



Invitation for Bid No. 2023-099

SCADA Master Plan Implementation Telemetry System & RTU Replacement

ADDENDUM No. 001

ISSUE DATE: June 12, 2023

Responding Offerors on this project are hereby notified that this Addendum shall be made a part of the above named IFB document.

The following items add to, modify, and/or clarify the IFB documents and shall have the full force and effect of the original Documents. This Addendum shall be acknowledged by the Offeror in the IFB document.

This Addendum provides responses to questions received from interested offerors during the non-mandatory pre-bid conference on June 8, 2023, and through email submissions.

I. ATTACHMENTS

- Pre-Bid meeting attendance log “IFB 2023-099 Attendance Log_2023.0608.pdf”
- Pre-Bid meeting presentation “UC_PRS_Telemetry_Pre-Bid_2023.0608.pdf”
- Contract Drawing GEN-G-0-005 summary excerpt “Worksheet in GEN-G-0-005.xlsx”

II. CLARIFICATIONS

Ad 1-1. Question 1: Where is the bid opening location?

Answer 1: Bid opening location is 500 N. Main Street, Suite 709, Monroe, North Carolina, 28112.

Ad 1-2. Question 2: Are permits required at all sites?

Answer 2: The requirement for a permit is triggered only when breakers and circuit conductors are added. Once triggered, only one plan review will be required, but each site will be permitted separately.

Ad 1-3. Question 3: Will warranty begin after installation or substantial completion?

Answer 3: The warranty period will begin after substantial completion.

Ad 1-4. Question 4: Can the project summary in the drawing be provided in excel format?

Answer 4: See attached “Worksheet in GEN-G-0-005.xlsx”

Ad 1-5. Question 5: Are loop drawings required and if-so is the required format covered in the County standards?

Answer 5: Yes, Loop Drawings are required per Contract Specification 40 61 13. Reference specification 40 61 99 and the Union County Scada & PCS Standards and Conventions Manual Volume 6 for format and additional information.

Ad 1-6. Question 6: Can a change log from the previous advertisement be provided?

Answer 6: A summary of notable changes is outlined in the attached meeting presentation “UC_PRS_Telemetry_Pre-Bid_2023.0608.pdf”, however there may be additional modifications beyond those noted. Bidders are responsible for reviewing bid package in its entirety.

Ad 1-7. Question 7: Last night I requested the change log, which from what I heard from the Prebid it will be issued soon. Can you please confirm this is true?

Answer 7: See answer to previous question.

Ad 1-8. Question 8: Also, would the owner consider moving the bid date?

Answer 8: The bid date will remain June 27, 2023.

Respectfully submitted,
HDR Engineering, Inc. of the Carolinas



Billy Fox
Project Manager

Notice: To obtain Worksheet in GEN-G-0-005, contact LaShion Pettiford at Lashion.pettiford@hdrinc.com.



Non-Mandatory Pre-Bid Conference
 IFB 2023-099 SCADA Master Plan Telemetry System & RTU Replacement
 Union County Operations Center
 4600 Goldmine Road, Monroe, NC 28110
 June 8, 2023 2:00 PM EDT

Name	Company Name	Email	Phone Number	Signature
Kyle Carbin	Kiewit	Kyle.Carbin@Kiewit.com	813-695-2097 813-695-2097	
BRAD ZIMMERS	ROVISYS	brad.zimmers@rovisys.com	495-8233 828-874-2875	
Steve Smart	Smart Electric Company	stevsmart@smartelectriccompany.com		
Jason Poston	MR Systems	jposton@mrstems.com	704-918-7607	
Billy Fox	HDR	billy.fox@hdr.com	704.207.6699	
John Shutale	Union County	john.shutale@unioncounty.nc.gov	704 283 3651	
Joseph Dickson	Lord of Company	jdickson@LordandCompany.com	4755 803.371.455	
John Ronan	Southern Flow	JRonan@Southernflowinc.com	803 704-586-1500	
FRANK GONZALEZ	PHOENIX CONTACT	frank.gonzalez@phoenixcontact.com	757-670-5516	
DALE BRINEGAR	REVERE CONTROLS	DBRINEGAR@REVERECONTROL.COM	704-301-6959	C. DALE BRINEGAR



UNIONCOUNTY
north carolina

SCADA TELEMETRY AND RTU REPLACEMENT

Union County, NC

Pre-Bid Conference
June 8, 2023
IFB # 2023-099



Agenda

1. Welcome and Introductions
2. IFB Logistics
3. Minority and Small Business Outreach Plans and Guidelines
4. Project Overview
5. Scope of Work
6. Advertisement Modifications
7. Attendee Q&A



01 **Welcome and Introductions**

Introductions

- Attendees - Please sign the attendance sheet.
- Union County Staff
 - John Shutak, Engineering Division Director
 - Vicky Watts, Sr. Procurement Specialist
- HDR Staff
 - Billy Fox, Sr. Professional Associate | Control Systems Director
 - Andy Crossman, Sr. Control Systems Engineer



02 IFB Logistics

Procurement Schedule/Timeline

Date	Activity
6/1/2023	RFP Advertised
6/8/2023	Pre-Bid Conference
6/16/2023	Last Date to Submit Questions Regarding this RFP
6/27/2023	Bids Due (2:00 PM local time)
July 2023	Notice of Award
August 2023	Executed Contract and Notice-to-Proceed

Questions/Addenda

- Email questions to: vicky.watts@unioncountync.gov
- Questions received to-date.
 - None
- Addendum #1 – planned to be issued by June 13, 2023.
- Last Day for Questions – June 16, 2023.
- Last Addendum – planned to be issued by June 23, 2023.

Bid Form

- Engineer's estimate \$8.4M
 - Duration 1,043 days (~2.9 yrs)
- Break down per site type
- General allowance 10% of base bid
- (2) specific allowances
 - Existing Electrical Wiring Modifications
 - Additional Owner Directed Programming

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
A	General Requirements	LS	1		
B	Mobilization / Demobilization	LS	1		
C	Closeout / Record Documents	LS	1		
Government Center / Operations Center					
D	Network modifications, installation, configuration				
E	VTScada update programming and configuration				
F	VTScada Tier 2 historian setup, programming, configuration, testing & commissioning				
Sewer Pump Stations					
G	PLC/RTU, enclosures and associated control panel equipment	LS	1		
H	RTU fabrication, retrofit, testing, installation, and commissioning (excluding programming and configuration)	LS	1		
I	RTU programming and configuration	LS	1		
J	Demolition	LS	1		
K	Electrical modifications / installation	LS	1		
L	Site civil, shelter, fencing, and equipment pads	LS	1		
M	Bypass pumping and truck/haul	LS	1		
Water Distribution Pump Stations and Tanks					
	PLC/RTU enclosures and				



03 **Minority and Small Business Outreach**

Minority and Small Business Goals

- Reference 00 21 13A – Minority and Small Business Guidelines, page 11 of Construction Documents Project Manual (pdf).
- Identification of Minority Participation (Spec 00 21 13B-1) and Affidavit A or B with Bid



04 Project Overview

Description of Work

- Replace existing Data Flow Systems (DFS) telemetry system and RTUs installed throughout the county water distribution, wastewater treatment, and sewer collection facilities with new cellular telemetry system and new programmable logic controller (PLC) based RTUs.
- Replace electrical equipment including power distribution, motor starters, and local control panels at specific facilities identified in the construction documents.
- Install new equipment pads, racks, and shelters at facilities identified in the construction documents.

Description of Work

- Configure, test, and commission PLC based RTUs at each facility.
- Modify existing central VTScada application to transfer data connection from DFS telemetry system to the new telemetry system.
- Configure, test, and commission existing Tier-2 historical data storage.



05 Scope of Work

Scope of Work

- Reference 01 11 00 Summary of Work, page 171 of the Construction Documents Manual (pdf) for location and description of work.
- Work to be performed under this Contract includes, but is not limited to, constructing the replacement of existing telemetry system and associated Data Flow Systems RTUs and TCUs and all other Work required at locations identified in the Contract Documents.

Locations

- See Sheet GEN-V-0-001 thru -006 of Construction Drawings



Locations

- (47) Sewer Pump Stations
- (4) Packaged Wastewater Treatment Plants
- (5) Booster Pump Stations
- (10) Storage Tanks



Description of Work

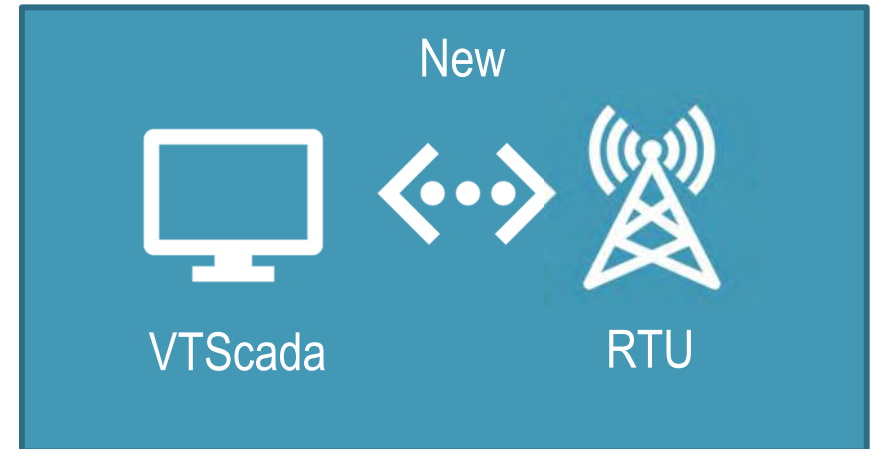
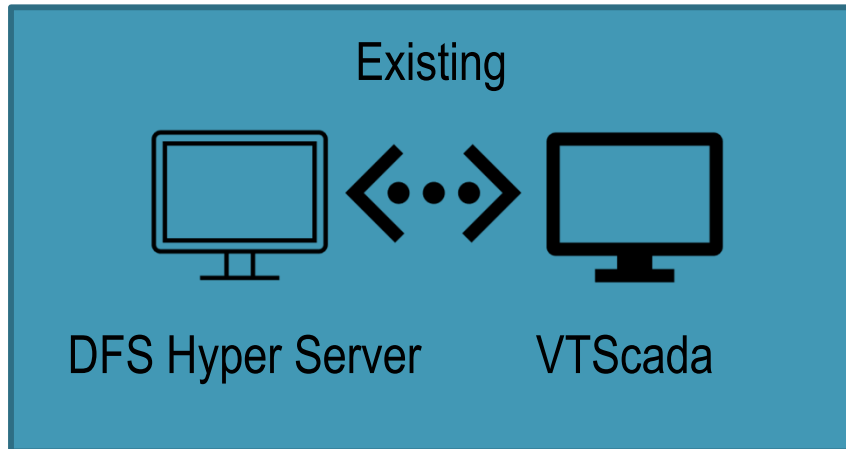
- Work includes but is not limited to:
- Coordination and procurement of all permits required to complete work as shown in the Contract Documents.
- Removal and replacement of Data Flow Systems RTUs at sites identified.
- Installation of PLC based RTUs with cellular communications.
- Site structural and electrical improvements identified in Contract Documents to support the replacement of RTUs, and telemetry system components.

Description of Work

- Temporary bypass pumping or pump and haul required due to extended outages for sites identified in the Contract Documents.
- Programming and configuration of new RTUs.
- Setup and configuration of cellular modems and network modifications as noted in the contract drawings.

Description of Work

- Modification of existing VTScada central application and Crooked Creek VTScada application to move polling from DFS database to new telemetry system at each site as sites are migrated from existing to new telemetry system.
- Configure, test, and commission existing Tier-2 historical data storage.



Suggested Sequence of Construction

- See suggested sequence of construction on sheet GEN-G-0-004 of the Contract Drawings.
- Location sequence requirements outlined in 01 11 00 Summary of Work and 01 14 16 Coordination with Owner's Operations in the Construction Documents Project Manual.
 - Pilot to include work at Operations Center, Government Center, (1) Sewer Pump Station, (1) Booster Pump Station, and (1) Water Tank.
 - Construction at water distribution sites.
 - Construction at sewer collection sites.
 - Construction at packaged wastewater treatment sites.
 - Construction at Crooked Creek WWTP.

Project Roles and Responsibilities

- Owner and Contractor responsibilities outlined on sheet GEN-G-0-004 of Contract Drawings.
- Suggested project workflow is outlined on sheet GEN-G-0-004 of Contract Drawings.
- Owner will provide PLC and OIT application for JAARs SPS, BPS4 Hwy 75 Booster Pump Station, and WT7 Austin Road Tank to serve as reference for application of Owner's Standards.
 - Contractor will use these applications as reference and will site adapt to remaining sewer pump stations, booster pump stations, and water tanks.
- Contractor responsible for developing all PLC and OIT applications at packaged wastewater treatment plants and Crooked Creek WWTP.

Project Roles and Responsibilities

- Contractor responsible for temporary pumping for sites with extended outages.
- Extended shutdowns are anticipated at the following (9) sites:
 - SPS12 – Steven Mills Station 2
 - SPS13 – Forest Park
 - SPS15 – Helmsville
 - SPS26 – Meadows 1
 - SPS27 – Meadows 2
 - SPS40 – Funderburk Road
 - SPS46 – Sandalwood
 - SPS65 – Drayton Hall
 - SPS75 - Millbridge



06 ADVERTISEMENT MODIFICATIONS

Advertisement IFB # 2023-099

- IFB # 2023-099 is a new advertisement.
 - The following modifications from the previous advertisement include, but not limited to, the following:
 - Incorporated adds/deletes from previous advertisement addenda
 - Modified specifications and drawings to include updates from the UC Standards
 - Modified bid form to require more granularity
 - Updated Liquidated Damages
 - Updated Engineer's Estimate
 - Modified 'construction constraints' to allow the contractor to perform work on (6) sites concurrently
 - Removed "tower" references from specifications
 - Removed Rockwell from RTU firewall spec due to current product lifecycle.
 - Replaced (Prosoft) PLC rackmount DNP3 module with (Prosoft) panel-mount DNP3 gateway due to product obsolescence. Updated RTU subpanel layouts and wiring diagrams herein and within the UC Standard.
 - Modified/relaxed RTU enclosure specification to include 316SS and 304SS.
 - Added Rockwell Automation commitment letter to hold bid pricing until February 2024 to Division 40 as attachment to General Provisions
 - Reduced Integrator warranty period outlined in PLC specification from 24 months to 12 months.
 - Removed requirement for conditioned storage in Division 01.
 - Updated drawing title blocks for this revision.



07 Attendee Q&A