
153	02233006*	Remove and Relocate Business Sign (STA 149+54 58 RT, FARMERS INSURANCE)	1	Lump	$30,000.00	$30,000.00	$13,114.00	$13,114.00	$13,000.00	$13,000.00		$0.00	$0.00	$0.00
154	02233007*	Remove and Relocate Business Sign (STA 150+86 53 RT, JOHN PARAS)	1	Lump	$30,000.00	$30,000.00	$23,753.00	$23,753.00	$23,700.00	$23,700.00		$0.00	$0.00	$0.00
155	02233009*	Remove and Relocate Business Sign (STA 151+98 56 RT, ENTRANCE)	1	Lump	$10,000.00	$10,000.00	$10,167.00	$10,167.00	$9,500.00	$9,500.00		$0.00	$0.00	$0.00
156	02233010*	Remove and Relocate Business Sign (STA 154+11 73 RT, TEXACO)	1	Lump	$20,000.00	$20,000.00	$19,553.00	$19,553.00	$19,500.00	$19,500.00		$0.00	$0.00	$0.00
157	02233011*	Remove and Relocate Business Sign (STA 155+57 49 RT, TEXACO)	1	Lump	$20,000.00	$20,000.00	$19,265.00	$19,265.00	$19,200.00	$19,200.00		$0.00	$0.00	$0.00
158	02233012*	Remove and Relocate Business Sign (STA 156+62 57 RT, PC LAPTOPS)	1	Lump	$30,000.00	$30,000.00	$20,849.00	$20,849.00	$20,800.00	$20,800.00		$0.00	$0.00	$0.00
159	02233013*	Remove and Relocate Business Sign (STA 158+72 53 RT, SHOPKO ENTRANCE SIGN)	1	Lump	$10,000.00	$10,000.00	$7,253.00	$7,253.00	$7,200.00	$7,200.00		$0.00	$0.00	$0.00
160	02233015*	Remove and Relocate Business Sign (STA 161+07 60 RT, SHOPKO)	1	Lump	$30,000.00	$30,000.00	$31,730.00	$31,730.00	$31,700.00	$31,700.00		$0.00	$0.00	$0.00
161	02233016*	Remove and Relocate Business Sign	1	Lump	$30,000.00	$30,000.00	$22,902.00	$22,902.00	$22,850.00	$22,850.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
		(STA 162+69 53 RT, NICKEL CADE)												
162	02233018*	Remove and Relocate Business Sign (STA 163+75 50 RT, HANCOCK FABRICS)	1	Lump	$30,000.00	$30,000.00	$20,352.00	$20,352.00	$20,300.00	$20,300.00		$0.00	$0.00	$0.00
163	02233019*	Remove and Relocate Business Sign (STA 164+29 64 RT, BABIES R US)	1	Lump	$20,000.00	$20,000.00	$15,836.00	$15,836.00	$15,200.00	$15,200.00		$0.00	$0.00	$0.00
164	02233020*	Remove and Relocate Business Sign (STA 164+94 64 RT, BABIES R US)	1	Lump	$40,000.00	$40,000.00	$41,022.00	$41,022.00	$41,000.00	$41,000.00		$0.00	$0.00	$0.00
165	02233021*	Remove and Relocate Business Sign (167+98 60 RT, MATTRESS OUTLET)	1	Lump	$30,000.00	$30,000.00	$22,585.00	$22,585.00	$22,000.00	$22,000.00		$0.00	$0.00	$0.00
166	02233022*	Remove and Relocate Business Sign (STA 169+01 53 RT, CAR TITLE LOANS)	1	Lump	$30,000.00	$30,000.00	$18,519.00	$18,519.00	$17,900.00	$17,900.00		$0.00	$0.00	$0.00
167	02233023*	Remove and Relocate Business Sign (STA 169+45 52 RT, ENTER)	1	Lump	$10,000.00	$10,000.00	$7,581.00	$7,581.00	$6,800.00	$6,800.00		$0.00	$0.00	$0.00
168	02233024*	Remove and Relocate Business Sign (STA 170+10 56 RT, THE TACO MAKER)	1	Lump	$20,000.00	$20,000.00	$14,859.00	$14,859.00	$14,200.00	$14,200.00		$0.00	$0.00	$0.00
169	02233025*	Remove and Relocate Business Sign (STA 172+75 53 LT, WARRENS SALAD BAR)	1	Lump	$10,000.00	$10,000.00	$9,795.00	$9,795.00	$3,150.00	$3,150.00		$0.00	$0.00	$0.00
170	02233030*	Remove and Relocate Business Sign (STA 181+78 52 RT, FARMERS INSURANCE)	1	Lump	$20,000.00	$20,000.00	$12,894.00	$12,894.00	$12,250.00	$12,250.00		$0.00	$0.00	$0.00
171	28910025	Sign Type A-1, 12 inch X 18 inch	40	Each	$140.00	$5,600.00	$280.00	$11,200.00	$180.00	$7,200.00	$175.00	$7,000.00	$161.18	$6,447.00
172	28910028	Sign Type A-1, 12 Inch X 36 Inch	1	Each	$160.00	$160.00	$302.00	$302.00	$240.00	$240.00	$387.00	$387.00	$356.43	$356.43
173	28910030	Sign Type A-1, 21 inch X 15 inch	9	Each	$180.00	$1,620.00	$302.00	$2,718.00	$300.00	$2,700.00	$86.09	$774.81	$79.29	$713.60
174	28910040	Sign Type A-1, 24 inch X 12 inch	11	Each	$200.00	$2,200.00	$288.00	$3,168.00	$300.00	$3,300.00	$107.43	$1,181.73	$98.94	$1,088.37
175	28910042	Sign Type A-1, 24 inch x 24 inch	11	Each	$342.00	$3,762.00	$316.00	$3,476.00	$325.00	$3,575.00	$188.98	$2,078.78	$174.05	$1,914.56
176	28910050	Sign Type A-1, 24 inch X 30 inch	7	Each	$355.00	$2,485.00	$332.00	$2,324.00	$345.00	$2,415.00	$377.84	$2,644.88	$347.99	$2,435.93
177	28910055	Sign Type A-1, 30 inch X 24 inch	2	Each	$355.00	$710.00	$332.00	$664.00	$275.00	$550.00	$214.86	$429.72	$197.89	$395.77
178	02891005P	Sign Type A-1, 30 inch X 18 inch	4	Each	$360.00	$1,440.00	$313.00	$1,252.00	$360.00	$1,440.00		$0.00	$0.00	$0.00
179	28910060	Sign Type A-1, 30 inch X 30 inch	2	Each	$360.00	$720.00	$350.00	$700.00	$400.00	$800.00	$478.18	$956.36	$440.40	$880.81
180	28910065	Sign Type A-1, 36 inch X 36 inch	6	Each	$460.00	$2,760.00	$391.00	$2,346.00	$400.00	$2,400.00	$322.32	$1,933.92	$296.86	$1,781.14
181	02891006P	Sign Type A-1, 36 inch X 12 inch	12	Each	$355.00	$4,260.00	$302.00	$3,624.00	$315.00	$3,780.00		$0.00	$0.00	$0.00
182	02891008P	Sign Type A-2, 12 inch X 24 inch	2	Each	$320.00	$640.00	$294.00	$588.00	$310.00	$620.00		$0.00	$0.00	$0.00
183	28910107	Sign Type A-2, 30 Inch x 8 Inch	2	Each	$360.00	$720.00	$346.00	$692.00	$355.00	$710.00		$0.00	$0.00	$0.00
184	28910115	Sign Type A-2, 30 inch X 30 inch	8	Each	$380.00	$3,040.00	$369.00	$2,952.00	$380.00	$3,040.00	$317.68	$2,541.44	$292.58	$2,340.67
185	28910120	Sign Type A-2, 36 inch X 36 inch	1	Each	$520.00	$520.00	$417.00	$417.00	$435.00	$435.00	$541.67	$541.67	$498.88	$498.88
186	02891020P	Sign Type PW-2, 51 inch X 30 inch	1	Each	$800.00	$800.00	$1,566.00	$1,566.00	$1,680.00	$1,680.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
187	02891027P	Remove Small Sign	72	Each	$150.00	$10,800.00	$180.00	$12,960.00	$120.00	$8,640.00		$0.00	$0.00	$0.00
188	02892001D	Traffic Signal System (Riverdale Road at 550 West)	1	Lump	$60,000.00	$60,000.00	$43,891.00	$43,891.00	$43,900.00	$43,900.00		$0.00	$0.00	$0.00
189	02892002D	Traffic Signal System (Riverdale Road at 300 West)	1	Lump	$125,000.00	$125,000.00	$139,455.00	$139,455.00	$139,000.00	$139,000.00		$0.00	$0.00	$0.00
190	02892003D	Traffic Signal System (Riverdale Road at Shopko - RC Willey)	1	Lump	$110,000.00	$110,000.00	$127,746.00	$127,746.00	$127,700.00	$127,700.00		$0.00	$0.00	$0.00
191	02892004D	Traffic Signal System (Riverdale Road at 40th St and Wall Ave)	1	Lump	$125,000.00	$125,000.00	$128,917.00	$128,917.00	$129,000.00	$129,000.00		$0.00	$0.00	$0.00
192	02892005D	Traffic Signal System (Riverdale Road at Chimes View Drive)	1	Lump	$110,000.00	$110,000.00	$115,437.00	$115,437.00	$115,500.00	$115,500.00		$0.00	$0.00	$0.00
193	16525001D	Highway Lighting System (Riverdale Road)(Est. Lump Qty: 1 Lump)	1	Lump	$100,000.00	$100,000.00	$92,097.00	$92,097.00	$92,000.00	$92,000.00		$0.00	$0.00	$0.00
194	135940010	Fiber Optic Communication System(Est. Lump Qty: 1 Lump)	1	Lump	$800,000.00	$800,000.00	$602,000.00	$602,000.00	$602,000.00	$602,000.00	$407,333.33	$407,333.33	$375,154.00	$375,154.00
195	02221040*	Remove Manhole (Sanitary Sewer)	19	Each	$1,000.00	$19,000.00	$1,500.00	$28,500.00	$1,300.00	$24,700.00		$0.00	$0.00	$0.00
196	02221050*	Remove/Abandon Pipe Culvert (Sanitary Sewer)	4647	ft	$15.00	$69,705.00	$8.25	$38,337.75	$13.50	$62,734.50		$0.00	$0.00	$0.00
197	02377003*	Trench Repair Type 2 (New Crossing)	89	ft	$120.00	$10,680.00	$64.00	$5,696.00	$145.00	$12,905.00		$0.00	$0.00	$0.00
198	02379003*	Unsuitable Trench Material	8131	Ton	$30.00	$243,930.00	$16.25	$132,128.75	$17.00	$138,227.00		$0.00	$0.00	$0.00
199	02533001*	8 inch PVC Pipe - SDR 35	4647	ft	$80.00	$371,760.00	$77.00	$357,819.00	$92.50	$429,847.50		$0.00	$0.00	$0.00
200	02533002*	4 Foot Diameter Sewer Manhole	19	Each	$5,000.00	$95,000.00	$6,850.00	$130,150.00	$3,500.00	$66,500.00		$0.00	$0.00	$0.00
201	02533003*	5 Foot Diameter Sewer Manhole	1	Each	$6,000.00	$6,000.00	$7,200.00	$7,200.00	$6,600.00	$6,600.00		$0.00	$0.00	$0.00
202	02533004*	Sewer Lateral Connection	23	Each	$1,000.00	$23,000.00	$2,000.00	$46,000.00	$2,500.00	$57,500.00		$0.00	$0.00	$0.00
203	02221009*	Abandon Pipe Culvert (Waterline)	5690	ft	$10.00	$56,900.00	$4.00	$22,760.00	$16.00	$91,040.00		$0.00	$0.00	$0.00
204	02377004*	Trench Repair Type 2 (New Crossing)	1211	ft	$120.00	$145,320.00	$64.00	$77,504.00	$80.00	$96,880.00		$0.00	$0.00	$0.00
205	02379004*	Unsuitable Trench Material (contingent)	4058	Ton	$30.00	$121,740.00	$16.25	$65,942.50	$17.00	$68,986.00		$0.00	$0.00	$0.00
206	02411001*	6 inch PVC C-900 Class 200	7	ft	$240.00	$1,680.00	$194.00	$1,358.00	$160.00	$1,120.00		$0.00	$0.00	$0.00
207	02411002*	8 inch PVC C-900 Class 200	2933	ft	$80.00	$234,640.00	$60.00	$175,980.00	$77.50	$227,307.50		$0.00	$0.00	$0.00
208	02411003*	10 inch PVC C-900 Class 200	2857	ft	$95.00	$271,415.00	$62.50	$178,562.50	$78.00	$222,846.00		$0.00	$0.00	$0.00
209	02411004*	Waterline Lateral	17	Each	$2,800.00	$47,600.00	$2,500.00	$42,500.00	$1,000.00	$17,000.00		$0.00	$0.00	$0.00
210	02411005*	Fire Hydrant - Type A	2	Each	$5,000.00	$10,000.00	$5,600.00	$11,200.00	$5,400.00	$10,800.00		$0.00	$0.00	$0.00
211	02221041*	Remove Manhole (Sanitary Sewer)	4	Each	$1,000.00	$4,000.00	$1,700.00	$6,800.00	$1,300.00	$5,200.00		$0.00	$0.00	$0.00
212	02221051*	Remove Pipe Culvert (Sanitary Sewer)	954	ft	$15.00	$14,310.00	$8.50	$8,109.00	$11.00	$10,494.00		$0.00	$0.00	$0.00
213	02379005*	Unsuitable Trench Material	1669	Ton	$30.00	$50,070.00	$16.25	$27,121.25	$17.00	$28,373.00		$0.00	$0.00	$0.00
214	02533011*	8 inch PVC Pipe - SDR 35	954	ft	$80.00	$76,320.00	$98.00	$93,492.00	$112.00	$106,848.00		$0.00	$0.00	$0.00

Line	item_num		qty	unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
215	02533033*	5 Foot Diameter Sewer Manhole	5	Each	$6,000.00	$30,000.00	$5,750.00	$28,750.00	$3,600.00	$18,000.00		$0.00	$0.00	$0.00
216	02533044*	Sewer Lateral Connection	8	Each	$4,000.00	$32,000.00	$2,000.00	$16,000.00	$2,400.00	$19,200.00		$0.00	$0.00	$0.00
217	02221010*	Abandon Pipe Culvert (Waterline)	1681	ft	$10.00	$16,810.00	$5.00	$8,405.00	$16.00	$26,896.00		$0.00	$0.00	$0.00
218	02377006*	Trench Repair Type 2	162	ft	$120.00	$19,440.00	$64.00	$10,368.00	$80.00	$12,960.00		$0.00	$0.00	$0.00
219	02379006*	Unsuitable Trench Material	1227	Ton	$30.00	$36,810.00	$16.25	$19,938.75	$17.00	$20,859.00		$0.00	$0.00	$0.00
220	02411011*	2 inch Ductile Iron Pipe - Class 51	28	ft	$120.00	$3,360.00	$125.00	$3,500.00	$150.00	$4,200.00		$0.00	$0.00	$0.00
221	02411022*	4 inch Ductile Iron Pipe - Class 51	7	ft	$200.00	$1,400.00	$400.00	$2,800.00	$185.00	$1,295.00		$0.00	$0.00	$0.00
222	02411033*	8 inch Ductile Iron Pipe - Class 51	581	ft	$100.00	$58,100.00	$87.00	$50,547.00	$136.00	$79,016.00		$0.00	$0.00	$0.00
223	02411044*	Waterline Lateral	8	Each	$2,800.00	$22,400.00	$2,900.00	$23,200.00	$1,000.00	$8,000.00		$0.00	$0.00	$0.00
224	02411055*	10 inch Ductile Iron Pipe - Class 51	1138	ft	$120.00	$136,560.00	$92.00	$104,696.00	$120.00	$136,560.00		$0.00	$0.00	$0.00
				Sum		$21,889,359.86		$20,399,648.00		$21,395,828.21				
				Sum that Matched				$3,556,177.80				$1,986,326.68		$1,829,406.87
				Items that matched			52							
				Percent of items that matched			23.2%							
				Percent of Cost that Matched			17.4%							
				Silver Standard		1.79	= 3556177.8 / 1986326.68							
				Gold Standard		1.94	= 20399648 / 1829406.87							