

## Contract Change Order # 3

Project Name: <u>LLWWTP Headwords Improvements</u>	Project Number: <u>165420/165423</u>
Project Location: <u>Lynn Lane Waste Water Treatment Plant</u>	Date of Application: <u>Monday, February 25, 2019</u>
Contractor: <u>Crossland Heavy Contractors</u>	Submitted By: <u>Jason Smith</u>

### Summary of Change in Scope of Work

The following scope of work consisting of work location, work description, established quantities, and timeline for completion has been reviewed and agreed upon by the contractor, the origin funding department, and the Engineering and Construction Department.

**Change of Work Items Included in this Change Order:**

Per request of the Utilities department the Bio-Filter media is to be amended from the wood chip specifications to Bohn Bio filter Media.

The contractor has provided reductive original costs of the media material costs, installation/mixing labor, and applicable markups to

- 1) reduce the over all cost of the LS project. The contractor has also provided the additional costs associated with the Bohn Bio filter Media and applicable markups. The material is to be installed per manufacturer recommendations with engineering approval from HDR. The contractors proposal, reductive cost breakdowns, and material specifications are attached within.

Per project RFI #46, the contractor is to install the additional concrete paving required for the MAU Unit as well as the for the F.A. Fan.

- 2) Descriptions and details of this work can be found within the project RFI. The below costs summarize the costs and credits applicable to produce an in place product complete with all applicable markups.

Per the request of the Utilities Department, the contractor is to install (4) concrete radial walls within the existing aeration basins. This request is being performed during the cleaning operations within the aeration basins already being performed by this contract. The

- 3) contractor shall follow the provided construction drawings by HDR for these wall sections. The below costs are a summary of the costs associated to install the associated walls as a complete in place product.

**Change in Contractual Project Time:**

- 1) No additional time has been requested at this time.

Plan Sheets or Additional Documents Attached: ☒ Yes ☐ No ☒ Other: Associated Cost Proposals

### Work Order Quantities

Item#	(Spec)	Item Description	Units	Price	Quantity	Total Amount
CO3-1	NA	Bohn Bio filter Material	LS	\$ 45,814.42	1	\$ 45,814.42
CO3-2	NA	Additional Concrete Paving	LS	\$ 17,853.00	1	\$ 17,853.00
CO3-3	NA	Aeration Basin Walls	LS	\$ 68,345.24	1	\$ 68,345.24
Total Change Cost:						\$ 132,012.66

### Summary of Project Costs

Total Previous Change Orders:	\$ 200,704.37	Original Contract Amount:	\$ 9,772,200.00
Current Change Order:	\$ 132,012.66	Amended Contract Amount:	\$ 10,104,917.03
Total Cost of Change Orders:	\$ 332,717.03	Percent Change in Contract:	3.40%
Total Cost Applicable to CBA:	\$ 332,717.03	Percent Change Applicable to CBA:	3.40%

### Change Order Authorization

Change Order # <u>3</u> in the sum of: <u>\$ 132,012.66</u> has been reviewed by all parties and is recommended for approval by:	
Contractor Submitting Change Order:	<div style="display: flex; justify-content: space-between;"> <div>Name</div> <div>Signature</div> <div>Date</div> </div>
Construction Division Manager:	<div style="display: flex; justify-content: space-between;"> <div>Timothy S Robins, PE</div> <div>Signature</div> <div>Date</div> </div>
Director of Engineering & Construction:	<div style="display: flex; justify-content: space-between;"> <div>Alex Mills, PE</div> <div>Signature</div> <div>Date</div> </div>
Assistant City Manager - Operations:	<div style="display: flex; justify-content: space-between;"> <div>Kenneth D Schwab, PE</div> <div>Signature</div> <div>Date</div> </div>
City Manager:	<div style="display: flex; justify-content: space-between;"> <div>Michael Spurgeon</div> <div>Signature</div> <div>Date</div> </div>

**This Change is Executed Through:**

- ☐ This change to the contract documents is authorized by the City Manager's authority in accordance with the applicable state statutes and COBA Code of Ordinances.
- or
- ☒ This change to the contract documents was approved at the City Council/BAMA meeting held on : Tuesday, March 5, 2019

# CROSSLAND HEAVY CONTRACTORS

14149 East Admiral Place

Tulsa, Oklahoma 74116

tel 918.438.2800

fax 918.438.2801

Date: February 2, 2019

Dear Tim Robins,

This letter is to address the additional costs associated with providing Bohn Biofilter Media. Bohn Biofilter Media has a 10 year lifespan guarantee. In the future if Bohn is able to locate suppliers closer than Wichita, KS the price to replace the media in the future will be drastically cheaper due to decreased trucking costs. Please see the attached proposal from Bohn for additional information.

Below is a cost breakdown for the proposed materials.

CHC	\$41,649.48
Profit & Overhead	\$4,164.95

**Total Cost:** **\$45,814.42**

Should you have any questions or comments please feel free to contact me at (918) 230-9573

Respectfully,

Jason Smith  
Crossland Heavy Contractors, Inc.

**COST BREAKDOWN FOR SUPPORT OF ALLOWANCE AUTHORIZATION NO. 14**

Reference Document: Submittal Review Comments

Contract No.: Project Number 165420 & 165423  
 Project No.: Lynn Lane Headworks Improvements  
 Contractor: Crossland Heavy Contractors, Inc.

Date: 01/16/19

Description of Work: Biofilter Media Change - Bohn Biofilter Media has a 10 Year Lifespan Guarantee.

**Materials:**

Items	Units	Cost	Quantity	Amount
Oyster Shell	LS	-\$1,380.00	1.00	-\$1,380.00
Bohn Biofilter Media	LS	\$77,000.00	1.00	\$77,000.00
Wood Chips	LS	-\$12,600.00	1.00	-\$12,600.00
Sub-Total				\$63,020.00
Total				\$63,020.00

**Labor:**

Job Title	Rate/Hr.	Total Hrs.	Amount
Operator	-\$25.32	108.00	-\$2,734.56
Laborer	-\$22.83	158.00	-\$3,607.14
Foreman	-\$35.60	50.00	-\$1,780.00
Sub-Total			-\$8,121.70
Total			-\$8,121.70

**Payroll Additives:**

Item	% of Labor	Amount
Insurance	8.00%	-\$649.74
Bond	0.00%	\$0.00
Social Security	7.65%	-\$621.31
Taxes	3.80%	-\$308.62
Worker's Compensation	22.00%	-\$1,786.77
Employee Fringe Benefits	20.00%	-\$1,624.34
Total		-\$4,990.78

**Equipment:**

Type	Cost/Hr.	Total Hrs.	Amount
Excavator (Mixing Media No Longer Needed)	-\$115.25	58.00	-\$6,684.50
Skidsteer (Mixing Media No Longer Needed)	-\$27.13	58.00	-\$1,573.54
	\$0.00	0.00	\$0.00
	\$0.00	0.00	\$0.00
			\$0.00
Total			-\$8,258.04

Sub-Contractor Cost -	\$0.00
Mark-up On Sub-Contractor (10%)	\$0.00
Contractor Cost	\$41,649.48
Contractor Profit	\$4,164.95
Contractor Total	\$45,814.42

Total Lump Sum Cost for Work Described	\$45,814.42
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If Not Lump Sum, Cost Per Unit	Total Cost	
	Quantity	

Contractor's Signature

Printed Name: \_\_\_\_\_

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# Proposal for Biofilter Media

PREPARED FOR: Heavy Contractors  
ATTENTION: Jason Smith  
DATE: 15 January 2019  
PROJECT REFERENCE: LLWWTP Biofilter Media

## Application:

It is our understanding that a wastewater facility requires biofilter media. We have designed our soil biofilter media with the following characteristics:

- Removal of all nuisance odors
- 99% removal efficiency of hydrogen sulfide
- Reliable performance with little maintenance
- Long-lasting inorganic biofilter media

## Bohn Biofilter:

Bohn Biofilter is a recognized leader in the industry with odor control biofilters that have been operating for over 20 years with only maintenance of a foul air fan and biofilter irrigation. Our biofilter system effectively treats gases from all phases of wastewater collection and treatment with only maintenance of a foul air fan and irrigation system

## Biofilter Soil Media:

Bohn's inorganic soil media is a blend of sands, soils and topsoils. Unlike wood chip media, it does not compact or settle, it's readily re-wetted and a strong pH buffer.

## Media Warranty:

The Bohn Biofilter Corporation guarantees the useful life of the soil media for a minimum service life of ten years.

Bohn further guarantees the biofilter media shall meet the following performance criteria: 99% removal of H<sub>2</sub>S for inlet concentrations of 10 – 150 ppm. For inlet concentrations below 10 ppm, a maximum discharge concentration of 0.1 ppm.

## Bohn's Scope of Supply:

- A. Soil biofilter media; approximately 444 CY or a 3.33 FT depth.
- B. **A 10-year lifespan guarantee of the soil biofilter media.**
- C. Eighty hours of pre- and post-construction consultation.

## Contractor's Responsibility:

- A. Modify air pipe adding rear-header connecting 6" lateral pipes.
- B. Install soil biofilter media. Placed by large excavator or concrete conveyor belt.
- C. Biofilter media is delivered in bulk by end dump truck.

**Pricing:**

For the materials, service and guarantees as described herein, a budget price is: \$ 77,000<sup>00</sup>

The price includes delivery.

The price does not include any applicable taxes.

We appreciate this opportunity. A soil biofilter benefits the facility and community.

Sincerely,

A handwritten signature in dark ink, appearing to read 'K. Bohn', is positioned above the printed name.

Karl Bohn, General Manager

**BOHN BIOFILTER CORP.**

Office: [520.624.4644](tel:520.624.4644)

Mobile: [520.906.5521](tel:520.906.5521)

[www.bohnbiofilter.com](http://www.bohnbiofilter.com)

# CROSSLAND HEAVY CONTRACTORS

14149 East Admiral Place

Tulsa, Oklahoma 74116

tel 918.438.2800

fax 918.438.2801

Date: January 11, 2019

Dear Tim Robins,

This letter is to address the additional costs associated with the addition of concrete between the masonry wall and headworks facility, and area under the odor control fans.

Below is a cost breakdown for the proposed materials.

CHC	\$16,230.00
Profit & Overhead	\$1,623.00

**Total Cost:** **\$17,853.00**

Should you have any questions or comments please feel free to contact me at (918) 230-9573

Respectfully,



Jason Smith  
Crossland Heavy Contractors, Inc.

## COST BREAKDOWN FOR SUPPORT OF ALLOWANCE AUTHORIZATION NO.

Reference Document: Submittal 32 13 13-1-1, and RFI 46

Contract No.: Project Number 165420 &amp; 165423

Date: 01/11/19

Project No.: Lynn Lane Headworks Improvements

Contractor: Crossland Heavy Contractors, Inc.

Description of Work: Additional Site Concrete

**Materials:**

Items	Units	Cost	Quantity	Amount
Materials (Maxwell)	LS	\$3,980.94	1.00	\$3,980.94
Site Concrete STS	LS	\$500.00	1.00	\$500.00
Fuel	GAL	\$3.18	68.00	\$216.24
Concrete	CY	\$115.00	16.00	\$1,840.00
Type A Aggregate	TN	\$12.89	16.00	\$206.24
Reinforcing Bars	LS	\$720.00	1.00	\$720.00
Sub-Total				\$7,463.42
10% Profit				\$746.34
Total				\$8,209.76

**Labor:**

Job Title	Rate/Hr.	Total Hrs.	Amount
Foreman	\$35.60	40.00	\$1,424.00
Skilled Operator - 1	\$25.32	24.00	\$607.68
Skilled Laborer - 2	\$22.83	80.00	\$1,826.40
Sub-Total			\$3,858.08
15% Profit			\$578.71
Total			\$4,436.79

**Payroll Additives:**

Item	% of Labor	Amount
Insurance	8.00%	\$308.65
Bond	0.00%	\$0.00
Social Security	7.65%	\$295.14
Taxes	3.80%	\$146.61
Worker's Compensation	22.00%	\$848.78
Employee Fringe Benefits	20.00%	\$771.62
Total		\$2,370.79

**Equipment:**

Type	Cost/Hr.	Total Hrs.	Amount
Skidsteer	\$33.62	24.00	\$806.76
	\$0.00	0.00	\$0.00
	\$0.00	0.00	\$0.00
	\$0.00	0.00	\$0.00
Total			\$806.76

Sub-Contractor Cost - Texoma Rebar	\$369.00
Mark-up On Sub-Contractor (10%)	\$36.90
Contractor Cost	\$16,230.00
Contractor Profit	\$1,623.00
Contractor Total	\$17,853.00

Total Lump Sum Cost for Work Described	\$17,853.00
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Total Cost	
If Not Lump Sum, Cost Per Unit	Quantity

Contractor's Signature

Printed Name:

Jason C. Smith

## Quotation

TO: Bidding Contractors  
ATTN: \_\_\_\_\_  
DATE: 12/19/2018  
PROJECT: Lynn Lane WWTP Add  
LOCATION: Broken Arrow, OK  
ESTIMATE: \_\_\_\_\_



**Crimson Steel Supply, LLC**  
990 N 129th E. Ave.  
Tulsa, OK 74116  
918-994-5330

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### NOTES:

0.6 Tons of Rebar for 755 sq ft of #4 @ 12" OCEW

\$720.00

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### EXCLUDES:

### DRAWINGS:

***This quote is subject to change if not accepted within 10 days.***

Unless specifically identified above, the following items are excluded: taxes, bar supports, smooth dowels, mechanical couplers and other accessories, CMU, LEED info, reinforcing resulting from drawings not identified above.

Issued By
Crimson Steel Supply, LLC
Signed _____
Wes Newman, Sales
wes@crimsonsteelsupply.com
918-994-5330

Accepted By
On (Date) _____
Company _____
Signed _____
Name/Title _____



## Request for Information No.046

Project Name:	<b>Lynn Lane Wastewater Treatment Plant Headworks Improvements</b>	Initiated by:	<input type="checkbox"/> HDR	<input type="checkbox"/> OWNER	<input checked="" type="checkbox"/> CONTRACTOR
Project Owner:	<b>Broken Arrow Municipal Authority (BAMA) Project No. 165420/165423</b>	Transmitted By:	Robby Rosencutter		Date: 8/29/2018
HDR Project No.	<b>10026444</b>	Initiated to:	<input checked="" type="checkbox"/> HDR	<input type="checkbox"/> OWNER	<input type="checkbox"/> CONTRACTOR
Contractor:	<b>Crossland Heavy Contractors</b>	Transmitted To:	HDR (Jenifer Rayshell)		Date: 8/29/2018
Owner Contract #	<b>Bid No. 18.110 OWRB Loan No. FAP-17-0004-L</b>				
Subject: MAU-01 Equipment Pad	Discipline: Structural				
Reference Transmittal					

**Attention:**

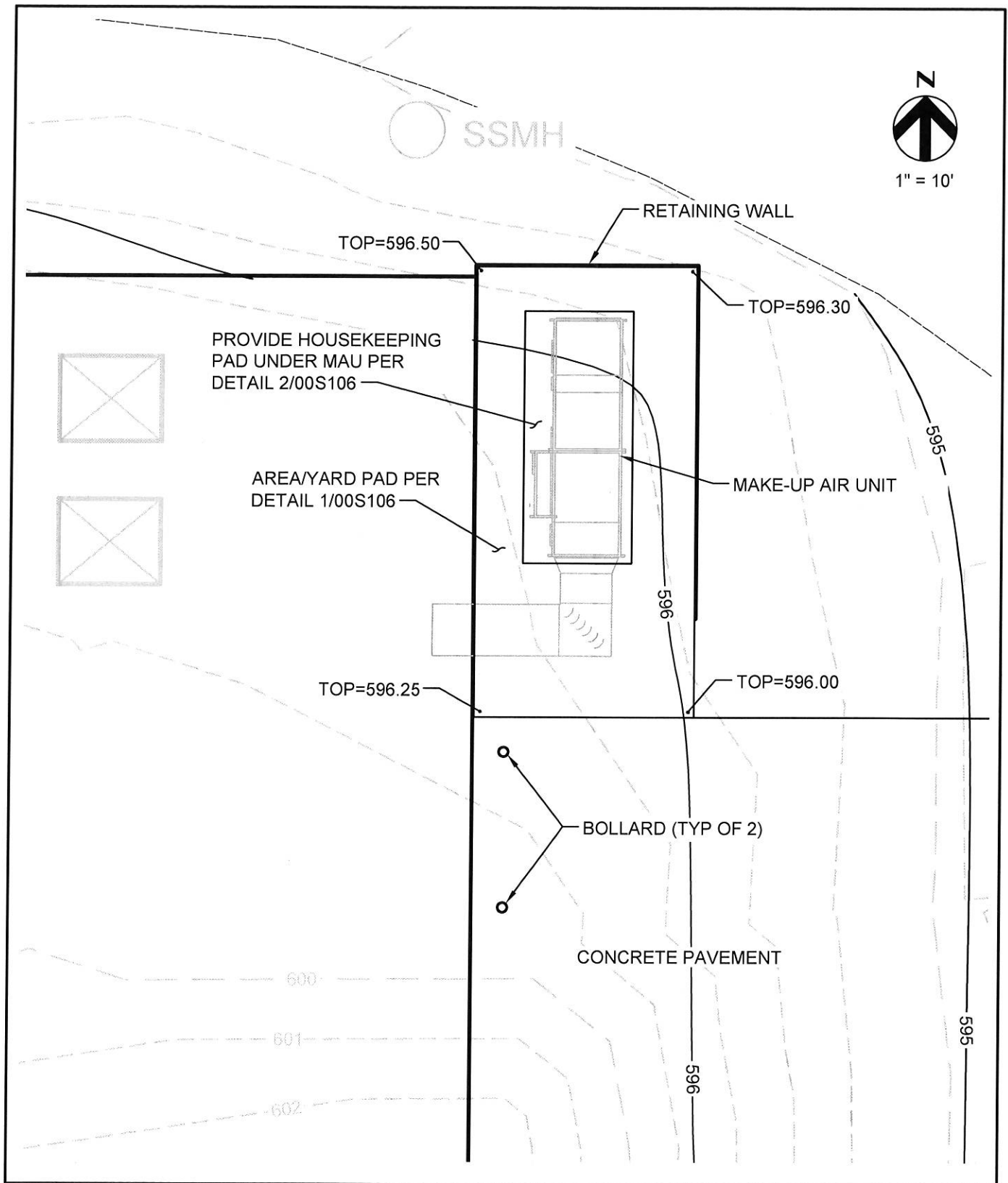
The following is an internal Request for Information between the Contractor and the Engineer (HDR).

The General Conditions specifies that once the Engineer provides a response to a Contractor's RFI, that determination shall be final and binding on the Contractor unless the Contractor delivers to the Owner written notice of a change in the work within a certain period of time of receipt of that determination. See the GCs for further clarification.

<b>Information Requested</b>	<b>Date Required:</b>
<p>The following information needs to be verified and/or clarified on the contract documents:</p> <p><b>Due to discrepancies in the Design, please see markups and provide clarification on the attached Plan Sheets included with this RFI. Per H&amp;E Mechanical, the Equipment Pad for MAU-01 will be 6" thick, with a finished elevation at 697.00', please advise if this will be sufficient. Please verify if a Slab-On-Grade is required below MAU-01's Equipment Pad. If so, please provide the Slab's Thickness, Dimensions and Finished Floor Elevation.</b></p> <p><b>Please provide clarification.</b></p> <p><b>Requested by: Robby Rosencutter</b></p>	

<b>Response:</b>
<p>Area pad for MAU unit shall be per Detail 1/00S106. Housekeeping pad for MAU shall be per Detail 2/00S106. See attached figure for clarification including spot elevations (TOP = top of pavement) and pad limits.</p>
<p><b>Answered by: Todd Townsend, Brian Perlberg</b></p>
<p><b>Date Answered: October 16, 2018</b></p>

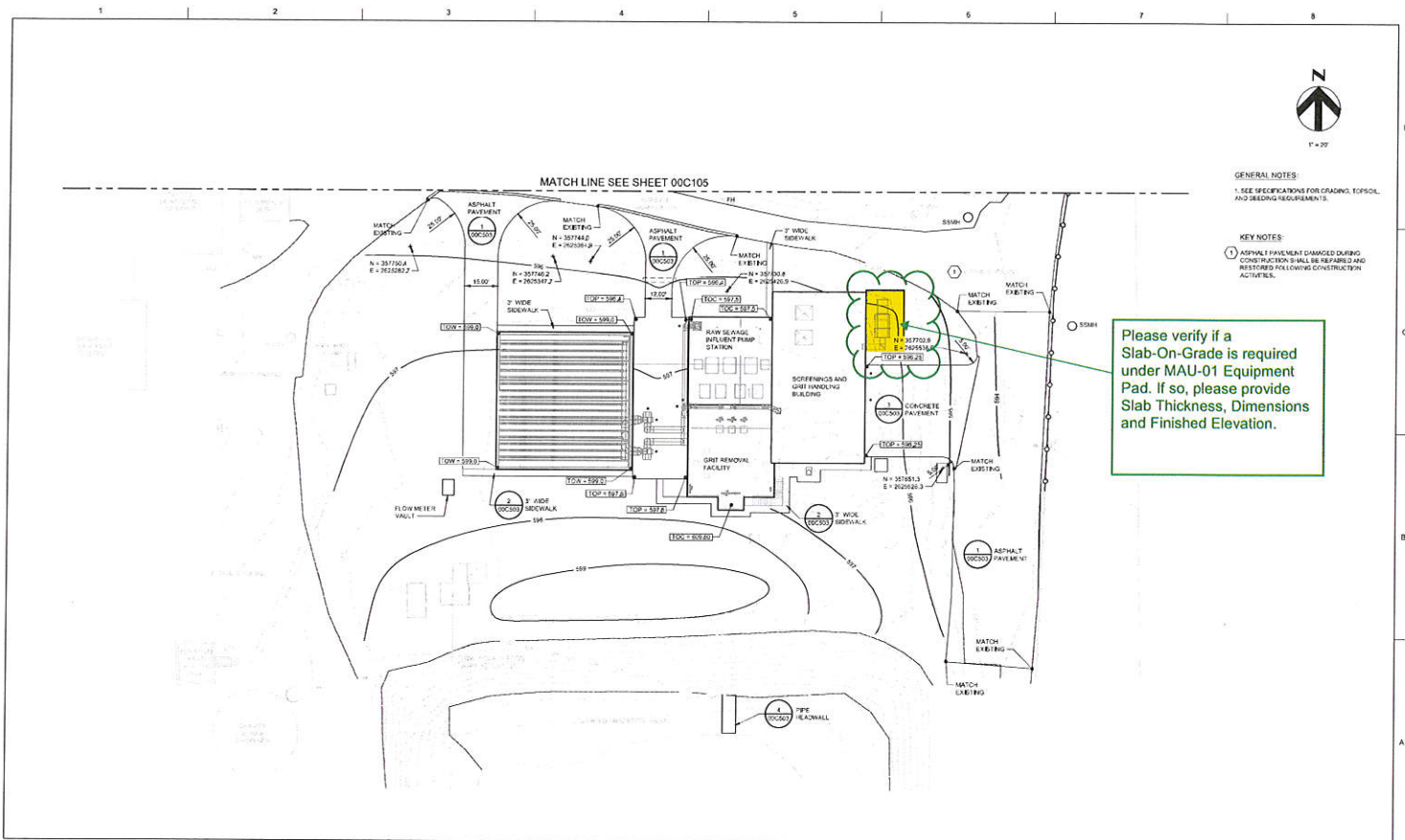
Will this request possibly create a change order:  
☐ Yes (Deductive)      ☐ No



**BROKEN ARROW MINICIPAL AUTHORITY  
PAVING AND GRADING PLAN (SOUTH)  
DRAWING 00C106**

DATE  
10/15/2018

FIGURE  
RFI 046



GENERAL NOTES  
1. SEE SPECIFICATIONS FOR GRADING, TOPSOIL, AND SEEDING REQUIREMENTS.

KEY NOTES  
① ASPHALT PAVEMENT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND RESTORED FOLLOWING CONSTRUCTION ACTIVITIES.

Please verify if a Slab-On-Grade is required under MAU-01 Equipment Pad. If so, please provide Slab Thickness, Dimensions and Finished Elevation.



ISSUE	DATE	DESCRIPTION
0	12/21/2017	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	JOEL R. CANFIELD
CIVIL	T. TOWNSEND
STRUCTURAL	S. LOEFFLER
ARCHITECTURAL	K. KRENT
PROCESS	T. TOWNSEND
MECHANICAL	S. PERLBERG
PLUMBING & PIPING	S. PERLBERG
ELECTRICAL	D. BISHOP
PROJECT NUMBER	1502444



BROKEN ARROW  
MUNICIPAL AUTHORITY  
CITY OF BROKEN ARROW, OK  
LYNN LANE WWT  
HEADWORKS IMPROVEMENTS

GENERAL  
CIVIL  
PAVING AND GRADING PLAN (SOUTH)

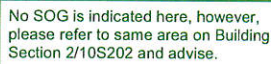
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SHEET  
00C106







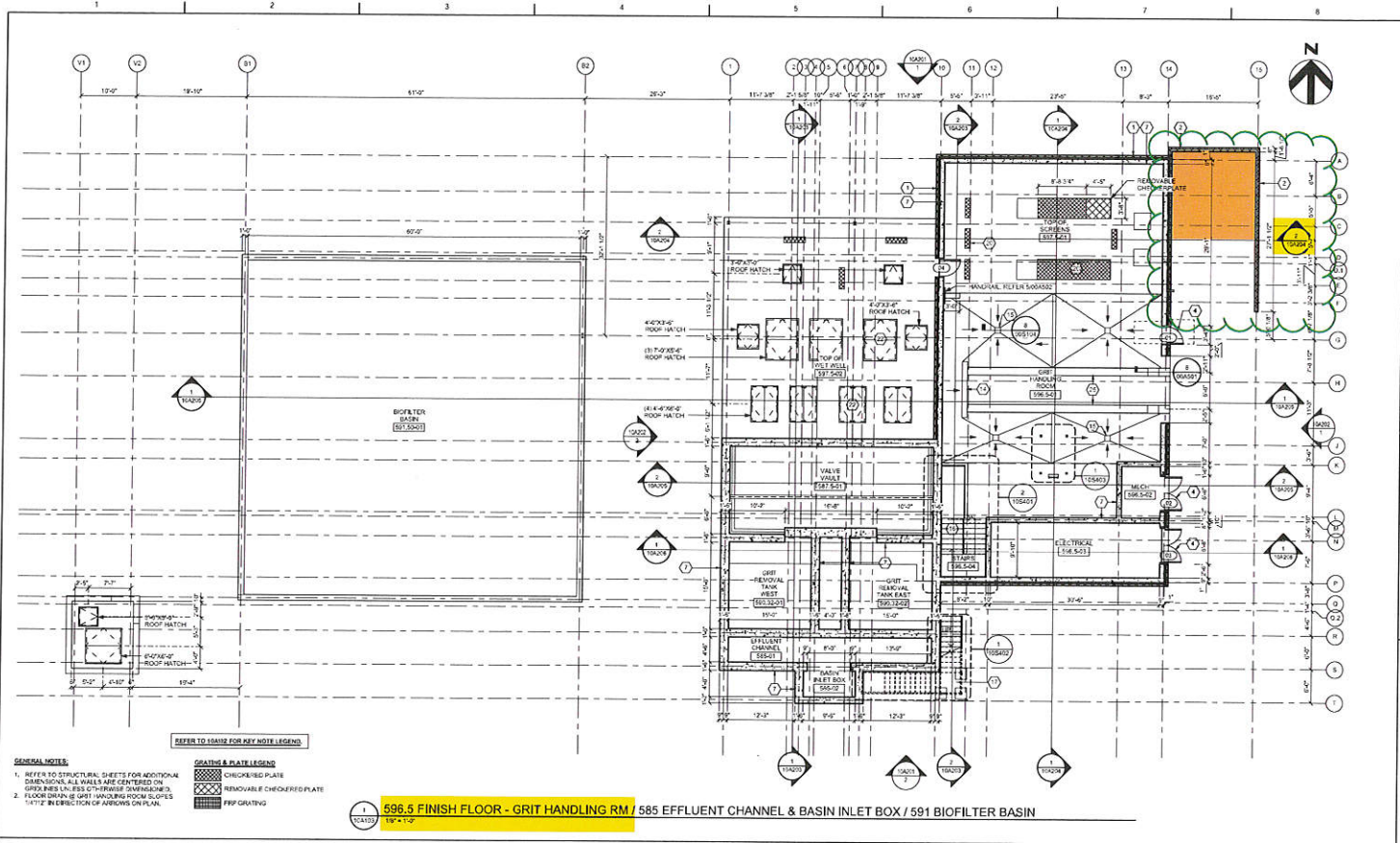


HEADWORKS FACILITY  
STRUCTURAL  
PLANS III

FILENAME 1005644\_01\_STRUCTURAL SHEET  
SCALE AS NOTED 10S103







**GENERAL NOTE:**  
 1. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DIMENSIONS. ALL WALLS ARE CENTERED ON GRID LINES UNLESS OTHERWISE NOTED.  
 2. FLOOR DRAIN (E) GRIT HANDLING ROOM SLOPES 1/4" = 1' IN DIRECTION OF ARROWS ON PLAN.

**REFER TO 594102 FOR KEY NOTE LEGEND**

**GRIT & RATE LEGEND**  
 CHECKED PLATE  
 REMOVABLE CHECKED PLATE  
 FRP GRATING

**596.5 FINISH FLOOR - GRIT HANDLING RM / 585 EFFLUENT CHANNEL & BASIN INLET BOX / 591 BIOFILTER BASIN**  
 12" x 17"

**BKL**  
 INCORPORATED  
 ENGINEERS & ARCHITECTS  
 6800 NORTH BURNING WOOD DRIVE  
 SUITE 100  
 DALLAS, TEXAS 75248

**HDR**  
 HDR ENGINEERING, INC.  
 1444 PUEBLO AVENUE  
 SUITE 100  
 DENVER, COLORADO 80202

ISSUE	DATE	DESCRIPTION
1	12/21/2017	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	JOSH CANTWELL
OWNER	T. TOYNE
STRUCTURAL	T. TOYNE
ARCHITECTURAL	P. REINE
PROCESS	T. TOYNE
MECHANICAL	B. PULBEN
PLUMBING	B. PULBEN
ELECTRICAL	D. BENDER
PROJECT NUMBER	19026444



**BROKEN ARROW  
 MUNICIPAL AUTHORITY  
 CITY OF BROKEN ARROW, OK**

**LYNN LANE WWTP  
 HEADWORKS IMPROVEMENTS**

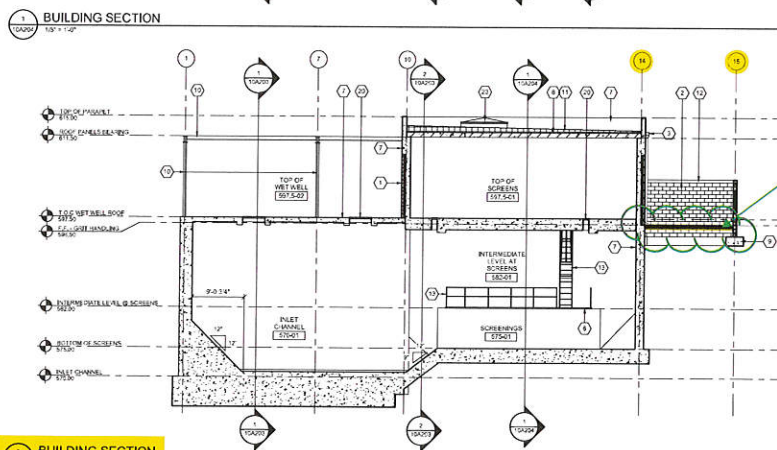
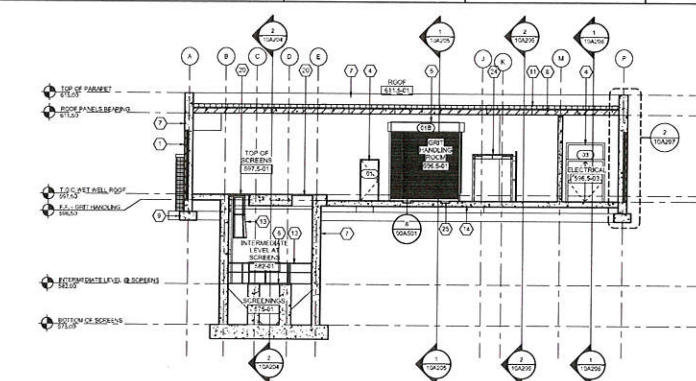
**HEADWORKS FACILITY  
 ARCHITECTURAL  
 FINISH FLOOR PLAN - GRIT HANDLING ROOM**

FILENAME: 19026444\_R1\_STRUCTUREL  
 SCALE: AS NOTED

SHEET  
**10A103**



- KEY NOTES**
- 1 4" BLOCK VENEER - 5 SCORE CMU
  - 2 8" BLOCK - 5 SCORE CMU
  - 3 PREFINISHED METAL SCUPPER AND DOWNSPOUTS
  - 4 FRAME AND DOOR - REFER 10A201
  - 5 Q/L COIL DOOR - REFER 10A201
  - 6 RPT GRATING
  - 7 POUR-IN-PLACE (PIP) CONCRETE
  - 8 PRECAST ROOF PANELS WITH 2" CONCRETE TOPPING
  - 9 CONCRETE FOUNDATION - REFER STRUCTURAL DRWG
  - 10 OVERHEAD MONORAIL CRANE FRAMING - REFER STRUCT
  - 11 MEMBRANE ROOFING SYSTEM
  - 12 LINE STONE CAP
  - 13 ALUMINUM LADDERS/GUARDRAIL
  - 14 TRENCH DRAIN
  - 15 FLOOR SINK
  - 16 CONCRETE STAIRS
  - 17 ALUMINUM STAIRS
  - 18 ALUMINUM GRATING
  - 19 GRATING SUPPORT ANGLE
  - 20 STAINLESS STEEL CHECKERPLATE
  - 21 SLAB PENETRATION - REFER STANDARD DETAIL
  - 22 ROOF HATCH
  - 23 SKYLIGHT
  - 24 ALUMINUM MAINTENANCE PLATFORM
  - 25 EMBEDDED HOLE FOR DAMPSTER - REFER 10A203
  - 26 EXHAUST DUCT IN CMU OR P.F.P. WALL - REFER STRUCT FOR ALL P.F.P. JOINTS



Per Section Marker 10A204 referenced here, No Concrete Slab or Paving is indicated in this area on Plan Sheet 10A203, please advise.



11/01/2017 ISSUED FOR CONSTRUCTION  
 12/01/2017 DATE 12/01/2017  
 12/01/2017 DATE 12/01/2017

PROJECT MANAGER: JOHN CANTWELL  
 CIVIL: T. TOVINSON  
 STRUCTURAL: S. SCHNEIDER  
 ARCHITECTURAL: K. KELLY  
 PROCESS: T. TOVINSON  
 MECHANICAL: B. POLBERG  
 PLUMBING: B. POLBERG  
 ELECTRICAL: D. BERGQUIST  
 PROJECT NUMBER: 1002644



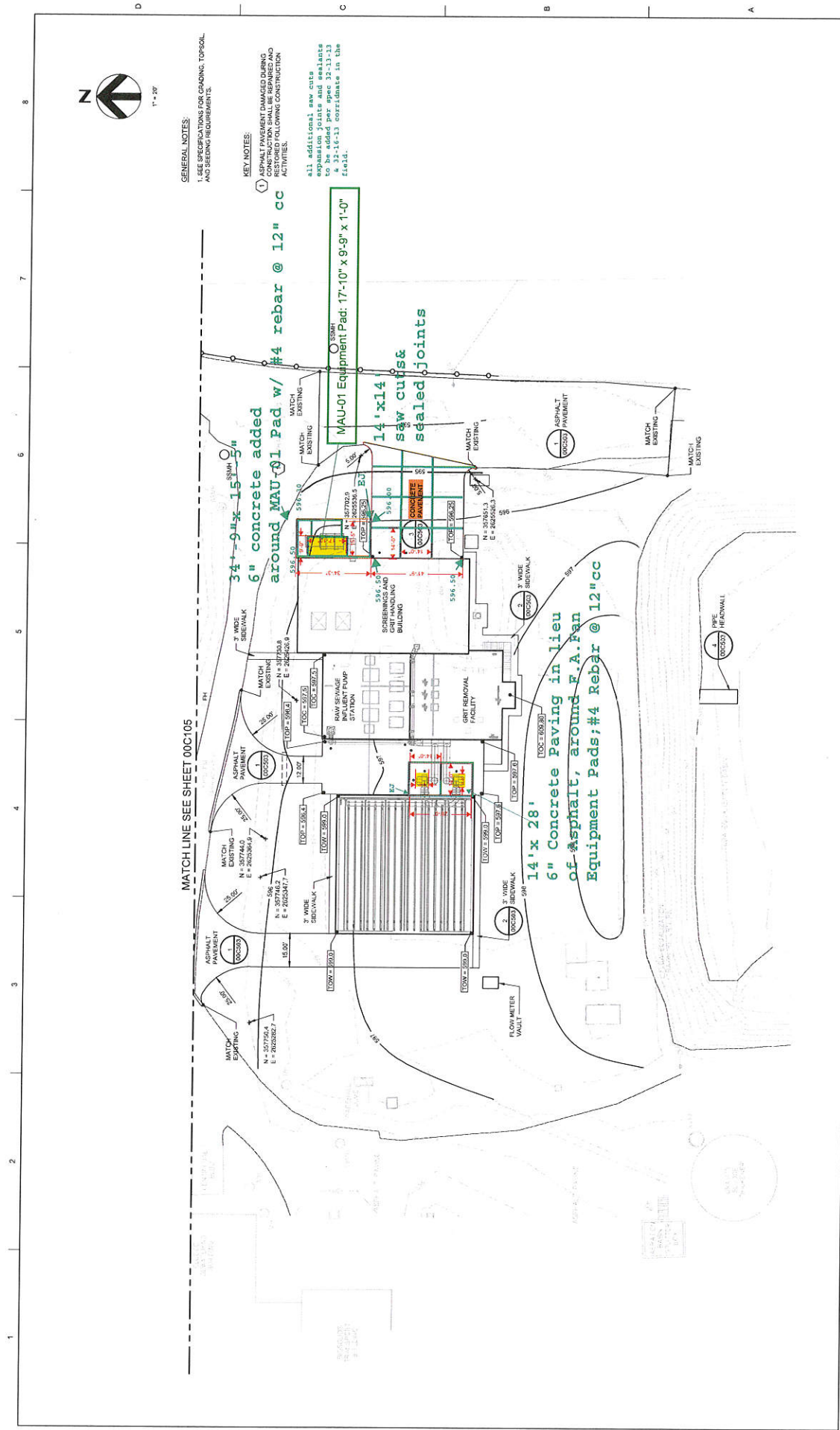
BROKEN ARROW  
 MUNICIPAL AUTHORITY  
 CITY OF BROKEN ARROW, OK  
 LYNN LANE WWTP  
 HEADWORKS IMPROVEMENTS

HEADWORKS FACILITY  
 ARCHITECTURAL  
 BUILDING SECTIONS II

SCALE: AS NOTED

FILENAME: 1002644\_01\_STRUCTURAL SHEET 10A204





MATCH LINE SEE SHEET 00C105

GENERAL NOTES:  
1. SEE SPECIFICATIONS FOR GRADING, TOPSOIL AND SEEDING REQUIREMENTS.

KEY NOTES:

- 1. ASPHALT PAVING SHALL BE RESTORED TO ORIGINAL CONDITION FOLLOWING CONSTRUCTION. ASPHALT SHALL BE REPAIRED AND RESTORED FOLLOWING CONSTRUCTION ACTIVITY.
- 2. ALL additional saw cuts shall be added per spec 32-12-13 & 32-16-13 coordinate in the field.



**BKI**  
INCORPORATED  
ENGINEERS ARCHITECTS  
1000 N. W. 10th Ave., Suite 200  
Broken Arrow, OK 74012  
P: 918.259.1234  
F: 918.259.1235  
www.bkiinc.com



**HDR**  
HDR ENGINEERING, INC.  
1000 N. W. 10th Ave., Suite 200  
Broken Arrow, OK 74012  
P: 918.259.1234  
F: 918.259.1235  
www.hdrinc.com



JOEL R. CANTWELL  
12/14/2014  
3919

**BROKEN ARROW  
MUNICIPAL AUTHORITY  
CITY OF BROKEN ARROW, OK**

**LYNN LANE WWTP  
HEADWORKS IMPROVEMENTS**

**GENERAL  
CIVIL  
PAVING AND GRADING PLAN (SOUTH)**

PROJECT MANAGER: JOEL R. CANTWELL  
OWNER: T. TOWNSEND  
STRUCTURAL: E. LOEFFLER  
ARCHITECTURAL: K. RIEVE  
PROCESS: T. TOWNSEND  
ELECTRICAL: E. LOEFFLER  
PLUMBING: E. LOEFFLER  
MECHANICAL: E. LOEFFLER  
PROJECT NUMBER: 10025444

ISSUE	DATE	DESCRIPTION
0	12/15/2017	ISSUED FOR CONSTRUCTION

00C106.dwg  
FILE NAME: 00C106.dwg  
SCALE: 1" = 20'

SHEET  
00C106

# CROSSLAND HEAVY CONTRACTORS

14149 East Admiral Place

Tulsa, Oklahoma 74116

tel 918.438.2800

fax 918.438.2801

Date: January 11, 2019

Dear Tim Robins,

This letter is to address the additional costs associated with the addition of the 4 radius concrete walls in the aeration basins

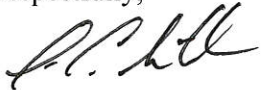
Below is a cost breakdown for the proposed materials.

CHC	\$62,132.04
Profit & Overhead	\$6,213.20

**Total Cost:** **\$68,345.24**

Should you have any questions or comments please feel free to contact me at (918) 230-9573

Respectfully,



Jason Smith  
Crossland Heavy Contractors, Inc.

**COST BREAKDOWN FOR SUPPORT OF ALLOWANCE AUTHORIZATION NO.**

Reference Document: Plans Sheet 40S101 Provided by HDR and City of Broken Arrow

Contract No.: Project Number 165420 & 165423

Date: 01/11/19

Project No.: Lynn Lane Headworks Improvements

Contractor: Crossland Heavy Contractors, Inc.

Description of Work: Placement of four (4) Radius Concrete Walls in the Aeration Basins.

**Materials:**

Items	Units	Cost	Quantity	Amount
Site Concrete STS	LS	\$500.00	1.00	\$500.00
Epoxy	LS	\$500.00	1.00	\$500.00
Formwork	LS	\$2,650.00	1.00	\$2,650.00
Misc. STS -	LS	\$2,370.00	1.00	\$2,370.00
Concrete	CY	\$115.00	16.00	\$1,840.00
Sand & Sand Bags	LS	\$850.00	1.00	\$850.00
Reinforcing Bars	LS	\$1,276.00	1.00	\$1,276.00
Sub-Total				\$9,986.00
10% Profit				\$998.60
Total				\$10,984.60

**Labor:**

Job Title	Rate/Hr.	Total Hrs.	Amount
Foreman	\$35.60	200.00	\$7,120.00
Carpenter	\$23.40	65.00	\$1,521.00
Crane Operator	\$33.26	110.00	\$3,658.60
Skilled Operator	\$25.32	2.00	\$50.64
Skilled Laborer	\$22.83	416.00	\$9,497.28
Sub-Total			\$21,847.52
15% Profit			\$3,277.13
Total			\$25,124.65

**Payroll Additives:**

Item	% of Labor	Amount
Insurance	8.00%	\$1,747.80
Bond	0.00%	\$0.00
Social Security	7.65%	\$1,671.34
Taxes	3.80%	\$830.21
Worker's Compensation	22.00%	\$4,806.45
Employee Fringe Benefits	20.00%	\$4,369.50
Total		\$13,425.30

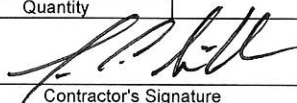
**Equipment:**

Type	Cost/Hr.	Total Hrs.	Amount
Air Compressor	\$12.94	21.00	\$271.74
Boom Truck	\$54.75	157.00	\$8,595.75
Pump Truck - Lump Sum for Two Pours	\$0.00	0.00	\$2,520.00
	\$0.00	0.00	\$0.00
Total			\$11,387.49

Sub-Contractor Cost - Texoma Rebar	\$1,100.00
Mark-up On Sub-Contractor (10%)	\$110.00
Contractor Cost	\$62,132.04
Contractor Profit	\$6,213.20
Contractor Total	\$68,345.24

Total Lump Sum Cost for Work Described	\$68,345.24
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If Not Lump Sum, Cost Per Unit	Total Cost	
	Quantity	



Contractor's Signature

Printed Name: Jason C. Smith



## Quotation

TO: Crossland Heavy Contractors  
ATTN: Chris  
DATE: 1/11/2019  
PROJECT: Lynn Lane WWTP  
LOCATION: Broken Arrow, OK  
ESTIMATE: TE0119-462



**Crimson Steel Supply, LLC**  
990 N 129th E. Ave.  
Tulsa, OK 74116  
918-994-5330

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### NOTES:

1.1 Tons of Rebar for Aeration Basin Baffle Walls

\$1,276.00

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### EXCLUDES:

### DRAWINGS:

***This quote is subject to change if not accepted within 10 days.***

Unless specifically identified above, the following items are excluded: taxes, bar supports, smooth dowels, mechanical couplers and other accessories, CMU, LEED info, reinforcing resulting from drawings not identified above.

Issued By
Crimson Steel Supply, LLC
Signed <u>Scott Morrison</u>
Scott Morrison, Director of Estimating
scott@crimsonsteelsupply.com
918-994-5330

Accepted By
On (Date) _____
Company _____
Signed _____
Name/Title _____






**GENERAL NOTES**


1. DESIGN SURVEY AND CONTRACTOR SHALL DESIGN AND INSTALL TEMPORARY CONSTRUCTION ACCESS ROUTE. CONTRACTOR SHALL DESIGN AND INSTALL TEMPORARY CONSTRUCTION ACCESS ROUTE. CONSTRUCTION ACCESS ROUTE SHALL BE LOCATED AS SHOWN. SEE SHEET 00C101.
2. CONTRACTOR SHALL CLEAN ACCUMULATED OIL AND SOLIDS FROM THE EAST AERATION BASIN. CONTRACTOR SHALL CLEAN ACCUMULATED OIL AND SOLIDS FROM THE EAST AERATION BASIN. MATERIAL MUST BE DISPOSED OF OFF-SITE AS NOTED IN BOTTOM TO AND AS SPECIFIED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PER UNIT PRICE AND IS PART OF ADDITIVE ALTERNATIVE A.
3. POWER SUPPLY AND TELEPHONE SERVICE ARE CONTRACTOR RESPONSIBILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PER UNIT PRICE AND IS PART OF ADDITIVE ALTERNATIVE A.
4. CONTRACTOR SHALL ROUTE POTABLE WATER SUPPLY PIPE FROM CLARIFIER SCUM BOX AREA TO STAGING AREA.
5. WATER WILL BE PROVIDED VIA THE NEAREST POTABLE WATER MAIN. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A CONSTRUCTION WATER METER FROM THE CITY OF BROKEN ARROW. (TWELVE HUNDRED ESCROW DEPOSIT FOR THE METER. THE ESCROW MONEY WILL BE REFUNDABLE TO THE CONTRACTOR AFTER THE CONSTRUCTION METER IS RETURNED. FAILURE TO RETURN THE METER WITHIN 30 DAYS AFTER THE CONSTRUCTION METER IS RETURNED DETERMINES THE METER IS NO LONGER THE PROPERTY OF THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PER UNIT PRICE AND IS PART OF ADDITIVE ALTERNATIVE A.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PER UNIT PRICE AND IS PART OF ADDITIVE ALTERNATIVE A.

PROJECT MANAGER: JOEL R. CANTWELL	
CIVIL	JOEL R. CANTWELL
STRUCTURAL	JOEL R. CANTWELL
MECHANICAL	JOEL R. CANTWELL
ELECTRICAL	JOEL R. CANTWELL
PLUMBING	JOEL R. CANTWELL
PROJECT NUMBER	10026444

ISSUE	DATE	DESCRIPTION
0	12/21/2017	ISSUED FOR CONSTRUCTION
1	1/13/2018	REISSUED FOR CHANGE ORDER



**BKL**  
INCORPORATED  
ENGINEERS / ARCHITECTS  
1000 N. 10TH ST., SUITE 100  
OKLAHOMA CITY, OK 73102  
P: 405.234.1234  
F: 405.234.1235  
WWW.BKL-OKLAHOMA.COM



**HDR**  
HYDROLOGIC DESIGN  
RESEARCH  
ENGINEERING  
CONSULTANTS  
INCORPORATED  
1000 N. 10TH ST., SUITE 100  
OKLAHOMA CITY, OK 73102  
P: 405.234.1234  
F: 405.234.1235  
WWW.HDR-OKLAHOMA.COM



**BROKEN ARROW  
MUNICIPAL AUTHORITY  
CITY OF BROKEN ARROW, OK**

**LYNN LANE WWTP  
HEADWORKS IMPROVEMENTS**

**GENERAL  
CIVIL  
EXISTING OVERALL SITE PLAN**

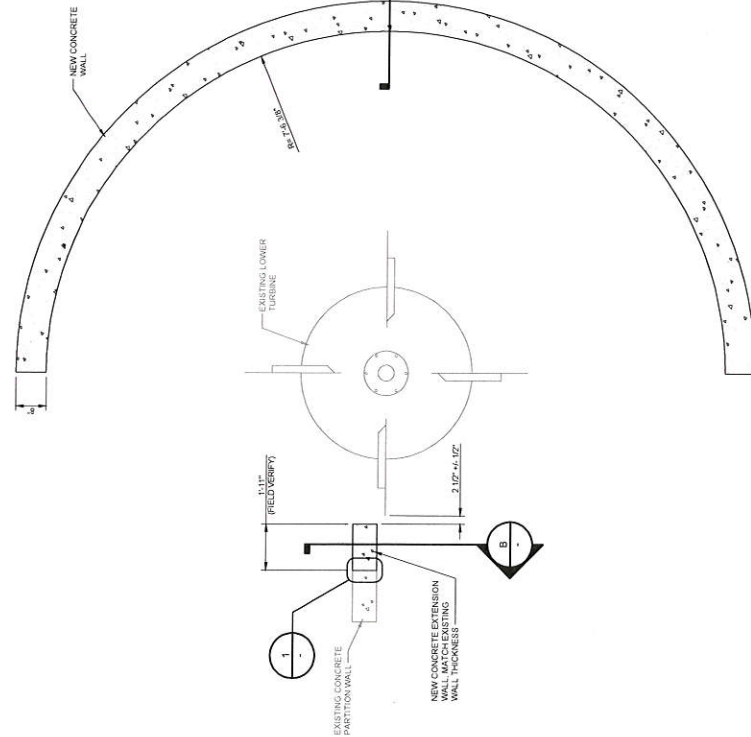
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SHEET: 00C101

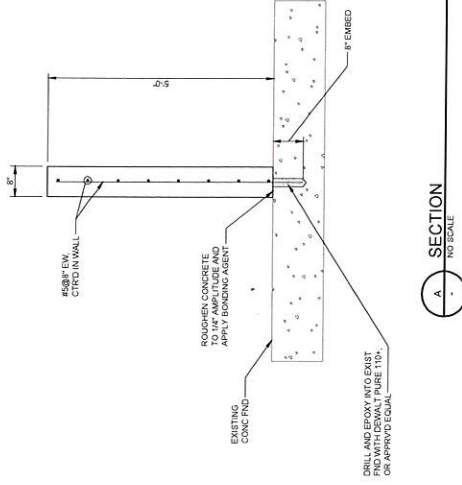


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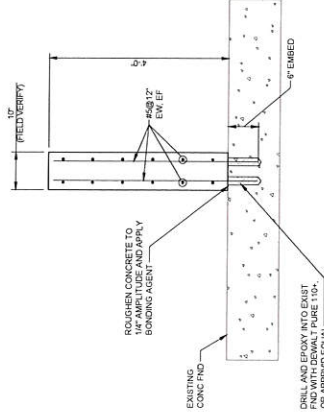


PLAN  
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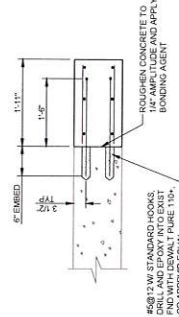
- NOTES
1. ALL CONCRETE TO BE 4000 PSI
  2. PROVIDE 3/4" CHAMFER ON ALL EXPOSED EDGES
  3. WET CURE CONCRETE FOR A MINIMUM OF 10 DAYS



SECTION A-A  
NO SCALE



SECTION B-B  
NO SCALE



DETAIL 1  
NO SCALE



PROJECT MANAGER	JOEL R. CANTWELL
CIVIL	T. TOWNSEND
STRUCTURAL	C. ZIMMERMAN
ARCHITECTURAL	PROCESSES T. TOWNSEND
MECHANICAL	B. PERLBERG
ELECTRICAL	D. BESINGER
PROJECT NUMBER	10026444



BROKEN ARROW  
MUNICIPAL AUTHORITY  
CITY OF BROKEN ARROW, OK  
LYNN LANE WWTP  
HEADWORKS IMPROVEMENTS

ERATION BASINS  
STRUCTURAL  
BAFFLE WALL DETAILS

SHEET  
40S101

FILENAME  
40S101.dwg

SCALE  
NO SCALE