PRINT RESET

BID WAIVER FORM

Purchasing Division

Rev. 01/2026

A VENDOR QUOTE MUST BE ATTACHED TO THE WAIVER FOR APPROVAL

BID WAIVER TITLE/SHORT DESCRIPTION OF GOODS/SERVICES	TOTAL COST
SCADA / Remote Monitoring & Control (RMC) Equipment – Landfill Site No. 3	$504,360.00
	PURCHASING OFFICER
	Pete Patten

VENDOR NAME	MUNIS #	REQ #
SCS Engineers	21897	1611

DEPARTMENT	REQUEST DATE
Waste + Renewables	4/3/2026
NAME	**PHONE**
Alejandra Viso	(608) 513-7294
EMAIL	
viso.alejandra@danecounty.gov	

Provide a detailed description of the goods/services intended to be purchased:

Dane County Waste + Renewables is procuring professional engineering, equipment, and system integration services from SCS Engineers to implement a Supervisory Control and Data Acquisition (SCADA) / Remote Monitoring and Control (RMC) system for Landfill Site No. 3.

The system will monitor and control leachate, condensate, and underdrain systems across the site, including sump stations, lift stations, and metering infrastructure. This phase focuses on implementation of five (5) leachate sump stations (L1–L5), two (2) condensate lift stations, one (1) underdrain system, and one (1) leachate metering vault.

The scope of work includes:
-Final design, fabrication, and programming of PLC-based control panels and instrumentation
-Procurement and integration of sensors (level, flow, pH), communication systems (radio/cellular), and telemetry hardware
-Development of system functionality including alarms, interlocks, remote monitoring, and cloud-based data access
-Coordination with third-party electrical contractors responsible for installation, power, and wiring
-System startup, commissioning, testing, and operator training
-Development of cost estimates and an implementation framework for future system phases

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Procurement Exception List
☐ **Emergency Procurement**
☑ **Unique and specific technical qualifications are required**
☐ **A special adaptation for a special purpose is required**
☐ **A unique or opportune buying condition exists**
☐ **Only one vendor possesses the unique and singularly available ability to meet the Department's requirements**

Provide a detailed explanation as to why the competitive bidding (RFB/RFP) process cannot be used AND provide a detailed justification in relation to the Procurement Exception(s) chosen:

Due to the technical nature of this work, there are a limited number of firms with the experience and capability to perform these services for landfill systems. This work requires specific experience and knowledge of landfill operations, leachate management systems, condensate management systems, and underdrain systems. It also requires specific knowledge and understanding of equipment, instrumentation, controls, panel design, programming, and commissioning of SCADA/RMC systems compatible with landfill operations. SCS Engineers has a qualified team with technical expertise in landfill operations and SCADA/RMC systems.

Bid Waiver Approval (For Purchasing Use Only)

Bid Waiver # 26BW053	☐ Under $46,000 (Controller) ☑ Over $46,000 (P&F Committee)
Date Approved	Verification Signature

Work Order No. 2438.1 Proposal No. OP070040.26
Author ANF Reviewer SAR / JSS
Date 4/10/2026

SCS REMOTE MONITORING AND CONTROL PROPOSAL

Proposed Services/Equipment: SCS offers to provide the following services (the "**Services**") to Client:

X Check applicable box(es)		**Price**
☒	Procurement/installation of equipment listed in Attachment A, "Procurement and Installation of Equipment"	$486,560
	Optional items, as described in Attachment A, "Optional Items"	
☒	Variable Frequency Drives Adder	$17,800

Providing testimony or responding to legal orders/subpoenas are not included. If required, they will be billed at Fee Schedule rates.

1. **Site:** Dane County Landfill Site 3, Madison, WI
2. **Invoices**: Invoices prepared by SCS are due and payable upon receipt. Payments due SCS under this Agreement are subject to a service charge of one and one-half percent (1.5%) per month for invoices not paid within thirty (30) days after receipt of invoice.
3. **Acceptance**: Upon acceptance of this proposal by signing below or signing the applicable work order, the agreement between the parties ("Agreement") will consist of this Proposal, the attached Technology Services Agreement Standard Terms ("Standard Terms"), and any other attachments or addenda thereto. In the event of any conflict between the documents comprising the Agreement, the order of precedence shall be (i) the Standard Terms; (ii) the SCS Remote Monitoring and Control Proposal and any addenda thereto; (iii) other attachments prepared by SCS, from newest to oldest; and (iv) other attachments, from newest to oldest.

The parties acknowledge that Attachment A and the Standard Terms are attached and made part of this Agreement.

ACKNOWLEDGEMENT AND ACCEPTANCE OF PROPOSAL:

Stearns, Conrad & Schmidt Consulting Engineers, Inc., dba SCS Engineers	**Dane County** *Client Name*
BY:_____	BY: _____
NAME:_____	NAME: _____
TITLE:_____	TITLE: _____
DATE:_____	DATE: _____

ATTACHMENT A

1. DESCRIPTION OF SCS RMC SOLUTION

SCS Remote Monitoring & Control (RMC) will provide remote monitoring and control equipment with a cloud-based RMC system for the leachate, condensate, and underdrain systems at Dane County Site 3 in Madison, WI. The interface for the RMC system will be accessible over the internet through an HTML-5 capable web browser (Google Chrome, Mozilla Firefox, or Microsoft Edge) on a PC and an app on a tablet or phone (iOS or Android).

Using the new panels and equipment detailed in Section 2, along with the existing on-site equipment, the overall RMC system will allow users to view data for the assets below, including, but not limited to, the following points, if available as inputs to the existing control system (unless otherwise stated herein). The system will automatically take the equipment readings every five minutes and send the data and alarms to the SCS RMC system.

Sump L1
- Monitor:
  - (1) Pump status, amps, and calculated runtime
  - (1) Influent flow (instantaneous and total)
  - (3) Level readings (Riser, Leachate Headwell A, Leachate Headwell B)
  - (2) Optical level switches (Building Sump, Leach Aide)
  - (1) pH reading
  - (1) Heat trace fault
  - (1) Emergency stop status
- Control:
  - Pump level setpoint control

Sump L2
- Monitor:
  - (1) Pump status, amps, and calculated runtime
  - (1) Influent flow (instantaneous and total)
  - (3) Level readings (Riser, Leachate Headwell A, Leachate Headwell B)
  - (4) Optical level switches (MFLFMLDM-1, CFMLDM-3, Building Sump, Leach Aide)
  - (1) pH reading
  - (1) Heat trace fault
  - (1) Emergency stop status
- Control:
  - Pump level setpoint control

Sump L3
- Monitor:
  - (1) Pump status, amps, and calculated runtime
  - (1) Influent flow (instantaneous and total)
  - (3) Level readings (Riser, Leachate Headwell A, Leachate Headwell B)
  - (3) Optical level switches (MFLFMLDM-2, Building Sump, Leach Aide)
  - (1) pH reading
  - (1) Heat trace fault
  - (1) Emergency stop status
- Control:
  - Pump level setpoint control

Sump L4
- Monitor:
  - (1) Pump status, amps, and calculated runtime
  - (1) Influent flow (instantaneous and total)

    - (3) Level readings (Riser, Leachate Headwell A, Leachate Headwell B)
    - (2) Optical level switches (Building Sump, Leach Aide)
    - (1) pH reading
    - (1) Heat trace fault
    - (1) Emergency stop status
- Control:
    - Pump level setpoint control

Sump L5

- Monitor:
    - (1) Pump status, amps, and calculated runtime
    - (1) Influent flow (instantaneous and total)
    - (3) Level readings (Riser, Leachate Headwell A, Leachate Headwell B)
    - (5) Optical level switches (MFLFMLDM-3, MFLFMLDM-4, LFMLDM-1, Building Sump, Leach Aide)
    - (1) pH reading
    - (1) Heat trace fault
    - (1) Emergency stop status
- Control:
    - Pump level setpoint control

Condensate Lift Station CFL01

- Monitor:
    - (1) Pump status, amps, and calculated runtime
    - (1) Influent flow (instantaneous and total)
    - (1) Level reading
    - (3) Optical level switches (Sump, Building Sump, CFMLDM-1)
    - (1) Emergency stop status
- Control:
    - Pump level setpoint control

Condensate Lift Station CFL02

- Monitor:
    - (1) Pump status, amps, and calculated runtime
    - (1) Influent flow (instantaneous and total)
    - (1) Level reading
    - (3) Optical level switches (Sump, Building Sump, CFMLDM-2)
    - (1) Emergency stop status
- Control:
    - Pump level setpoint control

Underdrain Lift Station

- Monitor:
    - (1) Pump status, amps, and calculated runtime
    - (1) Influent flow (instantaneous and total)
    - (1) Level reading
    - (2) Optical level switches (Sump, Building Sump)
    - (1) pH reading
    - (1) Emergency stop status
- Control:
    - Pump level setpoint control

Leachate Metering Vault

- Monitor:
  - (1) Influent flow (instantaneous and total)
  - (1) Optical level switches (Secondary Containment)
  - (1) pH reading

Interlocking

In addition to the monitoring listed above, we will program the controls to include interlocking between Sumps L1-L5, CFL01, and CFL02. We will develop a priority matrix to determine which pump station should operate under certain conditions.

Data, Graphs, and Reports

The system will automatically record the data into a cloud database. Users will be able to view pre-configured graphs of important data (e.g., pump run statuses, flow rates, levels, etc.), create graphs of data points that are being recorded on the system, view and export historical data, and manage and analyze alarms. A standard liquids report is included, which summarizes the operation of the connected liquids system.

Alarms

A total maximum of 100 pre-configured text messages and/or email alarms (e.g., “High Level,” “Pump Failure”, “Low Flow”, etc.) are included with the system. A standard alarm report, which summarizes the alarms, is also included.

2. PROCUREMENT AND INSTALLATION OF EQUIPMENT

We will design, furnish, program, configure, and start up the following panels and equipment at the locations listed below. The site is responsible for contracting and directing a third party to install and power the furnished panels and equipment, as well as to install all required wiring and conduit between the new and existing panels (RMC to specify quantity and type) and between the new panels and new equipment, unless otherwise noted below. We will provide up to (8) hours of remote support to coordinate with the contractor. Where noted, we will perform the installation and wiring of the new RMC equipment.

Once the installation of all the panels and equipment is complete, we will terminate the signal wiring in the new panels as needed and test the signals using actual measured values.

<u>Sump L1 – Sump L5</u>
These five Sump locations will each receive a new single pump control panel and instrumentation that will be used to control the pumps and monitor the connected equipment. We will install a 5GHz radio at Sump L1, L2, L3 and L5 location to communicate with the master radio at the Sump L4 panel for data transmission. Sump L4 panel will house a cellular modem and edge device to transmit the data to the online SCS RMC system.

Sump L1, Sump L2, Sump L3 and Sump L5 Panel:

- (1) Control panel consisting of:
    - 480VAC, three-phase incoming power
    - (1) NEMA 4 painted carbon steel enclosure with flanged disconnect
    - (1) Allen Bradley PLC with:
        - (14) Onboard discrete inputs
        - (10) Onboard relay outputs
        - (2) 4-channel analog input modules
    - (1) 7-inch touchscreen human-machine interface (HMI)
    - (1) 5GHz radio (mounted outside of the panel)
    - (1) 5-Port unmanaged Ethernet switch
    - (1) 480VAC to 120VAC control transformer
    - (1) 480VAC to 24VDC power supply
    - (1) Uninterruptible battery backup
    - (1) Voltage monitor
    - (1) IEC motor starter and overload relay
        - *See optional adder for VFD option*
    - (1) Hand/Off/Auto selector switch
    - (1) Two-position selector switch for interlock Auto/Bypass
    - Miscellaneous panel materials, including intrinsically safe barriers, circuit breakers, surge protection, panel heater, terminal blocks, and wiring
- (1) Breakout box for the level instrumentation

Sump L4 Panel:

- (1) Control panel consisting of:
    - 480VAC, three-phase incoming power
    - (1) NEMA 4 painted carbon steel enclosure with flanged disconnect
    - (1) Allen Bradley PLC with:
        - (14) Onboard discrete inputs
        - (10) Onboard relay outputs
        - (2) 4-channel analog input modules
    - (1) 7-inch touchscreen human-machine interface (HMI)
    - (1) 5GHz master radio (mounted outside of the panel)
    - (1) Cellular modem and antenna
    - (1) Industrial edge device with edge software
    - (1) 5-Port unmanaged Ethernet switch
    - (1) 480VAC to 120VAC control transformer
    - (1) 480VAC to 24VDC power supply

    - (1) Uninterruptible battery backup
    - (1) Voltage monitor
    - (1) IEC motor starter and overload relay
        - *See optional adder for VFD option*
    - (1) Hand/Off/Auto selector switch
    - (1) Two-position selector switch for interlock Auto/Bypass
    - Miscellaneous panel materials, including intrinsically safe barriers, circuit breakers, surge protection, panel heater, terminal blocks, and wiring
- (1) Breakout box for the level instrumentation

Instrumentation:

- (3) Level transmitters at each Sump
    - 0 – 10 PSI
    - 4 – 20mA output
    - 100 feet of cable
    - Rated intrinsically safe
- Optical level switches (quantity varies per Sump)
    - Configured normally closed
    - 50 feet of cable
    - Quantities:
        - L1: 2
        - L2: 4
        - L3: 3
        - L4: 2
        - L5: 5
- (1) Badger M2000 Electromagnetic flow meter at each Sump
    - 2-inch line size
    - Carbon steel housing
    - Modbus TCP/IP communications
    - Meter-mounted transmitter
    - Polytetrafluoroethylene (PTFE) liner
    - Stainless steel electrodes and grounding rings

<u>Condensate Lift Stations CFL01 and CFL02</u>

These two Condensate Lift Station locations will each receive a new single pump control panel and instrumentation that will be used to control the pumps and monitor the connected equipment. We will install a 5GHz radio at each location to communicate with the master radio at the Sump L4 panel for data transmission.

Panel:

- (1) Control panel consisting of:
    - 480VAC, three-phase incoming power
    - (1) NEMA 4 painted carbon steel enclosure with flanged disconnect
    - (1) Allen Bradley PLC with:
        - (14) Onboard discrete inputs
        - (10) Onboard relay outputs
        - (1) 4-channel analog input module
    - (1) 7-inch touchscreen human-machine interface (HMI)
    - (1) 5GHz radio (mounted outside of the panel)
    - (1) 5-Port unmanaged Ethernet switch
    - (1) 480VAC to 120VAC control transformer
    - (1) 480VAC to 24VDC power supply
    - (1) Uninterruptible battery backup
    - (1) Voltage monitor
    - (1) IEC motor starter and overload relay
    - (1) Hand/Off/Auto selector switch

    - (1) Two-position selector switch for interlock Auto/Bypass
    - Miscellaneous panel materials, including intrinsically safe barriers, circuit breakers, surge protection, panel heater, terminal blocks, and wiring
- (1) Breakout box for the level instrumentation

Instrumentation:

- (3) Level transmitters at each Condensate Lift Station
    - 0 – 10 PSI
    - 4 – 20mA output
    - 50 feet of cable
    - Rated intrinsically safe
- (1) Level switch at each Condensate Lift Station
    - Configured normally closed
    - 50 feet of cable
- (1) Badger M2000 Electromagnetic flow meter at each Condensate Lift Station
    - 2-inch line size
    - Carbon steel housing
    - Modbus TCP/IP communications
    - Meter-mounted transmitter
    - Polytetrafluoroethylene (PTFE) liner
    - Stainless steel electrodes and grounding rings

<u>Underdrain Lift Station</u>

The Underdrain Lift Station location will receive a new single pump control panel and instrumentation that will be used to control the pumps and monitor the connected equipment. We will install a 5GHz radio at this location to communicate with the master radio at the Sump L4 panel for data transmission.

Panel:

- (1) Control panel consisting of:
    - 480VAC, three-phase incoming power
    - (1) NEMA 4 painted carbon steel enclosure with flanged disconnect
    - (1) Allen Bradley PLC with:
        - (14) Onboard discrete inputs
        - (10) Onboard relay outputs
        - (1) 4-channel analog input module
    - (1) 7-inch touchscreen human-machine interface (HMI)
    - (1) 5GHz radio (mounted outside of the panel)
    - (1) 5-Port unmanaged Ethernet switch
    - (1) 480VAC to 120VAC control transformer
    - (1) 480VAC to 24VDC power supply
    - (1) Uninterruptible battery backup
    - (1) Voltage monitor
    - (1) IEC motor starter and overload relay
    - (1) Hand/Off/Auto selector switch
    - (1) Two-position selector switch for interlock Auto/Bypass
    - Miscellaneous panel materials, including intrinsically safe barriers, circuit breakers, surge protection, panel heater, terminal blocks, and wiring
- (1) Breakout box for the level instrumentation

Instrumentation:

- (1) Level transmitter
    - 0 – 10 PSI
    - 4 – 20mA output
    - 50 feet of cable
    - Rated intrinsically safe

- (2) Optical level switches
    - Configured normally closed
    - 50 feet of cable
- (1) Badger M2000 Electromagnetic flow meter
    - 2-inch line size
    - Carbon steel housing
    - Modbus TCP/IP communications
    - Meter-mounted transmitter
    - Polytetrafluoroethylene (PTFE) liner
    - Stainless steel electrodes and grounding rings
- (1) Weir-style flow meter
    - Furnished and installed by others
    - Modbus TCP/IP communications

Leachate Metering Vault

The Leachate Metering Vault location will receive a new monitoring panel and instrumentation that will be used to monitor the connected equipment. We will install a 5GHz radio at this location to communicate with the master radio at the Sump L4 panel for data transmission.

Panel:

- (1) Monitoring panel consisting of:
    - 120VAC, single-phase incoming power
    - (1) NEMA 4 painted carbon steel enclosure
    - (1) Allen Bradley PLC with:
        - (14) Onboard discrete inputs
        - (10) Onboard relay outputs
        - (1) 2-channel analog input module
    - (1) 5GHz radio (mounted outside of the panel)
    - (1) 5-Port unmanaged Ethernet switch
    - (1) 120VAC to 24VDC power supply
    - (1) Uninterruptible battery backup
    - Miscellaneous panel materials, including intrinsically safe barrier, circuit breakers, surge protection, panel heater, terminal blocks, and wiring
- (1) Breakout box for the level instrumentation

Instrumentation:

- (1) Optical level switch
    - Configured normally closed
    - 50 feet of cable

3. SCHEDULE

We are ready to start on this project upon receiving your signed approval of this document; at that time, we will purchase the equipment and schedule the work. We will work with you to minimize the impact of long lead-time items.

4. FEE

We will perform the scope of work outlined in the prior sections for the fixed lump-sum total amount specified in the fee table below. As the project progresses, we will issue monthly incremental invoices reflecting the project's percent completion.

#	ITEM DESCRIPTION	COST
1	Sump L1	$55,090
2	Sump L2	$58,530
3	Sump L3	$56,810
4	Sump L4	$55,090
5	Sump L5	$60,240
6	CLS CFL01	$50,970
7	CLS CFL02	$50,970
8	Underdrain	$63,980
9	Leachate Metering Vault	$34,880
	TOTAL	**$486,560**

**Annual SCS RMC fee is included in a separate SCS RMC TSA WO # 2493.0*

5. OPTIONAL ITEMS

Variable Frequency Drives Adder

If selected, we will upgrade the Sump L1 – L5 control panels to include a 5 HP panel-mounted VFD for improved control and performance by allowing the pump to operate at variable speeds based on system demand. The adder for this work is shown below. Note that this only affects the pricing for the Sump L1–L5 locations.

#	ITEM DESCRIPTION	COST
1	Sump L1	$3,560
2	Sump L2	$3,560
3	Sump L3	$3,560
4	Sump L4	$3,560
5	Sump L5	$3,560
	ADDER TOTAL	**$17,800**