



**EXHIBIT A**

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[www.huntercontracting.com](http://www.huntercontracting.com)

April 14, 2023

David Pedersen  
Project Manager - Capital Improvements  
211W Aspen Avenue  
Flagstaff, AZ 86001  
Office :: 928.213.2677 || Cell :: 928.607.2515

RE: Pipeline West Post-Fire Flooding – INNER BASIN WATERLINE  
City of Flagstaff Project No.: 3519 / PS Pipeline  
AZDEMA Declaration #SD2302

Subject: Design-Build Services DS-2 Cost Proposal (GMP-2)

Dear Mr. Pederson,

Included is the Hunter Contracting Co. / Jacobs Design-Build Team’s Cost Proposal and Guaranteed Maximum Price (GMP-2) of **\$3,220,380.87** for the Schultz Flooding Inner Basin Road & Pipeline Reconstruction project. This GMP-2 will deliver to the City of Flagstaff 90% Design documents and will have a term through August of 2023.

Design documents provided will include drawings for each of the 45 sites. Plan and Profile designs will be provided for each defined site. These designs will be based on initial assessments and will provide potential approaches and solutions at each location.

Also included are cost allocation allowances for proposed construction activities scheduled for summer 2023 including mobilization, road grading, clearing, site construction and water line repairs. Please note that proposed construction cost allocations are presented as allowances due to the unknowns at each site due to remaining snow cover. It is Hunter’s intent to perform a cost reconciliation on proposed construction activities once each site is fully accessible and a complete design and detailed plan can be finalized.

Also included are estimated hours for personnel from Hunter Contracting Co. and Jacobs Engineering for continued preconstruction efforts and project engagement. Additionally, Jacobs has included funds for sub-consultants Aerotech Mapping and EnviroSystems.

The following summary sheet breaks down costs for items listed above.

If you have questions or comments, please do not hesitate to contact me at 520-954-3016 (cell) or at my direct office line 480-632-4954.

Thank you for your time and consideration.

Chuck English  
President  
Hunter Contracting Co.

**SUMMARY of TOTAL COST THROUGH 90% DESIGN PHASE & INITIAL CONSTRUCTION (GMP 2)**

**ESTIMATED PROJECT COSTS, BY FIRM**

Firm	Estimated Labor-Hours			
Hunter Contracting Co.	755	39%	\$	111,931.50
JACOBS	1,179	61%	\$	195,897.00
<b>Estimated Direct Labor Hours</b>	<b>1,934</b>		<b>Total Estimated Costs</b>	<b>\$ 307,828.50</b>
			<b>Total Cost</b>	<b>\$ 307,828.50</b>

**OTHER ESTIMATED OUTSIDE SERVICES & CONSULTANTS**

EnvironSystems Management (Subconsultant to Jacobs)	\$	25,847.85
Aerotech Mapping (Subconsultant to Jacobs)	\$	77,800.00
JACOBS Engineering Contingency for Survey	\$	15,000.00
Consultant Contingency for Additional Scope	\$	25,000.00
	\$	143,647.85
<b>Total Estimated Outside Services</b>	<b>\$</b>	<b>143,647.85</b>
<b>Total Estimated Cost, Combined</b>	<b>\$</b>	<b>451,476.35</b>
<b>Design Services GMP 2</b>	<b>\$</b>	<b>451,476.35</b>
Construction Cost Allocation Allowances	\$	2,768,904.52
<b>Total GMP 2</b>	<b>\$</b>	<b>3,220,380.87</b>
Previous Contracts GMP 1	\$	189,694.00
<b>Total Contract to Date</b>	<b>\$</b>	<b>3,410,074.87</b>



Chuck English  
President

4/14/2023

Date

Contract Time is April 1st through August 31.

**SUMMARY SHEET**

**DERIVATION OF COST PROPOSAL FOR HUNTER CONTRACTING CO.**  
**SUMMARY**

**ESTIMATED DIRECT LABOR**

Classification	Estimated Labor-Hours		Average Hourly Rate	Labor Costs
Program Manager	37	5%	\$ 166.30	\$ 6,153.10
Project Manager	133	18%	\$ 145.40	\$ 19,338.20
Preconstruction Manager	231	31%	\$ 145.40	\$ 33,587.40
Superintendent	64	8%	\$ 134.95	\$ 8,636.80
Senior Estimator	135	18%	\$ 134.95	\$ 18,218.25
Project Engineer	135	18%	\$ 94.05	\$ 12,696.75
Administration	20	3%	\$ 89.05	\$ 1,781.00
Estimated Direct Labor Hours	755		<b>Total Estimated Direct Labor</b>	\$ 100,411.50
			<b>Total Labor Cost</b>	<b>\$ 100,411.50</b>

**ESTIMATED DIRECT EXPENSES**

Travel	\$ 4,000
Subsistence	\$ 7,520
Publications and Supplies	\$ -
Reproductions	\$ -
	\$ 11,520
<b>Total Direct Expenses</b>	<b>\$ 11,520.00</b>

**ESTIMATED OUTSIDE SERVICES & CONSULTANTS**

Sub 1	\$ -
Sub 2	\$ -
Sub 3	\$ -
Sub 4	\$ -
	\$ -
<b>Total Estimated Outside Services</b>	<b>\$ -</b>
<b>Total Estimated Cost, Combined</b>	<b>\$ 111,931.50</b>
<b>Total Estimated Cost (Hunter Contracting Co.)</b>	<b>\$ 111,931.50</b>



4/14/2023  
Date

**HUNTER SCOPE**

**DERIVATION OF ESTIMATED LABOR HOURS FOR HUNTER CONTRACTING CO.**

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count	Program Manager	Project Manager	Precon Manager	Project Supt.	Senior Estimator	Project Engineer	Admin	Total Hours
<b>90% PRELIMINARY PLANS DEVELOPMENT</b>										
	Site Visits		8	40	40	40				128
	Site Safety Plan/Logistics			8	4	8				20
	Constructability Reviews/Research/Workshops		4	16	16	16				52
	Project Schedule Development			24						24
	Sub/Vendor Outreach				40					40
	90% Cost Estimate (45 Sites @ 3 HR Per Site)		4		40		135	135	20	334
	Agency Coordination			8	8					16
<b>90% PRELIMINARY PLANS DEVELOPMENT SUBTOTALS:</b>			16	96	148	64	135	135	20	614
<b>100% FINAL PLANS</b>										
	Site Visits									
	Site Safety Plan/Logistics									
	Final Reviews for Construction									
	Project Schedule Development									
	100% Cost Estimate (45 Sites @ 2 HR Per Site)									
	GMP 3 Development									
	GMP 4 Development									
<b>100% FINAL PLANS SUBTOTALS:</b>										
<b>PROJECT COORDINATION / ADMINISTRATIVE</b>										
NOTE: See Mtg. Summary for detailed breakdowns										
	Kick-Off / Scoping Meeting									
	Site Reviews			8	8					16
	Progress Meetings (Flagstaff)		21	8	42					71
	Progress Meetings (Contractor)			9	9					18
	Team Meetings			12	24					36
	Project Workshops									
	Public Meeting									
	Project Administration									
<b>PROJECT COORDINATION / ADMINISTRATIVE SUBTOTALS:</b>			21	37	83					141
<b>TOTAL HOURS (Hunter Contracting Co.)</b>			37	133	231	64	135	135	20	755

**HUNTER SCOPE**

**MEETING ACTIVITIES FOR HUNTER CONTRACTING CO.**

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count (If Applicable)	Program Manager	Project Manager	Precon Manager	Project Engineer	Project Superintendent	Clerical	Total Hours
	<b>PROJECT COORDINATION / ADMINISTRATIVE</b>								
	<b>Kick-Off / Scoping Meeting</b>								
	Preparation (Special Plots, Exhibits) Meeting Participation Minutes								
	Sub-Total for each Meeting	1 Mtgs							
	<b>Total for projected Meetings</b>								
	<b>Council Workshop</b>								
	Preparation (Special Plots, coordinates) Meeting (Including Travel)		2	2					4
	Sub-Total for each Field Review		6	6					12
	<b>Total for projected Field Reviews</b>		8	8					16
	<b>Progress Meetings (Virtual)</b>								
	Preparation Meeting		1	1					1
	Sub-Total for each Meeting		0.25	1					2
	<b>Total for projected Progress Meetings</b>	21 Mtgs	5	42					68
	<b>Progress Meetings (Contractor)</b>								
	Preparation Meeting		1	1					2
	Sub-Total for each Meeting		2	2					4
	<b>Total for projected Progress Meetings</b>	3 Mtgs	9	9					18
	<b>Plan/Cost Reviews (Flagstaff)</b>								
	Preparation Meeting		4	4					8
	Prepare Meeting Minutes		8	8					16
	Sub-Total for each Meeting		12	12					24
	<b>Total projected Team Meetings</b>	2 Mtgs	24	24					48
	<b>Project Workshops (Flagstaff)</b>								
	Preparation Meeting								
	Sub-Total for each Meeting								
	<b>Total projected Workshop Meetings</b>	2 Mtgs							
	<b>Public Meeting</b>								
	Preparation Meeting								
	Prepare Meeting Minutes								
	<b>Total projected for Public Meetings:</b>	None							
	<b>PROJECT COORDINATION / ADMINISTRATIVE SUBTOTALS:</b>		21	46	83				150

HUNTER SCOPE

**DERIVATION OF ESTIMATED DIRECT EXPENSES FOR HUNTER CONTRACTING CO.**

**TRAVEL:**

**MILEAGE (Personal Vehicles)**

Personal Mileage:	Miles/	# of	Cost/	
Origin Destination	Trip	Trips	Mile	
Meetings in Flagstaff	0	0	\$ 0.500	0
Event 2	0	0	\$ 0.500	0
Event 3	0	0	\$ 0.500	0
Event 4	0	0	\$ 0.500	0
Event 5	0	0	\$ 0.500	0

**PERSONAL VEHICLE SUBTOTAL: \$ -**

**VEHICLE RENTAL (Large Vehicles from Rental Agencies):**

SUV/UTV for Site Visits:	Days	Cost/day (Including Gas)		
Site Visits	20	\$200.00	\$	4,000
Event 2	0	\$200.00	\$	-
Event 3	0	\$200.00	\$	-
Event 4	0	\$200.00	\$	-
Event 5	0	\$200.00	\$	-

ATV for Site Investigations	Days	Cost/day		
Event 1	0	\$140.00	\$	-
Event 2	0	\$140.00	\$	-
Event 3	0	\$140.00	\$	-
Event 4	0	\$140.00	\$	-
Event 5	0	\$140.00	\$	-

**VEHICLE RENTAL SUBTOTAL: \$ 4,000**

**TRAVEL TOTAL: \$ 4,000.00**

**SUBSISTENCE (Field Visits)**

Lodging:	Event	Number of People	Days	Cost/day		
Meetings in Flagstaff		2	3	\$185.00	\$	1,110
Site Vistis		8	2	\$185.00	\$	2,960
Estimating/Outreach		1	10	\$185.00	\$	1,850
Event 4		2	0	\$185.00	\$	-
Event 5		2	0	\$185.00	\$	-
Event 6		2	0	\$185.00	\$	-
Event 7		2	0	\$185.00	\$	-
Event 8		2	0	\$185.00	\$	-
Event 9		2	0	\$185.00	\$	-

Meals:	Event	Number of People	Days	Cost/day		
Meetings in Flagstaff		2	3	\$50.00	\$	300
Site Vistis		8	2	\$50.00	\$	800
Estimating/Outreach		1	10	\$50.00	\$	500
Event 4		2	0	\$50.00	\$	-
Event 5		2	0	\$50.00	\$	-
Event 6		2	0	\$50.00	\$	-
Event 7		2	0	\$50.00	\$	-
Event 8		2	0	\$50.00	\$	-
Event 9		2	0	\$50.00	\$	-

\$ 7,520

**SUBSISTENCE SUBTOTAL: \$ 7,520.00**

**PUBLICATIONS AND SUPPLIES**

Maps (USGS, County, FEMA, Etc.)					\$	-
Exhibit Supplies, Duplicating Large Color Exhibits, Handouts					\$	-
Postage for Flyers					\$	-
Publications					\$	-
Historical Society Publications / reproduction for Cultural					\$	-
Surveying GPS Unit (Basis for cost)					\$	-
Surveying Lath and Supplies					\$	-
					\$	-

**PUBLICATIONS AND SUPPLIES TOTAL: \$ -**

**REPRODUCTION (BY VENDOR):**

**PLOTTING**

Velumns	# Dwgs	# Prints	Total	Cost/each		Subtotal
Final II	0	1	0	\$ 6.00	= \$	-
1/2 Size Reduction of Final II	0	1	0	\$ 3.50	= \$	-
					\$	-

**Bond Originals (11 X 17)**

Plans	# Dwgs	# Prints	Total	Cost/each		
Pre-Initial	0	0	0	\$ 0.15	= \$	-
Initial	0	0	0	\$ 0.15	= \$	-
Preliminary	0	0	0	\$ 0.15	= \$	-
Final I	0	0	0	\$ 0.15	= \$	-
Final II	0	0	0	\$ 0.15	= \$	-
Binding	0	0	0	\$ 3.00	= \$	-
					\$	-

**Bond Originals (11 X 17)**

Cross Sections	# Dwgs	# Prints	Total	Cost/each		
Pre-Initial	0	0	0	\$ 0.15	= \$	-
Initial	0	0	0	\$ 0.15	= \$	-
Preliminary	0	0	0	\$ 0.15	= \$	-
Final I	0	0	0	\$ 0.15	= \$	-
Final II	0	0	0	\$ 0.15	= \$	-
Binding	0	0	0	\$ 3.00	= \$	-
					\$	-

**Bond Full Size (24x36)**

Plans	# Dwgs	# Prints	Total	Cost/each		
Initial	0	0	0	\$ 0.75	= \$	-
Preliminary	0	0	0	\$ 0.75	= \$	-
Final I	0	0	0	\$ 0.75	= \$	-
Binding	0	0	0	\$ 5.00	= \$	-
					\$	-

**Bond Full Size (24x36)**

Cross Sections	# Dwgs	# Prints	Total	Cost/each		
Initial	0	0	0	\$ 0.75	= \$	-
Preliminary	0	0	0	\$ 0.75	= \$	-
Final I	0	0	0	\$ 0.75	= \$	-
Final II	0	0	0	\$ 0.75	= \$	-
Binding	0	0	0	\$ 5.00	= \$	-
					\$	-

**PHOTOCOPYING (8.5 X 11)**

Combined Estimate	# Shts	# Copies	Total	Cost/each		
Initial	0	0	0	\$ 0.05	= \$	-
Preliminary	0	0	0	\$ 0.05	= \$	-
Final I	0	0	0	\$ 0.05	= \$	-
Final II	0	0	0	\$ 0.05	= \$	-
					\$	-

Design Computations	# Shts	# Copies	Total	Cost/each
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**HUNTER SCOPE**

Final II	0	0	0	\$ 0.05	= \$	-
Report Binding	0	0	0	\$ 5.00	= \$	-
<hr/>						
<b>Special Provisions &amp; Stored Specifications</b>						
	# Shts	# Copies	Total	Cost/each		
Preliminary	0	0	0	\$ 0.05	= \$	-
Final I	0	0	0	\$ 0.05	= \$	-
Final II	0	0	0	\$ 0.05	= \$	-
Report Binding	0	0	0	\$ 5.00	= \$	-
<hr/>						
					\$	-

**REPRODUCTION TOTAL:** \$ -

HUNTER SCOPE

**City of Flagstaff  
2022 Schultz Flooding Inner Basin Road  
Pipeline West Post-Fire-Flooding-INNER BASIN WATERLINE**

**PRELIMINARY IMPLEMENTATION PLAN (DESIGN TO 30% PLANS)**

<b>Dates</b>	<b>Contracts</b>	<b>Approach</b>
Dec 22	Design Contract 1	Start Concept: Based on what we know - Drone Footage Update Drainage Study / Develop Flows for New Sites Complete Environmental
Jan 23		15% Plans Based on Above and Drone Footage: Develop Existing Site Repairs Develop Alternative Site Repair Concept Initial Quantities Initial Costs
Feb 23		Share Concepts with Stakeholders Discuss Pros/Cons with Forest / DEMA Agree on Approach Review Environmental with Concepts
March 23		30% Plans Jacobs Advance concepts with comments addressed Update Quantities based on comments Update Costs Identify Long-Lead Materials / Items Access Review Permit Review

Develop Scoping and Proposal for Final Design Contract (Design Contract 2 & 3)

**FINAL IMPLEMENTATION PLAN (DESIGN TO FINAL PLANS)**

April 23	Design Contract 2	Design Contract 2 Approval
May 23		Site Review/Investigations (Weather Permitting) Survey  Final Concept Review / Final Design Kick-off Meeting Confirm Concept Plans / Assumptions Incorporate Environmental Constraints
July/August 23		90% Plans Update Plans  Develop Mitigation Toolbox Revised Tool Kit for Repairs Prioritize / Develop Implementation Plan Initial Construction Schedule - Develop Quantities - Develop Cost Estimates  Share Concepts with Stakeholders Discuss Pros/Cons with Forest / DEMA Agree on Approach Review Environmental with Concepts Final Design Review Meeting
July 23	Design Contract 3	Design Contract 3 Approval for Final 100% Plan Design
Sept 23	GMP's	100% Plans Develop Final Drawings Design Documents Final Construction Schedule - Develop Quantities - Develop Cost Estimates  Construction Documents



City of Flagstaff  
**Schultz Flooding Inner Basin Road  
and Pipeline Reconstruction**  
City of Flagstaff Contract No. 2022-XXX



**DERIVATION OF COST PROPOSAL  
SUMMARY**

(Figures Rounded to Nearest \$1.00)

**ESTIMATED DIRECT LABOR**

Classification	Estimated Labor-Hours	Average Hourly Rate	Labor Costs
Project Manager	178 15%	\$ 260.00	\$ 46,280.00
Sr. Project Engineer	70 6%	\$ 200.00	\$ 14,000.00
Project Engineer	329 28%	\$ 170.00	\$ 55,930.00
Sr. Environ. Planner	0 0%	\$ 176.00	\$ -
Environmental Planner	0 0%	\$ 155.00	\$ -
Design Engineer	317 27%	\$ 145.00	\$ 45,965.00
Technician/Drafter	244 21%	\$ 110.00	\$ 26,840.00
Clerical/Administration	41 3%	\$ 85.00	\$ 3,485.00
	1,179		
			Total Labor Costs \$ 192,500
			<b>Total Labor Cost \$ 192,500</b>

**ESTIMATED DIRECT EXPENSES**

Travel	\$ 1,081
Subsistence	\$ 2,316
Publications and Supplies	\$ -
Reproductions	\$ -
	\$ 3,397
<b>Total Direct Expenses \$ 3,397</b>	

**ESTIMATED OUTSIDE SERVICES & CONSULTANTS**

AeroTech Mapping (Phase II)	\$ 77,800
EnvironSystems Management, Inc. Class I Cultural Report	\$ 25,848
Site Survey Contingency:	
Ground Survey (5 Est) Individual Sites (Contingency)	\$ 15,000
	\$ 118,648
<b>Total Estimated Outside Services \$ 118,648</b>	
<b>Total Estimated Cost to Consultant \$ 314,545</b>	
<b>Total Estimated Cost \$ 314,545</b>	

4/14/2023

Date

Operations and Office Manager

**JACOBS SCOPE**



City of Flagstaff  
**Schultz Flooding Inner Basin Road  
 and Pipeline Reconstruction**



City of Flagstaff Contract No. 2011-25

**DERIVATION OF ESTIMATED DIRECT EXPENSES**

**TRAVEL:**

**MILEAGE (Personal Vehicles)**

Personal Mileage:		Miles/	# of	Cost/	
Origin	Destination	Trip	Trips	Mile	
Client Meetings	Flagstaff	350	2	\$ 0.650	455
Scoping / Kickoff	Flagstaff	350		\$ 0.650	0
Site Reviews	Flagstaff	500		\$ 0.650	0
Contractor Mtgs	Gilbert	20	2	\$ 0.650	26

**PERSONAL VEHICLE SUBTOTAL:** \$ 481.00

**VEHICLE RENTAL (Large Vehicles from Rental Agencies):**

SUV for Site Visits:	Days			
	3	\$200.00	\$	600

**VEHICLE RENTAL SUBTOTAL:** \$ 600

**TRAVEL TOTAL:** \$ 1,081.00

**SUBSISTENCE (Field Visits)**

Lodging:	Event	Number of	Days	Cost/day	
		People			
Field Review		4	3	\$138.00	\$ 1,656

Meals:	Event	Number of	Days	Cost/day	
		People			
Field Review		4	3	\$55.00	\$ 660

\$ 2,316

**SUBSISTENCE SUBTOTAL:** \$ 2,316.00

**PUBLICATIONS AND SUPPLIES**

Maps (USGS, County, FEMA, Etc.)			
Exhibit Supplies, Duplicating Large Color Exhibits, Handouts			
Publications		\$	-
Surveying GPS Unit	(Basis for cost)	\$	-
Surveying Lath and Supplies		\$	-
		\$	-

JACOBS SCOPE

**PUBLICATIONS AND SUPPLIES TOTAL:** \$ -

**DERIVATION OF ESTIMATED LABOR HOURS**

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count (As Reqd.)	Project Principal	Project Manager	Senior Project Engineer	Project Engineer	Senior Environ. Planner	Environ. Planner	Engineer/ Designer	Tech. Drafter	Clerical	Total Hours
<b>90% CONCEPT / DEVELOPMENT PLANS</b>												
	Final Concept Development for 90%	Sites										
	Complex Site Development / Details	10 Sheets	20	70					70	60		220
	Modify / Enhance Existing Site / Details	15 Sheets	15	75					75	60		225
	Simple Site Improvements	24 Sheets	12	72					72	48		204
	Quantities / Estimate	49 Sheets	8	40					40	20		108
	Environmental Support		8	8								16
	Coordination with Coconino National Forest on CE		8	8								16
<b>90% CONCEPT / DEVELOPMENT PLANS SUBTOTALS:</b>			<b>71</b>	<b>273</b>					<b>257</b>	<b>188</b>		<b>789</b>
<b>SURVEYING / SITE INVESTIGATION</b>												
	Merge Models from Concept with Final LiDar								16			16
	Merge Models with Survey								16			16
	Update Mapping / Sites									24		24
<b>SURVEYING / SITE INVESTIGATION SUBTOTALS:</b>									<b>32</b>	<b>24</b>		<b>56</b>

JACOBS SCOPE

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count (As Reqd.)	Project Principal	Project Manager	Senior Project Engineer	Project Engineer	Senior Environ. Planner	Environ. Planner	Engineer/Designer	Tech. Drafter	Clerical	Total Hours
<b>PROJECT REPORTS AND DOCUMENTS</b>												
	Construction Schedule (Final)											
	Earthwork Summary (Final)											
	Quantities (Final)											
	Cost Estimates (Final)											
	Special Provisions (Final)											
<b>PROJECT REPORTS AND DOCUMENTS SUBTOTALS:</b>												
<b>PROJECT COORDINATION / ADMINISTRATIVE</b>												
	<b>NOTE: See Mtg. Summary for detailed breakdowns</b>											
	Kick-Off / Scoping Meeting	1 Mtgs										
	City Council Working Session	1 Mtgs		8								
	Progress Meetings (Virtual)	16 Mtgs		32	16							48
	Progress Meetings (Contractor)	2 Mtgs		6	6							12
	20% Concept Review (Flagstaff)	2 Mtgs										
	Project Workshops	Mtgs										
	Site Reviews			28	28				24	24		104
	Project Administration			33	12				4	8	41	162
<b>PROJECT COORDINATION / ADMINISTRATIVE SUBTOTALS:</b>				107	70	56			28	32	41	334
<b>TOTAL HOURS</b>				178	70	329			317	244	41	1,179

JACOBS SCOPE

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count (If Applicable)	Project Principal	Sr. Project Manager	Senior Project Engineer	Project Engineer	Senior Environ. Planner	Environ. Planner	Engineer/ Designer	Tech. Drafter	Clerical	Total Hours
	<b>PROJECT COORDINATION / ADMINISTRATIVE</b>											
	Kick-Off / Scoping Meeting	1 Mtgs										
	Preparation (Special Plots, Exhibits) Meeting (Including Travel)											
	Sub-Total for each Meeting											
	Total for projected Meetings											
	City Council Working Meeting											
	Preparation Meeting (Including Travel)		2									2
	Total projected for City Council Working Meeting:	1 Mtgs	8									8
	Progress Meetings (Virtual)											
	Preparation Meeting		1			1						1
	Sub-Total for each Meeting		1			1						2
	Total for projected Progress Meetings	16 Mtgs	32		16							48
	Progress Meetings (Contractor-Construction Details / Pricing)											
	Preparation Meeting		1		1							2
	Sub-Total for each Meeting		2		2							4
	Total for projected Progress Meetings	2 Mtgs	6		6							12
	20% Concept Review (Flagstaff)											
	Preparation Meeting											
	Sub-Total for each Meeting											
	Total projected Team Meetings	2 Mtgs										
	Project Workshops (Flagstaff)											
	Preparation Meeting											
	Sub-Total for each Meeting											
	Total projected Workshop Meetings	Mtgs										
	Site Visits											
	Preparation (Special Plots, coordinates) Site Visit		4		4							8
	Sub-Total for each Field Review		24		24				24	24		96
	Total for projected Field Reviews	1 Mtgs	28		28				24	24		104
	Total for projected Field Reviews		28		28				24	24		104

JACOBS SCOPE

Scope Ref.	MILESTONE SUBMITTAL	Sheet Count (If Applicable)	Project Principal	Sr. Project Manager	Senior Project Engineer	Project Engineer	Senior Environ. Planner	Environ. Planner	Engineer/ Designer	Tech. Drafter	Clerical	Total Hours
	Administration/Project Management/Sub Coordination	(Jan - April)										
	Project General Administration	5 Months		16							28	
	Monthly invoicing			5							5	
	Coordination of Sub-Consultants			4							8	12
	Review QA/QC of Sub Consultant Reports / Plans											
	Final Environmental Reports				8							8
	QA of Plans Packages											
	Initial Concept Submittal											
	Final Concept Submittal				16							16
	Final Plans Submittal				32							32
	Assemble plans for print / Distribution											
	Initial Concept Submittal											
	Final Concept Submittal					4				8		16
	Final Plans Submittal											
	Review Mtg & Respond to Comments											
	Initial Concept Submittal			8								24
	Final Concept Submittal				8							
	Final Plans Submittal											
	Total for Admin / Project Management			33	64	12			4	8	41	162
	<b>PROJECT COORDINATION / ADMINISTRATIVE SUBTOTALS:</b>			107	70	56			28	32	41	334

JACOBS SCOPE



City of Flagstaff  
**Schultz Flooding Inner Basin Road  
 2022 and Facility Repairs / Reconstruction**  
 City of Flagstaff Contract No. 2022-XX



**PRELIMINARY IMPLEMENTATION PLAN (DESIGN TO 30% PLANS)**

<b>Dates</b>	<b>Contracts</b>	<b>Approach</b>
Dec 22	Design Conti	Start Concepts Based on what we know - Drone Footage Update Drainage Study / Develop Flows for New Sites Complete Environmental
Jan 23	15% Plans	Based on Above and Drone Footage: Develop Existing Site Repairs Develop Alternative Site Repair Concept Initial Quantities Initial Costs
Feb 23		Share Concepts with Stakeholders Discuss Pros/Cons with Forest / DEMA Agree on Approach Review Environmental with Concepts
March 23	30% Plans	Jacobs Advance concepts with comments addressed Update Quantities based on comments Update Costs Identify Long-Lead Materials / Items Access Review Permit Review
Develop Scoping and Proposal for Final Design Contract (Design Contract 2)		

**INITIAL IMPLEMENTATION PLAN (DESIGN TO FINAL PLANS)**

April 23	Design Contract 2	Design Contract 2 Approval
May 23		Site Review/Investigations (Weather Permitting) Survey  Final Concept Review / Final Design Kick-off Meeting Confirm Concept Plans / Assumptions Incorporate Environmental Constraints
August 23	90% Plans	Update Plans Develop Mitigation Toolbox                      Revised Tool Kit for Repairs Prioritize / Develop Implementation Plan Initial Construction Schedule - Develop Quantities - Develop Cost Estimates  Share Concepts with Stakeholders Discuss Pros/Cons with Forest / DEMA Agree on Approach Review Environmental with Concepts Final Design Review Meeting

**JACOBS SCOPE**



8433 North Black Canyon Highway  
Suite 120  
Phoenix, Arizona 85021  
(623) 242-7656

April 14, 2023

Mr. Berwyn Wilbrink, PE  
**Jacobs Engineering Group**  
1501 West Fountainhead Parkway, Suite 401  
Tempe, Arizona 85282

## Proposal: Schultz Pass Road

AeroTech Mapping Technologies, LLC (ATMT) is pleased to present the following proposal for aerial photography, LiDAR and photogrammetric services for the above-mentioned project.

### Photogrammetric & LiDAR Scope of Work

Our services will consist of the production of 1" = 100', 2' topographical information, planimetric detail and digital orthophoto covering Schultz Pass Road as indicated in the attached KMZ file. The roadway centerline is approximate.

The photography will consist of 6 flight lines and 50 exposures utilizing 10cm digital imagery. Additionally, LiDAR acquisition at approximately 15-20 points per square meter (ppsm) will be captured. Accuracies of plus or minus 0.656' can be expected as it relates to the topographical information generated from the Digital Terrain Modeling (DTM) information. Accuracies of plus or minus 0.44' can be expected as it relates to the DTM information itself.

Project accuracy to conform to generally accepted photogrammetric standards established by the American Society of Photogrammetry and Remote Sensing (ASPRS).

### Aerial Ground Control

**Arizona Surveying, Inc.** will be responsible for the establishment of aerial ground control for the aerial survey. A total of 24 aerial targets are needed for this project and a layout showing their locations is attached. The aerial target sizes should be in the order of 12" wide and measure 10'-12' in total length.

### Deliverables

Deliverables will consist of the DTM information used for the generation of topographical information, Bare Earth .las files, the contour information, planimetric detail, and digital orthophoto with a resolution of 0.50' pixel resolution and delivered in MrSID format.

Final delivery of the digital information will be supplied in ADOT Microstation (InRoads) or as directed by **Jacobs**.



# ARIZONA SURVEYING

# Proposal

Arizona Surveying, Inc.  
1843 West Heavenly Ct.  
Flagstaff, AZ 86001

Mobile: (928) 607-7092

john.luckow@arizonasurveying.com  
www.arizonasurveying.com

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**Client:** Aerotech  
C/O Lyle Slater

**Project Name:** Inner Basin Waterline – LiDAR Mapping Control

**Date:** April 14, 2023

**Project Location:** Schultz Pass Road to Inner Basin, Flagstaff, AZ

Thank you for the opportunity to present this Land Surveying proposal. Arizona Surveying, Inc. (Firm) is well suited to provide the required services. We employ the use of state-of-the-art RTK GPS and fully robotic total station survey instruments. We have over 50 years of quality experience with projects in Arizona. References will be provided upon request.

The Firm's understanding of the requested services is to provide Aerial Mapping Control for approximately 24 locations, per the attached exhibit. Access is critical along the mountainous ~13-mile route and a UTV will be used to transport personnel and equipment.

Ground elevations range from ~7,500' to nearly 10,000'. There is snow on the ground at this time and there may be washed out areas, both causing access blockage. Access may also be impeded due to other factors.

Since the work is planned to be executed as soon as possible, some areas may be inaccessible.

The terrain is difficult, and the conditions are underminal. Once our field crews start, and other access information is available through partners on this project we will provide an update to our estimates of the level of effort proposed.

## Scope of Services:

1. Place survey control points and panels at each location. The accuracy expected  $\pm 0.15'$  horizontally and vertically.
2. Provide coordinates and elevations for each location, on an approved coordinate system.
3. Measure ground proofing points in various locations along the route.
4. Provide mapping verification, and certification as needed. Client will provide a surface model created using Aerial LiDAR mapping methods.

**Fee:** The Client shall pay a lump sum fee of \$35,610.00 for the services defined above.

This fee is based on 12 field trips. We are estimating that an average of 2 control points and panels will be placed and measured per day. In the event the work is not completed due to access issues, and there is an excess amount remaining in the budget, the fee may be reduced, potentially commensurate with the reduction in services provided.

## Fees – Additional Services:

The Client shall pay the Firm on a time and expense basis per the rate schedule in the attached Terms and Conditions.

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**Schedule:**

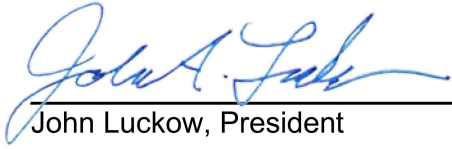
The services will be provided as agreed to between the Client and the Firm.

***Arizona Surveying, Inc. Terms and Conditions are a part of this agreement.***

---

Offered By:

Accepted by:



4-14-2023

John Luckow, President

Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

This offer is valid for 30 days.

\_\_\_\_\_  
Printed name/title

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# TERMS AND CONDITIONS

Arizona Surveying, Inc., hereinafter referred to as the "Firm" shall perform services defined in the "Scope of Services" according to the following terms and conditions:

**Access to Site:** The Firm shall have access to the site for the performance of the contracted services. The Firm shall take reasonable precautions to minimize the effects of these activities; however, unless specifically stated, restoration costs have not been included in any fee agreement. In the event the Client schedules or causes to be scheduled field services to be performed during adverse weather conditions or other conditions which cause limited or lack of access, any resulting delays or other related lost time may be considered additional services, which will be charged per the Fee Schedule herein.

**Dispute Resolution:** Any claims or disputes made by either the Client or the Firm shall first be submitted to non-binding mediation. Client and Firm agree to include a similar mediation agreement with all contractors, consultants, suppliers, and fabricators hired by either party to work directly with, or under the supervision of, the Firm; thereby providing for mediation as the primary method for dispute resolution between all parties. In the event of any action under this agreement, the prevailing party shall be entitled to recover its cost, including reasonable attorney's fees.

**Billings/Payments:** Invoices for the Firm's services shall be submitted, at the Firm's option, either upon completion of such services or on a monthly basis. Invoices shall be due on receipt. If the invoice is not paid within 25 days, the Firm may, without formal notice and without waiving any claim or right against the Client, and without liability whatsoever to the Client, terminate the performance of the service. Work may not resume immediately upon receipt of payment but as the Firm's schedule permits. Retainers shall be credited on the final invoice.

**Late Payments:** Accounts unpaid 25 days after the invoice date will be subject to a monthly service charge of 1.5% on the then unpaid balance. In the event any portion of, or all of an account remains unpaid 60 days after billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

**Indemnification:** The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Firm, its officers, directors, employees, agents, and sub-consultants from and against all damage, liability, and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by Client under this agreement, excepting only those damages, liabilities, or costs attributable to the negligence or willful misconduct of the Firm.

**Certifications, Guarantees and Warranties:** The Firm shall not be required to execute any document that would result in its certifying, guaranteeing, or warranting the existence of conditions whose existence the Firm cannot ascertain.

**Limitations of Liability:** In consideration of the relative risks, rewards and benefits of the project to both the Client and the Firm, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Firm's total liability to the client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any cause or causes, shall not exceed the Firm's total fee for this project, or \$50,000, whichever is lower.

**Termination of Services:** This agreement may be terminated by the Client or the Firm at any time upon 30 days prior written notice to the other. In the event of termination without cause, the Client shall pay the Firm for all services rendered to the date

of termination, all reimbursable expenses, and termination expenses.

**Ownership of Documents:** All documents produced by the Firm under this agreement shall remain the exclusive property of the Firm and may not be used by the Client for any other endeavor without consent of the Firm. Client has the right to provide copies of the survey to the landowner, lender, Title Company, and use descriptions for applications, leases, etc.

**Forum Selection Clause** - The parties to this contract agree that any and all disputes arising from this contract will be subject to the jurisdiction of the state of Arizona.

**Incorporation by Reference** - All tables, addenda, drawings, and exhibits are incorporated herein by this reference.

**Entire agreement** - Absent any other agreements specifically related to the services offered by the Firm herein, this agreement constitutes the entire agreement and the intent of the services offered, between the Client and the Firm (parties). If the Client provides the Firm notice to proceed, or otherwise directs Firm to provide any services proposed herein, and no contract has been executed at that time, or thereafter, it is understood that a) all of the terms, conditions and scope of services herein offered constitute the entire agreement between the parties until and unless such agreement is superseded by said parties, and b) upon completion by the Firm of the services offered, the Client shall pay, or cause to pay, for all services rendered.

**Inclusion with Client and/or Owner Agreements** – Although other Agreements with differing terms and conditions may be executed by the Firm for this contract, any applicable and pertinent terms, conditions, inclusions, exclusions, clarifications, etc. contained herein, which are not in conflict are a part of any such Agreements.

## Fee Schedule:

Principal	\$ 200 per hour
Professional Land Surveyor	\$ 150 per hour
Survey Crew Chief	\$ 115 per hour
Technician	\$ 82 per hour
Draftsperson	\$ 98 per hour
Robotic Total Station	\$ 34 per hour
RTK GPS Total Station	\$ 34 per hour
Meals Daily Rate	\$ 65 per person
Mileage, Govt.	Federal (GSA) Rate + 10%
Mileage, Other	\$0.72 per mile

Note, a minimum daily trip charge of \$42 will be charged for all field services, regardless of the actual trip mileage. All survey vehicles are equipped with 4-wheel drive.

Reimbursable expenses, such as lodging, long distance telephone, faxes, shipping, printing, copying, submittal, review, recording, application and permitting fees, and title reports will be billed with a 10% markup and are not included in our lump sum or hourly fees unless the contract specifically states that they are included.

The rates listed herein are valid through June 30, after which time, the Firm may increase the listed rates, at the Firm's sole discretion, unless otherwise specifically agreed to between the Client and the Firm.

The current annual escalation rate is 6%.

Services related to project litigation including preparation will be charged at 2.0 times our regular rates.

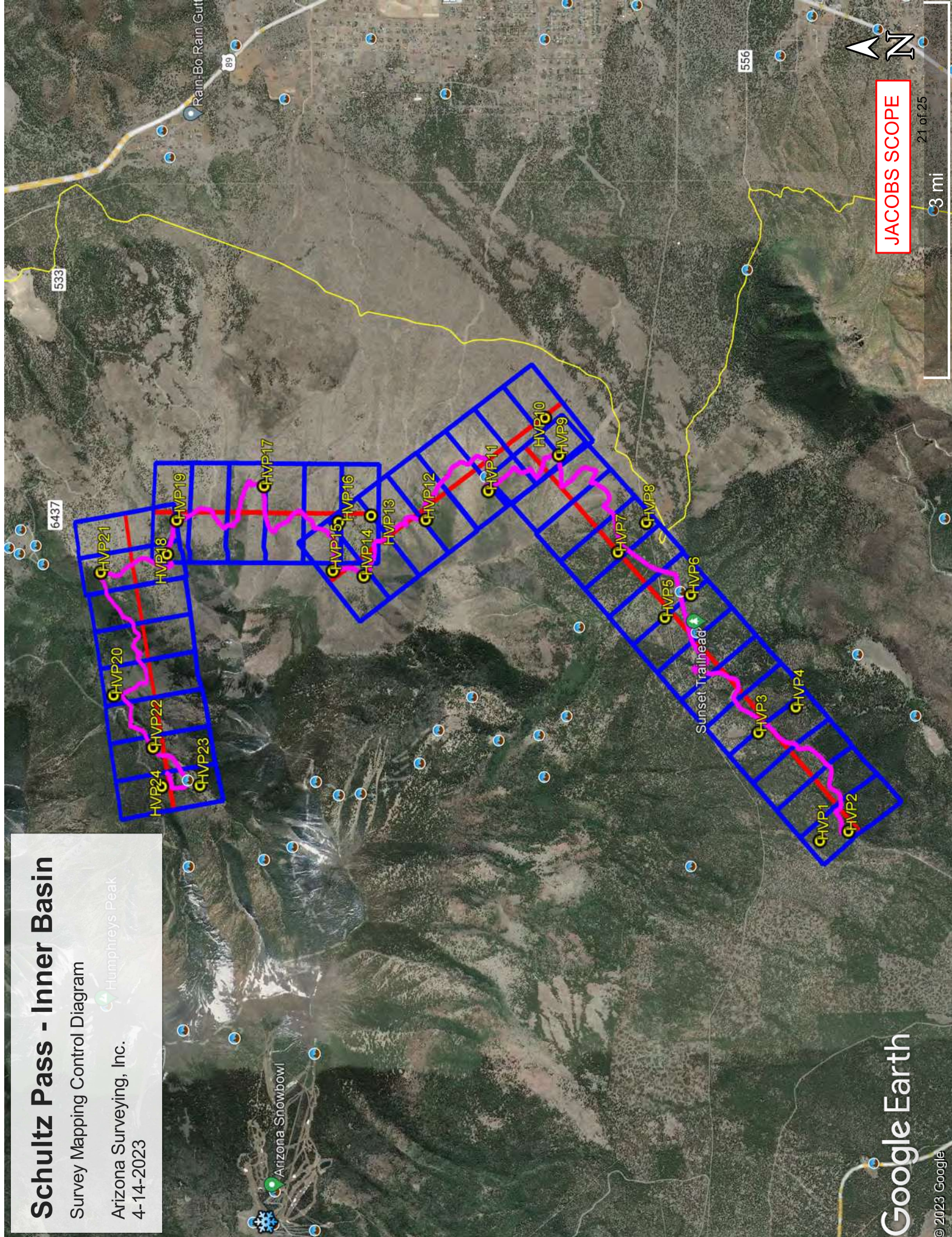
Revised January 1, 2023

# Schultz Pass - Inner Basin

Survey Mapping Control Diagram

Arizona Surveying, Inc.  
4-14-2023

Humphreys Peak



JACOBS SCOPE

21 of 25

3 mi

Google Earth

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8433 North Black Canyon Highway  
 Suite 120  
 Phoenix, Arizona 85021  
 (623) 242-7656

### Estimated Project Schedule

ATMT anticipates completing this project 50-55 consecutive working days after acquisition of aerial imagery and LiDAR, or receipt of control, whichever is later. Please note certain delays may exist, i.e. weather and/or air flight restrictions that are beyond our control. Total delivery time includes land survey services.

### Summary & Terms

Summary for Photogrammetric & LiDAR Services		
Service	Description	Schedule
Aerial Photography / LiDAR	10cm Digital Imagery / LiDAR 15ppsm	50-55 Working Days
Overlap	60%	
Aerial Ground Control	24 Aerial Targets (10" x 10'-12')	
Contour Interval	2 Foot	
Mapping Scale	1" = 100'	
Stereo Model Count	44	
Planimetric	Major Detail	
Plot	N/A	
Format	Microstation InRoads	
Levels	ADOT	
Digital Orthophoto	Color, MrSID, 0.50' Pixel Resolution	
<b>Total Fee (Mapping):</b>		
<b><u>Total Fee (Land Surveying):</u></b>		<b><u>\$ 35,610.00</u></b>
<b>Total Fee:</b>		<b>\$ 77,800.00</b>

### Payment Schedule Net 30 Days

This proposal will remain effective for 60 days after the date of this letter. If you have any questions, please do not hesitate to contact us at any time. ATMT appreciates the opportunity of submitting this proposal and we look forward to working with **Jacobs Engineering Group**.

Your signature in the space provided below indicates your acceptance of the scope and terms of the proposal and serves as our Notice to Proceed.

Sincerely,

Lyle Slater  
 General Manager

Accepted by:  
**Jacobs Engineering Group**

\_\_\_\_\_  
 Berwyn Wilbrink, PE

\_\_\_\_\_  
 Client Project Number

\_\_\_\_\_  
 Date

ARIZONA CALIFORNIA NEVADA NEW MEXICO TEXAS UTAH

www.atmlv.com

**JACOBS SCOPE**  
 22 of 25

February 13, 2023

**Berwyn Wilbrink, PE**

Vice President & Transportation Group Manager

Jacobs

1501 W Fountainhead Pkwy #401

Tempe, AZ 85282

Office: (602) 530-1661

Mobile: (480) 363-6328

Berwyn.Wilbrink@jacobs.com

Re: Cost modification request for the Inner Basin Waterline to transform the Class I records review report into a Historic Resource Evaluation and Survey Plan.

Mr. Wilbrink,

EnviroSystems Management, Inc. (EnviroSystems) respectfully requests a modification for the Inner Basin Waterline Class I records review for Jacobs Engineering and the City of Flagstaff. EnviroSystems initially prepared a Class I cultural resources overview as a baseline data set and report and submitted this information to the Coconino National Forest (CNF) for feedback. Due to concerns with the project schedule, the CNF has requested that EnviroSystems prepare a Historic Resource Evaluation and Survey Plan in lieu of the Class I report. The Historic Resource Evaluation is a much more detailed and complex compliance document that will be submitted to the Arizona State Historic Preservation Office (SHPO) and will allow road and pipeline repair work to proceed in those areas that have already been sufficiently documented. In addition, the report will also include a plan of work for conducting pedestrian surveys of portions of the project area that have not been subject to Class III level archaeological investigation or areas that require resurvey based on old or inaccurate data. The survey plan will include proposed methods and a schedule that provide a path forward to survey ahead of proposed repairs. It is also anticipated that some areas may require archaeological monitoring as well. However, the full extent of monitoring can not be determined until after pedestrian surveys of select portions of the project area are complete.

A summary breakdown of additional costs is provided below for your review and consideration.

<b>Previous Costs for Class I (incorporated into Historic Evaluation)</b>	<b>\$7,050.00</b>
Task 1 Project Development and Additional Records Search:	
An estimated 23 additional hours will be expended over initial cost estimate	\$5,717.86
Task 3. Reporting:	
An estimated 177 additional hours will be expended (GIS/mapping, reporting)	\$20,129.99
<b>Additional Costs (Subtotal):</b>	<b>\$25,847.85</b>

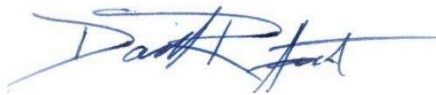
**JACOBS SCOPE**

**Total Costs (excluding survey and monitoring):**

**\$32,897.85**

EnviroSystems works diligently and efficiently to avoid cost modifications. However, when the current reporting needs far exceed the initial expectations of the original scope of work, a cost modification can become necessary. Should you have any questions, please do not hesitate to contact me directly at [dhart@esmaz.com](mailto:dhart@esmaz.com) or (928) 266-6651.

Sincerely,



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David R. Hart, M.A., RPA  
Vice President / Cultural Resources Division Director



4/14/2022

**Project:** Inter Basin Waterline  
**Owner:** City Of Flagstaff, Arizona  
**Designer:** Jacobs Engineering  
**Location:** Flagstaff, Arizona  
**Contractor:** Hunter Contracting Co. ROC070961A

**GMP 2 Cost Allocation Allowances**

Line	Description	GMP 2 Cost Allocation Allowance	Scope of Work Observed from Photos
1			
2	Point I	\$ 400,000.00	Rebuild Pipeline, Encase Pipe, Gabion Struct, Clean, Regrade, ABC
3	Point I Temp Water Repair	\$ 75,000.00	Temporary Repair of Broken Waterline
4	Site 32	\$ 250,000.00	Repair of Pipeline, SD Pipe, Water Line, Clean Up Silt Logs Debris, Dig Out, Re Grade, Stabilize, Re Compact Dirt, Rip Rap, ABC, Compact
5	Site 32 Temp Water Repair	\$ 50,000.00	Temporary Repair of Broken Waterline
6			
7	<b>Site Subtotal</b>	<b>\$ 775,000.00</b>	
8			
9	Waterline Road Initial Cleanup	\$ 182,000.00	Establish Access to and throughout site
10	Timber/Chip Removal	\$ 125,000.00	Remove/Chip Timber within Roadway and Corridor
11	Timber Retaining Walls	\$ 150,000.00	Misc. Repairs Not At Site
12	Haul Road Maintenance	\$ 75,376.22	Maintain Hauls Roads
13	Roadway Surfacing		
14	Construction Water	\$ 260,312.92	This Is Water And Trucking
15	Construction Survey	\$ 20,460.83	Site Survey for Construction
16	Mobilization - Subs		
17	Construction Engineering Services	\$ 6,800.00	Construction Services for Jacobs Engineering
18	General Conditions	\$ 441,842.78	Construction Staffing and Overhead for June, July, August
19	Owner/Contractor Contingency		
20	Total	\$ 300,000.00	Held In GMP For Unforeseen Circumstances
21	<b>Subtotal Direct Cost</b>	<b>\$ 2,336,792.75</b>	
22			
23	Payment and Performance Bonds	\$ 21,031.13	0.90%
24	Insurance	\$ 23,367.93	1.0%
25	Construction Fee	\$ 268,731.17	11.5%
26			
27	<b>Subtotal</b>	<b>\$ 2,649,922.98</b>	
28			
29	Sales Tax	\$ 118,981.54	
30			
31	<b>Construction Cost Total</b>	<b>\$ 2,768,904.52</b>	Total Cost Allocation to establish allowance budget for construction
32			

**HUNTER SCOPE - GMP2 COST ALLOCATION ALLOWANCES**