



## **CITY OF MEMPHIS**

### **REQUEST FOR Quote #146761-2**

## **PRIMARY CLARIFIER SLUDGE PUMP STATION REHABILITATION FOR THE TE MAXSON WASTEWATER TREATMENT FACILITY**

### **Addendum Two (2)**

The following information encompasses Addendum No. 2 for the above referenced RFP. Proposers shall fully consider and acknowledge this Addendum in the preparation and submittal of its formal proposal. Failure to do so may result in the proposal being considered unresponsive.

1. The bid due date is extended thru August 9, 2023 before 12:00 PM (Noon).
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**Addendum 02**

**Primary Clarifier Sludge Pump Station Rehabilitation for the**

**T.E. Maxson Wastewater Treatment Facility**

**City of Memphis, Tennessee**

**City Project: SW02033**

**July 19, 2023**

The following information is included with Addendum No. 2 for the above-referenced project. Bidders shall fully consider and acknowledge this Addendum in the preparation and submittal of its formal Bid. Failure to do so may result in the rejection of the Bid.

**List of Attachments:**

- 1) Bidder Questions and Answers by Project Team
- 2) Overhead Crane Inspection Report.
- 3) Requirements of the Sludge Bypass Pumping System
- 4) New sheet D2.0, Existing Conditions and Demolition
- 5) Revised sheet E1.1, Power and Grounding Plans.
- 6) Revised sheet E5.1, Electrical Details.
- 7) Existing Piping Plan, a sheet from the original construction showing existing piping.



**Bidder Questions and Project Team Answers**  
**Primary Clarifier Sludge Pump Station Rehabilitation for the**  
**T.E. Maxson Wastewater Treatment Facility**  
**City of Memphis, Tennessee**  
**City Project: SW02033**  
**July 7, 2023**

The following information is included with Addendum No. 2 for the above-referenced project.

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**Bidder Questions Received to Date**

Q1: Please clarify the definition of "working days".

Black & Veatch (BV): Working Days will be considered Calendar Days for the purposes of project duration.

Q2: If the City is not going to open bids publicly, Bidders need a way to review bids from other companies for compliance.

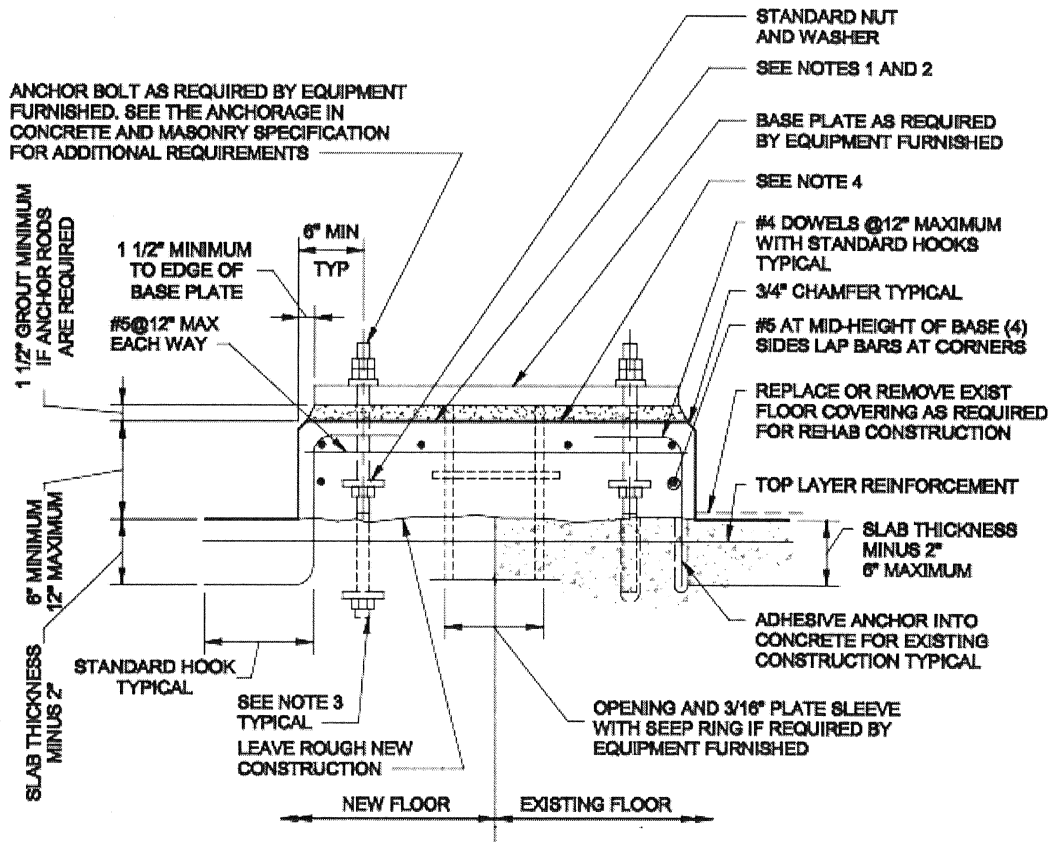
BV: Received bids may be viewed at City Hall (room number 620) for a period of ten (10) days after bid. Scans of the bids will be made available as well.

Q3: The limits of demolition are not clearly defined on the plans. Can you provide a demolition plan?

BV: Pump room demolition is included with a new sheet, D2.0. It also includes existing conditions. Electrical demolition phasing will be determined by the Contractor based on use of the existing MCC for powering temporary bypass pumps. It is expected that the existing MCC and associated equipment will be demolished once the new electrical building and MCC are in use.

Q4: Is there a structural plan for setting and supporting the new pumps? Are Bidders to assume that existing pump pads and supports are being reused?

BV: A new detail is included with this addendum below for bid purposes. Sheet M4.1 will be reissued with this detail added prior to construction. The height of the concrete base will be determined by field fit by the Contractor.



**NOTES:**

1. EQUIPMENT MANUFACTURER TO INDICATE REQUIRED FLATNESS WHERE NO GROUT IS SPECIFIED. TOLERANCES SHALL BE IN CONFORMANCE WITH ACI PRC-117 GUIDE FOR TOLERANCE COMPATIBILITY IN CONCRETE CONSTRUCTION.
2. CONTRACTOR AND SUPPLIER SHALL COORDINATE FINAL LOCATION AND SIZE OF PADS WITH EQUIPMENT FURNISHED. COORDINATE ANCHOR BOLT REQUIREMENTS FOR REQUIRED EMBEDMENT DEPTHS AND CONCRETE EDGE DISTANCES.
3. WHERE THE DESIGN ANCHOR BOLT EMBEDMENT IS GREATER THAN THE CONCRETE EQUIPMENT BASE THICKNESS, THEN THE REQUIRED DEPTH OF EMBEDMENT SHALL BE MEASURED FROM THE TOP OF STRUCTURAL SLAB AND NOT THE TOP OF THE EQUIPMENT BASE.
4. EQUIPMENT BASE SHALL USE STRUCTURAL CONCRETE AS INDICATED IN THE CAST-IN-PLACE CONCRETE SPECIFICATION.

**EQUIPMENT BASE DETAIL**

1" = 1'-0"

03-S355\_USA

Q5: Is there an "existing conditions" drawing for the pump and pipe room?

BV: Pump room demolition is included with a new sheet, D2.0. It also includes existing conditions.

Q6: There are certain pieces of electrical gear that may take more than a year to procure. Can the City of Memphis provide more than 365 working days in the event procurement is an issue?

BV: Once the successful bidder issues a schedule to the Project Manager, the contract duration may be adjusted to accommodate long-lead procurement times. It is the intent of the City of Memphis to expedite construction as much as possible without being unfair to the Contractor.

Q7: If the existing pumps are to stay in service during construction, how are Bidders going to figure staging and phasing, both from a pump and electrical standpoint?

BV: The design team has determined that the best way to avoid complex phasing inside the pump room is to establish a complete bypass pumping system outside the existing sludge pump station building. See notes regarding bypass system in this addendum.

Q8: Are there adequate valves to remove all the pumps, valves, and piping to be demolished?

BV: The design team has determined that the best way to avoid complex phasing inside the pump room is to establish a complete bypass pumping system outside the existing sludge pump station building. See notes regarding bypass system in this addendum.

Q9: Are the new pumps physically bigger than the old pumps? Will the new pumps fit into the existing space through existing door openings?

BV: We anticipate that there is adequate space to move demolished equipment out of the pump building and new equipment into the pump building. Refer to the hoist system current rating attached to this addendum.

Q10: Can the Contractor use the existing crane / hoist / monorail for moving equipment into and out of the pipe gallery?

BV: Refer to the hoist system current rating attached to this addendum.

Q11: Can you provide an electrical one-line diagram?

BV: A One Line Diagram is provided in this Addendum on revised sheet E5-1.

Q12: The plans show the installation of a transfer switch. On the input side, utility power will feed one leg, is there an existing generator feeding the other leg? Are there existing conductors to hook up? The one-line diagram would help clarify this.

BV: A One Line Diagram is provided in this Addendum on revised sheet E5-1. Sheet E1-1 is also being reissued for added notes.

Q13: If a clarifier has to be drained to facilitate construction, how will the Contractor schedule this task and can that be a consideration for additional contract time?

BV: With a bypass pumping system, draining a clarifier should not be necessary. However, if it does become necessary, coordination will go through the Black & Veatch Project Manager and the Maxson operations staff. The contractor's schedule should include the work on any items that require a clarifier to be drained. Two weeks' notice should provide adequate notice for operations staff to drain and clean the clarifier and not impact the contractor's schedule. If this action holds up the Contractor, granting additional contract time will be considered.

Q14: In light of the upcoming holiday, can the period for Bidder questions be extended?

BV: By law, we cannot extend the Bidder question period any closer to the bid date. If the bid date moves, then additional time for questions will be granted.

Q15: Will the Contractor be able to use the existing pipe hangers and hardware?

BV: No, all existing hangers and hardware are to be replaced.

Q16: Would you be able to confirm whether the pump supplier is responsible for supplying the local control station with E-Stop, Start, and Stop buttons that is to be pedestal mounted next to the pump?

BV: It is recommended that this local control station be supplied by the pump supplier for the sake of compatibility but it is not required.

Q17: Please confirm the pipe type for the Mechanical piping. It is not specified on the mechanical plans or the specs.

BV: The pipe is to be glass-lined (porcelain enamel) ductile iron pipe, compliant with ASTM B1000-21 (U.S. Pipe Fabrication SG-14 or equivalent).

Q18: Please confirm if builder's risk has to be provided by the general contractor.

BV: Insurance requirements are covered in specifications section 00710.

Q19: Could you please confirm the size of the NPT connections for the (qty 24) pressure switches (1/4 inch or 1/2 inch) and the (qty 16) diaphragm (class 150 or class 300 pipeline flanges)?

BV: For bid purposes, use 1/2" connections, Class 150.

Q20: The pump specification states that the pump supplier will provide the VFD, but the VFDs are covered in an electrical section. Does it matter who provides the VFDs?

BV: The VFDs do not have to be supplied by the pump supplier but the Contractor must ensure compatibility between the pumps and VFDs.



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— EVERY DAY SINCE 1946 —

Inspection Report - Memphis

**Job Number 148781**

Prepared for South Treatment Plant TE MAXSON (0000774)

2685 Steam Plant Rd.  
Memphis TN 38109

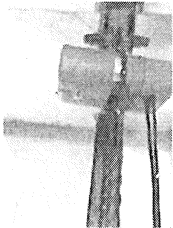




Hi-Speed Industrial Service  
7030 Ryburn Dr  
Millington, Tn 38053  
901-873-5300

**Annual Periodic Inspection**  
**South Treatment Plant TE MAXSON (0000774)**  
2685 Steam Plant Rd.  
Memphis, TN 38109

FolderID: 148781  
FormID: 14904831



**Overhead Crane**

**Completed by: Tommy Shull on 10/25/2022**

**Location:** Small Bldg  
**Sequence Number:** STP737

**Type:** Monorail  
**Crane Manufacturer:** CM  
**Crane Model:** LOAD STAR  
**Capacity:** 1 Ton  
**Trolley/Hoist Configuration :** 1 Trolley/ 1 Hoist  
**Lifting Medium:** Load Chain  
**Control Type:** Pendant  
**Power:** 115V-1Ph-60Hz  
**Hoist Main Manufacturer:** CM  
**Hoist Model:** LODESTAR  
**Hoist Serial Number:** L4030RH  
**Hoist Capacity:** 1 Ton  
**Hoist Lift:** 25

Priorities Found: ● 25 - Good

Ⓢ NEXT SCHEDULED ANNUAL INSPECTION & CERTIFICATION  
WILL BE 10/25/2023



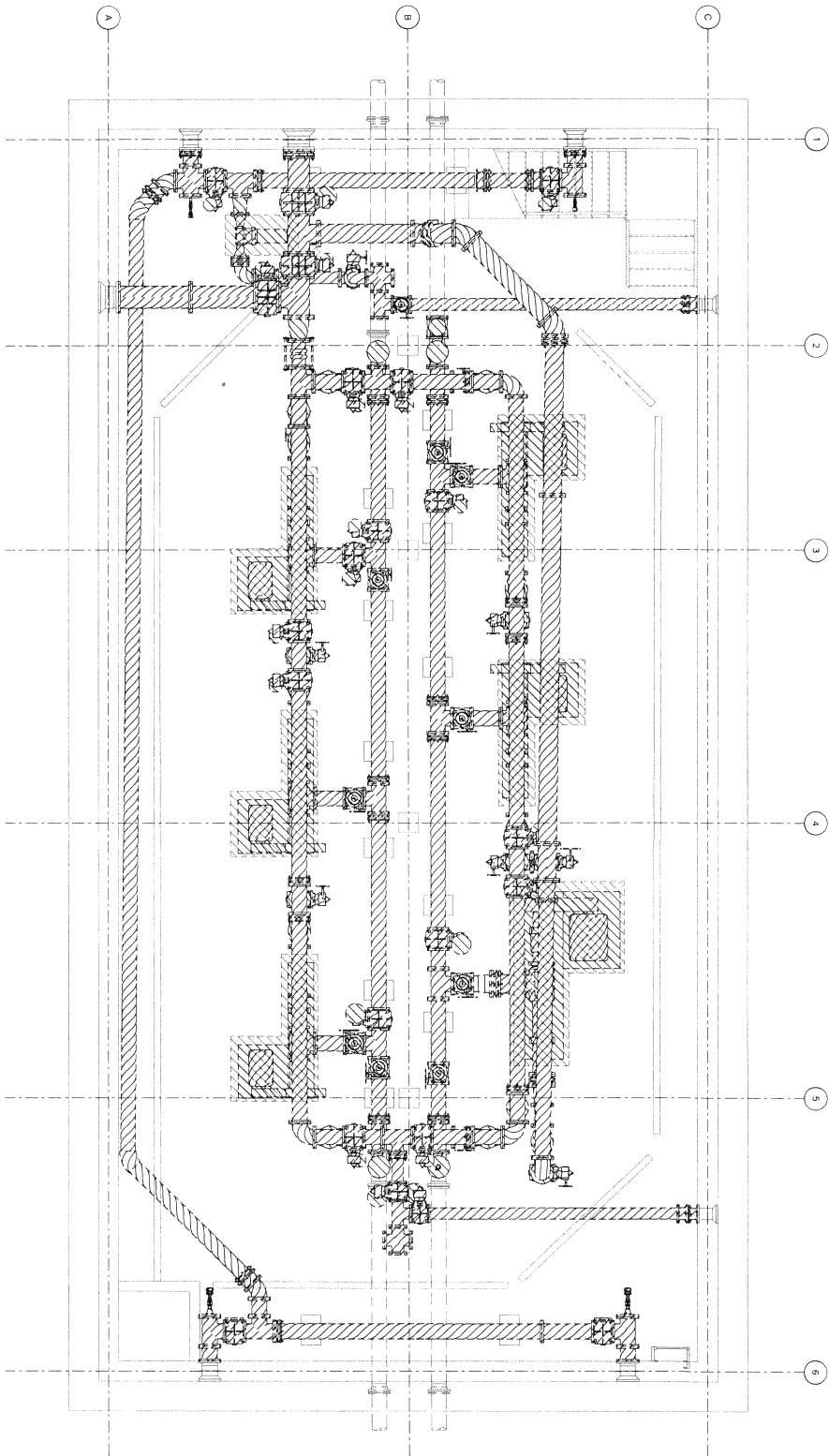
**Notes Regarding Bypass System**  
**Primary Clarifier Sludge Pump Station Rehabilitation for the**  
**T.E. Maxson Wastewater Treatment Facility**  
**City of Memphis, Tennessee**  
**City Project: SW02033**  
**July 7, 2023**

The following information is included with Addendum No. 2 for the above-referenced project.

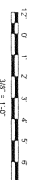
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**Requirements of the Temporary Sludge Bypass Pumping System**

- 1) The purpose of this document is to describe the requirements of a temporary bypass sludge pumping system that will allow the Contractor full access to the pump and pipe room for demolition and construction of the improvements. If a Bidder has other means and methods to stage the construction without a bypass system, he or she will be responsible for coordination during construction with the WWTP staff.
- 2) Prior to construction, the Contractor shall submit the details of his or her bypass pumping system to the Engineer for approval.
- 3) All construction aspects of the bypass system will be coordinated with WWTP staff including space requirements, timing, placement of pipes and hoses, placement of temporary conduits, etc.
- 4) To shut off flow to the existing pumps, the Contractor will excavate the existing pump suction lines on the north and south ends of the building. Insertable valves (hot taps) will be installed on these lines to shut off flow to the pumps.
- 5) The suction lines may then be plumbed to temporary bypass pumps adequately sized for the hydraulic conditions and appropriate for sludge from primary clarifiers. One pump shall be supplied per suction line and each pump shall be rated to handle the flow as described by the requirements of the smaller of the new (permanent) pumps.
- 6) The WWTP staff anticipates that they will manually run the pumps as needed.
- 7) Bypass discharge pipes will be plumbed to the existing discharge pipe just outside the north end of the building.
- 8) For approximate elevations of the suction and discharge pipes, plus approximate locations around the building, please see the attached Existing Piping Plan with this addendum.
- 9) It is anticipated that adequate power is available at the existing MCC for powering the bypass pumps. The Contractor shall include details of the electrical connections in his or her bypass pumping system submittal.
- 10) When the bypass system is disassembled, the valves inserted on the suction lines will remain in place and two (one north and one south) 96" diameter "doghouse" manholes will be installed around the valves for future access. The manholes will each consist of 8 vertical feet of 96" riser, a transition slab to 48" diameter, and roughly 5 vertical feet of 48" riser / cone. The top will be a standard manhole rim and cover. The bottom of the vault will be poured-in-place concrete.



BASEMENT FLOOR - DEMOLITION  
 3/8" = 1'-0"



**GENERAL DEMOLITION NOTES:**

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE ELECTRICAL BRASS PULLING SYSTEM FROM ALL DEMOLITION AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS AND DEBRIS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS AND DEBRIS.
3. ALL EXISTING PIPING, PUMPS, CONCRETE PUMP SUPPORTS, PIPING HANGERS, AND ACCESSORIES WILL BE DEMOLISHED.
4. CONTRACTOR SHALL COORDINATE WITH THE PLANT MANAGER TO REMOVE ALL EXISTING PIPING AND ACCESSORIES FROM THE PLANT MANAGER'S OFFICE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS AND DEBRIS.
5. AT THE TIME FINAL REMEDIATION CONTRACTOR BEST LOCATION TO DISMANTLE CONTRACTOR CONNECTION TO WHAT IS LEFT IN PLACE.

NO.	DESCRIPTION	DATE
1	DESIGN OF CONTRACTOR	10/13/2013
2	REVISION	
3	REVISION	
4	REVISION	
5	REVISION	

**THE MAXSON GROUP**  
 ENGINEERS ARCHITECTS INTERIORS  
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 Des Moines, IA 50319  
 Phone: 515.281.1111  
 Fax: 515.281.1112  
 www.maxsongroup.com

**PROJECT NO. SW20033**

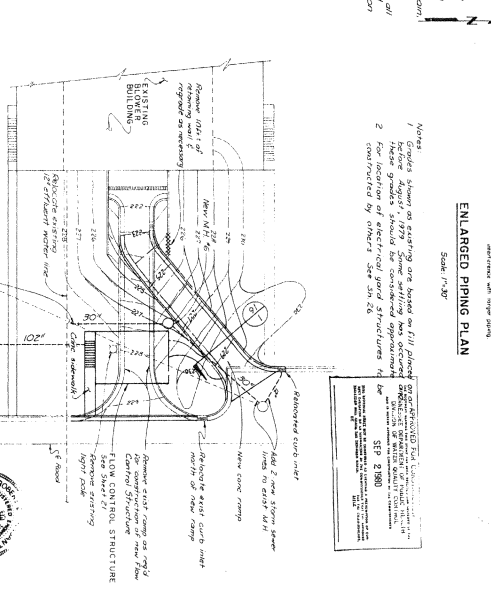
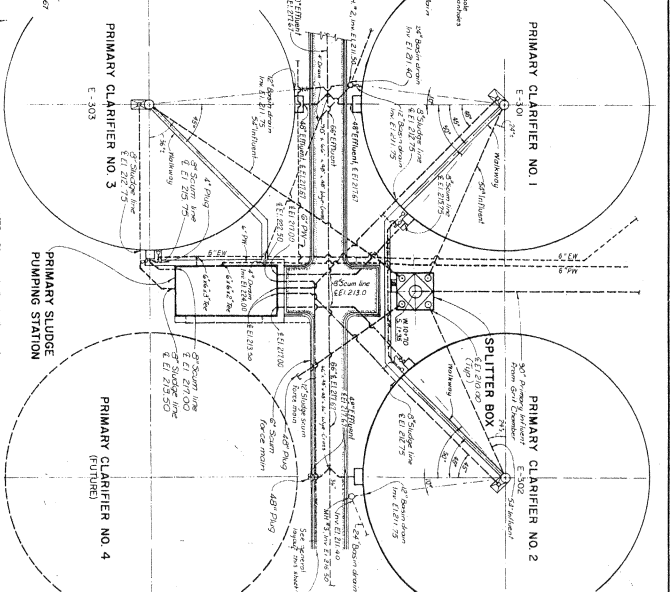
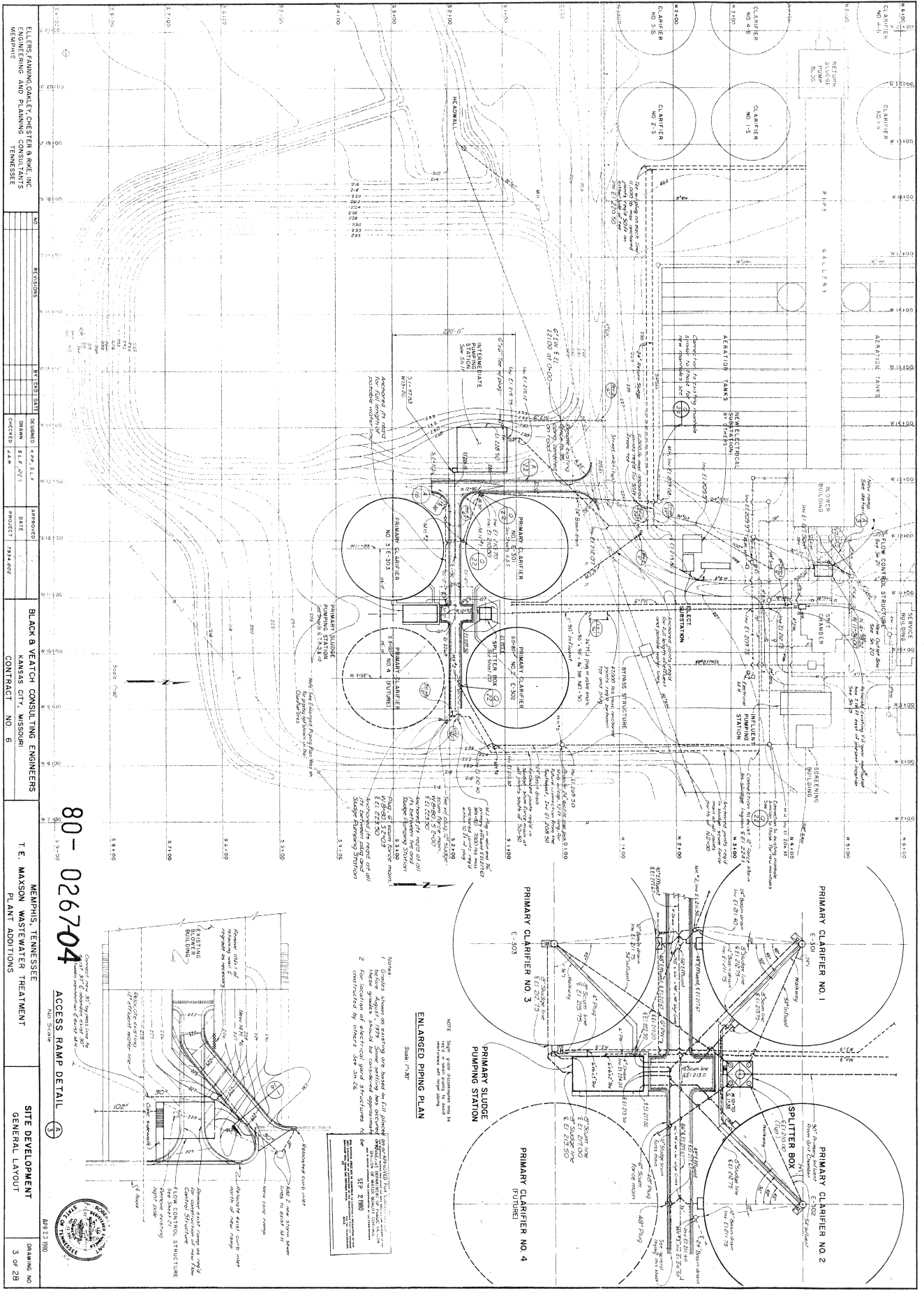
**BASEMENT LEVEL - DEMOLITION PLAN**

SHEET 14 OF 81

DESIGNED BY: ENGINEER DATE: 10/13/2013  
 DRAWN BY: BVA DATE: 10/13/2013  
 APPROVED: DATE: 10/13/2013







ELLERS FANNING OAKLEY CHESTER & BONE, INC. ENGINEERING AND PLANNING CONSULTANTS MEMPHIS, TENNESSEE		APPROVED: _____ DATE: 7/24/62		BLACK & VEATCH CONSULTING ENGINEERS KANSAS CITY, MISSOURI CONTRACT NO. 6		MEMPHIS, TENNESSEE WASTEWATER TREATMENT PLANT ADDITIONS		DRAWING NO. 3 OF 28	
NO.	REVISIONS	BY	DATE	DESIGNED	CHECKED	DATE	PROJECT	DATE	PROJECT

80-026704

ACCESS RAMP DETAIL

