

November 25, 2024

Mr. Hayden Lindsey
Director of Public Works
37 S Broadway Street, Frostburg, MD 21532

Subject: MD 736 Roundabout Project Final Design

Dear Mr. Hayden:

Brudis & Associates, Inc. (BAI) is pleased to submit this proposal to provide professional engineering design services for MD 736 (Braddock Road) and Park Avenue Roundabout and associated improvements in Frostburg, Maryland.

Please refer to our Scope of Work Plan (Attachment A), Man-Hour Estimate (Attachment B), and Cost and Price Summary (Attachment C) for detailed information regarding this proposal.

The total proposed fee to perform these services is **\$ 108,621.05** with **\$ 87,250.11** allocated to BAI and **\$ 21,370.94** to CV, Inc.

Should you have any questions, or require any additional information, please do not hesitate to contact me or Ray Dagher, at 410-884-3607. We look forward to working with the City of Frostburg on this project.

Very truly yours,
BRUDIS & ASSOCIATES, INC.



Habeeb Mohammed, P.E.
Senior Project Manager

cc: Ray Dagher, P.E., Operations Manager, Primary Liaison
Puskar Kar, P.E., PTOE, Transportation Director, Secondary Liaison

P:\24-008 District 6 Survey and Engineering (BCS 2023-01C)\Task_ MD 736 Roundabout\Correspondence\Proposals\Drafts\11-25-24

ATTACHMENT A – SCOPE OF SERVICES

Purpose/Overview:

This Task aims to provide professional transportation engineering design services to advance the project to the Final Review and Advertisement. Listed below are the activities of BAI and its sub-consultant CV, Inc.:

PHASE A: FINAL DESIGN PHASE (FINAL REVIEW MILESTONE TO PS&E)

Subtask 1 – Project Coordination Activities

- a. BAI will coordinate, manage, and provide oversight of our sub-consultant, CV Inc., to resurvey the existing trees and additional utility test holes. Please refer to CV's proposal. BAI will provide mark-up plans and target data tables (station, offsets, latitude, longitude) for the utility test hole request. We will also review CV's submittals for accuracy and completeness.

Subtask 2 – Highway Design Activities

The following items will be completed for the Final Review & PS&E milestone submittal:

- a. **Roundabout Design Approval.** Roundabout is considered a form of Traffic Control, and the design of such on a State Highway must be reviewed and approved by SHA. BAI will provide the MicroStation DGN files for the design linework and coordinate with the SHA Office of Traffic & Safety - Traffic Development & Safety Division to review the roundabout design and approval.
- b. **Pedestrian Maintenance of Traffic** – In compliance with the Maryland Manual on Uniform Traffic Control Devices for Streets and Highways, 2011 edition, BAI will prepare detailed pedestrian maintenance of traffic plans. The pedestrian traffic must be maintained throughout construction to retain ADA access to the University of Maryland Frostburg campus. The pedestrian maintenance of traffic may involve developing pedestrian detour plans and the design of temporary ADA-accessible sidewalks and curb ramps. These design elements were not included in the Semi Final Design milestone plans. They were inadvertently missed from the scope of work of the original February 2020 project task proposal submitted to SHA.
- c. **Utility Coordination** - BAI will coordinate with public utility owners, including impacts on the City of Frostburg, Verizon, and Potomac Edison. BAI will review and update the previously prepared utility conflict matrix. This will involve preparing and submitting color-coded utility plans and cross sections with the utility owners, attending meetings with the utility owners, design revisions to minimize utility impacts, and developing a project schedule based on inputs from the utility owners on the timeframes for relocation design and construction. BAI will also seek input from the utility owners regarding utility relocation costs and assemble the third-party (non-city) reimbursement estimates for these relocations.
- d. **FHWA/Appalachian Regional Commission Review** – BAI will submit the Final Review and PS&E milestone plans, itemized cost estimate, and specifications to the City of Frostburg for FHWA and ARC review. It is anticipated that one round of comments will be received, and BAI will need to address these comments, provide a point-by-point response, and then resubmit for concurrence.

Subtask 3 – Lighting Design Activities

BAI will complete the following items for the FR, PS&E milestone submittal:

- a. Address comments from the City of Frostburg on the final roundabout lighting plans, prepare construction details, and update the specifications and itemized cost estimates.



- b. Address all applicable Constructability Review design comments on lighting plans. Revise the plans, cost estimates, and special provisions, provide point-by-point comment responses, QA/QC Review, and complete the lighting PS&E package.

Subtask 4 – Drainage, SWM, and E&SC Design

The following items will be completed for the FR & PS&E milestone submittal:

- a. Based on initial Allegany SCD submittal comments, BAI will revise the plans, cost estimates, special provisions, and SWM report and provide point-by-point comment responses. Although addressing Allegany SCD submittal comments was part of the original February 2020 task proposal submitted to SHA, BAI did not receive any previous comments from the SCD and has already advanced the drainage, SWM, and ESC design to the final design stages. The comments received from the SCD were minimal. However, it will impact the ESC plans and require BAI to provide a point-by-point response.
- b. Review and prepare additional test hole requests to confirm elevations of utility crossings not completed during initial test pits.
- c. Constructability review of SWM design and revisions to plans, reports, profiles, and details as needed. The review will include a compliance check of FHWA requirements associated with SWM, ESC, and drainage design for anticipated federal review.
- d. Revise drainage layout revisions to minimize utility relocation requirements based on available test pit information. Horizontal and vertical alignment revisions will be assessed in coordination with hydraulic requirements.
- e. Coordination and meetings with City/County reviewers as required.
- f. FHWA Reviews - BAI will submit the final package to the City for final approval. Due to ARC funding associated with this task, reviews by FHWA are anticipated. Two rounds of submittals (one round of comments) are anticipated for final approval of drainage and SWM design based on federal review. Major revisions to SWM, ESC, and drainage design are not anticipated.
- g. NOI application: BAI will prepare and submit NOI application to MDE as required for statewide discharge permit under the latest 20-CP requirements effective April 1, 2023.
- h. Per latest coordination, BAI will remove all Filterra SWM facilities from all design plans, report, details, cost estimate, etc. The removal of associated SWM treatment provided by these facilities will result in shortfall of IAT and ESDv/CPv. Due to the limited available right-of-way, urbanized corridor, and advanced milestone phase, providing additional SWM facilities to compensate for lost treatment is not feasible. Thus, design of any additional SWM facilities and associated supplemental survey/geotechnical needs are not anticipated or included within this scope of work. Design services for any additional SWM facilities will be included in a future task modification if required. BAI will coordinate with the City of Frostburg to provide any required waiver or variance requests for SWM shortfalls.

Subtask 5 – Modular Wall Design

The following items will be completed for the Final Review & PS&E milestone submittal:

- a. Verify and update the retaining wall plans to comply with current design codes.
- b. Based on comments from City and SHA reviews, BAI will revise the plans, details, and special provisions and provide point-by-point comment responses.
- c. Update the cost estimate for structural work items to current costs.



Items Not Provided Under This Scope of Services

- Right-of-way services such as appraisal, acquisition, and public involvement activities
- Traffic analysis and Signal Design
- Construction Management and Construction Inspection Services
- Pavement design recommendations (to be completed by the City of Frostburg)
- NEPA documentation
- Baseline stakeout
- Phase V Services
- Public Involvement Services - Property Owners, Taskforce Meetings renderings, attendance or minutes
- Noise Analysis
- Design of light pole foundations
- Reviews by SHA HHD or PRD related to SWM, drainage, and ESC design.
- Design of any additional SWM facilities.

Anticipated Schedule

- Final Review (90%) 12 weeks from NTP
- PS&E (100%) 8 weeks from Final Review
- Advertise 8 weeks from PS&E

**ATTACHMENT B
MANHOUR ESTIMATE**

City of Frostburg
ESTIMATE OF HOURS
DESCRIPTION OF WORK ACTIONS
TASK NAME: **MD 736 Roundabout**
TASK NUMBER: **1**

Subtask	Task Description	Project Manager	Highway/Traffic/Structural Engineer	Hydrologic/Hydraulic Engineer	Transportation Engineer/Designer	CADD/Draftsman	Total
1	Project Coordination Activities						
a.	Project Coordination Activities	16	16				32
	Total Subtask 1	16	16	0	0	0	32
2	Highway Design Activities						
a.	Roundabout Design Approval.	2	4		6	8	20
b.	Pedestrian Maintenance of Traffic	2	6		12	16	36
c.	Utility Coordination	2	6		6	4	18
d.	FHWA/Appalachian Regional Commission Review	6	16		16	20	58
	Total Subtask 2	12	32	0	40	48	132
3	Lighting Design Activities						
a.	Address comments from the City of Frostburg	4	14		12	12	42
b.	Address all Constructability Review design comments	6	16		20	6	48
	Total Subtask 3	10	30	0	32	18	90
4	Drainage, SWM, and E&SC Design						
a.	Address Allegany SCD Comments	2		10	6	6	24
b.	Review and prepare additional test hole requests	2		6	4		12
c.	Address Constructability review comments.	4		20	10	18	52
d.	Drainage layout revisions	2		12	20	12	46
e.	Coordination and meetings with City/County reviewers	2		12			14
f.	FHWA Review	4		20	24	12	60
g.	NOI application	2		6	6	10	24
h.	Removal of filterra SWM facilities	2		12		10	24
	Total Subtask 4	20	0	98	70	68	256
5	Modular Wall Design						
a.	Comply with current design codes	4	8			6	18
b.	Plan revisions to address SHA review comments	2	4			6	12
c.	Update cost estimate	2	2				4
	Total Subtask 5	8	14	0	0	12	34
TOTAL MAN-HOUR ESTIMATE		66	92	98	142	146	544

ATTACHMENT C

City of Frostburg

AVERAGE HOURLY RATE / ESTIMATE OF HOURS

TASK NAME: MD 736 Roundabout
TASK NUMBER: 1

Bar Chart Review & Verification

Cost Derivation (Office)				
<u>Classification</u>	<u>Hours</u>	<u>Hourly/Rate</u>		<u>Total</u>
Project Manager	66	@ \$87.30	=	\$ 5,761.80
Highway/ Traffic/ Structural Engineer	92	@ \$79.61	=	\$ 7,324.12
Hydrologic/ Hydraulic Engineer	98	@ \$60.96	=	\$ 5,974.08
Transportation Engineer/ Designer	142	@ \$49.41	=	\$ 7,016.22
CADD/ Draftsman	146	@ \$33.34	=	\$ 4,867.64
	SUBTOTAL	544	=	\$ 30,943.86
		Average Hourly Rate	=	\$ 56.88

ATTACHMENT C

**MARYLAND DEPARTMENT OF TRANSPORTATION
COST AND PRICE SUMMARY - CONSULTANT SERVICES CONTRACT**

Administration City of Frostburg
Contract _____
FMIS No. TBD

Consultant Brudis & Associates, Inc.
Subcontractor CV, Inc.

Task Name MD 736 Roundabout

Task Number 1

Phase or Task Function or Total Summary (if applicable) _____

1. Direct Labor Office:	<u>544</u>	Man Hours	x	<u>\$56.88</u>	Average Hourly Rate	\$ <u>30,943.86</u>	
1a. Direct Labor Field:		Man Hours	x	-	Average Hourly Rate	\$ -	
2. Escalation Office:		% of Item 1				\$ <u>0.00</u>	
2a. Escalation Field:		% of Item 1				\$ -	
2b.					SUBTOTAL	\$ <u>30,943.86</u>	
3. Payroll Additives:		P.B.		% of item 1 & 2: Append Itemization		\$ <u>0.00</u>	
		O.H. Office	<u>159.88</u>	% of item 1 & 2: Append Itemization		\$ <u>49,473.04</u>	
		O.H. Field		% of item 1 & 2: Append Itemization		\$ -	
4. Total of Items 1, 2, and 3 above						\$ <u>80,416.90</u>	
5. Fixed Fee:		a. Dollar amounts to cover Profit and Other Profits				\$ <u>6,498.21</u>	
		b. Line 5a. Represents	<u>21</u>	% of Line 2a.			
6. Direct Expenses:		Append justification as necessary					
a. Local Travel	<u>500</u>	miles at	<u>0.67</u>	cents/mile		\$ <u>335.00</u>	
b. Long Distance Travel, if required						\$ _____	
c. Printing						\$ _____	
d. Other:						\$ _____	
e. Other: (Specify)		Postage/Shipping				\$ _____	
					TOTAL DIRECT COSTS	\$ <u>335.00</u>	
7. Subcontractor:		Separate Cost and price Summary for each form to be appended					
		<u>Name</u>					
a.		<u>CV Inc.</u>				\$ <u>21,370.94</u>	
b.		_____				\$ _____	
c.		_____				\$ _____	
					TOTAL SUBCONTRACTORS	\$ <u>21,370.94</u>	
8. Other:		(Specify)					
a.		_____				\$ _____	
b.		_____				\$ _____	
c.		_____				\$ _____	
					TOTAL OTHER	\$ <u>0.00</u>	
9. Total Proposed Fee for this Task						\$ <u>108,621.05</u>	
10. Will your firm accept this Portion on a lump sum basis?				Yes _____		No <u>X</u> _____	
If yes, in what amount		\$ _____					

610 Professional Drive, Suite 108
Gaithersburg, Maryland 20879
Ph: (301) 637.2510
Fax: (240) 252.5612



November 22, 2024

Habeeb Mohammed, P.E.
Project Manager
Brudis & Associates, Inc.
9240 Rumsey Road, Suite C
Columbia, Maryland 21045

E: hmohammed@brudis.com
P: (410) 884-3607 ext. 225

Re: City of Frostburg - MD 736 Roundabout
Frostburg, Allegany County, Maryland

CV Job No. 20221139C.02

Dear Mr. Mohammed:

Pursuant to your request, we are pleased to submit our fee proposal to provide referenced services.

Project Understanding: BAI has been requested to provide additional survey of tree sizes and locations within the original survey limits and five additional test holes for the development of the intersection of East College Avenue and Center Street in the City of Frostburg in Allegany County, Maryland. CV, Inc. is a sub to BAI and is tasked with providing Survey and Testpitting services. Following is our project understanding and scope of work.

Field Surveys\Property Surveys

CV, Inc. will perform survey of existing trees (size and location) in case conditions have changed since the time of the original topographic field survey.

- CV will perform a topographic field survey—limited to tree diameter and locations—for the area highlighted on the attached map.
- The project will be tied to the NAD83\91 horizontal datum and tied vertically to NAVD88. CV will utilize the existing traverse points along MD736 from the previous survey performed by MDSHA.
- The field survey will be done in accordance with MDSHA CAD Standards, using the MDSHA survey feature table.
- The field files will be processed using MDSHA seed file in MicroStation V8i.
- CV will not identify existing trees and will only provide diameter and location.

Utility Testpits:

CV, Inc. will conduct test pits (Quality Level A) and provide test hole reports at up to 5 locations.

- A quantity of 5 test holes is assumed for this project (50% 6' deep max, 50% 8' deep max)
- Client will provide preliminary test hole locations to CV, Inc.
- Apply for digging permit(s) based on preliminary locations

- Client will provide finalized coordinates for test pits
- Stake out the prescribed locations in the field
- Submit Miss Utility tickets for all test hole locations and apply for utility and MOT permits
- Perform air-vac excavation to expose the target utility
- Test pits at intersection/crossing of multiple utilities will provide only the elevation and confirmation of the uppermost utility. The underlying utilities will require a separate hole to be excavated to ensure accuracy, and safety to the subject utility.
- Complete and provide individual utility test hole reports (TPR). Test hole locations will be surveyed and microstation file of the surveyed test hole locations will be provided.

Sincerely,
CV, INC.



Chinmay G Vyas, PE, CFM, LEED® AP
President



Limit of Work for Tree Survey

TASK DESCRIPTION	DETAILED SCOPE	Project Manager	Highway Engineer	Transportation Engineer / Designer	Land/Line Surveyor	Survey Party Chief	Survey Party Instrument Man	TOTAL
SURVEYING		1		4	1	10	10	26
Topographic Survey		1		4	1	10	10	26
	Tree sizes and locations	1		4	1	10	10	26
UTILITY INVESTIGATIONS		6	13	14		8	8	49
Test Pits		6	13	14		8	8	49
	Miss U Ticket & Coordination	1	2	4				7
	Test Pit Reports	1	3	10				14
	Permitting	4	8					12
	Survey Test Hole Locations & Elevations					8	8	16
TOTAL MAN-HOURS		7	13	18	1	18	18	75

MD 736 Roundabout

AVERAGE HOURLY RATES

CLASSIFICATION	AVERAGE HOURLY RATE	MAN-HOURS	EXTENSION
PROJECT MANAGER	\$85.00	X 7	= \$595.00
HIGHWAY ENGINEER	\$56.25	X 13	= \$731.25
TRANSPORTATION ENGINEER / DESIGNER	\$44.71	X 18	= \$804.78
LAND/LINE SURVEYOR	\$67.00	X 1	= \$67.00
SURVEY PARTY CHIEF	\$44.02	X 18	= \$792.36
SURVEY PARTY INSTRUMENT MAN	\$30.75	X 18	= \$553.50
TOTAL		75	\$3,543.89
Average Rate = \$47.252			

Administration	City of Frostburg		Consultant	Brudis and Associates				
Contract			Subcontractor	CV, Inc.				
Task Name	MD 736 Roundabout		Task Number	Task 06				
Phase or Task Function or Total Summary (if applicable)								
1. Direct Labor Office:	75	Man Hours	x	\$47.252	Average Hourly Rate	\$	3,543.89	
2. Escalation Office:	0	% of Item 1				\$	0	
2b.					SUBTOTAL	\$	3,543.89	
3. Payroll Additives:		P.B.	154.21%		% of item 1 & 2: Append Itemization	\$	5,465.03	
4. Total of Items 1, 2, and 3 above						\$	9,008.92	
5. Fixed Fee:		a. Dollar amounts to cover Profit and Other Profits				\$	744.22	
		b. Line 5a. Represents	21		% of Line 2b.			
					Total CV Labor Cost =	\$	9,753.14	
6. Direct Expenses:		Append justification as necessary						
a. Local Travel	840	miles at	0.670	\$/mile			562.80	
b. Long Distance Travel, if required			5 persons/2 nights				1,150	
c. Per diem			5 persons/2 days				630	
					TOTAL DIRECT COST	\$	2,342.80	
7. Subcontractor:		Separate Cost and price Summary for each form to be appended						
	<u>Name</u>							
a.								
					TOTAL SUBCONTRACTORS	\$	0.00	
8. Other:								
	Item		Units	Rate			Cost	
	Test Pits							
	Mobilization		1	850		\$	850	
	4.01 to 6.0 ft test pits		2	850		\$	1,700	
	6.01 to 8.0 ft test pits		3	1000		\$	3,000	
	Breaking through Asphalt Patch/Repair		5	85		\$	425	
	MOT for Test Pits		2	1650		\$	3,300	
					TOTAL OTHER	\$	9,275	
9. Total Proposed Fee for this Task						\$	21,370.94	
10. Will your firm accept this Portion on a lump sum basis?				Yes		No	X	
If yes, in what amount		\$						