

SCOPE OF WORK
FOR
VALLEY REGIONAL
TRANSIT

DESIGN, BIDDING & CONSTRUCTION ENGINEERING

FOR

ADA COUNTY ELECTRIC BUS INFRASTRUCTURE

PHASE 1

FEBRUARY 11, 2020

Prepared By:
Paragon Consulting, Inc.
157 W. 4th Street
Kuna, Idaho 83634



Project Manager:
Joe Barton, P.E.
(208) 921-8486

Scope of Work

Date: February 11, 2020

Project Name: Ada County Electric Bus Infrastructure, Phase 1

Consultant Company Address:

PARAGON Consulting, Inc.
157 W. 4th Street
Kuna, ID 83634

Consultant Project Manager/Contact Information:

W. Joe Barton, P.E.
(208) 921-8486 (Cell)
jbarton@paragonfbk.com

Contract Amount: \$37,000.00 (T/M NTE)

Duration: March 2, 2020 thru September 30, 2020 (212 Calendar Days)

Project Description and Assumptions:

Valley Regional Transit (VRT) desires to construct infrastructure to support acquisition and integration of electric buses into their system. VRT is currently scheduled to acquire eight electric buses and charging systems by December, 2020 with an additional four buses scheduled for acquisition/delivery in 2021.

VRT intends to construct supporting infrastructure at their Orchard Facility in Boise, Idaho. These infrastructure improvements generally include the following:

1. Power service upgrades through Idaho Power to include installation of a new on-site power transformer and relocation of the Orchard Facility power meter. VRT has initiated communications with Idaho Power for their required work.
2. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to connect the new Idaho Power transformer to the existing site electrical systems and stub electrical conduits outside of the existing electrical and fueling island towards the area designated for the electric bus charging power control units.
3. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to extend the conduit stubs completed under item 2 and connect to the new electric bus charging power control units, near the north end of the existing bus parking area.
4. Concrete pad construction for mounting the electric bus charging power control units near the north end of the existing bus parking area.
5. Construct a pre-engineered shelter for the electric bus charging units near the north end of the existing bus parking area.

6. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to upgrade the existing bus block heater plugins and luminaire wiring along the northern ±200 feet of bus parking and as required for installation of the electric bus charging dispensers.
7. Concrete foundations for the installation of the electric bus charging dispensers.
8. Ground protection for electric bus charging dispensers and block heater plugins.

This scope of work covers Phase 1 of the project which includes items 1 and 2 from the above list. This phase will include design and bid document preparation, project bidding through the three-quote process and construction engineering and inspection.

An additional scope of work for Phase 2 will be developed to complete items 3 through 8 of the above list.

Major Project assumptions include the following:

- Construction of the electric bus infrastructure, including Phase 1 and Phase 2, is intended to be complete by September 30, 2020.
- All electric buses and electric bus charging system will be procured by VRT.
- VRT will provide available information pertaining to the site and the electric bus charging systems as required for design.
- VRT has completed all NEPA requirements.
- All work is within property controlled by VRT and no Right-of-Way or property acquisition or easements are necessary.
- No special permitting is required for the Project.
 - PARAGON will assist VRT and the project contractor with securing the necessary electrical and building permits.
- No topographic survey will be completed for the Project. VRT will provide a copy of the currently available survey information for the site.
- VRT will provide review of all design and contract documents.
- VRT may elect to complete some items of work identified in this scope of work with VRT resources.
- No public involvement is required.
- Construction contract time is limited to 14 calendar days for Phase 1 of the Project.
- Construction scheduling and sequencing will minimize shutdown of electrical power to the existing facilities with the goal of achieving a maximum shutdown period of 24 hours.
- VRT will present applicable information to the VRT Board or Executive Board as appropriate.

PARAGON Consulting will complete the Project coordination and Professional Engineering through the design, bidding, and construction engineering phases of the Project, at the request of VRT. Work tasks related to electrical engineering will be completed by Control Engineers, PA. See "Exhibit B" for Control Engineers' Scope of Work.

1. Project Management

- 1.1. Data Review – PARAGON will review available site data provided by VRT, including existing site survey information, existing utility information, electric bus charging station data and requirements and existing electrical facilities. Paragon will disseminate information to our electrical sub-consultant.
- 1.2. Site Visits (Design & Bidding) – PARAGON will visit the project site during the design and bidding phases of the project to collect necessary information and, if needed, provide contractors site information during the bid period. Two design phase site visits and three bid phase site visits are anticipated. Additional site visits required during construction are included in Section 4 of the scope of work.
- 1.3. Sub-Consultant Administration – PARAGON will administer sub-consultant agreement(s), which includes providing Project instructions, reviewing sub-consultant deliverables, reviewing invoices and providing Project feedback.
- 1.4. Progress Meetings – PARAGON will schedule and attend design progress meetings at Project milestones with VRT. Up to two progress meetings are anticipated.

2. Design Services

- 2.1. Site Design – PARAGON will prepare a design layout for trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation necessary to connect the new Idaho Power transformer to the existing site electrical systems and stub electrical conduits outside of the existing electrical and fueling island towards the area designated for the electric bus charging power control units. Design layouts will be drafted over an the ALTA survey provided by VRT. Where applicable, standard details from the Idaho Standards for Public Works Construction (ISPWC) will be referenced. The complete design plans will include:

- Title Sheet
- General Notes
- Vicinity Map
- Plan Sheets
- Miscellaneous Details
- Erosion and Sediment Control Plan

Plans will be developed in two phases, including a “Preliminary (50%) Design” and a “PS&E” phase. VRT will provide design review of the Preliminary Design plans prior to PARAGON finalizing and preparing the PS&E plans.

2.2. Contract Documents – PARAGON will prepare contract documents using typical contract template document(s) in Microsoft (MS) Word format. The contract documents will include the required federal clauses to meet the requirements of the FTA funding. The contract documents will include the following sections:

- Request for Bid Form
- Performance & Payment Bonds
- Naming of Subcontractor(s)
- Federal Contract Provisions
- Contract Agreement
- Notice of Award & Notice to Proceed
- Supplementary Conditions
- Special Provisions

Draft contract documents will be completed for review at the Preliminary Design stage of the project development and then finalized for publication during the PS&E stage of the project development.

A single set of contract documents will be prepared to cover all the site and electrical construction components.

2.3. Construction Cost Estimate – PARAGON will prepare a project construction quantity estimate and associated cost estimate at critical milestones, including the following:

- Preliminary (50%) Design
- PS&E

3. Bid Administration & Support

3.1. Bid Documents – PARAGON will prepare one set of original bid documents and plans and an electronic set of bid documents and plans for dissemination to bidding contractors. Paragon will contact a minimum of three contractors to participate in the three bid process and will provide the electronic bid documents and plans to the contractors.

3.2. Pre-Bid Meeting – No pre-bid meeting is anticipated.

3.3. Bid Administration – PARAGON will review bid comments/questions, prepare addendum, and advise VRT on bid inquiries. Assume one (1) addendum will be issued.

3.4. Bid Opening – PARAGON will attend the bid opening, prepare bid summary, assist VRT in reviewing bids and make recommendation for award. If requested, PARAGON will prepare the Bid Award and Notice to Proceed documents.

4. Construction Engineering and Inspection, Administration Assistance

Construction Engineering and Inspection services are anticipated for a construction contract up to a maximum of 14 calendar days.

- 4.1. Pre-Construction Meeting – PARAGON will attend and administer the pre-construction meeting to gain an understanding of the CONTRACTOR’s Project approach and schedule. Paragon will prepare the agenda and meeting minutes.
- 4.2. Construction Inspection – PARAGON will observe construction activities as needed and/or requested by VRT. Inspection will be performed with qualified inspection staff, including the following major tasks:
 - Inspector Diaries – Daily reports will be prepared to record the CONTRACTOR’s work on the site, weather conditions, data relative to questions of change orders, field orders, or changed conditions, site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures. CONTRACTOR inspections, tests, and approvals required by the Contract Documents will be received and reviewed.
 - Identify and Recommend Corrections – Any omissions, substitutions, defects and deficiencies in the work of the CONTRACTOR will be identified and documented with recommendations reported to VRT. Change Orders and Work Change Directives will be prepared as appropriate. It is assumed that a maximum of 1 Change Order and 2 Work Change Directives will be required.
 - Pay Quantity Collection – Pay quantities and quantity measurements will be checked for accuracy and prepared for processing for payment to the CONTRACTOR.
- 4.3. Filing & Records Verification - Project files will be maintained at PARAGON’s office in Kuna, Idaho. Copies of design, bid and construction files will be delivered to VRT. An on-going process of periodic checks of the files will occur during the Project to ensure that all records are being accurately kept and the filing system is up to date. Major tasks under this scope of work item include:
 - Progress Estimate Preparation – For each scheduled progress estimate, documentation will be prepared for and presented to VRT. Progress Estimates will contain the quantities and justification for each bid item payment with a summary sheet showing the amounts to be paid.
 - Materials Certifications – Certifications, as required by bid item, will be requested for all materials incorporated into the Project. No materials will be accepted for payment until the certifications are received and reviewed for acceptance. Minimum Testing Requirements (MTR’s) submitted by the Contractor will be reviewed and approved.

- Bi-Weekly Progress Meetings – Considering the short duration of the construction contract, no progress meetings are anticipated.
- Contractor Submittal Review – PARAGON will provide Contractor Shop Drawing and submittal coordination and review. It is anticipated that each submittal will have an initial submittal for review and a final submittal for approval. Anticipated submittals include Contractor’s CPM schedule, equipment and material data sheets, and material certifications. It is expected that PARAGON will perform routine interpretations and clarifications on the Project.

4.4. Wage Compliance – PARAGON will complete the required federal wage compliance reporting for the project. Major tasks under this scope of work item include:

- Review certified payrolls.
- Conduct on-site inspections, perform employee interviews, and identify additional classes if applicable.
- Address all non-compliance, complaints and issues.

4.5. Project Closeout - At Project close-out, all records will be finalized and quantity calculations verified. A final package of records will be submitted to VRT for the official Project files. Major tasks under this scope of work item include:

- Verify that all necessary documents have been received for final payment to the Contractor and Project completion.
- Receive bonds, certificates, or other evidence of insurance not previously submitted and required by the Contract Documents, including certificates of inspection, tests and approvals, shop drawings, samples, and the annotated record documents which are to be assembled by the Contractor in accordance with the Contract Documents to obtain final payment.
- Promptly conduct an inspection after notice from the Contractor that the entire work is ready for its intended use, in the company of VRT and the Contractor, to determine if the work is Substantially Complete. If there are no objections from VRT, PARAGON will deliver a certificate of substantial completion to VRT and the Contractor.
- Coordinate and conduct a final inspection, to include representatives from VRT and Contractor, to determine if the completed work is acceptable so that PARAGON may recommend final payment to the Contractor. PARAGON will also provide a notice that the work is acceptable to the best of their knowledge, information and belief, based on the extent of the services provided under this agreement.

Furnish to VRT a project closeout file including critical contractor correspondence, inspection diaries, change orders, payment applications, contractor quality acceptance test results and contractor submittals.

Project Schedule

PARAGON proposes to implement its services under this scope of work from February 1, 2020 thru September 30, 2020.

Cost of Services

Services will be on a time and materials not-to-exceed (NTE) basis.

Total Cost of Services (NTE amount): \$37,000.00

Attached is the labor estimate and cost summary (see attached "Exhibit A").



**Ada County Electric Bus Infrastructure, Phase 1
Design, Bidding & Construction Engineering
Valley Regional Transit**

A. SUMMARY ESTIMATED LABOR-HOURS

	Labor Category	Labor-Hours		Hrly Rate		Labor Cost
1	Project Manager	51	@	\$140.00	= \$	7,140.00
2	Engineer	91	@	\$115.00	= \$	10,465.00
3	CADD	37	@	\$85.00	= \$	3,145.00
4	Misc.	0	@	\$70.00	= \$	-
				TOTAL LABOR COST	= \$	20,750.00
				PARAGON TOTAL	= \$	20,750.00

B. SUB-CONSULTANTS & EXPENSES

1	Control Engineers, PA	= \$	16,176.00
2		= \$	-
3		= \$	-
	SUB-CONSULTANT & EXPENSE TOTAL	= \$	16,176.00

TOTAL = \$ 36,926.00

TIME AND MATERIALS NOT TO EXCEED
\$ 37,000.00



**Ada County Electric Bus Infrastructure, Phase 1
Design, Bidding & Construction Engineering
Valley Regional Transit**

1 Project Management

		Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
1.1	Data Review	2	1	1		
1.2	Site Visits (Design & Bidding)	12	4	8		
1.3	Sub-Consultant Administration	4	4			
1.4	Progress Meetings	4	2	2		
1	TOTAL - Project Management (HOURS)	22	11	11	0	0
	TOTAL - Project Management (LABOR COST)		\$	2,805.00		

2 Design Services

		Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
2.1	Site Design	52	8	12	32	
2.2	Contract Documents	14	6	8		
2.3	Construction Cost Estimate	8	2	4	2	
2	TOTAL - Design Services (HOURS)	74	16	24	34	0
	TOTAL - Design Services (LABOR COST)		\$	7,890.00		

3 Bid Administration & Support

		Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
3.1	Bid Documents	7	2	4	1	
3.2	Pre-Bid Meeting	0				
3.3	Bid Administration	4	2	2		
3.4	Bid Opening	4	2	2		
3	TOTAL - Bidding (HOURS)	15	6	8	1	0
	TOTAL - Bidding (LABOR COST)		\$	1,845.00		

4 Construction Engineering and Inspection, Administration Assistance

		Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
4.1	Pre-Construction Meeting	6	2	4		
4.2	Construction Inspection	24	4	20		
4.3	Filing & Records Verification	20	8	12		
4.4	Wage Compliance	6	2	4		
4.5	Project Closeout	12	2	8	2	
4	TOTAL - CE&I (HOURS)	68	18	48	2	0
	TOTAL - CE&I (LABOR COST)		\$	8,210.00		



December 2, 2019

W. Joe Barton, P.E.
(208) 921-8486 Cell



157 West 4th Street
Kuna, Idaho 83634

RE: VRT Electric Bus Infrastructure Proposal

Dear Mr. Barton:

Control Engineers is pleased to provide this proposal for electrical engineering services in support of the Valley Regional Transit (VRT) Electric Bus Infrastructure project per your request and the site meeting Chris Cocozzo attended on 1/22/2020.

Based upon this meeting we understand that VRT plans to install eight new 125kw charging stations now, four more in the near future and a total of 18 at full buildout. Control Engineers needs to design an electrical distribution system that will accommodate the full buildout. The present design intent is to replace the existing 750KVA transformer with a new 2500KVA transformer although other alternatives are being considered that could minimize downtime risk. For the purposes of this proposal we are assuming the transformer replacement option is desired. Our proposal is divided into two tasks:

Task 1: Transformer replacement and re-feed to existing Switchgear

This task includes electrical design of the transformer replacement and conduit from the new transformer and switchgear on the island to a new power panelboard that will feed the bus chargers. We will need to closely coordinate the conduit routing to minimize disturbance of existing high pressure gas and lighting. Any lighting that is removed will need to be replaced. These plans will be sealed issued for bid. Our services and deliverables will include:

- Electrical design
- One-line diagram
- Power plan drawings
- Installation details
- Coordination with Idaho Power
- Coordination with Paragon and other disciplines as required
- Bid support
- Submittal review
- Construction inspection and coordination, estimated at 8 hours per week for four weeks

Our time and materials, not-to-exceed fee estimate for Task 1 is \$16,176.

Task 2: Charger installation Electrical Design

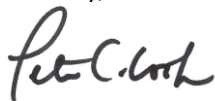
This task will include all design services for the charge installation. These will be installed in a metal building which will require lights, receptacles, networking, ventilation and should be configured to allow for future engine block heaters if the electric buses are replaced in the future. Our services and deliverables for this task will include:

- Electrical design
- One-line diagram modifications
- Power plan drawings
- Lighting plan drawings
- Arc Flash Analysis for both tasks
- Installation details
- Coordination with Idaho Power
- Coordination with Paragon and other disciplines as required
- Bid support
- Submittal review
- Construction inspection and coordination, estimated at 8 hours per week for four weeks

Our time and materials, not-to-exceed fee estimate for Task 2 is \$16,160.

Thank you for your consideration for this proposal and please contact me if you have any questions or concerns.

Sincerely,



Peter C. Cook
President

SCOPE OF WORK
FOR
VALLEY REGIONAL
TRANSIT

DESIGN, BIDDING & CONSTRUCTION ENGINEERING

FOR

ADA COUNTY ELECTRIC BUS INFRASTRUCTURE

PHASE 2

FEBRUARY 11, 2020

Prepared By:
Paragon Consulting, Inc.
157 W. 4th Street
Kuna, Idaho 83634



Project Manager:
Joe Barton, P.E.
(208) 921-8486

Scope of Work

Date: February 11, 2020

Project Name: Ada County Electric Bus Infrastructure, Phase 2

Consultant Company Address:

PARAGON Consulting, Inc.
157 W. 4th Street
Kuna, ID 83634

Consultant Project Manager/Contact Information:

W. Joe Barton, P.E.
(208) 921-8486 (Cell)
jbarton@paragonfbk.com

Contract Amount: \$46,000.00 (T/M NTE)

Duration: March 2, 2020 thru September 30, 2020 (212 Calendar Days)

Project Description and Assumptions:

Valley Regional Transit (VRT) desires to construct infrastructure to support acquisition and integration of electric buses into their system. VRT is currently scheduled to acquire eight electric buses and charging systems by December, 2020 with an additional four buses scheduled for acquisition/delivery in 2021.

VRT intends to construct supporting infrastructure at their Orchard Facility in Boise, Idaho. These infrastructure improvements generally include the following:

1. Power service upgrades through Idaho Power to include installation of a new on-site power transformer and relocation of the Orchard Facility power meter. VRT has initiated communications with Idaho Power for their required work.
2. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to connect the new Idaho Power transformer to the existing site electrical systems and stub electrical conduits outside of the existing electrical and fueling island towards the area designated for the electric bus charging power control units.
3. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to extend the conduit stubs completed under item 2 and connect to the new electric bus charging power control units, near the north end of the existing bus parking area.
4. Concrete pad construction for mounting the electric bus charging power control units near the north end of the existing bus parking area.
5. Construct a pre-engineered shelter for the electric bus charging units near the north end of the existing bus parking area.

6. Trenching, conduit installation, surface repairs (concrete, curbing, landscaping, asphalt, etc.) and electrical component installation (wiring, switch gear, breaker panels, etc.) necessary to upgrade the existing bus block heater plugins and luminaire wiring along the northern ± 200 feet of bus parking and as required for installation of the electric bus charging dispensers.
7. Concrete foundations for the installation of the electric bus charging dispensers (12 units).
8. Ground protection for electric bus charging dispensers and block heater plugins.

Phase 1 of the project was included under a prior scope of work that included items 1 and 2 from the above list. This scope of work covers Phase 2 of the project which includes items 3 through 8 from the above list. Phase 2 will include design and bid document preparation, project bidding through the full bid advertisement process and construction engineering and inspection.

Major Project assumptions include the following:

- Construction of the electric bus infrastructure, including Phase 1 and Phase 2, is intended to be complete by September 30, 2020.
- All electric buses and electric bus charging system will be procured by VRT.
- VRT will provide available information pertaining to the site and the electric bus charging systems as required for design.
- VRT has completed all NEPA requirements.
- All work is within property controlled by VRT and no Right-of-Way or property acquisition or easements are necessary.
- No special permitting is required for the Project.
 - PARAGON will assist VRT and the project contractor with securing the necessary electrical and building permits.
- No topographic survey will be completed for the Project. VRT will provide a copy of the currently available survey information for the site.
- VRT will provide review of all design and contract documents.
- VRT may elect to complete some items of work identified in this scope of work with VRT resources.
- No public involvement is required.
- Construction contract time is limited to 42 calendar days for Phase 2 of the Project.
- Construction scheduling and sequencing will minimize shutdown of electrical power to the existing facilities with the goal of achieving a maximum shutdown period of 24 hours.
- Weather protection for the electric bus charging power control units will consist of a pre-engineered metal building and all building and building foundation design will be by the pre-engineered building manufacturer.
- VRT will present applicable information to the VRT Board or Executive Board as appropriate.

PARAGON Consulting will complete the Project coordination and Professional Engineering through the design, bidding, and construction engineering phases of the Project, at the request of VRT. Work tasks related to electrical engineering will be completed by Control Engineers, PA. See "Exhibit B" for Control Engineers' Scope of Work.

1. Project Management

- 1.1. Data Review – Completed under Phase 1 of the project.
- 1.2. Site Visits (Design & Bidding) – PARAGON will visit the project site during the design and bidding phases of the project to collect necessary information and, if needed, provide contractors site information during the bid period. Two design phase site visits and three bid phase site visits are anticipated. Additional site visits required during construction are included in Section 4 of the scope of work.
- 1.3. Sub-Consultant Administration – PARAGON will administer sub-consultant agreement(s), which includes providing Project instructions, reviewing sub-consultant deliverables, reviewing invoices and providing Project feedback.
- 1.4. Progress Meetings – PARAGON will schedule and attend design progress meetings at Project milestones with VRT. Up to two progress meetings are anticipated.

2. Design Services

- 2.1. Site Design – PARAGON will prepare a design layout and details for the following:

- Trenching, conduit installation, and electrical component installation necessary to connect the new infrastructure to the facilities constructed under Phase 1 of the project
- Surface repairs (concrete, curbing, landscaping, asphalt, etc.)
- Concrete pad for the electric bus charging power control units
- Mounting pads for the electric bus charging dispensers and block heater plugins
- Pre-Engineered steel building for protection of the electric bus charging power control units
- Ground protection (bollards) for the pre-engineered steel building, electric bus charging dispensers and block heater plugins

Design layouts will be drafted over the ALTA survey provided by VRT. Where applicable, standard details from the Idaho Standards for Public Works Construction (ISPWC) will be referenced. The complete design plans will include:

- Title Sheet
- General Notes
- Vicinity Map
- Plan Sheets
- Miscellaneous Details
- Erosion and Sediment Control Plan

Plans will be developed in two phases, including a “Preliminary (50%) Design” and a “PS&E” phase. VRT will provide design review of the Preliminary Design plans prior to PARAGON finalizing and preparing the PS&E plans.

2.2. Contract Documents – PARAGON will prepare contract documents using typical contract template document(s) in Microsoft (MS) Word format. The contract documents will include the required federal clauses to meet the requirements of the FTA funding. The contract documents will include the following sections:

- Advertisement for Bids
- Instructions to Bidders
- Bid Form
- Bid Bond
- Naming of Subcontractor(s)
- Federal Contract Provisions
- Standard Form of Agreement
- Performance & Payment Bonds
- Notice of Award & Notice to Proceed
- Supplementary Conditions
- Special Provisions

Draft contract documents will be completed for review at the Preliminary Design stage of the project development and then finalized for publication during the PS&E stage of the project development.

A single set of contract documents will be prepared to cover all the site work, electrical components, and pre-engineered steel building.

2.3. Construction Cost Estimate – PARAGON will prepare a project construction quantity estimate and associated cost estimate at critical milestones, including the following:

- Preliminary (50%) Design
- PS&E

3. Bid Administration & Support

3.1. Bid Documents – PARAGON will prepare one set of original bid documents and plans and an electronic set of bid documents and plans for dissemination to bidding contractors. PARAGON will maintain a plan holders list and disseminate the electronic bid documents and plans to the interested contractors.

3.2. Pre-Bid Meeting – No pre-bid meeting is anticipated.

3.3. Bid Administration – PARAGON will review bid comments/questions, prepare addendum, and advise VRT on bid inquiries. Assume one (1) addendum will be issued.

- 3.4. Bid Opening – PARAGON will attend the bid opening, prepare bid summary, assist VRT in reviewing bids and make a recommendation for award. If requested, PARAGON will prepare the Bid Award and Notice to Proceed documents.

4. Construction Engineering and Inspection, Administration Assistance

Construction Engineering and Inspection services are anticipated for a construction contract up to a maximum of 42 calendar days of site work.

- 4.1. Pre-Construction Meeting – PARAGON will attend and administer the pre-construction meeting to gain an understanding of the CONTRACTOR’s Project approach and schedule. Paragon will prepare the agenda and meeting minutes.
- 4.2. Construction Inspection – PARAGON will observe construction activities as needed and/or requested by VRT. Inspection will be performed with qualified inspection staff, including the following major tasks:
- Inspector Diaries – Daily reports will be prepared to record the CONTRACTOR’s work on the site, weather conditions, data relative to questions of change orders, field orders, or changed conditions, site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures. CONTRACTOR inspections, tests, and approvals required by the Contract Documents will be received and reviewed.
 - Identify and Recommend Corrections – Any omissions, substitutions, defects and deficiencies in the work of the CONTRACTOR will be identified and documented with recommendations reported to VRT. Change Orders and Work Change Directives will be prepared as appropriate. It is assumed that a maximum of 1 Change Order and 2 Work Change Directives will be required.
 - Pay Quantity Collection – Pay quantities and quantity measurements will be checked for accuracy and prepared for processing for payment to the CONTRACTOR.
- 4.3. Filing & Records Verification - Project files will be maintained at PARAGON’s office in Kuna, Idaho. Copies of design, bid and construction files will be delivered to VRT. An on-going process of periodic checks of the files will occur during the Project to ensure that all records are being accurately kept and the filing system is up to date. Major tasks under this scope of work item include:
- Progress Estimate Preparation – For each scheduled progress estimate, documentation will be prepared for and presented to VRT. Progress Estimates will contain the quantities and justification for each bid item payment with a summary sheet showing the amounts to be paid.
 - Materials Certifications – Certifications, as required by bid item, will be requested for all materials incorporated into the Project. No materials will be accepted for payment until

the certifications are received and reviewed for acceptance. Minimum Testing Requirements (MTR's) submitted by the Contractor will be reviewed and approved.

- Bi-Weekly Progress Meetings – Considering the short duration of the construction contract, no progress meetings are anticipated.
- Contractor Submittal Review – PARAGON will provide Contractor Shop Drawing and submittal coordination and review. It is anticipated that each submittal will have an initial submittal for review and a final submittal for approval. Anticipated submittals include Contractor's CPM schedule, equipment and material data sheets, and material certifications. It is expected that PARAGON will perform routine interpretations and clarifications on the Project.

4.4. Wage Compliance – PARAGON will complete the required federal wage compliance reporting for the project. Major tasks under this scope of work item include:

- Review certified payrolls.
- Conduct on-site inspections, perform employee interviews, and identify additional classes if applicable.
- Address all non-compliance, complaints and issues.

4.5. Project Closeout - At Project close-out, all records will be finalized and quantity calculations verified. A final package of records will be submitted to VRT for the official Project files. Major tasks under this scope of work item include:

- Verify that all necessary documents have been received for final payment to the Contractor and Project completion.
- Receive bonds, certificates, or other evidence of insurance not previously submitted and required by the Contract Documents, including certificates of inspection, tests and approvals, shop drawings, samples, and the annotated record documents which are to be assembled by the Contractor in accordance with the Contract Documents to obtain final payment.
- Promptly conduct an inspection after notice from the Contractor that the entire work is ready for its intended use, in the company of VRT and the Contractor, to determine if the work is Substantially Complete. If there are no objections from VRT, PARAGON will deliver a certificate of substantial completion to VRT and the Contractor.
- Coordinate and conduct a final inspection, to include representatives from VRT and Contractor, to determine if the completed work is acceptable so that PARAGON may recommend final payment to the Contractor. PARAGON will also provide a notice that the work is acceptable to the best of their knowledge, information and belief, based on the extent of the services provided under this agreement.

- Furnish to VRT a project closeout file including critical contractor correspondence, inspection diaries, change orders, payment applications, contractor quality acceptance test results and contractor submittals.

Project Schedule

PARAGON proposes to implement its services under this scope of work from March 2, 2020 thru September 30, 2020.

Cost of Services

Services will be on a time and materials not-to-exceed (NTE) basis.

Total Cost of Services (NTE amount): \$46,000.00

Attached is the labor estimate and cost summary (see attached "Exhibit A").



**Ada County Electric Bus Infrastructure, Phase 2
Design, Bidding & Construction Engineering
Valley Regional Transit**

A. SUMMARY ESTIMATED LABOR-HOURS

	Labor Category	Labor-Hours	Hrly Rate		Labor Cost
1	Project Manager	62	@ \$140.00	= \$	8,680.00
2	Engineer	152	@ \$115.00	= \$	17,480.00
3	CADD	45	@ \$85.00	= \$	3,825.00
4	Misc.	0	@ \$70.00	= \$	-
			TOTAL LABOR COST	= \$	29,985.00
			PARAGON TOTAL	= \$	29,985.00

B. SUB-CONSULTANTS & EXPENSES

1	Control Engineers, PA	= \$	16,160.00
2		= \$	-
3		= \$	-
	SUB-CONSULTANT & EXPENSE TOTAL	= \$	16,160.00

TOTAL = \$ 46,145.00

<p>TIME AND MATERIALS NOT TO EXCEED</p> <p>\$ 46,000.00</p>



**Ada County Electric Bus Infrastructure, Phase 2
Design, Bidding & Construction Engineering
Valley Regional Transit**

1 Project Management

	Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
1.1 Data Review	0				
1.2 Site Visits (Design & Bidding)	12	4	8		
1.3 Sub-Consultant Administration	4	4			
1.4 Progress Meetings	4	2	2		
1 TOTAL - Project Management (HOURS)	20	10	10	0	0
TOTAL - Project Management (LABOR COST)	\$ 2,550.00				

2 Design Services

	Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
2.1 Site Design	72	8	24	40	
2.2 Contract Documents	16	8	8		
2.3 Construction Cost Estimate	8	2	4	2	
2 TOTAL - Design Services (HOURS)	96	18	36	42	0
TOTAL - Design Services (LABOR COST)	\$ 10,230.00				

3 Bid Administration & Support

	Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
3.1 Bid Documents	9	2	6	1	
3.2 Pre-Bid Meeting	0				
3.3 Bid Administration	4	2	2		
3.4 Bid Opening	4	2	2		
3 TOTAL - Bidding (HOURS)	17	6	10	1	0
TOTAL - Bidding (LABOR COST)	\$ 2,075.00				

4 Construction Engineering and Inspection, Administration Assistance

	Total L-Hrs	PM L-Hrs	Engineer L-Hrs	CADD L-Hrs	Misc. L-Hrs
4.1 Pre-Construction Meeting	6	2	4		
4.2 Construction Inspection	72	12	60		
4.3 Filing & Records Verification	24	8	16		
4.4 Wage Compliance	12	4	8		
4.5 Project Closeout	12	2	8	2	
4 TOTAL - CE&I (HOURS)	126	28	96	2	0
TOTAL - CE&I (LABOR COST)	\$ 15,130.00				



December 2, 2019

W. Joe Barton, P.E.
(208) 921-8486 Cell



157 West 4th Street
Kuna, Idaho 83634

RE: VRT Electric Bus Infrastructure Proposal

Dear Mr. Barton:

Control Engineers is pleased to provide this proposal for electrical engineering services in support of the Valley Regional Transit (VRT) Electric Bus Infrastructure project per your request and the site meeting Chris Cocozzo attended on 1/22/2020.

Based upon this meeting we understand that VRT plans to install eight new 125kw charging stations now, four more in the near future and a total of 18 at full buildout. Control Engineers needs to design an electrical distribution system that will accommodate the full buildout. The present design intent is to replace the existing 750KVA transformer with a new 2500KVA transformer although other alternatives are being considered that could minimize downtime risk. For the purposes of this proposal we are assuming the transformer replacement option is desired. Our proposal is divided into two tasks:

Task 1: Transformer replacement and re-feed to existing Switchgear

This task includes electrical design of the transformer replacement and conduit from the new transformer and switchgear on the island to a new power panelboard that will feed the bus chargers. We will need to closely coordinate the conduit routing to minimize disturbance of existing high pressure gas and lighting. Any lighting that is removed will need to be replaced. These plans will be sealed issued for bid. Our services and deliverables will include:

- Electrical design
- One-line diagram
- Power plan drawings
- Installation details
- Coordination with Idaho Power
- Coordination with Paragon and other disciplines as required
- Bid support
- Submittal review
- Construction inspection and coordination, estimated at 8 hours per week for four weeks

Our time and materials, not-to-exceed fee estimate for Task 1 is \$16,176.

Task 2: Charger installation Electrical Design

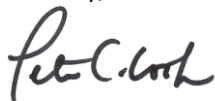
This task will include all design services for the charge installation. These will be installed in a metal building which will require lights, receptacles, networking, ventilation and should be configured to allow for future engine block heaters if the electric buses are replaced in the future. Our services and deliverables for this task will include:

- Electrical design
- One-line diagram modifications
- Power plan drawings
- Lighting plan drawings
- Arc Flash Analysis for both tasks
- Installation details
- Coordination with Idaho Power
- Coordination with Paragon and other disciplines as required
- Bid support
- Submittal review
- Construction inspection and coordination, estimated at 8 hours per week for four weeks

Our time and materials, not-to-exceed fee estimate for Task 2 is \$16,160.

Thank you for your consideration for this proposal and please contact me if you have any questions or concerns.

Sincerely,



Peter C. Cook
President