ADDENDUM NO. 4
December 3, 2024

PROJECT: **FORT GRIFFIN SUD**
WATER TREATMENT PLANT IMPROVEMENTS

BID DATE: **DECEMBER 10, 2024 AT 1:30 PM**

The following changes and/or additions shall be made to the Plans, Specifications, and Contract Documents for the above referenced project. Bidder shall acknowledge receipt of this Addendum by signing below and returning this Addendum with the Bid.

1) The bids for this project will be opened and read aloud at the Albany Volunteer Fire Department at 609 Railroad Street, Albany, Texas 76430 at 2:00 PM on December 10, 2024. **The bids shall still be delivered to the SUD office as stated in the advertisement for bids and the time for bids to be received will still be December 10, at 1:30 PM.**

2) Water used during construction will be provided by the Owner at $8.00 per 1,000 gallons used. Water will be available at the south end of the water plant property.

3) The electrical plan sheets have been updated and are included with his addendum.

4) The chlorine and ammonia feed system integrators may be other than that listed. All experience requirements and documentation described in the contract manual shall apply.

Prepared by:

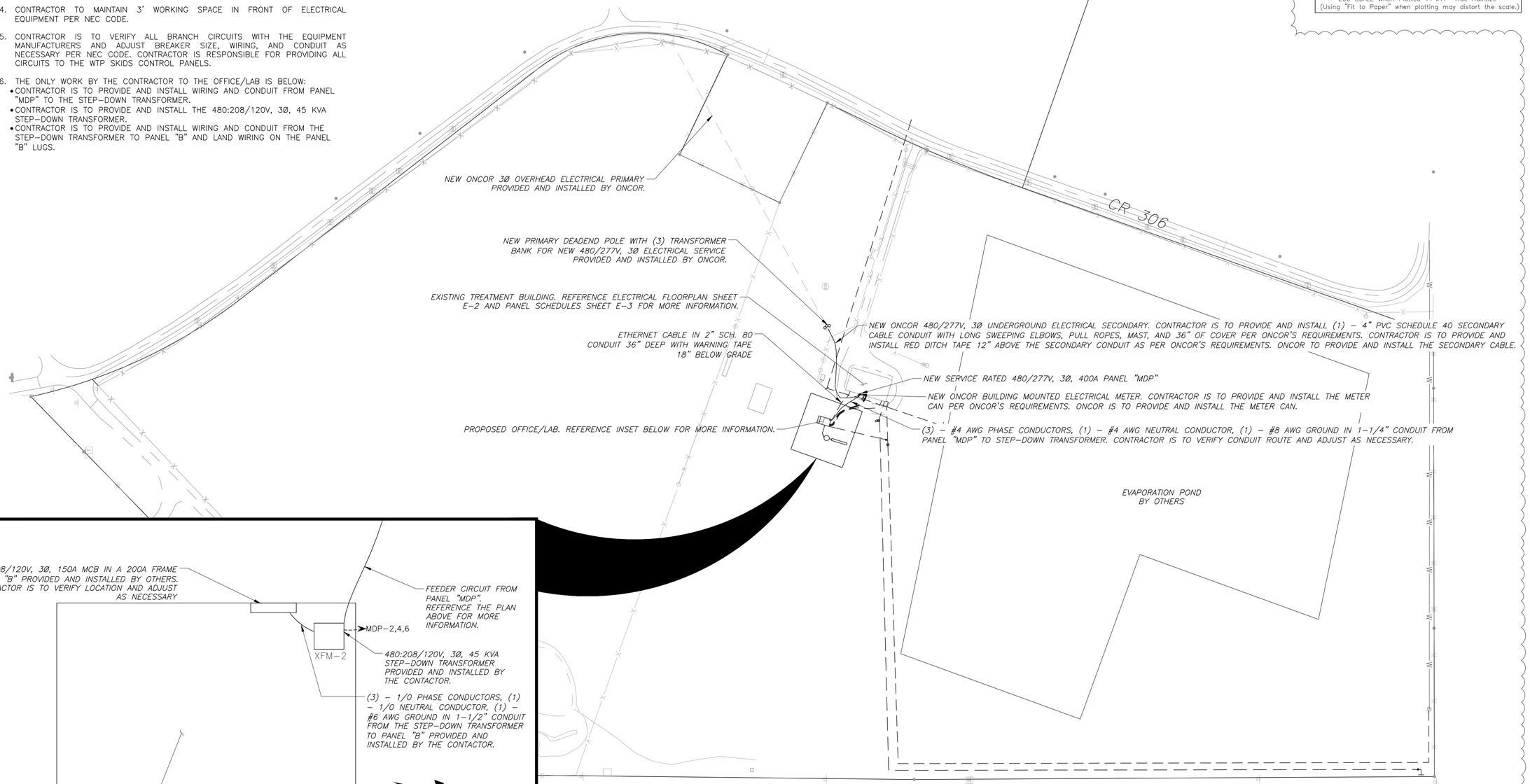
JACOB | MARTIN
TBPE Firm No. 2448

_____
Bidder's Acknowledgment

_____
Date

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO REPAIR ANY DAMAGE TO UTILITIES OR STRUCTURES, WHETHER SHOWN ON THESE PLANS OR NOT.
2. CONTRACTOR IS TO COORDINATE THE NEW ELECTRIC SERVICE WITH ONCOR ANY ANY REQUIRED INSPECTIONS. CONTRACTOR IS TO PAY ANY COSTS REQUIRED BY THE UTILITY FOR THE NEW ELECTRICAL SERVICE.
3. REFERENCE SHEET E-4 FOR ELECTRICAL RISER DIAGRAM OF THE WTP.
4. CONTRACTOR TO MAINTAIN 3' WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT PER NEC CODE.
5. CONTRACTOR IS TO VERIFY ALL BRANCH CIRCUITS WITH THE EQUIPMENT MANUFACTURERS AND ADJUST BREAKER SIZE, WIRING, AND CONDUIT AS NECESSARY PER NEC CODE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CIRCUITS TO THE WTP SKIDS CONTROL PANELS.
6. THE ONLY WORK BY THE CONTRACTOR TO THE OFFICE/LAB IS BELOW:
   - CONTRACTOR IS TO PROVIDE AND INSTALL WIRING AND CONDUIT FROM PANEL "MDP" TO THE STEP-DOWN TRANSFORMER.
   - CONTRACTOR IS TO PROVIDE AND INSTALL THE 480:208/120V, 3Ø, 45 KVA STEP-DOWN TRANSFORMER.
   - CONTRACTOR IS TO PROVIDE AND INSTALL WIRING AND CONDUIT FROM THE STEP-DOWN TRANSFORMER TO PANEL "B" AND LAND WIRING ON THE PANEL "B" LUGS.



INSET A
N.T.S.

NORTH

100 0 100 200
HORIZ. SCALE IN FEET

UNLESS OTHERWISE NOTED, THIS SHEET IS INTENDED TO BE:
100 SCALE When Plotted 22"x34" True Fullsize
200 SCALE When Plotted 11"x17" True Halfsize
(Using "Fit to Paper" when plotting may distort the scale.)

STATE OF TEXAS
DEREK TURNER
84483
LICENSED
PROFESSIONAL ENGINEER
12-04-2024

3465 CURRY LANE
ABILENE, TX 79606
325-695-1070

1508 SANTA FE DR, STE 204
WEATHERFORD, TX 76086
817-594-9880

1014 BROADWAY STREET
LUBBOCK, TX 79401
806-368-6375

JACOB MARTIN
FIRM# F-2448

FT. GRIFFIN SPECIAL UTILITIY DISTRICT
WATER TREATMENT PLANT EQUIPMENT
CONSTRUCTION DRAWINGS
ELECTRICAL SITE PLAN

NO.	REVISION	DATE
1	ADDENDUM #4	12/4/24

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING.
CHECK SCALE & ADJUST ACCORDINGLY.

SCALE 1"=100' | PROJECT # 10357 | DESIGNED A.D.T. | DRAWN R.C.K. | CHECKED A.D.T.

SHEET E-1
SEQ. 45 OF 48

PLOTTED ON: 12/4/2024 8:12 AM PRINTED BY: GREGORY SNOW
X:\WS_FT_GRIFFIN_SUD\PROJECT 10357 RD WL IMP & WTP\DRAFTING_WATER TREATMENT PLANT_PLANS\WTP\E-1_OVERALL ELECTRICAL_SITE PLAN.DWG

NOTES:

1. CONTRACTOR IS TO COORDINATE THE NEW ELECTRIC SERVICE WITH ONCOR ANY ANY REQUIRED INSPECTIONS. CONTRACTOR IS TO PAY ANY COSTS REQUIRED BY THE UTILITY FOR THE NEW ELECTRICAL SERVICE.
2. REFERENCE SHEET E-4 FOR ELECTRICAL RISER DIAGRAM OF THE WTP.
3. CONTRACTOR TO MAINTAIN 3' WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT PER NEC CODE.
4. CONTRACTOR IS TO VERIFY ALL BRANCH CIRCUITS WITH THE EQUIPMENT MANUFACTURERS AND ADJUST BREAKER SIZE, WIRING, AND CONDUIT AS NECESSARY PER NEC CODE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CIRCUITS TO THE WTP SKIDS CONTROL PANELS.
5. THE ONLY WORK BY THE CONTRACTOR TO THE CHLORINE AND LAS SHELTERS IS BELOW:
   - CONTRACTOR IS TO PROVIDE AND INSTALL WIRING AND CONDUIT FROM PANEL "A" TO THE LAS AND CHLORINE PANELS.
   - CONTRACTOR IS LAND WIRING ON THE PANEL LUGS.
   - ENCLOSURE BRANCH CIRCUITS ARE PROVIDED AND INSTALLED BY THE EQUIPMENT MANUFACTURER.
6. NOT ALL CIRCUITS ARE SHOWN ON THIS ELECTRICAL FLOORPLAN. CONTRACTOR IS TO VERIFY ALL BRANCH CIRCUITS AND PROVIDE POWER AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.

NORTH

4 0 4 8

HORIZ. SCALE IN FEET

UNLESS OTHERWISE NOTED, THIS SHEET IS INTENDED TO BE:
4 SCALE When Plotted 22"x34" True Fullsize
8 SCALE When Plotted 11"x17" True Halfsize
(Using "Fit to Paper" when plotting may distort the scale.)

(3) – #4 AWG PHASE CONDUCTORS, (1) – #4 AWG NEUTRAL CONDUCTOR, (1) – #8 AWG GROUND IN 1–1/4" CONDUIT FROM PANEL "MDP" TO STEP–DOWN TRANSFORMER. CONTRACTOR IS TO VERIFY CONDUIT ROUTE AND ADJUST AS NECESSARY.

NEW ONCOR 480/277V, 3Ø UNDERGROUND ELECTRICAL SECONDARY. CONTRACTOR IS TO PROVIDE AND INSTALL (1) – 4" PVC SCHEDULE 40 SECONDARY CABLE CONDUIT WITH LONG SWEEPING ELBOWS, PULL ROPES, MAST, AND 36" OF COVER PER ONCOR'S REQUIREMENTS. CONTRACTOR IS TO PROVIDE AND INSTALL RED DITCH TAPE 12" ABOVE THE SECONDARY CONDUIT AS PER ONCOR'S REQUIREMENTS. ONCOR TO PROVIDE AND INSTALL THE SECONDARY CABLE. REFERENCE ELECTRICAL SITE PLAN SHEET E–1 FOR FULL SECONDARY ROUTE.

(3) – #1 AWG PHASE CONDUCTORS, (1) – #1 AWG NEUTRAL CONDUCTOR, (1) – #6 AWG GROUND IN 1–1/2" CONDUIT FROM PANEL "MDP" TO THE STEP–DOWN TRANSFORMER.

NEW 480:208/120V, 3Ø, 75 KVA STEP–DOWN TRANSFORMER.

(3) – 250 MCM PHASE CONDUCTORS, (1) – 250 MCM NEUTRAL CONDUCTOR, (1) – #4 AWG GROUND IN 2–1/2" CONDUIT FROM STEP–DOWN TRANSFORMER TO PANEL "A".

NEW 208/120V, 3Ø, 250A MCB IN A 400A FRAME PANEL "A".

NEW ONCOR BUILDING MOUNTED ELECTRICAL METER. CONTRACTOR IS TO PROVIDE AND INSTALL THE METER CAN PER ONCOR'S REQUIREMENTS. ONCOR IS TO PROVIDE AND INSTALL THE METER CAN.

2 SETS PARALLEL OF: (3) – 3/0 PHASE CONDUCTORS, (1) – 3/0 NEUTRAL CONDUCTOR IN 2" CONDUIT FROM METER TO PANEL "MDP".

NEW SERVICE RATED 480/277V, 3Ø, 400A PANEL "MDP"

NEW TURBIDIMETER. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

NEW CHLORINE ANALYZER. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

NEW WALL MOUNTED HEATER. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

NEW PUMP PANELS PER SPECS TO CONTROL NEW 480V, 3Ø, 3 HP PUMPS.

A–11 GFI

NEW 480V, 3Ø, 3 HP HIGH SERVICE PUMP #1

MDP–32,34,36

A–EM

MDP–31,33,35

NEW 480V, 3Ø, 3 HP HIGH SERVICE PUMP #2

NEW CHLORINE FEED SHELTER. MANUFACTURER IS PROVIDE AND INSTALL A 240V, 1Ø, 125A PANEL. CONTRACTOR IS TO PROVIDE AND INSTALL WIRING AND CONDUIT TO THE PANEL AND LAND WIRING ON THE PANEL LUGS.

NEW LAS SHELTER. MANUFACTURER IS PROVIDE AND INSTALL A 240V, 1Ø, 125A PANEL. CONTRACTOR IS TO PROVIDE AND INSTALL WIRING AND CONDUIT TO THE PANEL AND LAND WIRING ON THE PANEL LUGS.

A–4,6

A–1,3

GFI

A–16
A–21

XFM–1

MDP–8,10,12

A–15 GFI

A–13

GFI

MDP–7,9,11

NEW 480V, 3Ø, 3 HP AIR COMPRESSOR. CONTRACTOR IS TO VERIFY WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

MDP–19,21,23

EF–1

A–14

A–EM

MDP–25,27,29

NEW 480V, 3Ø, 7.5 HP CIP LOW PRESSURE PUMP. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

NEW 480V, 3Ø, 50 HP CIP HIGH PRESSURE PUMP. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

EF–1

A–10

A–EM

A–8

GFI

NEW 480V, 3Ø TANK HEATER. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

MDP–20,22,24

MDP–26,28,30

NEW 480V, 3Ø, 1 HP HOT WATER PUMP. CONTRACTOR IS TO VERIFY LOCATION, WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

A–17,19

A–12

NEW 208V, 1Ø, 3/4 HP DOOR OPENER. CONTRACTOR IS TO VERIFY WIRING METHOD, AND MOUNTING AND ADJUST AS NECESSARY.

NEW WALLPACKS CONTROLLED VIA PHOTOCELL. CONTRACTOR IS TO CONFIRM MOUNTING HEIGHT.

3465 CURRY LANE
ABILENE, TX 79606
325-695-1070

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806-368-6375

JACOB MARTIN
FIRM# F-2448

STATE OF TEXAS
DEREK TURNER
84483
LICENSED
PROFESSIONAL ENGINEER

12-04-2024

FT. GRIFFIN SPECIAL UTILITY DISTRICT

WATER TREATMENT PLANT EQUIPMENT

CONSTRUCTION DRAWINGS

ELECTRICAL FLOOR PLAN

SCALE	1"=4'	PROJECT # 10357	DESIGNED A.D.T.	DRAWN R.C.K.	CHECKED A.D.T.

NO.	REVISION	DATE
1	ADDENDUM #4	12/4/24

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING.
CHECK SCALE & ADJUST ACCORDINGLY.

SHEET E–2

SEQ. 46 OF 48

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Ft. Griffin Water Treatment Plant
Switchboard "MDP" Schedule

Main Breaker Rating: 400 AMPS
M.L.O. Bus Rating: 400 AMPS
Sym. Inter. Cap.: >21 k AMPS
Surface Mount.: X
Flush Mount.:

3 Phase 4 Wire + G
480/277

NEMA 1: X
NEMA 3R:

Conductor Color Code
Phase 1 ---------- BROWN
Phase 2 ---------- ORANGE
Phase 3 ---------- YELLOW
Neutral ---------- WHITE or GRAY
Ground ---------- GREEN

	Load
Phase 1 Load:	311
Phase 2 Load:	311
Phase 3 Load:	311

Note: Contractor to provide Surge Protection Device (SPD) with this panel.

POLE	SERVICE	W	LOAD PHASE 1	LOAD PHASE 2	LOAD PHASE 3	BREAKER POLES	POLE	1	2	3	POLE	SERVICE	W	LOAD PHASE 1	LOAD PHASE 2	LOAD PHASE 3	BREAKER POLES	POLE
1	20 HP Recirculating Pump on VFD	22421	27			40 / 3	2	X			2	480:208/120V, 3Ø, 45 kVA Step-Down	45000	54			70 / 3	2
3	"			27			4		X		4	Transformer for the office			54			4
5	"				27		6			X	6	"				54		6
7	3 HP Air Compressor #1	3986	5			20 / 3	8	X			8	480:208/120V, 3Ø, 75 kVA Step-Down	75000	90			125 / 3	8
9	"			5			10		X		10	Transformer for the WTP			90			10
11	"				5		12			X	12	"				90		12
13	Future 3 HP Air Compressor #2 (Note 1)	3986	5			20 / 3	14	X			14	20 HP Rev. Filt Pump	22421	27			40 / 3	14
15	"			5			16		X		16	"			27			16
17	"				5		18			X	18	"				27		18
19	7.5 HP CIP Low Pressure Pump on VFD	9134	11			20 / 3	20	X			20	Hot Water Tank T-80 12 kW Heater	12000	14			20 / 3	20
21	"			11			22		X		22	"			14			22
23	"				11		24			X	24	"				14		24
25	50 HP High Pressure RO Feed Pump on VFD	53976	65			90 / 3	26	X			26	1 HP Hot Water Pump	1744	2			20 / 3	26
27	"			65			28		X		28	"			2			28
29	"				65		30			X	30	"				2		30
31	3 HP High Service Pump #2	3986	5			20 / 3	32	X			32	3 HP High Service Pump #1	3986	5			20 / 3	32
33	"			5			34		X		34	"			5			34
35	"				5		36			X	36	"				5		36
37							38	X			38							38
39							40		X		40							40
41							42			X	42							42
43							44	X			44							44
45							46		X		46							46
47							48			X	48							48
49							50	X			50							50
51							52		X		52							52
53							54			X	54							54
55							56	X			56	SPD		X				56
57							58		X		58	SPD			X			58
59							60			X	60	SPD				X		60

Notes:
1. Contractor is to provide breaker only for the future air compressor. No wiring or conduit is to be installed for this load as part of this project.
2. Contractor is to verify breaker sizes with the equipment manufacturer and adjust breaker size, conduit, and wiring as required per NEC code. Contractor is responsible for providing breakers, wiring, and conduit for all branch circuits for a complete and operationa system.

LIGHTING FIXTURE SCHEDULE

FIXTURE MARK	MANUFACTURER & CATALOG NUMBER	TYPE	LAMPS BULBS	VOLTAGE	SUPPORT	NOTES
A	COOPER LIGHTING MODEL #: VHB-24-W-UNV-L840-CD-U-HBAYC-CHAIN/SET/U	HIGH BAY LIGHT	LED	UNV	SUSPENDED	CONTRACTOR IS TO PROVIDE AND INSTALL MOUNTING AS REQUIRED FOR THE LIGHTS.
A-EM	COOPER LIGHTING MODEL #: VHB-24-W-UNV-L840-EL20W-REM-CD-U-HBAYC-CHAIN/SET/U	HIGH BAY LIGHT	LED	UNV	SUSPENDED	CONTRACTOR IS TO PROVIDE AND INSTALL MOUNTING AS REQUIRED FOR THE LIGHTS.
B	COOPER LIGHTING MODEL #: LDWP-FC-4B-120V-PE120-EMLED-CD-7040-BK	WALLPACK	LED	120V	BUILDING MOUNTED	LIGHTS TO BE CONTROLLED VIA LIGHT MOUNTED PHOTOCELL.

EXHAUST FAN SCHEDULE

MARK	BUILDING	MANUFACTURER	MODEL	OP. WEIGHT (LBS)	CFM	MOTOR HP	VOLTAGE/PH	DRIVE	FAN RPM	REMARKS
EF-1	WATER TREATMENT	GREENHECK	AE-12-433-B6X-QD	41	144-1014	1/6	120/1PH	DIRECT	1140	3

REMARKS
1. CEILING MOUNTED EXHAUST FAN WITH TIME DELAY SWITCH AND PLASTIC GRILLE.
2. WALL MOUNTED EXHAUST FAN WITH BACKDRAFT DAMPER, EXHAUST LOUVER, AND LINE VOLTAGE THERMOSTAT.
3. ROOF MOUNTED EXHAUST FAN WITH CURB. CONTRACTOR IS TO PROVIDE MOUNTING FOR EXHAUST FAN AS NECESSARY. EXHAUST FANS TO BE CONTROLLED WITH A CONTRACTOR PROVIDED AND INSTALLED SWITCH

GENERAL PURPOSE DRY TYPE TRANSFORMER SCHEDULE

TRANSFORMER MARK	KVA RATING	PRIMARY VOLTS	PRIMARY PHASE	SECONDARY VOLTS	SECONDARY PHASE	FULL CAPACITY TAPS	SERVES	TYPE MOUNTING
XFMR-1	75	480	3	120/208	3	(6) 2.5% 2+4-	PANEL A	FLOOR
XFMR-2	45	480	3	120/208	3	(6) 2.5% 2+4-	PANEL B	FLOOR

Ft. Griffin Water Treatment Plant
Panel "A" Schedule

Main Breaker Rating: 250 AMPS
M.L.O. Bus Rating: 400 AMPS
Sym. Inter. Cap.: AMPS
Surface Mount.: X
Flush Mount.:

3 Phase 4 Wire
208/120 VAC

NEMA 1: X
NEMA 3R:

Conductor Color Code
Phase 1 ---------- BLACK
Phase 2 ---------- RED
Phase 3 ---------- BLUE
Neutral ---------- WHITE or GRAY
Ground ---------- GREEN

	Load
Phase 1 Load:	74
Phase 2 Load:	96
Phase 3 Load:	59

POLE	SERVICE	W	LOAD PHASE 1	LOAD PHASE 2	LOAD PHASE 3	BREAKER POLES	POLE	1	2	3	POLE	SERVICE	W	LOAD PHASE 1	LOAD PHASE 2	LOAD PHASE 3	BREAKER POLES	POLE
1	Chlorine shelter 240/120V, 1Ø,	16640	30			125 / 2	1	X			2	HACH SC200 Universal Controller	840	7			20 / 1	2
3	125A Panel (Note 1)			30			3		X		4	LAS shelter 240/120V, 1Ø,	6240		30		125 / 2	4
5	(5) Metering Pumps	1680			14	20 / 1	5			X	6	125A Panel (Note 1)				30		6
7	Solenoid Control Valve	840	7			20 / 1	7	X			8	Interior LED Lights	1045	9			20 / 1	8
9	Chlorine Level Indicator	840		7		20 / 1	9		X		10	Interior LED Lights	1045		9		20 / 1	10
11	Outlets	720			6	20 / 1	11			X	12	Exterior LED Lights (Photocell)	92			1	20 / 1	12
13	Outlets	900	8			20 / 1	13	X			14	Exhaust Fans	720	6			20 / 1	14
15	Electric Heater	1200		10		20 / 1	15		X		16	Chlorine Analyzer	360		3		20 / 1	16
17	3/4 HP Door Opener	1824			8	20 / 2	17			X	18							18
19	"		8				19	X			20							20
21	HACH TU5 Series Turbidimeter	840		7		20 / 1	21		X		22							22
23							23			X	24							24
25							25	X			26							26
27							27		X		28							28
29							29			X	30							30
31							31	X			32							32
33							33		X		34							34
35							35			X	36							36
37							37	X			38							38
39							39		X		40							40
41							41			X	42							42

Notes:
1. Contractor is to provide and install wiring and conduit to these panels (provided and installed by others) and land wiring on the breaker lugs. No additional work is required to these panels.
2. Contractor is to verify breaker sizes with the equipment manufacturer and adjust breaker size, conduit, and wiring as required per NEC code. Contractor is responsible for providing breakers, wiring, and conduit for all branch circuits for a complete and operational system.

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JACOB MARTIN
FIRM# F-2448

SEAL OF TEXAS — DEREK TURNER — 84583 — LICENSED PROFESSIONAL ENGINEER
12-04-2024

FT. GRIFFIN SPECIAL UTILITIY DISTRICT
WATER TREATMENT PLANT EQUIPMENT
CONSTRUCTION DRAWINGS
ELECTRICAL SCHEDULES

SCALE	PROJECT #	DESIGNED	DRAWN	CHECKED
N.T.S.	10357	E.R.W.	L.S.J.	A.D.T.

DATE 12/4/24

NO.	REVISION
1	ADDENDUM #4

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING.
CHECK SCALE & ADJUST ACCORDINGLY.

SHEET E-3
SEQ. 47 OF 48

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L E G E N D

A,A–EM	HIGH BAY LED LIGHT FIXTURE PER LIGHTING SCHEDULE
B	EXTERIOR WALLPACK LED LIGHT FIXTURE PER LIGHTING SCHEDULE
J	JUNCTION BOX
GFI	120V DUPLEX GFI RECEPTACLE MOUNTED AT 36" A.F.F. AND RATED FOR 20 AMPS.
$	SINGLE POLE LIGHT SWITCH
$3	THREE WAY LIGHT SWITCH
	CIRCUIT

PANEL — BREAKER #
HOMERUN — A–5,7

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL COMPONENTS OF THIS PROJECT SHALL COMPLY WITH: NFPA 70 – NATIONAL ELECTRICAL CODE: MOST RECENT EDITION ADOPTED BY AUTHORITY HAVING JURISDICTION, INCLUDING ALL APPLICABLE AMENDMENTS AND SUPPLEMENTS.
2. ALL CIRCUITS SHALL BE A MINIMUM SIZE OF 12 GAUGE AND A MINIMUM 3/4" CONDUIT.
3. ALL CIRCUITS SHALL CONTAIN A GROUND WIRE.
4. EACH CIRCUIT SHALL CONTAIN ITS OWN NEUTRAL WIRE. NO NEUTRAL SHARING SHALL BE ALLOWED.
5. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE SHOWN ON PLAN. USE THHW, THW, THWN, OR XHHW.
6. ALL NEW INTERIOR CIRCUITS SHALL BE RAN IN EMT CONDUIT EXPOSED. HOLD CIRCUITS TIGHT TO CEILINGS AND WALLS. DO NOT SUPPORT OFF PIPING OR DUCTWORK. CONDUIT SHALL BE RAN PARALLEL TO BUILDING ELEMENTS AND SHALL BE WELL SUPPORTED.
7. CLEAR, READABLE PANEL DIRECTORIES ARE REQUIRED FOR ALL PANELS.
8. LABEL ALL NEW PANELS, TRANSFORMERS, & DISCONNECT SWITCHES WITH ENGRAVED PLASTIC SIGNS, RED BACKGROUND WITH WHITE LETTERS. USE MINIMUM SIZE OF 4"X2". SCREW OR RIVET TO PANEL. SIGN NEEDS TO GIVE PANEL NAME, AMPERAGE, VOLTAGE, & PHASE.
9. COORDINATE THE LOCATIONS OF ALL ELECTRICAL EQUIPMENT, DEVICES, FIXED EQUIPMENT, ETC. WITH WITH OWNER PRIOR TO ROUGH-IN-WORK. DO NOT SCALE ELECTRICAL DRAWINGS.
10. ELECTRICAL DESIGN PROVIDES A NUMBER OF BRANCH CIRCUITS, PHASES, AMPACITY AND OVERCURRENT PROTECTION CONFORMING TO MANUFACTURER'S SPECIFICATIONS AVAILABLE AT TIME OF DESIGN. IF REQUIREMENTS OF EQUIPMENT ACTUALLY PROVIDED UNDER CONTRACT FOR CONSTRUCTION ARE DIFFERENT, CONTRACTOR SHALL MAKE ALL CHANGES REQUIRED. SUCH CHANGES MAY INCLUDE, BUT ARE NOT LIMITED TO: SIZE OF WIRES, SIZE OF CONDUIT, NUMBER, TYPE AND SIZE OF CIRCUIT BREAKERS, FUSE PROTECTION AND ADDITIONAL DISCONNECT SWITCHES.
11. JUNCTION/PULL BOXES LOCATED AT CEILING SHALL BE INSTALLED FACING DOWN AND SHALL BE ACCESSIBLE AFTER INSTALLATION. COORDINATE WITH OTHER TRADES AND STRUCTURES.
12. EXISTING UTILITIES, ELECTRICAL EQUIPMENT, AND UNDERGROUND OR CONCEALED ITEMS ARE SHOWN FOR REFERENCE ONLY. ADDITIONAL ITEMS NOT SHOWN MAY BE PRESENT AND LOCATIONS MAY DIFFER FROM THAT SHOWN. CONTRACTOR SHALL PERFORM WORK AS TO AVOID DAMAGE TO EXISTING ITEMS, SHALL NOTIFY OWNER AND ENGINEER AT ONCE OF ALL DAMAGE AND SHALL REPAIR DAMAGE TO ORIGINAL CONDITION TO THE SATISFACTION OF OWNER AND ENGINEER.
13. ELECTRICAL CONTRACTOR SHALL VERIFY EQUIPMENT AND CONDUCTOR SIZE PRIOR TO ORDERING AND INSTALLATION OF ANY EQUIPMENT OR CONDUCTORS. REPORT ALL DISCREPANCIES TO THE ENGINEER.
14. CONTRACTOR SHALL PROVIDE SUITABLE MATERIALS AND CONSTRUCTION METHODS TO PREVENT DAMAGE TO CONDUIT SWEEPS RESULTING FROM INSTALLATION OF LARGE CONDUCTORS.
15. PROVIDE GRAY SWITCHES AND OUTLETS WITH STAINLESS STEEL COVERS IN METAL ELECTRICAL BOXES.
16. ALL OUTLETS TO BE RATED AT A MINIMUM OF 20 AMPS.
17. THE CONTRACTOR WILL LABEL THE SERVICE DISCONNECT WITH FOLLOWING " THE MAXIMUM AVAILABLE FAULT CURRENT IS_____ AMPS. CALCULATED_____, 2025" NOTE: CALCULATED"#" AND DATE TO BE SUPPLIED BY JACOB MARTIN. THE LABEL MUST BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED AS STATED IN THE NEC PARAGRAPH 110.24.
18. CONTRACTOR WILL REMOVE ALL CABLE SPLICERS AND TWIST ON WIRE CONNECTORS. THEY ARE TO BE REPLACED WITH CIRCUIT CABLES CONNECTED TO BREAKERS OR FUSES FOR OVERCURRENT PROTECTION AS REQUIRED BY THE NEC.

ELECTRICAL RISER DIAGRAM NOTES BY REFERENCE (#)

(1) NEW ONCOR OVERHEAD 3Ø ELECTRICAL PRIMARY PROVIDED AND INSTALLED BY ONCOR.

(2) NEW ONCOR PRIMARY DEADEND POLE WITH (3) TRANSFORMER BANK FOR NEW 480/277V, 3Ø ELECTRICAL SERVICE PROVIDED AND INSTALLED BY ONCOR.

(3) NEW ONCOR UNDERGROUND 480/277V, 3Ø ELECTRICAL SECONDARY. CONTRACTOR IS TO PROVIDE AND INSTALL (1) – 4" PVC SCHEDULE 40 SECONDARY CABLE CONDUIT WITH LONG SWEEPING ELBOWS, PULL ROPES, MAST, AND 36" OF COVER PER ONCOR'S REQUIREMENTS. CONTRACTOR IS TO PROVIDE AND INSTALL RED DITCH TAPE 12" ABOVE THE SECONDARY CABLE CONDUIT AS REQUIRED BY ONCOR. ONCOR WILL PROVIDE AND INSTALL THE SECONDARY CABLE.

(4) NEW ONCOR BUILDING MOUNTED ELECTRICAL METER. CONTRACTOR IS TO PROVIDE AND INSTALL THE METER CAN PER ONCOR'S REQUIREMENTS. ONCOR TO PROVIDE AND INSTALL THE ELECTRICAL METER.

(5) 2 SETS PARALLEL OF: (3) – 3/0 PHASE CONDUCTORS, (1) – 3/0 NEUTRAL CONDUCTOR IN 2" CONDUIT FROM METER TO PANEL "MDP".

(6) NEW SERVICE RATED 480/277V, 3Ø, 400A PANEL "MDP". BOND NEUTRAL TO GROUND IN THIS PANEL.

(7) REFERENCE CIRCUIT SIZE SCHEDULE FOR WIRE AND CONDUIT SIZES FOR BRANCH CIRCUITS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WIRING, CONDUIT, AND BREAKERS FOR ALL BRANCH CIRCUITS FOR A COMPLETE AND OPERATIONAL SYSTEM.

(8) (1) – 1/0 GROUND IN 1/2" PVC CONDUIT. CADWELD TO ⅝" x 10'–0" COPPER CLAD STEEL GROUND ROD.

(9) (3) – #1 AWG PHASE CONDUCTORS, (1) – #1 AWG NEUTRAL CONDUCTOR, (1) – #6 AWG GROUND IN 1–1/2" CONDUIT FROM PANEL "MDP" TO THE STEP–DOWN TRANSFORMER "XFM–1".

(10) NEW 480:208/120V, 3Ø, 75 KVA STEP–DOWN TRANSFORMER "XFM–1" PROVIDED AND INSTALLED BY THE CONTRACTOR. BOND NEUTRAL TO GROUND IN THIS PANEL.

(11) (1) – #4 AWG GROUND IN 1/2" PVC CONDUIT. CADWELD TO ⅝" x 10'–0" COPPER CLAD STEEL GROUND ROD.

(12) (3) – 3/0 PHASE CONDUCTORS, (1) – 3/0 NEUTRAL CONDUCTOR, (1) – #6 AWG GROUND IN 2" CONDUIT FROM STEP–DOWN TRANSFORMER "XFM–1" TO PANEL "A".

(13) (1) – #12 AWG PHASE CONDUCTOR, (1) – #12 AWG NEUTRAL CONDUCTOR, (1) – #12 AWG GROUND IN 3/4" CONDUIT.

(14) NEW 240/120V, 1Ø, 125A PANELS PROVIDED AND INSTALLED BY OTHERS. THE ONLY WORK BY THE CONTRACTOR TO THESE PANELS IS TO PROVIDE AND INSTALL WIRING AND CONDUIT FROM PANEL "A" AND LAND WIRING ON THE PANEL LUGS.

(15) (3) – #4 AWG PHASE CONDUCTORS, (1) – #4 AWG NEUTRAL CONDUCTOR, (1) – #8 AWG GROUND IN 1–1/4" CONDUIT FROM PANEL "MDP" TO STEP–DOWN TRANSFORMER "XFM–2" PROVIDED AND INSTALLED BY THE CONTRACTOR.

(16) NEW 480:208/120V, 3Ø, 45 KVA STEP–DOWN TRANSFORMER "XFM–2" PROVIDED AND INSTALLED BY THE CONTRACTOR. BOND NEUTRAL TO GROUND IN THIS PANEL.

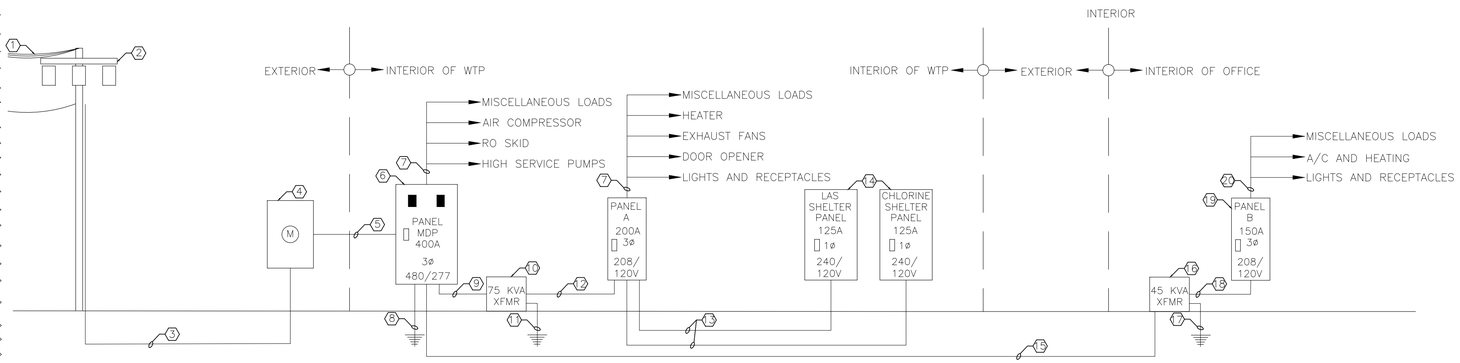
(17) (1) – #6 AWG GROUND IN 1/2" PVC CONDUIT. CADWELD TO ⅝" x 10'–0" COPPER CLAD STEEL GROUND ROD.

(18) (3) – 1/0 PHASE CONDUCTORS, (1) – 1/0 NEUTRAL CONDUCTOR, (1) – #6 AWG GROUND IN 1–1/2" CONDUIT FROM STEP–DOWN TRANSFORMER "XFM–2" TO PANEL "B" PROVIDED AND INSTALLED BY THE CONTRACTOR.

(19) NEW 208/120V, 3Ø, 150A MCB IN A 200A FRAME PANEL "B" PROVIDED AND INSTALLED BY OTHERS. CONTRACTOR IS TO VERIFY THE LOCATION OF THE PANEL AND ADJUST AS NECESSARY.

(20) NEW PANEL "B" BRANCH CIRCUITS, WIRING, CONDUIT, AND BREAKERS PROVIDED AND INSTALLED BY OTHERS. THE ONLY WORK BY THE CONTRACTOR TO THIS PANEL IS TO PROVIDE AND INSTALL THE WIRING FROM TRANSFORMER "XFM–2" TO PANEL "B" AND LAND WIRING ON THE PANEL LUGS.

CIRCUIT SIZE SCHEDULE
20A – #12 PHASE CONDUCTORS #12 GROUND IN 3/4" CONDUIT
30A – #10 PHASE CONDUCTORS #10 GROUND IN 3/4" CONDUIT
40A – #8 PHASE CONDUCTORS #10 GROUND IN 3/4" CONDUIT
50A – #6 PHASE CONDUCTORS #10 GROUND IN 1" CONDUIT
60A – #4 PHASE CONDUCTORS #10 GROUND IN 1–1/4" CONDUIT
70A – #4 PHASE CONDUCTORS #8 GROUND IN 1–1/4" CONDUIT
80A – #3 PHASE CONDUCTORS #8 GROUND IN 1–1/4" CONDUIT
90A – #2 PHASE CONDUCTORS #8 GROUND IN 1–1/4" CONDUIT
100A – #1 PHASE CONDUCTORS #8 GROUND IN 1–1/4" CONDUIT



ELECTRICAL RISER DIAGRAM – WATER TREATMENT PLANT

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STATE OF TEXAS — DEREK TURNER — 84583 — LICENSED PROFESSIONAL ENGINEER — 12-04-2024

FT. GRIFFIN SPECIAL UTILITY DISTRICT
WATER TREATMENT PLANT EQUIPMENT
CONSTRUCTION DRAWINGS
ELECTRICAL RISER DIAGRAM AND NOTES

SCALE	N.T.S.
PROJECT #	10357
DESIGNED	E.R.W.
DRAWN	L.S.J.
CHECKED	A.D.T.
DATE	12/4/24

NO.	REVISION
1	ADDENDUM #4

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING.
CHECK SCALE & ADJUST ACCORDINGLY.

SHEET E–4
SEQ. 48 OF 48

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X:\WS_FT_GRIFFIN_SUD\PROJECT 10357 RD WL IMP & WTP\DRAFTING_WATER TREATMENT PLANT_PLANS\WTP\E–3_ELECTRICAL_RISERS&NOTES.DWG