



GRAND COUNTY MUNICIPAL BUILDING AUTHORITY

Grand County Commission Chambers
125 East Center Street, Moab, Utah

AGENDA Tuesday, May 17, 2022

4:00 p.m. or later

- Call to Order**
- Approval of Minutes** (Gabreil Woytek, Secretary)
 - A. February 1, 2022 (Municipal Building Authority)
- Action Items – Discussion and Consideration of:**
 - B. Approving Scope of Work for Design and Bid Documents for the Jackson Street Phase II Stormwater Conveyance System (Chris Baird/Bill Jackson)
- Adjourn**

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It is hereby the policy of Grand County that elected and appointed representatives, staff and members of Grand County Commission may participate in meetings through electronic means. Any form of telecommunication may be used, as long as it allows for real time interaction in the way of discussions, questions and answers, and voting.

At the Grand County Commission meetings/hearings any citizen, property owner, or public official may be heard on any agenda subject. The number of persons heard and the time allowed for each individual may be limited at the sole discretion of the Chair. On matters set for public hearings there is a three-minute time limit per person to allow maximum public participation. Upon being recognized by the Chair, please advance to the microphone, state your full name and address, whom you represent, and the subject matter. No person shall interrupt legislative proceedings.

Requests for inclusion on an agenda and supporting documentation must be received by 5:00 PM on the Wednesday prior to a regular Commission Meeting and forty-eight (48) hours prior to any Special Commission Meeting. Information relative to these meetings/hearings may be obtained at the Grand County Commission's Office, 125 East Center Street, Moab, Utah; (435) 259-1346.



**GRAND COUNTY
COMMISSION REGULAR MEETING**

**Grand County Municipal Building Authority
Held virtually on Zoom
Moab, Utah**

WATCH ON YOUTUBE - search for: "GRAND COUNTY UTAH GOVERNMENT"

**MINUTES
1 FEBRUARY, 2022**

The Grand County Municipal Building Authority met on February 1st, 2022. The meeting was streamed/attended electronically. It was also broadcast and saved on YouTube. Attending the meeting were County Commissioners Clapper, Hadler, Hedin, Stock, Walker, and Woytek. Also in attendance were, Strategic Development Director Chris Baird and Clerk/Auditor Quinn Hall. Commissioner McGann was absent.

Call to Order

President Woytek called the meeting to order at 4:01 pm.

Approval of Minutes (Quinn Hall, Secretary)

A. 18 January, 2022 (Municipal Building Authority Special Meeting)

Motion by Kevin Walker to approve the minutes from 18 January, 2021.

Motion seconded by Trish Hedin

Motion passes 6-0

Presentations (none at this time)

Discussion Items (none at this time)

Action Items- Discussion and Consideration of:

- A. Ratifying President Woytek's signature on an application to the CIB (Community Impact Board) for funds for the Jackson Street storm drain Phase II project, in the amount of \$1,356,000 (Chris Baird, Strategic Development Director, and Bill Jackson, Roads & Bridges Supervisor)

Presentation

Chris Baird discussed the project and the public comment period, noting there was one public comment. Chris explained the project – noting this is Phase II of the Jackson St Storm Water Drain project. Funding will come from Grand County, The Transportation Special Service District. Chris discussed the application for the grant and noted the potential of a possible loan should the grant not be funded.

Motion by Kevin Walker to ratify President Woytek's signature on an application to the CIB (Community Impact Board) for funds for the Jackson Street Storm Drain Phase II project, in the amount of \$1,356,000.00.

Motion seconded by Sarah Stock

Motion passes 6-0

Public Hearing (none at this time)

Future Considerations (none at this time)

Closed Session(s) (if necessary) (none at this time)

President Woytek adjourned the meeting at 4:06 pm.

DRAFT

AGENDA SUMMARY
GRAND COUNTY MUNICIPAL BUILDING AUTHORITY
MAY 17, 2022

Agenda Item: B

TITLE:	Approving Scope of Work for Design and Bid Documents for the Jackson Street Phase II Stormwater Conveyance System
FISCAL IMPACT:	~\$174,137
PRESENTER(S):	Chris Baird, Strategic Development Director – Bill Jackson, Roads Supervisor

Prepared By:
CHRIS BAIRD

FOR OFFICE USE ONLY:
Attorney Review:

N/A

SUGGESTED MOTION:

I move to approve the scope of work from Horrocks Engineering for the design of the Jackson Street Phase II Stormwater Conveyance System and the drafting of associated bid documents.

BACKGROUND:

The CIB approved a \$447,000 grant, and \$909,000 1% loan for the Jackson St. Stormwater Conveyance System.

In order to close on this grant/loan, Grand Co. MBA is required to bid the project. The attached scope of work includes pipeline design, geotechnical investigations, and the drafting of the bid documents for the project.

This scope of work is to be performed according to our general services agreement with Horrocks Engineers.

ATTACHMENT(S):

1. Proposed Scope of Work

May 3, 2022

Bill Jackson
Grand County Road Superintendent
50 E Center Street
Moab, UT

Subject: 2019 Jackson Street Storm Drain Line: Detention Pond to Pack Creek

Horrocks Engineers has been asked to prepare a scope and cost estimate for the engineering services for the Jackson Street Storm Drain Line from the new Jackson Street Detention pond down Jackson Street across US-191 along Moab 400 East to Pack Creek. The scope of the project is larger than shown in The Grand County Spanish Valley Storm Drain Master Plan with the County's desire to pipe the upper end of Jackson Street instead of having open ditches.

The major challenge for this project is the crossing of US-191. It is assumed that a jack and bore operation will be required to maintain traffic on US-191. This will require careful design and geotechnical investigation to perform this work. Other challenges of placing a pipe of this size are potential utility conflicts. It is likely that an easement for the discharge pipe into Pack Creek will also need to be obtained.

Please see the attached scope of work and engineering fee estimate for this project.

Adjustments to this scope may need to be made based on findings and evaluations to meet the needs of the county.

Sincerely,
HORROCKS ENGINEERS



David Dillman, P.E.
Principal

cc: file

Executive Summary

Overview:

- This scope of work is to include design engineering and construction engineering management services for Jackson Street Storm Drain line from the new Jackson Street Detention Pond to outfall in Pack Creek (approx. 2700 lin. ft.). This line would also include Moab City as portions of the drainage basin is within Moab City limits. The line would be designed meeting the Spanish Valley Storm Drain Master Plan. The master plan shows the line as 66" line and open ditch near the top of Jackson Street. It is the county's desire to pipe the entire length as funds allow. The line would have a major highway crossing US-191. This scope of work is much larger than anticipated in the master plan due to the increased length of pipe on the upper end of Jackson Street.

This scope of work includes tasks for design engineering and construction engineering management services. The general scope of this work includes advancing all elements of the design and preparing a bid/construction document set for construction and administering the construction contract for the storm drain system.

TASK 01 PROJECT MANAGEMENT

OVERVIEW:

The purpose of this activity is to provide overall direction and control for the project. The project manager will be responsible for the implementation of quality control measures, project reporting, project documentation, and overall performance of the project. The tasks within this activity will include the following:

GENERAL TASKS:

- Provide coordination of all disciplines within the project.
- Manage project budget and activities.
- Prepare and submit monthly invoices.
- Create and maintain a project central file throughout the duration of the project. Files will include all relevant incoming and outgoing correspondence and materials on the project.
- Schedule and hold a monthly team coordination meeting to review status and progress of the work.
- Maintain an Action Item list and distribute to team members after team coordination meetings.

ASSUMPTIONS:

- Progress Reports will be completed with each invoice.
- Monthly team meetings are anticipated, design activities are planned to last approximately 6 months.

DELIVERABLES:

- Monthly progress reports and invoices.
- Meeting agendas and minutes
- Action Item lists

TASK 02 Topographic Survey

OVERVIEW:

Develop topographic survey along Jackson Street across US-191 and along 400 East to Pack Creek..

GENERAL TASKS:

- Use existing survey control for the Jackson Street Detention Pond. Set additional control as needed.
- Perform survey with mobile LiDar and supplement with total station as needed.
-

ASSUMPTIONS:

- Environmental clearance is not included in this scope. SHPO cleared the project in CIB application. Stream Alteration Permit will not be required.

DELIVERABLES:

- Topographic survey and control for design and construction.

TASK 03
Subsurface Utility Investigation

OVERVIEW:

Perform subsurface Utility Investigation of utilities along the pipeline alignment. Design of pipeline this size requires detailed information on the utilities crossing the pipeline alignment. Critical Utilities will need to be potholed to gather elevation of the utilities to avoid conflicts. During construction.

GENERAL TASKS:

- Gather available utility information from all utility owners along the proposed alignment.
- Determine which utilities need to be potholed.
- Have all utilities marked and survey horizontal locations
- Coordinate with UDOT on US-191 crossing.

ASSUMPTIONS:

- Assume 12 potholes.
- Assume utilities required to be relocated will be under the Grand County or Moab Franchise agreements. Except inside of the UDOT right-of-way.

DELIVERABLES:

- Utility size, type and location
- Pothole data for located utilities.

TASK 04
Geotechnical Investigations

OVERVIEW:

Provide geotechnical investigations for the new storm drain crossing of US-191. The storm drain crossing US-191 will likely have to be a trenchless operations (jack and bore). Geotechnical information will be critical to determine the type of operation that will allow for a successful crossing of the highway without disrupting traffic. See attached scope and fee from RB&G Engineering.

GENERAL TASKS:

- Provide Geotechnical Investigation and Report with recommendations for pipeline installation.

- Classify soil types and ability to excavate soils.

ASSUMPTIONS:

- Three test holes at US-191, test holes every 500 feet along the pipeline alignment.

DELIVERABLES:

- Geotechnical report and recommendations.

TASK 05 Pipeline Design

OVERVIEW:

Provide design of pipeline. Determine alignment to minimize utility conflicts, traffic conflicts and private property. The alignment will be within existing public right-of-way way. Perform hydraulic analysis on the pipeline to endure proper function of the line. The crossing of US-191 will be a boring operation in order to maintain traffic on the highway. Utility conflicts at the highway crossing will be critical and may dictate the depth of the pipeline. The outfall at Pack Creek will require some environmental work to obtain a Stream Alteration Permit. We are assuming a 404 permit will not be required. A wetland delineation will need to be completed to document the existing conditions and obtain a Stream Alteration Permit.

We will coordinate with City of Moab to ensure that this line is also in accordance with the City of Moab Storm Drain Master Plan and allows connections to handle storm drainage within the city.

GENERAL TASKS:

- Provide horizontal and vertical alignment.
- Perform hydraulic analysis.
- Prepare plan and profile sheets.
- Provide detail sheets.
- Design bore under US-191. Meeting with UDOT.
- Prepare wetland delineation and determine ordinary high water mark in accordance with USCOE standards. Assumes no wetlands and a 404 permit will not be required.
- Prepare Stream Alteration Permit for discharge into Pack Creek.
- Prepare design plans and specifications.

ASSUMPTIONS:

- Hydrology and storm drain capacity will be per the Spanish Valley Storm Drain Master Plan.
- All work will be in existing right-of-way. No property acquisitions are included in this scope.
- A wetland delineation and determination of the ordinary high water mark will be required. Assume no wetland impacts and a USCOE 404 permit not required.
- Two review meetings in Moab with Grand County, Moab City, UDOT and other stake holders
- The US-191 crossing will be a Encroachment Permit from UDOT obtained by the contractor.
- Grand County will advertise project.

DELIVERABLES:

Design Drawing and Specifications. Construction bidding documents.

TASK 06 CONSTRUCTION ENGINEERING SERVICES

OVERVIEW:

The Horrocks Team will provide construction engineering services, contract administration and construction oversight for the project. The expected construction schedule is for three months of Construction. Services will include construction oversight of the project and ½ time onsite inspection during construction. Contractor invoices and billings will be reviewed and approved for payment by the Project Engineer. We will provide part time inspection (two days per week) and at all critical construction activities during construction of the storm drain system.

Assume: 6 biweekly onsite construction progress meetings.
½ time inspection 100 hrs/month for 3 months.

April 28, 2022



Horrocks Engineers
Attn: David Dillman
2162 West Grove Parkway Suite 400
Pleasant Grove, UT 84062

Re: Jackson Street Pipeline - Revised

Dear Mr. Dillman:

In accordance with your request, we are outlining below our proposal to perform a geotechnical investigation for the Jackson Street Pipeline to be located in Moab, Utah. It is our understanding that the pipeline will be about 2,700 feet long and will be installed as deep as about 15 feet below the existing ground surface. The pipeline will convey water from the recently constructed Jackson Street Debris Basin north along Jackson Street to Pack Creek. We also understand that a trenchless crossing beneath Highway 191 is being considered, and we have estimated from aerial photographs that the trenchless crossing would be about 150 feet long.

Task 1 - Field Investigations

We propose to drill 8 borings along the pipeline alignment to depths of 5 feet below the pipeline invert define the characteristics of the subsurface profile. We have assumed an average boring depth of 20 feet in this proposal. Three of the borings will be drilled at the intersection of Jackson Street and Highway 191 where a trenchless crossing may be constructed. We propose to drill the borings near the ends of the trenchless crossing to a depth of 10 feet below the pipeline invert to provide information for shoring design. Sampling will be performed at 3 to 5-foot intervals through overburden deposits. Continuous coring will be performed to a depth of at least five feet below the planned pipeline invert elevation if bedrock materials are encountered. An Engineering Geologist will supervise the drilling and log the test borings.

The cost to perform the above scope of work is as follows:

Drill Rig plus Crew			
Mobilization and Demobilization	400 mi @	\$4.00/mile	\$ 1,600
Drilling and Sampling	170 lin. ft @	\$35.00/foot	5,950
Support Truck and Water Trailer	3 days @	\$110.00/day	330
Engineering Geologist	30 hrs @	\$125.00/hr	3,750
Engineering Geologist Mileage	400 mi @	\$0.59/mi	236
Per Diem	9 man-nights @	\$200.00/mn	1,800
Permitting (Engineer)	3 hrs @	\$120.00/hr	360
Drilling supplies		cost + 10%	est. 500
Traffic Control and UDOT Permit Fees		cost + 10%	est. 1,000
		Subtotal	\$ 15,526

If the subsurface materials have significant amounts of cobbles or boulders, excavation of a test pit and particle size analysis of bulk soil samples may be recommended for evaluation of Highway 191 trenchless construction. The need for test pit investigations can be determined based on the information obtained from the geotechnical borings.

Task 2 - Laboratory Testing

The exact laboratory testing schedule cannot be fully defined until the subsurface investigations are completed. It is anticipated, however, that the following tests will be needed.

Classification Tests	16 tests @ \$80.00/test	\$ 1,280
Unconfined Compression Tests	4 tests @ \$80.00/test	320
Chemical Tests (pH, Resistivity, Sulfate and Chloride)	4 tests @ \$160.00/test	<u>640</u>
	Subtotal	\$ 2,240

It will be noted that the testing has been defined in terms of the number, type, and unit cost so that modifications can be made in the total cost for the laboratory testing, depending upon the soil material types encountered and the actual tests performed. No tests which result in exceeding the estimated cost shown for laboratory testing will be performed without prior authorization from your organization.

Soil samples remaining after completion of testing will be stored for 60 days following delivery of the geotechnical report, after which they will be discarded unless arrangements are made for longer-term sample storage.

Task 3 - Analysis and Report

The results of the field and laboratory testing will be analyzed and summarized in the form of a written report submitted to you electronically. Hard copies will be provided upon request. The applicable information obtained from the investigations performed for the Jackson Street Debris Basin will be utilized for this project, and included in the geotechnical report. The information contain in the report will include the following: (1) Geological and Existing Site Conditions, (2) Subsurface Soil and Water Conditions, (3) Pipeline Design Recommendations, and (4) The Results of Field and Laboratory Tests. Our cost for performing this phase of the work will be \$2,000.00. Based upon the subdivision of costs indicated above, the estimated total cost for performing this investigation is **\$19,776.00**.

This cost assumes that access to the drill sites will be available for a drill rig mounted on a 2-ton truck. This cost also assumes that the only permit that will be required to complete the geotechnical investigations will be from the Utah Department of Transportation. We appreciate the opportunity to submit this proposal to you, and hope we can be of service to you on this project.

Sincerely,

RB&G ENGINEERING, INC.



Brandon D. Horrocks, P.E., Principal

Grand County 2020 Design Estimate Jackson Street Storm Drain: Detention Basin to Pack Creek

Local Road, Orchard Way, Arbor Drive

Task & Description	Total	Total	Principal	Engineer,	Engineer-in-	Engineer-in-	Environmen-	Senior	Senior CAD	CAD	Senior Field	Field	Vac	Senior	Surveyor/	
	Cost	Hours	Engineer II, P.E.	P.E.	Training II	Training	tal Specialist	Design Technician	Technician	Technician	Technician II	Technician	Truck/Came- ra Tech	Licensed Surveyor	or OW Technician	Clerical
BILLING RATE			\$243	\$125	\$117	\$99	\$117	\$117	\$113	\$96	\$142	\$94	\$101	\$169	\$113	\$63
TASK 1: Project Management Project team coordination meetings	9,026	42	32	10												
TASK 2: Topographic Survey Topographic Survey ,	6,710	58								4				4	50	
TASK 3: Subsurface Utility Investigation Obtain Data from Utility Company, Place in design topo. Pothole Utilities, Assume 12 potholes.	6,366 4,546	50 40	6	12		6		16		16	10		24			
TASK 4: Geotechnical Investigation By RB&G Engineering																
TASK 5: Pipeline Design Horizontal and Vertical Alignment US-191 Crossing Hydraulic Analysis Wetland delineation Prepare Stream Alt. Permit Specifications Contract Documents Assist with bidding and project award	37,567 5,219 4,790 6,343 4,101 3,780 2,196 972	349 47 42 53 35 36 20 4	5 2 2 1 1 2 2 4	100 12 16 2 6			120 16		4 1	120 16 24						2 2
TASK 6: Construction Engineering Management bi-wkly mtgs 1/2 time inspection 100 hours/month for 3 months	8,704 15,956 28,200	56 72 300	20 60	8 10	20							300				8 2
Total Labor	\$144,476	1,204	137	176	26	184	70	16	5	188	10	300	24	4	50	14

Direct Costs:

- other consultant: RB&G \$19,776
- per diem \$153/day (15 days) \$2,295
- Mileage (11500 Miles) \$7,590
- GPS
- Printing

TOTAL DIRECT COSTS \$29,661

Design Engineering \$174,137

TOTAL \$174,137