

GENERAL PROJECT LOCATION:
THE PUMP STATION IS LOCATED AT 32795 US HIGHWAY 24 EAST OF CALHAN,
IN THE NE ¼ OF SECTION 21, TOWNSHIP 11 SOUTH, RANGE 61 WEST,
EL PASO COUNTY, COLORADO.

GPS COORDINATES OF THE PUMP STATION ARE:
LATITUDE: 39.079639° N
LONGITUDE: 104.223196° W

PARCEL NUMBER: 11000-00-052
PARCEL SIZE: 5 ACRES

PROPERTY ADDRESS: 32795 US-24, CALHAN, CO 80808

SUBMITTALS
INITIAL: 07-23-2021
REVISION 1

TETRA TECH ROONEY
115 INVERNESS DRIVE EAST, SUITE 300
CENTENNIAL, CO 80112
303-792-5911
DAVID.CHEEVER@TETRATECH.COM

PREPARED UNDER THE DIRECT SUPERVISION OF
REESE LUNDGREN, PE
COLORADO REGISTRATION 35730
FOR & ON BEHALF OF TETRA TECH ROONEY
FOR CIVIL DRAWINGS, SHEETS 3-12



PREPARED UNDER THE DIRECT SUPERVISION OF
DAVID CHEEVER, PE
COLORADO REGISTRATION 29237
FOR & ON BEHALF OF TETRA TECH ROONEY



ISSUES & REVISIONS		
NO.	DATE	BY
1	07-29-2021	BY: DPC/HET/VER
DESCRIPTION: INCORPORATED EL PASO COUNTY REVIEW COMMENTS		
2	DATE	BY
DESCRIPTION:		
3	DATE	BY
DESCRIPTION:		
4	DATE	BY
DESCRIPTION:		
5	DATE	BY
DESCRIPTION:		
6	DATE	BY
DESCRIPTION:		

DATE: 07-23-2021
SCALE: NTS
PROJECT MANAGER: DPC
PROJECT NO: 204-3417
DRAWN BY: CWG
DRAWING FILE:

PROJECT:
**CALHAN PUMP STATION
UPGRADE**

CLIENT:
PHILLIPS 66 PIPELINE COMPANY, LLC
3960 EAST 56TH AVENUE
COMMERCE CITY, CO 80022
303-376-4376
JARED.D.LARSEN@P66.COM

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1 OF 26

COUNTY PROJECT NUMBER EA2193

LEGAL DESCRIPTION:
SEE LAND SURVEY PLAT SHEET 26

LAND USE AND ZONING:
ZONE A-35, NON-CONFORMING

PROPERTY TAX SCHEDULE NUMBER:
TAX AREA CODE BBA; PARCEL ID 1100000052

BASIS OF BEARINGS:
SEE LAND SURVEY PLAT SHEET 26

BENCHMARKS:
SEE LAND SURVEY PLAT SHEET 26

CALHAN SITE DEVELOPMENT PLAN INDEX		
SHEET	DRAWING NUMBER	TITLE
1	CALH-SDP-0001	SITE DEVELOPMENT PLAN COVER SHEET
2	CALH-EXB-1000 REV 2	LIMITS OF DISTURBANCE SITE PLAN
3	CALH-NX-0001 REV 1	CIVIL DRAWING INDEX
4	CALH-MC-0001 REV 0	CIVIL LEGEND & GENERAL NOTES
5	CALH-GR-0002 REV 0	EXISTING CONDITIONS SITE PLAN
6	CALH-GR-0003 REV 1	PROPOSED SCOPE OF WORK SITE PLAN
7	CALH-GR-0004 REV 1	CIVIL GRADING PLAN
8	CALH-MC-0003 REV 1	CIVIL FENCE & SURFACING PLAN
9	CALH-MC-0004 REV 0	CIVIL TYPICAL FENCING DETAILS
10	CALH-MC-0005 REV 0	CIVIL FENCING TYPICAL DETAILS
11	CALH-MC-0006 REV 0	CIVIL DETAILS
12	CALH-MC-0007 REV 0	CIVIL EROSION CONTROL DETAILS
13	CALH-EE-0047 REV 0	LIGHTING & LJB DETAILS & BOM
14	CALH-EE-0048 REV 0	LIGHTING PLAN
15	CALH-SDP-0002	EXISTING LIGHTING - SHEET 1
16	CALH-SDP-0003	EXISTING LIGHTING - SHEET 2
17	CALH-SDP-0004	EXISTING LIGHTING - SHEET 3
18	CALH-SDP-0005	EXISTING LIGHTING - SHEET 4
19	CALH-SDP-0006	EXISTING LIGHTING - SHEET 5
20	CALH-SDP-0007	ELEVATION - PUMP SKID GENERAL ARRANGEMENT SHEET 1
21	CALH-SDP-0008	ELEVATION - PUMP SKID GENERAL ARRANGEMENT SHEET 2
22	CALH-SDP-0009	ELEVATION - ELECTRICAL EQUIPMENT CENTER
23	CALH-SDP-0010	ELEVATION - SWITCHGEAR
24	CALH-SDP-0011	ELEVATION - MV TRANSFORMER
25	CALH-SDP-0012	ELEVATION - LV TRANSFORMER
26	CALH-SDP-0013	LAND SURVEY PLAT

EL PASO COUNTY APPROVAL



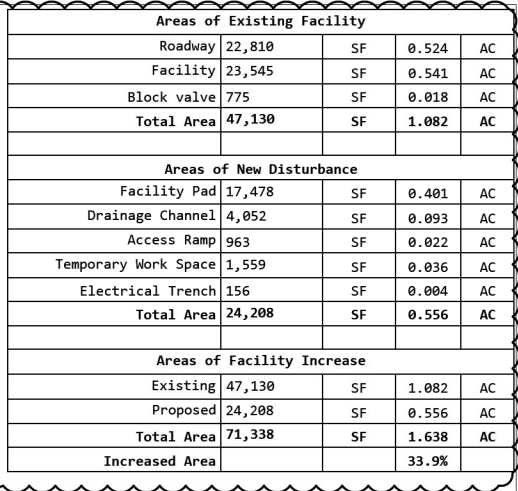
**PHILLIPS 66
PIPELINE LLC**

FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	CWG	07/23/21
CHECKED	DPC	07/23/21
APP'D	JJT	07/23/21

**CALHAN
SITE DEVELOPMENT PLAN
COVER SHEET
1 OF 26
EL PASO COUNTY, COLORADO**

SCALE	N.T.S.
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0001

NO.	REVISION	BY	DATE
0	ISSUED FOR PERMITTING	CWG	07/23/2021
1	REVISED PER COMMENTS	CWG	07/29/2021



FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	SKC	12/05/19
CHECKED	SKC	11/16/20
APP'D	RML	11/16/20

CALHAN
LIMITS OF DISTURBANCE
SITE PLAN
2 OF 26
EL PASO COUNTY, COLORADO

SCALE	AS NOTED	
PROJECT NO	03417	
FILE NAME (aka)	DOCUMENT NUMBER	
	CALH-EXB-1000	

NO.	REVISION	BY	DATE
		CHKD	APP'D
0	ISSUED FOR CONSTRUCTION	CEF	11/06/2020
		RML	RML
1	RE-ISSUED FOR CONSTRUCTION	CEF	05/21/2021
		RML	RML
2	RE-ISSUED FOR CONSTRUCTION	CEF	06/15/2021
		RML	RML

DRAWING LIST

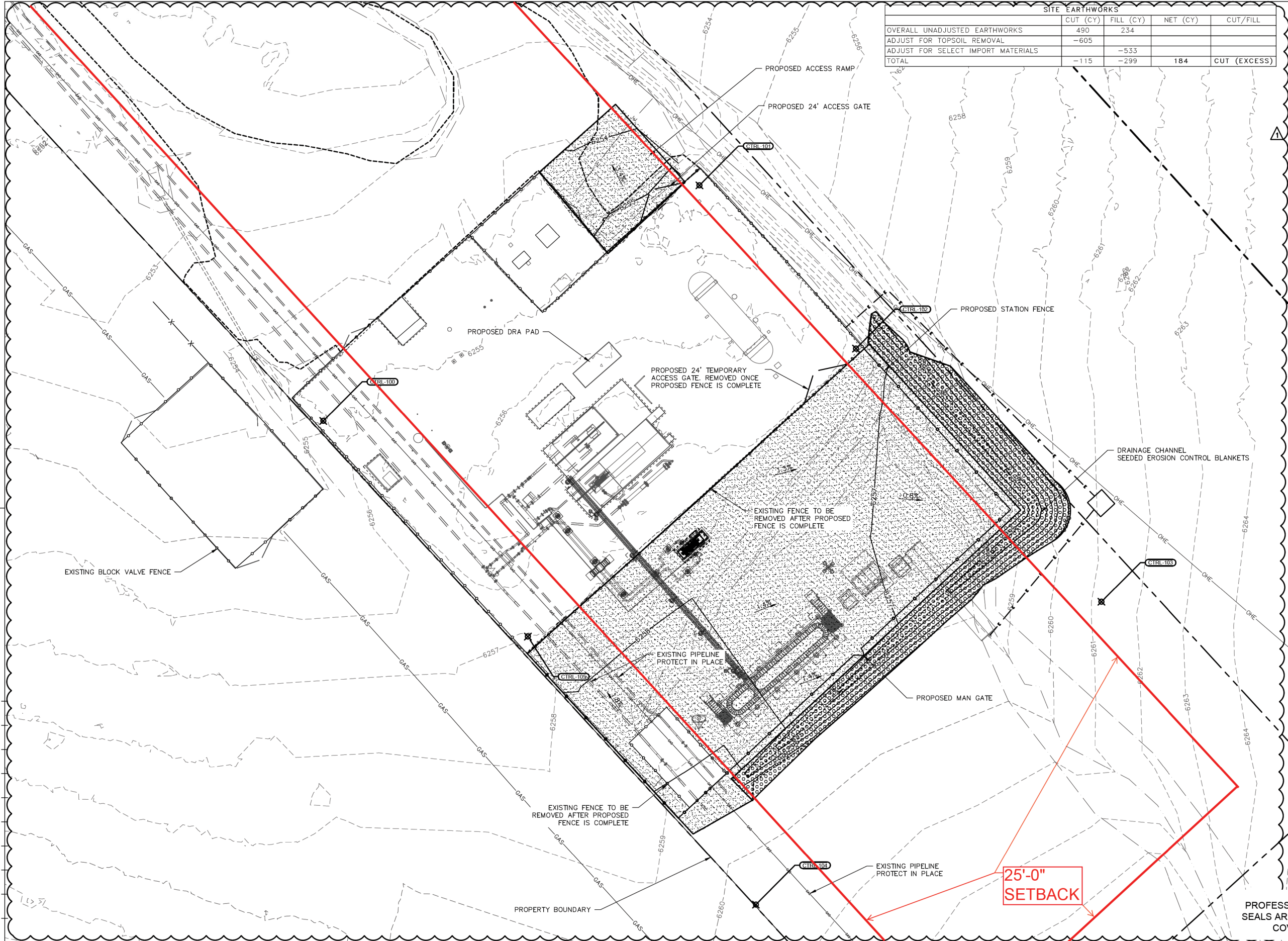
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DRAWING INDEX			
CALH-NX-0001	CIVIL DRAWING INDEX	1	7/15/2021
CIVIL			
CALH-MC-0001	CIVIL LEGEND AND GENERAL NOTES	0	11/6/2020
CALH-GR-0002	EXISTING CONDITIONS SITE PLAN	0	11/6/2020
CALH-GR-0003	PROPOSED SCOPE OF WORK SITE PLAN	1	7/15/2021
CALH-GR-0004	CIVIL GRADING PLAN	1	7/15/2021
CALH-MC-0003	CIVIL FENCE & SURFACING PLAN	1	7/15/2021
CALH-MC-0004	CIVIL TYPICAL FENCING DETAILS	0	11/6/2020
CALH-MC-0005	CIVIL TYPICAL FENCING DETAILS	0	11/6/2020
CALH-MC-0006	CIVIL DETAILS	0	11/6/2020
CALH-MC-0007	EROSION CONTROL DETAILS	0	11/6/2020

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.

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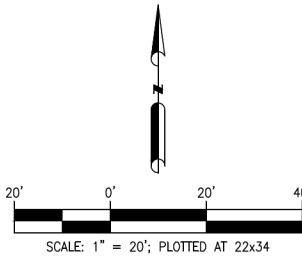
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SITE EARTHWORKS				
	CUT (CY)	FILL (CY)	NET (CY)	CUT/FILL
OVERALL UNADJUSTED EARTHWORKS	490	234		
ADJUST FOR TOPSOIL REMOVAL	-605			
ADJUST FOR SELECT IMPORT MATERIALS		-533		
TOTAL	-115	-299	184	CUT (EXCESS)

1. PROTECT ALL EXISTING PIPELINES. CONSTRUCT AIR BRIDGE OR WOODEN MATTING.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND EXISTING LINES PRIOR TO CONSTRUCTION.



NO.	REVISION	BY	CHKD	DATE	APP'D
0	ISSUED FOR CONSTRUCTION	CEF	RML	11/06/20	RML
1	ISSUED FOR CONSTRUCTION	CEF	RML	07/15/21	RML

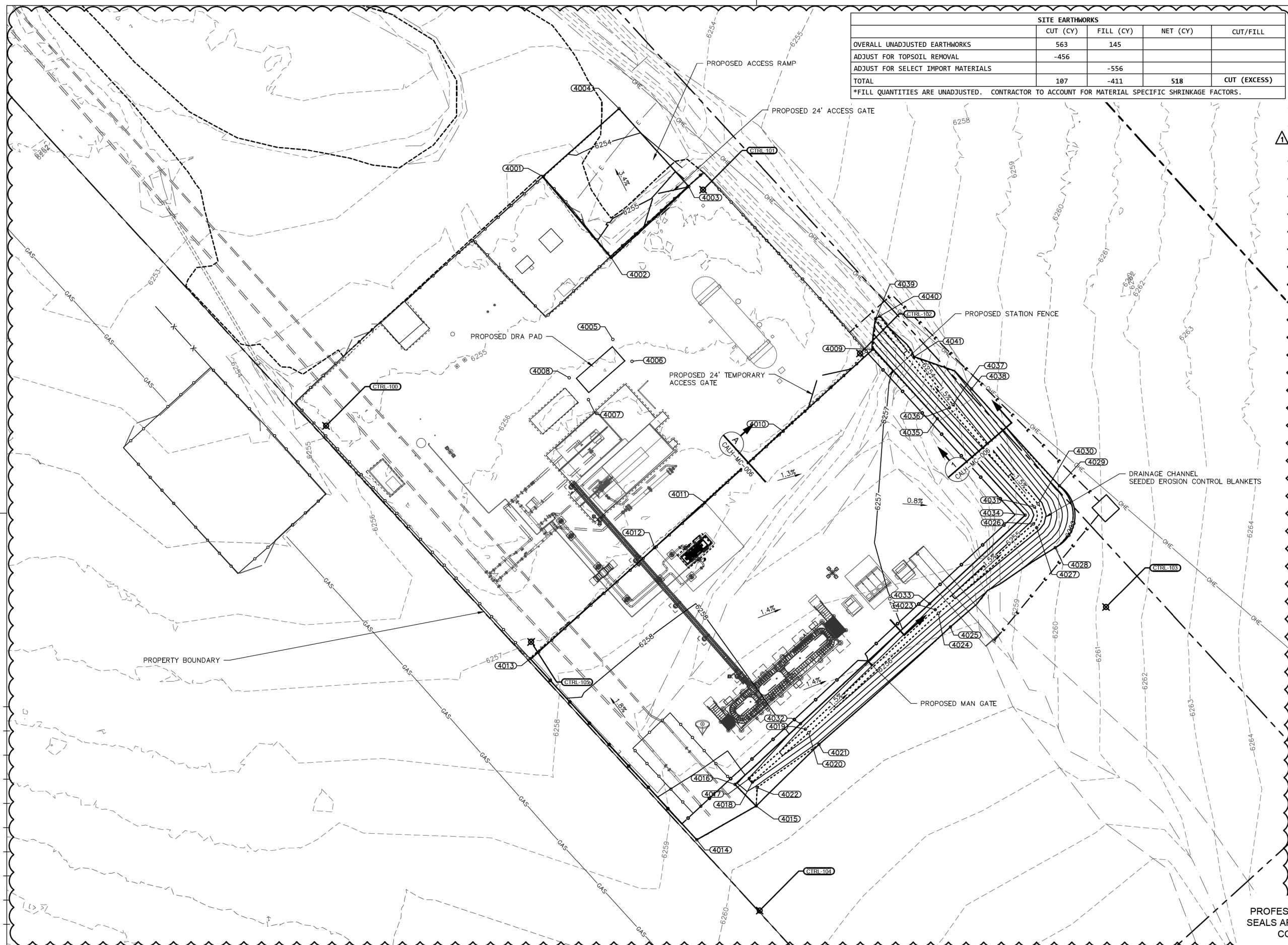


FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CEF 12/05/19
CHECKED	RML 11/06/20
APP'D	RML 11/06/20

CALHAN
PROPOSED SCOPE OF WORK
SITE PLAN
6 OF 26
EL PASO COUNTY, COLORADO



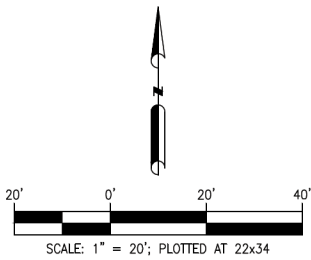
SCALE	AS NOTED
PROJECT NO	03417
FILE NAME (aka) DOCUMENT NUMBER	CALH-GR-0003



SITE EARTHWORKS				
	CUT (CY)	FILL (CY)	NET (CY)	CUT/FILL
OVERALL UNADJUSTED EARTHWORKS	563	145		
ADJUST FOR TOPSOIL REMOVAL	-456			
ADJUST FOR SELECT IMPORT MATERIALS		-556		
TOTAL	107	-411	518	CUT (EXCESS)
*FILL QUANTITIES ARE UNADJUSTED. CONTRACTOR TO ACCOUNT FOR MATERIAL SPECIFIC SHRINKAGE FACTORS.				

1. PROTECT ALL EXISTING PIPELINES. CONSTRUCT AIR BRIDGE OR WOODEN MATTING.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND EXISTING LINES PRIOR TO CONSTRUCTION.

FINAL GRADE POINTS			
POINT #	ELEVATION	NORTHING	EASTING
4001	6254.30	1456439.00	3362465.99
4002	6255.18	1456405.56	3362494.10
4003	6255.10	1456434.98	3362526.16
4004	6253.38	1456467.18	3362497.31
4005	6257.00	1456371.69	3362494.75
4006	6257.00	1456362.67	3362502.66
4007	6257.00	1456346.84	3362484.62
4008	6257.00	1456355.86	3362476.71
4009	6257.09	1456367.64	3362602.36
4010	6257.33	1456333.69	3362565.24
4011	6257.69	1456304.32	3362532.76
4012	6257.92	1456285.58	3362512.02
4013	6257.60	1456239.69	3362460.55
4014	6259.43	1456164.82	3362529.45
4015	6259.55	1456178.78	3362553.98
4016	6259.23	1456187.63	3362545.22
4017	6257.90	1456190.14	3362551.12
4018	6257.90	1456188.63	3362552.44
4019	6256.23	1456210.58	3362574.45
4020	6256.23	1456209.09	3362575.79
4021	6259.45	1456204.25	3362580.03
4022	6259.40	1456186.38	3362554.41
4023	6255.14	1456259.91	3362628.06
4024	6255.14	1456258.42	3362629.40
4025	6258.91	1456252.73	3362634.36
4026	6254.33	1456295.35	3362668.67
4027	6254.33	1456293.86	3362670.01
4028	6259.97	1456285.59	3362677.67
4029	6260.03	1456311.19	3362679.43
4030	6254.25	1456303.72	3362670.61
4031	6254.25	1456302.43	3362669.09
4032	6257.75	1456212.81	3362572.39
4033	6256.80	1456262.35	3362625.80
4034	6256.81	1456298.98	3362665.30
4035	6256.82	1456338.94	3362628.94
4036	6253.44	1456343.48	3362633.94
4037	6253.44	1456344.78	3362635.46
4038	6258.45	1456351.26	3362643.10
4039	6252.72	1456380.30	3362603.43
4040	6252.72	1456381.33	3362605.14
4041	6253.22	1456364.41	3362619.24



PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



NO.	REVISION	BY	DATE
		CHKD	APP'D
0	ISSUED FOR CONSTRUCTION	CEF	11/06/20
		RML	RML
1	ISSUED FOR CONSTRUCTION	CEF	07/15/21
		RML	RML



FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	CEF	12/05/19
CHECKED	RML	11/06/20
APP'D	RML	11/06/20

CALHAN
CIVIL
GRADING PLAN
7 OF 26
EL PASO COUNTY, COLORADO

SCALE	AS NOTED
PROJECT NO	03417
FILE NAME (aka)	DOCUMENT NUMBER
CALH-GR-0004	

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SCALE	AS NOTED
PROJECT NO	03417
FILE NAME (aka)	DOCUMENT NUMBER
CALH-MC-0004	

FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	CEF	01/30/20
CHECKED	RML	11/06/20
APP'D	RML	11/06/20

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EMERGENCY EVACUATION GATE

NTS

24' DOUBLE SWING GATE - ELEVATION VIEW

NTS

Table 1: Materials of Construction		
Component	For Galvanized Steel Fabric	For Aluminum Coated Steel Fabric
Fabric		
Material	ASTM A392 Class 2	ASTM A491
Min Tensile Strength	85,000 psi	80,000 psi
Weave	2 inches mesh, barbed top and bottom	2 inches mesh, barbed top and bottom
Wire Diameter	0.148 in. (9 gage)	0.148 in. (9 gage)
Width	7ft. (1)	7ft.(1)
Barbed Wire		
Material	ASTM A121 Coating Type Z, Coating Class 3	ASTM A121 Coating Type A
Barb Spacing	No Greater Than 4 inches	No Greater Than 4 inches
Wire Diameter	0.105 inches	0.105 inches
Barb Diameter	0.080 inches	0.098 inches
Connectors		
Tie Wire Material	9-gage, Class 1 galvanized steel wire per ASTM A641	9-gage aluminum-coated steel wire per ASTM A809
Other Connection Material	Galvanized Steel	Galvanized Steel
Tension Wire		
Material	Galvanized Steel wire per ASTM A641 coating class 5	Aluminum-coated steel wire per ASTM A809
Wire Diameter	0.177 inches (7 gage)	0.177 inches (7 gage)

Table 1: Materials of Construction (Continued)		
Component	Materials for Steel and Aluminum Fabric Types	
Posts and Frames		
Material	ASTM A53 Gr. B	
Min. Yield Strength	35,000 psi	
Line Post Size	2 inches SCH 40 pipe or equivalent	
Corner, End and Pull Post Size	2-1/2 inches SCH 40 pipe or equivalent	
Bracing and Top Rail Size	1-1/4 inch SCH 40 pipe or equivalent	

Table 2: Galvanizing		
Component	Specification	
Steel Shapes, Plates, Bars, Strips	ASTM A123	
Steel Pipe	ASTM A123 or F1083	
Fabric (after weaving)	ASTM A392 Class 2	
Fittings and Hardware	ASTM A153	
Barbed Wire	ASTM A121 Class3	
Tension Wire	ASTM A641 Class 5	

Table 3: Minimum Footing Dimension			
Post Description	Post Embedment (inch)	Foundation Diameter (inch)	Foundation Depth (inch)
Line Post	36	10	40
Corner Posts	42	16	46
End Posts	42	16	46
Pull Posts	42	16	46
Gate Posts for Gates up to 12 Feet Wide	42	16	46
Gate Posts for Gates Over 12 Feet to 18 Feet Wide	60	20	66
Gate Posts for Gates Over 18 Feet to 22 Feet Wide	72	26	78

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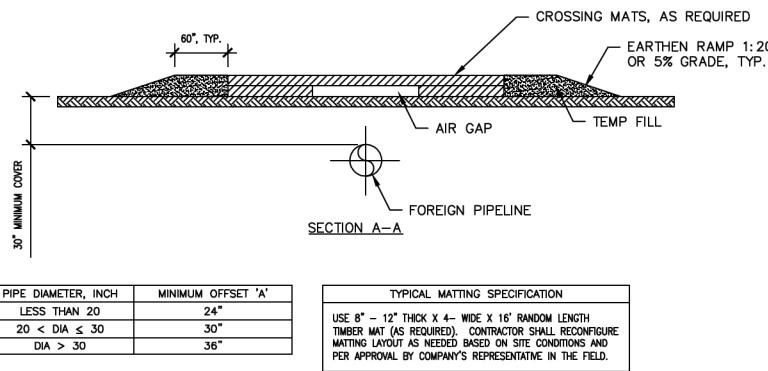
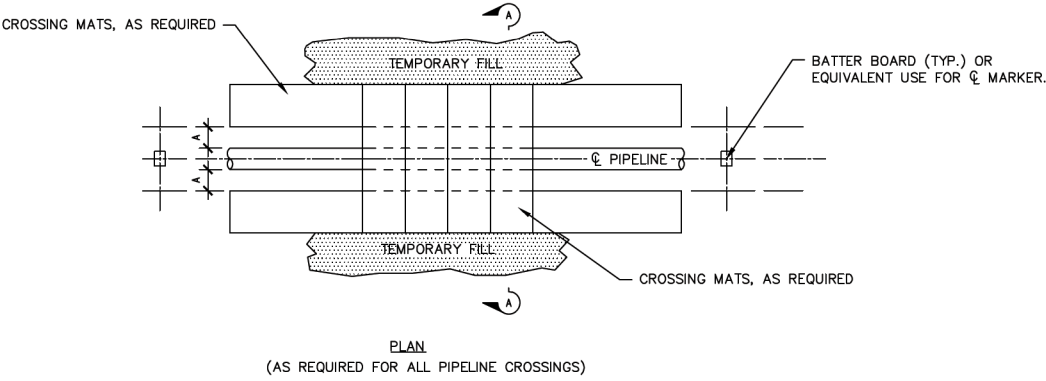
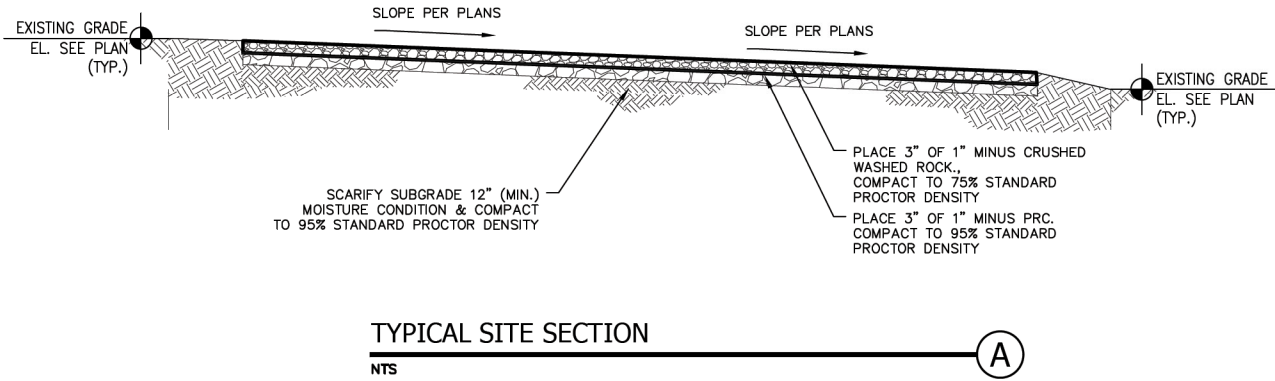
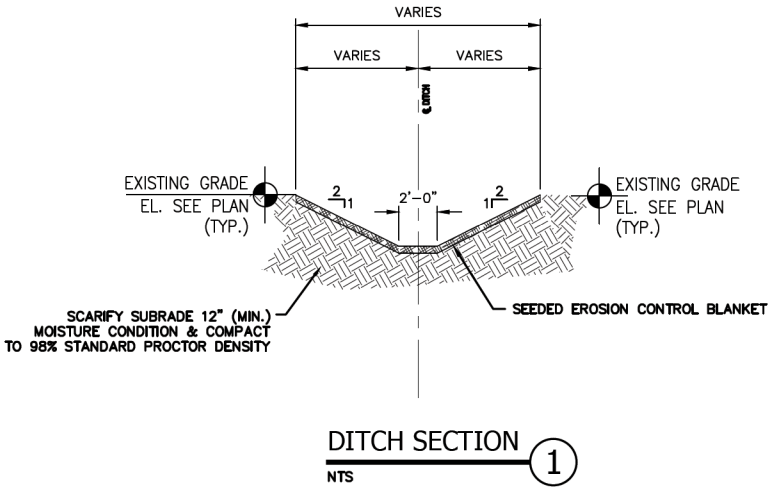
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FOR CONST		
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CHECKED	RML	11/06/20
APP'D	RML	11/06/20

CALHAN
CIVIL
FENCING TYPICAL DETAILS
10 OF 26
EL PASO COUNTY, COLORADO

SCALE	AS NOTED
PROJECT NO	03417
FILE NAME (aka) DOCUMENT NUMBER	
CALH-MC-0005	

GRADING NOTES:

1. CONTRACTOR SHALL PERFORM FINAL GRADING TO RESTORE THE WORK AREA TO THE FINAL CONTOURS SHOWN ON GRADING DRAWINGS.
2. WHERE PERSONNEL ENTER EXCAVATIONS 5 FEET OR MORE IN DEPTH, THE EXCAVATION SHALL BE PROTECTED BY A SUPPORT SYSTEM OF SLOPING SHORING OR BRACING MEETING OSHA STANDARDS. SUCH PROTECTION SHALL ALSO BE PROVIDED IN EXCAVATIONS LESS THAN 5 FEET DEEP WHERE HAZARDOUS EARTH MOVEMENT MAY BE EXPECTED. SHORING OR BRACING SYSTEMS SHALL BE INSPECTED DAILY AND AFTER RAINSTORMS OR OTHER HAZARD-INCREASING OCCURRENCE.
3. NO CONTRACTOR SHALL PERFORM ANY GRADING OR GRUBBING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS, OR NATURAL WATERCOURSES.
4. THE LIMITS OF THE AREA TO BE GRUBBED AND GRADED SHALL BE FLAGGED BEFORE COMMENCEMENT OF THE GRUBBING WORK.
5. WHERE APPLICABLE AND FEASIBLE, THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY GRUBBING WORK IN INITIATED.
6. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
7. IF THE GRADING OR GRUBBING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRUBBING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
8. ALL STRUCTURAL BACKFILL SHALL BE PLACED UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
9. ALL BACKFILL MATERIAL SHALL BE THOROUGHLY COMPACTED AND MOISTURE CONDITIONED TO 95% STANDARD PROCTOR DENSITY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE THROUGHOUT THE PROJECT.



PIPE DIAMETER, INCH	MINIMUM OFFSET 'A'
LESS THAN 20	24"
20 < DIA ≤ 30	30"
DIA > 30	36"

TYPICAL MATTING SPECIFICATION	
USE 8" - 12" THICK X 4'- WIDE X 16' RANDOM LENGTH TIMBER MAT (AS REQUIRED). CONTRACTOR SHALL RECONFIGURE MATTING LAYOUT AS NEEDED BASED ON SITE CONDITIONS AND PER APPROVAL BY COMPANY'S REPRESENTATIVE IN THE FIELD.	

AIR BRIDGE MATTING DETAIL - TEMPORARY

PROFESSIONAL ENGINEER
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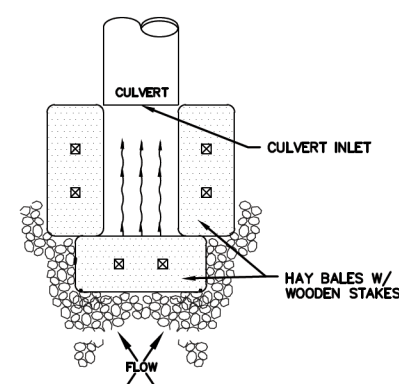
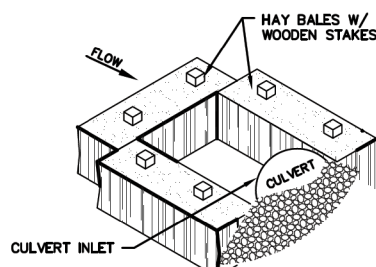
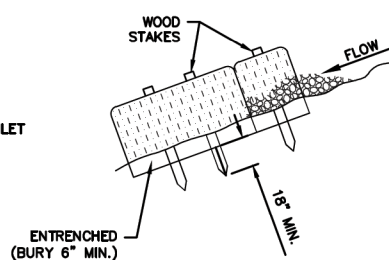
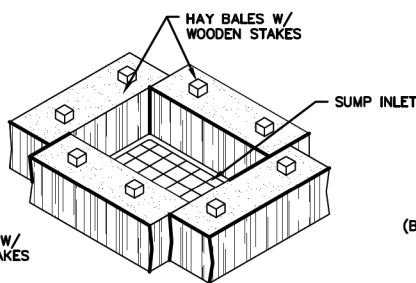
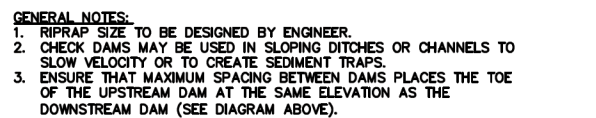
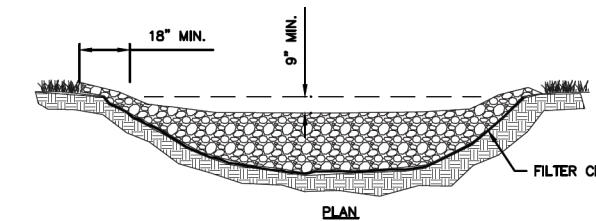
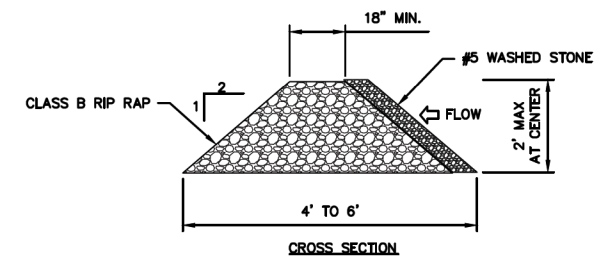
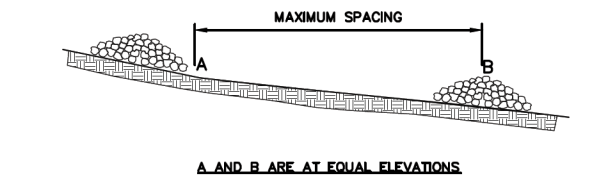
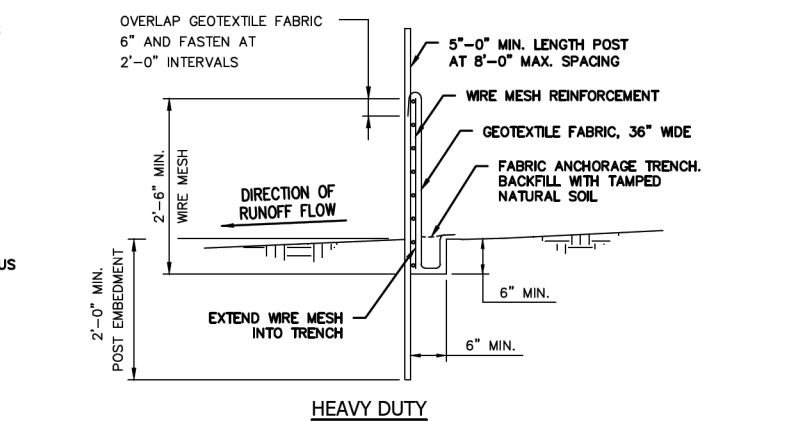
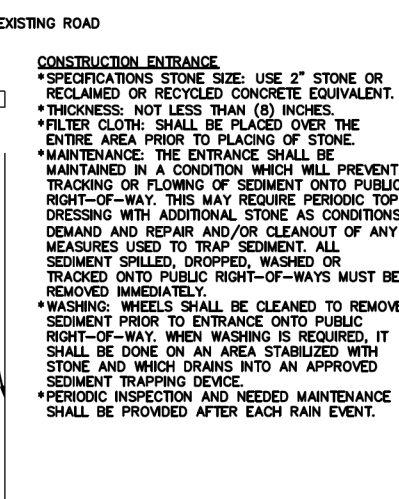
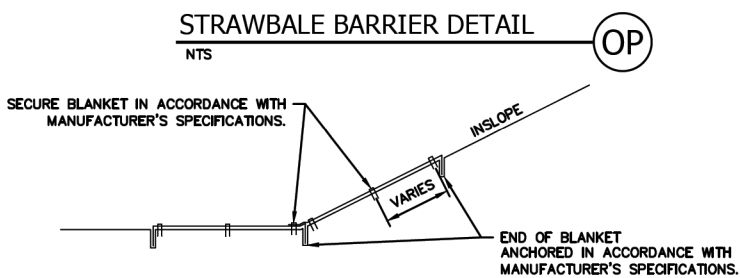
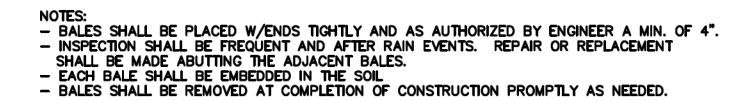
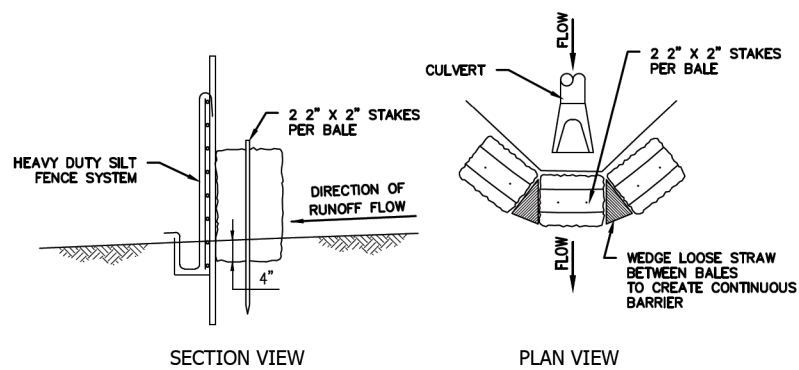


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FOR APPR	
FOR CONST	
DRAWN	CEF 01/30/20
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APP'D	RML 11/06/20

CALHAN
CIVIL
CIVIL DETAILS
11 OF 26
EL PASO COUNTY, COLORADO

SCALE	AS NOTED
PROJECT NO	03417
FILE NAME (aka) DOCUMENT NUMBER	CALH-MC-0006

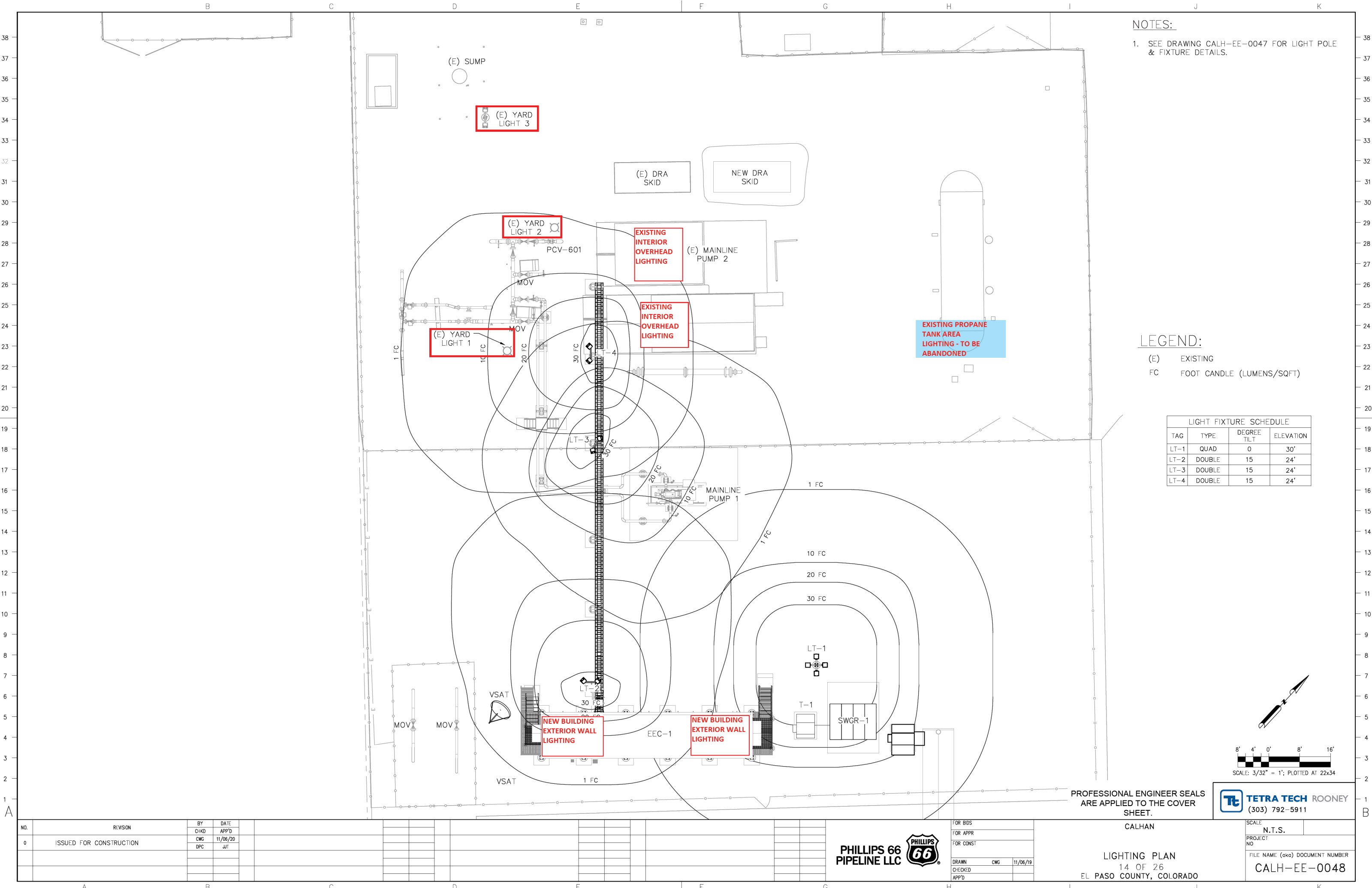
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CALHAN
CIVIL
EROSION CONTROL DETAILS
12 OF 26
EL PASO COUNTY, COLORADO

SCALE	
AS NOTED	
PROJECT NO	03417
FILE NAME (aka) DOCUMENT NUMBER	CALH-MC-0007

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY
PLOT DATE = 11/14/20
PLOTTED BY : CHASE GIFFORD
FILE NAME : C:\WORKING\REVIEWS\36215\CALH-EE-0048.DWG



NOTES:

1. SEE DRAWING CALH-EE-0047 FOR LIGHT POLE & FIXTURE DETAILS.

LEGEND:

- (E) EXISTING
FC FOOT CANDLE (LUMENS/SQFT)

LIGHT FIXTURE SCHEDULE			
TAG	TYPE	DEGREE TILT	ELEVATION
LT-1	QUAD	0	30'
LT-2	DOUBLE	15	24'
LT-3	DOUBLE	15	24'
LT-4	DOUBLE	15	24'

NO.	REVISION	BY	DATE
		CHKD	APP'D
0	ISSUED FOR CONSTRUCTION	CWG	11/06/20
		DPC	JIT



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG
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APP'D	

PROFESSIONAL ENGINEER SEALS
ARE APPLIED TO THE COVER
SHEET.

CALHAN

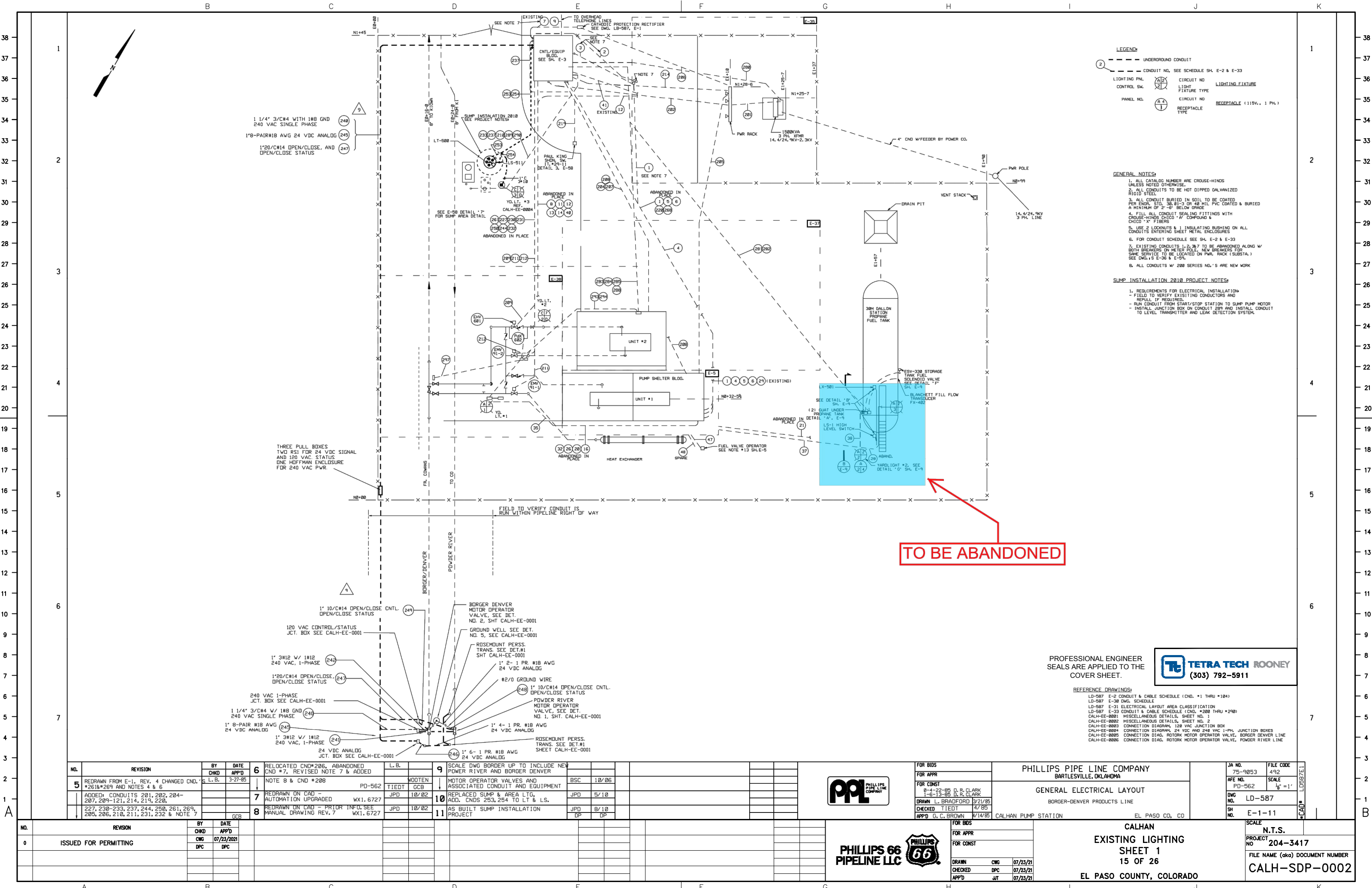
LIGHTING PLAN
14 OF 26
EL PASO COUNTY, COLORADO



N.T.S.

FILE NAME (aka) DOCUMENT NUMBER
CALH-EE-0048

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REVIEWS\36215\CALHAN PERMIT PLUNG.DWG



TO BE ABANDONED

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



REFERENCE DRAWINGS:
LD-587 E-2 CONDUIT & CABLE SCHEDULE (CND. #1 THRU #184)
LD-587 E-30 DWG. SCHEDULE
LD-587 E-31 ELECTRICAL LAYOUT AREA CLASSIFICATION
LD-587 E-32 CONDUIT & CABLE SCHEDULE (CND. #200 THRU #240)
CALH-EE-0001 MISCELLANEOUS DETAILS, SHEET NO. 1
CALH-EE-0002 MISCELLANEOUS DETAILS, SHEET NO. 2
CALH-EE-0003 CONNECTION DIAGRAM, 120 VAC JUNCTION BOX
CALH-EE-0004 CONNECTION DIAGRAM, 24 VDC AND 240 VAC 1-PH. JUNCTION BOXES
CALH-EE-0005 CONNECTION DIAG. ROTORK MOTOR OPERATOR VALVE, BORDER DENVER LINE
CALH-EE-0006 CONNECTION DIAG. ROTORK MOTOR OPERATOR VALVE, POWDER RIVER LINE

NO.	REVISION	BY	DATE	APP'D	6	RELOCATED CND#206, ABANDONED CND #7, REVISED NOTE 7 & ADDED NOTE 8 & CND #208	L.B.	9	SCALE DWG BORDER UP TO INCLUDE NEW POWER RIVER AND BORDER DENVER
5	REDRAWN FROM E-1, REV. 4 CHANGED CND. #261č AND NOTES 4 & 6	S.L.B.	3-27-85		PD-562		WOOTEN	BSC	10/06
	ADDED: CONDUITS 201, 202, 204-207, 209-121, 214, 219, 220,						JPD	JPD	5/10
	227, 230-233, 237, 244, 250, 261, 269, 285, 286, 210, 211, 231, 232 & NOTE 7						JPD	JPD	8/10
		GCB						DP	DP

NO.	REVISION	BY	DATE	APP'D	6	RELOCATED CND#206, ABANDONED CND #7, REVISED NOTE 7 & ADDED NOTE 8 & CND #208	L.B.	9	SCALE DWG BORDER UP TO INCLUDE NEW POWER RIVER AND BORDER DENVER
0	ISSUED FOR PERMITTING	CWG	07/23/2021	DPC					



PHILLIPS 66
PIPELINE LLC

FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG
CHECKED	DPC
APP'D	JT

PHILLIPS PIPE LINE COMPANY
BARTLESVILLE, OKLAHOMA

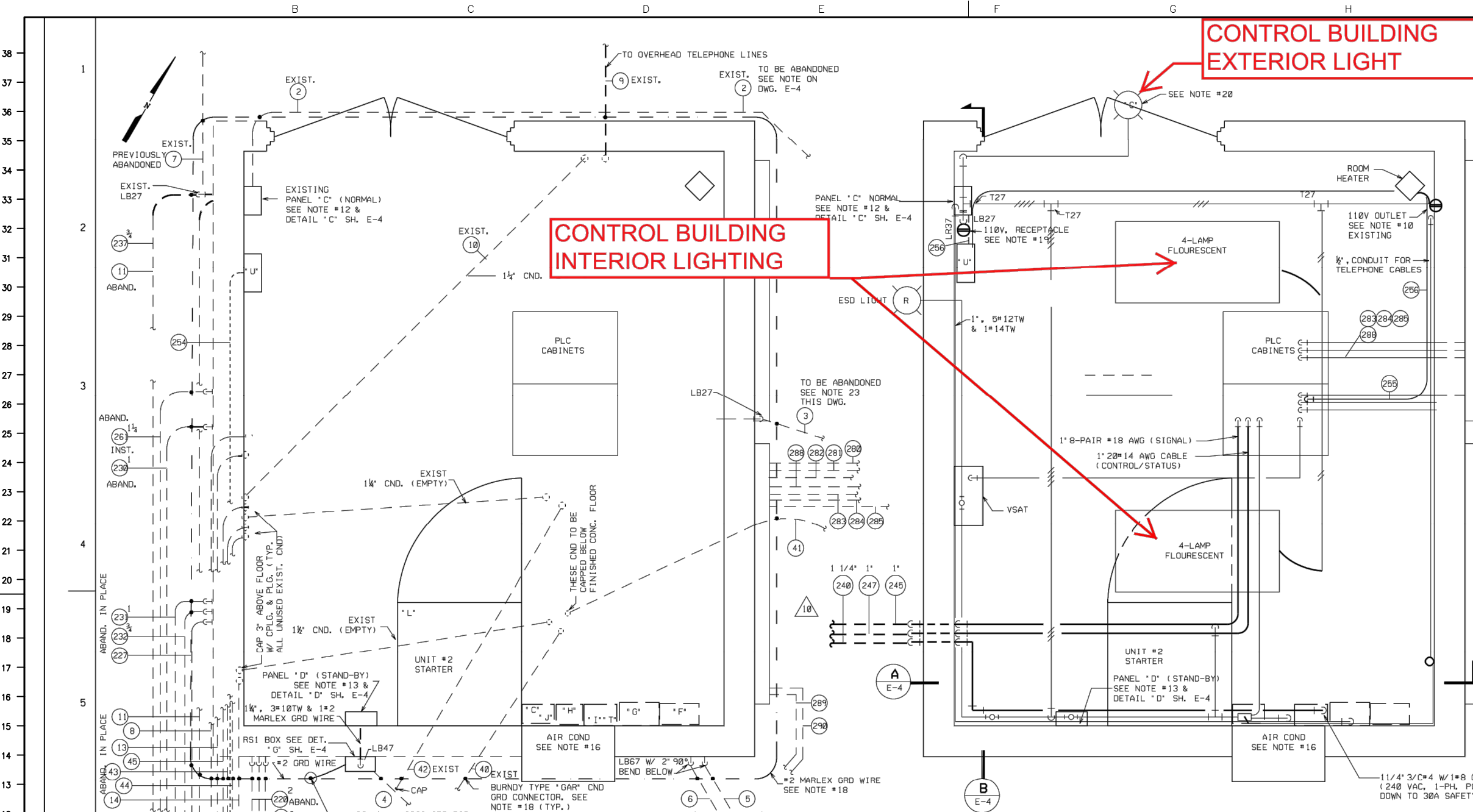
GENERAL ELECTRICAL LAYOUT
BORDER-DENVER PRODUCTS LINE

CALHAN
EXISTING LIGHTING
SHEET 1
15 OF 26
EL PASO COUNTY, COLORADO

JA NO.	75-9853	FILE CODE	492
AFE NO.	PD-562	SCALE	1/8" = 1'
DWG NO.	LD-587		
SH NO.	E-1-11		

N.T.S.
PROJECT NO. 204-3417
FILE NAME (aka) DOCUMENT NUMBER
CALH-SDP-0002

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REVIEWS\36215\CALHAN PERMIT FILINGS.DWG



CONTROL BUILDING EXTERIOR LIGHT

CONTROL BUILDING INTERIOR LIGHTING

- NOTES:**
- ALL CONDUITS TO BE HOT DIPPED GALVANIZED RIGID STEEL.
 - ALL FITTINGS TO BE CROUSE-HINDS UNLESS OTHERWISE SPECIFIED.
 - ALL EXPOSED CONDUIT RUNS TO BE FASTENED TO BLDG. WITH 1-HOLE MALLEABLE CLAMPS
 - PLUG ALL UNUSED CONDUIT OPENINGS
 - USE 2-LOCKNUTS & 1 INSULATED BUSHING ON ALL CONDUIT ENTERING SHEET METAL ENCLOSURES
 - ALL CONDUIT BURIED IN SOIL TO BE COATED PER ENGR. STD. 30,01-3 & BURIED A MINIMUM OF 2'-6" BELOW GRADE.
 - LIGHT SWITCHES ARE BRYANT CAT.#4621 TUMBLER SWITCH, SINGLE POLE, 15AMP, 115 VOLT, 1 PH. INSTALLED IN APPLETON HANDY CONDUIT BOXES CAT.#4SSL-3/4 W/2594 COVER, MOUNT 4'-6" ABOVE FLOOR.
 - CONVENIENCE OUTLETS ARE GENERAL ELECTRIC CAT.#GE2679 INSTALLED IN SP5800 BOX W/SP58R7 COVER, FIXTURE TYPE #1
 - LIGHTING PANEL 'C' IF FEDERAL CAT.#108 W/ 1-20 AMP, DOUBLE POLE BREAKER AND 4-20 AMP, BREAKERS. (FOR WIRING DIAG. SEE SH. E-18)
 - LIGHTING PANEL 'D' IS SQUARE 'D', CAT.#008S GENERAL PURPOSE SURFACE MOUNTED WITH 8*00115, 15 AMP, SINGLE POLE BREAKERS, IT.#PD-496-0-290-10 (FOR WIRING DIAG. SEE SH. E-18)
 - AIR CONDITIONER IS AMANA MODEL #212-3U, 12,500 BTU, 9.5 AMP @ 230 VOLTS, 1 PH. ITEM #PD-496-0-600-1
 - BOND ALL CONDUITS LEAVING CONTROL BUILDING W/ #2 MARLEX TR-201 GREEN INSULATION STRANDED COPPER WIRE AND BURNDY TYPE 'GAR' CND GRD CONNECTORS
 - NEW 110V. RECEPTACLES ARE BRYANT CAT.#5262 DUPLEX, 20 AMP, 125 VOLT, 1 PH., 3 WIRE W/ GRD CONTACT INSTALL IN APPLETON #4SSL-3/4 HANDY BOX APPLETON #2510 COVER, MOUNT 2'-6" ABOVE FLOOR, FIXTURE #3
 - LIGHT 'C' APPLETON SEPERABLE SERIES CAT.#G-82518 FLAT CONE REFLECTOR UNIT COMPLETE W/REFLECTOR, OUTLET BOX HOOD & SOCKET, & 200 W LAMP, MOUNT TO APPLETON #4CDD-3/4 4" OCT. BOX
 - CONDUIT #3 TO BE DISCONNECTED & CAPPED NEAR GRADE OUTSIDE EAST WALL OF CNTL/EQUIP. BLDG. OPENING IN EAST WALL TO BE SEALED W/ MORTAR OR OTHER ACCEPTABLE COMPOUND.

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



- LEGEND:**
- FOR CONTINUATION SEE LOWER LEFT
 - #2 MARLEX TR-201 GREEN INSULATION STRANDED COPPER GROUND WIRE
 - EXPOSED CND, 1/2" UNLESS OTHERWISE NOTED.
 - CONDUIT UNDER SLAB OR GROUND CONDUIT NO.
 - HASH MARKS INDICATES NO. OF #12 TW ENCLOSED

REF. DWG.'S

- E-4 ELECTRICAL DETAILS #1
- E-59 ELECT. LAYOUT - CNTL/EQUIP BLDG.
- E-60 ELECT. DETAILS #2 CNTL/EQUIP. BLDG.

FOR CONDUIT SCHEDULE & REFERENCE DRAWINGS SEE SH. E-2, E-33

NOTES: (CONTINUED)

- *C* POWER DUCT 6"x6"x5', SQUARE 'D', WITHOUT KNOCKOUTS
- *D* LIGHTING PANEL 'D' (EXISTING) SQUARE 'D' CAT.#008S GENERAL PURPOSE SURFACE MOUNTED W/8*00115, 15 AMP, SINGLE POLE BREAKERS.
- *E* CONTROL EQUIPMENT DISTRIBUTION PANEL SQUARE 'D' CAT.#0016M1005(IT.#29-20)
- *F* SUMP PUMP STARTER, WESTINGHOUSE AC COMBINATION FULL VOLTAGE STARTER, CAT.#A206JOMUA-C-R-T6 W/7MCP 1 HP, 230V, 3 PH., 3 POLE, 3.1FLA, 120C CONTROL XFMR, AMBIENT TEMP. COMP. O.L. RELAY BLOCK TYPE A W/EXTERNAL RESET P.B., NEMA 12 (IT#27-01)
- *G* 5HP HYDRAULIC VALVE PUMP STARTER, WESTINGHOUSE AC COMBINATION FULL VOLT STARTER, CAT.#A206JIMDA-C-R-T6, 5HP, 230V, 3 PH., 3 POLE, 15.2FLA, 22,000 INTERRUPTING RATING @ 230V W. 120V CONTROL, EXTERNAL RESET & CONTROL XFMR, NEMA 12, AMBIENT COMPENSATED BLOCK, TYPE A O.L. RELAY'S W/EXTERNAL RESET PUSHBUTTONS (IT.#27-02)
- *H* CIRCUIT BRKR THERMAL MAGNETIC, SQUARE 'D' CAT.#FAL34020, 480V, 3 PH., 3 POLE, 100A FRAME/20A TRIP, MOUNTED IN NEMA 12 ENCL. CAT.#FA100AWK (IT.#29-10)
- *J* SAME AS *H* ABOVE (IT.#29-13)
- *L* 600HP, 2300V, NEMA 1, FULL VOLTAGE NON-REVERSING INDUCTION MOTOR STARTER W/360A AIR BREAK MAGNETIC CONTACTOR, SIEMENS-ALLIS SERIER 813534092A3L, 5KV, OVERLOADS TYPE S-A-RQ21, 2 KYA CONTROL XFMR (IT.#27-2)
- *T* CIRCUIT BRKR, SQUARE 'D' THERMAL MAGNETIC, CAT.#FAL34070, 400V, 3 PH., 3 POLE, 100A FRAME/ 70A TRIP, 18,000A INTERRUPTING RATING @ 240V, MOUNTED IN NEMA 12 ENCLOSURE, CAT.#FA100AWK WITHOUT KNOCKOUTS (IT.#29-19)

U PNEUMECATOR MODEL LC2000 LEAK SENSOR MONITORING SYSTEM FOR SUMP ANNULAR SPACE. REF. CALH-IN-0001 FOR WIRING DIAGRAM.

NO.	REVISION	BY	CHKD	DATE	APP'D
1	ADDED LIGHT 'C' & NOTE #20	J.A.B.	SJM	4/63	
2	REVISED HEATER DESCRIPTION	MUNN	HW	5/63	
3	CHANGED # OF WIRES IN CND #6	POTTS	HW	6/63	

4	REMOVED TEMP 1 1/2" CND & TEL HORN ADDED BAT. CHARGER PD-496	JAB	SJM	9/63	
5	REVISED PER RESURVEY	JAB	SJM	11/64	
6	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
7	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
8	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
9	REVISED PER FIELD WALK-DOWN	JAB	SJM	11/64	
10	ADDED CND 240, 245 AND 247	JAB	SJM	11/64	

11	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
12	AS-BUILT SUMP INSTALLATION PROJECT	JPD	8/10	

13	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
14	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
15	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
16	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
17	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
18	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
19	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
20	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
21	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
22	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
23	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
24	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
25	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
26	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
27	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
28	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
29	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
30	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
31	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
32	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
33	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
34	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
35	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
36	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
37	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
38	ADDED ITEM 'U', CND 254, 255	JPD	5/10	



PHILLIPS PIPE LINE COMPANY
BARTLESVILLE, OKLAHOMA
PROPOSED
ELECTRICAL LAYOUT CNTL/EQUIP BLDG.
CALHAN PUMP STATION
BORGER-DENVER PIPELINE
EL PASO CO, COLORADO

JA NO.	PD-496	FILE CODE	LD-587
AFD NO.		SCALE	3/4" = 1'
DWG NO.	LD-587		
SH NO.	E-3-12		

NO.	REVISION	BY	CHKD	DATE	APP'D
0	ISSUED FOR PERMITTING	CWG	DPC	07/23/2021	DPC

1	ADDED LIGHT 'C' & NOTE #20	J.A.B.	SJM	4/63	
2	REVISED HEATER DESCRIPTION	MUNN	HW	5/63	
3	CHANGED # OF WIRES IN CND #6	POTTS	HW	6/63	

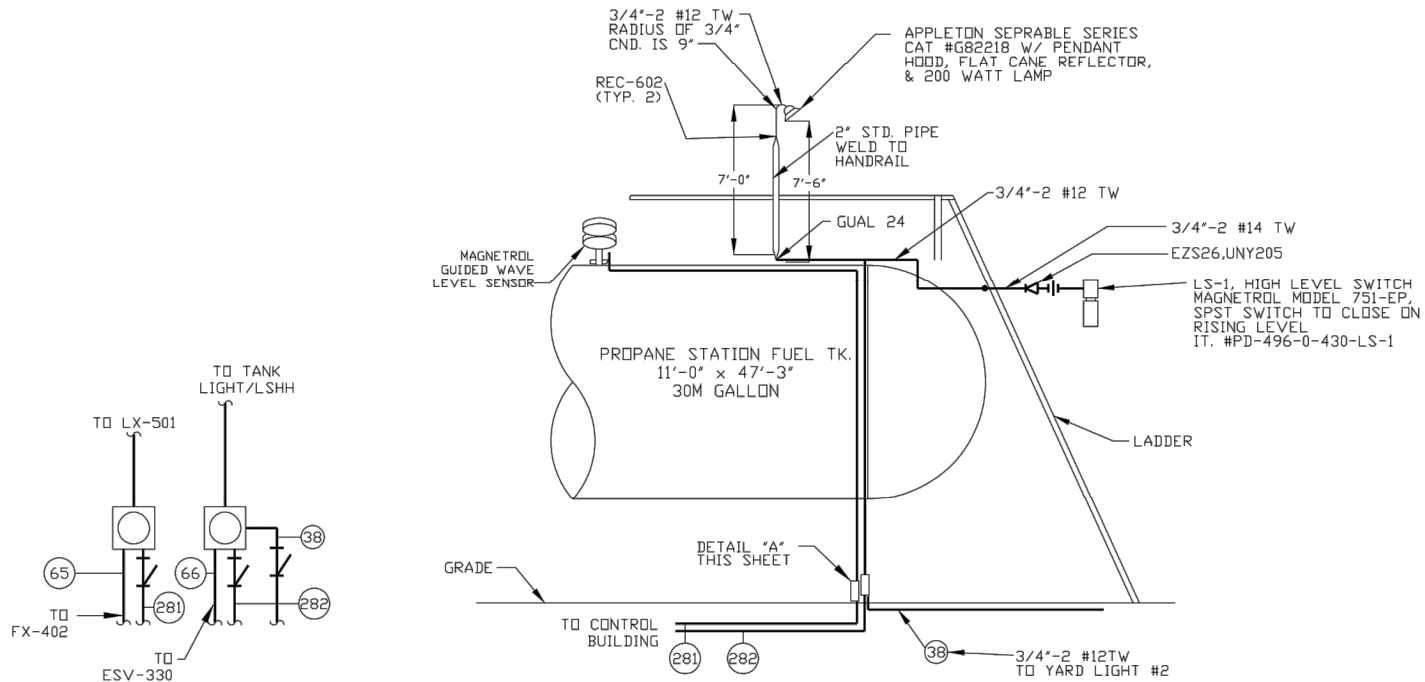
4	REMOVED TEMP 1 1/2" CND & TEL HORN ADDED BAT. CHARGER PD-496	JAB	SJM	9/63	
5	REVISED PER RESURVEY	JAB	SJM	11/64	
6	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
7	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
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14	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
15	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
16	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
17	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
18	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
19	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
20	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
21	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
22	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
23	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
24	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
25	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
26	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
27	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
28	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
29	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
30	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
31	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
32	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
33	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
34	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
35	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
36	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
37	ADDED ITEM 'U', CND 254, 255	JPD	5/10	
38	ADDED ITEM 'U', CND 254, 255	JPD	5/10	

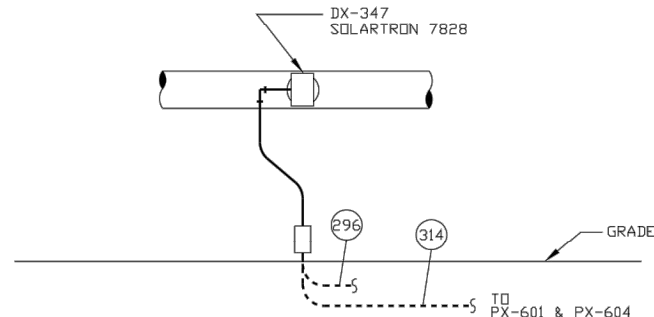
SCALE
N.T.S.
PROJECT NO. 204-3417
FILE NAME (aka) DOCUMENT NUMBER
CALH-SDP-0003

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PLOT DATE = 7/29/21
PLOT BY : CHASE GIFFORD
FILE NAME : C:\WORKING\REVIEWS\36215\CALHAN PERMIT PLUMB.DWG

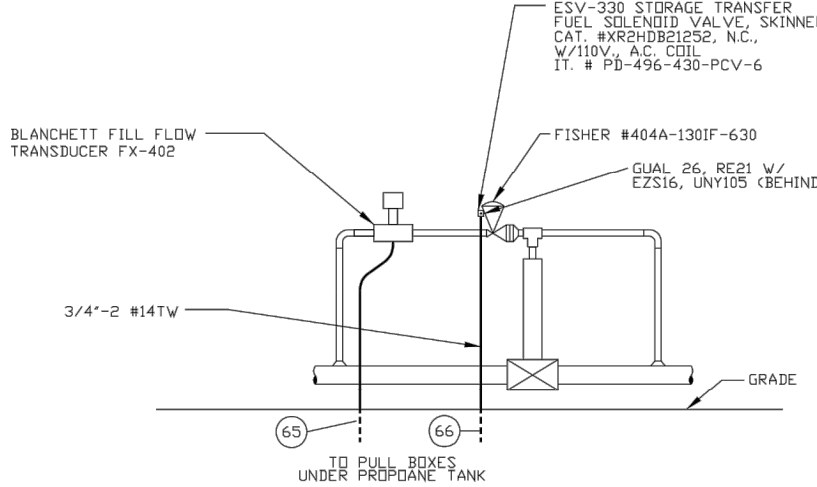


DETAIL "A"
NORTH ELEVATION
PULL-BOXES UNDER PROPANE TANK

DETAIL "B"
STATION PROPANE FUEL TANK
SEE SHEET E-1
NO SCALE

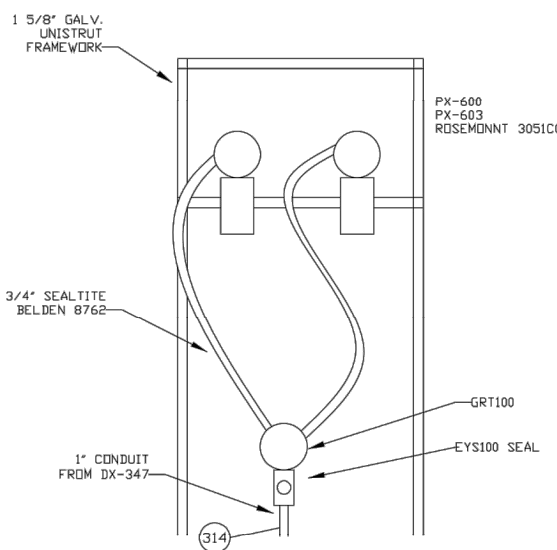


DETAIL "E"
SOLARTRON DENSITY TRANSMITTER
SEE SHEET E-38
NO SCALE

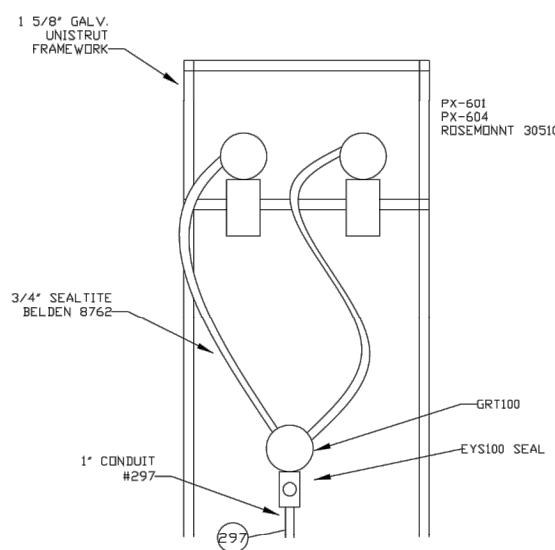


DETAIL "F"
E.M.V.-1 STORAGE TRANSFER FUEL SOLENOID VALVE
SEE SHEET E-1
NO SCALE

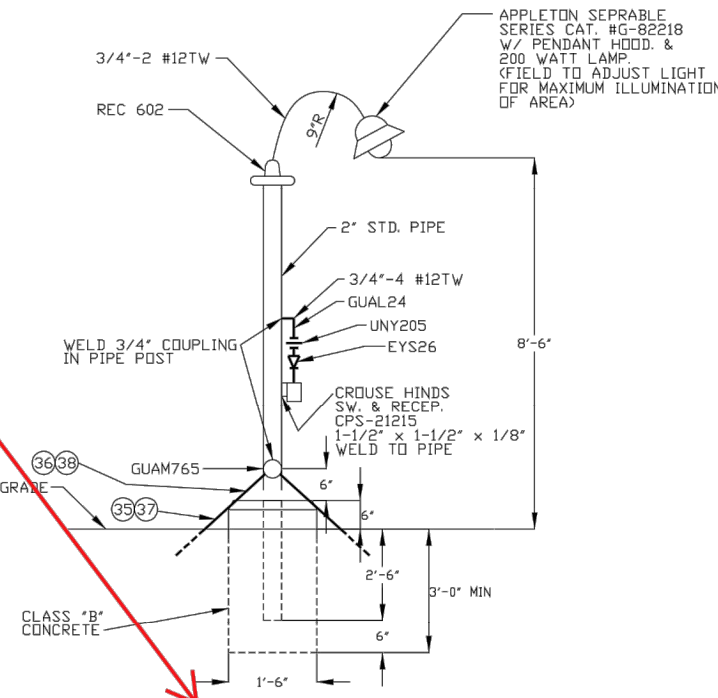
LIGHTING AT PROPANE TANK TO BE ABANDONED



DETAIL "C"
SUCTION LINE PRESSURE TRANSMITTER
SEE SHEET E-38
NO SCALE



DETAIL "D"
HIGH DISCHARGE PRESSURE TRANSMITTER
SEE SHEET E-38
NO SCALE



DETAIL "G"
YARDLIGHT MOUNTING
SEE SHEET E-1
NO SCALE
(TYPICAL FOR TWO)



PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.

FOR CONDUIT SCHEDULE & REF DWGS SEE E-2, E-33



NO.	REVISION	BY	DATE
1	Redrawn	MD	10/20/01

FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	OP KENT 1/85
CHECKED	TIEDT 4/85
APP'D	D. GC. BROWN 4/85

PHILLIPS PIPE LINE COMPANY BARTLESVILLE, OKLAHOMA
ELECTRICAL DETAILS
PUMP AREA BORGER - DENVER PRODUCT LINE CALHAN PUMP STATION EL PASO CO., CO.

JA. NO.	75-9053	FILE CODE	492
AFT. NO.	PD-562	SCALE	NONE
DWG. NO.	LD-587		
SH. NO.	E-9-4		

NO.	REVISION	BY	DATE
0	ISSUED FOR PERMITTING	DPC	07/23/2021

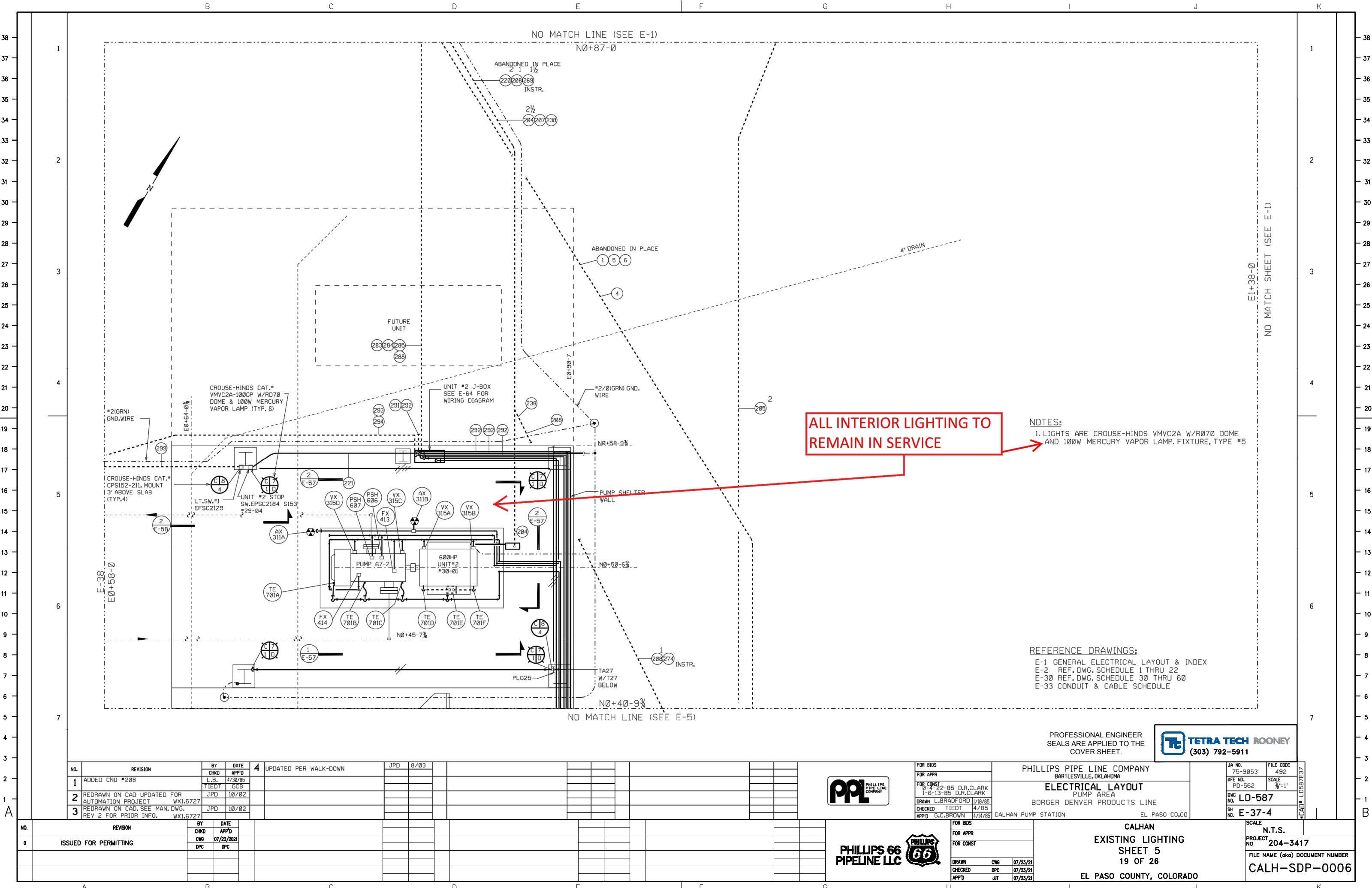
FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG 07/23/21
CHECKED	DPC 07/23/21
APP'D	JT 07/23/21

CALHAN EXISTING LIGHTING SHEET 4 18 OF 26 EL PASO COUNTY, COLORADO
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N.T.S.
PROJECT NO. 204-3417
FILE NAME (aka) DOCUMENT NUMBER CALH-SDP-0005



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ALL INTERIOR LIGHTING TO REMAIN IN SERVICE

NOTES:
1. LIGHTS ARE CROUSE-HINDS VMVC2A W/RØ7Ø DOME AND 1ØØW MERCURY VAPOR LAMP. FIXTURE, TYPE #5

REFERENCE DRAWINGS:
E-1 GENERAL ELECTRICAL LAYOUT & INDEX
E-2 REF. DWG. SCHEDULE 1 THRU 22
E-3Ø REF. DWG. SCHEDULE 3Ø THRU 6Ø
E-33 CONDUIT & CABLE SCHEDULE

NO.	REVISION	BY	CHKD	DATE	APP'D
1	ADDED CND #2Ø8	L.B.	TIEDT	4/30/Ø5	GCB
2	REDRAWN ON CAD UPDATED FOR AUTOMATION PROJECT	JPD		1Ø/Ø2	
3	REDRAWN ON CAD, SEE MAN. DWG. REV 2 FOR PRIOR INFO.	JPD		1Ø/Ø2	

NO.	REVISION	BY	CHKD	DATE	APP'D
Ø	ISSUED FOR PERMITTING	DPC		Ø7/23/2Ø21	DPC



FOR BIDS	
FOR APPR	
FOR CONST	
FOR APPR	
FOR CONST	

PHILLIPS PIPE LINE COMPANY
BARTLESVILLE, OKLAHOMA
ELECTRICAL LAYOUT
PUMP AREA
BORGER DENVER PRODUCTS LINE
CALHAN PUMP STATION
EL PASO CO, CO



JA NO.	75-9Ø53	FILE CODE	492
AFE NO.	PD-562	SCALE	¾"=1'
DWG NO.	LD-587		
SH NO.	E-37-4		



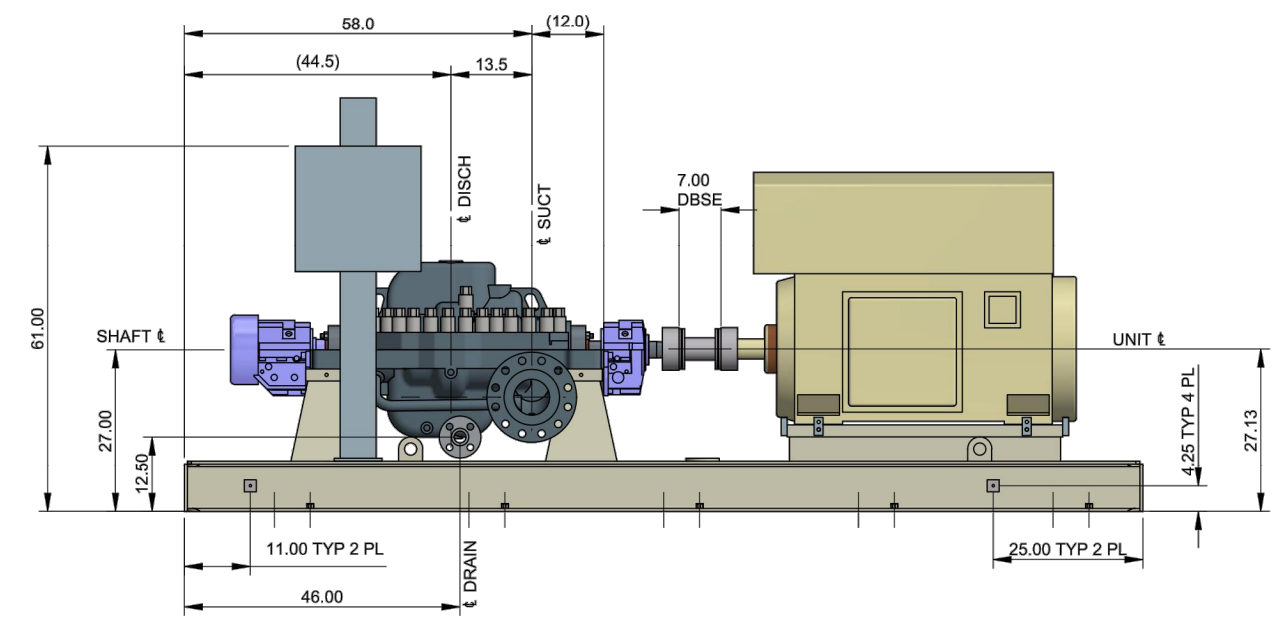
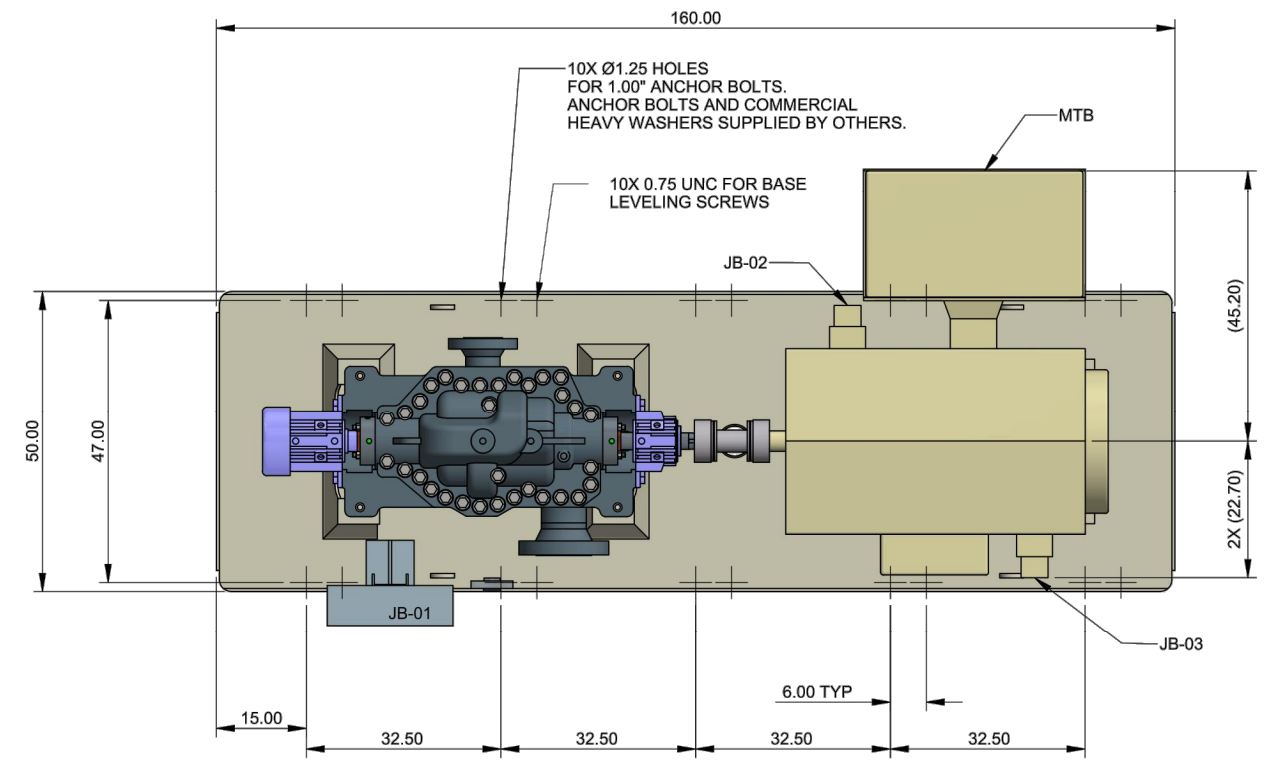
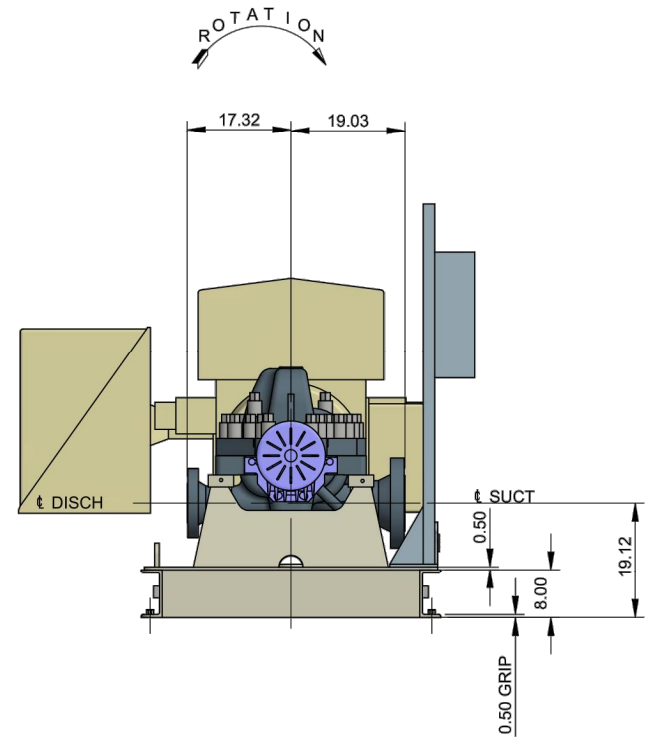
FOR BIDS	
FOR APPR	
FOR CONST	
FOR APPR	
FOR CONST	

CALHAN
EXISTING LIGHTING
SHEET 5
19 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO.	2Ø4-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-ØØØ6

SCALE	
N.T.S.	
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CAI H-SDP-0007

FOR REFERENCE ONLY -- OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REV\MS36215\CALHAN PERMIT FLING.DWG



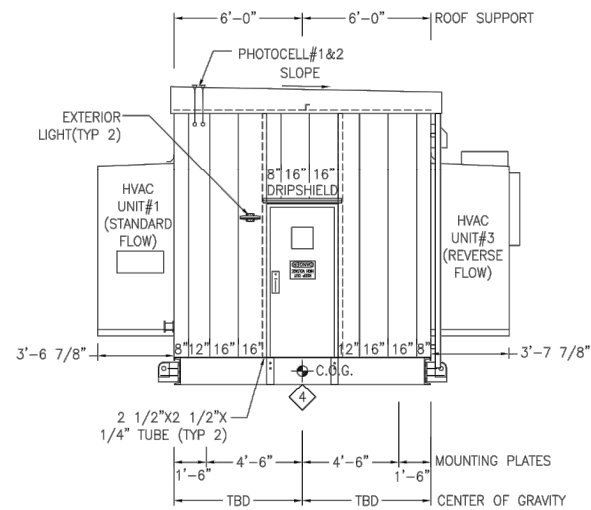
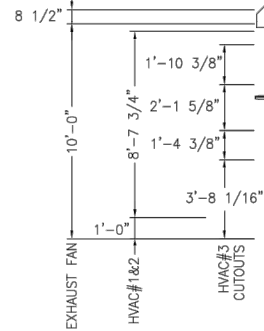
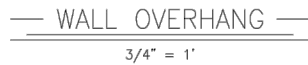
CONTRACT DATA			
PURCHASER: PHILLIPS P66			
USER: PHILLIPS P66			
JOB/PROJECT: CALHAN UPGRADE			
CUST. P.O. NO.: 4527838566			
SERVICE: MAINLINE PUMP			
INSTALLED AT: CALHAN STATION			
PUMP OEM: SULZER PUMPS (US) INC.			
SULZER ORDER NO.: 100374123			
IDENTIFICATION NUMBERS			
SULZER SERIAL NO.	CUSTOMER TAG NO'S		
	PUMP	DRIVER	
10032908	P-001	M-001	
-	-	-	
-	-	-	

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.

TETRA TECH ROONEY
(303) 792-5911

COMPONENT INFORMATION	DESIGN GROUP	SULZER PUMPS (US) INC.	CAD - DRAWING	ORIGINAL SCALE
REPLACED BY	SUBSTITUTE FOR		ORIGINAL SCALE	
IR 4X11 DA	FOUNDATION & NOZZLE LOCATIONS		DRAWN: 30-JULY-2020 D. PATTERSON	
100374123	GENERAL ARRANGEMENT		CHECKED: 30-JULY-2020 D. PATTERSON	
APPROVED: 30-JULY-2020 D. PATTERSON		PART No.		2 / 2

SULZER	E	PGA1003987410010-01
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Tt TETRA TECH ROONEY
(303) 792-5911



PROTECT CONTROLS, INC.
3212 Old Highway 105 East Conroe, Texas 77301-6458
www.protectcontrols.com Tel.: 713.691.5183

CUSTOMER:	PHILLIPS 66/ROONEY ENGINEERING	S.O. NO.:	30850
TITLE: P66 CALHAN ELECTRICAL EQUIPMENT CENTER RFQ RECOVERY PROJECT - RZSS6 LER ELEVATIONS			

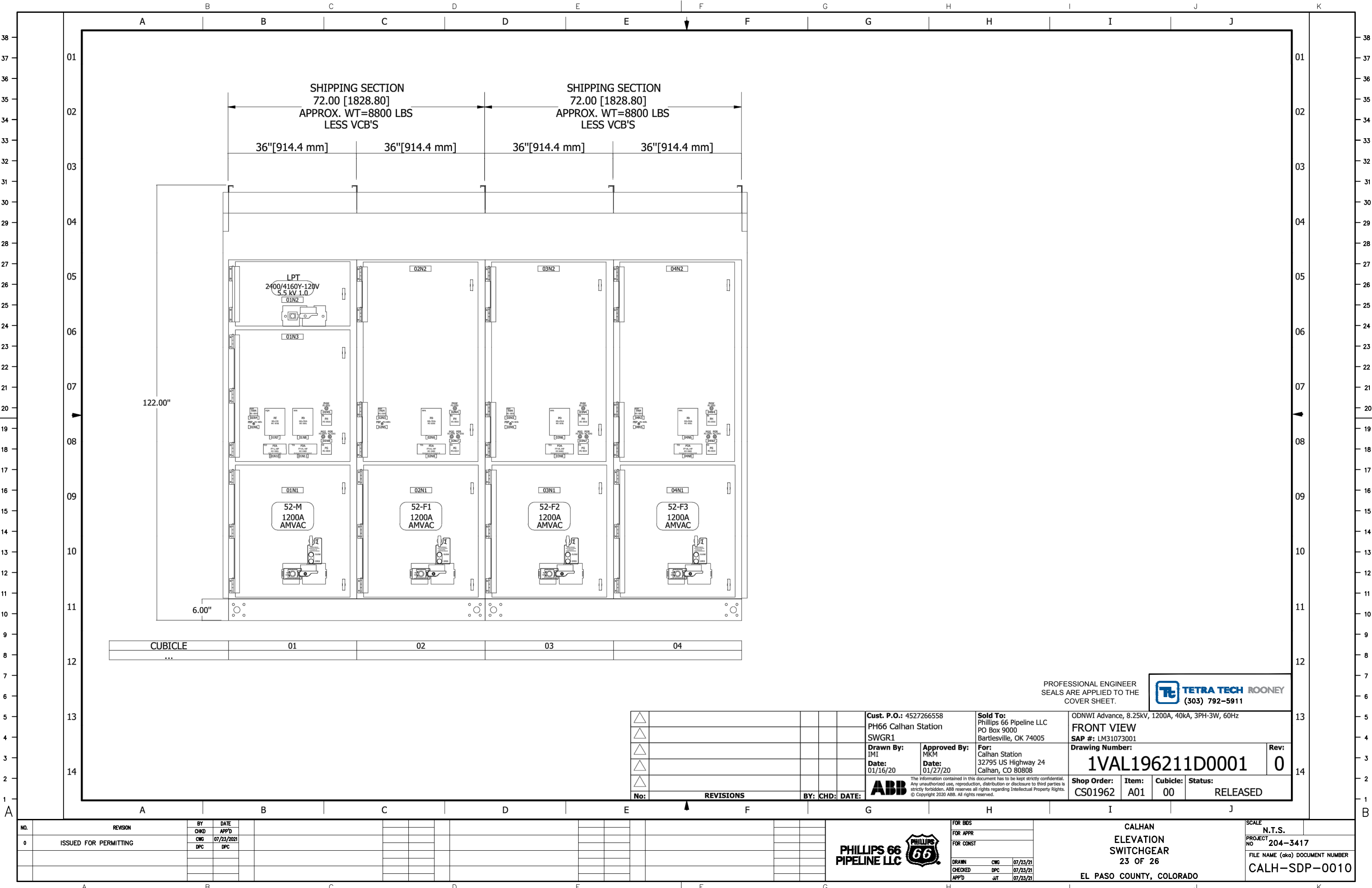
DRAWN:	DATE:	DRAWING NUMBER:
JAC	1/24/20	
APPROVED:	SCALE:	30850-500
CS	3/16" = 1'-0"	

30850-500

PHILLIPS 66
PIPELINE LLC

SCALE	
N.T.S.	
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0009

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REV\MS36215\CALHAN PERMIT PLUNG.DWG



FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REV\NMS36215\CALHAN PERMIT PLUNG.DWG

JC16020 3PH 2500.0kVA HV=24940 LV=2400Y/1385 ASA 61 LIGHT GRAY 2 COAT URETHANE MINERAL OIL Order PHTA1082 - 1

DOWNLOAD INSTRUCTION BOOKS AT WWW.ABB.COM/TRANSFORMERS
DESCARGAR LIBRO DE INSTRUCCIONES EN WWW.ABB.COM/TRANSFORMERS

THIS OUTLINE IS FOR ERECTION OR MOUNTING PURPOSES. IT IS NOT TO SCALE AND SHOULD NOT BE REGARDED AS INDICATING THE EXACT DETAILS OF CONSTRUCTION.

- 01 TANK
- 02 CABINET BOLTED-ON, REMOVABLE SILLS, OPEN BOTTOM 1.25 INCH FLANGE, HINGED LIFT-OFF DOOR, PROVISION FOR PADLOCK, STOP IN OPEN POSITION.
- 03 WEATHER COVER, REMOVABLE OR HINGED
- 04 TANK TO BASE GROUND STRAP AND PROVISIONS FOR TANK TO CABINET GROUND LIFTING HOOKS, 4 TOTAL
- 05 SHIPPING BRACKETS
- 06 1 INCH FILL PLUG
- 07 1 INCH DRAIN PLUG WITH SCHRADER VALVE
- 08 HANDHOLE, 9.5 INCH X 17.5 INCH, BOLTED-ON COVER
- 09 NAMEPLATE MOUNTED ON TANK WALL
- 10 GROUND PAD .50-13-TAP, HV AND
- 11 LV COMPARTMENT
- 12 PRESSURE RELIEF DEVICE
- 13 LV NEUTRAL GROUND PAD .50-13-TAP WITH GROUND STRAP
- 14 HV/LV BARRIER (STEEL)
- 15 LEFT SIDE COOLER
- 16 REAR COOLER
- 21 LIVE FRONT HIGH VOLTAGE BUSHING, 2 HOLE ANSI SPADES
- 25 TAP CHANGER
- 35 LOW VOLTAGE BUSHING, ANSI SPADES, WITH 6 HOLES.
- 55 ARRESTER GROUND PADS
- 60 PRESSURE VACUUM GAUGE
- 65 OIL LEVEL GAUGE
- 66 THERMOMETER
- 68 DRAIN VALVE WITH SAMPLER
- 70 PARKING STAND
- 76 PADLOCKABLE EXTERNAL DRAIN VALVE BOX
- 77 PADLOCKABLE GAUGE BOX
- 78 GROUND BAR

- ** ANSI 61 GRAY PAINT (MUNSELL 8.3G 6.1/D.54)
- ** UL APPROVED
- ** 18KV MCOV 15.30 LIVE FRONT ARRSTER

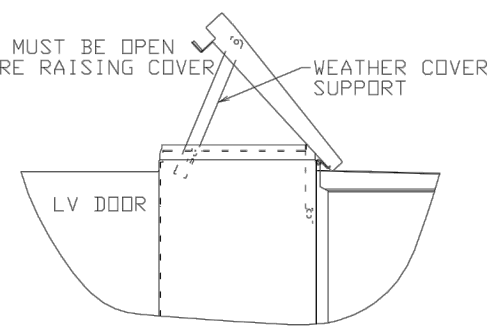
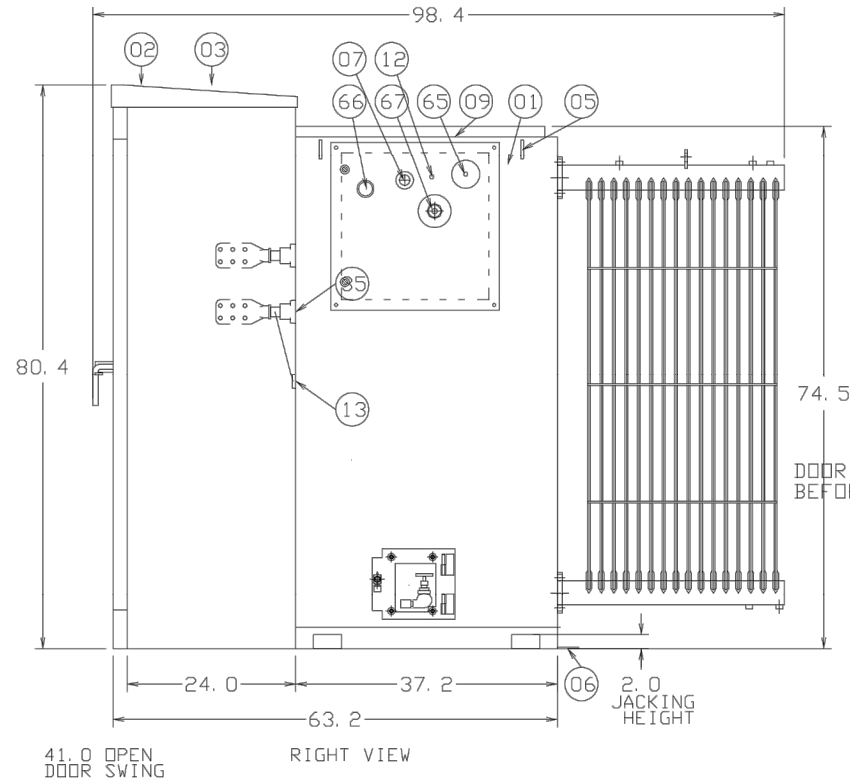
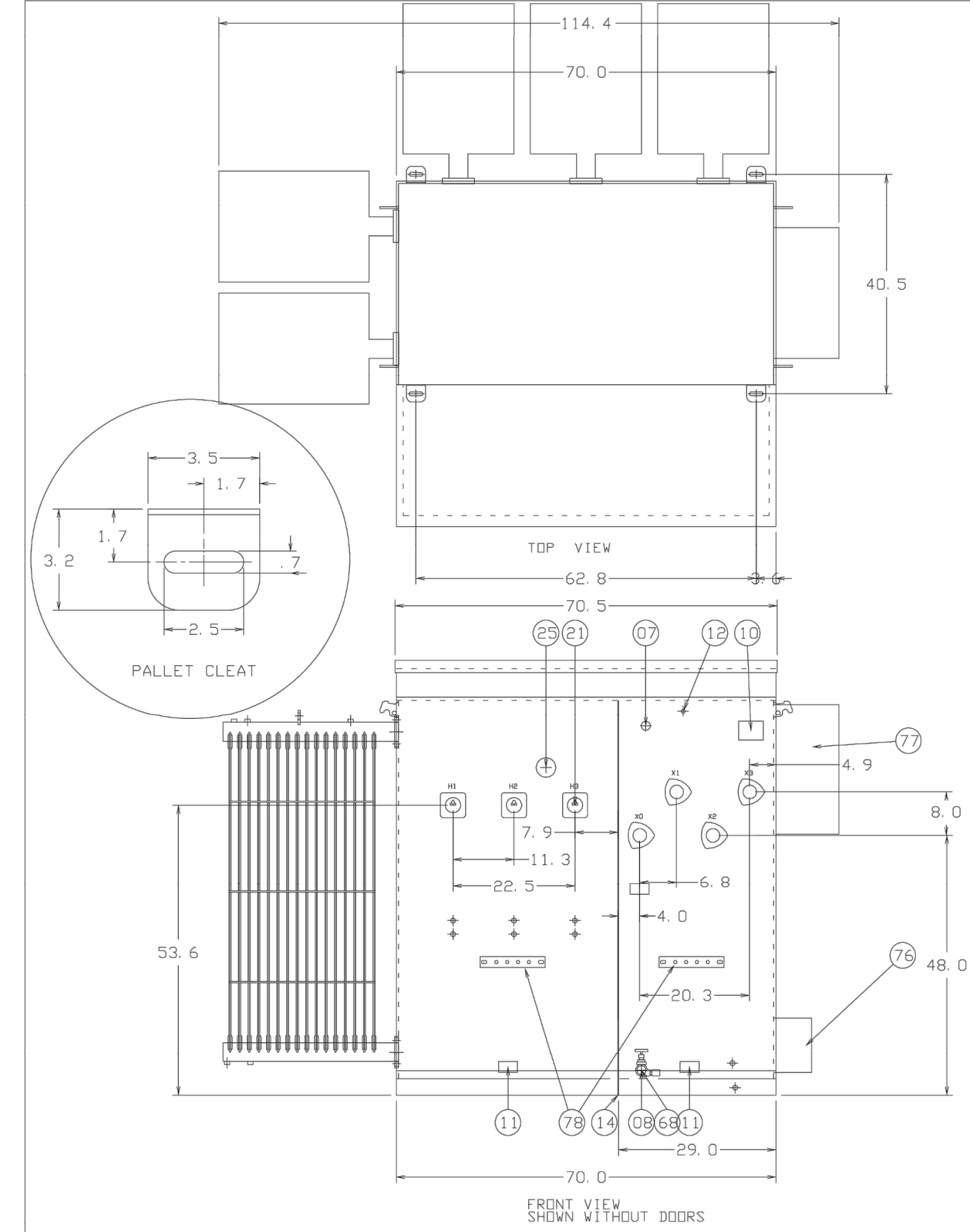


ABB INC.				REV NO
TITLE 0L3PPADMNT DEF XXXIFIN XXU/M XXNOTE XX				01
DES 3PH OUTLINE				USER PLDAKO
DIMENSIONS IN INCHES-SCALE 1				CADAM 0190402N1NNNCNY201,1
D, Kobierec 091520 APPD XXXXX MMDDYY				J801CNY2
D SPEC XXXXXX APPD				
ENG. REF XXXXXX LAYOUT MODEL ID				
ENGINEERING DEPT. JEFFERSON CITY, MO. USA				



PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



H. V. 24940
KVA 2500
L. V. 2400Y/1385

NO.	REVISION	BY	DATE
0	ISSUED FOR PERMITTING	CHKD CNG DPC	APP'D 07/23/2021 DPC



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CNG 07/23/21
CHECKED	DPC 07/23/21
APP'D	JT 07/23/21

CALHAN
ELEVATION
MV TRANSFORMER
24 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0011

[illegible]

LAND SURVEY PLAT

Of a parcel of land, Situate in the Northeast Quarter of Section 21,
Township 11 South, Range 61 West of the 6th P.M., County of El Paso, State of Colorado

PROPERTY DESCRIPTION

Being that parcel of property described in Book 1460 at Page 123 as recorded as Reception No. 939430 of the Records of El Paso County, located in the Northeast Quarter (NE 1/4) of Section Twenty-One (21), Township Eleven South (T.11S.), Range Sixty-One West (R.61W.) of the Sixth Principal Meridian (6th P.M.), County of El Paso, State of Colorado and being more particularly described as follows:

Commencing at the Northeast corner of said Section 21 and assuming the East line of said Northeast Quarter as bearing S 00° 39' 22" W, being a Grid Bearing of the Colorado State Plane Coordinate System, Central Zone, North American Datum 1983/2011, a distance of 2,594.94 feet with all other bearings contained herein relative thereto;

THENCE S 48° 58' 18" W a distance of 2,102.60 feet to the intersection of Phillips Petroleum Company's 6" Borer to Denver Products Pipeline with the Southerly right-of-way line of U.S. Highway 24 and the POINT OF BEGINNING;

THENCE S 36° 22' 24" W along the said Southerly right-of-way line of U.S. Highway 24 a distance of 20.38 feet to a line parallel with and twenty feet Southwesterly of, as measured at a right angle to the said Phillips Petroleum Company's 6" Borer to Denver Products Pipe Line;

THENCE along said parallel line S 42° 32' 26" E a distance of 1,039.60 feet;

THENCE N 47° 43' 30" E parallel with the centerline of said U.S. Highway 24, a distance of 209.00 feet to a line parallel with and 189.00 feet Northeast of, as measured at a right angle to the said Phillips Petroleum Company's 6" Borer to Denver Products Pipe Line;

THENCE along said parallel line N 42° 32' 26" W a distance of 1,051.89 feet to a point on the Southerly right-of-way of said U.S. Highway 24;

THENCE along said Southerly right-of-way of said U.S. Highway 24, S 47° 43' 30" W parallel with the centerline of said U.S. Highway 24 a distance of 147.60 feet to a point where the right-of-way increases in width;

THENCE along said Southerly right-of-way of said U.S. Highway 24, S 36° 22' 24" W a distance of 42.19 feet to the POINT OF BEGINNING.

Said described parcel of land contains 219,466 Square Feet or 5.038 Acres, more or less (±), and is subject to any rights-of-way or other easements of record or as now existing on said described parcel of land.

BASIS OF BEARINGS AND LINEAL UNIT DEFINITION

Assuming the East line of the Northeast Quarter of Section 21, T.11S., R.61W., as bearing South 00°39'22" West being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2,594.94 feet with all other bearings contained herein relative thereto.

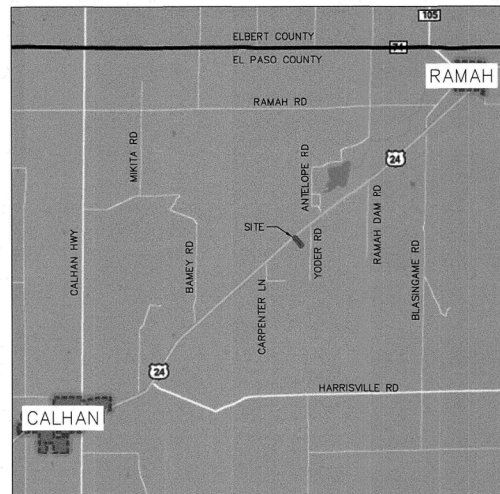
The linear dimensions as contained herein are based upon the "U.S. Survey Foot."

SURVEYOR'S STATEMENT

I, David B. Dusdal, a Colorado Registered Professional Land Surveyor, do hereby state that this Land Survey Plat was prepared from an actual survey under my personal supervision, that the monumentation as indicated hereon was found or set as shown, and that the foregoing plat is an accurate representation thereof, all this to the best of my knowledge, information and belief.



David B. Dusdal - On Behalf Of King Surveyors
Colorado Registered Professional
Land Surveyor #228650



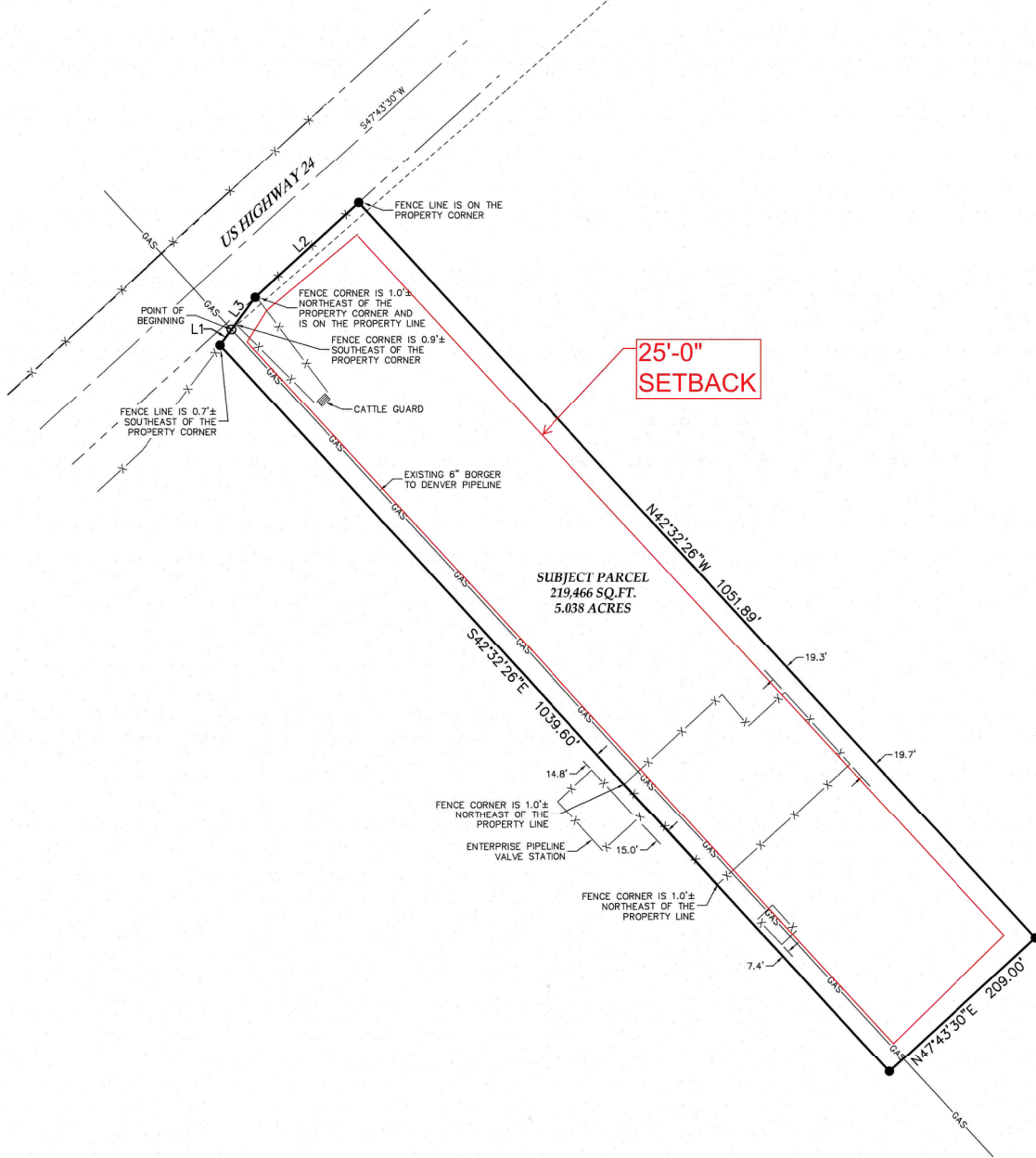
VICINITY MAP
(NOT TO SCALE)

NOTICE

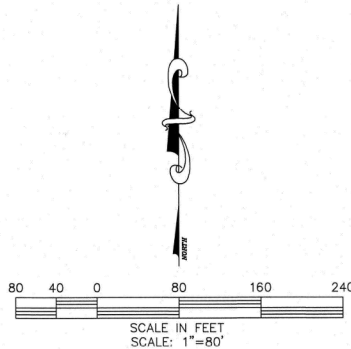
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-80-106 C.R.S. 2012)

TITLE COMMITMENT NOTE

At the request of our client, recorded rights-of-way and easements were not researched and recorded and apparent rights-of-way and easements are not shown hereon. (38-51-106 C.R.S. 1994)



NORTHEAST CORNER
SECTION 21, T.11S., R.61W.
FOUND 3 1/4" ALUMINUM CAP
ON #6 REBAR, PARTIALLY ILLEGIBLE



LEGEND

---	CENTERLINE
---	SECTION LINE
---	RIGHT OF WAY LINE
---	BOUNDARY LINE
■	FOUND ALIQUOT CORNER AS DESCRIBED
●	SET 24" OF #4 REBAR WITH A YELLOW PLASTIC CAP STAMPED KS, LS 28650
○	CALCULATED POSITION

LINE TABLE		
LINE	BEARING	LENGTH
L1	S36°22'24"W	20.38'
L2	S47°43'30"W	147.60'
L3	S36°22'24"W	42.19'

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



CALHAN
LAND SURVEY PLAT
26 OF 26
EL PASO COUNTY, COLORADO

DATE: 11/22/2019
FILE NAME: 20190737LSP
SCALE: 1"=80'
DRAWN BY: CSK
CHECKED BY: DBD

KING SURVEYORS
650 E. Garden Drive | Windsor, Colorado 80550
phone: (970) 686-5011 | email: contact@KingSurveyors.com



DATE: _____
REVISIONS: _____

LAND SURVEY PLAT
FOR
PHILLIPS 66 COMPANY
32795 US Highway 24
Calhan, CO 80808

PROJECT #
20190737

1

SHEET 1 OF 1

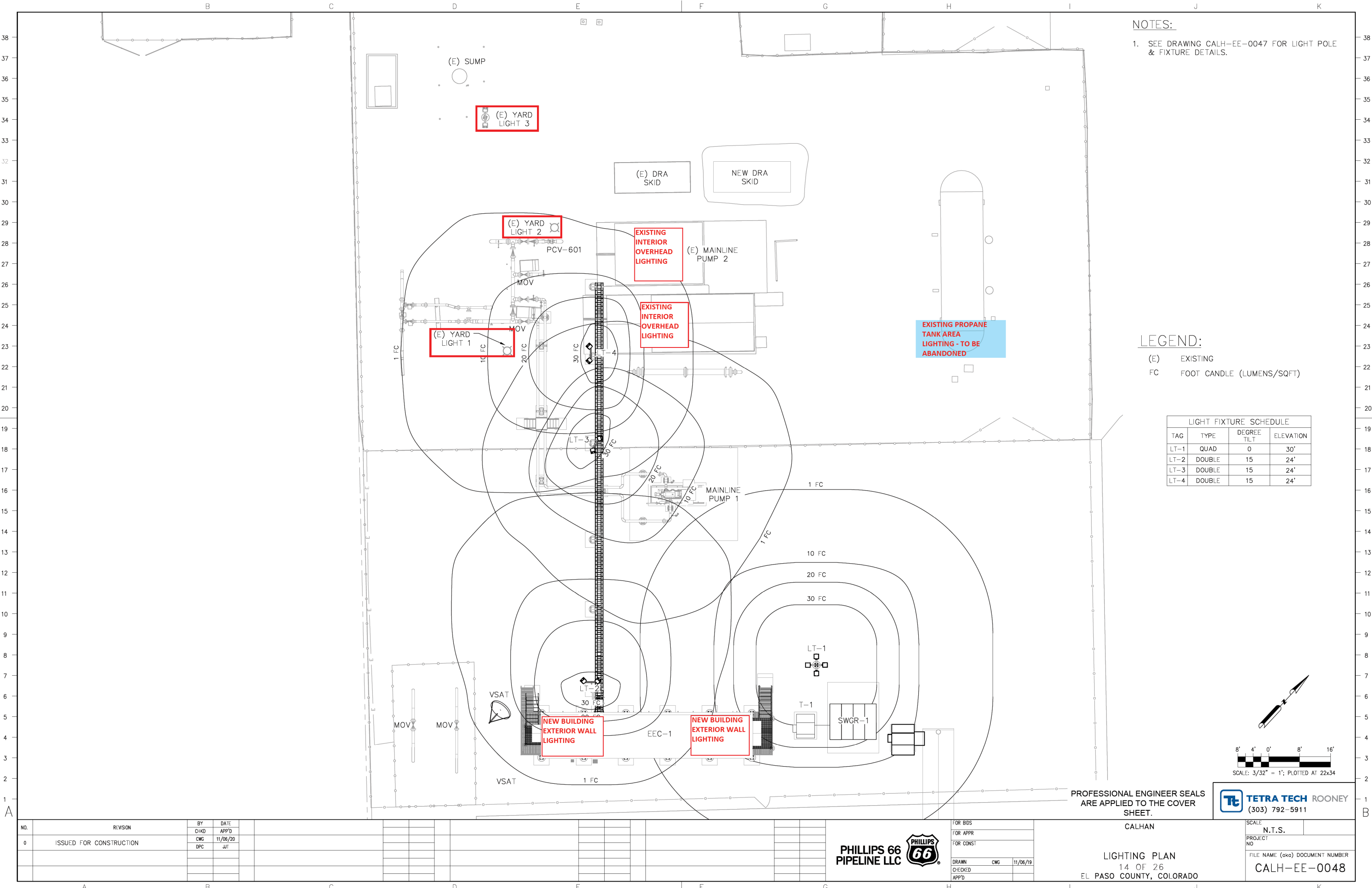
N.T.S.
PROJECT NO 204-3417

FILE NAME (aka) DOCUMENT NUMBER
CALH-SDP-0013

PHILLIPS 66
PIPELINE LLC

FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG 07/23/21
CHECKED	DPC 07/23/21
APPD	JT 07/23/21

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY
PLOT DATE = 11/14/20
PLOTTED BY : CHASE GIFFORD
FILE NAME : C:\WORKING\REVIEWS\36215\CALH-EE-0048.DWG



NOTES:
1. SEE DRAWING CALH-EE-0047 FOR LIGHT POLE & FIXTURE DETAILS.

LEGEND:
(E) EXISTING
FC FOOT CANDLE (LUMENS/SQFT)

LIGHT FIXTURE SCHEDULE			
TAG	TYPE	DEGREE TILT	ELEVATION
LT-1	QUAD	0	30'
LT-2	DOUBLE	15	24'
LT-3	DOUBLE	15	24'
LT-4	DOUBLE	15	24'

NO.	REVISION	BY	DATE
		CHKD	APP'D
0	ISSUED FOR CONSTRUCTION	CWG	11/06/20
		DPC	JIT



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG
CHECKED	11/06/19
APP'D	

PROFESSIONAL ENGINEER SEALS
ARE APPLIED TO THE COVER
SHEET.

CALHAN

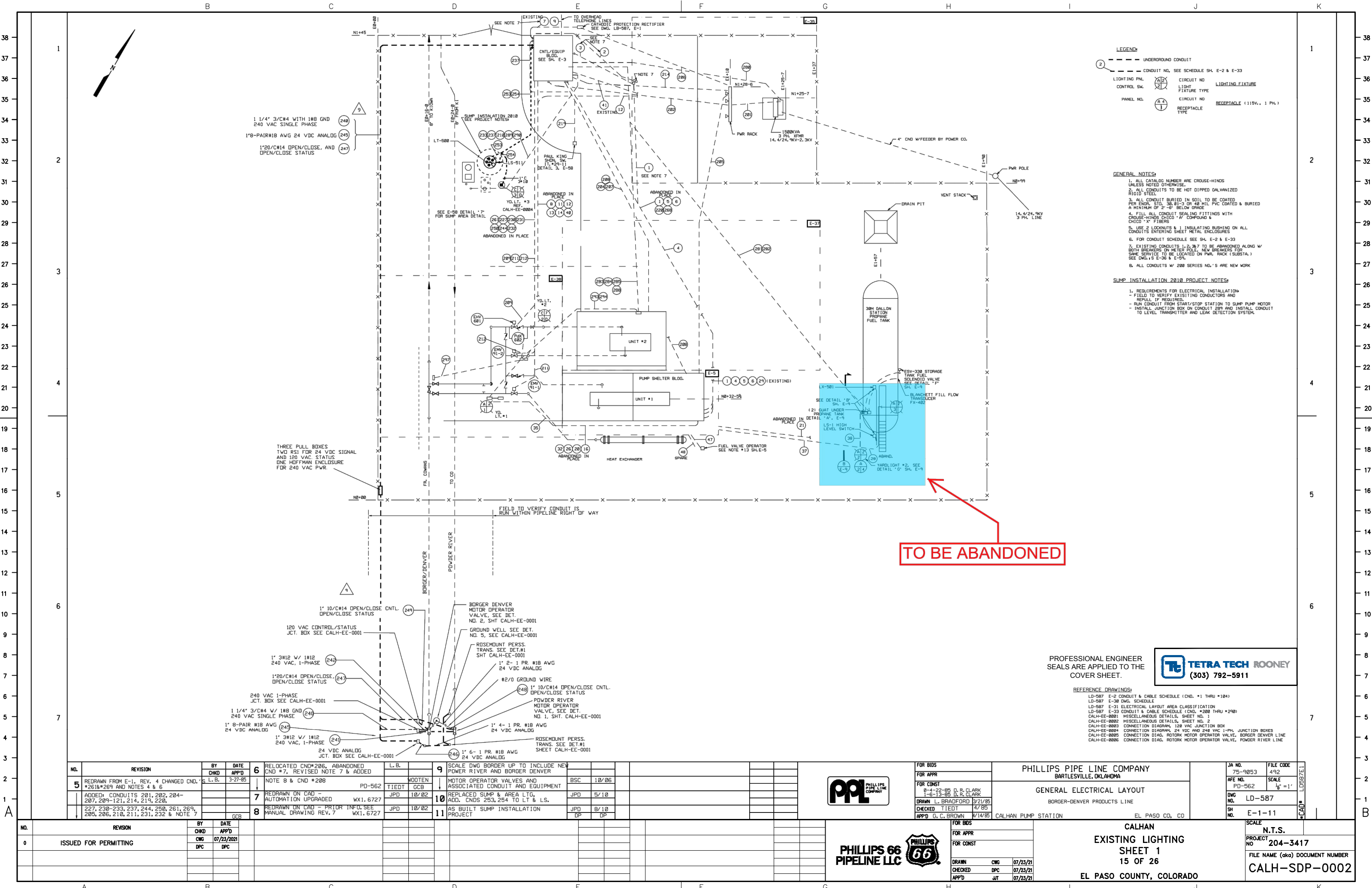
LIGHTING PLAN
14 OF 26
EL PASO COUNTY, COLORADO



N.T.S.

FILE NAME (aka) DOCUMENT NUMBER
CALH-EE-0048

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REVIEWS\36215\CALHAN PERMIT PLUNG.DWG



1 1/4" 3/C#4 WITH 1#8 GND
240 VAC SINGLE PHASE
1"8-PAIR#18 AVG 24 VDC ANALOG
1"20/C#14 OPEN/CLOSE, AND
OPEN/CLOSE STATUS

THREE PULL BOXES
TWO RSI FOR 24 VDC SIGNAL
AND 120 VAC STATUS
ONE HOFFMAN ENCLOSURE
FOR 240 VAC PWR.

BORGER DENVER
MOTOR OPERATOR
VALVE, SEE DET.
NO. 2, SHT CALH-EE-0001
GROUND WELL, SEE DET.
NO. 5, SEE CALH-EE-0001
ROSEMOUNT PERSS.
TRANS. SEE DET.#1
SHT CALH-EE-0001
1" 2-1 PR. #18 AVG
24 VDC ANALOG
#2/0 GROUND WIRE
1" 10/C#14 OPEN/CLOSE CNTL.
OPEN/CLOSE STATUS
POWDER RIVER
MOTOR OPERATOR
VALVE, SEE DET.
NO. 1, SHT. CALH-EE-0001
ROSEMOUNT PERSS.
TRANS. SEE DET.#1
SHEET CALH-EE-0001
1" 6-1 PR. #18 AVG
24 VDC ANALOG

TO BE ABANDONED

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



REFERENCE DRAWINGS:
LD-587 E-2 CONDUIT & CABLE SCHEDULE (CND. #1 THRU #184)
LD-587 E-30 DWG. SCHEDULE
LD-587 E-31 ELECTRICAL LAYOUT AREA CLASSIFICATION
LD-587 E-32 CONDUIT & CABLE SCHEDULE (CND. #200 THRU #240)
CALH-EE-0001 MISCELLANEOUS DETAILS, SHEET NO. 1
CALH-EE-0002 MISCELLANEOUS DETAILS, SHEET NO. 2
CALH-EE-0003 CONNECTION DIAGRAM, 120 VAC JUNCTION BOX
CALH-EE-0004 CONNECTION DIAGRAM, 24 VDC AND 240 VAC 1-PH. JUNCTION BOXES
CALH-EE-0005 CONNECTION DIAG. ROTORK MOTOR OPERATOR VALVE, BORGER DENVER LINE
CALH-EE-0006 CONNECTION DIAG. ROTORK MOTOR OPERATOR VALVE, POWDER RIVER LINE

NO.	REVISION	BY	DATE	6	RELOCATED CND#206, ABANDONED CND #7, REVISED NOTE 7 & ADDED NOTE 8 & CND #208	L.B.	9	SCALE DWG BORDER UP TO INCLUDE NEW POWER RIVER AND BORGER DENVER
5	REDRAWN FROM E-1, REV. 4 CHANGED CND. #261č AND NOTES 4 & 6	CHD	3-27-85	6	RELOCATED CND#206, ABANDONED CND #7, REVISED NOTE 7 & ADDED NOTE 8 & CND #208	WOOTEN	9	SCALE DWG BORDER UP TO INCLUDE NEW POWER RIVER AND BORGER DENVER
	ADDED: CONDUITS 201, 202, 204- 207, 209-121, 214, 219, 220,	APP'D		7	REDRAWN ON CAD - AUTOMATION UPGRADED	TIEDT	10	REPLACED SUMP & AREA LTG. ADD. CND#S 253, 254 TO LT & LS.
	227, 230-233, 237, 244, 250, 261, 269, 205, 206, 210, 211, 231, 232 & NOTE 7	CHG		8	REDRAWN ON CAD - PRIOR INFO. SEE MANUAL DRAWING REV. 7	JPD	11	AS BUILT SUMP INSTALLATION PROJECT
		DPC						



FOR BIDS	FOR APPR	FOR CONST
9-4-22-85 D.R. CLARK	9-6-13-85 D.R. CLARK	9-21-85
DRAWN L. BRADFORD	CHECKED TIEDT	APP'D G.C. BROWN
4/85	4/85	4/85

PHILLIPS PIPE LINE COMPANY BARTLESVILLE, OKLAHOMA	JA NO. 75-9853	FILE CODE 492
GENERAL ELECTRICAL LAYOUT BORGER-DENVER PRODUCTS LINE	AFE NO. PD-562	SCALE 1/8" = 1'
	DWG NO. LD-587	
	SH NO. E-1-11	

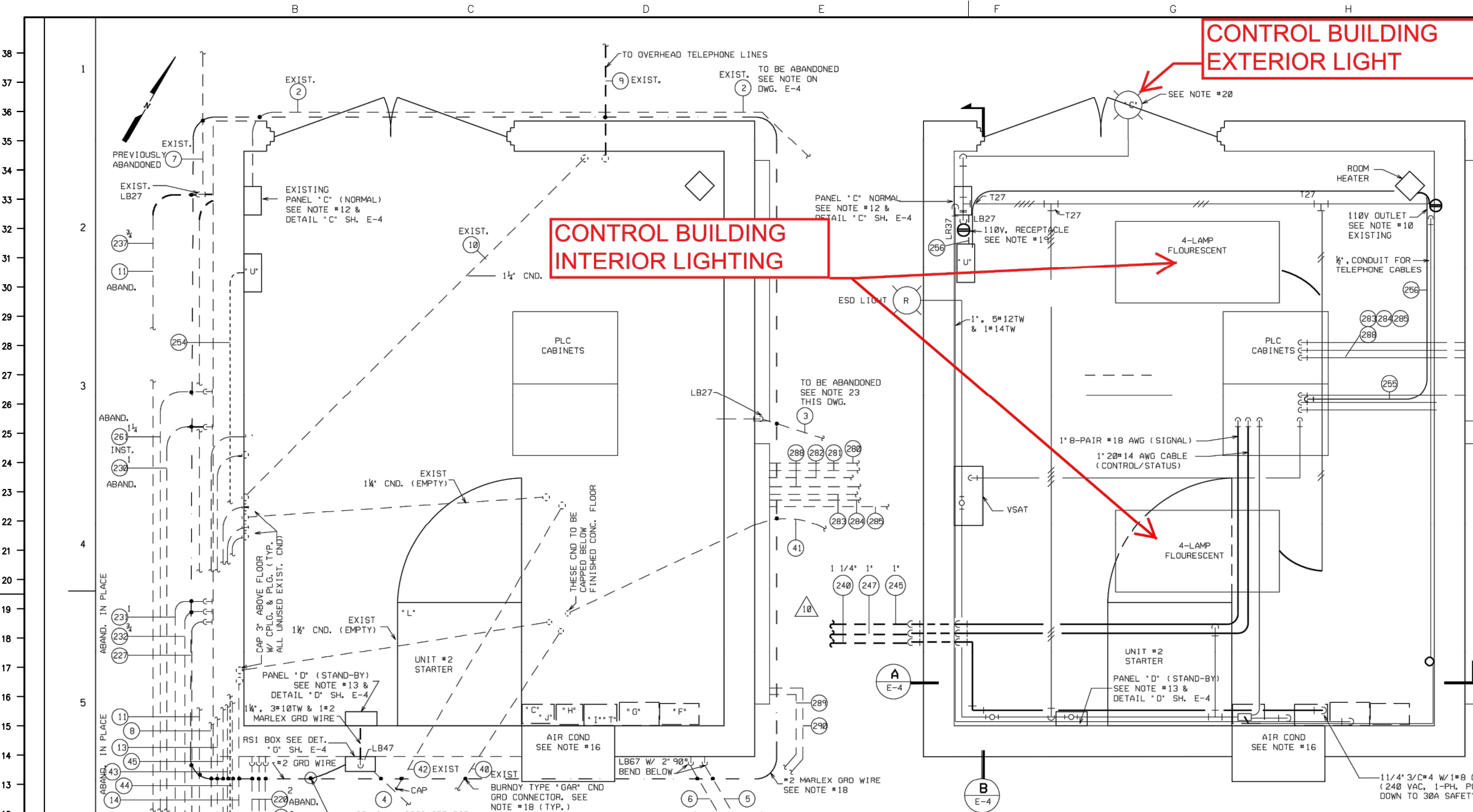


FOR BIDS	FOR APPR	FOR CONST
07/23/21	07/23/21	07/23/21
CWG	DPC	JT

CALHAN
EXISTING LIGHTING
SHEET 1
15 OF 26
EL PASO COUNTY, COLORADO

N.T.S.	FILE NAME (aka) DOCUMENT NUMBER
204-3417	CALH-SDP-0002

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REVIEWS\36215\CALHAN PERMIT FILINGS.DWG



CONTROL BUILDING
EXTERIOR LIGHT

CONTROL BUILDING
INTERIOR LIGHTING

- NOTES:**
1. ALL CONDUITS TO BE HOT DIPPED GALVANIZED RIGID STEEL.
 2. ALL FITTINGS TO BE CROUSE-HINDS UNLESS OTHERWISE SPECIFIED.
 3. ALL EXPOSED CONDUIT RUNS TO BE FASTENED TO BLDG. WITH 1-HOLE MALLEABLE CLAMPS
 4. PLUG ALL UNUSED CONDUIT OPENINGS
 5. USE 2-LOCKNUTS & 1 INSULATED BUSHING ON ALL CONDUIT ENTERING SHEET METAL ENCLOSURES
 6. ALL CONDUIT BURIED IN SOIL TO BE COATED PER ENGR. STD. 30,01-3 & BURIED A MINIMUM OF 2'-6" BELOW GRADE.
 9. LIGHT SWITCHES ARE BRYANT CAT.#4621 TUMBLER SWITCH, SINGLE POLE, 15AMP, 115 VOLT, 1 PH. INSTALLED IN APPLETON HANDY CONDUIT BOXES CAT.#4SSL-3/4 W/2594 COVER, MOUNT 4'-6" ABOVE FLOOR.
 10. CONVENIENCE OUTLETS ARE GENERAL ELECTRIC CAT.#GE2679 INSTALLED IN SP5800 BOX W/SP58R7 COVER, FIXTURE TYPE #1
 12. LIGHTING PANEL 'C' IF FEDERAL CAT.#108 W/ 1-20 AMP, DOUBLE POLE BREAKER AND 4-20 AMP, BREAKERS. (FOR WIRING DIAG. SEE SH. E-18)
 13. LIGHTING PANEL 'D' IS SQUARE 'D', CAT.#008S GENERAL PURPOSE SURFACE MOUNTED WITH 8*00115, 15 AMP, SINGLE POLE BREAKERS, IT.#PD-496-0-290-10 (FOR WIRING DIAG. SEE SH. E-18)
 16. AIR CONDITIONER IS AMANA MODEL #212-3U, 12,500 BTU, 9.5 AMP @ 230 VOLTS, 1 PH. ITEM #PD-496-0-600-1
 18. BOND ALL CONDUITS LEAVING CONTROL BUILDING W/ #2 MARLEX TR-201 GREEN INSULATION STRANDED COPPER WIRE AND BURNDY TYPE 'GAR' CND GRD CONNECTORS
 19. NEW 110V. RECEPTACLES ARE BRYANT CAT.#5262 DUPLEX, 20 AMP, 125 VOLT, 1 PH., 3 WIRE W/ GRD CONTACT INSTALL IN APPLETON #4SSL-3/4 HANDY BOX APPLETON #2510 COVER, MOUNT 2'-6" ABOVE FLOOR, FIXTURE #3
 20. LIGHT 'C' APPLETON SEPERABLE SERIES CAT.#G-82518 FLAT CONE REFLECTOR UNIT COMPLETE W/REFLECTOR, OUTLET BOX HOOD & SOCKET, & 200 W LAMP, MOUNT TO APPLETON #4CDD-3/4 4" OCT. BOX
 23. CONDUIT #3 TO BE DISCONNECTED & CAPPED NEAR GRADE OUTSIDE EAST WALL OF CNTL/EQUIP. BLDG. OPENING IN EAST WALL TO BE SEALED W/ MORTAR OR OTHER ACCEPTABLE COMPOUND.

PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.



- LEGEND:**
- #2 MARLEX TR-201 GREEN INSULATION STRANDED COPPER GROUND WIRE
 - EXPOSED CND, 1/2" UNLESS OTHERWISE NOTED.
 - CONDUIT UNDER SLAB OR GROUND
 - CONDUIT NO.
 - HASH MARKS INDICATES NO. OF #12 TW ENCLOSED

REF. DWG.'S

- E-4 ELECTRICAL DETAILS #1
- E-59 ELECT. LAYOUT - CNTL/EQUIP BLDG.
- E-60 ELECT. DETAILS #2 CNTL/EQUIP. BLDG.

FOR CONDUIT SCHEDULE & REFERENCE DRAWINGS SEE SH. E-2, E-33

NOTES: (CONTINUED)

- * 'C' POWER DUCT 6"x6"x5', SQUARE 'D', WITHOUT KNOCKOUTS
- * 'D' LIGHTING PANEL 'D' (EXISTING) SQUARE 'D' CAT.#008S GENERAL PURPOSE SURFACE MOUNTED W/8*00115, 15 AMP, SINGLE POLE BREAKERS.
- * 'E' CONTROL EQUIPMENT DISTRIBUTION PANEL SQUARE 'D' CAT.#0016M1005 (IT.#29-20)
- * 'F' SUMP PUMP STARTER, WESTINGHOUSE AC COMBINATION FULL VOLTAGE STARTER, CAT.#A206JOMUA-C-R-T6 W/7MCP 1 HP, 230V, 3 PH., 3 POLE, 3.1FLA, 120C CONTROL XFMR, AMBIENT TEMP. COMP. O.L. RELAY BLOCK TYPE A W/EXTERNAL RESET P.B., NEMA 12 (IT#27-01)
- * 'G' 5HP HYDRAULIC VALVE PUMP STARTER, WESTINGHOUSE AC COMBINATION FULL VOLT STARTER, CAT.#A206JIMDA-C-R-T6, 5HP, 230V, 3 PH., 3 POLE, 15.2FLA, 22,000 INTERRUPTING RATING @ 230V W. 120V CONTROL, EXTERNAL RESET & CONTROL XFMR, NEMA 12, AMBIENT COMPENSATED BLOCK, TYPE A O.L. RELAY'S W/EXTERNAL RESET PUSHBUTTONS (IT.#27-02)
- * 'H' CIRCUIT BRKR THERMAL MAGNETIC, SQUARE 'D' CAT.#FAL34020, 480V, 3 PH., 3 POLE, 100A FRAME/20A TRIP, MOUNTED IN NEMA 12 ENCL. CAT.#FA100AWK (IT.#29-10)
- * 'J' SAME AS 'H' ABOVE (IT.#29-13)
- * 'L' 600HP, 2300V, NEMA 1, FULL VOLTAGE NON-REVERSING INDUCTION MOTOR STARTER W/360A AIR BREAK MAGNETIC CONTACTOR, SIEMENS-ALLIS SERIER 813534092A3L, 5KV, OVERLOADS TYPE S-A-RQ21, 2 KYA CONTROL XFMR (IT.#27-2)
- * 'T' CIRCUIT BRKR, SQUARE 'D' THERMAL MAGNETIC, CAT.#FAL34070, 400V, 3 PH., 3 POLE, 100A FRAME/ 70A TRIP, 18,000A INTERRUPTING RATING @ 240V, MOUNTED IN NEMA 12 ENCLOSURE, CAT.#FA100AWK WITHOUT KNOCKOUTS (IT.#29-19)

* 'U' PNEUMECATOR MODEL LC2000 LEAK SENSOR MONITORING SYSTEM FOR SUMP ANNULAR SPACE. REF. CALH-IN-0001 FOR WIRING DIAGRAM.

NO.	REVISION	BY	CHKD	DATE	APP'D
1	ADDED LIGHT 'C' & NOTE #20	J.A.B.	SJM	4/63	
2	REVISED HEATER DESCRIPTION	MUNN	HW	5/63	
3	CHANGED # OF WIRES IN CND #6	POTTS	HW	6/63	

NO.	REVISION	BY	CHKD	DATE	APP'D
4	REMOVED TEMP 1 1/2" CND & TEL HORN ADDED BAT. CHARGER PD-496	JAB	SJM	9/63	
5	REVISED PER RESURVEY	JAB	SJM	11/64	
6	RELOCATED BATT. RACK & A.C. REMOVED LPG HTR., ADDED NOTES 22, 23, & 24	L.B.	TIEDT	4/85	
7	REDRAWN ON CAD AUTOMATION UPGRADED	JPD	JPD	10/02	
8	REDRAWN ON CAD - ADDED INFO FROM E-59 (VOID), PRIOR INFO MAN. R/W 1.7672	JPD	JPD	10/02	
9	REVISED PER FIELD WALK-DOWN	JPD	JPD	8/03	
10	ADDED CND 240, 245 AND 247	BSC	BSC	10/06	



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	O.P.K.
CHECKED	SJM
APP'D	BEE

PHILLIPS PIPE LINE COMPANY
BARTLESVILLE, OKLAHOMA
PROPOSED
ELECTRICAL LAYOUT CNTL/EQUIP BLDG.
CALHAN PUMP STATION
BORGER-DENVER PIPELINE
EL PASO CO, COLORADO

JA NO.	PD-496	FILE CODE	
AFE NO.		SCALE	1/4" = 1'
DWG NO.	LD-587		
SH NO.	E-3-12		

NO.	REVISION	BY	CHKD	DATE	APP'D
0	ISSUED FOR PERMITTING	CWG	DPC	07/23/2021	

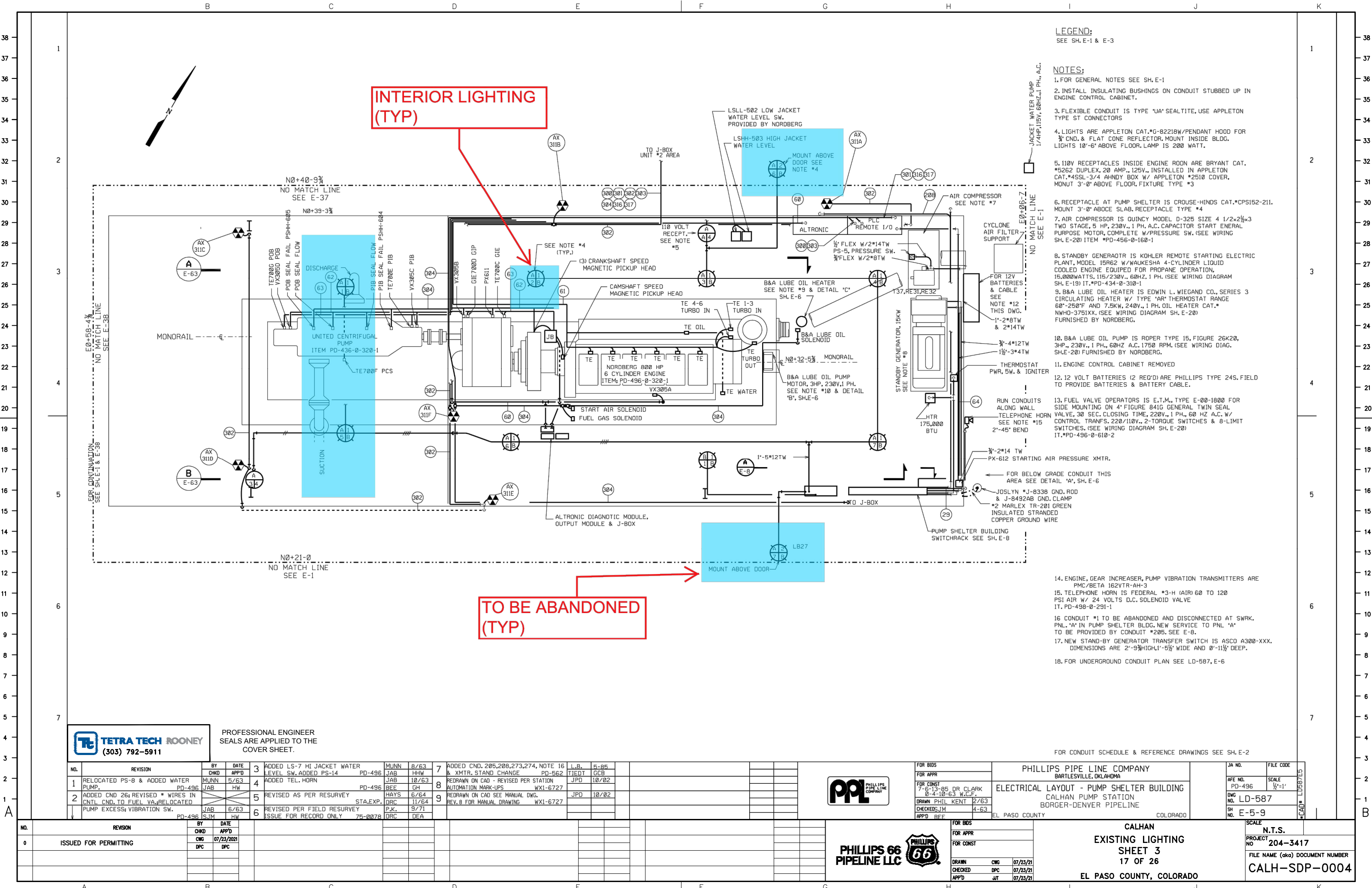


FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG
CHECKED	DPC
APP'D	JJT

CALHAN
EXISTING LIGHTING
SHEET 2
16 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO.	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0003

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\V\WORKING\REV\MS36215\CALHAN PERMIT FILING.DWG



LEGEND:
SEE SH. E-1 & E-3

- NOTES:
1. FOR GENERAL NOTES SEE SH. E-1
 2. INSTALL INSULATING BUSHINGS ON CONDUIT STUBBED UP IN ENGINE CONTROL CABINET.
 3. FLEXIBLE CONDUIT IS TYPE 'UA' SEALTITE, USE APPLETON TYPE ST CONNECTORS
 4. LIGHTS ARE APPLETON CAT. #G-82218W/PENDANT HOOD FOR 3/4" CND. & FLAT CONE REFLECTOR. MOUNT INSIDE BLDG. LIGHTS 10'-6" ABOVE FLOOR. LAMP IS 200 WATT.
 5. 110V RECEPTACLES INSIDE ENGINE ROON ARE BRYANT CAT. #5262 DUPLEX, 20 AMP., 125V., INSTALLED IN APPLETON CAT. #4SSL-3/4 AHNDY BOX W/ APPLETON #2510 COVER, MOUNT 3'-0" ABOVE FLOOR, FIXTURE TYPE #3
 6. RECEPTACLE AT PUMP SHELTER IS CROUSE-HINDS CAT. #CPS152-211. MOUNT 3'-0" ABOVE SLAB, RECEPTACLE TYPE #4
 7. AIR COMPRESSOR IS QUINCY MODEL D-325 SIZE 4 1/2x2 1/2x3 TWO STAGE, 5 HP, 230V., 1 PH. A.C. CAPACITOR START ENERAL PURPOSE MOTOR, COMPLETE W/PRESSURE SW. (SEE WIRING SH. E-20) ITEM #PD-456-0-160-1
 8. STANDBY GENERATOR IS KOHLER REMOTE STARTING ELECTRIC PLANT, MODEL 15R62 W/WAUKESHA 4-CYLINDER LIQUID COOLED ENGINE EQUIPED FOR PROPANE OPERATION, 15,000WATTS, 115/230V., 60HZ, 1 PH. (SEE WIRING DIAGRAM SH. E-19) IT. #PD-434-0-310-1
 9. B&A LUBE OIL HEATER IS EDWIN L. WIEGAND CO., SERIES 3 CIRCULATING HEATER W/ TYPE 'AR' THERMOSTAT RANGE 60"-250°F AND 7.5KW, 240V., 1 PH. OIL HEATER CAT. #NWH0-3751XX. (SEE WIRING DIAGRAM SH. E-20) FURNISHED BY NORDBERG.
 10. B&A LUBE OIL PUMP IS ROPER TYPE 15, FIGURE 26K20, 3HP., 230V., 1 PH., 60HZ A.C. 1750 RPM. (SEE WIRING DIAG. SH. E-20) FURNISHED BY NORDBERG.
 11. ENGINE CONTROL CABINET REMOVED
 12. 12 VOLT BATTERIES (2 REQ'D) ARE PHILLIPS TYPE 24S. FIELD TO PROVIDE BATTERIES & BATTERY CABLE.
 13. FUEL VALVE OPERATORS IS E.T.M., TYPE E-00-1800 FOR SIDE MOUNTING ON 4" FIGURE 8410 GENERAL TWIN SEAL VALVE, 30 SEC. CLOSING TIME, 220V., 1 PH., 60 HZ A.C. W/ CONTROL TRANS. 220/110V., 2-TORQUE SWITCHES & 8-LIMIT SWITCHES. (SEE WIRING DIAGRAM SH. E-20) IT. #PD-496-0-610-2

14. ENGINE, GEAR INCREASER, PUMP VIBRATION TRANSMITTERS ARE PMC/BETA 162VTR-AH-3
15. TELEPHONE HORN IS FEDERAL #3-H (AIR) 60 TO 120 PSI AIR W/ 24 VOLTS D.C. SOLENOID VALVE IT. PD-498-0-291-1
16. CONDUIT #1 TO BE ABANDONED AND DISCONNECTED AT SWRK. PNL. 'A' IN PUMP SHELTER BLDG. NEW SERVICE TO PNL. 'A' TO BE PROVIDED BY CONDUIT #205. SEE E-8.
17. NEW STAND-BY GENERATOR TRANSFER SWITCH IS ASCO A300-XXX. DIMENSIONS ARE 2'-9" HIGH, 1'-5 1/2" WIDE AND 0'-11 1/2" DEEP.
18. FOR UNDERGROUND CONDUIT PLAN SEE LD-587, E-6

FOR CONDUIT SCHEDULE & REFERENCE DRAWINGS SEE SH. E-2



PROFESSIONAL ENGINEER
SEALS ARE APPLIED TO THE
COVER SHEET.

NO.	REVISION	BY	CHKD	DATE	APP'D
1	RELOCATED PS-8 & ADDED WATER PUMP.	MUNN	5/63		
2	ADDED CND 26; REVISED * WIRES IN CNDL CND. TO FUEL VA; RELOCATED PUMP EXCESS VIBRATION SW.	JAB	6/63		

3	ADDED LS-7 HI JACKET WATER LEVEL SW. ADDED PS-14	JAB	8/63		
4	ADDED TEL. HORN	JAB	10/63		
5	REVISED AS PER RESURVEY STA. EXP.	BEE	6/64		
6	REVISED PER FIELD RESURVEY ISSUE FOR RECORD ONLY	HAYS	11/64		

7	ADDED CND. 205, 208, 273, 274, NOTE 16 & XMTR. STAND CHANGE	JPD	10/02		
8	REDRAWN ON CAD - REVISED PER STATION AUTOMATION MARK-UPS	JPD	10/02		
9	REDRAWN ON CAD SEE MANUAL DWG. REV. 8 FOR MANUAL DRAWING	JPD	10/02		

10	ADDED CND. 205, 208, 273, 274, NOTE 16 & XMTR. STAND CHANGE	JPD	10/02		
11	REDRAWN ON CAD - REVISED PER STATION AUTOMATION MARK-UPS	JPD	10/02		
12	REDRAWN ON CAD SEE MANUAL DWG. REV. 8 FOR MANUAL DRAWING	JPD	10/02		



FOR BIDS	FOR APPR	FOR CONST
7-6-13-85 DR CLARK	0-4-10-63 W.C.F.	2/63
CHECKED: JM	4-63	
APP'D: REF		

PHILLIPS PIPE LINE COMPANY BARTLESVILLE, OKLAHOMA	JA NO.	FILE CODE
ELECTRICAL LAYOUT - PUMP SHELTER BUILDING CALHAN PUMP STATION BORGER-DENVER PIPELINE	PD-496	LD-587
EL PASO COUNTY	SCALE	1/2"=1'
COLORADO	SH NO.	E-5-9

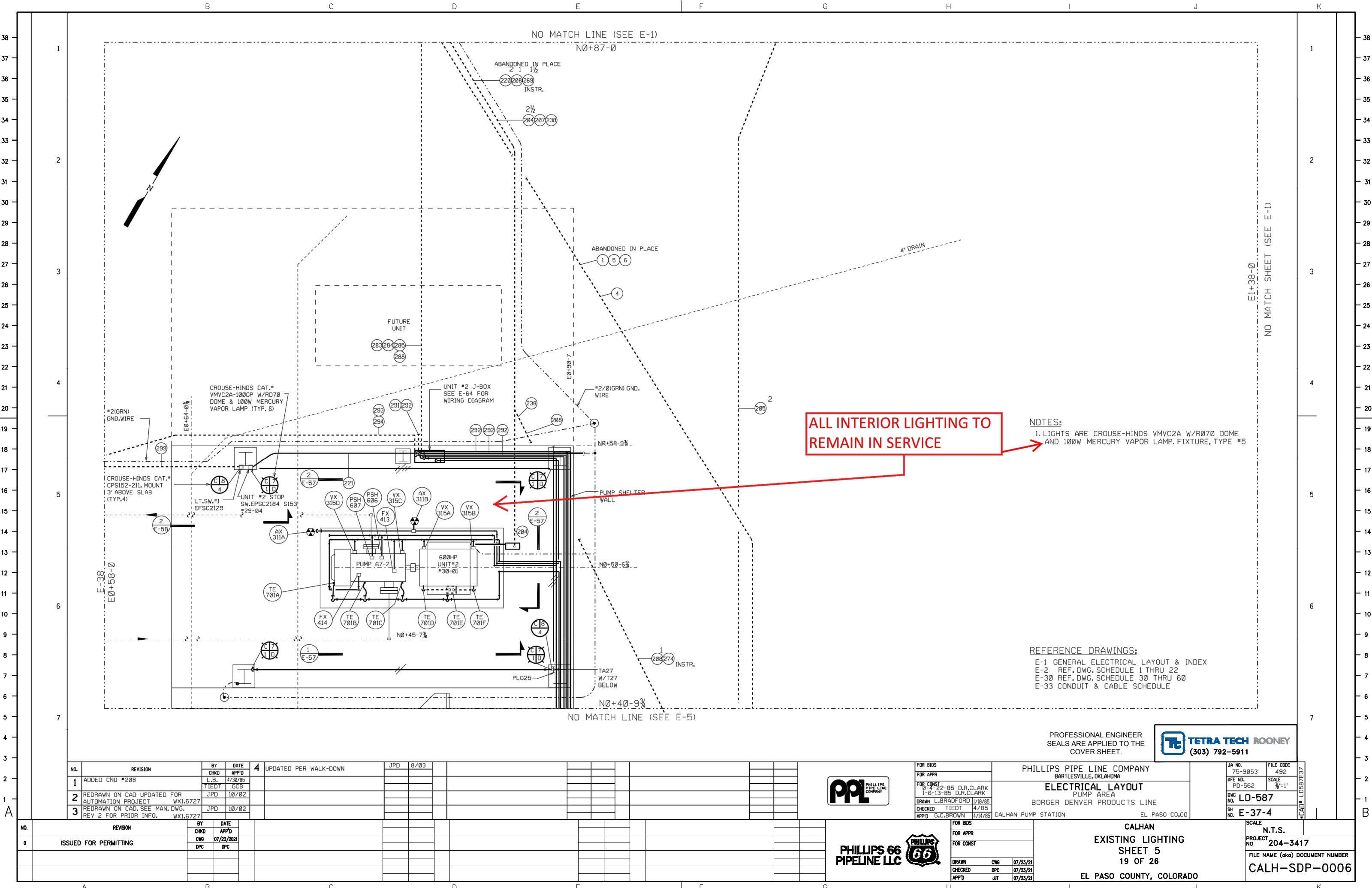


FOR BIDS	FOR APPR	FOR CONST
CWG	DPC	JT
07/23/21	07/23/21	07/23/21

CALHAN
EXISTING LIGHTING
SHEET 3
17 OF 26
EL PASO COUNTY, COLORADO

N.T.S.
PROJECT NO. 204-3417
FILE NAME (aka) DOCUMENT NUMBER
CALH-SDP-0004

FOR REFERENCE ONLY - OFFICIAL DOCUMENT STORED ELECTRONICALLY PLOT DATE = 7/29/21 PLOTTED BY : CHASE GIFFORD FILE NAME : C:\WORKING\REV\MS36215\CALHAN PERMIT PLUMB.DWG



ALL INTERIOR LIGHTING TO REMAIN IN SERVICE

NOTES:
1. LIGHTS ARE CROUSE-HINDS VMVC2A W/RØ7Ø DOME AND 1ØØW MERCURY VAPOR LAMP. FIXTURE, TYPE #5

REFERENCE DRAWINGS:
E-1 GENERAL ELECTRICAL LAYOUT & INDEX
E-2 REF. DWG. SCHEDULE 1 THRU 22
E-3Ø REF. DWG. SCHEDULE 3Ø THRU 6Ø
E-33 CONDUIT & CABLE SCHEDULE

NO.	REVISION	BY	CHKD	DATE	APP'D
1	ADDED CND #2Ø8	L.B.	TIEDT	4/30/85	GCB
2	REDRAWN ON CAD UPDATED FOR AUTOMATION PROJECT	JPD		10/02	
3	REDRAWN ON CAD, SEE MAN. DWG. REV 2 FOR PRIOR INFO.	JPD		10/02	

NO.	REVISION	BY	CHKD	DATE	APP'D
0	ISSUED FOR PERMITTING	DPC		07/23/2021	DPC



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	L.BRADFORD 1/18/85
CHECKED	TIEDT 4/85
APP'D	G.C.BROWN 4/14/85

PHILLIPS PIPE LINE COMPANY
BARTLESVILLE, OKLAHOMA
ELECTRICAL LAYOUT
PUMP AREA
BORGER DENVER PRODUCTS LINE
CALHAN PUMP STATION EL PASO CO,CO



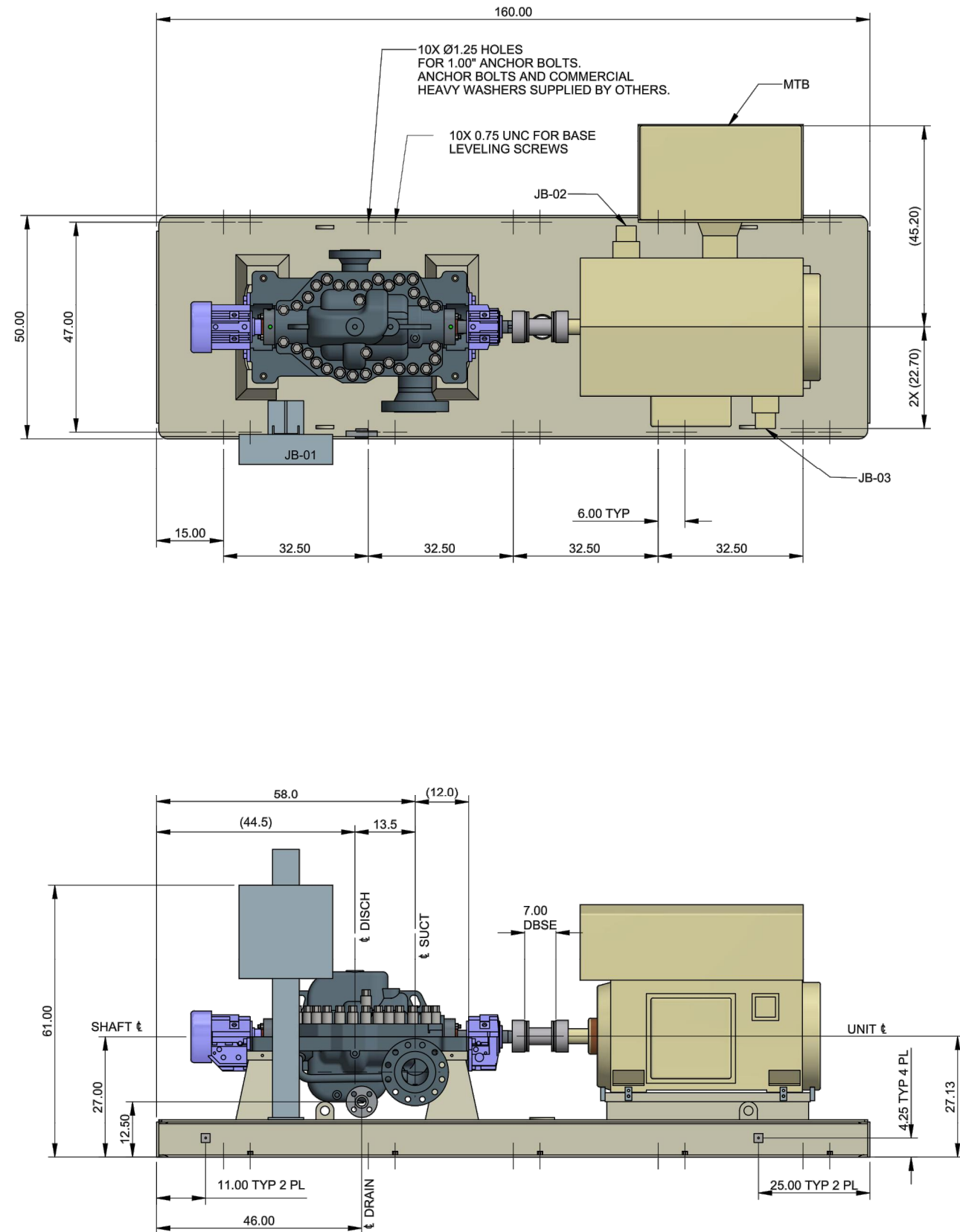
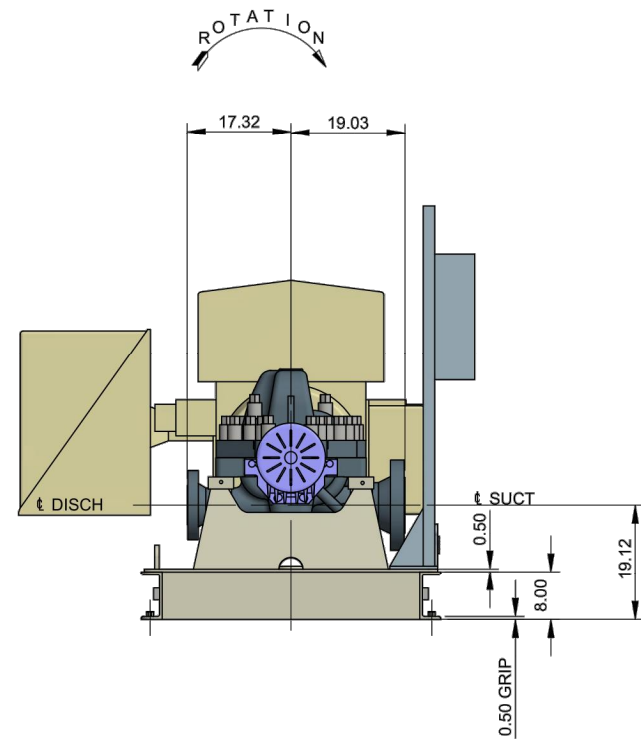
JA NO.	75-9853	FILE CODE	492
AFE NO.	PD-562	SCALE	¾"=1'
DWG NO.	LD-587		
SH NO.	E-37-4		



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG 07/23/21
CHECKED	DPC 07/23/21
APP'D	JT 07/23/21

CALHAN
EXISTING LIGHTING
SHEET 5
19 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO.	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0006

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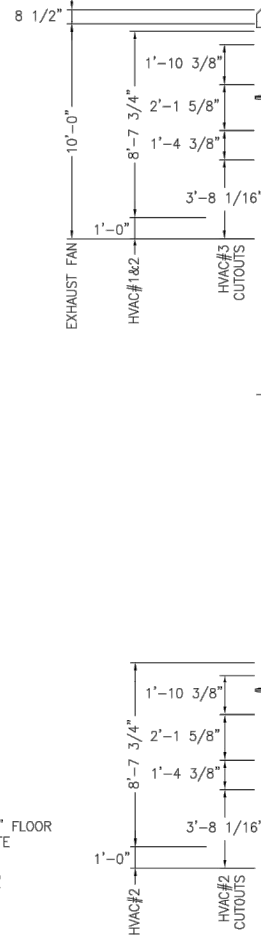
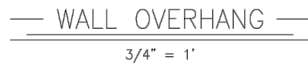
CONTRACT DATA							
PURCHASER: PHILLIPS P66							
USER: PHILLIPS P66							
JOB/PROJECT: CALHAN UPGRADE							
CUST. P.O. NO.: 4527838566							
SERVICE: MAINLINE PUMP							
INSTALLED AT: CALHAN STATION							
PUMP OEM: SULZER PUMPS (US) INC.							
SULZER ORDER NO.: 100374123							
IDENTIFICATION NUMBERS							
SULZER SERIAL NO.	CUSTOMER TAG NO'S						
	PUMP	DRIVER					
10032908	P-001	M-001					
-	-	-					
-	-	-					
<div>PROFESSIONAL ENGINEER SEALS ARE APPLIED TO THE COVER SHEET.</div> <div><div></div><div>TETRA TECH ROONEY (303) 792-5911</div></div>							
				C UPDATED MOTOR MODEL		D. PATTERSON	30-OCT-2020
				B ADDED DRAIN FLG. ADJUSTED JBOX HEIGHT		D. PATTERSON	19-OCT-2020
				A REVISED PER CUSTOMER COMMENTS.		D. PATTERSON	20-AUG-2020
				MODIFICATION		NAME	DATE
				COMPONENT INFORMATION	DESIGN GROUP	SULZER PUMPS (US) INC.	
				CAD - DRAWING			
				REPLACED BY	SUBSTITUTE FOR		ORIGINAL SCALE
				IR 4X11 DA	FOUNDATION & NOZZLE LOCATIONS		DRAWN: 30-JULY-2020 D. PATTERSON
				100374123			CHECKED: 30-JULY-2020 D. PATTERSON
GENERAL ARRANGEMENT		APPROVED: 30-JULY-2020 D. PATTERSON					
SULZER		PART No. -	E PGA1003987410010-01	2 / 2			

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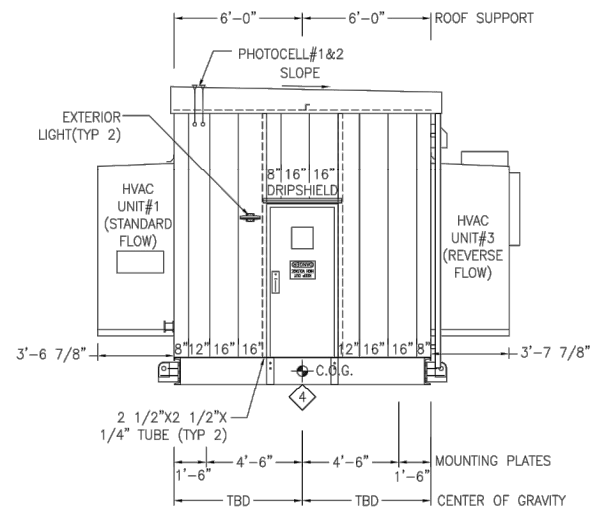
FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	CWG	07/23/2
CHECKED	DPC	07/23/2
APP'D	JIT	07/23/2

CALHAN
ELEVATION
PUMP SKID GENERAL ARRANGEMENT SHEET 2
21 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	
CALH-SDP-0008	



NOTES:



Tt TETRA TECH ROONEY
(303) 792-5911

PROTECT CONTROLS, INC.
3212 Old Highway 105 East Conroe, Texas 77301-6458
www.protectcontrols.com Tel.: 713.691.5183

CUSTOMER: PHILLIPS 66/ROONEY ENGINEERING	S.O. NO.: 30850
TITLE: P66 CALHAN ELECTRICAL EQUIPMENT CENTER RFQ RECOVERY PROJECT - RZSS6 LER ELEVATIONS	

DRAWN:	DATE:	DRAWING NUMBER:
JAC	1/24/20	
APPROVED:	SCALE:	30850-500
CS	3/16" = 1'-0"	

30850-500

[illegible]

PHILLIPS 66
PIPELINE LLC

FOR BIDS		
FOR APPR		
FOR CONST		
DRAWN	CWG	07/23/2
CHECKED	DPC	07/23/2
APP'D	JJT	07/23/2

CALHAN
ELEVATION
ELECTRICAL EQUIPMENT CENTER
22 OF 26
EL PASO COUNTY, COLORADO

SCALE	N.T.S.
PROJECT NO	204-3417
FILE NAME (aka)	DOCUMENT NUMBER
CALH-SDP-0009	

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JC16020 3PH 2500.0kVA HV=24940 LV=2400Y/1385 ASA 61 LIGHT GRAY 2 COAT URETHANE MINERAL OIL Order PHTA1082 - 1

DOWNLOAD INSTRUCTION BOOKS AT WWW.ABB.COM/TRANSFORMERS
DESCARGAR LIBRO DE INSTRUCCIONES EN WWW.ABB.COM/TRANSFORMERS

THIS OUTLINE IS FOR ERECTION OR MOUNTING PURPOSES. IT IS NOT TO SCALE AND SHOULD NOT BE REGARDED AS INDICATING THE EXACT DETAILS OF CONSTRUCTION.

- 01 TANK
- 02 CABINET BOLTED-ON, REMOVABLE SILLS, OPEN BOTTOM 1.25 INCH FLANGE, HINGED LIFT-OFF DOOR, PROVISION FOR PADLOCK, STOP IN OPEN POSITION.
- 03 WEATHER COVER, REMOVABLE OR HINGED
- 04 TANK TO BASE GROUND STRAP AND PROVISIONS FOR TANK TO CABINET GROUND LIFTING HOOKS, 4 TOTAL
- 05 SHIPPING BRACKETS
- 06 1 INCH FILL PLUG
- 07 1 INCH DRAIN PLUG WITH SCHRADER VALVE
- 08 HANDHOLE, 9.5 INCH X 17.5 INCH, BOLTED-ON COVER
- 09 NAMEPLATE MOUNTED ON TANK WALL
- 10 GROUND PAD .50-13-TAP, HV AND
- 11 LV COMPARTMENT
- 12 PRESSURE RELIEF DEVICE
- 13 LV NEUTRAL GROUND PAD .50-13-TAP WITH GROUND STRAP
- 14 HV/LV BARRIER (STEEL)
- 15 LEFT SIDE COOLER
- 16 REAR COOLER
- 21 LIVE FRONT HIGH VOLTAGE BUSHING, 2 HOLE ANSI SPADES
- 25 TAP CHANGER
- 35 LOW VOLTAGE BUSHING, ANSI SPADES, WITH 6 HOLES.
- 55 ARRESTER GROUND PADS
- 60 PRESSURE VACUUM GAUGE
- 65 OIL LEVEL GAUGE
- 66 THERMOMETER
- 68 DRAIN VALVE WITH SAMPLER
- 70 PARKING STAND
- 76 PADLOCKABLE EXTERNAL DRAIN VALVE BOX
- 77 PADLOCKABLE GAUGE BOX
- 78 GROUND BAR

- ** ANSI 61 GRAY PAINT (MUNSELL 8.3G 6.1/D.54)
- ** UL APPROVED
- ** 18KV MCOV 15.30 LIVE FRONT ARRSTER

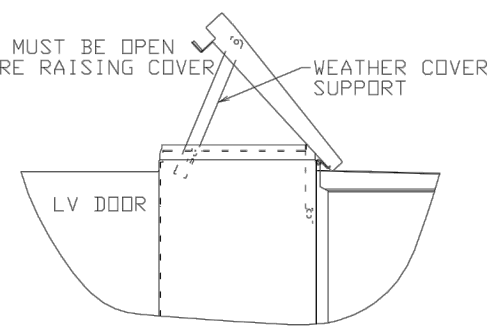
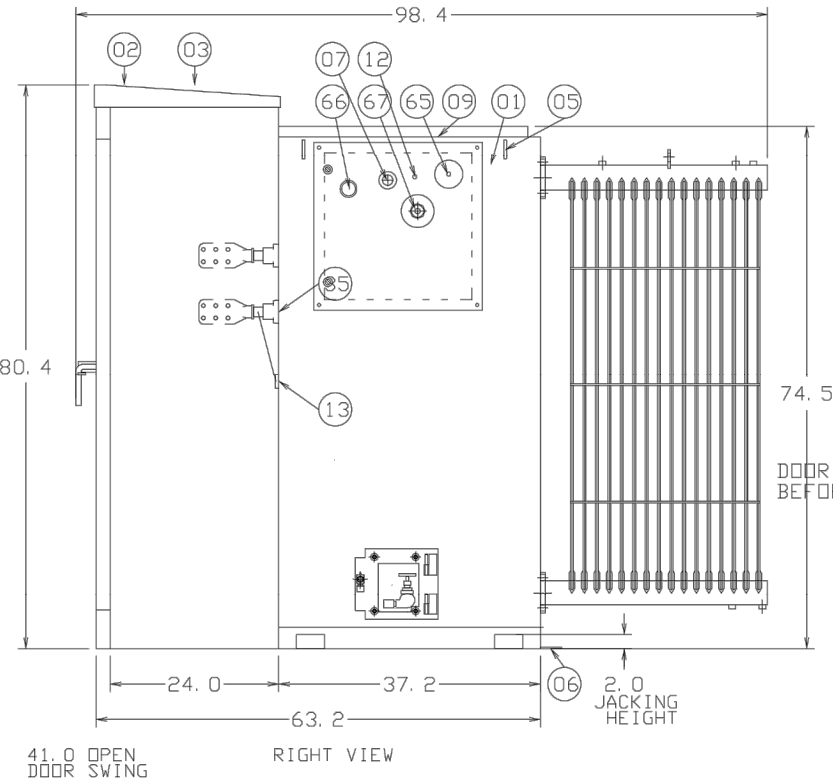
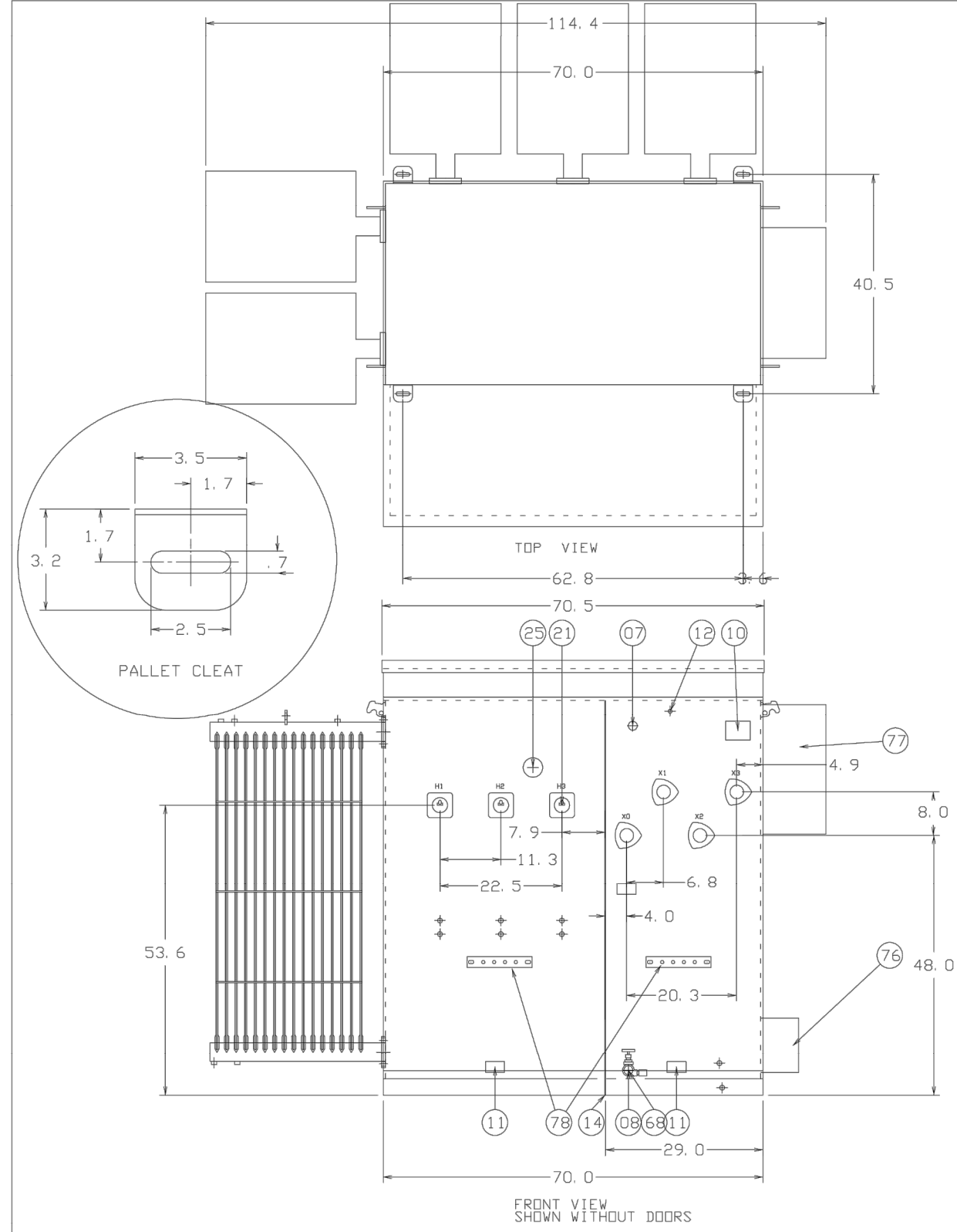


ABB INC.				REV NO
TITLE 0L3PPADMNT DEF XXXIFIN XXU/M XXNOTE XX				01
DES 3PH OUTLINE				USER PLDAKO
DIMENSIONS IN INCHES-SCALE 1				CADAM 0190402N1NNNCNY201,1
D, Kobierec 091520 APPD XXXXX MMDDYY				J801CNY2
D SPEC XXXXXX APPD				
ENG. REF XXXXXX LAYOUT MODEL ID				
ENGINEERING DEPT. JEFFERSON CITY, MO. USA				



PROFESSIONAL ENGINEER SEALS ARE APPLIED TO THE COVER SHEET.



H. V. 24940
KVA 2500
L. V. 2400Y/1385

NO.	REVISION	BY	DATE	FOR BIDS	FOR APPR	FOR CONST	SCALE	PROJECT NO	FILE NAME (aka) DOCUMENT NUMBER
0	ISSUED FOR PERMITTING	CHKD CNG DPC	DATE 07/23/2021 DPC				N.T.S.	204-3417	CALH-SDP-0011
				PHILLIPS 66 PIPELINE LLC	EL PASO COUNTY, COLORADO				

SCALE	N.T.S.
PROJECT NO	204-3417
FILE NAME (aka) DOCUMENT NUMBER	CALH-SDP-0012

NO.	REVISION
0	ISSUED FOR PERMITTING

BY	DATE
CHKD	APP'D
CWG	07/23/2021
DPC	DPC

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**PHILLIPS 66
PIPELINE LLC**



FOR BIDS	
FOR APPR	
FOR CONST	
DRAWN	CWG
CHECKED	DPC
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	07/23/21
	07/23/21
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LV
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CALHAN
ELEVATION
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25 OF 26
D COUNTY, CO

MER
 OLORADO

SCALE	N.T.
PROJECT NO	20
FILE NAME	CALH

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04-3417
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