

April 28, 2020

Central Wasatch Commission  
**ATTN: Lindsey Nielsen and Kaye Mickelsen**  
41 N Rio Grande Street, Suite 102  
Salt Lake City, UT 84101



Dear Lindsey and Kaye:

I represent the Utah Geological Association (UGA) a 501-6c nonprofit as both Treasurer and Geology Road Sign Chair. The purpose of the UGA is to increase and disperse geological information to the scientific community and promote public awareness of the usefulness of geology in general. I am proposing the CWC help fund the Big Cottonwood GeoSign Replacement Initiative.

**Purpose:**

The Big Cottonwood GeoSign Replacement Initiative (GRI) seeks to replace three geological interpretive signs in Big Cottonwood Canyon (BCC), Salt Lake County, Utah. This project began with the Forest Service Salt Lake Ranger District contacting the UGA asking for assistance to help replace a missing sign in BCC. After consulting with Bekee Hotze, District Ranger, we determined to replace three existing signs in BCC.

Attachment A shows the locations of the Remnants of an Ancient Sea (mile 2.3), the Storm Mountain Quartzites (mile 2.8) and the Mississippian Marble (mile 7.2) signs (miles from park and ride). Attachment B shows the current condition of the signs to be replaced except for the Storm Mountain Quartzites sign which has been damaged beyond repair and disposed of.

In addition to installing new signs the GRI will repaint mounting posts and upgrade mounting hardware. The replacement signs will require no additional earth work nor need to consult with UDOT for right of way access. It is a simple sign swap out project.

**Argument:**

The GRI aims to help those recreating in the central Wasatch develop a deeper connection with BCC via its rich geologic history. The geologic interpretive signs offer visitors an easy opportunity to learn something about their surroundings. They are located in pull outs adjacent to Hwy-190 and easily accessed by everyone regardless of age or mobility. They are wide reaching and easily understood by many BCC users.

They new signs will have updated text and materials designed to last >50 years and are easily cleaned to thwart vandalism. The project aims to educate, inspire and create a deeper connection to the environment we recreate in.

## **Support:**

This project benefits from the support of the Utah Geological Survey, the Utah Geological Association, the University of Utah College of Mines and Earth Sciences, Brigham Young University Department of Geological Sciences, and the Utah Valley University Department of Earth Sciences.

Each institution has agreed to help provide and edit updated geological interpretations based on the latest research for each location. These partners will help ensure that the updated geological interpretive text is communicated in digestible terms for the public.

## **Project Lead, Plan and Schedule:**

Once approved the Utah Geological Association Geosigns Chair (Greg Gavin) will head the project and begin coordinating with all parties involved. Much of the work has already been completed for this project such as:

- 1) Updated copy for each sign;
- 2) Updated materials and design for each sign;
- 3) Verifying signage meets Salt Lake FS District guidelines;
- 4) Obtaining permission for sign replacement by the Salt Lake FS District; and
- 5) Labor for new sign installation (to be performed by the UGA and Salt Lake FS District).

Signage will be constructed by iZone Imaging of Temple, Texas. Turn around time for an order of 3 signs is projected to be about 3 to 4 weeks from order confirmation. It is estimated to be roughly 5 to 6 weeks after we request sample materials and confirm our updated text fits sign dimensions.

We hope to order materials early June 2020 allowing us to receive and install the signs mid-July 2020. In partnership with the Salt Lake Forest Service District we will repaint the support posts for each sign. Projected time to complete the installation of the three signs is 2 working days. Attachment C shows the proposed GRI project schedule.

## **Project Budget:**

The budget for this project is based solely off the cost of materials. All labor will be provided by volunteers from our various partners at no additional charge. The cost of materials including shipping for three signs is projected to be \$5,893.92 as quoted by iZone Imaging on April 14, 2020. Additional costs such as fuel, paint, postage, personal protective equipment and miscellaneous materials will be paid for by the UGA. Attachment D shows the iZone Imaging quote for services. The UGA will provide a complete expense report following project completion.

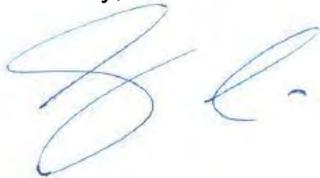
## **Conclusion:**

The Utah Geological Association hopes you consider funding the Big Cottonwood GeoSigns Replacement Initiative. Our goal is to increase and disperse geological information and promote public awareness of the usefulness of geology. This project is fortunate to have several key partnerships ensuring each task is completed thoroughly and professionally. We believe that the labor for the GeoSigns Replacement Initiative will be a short-term installation not to exceed two working days.

Replacing and updating these signs will provide users of the central Wasatch to the opportunity to learn and be inspired by the world class geology in Big Cottonwood Canyon.

Thank you for considering this project.

Sincerely,

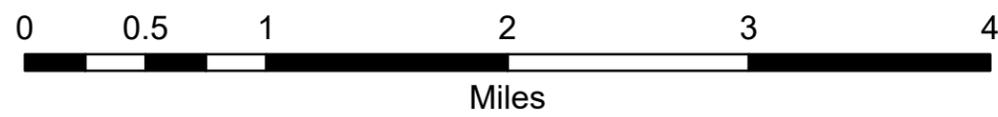
A handwritten signature in blue ink, appearing to read 'G. Gavin', is positioned below the word 'Sincerely,'.

Greg Gavin, Utah Geological Association - Treasurer and GeoSigns Chairman

### Attachments:

- A – Location Map
- B – Current Sign Condition
- C – Proposed Project Schedule
- D – iZone Imaging Quote
- E – Rebecca Hotze, Forest Service District Ranger - Letter of Support

# ATTACHMENT A



Big Cottonwood GeoSigns Replacement Initiative  
Central Wasatch Coalition  
Location Map

## **ATTACHMENT B**

# REMNANTS OF AN ANCIENT SEA

700 million years ago these blue to purple shales were deposited as silt and mud in shallow waters near the shore of an ancient sea.

Notice the pattern of mud cracks preserved on the purple rock

After the layers were built up and compacted, they were tilted, and in time elevated to their present position by movement along the Wasatch fault.

## STORM MOUNTAIN QUARTZITES

To your left are layers of rock that have been folded and steeply tilted.

The light colored strata were deposited as sand and the dark as mud. Buried for eons of time the layers were subjected to heat, pressure, and earth movements which converted them to quartzites and shales.

On the face of Storm Mountain, 2000 feet above your right shoulder, you see sparse vegetation due to resistance of the quartzite to weathering.

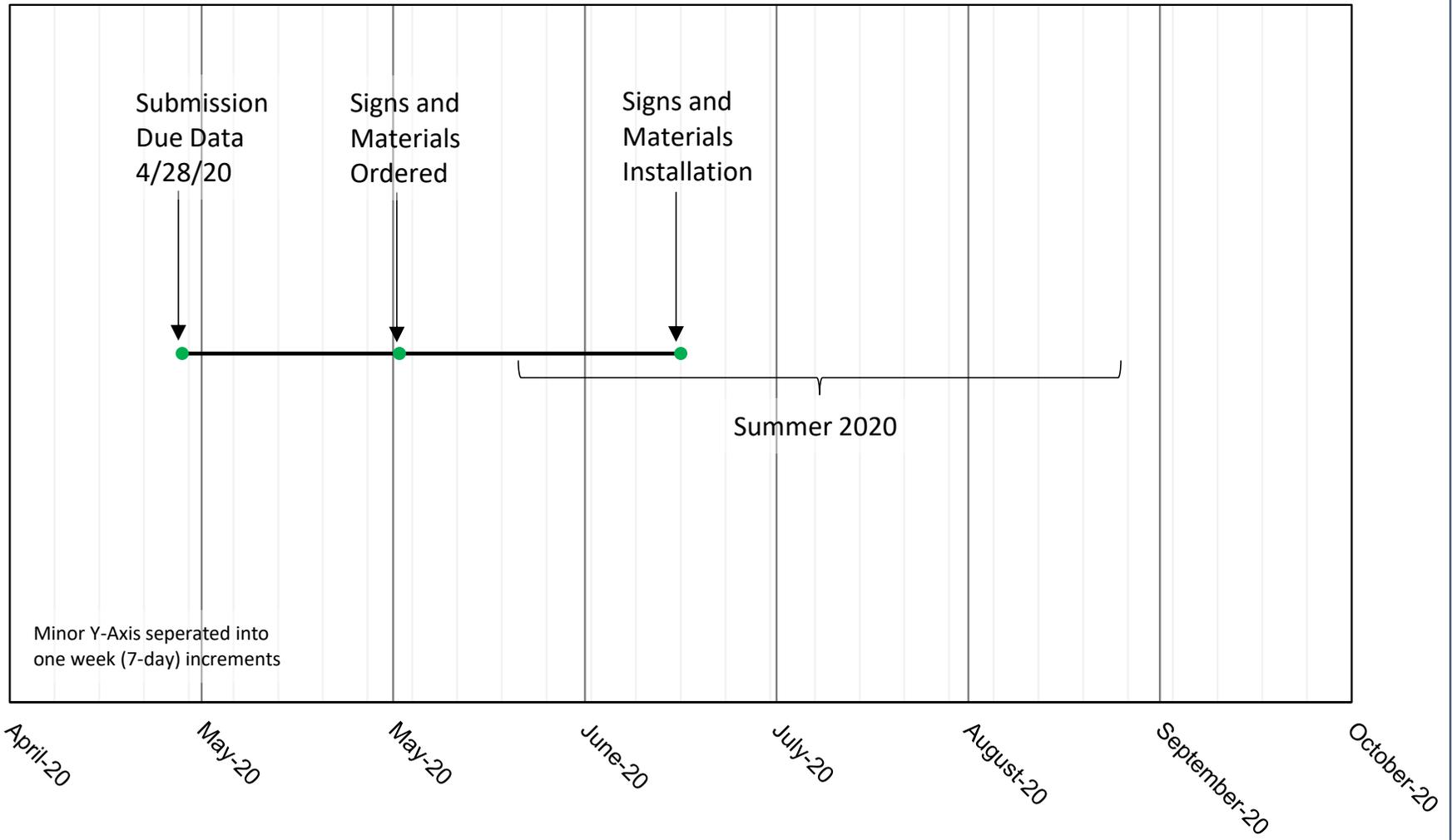
# MISSISSIPPIAN MARBLE

The white rock on both sides of the road is a Mississippian limestone which has been recrystallized to marble and then bleached.

Due to the upstream tilt of the beds, the narrowness of the canyon at this point, and the strength of the marble below the surface, this spot has been chosen for the site of the proposed Argenda Dam.

## **ATTACHMENT C**

# Central Wasatch Commision Geosign Replacement Initiative Proposed Schedule



## ATTACHMENT D

**Quote No. IZONE 39379-01**

04/14/2020  
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**Customer** Utah Geological Association

**Reference** Utah Geological Association

**Bill to**

Utah Geological Association  
Greg Gavin  
P.O. Box 520100  
Salt Lake City, UT 84152-0100  
US  
T: (513) 509-1509  
Email: greggavin@gmail.com

**Proof to**

Utah Geological Association  
Greg Gavin  
P.O. Box 520100  
Salt Lake City, UT 84152-0100  
US  
T: (513) 509-1509  
Email: greggavin@gmail.com

**Ship to**

Utah Geological Association  
Greg Gavin  
P.O. Box 520100  
Salt Lake City, UT 84152-0100  
US  
T: (513) 509-1509  
Email: greggavin@gmail.com

<b>Terms</b>	1/2 Down - Balance Prior to Shipping	<b>Due Date</b>		<b>Ship Date</b>		<b>SR</b>	Michael Dean	
<b>Client PO</b>		<b>Service Date</b>		<b>Ship Method</b>	XPO	<b>SA</b>	Alyssa Marek	
<b>Valid Until</b>	06/13/2020	<b>Revision Date</b>	04/14/2020	<b>F.O.B.</b>	N/A	<b>PM</b>	Samantha Box	
<b>Project Name</b>	Utah Geological Association						<b>Opp Ref.</b>	IZONE-37531

No.	Item	Description	Qty	UOM	Unit Price	Extension
1.	CHPL panels:1/2" XT	57.5 H X 63.75 W : 1/2" Exterior Panel Single Sided Standard 1/8" Beveled Edge Included (25.456 SQ FT) CUTTING OPTIONS: Special Cut / Panel Shape FINISHING OPTIONS: Matte Finish - Exterior  3 originals  *OVERSIZED  BLACK CORE  Qty (8) 1/4" Threaded Holes per panel, price includes 1/2" long 1/4"- 20 Button Socket Cap Black Oxide Screws	3	Each	1,541.07	4,623.21
2.	PDF Proofs	PDF Proofs of each unique panel layout	3	Each	0.00	0.00
3.	CHPL Color Samples	8" x 10" images cropped from full-sized panel layouts.	1	Each	50.00	50.00
4.	Wrapping and Crating		1	each	200.00	200.00
5.	Shipping and Handling	*Estimated 3 business days transit to 84152  *SHIPMENT IS HEAVY/LARGE- WILL REQUIRE FORKLIFT AND/OR LOADING DOCK FOR DELIVERY. DESTINATION MUST BE EQUIPPED TO RECEIVE TRUCK SHIPMENT.  (continued on next page)	1	Each	600.38	600.38

continued on next page

**Quote No. IZONE 39379-01**

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**Customer** Utah Geological Association

**Reference** Utah Geological Association

No.	Item	Description	Qty	UOM	Unit Price	Extension
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\*TIME/DATE APPOINTMENT INCLUDED

\*Estimate does NOT include any special delivery services such as a Lift Gate, Specific Delivery Scheduling or delivery to a residential address. Additional charges may apply if such services are required at time of delivery. International shipment estimates are in US Dollars they do NOT include Brokerage fees, duties, taxes or other customs clearance costs. International customers must have a Customs Broker of their choosing to handle customs clearance of their shipment and are responsible for all associated costs

Subtotal	5,473.59
Sales Tax (7.75 %)	420.33
Deposit Required	2,946.96
<b>Total (USD)</b>	<b>5,893.92</b>

Quote Valid Until: 06/13/2020

## **ATTACHMENT E**



**File Code:** 1800  
**Date:** April 17, 2020

Central Wasatch Commission  
41 N Rio Grande Street, Suite 102  
Salt Lake City, UT 84101

To whom it may concern,

The Salt Lake Ranger District of the Uinta-Wasatch-Cache National Forest fully supports the proposal submitted by Utah Geological Association (UGA) for promoting public awareness and knowledge of geology in Big Cottonwood Canyon.

The Salt Lake Ranger District manages 216,000 acres of National Forest System lands in close proximity to Salt Lake City. This area provides for outstanding recreational opportunities as well as 60% of the culinary drinking water to Salt Lake Valley. This area also attracts geology students from across the country. In a short drive through the canyon, visitors can see evidence of a variety of geologic processes. Most notably, the upper portions of the canyon were formed by glaciers while the lower portions of the canyon were formed by Big Cottonwood Creek. The canyon lies along the Wasatch Fault and the mountains continue to increase in size through tectonic uplift.

UGA has worked with the Forest Service in the past to provide valuable interpretive signs in Big Cottonwood Canyon to help recreating visitors connect to nature through a better understanding of geology. There are three sign locations in Big Cottonwood Canyon in need of updating and replacing. The existing signs have been vandalized or their messages were written prior to our current understanding of geology. Because the canyons do experience vandalism, the signs will be constructed out of materials that are easily cleaned, so that everyone can continue to learn and understand how the geologic processes formed our canyon.

I encourage you to consider awarding them the full requested amount. I am available to answer any of your questions at (801)733-2675 or at [rebecca.hotze@usda.gov](mailto:rebecca.hotze@usda.gov).

Sincerely,

Rebecca Hotze  
District Ranger

