

LARRY L. LANCASTER
Chairman

JEANNETTE M. COUNCIL
Vice Chairman

GLENN B. ADAMS
MICHAEL C. BOOSE
CHARLES E. EVANS
W. MARSHALL FAIRCLOTH
JIMMY KEEFE



CUMBERLAND ★ COUNTY ★ NORTH CAROLINA

CANDICE WHITE
Clerk to the Board

KELLIE BEAM
Deputy Clerk

BOARD OF COMMISSIONERS

MEMORANDUM

TO: Facilities Committee Members (Commissioners Adams, Boose and Council)

FROM: Kellie Beam, Deputy Clerk to the Board **KB**

DATE: February 12, 2018

SUBJECT: Facilities Committee Special Meeting – Thursday, February 15, 2018

There will be a special meeting of the Board of Commissioners' committees (Finance, Policy and Facilities Committees) on Thursday, February 15, 2018 beginning at 1:00 p.m. in room 564 of the Judge E. Maurice Braswell Cumberland County Courthouse. All committee meetings will start as soon as the previous committee adjourns.

AGENDA

1. Approval of Agenda **(NO MATERIALS)**
2. Consideration of Contract for Crown Coliseum Centerhung Scoreboard and LED Ribbons Project **(Pg. 2)**
3. Consideration of Proposal for Ice Rink Chiller, Cooling Tower and Floor Replacement **(Pg. 6)**
4. Consideration of Change Order with SCS Engineers for Additional Work at the Ann Street Landfill **(Pg. 16)**
5. Consideration of Renovations to Conference Room #564 within the Judge E. Maurice Braswell Cumberland County Courthouse **(Pg. 18)**



ITEM NO. 2

CUMBERLAND
★ **COUNTY** ★
NORTH CAROLINA

ENGINEERING & INFRASTRUCTURE DEPARTMENT

Engineering Division · Facilities Management Division · Landscaping & Grounds Division · Public Utilities Division

MEMO FOR THE AGENDA OF THE FEBRUARY 15, 2018 MEETING
OF THE FACILITIES COMMITTEE

TO: FACILITIES COMMITTEE MEMBERS

FROM: JEFFERY P. BROWN, PE, E & I DIRECTOR

THROUGH: TRACY JACKSON, ASSISTANT COUNTY MANAGER

DATE: FEBRUARY 7, 2017

SUBJECT: CONSIDERATION OF CONTRACT FOR CROWN COLISEUM CENTERHUNG SCOREBOARD AND LED RIBBONS PROJECT

Requested by: JEFFERY P. BROWN, PE, E & I DIRECTOR

Presenter(s): JEFFERY P. BROWN, PE, E & I DIRECTOR

Estimate of Committee Time Needed: 10 MINUTES

BACKGROUND:

The Capital Improvement Plan (CIP) identified the Crown Coliseum Centerhung Scoreboard for replacement. The Crown Coliseum Centerhung Scoreboard and LED Ribbons Project is a replacement/upgrade that will provide an increased life expectancy and enhance the fan experience as the current scoreboard is antiquated and dysfunctional. This improvement is part of the County's recently issued installment purchase financing and will be repaid from the Crown Fund.

A pre-bid meeting was held on December 28, 2017, in which multiple vendors were invited to attend. Informal bids were received on January 16, 2018 for the Crown Coliseum Scoreboard and LED Ribbons. The lowest, responsible and responsive bid was submitted by Daktronics, Inc., in the amount of \$1,069,983.95.

RECOMMENDATION/PROPOSED ACTION:

The Engineering and Infrastructure Director and County Management recommend that the Facilities Committee approve the following recommendations and forward them to the Board of Commissioners for its consideration at their February 19th meeting:

1. Accept the bids for the repairs of the various parking lots and award a contract to Daktronics, Inc. in the amount of \$1,069,983.95.
2. Establish a contingency in the amount of \$50,000 to be used for additional work recommended by the E&I Director and approved by the County Manager.

ATTACHMENT C - PROPOSAL ACCEPTANCE FORM

**TO CUMBERLAND COUNTY
NORTH CAROLINA**

The undersigned hereby signifies that it is _____ (his or her) intention and purpose to enter into a contract to furnish labor, materials, equipment, apparatus, etc., as required and to do all the work necessary for

CROWN COLISEUM CENTERHUNG SCOREBOARD AND LED RIBBONS PROJECT

as described in the specifications and shown on the plans in accordance with the terms of the Advertisement, Instructions to Bidders, the foregoing Specifications, and the following form of Contract, and this Proposal and the Plans; and pursuant with the requirements of the Advertisement and Instructions to bidders which are as follows:

THAT: The undersigned carefully examined the Instructions to Bidders, the Specifications, Plans, this form of Proposal, and the Contract and Fully understands them.

THAT: The undersigned carefully examined the site or sites of the project or projects and is familiar with the conditions under which the work, or any part of it, is to be done

THAT: The undersigned will provide all necessary tools, machinery apparatus, and all means necessary to complete such Contract as may be entered into, and in the manner prescribed in the Contract and Specifications and according to the Plans and requirements under the of the Engineer, in the first class manner.

THAT: The right of Cumberland County and the recommendations of the Engineer are not to be questioned in the award of the Contract.

THAT: It is the intention of Cumberland County, North Carolina, subject to the conditions set forth, to award contracts for the project on the basis of bids received at this letting and in such manner as they may decide as being in the best interests of the County.

THAT: The County reserves the right to reject any of all proposals.

THAT: A proposal made by a corporation must be signed by its proper officers in a legal manner and its official address stated herein.

THAT: A proposal made by a firm shall be signed with the name of each member of said firm and the firm name added, with the official address of said firm.

THAT: The undersigned will complete such contract as is hereby proposed to enter into within the time stated in the notice to proceed and stipulated in the Contract.

THAT: The Bidder acknowledges receipt of the following Addendum:

1

THAT: The Contractor agrees to furnish all materials, labor and equipment and to install complete in place the work in accordance with the Plans and Specifications for the sum of:

Description	Quantity	Unit	Unit Cost	Amount
Centerhung Scoreboard and LED Ribbons	1	LS	\$999,985.00	\$999,985.00

TOTAL BID AMOUNT

Sales Tax: \$69,998.95

Total Bid (\$ 1,069,983.95).

Submitted, this 26th day of January, 2017.

Daktronics, Inc.

CONTRACTOR

By:

(Signature of Person, Firm or Corporation making Bid)

(Seal - If Bid is by a Corporation)

Title:

Vice President

Address: 201 Daktronics Drive

Brookings, SD 57006

Attest:

(Signature)

License No. 25449-SP-ES

Phone: 605-692-0200

ITEM NO. 3**CUMBERLAND
COUNTY**
NORTH CAROLINA**ENGINEERING & INFRASTRUCTURE DEPARTMENT**

Engineering Division · Facilities Management Division · Landscaping & Grounds Division · Public Utilities Division

**MEMO FOR THE AGENDA OF THE
FEBRUARY 15, 2018 MEETING OF THE FACILITIES COMMITTEE**

TO: FACILITIES COMMITTEE MEMBERS

FROM: JEFFERY P. BROWN, PE, E & I DIRECTOR

THROUGH: TRACY JACKSON, ASSISTANT COUNTY MANAGER

DATE: FEBRUARY 7, 2018

SUBJECT: CONSIDERATION OF PROPOSAL FOR ICE RINK
CHILLER, COOLING TOWER AND FLOOR
REPLACEMENT

Requested by: JEFFERY P. BROWN, PE, E & I DIRECTOR

Presenter(s): JEFFERY P. BROWN, PE, E & I DIRECTOR

Estimate of Committee Time Needed: 10 MINUTES

BACKGROUND:

The Crown Coliseum ice rink chiller and ice floor were identified for replacement and included in the capital improvement installment financing plan that was approved by the Local Government Commission (LGC) on September 12, 2017. It has since been determined that the cooling tower also needs to be replaced as part of this project due to its current condition. The ice rink chiller, cooling tower and floor have reached the end of their service life. Additionally, the ice rink chiller utilizes R-22 refrigerant that is being federally mandated to phase out. The chiller and the ice floor need to be replaced as one project so that the new system can utilize glycol as additive into the water system to achieve the lower water temperatures instead of brine. Further, the piping in the hot deck has rusted and is close to the point of failure.

Cumberland County contacted Brady through US Communities to provide a project proposal and scope of work for the project. US Communities is a collaborative purchasing agreement available for governmental use. Brady provided the contract proposal that addresses the entire scope of the project: demolition and replacement of the existing ice rink chiller, cooling tower and floor to include abatement procedures to handle hazardous materials. Required electrical upgrades due to the new equipment have also been included within the proposal.

The original budgeted amount (\$1.5 million) for this project did not include demolition of the existing ice floor nor did it factor in the removal of the existing chiller plant out of the facility and the disposal costs of each of these items. With the change in scope as noted above, the project amount is now \$2,854,483. This new budget amount will comprehensively address all items that are needed to ensure a safe and modern ice floor.

RECOMMENDATION/PROPOSED ACTION:

The Engineering and Infrastructure Director and County Management recommend that the Facilities Committee approve the following recommendations and forward them to the Board of Commissioners for its consideration at their February 19th meeting

1. Approve the contract for Brady for the Ice Rink Chiller, Cooling Tower and Floor in the amount of \$2,854,483.
2. Establish a contingency in the amount of \$100,000 to be used for additional work recommended by the E&I Director and approved by the County Manager.
3. Approve Budget Ordinance Amendment #B180175 in the amount of \$1,324,467 for additional funding needed to complete the replacement of the Ice Rink Chiller, Cooling Tower and Floor. This amount is the difference between the bid amounts for both capital projects (including contingency) and the budgeted amount for both projects. The additional funding is being transferred from the Food and Beverage Fund Balance.



Proposal Created For:
Replace Ice Rink Chiller, Cooling Tower and Floor

Cumberland County Maintenance
Sam Lucas
Fayetteville, NC

Site Address:
Crown Coliseum

Prepared By:
Steve Chrisco
Strategic Accounts Manager

Date:
1/19/17

Proposal #:
1217297 – JS
USC # 22-20026-17-004

Proposal Summary

Thank you for choosing Brady as your HVAC support partner. We are committed to working with you to ensure your building serves the needs of your organization. We appreciate the opportunity to provide you with a proposal for your equipment replacement as detailed in the following pages. This proposal is based on our site visit, information provided by the owner, and a survey of the equipment that is to be replaced. Any revision or request of change to scope of work by the owner at a later date would be subject to price review at that time.

This proposal is in accordance with North Carolina 15-JLP-023.US Communities awarded the contract to Trane for HVAC and other trades in North Carolina on October 1, 2015. The US Communities contract Expires September 30, 2018. The US Communities contract may be renewed up to (2) additional (2) year periods, if mutually agreed upon by Trane U.S. and US Communities.

Water Cooled Chiller Scope Of Work

Equipment Demolition, Installation and Specification

Brady will disconnect all power wiring, control wiring, chilled and condenser water piping, rupture guard, and vent piping for removal and disposal of your existing Cimco water cooled chiller. Brady will evacuate and dispose of refrigerant per all EPA, state, and federal guides lines.

Brady will include all labor, accessories, tool, equipment, and materials required to completely execute the installation of a new Cimco water cooled chiller.

Chiller specifications are listed in the attachment.

CIMCO MAP180F PACKAGE

- Manufacturers and equipment specified below are for the purpose of setting a minimum standard of capacity and quality of equipment for the performance of the ice rink system. Final design will need to be completed.

Calcium Chloride Chiller

- One (1) – The flooded R507/ Calcium Chloride 24"x18' chiller will be manufactured by Cimco and be c/w horizontal surge drum, urethane and fiberglass insulation, dual
- pressure relief valves and reflex type bulls eyes rated @ 1000USGPM, 21% Calcium Chloride from 19.5oF to 17oF
- Capacity: 180TR

Rink Cooling Pumps (per skid)

- Two (2) - S.A. Armstrong 4030, 8 x 6 x 10 pump c/w 50HP high efficiency motor.
- Duty: Cold Glycol 1000 USGPM, 60' Head (Duty subject to change once the design is finalized)
- The brine pump will be S.A. Armstrong (or equal) base mounted, centrifugal design and all iron construction c/w mechanical seals and stainless steel sleeves.

Compressors (per skid)

- (3) new N/F6WBHE Mycom reciprocating compressor complete with
- 150HP high efficiency motors. Each compressor will come complete with
- gauge boards and safety cuts outs.

Control Panel

- One (1) – CIMCO combination control/starter panel for CIMCO supplied motors
- All electrical components will be housed in a NEMA12 enclosure complete with convection vents. All CIMCO supplied pump motor starters will be across-the-line complete with 3-phase overload protection. The compressors motors will be part-wind starting. Each motor will have an on/off/auto selector switch mounted on the door of the control panel c/w:

- Individual pilot lights
- Non-fused main disconnect switch
- Fuse control transformer
- FRS fusetron fuses
- Terminal blocks
- Overloads
- Descriptive lamacoids

Refrigerant Piping & Valves

- All ammonia refrigerant piping shall conform to the ASME B31.5 Refrigeration Piping Code and CSA B.52 Mechanical Refrigeration Code. All ammonia refrigerant stop and control valves will be supplied and installed as required on the package. Valves shall be Sporland or equivalent. Butterfly valves shall be lug type butterfly as manufactured by Challenger.

Shell and Tube Condenser with Remote Cooling Tower

- One (1) - Evapco induced draft water tower c/w 460/3/60 fan motor.
- Duty: TBD
- All interconnecting water piping from tower to refrigeration condenser (on package)
- The tower basin and casing will be of Evapco's corrosion protection system G-235 mill hot dipped galvanized steel (at 2.35 oz. of zinc per sq.ft. this represents the best corrosion system in the industry) finish painted with 95% pure zinc rich compound.

Water Tower Pump

- One (1) - S.A. Armstrong 4030, 6 x 5 x 10 pump c/w 10HP high efficiency motor.
- Duty: Condenser
- The pump will be S.A. Armstrong (or equal) base mounted, centrifugal design and all BF construction c/w mechanical seals and stainless steel sleeves.

Underfloor/Snow pit Heater

- One (1) Exchanger capable of the full duty for the underfloor and snow pit heat load.
- Package to have two pumps. One (1) Snow pit & One (1) Underfloor

Quick Ice Take Out System

- As with the original package we have included the optional quick ice take out heat exchanger and the necessary package mounted valves.

Brady will disconnect all power wiring, control wiring, condenser water piping, make-up water piping, drain piping, and overflow piping for removal and disposal of your existing Evapco cooling tower.

Brady will include all labor, accessories, tool, equipment, and materials required to completely execute the installation of a new BAC cooling tower.

Cooling Tower specifications are listed in the attachment.

- **Quantity: 1 Model XES15E-1212-07HN COOLING TOWER**
- Certified Capacity: 685.00 USGPM of water from 95.00°F to 84.57°F at 78.00°F entering air wet bulb.
- Fan Motor(s): Two (2) 5 HP fan motor(s): Totally Enclosed, Air Over (TEAO), 1 Speed/1 Winding - Premium Efficiency (Inverter Duty), suitable for 460 volt, 3 phase, 60 hertz electrical service and Space Heater. Drives are based on 0 inches ESP.
- Induced Draft, Crossflow Cooling Tower
- Quality Assurance-ISO 9001 Certified
- Unit Energy Efficiency per ASHARE Standard 90.1-2013
- CTI Certified Thermal Performance
- Steel Panels and Structural Members are Constructed of Galvanized Steel with a Type 304 Welded Stainless Steel Cold Water Basin
- Standard Fan Driven by BALTDRIIVE Power Train

- Galvanized Steel Fan Guard
- PVC Fill & Drift Eliminators
- Structure Designed in Accordance With The 2012 IBC
- Top Inlet Connections
- End Outlet Pump Suction Connection
- Mechanical Float Valve Assembly
- Electric Immersion Heaters Sized to Maintain +40 F Water at a 0 F Ambient with Electrical Requirements Matching Fan Motors.

Pipe, Valves, Fittings

Brady will furnish and install all pipe and fittings as required to connect chilled and condenser water supply and return piping loops to the new chiller.

This proposal is based on the existing chilled and condenser water supply and return isolation valves being in good working order so the existing chilled and condenser water loops can be isolated for removal of the existing chiller and installation of the new chiller.

All chilled and condenser water piping will be schedule 40 carbon steel. Piping shall be welded with weld fittings of the same materials and weight as the piping in which they are installed.

Refrigerant vent piping will be connected to the chiller pressure relief device connections and extended to the outdoors without any valves or restriction, and will not be terminated within 20 feet of any fresh air intake.

Brady will furnish and install thermometers and pressure gauges on both the entering and leaving side of the new evaporator and condenser. These instruments are necessary for start-up of the chiller to verify pressure drop and delta T across the evaporator and condenser.

All welders will be qualified as prescribed by section IX of the ASME boiler code. All weld joints will conform to ANSI / ASME B-31.1.

Hangers and Supports

Brady will furnish and install all pipe hangers and supports as required to support the pipe independently from the chiller and cooling tower.

Electrical

Brady will replace existing disconnect, conduit, and conductors that is required for load side electrical service from point of existing disconnect to new chiller and cooling tower. Disconnect, conduit, and conductors have been sized per the NEC based on the chiller and cooling tower MOP and MCA provided to Brady by the equipment manufacturer.

Brady will reuse existing breaker, conduit, and conductors on line side.

Electrical connection to equipment will be made with short lengths of flexible "Liquid - Tite" conduit.

All equipment has been selected for 480 volt, 60 hertz, and 3 phase electrical service.

Pipe Insulation

All interior chilled water pipe, valves, and fittings will be insulated with snap - on type 1½" wall thickness fiberglass pipe insulation with factory applied all service jacket moisture barrier.

All exterior condenser water pipe, valves, and fittings will be insulated with snap - on type 1½" wall thickness fiberglass pipe insulation with factory applied all service jacket moisture barrier and a protective aluminum jacket. Fittings and valve insulation will be milled and pre-fabricated of same material and thickness as on adjacent pipe with factory preformed aluminum jacket cover. Aluminum jacket will be .016 thick and will be secured with aluminum screws.

Brady excludes all insulation for the interior condenser water piping.

Properly sized saddles will be used wherever the insulation may be compressed due to the weight of the pipe. Wooden blocks will be inserted between the pipe and saddle to prevent compression of the insulation. Saddles will be 10-gauge sheet metal measuring one-half the circumference of the insulation and a minimum 12 inches long.

Chiller Insulation

Chiller will be factory insulated.

Crane and Rigging

Brady will furnish all crane, rigging, and trucking as needed for this project.

Upon receipt of equipment on the job site, Brady will inspect the unit for possible damage during transit. This will include an inspection of unit exterior, all doors, access panels and openings. If damage has occurred it will be immediately reported to the delivering carrier and the damage noted on the receiving copy of the bill of lading.

Controls

Chiller cannot start unless flow has been established for condenser and evaporator water. Brady will furnish and install flow switch, conduit, and wiring from flow switch to chiller control panel for proper interlocking, ensuring that the unit will operate only when flow is established.

The new chiller will operate independently off of the chiller control panel, cycling the Compressor(s) based on chilled water return temperature.

A communication card capable of interfacing with your existing front end controls system will be provided with your chiller.

Brady excludes any controls wiring, programming, and graphic up-grades for this project not specifically mentioned in this proposal.

Water Balance

Brady excludes system water balancing for this project. Chilled and condenser water flow will be balance at the chiller only. The new chiller evaporator, condenser flow rate and pressure drop will be similar to the existing chiller. Brady assumes that the existing chilled and condenser water pumps are delivering the required flow to the existing chiller. The new chiller flows will be balanced based on pressure drop across the chiller evaporator and condenser per the manufacturer's specifications.

Concrete

Existing housekeeping pad to be extended to meet new chiller foot print.

Cooling Tower Support

Brady will furnish and install factory recommended structural support arrangement for the cooling tower. Support consists of parallel I-beams running the full length of the unit as per manufacturer recommendations.

All connections will be welded or high strength bolted. All structural welds to be made by certified welders.

Brady will provide gray standard shop primer on structural steel not indicated to be galvanized.

Start-Up

A Brady factory-authorized technician will perform start-up and inspection of the new chiller according to the manufactures written instructions.

Clarifications

All work is based on straight time hours: Monday through Thursday from 7:00 am to 5:30 pm.

Brady requires that the equipment for this project go through a submittal and review process to verify equipment design and performance before the final order of equipment will be released. This is completed to ensure that the end result meets the owner's expectations. Brady will request that you assign a company representative to review and sign off on the equipment prior to order placement.

The chiller selected and quoted for this proposal is based on like for like change out and does not reflect a change in capacity or load calculation for the area this unit serves.

The cooling tower selected and quoted for this proposal is based on like for like change out and does not reflect a change in capacity or load calculation for the area this unit serves.

Any code deficiencies related to the existing conditions not specifically identified in our proposal is not included in our scope of work.

Unforeseen conditions related to the owner's equipment or building that adversely impact the cost of the project may result in additional changes.

Equipment Demolition, Installation and Specification

Brady has excluded any soil contamination removal and disposal.

Brady has excluded any asbestos removal and disposal.

Brady has included dust control for the arena area in below cost.

Brady shall remove and dispose of the existing brine.

Brady shall furnish all labor, materials, supervision for the demolition of the existing ice rink floor.

Brady will supply material, labor, supervision and equipment that is required and detailed below to provide a refrigerated floor.

Ice Rink Floor Construction (Typical): This may change dependent of final direction from the owner or GC

1. Scope will begin with a rough grade over the entire 17,000sq.ft ice rink area of +/-1" provided by the site General Contractor.
2. Install 2" of stone dust/mason sand and rough grade to +/- 1" across the ice rink.
3. Install 3" warm floor supply and return header system, with piping connections on 18" centers. Warm floor header will be pre-fabricated at the CIMCO factory.
4. Install 1" HDPE DR11 warm floor piping on 18" centers, fusion welded and pressure tested as required.
5. Install 4" of stone dust/mason sand on top of this, placed, compacted and leveled to +/- 3/16" and compacted to 95% standard compaction (total of 6" of warm floor system).
6. Install 2 layers of 6mil vapor barrier, one on top and one below the insulation.
7. Install 2 layers of 1 1/2" extruded polystyrene board insulation in 4'x8' sheets across both ice rinks. Insulation will be 25PSI.
8. Install 8" HDPE DR11 pre-fabricated cold supply and return headers for each ice rink.
9. Install 1" HDPE DR11 cold floor piping on 3 1/2" centers, connected to the header, fusion welded and pressure tested
10. Install required u-bends for the ice rink floor
11. Install "M" series ice rink support chairs as manufactured by Hunter Wire, which will be installed every 3 feet up the length of both ice rinks
12. Install ice rink re-enforcing materials, rebar and wire mesh for both ice rinks (detailed description below)
13. Install 8 new goal post inserts for each rink
14. Pour and place a new concrete slab for the ice rink which will be 8" x 5,000PSI.
15. Provide concrete floor sealer and curing process for a total of 28 days.
16. Install WABO compression expansion joint around the perimeter of the ice rink
17. Supply and install up to 5000 US gallons charge of secondary refrigerant 40% ethylene glycol

18. This proposal has assumed the ice rink owner has all materials, tools and paint supplies required to build the first sheet of ice

Terms, Pricing, and Acceptance

Delivery Terms:			
Payment Terms:	Net:30	Total Net Price:	\$ 2,854,483.00
<p>Brady has agreed to cover the USC fees of \$ 118,937.00 Original quote \$ 2,973,420.00 USC fees \$ 118,937.00 New total \$ 2,854,483.00</p> <p>Clarifications and Exclusions:</p> <ul style="list-style-type: none">• Sales tax is included.• Freight is included.• This proposal may be subject to fuel and material surcharges at the time of acceptance.• All work will be performed in compliance with all OSHA and customer safety guidelines.• Brady may withdraw this proposal and re-submit if not accepted within 10 days from issue date.			
Customer Acceptance			
Customer Name:			
Customer Signature:		Date:	
Purchase Order No.:			

Ask me to learn more about how you can

- ☒ Use U.S. Communities to assist in the buying process.
- ☒ Receive a rebate for implementing energy saving initiatives.
- ☒ Incorporate other needed changes and pay for all the work with guaranteed energy savings.
- ☒ Prepay and receive a discount.

This proposal was prepared using standard efficiency equipment to provide you with a lower first cost for this project, If energy saving plays a part in your buying decision, ask us to provide a higher energy efficient piece of equipment for comparison.



ITEM NO. 4

CUMBERLAND
★ **COUNTY** ★
NORTH CAROLINA

ENGINEERING & INFRASTRUCTURE DEPARTMENT

Engineering Division · Facilities Management Division · Landscaping & Grounds Division · Public Utilities Division

MEMO FOR THE AGENDA OF THE FEBRUARY 15, 2018 MEETING
OF THE FACILITIES COMMITTEE

TO: FACILITIES COMMITTEE MEMBERS
FROM: JEFFERY P. BROWN, PE, E & I DIRECTOR
THROUGH: TRACY JACKSON, ASSISTANT COUNTY MANAGER
DATE: FEBRUARY 7, 2017
SUBJECT: CONSIDERATION OF CHANGE ORDER WITH SCS
ENGINEERS FOR ADDITIONAL WORK AT THE ANN
STREET LANDFILL

Requested by: JEFFERY P. BROWN, PE, E & I DIRECTOR

Presenter(s): JEFFERY P. BROWN, PE, E & I DIRECTOR

Estimate of Committee Time Needed: 10 MINUTES

BACKGROUND:

On June 19, 2017, the Board of Commissioners approved a contract with SCS Engineers for specific engineering services to the Solid Waste Department for FY 18 in the amount of \$188,100. The specific services being provided solely centered around compliance and environmental monitoring associated with permit requirements. Listed below are items that require engineering services and explanations as to why it is in the County's best interest to move forward with this project:

- **Scale House Conceptual Design**

The existing scale house and traffic pattern is inefficient and is not customer-friendly when it comes to entering and exiting the facility. The existing configuration requires the customer to exit their vehicle to speak to the scalehouse attendant and pay any fees. Keeping customers inside their vehicles improves safety for all involved and moves vehicles through in a more timely and efficient manner. SCS Engineers has provided a proposal in which they will provide a conceptual floorplan of a new scale house along with new traffic patterns that will enhance the customer's experience. SCS will provide an engineer's construction cost estimate as part of these services. The proposed cost of these engineering services is \$22,000.

- **Landfill Gas System Modifications**

The landfill gas system contains both horizontal and vertical gas wells. The horizontal gas wells are allowing leachate to infiltrate into the gas system which in turn leads to the vacuum being lost on the gas wells. When the gas system is unable to pull methane gas out of the landfill, it causes the landfill to convert to positive pressure. When a landfill converts to positive pressure, it results in multiple noncompliance issues to include leachate seeps and exceedances in landfill gas emissions. The typical life expectancy on a horizontal well is five to seven years. These wells were installed in 2007. Cumberland County submitted a request to decommission the failing horizontal wells to the Department of Environmental Quality (DEQ) in January and received approval on February 6, 2018. The state granted this approval since vertical wells were installed within the last two months in the areas in which the horizontal wells serve. In order to decommission the horizontal wells, the wells have to be physically disconnected from the gas header pipe. This will require engineering services to include design, bidding and construction oversight. The proposed cost of these engineering services is \$25,000.

- **Partial Closure of Cells 1-8**

There are specific areas within landfill cells one through eight that have reached the final elevations in which waste can be placed. Therefore, these areas can be officially closed out or capped. Capping these areas will tremendously reduce the maintenance costs as well as increase the ability to maintain compliance. Capping these areas will eliminate leachate leaks on the east side of the landfill that staff constantly struggle to maintain. The projected timeframe for the design of a partial closure is three to four months. The proposed cost of these engineering services is \$80,000

The total cost of these additional services is \$127,000. There is \$145,194 currently available in the FY 18 Solid Waste budget for engineering services that can be used for these additional services.

RECOMMENDATION/PROPOSED ACTION:

The Engineering and Infrastructure Director and County Management recommend that the Facilities Committee approve the contract amendment with SCS Engineers in the amount of \$127,00 and place it on the agenda of the February 19, 2018 Board of Commissioners meeting for approval.



ITEM NO. 5

CUMBERLAND
★ **COUNTY** ★
NORTH CAROLINA

ENGINEERING & INFRASTRUCTURE DEPARTMENT

Engineering Division · Facilities Management Division · Landscaping & Grounds Division · Public Utilities Division

**MEMO FOR THE AGENDA OF THE
FEBRUARY 15, 2018 MEETING OF THE FACILITIES COMMITTEE**

TO: FACILITIES COMMITTEE MEMBERS
FROM: JEFFERY P. BROWN, PE, E & I DIRECTOR
THROUGH: TRACY JACKSON, ASSISTANT COUNTY MANAGER
DATE: FEBRUARY 8, 2017
SUBJECT: CONSIDERATION OF RENOVATIONS TO CONFERENCE
ROOM #564 WITHIN THE JUDGE E. MAURICE
BRASWELL CUMBERLAND COUNTY COURTHOUSE

Requested by: AMY H. CANNON, COUNTY MANAGER

Presenter(s): JEFFERY P. BROWN, PE, E & I DIRECTOR

Estimate of Committee Time Needed: 10 MINUTES

BACKGROUND:

The existing layout of Conference Room #564 located within the Judge E. Maurice Braswell Cumberland County Courthouse is no longer a conducive space for the Board of Commissioners to conduct meetings. The room currently has several technological challenges and the room is very tight and difficult for the Board of Commissioners, County Staff and outside presenters to maneuver when at capacity.

Due to these reasons, County Management along with key County Staff met with Gordon Johnson with Gordon Johnson Architecture to discuss the current challenges with the existing layout and how best to reconfigure the space if it were combined with room #533. After this programming meeting and several conceptual iterations, Mr. Johnson has provided a proposed layout that would meet all the identified needs. This layout has been attached for your review. A brief presentation to review renderings of the proposed renovations and the technological improvements will be presented during the meeting.

It is anticipated that overall cost to make the proposed improvements will be approximately \$200,000. This includes construction, furniture and technological equipment to up fit the room. The estimated construction time is 60 days. The target timeframe to begin construction will be in late June or early July.

RECOMMENDATION/PROPOSED ACTION:

County Staff is seeking guidance and input from the Facilities Committee on the proposed layout of Conference Room #564.