

TASK ORDER NO. 23-018

TASK ORDER NAME: S-Curve Negative Return Cable-to-Rail Connections

PROJECT CODE: SGR-404

This is Task Order No. 23-018 to the On Call Maintenance Contract entered into by and between Utah Transit Authority (UTA) and Rocky Mountain Systems Services, (Contractor) as of February 24th, 2021.

This Task Order is part of the On Call Maintenance Contract and is governed by the terms thereof.

The purpose of this Task Order is to specifically define the scope, schedule, lump sum price, and other terms applicable to the work identified herein.

UTA and Contractor hereby agree as follows:

1.0 SCOPE OF SERVICES

The scope of work for Task Order #23-018 is hereby attached and incorporated into this Task Order.

2.0 SCHEDULE

The Substantial Completion Date for this Task is July 31, 2024. The Final Acceptance Date for this Task is July 31, 2024.

3.0 LUMP SUM PRICE

The price for this task order is a not to exceed \$289,839. Invoices will be billed on monthly basis for work completed to date.

4.0 APPLICABILITY OF FEDERAL CLAUSES

This Task Order does does not [Check Applicable] include federal assistance funds which requires the application of the Federal Clauses appended as Exhibit D to the On Call Maintenance Contract.

IN WITNESS WHEREOF, this Task Order has been executed by UTA and the Contractor or its appointed representative

UTAH TRANSIT AUTHORITY:

ROCKY MOUNTAIN SYSTEMS SERVICES:

By: _____ Date
Jay Fox, Executive Director > \$200,000

DocuSigned by:
By: Anthony Portolani
1587B142E149430...

By: _____ Date
Mary DeLoretto, Chief Capital Services Officer < 200,000

Date: 6/29/2023

By: _____ Date
Jared Scarbrough, Director of Capital Constr. < \$75,000

By: _____ Date
Dean Hansen, Project Manager < \$25,000

DocuSigned by:
Mike Bell 6/30/2023
Legal Review 70E33A415BA44F6...

Procurement Review _____ Date



June 6th, 2023

RMSS-52598-074

Mr. Dean Hansen
Manager of Systems Engineering
2264 South 900 West
Salt Lake City, UT 84119

Reference: Utah Transit Authority – Systems On-Call Services

Subject: PTO 014A - TRAX Rail Bonding Rehab for Ballasted Track and S-Curves

Dean,

Rocky Mountain Systems Services (RMSS) is pleased to provide a proposal for the rehabilitation of several crossbond and negative return locations along the TRAX alignment. This proposal focuses on locations in ballasted track territory as well as four locations on the University Line that can be completed in conjunction with the upcoming shutdown for the S-Curves.

Our lump sum price for this proposal is **\$289,839.00**

The scope of work for this proposal is as follows:

Scope of Work

RMSS will perform the following rehabilitation to ballasted track connection locations as follows:

- SRN13 9400 South TPSS
 - Install 28 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - Replace approximately 250' of bonding cable
 - Install tags on bonding cables from IB to track
 - Replace 2 jumpers that exist around the IJ of the southbound track
 - RMSS will add one additional jumper around each of these IJ's for added redundancy
 - Replace missing IB cable that is currently cut-off
 - Negative return cables do not have sufficient slack for re-termination at this location
- SRR12 Rio Grande TPSS
 - Install 18 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - This location has 2 existing bolted connections that will be re-used if possible
 - Replace approximately 250' of bonding cable
 - Install tags on bonding cables from IB to track
 - Negative return cables do not have sufficient slack for re-termination at this location



- SRS11 Sugar Highway TPSS
 - Install 12 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - This location has 4 existing bolted connections that will be re-used if possible
 - Replace approximately 120' of bonding cable
 - Install tags on bonding cables from IB to track
 - Replace jumpers around IJ's
 - RMSS will add one additional jumper around each of these IJ's for added redundancy
 - Negative return cables do not have sufficient slack for re-termination at this location
- SRA10 Atwood TPSS
 - Install 39 Cembre rail bonding track connections
 - 15 of these connections will be spares for future use
 - This location has 24 existing bolted connections that will be re-used if possible
 - Restraining rail in several locations will prevent RMSS from installing spare rail bonding kits
 - Replace approximately 1040' of bonding cable
 - Install tags on bonding cables from IB to track
 - Negative return cables do not have sufficient slack for re-termination at this location
- SRP9 Pallas Yard TPSS
 - Install 7 Cembre rail bonding track connections
 - 2 of these connections will be spares for future use
 - This location has 5 existing bolted connections that will be re-used if possible
 - Replace approximately 120' of bonding cable
 - Install tags on bonding cables from IB to track
 - Negative return cables do not have sufficient slack for re-termination at this location
- SRM8 Murray TPSS
 - Install 10 Cembre rail bonding track connections
 - 2 of these connections will be spares for future use
 - Replace approximately 120' of bonding cable
 - Install tags on bonding cables from IB to track
 - Negative return cables do not have sufficient slack for re-termination at this location
- SRC7 Central TPSS
 - Install 20 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - Replace approximately 250' of bonding cable
 - Install tags on bonding cables from IB to track
 - Re-terminate negative return cables at impedance bond busbar
- SRW6 Walton TPSS
 - Install 19 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use



- This location has 1 existing bolted connection that will be re-used if possible
- Replace approximately 250' of bonding cable
 - Install tags on bonding cables from IB to track
- Re-terminate negative return cables at impedance bond busbar
 - Negative return busbars appear to be heavily oxidized for both tracks
 - RMSS will replace the busbars as needed
- SRB4 Burton TPSS
 - Install 9 Cembre rail bonding track connections
 - 2 of these connections will be spares for future use
 - This location has 1 existing bolted connection that will be re-used if possible
 - Replace approximately 120' of bonding cable
 - Install tags on bonding cables from IB to track
 - Negative return cables do not have sufficient slack for re-termination at this location

RMSS will perform the following rehabilitation to embedded track connection locations as follows:

- 900E & 400S 75+18
 - Install 20 Cembre rail bonding track connections
 - 6 of these connections will be spares for future use
 - Replace approximately 350' of bonding cable
 - Install tags on bonding cables from IB to track
- 1000E & 500S 86+20
 - Install 16 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - Replace approximately 150' of bonding cable
 - Install tags on bonding cables from IB to track
- 500S & 1200E 97+95
 - Install 16 Cembre rail bonding track connections
 - 4 of these connections will be spares for future use
 - Replace approximately 150' of bonding cable
 - Install tags on bonding cables from IB to track
- 1300E & 500S 101+80
 - Install 24 Cembre rail bonding track connections
 - 8 of these connections will be spares for future use
 - Replace approximately 600' of bonding cable
 - Install tags on bonding cables from IB to track

Scope by Others

- Removal, procurement, and installation of track boxes
- Demo, replacement, and finishing of concrete
- Conduit repair at embedded locations
- UTA must provide RMSS with tagging convention for all locations and cables that are to be tagged



Assumptions

The pricing and scope of this proposal is based on the following assumptions:

- Concrete must be removed at least 1ft behind each track box and 2ft into the track slab to allow room for drilling of the rail required to install Cembre rail bonding kits
- RMSS will coordinate any impacts to traffic loop interfaces with Pinetop Engineering, LLC
 - Any repairs to traffic loops, or required upgrades to traffic loops will be handled under Task order #08 - Traffic Control Interface Maintenance, or equivalent task order extension
- Each track box in embedded territory will contain only one (1) spare Cembre track connection due to space constraints within the track box
- RMSS will install one spare rail bonding kit per track termination in ballasted territory
 - Areas with restraining rail will not receive spare rail bonding kits
- This project has a DBE goal of 3% due to federal funding requirements

Exclusions

- All replacement of negative return cables from substation to impedance bond
- Improvement, repair, or installation of drainage systems
- Rehabilitation of rail connections at any locations not included in this proposal
- Concrete cover for theft protection
- Tagging and identification of negative return manholes
- Updates to traction power plans, drawings, and details

This proposal is valid for 60 days, unless extended in writing by RMSS. Issuance of a task order for this proposal shall constitute an agreement that the scope described in this proposal takes precedent over any other scope related documents for this task order.

If you need any additional information, please don't hesitate to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anthony Ortolani", is positioned below the "Sincerely," text.

Anthony Ortolani
Area Manager
Rocky Mountain Systems Services

cc: Marshall Wilson – RMSS
Doug Jones - RMSS

UTA - On Call

PTO014A - TRAX Crossbond Connection Rehab - Embedde

Task Order Estimate Summary



6/6/2023

Subcontractors	\$	-
Materials	\$	117,870.00
Administrative	\$	5,762.00
Design/Engineering	\$	-
Construction/Testing	\$	116,805.00
Travel & Perdiem	\$	-
Other Costs and Fee	\$	49,402.00
Total:	\$	<u>289,839.00</u>

DBE Participation Goal for Task Order:	3%
Anticipated DBE Participation:	30%

Location #	Location	Location Type	EXISTING CEMBRE CONN. (IB to RAIL)	EXISTING WELDED CONN. (IB to RAIL)	EXISTING BOLTED CONN. (Bonding Jumper)	EXISTING WELDED CONN. (Bonding Jumper)	REQUIRED SPARE CONN.	TOTAL RAIL CONNE. (Spare and Used)	# of NEW BOLTED CONN. (Cembre Kits)	Cembre Drill Bits	500MCM Single Lug (Standard)	Double Lug (Vertical) (Neg Return & IB Center Tap)	Double Lug (Horizontal) (IB Side Tap & Busbar)	500MCM Cable FT (Okonite)	Additional Notes
1	SRN13 9400 South TPSS	Ballasted Track	0	16	0	8	4	28	28	3	44	8	12	250	- Add second bonding jumper around each IJ - Add second cable from Rail to IB for 4 connections - Negative Returns have no slack for re-termination
2	SRR12 Rio Grande TPSS	Ballasted Track	2	14	0	0	4	20	18	2	16	8	12	250	- Negative Returns have no slack for re-termination
3	SRS11 Sugar Highway TPSS	Ballasted Track	2	6	2	2	4	16	12	2	12	0	4	120	- Add second bonding jumper around the IJ - Negative Returns have no slack for re-termination
4	SRA10 Atwood TPSS	Ballasted Track	52	24	0	0	15	91	39	4	76	0	38	1040	- No slack on negatives, no-reterms. - Restraining rail in several locations, no spares there
5	SRP9 Pallas Yard TPSS	Ballasted Track	3	5	0	0	2	10	7	1	8	0	4	120	- No slack on negatives, no-reterms
6	SRM8 Murray TPSS	Ballasted Track	0	8	0	0	2	10	10	1	8	0	4	120	- No slack on negatives, no reterms
7	SRC7 Central TPSS	Ballasted Track	0	16	0	0	4	20	20	2	16	12	12	250	
8	SRW6 Walton TPSS	Ballasted Track	1	15	0	0	4	20	19	2	16	8	12	250	
9	SRB4 Burton TPSS	Ballasted Track	1	7	0	0	2	10	9	1	8	0	4	120	- No slack on negatives, no reterms
10	400S & 900E 75+18 (6 track boxes)	Embedded Track	0	14	0	0	6	20	20	2	14	4	4	350	- Embedded track location, need coordination with SWI - Assuming 25' per cable due to uncertainty of conduit routing - Assuming two IB's - Assuming 4 negative return re-terms, but uncertain of available slack
11	1000E & 500S S-Curve 86+20 (4 track boxes)	Embedded Track	0	12	0	0	4	16	16	2	12	0	0	150	- Crossbond location - Replace cable and install Cembres - Add extra cable for DF track may have increased vertical lengths - Only one spare per box
12	1150E & 500S S-Curve 97+95 (4 track boxes)	Embedded Track	0	12	0	0	4	16	16	2	12	0	0	150	- Crossbond location - Replace cable and install Cembres - Add extra cable for DF track may have increased vertical lengths - Only one spare per box
13	1200E & 500S S-Curve 101+80 (8 track boxes)	Embedded Track	0	16	0	0	8	24	24	3	16	4	8	600	
			61	165	2	10	63	301	238	27	258	44	114	3770	