

CONSTRUCTION PLANS FOR 2020 CHENEY PUMP STATION OZONE STRAINER REPLACEMENT

CITY OF WICHITA, SEDGWICK COUNTY, KANSAS

CITY OF WICHITA PROJECT NO. 448-2019-028437

ORG NO. 54092042

GARY JANZEN, P.E., CITY ENGINEER

Location Cheney Ozone Building
Plant Equipment 5232
Building 7528-102
Rooms

7528-102-01-101 - Cheney OZONE GENERATOR ROOM
7528-102-01-102 - Cheney ELECTRIC & INSTRUMENT RM
7528-102-01-103 - Cheney Ozone CONTROL ROOM
7528-102-01-104 - Cheney Ozone MECHANICAL ROOM
7528-102-01-105 - Cheney Ozone Fire Suppression Room

Final Acceptance Date: 4/21/2021

City Project Manager: Brandon Woods

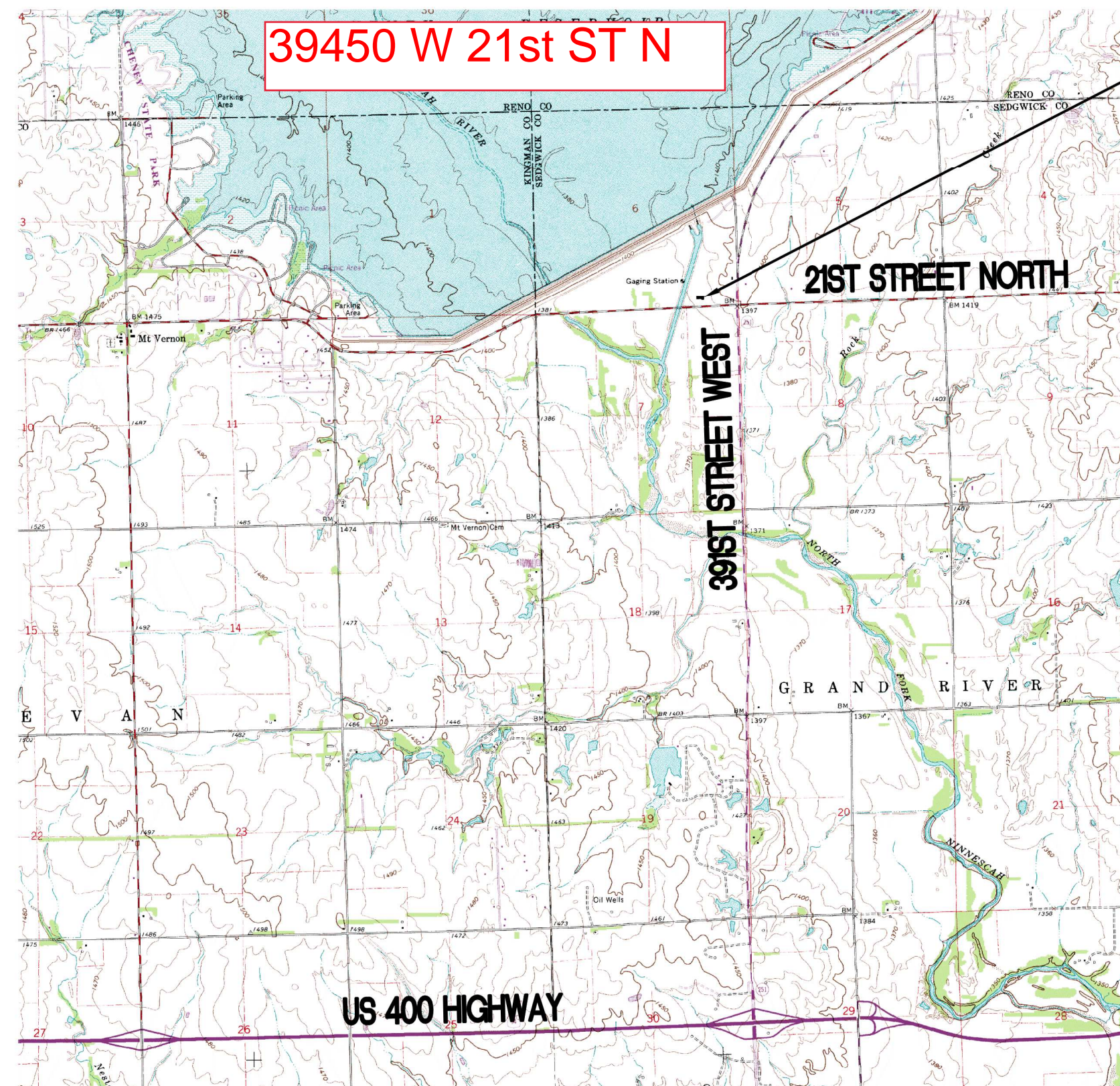
Contractor: Dondlinger & Sons Construction Co., Inc

Contractor Superintendent: Tim Helton

Contractor Project Manager: Eric Swensen

Subcontractors: Shelley Electric

Project Engineer: Nicole Franken, PE with PEC



PROJECT LOCATION
CHENEY PUMP STATION

INDEX OF SHEETS

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G-001 KEY MAP & GENERAL NOTES
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E-201 ELECTRICAL DEMOLITION PLAN
E-401 ELECTRICAL POWER PLAN

VICINITY MAP

JULY 2020

PEC PROJECT NO. 35-197043-013-0042

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS



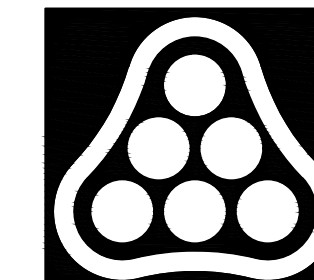
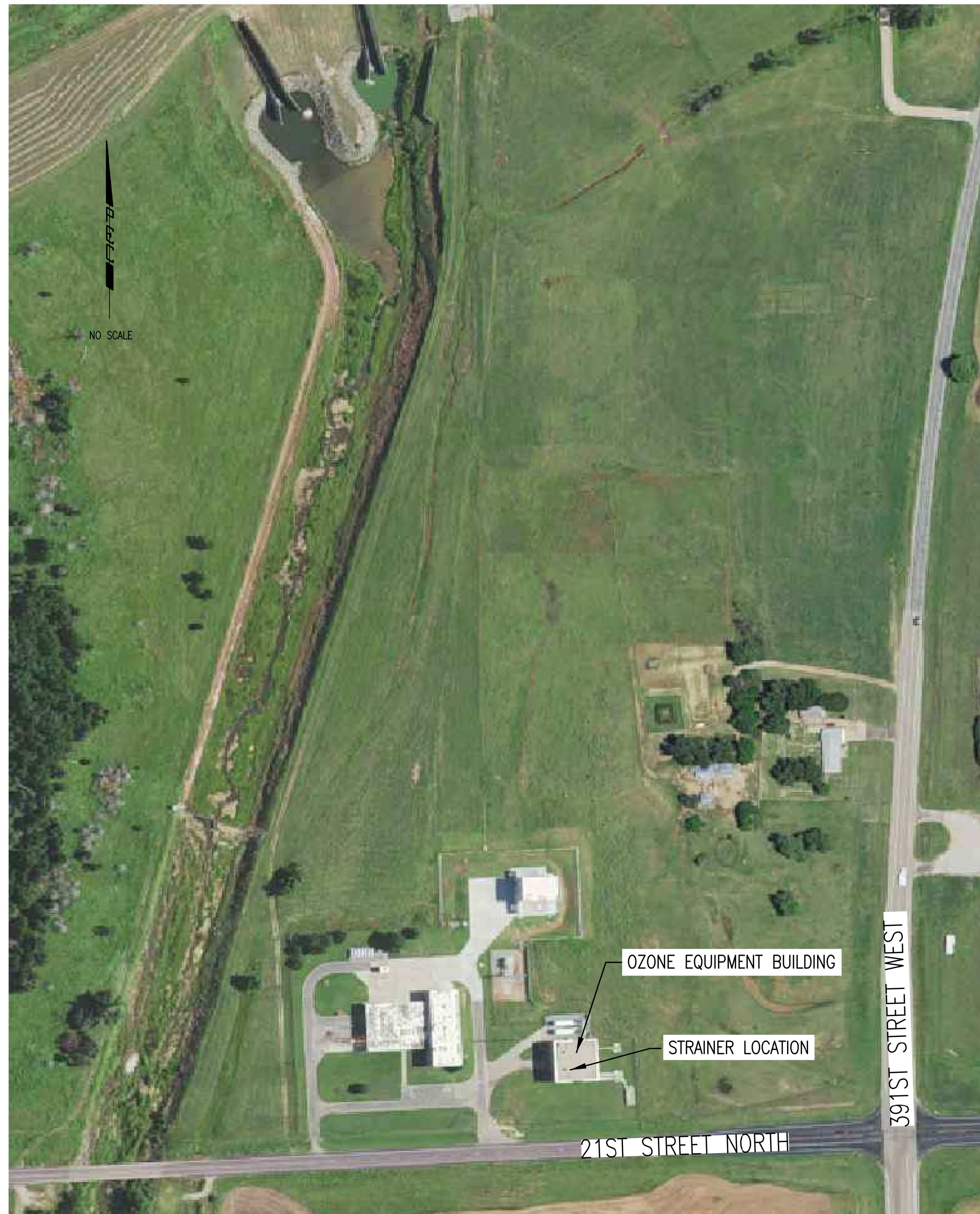
GENERAL NOTES

1. THE CONTRACTOR SHALL CONTAIN OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT EXISTING ROADWAYS AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO ENSURE SAFETY.
2. AT LEAST 72 HOURS PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSONNEL TO ADVISE THEM OF THE INTENDED WORK AND OF HIS SCHEDULE:

MIKE JACOBS	ERIC MEYER
316-269-4760	316-540-3574
MJacobs@wichita.gov	EMeyer@wichita.gov
3. EACH BIDDER SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE PROPOSAL FOR THIS WORK TO BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR EXISTING CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
4. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF WICHITA SPECIFICATIONS AND STANDARDS UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL CONTAIN OPERATIONS AT ALL TIMES AS TO NOT INTERRUPT PLANT OPERATIONS OR THE ACCESS OF PLANT DELIVERY VEHICLES.
6. THE CONTRACTOR SHALL COORDINATE ALL PLANT TIE-INS, SHUT DOWNS, PROCESS REMOVAL, AND PROCESS START UP WITH PUMP STATION PERSONNEL. THESE WORK ACTIVITIES SHALL BE COMPLETED ONLY WITHIN THE WINDOW OF TIME ALLOCATED FOR THE PROCEDURE BY THE PUMP STATION PERSONNEL.
7. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.
8. THE CONTRACTOR SHALL CLEAN THE PROJECT AREA UPON COMPLETION OF THE WORK. ANY NEW ITEMS REQUIRING PAINTING SHALL BE SUFFICIENTLY CLEANED AND PREPARED PRIOR TO PAINTING. TOUCH UP OF EXISTING PAINT/COATING IF DAMAGED DURING INSTALLATION SHALL BE CONSIDERED SUBSIDIARY TO THE LUMP SUM BID PRICE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND DISPOSAL OF ALL REMOVED EQUIPMENT AND MATERIALS.
10. CONTRACTOR SHALL COORDINATE WITH PUMP STATION PERSONNEL TO STORE NEW STRAINERS AND REMOVED PLATFORM PRIOR TO INSTALLATION, AS REQUIRED.

CONSTRUCTION SEQUENCE

1. NO WORK SHALL BEGIN UNTIL STRAINERS AND ASSOCIATED EQUIPMENT AND PIPING HAVE ARRIVED ON SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR STORING STRAINERS AND PIPING UNTIL INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. CONTRACTOR SHALL FIELD VERIFY ITEMS NOTED ON THE DRAWINGS PRIOR TO PREPARING SUBMITTALS. ANY DISCREPANCIES BETWEEN THE DRAWINGS OR SPECIFICATIONS AND THE FIELD MEASUREMENTS SHOULD BE NOTED TO THE ENGINEER PRIOR TO PREPARING SUBMITTALS.
3. THE STRAINERS SHALL BE TESTED AND PUT INTO OPERATION ONE AT A TIME FOLLOWING SUCCESSFUL STARTUP TO MINIMIZE IMPACT TO THE PUMP STATION OPERATIONS. PIPING TO AND FROM THE STRAINERS SHALL BE ISOLATED PRIOR TO STARTING WORK USING EXISTING WAFER STYLE BUTTERFLY VALVES. ONLY ITEMS ASSOCIATED WITH THE SPECIFIC STRAINER BEING INSTALLED AT THAT TIME SHALL BE DEMOLISHED.
4. CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SEQUENCE TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING ANY WORK AT THE PUMP STATION SITE.



PEC

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CITY OF WICHITA, KANSAS

CHENEY PUMP STATION
 OZONE STRAINER REPLACEMENT

Issue:		
JOB NO.	197043-013	
DATE	JULY 2020	
PROJECT MANAGER	SCU	
DESIGNED BY	NDF	
DRAWN BY	CAE	
CHECKED BY	MDK	

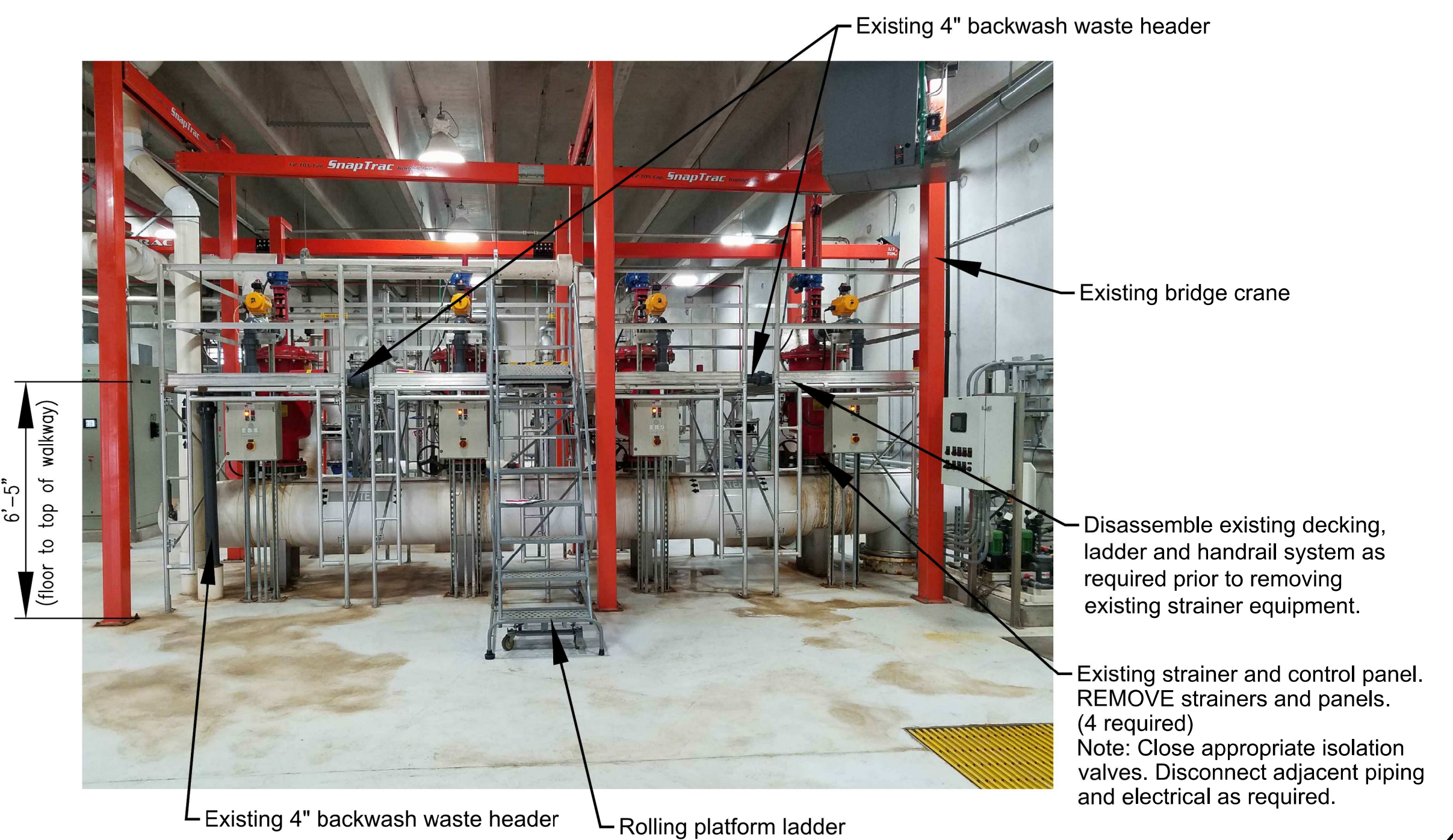
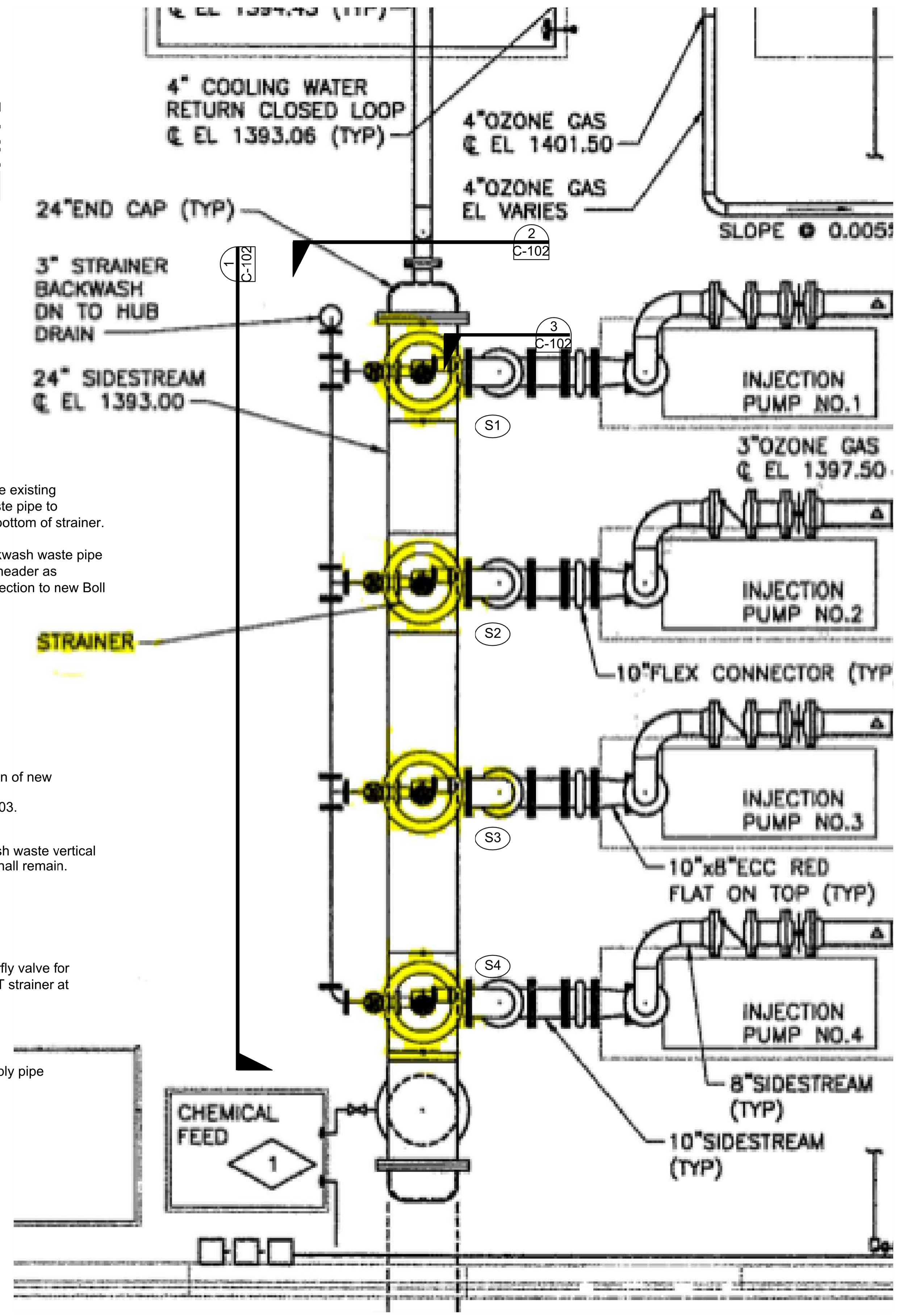
KEY MAP AND GENERAL NOTES

C-001

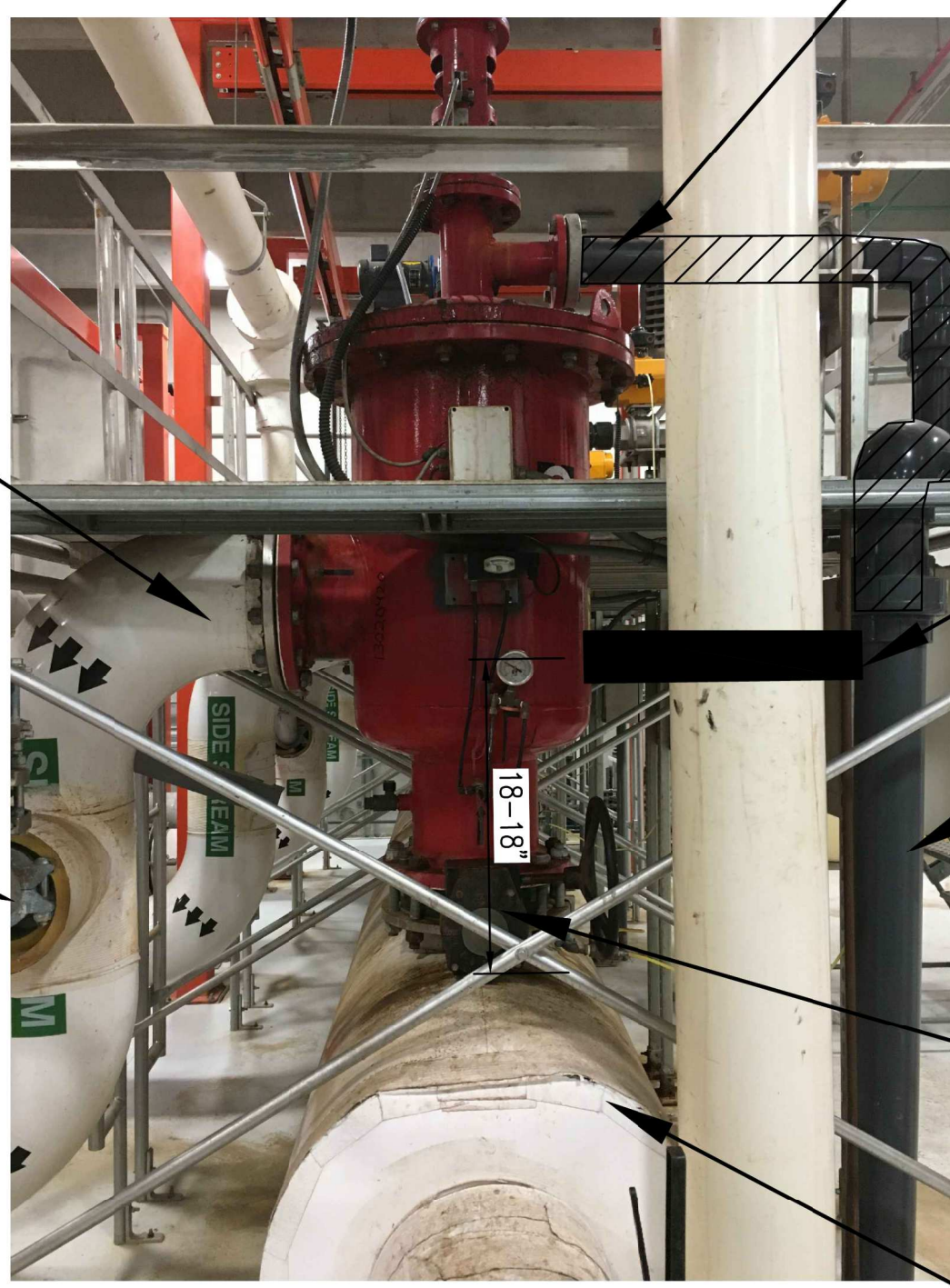
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STRAINER EQUIPMENT DEMOLITION



1 STRAINER EQUIPMENT ELEVATION
C-102



2 STRAINER EQUIPMENT SECTION
C-102

Note to Contractor:
The Contractor shall isolate and remove only one strainer at a time leaving the additional strainers in operation. Coordinate with facility staff prior to taking a strainer out of service.

The Contractor is responsible for modifying any existing discharge and backwash piping to make connections to the new strainers. Work shall be subsidiary to the lump sum bid price.



3 4" WATER SUPPLY VALVE
C-102

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7528-102-01-102 - Cheney ELECTRIC & INSTRUMENT RM

- 5232CPS1250014 CCPS Ozone Load Center Strainer S-1 Disconnect
- 5232CPS1250015 CCPS Ozone Load Center Strainer S-2 Disconnect
- 5232CPS1250016 CCPS Ozone Load Center Strainer S-3 Disconnect
- 5232CPS1250017 CCPS Ozone Load Center Strainer S-4 Disconnect

(O&M Manual Cheney Ozone Strainer Breakers-1502013233 (A))
 (260500-02_Conduit Product Data - PEC Approved with Comments)

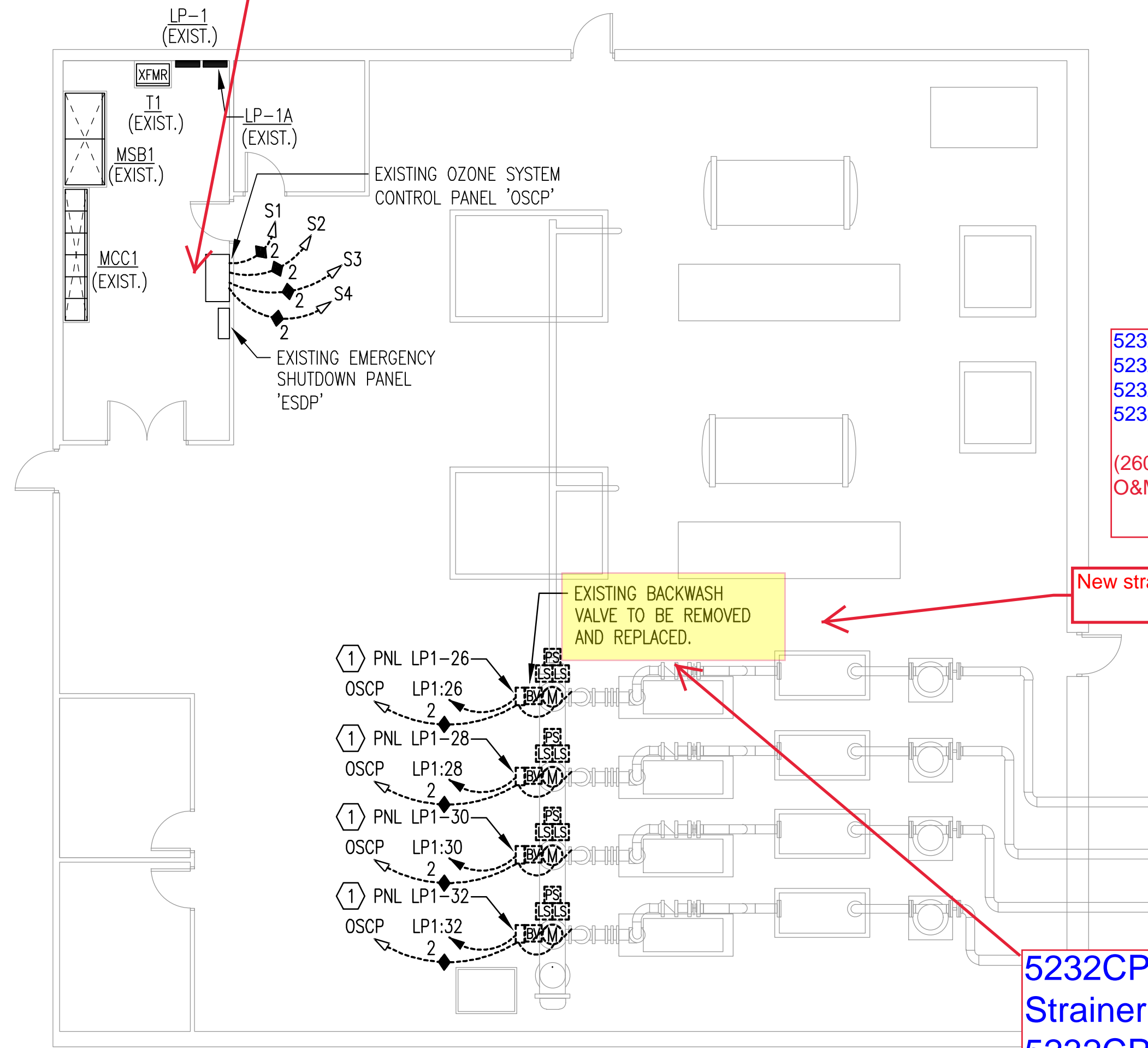
DEMOLITION NOTES:

1. DEMOLITION PLANS SHOW THE GENERAL EXTENT OF THE ELECTRICAL DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT BEING REMOVED, SEE CIVIL PLANS. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS, SUCH AS COVERPLATES, RECEPTACLES, LIGHTS, PANELS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH OWNER PRIOR TO STARTING DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
2. REMOVE ALL CONDUIT LEFT EXPOSED BY REMOVAL OF WALLS AND CEILINGS IN REMODELED AREAS. PLUG BOTH ENDS OF REMAINING CONDUIT IN WALL OR FLOOR WHERE CUT.
3. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL OPENINGS IN EXISTING CONSTRUCTION AFTER REMOVAL OF EQUIPMENT AND ELECTRICAL DEVICES, ETC.
4. WHERE EQUIPMENT AND OTHER DEVICES ARE BEING REMOVED, THE CIRCUITING SHALL BE REMOVED, IF POSSIBLE, BACK TO POINT OF SUPPLY. WHERE REQUIRED, CIRCUITING SHALL BE EXTENDED TO MAINTAIN CONTINUITY OF THE CIRCUIT OR OPERATION OF THE SYSTEM.
5. ALL DEVICES SHOWN DASHED ON THE DEMOLITION PLAN(S) SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
6. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK.

KEYED NOTES:

① EXISTING STRAINER CONTROL PANEL TO BE REMOVED.

- 5232CPS1100004 CPS Ozone Injection Side stream Pump 1 Suction Strainer Control Panel (Parent)
 - 5232CPS1100005 CPS Ozone Injection Side stream Pump 2 Suction Strainer Control Panel(Parent)
 - 5232CPS1100006 CPS Ozone Injection Side stream Pump 3 Suction Strainer Control Panel(Parent)
 - 5232CPS1100007 CPS Ozone Injection Side stream Pump 4 Suction Strainer Control Panel(Parent)
- (260500-02_Conduit Product Data - PEC Approved with Comments)
 O&M Manual for Conduit

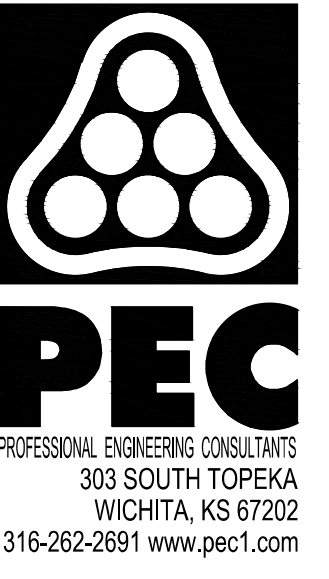


New strainer has a backwash valve on it

- 5232CPS0170006 CPS Ozone Injection Side stream Pump 1 Suction Strainer Backwash Valve
- 5232CPS0170007 CPS Ozone Injection Side stream Pump 2 Suction Strainer Backwash Valve
- 5232CPS0170008 CPS Ozone Injection Side stream Pump 3 Suction Strainer Backwash Valve
- 5232CPS0170009 CPS Ozone Injection Side stream Pump 4 Suction Strainer Backwash Valve

O&M Manual for valve included on strainer

A ELECTRICAL DEMOLITION PLAN
 0' 4' 8' 12' 1/8"=1'-0"



CITY OF WICHITA, KANSAS

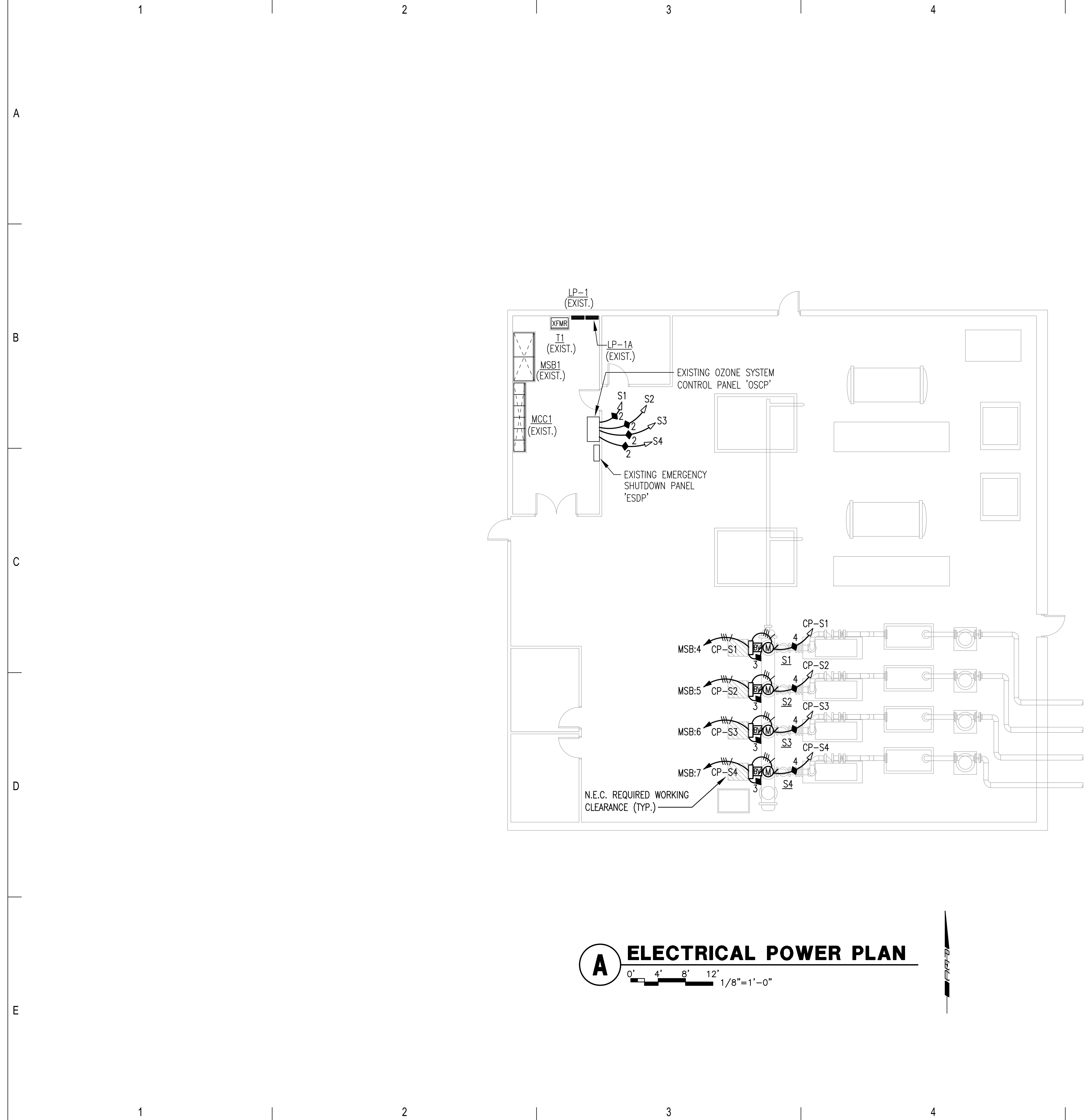
CHENEY PUMP STATION
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DRAWN BY	ABP
CHECKED BY	RWW

ELECTRICAL DEMOLITION PLAN

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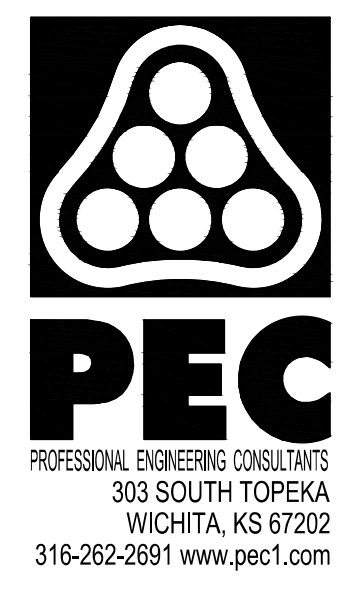


A ELECTRICAL POWER PLAN

0' 4' 8' 12' 1/8"=1'-0"

PLAN NOTES:

- BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
- A GROUND CONDUCTOR SIZED PER N.E.C. ARTICLE 250 IS REQUIRED IN ALL CONDUITS.
- ALL PENETRATIONS IN THE RATED WALLS AND CEILINGS SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES. THE SEALANT SHALL HAVE A T-RATING OF ONE HOUR.
- ALL PIPING, CONDUIT, AND OUTLET BOXES (ELECTRIC, TELEPHONE, COMPUTER, ETC.) IN THE RATED WALLS OR CEILING SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL.
- RUN ALL CONTROL CABLES IN SEPARATE CONDUITS FROM POWER CIRCUITS. RUN SHIELDED CABLES (ANALOG) AND LAN CABLES IN SEPARATE CONDUIT FROM OTHER CONTROL CABLES (DISCRETE).
- SEE CONTROL CABLES CONDUIT SCHEDULE FOR CONTROL CABLE CONDUIT SIZING REQUIREMENTS. SEE SHEET E-001 FOR ADDITIONAL INFORMATION.
- FURNISH AND INSTALL ALL CONDUIT AND WIRING AS REQUIRED FOR COMPLETE FUNCTIONALITY OF EQUIPMENT AS SPECIFIED AND AS IDENTIFIED BY THE MANUFACTURER. COORDINATE FIELD WIRING REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER.
- REFER TO CIVIL DRAWINGS AND SECTIONS FOR EXACT EQUIPMENT LOCATIONS.
- I/O IDENTIFIED ON CONTROL DIAGRAM SHEETS ARE FOR INPUTS AND OUTPUTS EXTERNAL TO THE EQUIPMENT CONTROL PANEL. I/O NECESSARY FOR THE COMPLETE FUNCTIONALITY OF THE EQUIPMENT (INTERNAL I/O) SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND WIRING AS REQUIRED FOR COMPLETE FUNCTIONALITY OF EQUIPMENT AS SPECIFIED AND AS IDENTIFIED BY THE MANUFACTURER. COORDINATE FIELD WIRING REQUIREMENTS WITH EQUIPMENT MANUFACTURER.



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CHECKED BY	RWWW

ELECTRICAL POWER PLAN

E-401